REGAL

Installation Manual

Majestic Metals, INC.

General Information

The details shown on the following pages are suggestions or guidelines for installing the ***Regal*** system. The installation details shown here are proven methods of construction, but they are not intended to cover all building requirements, designs or codes. The details may require changes or revisions due to individual project conditions.

Installation procedures shall be in accordance with the manufacturer's printed instructions, details or approved shop drawings. Installers should thoroughly familiarize themselves with all instructions prior to beginning the installation process.

The installer is responsible to ensure the following:

- *That the details here meet the particular building requirements.*
- *Awareness of and allowance for expansion/contraction of the roof panels*
- *That adequate water tightness is maintained.*
- *That a proper uniform substructure is used to avoid panel distortion and that the substructure meets necessary code requirements.*
- *That all supporting members have been examined and are straight, level and plumb.*

Majestic Metals Inc. can provide all flashings and accessories shown in the installation drawings unless noted otherwise. Panels, flashing and trim shall be installed true and in proper alignment with any exposed fasteners equally spaced for the best appearance. Sealant shall be field applied on a clean, dry surface.

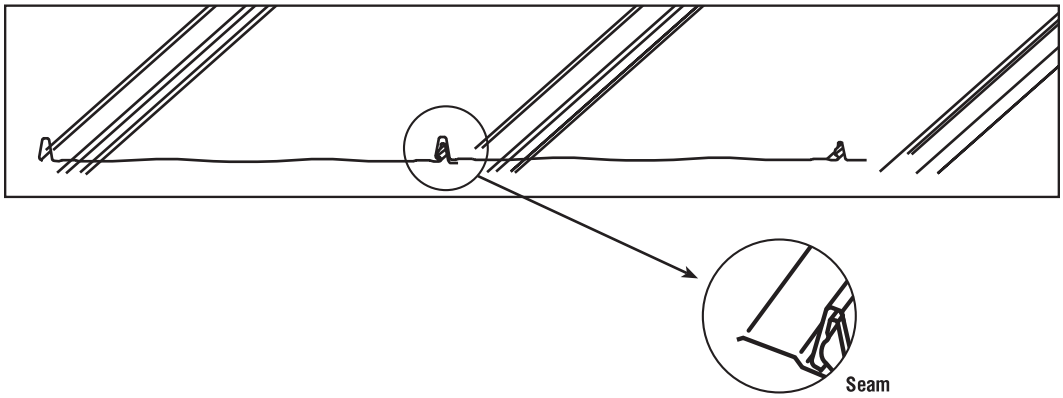
Some field cutting and fitting of panels and flashings is to be expected and to be considered a part of normal installation work. Workmanship shall be of the best industry standards and with installation performed by experience metal craftsmen.

Oil canning of metal panels is inherent in the product and is not a cause for rejection. Striated panels are recommended as they reduce the appearance of oil canning. A signed pan wave acknowledgment will be required for all ***Regal*** orders prior to production.

Contents of this manual are subject to change without notice. To confirm this book is the most current copy, please visit Majestic Metal's website at: **www.majesticmetalsinc.com.**

Coating / Section Properties

Regal is ideal for residential and light commercial applications. ***Regal*** is an economical, snap-together, concealed fastener roofing panel. Panels are simply installed by placing pancake head fasteners in the panel's slotted flange. ***Regal*** should be installed over solid decking.



Substrate:
Galvalume®

Paint System:
WEATHER X

Panel Width:
16"

Panel Configurations:
16" Ribbed, Striated

Panel Height:
1" & 1½"

Minimum Slope:
3:12

Gauge:
16" in 26 ga

Oil canning (pan wave) of metal panels is inherent in the product and is not cause for panel rejection.

Roof Preparation

Regal is an excellent choice for residential or light commercial applications. There are several topics that the installer needs to address before installing ***Regal.***

- *Regal is designed to be installed over solid decking.*
- *Make sure any existing decking is smooth, level and in good condition. Replace any decking not meeting those requirements.*
- *If there is an existing asphalt shingle roof, check local building codes to determine whether existing shingles must be removed.*
- *If installing over existing shingles, Majestic Metals Inc. recommends the use of horizontal "furring" strips and foam insulation placed between furring strips. This will insure a solid and level substrate to attach panels.*

Fastener Spacing

Maximum Recommended Fastener Spacing for 16" wide 26 GA panels.

Deck Thickness:
- *1/2"*
- *5/8"*
- *3/4"*

Spacing:
- *18" o.c.*
- *21" o.c.*
- *24" o.c.*

Panel Installation

Note: ***See #8*** *before you begin installation. Panels can be terminated at the eave in two different configurations. If you choose the smooth configuration on* ***Page 6 - #8, panels should be field cut prior to being installed on the roof.***

To Begin:

1. Align the female edge of the first panel, with the chalk line that was snapped at the rake edge. Remember, this line can be **0" – 1¾"** from the rake. Panel should overhang eave **1". See figure #1.**

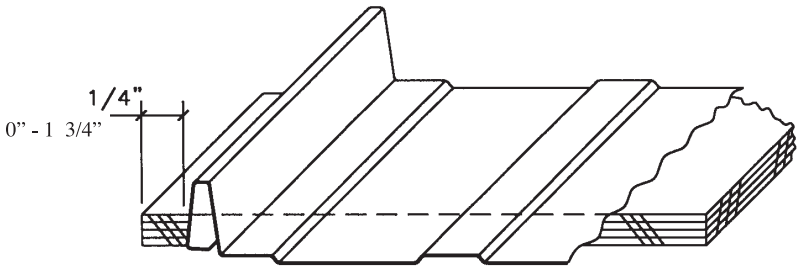


Figure #1

2. At ridge: Panels should be installed perpendicular to ridge for ridge trim attachment.

3. Check panel alignment. If panel is properly aligned, attach rake edge to roof with a **#9 - 15 × 1"** Woodgrip HWH w/o washer - plain socket - **¼"** (**See figure #2**). Then fasten the panel along the male edge fastening flange. See previous table on **Page 4** for fastener spacing.

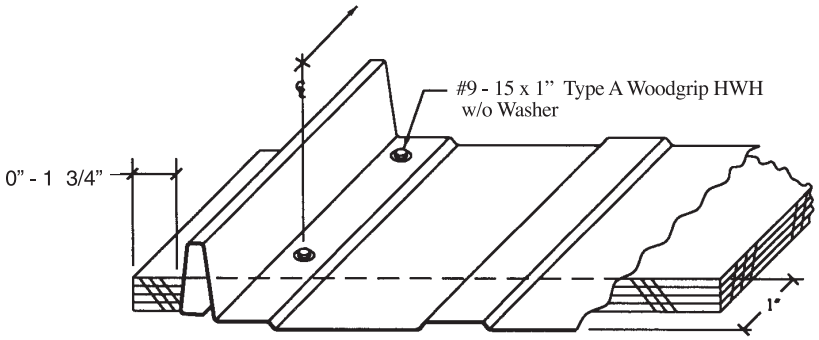
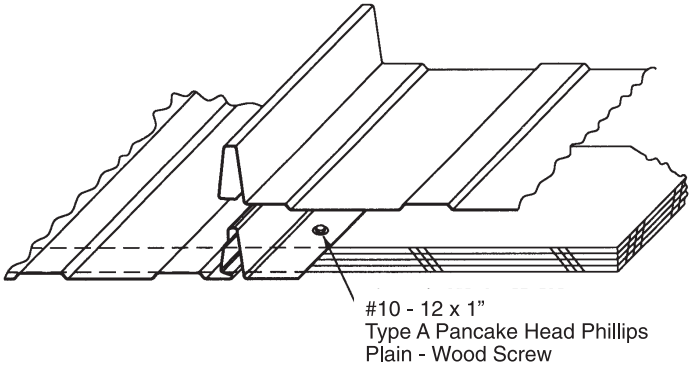


Figure #2

4. Align the second panel female edge with the starter panel male edge. **See Figure #3.** Panels must be flush at eave edge. Remember, panels should extend over eave by **1".**

Figure #3



5. Lightly compress and snap panels together at seam. Snap panels eave to ridge.

6. After panel seam is locked, fasten the panel with a **#10 - 12 × 1"** Type A Pancake Head Phillips Plain - Wood Screw along the male leg. Follow the recommended fastener spacing as per the chart on **Page 4.**

7. Continue to apply panels as in steps **#4** though **#6** above.

8. Panels at the eave can be terminated in two ways. Each will depend on aesthetic considerations determined by the installer or building owner.

- Panels can be fastened along the eave with a **#10 - 15 × 1"** Woodgrip ZAC with Washer - Plain Socket - **5⁄16".** Fasten along a line parallel to the eave edge and **3"** up from the eave edge. The fasteners can be spaced as shown below in **Figure #4.** Maximum panel run (length) **30' - 0"** using exposed fastener eave condition.

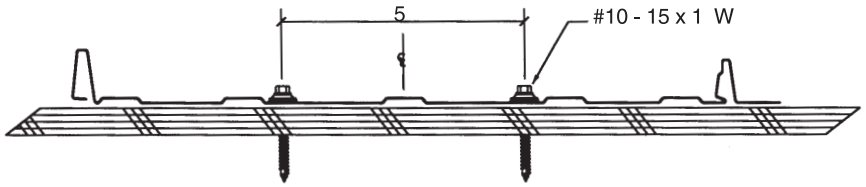
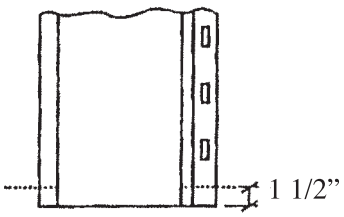


Figure #4

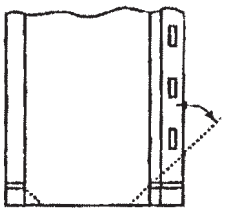
- Panels can also be terminated with a hemming tool to provide a smoother appearance. Cut through male and female legs/ribs **1 ½"** up from panel end as shown in **Figure #5.**

FIGURE #5



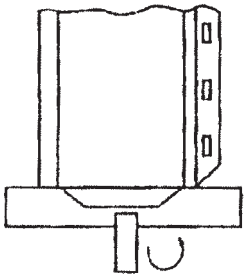
- Then cut diagonally with metal shears as shown in **Figure #6.**

