



W I N T E C H

An Employee Owned Company



COMMERCIAL WINDOW INSTALLATION INSTRUCTIONS

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Commercial Window Installation Instructions

I. General Overview and Information

A. Handling and Storage

1. Handle all windows and other material carefully
2. Do not drop, drag, or walk on boxed or crated material.
3. Stack windows with direction arrows and / or bottom labels in the proper position. Do not lay windows flat!
4. Place protective spacers between each window, windows and walls, and windows and floors during storage.
5. Store windows off the ground on pallets, planks or similar materials. Windows store outside must be protected from rain, snow, etc.
6. Protect windows from other trade damage or manufacturing processes with ventilated covering.
7. Remove material from packaging if it becomes wet. Repack materials and move to a dry location.

B. Window and Material Inspection

1. Inspect all windows and other material upon delivery for damage and quantity accuracy. Report damage and / or missing material to WinTech and freight carrier immediately.

II. Cleaning

A. Cleaning Window Units

1. Plaster, cement, terrazzo, alkaline, and acid based materials used to clean masonry are very harmful to painted and anodized finishes and should be removed with water and mild soap immediately, to prevent permanent staining. Spot testing is recommended prior to any cleaning agent being applied to the doors.
2. Cleaning of painted aluminum surfaces should be performed in accordance with American Architectural Manufacturing Association (AAMA) 609 and 610-02 "Cleaning and Maintenance Guide for Architecturally Finished Aluminum".
3. Cleaning of anodized aluminum surfaces should be performed in accordance with American Architectural Manufacturing Association (AAMA) 609 and 610-02 "Cleaning and Maintenance Guide for Architecturally Finished Aluminum".
4. If protective coatings are required, they must be removed from any area of the window unit that requires field applied sealant prior the installation of the window unit.

B. Cleaning Glass

1. Glass should be cleaned with a liquid glass cleaner
2. Do not use any dirty or abrasive type material to clean glass
3. Do not use a razor blade on the glass surface

III. Construction Notes

A. Reference Project Documents

1. Check any shop drawings, elevation drawings, project specific details, and installation instructions to become thoroughly familiar with the project. Any project specific documents, such as shop drawings, details, etc., take precedence over these installation instructions.



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B. Opening Verification

1. Ensure that construction that will receive WinTech windows and products is in accordance with the contract documents. If construction is not per the contract documents please notify the general contractor in writing and resolve differences prior to proceeding with work.
2. The rough opening must be verified to confirm it is square, level, and plumb and has the proper clearance for the designated window.

C. Isolate Aluminum

1. Aluminum that is in direct contact with masonry or incompatible materials must be isolated with a heavy coat of zinc chromate, plastic isolators, or bituminous paint.

D. Thermal Pour & Debridged Pocket

1. Do not punch, penetrate, alter, or drill the pour and debridged thermal break.

E. Blocking

1. All blocking and shims will be non-corrosive or high strength plastic material not by supplied by WinTech. Blocking must be of size to support the frame where indicated. The blocking must prevent the window from bowing, twisting, racking or distorting.

F. Fasteners

1. WinTech does not provide perimeter anchorage or fasteners.
2. Refer to the project shop drawings or project design professional to determine size, type, and quantity of perimeter anchors or fasteners to be used when installing our products.

G. Sealant

1. All sealant used must be compatible with all the materials it contacts, including other sealant. All sealant unless noted is not by WinTech and is to be supplied by others.
2. WinTech does not recommend sealant or caulking types and will not assume liability or responsibility of sealant or caulking not supplied by WinTech. The sealant supplier should be consulted for sealant recommendations associated with compatibility, adhesion, priming, tooling, shelf life, and joint design. It is the sole responsibility of the customer to perform all sealant adhesion and compatibility testing that is required by the sealant manufacturer of choice for sealant that is to be supplied by the customer.

H. Glass

1. Consult local building codes for information regarding requirements and location of safety glazing.
2. The selection of safety glazing that is in conformance to local building codes is the responsibility of the owner, architect, and installer.

I. Safety

1. Follow all required safety and PPE procedures when installing windows and other aluminum fenestration products provided by WinTech.

Nail Fin Windows

IV. Nail Fin Window Installation Instructions

A. Nail Fin Opening Verification and Preparation

1. Measure rough opening (RO) to ensure RO matches the approved shop drawings or contract documents.
2. Opening should be measured at three different locations both horizontally and vertically. See blue & green lines in Figure 1
3. Verify opening is square by taking two diagonal measurements. See red lines in Figure 1. Measurement tolerance = $\pm 1/8"$
4. Ensure opening is plumb and level.
5. Install any required flashing that is needed prior to installation of the windows.
 - *WinTech is not responsible for failures of flashing or processes relating to flashing. Failure to install flashing correctly may result in window failure or property damage.*
6. Ensure opening is free of any debris or other obstructions.

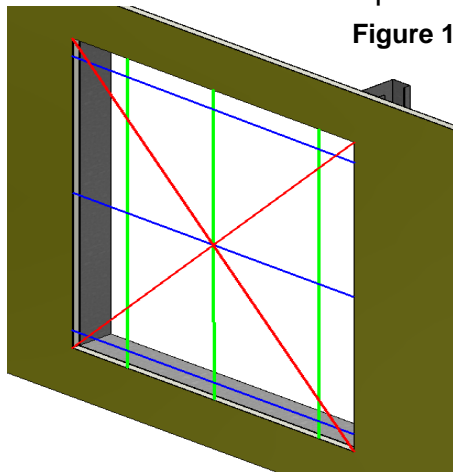


Figure 1

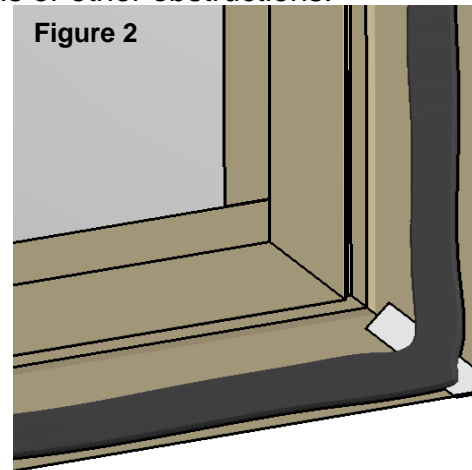


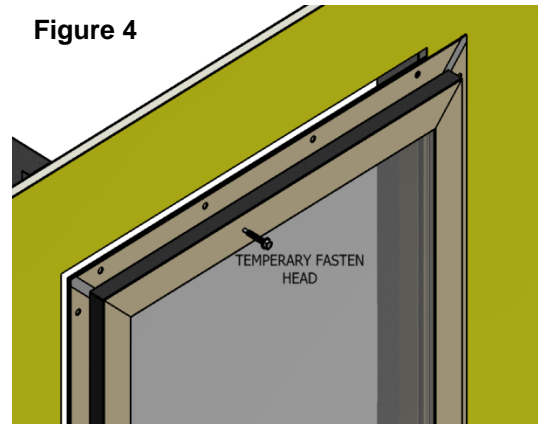
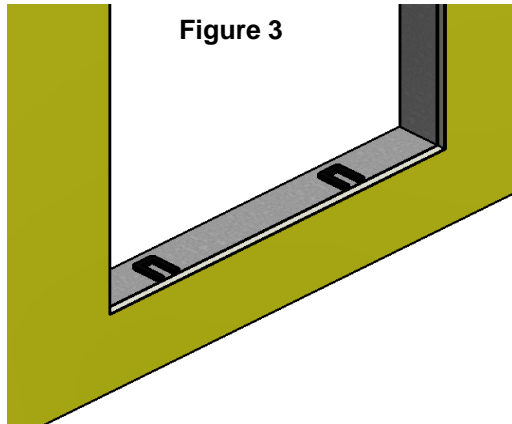
Figure 2

B. Nail Fin Window Installation

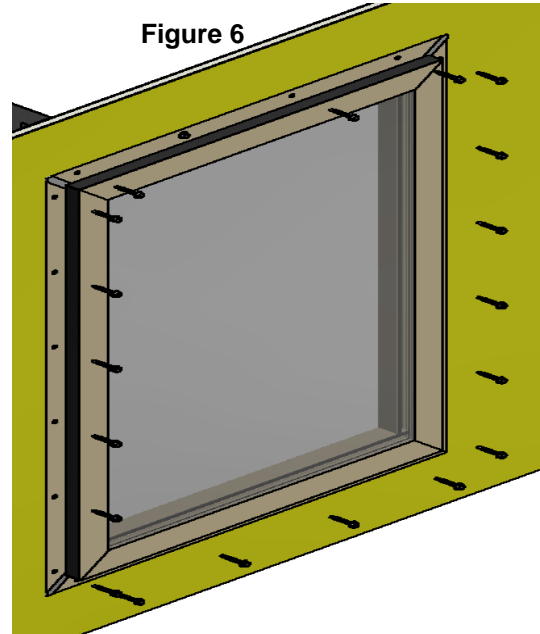
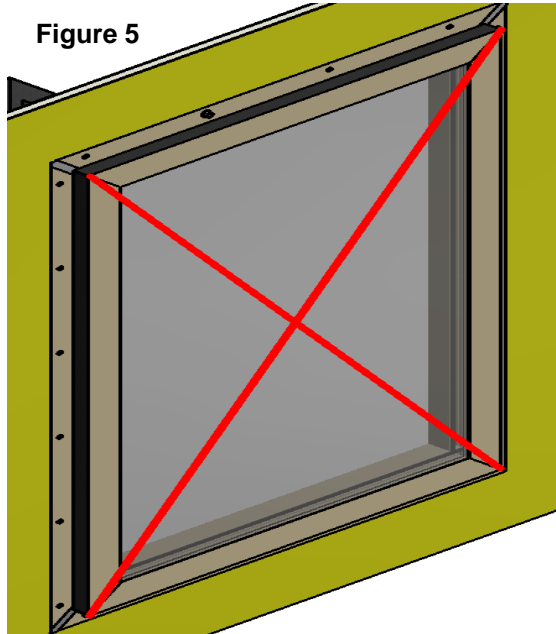
1. Fabricate clear holes into nail fin for perimeter anchorage. Holes should be sized based on type of perimeter anchorage fastener. Quantity and spacing is determined by approved shop drawings or project design professional.
2. Wipe down interior side of nail flange with 50% isopropyl alcohol or similar product
3. Apply a minimum 3/8" wide x 1/8" tall continuous bead of sealant around all four sides of interior side of nail fin. See Figure 2.
 - *Continuous bead should be in line with installation holes*
4. Place deadload shims at bottom of the RO. Shims should be placed at approximately quarter points of the window. See Figure 3.
5. Install the window into the opening. Window should be centered in opening and setting on the deadload shims at the bottom of the opening.

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6. Temporarily attach the window to the opening at the head nail fin. See Figure 4.



