HIGH SEAM TEE-PANEL
INSTALLATION DETAILS

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A. BERRIDGE HIGH SEAM TEE-PANEL IS AVAILABLE IN A PAN WIDTH OF 18 1/4" AND A SEAM
HEIGHT OF 1" OR 1 1/2".

PANELS ARE FACTORY FABRICATED AND/OR FIELD FABRICATED USING THE BERRIDGE MODEL
SS-1421 PORTABLE ROLL FORMER.

WHEN SPECIFYING COIL OR FIELD FORMED PANELS, PLEASE NOTE EACH SEAM HEIGHT
REQUIRES A DIFFERENT WIDTH COIL.

PANELS MUST BE CURVED ON THE FIELD WITH THE BERRIDGE SS-1421 PORTABLE ROLL
FORMER. THE MINIMUM RADIUS FOR THE 1 1/2" SEAM HEIGHT IS 8'-0" AND FOR THE 1" SEAM
HEIGHT THE MINIMUM RADIUS IS 5'-0". CURVED PANELS CAN BE EITHER SMITH OR STRIATED.

FOR MULTIPLE RADIUSES THE 1" SEAM HEIGHT CAN BE FIELD ADJUSTED REFERENCE
OPERATIONS MANUAL; THE 1 1/2" SEAM HEIGHT REQUIRES PRIOR TRAINING OF FIELD
PERSONAL OR FACTORY ADJUSTMENT BY BERRIDGE.

A FOLDING TEE-CLIP IS AVAILABLE FOR CURVED APPLICATIONS OF THE 1" PANEL AND 1 1/2"
PANEL SEAM, REVIEW DETAIL HT-65 FOR INSTALLATION INSTRUCTIONS.

PLEASE CONTACT BERRIDGE MANUFACTURING COMPANY FOR FURTHER INFORMATION
REGARDING THE BERRIDGE PORTABLE ROLL FORMER.

B. MINIMUM SLOPE: THE HIGH SEAM TEE-PANEL IS RECOMMENDED FOR SLOPES OF 1:12 AND
GREATER ON MOST AREAS OF THE COUNTRY. IN HEAVY SNOW AREAS OF AREAS WHERE
FREEZE-THAW CYCLES ARE PREVALENT, A MINIMUM ROOF SLOPE OF 3:12 IS RECOMMENDED.

A DOUBLE LAYER OF NUMBER THIRTY FELT UNDERLAYMENT OR EQUAL COVERING THE
ENTIRE SUBSTRATE IS RECOMMENDED FOR ALL APPLICATIONS WHERE THE ROOF SLOPE IS
BETWEEN 3:12 AND 1:12.

W.R. GRACE 40 MIL ICE AND WATER SHIELD OR EQUAL IS REQUIRED ON ALL CURVED
INSTALLATIONS.

C. MATERIAL STORAGE: CAUTION MUST EXERCISED IN STORAGE OF MATERIALS PRIOR TO
INSTALLATION. KEEP ALL BERRIDGE PREFINISHED MATERIAL IN A DRY LOCATION WITH
ADEQUATE VENTILATION AN OUT OF DIRECT SUNLIGHT.

EXPOSURE TO DIRECT SUNLIGHT AND/OR MOISTURE MAY CAUSE THE FACTORY APPLIED
STRIPPABLE PLASTIC FILM TO ADHERE TO THE METAL PERMANENTLY AND DISCOLOR THE
FINISH.

D. STRIPPABLE FILM: THE STRIPPABLE PLASTIC FILM WHICH IS APPLIED OVER MOST BERRIDGE
PREFINISHED PRODUCTS, PANELS, FLASHINGS, COIL AND FLAT SHEETS PROTECTS THE
FINISH DURING FABRICATION AND TRANSIT. THIS FILM MUST BE REMOVED PRIOR TO
INSTALLATION.
E. SOLID SHEATHING REQUIREMENTS: BERRIDGE MANUFACTURING COMPANY RECOMMENDS
THE USES OF EITHER BERRIDGE 24 GA. CORRUGATED METAL (NOMINAL 2.67" PITCH X
7/8" DEPTH) OR A MINIMUM OF 1/2" SOLID WOOD SHEATHING TO PROVIDE SUFFICIENT
HOLDING POWER FOR FASTENERS. CONTACT BERRIDGE MANUFACTURING'S ENGINEERING
DEPARTMENT FOR USE OF ANY OTHER TYPE OF SOLID SHEATHING.

DUE TO # 30 FELTS TENDENCY TO TEAR WHEN USED OVER CORRUGATED DECKING,
BERRIDGE MANUFACTURING RECOMMENDS 40 MIL GRACE ICE AND WATERSHIELD OR EQUAL
TO BE USED AS AN UNDERLAYMENT FOR ALL CORRUGATED DECKS.

NOTE: FOR PROJECTS REQUIRING UL 90 ASSEMBLY, REFER TO UL 90 DETAILS.

F. SHEATHING INSPECTION:
1. SHEATHING END JOINTS SHOULD BE STAGGERED.
2. ALL END JOINTS SHOULD MEET AT EITHER A JOIST OR RAFTER.
3. BLOCKING OR "H" CLIPS SHOULD BE USED ON PLYWOOD IF JOINTS DO NOT REMAIN FLAT
   UNDER THE WEIGHT OF WORKMEN.
4. USE SHIMS TO KEEP ENTIRE SUBSTRATE EVEN. UNEVEN SUBSTRATE WILL RESULT IN "OIL-
   CANNING" IN PANELS. SUBSTRATE SHOULD BE LEVEL TO 1/4" ON 20'-0".
5. ALL CUTS AT PENETRATIONS SHOULD BE TIGHT, WITHOUT GAPS.
6. USE WOOD FRAMED CRICKETS AT LARGE PENETRATIONS.
7. MAKE SURE SUBSTRATE JOINTS ARE TIGHT AT ALL HIPS, VALLEYS AND RIDGES.

G. FASCIA/RAKE INSPECTION:
1. STRIKE A LINE THE FULL LENGTH OF THE FASCIA OR RAKE. IF NOT STRAIGHT, CORRECT
   WITH SHIMS.
2. MAKE SURE FASCIA/RAKE IS FLUSH WITH ROOF SUBSTRATE SHEATHING.

H. FELT UNDERLAYMENT: A SINGLE LAYER OF NUMBER THIRTY FELT UNDERLAYMENT
   (OR EQUAL) MUST BE APPLIED OVER SOLID SHEATHING AS SHOWN IN THE BERRIDGE
   MANUFACTURING COMPANY TYPICAL UNDERLAYMENT DETAILS. THE USE OF ADDITIONAL
   LAYERS OF NUMBER THIRTY FELT IS RECOMMENDED ON LOW-SLOPED ROOFS, AT ALL VALLEY
   CONDITIONS, AT ROOF PENETRATIONS AND CERTAIN OTHER FLASHING CONDITIONS AS
   DEPICTED IN THE HIGH SEAM TEE-PANEL TYPICAL DETAILS, GRACE ICE AND WATERSHIELD
   MAY BE REQUIRED ON LOW SLOPED ROOFS OR AT CERTAIN FLASHING CONDITIONS.

I. FELTING INSTALLATION:
1. DO NOT USE RED ROSIN PAPER UNDER METAL ROOFING PANELS.
2. SWEEP ROOF AREA CLEAN.
3. USE FLAT HEAD GALVANIZED ROOFING NAILS X 1-1/4" LONG WITH BERRIDGE GALVANIZED
   FELT CAPS.
4. INSTALL VALLEY FELT FIRST.
5. INSTALL FELT PARALLEL TO EAVE (2 LAYERS REQUIRED AT EAVE), STARTING AT EAVE AND
   USING MINIMUM 6" LAPS. USE TWO LAYERS OF FELT ON ENTIRE ROOF DECK IF ROOF
   SLOPE BETWEEN 1:12 AND 3:12. 2 LAYERS REQUIRED AT EAVE REGARDLESS OF SLOPE.
6. INSULATE BETWEEN WOOD BLOCKING AND METAL WITH FELT OR ICE AND WATER SHIELD.
7. VERIFY CORRECT METHOD OF INSTALLING ICE AND WATERSHIELD WITH ICE AND WATERSHIELD MANUFACTURER.

