Oldcastle BuildingEnvelope®

FG-5700 StormMax® storefront

installation & glazing manual

NOTE

THE INSTALLATION DETAILS FOUND IN THIS PACKAGE ARE GENERIC AND ARE FOR REPRESENTATION ONLY WITH THE INTENT OF GIVING THE INSTALLATION TEAM A VISUAL REPRESENTATION AS TO HOW THE ASSEMBLIES TYPICALLY INSTALL. THE SHOP SUBMISSION DRAWINGS AND DETAILS ARE THE GOVERNING DOCUMENTS AND AS SUCH THIS PACKAGE IS TO BE USED ONLY AS A RESOURCE.
FOLLOW SEALANT MANUFACTURERS' RECOMMENDATIONS FOR USE AND APPLICATION OF ALL STRUCTURAL SILICONE SEALANT AND WEATHER SEAL SILICONE SEALANT.
CUSTOMER / PROJECT QUALITY ASSURANCE PROCEDURES ARE SEPARATE DOCUMENTS AND ARE TO BE FOLLOWED IN CONJUNCTION WITH THIS MANUAL.

1-866-OLDCASTLE (653-2278) **OBE.com**

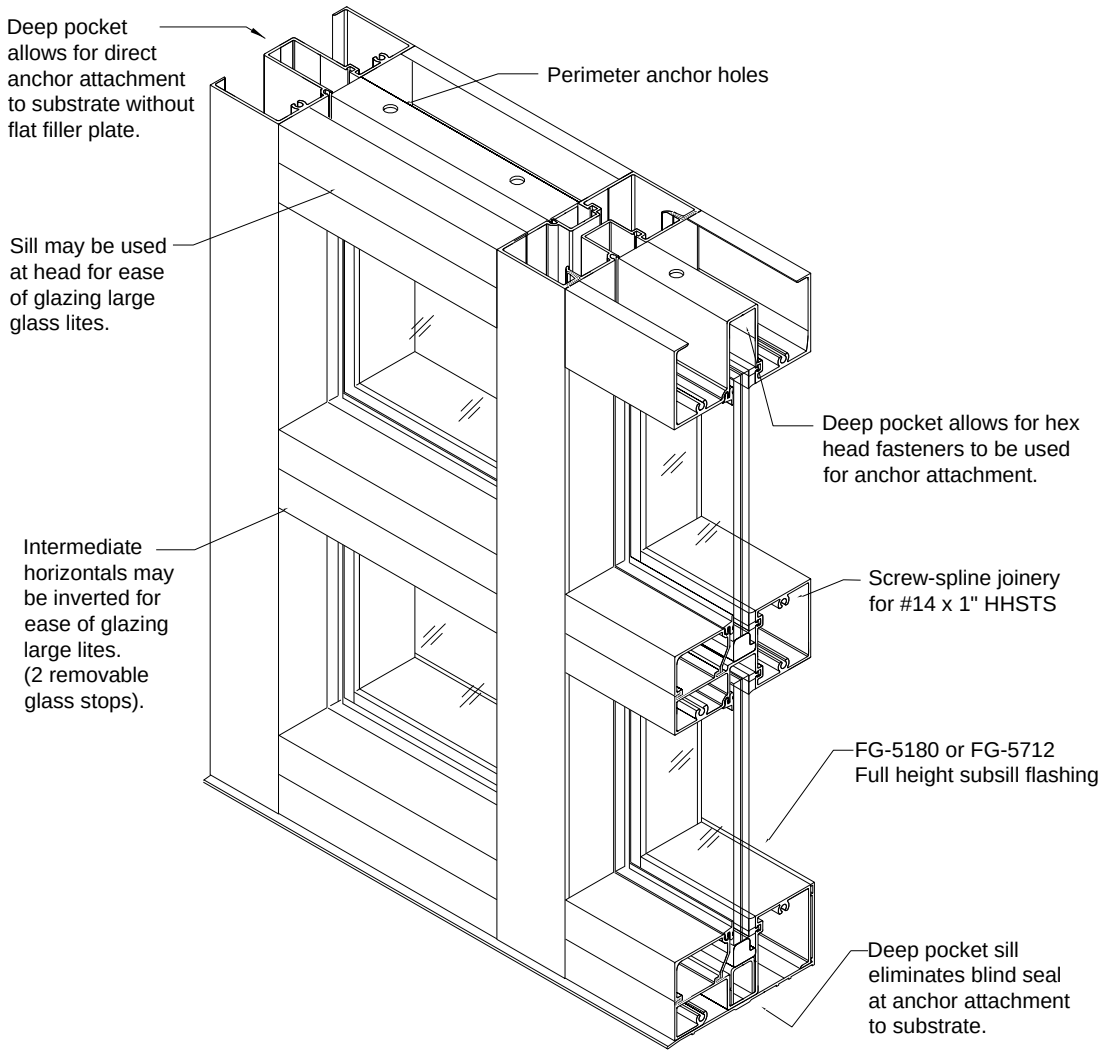
Version: 2023-1103

Contents

Version: 2024-0613

PRODUCT FEATURES

- Screw-spline joinery
- EZPunch or Drill Jig fabrication
- Panelized assembly
- Deep pocket perimeter sections:
    - Eliminates drilling access holes with blind seals
    - Eliminates flat filler plate at head and wall jambs
    - Allows for up to 3/8" diameter hex head anchor bolt attachment to substrate
    - Intermediate horizontals may be inverted for ease of glazing large lites
    - Sill may be used at head for ease of glazing large lites
- Heavy wall mullion option without reinforcement
- Steel or aluminum reinforcing attachment to mullions at head and sill only
- Tested with and without reinforcement at various design pressures
- Tested with 96" x 96" MSD-375 / WSD-500 impact-resistant entrance doors
- Anodized or factory painted finishing options



IMPORTANT NOTICE:

Completely read these instructions prior to beginning work. These recommendations are for general erection/installation procedures only. For actual job conditions, see shop drawings if applicable. For perimeter anchor types and spacing, refer to the approved shop drawings or consult structural engineer/project design professional.

GENERAL NOTES

Oldcastle BuildingEnvelope®'s FG-5700 StormMax® (2-1/2" x 5") hurricane impact resistant storefront system represents the latest in product development technology. This system was designed to meet the stringent requirements of Florida Building Codes High Velocity Hurricane Zone (HVHZ) as well as the International Building Code for glass and glazing systems. FG-5700 StormMax® successfully passed a series of large missile impact and cyclic wind tests with a variety of impact-resistant glass compositions.

Check all shop drawings and installation instructions to become familiar with the project before work begins. The shop drawings take precedence and include specific details for the project. The installation instructions are of a general nature and only cover the most common conditions.

ARCHITECTURAL PRODUCT

It is the responsibility of Oldcastle BuildingEnvelope® to supply a system to meet the architect's specification.

INSTALLER QUALIFICATIONS

These architectural framing systems are intended for fabrication, assembly, sealing, installation and glazing by professionals with appropriate knowledge and experience of the system(s) and their incorporation into various building conditions.

BUILDING CODES

Oldcastle BuildingEnvelope® does not control the application nor selection of its product configurations, sealant, or glazing materials, and assumes no responsibility thereof. It is the responsibility of the owner, architect, and installer to make these selections in strict compliance with applicable laws and building codes.

STRUCTURAL SEALANTS

The fabrication and installation of a structural silicone-glazed (SSG) or wet glazed system requires more technical knowledge and experience than is required for a conventional pressure-glazed or dry glazed system. The glazing contractor should take all steps as outlined and required by the structural silicone sealant manufacturer, glass fabricator, framing manufacturer, and the project professional engineer of record as well as follow local building code requirements and industry best practices to ensure the proper installation and safe performance of the SSG system.

The glazing contractor for each project needs to ensure compliance with each step, including, but not limited to, design reviews, formal adhesion testing, formal compatibility testing, project specification compliance, validating procedures, field testing, and quality control validation of installed product and surrounding conditions.

Testing of component materials for use in a SSG or wet glazed system is mandatory to fulfill project specifications and warranty requirements and must be submitted by the glazing contractor to the structural silicone manufacturer. All materials that comprise the structural silicone joint, such as the framing system (with the job-specific finish) and job-specific glass must be tested by the structural silicone manufacturer for compatibility and adhesion. All other accessory materials in contact with the structural silicone, such as setting blocks, spacers, gaskets, sweeps, air seals and expansion joints, must also be submitted to the silicone sealant manufacturer for compatibility testing.

To ensure that nothing has changed in formulation or chemistry since the initial tests, subsequent testing during periodic time frames of the project is to be conducted to confirm continued acceptance of the material for use on the project.

To ensure the structural performance and integrity of the insulating glass unit (IGU), the glazing contractor must submit the project shop drawings to the glass fabricator to obtain approval for use of their product(s) in any 2, 3 or 4-sided SSG applications.

Quality control procedures for field glazing are to be increased beyond those required for shop glazing. Job conditions will normally have dust, dirt, and other construction debris on the surfaces where structural silicone is to be applied. Great care should be exercised in cleaning and preparing these surfaces for silicone application. The recommendations of the silicone sealant manufacturer are to be strictly enforced and followed. The fabrication and installation of the SSG system and its components, whether shop or field glazed, should be governed by a quality control program, and all steps, procedures, and test reports should be documented throughout the project.

Prior to installation of any SSG system, refer to industry documents (e.g., AAMA Curtain Wall Design Guide Manual, ASTM C1401-14, and AAMA SSGDG-17) for detailed instructions and recommendations.

THE GLAZING CONTRACTOR ASSUMES FULL RESPONSIBILITY FOR ENSURING COMPLIANCE WITH THE ABOVE AND ASSUMES FULL LIABILITY FOR ANY ISSUES ARISING FROM NONCOMPLIANCE.

DOWSIL™ 995 Silicone Structural Sealant was used on the test specimen for glass to metal adhesion. To comply with Florida Building Code HVHZ Protocols, DOWSIL™ 995 Silicone Structural Sealant must be used for glass to metal adhesion.

PERIMETER SEALANTS

Due to varying job conditions, all perimeter sealants used should be approved by the sealant manufacturer to ensure the sealant will function for the conditions shown in these instructions and shop drawings. Sealants must be compatible with all surfaces where adhesion is required, including other sealant surfaces. Use primers where directed by sealant manufacturer. Be sure to store sealants at recommended temperature and check container for remainder of shelf life before using. DOWSIL™ 795 Silicone Building Sealant was the perimeter sealant used on the test specimen.

MATERIAL AND WORK ACCEPTANCE

OLDCASTLE BUILDINGENVELOPE® MATERIALS

Check all material upon arrival for quality and to assure against shipping damage. Any visible damage must be noted on the freight bill at the time of receipt. If a claim is required, then the receiving party must process a claim with the freight company.

OTHER TRADES WORK

Completely check construction that will receive your materials against contract documents. Notify general contractor by letter of any discrepancies before proceeding with work. Failure to do so constitutes acceptance of work by other trades.

MATERIAL HANDLING, PROTECTION, AND STORAGE

Handle the material carefully. Do not drop from the truck. Stack with adequate separation so that the material will not rub together. Store material off the ground. Protect against the elements and other construction hazards by using a well-ventilated covering away from other trades. Remove material from package if it is wet or located in a damp area.

SHOP

- Cardboard wrapped or paper interleaved material must be kept dry. Immediately remove aluminum from cardboard or paper interleaved materials should it get wet to prevent staining or etching the aluminum finish.
- Check arriving materials for quantity and keep record of where various materials are stored.

JOB SITE

- Material at job site must be stored in a safe place well removed from possible damage by other trades.
- Cardboard wrapped or paper interleaved materials must be kept dry. Immediately remove aluminum from cardboard or paper interleaved materials should it get wet to prevent staining or etching the aluminum finish.
- Keep record of where various materials are stored.
- Protect materials after erection. Cement, plaster, and other alkaline solutions are very harmful to the finish.

EXPANSION JOINTS

Expansion joints and perimeter seals shown in these instructions and in the shop drawings are shown at standard size. Actual dimensions may vary due to perimeter conditions and/or differences in metal temperature between the time of fabrication and time of installation. For example, a 12-foot unrestrained length of aluminum extrusion can expand or contract 3/32 of an inch over a 50-degree Fahrenheit change. Any movement potential should be accounted for at time of the installation.

GLASS

Glazing gaskets are designed for a compression fit against glass and can accommodate (+/- 1/32"). Be sure to check overall glass size and thickness.

GLAZING PRACTICES

The air and water performance of the **StormMax® FG-5700** storefront system is directly related to the completeness and integrity of the installation process, including but not limited to the assembly seals of the framing joinery, the installed glazing gaskets, and the alignment of the framing joinery glazing plane. Before glazing, verify the glazing pocket width and glazing infill thickness, as both must be in tolerance to assure adequate edge pressure and to achieve the desired air and water performance levels. (In general, framing systems utilizing 1” insulating glass are designed to accommodate a thickness variance of +/- 1/32”). Note: Excessive pressure can cause glass breakage and/or IGU failure. Consult the glass manufacturer for their recommended edge pressure per lineal inch.

To achieve the designed and tested air and water performance, best practices include:

- Glazing gaskets should be cut ¼” longer per foot, and lay flat, preferably for 24 hours
- Gaskets should be cut as single monolithic pieces and “crowded” during their installation to avoid corner gaps caused by post-installation relaxation
- The interior glazing gasket should be installed so as to avoid stretching, buckles, or tears
- Corners must be cut square, and at a slight angle when required to conform to the bevel on the intersecting gasket; sealed and butted together.
- Gasket corner joinery must also be crowded, and sealant applied onto the gasket contact frame surface and into gasket reglet raceway where applicable.
- Gasket corner seals are to be done just prior to installing glass, while the sealant is still wet and uncured, and ensure exterior gaskets are installed so as to place the glass into it’s final in service condition and allow the sealant to conform to optimum configuration. Note: If the sealant cures prior to glazing, the cured sealant could create excessive edge pressure onto the glass and has the potential to cause glass breakage.

- The glass must be checked for squareness, size dimension, and thickness along the edges paying attention to any variances from center edge to corner edge
- Check the placement of the installed glass and verify there is proper edge bite into the pocket, and proper edge clearance from framing elements

After sealant has set and a representative amount of the wall has been installed and glazed (250 square feet or more) run a water hose test in accordance with AAMA 501.2 specifications to check installation. On large projects the hose test should be repeated during the glazing operation. Consult and follow NGA's GANA Manual and FGMA Glazing Manual for proper glazing technique and procedure.

CLEANING

Final cleaning of exposed aluminum surfaces should be done in accordance with AAMA 609.1 for anodized aluminum and AAMA 610.1 for painted aluminum. Cement, plaster, terrazzo, alkaline and acid-based materials used to clean masonry are very harmful to finishes and should be removed immediately or permanent staining will occur. A spot test is recommended before any cleaning agent is used. Aluminum shall be cleaned with plain water containing a mild detergent. No abrasive agent shall be used.

GENERAL CONSTRUCTION NOTES

A. Study these instructions, shop drawings, erection drawings, and architectural drawings before starting any work. Follow installation and glazing instructions.
B. Completely check construction which will receive your materials against contract documents. Notify the general contractor by letter of any discrepancies before proceeding with your work since this constitutes acceptance of work by other trades.
C. Coordinate protection of installed materials with general contractors and other trades.
D. Do not install wall if there is a walkway with a downslope towards an entrance or a storefront.
E. All materials are to be installed plumb and level.
F. All work should start from an established benchmark and column centerlines established by the architect and the general contractor.
G. Protect all aluminum to be placed directly in contact with uncured masonry or incompatible materials with a heavy coat of zinc chromate or bituminous paint.
H. After sealant is set and a representative amount of the wall has been glazed (500 square feet or more), run a water hose test to check installation. On large jobs, hose test should be repeated during glazing operation. Test should be conducted in accordance with AAMA 501.2 specifications. This test should not be performed at entrances installed in the system.

FRAME FABRICATION

1.0 Establish Frame Size

NOTE: The storefront opening must be square and plumb before installation.
When measuring the rough opening, take multiple measurements and use the smallest dimension. This assures a proper fit of the storefront system.

Measure width of Rough Opening.
A. Measure opening at bottom.
B. Measure opening at center.
C. Measure opening at top.

The Frame Width will be the smallest dimension less 1/2" allowing for a minimum of 1/4" caulk joint at each jamb.

Note: Product approved with minimum caulk joint 1/4" and maximum caulk joint 1/2".

Repeat process to determine Frame Height.
A. Measure opening from top to bottom of left side.
B. Measure opening from top to bottom of middle.
C. Measure opening from top to bottom of right side.

The Frame Height will be the smallest dimension less 1/2". This allows for a 1/4" caulk joint at both the Head and Sill.

