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**UC6**

**Structural Batten Seam Panel**

## DESCRIPTION

The double-lock 2-inch standing seam panels system is mechanically attached with concealed fasteners and sliding clips and installed in a sequential pattern. All systems are to be accurately roll formed to specified dimensions and tolerances.

## FEATURES

- flatness
- excellent deflection resistance
- very lightweight
- various profiles and performance standards
- 20-year warranty on coil-coated Hylar 5000™/Kynar 500® finish
- sequential installation
- irregular-shaped panels

## MATERIAL OPTIONS

- coil-coated steel (20-year warranty) extra smooth galvanized
- coil-coated aluminum (20-year warranty)
- coil-anodized aluminum (20-year warranty)
- post-painted aluminum (short run, custom colors)
- stainless steel
- copper in various gauges and finishes

## FINISH OPTIONS

- Hylar 5000™/Kynar 500® coil-coated 2-, 3-, and 4-coat paint systems
- Hylar 5000™/Kynar 500® spray-coated 2-, 3-, and 4-coat paint systems
- coil anodized
- batch anodized
- stainless steel with #4 brushed-satin finish
- fluoropolymer high gloss finish
- special coatings

## JOINT DESIGN

- lock-form (18" and 24" nominal seam spacing)
- custom seam spacing available

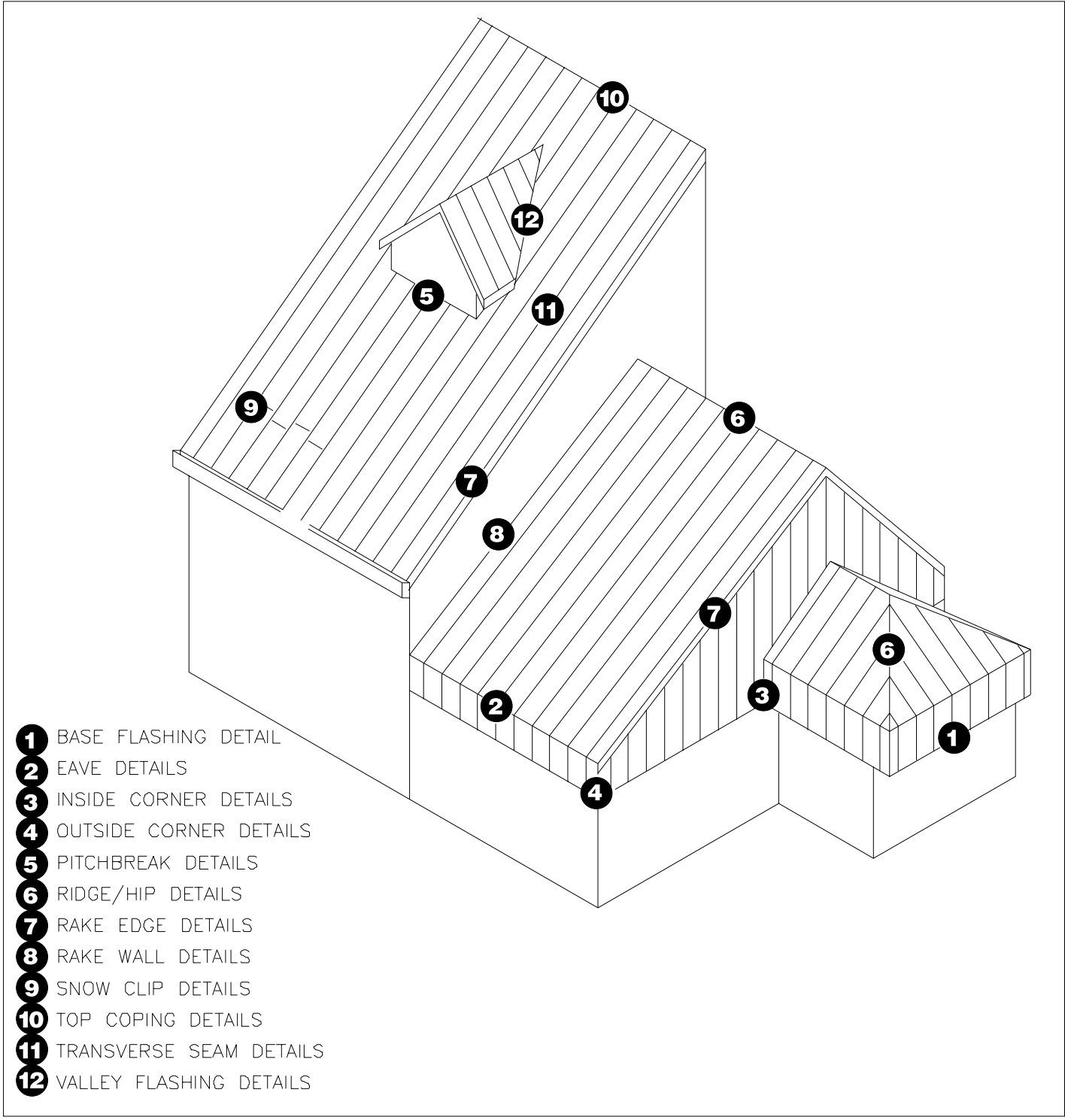
## LIMITATIONS

- cannot be radiused
- tapered panels not available
- length restrictions apply

<b>UC-6 STRUCTURAL DOUBLE LOCK STANDING SEAM UC6-INFO</b>																
<b>MATERIAL OPTIONS</b>	<b>FINISH OPTIONS</b>															
COIL-COATED STEEL COIL-COATED ALUMINUM ARCHITECTURAL GRADE SHEET COPPER ANODIZED ALUMINUM MILL FINISH ALUMINUM	<b>PAINTING</b> HYLAR 5000™/KYNAR 500®, MODIFIED POLYESTERS, AND OTHER CUSTOM OR EXOTIC FINISHES CAN BE COIL COATED OR SPRAY APPLIED.  <b>ANODIZING</b> CLEARS, BRONZES, AND VARIOUS OTHER COLORS CAN BE COIL ANODIZED FOR COLOR CONSISTENCY.  <b>MECHANICAL FINISHES</b> PROVIDES A SURFACE TEXTURE BY MECHANICAL MEANS ALONE. THREE (3) EMBOSSING PATTERNS ARE CURRENTLY AVAILABLE.  <b>CUSTOM COLORS</b> WE CAN PROVIDE FULL CUSTOM COLOR SERVICES TO MATCH PRACTICALLY ANY MATERIAL, SHADE, OR TINT YOU REQUEST.															
<b>FABRICATION OPTIONS</b>																
<table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 50%;">STEEL</td> <td>26 - 22 GAUGE</td> </tr> <tr> <td>ALUMINUM</td> <td>.032" - .040"</td> </tr> <tr> <td>COPPER</td> <td>16 &amp; 20 OZ.</td> </tr> <tr> <td>MINIMUM LENGTH</td> <td>36"</td> </tr> <tr> <td>MAXIMUM LENGTH</td> <td>600"</td> </tr> <tr> <td>BEST O.C. DIMS.</td> <td>18" &amp; 24"</td> </tr> <tr> <td>STIFFENING RIBS AVAILABLE</td> <td></td> </tr> <tr> <td>SEALANT AVAILABLE</td> <td></td> </tr> </table>		STEEL	26 - 22 GAUGE	ALUMINUM	.032" - .040"	COPPER	16 & 20 OZ.	MINIMUM LENGTH	36"	MAXIMUM LENGTH	600"	BEST O.C. DIMS.	18" & 24"	STIFFENING RIBS AVAILABLE		SEALANT AVAILABLE
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SEALANT AVAILABLE																
<b>TECHNICAL DATA</b>	<b>UC6 CLIP</b>															
UL-90 RATED (STEEL, ALUMINUM, & COPPER) ASTM E330-90 STRUCTURAL PERFORMANCE TESTING ASTM E283 AIR INFILTRATION TEST ASTM E331 WATER PENETRATION TEST	<p style="font-size: small;">* CLIPS ARE THREE INCHES LONG WITH (3) 1/4" DIA. HOLES</p>															
<b>NOTES:</b> 1. HEAVIER GAUGES, NARROWER WIDTHS, AND EMBOSSING MINIMIZE "OIL CANNING." 2. OIL CANNING IS NOT A CAUSE FOR REJECTION. 3. ROOF SYSTEMS ARE PACKAGED IN METAL CRATES TO MINIMIZE FREIGHT DAMAGE. 4. AN EXTENSIVE SELECTION OF ASSOCIATED PANEL FLASHINGS AND TRIMS ARE AVAILABLE.																

