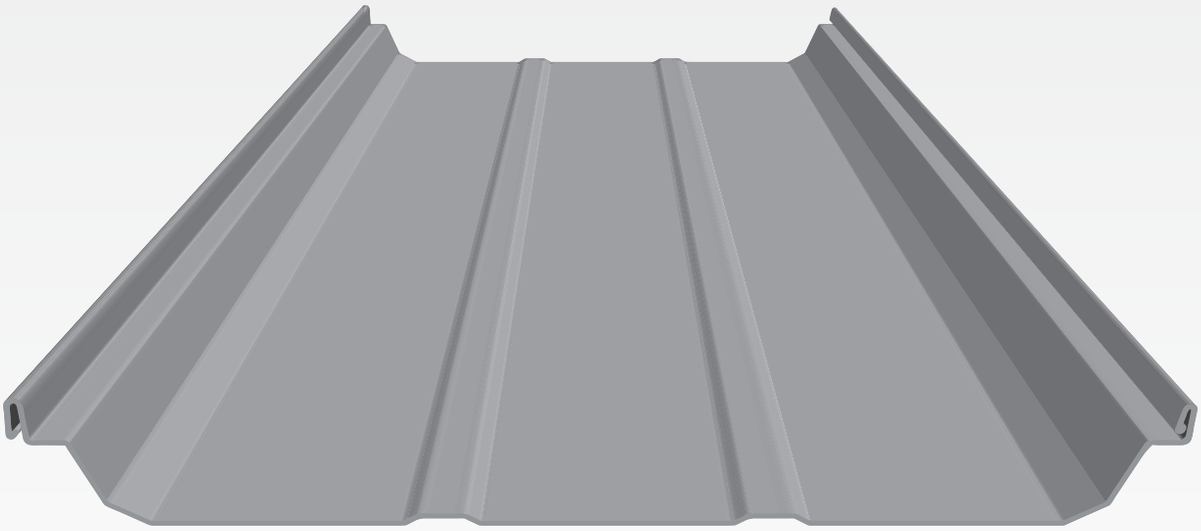
Central-Loc®
Installation Guide



CENTRAL® STATES MANUFACTURING, INC.
METAL BUILDING COMPONENTS

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NOTICE: *The application and detail drawings in this manual are strictly for illustration purposes and may not be applicable to all building designs or product installations. Projects should conform to local building codes. Central States Manufacturing is not responsible for the performance of the material if it is not installed correctly.*

Information contained in this booklet was in effect at the time of publication and is subject to change without notice.

IMPORTANT INFORMATION

Descriptions and specifications contained herein were in effect at the time this publication was approved for printing. In a continuing effort to refine and improve products, Central States reserves the right to discontinue products at any time or change specifications and/or designs without incurring obligation. To insure you have the latest information available, please inquire or visit our website. Application details in this manual may not be appropriate for all environmental conditions, building designs, or panel profiles. Projects should be engineered to conform to applicable building codes, regulations, and accepted industry practices. Insulation is not shown in these details for clarity.

READ THIS MANUAL COMPLETELY PRIOR TO INSTALLATION.

IF THERE IS A CONFLICT BETWEEN PROJECT ERECTION DRAWINGS PROVIDED OR APPROVED BY CENTRAL STATES AND DETAILS IN THIS MANUAL, PROJECT ERECTION DRAWINGS WILL TAKE PRECEDENCE.

OSHA REGULATIONS

It is the responsibility of the erector to install this roof using safe construction practices that are in compliance with OSHA regulations. The manufacturer is not responsible for the performance of this roof system if it is not installed in accordance with the instructions shown in this manual. Deviations from these instructions and details must be approved in writing by the manufacturer.

BRACING

Diaphragm capabilities and purlin stability are not provided by the Central Seam Plus roof system. Therefore, other bracing may be required.

ROOF PITCH

The minimum recommended slope for the roof system is 1/4 on 12. A slope of less than 1/4 on 12 could cause severe ponding and will void material warranties.

ENGINEERING

Application and design details are for illustration purposes only, and may not be appropriate for all environmental conditions or building designs. Projects should be engineered to conform to applicable building codes, regulations, and accepted industry practices.

LIGHT TRANSMITTING PANELS

Light transmitting panels are not designed or intended to bear the weight of any person walking, stepping, standing or resting on them. THE MANUFACTURER DISCLAIMS ANY WARRANTY OR REPRESENTATION, EXPRESS OR IMPLIED, that any person can safely walk, step, stand or rest on or near these light transmitting panels or that they comply with any OSHA regulation.

PREPARATORY REQUIREMENTS

1. A single pitch eave strut must be used.

2. Make sure a rake angle or an alternate structural flat surface has been installed on top of the purlins to accept the "Rake Support".

3. The walls do not have to be erected before the roof is installed. However, for the purpose of this manual, we have assumed that the wall panels have been installed.

4. All primary and secondary framing must be erected, plumbed and squared with bolts tightened according to accepted building practices.

5. The substructure (eave to ridge) must be on plane with a tolerance of 1/4" in 20' and 3/8" in 40'.

6. Central-Loc can be erected on various types of construction. However, for the purpose of this manual, we have assumed that the roof will be installed on a new, pre-engineered metal building.

7. Central-Loc roof panels are available in 24", and 18"widths. However, for the purpose of this manual, we have assumed that the roof panels will be 24" wide.

8. It is critical that the purlins or joists at the ridge and endlaps be exactly located as detailed in this manual and that they are straight from rafter to rafter. Any mislocation or bowing of these members can cause the fasteners at the endlaps or outside closures to foul the purlin or the back-up plate to foul the clip as the panels expand and contract.

9. Peak purlin spacing - 12" (from the centerline of the building) or 16" for a 9" continuous vent.

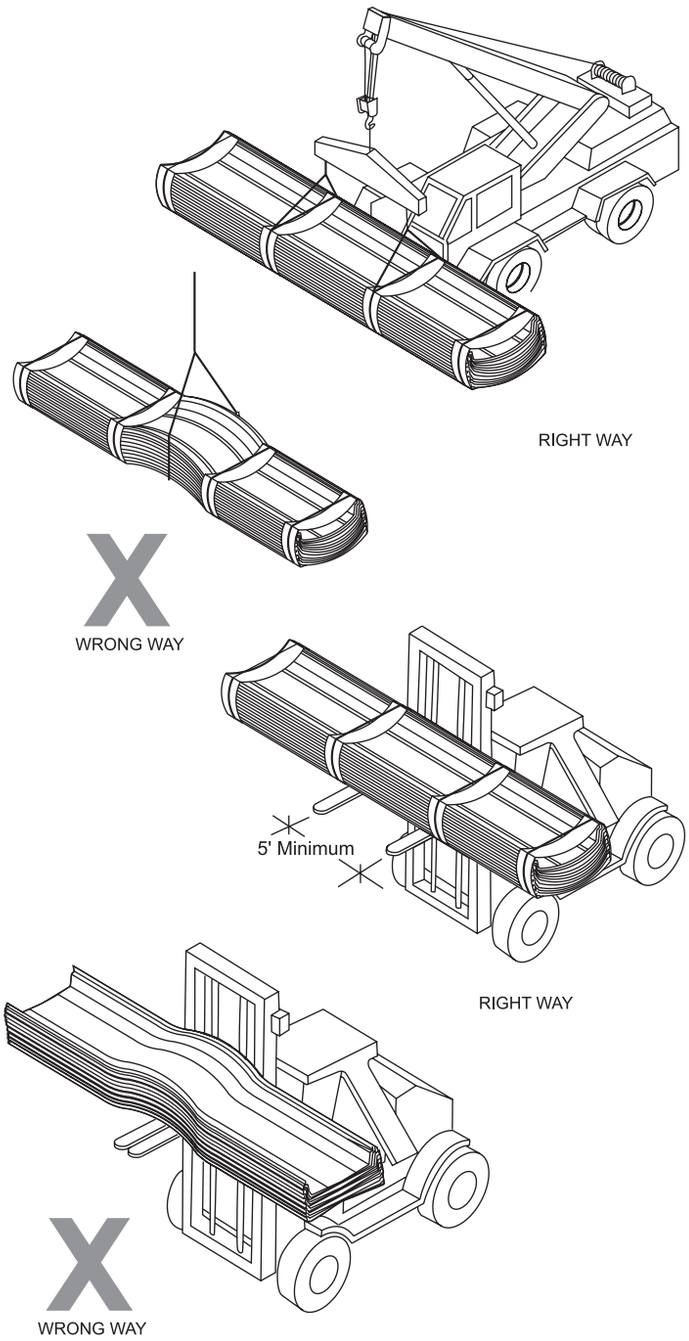
10. For the purpose of this manual, we have assumed that this is a standard roof. If your roof is to be UL 90 rated, see UL 90 requirements in the Central-Loc product guide.

11. Read recommended erection practices before proceeding with roof installation.

12. The manufacturer recommends the use of a screw gun with a speed range of 0 - 2000 RPM to properly install all fasteners referenced in this manual. Tools rated to 4000 RPM should never be used for self drilling fasteners typically supplied with metal building components.

13. Field cutting of the panels should be avoided where possible. If field cutting is required, the panels must be cut with nibblers, snips, or shears to prevent edge rusting. Do not cut the panels with saws, abrasive blades, grinders, or torches.

SPECIFICATIONS



UNLOADING

Upon receiving material, check shipment against shipping list for shortages and damages. The manufacturer will not be responsible for shortages or damages unless they are noted on the shipping list.

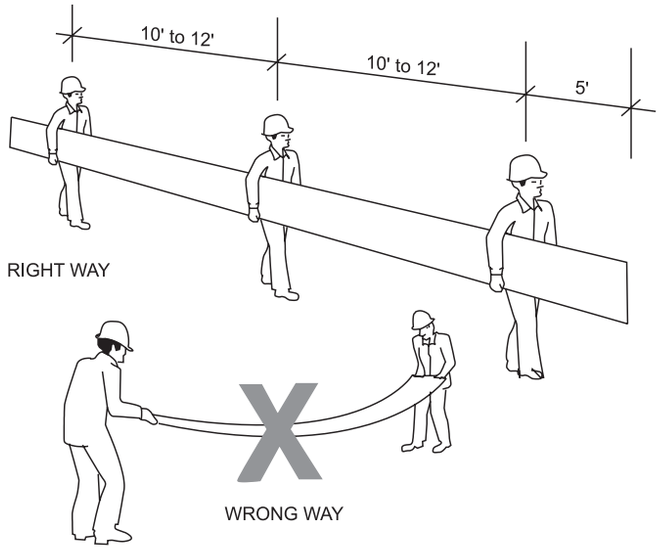
Each bundle should be lifted at its center of gravity. Where possible, bundles should remain banded until final placement on roof. If bundles must be opened, they should be retied before lifting.

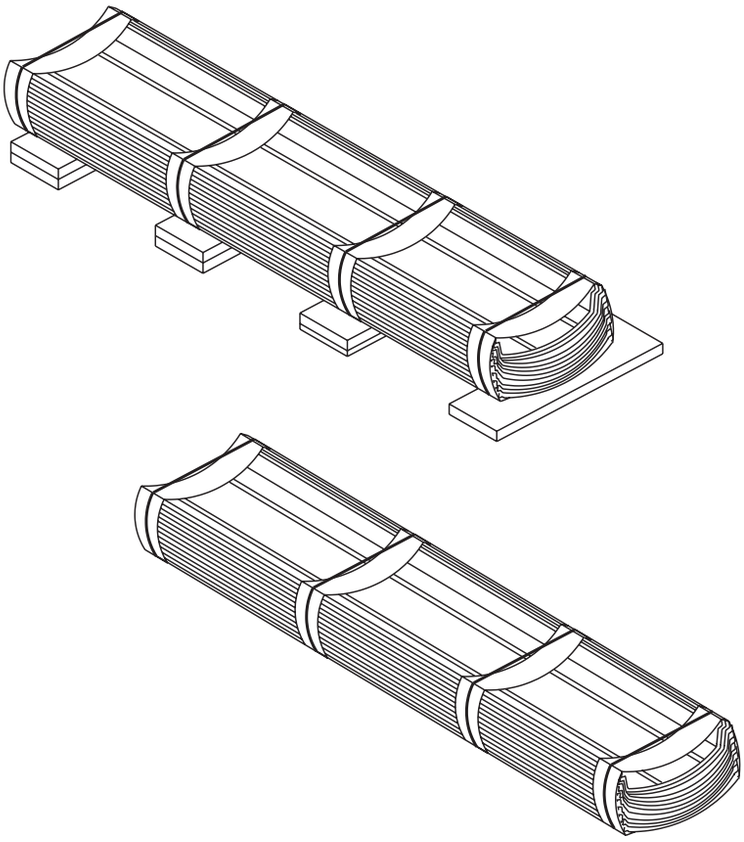
When lifting bundles with a crane, a spreader bar and nylon straps should be used. NEVER USE WIRE ROPE OR CHAIN SLINGS. THEY WILL DAMAGE THE PANELS.

When lifting bundles with a forklift, forks must be a minimum of five feet apart. Do not transport open bundles. Drive slowly when crossing rough terrain to prevent panel buckling.

CAUTION

Improper unloading and handling of bundles and crates may cause bodily injury or material damage. The manufacturer is not responsible for bodily injuries or material damages during unloading and storage.





HANDLING/PANEL STORAGE

Standing on one side of the panel, lift it by the seam. If the panel is over 10' long, lift it with two or more people on one side of the panel to prevent buckling. Do not pick panels up by the ends.

Store bundled sheets off the ground sufficiently high enough to allow air circulation beneath bundle and to prevent rising water from entering bundle. Slightly elevate one end of bundle. Prevent rain from entering bundle by covering with tarpaulin, making provision for air circulation between draped edges of tarpaulin and the ground. PROLONGED STORAGE OF SHEETS IN A BUNDLE IS NOT RECOMMENDED. If conditions do not permit immediate erection, extra care should be taken to protect sheets from staining or water marks.

Check to see that moisture has not formed inside the bundles during shipment. If moisture is present, panels should be uncrated and wiped dry, then restacked and loosely covered so that air can circulate between the panels.

BAND ONLY

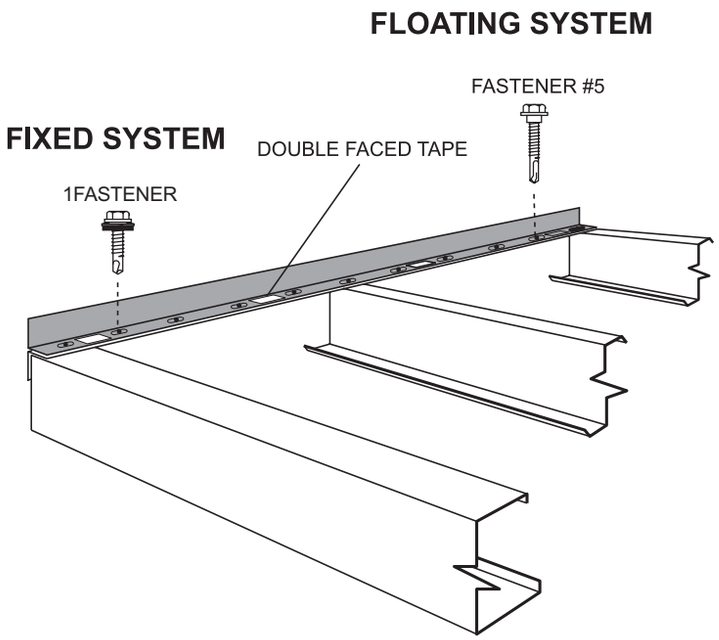
This method is used on all orders, unless otherwise specified by customer. The panels are banded together, causing them to curl up. This enhances the strength of the bundles. Panels bundled in this manner may be handled by a forklift in lengths to 30'. The forklift should have at least 5' between forks. Lengths in excess of 30' must be lifted utilizing a spreader bar. Special care must be given during handling to avoid damage to the locking edges of the panels.

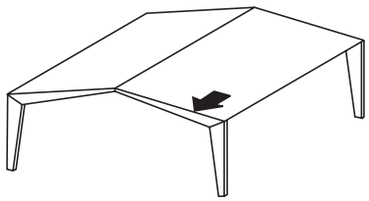
Protective gloves should always be used while handling panels.
OSHA safety regulations must be followed at all times.

NOTE

STEP 1

ERECTION SEQUENCE



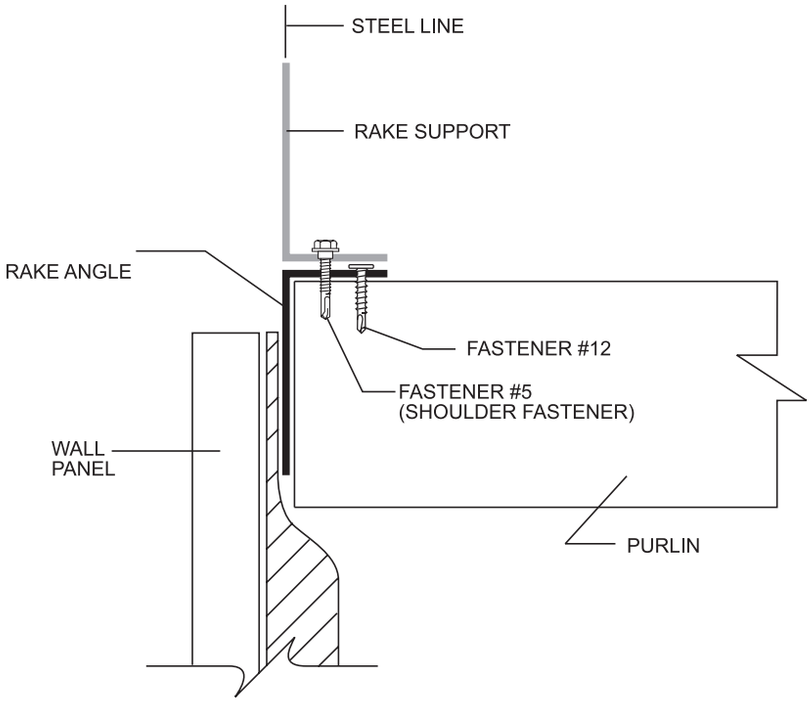


RAKE SUPPORT

Attach the rake support on top of the rake angle with the proper self-drilling fasteners on 2'-0" centers with a fastener in the first and last pre-punched slot. The vertical leg is to be installed square with the eave. Center fasteners in slots.

