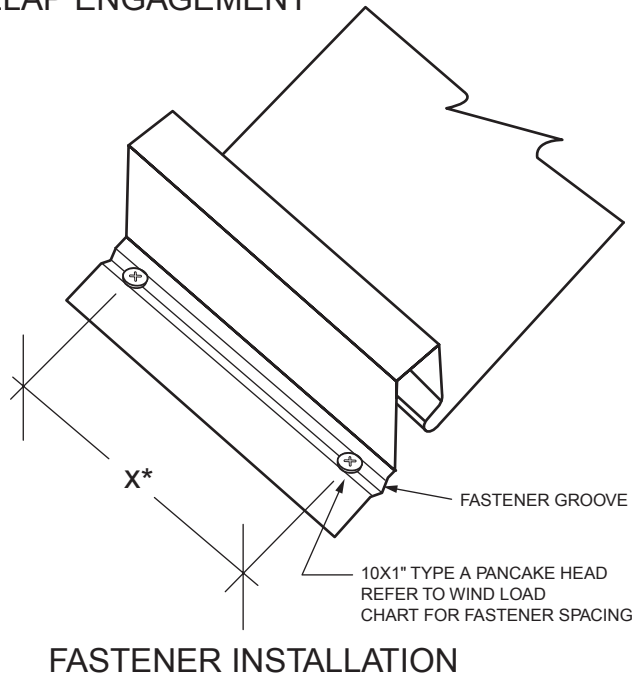
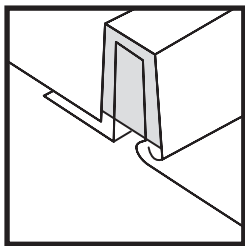
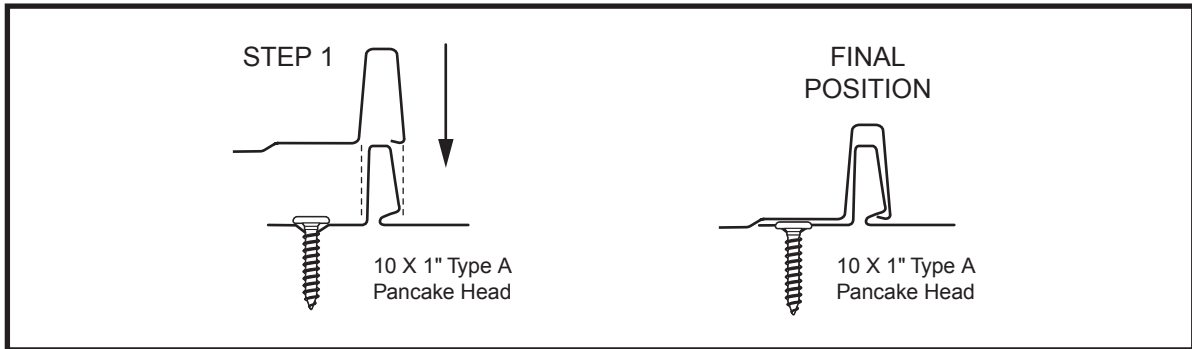
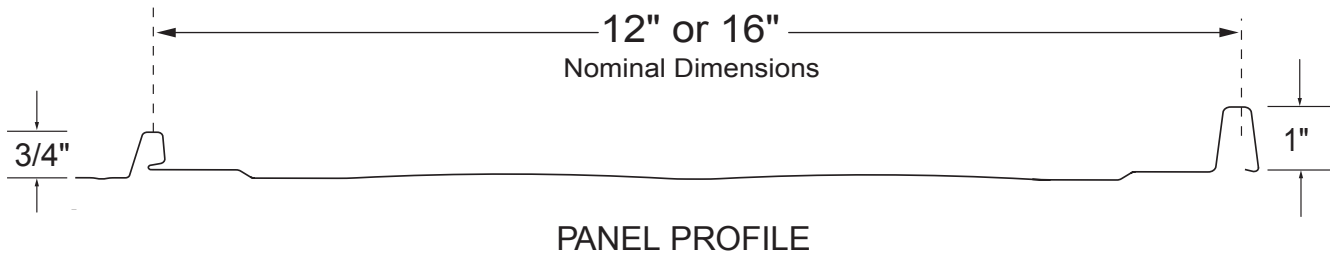


**SLIMLINE SERIES® PRODUCT INFORMATION**

**TYPICAL DETAILS SLIMLINE PANEL**

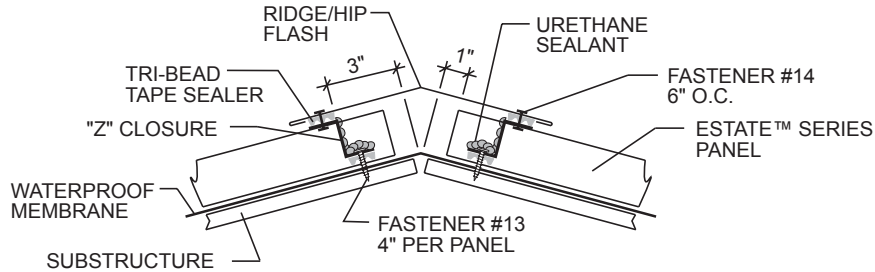


**NOTES:**

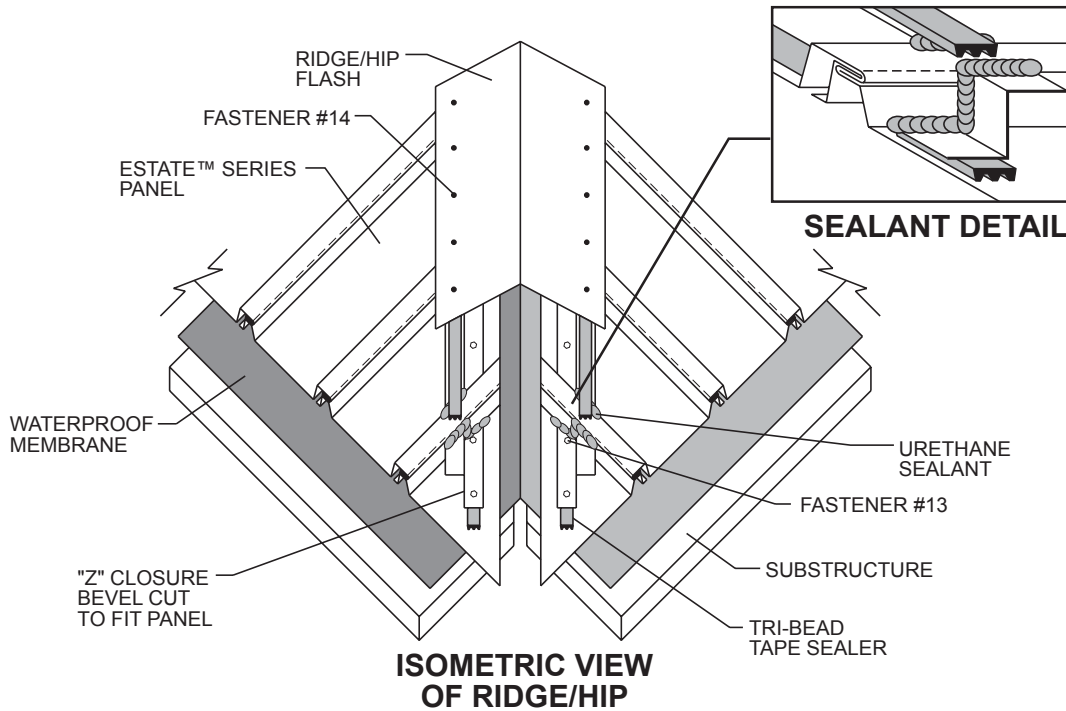
- 1) Panels are produced with a fastener groove to facilitate fastener placement.
- 2) Total sidelap engagement without spreading the panel rib is essential. Always check panel module at each end before installing fasteners.
- 3) Fill ends with urethane sealant.

**ESTATE™ SERIES DESIGN**

**TYPICAL DETAILS  
RIDGE/HIP**



**CROSS SECTION OF RIDGE/HIP**



**Ridge**

**NOTES:**

1. Field cut "Z" closures to fit panel width.
2. Install Tri-Bead tape sealer to bottom leg of "Z" closures and attach to panels with four Fastener #13 per panel. Vertical leg of "Z" closure should be 3" from center of ridge.
3. Seal ends of "Z" closures with urethane sealant.
4. Attach ridge flash to "Z" closures with Fastener #14, 1'-0" O.C.