# UC6 Structural Double Lock Roof Panel Index

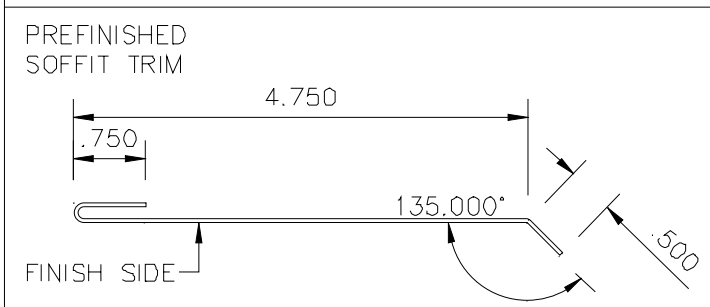
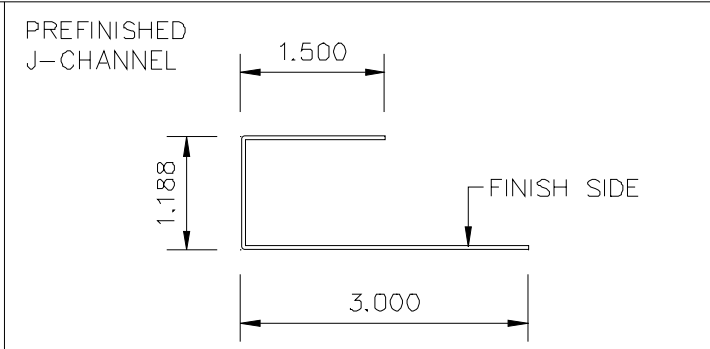
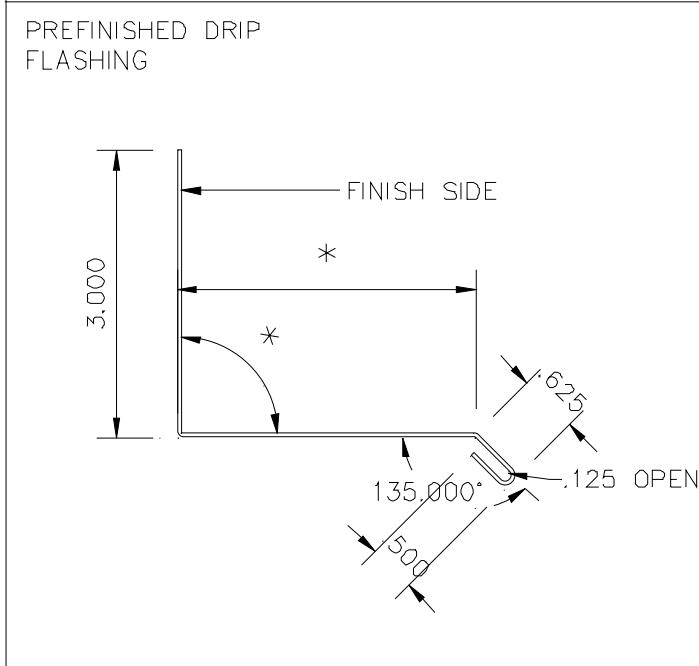
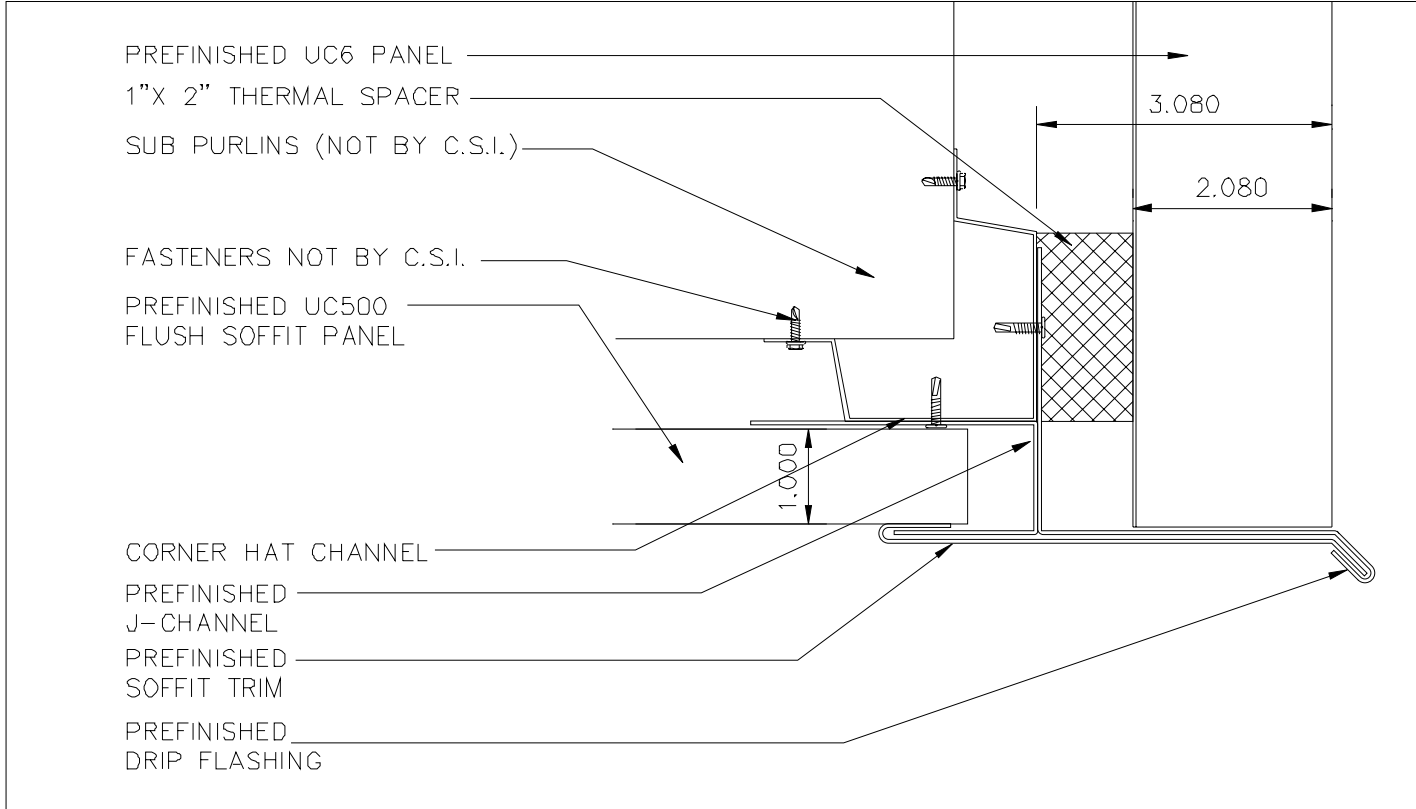
UC6-00



- 1** BASE FLASHING DETAIL
- 2** EAVE DETAILS
- 3** INSIDE CORNER DETAILS
- 4** OUTSIDE CORNER DETAILS
- 5** PITCHBREAK DETAILS
- 6** RIDGE/HIP DETAILS
- 7** RAKE EDGE DETAILS
- 8** RAKE WALL DETAILS
- 9** SNOW CLIP DETAILS
- 10** TOP COPING DETAILS
- 11** TRANSVERSE SEAM DETAILS
- 12** VALLEY FLASHING DETAILS

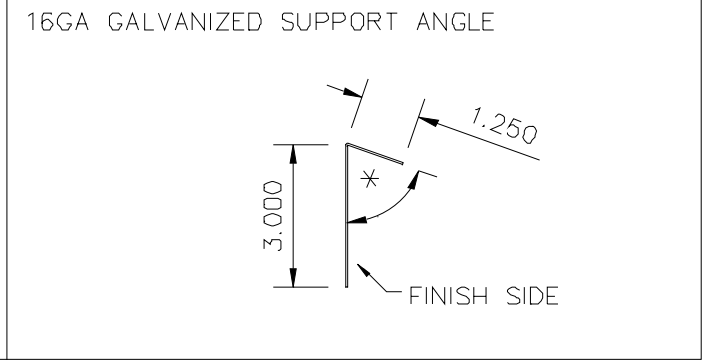
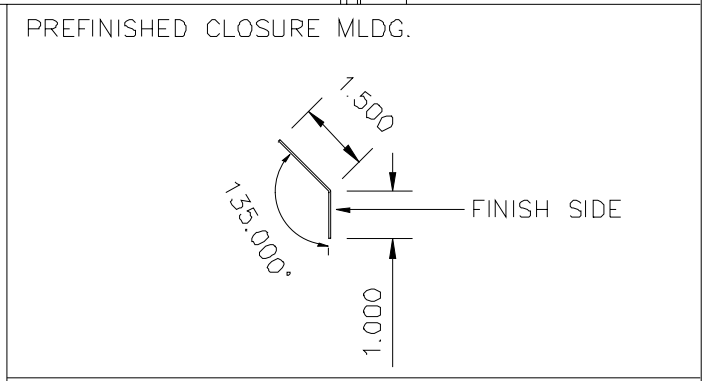
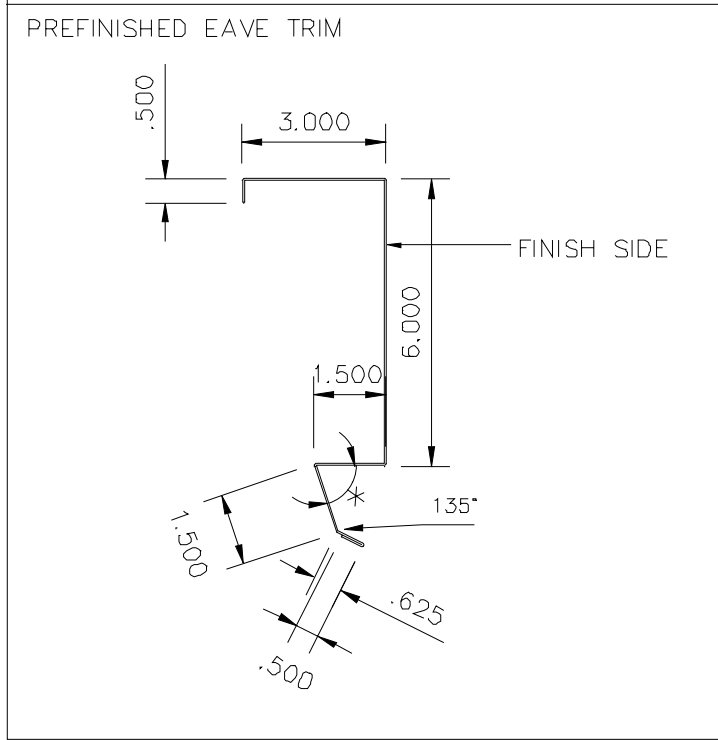
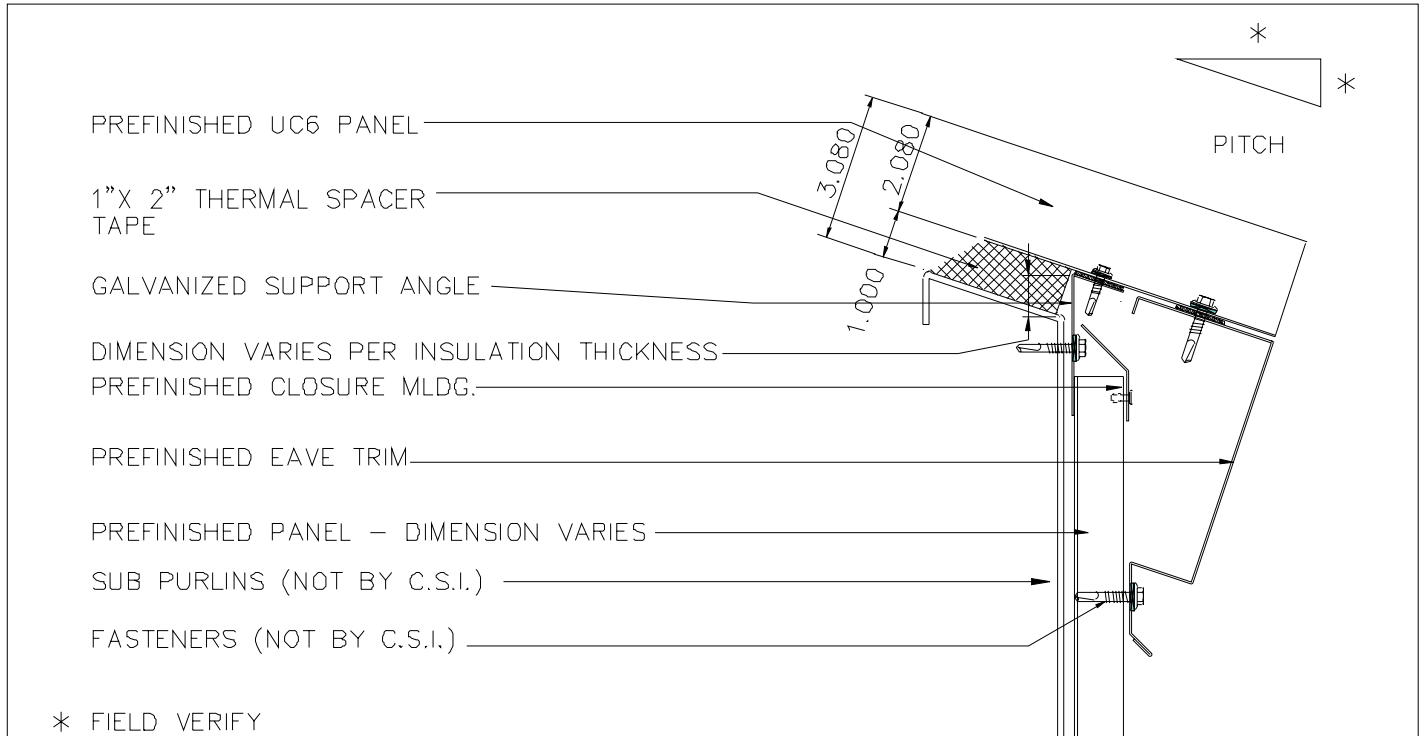
# UC6 Drip Flashing @ UC6 Flush Soffit Panel

