

Table of Contents

I. Care and Maintenance..... 2

II. Tools, Sealant Requirements, & Anchor Instruction..... 2

III. Structure Verification 3
 (Opening Verification, Pre-Fit and Leveling)

IV. Sillpan Installation 4

V. Frame Assembly. 4-5

VI. Frame Installation..... 6-9
 (Prep, Install, Anchor)

VII. Flashing After Installation 9

VIII. Glazing Instructions..... 10

Appendix A – Joining Sillpans 11

Appendix B – Stucco Surround Application 12

I. Care and Maintenance.

This product is factory finished. Please handle with extreme care. Protect all exposed surfaces from contact with caustics, corrosives, solvents, abrasions, impacts, wet packing material etc.

FAILURE TO DO SO WILL NULLIFY THE WARRANTY. Before **ANY CLEANING**, review the Care & Maintenance Instructions (go to www.fleetwoodusa.com for more information).

Contact the local dealer with any questions or concerns. Fleetwood strongly recommends that all products be cleaned after installation and totally protected from construction debris and equipment.

II. Tools / Materials, Sealant Requirements & Anchor Instruction.

Tool Requirements

Tape measure, Level, Shims, Nails, Screws, Sealant, caulk gun, Backer Rod, Scissors or utility knife, 1/4" wrench, 3/8" wrench, drill bit, drive bit and powered drill.

Sealant Requirements

- The sealant referred to within this document for seals associated with the assembly of the product should conform to **AAMA 800-92**. It is recommended that all other sealants should also conform to **AAMA 802-92** but may be a sealant recommended and approved by the sealant manufacturer that is compatible with the framing, finish and surrounding materials.
- The size of all sealant beads must meet or exceed the sealant manufacturers' minimum size requirements.
- Some exterior wall finishes require additional sealing between the perimeter of the frame and adjacent finish wall material. The Owner / General Contractor is responsible for identifying the need for any additional sealant which will be applied by others. Such sealant shall be elastomeric material, with the framing, finish and surrounding materials.

Anchor Instructions

Important Note: For Impact / HVHZ see *Series 3800-T Installation Instructions-Anchor Schedule* for anchor schedule.

Frame may be either direct mounted to the opening, mounted onto a continuous wood spacer, anchored to a min. 18 ga. 33 ksi metal stud or anchored to a min. 2x4 no. 3 southern pine wood buck. When anchored to a 2x_ buck or metal stud, no. 10 screws shall be used. When direct mounted or mounted with spacer to block/concrete, 3/16" concrete screws shall be used. Proper material shall be used between all dissimilar materials (block/concrete & aluminum).

Extreme Weather Conditions (Thermally Broken Product Only)

1. For installations that will be exposed to extreme weather, apply a compatible sealant on top of the thermal break cavity of all sills, t-bars and stack bars (Figure 1).
2. An aluminum sillpan is provided to ensure that any incidental water that penetrates the thermal break or mulled connection is collected and directed to the exterior of the building. In extreme weather conditions Fleetwood recommends that the aluminum sillpan be replaced or covered with a nonconductive material to avoid frost or condensation from migrating to the interior of the building.

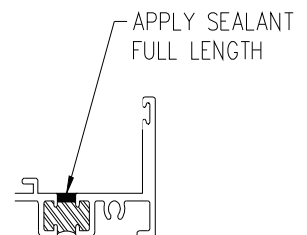


Figure 1:
Seal Thermal Break

III. Structure Verification & Sillpan¹ Installation

Note: Sillpan Substitution- If the factory provided sillpan is not desired, the product warranty will remain intact if the substitute panning system emulates the essential design of the factory pan.

1. Opening Verification

- Check the measurements of the opening and verify that the door will fit into the opening. Measure all four sides of the opening to make sure it is 1/2" larger than the doors in width and 1/2" in height.
- Remove the window(s) from the packaging and lay it in front of the opening. Check width and height dimensions.
- Verify the opening is plumb and level.

2. Pre-Fit and Leveling

- Place sillpan into the opening and determine any leveling that must be done prior to installation (Figure 2).
- Shim as necessary to stabilize the entire depth and length of the sillpan. No unsupported width of more than 8" is allowed. Shim to be load bearing, non-porous, non-absorbent and inorganic.
- If more than 1/8" shim height is required, it is recommended that pouring self-leveling "Rock Hard" (or equal) to achieve level and stable surface.

