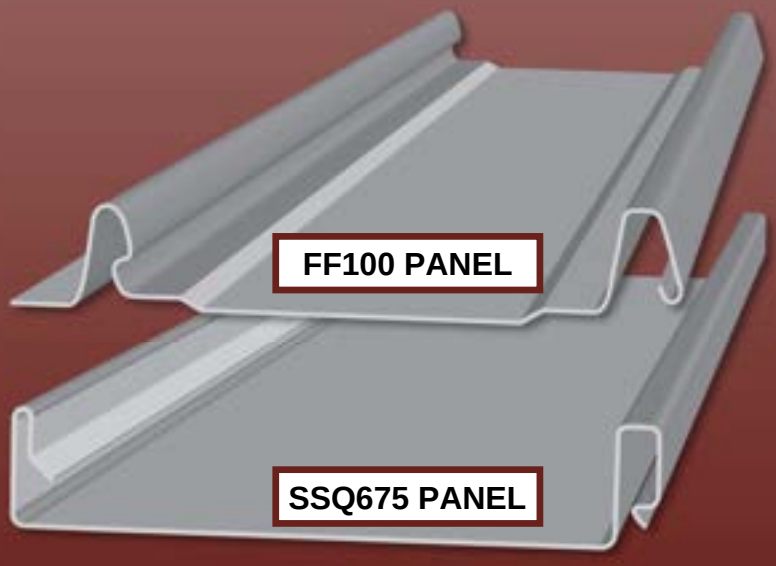
Snap Lock Metal Roofing System Installation Manual



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GENERAL NOTES

GENERAL

THIS MANUAL DEPICTS PANEL FF100 WITH BUILT-IN SCREW FLANGE FOR FASTENERS. PLEASE NOTE, THAT WHEN USING PANEL SSQ675 IT REQUIRES CLIP & FASTENER TO SECURE THE PANELS. INSTALLATION OF PANEL SSQ675 IS IDENTICAL WITH THE EXCEPTION OF THE FASTENERS. SUBSTITUTE AS NECESSARY.

THE DETAILS SHOWN ON THE FOLLOWING PAGES ARE SUGGESTIONS OR GUIDELINES FOR INSTALLING THE FF100 ROOF PANEL SYSTEM OVER PLYWOOD SUBSTRATE. THE INSTALLATION DETAILS SHOWN HERE ARE PROVEN METHODS OF CONSTRUCTION, BUT THEY ARE NOT INTENDED TO COVER ALL BUILDING REQUIREMENTS, DESIGNS OR CODES. THE DETAILS MAY REQUIRE CHANGES OR REVISIONS DUE TO INDIVIDUAL PROJECT CONDITIONS.

INSTALLATION PROCEDURES SHALL BE IN ACCORDANCE WITH THE MANUFACTURER'S PRINTED INSTRUCTIONS, DETAILS OR APPROVED SHOP DRAWINGS. INSTALLER SHOULD THOROUGHLY FAMILIARIZED THEMSELVES WITH ALL INSTRUCTIONS PRIOR TO BEGINNING THE INSTALLATION PROCESS.

THE DESIGNER/INSTALLER IS RESPONSIBLE TO ENSURE THE FOLLOWING;

- THE DETAILS HERE MEET THE PARTICULAR BUILDING REQUIREMENTS.
- AWARENESS OF AND ALLOWANCE FOR EXPANSION/CONTRACTION OF THE ROOF PANELS.
- THAT ADEQUATE WATER-TIGHTNESS IS MAINTAINED.
- THAT A PROPER UNIFORM SUBSTRUCTURE IS USED TO AVOID PANEL DISTORTION AND THAT THE SUBSTRUCTURE MEETS NECESSARY CODE REQUIREMENTS.
- THAT ALL SUPPORTING MEMBERS HAVE BEEN EXAMINED AND ARE STRAIGHT, LEVEL AND PLUMB.

AFFORDABLE METAL MFG CAN PROVIDE ALL FLASHINGS AND ACCESSORIES SHOWN IN THE INSTALLATION DRAWINGS UNLESS NOTED OTHERWISE. PANELS, FLASHING AND TRIM SHALL BE INSTALLED TRUE AND IN PROPER ALIGNMENT WITH ANY EXPOSED FASTENERS EQUALLY SPACED FOR THE BEST APPEARANCE, SEALANT SHALL BE FIELD APPLIED ON A CLEAN, DRY SURFACE.

PLEASE NOTE THAT THE CONTENTS OF THIS MANUAL ARE SUBJECT TO CHANGE WITHOUT NOTICE. TO CONFIRM THIS BOOK IS THE MOST CURRENT COPY, PLEASE VISIT AFFORDABLE METAL MFG WEBSITE AT WWW.AFFORDABLEMETALMFG.COM

SAFETY

FOLLOW ALL OSHA SAFETY PRACTICES AND REGULATIONS.

NEVER WALK ON SKY LIGHTS, FIBERGLASS TYPE PANELS OR ANY OTHER COMPONENT NOT DESIGNED TO SUPPORT THE WEIGHT OF A PERSON.

EXTREME CARE SHOULD BE TAKEN WHEN UNLADING, HANDLING AND INSTALLING METAL ROOFS. METAL MAY BE HEAVY AND BULKY; METAL EDGES MAY BE SHARP; AND WORKING AT HEIGHTS IS DANGEROUS.

THE INSTALLER SHOULD WEAR HEAVY DUTY GLOVES AND A LONG SLEEVE SHIRT WHEN HANDLING METAL ITEMS AS THEY MAY BE SHARP AND CAN CAUSE SEVERE CUTS. SAFETY GOGGLES SHOULD BE WORN WHEN CUTTING AND DRILLING METAL ITEMS OR INSTALLING FASTENERS.

INSTALLERS SHOULD BE TRAINED AND WEAR THE APPROPRIATE FALL PROTECTION AND FOOT WEAR WHEN WORKING ON THE ROOF. WORKERS SHOULD NOT BE ON THE ROOF WHEN MOISTURE OR OTHER SUBSTANCES MAY CAUSE UNSURE FOOTING.

GENERAL NOTES

STORAGE

UNLOAD AND INSPECT THE DELIVERED MATERIALS FOR DAMAGE. REPORT ANY DAMAGE MATERIALS PROMPTLY TO THE MANUFACTURER.

TO REDUCE THE POSSIBILITY OF DAMAGE DURING STORAGE IS TO MINIMIZE THE STORAGE TIME. OTHER STEPS ARE DESIGNED TO REDUCE THE INTRUSION OF WATER FROM RAIN, SNOW OR CONDENSATION. A PRIMARY OBJECTIVE IS TO KEEP BOTH PAINTED AND UNPAINTED PANELS DRY. A PREFERRED STORAGE LOCATION IS UNDER A ROOF STRUCTURE.

STORE AWAY FROM MATERIALS THAT MAY CONTAMINATE THE SURFACE (DIESEL OIL, PAINT, GREASE) AND AWAY FROM SITE TRAFFIC.

IF PANELS MUST BE STORED OUTDOORS:

STORE PANELS IN A LEVEL AREA AWAY FROM CONSTRUCTION ACTIVITIES IN ORDER TO MINIMIZE THE NUMBER OF MOVEMENTS. BUNDLES STORED ON THE GROUND MUST BE RAISED SEVERAL INCHES ABOVE A PLASTIC GROUND CLOTH TO AVOID CONTACT WITH PUDDLES, ALLOW FOR AIR CIRCULATION AND TO MINIMIZE CONDENSATION OF WATER FROM THE GROUND ONTO THE PANELS.

WET OR TREATED LUMBER MUST NOT COME IN CONTACT WITH THE BUNDLES.

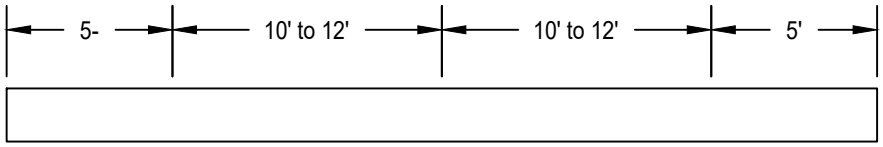
THE PANELS MUST BE STORED AT AN ANGLE TO PROMOTE DRAINAGE, TAKING CARE THAT THE BUNDLE IS PROPERLY SUPPORTED AT EACH CROSSWISE RUNNER ALONG ITS LENGTH.

THE BUNDLE MUST BE COMPLETELY SHELTERED WITH A LOOSE-FITTING, WATERPROOF TARP TO PROTECT THE BUNDLE FROM RAIN OR SNOW WHILE ALLOWING FOR AIR CIRCULATION AND DRYING ON CONDENSED WATER. THE TARP ALSO SHADES THE BUNDLE FROM DIRECT SUNLIGHT, WHICH HELPS TO MODERATE TEMPERATURE EXTREMES AND UV DAMAGE TO PROTECTIVE MASKING.