J. THERMAL MOVEMENT: EXPANSION AND CONTRACTION OF PANELS WHICH EXCEEDS THIRTY FEET IN LENGTH CAN BE A FACTOR IN THE DESIGN AND INSTALLATION OF FLASHINGS AND PANELS. PLEASE REFER TO EXPANSION CHART ON PAGE HTI-6 TO DETERMINE ANTICIPATED THERMAL MOVEMENT OF PANELS. IMPROPERLY DESIGNED FLASHING MAY CAUSE PANELS TO DISENGAGE FROM FLASHING, ALLOWING OIL-CANNING IN PANEL AND/OR CAUSE FLASHING TO WORK LOOSE FROM ITS ANCHORAGE.

K. ELECTROLYSIS: PREVENT EXPOSURE TO WATER RUNDOWN FROM COPPER AND/OR LEAD. AVOID ALLOWING FLASHING AND PANELS TO COME INTO CONTACT WITH EITHER LEAD OR COPPER.

L. FLASHING: IF BERRIDGE MANUFACTURING COMPANY IS TO SUPPLY FLASHINGS, ALL FLASHINGS SHALL BE FABRICATED IN 10'-0" LENGTHS WITH SQUARE END CUTS ONLY. THE PURCHASER MUST PROVIDE ALL DIMENSIONS AND DEGREE OF ANGLES.

M. FLASHING INSTALLATION:
   1. REMOVE STRIPPABLE PLASTIC FILM FROM ALL FLASHINGS PRIOR TO INSTALLATION.
   2. ALWAYS STAGGER JOINTS WHEN TWO ROWS OF FLASHING OCCUR.
   3. INSTALL ALL FLASHINGS AS PER BERRIDGE TYPICAL DETAILS
   4. ALL FLASHINGS ARE TO BE DESIGNED AND INSTALLED NOT TO TRAP WATER.

PANELS: BERRIDGE MANUFACTURING COMPANY WILL PROVIDE SQUARE END CUTS ONLY ON ALL HIGH SEAM TEE-PANELS. COMPUTATION OF ALL QUANTITIES AND DIMENSIONS ARE RESPONSIBILITY OF THE PURCHASER.

PANEL INSTALLATION:
   1. REMOVE STRIPPABLE PLASTIC FILM FROM EACH PANEL PRIOR TO INSTALLATION.
   2. DETERMINE CENTER LINE OF ROOF AREA AND START PANEL INSTALLATION AT THE CENTER OF THE ROOF, WORKING TOWARD THE GABLE ENDS. MAKE SURE PANELS ARE PERPENDICULAR TO EAVE. AT VALLEY AREAS, MAKE SURE PANELS ARE INSTALLED SO THAT DRAINAGE HAS FREE FLOW AND IS NOT OBSTRUCTED BY PANEL SEAMS.
   3. INSTALL HIGH SEAM TEE-PANEL CLIPS AS PER BERRIDGE TYPICAL DETAILS AND TEE-CLIP INSTALLATION NOTES.
   4. EACH PANEL IS TO BE KEPT TIGHT AGAINST THE LEG OF THE ADJOINING PANEL. NEVER PERMIT A GAP BETWEEN VERTICAL LEGS. ANY CRIMPS IN VERTICAL LEGS MUST BE STRAIGHTENED (TOTALLY STRAIGHT WITHOUT ANY BENDS, CRIMPS, CREASES, ETC.) PRIOR TO SEAM INSTALLATION.
   5. ALWAYS INSTALL SEAM AS YOU INSTALL EACH PANEL. DO NOT INSTALL PANELS FIRST AND THEN FOLLOW LATER WITH SEAM INSTALLATION.
   6. KEEP PANELS ALIGNED SO THAT SEAMS MATCH AT HIPS, VALLEYS AND WHERE VERTICAL PANELS ADJOIN ROOF PANELS. DO NOT INSTALL LONG CONTINUOUS RUNS OF PANELS ALL AT ONE TIME WHERE SEAM LINES MUST MATCH. INSTALL 10 OR 12 PANELS IN ONE ELEVATION AND THEN FOLLOW WITH A LIKE NUMBER OF PANELS ON THE OTHER
ELEVATION. WHEN YOU INSTALL PANELS IN THIS MANNER, YOU WILL BE ABLE TO MAKE ANY
ADJUSTMENTS REQUIRED TO INSURE SEAM MATCHING.

7. COPPER-COTE™, CHAMPAGNE, LEAD-COTE™ AND PREWEATHERED GALVALUME®
   PANEL INSTALLATION: NOTE THE SERIES OF ARROWS PAINTED ON THE UNDERSIDE OF
   THE PANEL. ALL PANELS MUST BE INSTALLED IN A CONSISTENT MANNER, MEANING THAT
   THE ARROWS ON EVERY PANEL ARE ALL POINTING IN THE SAME DIRECTION. IF A PANEL
   IS REVERSED (ARROWS POINTING OPPOSITE OF THOSE ON OTHER PANELS) IT WILL
   APPEAR, FROM A DISTANCE, A DIFFERENT SHADE DUE TO THE GRANULAR EFFECT OF THE
   PIGMENTS IN THE FINISH. METALLIC FINISHED ARE MATCH - LOT FINISHES. DO NOT MIX
   LOTS.

P. SNAP-ON SEAM: BERRIDGE PATENTED SNAP-ON SEAMS HAVE BEEN LABORATORY TESTED
   ON BOTH SOLID WOOD SUBSTRATE AND METAL FRAMING, BOTH ASSEMBLIES SHOWED NO
   SIGNIFICANT LEAKAGE IN ACCORDANCE WITH THE ASTM E 283-84 AND ASTM E 331-86 AIR AND
   WATER INFILTRATION TESTS. TEST REPORTS ARE AVAILABLE UPON REQUEST.

Q. SNAP-ON SEAM INSTALLATION:
   1. INSTALL SEAMS WITH HAND PRESSURE ONLY. DO NOT POUND OR HAMMER SEAMS INTO
      PLACE; THIS WILL DAMAGE THE SEAM AND VINYL, PERMITTING WATER INFILTRATION.
   2. INSPECT EACH SEAM AS YOU INSTALL IT TO MAKE SURE THE VINYL IS PROPERLY SEATED
      IN THE METAL CAP AND IS SNUGLY FITTED NEXT TO THE PANEL LEGS.
   3. USE TWO (2) WORKERS (OR MORE, DEPENDING ON SEAM LENGTH) TO INSTALL SEAMS;
      ONE WORKER (OR WORKERS) HOLDING ONE END OF THE SEAM AT AN ANGLE OFF THE
      ROOF SURFACE AND THE OTHER WORKER INSERTING THE SEAM OVER THE PANEL LEGS.

R. TEE-CLIP INSTALLATION:
   1. THE CLIPS ARE TO BE INSTALLED AS SHOWN IN THE BERRIDGE TEE-PANEL DETAILS.
   2. CLIP SPACING IS TYPICALLY TWENTY (20) INCHES ON CENTER.

