TEXAS DEPARTMENT OF INSURANCE

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PRODUCT EVALUATION Effective October 1, 2012
RC-129

*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 **March 2015**.*

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.

1" Aluminum Double Lock 18" Wide Standing Seam Panel manufactured by

T.H. Sellers Metal Roofing, Inc.
1720 Wegner Road
New Braunfels, Texas 78132
Telephone: (830) 609-0965

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

T.H. Sellers Metal Roofing 1" aluminum double lock 18" wide standing seam panels are manufactured from 0.032" pre-painted aluminum conforming to ASTM B209, with a minimum yield strength of 23,500 psi. The panels have a Hylar 5000/Kynar 5000 1-mil thickness coating on one side and a wash coat of 0.3-0.4 mil thickness on the reversible side.

LIMITATIONS

Design Wind Pressure: The panels shall be installed on nominal 15/32 inch plywood panel decks in accordance with Table 1. Thicker plywood decks are acceptable.

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

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 panels shall not be installed on roofs with a roof slope less than 2:12 or greater than 12:12.

INSTALLATION INSTRUCTIONS

General Installation Requirements:
The installation of the panels shall be limited to extending two inches beyond the plane of the facia board.

Panel Installation Requirements

Panels: Panels shall be attached the roof deck using panel clips in accordance with Table 1. Refer to Figures 1-7 following the tables for illustrations of the attachment details.

Table 1

Attachment of Panel to nominal $^{15}/_{32}$ inch plywood panel deck:

Wind Pressure (psf)	Fasteners per Panel Clip into Roof Deck	Panel Clip Spacing
-86.75	Two (2) No. 10-12 x 1"	12"

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 6-inch side laps and 3-inch end 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 panels shall be fastened to the plywood deck using panel clips with minimum #10-12 x 1 inch Pancake Type A screws, manufactured by SFS Intec in accordance with Table 1. If the panels are laid directly over an existing roof covering, then #10-12 x 2 inch screws, manufactured by SFS Intec, are required. The fasteners shall be long enough to penetrate completely through the wood structural panels with a minimum exposure of $^{1}/_{4}$ inch below the underside of the plywood deck.

Panel Clips: The panel clips are 3 inches in length, with 1 $^{1}/_{2}$ inch wide folded tabs. The clips are 0.15 inches in thickness. The clips are manufactured of stainless steel.

Ridge Trim: The ridge trim shall be attached to the panels with ($^{1}/_{4}$") #14 x 7/8 inch Longlife self-tapping screws at 12-inches on center as indicated in the attachment detail figures.

Hip Trim: The hip trim shall be attached to the panels with $^{1}/_{8}$" x $^{3}/_{16}$" pop rivets at 6 inches on center as indicated in the attachment detail figures.

Eave Trim and Rake Trim: The eave trim and the rake trim shall be anchored to the substrate with the panels using #9-15 x 1" Longlife self-tapping screws with a sealing washer at 16 inches on center as indicated in the attachment detail figures.

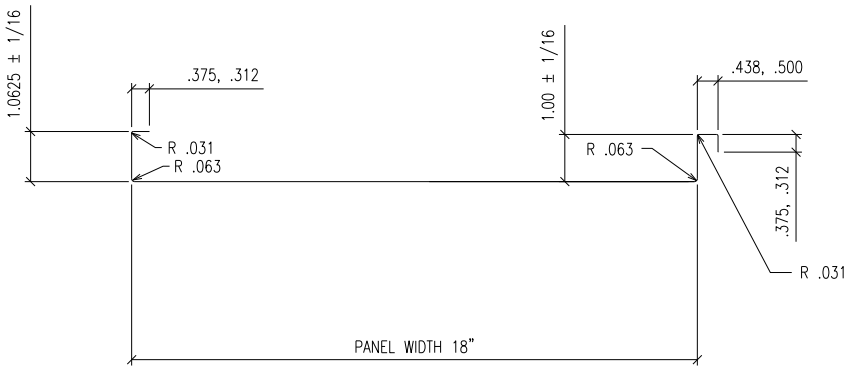
Valley Trim: The closed hem of the valley trim shall slide into the open hem of the panels as indicated in the attachment detail figures.

