

Installation Instructions for New Castle XT™ and NewBridge™ Windows.

Handling vinyl windows

IMPORTANT: Always store vinyl windows in an upright position and at a slight angle. Don't lean more than five against each other. Store them in a cool shaded area. Remove shrinkwrap from the windows; extreme heat and direct sunlight can warp uninstalled windows.

Don't drop the windows or strike them with any object. Don't drag them. Always use enough people to handle them correctly.

Caulking materials

Use high performance premium caulk, or an equivalent that is compatible with vinyl materials when installing CertainTeed vinyl windows and doors.

Caulking material must meet these minimum specifications:

- Hardness (Durometer) > 15, but < 55 ASTM C-661
- Adhesion (Peel) Min. 15 lb ASTM C-794
- Joint Movement ≥ 25% ASTM C-719
- Shrinkage ≤ 25% TT-S-001657
- Solvent Content None

Refer to caulking manufacturer for information on performance specifications and characteristics of material before using.

Caulking material must adhere to PVC and the building materials which it contacts to form a seal. The surfaces that contact the caulking material must be cleaned and free of debris for maximum performance. Check with caulking manufacturer for any additional building surface preparation and directions for application and usage of caulking material.

IMPORTANT: CertainTeed Corporation is not responsible for the results of caulking or consequences which may stem from the installation of caulking material.

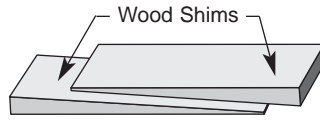
Flashing materials

The flashing you use must maintain a constant minimum width of 9", 6" for adhesive-backed flashing. Apply the flashing first, then add accessories and trim over the flashing.

Check local building codes for flashing type applicable in your area.

Using wood shims

Always use two wedge-shaped wood shims; single wedge shims alone will distort the window frame. Place the large end of the first shim away from you. Next place the second shim, with the large end toward you, on top of the first shim. Carefully push the second shim back toward the large end of the first shim until the top surface meets the window frame.



Preparing the opening

The rough opening is constructed per window size, and must not exceed the window size by more than 1/2". The rough opening must be plumb, level and square. Before installation, be sure the window sash(es) is closed and locked. Clean all debris from around the edges of the rough opening.

1. Before installing the window, install flashing at the sill, making sure the length of the sill flashing is equal to the frame sill width plus the width of the frame jamb flashing on each side (fig. 1). The width of the flashing must be equal to the width of the rough opening plus 8". Fold the sill flashing along its length 8" from the edge so that the flashing forms a 90° angle. Cut the sill flashing along the fold line 8" or the width of the jamb flashing from each end. Fold each cut end of the flashing that will cover the sill upward 90°. Attach the flashing onto the sill.
2. Apply a bead of high-performance caulk around the perimeter of the rough opening at the head and jambs (within 3/8" from the edge) where the window frame will seat against it (fig. 2).

NOTE: For the caulk to be effective, both the window and exterior facing surfaces must be clean, dry and free of any debris. Clean the surface of the nail fin that will contact the wall with a mild detergent. Rinse both surfaces fully and allow to dry completely.

If the window needs to be taken out and re-installed, remove the caulk and re-apply before the window is installed again to ensure an air- and water-tight installation.

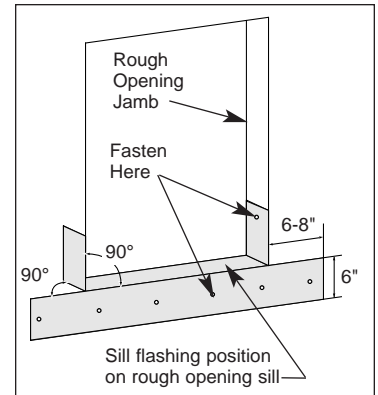


Figure 1

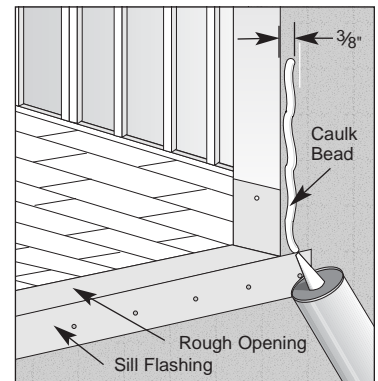


Figure 2

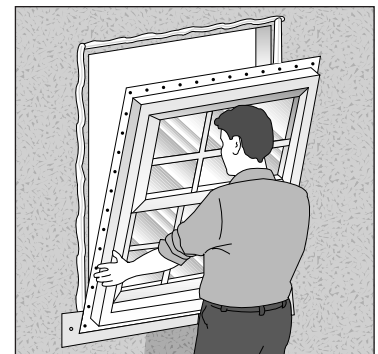


Figure 3

Installing the window

- Using the appropriate number of helpers or equipment, lift and place the window into the rough opening of the exterior of the house.

