EXPANSION JOINT

FJ2400-TRANSVERS EXPANSION - STRUCTURAL
FJ2405-TRANSVERS EXPANSION - STRUCTURAL AT EXISTING
FJ2500-ROOF STEP (EXPANSION)
FJ2751-ROOF STEP TERMINATION - TRAP

FJ2400 - TRANSVERSE EXPANSION DETAIL - STRUCTURAL

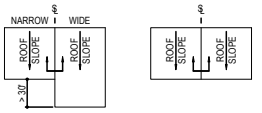
Download the DWG file by clicking here.

1. THE EXPANSION JOINT CONDITION REQUIRES THE BRIDGE CAVITY TO TERMINATE UNDER THE EXPANSION JOINT OF THE ROOF PANEL SYSTEM. PLACE MAR02 ANGLES ON TOP OF THE PURLINS TO PROVIDE A CONTINUOUS SURFACE FOR THE IRC TO ATTACH TO.

ATTACH THE IRC TO THE MAR02 ANGLES WITH (2) H1070 FASTENERS AT THE PURLIN LOCATIONS. TIE OFF INSULATION INSIDE IRC WITH (1) H1020 & H2200 FASTENER & INSULATION RETAINER WASHER AT 2'-0" BETWEEN PURLINS.

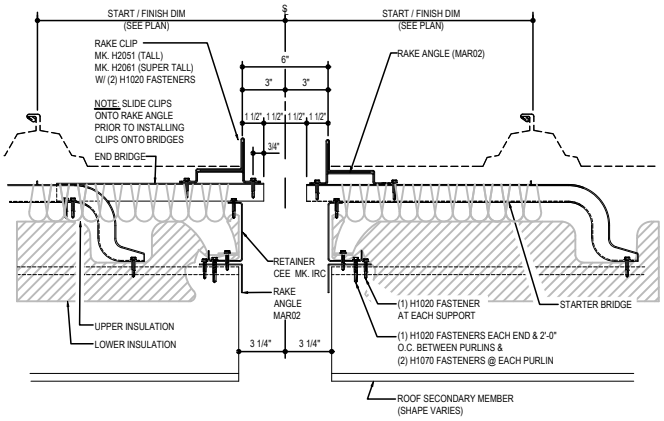
THE BRIDGE WILL NEED TO BE FIELD CUT TO LENGTH TO EXTEND 1 1/2" BEYOND THE IRC AS SHOWN FOR THE RAKE CLIP ATTACHMENT. THESE BRIDGES WILL NEED TO BE FIELD CUT AND LENGTH MAY VARY BASED ON MODULARITY OF THE ROOF PANEL.

SLIDE THE RAKE ANGLE CLIPS ONTO THE MAR02 RAKE ANGLE PRIOR TO ATTACHING THE RAKE ANGLE CLIPS TO THE BRIDGE. THEN FASTEN THE RAKE ANGLE CLIPS TO THE TOP LEG OF THE BRIDGE. IT IS RECOMMENDED TO RUN A STRING LINE TO LOCATE AND PREDRILL ONE HOLE ALONG THE BRIDGE FOR EASE OF ATTACHMENT AND ALIGNMENT.



BUILDING OFFSET >30' WITH OR WITHOUT SECONDARY MEMBERS TIED TOGETHER

NO BUILDING OFFSET SECONDARY MEMBERS NOT TIED TOGETHER (STRUCTURAL EXPANSION)