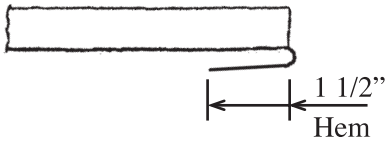
FIGURE #6

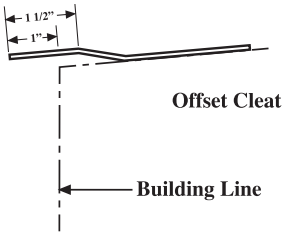


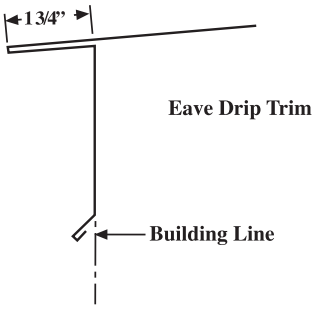
- Place hemming tool over panel tab. Bend down and under to **180°** as shown in **Figures #7 & #8.**

FIGURE #7



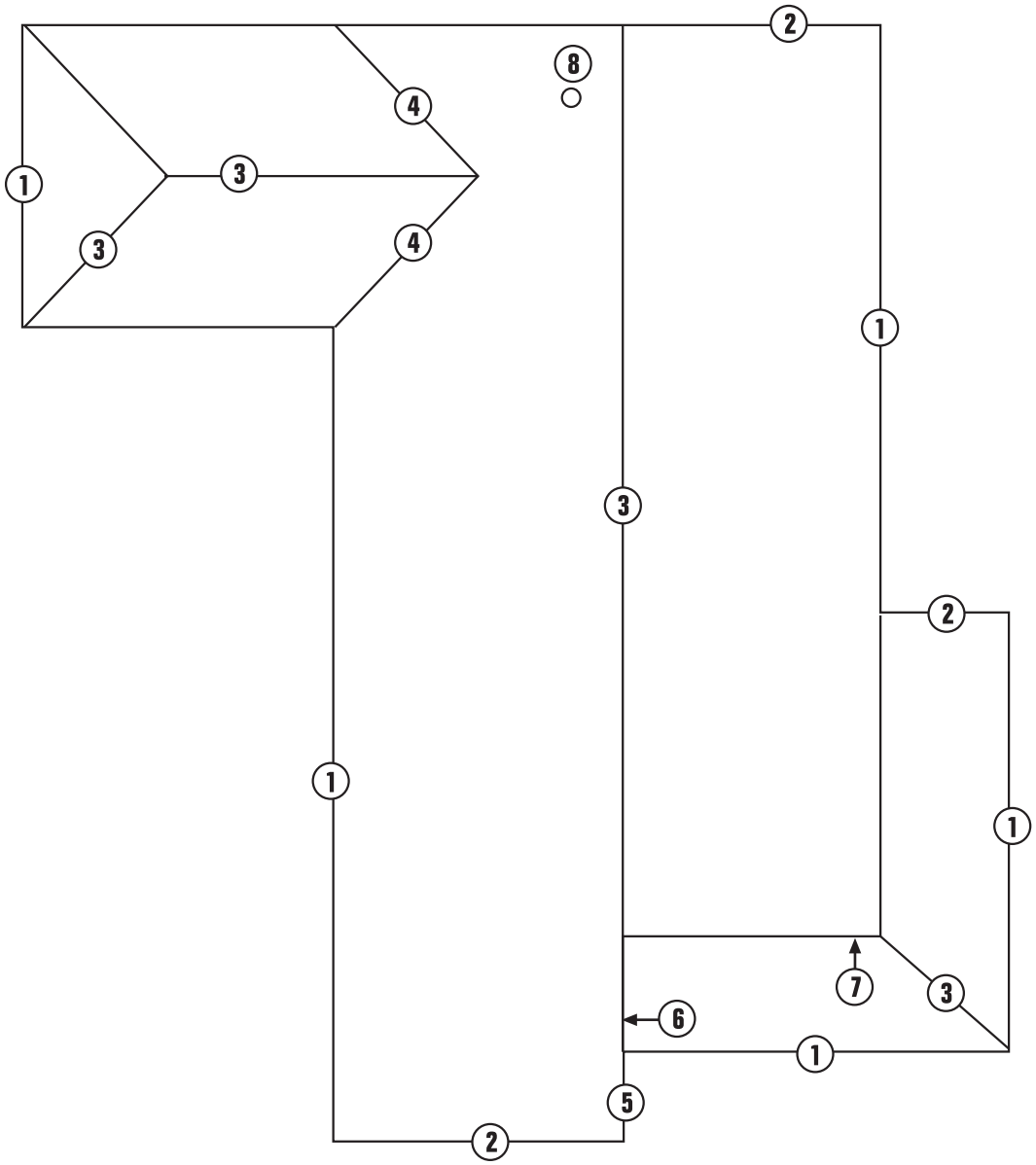






Note: When the eave drip trim condition is used, the panel lengths need to be ¾" longer than panels used for offset cleat condition.

Typical Conditions

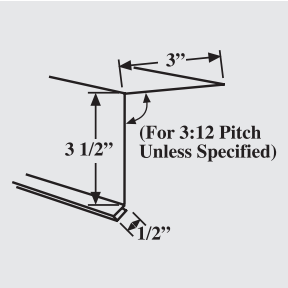


P.O. Box 12266
Jackson, MS 39236
1-800-647-8540

P.O. Box 208
Athens, AL 35612
1-800-871-0107

P.O. Box 442
Gonzales, LA 70707
1-888-504-8200

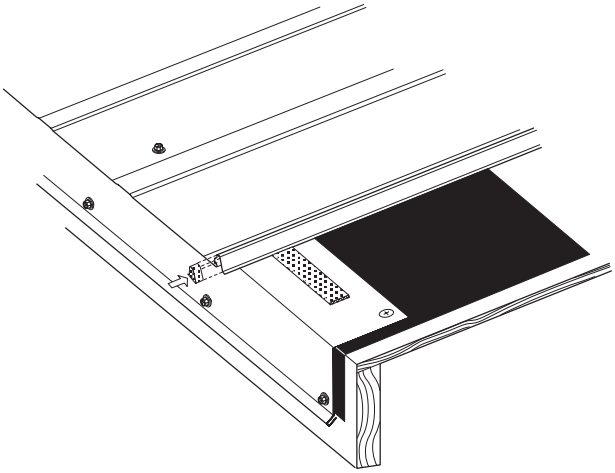
Eave Trim Details

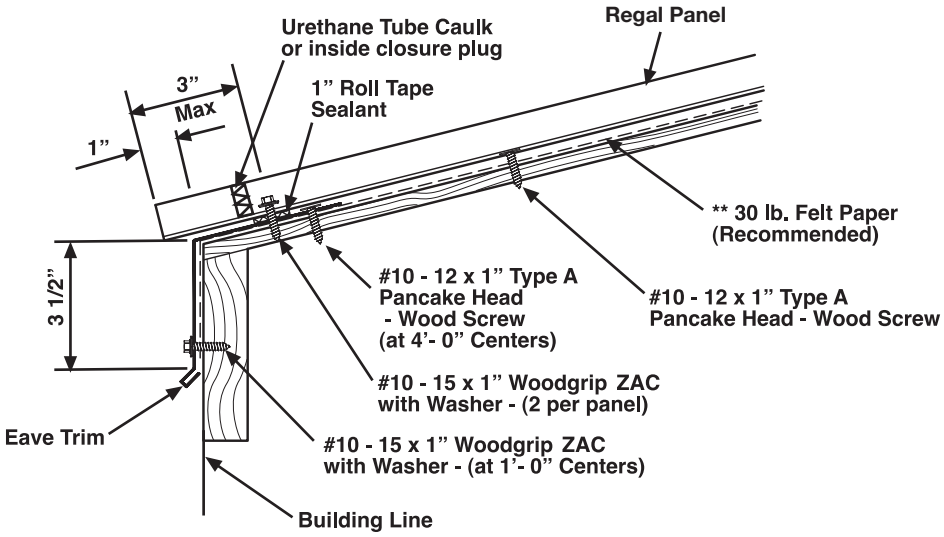


Eave Trim

Exposed Fastened

*Note: Eave trim must be installed prior to installation. Panel should overhang the eave **1"** minimum.*



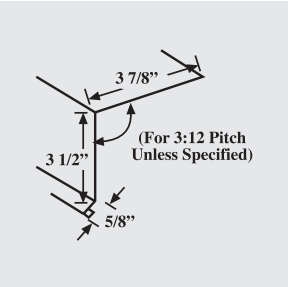


1. Attach eave trim as shown with **#10 - 12 × 1"** Type A Pancake Head - Wood Screw.
2. Open the hem of the next trim for approximately **4".**
3. Caulk and lap the trim a minimum of **3"** hooking the hem.
4. Install panel and fasten at eave with **#10 - 15 × 1"** Woodgrip ZAC with Washer.

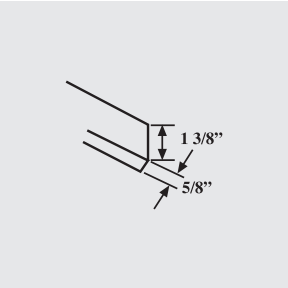
*** Additional ice and water shields may be required if climate is extreme.*

Eave Trim Details

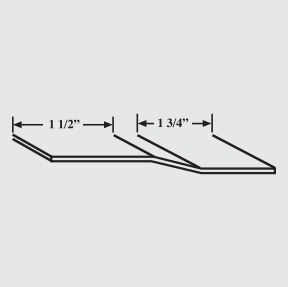
Note: Eave trim and offset cleat must be installed prior to installation.



