NUCOR® BUILDINGS GROUP

TABLE OF CONTENTS

GENERAL DETAILS

EA3000 - ROOF PANEL HAND TOOLS
Download the DWG file by clicking here.

IMPORTANT!

ROOF PANEL HAND TOOLS ARE NO LONGER
PURCHASED THROUGH eQuote OR STEEL STORE.
ROOF PANEL HAND TOOLS CAN BE PURCHASED THROUGH
D.I. ROOF SEAMERS

HAND TOOLS

ROOF SEAMERS

SCAN THE QR CODE FOR TOOL PURCHASE AND SEAMER RENTAL
OR VISIT HTTP://DIROOFSEAMERS.COM/NBG OR CALL 1(888) 343-0456.

Detailer Notes:

1) DETAIL TO BE INSERTED INTO EVERY JOB THAT HAS BEEN ORDERED AFTER 10/12/2023.

2) IF HAND TOOLS HAVE BEEN ORDERED IN BOX 6 OF THE ORDER DOCUMENT, REMOVE DETAIL.

GENERAL DETAILS

VERTICAL RIB ROOF PANELS

EA3010 - VERTICAL RIB GENERAL NOTES

Download the DWG file by by clicking here.

DESIGN AND PERFORMANCE CRITERIA

ROOF SYSTEM
THE ROOF SYSTEM CONSISTS OF 24 GAUGE PANELS WITH A NOMINAL COVERAGE OF 1'-4" AND A PANEL SEAM THAT IS 2 1/2" OR 3 1/2" HIGH DEPENDING ON CLIP TYPE USED. REFER TO THE DETAILS AND SECTIONS FOR SPECIFIC PANEL CLIP TYPE.

PANEL CLIP SPACING
THE ROOF SYSTEM USES A CLIP TO ATTACH THE PANELS TO THE ROOF SECONDARY MEMBERS. PANEL CLIP SPACING REQUIREMENTS AS A STANDARD ARE REQUIRED AT EVERY PURLIN AND/OR ROOF JOIST.

PANEL CLIP FASTENING REQUIREMENTS
STANDARD CLIP FASTENERS ARE DESIGNED TO FASTEN TO A STEEL STRUCTURAL MEMBER OF .060" MINIMUM THICKNESS (16 GA.). A MINIMUM OF TWO FASTENERS ARE REQUIRED TO ENGAGE THE STRUCTURAL MEMBER AT EVERY PANEL CLIP LOCATION. IN CERTAIN INSTANCES, THREE FASTENERS MAY BE REQUIRED PER CLIP REQUIRED. LOOK ON CHART AT RIGHT AND IN THE ERECTION DRAWINGS FOR YOUR SPECIFIC FASTENER REQUIREMENTS. FASTENER PULLOUT VALUES ARE DEPENDENT UPON PROJECT LOCATION, SIZE, BUILDING CODE AND LOADING.

ROOF TOP UNITS AND CURB SUPPORTS
THE ROOF SYSTEM IS ELEVATED ABOVE THE TOP OF THE ROOF SECONDARY STRUCTURAL MEMBERS. THE ROOF CURB SUB-FRAMING IS LEVEL WITH THE SECONDARY STRUCTURAL MEMBERS. REFER TO THE DETAILS FOR PROPER JAMB LOCATIONS AND DIMENSIONS.

THE ROOF SYSTEM IS DESIGNED AS A FLOATING SYSTEM. CURB FRAMING AND FLASHING MUST BE DESIGNED ACCORDINGLY TO ALLOW THE CURB SYSTEM TO FLOAT WITH THE ROOF DURING THERMAL EXPANSION AND CONTRACTION. ROOF CURBS SHALL NOT SPAN THE RIDGE OF A BUILDING.

INSULATION REQUIREMENTS
INSULATION IS RECOMMENDED TO BE USED IN ALL ROOF APPLICATIONS TO AVOID PROBLEMS WITH CONDENSATION FORMING ON THE UNDERSIDE OF THE SHEETING. THIS ALSO PROVIDES A BUFFER BETWEEN THE PURLINS AND THE ROOF TO ELIMINATE NOISE AND POSSIBLE DAMAGE DUE TO METAL-TO-METAL CONTACT. NOISE REDUCING FOAM TAPE CAN BE SUPPLIED FOR USE IN LIMITED APPLICATIONS (CANOPIES, ETC.) WHEN INCLUDED AS PART OF THE ROOF ORDER. REFER TO THE DETAILS FOR FOAM TAPE REQUIREMENTS.

PAINTED ROOF
PAINTED Loc Seam ROOF PANELS ARE OFTEN PROVIDED BY MBS. IN THIS CASE, GUTTER BRACKETS AND OUTSIDE CLOSURES WILL BE PAINTED TO MATCH THE ROOF COLOR AS A STANDARD.

MASTIC APPLICATION

TEMPERATURE EXTREMES
TEMPERATURE EXTREMES MUST BE CONSIDERED DURING INSTALLATION OF THE ROOF DUE TO THE SENSITIVITY OF MASTICS. THE RECOMMENDED INSTALLATION TEMPERATURE RANGE IS 20-120 DEGREES FAHRENHEIT. AT COLDER TEMPERATURES, THE MASTIC STIFFENS RESULTING IN LOSS OF ADHESION AND COMPRESSIBILITY. AT HOTTER TEMPERATURES, THE MASTIC BECOMES TOO SOFT FOR PRACTICAL HANDLING. ON COLD BUT SUNNY DAYS, THE PANEL SURFACE MAY BECOME WARM ENOUGH TO ACCEPT THE APPLICATION OF HEATED MASTIC EVEN THOUGH THE AIR TEMPERATURE IS BELOW 20 DEGREES FAHRENHEIT.

WHEN OVERNIGHT TEMPERATURES FALL BELOW FREEZING, THE MASTIC SHOULD BE STORED IN A HEATED ROOM SO IT WILL BE WARM ENOUGH TO USE THE FOLLOWING DAY. ON HOT DAYS, THE MASTIC CARTONS SHOULD BE STORED OFF THE ROOF IN A COOL AND SHADED AREA. WHILE ON THE ROOF, MASTIC ROLLS SHOULD BE KEPT SHADED UNTIL ACTUAL USE.

IN VERY COLD WEATHER, IT IS RECOMMENDED THAT THE FASTENERS BE TIGHTENED SLOWLY AND ONLY TIGHT ENOUGH THAT THE MASTIC IS IN FULL CONTACT WITH THE PANEL OR FLASHING. THEN ON THE NEXT SUNNY DAY, COMPLETE THE TIGHTENING PROCESS AFTER THE SUN WARMS THE PANEL AND FLASHING SURFACES.

CONTAMINATION
TO ASSURE PROPER ADHESION AND SEALING, THE MASTIC MUST HAVE COMPLETE CONTACT WITH ADJOINING SURFACES. CONTAMINANTS SUCH AS WATER OIL, DIRT AND DUST PREVENT SUCH CONTACT. THE PANEL AND FLASHING SURFACES MUST BE DRY AND THOROUGHLY CLEANED OF ALL CONTAMINANTS. BEFORE APPLYING TAPE MASTIC, THE MASTIC SHOULD BE CHECKED FOR CONTAMINANTS. IF THE MASTIC SURFACES ARE CONTAMINATED, IT MUST NOT BE USED.

DURING COOL WEATHER, CONDENSATION OR LIGHT MIST CAN ACCUMULATE ON THE PANEL AND FLASHING SURFACE AND NOT BE EASILY NOTICED. IT IS RECOMMENDED THAT THE MASTICS ALWAYS BE KEPT UNDER PROTECTIVE COVER AND THAT THE PANEL AND FLASHING SURFACES BE WIPED DRY IMMEDIATELY BEFORE INSTALLATION.

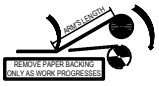
TAPE MASTIC IS PROVIDED WITH A PROTECTIVE PAPER TO REDUCE CONTAMINATION. INCOMPLETE REMOVAL OF THE PROTECTIVE PAPER WILL PREVENT THE MASTIC ADHESION TO THE PANEL OR FLASHING SURFACES. ALWAYS CHECK THAT THE PROTECTIVE PAPER IS COMPLETELY REMOVED. DO NOT REMOVE THE PROTECTIVE PAPER UNTIL IMMEDIATELY BEFORE THE PANEL OR FLASHING IS INSTALLED OVER THE MASTIC.

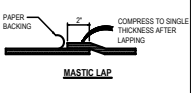
COMPRESSION
TO ASSURE PROPER COMPRESSION AND SEAL, THE TAPE MASTIC MUST BE COMPRESSED BETWEEN THE PANEL AND FLASHING SURFACES WITH FIRM AND UNIFORM PRESSURE. IN MOST CASES, THE REQUIRED PRESSURE IS APPLIED BY THE CLAMPING ACTION OF SCREWS PULLING THE ADJOINING SURFACES TOGETHER. HOWEVER, THE TAPE SEALANT'S RESISTANCE TO PRESSURE BECOMES GREATER IN COLD WEATHER.

DURING COLD WEATHER, THE FASTENERS MUST BE TIGHTENED SLOWLY TO ALLOW THE MASTIC TIME TO COMPRESS. IF THE FASTENERS ARE TIGHTENED TOO FAST, THE FASTENERS MAY STRIP OUT BEFORE THE MASTIC COMPRESSES ADEQUATELY, OR THE PANEL OR FLASHING MAY DEFORM IN THE IMMEDIATE AREA OF THE FASTENER, LEAVING THE REST OF THE MASTIC INSUFFICIENTLY COMPRESSED.

INSIDE CORNERS
AN INSIDE RADIUS, SUCH AS WHERE THE PANEL FLAT MEETS A RIB, IS USUALLY THE MOST CRITICAL AREA TO SEAL. A COMMON MISTAKE FOR THE INSTALLER IS TO BRIDGE THE MASTIC ACROSS THE INSIDE RADIUS.