S. FASTENERS: INSTALL FASTENERS AS PER TYPICAL DETAILS. USE 11* GAUGE 1-1/4"
   GALVANIZED ROOFING NAILS FOR INSTALLATION OVER WOOD SHEATHING AND US #10
   PANCAKE HEAD TEKS FASTENERS (ZINC-PLANTED SCREW WITH PHILLIPS INSERT, AS MADE
   BY CONSTRUCTION FASTENER CO.) FOR INSTALLATION TO METAL** WHEN USING POP RIVETS
   ON FLASHING, STAINLESS STEEL RIVETS ARE RECOMMENDED TO AVOID RUST STAINS.
   MAKE SURE ALL FASTENERS ARE DRIVEN STRAIGHT AND SET FLAT. DO NOT OVERDRIVE
   FASTENERS, AS THIS WILL CAUSE THE CLIP AND/OR FLASHINGS TO BUCKLE OR BECOME
   RECESSED BELOW THE ELEVATION OF THE SUBSTRATE.

   * NOTE: IF LOCAL CODES OR OTHER REGULATIONS DICTATE SPECIFIC WIND UPLIFT
   REQUIREMENTS, CONSULT THE BERRIDGE ENGINEERING DEPARTMENT, AS IT MAY BE
   NECESSARY TO USE DIFFERENT CLIP SPACING OR FASTENER.

   ** CONSULT BERRIDGE MANUFACTURING’S ENGINEERING DEPARTMENT REGARDING THE USE
   OF ANY OTHER TYPE OF FASTENER.
T. UNERWITERS LABORATORIES RATINGS:
THE FOLLOWING UL RATINGS: THE BERRIDGE HIGH SEAM TEE-PANEL COMPLIES WITH
1. NO. 580 "TEST FOR WIND UPLIFT RESISTANCE OF ROOF ASSEMBLIES" CLASS UL 90 (REFER TO BERRIDGE TYPICAL DETAIL HT-90.91 & 92)

SEALANT RECOMMENDATIONS: TREMCO INC. SPECTREM 1 OR EQUAL
DO NOT USE CLEAR CAULK.

* NOTE: IF LOCAL CODES OR OTHER REGULATIONS DICTATE SPECIFIC WIND UPLIFT REQUIREMENTS, CONSULT THE BERRIDGE ENGINEERING DEPARTMENT, AS IT MAY BE NECESSARY TO USE A DIFFERENT CLIP SPACING OR FASTENER.

** CONSULT THE BERRIDGE MANUFACTURING ENGINEERING DEPARTMENT REGARDING THE USE OF ANY OTHER TYPE OF FASTENER.

BERRIDGE MANUFACTURING COMPANY STRIVES TO PROVIDE ITS CUSTOMERS WITH THE HIGHEST QUALITY STRETCHER LEVELLED STEEL AVAILABLE. THE LATEST TECHNOLOGY IS ALSO INCORPORATED IN BERRIDGE’S HIGH-PRECISION COIL HANDLING AND ROLL FORMING EQUIPMENT TO MINIMIZE THE STRESS ON METAL DURING PRODUCTION. FURTHERMORE, BERRIDGE UTILIZES HEAVIER 24 GAUGE METAL RATHER THAN 26 GAUGE STEEL OR LIGHT GAUGE ALUMINUM AS OFFERED BY MANY COMPETITORS. ALL THESE MEASURES HAVE BEEN TAKEN TO MINIMIZE THE AMOUNT OF “OIL-CANNING” (WAVINESS) WHICH IS NATURALLY INHERENT IN FLAT SHEET METAL. MANY TIMES, HOWEVER, THE CAUSE OF WAVINESS OR “OIL-CANNING” CAN BE TRACED TO UNEVEN SHEATHING, IMPROPER FELT INSTALLATION, IMPROPER HANDLING, OR FOOT TRAFFIC ON THE PANELS.

ALL ARCHITECTURAL PANELS REQUIRE CARE IN HANDLING AND INSTALLATION TO AVOID DAMAGING OR DEFORMING THE PANELS.

THESE INSTALLATION INSTRUCTIONS AND THE FOLLOWING TYPICAL DETAILS ARE INTENDED TO PROVIDE OUR CUSTOMERS WITH THE INFORMATION REQUIRED FOR AN AESTHETICALLY PLEASING AND FUNCTIONAL INSTALLATION OF THE BERRIDGE TEE-PANEL SYSTEM.

NOTE: ALL PRODUCTS, SPECIFICATIONS, DETAILS AND INSTRUCTIONS SUBJECT TO CHANGE WITHOUT NOTICE. FOR SPECIFIC PROJECT DETAILS, CONTACT BERRIDGE
EXPANSION AND CONTRACTION OF METAL PANELS DUE TO LONGITUDINAL THERMAL MOVEMENT MUST BE CONSIDERED IN BOTH DESIGN AND INSTALLATION. THE ABOVE CHART EMPHASIZES THE NEED TO PROVIDE AMPLE CLEARANCES FROM GUTTERS, RIDGES, ENDWALL, ETC.

MAXIMUM TEMPERATURE SHOULD BE NO LOWER THAN 140°F FOR WHITE PANELS, UP TO 180° FOR DARK PAINTED PANELS, REGARDLESS OF AMBIENT MAXIMUM. MINIMUM SHOULD BE FIGURED WELL BELOW AMBIENT MINIMUM TO ALLOW FOR RADIATION TO NIGHT SKY. IN ANY CASE, A MINIMUM OF 100°F DIFFERENTIAL IS RECOMMENDED.
Expansion and contraction of aluminum panels due to longitudinal thermal movement must be considered in both design and installation. The above chart emphasizes the need to provide ample clearances from cutters, ridges, endwall, etc.

Maximum temperature should be no lower than 140°F for white panels, up to 180° for dark painted panels, regardless of ambient maximum. Minimum should be figured well below ambient minimum to allow for radiation to night sky. In any case, a minimum of 100°F differential is recommended.
THE DETAILS CONTAINED IN THE FOLLOWING PAGES ARE MERELY RECOMMENDATIONS AS TO HOW BERRIDGE MANUFACTURING MATERIALS SHOULD BE INSTALLED. THEY MAY REQUIRE ADAPTATIONS OR MODIFICATIONS FOR A SPECIFIC PROJECT AS CONDITIONS VARY IN BOTH BUILDING DESIGN AND LOCAL WEATHER PECULIARITIES.

BERRIDGE MANUFACTURING COMPANY SHALL BE HELD HARMLESS FROM ANY AND ALL CLAIMS ARISING FROM A LACK OF WATERTIGHTNESS AS A RESULT OF FOLLOWING THESE RECOMMENDED DETAILS. ENSURING WATERTIGHTNESS ON ANY GIVEN PROJECT IS THE FUNCTION OF THE INSTALLER. THE ARCHITECT/GENERAL CONTRACTOR/INSTALLER MUST ACCEPT THE RESPONSIBILITY TO ADAPT THESE DETAILS TO MEET PARTICULAR BUILDING REQUIREMENTS AND TO ASSURE ADEQUATE WATERTIGHTNESS.