UC6-01



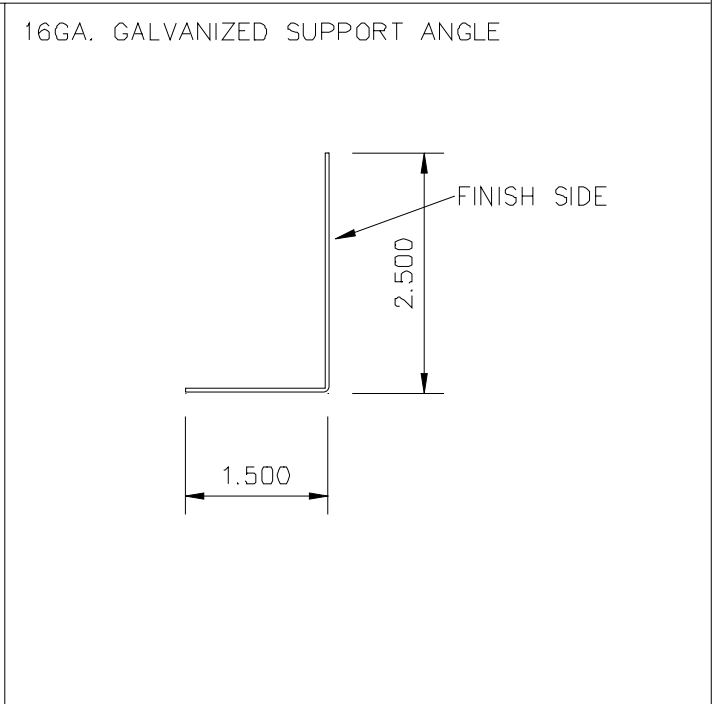
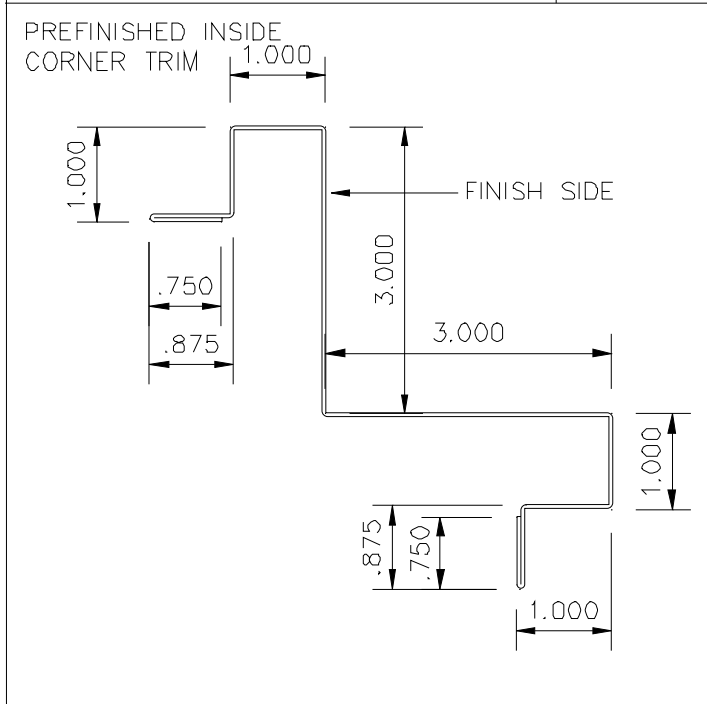
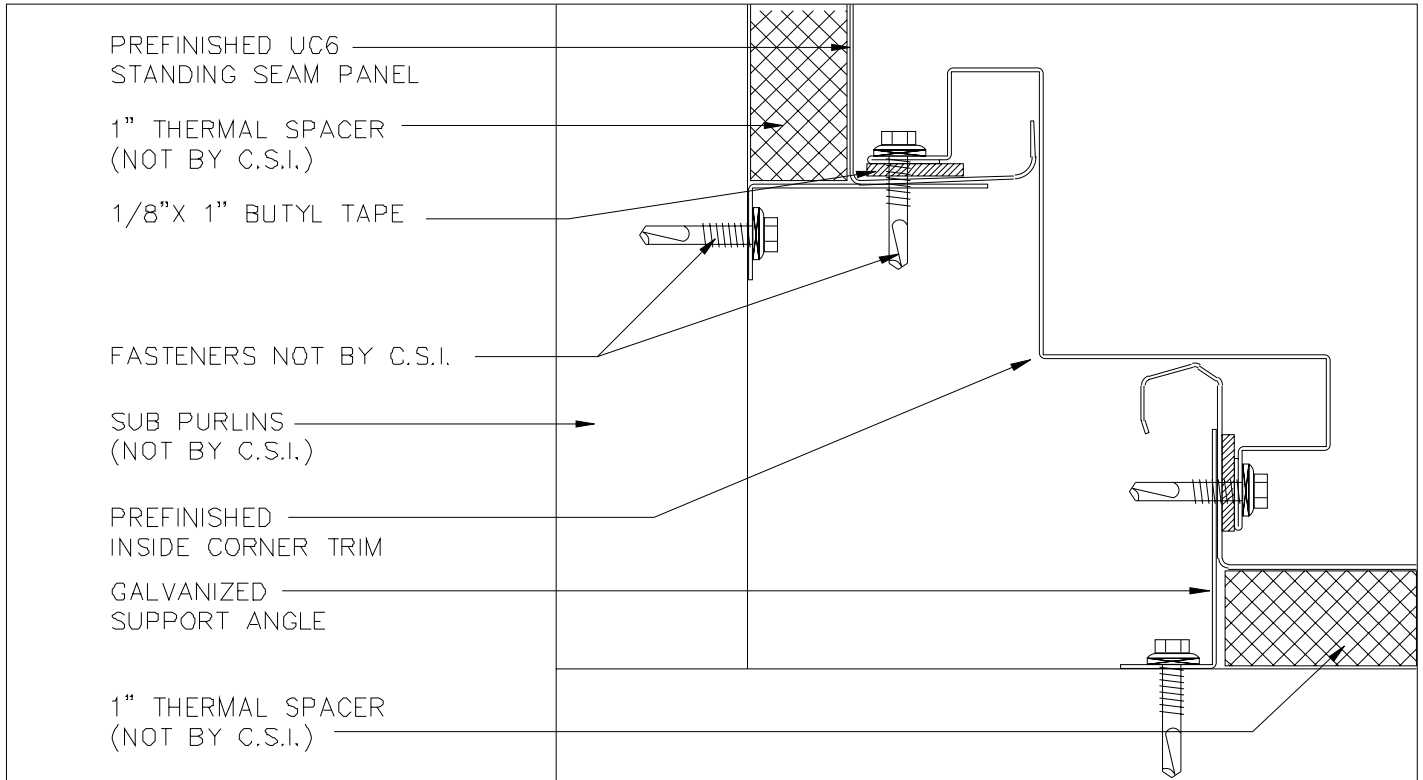
# UC6 Eave Detail

# UC6-02



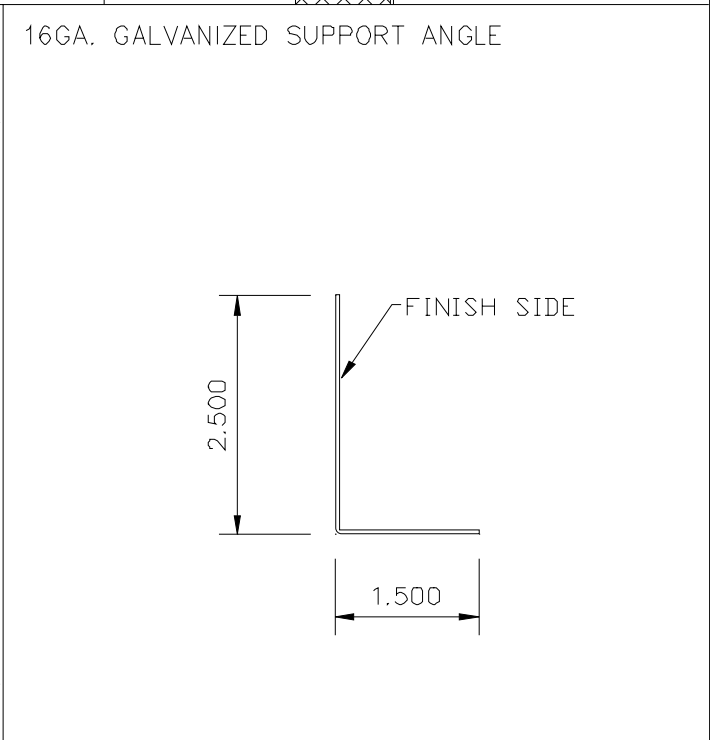
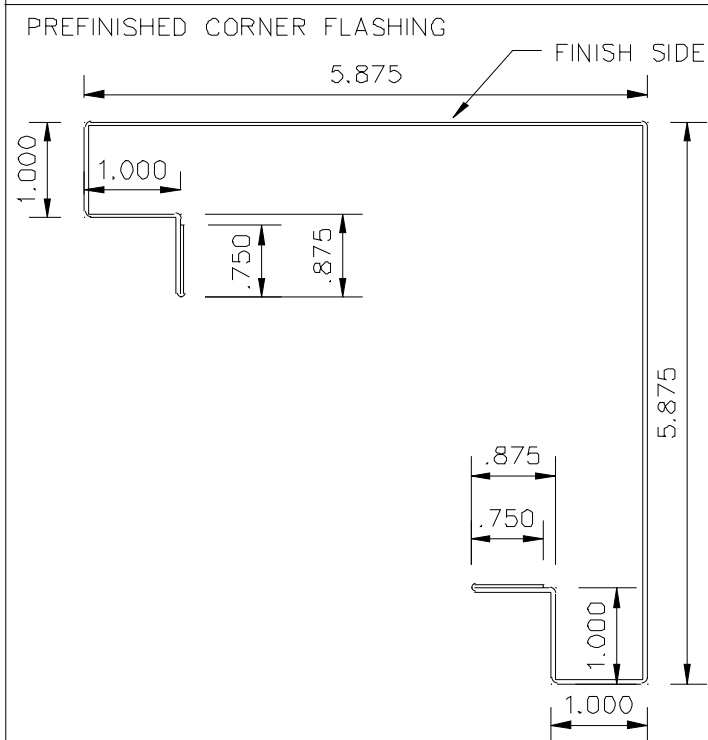
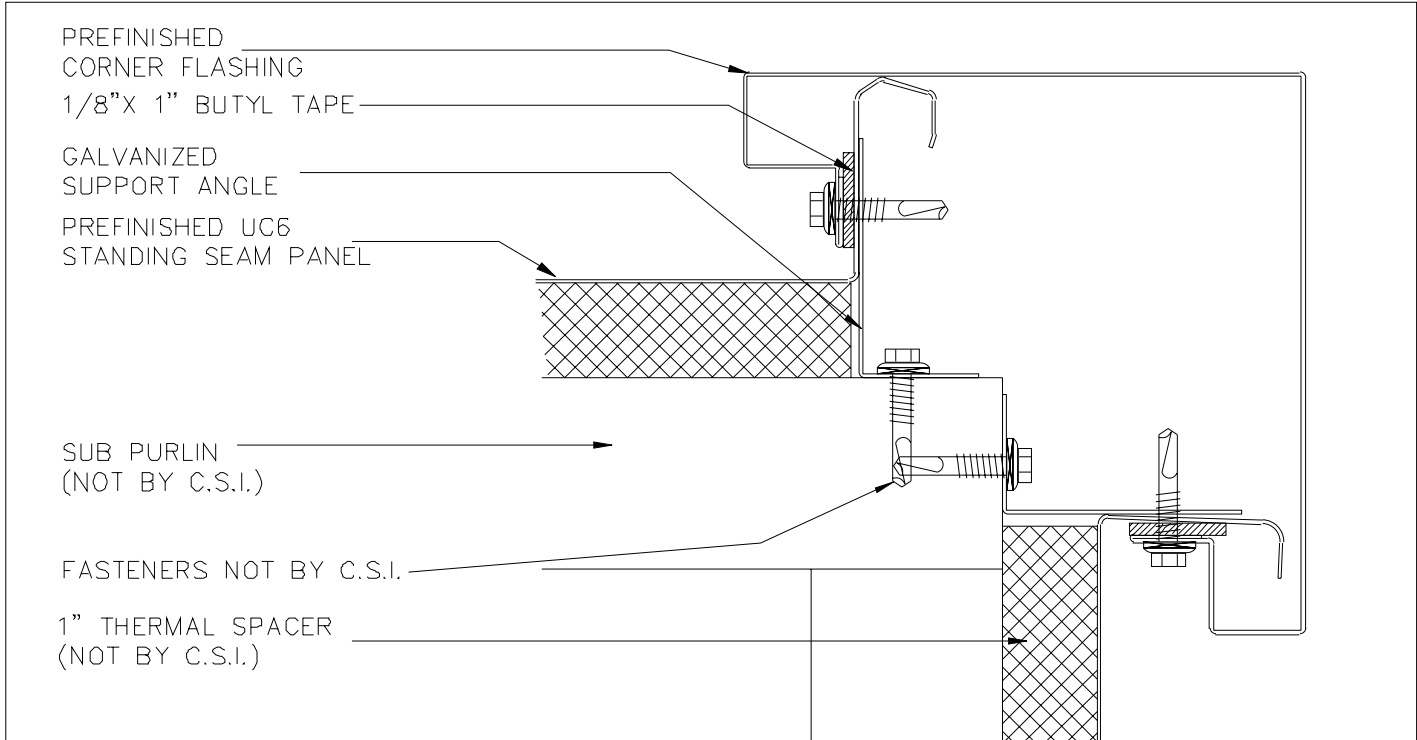
# UC6 Inside Corner Detail