FASTENER REQUIREMENTS

- **Fixed System**
  Purlins- 1FASTENER
  Joists- Fastener #6
- **Floating System**
  Purlins- Fastener #5
  Joists- Fastener #5 (predrill)



IT IS IMPORTANT THAT THE RAKE SUPPORT IS INSTALLED STRAIGHT AND SQUARE WITH THE EAVE AS IT CONTROLS THE ALIGNMENT OF THE ROOF SYSTEM.

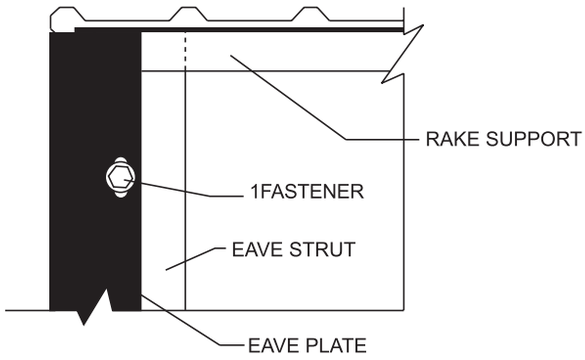
Install 6" pieces of double faced tape on 3'-0" centers to the top of the horizontal leg of the rake support. This will help hold the insulation in place at the rake.

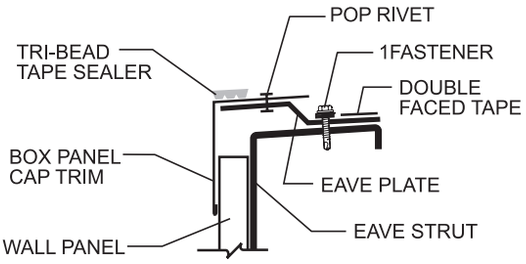
CAUTION
(For Floating Systems Only)

It is important that shoulder fasteners are installed through the CENTER of the slotted holes of the rake support to allow for expansion and contraction.

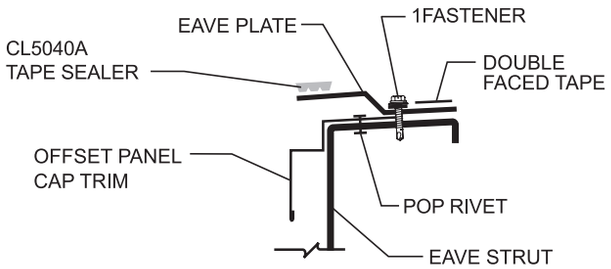
ALL PRIMARY AND SECONDARY FRAMING SHOULD BE ERECTED, PLUMBED, AND BOLTS TIGHTENED PRIOR TO SHEETING.

ERECTION SEQUENCE

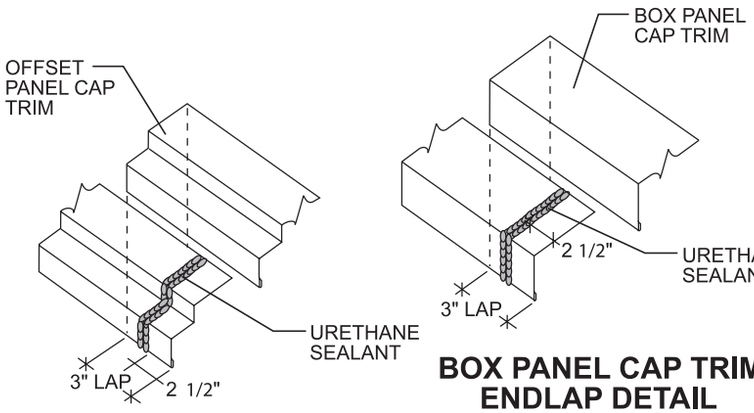




WALL PANEL INSTALLED BEFORE ROOF

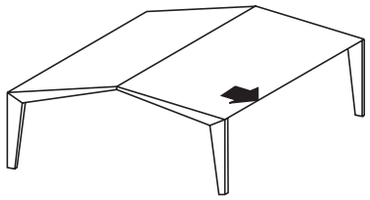


WALL PANEL INSTALLED AFTER ROOF



OFFSET PANEL CAP TRIM ENDLAP DETAIL
(SPECIAL ORDER)

BOX PANEL CAP TRIM ENDLAP DETAIL



EAVE

Wall Panels Installed Before Roof

Install eave plates flush with the outside of the high crowns of the wall panels. Install 1FASTENER in prepunched slot (1’-0” on center) of the eave plate. The first eave plate will butt against the rake support. You may install all of the eave plates at this time.

Install box panel cap trim to the top of the eave plates with pop rivets. Use two fasteners per 10’ piece and three fasteners per 20’ piece. Trim must be pulled tight to wall panels before fastening to eave plates.

Lay CL5040A tape sealer across the top of the box panel cap trim, flush with the outside edge.

Install double faced tape along the length of the top leg of the box panel cap trim. Double faced tape must be upslope from the CL5040A tape sealer.

Wall Panels Installed After Roof

Install offset panel cap trim (special order) to eave strut with pop rivets. Use two fasteners per 10’ piece and three fasteners per 20’ piece.

Install eave plates flush with the outside of the offset panel cap trim. Install 1FASTENER in each pre-punched slot (1’-0” on center) of the eave plate. The first eave plate will butt against the rake support. You may install all of the eave plates at this time.

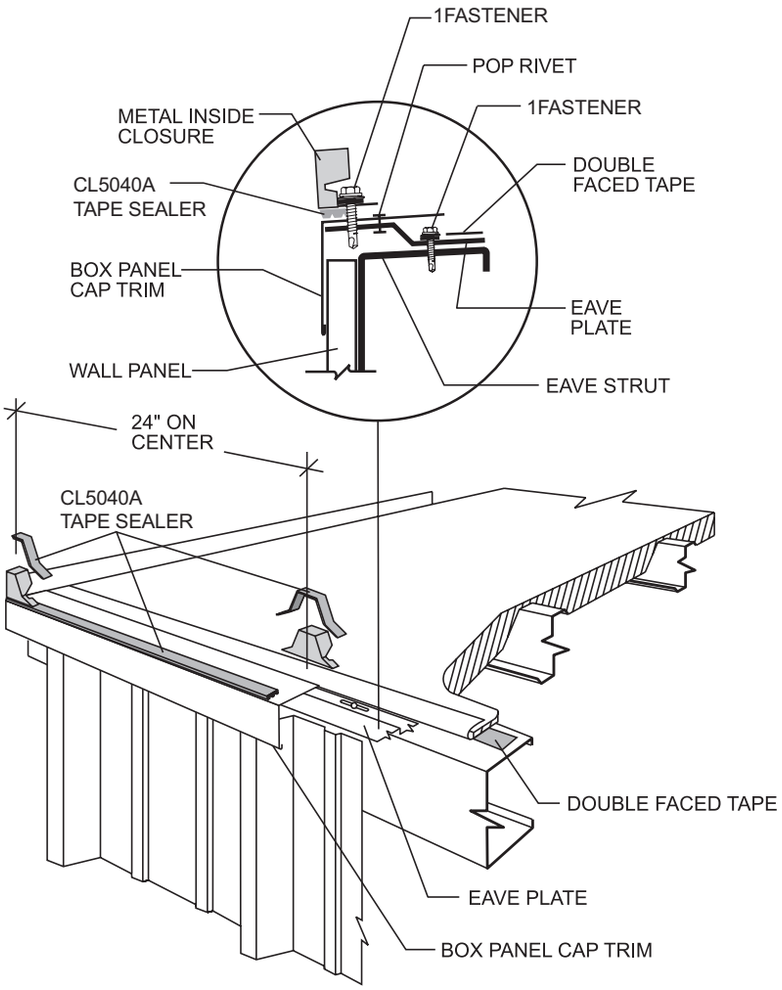
Lay CL5040A tape sealer across the top of the eave plates, flush with the outside edge. Install double faced tape along the length of the bottom leg of the eave plate.

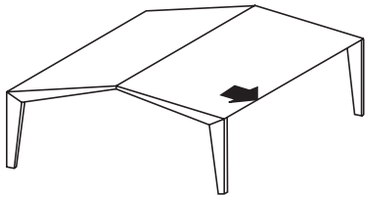
TRIM LAPS

Lap box or offset panel cap trim 3”. Apply two beads of urethane sealant between the trim pieces, approximately 2 1/2” from the end of the bottom piece.

STEP 2B

ERECTION SEQUENCE





EAVE/ METAL INSIDE CLOSURE

Using 1FASTENER, attach the first inside closure to the eave plate, locating the face of the inside closure with the downslope edge of the eave plate. **NOTE THAT THE FIRST INSIDE CLOSURE MUST BE FIELD CUT IN HALF TO FILL THE VOID UNDER THE PARTIAL RIB.**

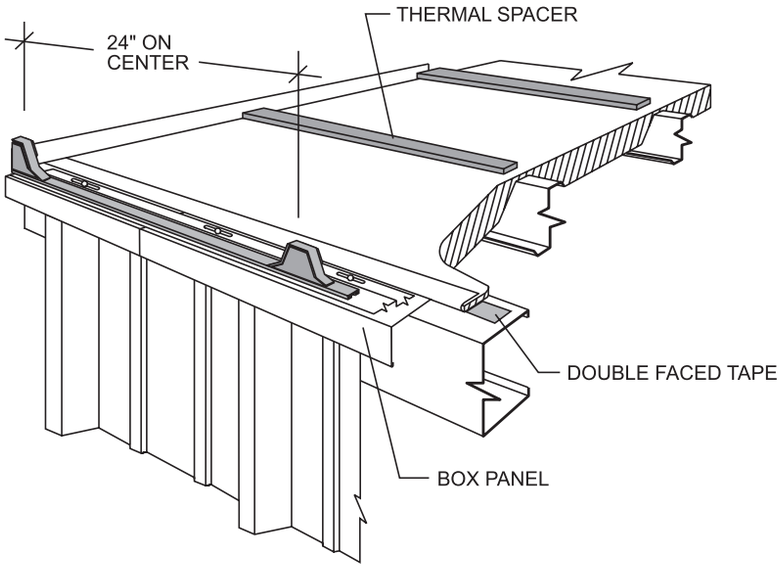
Locate additional closures on 24” centers from the first closure to maintain panel module, attaching each with 1FASTENER. Install two fasteners per closure. The first fastener should be installed through the slotted hole to allow for any adjustment that may be required. Place CL5040A tape sealer on the top and side of each closure to complete the seal at the eave. These may be pre-taped before installation. Measure from tab to tab located on the metal inside closure.

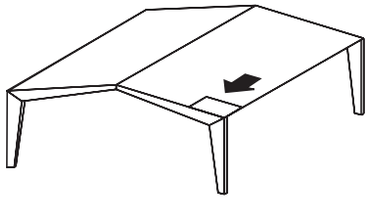
Roll out insulation from eave to peak, laying the side of the insulation on top of the rake support. The first roll should be 3’ wide. This will keep insulation sidelaps 1’ from panel sidelaps. Allow approximately 4” of insulation to hang past the double faced tape (downslope) before sticking the insulation to the double faced tape. Cut and remove the fiberglass approximately 4” and fold the vapor barrier back over the insulation (upslope).

The fiberglass insulation must not interfere with the CL5040A tape sealer which provides a positive seal at the eave.

CAUTION

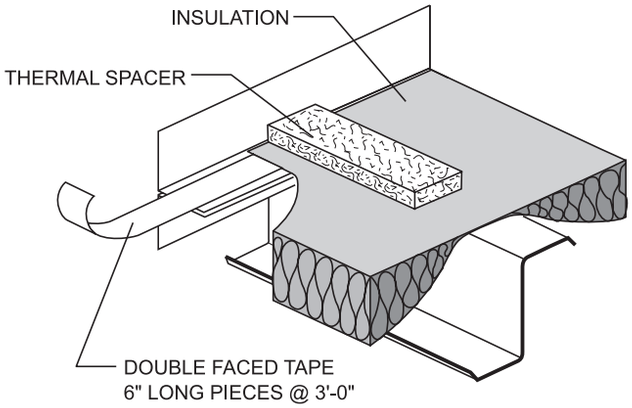
ERECTION SEQUENCE

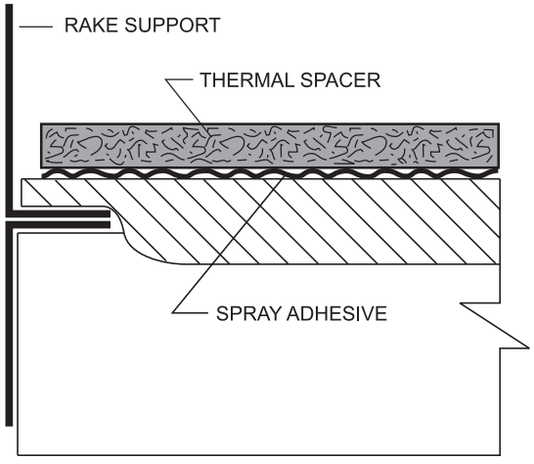




THERMAL SPACER (FOR HIGH SYSTEM ONLY)

Position the thermal spacer on top of the insulation over each purlin and against the rake support prior to installing the roof panel.

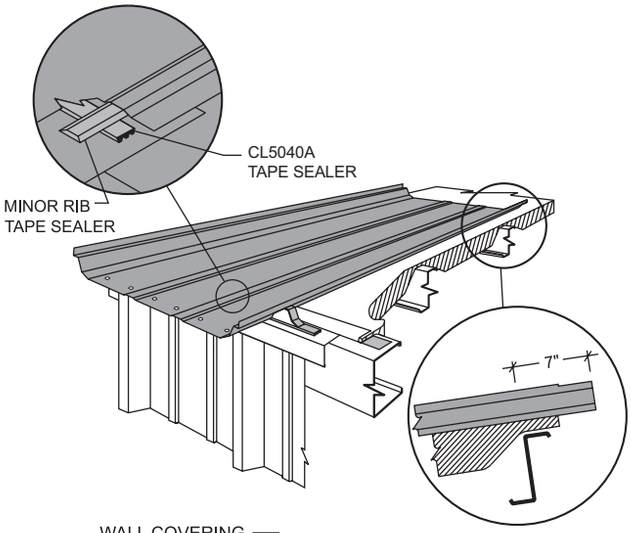


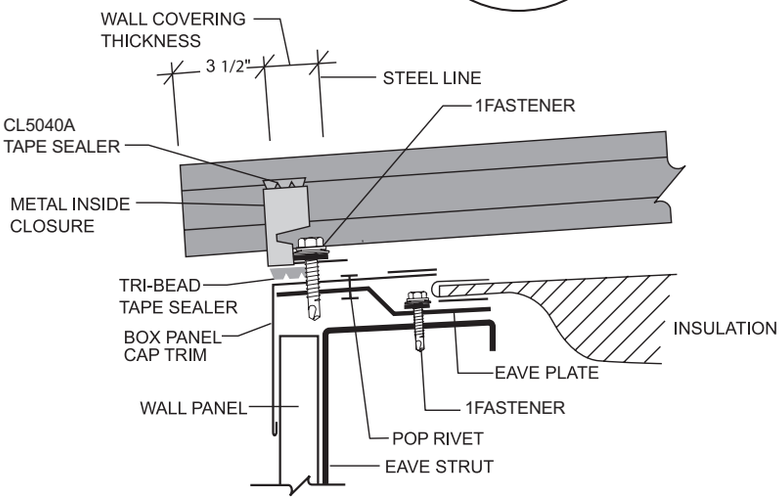


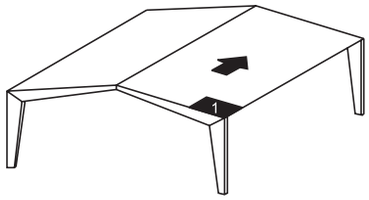
Using spray adhesive, (not by CSMI) adhere the thermal spacer to the insulation. The thermal spacer increases the insulation capacity along the purlins.