IF THE BUNDLES OF NESTED PANELS BECOME WET, THE PANEL SHEETS SHOULD BE SEPARATED, WIPED WITH A CLEAN CLOTH WITHOUT DELAY AND THEN PLACED SO THAT AIR CIRCULATION COMPLETES THE DRYING PROCESS. THIS IS TRUE FOR BOTH PAINTED AND UNPAINTED PANELS.

HANDLING

HANDLING OF PANELS AND THE NUMBER OF HANDLERS REQUIRED ARE DETERMINED BY THE PANEL LENGTH, WIDTH, EXPERIENCE OF THE HANDLERS AND THE WEATHER CONDITION AT THE SITE. THE FINAL HANDLING DECISION RESTS WITH THE HANDLERS THEMSELVES TO ENSURE THE METAL PANEL DOES NOT BEN OR BECOME DISTORTED BEFORE THE INSTALLATION OF THE PANEL. AFFORDABLE METAL MANUFACTURING SUGGEST THE FOLLOWING GUIDELINES FOR HANDLING PROCEDURES.



NOTE: THE PANELS WILL BE CARRIED IN THE VERTICAL POSITION NOT FLAT AND AT THE SPECIFIED LOCATIONS LISTED ABOVE. CARRYING THE PANELS FLAT WILL CAUSE THE PANELS TO DROOP OR BEND.

PANEL LENGTH	LESS THAN 6'	7' - 15'	16' - 30'	31' - 45'	>45'
# OF HANDLERS	1	2-3	3-4	4-5	4 OR MORE

GENERAL NOTES

PRE-INSTALLATION

ALL PROJECTS SHOULD CONFORM TO APPLICABLE BUILDING CODES.

FOR NEW CONSTRUCTION THE BUILDING SHOULD BE SQUARE ACCORDING TO ACCEPTABLE BUILDING PRACTICES. TO CHECK IF THE ROOF IS SQUARE, MEASURE DIAGONALLY ACROSS ONE SLOPE OF THE ROOF FROM SIMILAR POINTS AT THE EAVE AND RIDGE AND CONFIRMING THE SAME DIMENSION. THE SUBSTRUCTURE (EAVE TO RIDGE) MUST BE ON PLANE WITHIN A 1/4" TOLERANCE.

PROVIDE A WRITTEN REPORT OF DISCREPANCIES TO THE BUILDING CONTRACTOR. DO NOT BEGIN THE INSTALLATION UNTIL UNSATISFACTORY CONDITIONS HAVE BEEN CORRECTED AS STARTING INSTALLATION USUALLY INDICATES ACCEPTANCE.

SYSTEM INSTALLATION GUIDELINES

ASSURE THE SUPPLIED MATERIALS ARE AS SPECIFIED AND MEET THE PROJECT GUIDELINES.

INSTALL THE UNDERLAYMENT PER THE MANUFACTURER'S WRITTEN INSTALLATION INSTRUCTIONS.

INSTALL THE ROOF SYSTEM PER THE MANUFACTURER'S SPECIFIED ENGINEERING REPORTS OR PER WIND LOAD CALCULATIONS SPECIFIC TO THE PROJECT AND INSTALLATION DETAILS.

USE ONLY APPROVED CLIPS, FASTENERS, AND ACCESSORIES PER THE MANUFACTURER'S DIRECTIONS.

NOTIFY THE GENERAL CONTRACTOR OF ANY AREAS THAT DO NOT ALLOW FOR PROPER DRAINAGE OF THE ROOF SYSTEM BEFORE THE INSTALLATION BEGINS.

WHEN PANELS ARE INSTALLED IN COASTAL ENVIRONMENTS IT IS RECOMMENDED THAT STAINLESS STEEL CLIPS AND FASTENERS ARE USED IN CONJUNCTION WITH ALUMINUM ROOF PANELS.

INSPECT PROJECT TO ENSURE THAT THERE ARE NO AREAS WHERE DISSIMILAR METALS WILL COME INTO CONTACT WITH EACH OTHER. SEPARATE AREAS WITH THE APPROPRIATE BARRIERS AS NEEDED. THIS IS TO INCLUDE PRESSURE/FIRE TREATED WOOD THAT IS CORROSIVE TO SOME METALS.

CLEAN UP

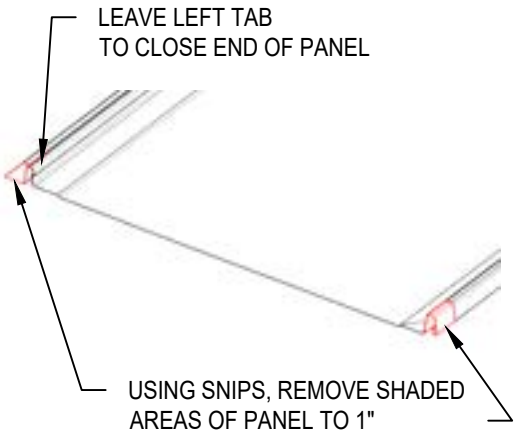
COMPLETE ALL ITEMS ON THE PUNCH LIST.

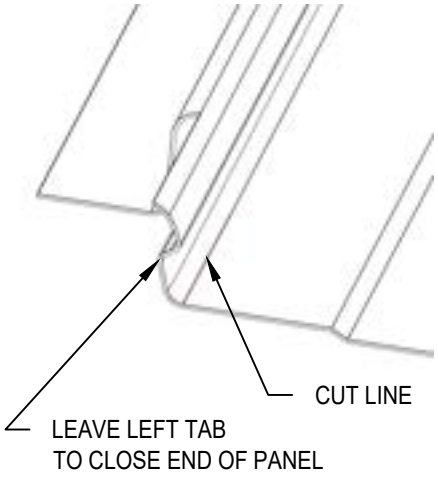
TOUCH-UP MINOR SCRATCHES WITH APPROPRIATE PAINT OR PAINT PENS.

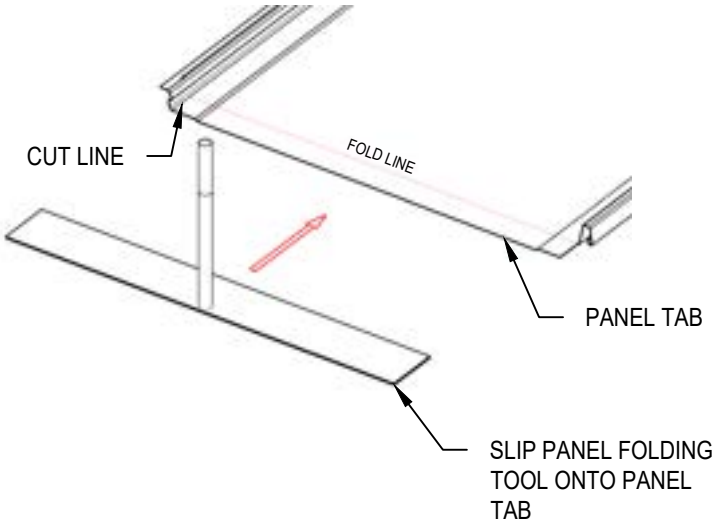
REMOVE ALL DEBRIS ASSOCIATED WITH THE ROOF INSTALLATION.

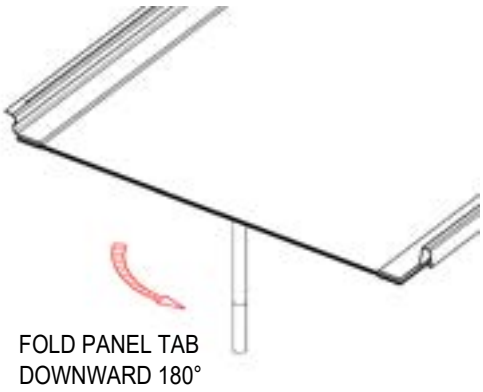
PACK OUT WHAT YOU PACK IN.