# UC6-03



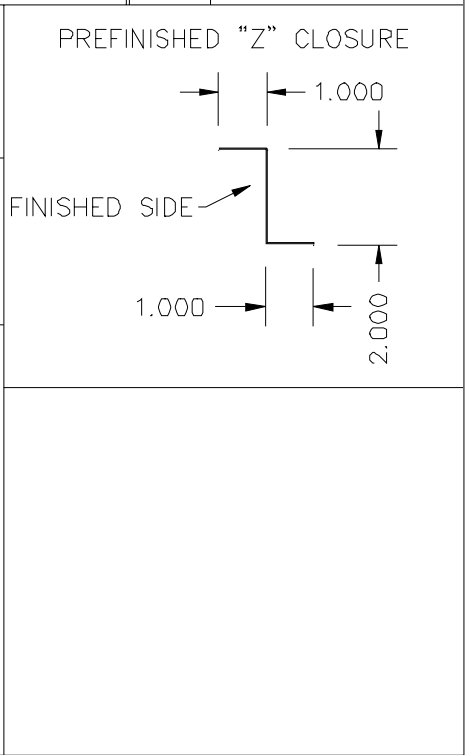
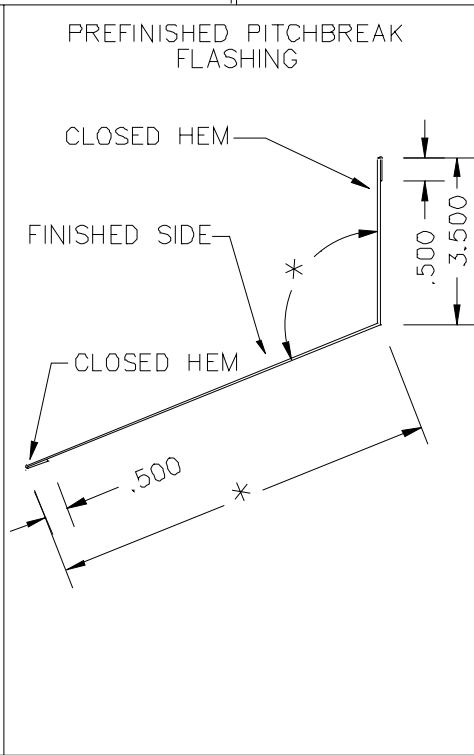
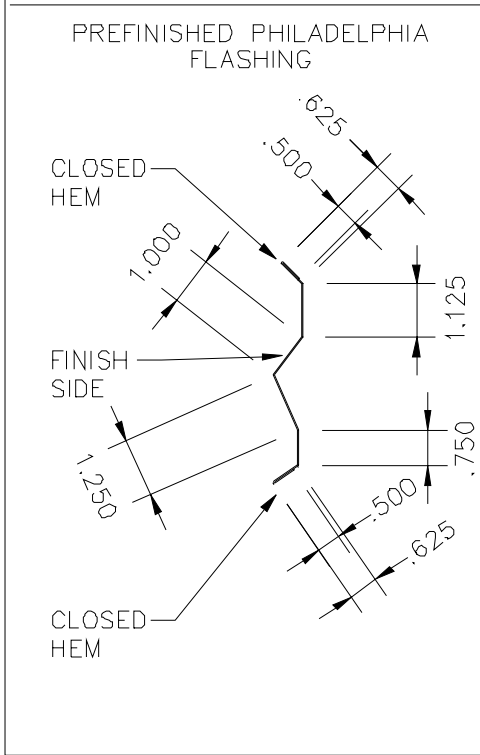
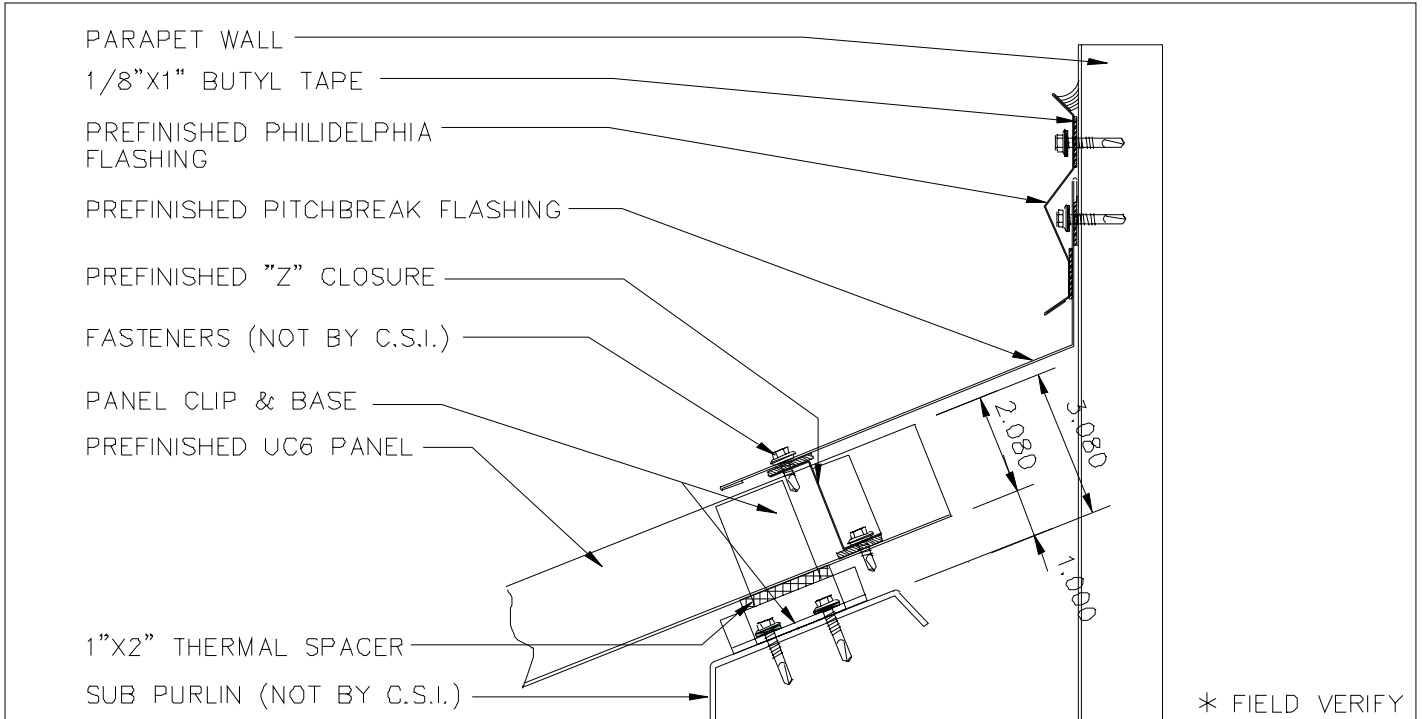
# UC6 Outside Corner Detail

