

# TEXAS DEPARTMENT OF INSURANCE

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## PRODUCT EVALUATION RC-131

Effective January 1, 2006

*The following product has been evaluated for compliance with the wind loads specified in **International Residential Code (IRC)** and the **International Building Code (IBC)**. This product shall be subject to reevaluation 3 years after the effective date.*

*This product evaluation is not an endorsement of this product or a recommendation that this product be used. The Texas Department of Insurance has not authorized the use of any information contained in the product evaluation for advertising, or other commercial or promotional purpose.*

*This product evaluation is intended for use by those individuals who are following the design wind load criteria in Chapter 3 of the IRC and Section 1609 of the IBC. The design loads determined for the building or structure shall not exceed the design load rating specified for the products shown in the limitations section of this product evaluation. This product evaluation does not relieve a Texas licensed engineer of his responsibilities as outlined in the Texas Insurance Code, the Texas Administrative Code, and the Texas Engineering Practice Act.*

### **SHURLOC 175 Roof Panels** manufactured by

**Central Texas Metal Rollforming, Inc.**  
**830 Sagebrush Drive**  
**Austin, Texas 78758**  
**(512) 452-1515**

is acceptable in designated catastrophe areas along the Texas Gulf Coast when installed in accordance with the manufacturer's installation instructions and this product evaluation.

### **PRODUCT DESCRIPTION**

Central Texas Metal Rollforming SHURLOC 175 roof panels are 1  $\frac{3}{4}$ " tall rib, 18" wide, snap seam roof panels with clip attachment. The roof panels are manufactured from 24 gauge coated steel conforming to ASTM A792, Grade 40, with a minimum yield strength of 40,000 psi. The panels have an AZ 55 hot-dip aluminum zinc alloy coating conforming to ASTM A792. The panel clips are a one-piece assembly

The panels are 18 inches in width and have a nominal rib height of 1  $\frac{3}{4}$  inch.

The panel clips are a one-piece assembly, 3  $\frac{1}{2}$  inch wide x  $\frac{7}{8}$ " high. The clips are located 48 inches on center.

### **LIMITATIONS**

**Design Wind Pressure:** For installation of the SHURLOC 175 roof panels to nominal  $\frac{19}{32}$  inch plywood panel decks, design wind pressure limitations are specified in Table 1.

**Roof Deck:** The roof deck shall be minimum nominal  $\frac{19}{32}$  inch plywood. All plywood butt joints must be sealed with caulk or with one-part urethane sealant.

**Roof Deck Attachment:** The roof deck shall be secured to the roof framing to resist the required design pressures.

### LIMITATIONS (cont)

**Installation Over an Existing Roof Covering:** Installation over an existing roof covering is limited to a maximum of one existing layer of composition shingles, wood shingles or shakes, built-up roofing, or roll roofing. The thickness of the plywood deck shall comply with the requirements of this evaluation report. Note: Inspection of the existing roof deck must be made before installing the roof panels. The condition of the existing roof deck must be acceptable to receive the roof panels before the roof panel installation can proceed.

**Roof Slope:** The SHURLOC 175 roof panels shall not be installed on roofs with a roof slope less than 3:12.

### INSTALLATION INSTRUCTIONS

**General Installation Requirements:**

The installation of the panels shall be limited to extending two inches beyond the plane of the fascia board.

#### Panel Installation Requirements

**Panels:** Panels shall be attached to the roof deck in accordance with Table 1. Refer to Figures 1-17 in this evaluation report for illustrations of the attachment details.

**Table 1**

Attachment of SHURLOC 175 Roof Panel to nominal  $\frac{19}{32}$  inch plywood panel deck:

Wind Pressure (psf)	Attachment of Roof Panel to $\frac{19}{32}$ inch Thick Plywood Deck	
	Fasteners Per Clip Into Roof Deck	Clip Spacing
-52.5	Two (2) No. 10-12 x 1" Type A	48" on center

**Underlayment:** Minimum one layer of No. 30 (Type II) asphalt felt shall be used. The underlayment used shall comply with ASTM D 226, ASTM D 4869, or ASTM D 1970. The felt shall be installed with minimum 6-inch side laps and 3-inch head laps. The underlayment shall be applied with corrosion resistant fasteners in accordance with manufacturer's installation instructions. Fasteners shall be applied along the overlaps not farther apart than 36 inches on center. **Note:** An optional radiant barrier may be installed beneath the panels in conjunction with the underlayment.

**Anchorage:**

**Panels:** The SHURLOC 175 roof panels shall be secured to the plywood deck using clips in accordance with Table 1 with minimum #10-12 x 1 inch Pancake Type A screws, manufactured by Jetna Fastech, Inc. If the panels are laid directly over an existing roof covering, then minimum #10-12 x 2 inch Pancake Type A screws, manufactured by Jetna Fastech, are required. The fasteners shall be long enough to penetrate completely through the wood structural panels with a minimum exposure of  $\frac{1}{4}$  inch below the underside of the wood structural panels.

**Ridge Flashing and Hip Flashing:** The ridge flashing and the hip flashing shall be installed as shown in Figures 1 and 2.

**Valley Trim:** The valley trim shall be installed as shown in Figures 3 and 4.

**Endlap:** The endlap shall be installed as shown in Figure 5.

### **INSTALLATION INSTRUCTIONS (cont)**

**Rake Flashing and Gable Flashing:** The rake flashing and the gable flashing shall be installed as shown in Figures 6, 7, and 8.

**Eave Trim:** The eave trim shall be installed as shown in Figures 12 and 13.

**Alternative Fasteners:** Substitution of equivalent fasteners shall meet the following requirements:

#10-12 Pancake Type A screws, manufactured by Jetna Fastech, Inc.

- Ultimate withdrawal (pullout)  $\geq$  372 lbs. in  $\frac{19}{32}$  inch plywood

**Note:** The manufacturer's installation instructions shall be on the job site during the installation. All fasteners shall be corrosion resistant as specified in the International Residential Code (IRC), the International Building Code (IBC), and the Texas Revisions.

