DISCLAIMER:

THESE DETAILS ARE PROVIDED AS A GUIDELINE FOR PROPER PANEL AND ASSOCIATED COMPONENT INSTALLATION, AND ARE BASED ON INDUSTRY ACCEPTED PRACTICES.

LOCATION OF VAPOR BARRIERS AND ASSOCIATED SEALANTS IN THESE DETAILS ARE BASED ON TYPICAL DESIGN PRACTICES FOR MOST U.S. CLIMATIC ZONES. (THE PRIMARY VAPOR BARRIER IS PLACED ON THE "WARM" SIDE IN WINTER).

PROJECTS LOCATED IN AREAS SUBJECT TO EXTREME WIND AND/OR HIGH SNOW LOADS MAY REQUIRE MODIFICATIONS TO THESE DETAILS – CONTACT METL-SPAN TECHNICAL SERVICES FOR SPECIFIC RECOMMENDATIONS.

WE RECOMMEND THE USE OF METL-SPAN SUPPLIED SEALANTS AND BUTYL TAPES FOR OPTIMUM PANEL SYSTEM PERFORMANCE.
LEGEND:

LL   LONG LIFE
BN   BONDED NEOPRENE WASHER
PURLIN (NOT BY METL-SPAN)

1/4" HWH FASTENERS

PANEL CLIP BASE

BUTYL SEALANT

CONTINUOUS BUTYL TAPE SEALANT

OVER PANEL AND UNDER CLIP EXTEND PAST EACH SIDE OF CLIP

ENLARGED PANEL JOINT FOR CLARITY

DIRECTION OF INSTALLATION
1. SET PANEL IN PLACE
2. INSTALL CFR CLIP W/BUTYL TAPE SEALANT
3. SECURE TO PURLINS W/ 1/4" HEX HEAD FASTENERS
4. HAND "CRIMP" THE STANDING RIB/CLIP ASSEMBLY AT EACH CLIP LOCATION
5. INSTALL CONTINUOUS BUTYL TAPE SEALANT ON TOP OF MALE STANDING SEAM

6. TILT NEXT PANEL TO BE INSTALLED AT 45 DEGREE ANGLE. ROTATE INTO POSITION.

7. USE CLAMPS TO ENSURE PROPER PANEL ENGAGEMENT
8. HAND CRIMP AT RIDGE, ENDLAP AND EAVES
9. INSTALL RIDGE, RAKE AND EAVE COMPONENTS, THEN MECHANICALLY SEAM ROOF
1. ADD WALL PANEL THICKNESS (BOTH ENDS) PLUS OUT TO OUT DIMENSIONS OF RAKE STRUCTURAL SUPPORTS.

2. DIVIDE RESULT BY PANEL MODULE (30", 36" OR 42") TO DETERMINE NUMBER OF PANELS REQUIRED.

3. DIVIDE FRACTIONAL PANEL REMAINDER (IF ANY) BY 2 TO DETERMINE STARTING PANEL WIDTH. IF RESULT IS LESS THAN 12", THEN CUT STARTER PANEL TO REMOVE INTERIOR JOINT ONLY - LAST PANEL WILL NEED TO ACCOMMODATE THE REMAINDER (LAYOUT WILL BE ASYMMETRICAL).
FASTENER NOTE:

THE NUMBER OF FASTENERS PER CLIP ARE BASED ON THE FOLLOWING CRITERIA

* SELF DRILLING, SELF-TAPPING SCREWS
  * 3 /CLIP IF PURLIN IS LESS THAN 12 GAUGE.
  * 2 /CLIP IF PURLIN IS GREATER OR EQUAL TO 12 GA.
* TYPE B SELF-TAPPING SCREWS – 2 /CLIP
CLIP SEALANT
CFR PANEL CLIP
@ EACH PANEL SIDELAP
1/4" HWH FASTENERS

ROOF PURLINS
(NOT BY PANEL MANUFACTURER)

MINIMUM PANEL BEARING 2 1/2"
SURFACE

FASTENERS
(NOT BY PANEL MANUFACTURER)

ENDLAP SUPPORT
(NOT BY PANEL MANUFACTURER)

ROOF PURLINS
(NOT BY PANEL MANUFACTURER)

BUTYL TAPE SEALANT

FACTORY INSTALLED BACK-UP PLATE @ EACH HIGH MESA, 4" O.C.