THE INSTALLER CAN VIRTUALLY ASSURE WATERTIGHTNESS IF THESE FLASHING DETAILS HAVE BEEN PROPERLY ADAPTED, ADEQUATE LAPS HAVE BEEN PROVIDED, CORRECT TYPE OF SEALANT USED, ALL JOINTS ADEQUATELY CAULKED AND PROFESSIONAL WORKMANSHIP EMPLOYED.
*SNAP-ON SEAM IS COVERED UNDER US PATENT NO. 4,641,475.
NOTE: THIS DETAIL FOR ROOFS WITH A SLOPE
GREATER THAN 3 ON 12

TURN DOWN UPPER PANEL AND LOCK ON TO
CONTINUOUS CLEAT ON LOWER PANEL

BERRIDGE HIGH SEAM TEE PANEL

CONTINUOUS CLEAT ALLOW 1 5/8"
GAP AT ENDS NEXT TO LEGS

BERRIDGE HIGH SEAM
TEE PANEL

CONTINUOUS BEAD
OF CAULK

CONTINUOUS
CLEAT

TEE-CLIP; 2 CLIPS BELOW
AND ABOVE PANEL SPLICE
# 30 FELT UNDERLAYMENT
SOLID SHEATHING

NOTE: THIS DETAIL FOR ROOFS WITH A SLOPE
BETWEEN 1 ON 12 AND 3 ON 12

TURN DOWN UPPER PANEL AND LOCK ON TO
CONTINUOUS CLEAT ON LOWER PANEL

BERRIDGE HIGH SEAM TEE PANEL

CONTINUOUS CLEAT ALLOW 1 3/4"
GAP AT ENDS NEXT TO LEGS

BERRIDGE HIGH SEAM
TEE PANEL

TWO CONTINUOUS
BEADS OF CAULK

CONTINUOUS
CLEAT

TEE-CLIP; 2 CLIPS BELOW
AND ABOVE PANEL SPLICE
# 30 FELT UNDERLAYMENT
SOLID SHEATHING

MIN. 2 FASTENERS; PLACE SMALL
AMOUNT OF CAULK BENEATH CLEAT
AT FASTENER LOCATION, DRIVE
FASTENERS THROUGH CLEAT THEN
CAULK FASTENER HEADS.

MIN. 2 FASTENERS; PLACE SMALL
AMOUNT OF CAULK BENEATH CLEAT
AT FASTENER LOCATION, DRIVE
FASTENERS THROUGH CLEAT THEN
CAULK FASTENER HEADS.
*BERRIDGE SNAP-ON SEAM WITH VINYL WEATHER SEAL

CAULK AT END OF VINYL (CAULK SHOULD SEAL GAP BETWEEN THE TWO SEAMS)

SEAM SLEEVE: PLACE INTO SEAMS BETWEEN METAL AND VINYL, COLOR TO MATCH SEAMS. SLIDE SEAMS TOGETHER AND SNAP INTO PLACE

NOTE: 1) SPLICES IN SEAMS AND PANELS SHOULD BE STAGGERED. NEVER SPLICE A PANEL AND A SEAM AT THE SAME LOCATION.
2) TWO TEE-CLIPS REQUIRED AT EACH SIDE OF SEAM SPLICE.

*SNAP-ON SEAM IS COVERED UNDER US PATENT NO. 4,641,475.
*BERRIDGE SNAP-ON SEAM WITH VINYL WEATHER SEAL

Caulk at end of vinyl (caulk should seal gap between the two seams)

Cut vinyl weather seal back 1/2"

Cut metal of seam at an angle, place seam between metal and vinyl of opposite seam

Note: Slide seams together lapping 1" and compressing vinyl 1/2"

Note: 2 Tee-clips required each side of seam splice

Note: 1) Splices in seams and panels should be staggered. Never splice a panel and a seam at the same location.

2) Two Tee-clips required at each side of seam splice.

*Snap-on seam is covered under US Patent No. 4,641,475.
1. All underlayment, structural members, corrugated deck, and insulating material, are items to be furnished and installed by others at the discretion of the architect.

2. Continuous wood blocking (by others) may be used in lieu of zee purlins. Blocking must be exact same depth as insulation.

3. Purlin spacing and fastener type will be dependent on governing code and specification requirements. Contact Berridge for specific information.

4. Rigid insulation must have adequate compressive strength to support the weight of a 300 pound man without causing any deformation in the panel.

5. Depth of zee purlins must be governed by insulation thickness. Any deviation could be cause for damage to panels or leaks.

Zee purlin: minimum 24 gauge steel, depth determined by insulation depth and legs determined by pitch of metal deck. Butt insulation up to purlin.
1. This detail is recommended for areas with heavy snow loads or where expansion and contraction of panels is a design factor.

2. Solid sheathing (by others) to be minimum 1/2" plywood or equivalent in strength for holding power of fasteners.

3. All felt underlayment, caulking and fasteners are items to be furnished and installed by the roofing installer at the discretion of the architect.

4. The "GAP" between eave flashing and panel (see detail above) can be increased to allow for linear expansion and contraction of panels. Note 1/2" of panel pan must be engaged with eave flashing when panel has expanded to its maximum length. Refer to detail HTI-6.

5. Gap between eave flashing and panel must be adjusted to suit temperature during installation.

F = Finish Side
1. As roof panels are installed, snip approximately 3/8" section from each panel leg at eave, and form panel pan around eave flashing.

2. Solid sheathing (by others) to be minimum 1/2" plywood or equivalent in strength for holding power of fasteners.

3. All felt underlayment, caulking, and fasteners, are items to be furnished and installed by the roofing installer at the discretion of the architect.

*Snap-on seam is covered under US Patent No. 4,641,475.
1. As roof panels are installed, snip a section from each panel leg at eave and form the pan around the drip flashing.

2. Solid sheathing (by others) to be minimum 1/2" plywood or equivalent in strength for holding power of fasteners.

3. All felt underlayment, caulking, and fasteners, are items to be furnished and installed by the roofing installer at the discretion of the architect.

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**BERRIDGE HIGH SEAM TEE PANEL LEG**

*SNAP-ON SEAM*

**TEE-CLIP; USE 2 AT EAVE**

**DRIP FLASHING: 4" END LAP WITH CONTINUOUS CAULK AT LAPS**

# 30 FELT UNDERLAYERMENT

**FIELD CUT AND FORM PANEL PAN AROUND EAVE FLASHING SEE ALSO DETAIL HT-11**

**SPECIAL ZEE CLOSURE; CUT TO FIT BETWEEN PANEL SEAMS**

**POP RIVET; 40" O.C. MAX.**

**BERRIDGE HIGH SEAM TEE PANEL TEE-CLIP**

*SNAP-ON SEAM IS COVERED UNDER US PATENT NO. 4,641,475.*

---

**F = FINISH SIDE**

**OPEN HEM**

**DRIP FLASHING**

**SPECIAL ZEE CLOSURE**

**1" MIN.**

---

**EAVE DETAIL**

High Seam Tee-Panel
1. Field cut Zee closures to fit between seams.

2. Solid sheathing (by others) to be minimum 1/2" plywood or equivalent in strength for holding power of fasteners.

3. All felting underlayment, caulking, and fasteners, are items to be furnished and installed by the roofing installer at the discretion of the architect.

*Snap-on seam is covered under US Patent No. 4,641,475.
1. FIELD CUT ZEE CLOSURE TO FIT BETWEEN SEAMS.

2. SOLID SHEATHING (BY OTHERS) TO BE MINIMUM 1/2" PLYWOOD OR EQUIVALENT IN STRENGTH FOR HOLDING POWER OF FASTENERS.

3. ALL FELT UNDERLAYMENT, CAULKING, AND FASTENERS, ARE ITEMS TO BE FURNISHED AND INSTALLED BY THE ROOFING INSTALLER AT THE DISCRETION OF THE ARCHITECT.

*SNAP-ON SEAM IS COVERED UNDER US PATENT NO. 4,641,475.
SECTION VIEW

FIELD FORM END OF RIDGE FLASHING AND EXTEND UNDER CONTINUOUS CLEAT

RIDGE FLASHING; 4" END LAPS WITH CONTINUOUS CAULK AT LAPS

FIELD TAPERED ZEE CLOSURE WITH CONTINUOUS CAULK UNDER ZEE CLOSURE

SOLID SHEATHING

VALLEY FLASHING; 12" LAPS WITH CONTINUOUS CAULK AT LAPS

*RIDGE TERMINATION AT DORMER VALLEY

FIELD TAPERED ZEE CLOSURE WITH CONTINUOUS CAULK UNDER ZEE CLOSURE

CONTINUOUS CLEAT; DO NOT CAULK ON OR UNDER CLEAT

*SNAP-ON SEAM

TEE-CLIPS; 2 AT END OF SEAM

#30 FELT UNDERLAYMENT

FASTENERS; 20" O.C. MAX. PLACE A DAB OF CAULK AT FASTENER LOCATION DRIVE FASTENER AND CAULK FASTENER HEAD

*SNAO-ON SEAM IS COVERED UNDER US PATENT NO. 4,641,475.