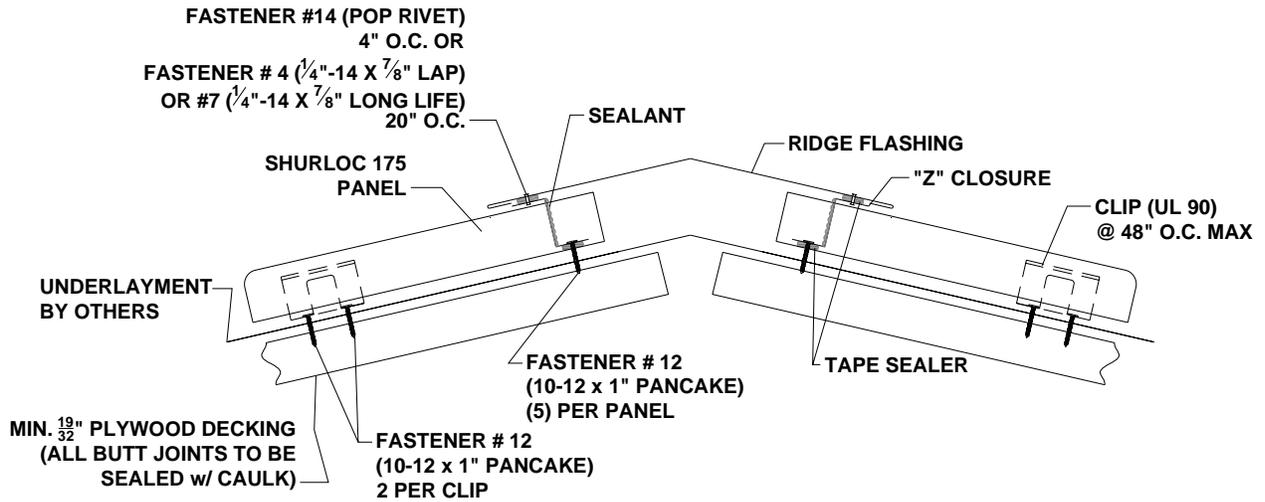


Figure 1: Fixed Ridge/Hip Detail

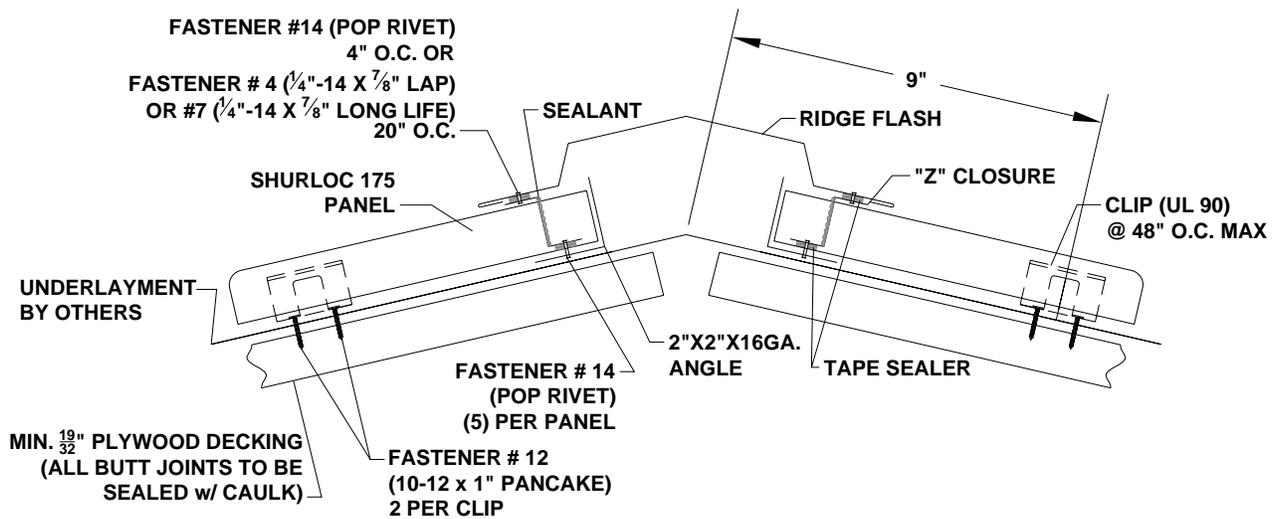


Figure 2: Floating Ridge/Hip Detail

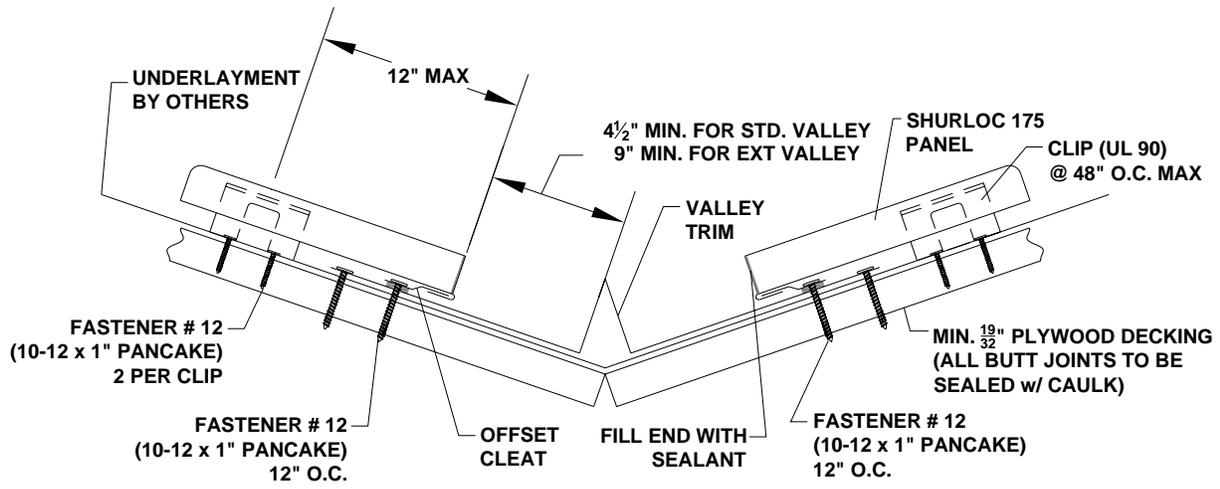


Figure 3: Valley Detail (Valley With Offset Cleat)

