

DuPont™ Ultra Wall System Detail Sets

Detailing Recommendations

OVERVIEW & CONTENTS

Overview

The DuPont™ Ultra Wall System (UWS) detail set outlines the general guidelines for design using the system, focusing on maintaining continuity of the thermal, air, and water control layers. These details are meant to be used as guides during the design phase of a project.

“UWS-CM” details show the DuPont™ Cavitymate™ Ultra Wall System, using Styrofoam™ Brand Cavitymate™ Ultra insulation (15.75”x96”) between masonry ties with DuPont™ Great Stuff Pro™ Gaps & Cracks as adhesive and joint treatment. This system is commonly used in block and brick construction.

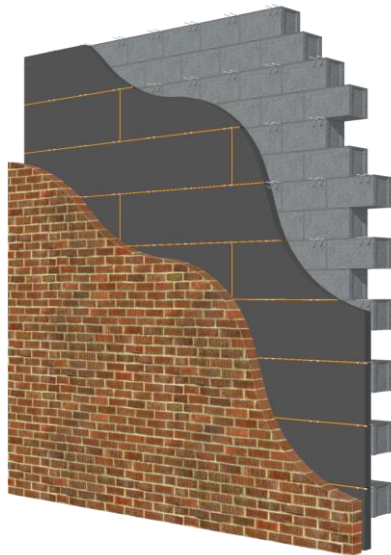
“UWS-SL” details show the DuPont™ Ultra SL Wall System, using Styrofoam™ Brand Ultra SL (48”x96”) with ship lap on long edges) with DuPont™ LiquidArmor™ Flashing & Sealant as joint treatment. This system is commonly used over studs, CMU, or concrete walls.

NAVIGATING

Nomenclature *Key*

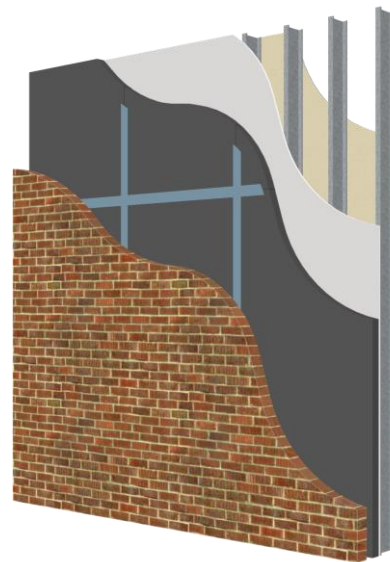


Other system detail sets available at building.dupont.com



UWS-CM

For block and brick construction, installing 15.75”x96” insulation between masonry ties



UWS-SL

For steel stud, CMU, or concrete construction, installing 4’x8’ insulation

DuPont™ Ultra Wall System Cavitymate™ Ultra Wall System

Detailing Recommendations

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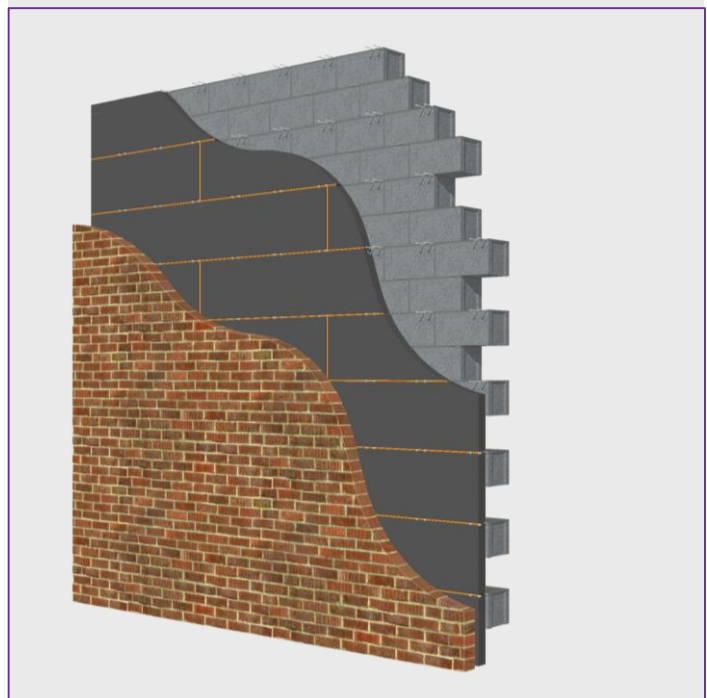
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NAVIGATING

Nomenclature Key



Other system detail sets available at building.dupont.com





Ultra wall system

Cavitymate™ Ultra Wall System

Control Layer Summary

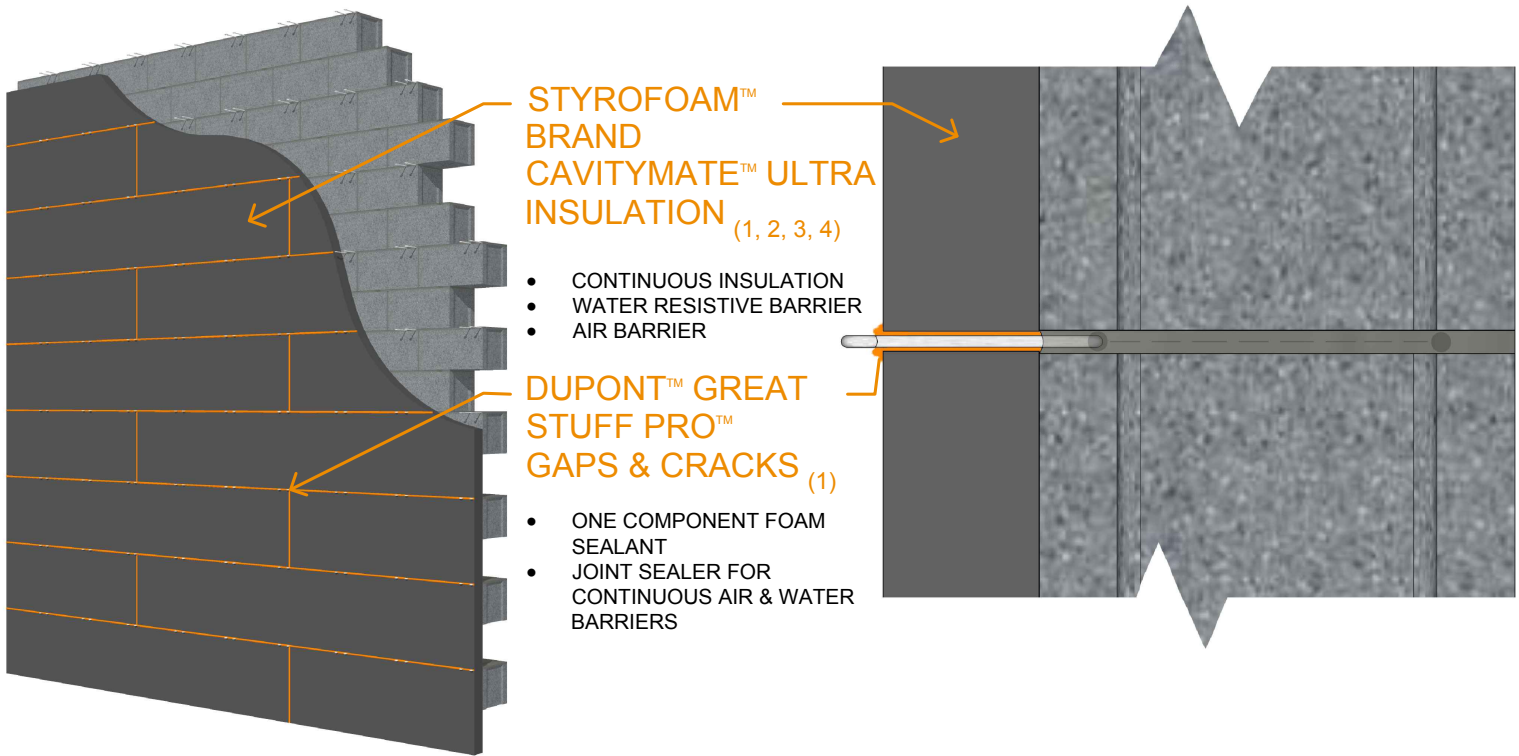
DESIGN INTENT

1. STYROFOAM™ BRAND EXTRUDED POLYSTYRENE RIGID INSULATION ACTS AS PRIMARY CONTROL LAYERS: THERMAL (C1), WATER-RESISTIVE, AND AIR SEALING, WHILE DUPONT™ GREAT STUFF PRO™ GAPS & CRACKS OR DUPONT™ LIQUIDARMOR™ FLASHING AND SEALANT SEALS ALL VERTICAL & HORIZONTAL BOARD JOINTS TO MAKE THE CONTROL LAYERS CONTINUOUS.
2. CONTINUOUS INSULATION THICKNESS TO BE DETERMINED TO MINIMIZE CONDENSATION POTENTIAL AND COMPLY WITH ENERGY CODE.