WARNING: Failure to use the appropriate assistance in lifting and placing the window into the opening can result in damage to the window or possible personal injury.

- Place sill on the shims located on sill plate. Center and rotate the window frame into the rough opening (fig. 3).
- Press the window firmly into the caulk and loosely fasten one of the upper corners.
- Check the sill for level and shim as necessary at the jamb ends.

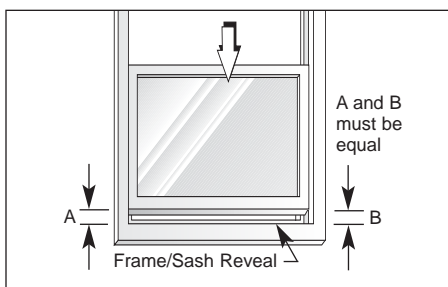
NOTE: Additional shimming at the center of the sill is required for windows greater than 36" wide to prevent the window frame from sagging at the sill after installation.

- Check the frame for plumb and the jambs for straightness, shimming at the top, bottom and midpoints of the jambs.

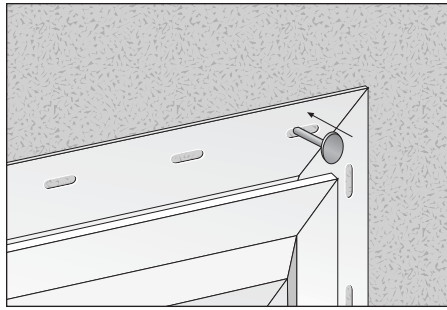
NOTE: If one person is to install a larger size window that is too heavy to handle alone, remove the sash(es) and install the frame alone. After frame is temporarily secured but not yet completely fastened, replace the sash(es) into the frame.

IMPORTANT: Casement windows must have both the lock and hinge jambs shimmed to prevent bowing. Remove the casement shipping clip only after the window frame is fully shimmed and anchored (clip is designed to prevent the sash from bowing during shipping).

- Take diagonal measurements to ensure the window frame is perfectly square. Shim at midpoint and both ends of the frame.
- Close the sash until it meets the edge of the window frame. Check the reveal between the sash and frame to be sure the gap is even along the entire edge of the sash.



- Securely fasten the window frame to the rough framing through the center of the slots in the nail fin.



When fastening at the head and jamb, be sure that the frame remains straight and does not bow as this will prevent the sash(es) from operating correctly.

Place fasteners in the slots closest to each corner, at the mullions and at the sash meeting rails. Place additional fasteners at a maximum spacing of 14" from center to center.

IMPORTANT: Additionally, for New Castle XT hung windows, place #8 screws into the pre-drilled holes in the frame jambs at the top, bottom and midpoints. Shims are required at each screw location.

IMPORTANT: For brick applications, allow a minimum of 1/4" between the frame and brick for expansion and settling (figure 4). For New Castle XT with an integral J-channel, the J-channel leg must be removed before installation in all brick applications. To remove the leg, score a line at the base of the leg where it meets the frame using a utility knife. Break the score line and remove the leg (fig. 5).

Proper installation is required to ensure smooth window operation. Check general operation and locking prior to the installation of exterior and interior trim.

For double-hung and single-hung windows, remove the shipping clip before tilting the sash(es) inward.

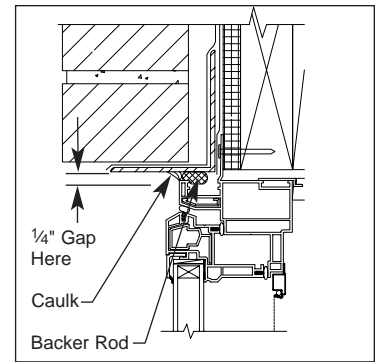


Figure 4

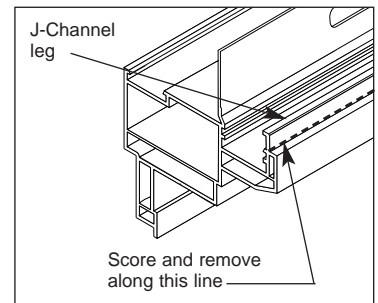


Figure 5

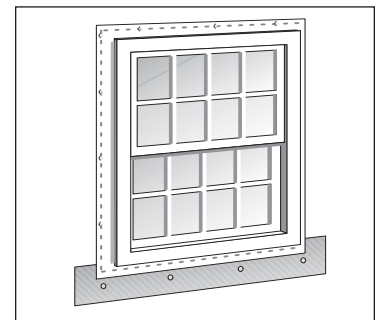


Figure 6

Sealing and trimming

- Install flashing around the perimeter of the window. The flashing must butt tightly against the frame body of the window.
- With sill flashing in place, fasten the window at the sill through the nailing slots (fig. 6).
- Apply the vertical flashing by overlapping the previously installed sill flashing. The length of the vertical flashing is equal to the frame jamb height plus the width of the frame sill and head flashing (fig. 7).