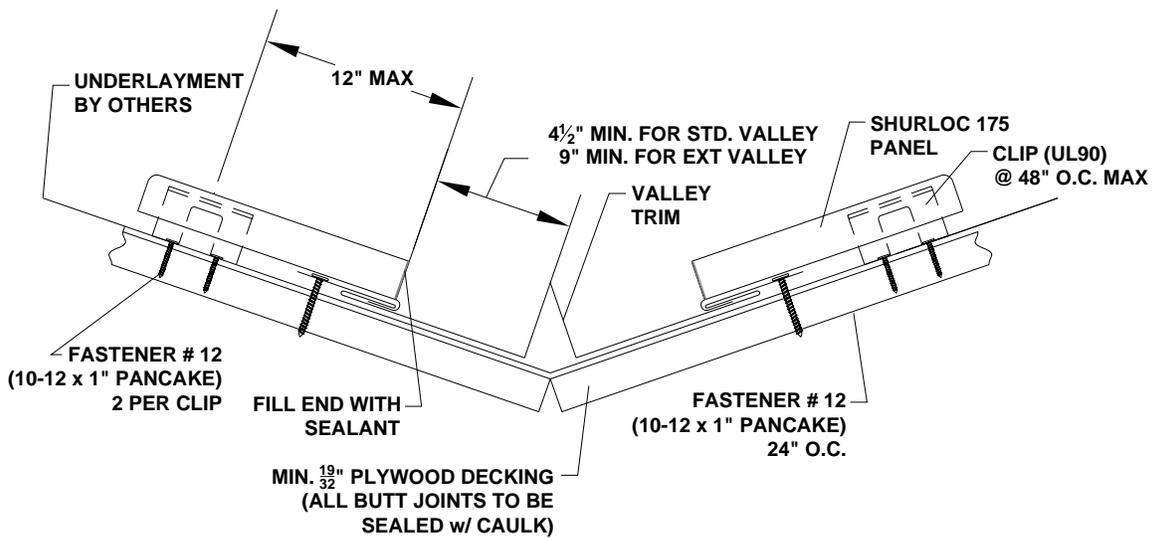


Figure 4: Valley Detail (Valley With Integrated Cleat)

