



LOGIX[®]
BRANDS
ENGINEERED INSULATION PRODUCTS

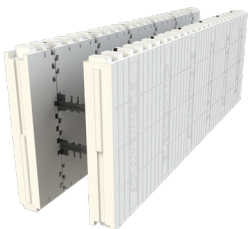
PATHWAY TO PERFORMANCE

(USA - SOUTH)

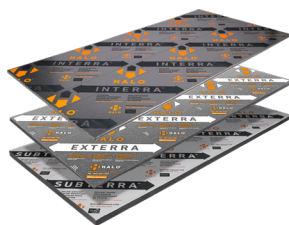
A Building Science-Principled Plan
To Help Builders Profitably Construct Healthy
& Durable Code-Compliant Homes.

Additional Best Practices Guidelines Are
Provided To Help Builders Reliably
Achieve Progressively Higher Levels Of
Building Envelope Performance.

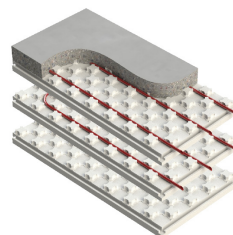
ELEMENTICF[®]
LOGIX BRANDS



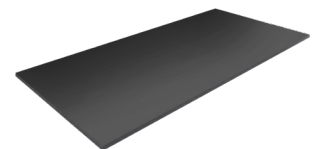
HALO[®]
ADVANCED GRAPHITE INSULATION SYSTEM



HEAT-SHEET[®]



CHROMEGPS
PROFESSIONAL GRADE GRAPHITE INSULATION



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A CONTINUOUS AIR BARRIER SHALL BE PRESENT ON THE EXTERIOR OR INTERIOR OF THE BUILDING ENCLOSURE OR BOTH

THE BUILDING THERMAL ENVELOPE SHALL BE CONSTRUCTED TO LIMIT AIR LEAKAGE IN ACCORDANCE WITH THE REQUIREMENTS OF SECTION N1102.4.1 THROUGH N1102.4.5 (IRC N1102.4 - R402.4)

EXTERIOR WALLS SHALL PROVIDE THE BUILDING WITH A WEATHER-RESISTANT EXTERIOR WALL ENVELOPE. THE EXTERIOR WALL ENVELOPE SHALL INCLUDE FLASHING AS DESCRIBED IN SECTION R703.4 (IRC R703.1)

THE EXTERIOR WALL ENVELOPE SHALL BE DESIGNED & CONSTRUCTED IN A MANNER THAT PREVENTS THE ACCUMULATION OF WATER WITHIN THE WALL ASSEMBLY BY PROVIDING A WATER-RESISTANT BARRIER BEHIND THE EXTERIOR CLADDING AS REQUIRED BY SECTION R703.2 & A MEANS OF DRAINING TO THE EXTERIOR WATER THAT PENETRATES THE EXTERIOR CLADDING (IRC R703.1.1)

OTHER APPROVED WATER-RESISTIVE BARRIER MANUFACTURERS INSTALLATION INSTRUCTIONS (HALO® EXTERRA® WITH TAPED OR CAULKED JOINTS & FASTENER PENETRATIONS. ALTERNATIVE DETAIL, MEMBRANE INSTALLED ON TOP OR BEHIND RIGID INSULATION). THESE MEMBRANES SHALL BE CONTINUOUS TO THE TOP OF WALLS & TERMINATED AT PENETRATIONS & BUILDING APPENDAGES IN A MANNER TO MEET THE REQUIREMENTS OF THE EXTERIOR WALL ENVELOPE AS DESCRIBED IN SECTION R703.1 (IRC R703.2)

THE NOMINAL THICKNESS & ATTACHMENT OF EXTERIOR WALL COVERINGS SHALL BE IN ACCORDANCE WITH TABLE R703.3(1), THE WALL COVERING MATERIAL REQUIREMENTS OF THIS SECTION, & COVERING MANUFACTURER'S INSTALLATION INSTRUCTIONS (IRC R703.3). CLADDING ATTACHMENT OVER FOAM SHEATHING SHALL COMPLY WITH ADDITIONAL REQUIREMENTS & LIMITATIONS OF SECTIONS R703.15 THROUGH R703.17.

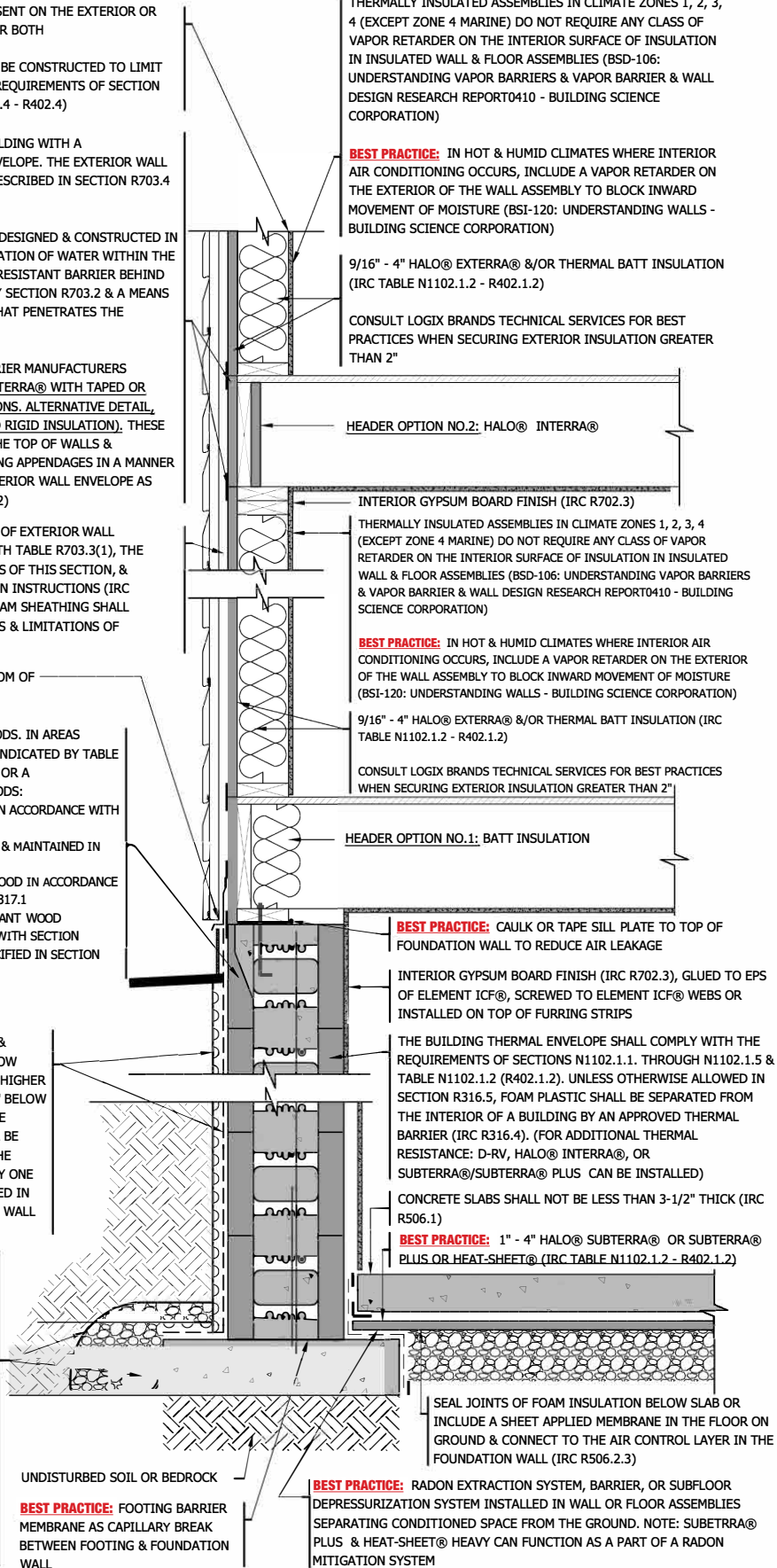
BEST PRACTICE: BUG SCREEN TOP & BOTTOM OF VENTILATED AIR SPACE

SUBTERRANEAN TERMITE CONTROL METHODS. IN AREAS SUBJECT TO DAMAGE FROM TERMITES AS INDICATED BY TABLE R301.2(1), PROTECTION SHALL BE BY ONE, OR A COMBINATION, OF THE FOLLOWING METHODS:

1. CHEMICAL TERMITICIDE TREATMENT IN ACCORDANCE WITH SECTION R318.2
2. TERMITE-BAITING SYSTEM INSTALLED & MAINTAINED IN ACCORDANCE WITH THE LABEL
3. PRESSURE-PRESERVATIVE-TREATED WOOD IN ACCORDANCE WITH THE PROVISIONS OF SECTION R317.1
4. NATURALLY DURABLE TERMITE-RESISTANT WOOD
5. PHYSICAL BARRIERS IN ACCORDANCE WITH SECTION R318.3 & USED IN LOCATIONS AS SPECIFIED IN SECTION R317.1

FOUNDATION WALLS THAT RETAIN EARTH & ENCLOSE INTERIOR SPACES & FLOORS BELOW GRADE SHALL BE DAMPROOFED FROM THE HIGHER OF (a) THE TOP OF THE FOOTING OR (b) 6" BELOW THE TOP OF THE BASEMENT FLOOR, TO THE FINISHED GRADE. CONCRETE WALLS SHALL BE DAMPROOFED BY APPLYING ANY ONE OF THE LISTED DAMPROOFING MATERIALS OR ANY ONE OF THE WATERPROOFING MATERIALS LISTED IN SECTION R406.2 TO THE EXTERIOR OF THE WALL (IRC R406.1)

DRAINAGE TILES, GRAVEL OR CRUSHED STONE DRAINS, PERFORATED PIPE OR OTHER APPROVED SYSTEM. GRAVEL OR CRUSHED STONE 1" BEYOND OUTSIDE EDGE & 6" ABOVE TOP OF FOOTING & COVERED WITH APPROVED FILTER MEMBRANE MATERIAL. TOP OF OPEN JOINTS DRAIN TILES SHALL BE PROTECTED STRIPS BUILDING PAPER. EXPECT WHERE OTHER WISE RECOMMENDED BY DRAIN MANUFACTURER, PERFORATED DRAINS SHALL BE SURROUNDED WITH APPROVED FILTER MEMBRANE OR FILTER MEMBRANE COVER WASHED GRAVEL OR CRUSHED ROCK. DRAINAGE TILES OR PERFORATED PIPE SHALL BE PLACED ON NOT LESS THAN 2" OF WASHED GRAVEL OR CRUSHED ROCK NOT LESS THAN ONE SIEVE SIZE LARGER THAN TILE JOINT OPENING & COVERED WITH NOT LESS THAN 6" OF THE SAME MATERIAL. (IRC R405.1)



THERMALLY INSULATED ASSEMBLIES IN CLIMATE ZONES 1, 2, 3, 4 (EXCEPT ZONE 4 MARINE) DO NOT REQUIRE ANY CLASS OF VAPOR RETARDER ON THE INTERIOR SURFACE OF INSULATION IN INSULATED WALL & FLOOR ASSEMBLIES (BSD-106: UNDERSTANDING VAPOR BARRIERS & VAPOR BARRIER & WALL DESIGN RESEARCH REPORT0410 - BUILDING SCIENCE CORPORATION)

BEST PRACTICE: IN HOT & HUMID CLIMATES WHERE INTERIOR AIR CONDITIONING OCCURS, INCLUDE A VAPOR RETARDER ON THE EXTERIOR OF THE WALL ASSEMBLY TO BLOCK INWARD MOVEMENT OF MOISTURE (BSI-120: UNDERSTANDING WALLS - BUILDING SCIENCE CORPORATION)

9/16" - 4" HALO® EXTERRA® &/OR THERMAL BATT INSULATION (IRC TABLE N1102.1.2 - R402.1.2)

CONSULT LOGIX BRANDS TECHNICAL SERVICES FOR BEST PRACTICES WHEN SECURING EXTERIOR INSULATION GREATER THAN 2"

HEADER OPTION NO.2: HALO® INTERRA®

INTERIOR GYPSUM BOARD FINISH (IRC R702.3)

THERMALLY INSULATED ASSEMBLIES IN CLIMATE ZONES 1, 2, 3, 4 (EXCEPT ZONE 4 MARINE) DO NOT REQUIRE ANY CLASS OF VAPOR RETARDER ON THE INTERIOR SURFACE OF INSULATION IN INSULATED WALL & FLOOR ASSEMBLIES (BSD-106: UNDERSTANDING VAPOR BARRIERS & VAPOR BARRIER & WALL DESIGN RESEARCH REPORT0410 - BUILDING SCIENCE CORPORATION)

BEST PRACTICE: IN HOT & HUMID CLIMATES WHERE INTERIOR AIR CONDITIONING OCCURS, INCLUDE A VAPOR RETARDER ON THE EXTERIOR OF THE WALL ASSEMBLY TO BLOCK INWARD MOVEMENT OF MOISTURE (BSI-120: UNDERSTANDING WALLS - BUILDING SCIENCE CORPORATION)

9/16" - 4" HALO® EXTERRA® &/OR THERMAL BATT INSULATION (IRC TABLE N1102.1.2 - R402.1.2)

CONSULT LOGIX BRANDS TECHNICAL SERVICES FOR BEST PRACTICES WHEN SECURING EXTERIOR INSULATION GREATER THAN 2"

HEADER OPTION NO.1: BATT INSULATION

BEST PRACTICE: CAULK OR TAPE SILL PLATE TO TOP OF FOUNDATION WALL TO REDUCE AIR LEAKAGE

INTERIOR GYPSUM BOARD FINISH (IRC R702.3), GLUED TO EPS OF ELEMENT ICF®, SCREWED TO ELEMENT ICF® WEBS OR INSTALLED ON TOP OF FURRING STRIPS

THE BUILDING THERMAL ENVELOPE SHALL COMPLY WITH THE REQUIREMENTS OF SECTIONS N1102.1.1. THROUGH N1102.1.5 & TABLE N1102.1.2 (R402.1.2). UNLESS OTHERWISE ALLOWED IN SECTION R316.5, FOAM PLASTIC SHALL BE SEPARATED FROM THE INTERIOR OF A BUILDING BY AN APPROVED THERMAL BARRIER (IRC R316.4). (FOR ADDITIONAL THERMAL RESISTANCE: D-RV, HALO® INTERRA®, OR SUBTERRA®/SUBTERRA® PLUS CAN BE INSTALLED)

CONCRETE SLABS SHALL NOT BE LESS THAN 3-1/2" THICK (IRC R506.1)

BEST PRACTICE: 1" - 4" HALO® SUBTERRA® OR SUBTERRA® PLUS OR HEAT-SHEET® (IRC TABLE N1102.1.2 - R402.1.2)

SEAL JOINTS OF FOAM INSULATION BELOW SLAB OR INCLUDE A SHEET APPLIED MEMBRANE IN THE FLOOR ON GROUND & CONNECT TO THE AIR CONTROL LAYER IN THE FOUNDATION WALL (IRC R506.2.3)

UNDISTURBED SOIL OR BEDROCK

BEST PRACTICE: FOOTING BARRIER MEMBRANE AS CAPILLARY BREAK BETWEEN FOOTING & FOUNDATION WALL

BEST PRACTICE: RADON EXTRACTION SYSTEM, BARRIER, OR SUBFLOOR DEPRESSURIZATION SYSTEM INSTALLED IN WALL OR FLOOR ASSEMBLIES SEPARATING CONDITIONED SPACE FROM THE GROUND. NOTE: SUBTERRA® PLUS & HEAT-SHEET® HEAVY CAN FUNCTION AS A PART OF A RADON MITIGATION SYSTEM

A CONTINUOUS AIR BARRIER SHALL BE PRESENT ON THE EXTERIOR OR INTERIOR OF THE BUILDING ENCLOSURE OR BOTH

THE BUILDING THERMAL ENVELOPE SHALL BE CONSTRUCTED TO LIMIT AIR LEAKAGE IN ACCORDANCE WITH THE REQUIREMENTS OF SECTION N1102.4.1 THROUGH N1102.4.5 (IRC N1102.4 - R402.4)

EXTERIOR WALLS SHALL PROVIDE THE BUILDING WITH A WEATHER-RESISTANT EXTERIOR WALL ENVELOPE. THE EXTERIOR WALL ENVELOPE SHALL INCLUDE FLASHING AS DESCRIBED IN SECTION R703.4 (IRC R703.1)

THE EXTERIOR WALL ENVELOPE SHALL BE DESIGNED & CONSTRUCTED IN A MANNER THAT PREVENTS THE ACCUMULATION OF WATER WITHIN THE WALL ASSEMBLY BY PROVIDING A WATER-RESISTANT BARRIER BEHIND THE EXTERIOR CLADDING AS REQUIRED BY SECTION R703.2 & A MEANS OF DRAINING TO THE EXTERIOR WATER THAT PENETRATES THE EXTERIOR CLADDING (IRC R703.1.1)

OTHER APPROVED WATER-RESISTIVE BARRIER MANUFACTURERS INSTALLATION INSTRUCTIONS (MECHANICALLY FASTENED, SELF-ADHERED, OR LIQUID APPLIED MEMBRANE APPLIED ON TOP OF EXTERIOR SHEATHING). THESE MEMBRANES SHALL BE CONTINUOUS TO THE TOP OF WALLS & TERMINATED AT PENETRATIONS & BUILDING APPENDAGES IN A MANNER TO MEET THE REQUIREMENTS OF THE EXTERIOR WALL ENVELOPE AS DESCRIBED IN SECTION R703.1 (IRC R703.2). NOTE: MEMBRANE TO FUNCTION AS AIR CONTROL LAYER

THE NOMINAL THICKNESS & ATTACHMENT OF EXTERIOR WALL COVERINGS SHALL BE IN ACCORDANCE WITH TABLE R703.3(1), THE WALL COVERING MATERIAL REQUIREMENTS OF THIS SECTION, & COVERING MANUFACTURER'S INSTALLATION INSTRUCTIONS (IRC R703.3). CLADDING ATTACHMENT OVER FOAM SHEATHING SHALL COMPLY WITH ADDITIONAL REQUIREMENTS & LIMITATIONS OF SECTIONS R703.15 THROUGH R703.17.

BEST PRACTICE: BUG SCREEN TOP & BOTTOM OF VENTILATED AIR SPACE

SUBTERRANEAN TERMITE CONTROL METHODS, IN AREAS SUBJECT TO DAMAGE FROM TERMITES AS INDICATED BY TABLE R301.2(1), PROTECTION SHALL BE BY ONE, OR A COMBINATION, OF THE FOLLOWING METHODS:

1. CHEMICAL TERMITICIDE TREATMENT IN ACCORDANCE WITH SECTION R318.2
2. TERMITE-BAITING SYSTEM INSTALLED & MAINTAINED IN ACCORDANCE WITH THE LABEL
3. PRESSURE-PRESERVATIVE-TREATED WOOD IN ACCORDANCE WITH THE PROVISIONS OF SECTION R317.1
4. NATURALLY DURABLE TERMITE-RESISTANT WOOD
5. PHYSICAL BARRIERS IN ACCORDANCE WITH SECTION R318.3 & USED IN LOCATIONS AS SPECIFIED IN SECTION R317.1

FOUNDATION WALLS THAT RETAIN EARTH & ENCLOSE INTERIOR SPACES & FLOORS BELOW GRADE SHALL BE DAMPROOFED FROM THE HIGHER OF (a) THE TOP OF THE FOOTING OR (b) 6" BELOW THE TOP OF THE BASEMENT FLOOR, TO THE FINISHED GRADE. CONCRETE WALLS SHALL BE DAMPROOFED BY APPLYING ANY ONE OF THE LISTED DAMPPROOFING MATERIALS OR ANY ONE OF THE WATERPROOFING MATERIALS LISTED IN SECTION R406.2 TO THE EXTERIOR OF THE WALL. (IRC R406.1)

DRAINAGE TILES, GRAVEL OR CRUSHED STONE DRAINS, PERFORATED PIPE OR OTHER APPROVED SYSTEM. GRAVEL OR CRUSHED STONE 1' BEYOND OUTSIDE EDGE & 6" ABOVE TOP OF FOOTING & COVERED WITH APPROVED FILTER MEMBRANE MATERIAL. TOP OF OPEN JOINTS DRAIN TILES SHALL BE PROTECTED STRIPS BUILDING PAPER. EXPECT WHERE OTHER WISE RECOMMENDED BY DRAIN MANUFACTURER, PERFORATED DRAINS SHALL BE SURROUNDED WITH APPROVED FILTER MEMBRANE OR FILTER MEMBRANE COVER WASHED GRAVEL OR CRUSHED ROCK. DRAINAGE TILES OR PERFORATED PIPE SHALL BE PLACED ON NOT LESS THAN 2" OF WASHED GRAVEL OR CRUSHED ROCK NOT LESS THAN ONE SIEVE SIZE LARGER THAN TILE JOINT OPENING & COVERED WITH NOT LESS THAN 6" OF THE SAME MATERIAL. (IRC R405.1)

UNDISTURBED SOIL OR BEDROCK
BEST PRACTICE: FOOTING BARRIER MEMBRANE AS CAPILLARY BREAK BETWEEN FOOTING & FOUNDATION WALL

THERMALLY INSULATED ASSEMBLIES IN CLIMATE ZONES 1, 2, 3, 4 (EXCEPT ZONE 4 MARINE) DO NOT REQUIRE ANY CLASS OF VAPOR RETARDER ON THE INTERIOR SURFACE OF INSULATION IN INSULATED WALL & FLOOR ASSEMBLIES (BSD-106: UNDERSTANDING VAPOR BARRIERS & VAPOR BARRIER & WALL DESIGN RESEARCH REPORT0410 - BUILDING SCIENCE CORPORATION)

BEST PRACTICE: IN HOT & HUMID CLIMATES WHERE INTERIOR AIR CONDITIONING OCCURS, INCLUDE A VAPOR RETARDER ON THE EXTERIOR OF THE WALL ASSEMBLY TO BLOCK INWARD MOVEMENT OF MOISTURE (BSI-120: UNDERSTANDING WALLS - BUILDING SCIENCE CORPORATION)

9/16" - 4" CHROME GPS® &/OR THERMAL BATT INSULATION (IRC TABLE N1102.1.2 - R402.1.2)

HEADER OPTION NO.2: HALO® INTERRA®

INTERIOR GYPSUM BOARD FINISH (IRC R702.3) WITH LATEX PAINT

THERMALLY INSULATED ASSEMBLIES IN CLIMATE ZONES 1, 2, 3, 4 (EXCEPT ZONE 4 MARINE) DO NOT REQUIRE ANY CLASS OF VAPOR RETARDER ON THE INTERIOR SURFACE OF INSULATION IN INSULATED WALL & FLOOR ASSEMBLIES (BSD-106: UNDERSTANDING VAPOR BARRIERS & VAPOR BARRIER & WALL DESIGN RESEARCH REPORT0410 - BUILDING SCIENCE CORPORATION). **BEST PRACTICE:** IN HOT & HUMID CLIMATES WHERE INTERIOR AIR CONDITIONING OCCURS, INCLUDE A VAPOR RETARDER ON THE EXTERIOR OF THE WALL ASSEMBLY TO BLOCK INWARD MOVEMENT OF MOISTURE (BSI-120: UNDERSTANDING WALLS - BUILDING SCIENCE CORPORATION)

9/16" - 4" CHROME GPS® &/OR THERMAL BATT INSULATION (IRC TABLE N1102.1.2 - R402.1.2). CONSULT LOGIX BRANDS TECHNICAL SERVICES FOR BEST PRACTICES WHEN SECURING EXTERIOR INSULATION GREATER THAN 2"

HEADER OPTION NO.1: BATT INSULATION

BEST PRACTICE: CAULK OR TAPE SILL PLATE TO TOP OF FOUNDATION WALL TO REDUCE AIR LEAKAGE

INTERIOR GYPSUM BOARD FINISH (IRC R702.3), GLUED TO EPS OF ELEMENT ICF®, SCREWED TO ELEMENT ICF® WEBS OR INSTALLED ON TOP OF FURRING STRIPS

THE BUILDING THERMAL ENVELOPE SHALL COMPLY WITH THE REQUIREMENTS OF SECTIONS N1102.1.1. THROUGH N1102.1.5 & TABLE N1102.1.2 (R402.1.2). UNLESS OTHERWISE ALLOWED IN SECTION R316.5, FOAM PLASTIC SHALL BE SEPARATED FROM THE INTERIOR OF A BUILDING BY AN APPROVED THERMAL BARRIER (IRC R316.4). (FOR ADDITIONAL THERMAL RESISTANCE: D-RV, HALO® INTERRA®, OR SUBTERRA®/SUBTERRA® PLUS CAN BE INSTALLED)

CONCRETE SLABS SHALL NOT BE LESS THAN 3-1/2" THICK (IRC R506.1)

BEST PRACTICE: 1" - 4" HALO® SUBTERRA® OR SUBTERRA® PLUS OR HEAT-SHEET® (IRC TABLE N1102.1.2 - R402.1.2)

SEAL JOINTS OF FOAM INSULATION BELOW SLAB OR INCLUDE A SHEET APPLIED MEMBRANE IN THE FLOOR ON GROUND & CONNECT TO THE AIR CONTROL LAYER IN THE FOUNDATION WALL (IRC R506.2.3)

BEST PRACTICE: RADON EXTRACTION SYSTEM, BARRIER, OR SUBFLOOR DEPRESSURIZATION SYSTEM INSTALLED IN WALL OR FLOOR ASSEMBLIES SEPARATING CONDITIONED SPACE FROM THE GROUND. NOTE: SUBTERRA® PLUS & HEAT-SHEET® HEAVY CAN FUNCTION AS A PART OF A RADON MITIGATION SYSTEM

A CONTINUOUS AIR BARRIER SHALL BE PRESENT ON THE EXTERIOR OR INTERIOR OF THE BUILDING ENCLOSURE OR BOTH

THE BUILDING THERMAL ENVELOPE SHALL BE CONSTRUCTED TO LIMIT AIR LEAKAGE IN ACCORDANCE WITH THE REQUIREMENTS OF SECTION N1102.4.1 THROUGH N1102.4.5 (IRC N1102.4 - R402.4)

EXTERIOR WALLS SHALL PROVIDE THE BUILDING WITH A WEATHER-RESISTANT EXTERIOR WALL ENVELOPE. THE EXTERIOR WALL ENVELOPE SHALL INCLUDE FLASHING AS DESCRIBED IN SECTION R703.4 (IRC R703.1.)

