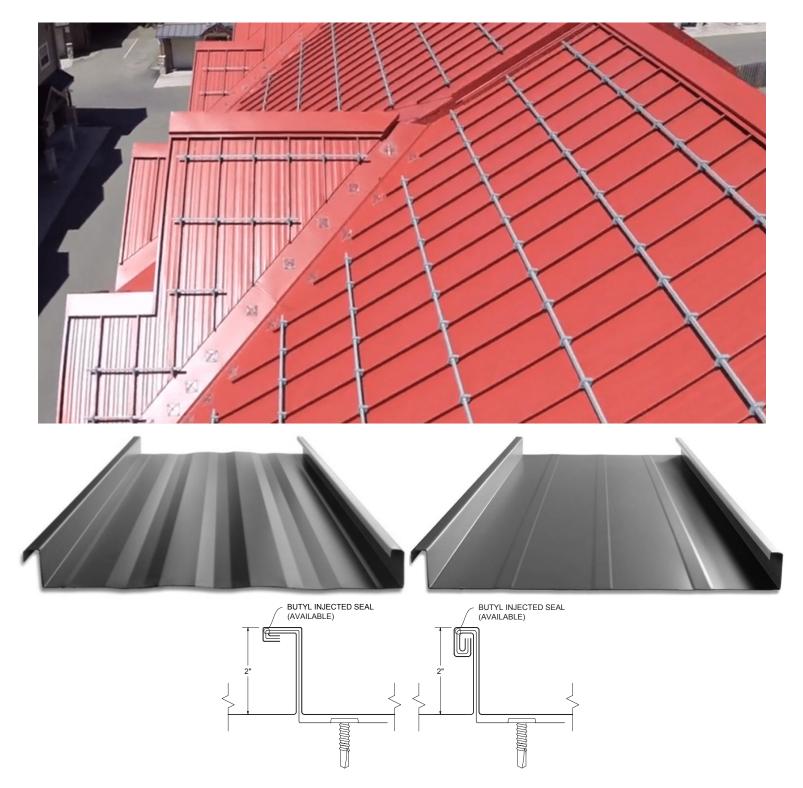


MS-200[™] FM Installation Guide





MS-200™ FM

Flashing and Details Guide

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<u>MS-200™</u> F MECHANICALLY SEAMED



KEY FEATURES

- 12", 14" and 16" options available
- 24 & 22 gauge Tru-Gauge™
- · Floating clip system: allows for expansion/ contraction of panels in longer lengths
- 2" Mechanical seam rib, 180°: Factory notching available
- · Factory injected Butyl sealant
- Structural panel that will span up to 5' over open purlins
- · Concealed fasteners: fasteners cannot leak
- · Manufactured in Riverside CA, Sacramento CA & Salem OR
- ES EVALUATION ICC-ESR #5046 with CBC-CRC Supplement
- FM Global Class #4471 Approved
- Code compliance UL Evaluation Report UL ER 25913-01 U
- Octonstruction No. 90, 176, 180, 238, 238 A-C, 435, 435 A, 437, 449, 451, 452, 487, 506, & 506 A-C • 11
- UL 580 Class 90 Wind Uplift, UL 790 Class A Fire rated and UL 2218 Class 4 Impact (hail) rated
- Dade PA 201-94 Class 90 Impact, 140 MPH Wind Uplift
- FM I-75 (60" o.c.) FM I-120 (24" o.c.)

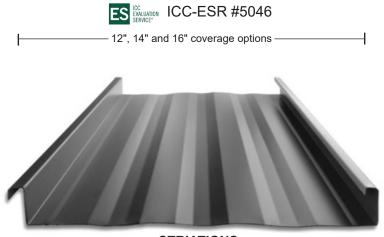
- ASTM E283 Air infiltration (walls) ASTM E331 Water infiltration (walls) ASTM E1592 Structural uniform static air pressure ASTM E1646 Water infiltration (roof) ASTM E1680 Air infiltration (roof) ASTM E2140 Water test for full immersion hydrostatic roof systems
- Weather tightness warranty available (Contact TMP representative for details)
- 1/2:12 minimum pitch recommended (For lower pitches, please inquire)
- Standard panel lengths 5' to 60' not notched Standard panel lengths 1' to 60' notched (For longer panel lengths, please inquire)
- · On-site roll forming available for long lengths
- · Panel options: Striations, Accent Ribs, and Flat Pan

Factory-notched panels Prevents crowningNo visible screws required

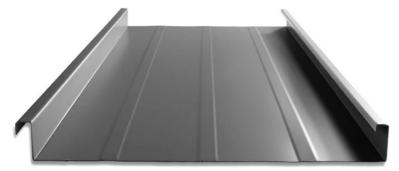
Sharp, professional appearance

Retro-fit systems available



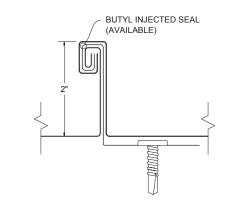


STRIATIONS



2 Accent ribs for 12" & 14" panels **ACCENT RIBS** 3 Accent ribs for 16" panel

180° SEAM DETAIL



2

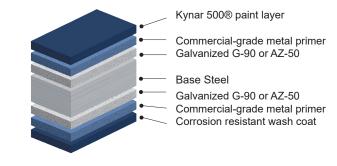


MATERIAL SPECIFICATIONS

- 24 gauge Kynar 500® Painted Steel .0236" (Thickness prior to painting) Galvanized G-90 or AZ-50
- 24 gauge bare Zincalume® Plus AZ-55 (No finish warranty – 25 yr. perforation warranty)
- ▲ 22 gauge Kynar 500® Painted Steel .029" (Thickness prior to painting)
- 22 gauge Rusteel Plus™ (A606)
- Kynar 500® and substrate testing data available (See website)
- · "Oil canning" is an inherent characteristic of roof and wall products, and not a defect, which is not a cause for panel rejection

KEY FEATURES

- · 21 Standard Colors, 5 Metallic Colors and 4 Specialized Colors
- Kynar 500® Paint System the ultimate in exterior durability and color retention
- · "Cool" color pigments are specially designed to reflect infrared light, reducing heat gain to dwelling, and conform with ENERGY STAR® criteria
- Superior Quality, two coat, 70% resin finish, applied at a 1 mil. thickness
- 40 year residential paint warranty
- · 20 and 30 year commercial paint warranty: Contact TMP for warranty specifications



40-Year Residential / 20 and 30 Year Commercial Manufacturer's Limited Warranty



16"

22

1.60

2.13



Taylor Metal Products MS-200[™] - SFS FM Floating Panel Clip w/ injected sealant



FM Approvals Class: <u>4471</u> Factory Mutual Rated: <u>1-120/1-75 A SH</u>

<u>1-120/1-75</u> (Wind Uplift), E108 <u>A</u> (Flame Spread) & <u>SH</u> (Severe Hail) UL 580 Class 90 Wind Uplift Rated ASTM E1592 Tested Assembly UL Class A Fire Rated Clip Placement: 24" (solid deck and open purlins-120 psf) and 60" (open purlins-75 psf) on center, per FM Testing Criteria Panel Widths: 12", 14" & 16" (ASTM Tested at 18")





Flashing and Details Guide

Notes to Designer/Installer

Taylor Metal Products is providing the following details as an aid in design. The details in this guide are not inclusive to all design situations. The designer/installer is responsible for modifications and should take into consideration all aspects of the project including climate conditions, such as, snow and wind, as well as, building code requirements, building design, building usage and maintenance requirements.

Installation should be performed only by qualified installers familiar with metal roofing systems and industry standards. For details not shown in this guide, refer to the Sheet Metal and Air Conditioning Contractors National Association (SMACNA) architectural sheet metal manual for proper design. For manufacturer's weather tightness warranties – all details must be preapproved by Taylor Metal Products technical representative.

The Standard gauge for all products in this guide is 24 gauge and the standard finish is Kynar 500[®]. We recommend specifying all flashings be the same gauge, color, and finish as the panels to insure long-term durability and color match.

Substrates

Details in the manual are all shown over solid substrate. **MS-200[™] FM** can be used over spaced purlins. For solid substrate, **Taylor Metal Products** recommends 15/32" plywood or metal decking. Contact a TMP representative with questions about panel attachment to varying substrates.

Underlayment

Minimum underlayment requirements are a synthetic underlayment with Class A and ASTM UV protection technology or TMP Protect HT self-adhering rubberized membrane. When choosing the underlayment, consider the roof slope, roof design, roof panel, and the climate.

Drag Load Requirements

All panels must be pinned at one end to resist the drag load caused by snow loads, live loads, and the weight of the panel. Drag load is a function of roof slope, actual load and length of panels. Contact **Taylor Metal Products** for specific drag load requirements.

MS-200[™]FM

Flashing and Details Guide



Ventilation/Insulation

It is the responsibility of the designer to determine the material types needed to control condensation and to insulate and ventilate the roof system. Applications over rigid insulation may require blocking for solid attachment and framing the perimeter for installation of perimeter flashings.

Oil Canning

Flat metal surfaces will display waviness commonly referred to as "oil canning." Oil canning is caused by a variety of conditions. Steel mill tolerances, variations in or uneven substrates and roofing underlayments. Oil canning is a characteristic of metal roofing, not a defect and is not a cause for rejection. **Taylor Metal Products** offers **MS-200**[™] with striations or accent ribs to help minimize oil canning.

Thermal Movement

The Panels and the flashings must be allowed to expand and contract, especially with longer length panels. The panel may need to have a slight gap where the panel hooks the offset cleat to allow for thermal movement of the panels.

Snow Design

The following details do not address all conditions for snow environments. Consult with the designers, engineers, and others for acceptable details to accommodate your project and climate conditions. When possible gutters, valleys, pitch changes or other penetrations should be minimized in snow areas.

All roof penetrations should be located as close to the ridge or "pin point" top of roof. Snow country requires special designs for valleys to accommodate accumulation of snow and ice from uphill panels. Roof design should be considered in snow areas. Roof design should help resist the melting and freezing of snow and ice.

