

Residential Trim

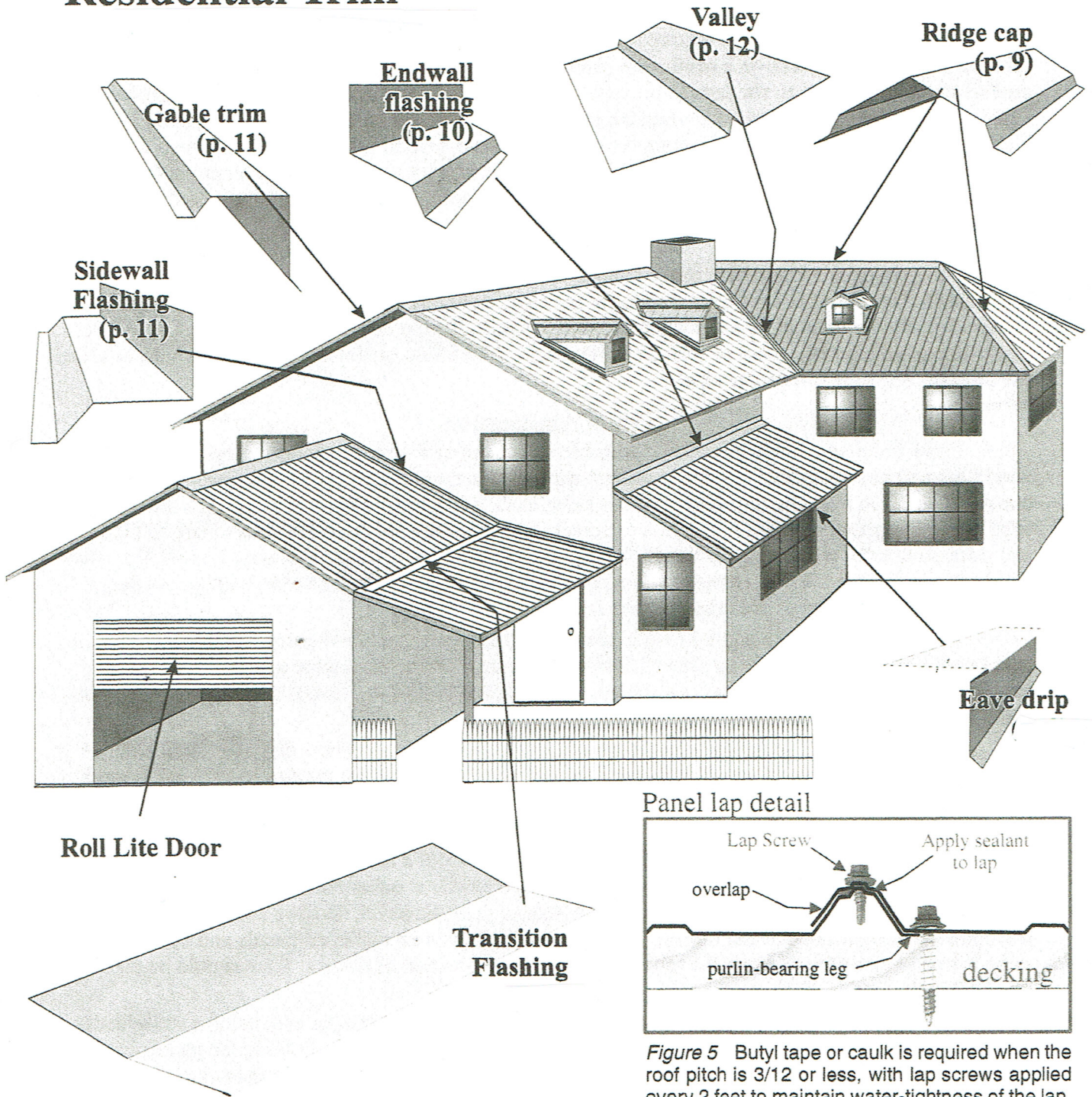


Figure 4 Roofing trims and flashings are named by the location or function of that particular piece on the building.