THE EXTERIOR WALL ENVELOPE SHALL BE DESIGNED & CONSTRUCTED IN A MANNER THAT PREVENTS THE ACCUMULATION OF WATER WITHIN THE WALL ASSEMBLY BY PROVIDING A WATER-RESISTANT BARRIER BEHIND THE EXTERIOR CLADDING AS REQUIRED BY SECTION R703.2 & A MEANS OF DRAINING TO THE EXTERIOR WATER THAT PENETRATES THE EXTERIOR CLADDING (IRC R703.1.1)

OTHER APPROVED WATER-RESISTIVE BARRIER MANUFACTURERS INSTALLATION INSTRUCTIONS (FRONT FACE OF ELEMENT ICF® FUNCTIONS AS WATER CONTROL LAYER. ALTERNATIVE DETAIL - MECH. FASTENED, PEEL & STICK, OR LIQUID APPLIED MEMBRANE APPLIED TO FRONT FACE OF ELEMENT ICF® BLOCK). THESE MEMBRANES SHALL BE CONTINUOUS TO THE TOP OF WALLS & TERMINATED AT PENETRATIONS & BUILDING APPENDAGES IN A MANNER TO MEET THE REQUIREMENTS OF THE EXTERIOR WALL ENVELOPE AS DESCRIBED IN SECTION R703.1 (IRC R703.2)

FLASHING SEALED TO FRONT FACE OF ELEMENT ICF® W/TAPE OR CAULKING

BEST PRACTICE: BUG SCREEN TOP & BOTTOM OF VENTILATED AIR SPACE

EXTERIOR FOUNDATION WALLS SHALL EXTEND NOT LESS THAN 4" (MASONRY VENEER) & 6" OTHER CLADDINGS ABOVE FINISHED GROUND LEVEL (IRC R404.1.6.)

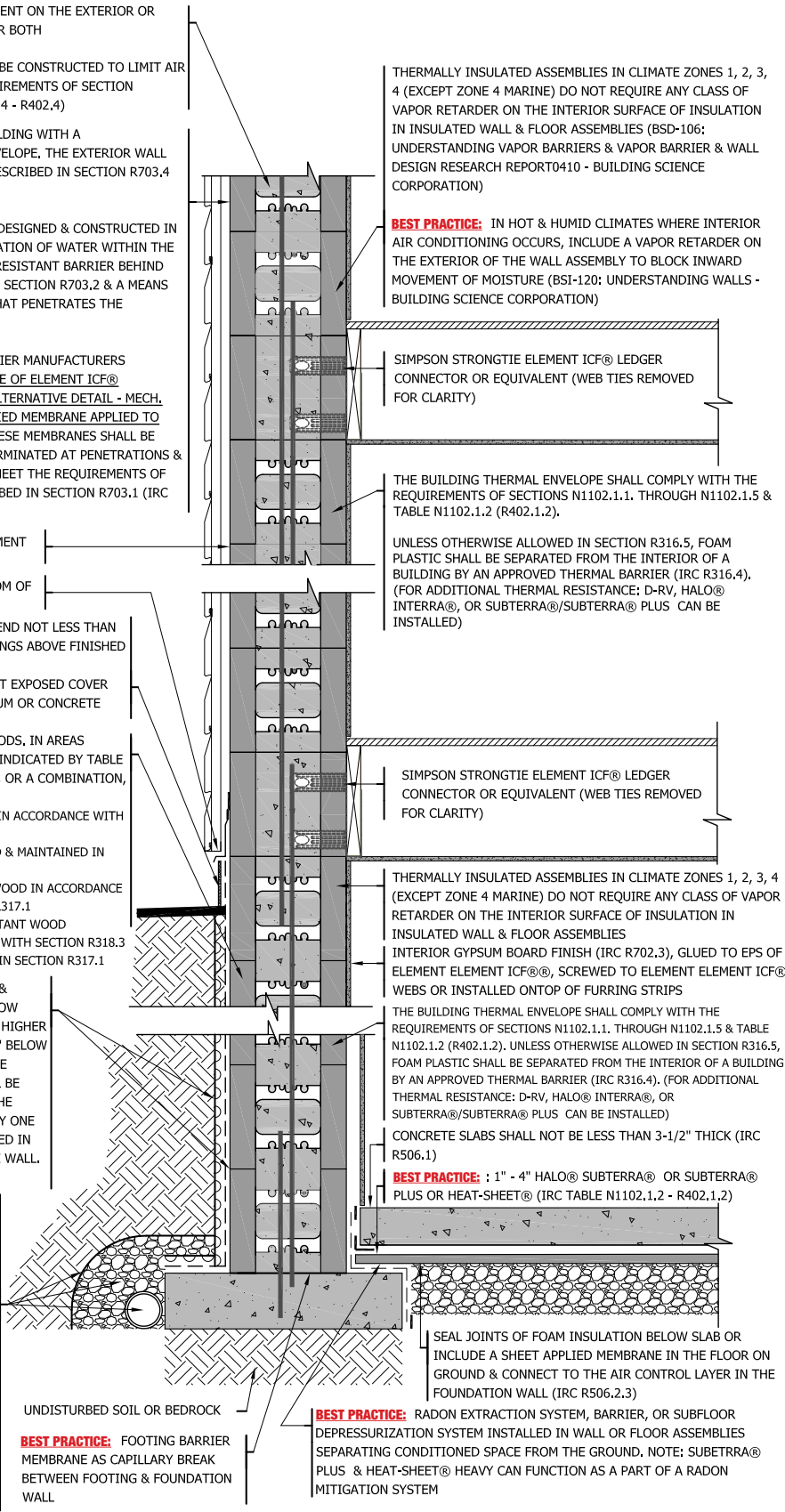
INSULATION ABOVE GRADE CANNOT BE LEFT EXPOSED COVER WITH ACRYLIC PARGING (OPTIONAL: GYPSUM OR CONCRETE BOARD)

SUBTERRANEAN TERMITE CONTROL METHODS. IN AREAS SUBJECT TO DAMAGE FROM TERMITES AS INDICATED BY TABLE R301.2(1), PROTECTION SHALL BE BY ONE, OR A COMBINATION, OF THE FOLLOWING METHODS:

1. CHEMICAL TERMITICIDE TREATMENT IN ACCORDANCE WITH SECTION R318.2
2. TERMITE-BAITING SYSTEM INSTALLED & MAINTAINED IN ACCORDANCE WITH THE LABEL
3. PRESSURE-PRESERVATIVE-TREATED WOOD IN ACCORDANCE WITH THE PROVISIONS OF SECTION R317.1
4. NATURALLY DURABLE TERMITE-RESISTANT WOOD
5. PHYSICAL BARRIERS IN ACCORDANCE WITH SECTION R318.3 & USED IN LOCATIONS AS SPECIFIED IN SECTION R317.1

FOUNDATION WALLS THAT RETAIN EARTH & ENCLOSE INTERIOR SPACES & FLOORS BELOW GRADE SHALL BE DAMPROOFED FROM THE HIGHER OF (a) THE TOP OF THE FOOTING OR (b) 6" BELOW THE TOP OF THE BASEMENT FLOOR, TO THE FINISHED GRADE. CONCRETE WALLS SHALL BE DAMPROOFED BY APPLYING ANY ONE OF THE LISTED DAMPROOFING MATERIALS OR ANY ONE OF THE WATERPROOFING MATERIALS LISTED IN SECTION R406.2 TO THE EXTERIOR OF THE WALL. (IRC R406.1)

DRAINAGE TILES, GRAVEL OR CRUSHED STONE DRAINS, PERFORATED PIPE OR OTHER APPROVED SYSTEM. GRAVEL OR CRUSHED STONE 1' BEYOND OUTSIDE EDGE & 6" ABOVE TOP OF FOOTING & COVERED WITH APPROVED FILTER MEMBRANE MATERIAL. TOP OF OPEN JOINTS DRAIN TILES SHALL BE PROTECTED STRIPS BUILDING PAPER. EXPECT WHERE OTHER WISE RECOMMENDED BY DRAIN MANUFACTURER, PERFORATED DRAINS SHALL BE SURROUNDED WITH APPROVED FILTER MEMBRANE OR FILTER MEMBRANE COVER WASHED GRAVEL OR CRUSHED ROCK. DRAINAGE TILES OR PERFORATED PIPE SHALL BE PLACED ON NOT LESS THAN 2" OF WASHED GRAVEL OR CRUSHED ROCK NOT LESS THAN ONE SIEVE SIZE LARGER THAN TILE JOINT OPENING & COVERED WITH NOT LESS THAN 6" OF THE SAME MATERIAL. (IRC R405.1)



THERMALLY INSULATED ASSEMBLIES IN CLIMATE ZONES 1, 2, 3, 4 (EXCEPT ZONE 4 MARINE) DO NOT REQUIRE ANY CLASS OF VAPOR RETARDER ON THE INTERIOR SURFACE OF INSULATION IN INSULATED WALL & FLOOR ASSEMBLIES (BSD-106; UNDERSTANDING VAPOR BARRIERS & VAPOR BARRIER & WALL DESIGN RESEARCH REPORT0410 - BUILDING SCIENCE CORPORATION)

BEST PRACTICE: IN HOT & HUMID CLIMATES WHERE INTERIOR AIR CONDITIONING OCCURS, INCLUDE A VAPOR RETARDER ON THE EXTERIOR OF THE WALL ASSEMBLY TO BLOCK INWARD MOVEMENT OF MOISTURE (BSI-120; UNDERSTANDING WALLS - BUILDING SCIENCE CORPORATION)

SIMPSON STRONGTIE ELEMENT ICF® LEDGER CONNECTOR OR EQUIVALENT (WEB TIES REMOVED FOR CLARITY)

THE BUILDING THERMAL ENVELOPE SHALL COMPLY WITH THE REQUIREMENTS OF SECTIONS N1102.1.1. THROUGH N1102.1.5 & TABLE N1102.1.2 (R402.1.2).

UNLESS OTHERWISE ALLOWED IN SECTION R316.5, FOAM PLASTIC SHALL BE SEPARATED FROM THE INTERIOR OF A BUILDING BY AN APPROVED THERMAL BARRIER (IRC R316.4). (FOR ADDITIONAL THERMAL RESISTANCE: D-RV, HALO® INTERRA®, OR SUBTERRA®/SUBTERRA® PLUS CAN BE INSTALLED)

SIMPSON STRONGTIE ELEMENT ICF® LEDGER CONNECTOR OR EQUIVALENT (WEB TIES REMOVED FOR CLARITY)

THERMALLY INSULATED ASSEMBLIES IN CLIMATE ZONES 1, 2, 3, 4 (EXCEPT ZONE 4 MARINE) DO NOT REQUIRE ANY CLASS OF VAPOR RETARDER ON THE INTERIOR SURFACE OF INSULATION IN INSULATED WALL & FLOOR ASSEMBLIES

INTERIOR GYPSUM BOARD FINISH (IRC R702.3), GLUED TO EPS OF ELEMENT ICF®, SCREWED TO ELEMENT ICF® WEBS OR INSTALLED ON TOP OF FURRING STRIPS

THE BUILDING THERMAL ENVELOPE SHALL COMPLY WITH THE REQUIREMENTS OF SECTIONS N1102.1.1. THROUGH N1102.1.5 & TABLE N1102.1.2 (R402.1.2). UNLESS OTHERWISE ALLOWED IN SECTION R316.5, FOAM PLASTIC SHALL BE SEPARATED FROM THE INTERIOR OF A BUILDING BY AN APPROVED THERMAL BARRIER (IRC R316.4). (FOR ADDITIONAL THERMAL RESISTANCE: D-RV, HALO® INTERRA®, OR SUBTERRA®/SUBTERRA® PLUS CAN BE INSTALLED)

CONCRETE SLABS SHALL NOT BE LESS THAN 3-1/2" THICK (IRC R506.1)

BEST PRACTICE: 1" - 4" HALO® SUBTERRA® OR SUBTERRA® PLUS OR HEAT-SHEET® (IRC TABLE N1102.1.2 - R402.1.2)

SEAL JOINTS OF FOAM INSULATION BELOW SLAB OR INCLUDE A SHEET APPLIED MEMBRANE IN THE FLOOR ON GROUND & CONNECT TO THE AIR CONTROL LAYER IN THE FOUNDATION WALL (IRC R506.2.3)

BEST PRACTICE: RADON EXTRACTION SYSTEM, BARRIER, OR SUBFLOOR DEPRESSURIZATION SYSTEM INSTALLED IN WALL OR FLOOR ASSEMBLIES SEPARATING CONDITIONED SPACE FROM THE GROUND. NOTE: SUBTERRA® PLUS & HEAT-SHEET® HEAVY CAN FUNCTION AS A PART OF A RADON MITIGATION SYSTEM

A CONTINUOUS AIR BARRIER SHALL BE PRESENT ON THE EXTERIOR OR INTERIOR OF THE BUILDING ENCLOSURE OR BOTH

THE BUILDING THERMAL ENVELOPE SHALL BE CONSTRUCTED TO LIMIT AIR LEAKAGE IN ACCORDANCE WITH THE REQUIREMENTS OF SECTION N1102.4.1 THROUGH N1102.4.5 (IRC N1102.4 - R402.4)

EXTERIOR WALLS SHALL PROVIDE THE BUILDING WITH A WEATHER-RESISTANT EXTERIOR WALL ENVELOPE. THE EXTERIOR WALL ENVELOPE SHALL INCLUDE FLASHING AS DESCRIBED IN SECTION R703.4 (IRC R703.1)

THE EXTERIOR WALL ENVELOPE SHALL BE DESIGNED & CONSTRUCTED IN A MANNER THAT PREVENTS THE ACCUMULATION OF WATER WITHIN THE WALL ASSEMBLY BY PROVIDING A WATER-RESISTANT BARRIER BEHIND THE EXTERIOR CLADDING AS REQUIRED BY SECTION R703.2 & A MEANS OF DRAINING TO THE EXTERIOR WATER THAT PENETRATES THE EXTERIOR CLADDING (IRC R703.1.1)

OTHER APPROVED WATER-RESISTIVE BARRIER MANUFACTURERS INSTALLATION INSTRUCTIONS (HALO® EXTERRA® WITH TAPED OR CAULKED JOINTS & FASTENER PENETRATIONS, ALTERNATIVE DETAIL, MEMBRANE INSTALLED ON TOP OR BEHIND RIGID INSULATION). THESE MEMBRANES SHALL BE CONTINUOUS TO THE TOP OF WALLS & TERMINATED AT PENETRATIONS & BUILDING APPENDAGES IN A MANNER TO MEET THE REQUIREMENTS OF THE EXTERIOR WALL ENVELOPE AS DESCRIBED IN SECTION R703.1 (IRC R703.2)

THE NOMINAL THICKNESS & ATTACHMENT OF EXTERIOR WALL COVERINGS SHALL BE IN ACCORDANCE WITH TABLE R703.3(1), THE WALL COVERING MATERIAL REQUIREMENTS OF THIS SECTION, & COVERING MANUFACTURER'S INSTALLATION INSTRUCTIONS (IRC R703.3). CLADDING ATTACHMENT OVER FOAM SHEATHING SHALL COMPLY WITH ADDITIONAL REQUIREMENTS & LIMITATIONS OF SECTIONS R703.15 THROUGH R703.17.

BEST PRACTICE: BUG SCREEN TOP & BOTTOM OF VENTILATED AIR SPACE

SUBTERRANEAN TERMITE CONTROL METHODS. IN AREAS SUBJECT TO DAMAGE FROM TERMITES AS INDICATED BY TABLE R301.2(1), PROTECTION SHALL BE BY ONE, OR A COMBINATION, OF THE FOLLOWING METHODS:

1. CHEMICAL TERMITICIDE TREATMENT IN ACCORDANCE WITH SECTION R318.2
2. TERMITE-BAITING SYSTEM INSTALLED & MAINTAINED IN ACCORDANCE WITH THE LABEL
3. PRESSURE-PRESERVATIVE-TREATED WOOD IN ACCORDANCE WITH THE PROVISIONS OF SECTION R317.1
4. NATURALLY DURABLE TERMITE-RESISTANT WOOD
5. PHYSICAL BARRIERS IN ACCORDANCE WITH SECTION R318.3 & USED IN LOCATIONS AS SPECIFIED IN SECTION R317.1

FOUNDATION WALLS THAT RETAIN EARTH & ENCLOSE INTERIOR SPACES & FLOORS BELOW GRADE SHALL BE DAMPROOFED FROM THE HIGHER OF (a) THE TOP OF THE FOOTING OR (b) 6" BELOW THE TOP OF THE BASEMENT FLOOR, TO THE FINISHED GRADE. CONCRETE WALLS SHALL BE DAMPROOFED BY APPLYING ANY ONE OF THE LISTED DAMPROOFING MATERIALS OR ANY ONE OF THE WATERPROOFING MATERIALS LISTED IN SECTION R406.2 TO THE EXTERIOR OF THE WALL. (IRC R406.1)

DRAINAGE TILES, GRAVEL OR CRUSHED STONE DRAINS, PERFORATED PIPE OR OTHER APPROVED SYSTEM. GRAVEL OR CRUSHED STONE 1' BEYOND OUTSIDE EDGE & 6" ABOVE TOP OF FOOTING & COVERED WITH APPROVED FILTER MEMBRANE MATERIAL. TOP OF OPEN JOINTS DRAIN TILES SHALL BE PROTECTED STRIPS BUILDING PAPER. EXPECT WHERE OTHER WISE RECOMMENDED BY DRAIN MANUFACTURER, PERFORATED DRAINS SHALL BE SURROUNDED WITH APPROVED FILTER MEMBRANE OR FILTER MEMBRANE COVER WASHED GRAVEL OR CRUSHED ROCK. DRAINAGE TILES OR PERFORATED PIPE SHALL BE PLACED ON NOT LESS THAN 2" OF WASHED GRAVEL OR CRUSHED ROCK NOT LESS THAN ONE SIEVE SIZE LARGER THAN TILE JOINT OPENING & COVERED WITH NOT LESS THAN 6" OF THE SAME MATERIAL. (IRC R405.1)

UNDISTURBED SOIL OR BEDROCK
BEST PRACTICE: FOOTING BARRIER MEMBRANE AS CAPILLARY BREAK BETWEEN FOOTING & FOUNDATION WALL

THERMALLY INSULATED ASSEMBLIES IN CLIMATE ZONES 1, 2, 3, 4 (EXCEPT ZONE 4 MARINE) DO NOT REQUIRE ANY CLASS OF VAPOR RETARDER ON THE INTERIOR SURFACE OF INSULATION IN INSULATED WALL & FLOOR ASSEMBLIES (BSD-106: UNDERSTANDING VAPOR BARRIERS & VAPOR BARRIER & WALL DESIGN RESEARCH REPORT0410 - BUILDING SCIENCE CORPORATION)

BEST PRACTICE: IN HOT & HUMID CLIMATES WHERE INTERIOR AIR CONDITIONING OCCURS, INCLUDE A VAPOR RETARDER ON THE EXTERIOR OF THE WALL ASSEMBLY TO BLOCK INWARD MOVEMENT OF MOISTURE (BSI-120: UNDERSTANDING WALLS - BUILDING SCIENCE CORPORATION)

9/16" - 4" HALO® EXTERRA® &/OR THERMAL BATT INSULATION (IRC TABLE N1102.1.2 - R402.1.2)

CONSULT LOGIX BRANDS TECHNICAL SERVICES FOR BEST PRACTICES WHEN SECURING EXTERIOR INSULATION GREATER THAN 2"

HEADER OPTION NO.2: HALO® INTERRA®

INTERIOR GYPSUM BOARD FINISH (IRC R702.3)

THERMALLY INSULATED ASSEMBLIES IN CLIMATE ZONES 1, 2, 3, 4 (EXCEPT ZONE 4 MARINE) DO NOT REQUIRE ANY CLASS OF VAPOR RETARDER ON THE INTERIOR SURFACE OF INSULATION IN INSULATED WALL & FLOOR ASSEMBLIES (BSD-106: UNDERSTANDING VAPOR BARRIERS & VAPOR BARRIER & WALL DESIGN RESEARCH REPORT0410 - BUILDING SCIENCE CORPORATION)

BEST PRACTICE: IN HOT & HUMID CLIMATES WHERE INTERIOR AIR CONDITIONING OCCURS, INCLUDE A VAPOR RETARDER ON THE EXTERIOR OF THE WALL ASSEMBLY TO BLOCK INWARD MOVEMENT OF MOISTURE (BSI-120: UNDERSTANDING WALLS - BUILDING SCIENCE CORPORATION)

9/16" - 4" HALO® EXTERRA® &/OR THERMAL BATT INSULATION (IRC TABLE N1102.1.2 - R402.1.2)

CONSULT LOGIX BRANDS TECHNICAL SERVICES FOR BEST PRACTICES WHEN SECURING EXTERIOR INSULATION GREATER THAN 2"

HEADER OPTION NO.1: BATT INSULATION

BEST PRACTICE: CAULK OR TAPE SILL PLATE TO TOP OF FOUNDATION WALL TO REDUCE AIR LEAKAGE

INTERIOR GYPSUM BOARD FINISH (IRC R702.3)
THE BUILDING THERMAL ENVELOPE SHALL COMPLY WITH THE REQUIREMENTS OF SECTIONS N1102.1.1, THROUGH N1102.1.5 & TABLE N1102.1.2 (R402.1.2), UNLESS OTHERWISE ALLOWED IN SECTION R316.5 (1" - 4" HALO® SUBTERRA® OR SUBTERRA® PLUS)

CONCRETE SLABS SHALL NOT BE LESS THAN 3-1/2" THICK (IRC R506.1)

BEST PRACTICE: 1" - 4" HALO® SUBTERRA® OR SUBTERRA® PLUS OR HEAT-SHEET® (IRC TABLE N1102.1.2 - R402.1.2).