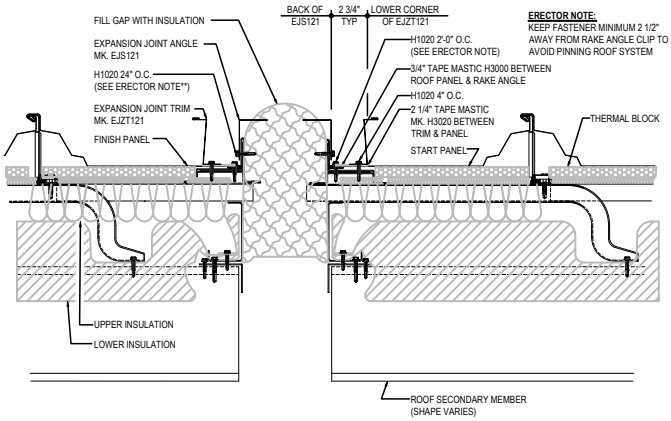


2. AFTER THE RAKE ANGLE CLIPS AND RAKE ANGLE HAVE BEEN INSTALLED THE FINISH AND START PANELS CAN BE INSTALLED. PLACE TAPE MASTIC BETWEEN PANEL AND RAKE ANGLE AND FASTEN PANEL TO RAKE ANGLE. THIS PROVIDES A TEMPORARY SEAL FOR THE PANEL UNTIL THE TRIM IS INSTALLED. FASTENERS MUST BE A MINIMUM OF 2 1/2" AWAY FROM RAKE CLIP TO AVOID PINNING THE ROOF SYSTEM.

NEXT INSTALL THE EXPANSION JOINT SUPPORT TRIMS. INSTALL THE EJK01 TO THE VERTICAL LEG OF THE RAKE ANGLE. FASTENERS MUST BE A MINIMUM OF 2 1/2" AWAY FROM RAKE CLIP TO AVOID PINNING THE ROOF SYSTEM.

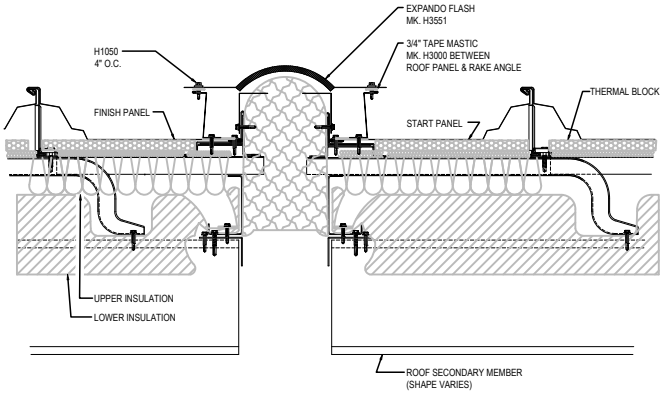
PLACE MASTIC BETWEEN THE EJF01 TRIM AND THE PANEL AND FASTEN THROUGH PANEL INTO RAKE ANGLE. FASTENERS MUST BE A MINIMUM OF 2 1/2" AWAY FROM RAKE CLIP TO AVOID PINNING THE ROOF SYSTEM. THESE TRIMS SUPPORT THE EXPANSION TRIMS THAT ARE SHOWN IN THE NEXT STEP.

FILL THE CAVITY BETWEEN WITH LOOSE FILL INSULATION TO PILLOW AS SHOWN. THIS WILL HELP SUPPORT THE RUBBER MEMBRANE THAT WILL BE INSTALLED IN THE NEXT STEP.



3. PLACE 3/4" TAPE MASTIC ON THE EJZT121 TRIM AS SHOWN.

NEXT INSTALL THE EXPANDO FLASH (MK. H3551) AND FASTEN WITH H1050 FASTENERS 4" O.C. ENSURE FASTENER PENETRATES THE MASTIC



R-Boost™ TRANSVERSE EXPANSION DETAIL
STRUCTURAL TRANSVERSE EXPANSION JOINT DETAIL

FJ2400

Detailer Notes:

1) THIS DETAIL IS USED WHEN TWO ROOF PLANES HAVE ROOF SECONDARY MEMBERS THAT ARE NOT CONNECTED (INDEPENDENT BUILDINGS).

FJ2405 - TRANSVERSE EXPANSION DETAIL - STRUCTURAL AT EXISTING

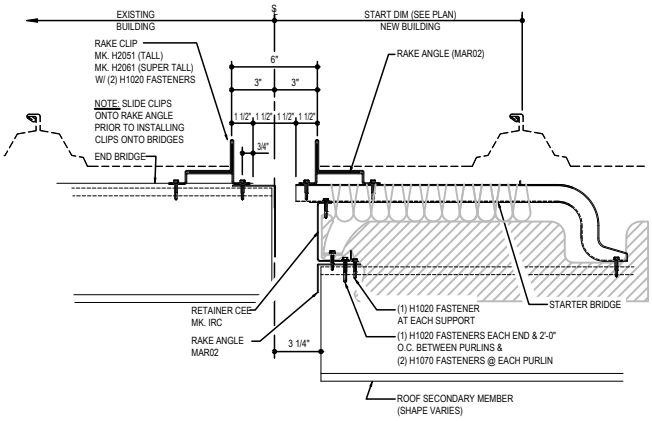
Download the DWG file by clicking here.