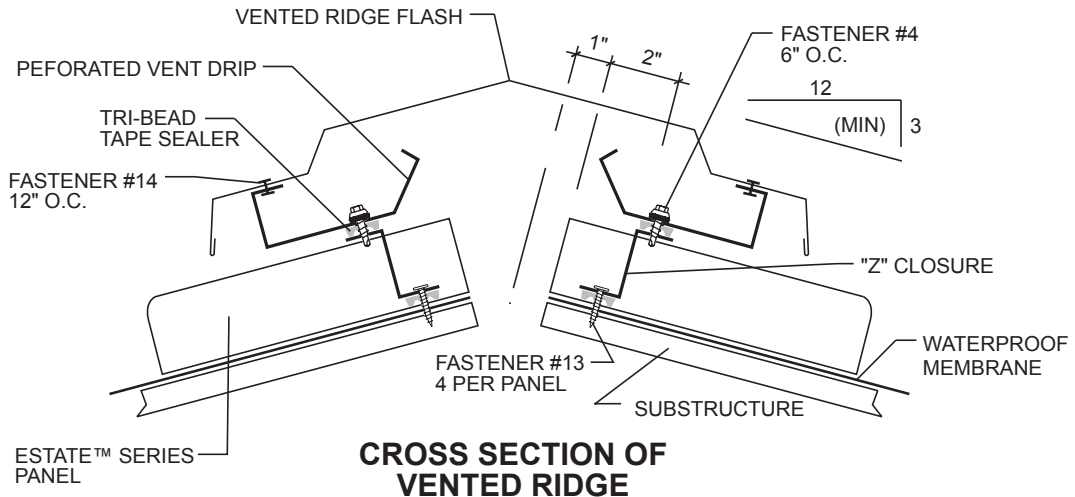
**Hip**

**NOTES:**

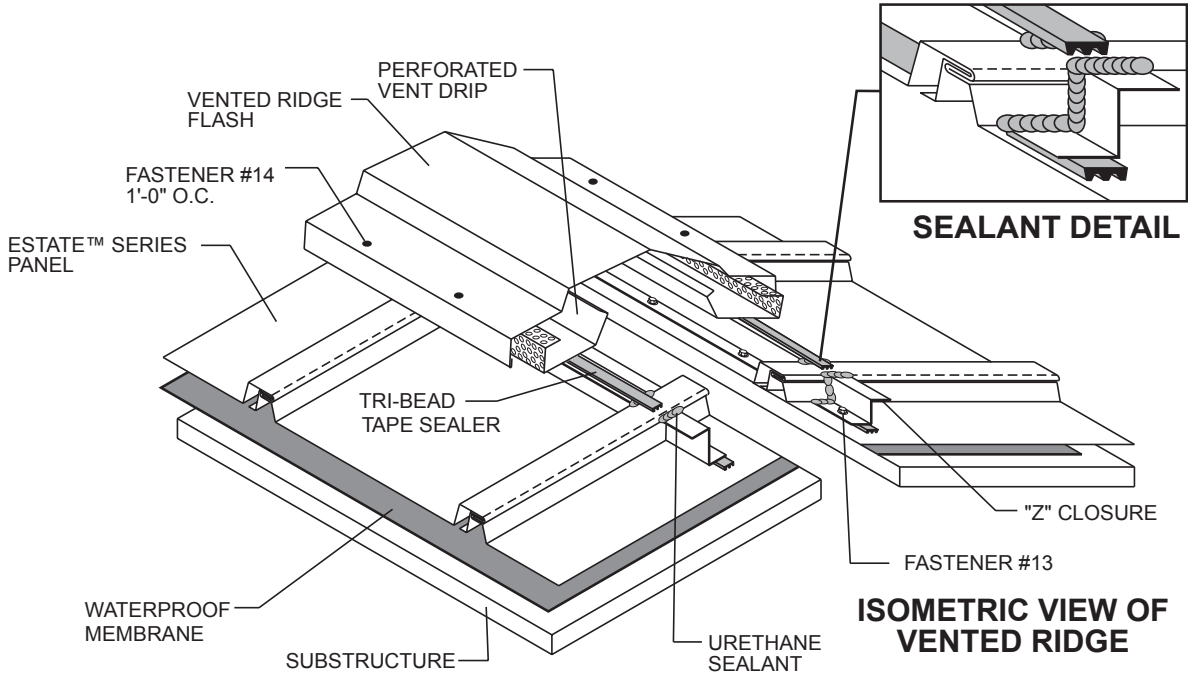
1. Bevel cut and install panels to follow bevel of hip.
2. Field cut "Z" closures to fit panel bevel width.
3. Install Tri-Bead tape sealer to bottom leg of "Z" closures and attach to panels with four Fastener #13 per panel, 6" O.C. maximum. Vertical leg of "Z" closure should be 3" from center of hip.
4. Seal ends of "Z" closures with urethane sealant.
5. Attach hip flash to "Z" closures with Fastener #14, 1'-0" O.C.

**DESIGN** **ESTATE™ SERIES**

**TYPICAL DETAILS  
VENTED RIDGE**



**CROSS SECTION OF  
VENTED RIDGE**



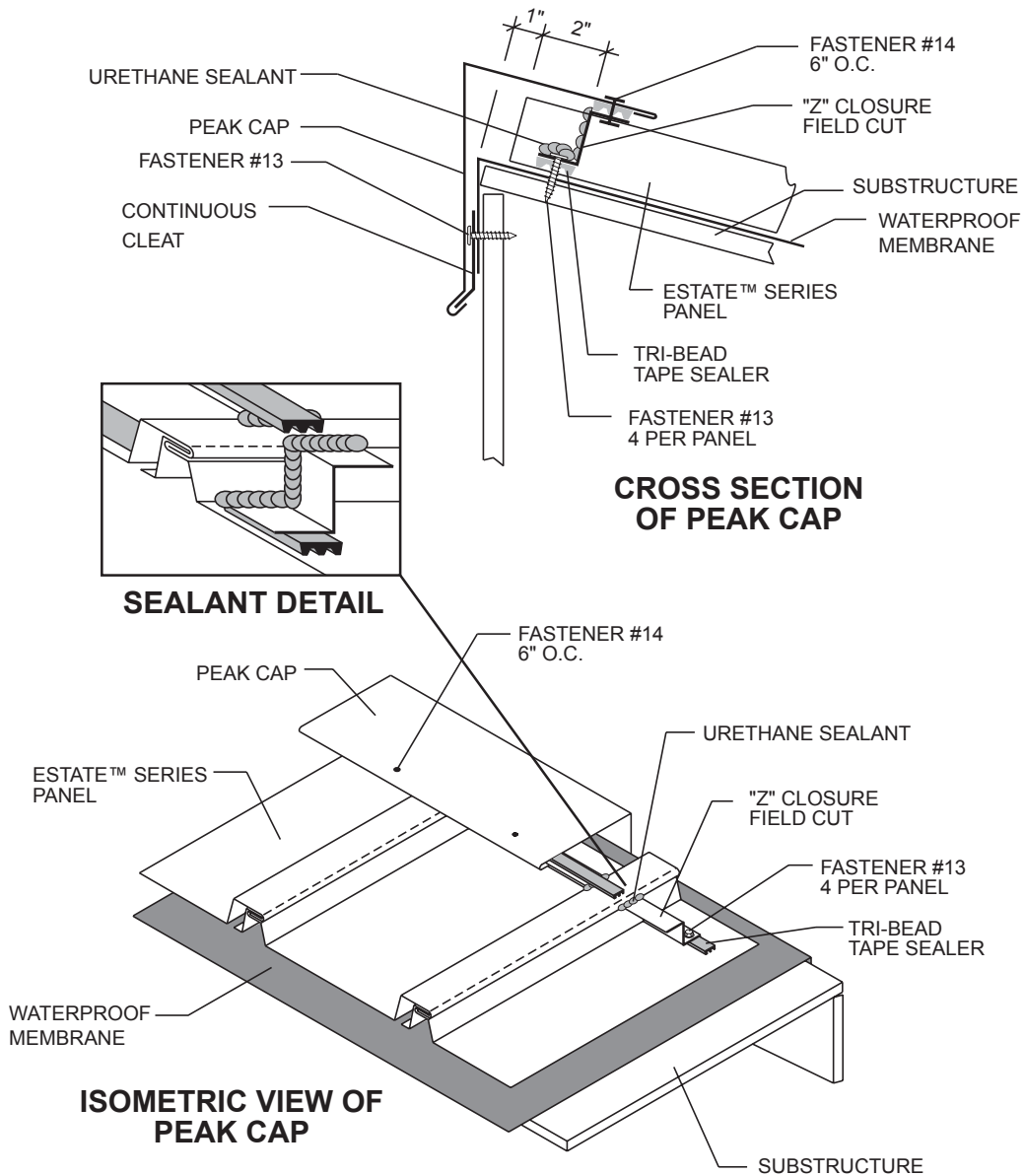
**ISOMETRIC VIEW OF  
VENTED RIDGE**

**NOTES:**

1. Field cut "Z" closures to fit panel width.
2. Install Tri-Bead tape sealer to top and bottom leg of "Z" closures and attach to panels with four Fastener #13 per panel . Vertical leg of "Z" closure should be 3" from center of ridge.
3. Seal ends of "Z" closures with urethane sealant.
4. Use Fastener #4 to attach perforated vent drip to "Z" closures. Seal laps in perforated vent drip with urethane sealant.
5. Attach ridge flash to perforated vent drip with Fastener #14 (pop rivet) 1'-0" O.C.