BEST PRACTICE: SEAL JOINTS OF FOAM INSULATION BELOW SLAB OR INCLUDE A SHEET APPLIED MEMBRANE IN THE FLOOR ON GROUND & CONNECT TO THE AIR CONTROL LAYER IN THE FOUNDATION WALL

BEST PRACTICE: RADON EXTRACTION SYSTEM, BARRIER, OR SUBFLOOR DEPRESSURIZATION SYSTEM INSTALLED IN WALL OR FLOOR ASSEMBLIES SEPARATING CONDITIONED SPACE FROM THE GROUND. NOTE: SUBTERRA® PLUS & HEAT-SHEET® HEAVY CAN FUNCTION AS A PART OF A RADON MITIGATION SYSTEM

A CONTINUOUS AIR BARRIER SHALL BE PRESENT ON THE EXTERIOR OR INTERIOR OF THE BUILDING ENCLOSURE OR BOTH

THE BUILDING THERMAL ENVELOPE SHALL BE CONSTRUCTED TO LIMIT AIR LEAKAGE IN ACCORDANCE WITH THE REQUIREMENTS OF SECTION N1102.4.1 THROUGH N1102.4.5 (IRC N1102.4 - R402.4)

EXTERIOR WALLS SHALL PROVIDE THE BUILDING WITH A WEATHER-RESISTANT EXTERIOR WALL ENVELOPE. THE EXTERIOR WALL ENVELOPE SHALL INCLUDE FLASHING AS DESCRIBED IN SECTION R703.4 (IRC R703.1)

THE EXTERIOR WALL ENVELOPE SHALL BE DESIGNED & CONSTRUCTED IN A MANNER THAT PREVENTS THE ACCUMULATION OF WATER WITHIN THE WALL ASSEMBLY BY PROVIDING A WATER-RESISTANT BARRIER BEHIND THE EXTERIOR CLADDING AS REQUIRED BY SECTION R703.2 & A MEANS OF DRAINING TO THE EXTERIOR WATER THAT PENETRATES THE EXTERIOR CLADDING (IRC R703.1.1)

OTHER APPROVED WATER-RESISTIVE BARRIER MANUFACTURERS INSTALLATION INSTRUCTIONS (MECHANICALLY FASTENED, SELF-ADHERED, OR LIQUID APPLIED MEMBRANE, APPLIED ON TOP OF EXTERIOR SHEATHING). THESE MEMBRANES SHALL BE CONTINUOUS TO THE TOP OF WALLS & TERMINATED AT PENETRATIONS & BUILDING APPENDAGES IN A MANNER TO MEET THE REQUIREMENTS OF THE EXTERIOR WALL ENVELOPE AS DESCRIBED IN SECTION R703.1 (IRC R703.2). NOTE: MEMBRANE TO FUNCTION AS AIR CONTROL LAYER.

THE NOMINAL THICKNESS & ATTACHMENT OF EXTERIOR WALL COVERINGS SHALL BE IN ACCORDANCE WITH TABLE R703.3(1), THE WALL COVERING MATERIAL REQUIREMENTS OF THIS SECTION, & COVERING MANUFACTURER'S INSTALLATION INSTRUCTIONS (IRC R703.3). CLADDING ATTACHMENT OVER FOAM SHEATHING SHALL COMPLY WITH ADDITIONAL REQUIREMENTS & LIMITATIONS OF SECTIONS R703.15 THROUGH R703.17.

BEST PRACTICE: BUG SCREEN TOP & BOTTOM OF VENTILATED AIR SPACE

SUBTERRANEAN TERMITE CONTROL METHODS. IN AREAS SUBJECT TO DAMAGE FROM TERMITES AS INDICATED BY TABLE R301.2(1), PROTECTION SHALL BE BY ONE, OR A COMBINATION, OF THE FOLLOWING METHODS:

1. CHEMICAL TERMITICIDE TREATMENT IN ACCORDANCE WITH SECTION R318.2
2. TERMITE-BAITING SYSTEM INSTALLED & MAINTAINED IN ACCORDANCE WITH THE LABEL
3. PRESSURE-PRESERVATIVE-TREATED WOOD IN ACCORDANCE WITH THE PROVISIONS OF SECTION R317.1
4. NATURALLY DURABLE TERMITE-RESISTANT WOOD
5. PHYSICAL BARRIERS IN ACCORDANCE WITH SECTION R318.3 & USED IN LOCATIONS AS SPECIFIED IN SECTION R317.1

FOUNDATION WALLS THAT RETAIN EARTH & ENCLOSE INTERIOR SPACES & FLOORS BELOW GRADE SHALL BE DAMPROOFED FROM THE HIGHER OF (a) THE TOP OF THE FOOTING OR (b) 6" BELOW THE TOP OF THE BASEMENT FLOOR, TO THE FINISHED GRADE. CONCRETE WALLS SHALL BE DAMPROOFED BY APPLYING ANY ONE OF THE LISTED DAMPROOFING MATERIALS OR ANY ONE OF THE WATERPROOFING MATERIALS LISTED IN SECTION R406.2 TO THE EXTERIOR OF THE WALL. (IRC R406.1)

DRAINAGE TILES, GRAVEL OR CRUSHED STONE DRAINS, PERFORATED PIPE OR OTHER APPROVED SYSTEM. GRAVEL OR CRUSHED STONE 1" BEYOND OUTSIDE EDGE & 6" ABOVE TOP OF FOOTING & COVERED WITH APPROVED FILTER MEMBRANE MATERIAL. TOP OF OPEN JOINTS DRAIN TILES SHALL BE PROTECTED STRIPS BUILDING PAPER. EXPECT WHERE OTHER WISE RECOMMENDED BY DRAIN MANUFACTURER, PERFORATED DRAINS SHALL BE SURROUNDED WITH APPROVED FILTER MEMBRANE OR FILTER MEMBRANE COVER WASHED GRAVEL OR CRUSHED ROCK. DRAINAGE TILES OR PERFORATED PIPE SHALL BE PLACED ON NOT LESS THAN 2" OF WASHED GRAVEL OR CRUSHED ROCK NOT LESS THAN ONE SIEVE SIZE LARGER THAN TILE JOINT OPENING & COVERED WITH NOT LESS THAN 6" OF THE SAME MATERIAL. (IRC R405.1)

UNDISTURBED SOIL OR BEDROCK
BEST PRACTICE: FOOTING BARRIER MEMBRANE AS CAPILLARY BREAK BETWEEN FOOTING & FOUNDATION WALL

THERMALLY INSULATED ASSEMBLIES IN CLIMATE ZONES 1, 2, 3, 4 (EXCEPT ZONE 4 MARINE) DO NOT REQUIRE ANY CLASS OF VAPOR RETARDER ON THE INTERIOR SURFACE OF INSULATION IN INSULATED WALL & FLOOR ASSEMBLIES (BSD-106: UNDERSTANDING VAPOR BARRIERS & VAPOR BARRIER & WALL DESIGN RESEARCH REPORT0410 - BUILDING SCIENCE CORPORATION)

BEST PRACTICE: IN HOT & HUMID CLIMATES WHERE INTERIOR AIR CONDITIONING OCCURS, INCLUDE A VAPOR RETARDER ON THE EXTERIOR OF THE WALL ASSEMBLY TO BLOCK INWARD MOVEMENT OF MOISTURE (BSI-120: UNDERSTANDING WALLS - BUILDING SCIENCE CORPORATION)

9/16" - 4" CHROME GPS® &/OR THERMAL BATT INSULATION (IRC TABLE N1102.1.2 - R402.1.2)

HEADER OPTION NO.2: HALO® INTERRA®

INTERIOR GYPSUM BOARD FINISH (IRC R702.3) WITH LATEX PAINT

THERMALLY INSULATED ASSEMBLIES IN CLIMATE ZONES 1, 2, 3, 4 (EXCEPT ZONE 4 MARINE) DO NOT REQUIRE ANY CLASS OF VAPOR RETARDER ON THE INTERIOR SURFACE OF INSULATION IN INSULATED WALL & FLOOR ASSEMBLIES (BSD-106: UNDERSTANDING VAPOR BARRIERS & VAPOR BARRIER & WALL DESIGN RESEARCH REPORT0410 - BUILDING SCIENCE CORPORATION). **BEST PRACTICE:** IN HOT & HUMID CLIMATES WHERE INTERIOR AIR CONDITIONING OCCURS, INCLUDE A VAPOR RETARDER ON THE EXTERIOR OF THE WALL ASSEMBLY TO BLOCK INWARD MOVEMENT OF MOISTURE (BSI-120: UNDERSTANDING WALLS - BUILDING SCIENCE CORPORATION)

9/16" - 4" CHROME GPS® &/OR THERMAL BATT INSULATION (IRC TABLE N1102.1.2 - R402.1.2). CONSULT LOGIX BRANDS TECHNICAL SERVICES FOR BEST PRACTICES WHEN SECURING EXTERIOR INSULATION GREATER THAN 2"

HEADER OPTION NO.1: BATT INSULATION

BEST PRACTICE: CAULK OR TAPE SILL PLATE TO TOP OF FOUNDATION WALL TO REDUCE AIR LEAKAGE

INTERIOR GYPSUM BOARD FINISH (IRC R702.3) SECURED TO FURRING STRIPS

THE BUILDING THERMAL ENVELOPE SHALL COMPLY WITH THE REQUIREMENTS OF SECTIONS N1102.1.1. THROUGH N1102.1.5 & TABLE N1102.1.2 (R402.1.2). UNLESS OTHERWISE ALLOWED IN SECTION R316.5 (1" - 4" HALO® SUBTERRA® OR SUBTERRA® PLUS) CONCRETE SLABS SHALL NOT BE LESS THAN 3-1/2" THICK (IRC R506.1)

BEST PRACTICE: 1" - 4" HALO® SUBTERRA® OR SUBTERRA® PLUS OR HEAT-SHEET® (IRC TABLE N1102.1.2 - R402.1.2).

BEST PRACTICE: SEAL JOINTS OF FOAM INSULATION BELOW SLAB OR INCLUDE A SHEET APPLIED MEMBRANE IN THE FLOOR ON GROUND & CONNECT TO THE AIR CONTROL LAYER IN THE FOUNDATION WALL. NOTE: FOAM INSULATION FUNCTIONS AS VAPOR CONTROL LAYER.

BEST PRACTICE: RADON EXTRACTION SYSTEM, BARRIER, OR SUBFLOOR DEPRESSURIZATION SYSTEM INSTALLED IN WALL OR FLOOR ASSEMBLIES SEPARATING CONDITIONED SPACE FROM THE GROUND. NOTE: SUBTERRA® PLUS & HEAT-SHEET® HEAVY CAN FUNCTION AS A PART OF A RADON MITIGATION SYSTEM

A CONTINUOUS AIR BARRIER SHALL BE PRESENT ON THE EXTERIOR OR INTERIOR OF THE BUILDING ENCLOSURE OR BOTH

THE BUILDING THERMAL ENVELOPE SHALL BE CONSTRUCTED TO LIMIT AIR LEAKAGE IN ACCORDANCE WITH THE REQUIREMENTS OF SECTION N1102.4.1 THROUGH N1102.4.5 (IRC N1102.4 - R402.4)

EXTERIOR WALLS SHALL PROVIDE THE BUILDING WITH A WEATHER-RESISTANT EXTERIOR WALL ENVELOPE. THE EXTERIOR WALL ENVELOPE SHALL INCLUDE FLASHING AS DESCRIBED IN SECTION R703.4 (IRC R703.1)

THE EXTERIOR WALL ENVELOPE SHALL BE DESIGNED & CONSTRUCTED IN A MANNER THAT PREVENTS THE ACCUMULATION OF WATER WITHIN THE WALL ASSEMBLY BY PROVIDING A WATER-RESISTANT BARRIER BEHIND THE EXTERIOR CLADDING AS REQUIRED BY SECTION R703.2 & A MEANS OF DRAINING TO THE EXTERIOR WATER THAT PENETRATES THE EXTERIOR CLADDING (IRC R703.1.1)

OTHER APPROVED WATER-RESISTIVE BARRIER MANUFACTURERS INSTALLATION INSTRUCTIONS (HALO® EXTERRA® WITH TAPED OR CAULKED JOINTS & FASTENER PENETRATIONS, ALTERNATIVE DETAIL, MEMBRANE INSTALLED ON TOP OR BEHIND RIGID INSULATION). THESE MEMBRANES SHALL BE CONTINUOUS TO THE TOP OF WALLS & TERMINATED AT PENETRATIONS & BUILDING APPENDAGES IN A MANNER TO MEET THE REQUIREMENTS OF THE EXTERIOR WALL ENVELOPE AS DESCRIBED IN SECTION R703.1 (IRC R703.2)

THE NOMINAL THICKNESS & ATTACHMENT OF EXTERIOR WALL COVERINGS SHALL BE IN ACCORDANCE WITH TABLE R703.3(1), THE WALL COVERING MATERIAL REQUIREMENTS OF THIS SECTION, & COVERING MANUFACTURER'S INSTALLATION INSTRUCTIONS (IRC R703.3). CLADDING ATTACHMENT OVER FOAM SHEATHING SHALL COMPLY WITH ADDITIONAL REQUIREMENTS & LIMITATIONS OF SECTIONS R703.15 THROUGH R703.17

BEST PRACTICE: BUG SCREEN TOP & BOTTOM OF VENTILATED AIR SPACE

SUBTERRANEAN TERMITE CONTROL METHODS. IN AREAS SUBJECT TO DAMAGE FROM TERMITES AS INDICATED BY TABLE R301.2(1), PROTECTION SHALL BE BY ONE, OR A COMBINATION, OF THE FOLLOWING METHODS:

1. CHEMICAL TERMITICIDE TREATMENT IN ACCORDANCE WITH SECTION R318.2
2. TERMITE-BAITING SYSTEM INSTALLED & MAINTAINED IN ACCORDANCE WITH THE LABEL
3. PRESSURE-PRESERVATIVE-TREATED WOOD IN ACCORDANCE WITH THE PROVISIONS OF SECTION R317.1
4. NATURALLY DURABLE TERMITE-RESISTANT WOOD
5. PHYSICAL BARRIERS IN ACCORDANCE WITH SECTION R318.3 & USED IN LOCATIONS AS SPECIFIED IN SECTION R317.1

FOUNDATION WALLS THAT RETAIN EARTH & ENCLOSE INTERIOR SPACES & FLOORS BELOW GRADE SHALL BE DAMPROOFED FROM THE HIGHER OF (a) THE TOP OF THE FOOTING OR (b) 6" BELOW THE TOP OF THE BASEMENT FLOOR, TO THE FINISHED GRADE. CONCRETE WALLS SHALL BE DAMPROOFED BY APPLYING ANY ONE OF THE LISTED DAMPROOFING MATERIALS OR ANY ONE OF THE WATERPROOFING MATERIALS LISTED IN SECTION R406.2 TO THE EXTERIOR OF THE WALL. (IRC R406.1)

DRAINAGE TILES, GRAVEL OR CRUSHED STONE DRAINS, PERFORATED PIPE OR OTHER APPROVED SYSTEM. GRAVEL OR CRUSHED STONE 1' BEYOND OUTSIDE EDGE & 6" ABOVE TOP OF FOOTING & COVERED WITH APPROVED FILTER MEMBRANE MATERIAL. TOP OF OPEN JOINTS DRAIN TILES SHALL BE PROTECTED STRIPS BUILDING PAPER. EXPECT WHERE OTHER WISE RECOMMENDED BY DRAIN MANUFACTURER, PERFORATED DRAINS SHALL BE SURROUNDED WITH APPROVED FILTER MEMBRANE OR FILTER MEMBRANE COVER WASHED GRAVEL OR CRUSHED ROCK. DRAINAGE TILES OR PERFORATED PIPE SHALL BE PLACED ON NOT LESS THAN 2" OF WASHED GRAVEL OR CRUSHED ROCK NOT LESS THAN ONE SIEVE SIZE LARGER THAN TILE JOINT OPENING & COVERED WITH NOT LESS THAN 6" OF THE SAME MATERIAL. (IRC R405.1)

BEST PRACTICE: FOOTING BARRIER MEMBRANE AS CAPILLARY BREAK BETWEEN FOOTING & FOUNDATION WALL

THERMALLY INSULATED ASSEMBLIES IN CLIMATE ZONES 1, 2, 3, 4 (EXCEPT ZONE 4 MARINE) DO NOT REQUIRE ANY CLASS OF VAPOR RETARDER ON THE INTERIOR SURFACE OF INSULATION IN INSULATED WALL & FLOOR ASSEMBLIES (BSD-106: UNDERSTANDING VAPOR BARRIERS & VAPOR BARRIER & WALL DESIGN RESEARCH REPORT0410 - BUILDING SCIENCE CORPORATION)

BEST PRACTICE: IN HOT & HUMID CLIMATES WHERE INTERIOR AIR CONDITIONING OCCURS, INCLUDE A VAPOR RETARDER ON THE EXTERIOR OF THE WALL ASSEMBLY TO BLOCK INWARD MOVEMENT OF MOISTURE (BSI-120: UNDERSTANDING WALLS - BUILDING SCIENCE CORPORATION)

9/16" - 4" HALO® EXTERRA® &/OR THERMAL BATT INSULATION (IRC TABLE N1102.1.2 - R402.1.2)

CONSULT LOGIX BRANDS TECHNICAL SERVICES FOR BEST PRACTICES WHEN SECURING EXTERIOR INSULATION GREATER THAN 2"

HEADER OPTION NO.2: HALO® INTERRA®

INTERIOR GYPSUM BOARD FINISH (IRC R702.3)
THERMALLY INSULATED ASSEMBLIES IN CLIMATE ZONES 1, 2, 3, 4 (EXCEPT ZONE 4 MARINE) DO NOT REQUIRE ANY CLASS OF VAPOR RETARDER ON THE INTERIOR SURFACE OF INSULATION IN INSULATED WALL & FLOOR ASSEMBLIES (BSD-106: UNDERSTANDING VAPOR BARRIERS & VAPOR BARRIER & WALL DESIGN RESEARCH REPORT0410 - BUILDING SCIENCE CORPORATION)

BEST PRACTICE: IN HOT & HUMID CLIMATES WHERE INTERIOR AIR CONDITIONING OCCURS, INCLUDE A VAPOR RETARDER ON THE EXTERIOR OF THE WALL ASSEMBLY TO BLOCK INWARD MOVEMENT OF MOISTURE (BSI-120: UNDERSTANDING WALLS - BUILDING SCIENCE CORPORATION)

9/16" - 4" HALO® EXTERRA® &/OR THERMAL BATT INSULATION (IRC TABLE N1102.1.2 - R402.1.2)

CONSULT LOGIX BRANDS TECHNICAL SERVICES FOR BEST PRACTICES WHEN SECURING EXTERIOR INSULATION GREATER THAN 2"

HEADER OPTION NO.1: BATT INSULATION

BEST PRACTICE: CAULK OR TAPE SILL PLATE TO TOP OF FOUNDATION WALL TO REDUCE AIR LEAKAGE & STRUCTURAL FOAM TO MINIMIZE THERMAL BRIDGE

BEST PRACTICE: AULK OR TAPE SILL PLATE TO TOP OF FOUNDATION WALL TO REDUCE AIR LEAKAGE

INTERIOR GYPSUM BOARD FINISH (IRC R702.3)

THE BUILDING THERMAL ENVELOPE SHALL COMPLY WITH THE REQUIREMENTS OF SECTIONS N1102.1.1. THROUGH N1102.1.5 & TABLE N1102.1.2 (R402.1.2), UNLESS OTHERWISE ALLOWED IN SECTION R316.5 (1" - 4" HALO® SUBTERRA® OR SUBTERRA® PLUS)

CONCRETE SLABS SHALL NOT BE LESS THAN 3-1/2" THICK (IRC R506.1)

BEST PRACTICE: 1" - 4" (25 - 200MM) HALO® SUBTERRA® OR SUBTERRA® PLUS OR HEAT-SHEET® (IRC TABLE N1102.1.2 - R402.1.2).

BEST PRACTICE: SEAL JOINTS OF FOAM INSULATION BELOW SLAB OR INCLUDE A SHEET APPLIED MEMBRANE IN THE FLOOR ON GROUND & CONNECT TO THE AIRCONTROL LAYER IN THE FOUNDATION WALL

BEST PRACTICE: RADON EXTRACTION SYSTEM, BARRIER, OR SUBFLOOR DEPRESSURIZATION SYSTEM INSTALLED IN WALL OR FLOOR ASSEMBLIES SEPARATING CONDITIONED SPACE FROM THE GROUND. NOTE: SUBTERRA® PLUS & HEAT-SHEET® HEAVY CAN FUNCTION AS A PART OF A RADON MITIGATION SYSTEM

A CONTINUOUS AIR BARRIER SHALL BE PRESENT ON THE EXTERIOR OR INTERIOR OF THE BUILDING ENCLOSURE OR BOTH

THE BUILDING THERMAL ENVELOPE SHALL BE CONSTRUCTED TO LIMIT AIR LEAKAGE IN ACCORDANCE WITH THE REQUIREMENTS OF SECTION N1102.4.1 THROUGH N1102.4.5 (IRC N1102.4 - R402.4)

EXTERIOR WALLS SHALL PROVIDE THE BUILDING WITH A WEATHER-RESISTANT EXTERIOR WALL ENVELOPE. THE EXTERIOR WALL ENVELOPE SHALL INCLUDE FLASHING AS DESCRIBED IN SECTION R703.4 (IRC R703.1)

THE EXTERIOR WALL ENVELOPE SHALL BE DESIGNED & CONSTRUCTED IN A MANNER THAT PREVENTS THE ACCUMULATION OF WATER WITHIN THE WALL ASSEMBLY BY PROVIDING A WATER-RESISTANT BARRIER BEHIND THE EXTERIOR CLADDING AS REQUIRED BY SECTION R703.2 & A MEANS OF DRAINING TO THE EXTERIOR WATER THAT PENETRATES THE EXTERIOR CLADDING (IRC R703.1.1)

OTHER APPROVED WATER-RESISTIVE BARRIER MANUFACTURERS INSTALLATION INSTRUCTIONS (MECHANICALLY FASTENED, SELF-ADHERED, OR LIQUID APPLIED MEMBRANE APPLIED ON TOP OF EXTERIOR SHEATHING). THESE MEMBRANES SHALL BE CONTINUOUS TO THE TOP OF WALLS & TERMINATED AT PENETRATIONS & BUILDING APPENDAGES IN A MANNER TO MEET THE REQUIREMENTS OF THE EXTERIOR WALL ENVELOPE AS DESCRIBED IN SECTION R703.1 (IRC R703.2). NOTE: MEMBRANE TO FUNCTION AS AIR CONTROL LAYER.

THE NOMINAL THICKNESS & ATTACHMENT OF EXTERIOR WALL COVERINGS SHALL BE IN ACCORDANCE WITH TABLE R703.3(1), THE WALL COVERING MATERIAL REQUIREMENTS OF THIS SECTION, & COVERING MANUFACTURER'S INSTALLATION INSTRUCTIONS (IRC R703.3). CLADDING ATTACHMENT OVER FOAM SHEATHING SHALL COMPLY WITH ADDITIONAL REQUIREMENTS & LIMITATIONS OF SECTIONS R703.15 THROUGH R703.17.

