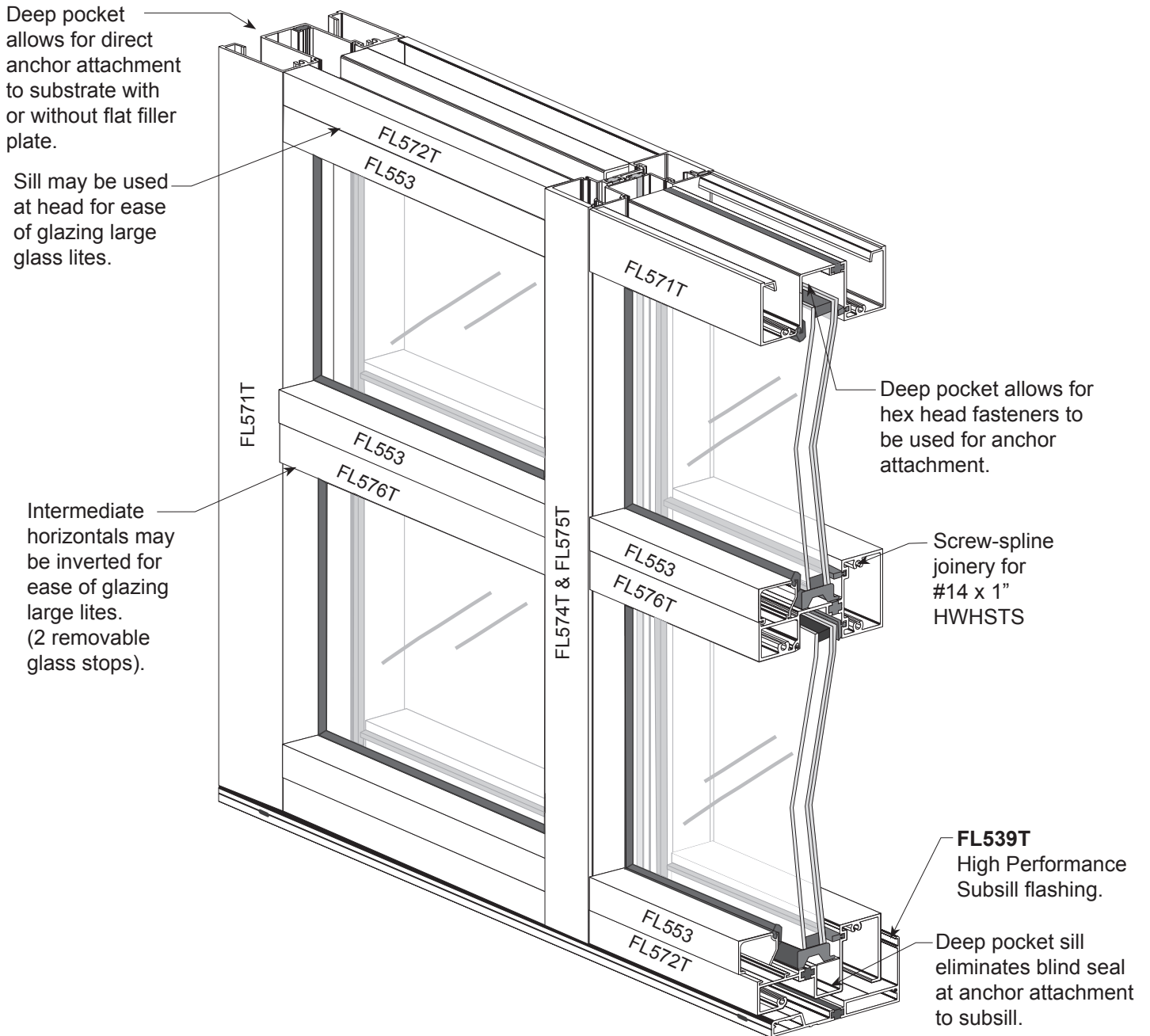
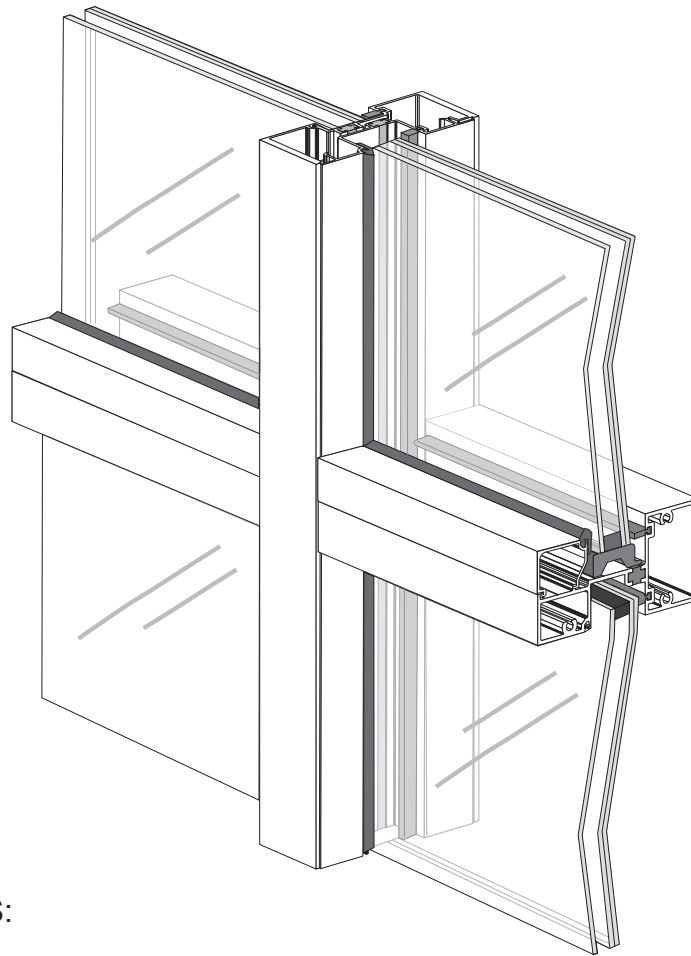


INSTALLATION INSTRUCTIONS

2 1/2" x 5" for 1 5/16" Insulating Laminated Glass



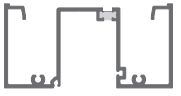

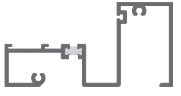

















Coral



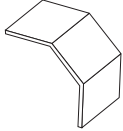

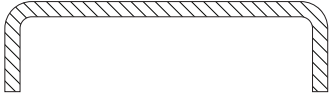
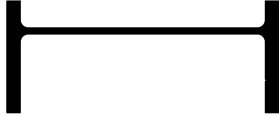
PRODUCT FEATURES:

- Screw-spline joinery
- CoraPunch 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
 - Intermediate horizontals may be inverted for ease of glazing large lites
 - Sill may be used at head for ease of glazing large lites
- Available door option, 84" x 96" Series 581 W.S. impact-resistant entrance doors
- Available door option, 84" x 96" Series 381 M.S. impact-resistant entrance doors
- Available door option, 72" x 84" Series 281 N.S. impact-resistant entrance doors
- Anodized finishing or factory applied thermosetting fluorocarbon powder coating option

FL550T SYSTEM PARTS

PARTS			
PART DESCRIPTION	PART NO.	PART DESCRIPTION	PART NO.
 Head/Wall Jamb (Deep Pocket)	FL571T	 Spline Screw #14 x 1 HHSTS (Assembly Screw)	AS16
 Sill/Optional Head (Deep Pocket)	FL572T	 #6 x 3/8" PPH Type AB (Attaches End Dams)	AS21
 Glass Stop	FL553	 Setting Chair (Two Per Lite Re- quired at Sill Meber)	CS500-1
 Intermediate Horizontal	FL576T	 End Dam for Sill Flashing	ED519-1
 Heavy Wall Vertical Mullion	FL574T	 Exterior EPDM Gasket	NG1
 Pocket Filler (For use with FL574T)	FL575T	 EPDM Gasket for DS550 Door stop at Door jamb	NG5
 High Performance Subsill	FL539T	 1/4" Interior Spacer Gasket	NG14
 Transom Sash	FL567	 Dry Glazed Gasket	NG15
 Transom Glass Stop	FL518	 Setting Block for Intermediate Horizontal FL550T Dry Glazed Inside glaze	SB17
 Threshold	TH5BT	 4" Long EPDM Setting Block for 15/16" Glass (Two Per Lite at inverted horizontal)	SB15

FL550T SYSTEM PARTS

PARTS					
PART DESCRIPTION		PART NO.	PART DESCRIPTION		PART NO.
	Water Diverter	WD300-1		Schnee-Morehead SM5601 1/8" x 1/2" Tacky Tape	SM5601
		SR504			FL537

These instructions are for typical installations. Reference shop drawings for special notations on installations and glazing.

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INSTALLATION INSTRUCTIONS GENERAL NOTES

Coral Series FL550T (2-1/2" x 5") hurricane impact-resistant system was especially designed to meet the stringent Florida Building Codes (FBC) for impact-resistant glass and glazing systems. Series FL550T successfully passed a series of large and small missile impact and cyclic wind tests with multiple impact-resistant glass compositions.

RECOMMENDED GUIDELINES FOR ALL INSTALLATIONS:

1. **REVIEW CONTRACT DOCUMENTS.** Check shop drawings, installation instructions, architectural drawings and shipping lists to become thoroughly familiar with the project. The shop drawings take precedence and include specific details for the project. Field verified notations shown within shop drawings must be resolved prior to installation. These installation instructions are of general nature and cover most conditions.
2. **INSTALLATION.** All materials shall be installed plumb, level and true.
3. **BENCHMARKS.** All work should start from established benchmarks and column center lines established by the architect and general contractor.
4. **FIELD WELDING.** All field welding must be adequately shielded to avoid any splatter on glass or aluminum. Advise general contractor and other trades accordingly. All field welds of steel anchors must receive touch-up paint (zinc chromate) to avoid rust.
5. **SURROUNDING CONDITIONS.** Make certain that construction which will receive your materials is in accordance with the contract documents. If not, notify the general contractor in writing and resolve differences before proceeding with work.
6. **ISOLATION OF ALUMINUM.** Aluminum to be placed in direct contact with uncured masonry or incompatible materials should be isolated with a heavy coat of zinc chromate or bituminous paint.
7. **STRUCTURAL SEALANTS.**
 - A. **DOW 995** structural sealant was used on the Series FL550T test specimen approved by FBC for glass to metal adhesion. To comply with FBC Protocols, **DOW 995** sealant must be used for glass to metal adhesion with Series FL550T.
 - B. **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 on these instructions and shop drawings. Sealants must be compatible with all surfaces in which adhesion is required, including other sealants. Use primers where directed by sealant manufacturer. Be sure to properly store sealants at recommended temperature and check container for remainder of shelf life before using. **DOW 795** structural silicone was the perimeter sealant used on the Series FL550T test specimen approved by FBC.
8. **FASTENING.** Only those fasteners used within the system are specified in these instructions. Due to the varying perimeter conditions and performance requirements, perimeter fasteners are not specified in these instructions. Reference the shop drawings or anchor charts for perimeter fasteners.

INSTALLATION INSTRUCTIONS GENERAL NOTES

9. **BUILDING CODES.** Due to the diversity in state, local and national codes that govern the design and application of architectural products, it is the responsibility of the architect, owner and installer to assure that products selected for use on each project comply with all the applicable building codes and laws. CORAL ARCHITECTURAL PRODUCTS exercises no control over the use or application of its products, glazing materials and operating hardware and assumes no responsibility thereof.
10. **EXPANSION JOINTS.** Expansion joints and perimeter seals shown in these instructions and shop drawings are shown at normal size. Expansion mullion gaps should be based on temperature at time of installation.
11. **WATER HOSE TEST.** After a representative amount of the storefront system has been glazed (250 square feet) and the sealant has cured, a water hose test should be conducted in accordance with AAMA 501.2 specifications to check the installation. This test should be repeated every 500 square feet during the glazing operation. Note: This test procedure should not be used for entrance doors.
12. **COORDINATION WITH OTHER TRADES.** Coordinate with the general contractor and sequence with other trades items which offset the storefront installation such as back-up walls, partitions, ceilings and mechanical ducts.
13. **MATERIAL HANDLING:**
 - A. **SHOP**
 1. Cardboard wrapped or paper interleaved material must be kept dry.
 2. Immediately remove aluminum from cardboard wrapped or paper interleaved materials should it get wet to prevent staining or etching aluminum finish.
 3. Check arriving materials for quantity and keep record of where various materials are stored.
 - B. **JOB SITE**
 1. Material at job site must be stored in a safe place well removed from possible damage by other trades.
 2. Cardboard wrapped or paper interleaved material must be kept dry. (See 13.A.2)
 3. Keep record of where various materials are stored.
 4. Protect materials after erection. Cement, plaster, mortar and other alkaline solutions are very harmful to the finish.
14. **CARE AND MAINTENANCE.** Final cleaning of exposed aluminum surfaces should be done in accordance with AAMA 609 for anodized aluminum and 610 for painted aluminum.
15. **CORAL ARCHITECTURAL PRODUCTS.** It is NOT the responsibility of CORAL ARCHITECTURAL PRODUCTS to supply a system to meet the architect's specifications.
16. **GLASS.** Glazing gaskets are designed for a compression fit against glass and can accommodate (+/- 1/32"). Be sure to check overall size of glass size and thickness.

PRODUCT APPLICATION AND INSTALLATION

Series FL550T thermal hurricane impact-resistant storefront system was designed with screw spline joinery for simple fabrication and panelized installation, but should only be installed by glazing contractors employing personnel with the necessary installation and project management experience to handle these type projects.

FL550T thermal hurricane impact-resistant storefront system requires the installer to pay close attention to the details shown within these ***Instructions*** and ***General Notes***. All critical seal areas must be done as shown.

OPTIONS and LIMITATIONS

The laminated glass and mullions function as an integral unit. The combinations shown in the ***Options and Limitation Charts*** for FL550T framing and ***Series 281*** and ***381*** entrance doors are based on actual performance testing and cannot be altered without sacrificing the integrity of the system. Lower design pressures of door or frame systems, govern maximum PSF.

Example: 381 Door -70 PSF and FL550T -55PSF maximum PSF combined systems would = -55PSF.

FRAME FABRICATION

Establish Frame Size and Cut Metal to Length

STEP 1.

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 1/4" caulk joint at each jamb.

Repeat process to determine frame height.

- A. Beginning on left side of opening, measure dimension from top to bottom.
- B. Repeat at center.
- C. Repeat at right side of opening.

The frame height will be the smallest dimension less, 1-1/8".

This allows 5/8" for subsill and a 1/4" caulk joint at the sill and head.

STEP 2.

Cut members to size.

- A. Cut subsill to frame dimension plus 1/4". The subsill at entrance locations butt tight against door jambs and is cut 1/8" longer than width of side lights on either side of door frame.*
- B. Wall jambs and intermediate vertical mullions are cut to frame height.
- C. Horizontal members are cut to D.L.O.
- D. Snap-on glass stops are cut D.L.O. minus (-) 1/16".

* Note: See Page 18 for subsill condition abutting door frame.

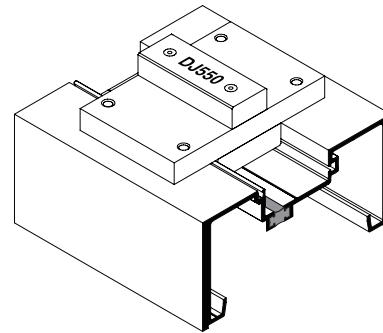
Abbreviations used within these instructions:

- D.L.O. = Day Light Opening
- D.O.W. = Door Opening Width
- D.O.H. = Door Opening Height
- C.O.C. = Concealed Overhead Closer
- C.V.R. = Concealed Vertical Rod
- ∅ = Diameter

FRAME FABRICATION Joinery Hole Locations

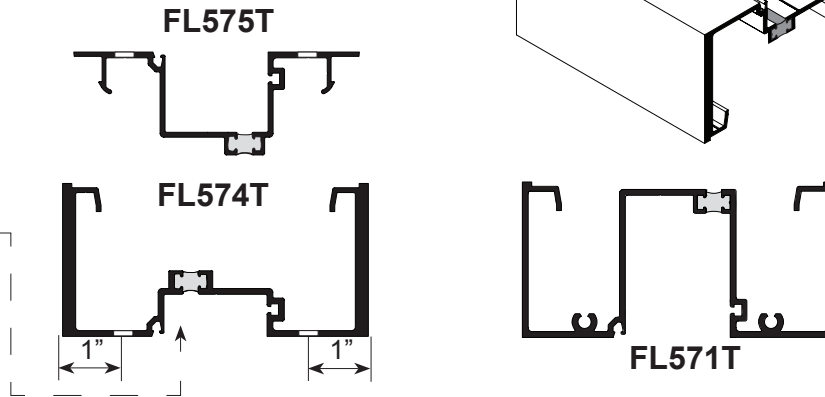
STEP 3.

Use DJ550 drill jig or FL500/550 Punch Die Set with pocket adaptor for fabricating spline hole locations in verticals.

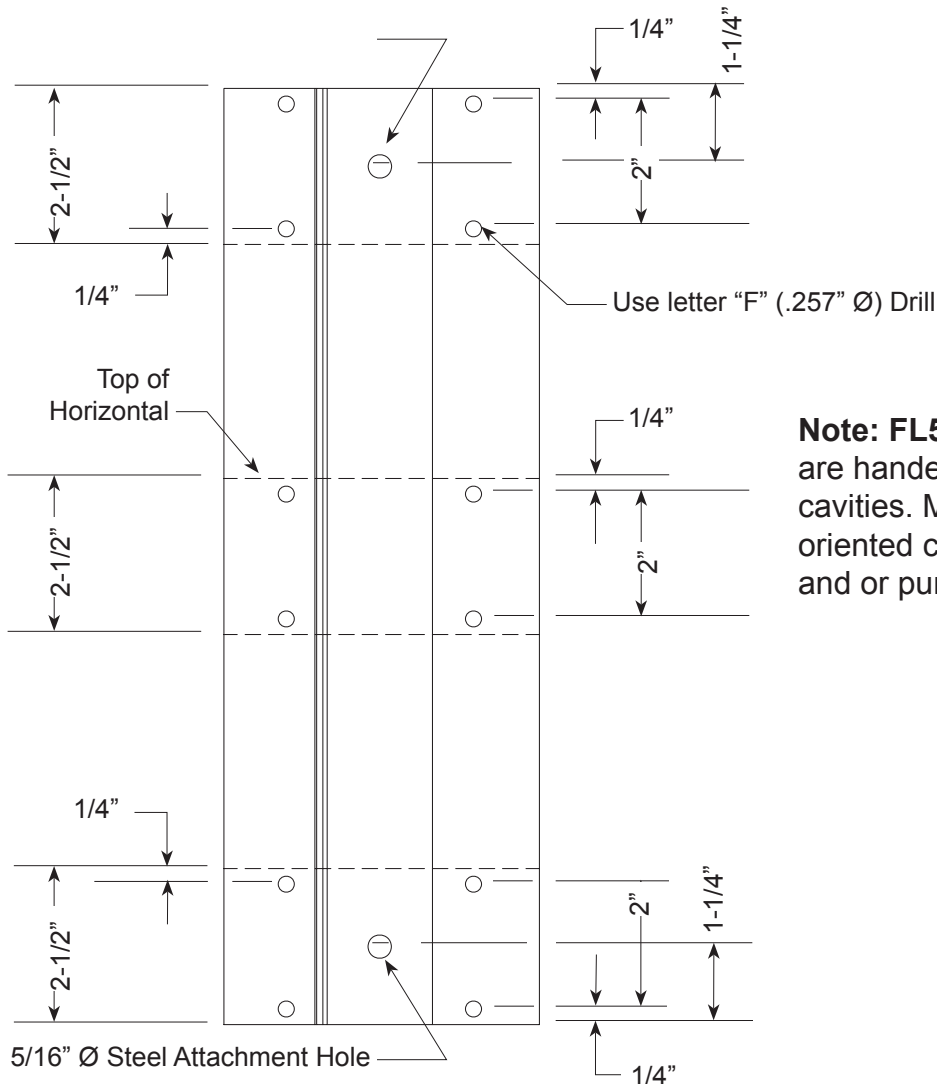


Note: NG1 Gasket reglet is always to exterior.

← EXTERIOR



5/16" Ø Steel Attachment Hole



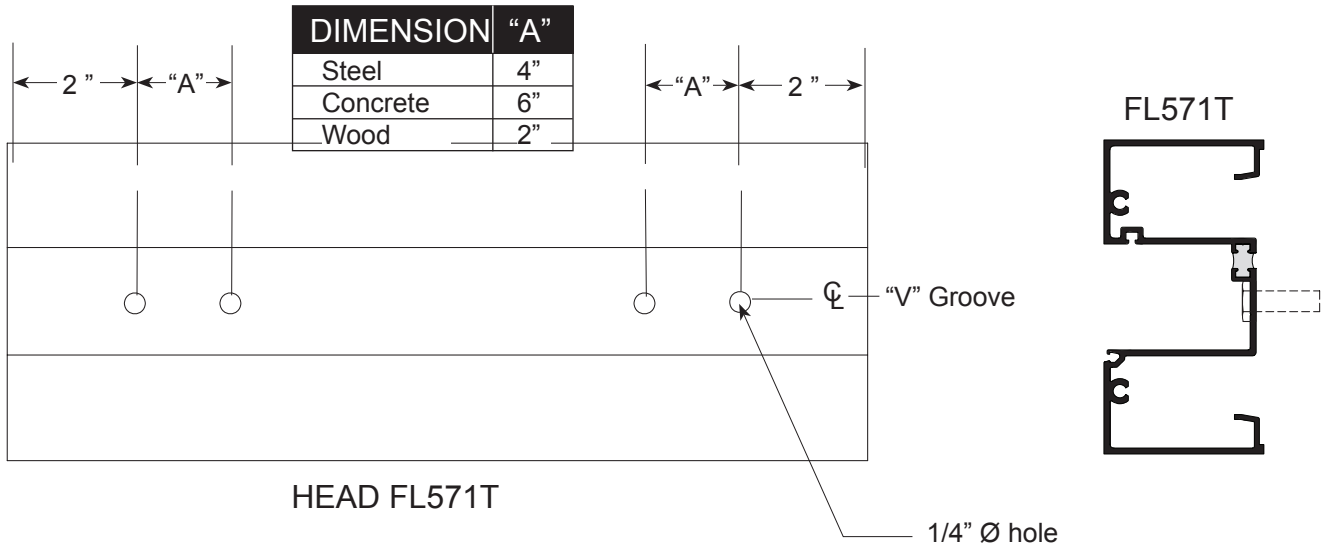
Note: FL574T and FL575T are handed by way of thermal cavities. Make sure parts are oriented correctly before drilling and or punching joinery holes.