STEP 4

ERECTION SEQUENCE





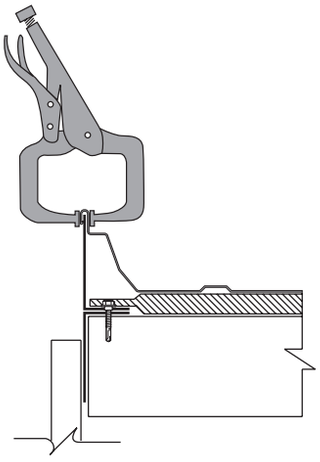


FIRST PANEL

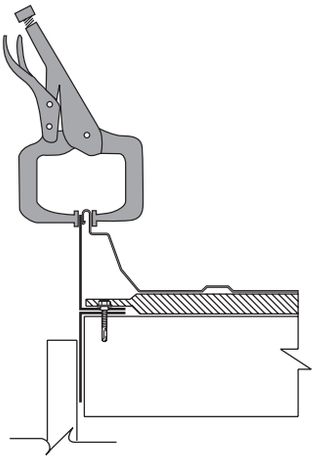
Apply minor rib tape sealer to the underside of the minor ribs of the panel. Position so that this tape sealer will cross the CL5040A tape sealer on the eave trim (for low systems) or on the high eave plate (for high systems) when the panel is installed.

Position the panel so that it overhangs the eave strut by the thickness of the wall covering plus 3 1/2”. The upper end of the panel must be 7” beyond the web of the purlin.

PRE-PUNCHED PANEL HOLES AT THE EAVE ARE INTENDED TO BE PART OF THE GUTTER OVERHANG AND WILL BE HIDDEN BY THE GUTTER. FOR A BUILDING WITH SCULPTURED EAVE TRIM, THE PRE-PUNCHED HOLES WILL BE USED TO ATTACH THE EAVE TRIM TO THE PANEL.



Low System



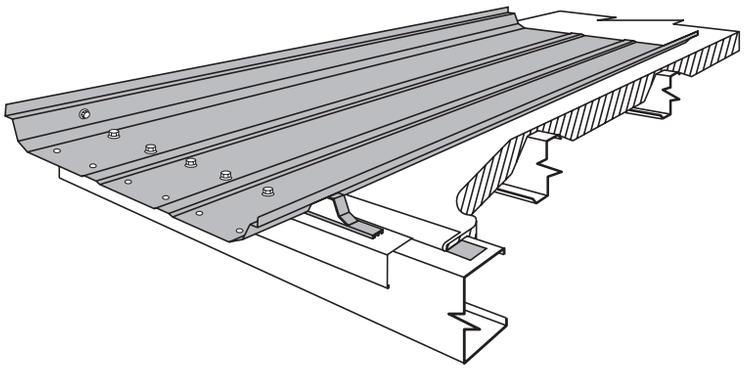
High System

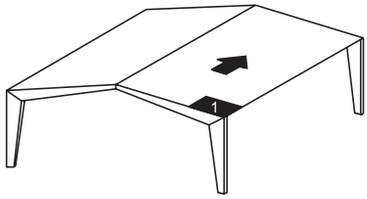
Low System: Lay the female lip of the panel over the rake support.

High System: Lay the female lip of the panel beside the rake support.

Continue with either system:
To prevent wind damage, secure the female lip to the rake support with vise grips or temporary fasteners. Fasteners must go through rake support (1EFASTENER). The panel will not be fastened permanently to the rake support until the rake trim is installed.

ERECTION SEQUENCE

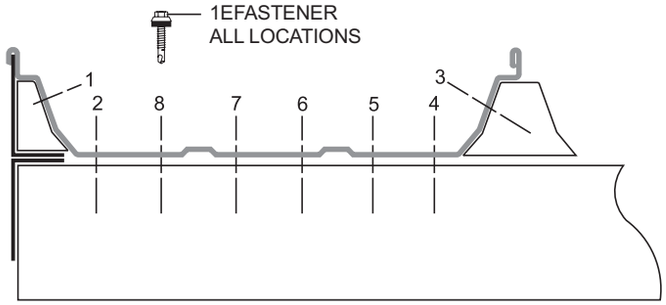




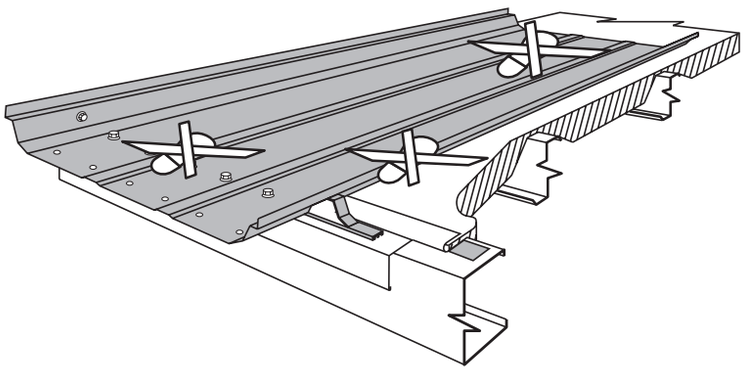
FIRST PANEL (Continued)

Attach the panel to the eave strut and metal inside closures with 1EFASTENER. Eight fasteners are required at this location.

NOTE: IT IS ESSENTIAL THAT THE ERECTOR MAINTAIN A 24" MODULE AT THE EAVE, WITH THE PROPER INSTALLATION OF THE INSIDE CLOSURES AND BY INSTALLING FASTENERS IN THE PROPER SEQUENCE.



FASTENER SEQUENCE
FIRST RUN - EAVE



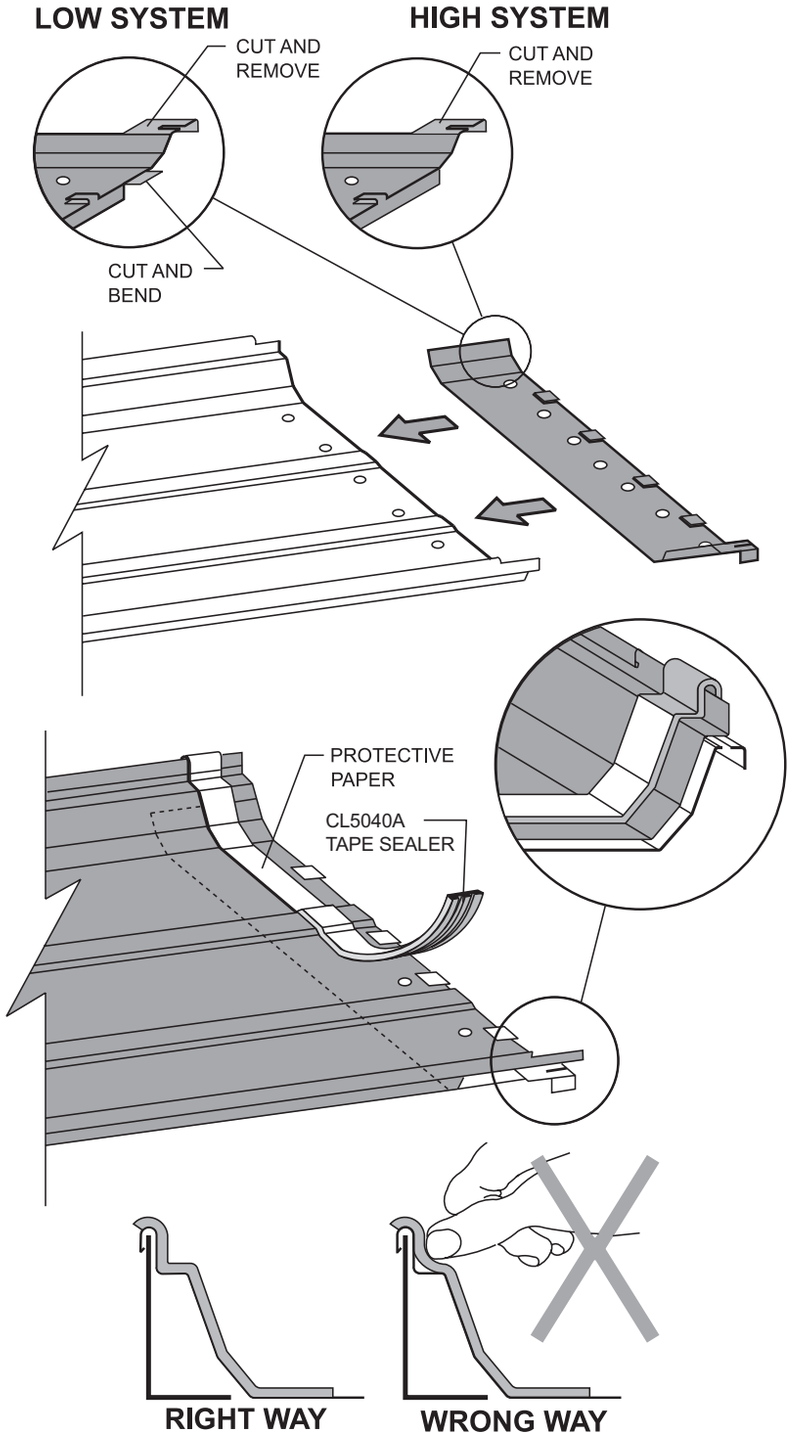
CAUTION

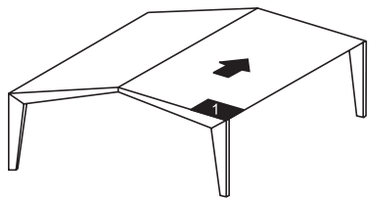
Do not, under any circumstance, step on the panel at the seam or at the panel ends until the adjacent side, end panels or eave fasteners are fully attached. The roof panel may not support the weight of a man at these locations and could affect panel module.

The roof should be swept clean of any drill shavings at the end of each day to prevent rust.

STEP 5

ERECTION SEQUENCE





BACK-UP PLATE*

NOTE

All back-up plates on first panel run will require field modification to avoid fouling rake support.

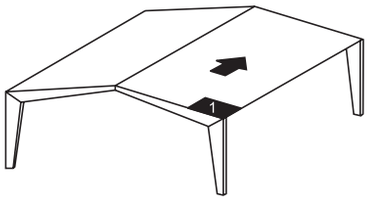
Slide a back-up plate onto end of panel; make sure the teeth on top of the back-up plate are on top of the panel. Visually check to see that the holes in the panel align with the holes in the back-up plate.

Place CL5040A tape sealer over the entire width of the panel. It must be centered directly over the pre-punched holes, following the panel configuration.

Forcing the tape sealer back into the corners will lessen the thickness of the tape sealer where it is needed most.

CAUTION

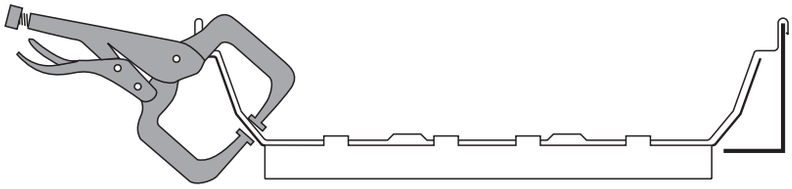
ERECTION SEQUENCE

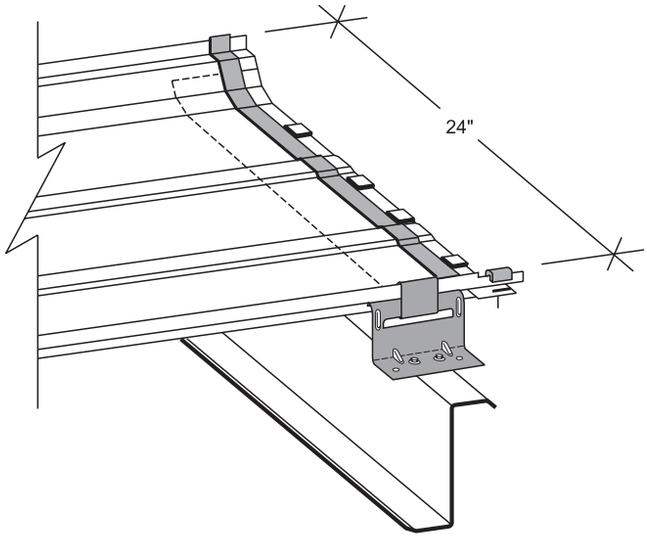


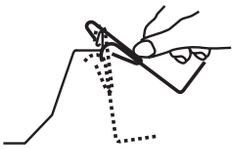
CLIP INSTALLATION

Before installing the first clip, clamp the male side of the panel to the side of the back-up plate with a pair of vise grips. This will help maintain panel module at the endlaps.

Install a clip on the male leg of the panel at the endlap. This should be the first clip installed as it controls the 24” module for the remainder of the panel. Remove vise grips and install clips on all remaining purlins.

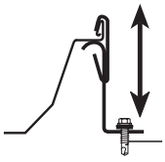






• Position the clip over the male leg of the panel as shown, and rotate clip downward.

• With the upper clip firmly seated, position the base firmly against the purlin flange.



• When properly positioned, the vertical legs of the upper and lower sections of the clip will be 90° to the purlin flange pointed upward, as shown.

FASTENER REQUIREMENTS

Purlins - 1FASTENER
Joists - Fastener #6
(Two fasteners per clip)

CAUTION

For UL 90 Roofs, see page 5 for special requirements.

CAUTION

The panel clip has factory applied mastic in the upper lip. This mastic is compressed when the clip is rotated in place. If, for some reason, a clip must be removed, a new clip must be used.

IMPORTANT

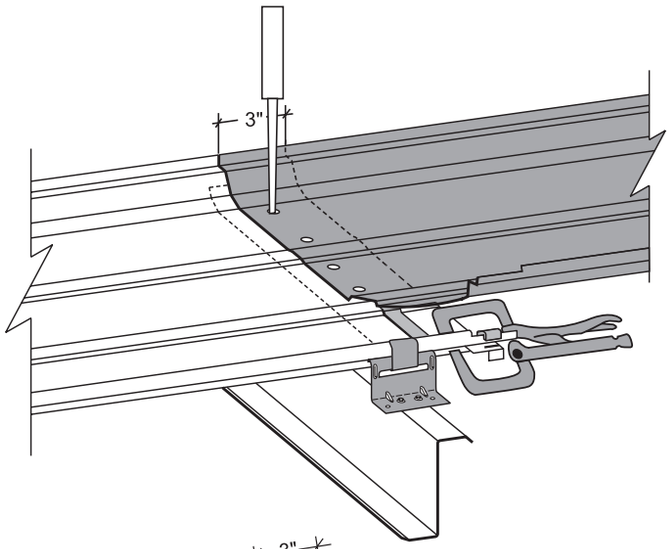
As each clip is installed, maintain a 24” panel module.

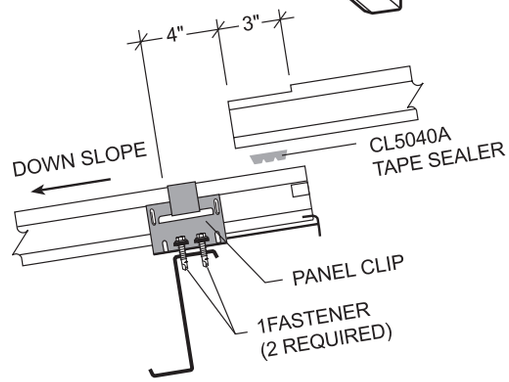
NOTE

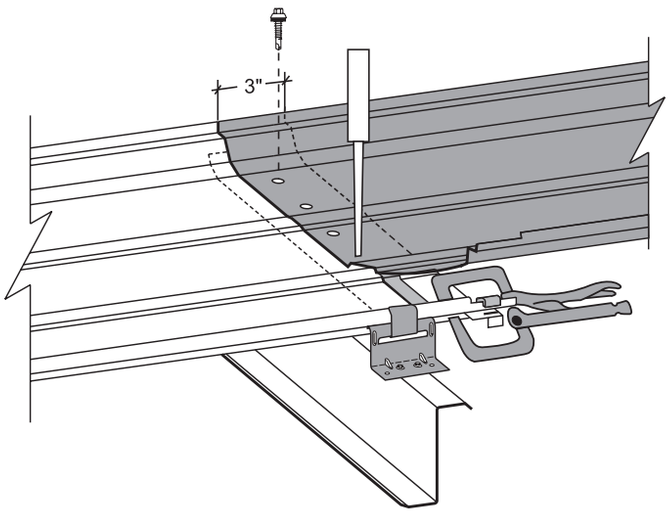
The floating clip is designed so it can only be properly seated when the upper portion of the clip (the tab) is centered on the base.

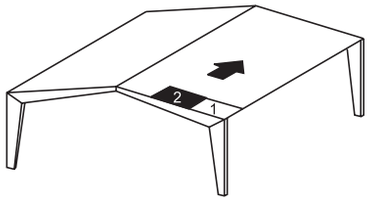
STEP 7

ERECTION SEQUENCE









ENDLAP-PANEL

NOTE

Step 7 applies only where more than one panel is used in a single slope.

Position female lip of upper panel over rake support, while holding male side of panel up away from the tape sealer. Using an awl, align the hole nearest the female side of the top panel with the corresponding hole in the lower panel and the back-up plate.

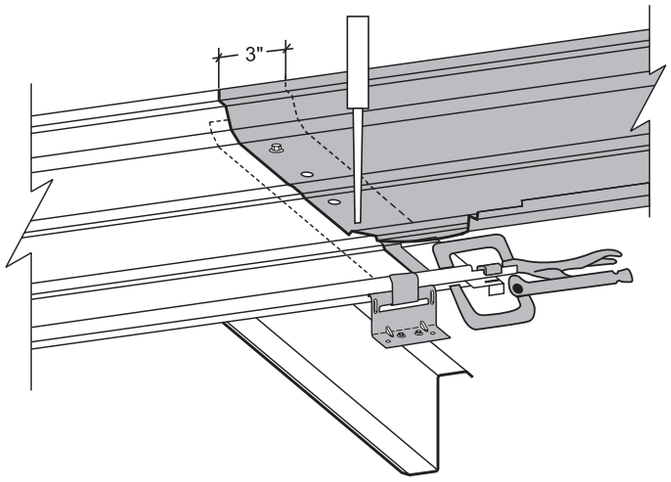
Once this is accomplished, rotate the male side of the upper panel down to rest on the vise grips.