1. THE EXPANSION JOINT CONDITION REQUIRES THE BRIDGE CAVITY TO TERMINATE UNDER THE EXPANSION JOINT OF THE ROOF PANEL SYSTEM. PLACE MAR02 ANGLES ON TOP OF THE PURLINS TO PROVIDE A CONTINUOUS SURFACE FOR THE IRC TO ATTACH TO.

   ATTACH THE IRC TO THE MAR02 ANGLES WITH (2) H1070 FASTENERS AT THE PURLIN LOCATIONS. TIE OFF INSULATION INSIDE IRC WITH (1) H1020 & H2200 FASTENER & INSULATION RETAINER WASHER AT 2'-0" BETWEEN PURLINS.

   THE BRIDGE WILL NEED TO BE FIELD CUT TO LENGTH TO EXTEND 1 1/2" BEYOND THE IRC AS SHOWN FOR THE RAKE CLIP ATTACHMENT. THESE BRIDGES WILL NEED TO BE FIELD CUT AND LENGTH MAY VARY BASED ON MODULARITY OF THE ROOF PANEL.

   SLIDE THE RAKE ANGLE CLIPS ONTO THE MAR02 RAKE ANGLE PRIOR TO ATTACHING THE RAKE ANGLE CLIPS TO THE BRIDGE. THEN FASTEN THE RAKE ANGLE CLIPS TO THE TOP LEG OF THE BRIDGE. IT IS RECOMMENDED TO RUN A STRING LINE TO LOCATE AND PREDRIILL ONE HOLE ALONG THE BRIDGE FOR EASE OF ATTACHMENT AND ALIGNMENT.

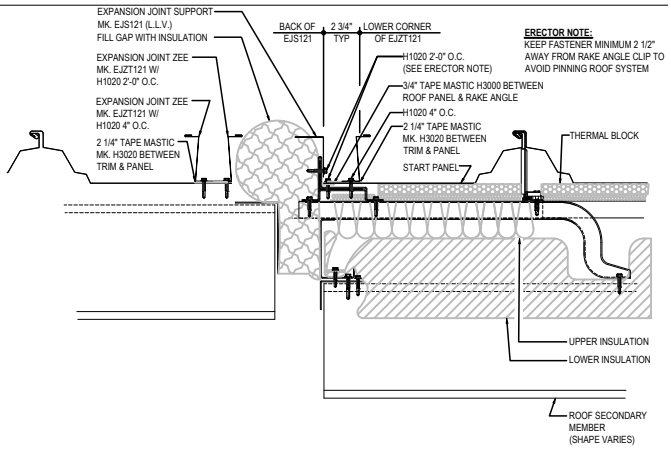


2. AFTER THE RAKE ANGLE CLIPS AND RAKE ANGLE HAVE BEEN INSTALLED THE FINISH AND START PANELS CAN BE INSTALLED. PLACE TAPE MASTIC BETWEEN PANEL AND RAKE ANGLE AND FASTEN PANEL TO RAKE ANGLE. THIS PROVIDES A TEMPORARY SEAL FOR THE PANEL UNTIL THE TRIM IS INSTALLED. FASTENERS MUST BE A MINIMUM OF 2 1/2" AWAY FROM RAKE CLIP TO AVOID PINNING THE ROOF SYSTEM.

   NEXT INSTALL THE EXPANSION JOINT SUPPORT TRIMS. INSTALL THE EJK01 TO THE VERTICAL LEG OF THE RAKE ANGLE. FASTENERS MUST BE A MINIMUM OF 2 1/2" AWAY FROM RAKE CLIP TO AVOID PINNING THE ROOF SYSTEM.