WHEN THE LAPPING PANEL OR FLASHING IS PUSHED INTO PLACE, THE BRIDGED MASTIC IS STRETCHED AND THINNED. THE MASTIC MAY THEN BE TOO THIN TO ADEQUATELY SEAL THIS CRITICAL AREA. WHEN TAPE MASTIC IS APPLIED AT AN INSIDE RADIUS, IT IS RECOMMENDED THAT THE MASTIC BE FOLDED BACK, THEN PUSH THE MASTIC FOLD INTO THE RADIUS.





MASTIC LAP

ERECTORS RESPONSIBILITY

REGULATIONS
REGULATIONS SET FORTH BY THE OCCUPATIONAL SAFETY AND HEALTH ACT, LOCAL, STATE, AND/OR FEDERAL AGENCIES SHOULD BE ADHERED TO AT ALL TIMES. MBS IS NOT RESPONSIBLE FOR INJURY, DAMAGE, OR FAILURE, WHICH MAY BE THE RESULT FROM FAILING TO MEET ANY OF THESE REGULATIONS.

IN COMPLIANCE WITH THE HAZARD COMMUNICATION RULE 1910.1200, MATERIAL SAFETY DATA SHEETS (MSDS) HAVE BEEN PROVIDED FOR YOUR USE AND SAFETY. THESE DATA SHEETS SHOULD BE MADE AVAILABLE TO ALL PERSONNEL THAT COME IN CONTACT WITH THESE PRODUCTS. THESE DATA SHEETS WILL GIVE YOU THE NECESSARY INFORMATION TO PROPERLY HANDLE SUCH MATERIALS AND WHAT TO DO IN CASE OF AN EMERGENCY. (THE MSDS SHEETS ARE LOCATED ONLINE AND ARE AVAILABLE UPON REQUEST).

THE ERECTOR OF THE ROOF SYSTEM IS RESPONSIBLE FOR THE SAFE EXECUTION OF THIS DETAIL. THESE INSTRUCTIONS ARE INTENDED TO DESCRIBE THE SEQUENCE AND PROPER PLACEMENT OF PARTS. THEY ARE NOT INTENDED TO PRESCRIBE COMPREHENSIVE SAFETY PROCEDURES. THE PROCEDURES IN THIS DETAIL ARE BELIEVED TO BE RELIABLE. HOWEVER, MBS SHALL NOT BE RESPONSIBLE FOR INJURY, DAMAGE, OR FAILURE DUE TO THE MISAPPLICATION OF THESE PROCEDURES, IMPROPER ERECTION TECHNIQUES, OR NEGLIGENCE

WALKING AND WORKING ON ROOF PANELS
DO NOT PLACE BUNDLES OF PANELS ON THE ROOF STRUCTURE WITHOUT FIRST VERIFYING THE STRUCTURE WILL SAFELY SUPPORT THE CONCENTRATED WEIGHT OF THE PANELS AND THE WEIGHT OF THE INSTALLATION CREW. SOME ROOF STRUCTURES MAY NOT BE DESIGNED TO SUPPORT THE WEIGHT OF A FULL PANEL BUNDLE WITHOUT ADDITIONAL STRUCTURE SUPPORT.

DO NOT USE A ROOF PANEL AS A WORKING PLATFORM. AN UNSECURED PANEL COULD COLLAPSE UNDER THE WEIGHT OF A PERSON STANDING BETWEEN PURLINS OR AT THE PANEL END.

DO NOT WALK ON THE LAST INSTALLED PANEL RUN, AS THE UNSECURED EDGE COULD COLLAPSE UNDER A PERSON'S WEIGHT. WHEN INSTALLING CLIPS OR MAKING END LAP CONNECTIONS, ETC., STAND WHERE THE ROOF STRUCTURAL WILL SUPPORT YOUR WEIGHT.

AN APPROVED AND SAFE WALKING PLATFORM SHOULD BE USED IN HIGH TRAFFIC AREAS TO PREVENT THE ROOF PANEL FROM BEING DEFORMED, SCRATCHED, OR SCUFFED.

SAFETY EQUIPMENT
THE USE OF SAFETY EQUIPMENT FOR THE ROOF PANEL INSTALLATION IS RECOMMENDED AT ALL TIMES DURING THE INSTALLATION PROCESS. HOWEVER, WHEN USING LANYARDS, ENSURE THAT THE CLASP, BELT HOOKS AND WIRE CABLES ARE COVERED IN SUCH A MANNER THAT THEY WILL NOT SCRATCH THE PANEL SURFACE IF ACCIDENTALLY DRAGGED ALONG THE PANEL.

CREW SIZE
THE LENGTH OF THE INDIVIDUAL ROOF PANELS SHOULD BE CONSIDERED WHEN DETERMINING CREW SIZE. IT IS RECOMMENDED THAT UNDER NORMAL CONDITIONS, THERE BE ONE PERSON FOR EVERY TEN FEET OF PANEL LENGTH, PLUS ONE.

PANEL OVERHANG
DO NOT STAND ON THE END OF UNSUPPORTED (CANTILEVERED) PANELS AT THE EAVE OR RIDGE. STANDING ON THE CANTILEVER PORTION MAY RESULT IN PANEL COLLAPSE.

POINT LOADS
WHEN PROPERLY SUPPORTED BY THE STRUCTURAL STEEL, PANELS ARE DESIGNED TO SUPPORT UNIFORM LOADS, WHICH ARE EVENLY DISTRIBUTED OVER THE PANEL SURFACES. POINT LOADS THAT OCCUR IN SMALL OR CONCENTRATED AREAS, SUCH AS HEAVY EQUIPMENT, LADDER, OR PLATFORM FEET, ETC., MAY CAUSE PANEL DEFORMATION OR EVEN PANEL COLLAPSE.

SLICK SURFACES
PANEL SURFACES AND STRUCTURAL STEEL SURFACES ARE HARD, SMOOTH, AND NONABSORBENT, WHICH CAUSES THESE SURFACES TO BE VERY SLICK WHEN WET OR COVERED WITH SNOW OR ICE. EVEN BLOWING SAND OR HEAVY DUST CAN MAKE THESE SURFACES DIFFICULT TO WALK ON WITHOUT SLIPPING.

UNPAINTED PANEL SURFACES ARE OFTEN COATED WITH OIL TO ACCOMMODATE THE PANEL-FABRICATION PROCESS. ALTHOUGH DESIGNED TO WASH AWAY OR EVAPORATE DURING NORMAL WEATHER, THE OIL ON NEW PANELS CAN BE EXTREMELY SLICK, ESPECIALLY DURING PERIODS OF LIGHT RAIN AND DEW.
CAUTION MUST BE EXERCISED TO PREVENT SLIPPING AND FALLING ONTO THE ROOF SURFACE OR EVEN SLIDING OFF THE ROOF. NON-SLIP FOOTWEAR IS A NECESSITY AND NON-SLIP WORKING PLATFORMS ARE RECOMMENDED.

ELECTRICAL CONDUCTANCE
METAL PANELS ARE EXCELLENT ELECTRICAL CONDUCTORS. A COMMON CAUSE OF INJURY IS THE CONTACT OF METAL PANELS WITH POWER LINES DURING HANDLING AND INSTALLATION. THE LOCATION OF ALL POWER LINES MUST BE NOTED AND, IF POSSIBLE, FLAGGED. THE INSTALLATION PROCESS MUST BE ROUTED TO AVOID ACCIDENTAL CONTACT WITH ALL POWER LINES AND HIGH VOLTAGE SERVICES AND EQUIPMENT. ALL TOOLS AND POWER CORDS MUST BE PROPERLY INSULATED AND GROUNDED AND THE USE OF APPROVED GROUND FAULT CIRCUIT BREAKERS IS RECOMMENDED.

FALSE SECURITY OF INSULATION
BLANKET AND RIGID BOARD INSULATION BLOCK THE INSTALLER'S VIEW OF THE GROUND BELOW THE ROOF. SERIOUS INJURY CAN OCCUR WHEN THE INSTALLER GETS A FALSE SENSE OF SECURITY BECAUSE HE CANNOT SEE THE GROUND AND STEPS THROUGH THE INSULATION.

SHARP EDGES
SOME EDGES OR PANELS AND FLASHING ARE RAZOR SHARP AND CAN CAUSE SEVERE CUTS IF PROPER PROTECTIVE HAND GEAR IS NOT WORN. BE CAREFUL NOT TO INJURE OTHERS WHILE MOVING PANELS AND FLASHING.

COORDINATION WITH OTHER TRADES
SUPPORTS FOR THE ROOF SYSTEM SHALL BE PROVIDED AND ARE REQUIRED AS SHOWN IN THE SECTIONS AND AS NOTED IN THESE SPECIFICATIONS. ALL NECESSARY CLEARANCE DIMENSIONS FOR PROPER ELEVATIONS RELATIVE TO THE ROOF PANELS HAVE BEEN SHOWN. THE ERECTOR SHALL BE RESPONSIBLE FOR COORDINATING THESE DIMENSIONAL REQUIREMENTS WITH OTHER TRADES ASSOCIATED WITH THE BUILDING ROOF SYSTEM.

ERECTION CARE
THE ERECTOR MUST BE SKILLED IN THE ERECTION OF METAL BUILDING SYSTEMS AND IS RESPONSIBLE FOR COMPLYING WITH ALL APPLICABLE LOCAL, FEDERAL AND STATE CONSTRUCTION AND SAFETY REGULATIONS INCLUDING OSHA REGULATIONS AS WELL AS ANY APPLICABLE REQUIREMENTS OF LOCAL, NATIONAL OR INTERNATIONAL UNION RULES OR PRACTICES. THE ERECTOR REMAINS SOLELY RESPONSIBLE FOR THE SAFETY AND APPROPRIATENESS OF ALL TECHNIQUES AND METHODS UTILIZED BY ITS CREWS IN THE ERECTION OF THE METAL BUILDING SYSTEM AND/OR THE ROOF SYSTEM. THE ERECTOR IS ALSO RESPONSIBLE FOR SUPPLYING ANY SAFETY DEVICES SUCH AS SCAFFOLDS, RUNWAYS, NETS, ETC. WHICH MAY BE REQUIRED TO SAFELY ERECT THE METAL BUILDING SYSTEM AND/OR ROOF SYSTEM.