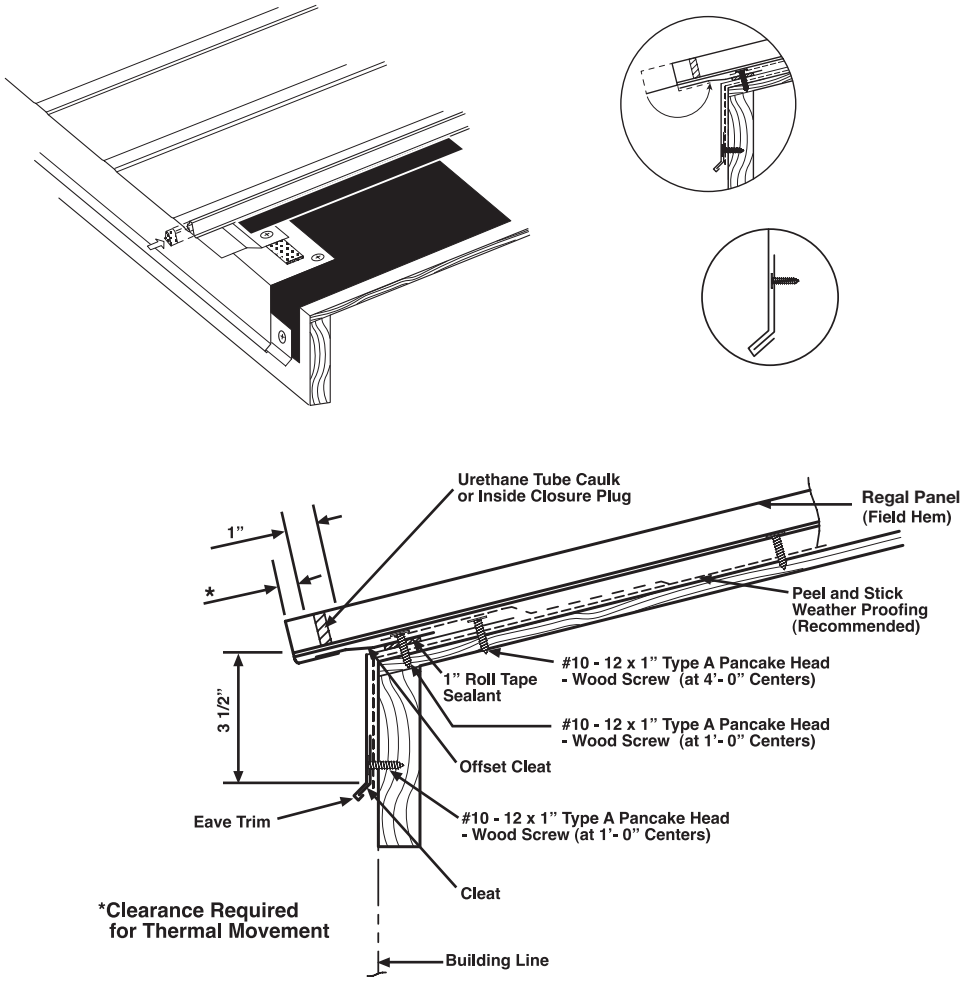
Eave Trim



Cleat



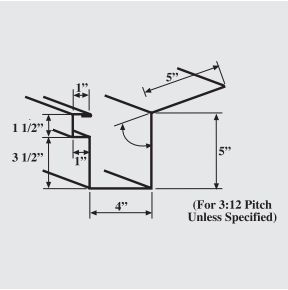
Offset Cleat



1. Attach cleat as shown with **#10 - 12 × 1"** Type A Pancake Head - Wood Screw.
2. Install eave trim and attach with **#10 - 12 × 1"** Type A Pancake Head - Wood Screw
3. Place tape sealant on eave trim and attach offset cleat with **#10 - 12 × 1"** Type A Pancake Head - Wood Screw.

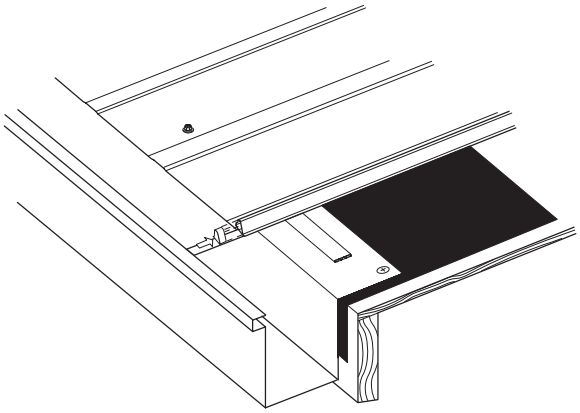
*** Additional ice and water shields may be required if climate is extreme.*

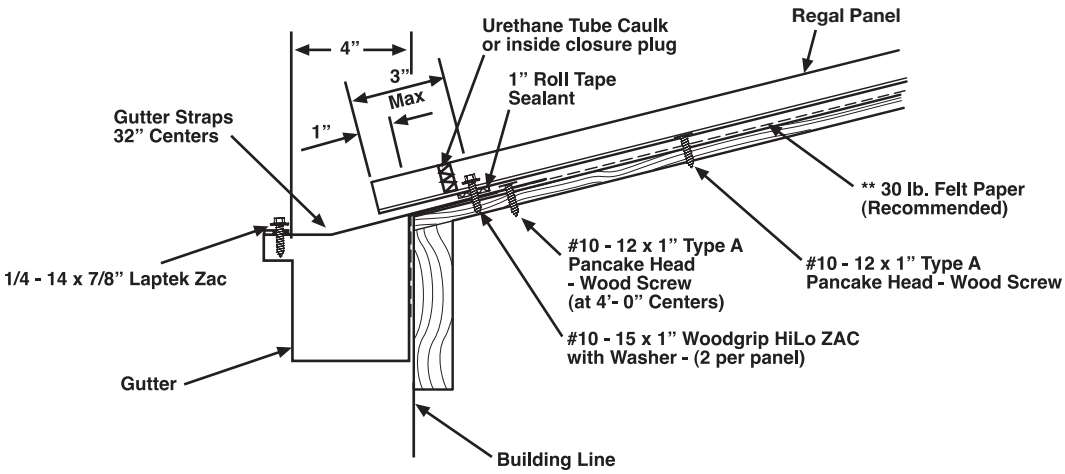
Eave Trim w/ Gutter Details



Gutter Trim

Exposed Fastened

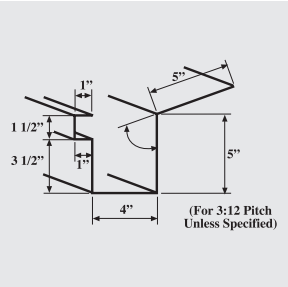




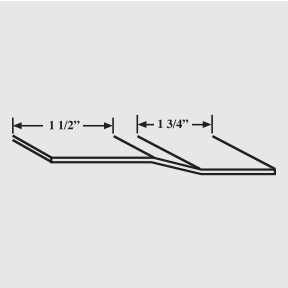
1. Place **12"** strip of underlayment at eave **6"** down fascia and **6"** up roof.
2. Install gutter with **#10 - 12 × 1"** Type A Pancake Head - Wood Screw at **4' - 0"** O.C.
3. Install gutter straps at **32"** O.C. as shown.
4. Place remaining underlayment on roof being careful to lap over gutter flange.
5. Install panels and tape sealant as shown.

*** Additional ice and water shields may be required if climate is extreme.*

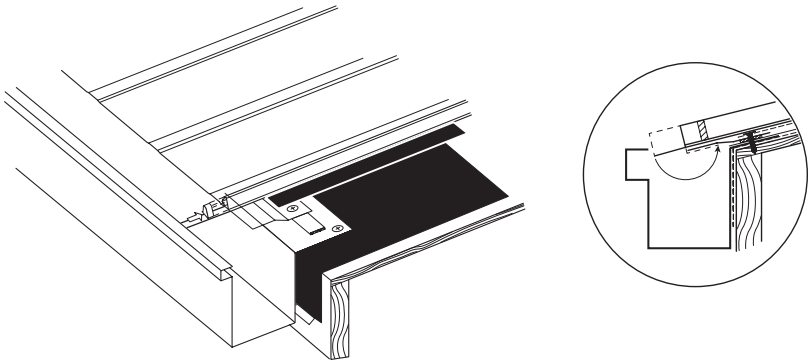
Eave Trim w/ Gutter Details

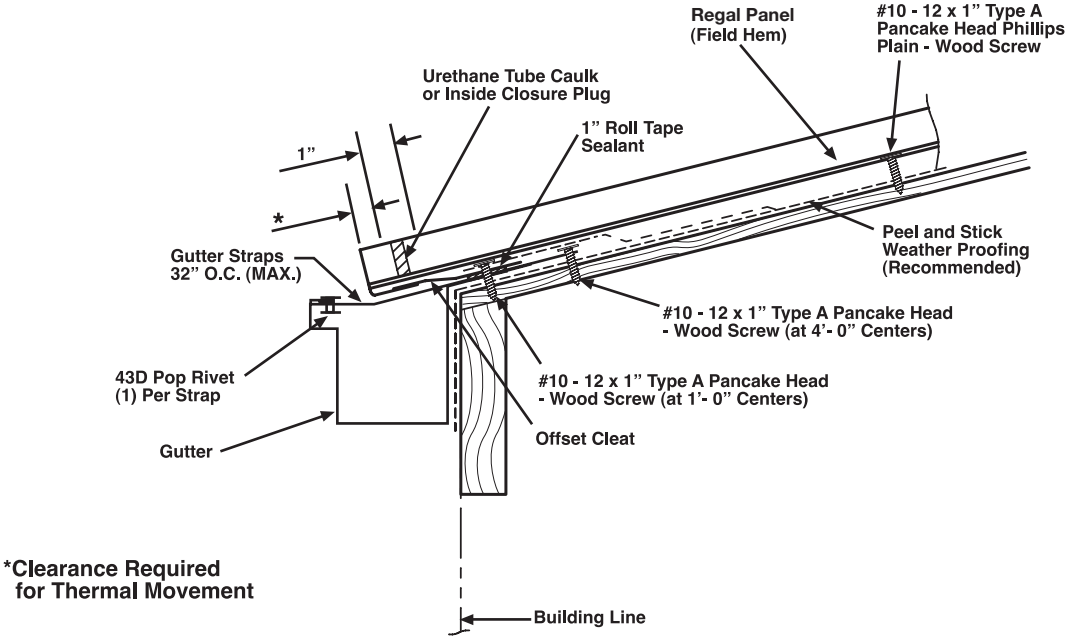


Gutter Trim



Offset Cleat



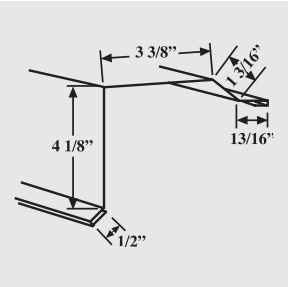


1. Place **12"** strip of underlayment at eave **6"** down fascia and **6"** up roof.
2. Install gutter with **#10 - 12 × 1"** Type A Pancake Head - Wood Screw at **4' - 0"** O.C.
3. Install gutter straps at **32"** O.C. as shown.
4. Place remaining underlayment on roof being careful to lap over gutter flange.
5. Place tape sealant on gutter flange and attach offset cleat with **#10 - 12 × 1"** Type A Pancake Head Phillips Plain - Wood Screw.
6. Install panel as shown.