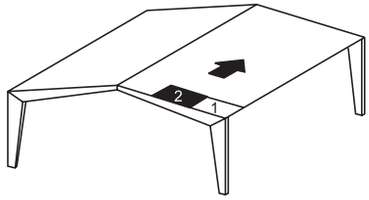
Make sure the panel notches are aligned.

Remove awl and insert in the middle hole nearest the male leg. Install 1EFASTENER in the hole by the female leg.

The roof should be swept clean of any drill shavings at the end of each day to prevent rust.

ERECTION SEQUENCE





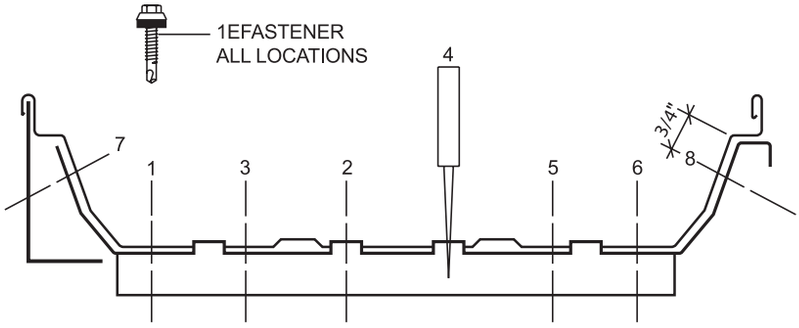
STANDARD ENDLAP

NOTE

Step 8 applies only where more than one panel is used in a single slope.

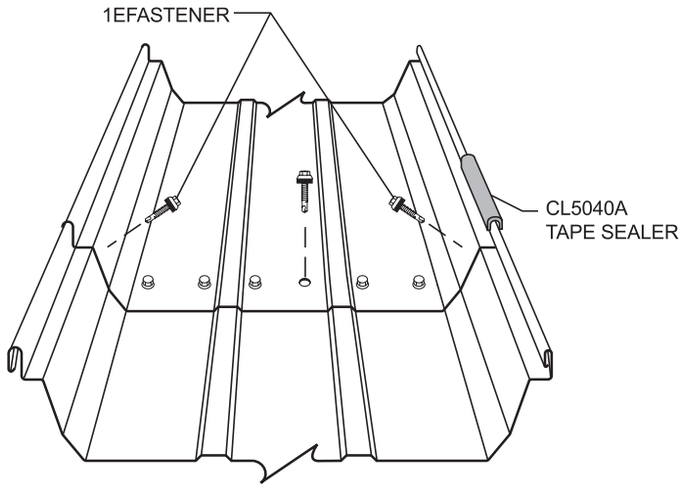
All holes in the upper and lower panels and the back-up plate should now be aligned. Make sure that the panel notches are aligned.

Install 1EFASTENER in sequence 2 and 3. Remove vise grips and install remaining fasteners in sequence 4, 5, 6.



FASTENER SEQUENCE

FIRST RUN-ENDLAP

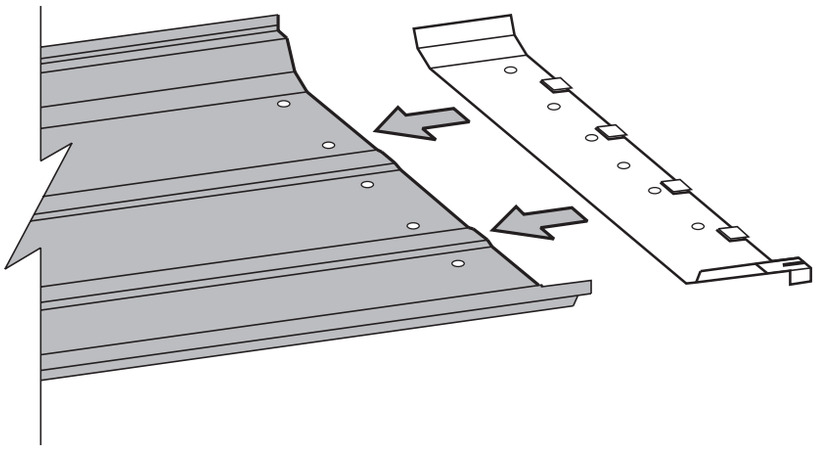


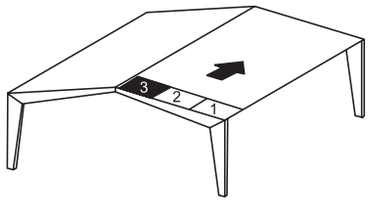
Apply CL5040A tape sealer over the notched portion of these male legs.

Repeat the endlap procedures as required for each panel until the ridge or high eave is reached.

STEP 9

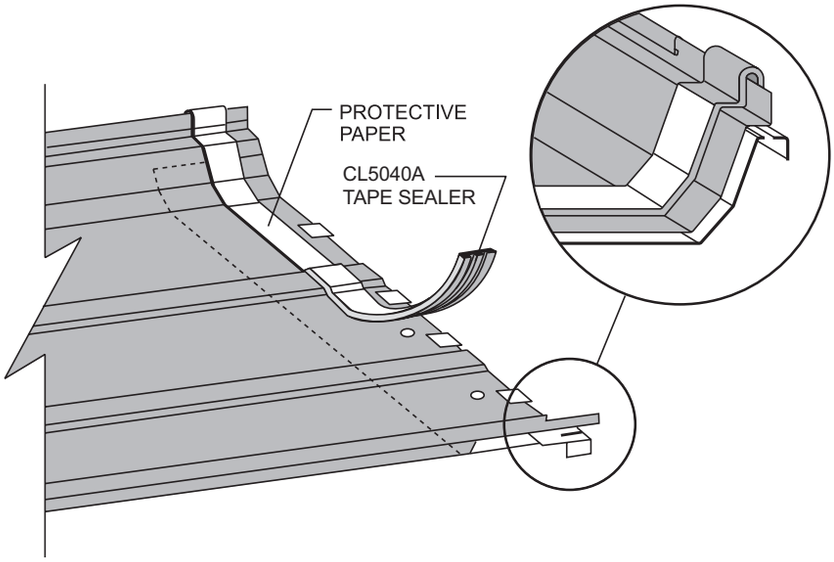
ERECTION SEQUENCE





RIDGE PANEL

At the ridge, install a back-up plate as in Step 5. The back-up plate is necessary to maintain panel module.

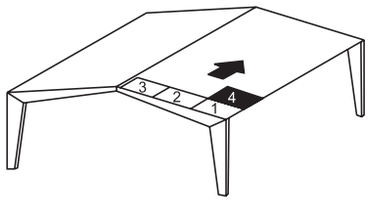


Install CL5040A tape sealer over prepunched holes. Be sure to place the tape sealer over the male leg. **DO NOT REMOVE THE PROTECTIVE PAPER AT THIS TIME, EXCEPT AT THE MALE LEG.**

Install clips on ridge panel as in Step 6.

Placing the tape sealer over the male leg of the panel is important. Without it, water could be driven behind the outside closure by a strong wind.

ERECTION SEQUENCE

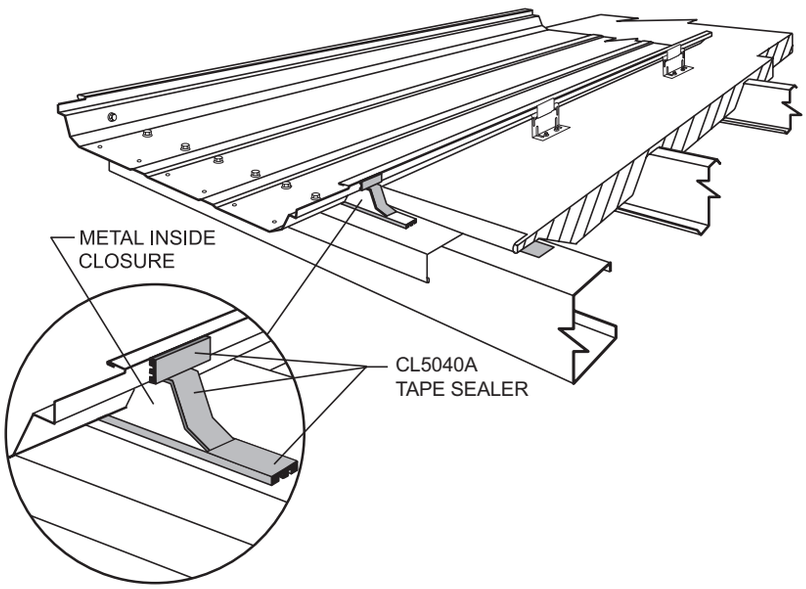


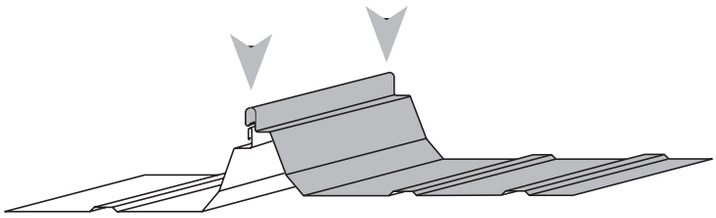
SUBSEQUENT RUNS EAVE

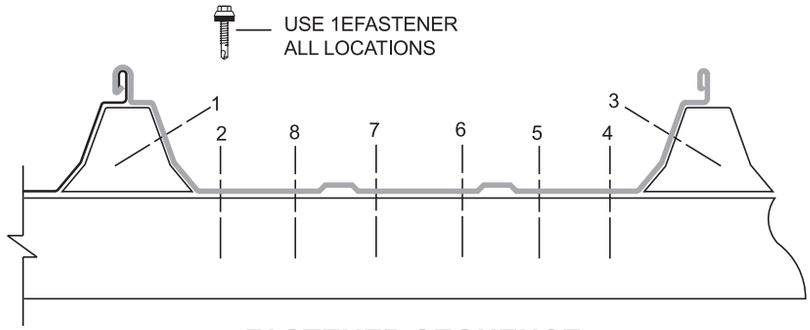
Apply tape sealer to the male leg of the first panel run directly over the inside closure. This will prevent water infiltration through the end of the seam. Install the next run of insulation and another inside closure using 1FASTENER. The second run of roof is now ready to install.

Position the panel with the female lip resting on top of the male leg. Align panel flush with adjacent panel. **ONCE THE PANELS ARE SNAPPED TOGETHER, NO FURTHER ALIGNMENTS CAN BE MADE**. Press down on the seam, snapping the two panels together. It is important to begin at one end of the panel and work to the other, applying pressure continuously all the way along the seam to avoid a bubble in the seam. Make certain the seams are fully locked together, particularly at the clips where greater resistance will be encountered.

Install fasteners at eave in the proper sequence. Eight fasteners are required at this location.







FASTENER SEQUENCE
SUBSEQUENT RUNS - EAVE

CAUTION

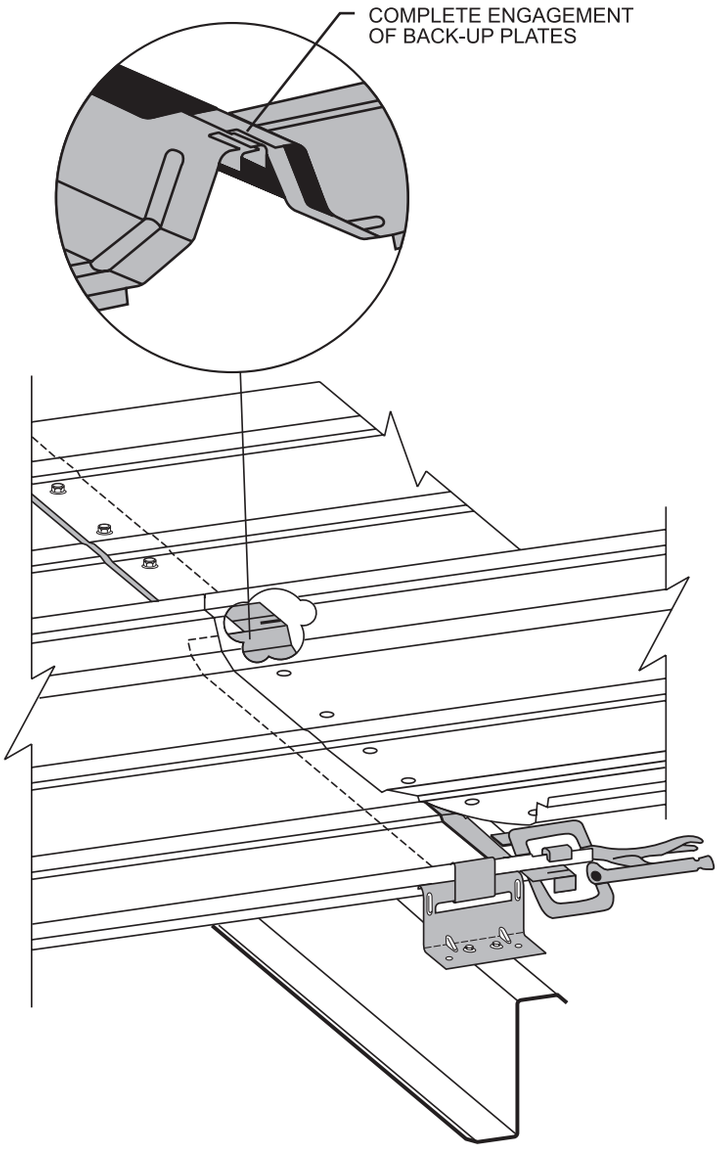
Never use a hammer to force the panels to snap together. This will cause severe damage to the panel and will nullify any warranty.

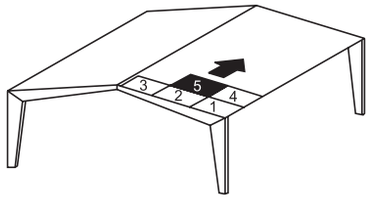
CAUTION

If a problem is encountered in fully snapping the seams together, such as an incorrectly installed clip, damaged panel lip, or a bubble caused by faulty assembly; the shaping tool should enable the seam to be locked with minimal effort.

STEP 11

ERECTION SEQUENCE



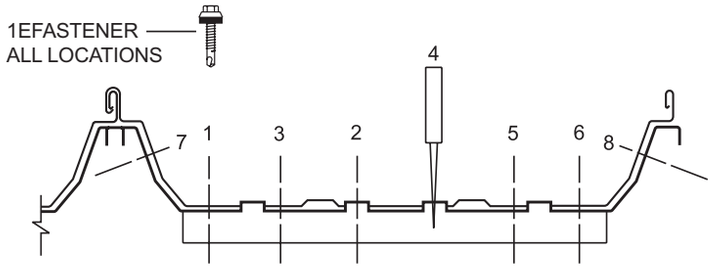


SUBSEQUENT RUNS ENDLAP

Install back-up plate and tape sealer as in Step 5. However, on this and all subsequent runs, care must be taken to engage the tab on the side into the slot of the adjacent back-up plate. This procedure will assist in maintaining a 24” panel module.

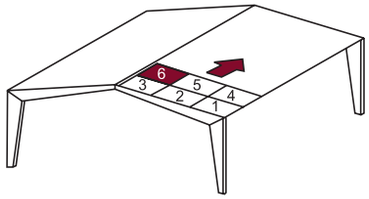
Install clips as described in Step 6.

Install upper panel as described in Steps 7 & 8.



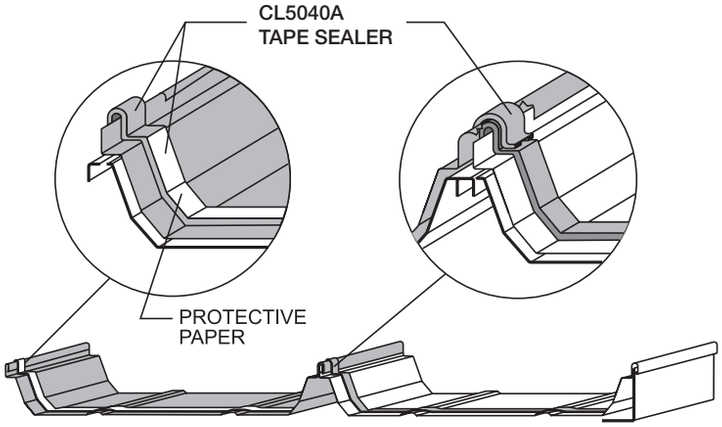
Repeat the endlap procedures as required for each panel until the ridge is reached.