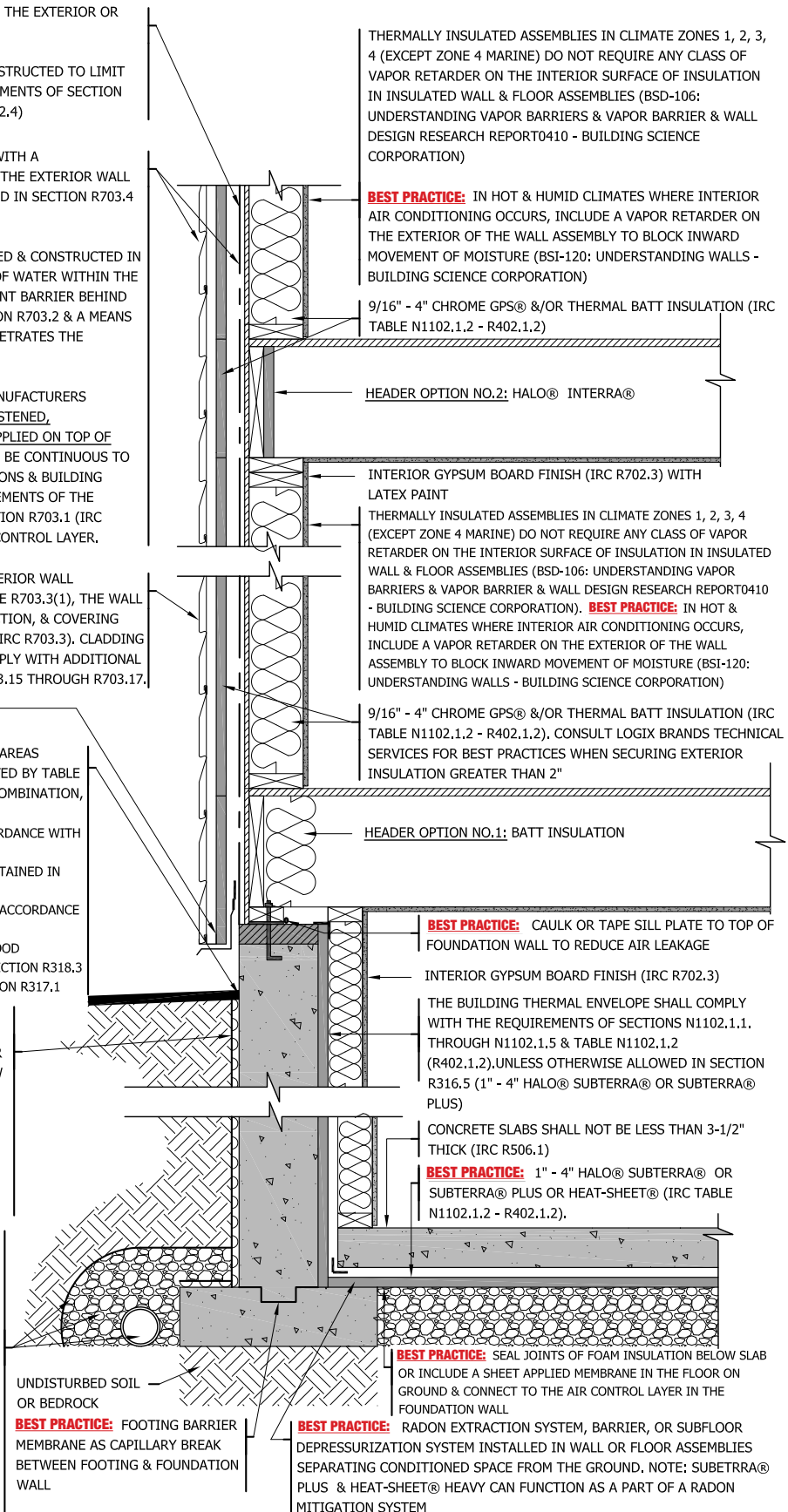
BEST PRACTICE: BUG SCREEN TOP & BOTTOM OF VENTILATED AIR SPACE

SUBTERRANEAN TERMITE CONTROL METHODS. IN AREAS SUBJECT TO DAMAGE FROM TERMITES AS INDICATED BY TABLE R301.2(1), PROTECTION SHALL BE BY ONE, OR A COMBINATION, OF THE FOLLOWING METHODS:

1. CHEMICAL TERMITICIDE TREATMENT IN ACCORDANCE WITH SECTION R318.2
2. TERMITE-BAITING SYSTEM INSTALLED & MAINTAINED IN ACCORDANCE WITH THE LABEL
3. PRESSURE-PRESERVATIVE-TREATED WOOD IN ACCORDANCE WITH THE PROVISIONS OF SECTION R317.1
4. NATURALLY DURABLE TERMITE-RESISTANT WOOD
5. PHYSICAL BARRIERS IN ACCORDANCE WITH SECTION R318.3 & USED IN LOCATIONS AS SPECIFIED IN SECTION R317.1

FOUNDATION WALLS THAT RETAIN EARTH & ENCLOSE INTERIOR SPACES & FLOORS BELOW GRADE SHALL BE DAMPROOFED FROM THE HIGHER OF (a) THE TOP OF THE FOOTING OR (b) 6" BELOW THE TOP OF THE BASEMENT FLOOR, TO THE FINISHED GRADE. CONCRETE WALLS SHALL BE DAMPROOFED BY APPLYING ANY ONE OF THE LISTED DAMPROOFING MATERIALS OR ANY ONE OF THE WATERPROOFING MATERIALS LISTED IN SECTION R406.2 TO THE EXTERIOR OF THE WALL. (IRC R406.1)

DRAINAGE TILES, GRAVEL OR CRUSHED STONE DRAINS, PERFORATED PIPE OR OTHER APPROVED SYSTEM. GRAVEL OR CRUSHED STONE 1' BEYOND OUTSIDE EDGE & 6" ABOVE TOP OF FOOTING & COVERED WITH APPROVED FILTER MEMBRANE MATERIAL. TOP OF OPEN JOINTS DRAIN TILES SHALL BE PROTECTED STRIPS BUILDING PAPER. EXPECT WHERE OTHER WISE RECOMMENDED BY DRAIN MANUFACTURER, PERFORATED DRAINS SHALL BE SURROUNDED WITH APPROVED FILTER MEMBRANE OR FILTER MEMBRANE COVER WASHED GRAVEL OR CRUSHED ROCK. DRAINAGE TILES OR PERFORATED PIPE SHALL BE PLACED ON NOT LESS THAN 2" OF WASHED GRAVEL OR CRUSHED ROCK NOT LESS THAN ONE SIEVE SIZE LARGER THAN TILE JOINT OPENING & COVERED WITH NOT LESS THAN 6" OF THE SAME MATERIAL. (IRC R405.1)



THERMALLY INSULATED ASSEMBLIES IN CLIMATE ZONES 1, 2, 3, 4 (EXCEPT ZONE 4 MARINE) DO NOT REQUIRE ANY CLASS OF VAPOR RETARDER ON THE INTERIOR SURFACE OF INSULATION IN INSULATED WALL & FLOOR ASSEMBLIES (BSD-106: UNDERSTANDING VAPOR BARRIERS & VAPOR BARRIER & WALL DESIGN RESEARCH REPORT0410 - BUILDING SCIENCE CORPORATION)

BEST PRACTICE: IN HOT & HUMID CLIMATES WHERE INTERIOR AIR CONDITIONING OCCURS, INCLUDE A VAPOR RETARDER ON THE EXTERIOR OF THE WALL ASSEMBLY TO BLOCK INWARD MOVEMENT OF MOISTURE (BSI-120: UNDERSTANDING WALLS - BUILDING SCIENCE CORPORATION)

9/16" - 4" CHROME GPS® &/OR THERMAL BATT INSULATION (IRC TABLE N1102.1.2 - R402.1.2)

HEADER OPTION NO.2: HALO® INTERRA®

INTERIOR GYPSUM BOARD FINISH (IRC R702.3) WITH LATEX PAINT

THERMALLY INSULATED ASSEMBLIES IN CLIMATE ZONES 1, 2, 3, 4 (EXCEPT ZONE 4 MARINE) DO NOT REQUIRE ANY CLASS OF VAPOR RETARDER ON THE INTERIOR SURFACE OF INSULATION IN INSULATED WALL & FLOOR ASSEMBLIES (BSD-106: UNDERSTANDING VAPOR BARRIERS & VAPOR BARRIER & WALL DESIGN RESEARCH REPORT0410 - BUILDING SCIENCE CORPORATION). **BEST PRACTICE:** IN HOT & HUMID CLIMATES WHERE INTERIOR AIR CONDITIONING OCCURS, INCLUDE A VAPOR RETARDER ON THE EXTERIOR OF THE WALL ASSEMBLY TO BLOCK INWARD MOVEMENT OF MOISTURE (BSI-120: UNDERSTANDING WALLS - BUILDING SCIENCE CORPORATION)

9/16" - 4" CHROME GPS® &/OR THERMAL BATT INSULATION (IRC TABLE N1102.1.2 - R402.1.2). CONSULT LOGIX BRANDS TECHNICAL SERVICES FOR BEST PRACTICES WHEN SECURING EXTERIOR INSULATION GREATER THAN 2"

HEADER OPTION NO.1: BATT INSULATION

BEST PRACTICE: CAULK OR TAPE SILL PLATE TO TOP OF FOUNDATION WALL TO REDUCE AIR LEAKAGE

INTERIOR GYPSUM BOARD FINISH (IRC R702.3)

THE BUILDING THERMAL ENVELOPE SHALL COMPLY WITH THE REQUIREMENTS OF SECTIONS N1102.1.1, THROUGH N1102.1.5 & TABLE N1102.1.2 (R402.1.2), UNLESS OTHERWISE ALLOWED IN SECTION R316.5 (1" - 4" HALO® SUBTERRA® OR SUBTERRA® PLUS)

CONCRETE SLABS SHALL NOT BE LESS THAN 3-1/2" THICK (IRC R506.1)

BEST PRACTICE: 1" - 4" HALO® SUBTERRA® OR SUBTERRA® PLUS OR HEAT-SHEET® (IRC TABLE N1102.1.2 - R402.1.2).

BEST PRACTICE: SEAL JOINTS OF FOAM INSULATION BELOW SLAB OR INCLUDE A SHEET APPLIED MEMBRANE IN THE FLOOR ON GROUND & CONNECT TO THE AIR CONTROL LAYER IN THE FOUNDATION WALL

UNDISTURBED SOIL OR BEDROCK
BEST PRACTICE: FOOTING BARRIER MEMBRANE AS CAPILLARY BREAK BETWEEN FOOTING & FOUNDATION WALL

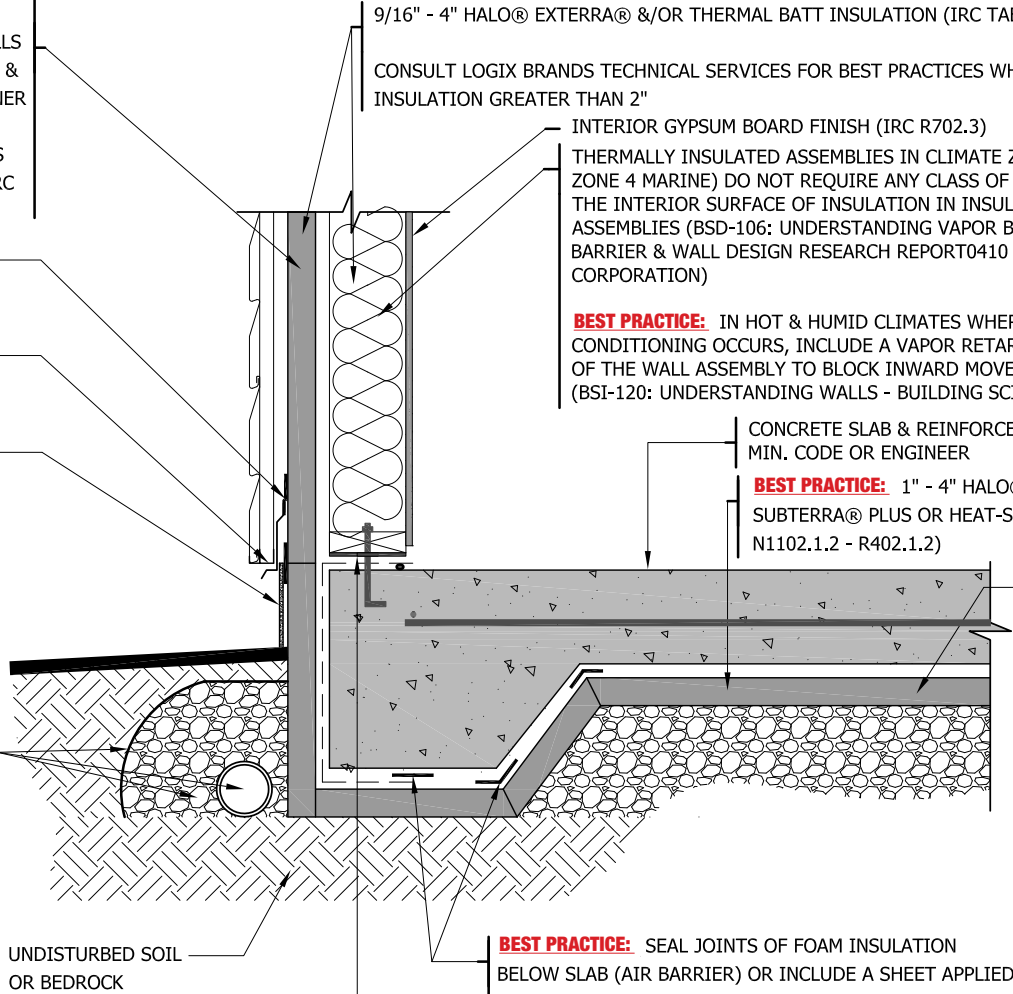
BEST PRACTICE: RADON EXTRACTION SYSTEM, BARRIER, OR SUBFLOOR DEPRESSURIZATION SYSTEM INSTALLED IN WALL OR FLOOR ASSEMBLIES SEPARATING CONDITIONED SPACE FROM THE GROUND. NOTE: SUBTERRA® PLUS & HEAT-SHEET® HEAVY CAN FUNCTION AS A PART OF A RADON MITIGATION SYSTEM

OTHER APPROVED WATER-RESISTIVE BARRIER MANUFACTURERS INSTALLATION INSTRUCTIONS (HALO® EXTERRA® WITH TAPED OR CAULKED JOINTS & FASTENER PENETRATIONS, ALTERNATIVE DETAIL, MEMBRANE INSTALLED ON TOP OR BEHIND RIGID INSULATION). THESE MEMBRANES SHALL BE CONTINUOUS TO THE TOP OF WALLS & TERMINATED AT PENETRATIONS & BUILDING APPENDAGES IN A MANNER TO MEET THE REQUIREMENTS OF THE EXTERIOR WALL ENVELOPE AS DESCRIBED IN SECTION R703.1 (IRC R703.2)

FLASHING TAPED OR CAULKED TO FRONT FACE OF FOAM INSULATION
BEST PRACTICE: BUG SCREEN TOP & BOTTOM OF VENTILATED AIR SPACE

EXTERIOR FOUNDATION WALLS SHALL EXTEND NOT LESS THAN 4" (MASONRY VENEER) & 6" OTHER CLADDINGS ABOVE FINISHED GROUND LEVEL (IRC R404.1.6.) INSULATION ABOVE GRADE CANNOT BE LEFT EXPOSED COVER WITH ACRYLIC PARGING (OPTIONAL: GYPSUM OR CONCRETE BOARD)

DRAINAGE TILES, GRAVEL OR CRUSHED STONE DRAINS, PERFORATED PIPE OR OTHER APPROVED SYSTEM. GRAVEL OR CRUSHED STONE 1' BEYOND OUTSIDE EDGE & 6" ABOVE TOP OF FOOTING & COVERED WITH APPROVED FILTER MEMBRANE MATERIAL. TOP OF OPEN JOINTS DRAIN TILES SHALL BE PROTECTED STRIPS BUILDING PAPER. EXPECT WHERE OTHER WISE RECOMMENDED BY DRAIN MANUFACTURER, PERFORATED DRAINS SHALL BE SURROUNDED WITH APPROVED FILTER MEMBRANE OR FILTER MEMBRANE COVER WASHED GRAVEL OR CRUSHED ROCK. DRAINAGE TILES OR PERFORATED PIPE SHALL BE PLACED ON NOT LESS THAN 2" OF WASHED GRAVEL OR CRUSHED ROCK NOT LESS THAN ONE SIEVE SIZE LARGER THAN TILE JOINT OPENING & COVERED WITH NOT LESS THAN 6" OF THE SAME MATERIAL. (IRC R405.1.)



NOTE:

A CONTINUOUS AIR BARRIER SHALL BE PRESENT ON THE EXTERIOR OR INTERIOR OF THE BUILDING ENCLOSURE OR BOTH

THE BUILDING THERMAL ENVELOPE SHALL BE CONSTRUCTED TO LIMIT AIR LEAKAGE IN ACCORDANCE WITH THE REQUIREMENTS OF SECTION N1102.4.1 THROUGH N1102.4.5 (IRC N1102.4 - R402.4)

9 1/16" - 4" HALO® EXTERRA® &/OR THERMAL BATT INSULATION (IRC TABLE N1102.1.2 - R402.1.2)

CONSULT LOGIX BRANDS TECHNICAL SERVICES FOR BEST PRACTICES WHEN SECURING EXTERIOR INSULATION GREATER THAN 2"

INTERIOR GYPSUM BOARD FINISH (IRC R702.3)

THERMALLY INSULATED ASSEMBLIES IN CLIMATE ZONES 1, 2, 3, 4 (EXCEPT ZONE 4 MARINE) DO NOT REQUIRE ANY CLASS OF VAPOR RETARDER ON THE INTERIOR SURFACE OF INSULATION IN INSULATED WALL & FLOOR ASSEMBLIES (BSD-106: UNDERSTANDING VAPOR BARRIERS & VAPOR BARRIER & WALL DESIGN RESEARCH REPORT0410 - BUILDING SCIENCE CORPORATION)

BEST PRACTICE: IN HOT & HUMID CLIMATES WHERE INTERIOR AIR CONDITIONING OCCURS, INCLUDE A VAPOR RETARDER ON THE EXTERIOR OF THE WALL ASSEMBLY TO BLOCK INWARD MOVEMENT OF MOISTURE (BSI-120: UNDERSTANDING WALLS - BUILDING SCIENCE CORPORATION)

CONCRETE SLAB & REINFORCEMENT DESIGNED AS PER MIN. CODE OR ENGINEER

BEST PRACTICE: 1" - 4" HALO® SUBTERRA® OR SUBTERRA® PLUS OR HEAT-SHEET (IRC TABLE N1102.1.2 - R402.1.2)

BEST PRACTICE: RADON EXTRACTION SYSTEM, BARRIER, OR SUBFLOOR DEPRESSURIZATION SYSTEM INSTALLED IN FLOOR ASSEMBLIES SEPARATING CONDITIONED SPACE FROM THE GROUND. NOTE: SUBTERRA® PLUS & HEAT-SHEET® HEAVY CAN FUNCTION AS A PART OF A RADON MITIGATION SYSTEM

BEST PRACTICE: SEAL JOINTS OF FOAM INSULATION BELOW SLAB (AIR BARRIER) OR INCLUDE A SHEET APPLIED MEMBRANE IN THE FLOOR ON GROUND & CONNECT TO THE AIR &/OR VAPOR CONTROL LAYER IN THE ABOVE GRADE WALL

BEST PRACTICE: FOOTING BARRIER MEMBRANE AS CAPILLARY BREAK BETWEEN SLAB & ABOVE GRADE WALL

4 BUILDING SCIENCE CONTROL LAYERS

- WATER: FRONT FACE HALO® EXTERRA®
 - NOTE: ALTERNATIVE DETAIL; MECHANICALLY FASTENED, PEEL & STICK, OR LIQUID APPLIED MEMBRANE APPLIED TO FRONT FACE OR INBEHIND HALO® EXTERRA®
- AIR: INTERIOR GYPSUM BOARD OR MEMBRANE
 - NOTE: BEST PRACTICE APPLY SHEET APPLIED MEMBRANE IN FLOOR SLAB & CONNECT TO INTERIOR WALL AIR CONTROL LAYER
- THERMAL: HALO® SUBTERRA® OR SUBTERRA® PLUS OR HEAT-SHEET® BELOW SLAB & HALO® EXTERRA® & INSULATION BETWEEN STUDS
- VAPOR: NOT REQUIRED AS PER IRC

OTHER APPROVED WATER-RESISTIVE BARRIER MANUFACTURERS INSTALLATION INSTRUCTIONS (MECHANICALLY FASTENED, SELF-ADHERED, OR LIQUID APPLIED MEMBRANE APPLIED ON TOP OF EXTERIOR SHEATHING). THESE MEMBRANES SHALL BE CONTINUOUS TO THE TOP OF WALLS & TERMINATED AT PENETRATIONS & BUILDING APPENDAGES IN A MANNER TO MEET THE REQUIREMENTS OF THE EXTERIOR WALL ENVELOPE AS DESCRIBED IN SECTION R703.1 (IRC R703.2)

BEST PRACTICE: BUG SCREEN TOP & BOTTOM OF VENTILATED AIR SPACE

EXTERIOR FOUNDATION WALLS SHALL EXTEND NOT LESS THAN 4" (MASONRY VENEER) & 6" OTHER CLADDINGS ABOVE FINISHED GROUND LEVEL (IRC R404.1.6.) INSULATION ABOVE GRADE CANNOT BE LEFT EXPOSED COVER WITH ACRYLIC PARGING (OPTIONAL: GYPSUM OR CONCRETE BOARD)

DRAINAGE TILES, GRAVEL OR CRUSHED STONE DRAINS, PERFORATED PIPE OR OTHER APPROVED SYSTEM. GRAVEL OR CRUSHED STONE 1' BEYOND OUTSIDE EDGE & 6" ABOVE TOP OF FOOTING & COVERED WITH APPROVED FILTER MEMBRANE MATERIAL. TOP OF OPEN JOINTS DRAIN TILES SHALL BE PROTECTED STRIPS BUILDING PAPER. EXPECT WHERE OTHER WISE RECOMMENDED BY DRAIN MANUFACTURER, PERFORATED DRAINS SHALL BE SURROUNDED WITH APPROVED FILTER MEMBRANE OR FILTER MEMBRANE COVER WASHED GRAVEL OR CRUSHED ROCK. DRAINAGE TILES OR PERFORATED PIPE SHALL BE PLACED ON NOT LESS THAN 2" OF WASHED GRAVEL OR CRUSHED ROCK NOT LESS THAN ONE SIEVE SIZE LARGER THAN TILE JOINT OPENING & COVERED WITH NOT LESS THAN 6" OF THE SAME MATERIAL. (IRC R405.1.)