THE ERECTOR OF THE ROOF SYSTEM SHALL EXERCISE GREAT CARE AND ATTENTION TO THE DETAILS AS SHOWN ON THESE DRAWINGS TO INSURE A SECURE AND PROPER FIT OF ALL COMPONENTS. MBS SHALL NOT BE RESPONSIBLE FOR SUPERVISING AND/OR COORDINATING THE ERECTION OF THE ROOF SYSTEM WITH OTHER TRADES.

DUE CONSIDERATION MUST BE GIVEN BY THE ERECTOR TO THE EFFECTS OF THERMAL EXPANSION AND CONTRACTION WHEN ERECTING A ROOF TIE-IN TO AN EXISTING STRUCTURE TO INSURE A SAFE, SECURE, WEATHER TIGHT CONDITION. FLASHING FOR TIE-INS TO EXISTING BUILDINGS IS TYPICALLY NOT INCLUDED AS PART OF THE MATERIAL PROVIDED BY MBS. REFER TO THE SECTIONS/DETAILS FOR SPECIFIC MATERIALS PROVIDED BY MBS.

THERMAL BLOCKS

PURPOSE
THERMAL BLOCKS ARE USED IN BOTH INSULATED AND UN-INSULATED CONDITIONS. THEY PROVIDE IMPROVED THERMAL PERFORMANCE WERE INSULATION HAS BEEN COMPRESSED AT THE SECONDARY MEMBERS UNDER THE PANEL. THEY ALSO PROVIDE SUPPORT TO THE PANEL AND REDUCE PANEL FLUTTERING AND RUMBLE IN UN-INSULATED CONDITIONS. UN-INSULATED CONDITIONS UTILIZE THERMAL BLOCKS OR FOAM SPACERS THAT HAVE ADHESIVE TO ADHERE TO THE SECONDARY MEMBER TO PREVENT THEM FROM FALLING OUT OF PLACE.

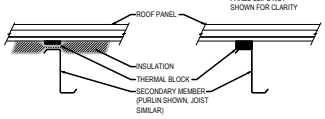
LOCATIONS
THERMAL BLOCKS OR FOAM SPACERS ARE TO BE USED OVER ANY SECONDARY MEMBER WITH THE EXCEPTION OF THE EAVE MEMBER WHERE THE EAVE PLATE IS LOCATED.

INSULATED ROOF

INSULATION	BLOCK			
R-	THICK	MK #	THICK	CLIP
R7	2"	N/A	N/A	SHORT
R10	3 3/8"	N/A	N/A	SHORT
R11	3 3/4"	N/A	N/A	SHORT
R13	4 3/8"	N/A	N/A	SHORT
R13	4 3/8"	H4400	1 3/16"	TALL
R16	5 1/4"	H4400	1 3/16"	TALL
R19	6 3/8"	H4400	1 3/16"	TALL
R25	8"	H4400	1 3/16"	TALL

UN-INSULATED ROOF

BLOCK		
MK #	THICK	CLIP
H3310	1/2"	SHORT
H3305	1 1/2"	TALL
FIELD CUT H3305 TO LENGTH FOR PROPER FITTING BETWEEN PANEL CLIPS		



ROOF SYSTEM COMPONENT WITH DETAILING

DEFINITION
COMPONENTS WITH DETAILING DEFINITION IS A CASE WHERE MBS IS PROVIDING THE ROOF SYSTEM TO BE USED IN CONJUNCTION WITH ANOTHER STRUCTURE. MBS REFERS TO THAT AS A "COMPONENTS WITH DETAILING." THIS SIMPLY MEANS THAT MBS SHALL CALCULATE THE QUANTITIES AND LENGTHS FOR THE MATERIAL REQUIRED. MBS IS PERFORMING NO ENGINEERING STUDY OF THE EXISTING STRUCTURE. THE ENGINEER OF RECORD ON THE PROJECT SHALL BE RESPONSIBLE FOR COORDINATING THE ROOF SYSTEM WITH THE OTHER TRADES OF THE PROJECT TO INSURE A SAFE, QUALITY AND PROPER APPLICATION OF THE ROOF SYSTEM.

DIAPHRAGM
THE ROOF IS DESIGNED TO ACCOMMODATE THERMAL EXPANSION AND CONTRACTION AND WILL NOT ACT AS A DIAPHRAGM FOR RESISTING LATERAL LOAD FORCES OR PROVIDING LATERAL STABILITY TO THE ROOF STRUCTURAL MEMBERS. DUE CONSIDERATION FOR THIS MUST BE ADDRESSED BY THE PROJECT ENGINEER OF RECORD. IN ADDITION, THE ROOF SYSTEM, BECAUSE IT IS DESIGNED TO FLOAT, WILL NOT SUPPORT STRUCTURAL MEMBERS LATERALLY. WHEN REPLACING AN EXISTING SCREW DOWN ROOF, ADDITIONAL BRACING MAY BE REQUIRED TO LATERALLY SUPPORT THE MEMBERS. ENGINEERING AND MATERIAL FOR THESE USES SHALL NOT BE PROVIDED BY MBS.

BUILDING & PANEL PREPARATION

STEP 1: PLUMB AND SQUARE
THE FIRST STEP IN THE SUCCESSFUL INSTALLATION OF WALL PANELS IS TO HAVE THE PRIMARY FRAMING PLUMB AND SQUARE. FOR BEST RESULTS, IT IS RECOMMENDED THAT A TRANSIT BE USED WHEN ERECTING THE STRUCTURAL STEEL. MAKE SURE THAT THE FOUNDATION AND BUILDING STRUCTURE IS SQUARE, LEVEL, AND CORRECT TO THE OUT-TO-OUT STEEL LINE DIMENSIONS.
SEE FIGURE "A"

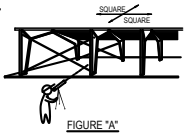


FIGURE "A"

FIELD CUTTING PANELS

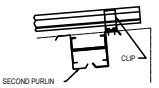
WHEN FIELD CUTTING OR MITERING WALL PANELS, NON-ABRASIVE CUTTING TOOLS SUCH AS NIBBLERS OR TIN-SNIPS SHALL BE USED. ABRASIVE CUTTING TOOLS SUCH AS MECHANICAL GRINDERS OR POWER SAWS CAN DAMAGE THE MATERIAL FINISH AND CREATE EXCESS METAL SHAVINGS THAT CAN CORRODE THE PANELS. THE USE OF NON-APPROVED CUTTING DEVICES MAY VOID THE FACTORY WARRANTY.

ANY METAL SHAVINGS THAT ARE CREATED NEED TO BE CLEANED FROM THE PANEL TO PREVENT SCRATCHING AND/OR CORROSION. THE MANUFACTURER WILL NOT ACCEPT CLAIMS FOR DAMAGE/DETERIORATION DUE TO USE OF UNAPPROVED TOOLS.

SPECIAL CONDITION AT A STRONG-BACK EAVE BEAM

IF THIS PROJECT HAS AN EAVE BEAM WITH (2) PURLINS, AS SHOWN, DO NOT ATTACH ROOF CLIPS TO THE "SECOND" PURLIN.

EAVE BEAM AT LOW EAVE



EAVE BEAM AT HIGH EAVE

FASTENER INSTALLATION

RECOMMENDED TOOL TYPES: SEE ALSO FASTENER SCHEDULE
4 AMP OR HIGHER RATED TOOLS (DO NOT USE IMPACTING TOOLS)
2000 - 2500 RPM SCREW GUN WITH TORQUE ADJUSTABLE CLUTCH
MANUAL OR ELECTRIC RIVET TOOL

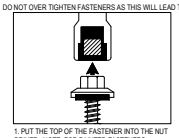
DO NOT USE IMPACTING TOOLS
TO ASSURE PROPER VOLTAGE TO THE TOOL, EXTENSION CORDS SHOULD BE CHECKED FOR PROPER WIRE SIZE/CHORD LENGTH.
16 GAGE WIRE, MAXIMUM CHORD LENGTH = 100'
14 GAGE WIRE, MAXIMUM CHORD LENGTH = 200'
12 GAGE WIRE, MAXIMUM CHORD LENGTH = 300'

DRIVING TIPS
SET THE NUT DRIVER AS DESCRIBED BELOW PRIOR TO INSTALLING FASTENERS TO PREVENT FASTENER WOBBLE...

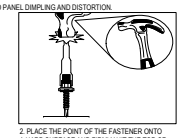
SOCKET EXTENSIONS (4" OR 6") ARE RECOMMENDED TO BE USED FOR INSTALLING PANEL CLIP FASTENERS TO MAINTAIN VERTICAL FASTENER INSTALLATION.

EXCESSIVE PRESSURE CAN CAUSE DRILL POINT FAILURE. LET THE FASTENER DO THE WORK.

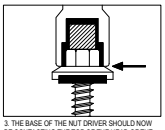
DO NOT OVER TIGHTEN FASTENERS AS THIS WILL LEAD TO PANEL DIMPLING AND DISTORTION.



1. PUT THE TOP OF THE FASTENER INTO THE NUT DRIVER. NOTE FOR PAINTED FASTENERS, PLACE A SINGLE OR DOUBLED LAYER OF PLASTIC BETWEEN THE FASTENER HEAD AND THE NUT DRIVER.



2. PLACE THE POINT OF THE FASTENER ONTO A HARD SURFACE AND FIRMLY HIT THE TOP OF THE NUT DRIVER 2-3 TIMES.



3. THE BASE OF THE NUT DRIVER SHOULD NOW BE CONTACTING THE TOP OF THE HEAD OF THE FASTENER WITH NO GAPS.

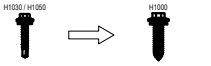
4. BAD SET VS. GOOD SET.