7. Shim jambs at horizontal meeting rail locations. Keep window centered in the opening. Ensure jambs are not bowed.
8. After jambs are shimmed, level window in opening. Additional shims may be required.
9. Measure window dimension diagonally to ensure window is square. See Figure 5
10. Install remaining perimeter anchor fasteners through each hole in the fin. See Figure 6



11. Apply flashing tape, air barrier, or other type of membrane over nail fin and fasteners. See Figure 7.
12. Flashing tape, air barrier, or membrane should extend past the window frames and overlap at the corners. Corners should be water tight.

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13. Smooth flashing, air barrier, or membrane out over nail fin using a roller
14. After installing exterior EIFS, brick or other condition run continuous backer rod between the window frame and condition. See Figure 8.
15. Apply continuous sealant to joint. 1/4" joint width should be maintained around the perimeter of the window. Tool sealant. See Figure 8.

Figure 7

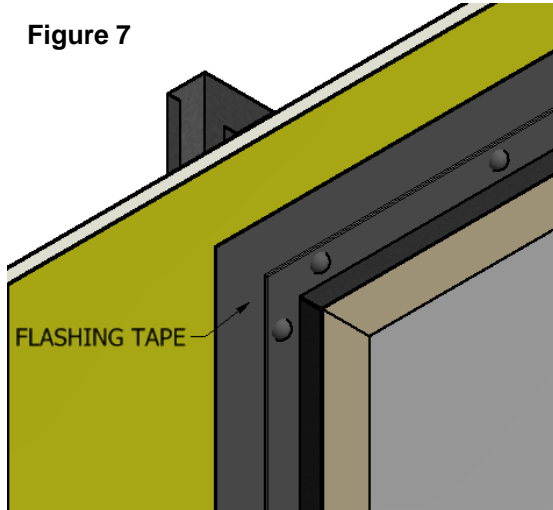
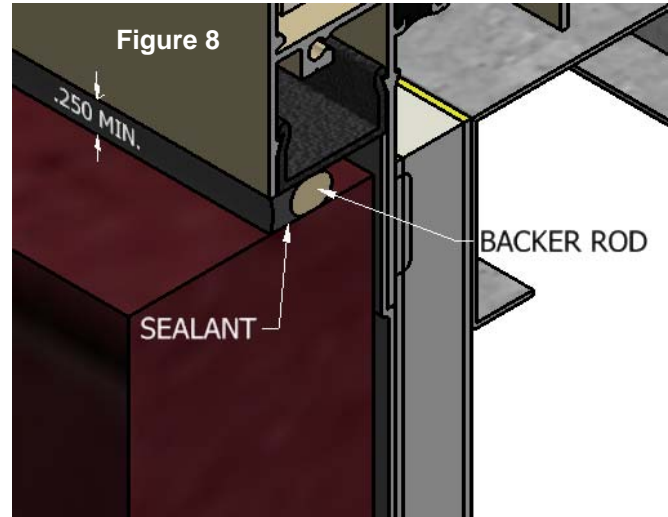


Figure 8



C. Nail Fin Window Installation with Stack Frame

1. Verify opening as outlined in Section A, steps 1 thru 6
2. Install far left (as viewed from exterior) or bottom most window first as directed in Section B steps 1 thru 10
 - *The bottom window may have the stack frame*
3. Place deadload shims at bottom of the RO. Shims should be placed at approximately quarter points of the window. See Figure 3.
4. Apply a minimum 3/8" wide x 1/8" tall continuous bead of sealant around all sides of interior side of nail fin. See Figure 2.
 - *Continuous bead should be in line with installation holes*
5. Apply a continuous bead of sealant along the length of the both the exterior and interior stack legs. See Figure 9.
6. Apply a 5/8" long bead of sealant to the edge of the exterior and interior window frame leg at both edges where the stack leg has been removed. See Figure 9.
7. Apply sealant long the edge horizontal edge of frame filler and up the nail fin edge. Repeat at opposite end. See Figure 9.
8. Place window into opening and rest on deadload shims, then push window into adjacent window. The stack legs will be on the interior legs of the adjacent window it is mating with. See Figure 10.
9. Push window into other window until stack legs are snapped together. The window frames will butt hard against each other. See Figure 10.
10. Temporarily attach the window to the opening at the head nail fin. See Figure 4.
11. Level window in the opening, additional shims may be required.

Figure 9

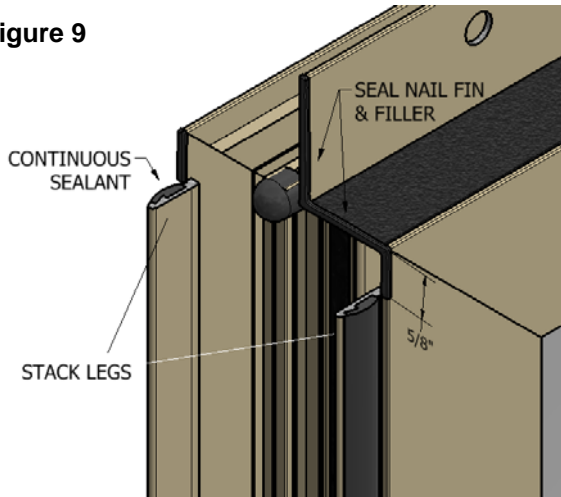
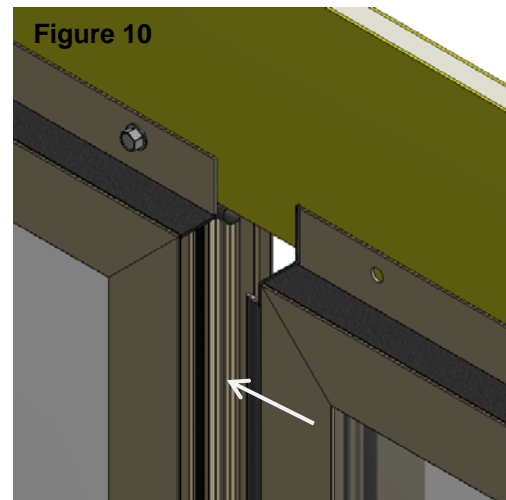


Figure 10



12. Measure window dimension diagonally to ensure window is square. See Figure 5
13. Install remaining perimeter anchor fasteners through each hole in the fin. See Figure 6
14. Tool sealant “ooze out” at all nail fin and filler joints. Add sealant if necessary to ensure this is a water tight joint. See Figure 11.
15. Clean sealant “ooze out” from exterior and interior window frame stack joint that will be exposed. Use 50% isopropyl alcohol or similar product. See Figure 12.
16. Complete installation of opening following Section B steps 11 thru 15.

Figure 11

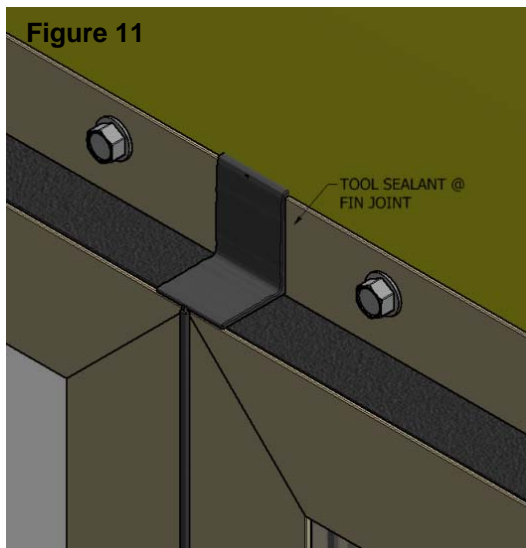
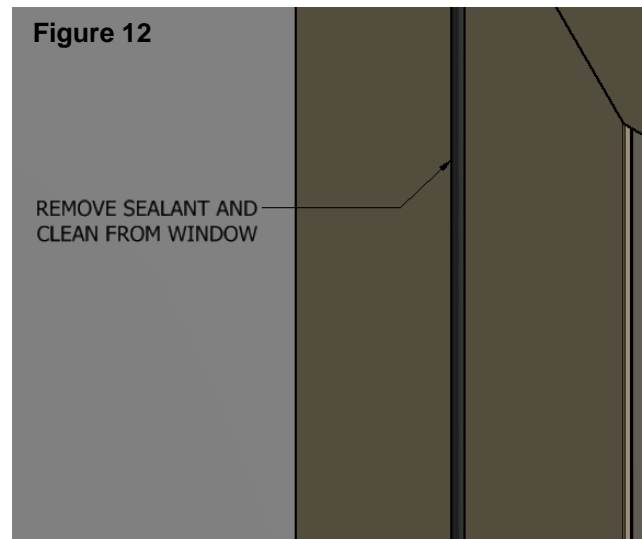


Figure 12



D. Nail Fin Window Installation with 3-Piece Mullions

1. Verify opening as outlined in Section A, steps 1 thru 6
2. Install windows as outlined in Section B, steps 1 thru 10
 - *Deadload shims should be placed beneath the jambs that will be adjacent to the 3-piece mullion*

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3. There should be a gap between the window dimensions after windows are installed and ready to receive mullion. Gap varies see project shop drawings.
4. Deadload shims should be placed between the two window units to rest the mullion on during install. See Figure 13.
5. Trim mullion gasket flush with mullion cut length prior to install
6. Apply a continuous bead of sealant approximately 1/8" tall along the inside face of the mullion next to the mullion gasket. See Figure 14.
 - *A cap seal between the window and mullion is also acceptable in lieu of the back bed seal.*

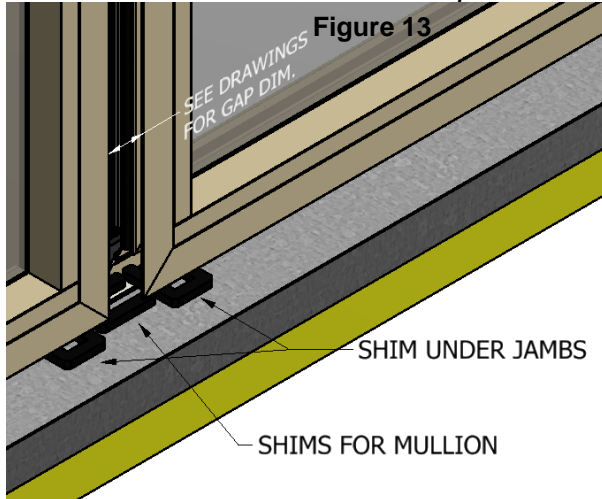
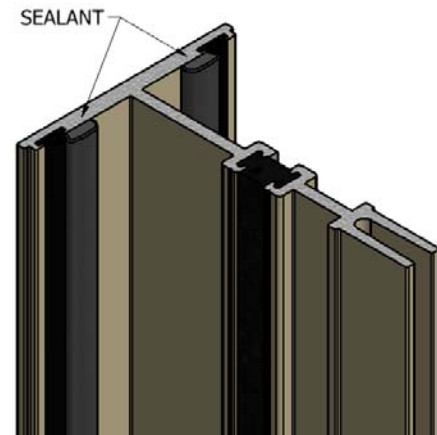