ERECTION SEQUENCE



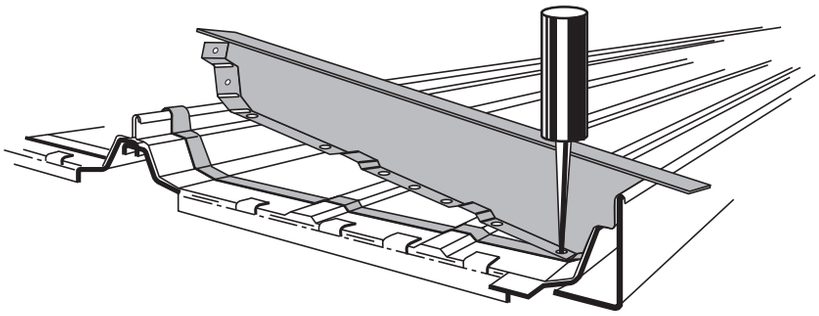
SUBSEQUENT RUNS RIDGE/OUTSIDE CLOSURE

Install back-up plate and panel clips. Go to the previously installed ridge panel and peel protective paper from tape sealer. Apply tape sealer to the ridge panel just installed. Be sure to seal to the mastic on the previous panel.



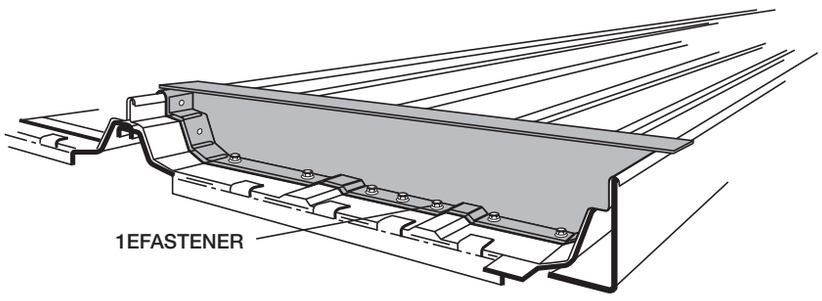
NOTE

Always stay one panel run behind with the outside closures, otherwise, the next panel cannot be installed.



Install the outside closure in previous ridge panel. Rotate outside closure into position contacting the female side of the panel first. Using an awl, align the first hole on the female side of the outside closure with the corresponding hole in the panel and back-up plate. Remove the awl and install 1EFASTENER in the hole.

Push the other end of the outside closure into position and align the holes with the awl. Remove the awl and install 1EFASTENER in all remaining holes except for the hole at the panel seam. **Do not install the panel seam fastener at this time.**



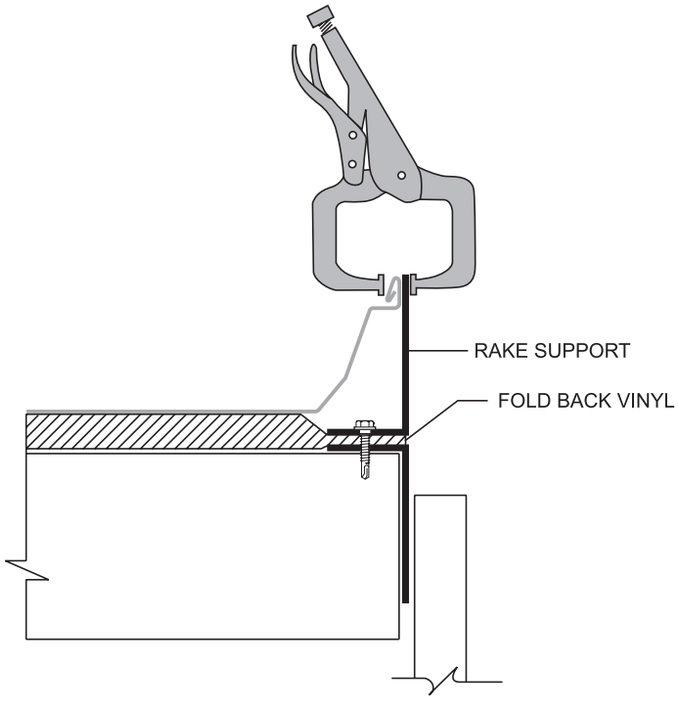
Check panel alignment at this time (See page 25).

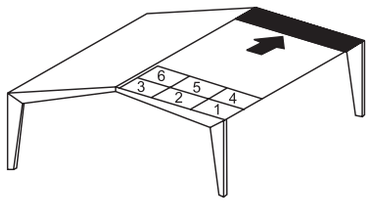
Continue installing the roof until all but the last panel run has been installed.

Panel module should be checked every third or fourth run.

STEP 13A

ERECTION SEQUENCE

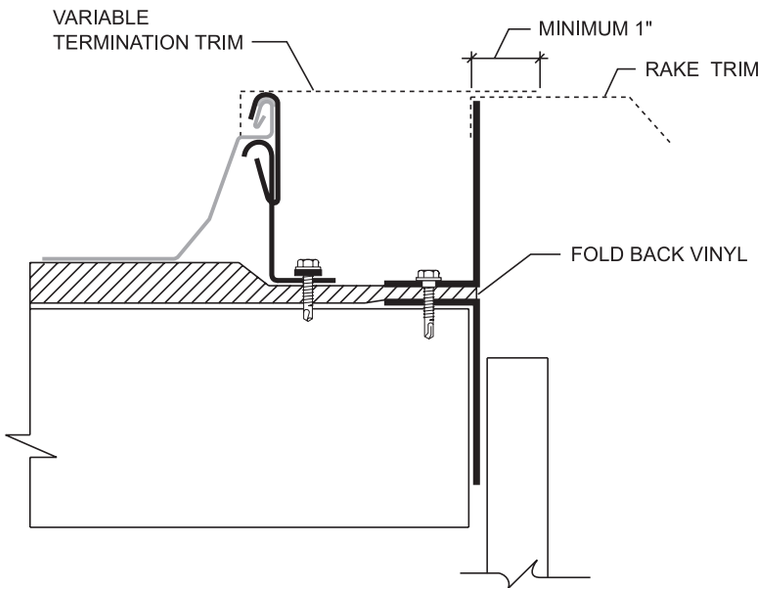




LAST PANEL RUN

This roof system is designed to finish in the high on even footage buildings by using 24”, 18”, or 12” panels on the last run.

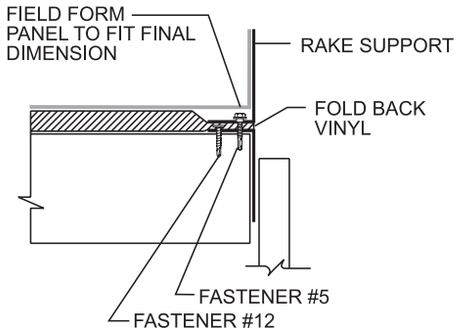
After laying the last insulation run, install the rake support over the insulation along the steel line. Lay the last panel run. Temporarily fasten the male leg to the rake support with vise grips.

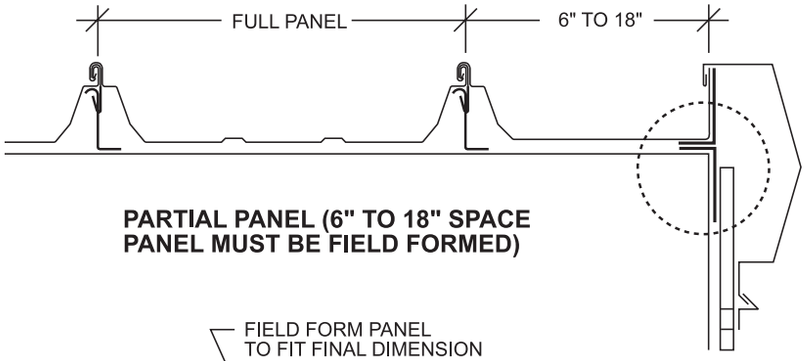


If the panel ends 2”- 4” away from the rake support due to an out-of-square condition or other factors, simply install the panel clips. This system allows for the roof to be trimmed in the high.

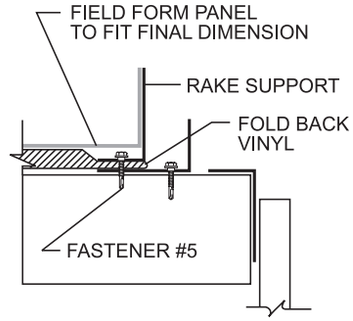
The roof should be swept clean of any drill shavings at the end of each day to prevent rust.

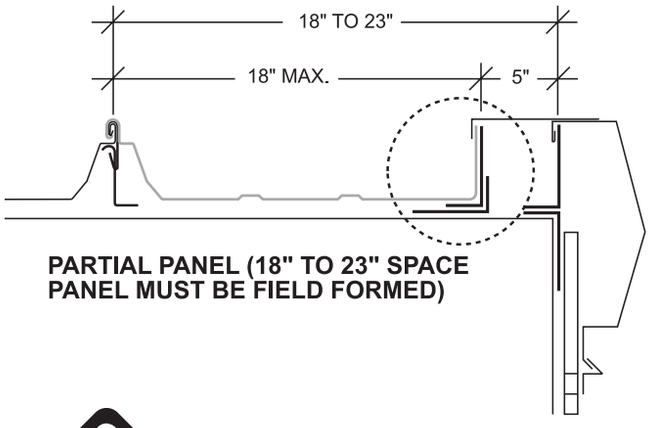
ERECTION SEQUENCE



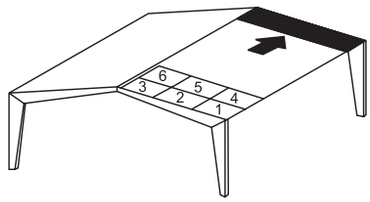


PARTIAL PANEL (6" TO 18" SPACE PANEL MUST BE FIELD FORMED)





PARTIAL PANEL (18" TO 23" SPACE PANEL MUST BE FIELD FORMED)



LAST PANEL RUN (OPTIONAL)

The roof is designed to finish in the high on even footage buildings. Odd length buildings and variations in erection practices may dictate that an alternate detail be used.

When terminating in an odd dimension, field cut and bend a 3” vertical leg on the panel.

After laying the last insulation run,install the field formed panel. Temporarily fasten the formed leg of the panel to the rake support with vice grips, or temporary fasteners (1EFASTENER).

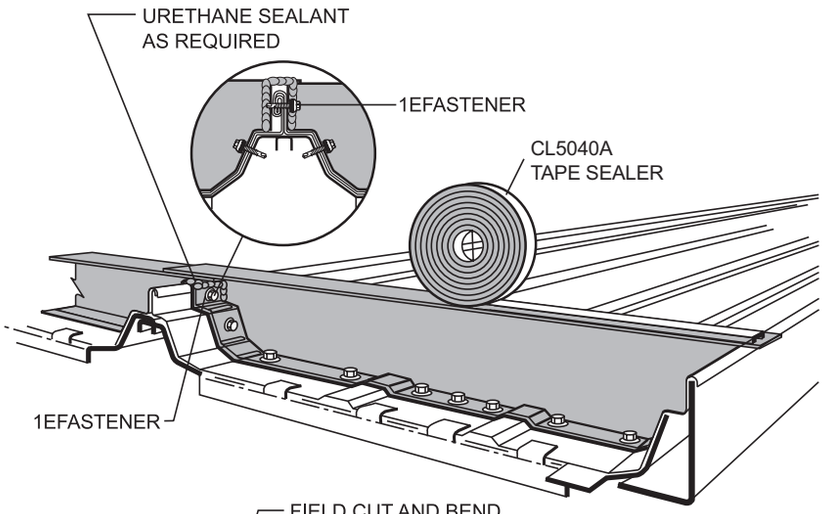
The combination of field formed panel and Variable Termination Trim may be used to accommodate large dimensions as shown.

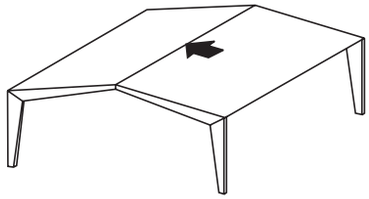
CAUTION

The roof should be swept clean of any drill shavings at the end of each day to prevent rust.

STEP 14

ERECTION SEQUENCE

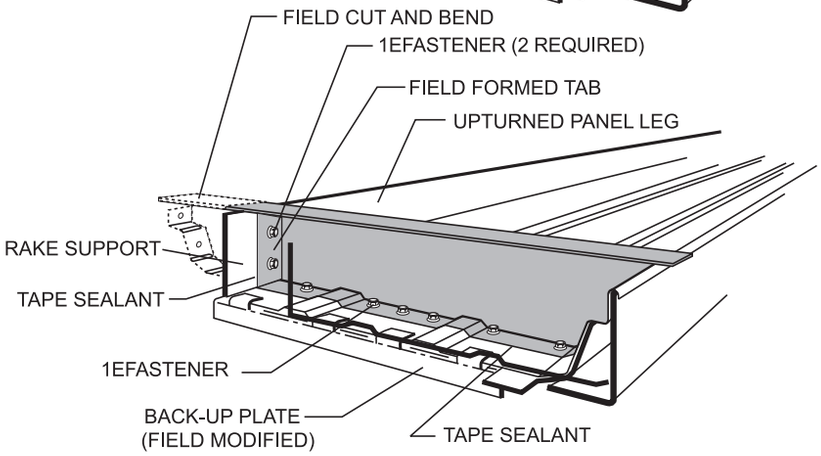




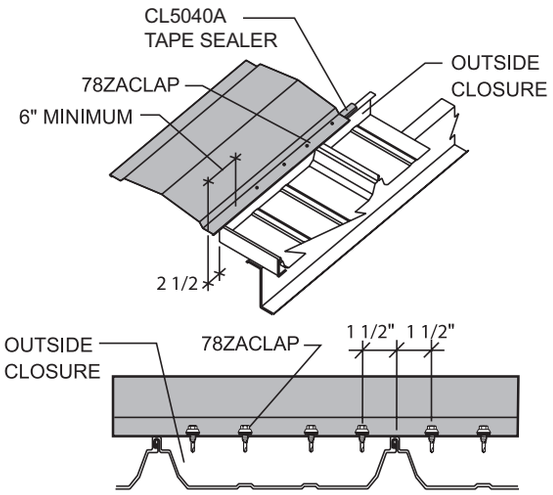
RIDGE-OUTSIDE CLOSURE/FLASHING

Install 1EFASTENER in the remaining hole at the panel seam of all outside closures. The fastener must go through the panel seam and the corresponding hole of the adjacent outside closure.

Use urethane sealant to fill any voids around panel seam on upslope side of outside closure. Apply CL5040A tape sealer to the top of the outside closure.

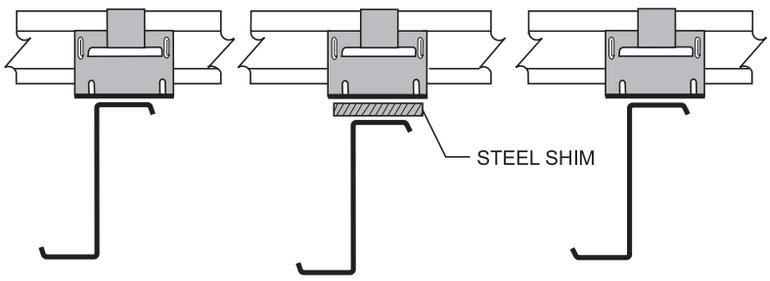


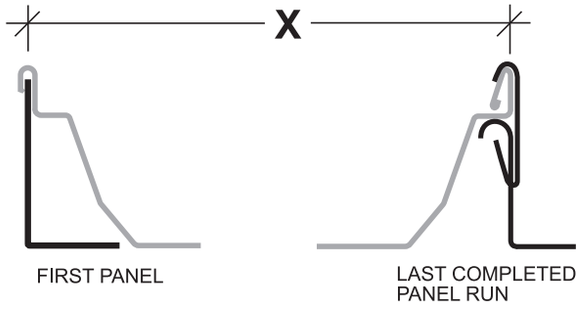
The final outside closure on the last panel may require field modification. A tab should be formed by the web of the outside closure for attachment to the upturned leg of the roof panel (field formed). This tab should be attached to the panel and angle with 1EFASTENER (2 required).

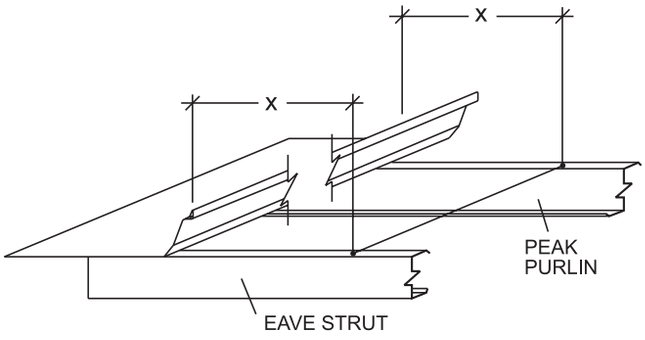


Install the ridge flashing starting and ending 2 1/2” outside the steel line. Fasten the ridge flashing to the outside closures with 78ZACLAP. Install a fastener 1 1/2” from panel seam on both sides of panel. Install additional fasteners directly above minor ribs of panel. Four fasteners are required at each panel. Leave 6” unfastened on each end to allow for the rake trim to be installed later. **DO NOT FASTEN THROUGH THE LOCK OF THE STANDING SEAM.**

For floating peak box installation see page 30.







RECOMMENDED ERECTION PRACTICES

CORRECTING OUT-OF-PLANE SUBSTRUCTURE

Occasionally a purlin may be encountered that is lower (out-of-plane) than those adjacent to it. When a clip is attached to this purlin, it will go down further than those adjacent to it, distorting the seam. This can cause the next panel sidelap to be difficult to snap together in this area. To compensate for this lower purlin, a steel shim may be placed under the clip to bring it up to the proper height (in plane). This shim should be no thicker than 1/4". If 1/4" is not enough, then structural modification will be necessary.