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

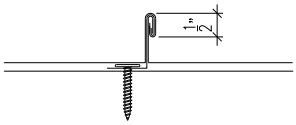
#10-12 Pancake Type A screws, manufactured by SFS Intec (Construction Fasteners, Inc.).

- Ultimate withdrawal (pullout) $\geq$ 615 lbs. in $^{19}/_{32}$ inch plywood
- Ultimate withdrawal (pullout) $\geq$ 339 lbs. in $^{15}/_{32}$ inch plywood

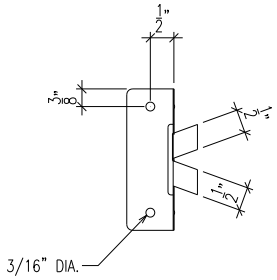
Note: The manufacturer's installation instructions shall be on the job site during the installation. All fasteners shall be corrosion resistant as specified in the International Residential Code (IRC), the International Building Code (IBC), and the Texas Revisions.



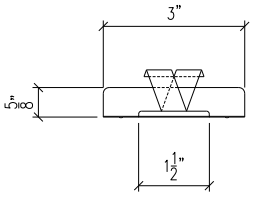
1" DOUBLE LOCK STANDING SEAM
PANEL DETAIL



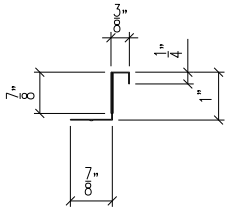
MECHANICAL SEAM DETAIL [180° SEAM]