**ESTATE™ SERIES DESIGN**

**TYPICAL DETAILS  
PEAK CAP**

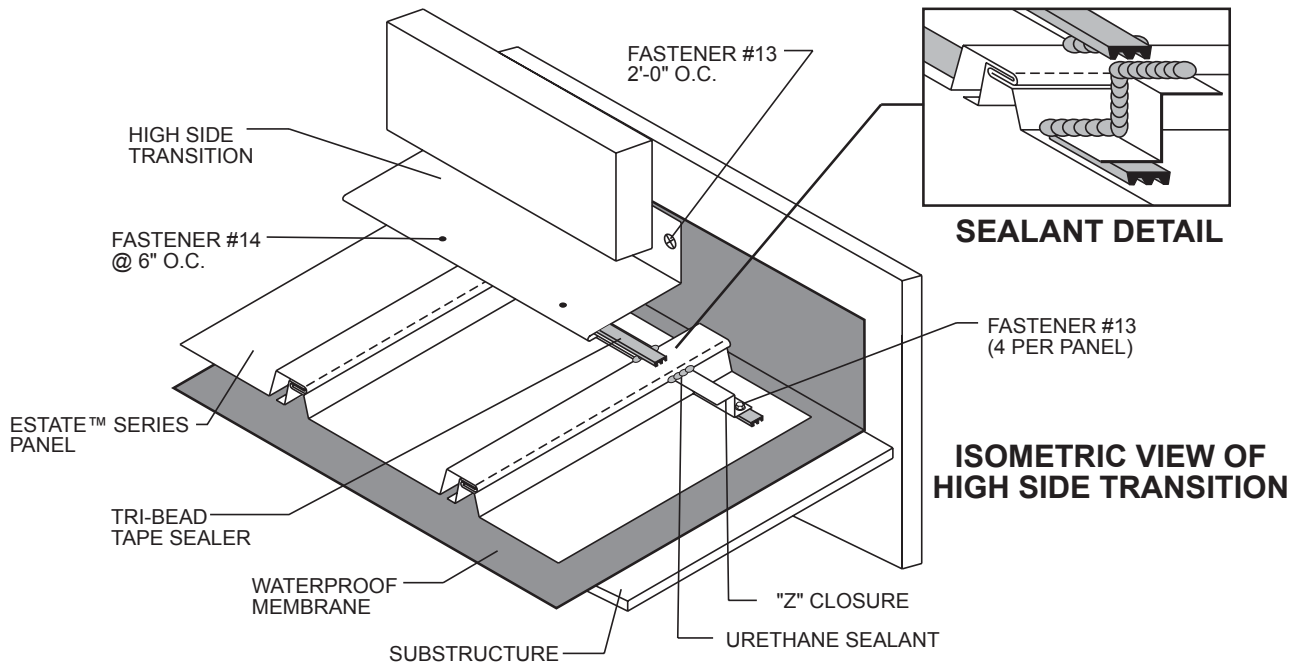
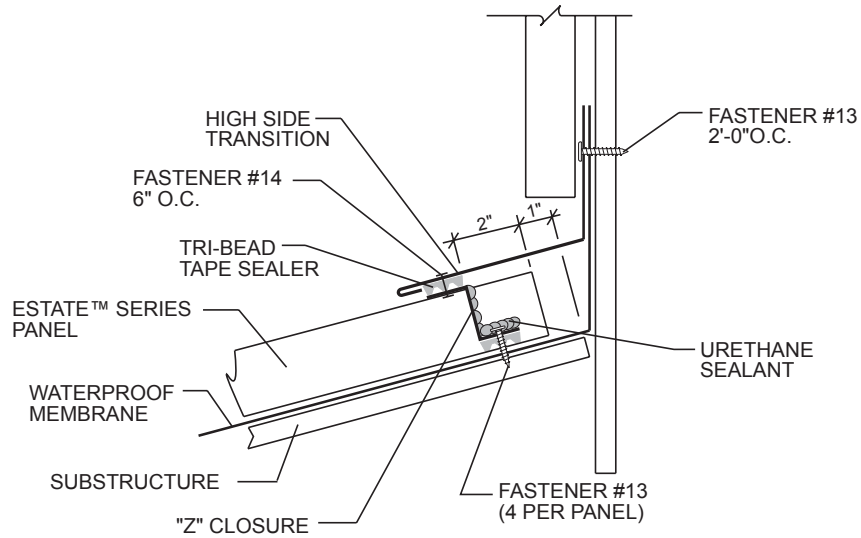


**NOTES:**

1. Field cut "Z" closures to fit panel width.
2. Install Tri-Bead tape sealer to top and bottom leg of "Z" closures and attach to panels with four Fastener #13 per panel. Vertical leg of "Z" closure should be 3" from edge of peak.
3. Seal ends of "Z" closures with urethane sealant.
4. Attach peak cap to "Z" closures with Fastener #14, 6" O.C.

**DESIGN** **ESTATE™ SERIES**

**TYPICAL DETAILS  
PARAPET HIGH SIDE EAVE**

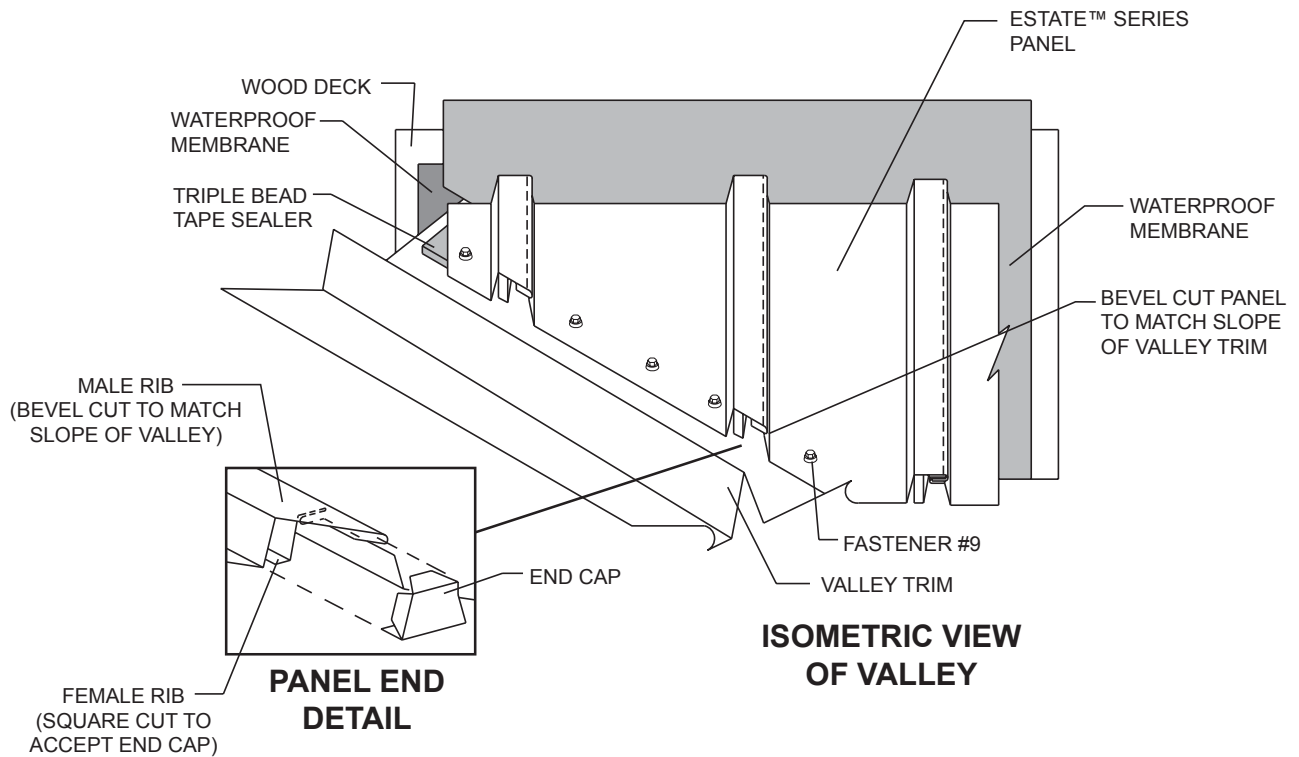
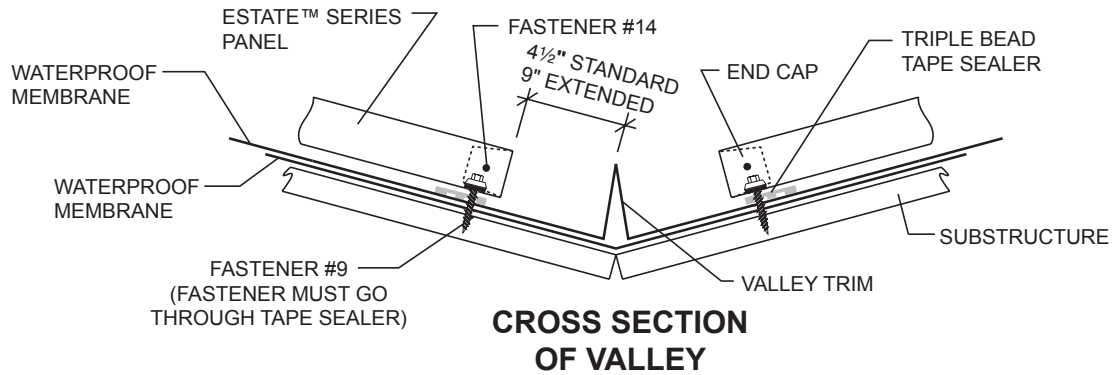


