

HIGH PERFORMANCE WALL : **R SERIES - CANADA**

PATENT PENDING

DISCLAIMER

THE PROCEDURES PRESENTED IN THIS FIELD ASSEMBLY GUIDE ARE INTENDED AS A GUIDELINE ONLY, TO PROVIDE A BASIC UNDERSTANDING OF THE CONCEPTS INVOLVED IN THE PROPER AND AFFECTIVE INSTALLATION OF OUR HP+™ WALL SYSTEMS.

FOR CODE, DESIGN, AND INSTALLATION INFORMATION, PLEASE REFER TO THE BASF HP+™ TECHNICAL INSTALLATION MANUAL AND THE DrJ ENGINEERING TECHNICAL EVALUATION REPORT.

IT REMAINS THE RESPONSIBILITY OF THE HP+™ WALL SYSTEMS INSTALLER AND/OR BUILDER TO MESURE ALL WORK PERFORMED CONFORMS TO APPLICABLE BUILDING CODE AND LABOUR SAFETY REGULATIONS GOVERNING THE CONSTRUCTION.

NOTE:

ALL REFERENCES TO MASTERSEAL® NP1™ OR 1/2" OR 1" FOAM SEALANT TAPE IS FOR BEST PRACTICE TO IMPROVE AIR TIGHTNESS

HIGH PERFORMANCE WALL : **R SERIES - CANADA**

PATENT PENDING

WALL COMPONENTS

- EXTERIOR CLADDING
- 2" X 3" VERT. STRAPPING @ 16" C/C OR 24" C/C
- 1" THICK WALLTITE® SPRAYED ONTO SURFACE OF NEOPOR® SHEATHING
- * - SHEATHING:
 - 1" THICK NEOPOR® GRAPHITE - ENHANCED EXPANDED POLYSTYRENE INSULATION (1.35 LB/FT³ MINIMUM DENSITY)
 - 2" X 4" STUDS @ 16" C/C OR 24" C/C
 - INSULATION BETWEEN STUDS BASED ON REQUIRED "R" VALUE
 - 1/2" GYPSUM BOARD

TYPICAL WALL NOMINAL R VALUE

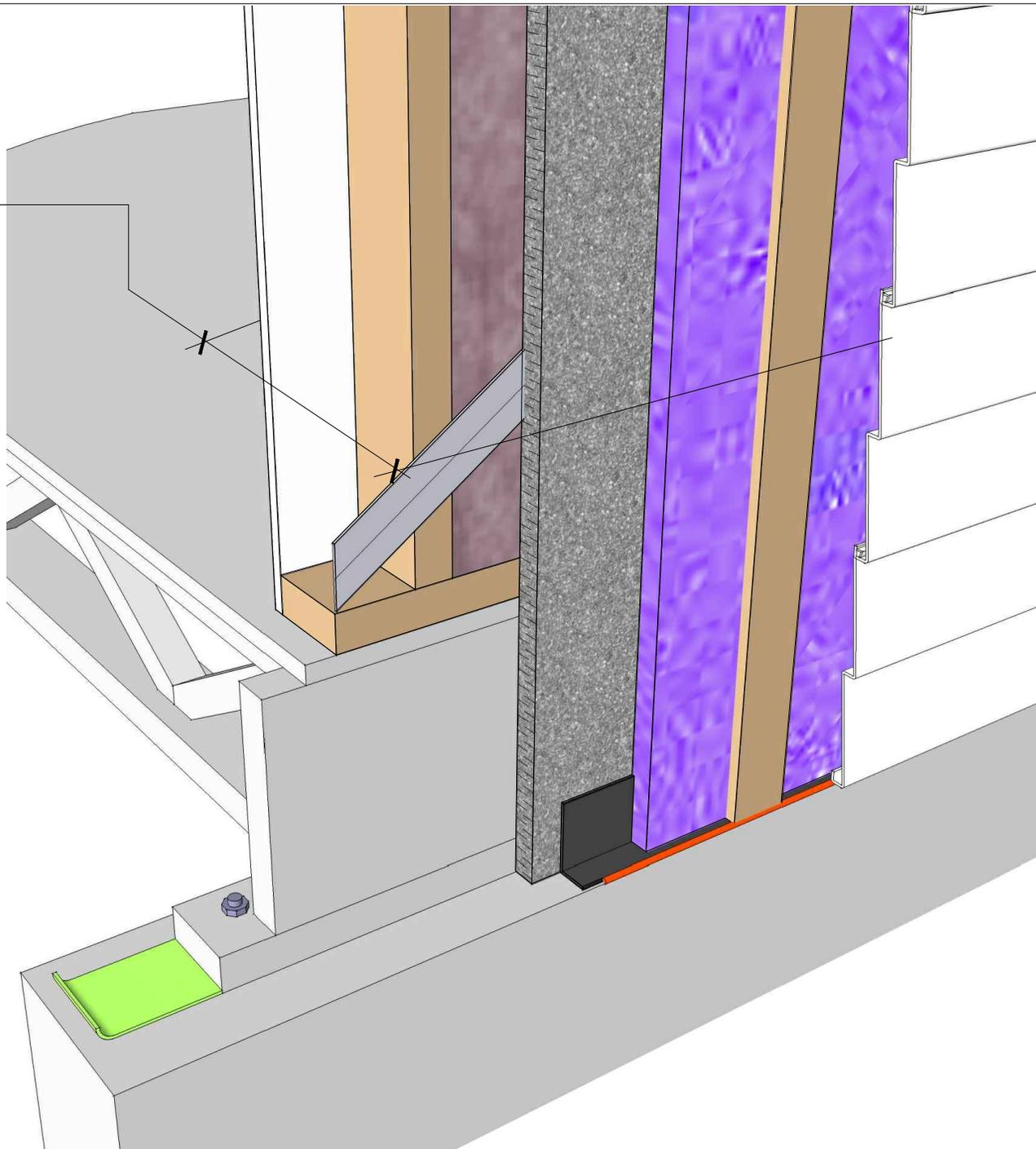
TO VALIDATE ACCORDING TO THE WALL COMPOSITION

***SHEATHING CAN BE:**

- MINIMUM 1" OF NEOPOR®;
- 0.8" EXTRUDED POLYSTYRENE (XPS);
- 1/2" GYPSUM BOARD;
- 7/16" ASPHALT FIBERBOARD;
- 1/4" OSB;
- 1" EXPANDED POLYSTYRENE (EPS) TYPE II;
- 7/16" NATURAL FIBERBOARD.

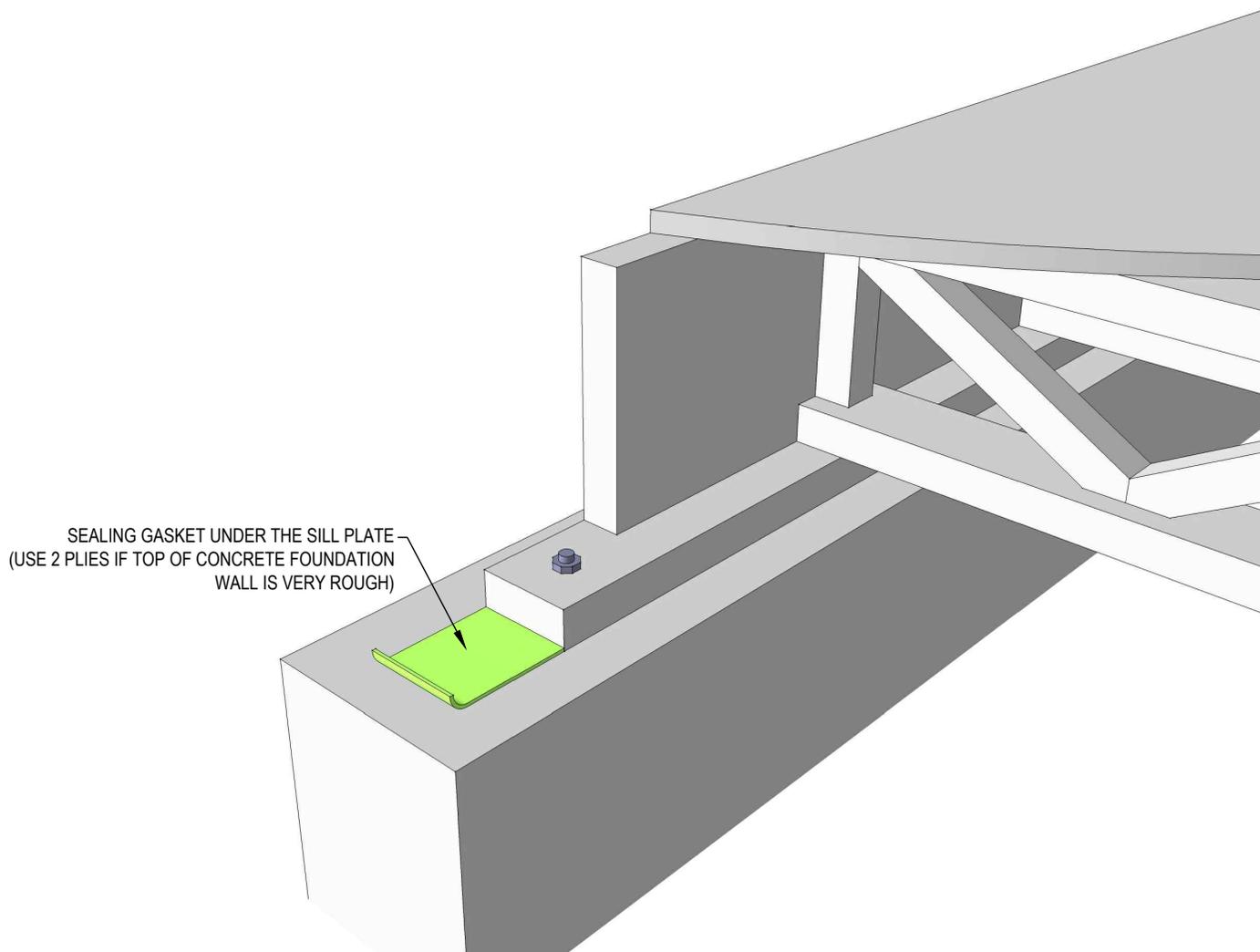
IMPORTANT:

RATING AND THICKNESS OF THE SHEATHING TO BE AS PER ARTICLE 9.23.17.2 OF NBC 2015, IF EXTERIOR CLADDING REQUIRES INTERMEDIATE FASTENING BETWEEN SUPPORTS (STUDS).



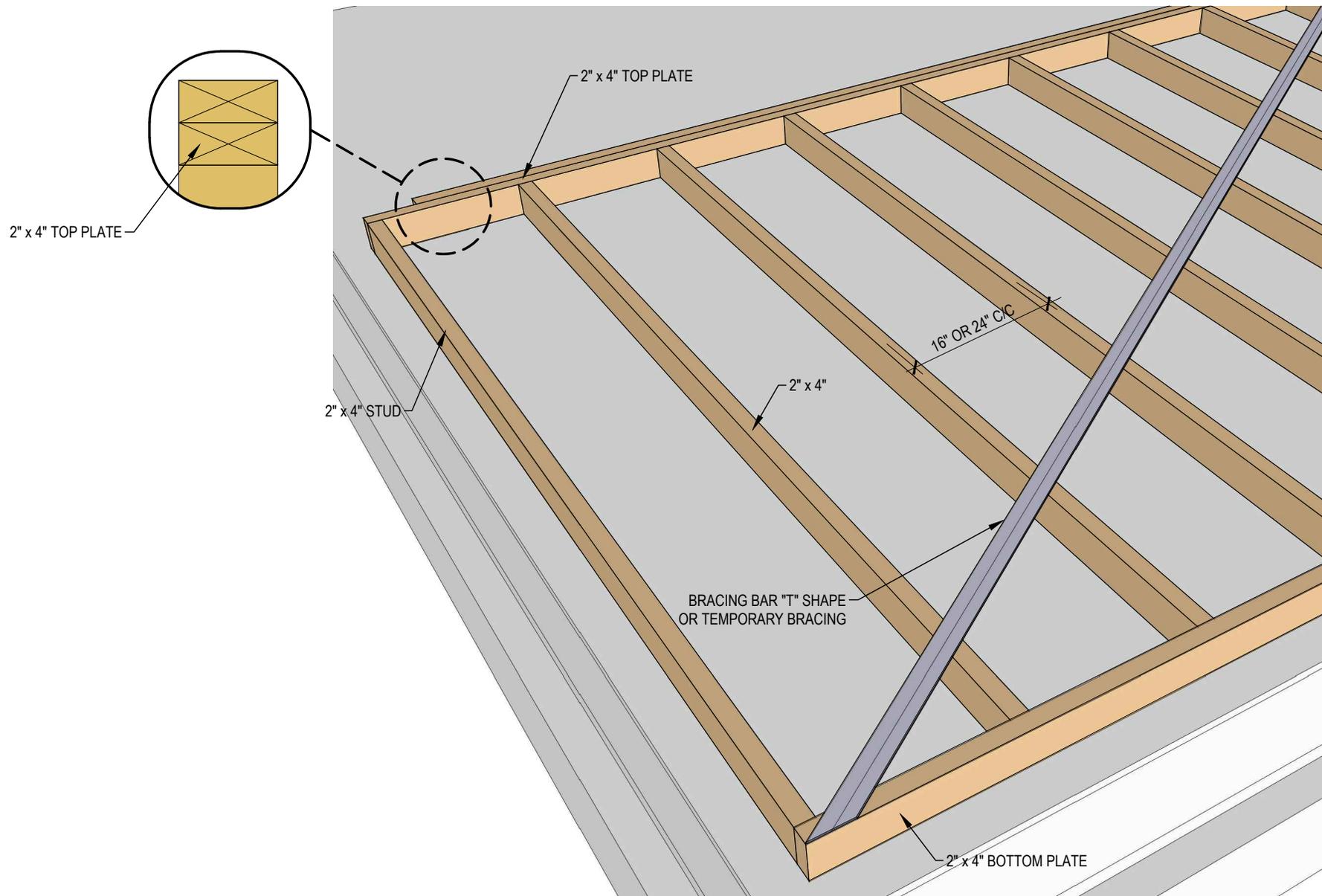
STEP 1 - FLOOR ASSEMBLY

ENSURE SEAL OF ALL FLOOR FRAMING COMPONENTS
ANCHORED TO FOUNDATION WALL



STEP 2 - WALL FRAMING

FIRST WALL FRAMING ASSEMBLY

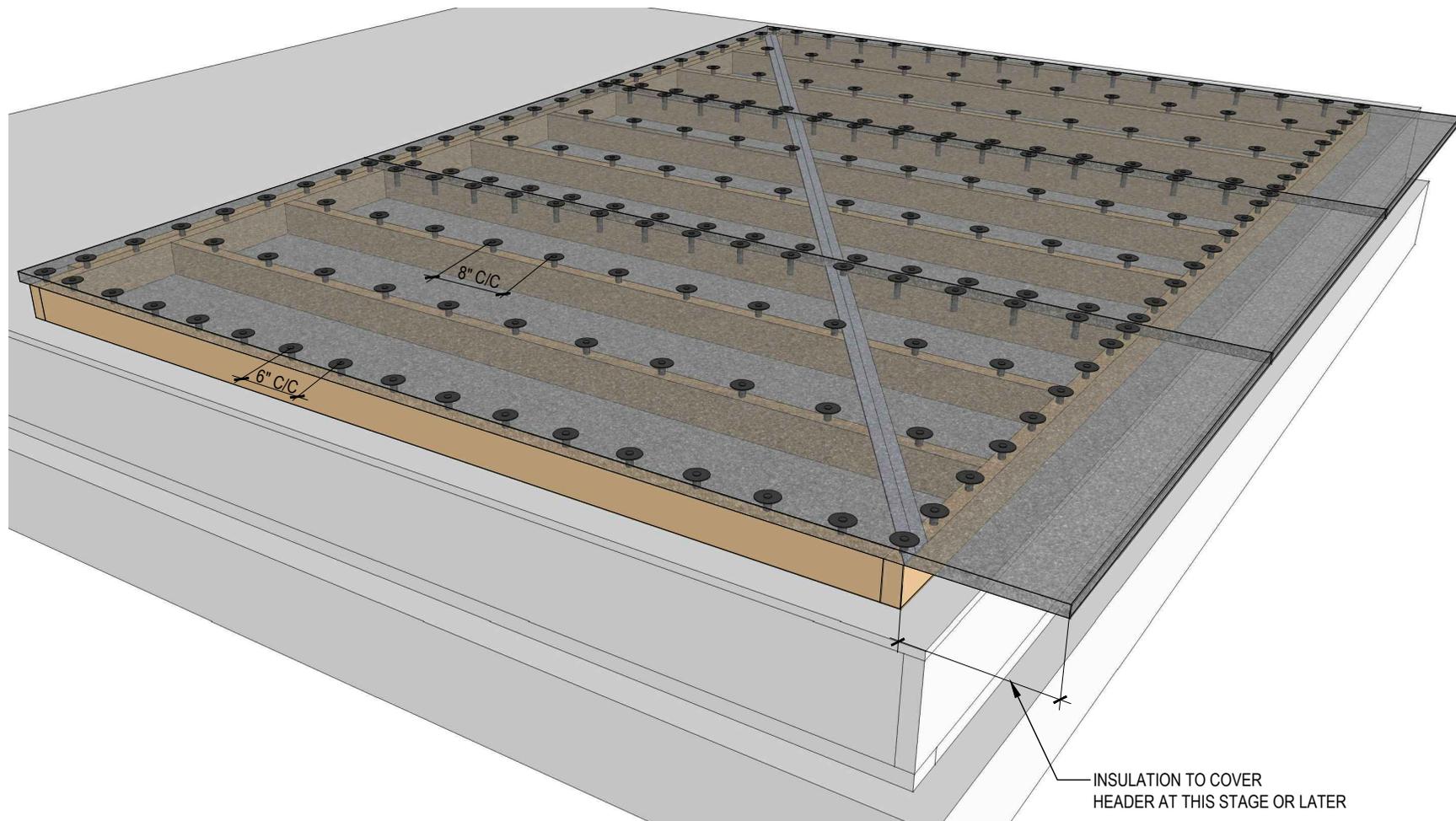


STEP 3A- EXTERIOR INSULATION

INSTALL NEOPOR® GRAPHITE - ENHANCED EXPANDED POLYSTYRENE INSULATING SHEATHING

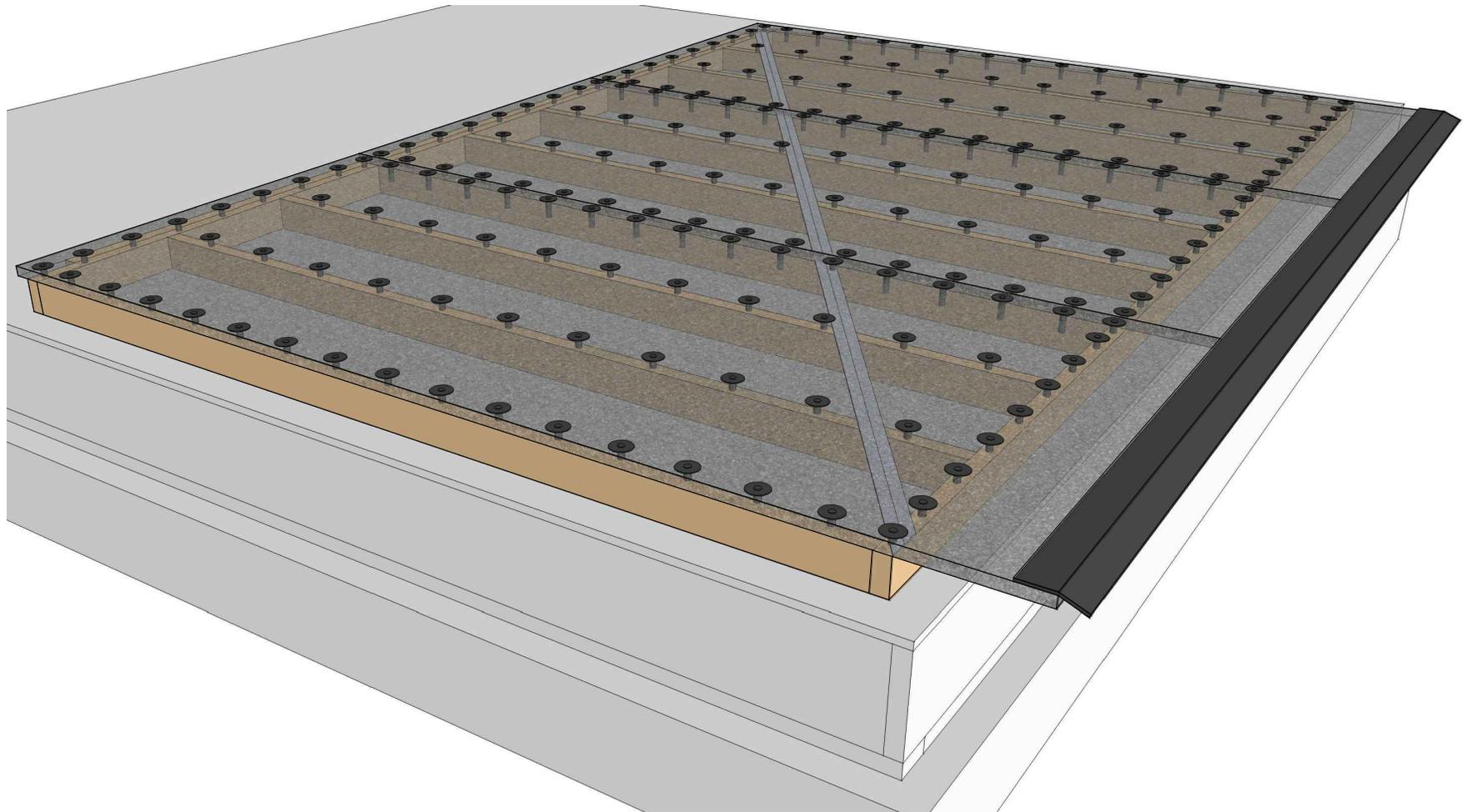
NOTE:

FOR SHEATHING FASTENERS AND SPACING
REFER TO THE BASF HP+™ TECHNICAL INSTALLATION MANUAL
AND THE DrJ ENGINEERING TECHNICAL
EVALUATION REPORT



STEP 3B - SEALING

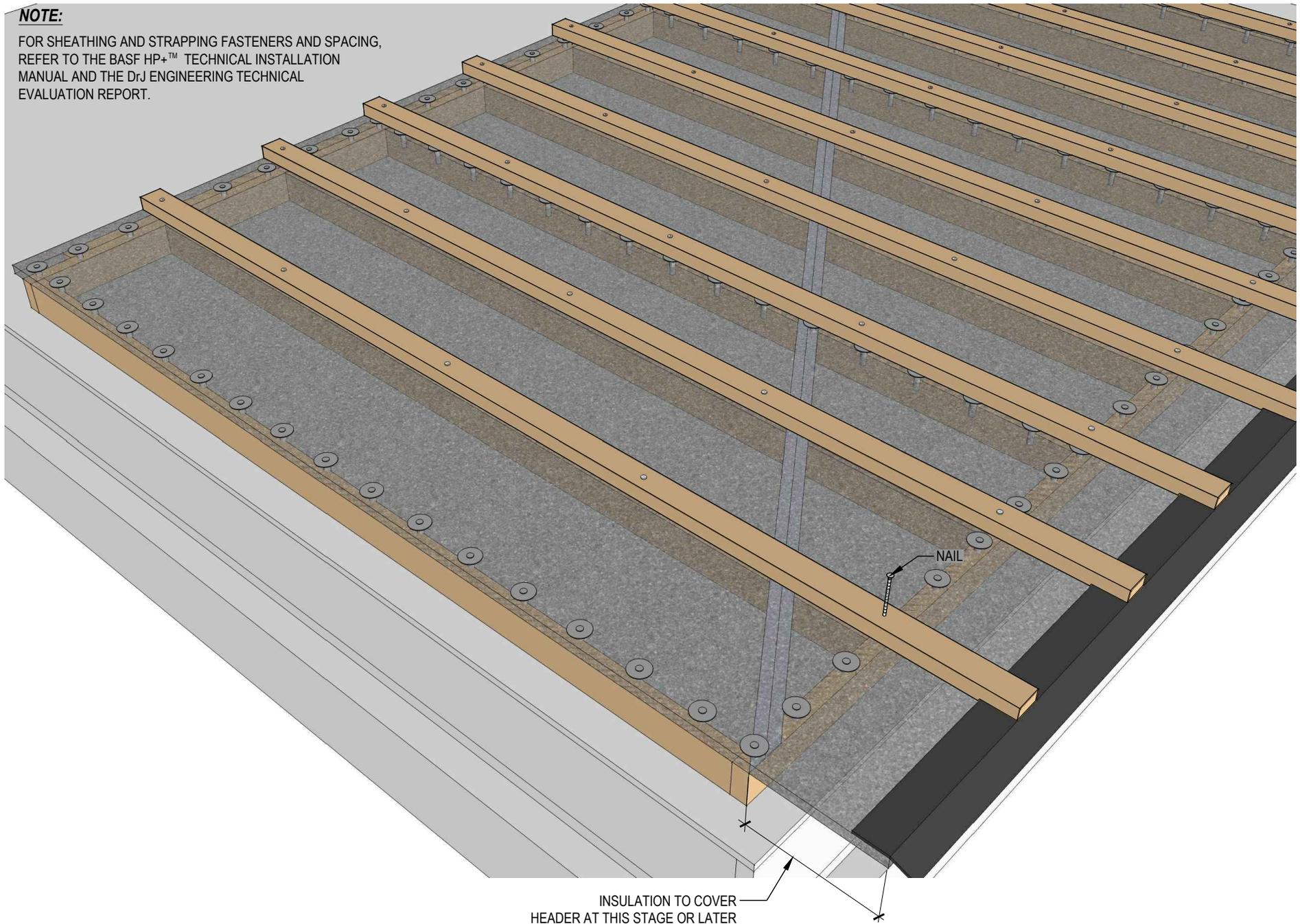
INSTALL TRANSITION MEMBRANE APPROVED BY BASF



STEP 4A - STRAPPING INSTALLATION

NOTE:

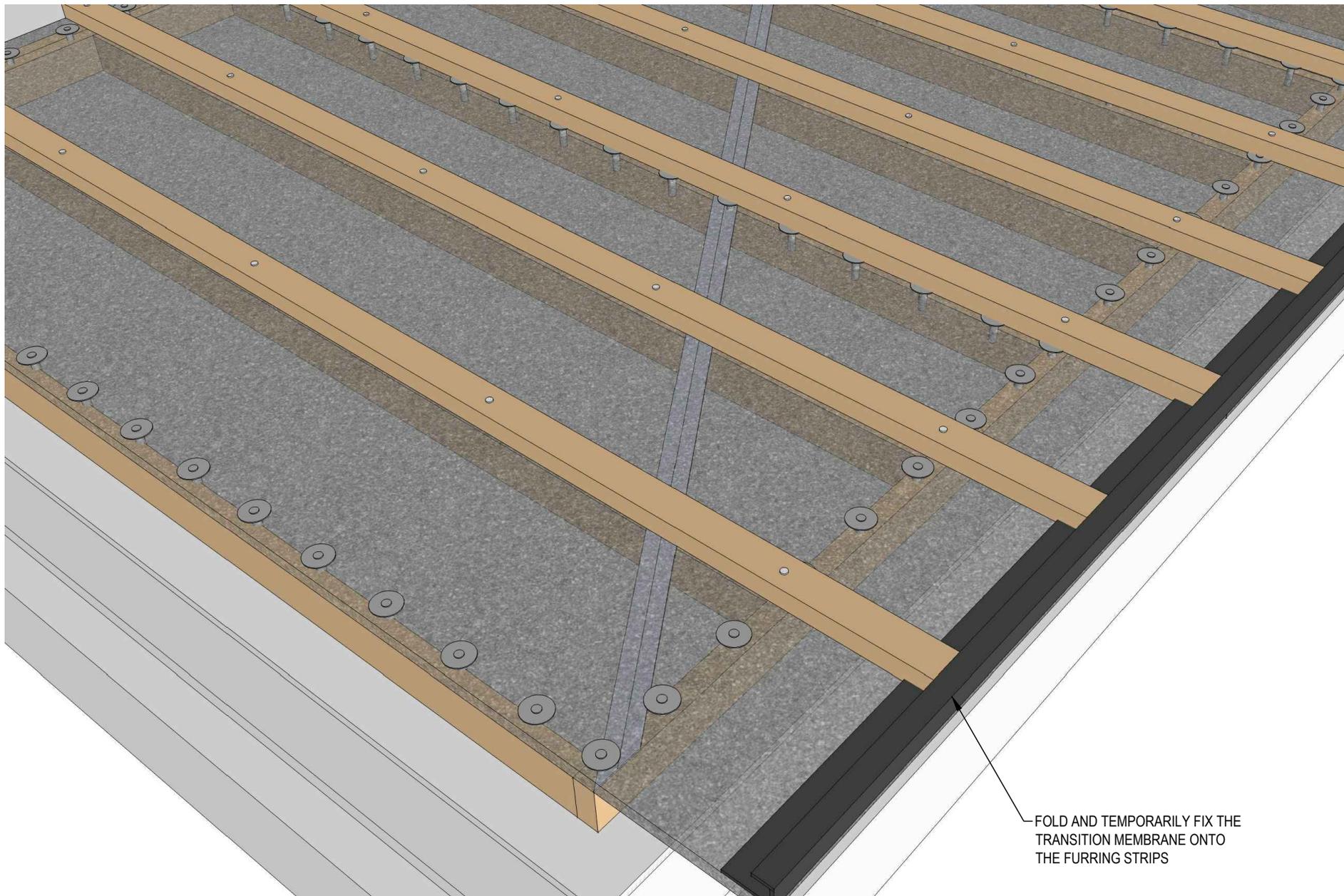
FOR SHEATHING AND STRAPPING FASTENERS AND SPACING, REFER TO THE BASF HP+™ TECHNICAL INSTALLATION MANUAL AND THE DrJ ENGINEERING TECHNICAL EVALUATION REPORT.