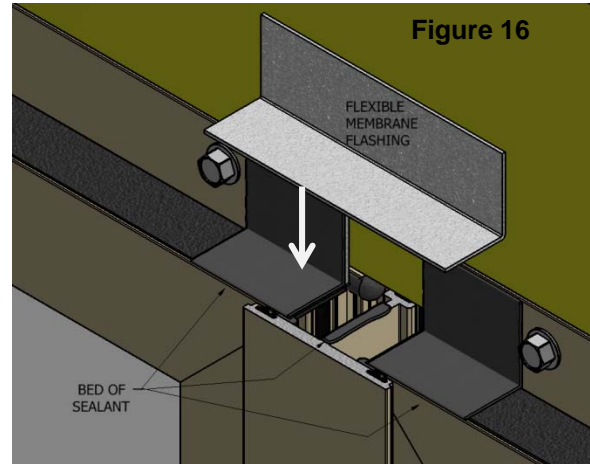
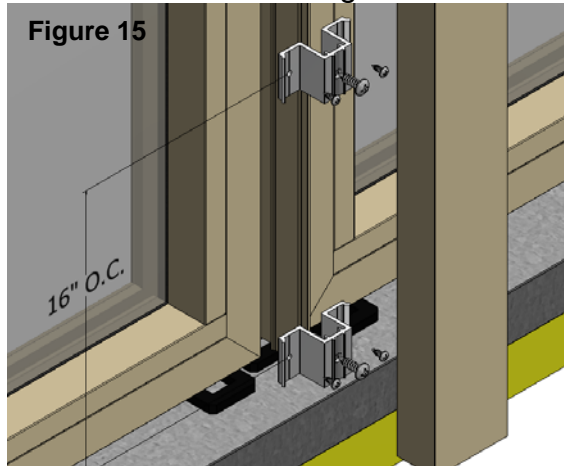
Figure 14



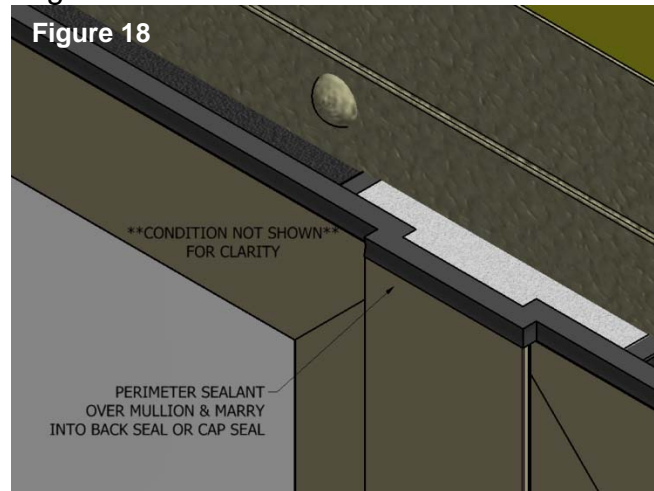
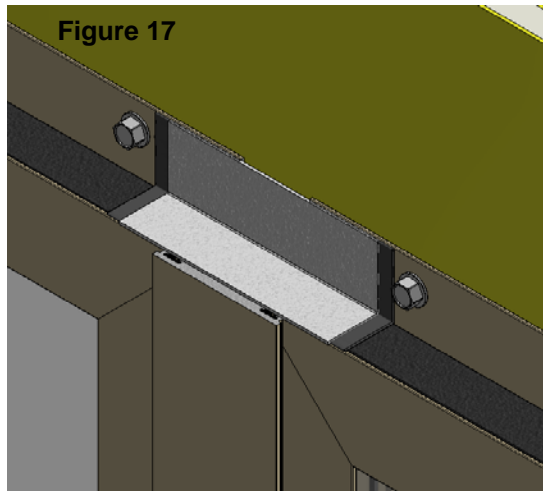
7. Insert the mullion between the two window frames and rest it hard against the shims at the sill. Window mullion should be same length as the windows it joins.
8. Refer to the project shop drawings to determine the correct window engagement into the mullion.
9. After mullion is inserted and correct window engagement achieved, attach the mullion clips on the interior. Place one mull clip at the top and bottom, and then the remaining at 16" on center. Ensure windows remain square and plumb during and after installation. See Figure 15.
 - *Mullions clips may require closer spacing or be full length depending on project requirements. See project shop drawings.*
10. Mullion clips will be attached to the mullion using one #12-11 x 3/4" PL-PH-SMS provided by WinTech. Two #6-18 x 3/8" PL-PH-SMS provided by WinTech will be used to attach the mullion clip to the window frame.
 - *Window frames must be matched drilled by installer to match mullion clip holes.*
11. Snap interior cover over the mullion clips. Cover should be same length as mullion. See Figure 15.
12. Apply 4" wide flexible membrane flashing (not by WinTech) to the top and bottom ends of the mullion. Flashing should extend from window

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over mullion to next window. Set 4" flashing in full bed of sealant and completely cover the voids between window and mullions at both ends. See Figure 16 & 17.



13. Complete installation of opening following Section B steps 11 thru 15.
 - *Flashing tape, air barrier or membrane must be lapped over the 4" flexible flashing at all locations.*
14. When applying perimeter sealant, sealant must run along the ends of the mullions and marry into to the back bed seal or cap seal between window and mullion. See Figure 18.



Windows with SubFrame

V. SubFrame Installation Instructions

A. Opening Verification and Preparation

1. Measure rough opening (RO) to ensure RO matches the approved shop drawings or contract documents.
2. Ensure opening is plumb and level.
3. Install any required flashing that is needed prior to installation of the windows.

➤ *WinTech is not responsible for failures of flashing or processes relating to flashing. Failure to install flashing correctly may result in window failure or property damage.*

4. Ensure opening is free of any debris or other obstructions.

B. SubSill Fabrication & End Dams

1. Measure the horizontal width of the RO. Square cut the subsill 1/2" shorter than the width of the RO measured.
 - *Verify 1/2" dimension against project shop drawings*
2. If the project requires a subsill extender, cut the extender the same dimension as the subsill
3. Field drill 1/4" weep holes 6" from the ends. If opening is wider than 60" add an additional weep hole in the center. Distance between weep holes should never exceed 60". See Figure SF1
4. If subsill a extender is required, slide the extender into the subsill. Extender should be flush with both edges of the subsill.
5. Apply a fillet seal between the subsill and subsill extender. See Figure SF2.
6. Support subsill and extender with blocking while sealant cures. The support should hold the extender in the correct position while sealant cures. See Figure SF3.

Figure SF1

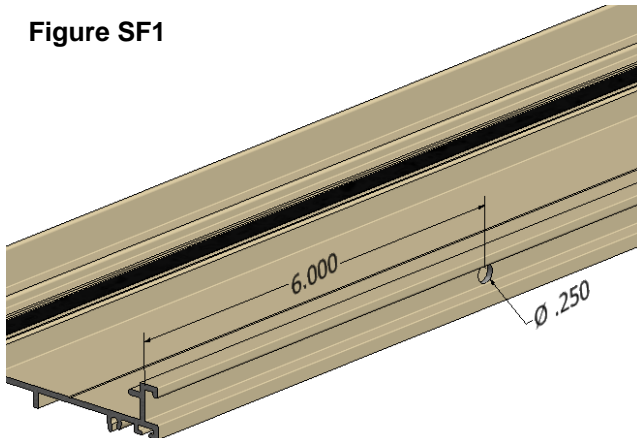
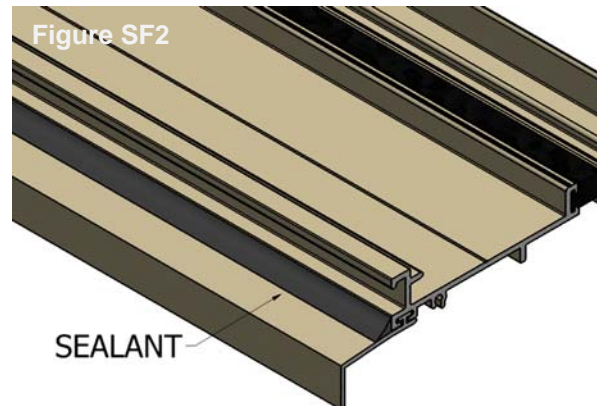


Figure SF2



7. Wipe down mill finish edge of subsill with 50% isopropyl alcohol or similar product.
8. Apply WinTech provided end dam gasket to end dam. Ensure holes in gasket line up with holes in end dam.
9. Screw apply the end dam with gasket to each end of the subsill. See Figure SF4.



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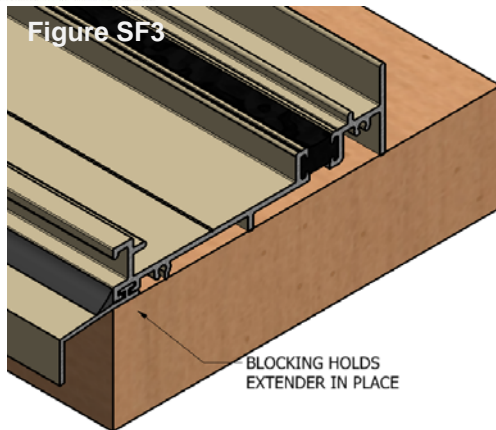
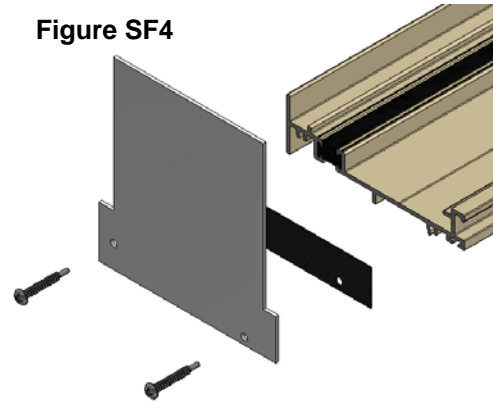
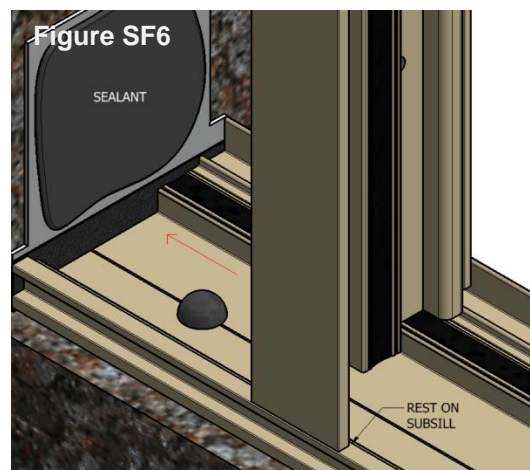
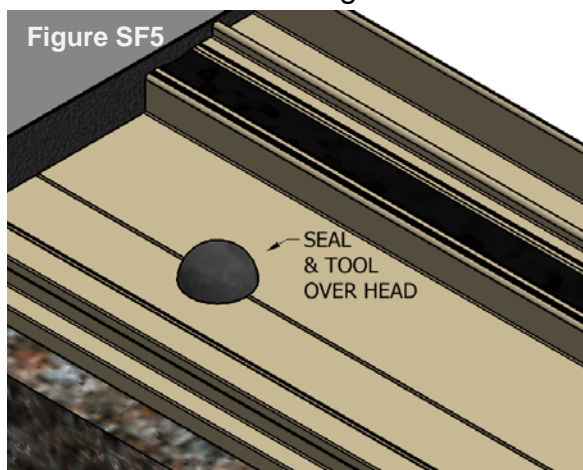