A fit for purpose roof design has the greatest impact on maintaining a damage free roof system in snow areas. Please contact a Taylor Metal Products representative for assistance in detail designs and appropriate panel selection for specific climate and building conditions.



Flashing and Details Guide

Handling / Storage & Safety

Handle materials with care when off-loading or moving materials to avoid damage to panels or flashings. Long panels may require two or more pick-up points, properly spaced to avoid damaging panels. Plan ahead; contact Taylor Metal Products for recommendations on handling/hoisting long panels.

Store the panels, flashings and accessories in a dry, well ventilated area, off the ground. If covering, allow ventilation around panels. Elevate one end of bundle to allow drainage of wet materials.

Wear clean, soft-soled shoes when walking on roofing panels to avoid damage to the painted finish.

Take care that sand, gravel, dirt, etc. sticking to your shoes is not carried onto the roof, scratching or otherwise damaging the finish on the roofing material. Walking on asphalt impregnated felt paper, especially on a hot day, can cause the asphalt to stick to your shoes and be tracked on to the roofing material.

Take care when painting to avoid getting over spray on the roofing material. Remember that wind can carry paint particles some distance. Over spray can cause the finish of the roofing material to look dull and may void your warranty.

Secure materials, especially when leaving the site, on the ground or roof to prevent winds from moving the materials. Wind-blown materials may cause damage to the material, property or persons.

Always use proper safety equipment and attire to minimize risk of cuts or other injuries.

Do not walk on panels that have not been completely installed.

Do not walk on major ribs of panels.

Metal roofs that are wet or dusty can be extremely slippery. Wear soft soled shoes and a safety harness to minimize risk of falling.

Avoid installing metal panels in windy conditions.

Safety considerations are the responsibility of the installer and his crew. Be sure to and **use common sense** generally accepted safety practices when installing roofing materials.

Taylor Delivery Fleet

Delivery Fleet

Taylor Metal Products prides itself with quick lead times delivered with our fleet of semi trucks. Our fleet of trucks are owned and operated by TMP. All of our drivers are Taylor Metal Products employees, so when your truck rolls in to deliver, you are dealing with Taylor Metal Products.

Expect consistant and exceptional service with short lead times. The inhouse fleet allows for efficient and cost-effective delivery.





Mounted on the rear of our truck's trailer, the trailer-mounted "Piggy-Back" forklift will accompany you right to your place of use, opening up unprecedented possibilities in terms of transportation. It can travel sideways, carrying panels up to 40' long, allowing delivery in locations that would typically be considered impossible to reach.

Save time and effort while avoiding potential loading and transport issues; have experienced TMP personnel deliver and unload your order.





Delivery, Will Call & Loading

Delivery

We will make every attempt to deliver material to the desired location. We may be unable to gain access on tight corners or steep terrain. If the site is deemed inaccessible by our driver, the customer may choose an alternate delivery site within a reasonable proximity. If we are unable to make the delivery, additional charges may be assessed.

The customer is responsible for:

- Determining adequate access for delivery ahead of time.
- Meeting the delivery at the agreed upon time.
- Providing adequate resources (1-4 people as needed) for off loading materials.
- A charge of \$100 per hour may be added for deliveries that go beyond their allotted time
- Checking the shipment at the time of delivery.
- Verifying material quantities against the shipping/packing list.
- Noting any damage or discrepancies upon the paper work at the time of delivery and notifying Taylor Metal Products within 48 hours of delivery.

Delivery times are usually scheduled one day in advance. Taylor Metal Products will make every effort to make the delivery at the scheduled time. Please be aware that there may be conditions beyond our control such as traffic, mechanical failures, road closures, etc. which may affect our schedule.

Will Call & Loading

Flatbed trailers and trucks are best suited to transport metal roofing materials. These can be loaded from the side with a forklift and tied down in a safe and secure manner.

We are not able to load materials onto vehicles and/or trailers which are not suitable or may be hazardous to load. Please be aware that if we find a vehicle to be inappropriate, we reserve the right to refuse to load your order.

Unacceptable examples include: boat trailers, vans, buses, motor homes, campers and box trailers. Pickup racks which do not have sufficient supports for the weight or are not long enough to support bundles are also unacceptable.

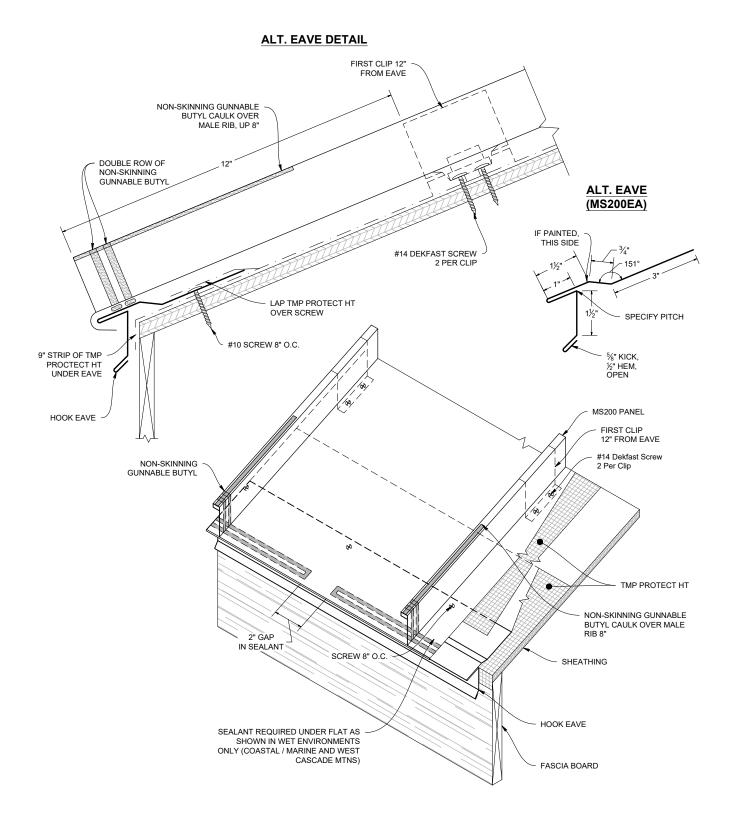
Taylor Metal Products is not responsible to tie down loads nor do we provide any tie down materials. Please bring tie downs to secure your load (string or twine are **not** acceptable for this purpose).

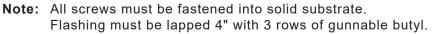
Consider having your order delivered on one of our trucks with a piggy back forklift.



