Product Manual

RIGID
GLOBAL BUILDINGS

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Introduction Tab

INTRODUCTION

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Pre-Engineered Advantages

Pre-Engineered Buildings offer significant advantages over Conventional Structural Steel Buildings

The term “Pre-Engineered Buildings” (P.E.B.) is not well known to the Engineering Groups who traditionally design their buildings with conventional structural steel using standard hot rolled sections from product manufacturers. The attached comparison is intended to introduce and inform Engineering Design Groups of the P.E.B. concept, its high versatility and practicality, and its disadvantages to Designers and Contractors.

The P.E.B concept is widely used in the United States, as well as in many of the industrialized countries. It consists of a complete steel-framed building system, with components pre-designed to fit together in a vast variety of combinations to meet the unique requirements of specific end uses. Sub-Systems include anchor bolts, structural framing, insulation, roof and wall cladding, mezzanines or floor including steel floor decking, windows, doors, ventilation systems, canopies, overhangs and fascias.

P.E.B can be used for permanent installations from around 400 square feet (36 square meters) upwards, for one story and two story construction.

Rigid Building Systems, located in Houston, Texas, U.S.A. produces 45 million dollars in shipments annually, not only in American market but also in the global market.

Several major Contractors and Designers who previously used conventional design exclusively adopted the P.E.B. formula and the savings have proven to be extremely high.

We design and we manufacture.

Please contact us for further technical discussions. We can make your job easier, and you can make your company more competitive.

The attached detailed comparison between Conventional Structural Steel and Pre-Engineered Building Systems will give you a precise idea of the advantages of P.E.B.

	PRE-ENGINEERED BUILDINGS	CONVENTIONAL STRUCTURAL STEEL
1) Design Criteria	A.I.S.C. / M.B.M.A. / A.W.S.	A.I.S.C. / A.W.S. / J.I.S. / D.I.N. / B.S.
2) Design	Quick and efficient since standardization of P.E.B. has significantly reduced design time. Basic designs are used over Specialized computer analysis and design programs reduce design time and optimize material required. Drafting is also computerized with minimal manual drawings. Design, detail drawings and erection drawings are supplied free of charge by the manufacturer. Approval drawings may be prepared within 10 days to 3 weeks. Consultant in-house design and drafting design is significantly reduced,allowing more time for coordination and review, and increasing margins in design fee savings.	Each conventional steel structure is designed from scratch by the consultant, with fewer design aids available to the Engineer. Maximum engineering required on every project. Generalized computer analysis programs require extensive input/output and design iterations. Drafting is manual or only partially automated.Much Consultant time and expense is devoted to design and drafting, as well as coordination and review.

	PRE-ENGINEERED BUILDINGS	CONVENTIONAL STRUCTURAL STEEL
3) Weight	About 30% lighter through the efficient use of steel. Primary framing members are designed with tapered built-up plate sections with the most steel in the areas of highest stress, using high strength steel.Secondary members are light gage cold formed “Z” or “C” shaped members. Members are roll-formed for minimum weight and labor cost.	Steel member sizes must be selected from standard hot rolled sections, which in many cases are heavier than what is actually required by design. Members are the same cross-section along the entire length, regardless of local stress magnitudeSecondary members are from standard hot rolled “I” and “C” sections. In many cases members are heavier than required, and therefore are not as economical as cold formed members.
4) Base Material	Rigid Building P.E.B. System uses almost all steel to meet 50,000 P.S.I. minimum yield including the cladding.	In most of the cases (90%) Base Material is 36,000 P.S.I. minimum yield.
5) Foundation	Simple design, easy to construct and lightweight.	Simple design, easy to construct and lightweight.
6) Accessories *(Windows, Doors, Ventilation)*	Designed to fit the system, with standardized, interchangeable parts, including pre-designed flashing and trims.Mass produced for economy. All available with the building.	Every project requires special design for accessories and special sourcing for each.Flashing and trims must be uniquely designed and fabricated.
7) Delivery	Approximately 8 weeks.	Average 5 to 6 months.
8) Erection	Easy, fast, step by step. Erection costs and time are accurately known, based upon extensive experience with similar buildings.	Slow, extensive field labor required. Typically 20% more expensive than P.E.B. In most of the cases, the erection cost and time are not estimated accurately.
9) Architecture	Outstanding architectural design can be achieved at low cost. Conventional wall and fascia materials, such as concrete, masonry and wood, can be utilized.	Special architectural design requires research and high cost.
11) Sourcing and Coordination	Building is supplied complete with cladding and all accessories, including erection if required, all from one source of supply.	Building is supplied complete with cladding and all accessories, including erection if required, all from one source of supply.
12) Changes	Very flexible, tailor made, accepts changes and revisions easily. Future expansion simple, easy and cost effective. One supplier to coordinate changes.	Changes, revisions and additions can be difficult due to extensive redesign and coordination among suppliers and Sub-contractors.
13) Responsibility	Single source of supply results in total responsibility for one supplier,including design liability.	Multiple responsibilities can result in questions of who is responsible when components do not fit properly, insufficient material is supplied, or materials fail to perform, particularly at supplier interfaces. The Consultant carries total design liability.
14) Performance	All components have been specified and designed specifically to act together as a system, for maximum efficiency, precise fit-up, and performance in the field.The experience with similar buildings in actual field conditions world-wide has resulted in design improvements over time, which allows dependable prediction of performance.	Components are designed in general for possible use in many alternative configurations. Design and detailing errors are possible in assembling diverse components into unique buildings. Each building design is unique, so prediction of how components will perform together is uncertain. Materials which have performed well in some climates may not in other environments.

Rigid building systems utilize state-of-the-art computer aided fabrication equipment and technology to assure customers of high-quality steel products at very competitive prices.

Building Maintenance Guide

Building Exterior

We recommend that you follow our simple maintenance schedule. By following our recommendations you will be assured of the maximum trouble-free lifespan of your building.Periodic maintenance of the exterior will depend on the location of your building.The following table gives recommended periods but can be varied to suit particular environments based on local or practical experience.

Building Location	Maintenance Period
(a) Up to 5 km from the sea	2 Months
(b) High Pollution industrial area	2 Months
(c) Medium pollution industrial area	3 Months
(d) Areas of high humidity	4 Months
(e) Low pollution industrial area	4 Months
(f) Dry, desert areas	8 Months

Preventive maintenance should commence immediately after a project is erected, modified or repaired.

1. Check for any debris that may have been left on top of panel or trim.

Examples of this are ferrous items such as screws, pop rivets, nails, drill sward, sheet metal off-cuts, tin cans, etc. Large or heavy items should be removed by hand to avoid damaging the paint or zinc layer on the panel. The remaining smaller items may be swept off with a soft nylon brush. Please note this check should be made after any trade has worked on the building, e.g., electricians, plumbers, air conditioning technicians, and steel erectors.

2. Check for sand or dirt build up. These retain salt and moisture and will rapidly breakdown the paint and zinc layers resulting in corrosion of the base metal.

3. The most vulnerable areas of the building are:

- √ Gutters.
- √ Roof Sheets.
- √ Sheltered Areas.
- √ Top portion of walls sheltered by roof overhangs or gutters.

Sand and dirt should be washed off with clean desalinated water and a soft nylon brush. Clean from top to bottom and give a final rinse with desalinated water when completed. Ensure no water is trapped anywhere.

4. If the building is in an area of industrial pollution or close to a marine environment then water alone may not be enough. Salts and other deposits build up at the formed corners of panels and quickly breakdown the paint and zinc layers and finally corrode the base metal. As such deposits build up, the hardness of the layer increases making removal more difficult. In this case, the period between maintenance operations should be shortened and a mild detergent should be added to the initial washing water.

The Following is a Recommended Solution:

- ♦ 1/3 cup detergent
- ♦ 2/3 cup tri-sodium phosphate (e.g., Soilex).
- ♦ 1 quart sodium hypo chlorite - 5% solution (e.g., Clorox).
- ♦ 3 quarts water

Wash down the panel with the above solution and a soft nylon brush. A final rinse of clean desalinated water should follow.

Caulking compounds, oil, grease, tar wax, or similar substances can be removed with mineral spirits. Follow this by cleaning with the detergent solution and clean desalinated water rinse.

CAUTION:
Avoid solvent and abrasive type cleaners as they can do more harm than good by wearing both the paint and zinc layers.

5. Check the base of wall panels to ensure the ground level is at least 150 mm below the bottom of the panel. If wind blown-sand has built up at the base of the wall, It should be removed. If plants/shrubs etc., are around the building, make sure they are not touching the wall panel, particularly Thom-type bushes.

6. Check all equipment which is located through or adjacent to any panel (Roof or Wall). Ensure there is no moisture build up on or near the panel. If there is, then corrosion is inevitable. If this condition exists, then make modifications to avoid it.

The Following situations are examples of conditions to be avoided:

- Water run-off from water services or air conditioners.
- Copper pipes fastened directly to the steel panel.
- Open water storage tanks or ponds adjacent to the panel.
- Steam outlets adjacent to the panels
- Acid storage areas adjacent to the panels.

7. Standard gutters and Valley gutters.

- Regular checks should be made and all rubbish and sand should be removed.
- Flush the waters with gutters.
- Check that downspouts are clear.
- Check that downspouts have adequate drainage away from the building.

8. If minor damage occurs to the sheeting or trims, and paint touch-up is required, then the following procedure should be followed:

- Abrade the affected area.
- Clean down with a solvent.
- If based metal exposed, apply one coat of a zinc chromate primer. If base metal is not exposed, then the primer is not required.
- Apply one coat of available touch-up paint.

SAFETY

Roofs

Extreme caution should be exercised when working on roofs.

- Use only ladders which are long enough to reach one meter above the step off point.
- Always secure the ladder to the building and make sure it is on a firm base.
- Do not step on skylight panels.
- When walking on the roof, step on the low corrugations, not on the high corrugations. Stepping on the high corrugations can damage the sheets.Walk along the screw line where possible.

Cranes

- When maintaining overhead cranes or associated parts, immobilize the crane before commencing work.

Accessories

Walk Doors

- Occasionally lubricate the hinges and lockset.
- Removed any dirt or grit from the threshold.
- Make sure the door is not allowed to swing back against the wall, this can sprain the hinges, and damage the panel.

Sliding Doors

- Regular cleaning of the bottom door guide by removal of stones and sand will ensure smooth running.

Roll-up Doors

- Occasionally clean and lubricate chains and reduction drive gears.
- Lightly grease the vertical guides.
- Operate with caution.

Power Vents

- Periodically clean the blades to avoid build up of dust and dirt.

Buildings with Cranes

- Every 3 months check that diagonal rod bracing are tight.
- After one month of operation check that the high strength bolts on the crane beams are tight.
- Every six months check the high strength bolts in the crane beams and main frame connections.

Glossary

Accessories
Additions to the basic building, such as doors, windows, louvers, ventilators etc.

Anchor Bolts
Hooked bolts cast in concrete foundations for anchorage of structural members.

Base Angle
Continuous angle fixed to floor slab or grade beam for attachment of all panels.

Base Plate
The plate of a column or beam which rests on the supporting surface.

Beam
Horizontal structural member.

Brace Rods
Rods placed diagonally in roof and walls for transferring wind loads

Bridge Crane
Overhead traveling crane supported on beams and rails.

Built-up Member
(B.U.) Structural member formed by welding together web and flange plates.

Caulking
Sealant used in making watertight joints.

Clear Span
Building without internal columns.

Closure
(Foam Closure) Profiled foam material used inside or outside profiled roof or wall panels to form weather tight seal.

Cold Formed
Various steel shapes manufactured by roll - forming or pressing.

Column
Vertical structural member.

Crane Beam
Support for overhead traveling bridge crane.

Crane Rails
Rails welded or bolted to crane beams to form the track for bridge crane wheels.

Curb
Raised flashing around roof openings to form waterproof opening.

Damper
Baffle plate in a ventilator.

Dead Load
Weight of the structure.

D.S.D.
Double slide door.

Eave
Top of the sidewall.

Eave Height
Height from top of eave strut to finished floor level.

Eave Strut
Structural member at the eave which supports roof and wall panel.

Expansion Joint
A break in the construction to allow for thermal expansion.

Flange Brace
An angle from the flange of columns or rafters to girts and purlins to provide lateral support and stability.

Girt
Secondary horizontal member to which wall panels are attached, usually cold formed “Z”

Grout
Non-shrinking sand cement mixture used under base plates to obtain uniform bearing surface.

Haunch
Intersection of column and rafter.

Header
Horizontal member over an opening in a wall.

H.S.B.
High strength bolts.

Hot Rolled
Steel shapes formed while the steel is semi-molten.

Jack Beam
A beam used to support a rafter instead of a column.

Jamb
Vertical member at the side of a wall opening.

Joist
Horizontal member for supporting floor or roof decking.

Knee
See Haunch.

Liner Panel
Interior wall sheeting.

Live Load
Any variable temporary load on the structure.

Main Frame
Primary members which support secondary members.

Mastic
See caulking-sealant.

M.B.
Machine bolt.

Mezzanine
Intermediate floor between ground floor and first floor or roof.

Mono-Slope
Single slope roof.

Beam-Column
Building with intermediate columns.

Parapet
Vertical wall extension above the eave line.

Partition
Internal wall.

Pitch
Slope of the roof.

Pop Rivet
Used for joining flashing and light gauge metal trims.

Portal Frame
Column and beam bracing used in lieu of standard rod bracing, to provide clear access.

Post & Beam (P&B)
Light endwall framing.

Primer Paint
Factory applied paint to structural members providing protection during shipping and erection.

Purlin
Secondary horizontal member to which roof panels are attached usually cold formed “Z”

Rafter
Primary member supported on columns.

Ridge
Peak of gabled building.

Rigid Frame (R.F.)
Main frame of the building comprising columns and rafters.

Sag Rod
Tie rods used to support flanges of girts or purlins.

Sealant
See mastic-caulking.

Secondary Framing
Secondary members or framing such as girts, purlins, eave struts etc.

S.D.S
Self drilling screw - used for attaching panels and trims to girts and purlins. Pre-drilling is not necessary.

S.T.S
Seld tapping screw. Same function as S.D.S. but needs pre-drilled holes.

Shims
Small steel plates used to level base plates or packing between structural members.

Sill
The bottom horizontal member of a door or windows opening.

Skylight
Translucent fiberglass panel used in the roof to transmit natural light.

S.S.D.
Single slide door.

Soffit
Underside of canopy, fascia or roof extension.

Span
Distance from out to out of wall girts.

Splice Plate
Plate used to connect two members.

Stiffener
Plate welded to a member to prevent buckling.

Stitch Screw
Used to fasten side laps of panels.

Truss
Structural member made up of several individual parts welded or bolted together, the completed unit acting as a beam.

V.G.
Valley gutter.

SPECIFICATIONS

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SECTION 1 – GENERAL

1.1 THIS SPECIFICATION designates the quality, design criteria and workmanship used in metal building systems designed, manufactured and furnished by Rigid Global Buildings, hereinafter referred to as RIGID.

1.2 SPECIFICATIONS herein are to be used as a guide of the performance requirements for the materials used in the design and manufacture of RIGID's product line. They are intended to insure that the architect, engineer, builder and/or owner understand the basis for the design and manufacture of RIGID's pre-engineered building systems.

1.3 RIGID utilizes the standard specifications of industry recognized organizations, such as: AISC, AWS, ASTM, AISI, MBMA etc., as the basis for establishing it's own design, fabrication and quality criteria, standards, practices, methods and tolerances. For convenience, one or more provisions of a particular group or agency may be referenced in RIGID documents where appropriate. In all events, however, unless stipulated otherwise in the Final Quotation and Contract Form, RIGID's design, fabrication and quality criteria, standards, practices, methods and tolerances will govern the work; any other interpretations to the contrary notwithstanding.

1.4 MECHANICAL PROPERTIES of materials utilized by RIGID in the manufacture of its product line are referenced within these specifications. Applications of these materials are covered under their pertinent sections. Industry specification standards have been referenced where applicable within these specifications.

1.5 BUILDING NOMENCLATURE

1.5.1 THE BUILDING "WIDTH" AND "LENGTH" shall be measured from the inside face to the inside face of the wall covering.

1.5.2 THE BUILDING "EAVE HEIGHT" shall be measured from the bottom of the base plate of the frame columns to the intersection of lines representing the inside of the wall covering and the inside of the roof covering.

1.5.3 THE "BAY SPACING" shall be measured center line to center line of the main frames, except at end bays where "Bay Spacing" is measured from the inside of the wall covering to the center line of the first interior frame.

SECTION 2 - STRUCTURAL FRAMING

2.1 PRIMARY FRAMING shall be the main load carrying structural members. These members shall support secondary structural members.

2.1.1 RIGID FRAME "RF" shall normally be manufactured of solid web members having tapered or uniform depth rafters, rigidly connected to tapered or uniform depth columns. This system provides a clear span, single gable, or single sloped rigid frame designed to support the specified loads.

2.1.2 STRAIGHT COLUMN "SC" shall normally be manufactured of solid web members having tapered or uniform depth rafters, rigidly connected to uniform depth columns. This system provides clear span, single gable or single sloped rigid frame, straight column designed to support the specified loads.

2.1.3 BEAM and COLUMN "BC" shall normally be manufactured of solid web members having tapered and/or uniform depth rafters, rigidly connected to tapered or uniform depth exterior columns, and uniform depth or round section interior columns. This system provides a single gable, or single slope rigid frame having interior columns designed to support the specified loads.

2.1.4 MATERIALS used in the fabrication of primary framing systems shall be designed utilizing RIGID's standard practices, generally in compliance with the A.I.S.C. code.

2.1.4.1 STRUCTURAL FLAT PLATE, STRIP and/or BAR STOCK generally shall conform to the physical requirements of ASTM A529 or ASTM A572 as applicable, and shall have minimum yield strength of 50,000 psi for web plates and 55,000 psi for flange bars.

2.1.4.2 W, M and S SHAPES, ANGLE RODS, CHANNELS and OTHER HOT ROLLED SHAPES shall be of material conforming to the physical requirements of ASTM A572 or ASTM A992, and shall have a minimum yield strength of 50,000 psi.

2.1.4.3 ROUND PIPE SECTIONS shall be of material conforming to the physical requirements of ASTM A500 Grade B and shall have minimum yield strength of 42,000 psi.

2.1.4.4 STRUCTURAL TUBING shall be of material conforming to the physical requirements of ASTM500 Grade B and shall have a minimum yield strength of 46,000 psi.

2.1.4.5 OTHER YIELD STRENGTH MATERIALS may be used based on the particular building design requirements.

2.1.4.6 MEMBERS fabricated from plate or bar stock materials shall have flanges and webs joined on one side of the web by a submerged arc continuous weld process.

2.2 PRIMARY ENDWALL FRAMING shall be the main load carrying members of the building endwall. They shall include the corner columns, endwall columns and endwall rafters, and shall be manufactured of cold-formed light gage sections and/or structural sections.

2.2.1 BEARING FRAME "BF" shall be a system having a continuous rafter beam supported by corner columns and endwall columns, and shall be designed to support the specified loads. This is a non-expandable endwall.

2.2.2 HALF LOAD MAIN FRAMES shall be a system similar to the 'RF', 'SC' and 'BC' mainframes described in section 2.1, except that these main-frames are designed as non - expandable endwalls.

2.2.3 MATERIALS used in the fabrication of primary endwall framing systems shall be designed utilizing RIGID's standard practices, generally in compliance with the applicable sections of A.I.S.C. and A.I.S.I.

2.2.3.1 COLD-FORMED MEMBERS shall be fabricated from material conforming to the physical requirements of ASTM A653, structural steel Grade 50 or ASTM A1011 structural steel or high strength low alloy steel Grade 55. Either material shall be required to have a minimum yield strength of 57,000 psi.

2.2.3.2 STRUCTURAL SHAPES shall be of material conforming to the physical requirements of ASTM A572 or ASTM A992, and shall have a minimum yield strength of 50,000 psi.

2.2.3.3 OTHER YIELD STRENGTH MATERIALS may be used based on the particular building design requirements.

2.2.3.4 MEMBERS fabricated from plate or bar stock materials shall have flanges and web joined by a submerged are continuous weld process on one side only.

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2.3 SECONDARY FRAMING shall be the structural members which distribute the loads to the primary framing systems, and shall include the eave struts, purlins, girts, wind bracing and other miscellaneous structural members. They shall be manufactured of cold-formed light gage sections, welded plate sections and/or structural sections.

2.3.1 EAVE STRUTS shall be nominal 4", 6", 8", 9", 10" or 12" deep "cee" shape members of unequal flange manufactured of cold-formed light gage steel and shall be designed as simple span for the specified loads.

2.3.2 PURLINS AND GIRTS shall be nominal 4", 6", 8", 9", 10" or 12" deep "zee" shaped or "cee" shaped members, and shall be manufactured of cold-formed light gage steel designed as simple span, partially continuous or continuous for the specific loads.

2.3.3 WIND BRACING shall be a system of bracing designed for the specified loads in accordance with RIGID's design practices. They normally utilize rods, cables, diaphragm action, angles and/or welded plate or structural members.

2.3.4 MISCELLANEOUS FRAMING shall normally be those members which work in conjunction with primary, primary endwall and secondary framing systems. They shall include members such as: base angles, flange braces, jambs, headers, bridging, or sag members, and shall be designed to be supportive of the framing systems.

2.3.5 MATERIALS using in the fabrication of secondary framing systems shall be designed utilizing RIGID's standard practices, generally in compliance with the applicable sections of A.I.S.C. and A.I.S.I.

2.3.5.1 COLD-FORMED MEMBERS shall be fabricated from material conforming to the physical requirements of ASTM A653, structural steel Grade 50 or ASTM A1011 structural steel or high strength low alloy steel Grade 55. Either material shall be required to have a minimum yield strength of 57,000 psi.

2.3.5.2 CABLE BRACING shall be fabricated of material conforming to the physical requirements of ASTM A475, 7-Strands, Extra High Strength grade.

2.3.5.3 ROD BRACING shall be fabricated of material conforming to the physical requirements of ASTM A36 and shall have a minimum yield strength of 36,000 psi.

2.3.5.4 OTHER YIELD STRENGTH MATERIALS shall be used based on the particular building design requirements.

2.3.5.5 MEMBERS fabricated from plate or bar stock materials shall have flanges and webs joined on one side of the web by submerged arc continuous weld process.

SECTION 3- ROOF AND WALL COVERINGS

3.1 ROOF COVERING shall consist of the roof panels, their attachments, trim and sealant for use on the exterior of the roof. They shall be either RIGID's "PBR", "R", "PBM", "M", "CHOICE RIB", "HI-TECH" or "PLATINUM" roof panels.

3.1.1 RIGID's commercial "PBR" shall be a system of roof panels providing a 36" wide net coverage having 1 1/4" high major ribs at 12" centers and two minor ribs between the major ribs. Side laps shall be one full major rib and shall utilize the bearing edge of the underlying major rib for support. RIGID's "PBR" Panels shall be continuous from ridge to eave until panel length exceeds 40' and/or the panel becomes prohibitive of handling in which case endlaps are provided. Endlaps shall be 6" and occur over a supporting member. For materials and properties, see section 3.1.7.

3.1.2 RIGID's commercial "R" shall be a system of roof panels providing a 36" wide net coverage having 1 1/4" high major ribs at 12" centers and two minor ribs between the major ribs. Sidelaps shall be one full major rib. RIGID's "R" Panels shall be continuous from ridge to eave until panel length exceeds 40' and/or the panel becomes prohibitive of handling, in which case endlaps are provided. Endlaps shall be 6" and occur over a supporting member. For materials and properties, see section 3.1.8.

3.1.3 RIGID's commercial "PBM" shall be a system roof panels providing a 36" wide net coverage having 3/4" high major ribs at 6" centers. Sidelaps shall be one full major rib and shall utilize the bearing edge of the underlying major rib for support. RIGID's "PBM" Panels shall be continuous from ridge to eave until panel length exceeds 40' and/or the panel becomes prohibitive of handling, in which case endlaps are provided. Endlaps shall be 6" and occur over a supporting member. For materials and properties, see section 3.1.7.

3.1.4 RIGID's commercial "M" shall be a system of roof panels providing a 36" wide net coverage having 3/4" high major ribs at 6" centers. Sidelaps shall be one full major rib. RIGID's "M" Panels shall be continuous from ridge to eave until panel length exceeds 40' and/or the panel becomes prohibitive of handling, in which case endlaps are provided. Endlaps shall be 6" and occur over a supporting member. For materials and properties, see section 3.1.8.

3.1.5 RIGID's agricultural "CHOICE RIB" shall be a system of roof panels providing a 36" wide net coverage having ¾" high major ribs at 9" centers and two minor ribs between the major ribs. Sidelaps shall be one full major rib. RIGID's "CHOICE RIB" shall be continuous from ridge to eave until panel length exceeds 40' and/or the panel becomes prohibitive of handling, in which case endlaps are provided. Endlaps shall be 6" and occur over a supporting member. For material and properties, see section 3.1.9.

3.1.6 RIGID's commercial roof covering systems are designed for 4" maximum blanket insulation thickness over the purlins. RIGID acknowledges that there are proprietary methods of insulating where insulation of greater than 4" between the purlins may be utilized.

3.1.7 MATERIALS used in the fabrication of RIGID's "PBR" and "PBM" commercial roof panels shall normally be unfinished Aluminum-Zinc alloy-coated (Galvalume) steel substrate or a pre-finished Silicon Polyester Polar White finish over Aluminum-Zinc alloy-coated or G90 zinc-coated galvanized steel substrate in accordance with ASTM A792, Grade 80 (26 gage) or Grade 50 (24 gage) or ASTM A653, Grade 80 (26 gage).

3.1.8 MATERIALS used in the fabrication of RIGID's "R" and "M" commercial roof panels shall normally be a pre-finished Modified Silicon Polyester finish over Aluminum-Zinc alloy-coated or G90 galvanized steel substrate in accordance with ASTM A792, Grade 80 (26 gage) and Grade 50 (24 gage) or ASTM A653, Grade 80 (26 gage). Reference RIGID's Spectralite 2000 color chart for color availability.

3.1.9 MATERIALS used in the fabrication of RIGID's "CHOICE RIB" agricultural roof panels shall normally be a pre-finished Modified Silicon Polyester finish over G90 galvanized steel substrate in accordance with ASTM A653, Grade 80 (29 gage). Reference RIGID's "CHOICE RIB" Spectralite 2000 color chart for color availability.

3.1.10 RIGID's architectural "HI-TECH" shall be a system of standing seam roof panels with floating clip system to provide for thermal movement of the panel. The 24" wide net coverage has 3" high major ribs at 24" centers, and either 2 minor ribs between the major ribs or a striated pan with no minor ribs. RIGID's "HI-TECH" roof system shall be installed utilizing concealed galvanized 16 gage steel panel clips. RIGID's "HI-TECH" roof system has a factory applied sealant. "HI-TECH" panels shall be continuous from ridge to eave until the panel length exceeds 40' and/or the panels become prohibitive for handling, in which case endlaps are provided. Endlaps shall be 2" and occur 5" above a supporting member, utilizing galvanized 16 gage back-up plates and 18 gage stainless steel cinch straps for roof slopes less than 1:12. The minimum recommended roof slope for RIGID's "HI-TECH" roof system is 1/2 on 12. Roof slopes ¼ on 12 and less could cause severe ponding and will void material warranties. The maximum recommended roof slope is 4 on 12. For materials and properties, see section 3.1.11.

RIGID's "HI-TECH" standing seam roof system shall be available for 2 different insulation conditions. The "LOW CLIP" system shall be for buildings without insulation up to 3" of blanket insulation, requiring 3/8" thermal blocks only for the non-insulated condition, and will provide 3/8" of clearance over the purlins. The "HIGH CLIP" system shall be for buildings with 4" and 6" of blanket insulation. For 4" of blanket insulation a 5/8" thermal block is required, and for 6" of blanket insulation a 3/8" thermal block is required. The "HIGH CLIP" system provides 1 3/8" clearance over the purlins.

RIGID's "HI-TECH" system provides three types of sidelap conditions as follows:

3.1.10.1 RIGID's "EZ-Lok" sidelap condition is suitable on roof conditions with normal uplift resistance. No mechanical seaming is required.

3.1.10.2 RIGID's "Triple-Lok" sidelap condition is mechanically seamed on roof areas that call for increased wind uplift resistance.

3.1.10.3 RIGID's "Quad-Lok" sidelap condition is mechanically seamed on roof areas that call for the highest wind uplift conditions such as building corners and building ends.

3.1.11 MATERIALS used in the fabrication of RIGID's "HI-TECH" roof panels shall normally be non-painted zinc-aluminum alloy-coated steel substrate, a pre-finished Silicon Polyester Polar White finish or a pre-finished Fluoropon 70% Kynar 500 / Hylar 5000 Snow White over 24 gage, Grade 50 Aluminum-Zinc alloy-coated steel substrate, ASTM A792, coating designation AZ50 or AZ55.

3.1.12 RIGID's architectural "PLATINUM" shall be a system of standing seam roof panels with either a fixed clip system for rigid construction, or a floating clip system to provide for thermal movement of the panel. The 16" or 18" wide net coverage has 2" high major ribs at 16" or 18" centers, and a striated pan. RIGID's "PLATINUM" roof system shall be installed utilizing concealed galvanized 16 gage steel panel clips. RIGID's "PLATINUM" roof system has a factory applied sealant. "PLATINUM" panels shall be continuous from ridge to eave until the panel length exceeds 40' and/or the panels become prohibitive for handling, in which case endlaps are provided. Endlaps shall be 2" and occur 7" above a supporting member, utilizing galvanized 16 gage back-up channels and 18 gage stainless steel cinch straps for roof slopes less than 1:12. The minimum recommended roof slope for RIGID's "PLATINUM" roof system is 1/2 on 12. Roof slopes less that ½ on 12 and less could cause severe ponding and will void material warranties. The maximum recommended roof slope is 6 on 12. For materials and properties, see section 3.1.13.

RIGID's "PLATINUM" standing seam roof system shall be available for 3 different conditions. The "UTILITY" system shall be for buildings without insulation, rigid board insulation or plywood decking. The "LOW CLIP" system shall be for buildings without insulation up to 3" of blanket insulation, requiring 3/8" thermal blocks only for the non-insulated condition, and will provide 3/8" of clearance over the purlins. The "HIGH CLIP" system shall be for buildings with 4" and 6" of blanket insulation. For 4" of blanket insulation a 5/8" thermal block is required, and for 6" of blanket insulation a 3/8" thermal block is required. The "HIGH CLIP" system provides 1 3/8" clearance over the purlins.

RIGID's "PLATINUM" system provides two types of sidelap conditions as follows:

3.1.12.1 RIGID's "Triple-Lok" sidelap condition is mechanically seamed on roof areas that call for normal and increased wind uplift resistance.

3.1.12.2 RIGID's "Quad-Lok" sidelap condition is mechanically seamed on roof areas that call for the highest wind uplift conditions.

3.1.13 MATERIALS used in the fabrication of RIGID's "PLATINUM" roof panels shall normally be a pre-finished Fluoropon 70% Kynar 500 / Hylar 5000 over 24 gage, Grade 50 zinc-aluminum alloy-coated steel substrate, ASTM A792, coating designation AZ50 or AZ55. Reference RIGID's Spectralite 3000 color chart for color availability.

3.2 WALL COVERING shall consist of the wall panels, their attachments, and trim for use on the exterior of the walls. They shall be either RIGID's "AW", "R", "R-VEE", "M" or "CHOICE RIB" wall panels.

3.2.1 RIGID'S commercial "AW" shall be a system of wall panels providing a 36" wide net coverage having 1 1/4" deep major ribs at 12" centers and a 5" wide sculptured "valley" shape between major ribs. Member and stitch screws are located in the "valley" of the major ribs, therefore screw lines are not as noticeable. Sidelaps shall be one major rib. RIGID's "AW" Panels shall be continuous from eave to sill until the panel length exceeds 35' and/or the panel becomes prohibitive of handling in which case endlaps are provided. Endlaps shall be 4" and occur over a supporting member. For materials and properties, see section 3.2.5.

3.2.2 RIGID'S commercial "R" shall be a system of wall panels providing a 36" wide net coverage having 1 1/4" high major ribs at 12" centers and two minor ribs between the major ribs. Sidelaps shall be one major rib. RIGID'S "R" Panels shall be continuous from eave to sill until the panel length exceeds 35' and/or the panel becomes prohibitive of handling in which case endlaps are provided. Endlaps shall be 4" and occur over a supporting member. For materials and properties see section 3.2.5.

3.2.1 RIGID'S commercial "R-VEE" shall be a system of wall panels providing a 36" wide net coverage having 1 1/4" deep major ribs at 12" centers and a 5" wide sculptured "reverse valley" shape between major ribs. Member and stitch screws locations shall match that of RIGID's "R" panel. Sidelaps shall be one major rib. RIGID's "R-VEE" Panels shall be continuous from eave to sill until the panel length exceeds 35' and/or the panel becomes prohibitive of handling in which case endlaps are provided. Endlaps shall be 4" and occur over a supporting member. For materials and properties, see section 3.2.5.

3.2.3 RIGID'S commercial "M" shall be a system of wall panels providing a 36" wide net coverage having 3/4" high major ribs at 6" centers. Side laps shall be one major rib. RIGID's "M" Panels shall be continuous from eave to sill until the panel length exceeds 35' and/or the panel becomes prohibitive of handling in which case endlaps are provided. Endlaps shall be 4" and occur over a supporting member. For materials and properties see section 3.2.5.

3.2.4 RIGID's agricultural "CHOICE RIB" shall be a system of wall panels providing a 36" wide net coverage having ¾" high major ribs at 9" centers and two minor ribs between the major ribs. Sidelaps shall be one full major rib. RIGID's "CHOICE RIB" shall be continuous from ridge to eave until panel length exceeds 35' and/or the panel becomes prohibitive of handling, in which case endlaps are provided. Endlaps shall be 4" and occur over a supporting member. For material and properties, see section 3.2.6.

3.2.5 MATERIALS used in the fabrication of RIGID's "AW", "R", "R-VEE" and "M" commercial wall panels shall normally be a pre-finished Modified Silicon Polyester finish over Aluminum-Zinc alloy-coated or G90 galvanized steel substrate in accordance with ASTM A792, Grade 80 (26 gage) and Grade 50 (24 gage) or ASTM A653, Grade 80 (26 gage). Reference RIGID's commercial Spectralite 2000 color chart for color availability.

If the customer requires a Kynar finish on any of RIGID's commercial wall panels, materials used in the fabrication shall normally be a pre-finished Fluoropon 70% Kynar 500 / Hylar 5000 over 26 gage, Grade 50 Aluminum-Zinc alloy-coated steel substrate, ASTM A792, coating designation AZ50 or AZ55. Reference RIGID's Spectralite 3000 color chart for color availability

3.2.6 MATERIALS used in the fabrication of RIGID's "CHOICE RIB" agricultural wall panels shall normally be a pre-finished Modified Silicon Polyester finish over AZ50 or AZ55 Galvalume or G90 galvanized steel substrate in accordance with ASTM A653, Grade 80 (29 gage) and ASTM 792, Grade 80 (26 and 29 gage) Aluminum-Zinc alloy-coatedAluminum-Zinc alloy-coatedAluminum-Zinc alloy-coated. Reference RIGID's "CHOICE RIB" Spectralite 2000 color chart for color availability

3.3 MATERIALS used in the fabrication of RIGID's commercial roof and wall trim and flashing shall normally be a pre-finished Modified Silicon Polyester finish over Aluminum-Zinc alloy-coated or G90 galvanized steel substrate in accordance with ASTM A792, Grade 50 (24 & 26 gage) or ASTM A653, Grade 50 (26 gage). Reference RIGID's commercial Spectralite 2000 color chart for color availability.

3.4 MATERIALS used in the fabrication of RIGID's architectural roof and wall trim and flashing shall normally be a pre-finished Fluoropon 70% Kynar 500 / Hylar 5000 over 26 gage, Grade 50 Aluminum-Zinc alloy-coated steel substrate, ASTM A792, coating designation AZ50 or AZ55. Reference RIGID's Spectralite 3000 color chart for color availability.

3.5 PAINTED FINISHES for roof and wall coverings and their flashing shall unless otherwise specified, consists of 0.2 mil baked on primer coat applied to each side. A 0.8 mil baked-on finish coat will be applied on one side, while a 0.3 mil baked-on straight polyester wash coat will be applied on the other. Total thickness of the finish coat side will be nominal 1.0 mil (including the primer coat). Thickness of the backside will be a nominal 0.5 mil (including the primer coat).

3.6 SYSTEMS COVERING SEALANTS shall normally be roll tape sealant, tube sealant, and closures as required for weather-tightness of the roof.

3.6.1 TAPE SEALANTS shall be of performed butyl rubber base, and shall normally be supplied as a 3/32" x 1/2" extruded shape. Wide tape sealant, 3/32" x 1" shall be available if specified.

3.6.2 TUBE SEALANTS shall be of a polyurethane type material for applications where color sealant is required. Clear tube sealants shall be of an acrylic type material.

3.6.3. CLOSURES shall be a closed cell polyethylene material of a gray neutral color, and shall be die cut to panel profiles. Closures shall be supplied as required to provide weather tightness.

3.6 FASTENERS for roof and wall covering systems shall normally be one or more types of self-drilling or self-tapping screws. Blind rivets shall normally be used in trim and accessory attachment and trim splicing.

SECTION 4- MANUFACTURING

4.1 STRUCTURAL MEMBERS shall normally be fabricated by shearing, flame cutting, forming, welding, punching, drilling, reaming, etc., as required in accordance with RIGID's standard practices.

4.1.1 WELDED PLATE MEMBERS fabricated from plate or bar stock materials shall have flanges and webs joined on the one side of the web by a submerged arc continuous weld process.

4.1.2 SHOP CONNECTIONS for built-up and/or hot-rolled members shall normally be welded using either a submerged or gas metal arc weld process. Welding shall be in accordance with RIGID's standard practices in compliance with the applicable sections, relating to design requirements and allowable stresses of the latest edition of the "AWS Structural Welding Code D1.1".

4.1.3 FIELD CONNECTIONS shall normally be the bolting of structural members using high strength bolts and machine bolts in shop drilled, punched or reamed holes, in accordance with RIGID standard practices.

4.1.4 WORKMANSHIP AND TOLERANCES of the manufactured building parts shall be in accordance with RIGID's quality control standards.

4.2 SHOP PAINTING of members with shop primer paint shall be provided for the purpose of protecting the steel member during transportation, job site storage, and during erection. Shop primer does not provide the appearance, durability and/or protection of an appropriate field applied finish. RIGID is not responsible for any deterioration of the shop primer paint as a result of improper handling and/or storage. RIGID shall not be responsible for any field applied paint and/or coatings.

4.2.1 CLEANING of steel members shall normally be the removal of oil, dirt, loose scale and/or foreign matter prior to painting in accordance with SSPC-SP2.

4.2.2 COATING of steel members shall normally be one shop coat of RIGID's standard primer paint in accordance with the standard practices of RIGID, and generally shall equal or exceed the end performance requirements of Federal Specifications SSPC # 15.

4.3 ALL FRAMING MEMBERS shall carry an easily visible identifying painted or stenciled piece mark.

SECTION 5- ACCESSORIES

5.1 TRANSLUCENT ROOF PANELS shall be of nominal 8 oz., fiberglass, white finish, and conform to the configuration of the RIGID "R" roof panel. The packages available are Standard, Fire Retardant, UL 90 and Insulated. The Standard Package includes an 8 oz. general purpose panel conforming to commercial standard CS-214-517. The Fire Retardant Package includes an 8 oz. fire retardant panel with a UL flame spread rating of 25 when tested in accordance with ASTM D635-56T. The UL90 Package includes an 8 oz. panel and the necessary panel straps and side battens required to conform to the UL90 rating. The Insulated Package shall include a sandwich construction whereby a 5 oz. fiberglass panel is bonded to the underside of an 8 oz. translucent roof panel to provide an 1/8 " minimum dead air space. Translucent roof panels are nominally 36" wide and are compatible for use over two 5'-0" purlin spaces. Translucent roof panels SHOULD NOT be used with side to side or end to end installations.

5.2 TRANSLUCENT WALL PANELS shall be nominal 8 oz. fiberglass, white finish, and conform to the configuration of the RIGID "R" wall panels. The panels are general purpose, non-rated and conform to commercial standard CS-214-517. Translucent wall panels are nominally 36" wide and are generally supplied in lengths required. Translucent wall panels may be used with side to side installations.

5.3 ROUND GRAVITY VENTILATORS shall have bird screen, interior baffles and exterior wind bands designed to provide maximum air flow. Round ventilators are furnished with dampers. Damper shall be vertical rising, operated by a standard pull chain. Cable that runs from the operator down the wall to a handle can be supplied as an option. Ventilators may be supplied peak mounted or hillside mounted. Peak mounted vent base configuration is normally flat, while hillside mounted vent base configuration normally matches the roof panel configuration. Ventilators are available in aluminum-zinc or white (Other colors are available with additional cost.)

5.4 CONTINUOUS OR SECTIONAL GRAVITY RIDGE VENTILATORS shall be supplied with a screen, and will be furnished in 10'-0" lengths. Multi-unit splice drains and end cap skirt assemblies, where required, shall be provided to make up the specified length. Continuous or sectional ventilators are furnished with dampers. The damper shall be a spring loaded vertical rising type, operated by a standard pull chain. Cable that runs from the operator down the wall to a handle can be supplied as an option. Ridge ventilators are provided with die-formed skirt bases. Ventilators are available in aluminum-zinc or white. (Other colors are available with additional cost).

5.5 ROOF FLASHING UNITS shall normally be used for roof mounted mechanical equipment and/or vents. Openings in roof and flashing units shall be field cut to required sizes. Flashing units are not intended to support any type of load. Loads are supported by means of sub frames and/or auxiliary secondary support systems. Flashing base configuration normally matches the panel profile on which it is used.

5.5.1 ROOF CURB UNITS are available for peak or hillside applications. Base configurations match the roof panel on which it is used. Curbs are at least 18 gage galvanized material with welded construction. Top flanges are turned in as standard and can accommodate rigid installation when specified. All sizes are available in galvanized or with baked-on powder coated finish to match the roof color.

5.5.2 ROOF JACKS shall be for the flashing of plumbing vent stacks and/or other pipe-like penetrations. They are available in 1/4" to 26" diameters. Jacks have flat, malleable bases and can be field formed to fit any standard panel configurations. Standard jacks have a heat range of -65 degrees centigrade to +250 degrees centigrade. Heat ranges of -100 degrees centigrade to +450 degrees centigrade are also available with additional cost. Jacks are standard black color.

5.6 PERSONNEL DOORS shall normally be single door 3070 or a double door 6070 available in flush panel (solid) or long vision. Half-glass, vision light and louvered doors are available upon request. Glass and glazing of personnel doors are not supplied by RIGID.

5.6.1 DOOR LEAF shall be non-handed, 1 3/4" thick, full flush, fabricated from 20 gage roller leveled, galvanized mill bonderized face sheets. Door finishes are white embossed (standard), bronzed embossed, or smooth gray finish. Top and bottom channels shall be welded flush to face sheet. The core materials shall be expanded polystyrene bonded to face sheets with a two component epoxy adhesive. Door edges shall be hemmed to eliminate raw edge metal, beveled on lock side and flat on hinge side. Door shall be prepared for 4 1/2" X 4 1/2" template hinges with 9 gage hinge reinforcements. Lock edges shall be prepared for Government Series 160 and 161 Locksets.

5.6.2 DOOR FRAMES shall be fabricated from 16 gage galvanized class G-60 or galvalume steel, mill bonderized. Floor and head clips X 4 1/2' template and universal striker plate. Frames are standard finished white with gray primer or bronzed finishes available.

5.6.3 HARDWARE shall normally consist of: (a) 1 1/2 pair full mortise hinges per leaf (b) one key-in-lever type cylindrical lockset (c) one aluminum threshold (d) one astragal, one filler plug for inactive leaf, one header bolt, one foot bolt, and one pair of surface bolts per double door. Optional weather stripping for jambs, head, and sill may be ordered. Optional Mortise lockset, panic hardware, handicap hardware, and door closers may also be ordered.

5.7 FRAMES OPENINGS IN WALLS shall normally be an opening framed with 16 gage minimum, cold-formed members, designed to meet the specified loads. Openings shall be trimmed in accordance with RIGID's standard practices.

5.8 ALUMINUM HORIZONTAL SLIDE WINDOWS shall be fabricated from 6063 alloy, T5 tempered hardness. Finishes are standard mill with bronzed painted on request. All windows shall be furnished with 1/8" double strength clear glass as standard with bronze tinted, obscured, or insulated glass on request. All horizontal slide windows shall be self flashing type with side fins to match either RIGID's "A", "M"' or "R" panel. Nylon rollers will be attached for smooth sliding action. Half screens shall be furnished with all windows.

5.9 ALUMINUM SINGLE-HUNG WINDOWS shall be fabricated from 6063 alloy, T5 tempered hardness. Standard finish is plain mill with bronzed painted on request. All windows shall be furnished with 1/8" double strength clear glass as standard with bronze tinted, obscured, or insulated glass on request. Single-hung windows require additional trim for a finished appearance. Half screens shall be furnished with all windows.

5.10 NARROW LITE ACCENT WINDOWS (SLIM LINE) shall be fabricated from 6063 alloy, T5 tempered hardness. Tubular type extruded sections are utilized for strength and rigidity. All accent windows shall be furnished with 1/8" clear tempered glass as standard with bronzed tinted or insulated glass on request. All accent windows shall be sold flashing type with side fins to match either RIGID "A", "R", or "M" panels. Outside trim fins are also provided with all units.

5.11 FIXED LOUVERS shall be shop fabricated out of 18 gage galvanized steel, self framing, self flashing, and self mulling, welded frames with 20 gage galvanized blades. Louvers shall have blades of the overlapping type, providing maximum weather tightness while allowing free air flow. Louvers are available in galvanized, white or any RIGID standard panel color. A removable insect screen is provided with each louver.

5.11.1 ADJUSTABLE LOUVERS shall be the same as fixed louvers except after finish is applied, a 3/8" x 1/4" weather stripping is applied to the edge of each blade which makes the louver virtually air tight with the blades in the closed position. The standard operator is by hand crank. An optional chain operator is available upon request.

5.12 CANOPIES shall normally be an overhang provided with a roof finish and trim finish matching that of the main structure. Soffit panels are optional. Canopies shall be framed of cold-formed light gage shapes, welded built-up section and/or hot rolled sections.

5.12.1 EAVE CANOPIES shall be the extension of the roof line at the eave. Eave canopies are measured from a structural line to structural line and/or face of side wall girt to face of eave member.

5.12.2 PURLIN EXTENSION CANOPIES shall be the extension of the roof line at the gable and / or endwall of the structure. Purlin extension are measured from the structural line to structural line and or face of endwall girt to face of purlin rake angle.

5.12.3 OPEN FASCIA SYSTEMS shall normally be designed to allow water runoff between the fascia and the building and permit use of eave guttering.

5.12.4 DOOR CANOPIES AND BELOW EAVE CANOPIES shall be below eave and/or rake line canopies designed for use over personnel doors,etc.

5.13 FASCIAS shall normally be constructed of secondary framing members. Fascia systems are available as parapet (vertical) and mansard (sloped) face. Fascia systems are measured from a structural line to a structural line and/or face of wall girt to face of fascia girt for overhang. Height is measured vertical from structural line to structural line and/or top of fascia rail to bottom of fascia rail.

5.13.1 FASCIA PANELS shall normally be RIGID "AW", "R" or "M" panels, or other facia material not exceeding a dead load of 2 psf and as specified in the contract documents. Fascia soffit panels are RIGID "M" or "R" panel and are available as an option on closed systems only.

5.13.2 CLOSED FASCIA SYSTEMS shall normally be designed with internal guttering between fascia and building and closed backing for weather tightness with other code bodies, such as sheer angles and embedment plates, are not normally supplied by RIGID.

SECTION 6 – MISCELLANEOUS

6.1 ANCHOR BOLTS are not normally supplied by RIGID. Anchor bolts shall not be less than the size and quantity shown on the RIGID anchor bolt setting drawings. Anchor bolts are unpainted for bonding with concrete, and are of sufficient capacity to properly resist the governing reactions induced by the design loads on the structure. Foundation reactions are furnished by RIGID, however, no responsibility for foundation design will be accepted by RIGID. All anchor bolts are to be set in strict accordance with RIGID drawings. Anchor bolts are designed in accordance with ASTM F1554 and it also meets ASTM A307 Grade C regulations. Additional materials required for compliance.

6.2 ERECTION of the RIGID building system shall be in accordance with the appropriate erection drawings, erection guides and/or other documents furnished by RIGID. It shall be the erector's responsibility to comply with all appropriate legal and safety requirements. It shall be the erectors responsibility to determine and provide any and all temporary bracing, shoring, blocking, bridging, and/or securing of components, etc., as required during erection of the building.

6.3 RIGID's STANDARD WARRANTY of production fabricated by RIGID, excluding paint, carry a warranty against failure due to defective material or workmanship for a period of one (1) year from the date of shipment. RIGID's ability under this warranty shall be limited to furnishing , but not dismantling or installing, necessary replacement material F.O.B. RIGID's plant in Houston. THIS WARRANTY IS IN LIEU OF ALL OTHER WARRANTIES EXPRESSED OR IMPLIED AND THERE ARE NO WARRANTIES, REPRESENTATIONS OR CONDITIONS OF ANY KIND, EXPRESSED OR IMPLIED, INCLUDING NO WARRANTY OF MERCHANTABILITY OR OF FITNESS FOR ANY PARTICULAR PURPOSE, BEYOND THOSE STATED HEREIN. IN NO EVENT SHALL RIGID BE LIABLE FOR LOSS OF PROFITS, OR OTHER INCIDENTAL CONSEQUENTIAL, OR SPECIAL DAMAGES.

Warranties on color coated panels, roof warranties, or any additional warranties on the building may, at RIGID's sole option, be purchased by builder and if purchased, shall be stated in the warranty certificates so purchased.

DESIGN DATA

DESIGN DATA

RIGID
GLOBAL BUILDINGS

18933 Aldine Westfield
Houston, TX 77073
888-GO-RIGID
www.RigidBuilding.com

GENERAL INFORMATION

DEFINITION OF SYMBOLS:

D DEPTH OF SECTION
Tf TOP FLANGE WIDTH
Bf BOTTOM FLANGE WIDTH
T STEEL THICKNESS
A GROSS SECTIONAL AREA
Wt UNIT WEIGHT OF SECTION IN lb/ft

Ixx MOMENT OF INERTIA ABOUT X-AXIS
Iyy MOMENT OF INERTIA ABOUT Y-AXIS
Rxx RADIUS OF GYRATION ABOUT X-AXIS
Ryy RADIUS OF GYRATION ABOUT Y-AXIS
Sxx SECTION MODULUS ABOUT X-AXIS
Syy SECTION MODULUS ABOUT Y-AXIS
J ST. VENANT TORSIONAL CONSTANT
Cw TORSIONAL WARPING CONSTANT OF THE CROSS SECTION
Ro POLAR RADIUS OF GYRATION ABOUT THE SHEAR CENTER
Xo DISTANCE FROM THE CENTER TO CENTROID ALONG THE PRINCIPAL X-AXIS

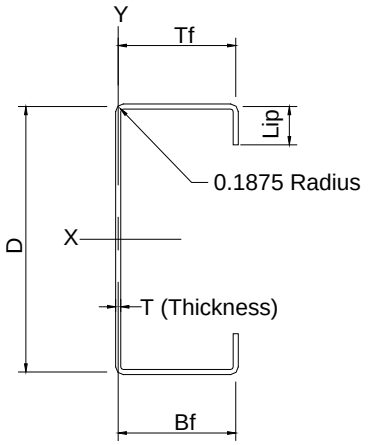
Yb DISTANCE FROM THE CENTROID AS MEASURED FROM THE BOTTOM FLANGE

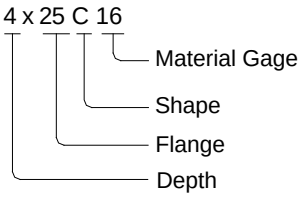
Sx_T SECTION MODULUS TOP OF X-AXIS
Sx_B SECTION MODULUS BOTTOM OF X-AXIS
Syy SECTION MODULUS ABOUT Y-AXIS
Iyc_T MOMENT OF INERTIA ABOUT CENTROIDAL Y-AXIS (TOP)
Iyc_B MOMENT OF INERTIA ABOUT CENTROIDAL Y-AXIS (BOTTOM)

Note:
The Iyc_T and Iyc_B for equal flange width is half of Iyy.
To determine the Iyc_T and Iyc_B for unequal flange widths, find the center of gravity about the y-y axis. Then calculate the moment of inertia for each flange independently from the y-y axis.

Vax ALLOWABLE SHEAR ABOUT X-AXIS
Vay ALLOWABLE SHEAR ABOUT Y-AXIS
Ae EFFECTIVE SECTIONAL AREA WITH STRESS IN EXTREME FIBER @ YIELD STRESS Fy
Pao ALLOWABLE AXIAL COMPRESSION FOR A FULLY BRACED SECTION
Ta ALLOWABLE AXIAL TENSION FOR A FULLY BRACED SECTION

4" x 2 1/2" CEE SECTION





NOTES:

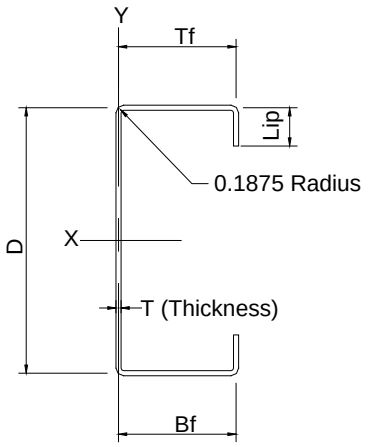
- Calculation dimensions are out-to-out of section thickness, "T"
- All sections are designed with reference to the "SPECIFICATIONS FOR COLD FORMED STEEL STRUCTURAL MEMBERS", AISI 1996 Edition
- Specific yield strength of Light Gage Cold-Formed Steel, Fy=55 ksi

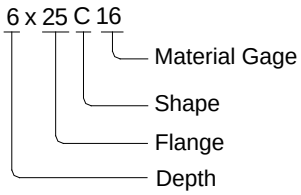
SECTION	GENERAL DATA							
	D (in)	Tf (in)	Bf (in)	T (in)	Lip (in)	Rad (in)	A (in^2)	Wt (lb/ft)
4x25C16	4.0	2.50	2.50	0.0568	0.77	0.1875	0.564	1.92
4x25C15	4.0	2.50	2.50	0.0642	0.79	0.1875	0.638	2.17
4x25C14	4.0	2.50	2.50	0.0747	0.81	0.1875	0.742	2.53
4x25C13	4.0	2.50	2.50	0.0863	0.84	0.1875	0.858	2.92
4x25C12	4.0	2.50	2.50	0.0968	0.86	0.1875	0.962	3.27

SECTION	FULL SECTION PROPERTIES									
	Ixx (in^4)	Sxx (in^3)	Rxx (in)	Iyy (in^4)	Syy (in^3)	Ryy (in)	J (in^4)	Cw (in^6)	Ro (in)	Xo (in)
4x25C16	1.504	0.752	1.632	0.512	0.330	0.953	0.00061	2.20	2.92	-2.23
4x25C15	1.690	0.845	1.627	0.579	0.374	0.952	0.00088	2.51	2.92	-2.23
4x25C14	1.950	0.975	1.621	0.671	0.436	0.951	0.00138	2.95	2.92	-2.24
4x25C13	2.232	1.116	1.613	0.773	0.505	0.950	0.00213	3.45	2.92	-2.25
4x25C12	2.482	1.241	1.606	0.865	0.567	0.948	0.00300	3.92	2.92	-2.25

SECTION	SECTION ALLOWABLES (Fully Braced Strength)					
	SHEAR (K)		MOMENT (k-in)	Ae (in^2)	Pao (k)	Ta (k)
	Vax	Vay				
4x25C16	5.027	3.639	21.226	0.4044	12.358	18.345
4x25C15	5.640	4.649	24.431	0.4802	14.674	20.735
4x25C14	6.243	5.485	27.796	0.5622	17.179	23.124
4x25C13	7.414	6.555	36.150	0.7802	23.838	27.873
4x25C12	8.226	7.308	40.893	0.9296	28.404	31.262

6" x 2 1/2" CEE SECTION





NOTES:

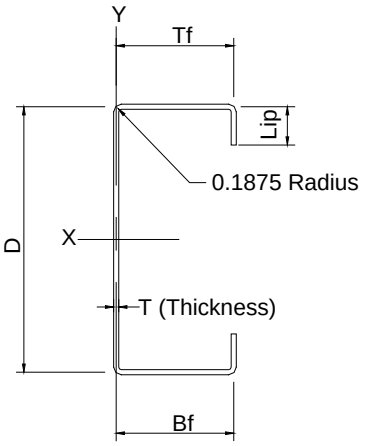
- Calculation dimensions are out-to-out of section thickness, "T"
- All sections are designed with reference to the "SPECIFICATIONS FOR COLD FORMED STEEL STRUCTURAL MEMBERS", AISI 1996 Edition
- Specific yield strength of Light Gage Cold-Formed Steel, Fy=55 ksi

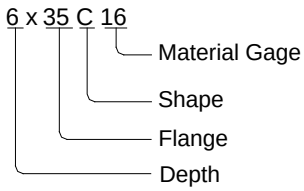
SECTION	GENERAL DATA							
	D (in)	Tf (in)	Bf (in)	T (in)	Lip (in)	Rad (in)	A (in^2)	Wt (lb/ft)
6x25C16	6.0	2.50	2.50	0.0568	0.77	0.1875	0.678	2.31
6x25C15	6.0	2.50	2.50	0.0747	0.81	0.1875	0.892	3.03
6x25C14	6.0	2.50	2.50	0.0863	0.84	0.1875	1.030	3.51
6x25C13	6.0	2.50	2.50	0.0968	0.86	0.1875	1.155	3.93
6x25C12	6.0	2.50	2.50	0.0968	0.86	0.1875	1.155	3.93

SECTION	FULL SECTION PROPERTIES									
	Ixx (in^4)	Sxx (in^3)	Rxx (in)	Iyy (in^4)	Syy (in^3)	Ryy (in)	J (in^4)	Cw (in^6)	Ro (in)	Xo (in)
6x25C16	3.827	1.276	2.376	0.592	0.347	0.935	0.00073	4.83	3.21	-1.95
6x25C15	4.989	1.663	2.365	0.777	0.459	0.934	0.00166	6.43	3.21	-1.96
6x25C14	5.731	1.910	2.359	0.896	0.531	0.933	0.00256	7.48	3.21	-1.97
6x25C13	6.394	2.131	2.352	1.003	0.597	0.932	0.00361	8.44	3.21	-1.97
6x25C12	6.394	2.131	2.352	1.003	0.597	0.932	0.00361	8.44	3.21	-1.97

SECTION	SECTION ALLOWABLES (Fully Braced Strength)					
	SHEAR (K)		MOMENT (k-in)	Ae (in^2)	Pao (k)	Ta (k)
	Vax	Vay				
6x25C16	5.027	2.835	36.447	0.4125	12.605	22.037
6x25C15	5.640	4.104	41.842	0.4920	15.033	24.908
6x25C14	6.243	5.709	47.496	0.5786	17.681	27.778
6x25C13	7.414	8.401	61.649	0.8093	24.728	33.482
6x25C12	8.226	10.570	70.210	0.9711	29.672	37.554

6" x 3 1/2" CEE SECTION





NOTES:

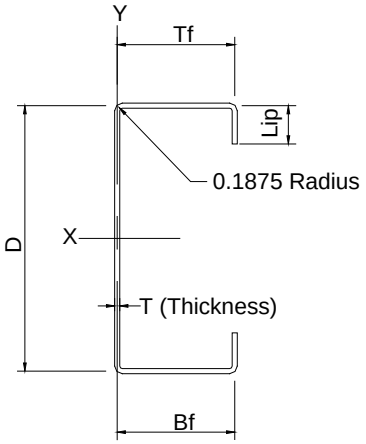
- Calculation dimensions are out-to-out of section thickness, "T"
- All sections are designed with reference to the "SPECIFICATIONS FOR COLD FORMED STEEL STRUCTURAL MEMBERS", AISI 1996 Edition
- Specific yield strength of Light Gage Cold-Formed Steel, Fy=55 ksi

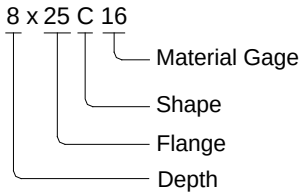
SECTION	GENERAL DATA							
	D (in)	Tf (in)	Bf (in)	T (in)	Lip (in)	Rad (in)	A (in^2)	Wt (lb/ft)
6x35C16	6.0	3.50	3.50	0.0568	0.77	0.1875	0.792	2.69
6x35C15	6.0	3.50	3.50	0.0642	0.79	0.1875	0.895	3.04
6x35C14	6.0	3.50	3.50	0.0716	0.80	0.1875	0.998	3.40
6x35C13	6.0	3.50	3.50	0.0863	0.84	0.1875	1.203	4.09
6x35C12	6.0	3.50	3.50	0.0968	0.86	0.1875	1.349	4.59

SECTION	FULL SECTION PROPERTIES									
	Ixx (in^4)	Sxx (in^3)	Rxx (in)	Iyy (in^4)	Syy (in^3)	Ryy (in)	J (in^4)	Cw (in^6)	Ro (in)	Xo (in)
6x35C16	4.830	1.610	2.470	1.330	0.578	1.296	0.00085	10.60	3.99	-2.85
6x35C15	5.441	1.814	2.466	1.503	0.655	1.296	0.00123	12.04	3.99	-2.86
6x35C14	6.048	2.016	2.462	1.676	0.732	1.296	0.00171	13.49	3.99	-2.86
6x35C13	7.240	2.413	2.453	2.018	0.886	1.295	0.00299	16.42	3.99	-2.87
6x35C12	8.080	2.693	2.447	2.262	0.996	1.295	0.00421	18.55	4.00	-2.88

SECTION	SECTION ALLOWABLES (Fully Braced Strength)					
	SHEAR (K)		MOMENT (k-in)	Ae (in^2)	Pao (k)	Ta (k)
	Vax	Vay				
6x35C16	7.279	2.835	39.180	0.4255	13.002	25.729
6x35C15	8.465	4.104	45.459	0.5132	15.682	29.081
6x35C14	9.394	5.709	51.948	0.6072	18.554	32.432
6x35C13	11.211	8.401	65.357	0.8107	24.772	39.092
6x35C12	12.485	10.570	75.240	0.9676	29.566	43.846

8” x 2 1/2” CEE SECTION





NOTES:

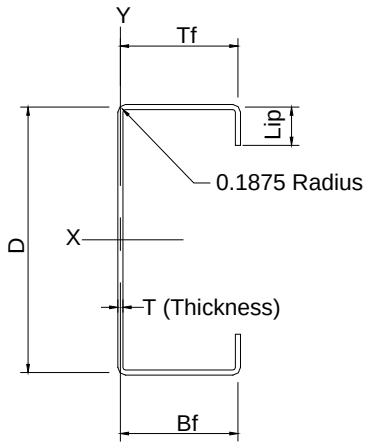
- Calculation dimensions are out-to-out of section thickness, “T”
- All sections are designed with reference to the “SPECIFICATIONS FOR COLD FORMED STEEL STRUCTURAL MEMBERS”, AISI 1996 Edition
- Specific yield strength of Light Gage Cold-Formed Steel, Fy=55 ksi

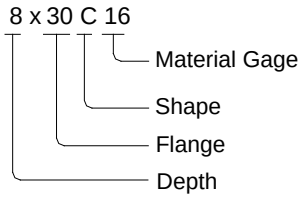
SECTION	GENERAL DATA							
	D (in)	Tf (in)	Bf (in)	T (in)	Lip (in)	Rad (in)	A (in^2)	Wt (lb/ft)
8x25C16	8.0	2.50	2.50	0.0568	0.77	0.1875	0.792	2.69
8x25C15	8.0	2.50	2.50	0.0642	0.79	0.1875	0.895	3.04
8x25C14	8.0	2.50	2.50	0.0716	0.80	0.1875	0.998	3.40
8x25C13	8.0	2.50	2.50	0.0863	0.84	0.1875	1.203	4.09
8x25C12	8.0	2.50	2.50	0.0968	0.86	0.1875	1.349	4.59

SECTION	FULL SECTION PROPERTIES									
	Ixx (in^4)	Sxx (in^3)	Rxx (in)	Iyy (in^4)	Syy (in^3)	Ryy (in)	J (in^4)	Cw (in^6)	Ro (in)	Xo (in)
8x25C16	7.507	1.877	3.079	0.649	0.357	0.906	0.00085	8.87	3.65	-1.74
8x25C15	08.464	2.116	3.076	0.734	0.405	0.905	0.00123	10.05	3.65	-1.75
8x25C14	09.415	2.354	3.072	0.817	0.452	0.905	0.00171	11.24	3.65	-1.75
8x25C13	11.291	2.823	3.064	0.984	0.547	0.904	0.00299	13.62	3.65	-1.76
8x25C12	12.618	3.154	3.058	1.102	0.615	0.904	0.00421	15.34	3.64	-1.76

SECTION	SECTION ALLOWABLES (Fully Braced Strength)					
	SHEAR (K)		MOMENT (k-in)	Ae (in^2)	Pao (k)	Ta (k)
	Vax	Vay				
8x25C16	5.027	2.080	52.512	0.4163	12.720	25.729
8x25C15	5.640	3.009	62.192	0.4974	15.200	29.081
8x25C14	6.243	4.183	70.463	0.5863	17.914	32.432
8x25C13	7.414	7.353	91.027	0.8228	25.140	39.092
8x25C12	8.226	10.406	103.90	0..9902	30.258	43.846

8" x 3" CEE SECTION





NOTES:

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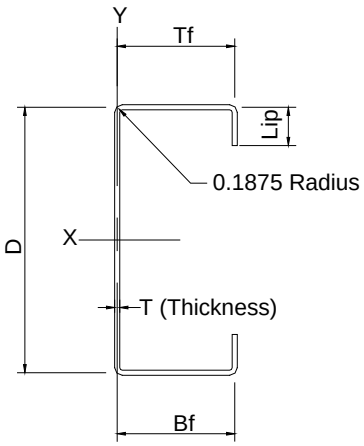
- All sections are designed with reference to the "SPECIFICATIONS FOR COLD FORMED STEEL STRUCTURAL MEMBERS", AISI 1996 Edition
- Specific yield strength of Light Gage Cold-Formed Steel, Fy=55 ksi

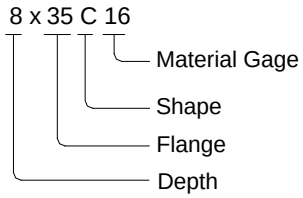
SECTION	GENERAL DATA							
	D (in)	Tf (in)	Bf (in)	T (in)	Lip (in)	Rad (in)	A (in^2)	Wt (lb/ft)
8x30C16	8.0	3.0	3.0	0.0568	0.77	0.1875	0.848	2.89
8x30C15	8.0	3.0	3.0	0.0642	0.79	0.1875	0.959	3.26
8x30C14	8.0	3.0	3.0	0.0716	0.80	0.1875	1.069	3.64
8x30C13	8.0	3.0	3.0	0.0863	0.84	0.1875	1.289	4.39
8x30C12	8.0	3.0	3.0	0.0968	0.86	0.1875	1.446	4.92

SECTION	FULL SECTION PROPERTIES									
	Ixx (in^4)	Sxx (in^3)	Rxx (in)	Iyy (in^4)	Syy (in^3)	Ryy (in)	J (in^4)	Cw (in^6)	Ro (in)	Xo (in)
8x30C16	8.403	2.101	3.147	1.008	0.472	1.090	0.00091	13.54	3.97	-2.16
8x30C15	9.474	2.369	3.143	1.140	0.535	1.090	0.00132	15.35	3.97	-2.17
8x30C14	10.540	2.635	3.139	1.271	0.597	1.090	0.00183	17.17	3.97	-2.17
8x30C13	12.642	3.161	3.132	1.531	0.723	1.090	0.00320	20.83	3.97	-2.18
8x30C12	14.129	3.532	3.126	1.716	0.813	1.089	0.00452	23.47	3.97	-2.18

SECTION	SECTION ALLOWABLES (Fully Braced Strength)					
	SHEAR (K)		MOMENT (k-in)	Ae (in^2)	Pao (k)	Ta (k)
	Vax	Vay				
8x30C16	6.276	2.080	53.402	0.4246	12.973	27.575
8x30C15	7.052	3.009	65.100	0.5107	15.605	31.168
8x30C14	7.819	4.183	73.927	0.6030	18.426	34.760
8x30C13	9.312	7.353	90.399	0.7871	24.049	41.896
8x30C12	10.356	10.406	106.86	0.9742	29.767	46.922

8” x 3 1/2” CEE SECTION





NOTES:

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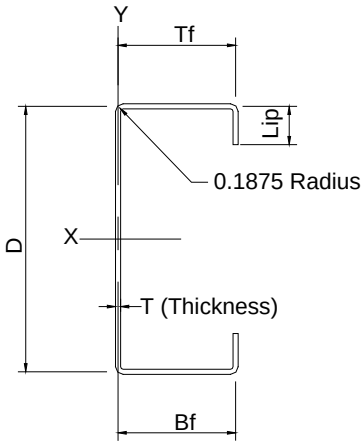
- Specific yield strength of Light Gage Cold-Formed Steel, Fy=55 ksi

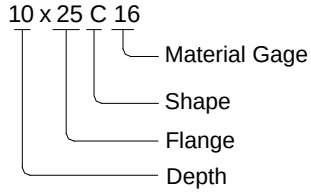
SECTION	GENERAL DATA							
	D (in)	Tf (in)	Bf (in)	T (in)	Lip (in)	Rad (in)	A (in^2)	Wt (lb/ft)
8x35C16	8.00	3.50	3.50	0.0568	0.77	0.1875	0.905	3.08
8x35C15	8.00	3.50	3.50	0.0642	0.79	0.1875	1.023	3.48
8x35C14	8.00	3.50	3.50	0.0716	0.80	0.1875	1.141	3.88
8x35C13	8.00	3.50	3.50	0.0863	0.84	0.1875	1.375	4.68
8x35C12	8.00	3.50	3.50	0.0968	0.86	0.1875	1.543	5.25

SECTION	FULL SECTION PROPERTIES									
	Ixx (in^4)	Sxx (in^3)	Rxx (in)	Iyy (in^4)	Syy (in^3)	Ryy (in)	J (in^4)	Cw (in^6)	Ro (in)	Xo (in)
8x35C16	9.299	2.325	3.205	1.466	0.599	1.273	0.00097	19.43	4.31	-2.59
8x35C15	10.485	2.621	3.201	1.657	0.678	1.273	0.00141	22.04	4.31	-2.60
8x35C14	11.666	2.916	3.197	1.848	0.758	1.273	0.00195	24.66	4.31	-2.60
8x35C13	13.993	3.498	3.190	2.228	0.918	1.273	0.00341	29.93	4.31	-2.61
8x35C12	15.641	3.910	3.184	2.498	1.032	1.273	0.00482	33.73	4.31	-2.62

SECTION	SECTION ALLOWABLES (Fully Braced Strength)					
	SHEAR (K)		MOMENT (k-in)	Ae (in^2)	Pao (k)	Ta (k)
	Vax	Vay				
8x35C16	7.279	2.080	53.828	0.4293	13.118	29.421
8x35C15	8.465	3.009	65.869	0.51870	15.849	33.254
8x35C14	9.394	4.183	76.676	0.6149	18.788	37.086
8x35C13	11.211	7.353	96.064	0.82423	25.185	44.701
8x35C12	12.485	10.406	110.34	0.9868	30.152	50.138

10” x 2 1/2” CEE SECTION





NOTES:

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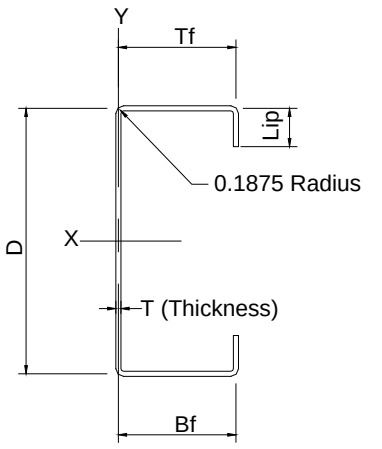
- Specific yield strength of Light Gage Cold-Formed Steel, Fy=55 ksi

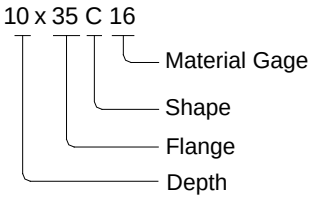
SECTION	GENERAL DATA							
	D (in)	Tf (in)	Bf (in)	T (in)	Lip (in)	Rad (in)	A (in^2)	Wt (lb/ft)
10x25C16	10.0	2.50	2.50	0.0568	0.77	0.1875	0.905	3.08
10x25C15	10.0	2.50	2.50	0.0642	0.79	0.1875	1.023	3.48
10x25C14	10.0	2.50	2.50	0.0716	0.80	0.1875	1.141	3.88
10x25C13	10.0	2.50	2.50	0.0863	0.84	0.1875	1.375	4.68
10x25C12	10.0	2.50	2.50	0.0968	0.86	0.1875	1.543	5.25

SECTION	FULL SECTION PROPERTIES									
	Ixx (in^4)	Sxx (in^3)	Rxx (in)	Iyy (in^4)	Syy (in^3)	Ryy (in)	J (in^4)	Cw (in^6)	Ro (in)	Xo (in)
10x25C16	12.770	2.554	3.756	0.692	0.364	0.874	0.00097	14.44	4.17	-1.58
10x25C15	14.408	2.882	3.753	0.782	0.413	0.874	0.00141	16.36	4.17	-1.58
10x25C14	16.038	3.208	3.749	0.872	0.461	0.874	0.00195	18.28	4.16	-1.59
10x25C13	19.258	3.852	3.742	1.050	0.558	0.874	0.00341	22.11	4.16	-1.59
10x25C12	21.540	4.308	3.737	1.176	0.628	0.873	0.00482	24.87	4.16	-1.60

SECTION	SECTION ALLOWABLES (Fully Braced Strength)					
	SHEAR (K)		MOMENT (k-in)	Ae (in^2)	Pao (k)	Ta (k)
	Vax	Vay				
10x25C16	5.027	1.643	64.958	0.4185	12.787	29.421
10x25C15	5.640	2.376	78.702	0.5006	15.297	33.254
10x25C14	6.243	3.300	94.477	0.5907	18.049	37.086
10x25C13	7.414	5.797	124.24	0.8306	25.378	44.701
10x25C12	8.226	8.199	141.88	1.0013	30.595	50.138

10” x 3 1/2” CEE SECTION





NOTES:

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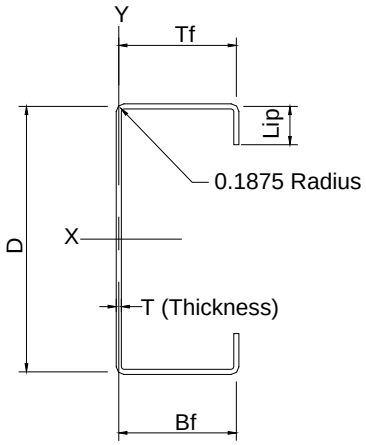
- Specific yield strength of Light Gage Cold-Formed Steel, Fy=55 ksi

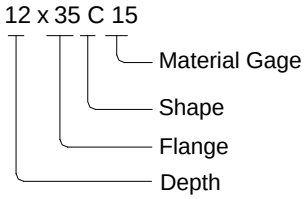
SECTION	GENERAL DATA							
	D (in)	Tf (in)	Bf (in)	T (in)	Lip (in)	Rad (in)	A (in^2)	Wt (lb/ft)
10x35C16	10.0	3.50	3.50	0.0568	0.77	0.1875	1.019	3.47
10x35C15	10.0	3.50	3.50	0.0642	0.79	0.1875	1.152	3.92
10x35C14	10.0	3.50	3.50	0.0716	0.80	0.1875	1.284	4.37
10x35C13	10.0	3.50	3.50	0.0863	0.84	0.1875	1.548	5.27
10x35C12	10.0	3.50	3.50	0.0968	0.86	0.1875	1.736	5.91

SECTION	FULL SECTION PROPERTIES									
	Ixx (in^4)	Sxx (in^3)	Rxx (in)	Iyy (in^4)	Syy (in^3)	Ryy (in)	J (in^4)	Cw (in^6)	Ro (in)	Xo (in)
10x35C16	15.578	3.116	3.910	1.572	0.613	1.242	0.00110	31.66	4.74	-2.38
10x35C15	17.576	3.515	3.907	1.777	0.695	1.242	0.00158	35.88	4.74	-2.39
10x35C14	19.567	3.913	3.903	1.982	0.777	1.242	0.00219	40.12	4.74	-2.39
10x35C13	23.498	4.700	3.896	2.390	0.940	1.243	0.00384	48.61	4.74	-2.40
10x35C12	26.287	5.257	3.891	2.681	1.058	1.243	0.00542	54.71	4.74	-2.40

SECTION	SECTION ALLOWABLES (Fully Braced Strength)					
	SHEAR (K)		MOMENT (k-in)	Ae (in^2)	Pao (k)	Ta (k)
	Vax	Vay				
10x35C16	7.279	1.643	67.155	0.4315	13.185	33.113
10x35C15	8.465	2.376	81.838	0.5219	15.946	37.427
10x35C14	28.826	3.300	98.154	0.6193	18.922	41.740
10x35C13	11.211	5.797	130.73	0.8320	25.422	50.311
10x35C12	12.485	8.199	149.86	0.9978	30.489	56.430

12" x 3 1/2" CEE SECTION





NOTES:

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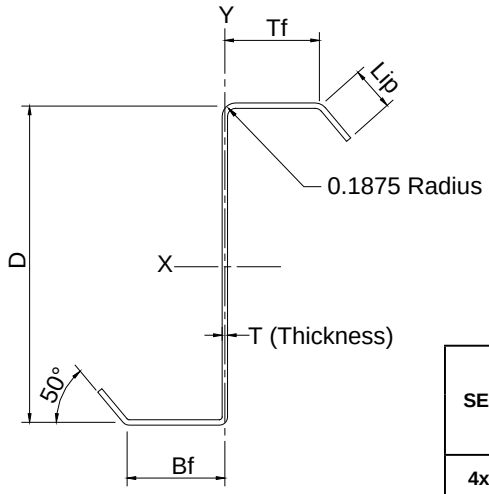
- All sections are designed with reference to the "SPECIFICATIONS FOR COLD FORMED STEEL STRUCTURAL MEMBERS", AISI 1996 Edition
- Specific yield strength of Light Gage Cold-Formed Steel, Fy=55 ksi

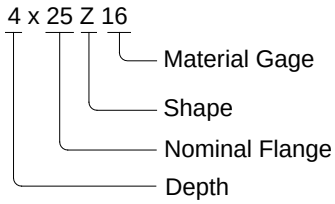
SECTION	GENERAL DATA							
	D (in)	Tf (in)	Bf (in)	T (in)	Lip (in)	Rad (in)	A (in^2)	Wt (lb/ft)
12x35C15	12.0	3.50	3.50	0.0968	0.86	0.1875	1.833	6.24
12x35C14	12.0	3.50	3.50	0.0716	0.80	0.1875	1.427	4.86
12x35C13	12.0	3.50	3.50	0.0863	0.84	0.1875	1.721	5.85
12x35C12	12.0	3.50	3.50	0.0968	0.86	0.1875	1.930	6.57

SECTION	FULL SECTION PROPERTIES									
	Ixx (in^4)	Sxx (in^3)	Rxx (in)	Iyy (in^4)	Syy (in^3)	Ryy (in)	J (in^4)	Cw (in^6)	Ro (in)	Xo (in)
12x35C15	28.661	5.732	3.954	3.725	1.306	1.426	0.00573	75.11	5.06	-2.83
12x35C14	30.037	5.006	4.587	2.090	0.790	1.210	0.00244	60.20	5.24	-2.22
12x35C13	36.101	6.017	4.581	2.520	0.957	1.210	0.00427	72.87	5.23	-2.22
12x35C12	40.408	6.735	4.576	2.828	1.077	1.211	0.00603	81.97	5.23	-2.23

SECTION	SECTION ALLOWABLES (Fully Braced Strength)					
	SHEAR (K)		MOMENT (k-in)	Ae (in^2)	Pao (k)	Ta (k)
	Vax	Vay				
12x35C15	8.465	1.962	97.851	0.5239	16.009	41.600
12x35C14	9.384	2.726	116.95	0.6222	19.010	46.394
12x35C13	11.211	4.785	160.63	0.8371	25.577	55.920
12x35C12	12.485	6.765	193.75	1.0050	30.708	62.722

4" x 2 1/2" ZEE SECTION





NOTES:

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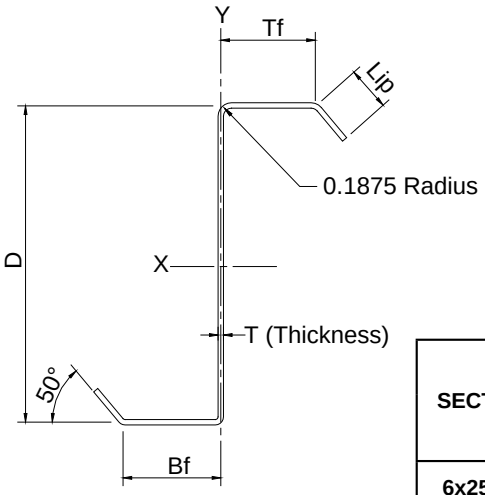
- Specific yield strength of Light Gage Cold-Formed Steel, Fy=55 ksi

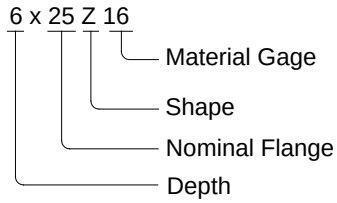
SECTION	GENERAL DATA							
	D (in)	Tf (in)	Bf (in)	T (in)	Lip (in)	Rad (in)	A (in^2)	Wt (lb/ft)
4x25Z16	4.0	2.125	2.375	0.057	0.91	0.188	0.564	1.92
4x25Z15	4.0	2.125	2.375	0.064	0.92	0.188	0.638	2.17
4x25Z14	4.0	2.125	2.375	0.072	0.93	0.188	0.711	2.42
4x25Z13	4.0	2.125	2.375	0.086	0.96	0.188	0.858	2.92
4x25Z12	4.0	2.125	2.375	0.097	0.98	0.188	0.962	3.27

SECTION	FULL SECTION PROPERTIES								
	Yb (in)	Ixx (in^4)	Sx_T (in^3)	Sx_B (in^3)	Rxx (in)	Iyc_T (in^4)	Iyc_B (in^4)	Syy (in^3)	Ryy (in)
4x25Z16	1.950	1.489	0.727	0.763	1.624	0.494	0.544	0.364	1.356
4x25Z15	1.950	1.675	0.817	0.859	1.620	0.561	0.617	0.412	1.359
4x25Z14	1.951	1.858	0.907	0.953	1.616	0.628	0.690	0.461	1.361
4x25Z13	1.951	2.217	1.082	1.136	1.608	0.762	0.838	0.558	1.366
4x25Z12	1.951	2.468	1.204	1.265	1.602	0.860	0.944	0.627	1.370

SECTION	SECTION ALLOWABLES (Fully Braced Strength)					
	SHEAR (K)		MOMENT (k-in)	Ae (in^2)	Pao (k)	Ta (k)
	Vax	Vay				
4x25Z16	4.728	3.639	22.322	0.4295	13.124	18.345
4x25Z15	5.313	4.649	25.504	0.5128	15.668	20.735
4x25Z14	5.891	5.485	29.525	0.6087	18.600	23.124
4x25Z13	7.019	6.555	35.640	0.8082	24.694	27.872
4x25Z12	7.808	7.308	39.688	0.9296	28.405	31.263