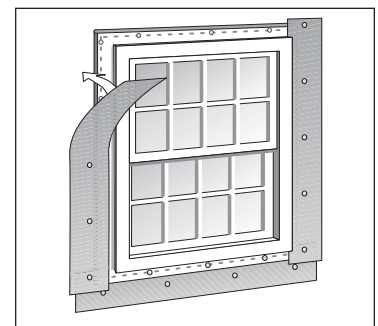
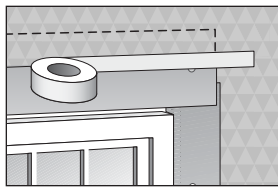


Figure 7

4. Apply the frame head flashing, making sure to overlap the previously installed vertical flashing. The length of the frame head flashing is equal to the frame head width plus the width of the vertical flashing on each side (fig. 8). Caulk or tape the top edge of this section of flashing.



House Wrap Applications: For added protection, cut a slit in the house wrap covering and slip the flashing at the head under the wrap. Tape the seam as shown.

5. Complete the necessary exterior trim and or exterior cladding.
6. Place a bead of caulk around the entire window, between the frame and the exterior trim/cladding material.

Although there are numerous choices of exterior cladding and exterior trim in building construction, in general, all exterior perimeter sealing will be similar. Each installation should be considered individually for special conditions.

Normally a 1/4" caulking gap is optimum. A clearance of 1/4" should therefore be left between the exterior edge of the window frame and the building cladding or exterior trim. Foam backer rod (fig. 9) should be used to allow the formation of an equal 1/4" diameter bead of caulk between the window frame and the building materials.

For the caulk to be effective, both the window and exterior cladding or exterior trim surfaces must be clean, dry and free of any debris. If necessary, clean the surface of the vinyl window frame with a mild detergent. Rinse both surfaces fully and allow to dry completely. Stucco and brick surfaces must be brushed fully to remove any loose material.

Use a caulking material that is compatible with the PVC frame and the adjoining building material — stucco, brick, wood siding, vinyl siding, etc.

7. Tool the face of the caulk to remove air bubbles and prevent any trapping of moisture that could lead to material degradation.

IMPORTANT: Do not block the exterior weep holes at the sill when trimming out the exterior of the window (fig. 10). These must be kept free and clear of obstacles inasmuch as they function to weep moisture out of the window frame.

8. Properly insulate the space around the perimeter of the interior of the window between it and the rough opening (fig.11) using fiber glass, styrofoam, etc.
9. Trim out the interior of the window.

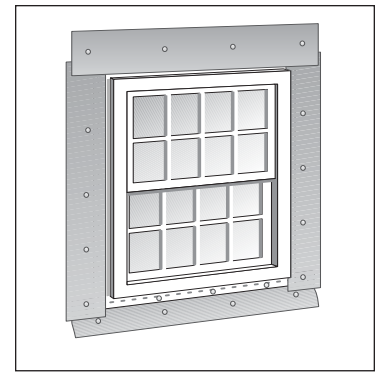


Figure 8

Notes and Cautions

CAUTION: Any product that penetrates the envelope of an EIFS structure must be installed and sealed properly. Consult your EIFS designer, EIFS manufacturer and sealant manufacturer for their recommended practices.

CAUTION: Do not drill through the CertainTeed new construction window frame or sash to install security system devices. This will reduce the performance of the window.

CAUTION: When insulating, do not overpack and do not use spray-type expanding foams. This will cause the frame to distort.

WARNING: CertainTeed window and door components are not provided with safety glass as a standard feature. Broken glass can fragment and cause injury. Building codes may require safety glass in certain locations.

IMPORTANT: The manufacturer assumes no responsibility for the consequences of inadequate or improper installation or lack of care of the installed product.