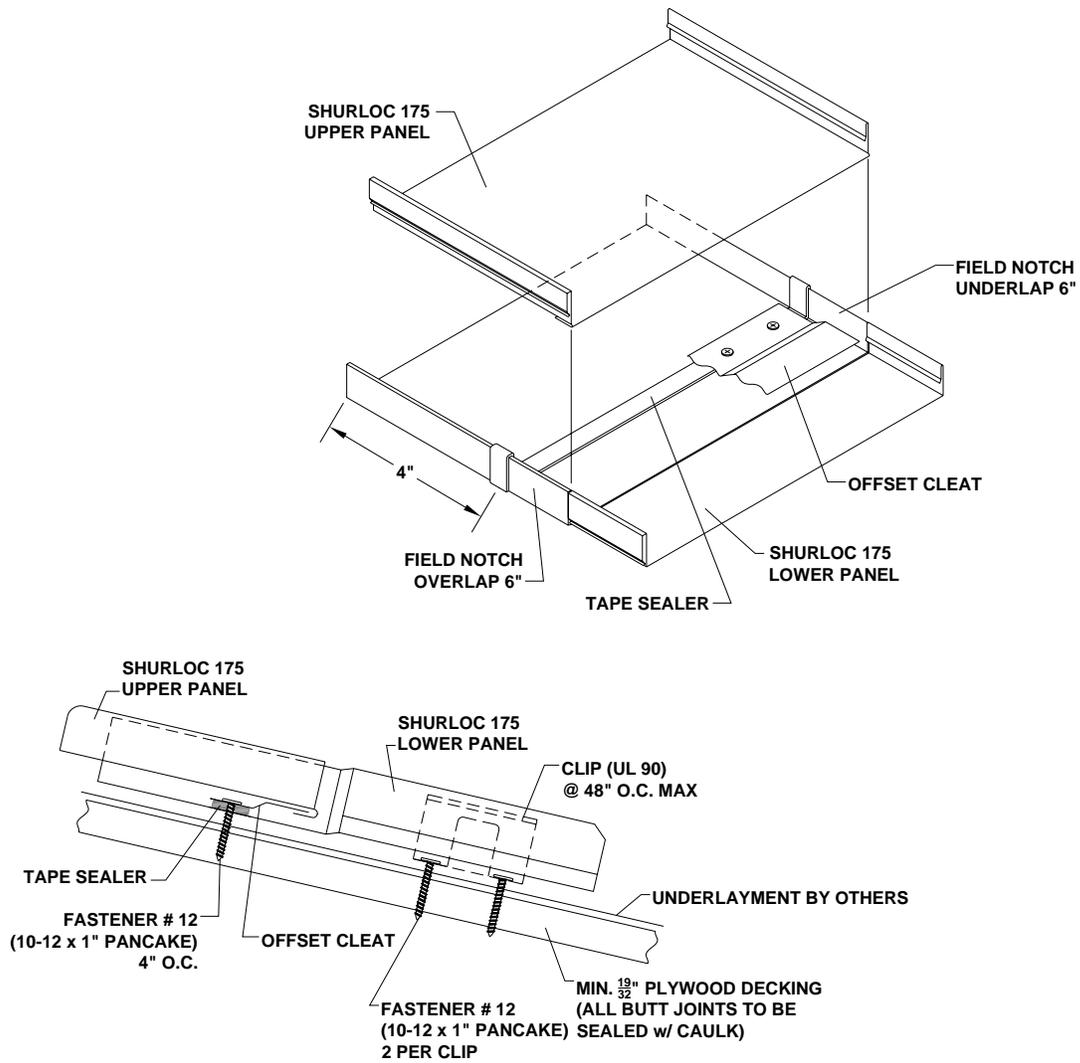


Figure 5: Endlap Detail

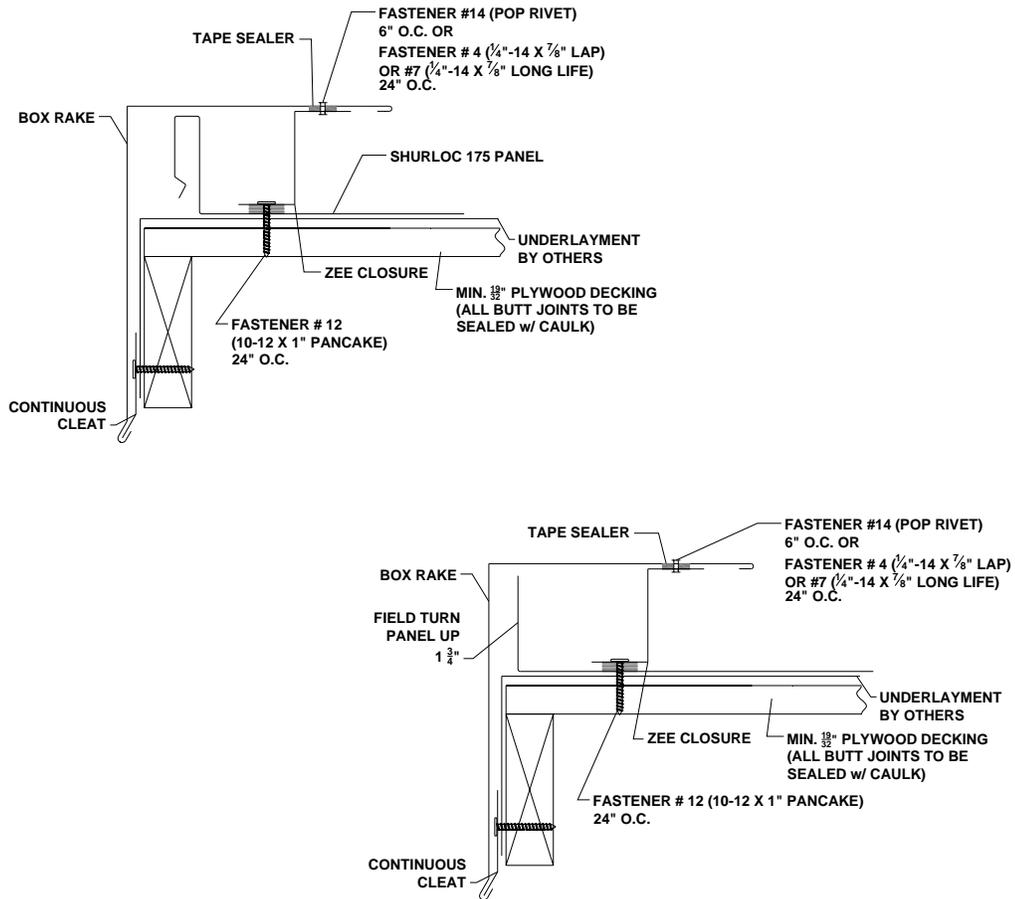


Figure 6: Fixed Rake/Gable Flashing Detail

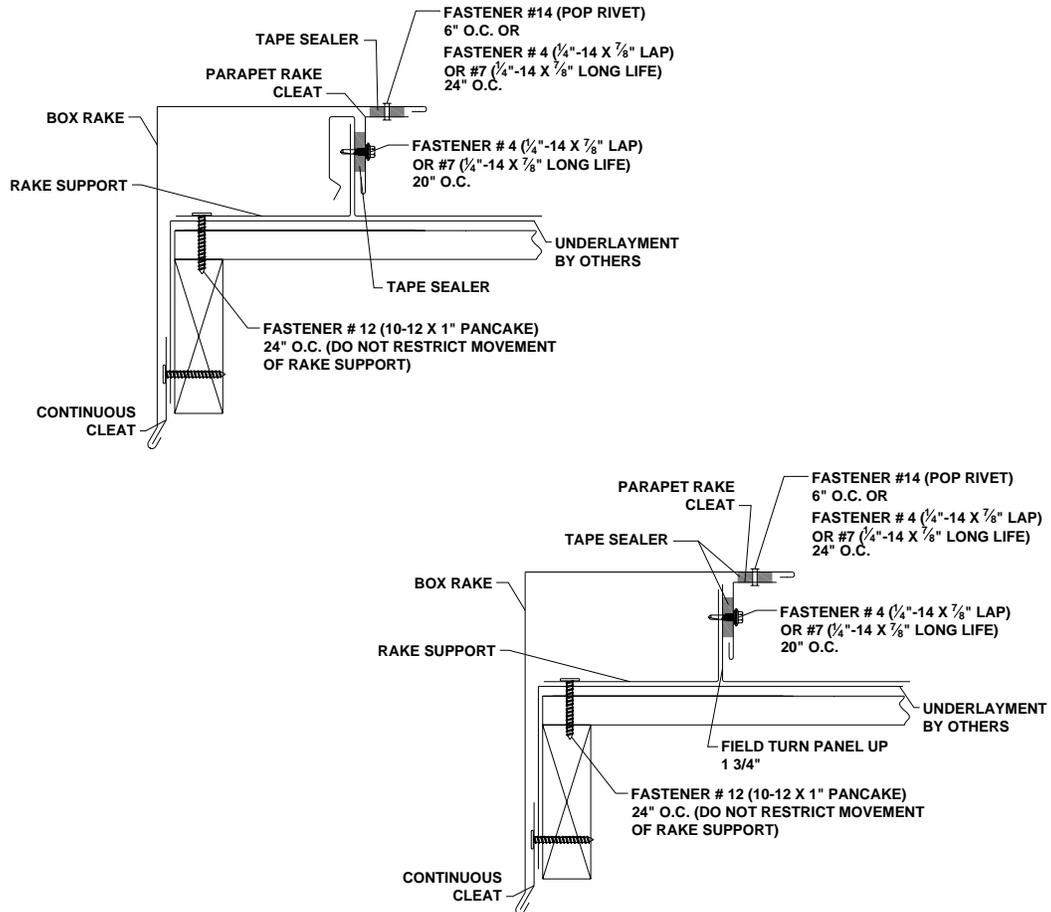


Figure 7: Floating Rake/Gable Flashing Detail

