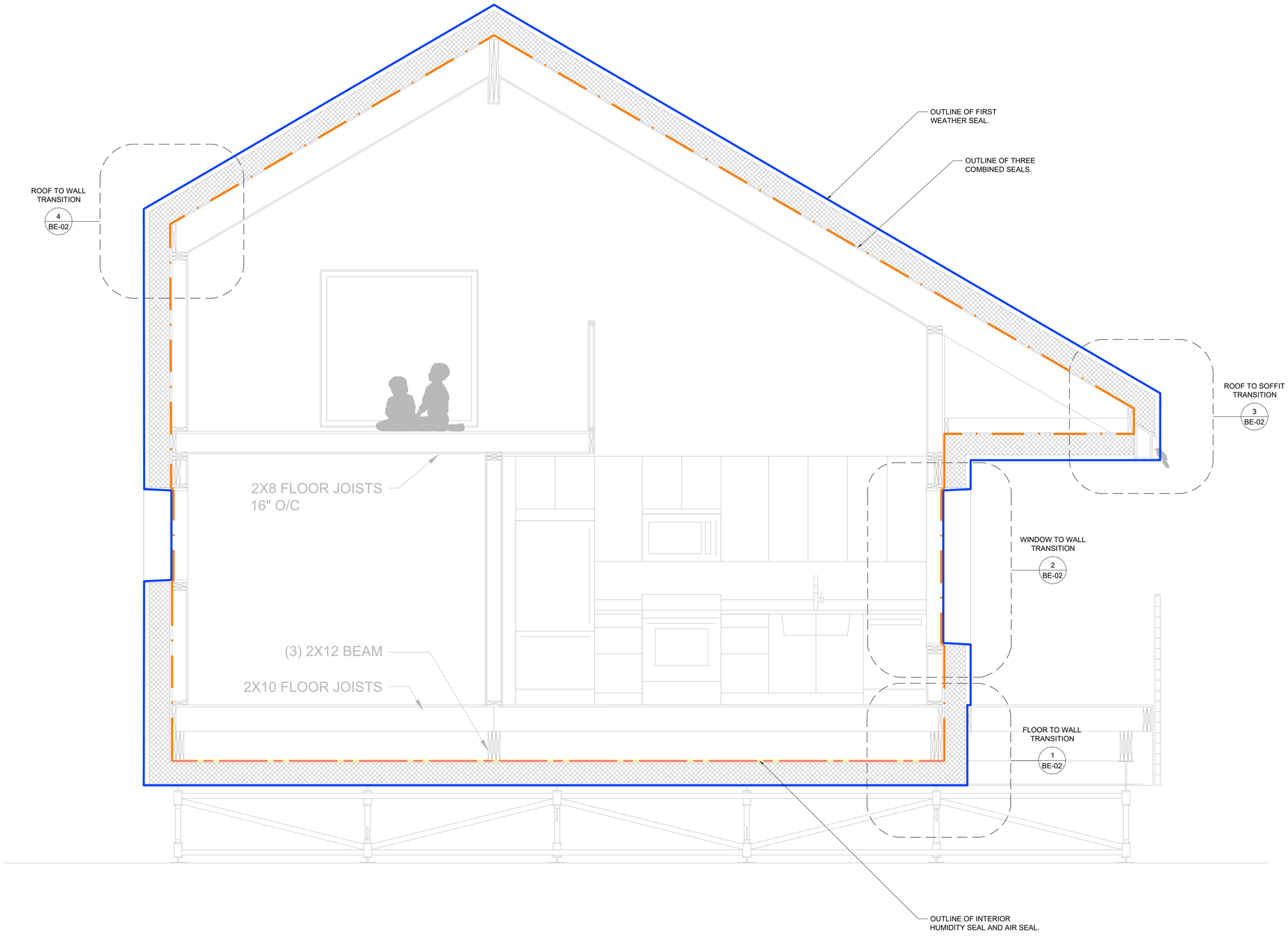
BUILDING ENVELOPE DETAILS

CONNECTING THE LAYERS IN THE ROOF, WALLS, AND FLOOR TOGETHER.



NOTES

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6. DO NOT SCALE THE DRAWINGS.