**NOTES:**

1. Field cut "Z" closures to fit panel width.
2. Install Tri-Bead tape sealer to bottom leg of "Z" closures and attach to panels with four Fastener #13 per panel. Vertical leg of "Z" closure should be 3" from top of roof deck.
3. Seal ends of "Z" closures with urethane sealant.
4. Attach high side transition flash to "Z" closures with Fastener #14, 6" O.C. Top leg of flashing may be fastened to substrate as needed to hold in place before siding is installed.

**DESIGN** **ESTATE™ SERIES**

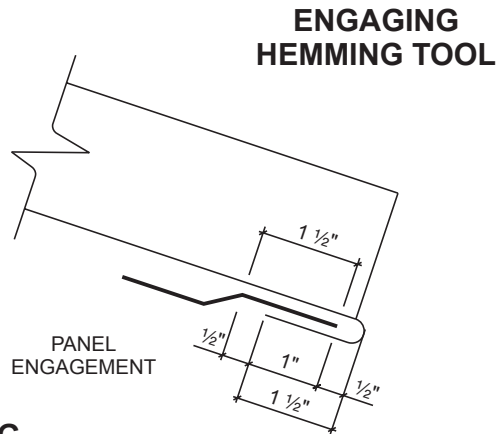
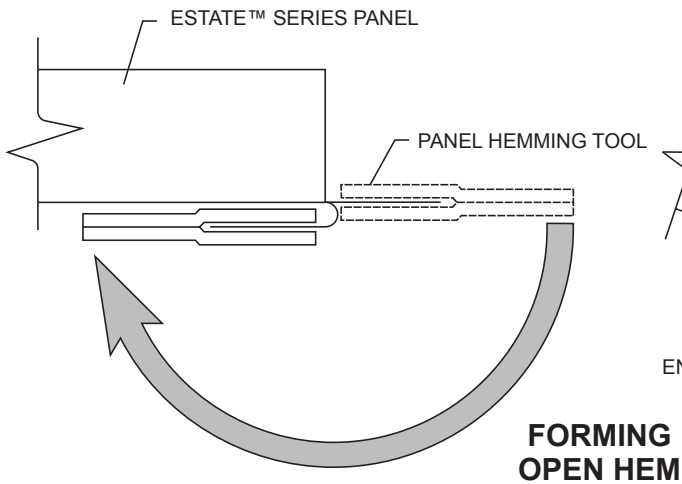
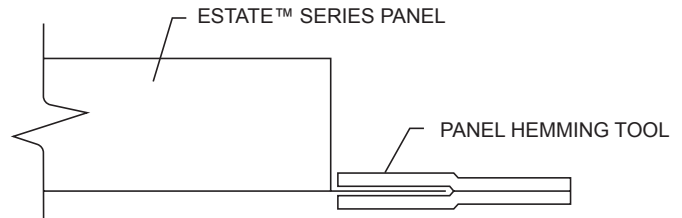
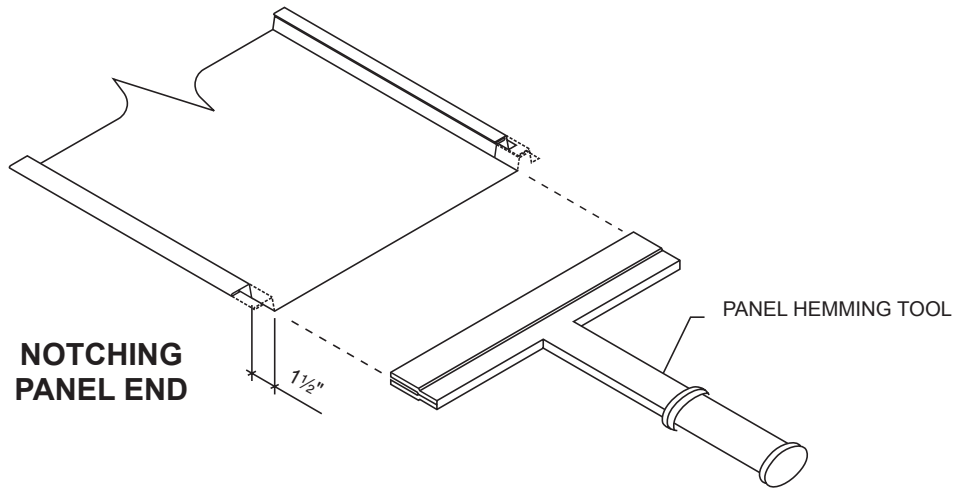
**TYPICAL DETAILS  
VALLEY**



**NOTES:**

1. For valleys 30' or less in length, use standard valley trim. Valleys over 30' in length require extended valley trim.
2. Apply Triple bead tape sealer to the valley trim parallel to the slope of the valley. Lower edge of tape sealer should be 4½" (Standard) or 9" (Extended) from center of valley.
3. Bevel cut ends of male leg of panel to fit the slope of the valley and cut the female rib square to accept the end cap. Place urethane sealant on the top and sides of the inside closure prior to installing into panel rib.
4. Fasten panels to valley with Fastener #9, 4" O.C. maximum. **Fasteners must go through tape sealer.**

**TYPICAL DETAILS  
FIELD HEMMING PANEL END**



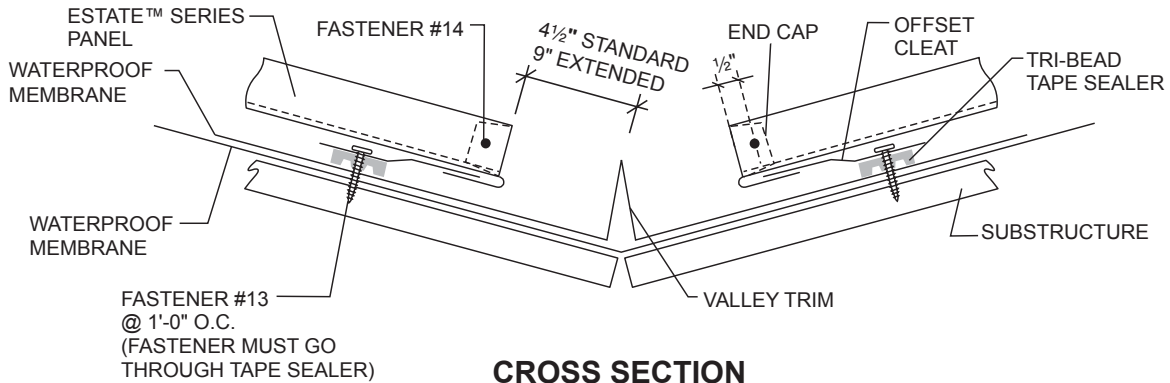
**NOTES:**

1. Field notch vertical legs of panel 1 1/2".
2. Engage panel hemming tool onto protruding pan of panel.
3. Bend pan of panel down to form an open hem.
4. Hem may be tightened with a pair of vise grip "duckbills".

