

# Select Panel Installation Guide



**Qualiform**  
METALS, LLC  
ENGINEERED TO EXCEED

## Important Information

The drawings and depictions in this manual are strictly for illustration purposes and might not be applicable to all building designs or product installations. All products should conform to applicable building codes for the specific area of installation. It is recommended to follow all building regulations and standard industry practices.

Qualiform Metals LLC is not to be responsible for the performance of the roof system if it is not installed in compliance with the suggested instructions referenced in this installation manual. If there is any conflict between this manual and the actual erection drawings, the erection drawings are to take precedence.

Qualiform Metals LLC reserves the right to modify, without notice, any details, recommendations or suggestions. Any questions you may have regarding proper installation of the roofing system should be directed to your Qualiform Sales Representative.

Prior to placing any orders, in field measurements must be taken to verify actual measurements.

This installation manual is designed to be utilized as a guide when installing specified metal panels. It is the responsibility of the laborer to ensure the safe installation of this product system.

## **SAFETY**

**Always use extreme caution when installing all metal panel.**

The installation of metal roofing and siding should be supervised by trained and knowledgeable professionals. Do not use the roofing panels as a walking platform as the roof panels might not withstand the weight of the person standing on the edge of a panel. Never stand on the panel before it is completely attached and remember that the roofing panels can be extremely slippery under the right conditions.

## Care and Maintenance

Although the factory applied finishes are both durable and will last many years, it may become desirable to eventually clean or repaint them.

In some cases dirt pickup may cause slight discoloration of the paint when it has been exposed in some dirt laded atmospheres for extended periods of time. Some chalking may become evident in areas of extreme sunlight. A light cleaning is often all that is necessary, but in most cases a good cleaning with the proper products will restore the panels to the original appearance.

In many cases, simply spraying the panels with plain water using a water hose or a pressure washer will be adequate. In areas of heavy dirt deposits, a cloth or soft bristle brush and a solution of water and detergent (1/2 cup of Tide or similar laundry detergent per gallon of water) may be used, then followed by a thorough rinse of clean water. Do NOT use wire brush, abrasives, or cleaning tools which abrade the coating surface.

Strong solvents and abrasive type cleaners should not be used. Most solvents are flammable and should be handled with care.

Mildew may occur in areas with high humidity but is not normally a problem due to the inherent mildew resistance of the baked finish that is used.

1 cup trisodium phosphate  
1-1/2 quart of sodium hypochlorite solution  
1 cup laundry detergent  
4 quarts clean water

Mix together in a large bucket and apply to the needed area with a mop or soft bristled brush. Rinse thoroughly after applying and repeat as necessary.

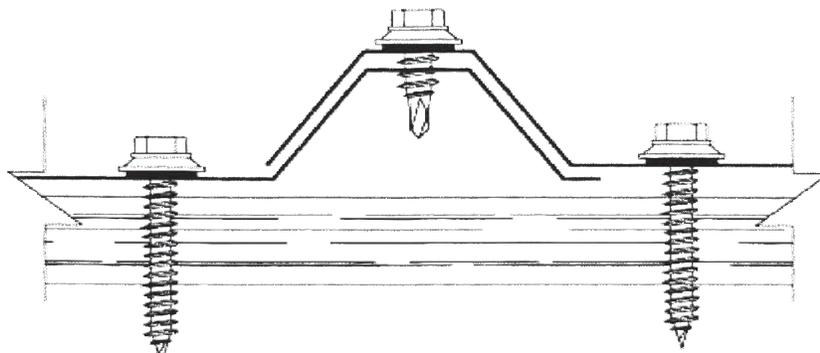
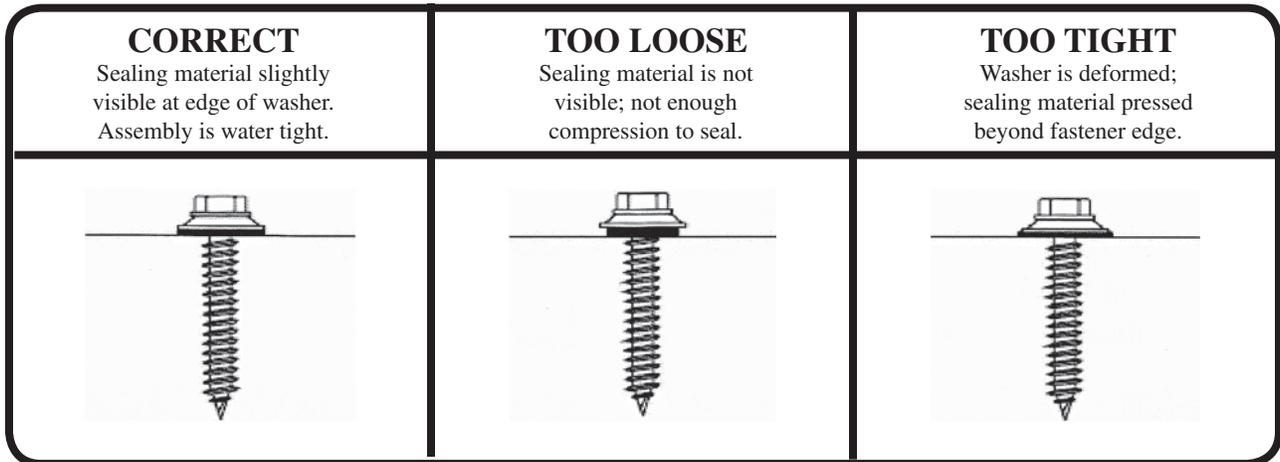
# Fastening Applications

## Screws:

If screws are used as the fastener, it is recommended to use a plated or painted screw, Type A or driller tip with a flat rubber washer. Using a screw gun with the appropriate speed and torque will help prevent possible strip out and damage to the panel. Typically 80 screws are used per square for 3' Select Panel.