Alternate Eave – Use With FM Clip

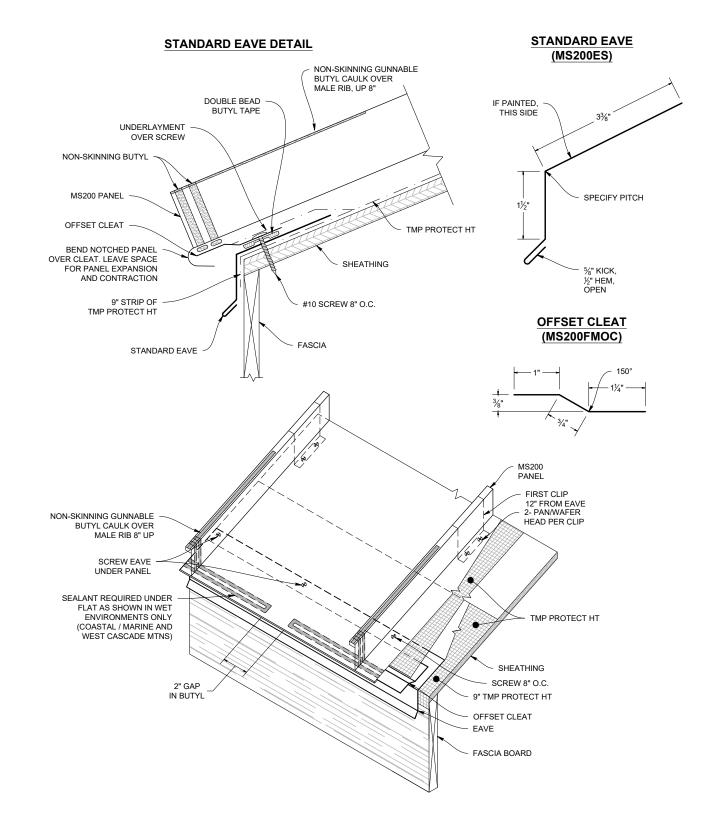






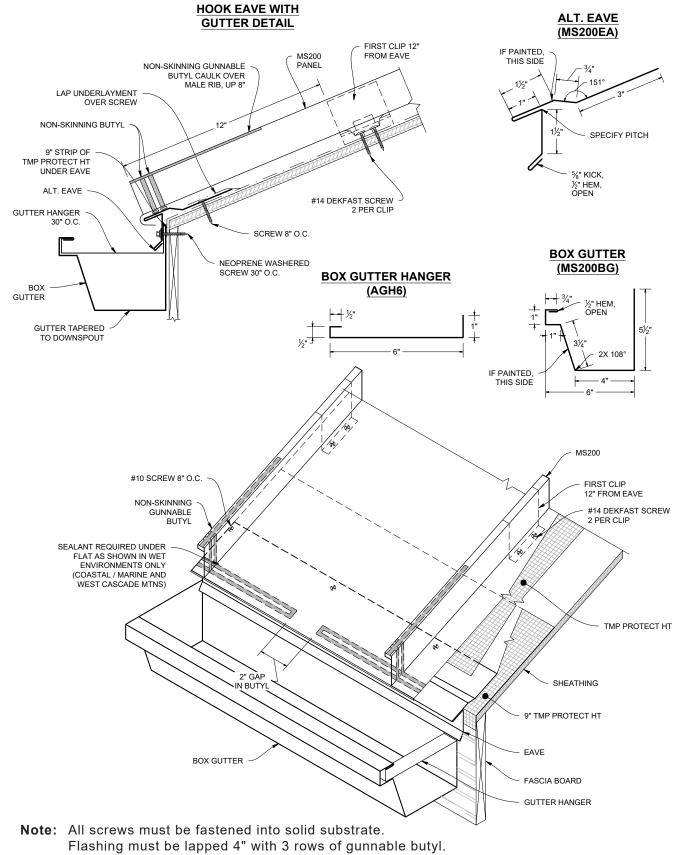
Standard Eave





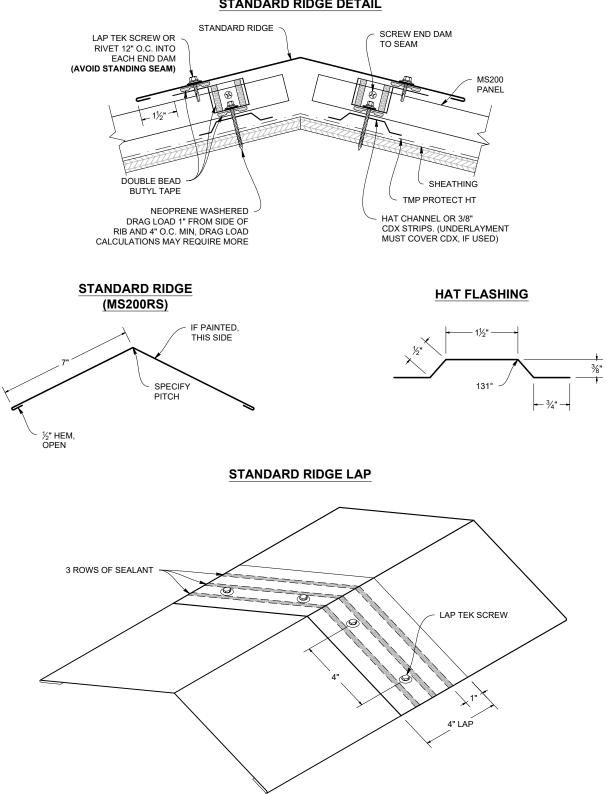
Gutter / Hook Eave







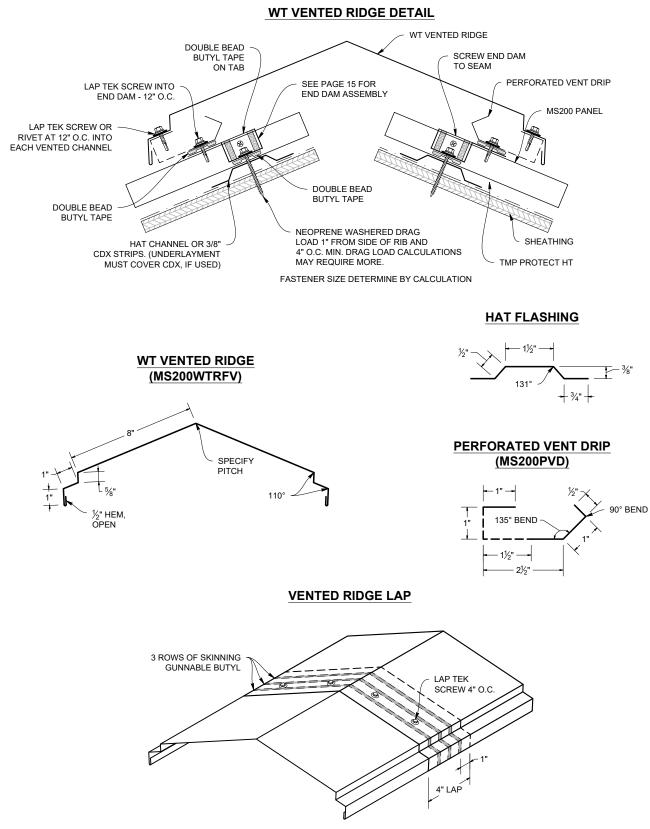
Standard Ridge



STANDARD RIDGE DETAIL

Vented Ridge

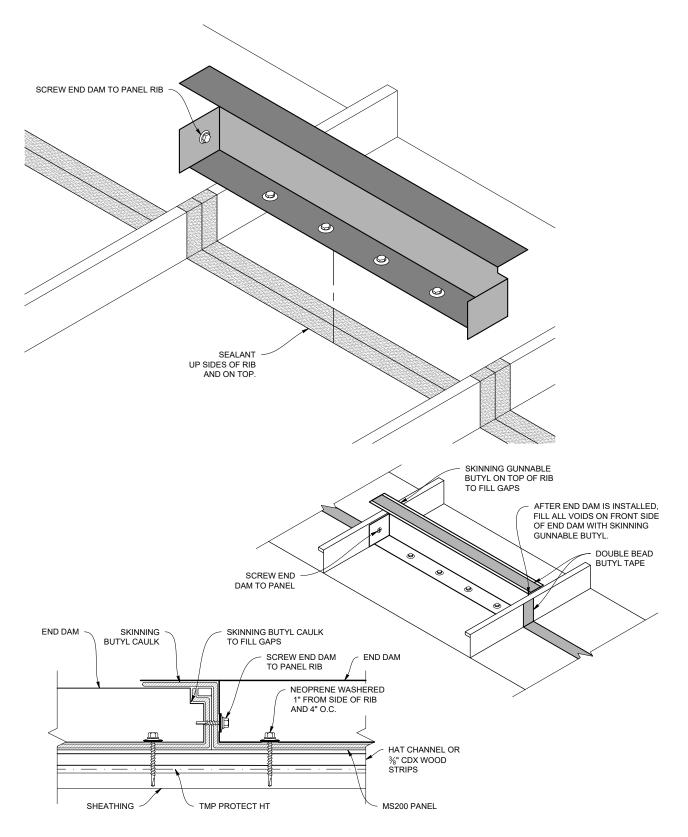




Note: All screws must be fastened into solid substrate. Flashing must be lapped 4" with 3 rows of gunnable butyl.

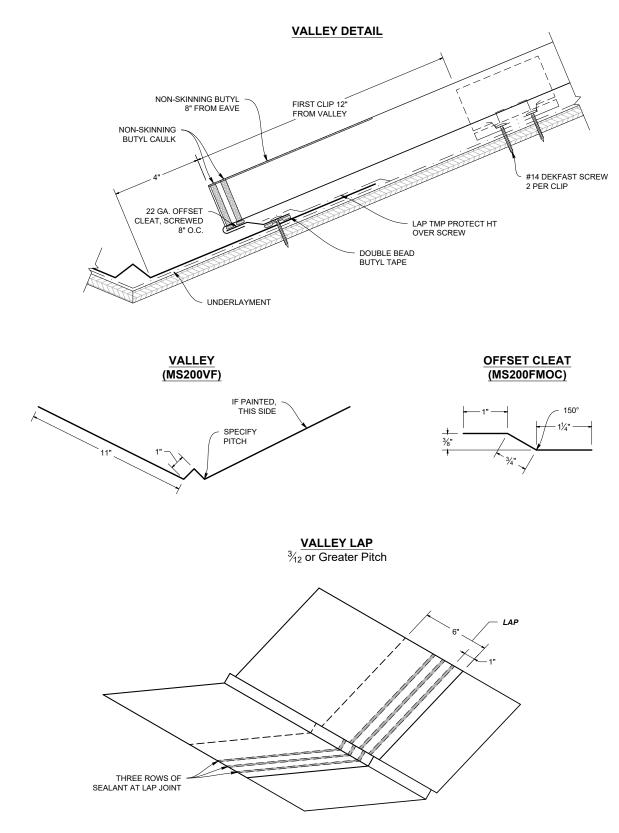


End Dam Attachment



Valley Flashing Slope 3:12 or Greater

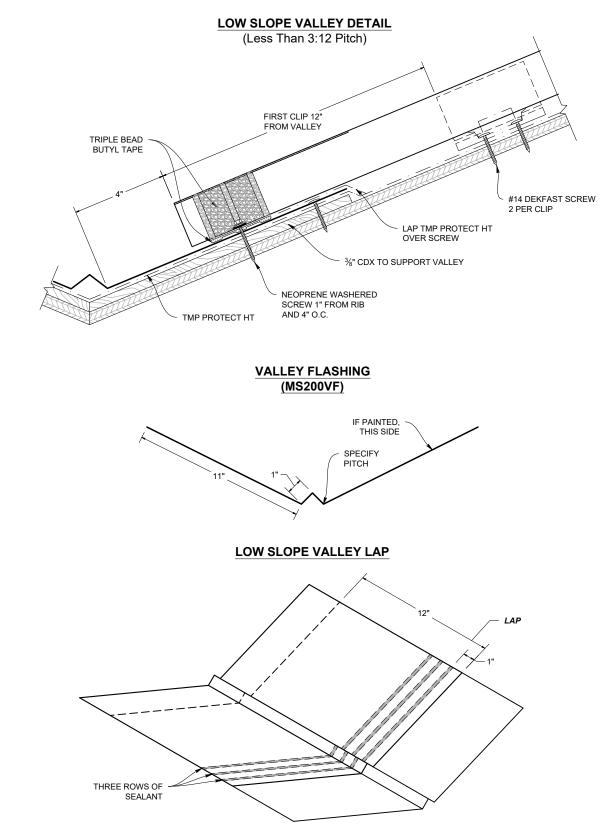




Note: All screws must be fastened into solid substrate. Flashing must be lapped 4" with 3 rows of gunnable butyl.



Valley Flashing - Low Slope Slope Less than 3:12



Note: All screws must be fastened into solid substrate. Flashing must be lapped 4" with 3 rows of gunnable butyl.