SEALING MATERIAL COMPRESSED UNDER CAP OF FASTENER.

SEALING MATERIAL VISIBLE UNDER CAP OF FASTENER.

SEALING MATERIAL COMPRESSED BUT DIMPLED THE PANEL / TRIM.

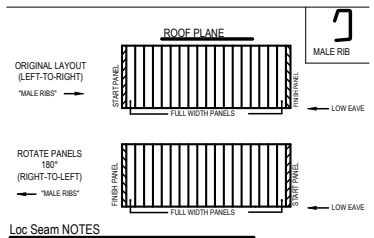
STRIP A FASTENER?
IF YOU STRIP H1030 OR H1050 REPLACE IT WITH H1000
IF YOU STRIP H1000 IN ENDLAP YOU MUST REBUILD THE ENDLAP



ROOF SHEETING DIRECTION

1.) THE ROOF SHEETING PLAN IS SHOWN WITH THE ROOF PANELS BEING ERECTED FROM "LEFT-TO-RIGHT". IF THE DESIRE IS TO ERECT THE ROOF PANELS FROM "LEFT-TO-RIGHT", FOLLOW THE ROOF SHEETING PLAN AS SHOWN. IF THE DESIRE IS TO ERECT THE ROOF PANELS FROM "RIGHT-TO-LEFT", FOLLOW THE INSTRUCTIONS SHOWN BELOW.

2.) WHEN SETTING BUNDLES OF PANELS ON THE ROOF, THE "MALE RIB" MUST ALWAYS BE AWAY FROM THE END OF THE BUILDING WHERE THE SHEETING WILL BEGIN.



Loc Seam NOTES
EAVE GUTTER DETAIL w/ WALL PANELS
SEE WALL SHEETING ERECTION NOTES FOR WALL PANEL FASTENER LOCATIONS

EA3010

Detailer Notes:

1) THIS DETAIL REQUIRED ON EVERY VERTICAL RIB ROOF PROJECT.

EA3011 - VERTICAL RIB PANEL INSTALLATION

Download the DWG file by clicking here.

BASIC INSTALLATION SEQUENCE

THE FOLLOWING STEPS OUTLINE THE BASIC INSTALLATION OF THE ROOF SYSTEM. REFERENCE THE SPECIFIC DETAILS WITHIN THIS ERECTION DRAWING SET FOR CONDITIONS SPECIFIC TO THIS PROJECT.

START PANEL PREPARATION
THE ROOF SYSTEM IS DESIGNED TO BE ELEVATED AND FLOAT ABOVE THE ROOF SUPPORT MEMBERS. BEGIN AT THE LOWER RAKE CORNER BY INSTALLING THE EAVE PLATE. (REFERENCE EAVE PLATE INSTALLATION BELOW)

AFTER EAVE PLATE HAS BEEN INSTALLED, STITCH THE FIRST ROLL OF ROOF INSULATION FROM RIDGE / HIGH EAVE TO LOW EAVE.

INSTALL THE RAKE CLIPS AND RAKE ANGLE TO SUPPORT / SECURE THE START PANEL. (REFERENCE RAKE ANGLE / RAKE CLIP PREPARATION TO THE RIGHT)

FIELD CUT AND INSTALL START PANEL
THE START PANEL IS SUPPLIED AS A FULL SHEET AND WILL NEED TO BE CUT. REFER TO THE ROOF SHEETING PLAN FOR START / FINISH DIMENSIONS AND RAKE DETAILS TO DETERMINE PROPER PANEL CUT. INSTALL THE START PANEL (LOW EAVE PANEL FIRST IF PANEL RUN IS LONG ENOUGH TO REQUIRE ENDLAPS) BY SECURING THE PANEL TO THE EAVE PLATE AND RAKE ANGLE. (REFERENCE LOW EAVE AND RAKE DETAILS). INSTALL PANEL CLIPS ON LEADING EDGE OF PANEL AS SHOWN IN THE PANEL CLIP DETAIL. CONTINUE TO INSTALL UPSLOPE START PANEL IF ENDLAPS ARE REQUIRED. REFERENCE THE BACKUP PLATE DETAIL AND ENDLAP DETAIL FOR ATTACHMENT OF START PANEL(S) AT RAKE ANGLE.

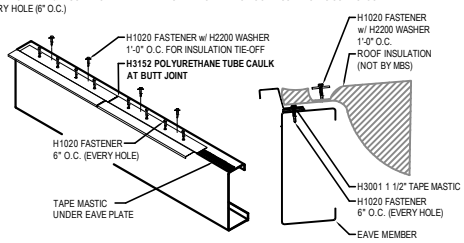
INTERMEDIATE PANEL & MODULARITY
THE INTERMEDIATE PANELS (FULL PANELS) SHOULD BE INSTALLED BY ROLLING THE PANEL INTO PLACE ENSURING THE SEAM IS FULLY ENGAGED. SECURE THE PANELS WITH PANEL CLIPS AND THE LOW EAVE ACROSS THE ROOF. IT IS RECOMMENDED TO INSTALL THE OUTSIDE CLOSURE AT THE HIGH EAVE / RIDGE AS THE ROOF PROGRESSES. THIS WILL HELP MAINTAIN MODULARITY. (REFERENCE HIGH EAVE / RIDGE DETAILS)

FINISH PANEL
THE FINISH PANEL IS SIMILAR TO THE START PANEL INSTALLATION. THE RAKE ANGLE CLIPS AND RAKE ANGLE NEEDS TO BE INSTALLED ON TOP OF THE INSULATION PRIOR TO INSTALLING THE FINISH PANEL. THE FINISH PANEL SHOULD BE FIELD CUT AND ROLLED INTO PLACE AND SECURED TO THE RAKE ANGLE SIMILAR TO THE START PANEL.

TRIM INSTALLATION
TRIM INSTALLATION CAN BE DONE AFTER THE ROOF PANELS ALL HAVE BEEN INSTALLED OR CAN BE INSTALLED AS ENOUGH PANELS HAVE BEEN INSTALLED FOR ATTACHMENT OF TRIMS. (REFERENCE TRIM DETAILS)

EAVE PLATE INSTALLATION

PLACE TAPE MASTIC ON TOP OF EAVE MEMBER PRIOR TO INSTALLING EAVE PLATE. INSTALL EAVE PLATE BY FASTENING EVERY HOLE TO EAVE MEMBER (6" O.C.) PRIOR TO INSULATION BEING INSTALLED. SECURE INSULATION WITH FASTENER & INSULATION RETAINER WASHER. NOTE: IF NO ROOF INSULATION IS USED SECURE EAVE PLATE IN EVERY HOLE (6" O.C.)

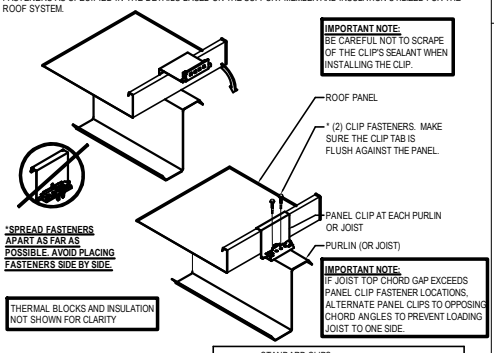


NOTE: H1020/H1070 (PURLIN/JOIST) FASTENER w/ H2200 WASHER
1'-0" O.C. FOR INSULATION TIE-OFF PROVIDED AT HIGH SIDE / RIDGE

SHORT EAVE PLATE		TALL EAVE PLATE	
EPS108	BASIC EAVE / GUTTER	EPT108	BASIC EAVE / GUTTER

PANEL CLIP INSTALLATION

BEFORE INSTALLING THE PANEL CLIP, FEEL FOR THE SUPPORT MEMBER BELOW THE INSULATION. ALIGN CLIP CENTERED OVER THE SUPPORT MEMBER AND ROLL CLIP OVER THE MALE HOOK OF THE PANEL. FASTEN CLIP WITH FASTENERS AS SPECIFIED IN THE DETAILS BASED ON THE SUPPORT MEMBER AND INSULATION UTILIZED FOR THE ROOF SYSTEM.



STANDARD CLIPS	
PART #	PART DESCRIPTION
H4550	UTILITY FIXED CLIP
LSBC-1	SHORT BEARING CLIP (USED WITH RIGID BOARD)
LSEC-1	SHORT SLIDING CLIP
LSEC-2T	TALL SLIDING CLIP

CLIP FASTENER SELECTION

PURLIN APPLICATION
H1020 FOR INSULATION ≤ R-19 (6 3/8")
H1025 FOR INSULATION = R-25 (8")
H1220 FOR UTILITY CLIP

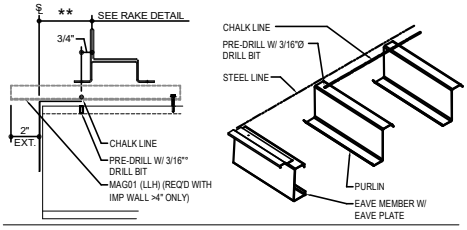
JOIST APPLICATION
H1070 FOR INSULATION ≤ R-19 (6 3/8")
H1075 FOR INSULATION = R-25 (8")

RAKE ANGLE / RAKE CLIP PREPARATION

PRIOR TO INSTALLING THE ROOF INSULATION THE SECONDARY MEMBER WILL NEED TO BE PRE-DRILLED FOR THE RAKE CLIPS. PRE-DRILLING WILL MAKE INSTALLATION OF THE RAKE AND CLIPS MUCH EASIER AFTER INSULATION IS IN PLACE. DO NOT INSTALL RAKE CLIPS UNTIL INSULATION (IF REQUIRED) IS INSTALLED. **RAKE CLIP IS INSTALLED ON TOP OF THE INSULATION.**

SNAP A CHALK LINE AS SHOWN BELOW FROM HIGH EAVE / RIDGE TO LOW EAVE. DRILL 3/16" Ø HOLE CENTERED ON SECONDARY MEMBER. THIS IS HELPS TO ALIGN THE START PANEL.