DESIGN STANDARDS

STYROFOAM™ BRAND CAVITYMATE™ ULTRA INSULATION WITH DUPONT™ GREAT STUFF PRO™ GAPS & CRACKS

- CLASS A PER ASTM E84
- AIR BARRIER PER ASTM E2357
- WATER BARRIER PER ASTM E331
- R-5.6 @ 1" PER ASTM C518
- NFPA 285 APPROVED ASSEMBLIES PER ENGINEERING JUDGMENT LETTERS



CAVITYMATE ULTRA SYSTEM | ISOMETRIC

UWS-CM01.1 (EXCLUDES BASE FLASHINGS, FASTENERS, CLADDINGS, ETC.)



CAVITYMATE ULTRA SYSTEM | SECTION

UWS-CM01.2

MINIMUM REQUIREMENTS

1. SEE DETAIL UWS-CM02 "SYSTEM OPTIONS" FOR OTHER JOINT TREATMENT OPTIONS AND SYSTEM CONFIGURATIONS.
2. STYROFOAM™ BRAND EXTRUDED POLYSTYRENE (XPS) INSULATION MUST BE COVERED WITHIN 90 DAYS.
3. BREACHES TO INSULATION MUST BE SEALED PER DETAIL UWS-CM08 "PATCHING INSULATION".
4. SEE DETAIL UWS-CM03 "FASTENING GUIDELINES" FOR RECOMMENDED ATTACHMENT.
5. THRU-WALL / SURFACE-MOUNT FLASHINGS BY OTHER.



Ultra wall system

Cavitymate™ Ultra Wall System

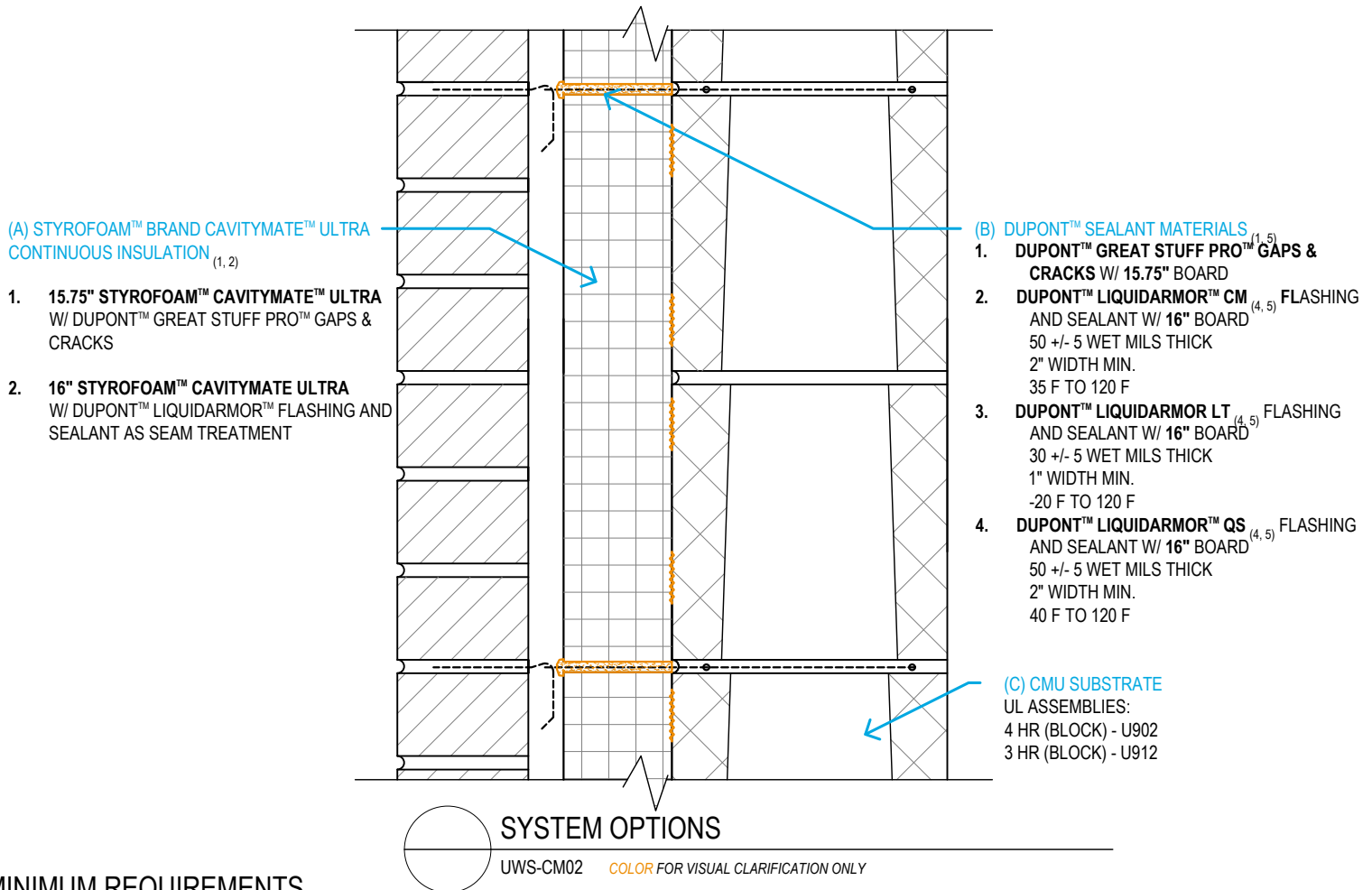
System Options

DESIGN INTENT

1. BASIS OF DESIGN FOR THE CAVITYMATE™ ULTRA WALL SYSTEM USES STYROFOAM™ BRAND CAVITYMATE™ ULTRA INSULATION AND DUPONT™ GREAT STUFF PRO™ GAPS & CRACKS.
2. THE CAVITYMATE™ ULTRA WALL SYSTEM CAN BE COMPOSED BY CHOOSING COMBINATIONS OF ITEMS FROM SECTIONS (A) AND (B). OPTIONS WILL MEET CODE FOR CONTINUOUS INSULATION (R-VALUE REQUIREMENTS VARY BY CLIMATE ZONE), AIR BARRIER, VAPOR RETARDER, AND WATER BARRIER.
3. VERIFY ASSEMBLY HAS **NFPA 285 APPROVAL** IF APPLICABLE, INCLUDING SEAM TREATMENT AND FLASHING MAX. WIDTHS.