Figure 5 Butyl tape or caulk is required when the roof pitch is $3/12$ or less, with lap screws applied every 2 feet to maintain water-tightness of the lap. On pitches greater than $3/12$, lap screws and butyl tape are optional.

Ridge Cap

The Ridge Cap is used to seal the point at which two upward slopes meet. This can be both along the ridge of the roof as well as a covering for a hip. Either woodgrip or self-drilling lap TEK screws are applied through the ribs of the metal.

Since debris, insects, and blowing rain can find easy access under the ridge cap, closures are required to either completely or partially seal the opening. Closures under ridge caps come in 3 types: solid, vented, and hip tape.

Solid closures ("Outside Closures") are the same width as the panels. They lock together in a row placed directly under the screws that attach the ridge cap, and form a solid, water-tight, air-tight barrier.

Profile Vent[®] comes in 50 foot rolls, is 3 inches wide, and forms a water-retardant, insect resistant barrier that allows hot air to escape from the attic, and is superior to many more elaborate and expensive vent systems. Any length may be ordered.

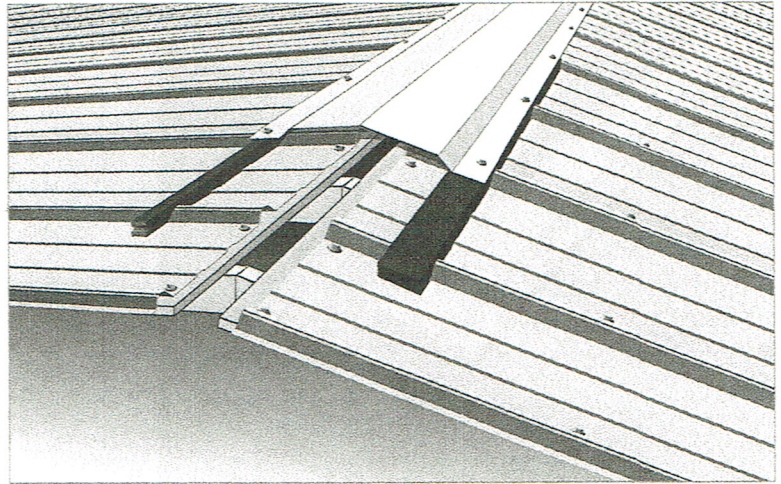


Figure 9 Ridge cap showing outside closure (left) and profile vent (right).

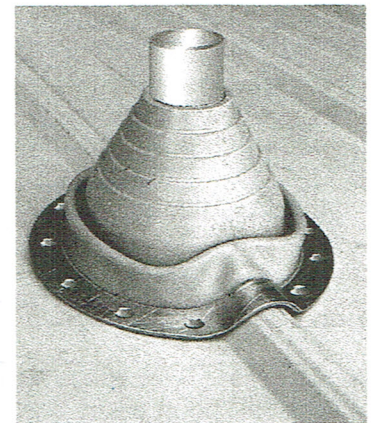
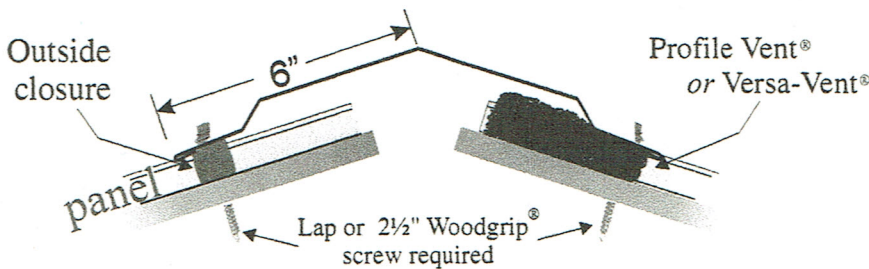
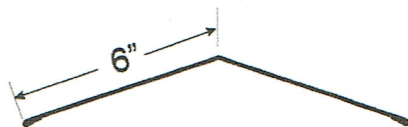


Figure 10 Pipe Boots provide a water-tight seal around roof vents and come in a variety of sizes. They seal with caulk and conform to the shape of the panel ribs.