## Nails:

If nails are used as a fastener, it is recommended to use a nail with a painted head or a galvanized steel ring shank nail with a flat neoprene washer. Nails should penetrate wood support at least a 1/2" but should not protrude completely through the wooden support. Nails can not be driven too tight as this causes the metal to dimple and becomes a potential leaking spot. An estimated 1 to 1-1/2 lbs. of nails should be used for every square of metal.



## Handling Material

Each metal order is delivered encased in cardboard and shrink wrap.

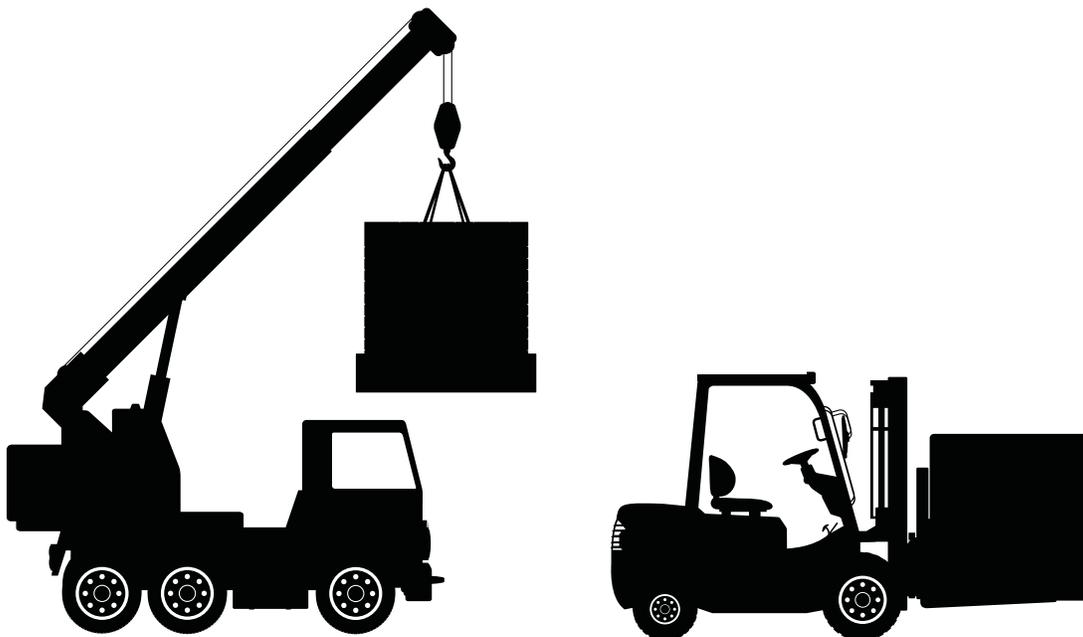
It is the responsibility of the installer to unload material from the delivery truck. The installer shall be responsible for providing the adequate equipment to unload the truck.

The installer should always check each load with the driver present to check for damages that may have occurred while the metal has been delivered or unloaded. In the event of a damaged piece of metal or property, the installer should contact Qualiform Metals as soon as possible.

## Mechanical Unloading

**Forklift:** A forklift can be used in most cases to unload crates from the truck if panels do not exceed 24' in length, make sure forks are at the maximum separation, and any rough terrain should be avoided.

**Crane:** A crane should be used when lifting crates greater than 24'. Spreader bars must be used to evenly distribute the weight of the bundle. Never let more than 1/4 of the crate be lifted without support. Always use a soft rope or strap and never unload any crates using chains.



## Handling Material

When handling painted metal panels, care should be taken to not drop, scratch, or drag panels across another panel, ground or any rough surface. Clean gloves should be worn whenever handling or cutting metal panels or trim. Soft rubber soled shoes should be worn to ensure proper grip and keep the panels from scuffing while walking on roof.

Always carry panels by grasping the edge of the panels so the panels are held vertical to the ground, the panels should never be carried horizontally to the ground, this keeps the panel from buckling in the center.

Most panels can be handled by a single individual up to 8' pieces, longer pieces require additional people placed every eight to ten feet along the length.

Care must be taken when handling panels on windy days, especially when winds exceed 10 mph, as panels become much harder to install, due to kite effect of the panel. Always have trained professionals to oversee any job conditions that might become a working hazard.

## **Field Cutting And Touch Up**

Tin snips or electric nibblers are the tools that are recommended for cutting the metal in the field. Cutting the steel causes “slivers” or small metal particles to collect on the edge of the metal panel, these must be removed immediately as they will cause damage to the finish and shorten the life of the product.

When cutting metal panels, safety glasses must be worn at all times.

## **Touching Up Panels With Paint**

The painted panels and trim components have a factory baked on finish applied, some handling and installing of these product may result in minor nicks or scratches to the painted finish. Touch up paint is available in matching paint colors from Qualiform Metals. Touch up paint should be applied with a small brush, and a few coats may be needed in some situations.

NEVER use Aerosol paint cans to touch up metal panels because of the over spray that occurs.

## **Ventilation**

The proper use of vapor barriers and vented closures are essential to prevent condensation to occur on the bottom inside of the roof. Condensation occurs when moisture laden air comes in contact with a surface that has a temperature equal or below the dew point of the air. This causes many problems, not exclusively to the metal building industry, but all types of construction.

Because Qualiform Metals carries many different kinds of vapor barriers, it is recommended that you discuss the proper product to use with a Qualiform Metals Representative.

## **Design Considerations**

Qualiform Metals has designed their metal panels to be installed over open framing or directly over a wood/chipboard substrate, minimum 5/8th with 30# or equal UDL moisture barrier. In some instances, an ice guard may be required (check your Local Building Codes).