WARRANTY AVAILABLE

50 YEAR THERMAL LIMITED WARRANTY FOR STYROFOAM™ BRAND EXTRUDED POLYSTYRENE (XPS) INSULATION 1.5" THICK AND GREATER.



MINIMUM REQUIREMENTS

1. INSULATION MUST BE COVERED WITHIN 90 DAYS.
2. BREACHES TO INSULATION MUST BE SEALED PER DETAIL UWS-CM08 "PATCHING INSULATION".
3. SEE DETAIL UWS-CM03 "FASTENING GUIDELINES" FOR APPROVED TIES.
4. DUPONT™ LIQUIDARMOR™ FLASHING AND SEALANT CAN SPAN A MAX. 1/4" GAPS - AREAS WHERE JOINTS BETWEEN CAVITYMATE™ ULTRA BOARDS EXCEED 1/4" REQUIRE DUPONT™ GREAT STUFF PRO™ GAPS & CRACKS OR WINDOW & DOOR TO BE INSTALLED. GREAT STUFF PRO MUST TACK OVER (10-15 MIN.) PRIOR TO INSTALLATION OF DUPONT™ LIQUIDARMOR™ FLASHING.
5. AT BOARD JOINTS, SELF ADHERED TAPE AND FLASHING MATERIALS ARE NOT ACCEPTABLE FOR THIS APPLICATION DUE TO THE DIFFICULTY IN CREATING A PROPER SEAL AROUND MASONRY WIRE TIES.
6. DUPONT™ LIQUIDARMOR™ CM AND LIQUIDARMOR™ QS CANNOT BE APPLIED OVER LIQUIDARMOR™ LT. LIQUIDARMOR™ LT CAN BE APPLIED OVER LIQUIDARMOR™ CM AND LIQUIDARMOR™ QS.



Ultra wall system

Cavitymate™ Ultra Wall System

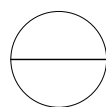
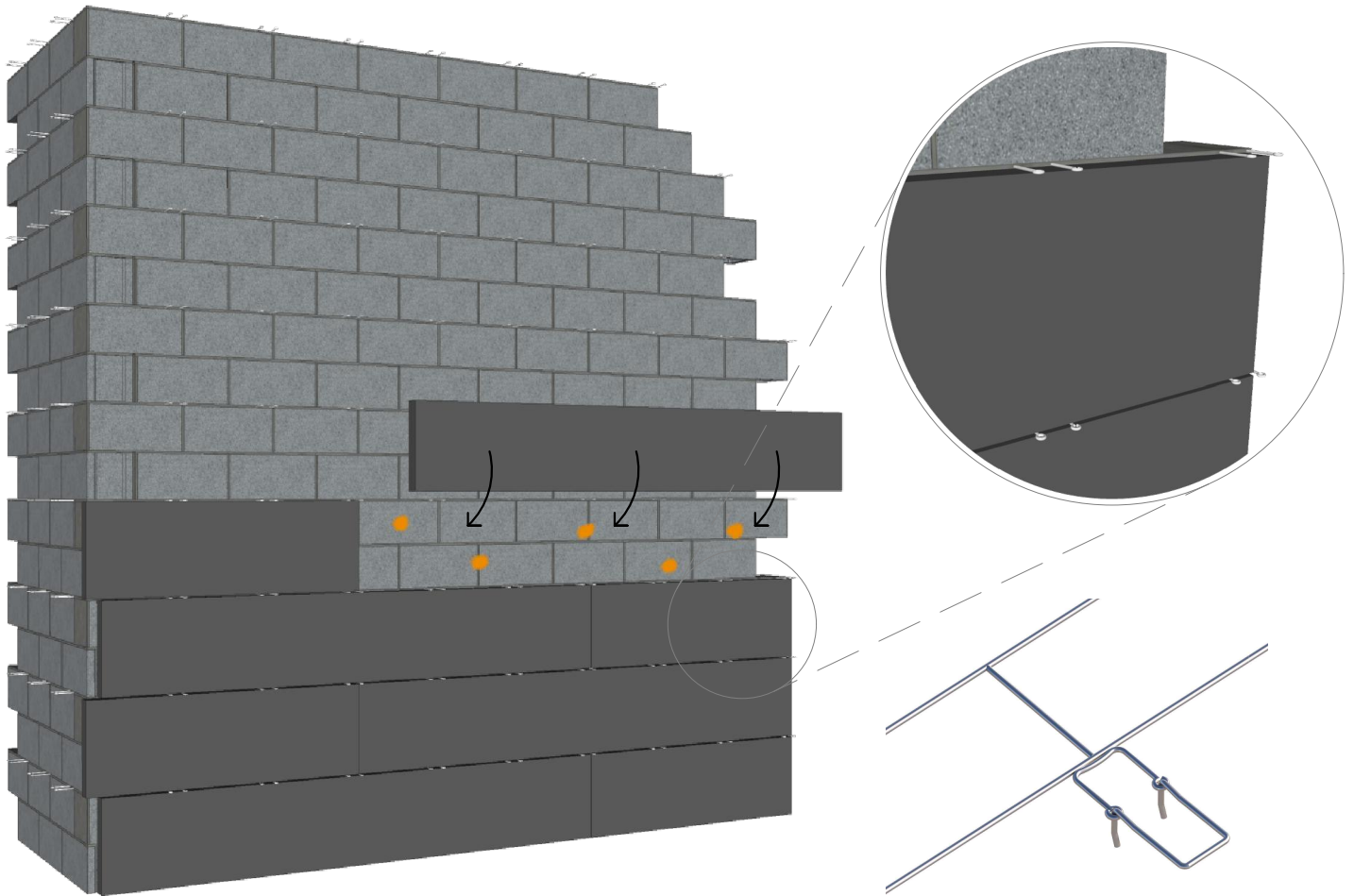
Fastening Guidelines

DESIGN INTENT

1. SECURE STYROFOAM™ BRAND CAVITYMATE™ ULTRA INSULATION TO CMU BETWEEN MASONRY TIES.
2. MASONRY TIE LENGTH TO BE DETERMINED BY INSULATION THICKNESS.
3. BOARDS ARE INSTALLED PRIOR TO JOINT TREATMENT TO ACHIEVE A FULL SEAL FROM THE FACE OF CMU TO FACE OF INSULATION.

ACCEPTABLE ADHESIVE:

DUPONT™ GREAT STUFF PRO™ GAPS & CRACKS



FASTENING GUIDELINES | ISOMETRIC

UWS-CM03 *COLOR FOR VISUAL CLARIFICATION ONLY*

MINIMUM REQUIREMENTS

1. VERIFY SUBSTRATES HAVE NO VISIBLE WATER DROPLETS BEFORE INSTALLING BOARDS.
2. APPLY MIN. FIVE (5) DAUBS OF DUPONT™ GREAT STUFF PRO™ GAPS & CRACKS TO WALL BEFORE FITTING BOARD BETWEEN MASONRY TIES.
3. INSTALL INSULATION IN RUNNING BOND PATTERN.
4. DUPONT™ GREAT STUFF PRO™ GAPS & CRACKS MAY BE LEFT EXPOSED FOR 60 DAYS MAX.

DESIGN INTENT

1. MUST MAINTAIN CONTINUITY OF ALL CONTROL LAYERS AT TRANSITIONS FROM ULTRA WALL SYSTEM TO OTHER SYSTEMS.
2. ENSURE COMPATIBILITY WHERE DUPONT™ FLASHING MATERIALS JOIN MATERIALS PRODUCED BY OTHER MANUFACTURERS.
3. COUNTERFLASH MATERIALS TO PROMOTE WATERSHEDDING AT TRANSITION LOCATIONS.
4. CONCRETE & CMU APPLICATIONS: ENSURE ADEQUATE DUPONT™ LIQUIDARMOR™ FLASHING AND SEALANT THICKNESS IS APPLIED FOR PROPER ADHESION TO AGGREGATE.

COMPATIBILITY RECOMMENDATIONS

1. CHEMICALLY COMPATIBLE ADHESIVE TECHNOLOGIES WITH STYROFOAM™ BRAND XPS INSULATION AND DUPONT™ LIQUIDARMOR™ FLASHING AND SEALANT (*NOTE CHEMICAL COMPATIBILITY IS NOT A QUALIFIER OF LONG-TERM ADHESION*):
ACRYLIC & ACRYLIC LATEX • BUTYL • RUBBERIZED ASPHALT • SILICONE • HOT RUBBER
2. COMPATIBILITY OF PRODUCTS/CHEMISTRIES NOT LISTED ABOVE MUST BE VERIFIED BY RESPECTIVE MANUFACTURER.
3. DESIGNER IS RESPONSIBLE TO VERIFY COMPATIBILITY OF MATERIALS WITH ADDITIONAL COMPONENTS IN ASSEMBLY.