12-inch Ridge Caps

are strong, economical and adequate for most of your roofing needs

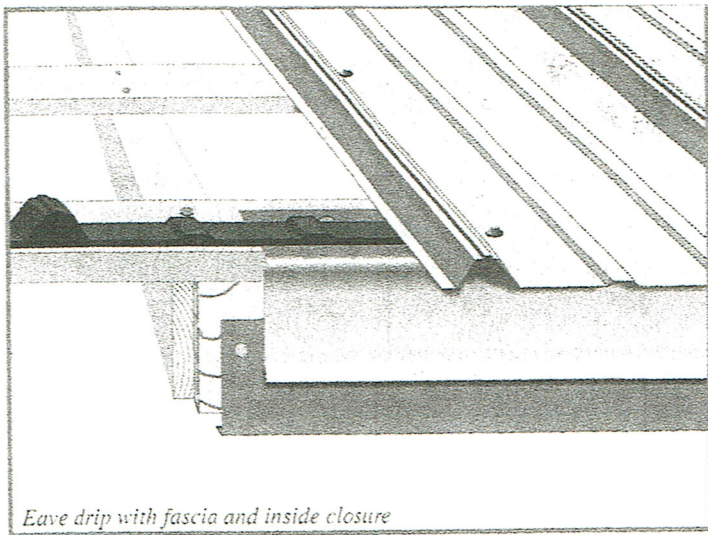


style 12-inch Ridge Caps
are also available in custom widths



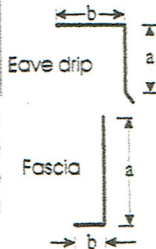
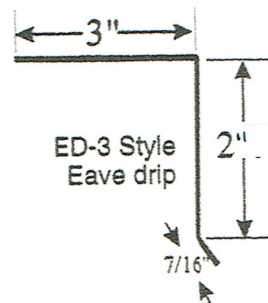
style over-sized ridge caps
are available with 18-inch coverage, or as a *custom trim item* in *total widths* (2 times "a") of 14-, 16-, 18-, 20-, 22-, and 24-inch

Eave & Fascia



Eave drip with fascia and inside closure

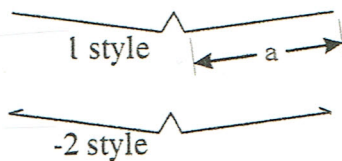
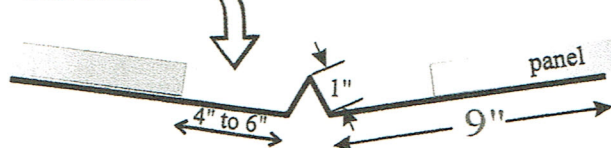
Figure 8 Eave drip and fascia give a finished look along the drip eave of the house, as well as providing protection for the materials they cover. The eave drip should completely cover the top edge of the fascia. Inside closures, which seal off the open ribs of the panels, are optional.



For custom eave drip, specify the amount of the eave that will be covered (dimension "a"), and, for steeper roofs, specify pitch. If fascia is desired, be sure that the dimension you order will be hidden by the eave drip.