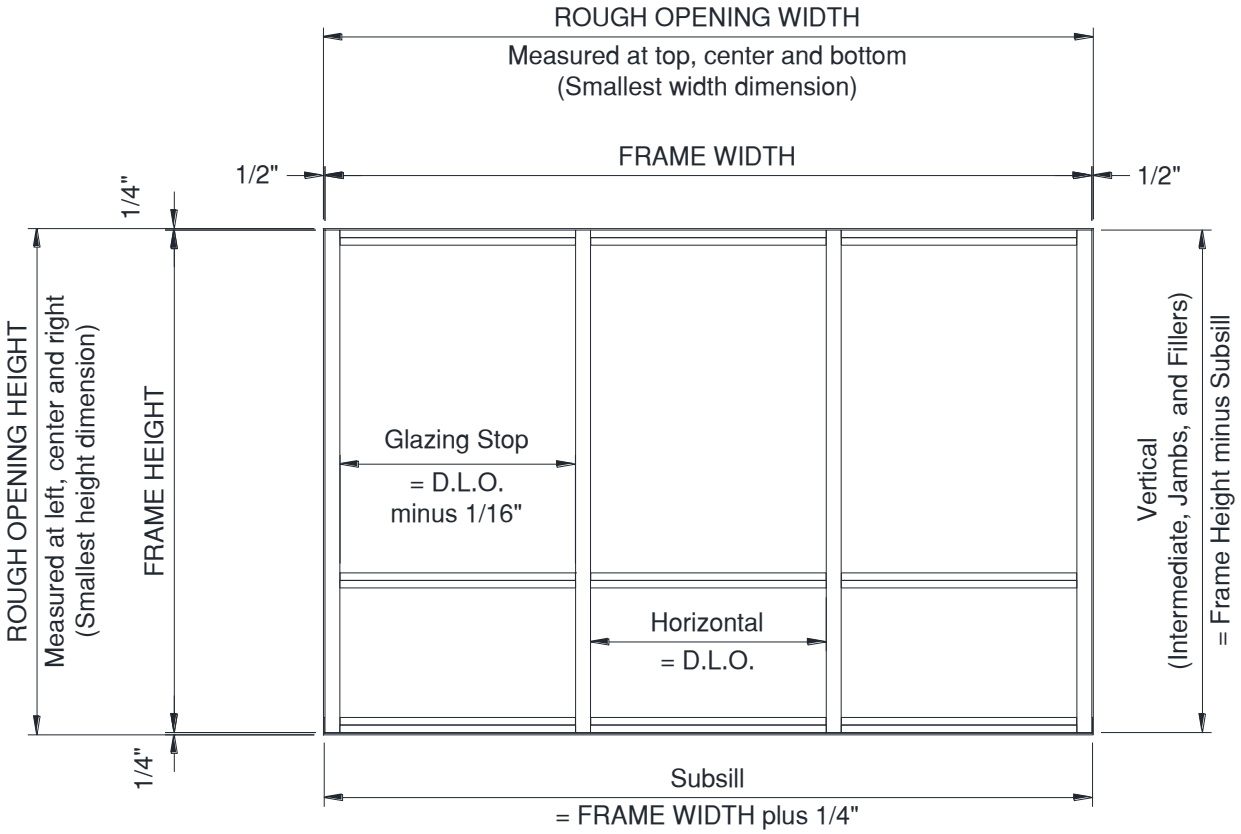


Figure 1: Measuring Rough Opening, Guide without Door

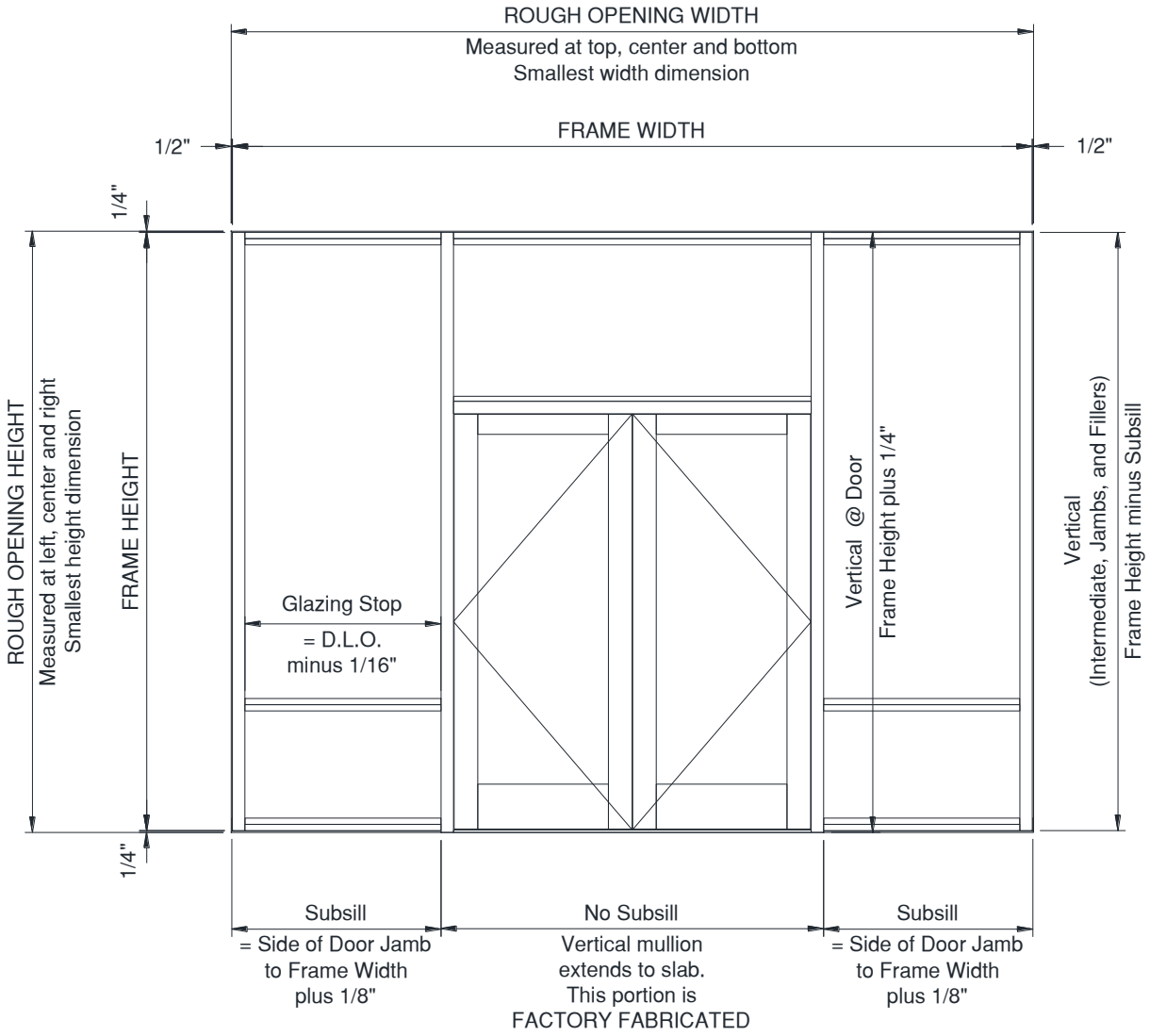


Figure 2: Measuring Rough Opening, Guide with Door

2.0 Cut Members to Size

Framing Members

Frame without Entrance

FG-5180, FG-5712 or FG-5726 Subsill at Frames without Doors	Frame Width plus (+) 1/4"

Frame at Entrance Sidelite

Note: Sill Receptor to butt tight against Door Jamb.

FG-5180, FG-5712 or FG-5726 Subsill at Entrance Locations	Door Jamb to Frame Width plus (+) 1/8"

Verticals

FG-5711 Mullion Fillers FG-5703 and FG-5704 Mullions FG-5700 Jamb FG-5724 and FG-5725 Expansion Mullions FG-5706 and FG-5707 Corner Mullions	
Verticals in Frame with FG-5712 or FG-5726 Subsill	Frame Height minus (-) 5/8"
Verticals in Frame with FG-5180 Subsill	Frame Height minus (-) 1/8"

Horizontals

FG-5700 and FG-5701 Head FG-5702 Horizontal FG-5700 and FG-5701 Sill	D.L.O.
FG-5710 Glass Stops	D.L.O. minus (-) 1/16"

Accessories: Dry Glaze

CW-998 Bulb Gasket	Expansion Mullion Height
FG-5730 Exterior Gasket at Vertical FG-5732 Interior Gasket at Vertical	D.L.O. plus (+) 1/4" per foot plus (+) 1-1/2"
FG-5730 Exterior Gasket at Horizontal FG-5732 Interior Gasket at Horizontal	D.L.O. plus (+) 1/4" per foot

Accessories: Wet Glaze

CW-998 Bulb Gasket	Expansion Mullion Height
FG-5730 Exterior Gasket at Vertical	D.L.O. plus (+) 1/4" per foot plus (+) 1-1/2"
FG-5731 Spacer Gasket at Vertical	D.L.O. plus (+) 1/4" per foot plus (+) 1-7/8"
FG-5730 Exterior Gasket at Horizontal FG-5731 Spacer Gasket at Horizontal	D.L.O. plus (+) 1/4" per foot

Abbreviations used within these instructions:

D.L.O. = Day Light Opening
D.O.H. = Door Opening Height
D.O.W. = Door Opening Width
Ø = Diameter

3.0 Vertical Hole Prep Locations

Drill or punch holes in Verticals for attaching Horizontals. See *Figure 4* for Drill Jig reference guide.

*Note: Reglet for **FG-5730** Gasket is always to the exterior for Exterior Glaze installations and to the interior for Interior Glaze installations.*

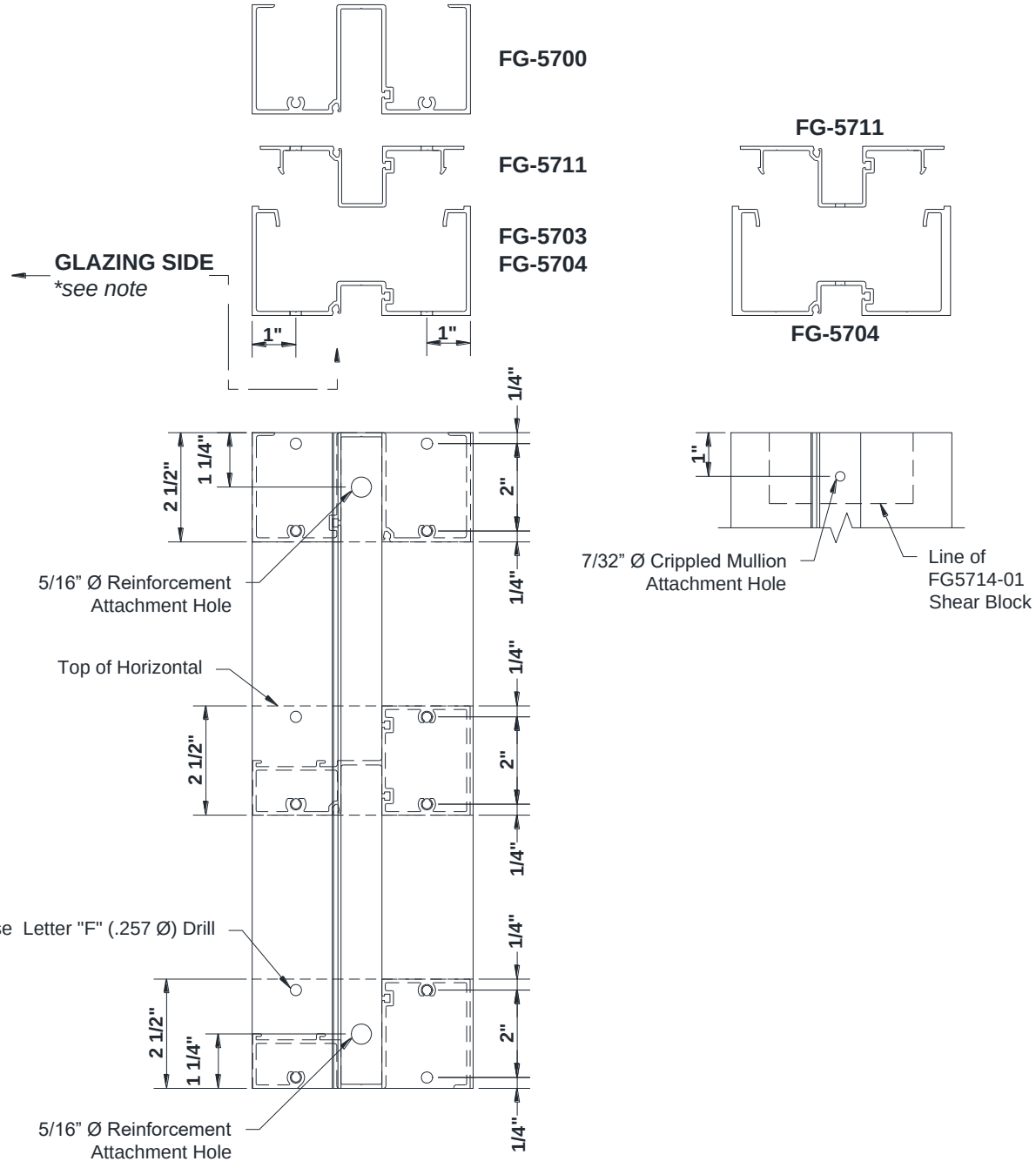


Figure 3: Vertical Mullion Fabrication

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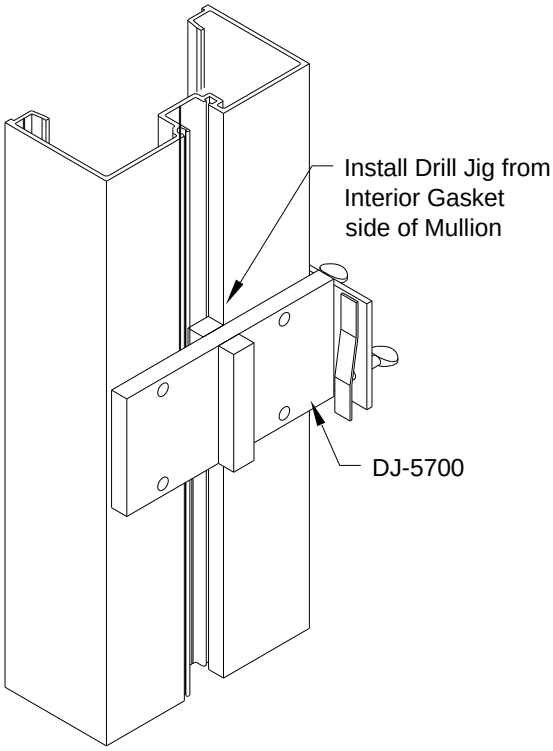

Figure 4: Drill Jig Reference Guide

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4.0 Reinforcement

Cut reinforcement 1" less than length of vertical mullion. Prepare reinforcement by placing pilot holes centered in the width of the steel or aluminum at 3/4" from ends and match-drill holes to vertical mullion. Reinforcement is to be attached to the Intermediate Vertical with **FS-354** fasteners.

Note: **FS-354** hex head fastener location is below glass line and does not interfere with glazing.

Reference Figure 3, Page 12.

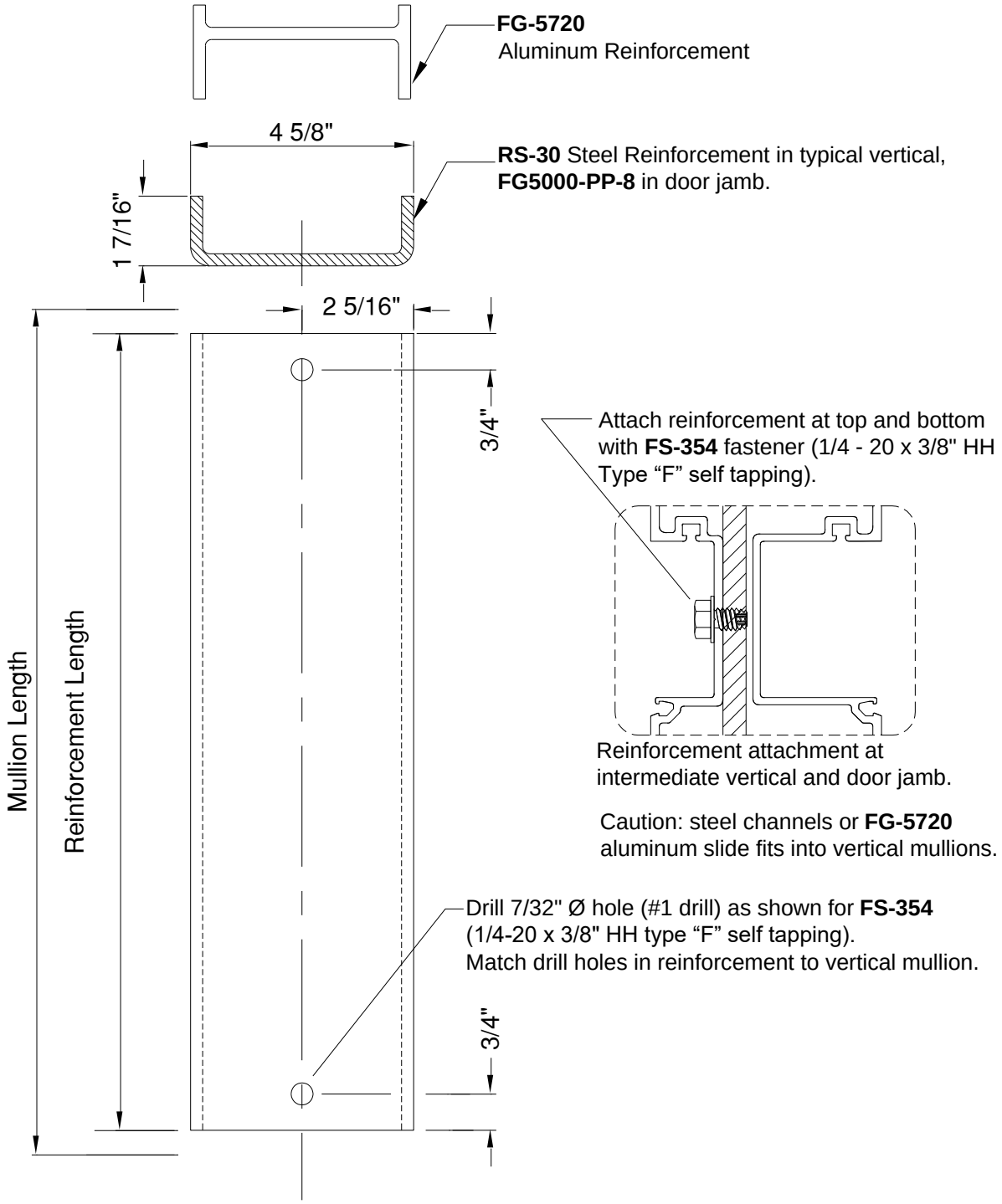

Figure 5: Reinforcement Fabrication

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5.0 Head / Sill

Prepare Head and Sill by placing pilot holes centered on the "V" groove of metal, reference *Figure 6* and *Figure 7* for generic hole location and verify quantity and locations with approved Shop Drawings. Note that prep for the **FS-27** attachment at the sill as shown below only applies to applications using the **FG-5712** or **FG-5726** Subsill, while prep for the Anchor Bolt as shown in Figure *7* only applies to applications using the **FG-5180** Subsill. Figure *7* Anchor prep also applies when **FG-5701** is used at the Head.

Note: Removable glass stop at head facilitates glazing of large lites. (Reference *Figure 13*, *Page 21*)

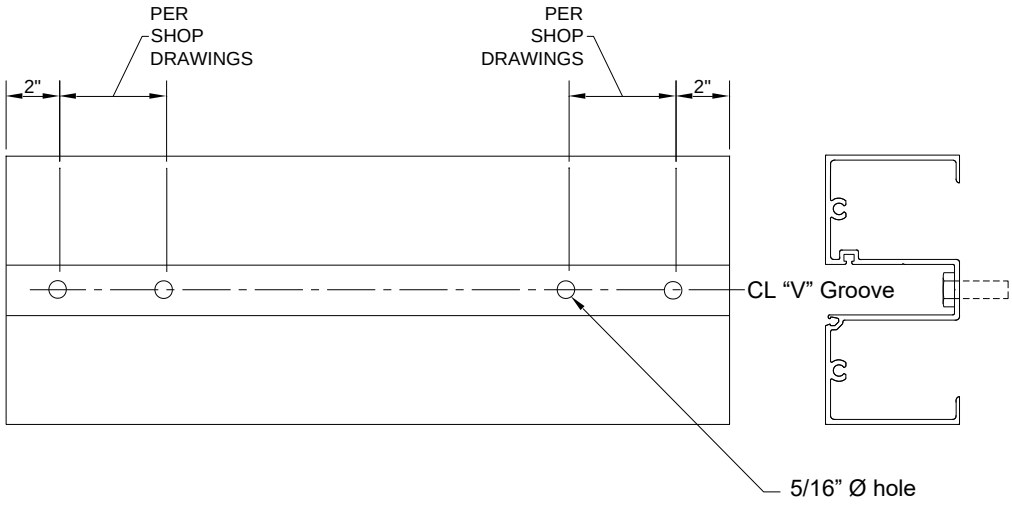

Figure 6: HEAD FG-5700

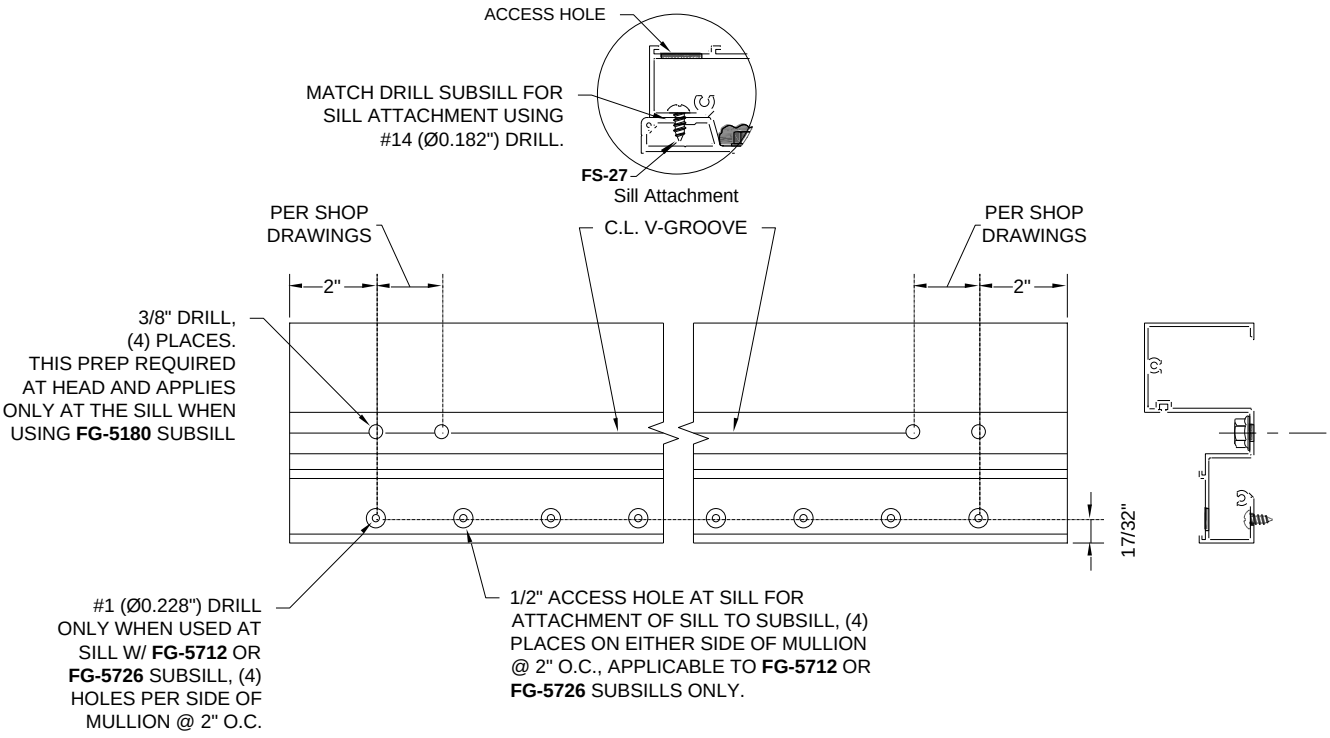

Figure 7: HEAD / SILL FG-5701

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6.0 Horizontal at Crippled Mullion