UNDISTURBED SOIL OR BEDROCK

4 BUILDING SCIENCE CONTROL LAYERS

- WATER: MECHANICALLY FASTENED, PEEL & STICK, OR LIQUID APPLIED MEMBRANE ON TOP OF EXTERIOR SHEATHING
 - NOTE: MEMBRANE COULD FUNCTION AS AIR CONTROL LAYER & INTERIOR MEMBRANE AS THE AIR CONTROL LAYER COULD BE OMITTED (STILL REQUIRED VAPOR CONTROL LAYER ON WARM SIDE OF ASSEMBLY)
- AIR: INTERIOR GYPSUM BOARD OR MEMBRANE
 - NOTE: BEST PRACTICE APPLY SHEET APPLIED MEMBRANE IN FLOOR SLAB & CONNECT TO INTERIOR WALL MEMBRANE
- THERMAL: HALO® SUBTERRA® OR SUBTERRA® PLUS OR HEAT-SHEET® BELOW SLAB & CHROME GPS® & INSULATION BETWEEN STUDS
- VAPOR: NOT REQUIRED AS PER IRC

NOTE:

A CONTINUOUS AIR BARRIER SHALL BE PRESENT ON THE EXTERIOR OR INTERIOR OF THE BUILDING ENCLOSURE OR BOTH

THE BUILDING THERMAL ENVELOPE SHALL BE CONSTRUCTED TO LIMIT AIR LEAKAGE IN ACCORDANCE WITH THE REQUIREMENTS OF SECTION N1102.4.1 THROUGH N1102.4.5 (IRC N1102.4 - R402.4)

9/16" - 4" CHROME GPS® &/OR THERMAL BATT INSULATION (IRC TABLE N1102.1.2 - R402.1.2). CONSULT LOGIX BRANDS TECHNICAL SERVICES FOR BEST PRACTICES WHEN SECURING EXTERIOR INSULATION GREATER THAN 2"

INTERIOR GYPSUM BOARD FINISH (IRC R702.3)

THERMALLY INSULATED ASSEMBLIES IN CLIMATE ZONES 1, 2, 3, 4 (EXCEPT ZONE 4 MARINE) DO NOT REQUIRE ANY CLASS OF VAPOR RETARDER ON THE INTERIOR SURFACE OF INSULATION IN INSULATED WALL & FLOOR ASSEMBLIES (BSD-106: UNDERSTANDING VAPOR BARRIERS & VAPOR BARRIER & WALL DESIGN RESEARCH REPORT0410 - BUILDING SCIENCE CORPORATION)

BEST PRACTICE: IN HOT & HUMID CLIMATES WHERE INTERIOR AIR CONDITIONING OCCURS, INCLUDE A VAPOR RETARDER ON THE EXTERIOR OF THE WALL ASSEMBLY TO BLOCK INWARD MOVEMENT OF MOISTURE (BSI-120: UNDERSTANDING WALLS - BUILDING SCIENCE CORPORATION)

CONCRETE SLAB & REINFORCEMENT DESIGNED AS PER MIN. CODE OR ENGINEER

BEST PRACTICE: 1" - 4" HALO® SUBTERRA® OR SUBTERRA® PLUS OR HEAT-SHEET® (IRC TABLE N1102.1.2 - R402.1.2)

BEST PRACTICE: RADON EXTRACTION SYSTEM, BARRIER, OR SUBFLOOR DEPRESSURIZATION SYSTEM INSTALLED IN FLOOR ASSEMBLIES SEPARATING CONDITIONED SPACE FROM THE GROUND. NOTE: SUBTERRA® PLUS & HEAT-SHEET® HEAVY CAN FUNCTION AS A PART OF A RADON MITIGATION SYSTEM

BEST PRACTICE: SEAL JOINTS OF FOAM INSULATION BELOW SLAB (AIR BARRIER) OR INCLUDE A SHEET APPLIED MEMBRANE IN THE FLOOR ON GROUND & CONNECT TO THE AIR &/OR VAPOR CONTROL LAYER IN THE ABOVE GRADE WALL

BEST PRACTICE: FOOTING BARRIER MEMBRANE AS CAPILLARY BREAK BETWEEN SLAB & ABOVE GRADE WALL



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Drawing:
9-27

Date:
SEPT./2024

Pg:
9

Title:
CHROME GPS ABOVE GRADE WALL ASSEMBLY & HALO® SUBTERRA® OR SUBTERRA® PLUS SLAB-ON-GRADE DETAIL

NOTE:

A CONTINUOUS AIR BARRIER SHALL BE PRESENT ON THE EXTERIOR OR INTERIOR OF THE BUILDING ENCLOSURE OR BOTH

THE BUILDING THERMAL ENVELOPE SHALL BE CONSTRUCTED TO LIMIT AIR LEAKAGE IN ACCORDANCE WITH THE REQUIREMENTS OF SECTION N1102.4.1 THROUGH N1102.4.5 (IRC N1102.4 - R402.4)

OTHER APPROVED WATER-RESISTIVE BARRIER MANUFACTURERS INSTALLATION INSTRUCTIONS (FRONT FACE OF ELEMENT ICF® FUNCTIONS AS THE WATER CONTROL LAYER. ALTERNATIVE DETAIL - MECH. FASTENED, PEEL & STICK, OR LIQUID APPLIED MEMBRANE APPLIED TO FRONT FACE OF ELEMENT ICF® BLOCK). THESE MEMBRANES SHALL BE CONTINUOUS TO THE TOP OF WALLS & TERMINATED AT PENETRATIONS & BUILDING APPENDAGES IN A MANNER TO MEET THE REQUIREMENTS OF THE EXTERIOR WALL ENVELOPE AS DESCRIBED IN SECTION R703.1 (IRC R703.2)

FLASHING TAPED OR CAULKED TO FRONT FACE OF FOAM INSULATION
BEST PRACTICE: BUG SCREEN TOP & BOTTOM OF VENTILATED AIR SPACE

EXTERIOR FOUNDATION WALLS SHALL EXTEND NOT LESS THAN 4" (MASONRY VENEER) & 6" OTHER CLADDINGS ABOVE FINISHED GROUND LEVEL (IRC R404.1.6.) INSULATION ABOVE GRADE CANNOT BE LEFT EXPOSED COVER WITH ACRYLIC PARGING (OPTIONAL: GYPSUM OR CONCRETE BOARD)

DRAINAGE TILES, GRAVEL OR CRUSHED STONE DRAINS, PERFORATED PIPE OR OTHER APPROVED SYSTEM. GRAVEL OR CRUSHED STONE 1' BEYOND OUTSIDE EDGE & 6" ABOVE TOP OF FOOTING & COVERED WITH APPROVED FILTER MEMBRANE MATERIAL. TOP OF OPEN JOINTS DRAIN TILES SHALL BE PROTECTED STRIPS BUILDING PAPER. EXPECT WHERE OTHER WISE RECOMMENDED BY DRAIN MANUFACTURER, PERFORATED DRAINS SHALL BE SURROUNDED WITH APPROVED FILTER MEMBRANE OR FILTER MEMBRANE COVER WASHED GRAVEL OR CRUSHED ROCK. DRAINAGE TILES OR PERFORATED PIPE SHALL BE PLACED ON NOT LESS THAN 2" OF WASHED GRAVEL OR CRUSHED ROCK NOT LESS THAN ONE SIEVE SIZE LARGER THAN TILE JOINT OPENING & COVERED WITH NOT LESS THAN 6" OF THE SAME MATERIAL. (IRC R405.1.)

UNDISTURBED SOIL OR BEDROCK

4 BUILDING SCIENCE CONTROL LAYERS

- WATER: FRONT FACE OF ELEMENT ICF® BLOCK
 - NOTE: ALTERNATIVE DETAIL; MECHANICALLY FASTENED, PEEL & STICK, OR LIQUID APPLIED MEMBRANE APPLIED TO FRONT FACE OF ELEMENT ICF® BLOCK
- AIR: CONCRETE IN ELEMENT ICF® TO CONCRETE IN FLOOR SLAB
 - NOTE: BEST PRACTICE TAPE JOINTS OF INSULATION BELOW SLAB & CONNECT TO CONCRETE IN ELEMENT ICF® BLOCK WITH SHEET APPLIED MEMBRANE
- THERMAL: HALO® SUBTERRA® OR SUBTERRA® PLUS OR HEAT-SHEET® BELOW SLAB & INTERIOR & EXTERIOR EPS INSULATION OF ELEMENT ICF® BLOCK
- VAPOR: NOT REQUIRED AS PER IRC

THERMALLY INSULATED ASSEMBLIES IN CLIMATE ZONES 1, 2, 3, 4 (EXCEPT ZONE 4 MARINE) DO NOT REQUIRE ANY CLASS OF VAPOR RETARDER ON THE INTERIOR SURFACE OF INSULATION IN INSULATED WALL & FLOOR ASSEMBLIES (BSD-106: UNDERSTANDING VAPOR BARRIERS & VAPOR BARRIER & WALL DESIGN RESEARCH REPORT0410 - BUILDING SCIENCE CORPORATION)

BEST PRACTICE: IN HOT & HUMID CLIMATES WHERE INTERIOR AIR CONDITIONING OCCURS, INCLUDE A VAPOR RETARDER ON THE EXTERIOR OF THE WALL ASSEMBLY TO BLOCK INWARD MOVEMENT OF MOISTURE (BSI-120: UNDERSTANDING WALLS - BUILDING SCIENCE CORPORATION)

INTERIOR GYPSUM BOARD FINISH (IRC R702.3), GLUED TO EPS OF ELEMENT ICF®, SCREWED TO ELEMENT ICF® WEBS OR INSTALLED ON TOP OF FURRING STRIPS

ELEMENT ICF® (IRC TABLE N1102.1.2 - R402.1.2), FOR ADDITIONAL THERMAL RESISTANCE: D-RV, HALO® INTERRA®, OR SUBTERRA®/SUBTERRA® PLUS CAN BE INSTALLED

CONCRETE SLAB & REINFORCEMENT DESIGNED AS PER MIN. BUILDING CODE OR ENGINEER

BEST PRACTICE: 1" - 4" HALO® SUBTERRA® OR SUBTERRA® PLUS OR HEAT-SHEET® (IRC TABLE N1102.1.2 - R402.1.2)

BEST PRACTICE: RADON EXTRACTION SYSTEM, BARRIER, OR SUBFLOOR DEPRESSURIZATION SYSTEM INSTALLED IN FLOOR ASSEMBLIES SEPARATING CONDITIONED SPACE FROM THE GROUND. NOTE: SUBTERRA® PLUS & HEAT-SHEET® HEAVY CAN FUNCTION AS A PART OF A RADON MITIGATION SYSTEM

BEST PRACTICE: SEAL JOINTS OF FOAM INSULATION BELOW SLAB (AIR BARRIER) OR INCLUDE A SHEET APPLIED MEMBRANE IN THE FLOOR ON GROUND & CONNECT TO THE AIR &/OR VAPOR CONTROL LAYER IN THE ABOVE GRADE WALL

BEST PRACTICE: FOOTING BARRIER MEMBRANE AS CAPILLARY BREAK BETWEEN SLAB & ABOVE GRADE WALL



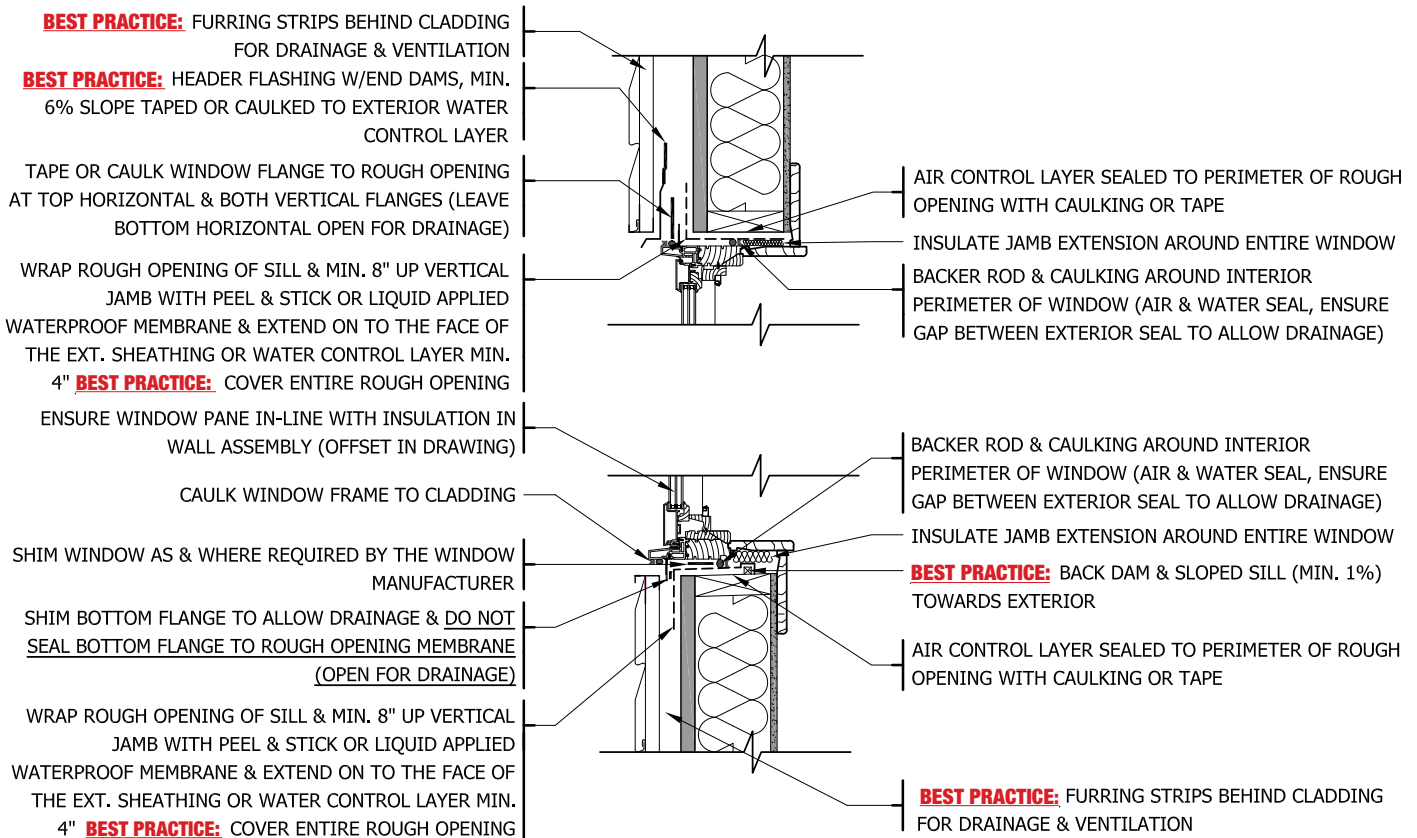
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Drawing:
10-27

Date:
SEPT./2024

Pg:
10

Title:
ELEMENT ICF® ABOVE GRADE WALL ASSEMBLY & HALO® SUBTERRA® OR SUBTERRA® PLUS SLAB-ON-GRADE DETAIL



4 BUILDING SCIENCE CONTROL LAYERS

- WATER:FRONT FACE HALO® EXTERRA®
 - NOTE: ALTERNATIVE DETAIL; MECHANICALLY FASTENED, PEEL & STICK, OR LIQUID APPLIED MEMBRANE APPLIED TO FRONT FACE OR INBEHIND HALO® EXTERRA®
- AIR:INTERIOR GYPSUM OR EXTERIOR MEMBRANE CONNECTED TO WINDOW VIA MEMBRANE APPLIED TO ROUGH OPENING TO BACKER ROD & CAULKING (INTERIOR AIR SEAL)
 - NOTE: WINDOW MUST CONNECT TO AIR CONTROL LAYER IN ORDER TO MAINTAIN CONTINUOUS AIR BARRIER
- THERMAL:HALO® EXTERRA® & INSULATION BETWEEN STUDS
- VAPOR:NOT REQUIRED AS PER IRC



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Drawing: 11-27	Date: SEPT./2024	Pg: 11
Title: HALO® EXTERRA® WINDOW DETAIL		

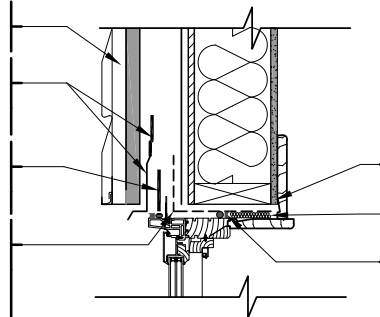
BEST PRACTICE: FURRING STRIPS BEHIND CLADDING FOR DRAINAGE & VENTILATION

BEST PRACTICE: HEADER FLASHING W/END DAMS, MIN. 6% SLOPE TAPED OR CAULKED TO EXTERIOR WATER CONTROL LAYER

TAPE OR CAULK WINDOW FLANGE TO ROUGH OPENING AT TOP HORIZONTAL & BOTH VERTICAL FLANGES (LEAVE BOTTOM HORIZONTAL OPEN FOR DRAINAGE)

WRAP ROUGH OPENING OF SILL & MIN. 8" UP VERTICAL JAMB WITH PEEL & STICK OR LIQUID APPLIED WATERPROOF MEMBRANE & EXTEND ON TO THE FACE OF THE EXT SHEATHING OR WATER CONTROL LAYER MIN. 4"

BEST PRACTICE: COVER ENTIRE ROUGH OPENING



AIR CONTROL LAYER SEALED TO PERIMETER OF ROUGH OPENING WITH CAULKING OR TAPE

INSULATE JAMB EXTENSION AROUND ENTIRE WINDOW

BACKER ROD & CAULKING AROUND INTERIOR PERIMETER OF WINDOW (AIR & WATER SEAL, ENSURE GAP BETWEEN EXTERIOR SEAL TO ALLOW DRAINAGE)

ENSURE WINDOW PANE IN-LINE WITH INSULATION IN WALL ASSEMBLY (OFFSET IN DRAWING)

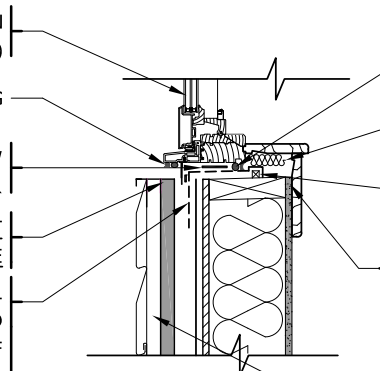
CAULK WINDOW FRAME TO CLADDING

SHIM WINDOW AS & WHERE REQUIRED BY THE WINDOW MANUFACTURER

SHIM BOTTOM FLANGE TO ALLOW DRAINAGE & DO NOT SEAL BOTTOM FLANGE TO ROUGH OPENING MEMBRANE

WRAP ROUGH OPENING OF SILL & MIN. 8" UP VERTICAL JAMB WITH PEEL & STICK OR LIQUID APPLIED WATERPROOF MEMBRANE & EXTEND ON TO THE FACE OF THE EXT. SHEATHING OR WATER CONTROL LAYER MIN. 4"

BEST PRACTICE: COVER ENTIRE ROUGH OPENING



BACKER ROD & CAULKING AROUND INTERIOR PERIMETER OF WINDOW (AIR & WATER SEAL, ENSURE GAP BETWEEN EXTERIOR SEAL TO ALLOW DRAINAGE)

INSULATE JAMB EXTENSION AROUND ENTIRE WINDOW

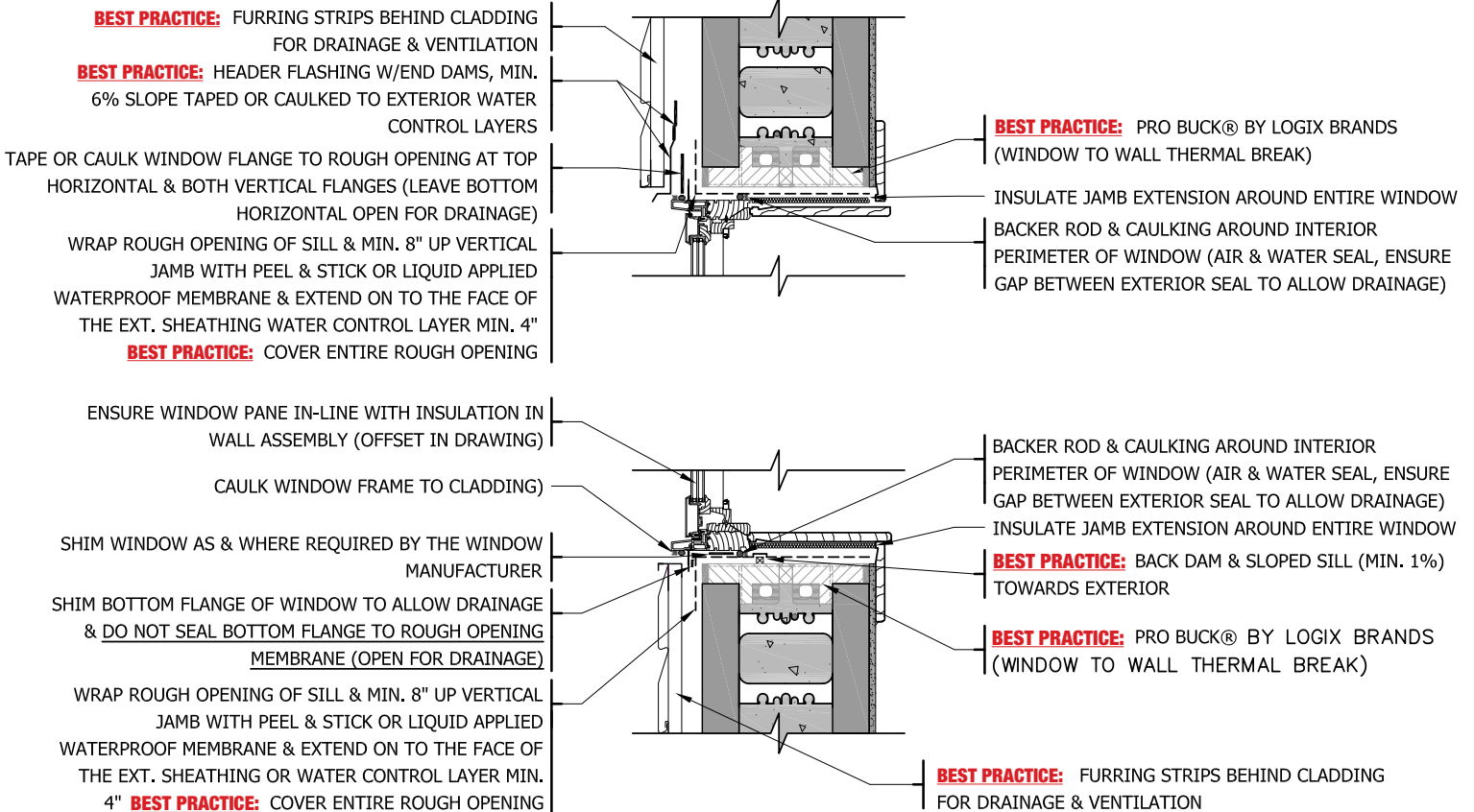
BEST PRACTICE: BACK DAM & SLOPED SILL (MIN. 1%) TOWARDS EXTERIOR

AIR CONTROL LAYER SEALED TO PERIMETER OF ROUGH OPENING WITH CAULKING OR TAPE

BEST PRACTICE: FURRING STRIPS BEHIND CLADDING FOR DRAINAGE & VENTILATION

4 BUILDING SCIENCE CONTROL LAYERS

- WATER: MEMBRANE APPLIED TO EXTERIOR SHEATHING
- AIR: INTERIOR GYPSUM OR EXTERIOR MEMBRANE CONNECTED TO WINDOW VIA MEMBRANE APPLIED TO ROUGH OPENING TO BACKER ROD & CAULKING (INTERIOR AIR SEAL)
- NOTE: WINDOW MUST CONNECT TO INTERIOR AIR CONTROL LAYER IN ORDER TO MAINTAIN CONTINUOUS AIR BARRIER
- THERMAL: CHROME GPS & INSULATION BETWEEN STUDS
- VAPOR: NOT REQUIRED AS PER IRC



4 BUILDING SCIENCE CONTROL LAYERS

- WATER: FRONT FACE OF ELEMENT ICF® BLOCK
- NOTE: ALTERNATIVE DETAIL; MECHANICALLY FASTENED, PEEL & STICK, OR LIQUID APPLIED MEMBRANE APPLIED TO FRONT FACE OF ELEMENT ICF® BLOCK
- AIR: CONCRETE IN ELEMENT ICF® CONNECTED TO WINDOW VIA MEMBRANE APPLIED TO ROUGH OPENING TO BACKER ROD & CAULKING (INT. AIR SEAL)
- NOTE: WINDOW MUST CONNECT TO CONCRETE IN ORDER TO MAINTAIN CONTINUOUS AIR BARRIER. ALTERNATIVE DETAIL AIR CONTROL LAYER; MECHANICALLY FASTENED, PEEL & STICK, OR LIQUID APPLIED MEMBRANE APPLIED TO INTERIOR OR EXTERIOR OF ELEMENT ICF® BLOCK
- THERMAL: EXTERIOR & INTERIOR EPS INSULATION OF ELEMENT ICF® BLOCK
- VAPOR: NOT REQUIRED AS PER IRC