6” x 2 1/2” ZEE SECTION





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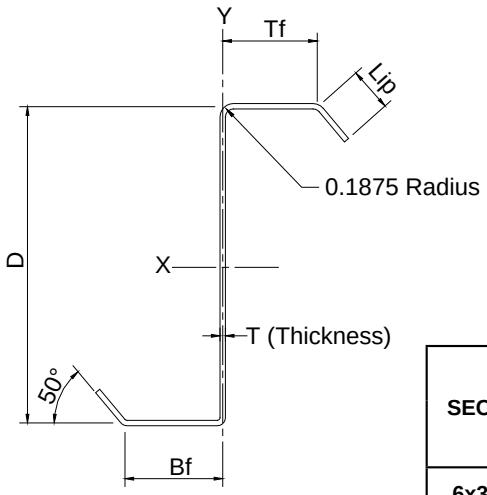
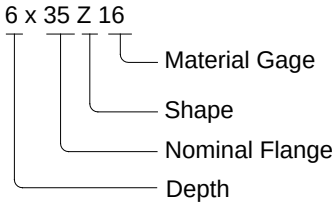
SECTION	GENERAL DATA							
	D (in)	Tf (in)	Bf (in)	T (in)	Lip (in)	Rad (in)	A (in^2)	Wt (lb/ft)
6x25Z16	6.0	2.125	2.375	0.057	0.91	0.188	0.678	2.31
6x25Z15	6.0	2.125	2.375	0.064	0.92	0.188	0.766	2.61
6x25Z14	6.0	2.125	2.375	0.072	0.93	0.188	0.855	2.91
6x25Z13	6.0	2.125	2.375	0.086	0.96	0.188	1.030	3.51
6x25Z12	6.0	2.125	2.375	0.097	0.10	0.188	0.985	3.35

SECTION	FULL SECTION PROPERTIES								
	Yb (in)	Ixx (in^4)	Sx_T (in^3)	Sx_B (in^3)	Rxx (in)	Iyc_T (in^4)	Iyc_B (in^4)	Syy (in^3)	Ryy (in)
6x25Z16	2.938	3.804	1.242	1.295	2.368	0.488	0.551	0.363	1.238
6x25Z15	2.938	4.286	1.400	1.459	2.365	0.553	0.625	0.411	1.240
6x25Z14	2.938	4.765	1.556	1.622	2.361	0.619	0.700	0.459	1.242
6x25Z13	2.938	5.707	1.864	1.943	2.354	0.752	0.849	0.556	1.247
6x25Z12	2.928	5.253	1.710	1.794	2.309	0.331	0.398	0.312	0.860

SECTION	SECTION ALLOWABLES (Fully Braced Strength)					
	SHEAR (K)		MOMENT (k-in)	Ae (in^2)	Pao (k)	Ta (k)
	Vax	Vay				
6x25Z16	4.728	2.835	38.192	0.4376	13.371	22.037
6x25Z15	5.313	4.104	43.530	0.5245	16.027	24.908
6x25Z14	5.891	5.709	50.202	0.6251	19.101	27.778
6x25Z13	7.019	8.401	61.402	0.8373	25.584	33.482
6x25Z12	7.808	10.570	68.589	0.9711	29.674	37.556

6" x 3 1/2" ZEE SECTION





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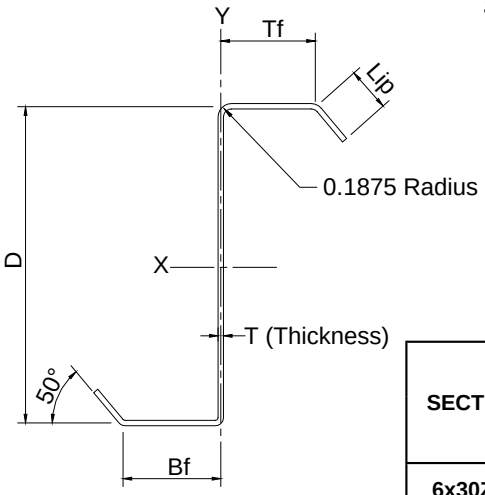
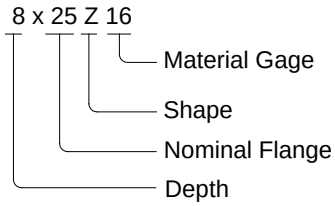
SECTION	GENERAL DATA							
	D (in)	Tf (in)	Bf (in)	T (in)	Lip (in)	Rad (in)	A (in^2)	Wt (lb/ft)
6x35Z16	6.0	3.125	3.375	0.057	0.06	0.188	0.695	2.36
6x35Z15	6.0	3.125	3.375	0.064	0.92	0.188	0.895	3.04
6x35Z14	6.0	3.125	3.375	0.072	0.93	0.188	0.998	3.40
6x35Z13	6.0	3.125	3.375	0.086	0.96	0.188	1.203	4.09
6x3\5Z12	6.0	3.125	3.375	0.097	0.98	0.188	1.349	4.59

SECTION	FULL SECTION PROPERTIES								
	Yb (in)	Ixx (in^4)	Sx_T (in^3)	Sx_B (in^3)	Rxx (in)	Iyc_T (in^4)	Iyc_B (in^4)	Syy (in^3)	Ryy (in)
6x35Z16	2.939	4.144	1.354	1.410	2.442	0.610	0.680	0.389	1.362
6x35Z15	2.947	5.417	1.774	1.838	2.461	1.353	1.462	0.729	1.774
6x35Z14	2.947	6.024	1.973	2.044	2.457	1.513	1.635	0.814	1.776
6x35Z13	2.947	7.217	2.364	2.449	2.450	1.835	1.982	0.985	1.781
6x35Z12	2.947	8.060	2.640	2.735	2.444	2.067	2.232	1.108	1.785

SECTION	SECTION ALLOWABLES (Fully Braced Strength)					
	SHEAR (K)		MOMENT (k-in)	Ae (in^2)	Pao (k)	Ta (k)
	Vax	Vay				
6x35Z16	6.977	2.835	40.754	0.4479	13.695	25.729
6x35Z15	8.138	4.104	47.016	0.5346	16.334	29.081
6x35Z14	9.042	5.709	53.458	0.6270	19.159	32.432
6x35Z13	10.816	8.401	66.629	0.8256	25.225	39.091
6x35Z12	12.067	10.570	76.183	0.974	29.772	43.847

8" x 2 1/2" ZEE SECTION





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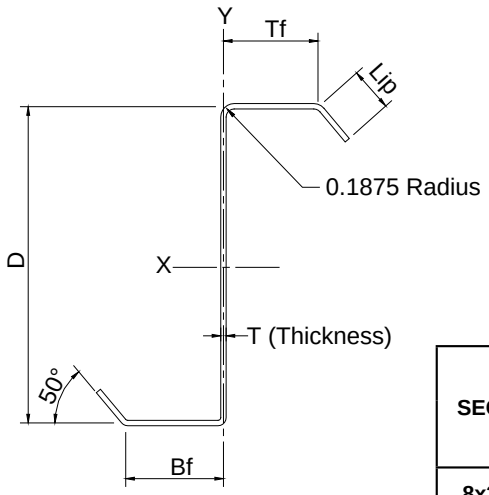
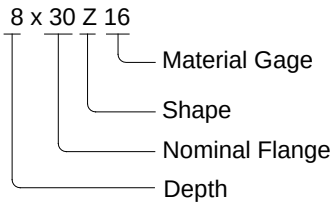
SECTION	GENERAL DATA							
	D (in)	Tf (in)	Bf (in)	T (in)	Lip (in)	Rad (in)	A (in^2)	Wt (lb/ft)
6x30Z16	6.0	2.625	2.875	0.057	0.91	0.188	0.792	2.69
6x30Z15	6.0	2.625	2.875	0.064	0.92	0.188	0.895	3.04
6x30Z14	6.0	2.625	2.875	0.072	0.93	0.188	0.998	3.40
6x30Z13	6.0	2.625	2.875	0.086	0.96	0.188	1.203	4.09
6x30Z12	6.0	2.625	2.875	0.097	0.98	0.188	1.349	4.59

SECTION	FULL SECTION PROPERTIES								
	Yb (in)	Ixx (in^4)	Sx_T (in^3)	Sx_B (in^3)	Rxx (in)	Iyc_T (in^4)	Iyc_B (in^4)	Syy (in^3)	Ryy (in)
8x25Z16	3.929	07.474	1.836	1.902	3.073	0.483	0.556	0.362	1.146
8x25Z15	3.929	08.430	2.071	2.146	3.069	0.548	0.631	0.410	1.148
8x25Z14	3.929	09.381	2.304	2.388	3.066	0.613	0.706	0.458	1.150
8x25Z13	3.929	11.258	2.765	2.865	3.059	0.745	0.857	0.554	1.154
8x25Z12	3.929	12.588	3.092	3.204	3.055	0.840	0.966	0.623	1.157

SECTION	SECTION ALLOWABLES (Fully Braced Strength)					
	SHEAR (K)		MOMENT (k-in)	Ae (in^2)	Pao (k)	Ta (k)
	Vax	Vay				
8x25Z16	4.728	2.080	56.370	0.4414	13.486	25.729
8x25Z15	5.313	3.009	64.451	0.5300	16.195	29.081
8x25Z14	5.891	4.183	74.080	0.6328	19.335	32.432
8x25Z13	7.019	7.353	91.092	0.8508	25.997	39.091
8x25Z12	7.808	10.406	101.86	0.9903	30.259	43.847

8" x 3" ZEE SECTION





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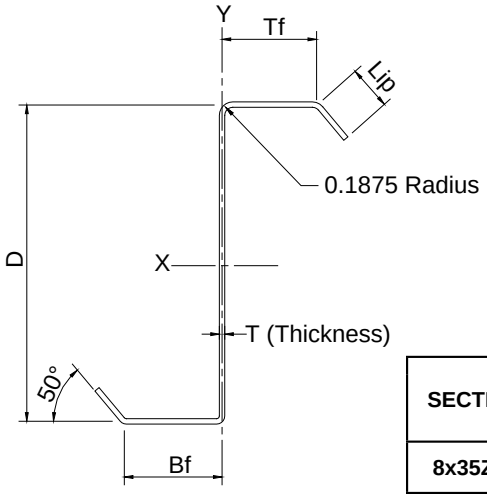
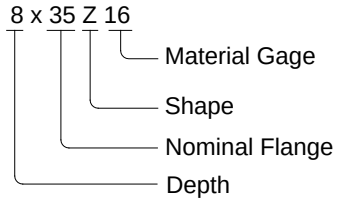
SECTION	GENERAL DATA							
	D (in)	Tf (in)	Bf (in)	T (in)	Lip (in)	Rad (in)	A (in^2)	Wt (lb/ft)
8x30Z16	8.0	2.625	2.875	0.057	0.91	0.188	0.848	2.89
8x30Z15	8.0	2.625	2.875	0.064	0.92	0.188	0.959	3.26
8x30Z14	8.0	2.625	2.875	0.072	0.93	0.188	1.069	3.64
8x30Z13	8.0	2.625	2.875	0.086	0.96	0.188	1.289	4.39
8x30Z12	8.0	2.625	2.875	0.097	0.98	0.188	1.446	4.92

SECTION	FULL SECTION PROPERTIES								
	Yb (in)	Ixx (in^4)	Sx_T (in^3)	Sx_B (in^3)	Rxx (in)	Iyc_T (in^4)	Iyc_B (in^4)	Syy (in^3)	Ryy (in)
8x30Z16	3.934	08.370	2.058	2.128	3.141	0.783	0.876	0.492	1.399
8x30Z15	3.934	09.441	2.322	2.400	3.138	0.888	0.993	0.558	1.401
8x30Z14	3.934	10.506	2.584	2.671	3.134	0.994	1.111	0.623	1.403
8x30Z13	3.934	12.610	3.101	3.205	3.128	1.206	1.348	0.754	1.408
8x30Z12	3.934	14.100	3.468	3.584	3.123	1.359	1.519	0.848	1.411

SECTION	SECTION ALLOWABLES (Fully Braced Strength)					
	SHEAR (K)		MOMENT (k-in)	Ae (in^2)	Pao (k)	Ta (k)
	Vax	Vay				
8x30Z16	5.978	2.080	56.782	0.4492	13.724	25.575
8x30Z15	6.726	3.009	67.206	0..5336	16.303	31.167
8x30Z14	7.467	4.183	75.920	0.6235	19.051	34.759
8x30Z13	8.918	7.353	93.190	0.8386	25.624	41.896
8x30Z12	9.937	10.406	110.88	1.0375	31.700	46.994

8" x 3 1/2" ZEE SECTION





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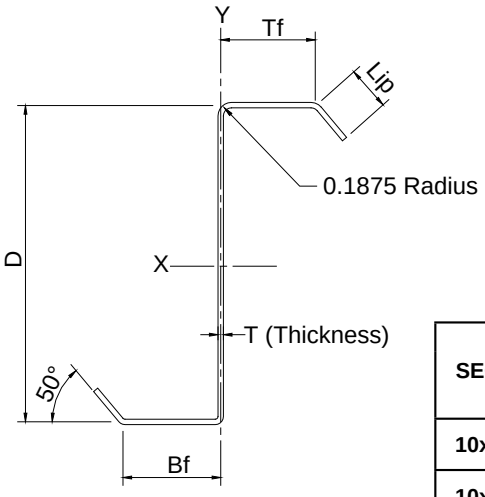
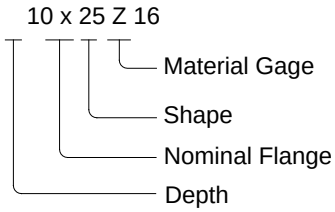
SECTION	GENERAL DATA							
	D (in)	Tf (in)	Bf (in)	T (in)	Lip (in)	Rad (in)	A (in^2)	Wt (lb/ft)
8x35Z16	8.0	3.125	3.375	0.057	0.91	0.188	0.905	3.08
8x35Z15	8.0	3.125	3.375	0.064	0.92	0.188	1.023	3.48
8x35Z14	8.0	3.125	3.375	0.072	0.93	0.188	1.141	3.88
8x35Z13	8.0	3.125	3.375	0.086	0.96	0.188	1.375	4.68
8x35Z12	8.0	3.125	3.375	0.097	0.98	0.188	1.543	5.25

SECTION	FULL SECTION PROPERTIES								
	Yb (in)	Ixx (in^4)	Sx_T (in^3)	Sx_B (in^3)	Rxx (in)	Iyc_T (in^4)	Iyc_B (in^4)	Syy (in^3)	Ryy (in)
8x35Z16	3.938	09.267	2.281	2.353	3.199	1.185	1.299	0.642	1.656
8x35Z15	3.938	10.452	2.573	2.654	3.196	1.343	1.472	0.727	1.659
8x35Z14	3.938	11.632	2.863	2.954	3.193	1.503	1.646	0.813	1.661
8x35Z13	3.938	13.961	3.437	3.545	3.186	1.822	1.995	0.983	1.666
8x35Z12	3.938	15.612	3.844	3.965	3.181	2.053	2.247	1.106	1.670

SECTION	SECTION ALLOWABLES (Fully Braced Strength)					
	SHEAR (K)		MOMENT (k-in)	Ae (in^2)	Pao (k)	Ta (k)
	Vax	Vay				
8x35Z16	6.977	2.080	56.896	0.4516	13.800	29.421
8x35Z15	8.138	3.009	69.123	0.5400	16.501	33.254
8x35Z14	9.042	4.183	78.614	0.6347	19.392	37.086
8x35Z13	10.816	7.353	97.674	0.8391	25.638	44.701
8x35Z12	12.067	10.406	110.78	0.9935	30.358	50.139

10" x 2 1/2" ZEE SECTION





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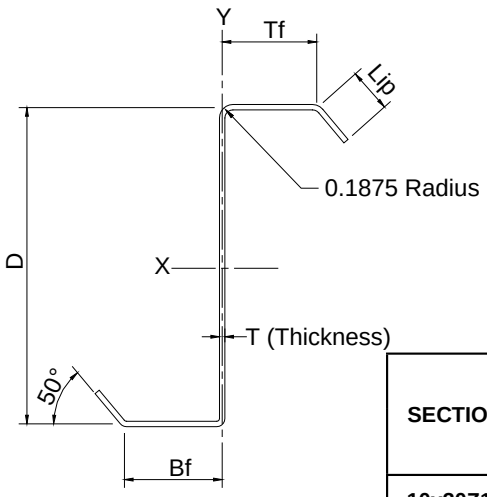
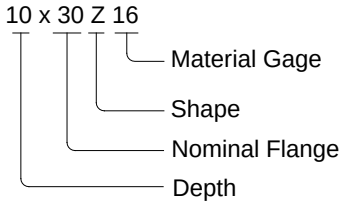
SECTION	GENERAL DATA							
	D (in)	Tf (in)	Bf (in)	T (in)	Lip (in)	Rad (in)	A (in^2)	Wt (lb/ft)
10x25Z16	10.0	2.125	2.375	0.057	0.91	0.188	0.905	3.08
10x25Z15	10.0	2.125	2.375	0.064	0.92	0.188	1.023	3.48
10x25Z14	10.0	2.125	2.375	0.072	0.93	0.188	1.141	3.88
10x25Z13	10.0	2.125	2.375	0.086	0.96	0.188	1.375	4.68
10x25Z12	10.0	2.125	2.375	0.097	0.98	0.188	1.543	5.25

SECTION	FULL SECTION PROPERTIES								
	Yb (in)	Ixx (in^4)	Sx_T (in^3)	Sx_B (in^3)	Rxx (in)	Iyc_T (in^4)	Iyc_B (in^4)	Syy (in^3)	Ryy (in)
10x25Z16	4.922	12.728	2.506	2.586	3.750	0.480	0.560	0.361	1.072
10x25Z15	4.922	14.363	2.828	2.918	3.747	0.544	0.635	0.409	1.074
10x25Z14	4.922	15.992	3.149	3.249	3.744	0.609	0.711	0.457	1.076
10x25Z13	4.922	19.214	3.784	3.903	3.738	0.740	0.863	0.553	1.079
10x25Z12	4.922	21.502	4.235	4.368	3.733	0.834	0.973	0.622	1.082

SECTION	SECTION ALLOWABLES (Fully Braced Strength)					
	SHEAR (K)		MOMENT (k-in)	Ae (in^2)	Pao (k)	Ta (k)
	Vax	Vay				
10x25Z16	4.728	1.643	69.485	0.4436	13.553	29.421
10x25Z15	5.313	2.376	83.394	0.5332	16.292	33.254
10x25Z14	5.891	3.300	101.13	0.6372	19.470	37.086
10x25Z13	7.019	5.797	124.64	0.8586	26.234	44.701
10x25Z12	7.808	8.199	139.48	1.0013	30.597	50.139

10" x 3" ZEE SECTION





NOTES:

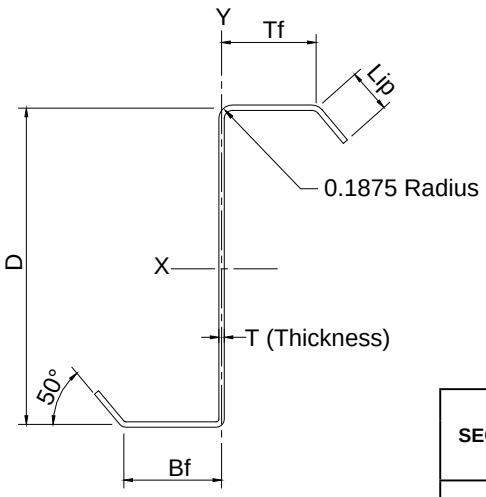
- Calculation dimensions are out-to-out of section thickness, "T"
- All sections are designed with reference to the "SPECIFICATIONS FOR COLD FORMED STEEL STRUCTURAL MEMBERS", AISI 1996 Edition
- Specific yield strength of Light Gage Cold-Formed Steel, Fy=55 ksi

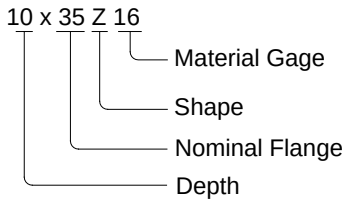
SECTION	GENERAL DATA							
	D (in)	Tf (in)	Bf (in)	T (in)	Lip (in)	Rad (in)	A (in^2)	Wt (lb/ft)
10x30Z16	10.0	2.625	2.875	0.057	0.91	0.188	0.962	3.27
10x30Z15	10.0	2.625	2.875	0.064	0.92	0.188	1.087	3.70
10x30Z14	10.0	2.625	2.875	0.072	0.93	0.188	1.213	4.13
10x30Z13	10.0	2.625	2.875	0.086	0.96	0.188	1.462	4.97
10x30Z12	10.0	2.625	2.875	0.097	0.98	0.188	1.640	5.58

SECTION	FULL SECTION PROPERTIES								
	Yb (in)	Ixx (in^4)	Sx_T (in^3)	Sx_B (in^3)	Rxx (in)	Iyc_T (in^4)	Iyc_B (in^4)	Syy (in^3)	Ryy (in)
10x30Z16	4.927	14.132	2.786	2.869	3.833	0.778	0.882	0.492	1.314
10x30Z15	4.927	15.948	3.143	3.237	3.830	0.883	0.999	0.557	1.316
10x30Z14	4.927	17.757	3.500	3.604	3.827	0.988	1.118	0.622	1.318
10x30Z13	4.927	21.335	4.205	4.330	3.821	1.199	1.356	0.753	1.322
10x30Z12	4.927	23.876	4.706	4.846	3.816	1.351	1.528	0.847	1.325

SECTION	SECTION ALLOWABLES (Fully Braced Strength)					
	SHEAR (K)		MOMENT (k-in)	Ae (in^2)	Pao (k)	Ta (k)
	Vax	Vay				
10x30Z16	5.978	1.643	70.368	0.4514	13.791	31.267
10x30Z15	6.726	2.376	84.848	0.5367	16.400	35.340
10x30Z14	7.467	3.300	99.260	0.6297	19.186	39.413
10x30Z13	8.918	5.797	126.86	0.8464	25.861	47.505
10x30Z12	9.937	8.199	150.23	1.0485	32.038	53.286

10” x 3 1/2” ZEE SECTION





NOTES:

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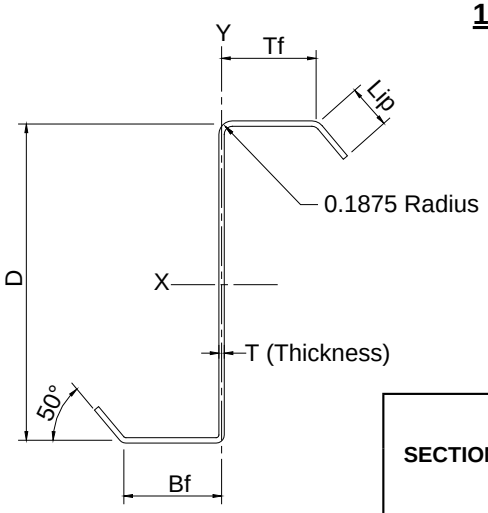
- All sections are designed with reference to the “SPECIFICATIONS FOR COLD FORMED STEEL STRUCTURAL MEMBERS”, AISI 1996 Edition
- Specific yield strength of Light Gage Cold-Formed Steel, Fy=55 ksi

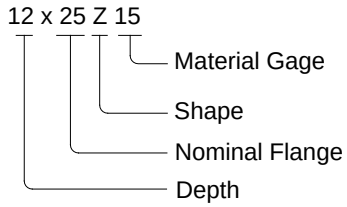
SECTION	GENERAL DATA							
	D (in)	Tf (in)	Bf (in)	T (in)	Lip (in)	Rad (in)	A (in^2)	Wt (lb/ft)
10x35Z16	10.0	3.125	3.375	0.057	0.91	0.188	1.019	3.47
10x35Z15	10.0	3.125	3.375	0.064	0.92	0.188	1.152	3.92
10x35Z14	10.0	3.125	3.375	0.072	0.93	0.188	1.284	4.37
10x35Z13	10.0	3.125	3.375	0.086	0.96	0.188	1.548	5.27
10x35Z12	10.0	3.125	3.375	0.097	0.98	0.188	1.736	5.91

SECTION	FULL SECTION PROPERTIES								
	Yb (in)	Ixx (in^4)	Sx_T (in^3)	Sx_B (in^3)	Rxx (in)	Iyc_T (in^4)	Iyc_B (in^4)	Syy (in^3)	Ryy (in)
10x35Z16	4.931	15.536	3.065	3.151	3.905	1.178	1.306	0.641	1.561
10x35Z15	4.931	17.532	3.459	3.556	3.902	1.336	1.480	0.726	1.564
10x35Z14	4.931	19.522	3.851	3.959	3.899	1.494	1.655	0.811	1.566
10x35Z13	4.931	23.456	4.627	4.757	3.893	1.812	2.006	0.981	1.571
10x35Z12	4.931	26.250	5.178	5.323	3.888	2.041	2.259	1.104	1.574

SECTION	SECTION ALLOWABLES (Fully Braced Strength)					
	SHEAR (K)		MOMENT (k-in)	Ae (in^2)	Pao (k)	Ta (k)
	Vax	Vay				
10x35Z16	6.977	1.643	70.589	0.4538	13.867	33.113
10x35Z15	8.138	2.376	85.019	0.5432	16.598	37.427
10x35Z14	9.042	3.300	100.95	0.6391	19.527	41.740
10x35Z13	10.816	5.797	132.65	0.8468	28.875	50.310
10x35Z12	12.067	8.199	150.45	1.0046	30.695	56.431

12" x 2 1/2" ZEE SECTION





NOTES:

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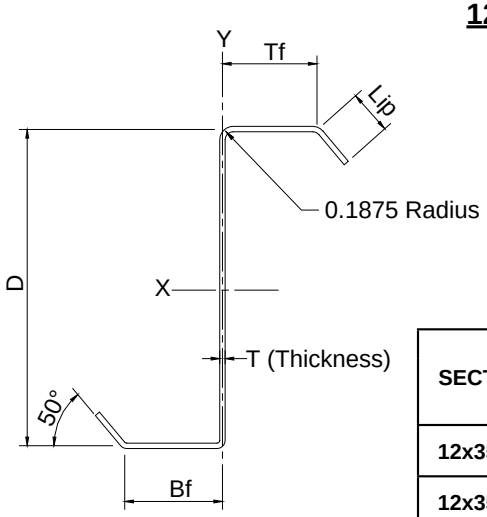
- All sections are designed with reference to the "SPECIFICATIONS FOR COLD FORMED STEEL STRUCTURAL MEMBERS", AISI 1996 Edition
- Specific yield strength of Light Gage Cold-Formed Steel, Fy=55 ksi

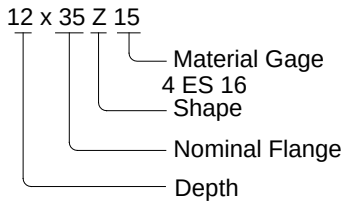
SECTION	GENERAL DATA							
	D (in)	Tf (in)	Bf (in)	T (in)	Lip (in)	Rad (in)	A (in^2)	Wt (lb/ft)
12x25Z15	12.0	2.125	2.375	0.064	0.92	0.188	1.152	3.92
12x25Z14	12.0	2.125	2.375	0.072	0.80	0.188	1.266	4.31
12x25Z13	12.0	2.125	2.375	0.086	0.96	0.188	1.548	5.27
12x25Z12	12.0	2.125	2.375	0.097	0.98	0.188	1.736	5.91

SECTION	FULL SECTION PROPERTIES								
	Yb (in)	Ixx (in^4)	Sx_T (in^3)	Sx_B (in^3)	Rxx (in)	Iyc_T (in^4)	Iyc_B (in^4)	Syy (in^3)	Ryy (in)
12x25Z15	5.917	22.342	3.673	3.776	4.405	0.541	0.639	0.408	1.012
12x25Z14	5.916	24.364	4.004	4.118	4.387	0.539	0.642	0.420	0.966
12x25Z13	5.917	29.921	4.919	5.057	4.396	0.735	0.868	0.552	1.018
12x25Z12	5.917	33.501	5.507	5.662	4.393	0.829	0.978	0.621	1.020

SECTION	SECTION ALLOWABLES (Fully Braced Strength)					
	SHEAR (K)		MOMENT (k-in)	Ae (in^2)	Pao (k)	Ta (k)
	Vax	Vay				
12x25Z15	5.313	1.962	98.846	0.5352	16.355	37.427
12x25Z14	5.891	2.726	120.00	0.6401	19.557	41.740
12x25Z13	7.019	4.785	161.51	0.8636	26.389	50.310
12x25Z12	7.808	6.765	181.40	1.0085	30.816	56.431

12” x 3 1/2” ZEE SECTION





NOTES:

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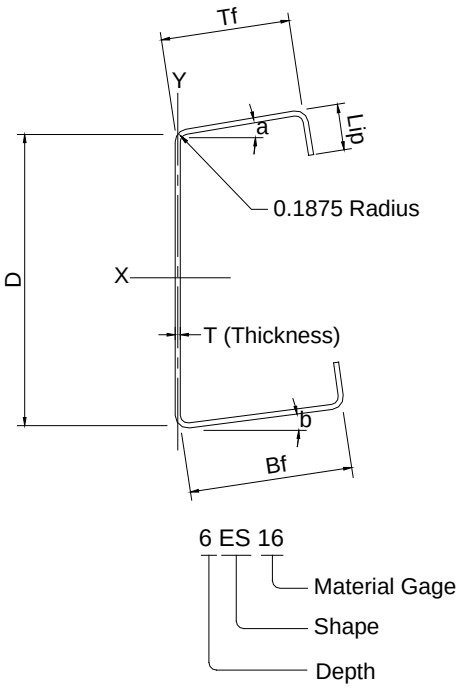
- All sections are designed with reference to the “SPECIFICATIONS FOR COLD FORMED STEEL STRUCTURAL MEMBERS”, AISI 1996 Edition
- Specific yield strength of Light Gage Cold-Formed Steel, Fy=55 ksi

SECTION	GENERAL DATA							
	D (in)	Tf (in)	Bf (in)	T (in)	Lip (in)	Rad (in)	A (in^2)	Wt (lb/ft)
12x35Z15	12.0	3.125	3.375	0.064	0.92	0.188	1.280	4.36
12x35Z14	12.0	3.125	3.375	0.072	0.93	0.188	1.427	4.86
12x35Z13	12.0	3.125	3.375	0.086	0.96	0.188	1.721	5.85
12x35Z12	12.0	3.125	3.375	0.097	0.98	0.188	1.930	6.57

SECTION	FULL SECTION PROPERTIES								
	Yb (in)	Ixx (in^4)	Sx_T (in^3)	Sx_B (in^3)	Rxx (in)	Iyc_T (in^4)	Iyc_B (in^4)	Syy (in^3)	Ryy (in)
12x35Z15	5.925	26.916	4.431	4.543	4.586	1.330	1.486	0.725	1.483
12x35Z14	5.925	29.981	4.935	5.060	4.583	1.488	1.662	0.810	1.485
12x35Z13	5.925	36.046	5.934	6.083	4.577	1.804	2.015	0.980	1.490
12x35Z12	5.925	40.360	6.644	6.811	4.573	2.033	2.269	1.102	1.493

SECTION	SECTION ALLOWABLES (Fully Braced Strength)					
	SHEAR (K)		MOMENT (k-in)	Ae (in^2)	Pao (k)	Ta (k)
	Vax	Vay				
12x35Z15	8.138	1.962	101.68	0.5453	16.661	41.600
12x35Z14	9.042	2.726	120.31	0.6419	19.615	46..394
12x35Z13	10.816	4.785	162.44	0.8519	26.030	55.920
12x35Z12	12.067	6.765	194.51	1.0117	30.914	62.723

6" EAVE STRUT SECTION



NOTES:

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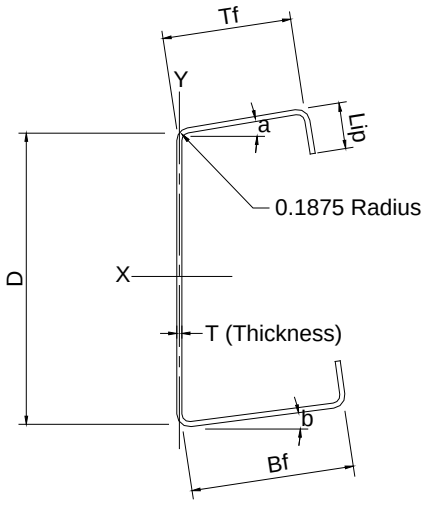
- If roof slope is less than or equal to 4:12, then a = b = roof slope.
- If roof slope is greater than 4:12, then a = roof slope, b = 0.

SECTION	GENERAL DATA							
	D (in)	Tf (in)	Bf (in)	T (in)	Lip (in)	Rad (in)	A (in^2)	Wt (lb/ft)
6ES16	6.0	3.00	5.0	0.0568	0.769	0.1875	0.8484	2.8847
6ES15	6.0	3.00	5.0	0.0642	0.787	0.1875	0.9590	3.2605
6ES14	6.0	3.00	5.0	0.0716	0.805	0.1875	1.0695	3.6364
6ES13	6.0	3.00	5.0	0.0863	0.841	0.1875	1.2891	4.3830
6ES12	6.0	3.00	5.0	0.0968	0.867	0.1875	1.4459	4.9162

SECTION	FULL SECTION PROPERTIES									
	Ixx (in^4)	Sxx (in^3)	Rxx (in)	Iyy (in^4)	Syy (in^3)	Ryy (in)	J (in^4)	Cw (in^6)	Ro (in)	Xo (in)
6ES16	5.0460	1.4429	2.4386	2.1790	0.6245	1.6028	0.0009	14.4240	4.4655	-3.0977
6ES15	5.6840	1.6264	2.4346	2.4630	0.7071	1.6027	0.0013	16.0610	4.4674	-3.1026
6ES14	6.3180	1.8088	2.4306	2.7470	0.7900	1.6027	0.0018	14.1300	4.4694	-3.1076
6ES13	7.5650	2.1679	2.4225	2.3110	0.9555	1.6025	0.0032	17.1980	4.4732	-3.1172
6ES12	8.4450	2.4218	2.4167	3.7120	1.0743	1.6023	0.0045	19.4300	4.4758	-3.1240

SECTION	SECTION ALLOWABLES (Fully Braced Strength)					
	SHEAR (K)		MOMENT (k-in)	Ae (in^2)	Pao (k)	Ta (k)
	Vax	Vay				
6ES16	5.422	2.860	37.391	0.4219	12.892	27.943
6ES15	7.239	4.142	43.379	0.5100	15.583	31.584
6ES14	8.997	5.761	49.402	0.6046	18.475	35.224
6ES13	13.061	8.475	60.401	0.8014	24.487	42.455
6ES12	14.560	10.662	72.052	0.9773	29.862	47.621

8" EAVE STRUT SECTION



8 ES 16
- Material Gage
- Shape
- Depth

NOTES:
- Calculation dimensions are out-to-out of section thickness, "T"
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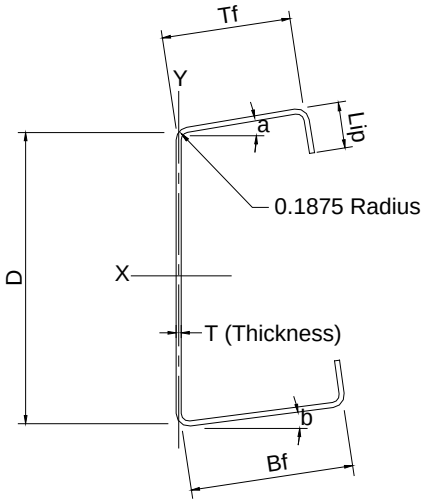
- If roof slope is less than or equal to 4:12, then a = b = roof slope.
- If roof slope is greater than 4:12, then a = roof slope, b = 0.

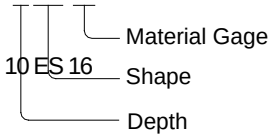
SECTION	GENERAL DATA							
	D (in)	Tf (in)	Bf (in)	T (in)	Lip (in)	Rad (in)	A (in^2)	Wt (lb/ft)
8ES16	8.0	3.0	5.0	0.0568	0.769	0.1875	0.9620	3.2709
8ES15	8.0	3.0	5.0	0.0642	0.787	0.1875	1.0874	3.6971
8ES14	8.0	3.0	5.0	0.0716	0.805	0.1875	1.2127	4.1233
8ES13	8.0	3.0	5.0	0.0863	0.841	0.1875	1.4617	4.9698
8ES12	8.0	3.0	5.0	0.0968	0.867	0.1875	1.6395	5.5745

SECTION	FULL SECTION PROPERTIES									
	Ixx (in^4)	Sxx (in^3)	Rxx (in)	Iyy (in^4)	Syy (in^3)	Ryy (in)	J (in^4)	Cw (in^6)	Ro (in)	Xo (in)
8ES16	9.7630	2.1313	3.1856	2.3890	0.6525	1.5757	0.0010	20.3380	4.8501	-2.8210
8ES15	11.009	2.4043	3.1819	2.7000	0.7389	1.5759	0.0015	23.0640	4.8509	-2.8255
8ES14	12.249	2.6762	3.1781	3.0120	0.8257	1.5761	0.0021	25.8010	4.8517	-2.8301
8ES13	14.695	3.2130	3.1706	3.2130	0.9988	1.5763	0.0036	31.2960	4.8532	-2.8388
8ES12	16.426	3.5936	3.1653	4.0740	1.1232	1.5764	0.0051	35.2700	4.8544	-2.8450

SECTION	SECTION ALLOWABLES (Fully Braced Strength)					
	SHEAR (K)		MOMENT (k-in)	Ae (in^2)	Pao (k)	Ta (k)
	Vax	Vay				
8ES16	5.422	2.094	50.860	0.4257	13.007	31.694
8ES15	7.239	3.029	61.555	0.5155	15.751	35.813
8ES14	8.997	4.211	73.303	0.6123	18.708	39.940
8ES13	13.061	7.402	90.776	0.8149	24.899	48.139
8ES12	14.560	10.475	107.56	0.9965	30.448	53.997

10" EAVE STRUT SECTION





NOTES:

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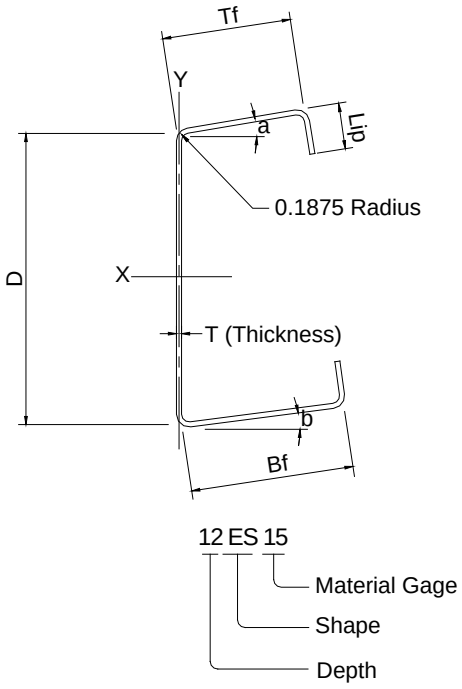
- If roof slope is less than or equal to 4:12, then a = b = roof slope.
- If roof slope is greater than 4:12, then a = roof slope, b = 0.

SECTION	GENERAL DATA							
	D (in)	Tf (in)	Bf (in)	T (in)	Lip (in)	Rad (in)	A (in^2)	Wt (lb/ft)
10ES16	10.0	3.0	5.0	0.0568	0.769	0.1875	1.0757	3.6572
10ES15	10.0	3.0	5.0	0.0642	0.787	0.1875	1.2158	4.1336
10ES14	10.0	3.0	5.0	0.0716	0.813	0.1875	1.3559	4.6101
10ES13	10.0	3.0	5.0	0.0863	0.841	0.1875	1.6343	5.5566
10ES12	10.0	3.0	5.0	0.0968	0.880	0.1875	1.8331	6.5740

SECTION	FULL SECTION PROPERTIES									
	Ixx (in^4)	Sxx (in^3)	Rxx (in)	Iyy (in^4)	Syy (in^3)	Ryy (in)	J (in^4)	Cw (in^6)	Ro (in)	Xo (in)
10ES16	16.393	2.9031	3.9039	2.5540	0.6728	1.5408	0.0012	33.1010	5.3649	-2.5928
10ES15	18.496	3.2766	3.9005	2.8870	0.7620	1.5411	0.0017	37.5070	5.3649	-2.5969
10ES14	20.592	3.6490	3.8970	3.2220	0.8515	1.5414	0.0023	41.9230	5.3648	-2.6011
10ES13	24.731	4.3852	3.8901	3.8860	1.0302	1.5419	0.0041	50.7650	5.3646	-2.6091
10ES12	21.146	5.1713	3.8825	4.6000	1.2236	1.5424	0.0067	57.1390	5.3646	-2.6176

SECTION	SECTION ALLOWABLES (Fully Braced Strength)					
	SHEAR (K)		MOMENT (k-in)	Ae (in^2)	Pao (k)	Ta (k)
	Vax	Vay				
10ES16	5.422	1.651	64.337	0.4279	13.074	35.426
10ES15	7.239	2.388	77.716	0.5186	15.847	40.042
10ES14	8.997	3.318	92.347	0.6167	18.843	44.656
10ES13	13.061	5.828	122.28	0.8227	25.137	53.824
10ES12	14.560	8.242	147.85	1.0075	30.785	60.373

12" EAVE STRUT SECTION



NOTES:

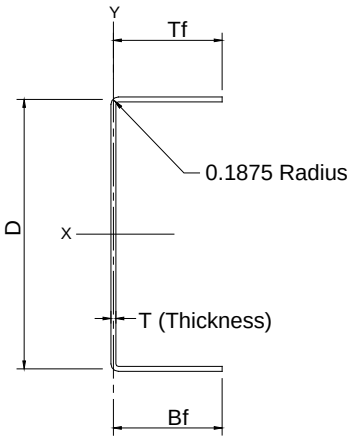
- Calculation dimensions are out-to-out of section thickness, "T"
- All sections are designed with reference to the "SPECIFICATIONS FOR COLD FORMED STEEL STRUCTURAL MEMBERS", AISI 1996 Edition
- Specific yield strength of Light Gage Cold-Formed Steel, Fy=55 ksi
- If roof slope is less than or equal to 4:12, then a = b = roof slope.
- If roof slope is greater than 4:12, then a = roof slope, b = 0.

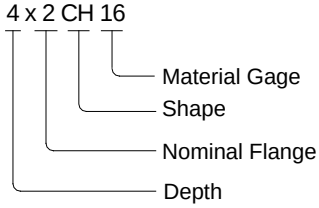
SECTION	GENERAL DATA							
	D (in)	Tf (in)	Bf (in)	T (in)	Lip (in)	Rad (in)	A (in^2)	Wt (lb/ft)
12ES15	12.0	3.0	5.0	0.0642	0.787	0.1875	1.3442	4.5703
12ES14	12.0	3.0	5.0	0.0747	0.813	0.1875	1.4991	5.0970
12ES13	12.0	3.0	5.0	0.0863	0.841	0.1875	1.8069	6.1434
12ES12	12.0	3.0	5.0	0.1021	0.880	0.1875	2.0267	6.8909

SECTION	FULL SECTION PROPERTIES									
	Ixx (in^4)	Sxx (in^3)	Rxx (in)	Iyy (in^4)	Syy (in^3)	Ryy (in)	J (in^4)	Cw (in^6)	Ro (in)	Xo (in)
12ES15	28.408	4.2407	4.5971	3.0390	0.7796	1.5036	0.0018	56.2420	5.9651	-2.4051
12ES14	31.637	4.7242	4.5939	3.3910	0.8711	1.5040	0.0026	62.6360	5.9644	-2.4087
12ES13	38.025	5.6809	4.5874	4.0910	1.0540	1.5046	0.0045	76.0180	5.9630	-2.4160
12ES12	44.849	6.3615	4.5827	4.5910	1.1854	1.5051	0.0063	85.5030	5.9622	-2.4160

SECTION	SECTION ALLOWABLES (Fully Braced Strength)					
	SHEAR (K)		MOMENT (k-in)	Ae (in^2)	Pao (k)	Ta (k)
	Vax	Vay				
10ES15	7.239	1.971	93.916	0.5207	15.911	44.270
10ES14	8.997	2.737	111.40	0.6196	18.931	49.372
10ES13	13.061	4.805	146.94	0.8277	25.292	59.508
10ES12	14.560	6.794	185.24	1.0147	31.005	66.749

4" CHANNEL SECTION





NOTES:

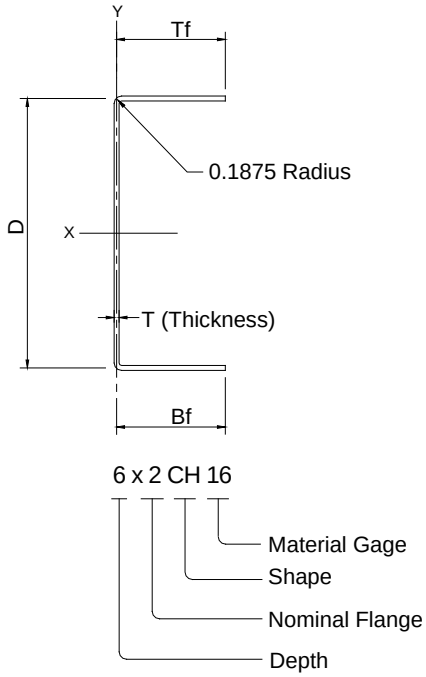
- Calculation dimensions are out-to-out of section thickness, "T"
- All sections are designed with reference to the "SPECIFICATIONS FOR COLD FORMED STEEL STRUCTURAL MEMBERS", AISI 1996 Edition
- Specific yield strength of Light Gage Cold-Formed Steel, Fy=55 ksi

SECTION	GENERAL DATA						
	D (in)	Tf (in)	Bf (in)	T (in)	Rad (in)	A (in^2)	Wt (lb/ft)
4x2CH16	4.125	2.06	2.06	0.0568	0.1875	0.451	1.53
4x2CH15	4.125	2.07	2.07	0.0642	0.1875	0.510	1.73
4x2CH14	4.125	2.08	2.08	0.0716	0.1875	0.593	2.02
4x2CH13	4.125	2.09	2.09	0.0863	0.1875	0.685	2.33
4x2CH12	4.125	2.11	2.11	0.0968	0.1875	0.810	2.76

SECTION	FULL SECTION PROPERTIES									
	Ixx (in^4)	Sxx (in^3)	Rxx (in)	Iyy (in^4)	Syy (in^3)	Ryy (in)	J (in^4)	Cw (in^6)	Ro (in)	Xo (in)
4x2CH16	1.227	0.595	1.650	0.194	0.129	0.657	0.00048	0.57	2.19	-1.28
4x2CH15	1.383	0.670	1.647	0.221	0.146	0.659	0.00070	0.65	2.19	-1.28
4x2CH14	1.602	0.777	1.644	0.259	0.171	0.661	0.00110	0.76	2.19	-1.29
4x2CH13	1.844	0.894	1.641	0.303	0.199	0.665	0.00170	0.88	2.20	-1.30
4x2CH12	2.168	1.051	1.636	0.363	0.238	0.669	0.00282	1.05	2.20	-1.31

SECTION	SECTION ALLOWABLES (Fully Braced Strength)					
	SHEAR (K)		MOMENT (k-in)	Ae (in^2)	Pao (k)	Ta (k)
	Vax	Vay				
4x2CH16	4.692	3.705	13.558	0.2399	7.596	14.654
4x2CH15	5.308	4.733	15.664	0.2965	9.388	16.563
4x2CH14	6.182	6.132	19.113	0.3844	12.173	19.268
4x2CH13	7.155	7.039	23.146	0.4907	15.537	22.265
4x2CH12	8.480	8.254	28.955	0.6478	20.513	26.340

6" CHANNEL SECTION



NOTES:

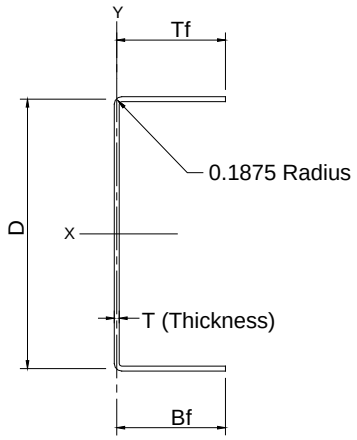
- Calculation dimensions are out-to-out of section thickness, "T"
- All sections are designed with reference to the "SPECIFICATIONS FOR COLD FORMED STEEL STRUCTURAL MEMBERS", AISI 1996 Edition
- Specific yield strength of Light Gage Cold-Formed Steel, Fy=55 ksi

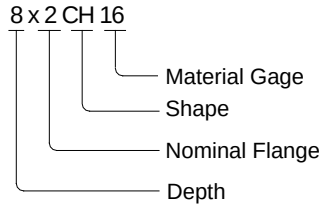
SECTION	GENERAL DATA						
	D (in)	Tf (in)	Bf (in)	T (in)	Rad (in)	A (in^2)	Wt (lb/ft)
6x2CH16	6.125	2.06	2.06	0.0568	0.1875	0.564	1.92
6x2CH15	6.125	2.07	2.07	0.0642	0.1875	0.638	2.17
6x2CH14	6.125	2.08	2.08	0.0716	0.1875	0.742	2.53
6x2CH13	6.125	2.09	2.09	0.0863	0.1875	0.858	2.92
6x2CH12	6.125	2.11	2.11	0.0968	0.1875	1.015	3.45

SECTION	FULL SECTION PROPERTIES									
	Ixx (in^4)	Sxx (in^3)	Rxx (in)	Iyy (in^4)	Syy (in^3)	Ryy (in)	J (in^4)	Cw (in^6)	Ro (in)	Xo (in)
6x2CH16	3.079	1.006	2.336	0.219	0.136	0.623	0.00061	1.45	2.65	-1.09
6x2CH15	3.475	1.135	2.334	0.249	0.154	0.625	0.00088	1.65	2.65	-1.10
6x2CH14	4.033	1.317	2.331	0.292	0.180	0.627	0.00138	1.93	2.65	-1.10
6x2CH13	4.649	1.518	2.328	0.341	0.210	0.631	0.00213	2.24	2.66	-1.11
6x2CH12	5.480	1.789	2.324	0.409	0.251	0.635	0.00353	2.68	2.66	-1.12

SECTION	SECTION ALLOWABLES (Fully Braced Strength)					
	SHEAR (K)		MOMENT (k-in)	Ae (in^2)	Pao (k)	Ta (k)
	Vax	Vay				
6x2CH16	4.692	2.772	24.927	0.2472	7.829	18.346
6x2CH15	5.308	4.013	28.287	0.3072	9.727	20.736
6x2CH14	6.182	6.345	34.211	0.4014	12.711	24.124
6x2CH13	7.153	8.553	41.089	0.5172	16.377	27.875
6x2CH12	8.480	11.971	50.936	0.6923	21.924	32.977

8" CHANNEL SECTION





NOTES:

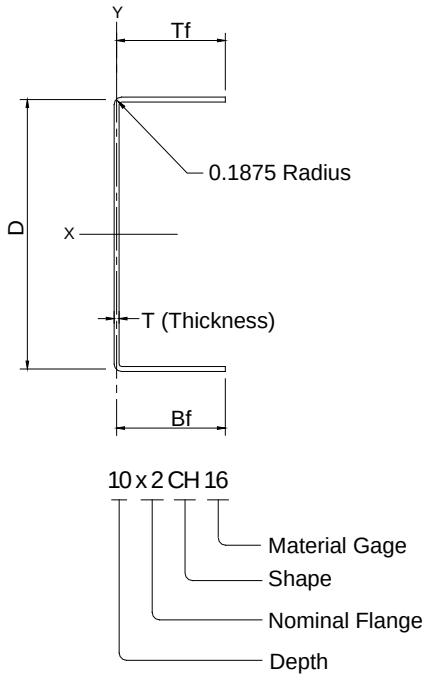
- Calculation dimensions are out-to-out of section thickness, "T"
- All sections are designed with reference to the "SPECIFICATIONS FOR COLD FORMED STEEL STRUCTURAL MEMBERS", AISI 1996 Edition
- Specific yield strength of Light Gage Cold-Formed Steel, Fy=55 ksi

SECTION	GENERAL DATA						
	D (in)	Tf (in)	Bf (in)	T (in)	Rad (in)	A (in^2)	Wt (lb/ft)
8x2CH16	8.125	2.06	2.06	0.0568	0.1875	0.678	2.31
8x2CH15	8.125	2.07	2.07	0.0642	0.1875	0.766	2.61
8x2CH14	8.125	2.08	2.08	0.0716	0.1875	0.892	3.03
8x2CH13	8.125	2.09	2.09	0.0863	0.1875	1.030	3.51
8x2CH12	8.125	2.11	2.11	0.0968	0.1875	1.219	4.15

SECTION	FULL SECTION PROPERTIES									
	Ixx (in^4)	Sxx (in^3)	Rxx (in)	Iyy (in^4)	Syy (in^3)	Ryy (in)	J (in^4)	Cw (in^6)	Ro (in)	Xo (in)
8x2CH16	6.062	1.492	2.990	0.235	0.140	0.589	0.00073	2.82	3.19	-0.95
8x2CH15	6.844	1.685	2.988	0.267	0.159	0.591	0.00105	3.20	3.19	-0.96
8x2CH14	7.949	1.957	2.986	0.314	0.186	0.593	0.00166	3.75	3.19	-0.96
8x2CH13	9.170	2.257	2.983	0.367	0.216	0.597	0.00256	4.37	3.19	-0.97
8x2CH12	10.82	2.664	2.980	0.440	0.259	0.601	0.00424	5.22	3.19	-0.98

SECTION	SECTION ALLOWABLES (Fully Braced Strength)					
	SHEAR (K)		MOMENT (k-in)	Ae (in^2)	Pao (k)	Ta (k)
	Vax	Vay				
8x2CH16	4.692	2.046	32.714	0.2507	7.940	22.038
8x2CH15	5.308	2.960	41.704	0.3122	9.888	24.909
8x2CH14	6.182	4.676	52.809	0.4095	12.967	28.979
8x2CH13	7.155	7.232	63.063	0.5297	16.773	33.484
8x2CH12	8.480	11.971	77.664	0.7133	22.587	39.613

10" CHANNEL SECTION



NOTES:

- Calculation dimensions are out-to-out of section thickness, "T"
- All sections are designed with reference to the "SPECIFICATIONS FOR COLD FORMED STEEL STRUCTURAL MEMBERS", AISI 1996 Edition
- Specific yield strength of Light Gage Cold-Formed Steel, Fy=55 ksi

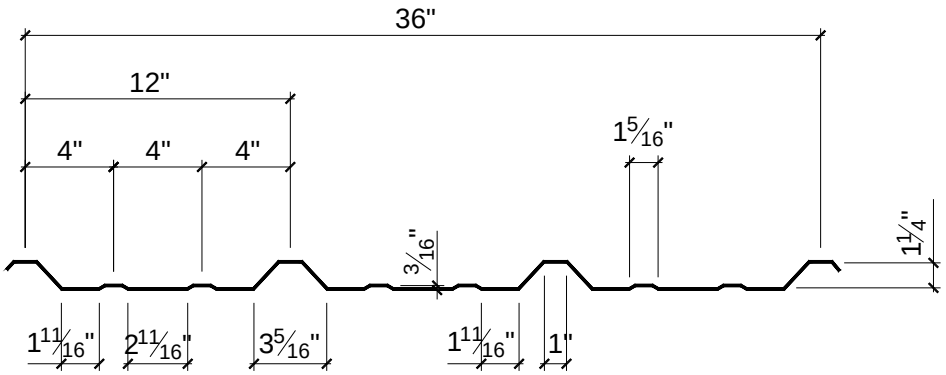
SECTION	GENERAL DATA						
	D (in)	Tf (in)	Bf (in)	T (in)	Rad (in)	A (in^2)	Wt (lb/ft)
10x2CH16	10.125	2.06	2.06	0.0568	0.1875	0.792	2.69
10x2CH15	10.125	2.07	2.07	0.0642	0.1875	0.895	3.04
10x2CH14	10.125	2.08	2.08	0.0716	0.1875	1.041	3.54
10x2CH13	10.125	2.09	2.09	0.0863	0.1875	1.203	4.09
10x2CH12	10.125	2.11	2.11	0.0968	0.1875	1.423	4.84

SECTION	FULL SECTION PROPERTIES									
	Ixx (in^4)	Sxx (in^3)	Rxx (in)	Iyy (in^4)	Syy (in^3)	Ryy (in)	J (in^4)	Cw (in^6)	Ro (in)	Xo (in)
10x2CH16	10.400	2.054	3.625	0.247	0.142	0.558	0.00085	4.72	3.76	-0.85
10x2CH15	11.746	2.320	3.623	0.281	0.162	0.560	0.00123	5.36	3.76	-0.85
10x2CH14	13.649	2.696	3.621	0.330	0.189	0.563	0.00194	6.28	3.76	-0.86
10x2CH13	15.752	3.112	3.619	0.385	0.221	0.566	0.00299	7.32	3.76	-0.87
10x2CH12	18.603	3.675	3.616	0.463	0.264	0.570	0.00494	8.75	3.76	-0.87

SECTION	SECTION ALLOWABLES (Fully Braced Strength)					
	SHEAR (K)		MOMENT (k-in)	Ae (in^2)	Pao (k)	Ta (k)
	Vax	Vay				
10x2CH16	4.692	1.621	40.463	0.2528	8.005	25.730
10x2CH15	5.308	2.345	51.082	0.3152	9.982	29.082
10x2CH14	6.182	3.702	69.004	0.4142	13.116	33.835
10x2CH13	7.155	5.721	89.023	0.5370	17.004	39.094
10x2CH12	8.480	9.506	109.10	0.7254	22.972	46.250

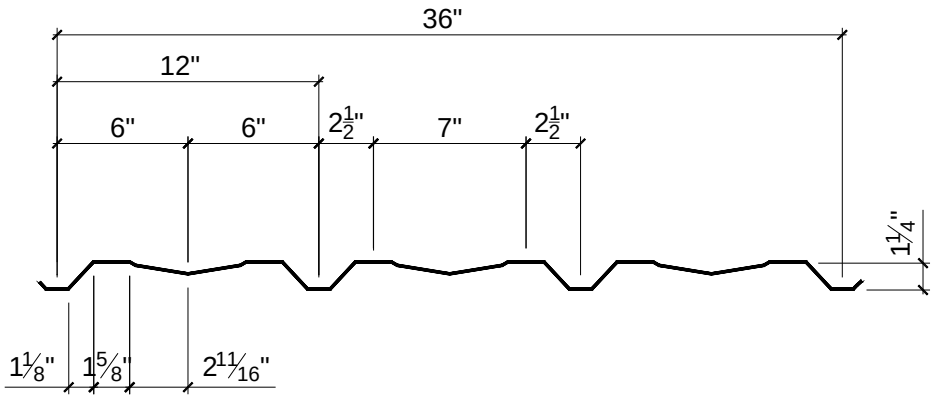
3.1.2 ROOF AND WALL PANELS

“R” PANEL



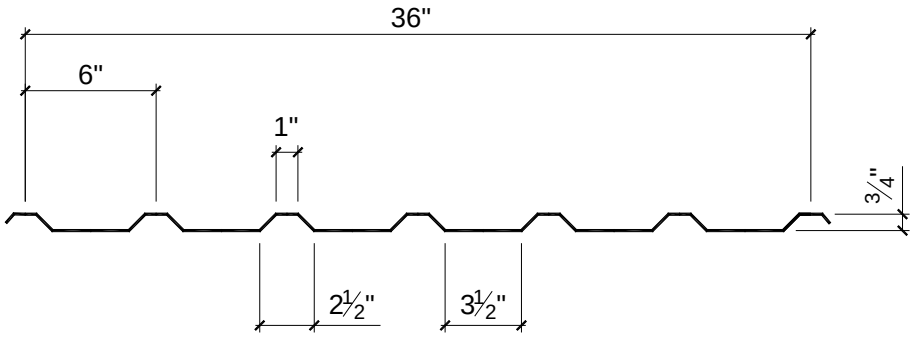
SECTION PROPERTIES (PER FOOT OF PANEL WIDTH)									
Gauge	Fy (ksi)	Weight (psf)	Thick (in.)	PANEL TOP IN COMPRESSION			PANEL BOTTOM IN COMPRESSION		
				Ix (in^4)	Sx (in^3)	Ma (k-in)	Ix (in^4)	Sx (in^3)	Ma (k-in)
26	80	0.890	0.0189	0.0376	0.0378	1.813	0.0293	0.0470	2.253
24	50	1.140	0.0230	0.0593	0.063	1.887	0.0437	0.0631	1.890

"AW" PANEL



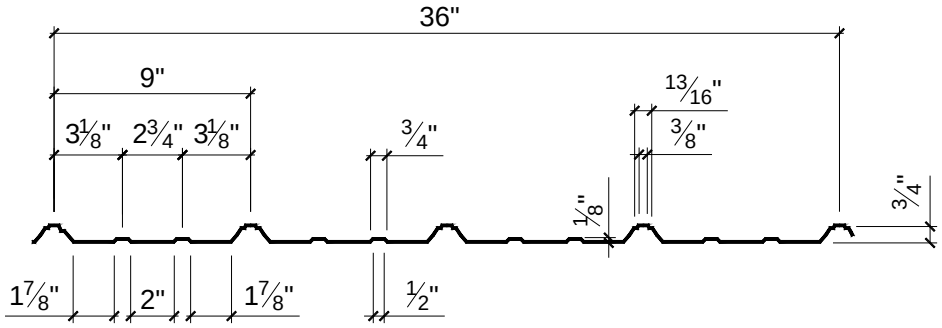
SECTION PROPERTIES (PER FOOT OF PANEL WIDTH)									
Gauge	Fy (ksi)	Weight (psf)	Thick (in.)	PANEL TOP IN COMPRESSION			PANEL BOTTOM IN COMPRESSION		
				Ix (in^4)	Sx (in^3)	Ma (k-in)	Ix (in^4)	Sx (in^3)	Ma (k-in)
26	80	0.890	0.0189	0.0353	0.0485	2.323	0.033	0.038	1.820
24	50	1.140	0.0230	0.5133	0.648	1.940	0.052	0.0626	1.873

"M" PANEL



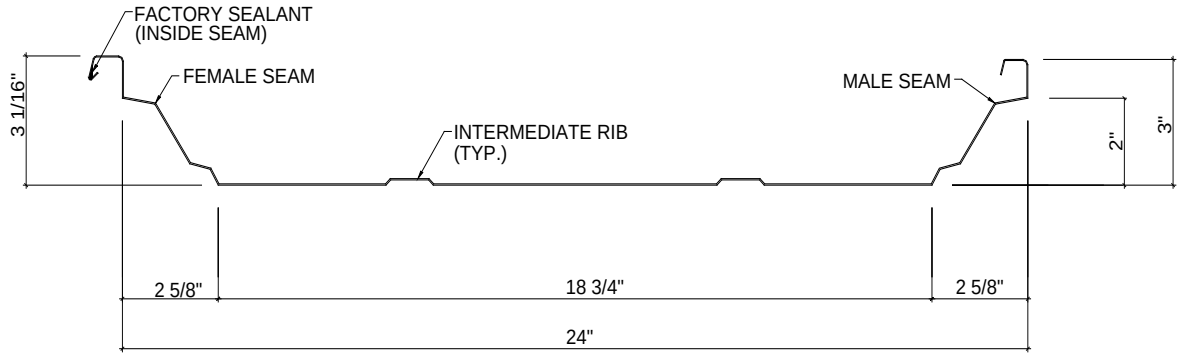
SECTION PROPERTIES (PER FOOT OF PANEL WIDTH)									
Gauge	Fy (ksi)	Weight (psf)	Thick (in.)	PANEL TOP IN COMPRESSION			PANEL BOTTOM IN COMPRESSION		
				Ix (in^4)	Sx (in^3)	Ma (k-in)	Ix (in^4)	Sx (in^3)	Ma (k-in)
26	80	0.890	0.0189	0.0203	0.0378	1.812	0.0137	0.0322	1.543
24	50	1.140	0.0230	0.0300	0.0577	1.730	0.0207	0.0523	1.567

"CHOICE RIB" PANEL



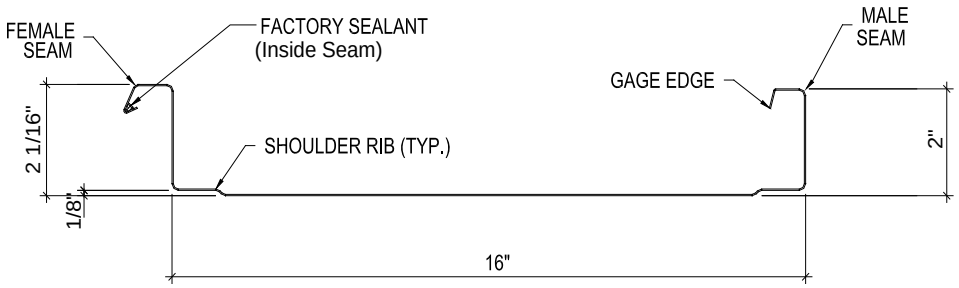
SECTION PROPERTIES (PER FOOT OF PANEL WIDTH)									
Gauge	Fy (ksi)	Weight (psf)	Thick (in.)	PANEL TOP IN COMPRESSION			PANEL BOTTOM IN COMPRESSION		
				Ix (in^4)	Sx (in^3)	Ma (k-in)	Ix (in^4)	Sx (in^3)	Ma (k-in)
29	80	0.6852	0.0140	0.0133	0.0219	1.053	0.0083	0.0196	0.940
26	80	0.8902	0.0189	0.1067	0.0173	0.830	0.0070	0.01513	0.725

"HT-324" HI-TECH SSR PANEL



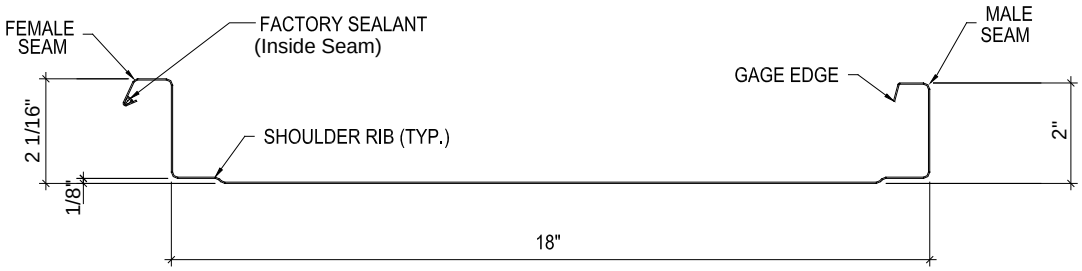
SECTION PROPERTIES (PER FOOT OF PANEL WIDTH)									
Gauge	Fy (ksi)	Weight (psf)	Thick (in.)	PANEL TOP IN COMPRESSION			PANEL BOTTOM IN COMPRESSION		
				Ix (in^4)	Sx (in^3)	Ma (k-in)	Ix (in^4)	Sx (in^3)	Ma (k-in)
24	50	1.168	0.0228	0.1869	0.0784	2.352	0.0789	0.0482	1.446
22	50	1.441	0.0282	0.2294	0.0963	2.889	0.1012	0.0638	1.914

"PT216" PLATINUM SSR PANEL



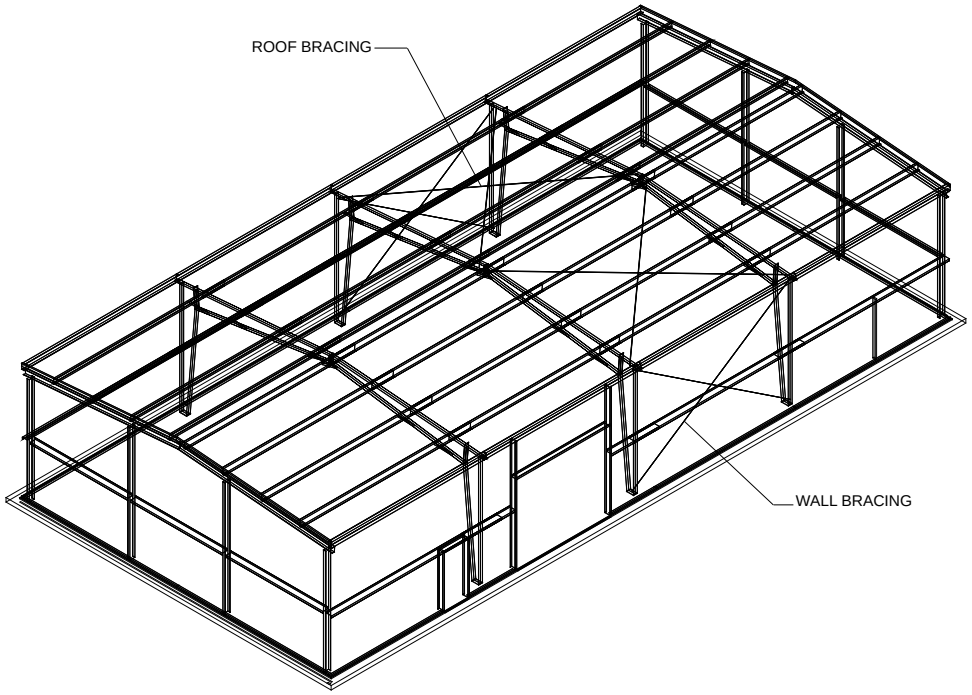
SECTION PROPERTIES (PER FOOT OF PANEL WIDTH)									
Gauge	Fy (ksi)	Weight (psf)	Thick (in.)	PANEL TOP IN COMPRESSION			PANEL BOTTOM IN COMPRESSION		
				Ix (in^4)	Sx (in^3)	Ma (k-in)	Ix (in^4)	Sx (in^3)	Ma (k-in)
24	50	1.360	0.0228	0.1599	0.0923	2.769	0.0913	0.0800	2.400
22	50	1.694	0.0282	0.2049	0.1195	3.585	0.1180	0.1000	3.000

"PT218" PLATINUM SSR PANEL



SECTION PROPERTIES (PER FOOT OF PANEL WIDTH)									
Gauge	Fy (ksi)	Weight (psf)	Thick (in.)	PANEL TOP IN COMPRESSION			PANEL BOTTOM IN COMPRESSION		
				Ix (in^4)	Sx (in^3)	Ma (k-in)	Ix (in^4)	Sx (in^3)	Ma (k-in)
24	50	1.317	0.0228	0.1289	0.0726	2.178	0.0721	0.0633	1.899
22	50	1.642	0.0282	0.1655	0.0945	2.835	0.0933	0.0793	2.379

WIND BRACING REQUIREMENTS FOR ROOF, SIDEWALLS AND ENDWALLS



ROOF AND SIDEWALL BRACING:

RBS provides cable (standard) or rod (optional) 'X' bracing in the roof to transfer the longitudinal forces created by wind against endwall , seismic or crane thrusts to the eave of the building. The sidewall bracing systems then transfers these forces to the foundation.

APPROXIMATE BRACED BAY REQUIREMENTS:

FOR BUILDING WIDTHS LESS THAN 80'-0"

3 BAYS

4 BAYS

5 BAYS

6 BAYS

FOR BUILDING WIDTHS 80'-0" OR MORE

3 BAYS

4 BAYS

5 BAYS

6 BAYS

FOR BUILDING WIDTHS LESS THAN 80'-0"

7 BAYS

8 BAYS

9 BAYS

10 BAYS

11 BAYS

12 BAYS

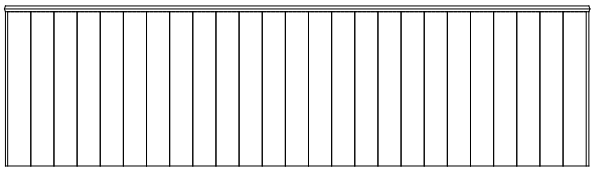
13 BAYS

14 BAYS

15 BAYS

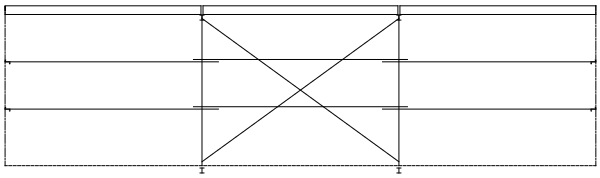
ETC.

SIDEWALL BRACING



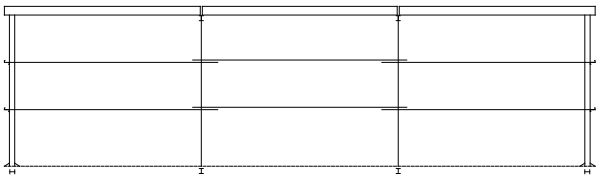
DIAPHRAGM ACTION
(STANDARD)

DIAPHRAGM ACTION
For buildings with flush girts and widths less than 70'-0", RBS will use the diaphragm resistance afforded by the sidewall panels, if adequate, to transfer the the forces to the foundations.



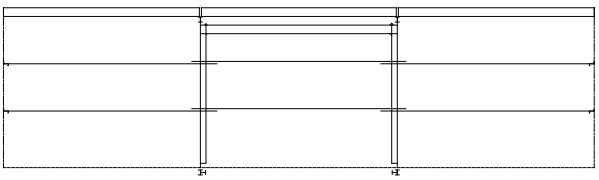
CABLE (STANDARD) **OR**
ROD (OPTIONAL) **'X' BRACING**

CABLE OR ROD 'X' BRACING
For building with by-frame sidewall girts, RBS provides 'X' bracing as a standard method for transferring longitudinal forces to the foundations.



FIXED BASE OR WIND COLUMN
(OPTIONAL)

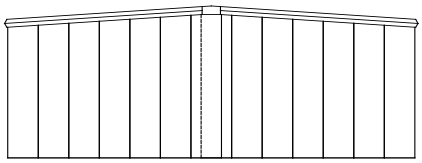
FIXED BASE OR WIND COLUMN
When sidewall openings do not allow the use of 'X' bracing in the sidewall, fixed base or wind column located at the corners of the building or at the interior main frames may be used. Fixed base or wind columns will induce a moment to the foundations, thus requiring a special foundation design.



PORTAL OR WIND BENT FRAME
(OPTIONAL)

PORTAL OR WIND BENT FRAME
When 'X' bracing cannot be used and the eave height is large, a portal or wind bent frame can be used to transfer longitudinal forces to the foundations. Portal frame or wind bent do not induce a moment to the foundation.

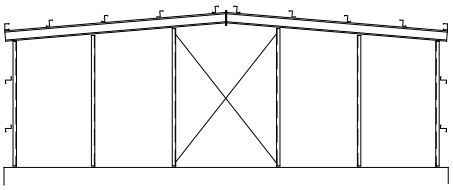
ENDWALL BRACING



DIAPHRAGM ACTION
(STANDARD)

DIAPHRAGM ACTION

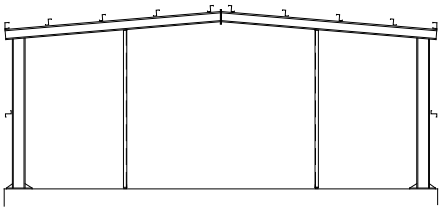
Our standard bearing frame endwall utilizes the diaphragm resistance of the endwall panels to transmit lateral wind or seismic forces to the foundation. If this diaphragm action is inadequate to resist these forces, one of the following methods is available to satisfy the bracing requirements.



CABLE (STANDARD) **OR**
ROD (OPTIONAL) **'X' BRACING**

CABLE OR ROD 'X' BRACING

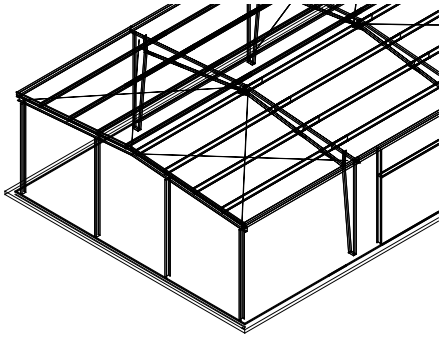
When diaphragm action of the panels is not allowed or inadequate, the first alternative is to provide cable or rod bracing between endwall columns. In this case, flush girts will require field slotting to accomodate the 'X' bracing.



FIXED BASE OR WIND COLUMN
(OPTIONAL)

FIXED BASE OR WIND COLUMN

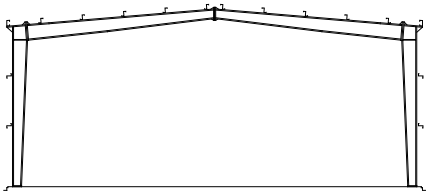
When sidewall openings do not allow the use of 'X' bracing in the sidewall, fixed base or wind column located at the corners of the building or at the interiormain frames may be used. Fixed base or wind columns will induce a moment to the foundations, thus requiring a special foundation design.



BRACE TO INTERIOR MAIN FRAME
(OPTIONAL)

BRACE TO INTERIOR MAIN FRAME

Another method of bracing an open bearing frame endwall is to provide bracing in the roof of the endbay. In this case, the lateral forces on the endwall are transfered to the first interior main frame. The main frame is then designed to resist the additional lateral force.



MAIN FRAME END
(OPTIONAL)

MAIN FRAME END

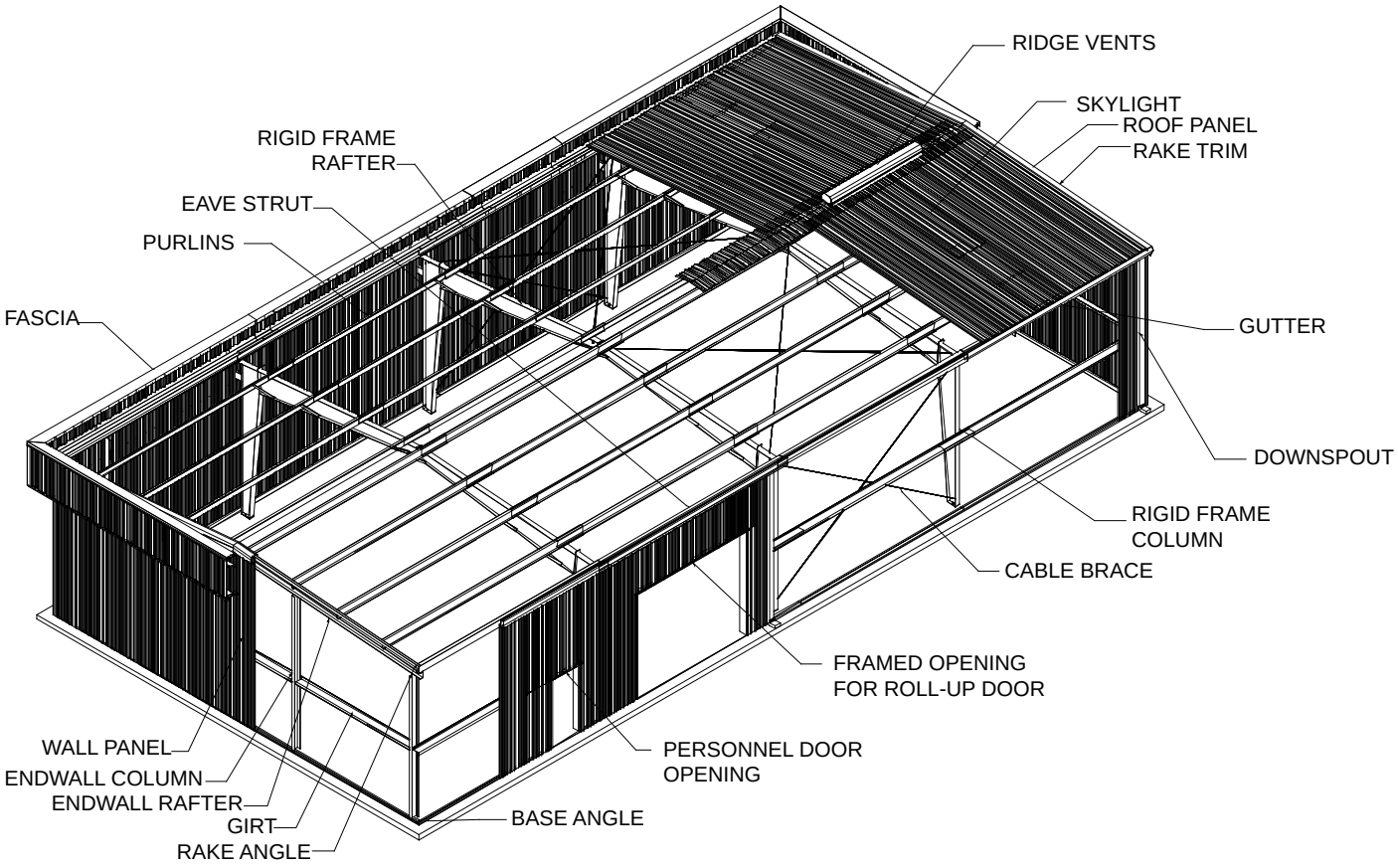
A main end frame may be provided in lieu of bearing end frame if one of the above methods cannot be utilized.

CONSTRUCTION DETAILS

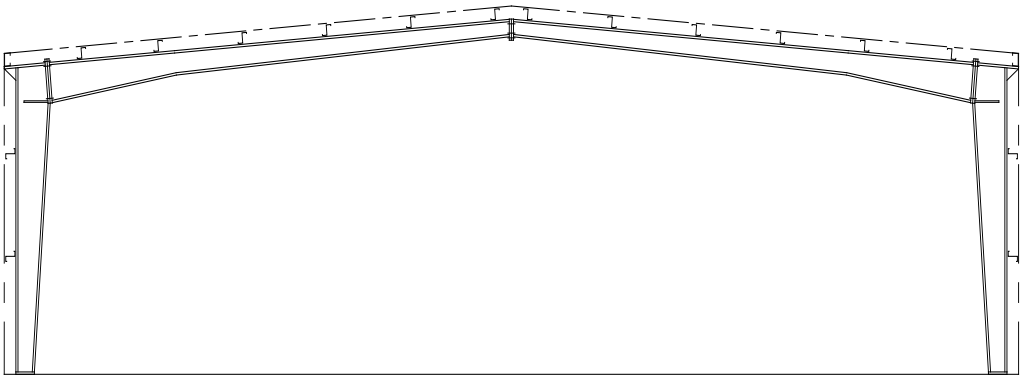
CONSTRUCTION DETAILS

RIGID
GLOBAL BUILDINGS

18933 Aldine Westfield
Houston, TX 77073
888-GO-RIGID
www.RigidBuilding.com


RIDGE VENTS
SKYLIGHT
ROOF PANEL
RAKE TRIM
RIGID FRAME
RAFTER
EAVE STRUT
PURLINS
FASCIA
GUTTER
DOWNSPOUT
RIGID FRAME
COLUMN
CABLE BRACE
FRAMED OPENING
FOR ROLL-UP DOOR
PERSONNEL DOOR
OPENING
WALL PANEL
ENDWALL COLUMN
ENDWALL RAFTER
GIRT
RAKE ANGLE
BASE ANGLE

4.1 BUILDING FRAME TYPES

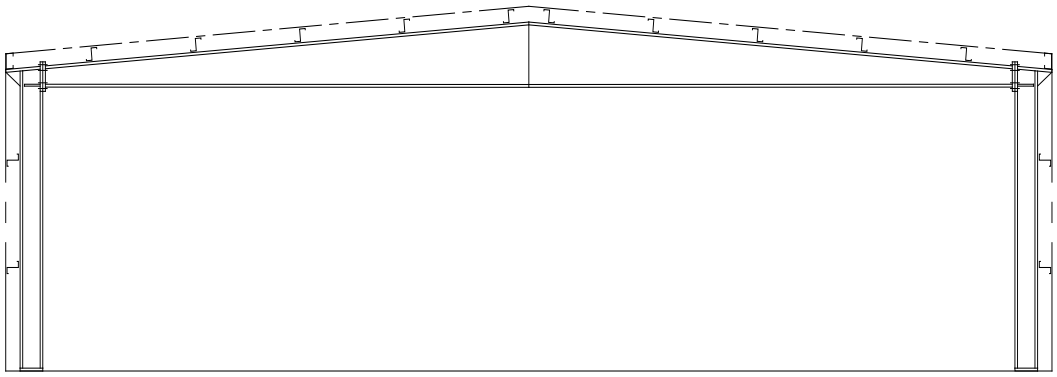


RIGID FRAME (RF)

The clear, unobstructed working space that the **Rigid Frame (RF)** system provides makes it ideal for many commercial and recreational applications. The wide, column-free environment permits the complete utilization of the interior floor space. Recreational rooms, aircraft hangars, and warehouse are often designed as rigid frame systems due to the interference or inconvenience of interior columns.