PLAN VIEW

MAIN ROOF PANELS

RIDGE FLASHING

CONTINUOUS CLEAT

VALLEY FLASHING

DORMER PANEL

RIDGE TERMINATION AT DORMER VALLEY

High Seam Tee-Panel
1. Field cut and form last panel around drip flashing. Panel must be continuous from ridge to eave.

2. Solid sheathing (by others) to be minimum 1/2" plywood or equivalent in strength for holding power of fasteners.

3. All felt underlayment, caulking, and fasteners, are items to be furnished and installed by the roofing installer at the discretion of the architect.

*SNAP-ON SEAM IS COVERED UNDER US PATENT NO. 4,641,475.*
High Seam Tee-Panel

1. Field cut and form last panel around gable flashing panel must be continuous ridge to eave.

2. Solid sheathing (by others) to be minimum 1/2" plywood or equivalent in strength for holding power of fasteners.

3. All felt underlayment, caulking, and fasteners, are items to be furnished and installed by the roofing installer at the discretion of the architect.

*Snap-on seam is covered under US Patent No. 4,641,475.
*SNAP-ON SEAM IS COVERED UNDER US PATENT NO. 4,641,475.

1. FIELD CUT LAST PANEL AND SLIP INTO J-CLIP. PANEL MUST BE CONTINUOUS RIDGE TO EAVE.

2. SOLID SHEATHING (BY OTHERS) TO BE MINIMUM 1/2" PLYWOOD OR EQUIVALENT IN STRENGTH FOR HOLDING POWER OF FASTENERS.

3. ALL FELT UNDERLAYERMNT, CAULKING, AND FASTENERS, ARE ITEMS TO BE FURNISHED AND INSTALLED BY THE ROOFING INSTALLER AT THE DISCRETION OF THE ARCHITECT.

1/2"

DRIP FLASHING: 4" END LAPS WITH CONTINUOUS CAULK AT LAPS

CONTINUOUS BEAD OF CAULK

J-CLIP; 4" END LAPS WITH CONTINUOUS CAULK AT LAPS

TOP LAYER OF FELT TO BE PARALLEL WITH ROOF SLOPE

# 30 FELT UNDERLAYERMENT

FASTENERS; 20" O.C. MAX. PLACE A SMALL AMOUNT OF CAULK AT J-CLIP FASTENER LOCATION, DRIVE FASTENER THROUGH CAULK, THEN CAULK FASTENER HEAD

F = FINISH SIDE

3" MIN.

1/8" 1/2"

J-CLIP

1/2"

DRIP FLASHING
1. FIELD CUT LAST PANEL AND SLIP INTO J-CLIP. PANEL MUST BE CONTINUOUS RIDGE TO EAVE.

2. SOLID SHEATHING (BY OTHERS) TO BE MINIMUM 1/2" PLYWOOD OR EQUIVALENT IN STRENGTH FOR HOLDING POWER OF FASTENERS.

3. ALL FELT UNDERLAYERMENT, CAULKING, AND FASTENERS, ARE ITEMS TO BE FURNISHED AND INSTALLED BY THE ROOFING INSTALLER AT THE DISCRETION OF THE ARCHITECT.

*SNAP-ON SEAM IS COVERED UNDER US PATENT NO. 4,641,475.
1. **Field cut Zee closures to fit between seams.**

2. **Solid sheathing (by others) to be minimum 1/2" plywood or equivalent in strength for holding power of fasteners.**

3. **All felt underlayment, caulkling, and fasteners, are items to be furnished and installed by the roofing installer at the discretion of the architect.**

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**Notes:**

- *Snap-on seam is covered under US Patent No. 4,641,475.*

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**Diagram:**

- **Open Hem Counter Flashing**
- **Sub-Flashings**
- **Cap Flashing**
- **Zee Closure**
1. Field cut Zee closures to fit between seams.

2. Solid sheathing (by others) to be minimum 1/2” plywood or equivalent in strength for holding power of fasteners.

3. All felt underlayment, caulk, and fasteners, are items to be furnished and installed by the roofing installer at the discretion of the architect.

Counterflashing; 4” end laps with continuous caulk at laps.
Pop rivet to Zee closure 40” O.C. Max.

Sub-flashing; 4” end laps with continuous caulk at laps.

Berridge High Seam Tee Panel Leg

Zee closure; cut to fit between seams.

*Snap-on seam
Tee-clip; 20” O.C. Max.

Berridge fascia panel

#30 felt underlayment

Fasteners; 20” O.C. Max.

Continuous bead of caulk between Zee closure, Tee panel and seam.

Fasteners; min. 3 per Zee closure.

SOLID SHEATHING

Continuous caulk at laps.

Sub-flashing; 4” end laps with continuous caulk at laps.

Open hem

Counterflashing

1” F

1” F

F = FINISH SIDE

F = FINISH SIDE

1/2” OPEN HEM

COUNTERFLASHING

SUB-FLASHING

ZEE CLOSURE

HEAD WALL DETAIL

High Seam Tee-Panel

BERRIDGE MANUFACTURING COMPANY

DATE: 12-11-01

PAGE/FILE

HT-50
1. Field cut last panel and form new leg. Panel must be continuous ridge to eave.

2. Solid sheathing (by others) to be minimum 1/2" plywood or equivalent in strength for holding power of fasteners.

3. All felt underlayment, caulk, and fasteners, are items to be furnished and installed by the roofing installer at the discretion of the architect.

*Snap-on seam is covered under US Patent No. 4,641,475.
1. FIELD CUT ZEE CLOSURES TO FIT BETWEEN SEAMS.

2. SOLID SHEATHING (BY OTHERS) TO BE MINIMUM 1/2" PLYWOOD OR EQUIVALENT IN STRENGTH FOR HOLDING POWER OF FASTENERS.

3. ALL FELT UNDERLAYMENT, CAULKING, AND FASTENERS, ARE ITEMS TO BE FURNISHED AND INSTALLED BY THE ROOFING INSTALLER AT THE DISCRETION OF THE ARCHITECT.

*SNAP-ON SEAM IS COVERED UNDER US PATENT NO. 4,641,475.
1. Field cut last panel and form new leg. Panel must be continuous ridge to eave.

2. Solid sheathing (by others) to be minimum 1/2” plywood or equivalent in strength for holding power of fasteners.

3. All felt underlayment, caulking, and fasteners, are items to be furnished and installed by the roofing installer at the discretion of the architect.

*Snap-on seam is covered under US Patent No. 4,641,475.
RAKE AT EAVE

USE THIS DETAIL AT RAKE DETAILS, HT-51 & HT-53

High Seam Tee-Panel
1. Field cut Zee Closure to fit between seams.

2. As roof panels are installed, snip approximately 3/8" section from each panel leg at upper panel.

3. As seams are installed on upper roof panels, field notch and bevel cut each seam.

4. Solid sheathing (by others) to be minimum 1/2" plywood or equivalent in strength for holding power of fasteners.

5. All felt underlayment, caulkking, and fasteners, are items to be furnished and installed by the roofing installer at the discretion of the architect.

*Snap-on Seam is covered under US Patent No. 4,641,475.
1. FIELD CUT PANEL LEG AND BEND PANEL AS REQUIRED FOR CHANGE IN SLOPE FROM ROOF TO FASCIA.