FRAME FABRICATION Head / Sill

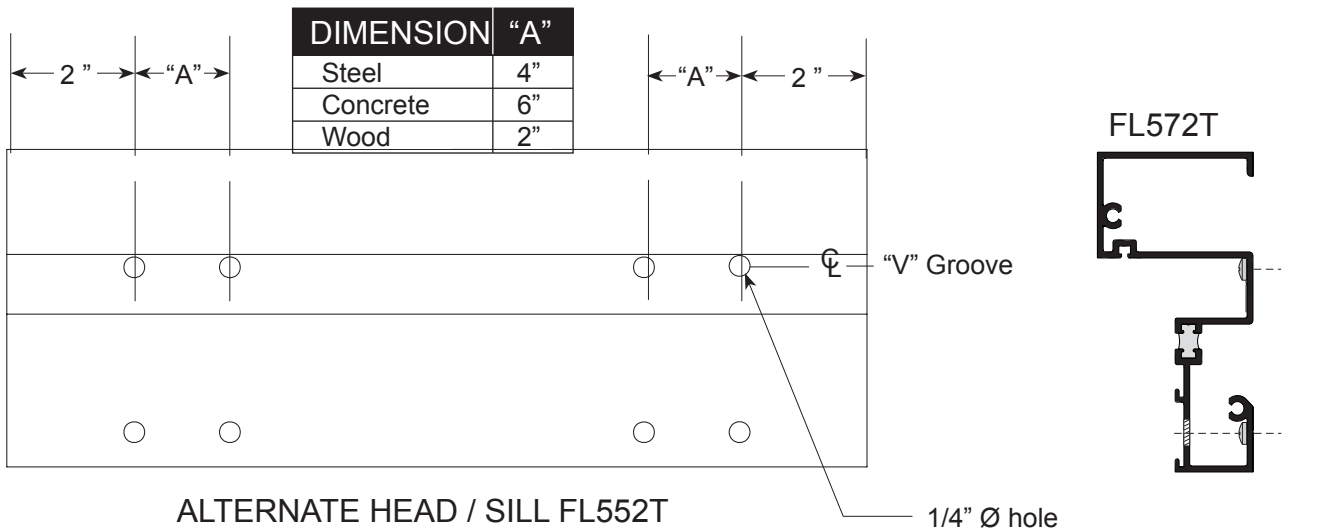
STEP 4.

Fabricate head and sill anchor holes as shown, using FL500/550 Punch Die Set or drill.

Number of anchor holes required is based on substrate material conditions. Reference CAP anchor charts, (Pages 44-47) for number of anchor holes and locations for various substrates. First hole is always 2" from end. Each additional fastener hole is at required minimum spacing "A" between fasteners as shown in fastener charts.



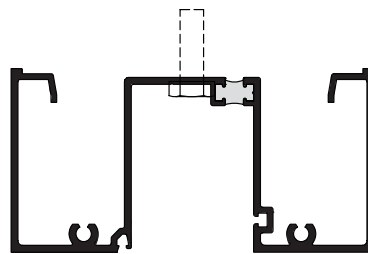
Note: Removable glass stop at head facilitates glazing of large lites.
(Reference Page 20)



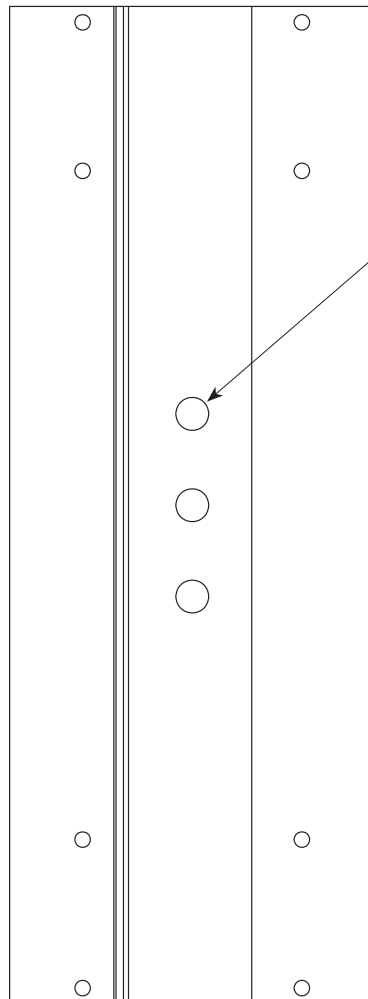
FRAME FABRICATION Wall Jamb

STEP 5.

Fabricate wall jamb for anchor holes, when required. Number of anchors required is dependent on mullion length and substrate material. Reference CAP Anchor Chart, (Pages 45-48).



FL571T



Compare charted anchor hole locations with intermediate horizontal dimensions on shop drawings. Should charted anchor holes be shown at same location as intermediate horizontal, then drill holes directly above or below horizontal to avoid fastener installation interference.

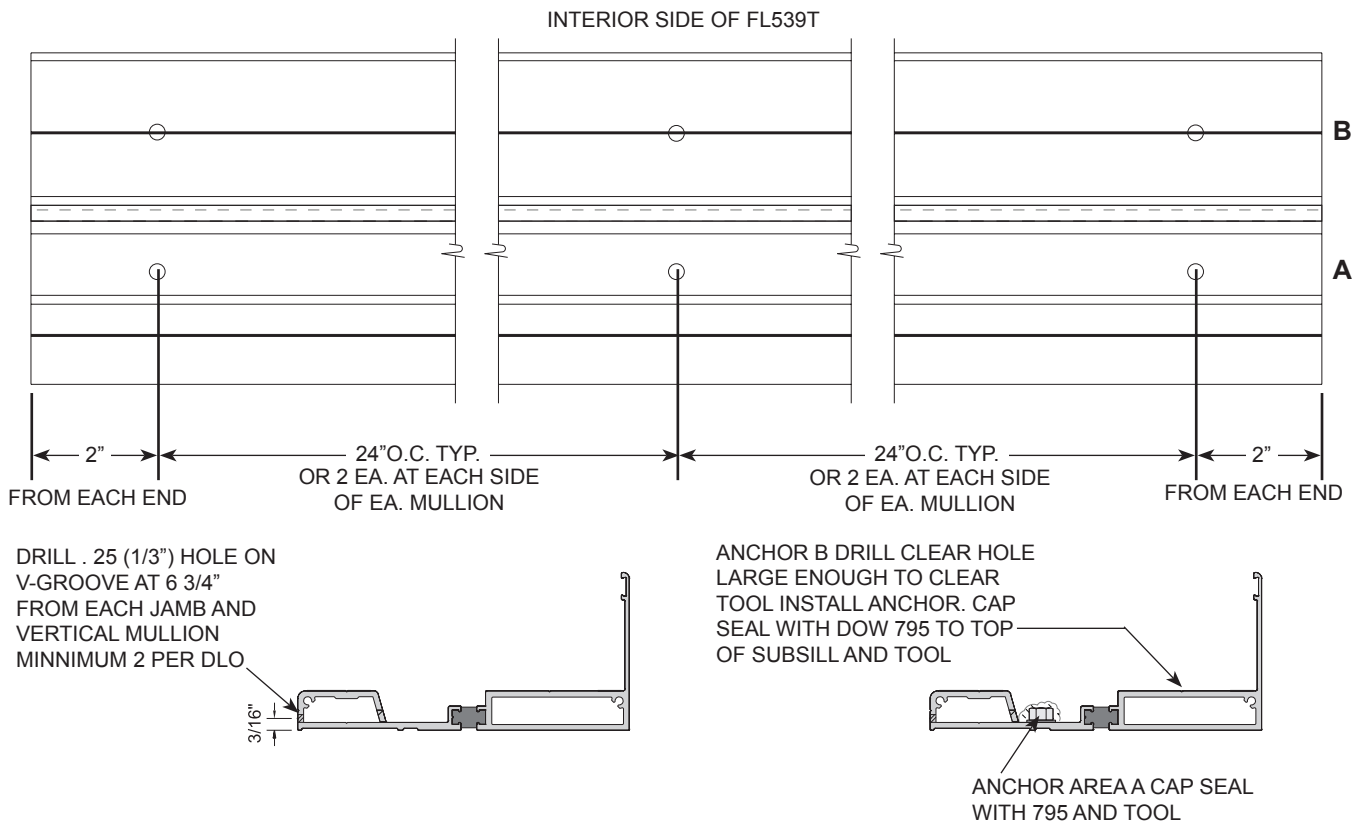
Note: Locate anchors as close to charted dimensions as possible.

Wall Jamb

FRAME FABRICATION Subsill Flashing

STEP 6.

Fabricate FL539T subsill flashing for end dams and non-structural fastener holes. Hole location dimensions for non-structural fasteners in subsill are approximate.

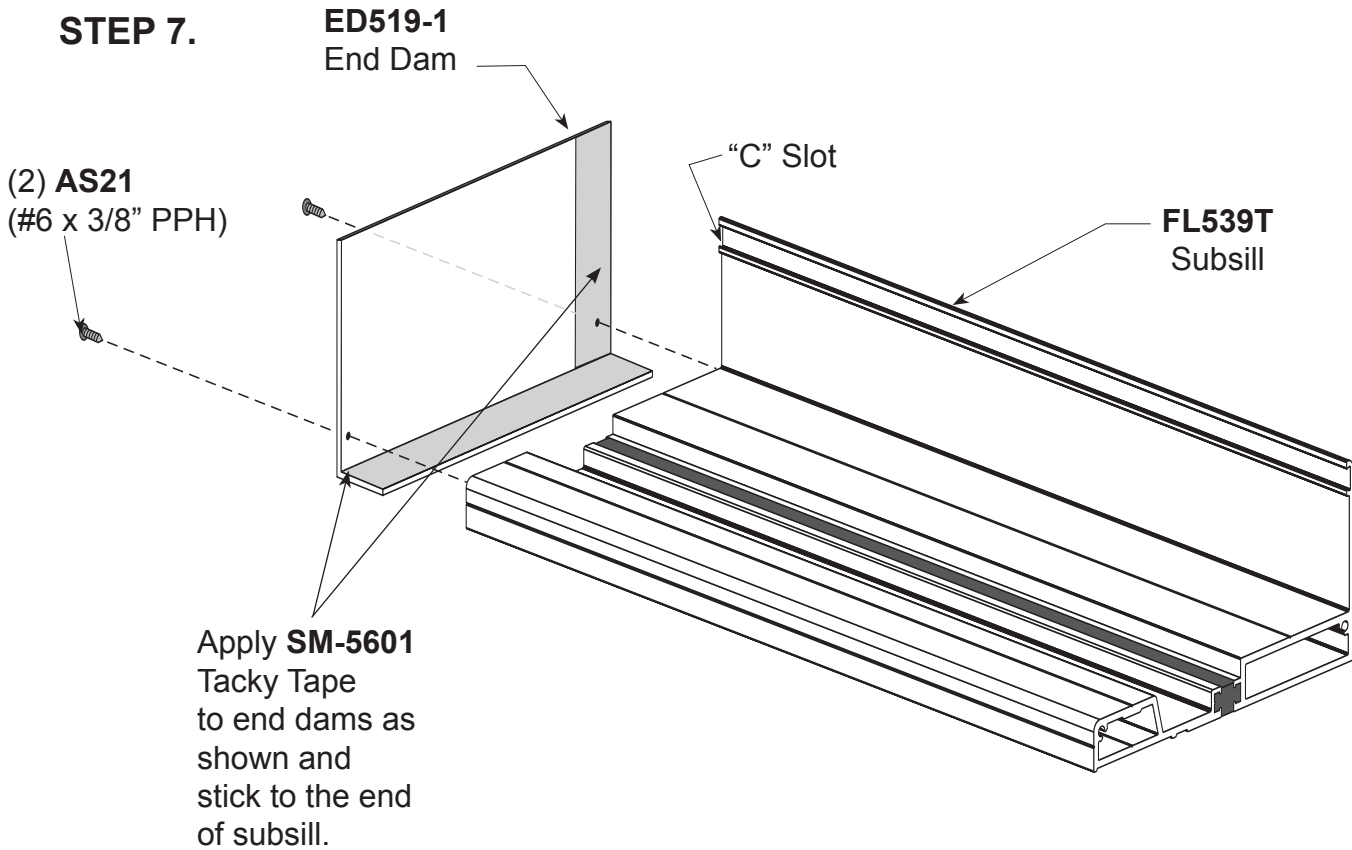


See Page 18 for subsill abutting door jamb.

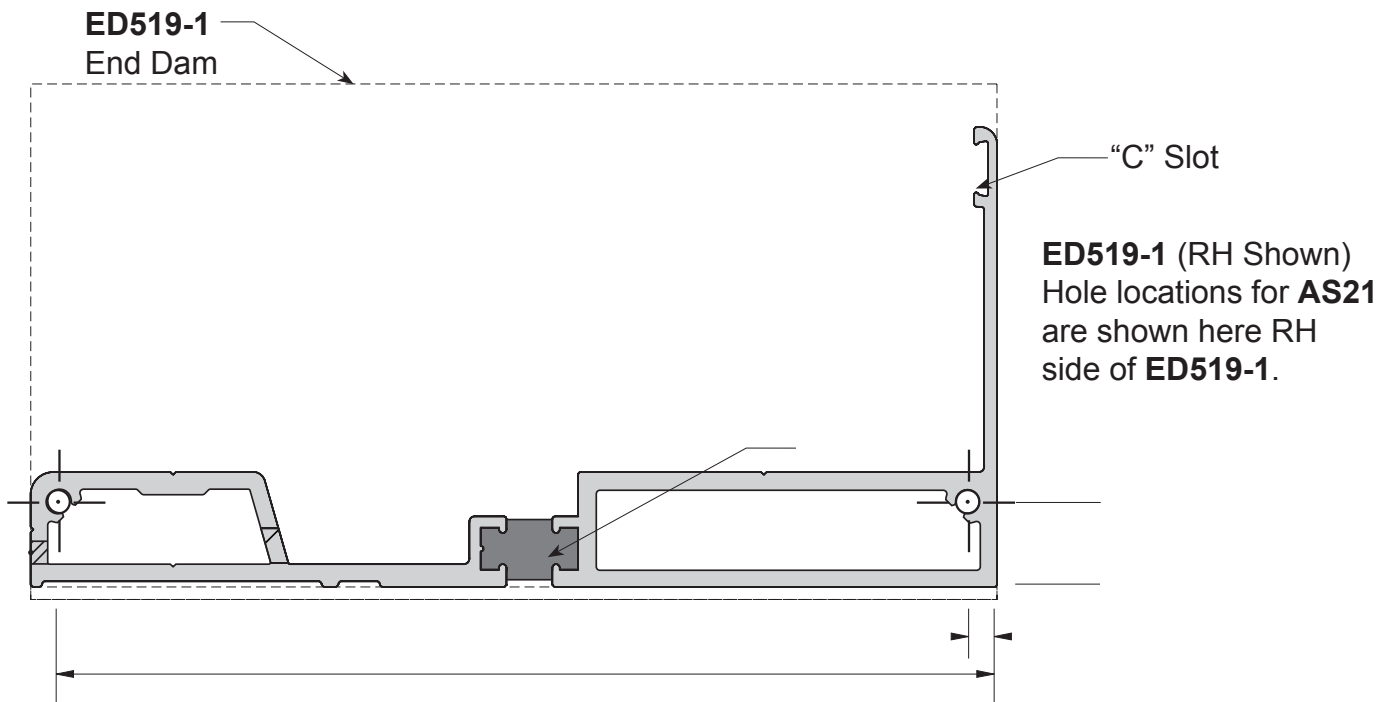
1. Drill 3/16" dia. hole for non-structural fasteners used for temporarily attaching subsill to substrate as shown. Repeat this hole pattern for each additional 12'-0" of length or as required until structural fasteners are installed.

FRAME ASSEMBLY End Dam Attachment to Subsill

STEP 7.



Note: Reference Page 18 for subsill abutting the door jamb where entrance doors occur.



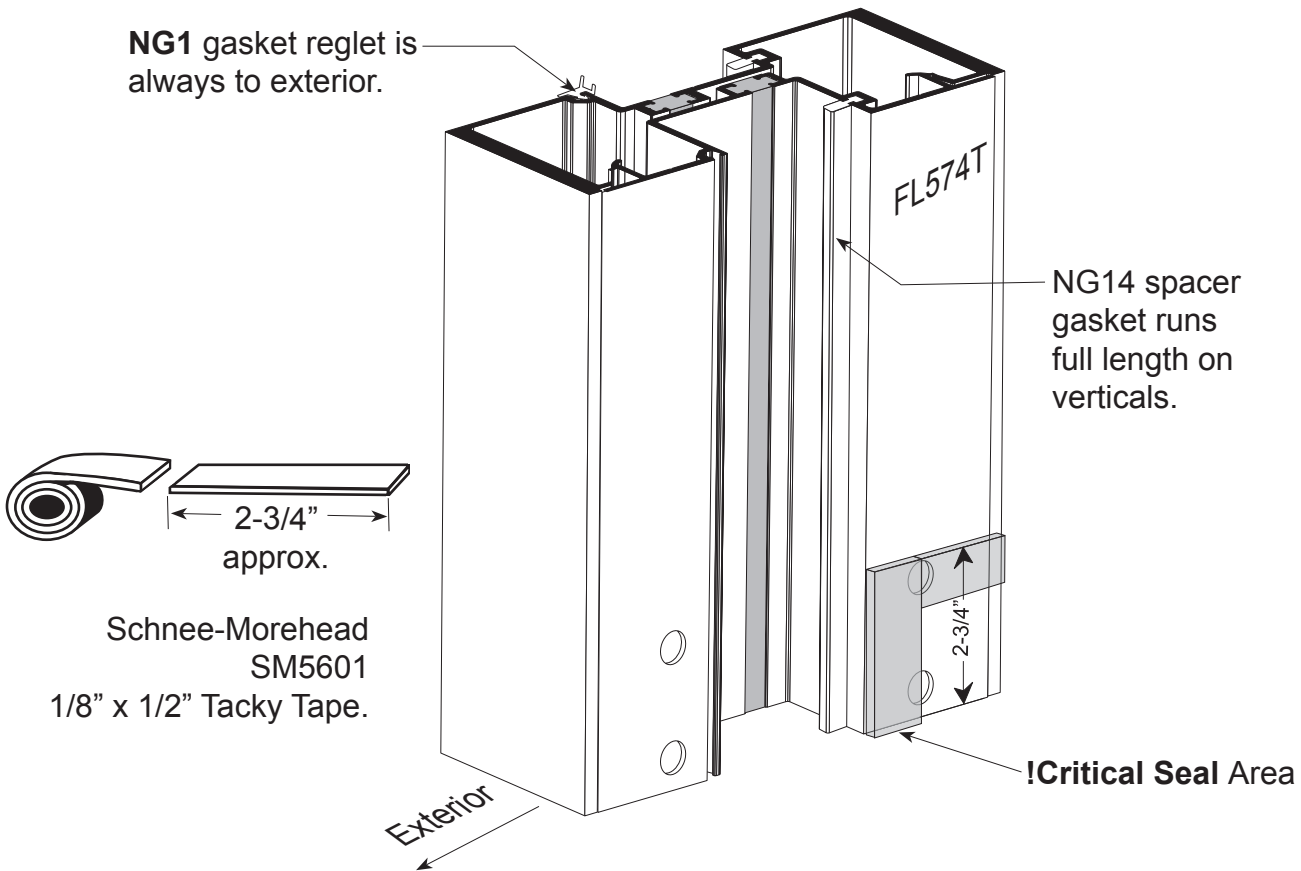
FRAME ASSEMBLY Joinery Tape Application

STEP 1.

GLAZING TAPE INSTALLATION PROCEDURES:

Ref. Step 2 for location.

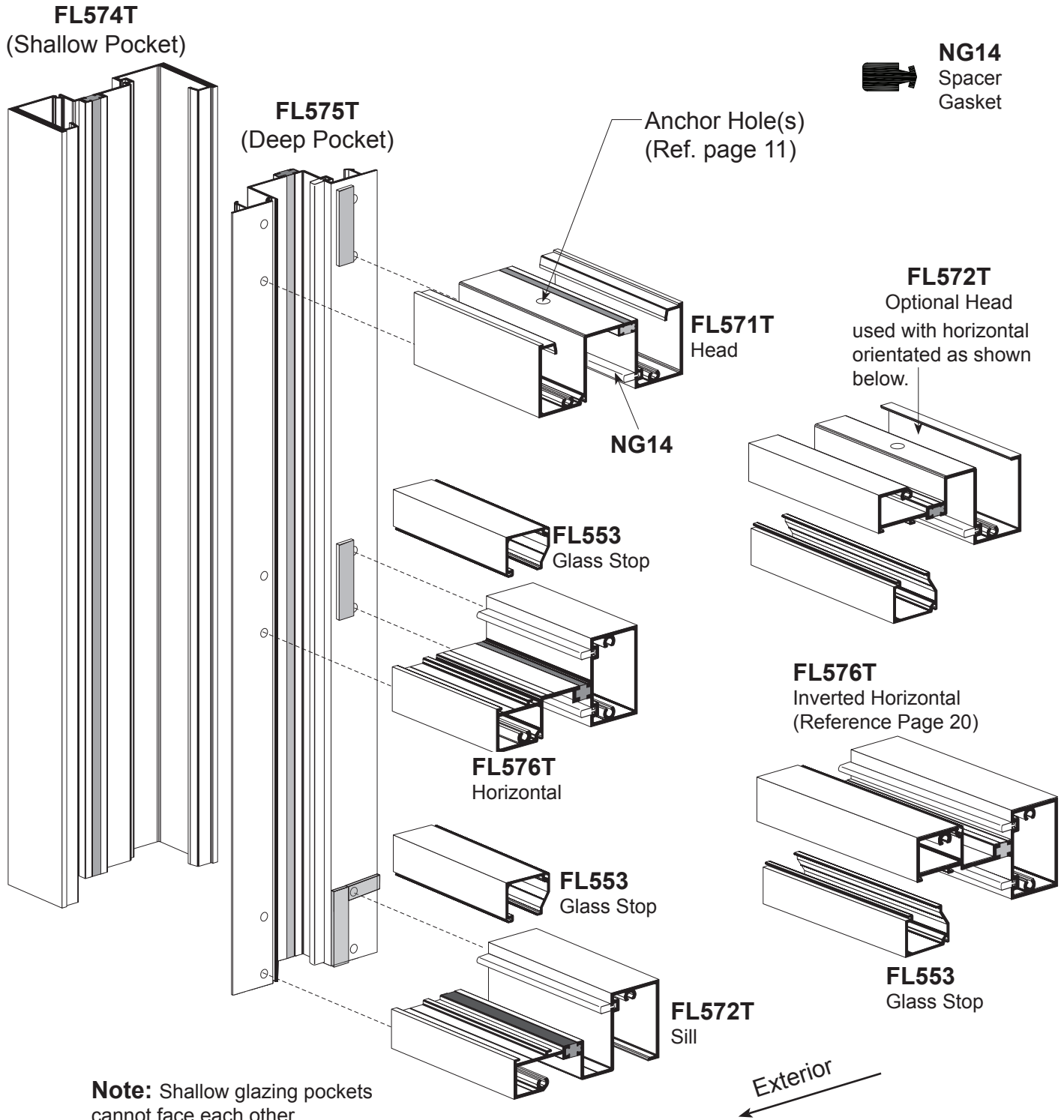
1. Cut **SM5601** 1/8" x 1/2" Tacky Tape approximately 2-3/4" long.
2. Clean surfaces where tape is to be applied with isopropyl alcohol or solvent to remove all dirt and cutting oils. Allow surface to dry before applying tape.
3. Position tape on vertical mullions at horizontal joint intersections, as shown on Page 16.
4. Just prior to frame assembly, remove protective cover and screw joints together.
5. Use a box knife to trim excess sealant tape where exposed. Do not pull tape to trim.