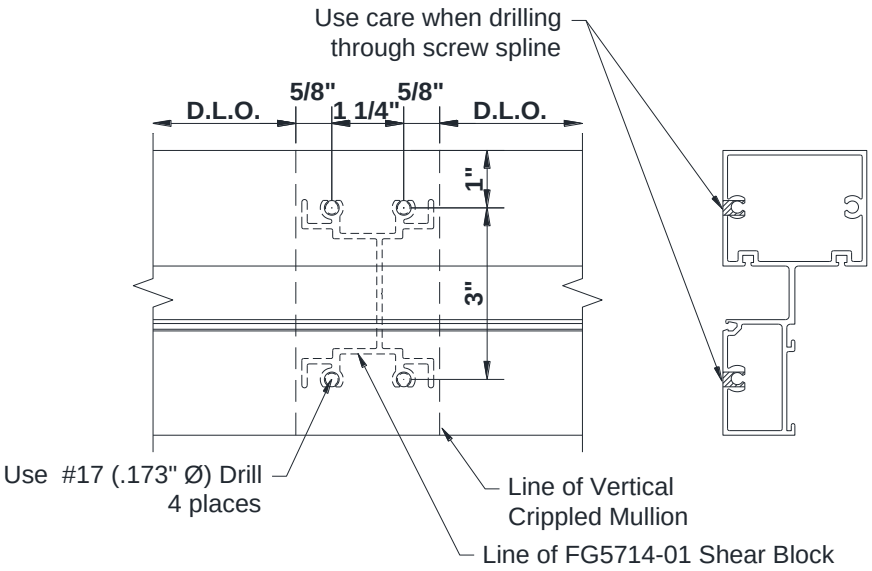

Figure 8: INTERMEDIATE HORIZONTAL FG-5702

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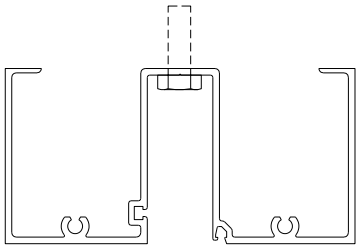
7.0 Wall Jamb

When required, holes for anchors must be fabricated in the Jamb. The number of anchors will vary; reference charts, approved shop drawings, and engineered calculations for the exact number and locations. If an anchor hole occurs at the intersection of an Intermediate Horizontal, locate the hole as close to the intended location as possible, avoiding the Horizontal.



FG-5700

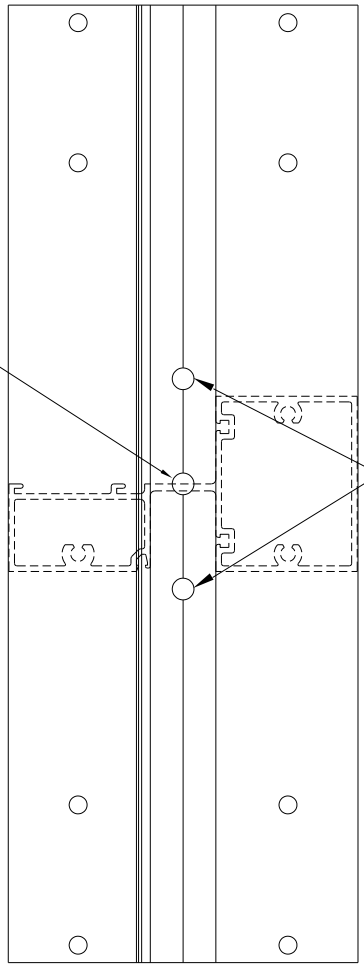


Figure 9: Wall Jamb

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8.0 Subsill Flashing

For Inside Glazing option, use FG-5180 Subsill.

8.1 FG-5180 Subsill

8.1.1 Drill 3/16" dia. hole for non-structural fasteners used for temporarily attaching Subsill to substrate as shown in *Figure 10*. Repeat this hole pattern for each additional 12'-0" of length or as required until structural fasteners are installed.

8.1.2 Drill two each 9/64" dia. holes (#25 drill) at each end of Subsill, except end abutting Door Jamb, for attaching **AN-101-01** End Dams. For end condition at Door Jamb, Reference Page 31.

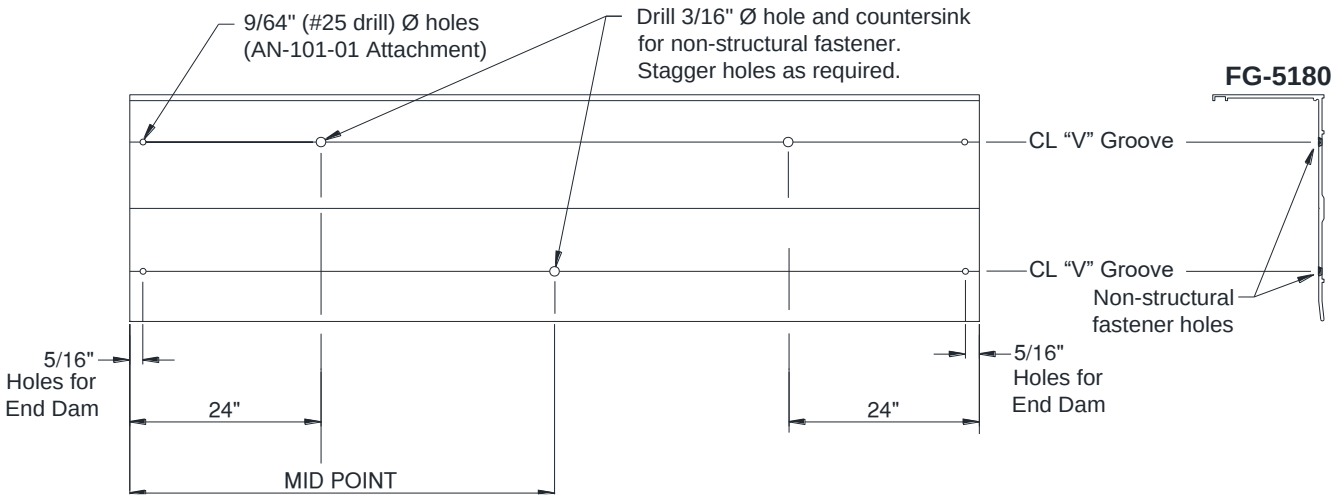
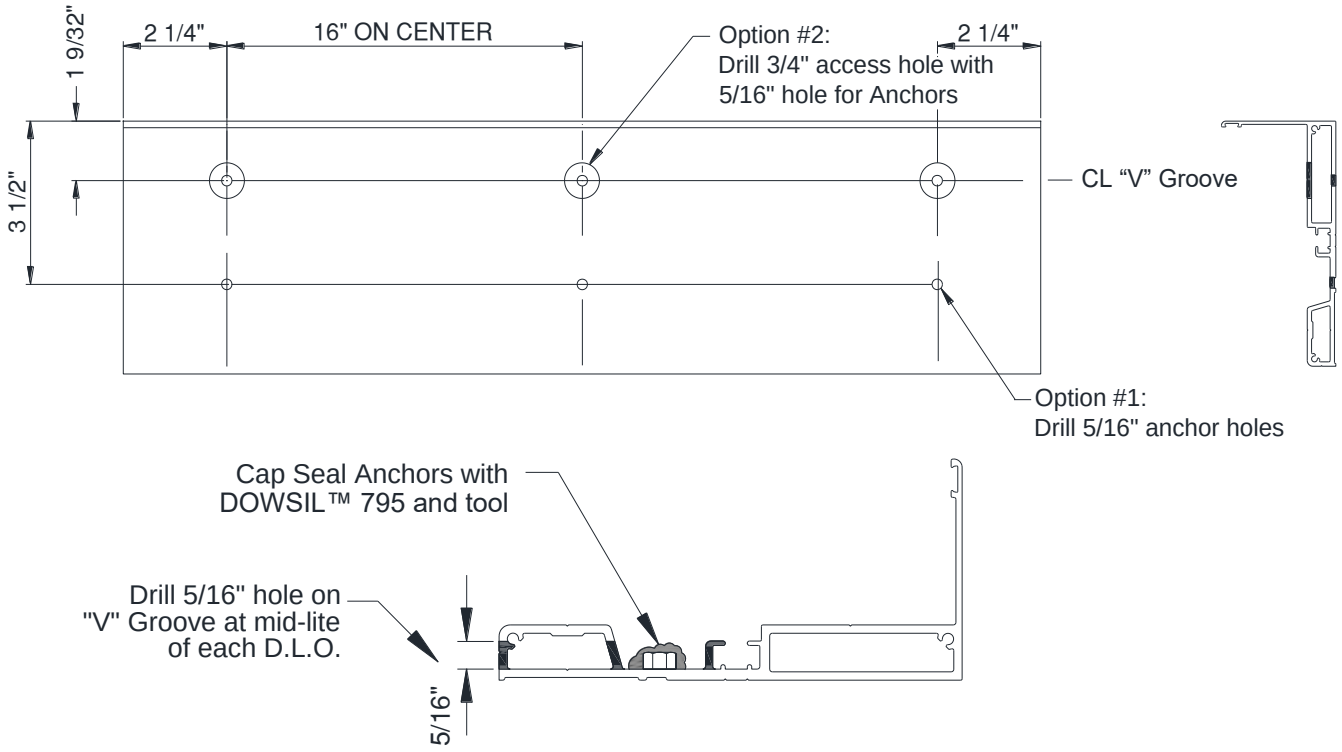


Figure 10: FG-5180 Subsill

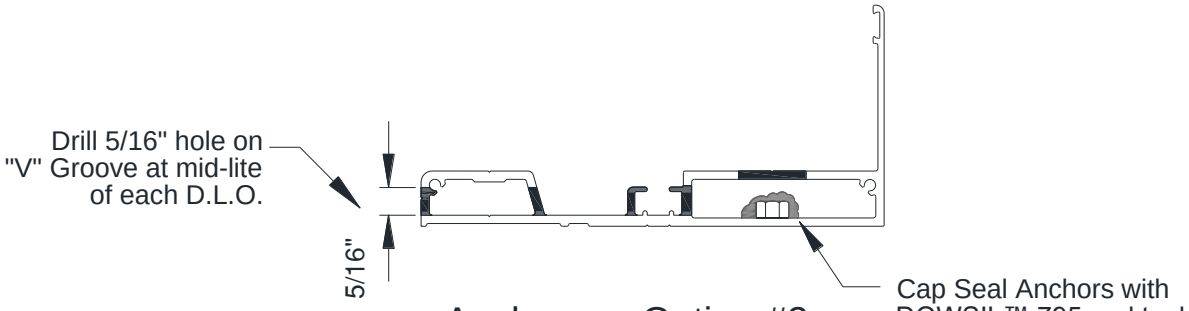
8.2 FG-5712 or FG-5726 Subsill

8.2.1 Drill 3/16" dia. hole for non-structural fasteners used for temporarily attaching Subsill to substrate as shown. Repeat this hole pattern for each additional 12'-0" of length or as required until structural fasteners are installed.

8.2.2 Drill 5/16" weep holes along front face of Subsill at mid-lite. Depth of weep hole varies by anchor option: Weep should penetrate 2 1/2" deep for Anchor Option #1 and 3 1/4" deep for Anchor Option #2. Weep depth details shown in *Figure 11*.
Note: If Subsill splice is used, add a weep hole 3" on each side of the splice.



Anchorage Option #1
Weep Holes 2-1/2" deep into P&D pocket



Anchorage Option #2
Weep Holes 3-1/4" deep into rear hollow

Figure 11: FG-5712 Subsill (FG-5726 is similar)

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FRAME ASSEMBLY

9.0 Joinery Tape Application

Reference *Figure 13*, *Page 21*, for location.

9.1 Cut **SM5601** 1/8" x 1/2" Isocryl Tape approximately 2-3/4" long.
9.2 Clean surfaces where Tape is to be applied with isopropyl alcohol to remove all dirt and cutting oils. Allow surface to dry before applying Tape.
9.3 Position Tape on Vertical Mullions at Horizontal intersections, as shown in *Figure 13*, *Page 21*.
9.4 Just prior to frame assembly, remove protective cover and screw joints together.
9.5 Use a box knife to trim excess sealant tape where exposed. Do not pull Tape to trim.

Note: FG-5730 gasket reglet is always to Exterior.

CRITICAL: Tape at sill is a critical seal location and must be applied as indicated.

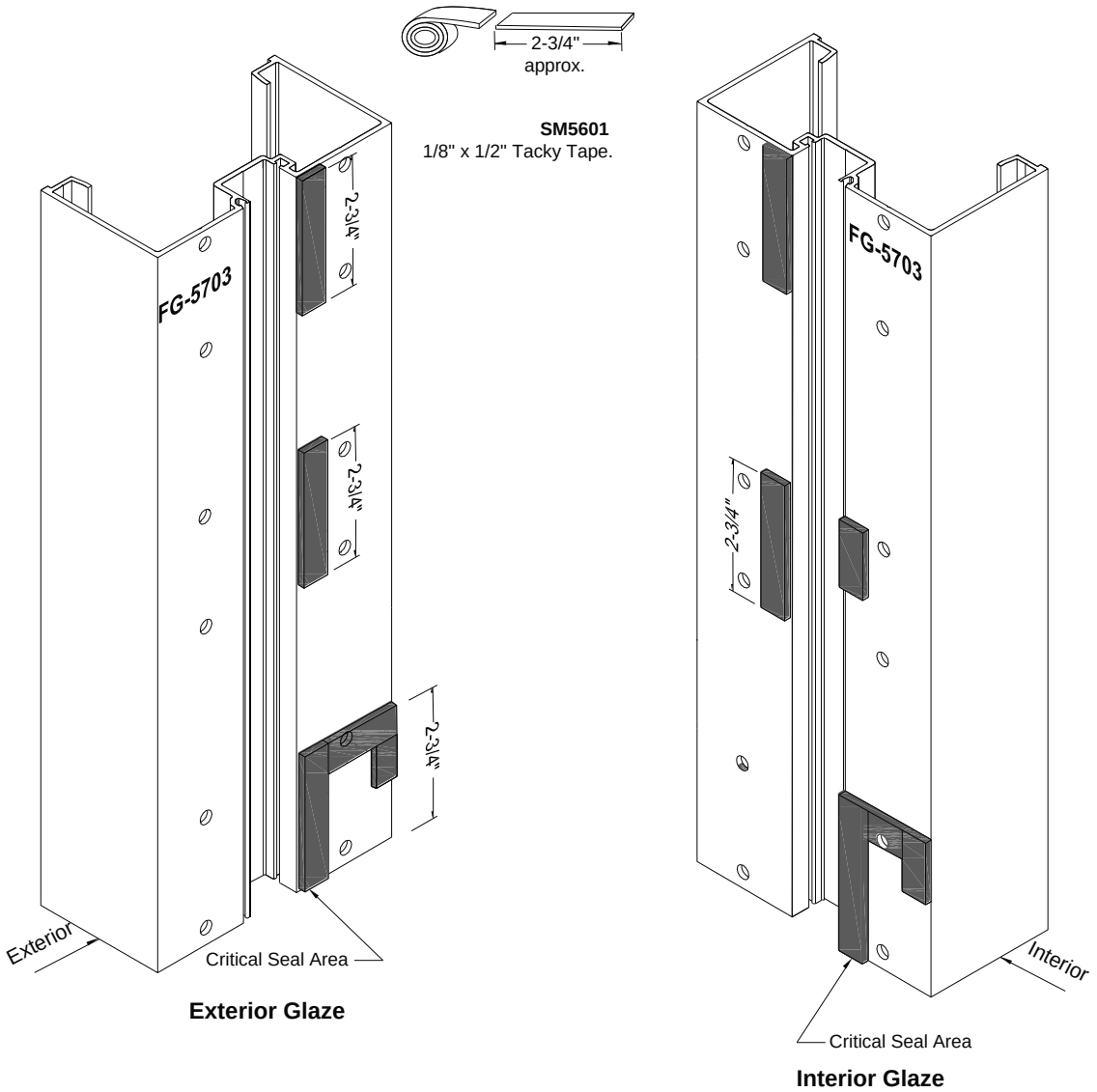

Figure 12: Tape Application

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10.0 Frame Panel Assembly

10.1 If the **FG-5731** Interior Spacer Gasket is pre-installed, remove it and cut per *Section 2.0 Cut Members to Size* (page 11). Set aside.

10.2 Clean framing members at locations where Butyl Tape is noted to be attached. At tape intersection, there should be no gaps.

10.3 Attach Horizontals to Verticals using FS-8 (1/4" x 1" HH STS). Trim excess sealant tape at joints with razor knife. DO NOT PULL TAPE TO TRIM. See *Figure* 3 (page 12) for hole prep locations.