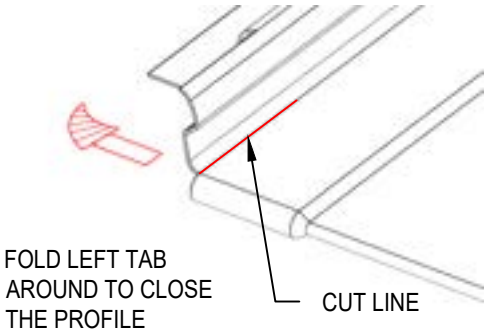
ENF-1 EAVE NOTCHING/FOLDING



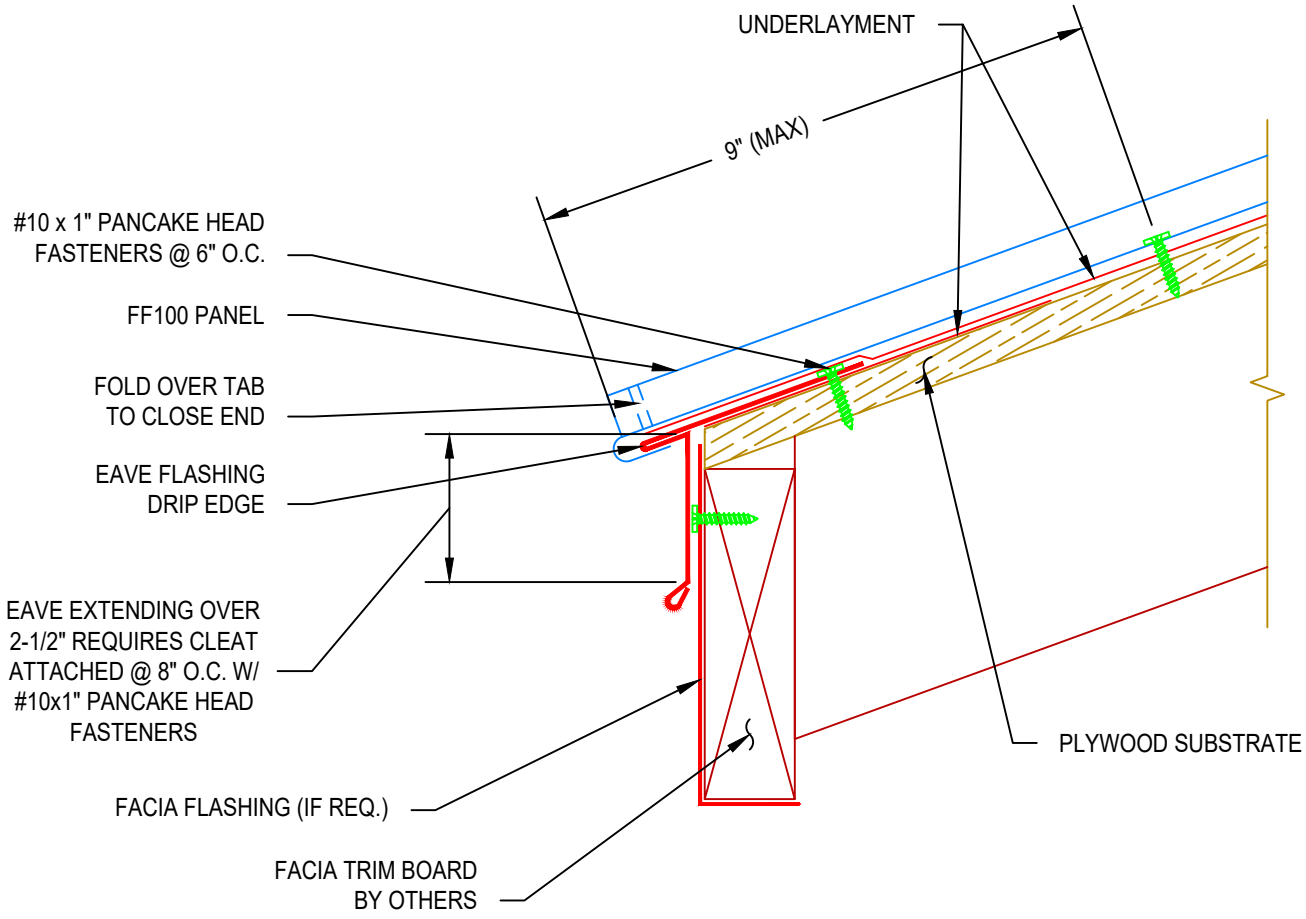




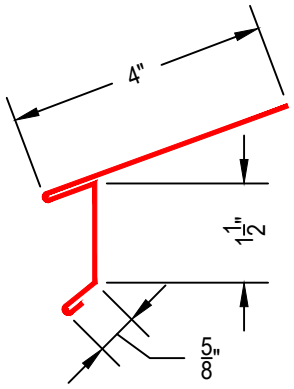




EV-1 EAVE TRIM DETAIL

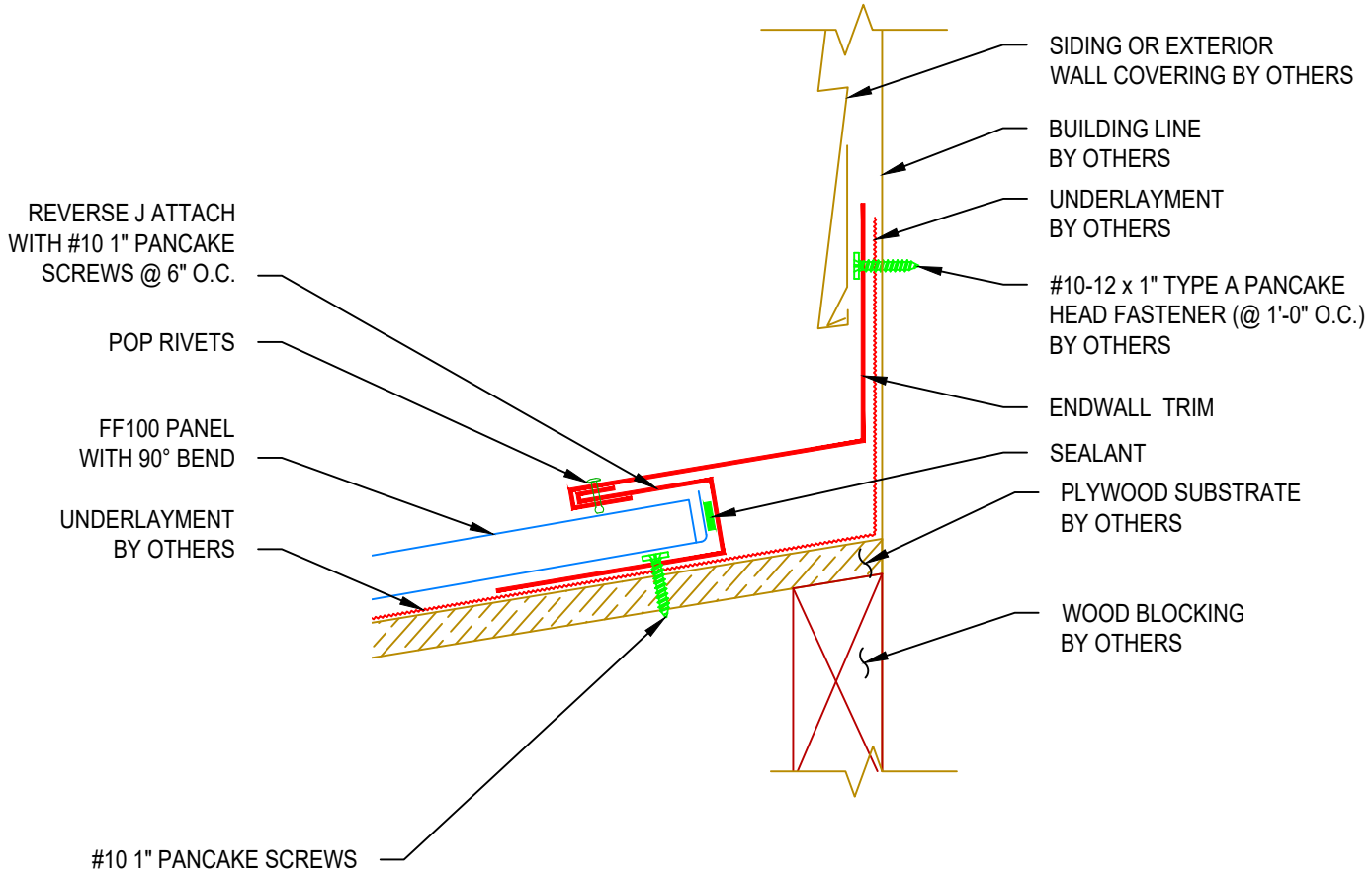


1. MAKE SURE DECK IS CLEAN AND READY FOR INSTALLATION. INSTALL UNDERLAYMENT PER MANUFACTURER'S INSTRUCTIONS.
2. PLACE EAVE FLASHING ONTO ROOF DECK AND FASTEN WITH #10x1" PANCAKE HEAD FASTENERS AT 6" O.C. MINIMUM 4" LAP ON EAVE FLASHINGS WITH APPROVED SEALANT IN-BETWEEN LAPS.
3. INSTALL PANELS AND ENGAGE PANEL HEM ONTO NOSE OF EAVE FLASHING. CARFULLY CRIMP PANEL HEM WITH HAND BREAK, PROVIDED BY AMM.

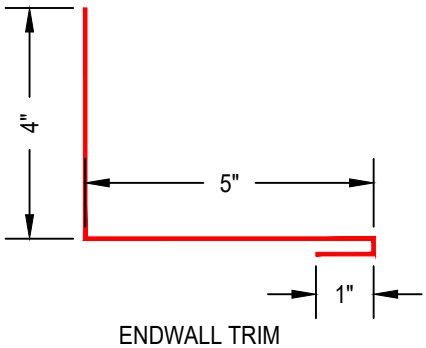


EAVE TRIM

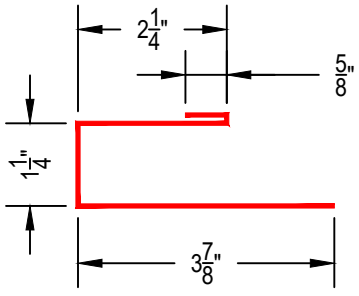
EW-1 ENDWALL DETAIL



1. INSTALL REVERSE J BELOW WALL LINE. ATTACH WITH #10-12 x 1" PANCAKE SCREW @ 4" O.C.
2. HOOK ENDWALL TRIM ONTO REVERS J AND ENSURE TOP LEG IS UNDER SIDING SECURED TO WALL LINE.
3. FASTEN END WALL TRIM TO REVERS J WITH 1/2" POP RIVETS PROVIDED.
4. INSTALL FF100 PANEL INTO REVERSE J WITH TOP BENT 90° WITH SEALANT ON BACK SIDE OF BEND.