All dimensions in Metric

REV#	YYYY-MM-DD	SUBMISSION INFORMATION
1	2020-03-31	ISSUED FOR CLIENT REVIEW

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MORRISON HERSHFIELD
Suite 200, 2932 Baseline Road
Ottawa, ON K2H 1B1
Tel: 613 739 2910

PROJECT
TECHNICAL GUIDE FOR NORTHERN HOUSING

DRAWING
FORT SEVERN BUILDING CROSS SECTION NEW WORK

DESIGN	DATE	SCALE
MFM	2020-03-31	As Shown
DRAWN: MSE	PROJECT NO. 1901150.01	
CHECKED: DK	DRAWING NO	VERSION
APPROVED	BE-01	01

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BUILDING ENVELOPE LAYERS LEGEND

	FIRST WEATHER SEAL
	SECOND WEATHER SEAL
	INSULATION
	INTERIOR HUMIDITY SEAL
	AIR SEAL
	THREE SEALS COMBINED (SECOND WEATHER SEAL, INTERIOR HUMIDITY SEAL, AND AIR SEAL)

FIRST WEATHER SEAL
LIMIT THE BUILDING ENVELOPE'S EXPOSURE TO WATER AND SNOW. COMMONLY INCLUDES EXTERIOR WALL CLADDINGS AND ROOF SYSTEMS. FLASHINGS AND TRIMS ASSIST IN SHEDDING WATER AWAY FROM THE SURFACES OF THE WALL AND OPENINGS.

SECOND WEATHER SEAL
RESIST THE BULK MOVEMENT OF WATER AND AIDE IN DRAINAGE. COMMONLY SHEATHING MEMBRANES, TAPES, AND SEALANTS.

INSULATION
RESIST THE FLOW OF HEAT AND AIDE IN REGULATING INTERIOR TEMPERATURES. COMMONLY INCLUDES EXTERIOR AND INTERIOR STUD CAVITY INSULATION, SUCH AS XPS, BATT, AND CELLULOSE INSULATIONS.

THE DISTRIBUTION OF THE INSULATION WITHIN THE ASSEMBLY DEPENDS ON THE TYPE OF EXTERIOR INSULATION. IF VAPOUR IMPERMEABLE INSULATIONS (E.G. XPS, EPX, ETC.) ARE USED THEN TWO-THIRDS OF THE ASSEMBLY R-VALUE IS TO INSTALLED ON THE EXTERIOR. WITH THE REMAINING ONE-THIRD IS TO BE INSTALLED WITHIN THE STUD CAVITY. IF A MAJORITY OF THE R-VALUE IS LOCATED WITHIN THE STUD CAVITY THEN A VAPOUR PERMEABLE INSULATION MUST BE USED.

TO LIMIT CONDENSATION BUILD-UP WITHIN THE BUILDING ENVELOPE ENSURE CONTINUITY OF THE INSULATION BY LIMITING INSULATION BREAKS AND FILL ENTIRE CAVITIES TO PREVENT CONVECTIVE LOOPS FROM FORMING.

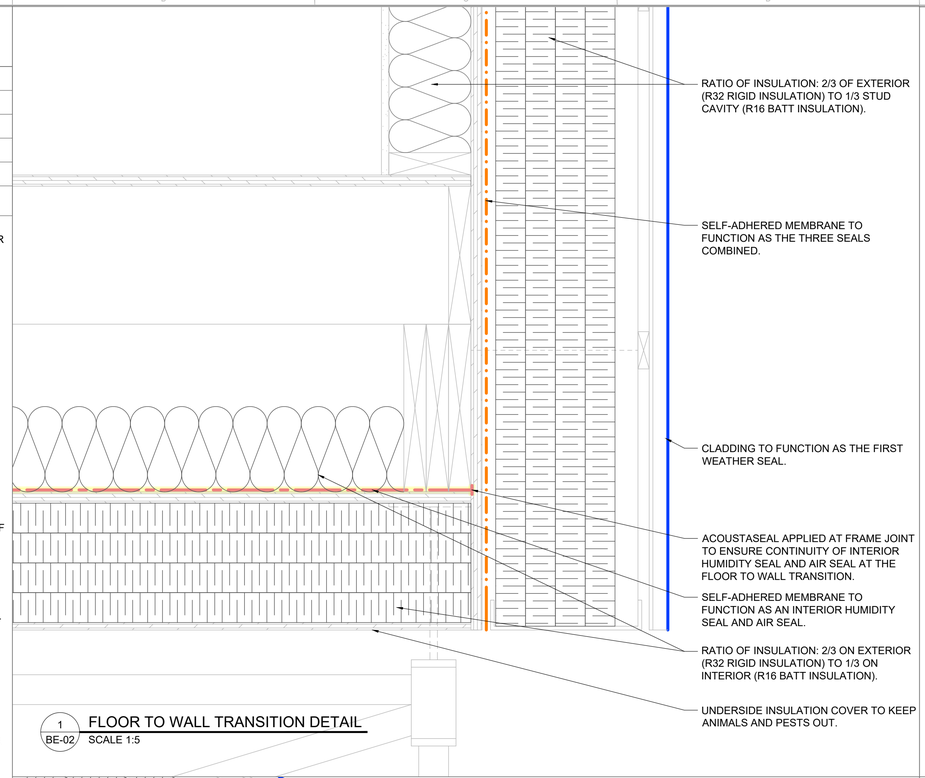
INTERIOR HUMIDITY SEAL
RESIST THE MOVEMENT OF WATER VAPOUR. COMMONLY POLYETHYLENE SHEET, SHEATHING MEMBRANE, ETC.