CAPTURED FRAME ASSEMBLY

Vertical to Horizontal Joinery

STEP 2. Install **NG14** interior spacer gaskets into vertical and horizontal members prior to frame assembly. Cut spacer gaskets to D.L.O. dimensions.

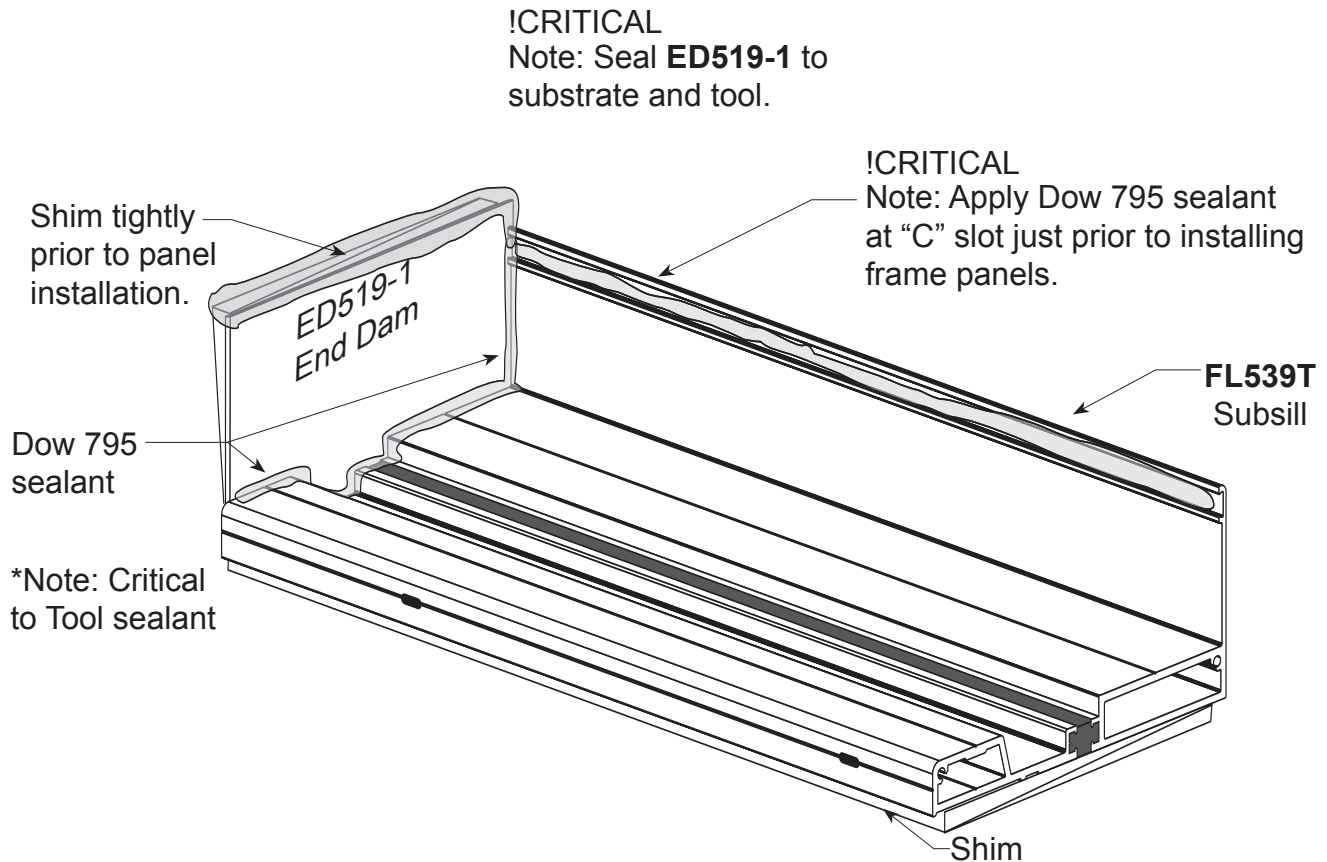


Note: Shallow glazing pockets cannot face each other.

FRAME INSTALLATION

Subsill Installation and Sealant Application

STEP 1. Position fabricated subsill with end dams into opening. Center into opening allowing shim space at jambs. (See Page 18 for openings with entrance frames).



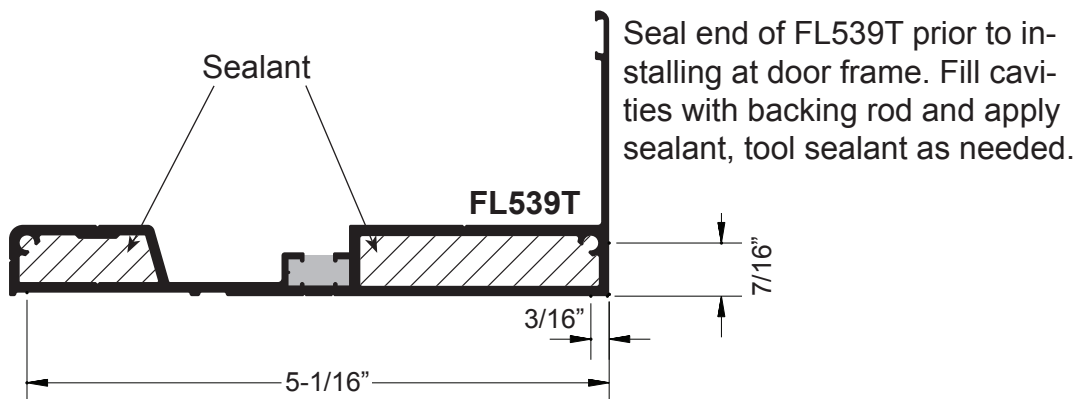
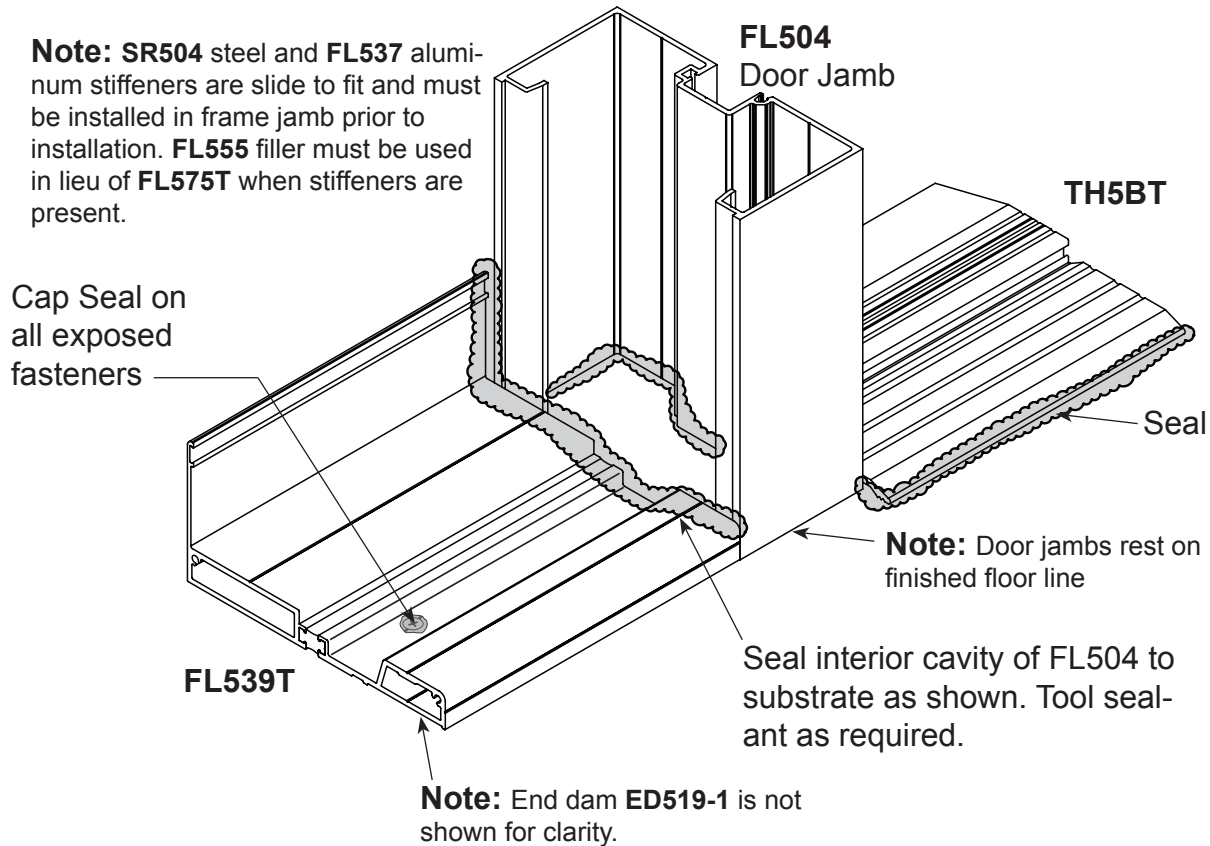
Shim beneath subsill to be a maximum of 3/4". Attach subsill flashing to structure with structural fasteners using attachment holes shown on Page 13.

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 FL539T and Substrate as shown.

Run a continuous bead of Dow 795 sealant along the full length of the subsill "C" slot as shown above just prior to installing frame panels. Do not allow sealant to harden prior to installing frame panels. Remove excess sealant after panels are installed.

ENTRANCE DOOR FRAME INSTALLATION With Subsill for Sidelights

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



FRAME INSTALLATION

Panelized Assembly

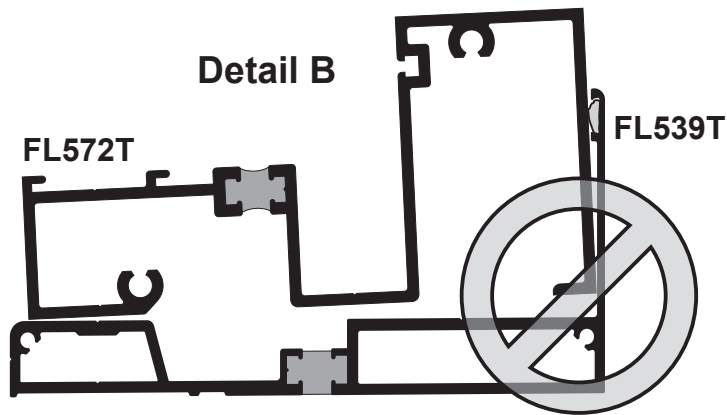
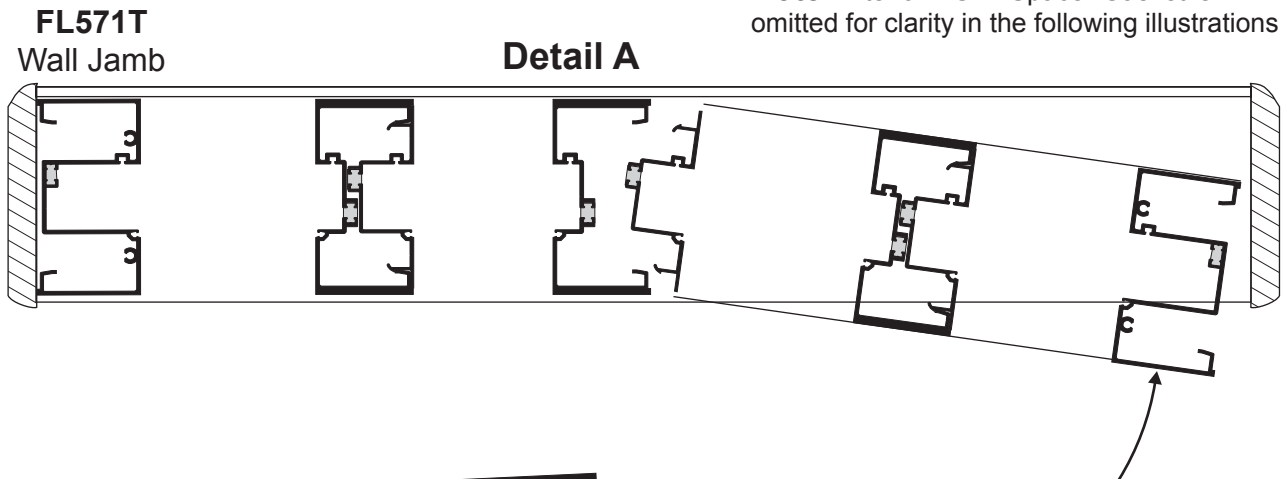
STEP 1.

Install assembled frame panels into opening starting with jamb and continue working toward the last bay. Reference illustrations shown below.

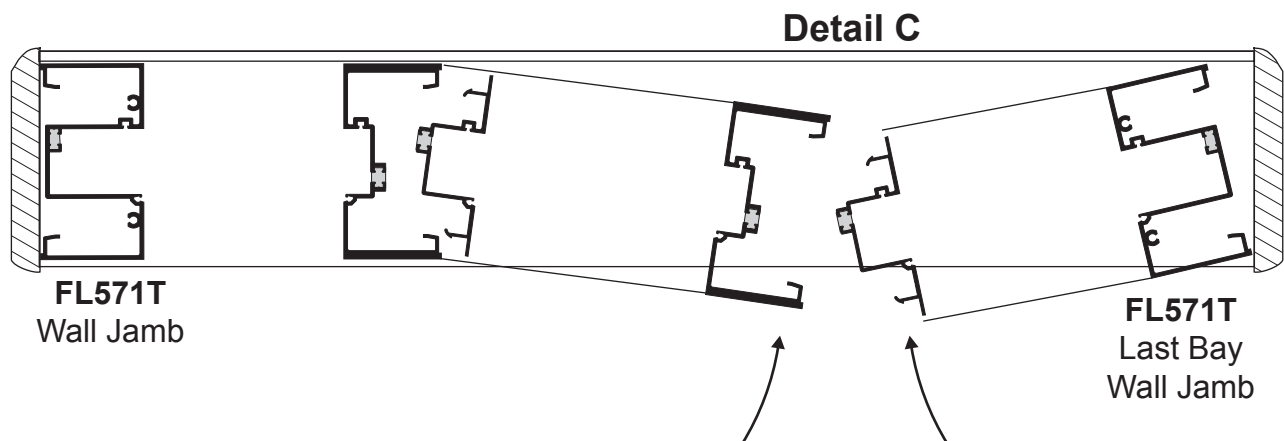
Use option "A" or "C" as required.



Note: Interior NG14 Spacer Gasket is omitted for clarity in the following illustrations



Note: Make sure FL572T is positioned flush at the bottom and not on an angle as shown in Detail B.



FRAME INSTALLATION

Panelized Frame Attachment to Substrate

STEP 2.

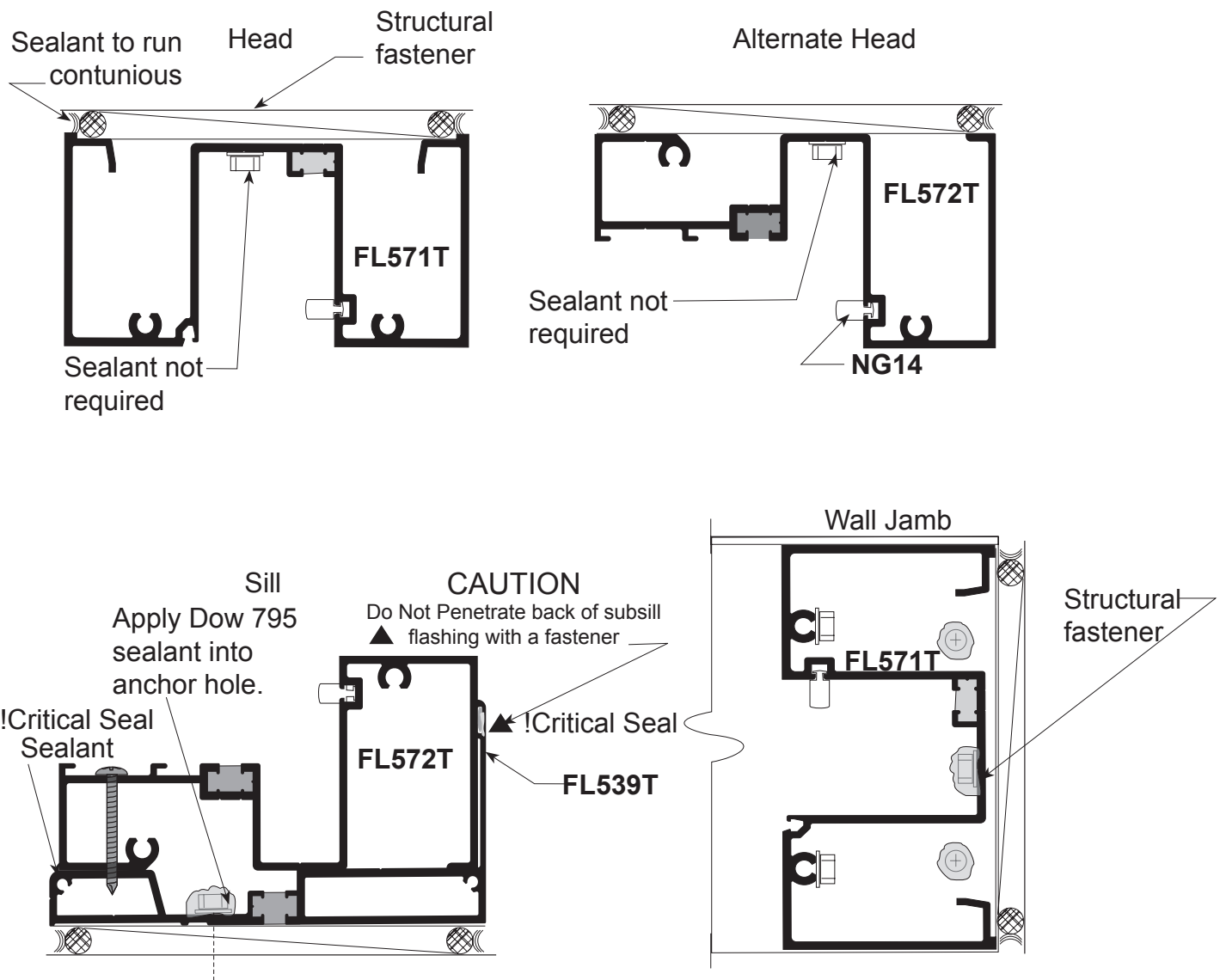
Shim beneath subsill as required at fasteners. Match drill holes through sill into FL539T Subsill for perimeter fasteners. Match drill holes in head and wall jamb into substrate. Shim and anchor panels to substrate.



NG14
Spacer
Gasket

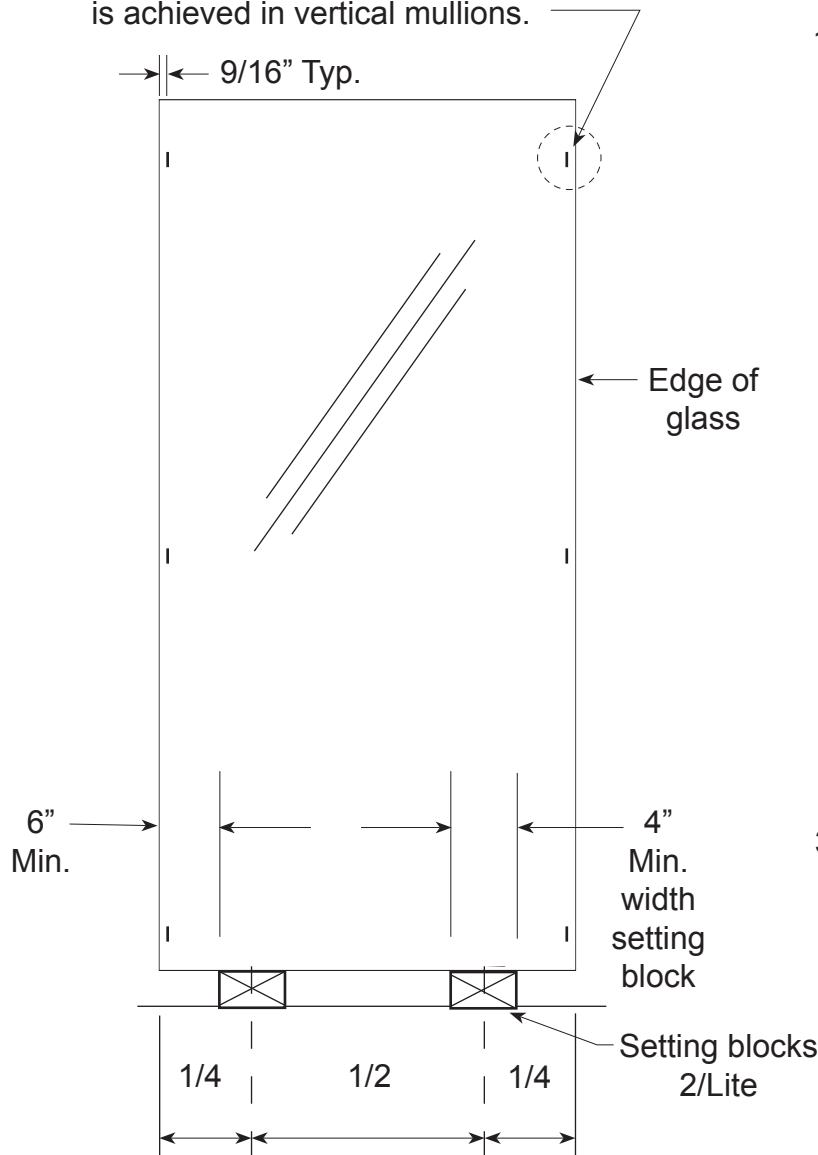
STEP 3.

Completely seal exterior and interior perimeter with a continuous bead of Dow 795 sealant.



PREPARATION OF FRAME OPENING FOR GLASS

Note: Mark glass as shown with 1" long reference lines to ensure proper glass bite is achieved in vertical mullions.