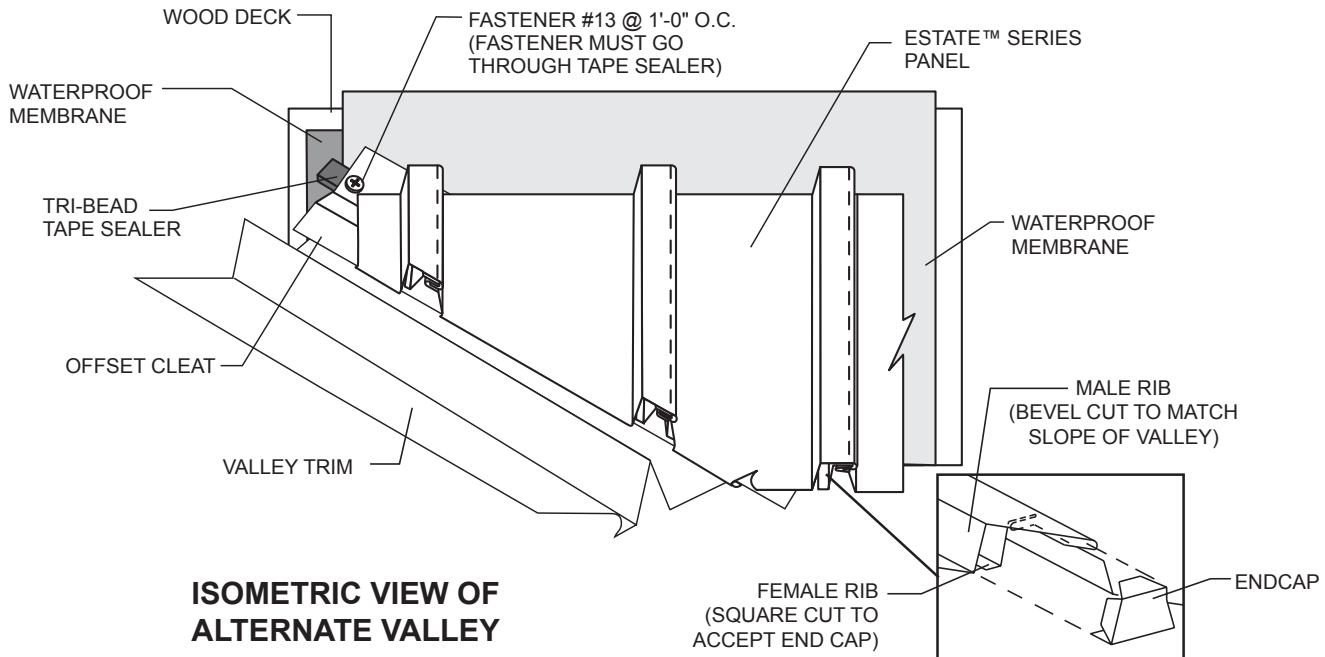
**ESTATE™ SERIES DESIGN**

**TYPICAL DETAILS**

**ALTERNATE VALLEY WITH OFFSET CLEAT**



**CROSS SECTION OF ALTERNATE VALLEY**



**ISOMETRIC VIEW OF ALTERNATE VALLEY**

**PANEL END DETAIL**

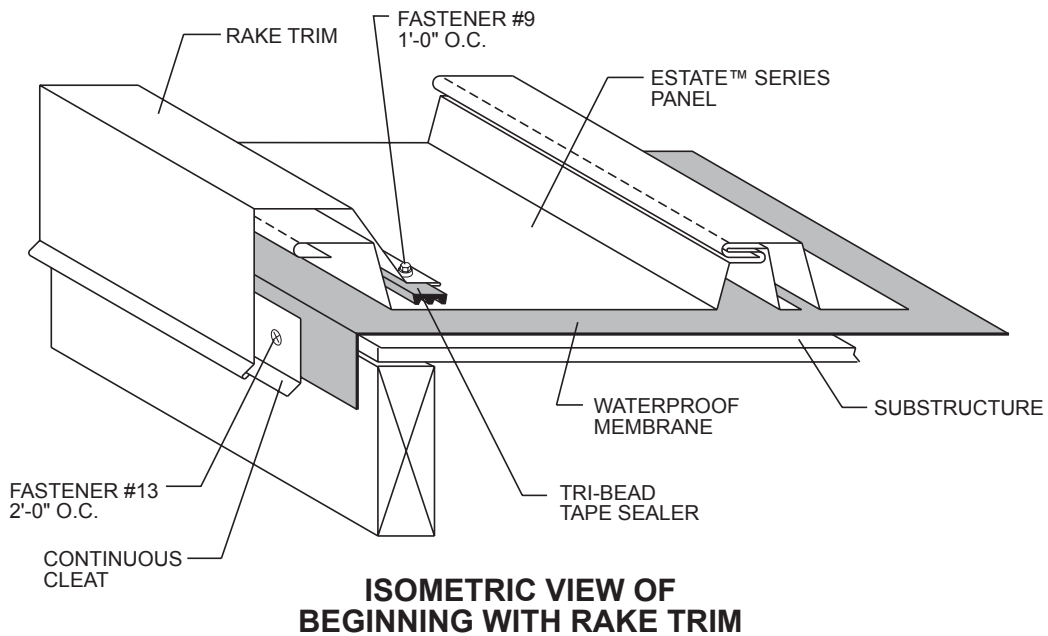
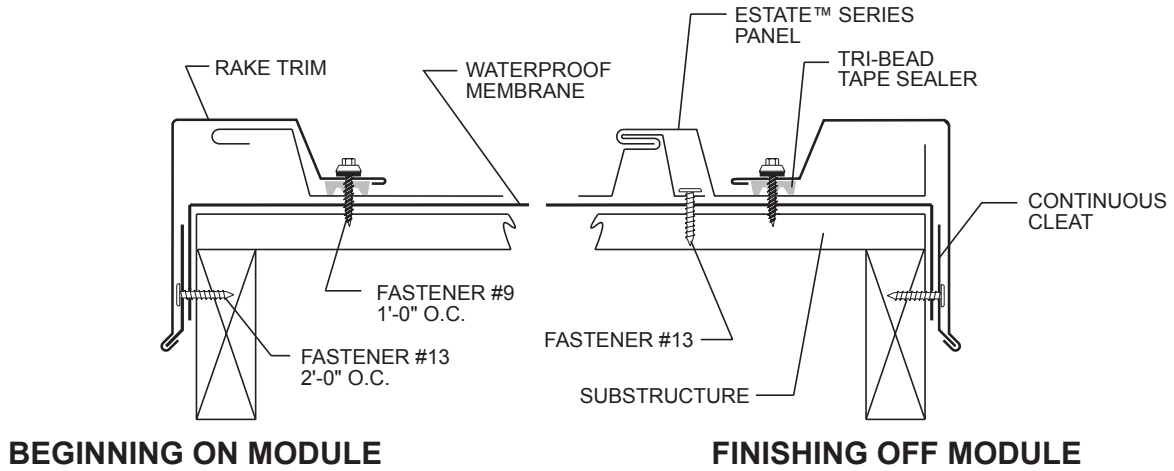
**NOTES:**

1. For valleys 30' or less in length, use standard valley trim. Valleys over 30' in length require extended valley trim.
2. Install offset cleat continuous along slope of valley over Tri-Bead tape sealer with Fastener #13 at 1' - 0" O.C. **Fasteners must go through tape sealer.**
3. Add 1½" to panel length for the panel hem. To field hem panel ends, see page ES-23.
4. Bevel cut ends of male leg of panel to fit the slope of the valley and cut female rib square to accept the end cap. After notching for the hem use the hemming tool to form the panel hem.
5. Attach the offset cleat on top of the Tri-Bead tape using a Fastener #13 (10 x 1" pancake head) spaced 6" O.C.
6. Hook the hemmed edge of panel to cleat with a ½" gap from end of panel to cleat.
7. Install inside closure to high rib of panels with a large bead of urethane sealant on the perimeter of the closure. After installing the inside closure use a Fastener #14 (pop rivet) on each side of the closure to fasten to panel rib.