# UC6-04



# UC6 Pitchbreak Detail @ Philadelphia Flashing

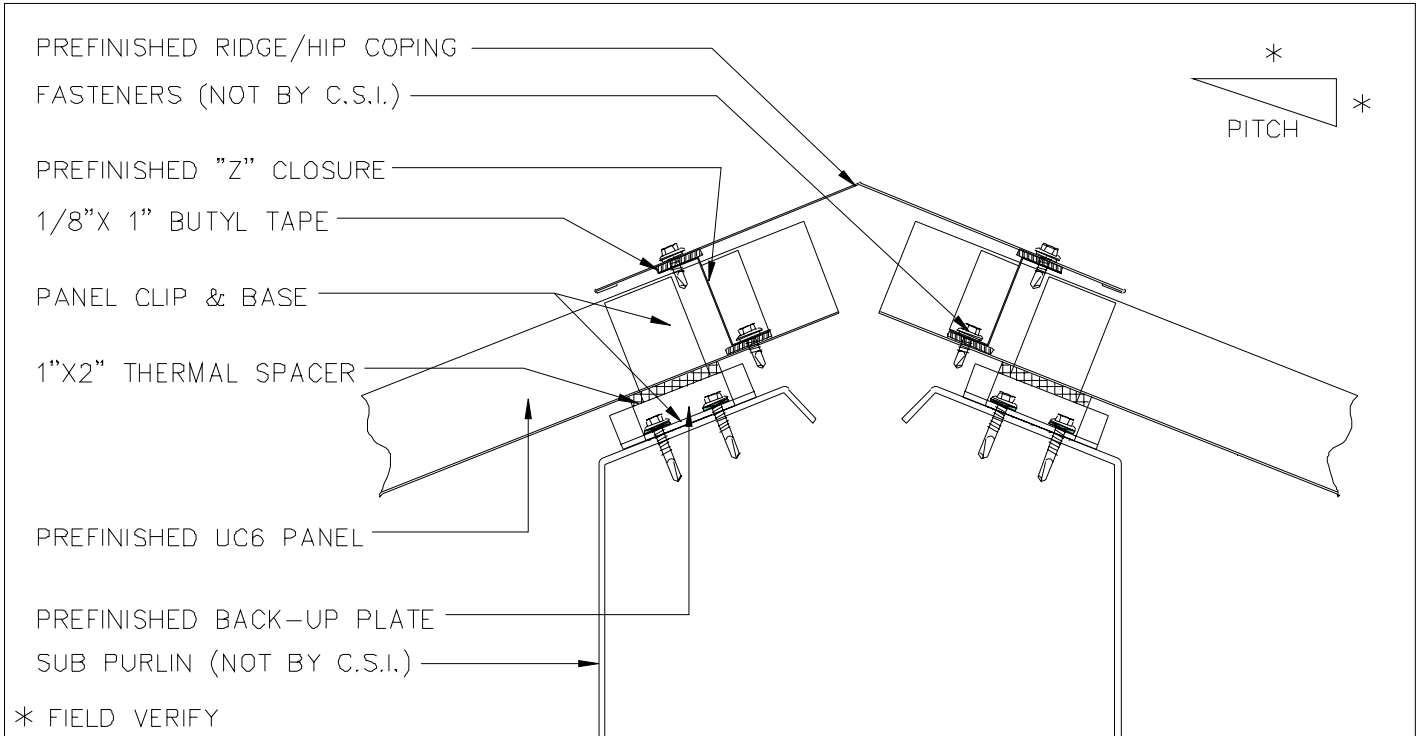
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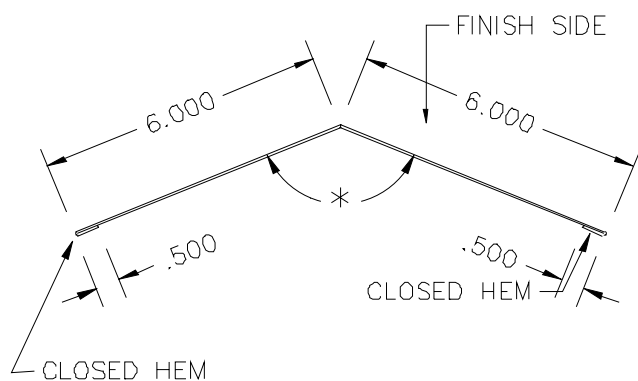
# UC6 Ridge/Hip Coping Detail

UC6-06

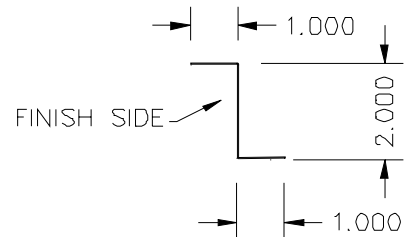


\* FIELD VERIFY

PREFINISHED RIDGE/HIP COPING

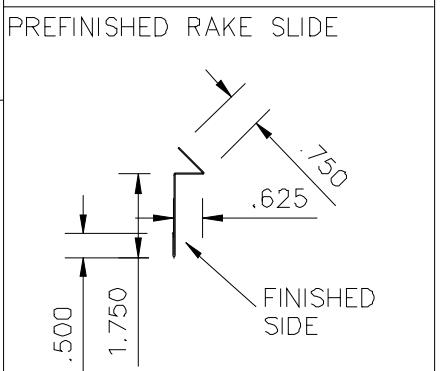
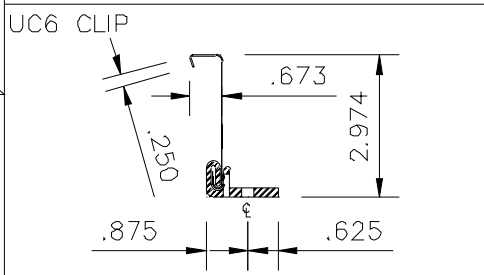
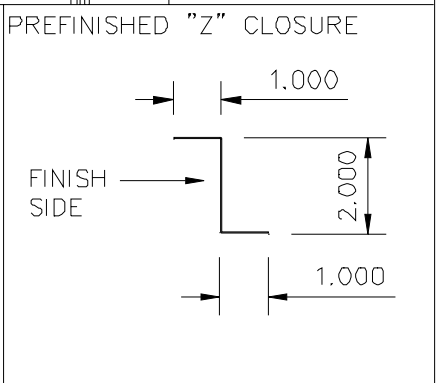
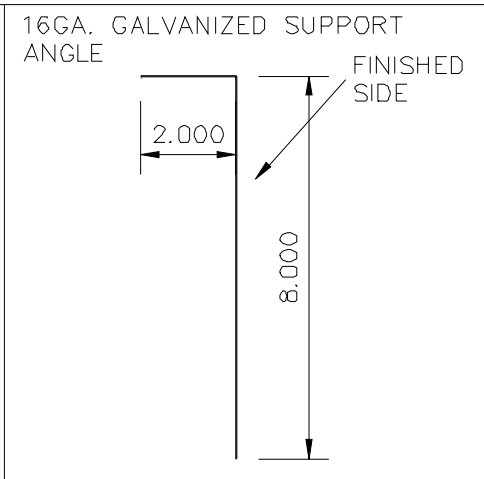
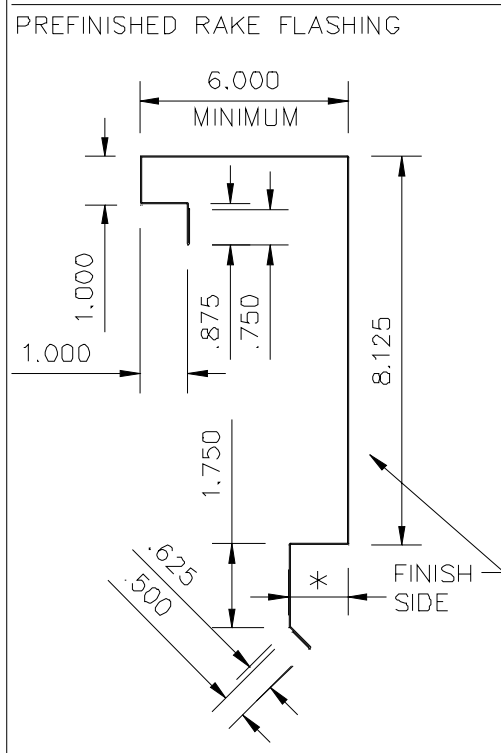
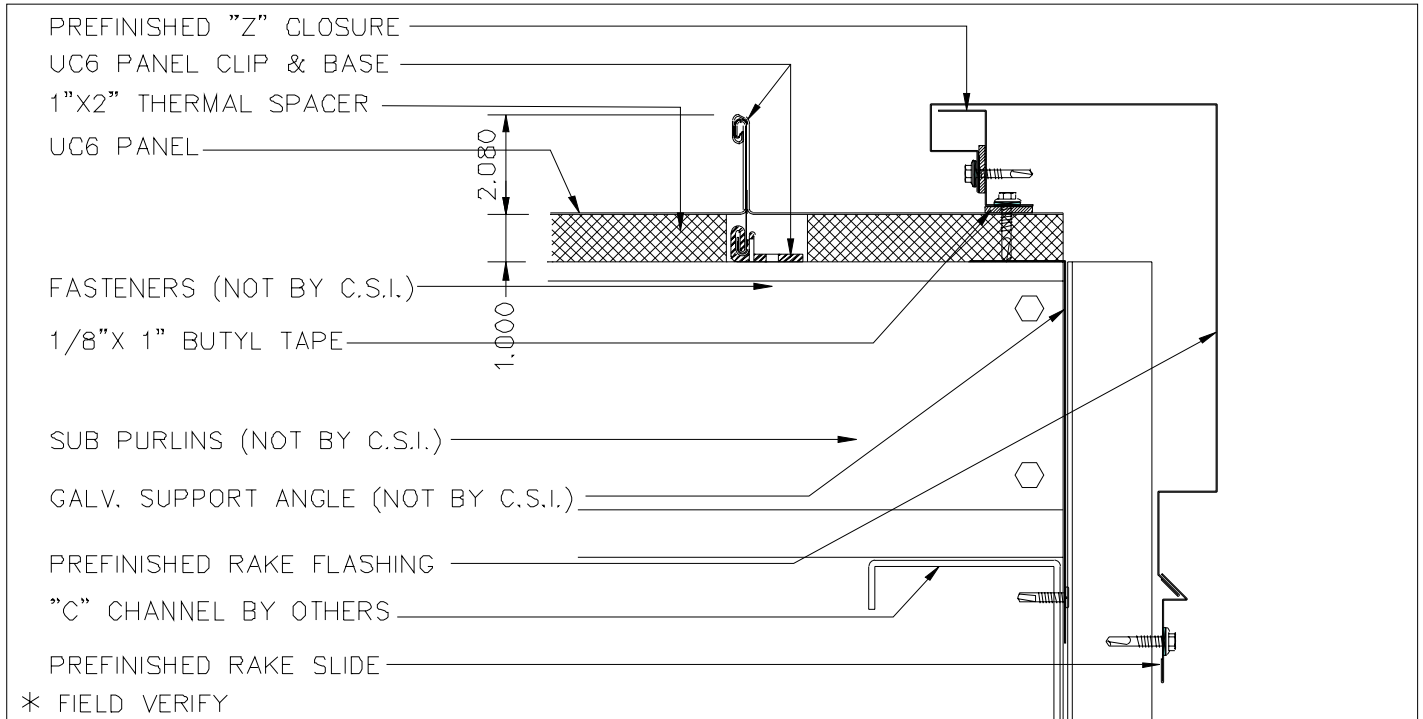