1. Prepare the frame opening by removing all dirt and debris from the glazing pockets and gasket reglets.
2. SETTING BLOCKS
Glass should be set on two identical setting blocks, part number SB15. The preferred location is at the 1/4 points.

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.

DEFLECTION

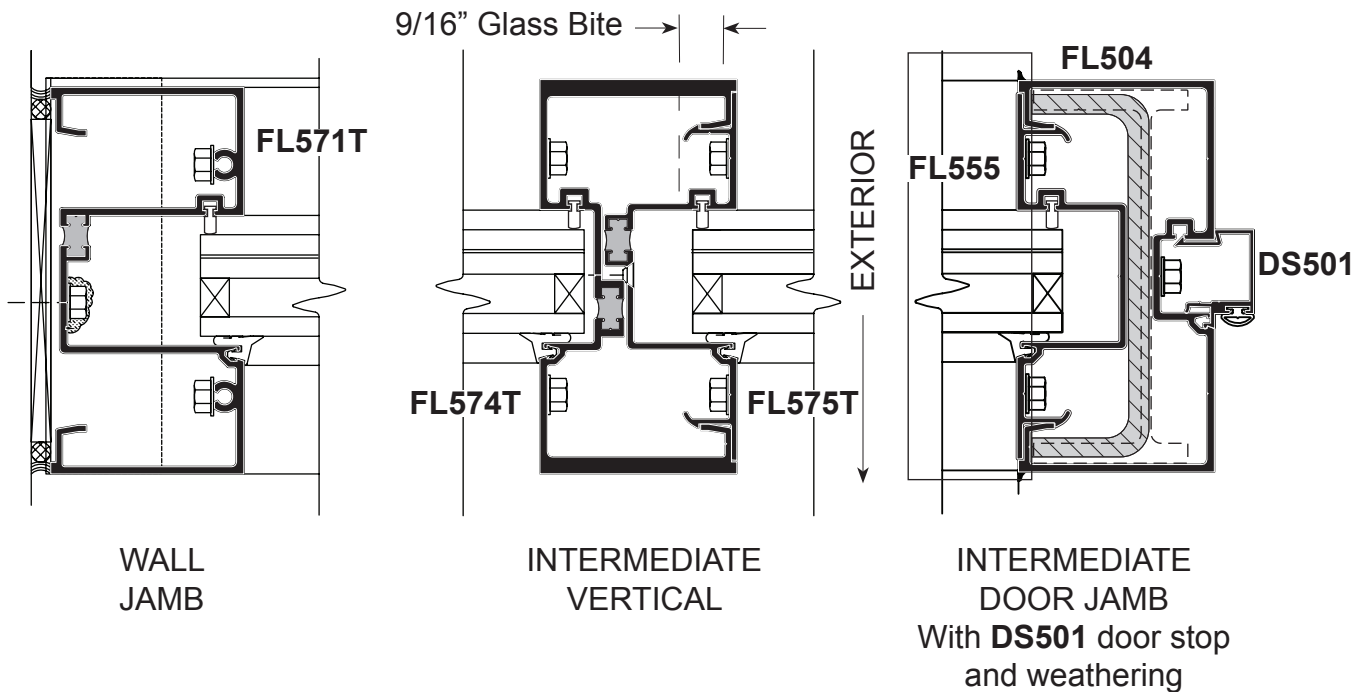
3. The intermediate horizontal must not exceed 1/8" and a door header is limited to 1/16". Check deadload charts for proper setting block locations.

GLASS SIZE FORMULAS

Glass Sizes for **FL550T** System:

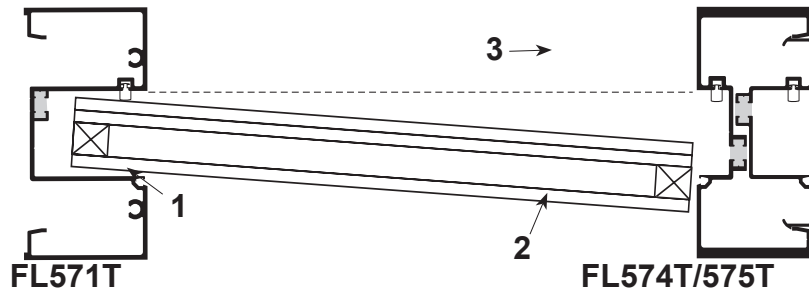
Glass Width and Height = D.L.O. + 1-1/8"

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

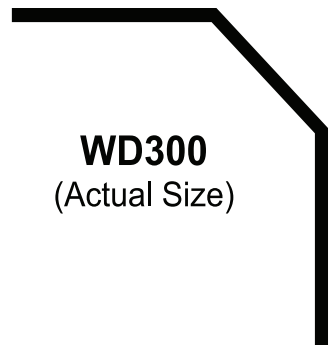
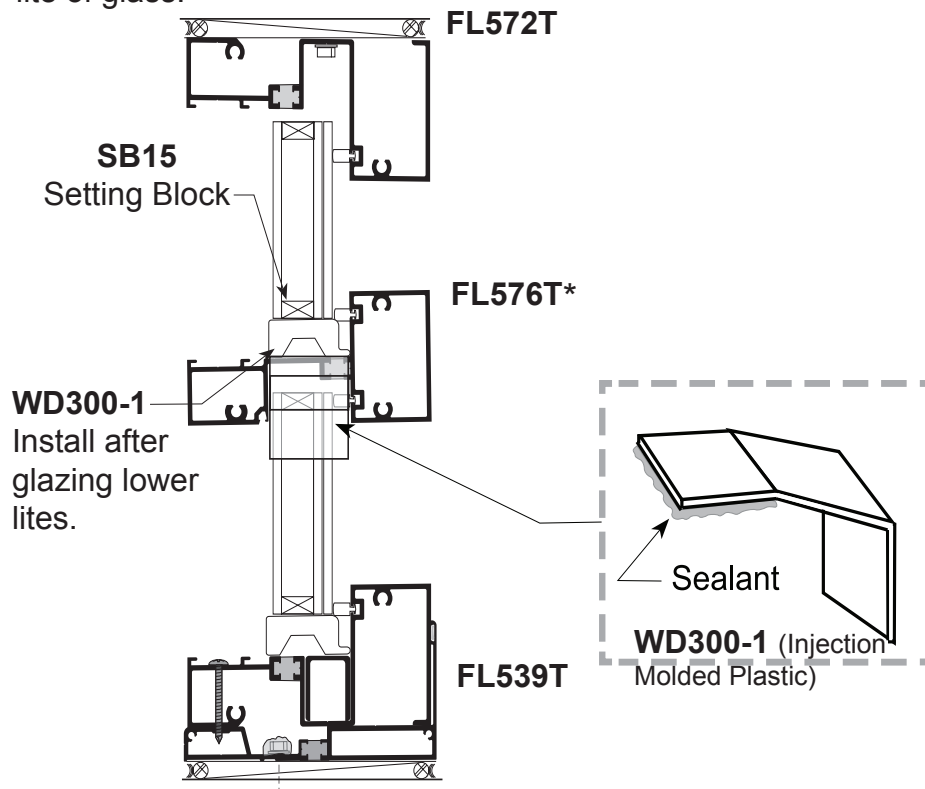
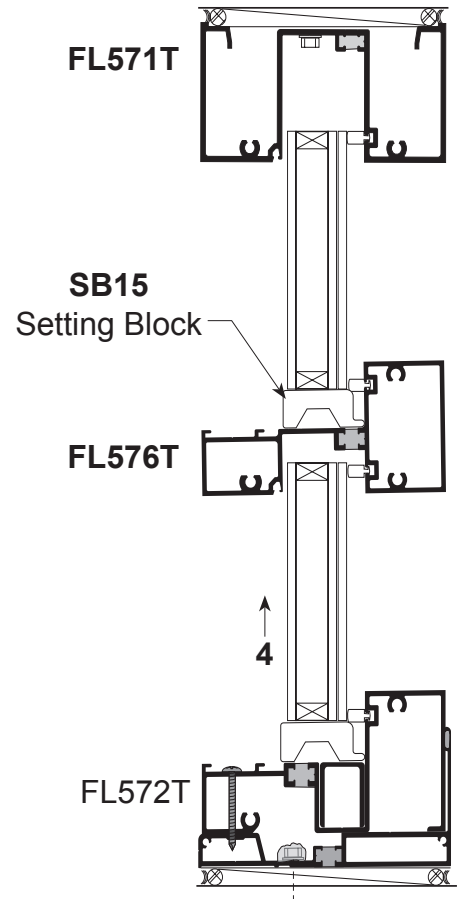


GLAZING

NG14 Spacer Gasket



1. Make sure **NG14** spacer gaskets are installed.
2. Prepare frame openings for glass as instructed on Page 19 and install **CS500-1** setting chairs in sill.
3. Glaze from bottom to top following the four step procedure shown.
4. Center glass into opening making sure proper glass penetration is achieved. Rest glass on setting blocks and press tightly against **NG14** gasket.
5. Apply Dow 795 or 995 sealant to one end of **WD300-1** Water Diverter and position at each end of horizontal, as shown, after glazing lower lite. Tool sealant on **WD300-1** prior to setting upper lite of glass.

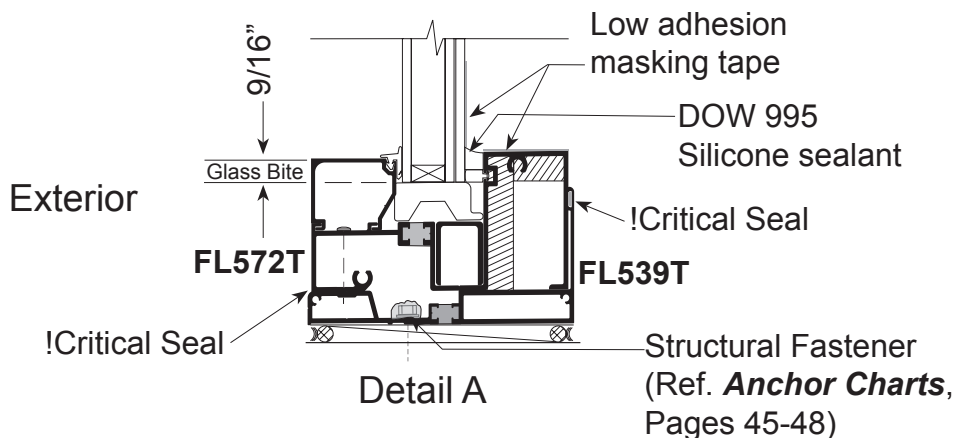
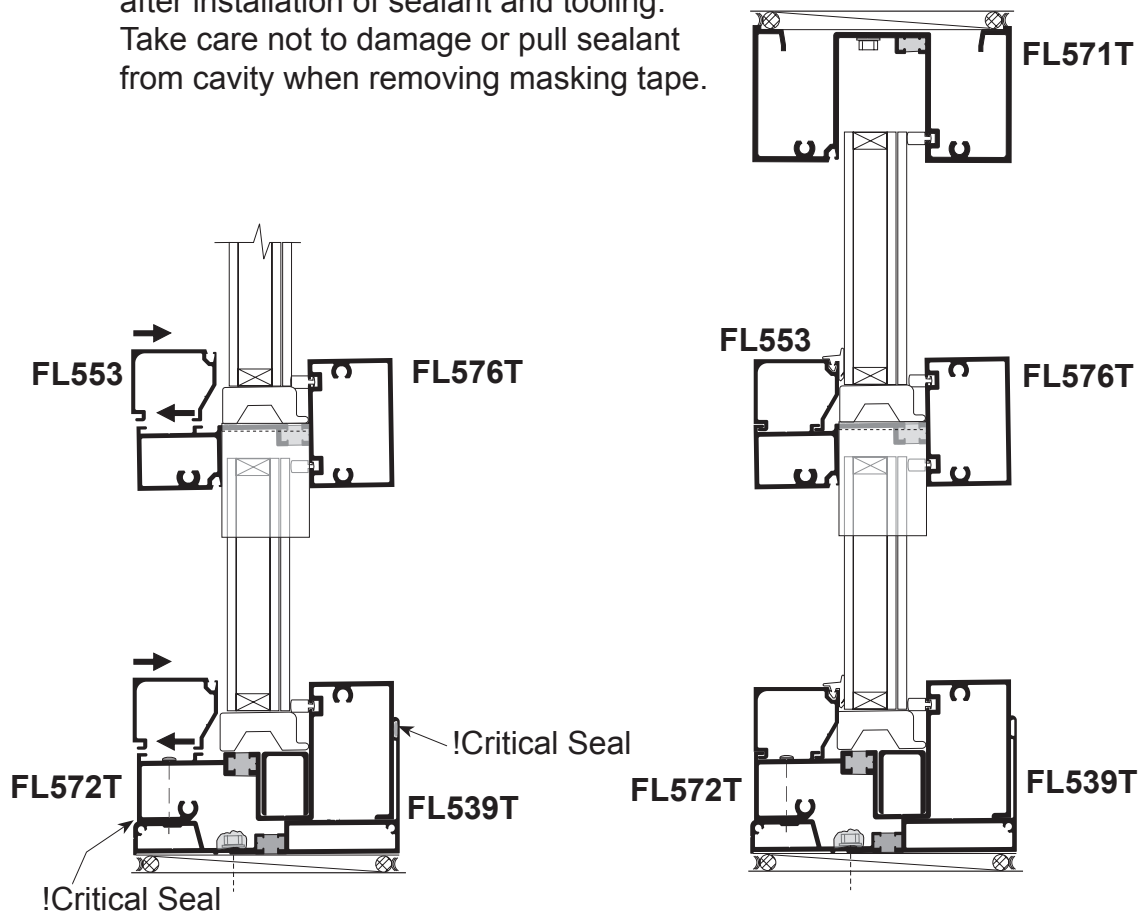


GLAZING

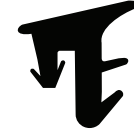
6. Continue glazing following the four step procedure.
7. Install FL553 hook-in glass stops as shown.
8. Prepare NG1 top load gaskets and install as instructed on Page 25.
9. Mask off glass and aluminum with 2" wide low adhesion masking tape. Fill cavity with Dow 995 sealant as shown, Detail "A" and tool. Remove masking tape immediately after installation of sealant and tooling. Take care not to damage or pull sealant from cavity when removing masking tape.



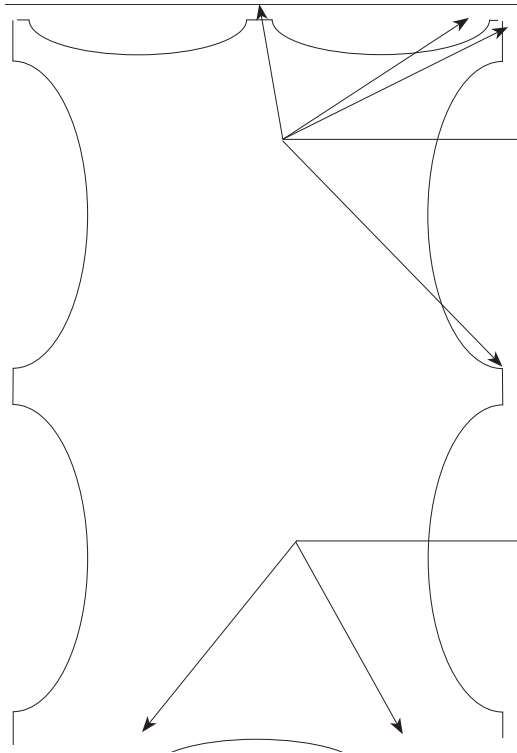
NG1
(Actual Size)



INSTALLATION OF TOP LOAD GLAZING GASKETS



NG1
(Actual Size)



Detail A

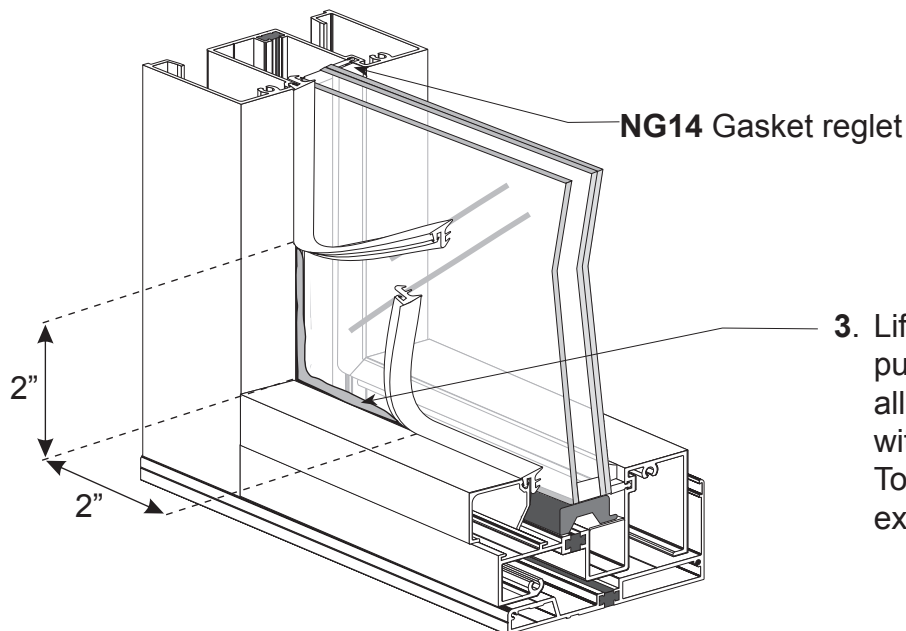
Start jamb and head gaskets at corners and center.

Start gaskets at setting blocks

1. Cut NG1 gaskets a minimum of 3/16" longer per foot than aluminum extrusion.

2. Do not stretch gaskets to make them fit.

It is very important that gaskets are installed correctly as shown in Detail "A", to prevent shrinkage at corners.

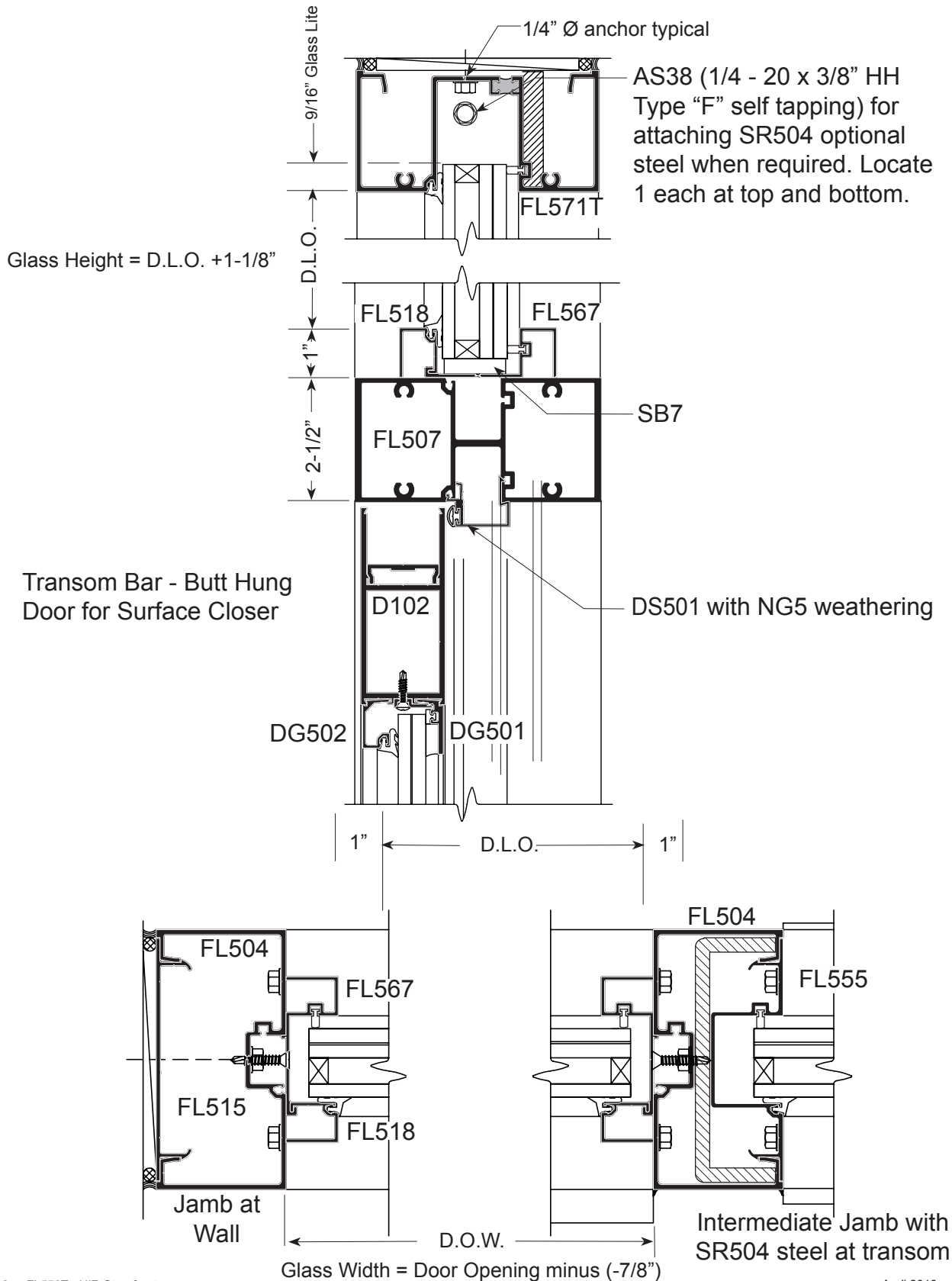


3. Lift NG1 exterior gaskets and pull back 2" in both directions at all corner intersections & seal with DOW 795 or 995 silicone. Tool sealant and remove excess.