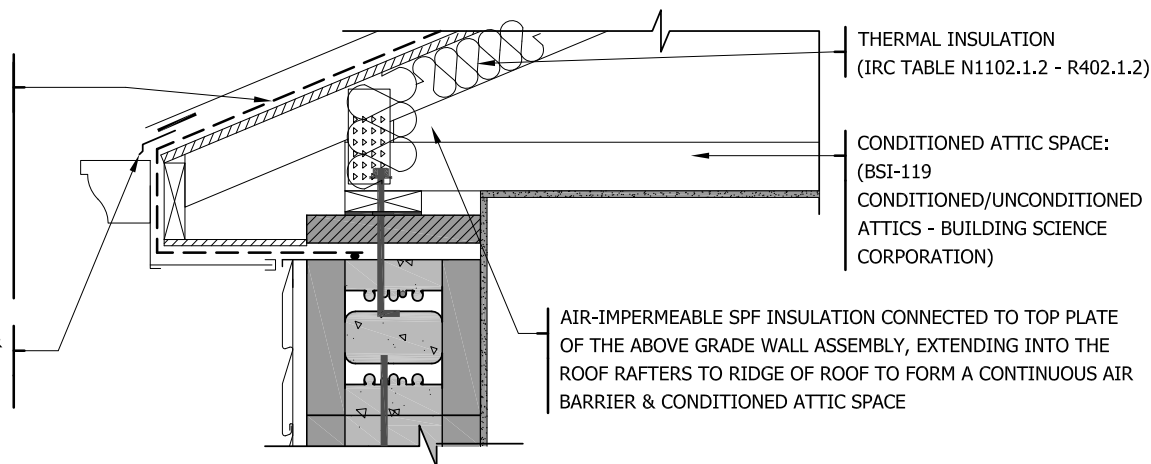


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Drawing: 13-27	Date: SEPT./2024	Pg: 13
Title: ELEMENT ICF® WINDOW DETAIL		

ROOF MEMBRANE SHALL HAVE A VAPOR PERMEANCE (WET CUP) EQUAL TO OR LESS THAN 1 PERM. (BUILDING SCIENCE CORPORATION RR-0404: ROOF DESIGN. THIS HELPS TO CONTROL INWARD VAPOR DRIVES UN ASPHALT SHINGLES. FOR WOOD SHINGLES OR METAL ROOF A VENTILATION SPACE IS REQUIRED BETWEEN THE ROOF CLADDING AND ROOF MEMBRANE

A DRIP EDGE SHALL BE PROVIDED AT EAVES & RAKE EDGES OF SHINGLE ROOFS & TAPED OR CAULKED TO ROOF MEMBRANE



THERMAL INSULATION (IRC TABLE N1102.1.2 - R402.1.2)

CONDITIONED ATTIC SPACE: (BSI-119 CONDITIONED/UNCONDITIONED ATTICS - BUILDING SCIENCE CORPORATION)

AIR-IMPERMEABLE SPF INSULATION CONNECTED TO TOP PLATE OF THE ABOVE GRADE WALL ASSEMBLY, EXTENDING INTO THE ROOF RAFTERS TO RIDGE OF ROOF TO FORM A CONTINUOUS AIR BARRIER & CONDITIONED ATTIC SPACE

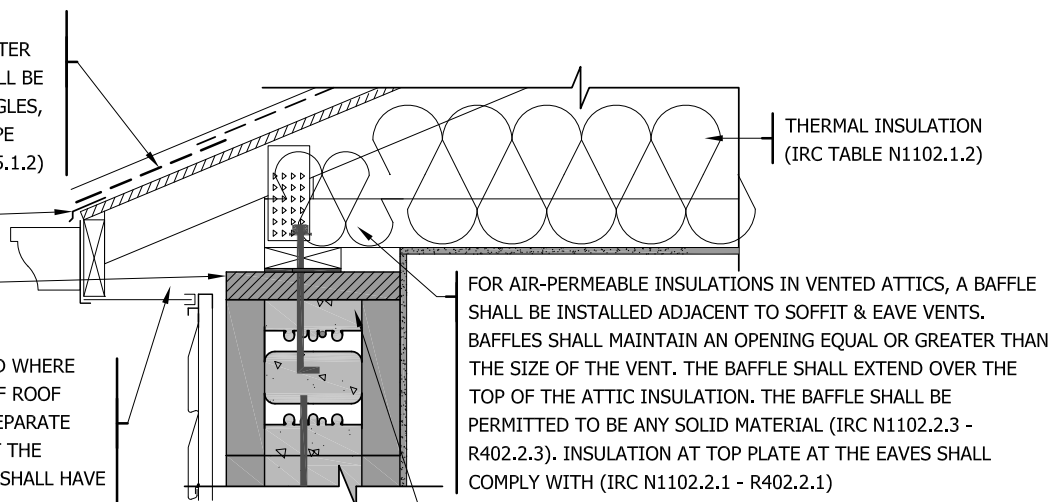
OPTION 1: CONDITIONED ATTIC SPACE

IN AREAS WHERE THERE HAS BEEN A HISTORY OF ICE FORMING ALONG THE EAVES CAUSING A BACKUP OF WATER AS DESIGNED IN TABLE R301.2(1), AN ICE BARRIER SHALL BE INSTALLED FOR ASPHALT SHINGLES, METAL ROOF SHINGLES, MINERAL-SURFACED ROLL ROOFING, SLATE & SLATE-TYPE SHINGLES, WOOD SHINGLES & WOOD SHAKES (IRC R905.1.2)

A DRIP EDGE SHALL BE PROVIDED AT EAVES & RAKE EDGES OF SHINGLE ROOFS.

BEST PRACTICE: STRUCTURAL FOAM BOARD INSULATION ON TOP OF ELEMENT ICF® WALL TO MINIMIZE THERMAL BRIDGE

ENCLOSED ATTICS & ENCLOSED RAFTER SPACES FORMED WHERE CEILINGS ARE APPLIED DIRECTLY TO THE UNDERSIDE OF ROOF RAFTERS SHALL HAVE CROSS VENTILATION FOR EACH SEPARATE SPACE BY VENTILATING OPENINGS PROTECTED AGAINST THE ENTRANCE OF RAIN OR SNOW. VENTILATION OPENINGS SHALL HAVE A LEAST DIMENSION OF $\frac{1}{16}$ " MINIMUM AND $\frac{1}{4}$ " MAXIMUM. VENTILATION OPENINGS HAVING A LEAST DIMENSIONS LARGER THAN $\frac{1}{4}$ " SHALL BE PROVIDED WITH CORROSION-RESISTANT WIRE CLOTH SCREENING, HARDWARE CLOTH, PERFORATED VINYL OR SIMILAR MATERIAL WITH OPENINGS HAVING A LEAST DIMENSION OF $\frac{1}{16}$ " MINIMUM & $\frac{1}{4}$ " MAXIMUM. OPENINGS IN ROOF FRAMING MEMBERS SHALL CONFORM TO THE REQUIREMENTS OF SECTION R802.7. REQUIRED VENTILATION OPENINGS SHALL OPEN DIRECTLY TO THE OUTSIDE AIR & SHALL BE PROTECTED TO PREVENT THE ENTRY OF BIRDS, RODENTS, SNAKES & OTHER SIMILAR CREATURES (IRC R806.1). THE MINIMUM NET FREE VENTILATING AREA SHALL BE $\frac{1}{150}$ OF THE AREA OF THE VENTED SPACE (IRC R806.2)



THERMAL INSULATION (IRC TABLE N1102.1.2)

FOR AIR-PERMEABLE INSULATIONS IN VENTED ATTICS, A BAFFLE SHALL BE INSTALLED ADJACENT TO SOFFIT & EAVE VENTS. BAFFLES SHALL MAINTAIN AN OPENING EQUAL OR GREATER THAN THE SIZE OF THE VENT. THE BAFFLE SHALL EXTEND OVER THE TOP OF THE ATTIC INSULATION. THE BAFFLE SHALL BE PERMITTED TO BE ANY SOLID MATERIAL (IRC N1102.2.3 - R402.2.3). INSULATION AT TOP PLATE AT THE EAVES SHALL COMPLY WITH (IRC N1102.2.1 - R402.2.1)

THE BUILDING THERMAL ENVELOPE SHALL BE CONSTRUCTED TO LIMIT AIR LEAKAGE IN ACCORDANCE WITH THE REQUIREMENTS OF SECTION N1102.4.1 THROUGH N1102.4.5 (IRC N1102.4 - R402.4).

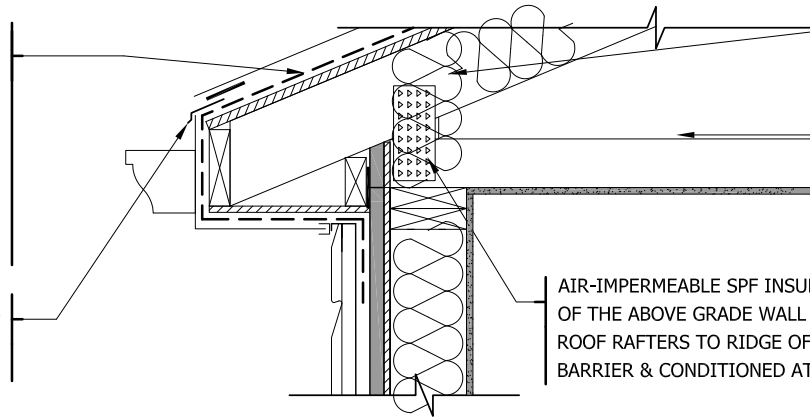
(CONCRETE FUNCTIONING AS AIR CONTROL LAYER)

BEST PRACTICE: INSTALL A SHEET APPLIED MEMBRANE ON INT. ELEMENT ICF® BLOCK & ENSURE CONTINUITY INTO FLOOR & ROOF ASSEMBLY

OPTION 2: UNCONDITIONED ATTIC SPACE

ROOF MEMBRANE SHALL HAVE A VAPOR PERMEANCE (WET CUP) EQUAL TO OR LESS THAN 1 PERM. (BUILDING SCIENCE CORPORATION RR-0404: ROOF DESIGN. THIS HELPS TO CONTROL INWARD VAPOR DRIVES UN ASPHALT SHINGLES. FOR WOOD SHINGLES OR METAL ROOF A VENTILATION SPACE IS REQUIRED BETWEEN THE ROOF CLADDING AND ROOF MEMBRANE

A DRIP EDGE SHALL BE PROVIDED AT EAVES & RAKE EDGES OF SHINGLE ROOFS & TAPED OR CAULKED TO ROOF MEMBRANE



THERMAL INSULATION
(IRC TABLE N1102.1.2 - R402.1.2)

CONDITIONED ATTIC SPACE:
(BSI-119
CONDITIONED/UNCONDITIONED
ATTICS - BUILDING SCIENCE
CORPORATION)

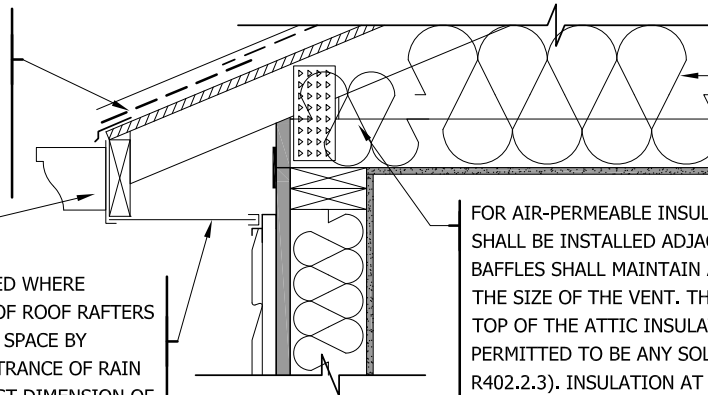
AIR-IMPERMEABLE SPF INSULATION CONNECTED TO TOP PLATE OF THE ABOVE GRADE WALL ASSEMBLY, EXTENDING INTO THE ROOF RAFTERS TO RIDGE OF ROOF TO FORM A CONTINUOUS AIR BARRIER & CONDITIONED ATTIC SPACE

OPTION 1: CONDITIONED ATTIC SPACE

IN AREAS WHERE THERE HAS BEEN A HISTORY OF ICE FORMING ALONG THE EAVES CAUSING A BACKUP OF WATER AS DESIGNED IN TABLE R301.2(1), AN ICE BARRIER SHALL BE INSTALLED FOR ASPHALT SHINGLES, METAL ROOF SHINGLES, MINERAL-SURFACED ROLL ROOFING, SLATE & SLATE-TYPE SHINGLES, WOOD SHINGLES & WOOD SHAKES (IRC R905.1.2)

A DRIP EDGE SHALL BE PROVIDED AT EAVES & RAKE EDGES OF SHINGLE ROOFS.

ENCLOSED ATTICS & ENCLOSED RAFTER SPACES FORMED WHERE CEILINGS ARE APPLIED DIRECTLY TO THE UNDERSIDE OF ROOF RAFTERS SHALL HAVE CROSS VENTILATION FOR EACH SEPARATE SPACE BY VENTILATING OPENINGS PROTECTED AGAINST THE ENTRANCE OF RAIN OR SNOW. VENTILATION OPENINGS SHALL HAVE A LEAST DIMENSION OF $\frac{1}{16}$ " MINIMUM AND $\frac{1}{4}$ " MAXIMUM. VENTILATION OPENINGS HAVING A LEAST DIMENSIONS LARGER THAN $\frac{1}{4}$ " SHALL BE PROVIDED WITH CORROSION-RESISTANT WIRE CLOTH SCREENING, HARDWARE CLOTH, PERFORATED VINYL OR SIMILAR MATERIAL WITH OPENINGS HAVING A LEAST DIMENSION OF $\frac{1}{16}$ " MINIMUM & $\frac{1}{4}$ " MAXIMUM. OPENINGS IN ROOF FRAMING MEMBERS SHALL CONFORM TO THE REQUIREMENTS OF SECTION R802.7. REQUIRED VENTILATION OPENINGS SHALL OPEN DIRECTLY TO THE OUTSIDE AIR & SHALL BE PROTECTED TO PREVENT THE ENTRY OF BIRDS, RODENTS, SNAKES & OTHER SIMILAR CREATURES (IRC R806.1). THE MINIMUM NET FREE VENTILATING AREA SHALL BE $\frac{1}{150}$ OF THE AREA OF THE VENTED SPACE (IRC R806.2)



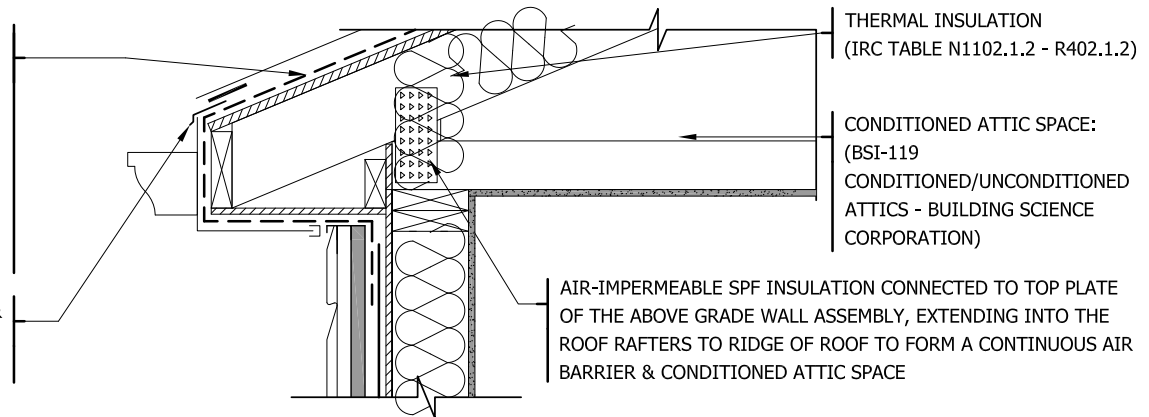
THERMAL INSULATION
(IRC TABLE N1102.1.2 - R402.1.2)

FOR AIR-PERMEABLE INSULATIONS IN VENTED ATTICS, A BAFFLE SHALL BE INSTALLED ADJACENT TO SOFFIT & EAVE VENTS. BAFFLES SHALL MAINTAIN AN OPENING EQUAL OR GREATER THAN THE SIZE OF THE VENT. THE BAFFLE SHALL EXTEND OVER THE TOP OF THE ATTIC INSULATION. THE BAFFLE SHALL BE PERMITTED TO BE ANY SOLID MATERIAL (IRC N1102.2.3 - R402.2.3). INSULATION AT TOP PLATE AT THE EAVES SHALL COMPLY WITH (IRC N1102.2.1 - R402.2.1)

OPTION 2: UNCONDITIONED ATTIC SPACE

ROOF MEMBRANE SHALL HAVE A VAPOR PERMEANCE (WET CUP) EQUAL TO OR LESS THAN 1 PERM. (BUILDING SCIENCE CORPORATION RR-0404: ROOF DESIGN. THIS HELPS TO CONTROL INWARD VAPOR DRIVES UN ASPHALT SHINGLES. FOR WOOD SHINGLES OR METAL ROOF A VENTILATION SPACE IS REQUIRED BETWEEN THE ROOF CLADDING AND ROOF MEMBRANE

A DRIP EDGE SHALL BE PROVIDED AT EAVES & RAKE EDGES OF SHINGLE ROOFS & TAPED OR CAULKED TO ROOF MEMBRANE

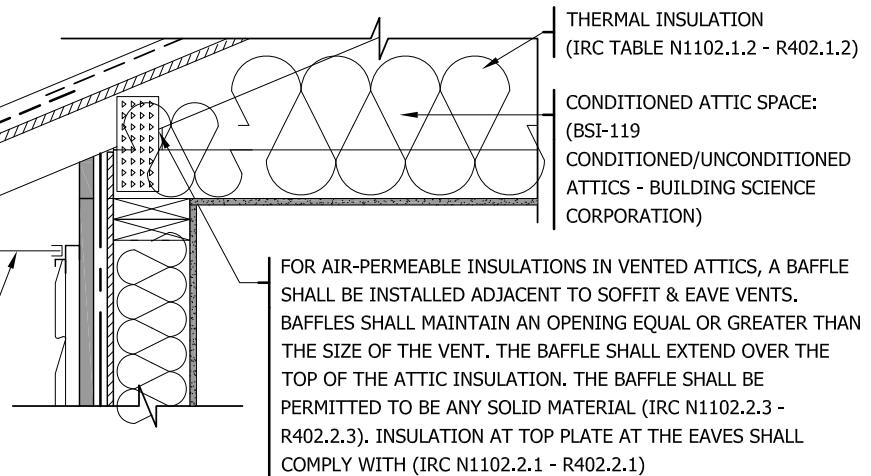


OPTION 1: CONDITIONED ATTIC SPACE

IN AREAS WHERE THERE HAS BEEN A HISTORY OF ICE FORMING ALONG THE EAVES CAUSING A BACKUP OF WATER AS DESIGNED IN TABLE R301.2(1), AN ICE BARRIER SHALL BE INSTALLED FOR ASPHALT SHINGLES, METAL ROOF SHINGLES, MINERAL-SURFACED ROLL ROOFING, SLATE & SLATE-TYPE SHINGLES, WOOD SHINGLES & WOOD SHAKES (IRC R905.1.2)

A DRIP EDGE SHALL BE PROVIDED AT EAVES & RAKE EDGES OF SHINGLE ROOFS

ENCLOSED ATTICS & ENCLOSED RAFTER SPACES FORMED WHERE CEILINGS ARE APPLIED DIRECTLY TO THE UNDERSIDE OF ROOF RAFTERS SHALL HAVE CROSS VENTILATION FOR EACH SEPARATE SPACE BY VENTILATING OPENINGS PROTECTED AGAINST THE ENTRANCE OF RAIN OR SNOW. VENTILATION OPENINGS SHALL HAVE A LEAST DIMENSION OF $\frac{1}{16}$ " MINIMUM AND $\frac{1}{4}$ " MAXIMUM. VENTILATION OPENINGS HAVING A LEAST DIMENSIONS LARGER THAN $\frac{1}{4}$ " SHALL BE PROVIDED WITH CORROSION-RESISTANT WIRE CLOTH SCREENING, HARDWARE CLOTH, PERFORATED VINYL OR SIMILAR MATERIAL WITH OPENINGS HAVING A LEAST DIMENSION OF $\frac{1}{16}$ " MINIMUM & $\frac{1}{4}$ " MAXIMUM. OPENINGS IN ROOF FRAMING MEMBERS SHALL CONFORM TO THE REQUIREMENTS OF SECTION R802.7. REQUIRED VENTILATION OPENINGS SHALL OPEN DIRECTLY TO THE OUTSIDE AIR & SHALL BE PROTECTED TO PREVENT THE ENTRY OF BIRDS, RODENTS, SNAKES & OTHER SIMILAR CREATURES (IRC R806.1). THE MINIMUM NET FREE VENTILATING AREA SHALL BE $\frac{1}{150}$ OF THE AREA OF THE VENTED SPACE (IRC R806.2)



OPTION 2: UNCONDITIONED ATTIC SPACE

WOOD CARPENTRY FRAME STRUCTURALLY SECURED INTO PARAPET DOUBLE TOP PLATE

SHEET METAL COPING AS REQUIRED ON EACH PROJECT & CONT. SHEET METAL CLEAT SECURED INTO STRUCTURAL WOOD

PARAPET MEMBRANE OVER LAPS RIGID FOAM INSULATION MIN. 6"

OTHER APPROVED WATER-RESISTIVE BARRIER MANUFACTURERS INSTALLATION INSTRUCTIONS (HALO® EXTERRA® WITH TAPED OR CAULKED JOINTS & FASTENER PENETRATIONS.

ALTERNATIVE DETAIL, MEMBRANE INSTALLED ON TOP OR BEHIND RIGID INSULATION). THESE MEMBRANES SHALL BE CONTINUOUS TO THE TOP OF WALLS & TERMINATED AT PENETRATIONS & BUILDING APPENDAGES IN A MANNER TO MEET THE REQUIREMENTS OF THE EXTERIOR WALL ENVELOPE AS DESCRIBED IN SECTION R703.1 (IRC R703.2).

THE NOMINAL THICKNESS & ATTACHMENT OF EXTERIOR WALL COVERINGS SHALL BE IN ACCORDANCE WITH TABLE R703.3(1), THE WALL COVERING MATERIAL REQUIREMENTS OF THIS SECTION, & COVERING MANUFACTURER'S INSTALLATION INSTRUCTIONS (IRC R703.3). CLADDING ATTACHMENT OVER FOAM SHEATHING SHALL COMPLY WITH ADDITIONAL REQUIREMENTS & LIMITATIONS OF SECTIONS R703.15 THROUGH R703.17.

CONSULT LOCAL BUILDING CODE IF STRUCTURAL SHEATHING IS REQUIRED OR ALTERNATIVE METHODS ARE ACCEPTABLE (INT. GYPSUM, IN-LET BRACING, DIAGONAL WOOD BRACING...ETC.)

BEST PRACTICE: BUG SCREEN TOP & BOTTOM OF VENTILATED AIR SPACE

MIN. 1/2" THICK PLYWOOD SHEATHING

MIN. 3/4" THICK PLYWOOD SHEATHING

SHEET METAL CAPPING

SECUREMENT OF ROOF INSULATION:

ROOF INSULATION MUST BE MECHANICALLY FASTENED BACK TO THE STRUCTURE OR ADHERED WITH AN ADHESIVE TO THE WOOD SHEATHING. MIN. DOUBLE LAYER OF INSULATION & SECOND LAYER LAID PERPENDICULAR TO THE FIRST LAYER.