Preformed Valley

Install panels 4 to 6" from diverter



Two basic styles of valley are available. For custom valleys, specify dimension "a"

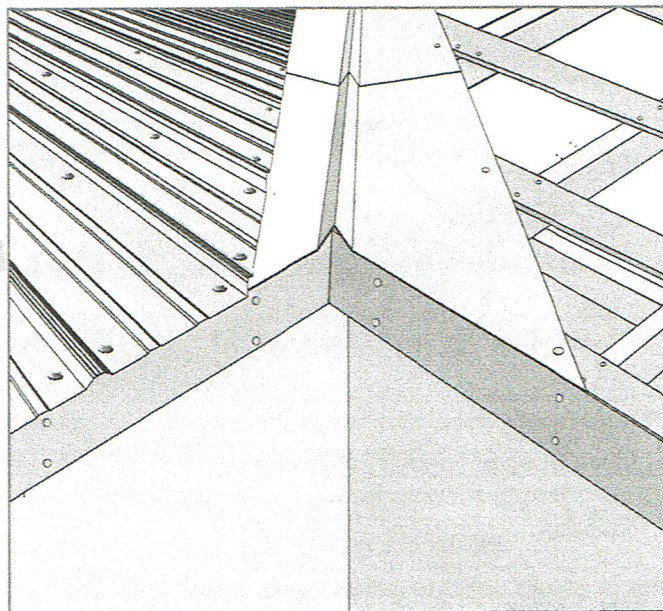
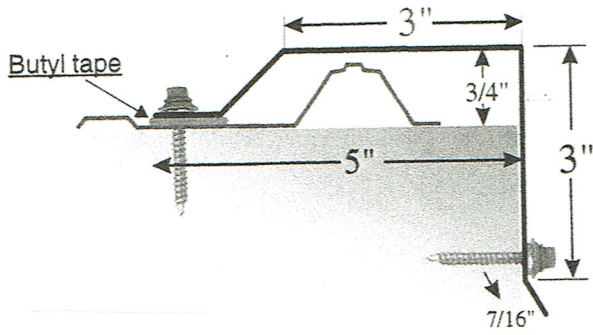


Figure 15 Pre-formed valleys use a diverter to prevent water from rushing under panels on the opposite side, while channeling water off the roof. Expanding foam closures are often used to assure a good seal.

Gable Flashing



Custom trim—specify a custom length for a or b .

Standard dimensions — $a = 3"$
 $b = 3"$

GR-1 style

Custom trim—specify a custom length for a or b .

Standard dimensions — $a = 2\frac{3}{8}"$
 $b = 2\frac{3}{8}"$

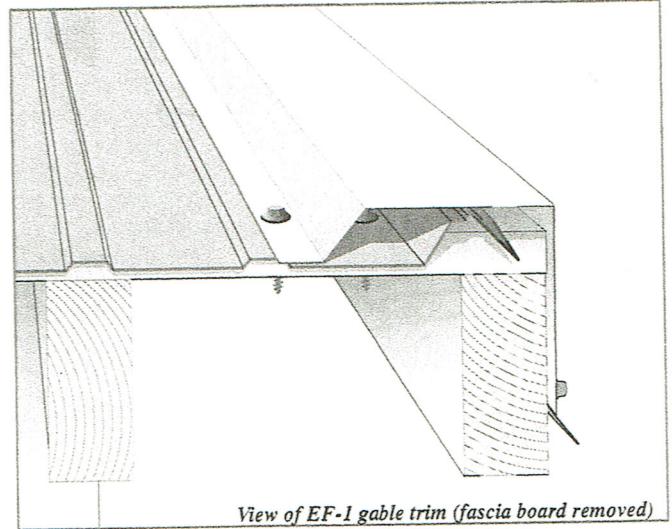
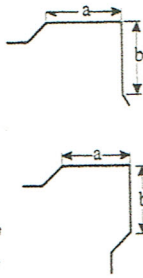


Figure 13 Gable flashing is used to trim the edge of the roofing panel at the gable end of the roof. It should match the eave drip that extends along the drip edge of the roof. If the panel is allowed to hang over the gable end, eave drip can be used instead. Butyl tape between the trim and panel eliminates leaks.