Figure SF4



C. SubFrame Installation

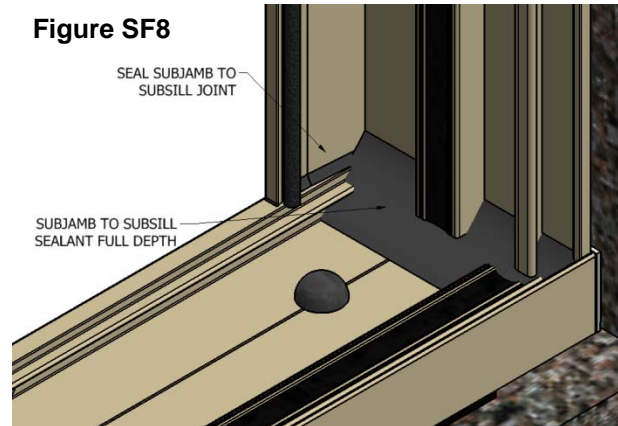
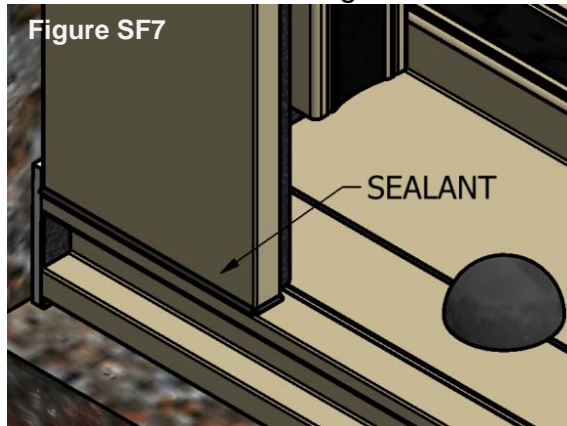
1. Place the subsill into the opening.
 - *Shim subsill as required to ensure subsill is level*
2. Anchor subsill into condition using installer supplied fasteners. Anchorage fasteners to be spaced and sized as outlined in project shop drawings.
3. Apply sealant to anchor fastener heads and tool sealant around head. See Figure SF5.



4. Square cut subjamb Window Dimension Height minus 11/16" (0.688").
 - *Subjamb cut formula is based on WinTech standard 9/16" window frame engagement at subhead. See approved shop drawings for engagement dimension verification.*
5. Apply a bed of sealant to each subsill end dam prior to installing the subjamb. See Figure SF6.
6. Install the subjambs plumb. Subjamb should rest on the subsill and be tight to end dams. Bulb vinyl should be installed in subjamb prior to subjamb being installed into opening.
7. Shim between subjamb and condition as required to keep subjambs plumb and true.

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8. Anchor subjambs to condition using installer supplied fasteners. Anchorage fasteners to be spaced and sized as outlined in project shop drawings.
9. Apply sealant to anchor fastener heads and tool sealant around head. See Figure SF5.
10. Measure the horizontal width of the RO at the head. Square cut the subhead 1/2" shorter than the width of the RO measured.
 - *Verify 1/2" dimension against project shop drawings*
11. Install subhead level. Ensure subhead face is flush with face of subjambs.
12. Shim between subhead and condition as required to keep subhead level.
13. Anchor subhead to condition using installer supplied fasteners. Anchorage fasteners to be spaced and sized as outlined in project shop drawings.
14. Apply sealant to anchor fastener heads and tool sealant around head. See Figure SF5.



15. Apply sealant along the subjamb to subsill joints on the exterior side. Line of sealant should marry into the end dam. Tool sealant. See Figure SF7.
16. Apply sealant along the interior side of the subjamb to subsill joint. Seal over the bulb gasket installed into the subjamb. This seal should marry into the seal applied in step #15.
17. Apply sealant from the subjamb to subsill along the interior depth of subframe system to form a water tank. Sealant should have 1/2" contact with subjamb and subsill and should cover the end dam gasket. See Figure SF8.
18. Apply sealant along the subjamb to subhead joint on the exterior side. Tool sealant. See Figure SF7 (Similar).
19. Apply sealant along the interior side of the subjamb to subhead joint. Tool sealant. See Figure SF9.
20. Insert and run backer rod (not supplied by WinTech) around perimeter of opening to prevent 3-side adhesion.

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21. Apply perimeter caulk (not by WinTech) to the entire perimeter of the opening. Perimeter sealant should be flush with the face of the subframe system and marry at all corners. Inspect sealant work to ensure it creates a water tight seal between subframe and perimeter condition. See Figure SF10.

- All subsill end dams should be sealed over by perimeter sealant.



Figure SF9

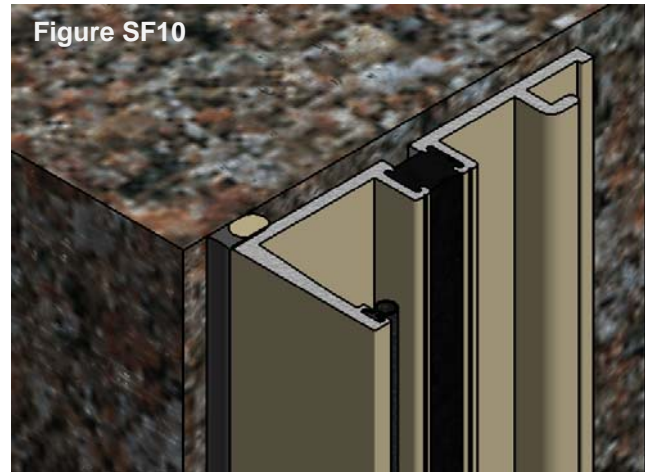
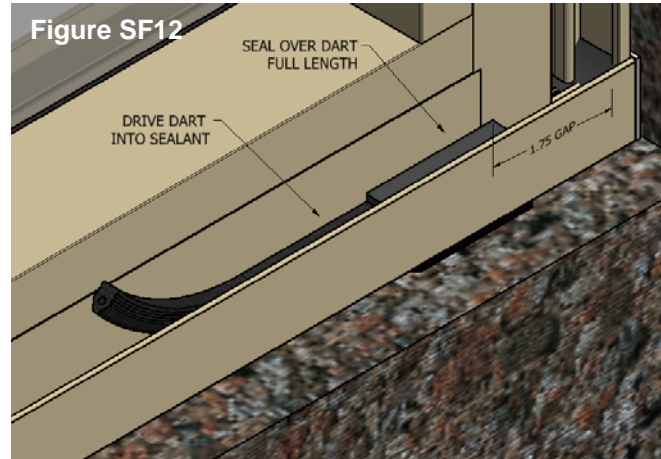
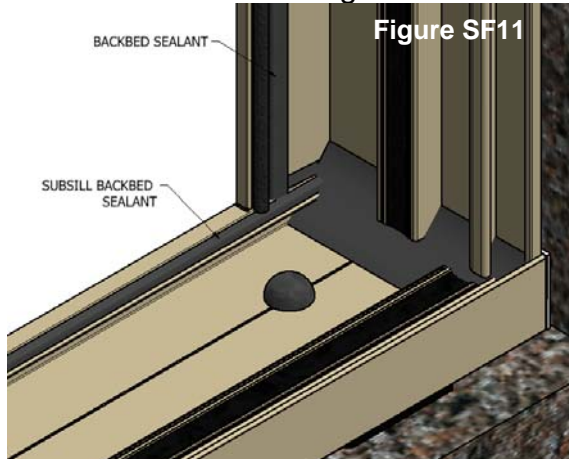


Figure SF10

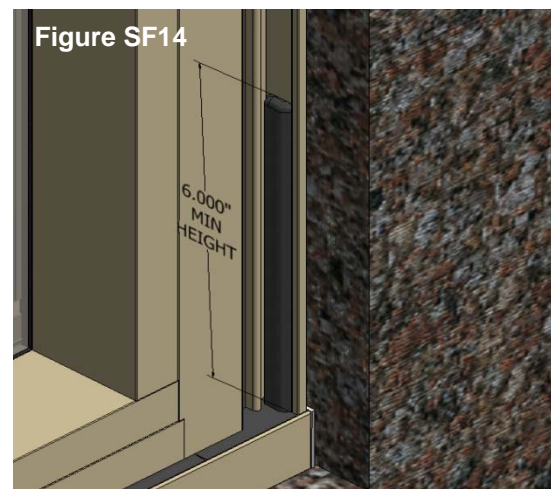
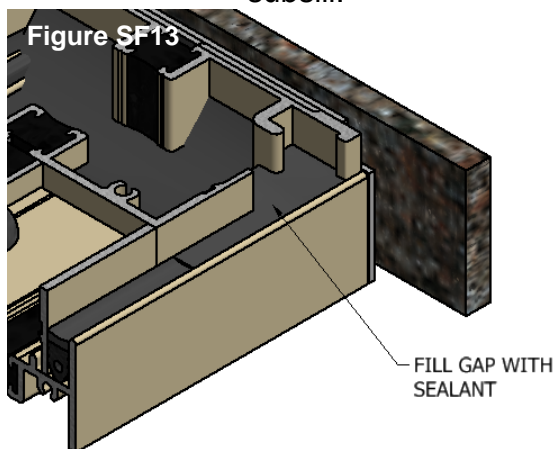
22. Run a continuous line of sealant approximately 1/8" tall by 1/4" wide adjacent to the gasket track on the interior wall of the subhead and subjamb. See Figure SF11.
23. Run a continuous line of sealant across the back side of the subsill leg in which the exterior window frame will rest against. See Figure SF11.
 - *As an alternative method to this back bed installation, a cap seal can be applied from the exterior face of the window frame to the subframe system around all four sides*
24. Insert the window into the subframe. The window should rest on the subsill legs and be engaged to the subjamb and subhead. Push window forward toward the exterior ensuring the window contacts the back bed sealant and compresses the bulb gasket.
25. Square cut the subhead closure to match the dimension of the subhead.
26. Trim the bulb gasket flush with the ends of the subhead head closure.
27. Install subhead closure into subhead. Ensure closure locks into place and is not loose.
 - *Use wood block between aluminum & dead blow hammer to seat closure into place*
28. Apply a continuous line of sealant between along the full length of the subsill behind the window. The dart gasket will be placed in this bed of sealant.
29. Drive in the WinTech provided dart gasket between the window and subsill. Leave a 1-3/4" gap between gasket and the subjamb at each end. Gasket should be driven down into the bed of sealant applied in step #28. See Figure SF12.