NOTE: IMP WALL PANEL >4" THICK REQUIRE ANGLES ON TOP OF SECONDARY MEMBER EXTENDED BEYOND STEEL LINE TO ALLOW FOR RAKE CLIP ATTACHMENT. ATTACH WITH (1) H1020 / H1070 TO PURLIN / JOIST PRIOR TO RAKE CLIP INSTALLATION.

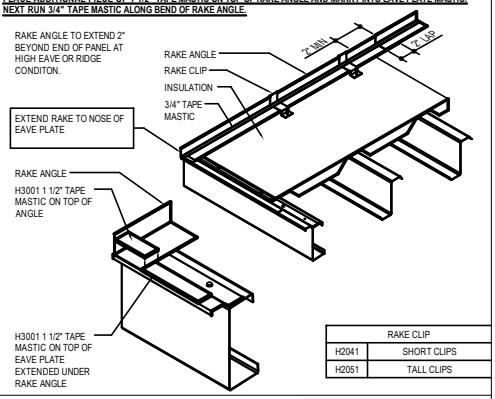


RAKE ANGLE / RAKE CLIP INSTALLATION

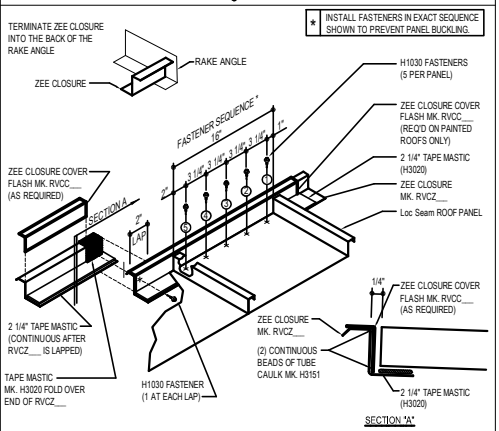
AFTER INSULATION IS IN PLACE AND PRIOR TO INSTALLING THE RAKE CLIPS AND RAKE ANGLE APPLY 1 1/2" TAPE MASTIC ON TOP OF THE EAVE PLATE BUT ONLY REMOVE PAPER BACKING WHERE THE RAKE ANGLE WILL REST. THIS WILL SEAL BETWEEN THE EAVE PLATE AND THE RAKE ANGLE.

SLIDE RAKE CLIPS ONTO RAKE ANGLE PRIOR TO SECURING THE RAKE CLIPS TO THE SECONDARY MEMBERS. PLACE THE RAKE CLIPS AND ANGLE OVER THE INSULATION USING A SMALL DRIFT PIN TO LOCATE THE PRE-DRILLED HOLE. INSTALL FASTENER THROUGH OPPOSITE CLIP HOLE INTO SECONDARY MEMBER. REMOVE DRIFT PIN AND INSTALL SECOND FASTENER TO SECURE CLIP. NOTE: (2) SCREWS ARE REQUIRED IN EVERY CLIP. DO NOT CUT INSULATION OUT FROM AROUND THE CLIP.

PLACE ADDITIONAL PIECE OF 1 1/2" TAPE MASTIC ON TOP OF RAKE ANGLE AND MARRY INTO EAVE PLATE MASTIC. NEXT RUN 3/4" TAPE MASTIC ALONG BEND OF RAKE ANGLE.



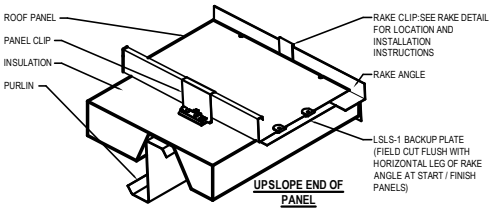
RAKE CLIP	
H2041	SHORT CLIPS
H2051	TALL CLIPS

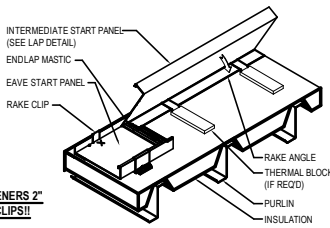


RIDGE/HIGHSIDE ZEE CLOSURE DETAIL

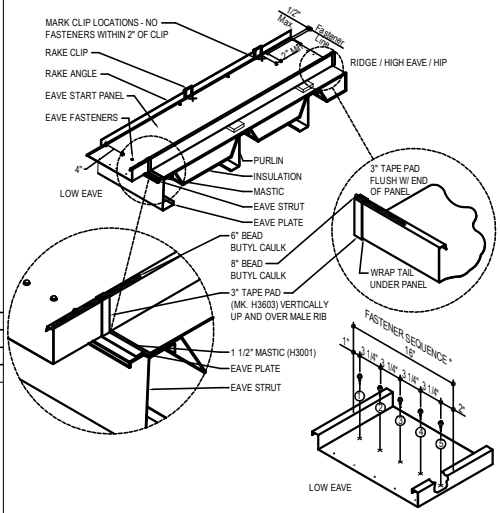
BACKUP PLATE INSTALLATION

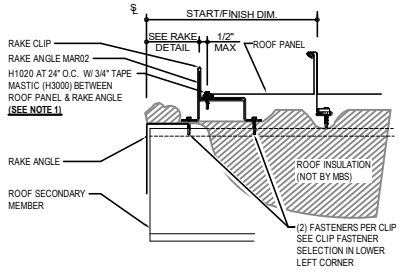
THE BACKUP PLATE PROVIDES SUPPORT AT THE ENDLAP OF THE PANEL TO ALLOW FOR COMPRESSION OF SEALANTS. THE BACK UP PLATE HAS NOTCHES THAT SLIDE ONTO THE PANEL TO LOCATE AND HOLD THE BACKUP PLATE IN PLACE. AT THE RAKE CONDITION, THE BACKUP PLATE IS TO BE FIELD CUT FLUSH WITH THE HORIZONTAL LEG OF THE RAKE ANGLE. DO NOT EXTEND BACKUP PLATE ON TOP OF RAKE ANGLE.





NOTE 1: KEEP FASTENERS 2" AWAY FROM RAKE CLIPS!!





LOC SEAM BASIC INSTALLATION DETAIL

BASIC PANEL INSTALLATION INSTRUCTIONS
SEE ROOFLINE TRIM DETAILS FOR FURTHER INFORMATION

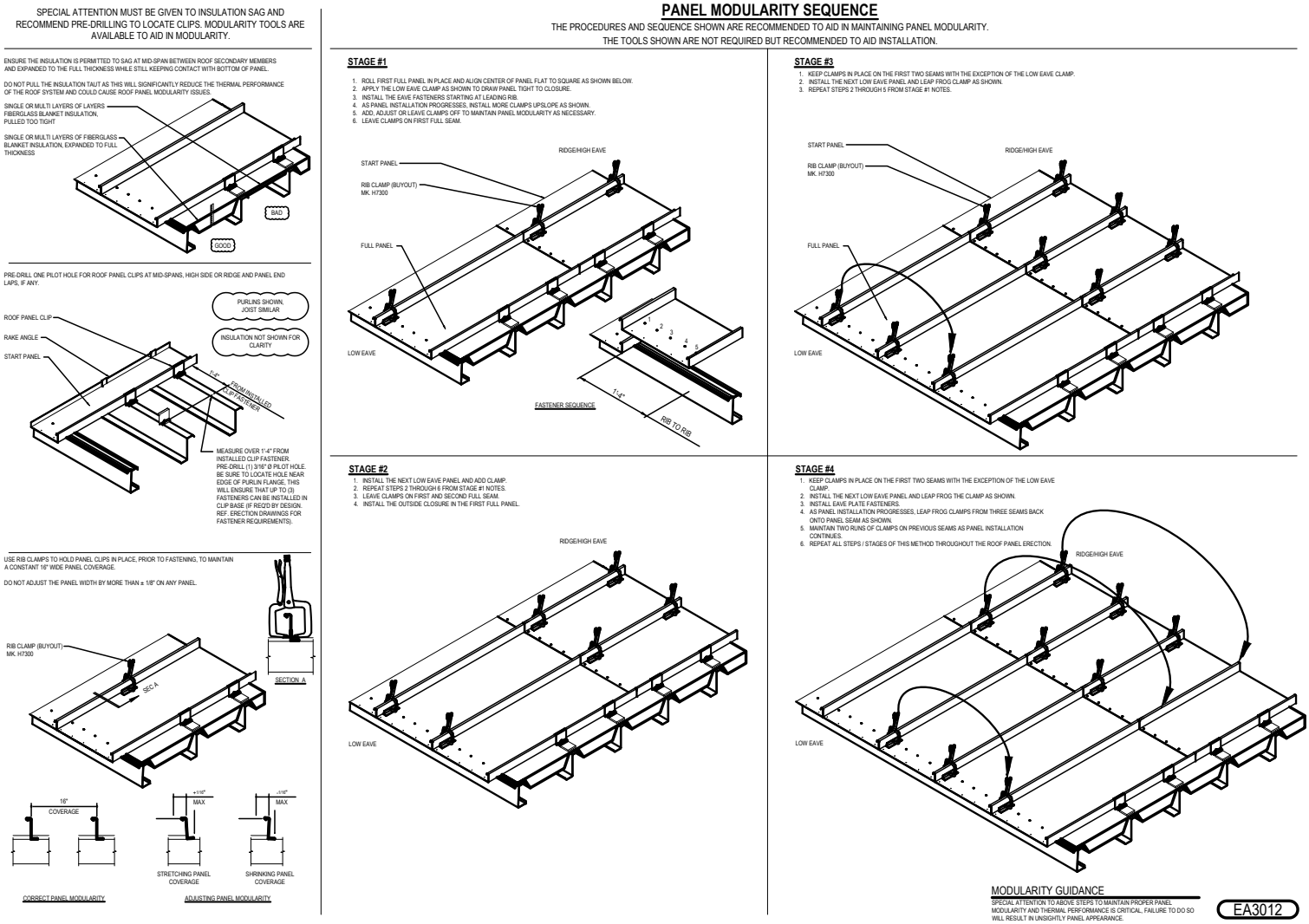
EA3011

Detailer Notes:

1) THIS DETAIL REQUIRED ON EVERY VERTICAL RIB ROOF PROJECT.