TRANSOM GLASS SIZE FORMULA

FT5 Frame for Butt Hung Door for Surface Closer

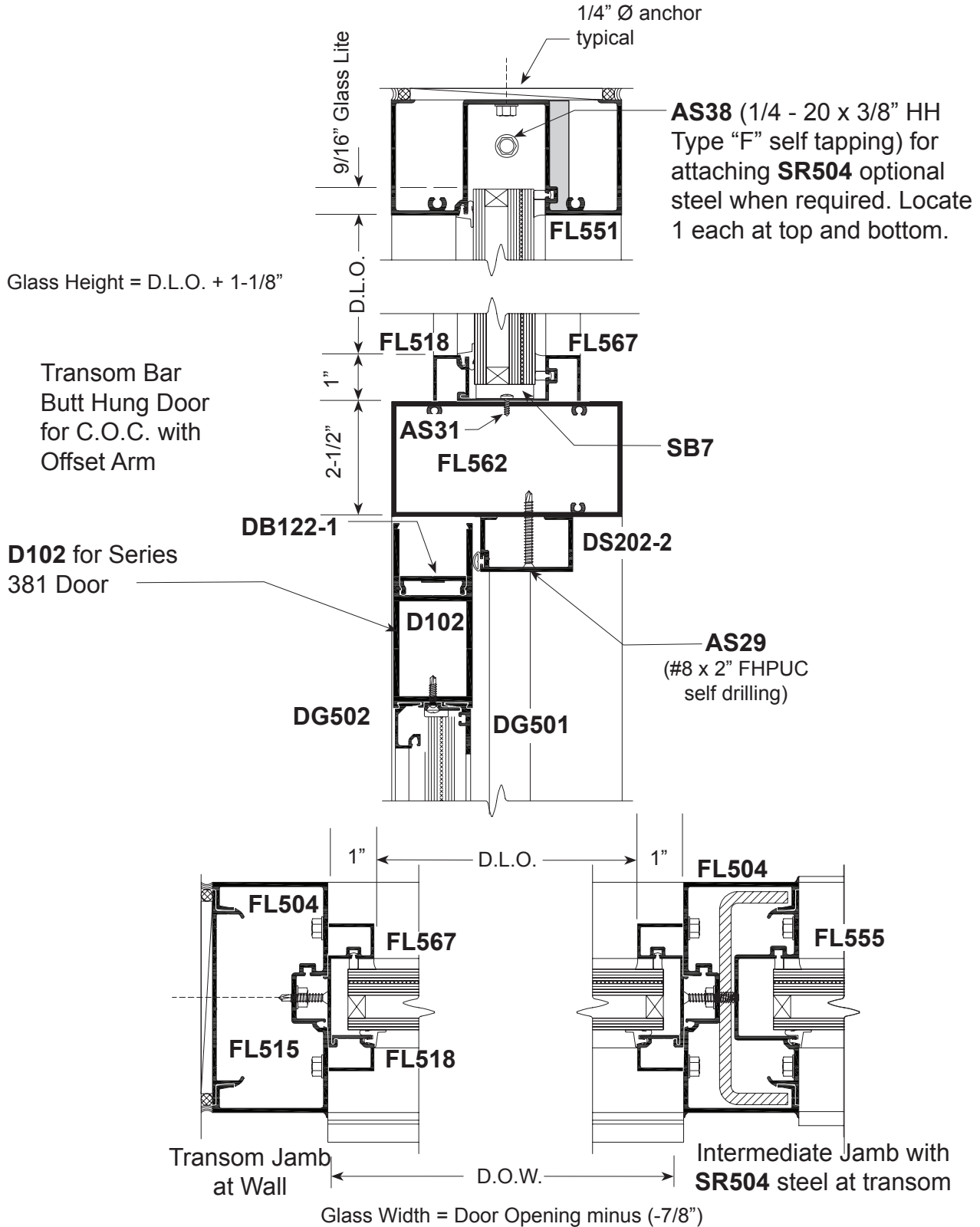
(See Glazing for Glass Installation)



TRANSOM GLASS SIZE FORMULA

FT5 Frame for Butt Hung Door with C.O.C.

(See Glazing for Glass Installation)



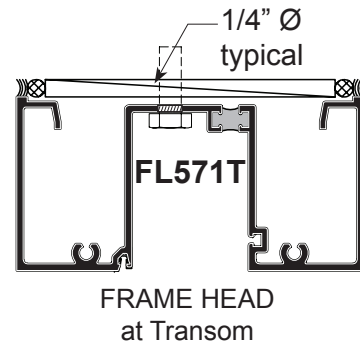
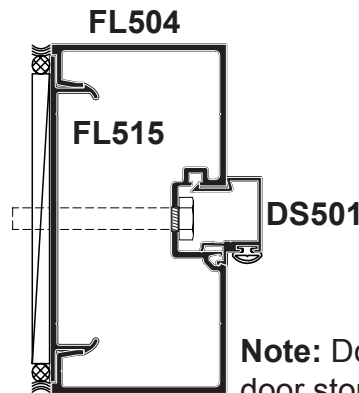
TYPICAL ASSEMBLY & INSTALLATION For F5 or FT5 Door Frames

ASSEMBLY:

Note: See INSTALLATION, Item 1 below.

1. Verify opening size. Allow for 1/4" minimum sealant space at jambs and frame head.
2. Reduce frame transom height when required. Use drill jig for drilling spline hole locations for frame head.
3. Attach TH403 threshold clips to jambs using AS24 fasteners.
4. Assemble head and transom bar to jambs as shown.
5. Install FL567 sash with NG14 gasket in transom.

TYPE "FT" FRAME



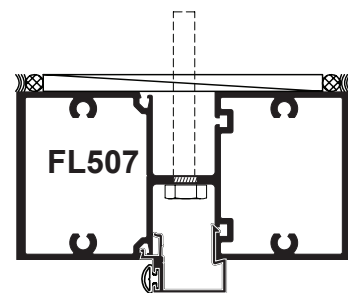
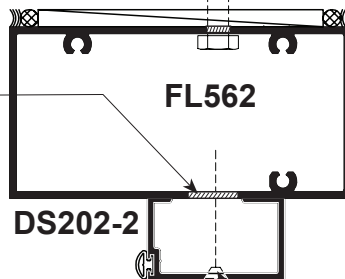
Note: Do not attach DS501 and FL517 door stop and transom sash until frame has been anchored to substrate.

TYPE "F" FRAMES

For C.O.C. with offset arm

For Surface Closer

3/4" Ø Access Hole for 1/4" Ø fastener

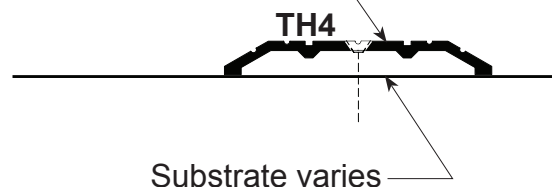


AS29
(#8 x 2" FHPUC self drilling)

INSTALLATION:

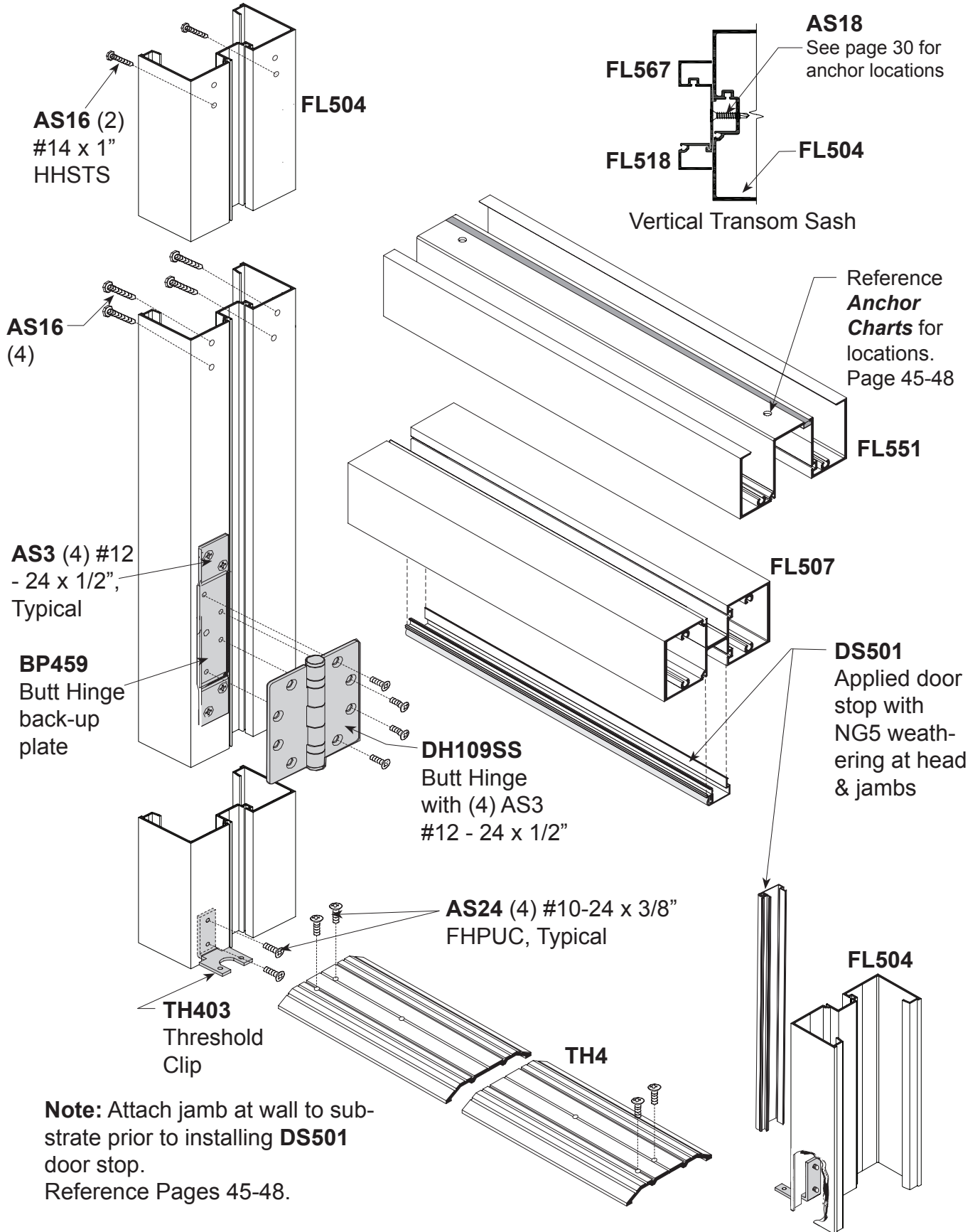
1. Drill 1/4" Ø anchor holes in wall jamb and frame head as shown on Anchor Charts, (Pages 45-48), prior to assembly.
2. Set frame plumb and square into opening.
3. Anchor frame to substrate with fastener types as shown in anchor charts.
4. Install DS501 door stop with NG5 weathering to jambs and transom bar or door header. ***NOTE**
5. Position setting blocks in door header at quarter or eighth points as required and glaze transom. Glazing sash is required in transom.

Field fabricate holes in locations as shown in anchor charts and anchor threshold to substrate. (Ref. Pages 45-48).

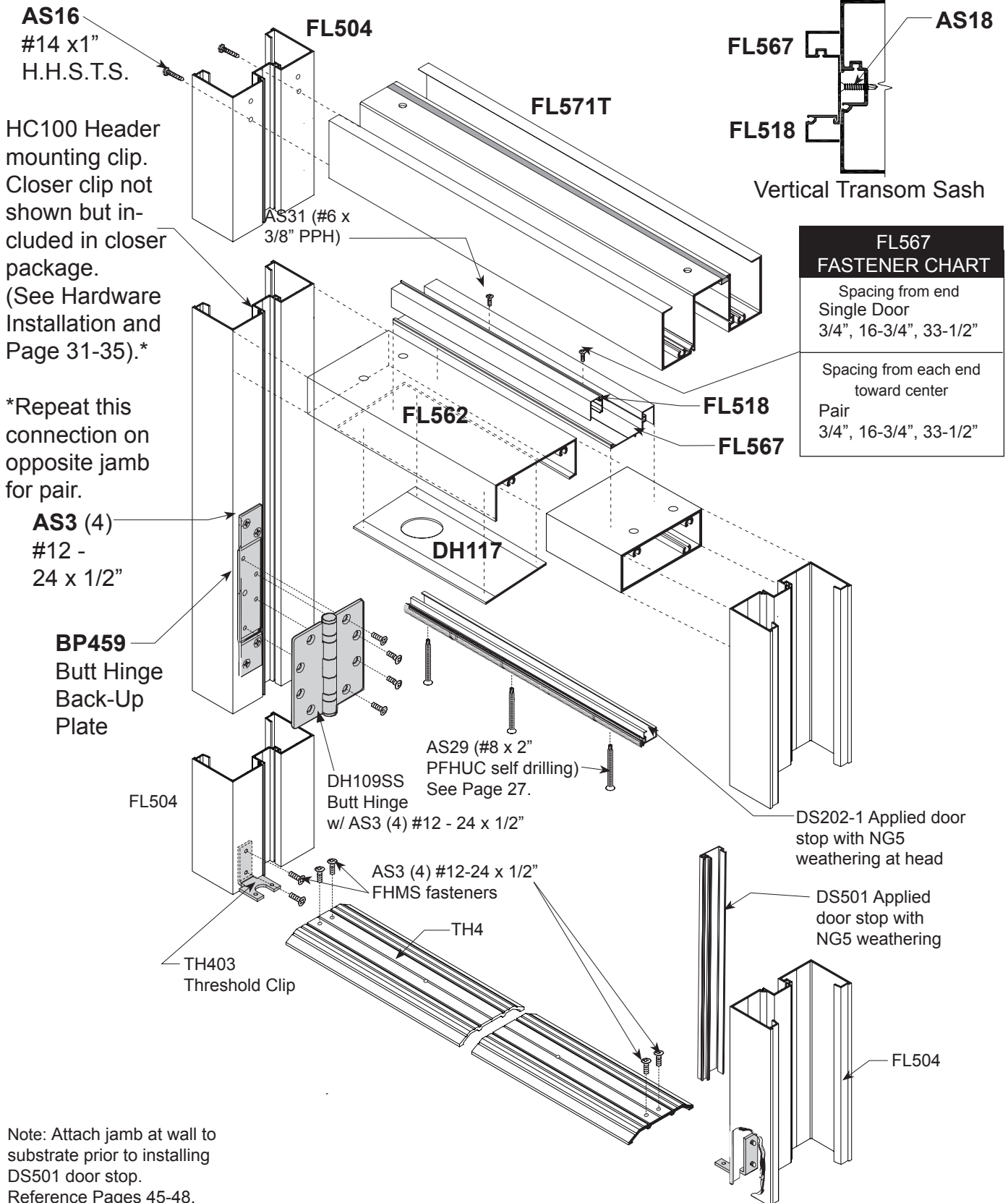


***NOTE:** DS501 is a snap in part and may have a loose fit, if this is the case, run DOW 795 in snap groove area and wipe off excess.

F5 or FT5 FRAME with Transom - Butt Hung Door - for Surface Closer



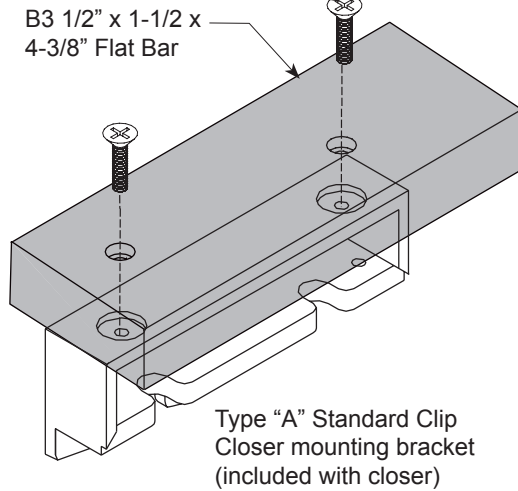
F5 or FT5 FRAME - OFFSET BUTT HUNG DOOR - C.O.C. and Offset Arm



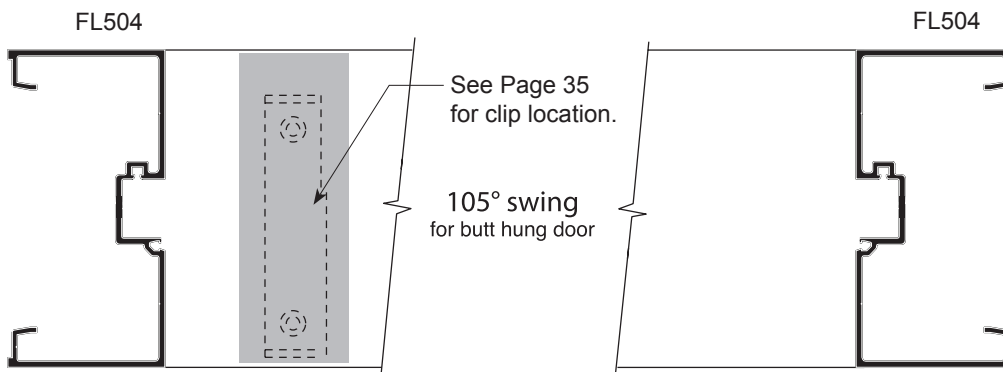
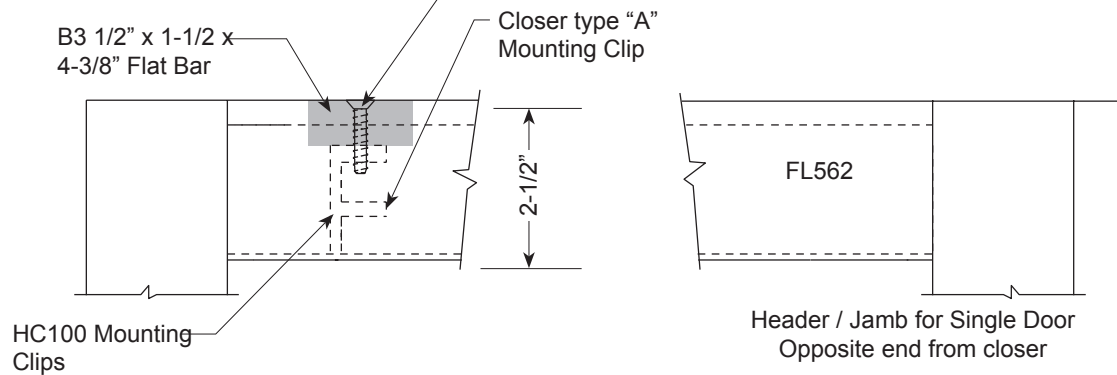
FT5 FRAME WITH FL562 HEADER for C.O.C. with Offset Arm

To mount closer into FL562 headers, a B3 1/2" x 1-1/2" flat bar is required.
For balance of header installation, see pages 32-34.

Secure closer mounting clip to header with (2) AS45 fasteners (#10-32 x 1-1/4" FH)

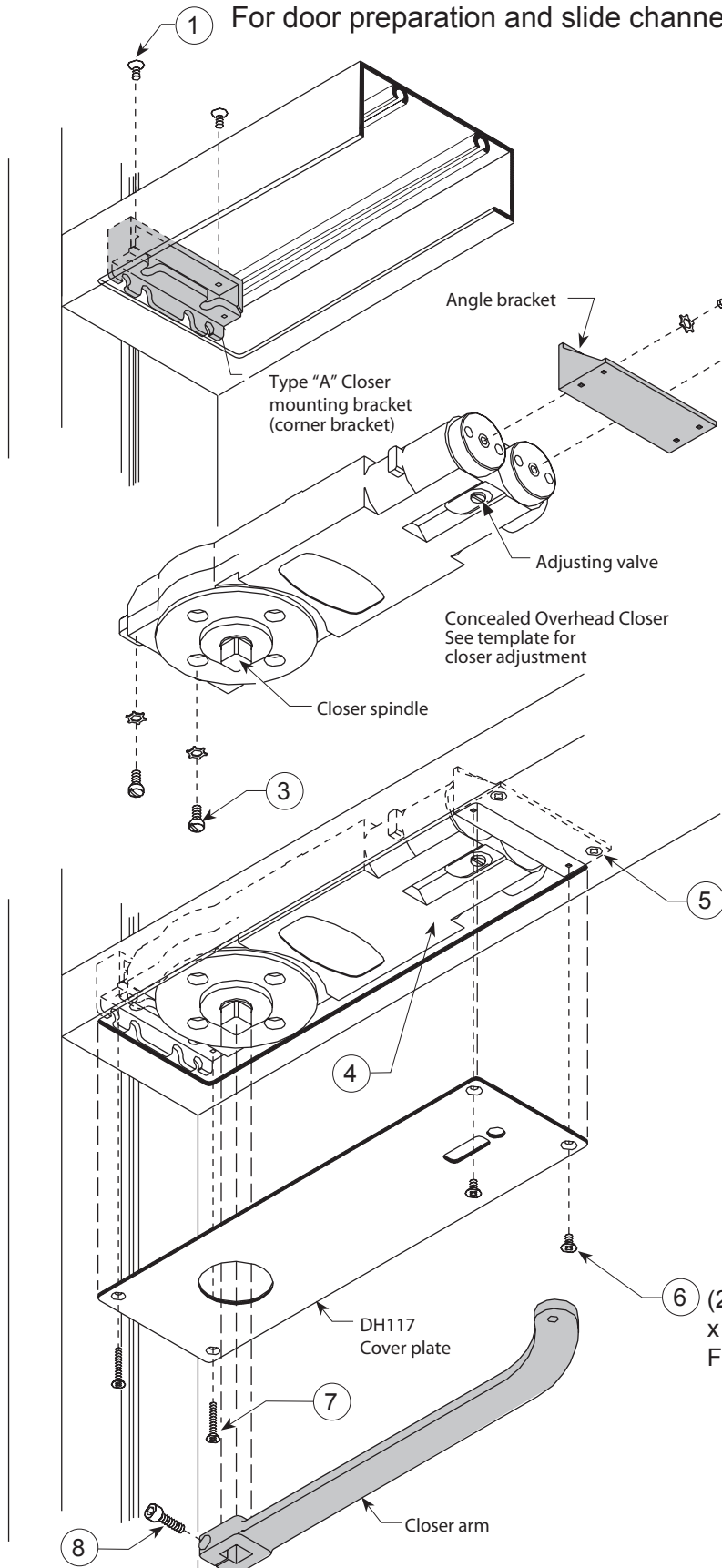


(2) AS45 fasteners (#10-32 x 1-1/4" FH)



C.O.C. FOR BUTT HUNG DOOR With 105° Swing for F5 or FT5 Frame

① For door preparation and slide channel installation, see Pages 34-35.