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30. Apply sealant over the dart gasket along the length of the gasket. Sealant should be tooled neatly and almost flush with the top of the subsill. See Figure SF12.
31. Fill the gap at the interior corner of the window frame and subjamb and subsill with sealant. Sealant should be flush with the top of the subsill. See Figure SF13.

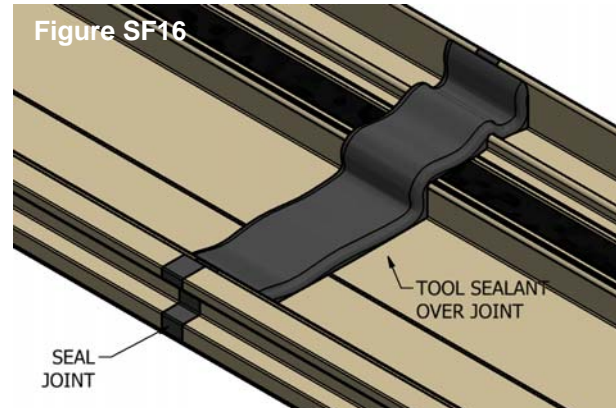
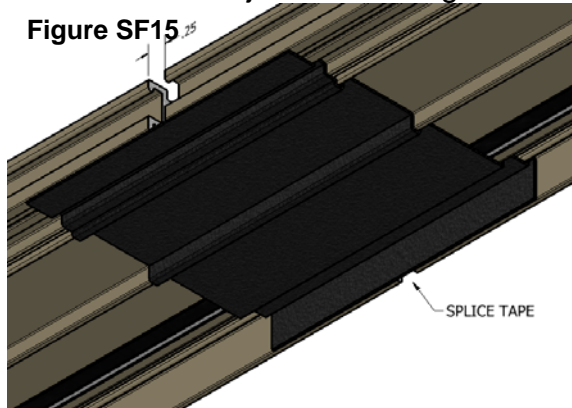


32. Measure from the top of the interior leg of subsill to the bottom of the subhead closure to determine the cut length for the subjamb closures.
33. Square cut the subjamb closures.
34. Trim the bulb gasket flush with the ends of the subhead head closure.
35. Apply a bed of sealant to the subjamb where subjamb closure rests. Bed of sealant must be at least 6" tall from the subsill. See Figure SF14.
36. Install subjamb closure into subjamb. Ensure closure locks into place and is not loose.
 - Use wood block between aluminum & dead blow hammer to seat closure into place
37. Cap seal window to subjamb closure minimum 6" up from sealant in subsill.



D. Splicing SubHeads & SubSills

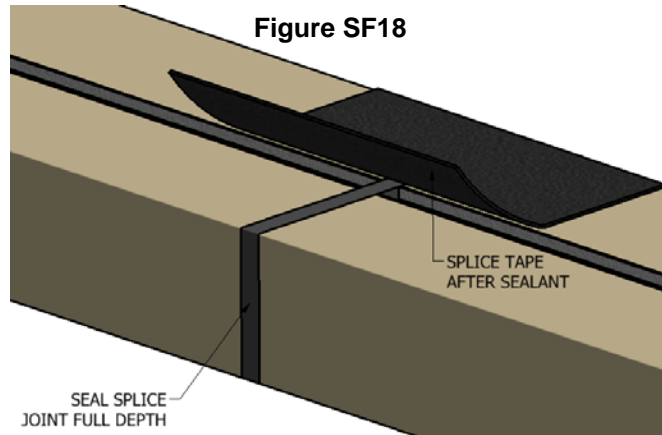
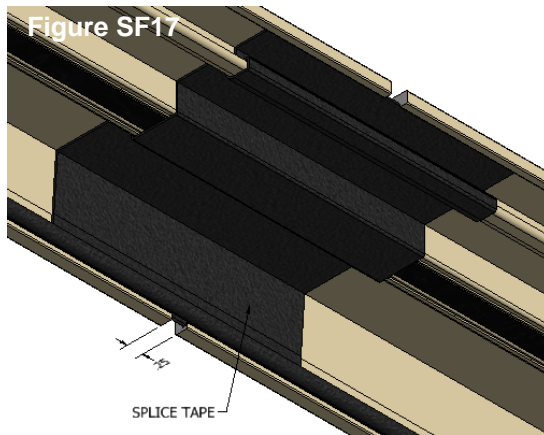
1. Measure the horizontal width of the RO.
2. If opening width exceeds 18', spliced subhead and subsills will be required.
3. Square cut the subhead and subsill for splices using the following formula: $RO \text{ minus } 1/2" \text{ minus } 1/4" \text{ splice joints} \div \# \text{ of lengths in opening}$.
 - Verify caulk joint sizes, splice joint sizes, and quantity of subheads and subsills required in the opening against the project shop drawings
4. Follows SubFrame Installation Instructions Section B step #3 for weeping of the subsill.
5. Take the pieces of subsill being spliced and apply the WinTech provided splice flashing tape to the underside of the subsill. 4" wide flashing tape should be centered on the 1/4" splice joint. Compress tape tight to the subsill and ensure good adhesion to both pieces. See Figure SF15.
6. Apply sealant to the splice joint from the top side of the subsill. Sealant should fill the entire joint from tape to top of metal and should run the full depth of the subsill. Tool sealant over joint to ensure entire joint is watertight. See Figure SF16.



7. Complete subsill and subjamb installation as outlined in SubFrame Installation Instructions section B & C.
8. Take the pieces of subhead to be spliced and apply the WinTech provided splice flashing tape to the interior side of the subhead. 4" wide flashing tape should be centered on the 1/4" splice joint. Compress tape tight to the subhead and ensure good adhesion to the both pieces. See Figure SF17.
9. Run subhead bulb gasket thru from one piece to the other at the splice joint.
10. Apply sealant to the splice joint from the exterior side of the subhead. Sealant should fill the entire joint and should run the full profile of the subhead. See Figure SF18.

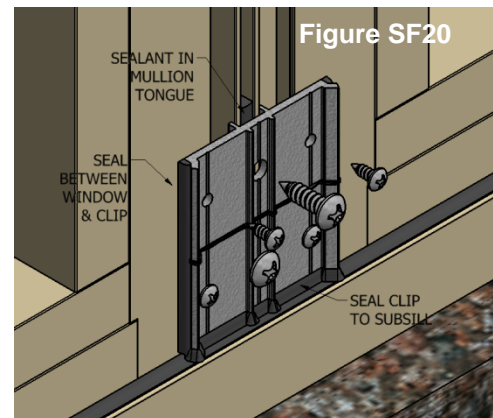
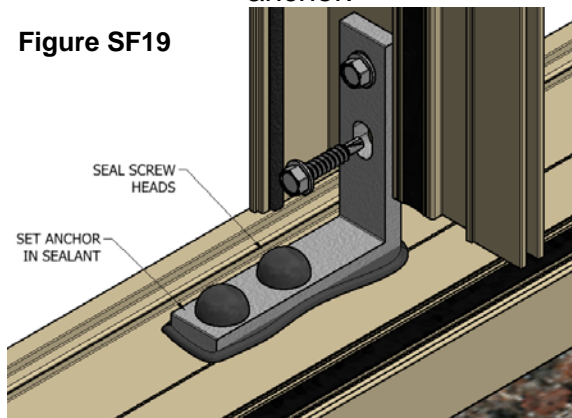
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- Tool sealant down at closure area so closure can be installed.
- 11. Apply WinTech provided 4" flashing tape to the top side of the subhead splice. See Figure SF18.
- 12. Complete subhead and remaining subframe installation as outlined in SubFrame Installation Instructions section C.
 - Subhead closure joint is to be offset of the subhead joint by at least 2".



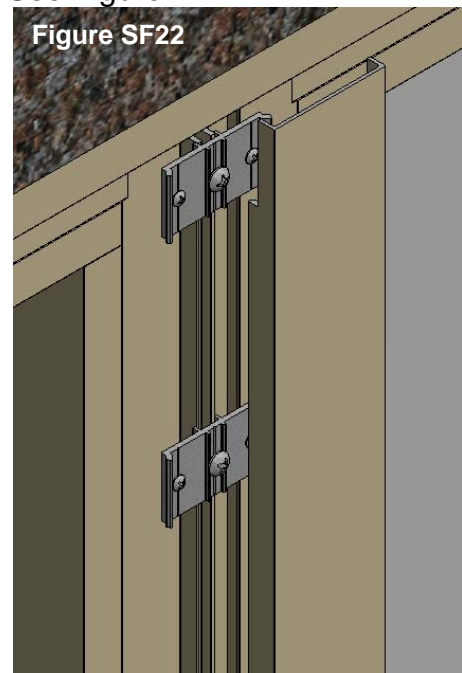
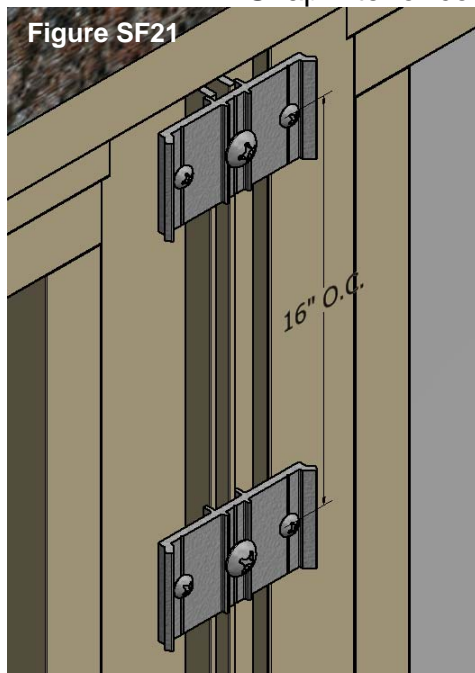
E. Mullion Installation in SubFrames

1. Complete steps 1 through 19 as outlined in section C of the SubFrame Installation Instructions
2. Install the mullion into the subframe opening. Refer to project shop drawings for location of mullion. Ensure mullion is installed plumb.
3. Set WinTech supplied mullion anchor in a bed of sealant at the subsill. Anchor thru mullion anchor, then thru the subsill into the condition using perimeter anchor fasteners not by WinTech. See Figure SF19.
4. Seal over anchor fastener heads and ensure sealant "ooze out" is tooled from the subsill to anchor providing a water tight joint. See Figure SF19.
5. Attach the mull anchor to the mullion using WinTech provided fasteners. See Figure SF19.
6. Repeat steps 3 thru 5 for the head mullion anchor. Head mullion anchor to be on the opposite side of the mullion compared to the sill anchor.