Typical Dimensions:

- Bay Spacings: 20 ft. - 30 ft.
- Eave Heights: 10 ft. - 25 ft.
- Spans: 20 ft. - 150 ft.
- Gabled or Single Sloped

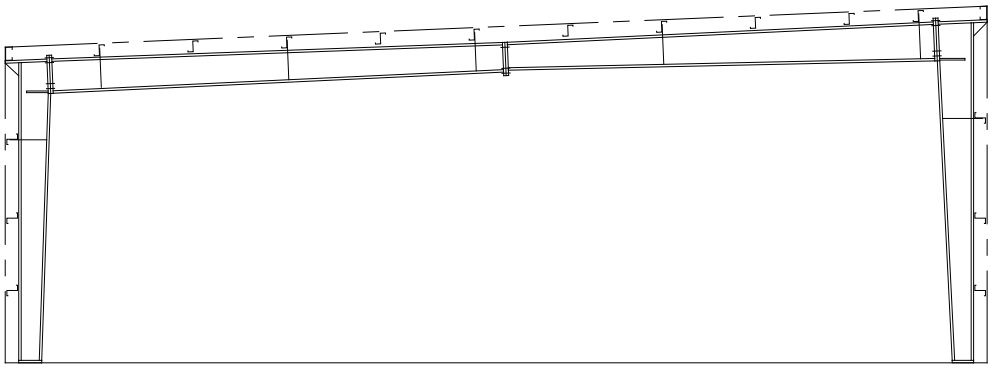


STRAIGHT COLUMN (SC)

Straight Column (SC) systems are utilized when a clear interior space up to seventy feet wide is needed. The column-free interior allows the total amount of floor space to be put to use. This design is often in small offices or other commercial applications.

Typical Dimensions:

- Bay Spacings: 20 ft. - 30 ft.
- Eave Heights: 10 ft. - 20 ft.
- Spans: 20 ft. - 70 ft.
- Gabled or Single Sloped

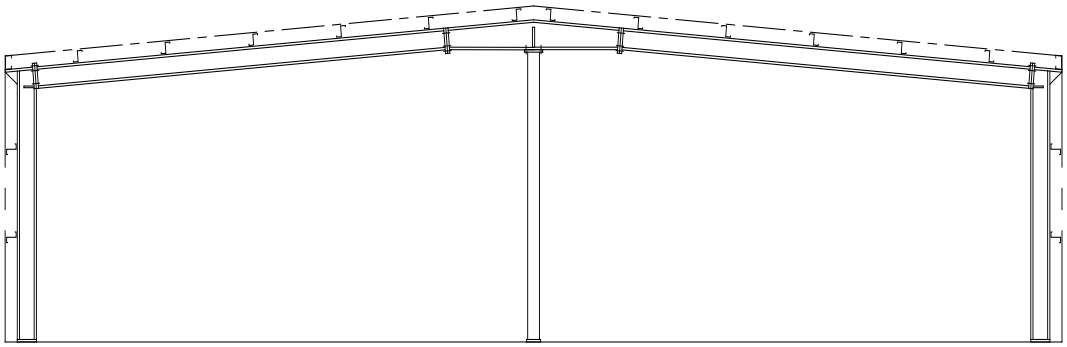


SINGLE SLOPE RIGID FRAME (SSRF)

Single Slope Rigid Frame (SSRF) system. This frame type is great for retail or commercial applications. The peak on this building is on one side.

Typical Dimensions:

- Bay Spacings: 20 ft. - 30 ft.
- Eave Heights: 10 ft. - 25 ft.
- Spans: 20 ft. - 150 ft.
- Single Sloped

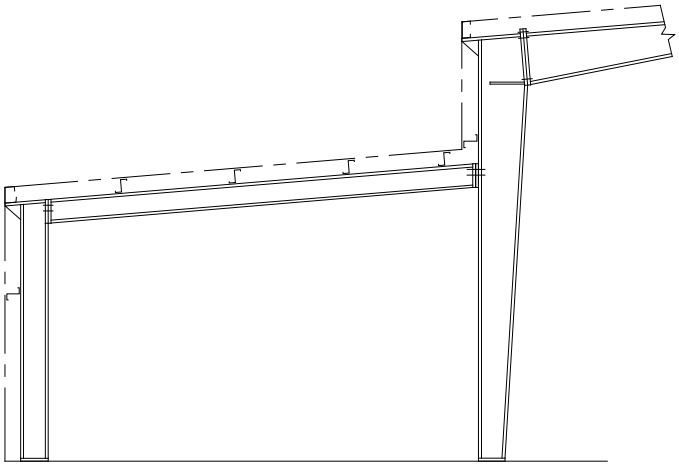


BEAM-AND-COLUMN (BC)

The Beam-and-Column (BC) system is ideal in situations when a vast area of floor space is necessary. The flexibility of the Beam and Column design allows it to be utilized for any industrial or warehouse purpose.

Typical Dimensions:

- Bay Spacings: 20 ft. - 30 ft.
- Eave Heights: 10 ft. - 25 ft.
- Spans: 80 ft. - 300 ft.
- Modules: 40 ft., 50 ft. 60 ft., 75 ft.
- Gabled or Single Sloped



LEAN-TO FRAME (LT)

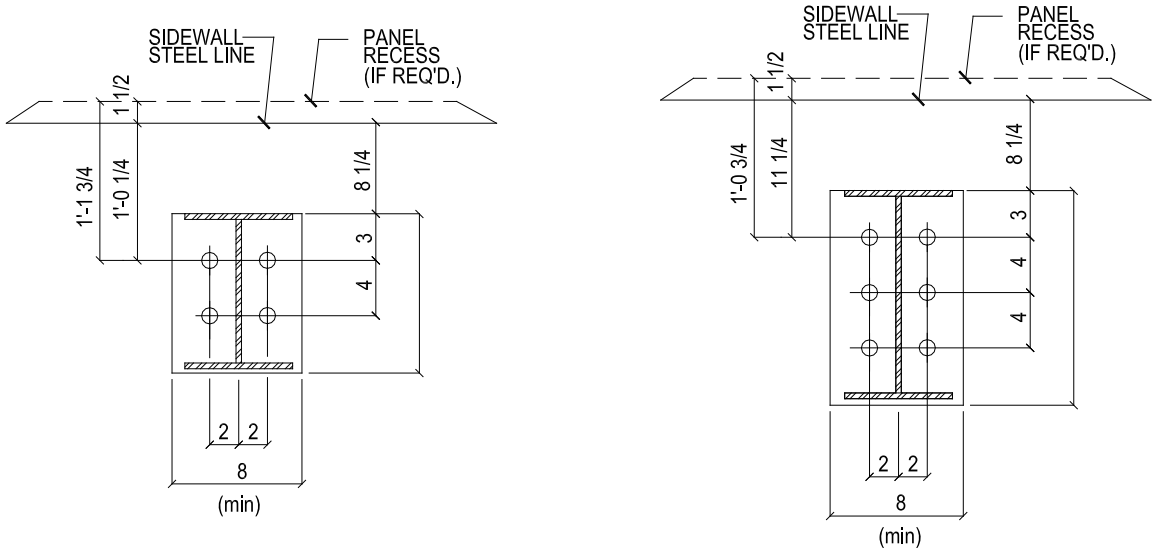
Selecting a **Lean-To (LT)** system is a quick and economical way to expand to a building. More space can be added to the building without interrupting the internal operations. This easy method of expansion makes the Lean-To system ideal for additional storage and office buildings.

Typical Dimensions:

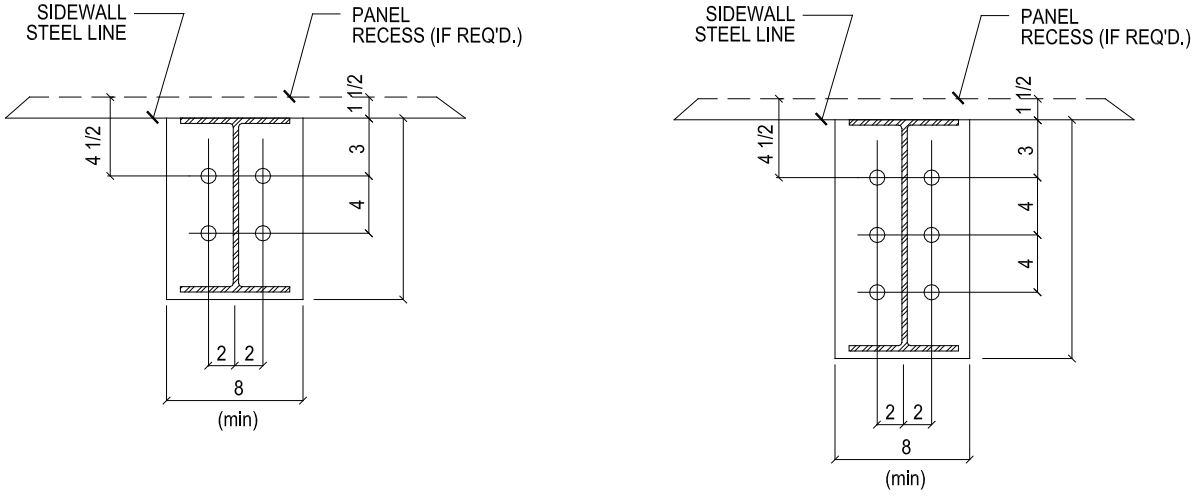
- Bay Spacings: 20 ft. - 30 ft.
- Eave Heights: 10 ft. - 25 ft.
- Spans: 20 ft. - 50 ft.

4.2 ANCHOR BOLT PATTERNS

4.2.1 MAIN FRAME



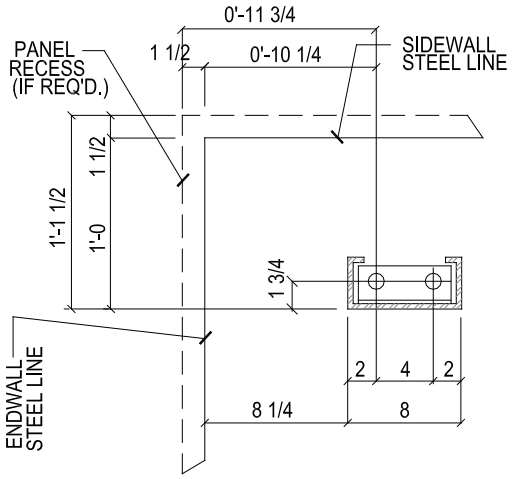
BY-PASS GIRT CONDITION

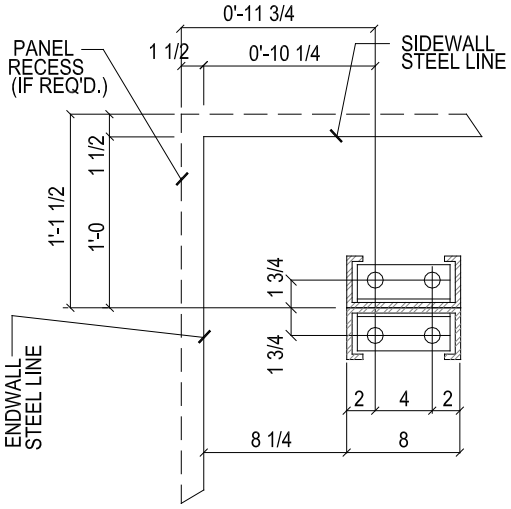


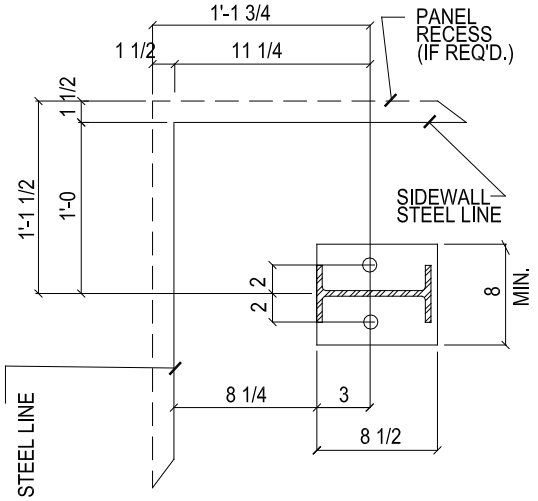
FLUSH GIRT CONDITION

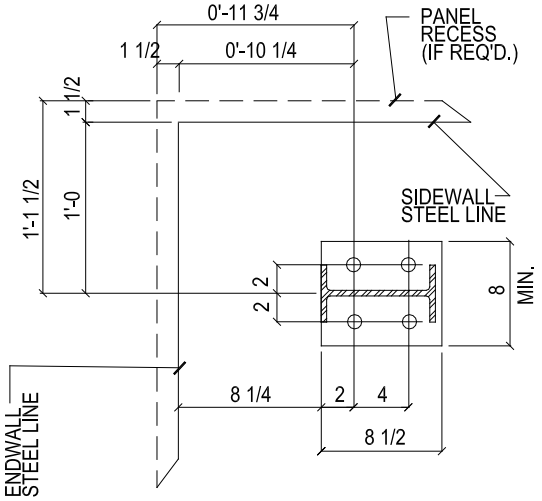
4.2.2 ENDWALL COLUMNS

4.2.1.1 BY-PASS GIRT CONDITION

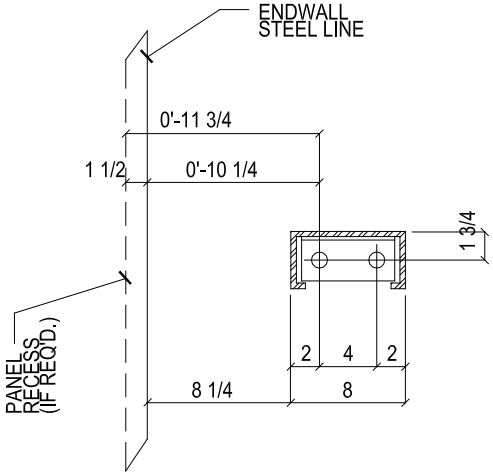


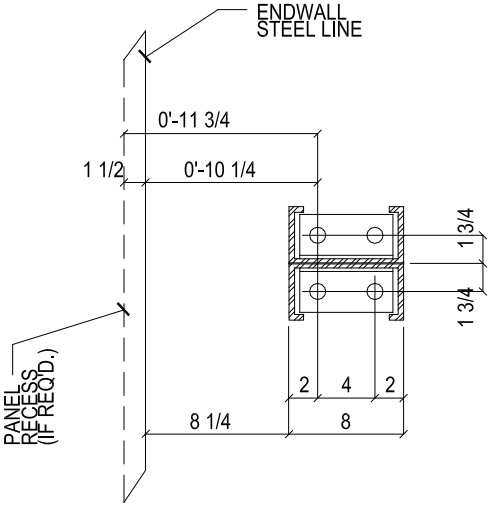


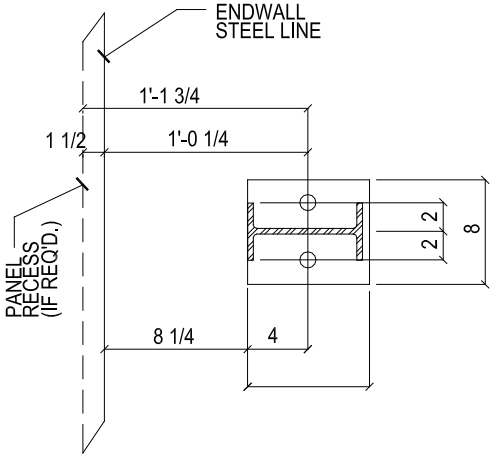


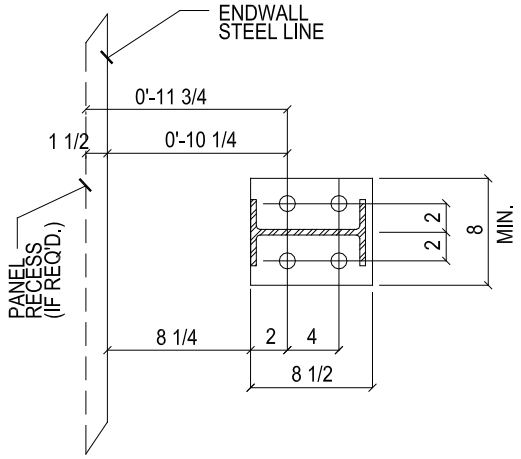


CORNER COLUMN



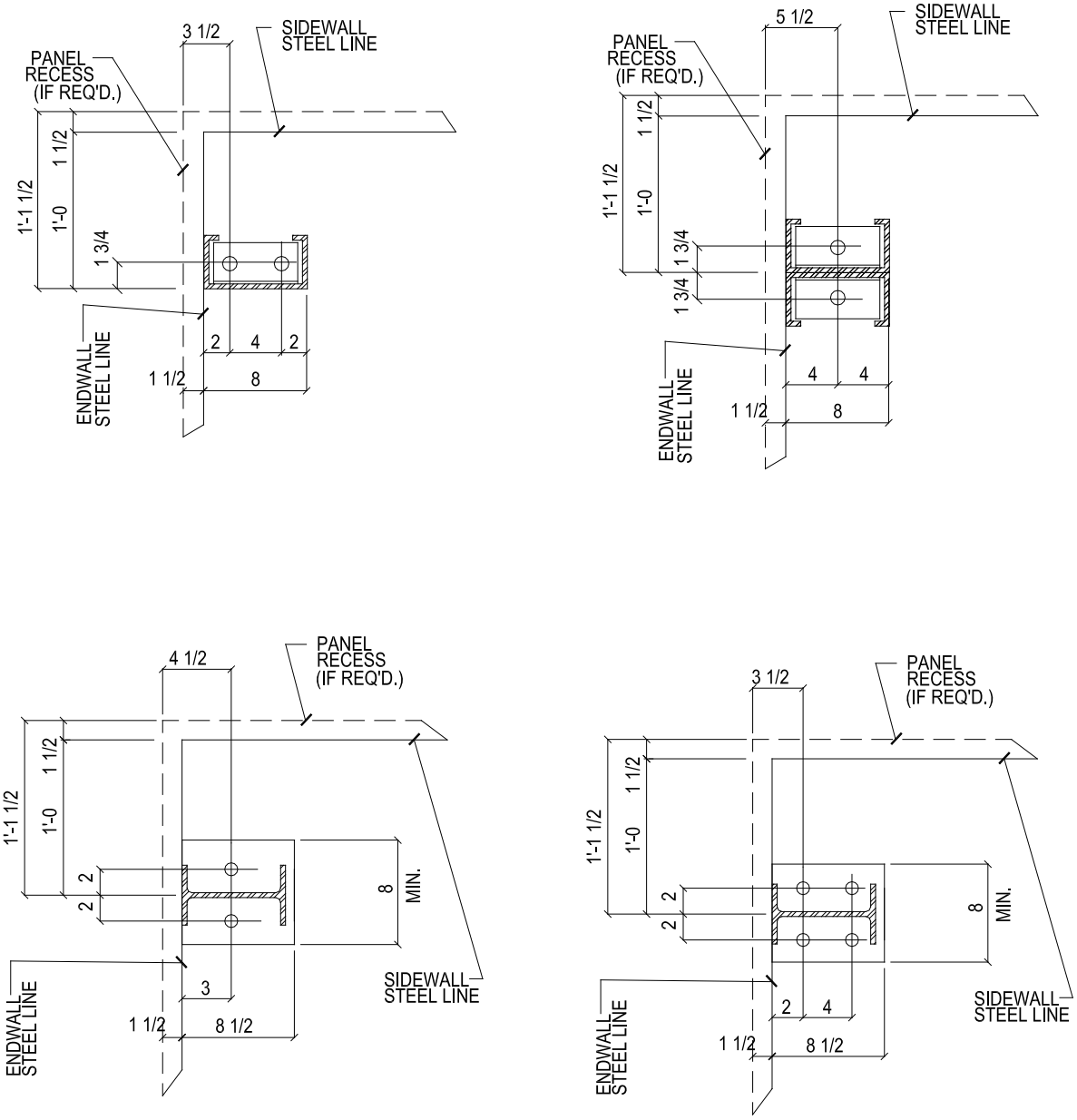




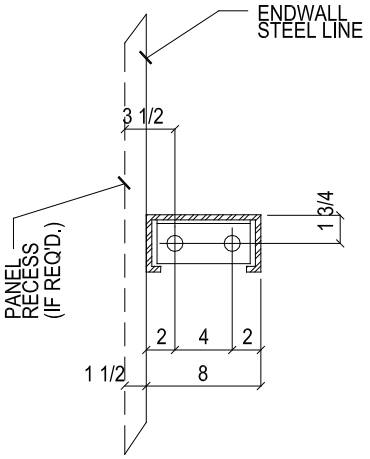


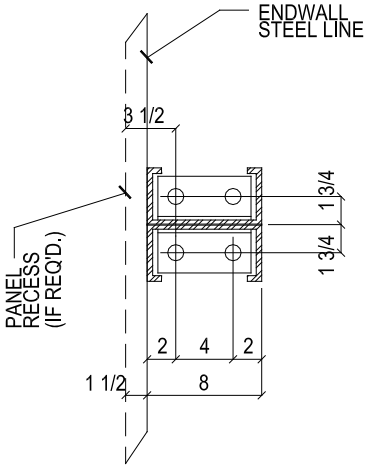
INTERMEDIATE COLUMN

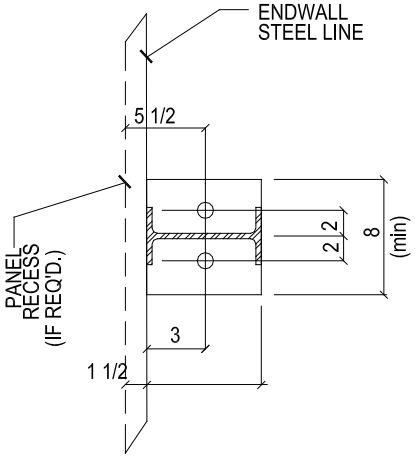
4.2.1.2 FLUSH GIRT CONDITION

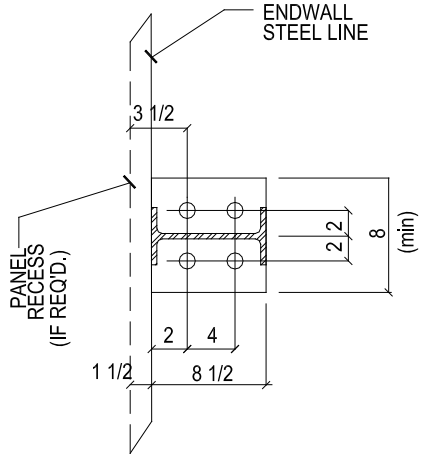


CORNER COLUMN



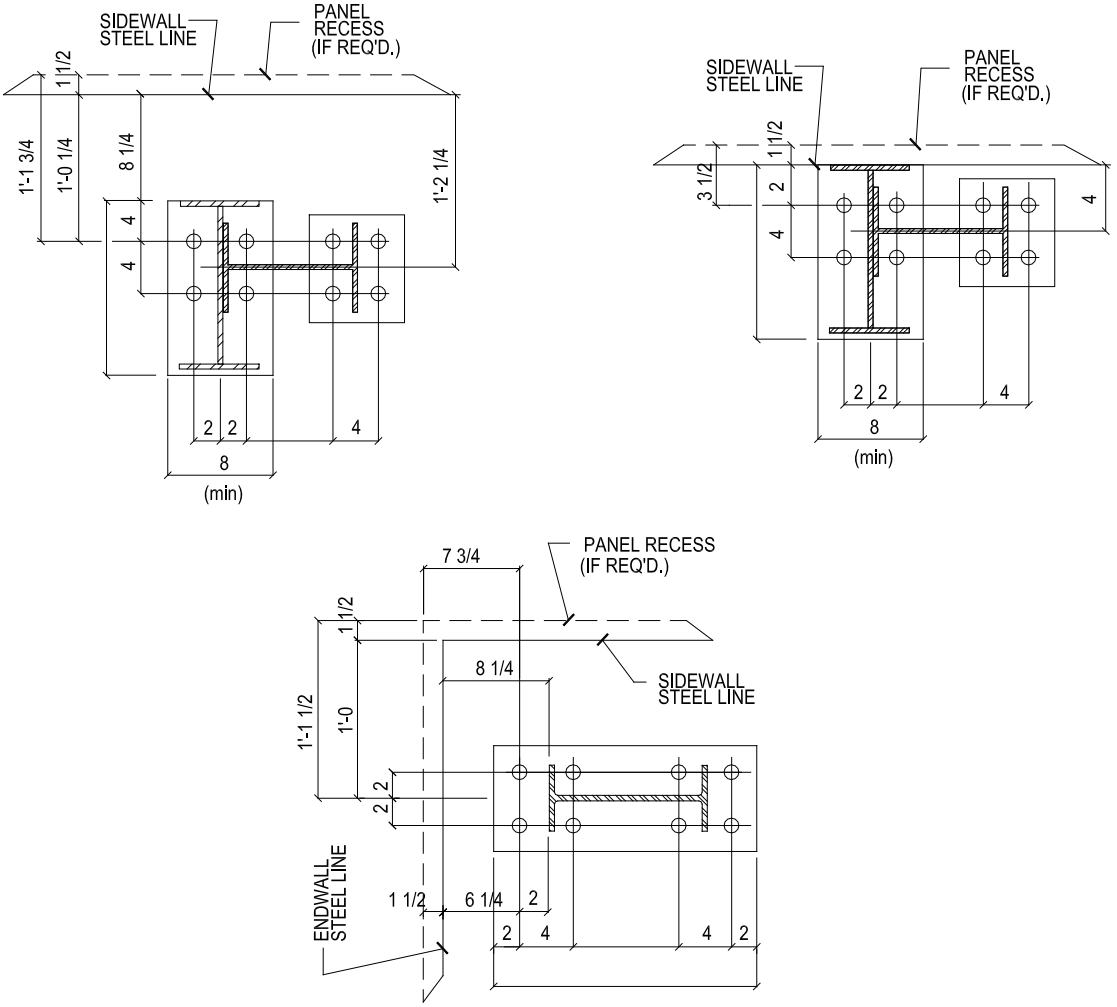






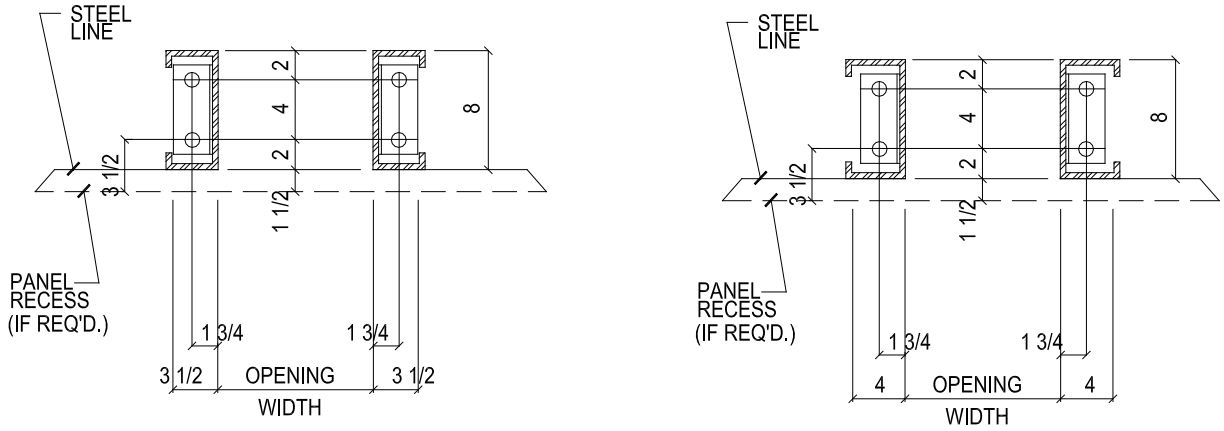
INTERMEDIATE COLUMN

4.2.3 FIXED BASE COLUMNS

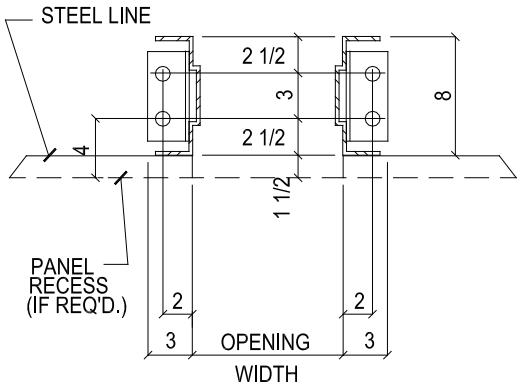


4.2.4 PIPE COLUMNS

4.2.5 FRAMED OPENING

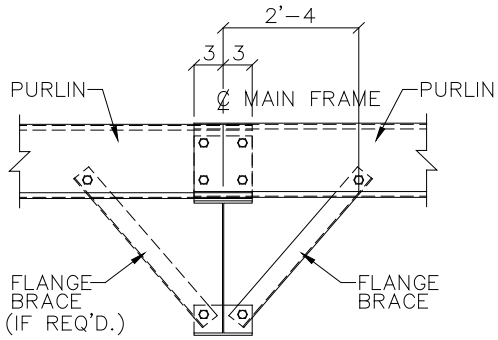


STANDARD OVERHEAD / ROLL-UP OPENING

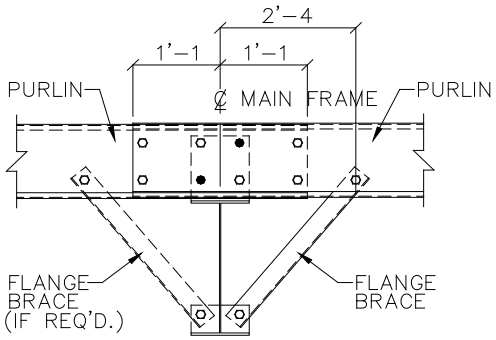


WALK DOOR / PERSONNEL DOOR

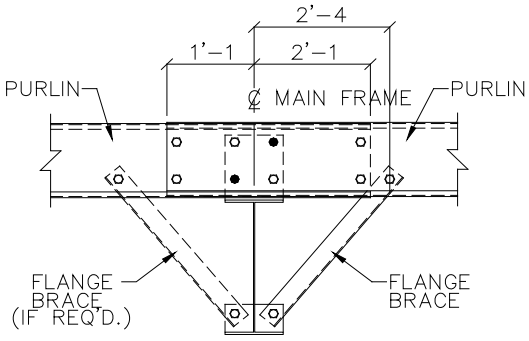
4.3 CONNECTION DETAILS



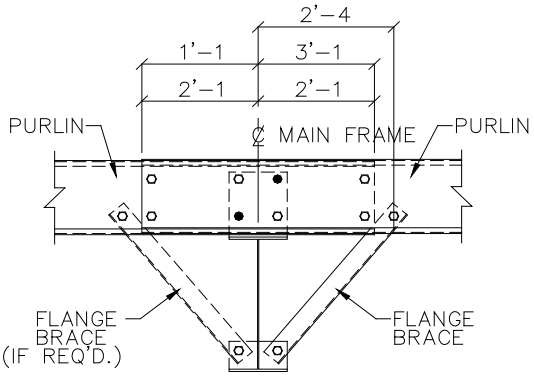
STANDARD 6" LAP



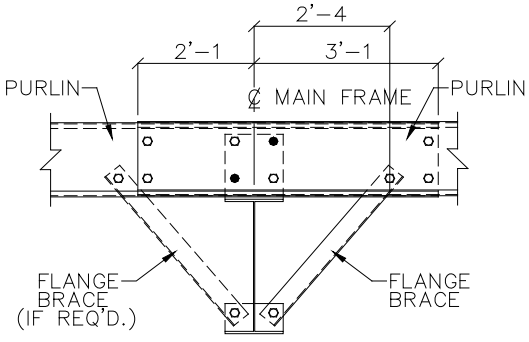
STANDARD 2'-2" LAP



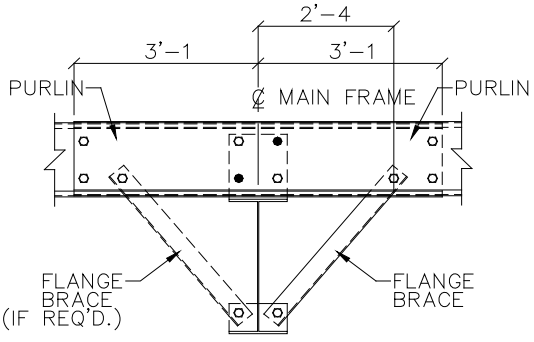
STANDARD 3'-2" LAP



STANDARD 4'-2" LAP



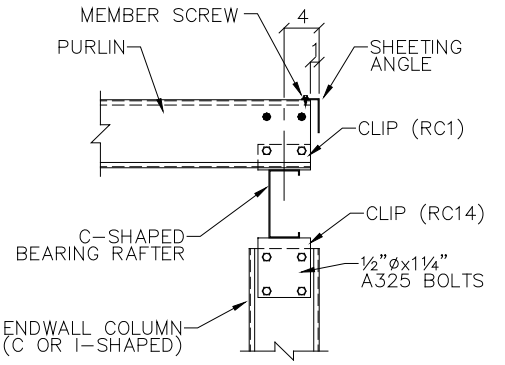
STANDARD 5'-2" LAP



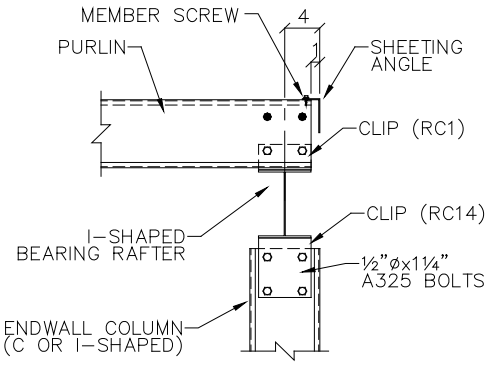
STANDARD 6'-2" LAP

NOTE:
ALL BOLTS ARE 1/2" DIA.x1"
MACHINE BOLTS, U.N.

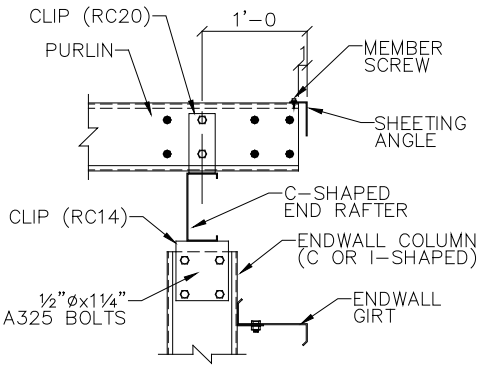
STANDARD LAPS



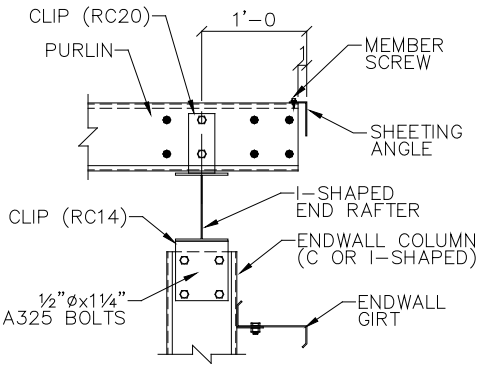
BEARING FRAME TO FLUSH ENDWALL



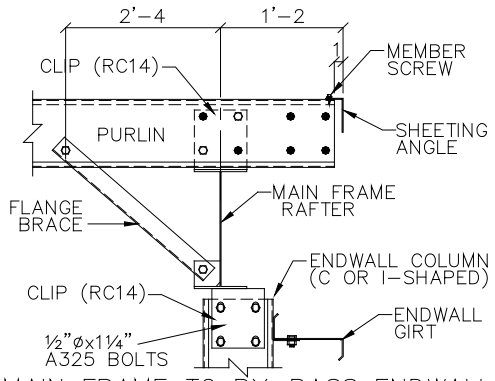
BEARING FRAME TO FLUSH ENDWALL



BEARING FRAME TO BY–PASS ENDWALL



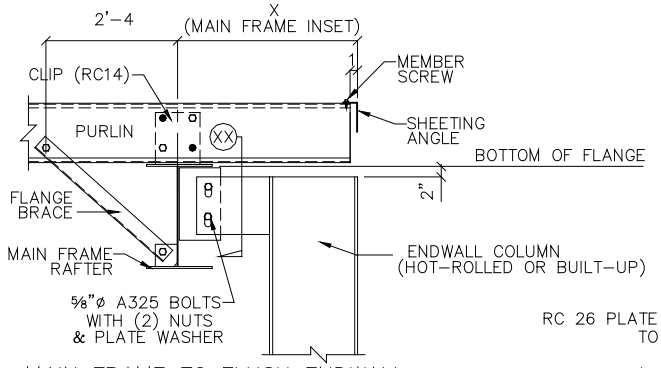
BEARING FRAME TO BY–PASS ENDWALL



MAIN FRAME TO BY–PASS ENDWALL

NOTE:
ALL BOLTS ARE 1/2" DIA.x1"
MACHINE BOLTS, U.N.

ENDWALL BEARING FRAME RAFTER TO PURLIN AND COLUMN

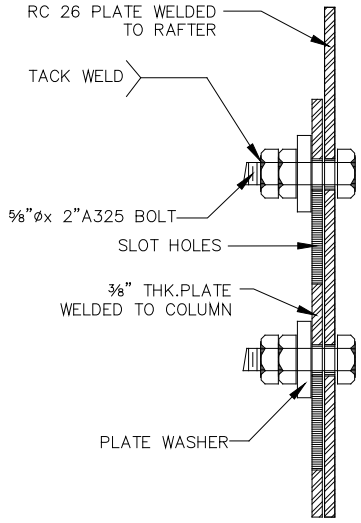


MAIN FRAME TO FLUSH ENDWALL

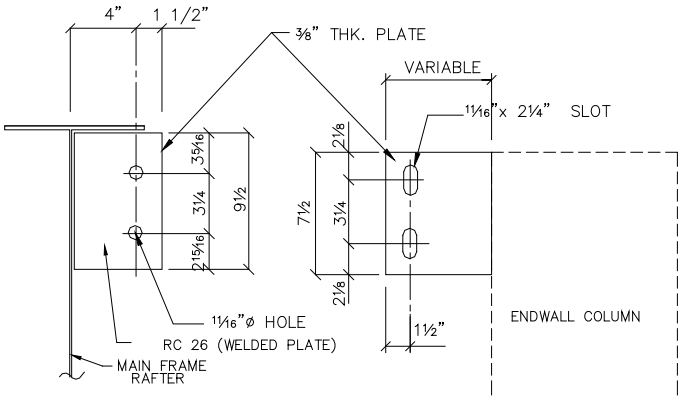
ALL BOLTS ARE ½"ø x 1" MACHINE BOLTS U.N.

E.W. COL. DEPTH	M.F. INSET
8"	1'-2"
10" TO 12"	1'-6"
14" TO 20"	2'-2"

NOTE:
HAND TIGHTEN NUTS THEN TACK WELD OUTER NUT TO BOLT THEN TIGHTEN INNER NUT AGAINST OUTER NUT W/ WRENCH TO ALLOW MOVEMENT OF STRUCTURAL MEMBERS.

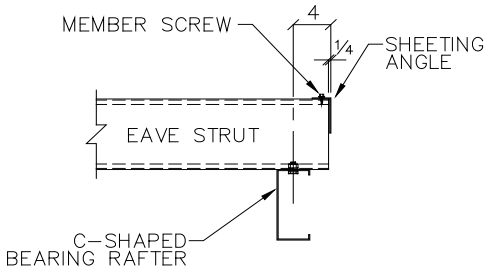


SECTION "XX"

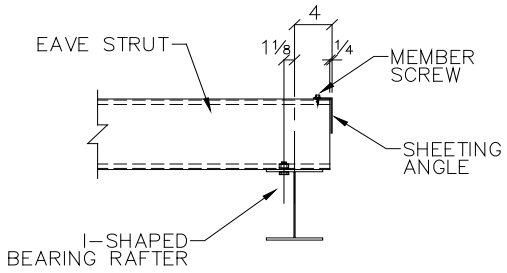


DETAIL

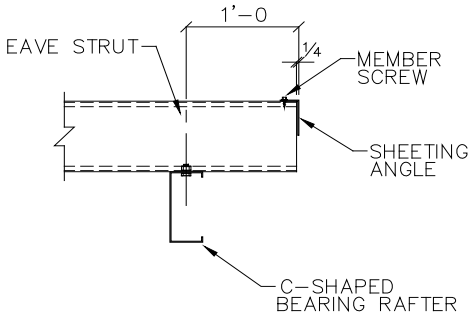
ENDWALL MAIN FRAME RAFTER TO PURLIN AND COLUMN



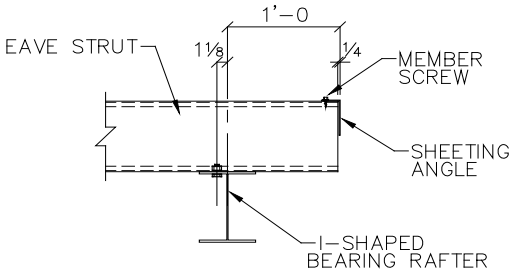
END BAY EAVE STRUT TO BEARING FRAME FLUSH ENDWALL



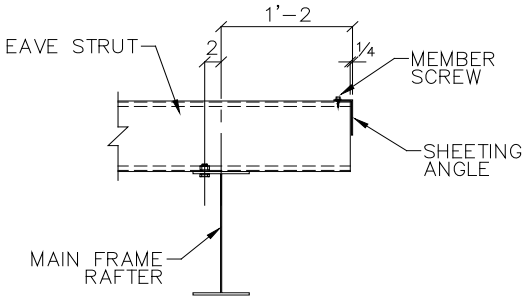
END BAY EAVE STRUT TO BEARING FRAME FLUSH ENDWALL



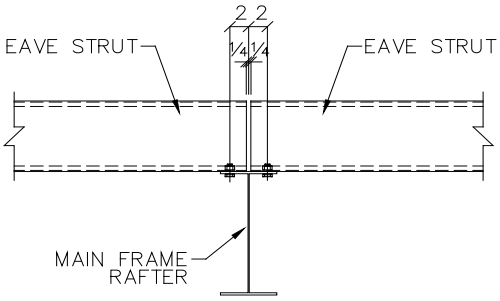
END BAY EAVE STRUT TO BEARING FRAME BY–PASS ENDWALL



END BAY EAVE STRUT TO BEARING FRAME BY–PASS ENDWALL



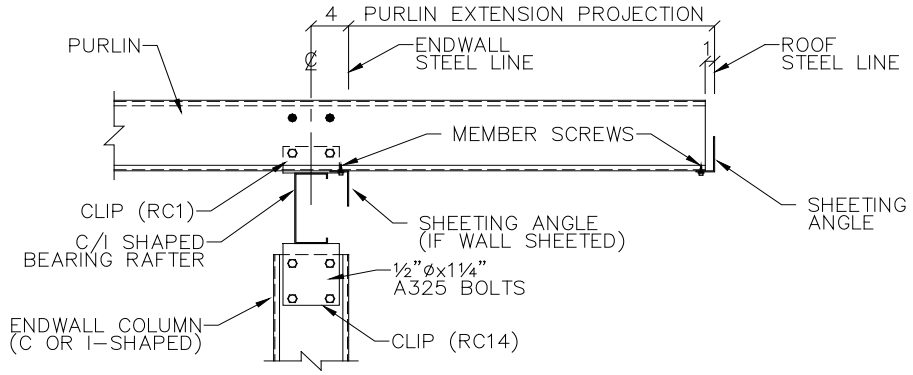
END BAY EAVE STRUT TO MAIN FRAME ENDWALL



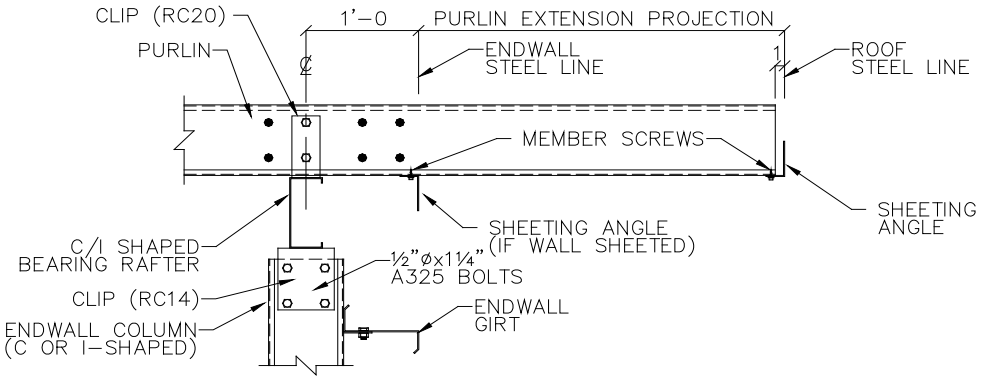
INTERIOR BAY EAVE STRUT TO MAIN FRAME

NOTE:
ALL BOLTS ARE 1/2" DIA.x1 1/4"
A325 BOLTS, U.N.

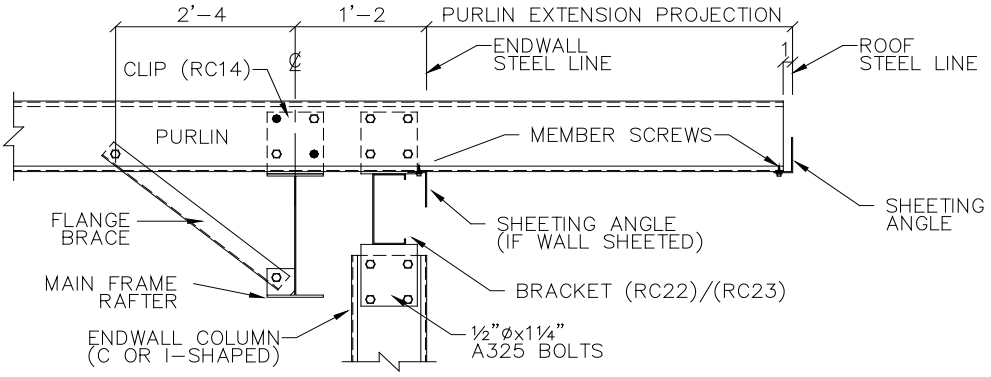
EAVE STRUT TO FRAME



PURLIN EXTENSION WITH BEARING FRAME FLUSH ENDWALL



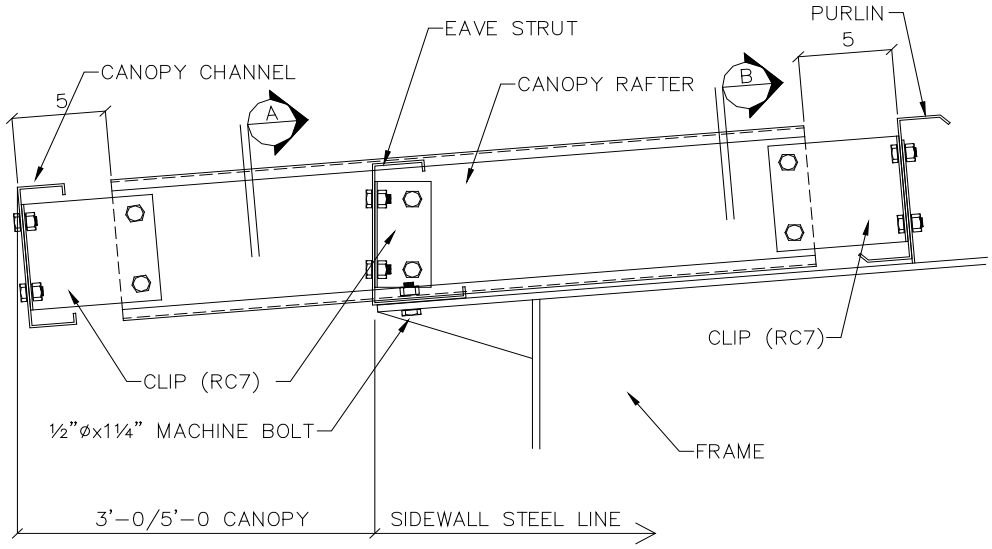
PURLIN EXTENSION WITH BEARING FRAME BY-PASS ENDWALL



PURLIN EXTENSION WITH MAIN FRAME FLUSH ENDWALL

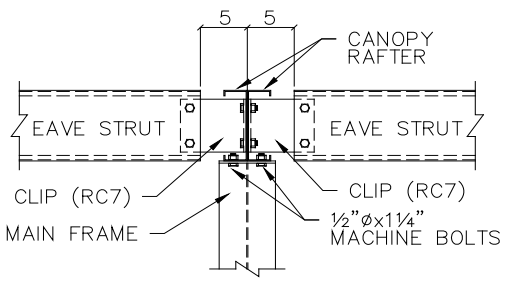
NOTE:
ALL BOLTS ARE 1/2" DIA.x1"
MACHINE BOLTS, U.N.

PURLIN EXTENSION FRAMING

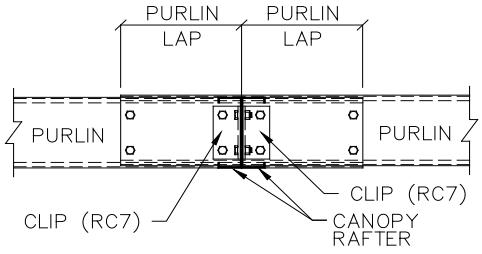


EAVE CANOPY AT MAIN FRAME

NOTE:
ALL BOLTS ARE 1/2" DIA.x1" MACHINE BOLTS, U.N.

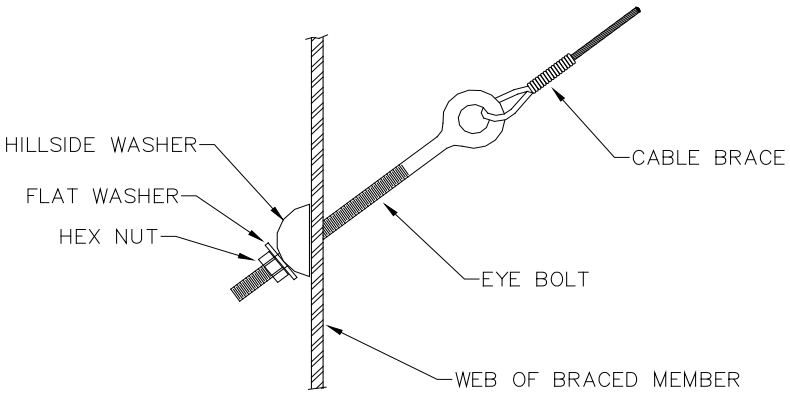


SECTION "A"



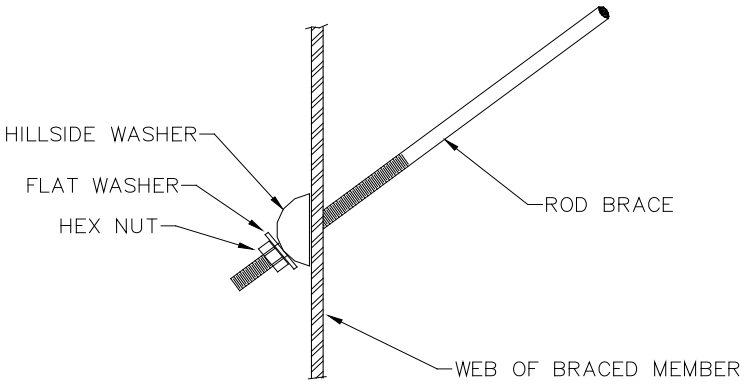
SECTION "B"

EAVE CANOPY FRAMING



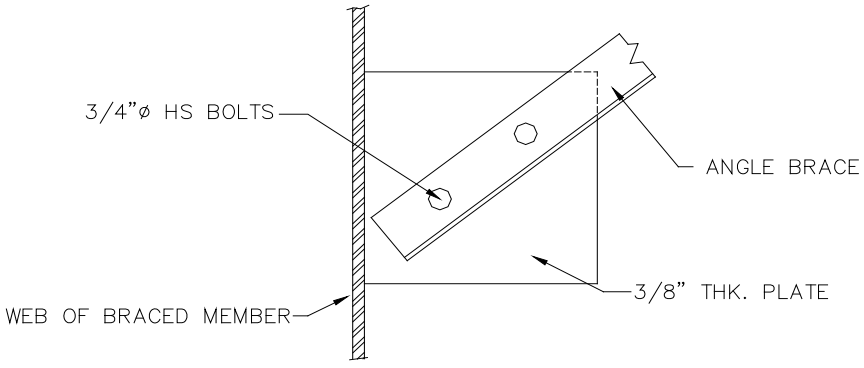
CABLE BRACE TO WEB CONNECTION

NOTE! USE A BACKUP PLATE UNDER THE HILLSIDE WASHER FOR COLD FORM MEMBERS



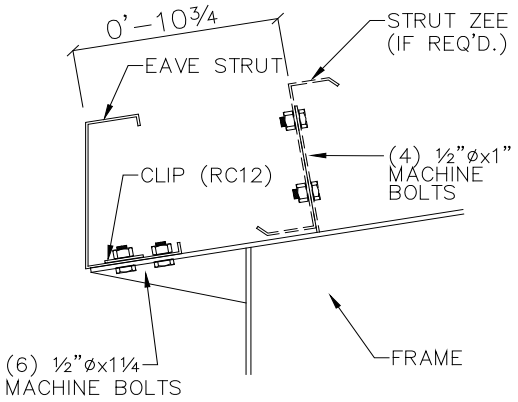
ROD BRACE TO WEB CONNECTION

NOTE! USE A BACKUP PLATE UNDER THE HILLSIDE WASHER FOR COLD FORM MEMBERS

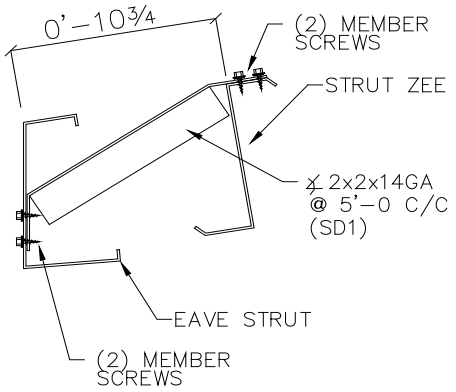


ANGLE BRACE TO WEB CONNECTION

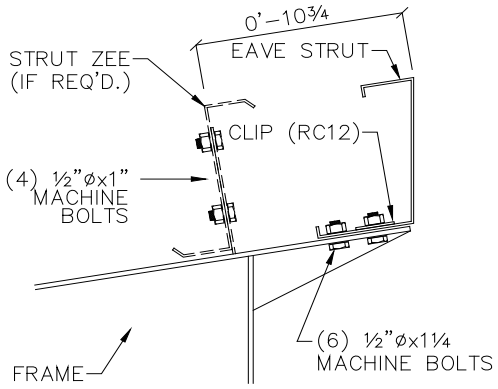
BRACING CONNECTION



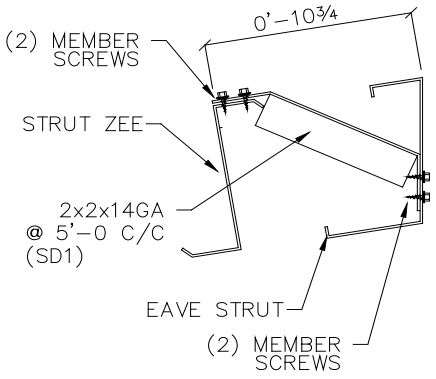
LOW EAVE W/ STIFFENER PLATE



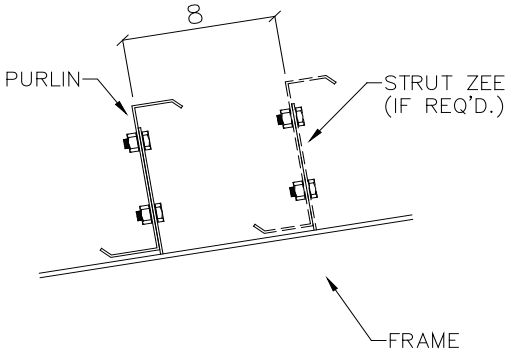
LOW EAVE DIAPHRAGM CONNECTION



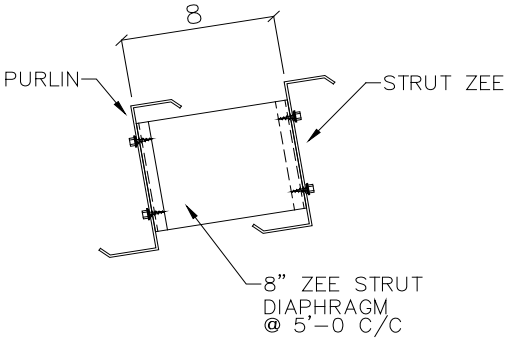
HIGH EAVE W/ STIFFENER PLATE



HIGH EAVE DIAPHRAGM CONNECTION

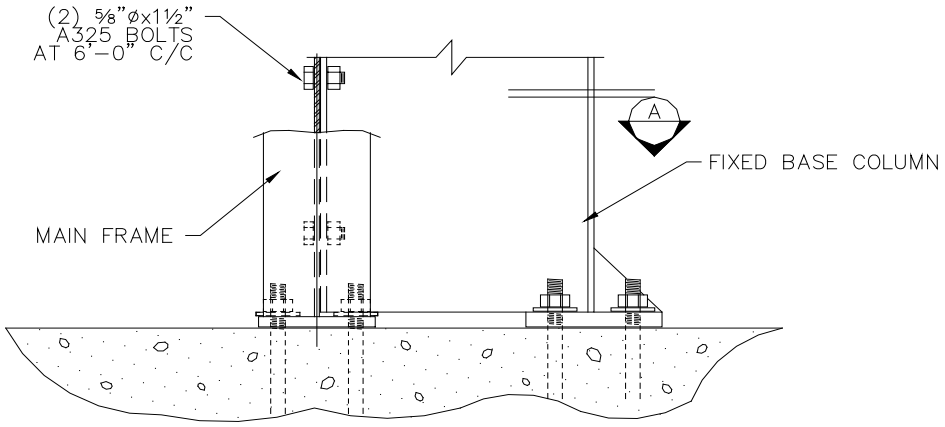


STRUT PURLIN CONNECTION
(8) ½"øx1" MACHINE BOLTS

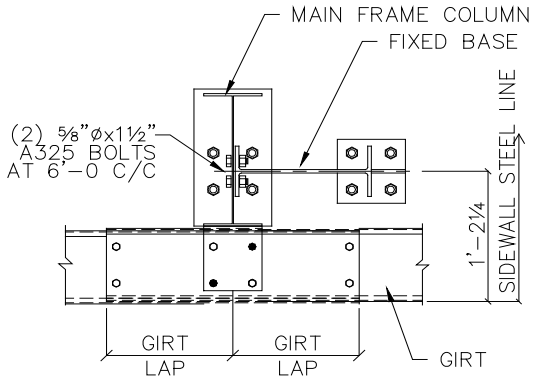


PURLIN DIAPHRAGM CONNECTION
ATTACH WITH (4) MEMBER SCREWS

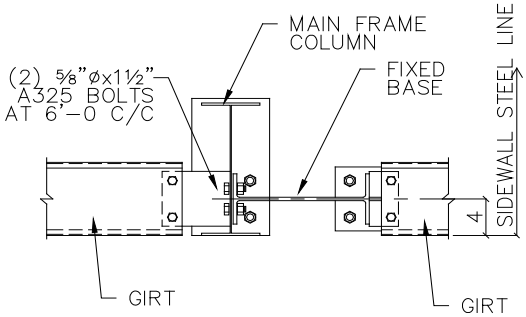
EAVE / PURLIN STRUT DETAILS



FIXED BASE TO MAIN FRAME CONNECTION



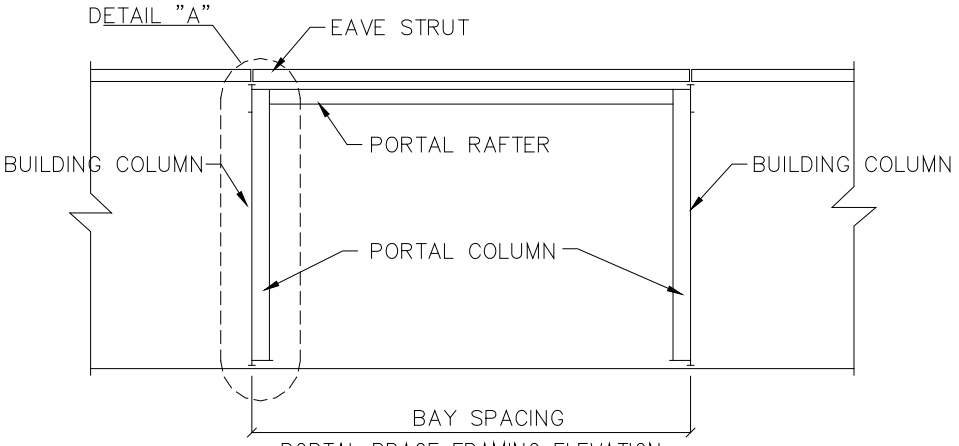
SECTION "A"
BY–PASS GIRT CONDITION



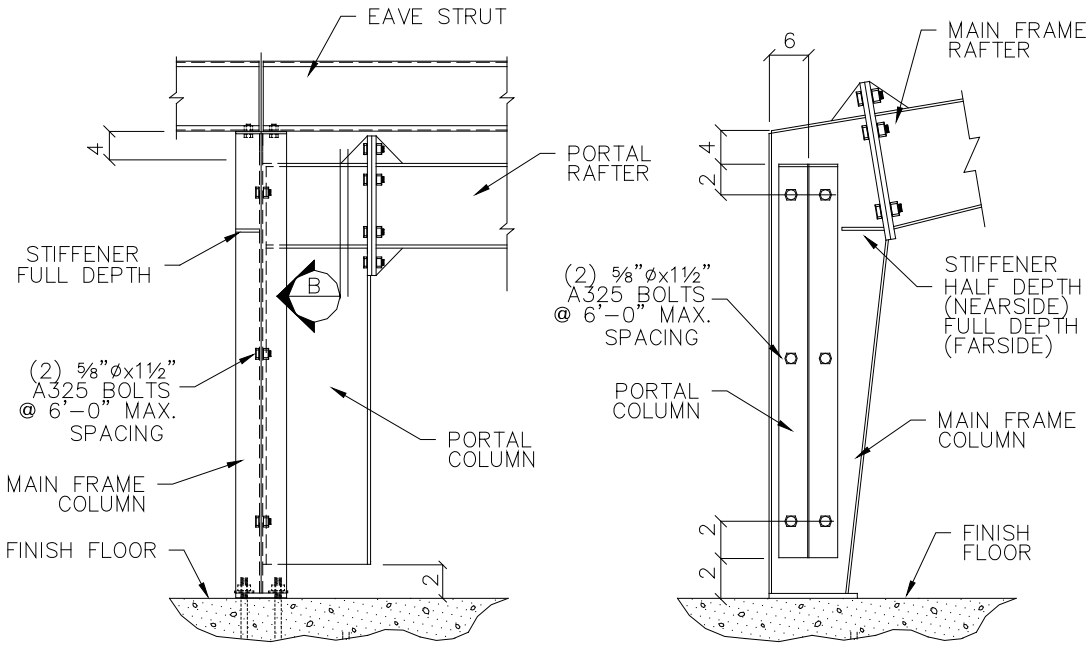
SECTION "A"
FLUSH GIRT CONDITION

NOTE:
ALL BOLTS ARE 1/2" DIA.x1" MACHINE BOLTS, U.N.

FIXED BASE DETAIL AT MAIN FRAME



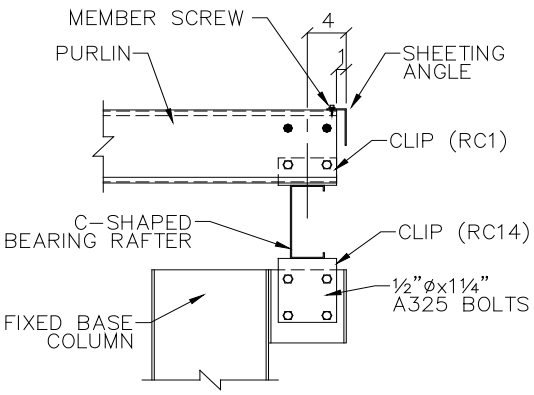
PORTAL BRACE FRAMING ELEVATION



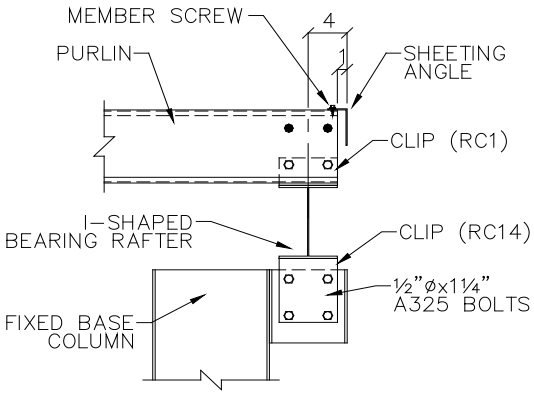
DETAIL "A" SECTION "B"

NOTES:
- ~ MINIMUM FLANGE WIDTH IS 6"
- ~ CAP PLATE IS NOT REQUIRED AT THE BOTTOM OF PORTAL COLUMN
- ~ STIFFENER ON MAIN FRAME IS NOT REQUIRED AT THE BOTTOM
- ~ MINIMUM OF 2 ROWS OF ANCHOR BOLTS ON MAIN FRAME COLUMN

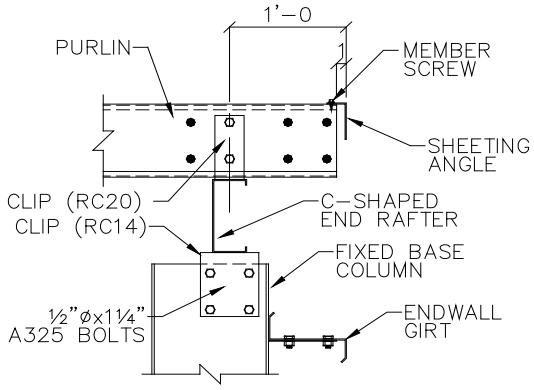
PORTAL FRAME OR WIND BENT CONNECTIONS



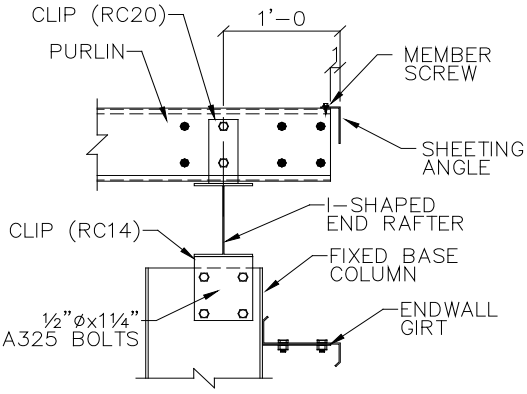
FIXED BASE TO FLUSH ENDWALL



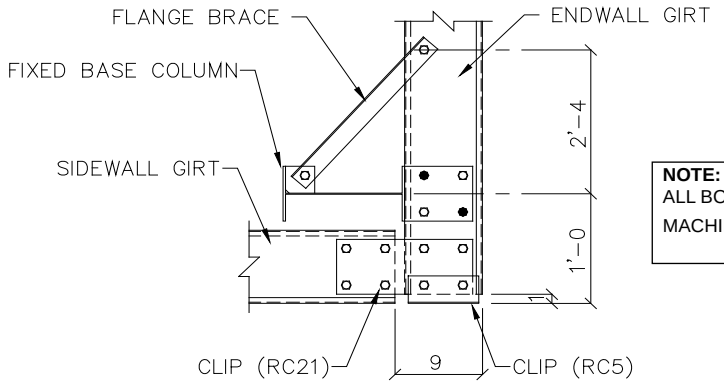
FIXED BASE TO FLUSH ENDWALL



FIXED BASE TO BY–PASS ENDWALL



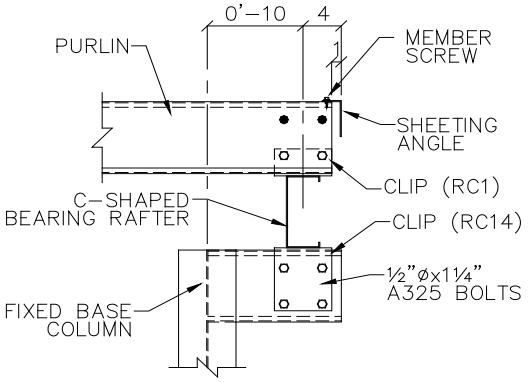
FIXED BASE TO BY–PASS ENDWALL



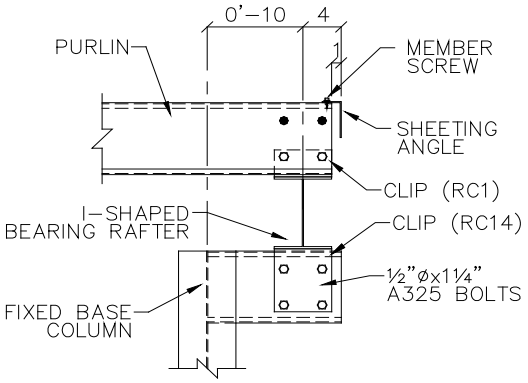
NOTE:
ALL BOLTS ARE 1/2" DIA.x1" MACHINE BOLTS, U.N.

SIDEWALL FIXED BASE CORNER COLUMN TO GIRT CONNECTION

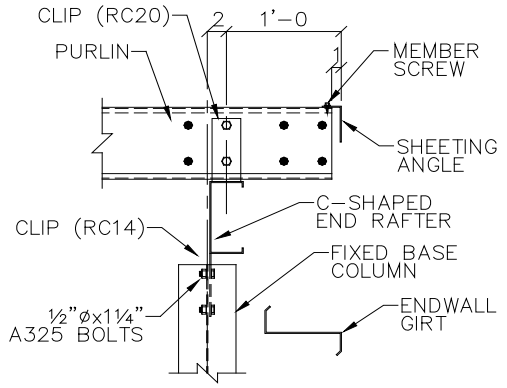
SIDEWALL FIXED BASE CORNER COLUMN



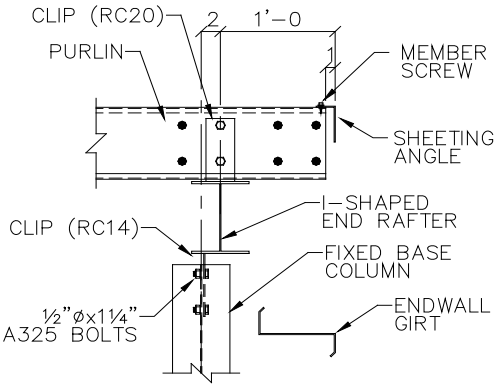
FIXED BASE TO FLUSH ENDWALL



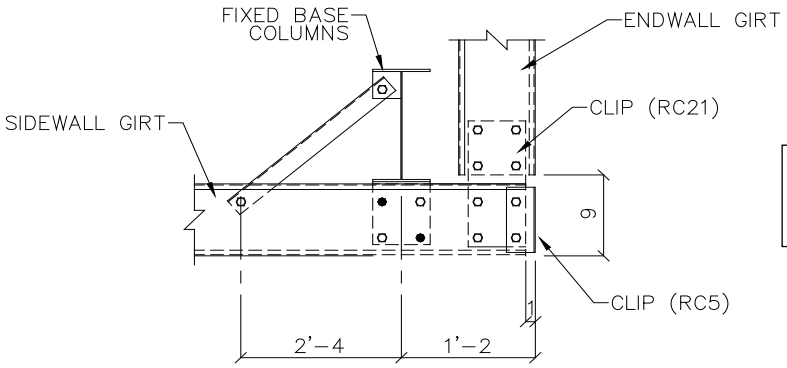
FIXED BASE TO FLUSH ENDWALL



FIXED BASE TO BY–PASS ENDWALL



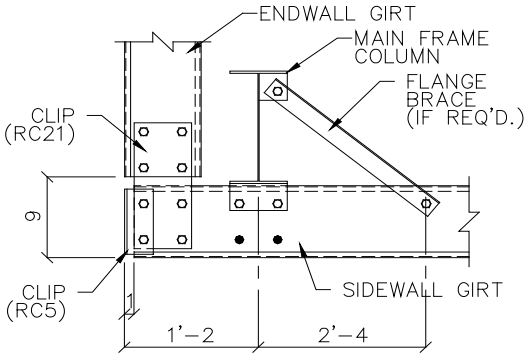
FIXED BASE TO BY–PASS ENDWALL



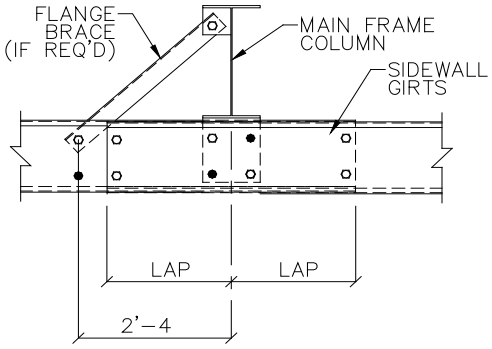
NOTE:
ALL BOLTS ARE 1/2" DIA.x1" MACHINE BOLTS, U.N.

ENDWALL FIXED BASE CORNER COLUMN TO GIRT CONNECTION

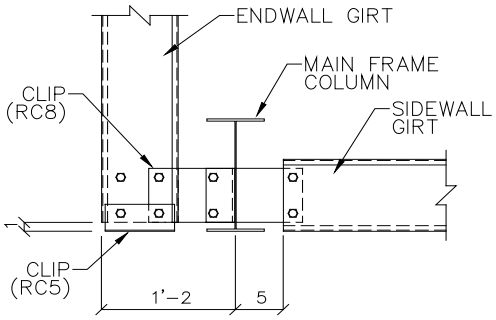
ENDWALL FIXED BASE CORNER COLUMN



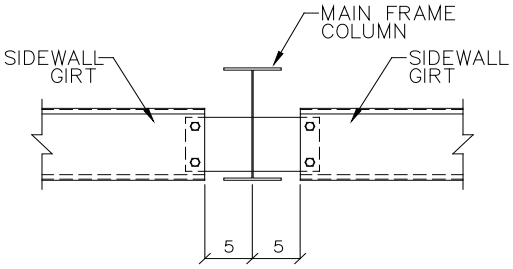
MAIN FRAME CORNER COLUMN BY–PASS GIRTS



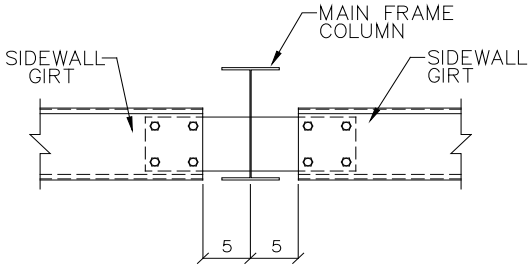
MAIN FRAME INTERIOR COLUMN BY–PASS GIRTS



MAIN FRAME CORNER COLUMN (2) BOLT CLIP FLUSH GIRTS



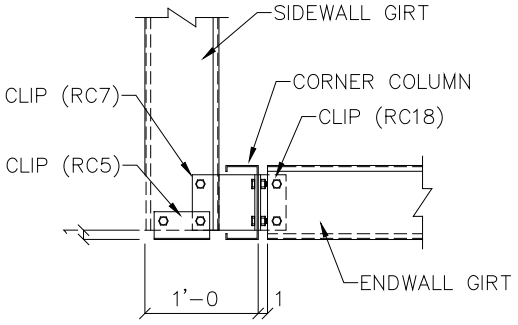
MAIN FRAME INTERIOR COLUMN (2) BOLT CLIP FLUSH GIRTS



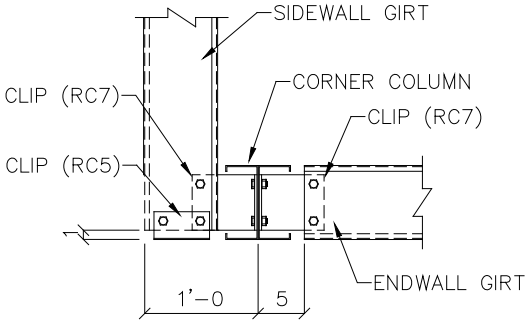
MAIN FRAME INTERIOR COLUMN (4) BOLT CLIP FLUSH GIRTS

NOTE:
ALL BOLTS ARE 1/2" DIA.x1" MACHINE BOLTS, U.N.

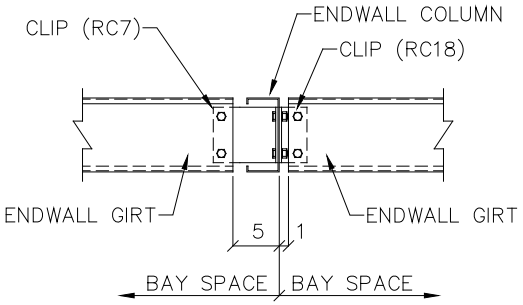
GIRT TO MAIN FRAME CONNECTION



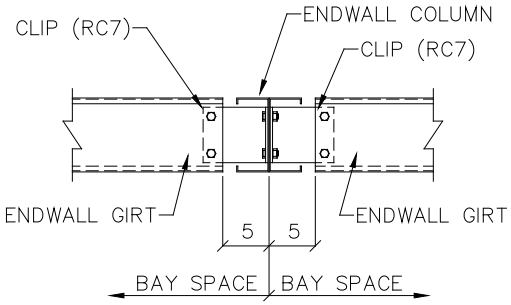
SINGLE CEE CORNER COLUMN



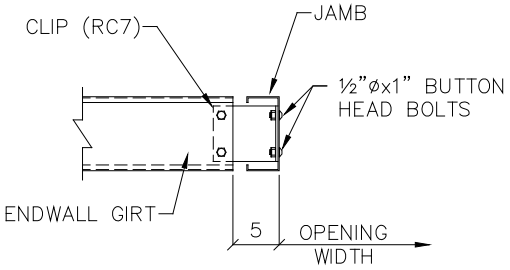
DOUBLE CEE CORNER COLUMN



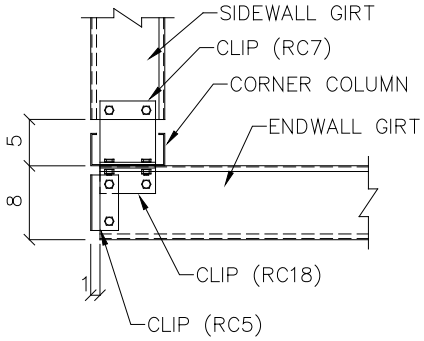
SINGLE CEE ENDWALL COLUMN



DOUBLE CEE ENDWALL COLUMN



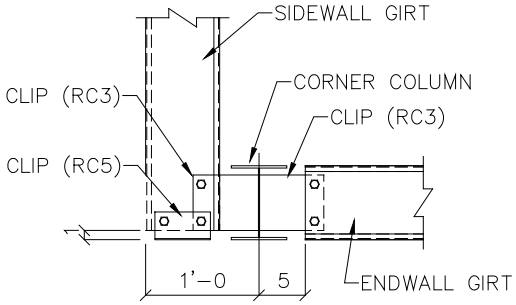
SINGLE CEE JAMB/COLUMN



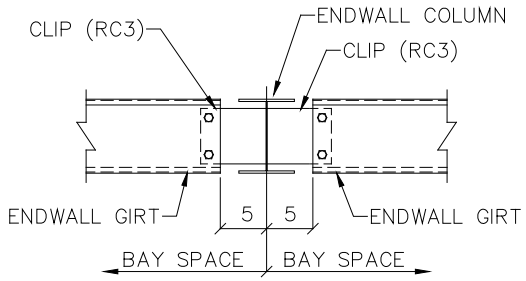
OPT. SINGLE CEE CORNER COLUMN

NOTE:
ALL BOLTS ARE 1/2" DIA.x1"
MACHINE BOLTS, U.N.

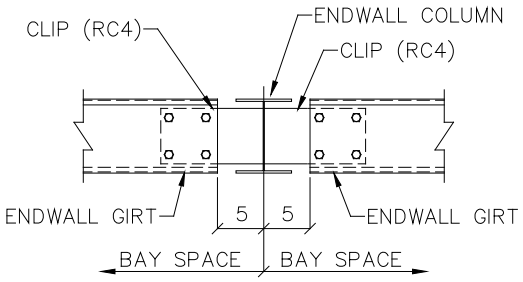
FLUSH GIRT TO BEARING FRAME
COLD-FORM COLUMNS



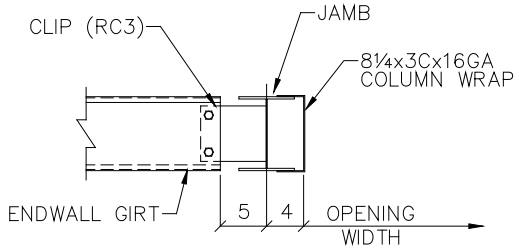
CORNER COLUMN W/(2) BOLT CLIP



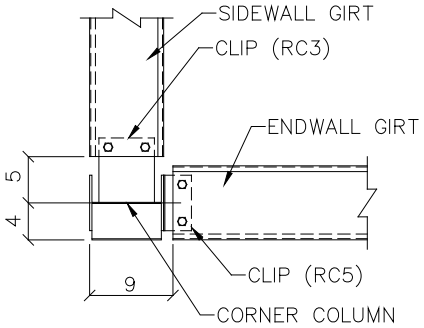
ENDWALL COLUMN W/(2) BOLT CLIP



ENDWALL COLUMN W/(4) BOLT CLIP



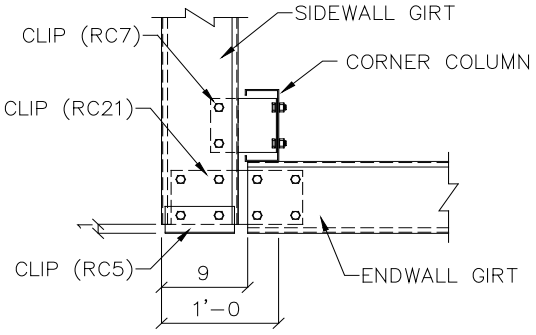
JAMB/COLUMN W/(2) BOLT CLIP



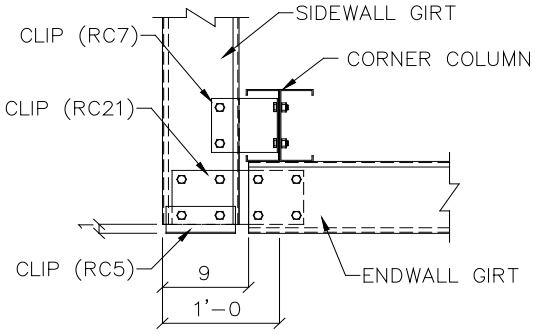
OPT. CORNER COLUMN

NOTE:
ALL BOLTS ARE 1/2" DIA.x1" MACHINE BOLTS, U.N.

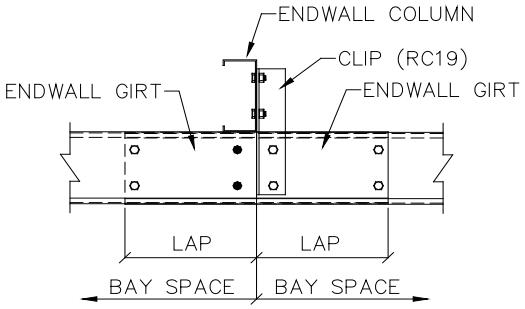
FLUSH GIRT TO BEARING FRAME
HOT-ROLLED / BUILT-UP COLUMNS



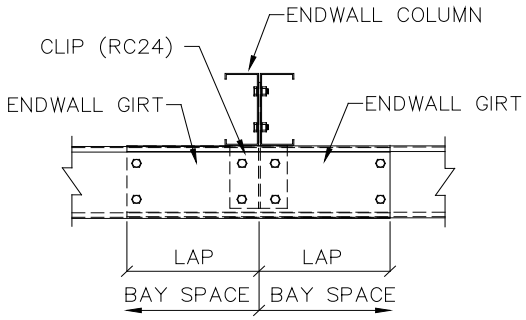
SINGLE CEE CORNER COLUMN



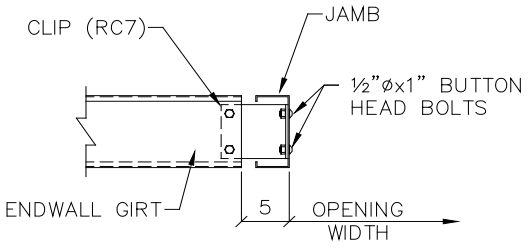
DOUBLE CEE CORNER COLUMN



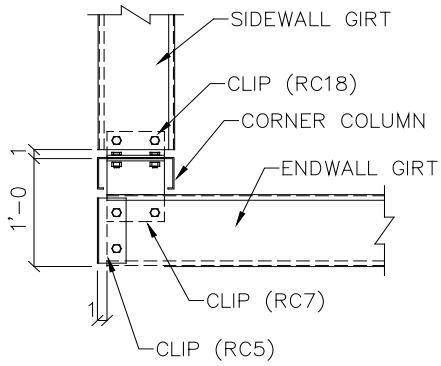
SINGLE CEE ENDWALL COLUMN



DOUBLE CEE ENDWALL COLUMN



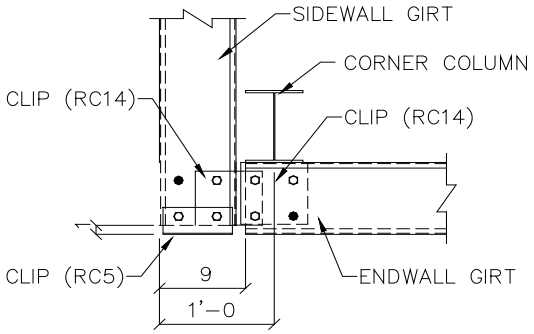
SINGLE CEE JAMB/COLUMN



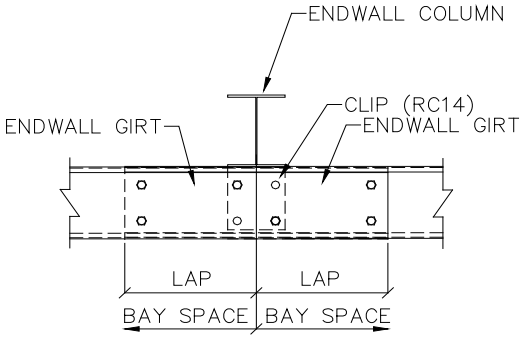
OPT. SINGLE CEE CORNER COLUMN

NOTE:
ALL BOLTS ARE 1/2" DIA.x1"
MACHINE BOLTS, U.N.