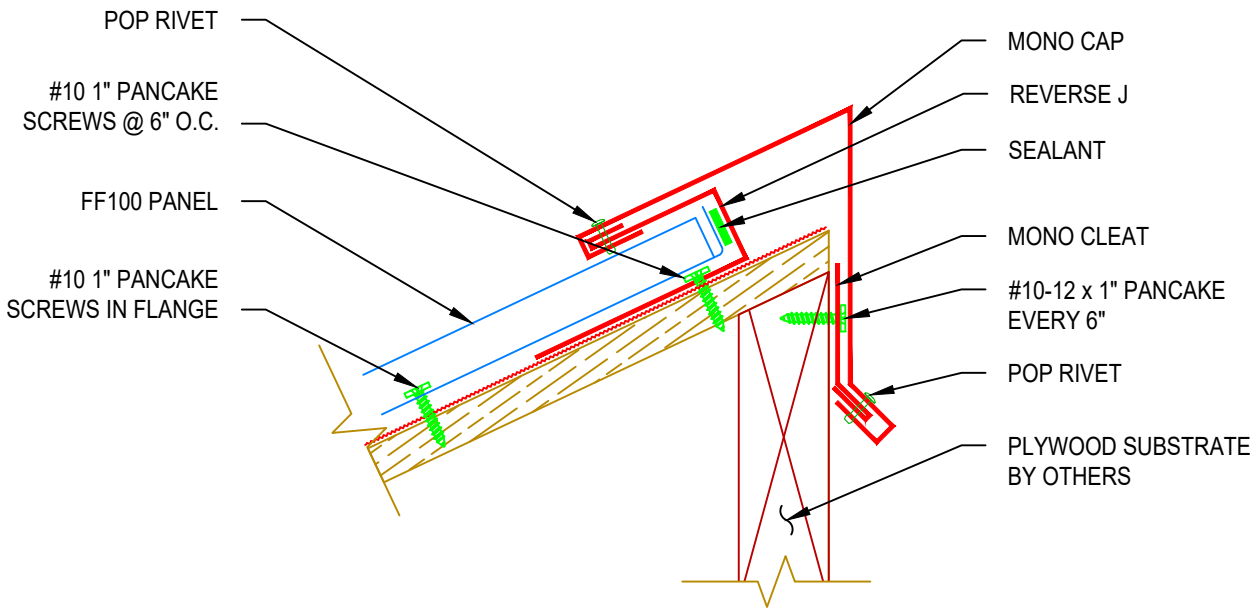


ENDWALL TRIM

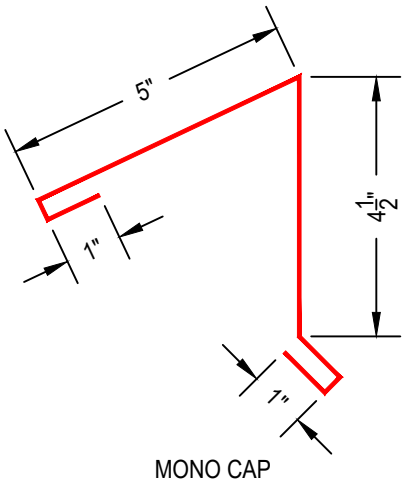


REVERSE J

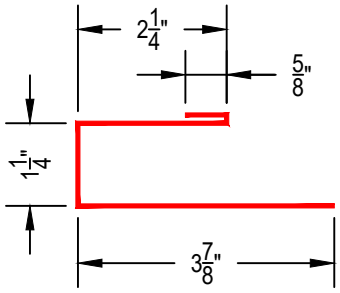
MS-1 MONO SLOPE DETAIL



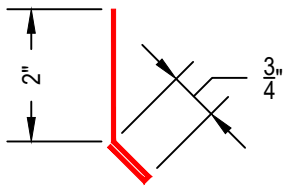
1. FIELD CUT AND INSTALL REVERSE J AND MONO CLEAT WITH #10-12 x 1" EVERY 6" O.C.
2. HOOK FRONT OF MONO CAP TO REVERSE J AND HOOK BACK OF MONO CAP TO MONO CLEAT. ATTACH MONO CAP TO REVERSE J AND MONO CLEAT WITH 1/2" COLOR MATCHING RIVETS PROVIDED EVERY 1'-0" O.C.
3. INSTALL FF-100 PANEL MAKING SURE BACK OF PANEL IS BROKEN TO 90° VERTICALLY AND USING CAULK SEALANT PROVIDED BEHIND THE PANEL TO SEAL TO REVERSE J. SCREW DOWN PANEL WHEN LOCKED IN AND PRESSED FIRMLY AGAINST REVERSE J WITH #10-12 x 1" PANCAKE SCREWS EVERY 6" - 1'-0" O.C.