PREFINISHED "Z" CLOSURE



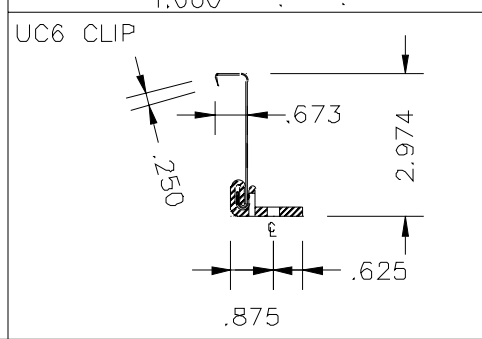
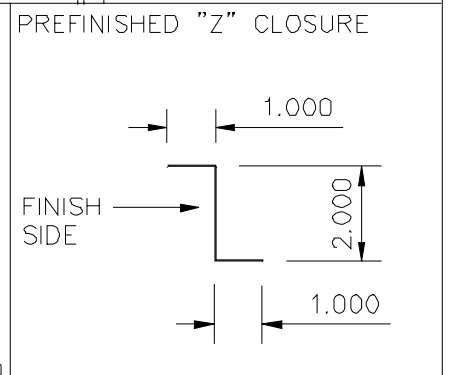
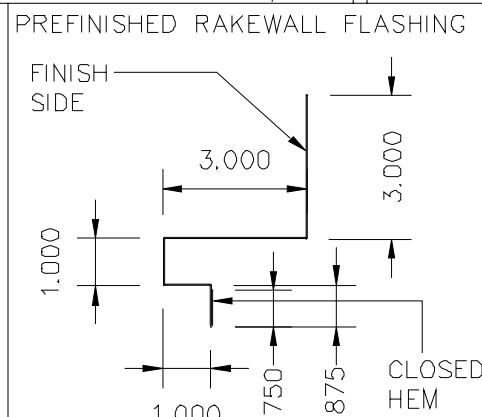
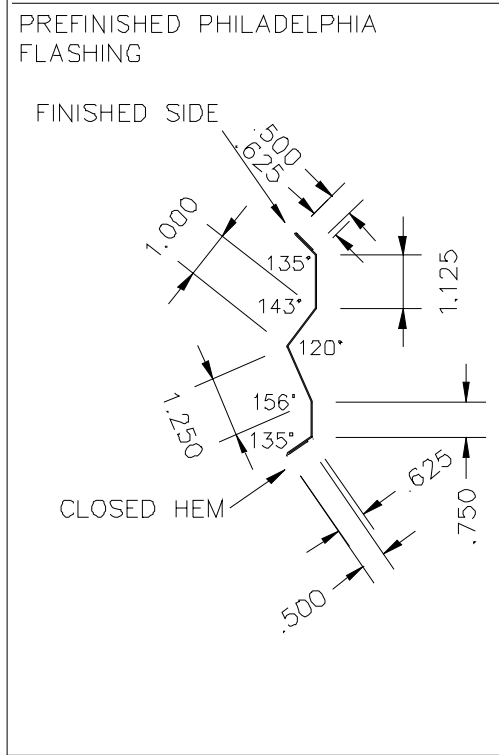
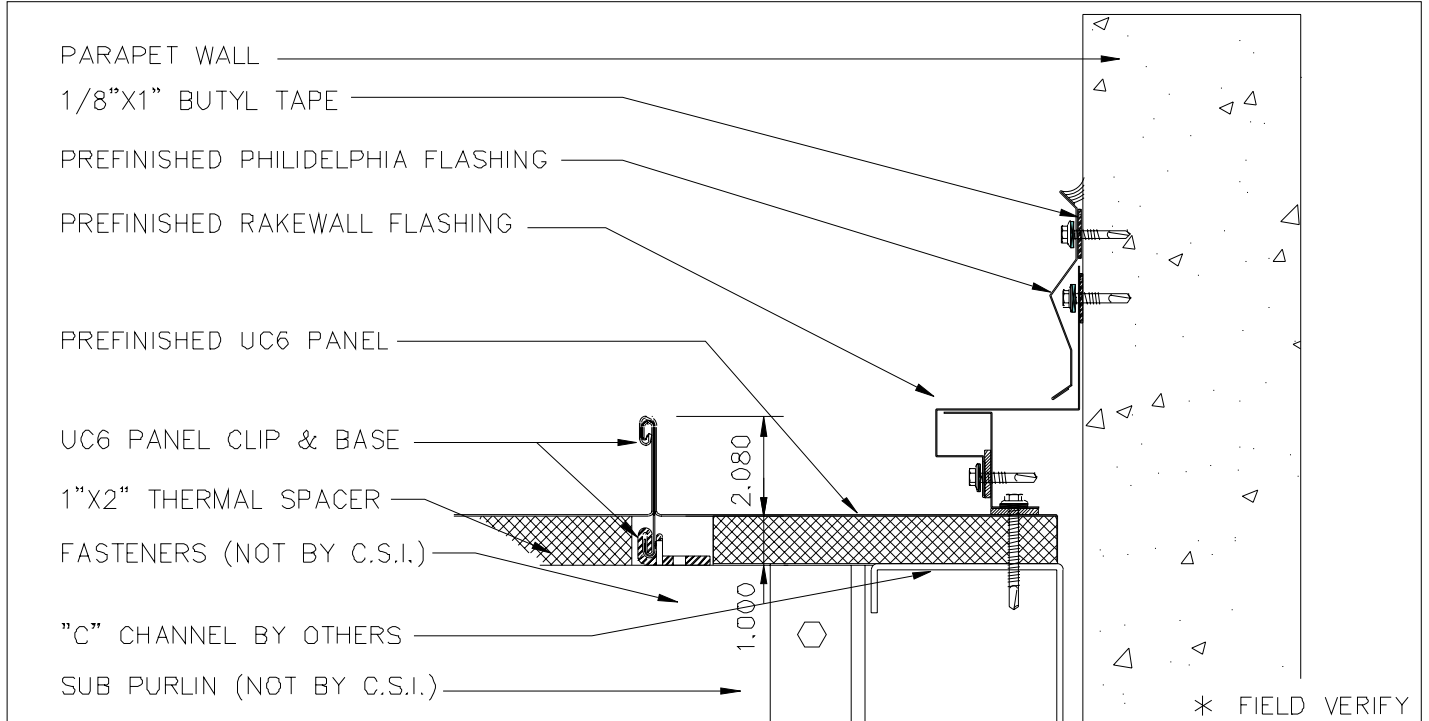
# UC6 Rake Edge Detail