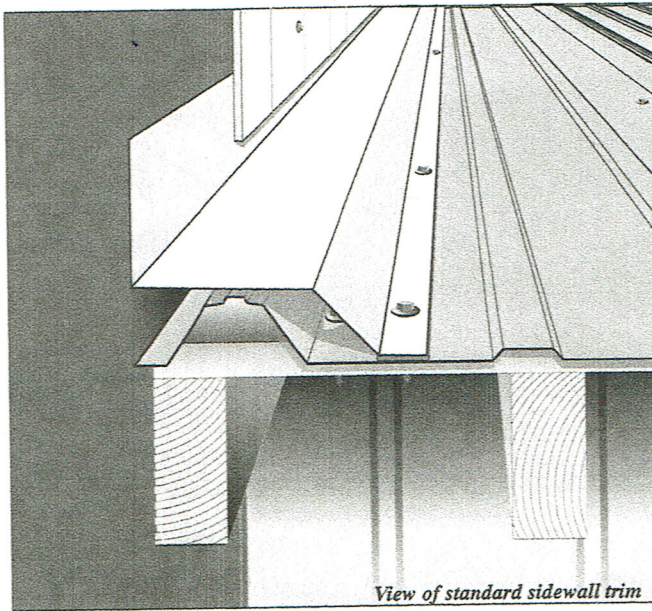
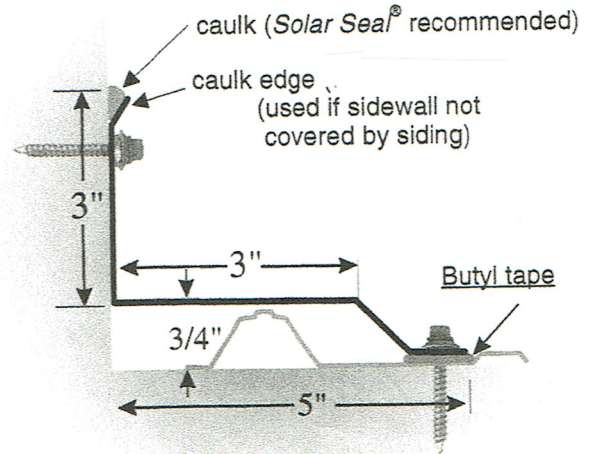


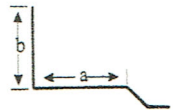
Figure 14 Sidewall flashing is applied when the side of the roof butts up against an adjacent wall. The wall-side of the flashing can either be covered over with siding or sealed with caulk (order SW-1C). Butyl tape should be applied where the "foot" of the flashing attaches to the roof.

Side-wall Flashing



Custom trim—specify a custom length for a or b .

Standard dimensions — $a = 3"$
 $b = 3"$



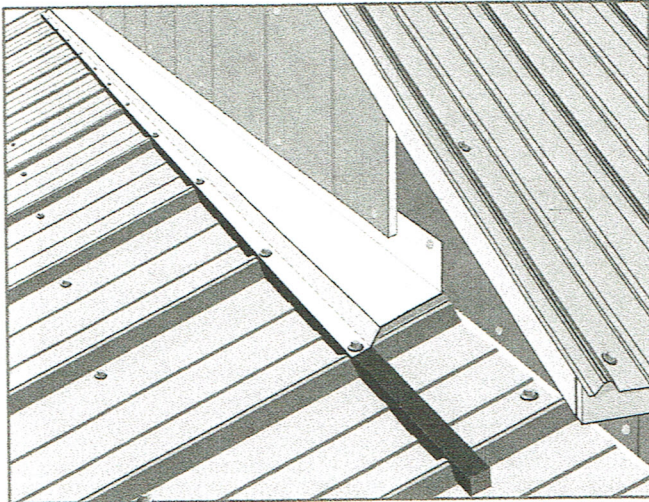
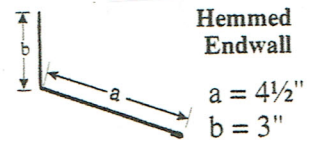
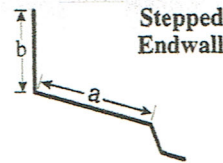
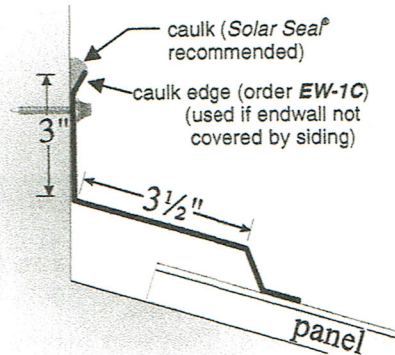