CONTINUOUS BUTYL TAPE SEALANT
WITH MARRIAGE BEAD TO PANEL JOINT SEALANT

LL 1/4-14 x 1 1/4" HWH TYPE 2 SELF DRILLING SCREW W/1.125" BONDED WASHER @ EACH BACKUP PLATE

CONTINUOUS BUTYL TAPE SEALANT

1/4" HWH FASTENERS

CFR PANEL CLIP @ EACH PANEL SIDELAP
CONTINUOUS BUTYL TAPE SEALANT

DATE: Aug '19

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ENDLAP ATTACHMENT
CI-CFR-EL-01

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3" ENDLAP

JOINT TO BE CENTERED ON STRUCTURAL SUPPORT

MAX 1/8" ALLOWABLE "GAP" BETWEEN PANELS

CONTINUOUS BUTYL SEALANT WITH MARRIAGE BEAD TO PANEL JOINT SEALANT

FACTORY SWAGE OVERLAP PANEL END

BUTYL TAPE SEALANT

CFR PANEL CLIP @ EACH PANEL SIDELAP

1/4" HWH FASTENERS

FASTENERS (NOT BY PANEL MANUFACTURER)

ENDLAP SUPPORT (NOT BY PANEL MANUFACTURER)

LL 1/4-14 X 1 1/4" HWH TYPE 2 SELF DRILLING SCREW W/1.125" BONDED WASHER @ EACH BACKUP PLATE

2 1/2"
FACTORY NOTCH
ALIGN END OF PANEL WITH CENTER OF ENDLAP SUPPORT STRUCTURAL
CONTINUOUS BUTYL TAPE SEALANT
ENDLAP SUPPORT STRUCTURAL
DO NOT INSTALL PANEL CLIP AT THIS LOCATION UNTIL AFTER UPSLOPE PANEL IS INSTALLED

FACTORY NOTCH
ROOF STRUCTURAL (TYP.)

BUTYL TAPE SEALANT
CONTINUOUS BUTYL TAPE SEALANT
-ENDLAP SUPPORT STRUCTURAL

PANEL CLIP
PENDLAP STRUCTURAL (TYP.)

DOWN SLOPE ROOF PANEL

PANEL ALIGNMENT MARK (TYP.)

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LEADING EDGE SECTION

BUTYL TAPE SEALANT

PUSH SEALANT COMPLETELY INTO CORNERS

END OF BUTYL TAPE SEALANT (FOLD OVER PANEL EDGE)

TRAILING EDGE SECTION

BUTYL TAPE SEALANT

ALIGNMENT MARK (TYP.)

NOTCH

ENDLAP BUTYL TAPE SEALANT

(ALIGN ENDLAP SEALANT WITH MARKS AND PANEL NOTCHES)

NOTCH

LEADING EDGE OF ROOF PANEL

TRAILING EDGE OF ROOF PANEL

SIDELAP BUTYL TAPE SEALANT

PUSH SEALANT COMPLETELY INTO THE CORNERS

ENDLAP LOWER PANEL
ROTATE PANEL INTO POSITION

HOOK RIB OF PANEL OVER PREVIOUSLY INSTALLED PANEL

BUTT PANEL END AGAINST DOWNSLOPE PANEL NOTCH

DOWNSLOPE ROOF PANEL

BUTYL TAPE SEALANT

SPRING PANEL RIB OUTWARD TO CLEAR UPSLOPE PANEL

ENDLAP SUPPORT STRUCTURAL

ROOF STRUCTURAL (TYP.)

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DATE: Aug '19
SINGLE ROOF PANEL LAYOUT WITH NO ENDLAPS

TWO PANEL LAYOUT WITH ENDLAPS

THREE PANEL LAYOUT WITH ENDLAPS

(*) ADD WALL PANEL THICKNESS TO PANEL LENGTH
LL 1/4-14 x 7/8" HWH TYPE 1, SELF DRILLING LAP SCREW W/BN WASHER @ EACH HIGH MESA

1/4-14 x 7/8" HWH TYPE 1, SELF DRILLING LAP SCREW @ 8" O.C.

FLASHING SEALANT TAPE

FLUTED PLUG STRIP (1) PER PANEL (IF REQUIRED) SET IN URETHANE SEALANT

EXPANDABLE FOAM INSULATION (NOT BY PANEL MANUFACTURER)

BUTYL TAPE SEALANT @ SIDE JOINTS

BUTYL TAPE SEALANT

CONTINUOUS BUTYL SEALANT WITH MARRIAGE BEAD TO PANEL JOINT SEALANT

1/4" HWH FASTENERS

14 GA. 4 HOLE CF CLIP

EAVE SUPPORT (NOT BY PANEL MANUFACTURER)

EAVE TRIM

CFR PANEL CLIP @ EACH PANEL SIDELAP

SET IN URETHANE SEALANT

EAVE TRIM

3' PANEL CUT-BACK

2'