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7. Seal mullion to subsill similar to steps 15 and 16 in section C of the Subframe Installation Instructions.
8. Seal mullion to subhead joint similar to steps 18 and 19 in section C of the Subframe Installation Instructions.
9. Complete steps 20 to 31 as outlined in section C of the Subframe Installation Instructions.
10. Apply a 3" tall bead of sealant into the tongue of the mullion.
11. Place two mull clips at the bottom of the mullion. Mull clips should be butt sealed together. The bottom clip should contact the subsill and subsill sealant. Ensure windows remain square and plumb during and after installation. See Figure SF20.
12. Mullion clips will be attached to the mullion using one #12-11 x 3/4" PL-PH-SMS provided by WinTech. Two #6-18 x 3/8" PL-PH-SMS provided by WinTech will be used to attach the mullion clip to the window frame. Seal over screw heads.
 - *Window frames must be matched drilled by installer to match mullion clip holes.*
13. Seal the bottom of the clip to the subsill. See Figure SF20.
14. Seal between the mull clip and window for the full height of the two clips. See Figure SF20.
15. Attach the top mullion clip flush with the top of the mullion tongue and then install the remaining clips at 16" on center. See Figure SF21.
 - *Mullions clips may require closer spacing or be full length depending on project requirements. See project shop drawings.*
16. Complete steps 32 to 37 as outlined in section C of the Subframe Installation Instructions.
17. Snap interior cover onto mullion clips. See Figure 21.



F Anchor Installation

VI. F Anchor Installation Instructions

A. Opening Verification and Preparation

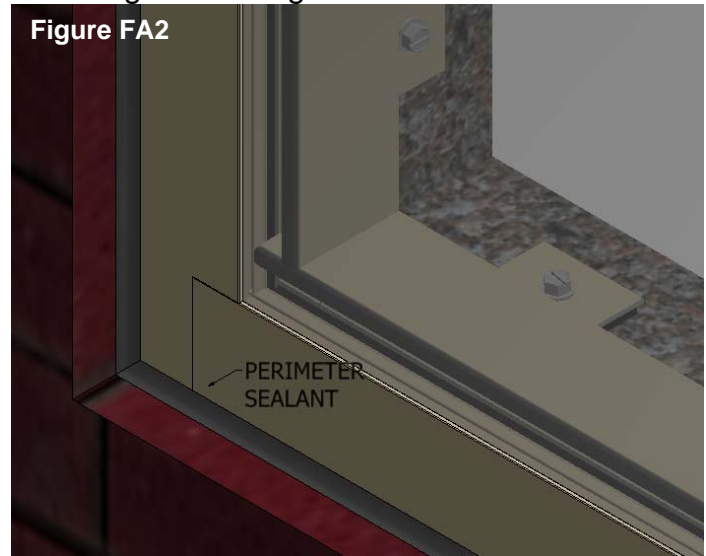
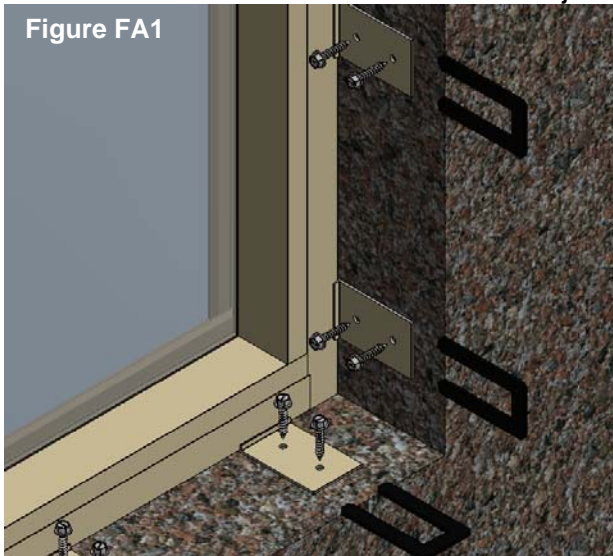
1. Measure rough opening (RO) to ensure RO matches the approved shop drawings or contract documents.
2. Ensure opening is plumb and level.
3. Install any required flashing that is needed prior to installation of the windows.

➤ *WinTech is not responsible for failures of flashing or processes relating to flashing. Failure to install flashing correctly may result in window failure or property damage.*

4. Ensure opening is free of any debris or other obstructions.

B. Window with F Anchor Installation

1. Drill fasteners hole in F anchors provided by WinTech per the hole pattern outlined in the project shop drawings or by the project design professional.
2. Snap the F anchors onto the interior window frame on all four sides. See Figure FA1.
3. Space the anchors on the window frame as noted on the project shop drawings or by the project design professional.
4. Insert the window with anchors attached into the rough opening.
5. Shim tight between each F anchors and opening. See Figure FA1.
➤ *Ensure the window is plumb, level, and square.*
6. Install fasteners thru anchors into the condition.
7. Apply perimeter sealant to exterior window frame and condition. Tool sealant and ensure joint is water tight. See Figure FA2.



Thru Window Frame Installation

VII. Window Frame Anchorage Installation Instructions

A. Opening Verification and Preparation

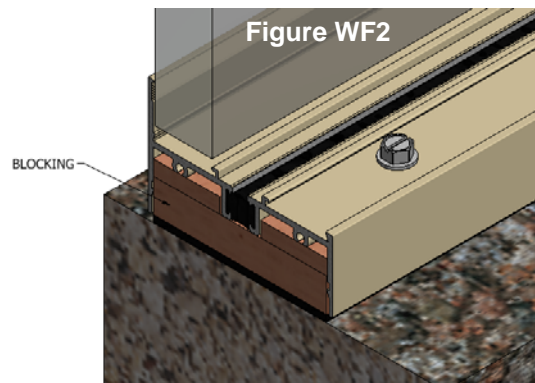
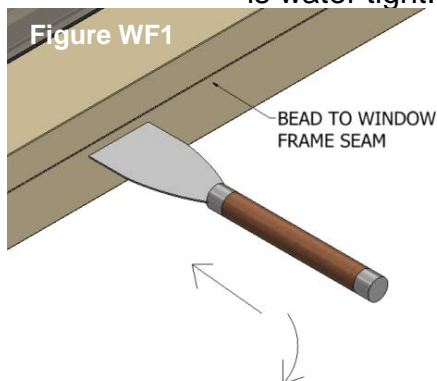
1. Measure rough opening (RO) to ensure RO matches the approved shop drawings or contract documents.
2. Ensure opening is plumb and level.
3. Install any required flashing that is needed prior to installation of the windows.

➤ *WinTech is not responsible for failures of flashing or processes relating to flashing. Failure to install flashing correctly may result in window failure or property damage.*

4. Ensure opening is free of any debris or other obstructions.

B. Window Installation Thru Window Frame

1. Remove the glazing bead that runs in-between first, and then remove the remaining glazing bead.
 - *Use a putty knife or similar tool to remove the bead. Care should be used not to damage the bead or the window.*
 - *WinTech is not responsible for damage created by removing or reinstalling the glazing beads.*
2. Apply pressure to the bead to compress the glazing bulb vinyl, then rotate in toward the glass, this should disengage the interior most bead hook. See Figure WF1.
3. Drill the window frames for the designed size of anchorage fastener being used and spacing specified in project shop drawings.
4. Insert blocking into window frame.
5. Insert the window into the opening. The window should be blocked tight to the opening and window on all sides. Ensure window is installed plumb, level, and square.
6. Install anchors thru frame and into the condition.
 - *Notching of the glazing bead legs and/or window frame may be required to accommodate for washers and screw heads.*
 - *WinTech is not liable for any damage to glass, the window frames, or other window components while fabricating and/or anchoring the windows thru the frame.*
7. Reinstall the glazing beads with bulb vinyl in the raceway, just as it was prior to them being removed.
8. Apply perimeter sealant around all sides. Tool sealant and ensure joint is water tight.



Window with Panning Installation

VIII. Panning Installation Instructions

A. Opening Verification and Preparation

1. Measure rough opening (RO) to ensure RO matches the approved shop drawings or contract documents.
2. Ensure opening is plumb and level.
3. Install any required flashing that is needed prior to installation of the windows.

➤ *WinTech is not responsible for failures of flashing or processes relating to flashing. Failure to install flashing correctly may result in window failure or property damage.*

4. Ensure opening is free of any debris or other obstructions.

B. Panning Notes

1. Typical panning material is shipped factory cut to size and fabricated to fit the exact window dimension. The perimeter flange of the panning is to be field trimmed to fit the masonry opening.
2. Window and panning frames will have the same mark designation.

C. Panning Installation

1. Cut excess vinyl from panning frames prior to assembly.
2. Field assemble panning frames with WinTech provided #8-18 pan head fasteners.
3. Seal over all fastener heads. Tool sealant.
4. Seal panning frame joints on the non-exposed side of the panning. Tool sealant. See Figure PN1 and Figure PN2.
5. Attach KC02 corner clips at the intersection of the all panning joints. See orientation in Figure PN2. The clips align the jambs with the head and sill frames. Perimeter caulking should cover corner clips.
6. Determine the panning sill face dimension by adding the sill drop plus "X" dimension. Rip the sill flange as required. See Figure PN9.
7. Determine the panning frame height and cut away from panning head flange if needed.
8. Determine the panning frame width and cut away jambs equally on both sides if required.