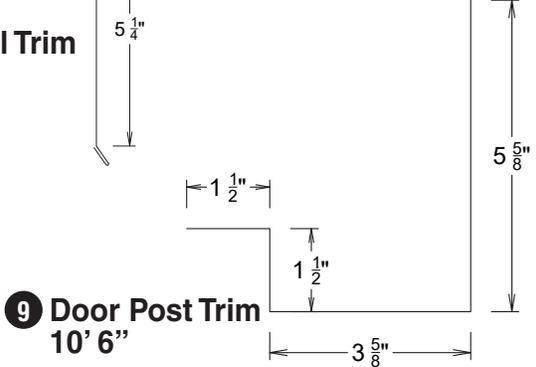
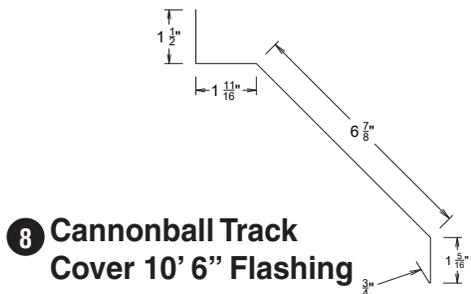
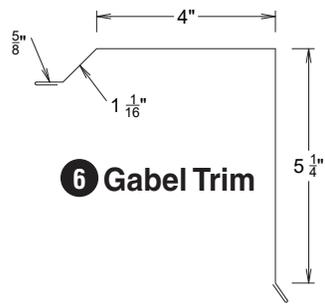
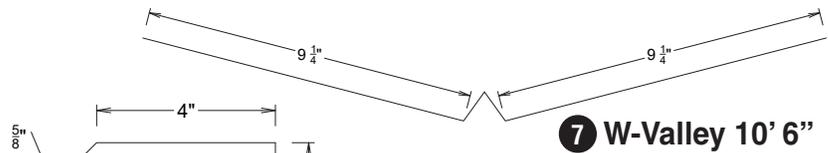
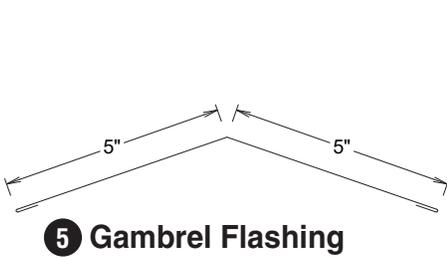
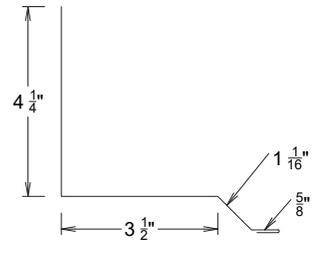
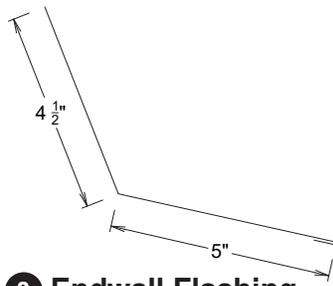
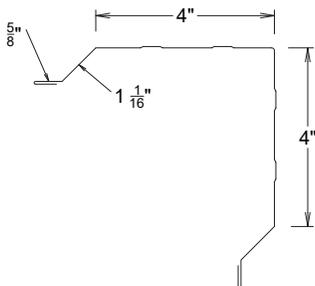
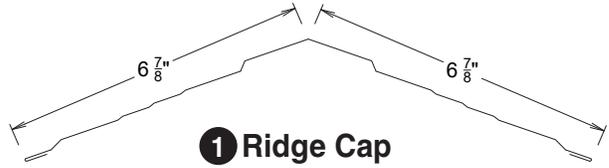
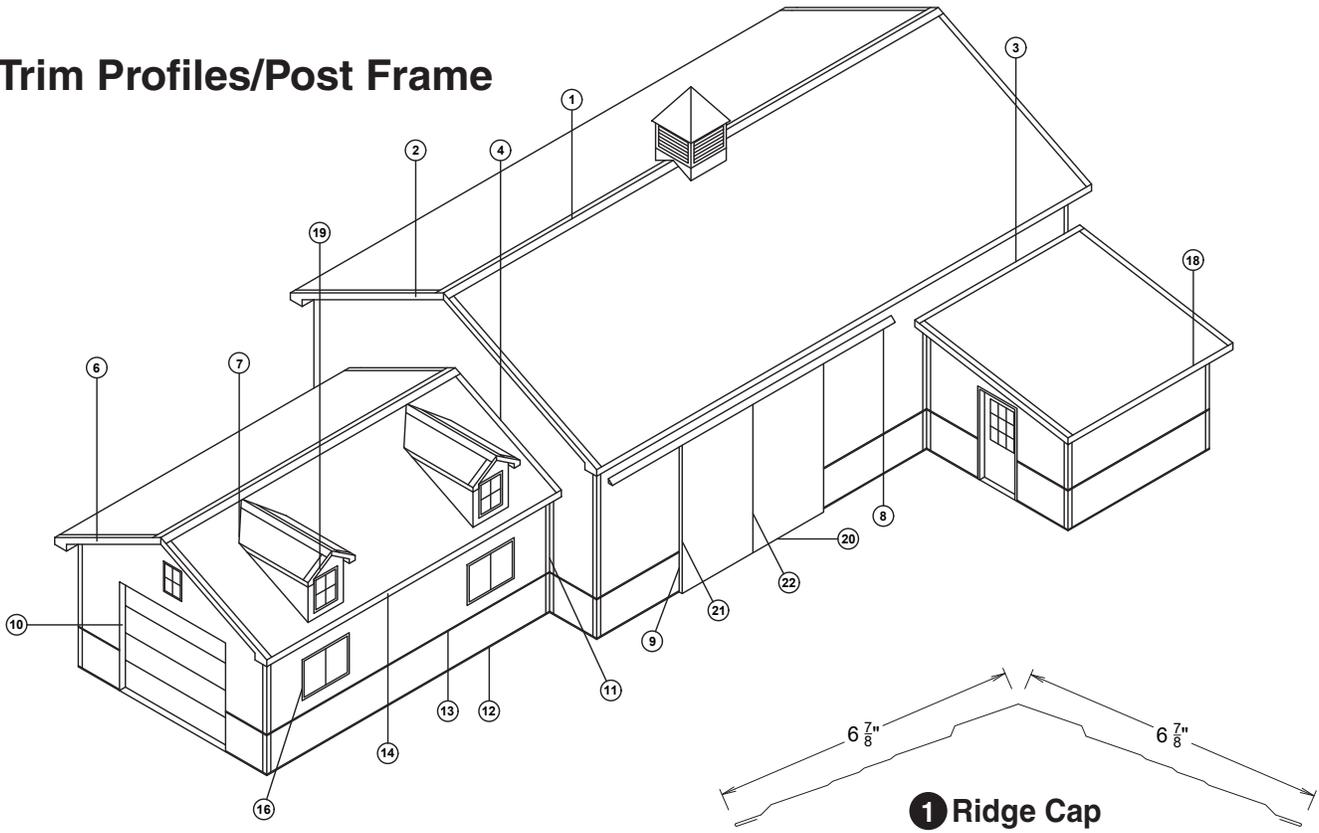
Always check with an Engineer/Local Building Codes, prior to installation for any additional codes that apply to the area of installation.