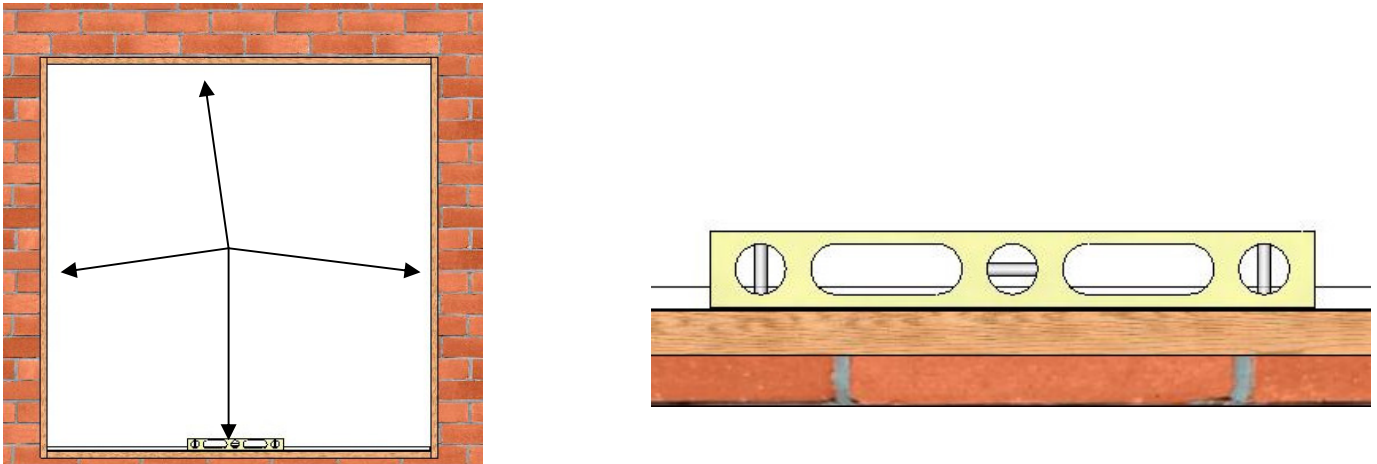


Figure 2:
Use level to determine if the opening is plumb and level

¹ Sillpan refers to a factory provided aluminum pan (or equivalent).

3. Sillpan Installation

Note: For splicing and multiple piece Sillpans – (See Appendix A)

- Apply bituminous paint to raw masonry or concrete at the sill to eliminate electrolytic and chemical reactions. We recommend a PVC liner be placed to ensure separation of the metal frame with the substrate. In balcony situations flash the sill with aluminum or galvanized brake metal (Sillpan is provided).
- Apply sealant in all corners and seams of the sill pan (Figure 3).
- With bottom side of sillpan up, apply a 3/8" bead of compatible sealant 1/2" in from interior leg. Sealant bead to run across the bottom as well as up each vertical leg of the sill pan. Also apply sealant beads near the sides and across the front (Figure 4).
- Secure the sillpan to the floor with glue. Position sill pan as necessary to allow for proper installation of frame assembly (Figure 5).

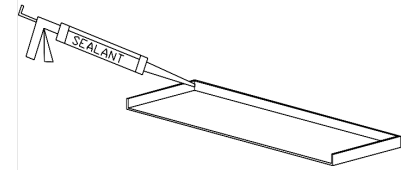


Figure 3:
Seal corners and seams

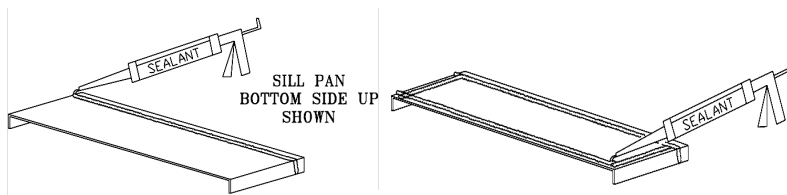


Figure 4:
Seal underside of Sillpan

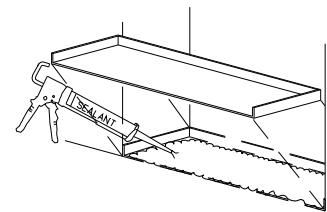


Figure 5:
Set pan in full bed of sealant

IV. Frame Assembly (When frame is received unassembled).

Important Note: Glass stops must be field cut to size after the frame is assembled. Failure to assemble the frame according to the installation instructions, nullifies warranties related to this product.

1. Apply a compatible sealant to the corners of the frame. Assemble the frame with screws provided (Figure 6).
2. Install Jambs to Head and Sill using #10 X 1" PHP (provided)
3. Locate glass stops and cut to size once frame is assembled.
4. After the frame is assembled, seal inside of all four corners, join and above the thermal break (Figure 10) with a thin attractive bead of self leveling compatible sealant
5. Field cut glass stops to fit.