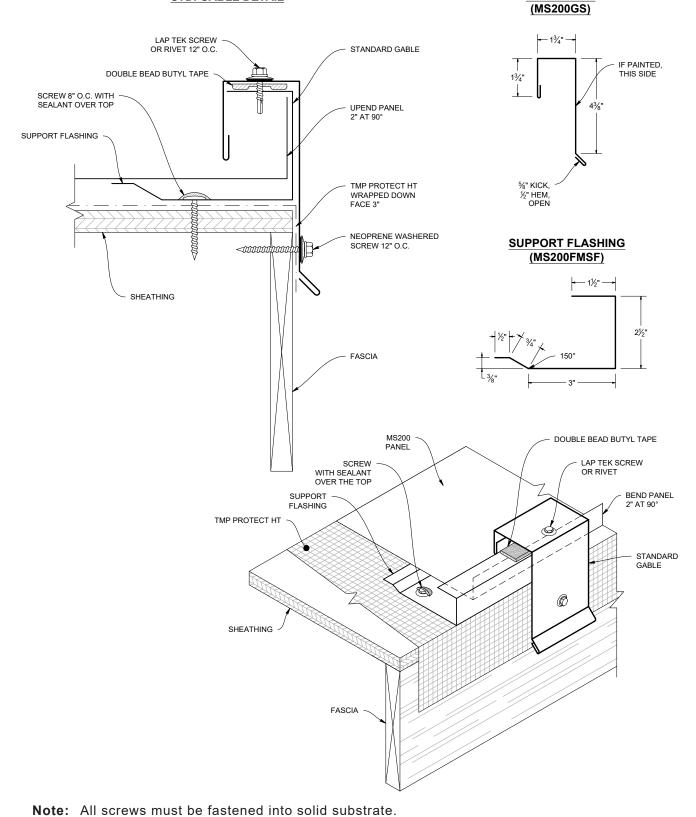
17

Standard Gable



STD. GABLE

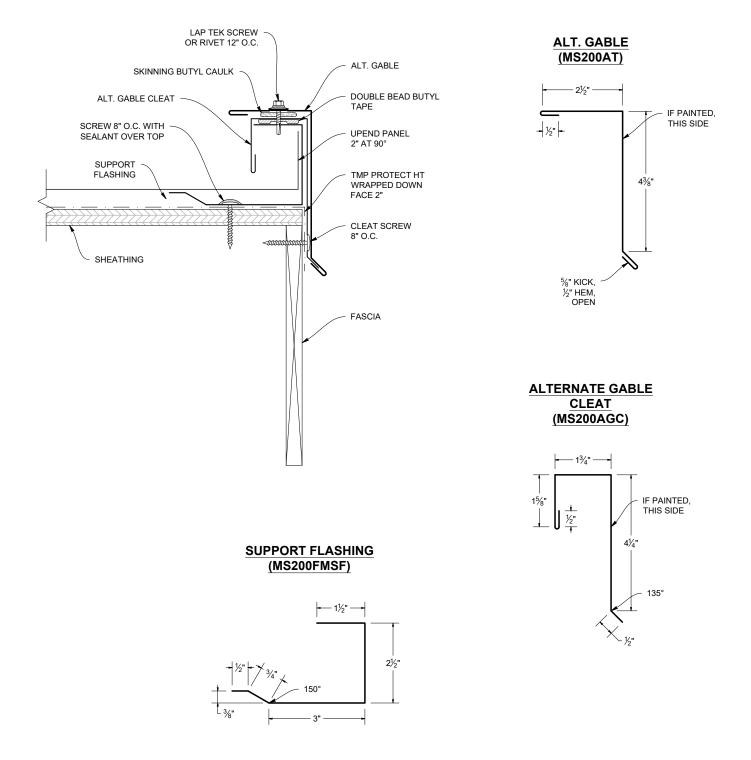
STD. GABLE DETAIL



Flashing must be lapped 4" with 3 rows of gunnable butyl.



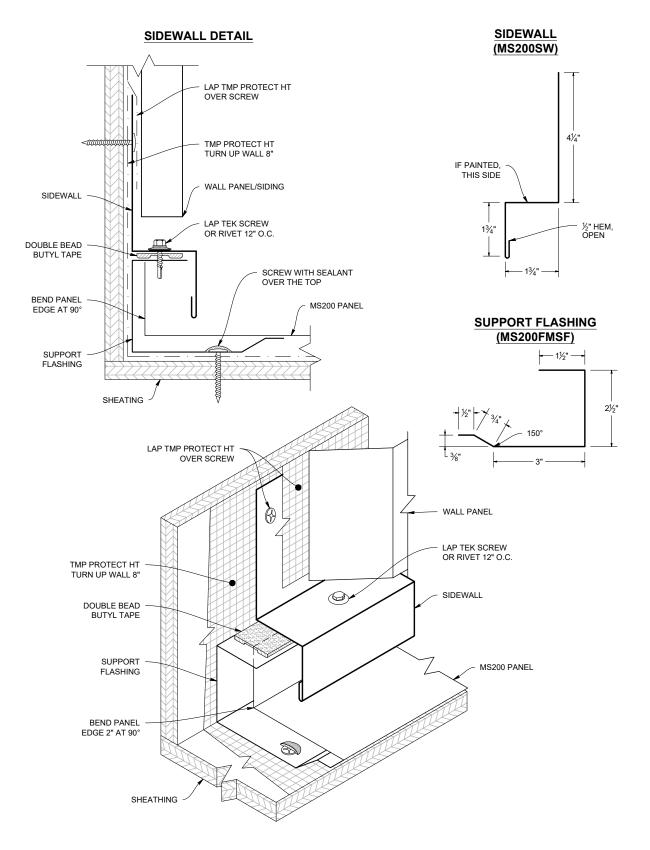
ALT. GABLE DETAIL



Note: All screws must be fastened into solid substrate. Flashing must be lapped 4" with 3 rows of gunnable butyl.

Sidewall



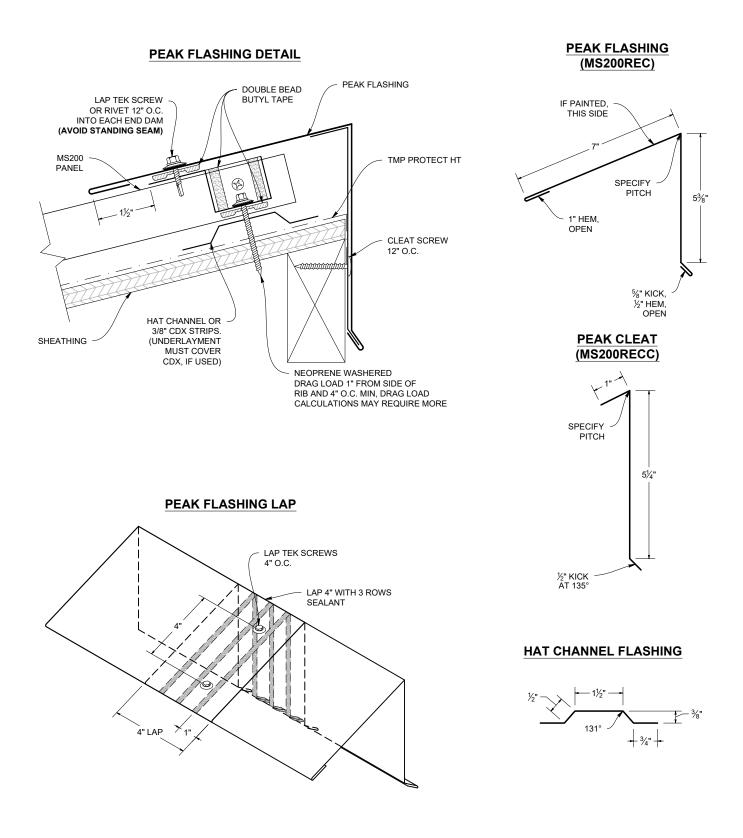


Note: All screws must be fastened into solid substrate. Flashing must be lapped 4" with 3 rows of gunnable butyl.

20

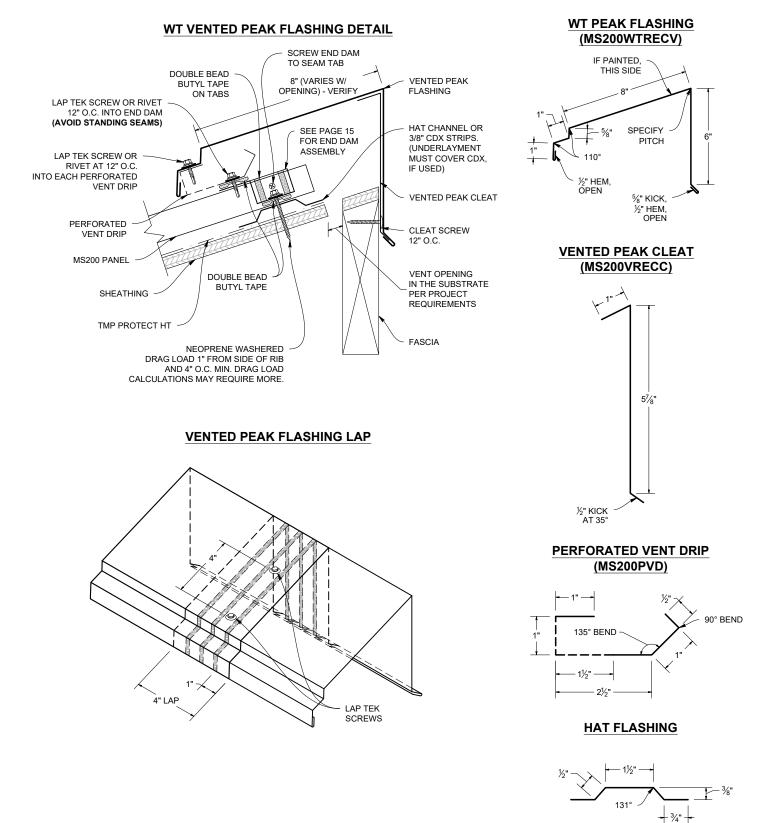


Peak Flashing (Ridge End Cap)



Vented Peak Flashing (Vented Ridge End Cap)