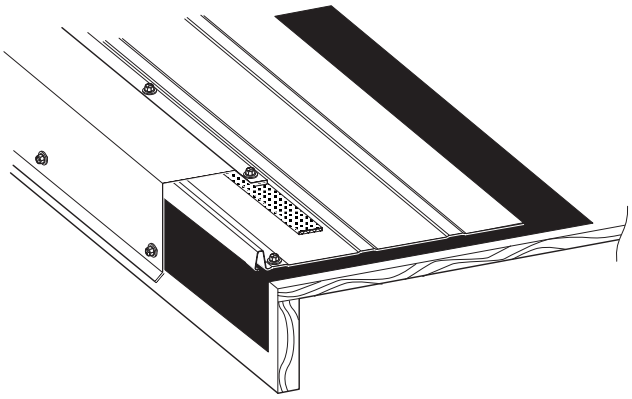
Rake Trim Details

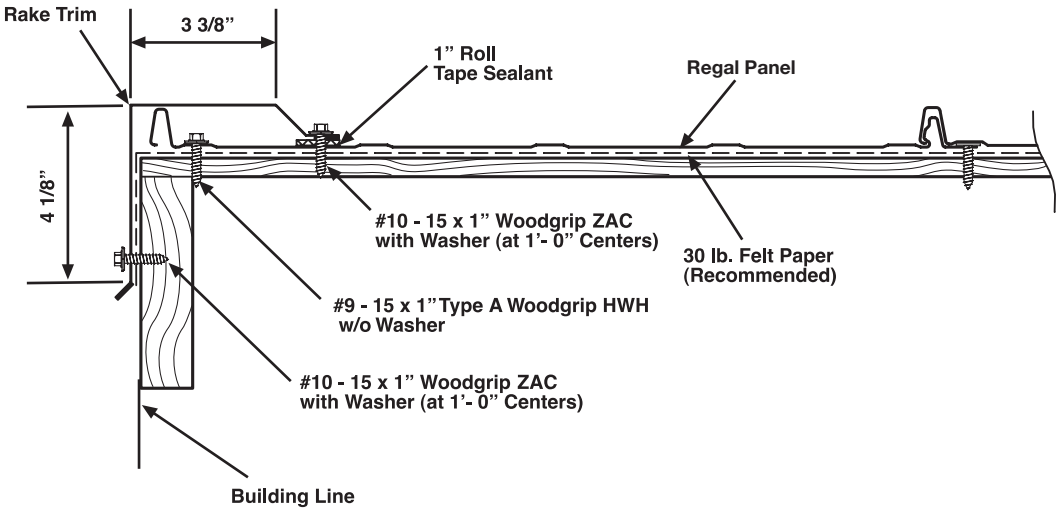
Exposed Fastened

Note: Rake trim must be installed prior to installing the ridge. Panels must be field cut at hip.



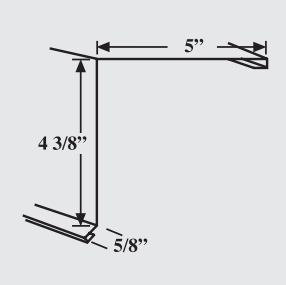
Rake Trim



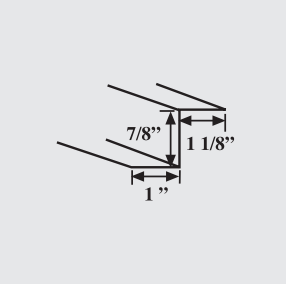


1. Make sure that roof panel is placed per instructions on **Pages 5 & 6.**
2. Place tape sealant along the rake trim's flange.
3. Install rake trim over rib. Fasten using painted **#10 - 12 × 1"** Woodgrip ZAC with Washer O.C.
4. Caulk and lap the rake trim at least **3"** hooking the hem.
5. Miter cut the rake trim at the peak to join each side at the ridge.
6. Cut and fold the rake at the eave to seal the end. Use painted 43D Pop Rivets to fasten.
7. End rake trim detail is the same as outlined in **#1-6.**

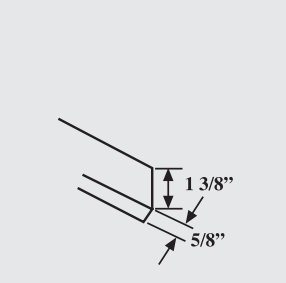
Rake Trim Details



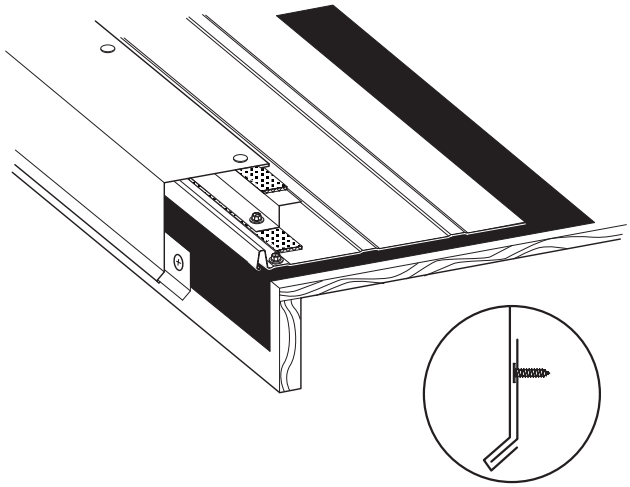
Rake Trim

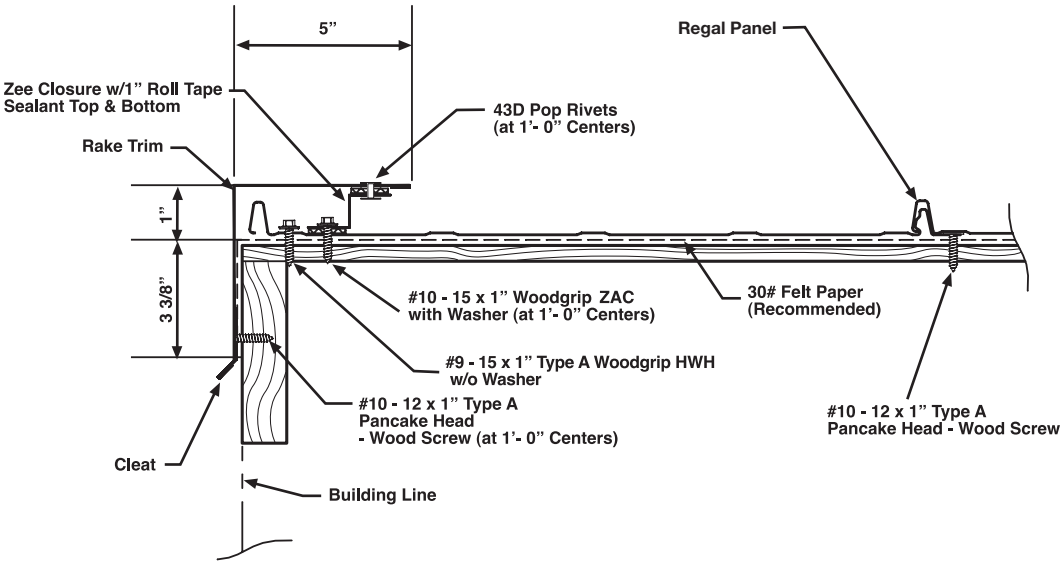


Zee Closure



Cleat



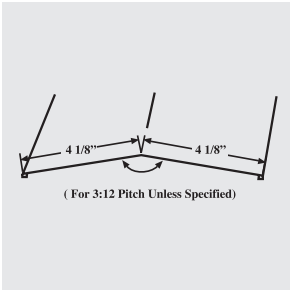


1. Place roof panel per instructions on **Pages 5 & 6.**
2. Attach cleat as shown with **#10 - 12 × 1"** Type A Pancake Head - Wood Screw.
3. Place tape sealant on panel and attach zee closure with **#10 - 15 × 1"** Woodgrip ZAC with Washer.
4. Place tape sealant on zee closure, then install rake trim and attach with pop-rivets.

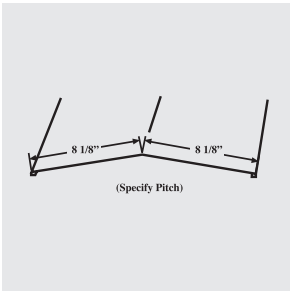
Ridge/Hip Trim Details

Exposed Fastened

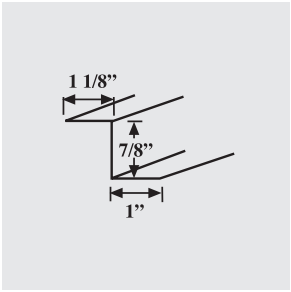
Note: Rake trim must be installed prior to installing the ridge. Panels must be field cut at hip.