Figure PN1

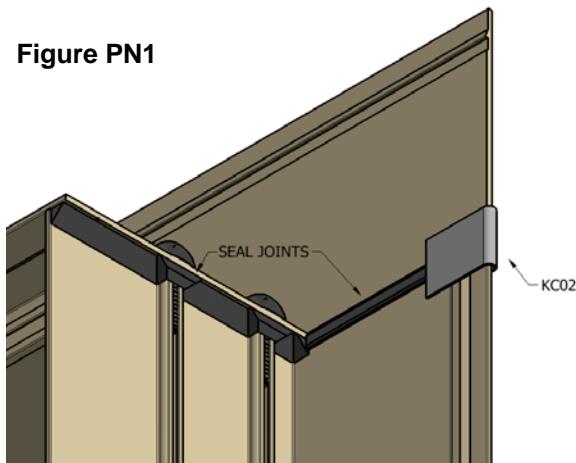
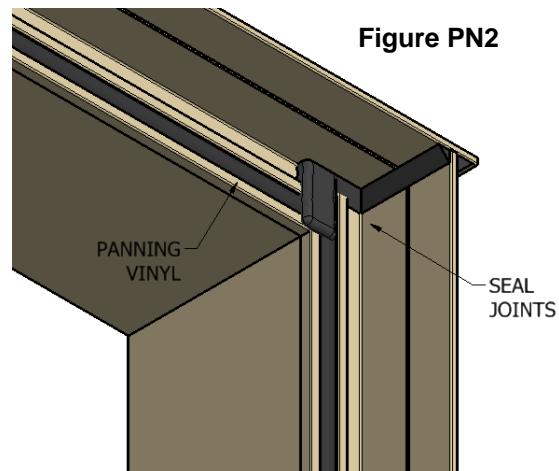
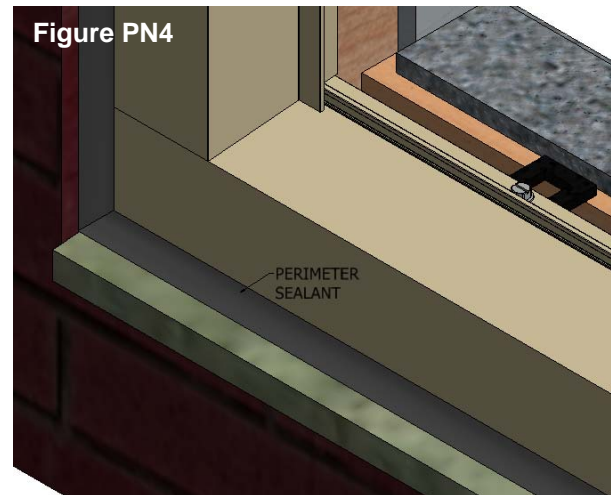
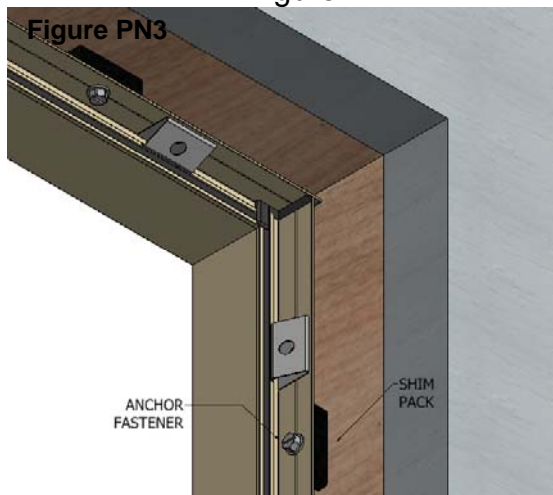


Figure PN2



Commercial Window Installation Instructions

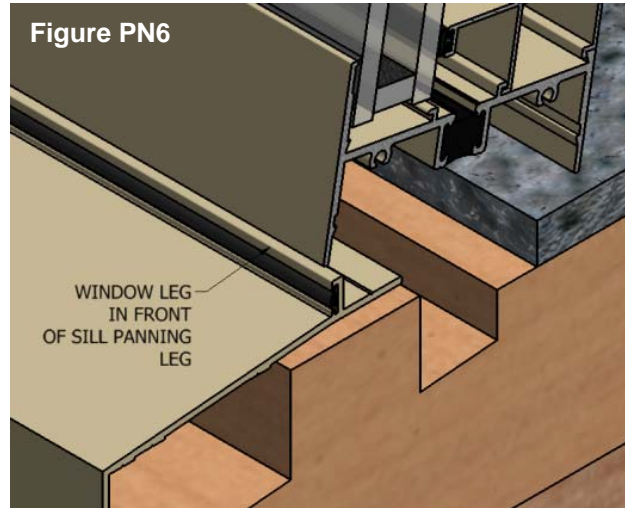
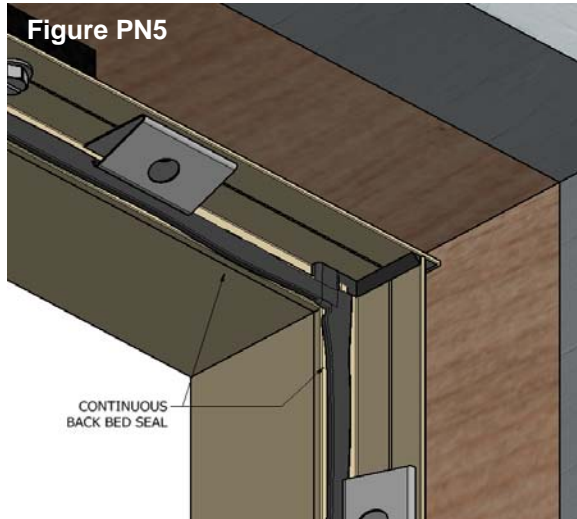
9. Install the panning frame into the opening from the exterior. Ensure interior trim will cover all exposed interior perimeter conditions before anchoring the panning in place.
10. Shim between panning frame and condition on all sides at anchor locations. See Figure PN3.
 - *Ensure panning is plumb, level, and square prior to anchoring.*
11. Anchor panning into opening using perimeter fasteners as specified in the project shop drawings or determined by the project design professional. See Figure PN3.
12. Seal the exterior of the panning frame to the adjacent masonry opening. Tool sealant. Sealant should hide the corner clips. See Figure PN4.



13. Backbed seal the panning vinyl continuous around all four sides. See Figure PN5.
 - *Sealant should be tall enough to ensure full contact with the window when it is installed.*
14. An alternate method to step 13 is cap sealing the window to the panning after the window is installed.
15. Insert the window into the panning by placing the outer window leg on the exterior side of the vinyl leg of the sill panning frame. Window should rest on the sill panning. See Figure PN6.
 - *Sealant is to be wet when window is installed.*
16. Push the window jambs and head into the panning jambs and head. The window jambs and head must securely snap in behind the panning frame clips. The window must be pushed tight against the panning frame for the clips to snap and engage correctly.
17. Ensure window is installed plumb and level then install the interior trim clips provided by WinTech. See Figure PN7.
18. Place trim clips approximately 6" from each corner of the window and then 16" on center around all sides of the window. Use WinTech

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provided #8-18 x 3/4" pan head self-drilling screws to attach the clips to the window.



19. Once clips are attached to the window, fastener trim clips to the surrounding condition. Fasteners to attach clips to the condition are not provided by WinTech.

- *Trim clip spacing may need to be reduced due to project design requirements and/or condition type. Refer to the project shop drawings for trim clip spacing verification.*

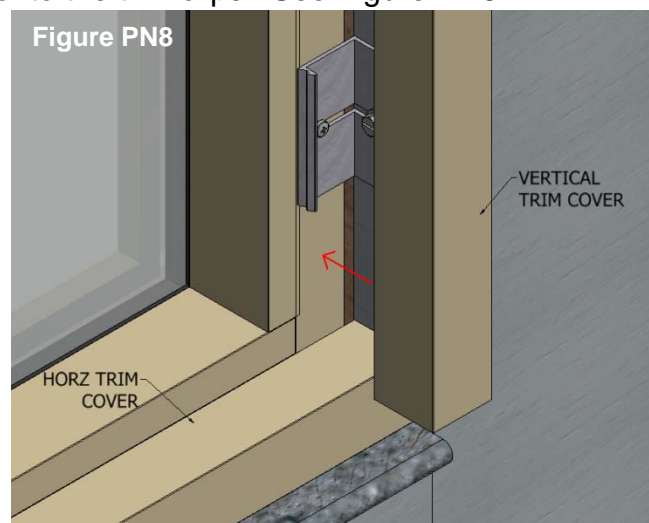
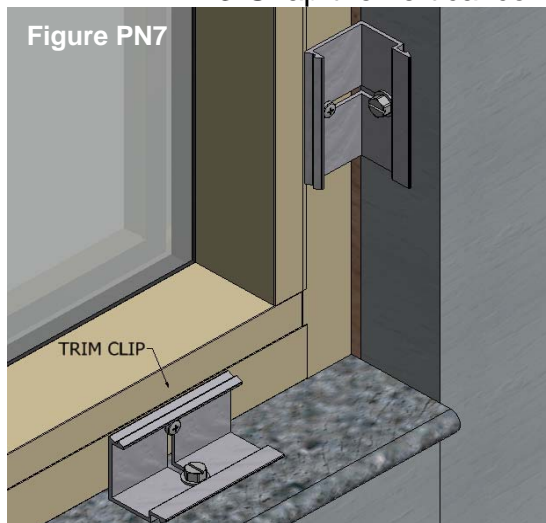
20. Measure the interior horizontal opening and cut the interior trim covers down to fit the opening size.

21. Snap the interior horizontal trim covers onto the trim clips.

- *Use a deadblow hammer with wood block between clip and hammer to install the covers. Care should be used not to damage the covers snapping them in place.*