Figure 11 As with the ridge cap, the ENDWALL FLASHING above is sealed using outside closures.

Use hemmed endwall when cornering endwalls with sidewall flashing, such as with dormers or chimneys. For custom end-walls, specify roof pitch and dimensions "a" and "b".

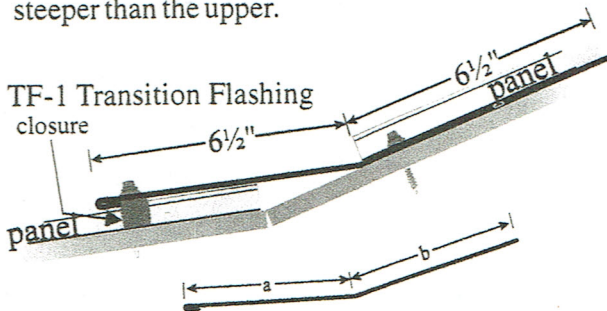
End-wall Flashing

End-wall flashing is applied where the upward slope of a roof meets a wall. The wall side of the flashing can be covered with siding or counter-flashing, and outside closures are necessary to seal between the flashing and the panel. Roof slope should be mentioned if roof exceeds 5/12 pitch.



Transition Flashing

The TRANSITION FLASHING prevents leakage at the point where two different roof pitches meet. It must be sealed on the lower side with outside closures, and can be sealed underneath the upper panels with inside closures. The similar GAMBREL FLASHING is used where the lower pitch is steeper than the upper.



For custom transition flashing specify the pitches of the two roof slopes and, if necessary, dimensions "a" and "b".

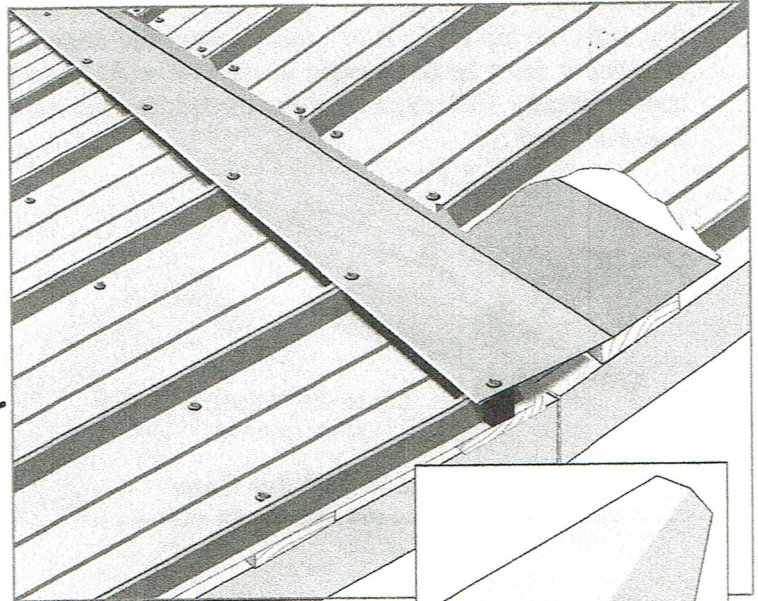


Figure 12 The transition flashing (above) and the GF-1 gambrel flashing (right) provide a continuous drainage where two slopes meet. Both seal with outside closures on the lower side.