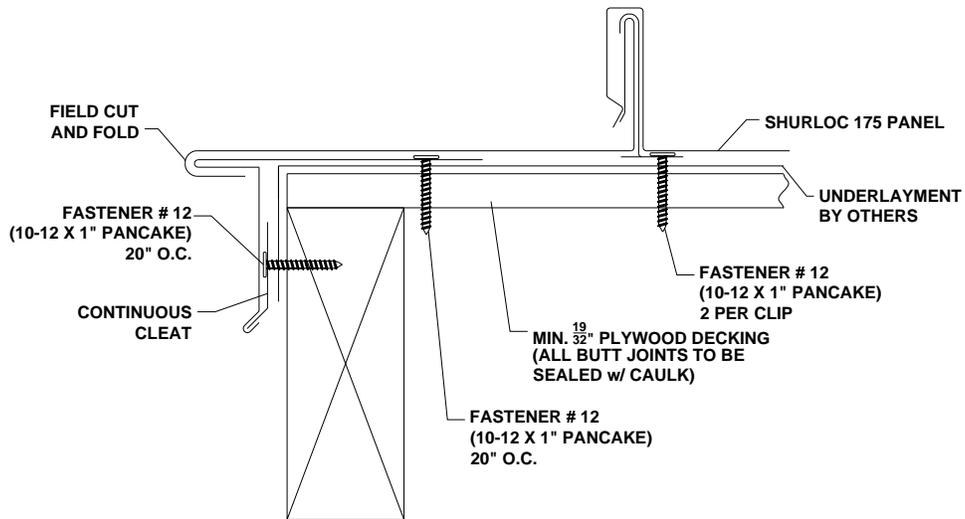


Figure 8: Alternative Rake/Gable Flashing Detail

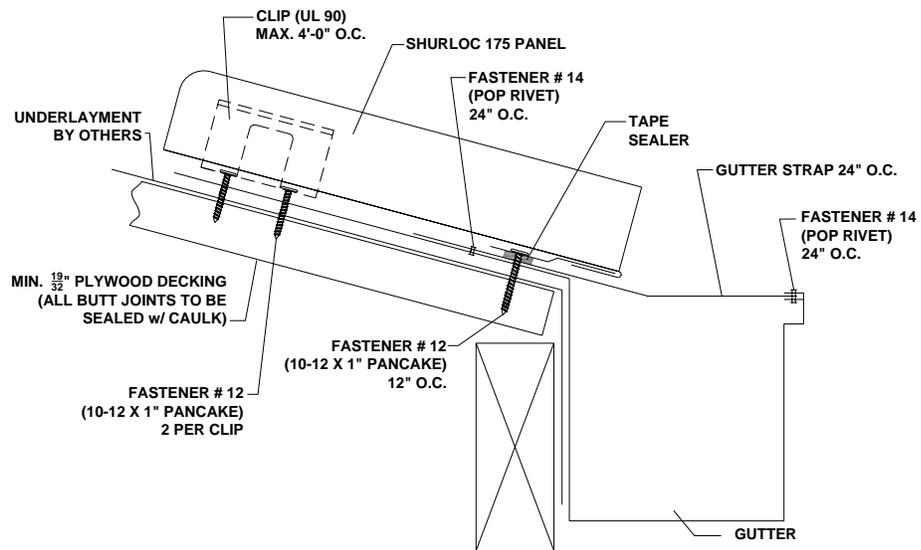


Figure 9: Gutter Detail

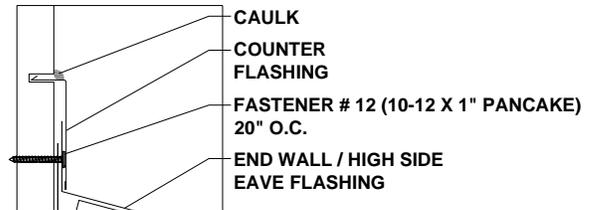
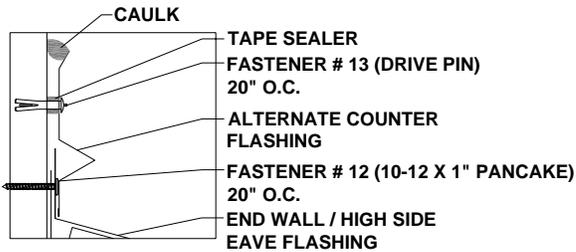
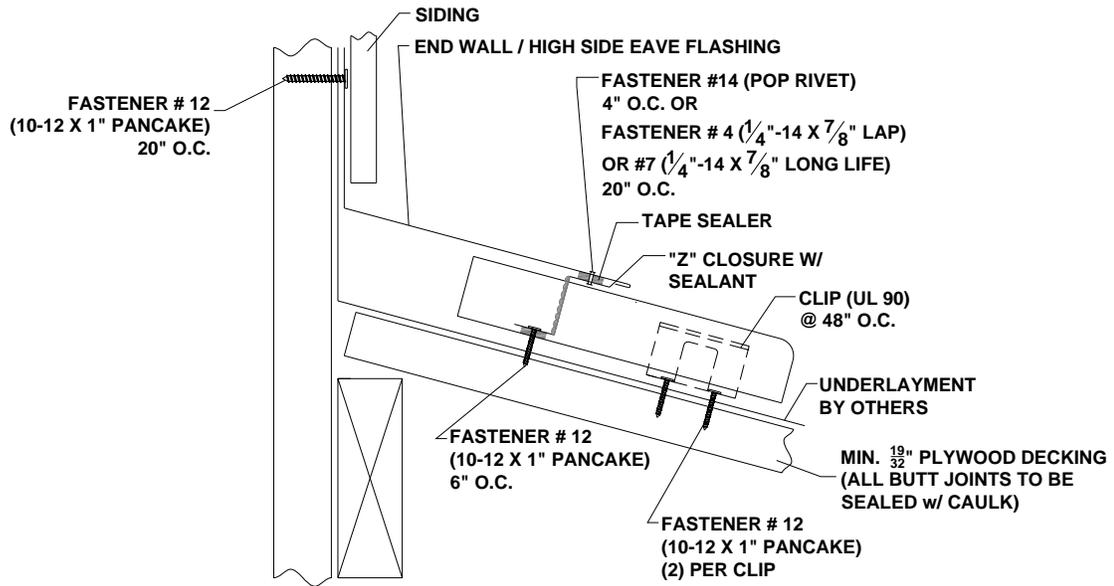