MONO CAP

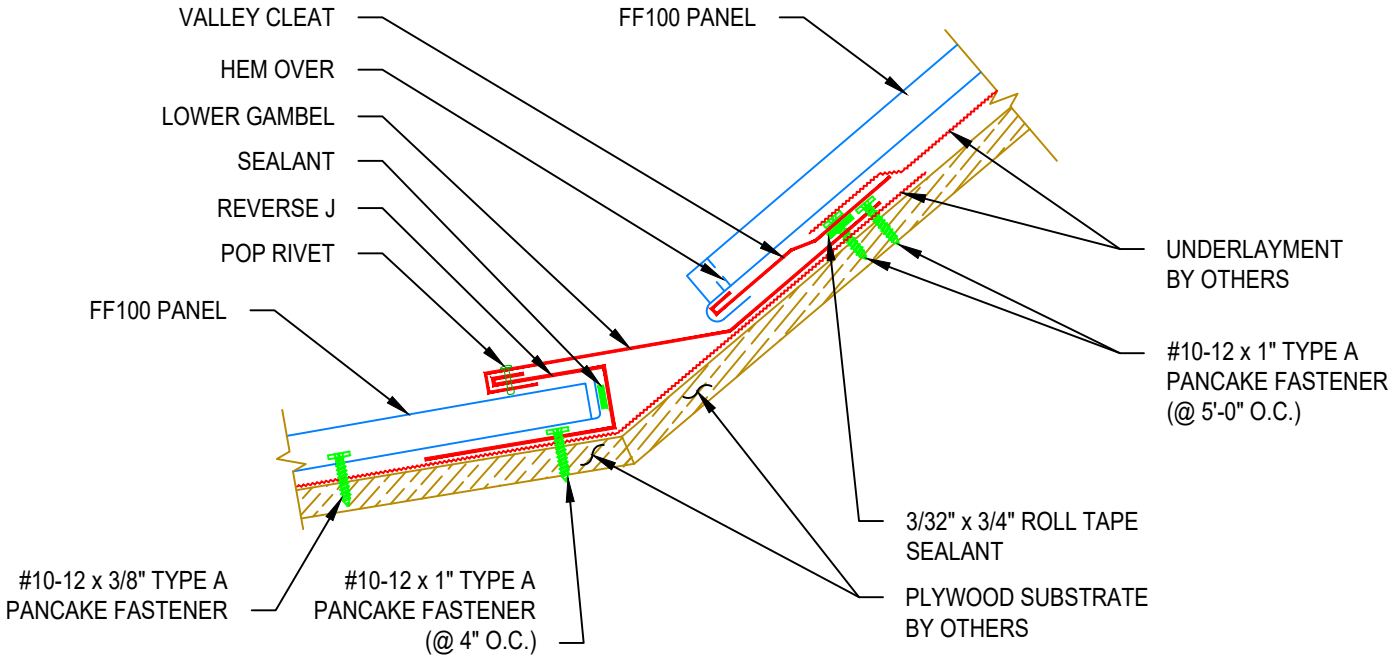


REVERSE J

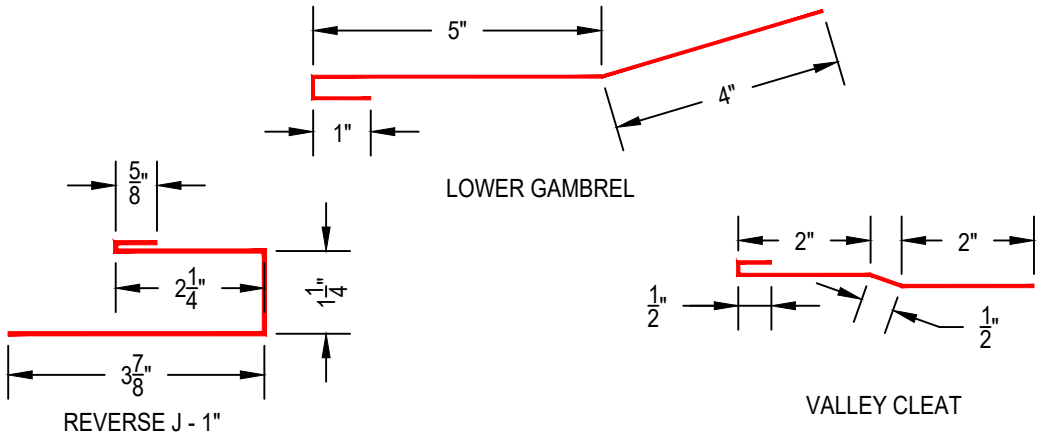


MONO CLEAT

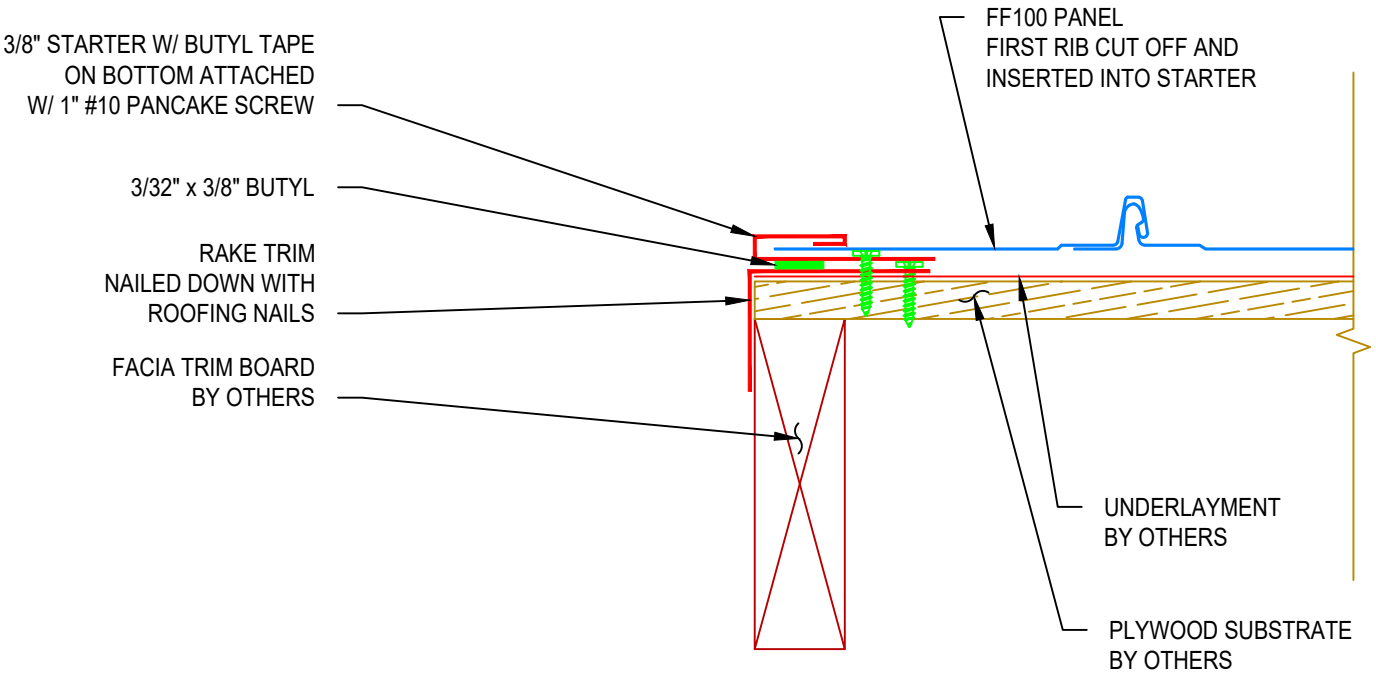
PC-1 PITCH CHANGE DETAIL



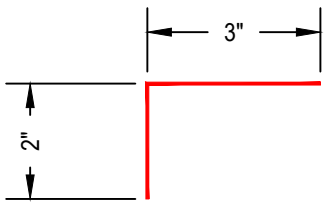
1. FIELD CUT REVERSE J, LOWER GAMBREL, AND VALLEY CLEAT TO LENGTH DETERMINED BY PITCH BREAK ON ROOF.
2. MAKE SURE REVERSE J AND LOWER GAMBREL ARE LAYING FLUSH ON ROOF SUBSTRATE ALONG PITCH CHANGES.
3. INSTALL REVERSE J WITH #10-12 x 1" PANCAKE FASTENERS 1'-0" O.C.
4. HOOK LOWER GAMBREL TO REVERSE J, MAKING SURE THE OPEN HEM OF LOWER GAMBREL IS HOOKED EVENLY ACROSS HEMMED EDGE OF REVERSE J AND RIVET THEM TOGETHER WITH 1/2" COLOR MATCHING RIVETS THAT ARE PROVIDED.
5. SCREW DOWN THE TOP FLANGE OF LOWER GAMBREL WITH #10-12 x 1" PANCAKE SCREWS IN AT LEAST FOUR PLACES EVENLY SPACED.
6. INSTALL VALLEY CLEAT (FIRST APPLY 3/32" x 3/8" BUTYL ROLL SEALANT TO BOTTOM OF VALLEY CLEAT) USING #10-12 x 1" PANCAKE SCREWS 1'-0" O.C.
7. INSTALL FF-100 PANEL INTO REVERSE J MAKING SURE THAT BACK OF PANEL IS BROKE 90° VERTICALLY. MAKE SURE TO US CAULK SEALANT ON BACK SIDE OF NINETY INSURING BACK EDGE IS FREE OF GAPS. SCREW DOWN PANEL WITH #10-12 x 1" PANCAKE SCREWS EVERY 6" TO 1' IN NAILING FLANGE ON PANEL.
8. INSTALL FF-100 PANEL TO THE TOP OF LOWER GAMBREL MAKING SURE THE PANEL IS HEMMED ONE INCH OVER THE VALLEY CLEAT. SCREW DOWN FF-100 PANEL WITH #10-12 x 1" PANCAKE SCREWS EVERY 6" - 1'-0" O.C. IN NAIL FLANGE OF PANEL TO SECURE PANEL TO ROOF.



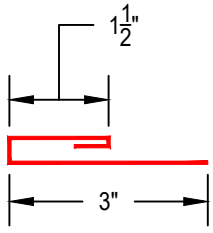
RK-1 RAKE DETAIL



1. CUT OFF FIRST RIB OF FF100 PANEL.
2. INSTALL RAKE ON GABLE EDGES OVER SYNTHETIC BARRIERS AND PLYWOOD SUBSTRATE WITH EITHER 1 1/4" ROOFING NAILS OR #10 PANCAKE SCREWS.
3. APPLY 3/8" WIDE BUTYL TO BACK SIDE OF STARTER
4. INSTALL STARTER FLUSH WITH THE EDGE OF RAKE WITH #10 1" SCREWS 12" O.C.