EA3012 - VERTICAL RIB MODULARITY GUIDANCE

Download the DWG file by clicking here.



Detailer Notes:

1) THIS DETAIL REQUIRED ON EVERY VERTICAL RIB ROOF PROJECT.

EA3015 - VERTICAL RIB ROOF CRIMPING NOTES

Download the DWG file by clicking here.

IMPORTANT NOTE:

THE INSTRUCTIONS ON THIS PAGE ONLY ADDRESS THE USE OF THE HAND CRIMPING TOOLS. INSTRUCTIONS FOR MECHANICAL SEAMING, IF REQUIRED, ARE OUTLINED IN THE SEAMING MANUAL. WHICH IS INCLUDED WITH THE MECHANICAL SEAMER KIT PROVIDED BY THE SEAMER RENTAL COMPANY.

SPECIALIZED SEAMING AND HAND CRIMPING TOOLS
THE FINISHED SEAM OF THE ROOF PANELS REQUIRES SPECIAL SEAMING TOOLS THAT ARE AVAILABLE ONLY THROUGH THE MBS. CAUTION: THE USE OF OTHER SEAMING / CRIMPING EQUIPMENT WILL RESULT IN FAULTY AND / OR DAMAGED SEAMS AND SHALL INVALIDATE ANY OF THE ROOF SYSTEM'S MATERIAL AND WEATHER TIGHTNESS WARRANTIES.

SEAMING TOOL SOURCE
THE SEAMING TOOLS ARE PROVIDED BY MBS IN ACCORDANCE WITH THE TERMS AND CONDITIONS OF THE ORDER DOCUMENTS. CONTACT YOUR SERVICE REPRESENTATIVE TO PURCHASE NECESSARY CRIMPING TOOLS. CONTACT THE SEAMER RENTAL COMPANY FOR RENTAL INFORMATION OF THE MECHANICAL SEAMER IF REQUIRED.

CRIMPING & SEAMING REQUIREMENTS

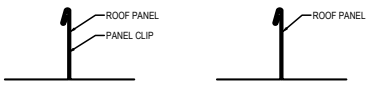
THE DESIGN OF THIS STRUCTURE REQUIRES SEAMING TO MEET DESIGN AND CODE REQUIREMENTS. SEE THE SEAMING PLAN FOR ROOF PLANE SPECIFIC SEAMING REQUIREMENTS.
THERE ARE THE TWO SEAM TYPES POSSIBLE WITH THE NBG Loc Seam AS NOTED BELOW. ALL OF THESE SEAM TYPES CAN BE ACHIEVED WITH THE AVAILABLE CRIMPERS. IT IS RECOMMENDED TO RENT A MECHANICAL SEAMER TO AID IN THE SEAMING PROCESS.

1. **NBG Loc Seam 90**
   THE Loc Seam 90 SEAM REQUIRES HAND CRIMPING THE ROOF PANEL WITH THE MANUAL SEAMING TOOL AT THE STARTING EAVE OR RIDGE END OF THE PANELS, AND AT THE END LAPS. ONCE THE HAND CRIMPING HAS BEEN COMPLETED, THEN SEAM THE FULL LENGTH OF THE ROOF PANELS WITH THE MOTORIZED SEAMING MACHINE.
2. **NBG Loc Seam 360**
   THE Loc Seam 360 SEAM IS ACHIEVED BY RUNNING THE SINGLE DIRECTIONAL SEAMER OVER THE ENTIRE ROOF. THE ERECTOR MUST FIRST HAND CRIMP ENTIRE ROOF PANEL IN THE Loc Seam 90 SEAM WITH THE MANUAL SEAMING TOOL. BEFORE THE SEAMER IS LOCKED ON, THE LOW END OF THE PANEL MUST BE HAND CRIMPED INTO A NBG Loc Seam 360 SEAM, UTILIZING THE HAND CRIMPER THAT IS SUPPLIED IN THE SEAMER KIT. THIS WILL ENABLE YOU TO LOCK THE SEAMER ONTO THE PANEL SEAM. THEN SEAM THE FULL LENGTH OF THE ROOF PANEL.

NBG Loc Seam 90 SEAM

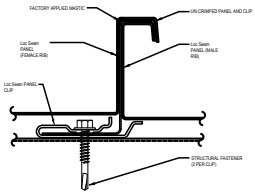
AT PANEL CLIPS — BETWEEN CLIPS

NBG Loc Seam 360 SEAM



AT PANEL CLIPS — BETWEEN CLIPS

CHECK PANEL ASSEMBLY



SIDE LAP FIT-UP
BEFORE SEAMING, INSPECT THE FULL LENGTH OF EACH ROOF PANEL SIDE LAP. CHECK THAT THE TWO PANELS ARE PROPERLY HAND CRIMPED AT ALL CLIP LOCATIONS, LOW EAVE, HIGH EAVE AND END LAPS. ANY CONDITIONS WHERE THE PANEL **IS NOT** CRIMPED PROPERLY **MUST** BE CORRECTED BEFORE ATTEMPTING TO SEAM THE ROOF PANELS. **UN-SEAMED ROOF PANELS CANNOT PROVIDE THEIR DESIGNED WIND LOAD AND WEATHER RESISTANCE.**

CLIP ALIGNMENT
BEFORE CRIMPING AND / OR SEAMING, INSPECT THAT EACH ROOF PANEL CLIP IS PROPERLY ENGAGED IN THE SIDE LAP ASSEMBLY. ANY DISPLACED CLIPS MUST BE CORRECTED BEFORE ATTEMPTING TO CRIMP / SEAM THE ROOF PANELS. PANEL CLIPS THAT ARE NOT PROPERLY ENGAGED AND ALIGNED CAN CAUSE FAULTY CRIMP / SEAM AND OBJECTIONABLE SEAM APPEARANCE. **THE MBS NOR THE SEAMER RENTAL COMPANY CAN BE HELD RESPONSIBLE FOR ANY CONCERNS RELATED TO IMPROPERLY ALIGNED CLIPS.**

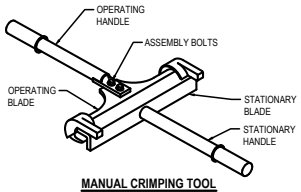
SEAM DAMAGE
BEFORE CRIMPING AND / OR SEAMING, INSPECT THAT EACH ROOF PANEL MALE AND FEMALE ARE FREE FROM DISTORTION AND KINKS WHICH CAN LEAD TO DIFFICULTY AND / OR DAMAGE TO THE PANEL WHILE ATTEMPTING TO CRIMP / SEAM THE PANEL. ANY DISTORTIONS / KINKS MUST BE CORRECTED BEFORE ATTEMPTING TO CRIMP / SEAM THE PANELS. **THE MBS NOR THE SEAMER RENTAL COMPANY CAN BE HELD RESPONSIBLE FOR ANY CONCERNS RELATED TO DAMAGE CAUSED IN THE FIELD.**

MANUAL CRIMPING TOOL OPERATION FOR Loc Seam 90 SEAM

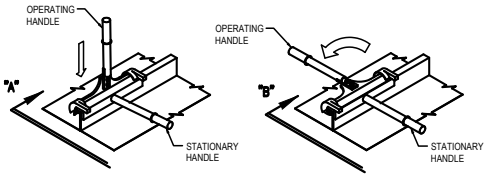
ASSEMBLE THE SEAMING TOOL
WHEN RECEIVED, THE MANUAL CRIMPING TOOL MAY BE DISASSEMBLED. ASSEMBLE THE HANDLE TO THE TOOL BODY WITH THE PROVIDED BOLTS.

TOOL ORIENTATION TO SEAM
ORIENT THE TOOL TO FIT CORRECTLY ON THE ROOF PANEL SEAM (SEE SECTION A BELOW). THE STATIONARY HANDLE MUST BE IN THE HORIZONTAL POSITION AND THE OPERATING HANDLE MUST BE ROTATED UP TO THE OPEN OR VERTICAL POSITION

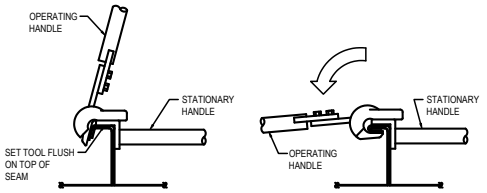
FORMING THE SEAM
WHEN THE TOOL IS CORRECTLY POSITIONED ON THE PANEL, PUSH THE STATIONARY BLADE SOLIDLY AGAINST THE TOP OF THE SEAM. WHILE HOLDING THE STATIONARY HANDLE IN THE HORIZONTAL POSITION, ROTATE THE OPERATING HANDLE DOWN TO THE HORIZONTAL POSITION. THIS WILL FORM THE SEAM (SEE SECTION B BELOW).



MANUAL CRIMPING TOOL



STEP 1 — STEP 2

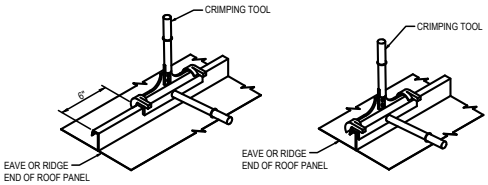


SECTION "A" — SECTION "B"

MANUAL CRIMPING TOOL OPERATION FOR Loc Seam 90 SEAM CONT.