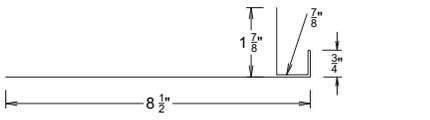
Galvalume panels should never come into contact with any water runoff from copper, lead, or uncoated steel materials.

In case of an existing wooden substrate, always have a authorized contractor inspect the roof for any inferior details such as rot, sagging, or possible structural failure. Prior to installation make sure all nails, staples or protruding hardware are removed from existing roof.

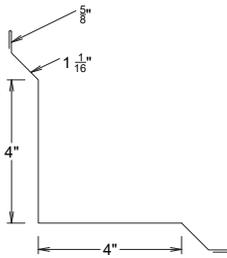
Whether installing a new or existing roof, the installer should check the roof deck for squareness before installing any metal panels.

# Trim Profiles/Post Frame

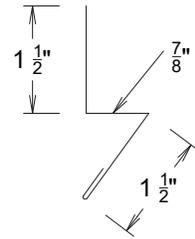




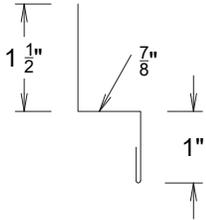
**10 Overhead Door Trim 10' 6"**



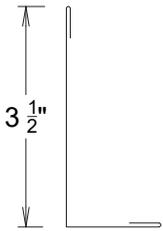
**11 Inside Corner 10' 6"**



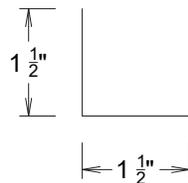
**12 Ratguard 10' 6"**



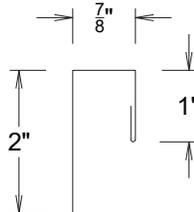
**13 Double Angle 10' 6"**



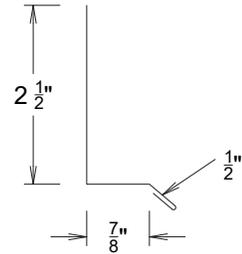
**14 Fascia Trim 10' 6"**



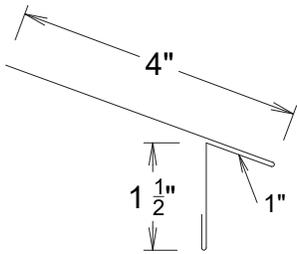
**15 Mini Angle 10' 6"**



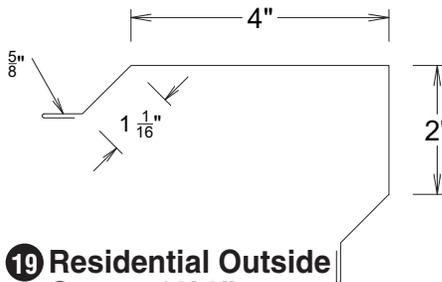
**16 J Channel 10' 6"**



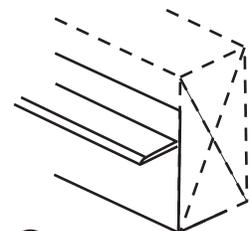
**17 Drip Flashing 10' 6"**



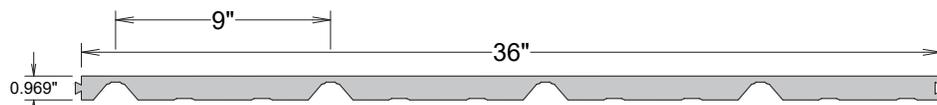
**18 Eave Dripedge 10' 6"**



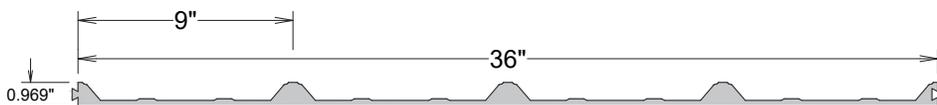
**19 Residential Outside Corner 10' 6"**