BUTYL TAPE SEALANT

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LOW EAVE WITH TRIM

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BUTYL TAPE SEALANT @ SIDE JOINTS

LL 1/4-14 x 7/8" HWH TYPE 1, SELF DRILLING LAP SCREW W/BN WASHER @ EACH HIGH MESA

GUTTER HANGER @ EVERY PANEL SEAM

LL 1/4-14 x 7/8" HWH TYPE 1, SELF DRILLING LAP SCREW W/BN WASHER (2) PER GUTTER HANGER

LL 1/4-14 x 7/8" HWH TYPE 1, SELF DRILLING LAP SCREW W/BN WASHER (1) PER SUPPORT

1/4" HWH FASTENERS @ EACH SIDE LAP

CONTINUOUS BUTYL SEALANT WITH MARRIAGE BEAD TO PANEL JOINT SEALANT

EXPANDABLE FOAM INSULATION (NOT BY PANEL MANUFACTURER)

EAVE TRIM

CFR PANEL CLIP @ EACH PANEL SIDELAP

1/4-14 x 1-1/2" HWH TYPE 2, W/ WASHER @ EACH SIDE LAP

GUTTER HANGER @ EVERY PANEL SEAM

GUTTER PANEL CLIP @ EACH PANEL SIDELAP

1/4" HWH FASTENERS

14 GA. PANEL CLIP

EAVE SUPPORT (NOT BY PANEL MANUFACTURER)

BUTYL TAPE SEALANT

GUTTER SUPPORT @ EA. PANEL SIDELAP *

FLUTE PLUG STRIP (1) PER PANEL (IF REQUIRED) SET IN URETHANE SEALANT

3" PANEL CUT-BACK

2" 

14 GA. PANEL CLIP

EAVE SUPPORT

LOW EAVE WITH NORTHERN GUTTER

* ADD ADDITIONAL GUTTER SUPPORTS AT MIDPOINT BETWEEN STANDING SEAMS (CFR-42 ONLY)
GUTTER HANGER
@ EVERY PANEL SEAM

1/4-14 x 1-1/2" HWH TYPE 2,
W/WASHER
@ EACH SIDE LAP

GUTTER HANGER

LL 1/4-14 x 7/8" HWH TYPE 1,
SELF DRILLING LAP SCREW
W/BN WASHER
(2) PER GUTTER HANGER
@ GUTTER SUPPORT
LL 1/4-14 x 7/8" HWH TYPE 1, SELF DRILLING LAP SCREW W/BN WASHER @ EACH HIGH MESA EAVE TRIM BUTYL TAPE SEALANT @ SIDEJOINTS LL 1/4-14 x 7/8" HWH TYPE 1, SELF DRILLING LAP SCREW W/BN WASHER (3) PER SUPPORT CFR PANEL CLIP @ EACH PANEL SIDELAP 3" PANEL CUT-BACK 2" BUTYL TAPE SEALANT GUTTER SUPPORT STANDARD GUTTER 1/4" HWH FASTENERS CONTINUOUS BUTYL SEALANT WITH MARRIAGE BEAD TO PANEL JOINT SEALANT 1/4" HWH FASTENERS 14 GA. PANEL CLIP EAVE SUPPORT (NOT BY PANEL MANUFACTURER) 1/4-14 x 7/8" HWH TYPE 1, SELF DRILLING LAP SCREW @ 8" O.C. FLASHING SEALANT TAPE FLUTE PLUG STRIP (1) PER PANEL (IF REQUIRED) SET IN URETHANE SEALANT EAVE SUPPORT (NOT BY PANEL MANUFACTURER)
**BUTYL TAPE SEALANT**

**RIDGE CLOSURE**

**CLIP SEALANT**

@ EACH PANEL SIDELAP

1/4" HWH FASTENERS

CONTINUOUS BUTYL SEALANT WITH MARRIAGE BEAD TO VERTICAL PANEL JOINT SEALANT

1/4" HWH FASTENERS

14 GA. PANEL CLIP

EAVE SUPPORT (NOT BY PANEL MANUFACTURER)

**EXPANDABLE FOAM INSULATION** (NOT BY PANEL MANUFACTURER)

**BUTYL TAPE SEALANT**

@ SIDE JOINTS

**FLASHING SEALANT TAPE**

**FLUTE PLUG STRIP** (1) PER PANEL (IF REQUIRED) SET IN URETHANE SEALANT

**FLUTE PLUG STRIP** (1) PER PANEL (IF REQUIRED) SET IN URETHANE SEALANT

**HIGH EAVE TRIM**

**BACK-UP PLATE FACTORY INSTALLED @ EACH HIGH MESA, 4" O.C.**

1/4-14 x 1-1/2" HWH TYPE 2, W/O WASHER @ EACH BACK-UP PLATE 4" O.C.