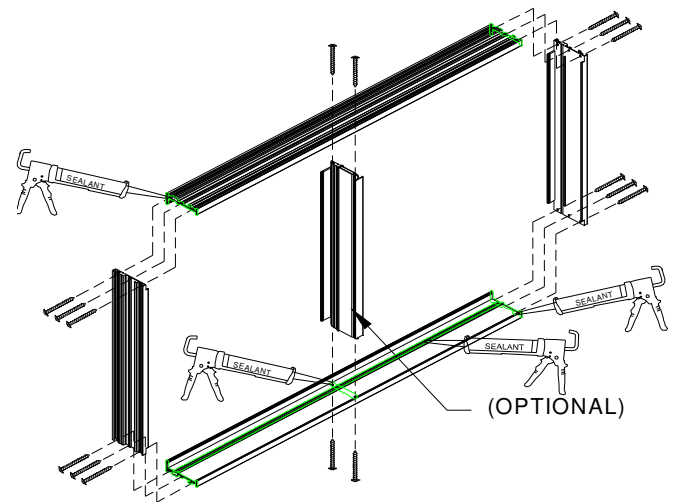


Figure 6:
Assemble Frames and Sealant

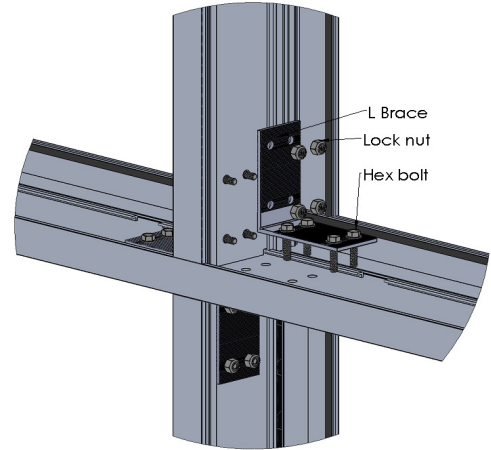
Non-intersecting TDL bars

1. Install each full length (vertical or horizontal) TDL bar, using #10 X 1" PHP into pre-drilled holes (Figure 6).

Intersecting TDL Bars, Non-Impact / not HVHZ

Important Note: All bolts, nuts, and L braces are provided in a plastic bag.

1. Install each full length (vertical or horizontal) TDL bar, using #10 X 1" PHP into pre-drilled holes (Figure 6).
2. Install each partial length (vertical or horizontal) TDL bar, using #10 X 1" PHP into pre-drilled holes.
3. Install L Braces into the intersecting TDL bars using the provided Hex bolt and Lock nuts (sizes 1/4" and 3/8" respectively) into the pre-drilled holes and tighten down (Figure 7).
4. Apply a compatible sealant to the slot, screw heads, TDL ends.



Note: Do not cover weep holes on TDL with sealant.

5. Fasten top & bottom frames to vertical TDL.
6. Fasten side frames to horizontal TDL.
7. Cut glass stops to fit.

Intersecting TDL Bars, Impact / HVHZ

1. Counter sink all TDL reinforcement fasteners
2. Insert horizontal reinforcement bar (2.0" x .25) into cavity of one horizontal TDL and fasten with screw # 8 x 5/8 flat head screws provided (step 1, Figure 8).
3. Insert vertical reinforcement bar (1.5" x .25) into cavity of upper vertical TDL and fasten with screw # 8 x 5/8 flat head screws provided (step 2, Figure 8).
4. Apply a compatible sealant to the slot and vertical reinforcement bar (step 3, Figure 8).
5. Insert upper vertical reinforcement bar assembly through the slot of horizontal TDL then insert into cavity of lower vertical TDL and fastening with screw # 8 x 5/8 flat head screws provided (step 4, Figure 8).
6. Fasten top & bottom frames to vertical TDL (Figure 8).
7. Fasten side frames to horizontal TDL (Figure 8).