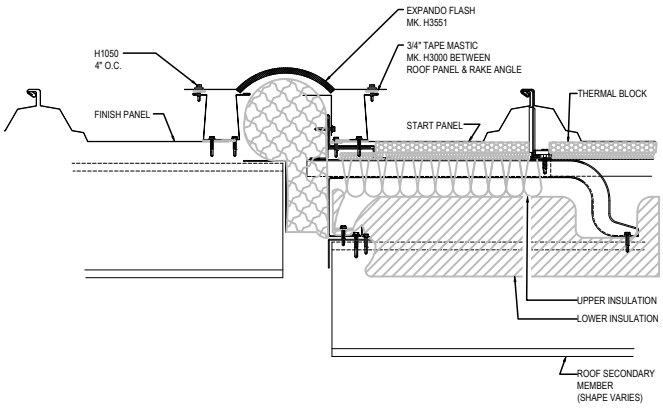
   PLACE MASTIC BETWEEN THE EJF01 TRIM AND THE PANEL AND FASTEN THROUGH PANEL INTO RAKE ANGLE. FASTENERS MUST BE A MINIMUM OF 2 1/2" AWAY FROM RAKE CLIP TO AVOID PINNING THE ROOF SYSTEM. THESE TRIMS SUPPORT THE EXPANSION TRIMS THAT ARE SHOWN IN THE NEXT STEP.

   FILL THE CAVITY BETWEEN WITH LOOSE FILL INSULATION TO PILLOW AS SHOWN. THIS WILL HELP SUPPORT THE RUBBER MEMBRANE THAT WILL BE INSTALLED IN THE NEXT STEP.