**LL 1/4-14 x 7/8" HWH TYPE 1, SELF DRILLING LAP SCREW W/BN WASHER @ 6" O.C.**

**1/4-14 x 7/8" HWH TYPE 1, SELF DRILLING LAP SCREW**

**HIGH EAVE**

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RAKE CLOSURE

1/4-14 HWH TYPE 3, W/BN WASHER @ 12" O.C.

RAKE TRIM

EXPANDABLE FOAM INSULATION (NOT BY PANEL MANUFACTURER)

FLUTE PLUG STRIP (1) PER PANEL (IF REQUIRED) SET IN URETHANE SEALANT

1/4-14 x 7/8" HWH TYPE 1 SELF DRILLING LAP SCREW @ 8" O.C.

FLASHING SEALANT TAPE

14 GA. PANEL CLIP

BUTYL TAPE SEALANT

LL 1/4-14 x 7/8" HWH TYPE 1 SELF DRILLING LAP SCREW W/BN-WASHER @ 8" O.C.

CONTINUOUS BUTYL SEALANT WITH MARRIAGE BEAD TO VERTICAL PANEL JOINT SEALANT

1/4" HWH FASTENERS

RAKE SUPPORT (NOT BY PANEL MANUFACTURER)
6" MINIMUM
18" MAXIMUM

CFR PANEL CLIP @ EACH PANEL SIDELAP

EXPANDABLE FOAM INSULATION (NOT BY PANEL MANUFACTURER)

BUTYL TAPE SEALANT

INTERIOR RIDGE TRIM
1/4-14 x 1-1/2" HWH TYPE 2, W/OUT WASHER @ EACH BACK-UP PLATE FACTORY INSTALLED @ EACH HIGH MESA, 4" O.C.

BUTYL TAPE SEALANT

ROOF PURLINS (NOT BY PANEL MANUFACTURER)

BUTYL TAPE SEALANT

CONTINUOUS BUTYL SEALANT WITH MARRIAGE BEAD TO PANEL JOINT SEALANT

LL 1/4-14 x 7/8" HWH TYPE 1, SELF DRILLING LAP SCREW W/BN WASHER @ 6" O.C.

EXTERIOR RIDGE TRIM
1/4" HWH FASTENERS

CLIP SEALANT

BUTYL TAPE SEALANT

RIDGE CLOSURE

BUTYL TAPE SEALANT

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RIDGE

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1. Set in continuous butyl sealant w/marriage beads to panel joint

2. Set panels and clips

3. Butyl tape sealant

4. Butyl tape sealant

5. Outside ridge trim

5. 1/4" HWH fasteners

2. 1/4" HWH fasteners

2. Butyl tape sealant

2. CFR clip

4. Expandable foam insulation

5. Inside ridge trim

* Numbers refer to sequence of installation
RIDGE END OF ROOF PANELS

CRIMP PANEL SEAM 18"–24" WITH MANUAL SEAMING TOOL

SEALANT ALIGNMENT MARKS (@ 3" FROM END OF PANEL, USE PANEL NOTCHES AS GUIDE)

INTERIOR RIDGE FLASHING

ROOF PANEL (TYP.)

CRIMPED SEAM (TYP.)

SEALANT ALIGNMENT MARKS (@ 3" FROM END OF PANEL, USE PANEL NOTCHES AS GUIDE)

ROOF PANEL (TYP.)

CRIMPED SEAM (TYP.)

SEALANT ALIGNMENT MARKS (@ 3" FROM END OF PANEL, USE PANEL NOTCHES AS GUIDE)

PIGTAIL SEALANT (1" STRIP OF BUTYL TAPE SEALANT)

MARRY SEALANTS

BUTYL TAPE SEALANT

INTERIOR RIDGE FLASHING
RIDGE FLASHING
LL 1/4-14 X 7/8" HWH TYPE 1, SELF DRILLING LAP SCREW W/BN WASHER @ 6" O.C.

INTERIOR FLASHING CLOSURE

BUTYL TAPE SEALANT

ROOF PANEL (TYP.)

RAKE CLOSURE

START AND FINISH RIDGE FLASHING AT FACE OF RAKE CLOSURE

PIGTAIL SEALANT (3" STRIP OF BUTYL TAPE SEALANT)

RIDGE FLASHERING

LL 1/4-14 X 7/8" HWH TYPE 1, SELF DRILLING LAP SCREW W/BN WASHER @ 6" O.C.

INTERIOR FLASHING CLOSURE

BUTYL TAPE SEALANT

RAKE CLOSURE

ROOF PANEL (TYP.)
1/8" RIVET @ 12" O.C.