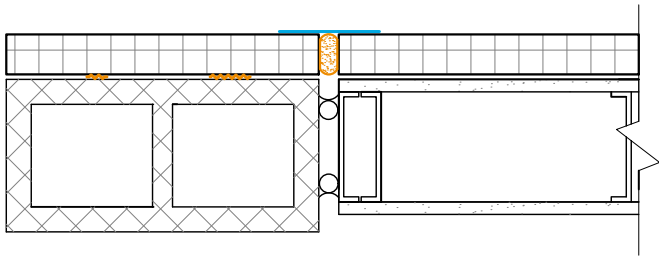
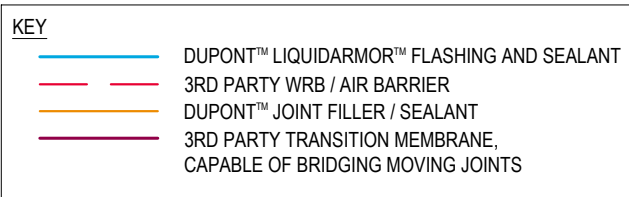


FIG 1: TRANSITION FROM CMU TO STUD | PLAN
UWS-CM04.1 (NOTE: NOT AN EXPANSION JOINT DETAIL - MOVEMENT NOT TO EXCEED 15%)

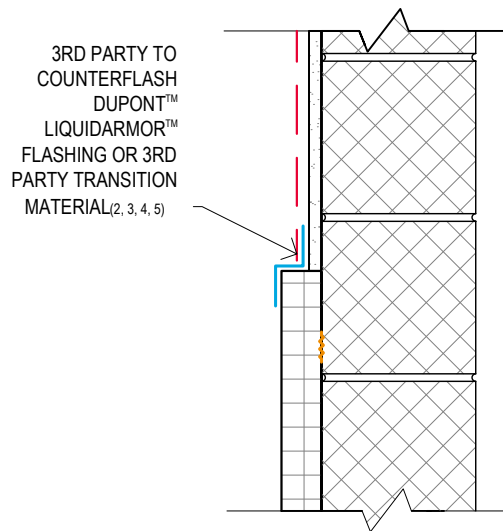


FIG 2: VERTICAL TRANSITION OF OTHER WRB TO ULTRA | SECTION
UWS-CM04.2

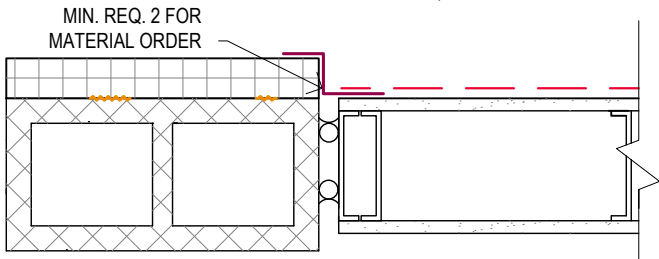


FIG 3: TRANSITION FROM ULTRA TO WRB ON EXT. GYP. | PLAN
UWS-CM04.3

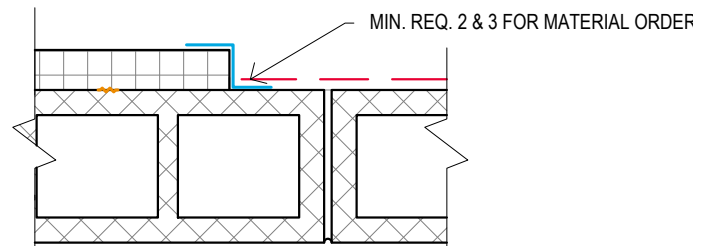
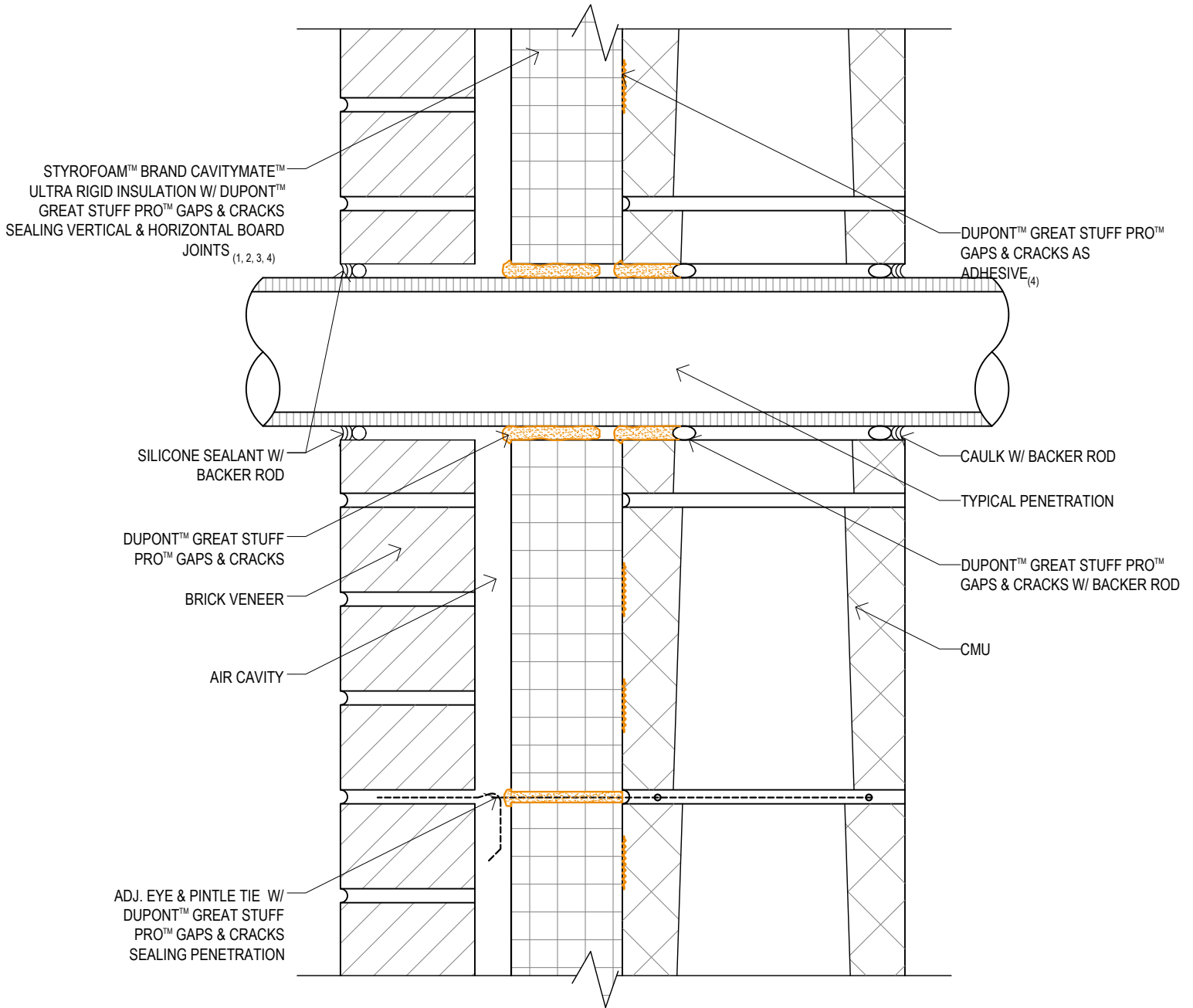