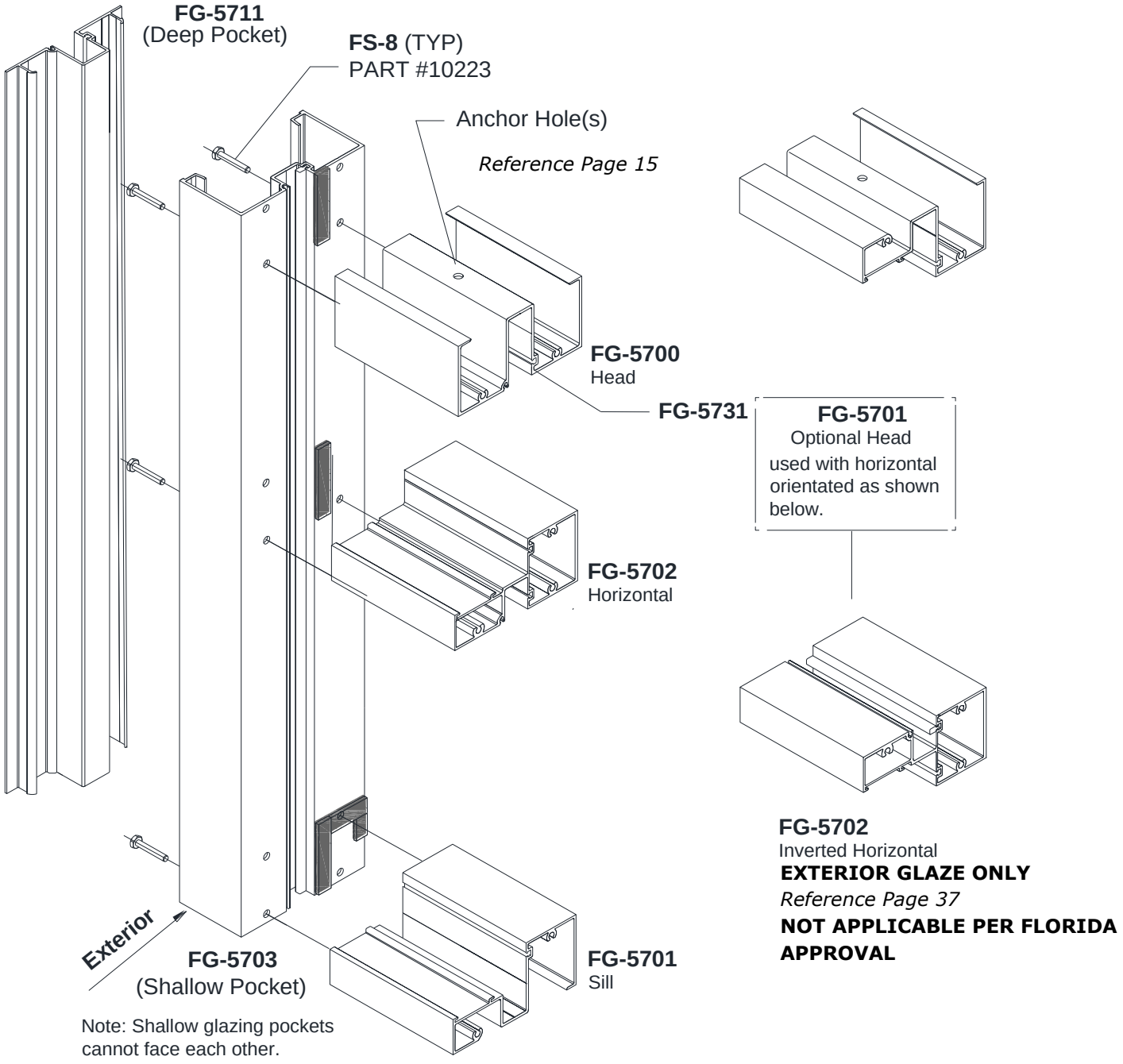

Figure 13: Frame Panel Assembly, Exterior Glaze

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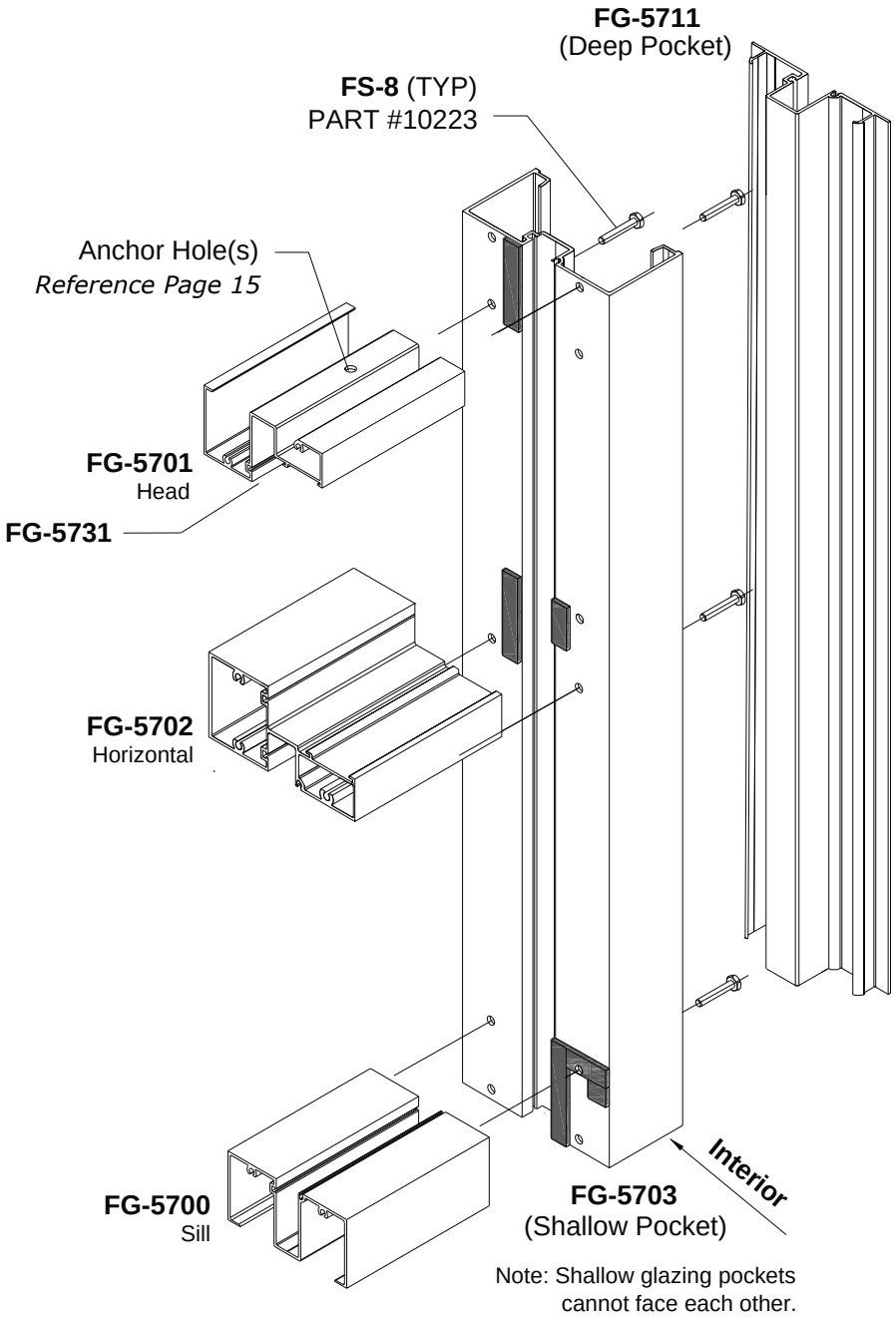

Figure 14: Frame Panel Assembly, Interior Glaze

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11.0 Cripple Mullion Assembly

Note: Cripple Mullions may be used in the top or bottom day light openings only.

11.1 As shown in *Figure 15*, mount **FG5714-01** Shear Block to the flat surface of the **FG-5702** Intermediate Horizontal with (4) **FS-96** fasteners.

11.2 Vertical Mullion runs through at opposite end. Prepare hole pattern as per *Figure 3* (Page 12) and sealant tape per *Figure 12* (Page 20). Attach to **FG-5701** Head / Sill at screw splines.

11.3 Attach Vertical Mullion to Shear Block at 1" from the Horizontal with **FS-56** fastener.

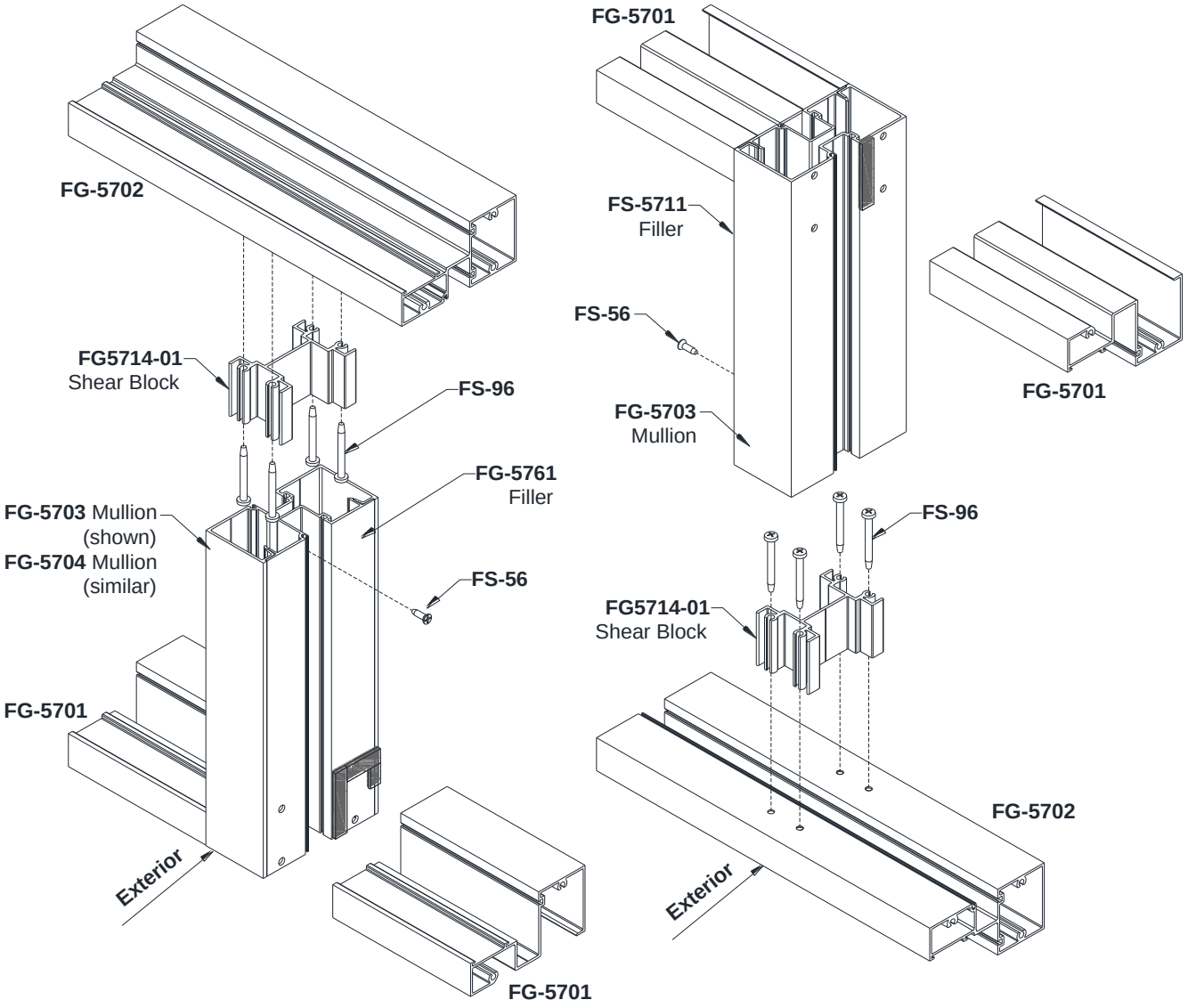

Figure 15: Cripple Mullion Assembly

12.0 Subsill End Dam Assembly

12.1 FG-5180 Subsill

12.1.1 Apply **SM5601** Isocryl Tape to End Dam as shown in Figure *16*. Attach End Dam to Subsill.

12.1.2 Match drill holes in Subsill to End Dam with #36 Ø drill and attach End Dam to Subsill with **FS-23** fasteners.

Note: Reference Figure *24*, *Page 31,* for Subsill abutting Entrance Door Jamb.

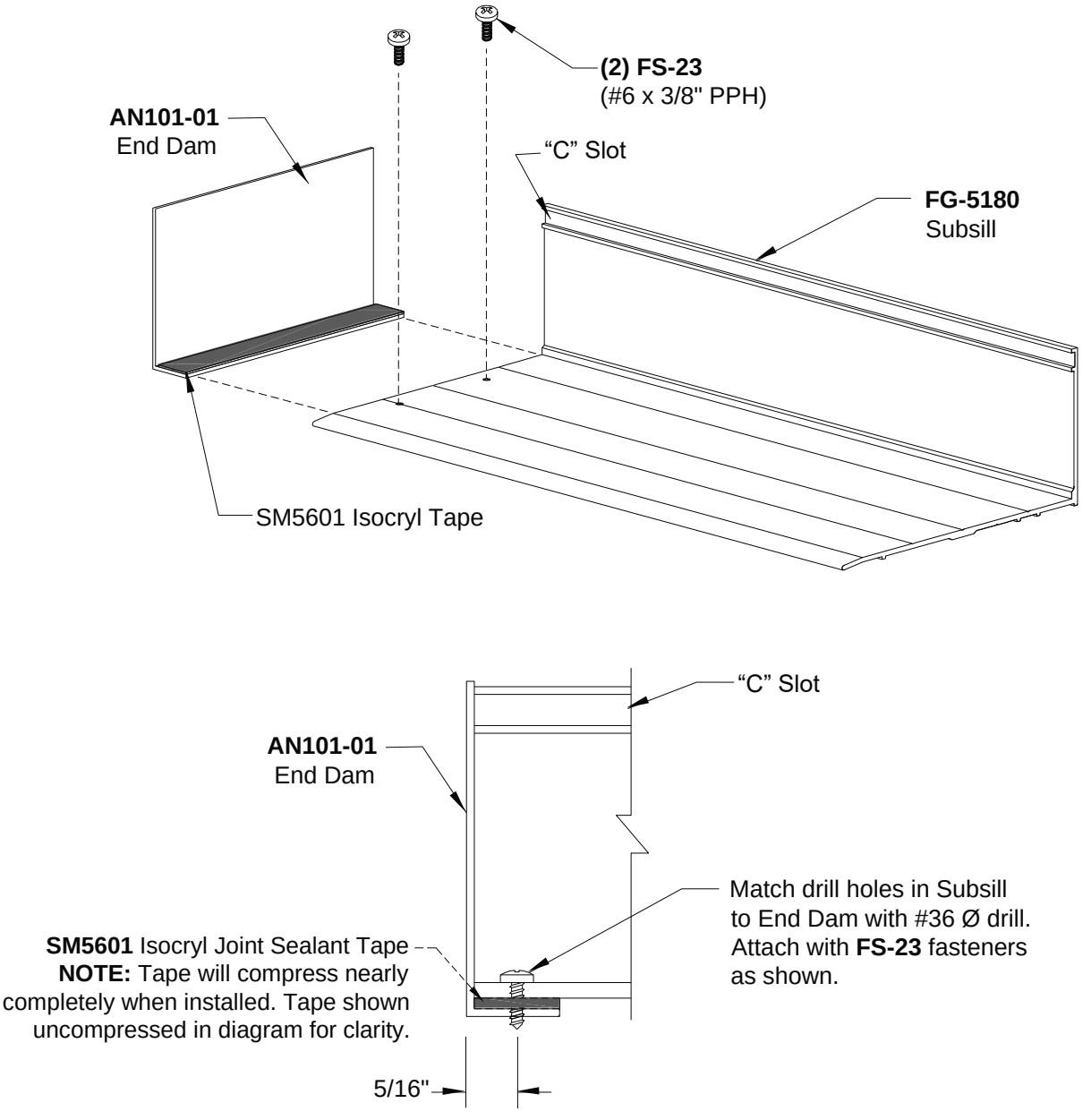

Figure 16: End Dam Attachment for FG-5180 Subsill

12.2 FG-5712 or FG-5726 Subsill

12.2.1 Apply **SM5601** Isocryl Tape to End Dam as shown in *Figure 17*. Attach End Dam to Subsill.

12.2.2 **AN-101-01** End Dam is used with **FG-5712** and must be customer fabricated. Drill holes in End Dam to align with Subsill per *Figure 17* and attach End Dam to Subsill with **FS-23** fasteners.

12.2.3 **AN-101-04** End Dam is used with **FG-5726** and comes pre-fabricated. Attach End Dam to Subsill with **FS-23**.

Note: Reference Figure *24*, *Page 31,* for Subsill abutting Entrance Door Jamb.

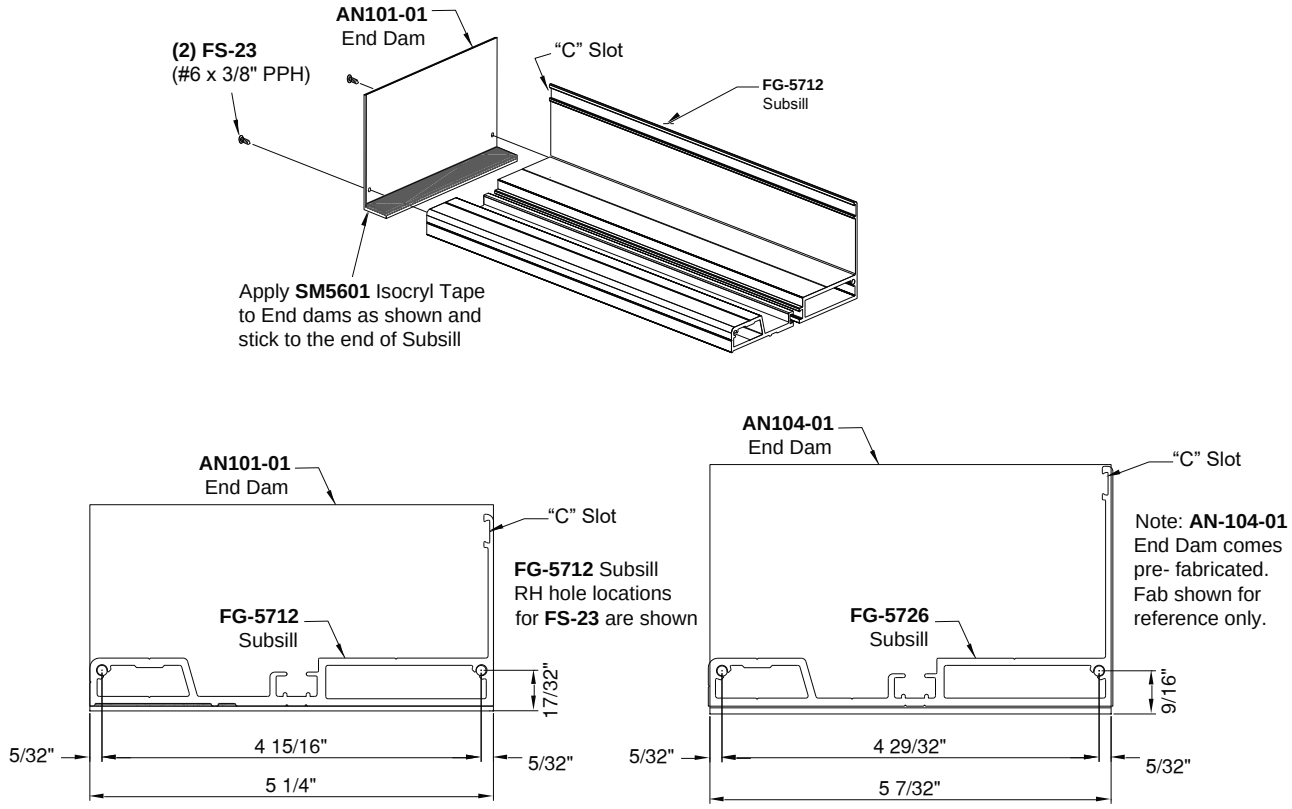

Figure 17: End Dam Attachment for FG-5712 or FG-5726 Subsill

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13.0 Corner Condition

FG-5712 Subsill shown in typical Subsill 90-deg corner detail. **FG-5180** & **FG-5726** Subsills similar.