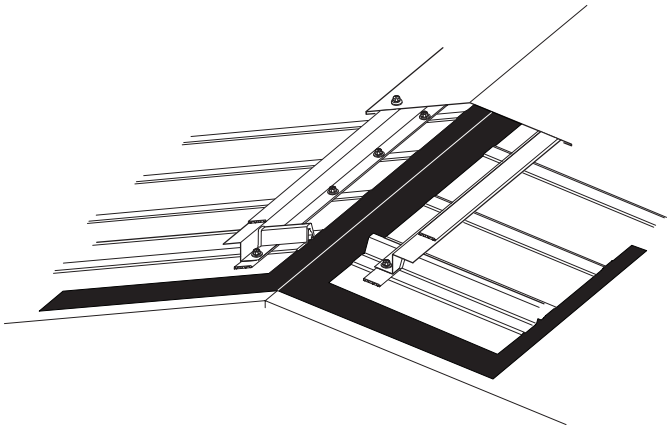
Hip Trim

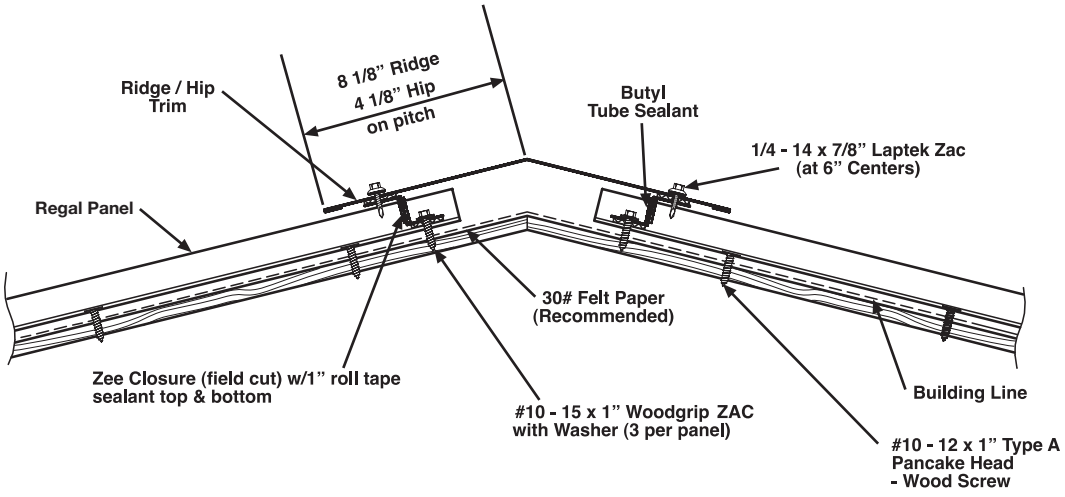


Ridge Trim



Zee Closure

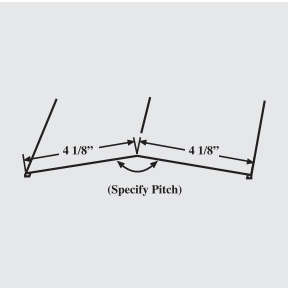




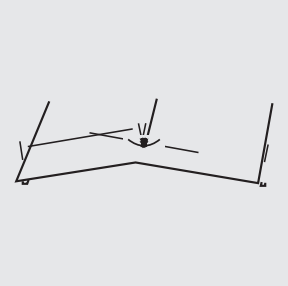
1. Panels should end parallel to the ridge.
2. Attach zee closure parallel to ridge.
3. Fasten ridge/hip trim to the zee using the ¼ - **14** × ⅞" LAPTEK ZAC.
4. Caulk, lap and fasten the subsequent trims.

Ridge/Hip Trim Details

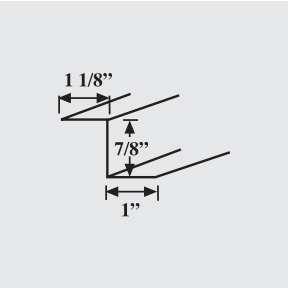
Note: Rake trim must be installed prior to installing the ridge. Panels must be field cut at hip.



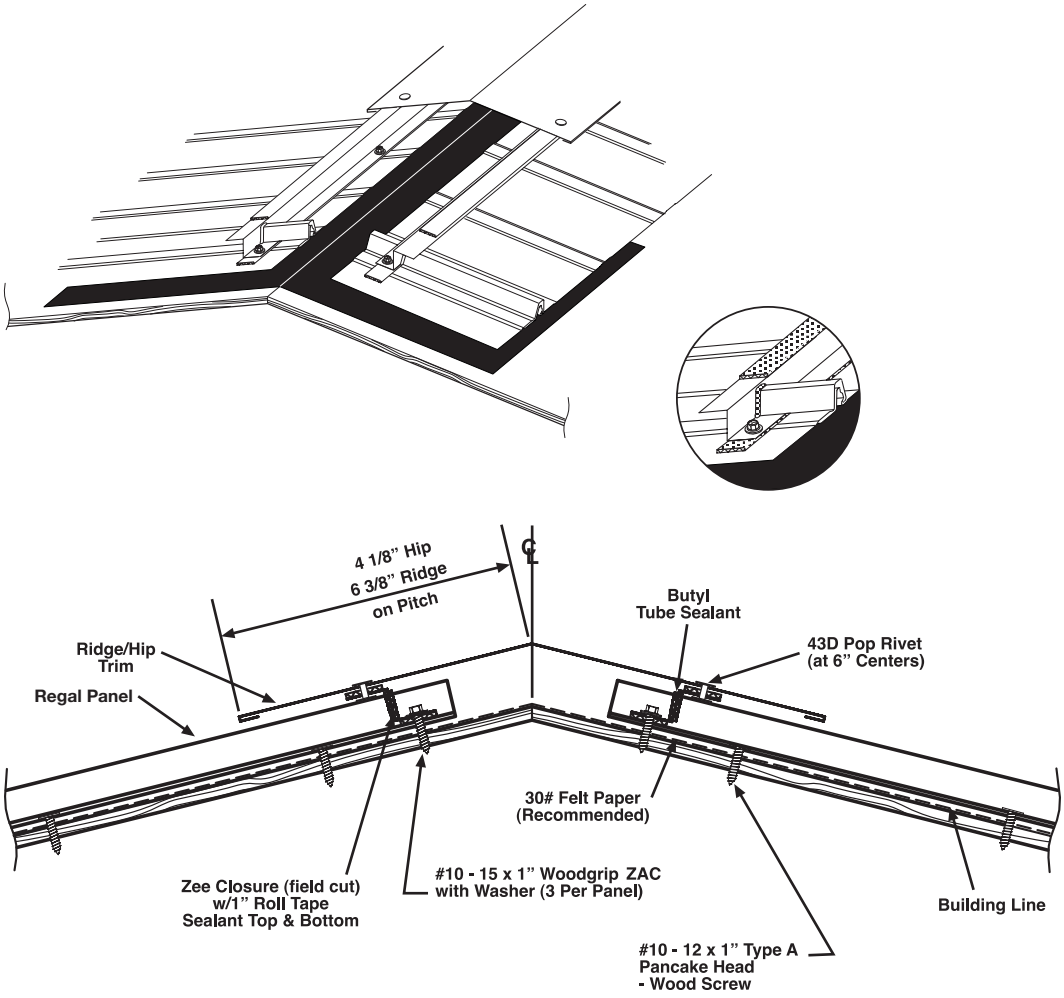
Hip Trim



Ridge Trim

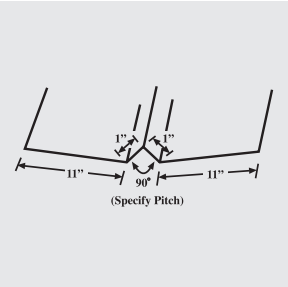


Zee Closure



1. Panels should end parallel to the ridge.
2. Place tape sealant on panel and attach zee closure parallel to ridge with woodgrip fasteners.
3. Place tape sealant on zee closure and attach ridge/hip trim with pop-rivets.

Valley Trim Details



Valley Trim

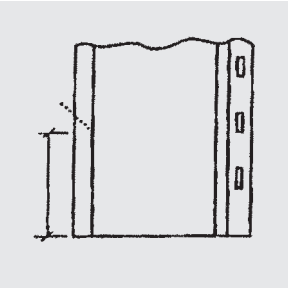


Figure #9

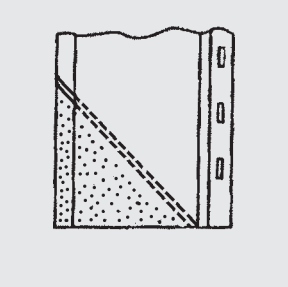
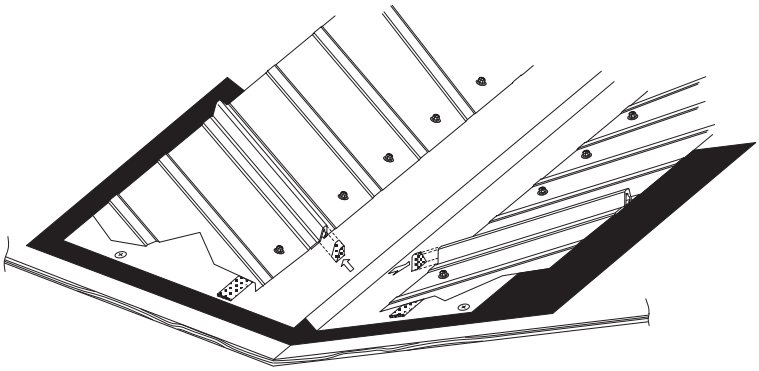
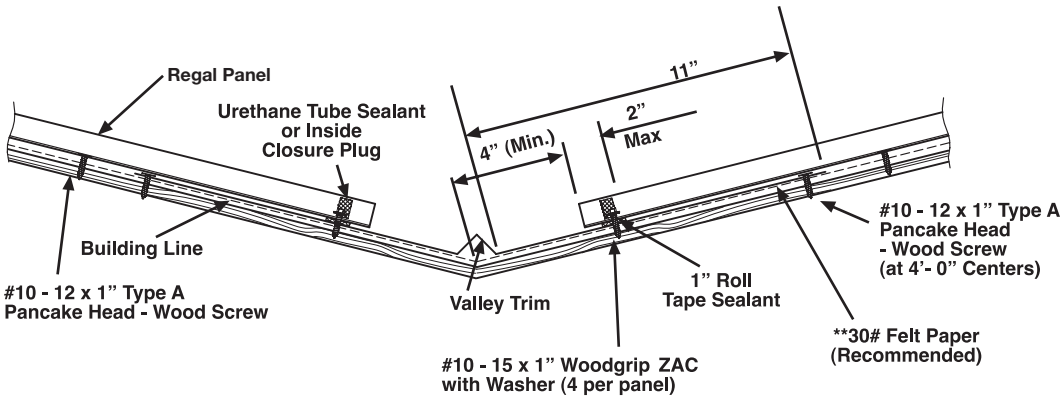


Figure #10

Exposed Fastened

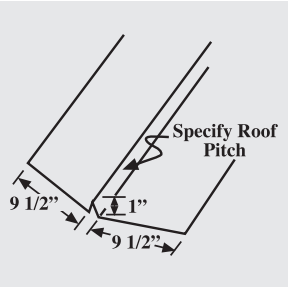




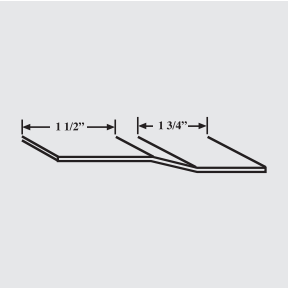
1. Place another layer of 36" roof felt on valley centerline with 18" of paper on each side of center.
2. Begin placing valley trim at eave with a 1" overhang.
3. Caulk and lap the sequential valley trims a minimum of 6".
4. Parallel to the valley, place tape sealant 6" from valley center as shown.
5. Field cut the panels allowing for overlap with valley trim.
   A. Make cuts through male/female rib (depending on side) at the angle required for the specific roof slope. See Figure #9.
   B. Cut out shaded or marked area with sheet metal shears. See Figure #10.
6. After panels are field cut and attached, fasten along bottom end using four (4) #10 - 15 × 1" Woodgrip ZAC with Washer per panel. Make sure fasteners are evenly spaced and penetrate the row of tape sealant.
7. Seal panel end with tube caulking or inside closure plug.