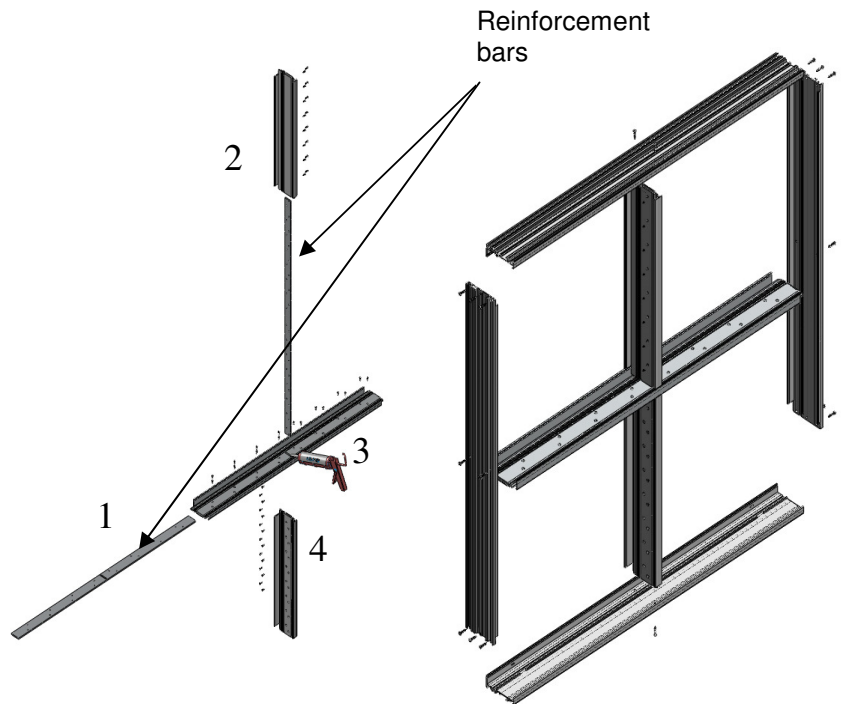


Figure 8:
Frames with Multiple TDL Bars and Sealant for HVHZ

V. Frame Installation

Important Note: For Impact / HVHZ: See *Series 3800-T Installation Instructions-Anchor Schedule* for anchor schedule with different substrates.

Nail-fin Frames

1. Prepare the opening to accept the frame ensuring that the weep-screed or diado flashing at the sill is adjusted to maintain a weatherboard style flashing.
2. The flashing paper referred to in this document is Moistop or other code compliant flashing material that conforms to Federal Specification UU-B-790a, Type 1, Grade A, Style 4. The strips of flashing paper are to be no less than 9 inches wide (or wider as required by local codes). Flashing paper must be applied with galvanized nails or corrosion resistant staples. Flashing paper shall be applied in a weatherboard fashion around the full perimeter of the framed opening.
3. Seal frame and vent joints completely with compatible sealant.
IMPORTANT: Apply a heavy bead of sealant to the interior side of the mounting flange (nail-on) where the frame jamb and sill join. Sealant must cover the entire joint (from the flange to the inside leg) and extend 1 1/2" up the jamb and along the sill (Figure 9).
Note: Inside glazed products-see inside glazed product procedure for frame orientation, page11.
4. Insert the frame into the opening and set the sill in a full bed of sealant (Figure 10). Cross-measure and adjust as necessary to achieve a plumb square and level condition, as well as an even reveal around the framed opening. Shim with non-porous, non-absorbent, inorganic shims where needed. Seal all fastener heads with compatible sealant. (Only drill holes through Sill as required for design load)
5. Anchor Location and Sealant.
Frame installation anchors furnished by installer, not by Fleetwood. Stainless steel screws are recommended. (See Installation Instructions-Anchor Schedule)