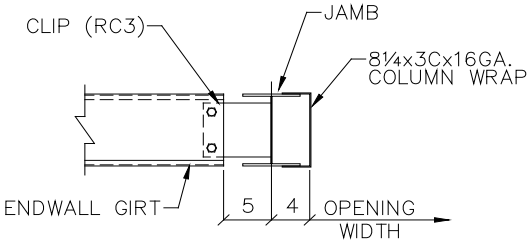
BY-PASS GIRT TO BEARING FRAME
COLD-FORM COLUMNS



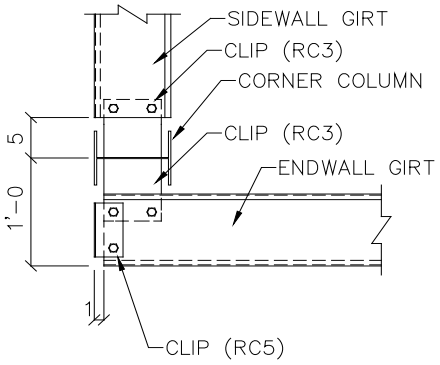
CORNER COLUMN



SINGLE CEE ENDWALL COLUMN



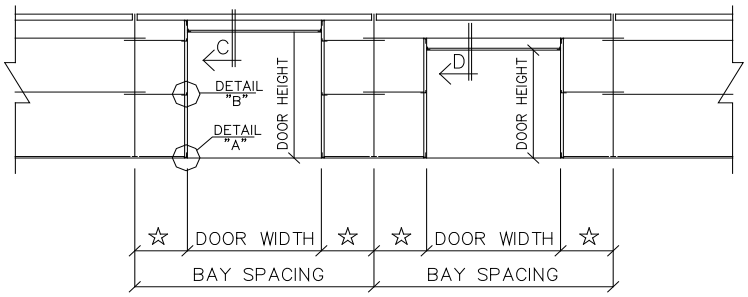
JAMB/COLUMN W/(2) BOLT CLIP



OPT. CORNER COLUMN

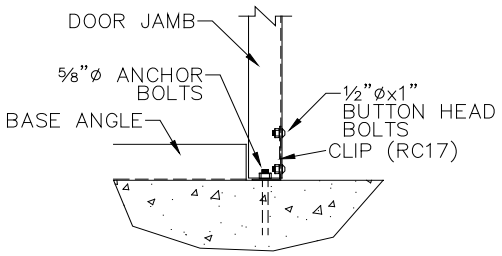
NOTE:
ALL BOLTS ARE 1/2" DIA.x1"
MACHINE BOLTS, U.N.

BY-PASS GIRT TO BEARING FRAME
HOT-ROLLED / BUILT-UP COLUMNS

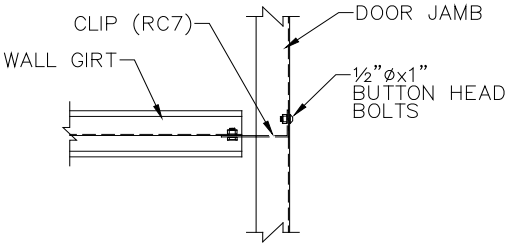


WALL ELEVATION

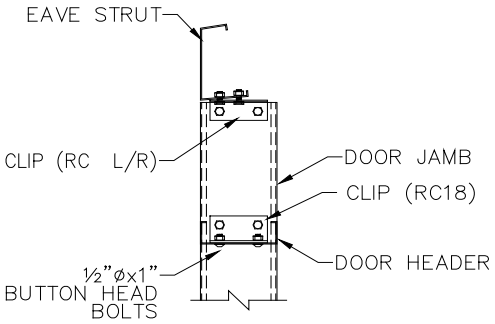
☆ = 8½" MINIMUM



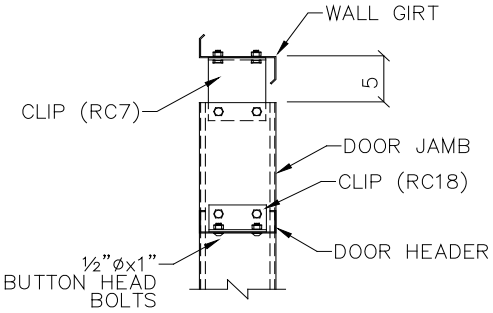
DETAIL "A"



DETAIL "B"



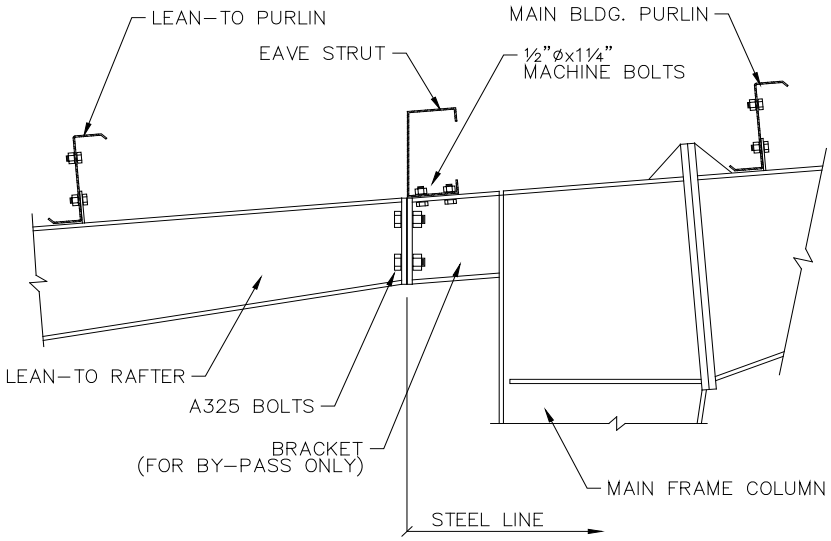
SECTION "C"



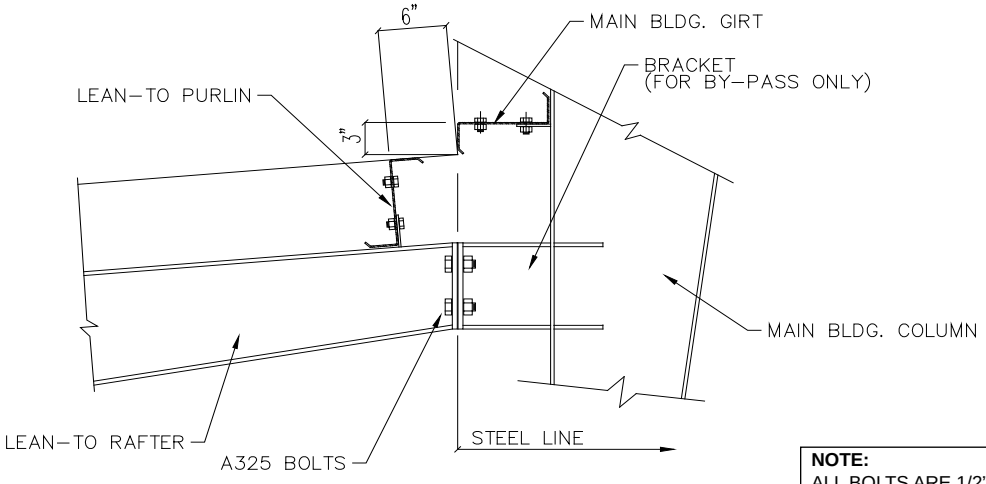
SECTION "D"

NOTE:
ALL BOLTS ARE 1/2" DIA.x1"
MACHINE BOLTS, U.N.

STANDARD FRAMED OPENING DETAILS



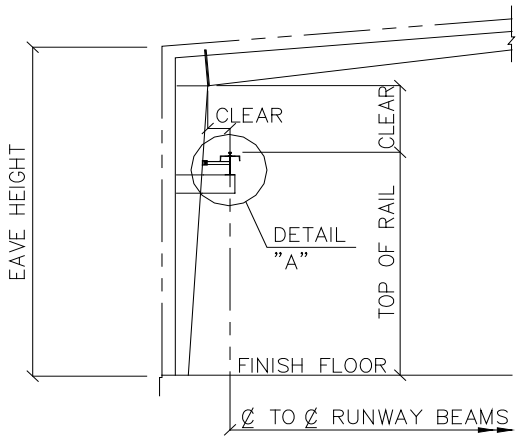
AT EAVE



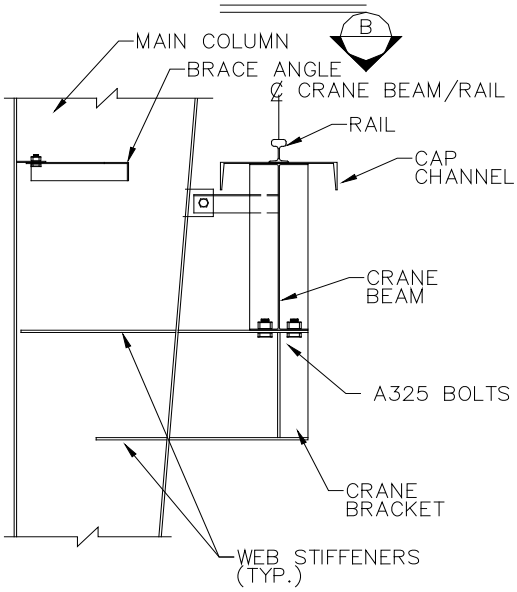
NOTE:
ALL BOLTS ARE 1/2" DIA.x1" MACHINE BOLTS, U.N.

BELOW EAVE

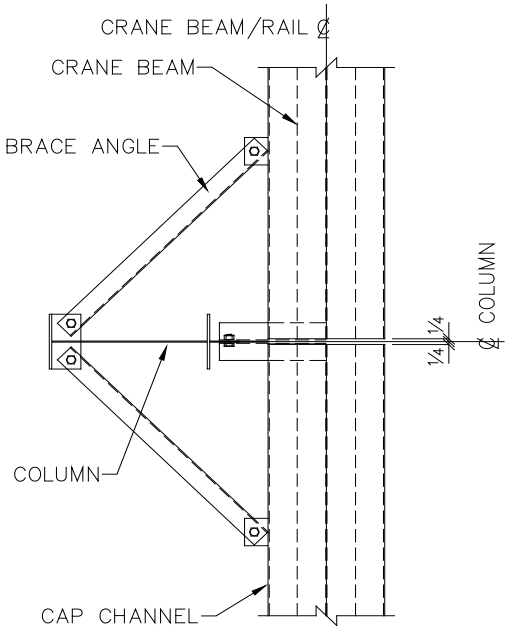
LEAN-TO TIE IN TO MAIN FRAME DETAILS



CROSS SECTION THRU TOP RUNNING CRANE

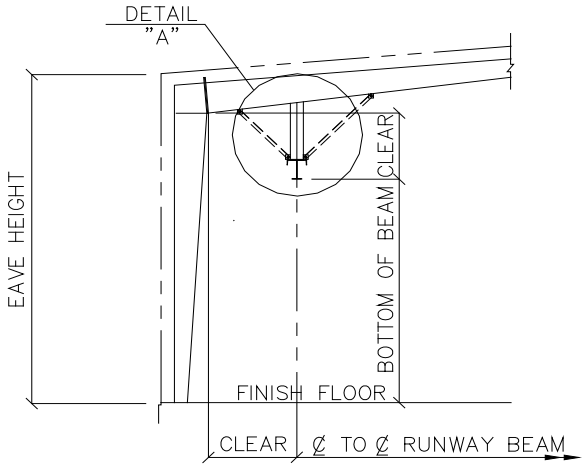


DETAIL "A"

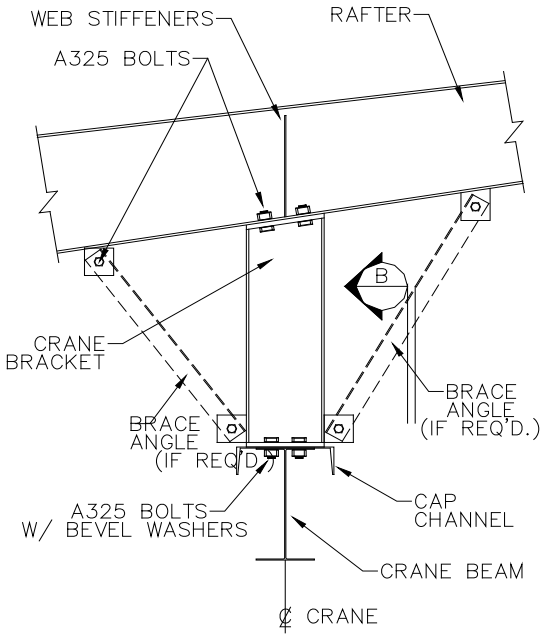


SECTION "B"

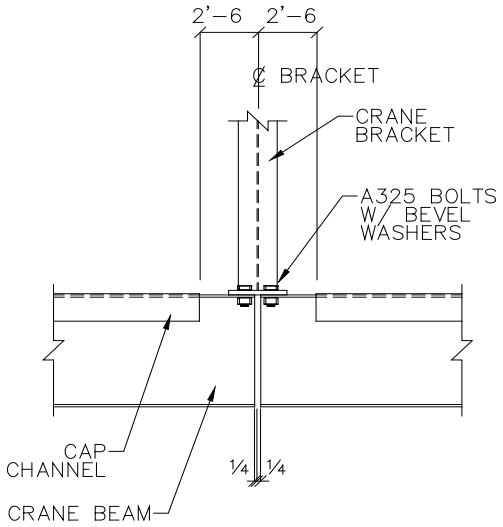
TOP RUNNING CRANE DETAILS



CROSS SECTION THRU UNDERHUNG CRANE



DETAIL "A"



SECTION "B"

UNDER HUNG CRANE DETAILS

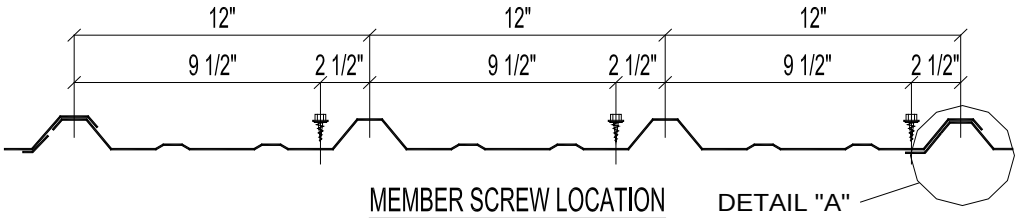
PANELS AND TRIMS

PANELS & TRIMS

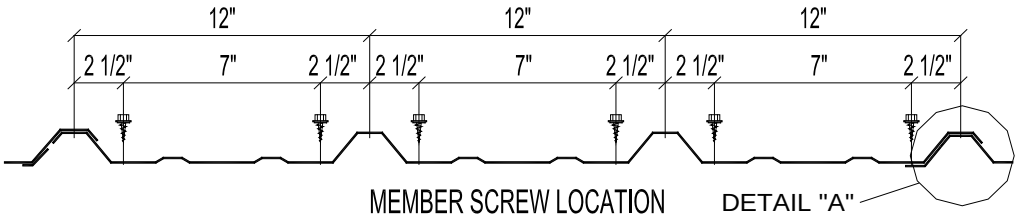
RIGID GLOBAL BUILDINGS

18933 Aldine Westfield
Houston, TX 77073
888-GO-RIGID
www.RigidBuilding.com

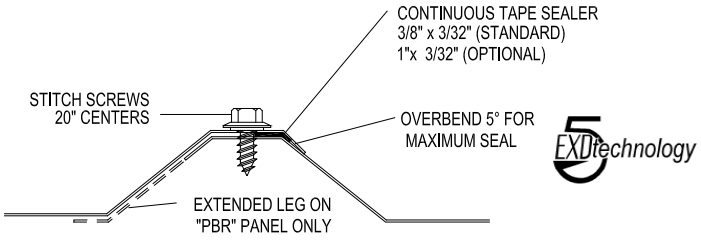
5.1 PANELS AND TRIMS
5.1.1 ROOF PANELS



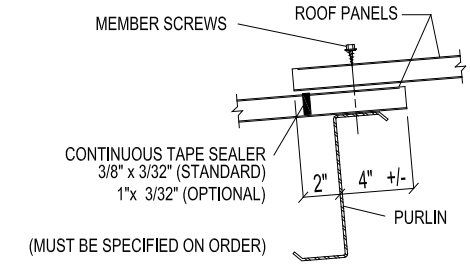
MEMBER SCREW LOCATION
(ALL MEMBERS EXCEPT AS NOTED)



MEMBER SCREW LOCATION
(PEAK PURLIN, EAVE STRUT, AND PANEL END LAPS)



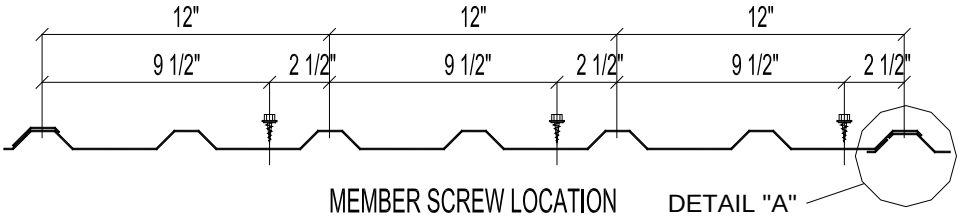
DETAIL "A"



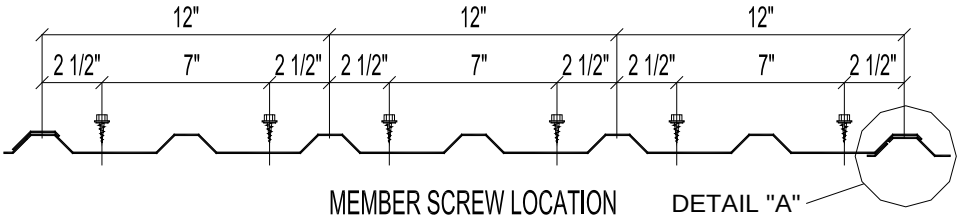
SECTION THRU PEAK PURLIN AND PANEL END LAPS

NOTE!
SCREW PATTERNS SHOWN, SATISFY UL-90 REQUIREMENTS FOR ROOF.

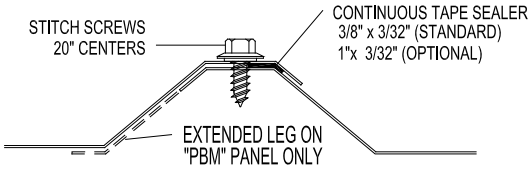
"R" & "PBR" ROOF PANEL



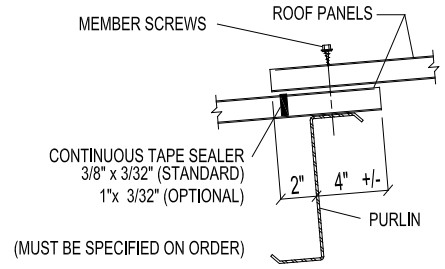
MEMBER SCREW LOCATION
(ALL MEMBERS EXCEPT AS NOTED)



MEMBER SCREW LOCATION
(PEAK PURLIN, EAVE STRUT, AND PANEL END LAPS)



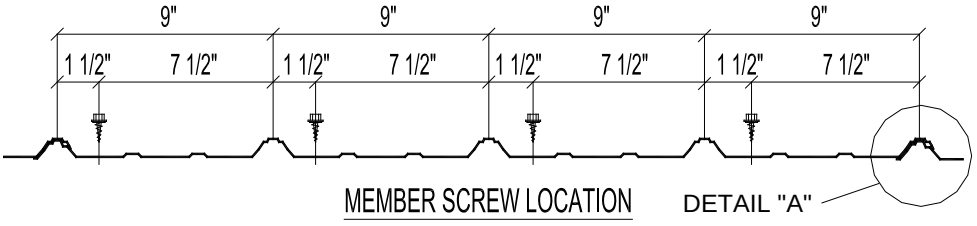
DETAIL "A"

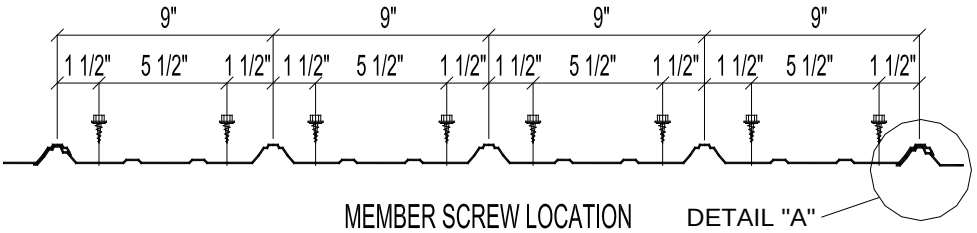


SECTION THRU PEAK PURLIN AND PANEL END LAPS

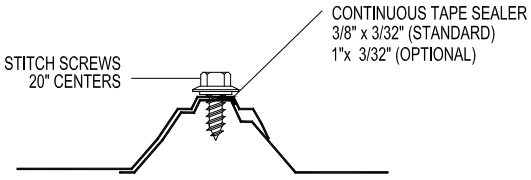
NOTE!
SCREW PATTERNS SHOWN, SATISFY UL-90 REQUIREMENTS FOR ROOF.

"M" & "PBM" ROOF PANEL

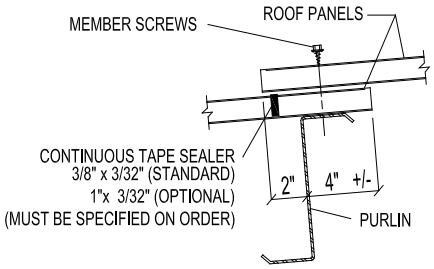




(PEAK PURLIN, EAVE STRUT, AND PANEL END LAPS)



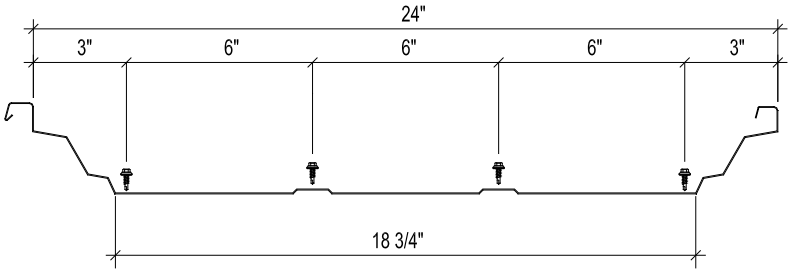
DETAIL "A"



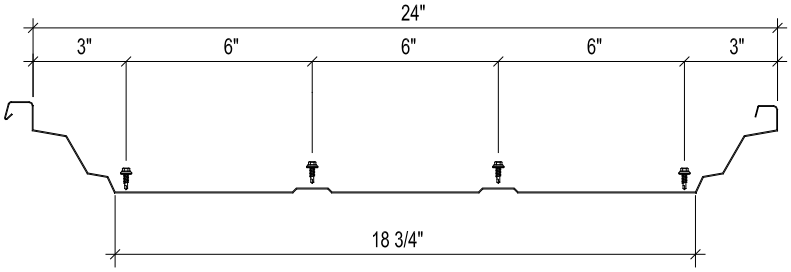
SECTION THRU PEAK PURLIN AND PANEL END LAPS

NOTE!
SCREW PATTERNS SHOWN, SATISFY UL-90 REQUIREMENTS FOR ROOF.

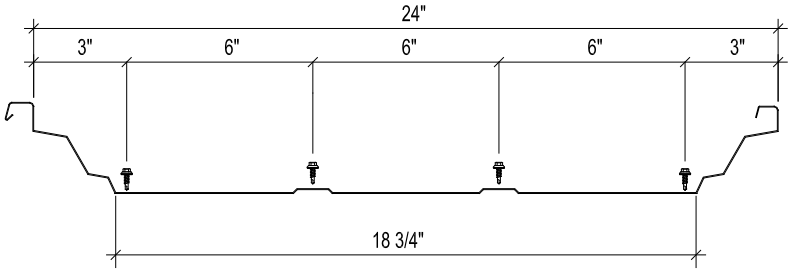
"CHOICE RIB" ROOF PANEL



AT EAVE

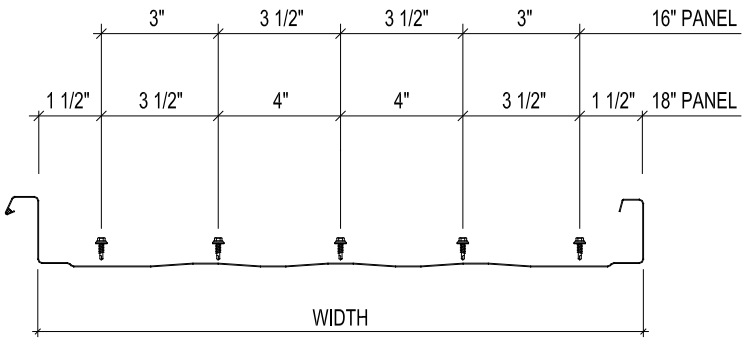


AT FLOATING ENDLAP AND FLOATING RIDGE WITH BACK UP PLATE

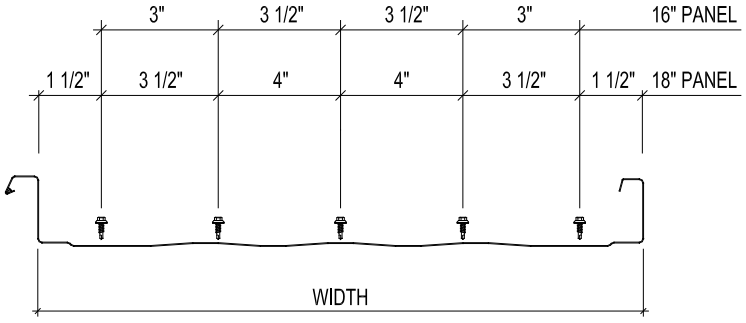


AT FIXED ENDLAP WITH EAVE PLATE

HI-TECH SERIES PANEL



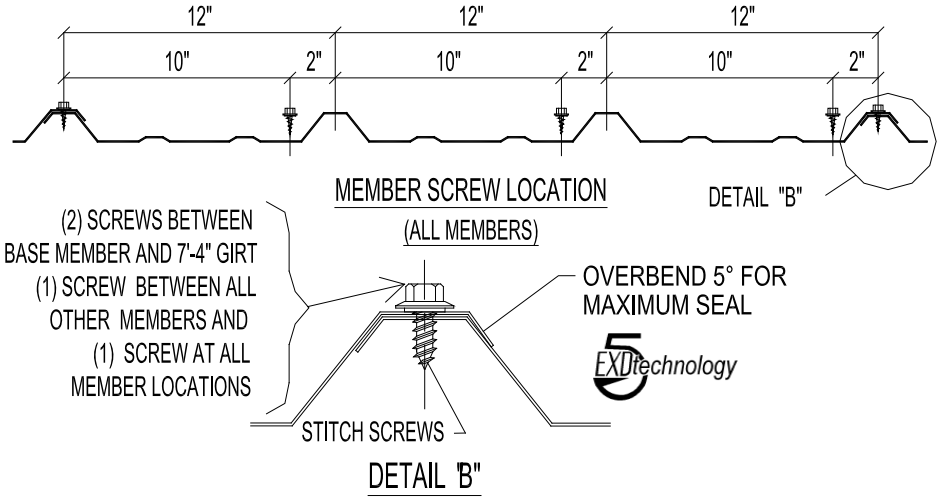
AT EAVE



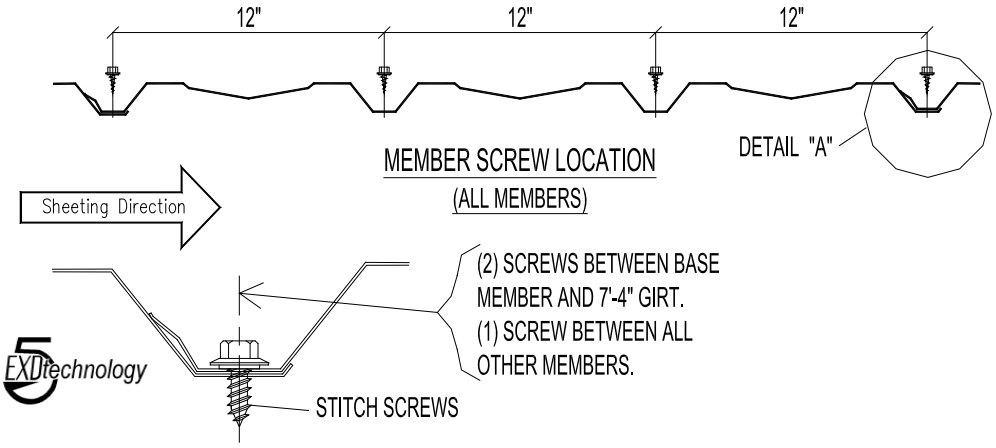
AT ENDLAP AND FLOATING RIDGE WITH BACK UP CHANNEL

PLATINUM SERIES ROOF PANEL

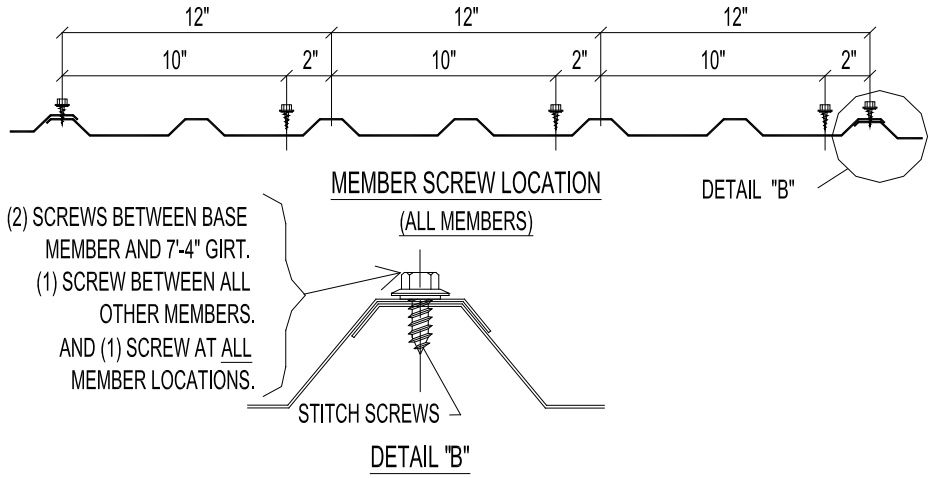
5.1.2 WALL PANELS



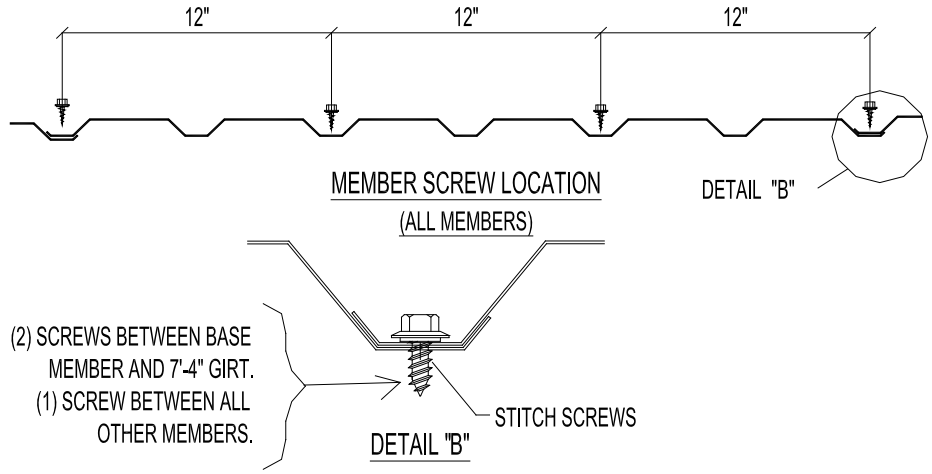
"R" WALL PANEL



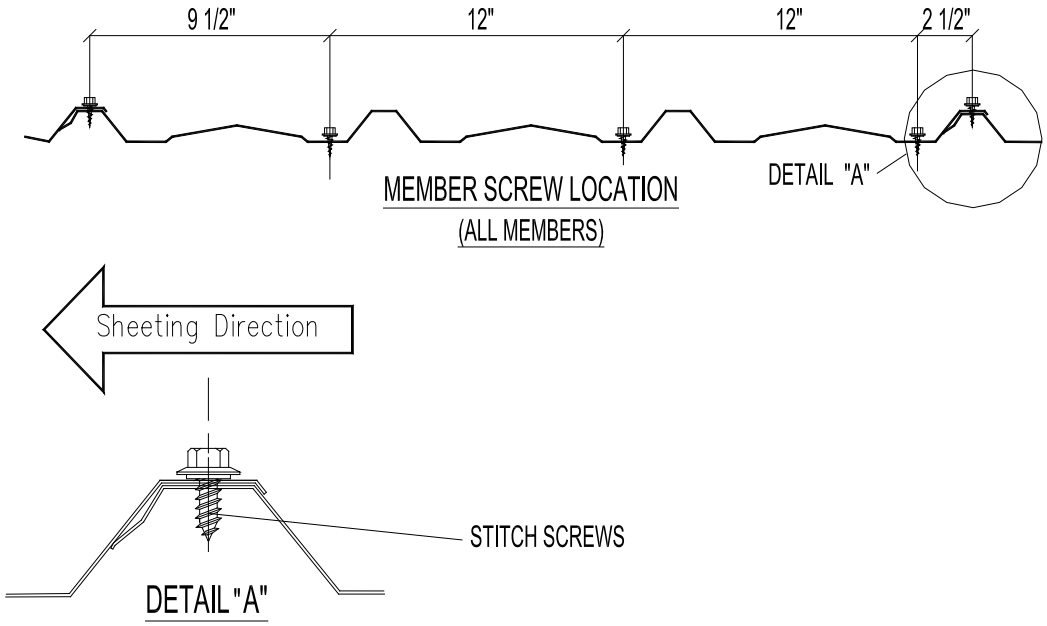
"AW" WALL PANEL



" M" WALL PANEL



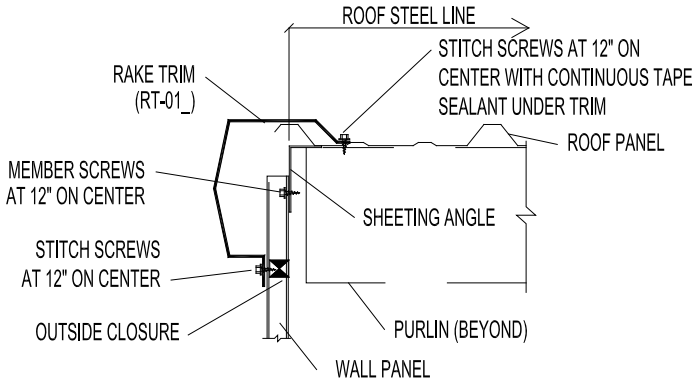
REVERSE ROLLED "M" WALL PANEL



"R-VEE" WALL PANEL

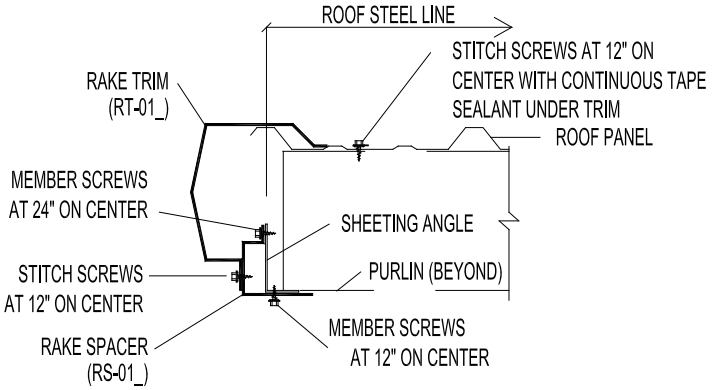
5.2 STANDARD TRIM DETAILS

5.2.1 FOR “R”, “PBR”, “AW” & “M”



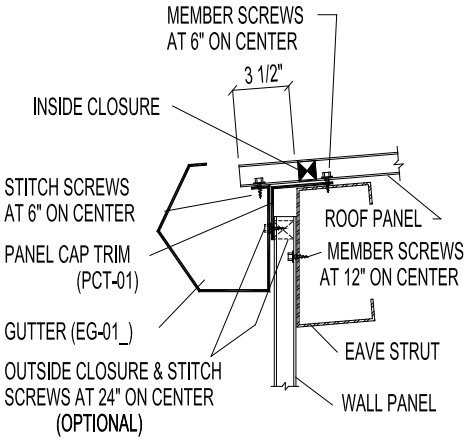
RAKE DETAIL WITH SHEETED WALL

("R" ROOF PANEL SHOWN, "M" ROOF PANEL AVAILABLE.)

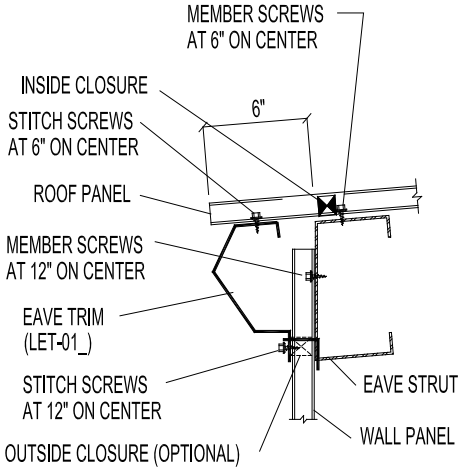


RAKE DETAIL WITH OPEN WALL

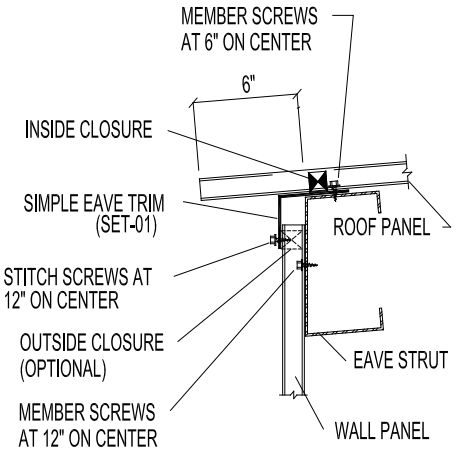
("R" ROOF PANEL SHOWN, "M" ROOF PANEL AVAILABLE.)



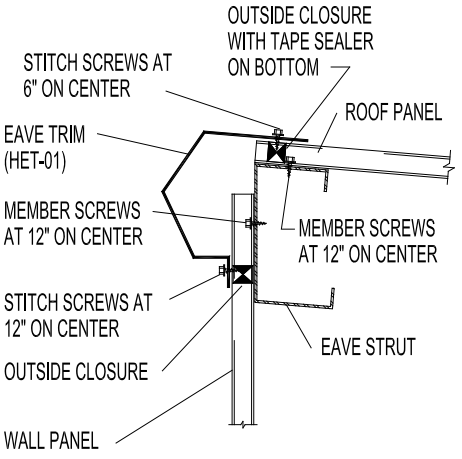
LOW EAVE DETAIL WITH GUTTER



LOW EAVE DETAIL WITH SCULPTURED EAVE TRIM

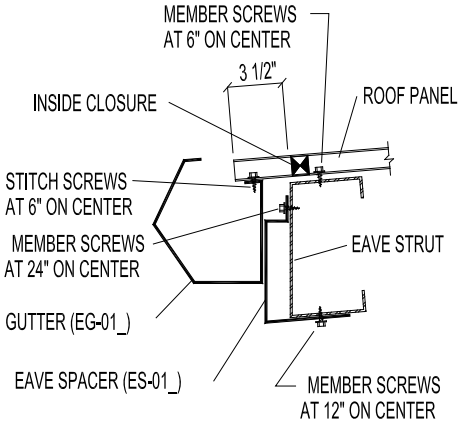


LOW EAVE DETAIL WITH SIMPLE EAVE TRIM

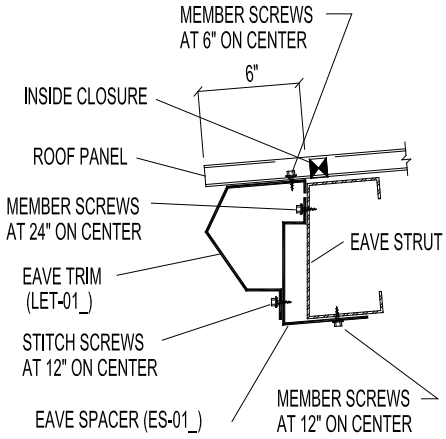


HIGH EAVE DETAIL WITH SCULPTURED EAVE TRIM

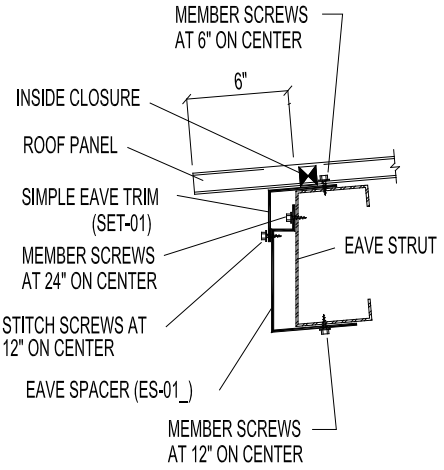
EAVE DETAIL WITH SHEETED WALL



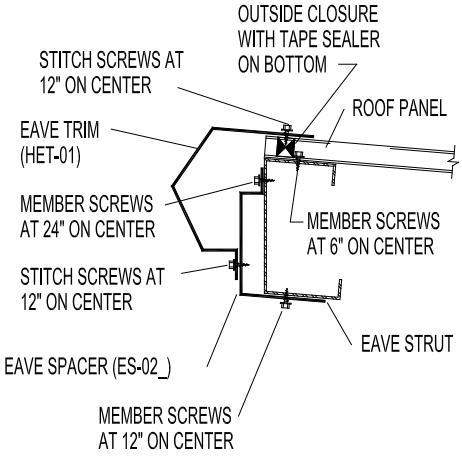
LOW EAVE DETAIL WITH GUTTER



LOW EAVE DETAIL WITH SCULPTURED EAVE TRIM

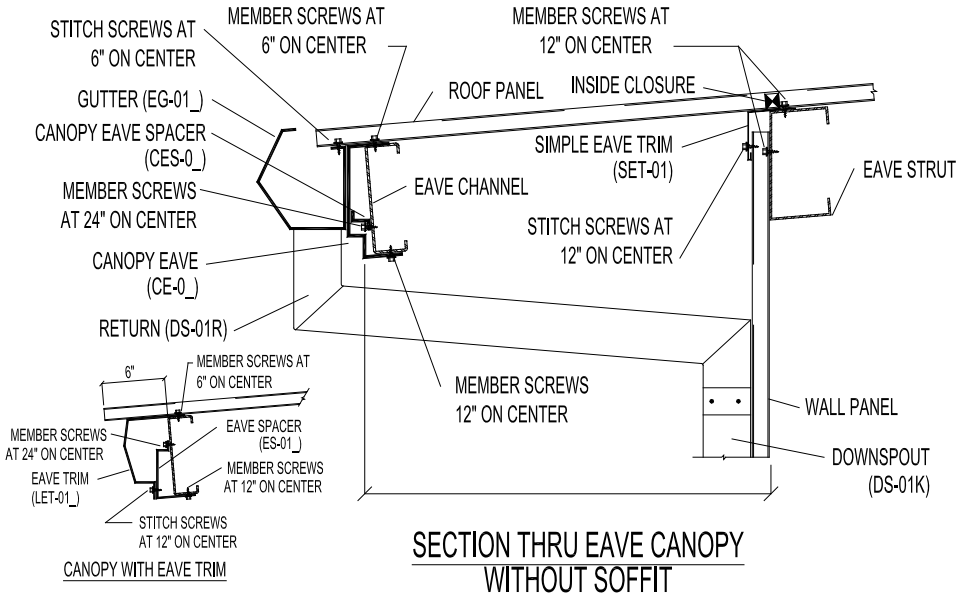


LOW EAVE DETAIL WITH SIMPLE EAVE TRIM

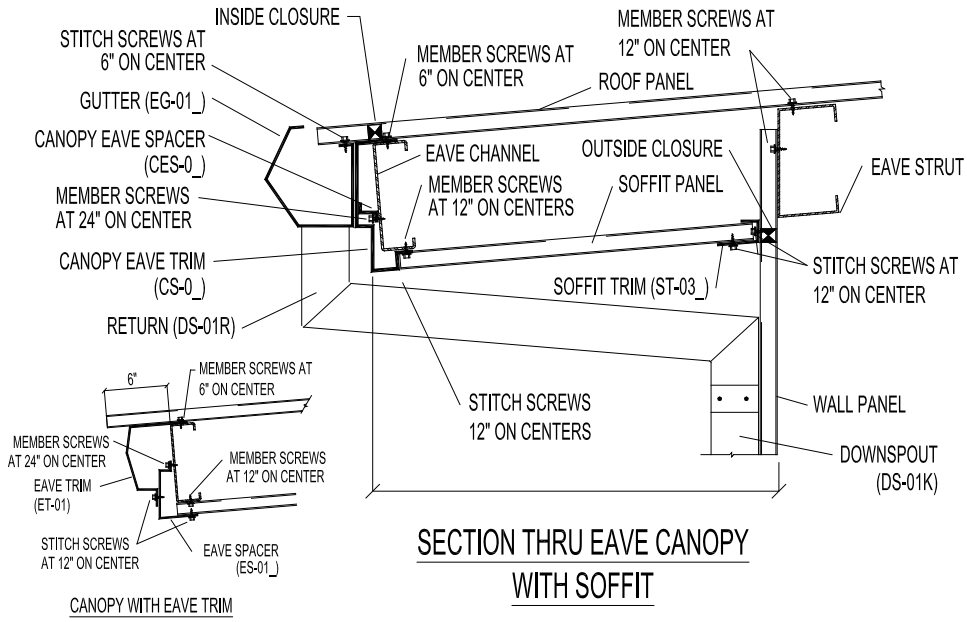


HIGH EAVE DETAIL WITH SCULPTURED EAVE TRIM

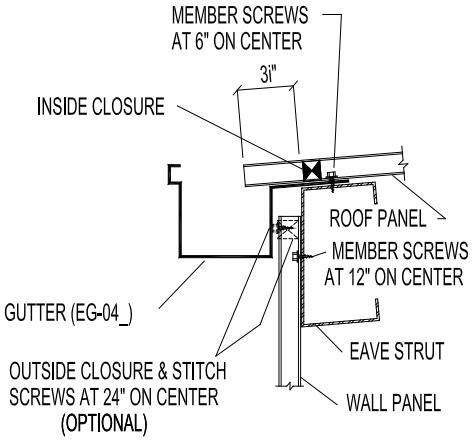
EAVE DETAIL WITH OPEN WALL



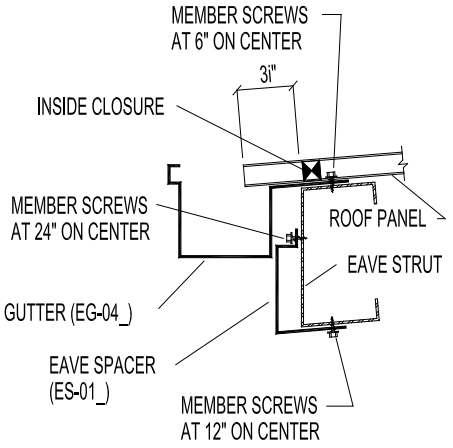
SECTION THRU EAVE CANOPY WITHOUT SOFFIT



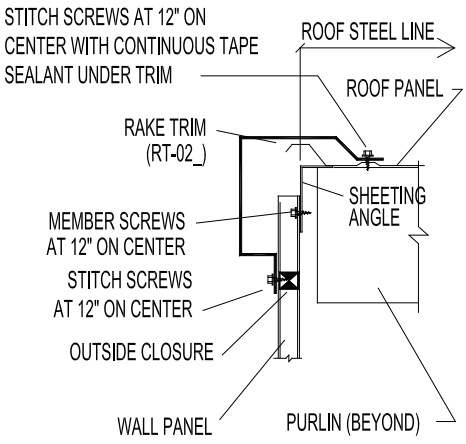
SECTION THRU EAVE CANOPY WITH SOFFIT



LOW EAVE WITH SHEETED WALL
WITH BOX GUTTER

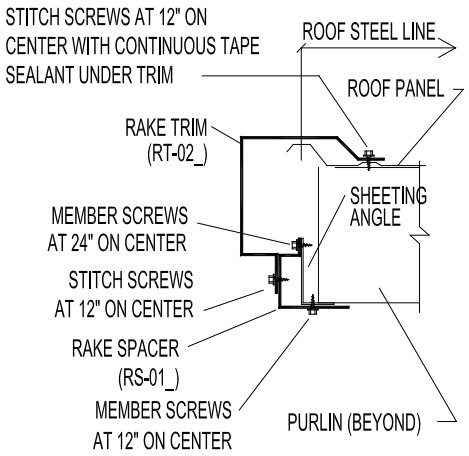


LOW EAVE WITH OPEN WALL
WITH BOX GUTTER



RAKE DETAIL WITH SHEETED WALL

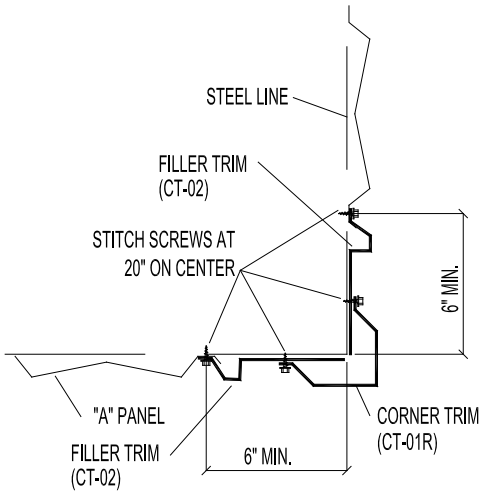
("R" ROOF PANEL SHOWN, "M" ROOF PANEL AVAILABLE.)



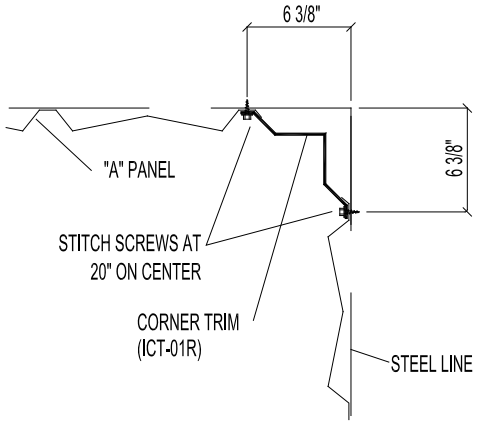
RAKE DETAIL WITH OPEN WALL

("R" ROOF PANEL SHOWN, "M" ROOF PANEL AVAILABLE.)

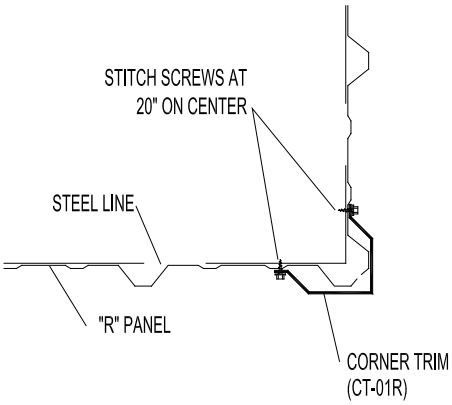
OPTIONAL EAVE AND RAKE DETAILS



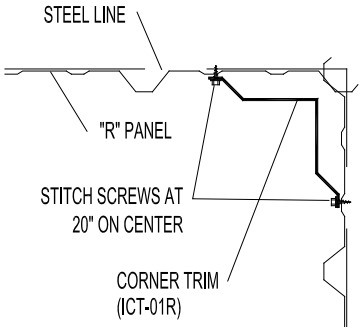
OUTSIDE CORNER DETAIL
"A" PANEL



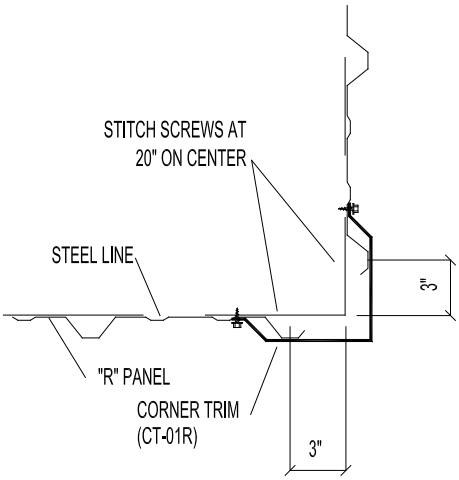
INSIDE CORNER DETAIL
"A" PANEL



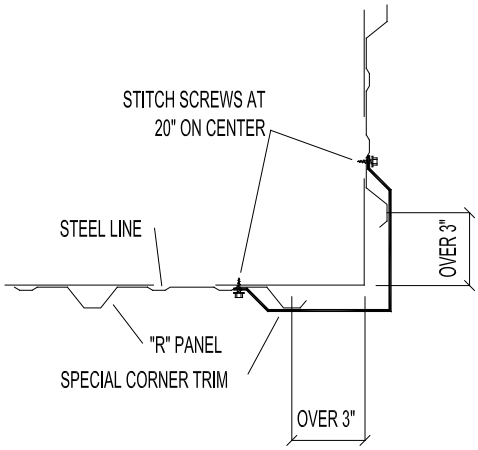
OUTSIDE CORNER DETAIL
"R" PANEL



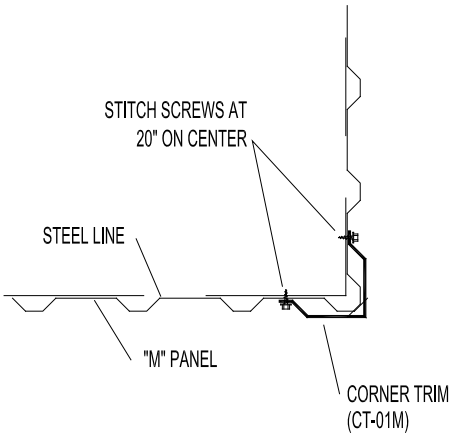
INSIDE CORNER DETAIL
"R" PANEL



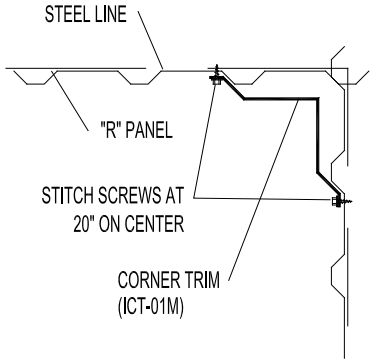
OUTSIDE CORNER DETAIL
"R" PANEL
(OFF MODULE UP TO 3")



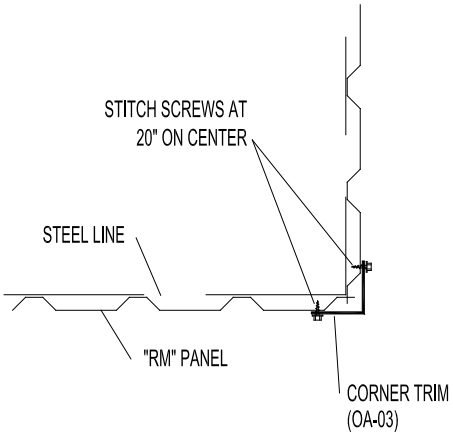
OUTSIDE CORNER DETAIL
"R" PANEL
(OFF MODULE OVER 3")



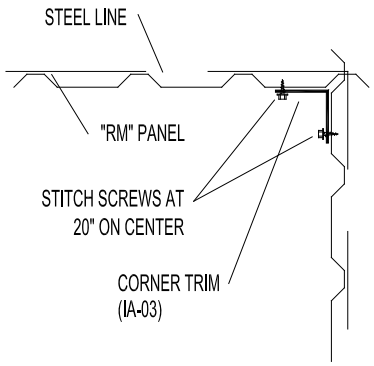
OUTSIDE CORNER DETAIL
"M" PANEL



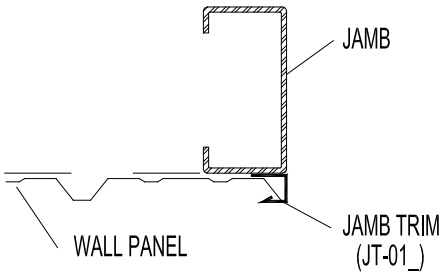
INSIDE CORNER DETAIL
"M" PANEL



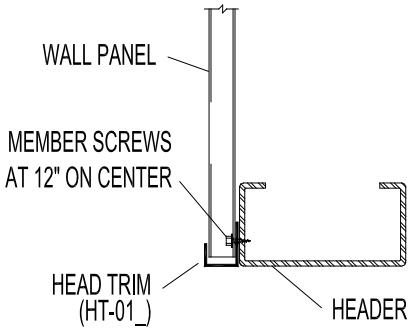
OUTSIDE CORNER DETAIL
"RM" PANEL



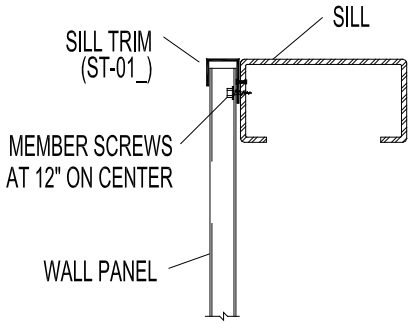
INSIDE CORNER DETAIL
"RM" PANEL



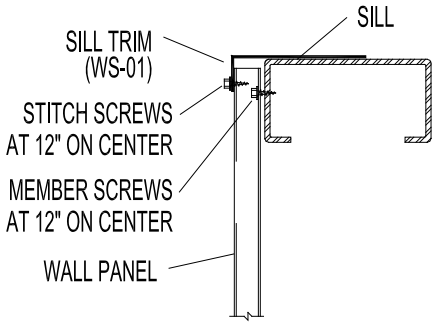
JAMB DETAIL FOR FRAMED OPENINGS



HEADER DETAIL FOR FRAMED OPENINGS

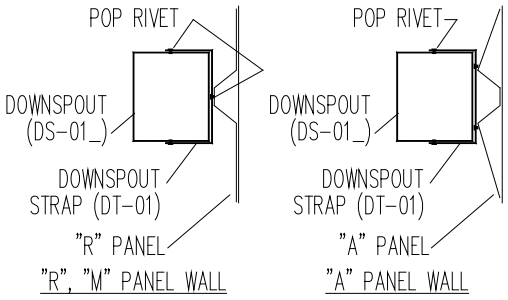


SILL DETAIL FOR FRAMED OPENINGS
(NOT FOR GLASS)

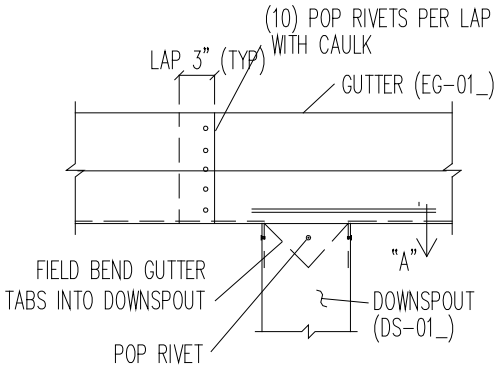


SILL DETAIL FOR FRAMED OPENINGS
(FOR FIXED GLASS)

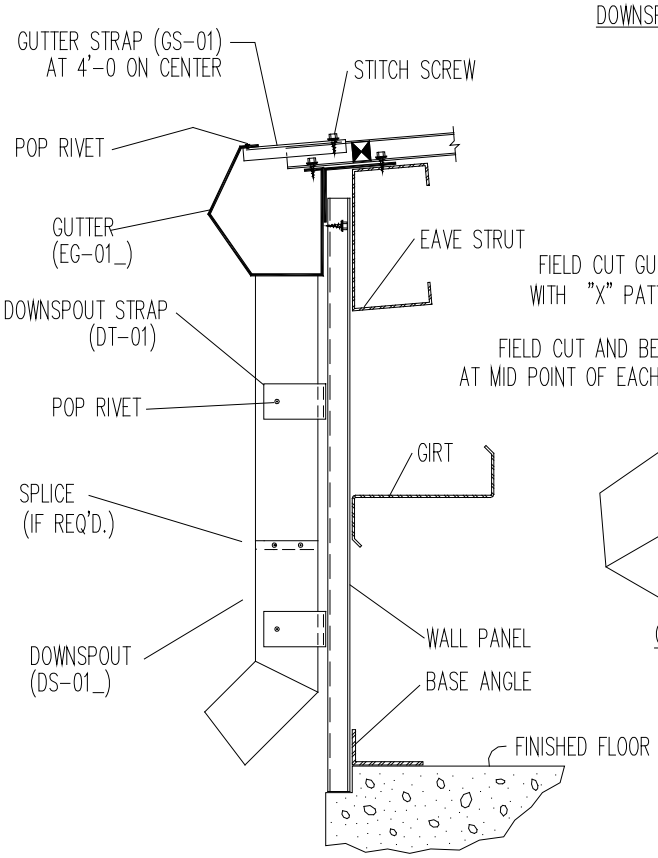
FRAMED OPENING DETAILS



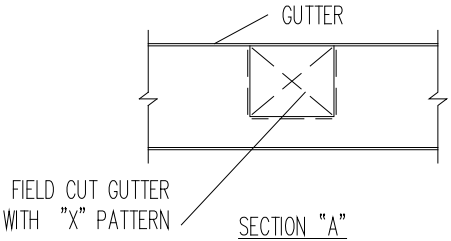
DOWNSPOUT STRAP ATTACHMENT



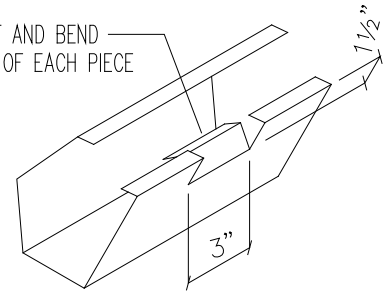
DOWNSPOUT TO GUTTER DETAIL



DOWNSPOUT DETAIL AT SHEETED WALL

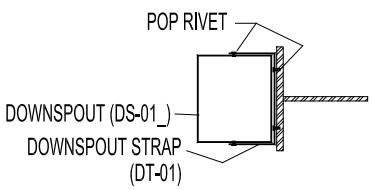


SECTION "A"

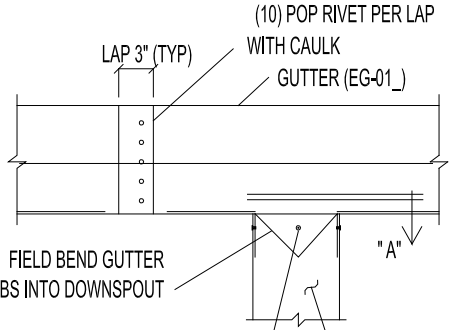


GUTTER OVERFLOW RELIEF

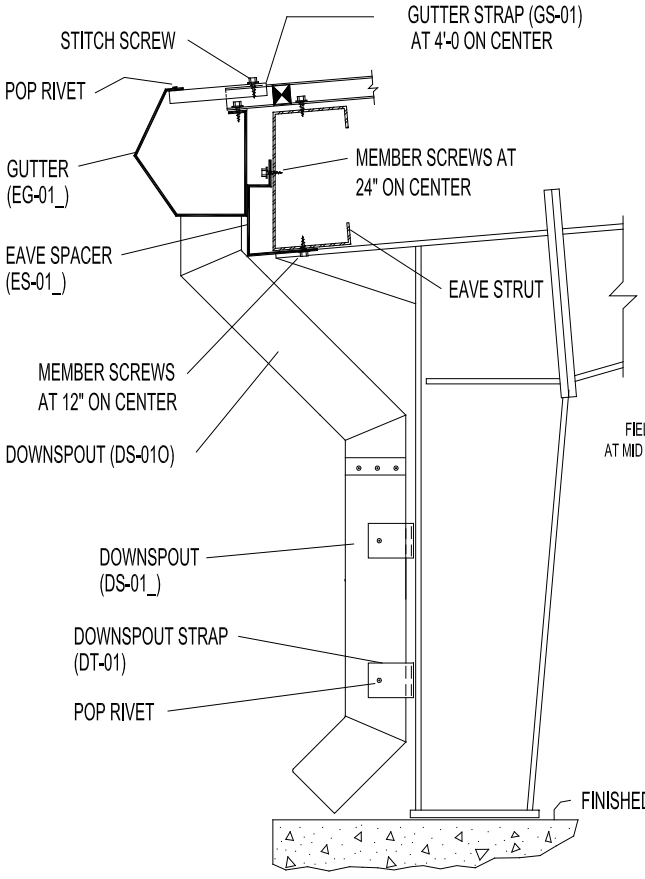
D.S. STRAP QUANTITY	
EAVE HEIGHT	QUANTITY
10'-0	2
12'-0	2
14'-0	2
16'-0	2
20'-0	2
25'-0	3

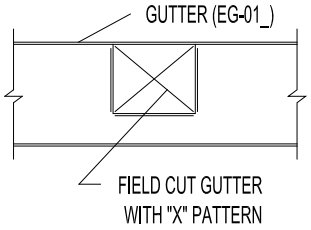


DOWNSPOUT STRAP ATTACHMENT

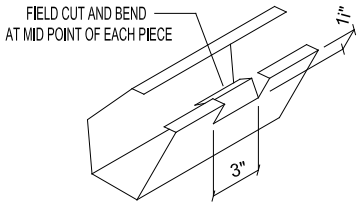


DOWNSPOUT TO GUTTER DETAIL





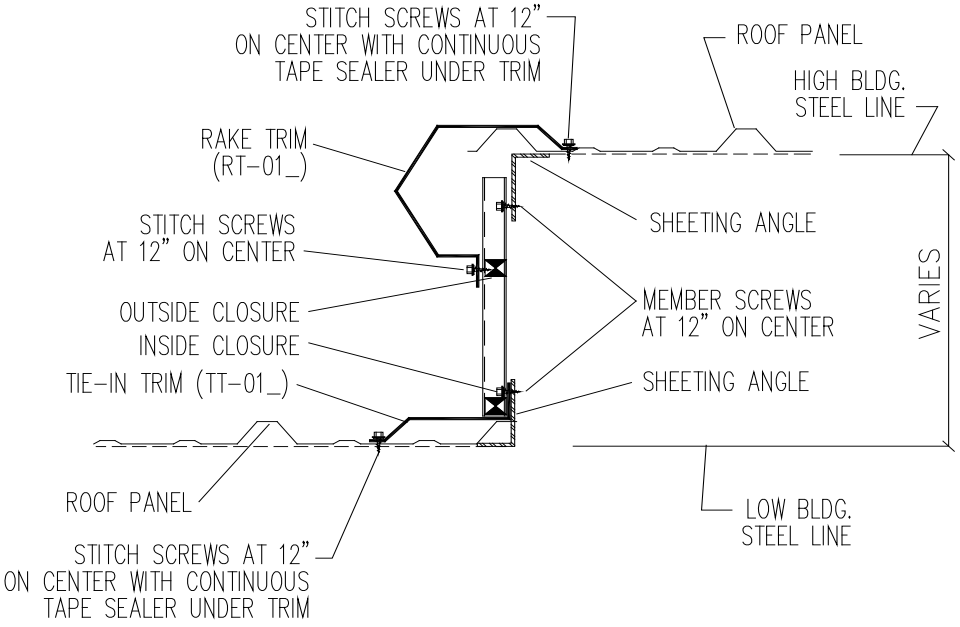
SECTION "A"



GUTTER OVERFLOW RELIEF

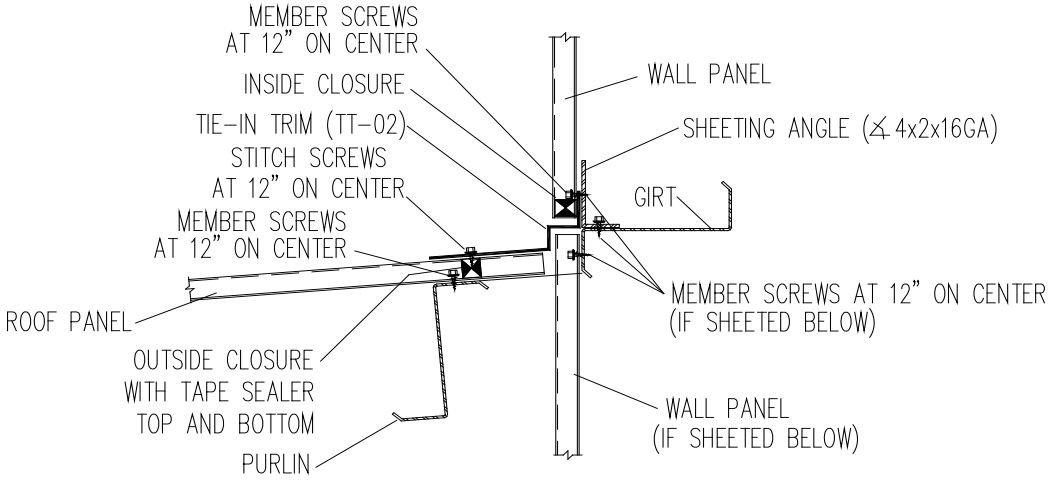
D.S. STRAP QUANTITY	
EAVE HEIGHT	QUANTITY
10'-0	2
12'-0	2
14'-0	2
16'-0	2
20'-0	2
25'-0	3

DOWNSPOUT DETAIL AT OPEN WALL

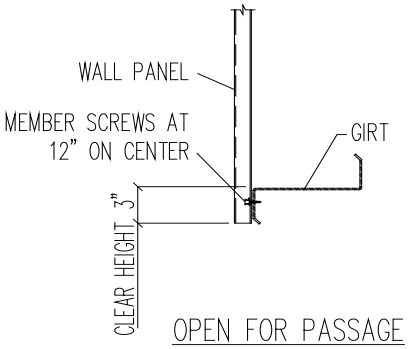


DETAIL AT HIGH/LOW BUILDING TIE-IN

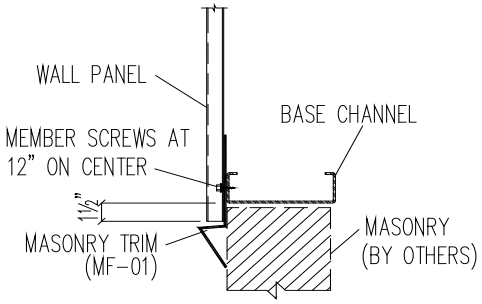
("PBR" ROOF PANEL SHOWN, "PBM" ROOF PANEL AVAILABLE.)