UC6-07



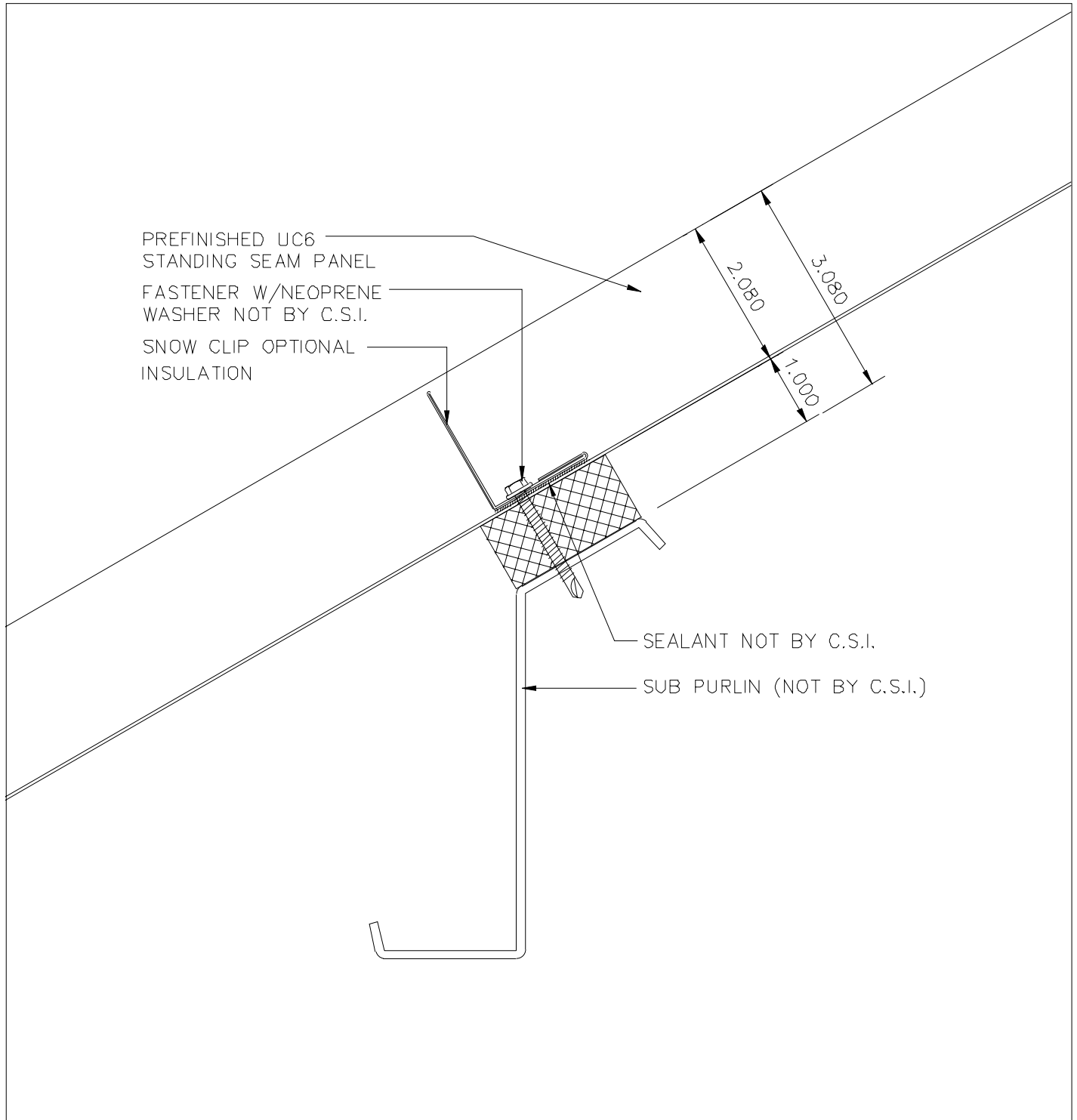
# UC6 Rake Wall Detail

# UC6-08



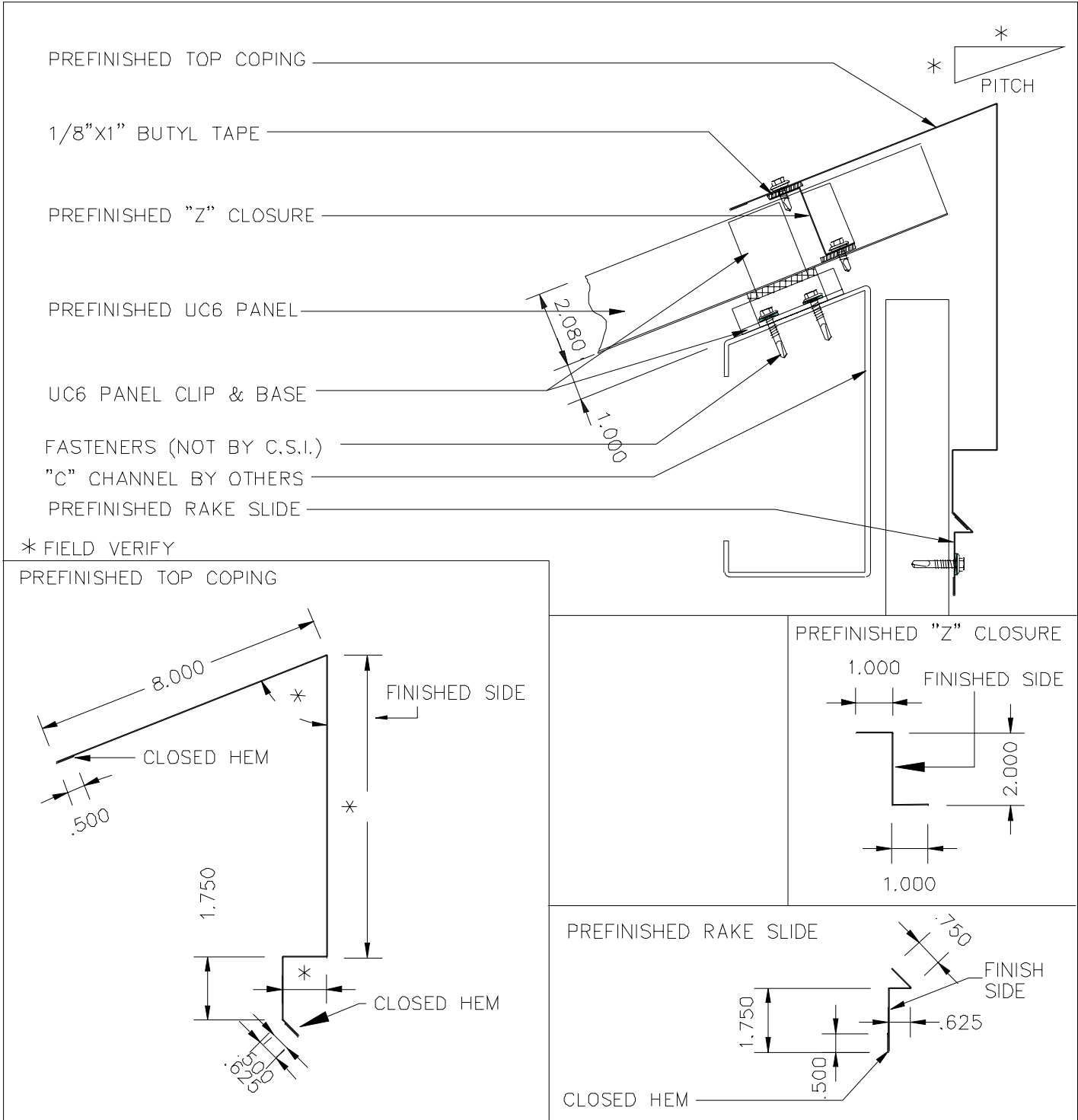
# UC6 Snow Clip Detail

UC6-09



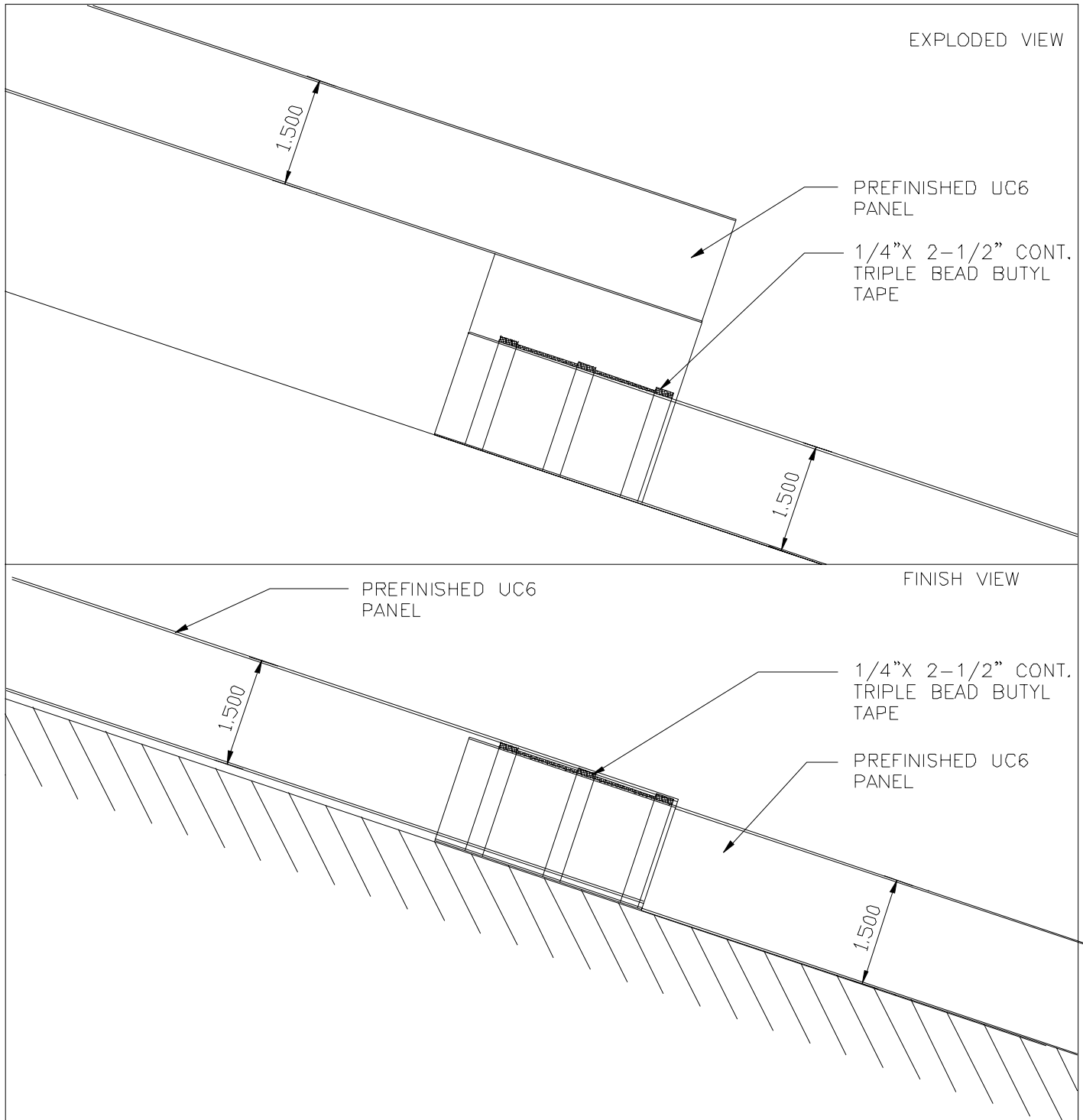
# UC6 Top Coping Detail

# UC6-10



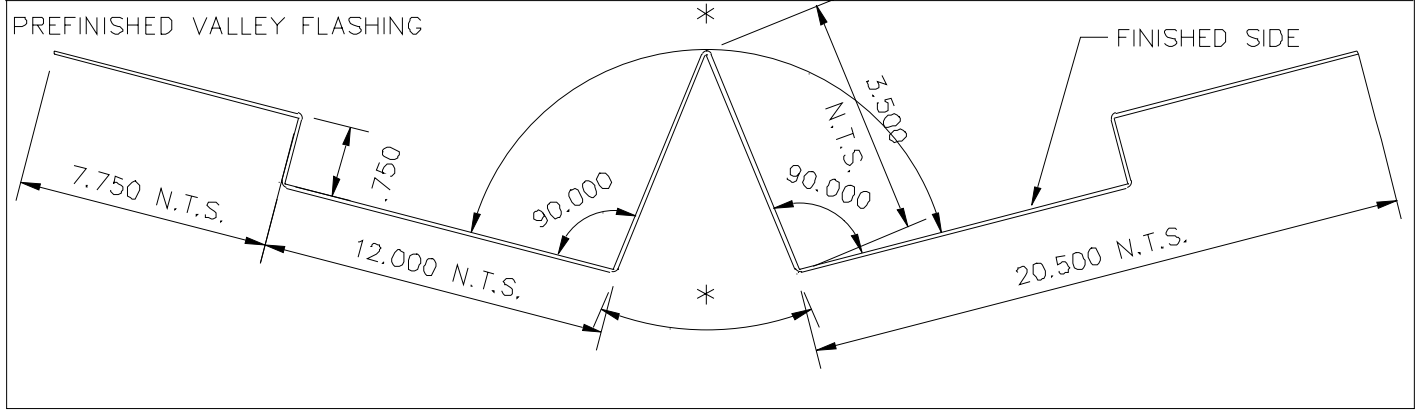
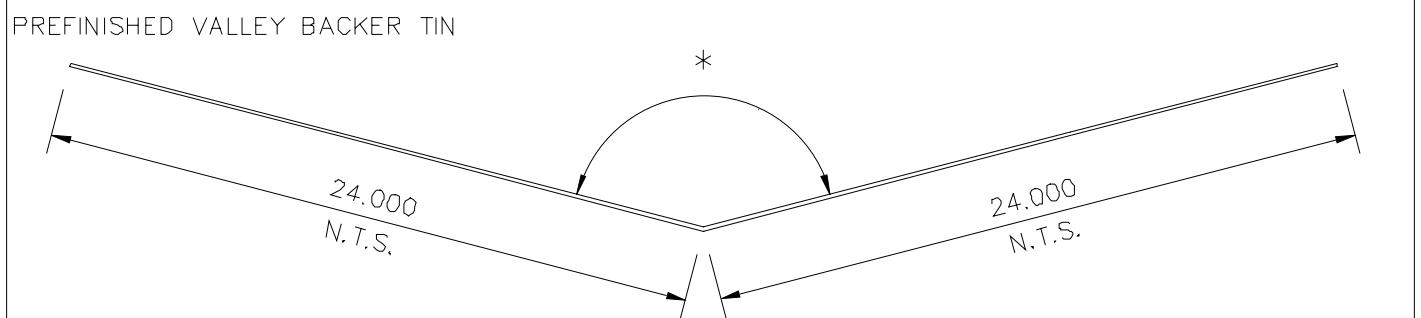
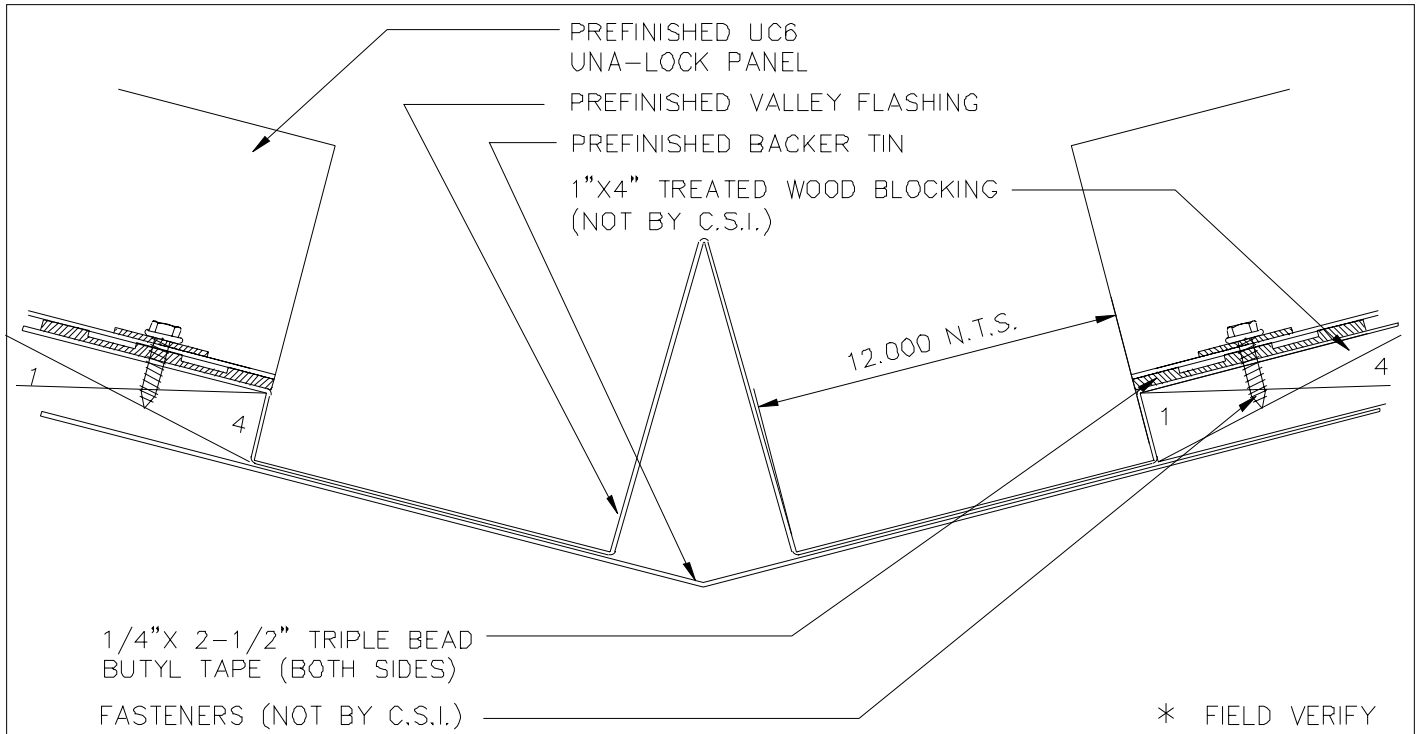
# UC6 Transverse Seam Detail