*** Additional ice and water shields may be required if climate is extreme.*

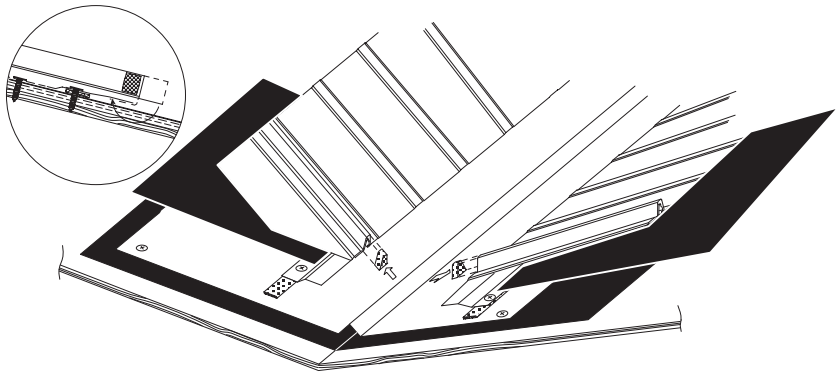
Valley Trim Details

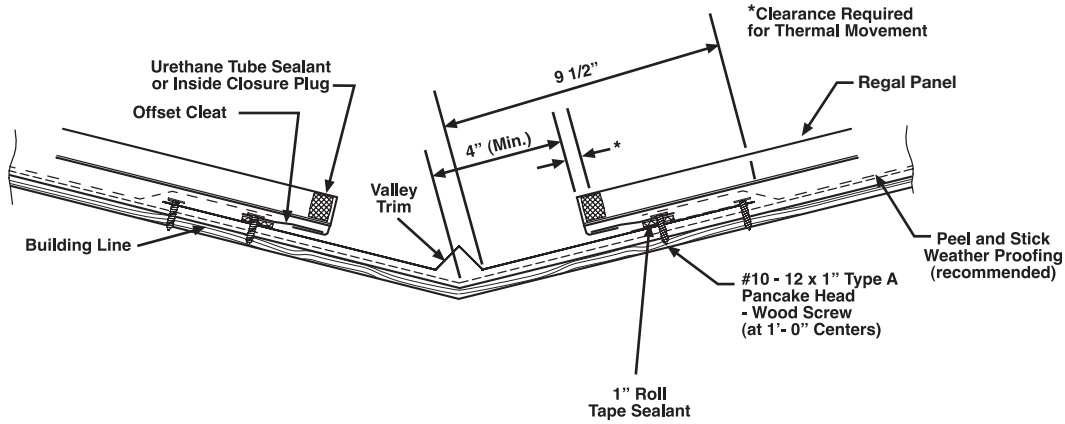


Valley Trim



Offset Cleat



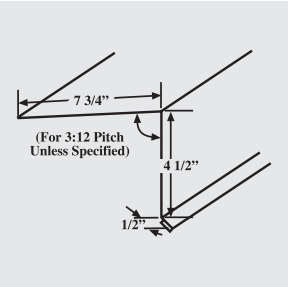


1. Attach cleat as shown with **#10 - 12 × 1"** Type A Pancake Head - Wood Screw.
2. Install valley trim and attach with **#10 - 12 × 1"** Type A Pancake Head - Wood Screw.
3. Place tape sealant on valley trim and attach offset cleat with **#10 - 12 × 1"** Type A Pancake Head - Wood Screw.

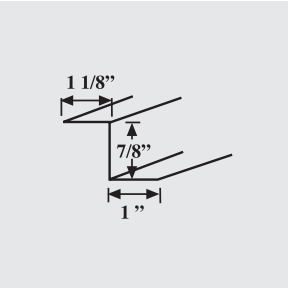
** For field hem panel see* ***Page #7.***

High Side Trim Details

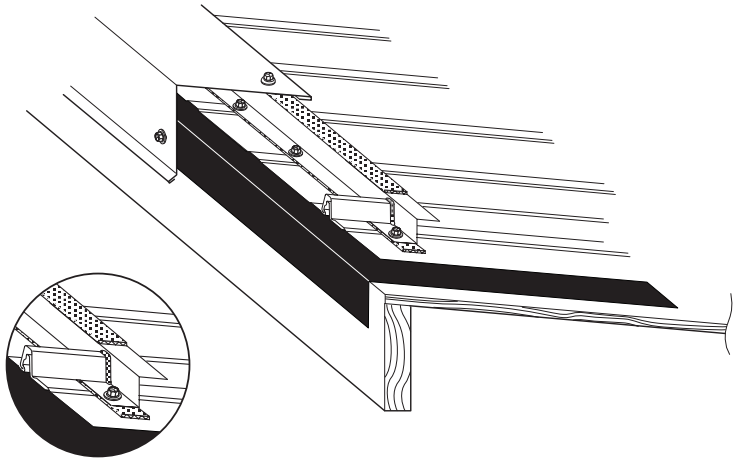
Exposed Fastened

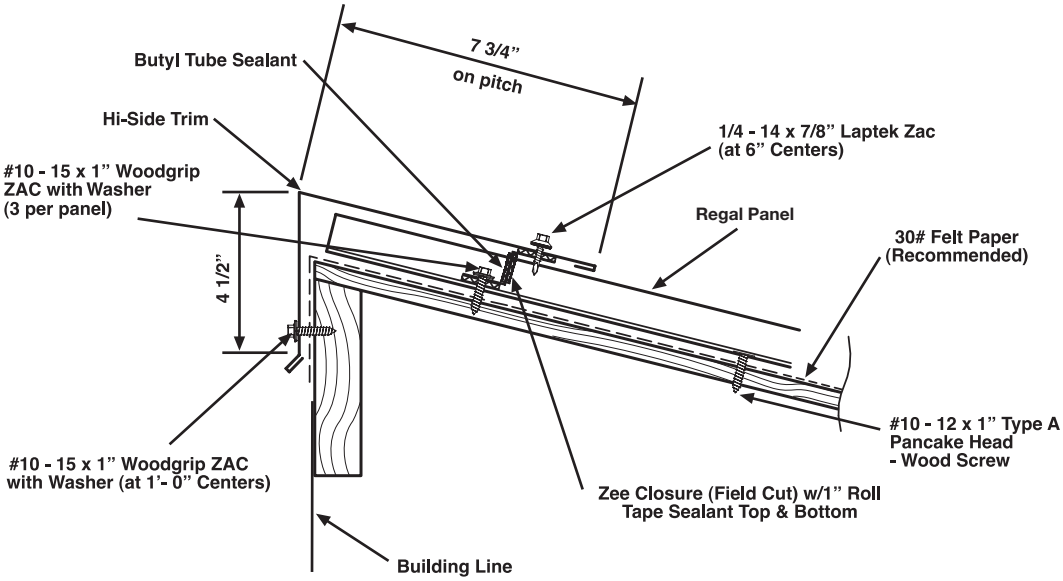


High Side Trim



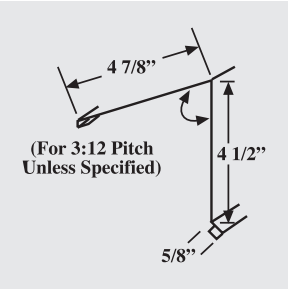
Zee Closure



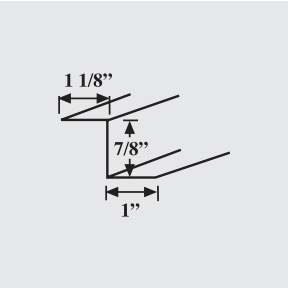


1. Panels should end parallel to high-side.
2. Attach zee closure parallel to high-side.
3. Fasten high-side trim to the zee closure using **¼ - 14 ⅞"** LAPTEK ZAC at **6"**centers.
4. Caulk, lap and fasten the subsequent trims.
5. Fasten the backside of high side trim with **#10 - 15 × 1"** Woodgrip ZAC with Washer at **12"** centers.