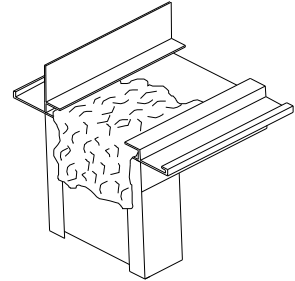


Figure 9:
Nail-fin sealant
location

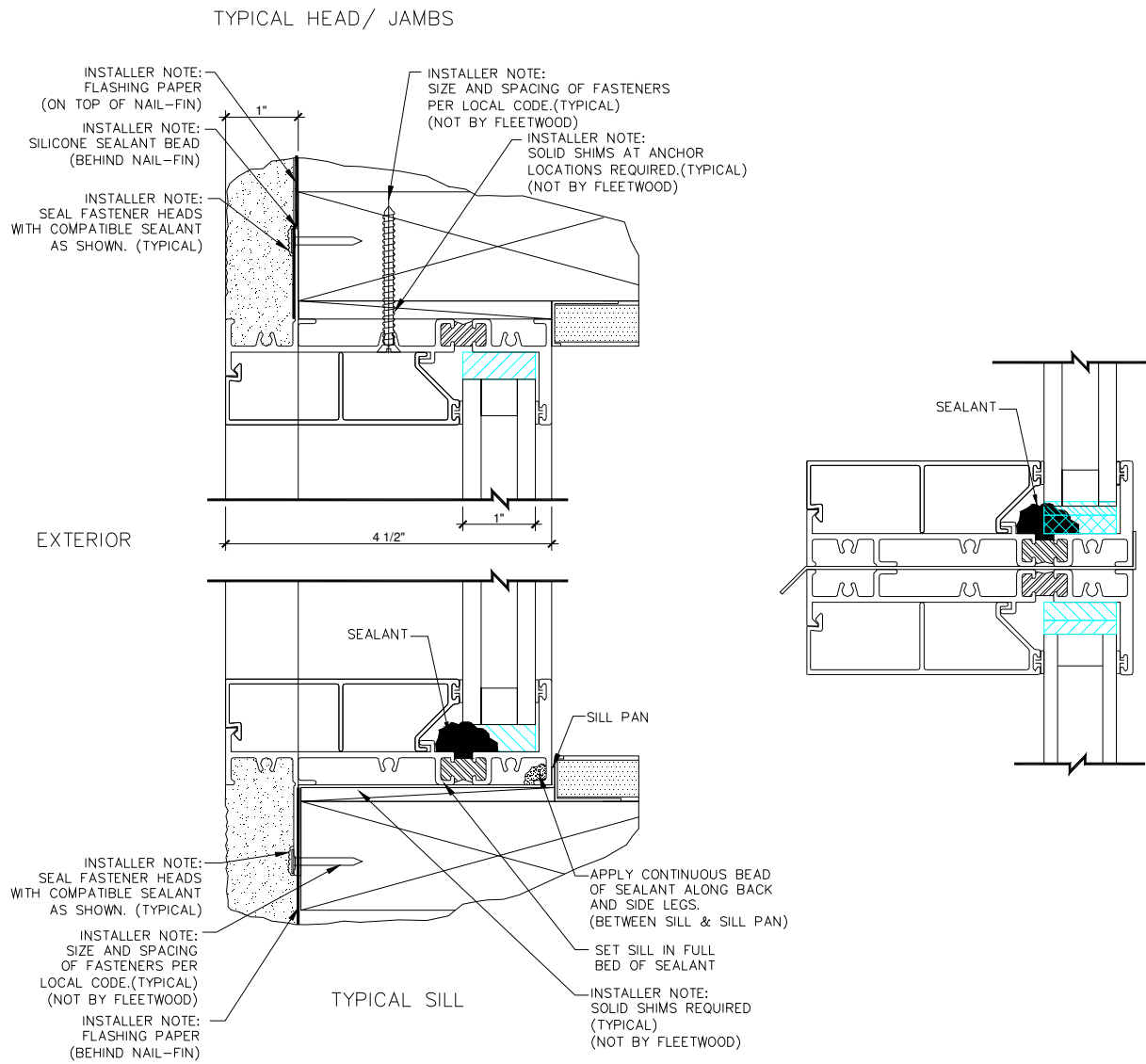


Figure 10:
Typical Nail-fin with Sealant Shown (Exterior Glazed)

Block Frames

1. Prepare the opening to accept the frame ensuring that the weep-screed or diado flashing at the sill is adjusted to maintain a weatherboard style flashing.
2. Seal frame and vent joints completely with compatible sealant. **IMPORTANT:** Apply a heavy bead of sealant to the interior side of the mounting flange (nail-on) where the frame jamb and sill join. Sealant must cover the entire joint (from the flange to the inside leg) and extend 1 1/2" up the jamb and along the sill (Figure 11).
Note: Inside glazed products-see inside glazed product procedure for frame orientation, page 11.
3. Insert the frame into the opening and set the sill in a full bed of sealant (Figure 12). Cross-measure and adjust as necessary to achieve a plumb square and level condition, as well as an even reveal around the framed opening. Shim with non-porous, non-absorbent, inorganic shims where needed. Seal all fastener heads with compatible sealant. (Only drill holes through Sill as required for design load)