BASE TRIM

TRANSITION TRIM

BUTYL TAPE SEALANT

RAKE CLOSURE

BUTYL TAPE SEALANT

14 GA. PANEL CLIP

CONTINUOUS BUTYL SEALANT WITH MARRIAGE BEAD TO VERTICAL PANEL JOINT SEALANT

1/4" HWH FASTENERS

BUTYL TAPE SEALANT

SUPPORT REQUIRED (NOT BY PANEL MANUFACTURER)

CONTINUOUS BUTYL SEALANT WITH MARRIAGE BEAD TO VERTICAL PANEL JOINT SEALANT

EXPANDABLE FOAM INSULATION (NOT BY PANEL MANUFACTURER)

BUTYL SEALANT

ROOF/RAKE SUPPORT (NOT BY PANEL MANUFACTURER)

1/4" HWH FASTENERS

LL 1/4-14 x 7/8" HWH TYPE 1, SELF DRILLING LAP SCREW W/BN WASHER @ 6" O.C.
**TRANSITION CONTINUOUS WALL TO ROOF RAKE**

1/4-14 x 7/8" HWH TYPE 1, SELF DRILLING LAP SCREW @ 8" O.C.

LL 1/4-14 x 7/8" HWH TYPE 1, SELF DRILLING LAP SCREW W/BN WASHER @ 6" O.C.

BUTYL TAPE SEALANT

RIDGE CLOSURE

BUTYL TAPE SEALANT

ELASTOMERIC SEALANT

COUNTER FLASHING

TRANSITION TRIM

CONTINUOUS BUTYL SEALANT

EXPANDABLE FOAM INSULATION (NOT BY PANEL MANUFACTURER)

BUTYL SEALANT

ROOF/RAKE SUPPORT (NOT BY PANEL MANUFACTURER)

1/4" HWH FASTENERS

DATE: Aug '19
14 GA. PANEL CLIP
1/4" HWH FASTENERS
BASE TRIM
1/8" RIVET @ 12" O.C.
TRANSITION TRIM
LL 1/4-14 x 7/8" HWH TYPE 1, SELF DRILLING LAP SCREW W/BN WASHER @ 6" O.C.
BUTYL TAPE SEALANT
RIDGE CLOSURE
CFR PANEL CLIP @ EACH PANEL SIDELAP
1/4" HWH FASTENERS
SUPPORT (NOT BY PANEL MANUFACTURER)

14 GA. PANEL CLIP
CONTINUOUS BUTYL SEALANT WITH MARRIAGE BEAD TO VERTICAL PANEL JOINT SEALANT
BUTYL SEALANT
1/4" HWH FASTENERS

SUPPORT REQUIRED (NOT BY PANEL MANUFACTURER)
BUTYL TAPE SEALANT
CLIP SEALANT
CLOSURE TRIM
BACK-UP PLATE FACTORY INSTALLED @ EACH HIGH MESA, 4" O.C.
EXPANDABLE FOAM INSULATION (NOT BY PANEL MANUFACTURER)
BUTYL TAPE SEALANT
CONTINUOUS BUTYL SEALANT WITH MARRIAGE BEAD TO PANEL JOINT SEALANT
1/4-14 x 1-1/2" HWH TYPE 2, W/O WASHER @ EACH BACK-UP PLATE 4" O.C.
14 GA. PANEL CLIP

1/4" HWH FASTENERS

BASE TRIM

1/8" RIVET @ 12" O.C.

TRANSITION TRIM

SUPPORT REQUIRED (NOT BY PANEL MANUFACTURER)

BACK-UP PLATE FACTORY INSTALLED @ EACH HIGH MESA, 4" O.C.

CONTINUOUS BUTYL SEALANT WITH MARRIAGE BEAD TO VERTICAL PANEL JOINT SEALANT

CONTINUOUS BUTYL SEALANT WITH MARRIAGE BEAD TO PANEL JOINT SEALANT

EXPANDABLE FOAM INSULATION (NOT BY PANEL MANUFACTURER)

BUTYL TAPE SEALANT

INTERIOR TRANSITION TRIM

CFR PANEL CLIP @ EACH PANEL SIDELAP

1/4" HWH FASTENERS

1/4-14 x 1-1/2" HWH TYPE 2, W/O WASHER @ EACH BACK-UP PLATE 4" O.C.

1/4-14 X 7/8" HWH TYPE 1, SELF DRILLING LAP SCREW

LL 1/4-14 x 7/8" HWH TYPE 1, SELF DRILLING LAP SCREW W/BN WASHER @ 6" O.C.