**DESIGN** **ESTATE™ SERIES**

**TYPICAL DETAILS  
RAKE**



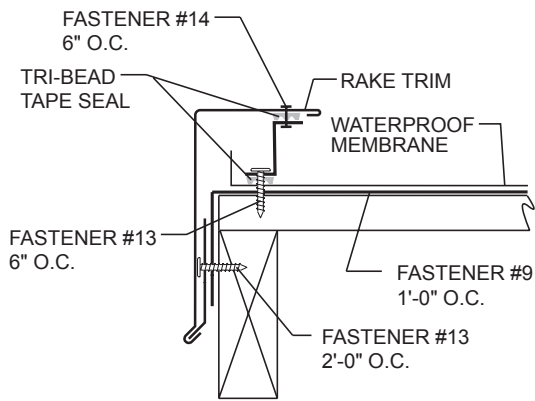
**ISOMETRIC VIEW OF  
BEGINNING WITH RAKE TRIM**

**NOTES:**

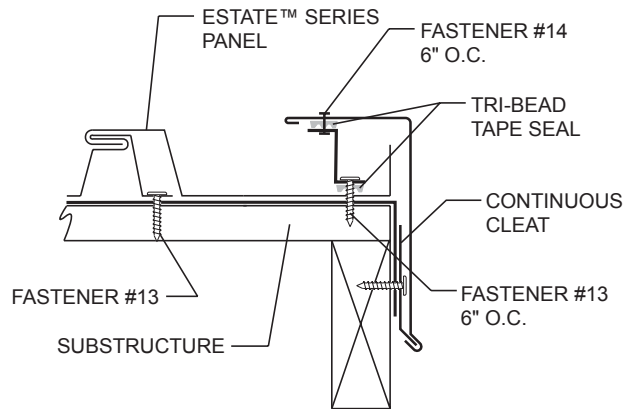
1. Install rake trim to roof with Fastener #9, 1'-0" O.C. Fasteners must go through Tri-Bead tape sealer.
2. When finishing off module, field bend a 1" leg up on panel before installing rake trim.

**ESTATE™ SERIES DESIGN**

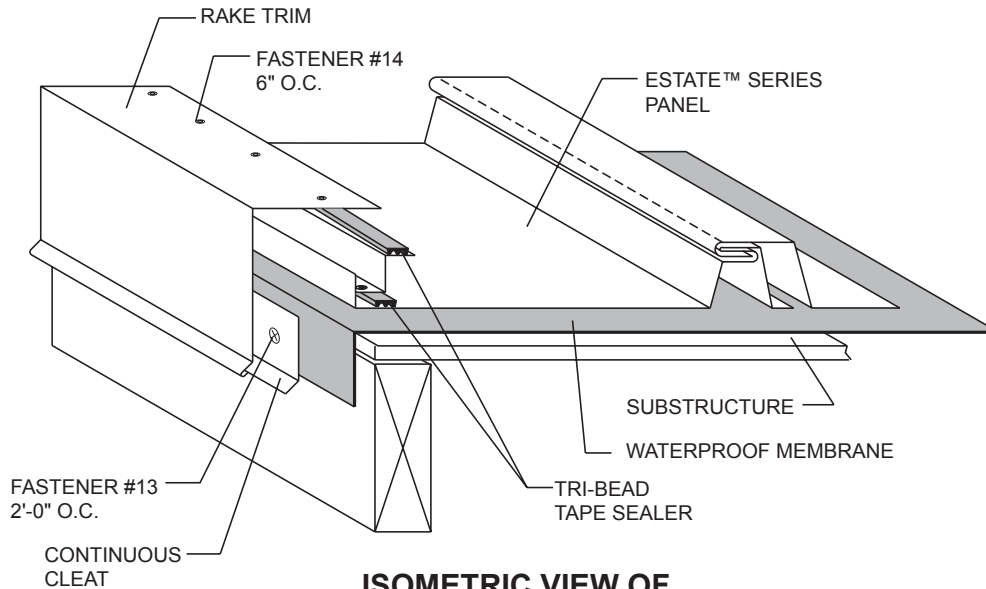
**TYPICAL DETAILS  
ALTERNATE RAKE**



**BEGINNING ON MODULE**



**FINISHING OFF MODULE**



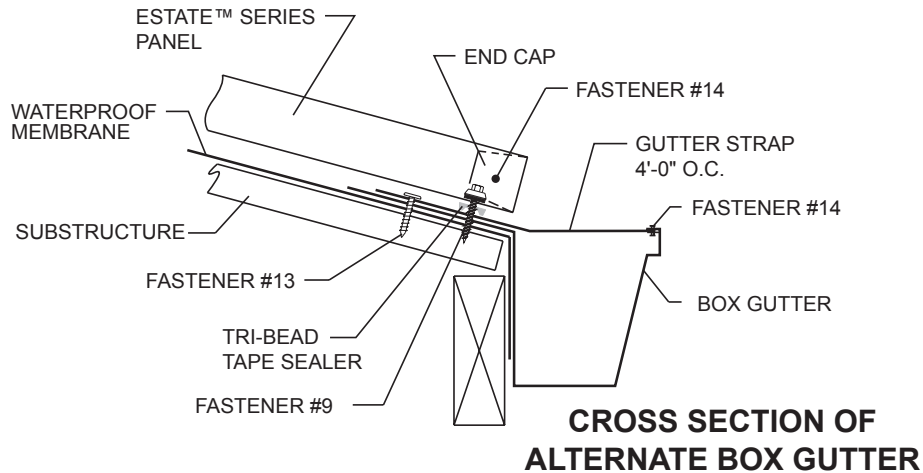
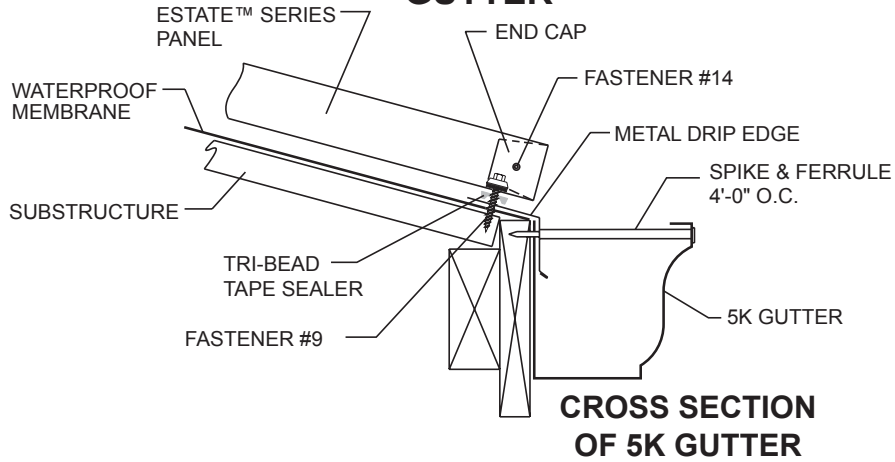
**ISOMETRIC VIEW OF  
BEGINNING WITH RAKE TRIM**

**NOTES:**

1. Field bend a vertical leg on panel and install as outlined in steps 2-3 below.
2. Install Tri-Bead tape sealer to pan of panel. Attach "Z" closure to substructure with Fastener #13 (10 x 1" pancake head), 6" O.C.
3. Install Tri-Bead tape sealer to top leg of "Z" closure. Attach rake trim to "Z" closure with Fastener #14 (pop rivets), 1'-0".

**DESIGN** **ESTATE™ SERIES**

**TYPICAL DETAILS**  
**GUTTER**



**NOTES:**

**5K Gutter**

1. Install metal drip edge along eave of roof before installing roof panels.
2. Drill 5/16" hole in front face of gutter 4'-0" O.C. to receive gutter spikes.
3. Slide back leg of gutter behind metal drip edge and drive spike and ferrule assembly through metal drip edge, back leg of gutter and into fascia board.
4. Attach Panel at eave with Fastener #9. Use four fasteners with 16" wide panel and three fasteners with 12" wide panels. Fasteners must go through Tri-Bead tape sealer.
5. Install end cap by pinching side flanges together and sliding into end of panel rib. Fastener #14 panel and end cap together. **Do not place fastener in "S" lock of panel seam.**
6. **In areas of extreme ice or snow build-up, consider eliminating the gutter and using eave trim.**