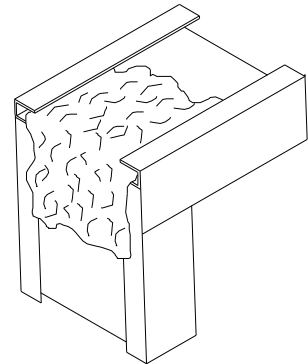


Figure 11:
Block frame sealant location

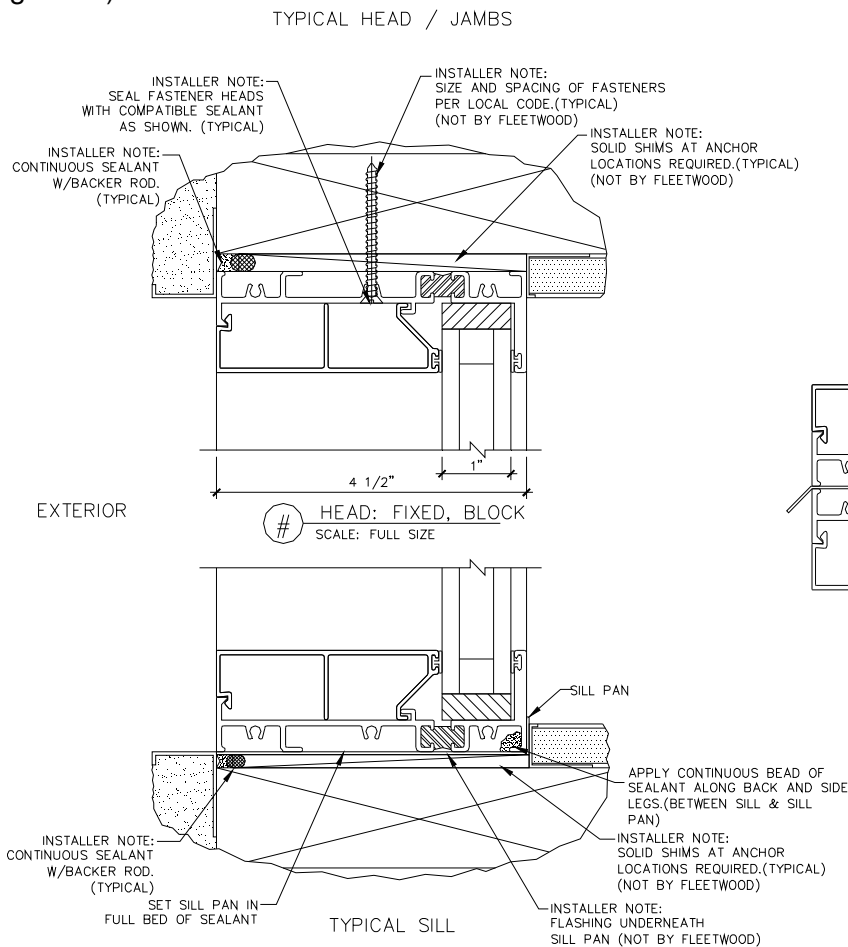


Figure 12:
Standard Sill with Sealant Shown (Exterior Glazed)

4. Anchor Location and Sealant
Frame installation anchors furnished by installer, not by Fleetwood. Stainless steel screws are recommended. (See Installation Instructions-Anchor Schedule). Fleetwood recommend countersink for all frame anchors.
5. The installer is responsible for the integrity of all framing joints after installation and must therefore **water** test all joints to guarantee a completely sealed product. Apply joint sealer and/or sealant necessary to ensure watertight joints. Retest as necessary.
6. To complete the installation, apply backer rod and a complete bed of sealant to the entire exterior and interior joint between the frame and the building structure. Tool the sealant to eliminate bubbles, voids and / or breaks and ensure a completely watertight seal. (See Anchor Location Drawing, Figure 15).

VI. Flashing after Installation

1. Once satisfied that the frame is water tight, and immediately prior to application of the flashing paper at the head and jambs, apply a continuous bead of sealant to the exposed mounting flange (nail-fin) at the top (head) and sides (jambs) of the installed frame. Also, apply sealant at corners of the frame, the full length of the seams where the nail fin flashing is mounted.
2. At each jamb, embed the flashing paper into the sealant onto mounting flange and fasten into place. The flashing paper should be cut sufficiently long enough to extend at least 3 inches past the weep-screed or diado flashing and at least 6 inches above the head of the window (Figure 13).
3. Finally, at the head, embed the flashing into the sealant on the mounting flange and fasten into place. The flashing paper should be cut sufficiently long enough to extend past the flashing paper at each jamb by at least 3 inches (Figure 14).
4. Weather resistant building paper should be applied in a weatherboard fashion to complete the installation (Figure 15).

Note: Where weather resistant building paper, insulating board, or other materials by other trades may constitute the primary weather barrier behind the exterior wall finish (i.e., stucco, masonry, siding, etc.), the owner / General Contractor are responsible to ensure that the weather barrier is continuous by effectively sealing the material to the window.

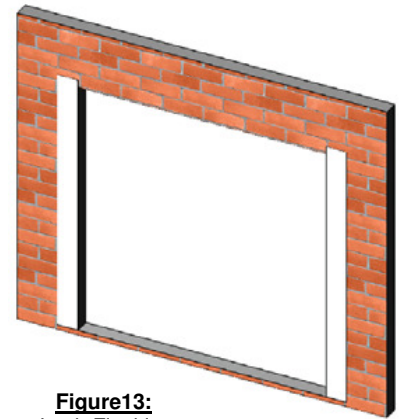


Figure13:
Jamb Flashing

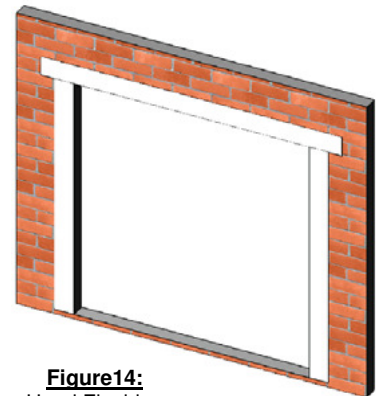


Figure14:
Head Flashing

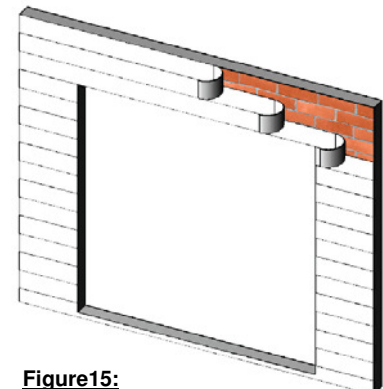


Figure15:
Building Flashing

VII. Glazing Instructions per Glass (block frame shown).

Note: Glass stops must be removed before continuing.