BUTYL TAPE SEALANT

RIDGE CLOSURE

CLIP SEALANT

SUPPORT (NOT BY PANEL MANUFACTURER)

1/4" HWH FASTENERS

W.P.
1/4-14 x 7/8" HWH Type 1, Self Drilling Lap Screw @ 8" O.C.

LL 1/4-14 x 7/8" HWH Type 1, Self Drilling Lap Screw W/BN Washer @ 6" O.C.

Butyl Tape Sealant

Ridge Closure

Clip Sealant

CFR Panel Clip @ Each Panel Sidelap

1/4" HWH Fasteners

1/4-14 x 1-1/2" HWH Type 2, W/O WASHER @ Each Back-Up Plate 4" O.C.

1/4-14 x 7/8" HWH Type 1, Self Drilling Lap Screw

Support (Not By Panel Manufacturer)

Counter Flashing

Transition Trim

Butyl Tape Sealant

Continuous Butyl Sealant

Expandable Foam Insulation (Not By Panel Manufacturer)

Back-Up Plate Factory Installed @ Each High Mesa, 4" O.C.

Continuous Butyl Sealant With Marriage bead to Panel Joint Sealant

Butyl Tape Sealant

Corner Trim

1/4-14 x 7/8" HWH Type 1, Self Drilling Lap Screw @ 8" O.C.
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TRANSITION MASONRY WALL TO HIGH EAVE

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POURABLE CAULK
(NOT BY PANEL MANUFACTURER)

FIELD CUT MASONRY,
INSERT FLASHING,
FILL VOID WITH SEALANT
(NOT BY PANEL MANUFACTURER)

COUNTER FLASHING

TRANSITION TRIM

LL 1/4-14 x 7/8" HWH TYPE 1,
SELF DRILLING LAP SCREW
W/BN WASHER
@ 6" O.C.

SEALANT TAPE

RIDGE CLOSURE

CLIP SEALANT

CFR PANEL CLIP
@ EACH PANEL SIDELAP

1/4" HWH FASTENERS
(NOT BY PANEL MANUFACTURER)

SUPPORT
(NOT BY PANEL MANUFACTURER)

MASONRY FASTENER
(NOT BY PANEL MANUFACTURER)

BUTYL TAPE SEALANT

CLOSED PLATE FACTORY
INSTALLED @ EACH HIGH
MESA, 4" O.C.

EXPANDABLE FOAM INSULATION
(NOT BY PANEL MANUFACTURER)

BUTYL TAPE SEALANT

CONTINUOUS BUTYL SEALANT
WITH MARRIAGE BEAD TO
PANEL JOINT SEALANT

1/4"-14 x 1-1/2" HWH TYPE 2,
W/OUT WASHER @ EACH
BACK-UP PLATE 4" O.C.
TRANSITION TRIM
LL 1/4-14 x 7/8" HWH TYPE 1, SELF DRILLING LAP SCREW W/BN WASHER @ 6" O.C.

BUTYL TAPE SEALANT

CFR RAKE CLOSURE

MASONRY FASTENER (NOT BY PANEL MANUFACTURER)

POURABLE CAULK (NOT BY PANEL MANUFACTURER)

FIELD CUT MASONRY, INSERT FLASHING, FILL VOID WITH SEALANT (NOT BY PANEL MANUFACTURER)

COUNTER FLASHING

TRANSITION TRIM

BUTYL TAPE SEALANT

CLOSURE TRIM

FIELD CUT AND TURN UP TOP PANEL SKIN

EXPANDABLE FOAM INSULATION (NOT BY PANEL MANUFACTURER)

BUTYL SEALANT

ROOF/RAKE SUPPORT (NOT BY PANEL MANUFACTURER)

1/4" HWH FASTENERS
SEQUENCE OF INSTALLATION:

1. STRUCTURAL VALLEY SUPPORT PLATE
2. CEE SHAPED SECURED TO VALLEY PLATE
3. FILL VOID W/RIGID INSULATION
4. INSTALL VALLEY TRIM
5. APPLY SEALANT TAPE
6. FIELD CUT ROOF PANELS. REMOVE CUT BACK
7. FASTEN ASSEMBLY

NOTE: NOT FOR DORMER CONDITIONS - CONTACT METL-SPAN FOR MORE INFORMATION
(6) FASTENER #1B 1/4-14 X 1 1/4" SD W/O WASHER FOR PURLIN OR CURB SUPPORT 14GA OR LESS.

(6) FASTENER #55 12-24 X 1 1/4" SD DP5 W/O WASHER FOR PURLIN OR CURB SUPPORT 12GA OR GREATER.