FIG 4: HORIZONTAL TRANSITION OF ULTRA TO OTHER WRB | PLAN
UWS-CM04.4

TRANSITIONS
UWS-CM04 COLOR FOR VISUAL CLARIFICATION ONLY

MINIMUM REQUIREMENTS

1. OVERLAP OF SEALANT ADHESION ON ANY TRANSITION FROM FACE OF INSULATION ONTO ADJACENT MATERIALS MUST USE DUPONT™ LIQUIDARMOR™ FLASHING AND SEALANT AND APPLY USING REQUIREMENTS ON DETAIL UWS-CM02 "SYSTEM OPTIONS".
2. CONFIRM WITH MATERIAL MANUFACTURERS FOR ADHESION COMPATIBILITY AND ORDER OF INSTALLATION.
3. DUPONT™ LIQUIDARMOR™ CM AND LIQUIDARMOR™ QS CANNOT BE APPLIED OVER LIQUIDARMOR LT OR ANY OTHER SILICONE PRODUCTS.
4. FIG.1, DUPONT™ GREAT STUFF PRO™ GAPS & CRACKS OR WINDOW & DOOR TO FILL JOINTS ≥ 1/4" PRIOR TO FLASHING WITH MIN. OVERLAP TO FACE OF REQUIREMENTS ON DETAIL UWS-CM02 TO EACH FACE OF BOARD.
5. MIN. WIDTH OF DUPONT™ LIQUIDARMOR™ FLASHING AND SEALANT BASED ON DETAIL UWS-CM02 ONTO FACE OF BOARD AND FACE OF OTHER SUBSTRATE.



PENETRATIONS

UWS-CM05 COLOR FOR VISUAL CLARIFICATION ONLY

MINIMUM REQUIREMENTS

1. SEE DETAIL UWS-CM02 "SYSTEM OPTIONS" FOR DUPONT™ LIQUIDARMOR™ FLASHING AND SEALANT OPTIONS AND OTHER SYSTEM CONFIGURATIONS..
2. VOIDS SURROUNDING PENETRATION TO BE MIN. ¼" AND MAX. 1" AND MUST BE FILLED WITH DUPONT™ GREAT STUFF PRO™ GAPS & CRACKS.
3. INSULATION MUST BE COVERED WITHIN 90 DAYS.
4. BREACHES TO INSULATION MUST BE SEALED PER DETAIL UWS-CM06 "PATCHING INSULATION".
5. SEE DETAIL UWS-CM03 "FASTENING GUIDELINES" FOR RECOMMENDED ATTACHMENT.

DESIGN INTENT

1. MAINTAIN INTEGRITY OF 4 CONTROL LAYERS BY PATCHING AS APPROPRIATE.
2. USE RESPECTIVE PATCHING TECHNIQUE, DICTATED BY SIZE OF DAMAGED AREA.

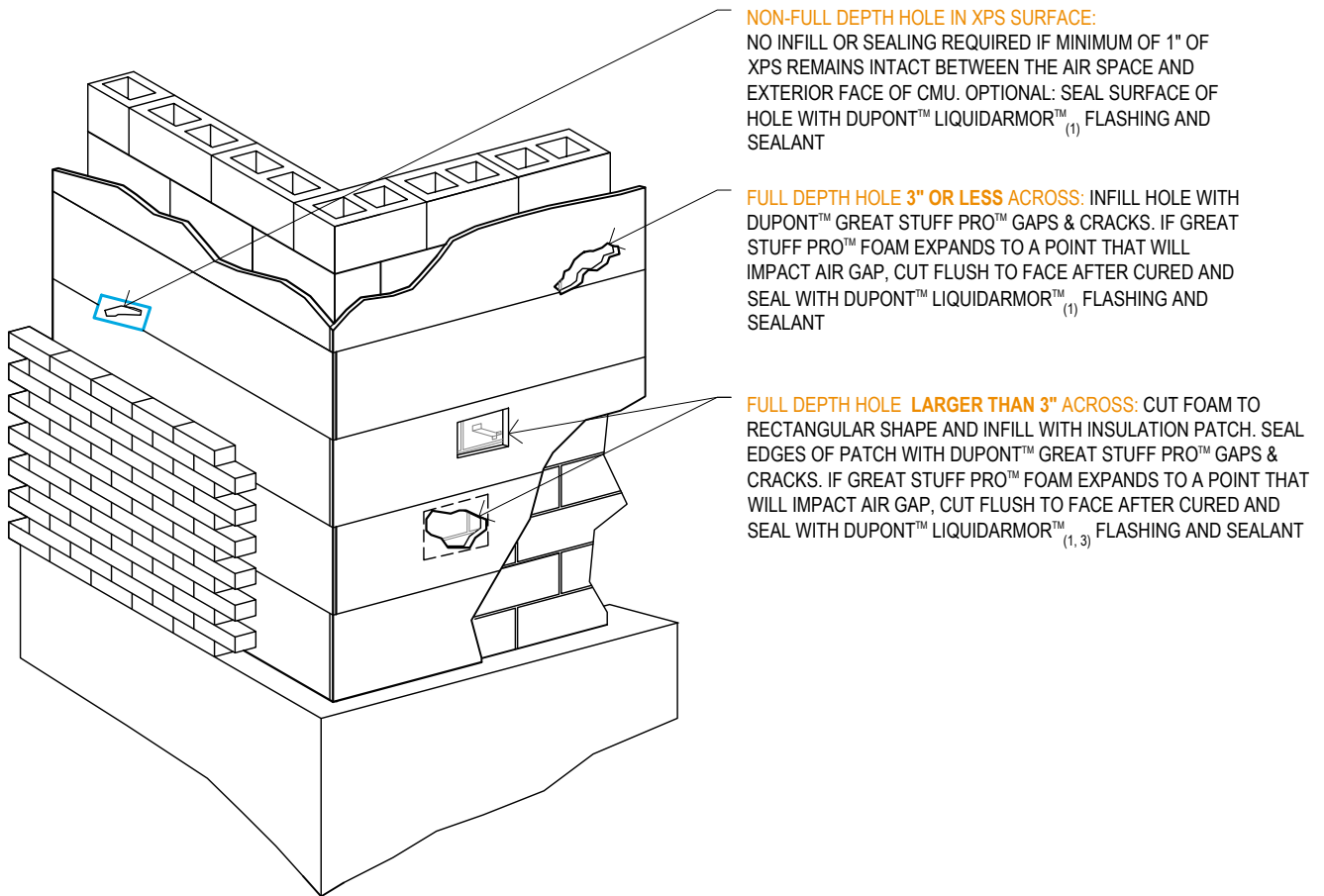
SEALANT OPTIONS

ONE COMPONENT FOAM

- DUPONT™ GREAT STUFF PRO™ GAPS & CRACKS
- DUPONT™ GREAT STUFF PRO™ WINDOW & DOOR

FLUID APPLIED

- DUPONT™ LIQUIDARMOR™ LT FLASHING AND SEALANT
- DUPONT™ LIQUIDARMOR™ QS FLASHING AND SEALANT
- DUPONT™ LIQUIDARMOR™ CM FLASHING AND SEALANT



NON-FULL DEPTH HOLE IN XPS SURFACE:

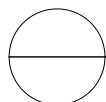
NO INFILL OR SEALING REQUIRED IF MINIMUM OF 1" OF XPS REMAINS INTACT BETWEEN THE AIR SPACE AND EXTERIOR FACE OF CMU. OPTIONAL: SEAL SURFACE OF HOLE WITH DUPONT™ LIQUIDARMOR™⁽¹⁾ FLASHING AND SEALANT

FULL DEPTH HOLE 3" OR LESS ACROSS:

INFILL HOLE WITH DUPONT™ GREAT STUFF PRO™ GAPS & CRACKS. IF GREAT STUFF PRO™ FOAM EXPANDS TO A POINT THAT WILL IMPACT AIR GAP, CUT FLUSH TO FACE AFTER CURED AND SEAL WITH DUPONT™ LIQUIDARMOR™⁽¹⁾ FLASHING AND SEALANT

FULL DEPTH HOLE LARGER THAN 3" ACROSS:

CUT FOAM TO RECTANGULAR SHAPE AND INFILL WITH INSULATION PATCH. SEAL EDGES OF PATCH WITH DUPONT™ GREAT STUFF PRO™ GAPS & CRACKS. IF GREAT STUFF PRO™ FOAM EXPANDS TO A POINT THAT WILL IMPACT AIR GAP, CUT FLUSH TO FACE AFTER CURED AND SEAL WITH DUPONT™ LIQUIDARMOR™^(1,3) FLASHING AND SEALANT



REPAIRING HOLES IN INSULATION

UWS-CM06 COLOR FOR VISUAL CLARIFICATION ONLY

MINIMUM REQUIREMENTS

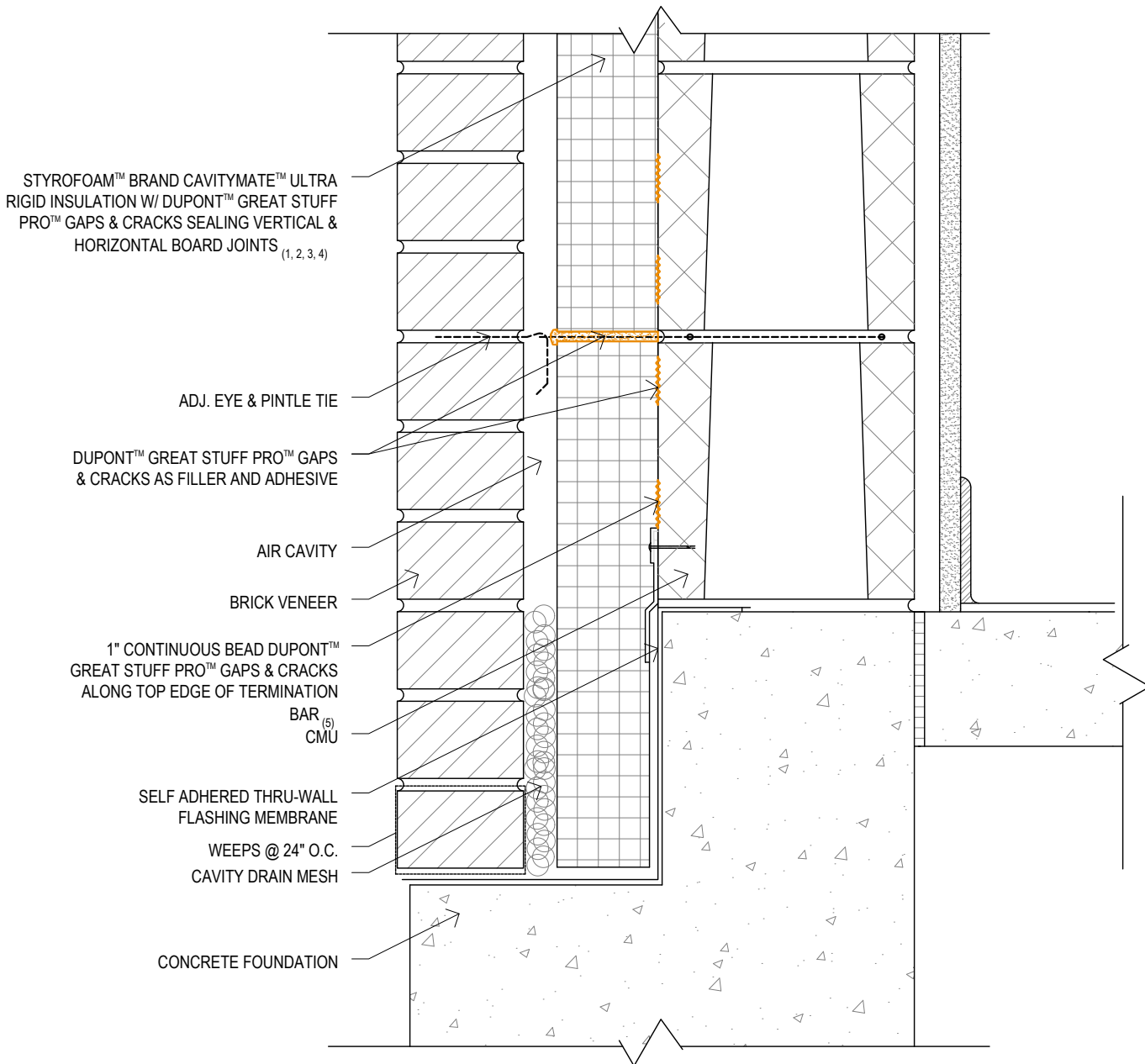
1. SEE DETAIL UWS-CM02 "SYSTEM OPTIONS" FOR OTHER SYSTEM CONFIGURATIONS AND SEALANT OPTIONS.
2. INSULATION MUST BE COVERED WITHIN 90 DAYS.
3. SEE DETAIL UWS-CM03 "FASTENING GUIDELINES" FOR RECOMMENDED ATTACHMENT.



Ultra wall system

Cavitymate™ Ultra Wall System

Foundation



 **FOUNDATION**
 UWS-CM07 *COLOR FOR VISUAL CLARIFICATION ONLY*

MINIMUM REQUIREMENTS

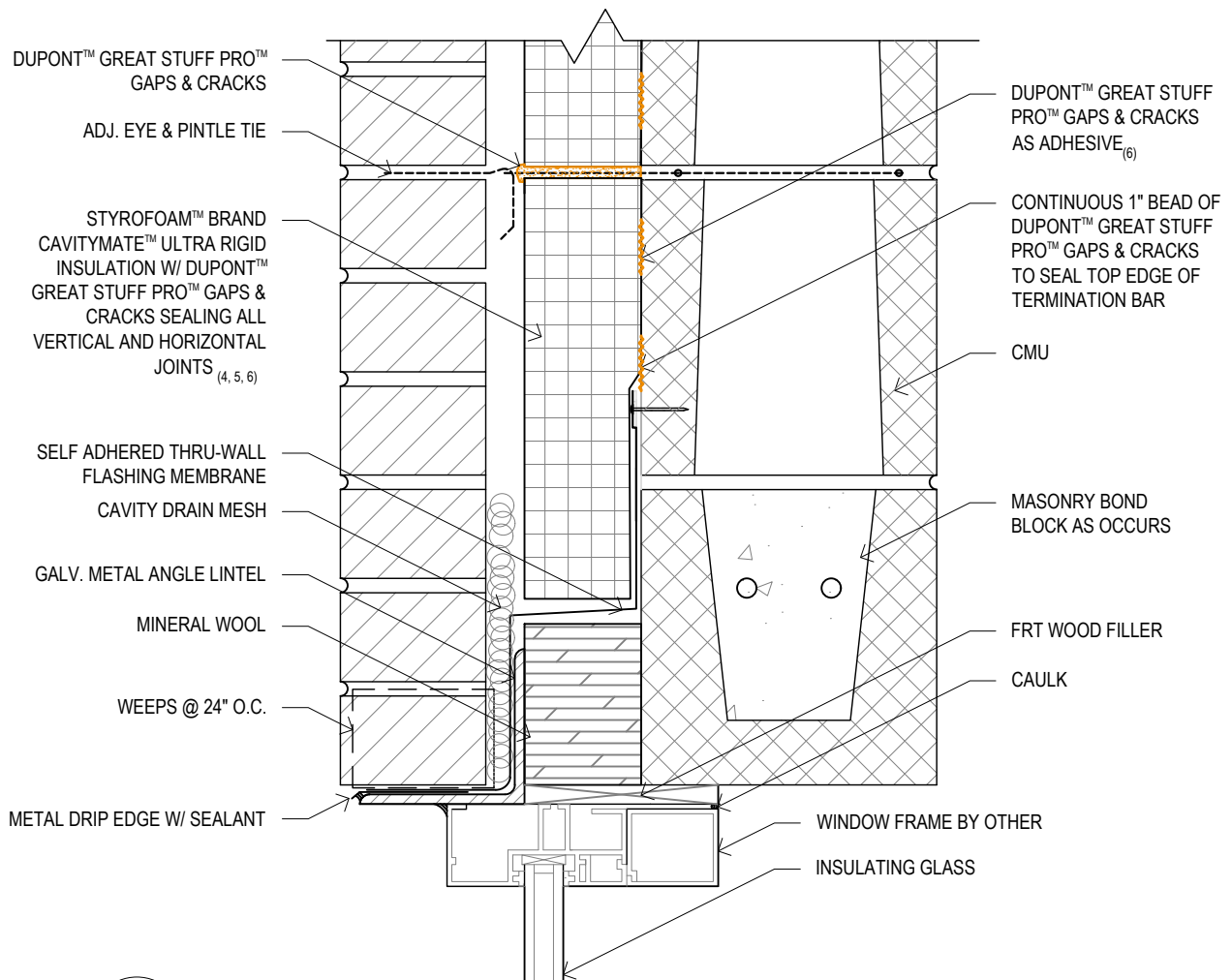
1. SEE DETAIL UWS-CM02 "SYSTEM OPTIONS" FOR OTHER SYSTEM CONFIGURATIONS AND SEALANT OPTIONS & REQUIREMENTS.
2. INSULATION MUST BE COVERED WITHIN 90 DAYS.
3. BREACHES TO INSULATION MUST BE SEALED PER DETAIL UWS-CM08 "PATCHING INSULATION".
4. SEE DETAIL UWS-CM03 "FASTENING GUIDELINES" FOR RECOMMENDED ATTACHMENT.
5. TERMINATION BAR TO BE INSTALLED MIN. 16" ABOVE GRADE.