TOOL POSITION ON THE ROOF
WHEN HAND SEAMING AT THE LOW EAVE, RIDGE END, END LAP AND **ALL** ROOF CLIP LOCATIONS. THE SEAMING MUST BE DONE IN TWO STEPS.
STEP 1: POSITION THE CRIMPING TOOL AS SHOWN BELOW IN THE VARIOUS AREAS OF THE ROOF. ROTATE THE MOVEABLE HANDLE DOWN TO FORM A Loc Seam 90 SEAM. RELEASE HANDLE.
STEP 2: RE-POSITION THE CRIMPING TOOL AS SHOWN BELOW AND REPEAT STEP 1.

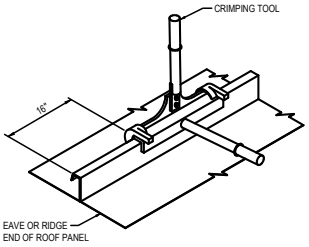
CHECKING THE FINISHED SEAM
ROTATE THE OPERATING HANDLE TO THE OPEN POSITION, REMOVE THE TOOL AND CHECK THAT THE SEAM IS CORRECTLY FORMED, AS SHOWN BELOW.



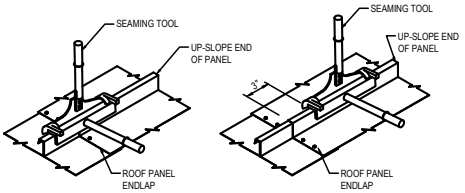
STEP 1 — STEP 2

MANUAL CRIMPING AT THE EAVE

ERECTOR NOTES:
THE ROOF SEAM PROFILE IS COMPLETE ONLY AFTER THE ENTIRE ROOF HAS BEEN MECHANICALLY SEAMED. IF BUILDING HAS LOC SEAM 360 SEAM, DO NOT SEAM / CRIMP THE PANEL INTO A LOC SEAM 360 SEAM 16" UP FROM THE LOW EAVE, OTHERWISE THE GUTTER BRACKET WILL NOT FIT UP PROPERLY.

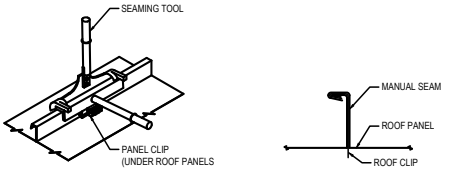


MANUAL CRIMPING AT THE EAVE



STEP 1 — STEP 2

MANUAL CRIMPING AT THE ENDLAP



MANUAL CRIMPING AT ALL CLIPS — FINISHED MANUAL HAND CRIMP

LOC SEAM HAND CRIMPING NOTES
HAND CRIMING TOOLS AND PROCEDURES

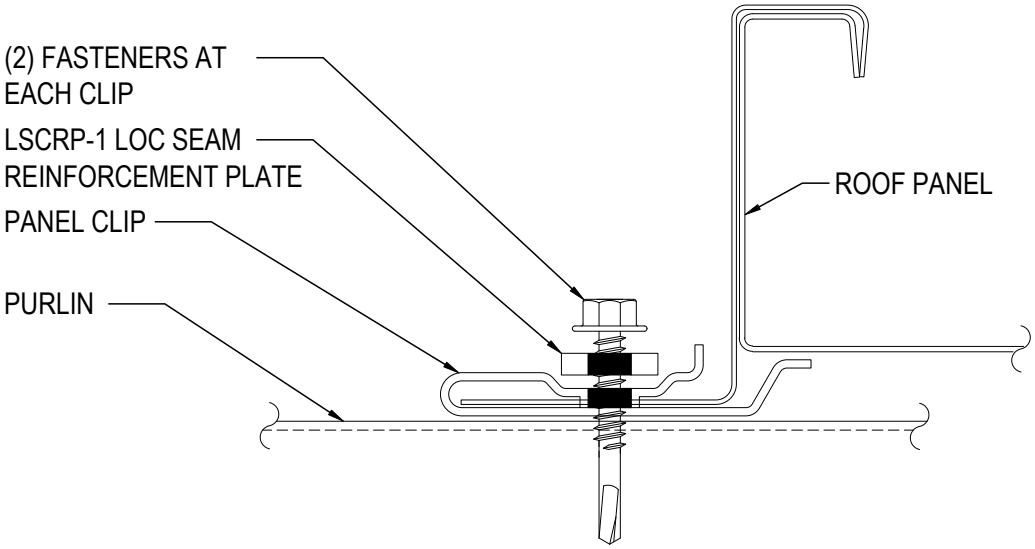
EA3015

Detailer Notes:

1) THIS DETAIL REQUIRED ON EVERY **VERTICAL RIB** ROOF PROJECT.

EA3018 - LOC SEAM REINFORCEMENT PLATE

Download the DWG file by clicking here.



CLIP FASTENER SELECTION

PURLIN APPLICATION

H1020 FOR INSULATION ≤R-19 (6 3/8")
H1025 FOR INSULATION >R-19 (6 3/8") AND ≤R-25 (8")

JOIST APPLICATION

H1070 FOR INSULATION ≤R-19 (6 3/8")
H1075 FOR INSULATION >R-19 (6 3/8") AND ≤R-25 (8")

IMPORTANT NOTE:
IF JOIST TOP CHORD GAP EXCEEDS PANEL CLIP FASTENER LOCATIONS, ALTERNATE PANEL CLIPS TO OPPOSING CHORD ANGLES TO PREVENT LOADING JOIST TO ONE SIDE.

THERMAL BLOCKS AND INSULATION NOT SHOWN FOR CLARITY

REINFORCED CLIPS	
PART #	PART DESCRIPTION
LSEC-1	SHORT CLIP
LSEC-2T	TALL CLIP

LOC SEAM REINFORCEMENT PLATE

FACTORY MUTUAL APPROVED
FM CLASS 1-120 @ 5'-0" PURLIN SPACING
FM CLASS 1-180 @ 2'-6" PURLIN SPACING

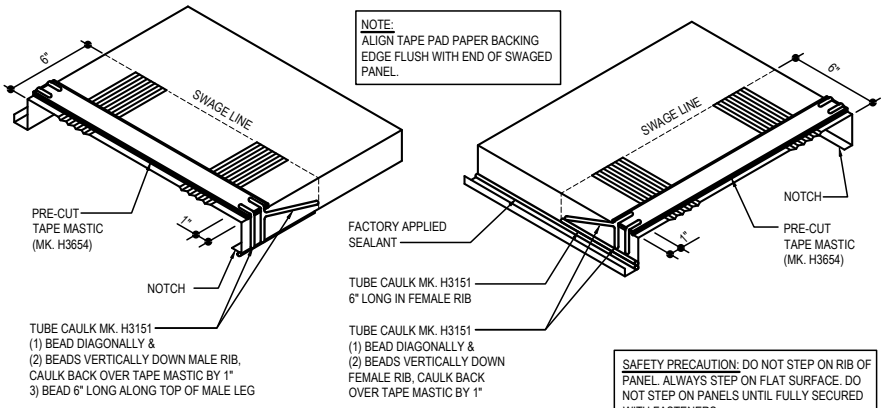
EA3018

Detailer Notes:

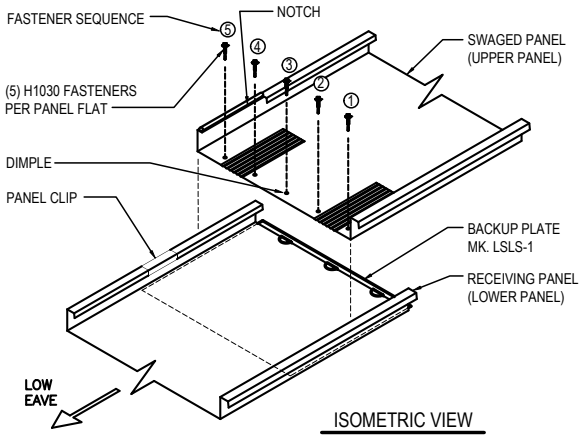
1) THIS DETAIL REQUIRED ON FM 1-120 & 1-180 RATED PROJECTS. REFERENCE THE PRAC MANUAL.

EA3021 - VERTICAL RIB PANEL ENDLAP

Download the DWG file by clicking here.



SWAGED PANEL UNDERSIDE VIEW



ISOMETRIC VIEW

NOTE: ALL AREAS ON ALUMINUM COATED PANELS THAT REQUIRE MASTIC SHOULD BE WIPED CLEAN WITH A MILD ALL PURPOSE DETERGENT CLEANER BEFORE MASTIC APPLICATION.

1) WHEN ENDLAPS ARE REQUIRED THE LOWER 6 INCHES OF THE UPPER PANEL ARE SWAGED, WHICH ALLOWS FOR A BETTER LAP ON TO THE LOWER RECEIVING PANEL. THIS LAP WILL OCCUR APPROXIMATELY 12 INCHES UPSLOPE FROM A PURLIN OR JOIST RUN.

2) PRIOR TO SETTING THE SWAGED PANEL, INSTALL THE BACKUP PLATE ONTO THE LOWER RECEIVING PANEL AS SHOWN.

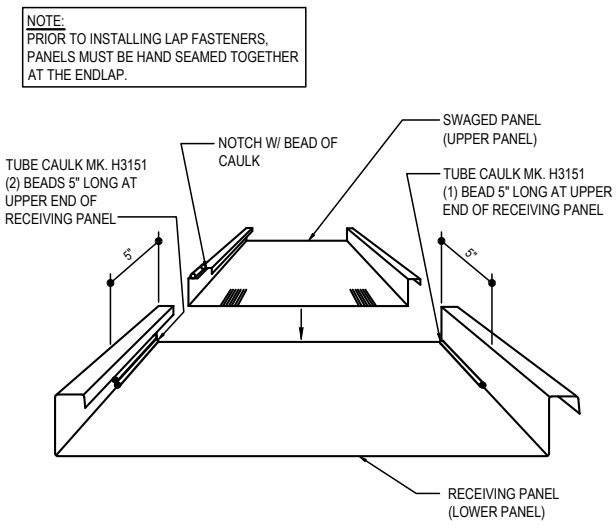
3) NEXT INSTALL A PIECE OF PRE-CUT TAPE MASTIC ACROSS THE WIDTH OF THE UNDERSIDE OF THE SWAGED PANEL BEGINNING AND ENDING AT THE VERTICAL SEAMS (LEGS). ALSO APPLY TUBE CAULK ON THE MALE AND FEMALE RIBS OF THE SWAGED PANEL AS SHOWN IN DETAIL ABOVE.