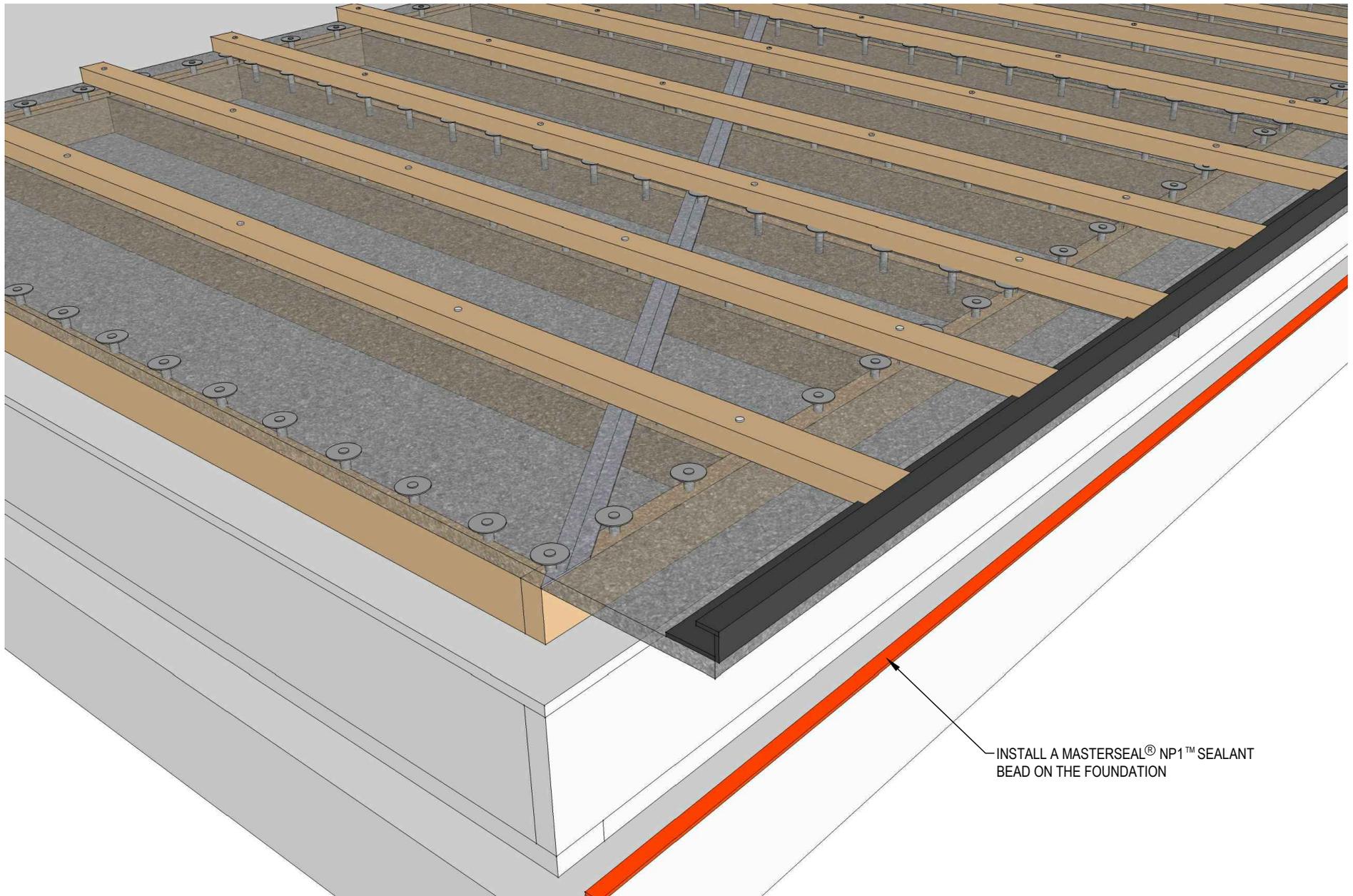
INSULATION TO COVER
HEADER AT THIS STAGE OR LATER

STEP 4B - SEALING

FOLD THE MEMBRANE ON THE FURRING STRIPS

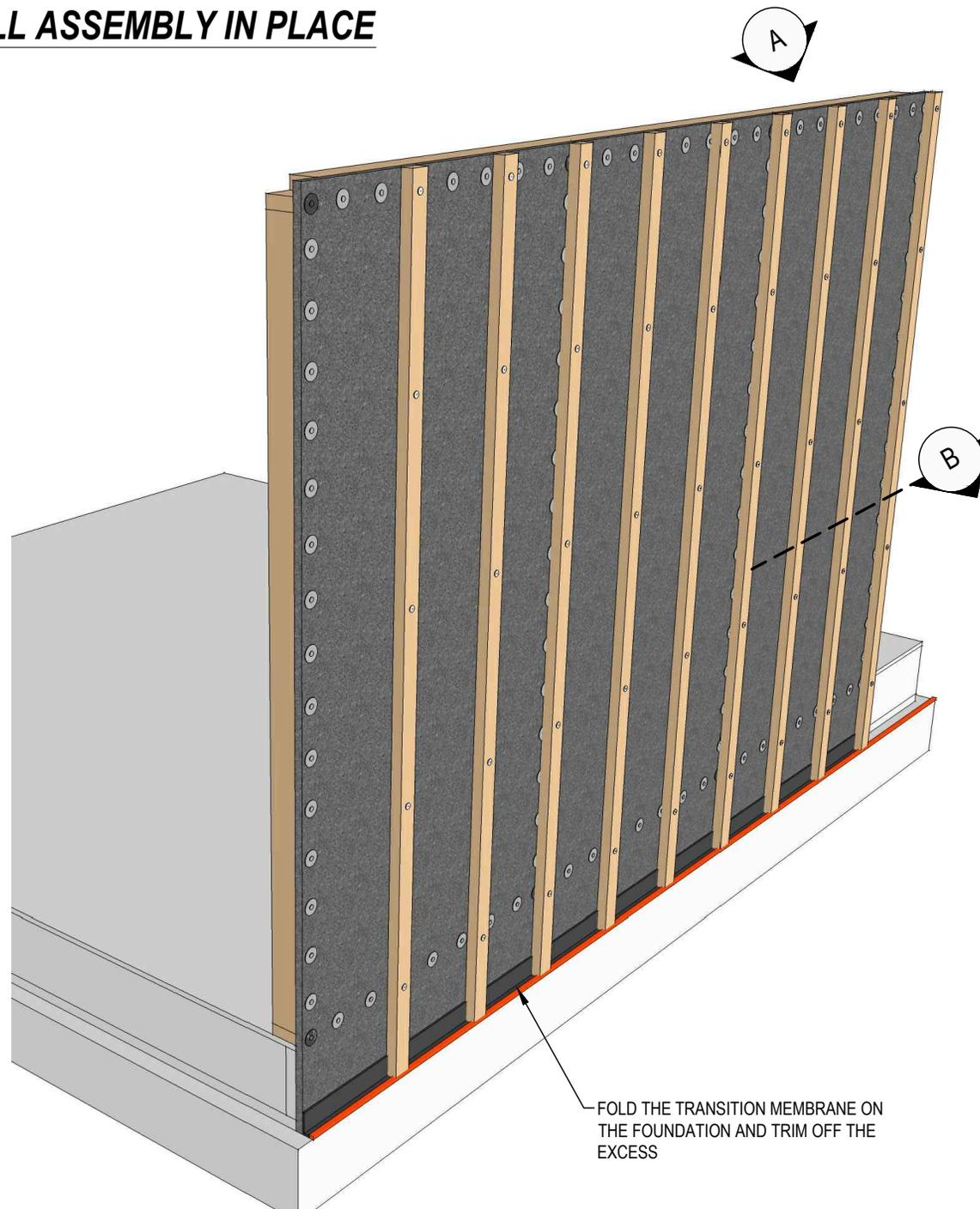


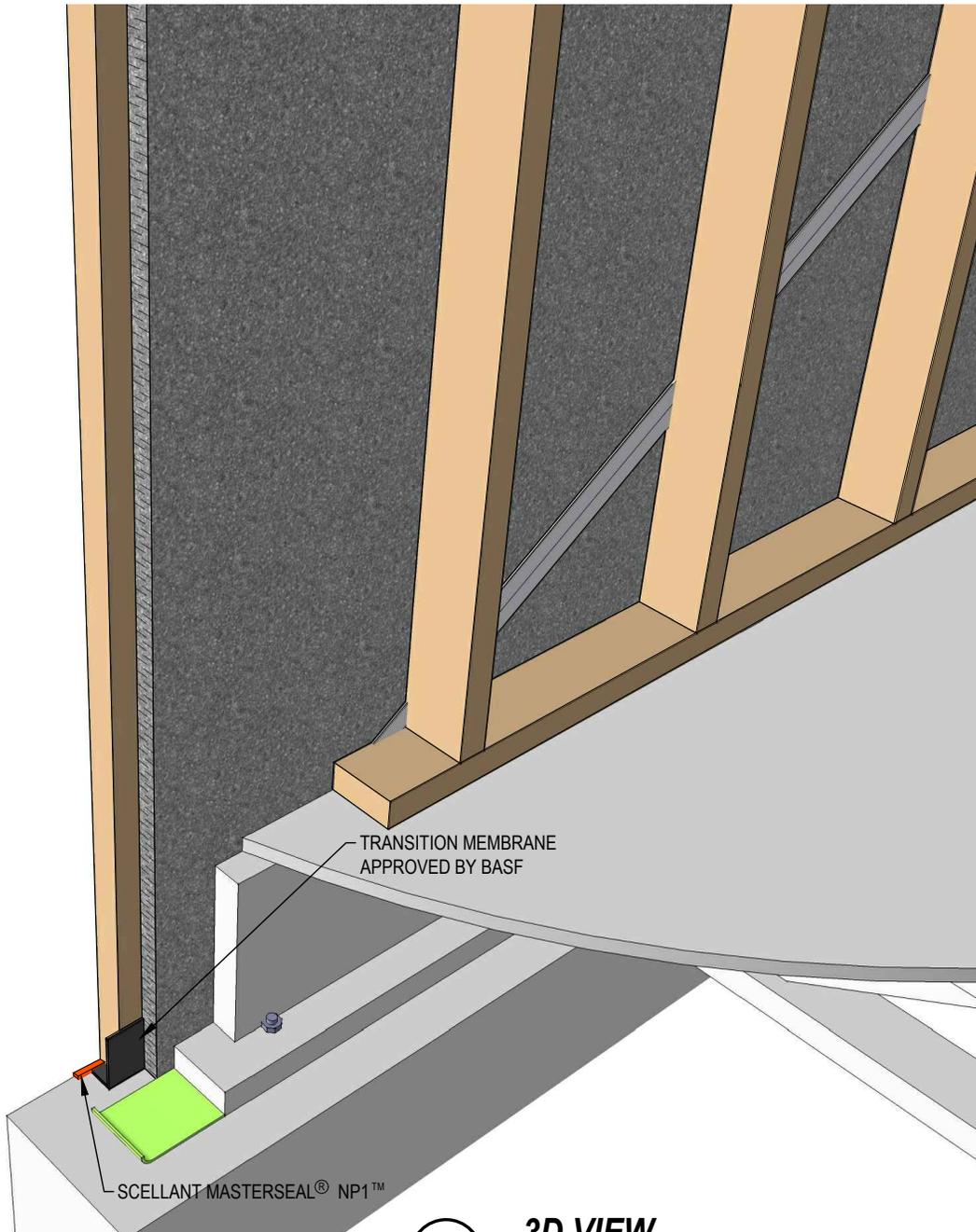
STEP 4C - SEALING



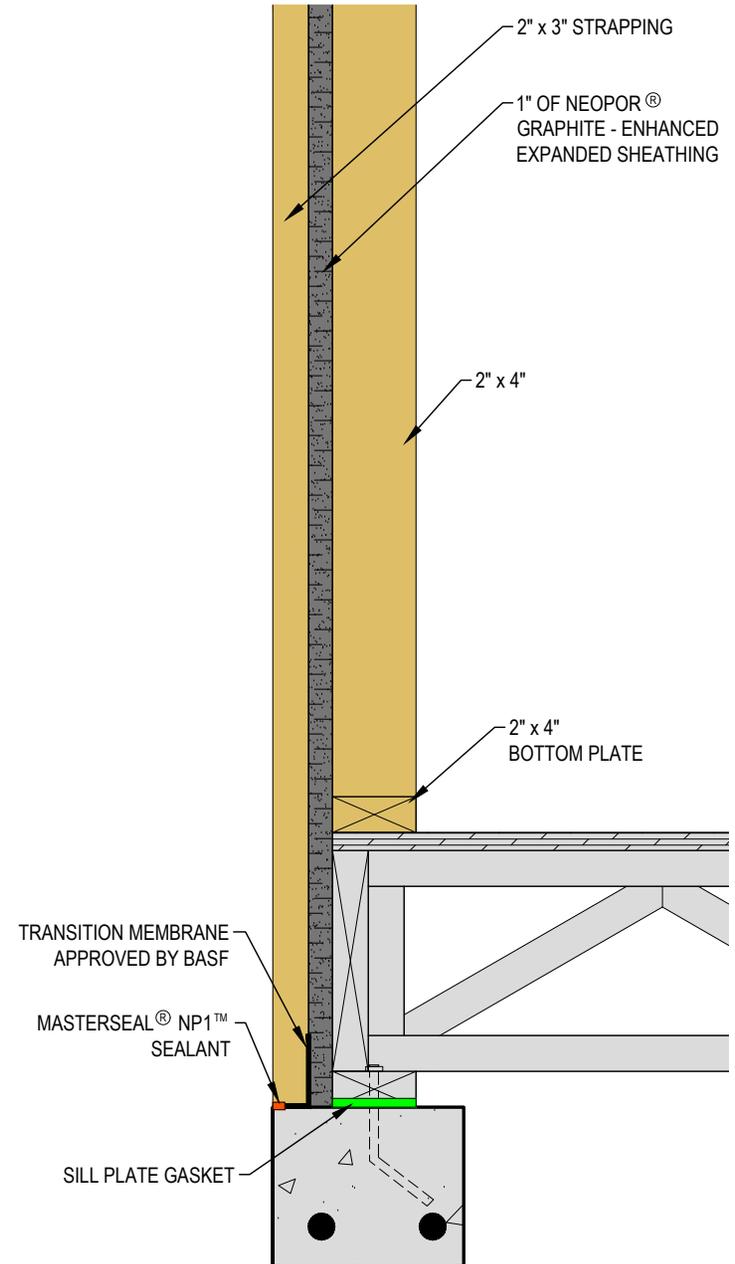
INSTALL A MASTERSEAL® NP1™ SEALANT BEAD ON THE FOUNDATION

STEP 5 - RAISE WALL ASSEMBLY IN PLACE





A 3D VIEW



B SECTION

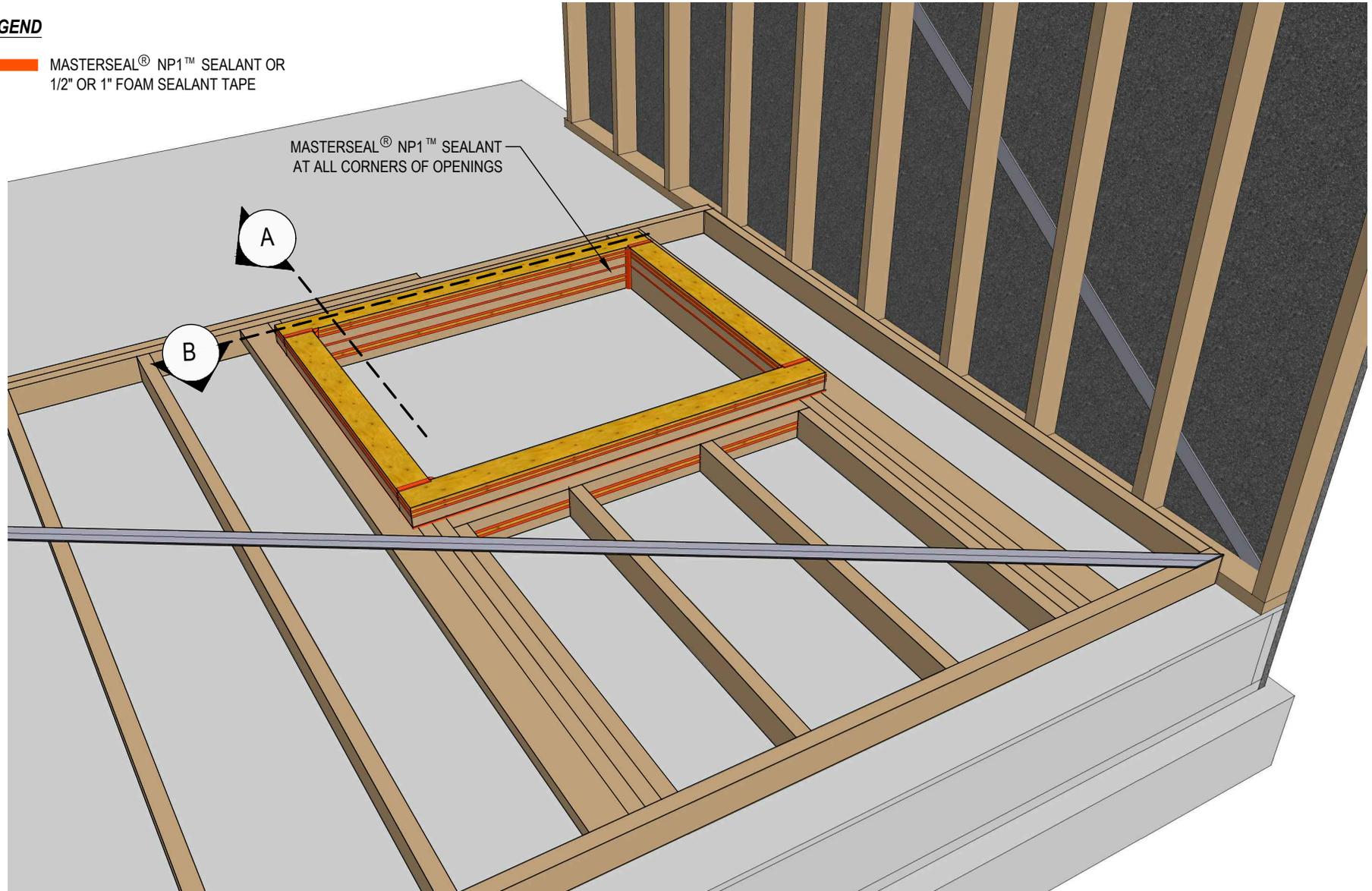
STEP 6A - WALL FRAMING WITH OPENING

SECOND WALL FRAMING AND ASSEMBLY

APPLY MASTERSEAL® NP1™ SEALANT AT ALL CORNERS OF OPENINGS

LEGEND

 MASTERSEAL® NP1™ SEALANT OR
1/2" OR 1" FOAM SEALANT TAPE

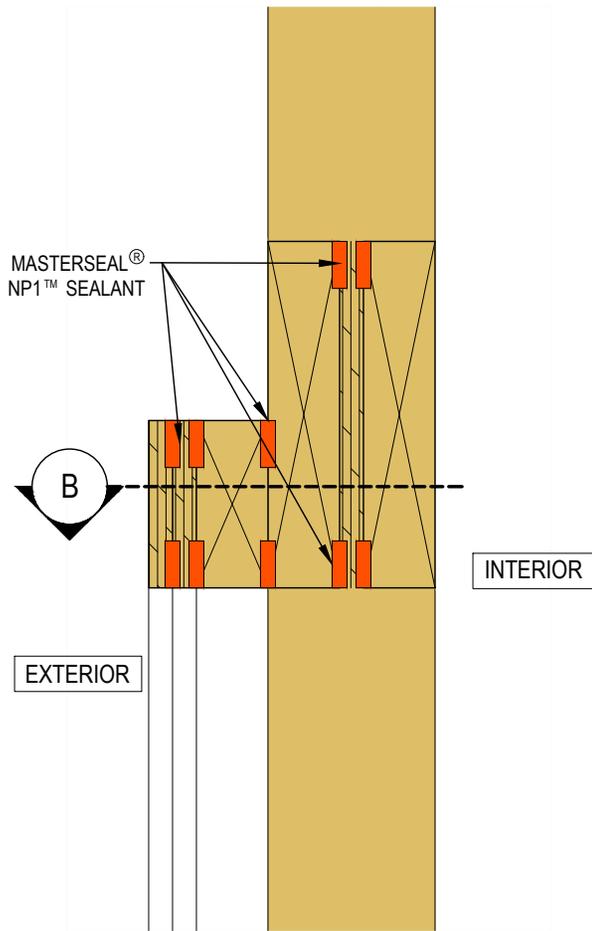


STEP 6B - LINTEL DETAILS

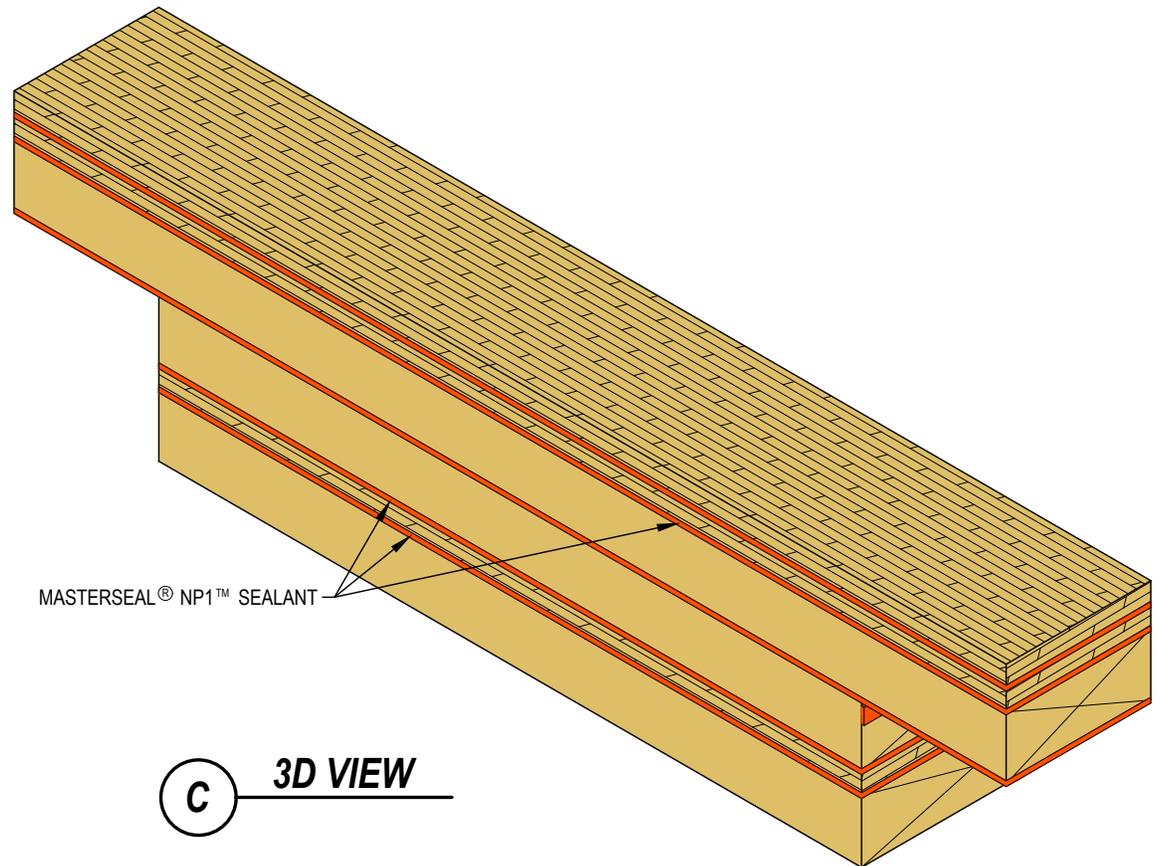
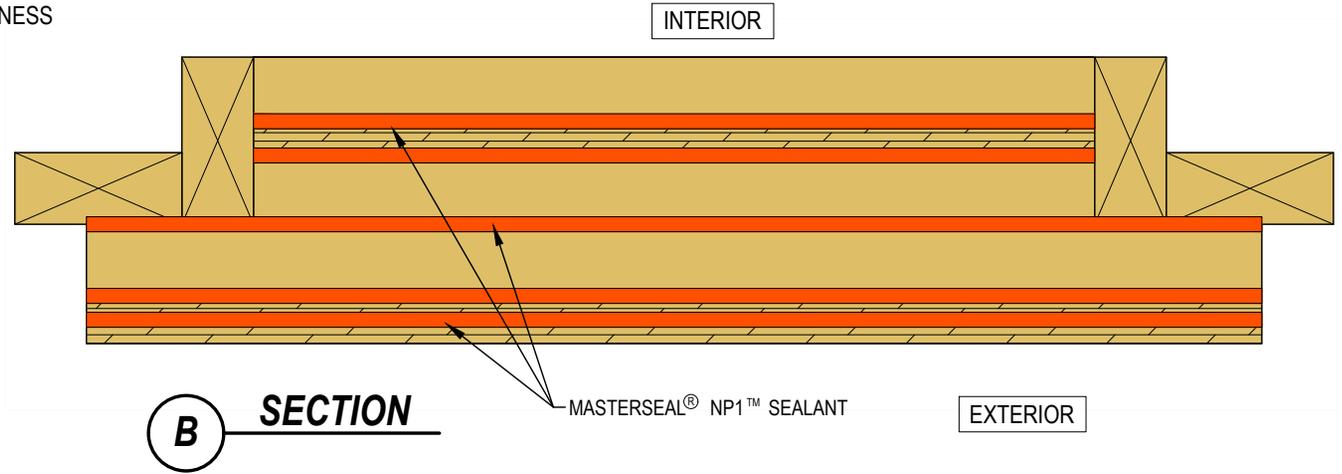
ALL REFERENCE TO MASTERSEAL® NP1™ OR 1/2" OR 1" FOAM SEALANT TAPE FOR THE LINTEL IS FOR BEST PRACTICE TO IMPROVE AIR TIGHTNESS

LEGEND

 MASTERSEAL® NP1™ SEALANT OR 1/2" OR 1" FOAM SEALANT TAPE



A SECTION

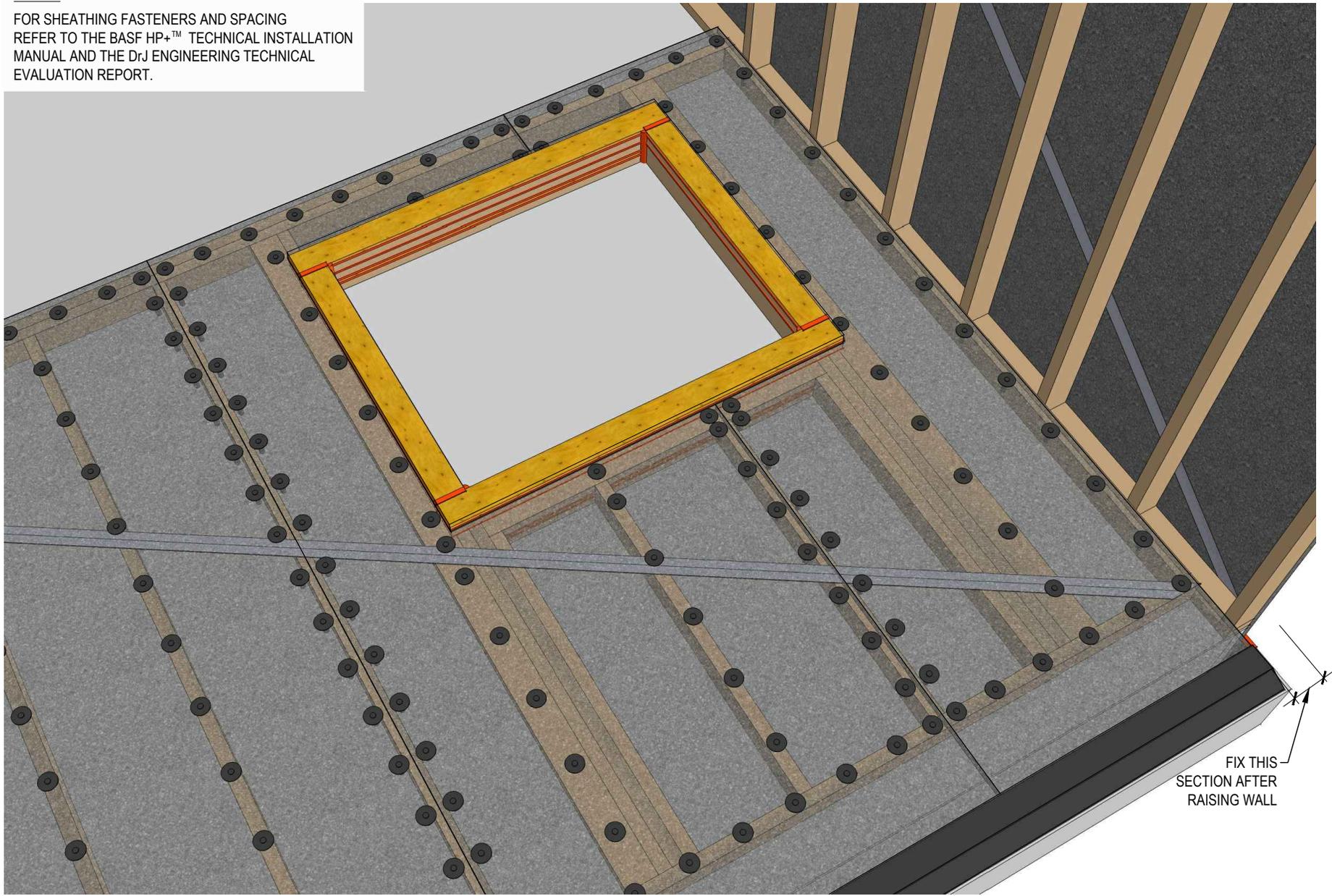


STEP 7 - EXTERIOR INSULATION AND SEALING

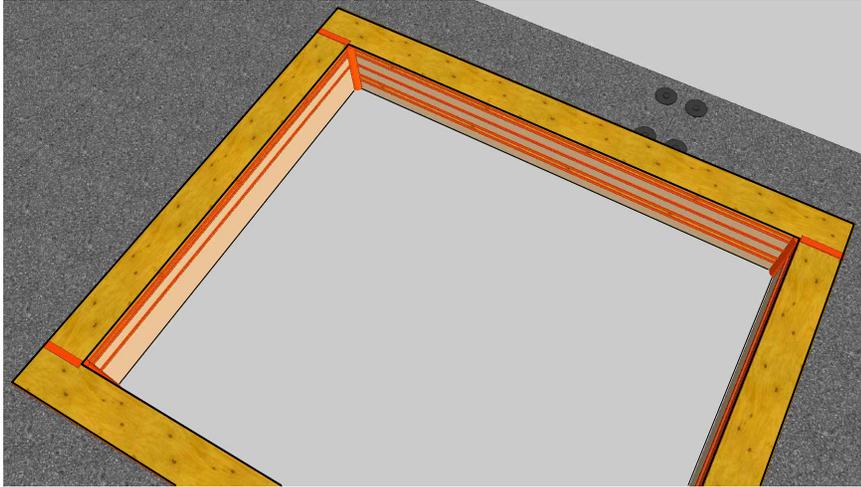
INSTALL NEOPOR® GRAPHITE - ENHANCED EXPANDED POLYSTYRENE SHEATHING AND TRANSITION MEMBRANE APPROVED BY BASF

NOTE:

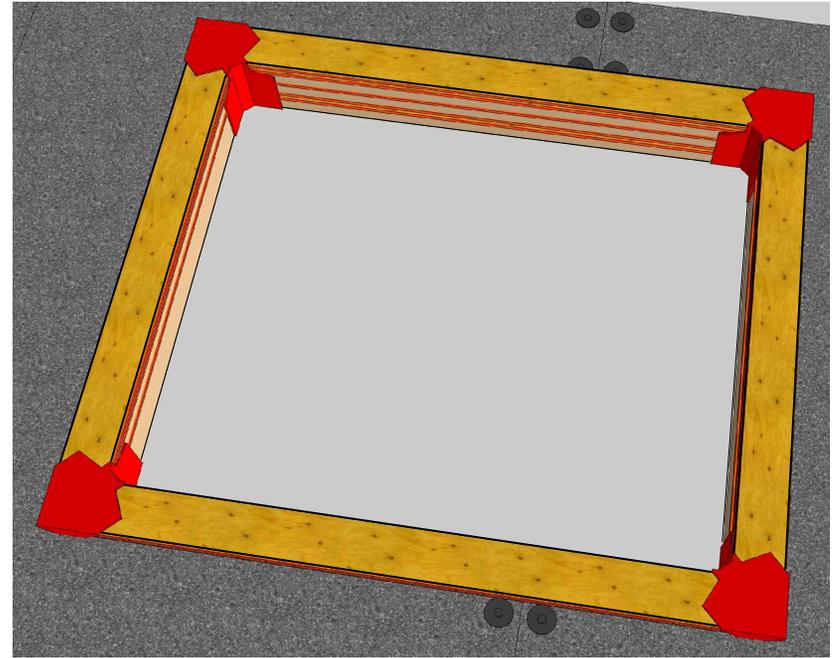
FOR SHEATHING FASTENERS AND SPACING REFER TO THE BASF HP+™ TECHNICAL INSTALLATION MANUAL AND THE DrJ ENGINEERING TECHNICAL EVALUATION REPORT.