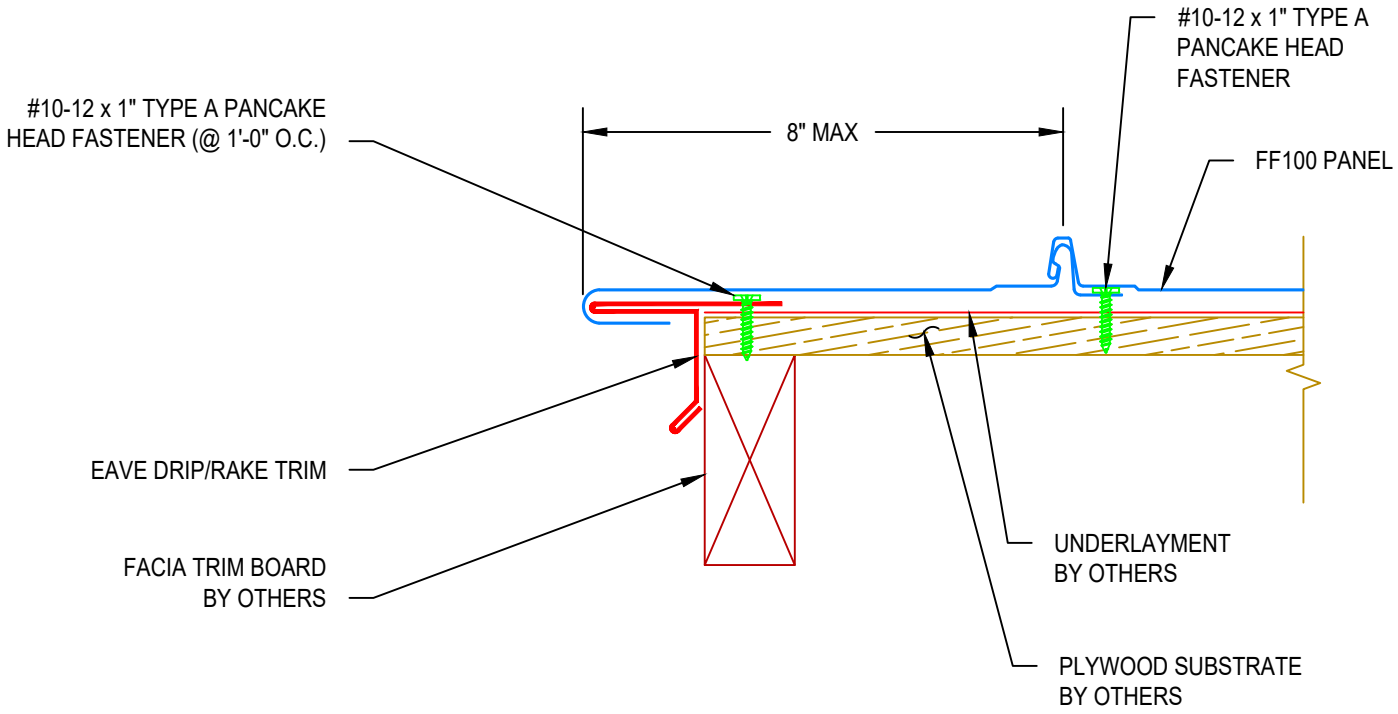


RAKE TRIM

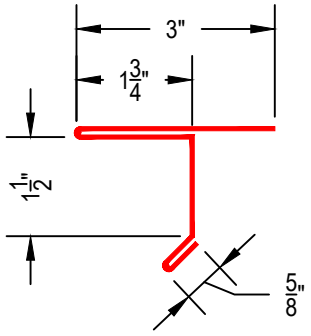


ZEE CLOSURE

RK-2 RAKE DETAIL

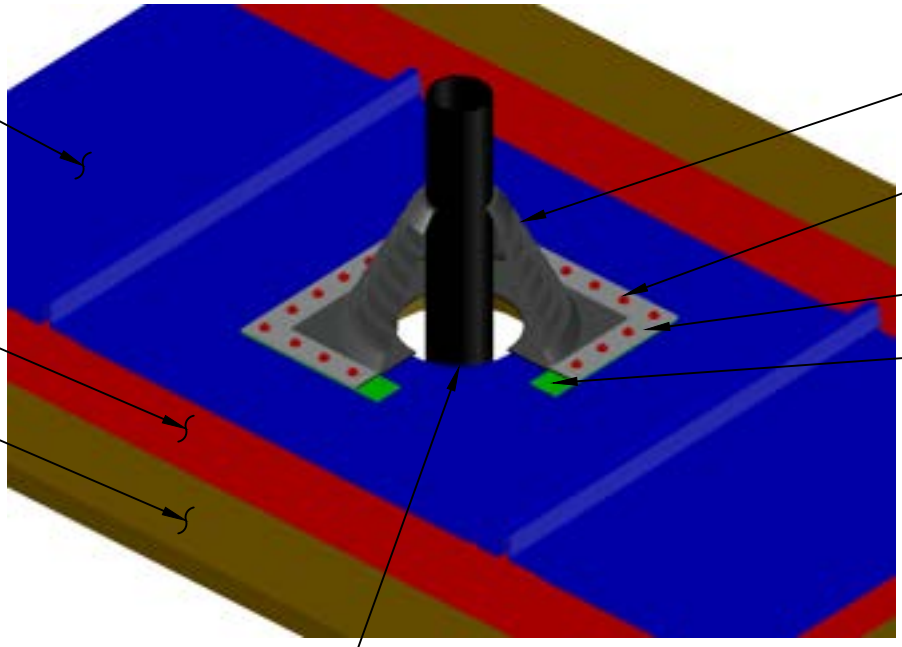


1. ATTACH EAVE DRIP/RAKE TRIM TO THE DECKING AS SHOWN WITH #10-12 x 1" TYPE A PANCAKE HEAD FASTENERS AT 1'-0" O.C.
2. FIELD CUT OUTSIDE RIB OF FF-100 PANEL TO REMOVE FROM PANEL. FIELD FOLD PANEL ALONG FULL LENGTH AND HOOK ONTO EAVE DRIP/RAKE TRIM AS SHOWN.



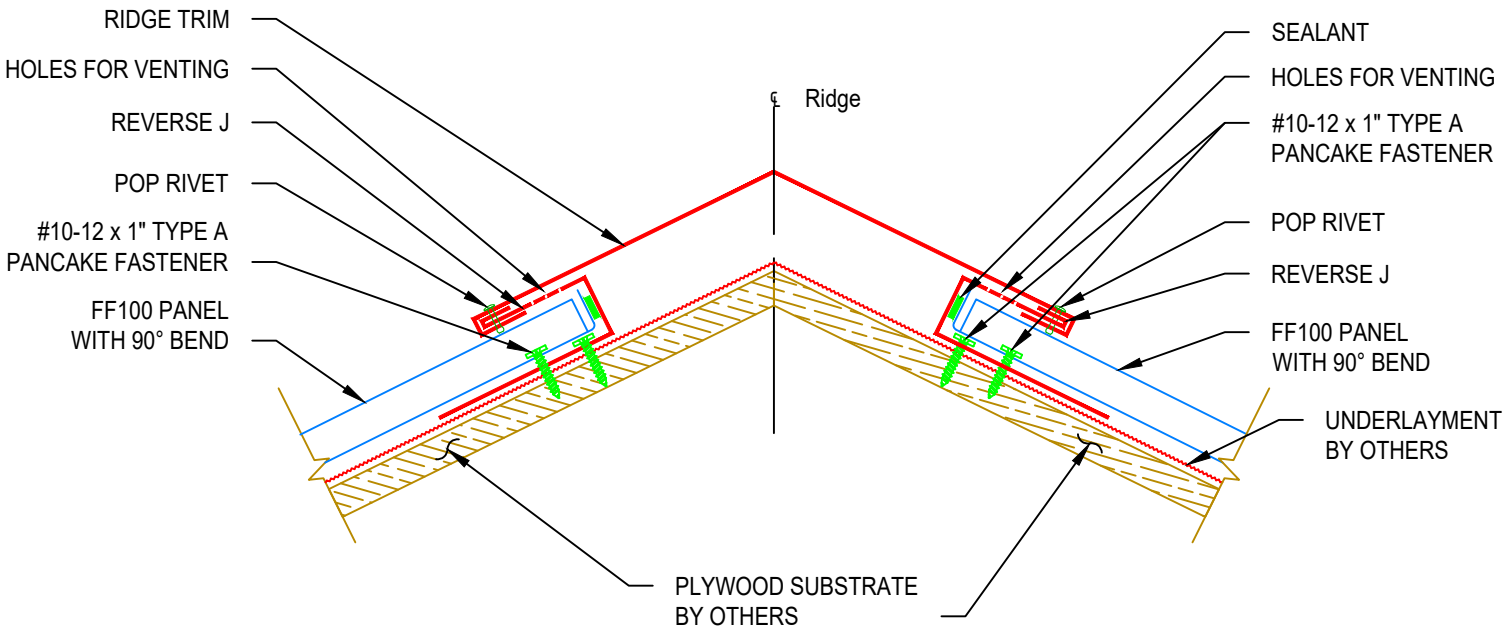
EAVE DRIP/RAKE TRIM

RP-1 ROOF PENETRATION DETAIL

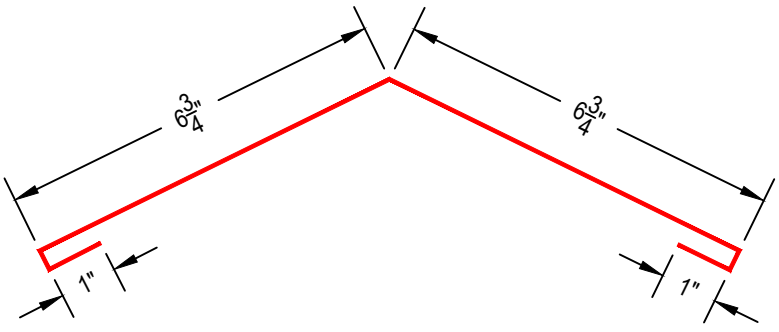


1. MAKE SURE DECK IS CLEAN AND READY FOR INSTALLATION. INSTALL UNDERLAYMENT PER MANUFACTURER'S INSTRUCTIONS.
2. WHEN POSSIBLE YOU MAY WANT TO MOVE PIPE TO LAND IN CENTER OF PANEL.
3. FIND LOCATION OF WHERE PIPE NEEDS TO BE ON FF-100 PANEL, (MEASURE TWICE CUT ONCE) CUT HOLE 1/2" BIGGER THEN DIAMETER OF PIPE.
4. INSTALL PANEL WITH #10-12x1" TYPE A PANCAKE SCREWS 12" O.C.
5. PUT FULL BEAD OF SEALANT ON BOTTOM OF PIPE FLASHING FLANGE.
6. SLIDE PIPE FLASHING OVER PIPE AND PUSH TO ROOF SURFACE.
7. USING #10x1" SELF SEALING FASTENERS EVERY 1 1/2" AROUND FLANGE.