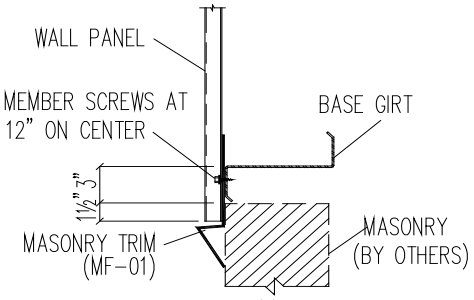
DETAIL AT LEAN-TO TIE-IN BELOW EAVE



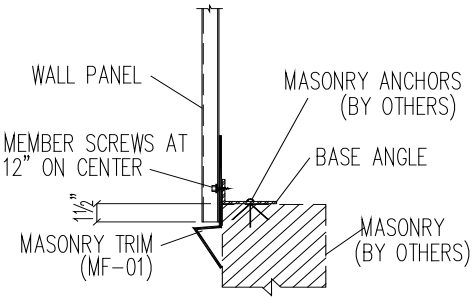
OPEN FOR PASSAGE



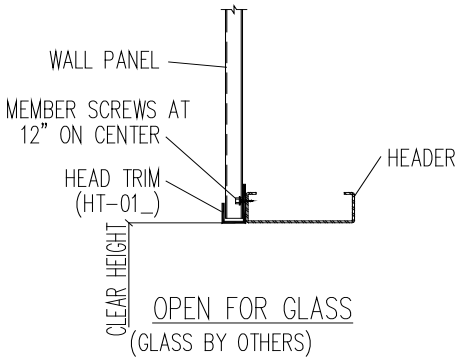
OPEN FOR MASONRY
(WITH BASE CHANNEL)



OPEN FOR MASONRY
(WITH BASE GIRT)

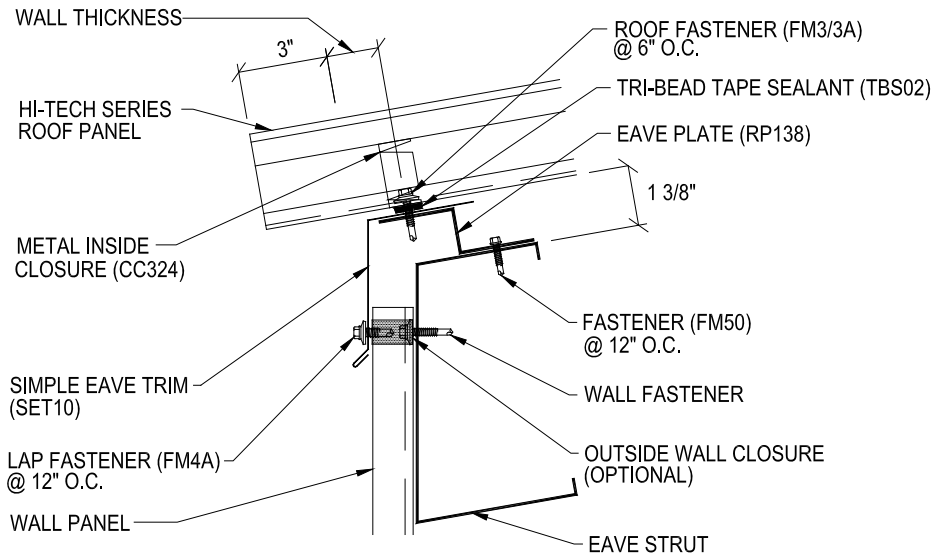


OPEN FOR MASONRY
(WITH BASE ANGLE)

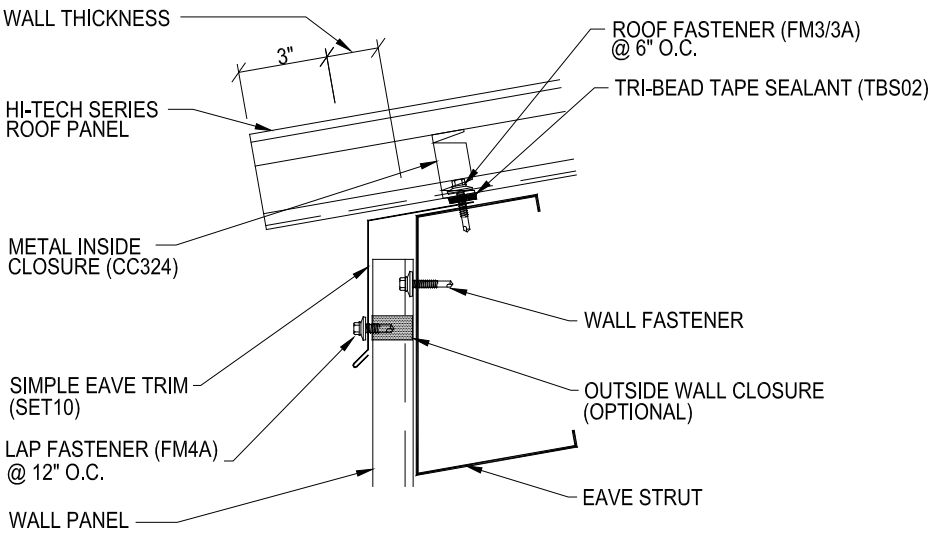


OPEN FOR GLASS
(GLASS BY OTHERS)

5.2.2 FOR "HI-TECH" SERIES

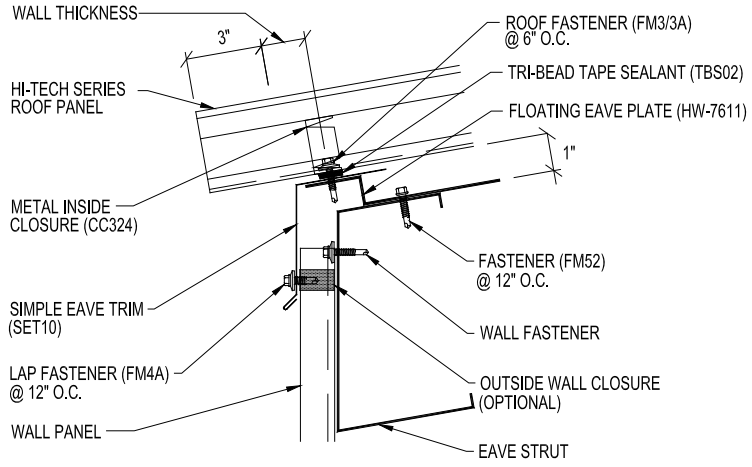


STANDARD DETAIL FOR HIGH FIXED EAVE

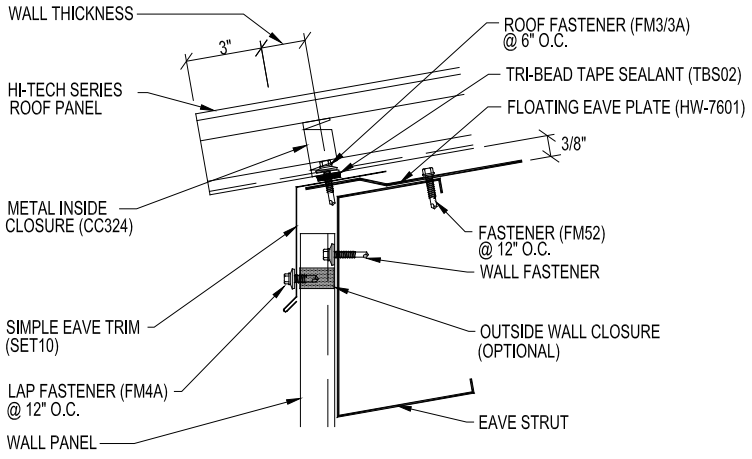


STANDARD DETAIL FOR LOW FIXED EAVE

TYPICAL LOW EAVE DETAILS WITH SIMPLE EAVE TRIM
USE WITH PANEL RUNS LESS THAN 200'

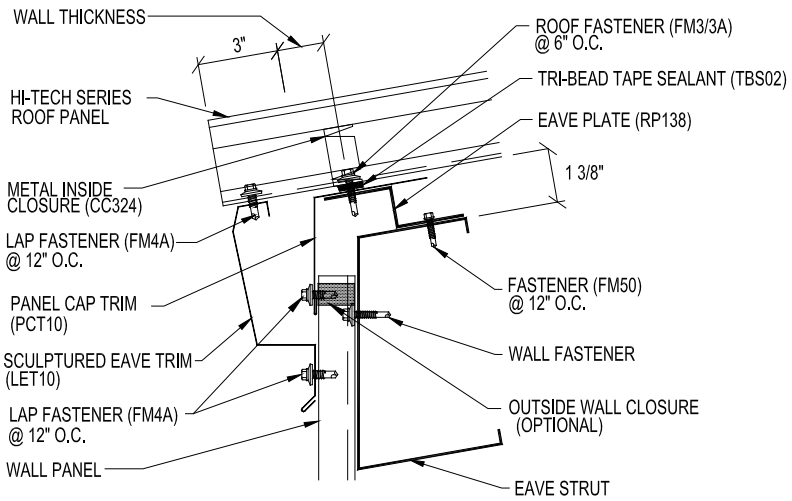


STANDARD DETAIL FOR HIGH FLOATING EAVE

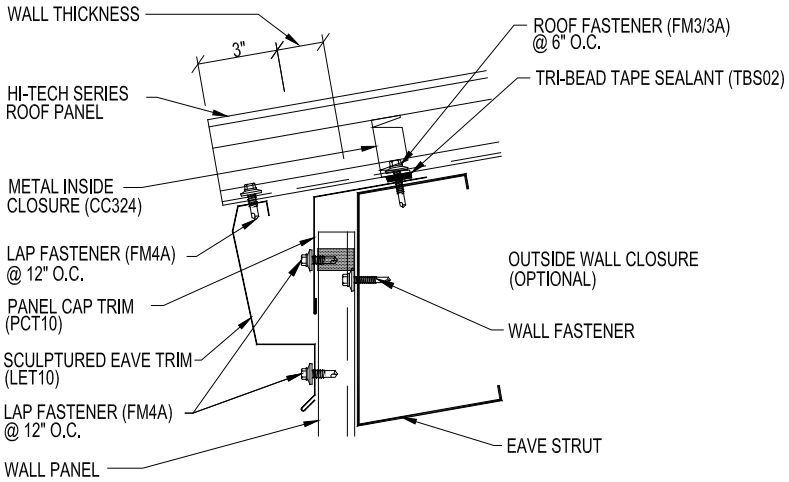


STANDARD DETAIL FOR LOW FLOATING EAVE

TYPICAL LOW EAVE DETAILS WITH SIMPLE EAVE TRIM
USE WITH PANEL RUNS MORE THAN 200'

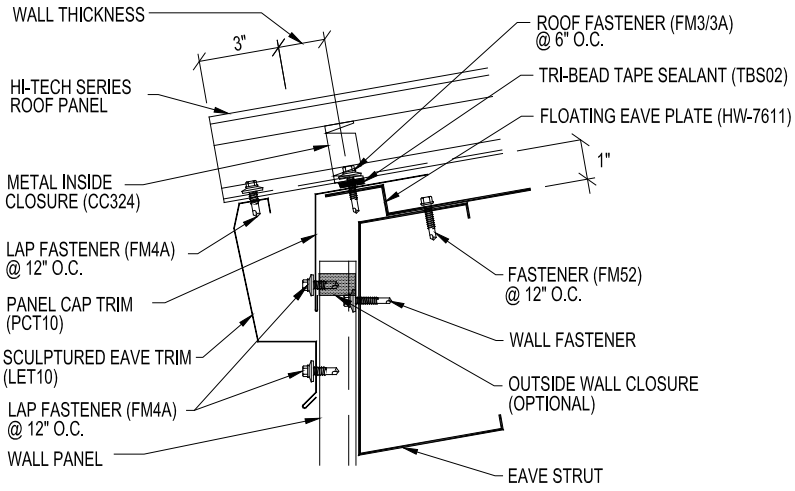


STANDARD DETAIL FOR HIGH FIXED EAVE

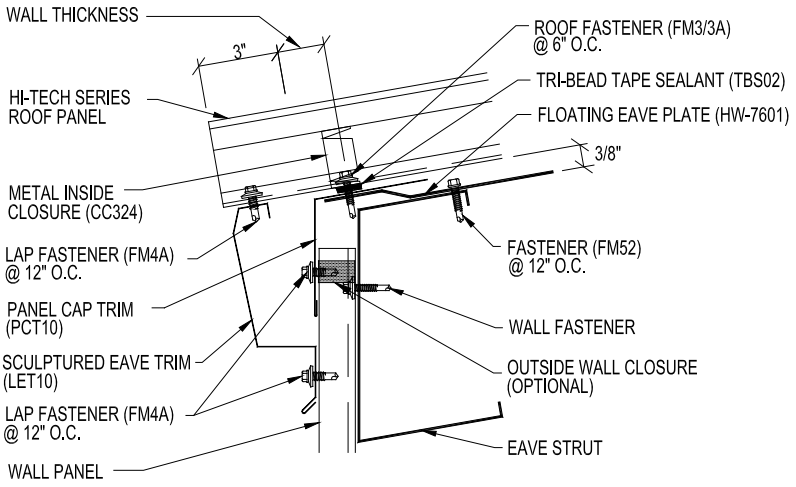


STANDARD DETAIL FOR LOW FIXED EAVE

TYPICAL LOW EAVE DETAILS WITH SCULPTURED EAVE TRIM
USE WITH PANEL RUNS LESS THAN 200'

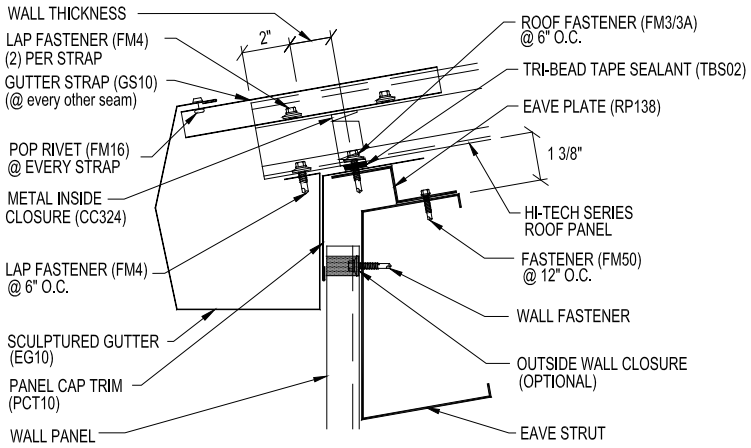


STANDARD DETAIL FOR HIGH FLOATING EAVE

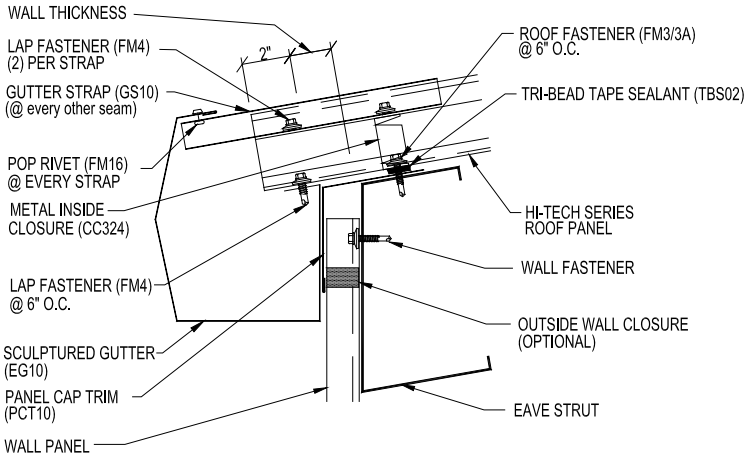


STANDARD DETAIL FOR LOW FLOATING EAVE

TYPICAL LOW EAVE DETAILS WITH SCULPTURED EAVE TRIM
USE WITH PANEL RUNS MORE THAN 200'

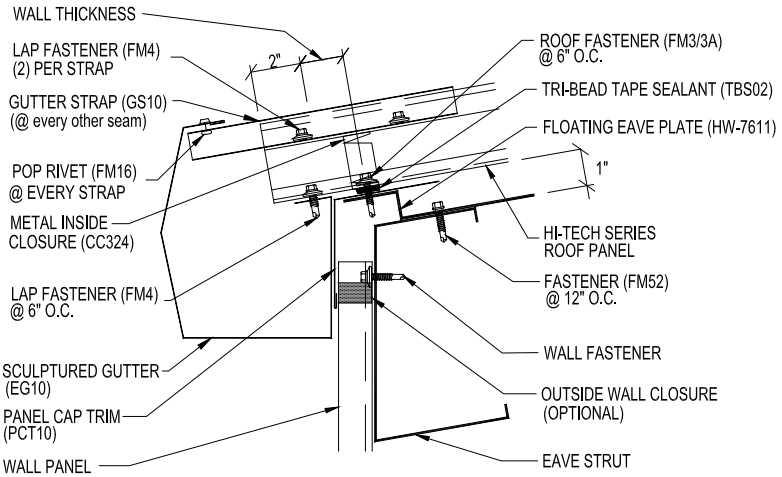


STANDARD DETAIL FOR HIGH FIXED EAVE

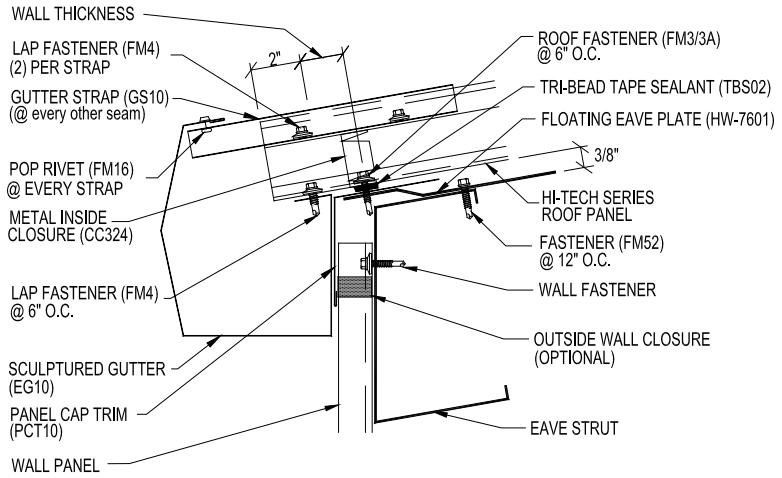


STANDARD DETAIL FOR LOW FIXED EAVE

TYPICAL LOW EAVE DETAILS WITH SCULPTURED GUTTER
USE WITH PANEL RUNS LESS THAN 200'

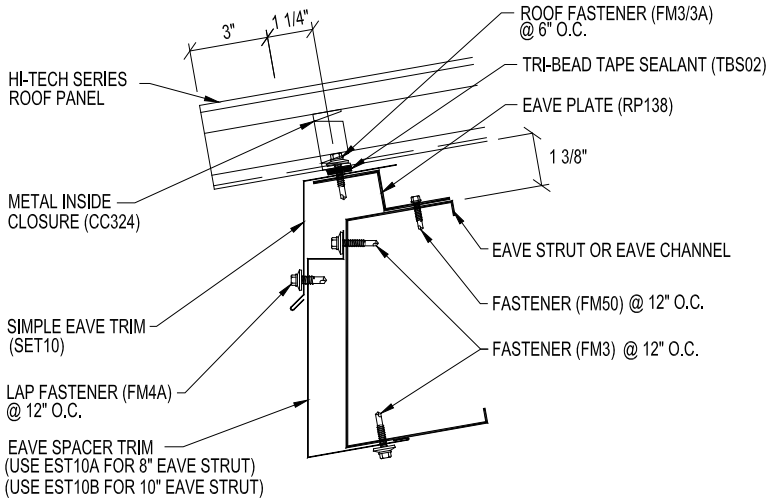


STANDARD DETAIL FOR HIGH FLOATING EAVE

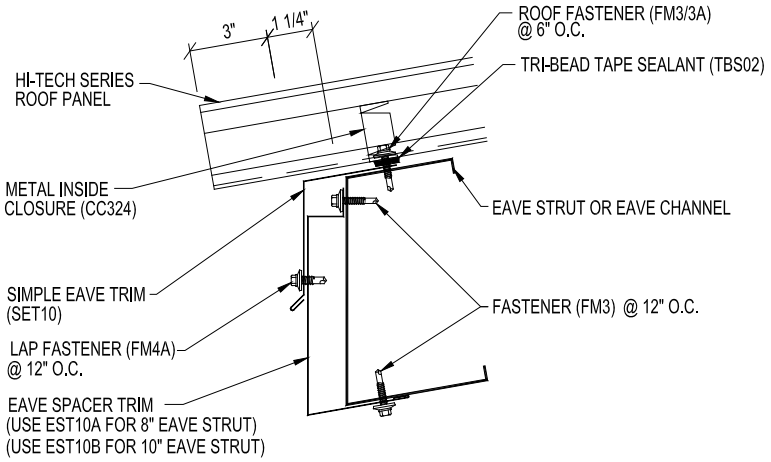


STANDARD DETAIL FOR LOW FLOATING EAVE

TYPICAL LOW EAVE DETAILS WITH SCULPTURED GUTTER
USE WITH PANEL RUNS MORE THAN 200'

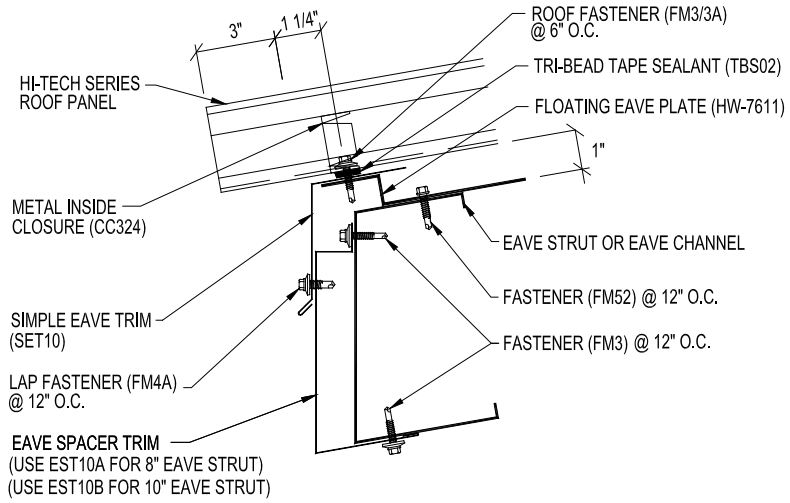


STANDARD DETAIL FOR HIGH FIXED EAVE

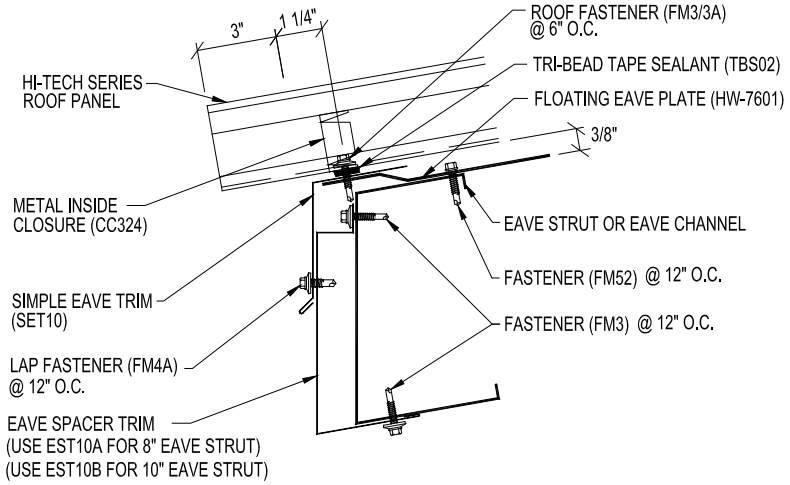


STANDARD DETAIL FOR LOW FIXED EAVE

TYPICAL LOW EAVE CANOPY OR OPEN WALL DETAILS
WITH SIMPLE EAVE WITHOUT SOFFIT
USE WITH PANEL RUNS LESS THAN 200'

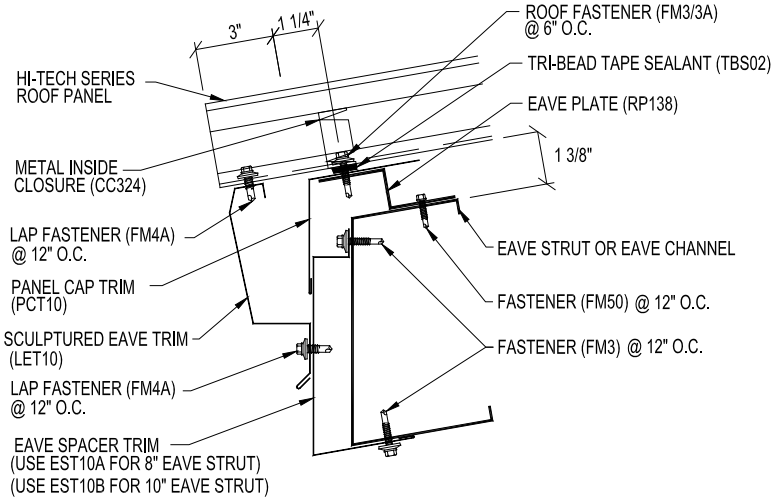


STANDARD DETAIL FOR HIGH FLOATING EAVE

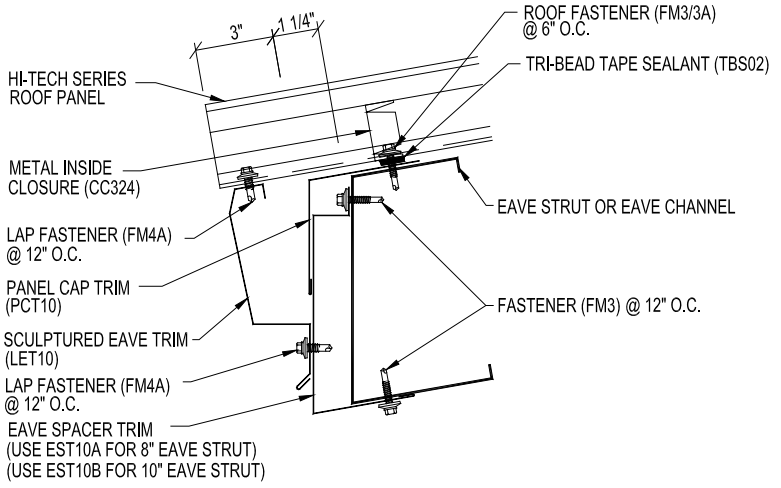


STANDARD DETAIL FOR LOW FLOATING EAVE

TYPICAL LOW EAVE CANOPY OR OPEN WALL DETAILS W/ SIMPLE EAVE W/O SOFFIT USE WITH PANEL RUNS MORE THAN 200'

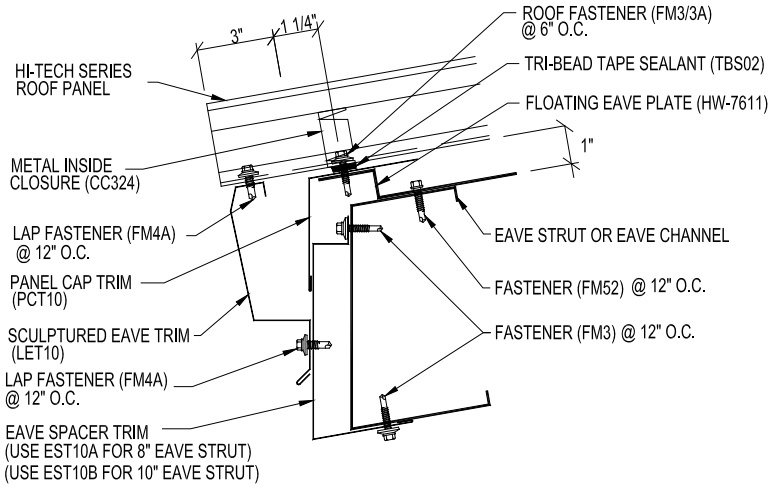


STANDARD DETAIL FOR HIGH FIXED EAVE

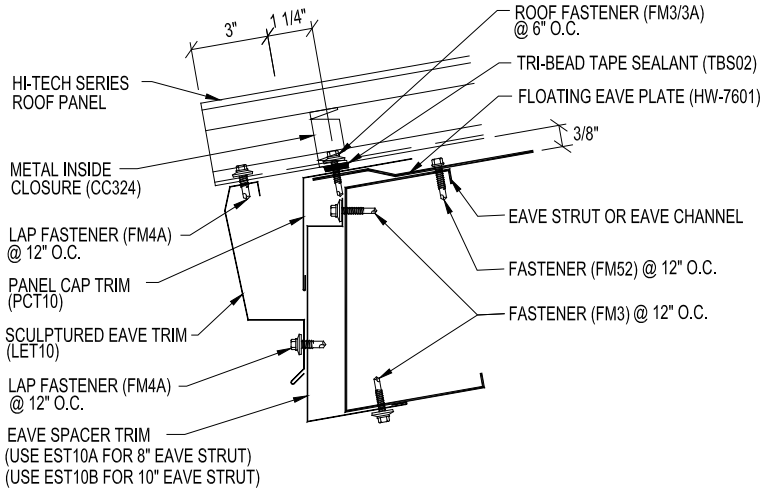


STANDARD DETAIL FOR LOW FIXED EAVE

TYPICAL LOW EAVE CANOPY OR OPEN WALL DETAILS W/ SCULP. EAVE W/O SOFFIT USE WITH PANEL RUNS LESS THAN 200'

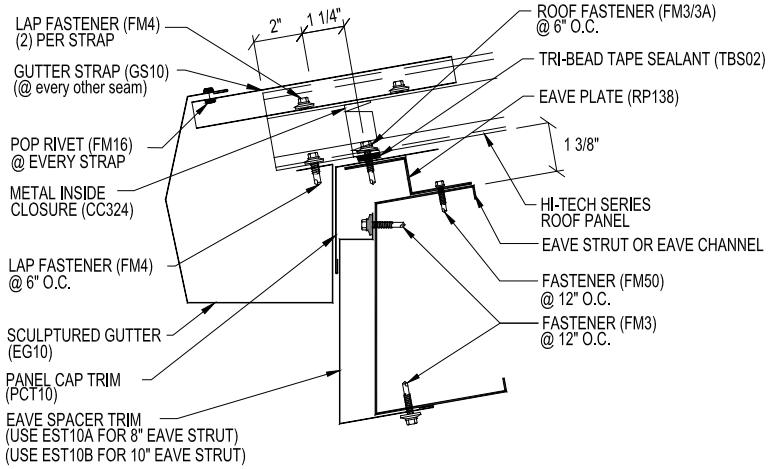


STANDARD DETAIL FOR HIGH FLOATING EAVE

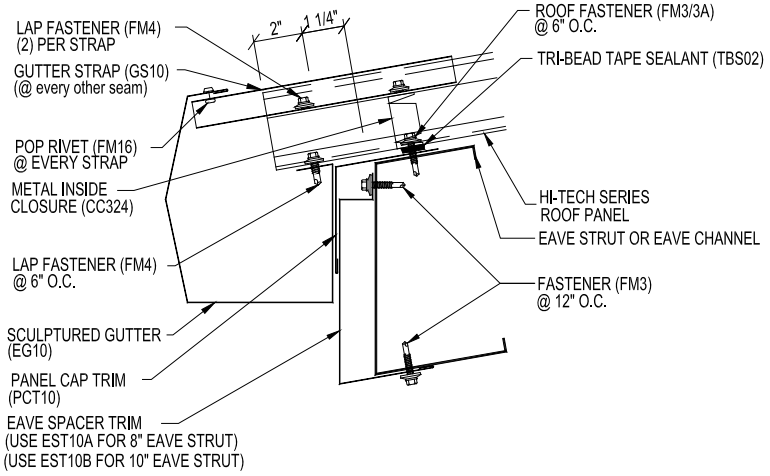


STANDARD DETAIL FOR LOW FLOATING EAVE

TYPICAL LOW EAVE CANOPY OR OPEN WALL DETAILS W/ SCULP. EAVE W/O SOFFIT USE WITH PANEL RUNS MORE THAN 200'

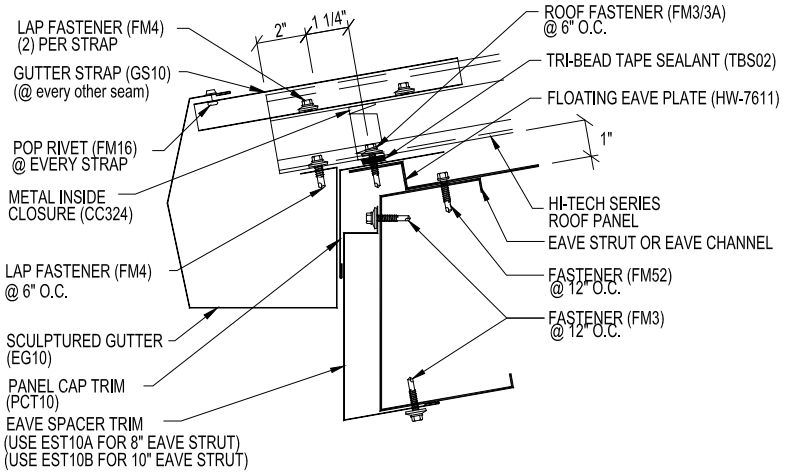


STANDARD DETAIL FOR HIGH FIXED EAVE

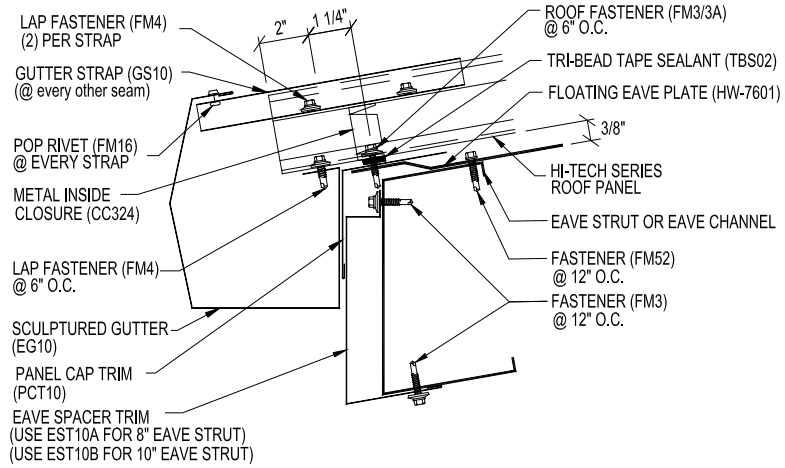


STANDARD DETAIL FOR LOW FIXED EAVE

TYPICAL LOW EAVE CANOPY OR OPEN WALL DETAILS W/ SCULP. GUTTER W/O SOFFIT USE WITH PANEL RUNS LESS THAN 200'

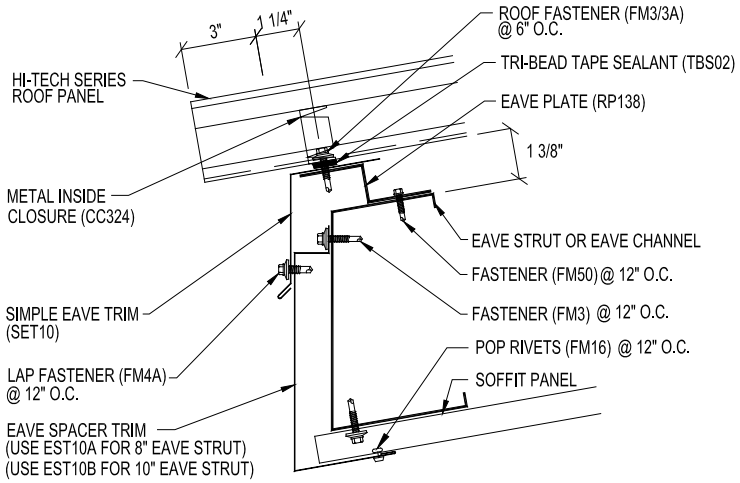


STANDARD DETAIL FOR HIGH FLOATING EAVE

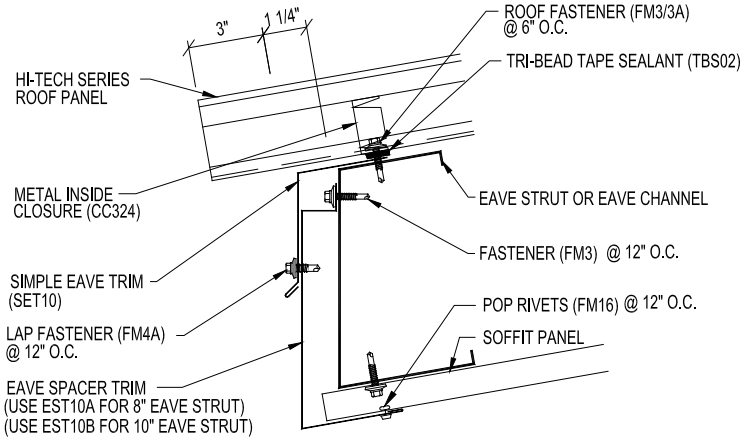


STANDARD DETAIL FOR LOW FLOATING EAVE

TYPICAL LOW EAVE CANOPY OR OPEN WALL DETAILS W/ SCULP. GUTTER W/O SOFFIT USE WITH PANEL RUNS MORE THAN 200'

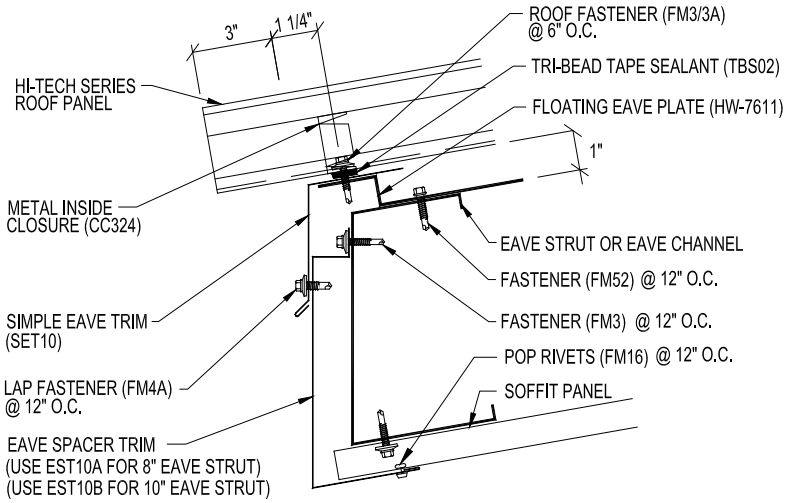


STANDARD DETAIL FOR HIGH FIXED EAVE

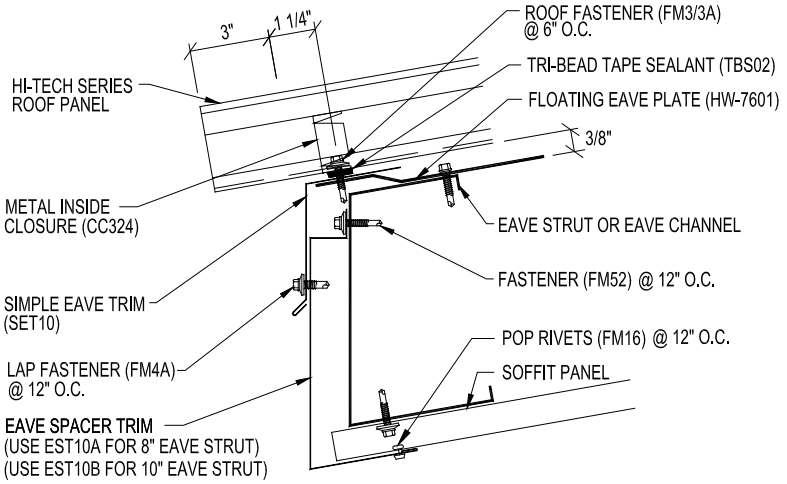


STANDARD DETAIL FOR LOW FIXED EAVE

TYPICAL LOW EAVE CANOPY OR OPEN WALL DETAILS W/ SIMPLE EAVE W/ SOFFIT USE WITH PANEL RUNS LESS THAN 200'

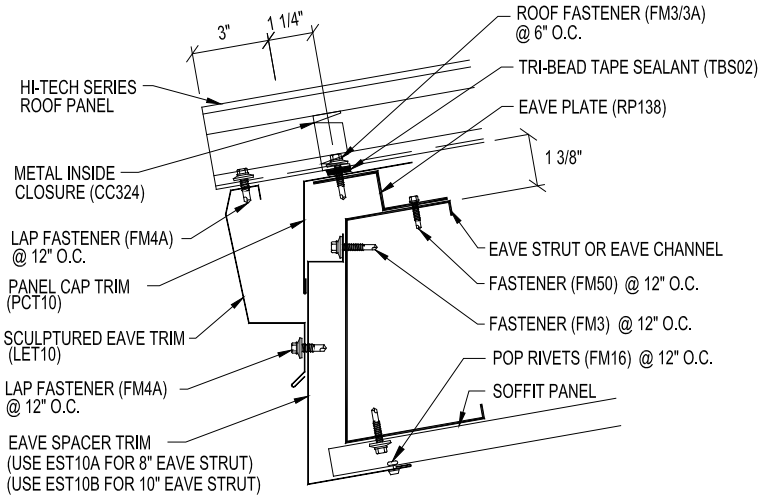


STANDARD DETAIL FOR HIGH FLOATING EAVE

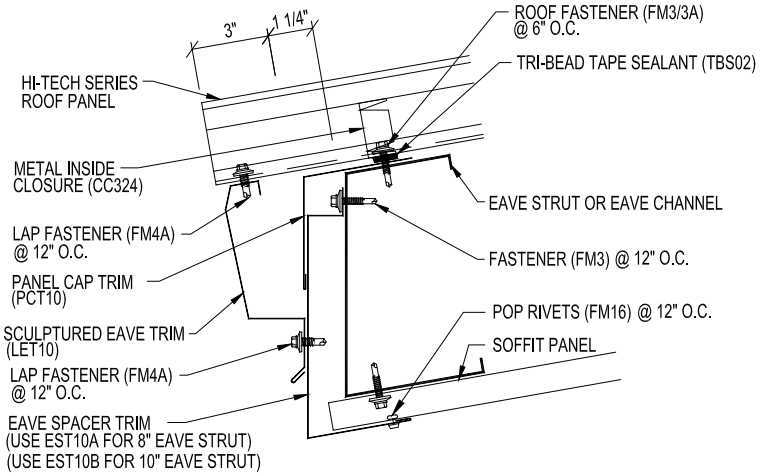


STANDARD DETAIL FOR LOW FLOATING EAVE

TYPICAL LOW EAVE CANOPY OR OPEN WALL DETAILS W/ SIMPLE EAVE W/ SOFFIT USE WITH PANEL RUNS MORE THAN 200'

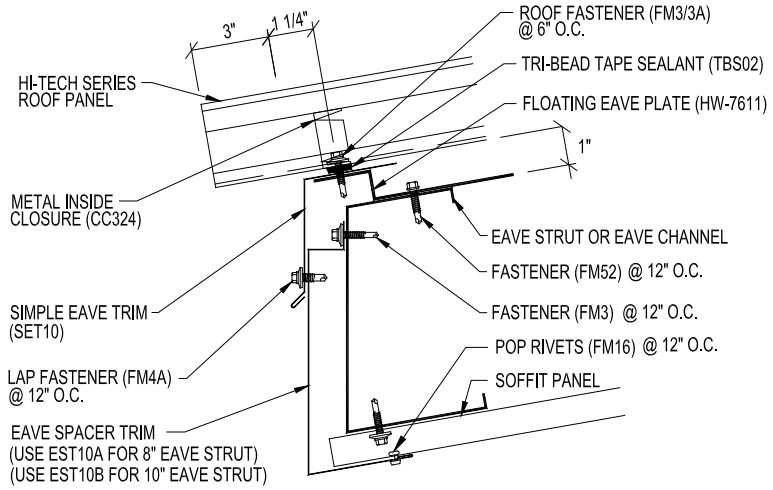


STANDARD DETAIL FOR HIGH FIXED EAVE

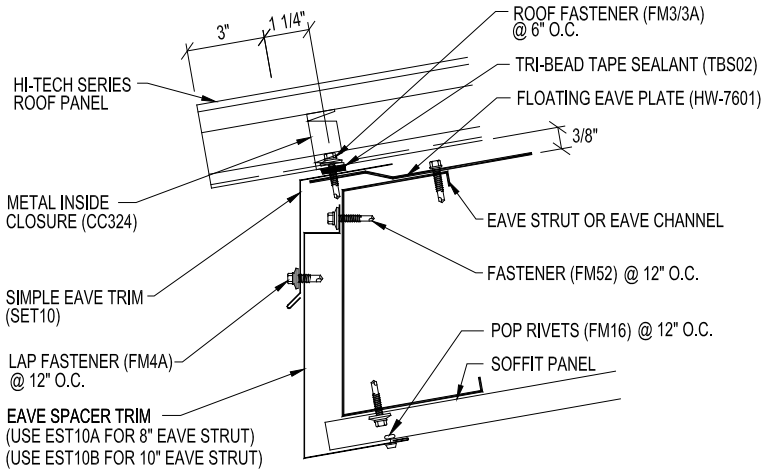


STANDARD DETAIL FOR LOW FIXED EAVE

TYPICAL LOW EAVE CANOPY OR OPEN WALL DETAILS W/ SCULP. EAVE W/ SOFFIT USE WITH PANEL RUNS LESS THAN 200'

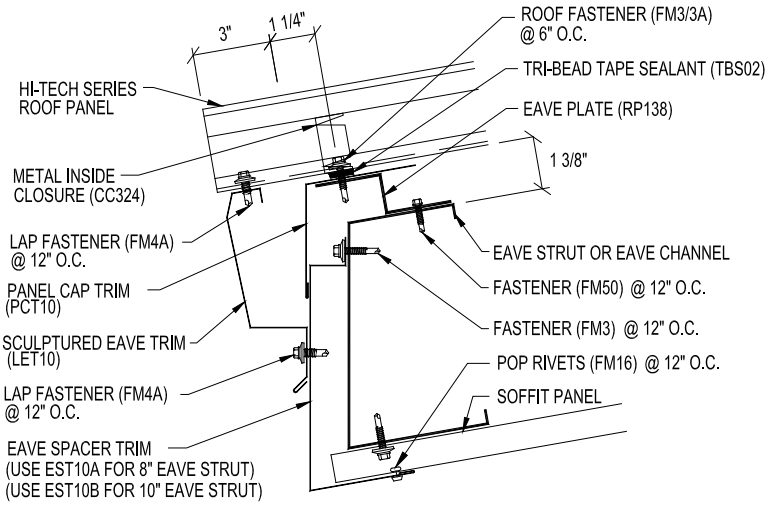


STANDARD DETAIL FOR HIGH FLOATING EAVE

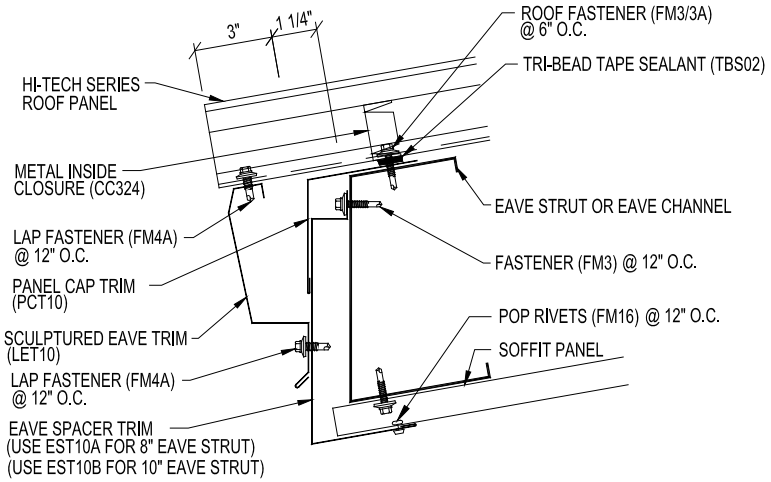


STANDARD DETAIL FOR LOW FLOATING EAVE

TYPICAL LOW EAVE CANOPY OR OPEN WALL DETAILS W/ SIMPLE EAVE W/ SOFFIT USE WITH PANEL RUNS MORE THAN 200'

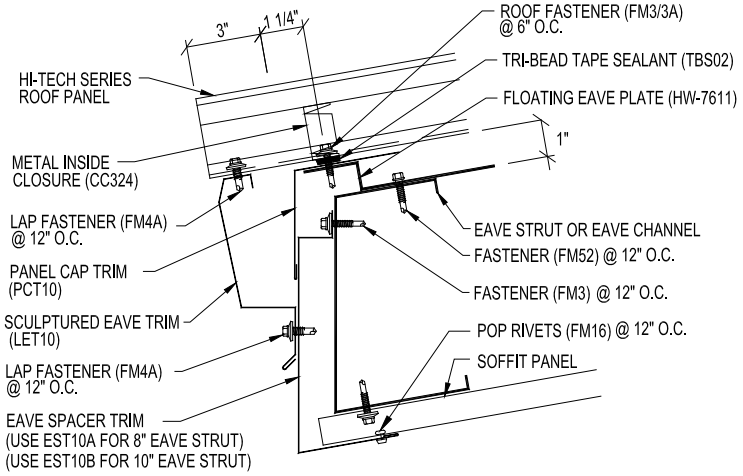


STANDARD DETAIL FOR HIGH FIXED EAVE

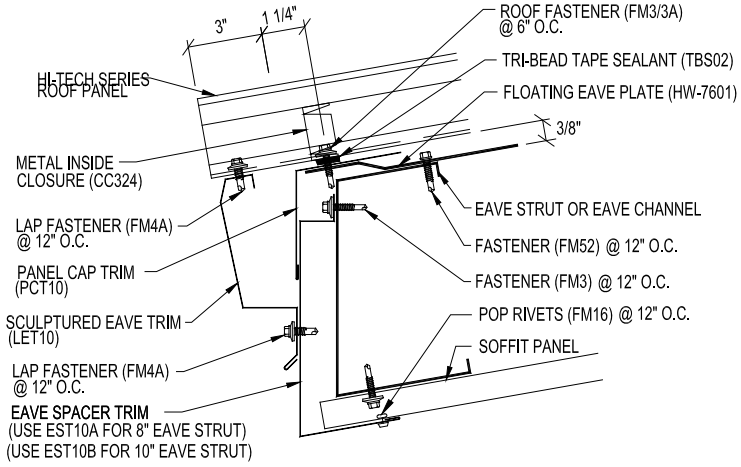


STANDARD DETAIL FOR LOW FIXED EAVE

TYPICAL LOW EAVE CANOPY OR OPEN WALL DETAILS W/ SCULP. EAVE W/ SOFFIT USE WITH PANEL RUNS LESS THAN 200'

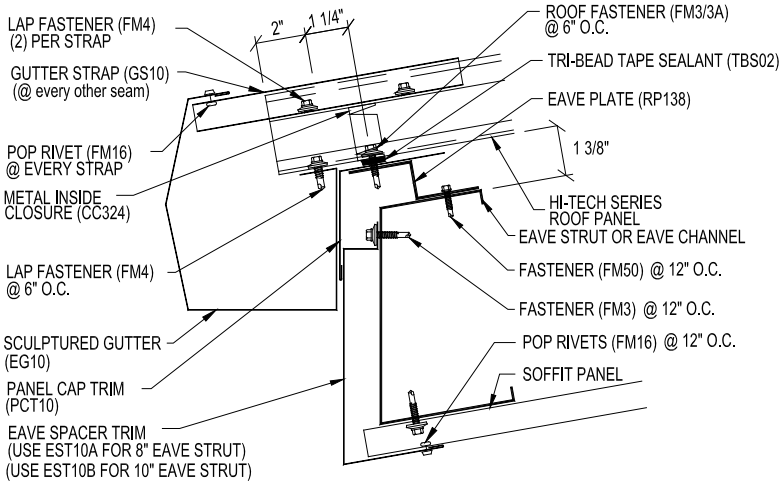


STANDARD DETAIL FOR HIGH FLOATING EAVE

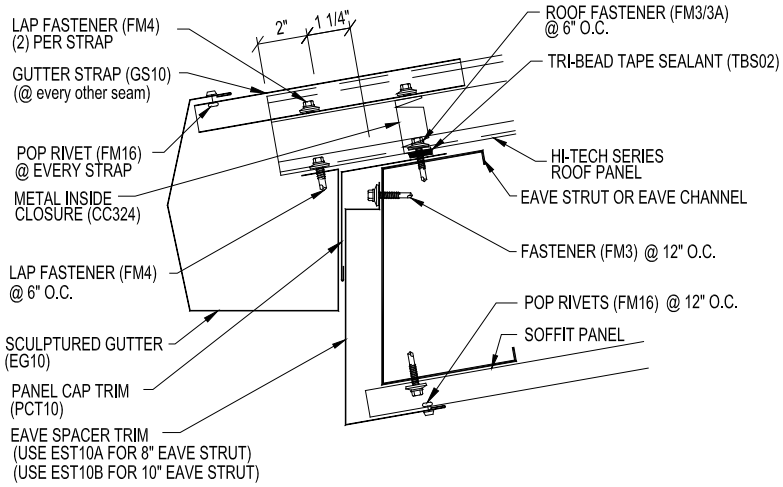


STANDARD DETAIL FOR LOW FLOATING EAVE

TYPICAL LOW EAVE CANOPY OR OPEN WALL DETAILS W/ SCULP. EAVE W/ SOFFIT USE WITH PANEL RUNS MORE THAN 200'

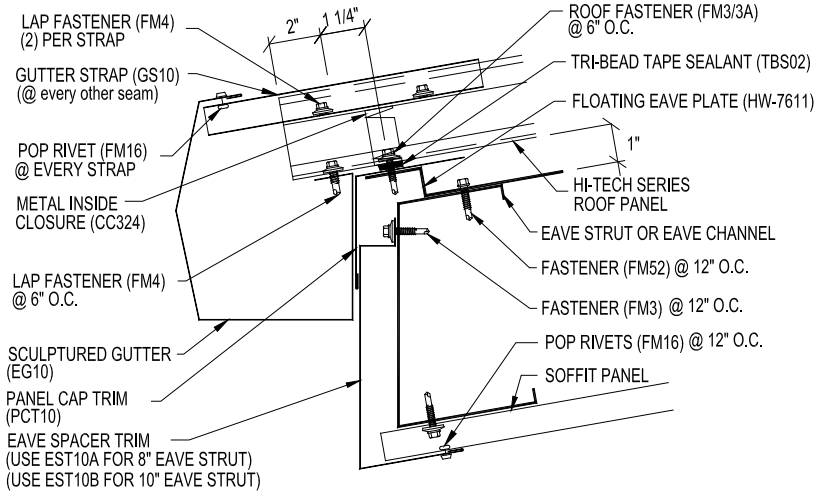


STANDARD DETAIL FOR HIGH FIXED EAVE

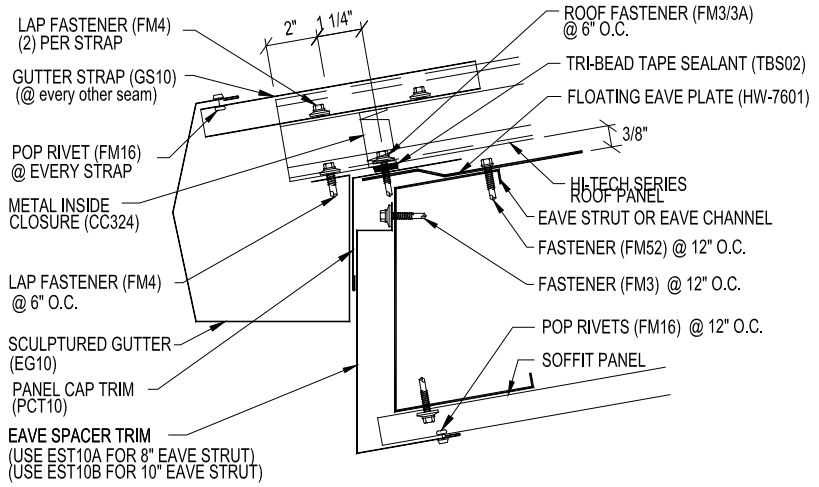


STANDARD DETAIL FOR LOW FIXED EAVE

TYPICAL LOW EAVE CANOPY OR OPEN WALL DETAILS W/ SCULP. GUTTER W/ SOFFIT USE WITH PANEL RUNS LESS THAN 200'

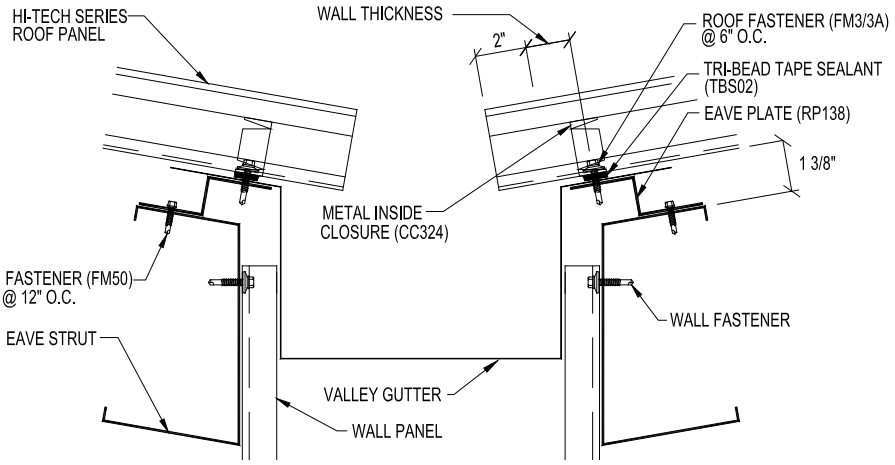


STANDARD DETAIL FOR HIGH FLOATING EAVE

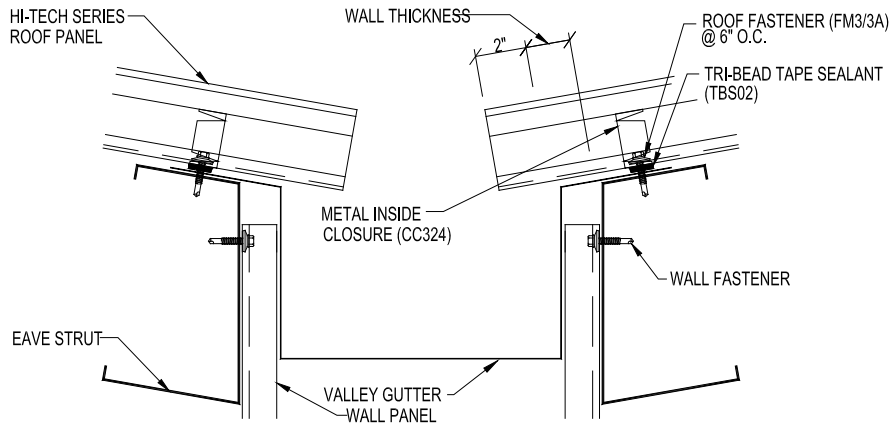


STANDARD DETAIL FOR LOW FLOATING EAVE

TYPICAL LOW EAVE CANOPY OR OPEN WALL DETAILS W/ SCULP. GUTTER W/ SOFFIT USE WITH PANEL RUNS MORE THAN 200'

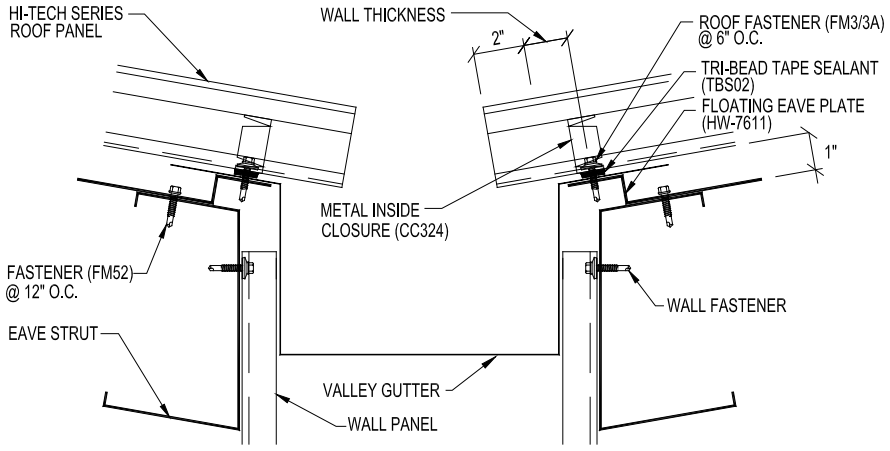


STANDARD DETAIL FOR HIGH FIXED EAVE

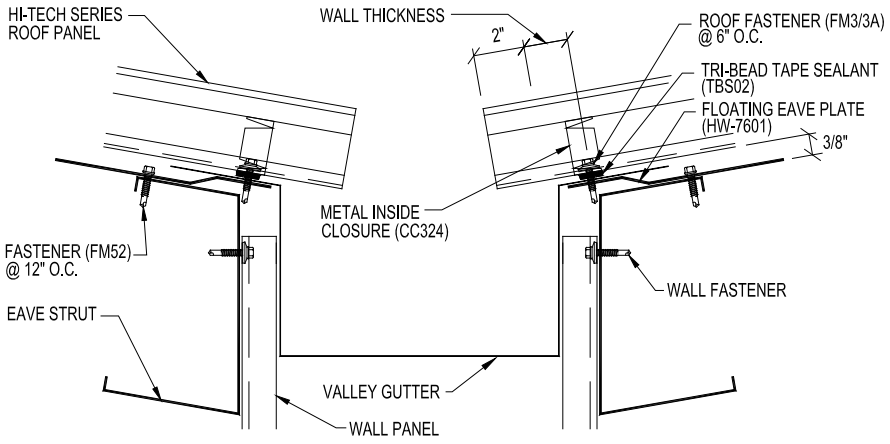


STANDARD DETAIL FOR LOW FIXED EAVE

TYPICAL LOW EAVE DETAILS WITH VALLEYGUTTER
USE WITH PANEL RUNS LESS THAN 200'

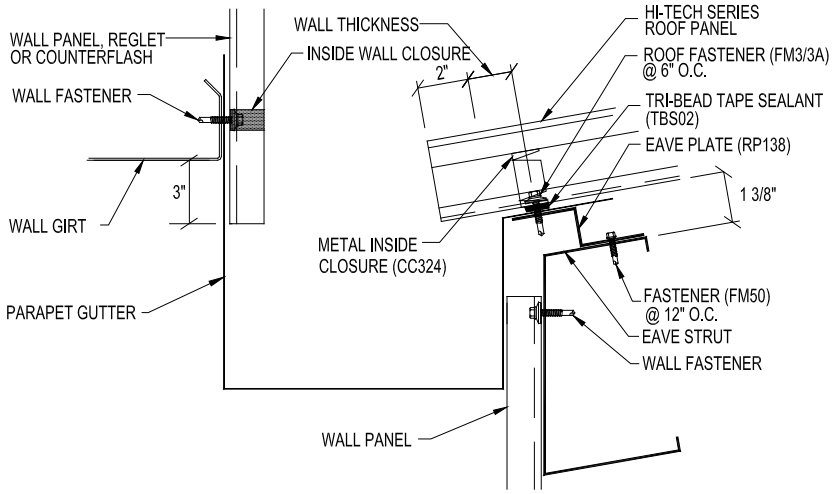


STANDARD DETAIL FOR HIGH FLOATING EAVE

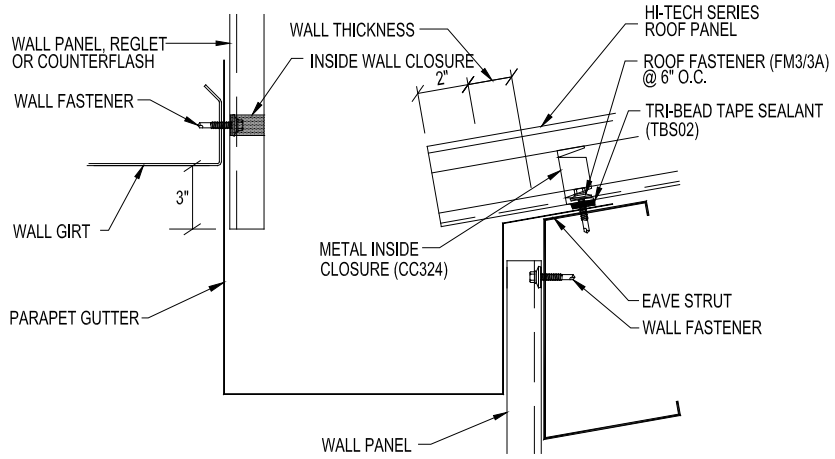


STANDARD DETAIL FOR LOW FLOATING EAVE

TYPICAL LOW EAVE DETAILS WITH VALLEY GUTTER
USE WITH PANEL RUNS MORE THAN 200'

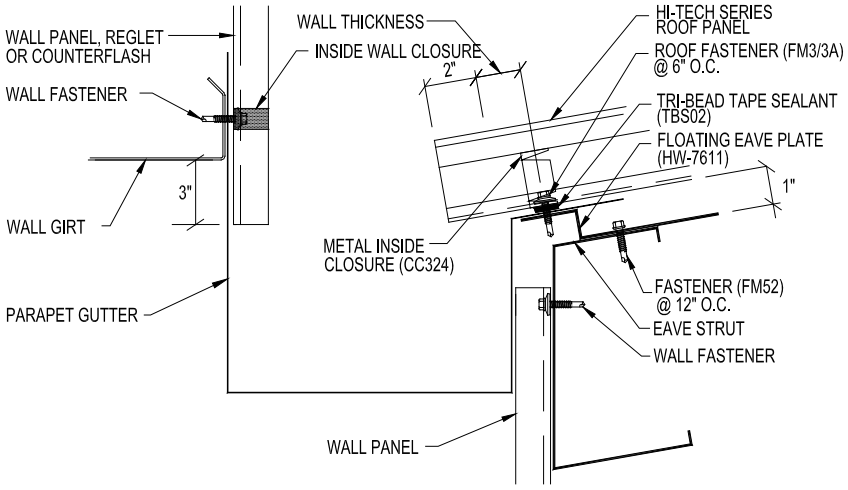


STANDARD DETAIL FOR HIGH FIXED EAVE

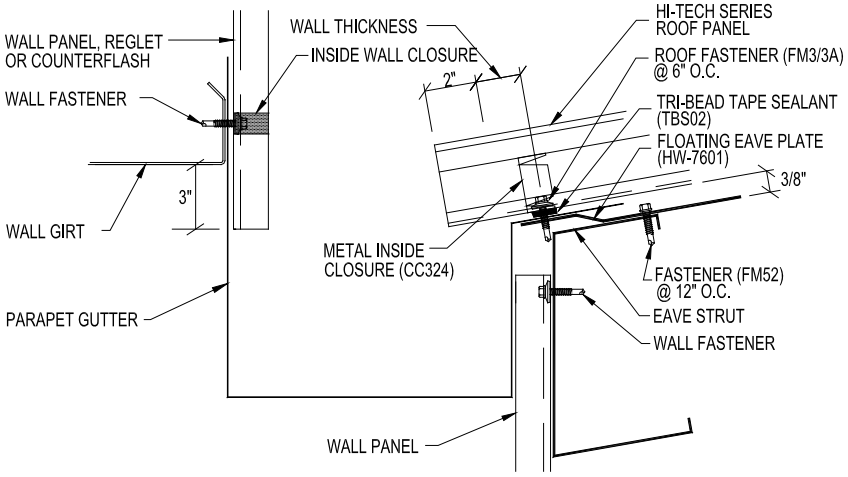


STANDARD DETAIL FOR LOW FIXED EAVE

TYPICAL LOW EAVE DETAILS WITH PARAPET GUTTER
USE WITH PANEL RUNS LESS THAN 200'

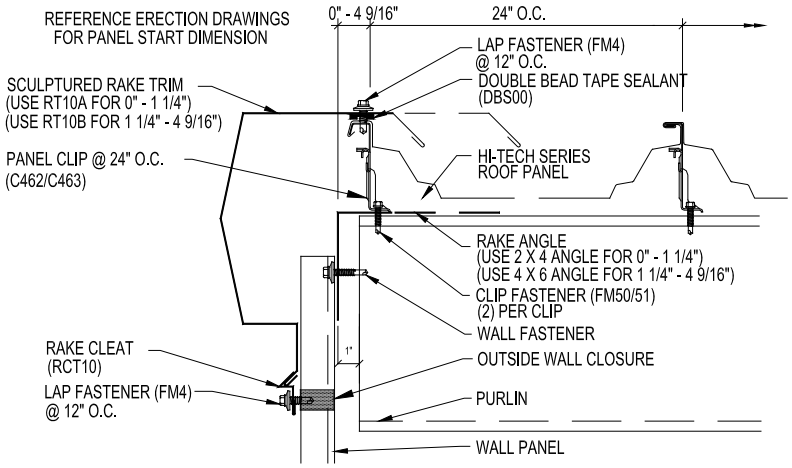


STANDARD DETAIL FOR HIGH FLOATING EAVE

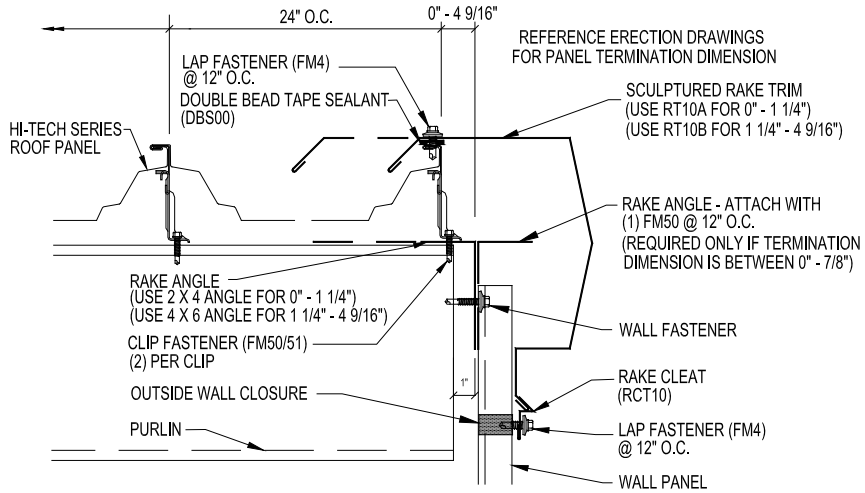


STANDARD DETAIL FOR LOW FLOATING EAVE

TYPICAL LOW EAVE DETAILS WITH PARAPET GUTTER
USE WITH PANEL RUNS MORE THAN 200'