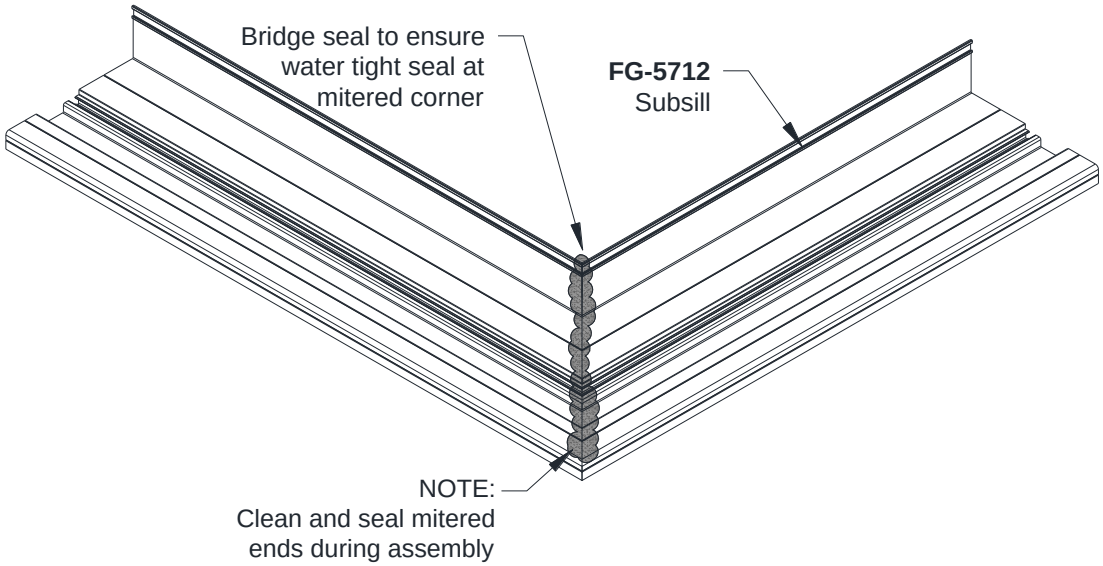

Figure 18: Sealant at Subsill Corner (Wet and Dry)

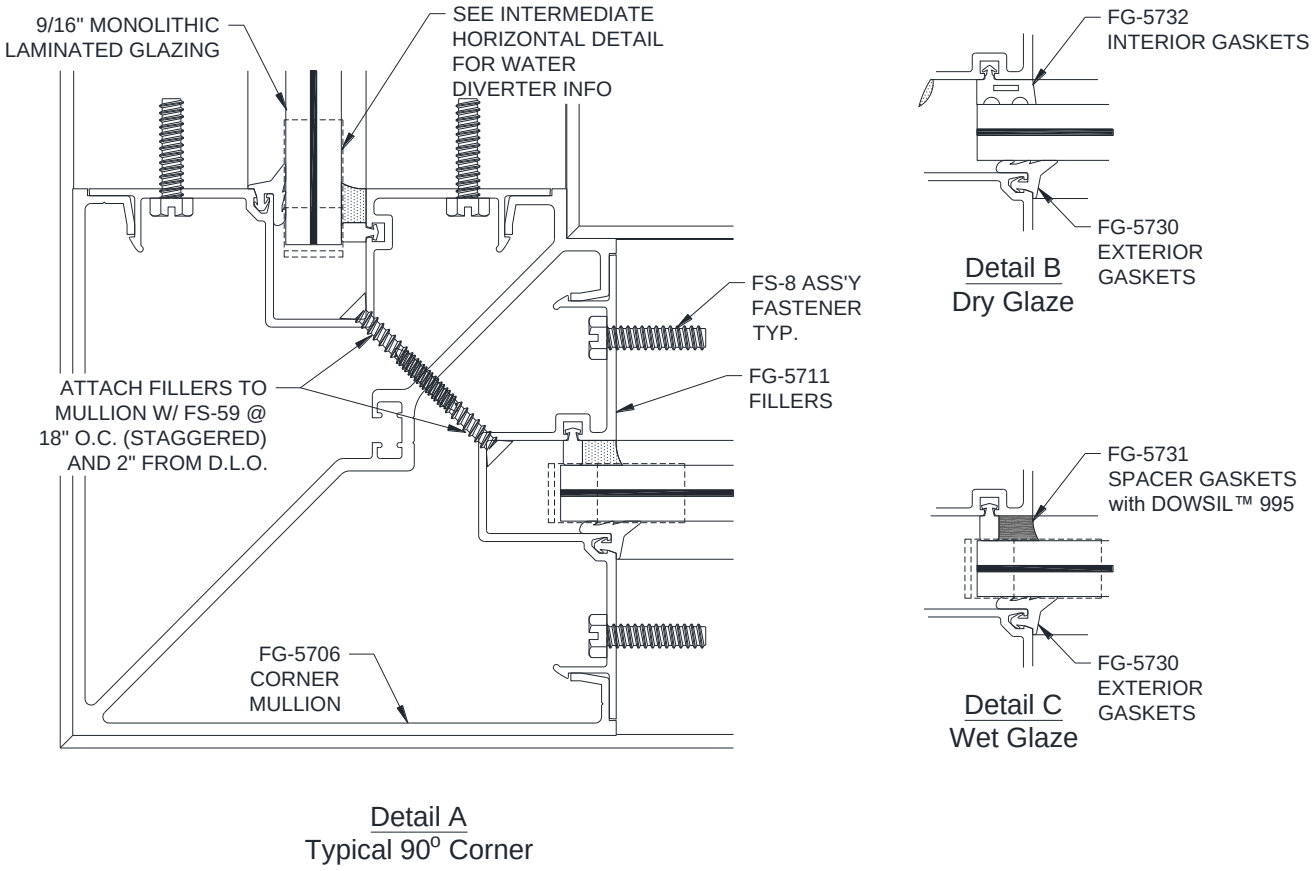

Figure 19: 90° Outside Corner

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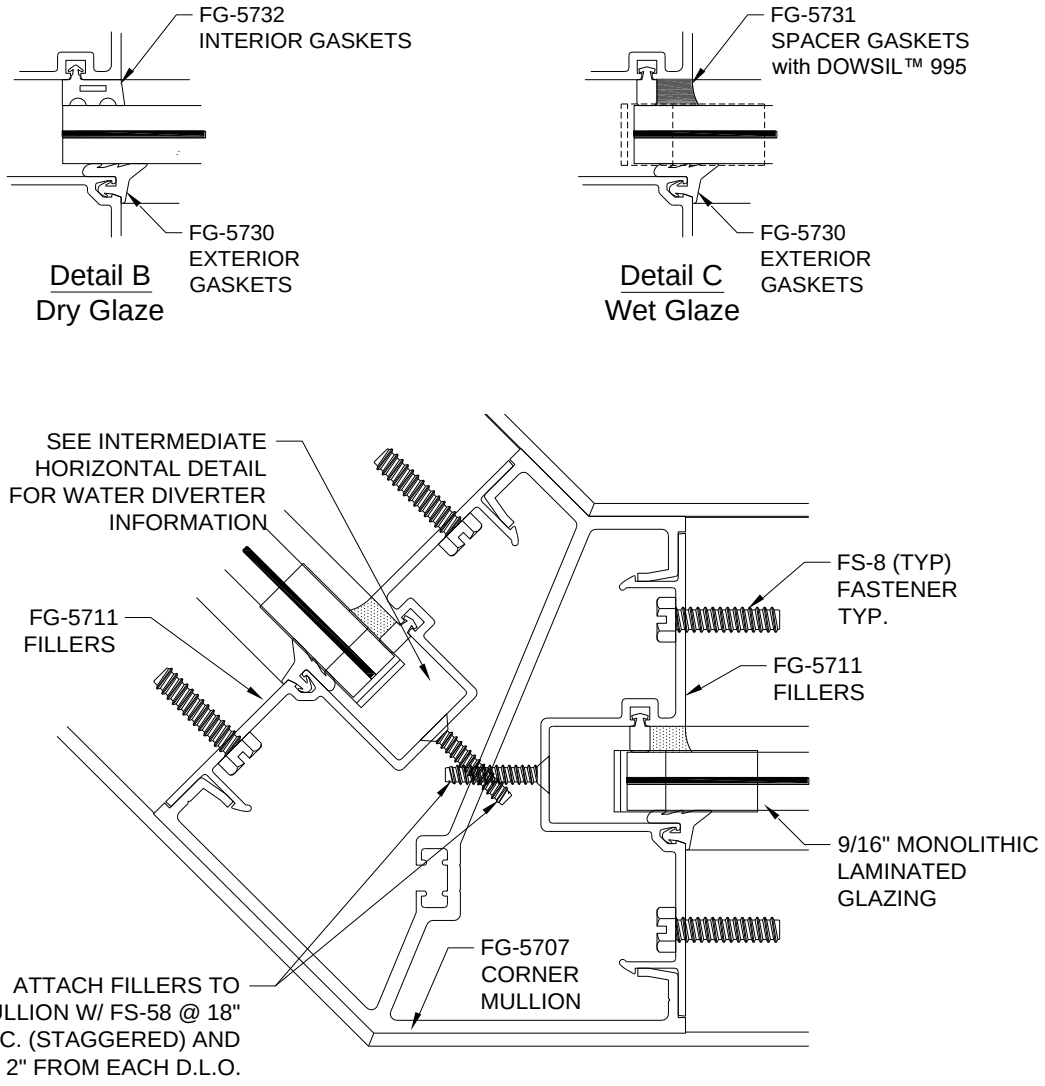

Figure 20: 135° Outside Corner

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FRAME INSTALLATION

14.0 Subsill Installation and Sealant Application

14.1 FG-5180 Subsill

14.1.1 Position fabricated Subsill with End Dams into opening. Center into opening allowing shim space at jambs.

14.1.2 Shim beneath Subsill to be a maximum of 1/2". Attach Subsill Flashing to structure with non-structural fasteners using attachment holes shown on *Page 18*. Wedge shims tightly between End Dams and Jamb substrate at each end prior to installing frame panels. These shims prevent the End Dams from being dislodged while frame panels are being installed. Completely seal End Dams as shown.

14.1.3 Cap seal anchor fasteners with **DOWSIL™ 795** sealant.

Notes:

- It is CRITICAL to tool sealant.
- End Dam must be sealed to substrate before panel installation.

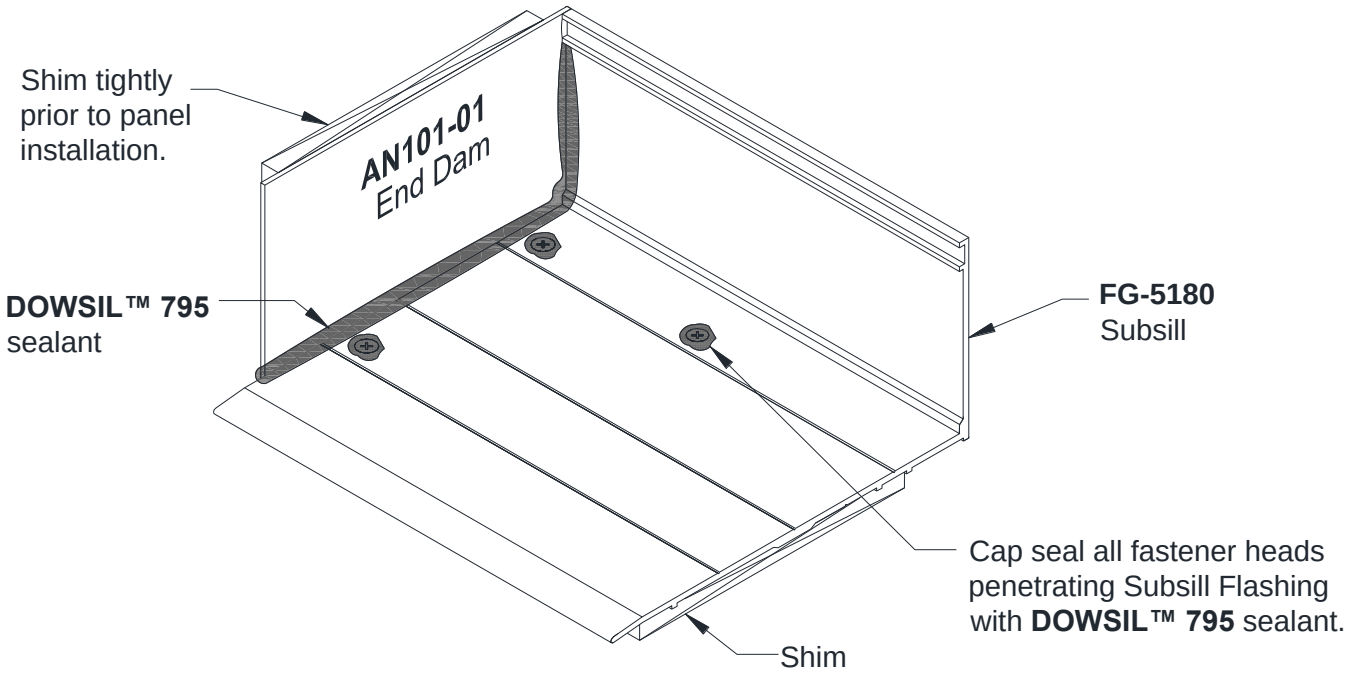

Figure 21: Subsill Installation and Sealant Application for FG-5180 Subsill

14.2 FG-5712 or FG-5726 Subsill

14.2.1 Position fabricated Subsill with End Dams into opening. Center into opening allowing shim space at Jambs.

14.2.2 Shim beneath Subsill to be a maximum of 1/2". Attach Subsill to structure with structural fasteners using attachment holes shown on Page 19. Wedge shims tightly between End Dams and Jamb substrate at each end prior to installing frame panels. These shims prevent the End Dams from being dislodged while frame panels are being installed. Completely seal and tool End Dams to Subsill and Substrate as shown.

14.2.3 Cap seal anchor fasteners with **DOWSIL™ 795** sealant.

Notes:

- It is CRITICAL to tool sealant.
- End Dam must be sealed to substrate before panel installation.
- **FG-5712** Subsill with **AN-101-01** End Dam shown below; **FG-5726** with **AN-104-01** End Dam is similar.

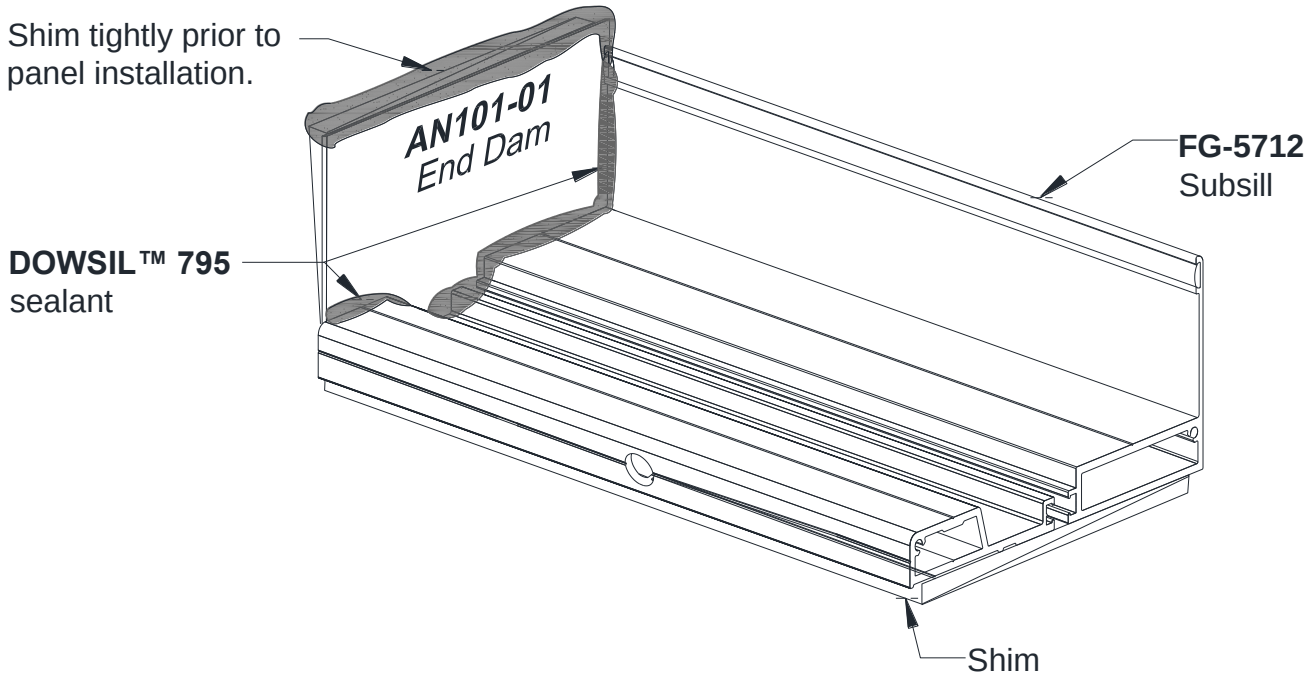

Figure 22: Subsill Installation and Sealant Application for FG-5712 or FG-5726 Subsill

15.0 Splice Sleeve at Subsill

15.1 Locate splice sleeves near center of D.L.O. at panel positioned over splice.

15.2 If using **FG-5712** or **FG-5726** Subsill, apply backer rod and Sealant to cavities of Subsill and P&D pocket at splice.

15.3 Apply Sealant to **UW466** Silicone Splice Sheet at all Sill Receptor splices, as shown in *Figure 23*.

15.4 Seal face of Subsill at splice. Marry with perimeter Sealant.

*Note: Interior joint of Subsill at splice may be sealed as optional cosmetic finish. Procedure for splicing the **FG-5726** Subsill is similar to the procedure for **FG-5712** shown below.*

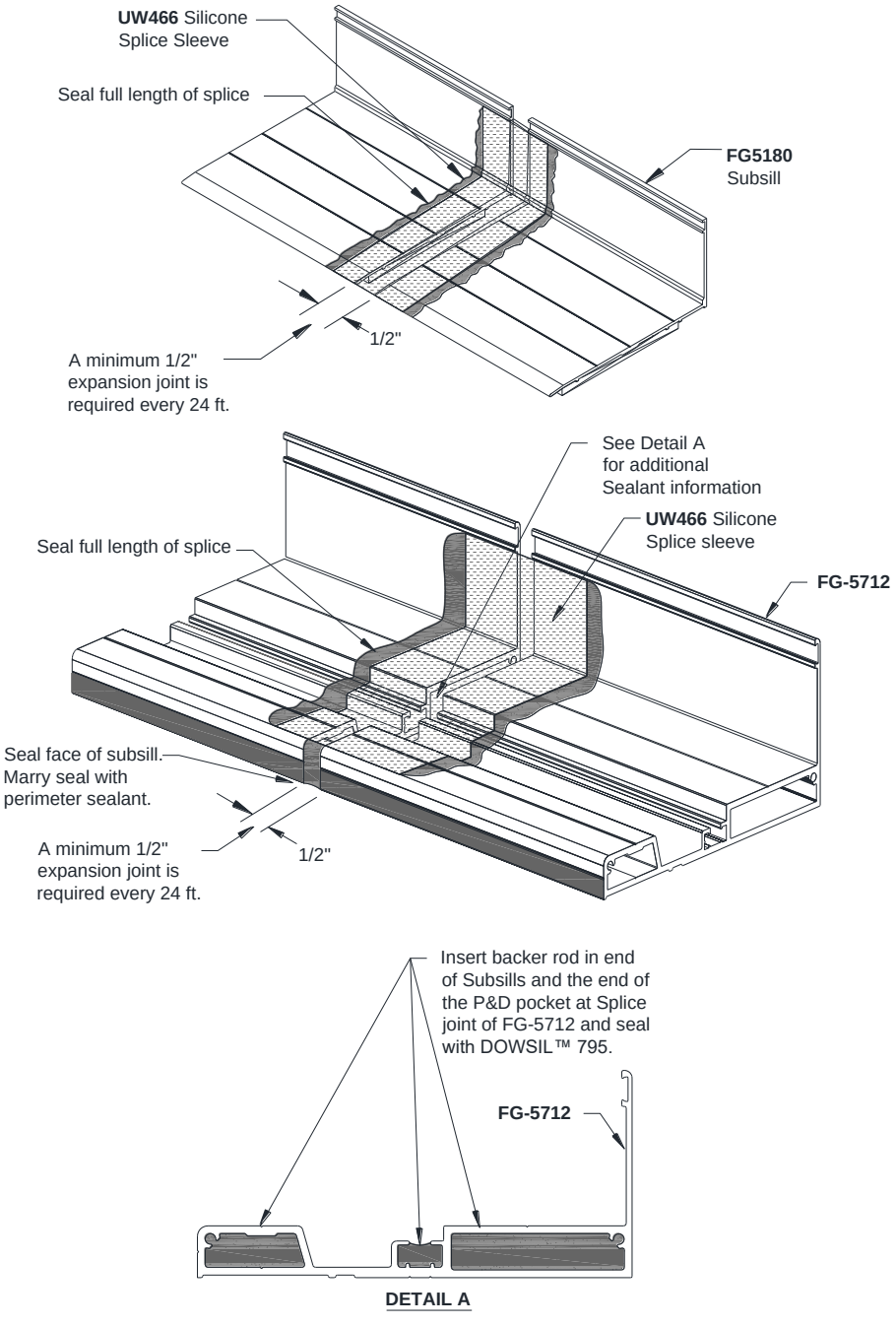

Figure 23: Splice Sleeve at Subsill

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16.0 Sidelite Subsill Installation at Door Frame

Where entrances occur, install entrance frames first. Subsill butts against door jamb(s). The Subsill abutting the door jamb does not require an end dam.