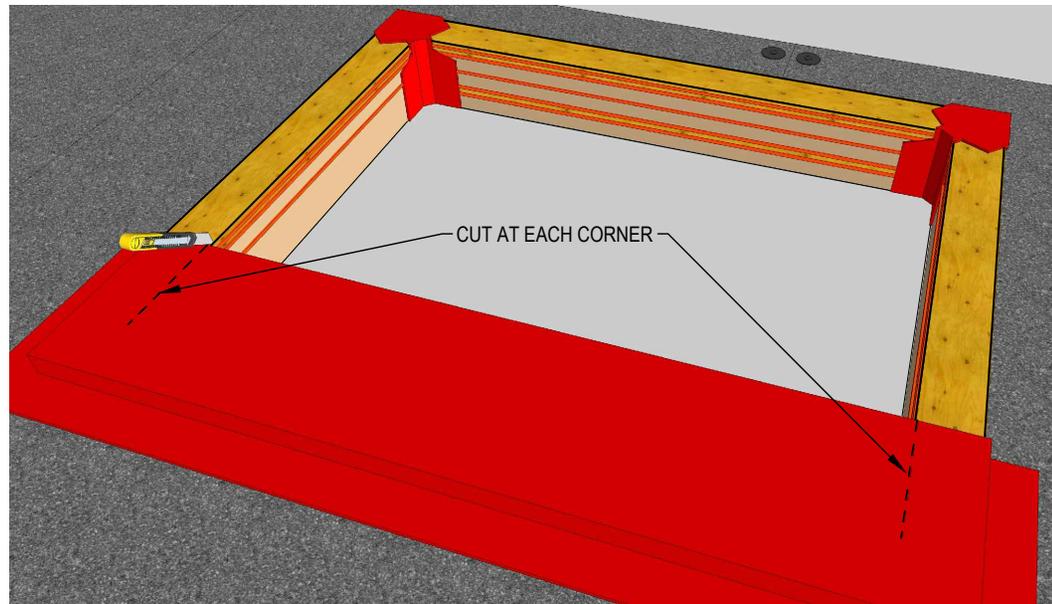
STEP 8 - AIR / WATER TIGHTNESS OF OPENINGS



A - ENSURE THAT MASTERSEAL® NP1™ SEALANT HAS BEEN INSTALLED IN ALL CORNERS OF OPENINGS

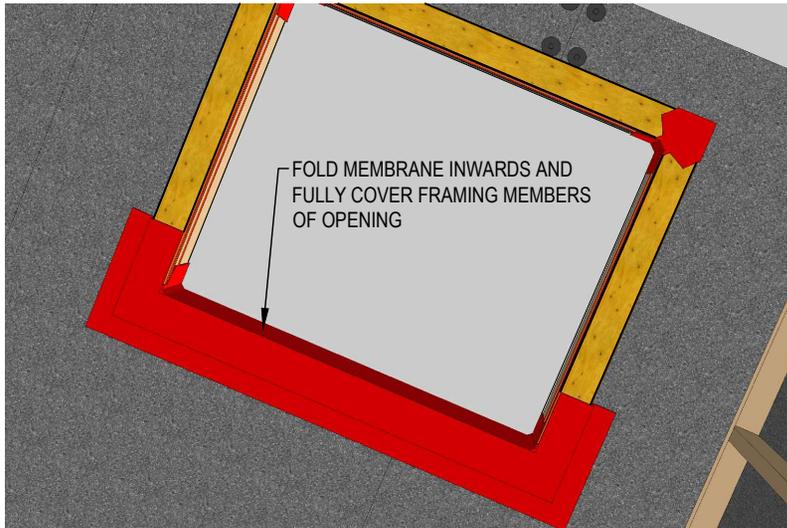


B - INSTALL AIR BARRIER AND WATERPROOFING MEMBRANE AT EACH CORNER, COVERING SEALANT INSTALLED AT STEP 6A

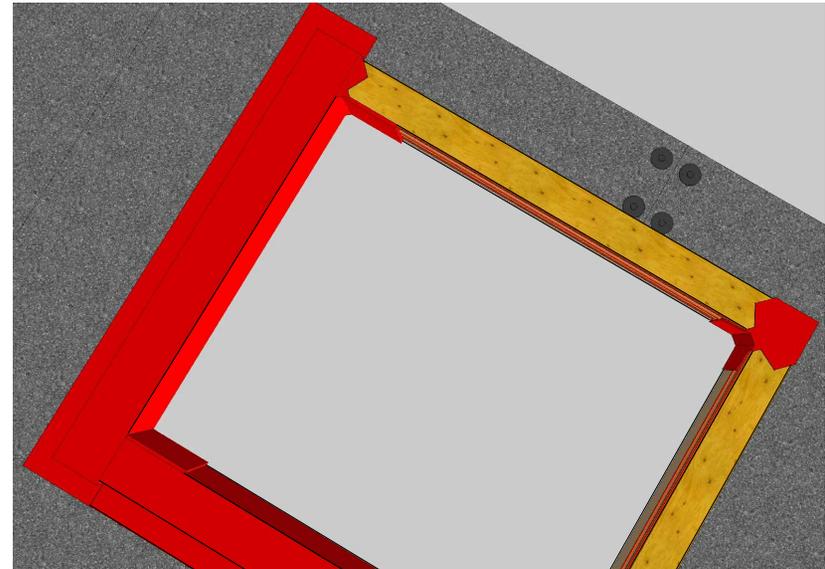


C - STARTING ALONG BOTTOM EDGE, INSTALL MEMBRANE AROUND ENTIRE PERIMETER OF OPENINGS

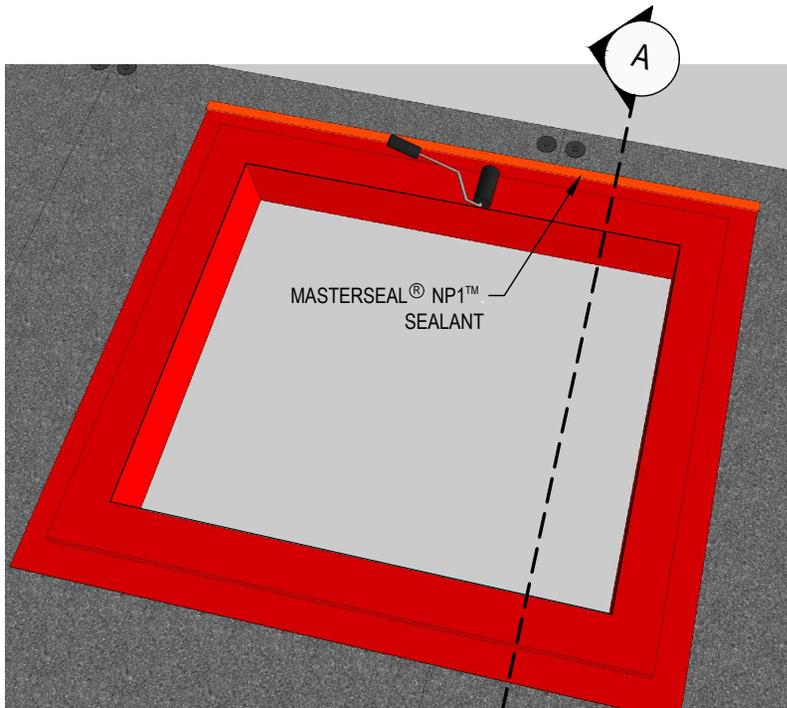
STEP 8 - AIR / WATER TIGHTNESS OF OPENINGS



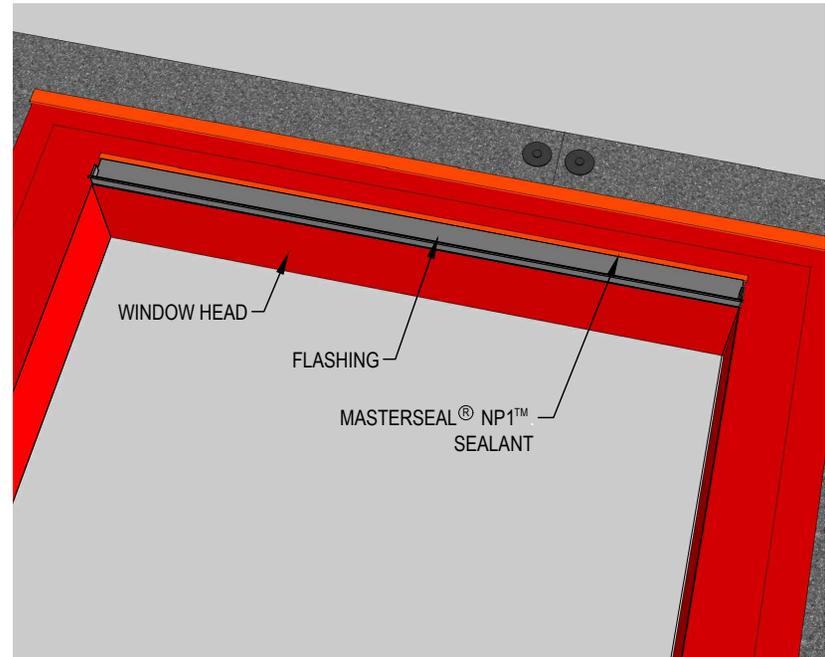
D - FOLD MEMBRANE INTO OPENING



E - INSTALL MEMBRANE ALONG VERTICAL EDGES OF OPENINGS

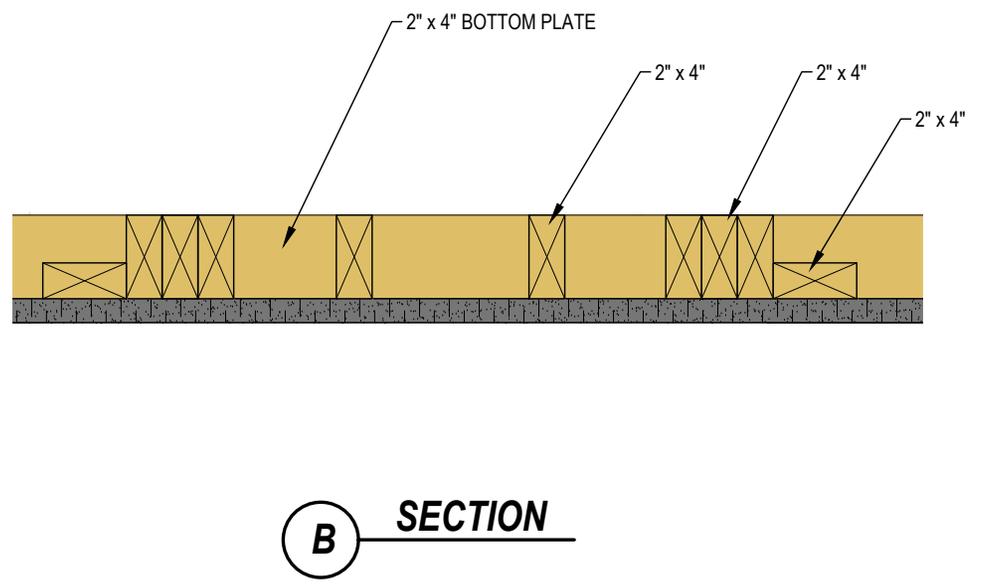
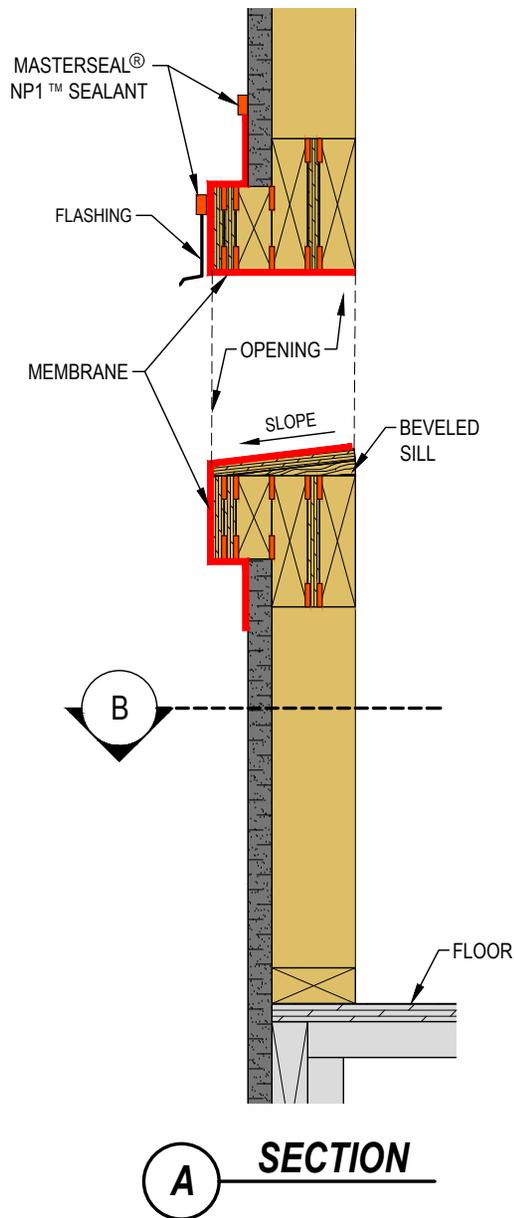


F - WHEN REQUIRED BY MANUFACTURER USE ROLLER TO APPLY PRESSURE AND SEAL MEMBRANE TO SUBSTRATE



G - INSTALL THE WINDOW HEAD FLASHING

STEP 9 - WALL AND OPENING DETAILS

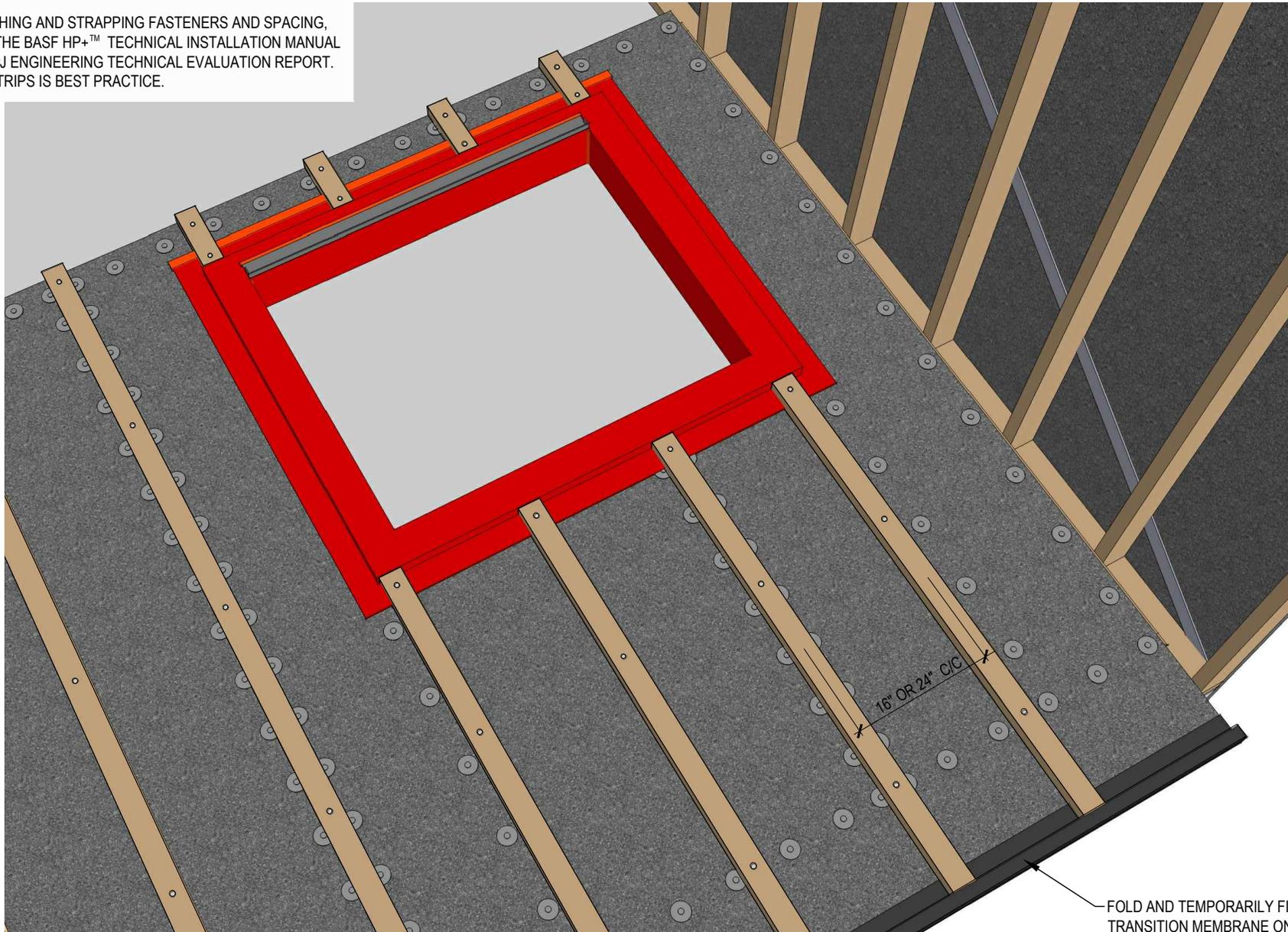


STEP 10 - STRAPPING INSTALLATION AROUND WINDOWS

(SEE STEP #4)