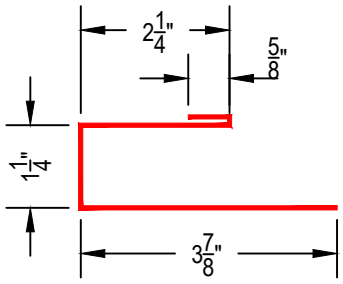
RV-1 RIDGE VENT DETAIL (HIP)



1. INSTALL REVERSE J BELOW RIDGE LINE. ATTACH WITH #10-12 x 1" PANCAKE SCREW @ 4" O.C.
2. APPLY CAULK TYPE SEALANT PROVIDED, ON BACK OF 90° BEND OF FF100 PANEL. AS YOU INSTALL THEM FIRMLY PRESS AGAINST INSIDE OF REVERSE J.
3. SECURE FF100 PANELS IN PLACE WITH #10-12x1" TYPE A PANCAKE FASTENERS.
4. SNAP RIDGE TRIM IN PLACE TO REVERSE J AND SECURE WITH 1/2" POP RIVETS.

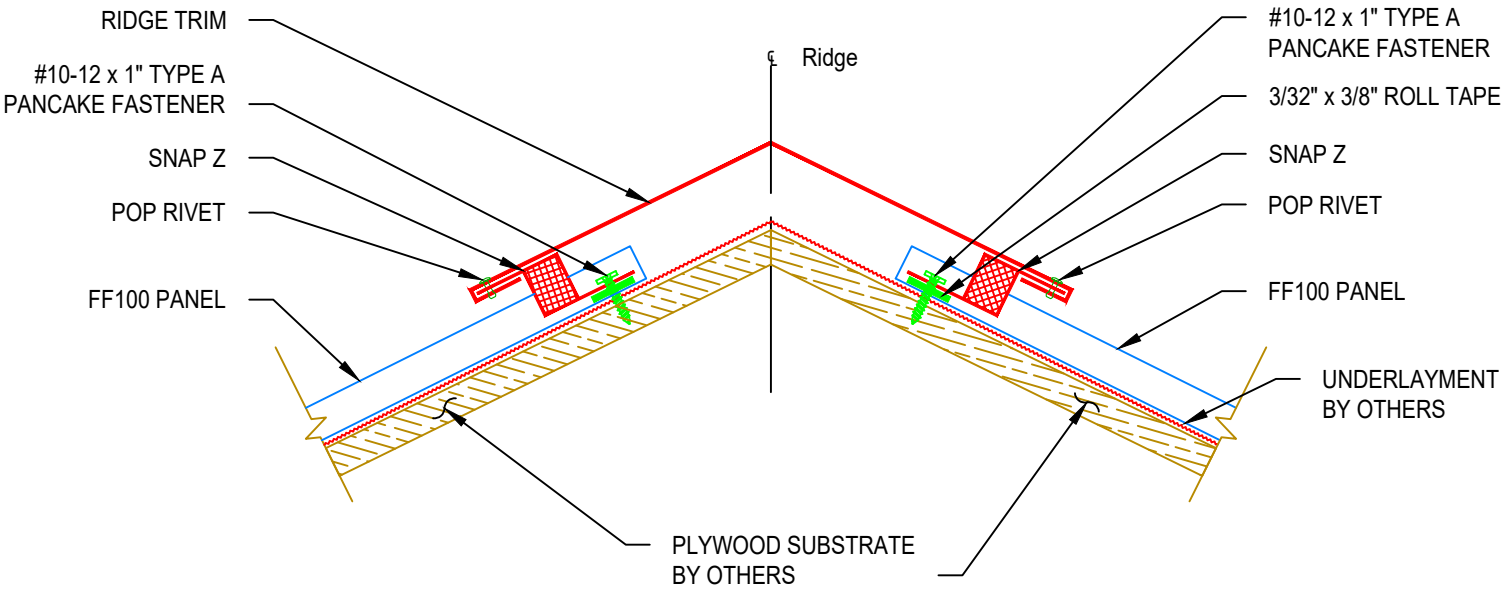


RIDGE TRIM

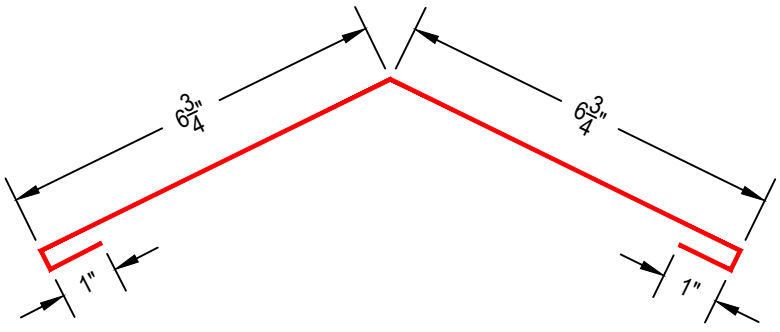


REVERSE J

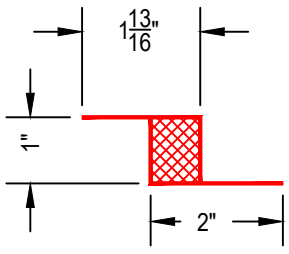
RV-2 RIDGE VENT DETAIL



1. INSTALL FF100 PANEL ON APPROVED SYNTHETIC UNDERLAYMENT. SECURE PANEL WITH #10-12 x 1" TYPE A PANCAKE FASTENERS.
2. REMOVE PROTECTIVE STRIP OFF THE BACK OF THE SNAP Z TO ENSURE BUTYL SEALANT CAN STICK TO FF100 PANEL. SCREW DOWN SNAP Z MAKING SURE TO USE EVERY HOLE PUNCHED IN SNAP Z WITH #10-12 x 1" PANCAKE SCREWS.
3. MAKE SURE THAT THE FOAM CLOSES THE GAP IN THE PANEL AND GOES OVER THE RIB AND SEAL WITH CAULK SEALANT PROVIDED BEHIND EACH RIB, MAKING SURE TO FILL ANY GAPS.
4. ATTACH RIDGE TRIM TO SNAP Z ON EACH SIDE OF THE RIDGE AND SECURE IN PLACE WITH A MINIMUM OF SIX #44 S.S. RIVETS PER 10'.