Notes:

- The bottom of the inside of the Door Jamb Mullion must be sealed to the substrate and the end of the Subsill must also be sealed. Reference *Figure 24*.
- **FG5000-PP-8** steel and **FG-5720** aluminum stiffeners are slide to fit and must be installed in frame jamb prior to installation. **FG-5761** filler must be used in lieu of **FG-5780** when stiffeners are present.

16.1 FG-5180 Subsill

16.1.1 Installation of **FG-5180** Subsill similar to *Figure 24*.

16.1.2 Cap seal all fasteners in Subsill.

16.2 FG-5712 or FG-5726 Subsill

16.2.1 Seal end of **FG-5712** or **FG-5726** prior to installing at door frame. Fill cavities and P&D pocket with backer rod and apply sealant. Tool sealant as needed.

16.2.2 Installation of **FG-5712** Subsill shown in *Figure 24*. Procedure for **FG-5726** is similar.

16.2.3 Cap seal all fasteners in Subsill.

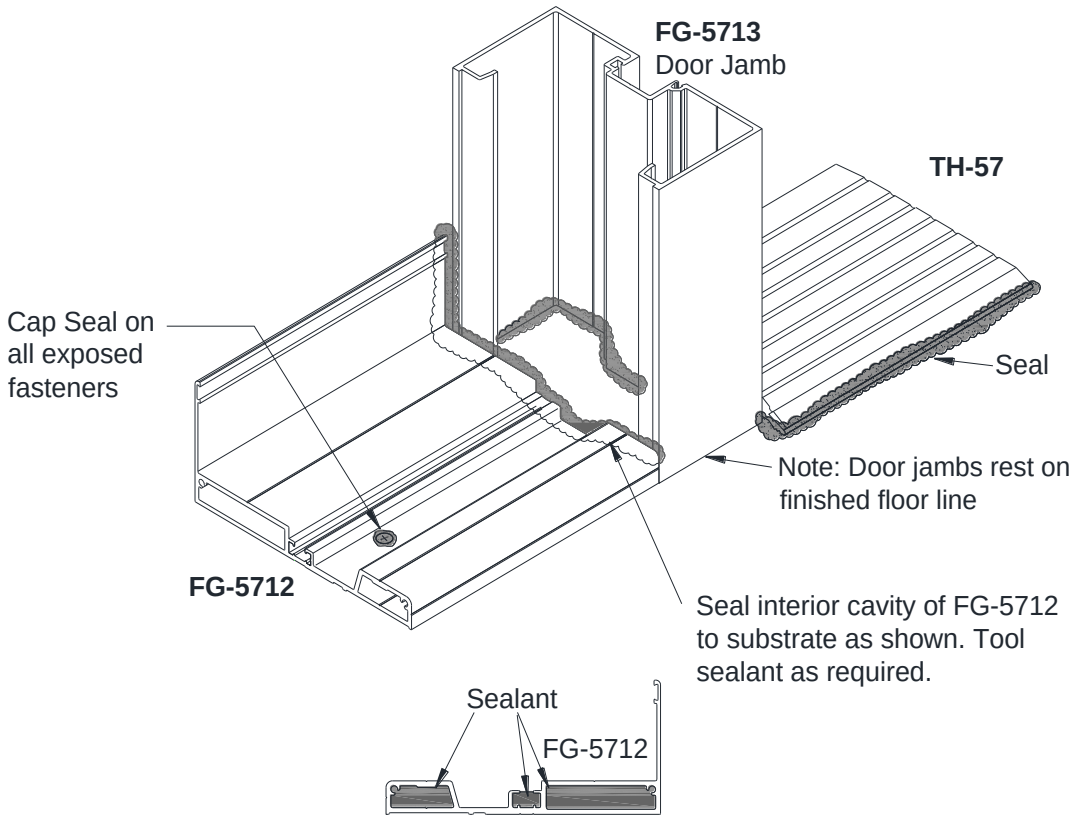

Figure 24: Door Jamb and Sill Receptor Sealant Application

17.0 Panel Installation

17.1 Working one bay at a time, run a continuous bead of DOWSIL™ 795 perimeter sealant along the full length of the Subsill's "C" slot just prior to installing frame panels, as shown in *Figure 25*. Do not allow sealant to skin over prior to installing frame panels. Remove excess sealant after panels are installed.

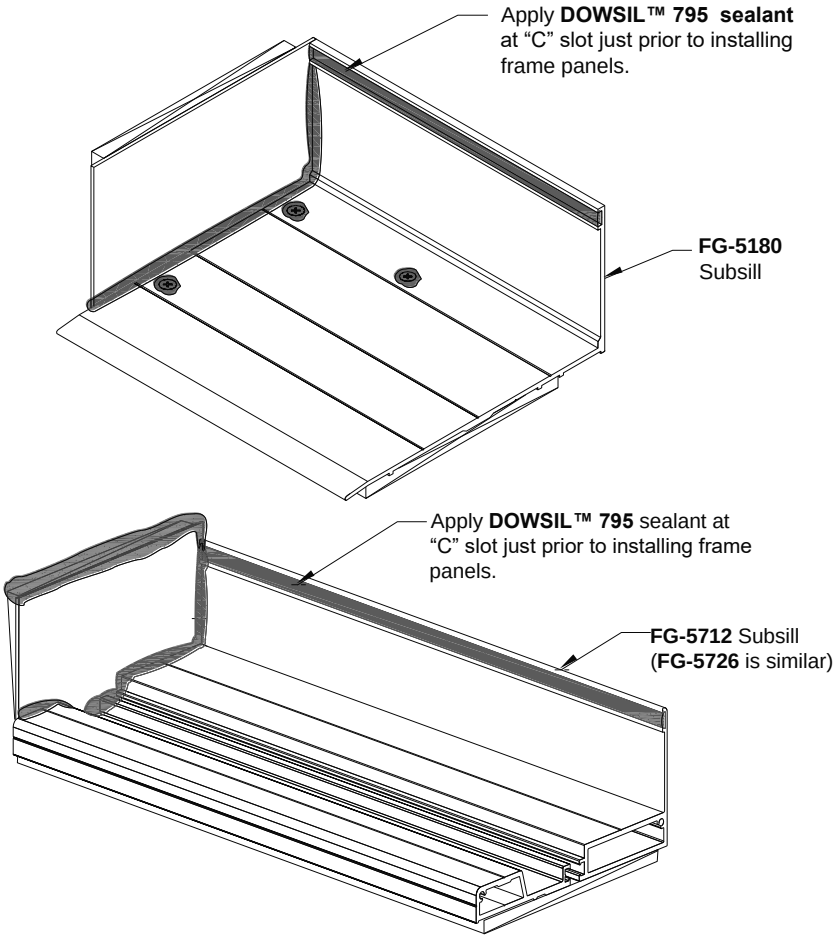

Figure 25: "C" Slot Sealant Application

17.2 Install assembled frame panels into opening starting with jamb and continue working toward the last bay. Reference illustrations shown in *Figure 26*. Use install option "A" or "B" as required. *NOTE: **RS-30/FG5000-PP-8** steel or **FG-5720** aluminum reinforcement slide fits into **FG-5753** Vertical and must be inserted and attached prior to installing panels.*

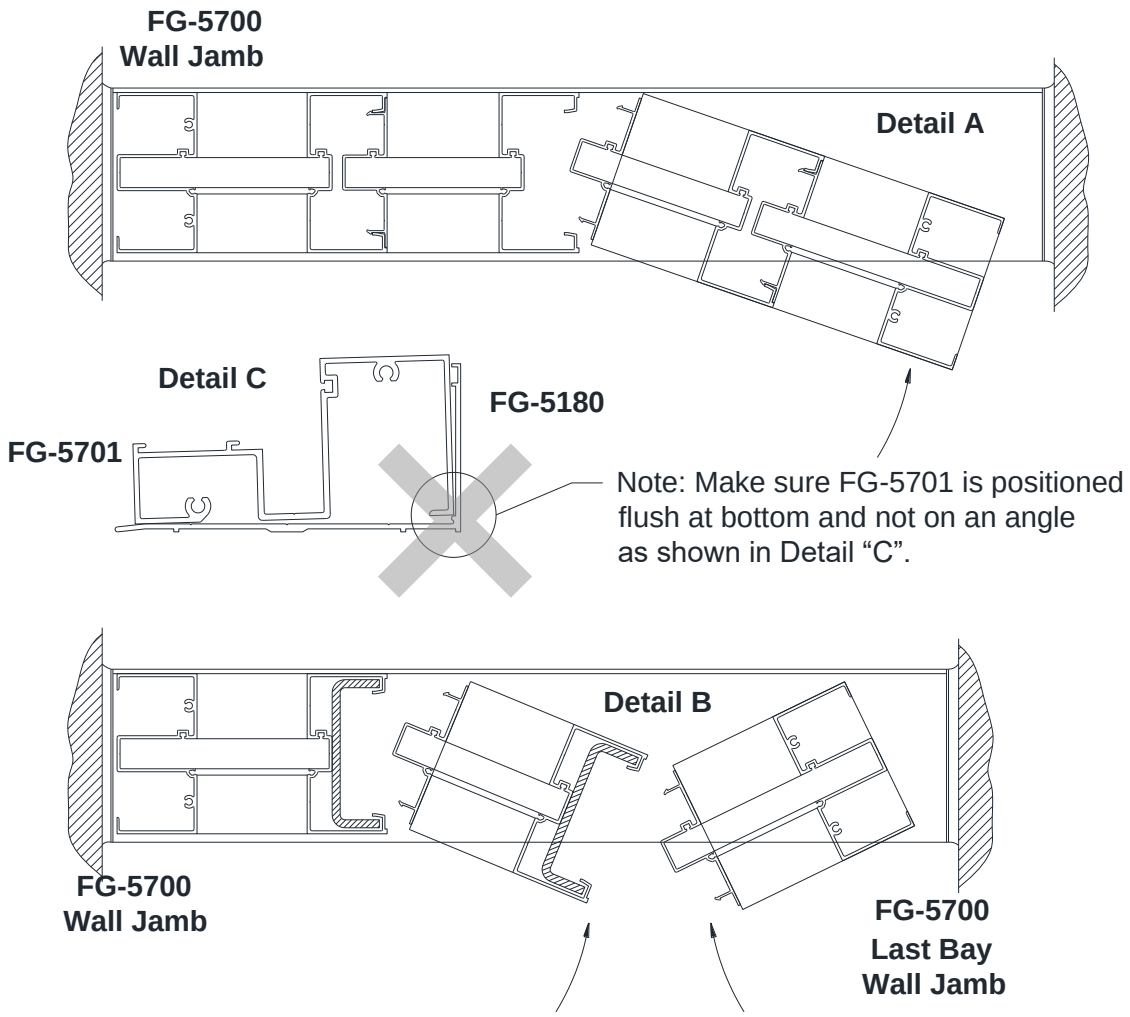

Figure 26: Panel Installation

17.3 FG-5180 Subsill

17.3.1 Match drill holes through Sill into substrate for perimeter fasteners. Match drill holes in Head and wall jamb into substrate.

17.3.2 Anchor panels to substrate, as shown in *Figure 27*.

17.3.3 Completely seal exterior and interior perimeter with a continuous bead of DOWSIL™ 795 sealant. Note that nterior perimeter seals at the Sill and Jamb are optional and cosmetic only. Interior seal at the Head is required.

17.4 FG-5712 or FG-5726 Subsill

17.4.1 Match drill holes through Sill into Subsill for attachment. Match drill holes in Head and wall jamb into substrate for frame anchoring. Attach panels to the Subsill and substrate as shown in *Figure 27*.

17.4.2 Completely seal exterior and interior perimeter with a continuous bead of DOWSIL™ 795 sealant. Ensure critical seals are applied and intact, including the fillet seal along the face of the Sill where it contacts the Subsill. Interior perimeter seals at the Sill and Jamb are optional and cosmetic only. Interior seal at the Head is required. Reference *Figure 27*.

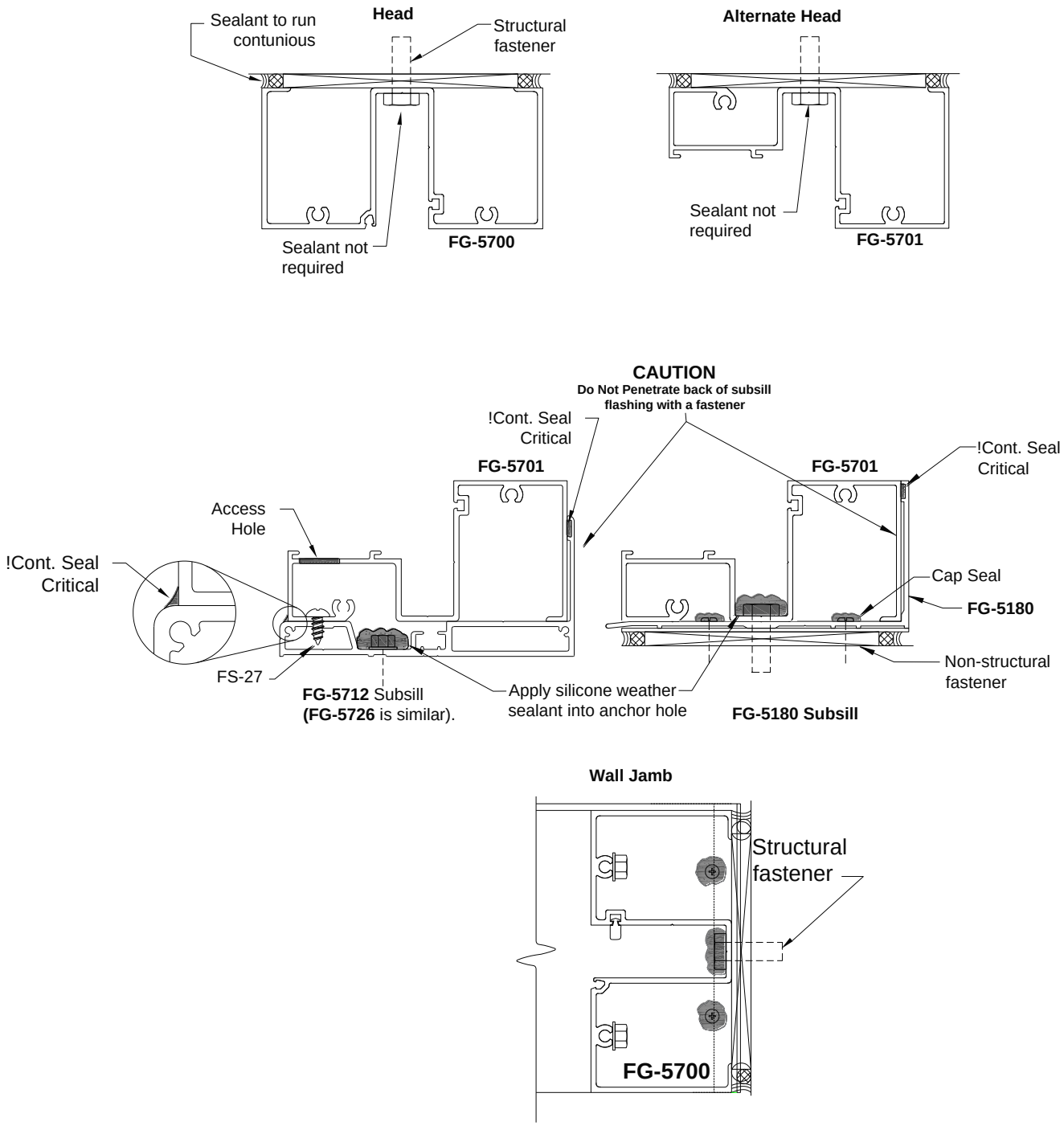

Figure 27: Panelized Frame Attachment & Anchoring

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GLAZING

18.0 Glass Sizes for FG-5700 System

Glass Width and Height = D.L.O. + 1-1/8"

Note: Glass tolerances are not addressed in the above formula. Consult glass manufacturer for glass tolerances prior to ordering.

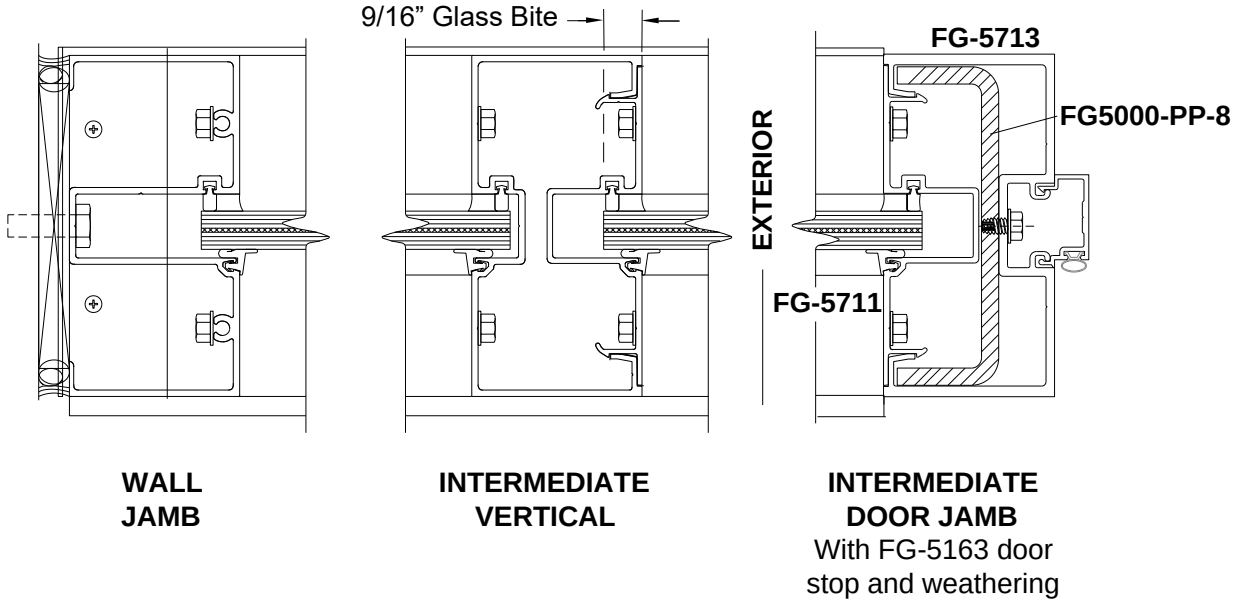

Figure 28: Glass Sizing

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19.0 Preparation of Frame Opening for Glass

19.1 Prepare the frame opening by removing all dirt and debris from the glazing pockets and gasket reglets.

SETTING BLOCKS

19.1.1 Set glass on two setting blocks, part number noted in the shop drawings. The preferred location is at the 1/4 points.