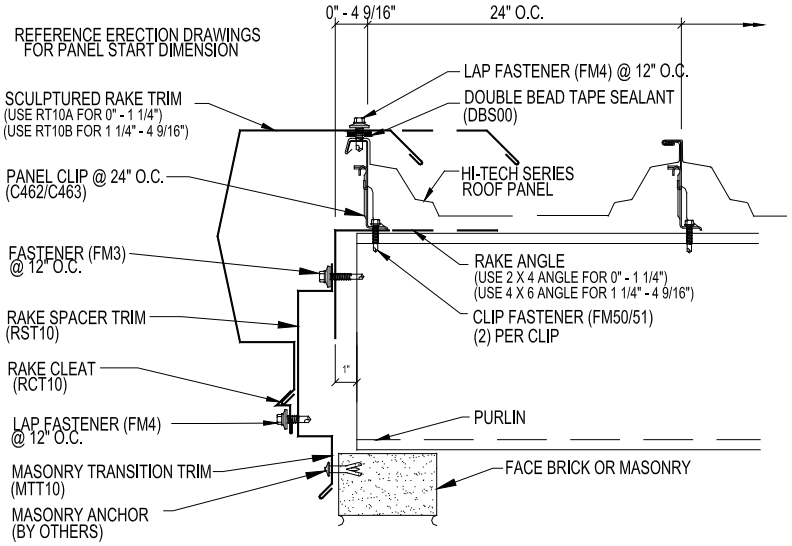


STANDARD DETAIL FOR FLOATING RAKE START ON MODULE

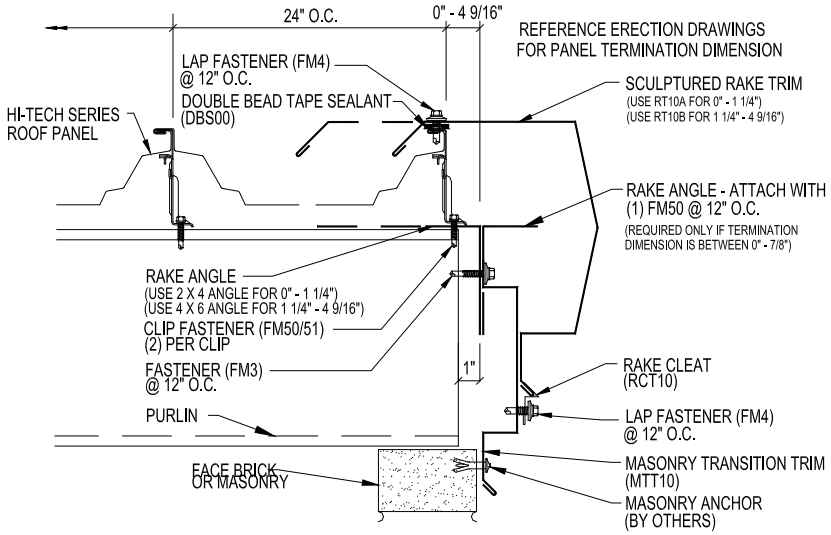


STANDARD DETAIL FOR FLOATING RAKE TERMINATION ON MODULE

TYPICAL RAKE DETAILS ON MODULE

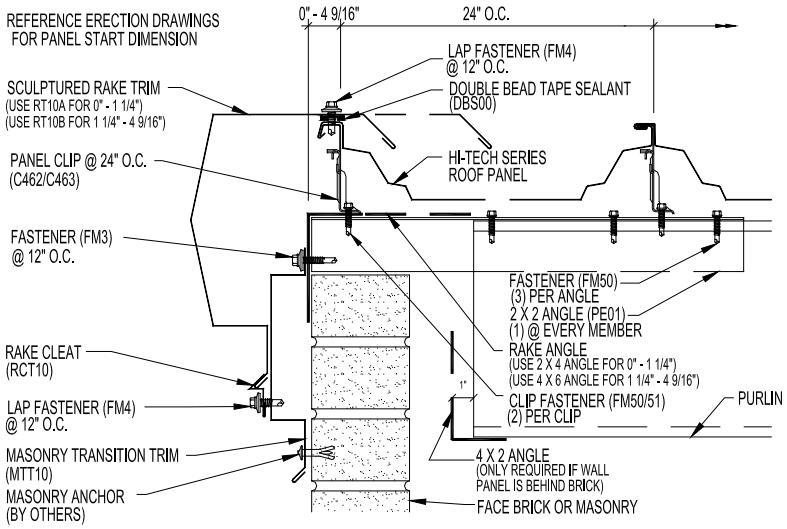


OPTIONAL DETAIL FOR FLOATING RAKE START ON MODULE W/ FACE BRICK OR MASONRY

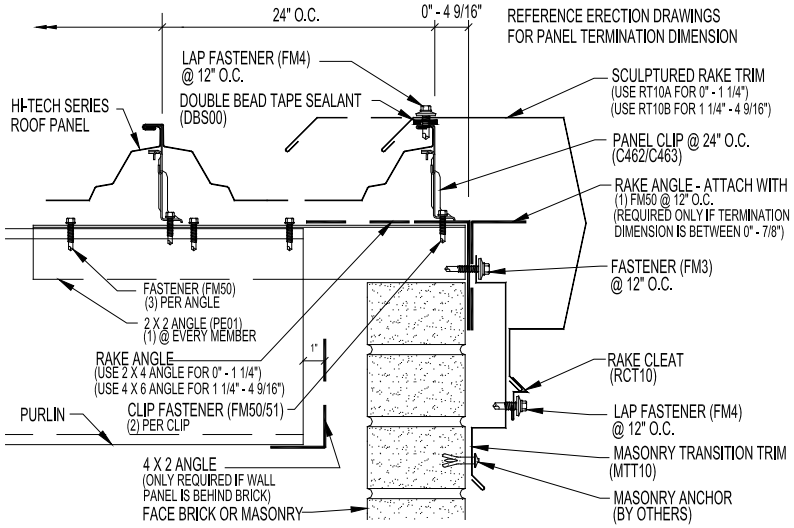


OPTIONAL DETAIL FOR FLOATING RAKE TERMINATION ON MODULE W/ FACE BRICK OR MASONRY

TYPICAL RAKE DETAILS ON MODULE W/ FACE BRICK OR MASONRY

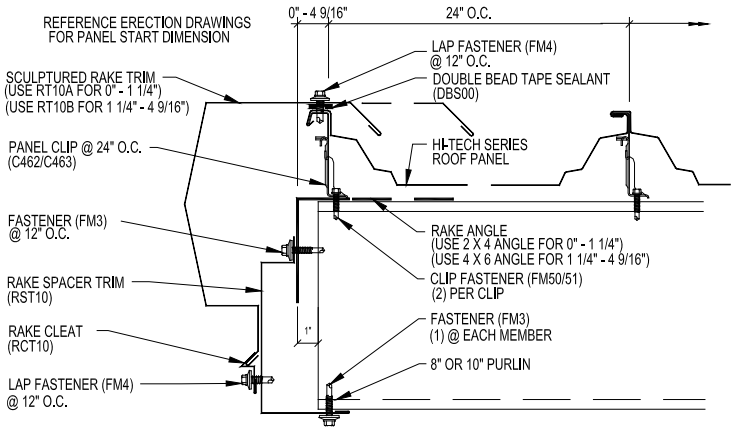


STANDARD DETAIL FOR FLOATING RAKE START ON MODULE W/ FACE BRICK OR MASONRY

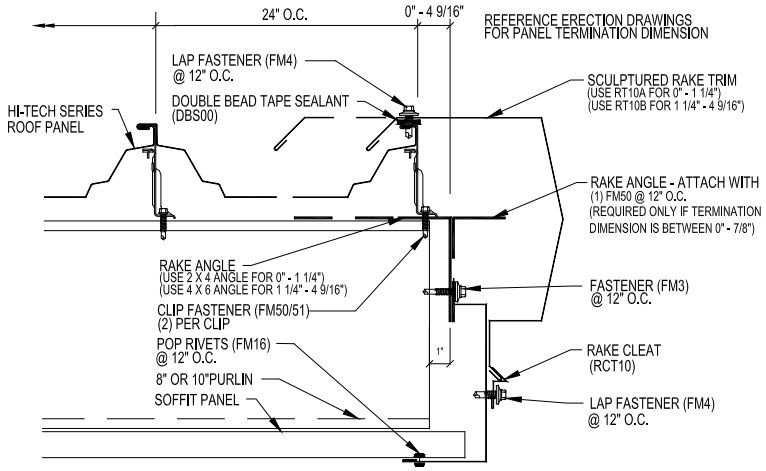


STANDARD DETAIL FOR FLOATING RAKE TERMINATION ON MODULE W/ FACE BRICK OR MASONRY

TYPICAL RAKE DETAILS ON MODULE W/ FACE BRICK OR MASONRY

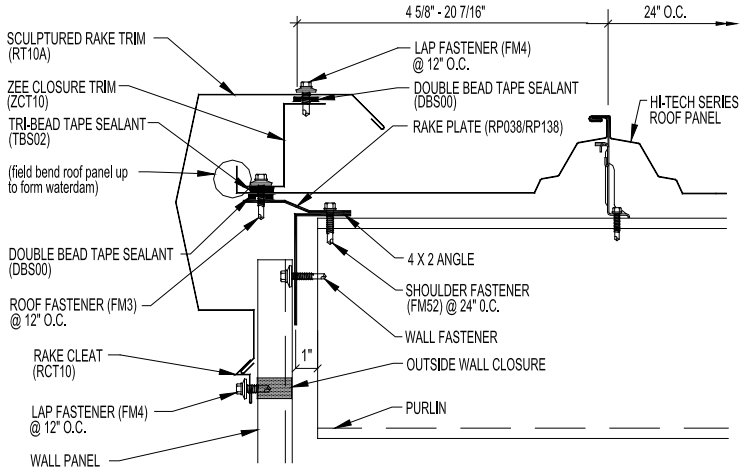


STANDARD DETAIL FOR FLOATING RAKE START ON MODULE W/O SOFFIT

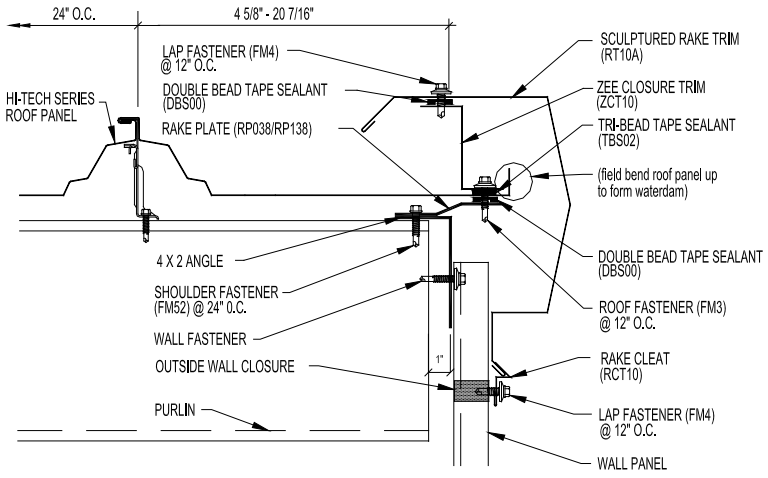


STANDARD DETAIL FOR FLOATING RAKE TERMINATION ON MODULE W/ SOFFIT

TYPICAL PURLIN EXTENSION OR OPEN WALL DETAILS ON MODULE

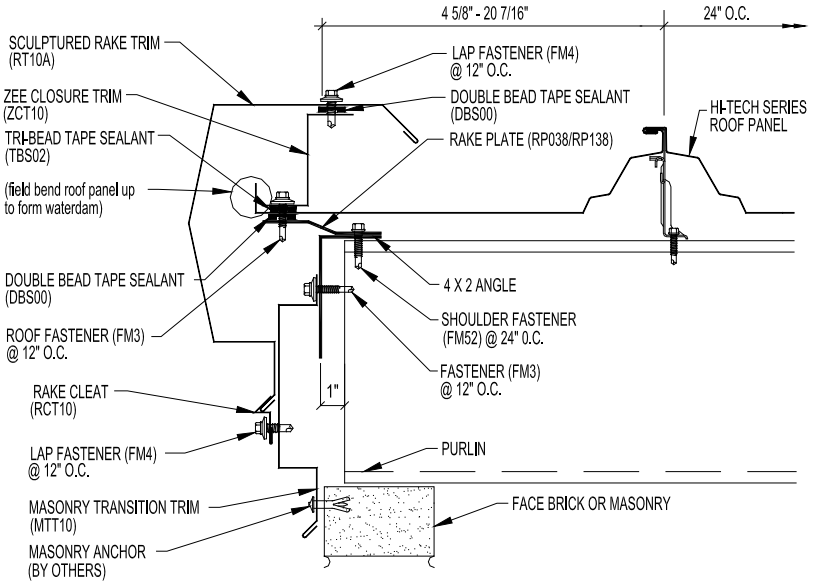


STANDARD DETAIL FOR FLOATING RAKE START OFF MODULE

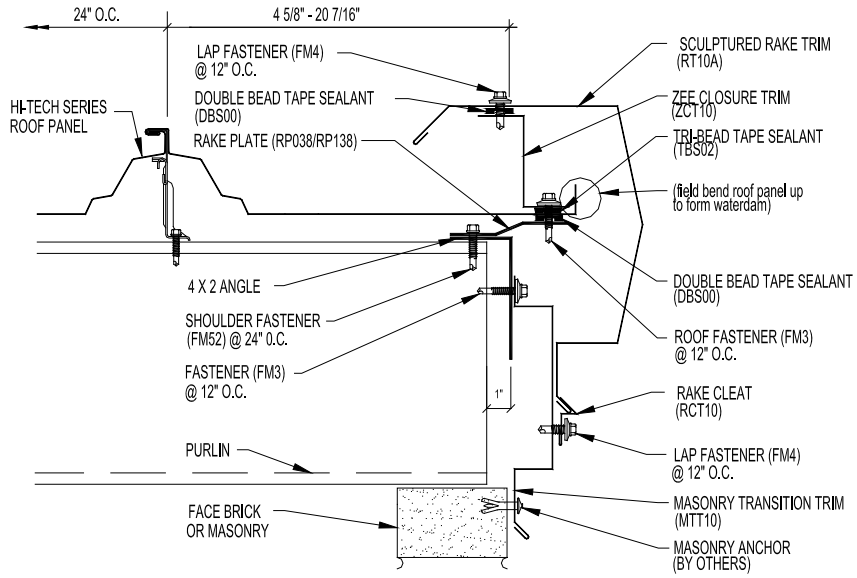


STANDARD DETAIL FOR FLOATING RAKE TERMINATION OFF MODULE

TYPICAL RAKE DETAIL OFF MODULE

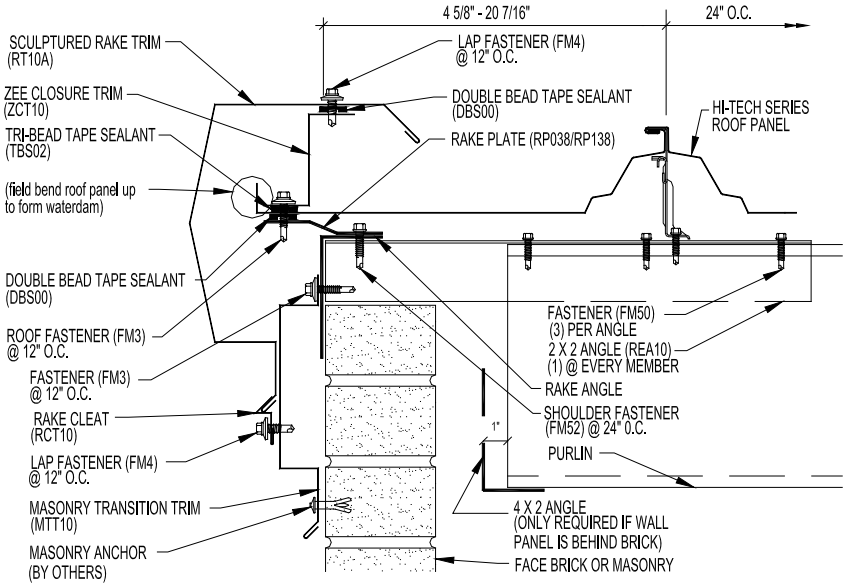


OPTIONAL DETAIL FOR FLOATING RAKE START OFF MODULE W/ FACE BRICK OR MASONRY

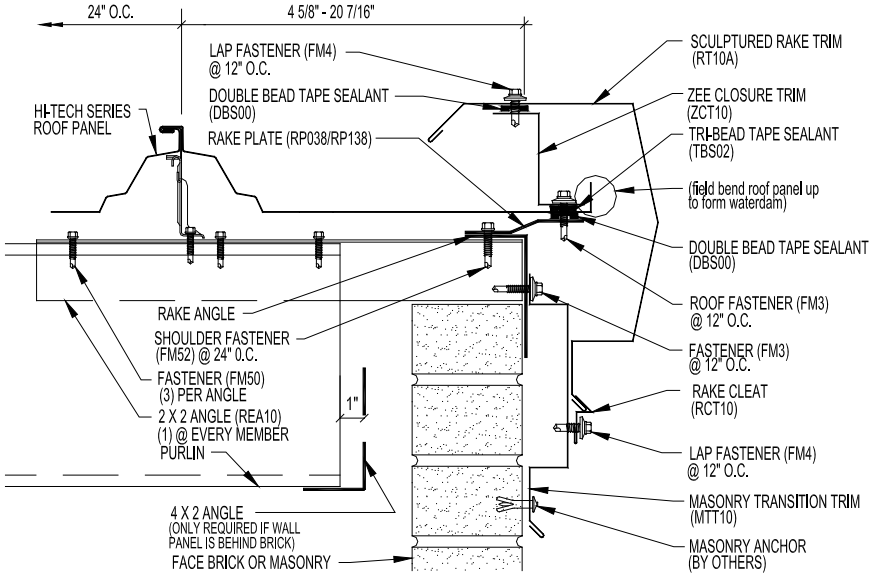


OPTIONAL DETAIL FOR FLOATING RAKE TERMINATION OFF MODULE W/ FACE BRICK OR MASONRY

TYPICAL RAKE DETAIL OFF MODULE

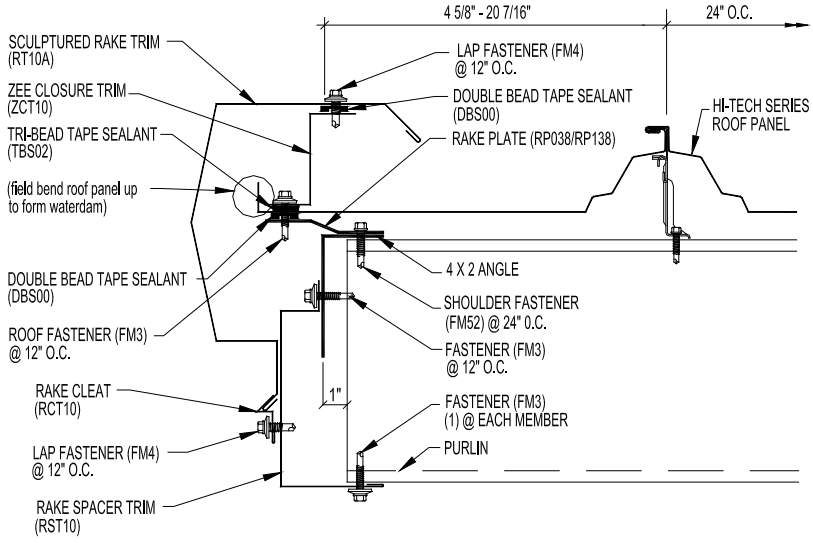


STANDARD DETAIL FOR FLOATING RAKE START OFF MODULE W/ FACE BRICK OR MASONRY

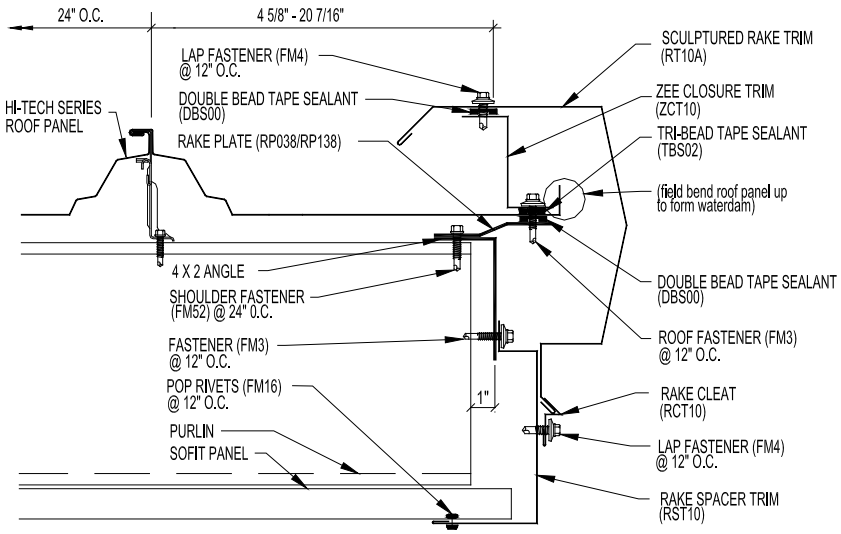


STANDARD DETAIL FOR FLOATING RAKE TERMINATION OFF MODULE W/ FACE BRICK OR MASONRY

TYPICAL RAKE DETAIL OFF MODULE

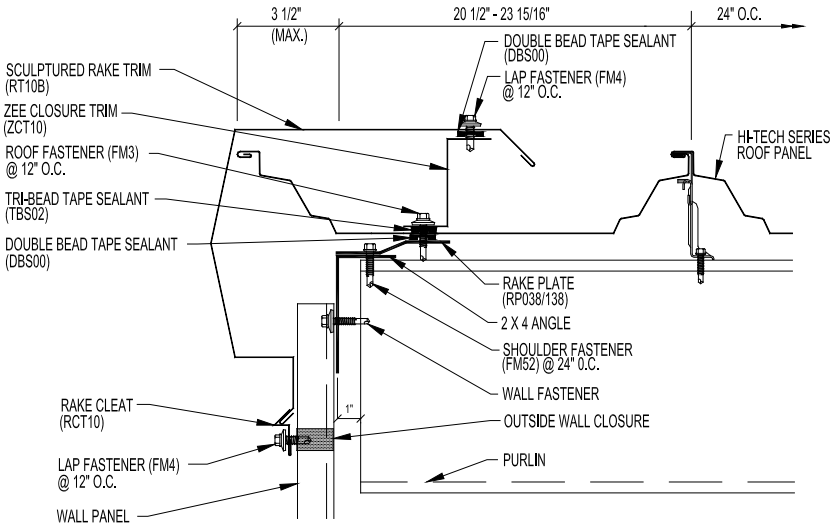


STANDARD DETAIL FOR FLOATING RAKE START OFF MODULE W/O SOFFIT

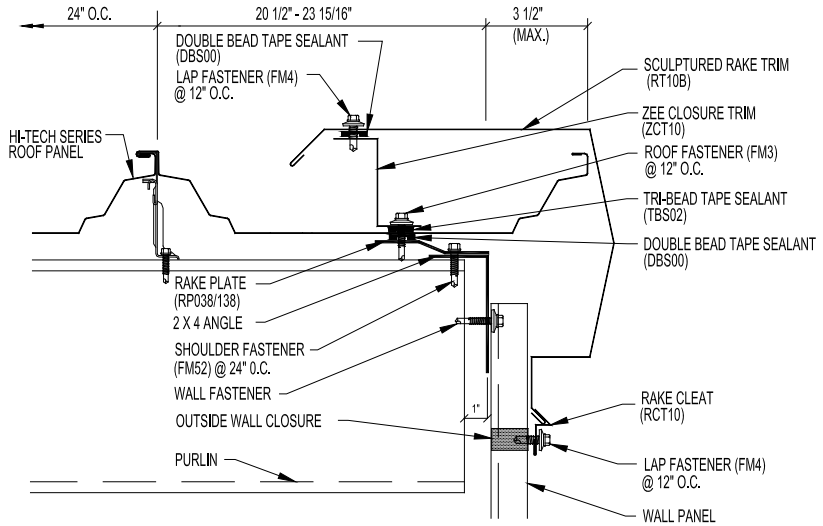


STANDARD DETAIL FOR FLOATING RAKE TERMINATION OFF MODULE W/ SOFFIT

TYPICAL PURLIN EXTENSION OR OPEN WALL DETAILS OFF MODULE

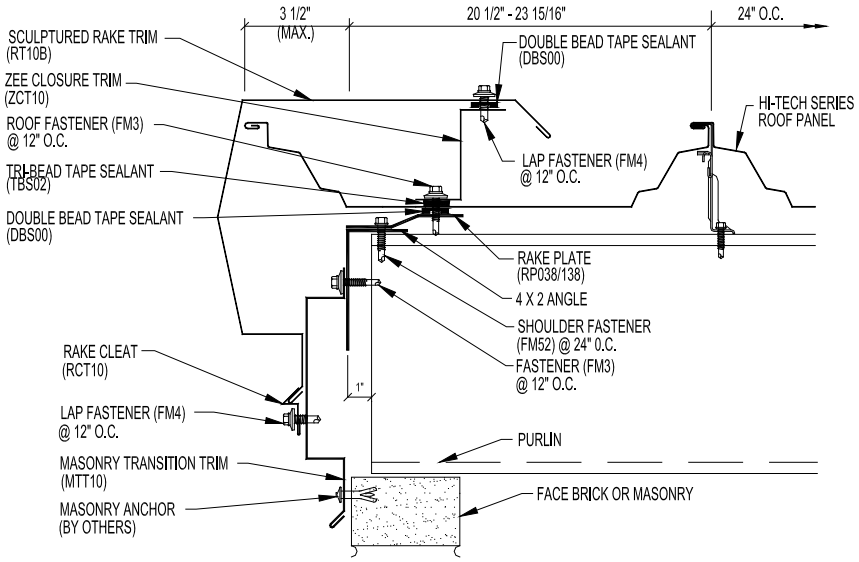


STANDARD DETAIL FOR FLOATING RAKE START OFF MODULE

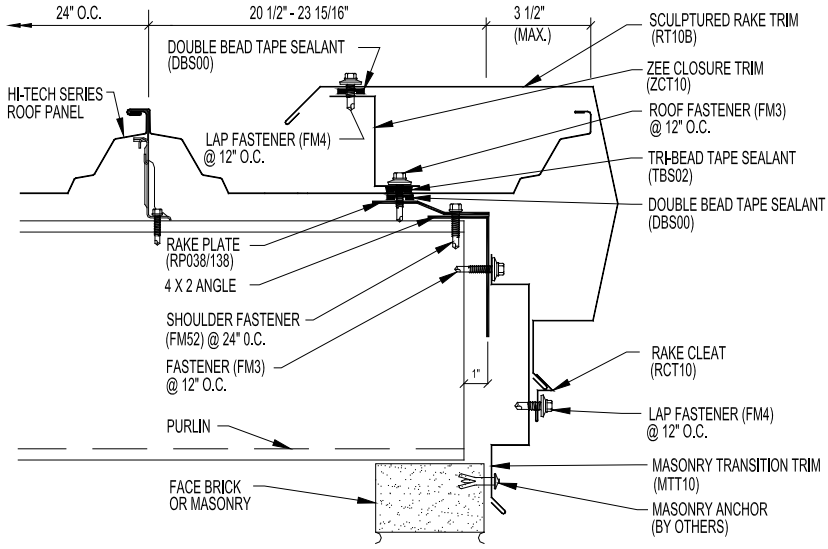


STANDARD DETAIL FOR FLOATING RAKE TERMINATION OFF MODULE

TYPICAL RAKE DETAIL OFF MODULE

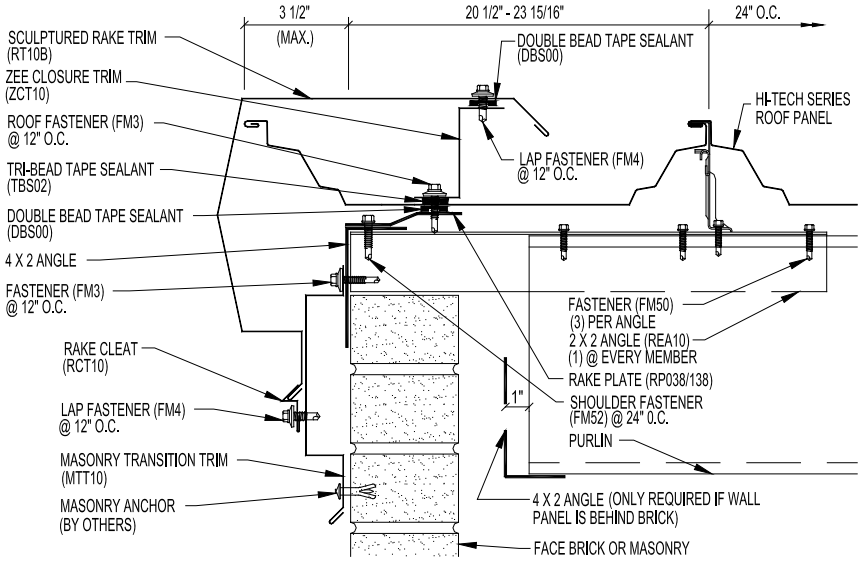


STANDARD DETAIL FOR FLOATING RAKE START OFF MODULE W/ BRICK OR MASONRY

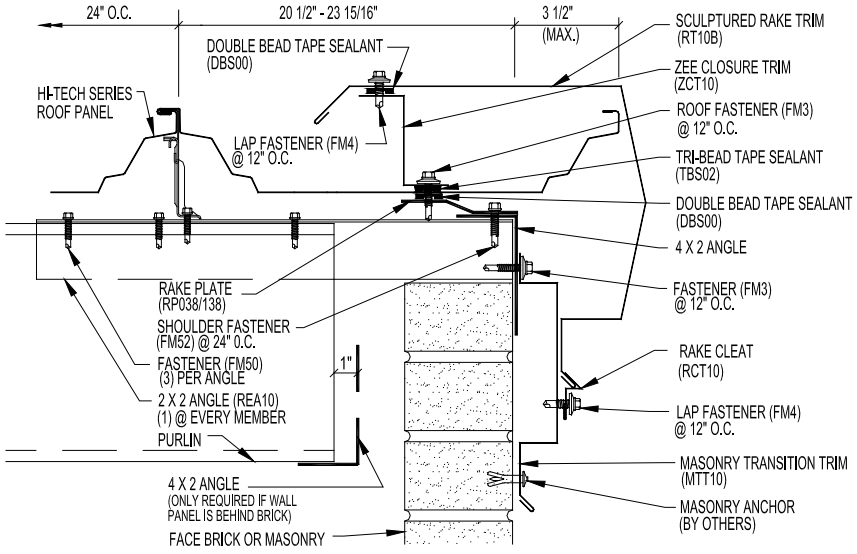


STANDARD DETAIL FOR FLOATING RAKE TERMINATION OFF MODULE W/ FACE BRICK OR MASONRY

TYPICAL RAKE DETAIL OFF MODULE W/ FACE BRICK OR MASONRY

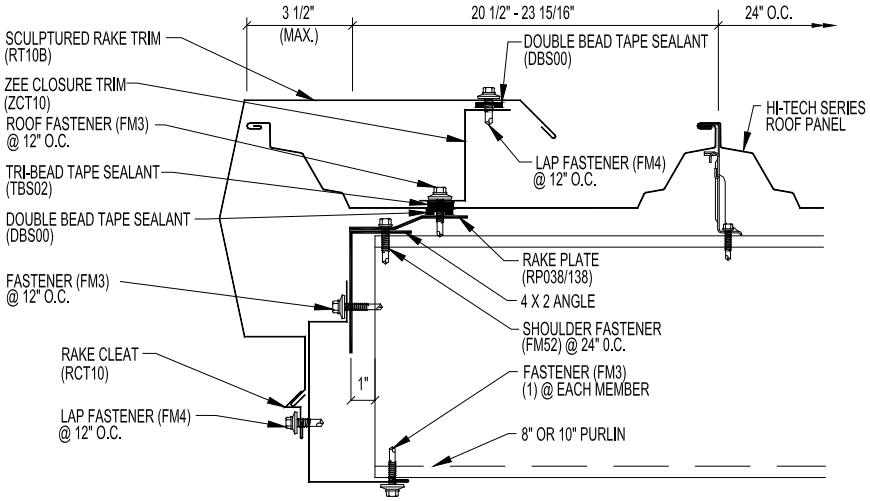


STANDARD DETAIL FOR FLOATING RAKE START OFF MODULE W/ BRICK OR MASONRY

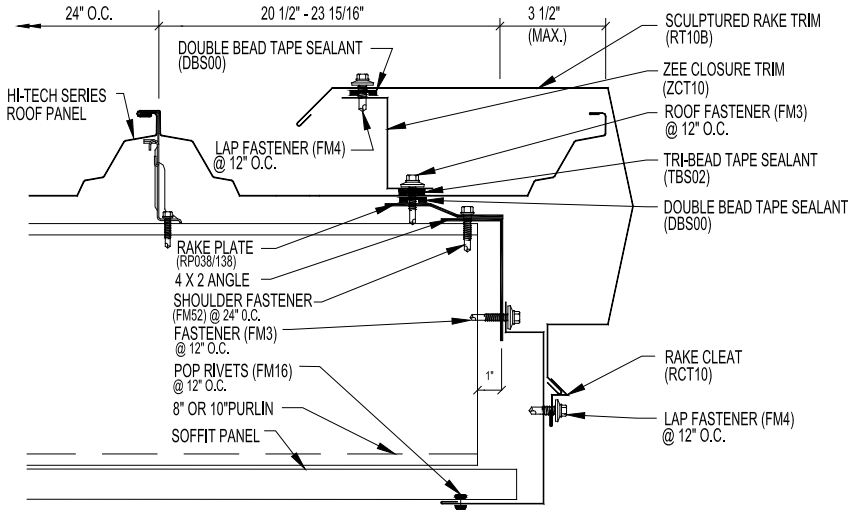


STANDARD DETAIL FOR FLOATING RAKE TERMINATION OFF MODULE W/ FACE BRICK OR MASONRY

TYPICAL RAKE DETAIL OFF MODULE W/ FACE BRICK OR MASONRY

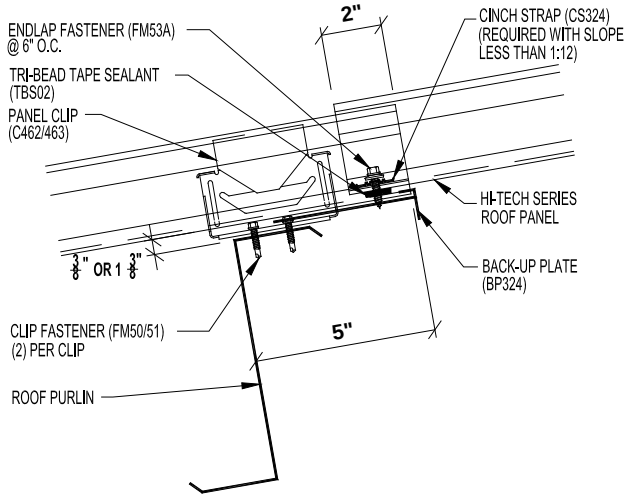


STANDARD DETAIL FOR FLOATING RAKE START OFF MODULE W/O SOFFIT

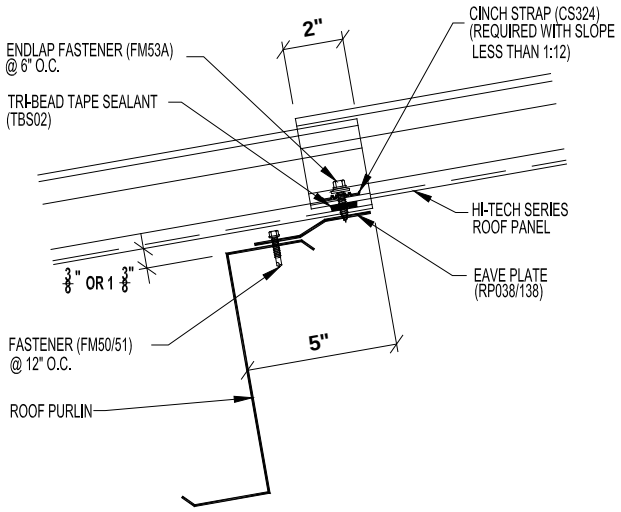


STANDARD DETAIL FOR FLOATING RAKE TERMINATION OFF MODULE W/ SOFFIT

TYPICAL PURLIN EXTENSION OR OPEN WALL DETAILS OFF MODULE

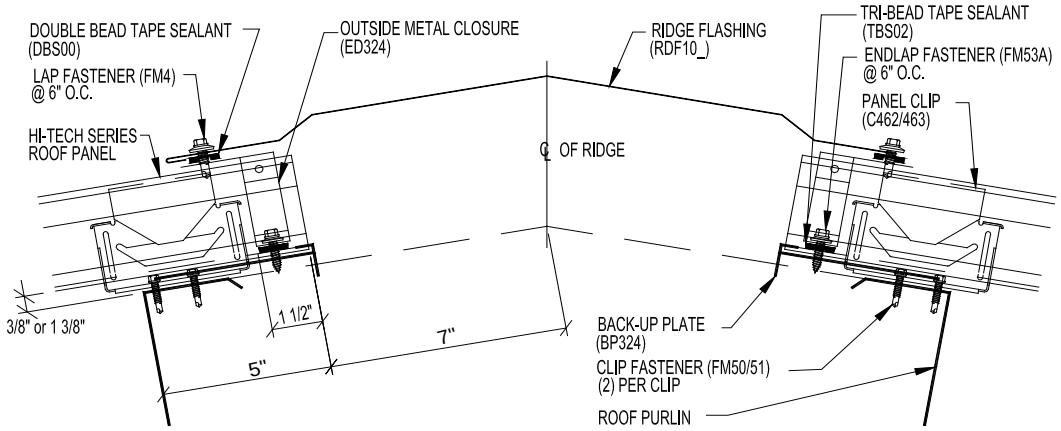


STANDARD DETAIL FOR FLOATING ENDLAP

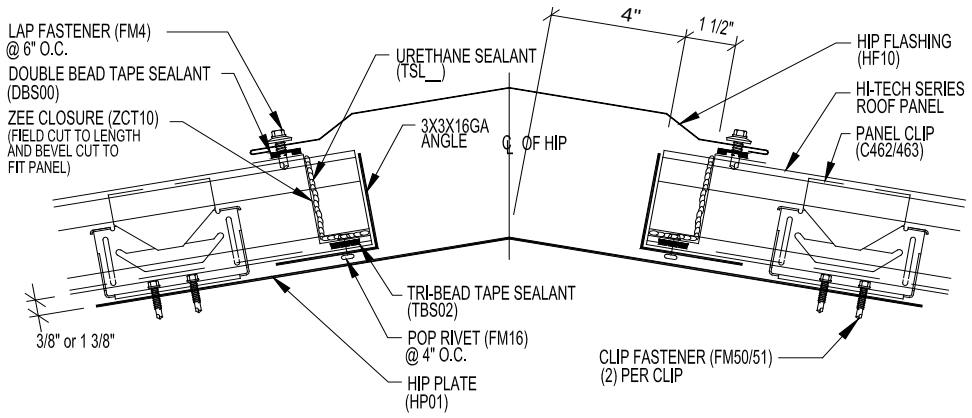


STANDARD DETAIL FOR FIXED ENDLAP

TYPICAL ENDLAP DETAILS



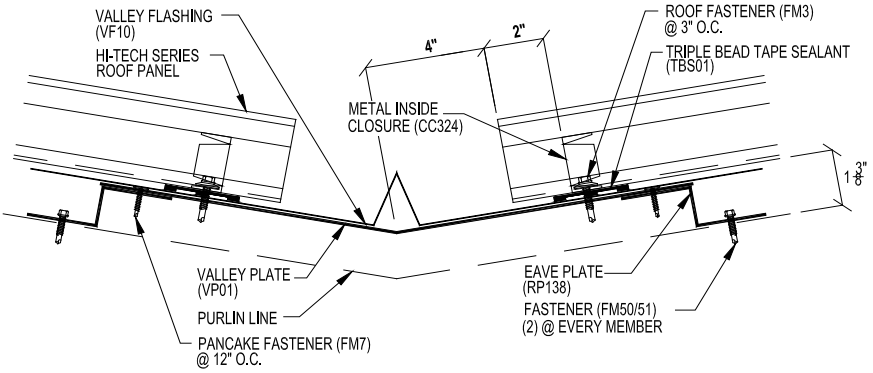
STANDARD DETAIL FOR FLOATING RIDGE



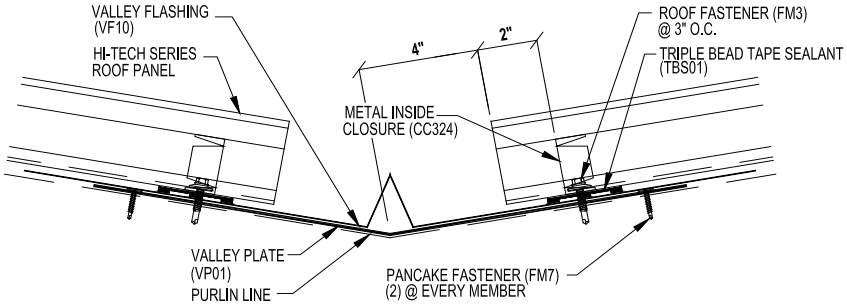
STANDARD DETAIL FOR FLOATING HIP

TYPICAL RIDGE/HIP DETAILS

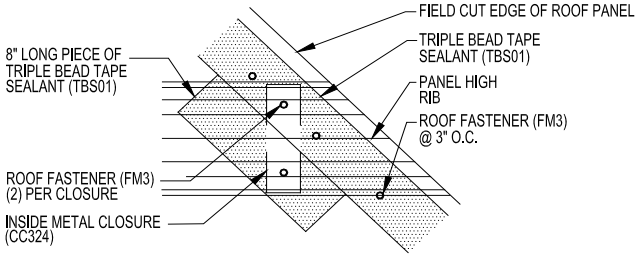
IT IS DIFFICULT TO OBTAIN A WEATHERTIGHT SEAL AT A HIP USING THE HI-TECH PANEL. INSTALLATION SHOULD ONLY BE ATTEMPTED BY ERECTION CREWS WITH EXPERIENCE IN INSTALLING THIS SYSTEM. IT IS RECOMMENDED TO USE THE PLATINUM SERIES ROOF PANEL ON PROJECTS REQUIRING HIPS.



STANDARD DETAIL FOR HIGH FIXED VALLEY



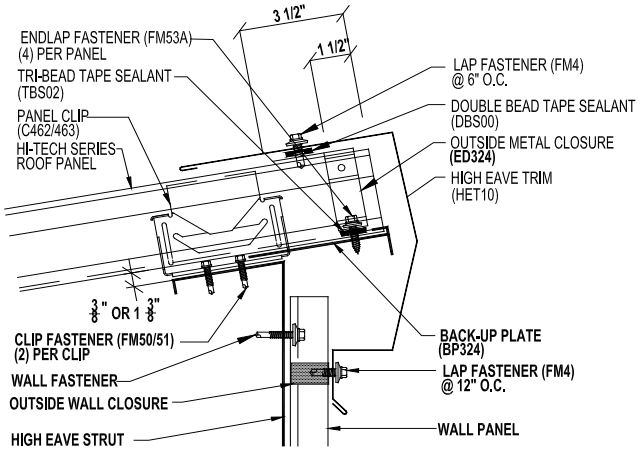
STANDARD DETAIL FOR LOW FIXED VALLEY



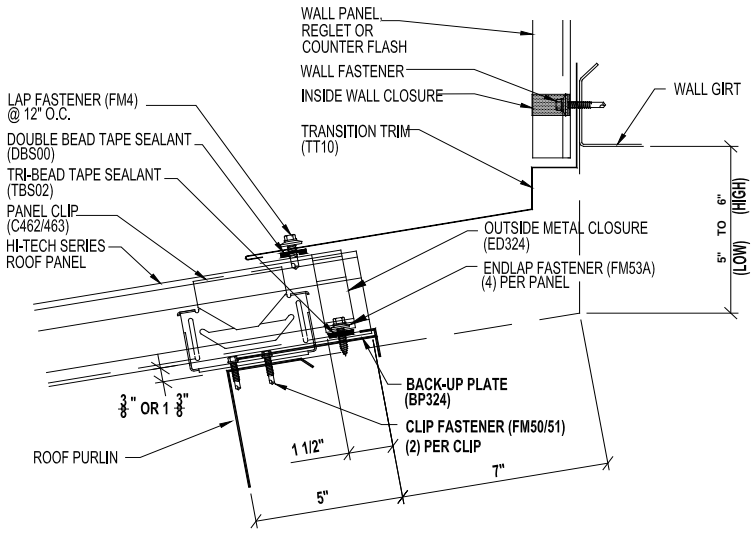
PLAN VIEW OF INSIDE CLOSURE INSTALLATION @ VALLEY

TYPICAL VALLEY DETAILS

IT IS DIFFICULT TO OBTAIN A WEATHERTIGHT SEAL AT A VALLEY USING THE HI-TECH PANEL. INSTALLATION SHOULD ONLY BE ATTEMPTED BY ERECTION CREWS WITH EXPERIENCE IN INSTALLING THIS SYSTEM. IT IS RECOMMENDED TO USE THE PLATINUM SERIES ROOF PANEL ON PROJECTS REQUIRING VALLEYS.

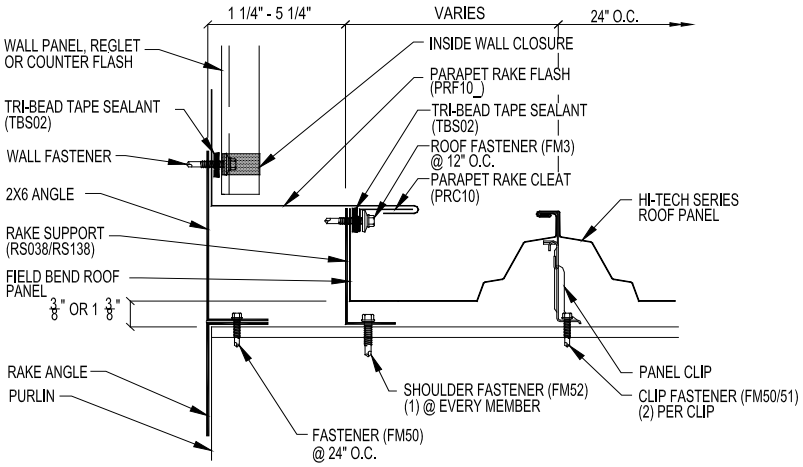


STANDARD HIGH FLOATING EAVE

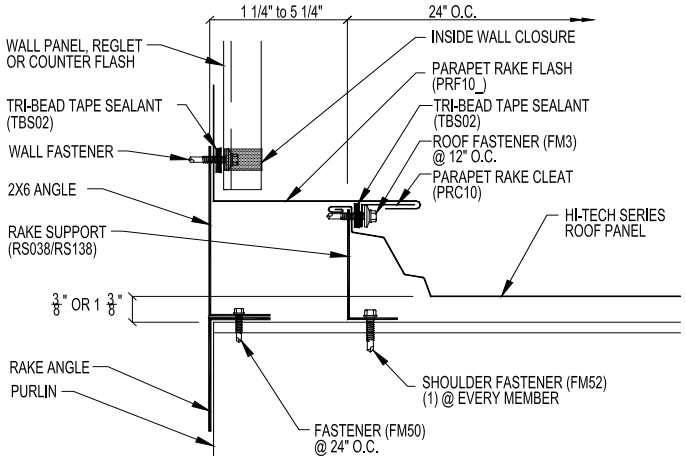


STANDARD HIGH FLOATING EAVE TRANSITION

TYPICAL HIGH EAVE/HIGH EAVE TRANSITION DETAILS



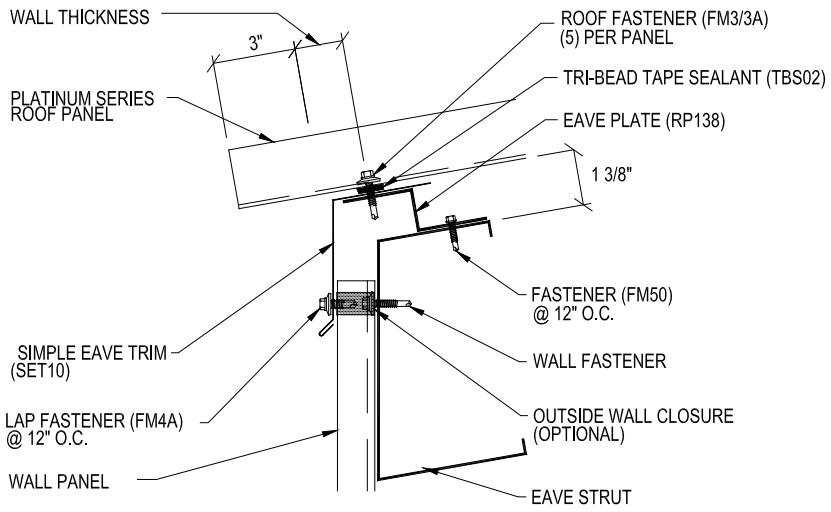
STANDARD TRANSITION DETAIL OFF MODULE



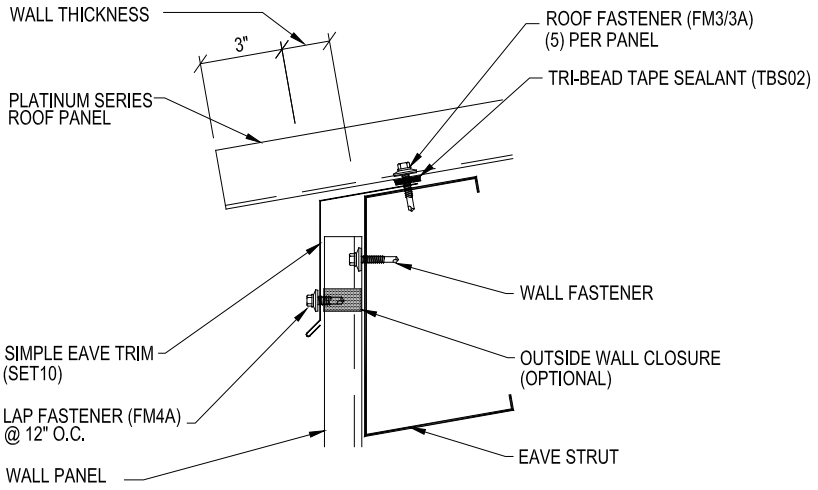
STANDARD TRANSITION DETAIL ON MODULE

TYPICAL HI/LO TRANSITION DETAILS

5.2.3 FOR "PLATINUM" SERIES

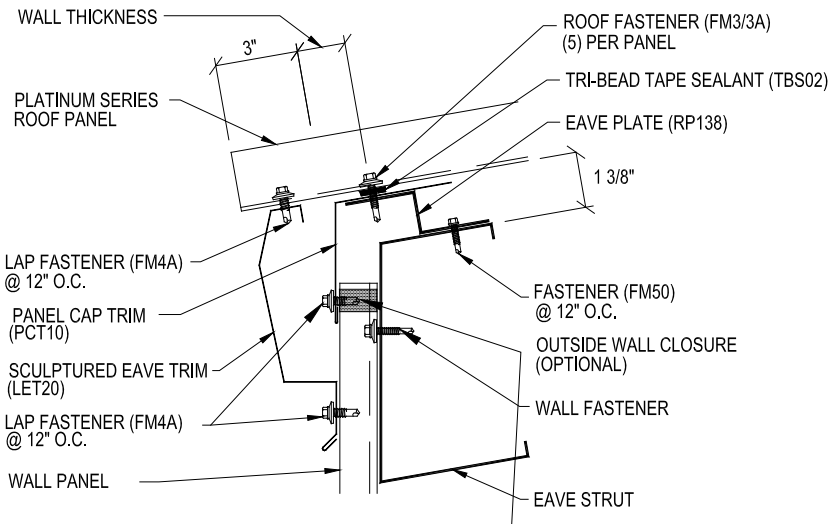


STANDARD DETAIL FOR HIGH FIXED EAVE

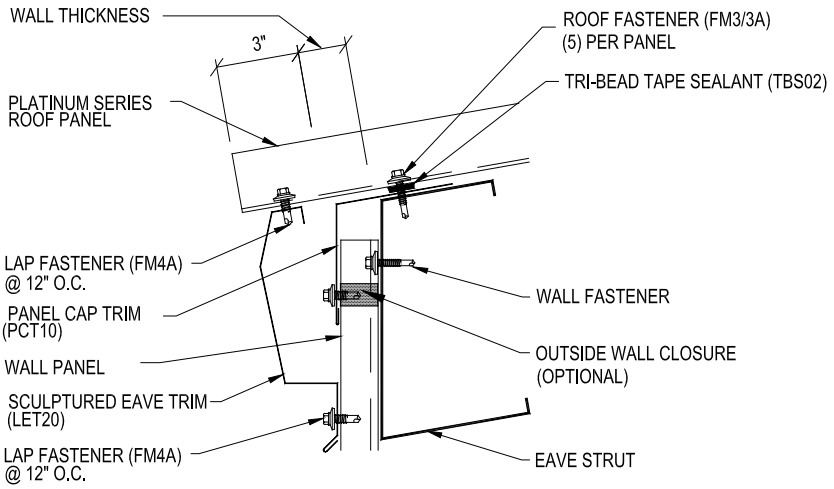


STANDARD DETAIL FOR LOW FIXED EAVE

TYPICAL LOW EAVE DETAILS WITH SIMPLE EAVE TRIM
USE WITH PANEL RUNS LESS THAN 200'

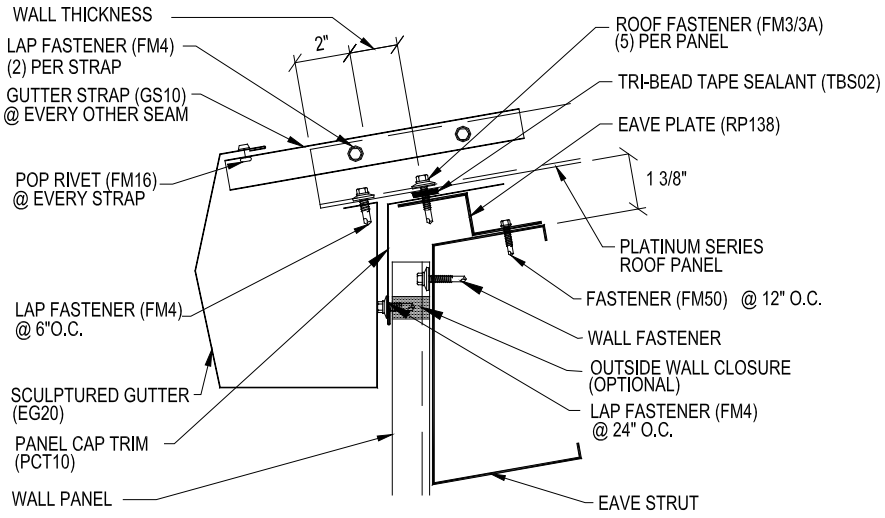


STANDARD DETAIL FOR HIGH FIXED EAVE

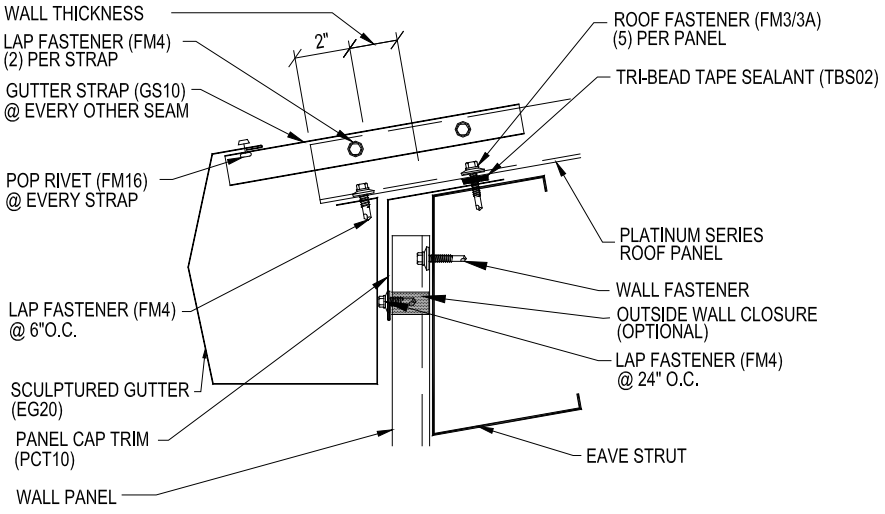


STANDARD DETAIL FOR LOW FIXED EAVE

TYPICAL LOW EAVE DETAILS WITH SCULPTURED EAVE TRIM
USE WITH PANEL RUNS LESS THAN 200'

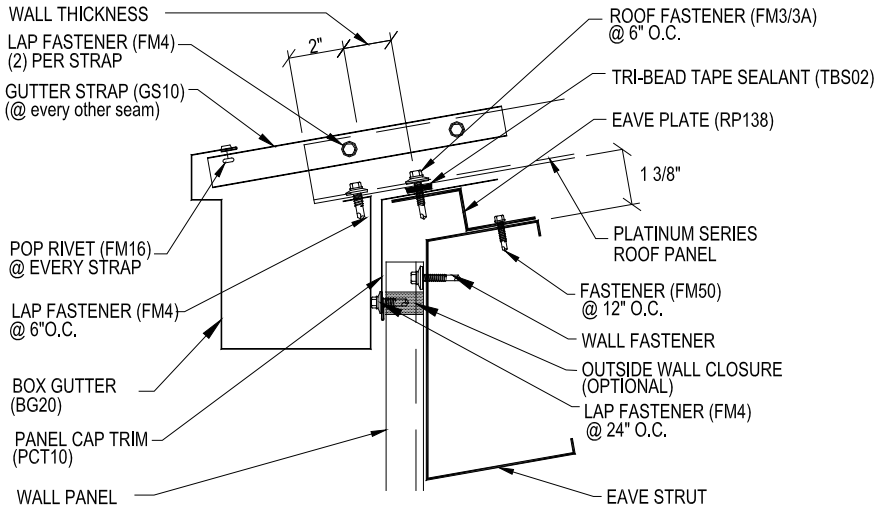


STANDARD DETAIL FOR HIGH FIXED EAVE

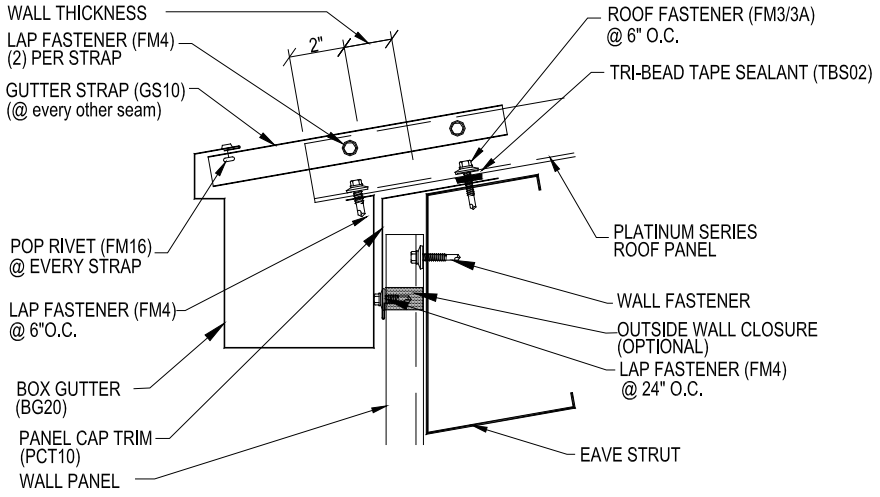


STANDARD DETAIL FOR LOW FIXED EAVE

TYPICAL LOW EAVE DETAILS WITH SCULPTURED GUTTER USE WITH PANEL RUNS LESS THAN 200'

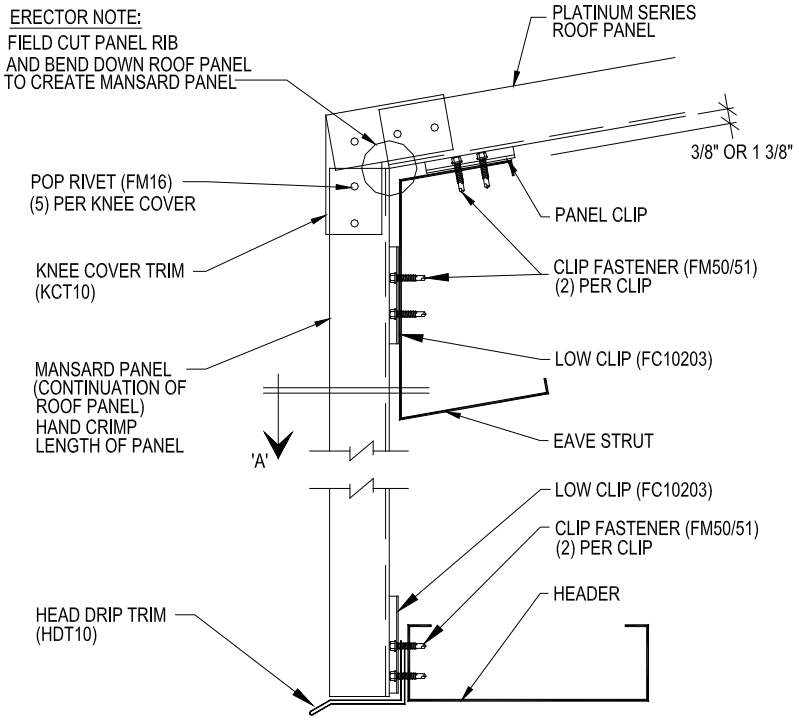


STANDARD DETAIL FOR HIGH FIXED EAVE

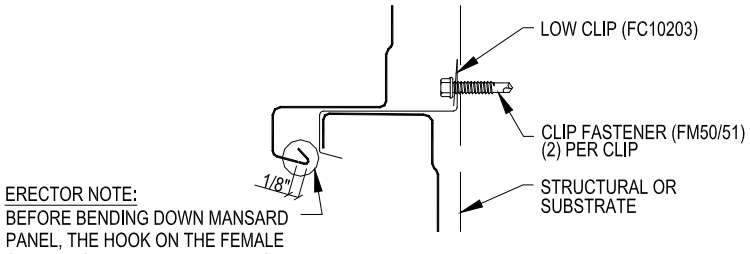


STANDARD DETAIL FOR LOW FIXED EAVE

TYPICAL LOW EAVE DETAILS
WITH BOX GUTTER
USE WITH PANEL RUNS LESS THAN 200'

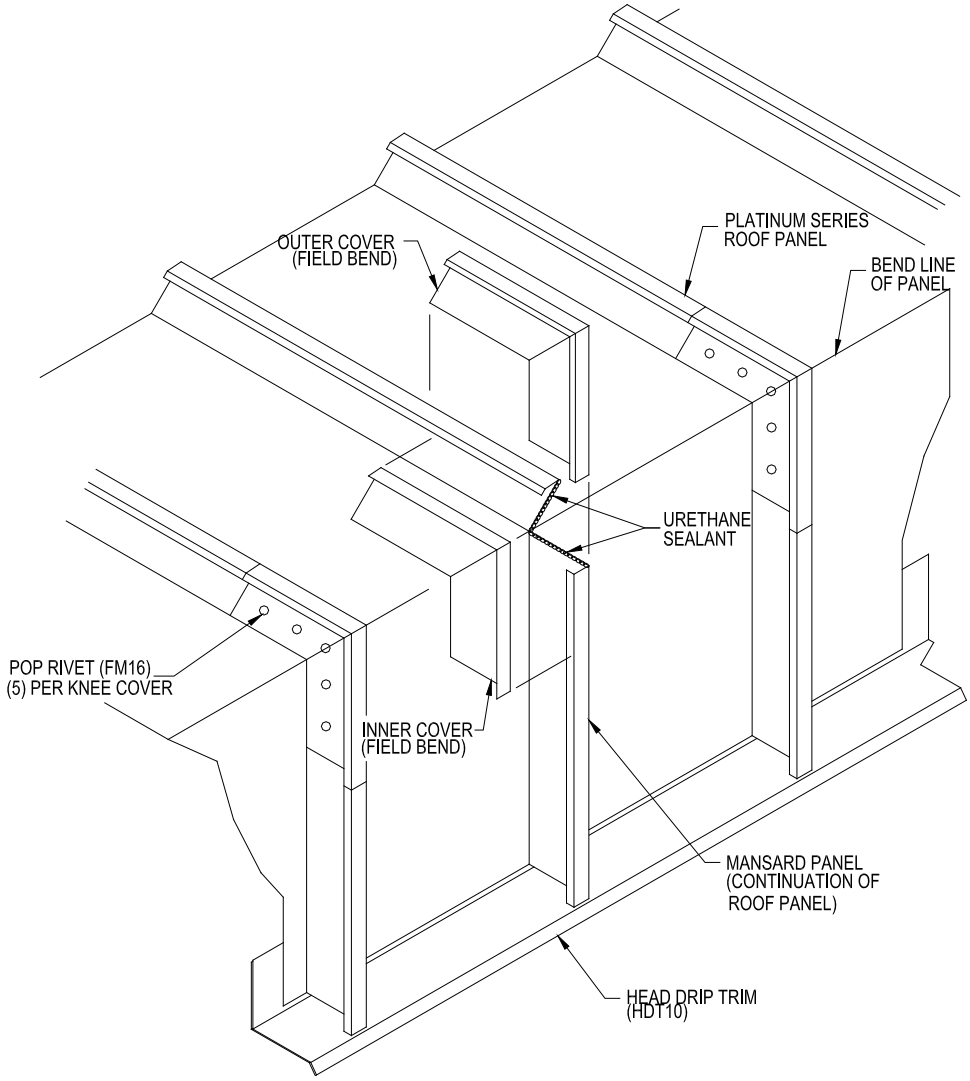


STANDARD DETAIL FOR HIGH FIXED EAVE

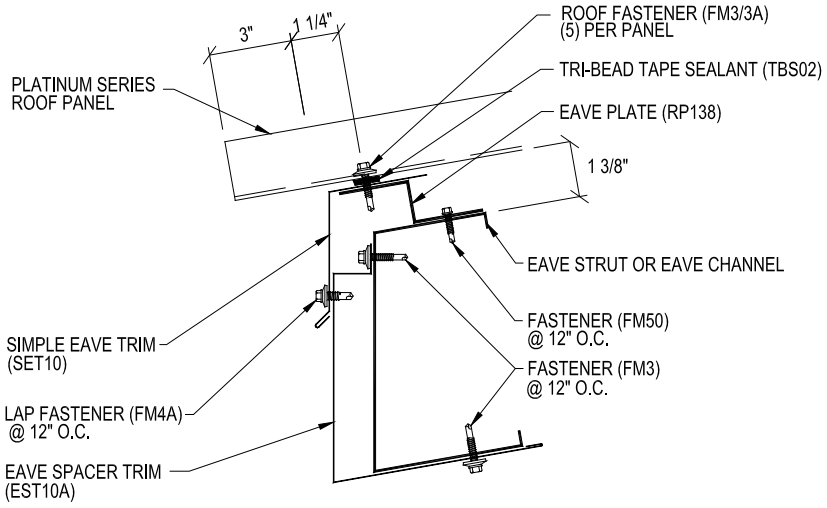


SECTION 'A'

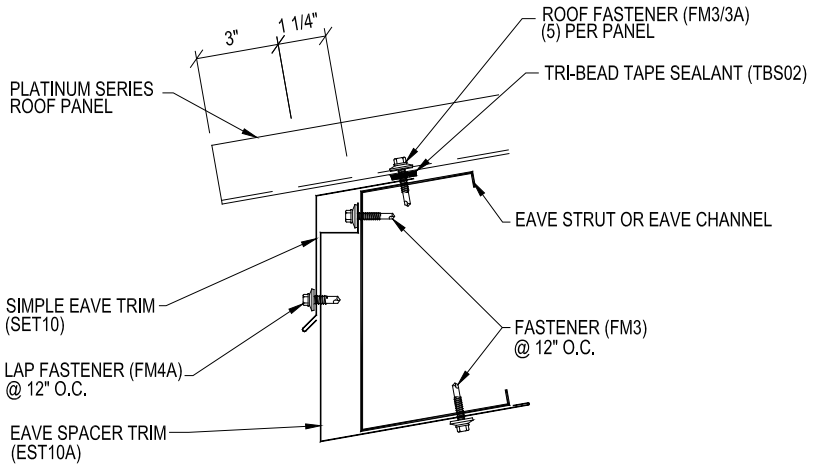
TYPICAL LOW EAVE DETAILS WITH KNEE COVER TRIM



TYPICAL ISOMETRIC DETAIL WITH KNEE COVER TRIM

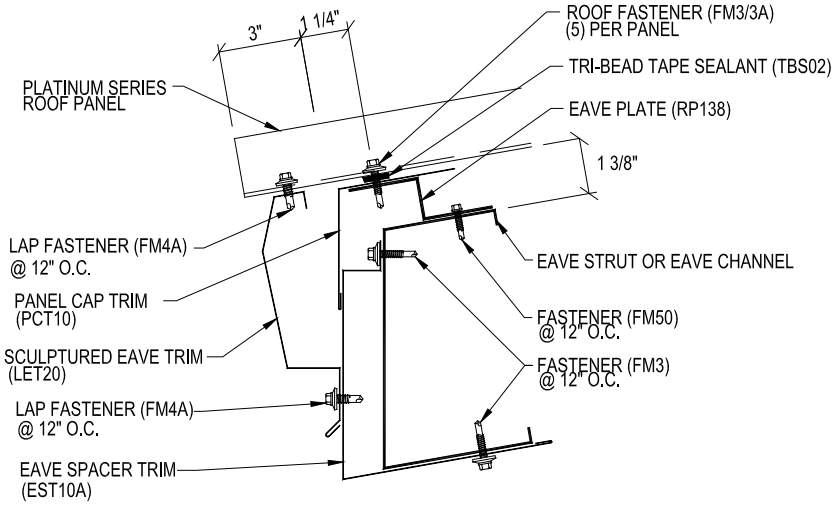


STANDARD DETAIL FOR HIGH FIXED EAVE

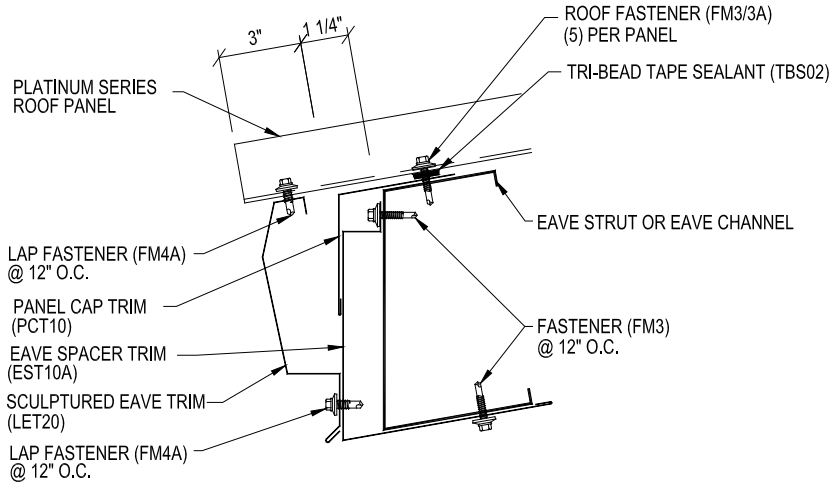


STANDARD DETAIL FOR LOW FIXED EAVE

TYPICAL LOW EAVE CANOPY OR OPEN WALL DETAILS W/ SIMPLE EAVE W/O SOFFIT USE WITH PANEL RUNS LESS THAN 200'

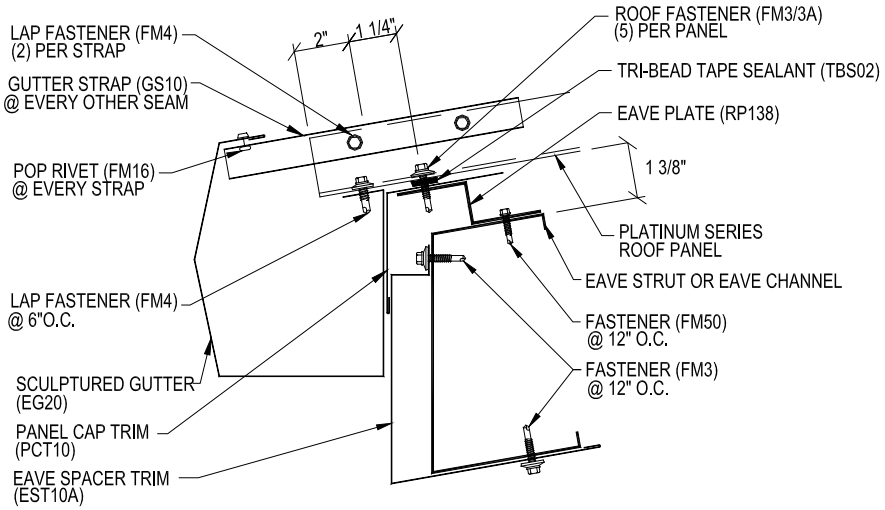


STANDARD DETAIL FOR HIGH FIXED EAVE

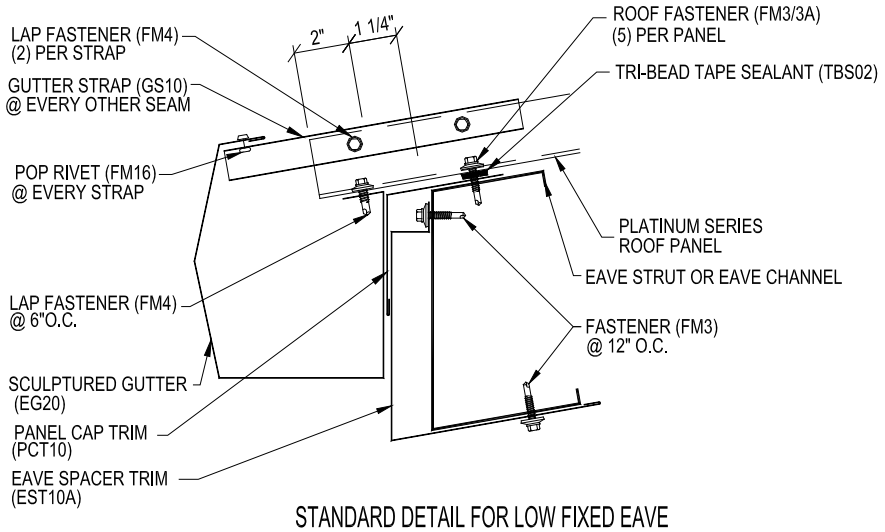


STANDARD DETAIL FOR LOW FIXED EAVE

TYPICAL LOW EAVE CANOPY OR OPEN WALL DETAILS W/ SCULP. EAVE W/O SOFFIT USE WITH PANEL RUNS LESS THAN 200'

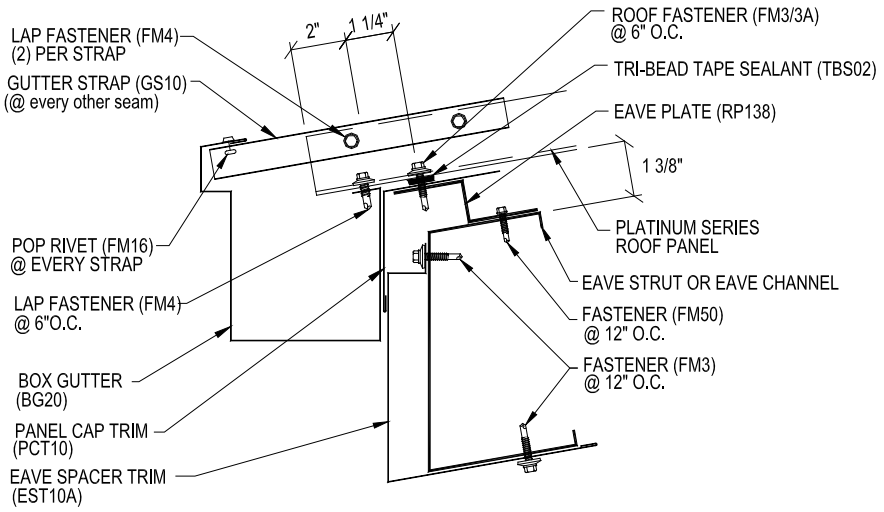


STANDARD DETAIL FOR HIGH FIXED EAVE

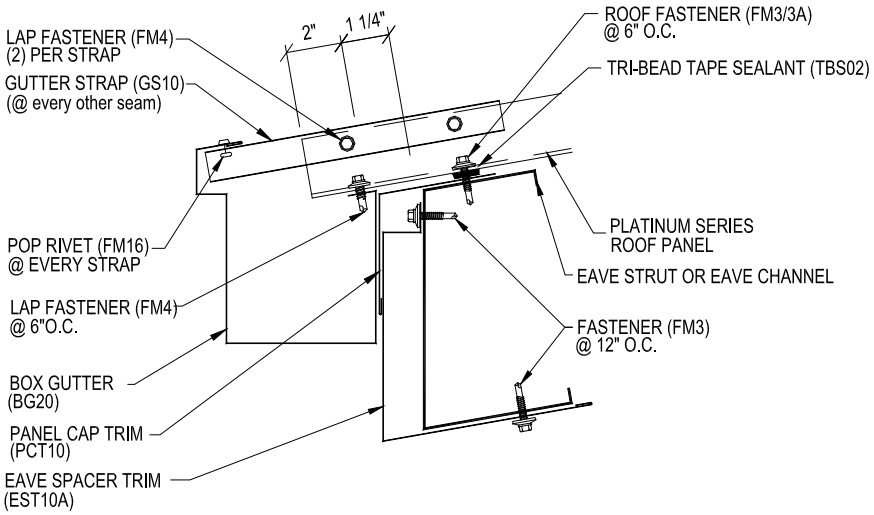


STANDARD DETAIL FOR LOW FIXED EAVE

TYPICAL LOW EAVE CANOPY OR OPEN WALL DETAILS W/ SCULP. GUTTER W/O SOFFIT USE WITH PANEL RUNS LESS THAN 200'

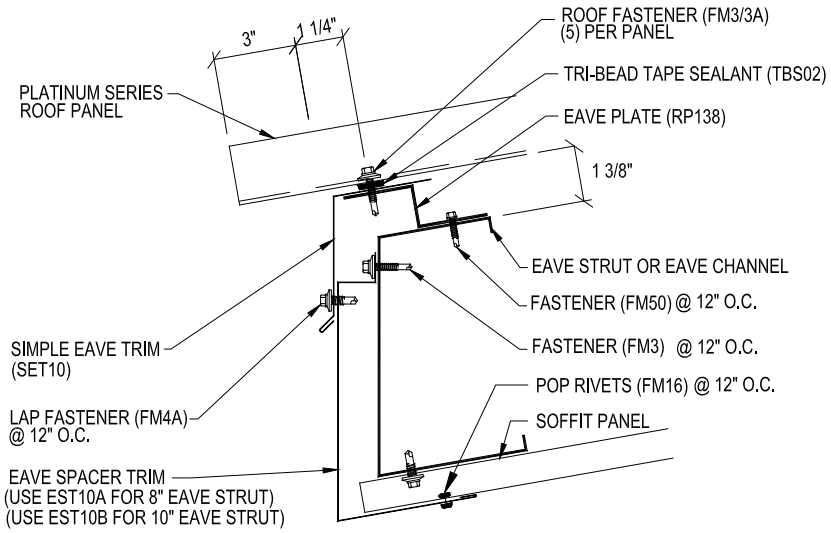


STANDARD DETAIL FOR HIGH FIXED EAVE

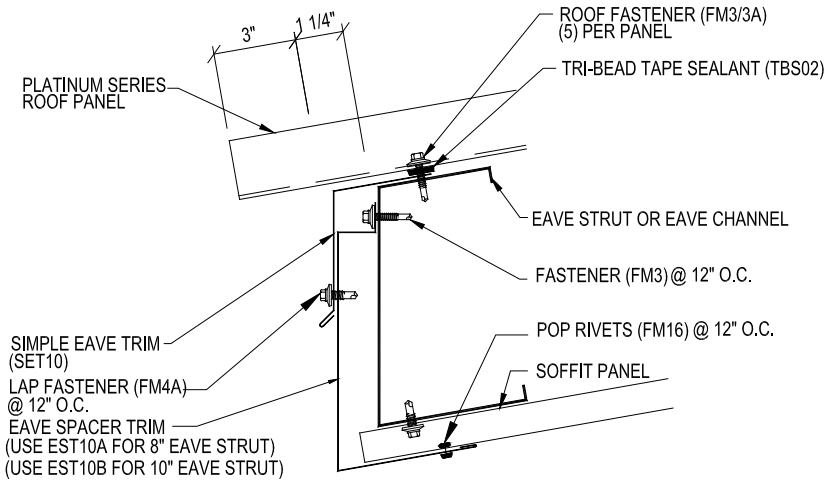


STANDARD DETAIL FOR LOW FIXED EAVE

TYPICAL LOW EAVE CANOPY OR OPEN WALL DETAILSW/ BOX GUTTER W/O SOFFIT USE WITH PANEL RUNS LESS THAN 200'

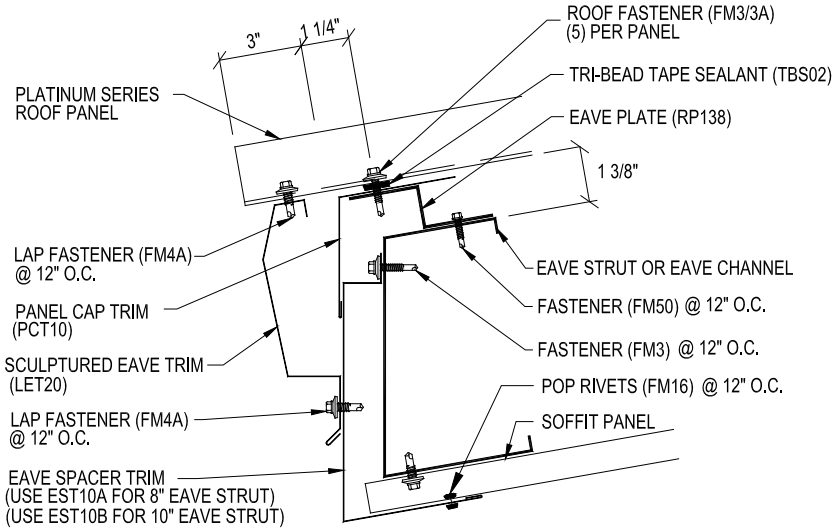


STANDARD DETAIL FOR HIGH FIXED EAVE

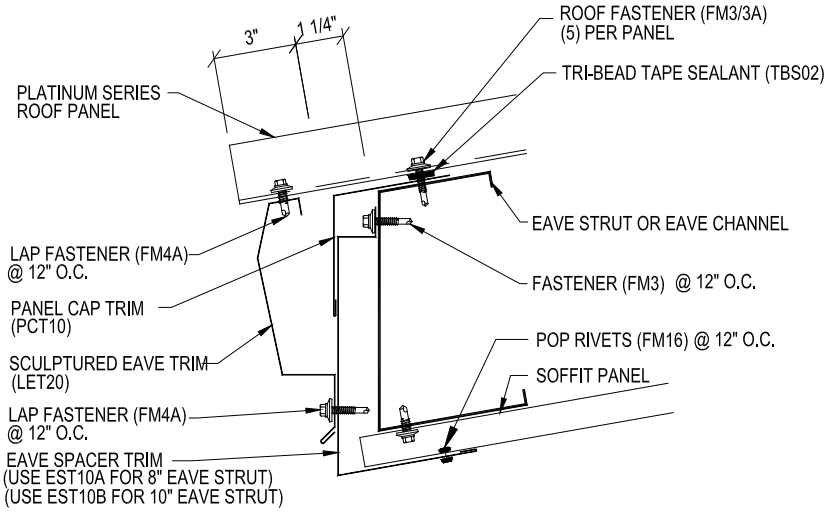


STANDARD DETAIL FOR LOW FIXED EAVE

TYPICAL LOW EAVE CANOPY OR OPEN WALL DETAILS W/ SIMPLE EAVE W/ SOFFIT USE WITH PANEL RUNS LESS THAN 200'

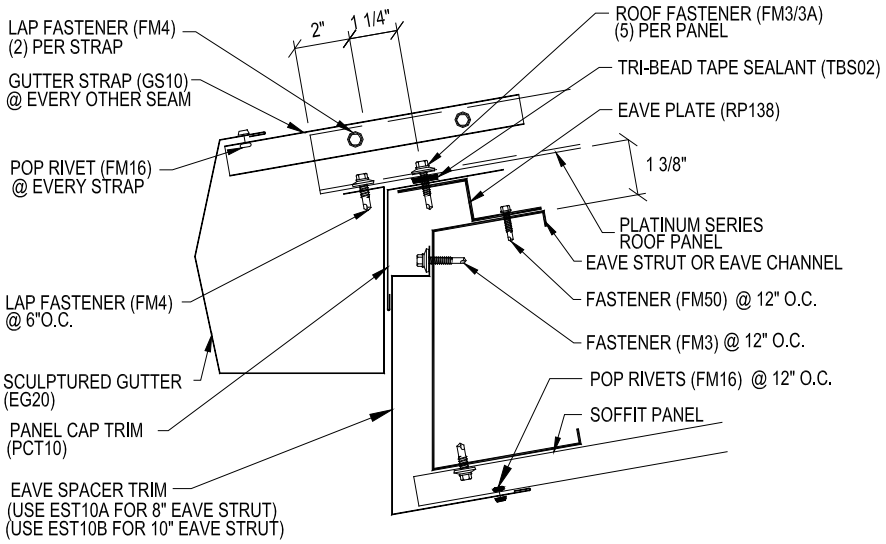


STANDARD DETAIL FOR HIGH FIXED EAVE

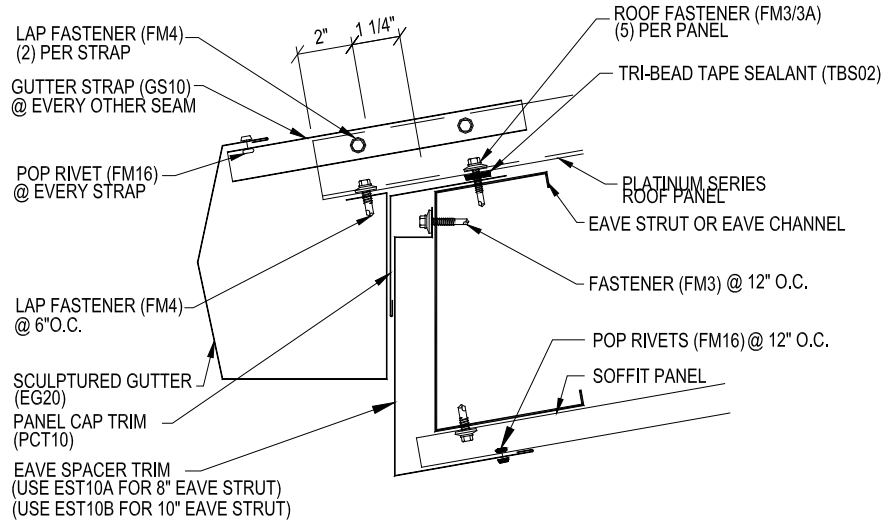


STANDARD DETAIL FOR LOW FIXED EAVE

TYPICAL LOW EAVE CANOPY OR OPEN WALL DETAILS W/ SCULP. EAVE W/ SOFFIT USE WITH PANEL RUNS LESS THAN 200'

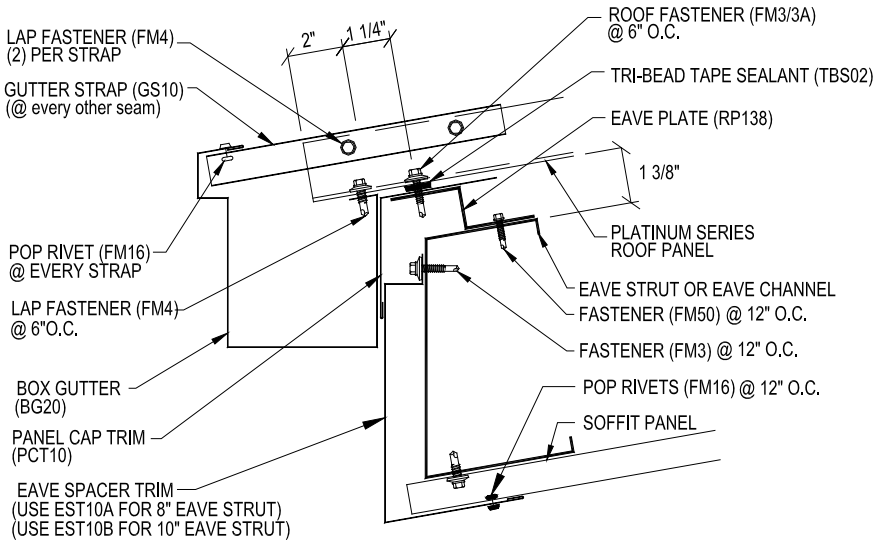


STANDARD DETAIL FOR HIGH FIXED EAVE

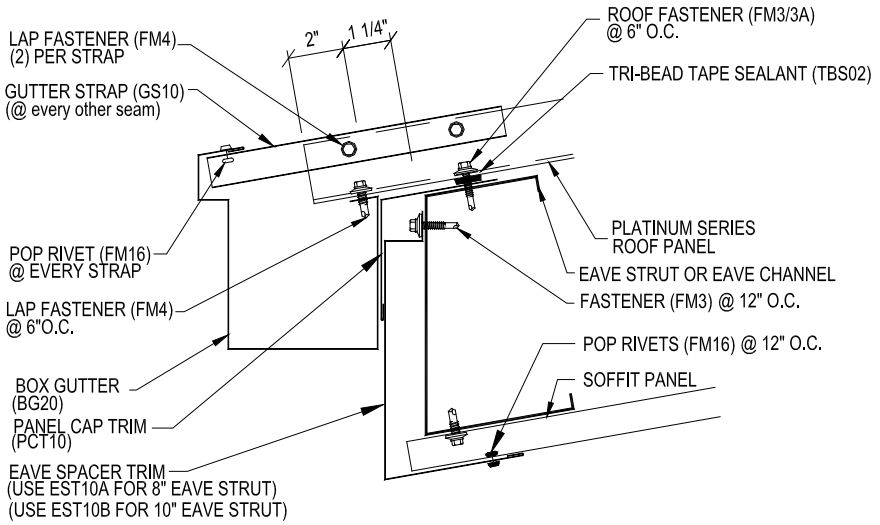


STANDARD DETAIL FOR LOW FIXED EAVE

TYPICAL LOW EAVE CANOPY OR OPEN WALL DETAILS W/ SCULP. GUTTER W/ SOFFIT USE WITH PANEL RUNS LESS THAN 200'

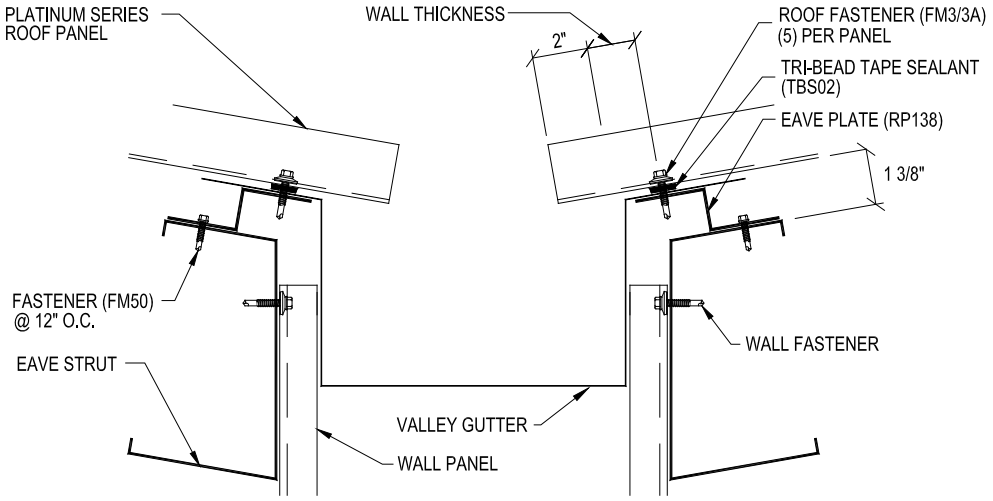


STANDARD DETAIL FOR HIGH FIXED EAVE

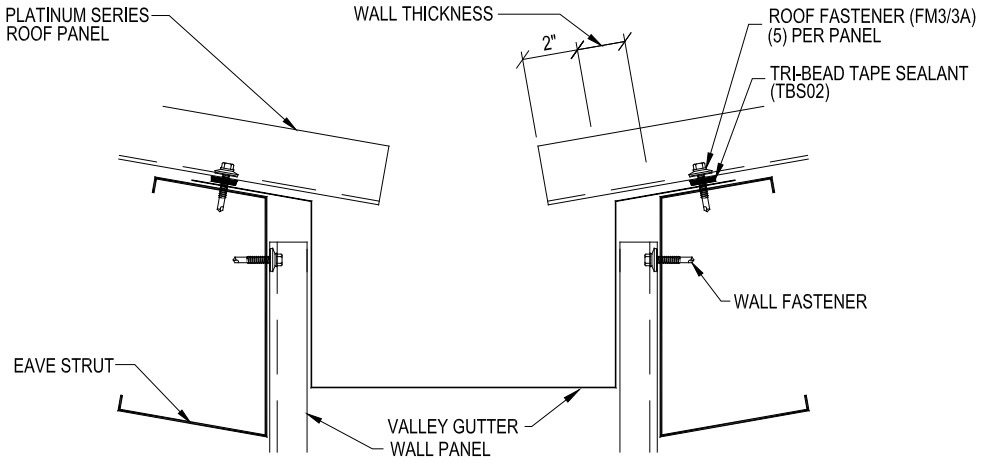


STANDARD DETAIL FOR LOW FIXED EAVE

TYPICAL LOW EAVE CANOPY OR OPEN WALL DETAILS W/ BOX GUTTER W/ SOFFIT USE WITH PANEL RUNS LESS THAN 200'

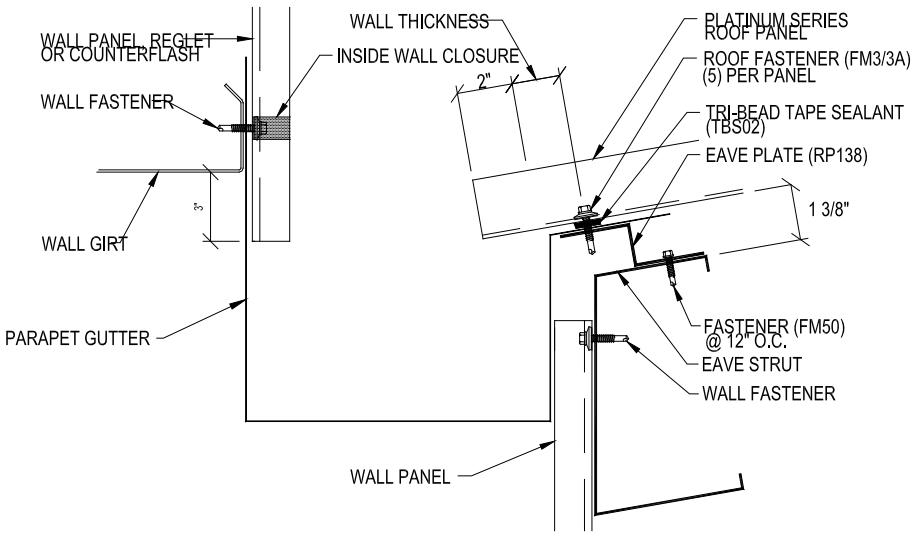


STANDARD DETAIL FOR HIGH FIXED EAVE

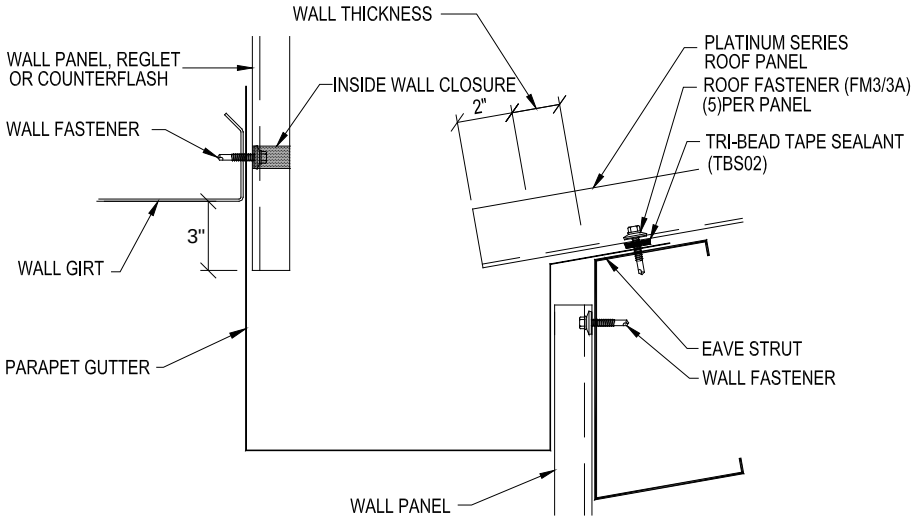


STANDARD DETAIL FOR LOW FIXED EAVE

TYPICAL LOW EAVE DETAILS WITH VALLEY GUTTER
USE WITH PANEL RUNS LESS THAN 200'

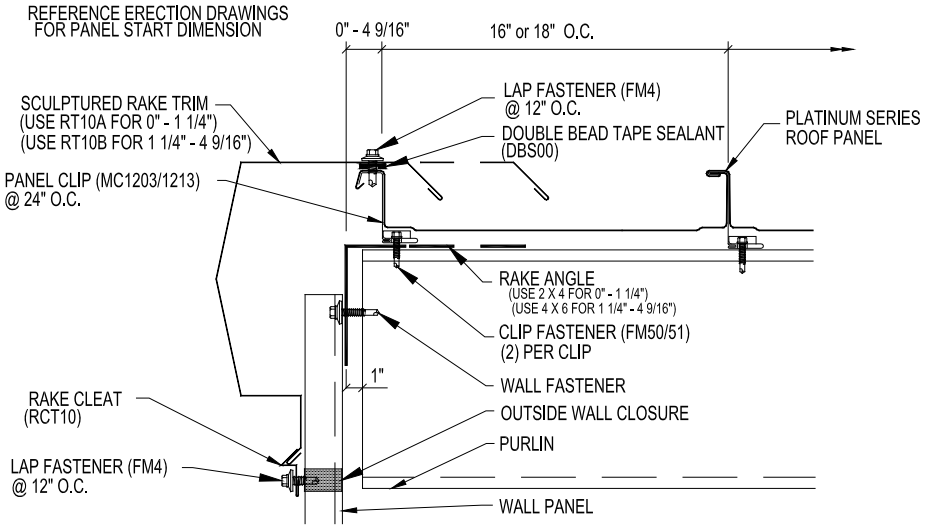


STANDARD DETAIL FOR HIGH FIXED EAVE

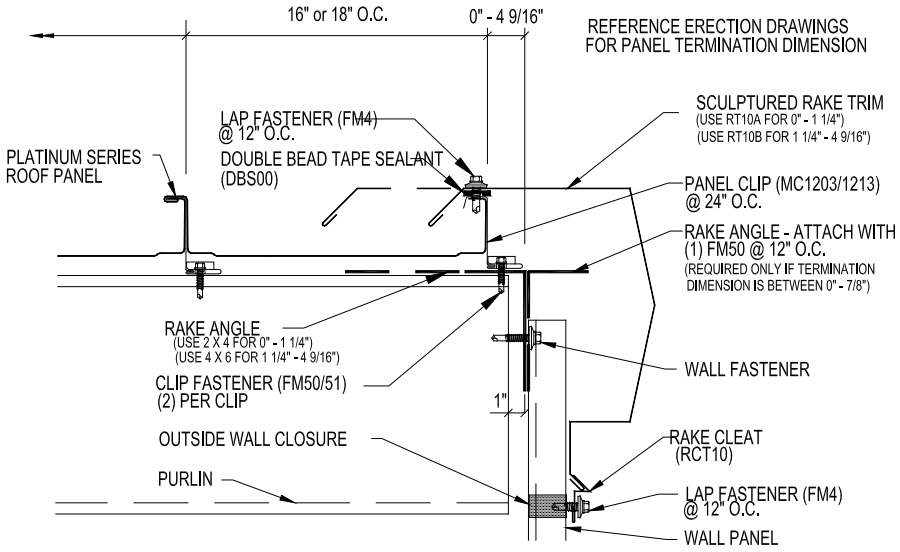


STANDARD DETAIL FOR LOW FIXED EAVE

TYPICAL LOW EAVE DETAILS WITH PARAPET GUTTER
USE WITH PANEL RUNS LESS THAN 200'