Avoid "stair-stepping" of the panels at the eave. This will cause problems engaging back-up plates at the endlap and ridge. This also will create the need to warp the cinch strap (if used) over the high rib forcing it to align with the holes in the adjacent panel.

Any "stripped out" fasteners at the endlaps or outside closures should be immediately replaced with Fastener #2A. Place a 1" long piece of CL5040A tape sealer over the "stripped out" hole before installing Fastener #2A. This will allow the fastener threads to be coated with tape sealer and provide a good seal.

NEVER ALLOW PANELS TO COME INTO CONTACT WITH LEAD, COPPER, GRAPHITE, GASOLINE OR OTHER HARSH CHEMICALS AS THIS WILL VOID THE GALVALUME WARRANTY.

CHECK ROOF FOR PANEL ALIGNMENT

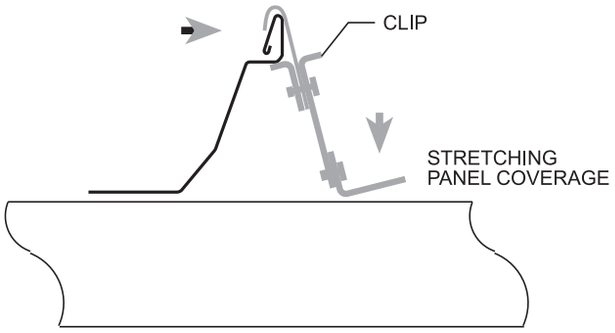
Check the roof every three or four runs for panel alignment as it is being erected. This can be accomplished by two different means.

1. Measure from the rake support to the seam of the last completed panel run. Take measurements at the ridge, eave, and all endlaps.
2. Attach a stringline to the eave plate and ridge purlin, running parallel to the rake support. The stringline should stay ahead of the work and can be moved across the roof as construction progresses. Measure from the stringline back to the last completed panel run. Take measurements at the ridge, eave, and all endlaps.

SPECIAL ERECTION TECHNIQUES

RECOMMENDED ERECTION PRACTICES (CONTINUED)

ADJUSTING PANEL WIDTH

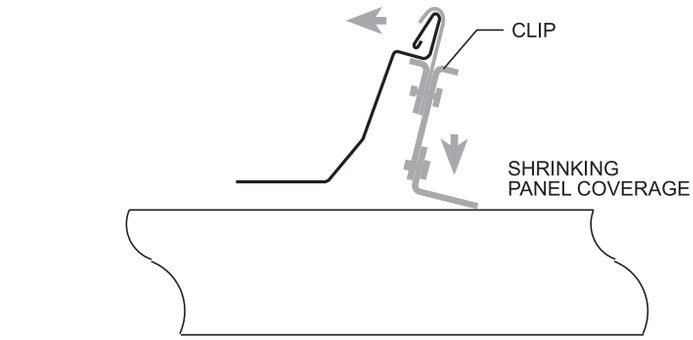


NOTE

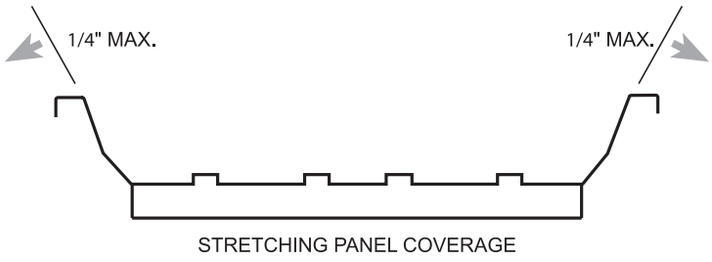
Do not adjust panel width more than 1/2” on any panel area.

SLIDING CLIP ONLY

To stretch panel coverage, install a clip at the panel endlap or ridge with the base angled away from the panel. As the fastener is installed through the base of the clip and into the purlin, the clip base will rotate down to the purlin causing the top of the clip to move outward, stretching the panel coverage. Install the remainder of the clips as usual.



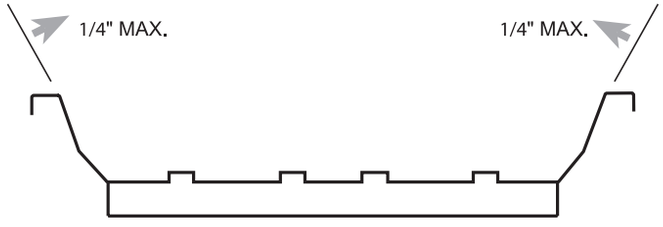
To shrink panel coverage, install a clip at the panel endlap or ridge with the base angled toward the panel. As the fastener is installed through the base of the clip and into the purlin, the clip base will rotate down to the purlin causing the top of the clip to move inward, shrinking panel coverage. Install the remainder of the clips as usual.



STRETCHING PANEL COVERAGE

FIXED AND FLOATING CLIPS

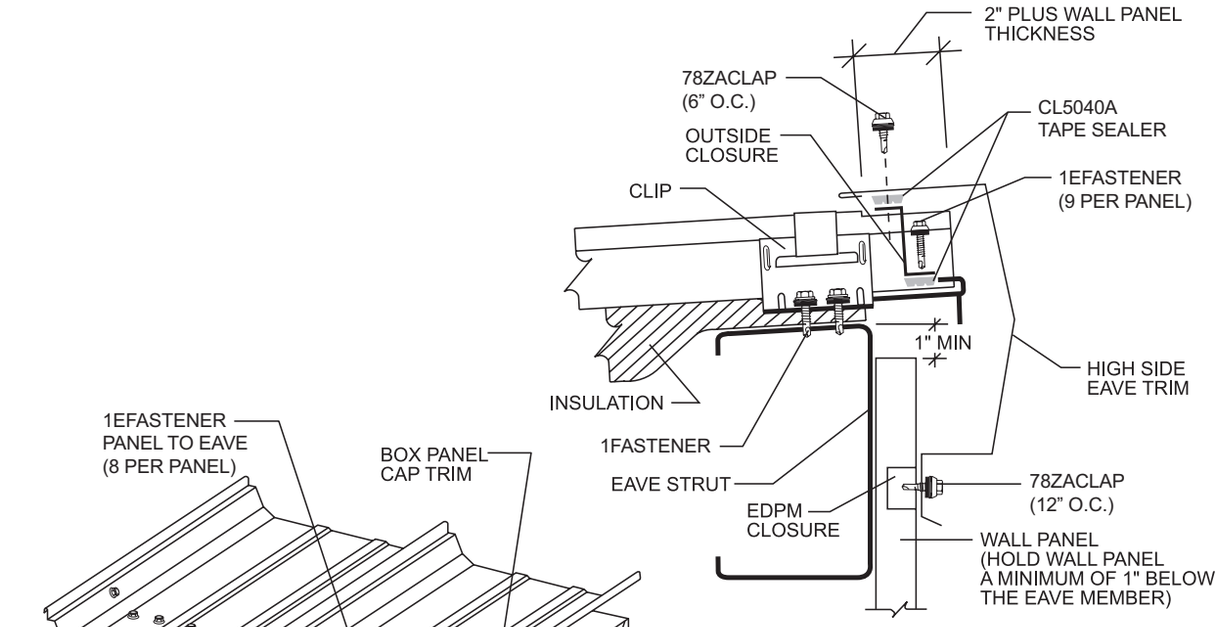
To stretch panel coverage, bend the sides of the back-up plate out and install at endlap or ridge. Do not bend either side more than 1/4”. Install clips as usual.



SHRINKING PANEL COVERAGE

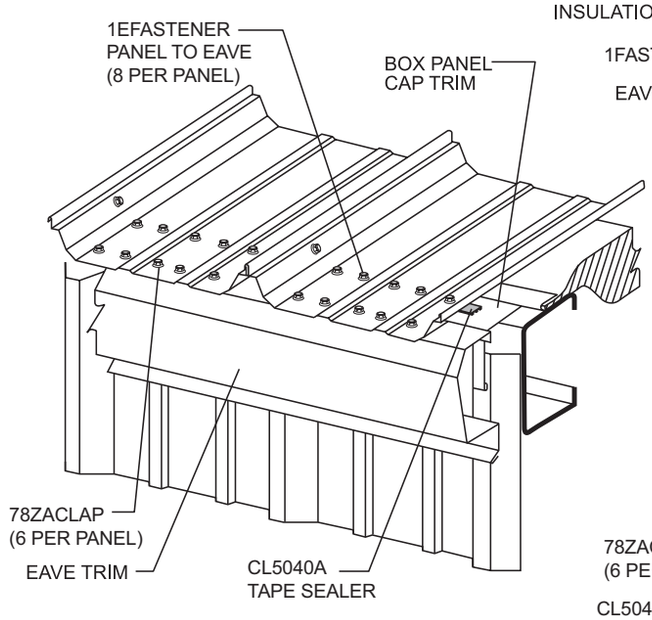
To shrink panel coverage, bend the sides of the back-up plate in and install at endlap or ridge. Do not bend either side more than 1/4”. Install clips as usual.

EAVE

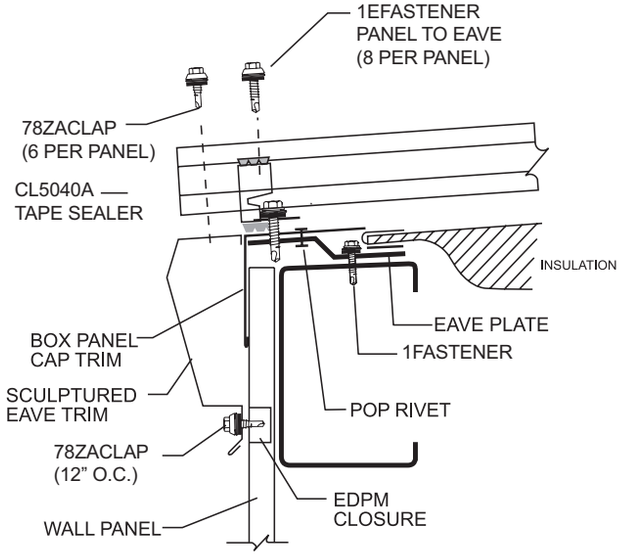


HIGH EAVE

NOTE
Top leg dimension of high side eave trim may have to be increased to accommodate wall thickness.



LOW EAVE WITH SCULPTURED EAVE TRIM

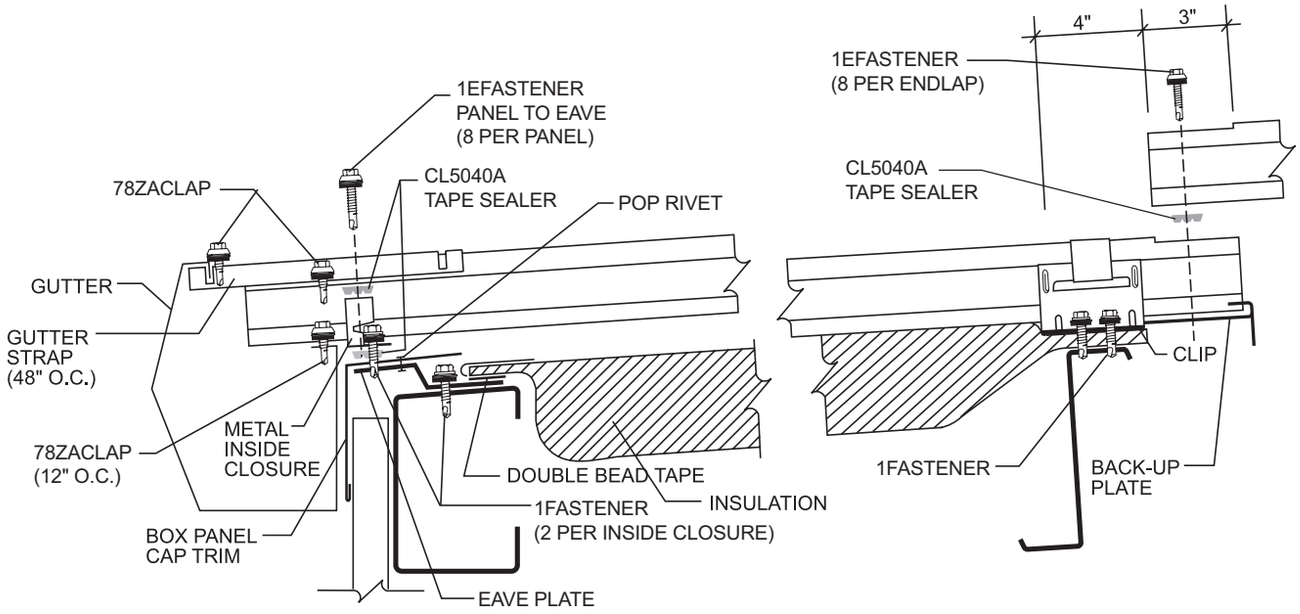


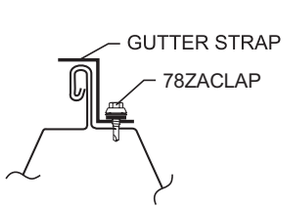
THIS OPTIONAL SCULPTURED EAVE TRIM IS AVAILABLE. HOWEVER, UNDER CERTAIN CONDITIONS IT MAY INDUCE STAINING OF WALL PANELS.

NOTE

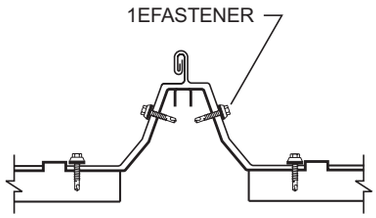
TRIM DETAILS

EAVE TO ENDLAP





GUTTER STRAP END VIEW



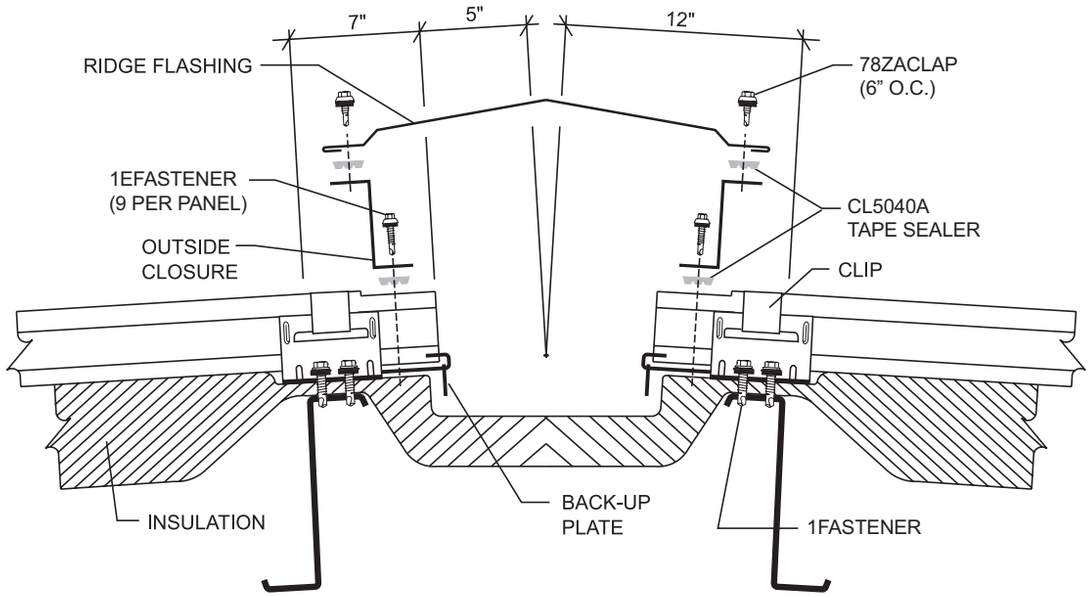
ENDLAP END VIEW

NOTE

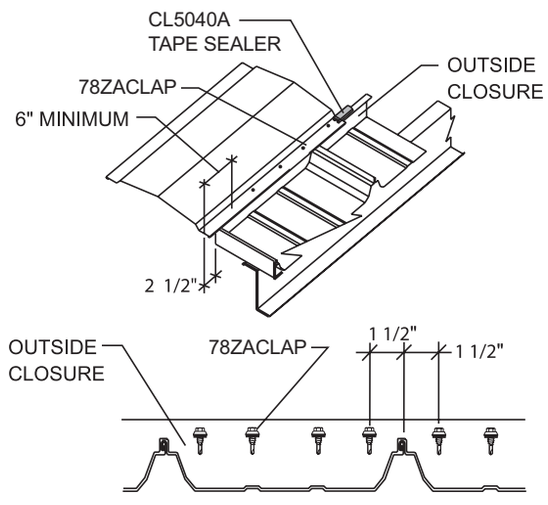
THE ABOVE GUTTER SHOULD NOT BE USED IN AREAS THAT EXPERIENCE SNOW LOADS OF 10 PSF OR HIGHER. SEE PAGE 37 FOR THE GUTTER DETAIL FOR THESE AREAS.