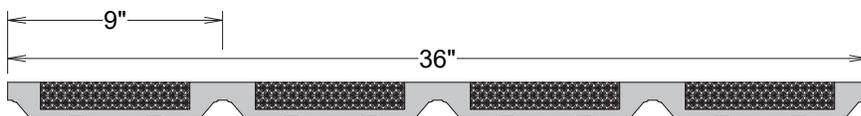
**20 2201 Bottom Rail**



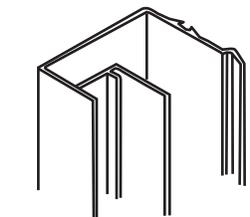
**23 Outside Filler**



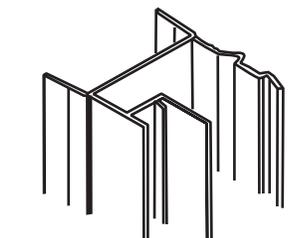
**24 Inside Filler**



**25 L-P Vented Filler**



**21 2200 Side Rail**



**22 2216 H-Rail**

# Fastener Selection

## Woodbinder



### Size

1"  
1-1/2"  
2"  
2-1/2"  
3"

### Finish

Bare/Painted

### Application

Metal to Wood

## Tek Screw



### Size

7/8" Stitch  
1-1/4" Tek

### Finish

Bare/Painted

### Application

Metal to Metal

## Aluminum Rivet



### Size

1/8" Diameter

### Finish

Painted

### Application

Standing Seam

## Panhead Screw



### Size

1"  
1-1/2"