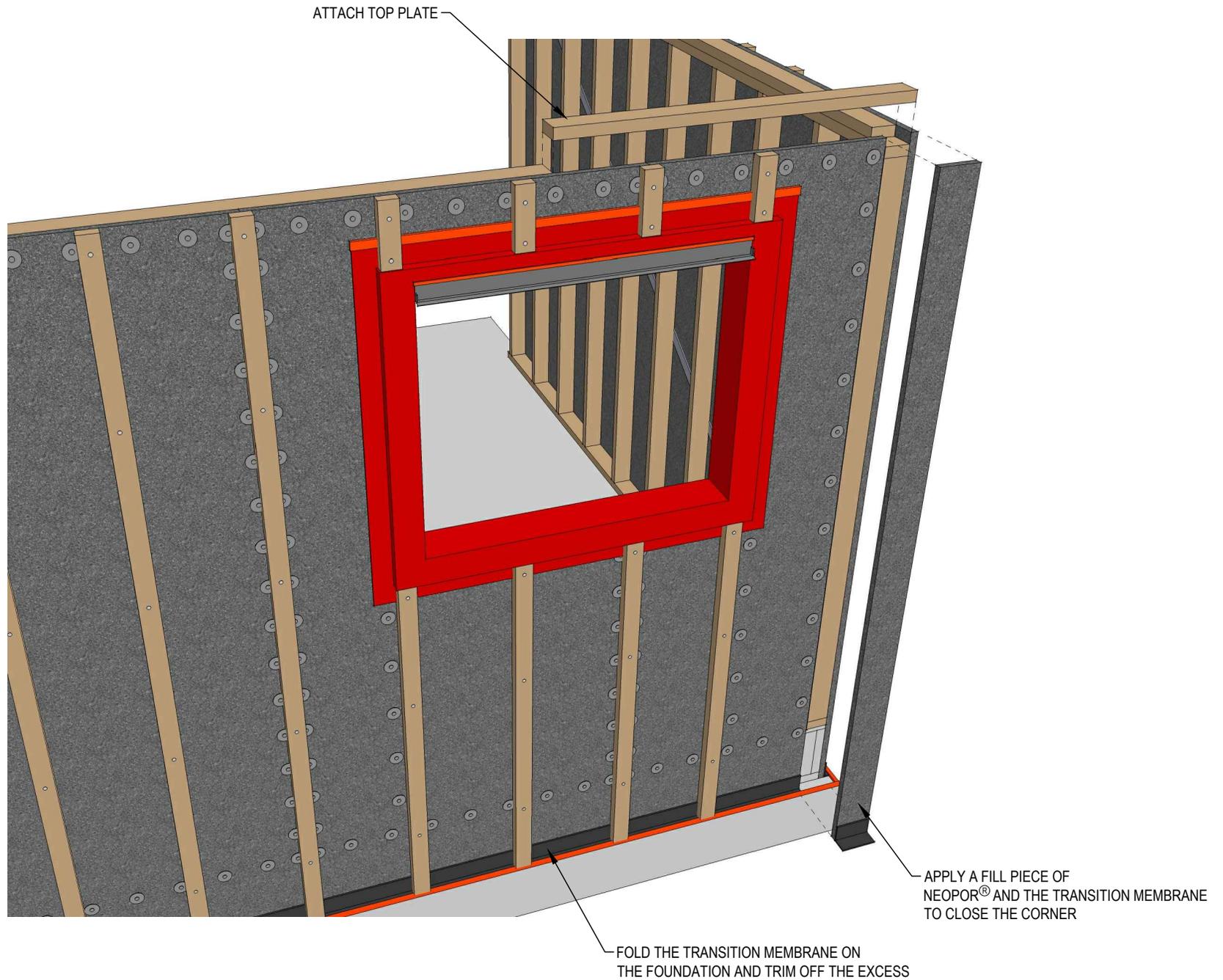
NOTE:

FOR SHEATHING AND STRAPPING FASTENERS AND SPACING, REFER TO THE BASF HP+™ TECHNICAL INSTALLATION MANUAL AND THE DrJ ENGINEERING TECHNICAL EVALUATION REPORT. FURRING STRIPS IS BEST PRACTICE.

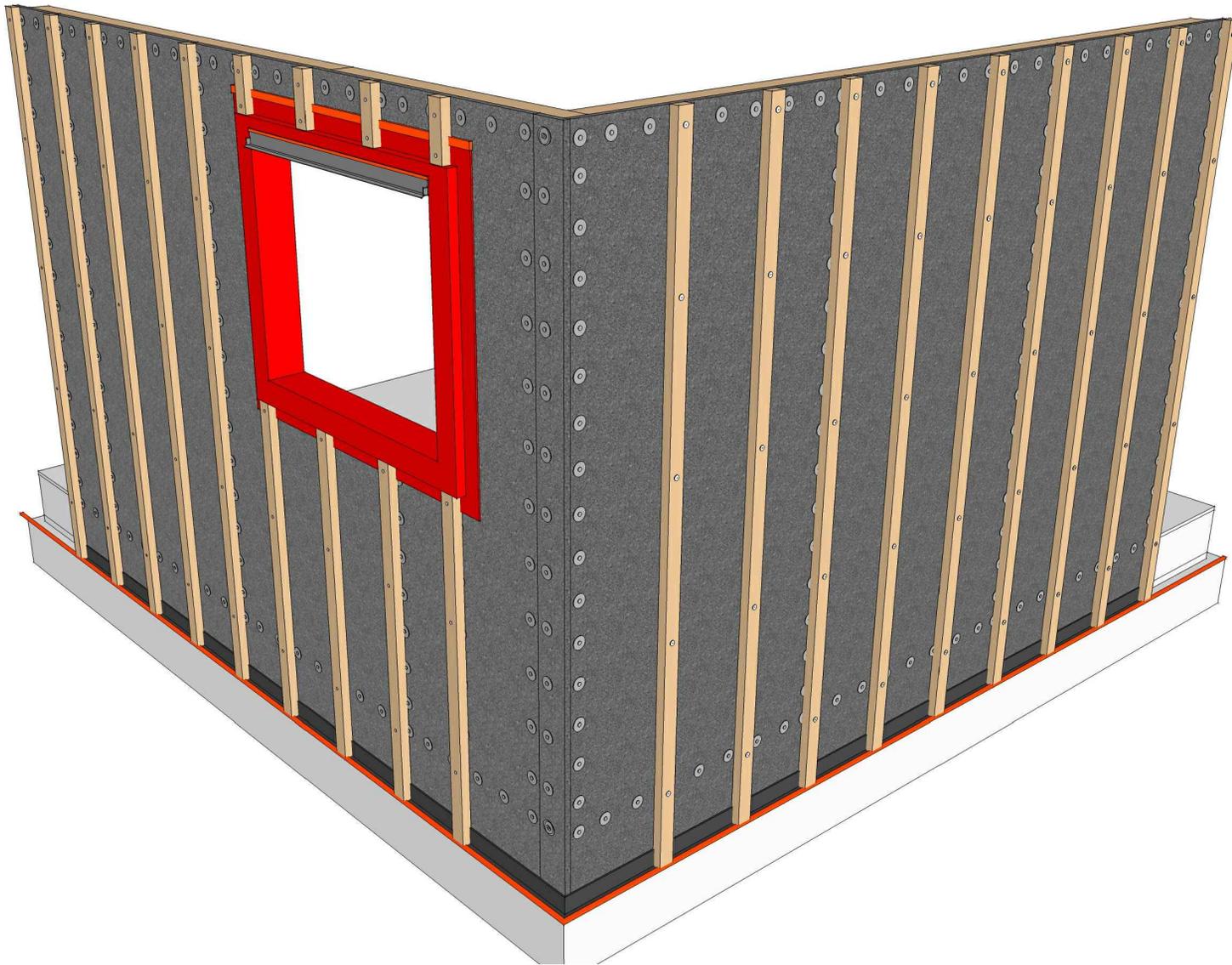


FOLD AND TEMPORARILY FIX THE
TRANSITION MEMBRANE ONTO
THE FURRING STRIPS

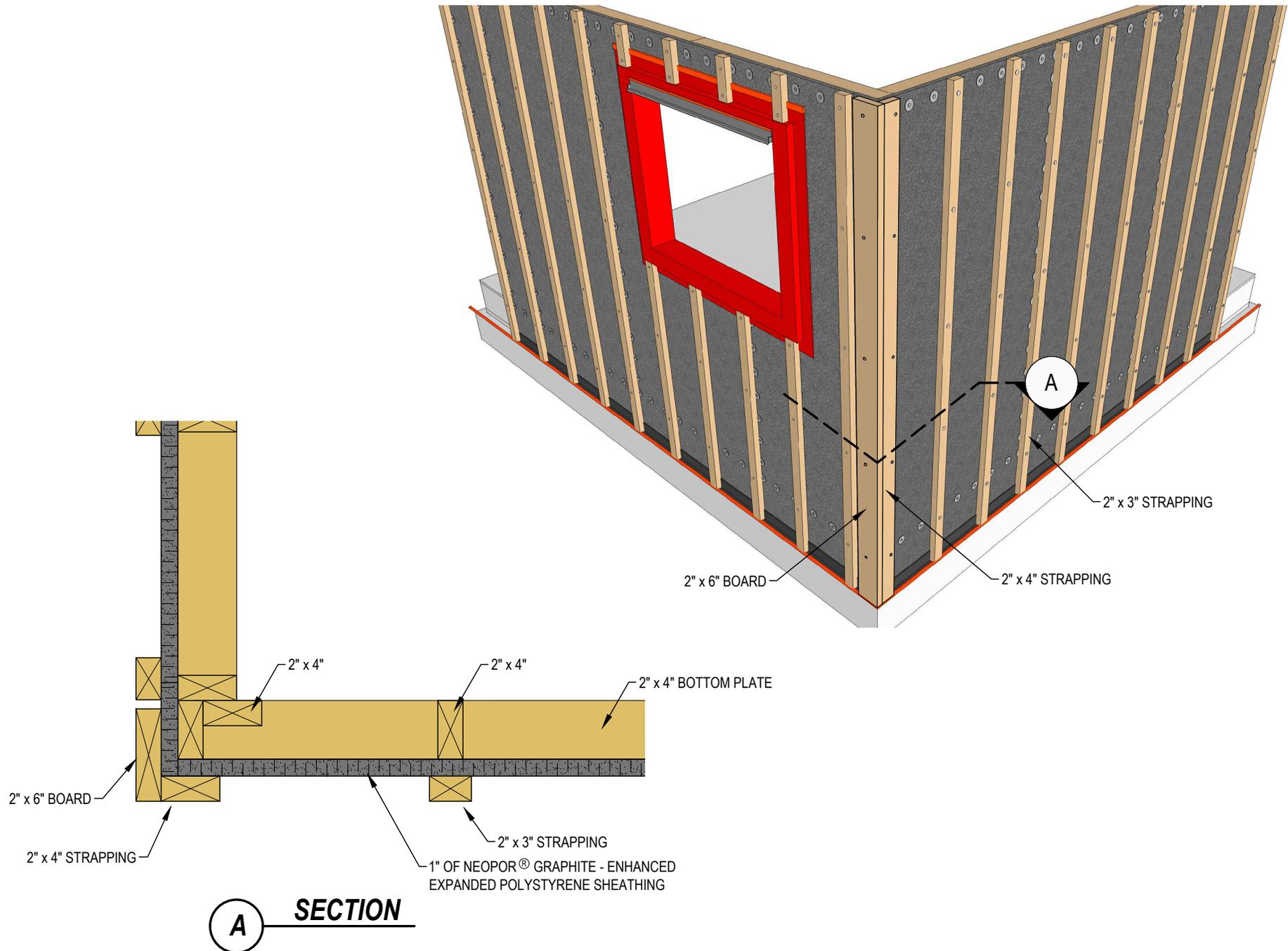
STEP 11 - RAISE WALL ASSEMBLY



STEP 12 - CORNER VIEW OF INSTALLED WALLS

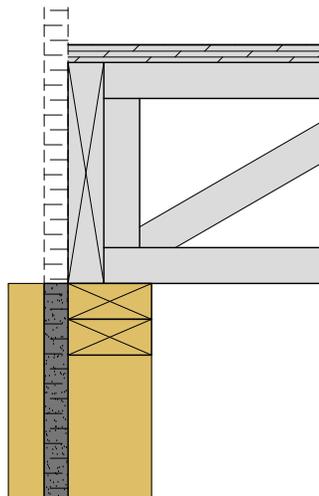
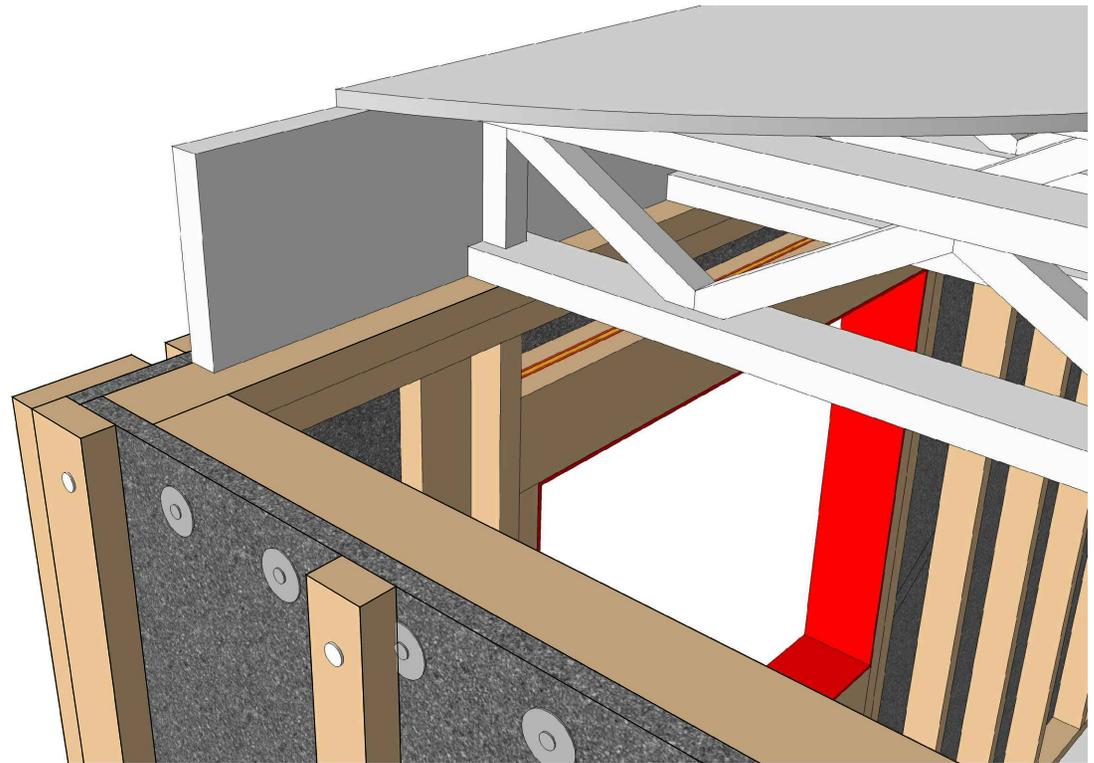


STEP 13 - CORNER STRAPPING INSTALLATION



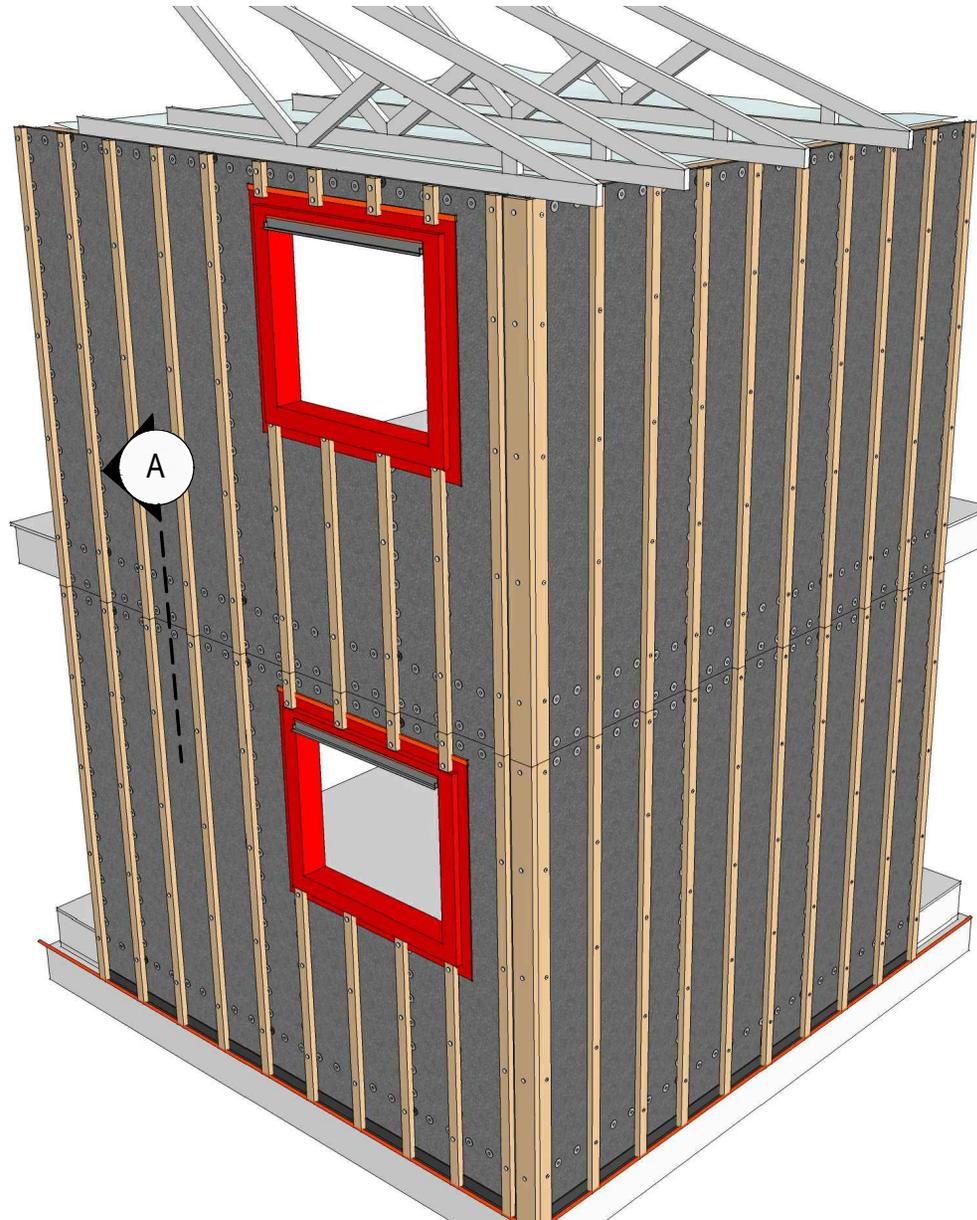
STEP 14 - SECOND FLOOR ASSEMBLY

ENSURE SEAL OF ALL FLOOR FRAMING COMPONENTS USING
MASTERSEAL® NP1™ SEALANT OR 1/2" OR 1" FOAM SEALANT TAPE

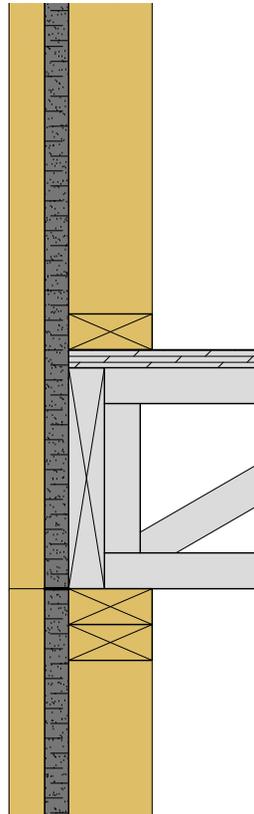


STEP 15A - BUILD AND POSITION SECOND FLOOR WALLS AND ROOF

(SEE STEPS 2 TO 14)