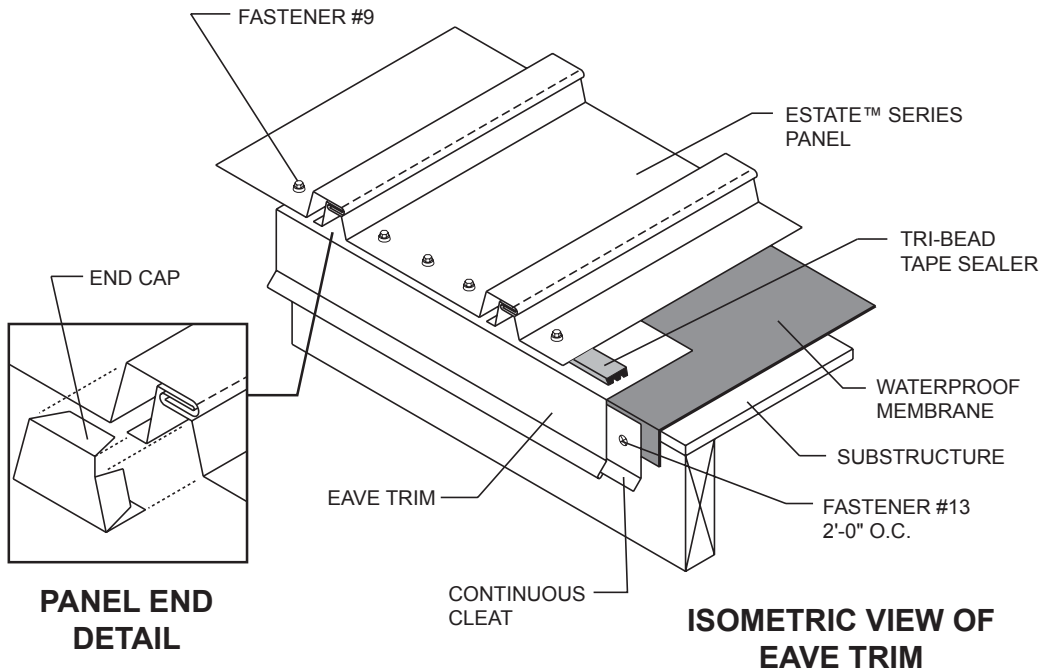
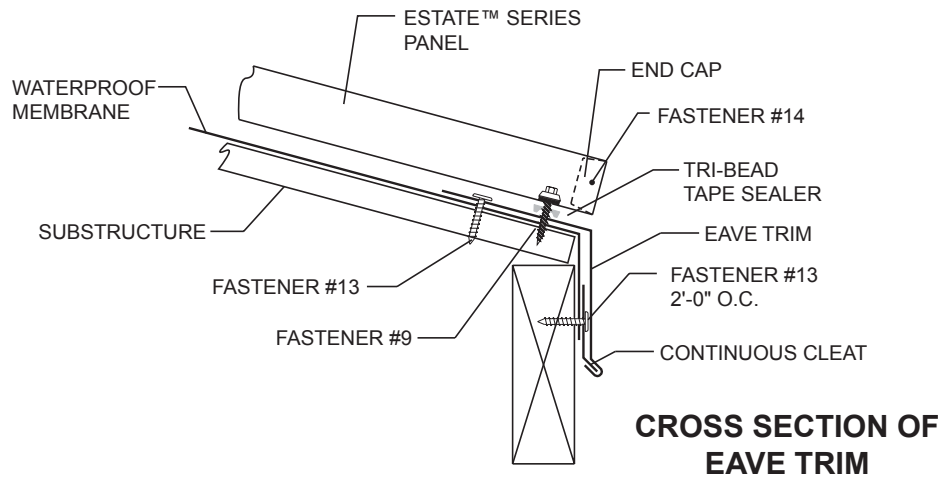
**NOTES:**

**Alternate Box Gutter**

1. Use Fastener #14 to attach gutter strap to gutter 4'-0" O.C. and attach to roof deck with two roofing nails per 10' section.
2. Install Tri-Bead tape sealer along top leg of gutter.
3. Attach panel at eave with four Fastener #9.
4. Attach Panel at eave with Fastener #9. Use four fasteners with 16" wide panel and three fasteners with 12" wide panels. Fasteners must go through Tri-Bead tape sealer.
5. Install end cap by pinching side flanges together and sliding into end of panel rib. Use Fastener #14 to attach panel and end cap together. **Do not place fastener in "S" lock of panel seam.**
6. **In areas of extreme ice or snow build-up, consider eliminating the gutter and using eave trim.**

**ESTATE™ SERIES DESIGN**

**TYPICAL DETAILS  
EAVE TRIM**

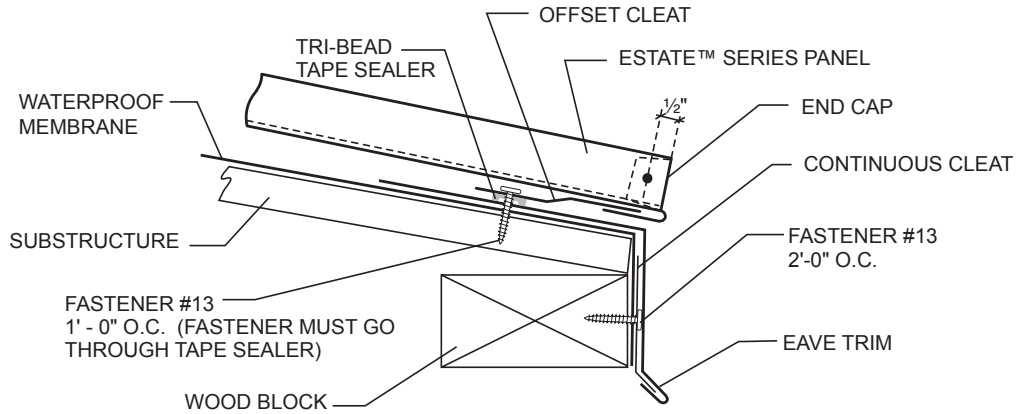


**NOTES:**

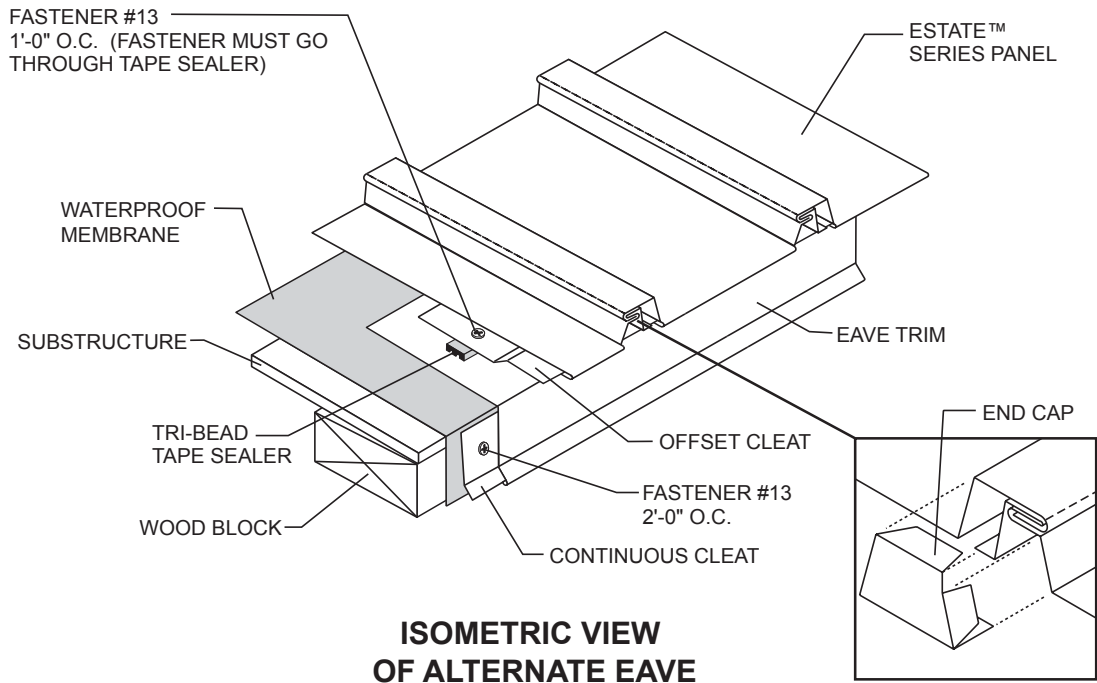
1. Attach eave trim to roof deck with two Fastener #13 per 10' section.
2. Install Tri-Bead tape sealer along top leg of eave trim.
3. Attach Panel at eave with Fastener #9. Use four fasteners with 16" wide panel and three fasteners with 12" wide panels. Fasteners must go through Tri-Bead tape sealer.