Dry Glazing Procedure

1. Insert two setting blocks into the sill at the quarter points (Figure 16).
2. Insert glass setting block per jamb at 2" above the sill.
3. All four corners must be caulked 1/2" x 1/2" x 4" (Figure 17) then set glass into opening.
4. Insert edge blocks into each jamb at 2" above the sill and into the head at glazing center (Figure 16).
5. Finish assembly by inserting the two horizontal glass stops then install the two vertical glass stops.

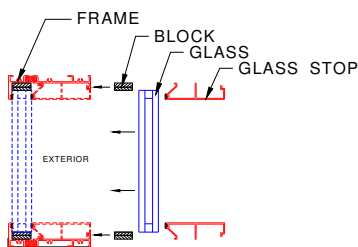


Figure 16:
Setting Block Locations

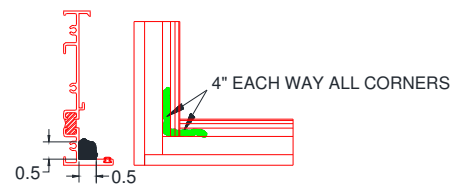
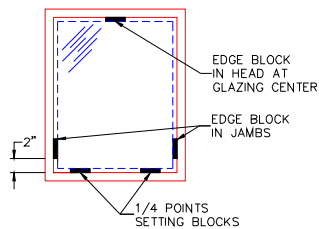


Figure 17:
Caulk Location and Sizes

Alternate Glazing Procedure

Note: Applies to inside glazed or outside glazed products, where additional water sealant is required.

1. Before glazing, apply a continuous bead of sealant to the fixed leg of the frame (Figure 18).
2. After glazing, apply a continuous bead of sealant to the fixed frame leg and glass (Figure 19).

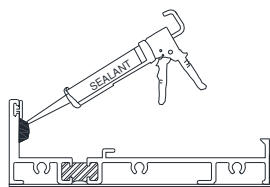


Figure 18:
Before Glazing Locations

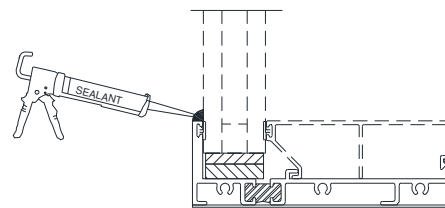


Figure 19:
After Glazing Locations

Appendix A: Joining Sillpans

Follow the instructions below for joining multiple piece Sillpans. Multiple piece Sillpans are required on products with net frame widths greater than 14 feet (168 inches) and corner units.

1. Install Sillpans per product installation instructions. *Caution: Apply a compatible sealant to the underside of the sillpan at the seam joint.*
2. Cut a piece of adhesive backed waterproof material to fit the joint as specified in drawing below, $A = 3/8"$. *Caution: Select waterproofing material that is compatible for your application. Waterproofing material must have an adhesive backing and be capable of withstanding the temperature ranges for your region.*