4) NEXT APPLY TUBE CAULK ALONG BOTH PANEL RIBS OF THE LOWER RECEIVING PANEL AS SHOWN IN THE ENDLAP CAULKING DETAIL.

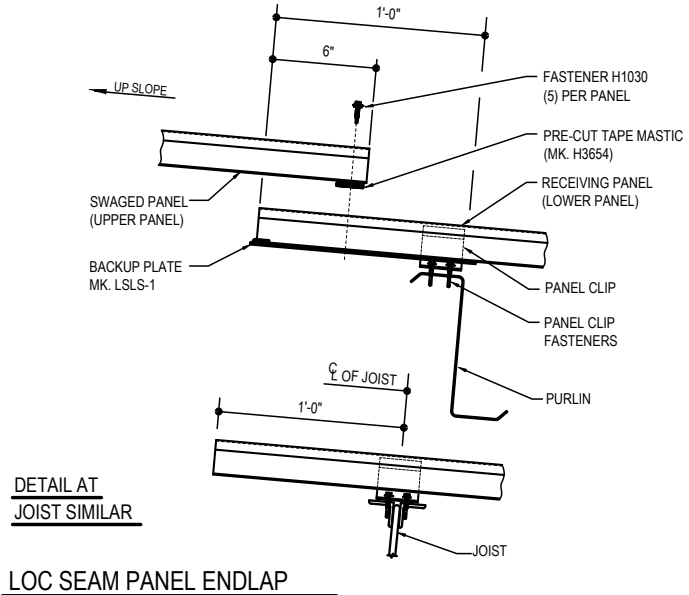
5) INSTALL THE UPPER SWAGED PANEL. BOW PANEL IN THE MIDDLE DURING INSTALLATION TO AVOID SWIPING CAULK FROM THE VERTICAL LEGS OF THE PANEL AT THE ENDLAP.

6) NEXT SECURE THE LAP WITH (5) H1030, ROOF FASTENERS IN THE PRE-DIMPLED LOCATIONS.

7) HAND SEAM PANEL RIBS TOGETHER AT ENDLAP PRIOR TO MECHANICALLY SEAMING.



ENDLAP CAULKING DETAIL



LOC SEAM PANEL ENDLAP

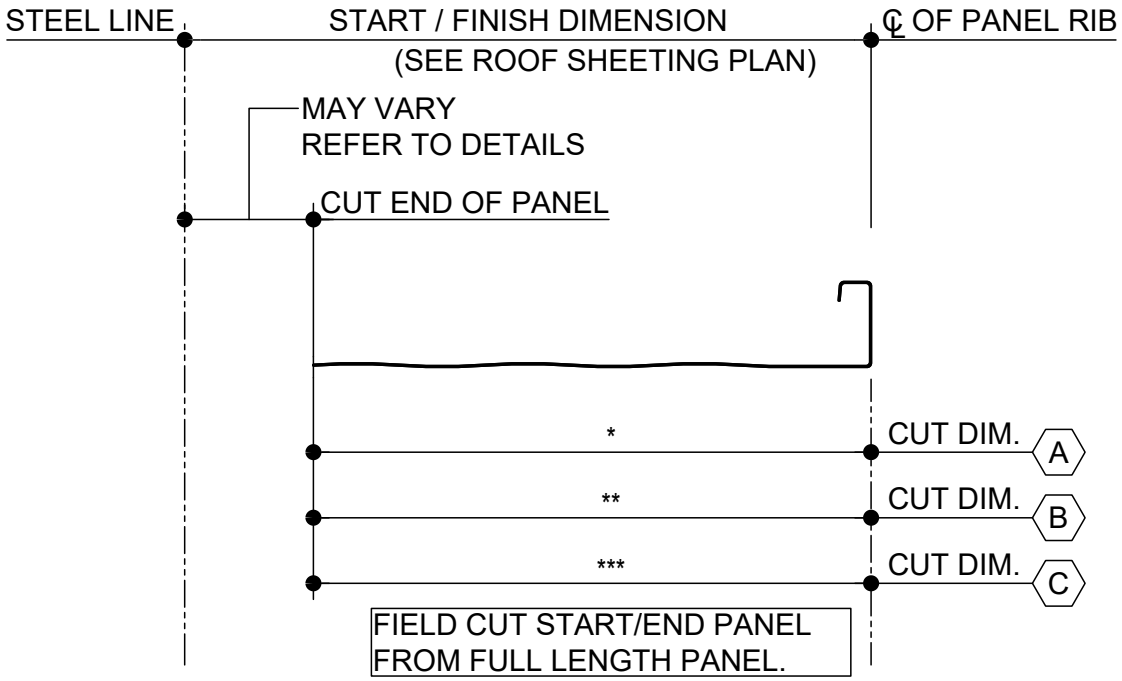
EA3021

Detailer Notes:

1) N/A

EA3035 - START / FINISH PANEL WIDTH DETAIL

Download the DWG file by clicking here.



START / END CUT PANEL DIMENSION DETAIL

- WHEN FIELD CUTTING OR MITERING ROOF PANELS, NON-ABRASIVE CUTTING TOOLS SUCH AS NIBBLERS OR TIN-SNIPS SHALL BE USED.
- ABRASIVE CUTTING TOOLS SUCH AS MECHANICAL GRINDERS, SAWS, SHEARS OR SCISSORS CAN DAMAGE THE PANEL FINISH AND CREATE EXCESS METAL SHAVINGS THAT CAN CORRODE THE PANELS.
- THE USE OF NON-APPROVED CUTTING DEVICES MAY VOID YOUR FACTORY WARRANTY.

EA6035

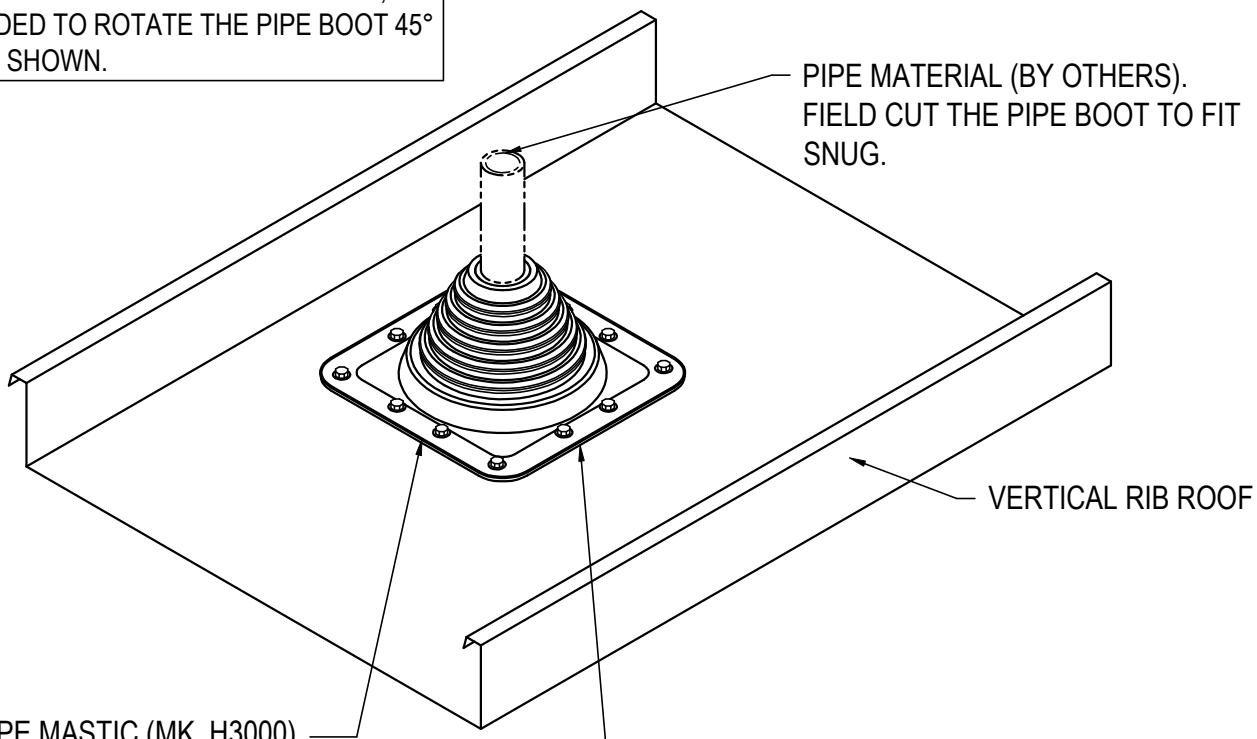
Detailer Notes:

1) THIS DETAIL IS REQUIRED ON EVERY VERTICAL RIB ROOF PROJECT.

EA3200 - PIPE BOOT

Download the DWG file by clicking here.

IF PIPE BOOT FITS BETWEEN THE MAJOR RIBS, IT IS RECOMMENDED TO ROTATE THE PIPE BOOT 45° FROM WHAT IS SHOWN.



PIPE BOOT DETAIL

PIPE BOOT PART NUMBERS
(#3) H3500 1/4"-5" DIAMETER (#5) H3510 4 1/4"-7 1/2" DIAMETER (#8) H3520 7"-13" DIAMETER

EA3200

Detailer Notes:

1) N/A