3. PLACE 3/4" TAPE MASTIC ON THE EJZT121 TRIM AS SHOWN.

   NEXT INSTALL THE EXPANDO FLASH (MK. H3551) AND FASTEN WITH H1050 FASTENERS 4" O.C. ENSURE FASTENER PENETRATES THE MASTIC



R-Boost™ TRANSVERSE EXPANSION DETAIL
STRUCTURAL TRANSVERSE EXPANSION JOINT DETAIL

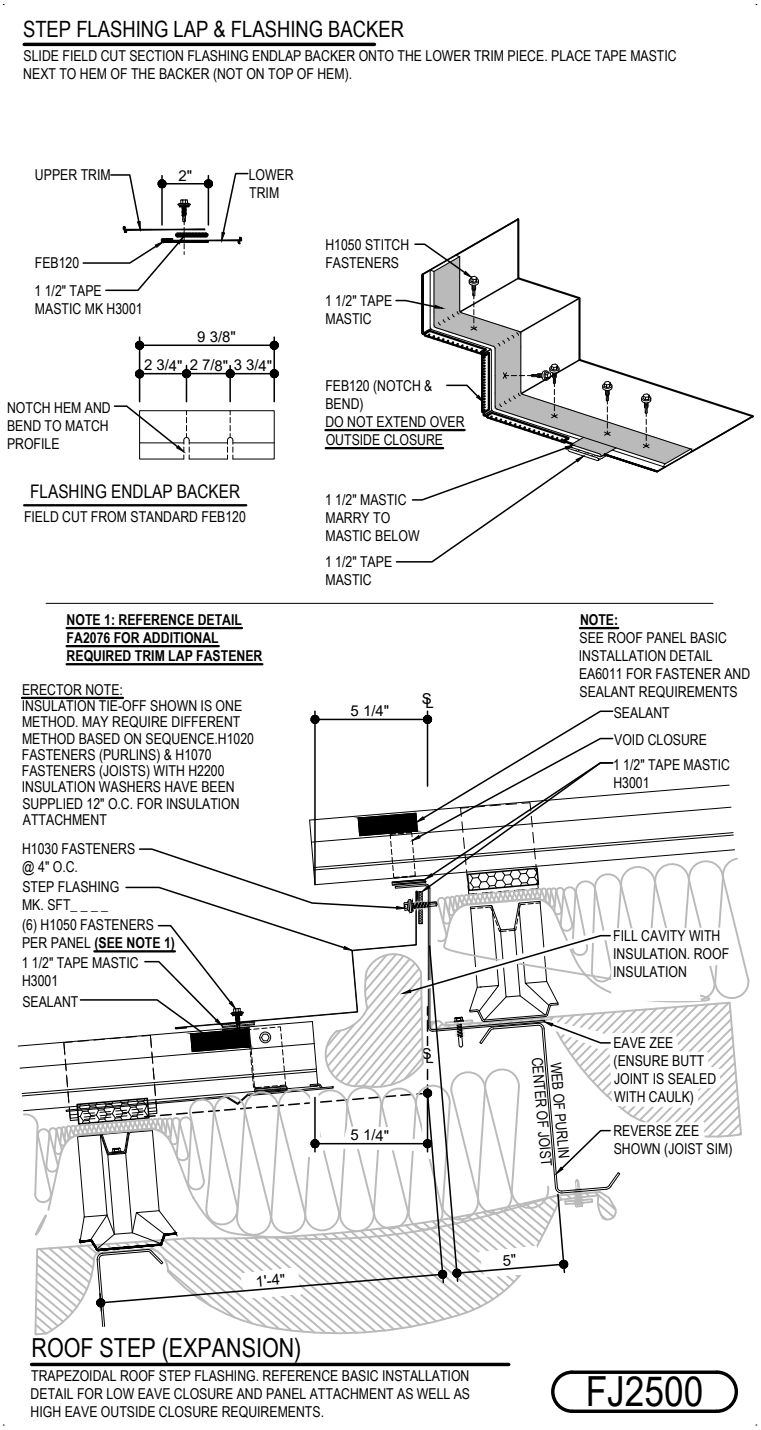
FJ2405

Detailer Notes:

1) THIS DETAIL IS USED WHEN TWO ROOF PLANES HAVE ROOF SECONDARY MEMBERS THAT ARE NOT CONNECTED (INDEPENDENT BUILDINGS).

FJ2500 - ROOF STEP (EXPANSION)

Download the DWG file by clicking here.



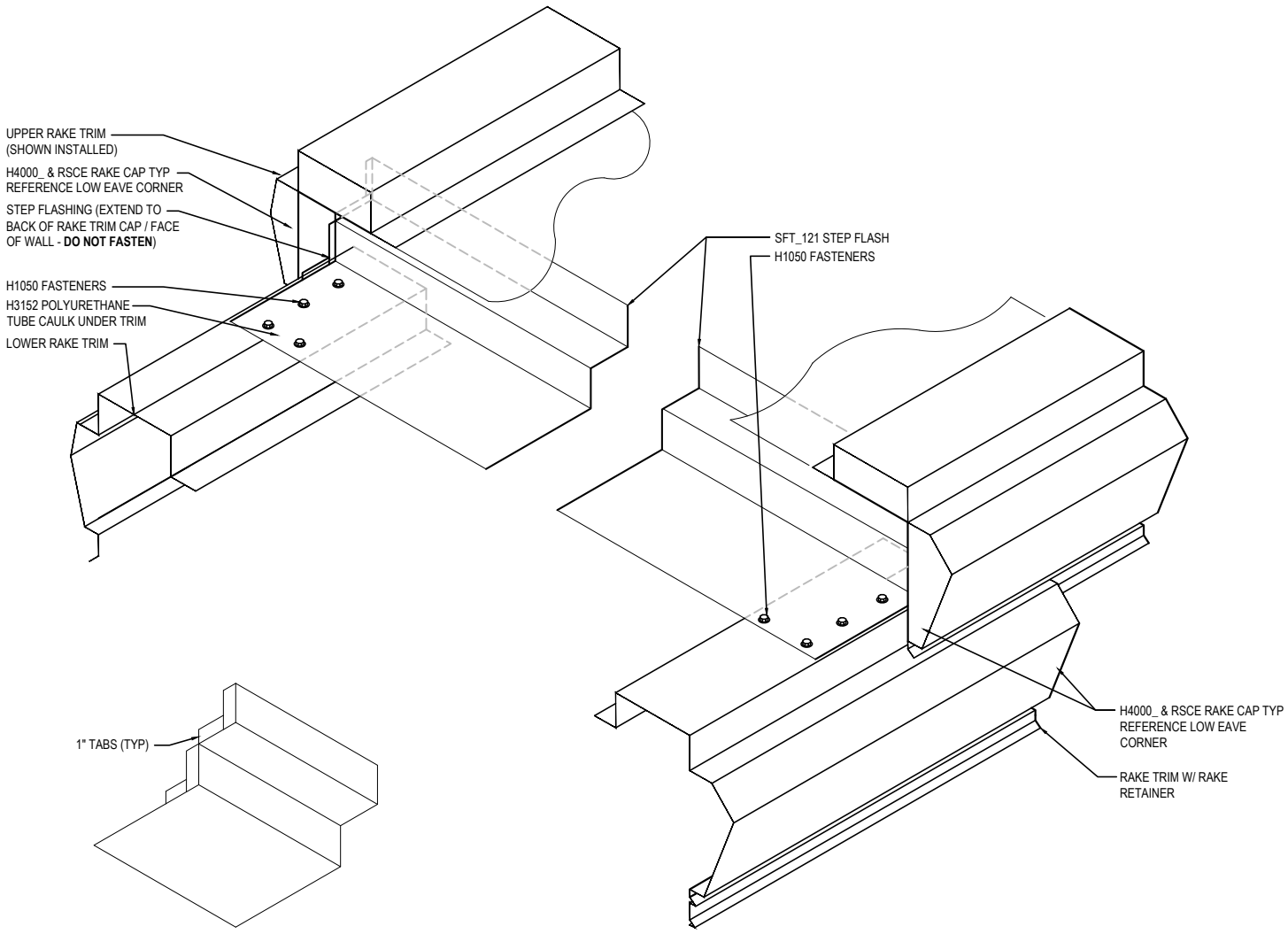
Detailer Notes:

1) ROOF STEEL LINE TO ROOF STEEL LINE STEP IS 9" STANDARD WITH SAME PANEL CLIP OFFSET ON EACH ROOF. IF STEP IN ROOF STEEL LINES IS NOT 9" OR PANEL CLIPS ARE DIFFERENT, SPECIAL STEP FLASHING WILL BE REQUIRED.

2) ROOF STEP LOWSIDE AND ROOF STEP HIGHSIDE KITS BOTH NEED TO BE RUN TO GET ALL THE PARTS SHOWN IN THIS CED.

FJ2751 - ROOF STEP TERMINATION

Download the DWG file by clicking here.



TABBED VIEW

INSTALLATION NOTES

INSTALLATION IS EASIER IF THE LOWER ROOF IS INSTALLED FIRST ALONG WITH THE EAVE PLATE OF THE UPPER ROOF. THE UPPER ROOF PANEL CAN BE INSTALLED PRIOR TO THE STEP FLASH BUT DOES MAKE INSTALLATION MORE CHALLENGING AND TIGHTER SPACES.

THE **LOWER RAKE TRIM** MUST BE INSTALLED PRIOR TO THE FIRST/LAST PIECE OF STEP FLASH. LOWER RAKE TRIM **EXTENDS 3"** BEYOND THE END OF THE ROOF PANEL.

THE FIRST AND LAST PIECE OF **STEP FLASHING** WILL NEED TO BE **FIELD TABBED** AS SHOWN.

SEAL THE **STEP FLASH** TO THE VERTICAL FACE OF THE STEP ANGLE AS SHOWN IN THE TYPICAL ROOF STEP DETAIL. SEAL THE HORIZONTAL LEG OF THE STEP FLASH TO THE LOWER RAKE TRIM WITH **POLYURETHANE TUBE CAULK (H1352)** AND FASTENERS AS SHOWN.

ROOF STEP TERMINATION

TRAPEZOIDAL RIB ROOF WITH SCULPTURED RAKE TRIM
REFERENCE TYPICAL ROOF STEP DETAIL FOR FURTHER INFORMATION

FJ2751

Detailer Notes:

1) THIS DETAIL WORKS FOR BOTH TRAP & VERTICAL RIB ROOF SYSTEMS.