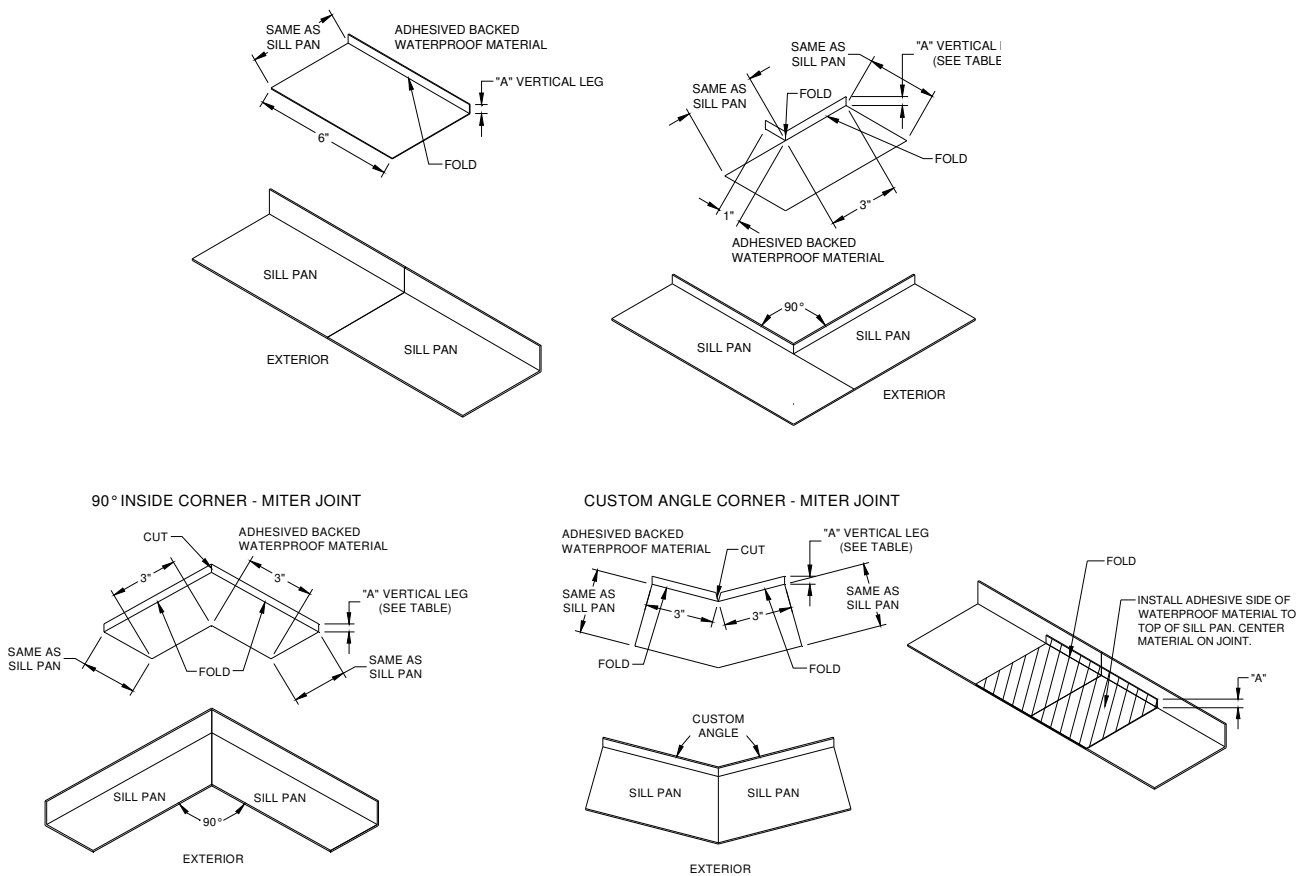


Figure 20:
Showing multiple piece sill pans joining

3. Remove excess sealant at joint on top of the sillpan that may have migrated in during installation.
4. Remove the adhesive backing from the waterproof material and apply to the sillpan. Waterproof material shall contain a fold on the interior water leg and attach to the sillpan as shown.

Appendix B - Stucco Surround Application (Optional)

3800-T WINDOW FRAME

STUCCO SURROUND

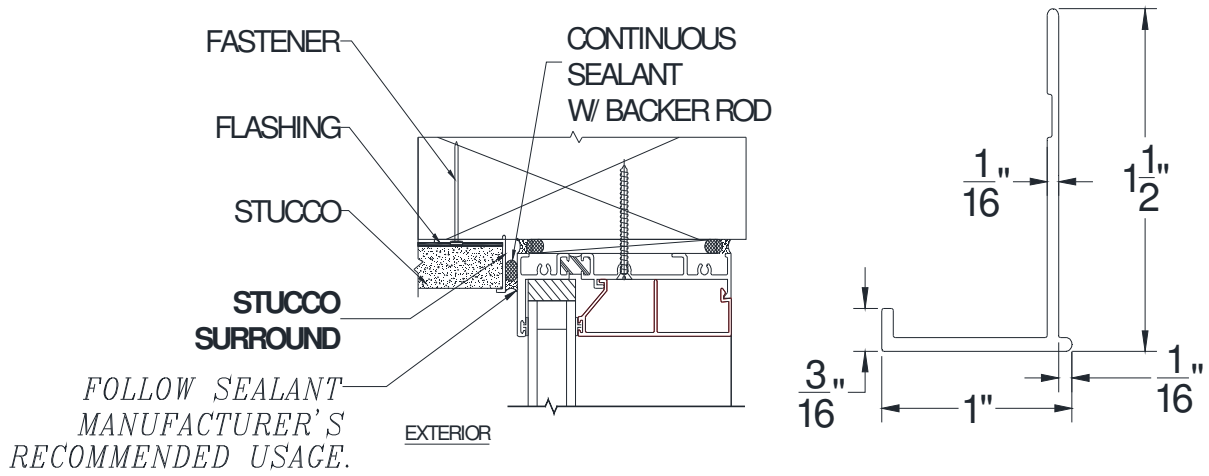


Figure 21:
Stucco Surround Detail and Extrusion