Fastening Schedule for Various Wind Speeds – minimum 2:12 roof pitch

Roof Zone	Fastener Type	Fastener Size	Attaching to:	Wind Speed Zone			
				110 MPH	120 MPH	130 MPH	140 MPH
Zone 1	Woodgrip® or WoodZac®	#9-15 x 1½	min. 15/32 plywood	24" Type 1	24" Type 1	24" Type 1	24" Type 1
Zone 2	Woodgrip® or WoodZac®	#9-15 x 1½	min. 15/32 plywood	24" Type 1	24" Type 1	24" Type 1	12"* Type 2
Zone 3	Woodgrip® or WoodZac®	#9-15 x 1½	min. 15/32 plywood	12"* Type 2	12"* Type 2	12"* Type 2	12"* Type 2

*for 1x4 purlins, all spacing is 24"

Fastener pattern



Fastener pattern

Fastener patterns Type 1 and Type 2 are shown at left, row spacings are shown in the table above, and roof zones are displayed on left below. Figure 7 shows a simple illustration of the patterns. Note that fastener pattern Type 2 is required at top, bottom, and end laps of each panel, as well as in additional areas according to which roof zone the fasteners fall in.

Each "zone" of the roof has its own screw requirements. Dimension *a* is defined as 10% of the minimum width of the building, or 40% of the mean height of the roof, whichever is smaller; however, *a* cannot be less than either 4% of the minimum width of the building, or 3 feet.

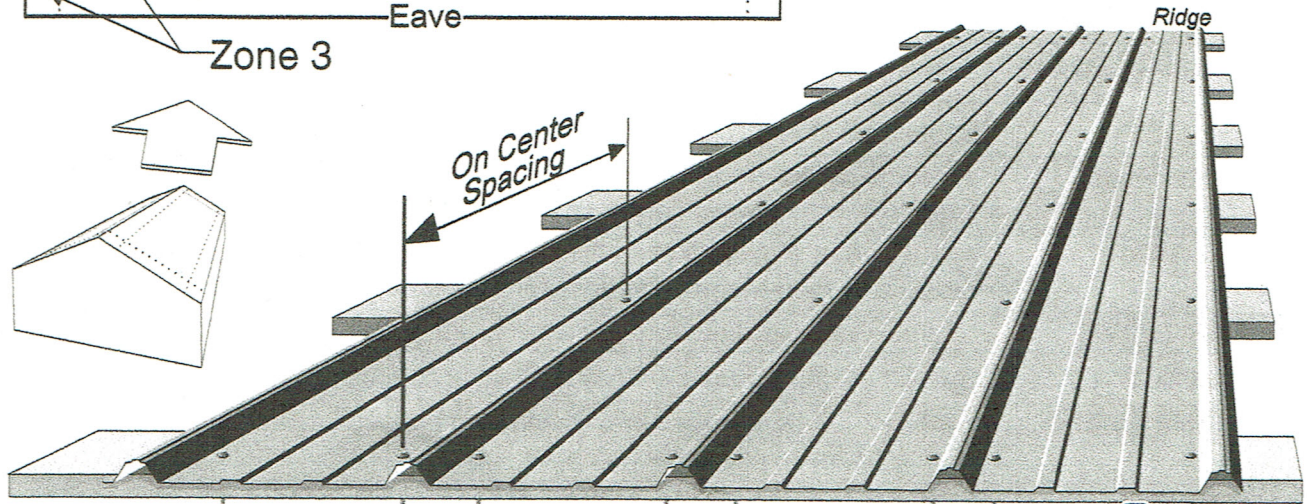
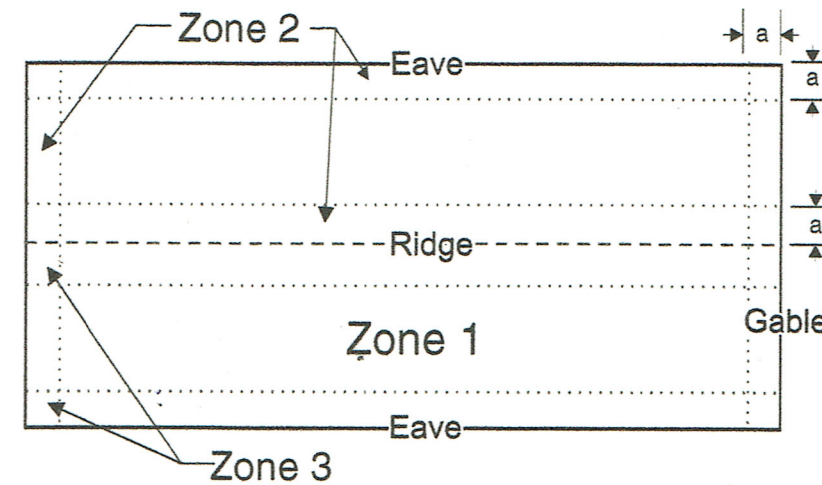