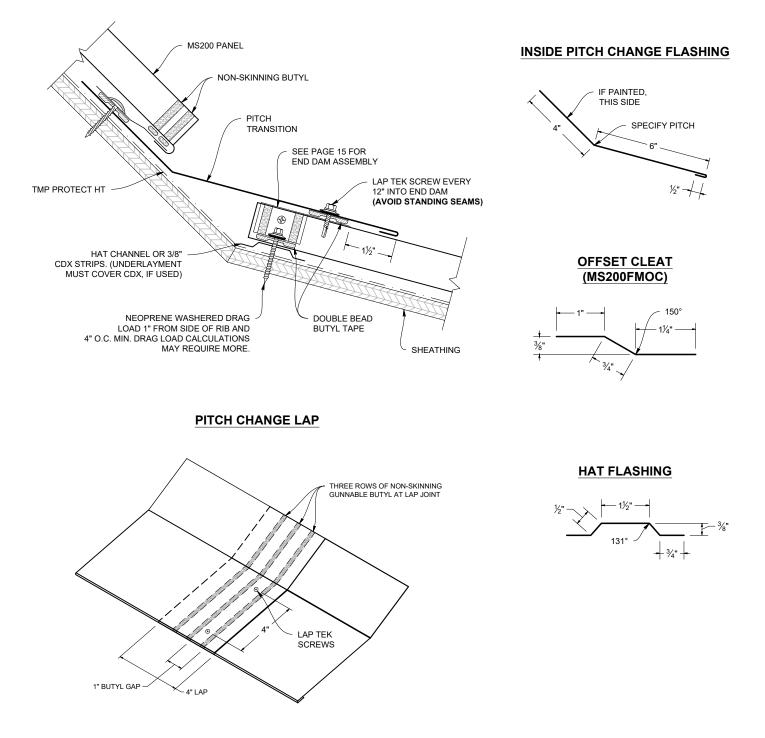






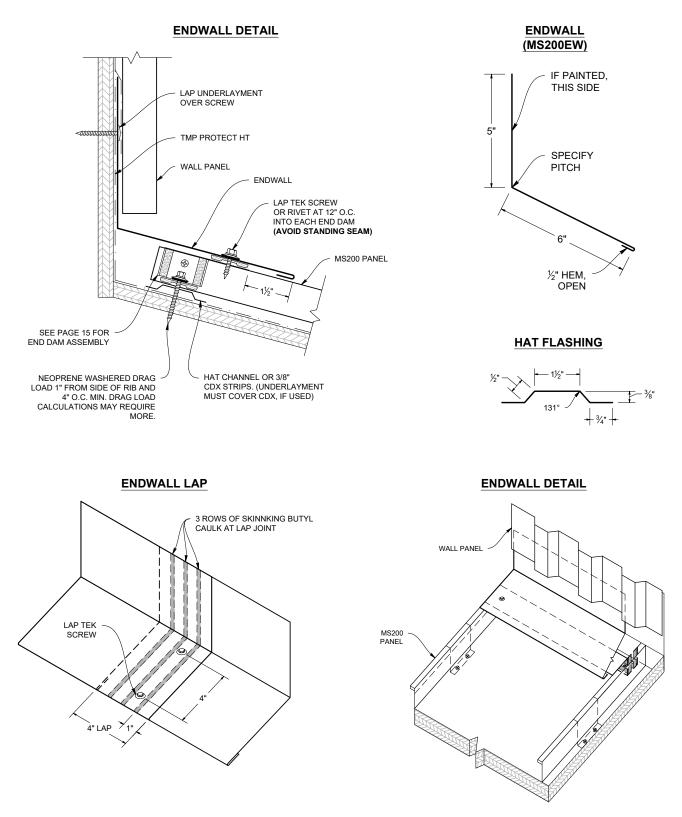
Pitch Change





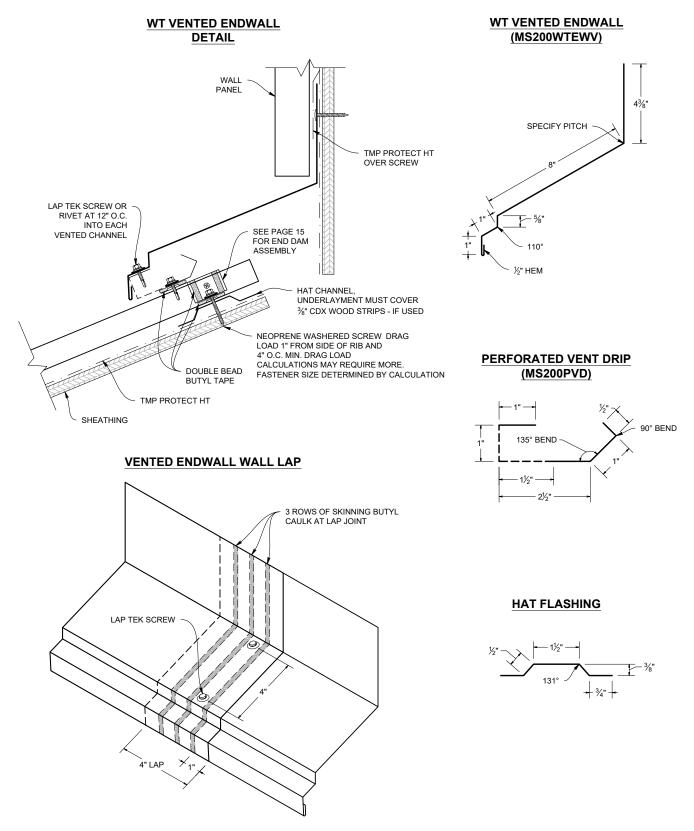
Endwall

TAYLOR METAL PRODUCTS



Vented Endwall



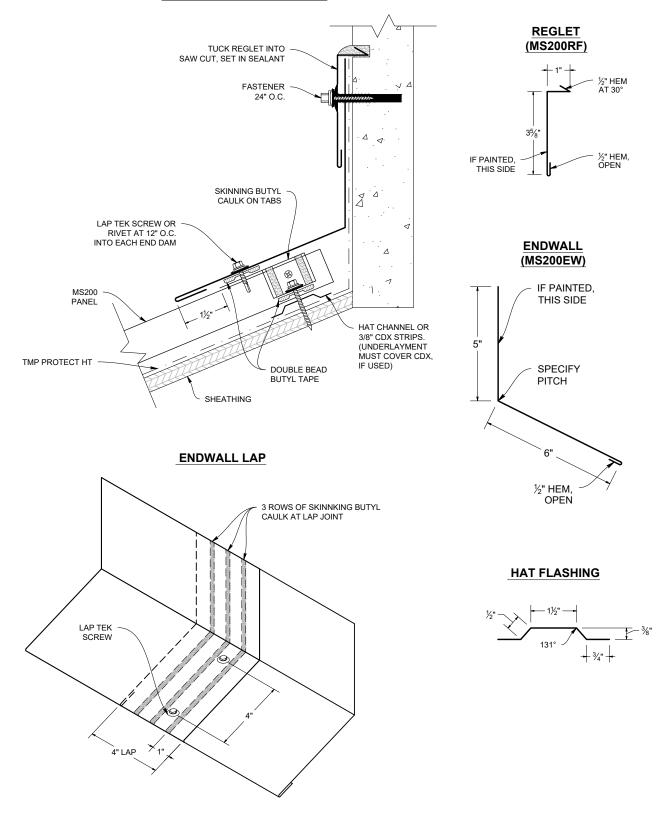


Note: All screws must be fastened into solid substrate. Flashing must be lapped 4" with 3 rows of gunnable butyl.

Endwall w/ Saw Cut Reglet

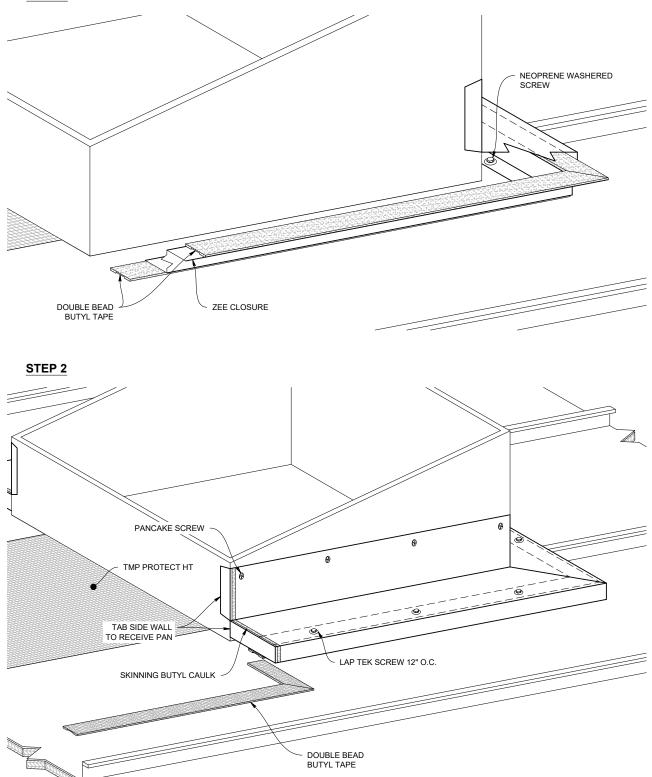








STEP 1



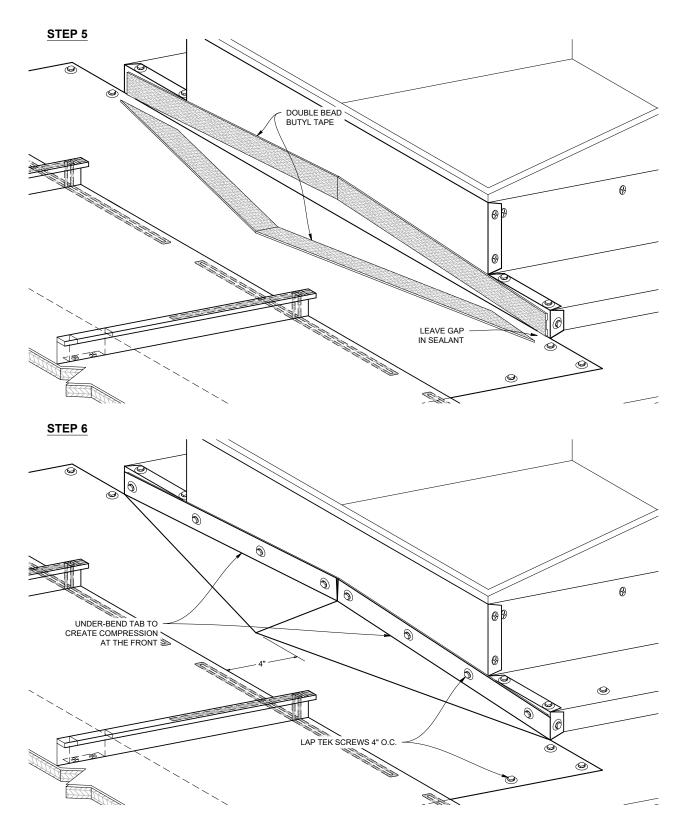


STEP 3 LAP TEK SCREW 4" O.C. OFFSET CLEAT TAB BACK PAN BACK PAN AND SCREW PANCAKE HEAD INTO CURB SIDEWALL DOUBLE BEAD BUTYL TAPE TMP PROTECT H SHEATHING #10 SCREW, 8" O.C. STEP 4 NON-SKINNING BUTYL 2 ROWS SEALANT 2" GAP Ø IN SEALANT ø NON-SKINNING BUTYL SHEATHING FIRST CLIP 12" FROM VALLEY #10 SCREW, 8" O.C. LAP TMP PROTECT HT OVER SCREWS NB-

Note: All screws must be fastened into solid substrate. Flashing must be lapped 4" with 3 rows of gunnable butyl.