Figure 10: Fixed Endwall/Parapet High Side Eave Detail

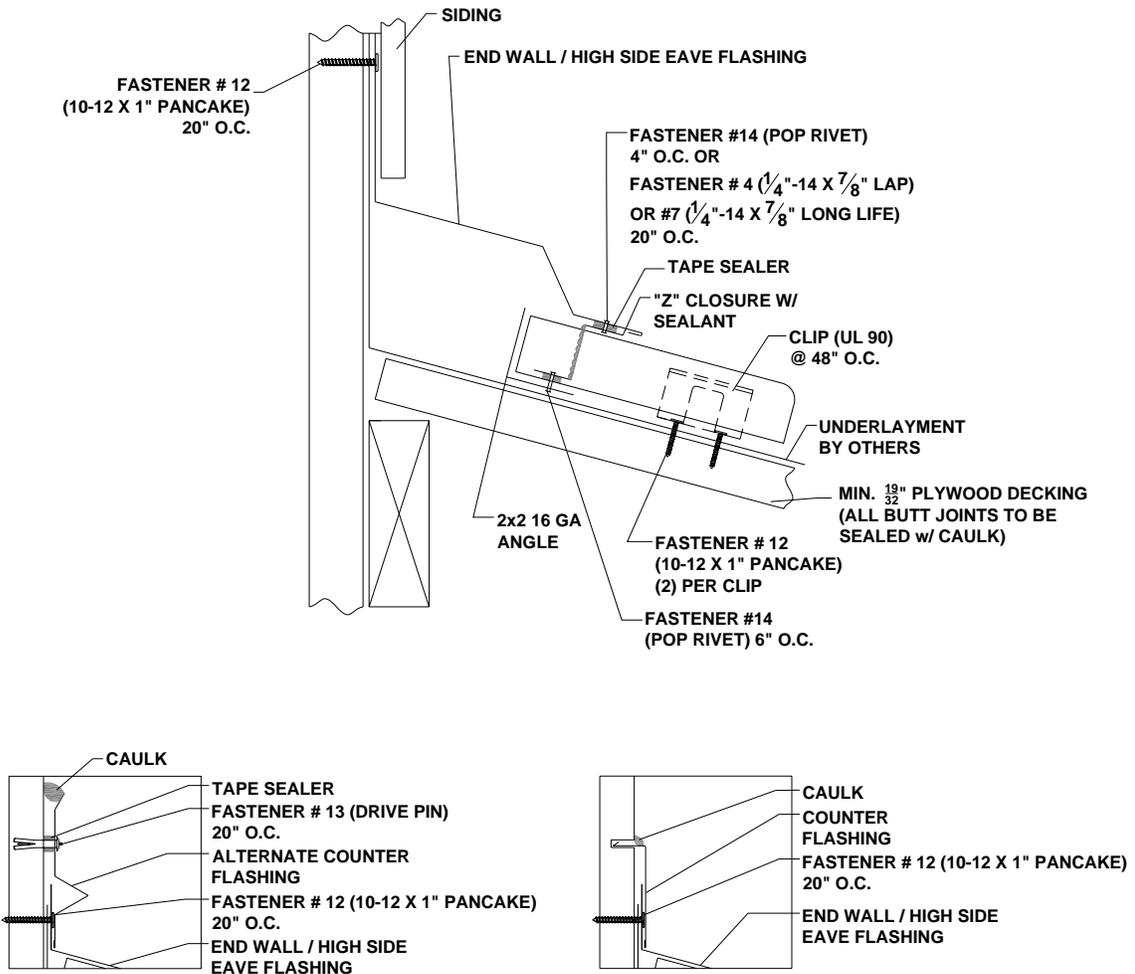


Figure 11: Floating Endwall/Parapet High Side Eave Detail

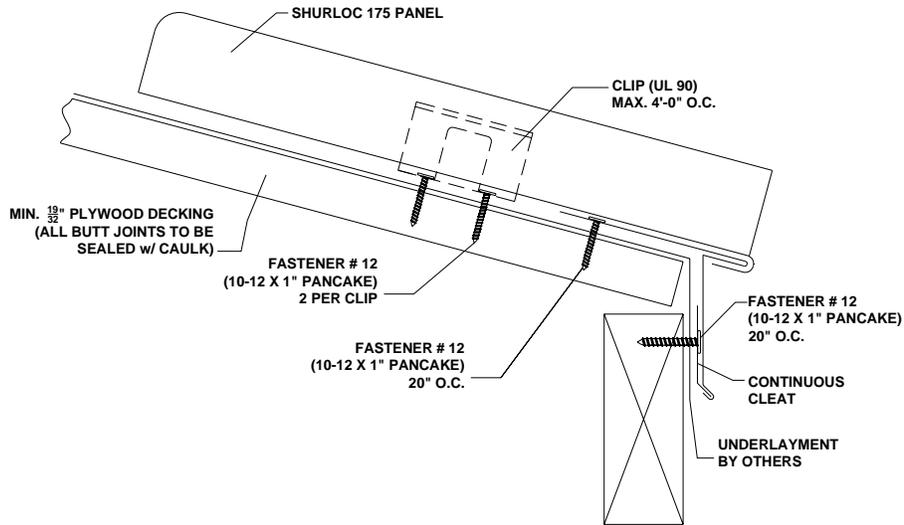


Figure 12: Eave Detail