2. FIELD MITER SNAP-ON SEAM TO SLOPE CHANGE.

3. ONLY ONE SLOPE TRANSITION PER PANEL IS RECOMMENDED.

4. SEE SLOPE TRANSITION ISOMETRIC FOR ROOF TO FASCIA FOR CAULK AND SNAP-ON SEAM MITER DETAIL. (DETAIL HT-62)

5. SOLID SHEATHING (BY OTHERS) TO BE MINIMUM 1/2" PLYWOOD OR EQUIVALENT IN STRENGTH FOR HOLDING POWER OF FASTENERS.

6. ALL FELT UNDERLAYMENT, CAULKING, AND FASTENERS, ARE ITEMS TO BE FURNISHED AND INSTALLED BY THE ROOFING INSTALLER AT THE DISCRETION OF THE ARCHITECT.

*Snap-on Seam is Covered Under US Patent No. 4,641,475.
ENSURE LOWER SEAM IS INSIDE UPPER

BERRIDGE *SNAP-ON SEAM

SPECIAL CHANNEL CLOSURE

*SNAP-ON SEAM IS COVERED UNDER US PATENT NO. 4,641,475.

TEE-CLIPS; 2 ABOVE TRANSITION
CAULK BETWEEN PANEL LEGS
FIELD BEND PANEL TO DESIRED ANGLE
FIELD CUT PANEL LEGS
FOLDING TEE-CLIPS; 2 BELOW TRANSITION SEE DETAIL HT-65

MITER SNAP-ON SEAM BY "V" CUTTING SNAP ON SEAM AND VINYL WEATHER SEAL, BEND TO SLOPE TRANSITION OF ROOF TO FASCIA.
1. Field cut panel leg and bend panel as required for change in slope from roof to fascia.
2. Additional legs held in place with clips and seam at fascia.
3. Field miter snap-on seam to slope change.
4. Only one slope transition per panel is recommended.
5. See slope transition isometric for roof to fascia for caulk and snap-on seam miter detail. (Detail HT-64)
6. Solid sheathing (by others) to be minimum 1/2" plywood or equivalent in strength for holding power of fasteners.
7. All felt underlayment, caulking, and fasteners, are items to be furnished and installed by the roofing installer at the discretion of the architect.

*T Snap-on seam is covered under US Patent No. 4,641,475.
**SNAP-ON SEAM IS COVERED UNDER US PATENT NO. 4,641,475.**

**SLOPE TRANSITION DETAIL**
**ROOF TO FASCIA - D**
**FOR 1 1/2"**

**SEAM SECTION**

*SNAP-ON SEAM

HIGH SEAM TEE CLIP

ADDITIONAL LEGS.

HIGH SEAM TEE PANEL

MITER SNAP-ON SEAM BY "V" CUTTING SNAP ON SEAM AND VINYL WEATHER SEAL. BEND TO SLOPE TRANSITION OF ROOF TO FASCIA.

SERIAL NUMBER CLOSURE

ADDITIONAL LEG IS PLACED BETWEEN HIGH SEAM TEE PANEL LEGS AT THIS POINT.

ENSURE LOWER SEAM IS INSIDE UPPER

SPECIAL CHANNEL CLOSURE

FIELD BEND PANEL LEGS TO DESIRED ANGLE

FIELD CUT PANEL LEGS

TEE-CLIPS; 2 ABOVE TRANSITION

CAULK BETWEEN PANEL LEGS

FOLDING TEE-CLIPS; 2 BELOW TRANSITION SEE DETAIL HT-65

ADDITIONAL LEG ON THIS SIDE OF PANEL LEG NOT SHOWN FOR CLARITY.

ADDITIONAL LEG LAP TO OUTSIDE OF HIGH SEAM TEE PANEL LEGS AT THIS POINT.

SEE SEAM SECTION BELOW

FIELD CUT PANEL LEGS

SEE DETAIL HT-65 2 BELOW TRANSITION FOLDING TEE-CLIPS; 2 ABOVE TRANSITION

SEE SEAM SECTION BELOW

*SNAP-ON SEAM

HIGH SEAM TEE CLIP

ADDITIONAL LEGS.

HIGH SEAM TEE PANEL

MITER SNAP-ON SEAM BY "V" CUTTING SNAP ON SEAM AND VINYL WEATHER SEAL. BEND TO SLOPE TRANSITION OF ROOF TO FASCIA.
A FOLDING TEE-CLIP IS AVAILABLE FOR CURVED APPLICATIONS OF THE 1" PANEL AND 1 1/2" PANEL SEAM, REVIEW INSTALLATION INSTRUCTIONS BELOW.

1. AFTER FOLDING TEE-CLIPS AND TEE-PANELS ARE INSTALLED, FIELD BEND FOLDING THE CLIP TAB SO THAT IT IS APPROXIMATELY 3/32" FROM CLIP LEG. DO NOT BEND TAB TIGHT AGAINST PANEL LEG AS VINYL INSERT IN SEAM WILL THEN NOT GRIP THE EDGE OF THE TAB.

2. USE FOLDING TEE-CLIP AT SLOPE TRANSITION (ROOF TO FASCIA, SEE DETAILS HT-61 AND HT-62). USE STANDARD TEE-CLIP THROUGHOUT REST OF STANDARD TEE PANEL SYSTEM.

FOLDING TEE-CLIP AS PROVIDED FROM FACTORY

FOLDING TEE-CLIP

FIELD BEND TAB AS SHOWN ABOVE.

NEXT PANEL

FOLDING TEE-CLIP; CLIP IN THIS POSITION WILL ALLOW EASY INSTALLATION OF THE NEXT PANEL. AFTER PANELS ARE INSTALLED, FIELD BEND TAB AS SHOWN ABOVE.

AFTER TEE-PANELS AT SLOPE TRANSITION ARE INSTALLED, FIELD BEND TAB SO THAT IT IS APPROXIMATELY 3/32" FROM FOLDING TEE-CLIP LEG. DO NOT FOLD TIGHT AGAINST PANEL LEG.

BERRIDGE HIGH SEAM TEE PANEL

FOLDING TEE-CLIP AS INSTALLED 20" O.C. MAX.
**SNAP-ON SEAM**

TEE-CLIPS: PLACE 2 TEE-CLIPS ABOVE VALLEY FLASHING (SEE VALLEY ISOMETRIC HT-71) DO NOT USE FASTENERS IN TEE-CLIPS OVER VALLEY FLASHING.

CONTINUOUS CLEAT; WITH FASTENERS 20" O.C. MAX.

BERRIDGE HIGH SEAM TEE PANEL LEG

CONTINUOUS BEAD OF CAULK BETWEEN VALLEY FLASHING AND FELT UNDERLayment

VALLEY FLASHING

SOLID SHEATHING

SEE DETAIL HT-71 FOR VALLEY FLASHING LAPPING.

*SNAP-ON SEAM IS COVERED UNDER US PATENT NO. 4,641,475.

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1. FOR EXPANSION AND CONTRACTION OF PANELS, SEE HTI-6 AND HT-11.

2. SOLID SHEATHING (BY OTHERS) TO BE A MINIMUM OF 1/2" PLYWOOD OR EQUIVALENT IN STRENGTH FOR HOLDING POWER OF FASTENERS.

3. ALL FELT UNDERLayment, CAULKING, AND FASTENERS, ARE ITEMS TO BE FURNISHED AND INSTALLED BY THE ROOFING INSTALLER AT THE DISCRETION OF THE ARCHITECT.

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CUT PANEL SEAM BACK, TURN PANEL PAN UNDER AND HOOK PANEL PAN ONTO VALLEY FLASHING.

F = FINISH SIDE

OPEN HEM

CONTINUOUS CLEAT
Tee-Clips: Place 2 Tee-Clips above Valley Flashing.