TOP VIEW



SIDE ELEVATION



SECTION VIEW

UC3 STAINLESS STEEL
EXPANSION CLIP
.015" THICK

Figure 1: 1" Standing Seam Panel Details

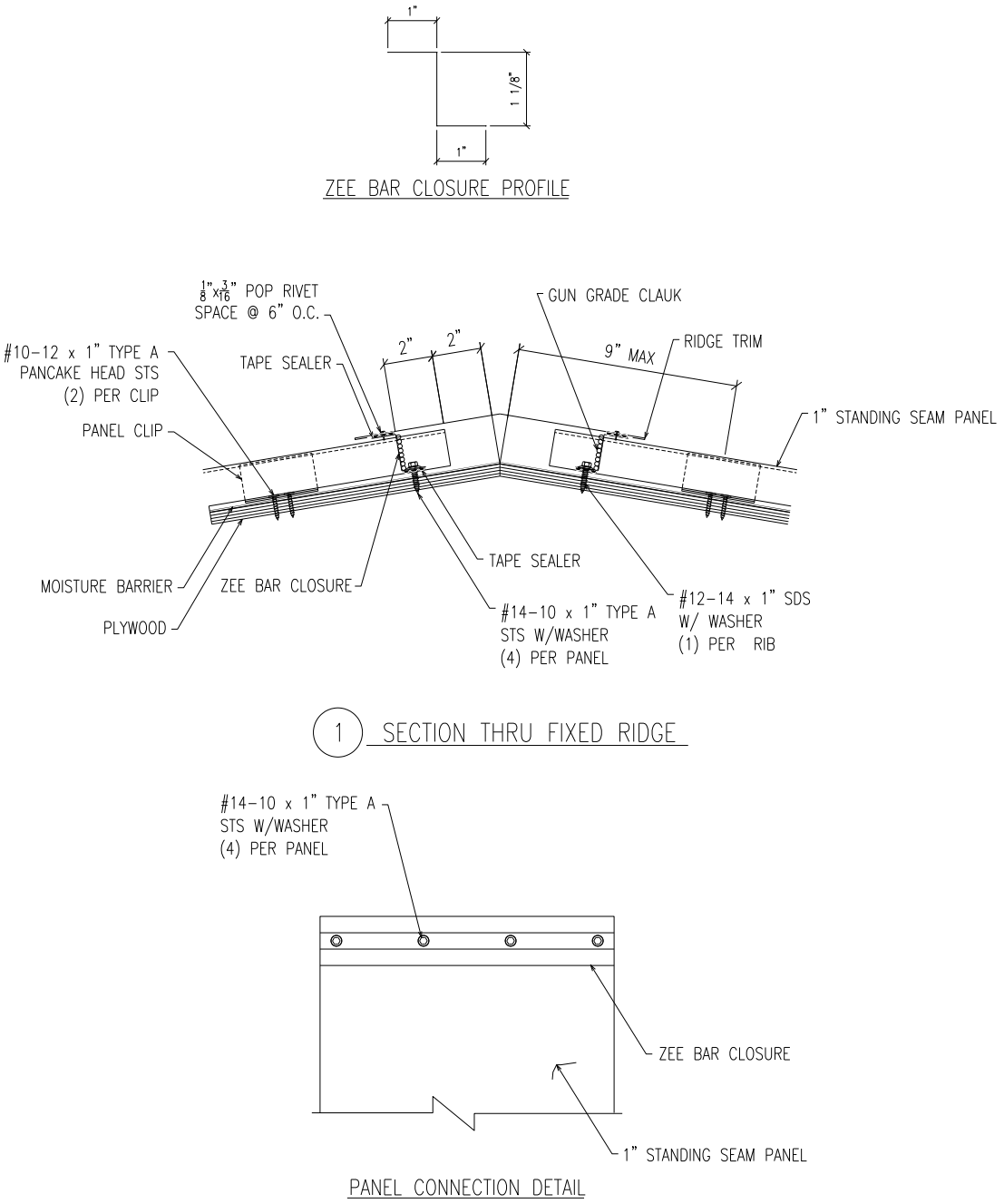
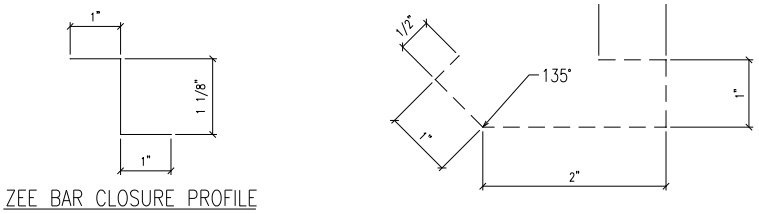
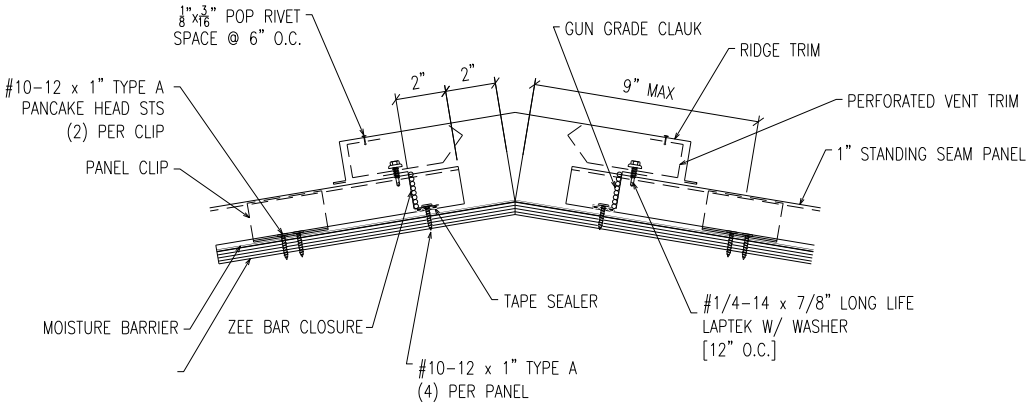