22. Vertical trim covers run in-between the horizontal covers. Measure this distance and cut accordingly.

23. Snap the vertical covers onto the trim clips. See Figure PN8.





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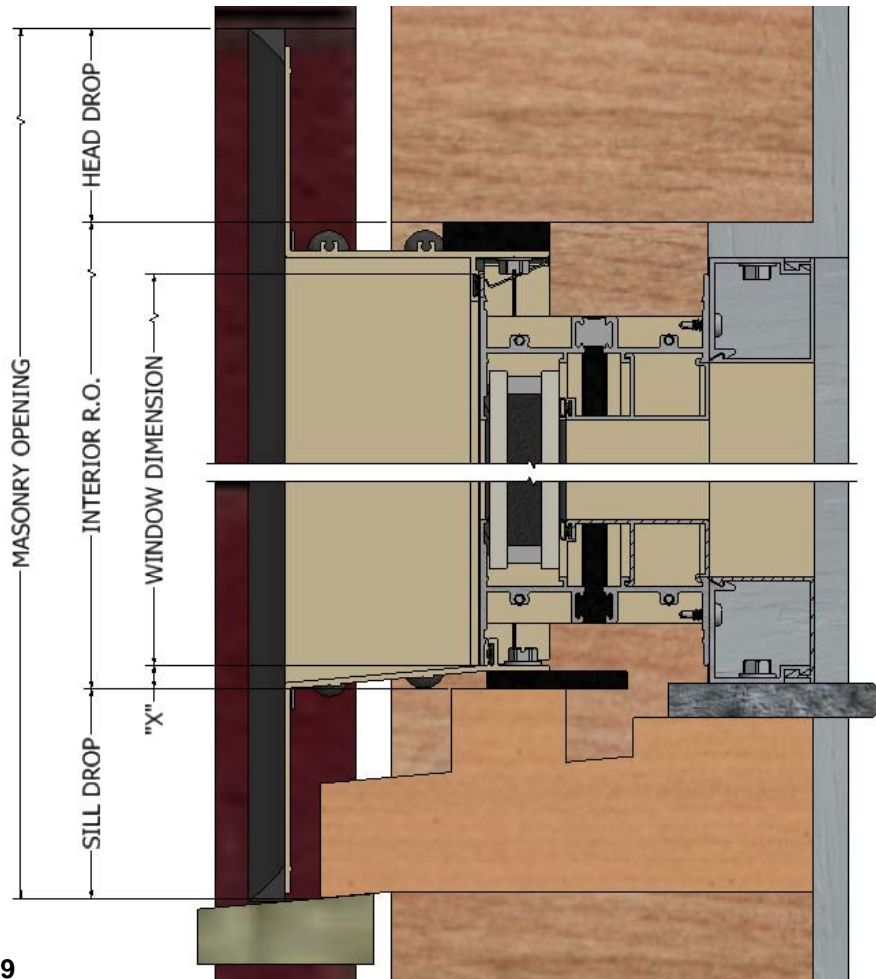
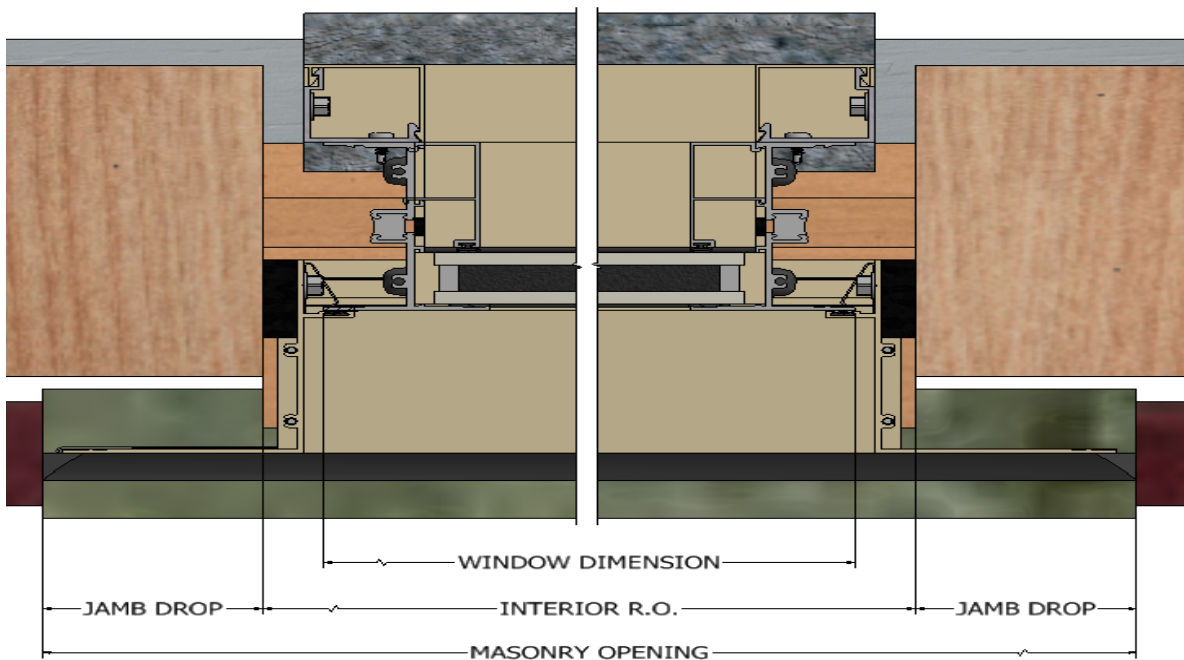


Figure PN9



D. Mullion Installation in Panning

1. Complete steps 1 through 12 as outlined in section C of the Panning Installation Instructions
2. Install the mullion into the panning opening. Refer to project shop drawings for location of mullion. Ensure mullion is installed plumb.
3. Attach the WinTech provided mullion anchor to the condition. Use one anchor at the sill and one on the opposite side of the mullion at the head. Perimeter anchor fasteners not by WinTech. See Figure PN10.
4. Attach the mull anchor to the mullion using WinTech provided fasteners. See Figure PN10.
5. Complete steps 13 through 23 as outlined in section C of the Panning Installation Instructions.
 - While performing step 13, apply a continuous back bed seal to the mullion adjacent to the mullion gasket. See Figure PN11.

Figure PN10

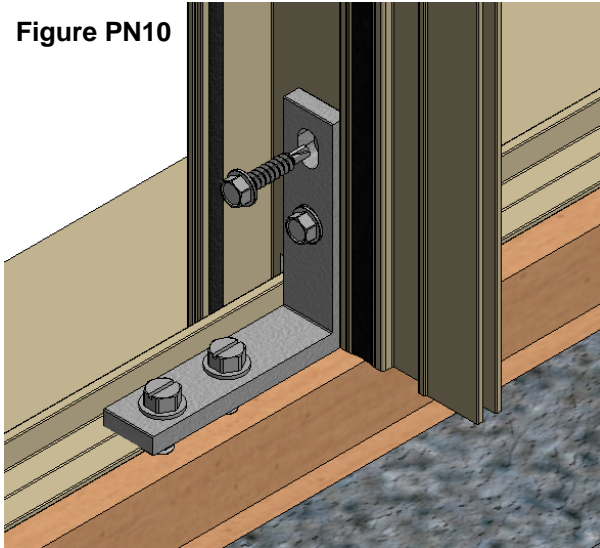
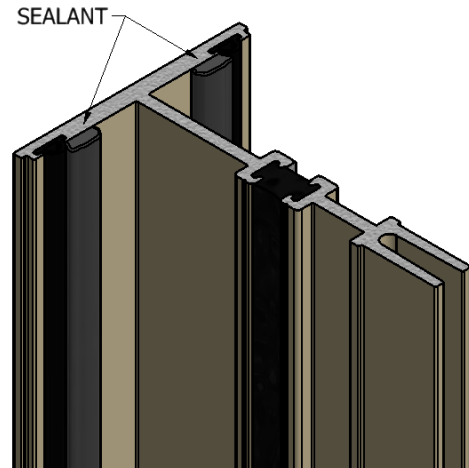


Figure PN11

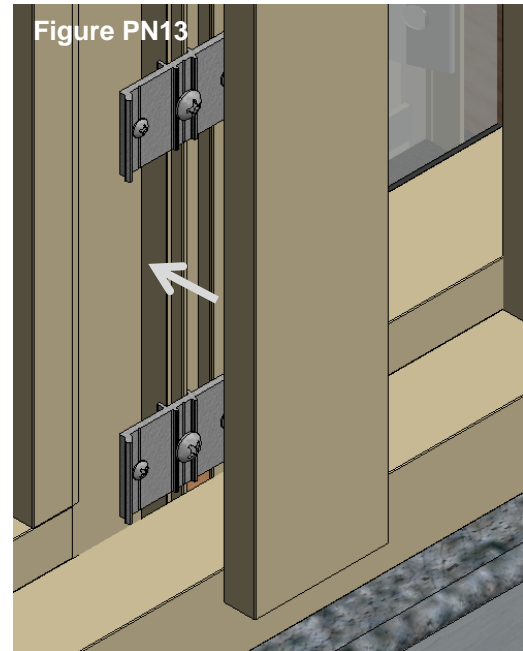
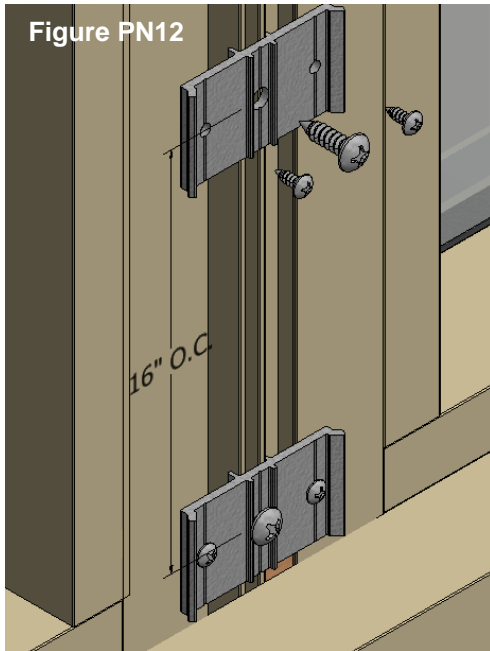


6. Attach a mullion clip at the top and one at the bottom of the mullion and then the remaining 16" on center. Ensure window remains plumb.
 - Mullions clips may require closer spacing or be full length depending on project requirements. See project shop drawings.
7. Mullion clips will be attached to the mullion using one #12-11 x 3/4" PL-PH-SMS provided by WinTech. Two #6-18 x 3/8" PL-PH-SMS provided by WinTech will be used to attach the mullion clip to the window frame. See Figure PN12.
 - Window frames must be matched drilled by installer to match mullion clip holes.
8. Mullion covers are to run in-between the horizontal trim covers. Measure the distance between horizontal trim covers and cut the mull cover to fit.
9. Snap the mullion cover onto the mullion clips. See Figure PN13.



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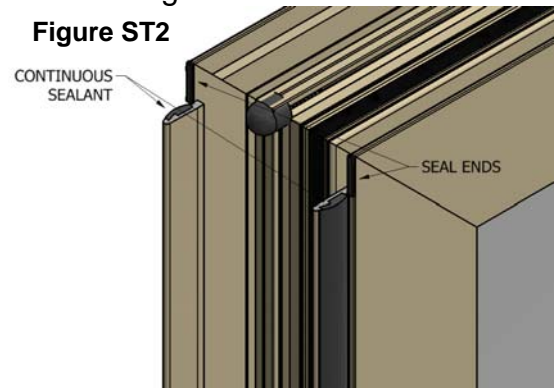
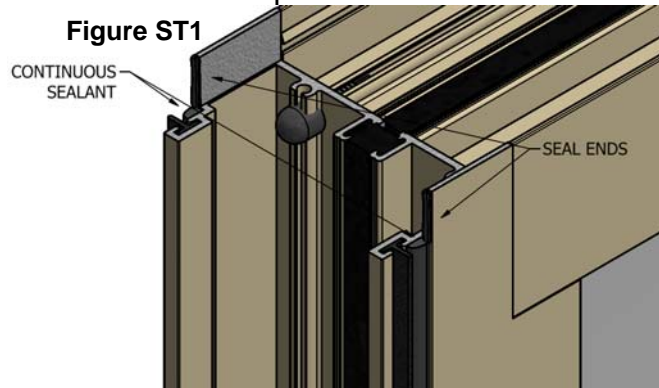


Windows with Stack Frames

IX. Stack Frame Installation Instructions

A. Window Stack Installation

1. Install non-stack frame window and anchor in place using one of the installation methods referenced in these instructions.
 - Do not use these instructions for stack frames with nail fins. Refer to the Nail Fin Installation Instructions, section C for installation of stack frames with nail fins.
2. Apply a full length bead of sealant along the both the exterior and interior stack legs. See Figure ST1 for stack legs with finger gasket and See Figure ST2 for snap together stack legs.
3. Apply sealant to the end of the window legs from the stack leg to the top or bottom of the window frame. See Figure ST1 & ST2.



4. Place window into opening, then push window into adjacent window. The stack legs will be on the interior legs of the adjacent window it is mating with. See Figure ST3.
5. Push window into other window until stack legs are snapped together. The window frames will butt hard against each other.
6. Ensure window remains plumb, level, and square after it is stacked with adjacent window.
7. Clean sealant "ooze out" from exterior and interior window frame stack joint that will be exposed. Use 50% isopropyl alcohol or similar product. See ST4.