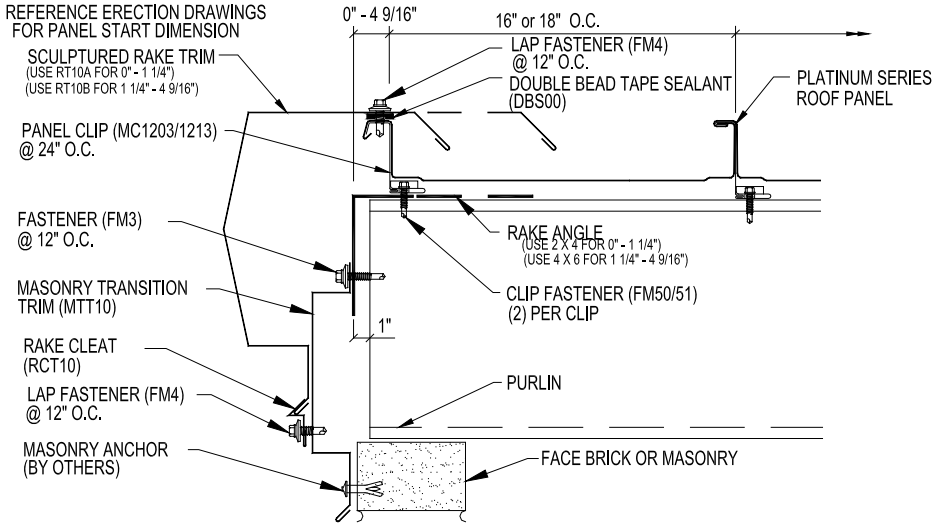


STANDARD DETAIL FOR FLOATING RAKE START ON MODULE

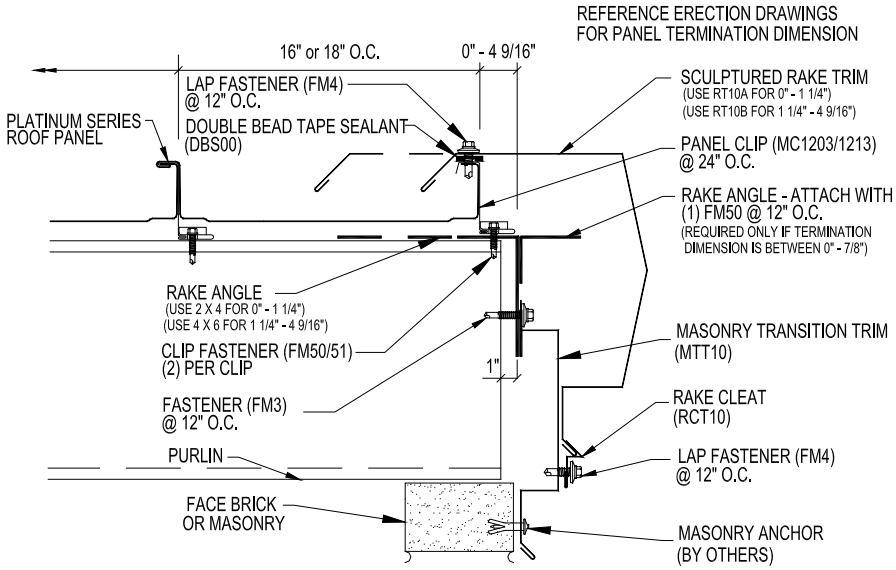


STANDARD DETAIL FOR FLOATING RAKE TERMINATION ON MODULE

TYPICAL FLOATING RAKE DETAILS ON MODULE W/ SCULPTURED RAKE

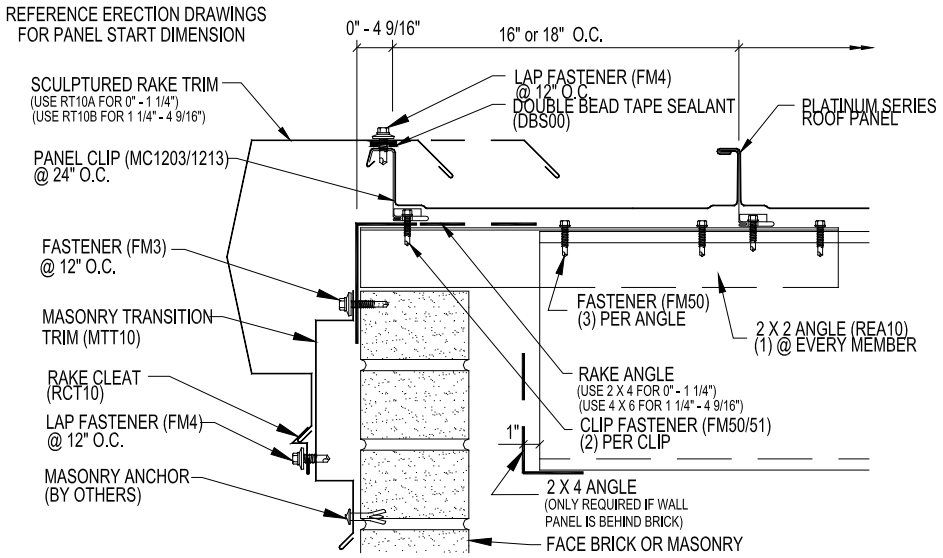


STANDARD DETAIL FOR FLOATING RAKE START ON MODULE
W/ FACE BRICK OR MASONRY

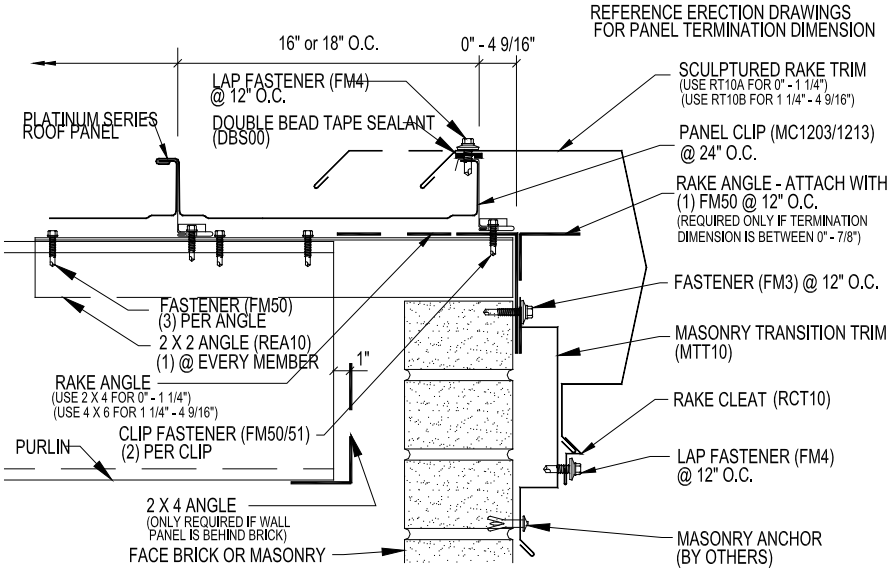


STANDARD DETAIL FOR FLOATING RAKE TERMINATION ON MODULE
W/ FACE BRICK OR MASONRY

TYPICAL FLOATING RAKE DETAILS ON MODULE W/ SCULPTURED RAKE

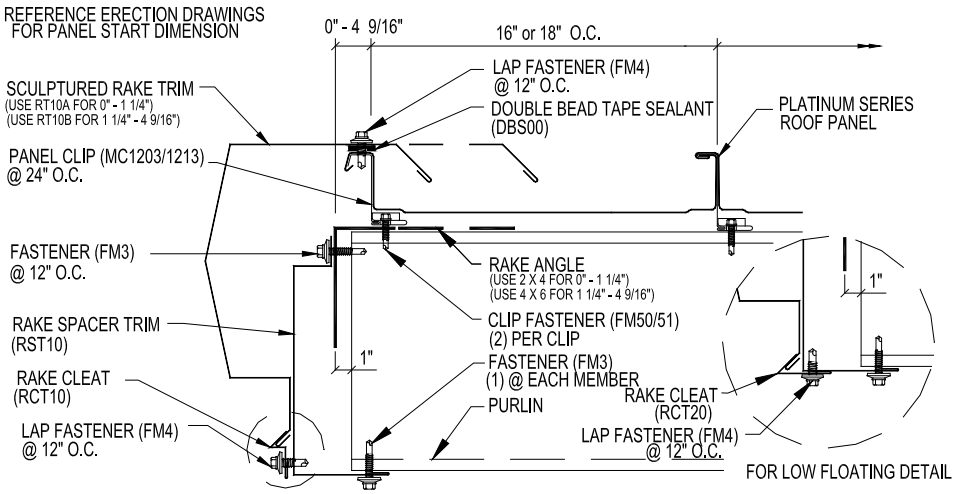


STANDARD DETAIL FOR FLOATING RAKE START ON MODULE
W/ FACE BRICK OR MASONRY

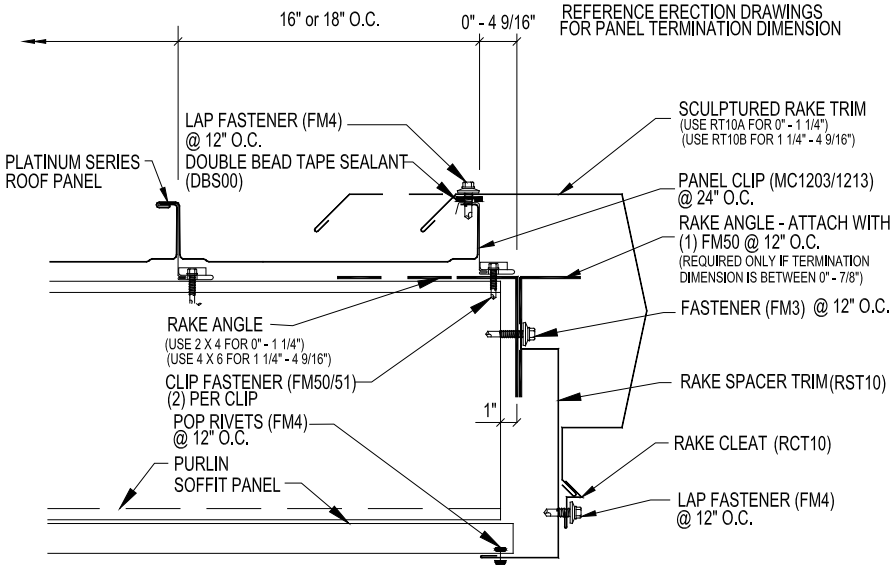


STANDARD DETAIL FOR FLOATING RAKE TERMINATION ON MODULE
W/ FACE BRICK OR MASONRY

TYPICAL FLOATING RAKE DETAILS ON MODULE W/ SCULPTURED RAKE

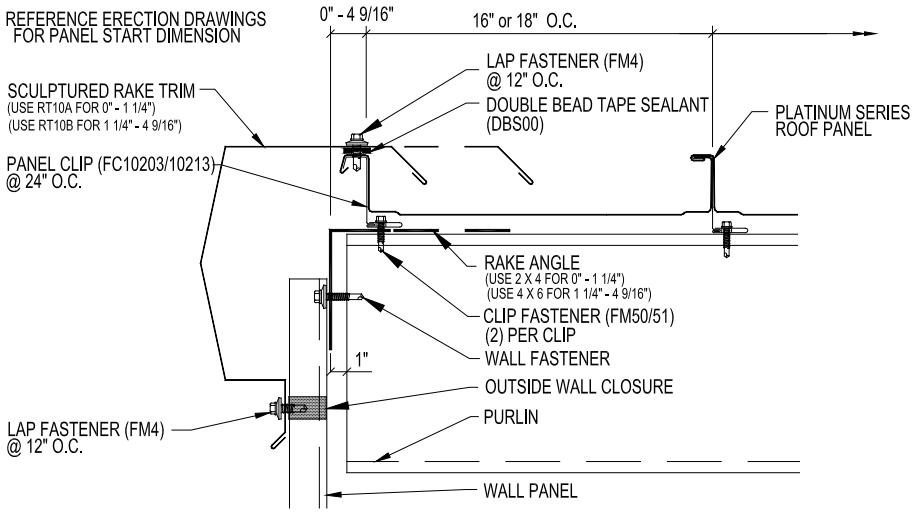


STANDARD DETAIL FOR FLOATING RAKE START ON MODULE W/O SOFFIT

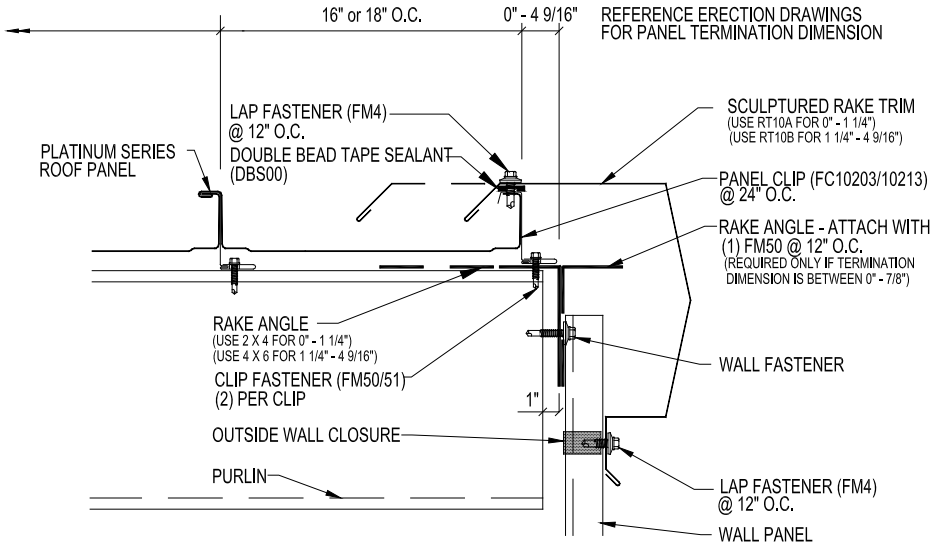


STANDARD DETAIL FOR FLOATING RAKE TERMINATION ON MODULE W/ SOFFIT

TYPICAL FLOATING PURLIN EXTENSION OR OPEN WALL DETAILS W/ SCULP. RAKE

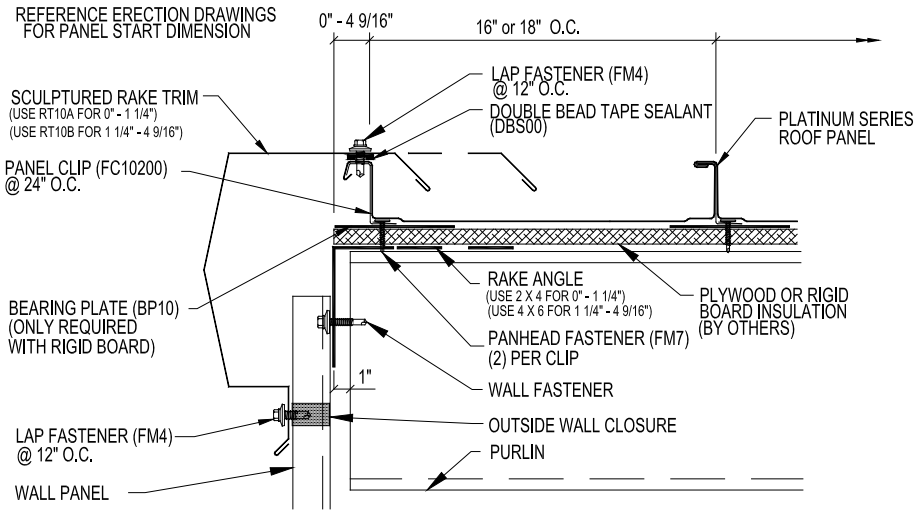


STANDARD DETAIL FOR FIXED RAKE START ON MODULE

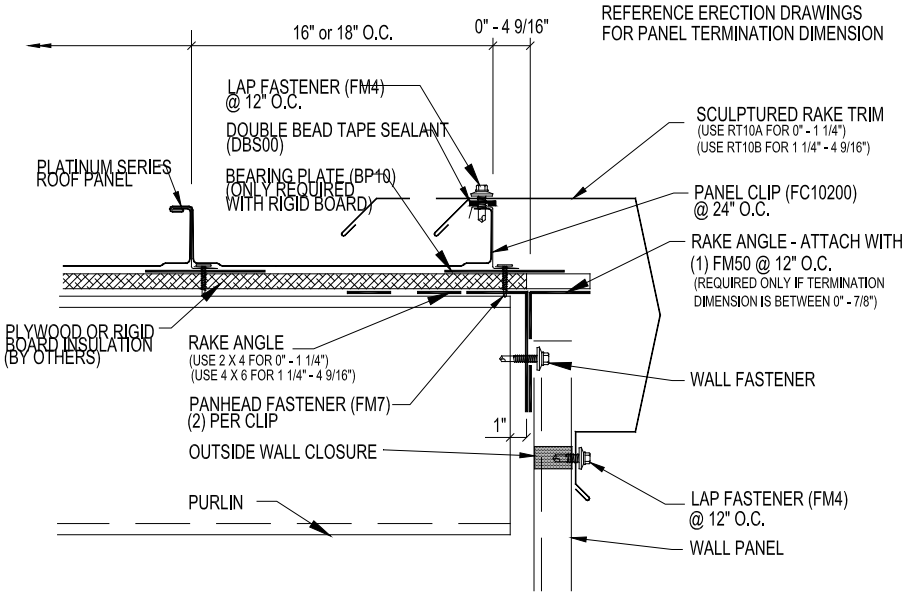


STANDARD DETAIL FOR FIXED RAKE TERMINATION ON MODULE

TYPICAL FIXED RAKE DETAILS ON MODULE W/ SCULPTURED RAKE

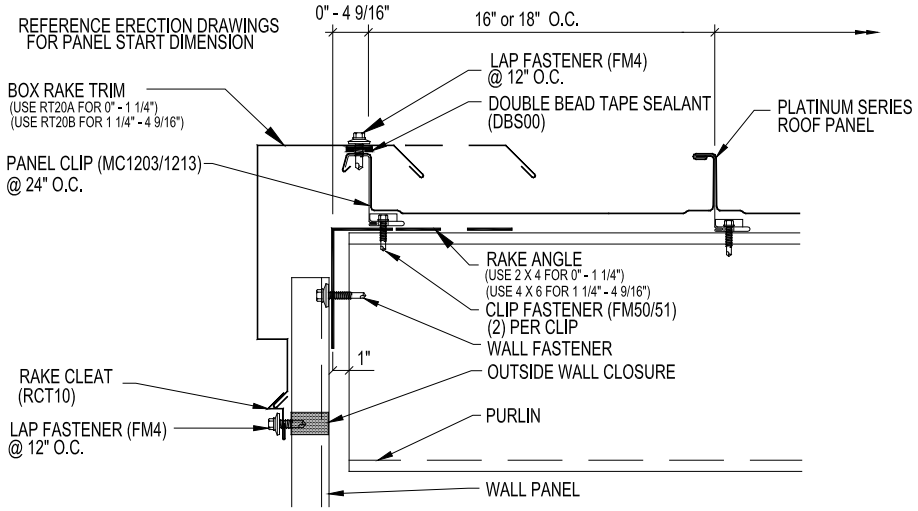


STANDARD DETAIL FOR UTILITY RAKE START ON MODULE

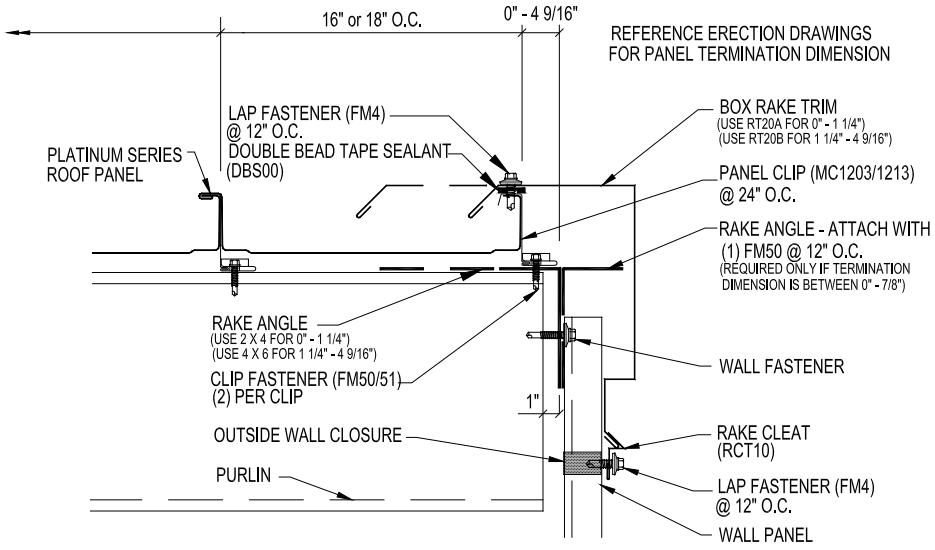


STANDARD DETAIL FOR UTILITY RAKE TERMINATION ON MODULE

TYPICAL UTILITY RAKE DETAILS ON MODULE W/ SCULPTURED RAKE

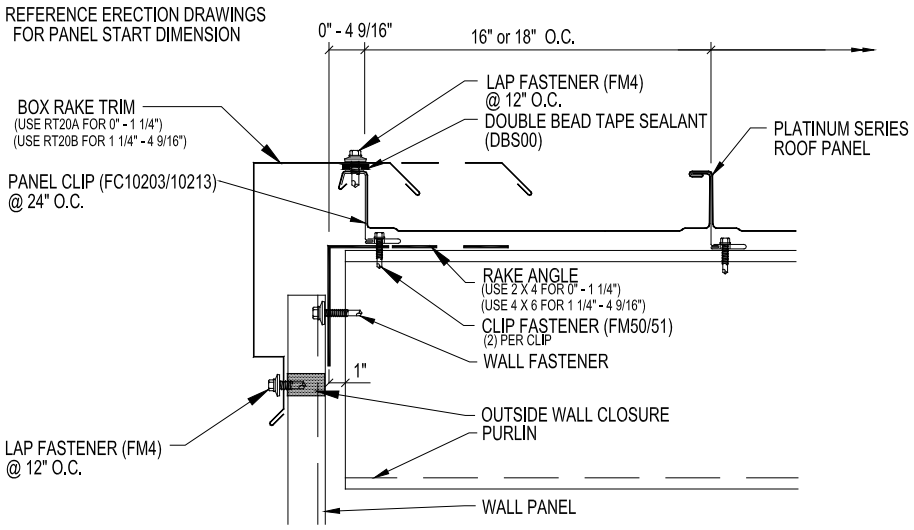


STANDARD DETAIL FOR FLOATING RAKE START ON MODULE

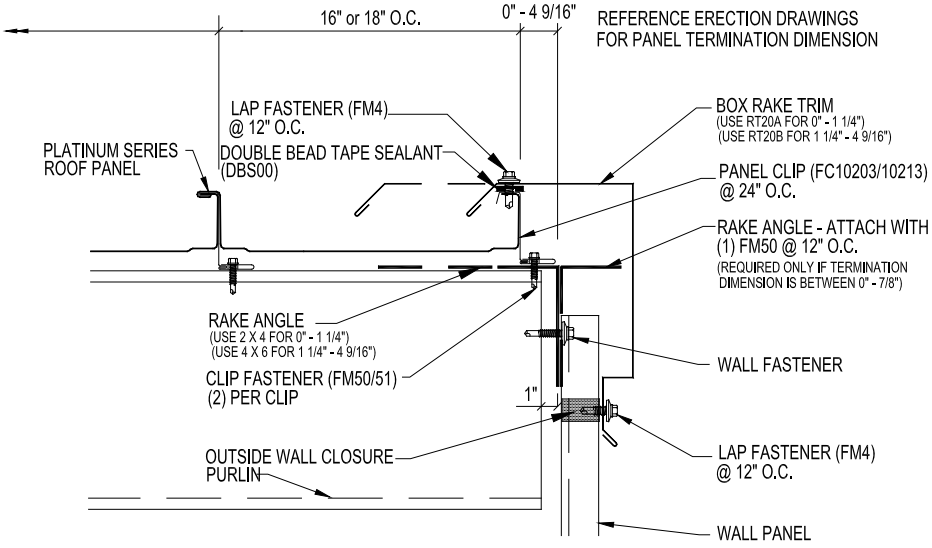


STANDARD DETAIL FOR FLOATING RAKE TERMINATION ON MODULE

TYPICAL FLOATING RAKE DETAILS ON MODULE W/ BOX RAKE

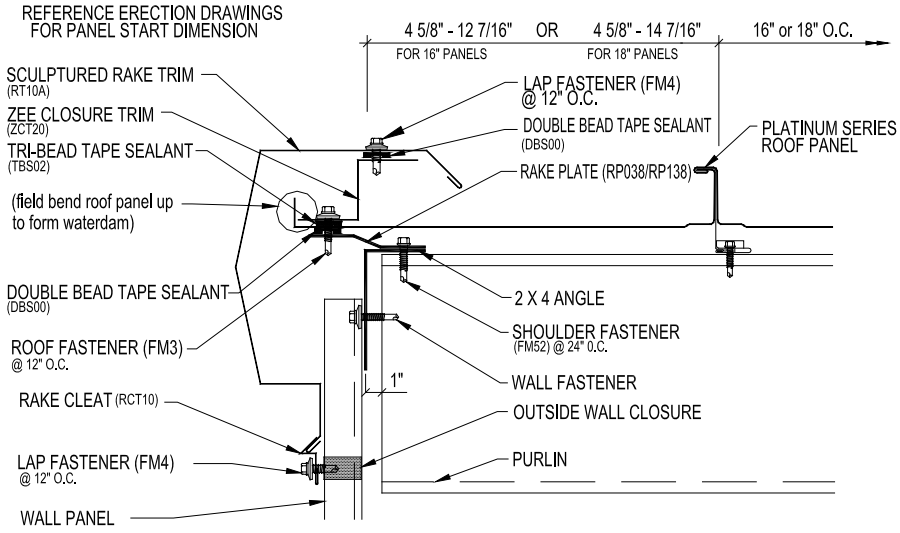


STANDARD DETAIL FOR FIXED RAKE START ON MODULE

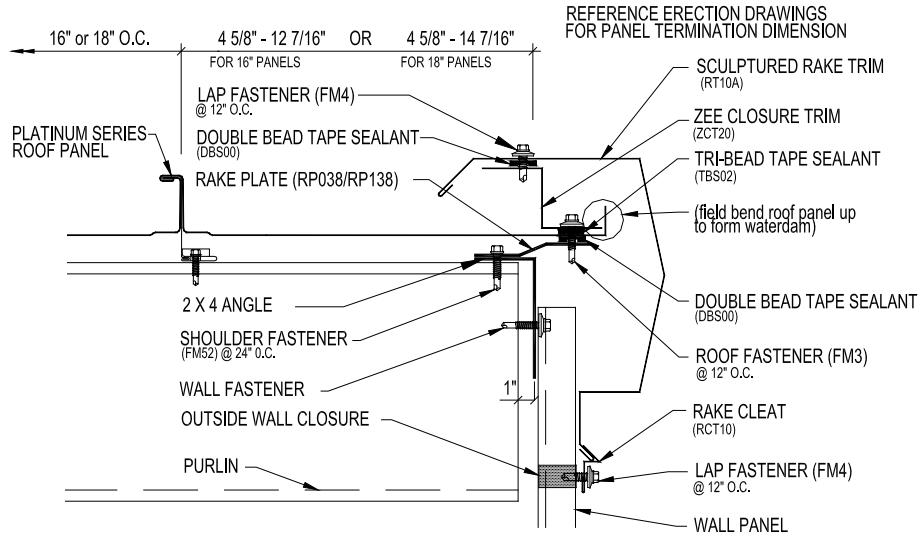


STANDARD DETAIL FOR FIXED RAKE TERMINATION ON MODULE

TYPICAL FIXED RAKE DETAILS ON MODULE W/ BOX RAKE

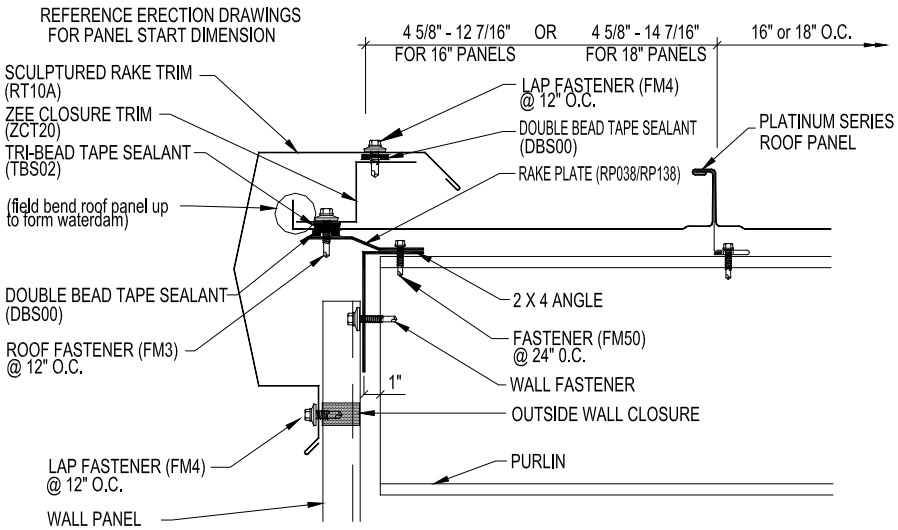


STANDARD DETAIL FOR FLOATING RAKE START OFF MODULE

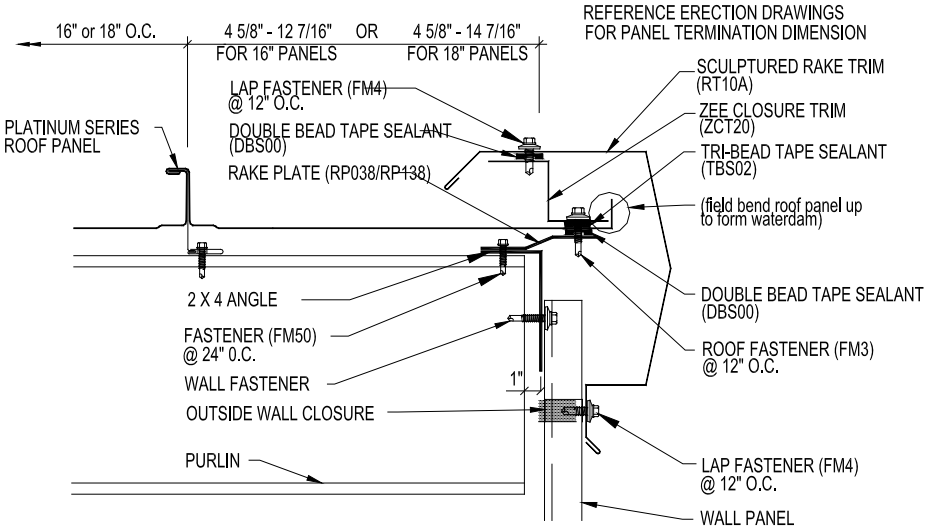


STANDARD DETAIL FOR FLOATING RAKE TERMINATION OFF MODULE

TYPICAL FLOATING RAKE DETAIL OFF MODULE W/ SCULPTURED RAKE

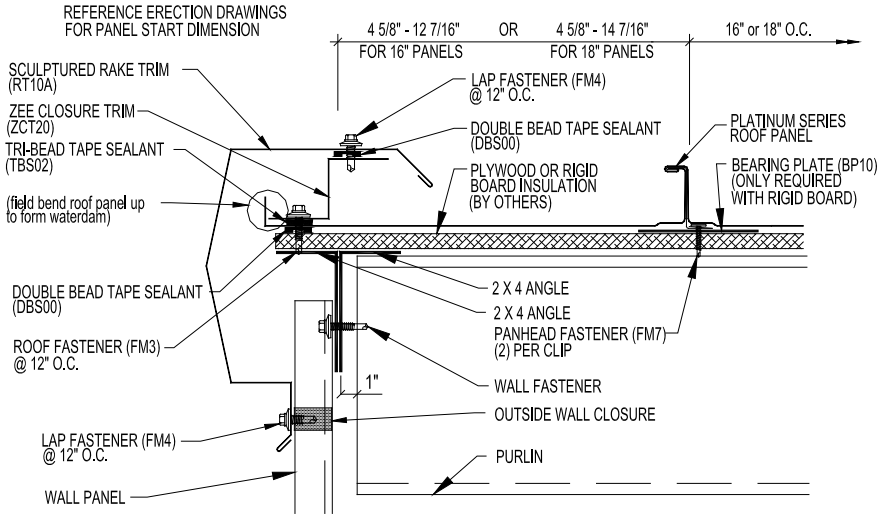


STANDARD DETAIL FOR FIXED RAKE START OFF MODULE

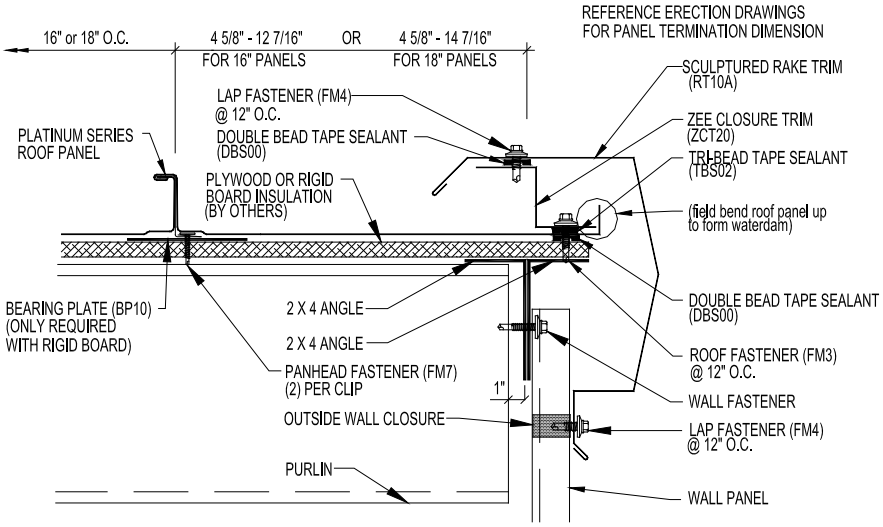


STANDARD DETAIL FOR FIXED RAKE TERMINATION OFF MODULE

TYPICAL FIXED RAKE DETAIL OFF MODULE W/ SCULPTURED RAKE

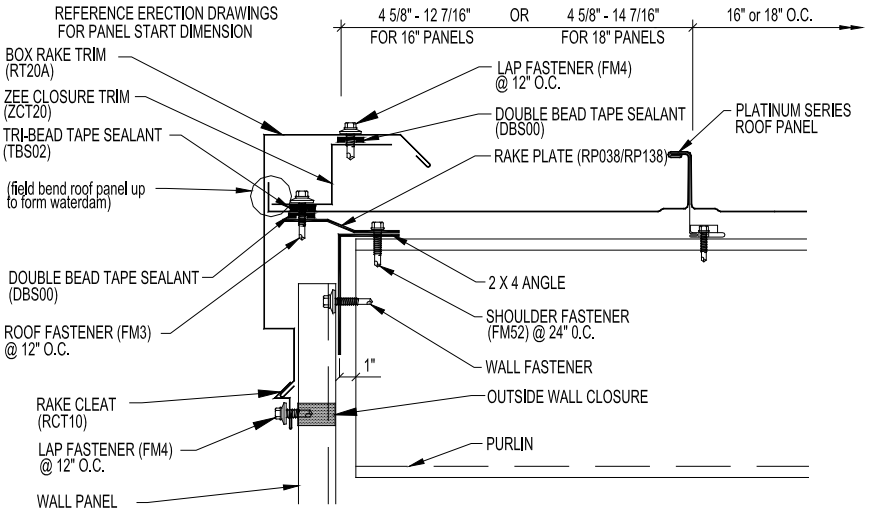


STANDARD DETAIL FOR UTILITY RAKE START OFF MODULE

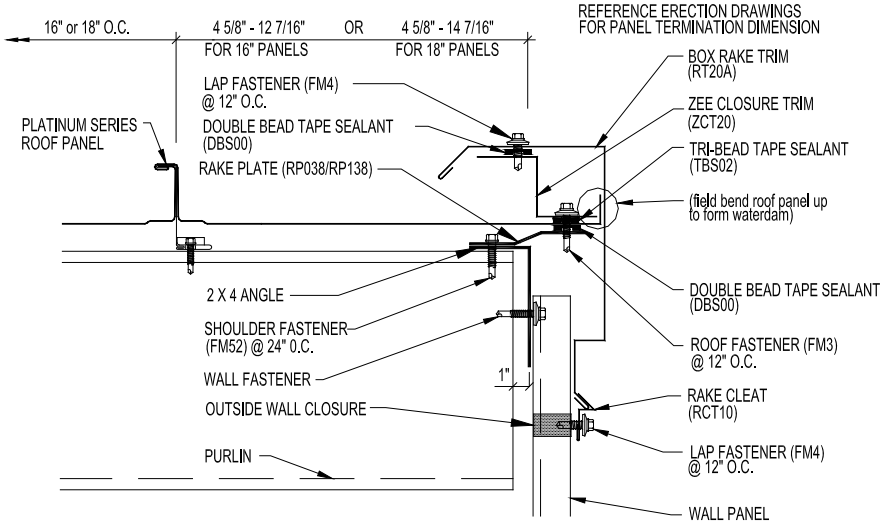


STANDARD DETAIL FOR UTILITY RAKE TERMINATION OFF MODULE

TYPICAL UTILITY RAKE DETAILS OFF MODULE W/ SCULPTURED RAKE

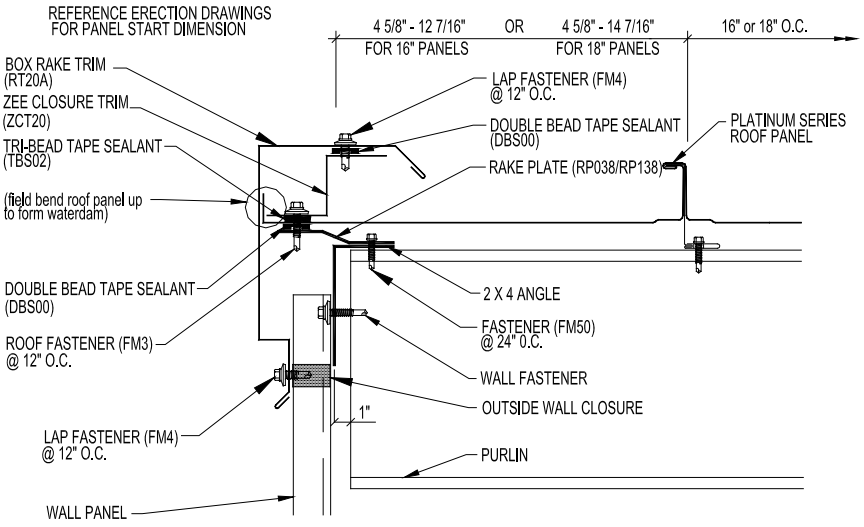


STANDARD DETAIL FOR FLOATING RAKE START OFF MODULE

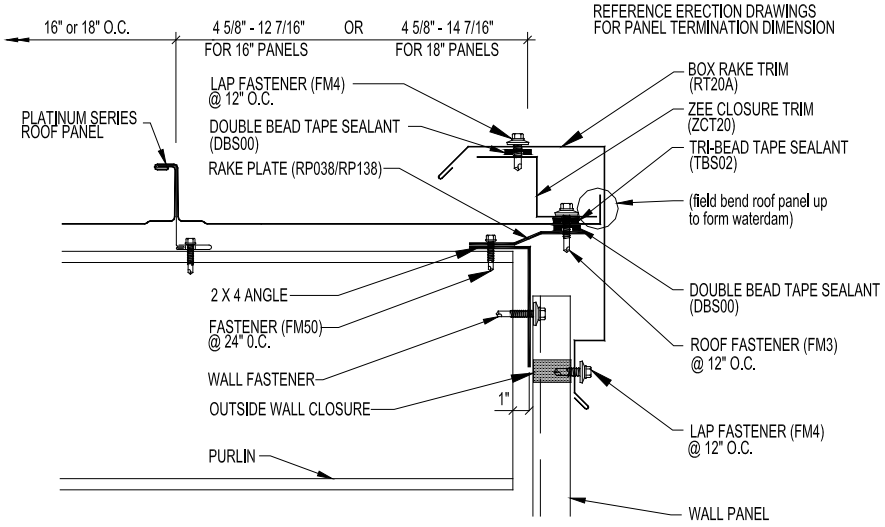


STANDARD DETAIL FOR FLOATING RAKE TERMINATION OFF MODULE

TYPICAL FLOATING RAKE DETAIL OFF MODULE W/ BOX RAKE

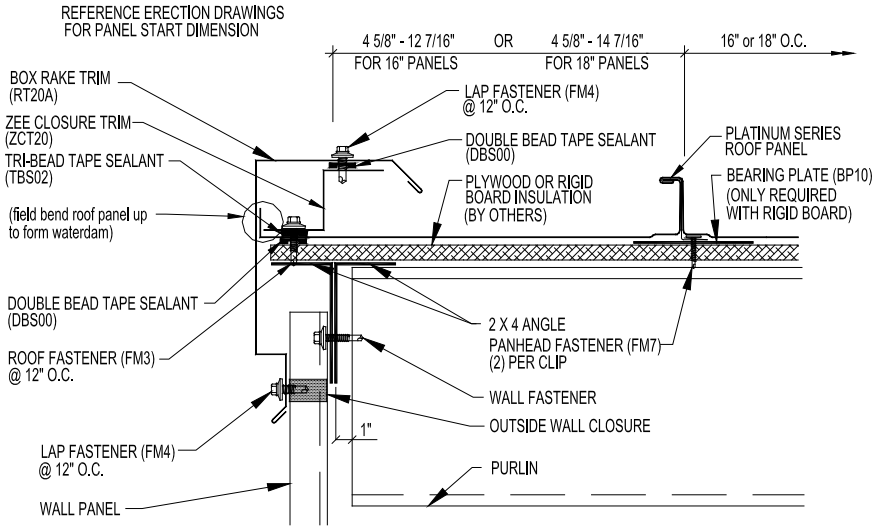


STANDARD DETAIL FOR FIXED RAKE START OFF MODULE

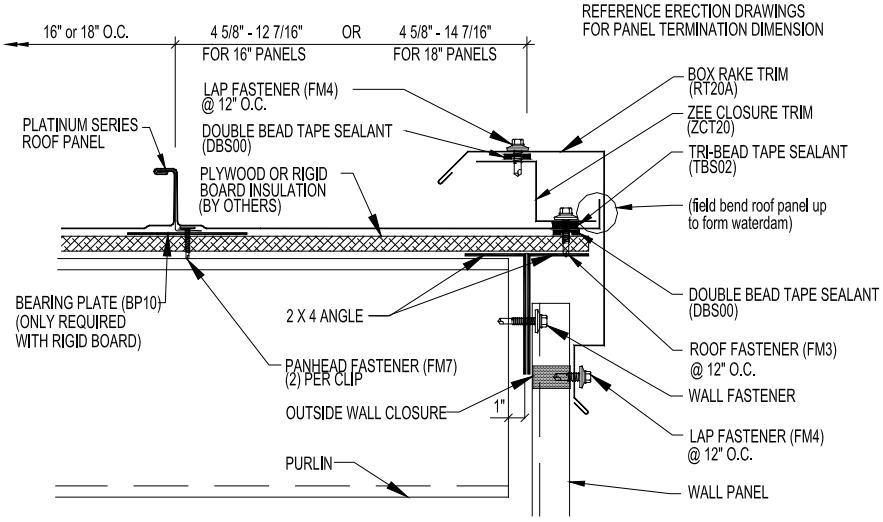


STANDARD DETAIL FOR FIXED RAKE TERMINATION OFF MODULE

TYPICAL FIXED RAKE DETAIL OFF MODULE W/ BOX RAKE

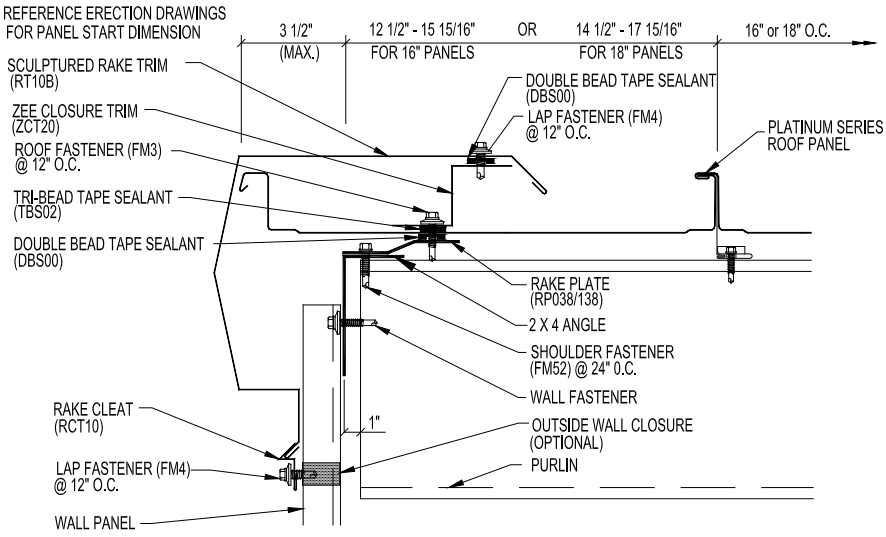


STANDARD DETAIL FOR UTILITY RAKE START OFF MODULE

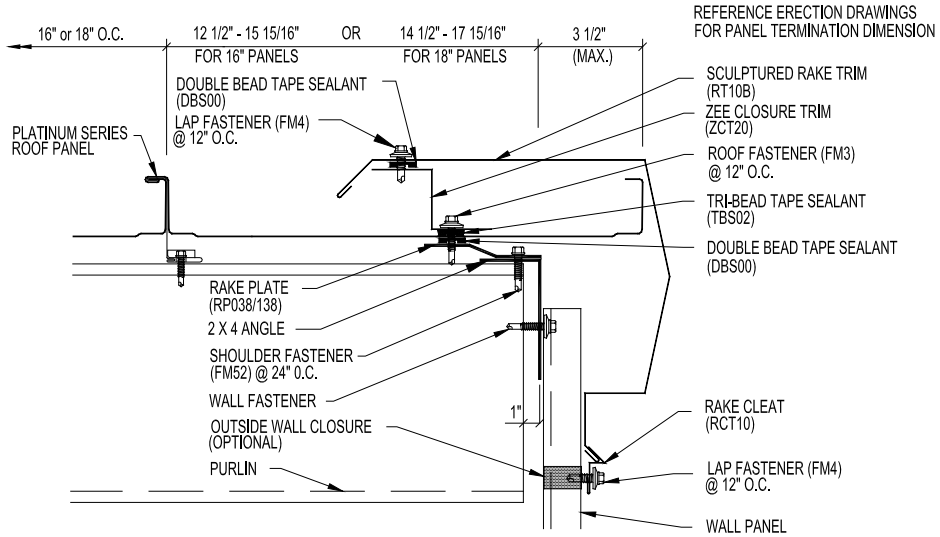


STANDARD DETAIL FOR UTILITY RAKE TERMINATION OFF MODULE

TYPICAL UTILITY RAKE DETAILS
OFF MODULE W/ BOX RAKE

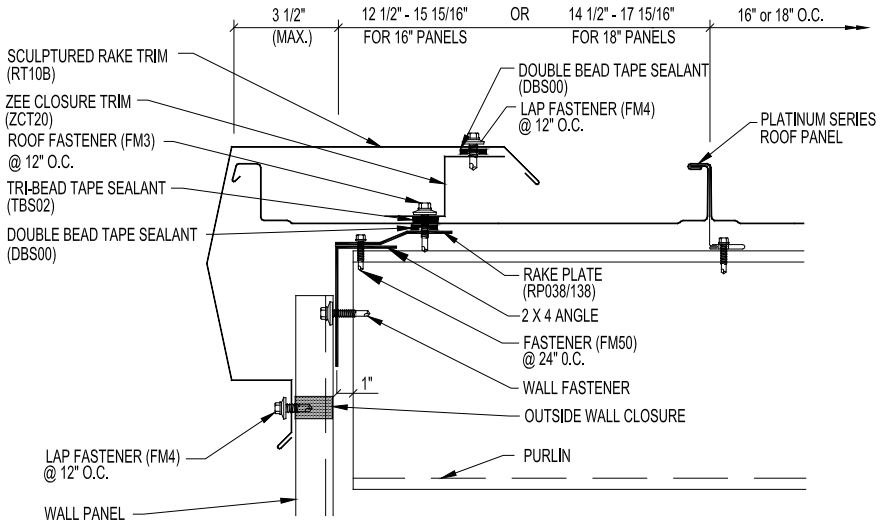


STANDARD DETAIL FOR FLOATING RAKE START OFF MODULE

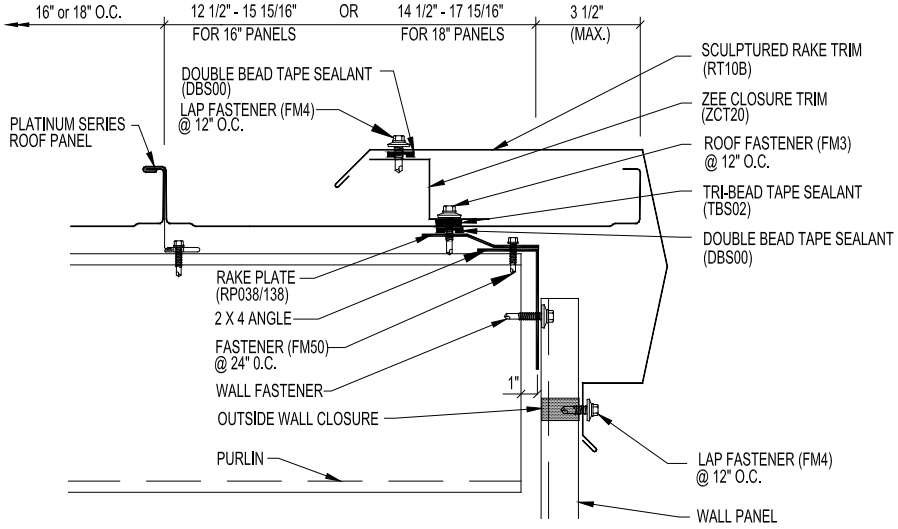


STANDARD DETAIL FOR FLOATING RAKE TERMINATION OFF MODULE

TYPICAL FLOATING RAKE DETAIL OFF MODULE W/ SCULPTURED RAKE

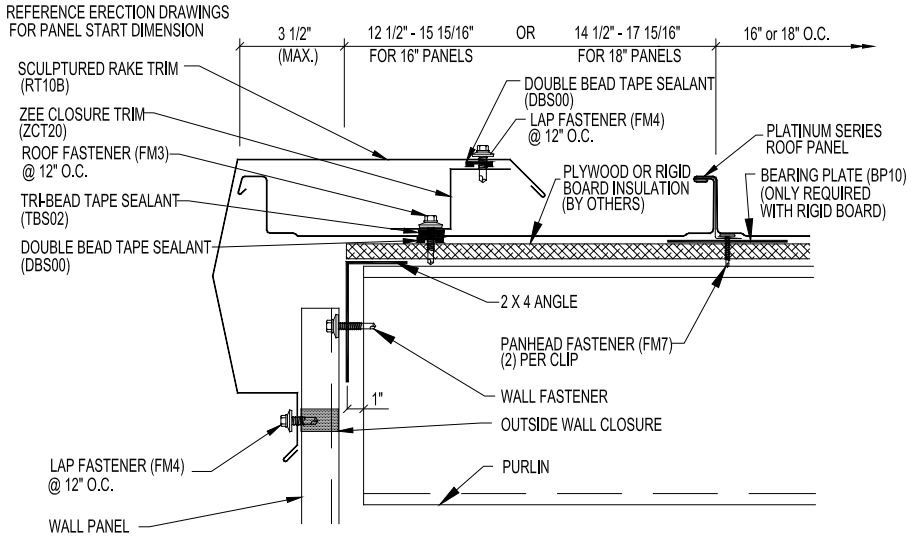


STANDARD DETAIL FOR FIXED RAKE START OFF MODULE

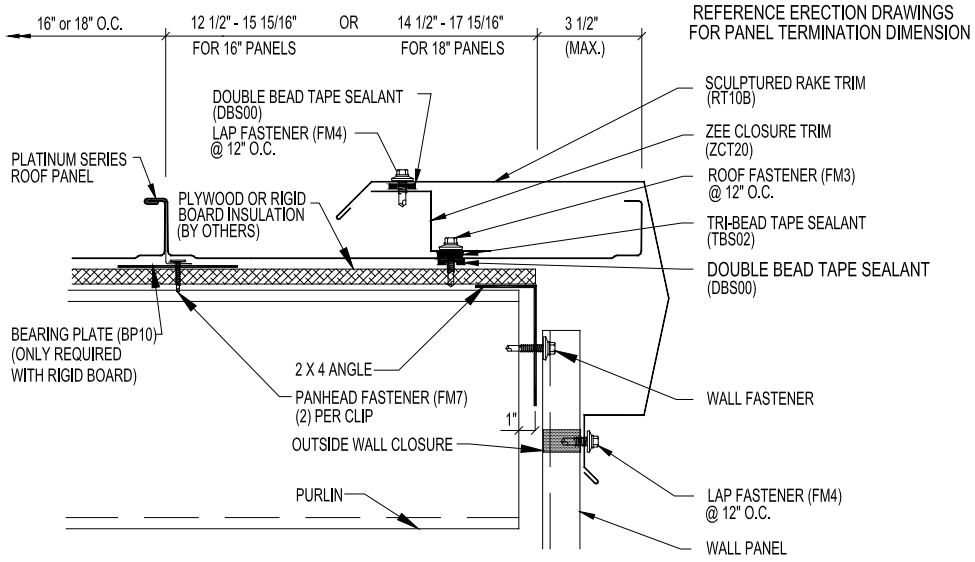


STANDARD DETAIL FOR FIXED RAKE TERMINATION OFF MODULE

TYPICAL FIXED RAKE DETAIL OFF MODULE W/ SCULPTURED RAKE

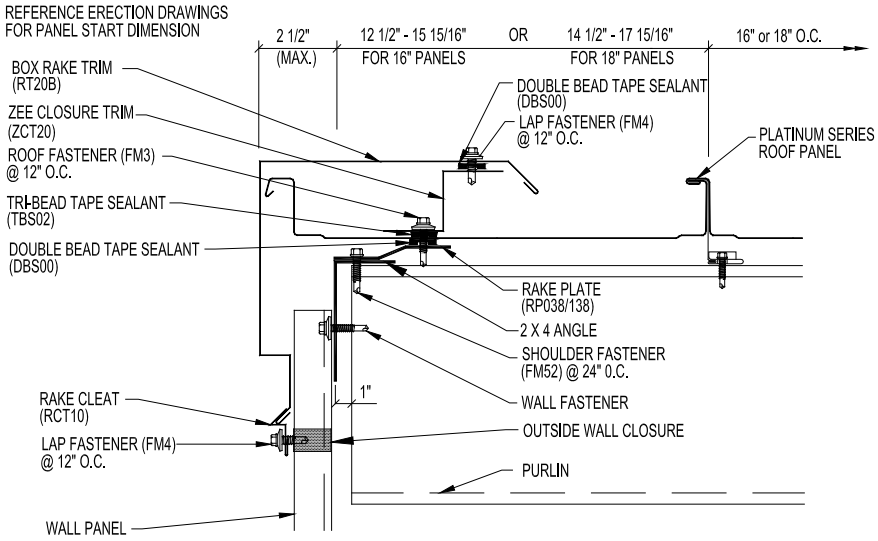


STANDARD DETAIL FOR UTILITY RAKE START OFF MODULE

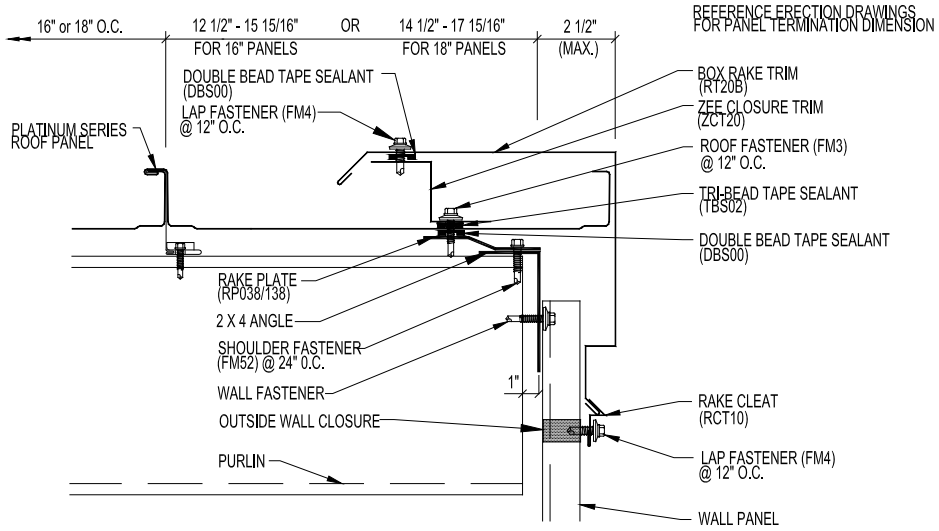


STANDARD DETAIL FOR UTILITY RAKE TERMINATION OFF MODULE

TYPICAL UTILITY RAKE DETAIL
OFF MODULE W/ SCULPTURED RAKE

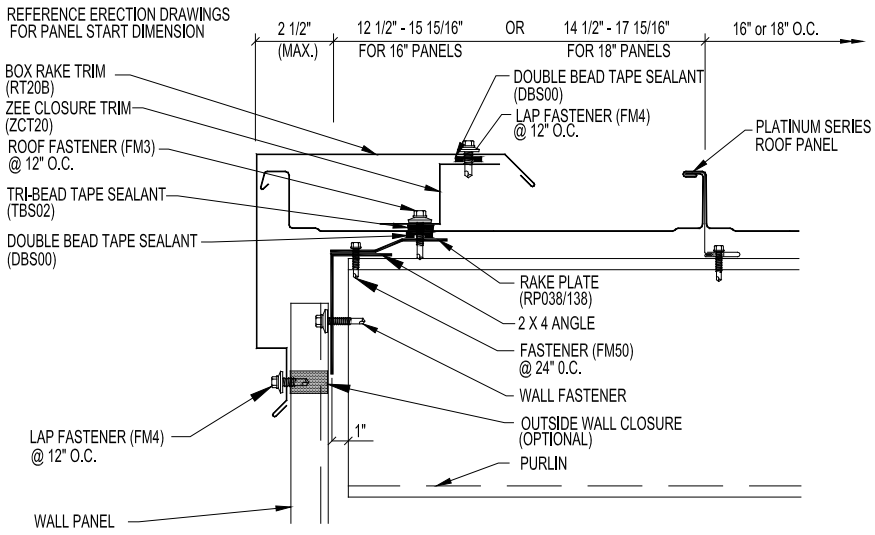


STANDARD DETAIL FOR FLOATING RAKE START OFF MODULE

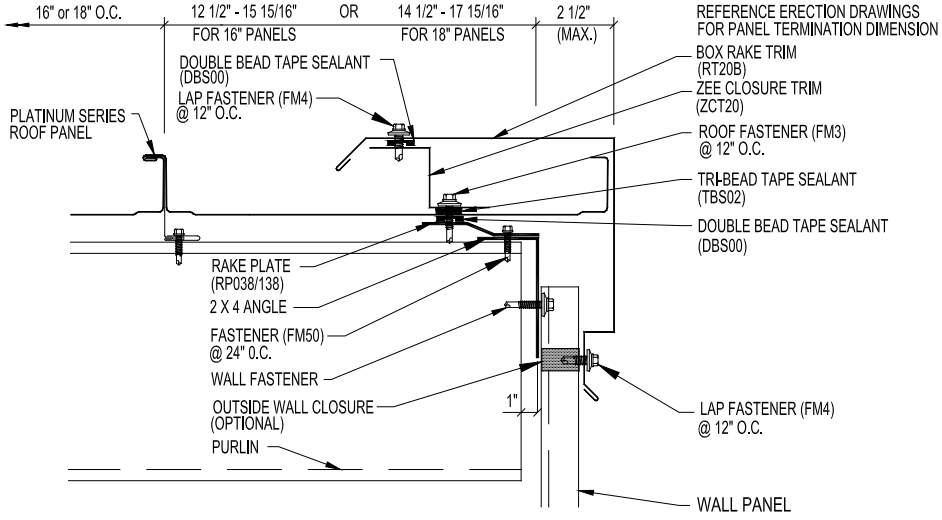


STANDARD DETAIL FOR FLOATING RAKE TERMINATION OFF MODULE

TYPICAL FLOATING RAKE DETAIL OFF MODULE W/ BOX RAKE

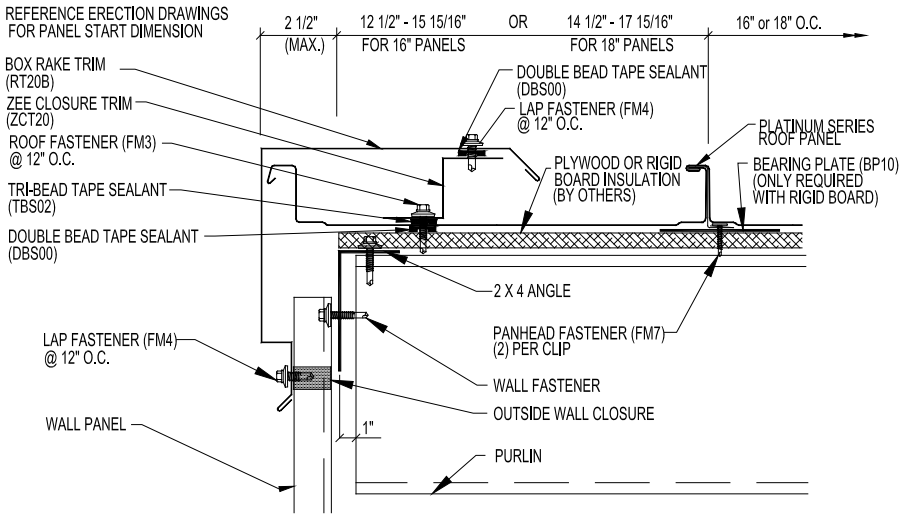


STANDARD DETAIL FOR FIXED RAKE START OFF MODULE

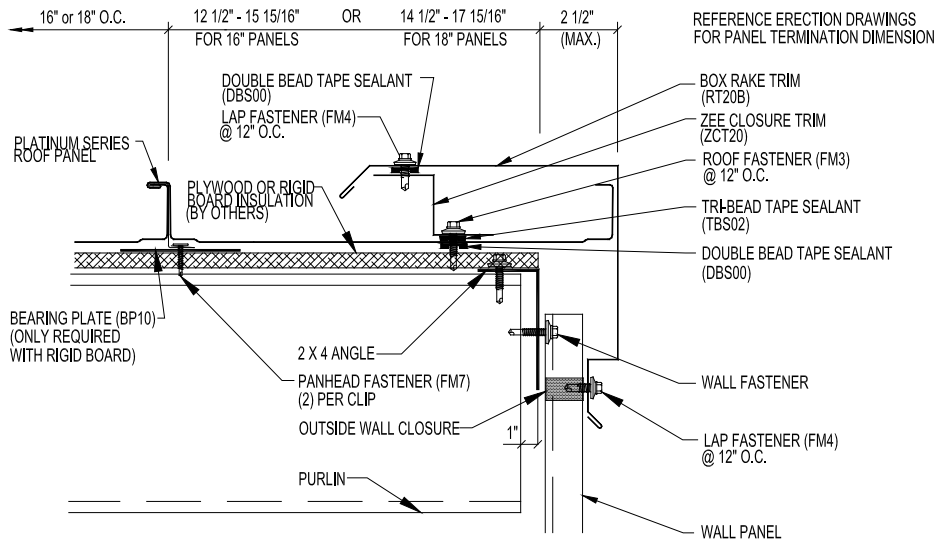


STANDARD DETAIL FOR FIXED RAKE TERMINATION OFF MODULE

TYPICAL FIXED RAKE DETAIL OFF MODULE W/ BOX RAKE

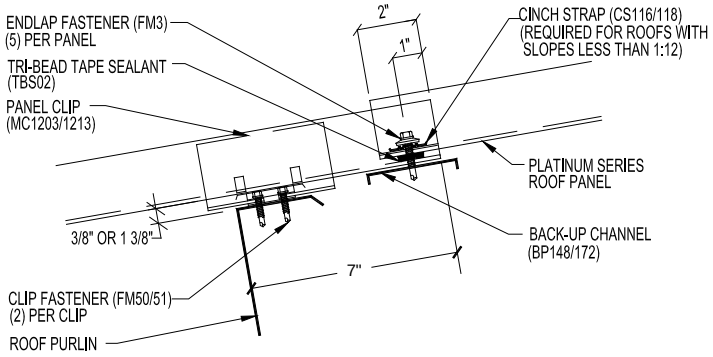


STANDARD DETAIL FOR UTILITY RAKE START OFF MODULE

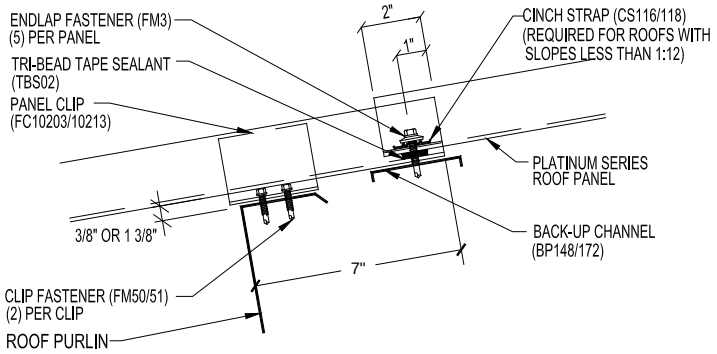


STANDARD DETAIL FOR UTILITY RAKE TERMINATION OFF MODULE

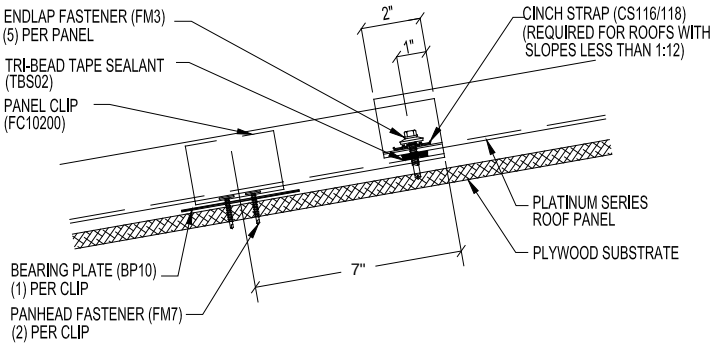
TYPICAL UTILITY RAKE DETAIL OFF MODULE W/ BOX RAKE



STANDARD DETAIL FOR FLOATING ENDLAP

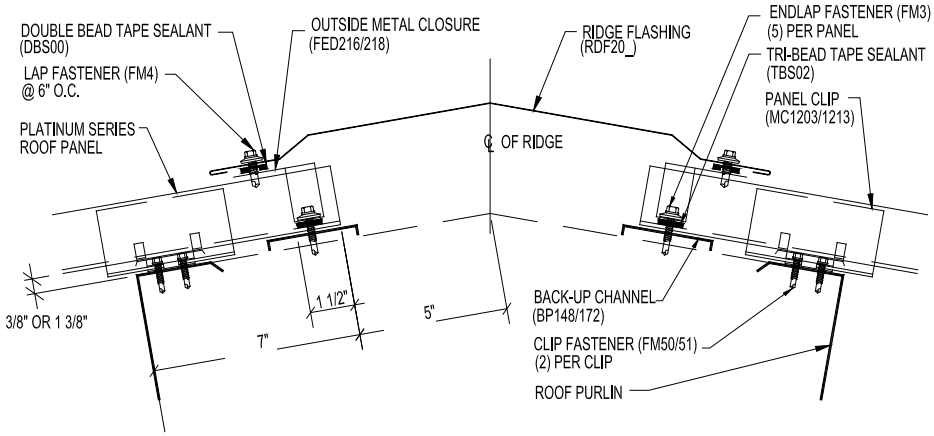


STANDARD DETAIL FOR FIXED ENDLAP

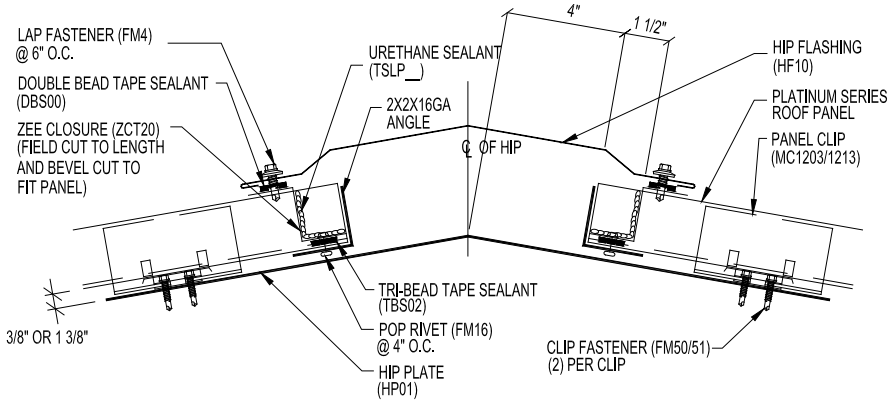


STANDARD DETAIL FOR UTILITY ENDLAP

TYPICAL ENDLAP DETAILS

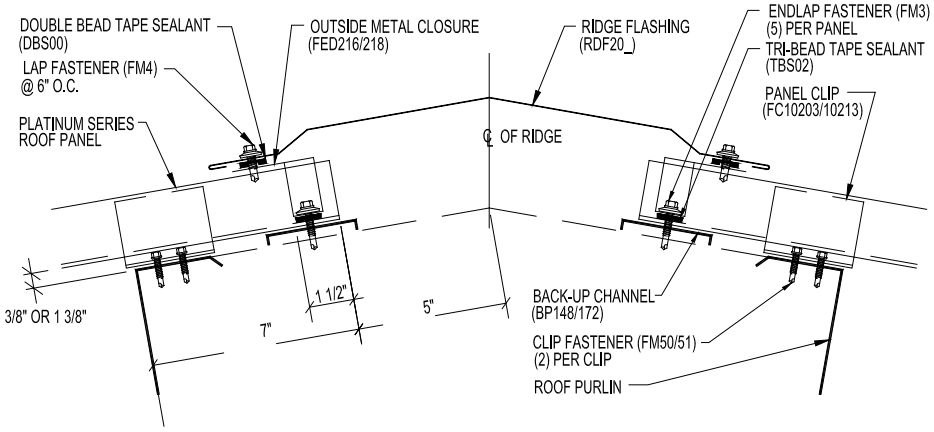


STANDARD DETAIL FOR FLOATING RIDGE

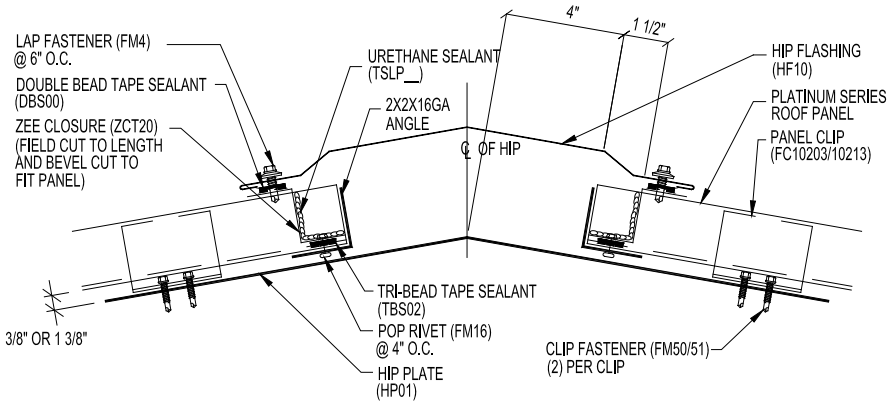


STANDARD DETAIL FOR FLOATING HIP

TYPICAL FLOATING RIDGE/HIP DETAILS

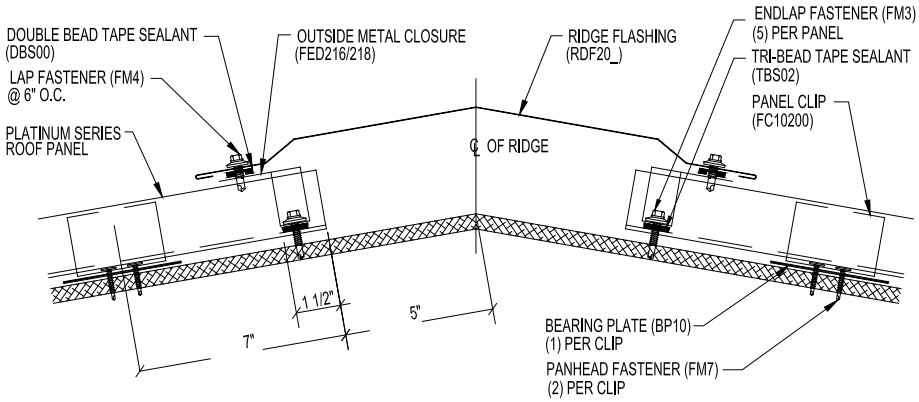


STANDARD DETAIL FOR FIXED RIDGE

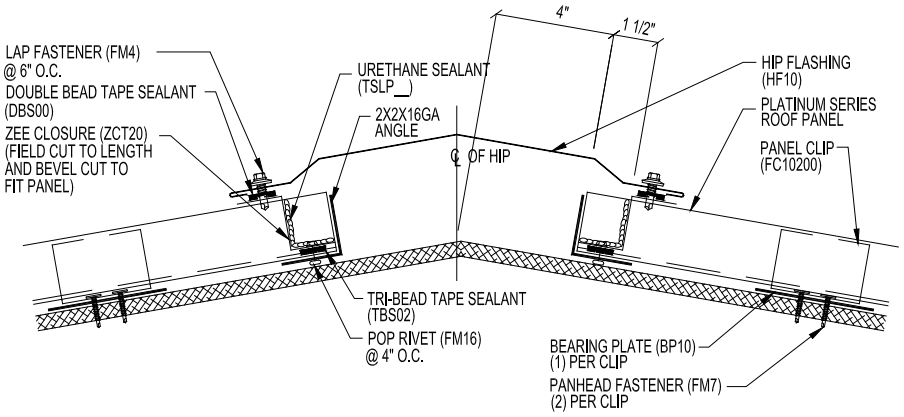


STANDARD DETAIL FOR FIXED HIP

TYPICAL FIXED RIDGE/HIP DETAILS

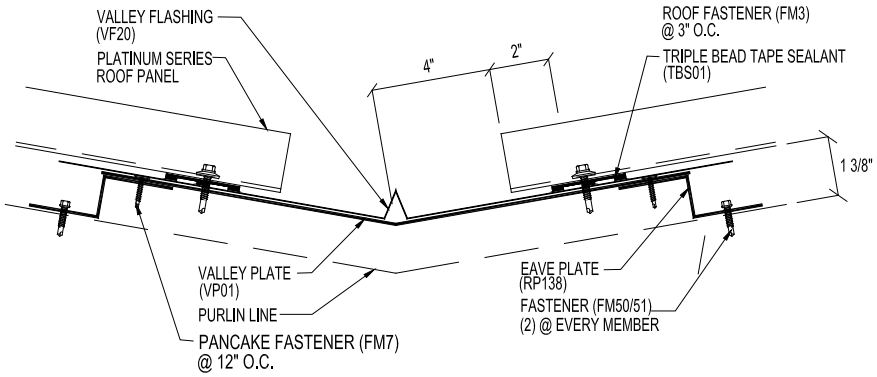


STANDARD DETAIL FOR UTILITY RIDGE

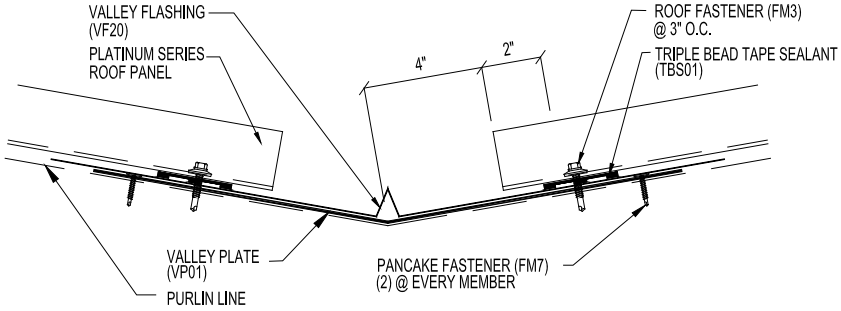


STANDARD DETAIL FOR UTILITY HIP

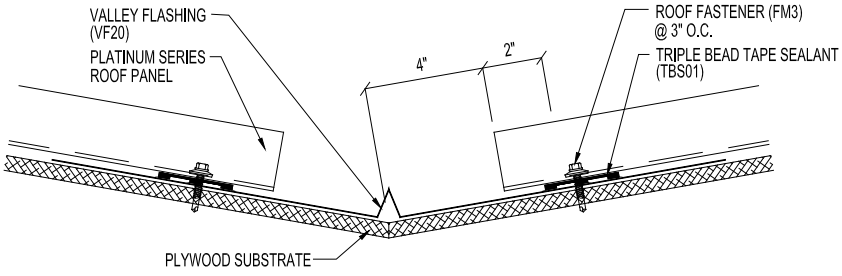
TYPICAL UTILITY RIDGE/HIP DETAILS



STANDARD DETAIL FOR HIGH FIXED VALLEY

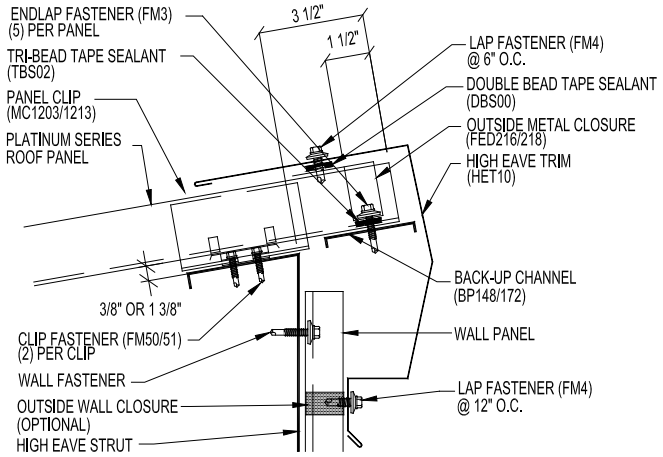


STANDARD DETAIL FOR LOW FIXED VALLEY

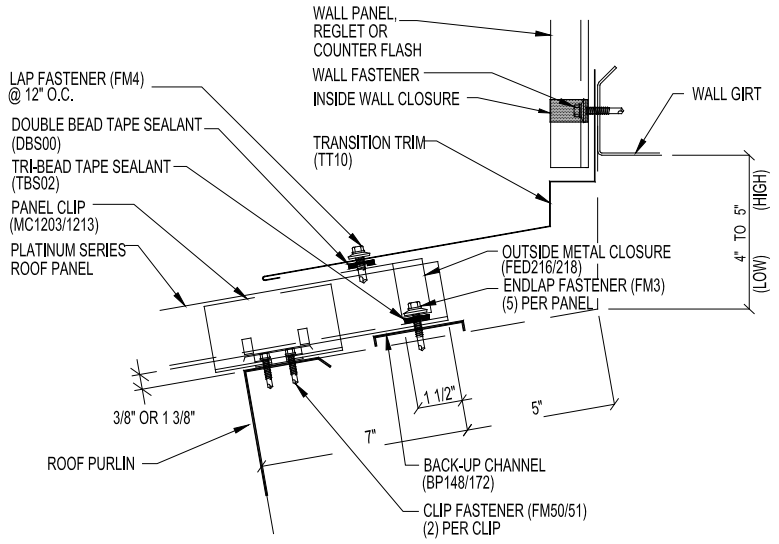


STANDARD DETAIL FOR UTILITY VALLEY

TYPICAL VALLEY DETAILS

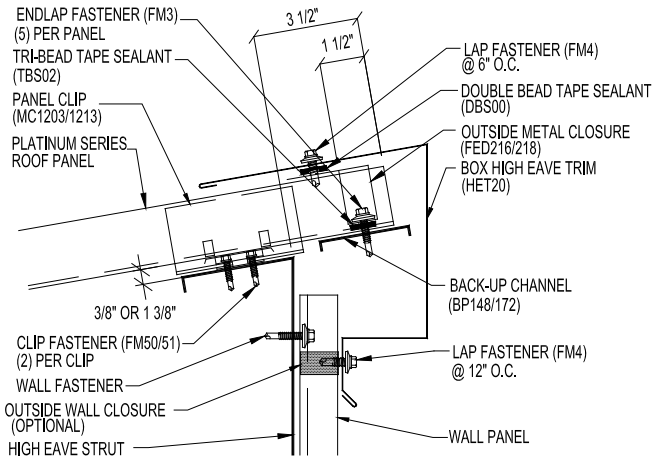


STANDARD HIGH FLOATING EAVE



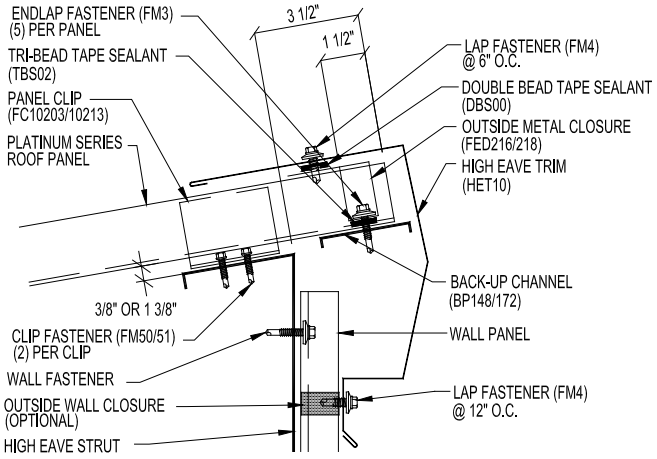
STANDARD HIGH FLOATING EAVE TRANSITION

TYPICAL FLOATING HIGH EAVE / HIGH EAVE TRANSITION DETAILS W/ SCULP. EAVE

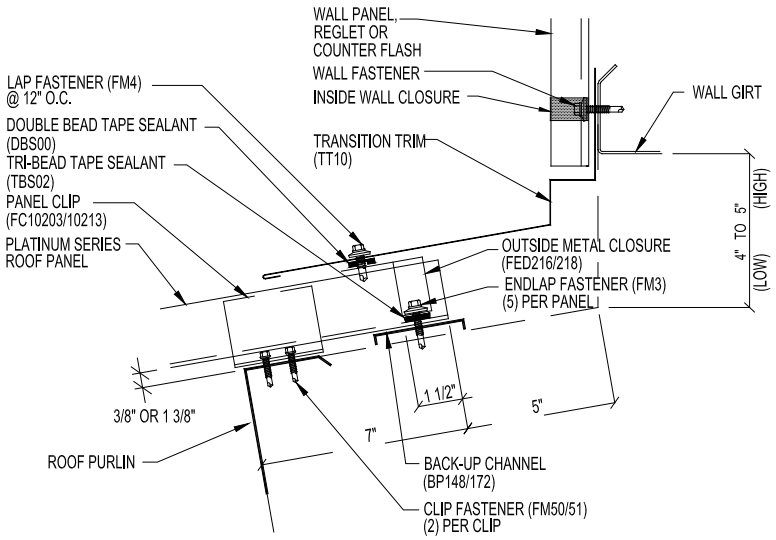


STANDARD HIGH FLOATING EAVE

TYPICAL FLOATING HIGH EAVE DETAIL W/ BOX EAVE

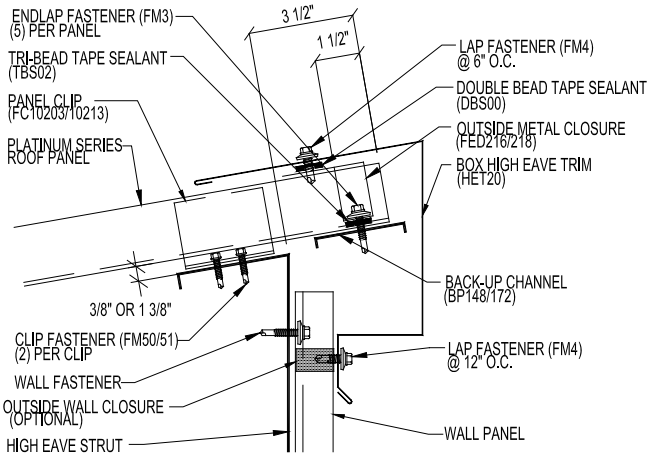


STANDARD HIGH FIXED EAVE



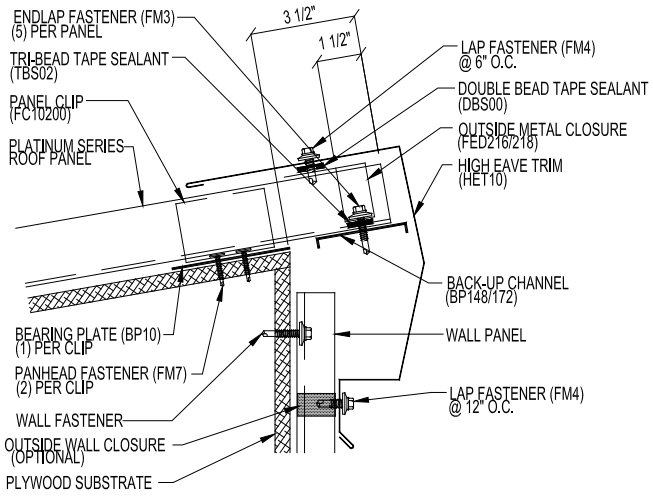
STANDARD HIGH FIXED EAVE TRANSITION

TYPICAL FIXED HIGH EAVE / HIGH EAVE TRANSITION DETAILS W/ SCULP. EAVE

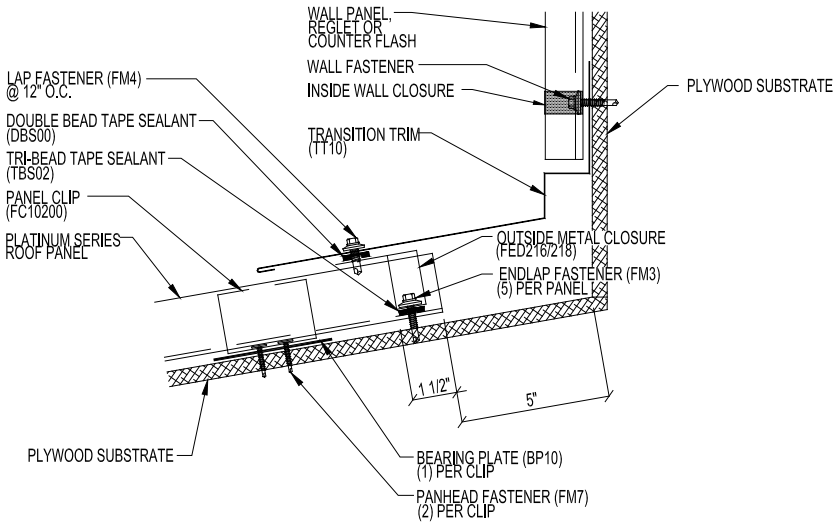


STANDARD HIGH FIXED EAVE

TYPICAL FIXED HIGH EAVE DETAIL W/ BOX EAVE

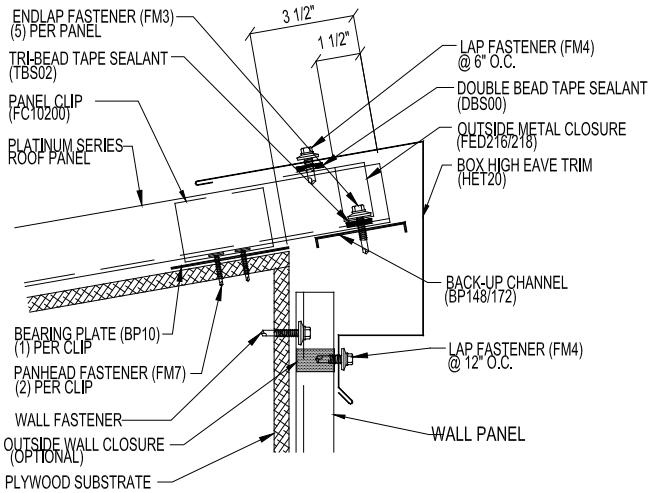


STANDARD HIGH UTILITY EAVE



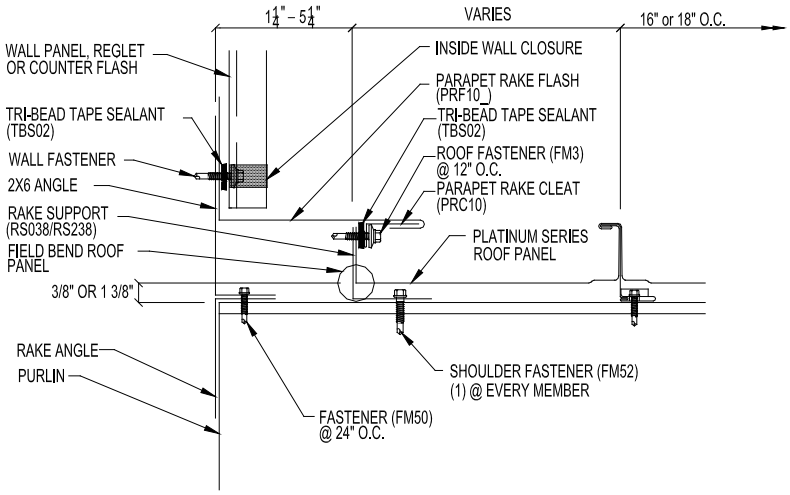
STANDARD HIGH UTILITY EAVE TRANSITION

TYPICAL UTILITY HIGH EAVE / HIGH EAVE TRANSITION DETAILS W/ SCULP. EAVE

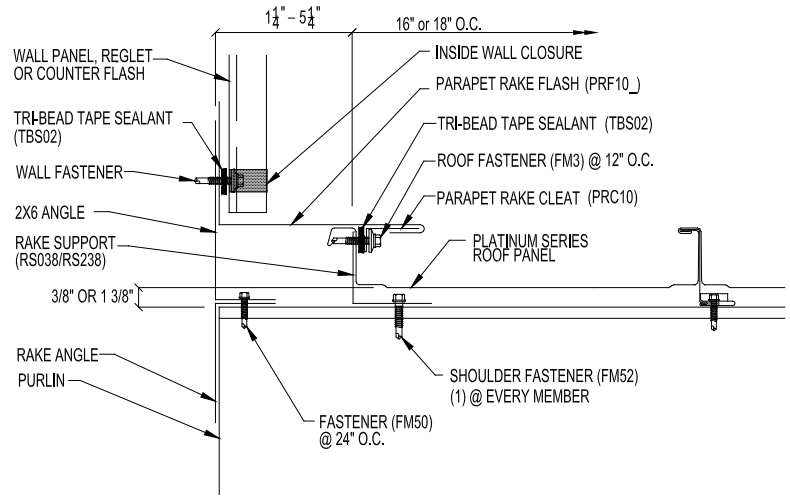


STANDARD HIGH UTILITY EAVE

TYPICAL UTILITY HIGH EAVE DETAIL W/ BOX EAVE

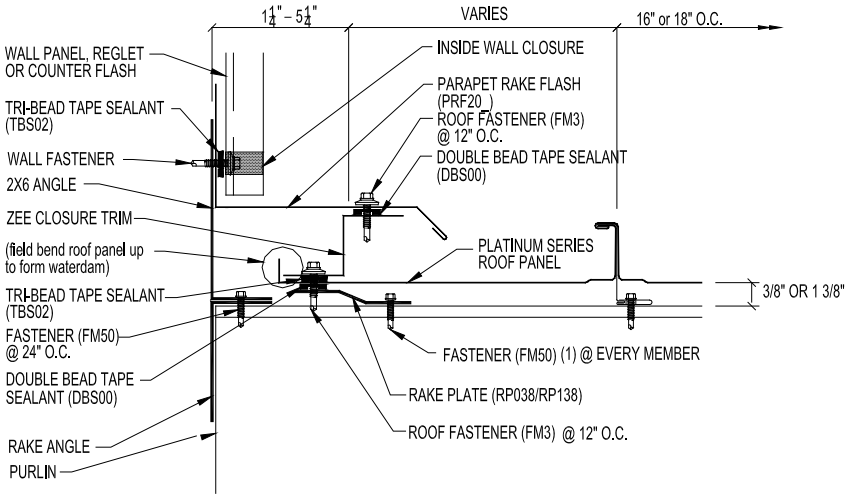


STANDARD FLOATING TRANSITION DETAIL OFF MODULE

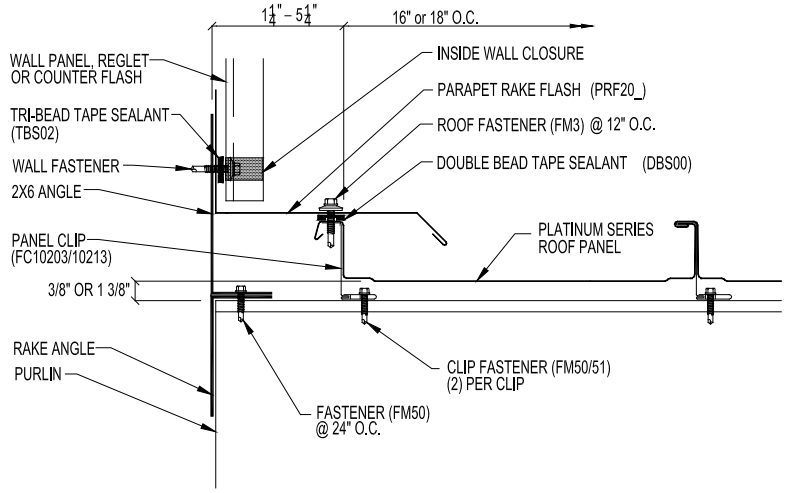


STANDARD FLOATING TRANSITION DETAIL ON MODULE

TYPICAL FLOATING HI/LO TRANSITION DETAILS

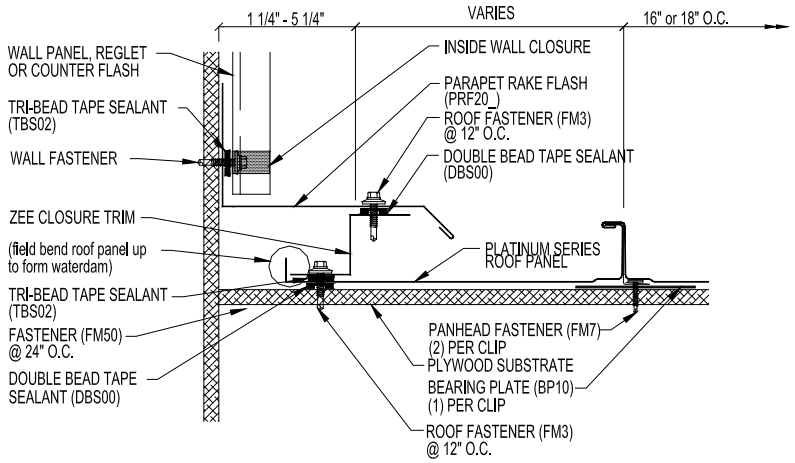


STANDARD FIXED TRANSITION DETAIL OFF MODULE

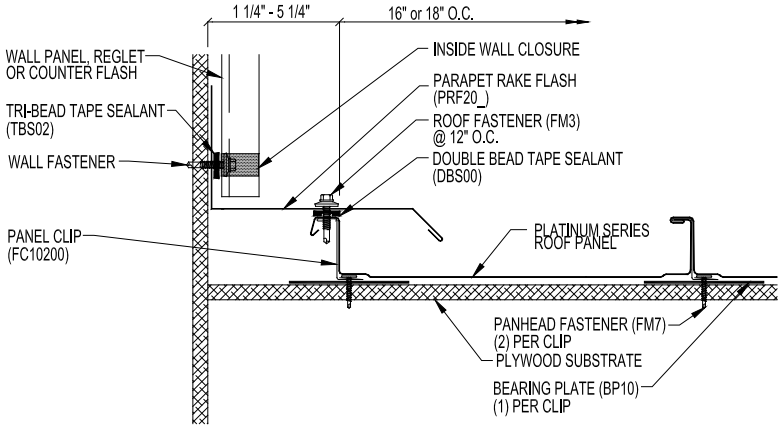


STANDARD FIXED TRANSITION DETAIL ON MODULE

TYPICAL FIXED HI/LO TRANSITION DETAILS



STANDARD UTILITY TRANSITION DETAIL OFF MODULE



STANDARD UTILITY TRANSITION DETAIL ON MODULE

TYPICAL UTLITY HI/LO TRANSITIONDETAILS

ACCESSORIES

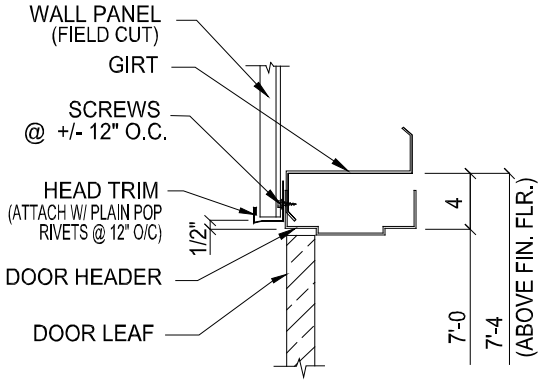
ACCESSORIES

RIGID
GLOBAL BUILDINGS

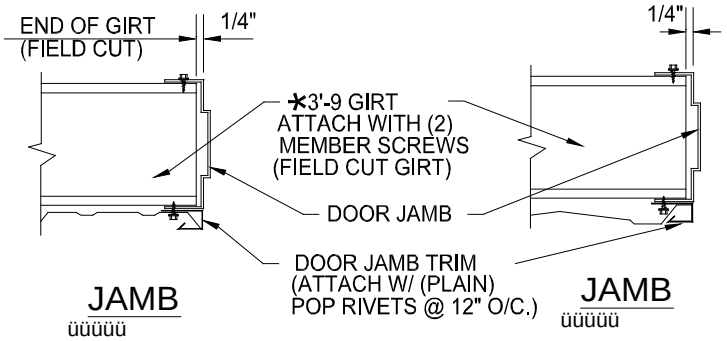
18933 Aldine Westfield
Houston, TX 77073
888-GO-RIGID
www.RigidBuilding.com

WALK DOOR

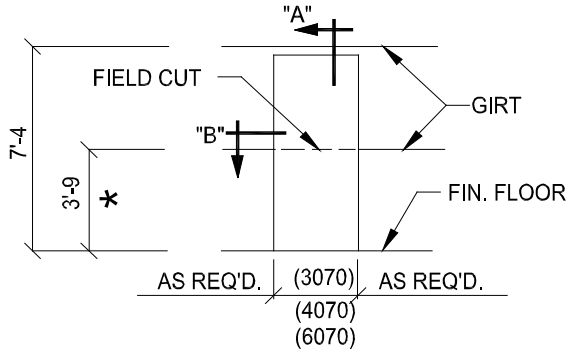
(FOR 3070, 4070 & 6070 ONLY)

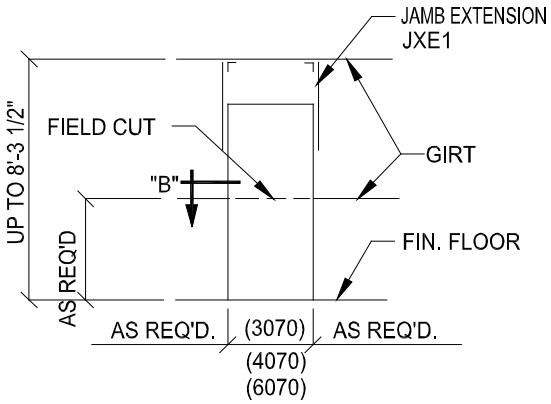


SECTION "A"



SECTION "B"





FOR FIELD LOCATED WALK DOOR

*- 3'-9 GIRT SUPPLIED ONLY WHEN REQUIRED BY DESIGN.