THERMAL INSULATION

(IRC TABLE N1102.1.2 - R402.1.2)

ROOF INSULATION OPTIONS:

- HALO® EXTERRA® WITH PROTECTION BOARD ON TOP
- SUBTERRA® OR SUBTERRA® PLUS (PROTECTION BOARD OPTIONAL)
- MIN. 30 PSI (206 KPA) CHROMEGPS®
- PERIMETER EDGES SLOPED, ALWAYS SLOPE PERIMETER/ROOF INSULATION TO EDGE/DRAIN

ROOF JOISTS: SOLID WOOD JOISTS, I-JOISTS, FILLED WITH INSULATION AS PER THERMAL INSULATION (IRC TABLE N1102.1.2)

A CONTINUOUS AIR BARRIER SHALL BE PRESENT ON THE EXTERIOR OR INTERIOR OF THE BUILDING ENCLOSURE OR BOTH

THE BUILDING THERMAL ENVELOPE SHALL BE CONSTRUCTED TO LIMIT AIR LEAKAGE IN ACCORDANCE WITH THE REQUIREMENTS OF SECTION N1102.4.1 THROUGH N1102.4.5 (IRC N1102.4 - R402.4)

THERMALLY INSULATED ASSEMBLIES IN CLIMATE ZONES 1, 2, 3, 4 (EXCEPT ZONE 4 MARINE) DO NOT REQUIRE ANY CLASS OF VAPOR RETARDER ON THE INTERIOR SURFACE OF INSULATION IN INSULATED WALL & FLOOR ASSEMBLIES (BSD-106: UNDERSTANDING VAPOR BARRIERS & VAPOR BARRIER & WALL DESIGN RESEARCH REPORT0410 - BUILDING SCIENCE CORPORATION)

BEST PRACTICE: IN HOT & HUMID CLIMATES WHERE INTERIOR AIR CONDITIONING OCCURS, INCLUDE A VAPOR RETARDER ON THE EXTERIOR OF THE WALL ASSEMBLY TO BLOCK INWARD MOVEMENT OF MOISTURE (BSI-120: UNDERSTANDING WALLS - BUILDING SCIENCE CORPORATION)

9/16" - 4" HALO® EXTERRA® &/OR THERMAL BATT INSULATION (IRC TABLE N1102.1.2 - R402.1.2)

CONSULT LOGIX BRANDS TECHNICAL SERVICES FOR BEST PRACTICES WHEN SECURING EXTERIOR INSULATION GREATER THAN 2"

4 BUILDING SCIENCE CONTROL LAYERS

- WATER: NON-VAPOR PERMEABLE ROOF MEMBRANE CONNECTING TO FRONT FACE OF HALO® EXTERRA®
- AIR: INTERIOR GYPSUM BOARD OR EXTERIOR MEMBRANE
- THERMAL: HALO® EXTERRA®, SUBTERRA® OR SUBTERRA® PLUS OR CHROMEGPS® IN ROOF & HALO® EXTERRA® ON ABOVE GRADE WALL
- VAPOR: NOT REQUIRED AS PER IRC

SHEET METAL COPING AS REQUIRED ON EACH PROJECT & CONT. SHEET METAL CLEAT SECURED INTO STRUCTURAL WOOD PARAPET MEMBRANE OVER LAPS RIGID FOAM INSULATION MIN. 6"

OTHER APPROVED WATER-RESISTIVE BARRIER MANUFACTURERS INSTALLATION INSTRUCTIONS (MECHANICALLY FASTENED, SELF-ADHERED, OR LIQUID APPLIED MEMBRANE (VAPOR PERMEABLE) APPLIED ON TOP OF EXTERIOR SHEATHING). THESE MEMBRANES SHALL BE CONTINUOUS TO THE TOP OF WALLS & TERMINATED AT PENETRATIONS & BUILDING APPENDAGES IN A MANNER TO MEET THE REQUIREMENTS OF THE EXTERIOR WALL ENVELOPE AS DESCRIBED IN SECTION R703.1 (IRC R703.2)

THE NOMINAL THICKNESS & ATTACHMENT OF EXTERIOR WALL COVERINGS SHALL BE IN ACCORDANCE WITH TABLE R703.3(1), THE WALL COVERING MATERIAL REQUIREMENTS OF THIS SECTION, & COVERING MANUFACTURER'S INSTALLATION INSTRUCTIONS (IRC R703.3). CLADDING ATTACHMENT OVER FOAM SHEATHING SHALL COMPLY WITH ADDITIONAL REQUIREMENTS & LIMITATIONS OF SECTIONS R703.15 THROUGH R703.17.

CONSULT LOCAL BUILDING CODE IF STRUCTURAL SHEATHING IS REQUIRED OR ALTERNATIVE METHODS ARE ACCEPTABLE (INT. GYPSUM, IN-LET BRACING, DIAGONAL WOOD BRACING...ETC.)

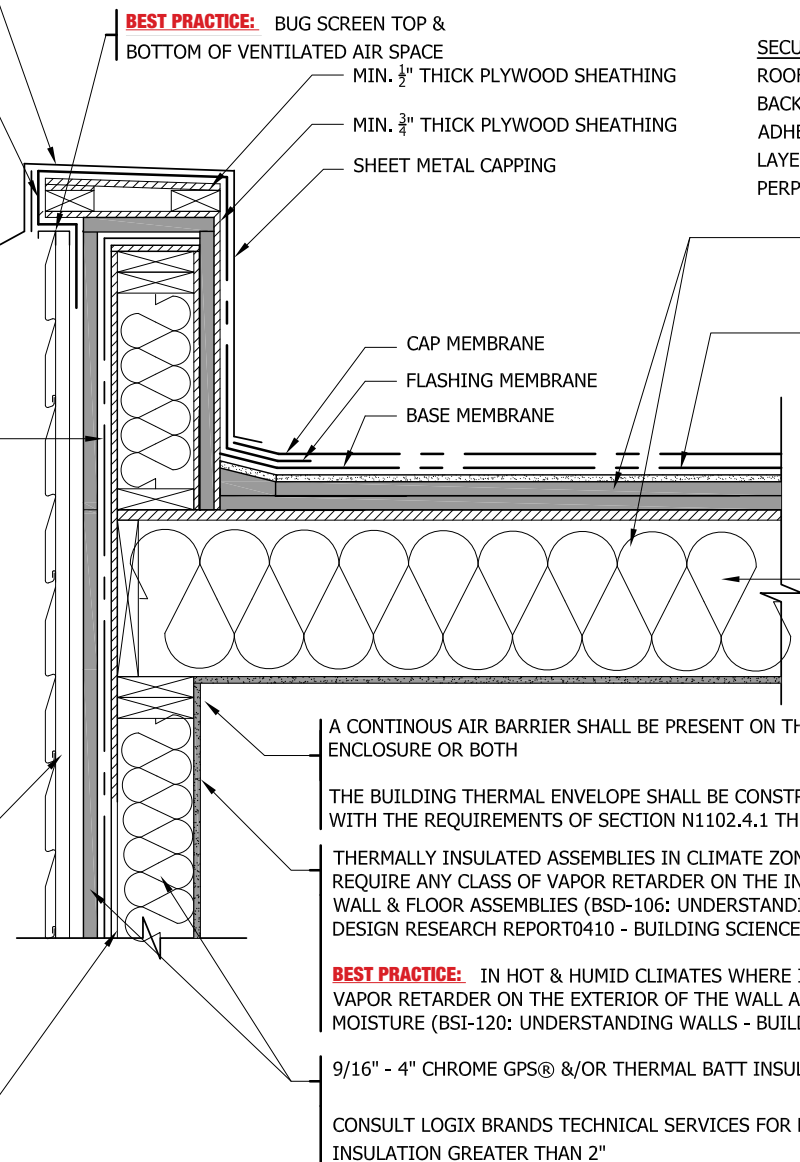
4 BUILDING SCIENCE CONTROL LAYERS

- WATER: NON-VAPOR PERMEABLE ROOF MEMBRANE CONNECTING TO MECHANICALLY FASTENED, PEEL & STICK, OR LIQUID APPLIED MEMBRANE ON EXTERIOR SHEATHING
- AIR: INTERIOR GYPSUM BOARD OR EXTERIOR MEMBRANE
- THERMAL: HALO® EXTERRA®, SUBTERRA® OR SUBTERRA® PLUS OR CHROMEGPS® IN ROOF & CHROMEGPS® ON ABOVE GRADE WALL
- VAPOUR: NOT REQUIRED AS PER IRC



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Drawing: 18-27	Date: SEPT./2024	Pg: 18
Title: CHROME GPS ABOVE GRADE WALL ASSEMBLY & SELF-ADHERED FLAT ROOF ASSEMBLY		



BEST PRACTICE: BUG SCREEN TOP & BOTTOM OF VENTILATED AIR SPACE
 MIN. 1/2" THICK PLYWOOD SHEATHING
 MIN. 3/4" THICK PLYWOOD SHEATHING
 SHEET METAL CAPPING

SECUREMENT OF ROOF INSULATION: ROOF INSULATION MUST BE MECHANICALLY FASTENED BACK TO THE STRUCTURE OR ADHERED WITH AN ADHESIVE TO THE WOOD SHEATHING. MIN. DOUBLE LAYER OF INSULATION & SECOND LAYER LAID PERPENDICULAR TO THE FIRST LAYER.

OTHER APPROVED THERMAL INSULATION (IRC TABLE N1102.1.2 - R402.1.2)

- ROOF INSULATION OPTIONS:**
- HALO® EXTERRA® WITH PROTECTION BOARD ON TOP
 - SUBTERRA® OR SUBTERRA® PLUS (PROTECTION BOARD OPTIONAL)
 - MIN. 30 PSI (206 KPA) CHROMEGPS®
 - PERIMETER EDGES SLOPED, ALWAYS SLOPE PERIMETER/ROOF INSULATION TO EDGE/DRAIN

ROOF JOISTS: SOLID WOOD JOISTS, I-JOISTS, FILLED WITH INSULATION AS PER THERMAL INSULATION (IRC TABLE N1102.1.2)

A CONTINUOUS AIR BARRIER SHALL BE PRESENT ON THE EXTERIOR OR INTERIOR OF THE BUILDING ENCLOSURE OR BOTH

THE BUILDING THERMAL ENVELOPE SHALL BE CONSTRUCTED TO LIMIT AIR LEAKAGE IN ACCORDANCE WITH THE REQUIREMENTS OF SECTION N1102.4.1 THROUGH N1102.4.5 (IRC N1102.4 - R402.4)

THERMALLY INSULATED ASSEMBLIES IN CLIMATE ZONES 1, 2, 3, 4 (EXCEPT ZONE 4 MARINE) DO NOT REQUIRE ANY CLASS OF VAPOR RETARDER ON THE INTERIOR SURFACE OF INSULATION IN INSULATED WALL & FLOOR ASSEMBLIES (BSD-106: UNDERSTANDING VAPOR BARRIERS & VAPOR BARRIER & WALL DESIGN RESEARCH REPORT0410 - BUILDING SCIENCE CORPORATION)

BEST PRACTICE: IN HOT & HUMID CLIMATES WHERE INTERIOR AIR CONDITIONING OCCURS, INCLUDE A VAPOR RETARDER ON THE EXTERIOR OF THE WALL ASSEMBLY TO BLOCK INWARD MOVEMENT OF MOISTURE (BSI-120: UNDERSTANDING WALLS - BUILDING SCIENCE CORPORATION)

9/16" - 4" CHROME GPS® &/OR THERMAL BATT INSULATION (IRC TABLE N1102.1.2 - R402.1.2)

CONSULT LOGIX BRANDS TECHNICAL SERVICES FOR BEST PRACTICES WHEN SECURING EXTERIOR INSULATION GREATER THAN 2"

WOOD CARPENTRY FRAME STRUCTURALLY SECURED INTO ELEMENT ICF®

SHEET METAL COPING AS REQUIRED ON EACH PROJECT & CONT. SHEET METAL CLEAT SECURED INTO STRUCTURAL WOOD PARAPET MEMBRANE OVER LAPS RIGID FOAM INSULATION MIN. 6"

EXTERIOR WALLS SHALL PROVIDE THE BUILDING WITH A WEATHER-RESISTANT EXTERIOR WALL ENVELOPE. THE EXTERIOR WALL ENVELOPE SHALL INCLUDE FLASHING AS DESCRIBED IN SECTION R703.4 (IRC R703.1).

THE EXTERIOR WALL ENVELOPE SHALL BE DESIGNED & CONSTRUCTED IN A MANNER THAT PREVENTS THE ACCUMULATION OF WATER WITHIN THE WALL ASSEMBLY BY PROVIDING A WATER-RESISTANT BARRIER BEHIND THE EXTERIOR CLADDING AS REQUIRED BY SECTION R703.2 & A MEANS OF DRAINING TO THE EXTERIOR WATER THAT PENETRATES THE EXTERIOR CLADDING (IRC R703.1.1).

OTHER APPROVED WATER-RESISTIVE BARRIER MANUFACTURERS INSTALLATION INSTRUCTIONS (FRONT FACE OF ELEMENT ICF® FUNCTIONS AS WATER CONTROL LAYER. ALTERNATIVE DETAIL - MECH. FASTENED, PEEL & STICK, OR LIQUID APPLIED MEMBRANE APPLIED TO FRONT FACE OF ELEMENT ICF® BLOCK). THESE MEMBRANES SHALL BE CONTINUOUS TO THE TOP OF WALLS & TERMINATED AT PENETRATIONS & BUILDING APPENDAGES IN A MANNER TO MEET THE REQUIREMENTS OF THE EXTERIOR WALL ENVELOPE AS DESCRIBED IN SECTION R703.1 (IRC R703.2)

WOOD CARPENTRY FRAME STRUCTURALLY SECURED INTO ELEMENT ICF®

BEST PRACTICE: BUG SCREEN TOP & BOTTOM OF VENTILATED AIR SPACE

MIN. 1/2" THICK PLYWOOD SHEATHING

MIN. 3/4" THICK PLYWOOD SHEATHING

SHEET METAL CAPPING

SECUREMENT OF ROOF INSULATION:

ROOF INSULATION MUST BE MECHANICALLY FASTENED BACK TO THE STRUCTURE OR ADHERED WITH AN ADHESIVE TO THE WOOD SHEATHING. MIN. DOUBLE LAYER OF INSULATION & SECOND LAYER LAID PERPENDICULAR TO THE FIRST LAYER.

THERMAL INSULATION (IRC TABLE N1102.1.2 - R402.1.2)

ROOF INSULATION OPTIONS:

- HALO® EXTERRA® WITH PROTECTION BOARD ON TOP
- SUBTERRA® OR SUBTERRA® PLUS (PROTECTION BOARD OPTIONAL)
- MIN. 30 PSI (206 KPA) CHROMEGPS®
- PERIMETER EDGES SLOPED, ALWAYS SLOPE PERIMETER/ROOF INSULATION TO EDGE/DRAIN

CAP MEMBRANE

FLASHING MEMBRANE

BASE MEMBRANE

ROOF JOISTS: SOLID WOOD JOISTS, I-JOISTS, FILLED WITH INSULATION AS PER THERMAL INSULATION (IRC TABLE N1102.1.2)

A CONTINUOUS AIR BARRIER SHALL BE PRESENT ON THE EXTERIOR OR INTERIOR OF THE BUILDING ENCLOSURE OR BOTH

THE BUILDING THERMAL ENVELOPE SHALL BE CONSTRUCTED TO LIMIT AIR LEAKAGE IN ACCORDANCE WITH THE REQUIREMENTS OF SECTION N1102.4.1 THROUGH N1102.4.5 (IRC N1102.4 - R402.4)

THERMALLY INSULATED ASSEMBLIES IN CLIMATE ZONES 1, 2, 3, 4 (EXCEPT ZONE 4 MARINE) DO NOT REQUIRE ANY CLASS OF VAPOR RETARDER ON THE INTERIOR SURFACE OF INSULATION IN INSULATED WALL & FLOOR ASSEMBLIES (BSD-106: UNDERSTANDING VAPOR BARRIERS & VAPOR BARRIER & WALL DESIGN RESEARCH REPORT0410 - BUILDING SCIENCE CORPORATION)

BEST PRACTICE: IN HOT & HUMID CLIMATES WHERE INTERIOR AIR CONDITIONING OCCURS, INCLUDE A VAPOR RETARDER ON THE EXTERIOR OF THE WALL ASSEMBLY TO BLOCK INWARD MOVEMENT OF MOISTURE (BSI-120: UNDERSTANDING WALLS - BUILDING SCIENCE CORPORATION)

MIN. ELEMENT ICF® THERMAL RESISTANCE (IRC TABLE N1102.1.2 - R402.1.2)

FOR ADDITIONAL THERMAL RESISTANCE: D-RV, HALO® INTERRA®, OR SUBTERRA®/SUBTERRA® PLUS CAN BE INSTALLED

SIMPSON STRONGTIE ICF LEDGER CONNECTOR (WEB TIES REMOVED FOR CLARITY)

4 BUILDING SCIENCE CONTROL LAYERS

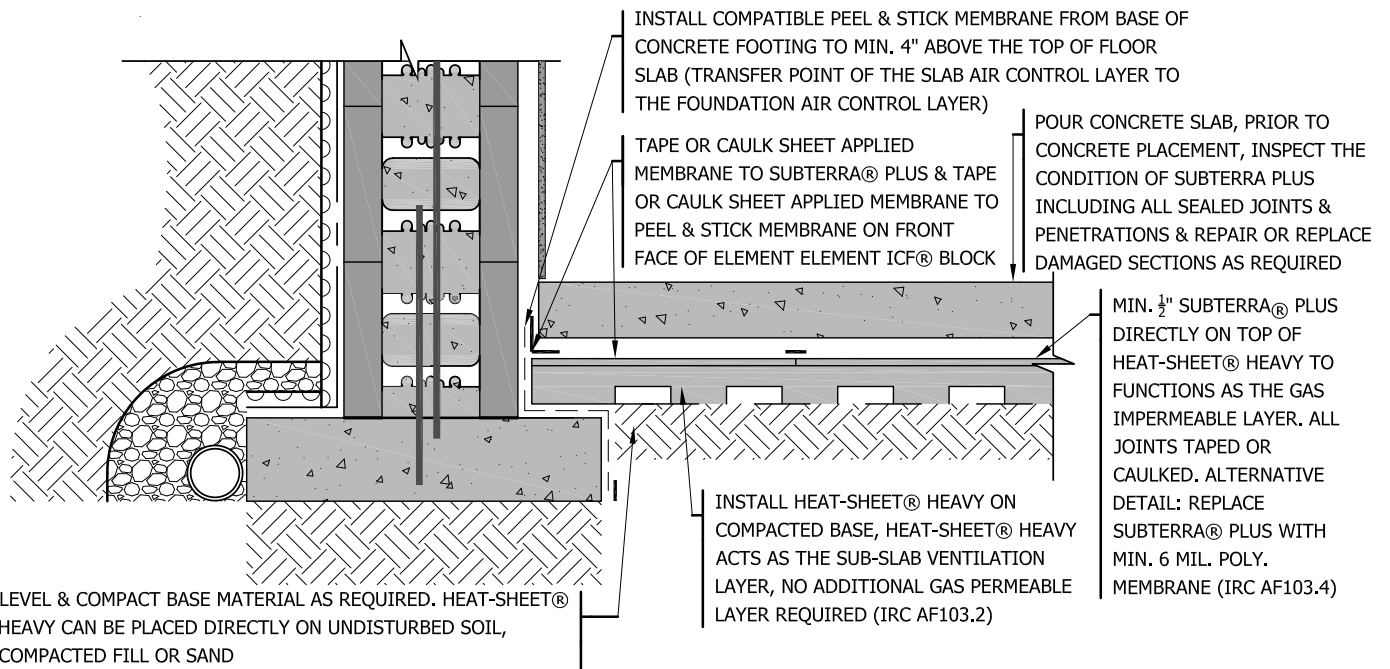
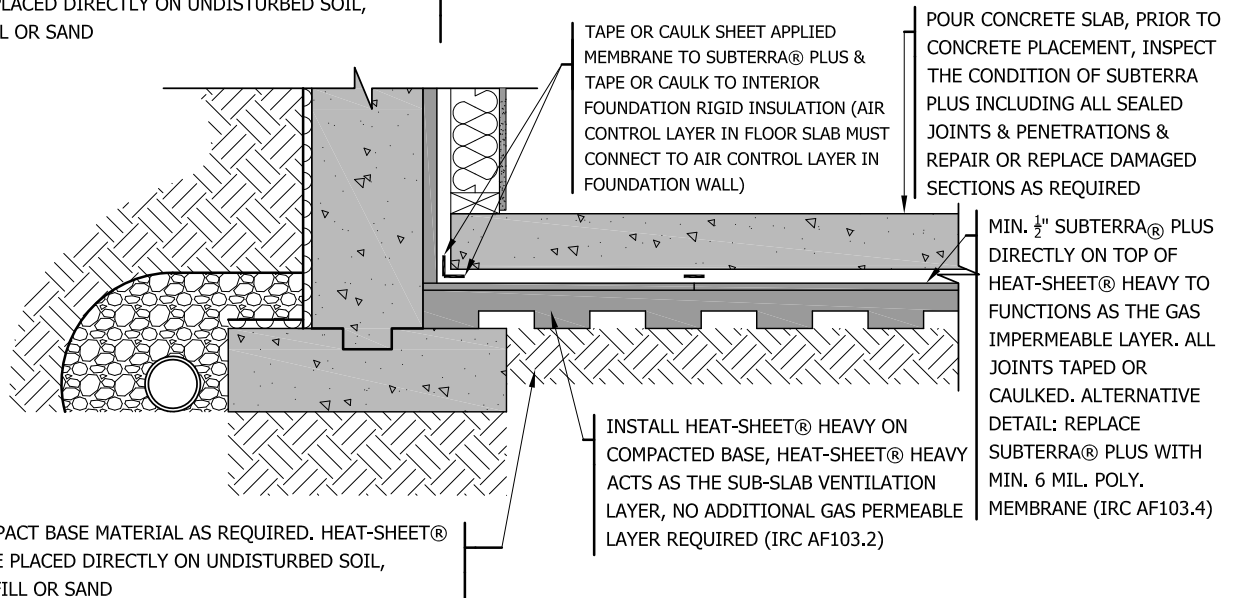
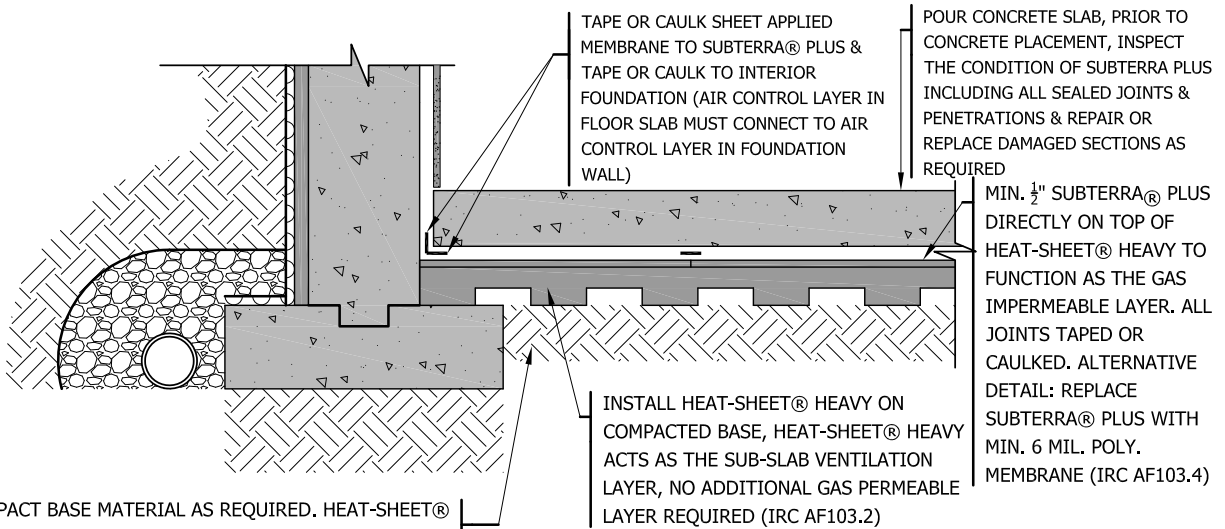
- WATER: NON-VAPOR PERMEABLE ROOF MEMBRANE CONNECTING TO FRONT FACE OF ELEMENT ICF® BLOCK
- AIR: INTERIOR GYPSUM BOARD OR EXTERIOR MEMBRANE
- THERMAL: HALO® EXTERRA®, SUBTERRA® OR SUBTERRA® PLUS OR CHROMEGPS® IN ROOF & INTERIOR & EXTERIOR INSULATION OF ELEMENT ICF® BLOCK
- VAPOR: NOT REQUIRED AS PER IRC