Berridge High Seam Tee Panel

Continuous Cleat
Continuous Bead of Caulk
Solid Sheathing

Fasten Through Valley only at top of flashing under lap, no fasteners are to be exposed on top (overlapping) Valley

Do not run Caulk in or on cleat of Valley Flashing

12" Lap

2 Continuous Beads of Caulk at Laps

Berridge High Seam Tee Panel

# 30 Felt Underlayment

Page/File

Berridge Manufacturing Company

Valley Detail

Isometric

High Seam Tee-Panel

Date: 12-11-01

Page/File

HT-71
*SNAP-ON SEAM IS COVERED UNDER US PATENT NO. 4,641,475.

ARE 30'-0" OR LONGER.

THERMAL MOVEMENT IF PANELS
NOTE: CUT HOLE TO ALLOW FOR
PENETRATION, AND CAULK.

NOTE: CUT HOLE TO ALLOW FOR
THERMAL MOVEMENT IF PANELS
ARE 30'-0" OR LONGER.

NOTE: IF PIPE IS MADE OF METAL,
IT MUST BE PAINTED TO PREVENT RUST
RUN-OFF FROM STAINING PANELS.

NOTE: POSITION SQUARE BASED BOOTS IN A DIAMOND
ORIENTATION WHERE POSSIBLE TO AID IN DIVERTING WATER.

*SNAP-ON SEAM IS COVERED UNDER US PATENT NO. 4,641,475.
*SNAP-ON SEAM IS COVERED UNDER US PATENT NO. 4,641,475.

RUN *SNAP-ON SEAM & PANEL LEG UP TO STACK AND CAULK

CONTINUOUS BEAD OF CAULK

CRIMP *SNAP-ON SEAM AND FOLD OVER

CUT PANEL LEGS AND LAP TOP LEG IN DIRECTION OF WATER FLOW

BERRIDGE HIGH SEAM TEE PANEL

RUN *SNAP-ON SEAM & PANEL LEG UP TO STACK AND CAULK

** SECTION A PAGE HT-82

ROOF PENETRATION CENTERED ON SEAM

** SECTION B PAGE HT-82

ROOF PENETRATION OFF CENTER OF SEAM

**CALL BMC BEFORE USING THIS DETAIL

NOTE: CALL BMC BEFORE USING DETAILS ON THIS PAGE.
USE ONLY IF PENETRATION OCCURS ON SEAM OR WITHIN AREA OF PAN THAT WILL NOT ACCOMMODATE BOOT. USE WITH SOLID SUBSTRATE ONLY.

CONTINUOUS BEAD OF CAULK

NOTE: IF PIPE IS MADE OF METAL, IT MUST BE PAINTED TO PREVENT RUST RUN-OFF FROM STAINING PANELS.

BERRIDGE HIGH SEAM TEE PANEL

CONTINUOUS BEAD OF CAULK AROUND SEAM & LEG

CAULK AT SNIPPED OPENINGS

NOTE: CALL BMC BEFORE USING THIS DETAIL ON THIS PAGE.
**SECTION A**

USE THIS DETAIL WHEN STACK IS CENTERED ON "SNAP-ON SEAM"

ROUND STACK MUST BE OF MATERIAL COMPATIBLE WITH 24 GA. GALVANIZED PAINTED METAL

CUT HIGH SEAM TEE PANEL AND BEND UP 1" AROUND STACK AND CAULK

MITER ENDS OF "SNAP-ON SEAM. RUN SEAM UP TO STACK AND CAULK"

TEE-CLIPS; 2 REQ'D AT PENETRATION

# 30 FELT UNDERLAYMENT

*SNAP-ON SEAM IS COVERED UNDER US PATENT NO. 4,641,475.

**SECTION B**

USE THIS DETAIL WHEN STACK IS OFF CENTER OF "SNAP-ON SEAM"

ROUND STACK MUST BE OF MATERIAL COMPATIBLE WITH 24 GA. GALVANIZED PAINTED METAL

CUT HIGH SEAM TEE PANEL AND BEND UP 1" AROUND STACK AND CAULK

MITER ENDS OF "SNAP-ON SEAM. RUN SEAM UP TO STACK AND CAULK"

TEE-CLIPS; 2 REQ'D AT PENETRATION

# 30 FELT UNDERLAYMENT

24 GA. ROUND STACK FLASHING TO MATCH PANEL COLOR

CUT PANEL LEGS AND BEND FLAT TO PANEL. LAP ONE LEG OVER THE OTHER (LAP TOP LEG IN DIRECTION OF WATER FLOW)

CRIMP AND FOLD OVER "SNAP-ON SEAM AND CAULK"

FIELD CUT LEGS 2" BACK FROM STACK (ABOVE STACK), FIELD MITER LEGS AND SEAMS BELOW STACK. CUT HOLE IN PANEL 1" LESS THAN DIA. OF STACK. BACK CUT HOLE AND BEND PANEL UP AROUND STACK.

**CALL BMC BEFORE USING THIS DETAIL**
*SNAP-ON SEAM IS COVERED UNDER US PATENT NO. 4,641,475.

CONTINUOUS CLEAT

ANGLE FLASHING

BERRIDGE HIGH SEAM TEE PANEL; FIELD BEND TO CURB

COUNTERFLASHING

SEE DETAIL BELOW

NOTE: DO NOT RUN A CONTINUOUS BEAD OF CAULK ON CLEAT OR UNDER CLEAT.

*SNAP-ON SEAM

UPPER HIGH SEAM TEE PANEL; FIELD BEND TO CURB

ANGLE FLASHING

LOWER HIGH SEAM TEE PANEL; FIELD BEND TO CURB

ROOF CURB

ZEE CLOSURE; CUT 2" OFF HORIZONTAL LEGS, BEND VERTICAL LEG AND SLIP BETWEEN TEE-PANELS. CAULK BETWEEN ZEE CLOSURE, COUNTERFLASHING AND PANEL

COUNTERFLASHING; EXTEND 1/4" BEYOND ZEE CLOSURE (FLASHING CUT AWAY FOR CLARITY)

*SNAP-ON SEAM
*SNAP-ON SEAM IS COVERED UNDER US PATENT NO. 4,641,475.

1. SOLID SHEATHING (BY OTHERS) TO BE MINIMUM 1/2" PLYWOOD OR EQUIVALENT IN STRENGTH FOR HOLDING POWER OF FASTENERS.

2. ALL FELT UNDERLAYMENT, CAULKING, AND FASTENERS, ARE ITEMS TO BE FURNISHED AND INSTALLED BY THE ROOFING INSTALLER AT THE DISCRETION OF THE ARCHITECT.

F = FINISH SIDE

OPEN HEM

COUNTERFLASHING

ANGLE FLASHING

ZEE CLOSURE

CONTINUOUS CLEAT

NOTE: DO NOT RUN A CONTINUOUS BEAD OF CAULK IN CLEAT OR UNDER CLEAT.
1. SOLID SHEATHING (BY OTHERS) TO BE MINIMUM 1/2" PLYWOOD OR EQUIVALENT IN STRENGTH FOR HOLDING POWER OF FASTENERS. (METAL CORRUGATED SHEATHING, MIN. 24 GA. MAY BE USED IN LIEU OF PLYWOOD).