### Finish

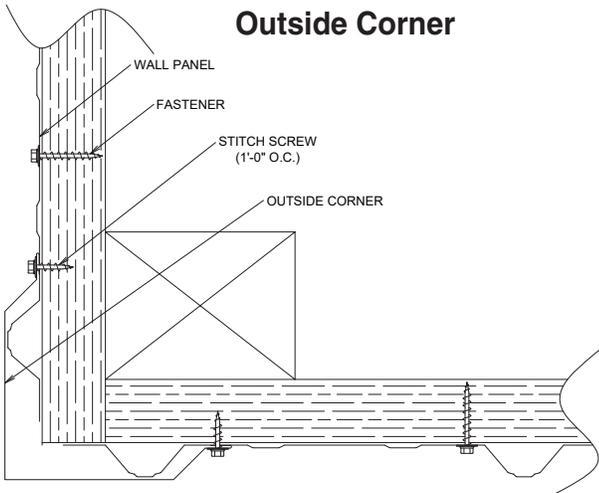
Bare/No Finish

### Application

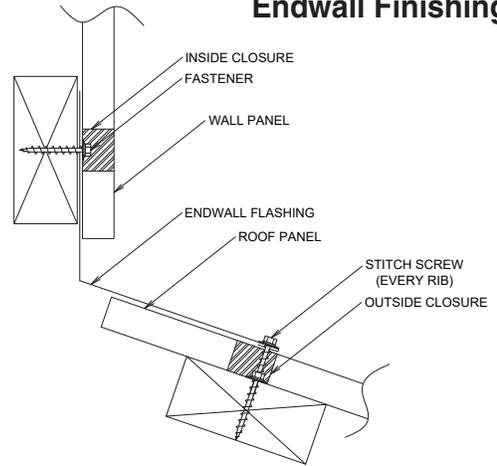
Standing Seam

# Trim Detail

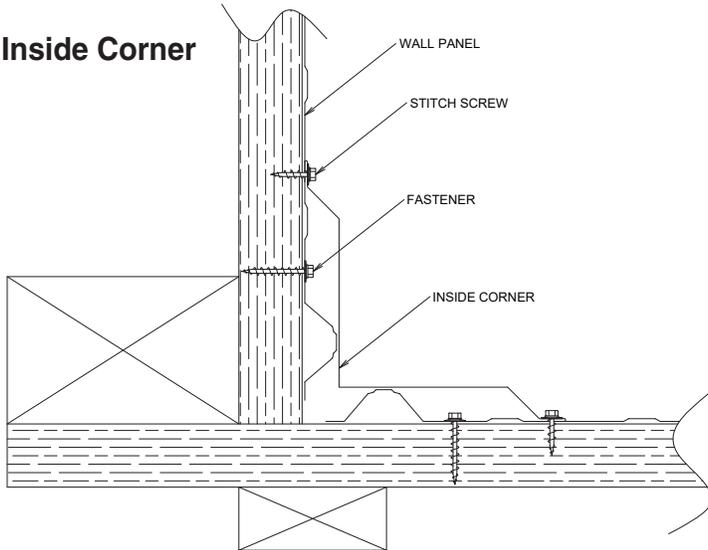
## Outside Corner



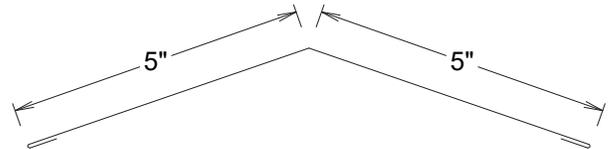
## Endwall Finishing



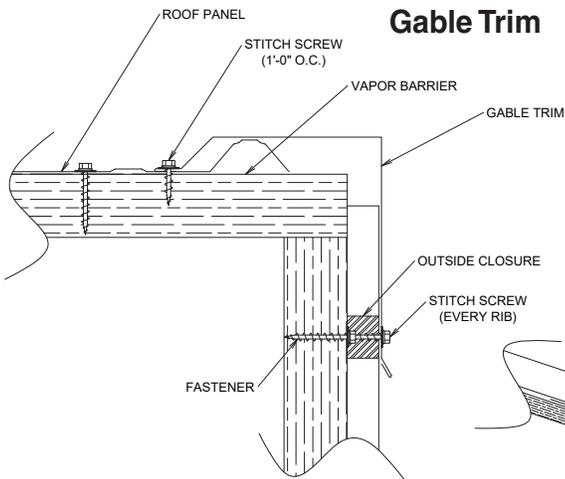
## Inside Corner



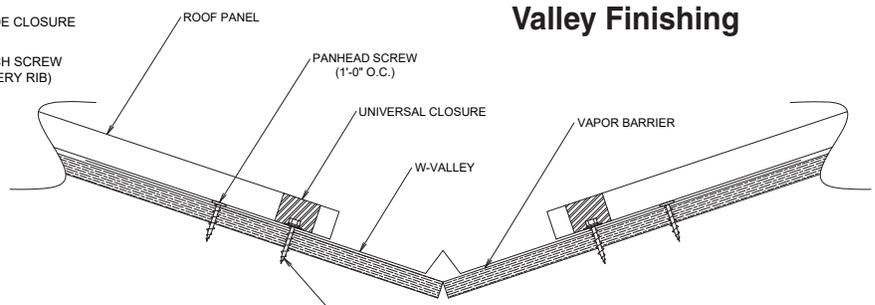
## Gambrel Flashing



## Gable Trim

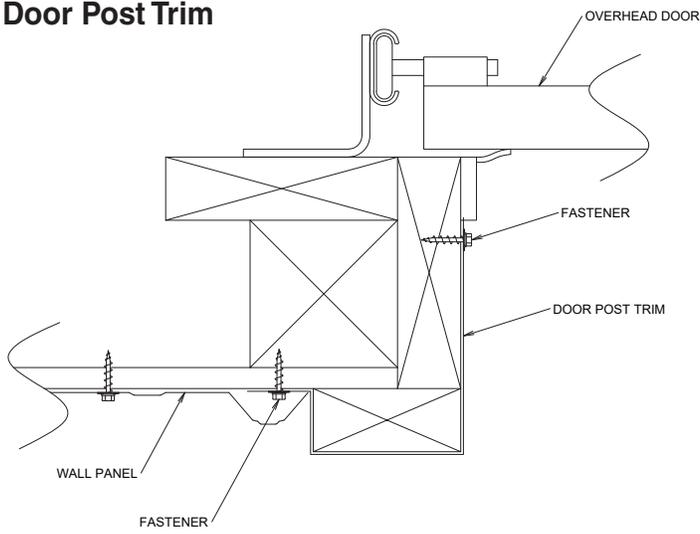


## Valley Finishing

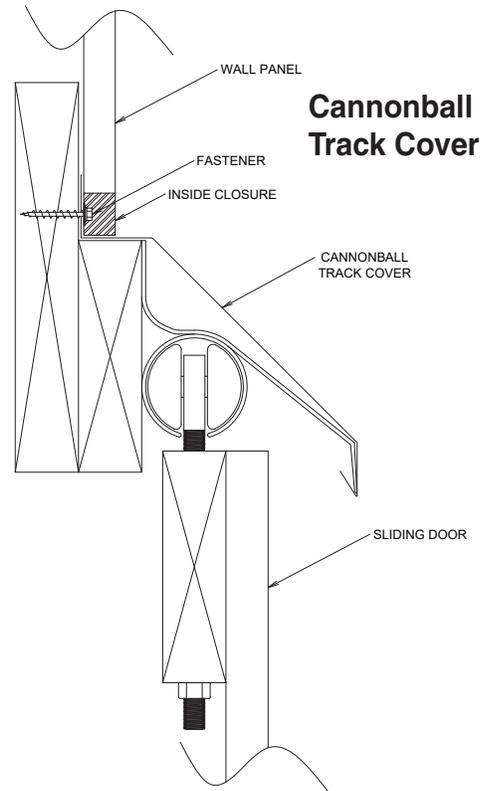


# Trim Detail

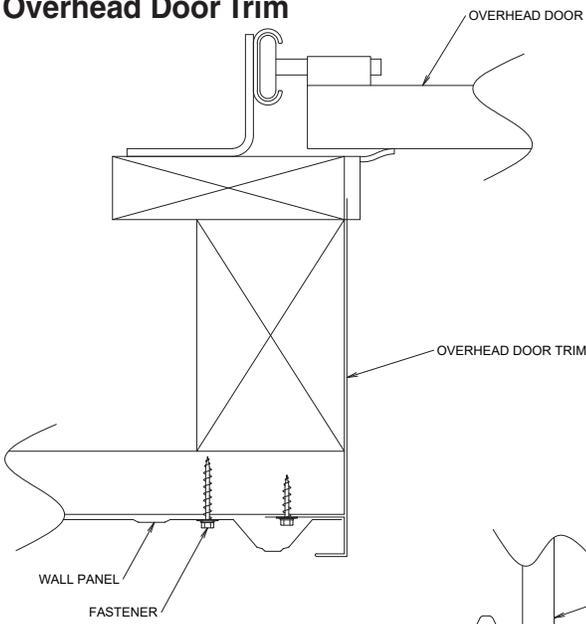
## Door Post Trim



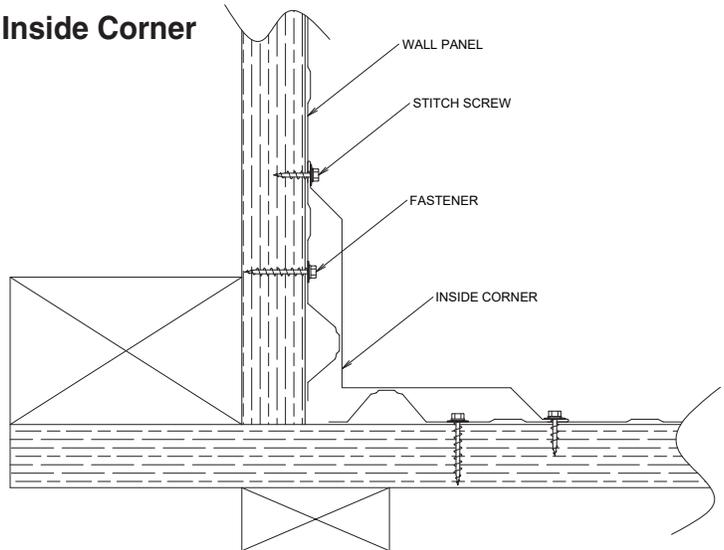
## Cannonball Track Cover



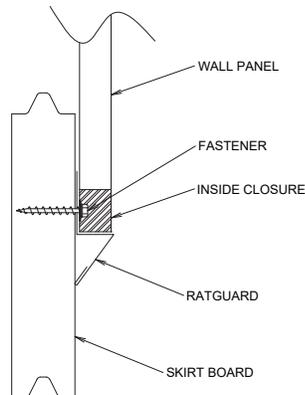
## Overhead Door Trim



## Inside Corner

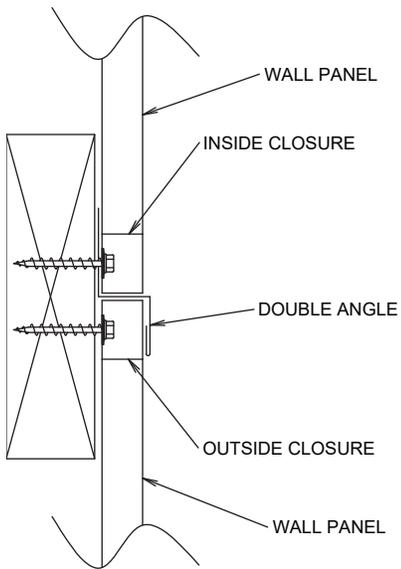