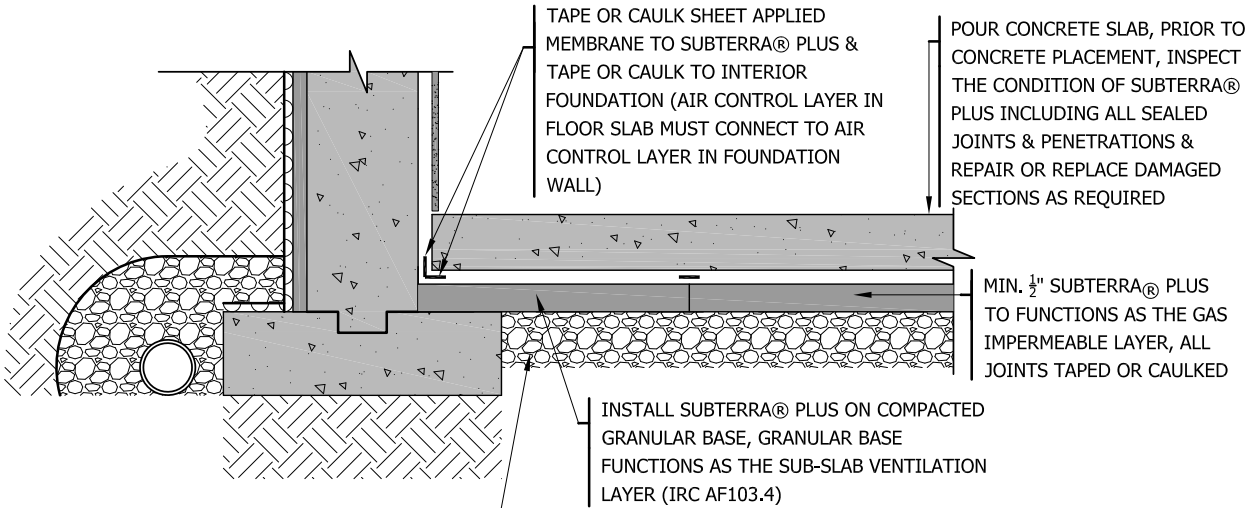


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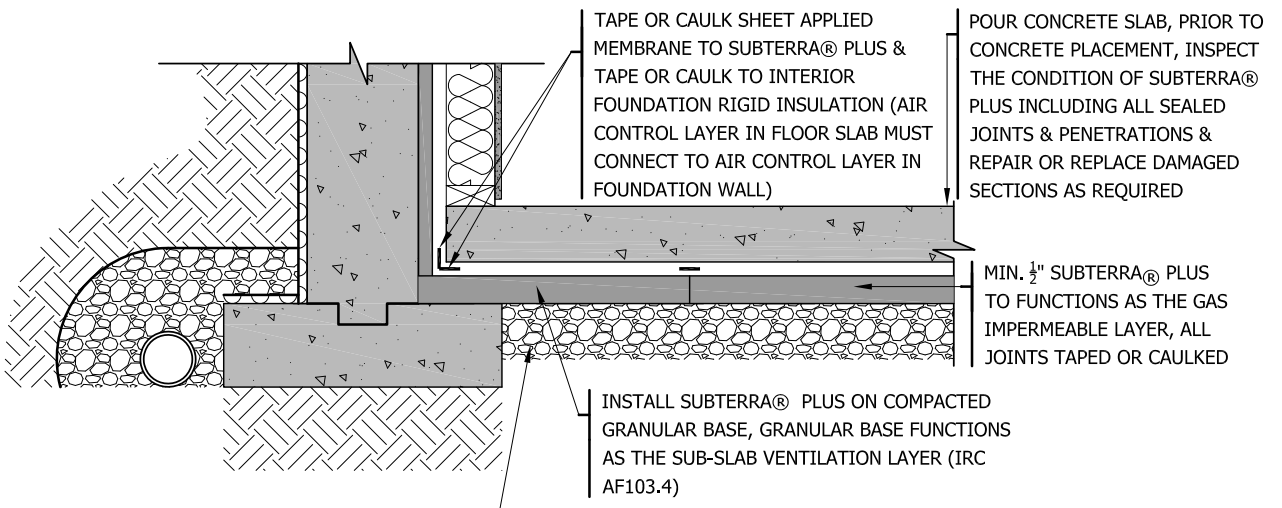
Drawing: 19-27 Date: SEPT./2024 Pg: 19

Title: ELEMENT ICF® WALL ASSEMBLY & SELF-ADHERED FLAT ROOF ASSEMBLY

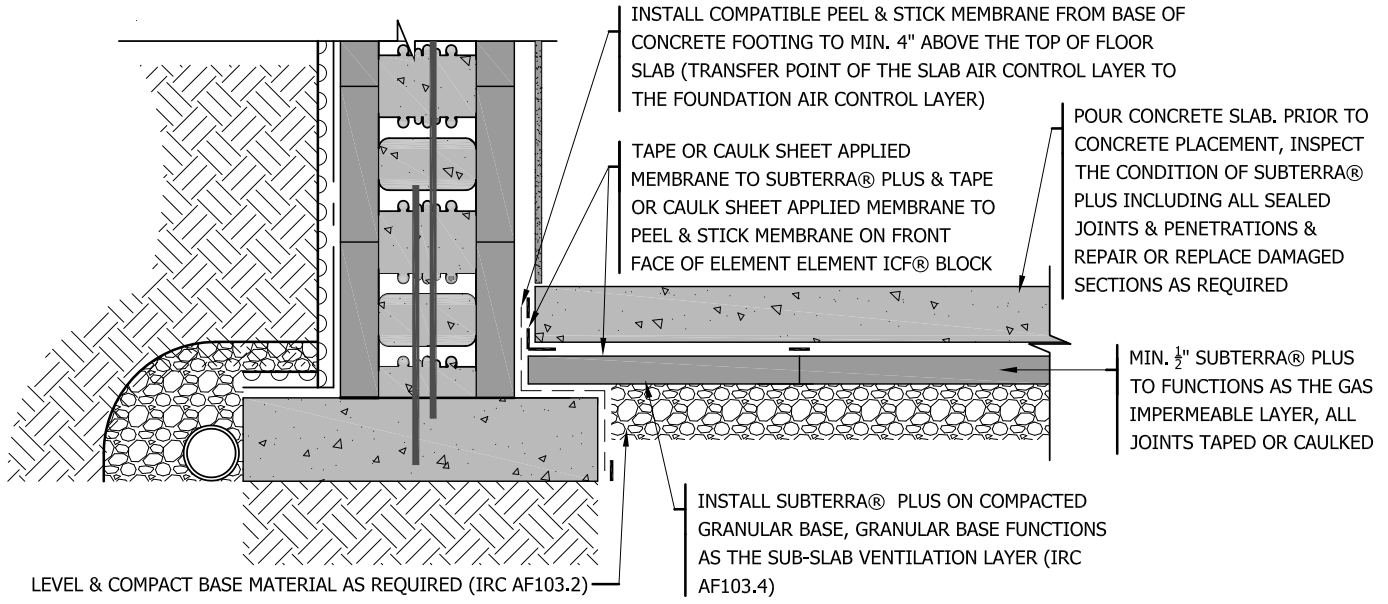




LEVEL & COMPACT BASE MATERIAL AS REQUIRED (IRC AF103.2)

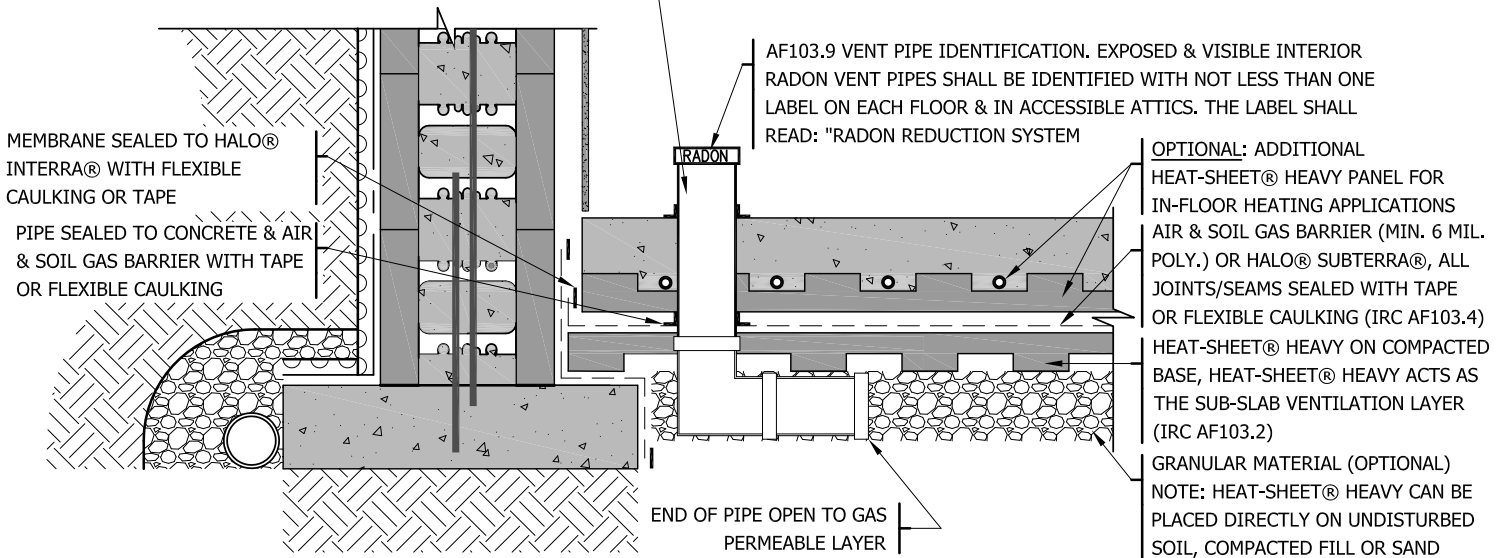


LEVEL & COMPACT BASE MATERIAL AS REQUIRED (IRC AF103.2)



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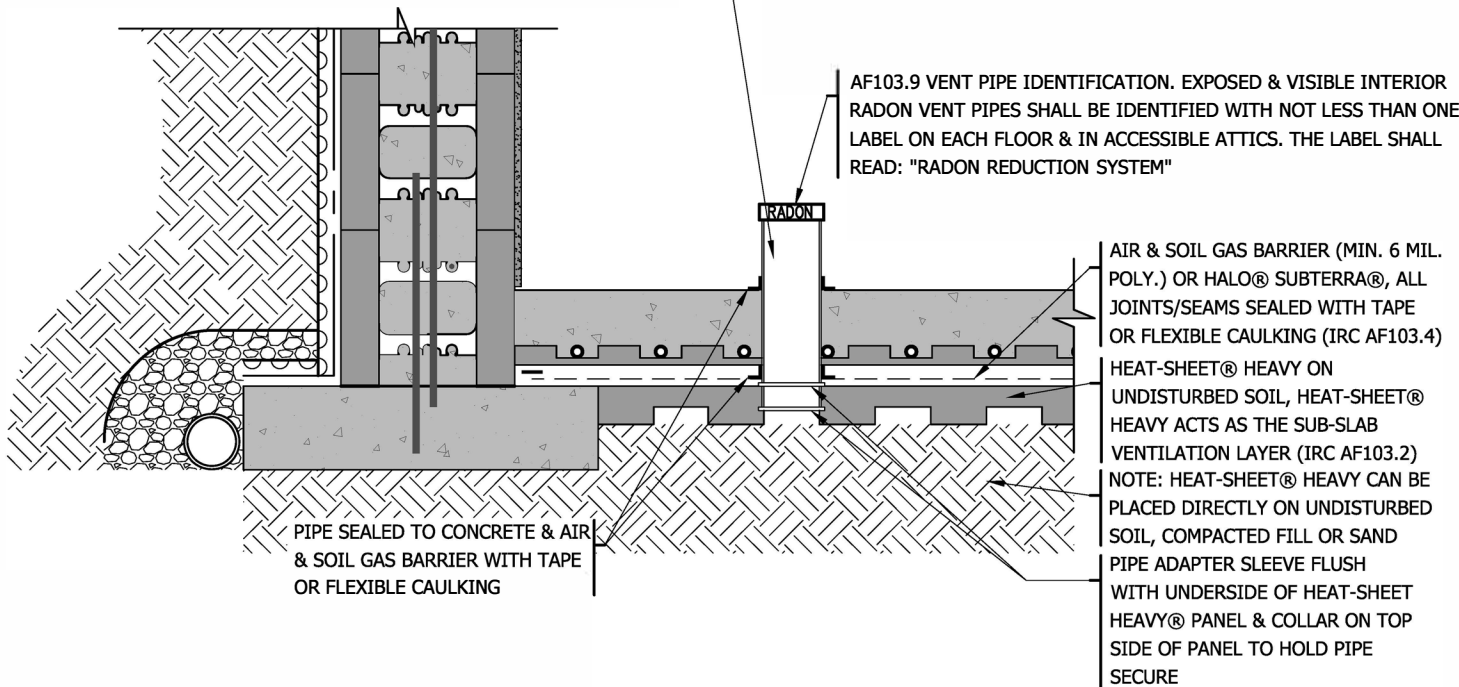
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 - AF103.4.8 DUCTS. DUCTWORK PASSING THROUGH OR BENEATH A SLAB SHALL BE OF SEAMLESS MATERIAL UNLESS THE AIR-HANDLING SYSTEM IS DESIGNED TO MAINTAIN CONTINUOUS POSITIVE PRESSURE WITHIN SUCH DUCTING. JOINTS IN SUCH DUCTWORK SHALL BE SEALED TO PREVENT AIR LEAKAGE. DUCTWORK LOCATED IN CRAWL SPACES SHALL HAVE SEAMS & JOINTS SEALED BY CLOSURE SYSTEMS IN ACCORDANCE WITH SECTION M1601.4.1.
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 - AF103.5.2 SOIL-GAS-RETARDER. THE SOIL IN CRAWL SPACES SHALL BE COVERED WITH A CONTINUOUS LAYER OF MINIMUM 6 MIL. POLYETHYLENE SOIL-GAS-RETARDER. THE GROUND COVER SHALL BE LAPPED NOT LESS THAN 12" AT JOINTS & SHALL EXTEND TO ALL FOUNDATION WALLS ENCLOSING THE CRAWL SPACE AREA.
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PIPE SEALED TO CONCRETE & AIR & SOIL GAS BARRIER WITH TAPE OR FLEXIBLE CAULKING

MEMBRANE SEALED TO HALO® INTERRA® WITH FLEXIBLE CAULKING OR TAPE

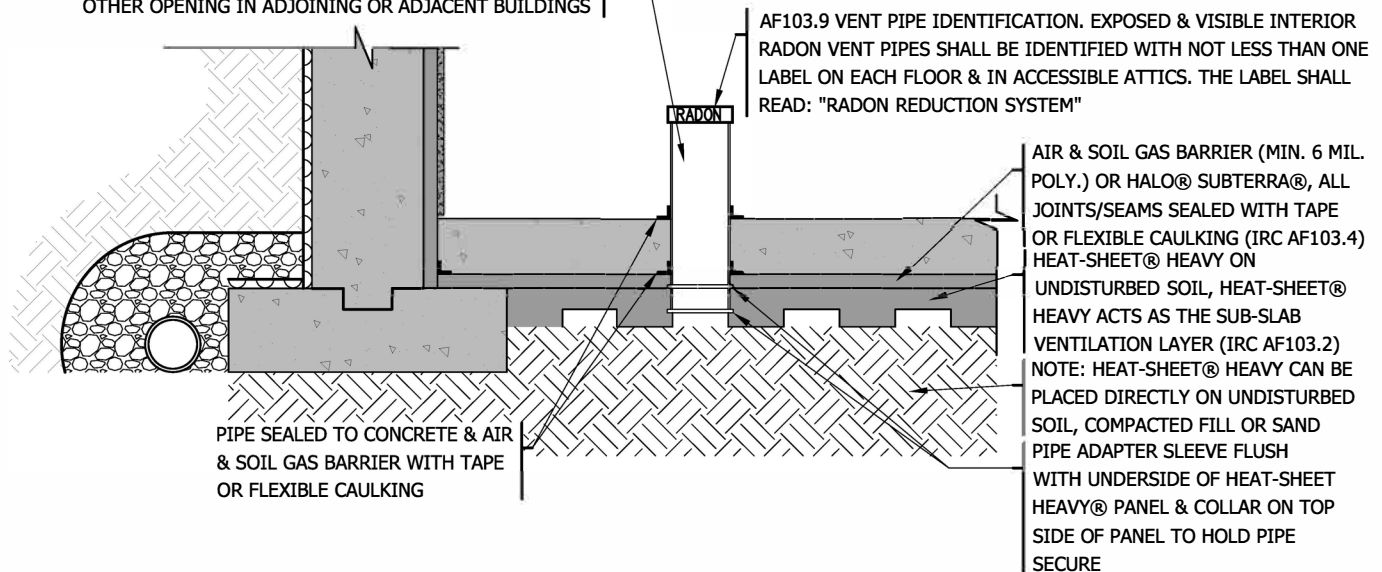
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OPTIONAL: ADDITIONAL HEAT-SHEET® HEAVY PANEL FOR IN-FLOOR HEATING APPLICATIONS AIR & SOIL GAS BARRIER (MIN. 6 MIL. POLY.) OR HALO® SUBTERRA®, ALL JOINTS/SEAMS SEALED WITH TAPE OR FLEXIBLE CAULKING (IRC AF103.4) HEAT-SHEET® HEAVY ON COMPACTED BASE, HEAT-SHEET® HEAVY ACTS AS THE SUB-SLAB VENTILATION LAYER (IRC AF103.2) GRANULAR MATERIAL (OPTIONAL) NOTE: HEAT-SHEET® HEAVY CAN BE PLACED DIRECTLY ON UNDISTURBED SOIL, COMPACTED FILL OR SAND

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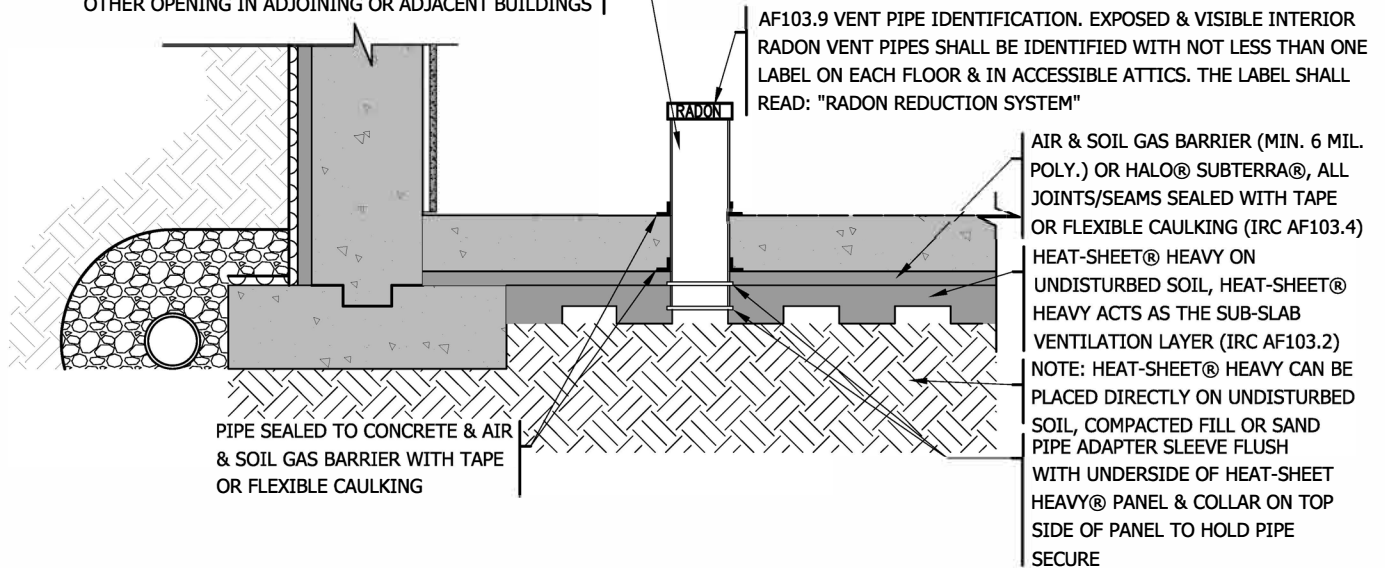
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- AF103.4.9 CRAWL SPACE FLOORS. OPENINGS AROUND ALL PENETRATIONS THROUGH FLOORS ABOVE CRAWL SPACES SHALL BE CAULKED OR OTHERWISE FILLED TO PREVENT AIR LEAKAGE.
- AF103.4.10 CRAWL SPACE ACCESS. ACCESS DOORS & OTHER OPENINGS OR PENETRATIONS BETWEEN BASEMENTS & ADJOINING CRAWL SPACES SHALL BE CLOSED, GASKETED OR OTHERWISE FILLED TO PREVENT AIR LEAKAGE.
- AF103.5.2 SOIL-GAS-RETARDER. THE SOIL IN CRAWL SPACES SHALL BE COVERED WITH A CONTINUOUS LAYER OF MINIMUM 6 MIL. POLYETHYLENE SOIL-GAS-RETARDER. THE GROUND COVER SHALL BE LAPPED NOT LESS THAN 12" AT JOINTS & SHALL EXTEND TO ALL FOUNDATION WALLS ENCLOSING THE CRAWL SPACE AREA.
- AF103.8 VENT PIPE ACCESSIBILITY. RADON VENT PIPES SHALL BE ACCESSIBLE FOR FUTURE FAN INSTALLATION THROUGH AN ATTIC OR OTHER AREA OUTSIDE THE HABITABLE SPACE. EXCEPTION: THE RADON VENT PIPE NEED NOT BE ACCESSIBLE IN AN ATTIC SPACE WHERE AN APPROVED ROOF-TOP ELECTRICAL SUPPLY IS PROVIDED FOR FUTURE USE.
- AF103.12 POWER SOURCE. TO PROVIDE FOR FUTURE INSTALLATION OF AN ACTIVE SUBMEMBRANE OR SUBSLAB DEPRESSURIZATION SYSTEM, AN ELECTRICAL CIRCUIT TERMINATED IN AN APPROVED BOX SHALL BE INSTALLED DURING CONSTRUCTION IN THE ATTIC OR OTHER ANTICIPATED LOCATION OF VENT PIPE FANS. AN ELECTRICAL SUPPLY SHALL BE ACCESSIBLE IN ANTICIPATED LOCATIONS OF SYSTEM FAILURE ALARMS.



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