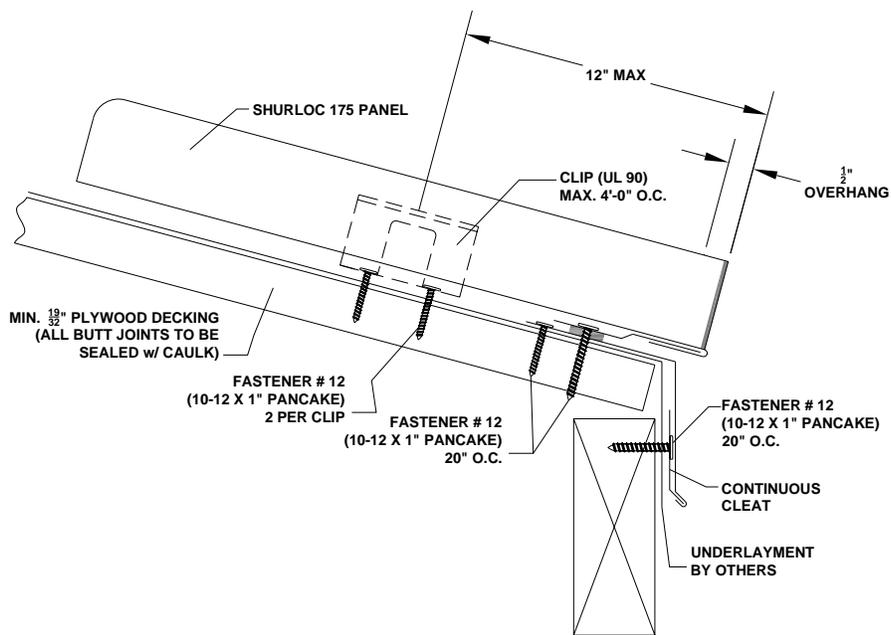


Figure 13: Alternative Eave Detail

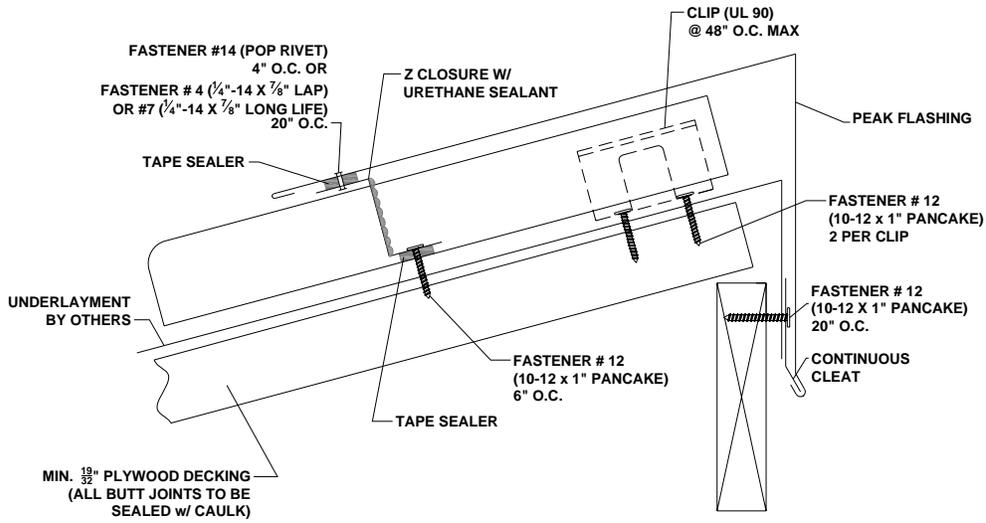


Figure 14: Fixed Peak Flashing Detail

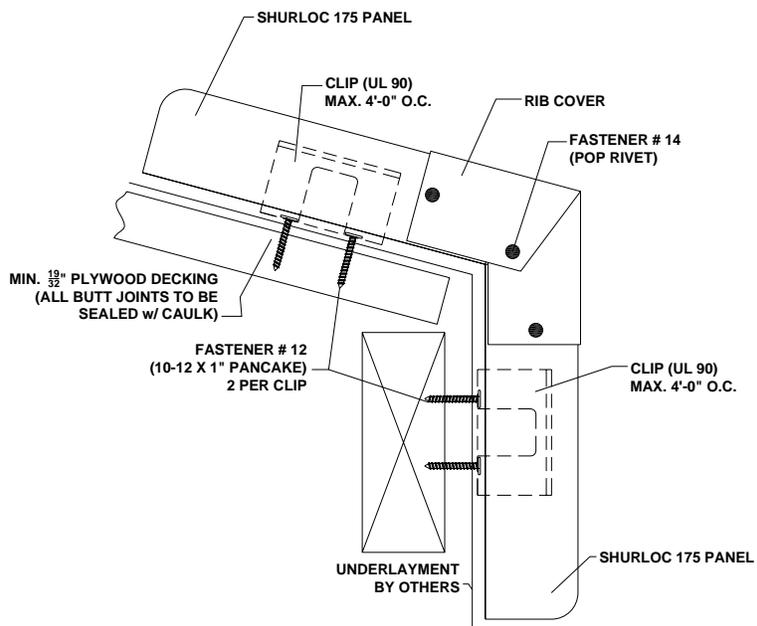