AIR SEAL
RESIST THE MOVEMENT OF AIR BETWEEN THE INDOOR AND OUTDOOR. COMMONLY SHEATHING MEMBRANES, POLYETHYLENE SHEETS, ETC.

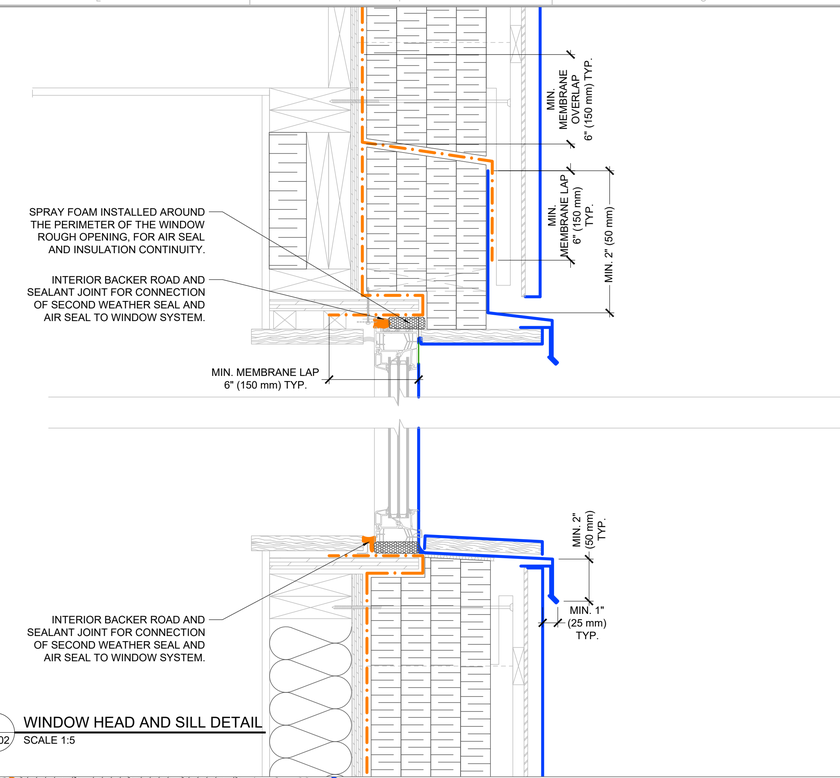
THREE SEALS COMBINED
COMBINED SECOND WEATHER, INTERIOR HUMIDITY, AND AIR SEAL. TO BE APPLIED ON THE WARM SIDE OF THE INSULATION.

APPLY PRIMER ON SUBSTRATE AND INSTALL MEMBRANE IN ACCORDANCE WITH MANUFACTURER'S INSTALLATION RECOMMENDATIONS. ENSURE MEMBRANE SHEETS ARE LAPPED POSITIVELY TO SHED WATER AND OVERLAPPED BY A MINIMUM OF 6" (150 mm).