STEP 15B - DETAILS

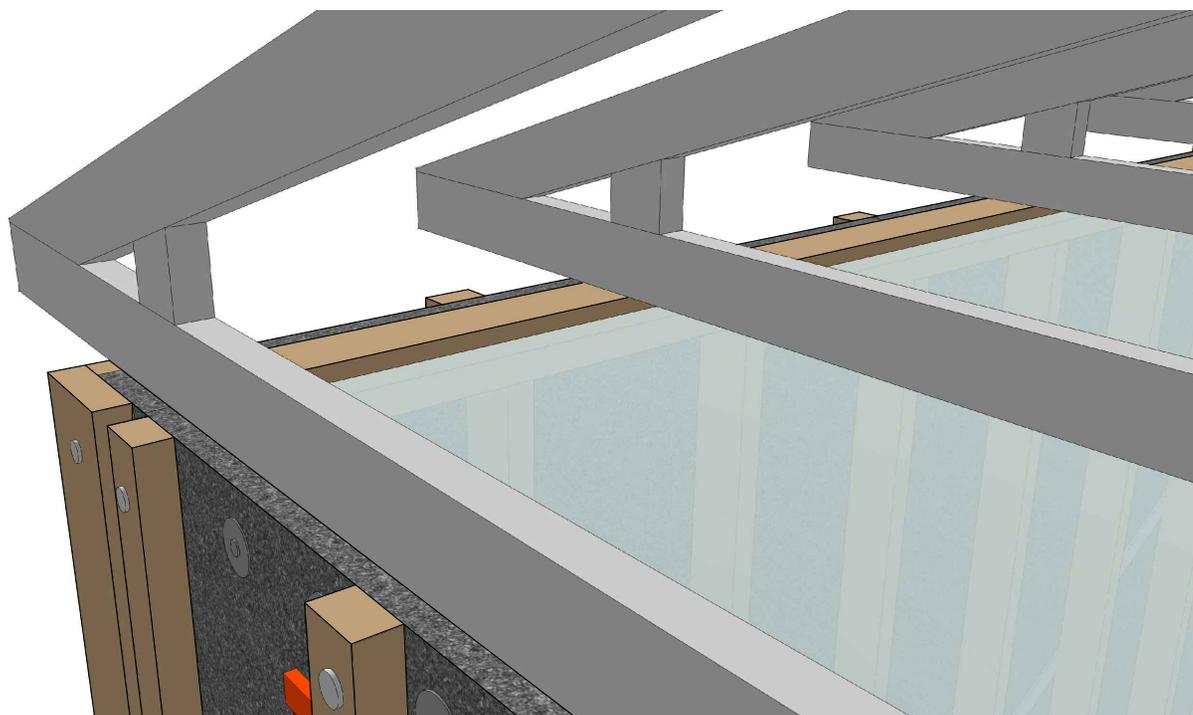


A SECTION

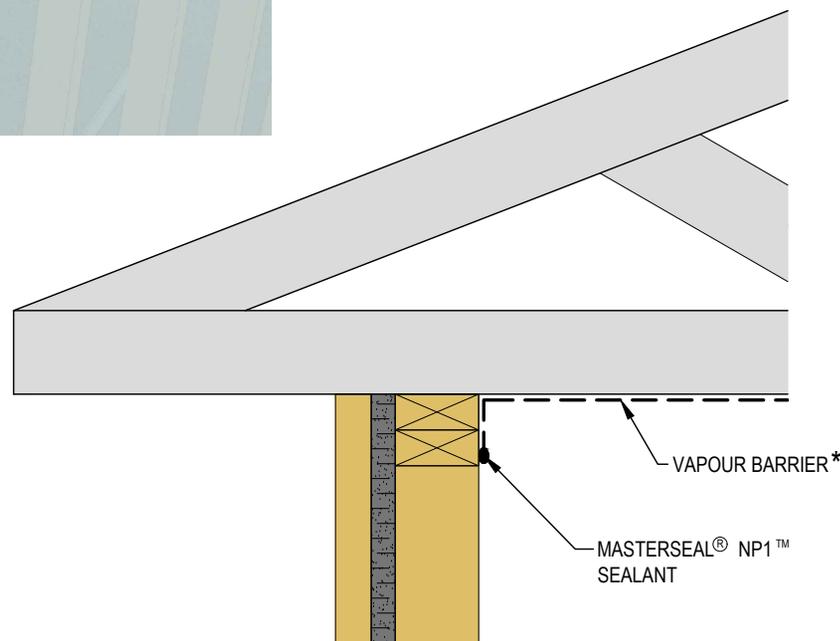


B 3D VIEW

STEP 16 - ROOF FRAMING



A 3D VIEW

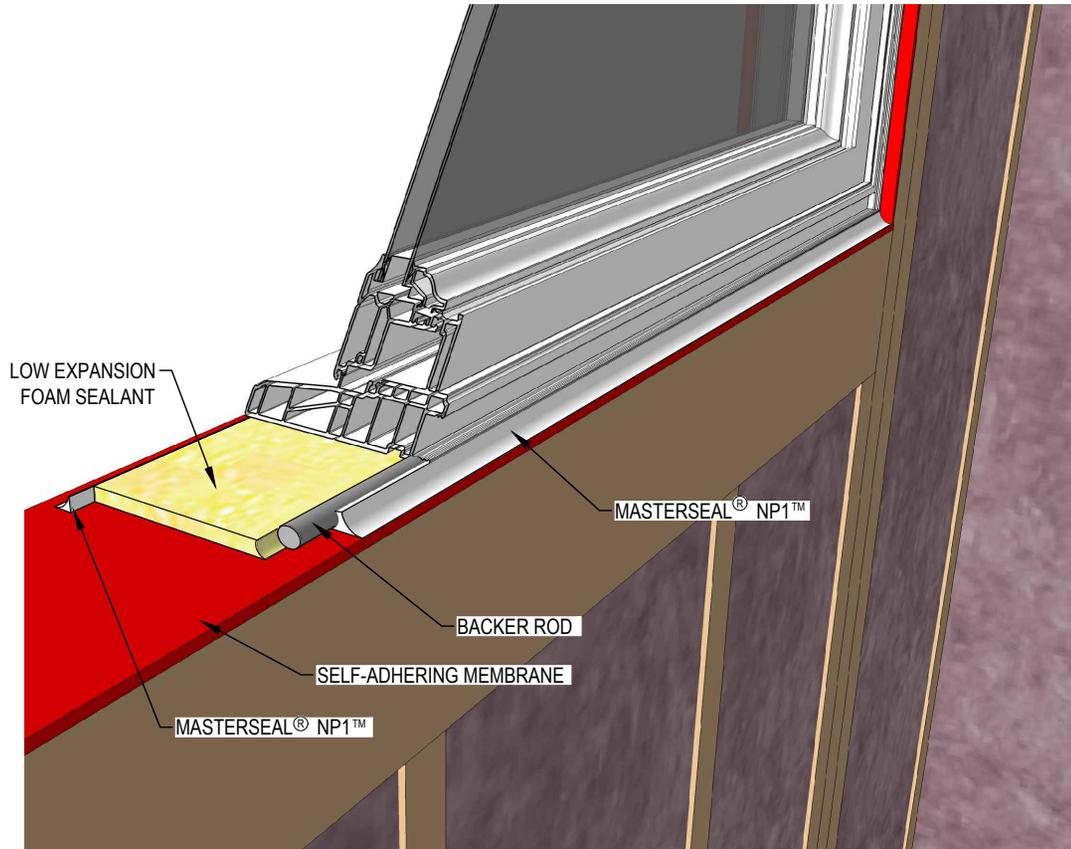


B SECTION

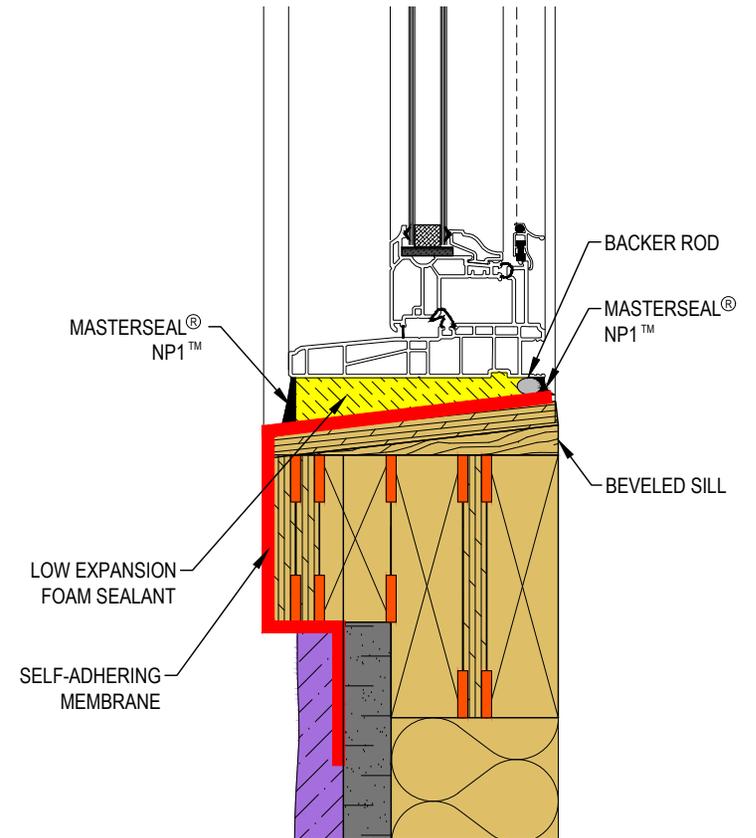
*AS REQUIRED BY CODE

STEP 17 - WINDOWS AND DOORS INSTALLATION

WINDOW INSTALLATION ACCORDING TO CSA A440.4



A 3D VIEW

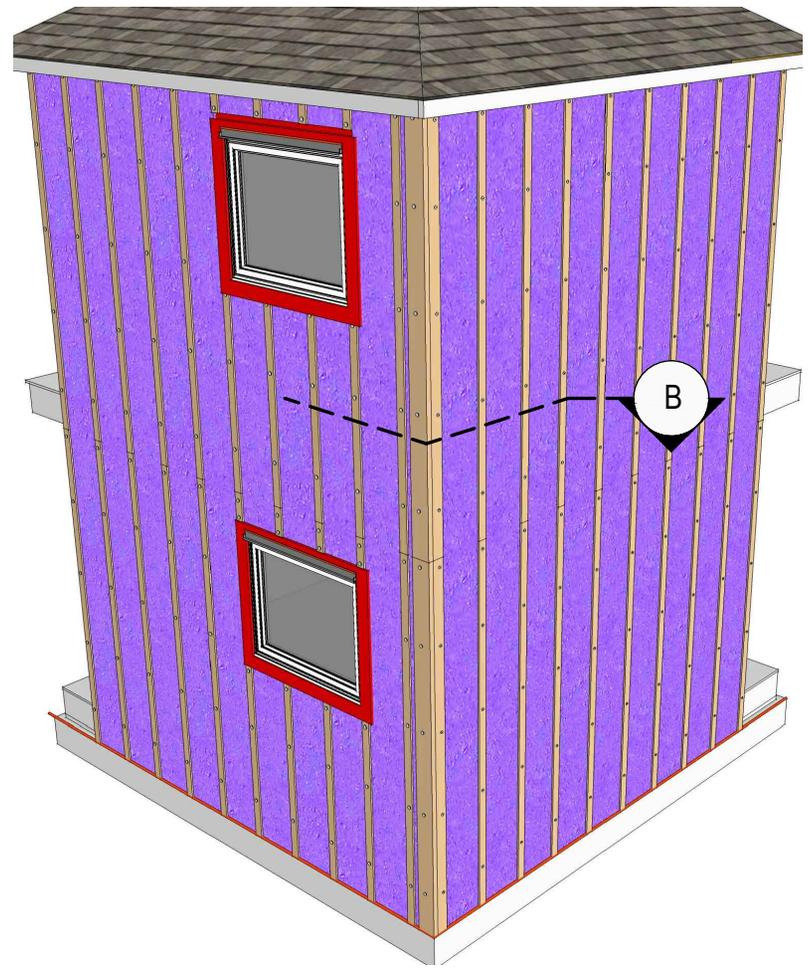


B SECTION

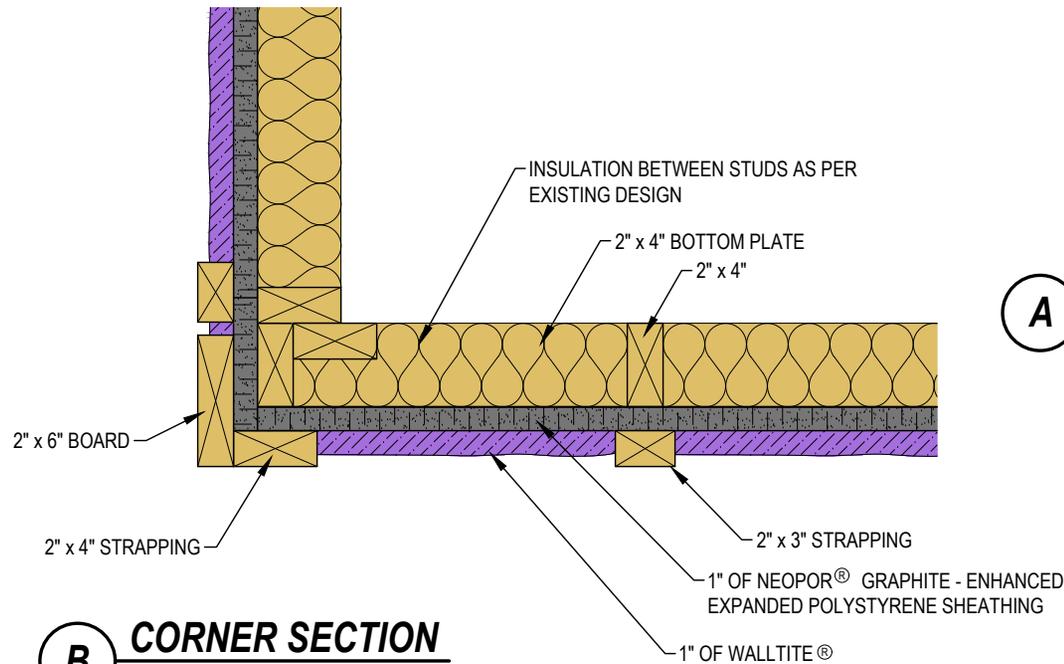
STEP 18A - INTERIOR AND EXTERIOR INSULATION: CORNER DETAILS

WALLTITE® MUST BE INSTALLED, IN ACCORDANCE WITH BASF'S QUALITY ASSURANCE PROGRAM.