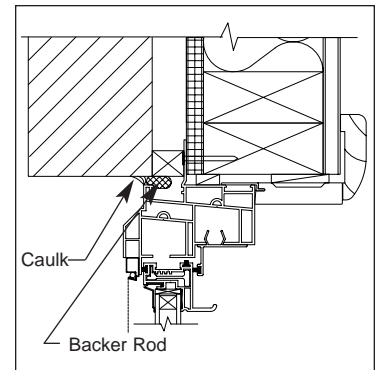


Figure 9

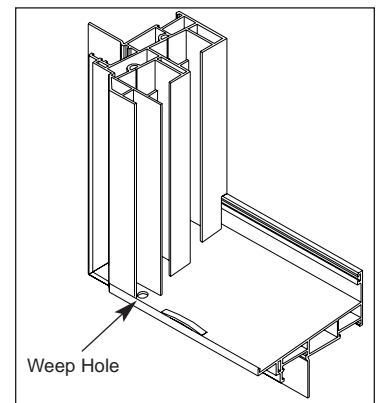


Figure 10

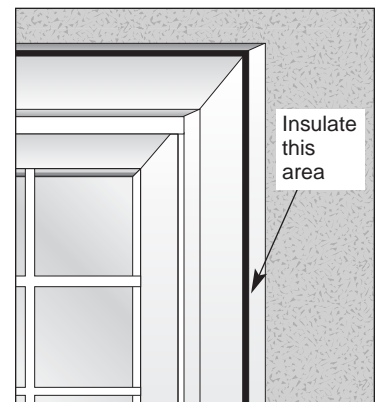