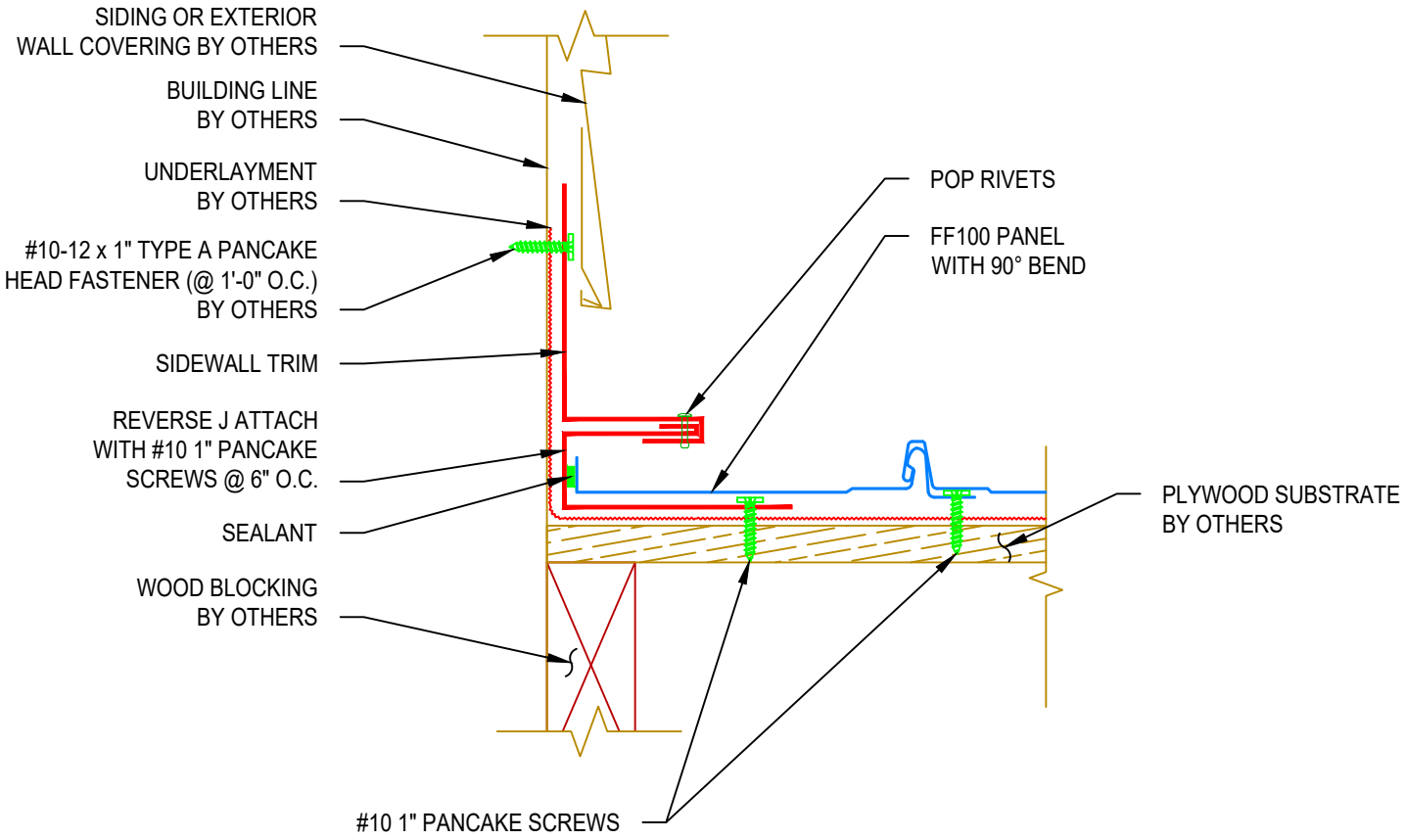


RIDGE TRIM

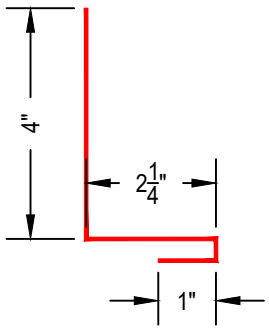


SNAP Z

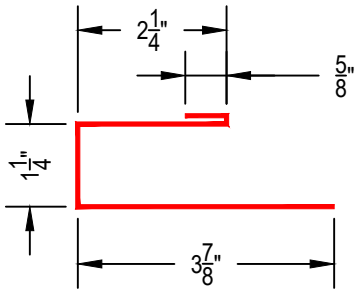
SW-1 SIDE WALL TIE-IN DETAIL



1. INSTALL REVERSE J AGAINST WALL WITH #10 1" PANCAKE SCREWS @ 6" O.C.
2. HOOK SIDE WALL TRIM AND SECURE TO WALL WITH SCREWS AND ATTACH LOWER LEG WITH POP RIVETS @ 12" O.C.
3. INSTALL FF100 PANEL INTO REVERSE J WITH 90° VERTICAL BEND AGAINST INSIDE OF REVERSE J WITH SEALANT ON OUTSIDE OF 90° VERTICAL BEND.

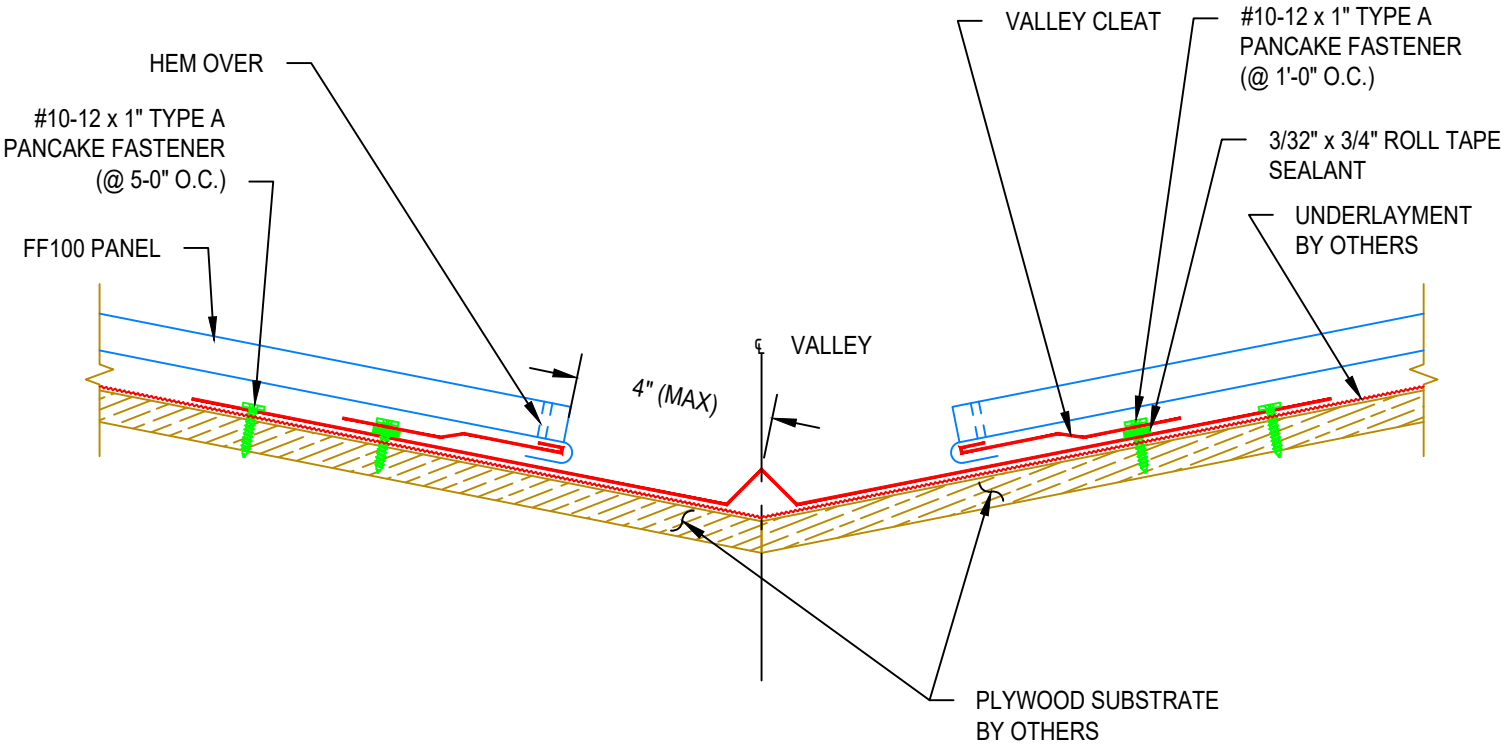


SIDE WALL TRIM

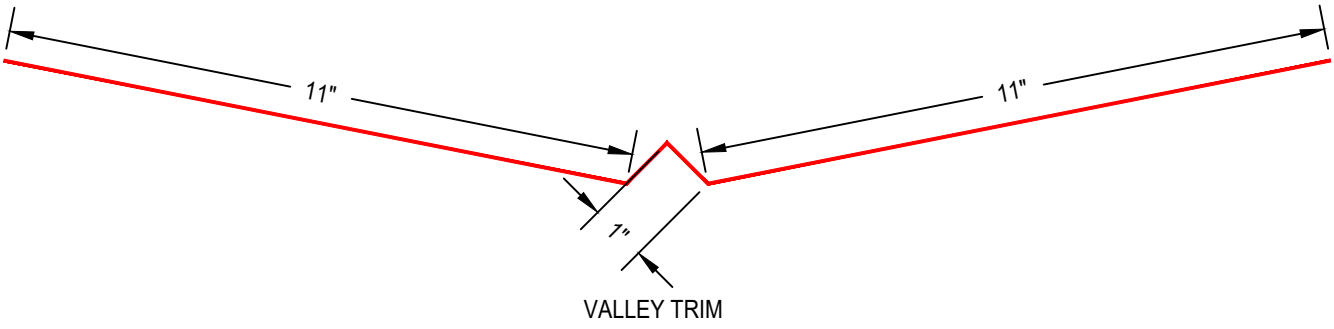


REVERSE J

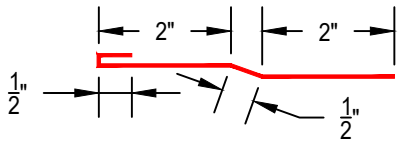
V-1 VALLEY DETAIL



1. ATTACH VALLEY TRIM TO SUBSTRATE WITH #10-12 x 3/4" TYPE A PANCAKE FASTENERS AT 5'-0" O.C.
2. APPLY CONTINUOUS RUN OF 3/32" x 3/4" ROLL TAPE SEALANT TO VALLEY CLEAT.
3. SET VALLEY CLEAT IN SEALANT AND ATTACH WITH #10-12 x 1" TYPE A PANCAKE FASTENERS AT 1'-0" O.C. MAKING SURE TO FASTEN THROUGH VALLEY CLEAT FLANGE, SEALANT, VALLEY TRIM AND INTO SUBSTRATE.
4. AFTER NOTCHING AND FOLDING PANEL AS SHOWN ON ENF-1 NOTCHING AND FOLDING DETAIL, INSTALL PANEL AND SECURE IN PLACE WITH #10-12 x 1" TYPE A PANCAKE FASTENERS.



VALLEY TRIM



VALLEY CLEAT