NOTE: REFER TO THE BASF HP+™ TECHNICAL INSTALLATION MANUAL AND THE DrJ ENGINEERING TECHNICAL EVALUATION REPORT

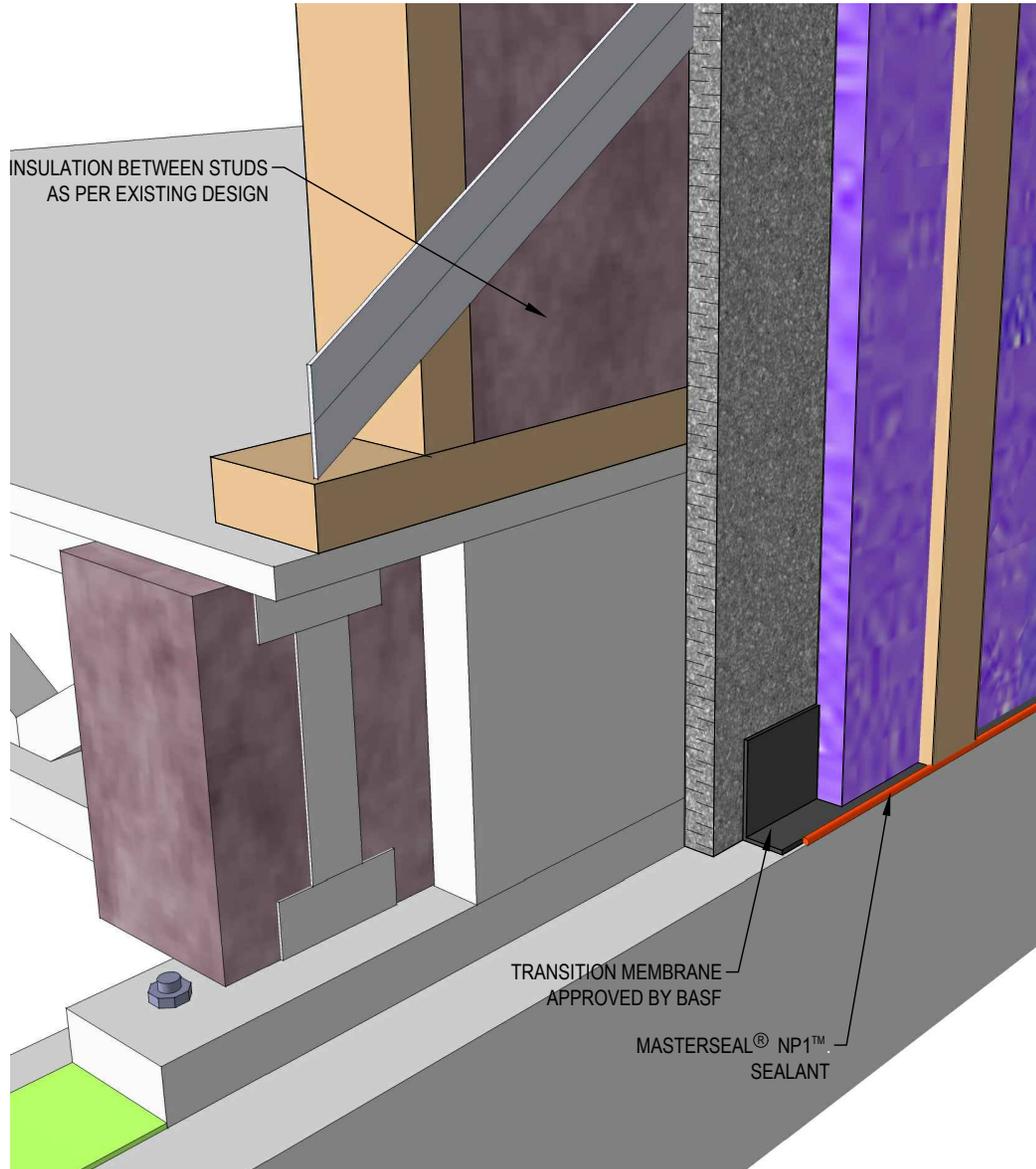


A 3D VIEW

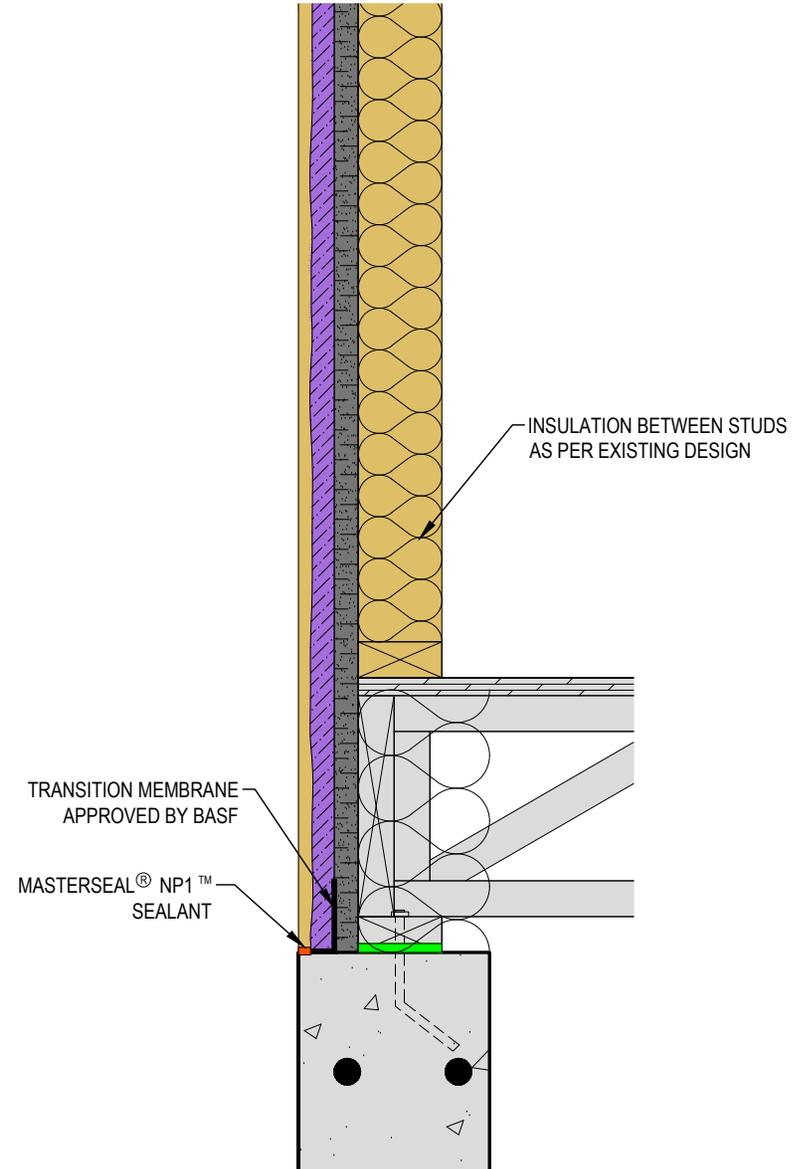


B CORNER SECTION

STEP 18B - INTERIOR AND EXTERIOR INSULATION: FIRST FLOOR WALLS AND HEADERS

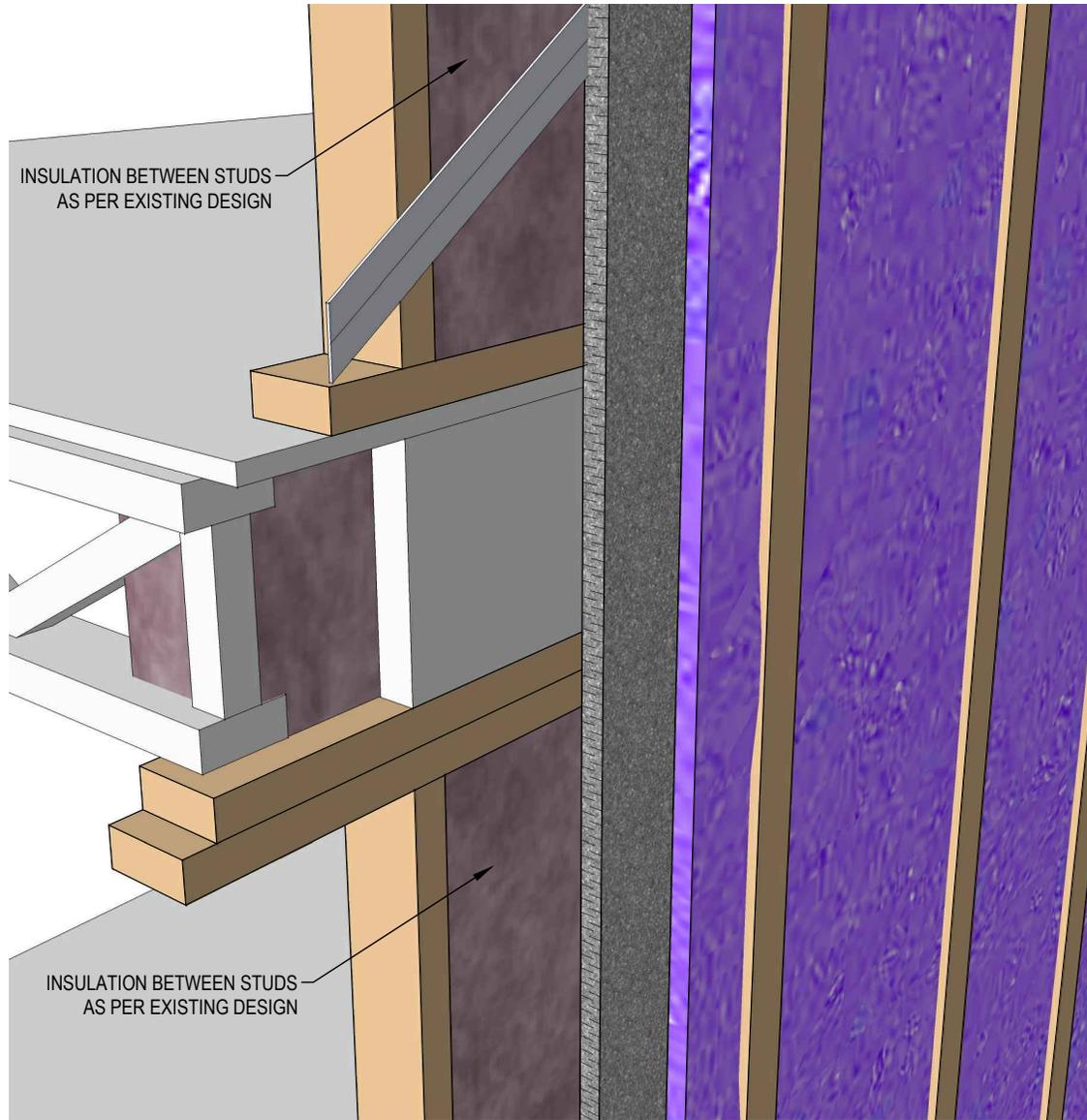


A 3D VIEW

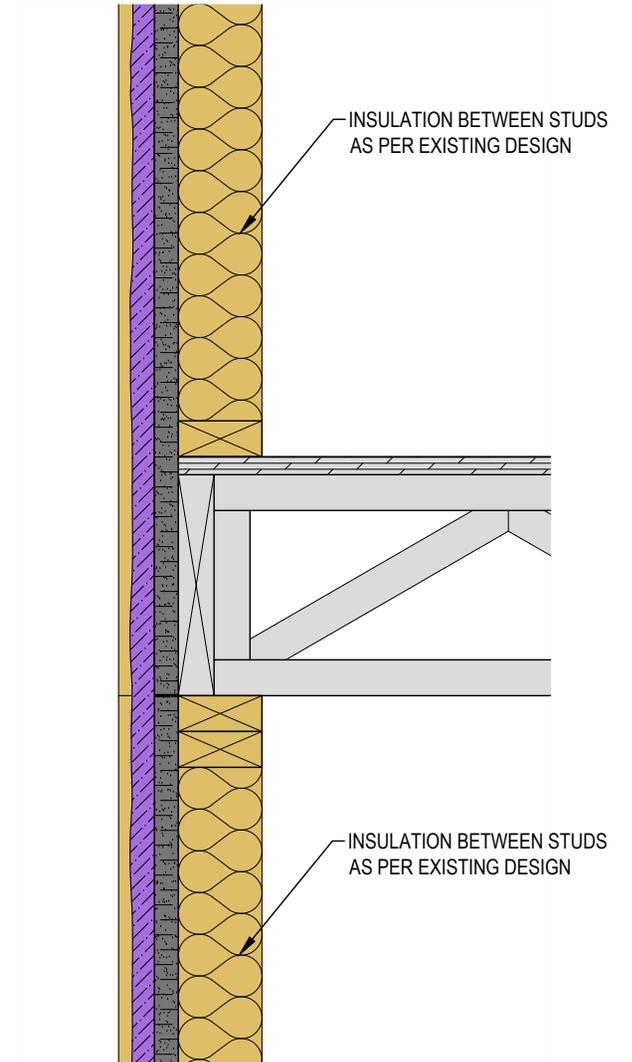


B SECTION

STEP 18C - INTERIOR AND EXTERIOR INSULATION: SECOND FLOOR WALLS AND HEADERS

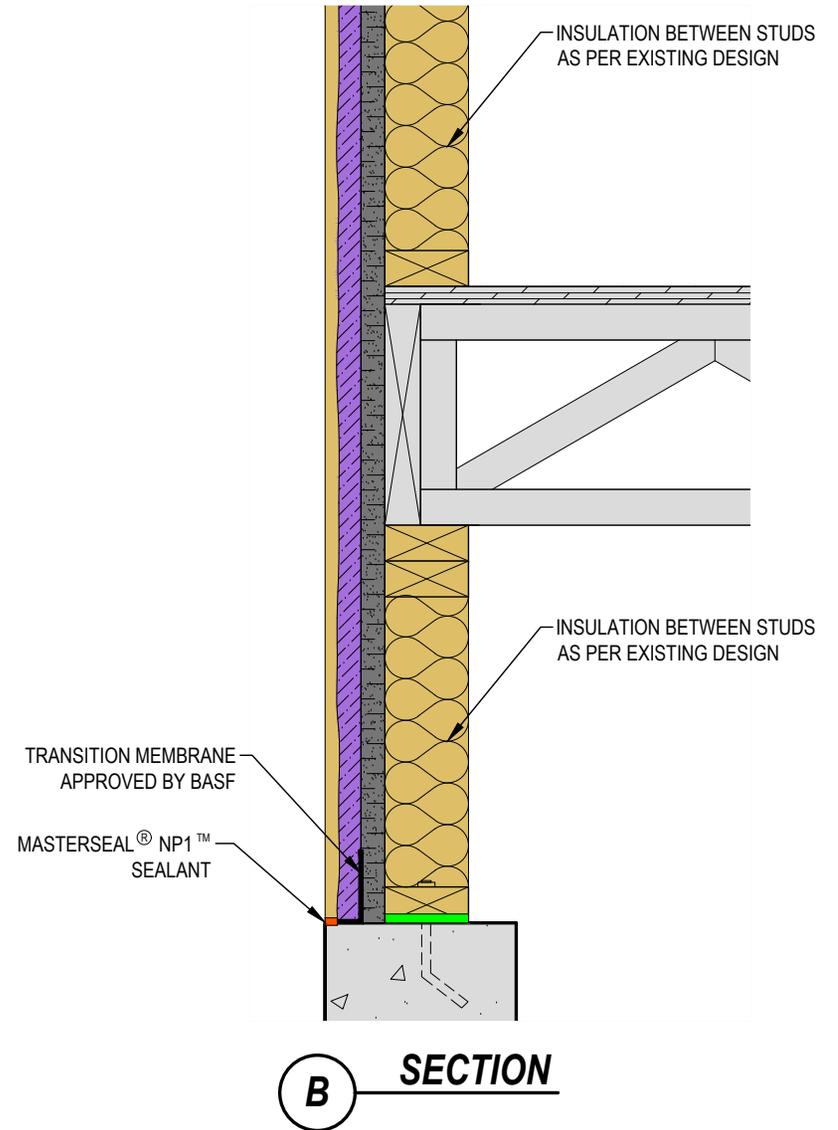
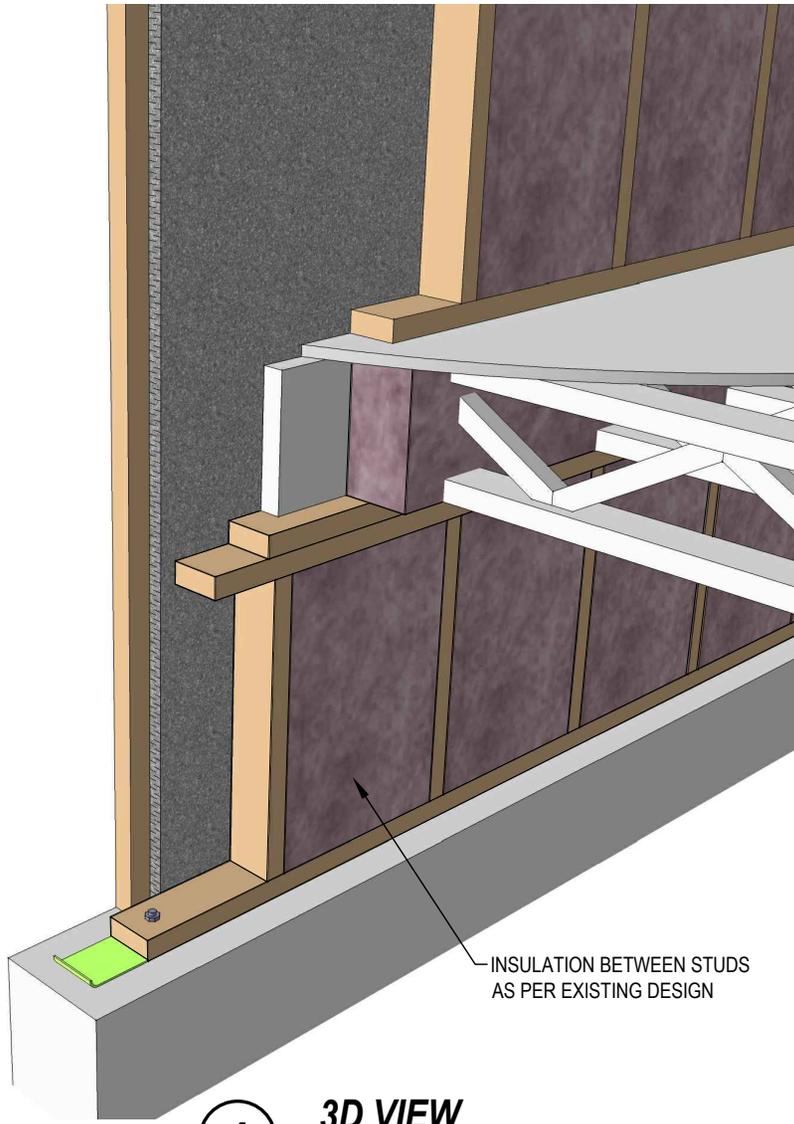