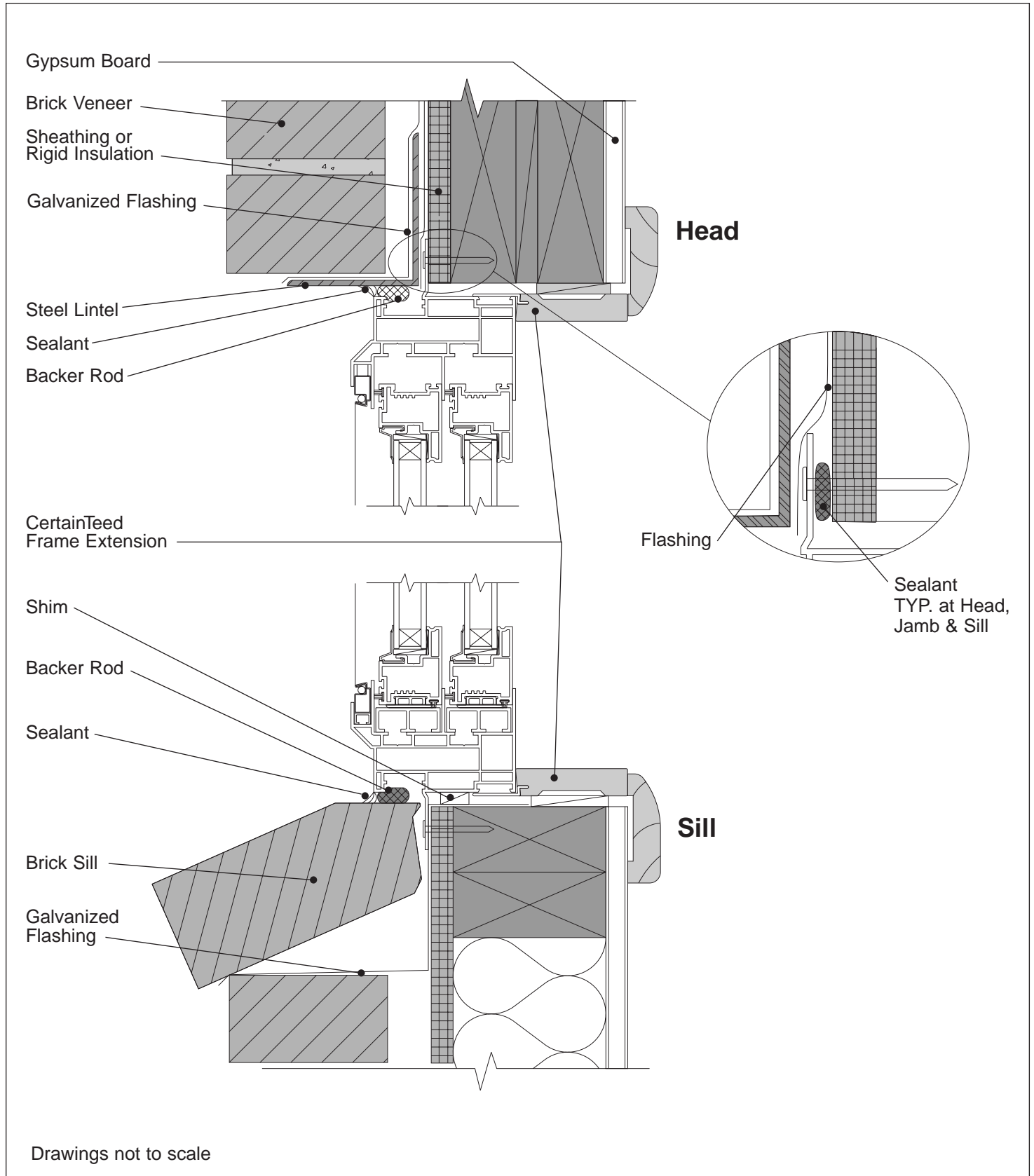
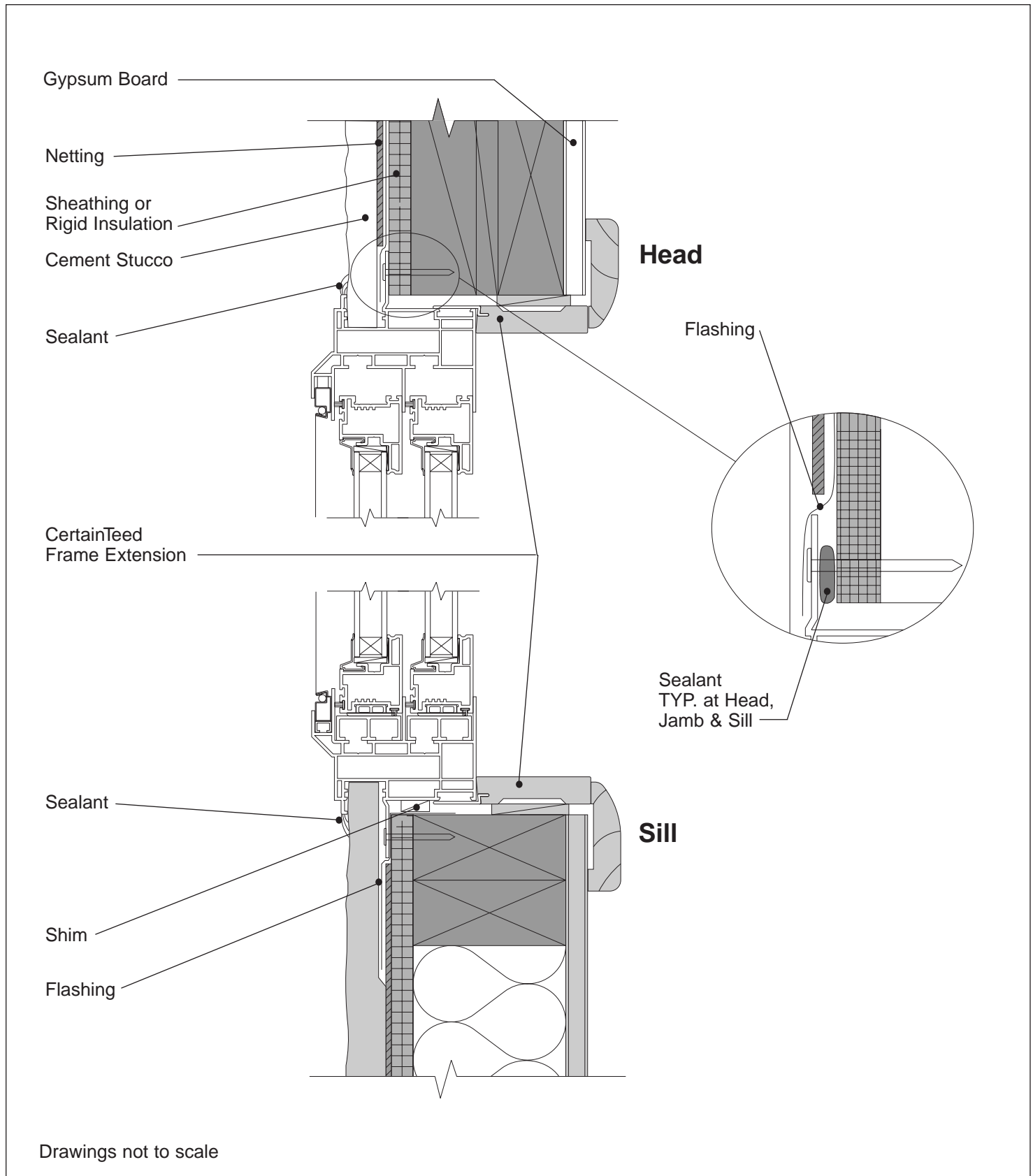


Figure 11

Stud wall with brick veneer



Stud wall with stucco



Stud wall with vinyl siding