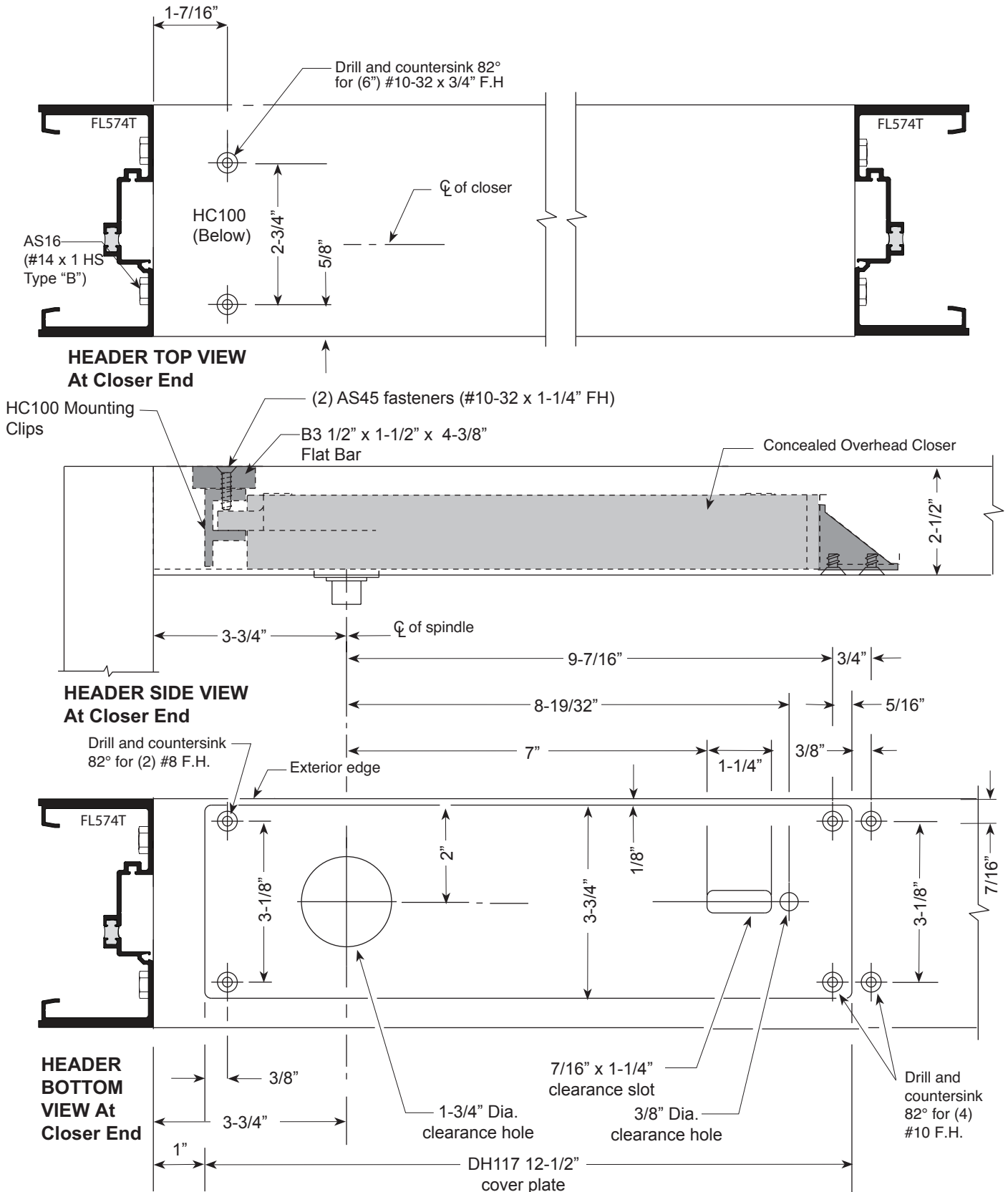


Note: Corner clips at jambs are attached prior to installing header.

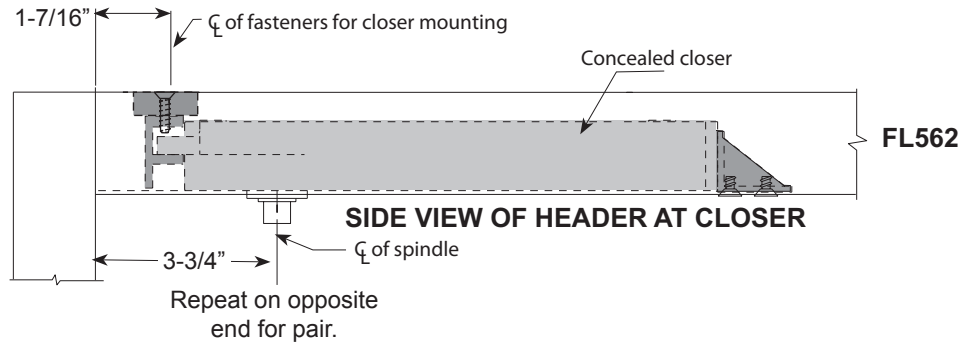
1. Mount corner clip into header with (2) AS45 10-32 x 1-1/4" FHMS. See Page 33 for clip location.
2. Mount angle bracket to closer with (2) 1/4-20 x 1/2" Hex Head M.S. and washers.
3. Install (2) 1/4-20 x 1/2" Fillister Head M.S. with washers into lugs of closer. Do not tighten screws.
4. Set closer onto header and align angle bracket holes with holes in header. Closer lugs shall rest on corner bracket.
5. Fasten angle bracket to header with (2) 10-24 x 3/8" FHMS Tighten Fillister Head screws.
6. Install cover plate and secure to angle with (2) #8-32 x 1" FHP.
7. Attach cover plate to closer at hinge side with (2) #8-32 x 1" FHMS fasteners included with cover plate.
8. Mount arm on spindle and secure with 1/4-20 x 7/8" Socket Head Cap Screw.

HEADER FOR C.O.C. - Butt Hung Door - with 105° Swing

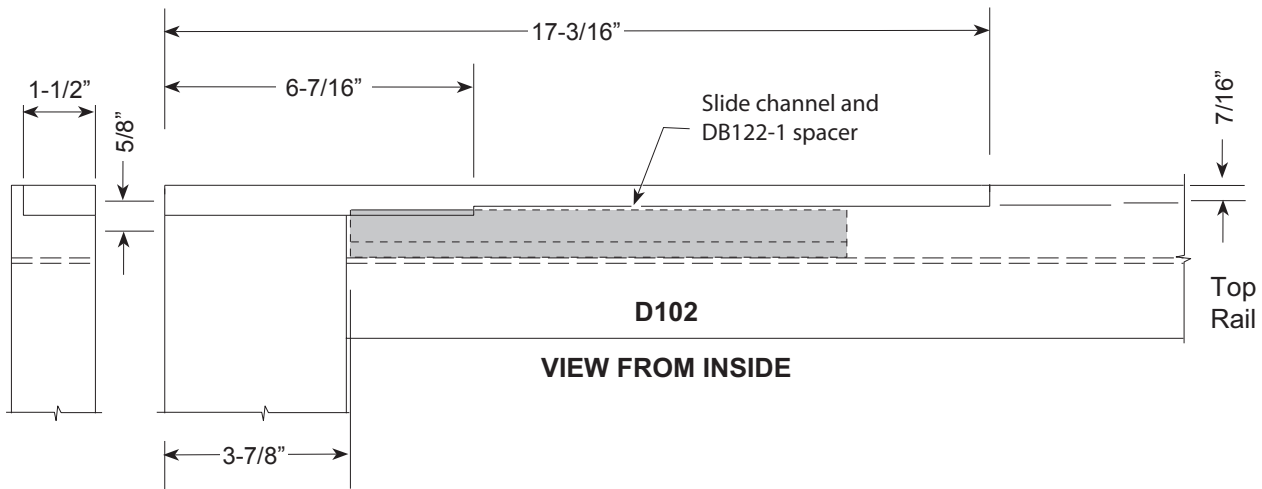
FL562 Header Preparation
FL562 2" x 5" Header requires a B3 1/2" x 1-1/2" x 4-3/8" flat bar.



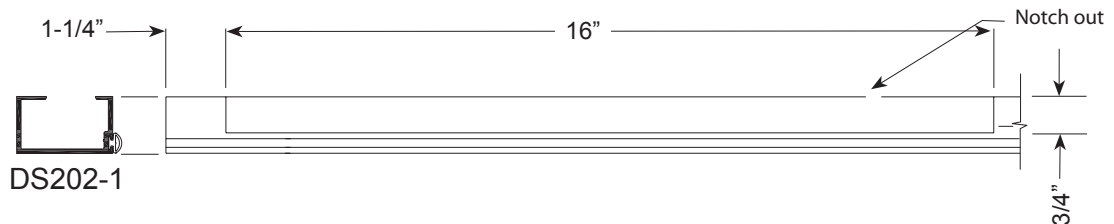
C.O.C. Closer Location in FL562 Header for 105° Swing



SLIDE CHANNEL LOCATION IN DOOR TOP RAIL FOR OFFSET ARM

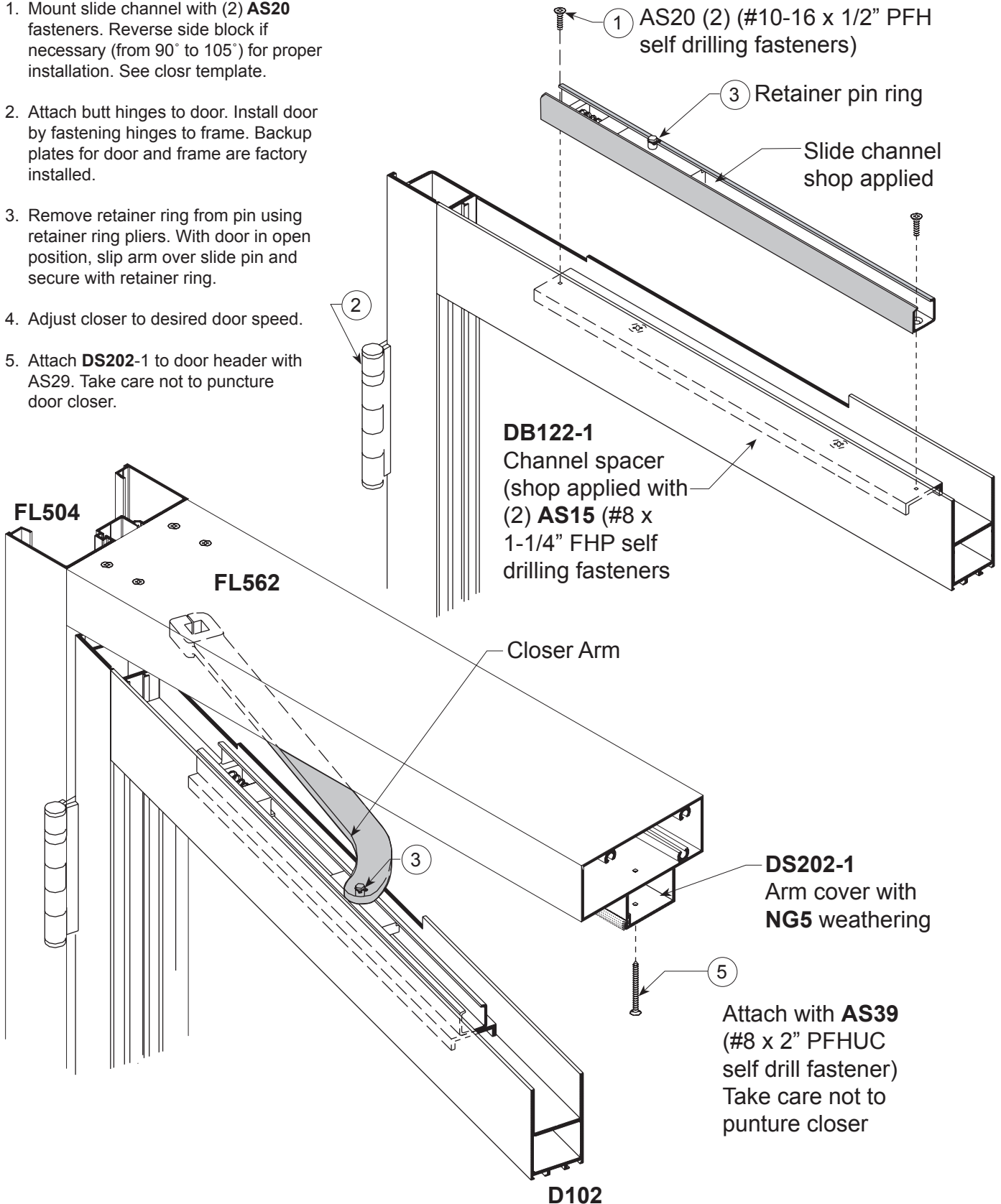


OFF-SET ARM COVER CHANNEL LEFT HAND SHOWN RIGHT HAND OPPOSITE



BUTT HINGE DOOR WITH JACKSON C.O.C. FOR 105° SWING

1. Mount slide channel with (2) **AS20** fasteners. Reverse side block if necessary (from 90° to 105°) for proper installation. See closer template.
2. Attach butt hinges to door. Install door by fastening hinges to frame. Backup plates for door and frame are factory installed.
3. Remove retainer ring from pin using retainer ring pliers. With door in open position, slip arm over slide pin and secure with retainer ring.
4. Adjust closer to desired door speed.
5. Attach **DS202-1** to door header with **AS29**. Take care not to puncture door closer.



BUTT HINGE INSTALLATION

Door and Frame

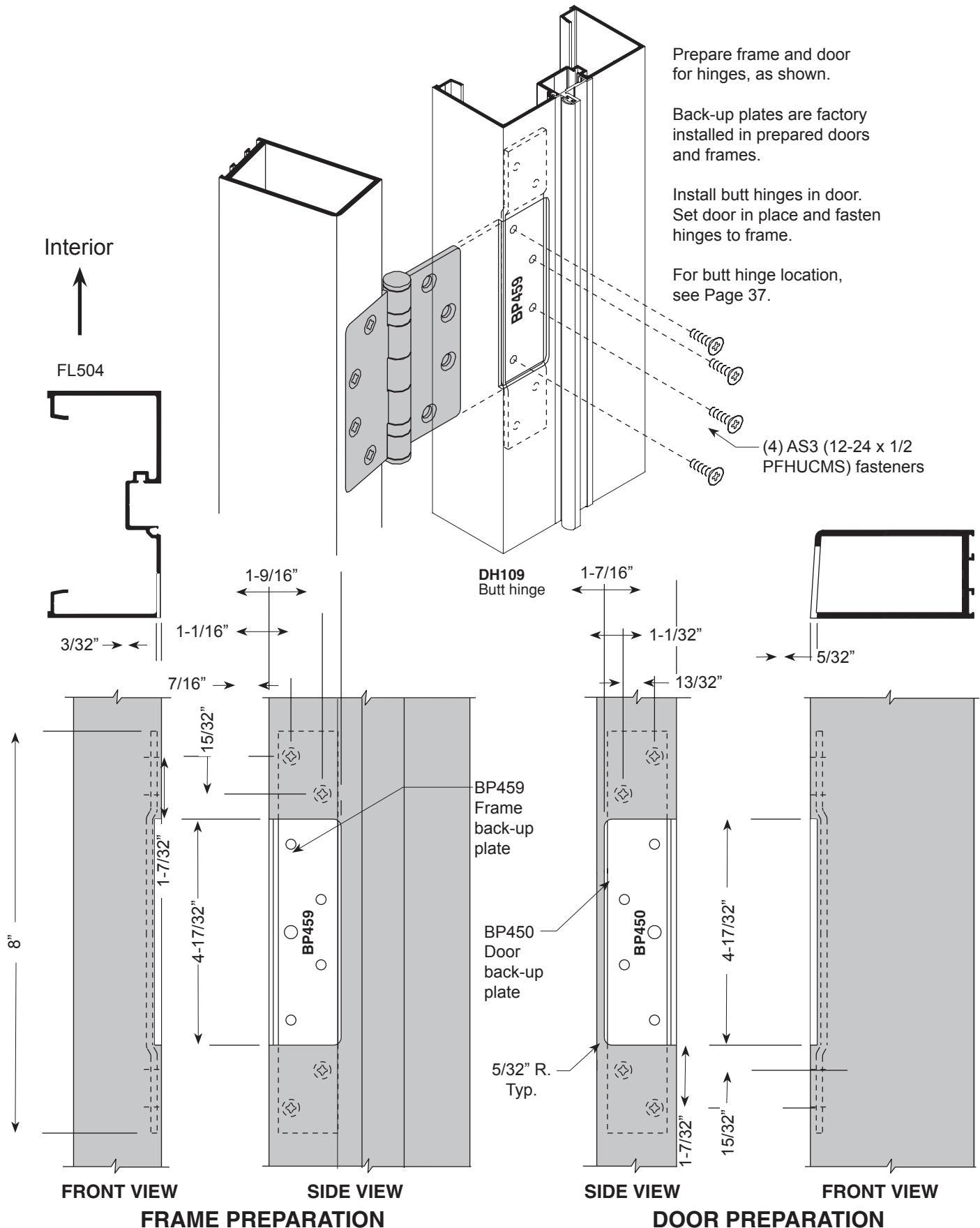
Prepare frame and door for hinges, as shown.

Back-up plates are factory installed in prepared doors and frames.

Install butt hinges in door. Set door in place and fasten hinges to frame.

For butt hinge location, see Page 37.

(4) AS3 (12-24 x 1/2 PFHUCMS) fasteners



FRONT VIEW

SIDE VIEW

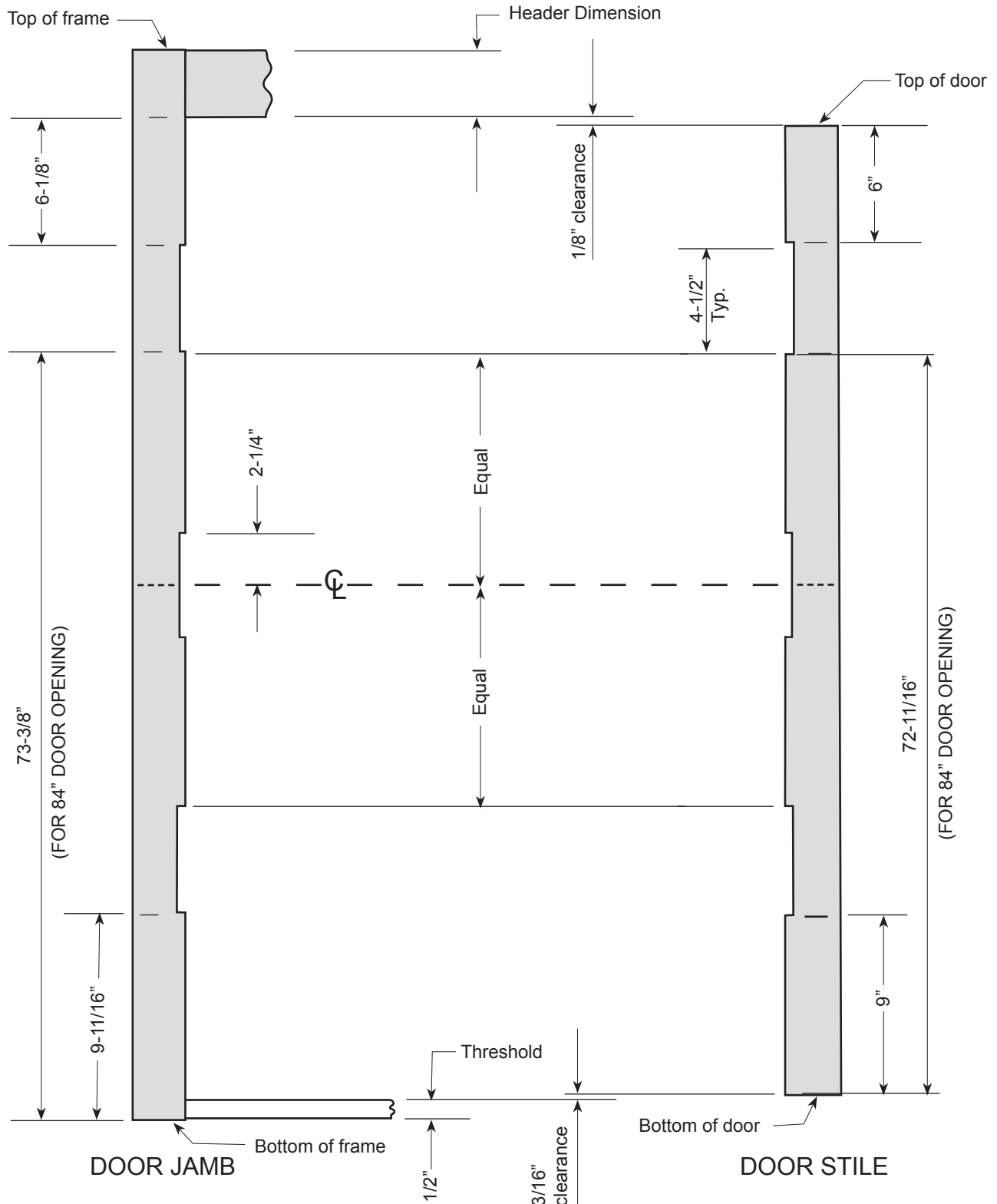
FRAME PREPARATION

SIDE VIEW

FRONT VIEW

DOOR PREPARATION

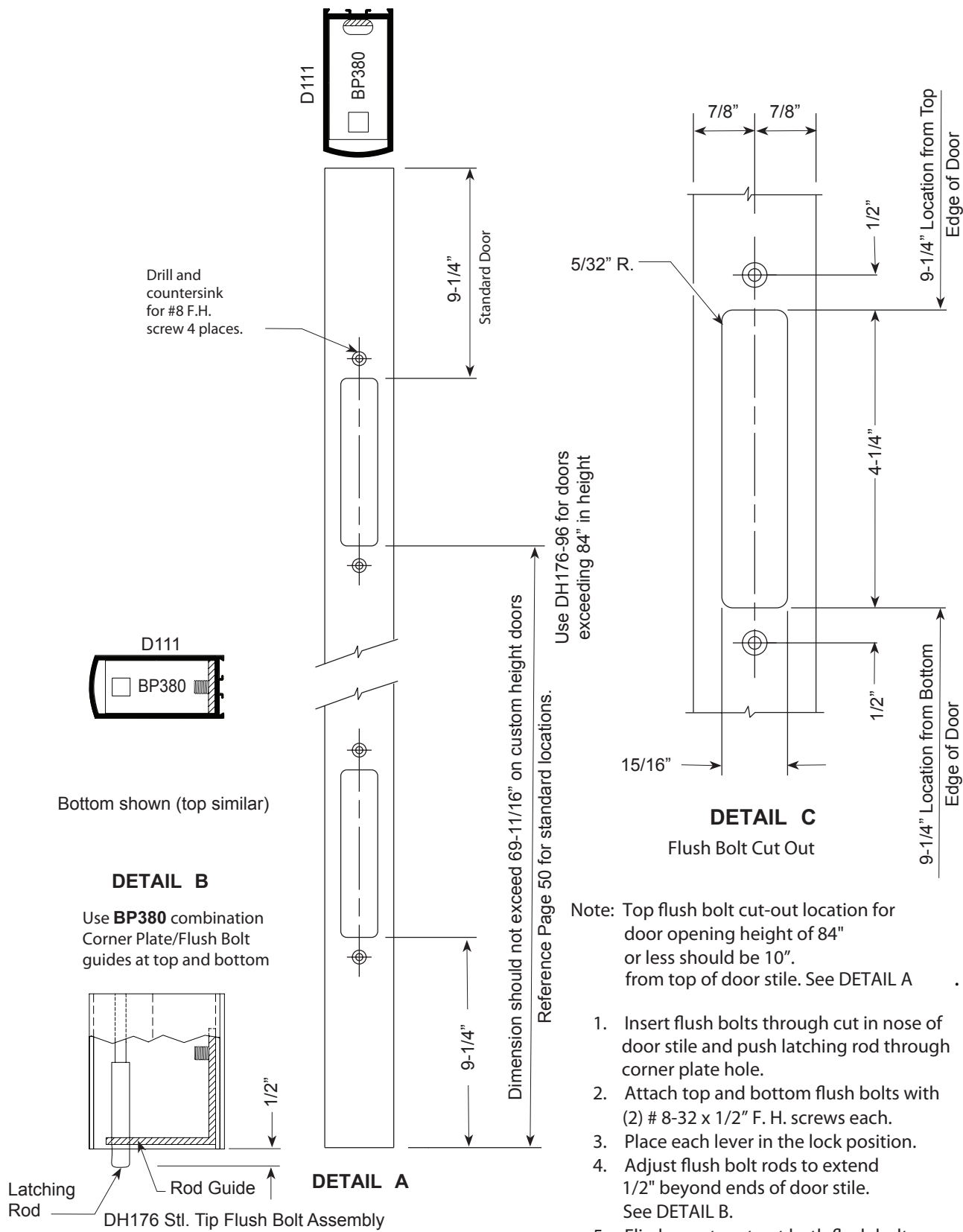
STANDARD DH109 BUTT HINGE LOCATION For F5 Frame and Series 381 Door



Note: Reference Page 40 for other standard hardware locations.