A 3D VIEW

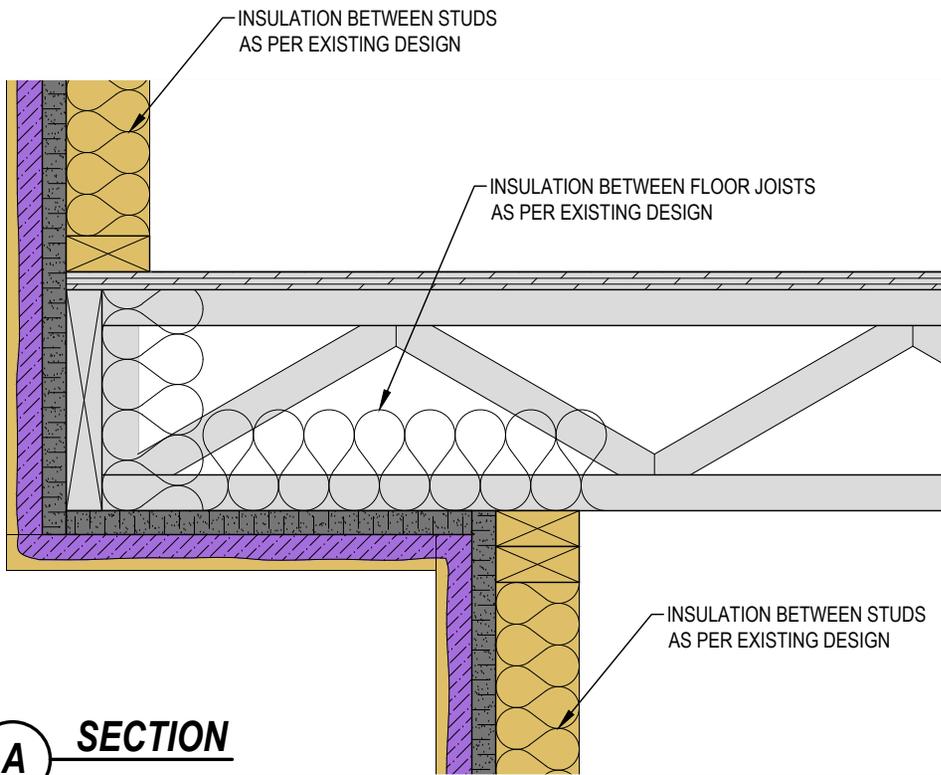


B SECTION

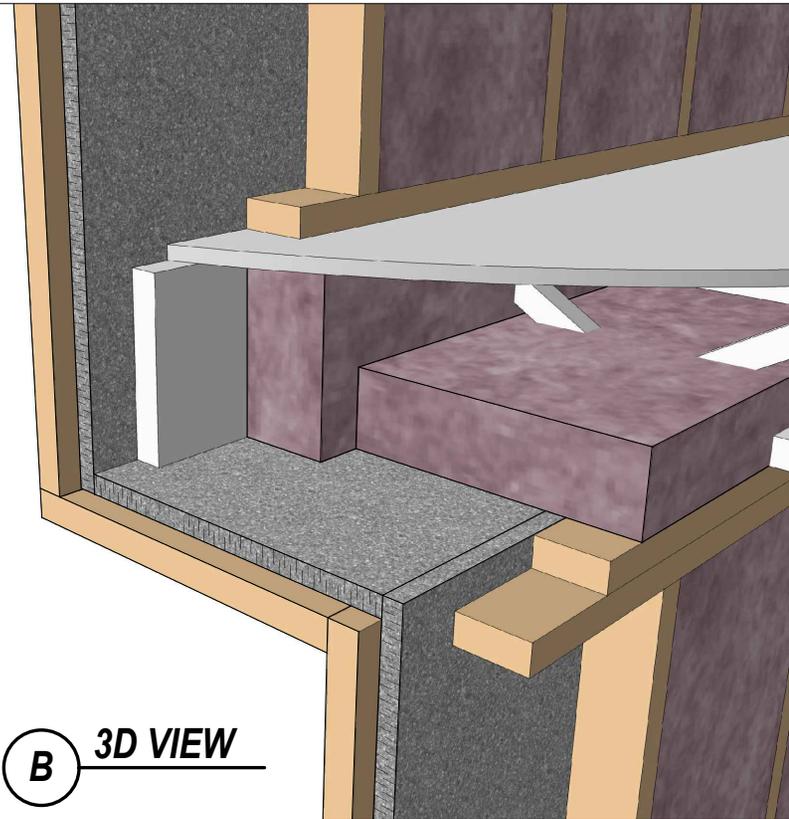
VARIOUS DETAILS: 1- KNEE WALL



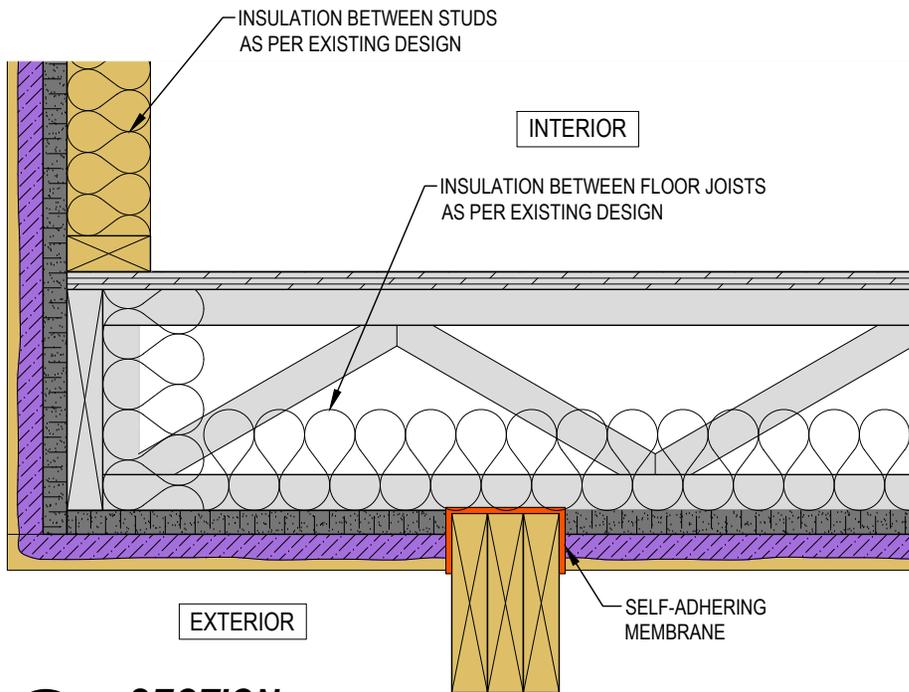
VARIOUS DETAILS: 2- CANTILEVERED FLOOR



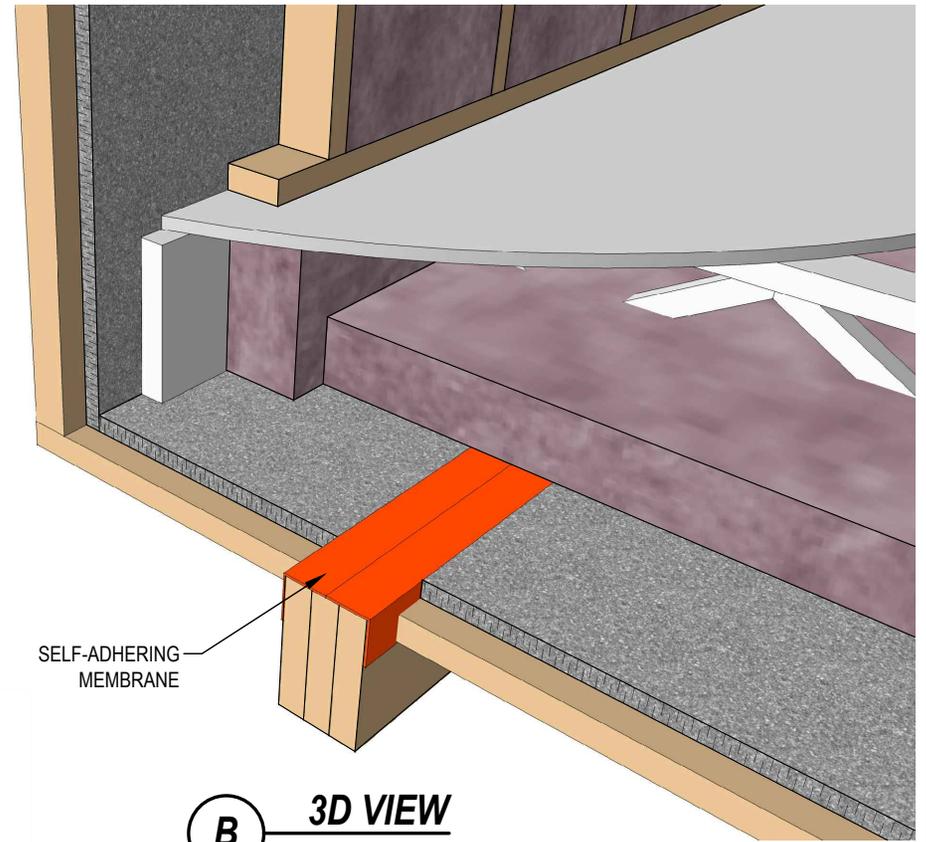
B 3D VIEW



VARIOUS DETAILS:
3- CANTILEVERED FLOOR ON BEAM



A SECTION

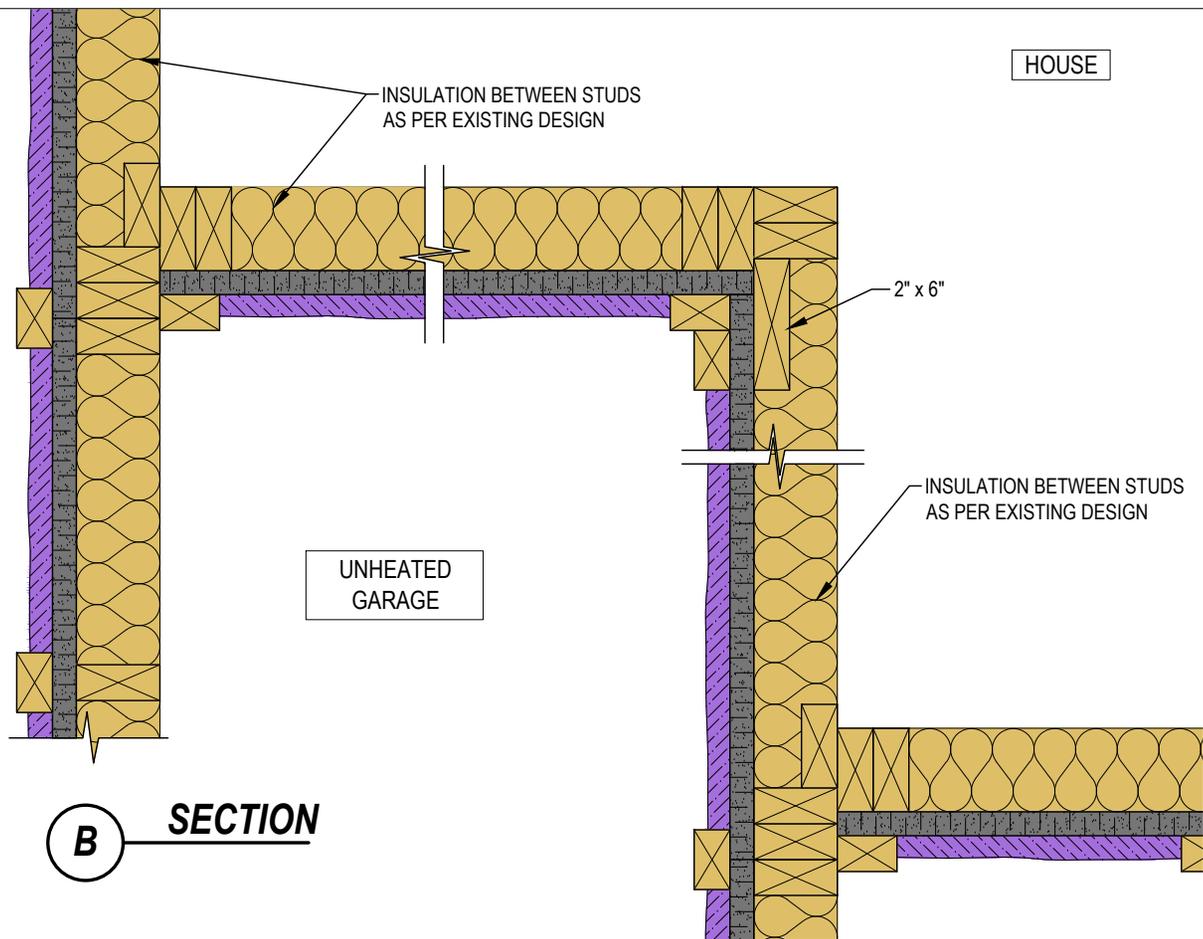


B 3D VIEW

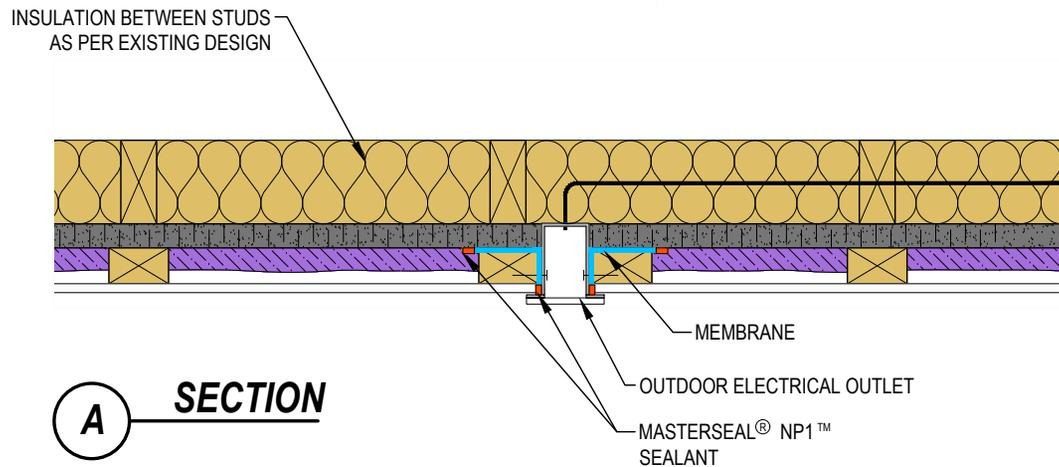
VARIOUS DETAILS: 4- UNHEATED GARAGE ELECTRICAL OUTLET

NOTE:

ALL EXPOSED FOAM PLASTIC INSULATION MUST BE COVERED WITH A THERMAL BARRIER APPROVED BY CODE

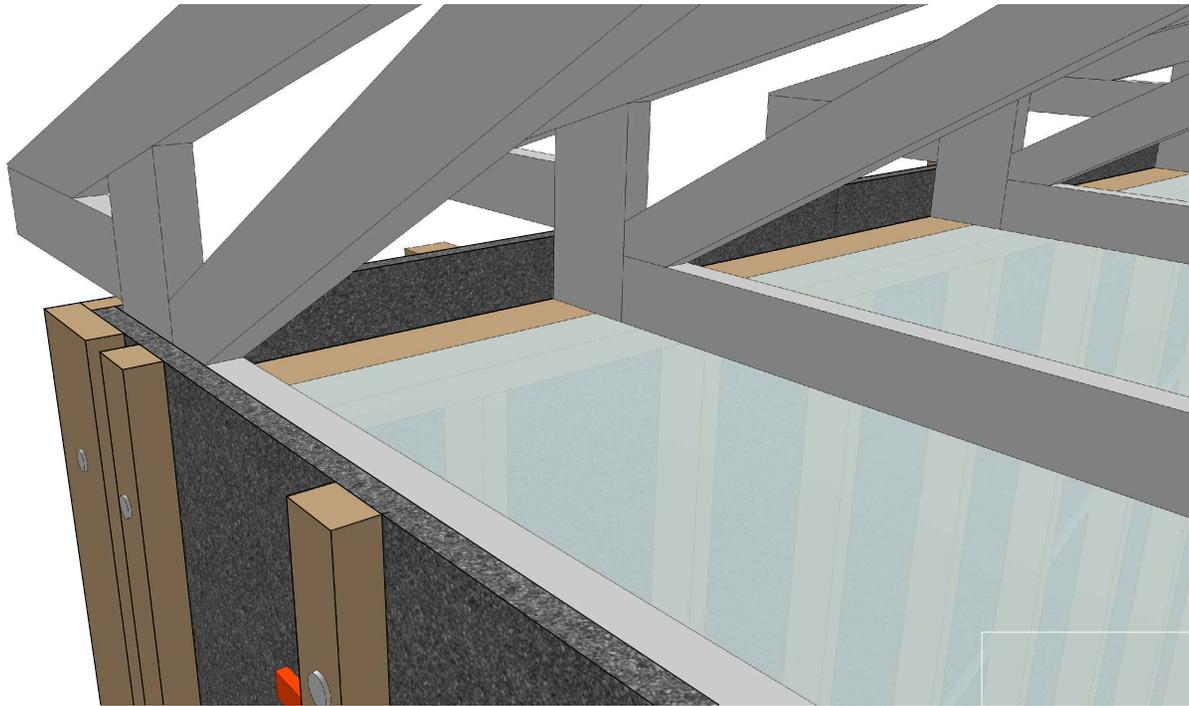


B SECTION

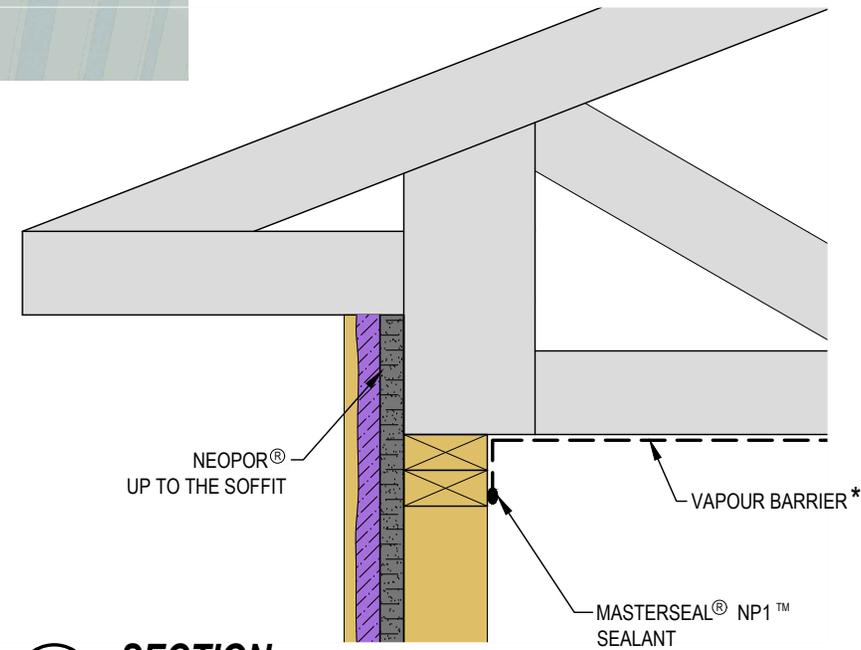


A SECTION

VARIOUS DETAILS: 5- RAISED HEEL ROOF TRUSS



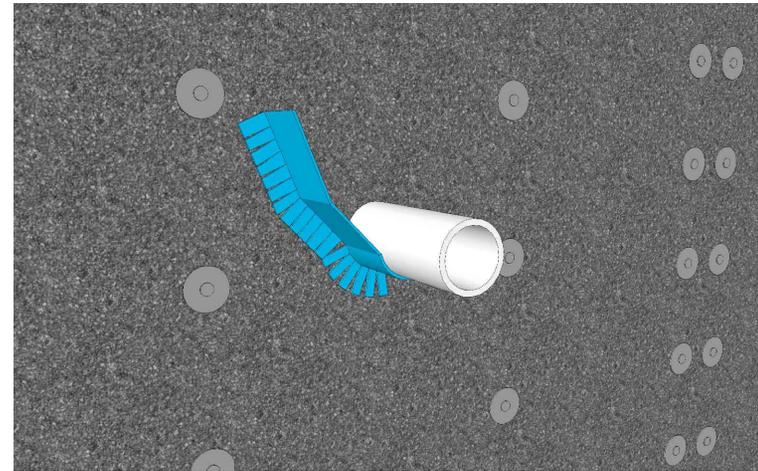
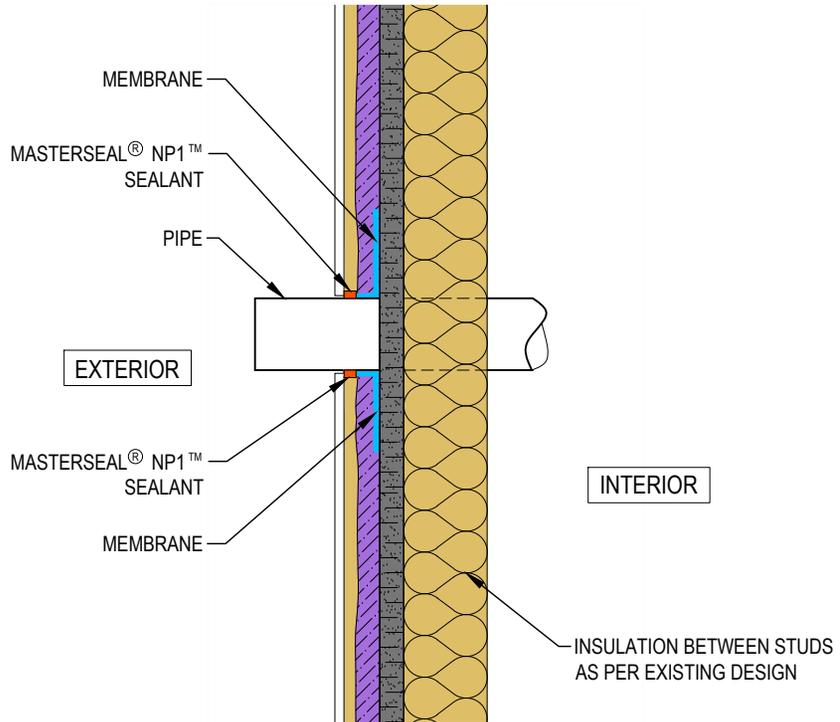
A 3D VIEW



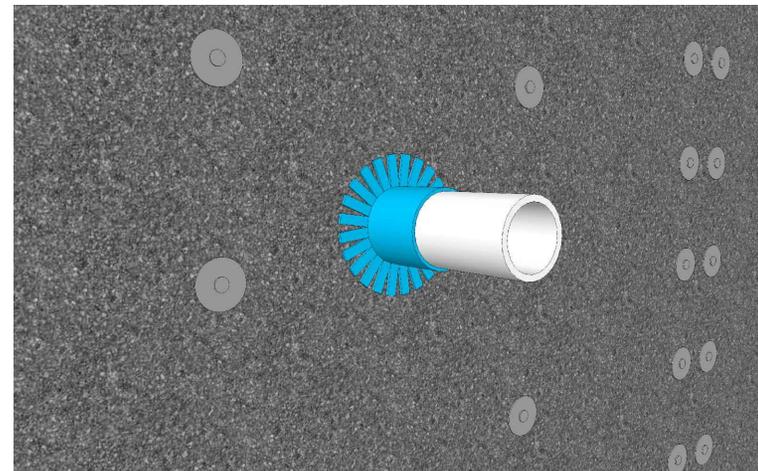
B SECTION

* AS REQUIRED BY CODE

VARIOUS DETAILS: 6- SEALING AROUND WALL PENETRATIONS

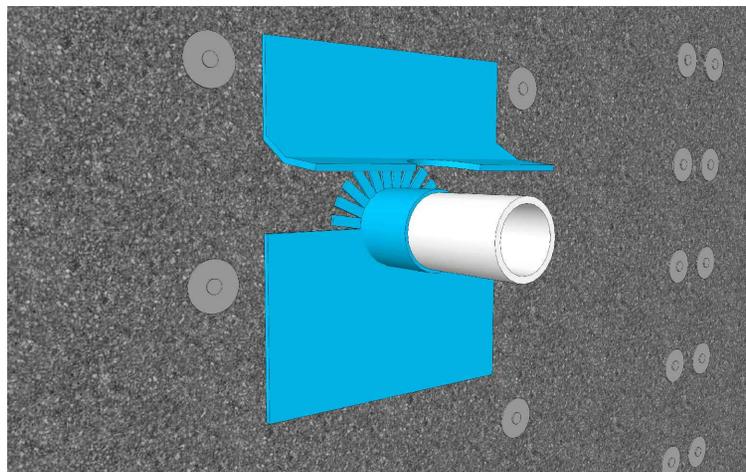


A - INSTALL A TRANSITION MEMBRANE AROUND THE PIPE.
CUT THE EDGE OF THE MEMBRANE TO ENSURE THE MEMBRANE IS WELL ADHERED TO THE WALL AND ALONG THE PERIMETER OF THE PIPE.
NOTE: INSTALL THE MEMBRANE STARTING FROM THE BOTTOM OF THE PIPE.

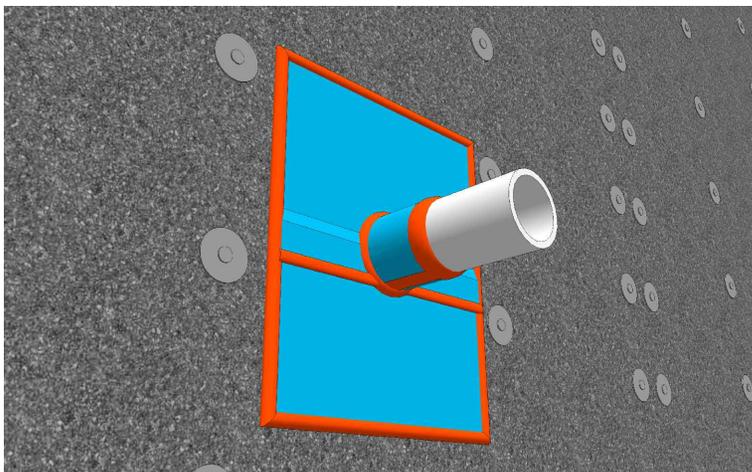


B - ENSURE THE MEMBRANE IS WELL ADHERED TO THE WALL AND ALONG THE ENTIRE PERIMETER OF THE PIPE

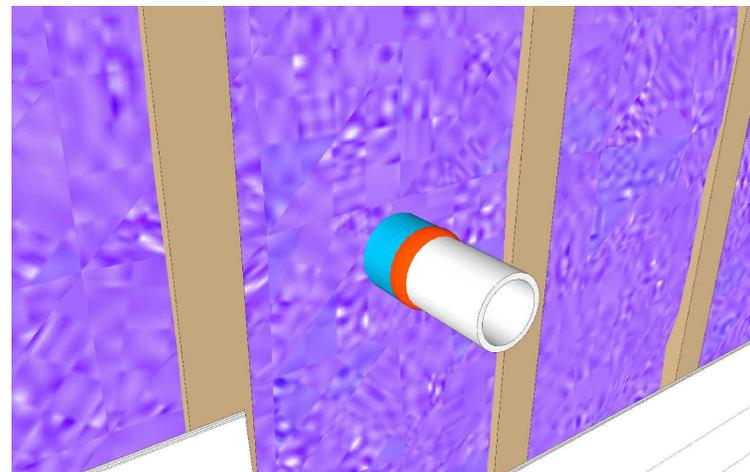
VARIOUS DETAILS: 6- SEALING AROUND WALL PENETRATIONS



C - INSTALL A MEMBRANE ON THE WALL TO COVER THE LOWER HALF OF THE PIPE.



D - INSTALL A SECOND MEMBRANE ON THE WALL TO COVER THE UPPER PART OF THE PIPE AND OVERLAP WITH THE LOWER MEMBRANE. SEAL THE PERIMETER AND ALL THE MEMBRANE JOINTS.



E - FASTEN THE FURRING STRIPS, SPRAY WALLTITE[®], THEN INSTALL THE VINYL SIDING.