INSTALLATION PROCEDURE

1. Place head section and jambs on flat surface (floor) with door side up. Install bolts and nuts connecting head to jambs. Be sure that head is tight to jambs so that the proper door opening is obtained.

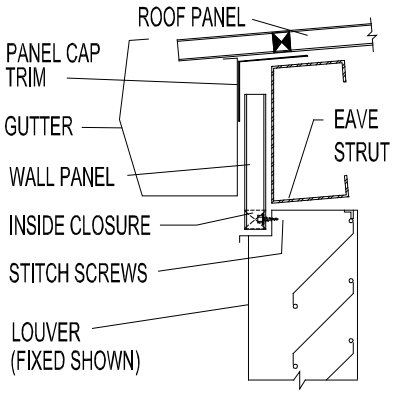
2. Install door leaf in frame, check for 1/8" clearance at head and 3/32" clearance at stricker jamb.

3. Tilt up the entire assembly and anchor jamb to floor. Plumb hinge hinge jamb and assembly. Field cut girts if required.

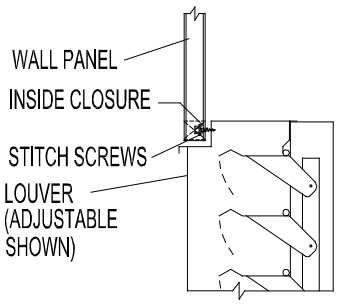
4. Anchor head and striker jamb to building structure, floor and entire frame to panel skins (field cut). Install optional threshold anchor if desired. Install jamb extensions (if req'd).

5. Install lockset. Install (optional) weatherstrip, head member first. Adjust so that vinyl just contacts door when in the closed position. Do not force vinyl against door, as this will interfere with the latching and will not improve the latching and the weather seal.

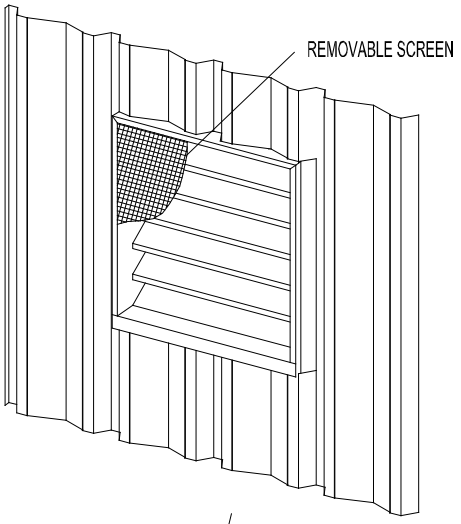
LOUVERS ON "AW" WALL PANEL

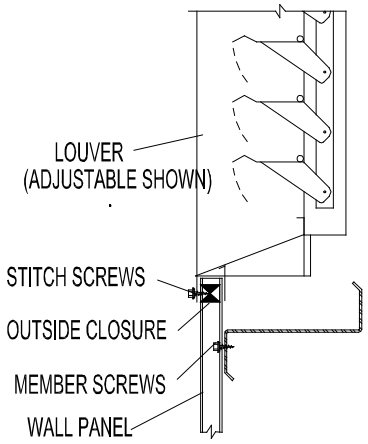


SECTION THRU HEAD
(AT EAVE STRUT)

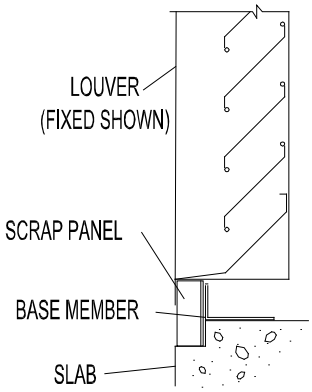


SECTION THRU HEAD
(NORMAL)

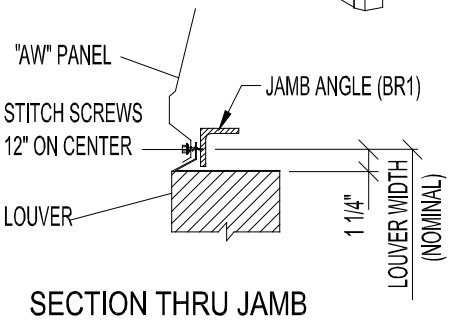




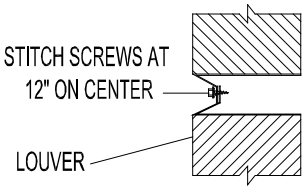
SECTION THRU SILL
(AT GIRT)



SECTION THRU SILL
(AT BASE)



SECTION THRU JAMB
(WITH" A" PANEL)

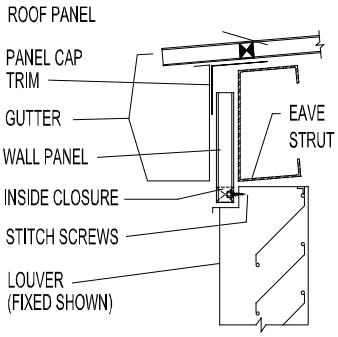


SECTION THRU JAMB
AT MULLION

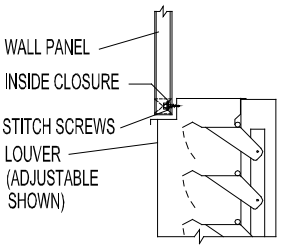
NOTES :

1. Standard louvers replace panel widths
2. Standard louvers sizes are 3'x3' & 6'x3' high (nominal)
3. Multiple units are available horizontally
4. Louvers will be field located
5. Wall panels will be field cut where required
6. Jamb angles will be provided for support (field located)

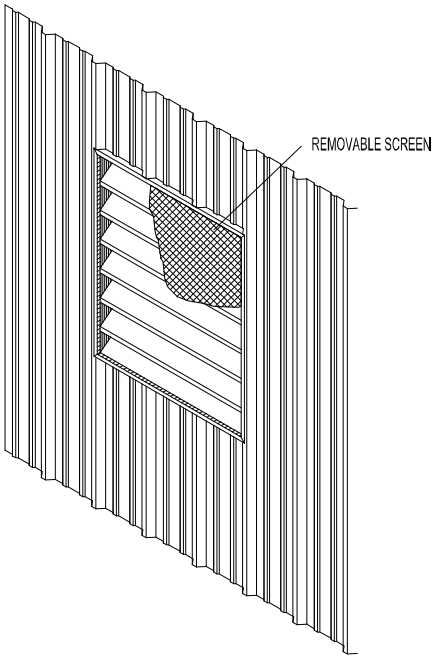
LOUVERS ON "R" WALL PANEL

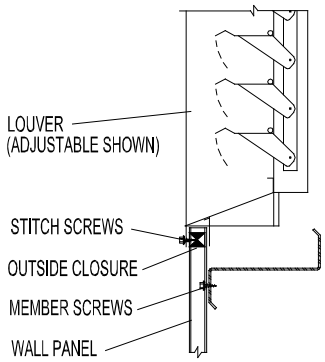


SECTION THRU HEAD
(AT EAVE STRUT)

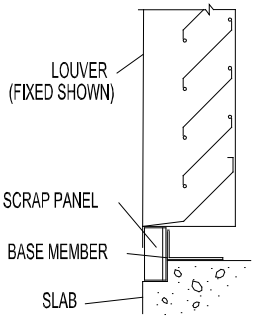


SECTION THRU HEAD
(NORMAL)

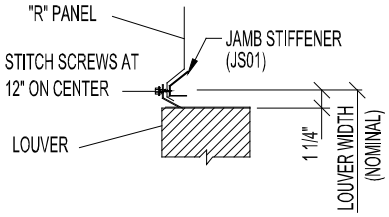




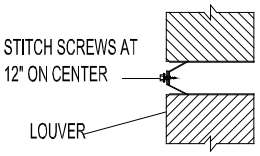
SECTION THRU SILL
(AT GIRT)



SECTION THRU SILL
(AT BASE)



SECTION THRU JAMB
(WITH "R" PANEL)

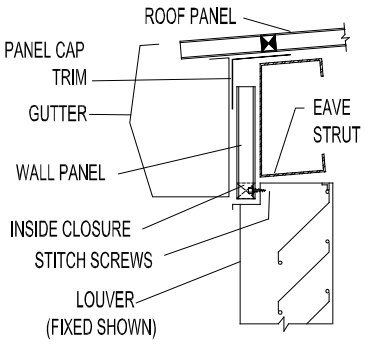


SECTION THRU JAMB
AT MULLION

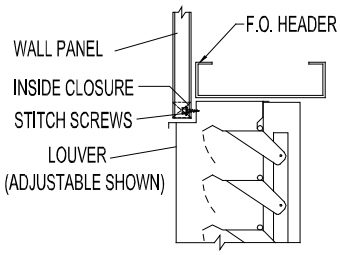
NOTES :

1. Standard louvers replace panel widths
2. Standard louvers sizes are 3'x3' & 6'x3' high (nominal)
3. Multiple units are available horizontally
4. Louvers will be field located
5. Wall panels will be field cut where required
6. Jamb angles will be provided for support (field located)

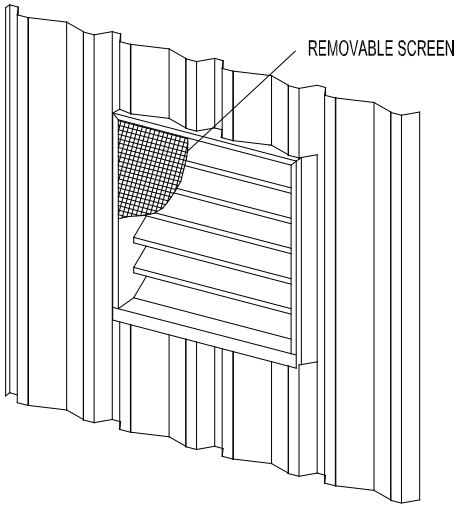
LOUVERS ON "AW" WALL PANEL (WITH FRAMED OPENINGS)

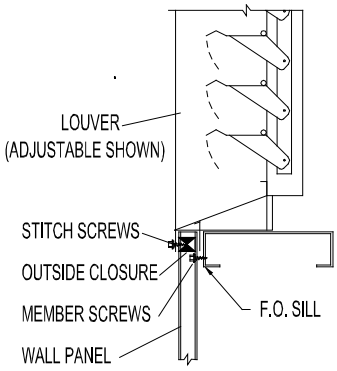


SECTION THRU HEAD (AT EAVE STRUT)

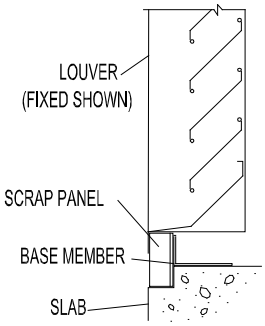


SECTION THRU HEAD (NORMAL)

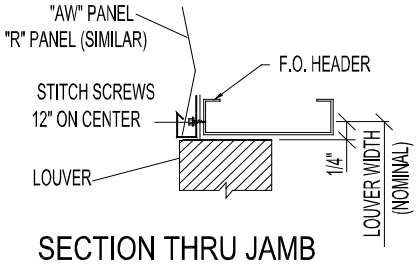




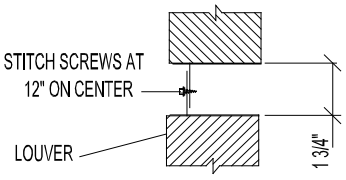
SECTION THRU SILL (AT GIRT)



SECTION THRU SILL (AT BASE)



SECTION THRU JAMB (WITH "AW" PANEL)

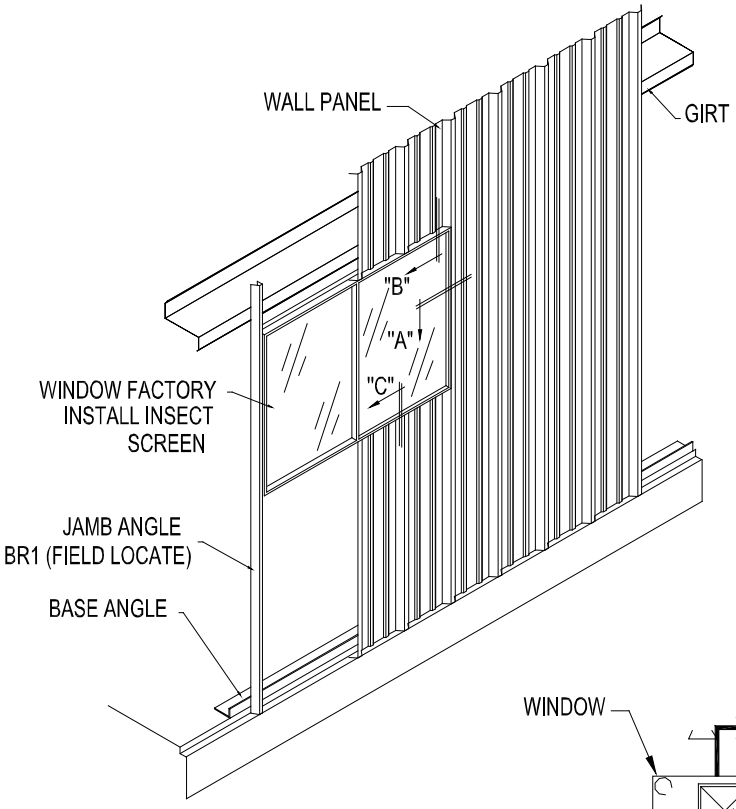


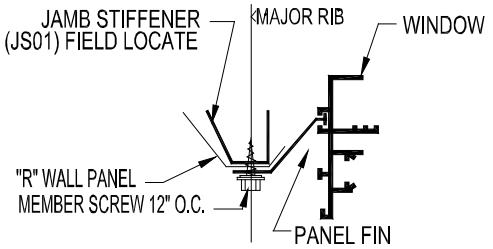
SECTION THRU JAMB AT MULLION

NOTES :

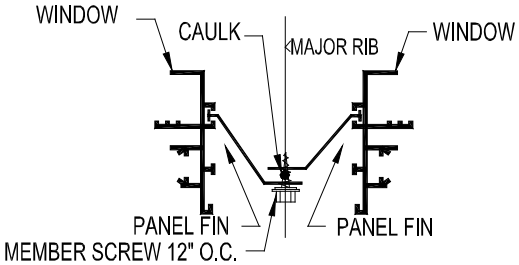
1. Standard louvers replace panel widths
2. Standard louvers sizes are 3'x3' & 6'x3' high (nominal)
3. Multiple units are available horizontally
4. Louvers will be field located
5. Wall panels will be field cut where required
6. Jamb angles will be provided for support (field located)

ON "R" WALL PANEL

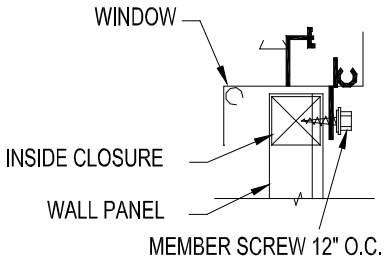




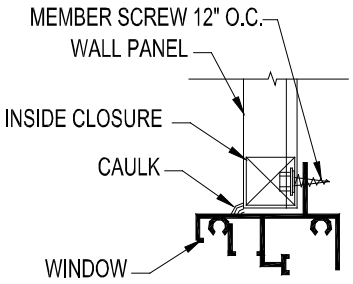
SECTION "A"



SECTION "A"
AT MULLION



SECTION "C"



SECTION "B"

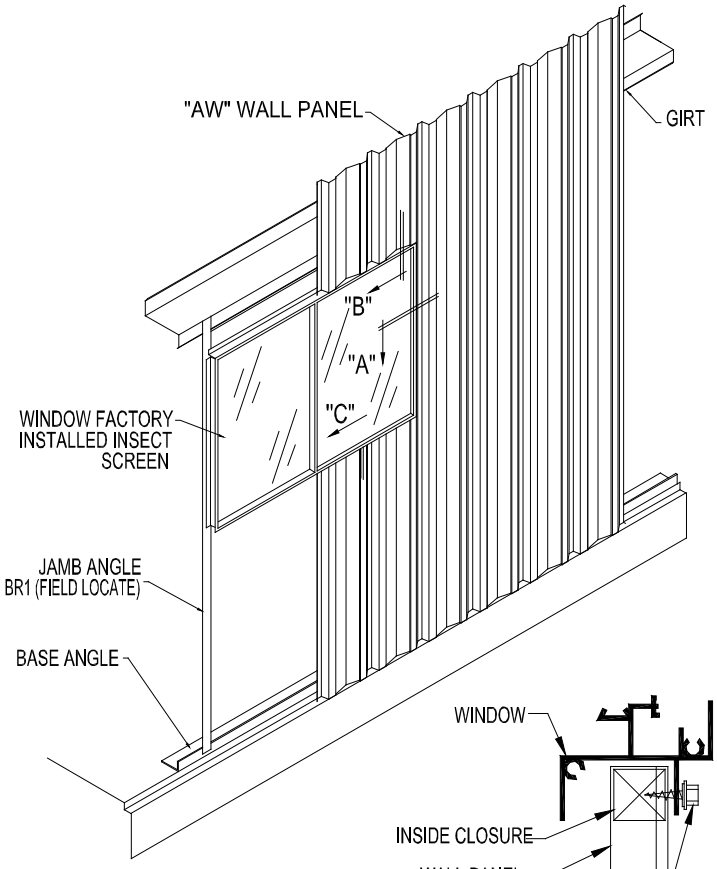
GENERAL NOTES

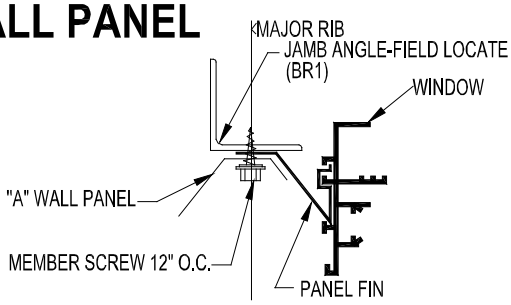
1. Aluminum horizontal sliding windows are self-flashing units w/pre-glazed dsb clear or 1/8" obscure (3030-only) or storm sash with clear glass and must be specified on purchase order.
2. Windows are furnished for field location with jambs located at major ribs. panels above and below window must be field cut and may be cut from a full length panel.
3. Buildings with a girt at 3'-9 elev. the jamb angles will be omitted.
4. 6030 Windows are available with obscure glass as an optional extra and must be specified on purchase order.

ERECTION PROCEDURE:

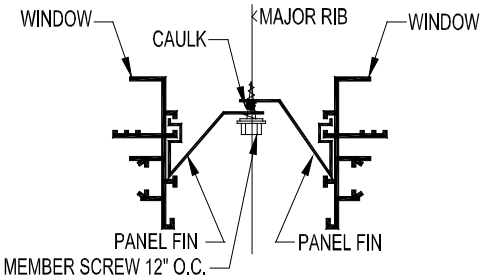
1. Field locate jamb angles 3'-2 1/2 from heel to heel of angles. jamb angles must be located so as to occur at major ribs.
2. Locate window and attach temporarily with pop rivets. pop rivets are not intended for any purpose after installation of wall panels is complete.
3. Using standard procedure, erect wall panels up to window location. cut a 3'-0 section from a full length panel and install short panels above and below window. be sure that filler strips are positioned before attaching panels. continue with standard wall panel erection procedure.
4. Caulk continuous along window header to insure a weather tight installation.

SELF FLASHING WINDOWS ON "AW" WALL PANEL

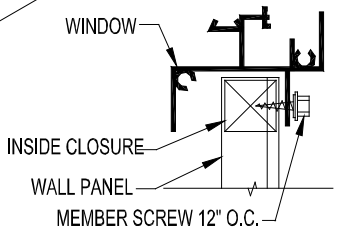




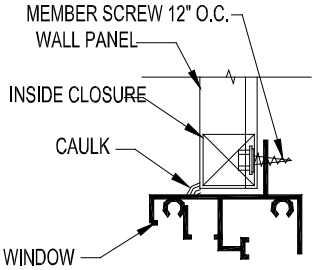
SECTION "A"



SECTION "A"
AT MULLION



SECTION "C"



SECTION "B"

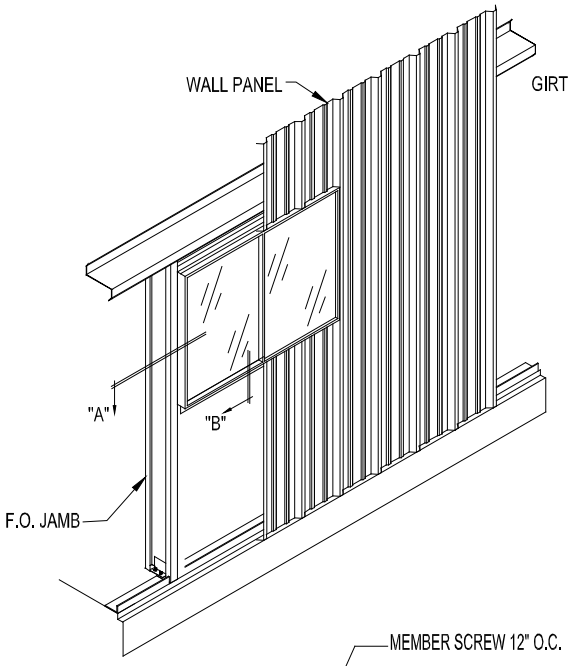
GENERAL NOTES

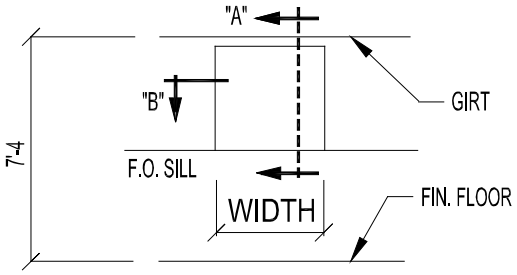
1. Aluminum horizontal sliding windows are self-flashing units w/pre-glazed dsb clear or 1/8" obscure (3030-only) or storm sash with clear glass and must be specified on purchase order.
2. Windows are furnished for field location with jambs located at major ribs. panels above and below window must be field cut and may be cut from a full length panel.
3. Buildings with a girt at 3'-9 elev. the jamb angles will be omitted.
4. 6030 Windows are available with obscure glass as an optional extra and must be specified on purchase order.

ERECTION PROCEDURE:

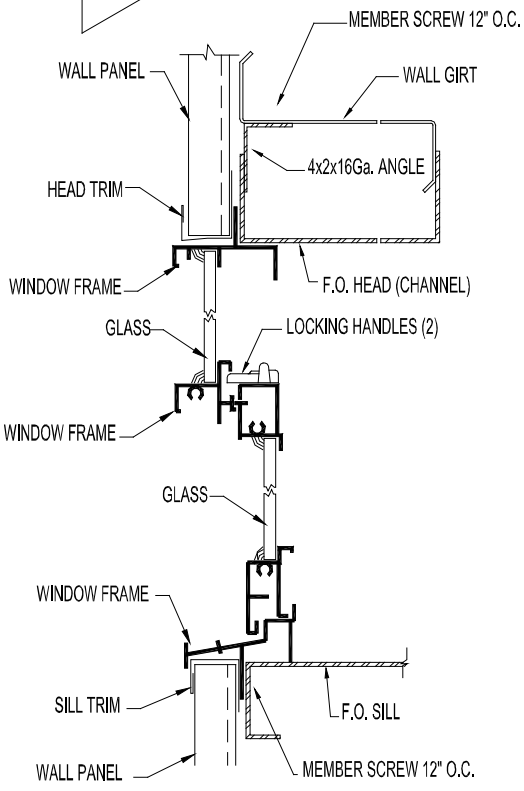
1. Field locate jamb angles 3'-2 1/2 from heel to heel of angles. jamb angles must be located so as to occur at major ribs.
2. Locate window and attach temporarily with pop rivets. pop rivets are not intended for any purpose after installation of wall panels is complete.
3. Using standard procedure, erect wall panels up to window location. cut a 3'-0 section from a full length panel and install short panels above and below window. be sure that filler strips are positioned before attaching panels. continue with standard wall panel erection procedure.

SINGLE HUNG WINDOW
WITH FRAMED OPENING

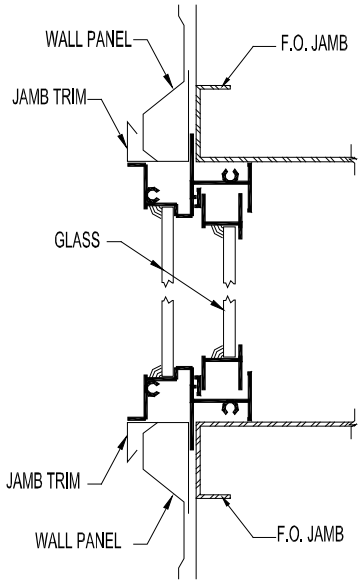




NOMINAL SIZE	ACTUAL SIZE		F.O. SIZE	
	WIDTH	HEIGHT	WIDTH	HEIGHT
3030	2'-11[8	3'-0	3'-0	3'-0[8
3040	2'-11[8	4'-0	3'-0	4'-0[8
3050	2'-11[8	5'-0	3'-0	5'-0[8

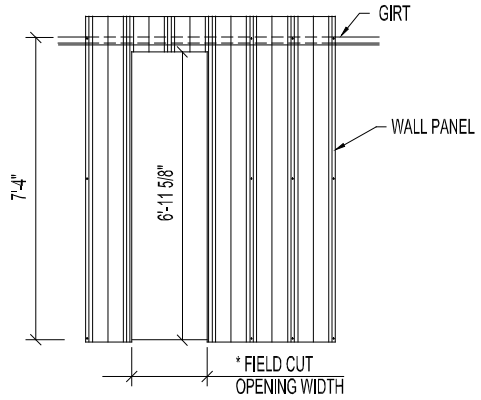


SECTION "A"

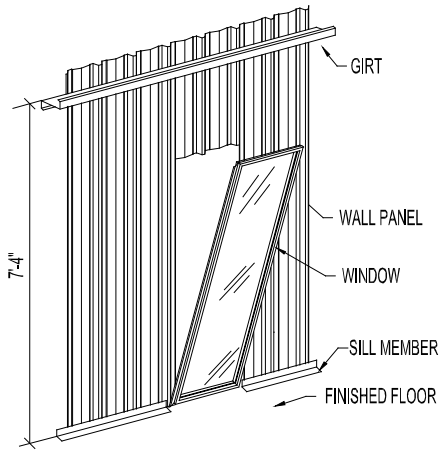


SECTION "B"

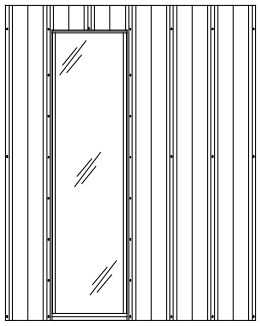
SLIM LINE SELF FLASHING WINDOW
(ALUMINUM NARROW LITE ACCENT WINDOW)



WALL PANEL OPENING ELEVATION



ISOMETRIC INSTALLATION DETAIL



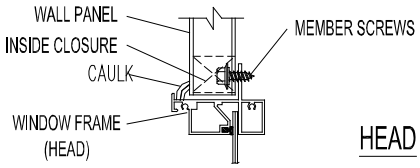
FINISHED WINDOW ELEVATION

GENERAL NOTES

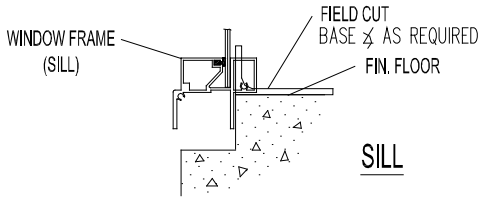
1'-0 x 7'-0 CUT-SIZE = 0'-10 x 6'-11 5/8
2'-0 x 7'-0 CUT-SIZE = 1'-10 x 6'-11 5/8
3'-0 x 7'-0 CUT-SIZE = 2'-10 x 6'-11 5/8

1'-0. 2'-0, AND 3'-0 WIDTH UNITS UTILIZE ON METAL BUILDING PANELS WITH 12" CENTERLINE MAJOR RIB.

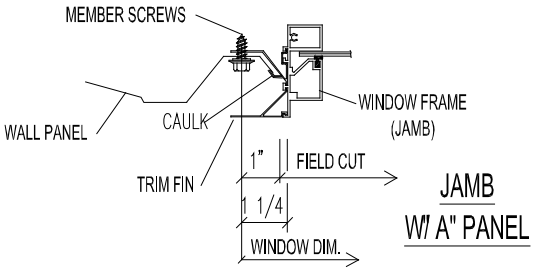
SIZE	TYPE	AVAILABLE GLAZING		AVAILABLE FINISH
		GRAY TEMPERED	INSULATED	BRONZE PAINTED
1070	FIXED GLASS	STANDARD	OPTION	STANDARD
2070	FIXED GLASS	STANDARD	OPTION	STANDARD



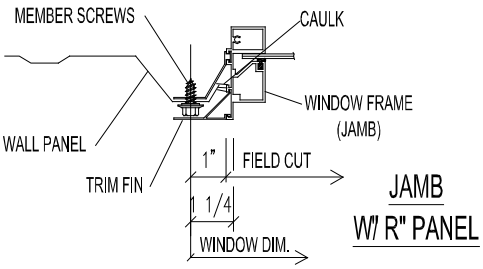
HEAD



SILL

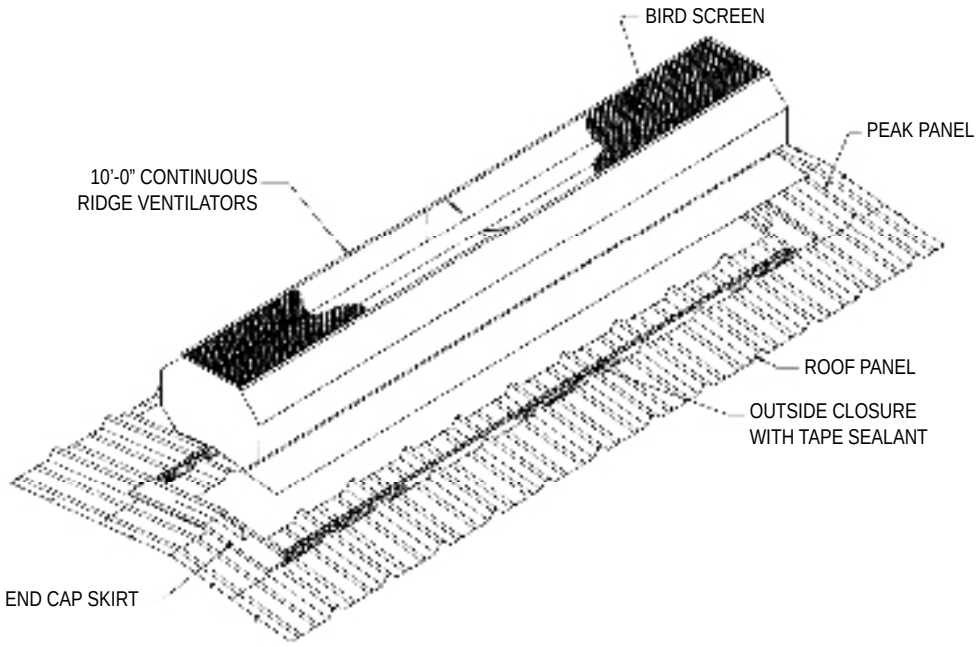


JAMB
W/ A" PANEL



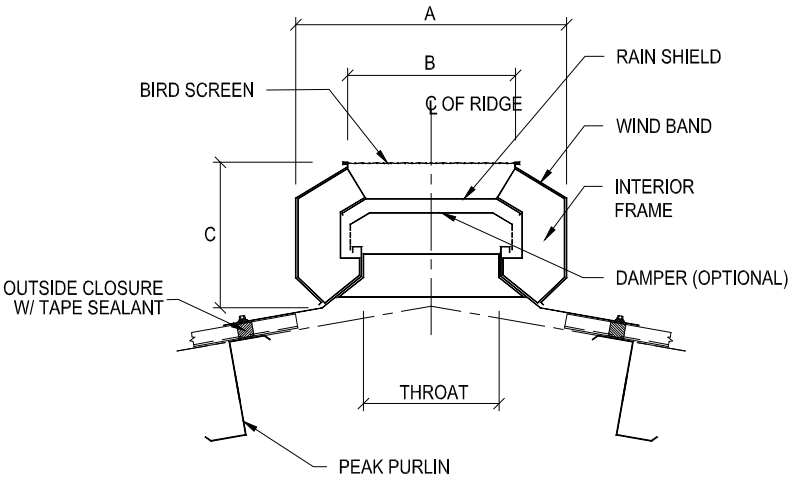
JAMB
W/ R" PANEL

CONTINUOUS OR SECTIONAL RIDGE VENTILATORS

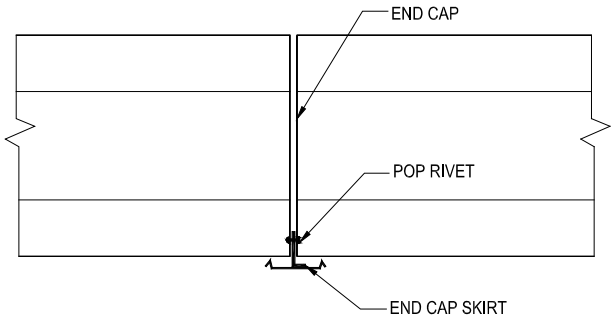


SPECIFICATIONS

CONTINUOUS OR SECTIONAL RIDGE VENTILATORS shall be supplied with bird screen and will be furnished in 10'-0" lengths. Multi-unit splice drains and end cap skirt assemblies, where required, shall be provided to make up the specified length. Dampers are optional and if required, shall be a spring loaded vertical rising type, operated by a pull cord. Ridge ventilators are provided with flat skirt bases and require outside closures to match the roof panel on which it is used. They are available in Polar White or Galvalume. Other colors are available upon request and at additional cost.



THROAT	GAUGE	A	B	C
9"	26	22"	12 3/4"	15 1/4"
12"	26	28 1/4"	17 1/4"	19 1/2"

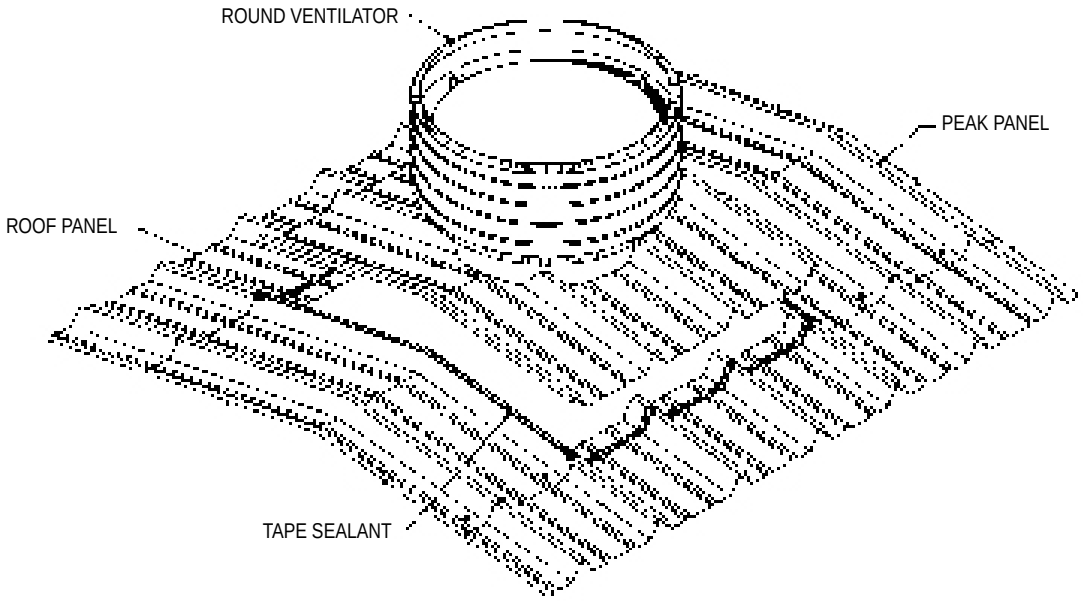


END CAP SKIRT DETAIL
(FOR MULTIPLE UNITS)

VENTILATOR CAPACITY RATINGS (FT³/ MIN. / 10' OF VENT)						
STACK HEIGHT	TEMPERATURE DIFFERENCE					
	15°		20°		25°	
	9"	12"	9"	12"	9"	12"
15'-0"	1917	2556	2160	2880	2322	3096
20-0"	2187	2916	2484	3312	2673	3564
25'-0"	2403	3204	2700	3600	2916	3888
30'-0"	2619	3492	2916	3888	3159	4212
35'-0"	2754	3672	3078	4104	2348	4464
40'-0"	2916	3888	3294	4392	3510	4680
45'-0"	3024	4032	3456	4608	3726	4968
50'-0"	3186	4248	3591	4788	3888	5184

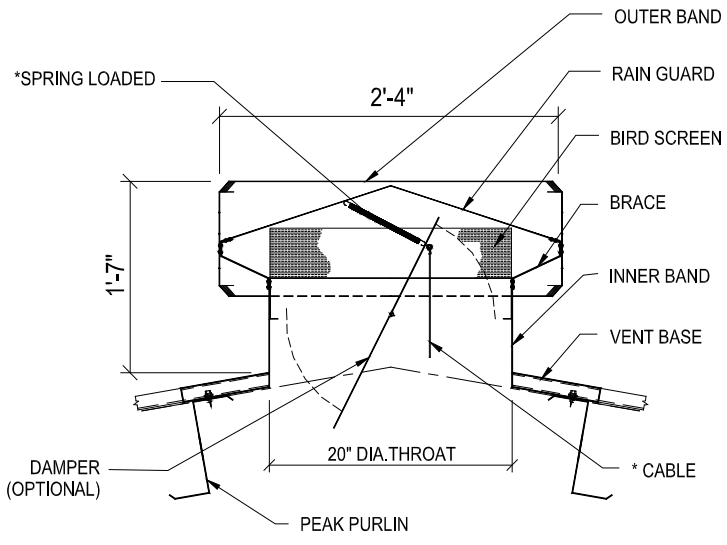
NOTE:
THE FIGURES ON THE TABLE ARE THEORETICAL AND DO NOT TAKE INTO CONSIDERATION SUCH FACTORS AS ADJOINING STRUCTURES WHICH MAY BLOCK WIND FLOW ACROSS VENT. THE ESTIMATED TEMPERATURE AT THROAT WITH DAMPER IS THE DIFFERENCE BETWEEN INLET AIR TEMPERATURE AND TEMPERATURE AT THROAT WITH DAMPER OPEN. STACK HEIGHT IS MEASURED FROM FLOOR TO VENT.

ROUND GRAVITY VENTS



SPECIFICATIONS

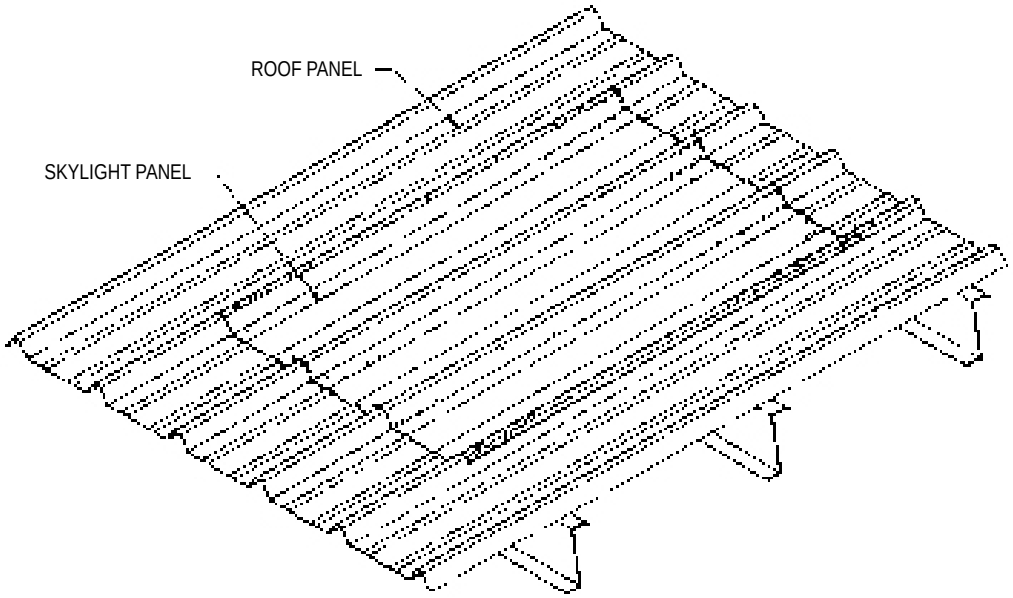
ROUND GRAVITY VENTILATORS shall have bird screen, interior baffles and exterior wind bands designed for maximum air flow. Round ventilators are furnished with or without dampers. Damper shall be spring-loaded butterfly type, operated by a pull cable. Ventilators maybe peak or hillside mounted and vent base configuration normally matches the roof panel on which it is used. It is available in Polar White and Galvalume.

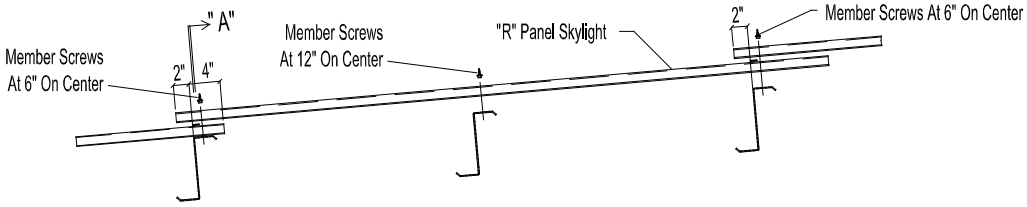


* INCLUDED WITH DAMPER OPTION

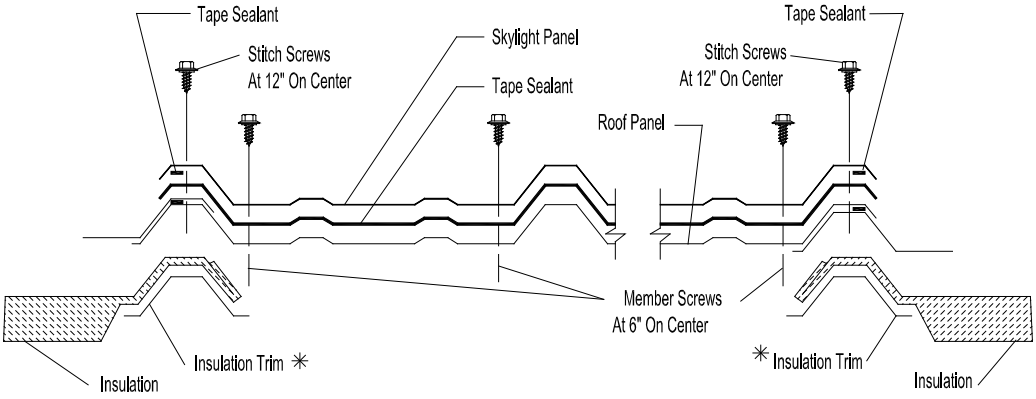
SECTION

"R" SKYLIGHT PANEL INSTALLATION





SECTION THRU STANDARD SKYLIGHT ROOF PANEL

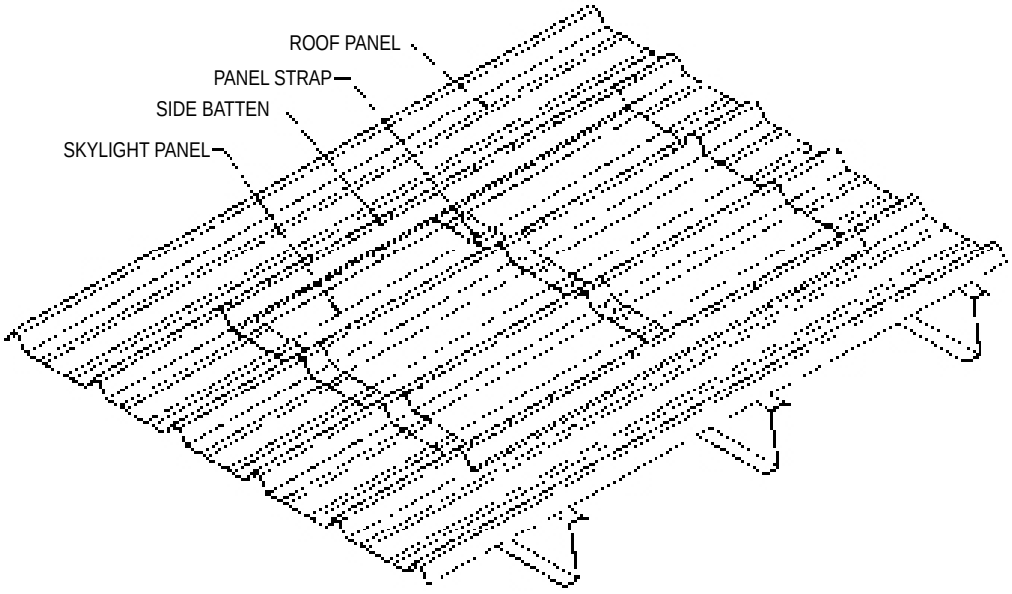


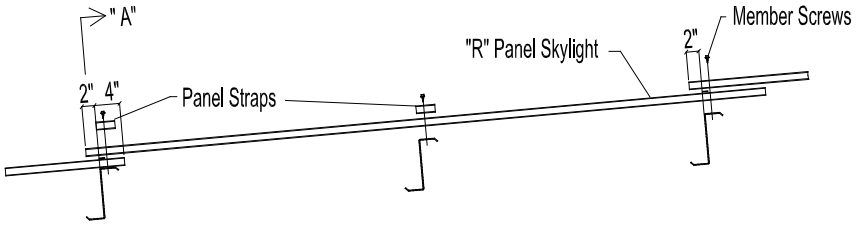
SECTION "A"

✳ Must Be Noted On Job Order

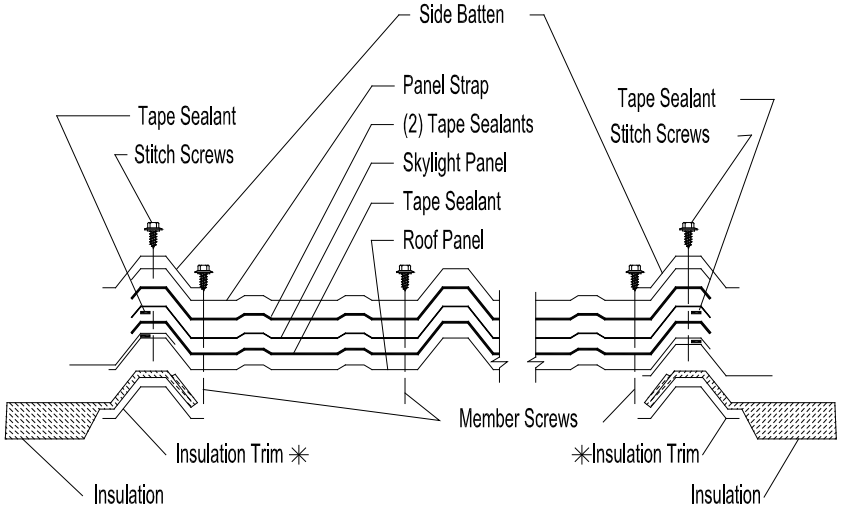
STANDARD SKYLIGHT PANEL INSTALLATION

"R" INSULATED SKYLIGHT PANEL AND UL90 ASSEMBLY





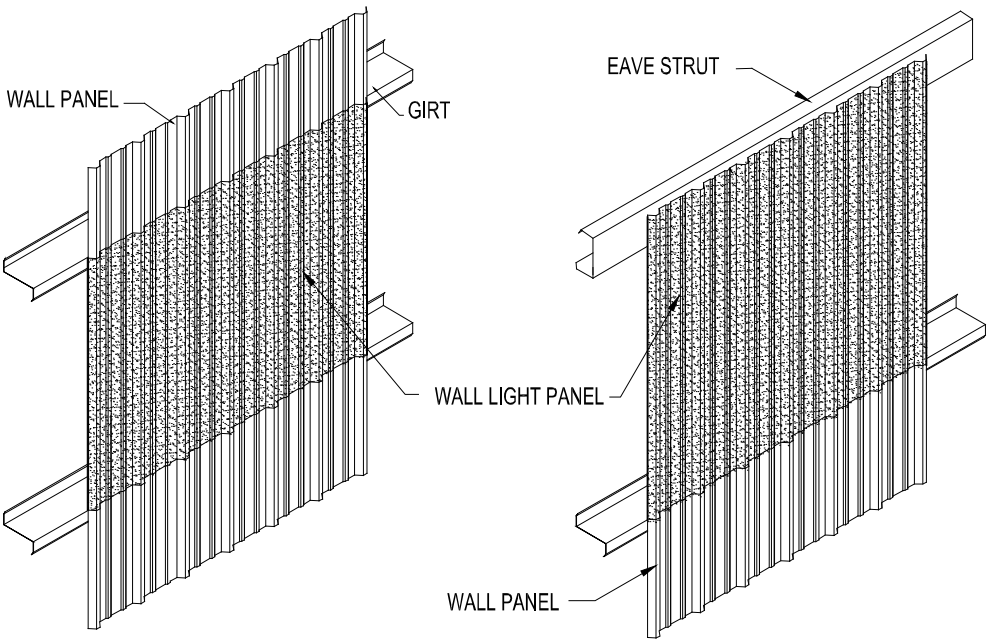
SECTION THRU UL-90 or INSULATED SKYLIGHT ROOF PANEL

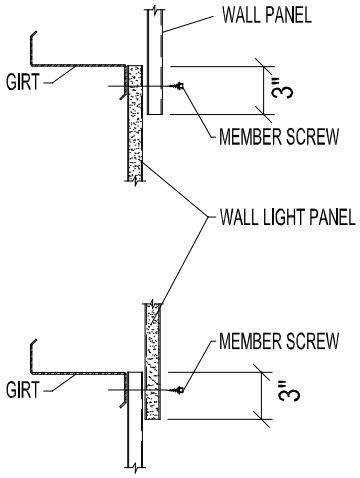


✳ Must Be Noted On Job Order

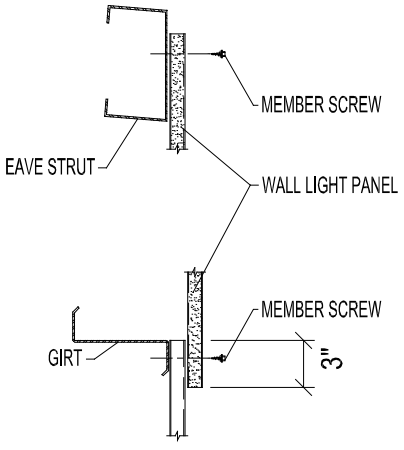
SECTION "A"

"R" WALL LIGHT PANEL



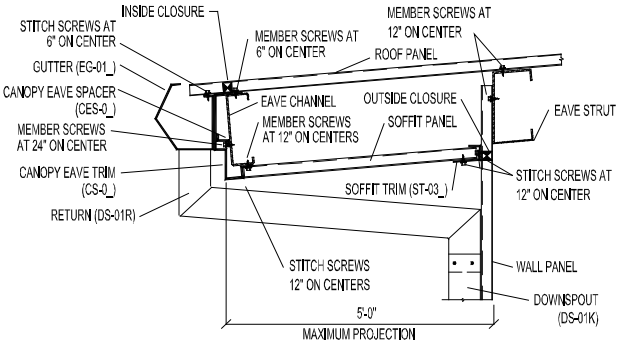


PANEL BETWEEN GIRTS

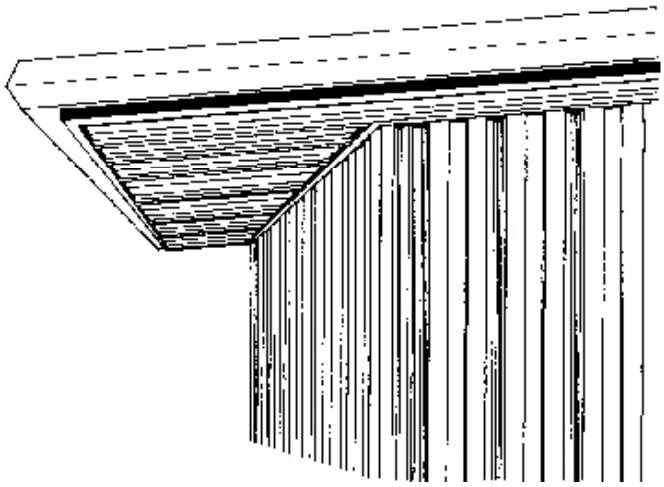


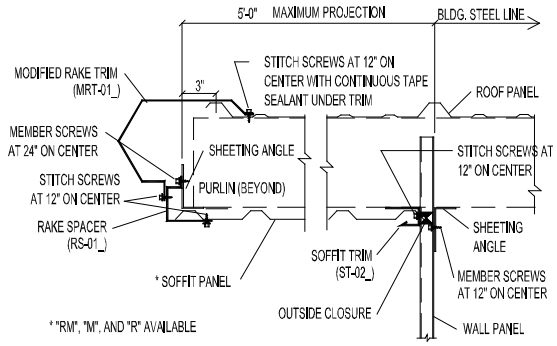
PANEL AT EAVE STRUT

FLUSH SIDEWALL AND ENDWALL CANOPIES



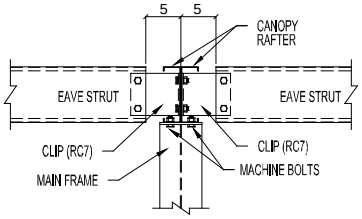
SECTION THRU EAVE CANOPY



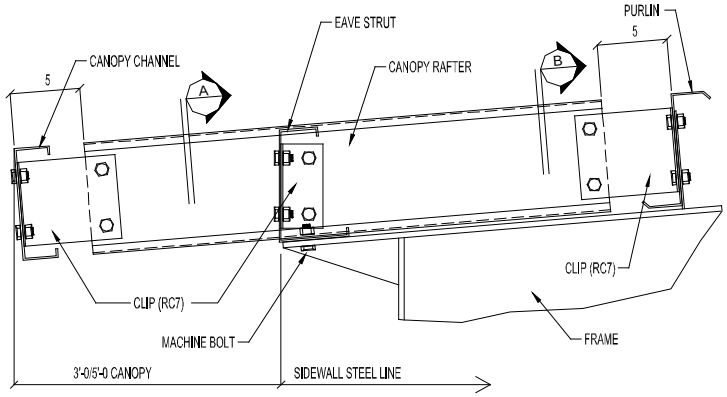


SECTION AT ROOF EXTENSION

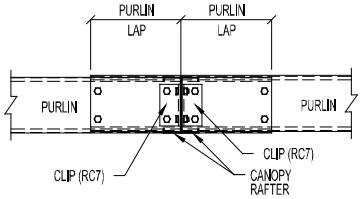
DESIGN LIMITATIONS:
MAXIMUM ROOF SNOW LOAD SHOULD BE **30 PSF** WITH IMPORTANCE FACTOR OF **1.0** ONLY!



SECTION "A"

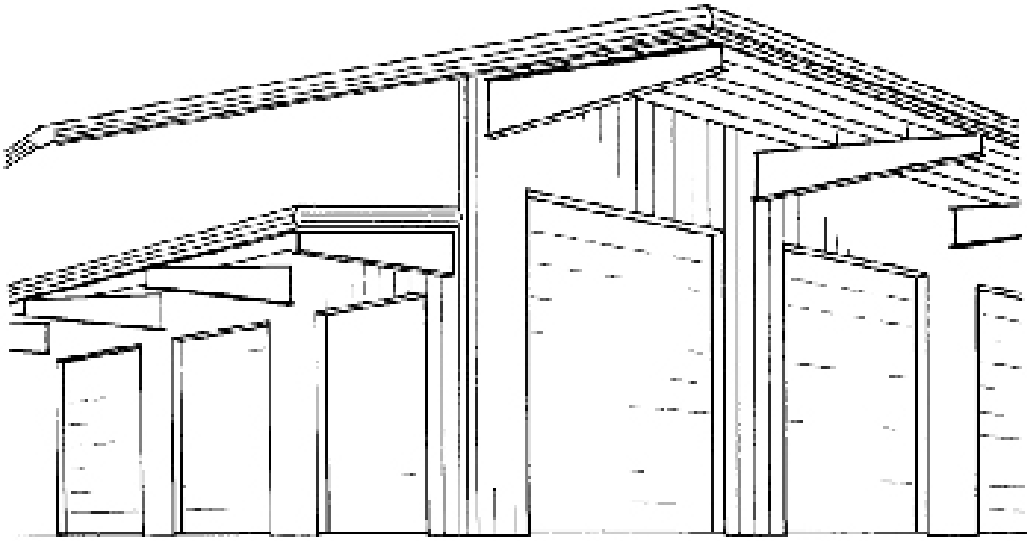


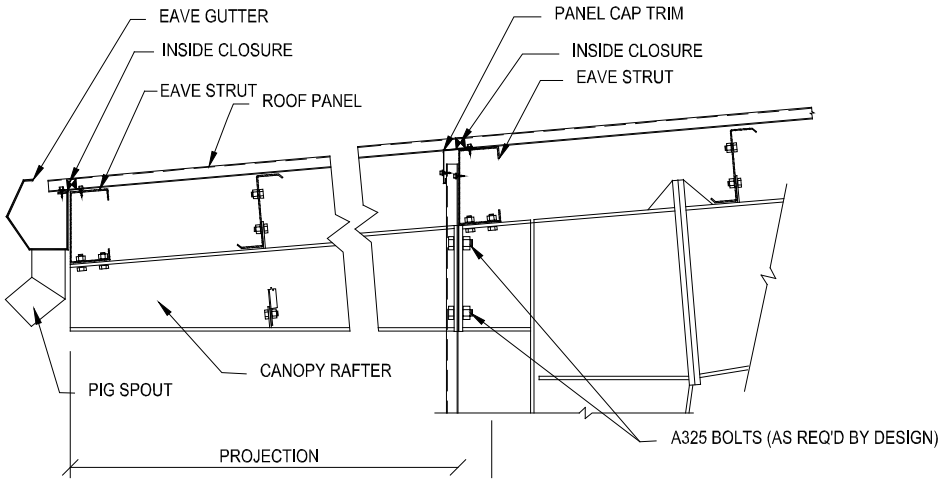
EAVE CANOPY AT MAIN FRAME



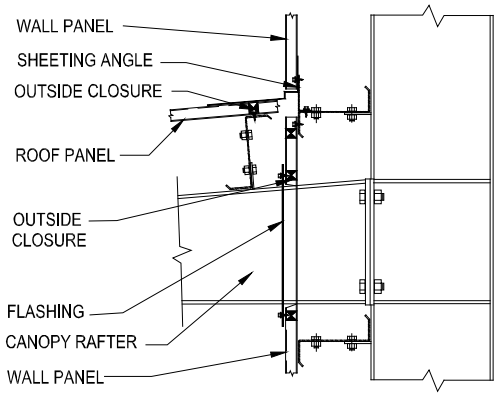
SECTION "B"

BY-FRAME SIDEWALL AND ENDWALL CANOPIES



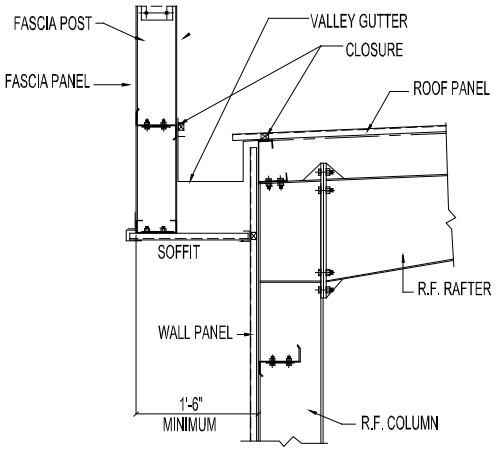


EAVE CANOPY

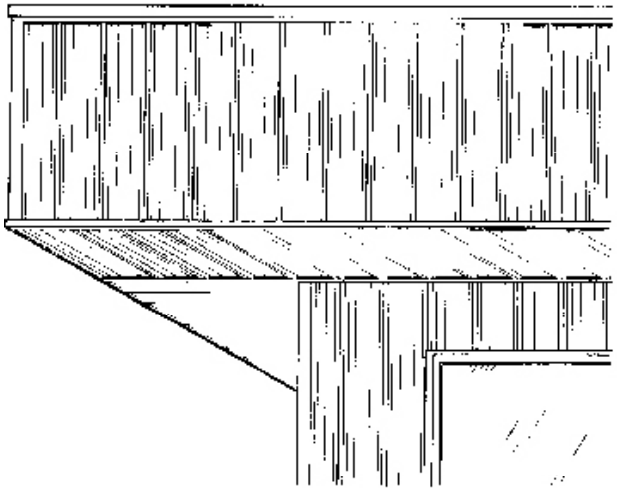


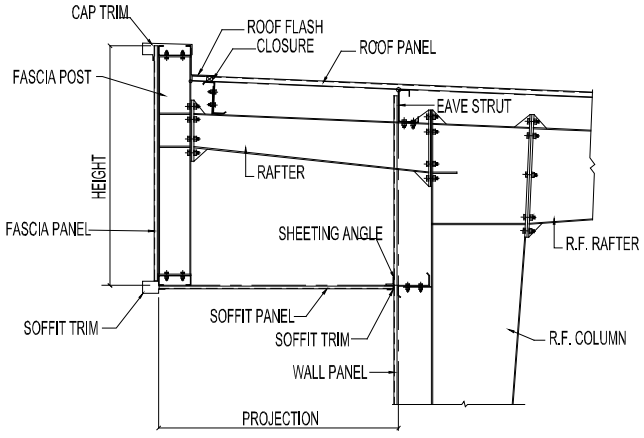
BELOW EAVE CANOPY

VERTICAL FASCIAS

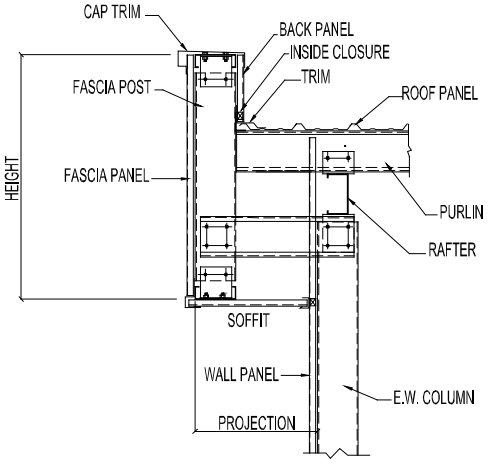


DETAIL AT SIDEWALL



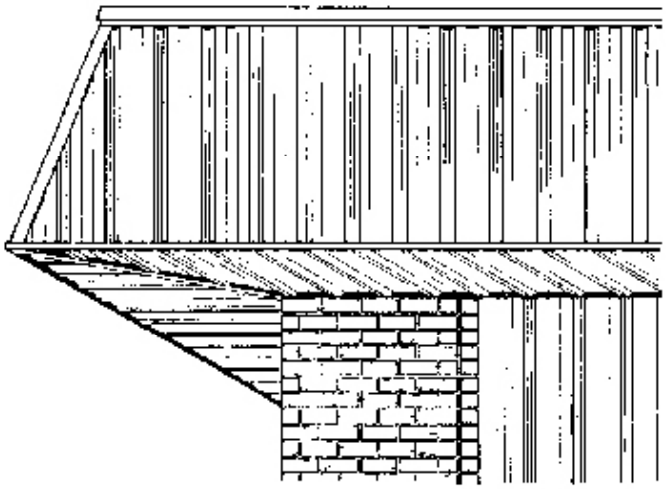


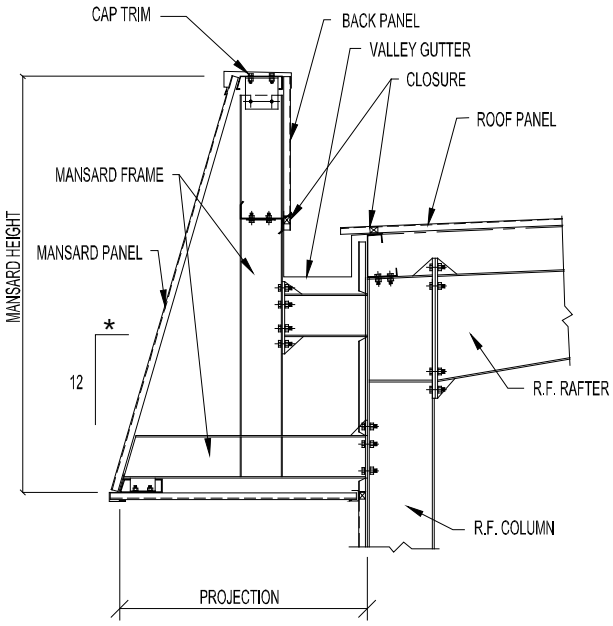
DETAIL AT HIGH SIDEWALL



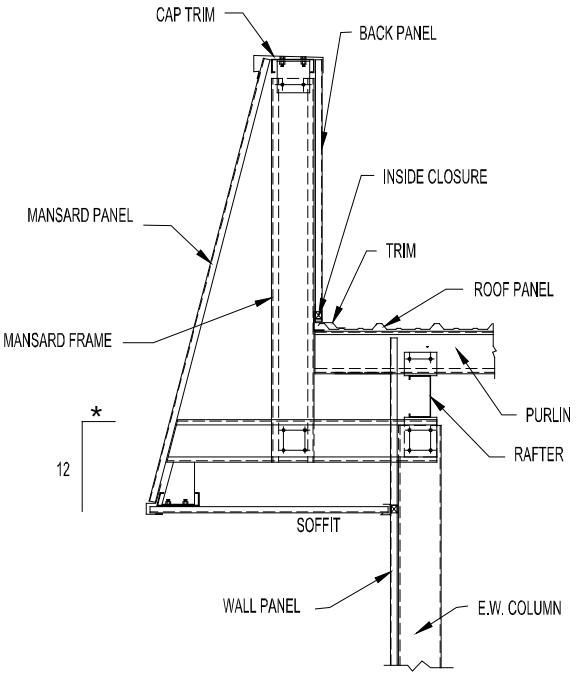
DETAIL AT ENDWALL

MANSARD





DETAIL AT SIDEWALL

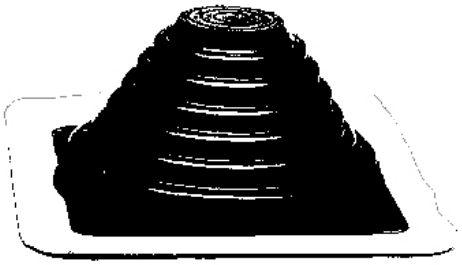


DETAIL AT ENDWALL

ROOF JACKS

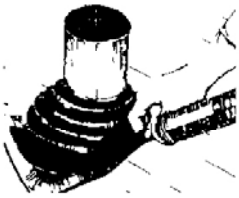
SPECIFICATIONS

ROOF JACKS shall be for flashing of plumbing vent stacks and / or other pipe like penetrations.They are available in 2” to 3” in diameters. It has a flat malleable bases and can be field formed to fit any standard panel configuration. Standard jacks have a heat range of -65 degrees centigrade to +250 degrees centigrade. Jacks are standard black color.

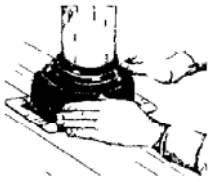


STEP 1

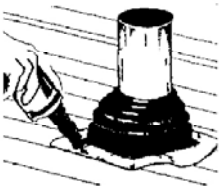
STEP 2



STEP 3



STEP 4



STEP 5

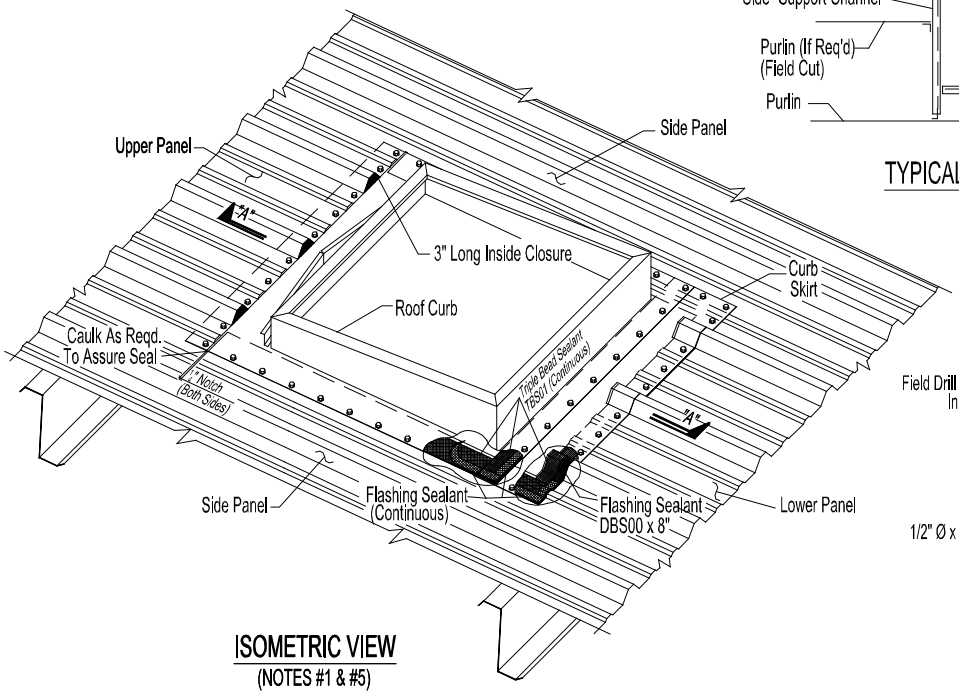
INSTALLATION PROCEDURES

1. Trim opening to 20% smaller than pipe diameter.
2. Slide down over pipe.
3. Apply tube sealant between flashing and roof panel.
4. Press down, bending flashing to fit irregularities. Use large slot screw driver to press into tight angles.
5. Use fasteners to finish sealing.

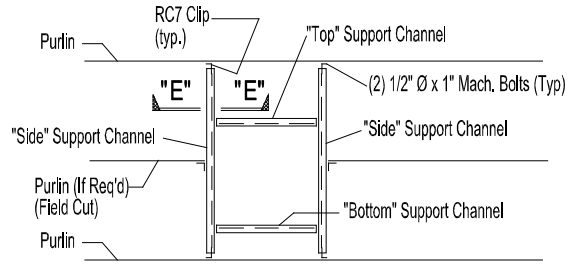
SIZING CHART			
MASTER FLASH NUMBER	PIPE SIZE	BASE DIMENSION	OPENING DIAMETER
3	1/4” - 4”	8”	CLOSED
5	4” - 7”	11”	3 1/2”

OTHER SIZES AVAILABLE UPON REQUEST.

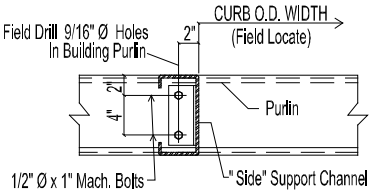
(HILLSIDE MOUNTED ON "R" OR "PBR" PANEL)



ISOMETRIC VIEW
(NOTES #1 & #5)



TYPICAL FRAMING PLAN



SECTION ""E" - "E"

ROOF CURB INSTALLATION:

1. ALIGN ROOF CURB WITH SUPPORT STEEL. MARK & CUT OPENING IN ROOF PANELS, USING CLEARANCE DIMENSIONS SHOWN (SEE SECTIONS). NOTCH SIDE PANEL(S) 1/4" AT HIGH SIDE OF CURB (SEE ISOMETRIC VIEW).

2. PLACE CURB SKIRT OVER LOWER PANEL(S), MARK REQUIRED LENGTH & FIELD CUT SKIRT. APPLY (1) CONTINUOUS RUN OF TRIPLE BEAD TAPE SEALANT (TBS01) & (1) CONTINUOUS SIDE PANELS RUN OF FLASHING SEALANT (DBS00) TO LOWER PANEL(S) & 8" ON SIDE PANELS. APPLY AN 8" PIECE OF FLASHING SEALANT TO THE LOWER PANEL'S HIGH RIBS. INSTALL CURB SKIRT AND ATTACH WITH MEMBER SCREWS AT 4" O.C. (SECTION "D"-"D")

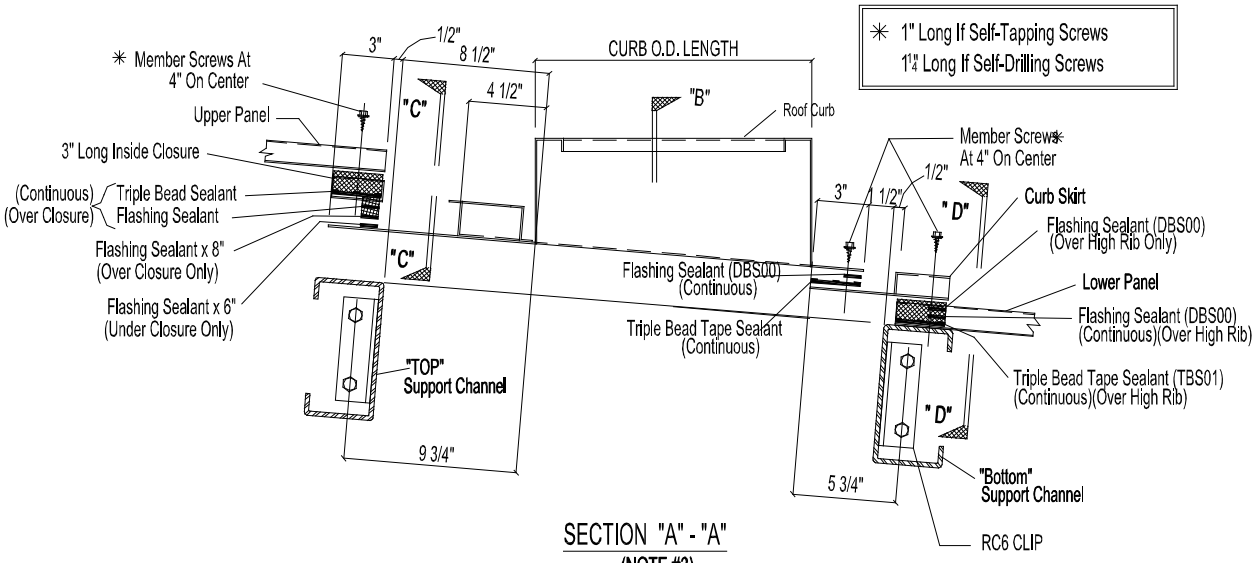
3. APPLY (1) CONTINUOUS RUN OF TRIPLE BEAD SEALANT AND (1) CONTINUOUS RUN OF FLASHING SEALANT TO UNDERSIDE OF THE UPPER PANEL(S). "DO NOT REMOVE PAPER BACKING FROM THE FLASHING SEALANT ". (SECTION "A"-"A" & "B"-"B")

4. APPLY (1) CONTINUOUS RUN OF TRIPLE BEAD SEALANT AND (1) CONTINUOUS RUN OF FLASHING SEALANT TO THE FLAT PORTION OF THE CURB SKIRT AND TO PANELS AT SIDES OF OPENING. "DO NOT REMOVE PAPER BACKING FROM THE FLASHING SEALANT ". APPLY A 6" PIECE OF FLASHING SEALANT TO THE BOTTOM OF AN 8" PIECE FLASHING SEALANT TO THE TOP OF EACH 3" LONG INSIDE CLOSURE. (SECTION "C"-"C")

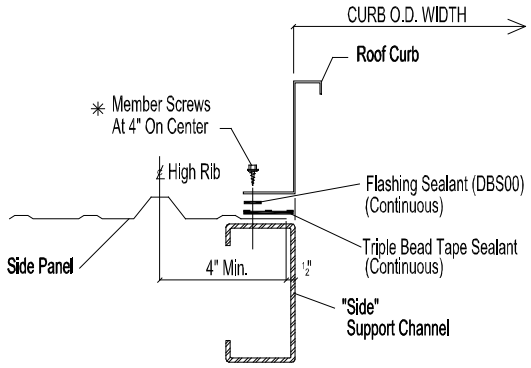
5. SLIDE HIGH SIDE OF CURB BASE UNDER UPPER PANEL(S), HOLDING LOW SIDE OF CURB 12" +/- ABOVE LOWER PANEL(S). REMOVE PAPER BACKING FROM THE TAPE SEALANT ON BOTH SIDES OF OPENING AND CURB SKIRT. LOWER ROOF CURB INTO POSITION. LIFT THE UPPER PANEL(S) AND REMOVE PAPER BACKING FROM THE TAPE SEALANT. INSTALL INSIDE CLOSURE(S) AND REPOSITION UPPER PANEL(S). INSTALL MEMBER SCREWS AT 4" ON CENTER AT SIDES AND UPPER PANEL(S) AND CURB SKIRT. APPLY CAULK AS REQUIRED TO SEAL ALL VOIDS AND HOLES.

6. TIGHTEN ALL SCREWS UNTIL MASTIC SQUEEZES. REPLACE ANY STRIPPED SCREWS WITH LARGER SCREWS (NOT BY RIGID).

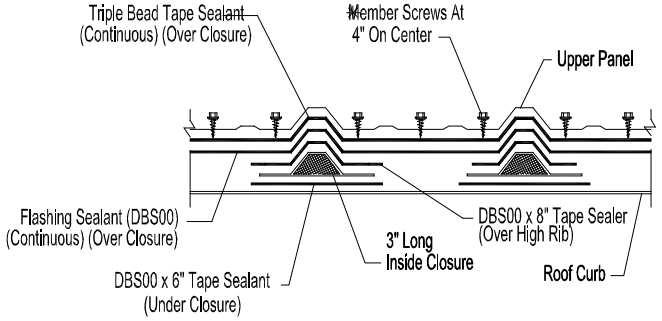
ROOF CURB (CONT.)



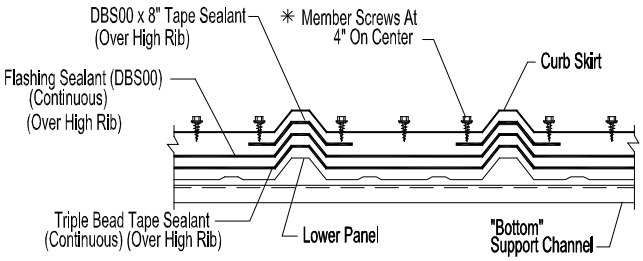
SECTION "A" - "A"
(NOTE #3)



SECTION "B" - "B"
(NOTE #3)



SECTION "C" - "C"
(NOTE #4)



SECTION "D" - "D"
(NOTE #2)

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