Figure 2: Non-Vented Ridge Trim Details

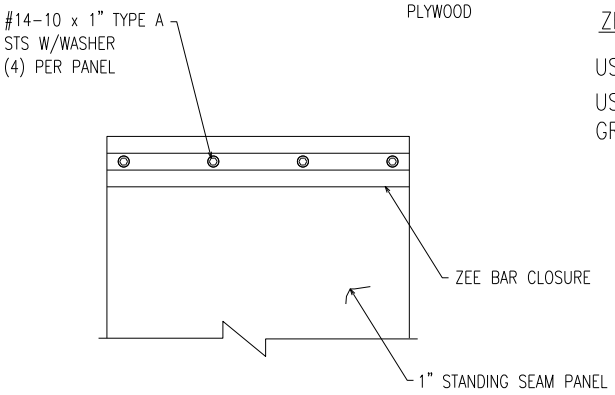


ZEE BAR CLOSURE PROFILE

PERFORATED VENT TRIM PROFILE



2 SECTION THRU FIXED VENTED RIDGE



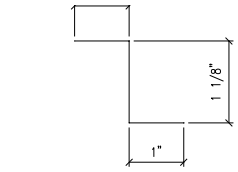
PANEL CONNECTION DETAIL

ZEE BAR FASTENER NOTES:

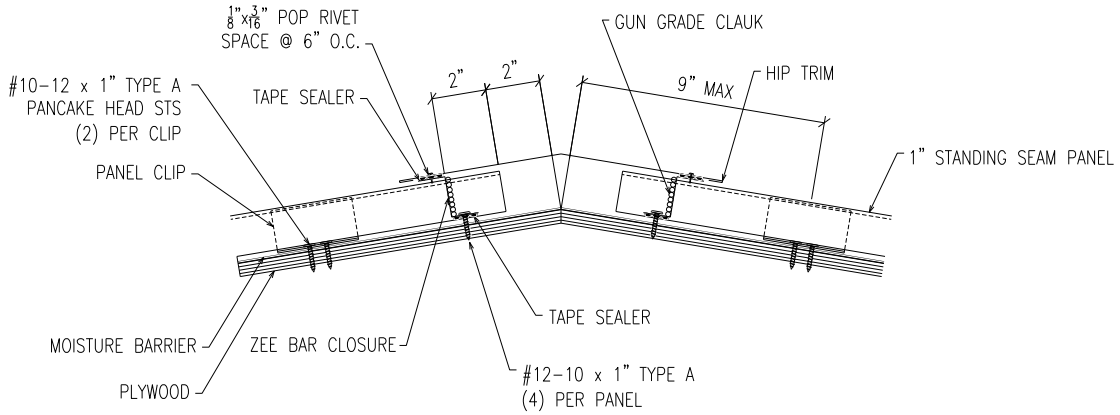
USE #10-12x1" TYPE A FOR $\frac{15}{32}$" CDX

USE #10-12x2" TYPE A FOR $\frac{19}{32}$" CDX OR GREATER

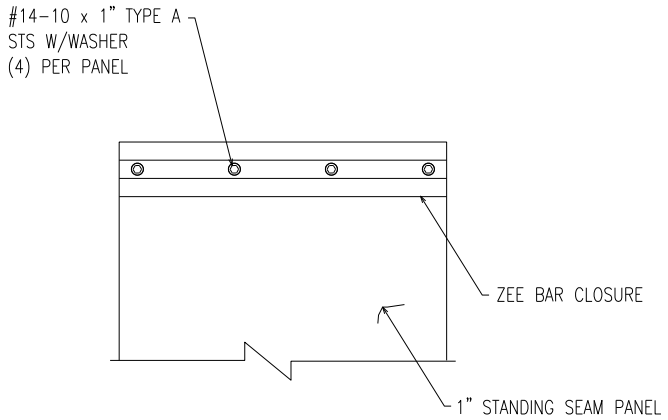
Figure 3: Vented Ridge Trim Details



ZEE BAR CLOSURE PROFILE



3 SECTION THRU FIXED HIP



PANEL CONNECTION DETAIL

ZEE BAR FASTENER NOTES:

USE #10-12x1" TYPE A FOR $\frac{15}{32}$" CDX

USE #10-12x2" TYPE A FOR $\frac{19}{32}$" CDX OR GREATER

Figure 4: Hip Trim Details

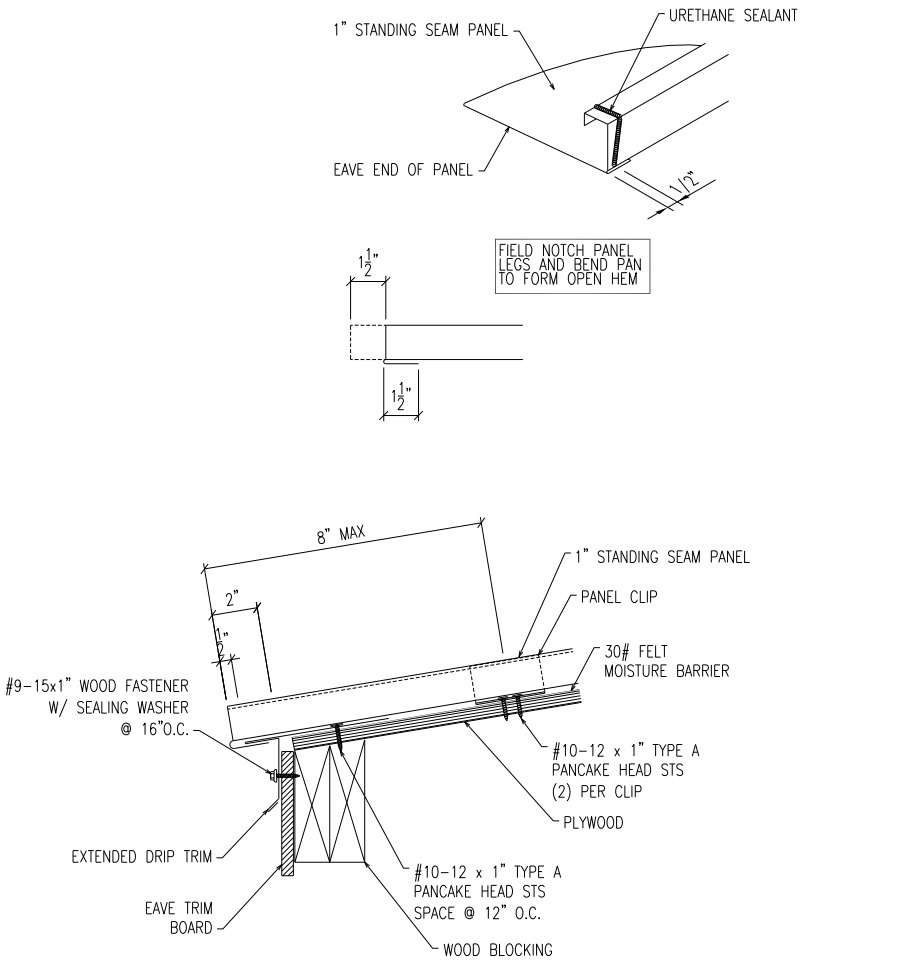
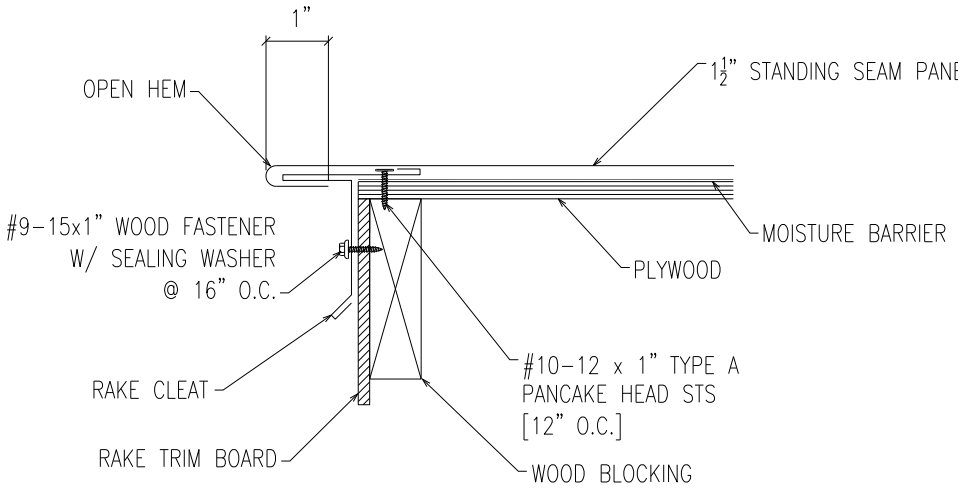
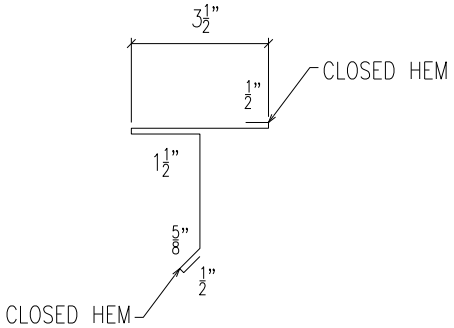