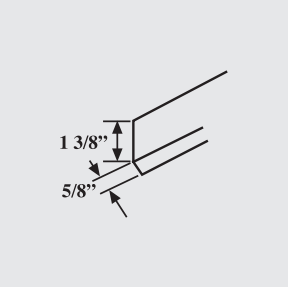
High Side Trim Details



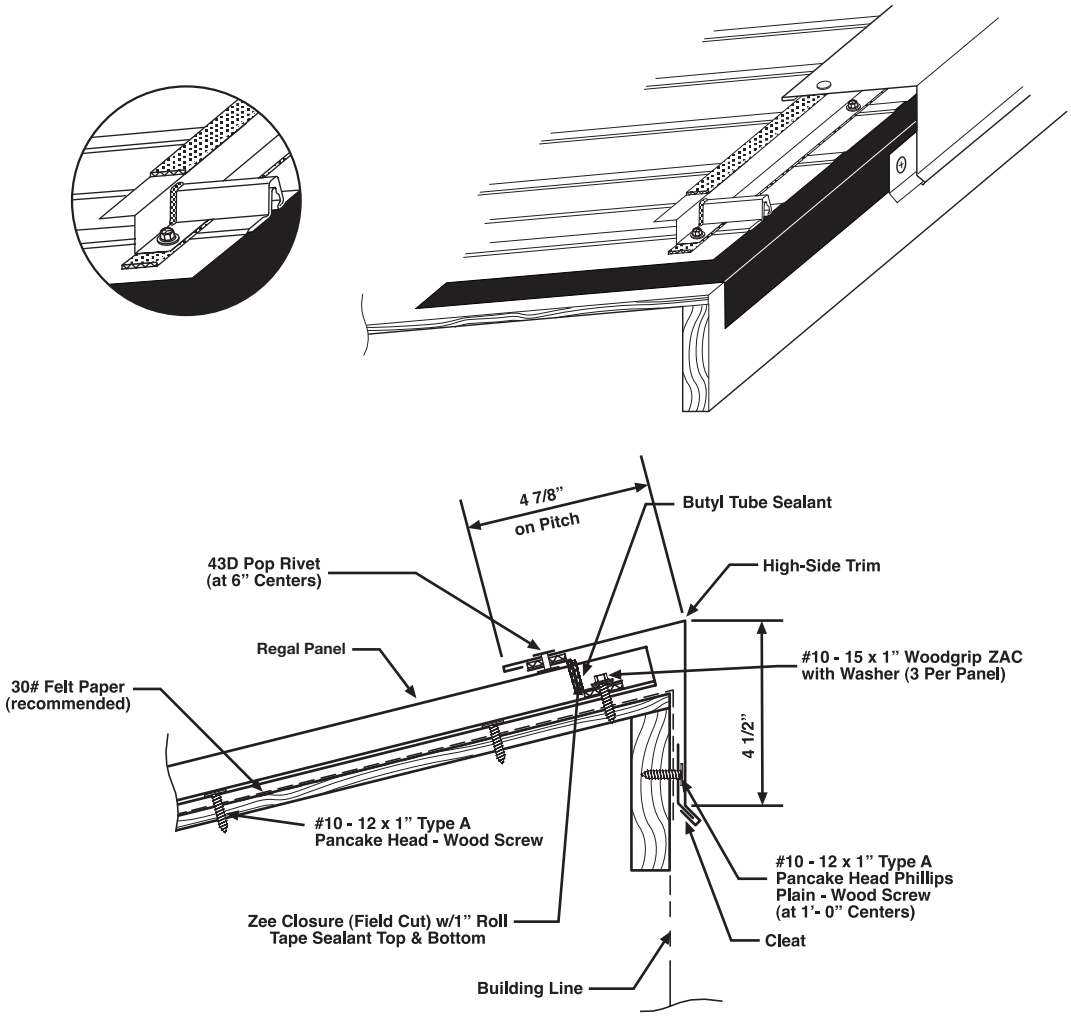
High Side Trim



Zee Closure

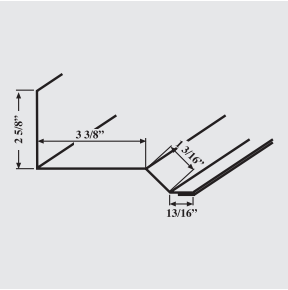


Cleat



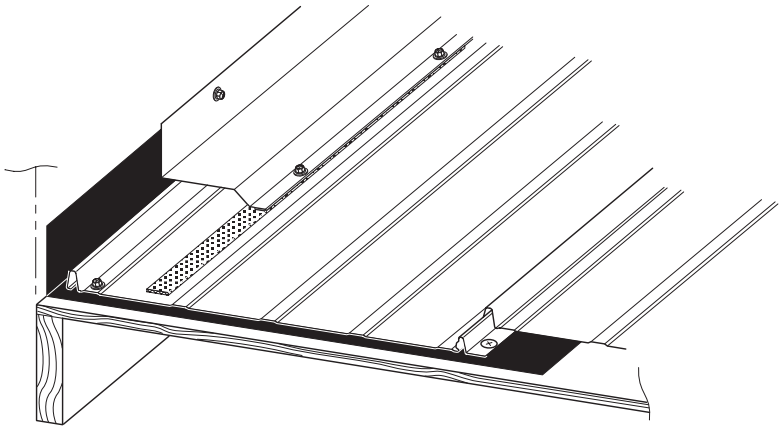
1. Panels should end parallel to the peak.
2. Attach cleat as shown with **#10 - 12 × 1"** Type A Pancake Head - Wood Screw.
3. Place tape sealant on panel parallel to the peak and attach the zee closure with three (3) **#10 - 15 x 1"** Woodgrip ZAC with Washer.
4. Place tape sealant on zee closure and seal panel seam with tube sealant.
5. Install high-side trim with pop-rivets.

Rake Tie-In Details

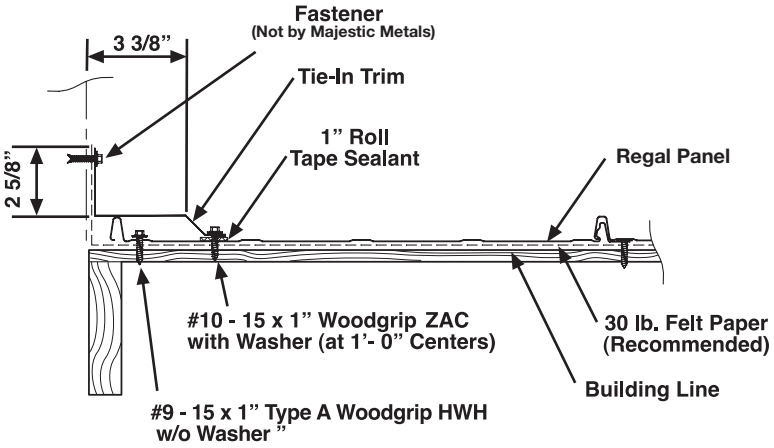


Rake Tie-In Trim

Exposed Fastened

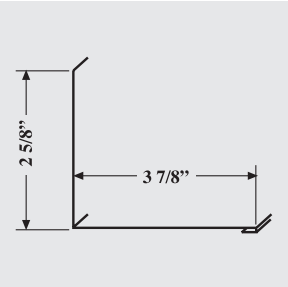


Counter flashing or wall panel
(Not by Majestic Metals)
Weather Seal as Required

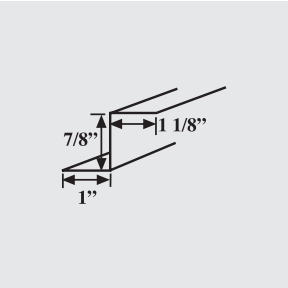


1. Place tape sealant along the rake tie-in trim's flange.
2. Install rake tie-in trim. Fasten using painted **#10 - 15 × 1"** Woodgrip ZAC with Washer at **12"** O.C.
3. Caulk and lap the rake tie-in trim at least **3"** hooking the hem.
4. Cut and fold the rake tie-in trim at the eave to seal the end. Use 43D pop rivets to fasten.
5. Rake tie-in trim details is the same as outlined in **#1-4.**

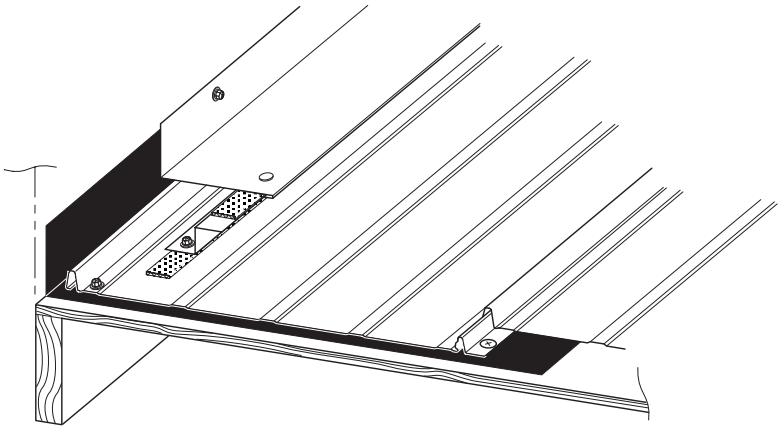
Rake Tie-In Details



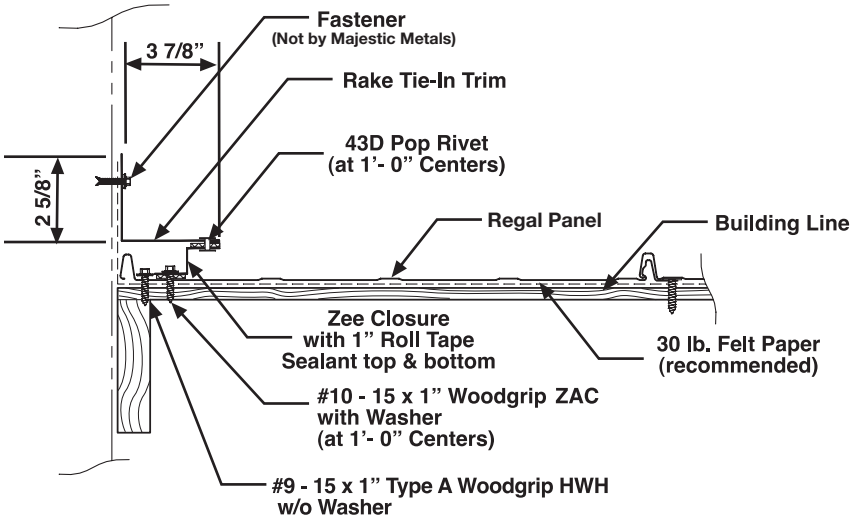
Rake Tie-In Trim



Zee Closure



Counter flashing or wall panel
(Not by Majestic Metals)
Weather Seal as Required



1. Place tape sealant on panel and attach the zee closure with **#10 - 15 × 1"** Woodgrip ZAC with Washer.
2. Place tape sealant on the zee closure, then install rake tie-in trim.
3. Caulk, lap and fasten the subsequent trims.