2. ALL FELT UNDERLAYMENT, CAULKING, AND FASTENERS, ARE ITEMS TO BE FURNISHED AND INSTALLED BY THE ROOFING INSTALLER AT THE DISCRETION OF THE ARCHITECT.
CONTINUOUS CLEAT

FLASHING

HEM PANEL PAN UNDER BOTH SIDES OF PENETRATION

BERRIDGE HIGH SEAM TEE PANEL; FIELD BEND TO CURB

*SNAP ON SEAM

ANGLE FLASHING

SEE DETAIL BELOW

ZEE CLOSURE; CUT AND BEND AT END AND CAULK

COUNTERFLASHING; EXTEND 1/4" BEYOND ZEE CLOSURE (CUT AWAY VIEW FOR CLARITY)

CONTINUOUS BEAD OF CAULK BETWEEN ZEE CLOSURE AND PANEL

DO NOT: RUN CONTINUOUS CAULK ON OR UNDER CONTINUOUS CLEAT

CONTINUOUS CLEAT OF PANEL

ANGLE FLASHING

UPPER BERRIDGE HIGH SEAM TEE PANEL;

LOWER BERRIDGE HIGH SEAM TEE PANEL;

CONTINUOUS CLEAT

HIGH SEAM TEE PANEL;
High Seam Tee-Panel

1. METAL ROOF DECK PANELS: No. 24 MSG min. 40,000 psi yield strength coated steel. Panel widths to be 18-1/4" and rib height to be 1 3/8". Total seam height with snap-on seam cover in place is nominal 1 1/2". Panels to be continuous length. End laps to be overlapped minimum 6". A line of sealant may be used at end and sidelaps. Berridge Manufacturing Co. - "High Seam Tee-Panel"

2. ROOF DECK FASTENERS: (Panel Clips) one piece clip, formed from the same type and thickness material as that used to fabricate metal panels. Clips spaced max. 24" O.C., located at panel sides with guide holes in bottom to accommodate screw fasteners. Berridge Manufacturing Co. - "High Seam Tee-Clip"

2A. ROOF DECK FASTENERS: (Seam Covers) Seams covering panel ribs are to be 3/8" wide and 7/8" high with vinyl insert (US Patent No. 4,641,475), formed from the same type and thickness material as that used to fabricate metal panels. Berridge Manufacturing Company - "Seam Covers"

3. FASTENERS: Screws used to attach the panel clips to plywood to be No. 10 by 1" long pancake head wood screw with a No. 2 Phillips drive. One screw per clip. Screws used to attach plywood substructure to wood trusses of joint to be deformed shank nails. When light ga. Structural Steel joists are used, screws to be No. 12 x 1-5/8" long with Phillips drive head. Spacing of screws to be 6" O.C. at plywood ends and 12" O.C. at interior joints.

4. SUBSTRUCTURE: Plywood decking to be a nominal 5/8" thick, exposure sheathing span C-D, 40/20 plywood. All butt joints are to be sealed with tape and/or caulked.

5. FELT PAPER: Two ply, No. 30 felt per 100 square feet.

6. JOISTS: Joist spaced at 2'-0" O.C. may be one of the following:
   A. Nom. 2 x 6 wood joists No. 2 or better.
   B. Nom. 2 x 4 wood when used on a top chord of a wood truss, No. 2 or better.
   C. Light gauge structural steel framing with the member against the plywood to be a minimum No. 22 MSG coated steel.

FOR ADDITIONAL INFORMATION, PLEASE REFER TO THE UNDERWRITERS LABORATORY, INC. BUILDING MATERIALS DIRECTORY.
UL 90 APPROVED HIGH SEAM TEE-PANEL ASSEMBLY
CONSTRUCTION NO. 475

DATE: 12-11-01
PAGE/FILE
HT-91

1. METAL ROOF DECK PANELS: No. 24 MSG min. 40,000 psi yield strength coated steel. Maximum panel width 18 1/4" and rib height to be 1 3/8". Total seam height with snap-on seam cover in place is nominal 1 1/2". Panels continuous over two or more spans. End laps are to be overlapped minimum 6". A line of sealant may be used at end and sidelaps. Berridge Manufacturing Co. - *High Seam Tee-Panel*

2. ROOF DECK FASTENERS: (Panel Clips) one piece assembly, fabricated from 24 MSG coated steel. Clips are spaced a maximum of 12 in. OC located at panel sides with guide holes in bottom to accommodate screw fasteners. Berridge Manufacturing Co. - *High Seam Tee-Clip*

2A. ROOF DECK FASTENERS: (Seam Covers) Seams covering panel ribs are to be 3/8" wide and 7/8" high with vinyl insert (US Patent No. 4,641,475), formed from the same type and thickness material as that used to fabricate metal panels. Berridge Manufacturing Co. - *Snap on Seam*

2B. FELT PAPER:
Two ply, No. 30 felt per 100 square feet.

3. STRUCTURAL CEMENT-FIBER UNITS:
Consists of 5 in. thick composite structural cement fiber units with foamed plastic core and 7/16 in. OSB structural panel on one face. All transverse butt joints are to occur over structural support. Tecum, Inc. - *Type E or Type 3*

4. FASTENERS:
(Screws) - Screws used to attach structural cement fiber units (item 3) to structural supports (item 5) to be 6 in. long minimum 14 MSG screw with a 5/8 in. diam head. Fasteners are spaced 12 in. OC. Screws used to attach roof deck fasteners (item 2) to structural cement fiber unit deck to be No. 10 pancake head self-tapping steel screws. Screws to be spaced maximum 12 in. OC. Fasteners used to attach roof deck fasteners (panel clips) (item 2) to plywood substructure to be No. 10 by 1 in. long pan head steel screws. Two screws per roof deck fastener.

5. SUPPORT (JOIST):
Cee channels to be spaced maximum 7 ft. 0 in. As alternatives, structural steel components (hot rolled beams, open web joist, etc.) may be used. Min gauge and yield to depend on design considerations for uplift loading.

6. LATERAL BRACING:
(Not shown) As required. Refer to General Information, Roof Deck Constructions (Roofing Materials and Systems Directory) for items not evaluated.

FOR ADDITIONAL INFORMATION, PLEASE REFER TO THE UNDERWRITERS LABORATORY, INC.
BUILDING MATERIALS DIRECTORY.
1. IN ORDER TO QUALIFY FOR A FIRE- RESISTANT RATING, THE ROOF SYSTEM CANNOT MAKE A PENETRATION IN THE INSULATION SYSTEM. THE TEE-PANEL, IN ORDER TO MAKE POSITIVE ATTACHMENT, MUST BE ATTACHED TO A CORRUGATED SUBSTRATUM (IF THE INSULATION SYSTEM HAS NO NAILABLE SURFACE). THE CORRUGATED SUBSTRATUM IS TO BE MOUNTED DIRECTLY TO THE INSULATION SYSTEM WITH FASTENERS FASTENED THROUGH INTO THE STRUCTURAL STEEL DECK.

2. THIS ASSEMBLY QUALIFIES FOR THE FOLLOWING UL FIRE-RESISTANT ROOF ASSEMBLIES:

3. ADDITIONAL INFORMATION REGARDING THIS ASSEMBLY IS AVAILABLE IN THE UL FIRE RESISTANCE DIRECTORY.
1. IN ORDER TO QUALIFY FOR A FIRE-RESISTANT RATING, THE ROOF SYSTEM CANNOT MAKE A PENETRATION IN THE INSULATION SYSTEM. THE TEE-PANEL, IN ORDER TO MAKE POSITIVE ATTACHMENT, MUST BE ATTACHED TO A CORRUGATED SUBSTRATUM (IF THE INSULATION SYSTEM HAS NO NAILABLE SURFACE). THE CORRUGATED SUBSTRATUM IS TO BE MOUNTED DIRECTLY TO THE INSULATION SYSTEM WITH FASTENERS FASTENED THROUGH INTO THE STRUCTURAL STEEL DECK.

2. THIS ASSEMBLY QUALIFIES FOR THE UL FIRE-RESISTANT ROOF ASSEMBLY: P512.

3. ADDITIONAL INFORMATION REGARDING THIS ASSEMBLY IS AVAILABLE IN THE UL FIRE RESISTANCE DIRECTORY.
1. In order to qualify for a fire-resistant rating, the roof system cannot make a penetration in the insulation system. The tee-panel, in order to make positive attachment, must be attached to a corrugated substratum (if the insulation system has no nailable surface). The corrugated substratum is to be mounted directly to the insulation system with fasteners fastened through into the structural steel deck.

2. This assembly qualifies for the following UL fire resistant roof assemblies:

3. Additional information regarding this assembly is available in the UL fire resistance directory.