Figure 5: Eave Trim Details



5 SECTION THRU FLOATING RAKE

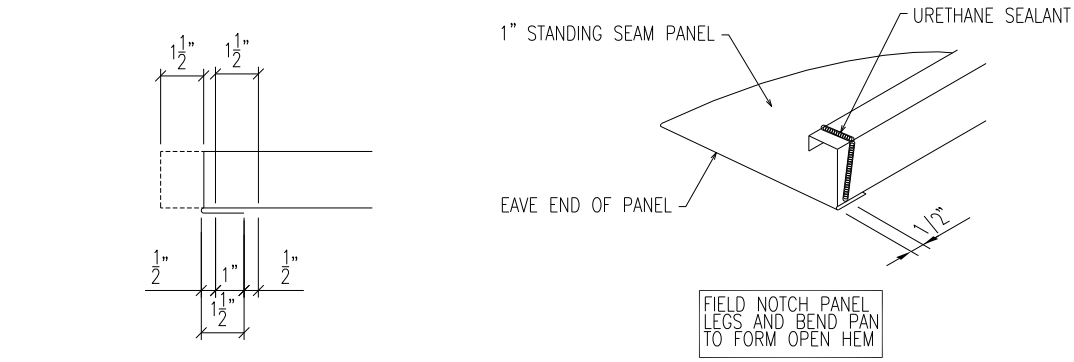


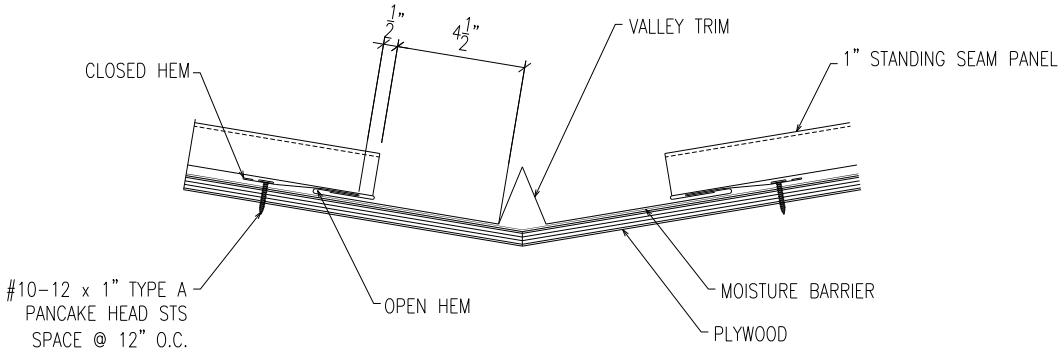
RAKE CLEAT PROFILE

RAKE CLEAT FASTENER NOTES:

USE #10-12x1" TYPE A FOR $\frac{15}{32}$" CDX
USE #10-12x2" TYPE A FOR $\frac{19}{32}$" CDX OR GREATER

Figure 6: Rake Trim Details





6 SECTION THRU FLOATING VALLEY

VALLEY TRIM FASTENER NOTES:

USE #10-12x1" TYPE A FOR 15/32" CDX
USE #10-12x2" TYPE A FOR 19/32" CDX OR GREATER

Figure 7: Valley Trim Details