Figure 7 Screws should be placed on both sides of the ribs at both eave and ridge, and on the overlap side of any panel laps.

Ordering Roof Panels and Screws

Care should be taken to order panels of the correct length to avoid having to make corrective measures after purchase. Panel lengths should fall 2 to 3 inches short of the ridge *when a vented ridge is desired*, and should extend 2 to 3 inches past the eave to allow a sufficient drip edge (except as noted on pg. 3 concerning gutters). When a roof transition is involved, panels of the upper portion should be ordered short to allow placement of the transition flashing (see diagram)

Specially-washed screws applied through the flat of the metal is the most recommended method used to attach roofing panels. 1-inch screws can be used if penetration of only $\frac{3}{4}$ inch is either necessary or desired; otherwise, $1\frac{1}{2}$ inch screws are usually recommended. $2\frac{1}{2}$ inch screws are also available, and are often used by those who adhere to through-the-rib fastening, and for ridge-cap application. See pages 6 and 7 for more information on screw spacing and ordering.

Ordering and Applying Trim

The most common flashing for metal roofing is the *ridge cap*, which is used at the peak of a roof where two opposing roof slopes join. Other flashings include *transition flashing*, *end wall* and *sidewall flashings*, and *valleys* (see diagram on right for application). Eave trims include *gable flashing* and *eave drip*, either of which are often applied above *fascia* trim. When roof pitch exceeds 5/12 (a 5 inch rise in 12 inches), the slope of the roof should be mentioned when ordering ridge caps, endwalls, and eave drip. When a steeper roof slope meets a lesser slope, both slopes should be mentioned when ordering transition flashing.

At the gable edge the use of gable trim adds to the appearance of the structure and protects the fly-rafter, and sidewall flashing is used where the *side* of a panel butts up against an adjacent wall. In either case, the installer should be careful to seal between the gable rake or sidewall and panel with butyl sealant tape, and to fasten the rake every 6" to 12" up the slope of the roof with the appropriate screws. If eave drip is used on the gable, the number of 90 degree eave drip should be specified separately from that used on the drip edge when ordering.

To prevent penetration of water, insects, and debris at the ridge, outside closures should be inserted between the ridge cap and the top end of the panel. Screws are applied through the ridge cap, closure, and rib in at least every other rib of the panels. At least a $1\frac{1}{2}$ " (or preferably $2\frac{1}{2}$ ") screw should be used for attaching ridge caps. Self-drilling lap screws can also be used to attach ridge caps.

Keep Materials Dry!

Neither paint, galvanized, or Galvalume finishes, are designed to be in continuous contact with water for long periods of time. ***Damage will result if uninstalled panels or trim are allowed to remain wet in storage.*** Be sure to store material that will not be installed immediately in a dry location. Wet material should be air-dried and re-stacked if installation is not planned right away.