L 4 X 4 X 14GA X 6" FIELD CUT FROM
CURB SUPPORT (8", 10" OR 12" CEE)

(6) FASTENER #1B 1/4-14 X 1 1/4" SD W/O WASHER FOR PURLIN OR CURB SUPPORT 14GA OR LESS.

(6) FASTENER #55 12-24 X 1 1/4" SD DP5 W/O WASHER FOR PURLIN OR CURB SUPPORT 12GA OR GREATER.

L 4 X 4 X 14GA X 6" FIELD CUT FROM

ROOF CURB SUPPORT CHANNEL
FACTORY LOCATED CURBS WITH A SINGLE PANEL RUNNING EAVE TO RIDGE: PANELS ARE TO BE DETAILED WITH AN ENDLAP AT THE UPSLOPE CURB LOCATION ONLY.

FIELD LOCATED CURBS WITH A SINGLE PANEL RUNNING EAVE TO RIDGE: PANELS AT CURB LOCATION MUST BE A MINIMUM OF 3" LONGER TO PERMIT FIELD CUTTING AND NOTCHING / REMOVAL OF FOAM AT UPSLOPE SPLICE LOCATION OF CURB.

FACTORY LOCATED CURBS ON MULTIPLE PANELS RUNNING EAVE TO RIDGE: PANELS MUST BE DETAILED FOR AN ENDLAP AT THE UPSLOPE CURB LOCATION.

FIELD LOCATED CURBS ON MULTIPLE PANELS RUNNING EAVE TO RIDGE: PANELS UPSLOPE OF CURB LOCATION MUST BE A MINIMUM OF 3" LONGER TO PERMIT FIELD CUTTING AND NOTCHING / REMOVAL OF FOAM AT UPSLOPE SPLICE LOCATION OF CURB.

ROOF ERECTION SEQUENCE IS LEFT TO RIGHT ON EACH PLANE

ENDLAP SUPPORT ANGLE UNDER CURB AREA ONLY.
L 2 X 4 X 16GA FIELD CUT TO LENGTH.
FIELD FABRICATE AND FIELD LOCATE ENDLAP,
REFERENCE STANDARD ENDLAP
REMOVE PANEL RIB
PURLIN

STEP 1
**STEP 2**

**SUB-FRAMING**

- 1'-6" (MIN)

**ROOF SLOPE**

- FIELD REMOVE PANEL RIBS TO ALLOW CURB TO SET FLAT.

**URETHANE SEALANT**

- ENDLAP SUPPORT ANGLE UNDER CURB AREA ONLY.

**TRIPLE-BEAD TAPE SEALANT (CONTINUOUS)**

- HAND CRIMP (9" MIN.) AND TOOL SEAM PRIOR TO PLACING CURB.

- SEE STEP 3 FOR ADDITIONAL CRIMP REQUIREMENTS

**ROOF CURB SUPPORT CHANNEL**

- FIELD CUT AND NOTCH

**PANCAKE HEAD FASTENER 8" O.C. INTO SUB-FRAMING. LENGTH OF FASTENER IS DEPENDANT ON ROOF PANEL THICKNESS.**

**URETHANE SEALANT**

**TRIPLE-BEAD TAPE SEALANT (CONTINUOUS)**

**PURLIN**
STEP 3

ALUMINUM CURB
FULL PANEL RUN
ROOF CURB SUPPORT CHANNEL
CFR ROOF PANEL (LOWER)
FASTENER #4 1/4 - 14 X 5/8
LL SD W/WASHER AT 3" O.C.

APPLY URETHANE SEALANT ALONG THE INTERIOR SEAM, HAND CRIMP SEAM OVER ANOTHER 90° FOR 6" AT EACH CAP CELL LOCATION.

FINISHED SEAM PROFILE

NOTCH CURB BASE A MINIMUM OF 3" @ STANDING SEAM CAP LOCATION.

TRIPLE BEAD TAPE SEALANT CONTINUOUS
URETHANE SEALANT CONTINUOUS
PURLIN
ROOF CURB SUPPORT CHANNEL FIELD CUT AND NOTCH
TRIPLE BEAD TAPE SEALANT CONTINUOUS
PURLIN
CFR ROOF PANEL (LOWER)
STEP 4

- ALUMINUM CURB LAP AT CURB SUPPORT
- ROOF SLOPE FULL PANEL RUN
- ROOF CURB SUPPORT CHANNEL
- TRIPLE BEAD TAPE SEALANT
- SEALANT
- 3" FIELD CREATED END LAP