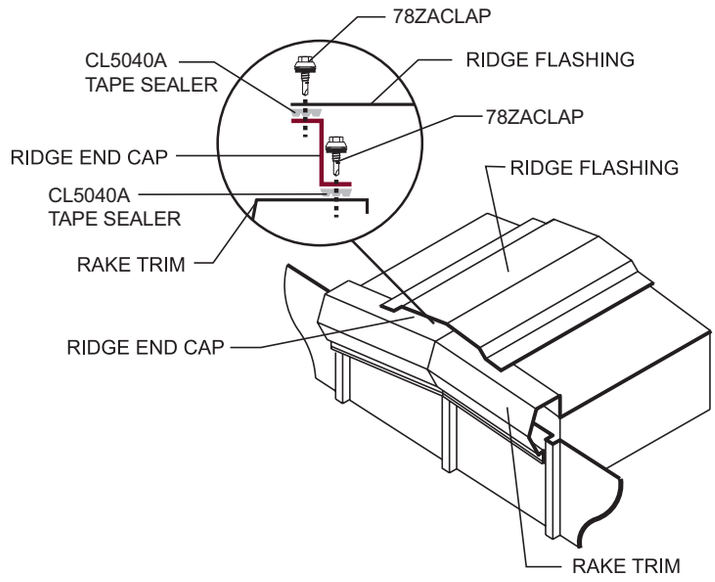
TRIM DETAILS

RIDGE



Install the ridge flashing starting and ending 2" outside the steel line. Fasten the ridge flashing to the outside closures with 78ZACLAP. Install a fastener 1" from panel seam on both sides of panel. Install additional fasteners directly above minor ribs of panel. Four fasteners are required at each panel. Leave 6" unfastened on each end to allow for the rake trim to be installed later. DO NOT FASTEN THROUGH THE LOCK OF THE STANDING SEAM.





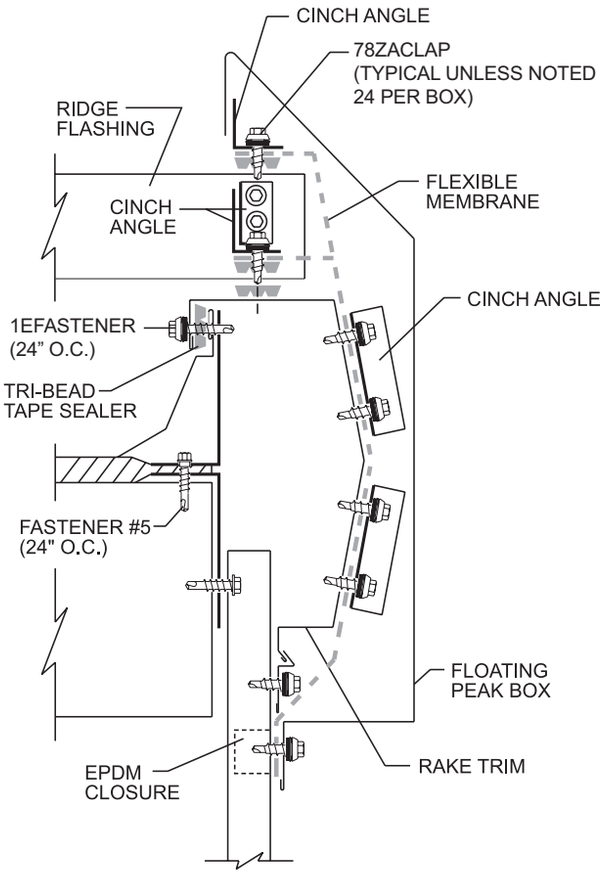
If you do not have a peak box, install a ridge end cap for each end of the ridge flashing.

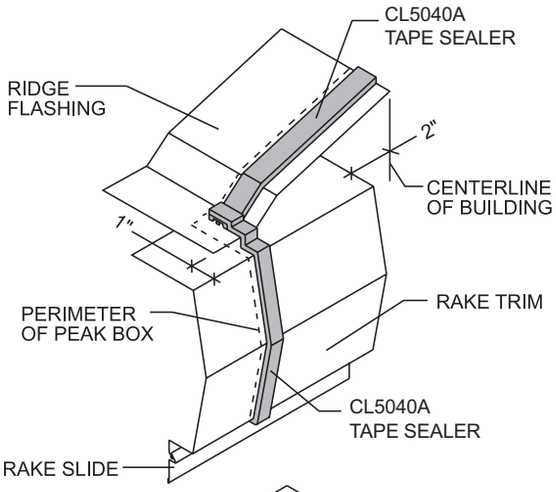
Floating systems utilize a floating peak box, see page 34.

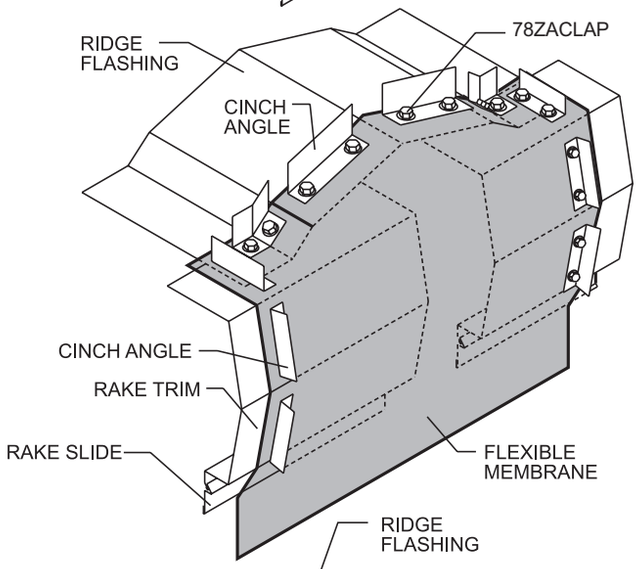
NOTE

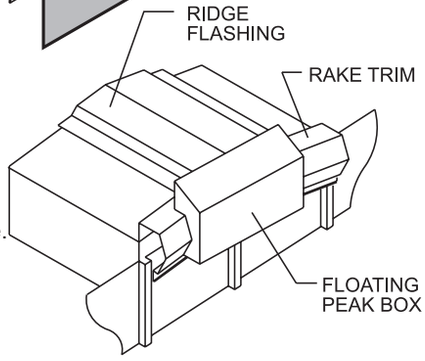
TRIM DETAILS

FLOATING PEAK BOX







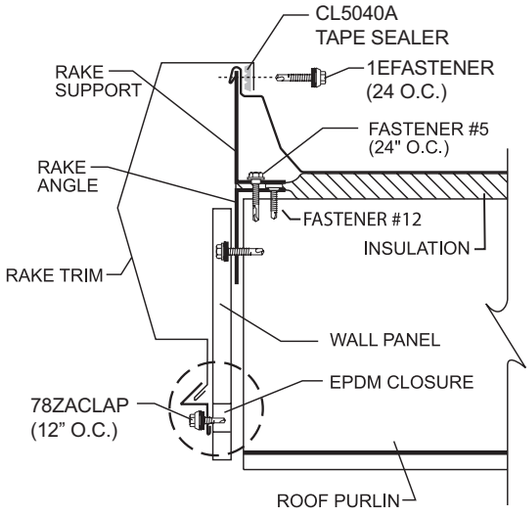


FLOATING PEAK BOX INSTALLATION

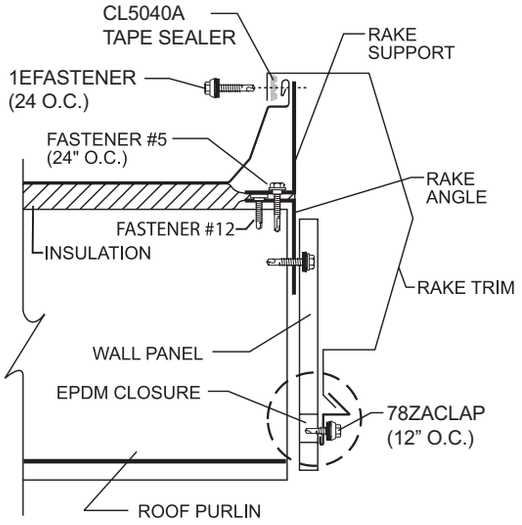
1. Install rake trim on each side of ridge to within 2” of centerline of building.
2. Install ridge flash so that it is on top leg of rake trim, 1” back from outside edge.
3. Temporarily set peak box in place and mark perimeter of box on rake trim and ridge flash. Remove peak box.
4. Just inside mark, install tape sealer continuously across ridge flash, then down the face of rake trim on both sides of ridge.
5. Place flexible membrane over tape sealer and hold in place with cinch angles. Cinch angles should be attached with 78ZACLAP. To prevent leaks, flexible membrane should be tight against ridge flash and rake trim with no wrinkles at the sealed edges.
6. Hook top of peak box over cinch angles installed on top of ridge flash and attach bottom of peak box to endwall with 78ZACLAP.

TRIM DETAILS

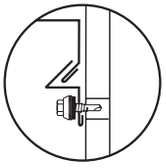
RAKE



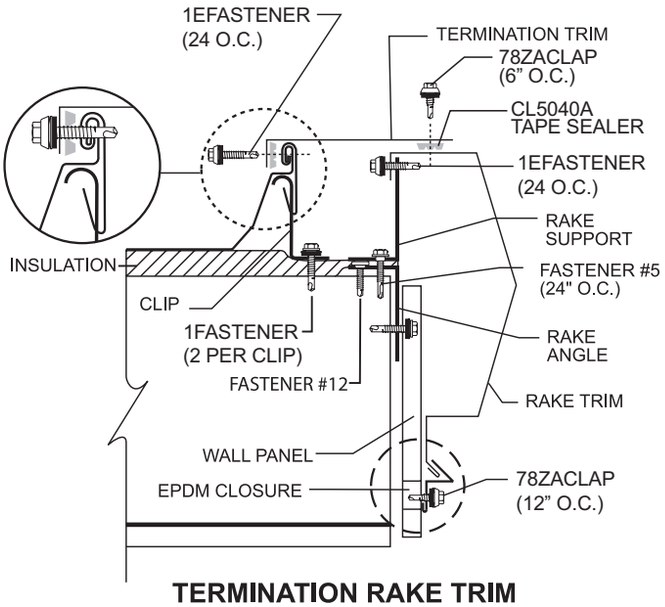
BEGINNING RAKE TRIM



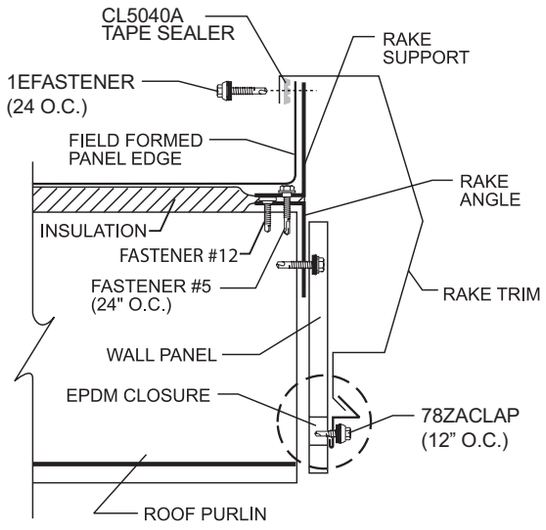
TERMINATION RAKE TRIM ON MODULE



RAKE SLIDE
(FOR FLOATING SYSTEMS ONLY)



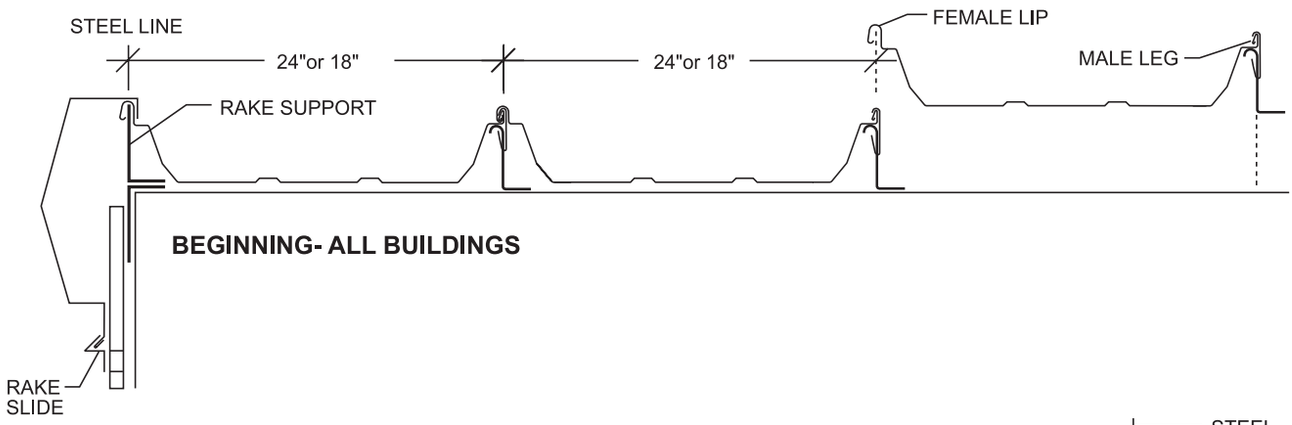
TERMINATION RAKE TRIM OFF MODULE



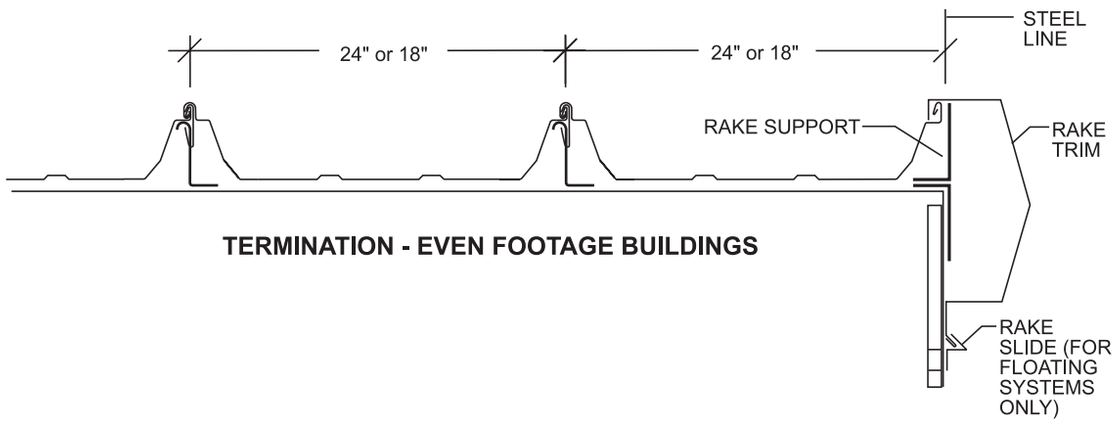
TERMINATION RAKE TRIM OFF MODULE (OPTIONAL)