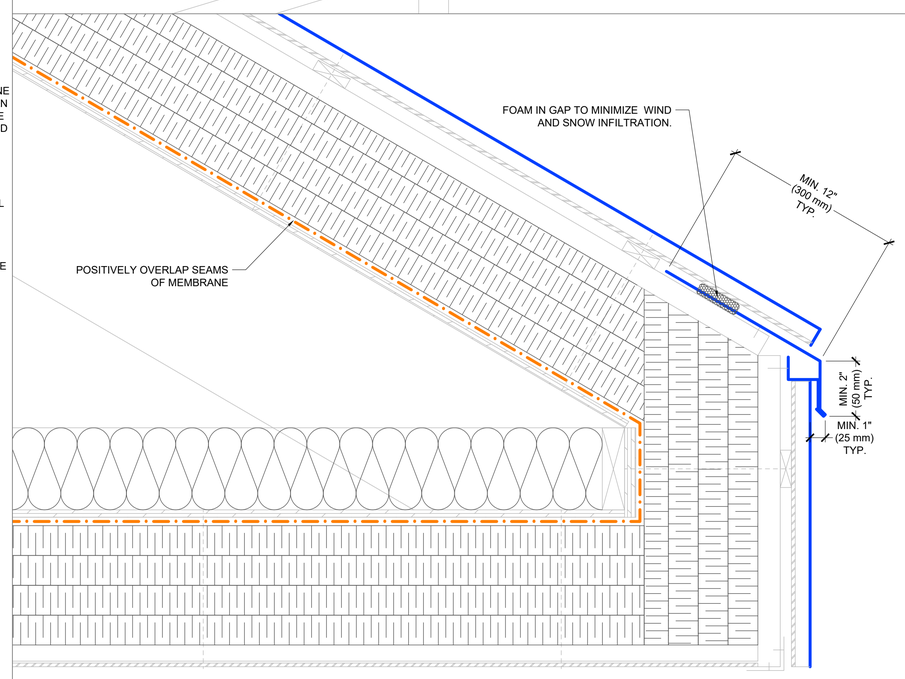
NOTE: THE CONTINUITY OF BARRIERS IS FUNDAMENTAL IN PROVIDING A HIGHLY EFFECTIVE BUILDING ENVELOPE. TO LIMIT VAPOUR, MOISTURE, AND AIR INFILTRATION SEAL AROUND PENETRATIONS AND OPENINGS (WHERE POSSIBLE), PATCH OR REPAIR DAMAGED MATERIALS, OVERLAP SHEETS, AND PROVIDE REDUNDANCY AT TRANSITIONS.



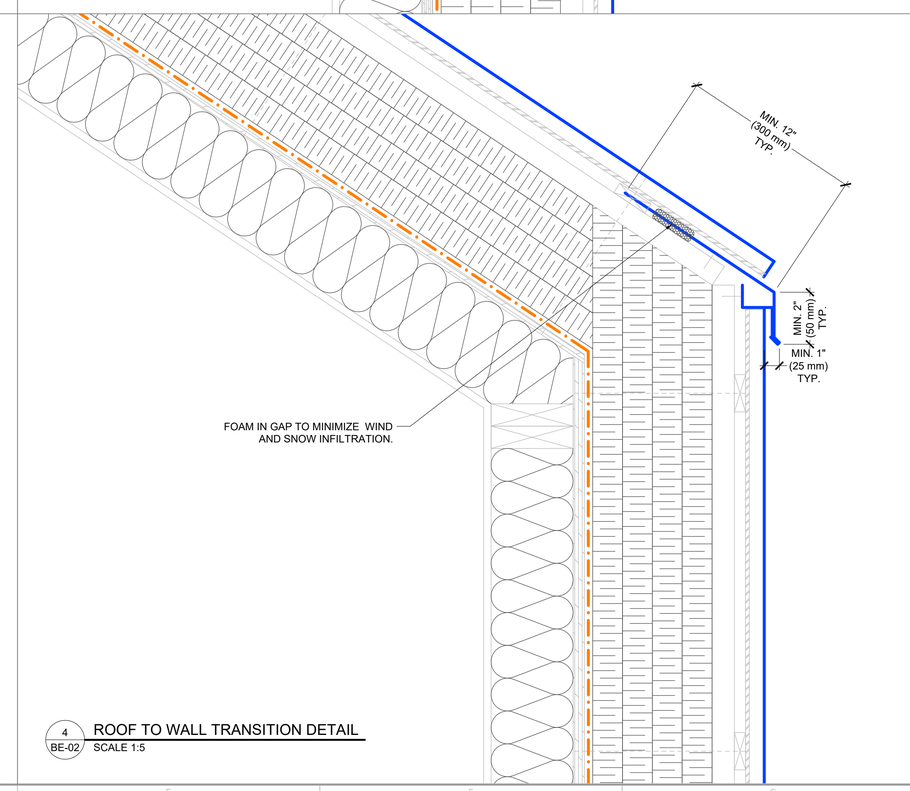
1 BE-02 FLOOR TO WALL TRANSITION DETAIL
SCALE 1:5



2 BE-02 WINDOW HEAD AND SILL DETAIL
SCALE 1:5



3 BE-02 ROOF OVERHANG DETAIL
SCALE 1:5



4 BE-02 ROOF TO WALL TRANSITION DETAIL
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