DEFLECTION

19.1.2 If the 1/4 point location causes excessive deflection of the intermediate horizontal, move the setting blocks equally towards the corners of the lite as far as the 1/8 points. The outer end of the block **CANNOT** be closer than 6" to the corner of the glass.

19.1.3 The intermediate horizontal must not exceed 1/8" and a door header is limited to 1/16". Check deadload charts for proper setting block locations.

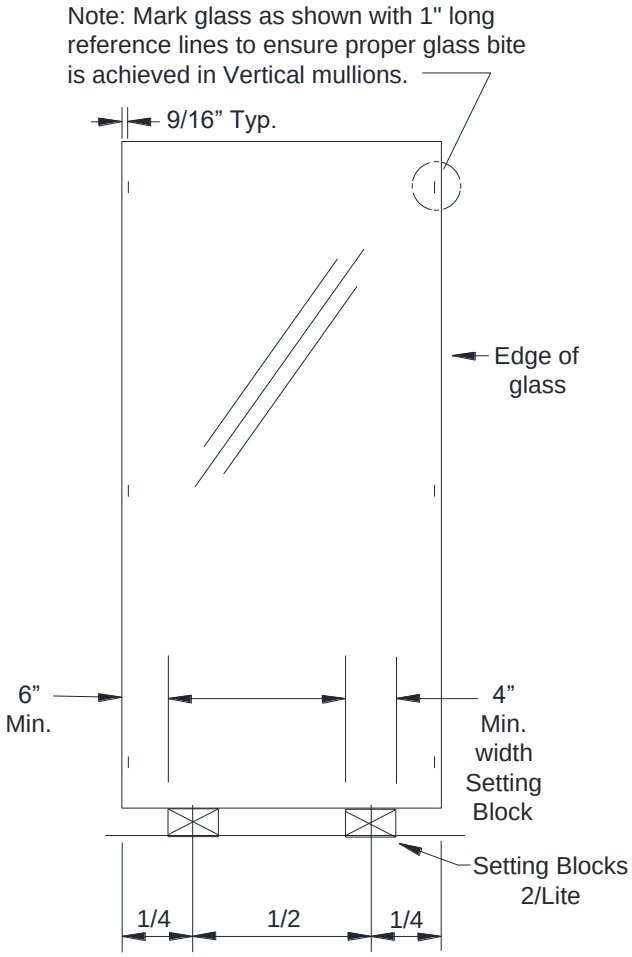

Figure 29: Glass Marking and Setting Blocks

20.0 Wet Glazing

Note: Wet Glaze Option is only available for Exterior Glazed storefront systems. For Interior Glazed storefront applications, see Section 21.0 Dry Glazing, Page 40.

20.1 Preparing and Installing Interior Gasket

Note: Glaze from bottom up

20.1.1 Remove all debris from glazing pockets to prevent blockage of weeps/drains.

20.1.2 Install **FG-5731** Spacer Gasket around the opening. Vertical gasket runs through.

20.1.3 Install **FG-5721** Setting Chair in sill member and **FG-5733** Setting Block at quarter points of each lite or as specified by glass manufacturer. Reference instructions in *Section 19.0 Preparation of Frame Opening for Glass* on Page 36.

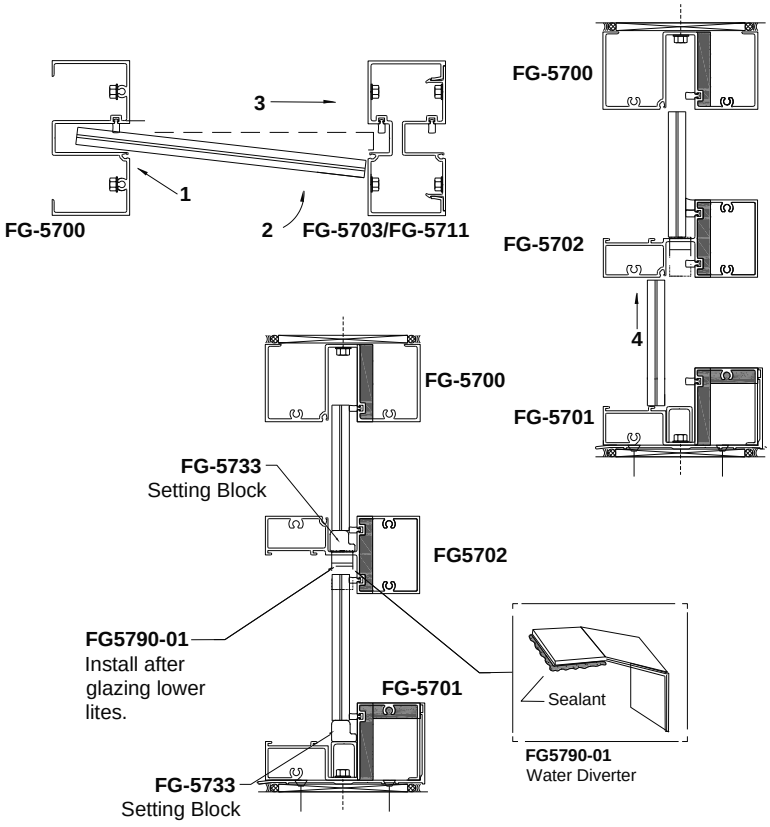

Figure 30: Wet Glaze Glass Installation

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20.2 Setting Glass and Exterior Gasket

Note: Glaze from bottom up

20.2.1 Center glass into opening making sure proper glass penetration is achieved. Rest glass on Setting Blocks and press tightly against **FG-5731** Gasket.

20.2.2 Apply **DOWSIL™ 795** sealant to one end of **FG5790-01** Water Diverter and position at each end of Horizontal, as shown in *Figure 30*, after glazing lower lites.

20.2.3 Install **FG-5760** hook-in glass stops as shown in *Figure 31*.

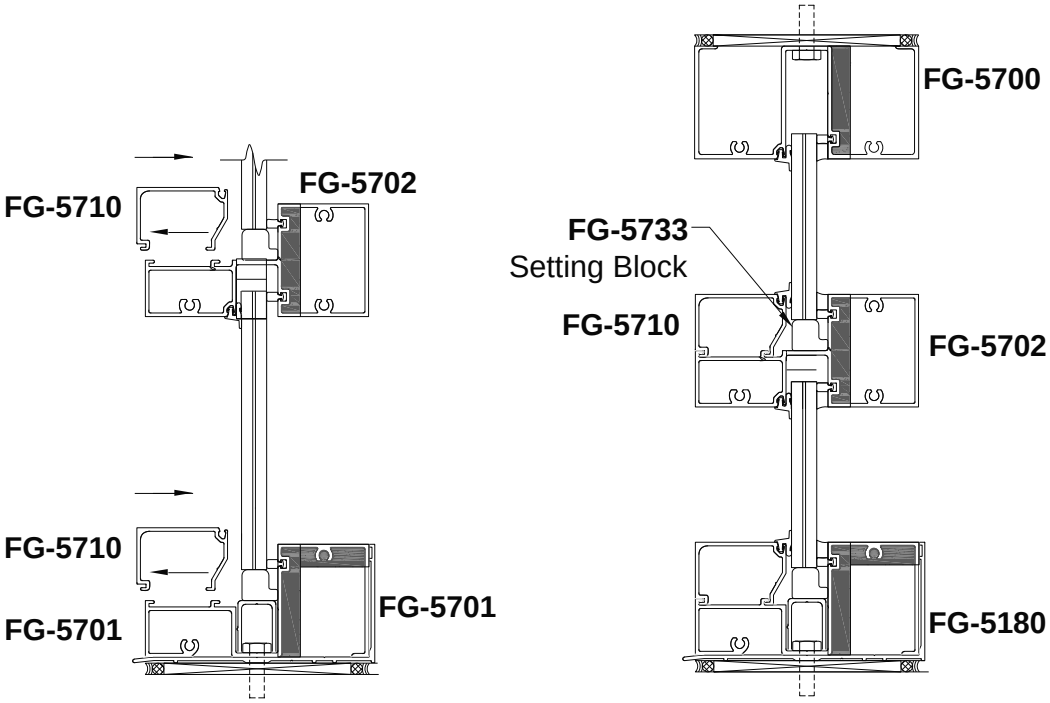

Figure 31: Glass Stop Installation

20.2.4 Verify the glass bite is 9/16".

20.2.5 Cut the **FG-5730** Gasket a minimum of 1/4" per foot longer than the D.L.O., to provide adequate compression, and miter the ends of the gaskets at a 20° angle, as shown in *Figure 32*.

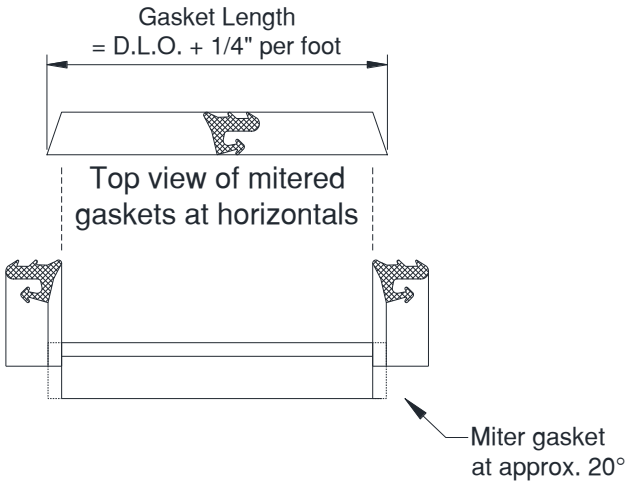

Figure 32: Exterior Gasket Cut Detail

20.2.6 Install exterior **FG-5730** glazing gaskets starting at the middle of the glass, following the guide in *Figure 33*. ***Do not stretch gaskets to make them fit.***

20.2.7 After gaskets are pressed into place, pull gasket from pocket at corners as shown in Figure *34*, *Detail A*. Clean glass and gaskets a minimum of 2" from each end with isopropyl alcohol.

20.2.8 Apply **DOWSIL™ 995** sealant and push Gasket into reglet, compressing from the corner first, Figure *34 Detail B*. Clean squeeze out immediately.

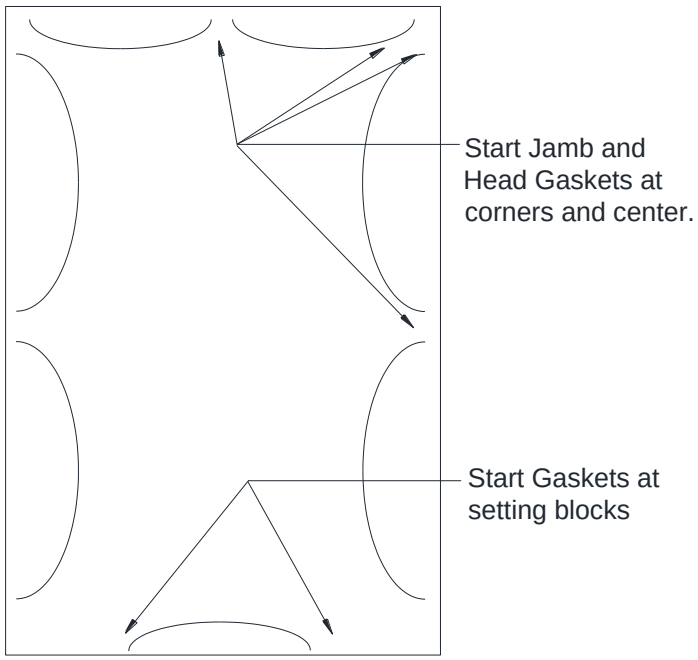

Figure 33: Exterior Gasket Installation

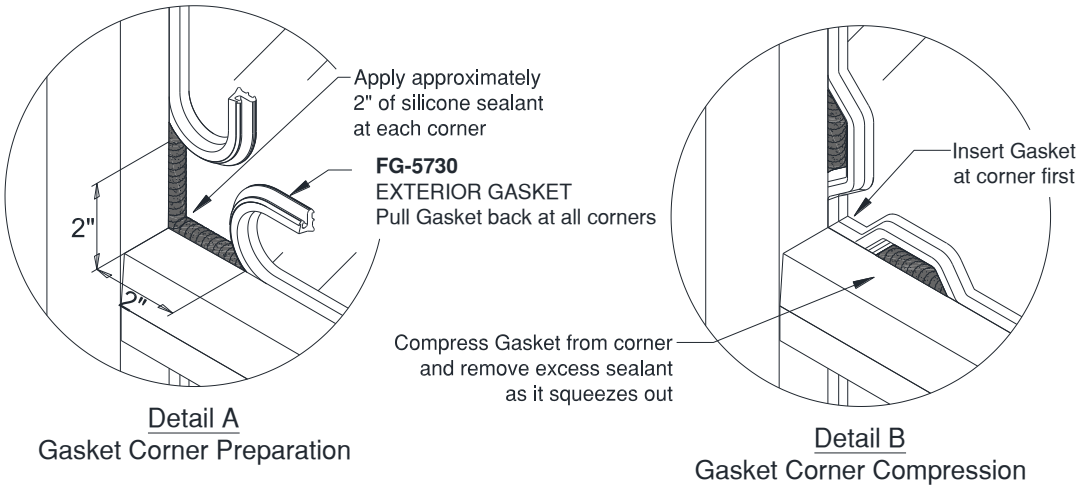

Figure 34: Exterior Gasket at Corners

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20.3 Application of Interior Structural Sealant

20.3.1 Mask off glass and aluminum with 1" wide (minimum) low adhesion masking tape. Working a single D.L.O. at a time, fill cavity around full perimeter of D.L.O. with **DOWSIL™ 995** sealant as shown in *Figure 35*; care should be taken not to leave any voids and eliminate air bubbles in sealant. **Immediately tool**, creating a finished joint with a beveled/curved joint surface

20.3.2 Remove masking tape before sealant skins, taking care not to damage tooled sealant.

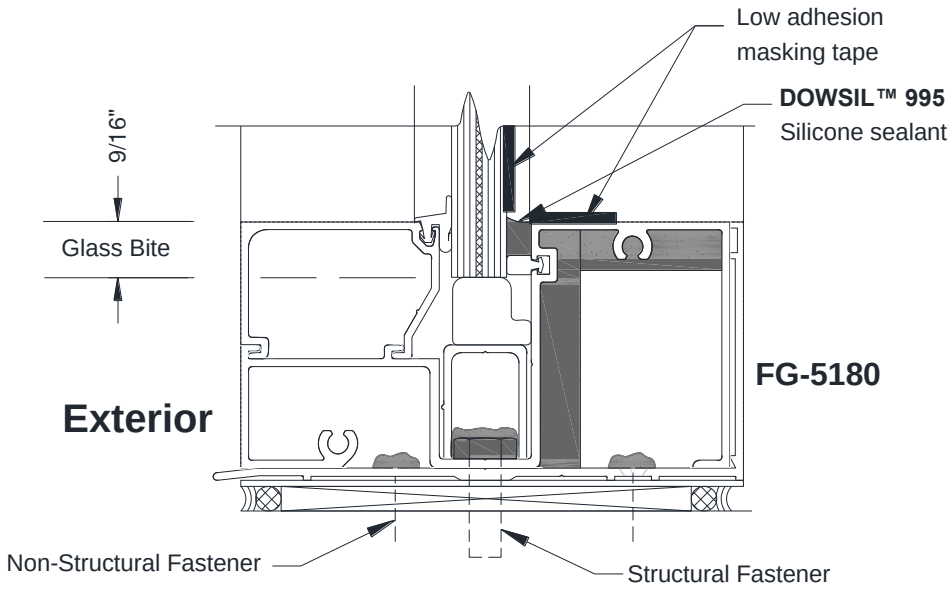

Figure 35: Wet Glaze Interior Sealant Detail

21.0 Dry Glazing

21.1 Preparing and Installing Interior Gasket

Note: Glaze from bottom up

21.1.1 Remove **FG-5732** Gasket from roll and allow to relax in a protected location overnight. Cut Gasket per material cut list on Page 11.
Note: When installed, vertical Gasket runs through while horizontal Gasket butts into the vertical Gasket. See Figure 36 for representation of the Gasket corner.

21.1.2 Remove all debris from glazing pockets to prevent blockage of weeps/drains.

21.1.3 Install **FG-5732** interior Gasket prior to glazing, starting gaskets at the middle of the glass opening and working out toward the corners.

21.1.4 After Gasket is installed, pull Gasket from pocket at corner junctions a minimum of 2". Clean Gasket and framing surfaces with isopropyl alcohol.

21.1.5 Apply sealant in the raceway per the locations indicated in, *Figure 36*, and set the vertical Gasket first. Apply sealant at the connection point of the horizontal Gasket and the vertical Gasket before setting horizontal Gasket. Clean any squeeze out immediately.

21.1.6 Install Setting Blocks per shop drawings. Reference instructions on Page 36.

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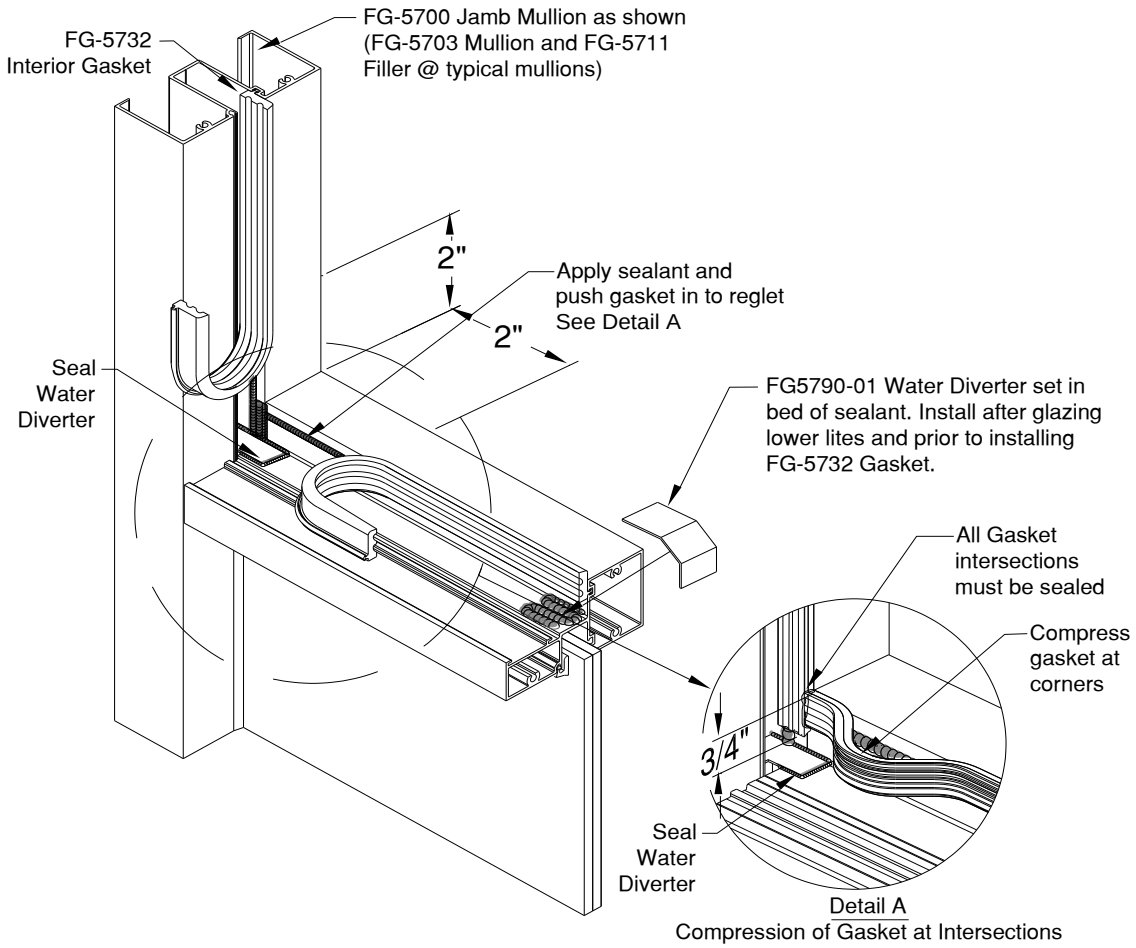