**DESIGN** **ESTATE™ SERIES**

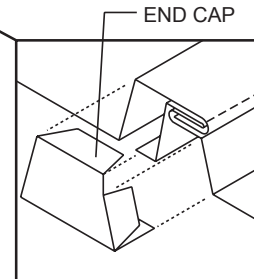
**TYPICAL DETAILS  
ALTERNATE EAVE TRIM**



**CROSS SECTION OF  
ALTERNATE EAVE**



**ISOMETRIC VIEW  
OF ALTERNATE EAVE**



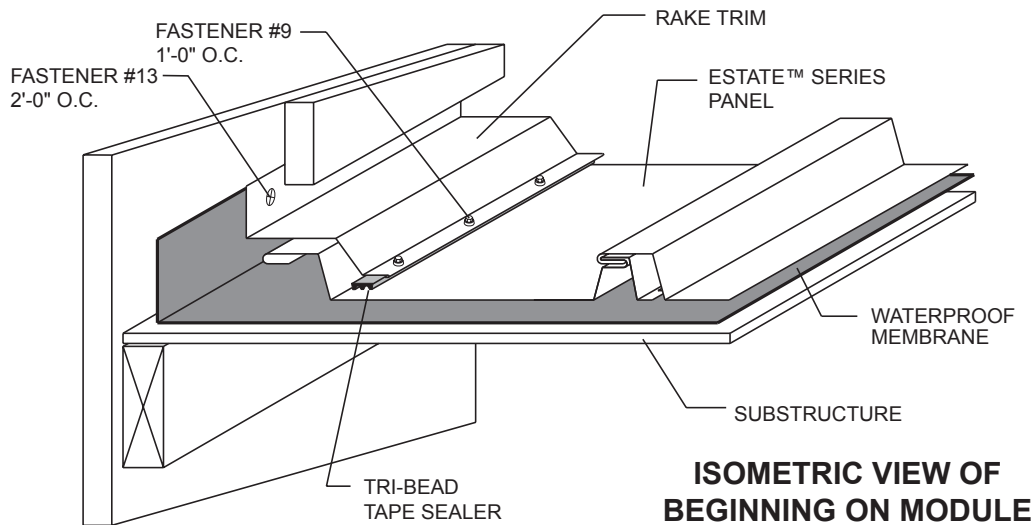
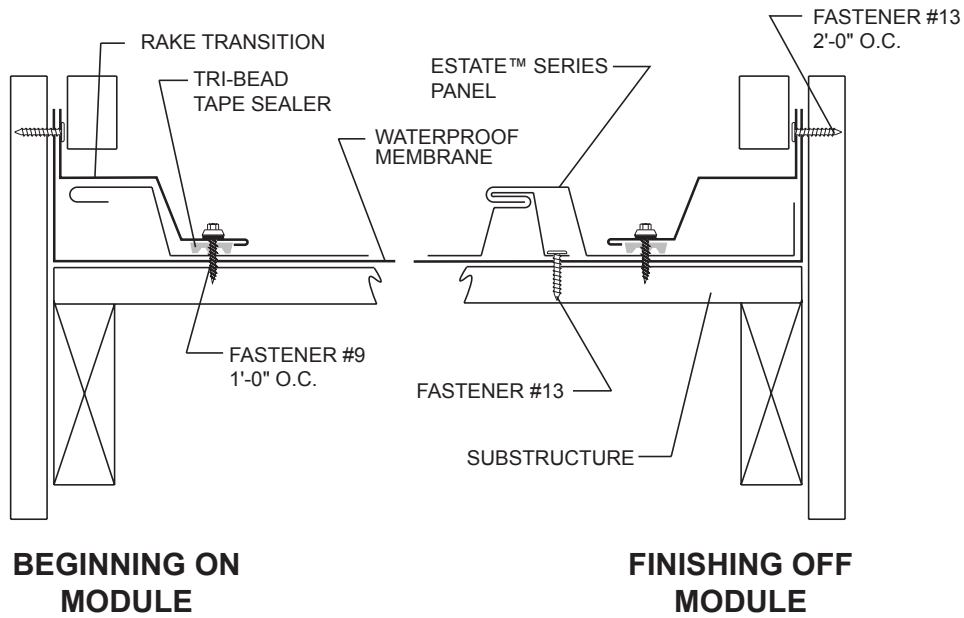
**PANEL END  
DETAIL**

**NOTES:**

1. Attach offset cleat to substructure with Fastener #13 at 1'-0" O.C.
2. Add 1½" to panel length for the panel hem. To field hem panel ends see page ES-17.
3. See "Panel End Cap Detail" on page ES-12 to seal panel ends.
4. Alternate Detail: Use offset cleat with gutter.

**ESTATE™ SERIES DESIGN**

**TYPICAL DETAILS  
PARAPET RAKE**



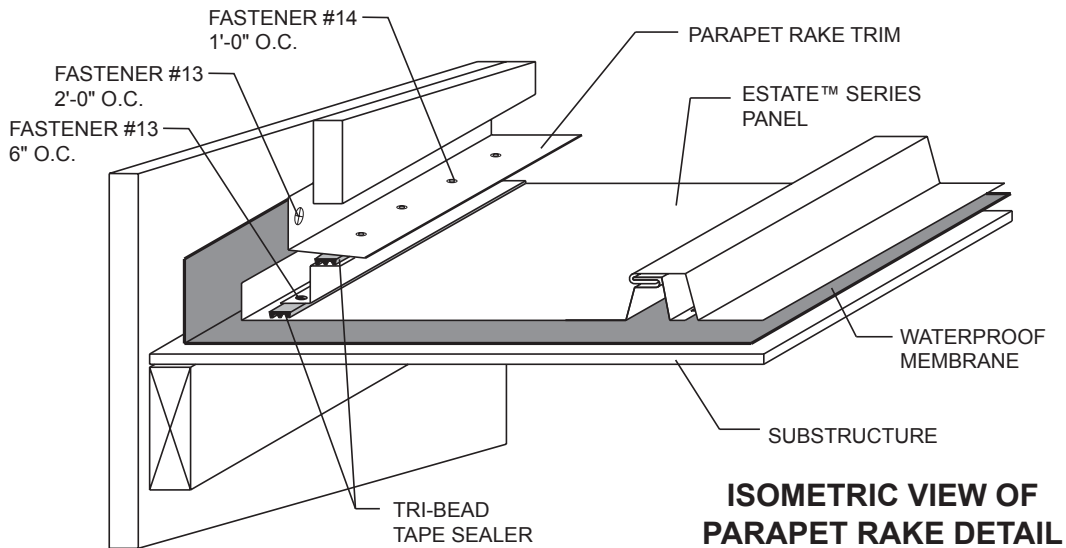
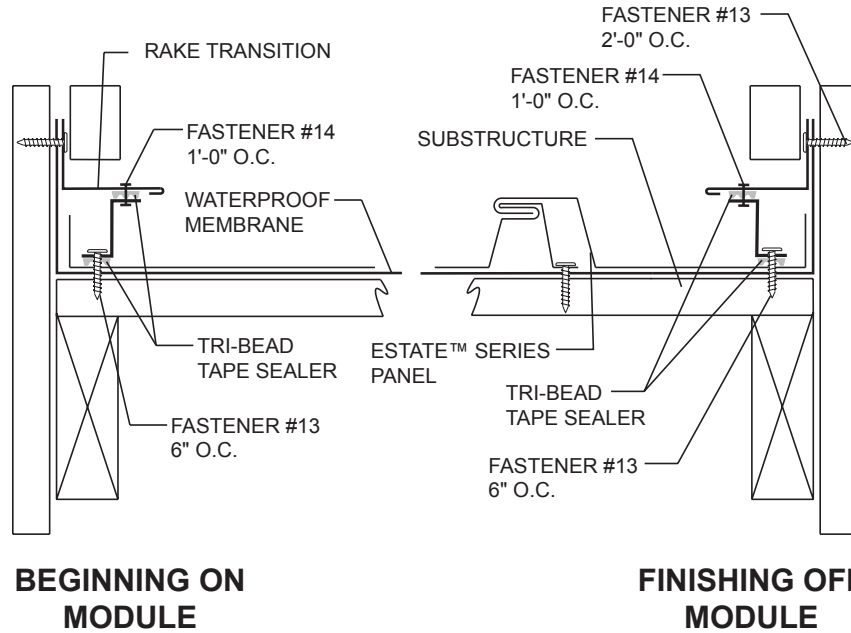
**ISOMETRIC VIEW OF  
BEGINNING ON MODULE**

**NOTES:**

1. If roof finishes on module, see note #2 below. If roof finishes off module, field bend a 1" leg up on panel before proceeding to note 2.
2. Install rake transition to roof panels with Fastener #9, 1'-0" O.C. Fasteners must go through Tri-Bead tape sealer. Top leg of flash may be fastened to substrate as needed to hold in place before siding is installed.

**DESIGN** **ESTATE™ SERIES**

**TYPICAL DETAILS  
PARAPET ALTERNATE RAKE**



**NOTES:**

1. Field bend a vertical leg on panel and install as outlined in steps 2-3 below.
2. Install Tri-Bead tape sealer to pan of panel. Attach "Z" closure to substructure with Fastener #13 (10 x 1" pancake head fastener), 6" O.C.
3. Install Tri-Bead tape sealer to top leg of "Z" closure. Attach parapet rake trim to "Z" closure with Fastener #14 (pop rivets).