Figure 15: Roof Transition Detail

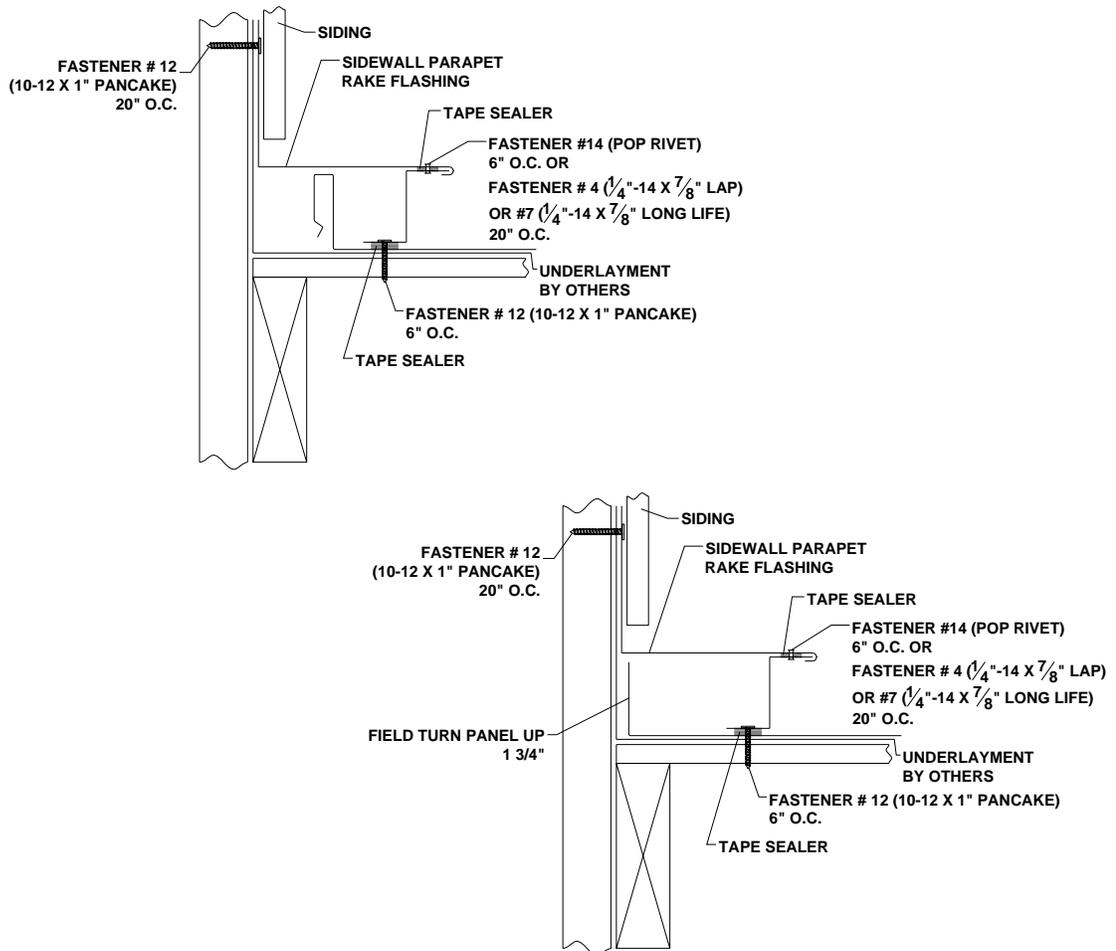


Figure 16: Sidewall/Parapet Fixed Rake Flashing Detail

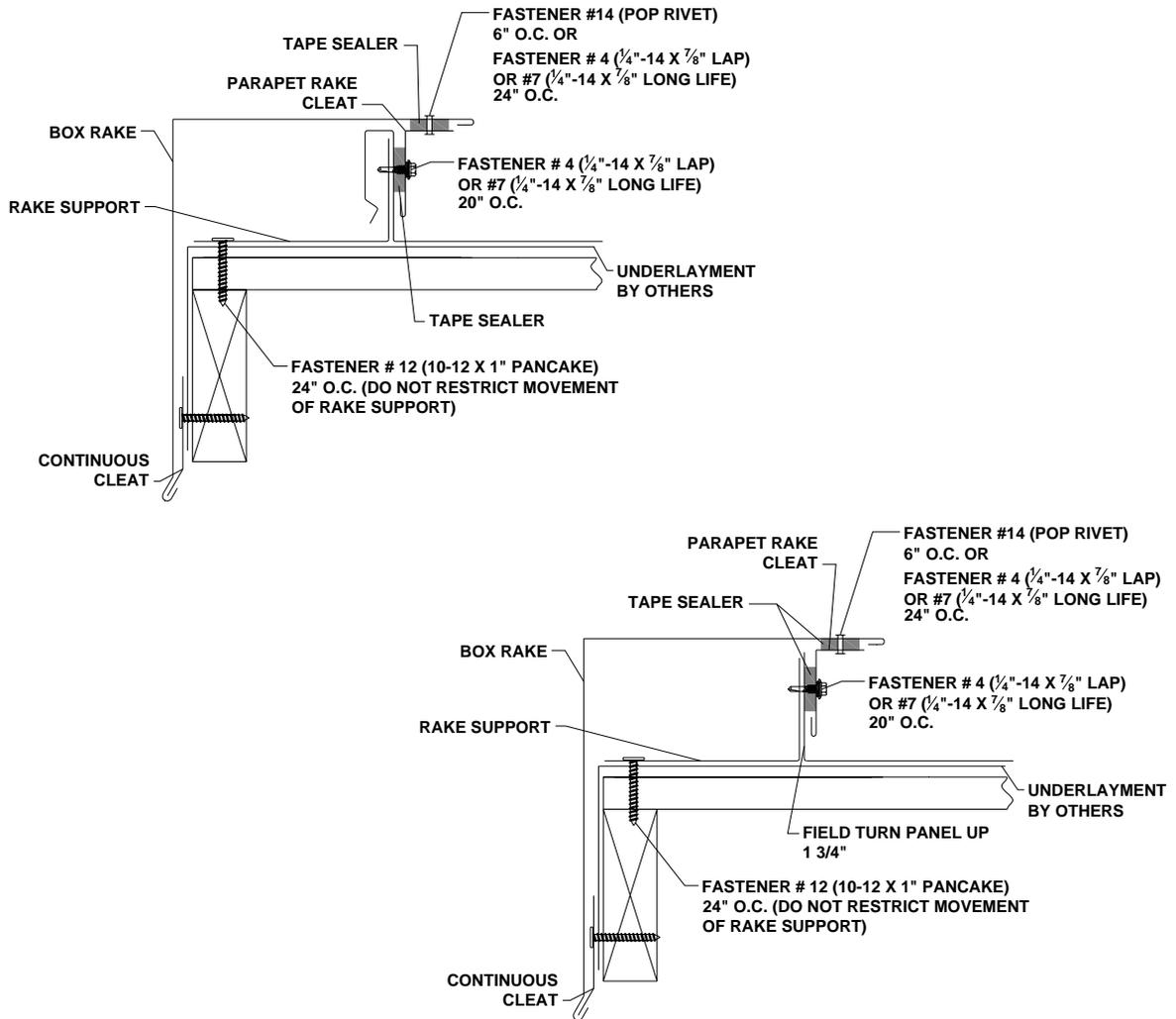


Figure 17: Sidewall/Parapet Floating Rake Flashing Detail