Figure 36: Dry Glaze Interior Gasket Installation

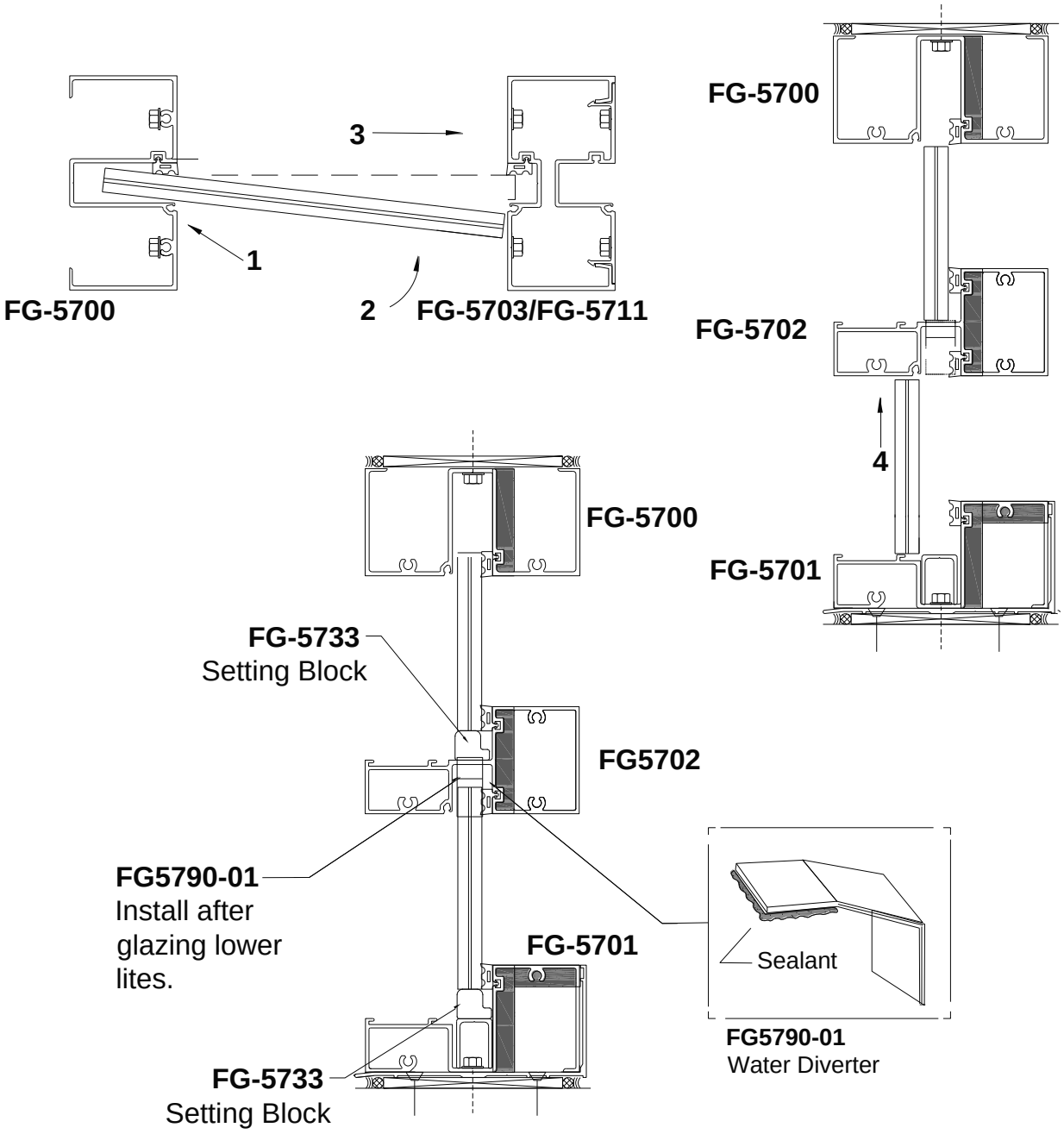

Figure 37: Dry Glaze Installation, Exterior Glaze

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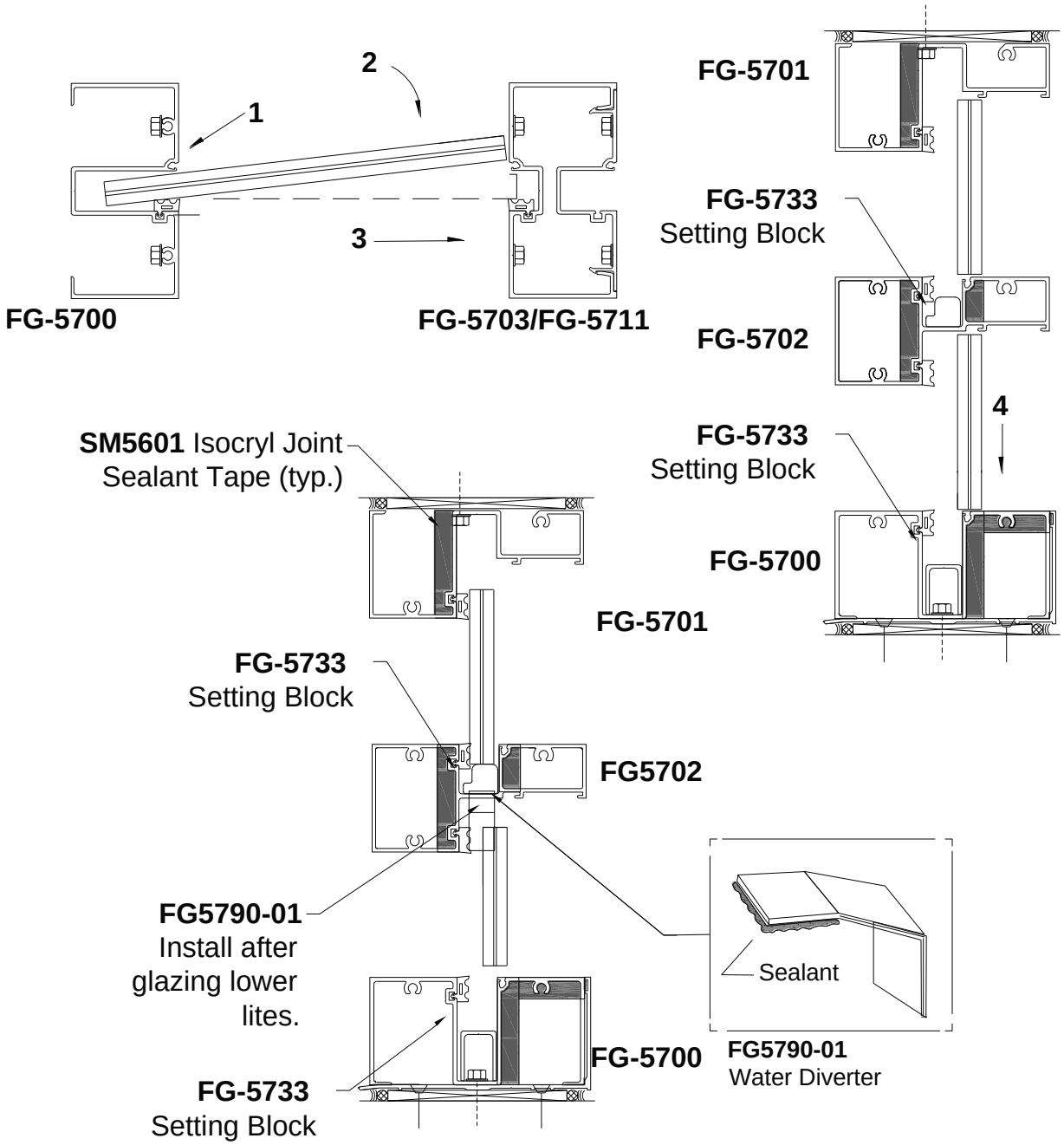

Figure 38: Dry Glaze Installation, Interior Glaze

21.2 Setting Glass and Exterior Gasket

21.2.1 Center glass into opening making sure proper glass penetration is achieved with a 9/16" glass bite. Rest glass on Setting Blocks and press tightly against **FG-5732** Gasket.

21.2.2 Install Water Diverters after lower lite is in position. Place a bed of sealant on the end of the Horizontal and place the Water Diverter per *Figure 36*.

21.2.3 Install **FG-5760** hook-in glass stops as shown in *Figure 39.*

*Note: **FG-5180** Subsill is shown; **FG-5712** and **FG-5726** are similar.*

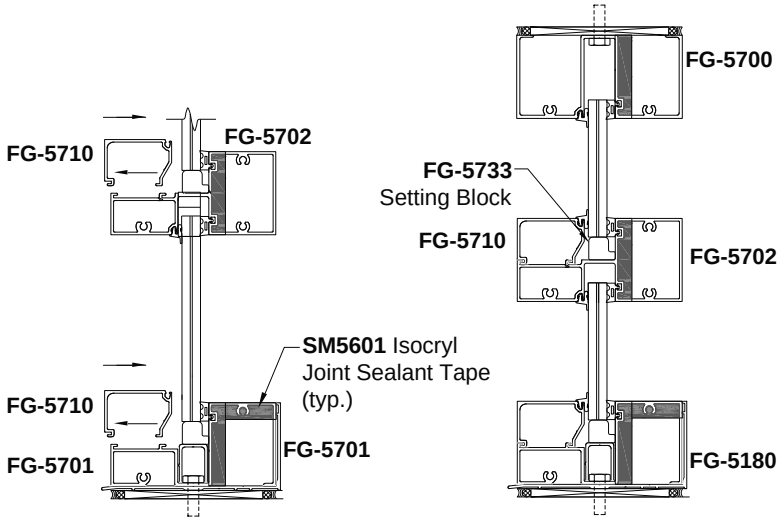

Figure 39: Dry Glaze Glass Stop Installation, Exterior Glaze

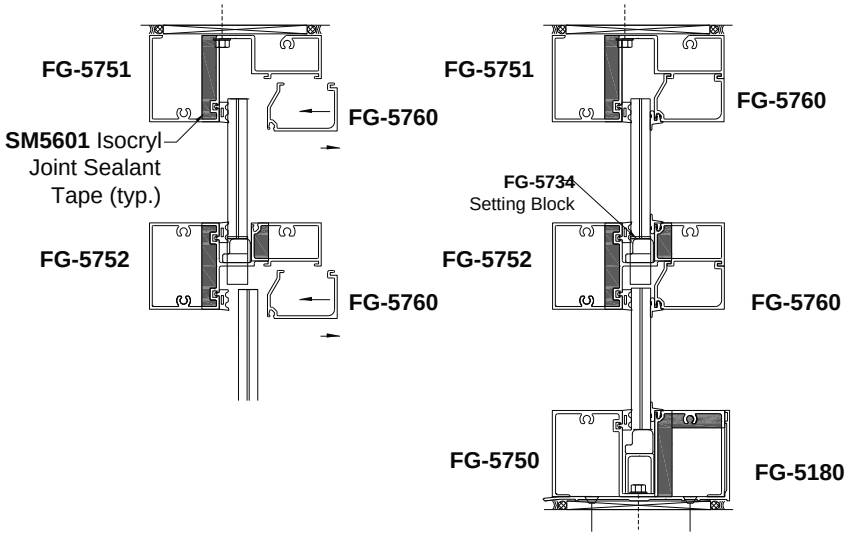

Figure 40: Dry Glaze Glass Stop Installation, Interior Glaze

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21.2.4 Cut the **FG-5730** Gasket a minimum of 1/4" per foot longer than the D.L.O., to provide adequate compression, and miter the ends of the gaskets at a 20° angle, as shown in *Figure 41.*

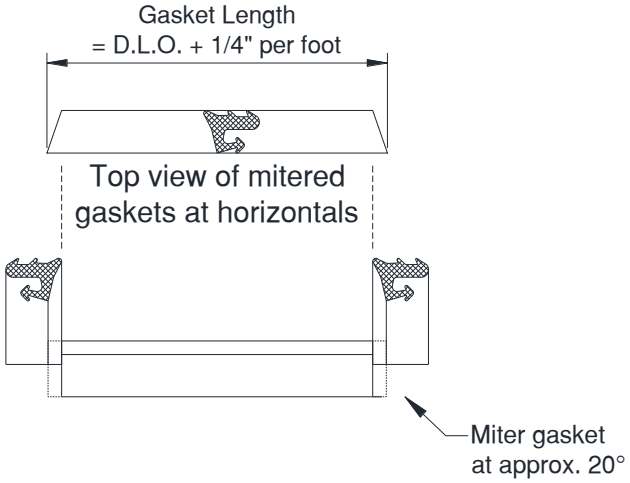

Figure 41: Exterior Gasket Cut Detail

21.2.5 Install exterior **FG-5730** glazing gaskets starting at the middle of the glass. ***Do not stretch gaskets to make them fit.***

21.2.6 After gaskets are pressed into place, pull gasket from pocket at corners as shown in *Figure 42*, *Detail A*. Clean glass and gaskets a minimum of 2" from each end with isopropyl alcohol.

21.2.7 Apply **DOWSIL™ 795** sealant and push Gasket into reglet, compressing from the corner first, *Figure 42 Detail B*. Clean squeeze out immediately.

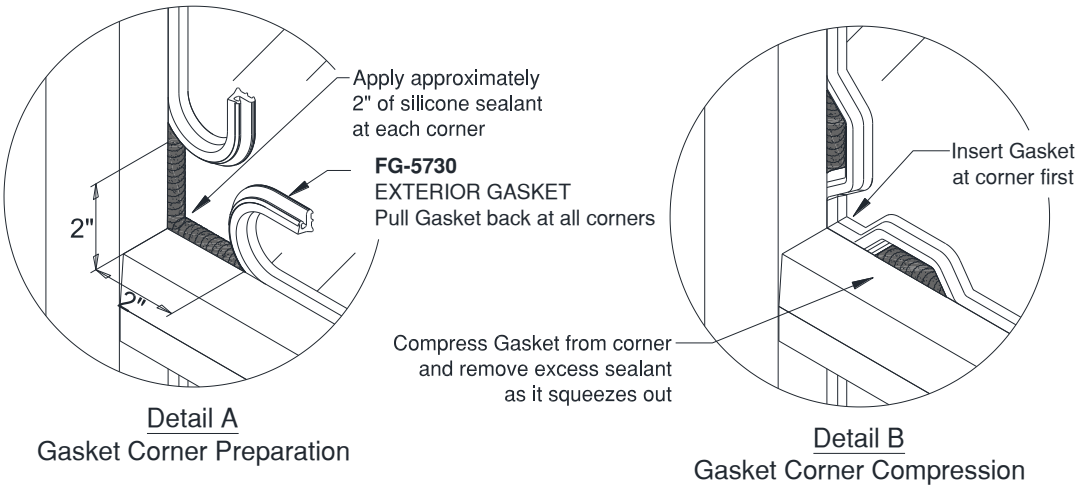

Figure 42: Exterior Gasket at Corners

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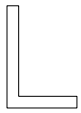
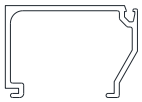
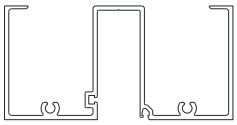
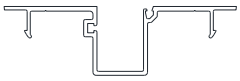
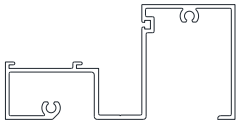
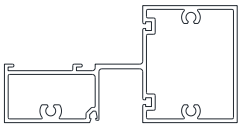
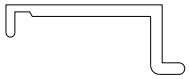
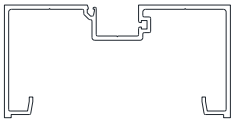
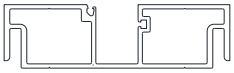
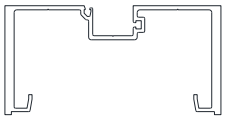
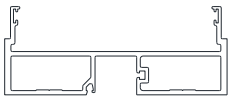
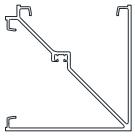
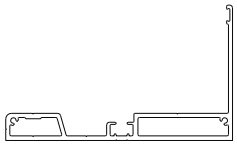
PARTS LIST

Parts not shown to scale.

Extrusions

AN-83 	3/4" x 1-3/32” Angle (used at vent conditions to trap glass stop in place)	FG-5707 	135º Corner Mullion
FG-5180 	Sill Flashing	FG-5710 	Glass Stop
FG-5700 	Head / Jamb	FG-5711 	Mullion Filler
FG-5701 	Head / Sill	FG-5712 	Subsill
FG-5702 	Intermediate Horizontal	FG-5716 	Pocket Filler / Head Anchor
FG-5703 	Mullion	FG-5724 	Expansion Mullion
FG-5704 	Heavy Mullion	FG-5725 	Expansion Mullion
FG-5706 	90º Corner Mullion	FG-5726 	Full Height Subsill

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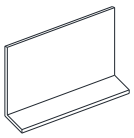
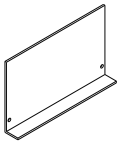
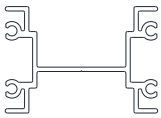
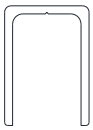
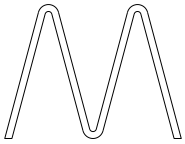
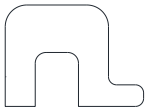
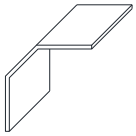
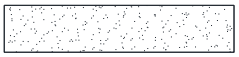
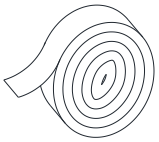
Parts & Accessories

AN101-01 	End Dam for FG-5180 & FG-5712 Subsills
AN104-01 	End Dam for FG-5726 Subsill
FG5714-01 	Cripple Vertical Shear Block
FG5721-01 	Setting Chair
FG-5733 	Setting Block

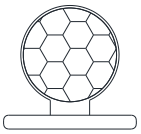
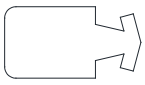
Parts & Accessories cont.

GP-150 	'W' EDGE BLOCK
FG-5734 	Setting Block
FG5790-01 	Water Diverter
SM5601 	Joint Sealant Tape 1/8" x 1/2"
UW466 	2" Wide Silicone Splice Sheet

Reinforcement

FG-5720 	Aluminum Reinforcement
RS-30 	Steel Reinforcement

Gaskets

CW-998 	Bulb Gasket
FG-5730 	Exterior Glazing Gasket
FG-5731 	Wet Glaze Spacer Gasket

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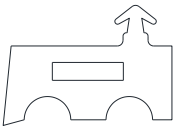
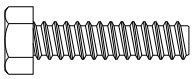
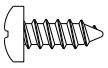
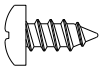
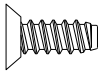
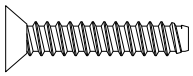
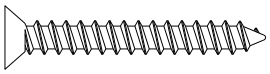
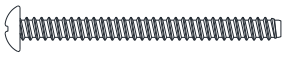
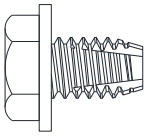
FG-5732 	Dry Glaze Gasket

Fasteners

FS-8 	1/4 x 1″ HH B Pt.
FS-23 	#6 x 3/8″ PPH A PT.
FS-27 	#12 X 1/2" PPH A PT.
FS-56 	#10 X 1/2" PFHUC B PT.
FS-58 	#10 X 1″ PFH B PT.
FS-59 	#10 X 1-1/2″ PFH A PT.
FS-96 	#12 x 2-1/2″ PPH B PT.

FS-354 	1/4" – 20 x 3/8" HWH Type F