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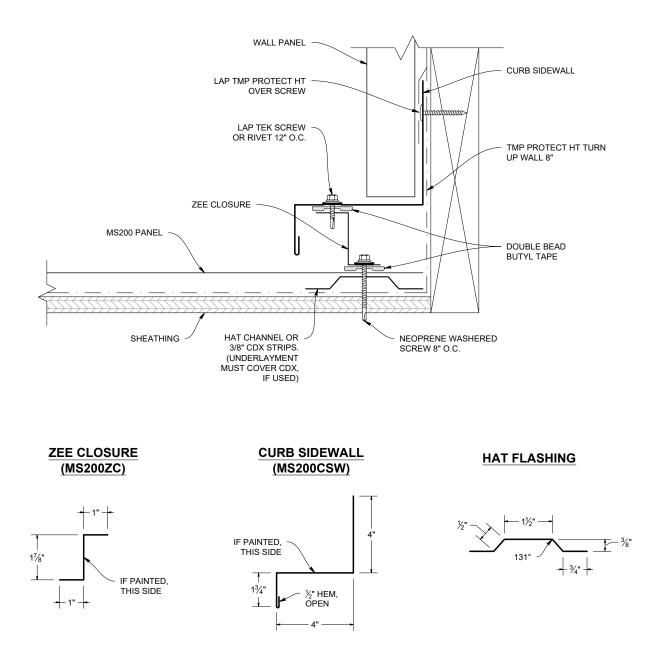




Curb Sidewall

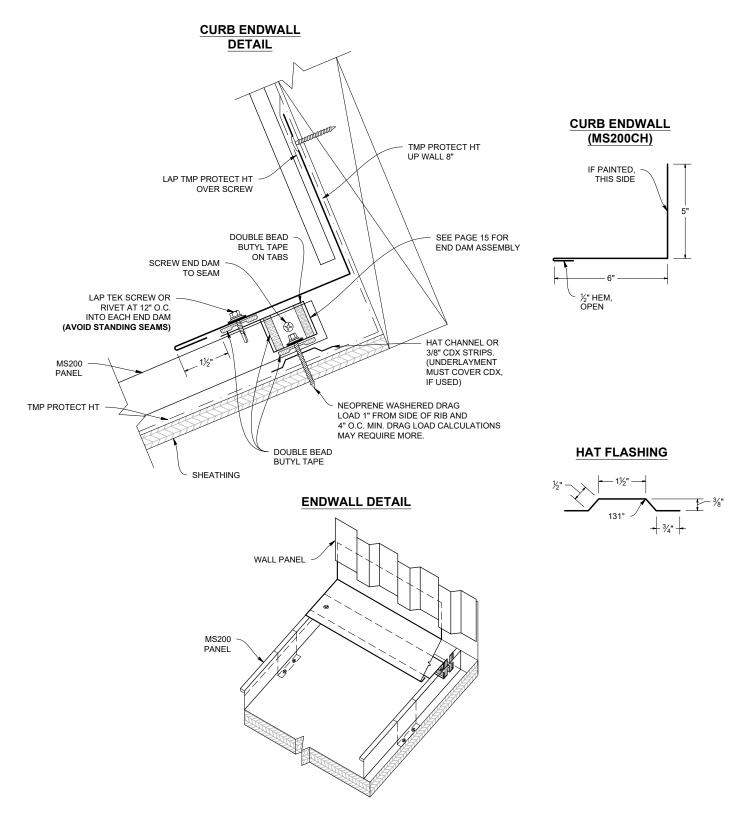


CURB SIDEWALL DETAIL



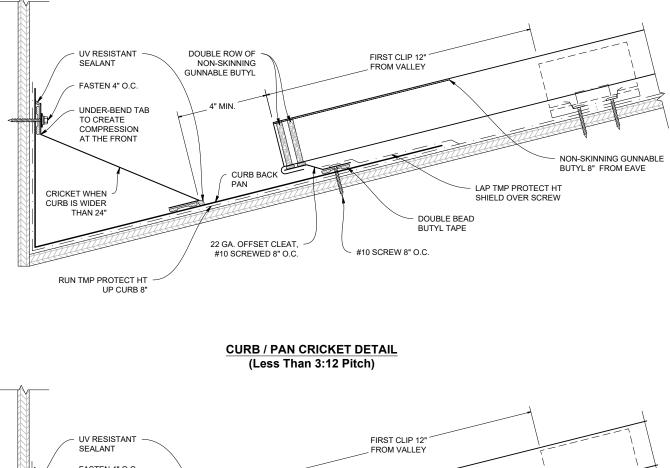
Curb Endwall

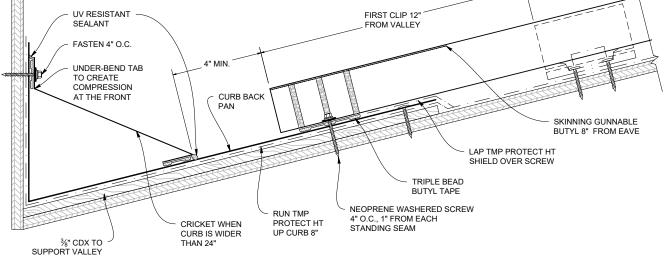






CURB / PAN CRICKET DETAIL (3:12 Pitch or Greater)

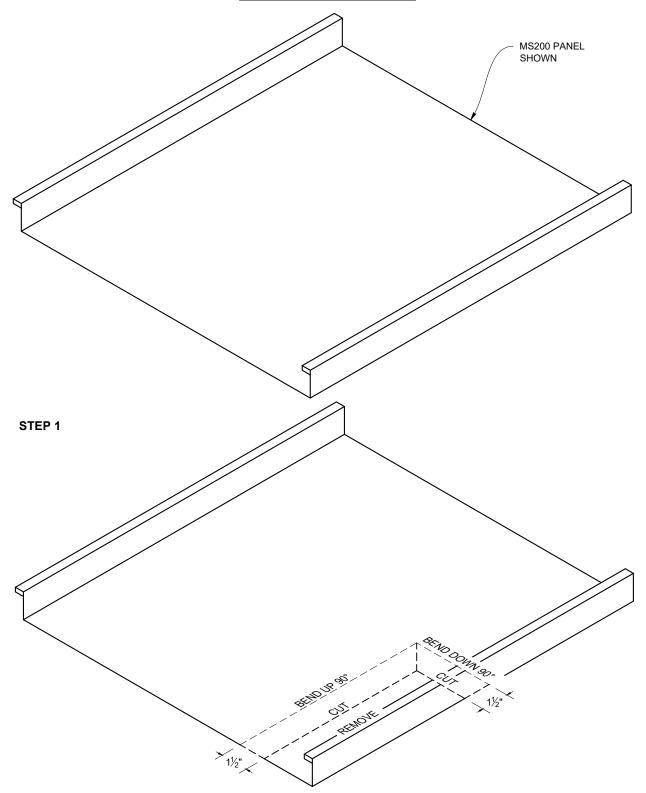






Eave to Gable Transition

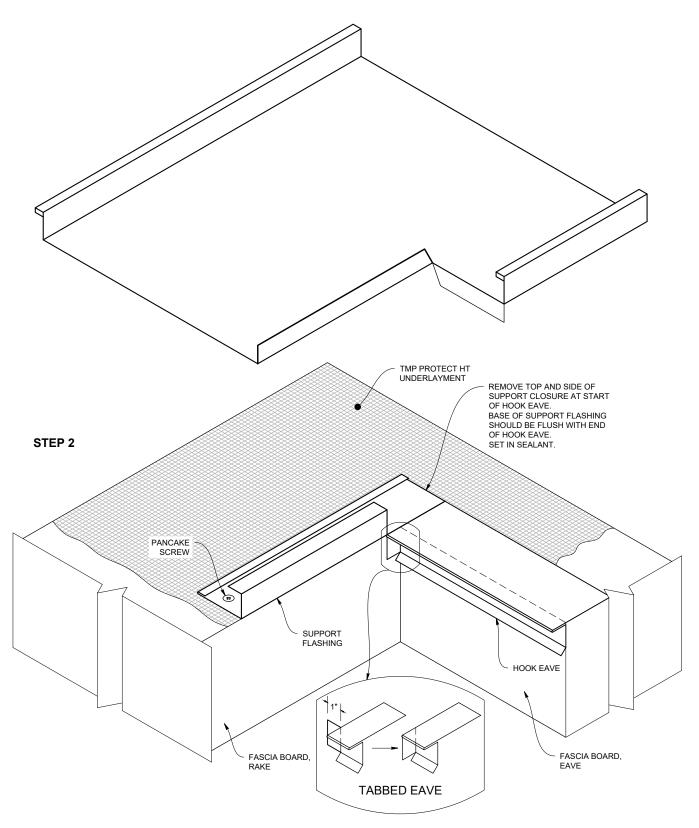
EAVE TO GABLE TRANSITION



Note: All screws must be fastened into solid substrate. Flashing must be lapped 4" with 3 rows of gunnable sealant.