FLUSH BOLTS

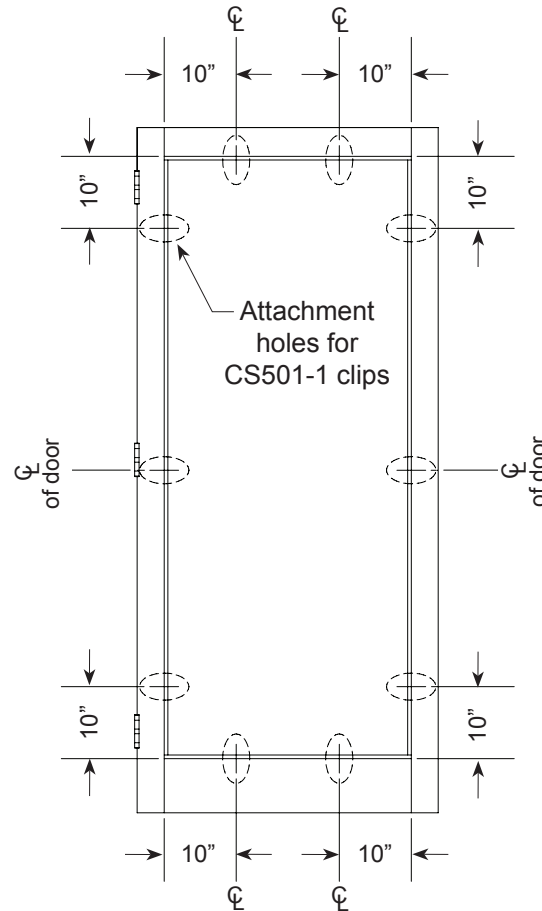
Series 381 Inactive Leaf Shown
Series 281 Similar



Note: Top flush bolt cut-out location for door opening height of 84" or less should be 10" from top of door stile. See DETAIL A

1. Insert flush bolts through cut in nose of door stile and push latching rod through corner plate hole.
2. Attach top and bottom flush bolts with (2) # 8-32 x 1/2" F. H. screws each.
3. Place each lever in the lock position.
4. Adjust flush bolt rods to extend 1/2" beyond ends of door stile. See DETAIL B.
5. Flip levers to retract both flush bolts.

Series 381 Doors ATTACHMENT HOLE LOCATIONS For CS501-1 Glass Stop Clip



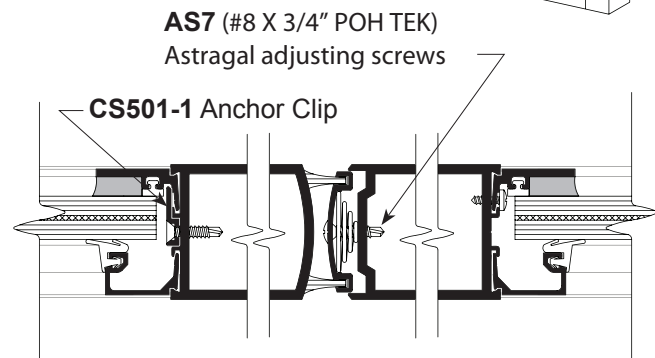
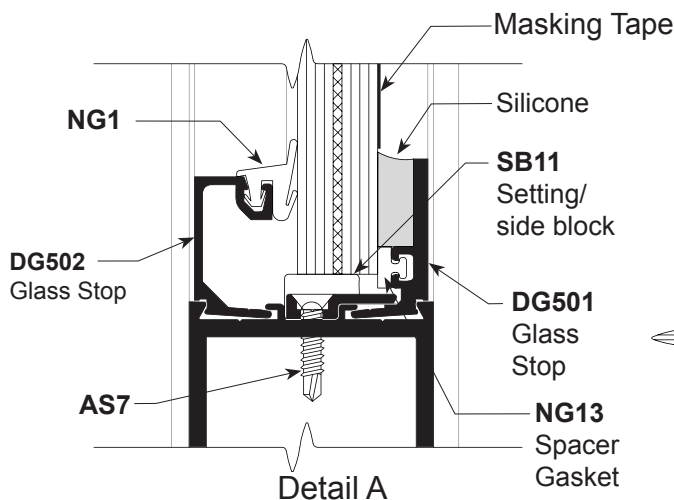
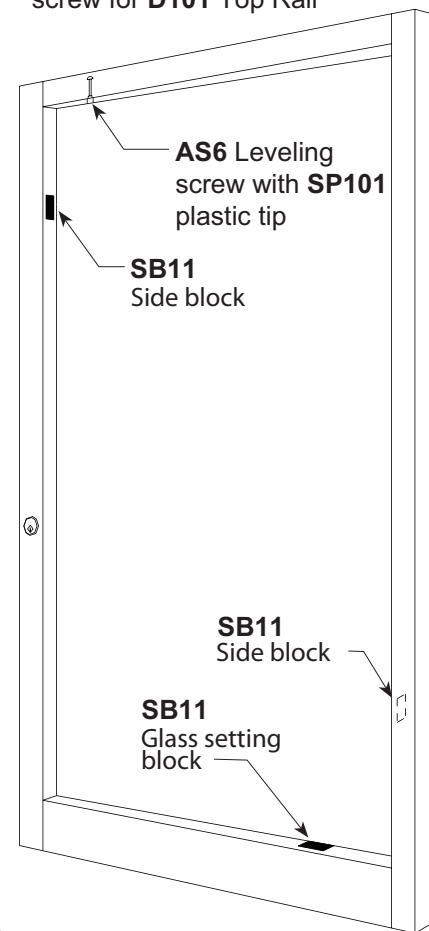
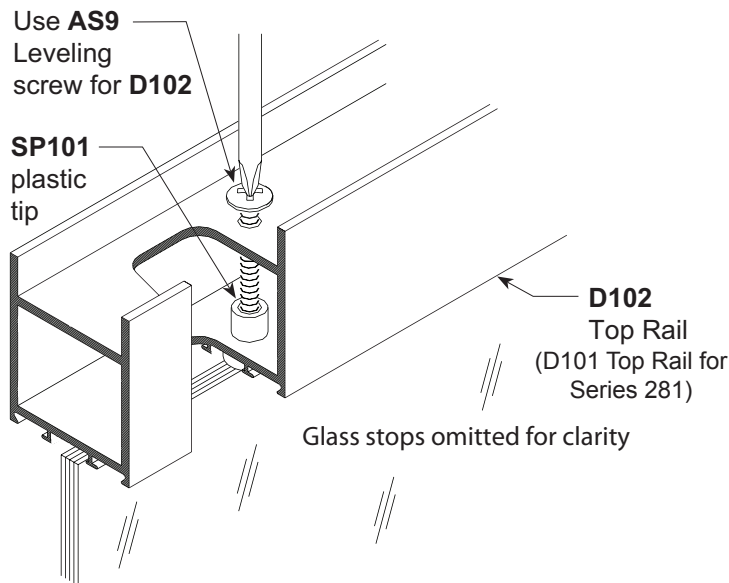
CS501-1 Glass Stop Clip Attachment
 for 84" or 96" Door Height

1. Position DG501 with NG13 spacer gasket.
2. Positon CS501 clips as shown above and attach with AS7 fasteners. Reference Detail A on Page 40.

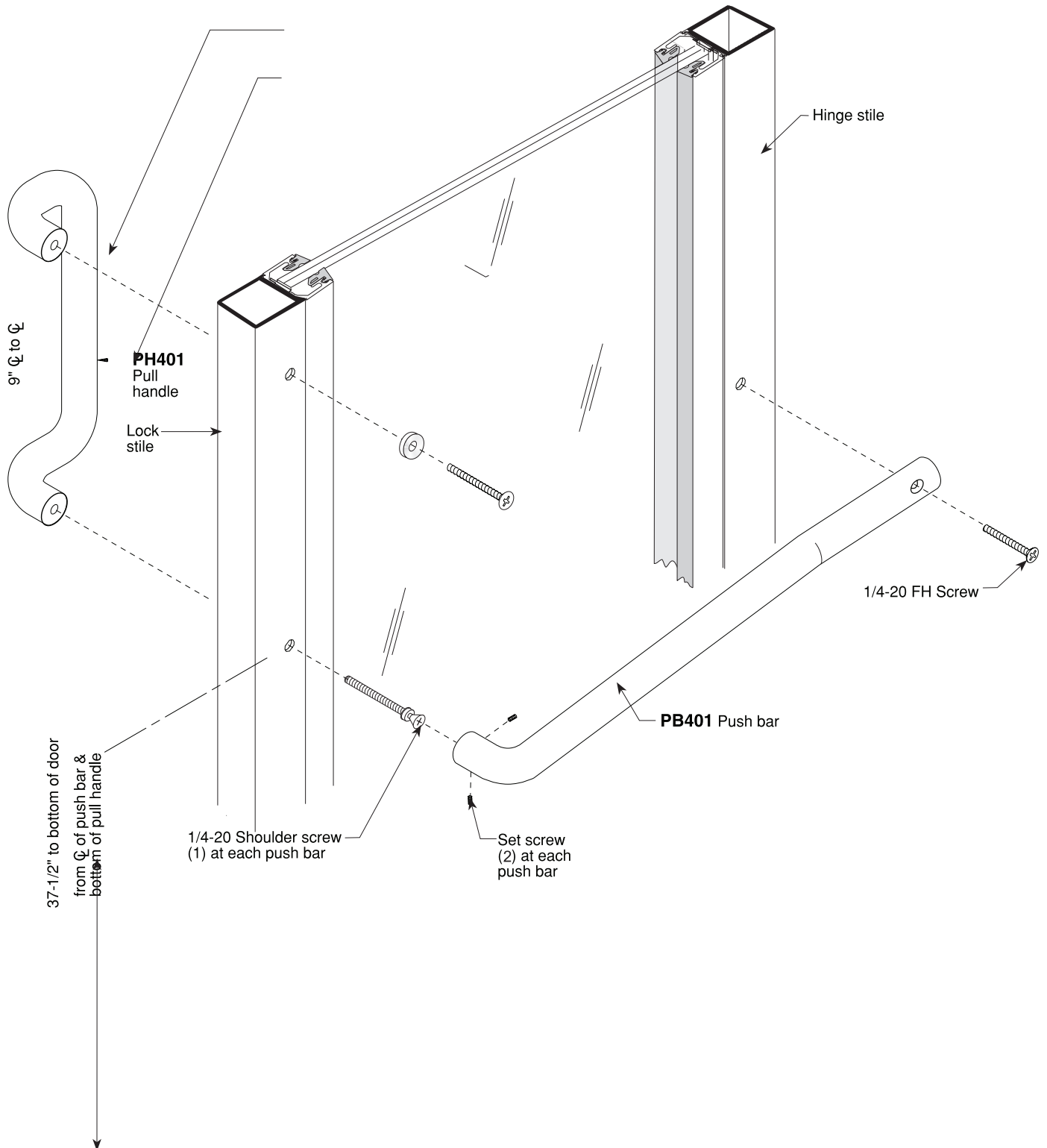
SERIES 381 DOOR GLAZING INSTRUCTIONS

1. Raise leveling screw to maximum retracted position.
2. DG501 glass stop may be installed on either interior or exterior side of door. It is recommended that DG501 be installed on the interior side of doors receiving panic devices to allow for re-glazing without removing the panic bars.
3. Determine side of door you desire to place DG501 and secure with CS501-1 anchor clips. Match drill holes in stop into door and attach as shown below in Detail "A" with AS7.
4. Position SB11 setting/side blocks in locations as shown.
5. Center glass into opening on setting blocks and align with side blocks.
6. Once the glass is in the correct position, lightly screw the glass jack down on top of the glass to create a uniform clearance between the top rail and header.
7. Adjust astragal screws for proper clearance between meeting stiles.
8. Install horizontal DG502 glass stops first. Now install the vertical DG502 glass stops.
9. Roll NG1 gasket into DG502.
10. Mask off glass with 2" wide low adhesive masking tape and apply Dow 995 sealant into the cavity between the glass and DG501 glass stop. Remove masking tape immediately after installation of sealant taking care not to damage or pull sealant from the cavity.

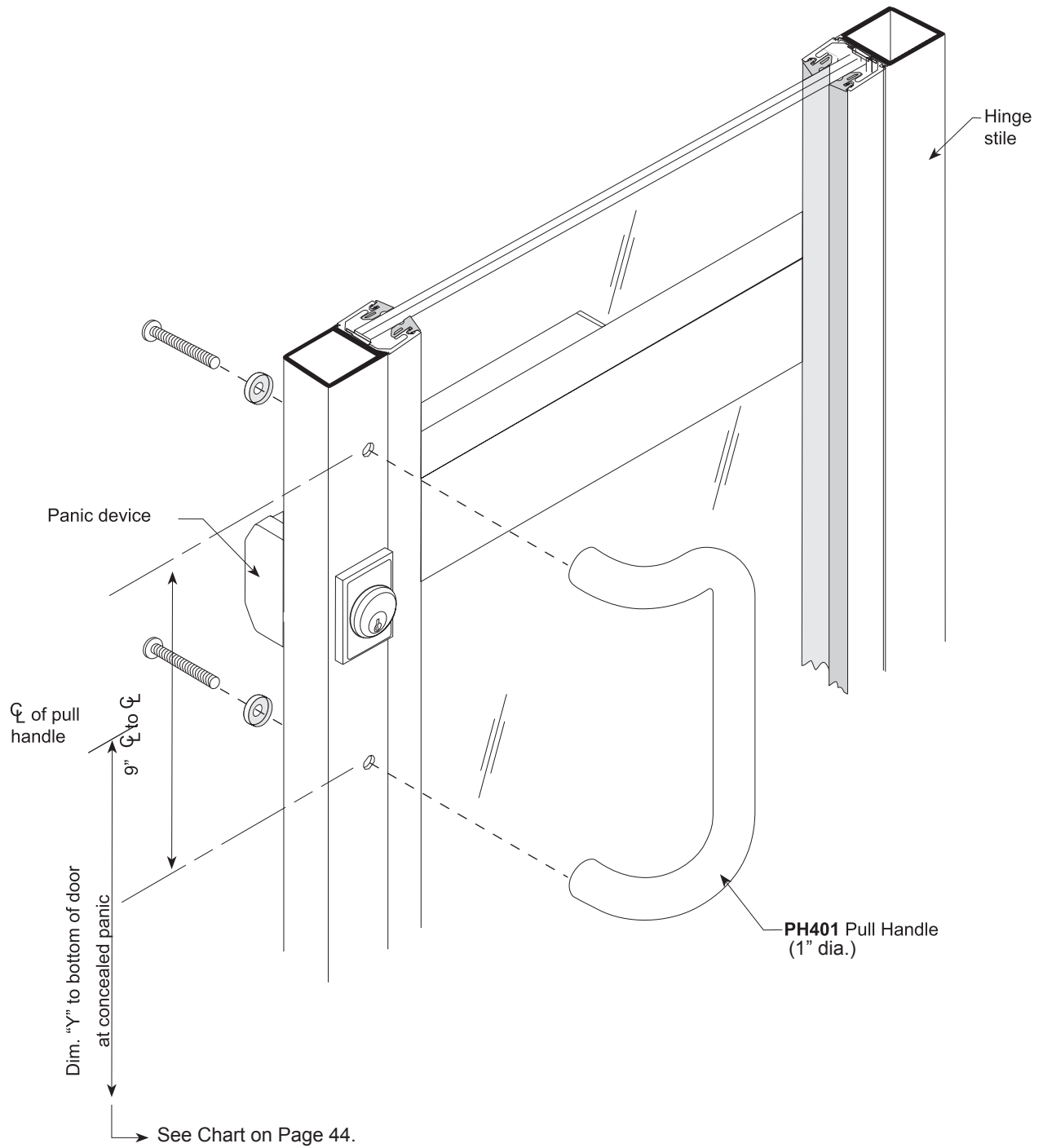
NOTE: Use **AS6** Leveling screw for **D101** Top Rail



OFFSET HUNG DOOR HARDWARE SET DH4036 (STANDARD)

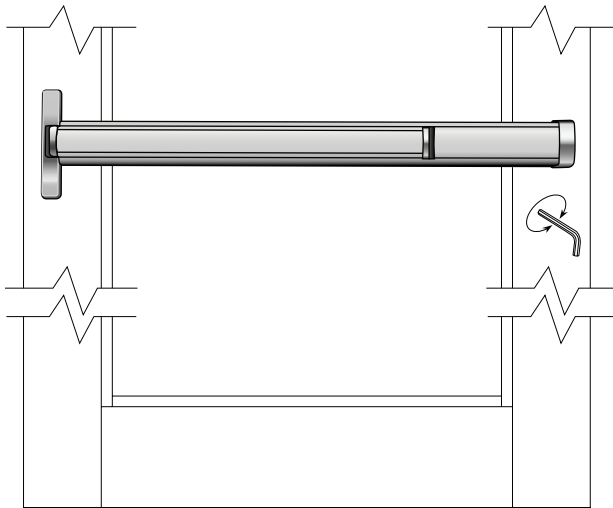


PULL HARDWARE SET FOR PANIC DOOR PH401 (STANDARD FOR PANIC DOORS)



PANIC DOORS WITH DH2086HR PUSH PAD EXIT DEVICE with Optional Dogging Feature

Concealed panic device is factory installed with Hurricane-Impact rod guides.



Dogging Instructions:

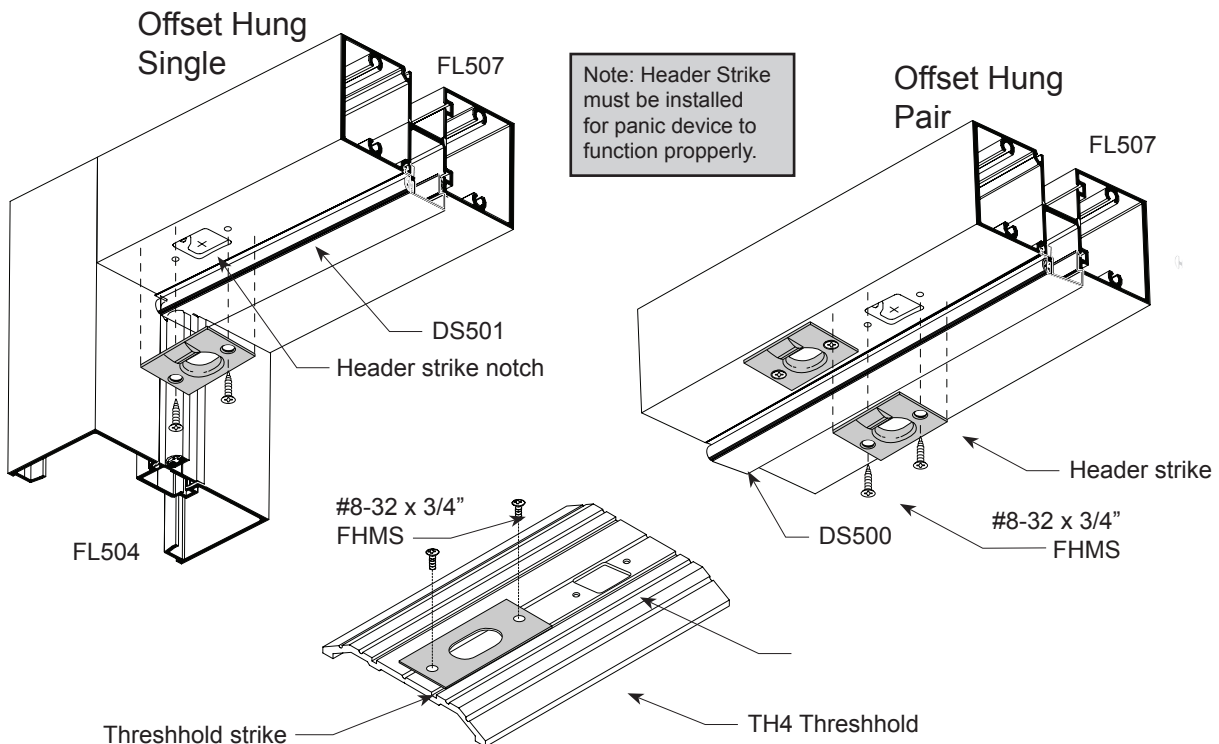
- To dog: Depress panic bar, hold down and turn dogging key 1/4 clockwise.
To undog: Turn dogging key counterclockwise.

Installation Procedure

1. Hang door, as required. The clearance between top of door and bottom of header **must not exceed 1/8"**.
2. Note: Panic devices are preset at the factory. Due to various field conditions, they may require minor adjustment.