FILL CAP CELL WITH URETHANE SEALANT AND FASTEN USING (4) 1/4-14 X 7/8" LL SD W/ WASHER PER SIDE

FIELD CUT TO LENGTH AND REMOVE FOAM TO LAP CURB BASE

END LAP BUTYL TAPE SEALANT AT PANEL RIB SIDE LAP

FILL ALL VOIDS WITH URETHANE SEALANT

COMMERCIAL & INDUSTRIAL ROOF CURB INSTALLATION O1 – 4 OF 5

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DATE: Aug '19
STEP 5

ROOF CURB INSTALLATION O1
- 5 OF 5

COMMERCIAL & INDUSTRIAL

DATE: Aug '19
ROOF CURB INSTALLATION PROCEDURES FOR STANDING SEAM ROOF PANEL

MARK RIB FOR CUTTING

ROOF CURB INSTALLATION INSTRUCTIONS:
1. ON FULLY SHEETED ROOF, SET CURB IN PLACE. CURB BASE FLANGE WILL GO TO NEAREST HIGH AT A SEAM (MINIMUM 6" CLEARANCE).
2. MARK BASE FLANGE LOCATIONS AND THROAT AREA. DO NOT USE LEAD PENCIL.
3. LOCATE AND MARK ROOF OPENING CUT LINE. ALLOW FOR 3" PANEL LAP ON UPSLOPE. ALLOW FOR 4" RIB CLOSURE DOWNSLOPE (LENGTH OF CURB MINUS 7").
4. IF C-CHANNEL SUPPORT IS REQUIRED, SEE DETAIL OF C-CHANNEL ASSEMBLY. POSITION UNDER VERTICAL PART OF CURB, EDGE OF SUB-FRAME, AND C-CHANNEL.
5. LAYOUT THROAT OPENING CUT LINE AND CUT THROUGH EXTERIOR PANEL, INSULATION AND INTERIOR PANEL AND ACCORDING TO BUILDING MANUFACTURER’S RECOMMENDATIONS.
6. LAYOUT ROOF PANEL CUT LINE AND CUT THROUGH EXTERIOR PANEL ONLY. REMOVE EXTERIOR PANEL LEAVING THE INSULATION FACE SHOWING.
7. REMOVE CUT PANELS FROM ROOF OPENING AND CLEAN UP ALL METAL SHAVINGS AND DEBRIS.
8. NO SCREWS REQUIRED IN THE C-CHANNEL. IT WILL BE SECURED WHEN CURB IS FASTENED DOWN.
9. APPLY A STRIP OF SEALANT TAPE ON UPPER SIDE OF UPHILL BASE FLANGE. ON DOWNHILL BASE FLANGE, APPLY SEALANT TAPE TO BOTTOM (UNDERNEATH) SIDE OF BASE FLANGE.
10. GENEROUSLY CAULK SEAM WHERE CURB BASE BUTTS TO ROOF PANEL.
11. POSITION ROOF CURB OVER ROOF OPENING AND LOWER INTO PLACE. SHIFT CURB TO ALIGN WITH THROAT OPENING AND ROOF PANELS.
12. SECURE CURB USING 10 RECOMMENDED SCREWS PER PANEL, UPHILL AND DOWNHILL IN CURB BASE FLANGE.

NOTE:
TAPE AND TUBE SEALANT AS RECOMMENDED BY BUILDING MANUFACTURER.
NOTE:
FOR ROOF PITCHES GREATER THAN 4:12 CONSIDER USING NEXT LARGER SIZE BOOT.
(DO NOT INSTALL OVER PANEL RIBS)

STEPS FOR INSTALLING PIPE BOOT FLASHING:

1.) CUT PIPE BOOT TO PIPE DIAMETER MARKED ON THE CONE (INCHES AND MILLIMETERS). ALLOW 1/2" [13] STRAIGHT COLLAR AGAINST THE PIPE FOR MAXIMUM SEALING.
2.) CLEAN AREA FLASHING IS TO BE INSTALLED AGAINST THE PANEL THOROUGHLY.
3.) SLIDE BOOT OVER PIPE TO BE FLASHED.
4.) APPLY A 3/8"[10] Ø BEAD OF POLYURETHANE TO THE UNDER SIDE OF THE RIBBED ALUMINUM BASE.
5.) PRESS FLASHING TO CONTOURS OF ROOF PANEL. A BLUNT TOOL MAY BE USED TO PRESS BOOT INTO PLACE IN SHARPLY ANGLED AREAS.
6.) FASTEN FLASHING AS DESCRIBED IN DETAIL. WHILE FASTENING INSPECT BASE FOR GAPS BETWEEN THE PIPE BOOT BASE AND ROOF PANEL. TOOL EXCESS POLYURETHANE SEALANT INTO THE EDGE OF THE BOOT BASE.
7.) USE 3/16" DIA. BULB-TITE RIVETS OVER NAILBASE INSULATION

POLYURETHANE 3/8" @10 O.C