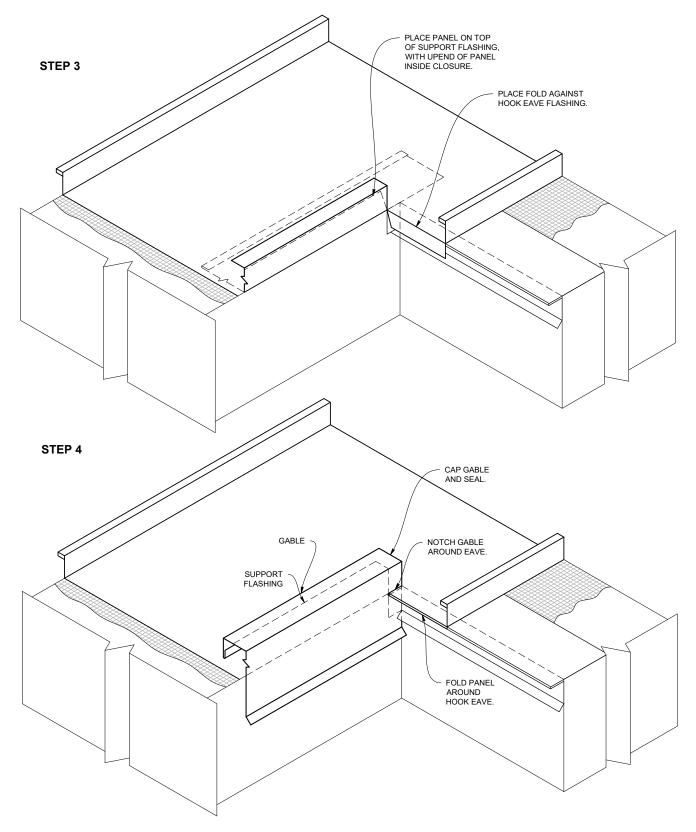
Eave to Gable Transition







Eave to Gable Transition



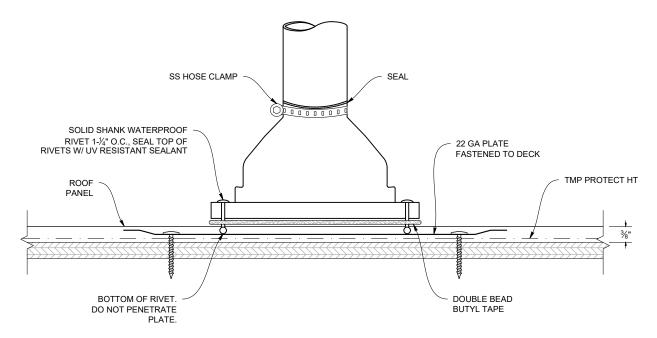
Note: All screws must be fastened into solid substrate. Flashing must be lapped 4" with 3 rows of gunnable sealant.

35

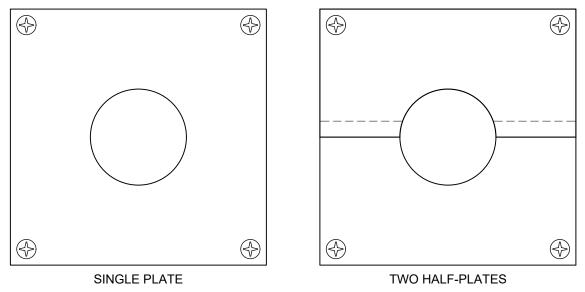
Pipe Penetration - on Plate



FOR PIPES LOCATED 20' OR GREATER FROM PIN POINT (Allows panel and pipe flashing to move with temperature change.)