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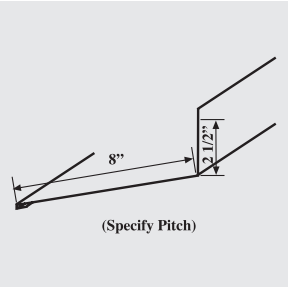
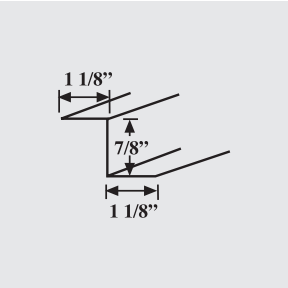
1-888-504-8200

High Side Tie-In Details

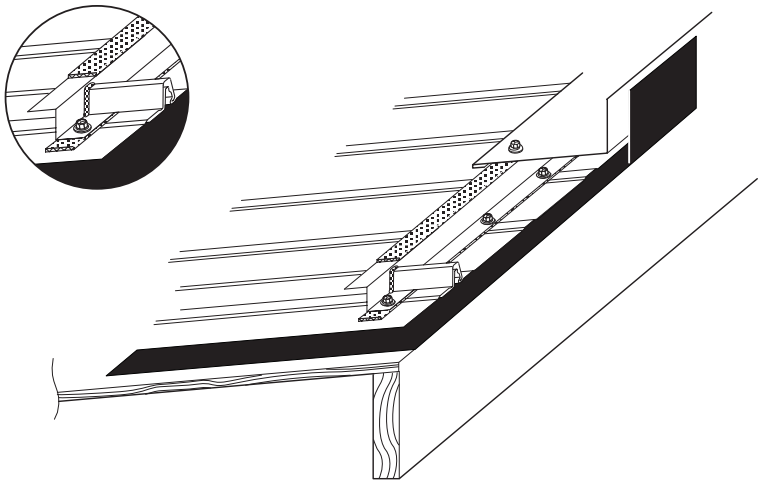


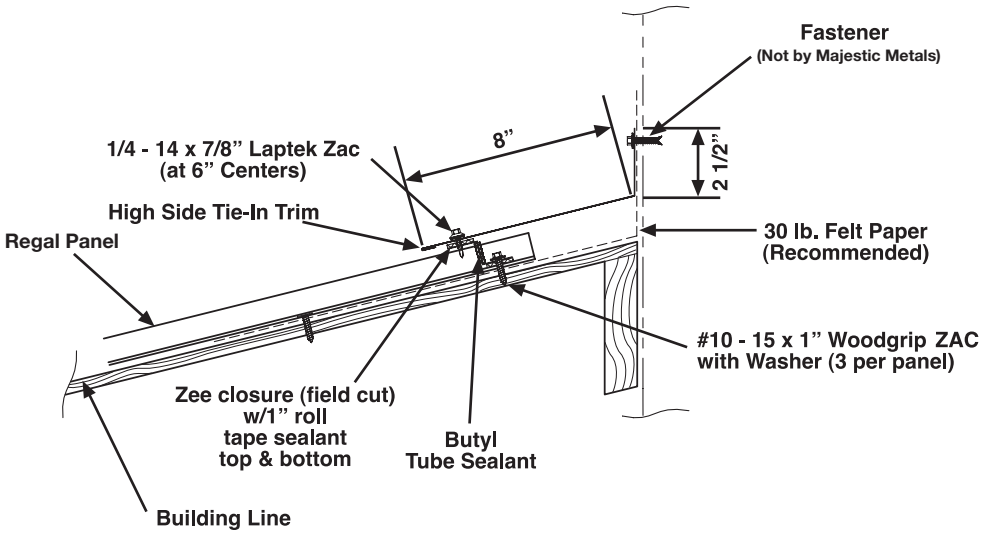
High Side Tie-In Trim



Zee Closure

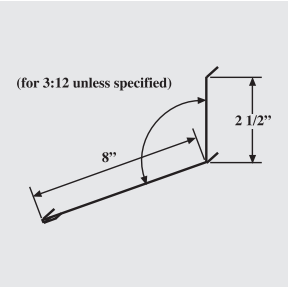
Exposed Fastened



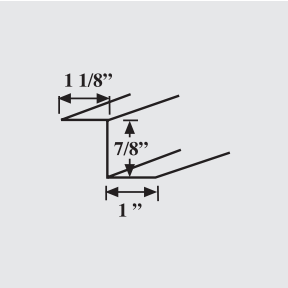


1. Panels should end parallel to the high-side.
2. Attach zee closure parallel to high-side.
3. Fasten high-side tie-in to the zee closure.
4. Caulk, lap and fasten the subsequent trims.

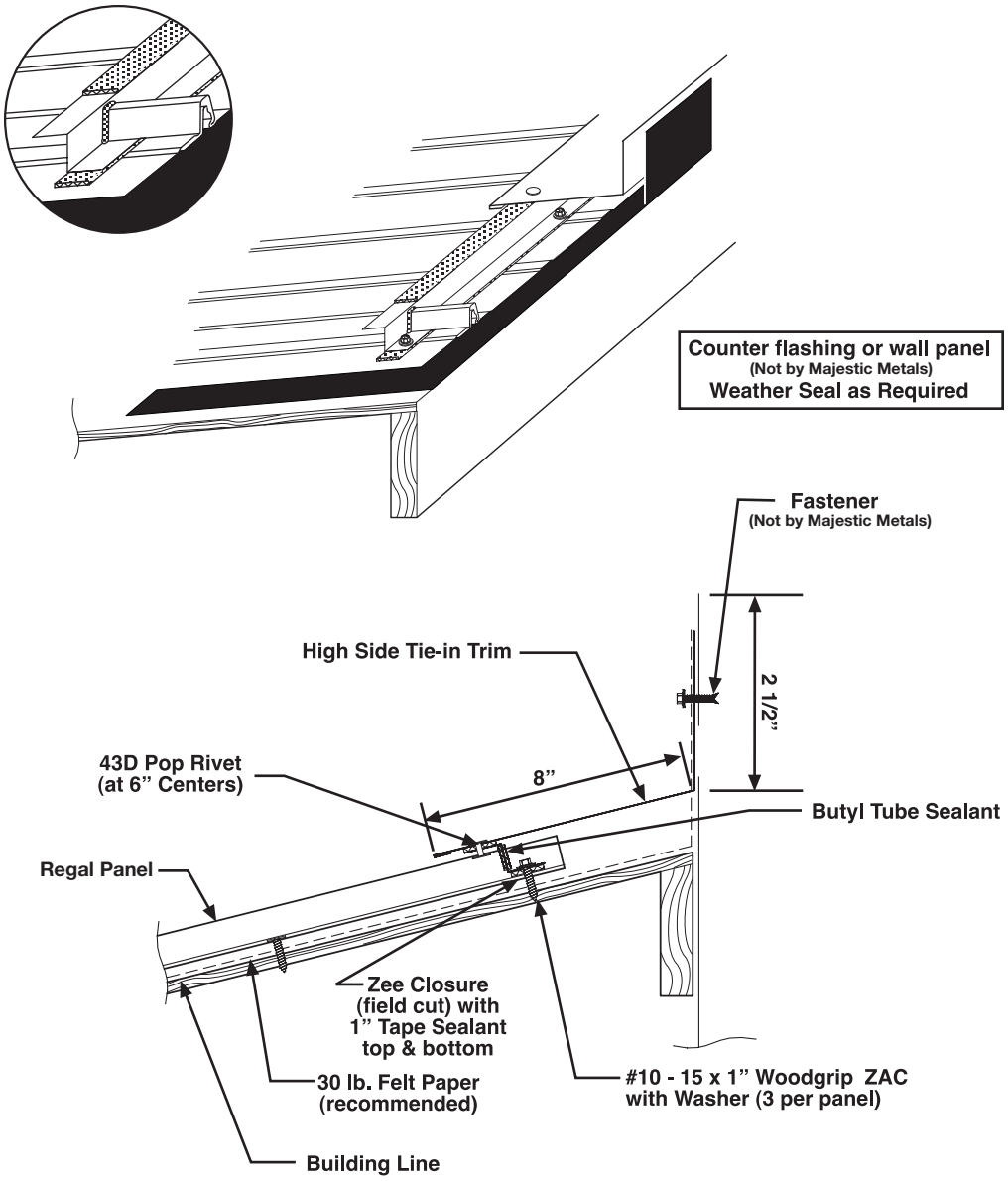
High Side Tie-In Details



High Side Tie-In Trim



Zee Closure



1. Attach the zee closure parallel to the high-side.
2. Fasten high-side tie-in trim to the zee closure.
3. Caulk, lap, and fasten the subsequent trim.

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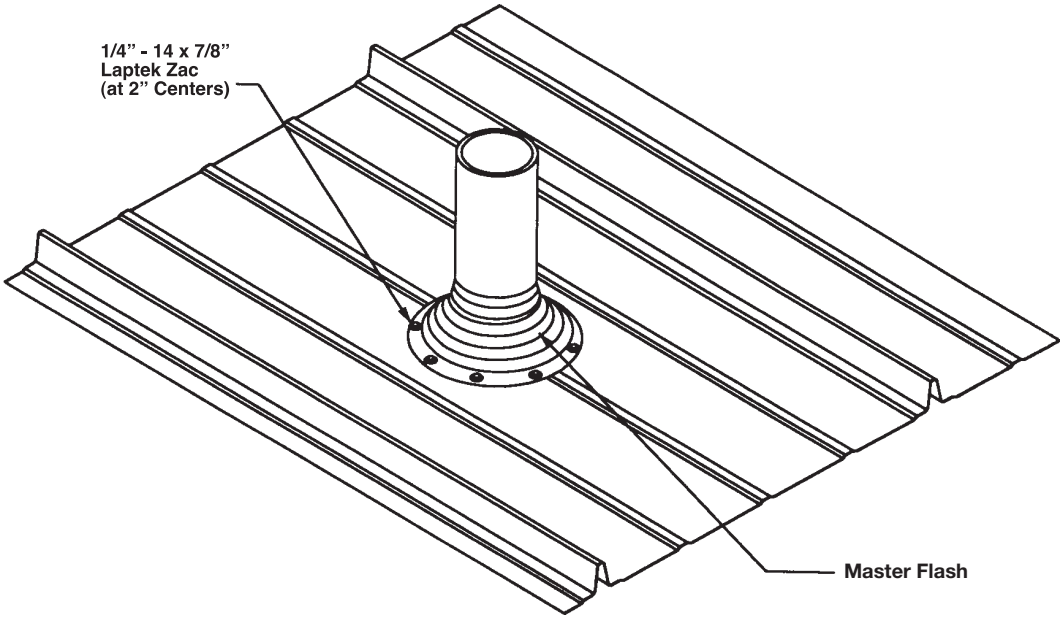
Vent Trim Details



1. Cut pliable Master Flash at the appropriate pipe diameter marking on sleeve.
2. Slide the Master Flash boot down over the pipe.
3. Seal between the base of the Master Flash and the roof of the building.
4. Adjust base to fit profile of the roof.
5. Fasten the Master Flash with **¼ - 14 × ⅞"** LAPTEK ZAC at 2" centers.