DESIGN INTENT

1. USE LIQUIDARMOR™ FLASHING AND SEALANT TO TRANSITION THE AIR & WATER BARRIERS FROM THE FACE OF INSULATION INTO ALL JAMBS, SILLS, HEADS PRIOR TO INSTALLATION OF WINDOWS & RECEPTORS.
2. SEALANTS AND CAULKS AS SPECIFIED BY WINDOW MANUFACTURER TO BE USED AS PRIMARY DEFENSE AGAINST MOISTURE INTRUSION & AIR INFILTRATION.
3. WINDOW RECEPTOR TO ATTACH TO WOOD BLOCKING THROUGH DOW SEALANT MEMBRANE FOR ENHANCED AIR AND MOISTURE SEALING.

GENERAL RECOMMENDATIONS

1. WINDOW SEALANT COMPATIBILITY SHOULD BE VERIFIED WITH DOW FOR LONG-TERM ADHESION TO DOW FLASHING.
2. WOOD BLOCKING IS PREFERRED TO PROVIDE ADDED RIGIDITY AND A NAILING BASE AT JAMBS, SILLS, HEADS.
3. DOUBLE STUD IS RECOMMENDED AT JAMBS TO ALLOW FOR GREATER FLEXIBILITY WITH CLADDING TERMINATION AROUND WINDOWS & DOORS.



WINDOW HEAD WITH MINERAL WOOL
UWS-CM08 COLOR FOR VISUAL CLARIFICATION ONLY

MINIMUM REQUIREMENTS

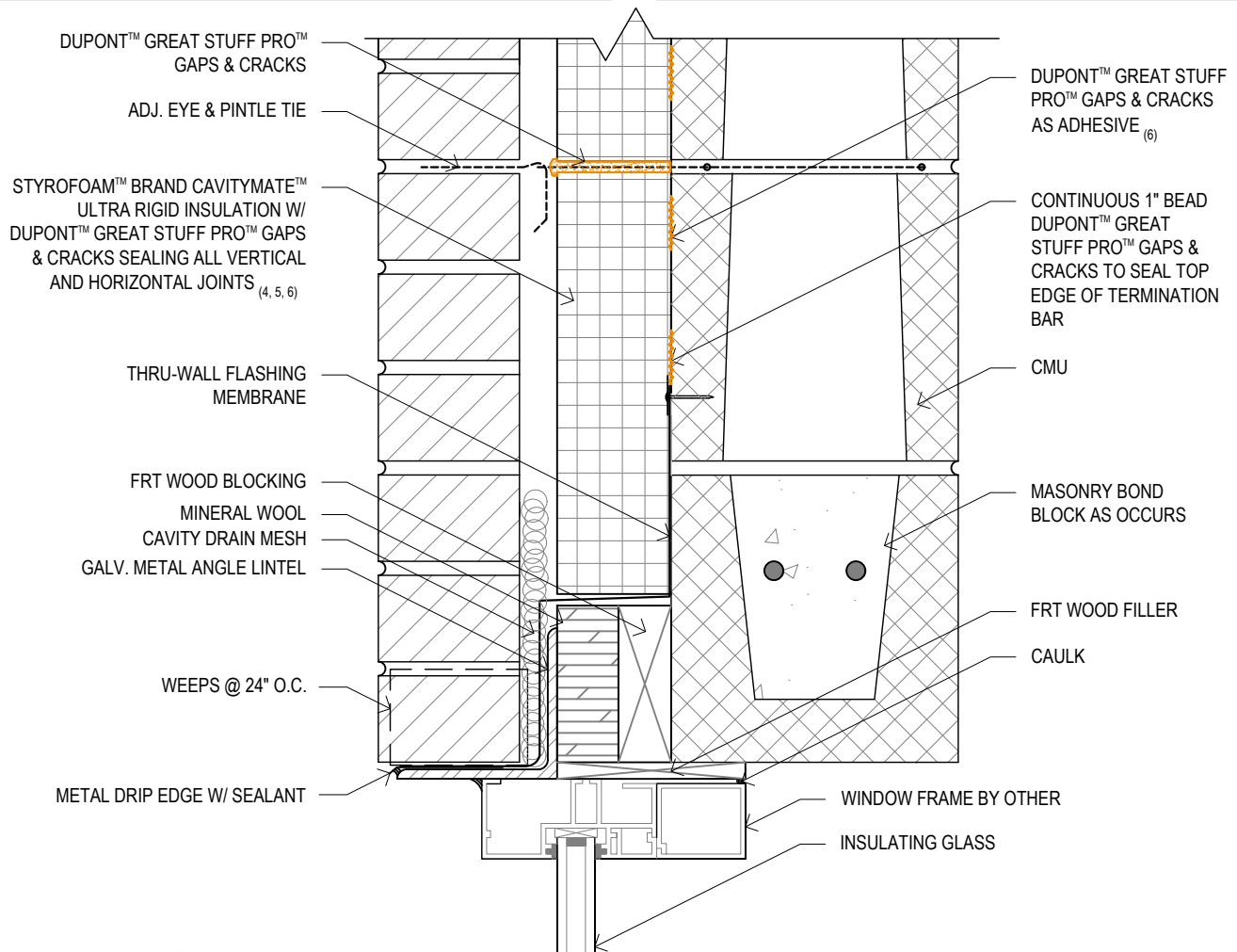
1. DUPONT™ SEALANT TO BE INSTALLED ONTO FACE OF INSULATION BASED ON WIDTH REQUIREMENTS ON DETAIL UWS-CM-02 "SYSTEM OPTIONS" AND MIN . 2" INTO ROUGH OPENING (SILL, JAMB, HEADER) OR 1" PAST INTERIOR CAULK JOINT, WHICHEVER IS GREATER.
2. IF NOT USING WOOD BLOCKING AT JAMB, HEAD, SILL, MUST USE METAL ANGLE TRIM ("SHINY 90") TO BRIDGE INSULATION.
3. ACCEPTABLE BLOCKING TYPES: DIMENSIONAL LUMBER (SHOWN), OSB, PLYWOOD, METAL ANGLE TRIM ("SHINY 90").
4. SEE DETAIL UWS-CM02 "SYSTEM OPTIONS" FOR OTHER SYSTEM CONFIGURATIONS AND SEALANT OPTIONS & REQUIREMENTS.
5. INSULATION MUST BE COVERED WITHIN 90 DAYS.
6. SEE DETAIL UWS-CM03 "FASTENING GUIDELINES" FOR RECOMMENDED ATTACHMENT.