TRIM DETAILS

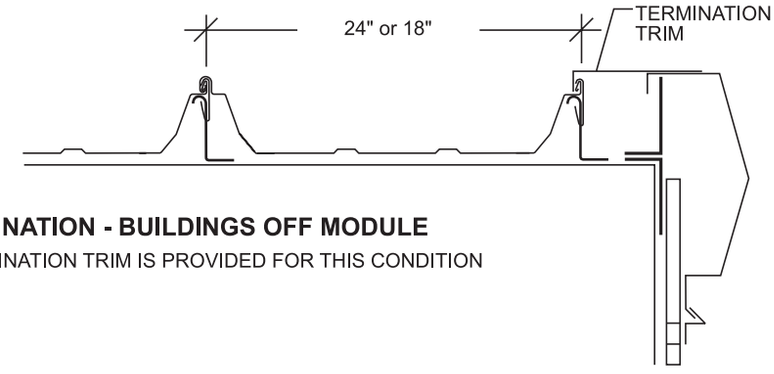
RAKE TO RAKE



BEGINNING- ALL BUILDINGS



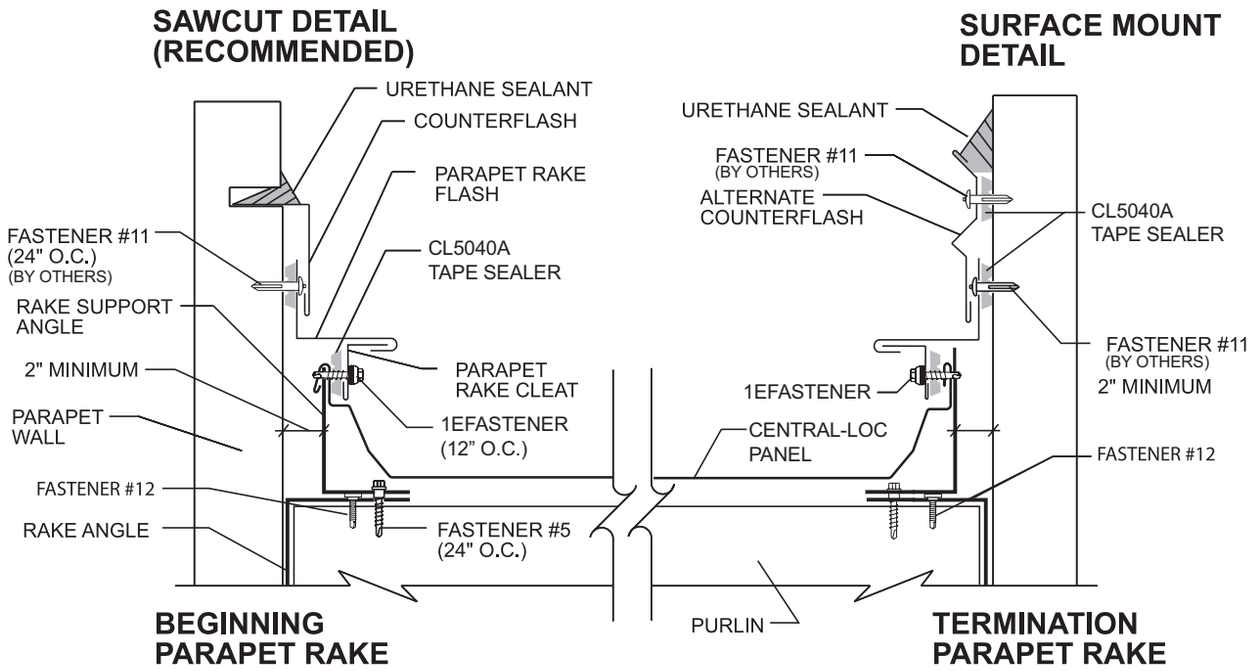
TERMINATION - EVEN FOOTAGE BUILDINGS

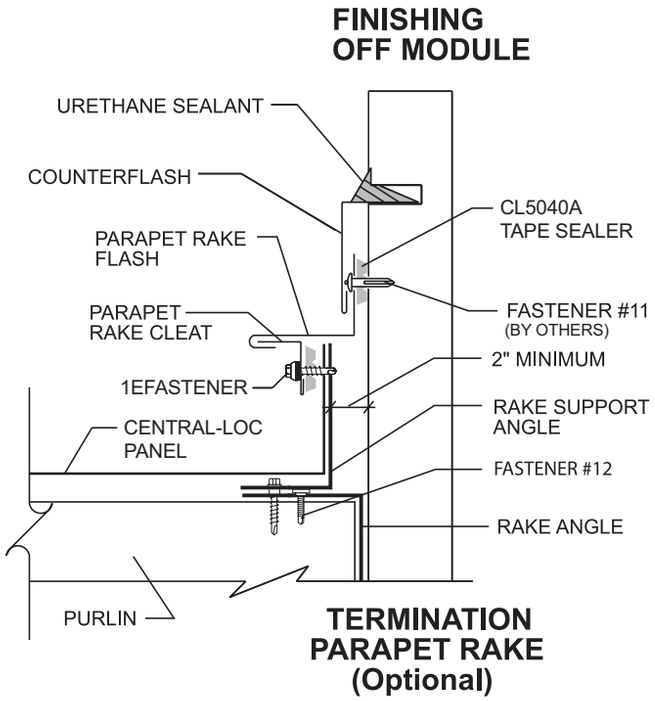


TERMINATION - BUILDINGS OFF MODULE

A TERMINATION TRIM IS PROVIDED FOR THIS CONDITION

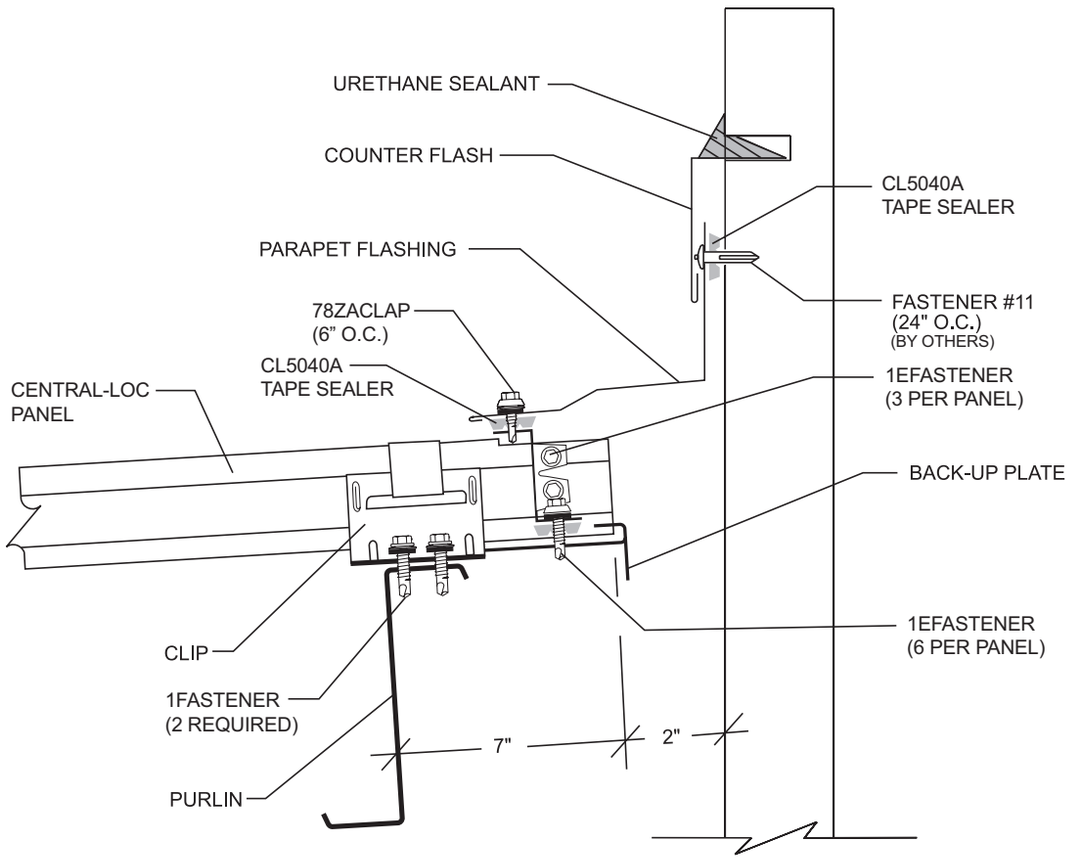
RAKE PARAPET





TRIM DETAILS

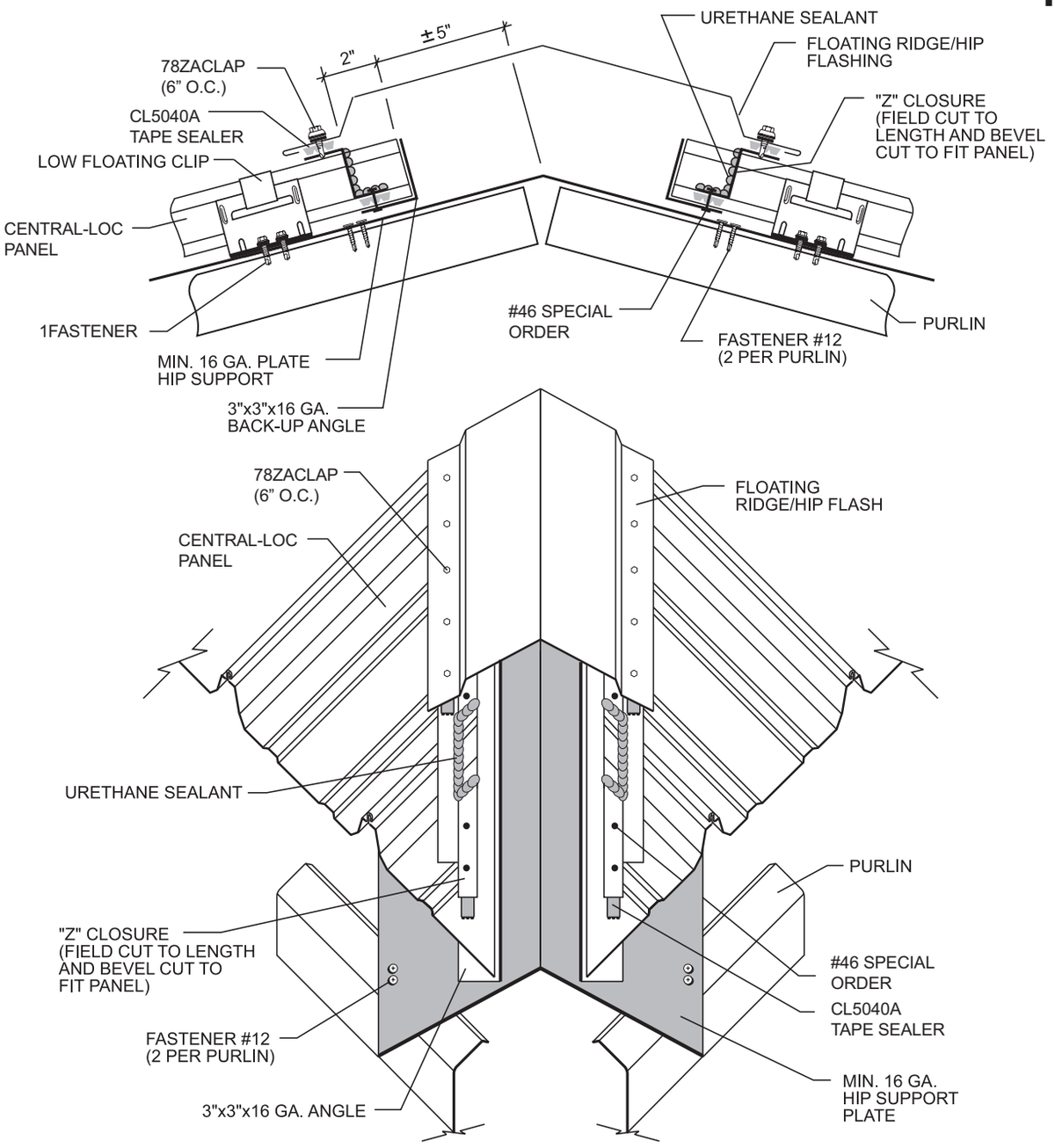
HIGH EAVE PARAPET



NOTE **High side purlin is 9" down slope.**

TRIM DETAILS

HIP

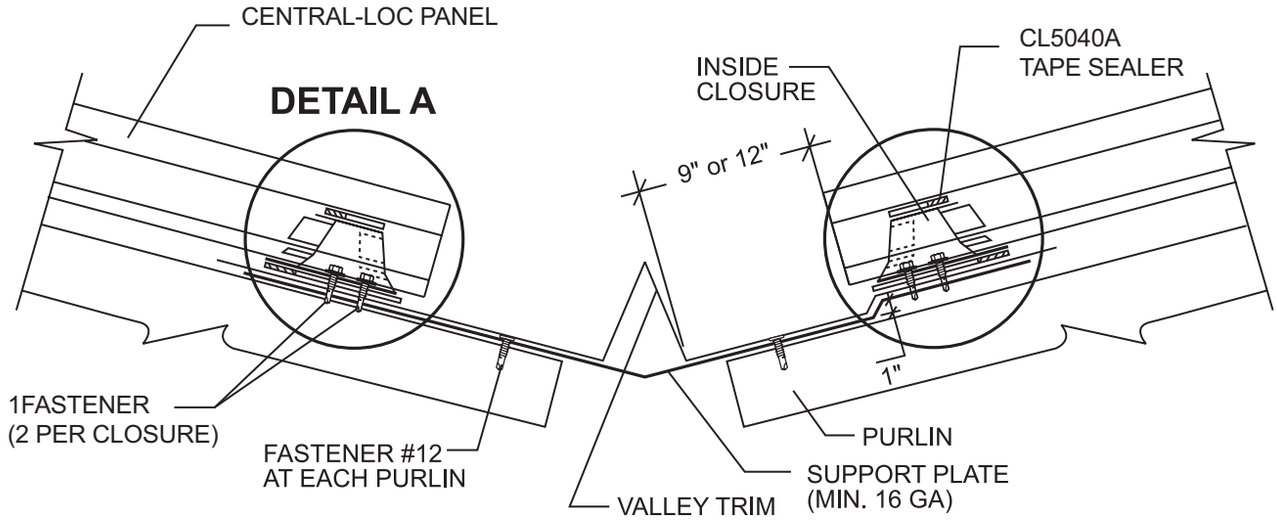


All trapezoidal panels are extremely difficult to install at hips and valleys in a weathertight manner. The use of these details should only be attempted by installation crews that are highly experienced.

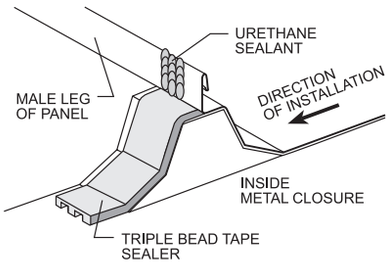
In order to assure weathertightness, CSMI recommends one of its vertical leg standing seam systems for use on roofs that require hips and valleys.

TRIM DETAILS

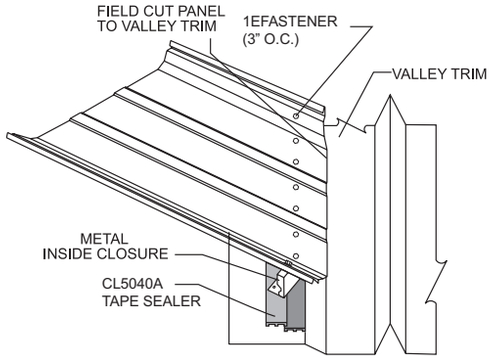
VALLEY



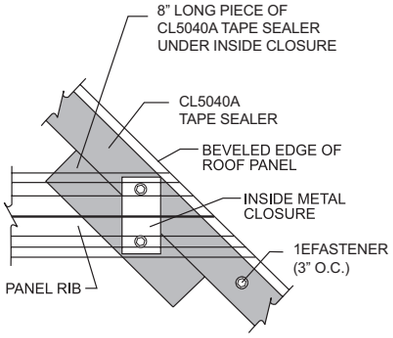
LOW SYSTEM **HIGH SYSTEM**



DETAIL A



DETAIL A (ISOMETRIC)



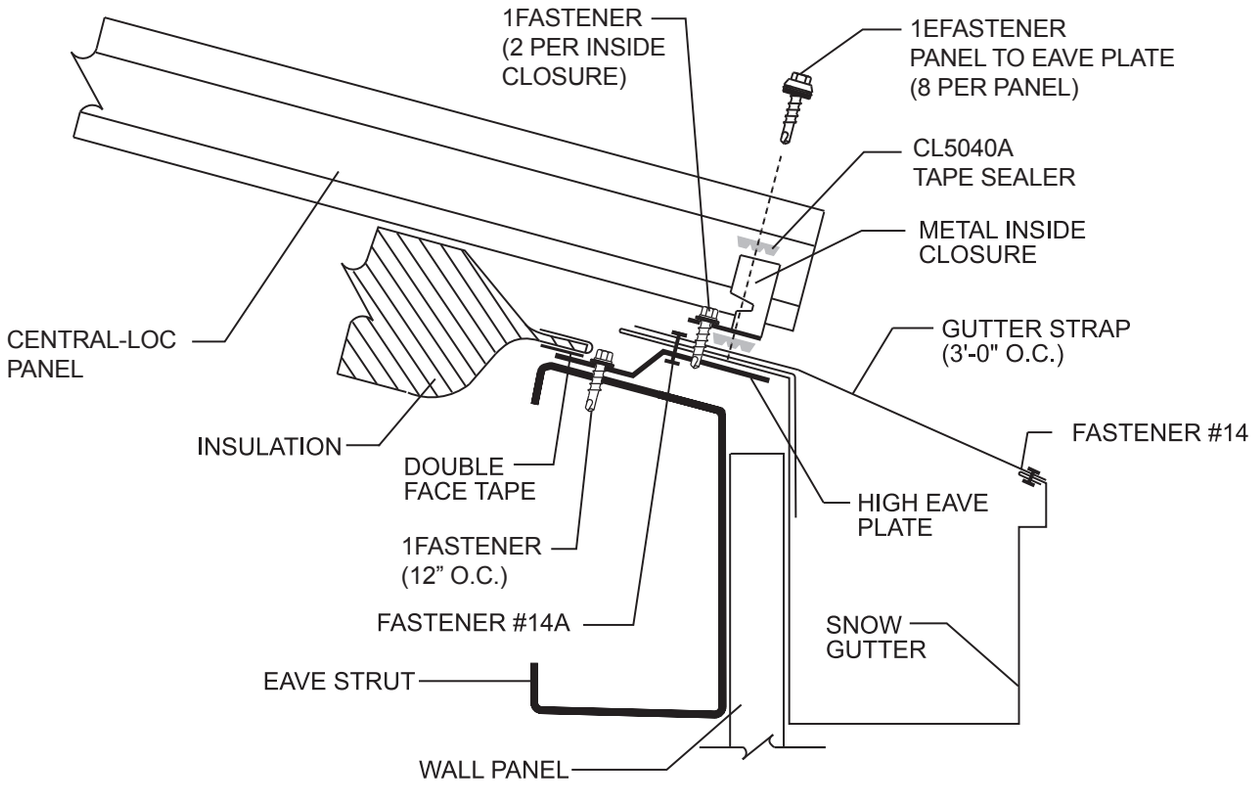
DETAIL A (PLAN VIEW)

CAUTION

All trapezoidal panels are extremely difficult to install at hips and valleys in a weathertight manner. The use of these details should only be attempted by installation crews that are highly experienced.

In order to assure weathertightness, CSMI recommends one of its vertical leg standing seam systems for use on roofs that require hips and valleys.

SNOW GUTTER



NOTES:

1. Attach gutter to eave plate with Fastener #14A (3 fasteners per 10' piece).
2. Install gutter straps 3'-0" O.C.
3. Apply CL5040A tape sealer to slope leg of gutter.
4. Use minor rib tape sealer to fill voids in panel at minor ribs as shown on page 23.
5. Install panel with 1EFASTENER at prepunched holes. **Panel must not overhang into gutter.**
6. Front top edge of gutter must not project above the plane of the panel pan.
7. Snow gutter is non-standard.

NOTES

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