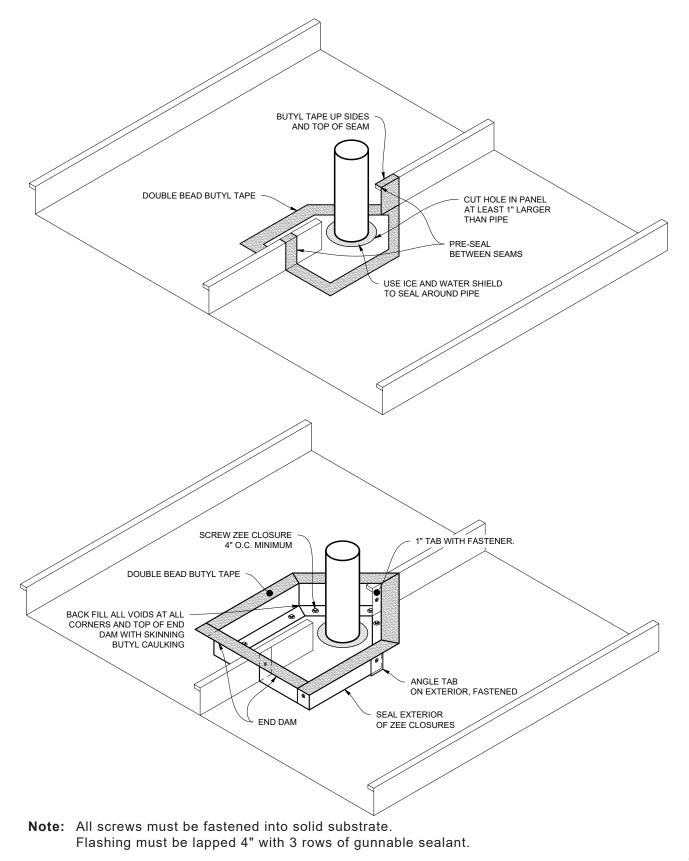






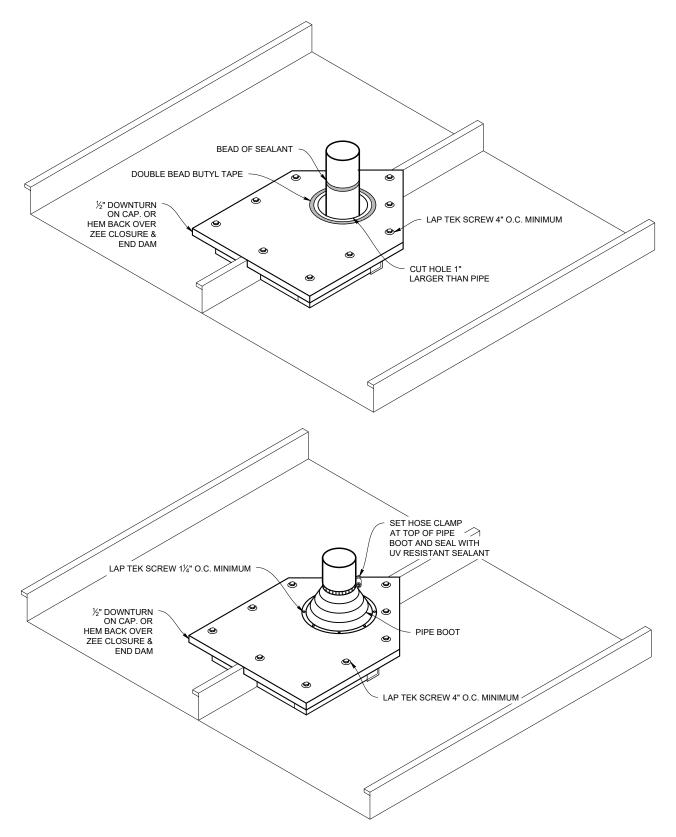


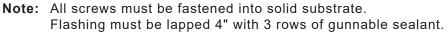
Pipe Penetration - on Rib



Pipe Penetration - on Rib

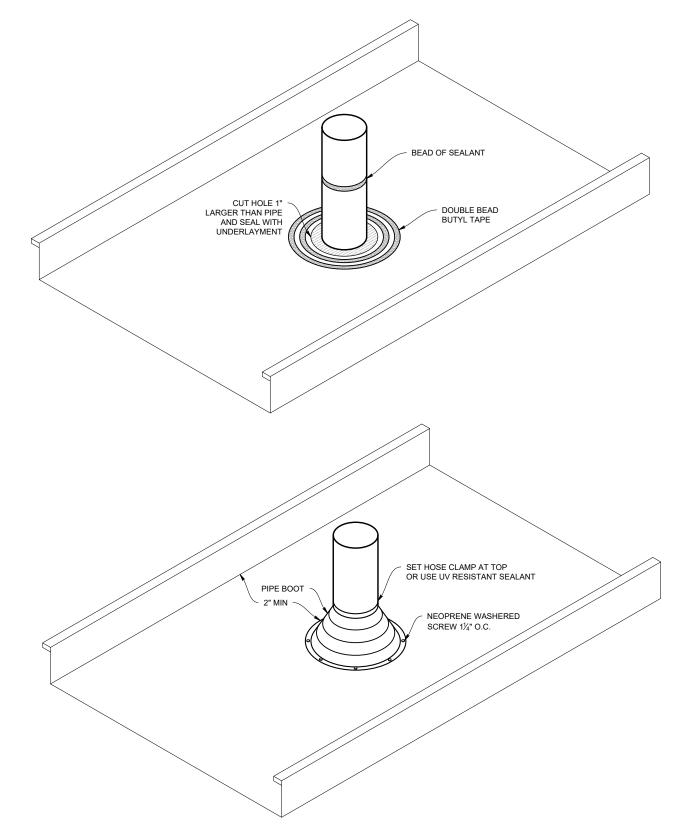








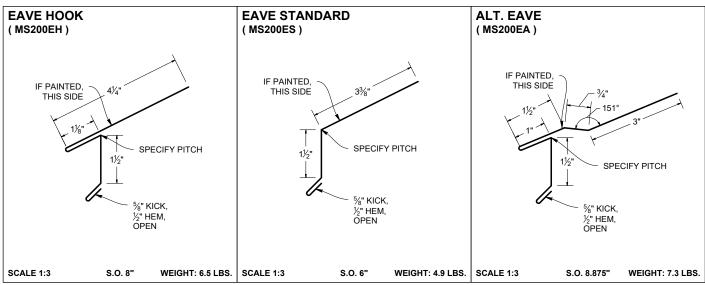
Pipe Penetration - on Pan



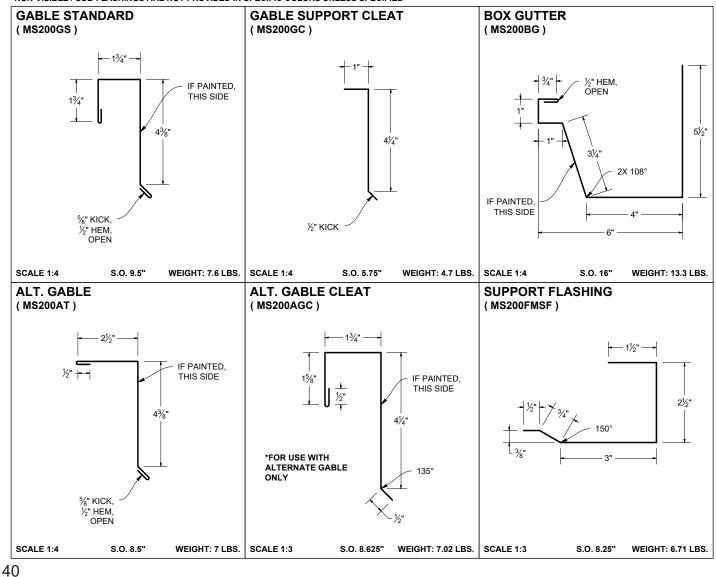
Note: All screws must be fastened into solid substrate. Flashing must be lapped 4" with 3 rows of gunnable sealant.

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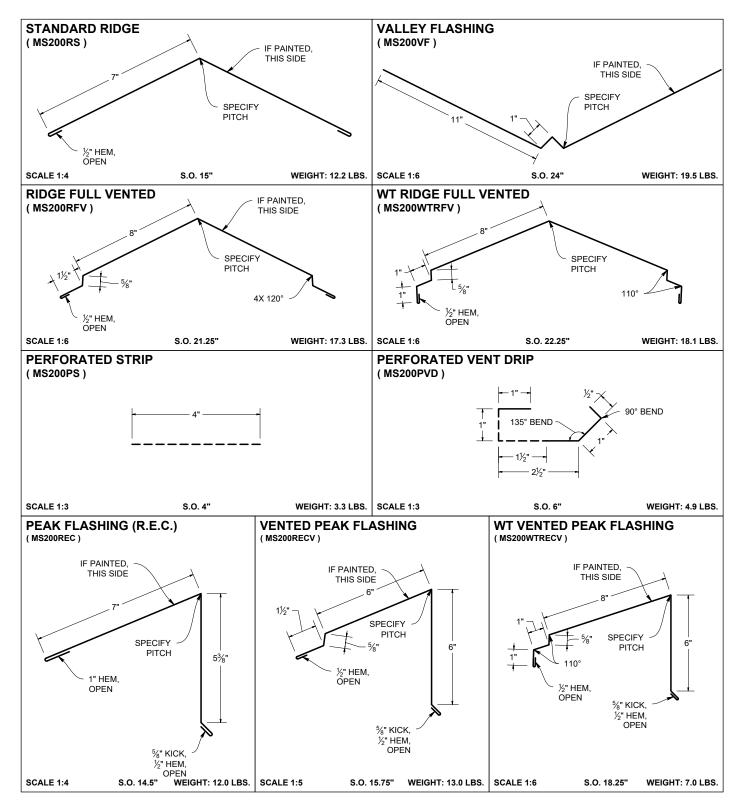


NON-VISIBLE / SUB-FLASHINGS ARE NOT PROVIDED IN SPECIFIC COLORS UNLESS SPECIFIED



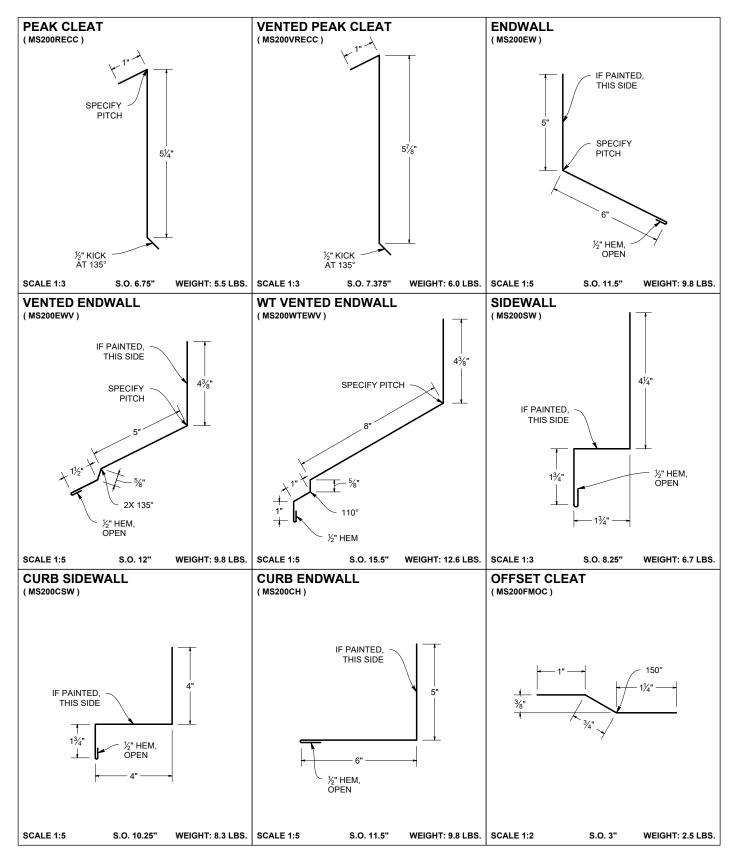


MS-200TM FM Flashing and Details Selection Flashing: 10' Standard



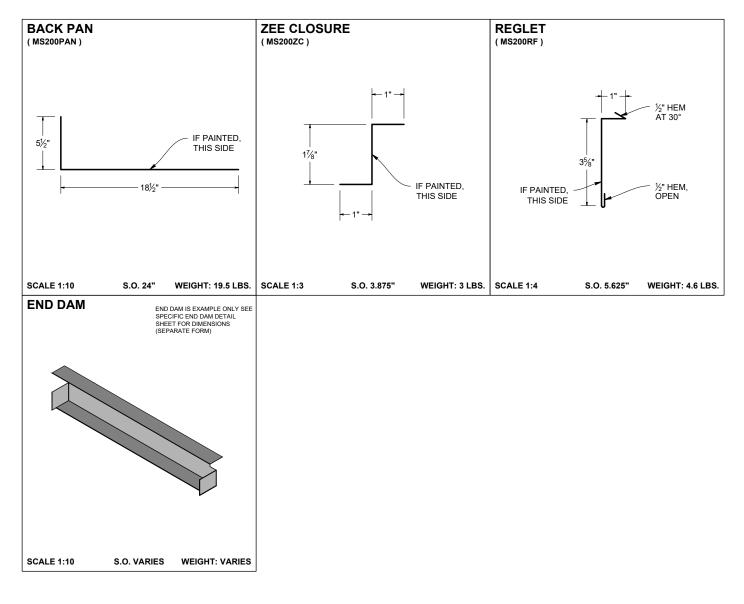
MS-200TM FM Flashing and Details Selection Flashing: 10' Standard







MS-200TM FM Flashing and Details Selection Flashing: 10' Standard



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	TA	YLOR DUCTS New Order D Add-on Order D Quote												
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are in Bo PBR Marion 4 Max Con 2-1/2" C	d Panels old font. "R" Panel rr forrugated 7/8" Corru	16" Easy-Lock*	☐ Flat (^{Flat} ; ? <u>Y</u> / <u>N</u> Se] ShadowLi 1/2" to] 1"x12-5/8"] 1"x12-5/8" Choice: V-Groove	ealant? Y/N ne**(circle): <u>1</u> ", c 3" Reveal: ' SmoothWa ' Lifetime S	all** offit**	16-1 12" 14-! 16" 18" 12-: 12-: 12-: 12-: 13-:	8/8" Slim-Lock* I/4" Slim-Lock* MS-200* 5/8" MS-200* MS-200* 8/4" MS-150* 5/8" MS-150* 8/4" MS-100* 5/8" MS-100*		20' 30' Span* rsa-Span* Span* -Span *					
Items	*All ArmorTec	m-Lock, Easy-Lock, Lifetime Soffit, Smo h StreamLine, T-3, Tuff Rib, GR7, PBR	, HR-32, Marior	n "R", & Corruga	ated flas	hings are	12'6"		-					
Quantity	Length	Item Description	Part #	Quantity	Len	gth	Item Desc	ription	Part #					
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Forgetting	• •	? Screws?					~?	Closures?						
Underlayn 4566 F		Screws? NE • Salem, OR 97301 •		ps? 81-6877 •		aulking 03-581	5	-	l.com					



Custom Trim Order

Custome	r N	ame	:													_ Jo	b N	ame:					
Gauge: _						Сс	olor	:									St	atus:	Ori	ginal		Ne	W
Specify:		Ang	les	С	olo	r Si	ide		Di	ime	nsi	ons		Str	etch	out							
SO																							
Dwg # <u>:</u> Descripti Hems:	on:			 								_	De	scri	ption	n:			 				
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Please provide a drawing for each flashing with precise measurements and angles Fax to: 503-581-6877

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Custom Trim Order

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Specify:	□ Angle	s 🗆	Colo	r Side		Dir	nen	isions		Stre	etcho	out							
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Dwg #:	Pitch		#	of Pie	ces:								tch:						
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