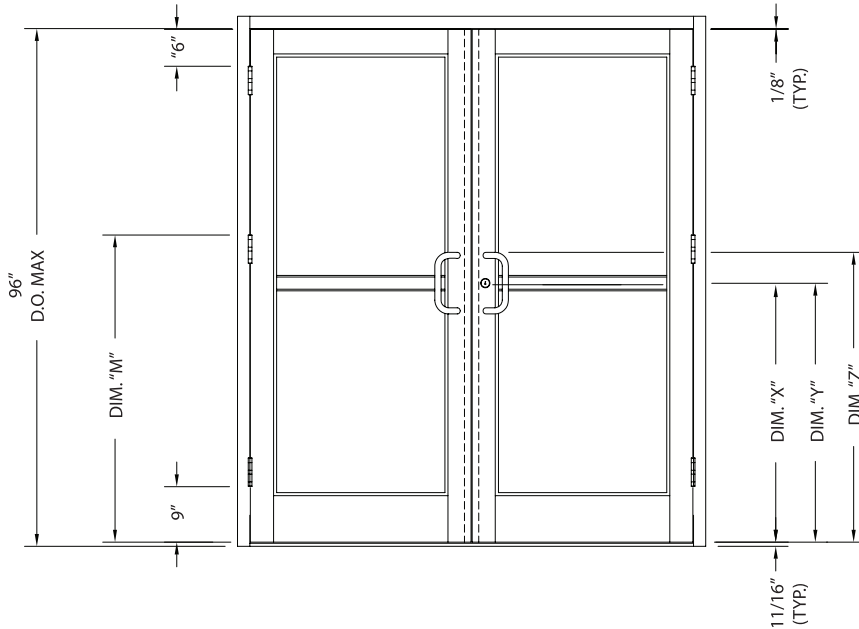
Outside Key Functions

The DH2086HR panic is factory installed for key entry with dogging key option. To key dog device for continued outside entry, hold bar in fully depressed position and turn key approximately one quarter turn clockwise; then, return key to vertical position and remove. To lock door again, fully depress bar and turn key approximately one quarter turn counter clockwise; then return key to vertical position and remove.



STANDARD HARDWARE LOCATIONS

Series 381 and 281 Hurricane Impact-Resistant Doors

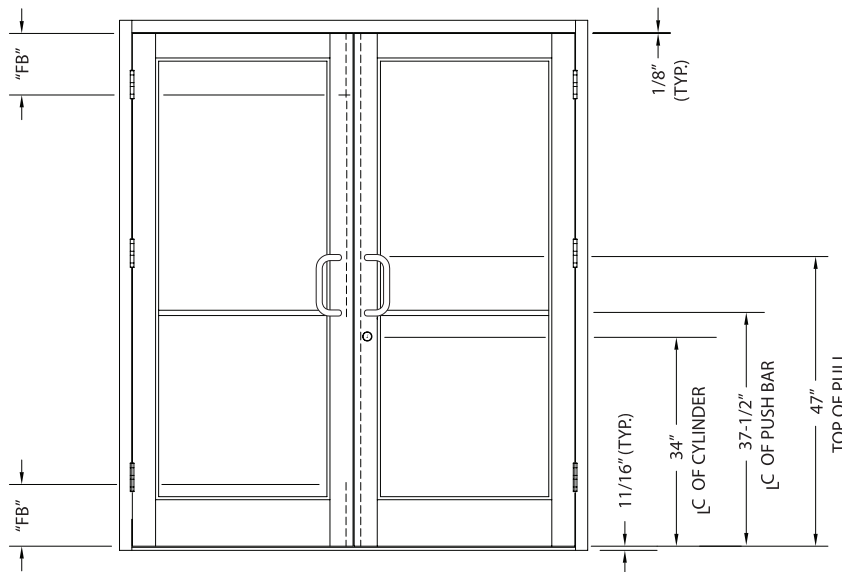


Series 281 doors are limited to a maximum size of 72" x 84" at +/- 65 p.s.f.

INTERMEDIATE HINGE	
D.O. HEIGHT	DIM. "M"
	BUTT HUNG
84"	45-11/32"
96"	51-11/32"

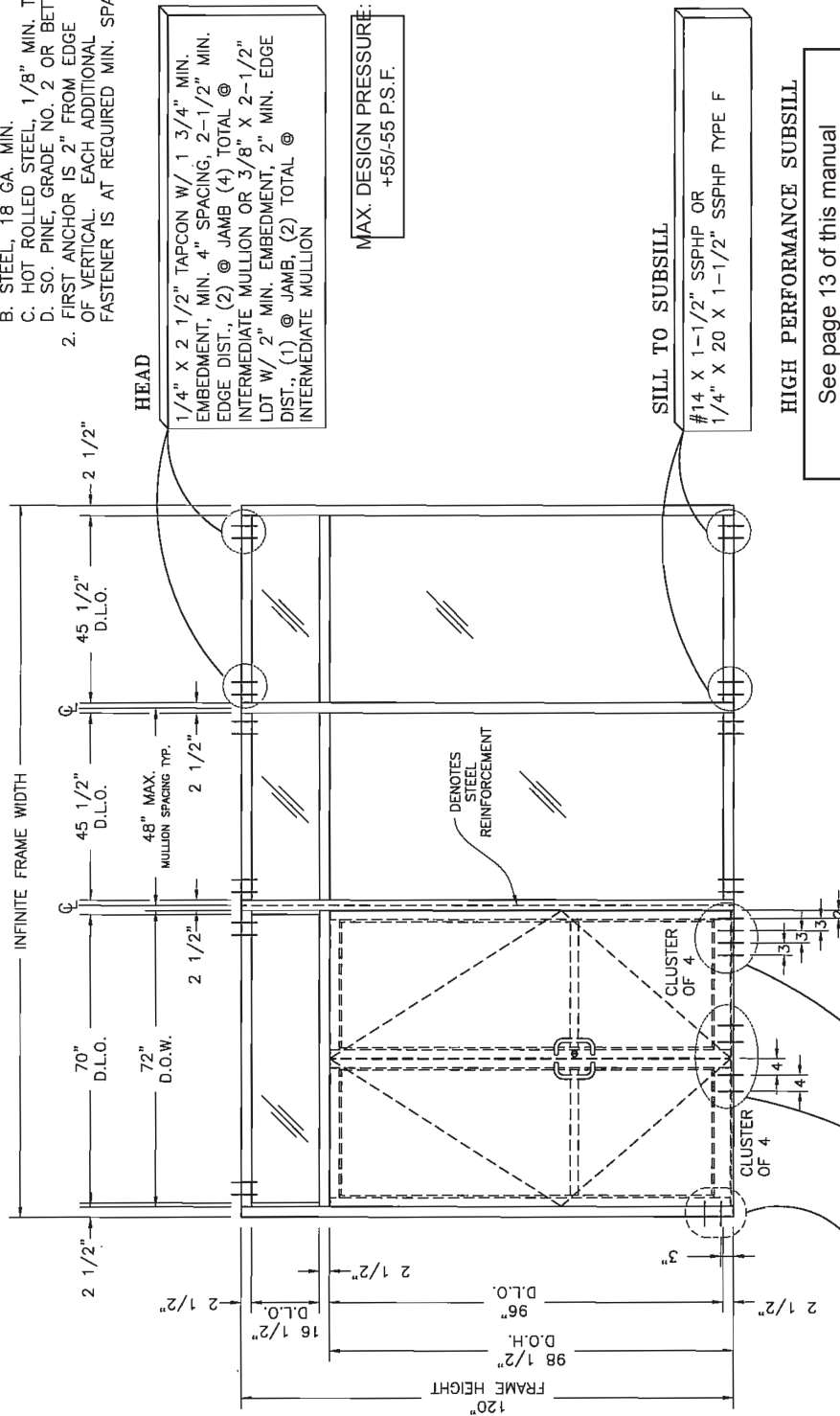
Note: All doors require an intermediate hinge.

HARDWARE LOCATIONS FOR PANIC DOORS				
MANUFACTURER	PANIC DEVICE	DIM "X" ☉ OF CYLINDER	DIM "Y" ☉ OF PANIC	DIM "Z" TOP OF PULL
JACKSON	2086 C.V.R.	37 - 7/8"	38 - 5/32"	42 - 7/8"



STANDARD HARDWARE LOCATIONS, LOCK & FLUSH BOLT		
PART NO.	DESCRIPTION	DIM. "FB"
DH176-96	TOP FLUSH BOLT (FOR 96" DOOR)	22"
DH176	TOP FLUSH BOLT (FOR 84" DOOR)	10"
DH176	BOTTOM FLUSH BOLT (FOR 84" / 96" DOOR)	10"

- PERIMETER FASTENERS:
 1. TYPICAL INSTALLATION INTO SUBSTRATES
 A. 2500 PSI CONCRETE
 B. STEEL, 18 GA. MIN.
 C. HOT ROLLED STEEL, 1/8" MIN. THICKNESS
 D. SO. PINE, GRADE NO. 2 OR BETTER
 2. FIRST ANCHOR IS 2" FROM EDGE OF VERTICAL. EACH ADDITIONAL FASTENER IS AT REQUIRED MIN. SPACING.



HEAD
 1/4" X 2 1/2" TAPCON W/ 1 3/4" MIN. EMBEDMENT, MIN. 4" SPACING, 2-1/2" MIN. EDGE DIST., (2) @ JAMB (4) TOTAL @ INTERMEDIATE MULLION OR 3/8" X 2-1/2" LDT W/ 2" MIN. EMBEDMENT, 2" MIN. EDGE DIST., (1) @ JAMB, (2) TOTAL @ INTERMEDIATE MULLION

MAX. DESIGN PRESSURE:
 +55/-55 P.S.F.

SILL TO SUBSILL
 #14 X 1-1/2" SSPHP OR 1/4" X 20 X 1-1/2" SSPHP TYPE F

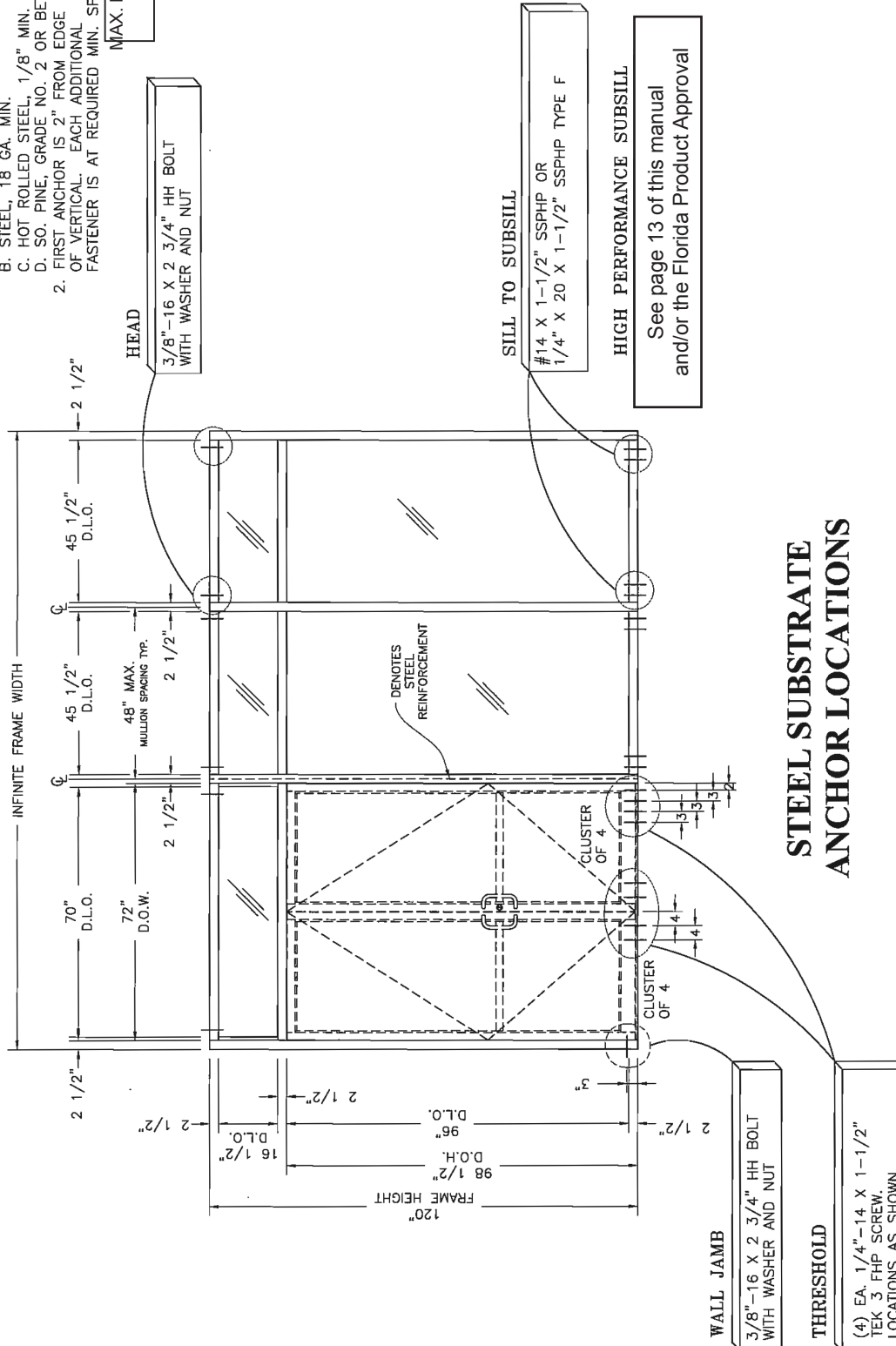
HIGH PERFORMANCE SUBSILL
 See page 13 of this manual and/or the Florida Product Approval

CONCRETE SUBSTRATE ANCHOR LOCATIONS

WALL JAMB
 1/4" X 2 1/2" TAPCON W/ 1 3/4" MIN. EMBEDMENT, 2-1/2" MIN. EDGE DIST. OR 3/8" X 2-1/2" LDT W/ 2" MIN. EMBEDMENT, 2" MIN. EDGE DIST.

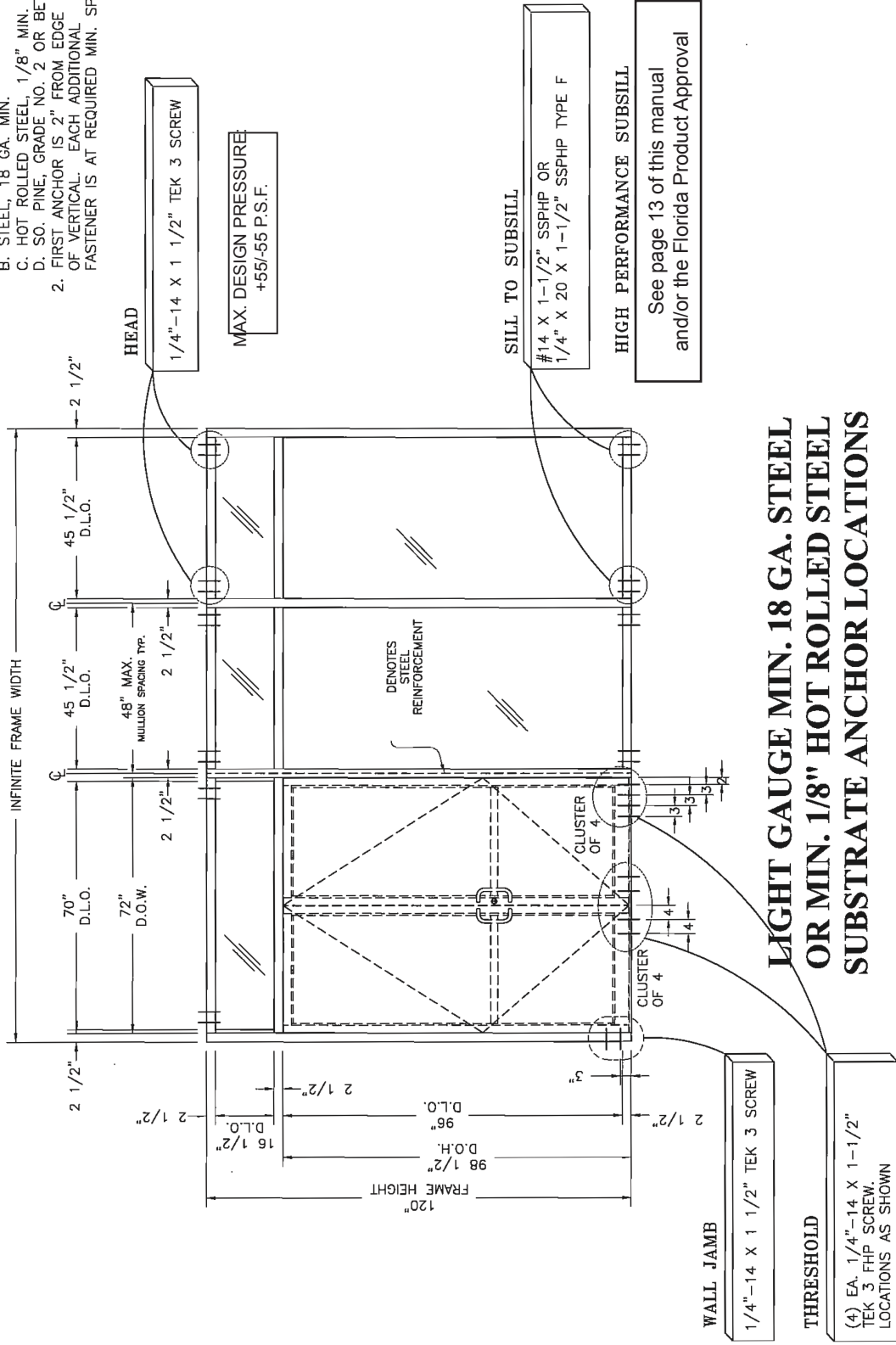
THRESHOLD
 (4) EA. 1/4" X 2 1/2" TAPCON WITH 1 3/4" MIN. EMBEDMENT. LOCATIONS AS SHOWN, 2-1/2" MIN. EDGE DIST.

- PERIMETER FASTENERS:
- TYPICAL INSTALLATION INTO SUBSTRATES
 - 2500 PSI CONCRETE
 - STEEL, 18 GA. MIN.
 - HOT ROLLED STEEL, 1/8" MIN. THICKNESS
 - SO. PINE, GRADE NO. 2 OR BETTER
 - FIRST ANCHOR IS 2" FROM EDGE OF VERTICAL. EACH ADDITIONAL FASTENER IS AT REQUIRED MIN. SPACING.
- MAX. DESIGN PRESSURE:
+55/-55 P.S.F.



See page 45 of this manual and/or the Florida Product Approval

- PERIMETER FASTENERS:
 1. TYPICAL INSTALLATION INTO SUBSTRATES
 A. 2500 PSI CONCRETE
 B. STEEL, 18 GA. MIN.
 C. HOT ROLLED STEEL, 1/8" MIN. THICKNESS
 D. SO. PINE, GRADE NO. 2 OR BETTER
 2. FIRST ANCHOR IS 2" FROM EDGE OF VERTICAL. EACH ADDITIONAL FASTENER IS AT REQUIRED MIN. SPACING.

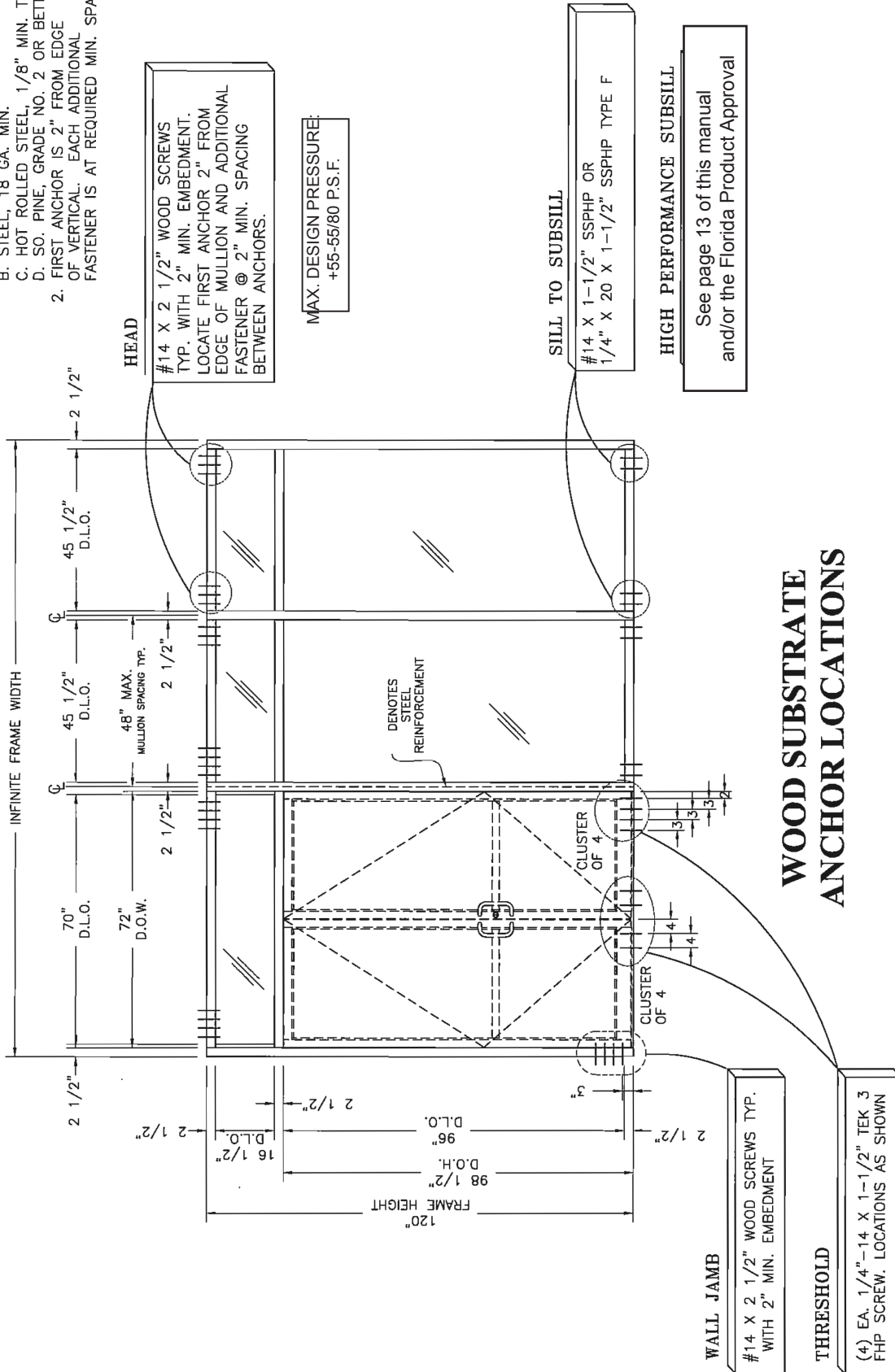


**LIGHT GAUGE MIN. 18 GA. STEEL
 OR MIN. 1/8" HOT ROLLED STEEL
 SUBSTRATE ANCHOR LOCATIONS**

See page 13 of this manual
 and/or the Florida Product Approval

See page 45 of this manual
 and/or the Florida Product Approval

- PERIMETER FASTENERS:
1. TYPICAL INSTALLATION INTO SUBSTRATES
 - A. 2500 PSI CONCRETE
 - B. STEEL, 18 GA. MIN.
 - C. HOT ROLLED STEEL, 1/8" MIN. THICKNESS
 - D. SO. PINE, GRADE NO. 2 OR BETTER
 2. FIRST ANCHOR IS 2" FROM EDGE OF VERTICAL. EACH ADDITIONAL FASTENER IS AT REQUIRED MIN. SPACING.



See page 45 of this manual and/or the Florida Product Approval