# UC6-11



# UC6 Valley Flashing Detail

UC6-12





MANUFACTURER  
Copper Sales, Inc.  
1001 Lund Boulevard  
Anoka, MN 55303-1089  
Telephone: (800) 426-7737 or (763) 576-9595  
FAX: (763) 576-9596

## SECTION 07610 SHEET METAL ROOFING

### PART 1 - GENERAL

#### 1.01 SUMMARY

- A. Section Includes
  - 1. Preformed, prefinished batten seam roofing system.
  - 2. Fasteners.
  - 3. Underlayment.
  - 4. Slip Sheet.
- B. Related Sections

*Note to Specifier: Select appropriate Sections below or add other related Sections.*

- 1. Section 06100 - Rough Carpentry
- 2. Section 07620 - Sheet Metal Flashing and Trim
- 3. Section 07920 - Joint Sealants

#### 1.02 REFERENCES

*Note to Specifier: Select paragraphs A, B, and D below for anodized aluminum; select paragraphs B and D below for painted aluminum; select paragraphs B, C and D for copper; select paragraphs B and D for stainless steel.*

- A. Aluminum Association (AA)
  - 1. AA-C22-A41: Clear Coatings
  - 2. AA-C22-A42: Integral Color Coatings
  - 3. AA-C22-A44: Color In Process
- B. American Society for Testing and Materials (ASTM)

*Note to Specifier: Edit ASTM references below, based on materials specified in Part 2*

- 1. ASTM A167: Specification for Stainless and Heat-Resisting Chromium-Nickel Steel Plate, Sheet, and Strip
- 2. ASTM A653: Specification for Steel Sheet, Zinc-Coated (Galvanized) or Zinc-Iron Alloy Coated (Galvanized) by the Hot-Dip Process
- 3. ASTM B137: Test Method for Measurement of Coating Mass Per Unit Area of Anodically Coated Aluminum
- 4. ASTM B209: Specification for Aluminum and Aluminum-Alloy Sheet and Plate
- 5. ASTM B370: Specification for Copper Sheet and Strip for Building Construction
- 6. ASTM D226: Specification for Asphalt-Saturated Organic Felt Used in Roofing and Waterproofing
- 7. ASTM D1970:
- C. Copper Development Association (CDA)
  - 1. CDA 110: General Requirements
- D. Sheet Metal and Air Conditioning Contractors National Association, Inc. (SMACNA)





1. Architectural Sheet Metal Manual

**1.03 SUBMITTALS**

*Note to Specifier: Revise Section number in paragraph below as appropriate*

- A. Submit the following in accordance with Section 01330 [Other]:
  - 1. Product Data: Manufacturer's product literature for the roofing specified.
  - 2. Shop Drawings: Indicate thickness and dimension of parts, flashing and anchoring methods, and detail and location of joints; including joints necessary to accommodate thermal movement.
  - 3. Samples
    - a. 2 samples of each type of panel assembly, 12 inch by 12 inch minimum.
    - b. 6 samples of each finish in color or colors selected, 3 inch by 5 inch minimum.
  - 4. Affidavit certifying that the material meets the requirements specified.

**1.04 QUALITY ASSURANCE**

- A. Manufacturer Qualifications: Minimum of 5 years experience in manufacturing roofing panels similar to those specified.
- B. Installer Qualifications: Acceptable to roofing manufacturer.

**1.05 DELIVERY, STORAGE, AND HANDLING**

- A. Deliver materials to the project site in manufacturer's original crating, properly labeled for identification and installation purposes. Store materials in accordance with panel manufacturer's recommendations. Handle materials carefully to avoid damage to panels and finishes.

**1.06 WARRANTY**

*Note to Specifier: Contact panel manufacturer for warranty details on painted products.*

- A. The Contractor shall warrant the materials to be free of faults and defects in accordance with the General Conditions, except that the warranty shall be extended by paint manufacturer's standard multi-year warranty. The warranty shall be in writing and shall be signed by the manufacturer.

**PART 2 - PRODUCTS**

**2.01 MANUFACTURER**

- A. Copper Sales, Inc.

*Note to Specifier: Fill in other manufacturers below or require other manufacturers to submit information which supports their products for the Architect's review prior to bidding or during construction; delete paragraph below if prior approvals or substitutions will not be considered.*

- B. Other manufacturers seeking approval of their products must comply with requirements of the Instructions to Bidders (AIA Document A701), Paragraph 3.3 prior to bidding.
- B. Other manufacturers seeking approval of their products must comply with requirements of Section 01600 [Other] during construction.

**2.02 ROOFING TYPE**

*Note to Specifier: Select aluminum, steel, copper, or stainless steel roofing panels in paragraph below.*

- A. UNA-CLAD UC-6 Structural Double-Lock Seam Roofing, roll formed [aluminum][steel][copper][stainless steel] roofing panels.

## 2.03 PANEL MATERIALS AND FABRICATION

*Note to Specifier: Select material in paragraph below for painted or anodized aluminum panels.*

- A. Aluminum Panels: ASTM B209, Aluminum Association specification sheet [3003-H14/3105-H14 for painted finish][5005-H34AQ for anodized finish].

*Note to Specifier: Select thickness in subparagraph below.*

1. Thickness: [0.032][0.040] inch.

*Note to Specifier: Select paragraph below for painted steel panel.*

- A. Steel Panels: ASTM A653, G90 (lock-forming quality), extra smooth, tension-leveled, galvanized steel, minimum spangle.

*Note to Specifier: Select proper gauge in subparagraph below.*

1. Thickness: [22][24][26] gauge.

*Note to Specifier: Select paragraph below for copper panels.*

- A. Copper Panels: ASTM B370

*Note to Specifier: Select thickness in subparagraph below.*

1. Thickness: [16][20] ounce.

*Note to Specifier: Select paragraph below for stainless steel panels.*

- A. Stainless Steel: ASTM A167

1. Thickness: 26 gauge.

- B. Form roofing panels in longest practical lengths, true to shape, accurate in size, square, and free from distribution or manufacturing defects.

1. Seam Height: 1-1/2 inches.

*Note to Specifier: Select seam width in subparagraph below.*

2. Seam Width: [1-1/2][2] inches.

*Note to Specifier: Select seam spacing in subparagraph below.*

3. Seam Spacing: [15][16][21] inches (alternative seam spacing available).

- C. Fabricate cleats of same material as panels or a compatible material, interlockable with sheet.

## 2.04 ACCESSORIES

- A. Fasteners shall be concealed, non-corrosive type, as recommended by the panel manufacturer.

- B. Underlayments

1. Felts: ASTM D226, Type I (No. 15) asphalt-saturated roofing felt.

*Note to Specifier: The roofing manufacturer recommends a waterproof membrane such as "Ice & Water Shield" be used in areas subject to moisture infiltration, e.g. eaves, valleys and similar areas.*

2. Waterproof Membrane: ASTM D1970, self-adhering rubberized sheet membrane.

## 2.05 FINISHES

*Note to Specifier: Select paragraphs A and B below for painted finish.*

- A. Coil-Coated or Spray-Applied Fluorocarbon Resin

*Note to Specifier: Custom colors are available but are subject to an additional cost; contact manufacturer for details.*

1. Color: Selected by Architect/Engineer from manufacturer's standard colors.

*Note to Specifier: Verify number of coats with manufacturer, dependent on color selection.*

2. Number of Coats: [2-coat][3-coat][4-coat].



3. Provide factory applied strippable plastic film for protection during fabrication and installation.

*Note to Specifier: Select appropriate paragraph A below and paragraph B below for anodized finish.*

- A. Coil Anodized Finish
- A. Batch Anodized Finish

*Note to Specifier: Anodized colors differ in cost; custom colors may be available at an additional cost; contact manufacturer for details.*

1. Color: Selected by Architect/Engineer from manufacturer's standard colors.
2. Film Thickness: Test Method ASTM B137; by weight.

*Note to Specifier: Select either Class I or Class II in subparagraph below.*

- a. Class I, 0.7 mils (minimum).
- a. Class II, 0.25 (minimum) to 0.7 mils.
3. Provide factory applied strippable plastic film for protection during fabrication and installation.

*Note to Specifier: Select either paragraph below for copper roofing.*

- A. Brushed-Satin (Lacquered): CDA M31-M32-O6x.
- A. Mirror-Polished: CDA

*Note to Specifier: Select paragraph below for stainless steel roofing.*

- A. Brushed-Satin: Match AISI No. 4 finish.

## **PART 3 - EXECUTION**

### **3.01 EXAMINATION**

*Note to Specifier: Select either Contractor or Construction Manager as appropriate in the paragraph below.*

- A. Examine the areas and conditions under which materials are to be installed and notify the [Contractor] [Construction Manager] in writing of conditions detrimental to the proper and timely completion of the work. Do not proceed with the work until unsatisfactory conditions have been corrected.
- B. Surfaces to receive panels shall be even, smooth, sound, clean, dry, free of ice and snow, and free from defects.
- C. Verify that roof openings, curbs, pipes, sleeves, ducts, vents, and other penetrations through roof substrate are complete.

### **3.02 PREPARATION**

- A. Obtain field measurements prior to completion of manufacturing and finishing. When field measurements are not possible, provide method of installation which will allow minor adjustment in the field.

### **3.03 INSTALLATION**

- A. Install roofing system plumb, level and true, in accordance with manufacturer's instructions, final shop drawings, and SMACNA Architectural Sheet Metal manual and standard practices.
- B. Install starter and edge strips, and cleats before underlayment is installed.



*Note to Specifier: The roofing manufacturer recommends a waterproof membrane such as "Ice & Water Shield" be used in areas subject to moisture infiltration, e.g. eaves, valleys and similar areas.*

- C. Install waterproof membrane in accordance with manufacturer's instructions beginning at the roof edge and extending up roof slope to 24 inches inside of interior wall line (minimum), measured perpendicular to the floor. Lap ends and edges 6 inches. Over valleys prior to installing flashing, install waterproofing shingle underlayment in one continuous sheet, top to bottom of valley, and extending 18 inches minimum in each direction.
- D. Install felt underlayment over remainder of roof substrate to receive roofing system, in shingle fashion, lapping ends 12 inches and edges 6 inches minimum. Install slip sheet over underlayment in a similar fashion.
- E. Completed system shall be free from overbending, deforming, stretching, distortion, waves, and buckles.

### **3.04 ADJUSTING AND CLEANING**

- A. Repair panels with minor damage.
- B. Remove panels damaged beyond repair and replace with new panels to match adjacent undamaged panels.
- C. Clean exposed panel surfaces promptly after installation in accordance with recommendations of panel and coating manufacturers.
- D. Remove protective film immediately after installation.

**END OF SECTION**