## Rat Guard

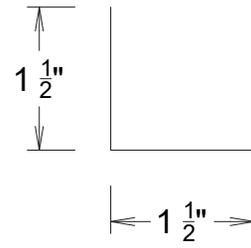


# Trim Detail

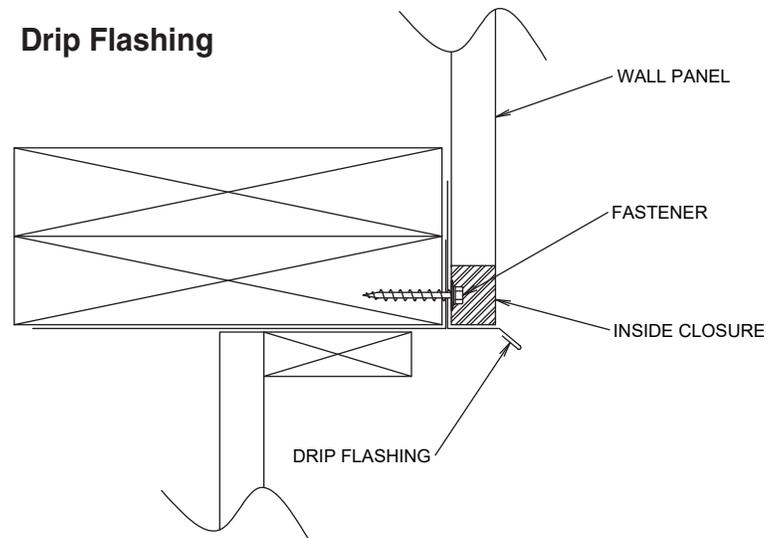
## Double Angle



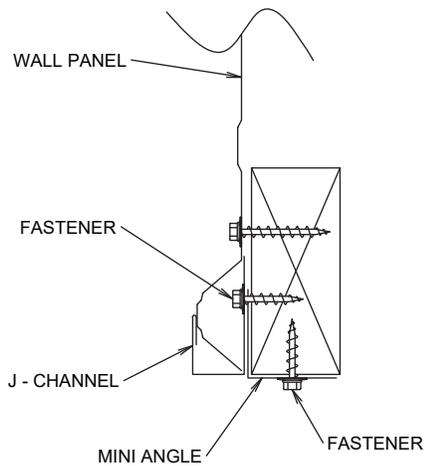
## Mini Angle



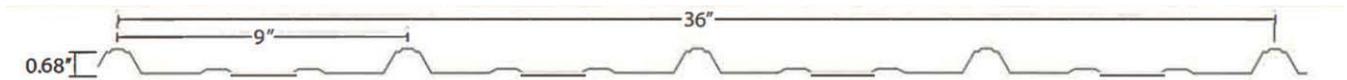
## Drip Flashing



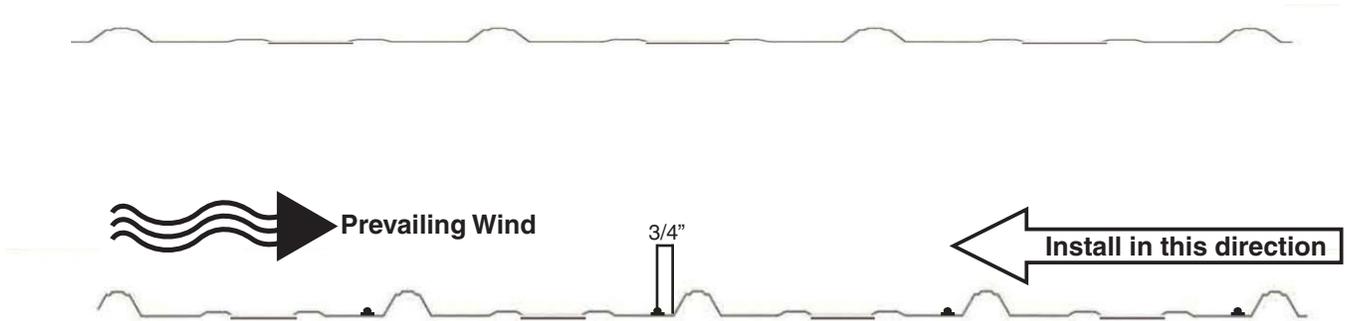
## J Channel



## Panel Information



## Recommended Screw Pattern



## 29 Gauge Standing Seam

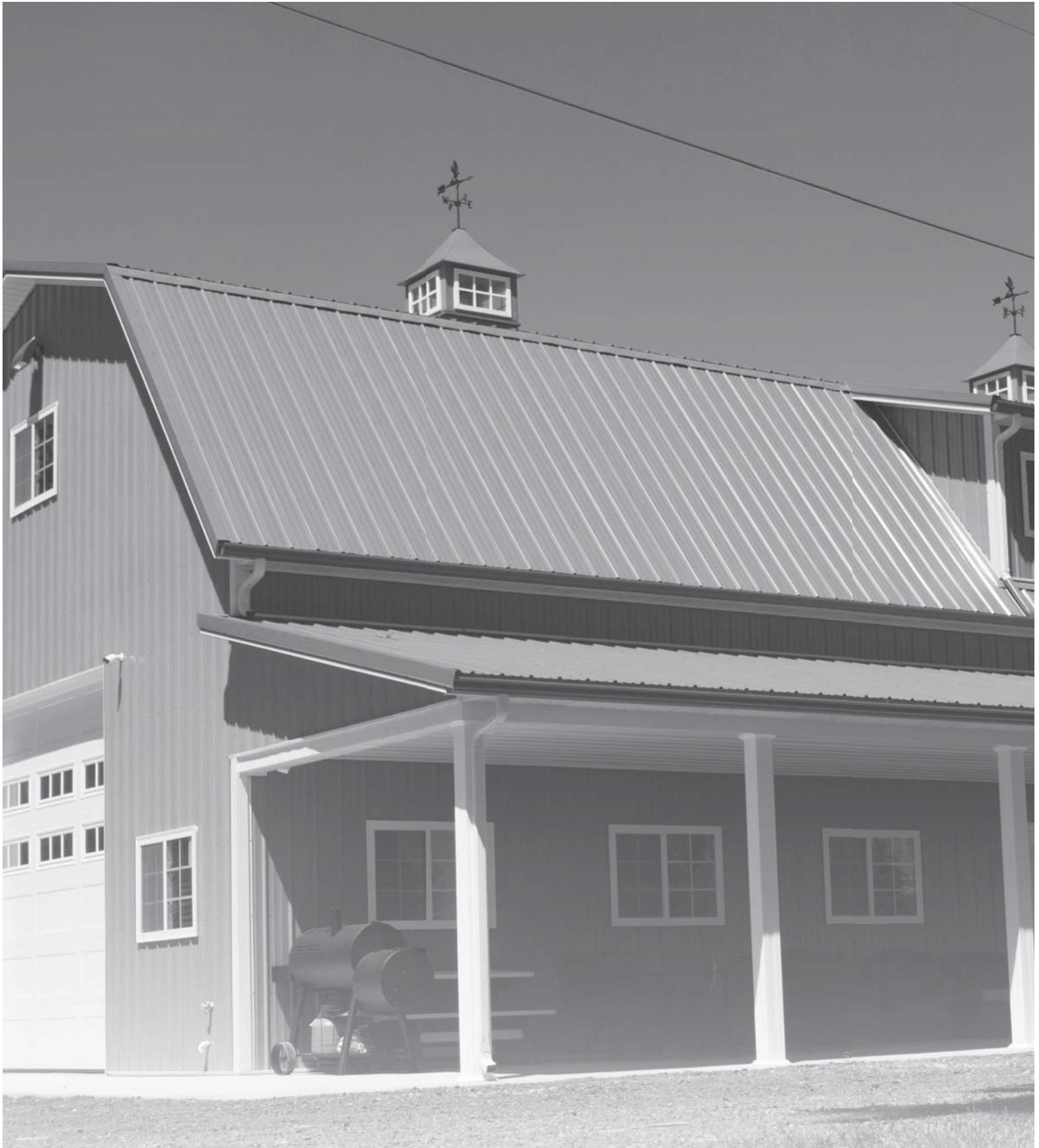
PSF RATING	2'	3'	4'	5'	2'	3'	4'	5'
SINGLE SPAN	113	45	19	10	113	59	33	21
CONTINUOUS SPAN	119	69	36	18	119	74	42	27

## Impact Resistance of Roofing Material

The most effective way to reduce hail damage is to use impact resistant materials for roofing applications. Underwriters Laboratory has developed a test, UL 2218, to evaluate the impact resistance of roofing material. This test evaluates materials by dropping a steel ball onto the roofing panel twice at the same location. The material must show no evidence of fracture, cracking, splitting or any other failure, which would result in an opening of the roofing material. The sizes of the steel balls are from 1.25 inches to 2 inches. Four impact levels are defined in Table I. Class 4 is the most impact resistant. Class 1 is the least impact resistant. The Institute for Business & Home Safety (IBHS) has recommended UL 2218 Class 3 or 4 products in hail-prone regions.

**Table I. UL 2218 Class Rating Description**

Rating	Diameter of Steel Ball (in)	Drop Distance (ft)	Specification
Class 1	1.25	12	No crack
Class 2	1.50	15	No crack
Class 3	1.75	17	No crack
Class 4	2.00	20	No crack



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