DESIGN INTENT

1. USE DUPONT™ LIQUIDARMOR™ FLASHING AND SEALANT TO TRANSITION THE AIR & WATER BARRIERS FROM THE FACE OF INSULATION INTO ALL JAMBS, SILLS, HEADS PRIOR TO INSTALLATION OF WINDOWS & RECEPTORS.
2. SEALANTS AND CAULKS AS SPECIFIED BY WINDOW MANUFACTURER TO BE USED AS PRIMARY DEFENSE AGAINST MOISTURE INTRUSION & AIR INFILTRATION.
3. WINDOW RECEPTOR TO ATTACH TO WOOD BLOCKING THROUGH DUPONT™ SEALANT MEMBRANE FOR ENHANCED AIR AND MOISTURE SEALING.

GENERAL RECOMMENDATIONS

1. WINDOW SEALANT COMPATIBILITY SHOULD BE VERIFIED WITH DOW FOR LONG-TERM ADHESION TO DOW FLASHING.
2. WOOD BLOCKING IS PREFERRED TO PROVIDE ADDED RIGIDITY AND A NAILING BASE AT JAMBS, SILLS, HEADS.
3. DOUBLE STUD IS RECOMMENDED AT JAMBS TO ALLOW FOR GREATER FLEXIBILITY WITH CLADDING TERMINATION AROUND WINDOWS & DOORS.



WINDOW HEAD WITH MINERAL WOOL AND WOOD BLOCKING

UWS-CM09 COLOR FOR VISUAL CLARIFICATION ONLY

MINIMUM REQUIREMENTS

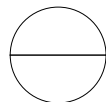
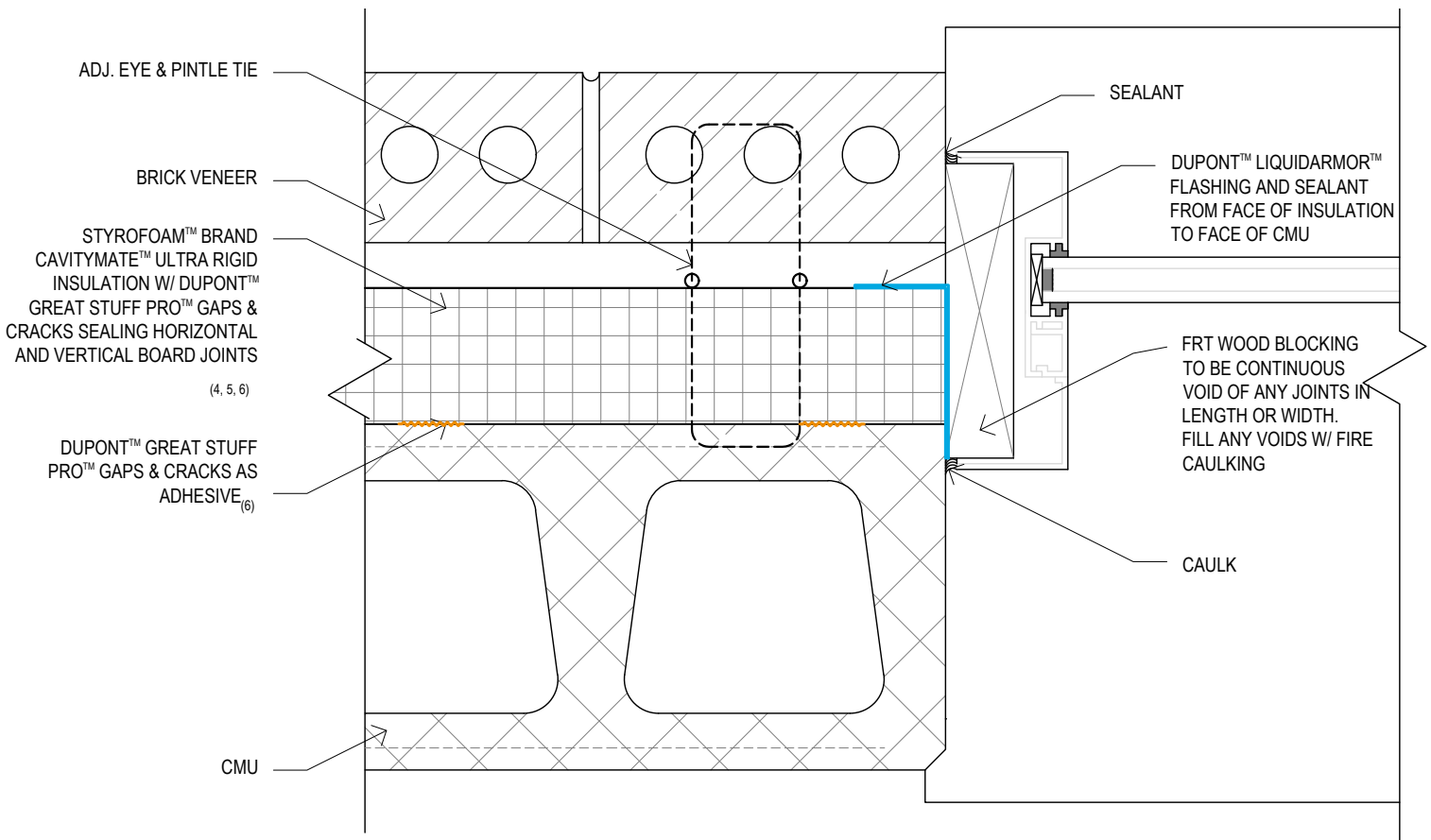
1. DUPONT™ SEALANT TO BE INSTALLED ONTO FACE OF INSULATION BASED ON WIDTH REQUIREMENTS ON DETAIL UWS-CM-02 "SYSTEM OPTIONS" AND MIN . 2" INTO ROUGH OPENING (SILL, JAMB, HEADER) OR 1" PAST INTERIOR CAULK JOINT, WHICHEVER IS GREATER.
2. IF NOT USING WOOD BLOCKING AT JAMB, HEAD, SILL, MUST USE METAL ANGLE TRIM ("SHINY 90") TO BRIDGE INSULATION.
3. ACCEPTABLE BLOCKING TYPES: DIMENSIONAL LUMBER (SHOWN), OSB, PLYWOOD, METAL ANGLE TRIM ("SHINY 90").
4. SEE DETAIL UWS-CM02 "SYSTEM OPTIONS" FOR OTHER SYSTEM CONFIGURATIONS AND SEALANT OPTIONS & REQUIREMENTS.
5. INSULATION MUST BE COVERED WITHIN 90 DAYS.
6. SEE DETAIL UWS-CM03 "FASTENING GUIDELINES" FOR RECOMMENDED ATTACHMENT.

DESIGN INTENT

1. USE DUPONT™ LIQUIDARMOR™ FLASHING AND SEALANT TO TRANSITION THE AIR & WATER BARRIERS FROM THE FACE OF INSULATION INTO ALL JAMBS, SILLS, HEADS PRIOR TO INSTALLATION OF WINDOWS & RECEPTORS.
2. SEALANTS AND CAULKS AS SPECIFIED BY WINDOW MANUFACTURER TO BE USED AS PRIMARY DEFENSE AGAINST MOISTURE INTRUSION & AIR INFILTRATION.
3. WINDOW RECEPTOR TO ATTACH TO WOOD BLOCKING THROUGH DUPONT™ SEALANT MEMBRANE FOR ENHANCED AIR AND MOISTURE SEALING.

GENERAL RECOMMENDATIONS

1. WINDOW SEALANT COMPATIBILITY SHOULD BE VERIFIED WITH DUPONT™ FOR LONG-TERM ADHESION TO DOW FLASHING.
2. WOOD BLOCKING IS PREFERRED TO PROVIDE ADDED RIGIDITY AND A NAILING BASE AT JAMBS, SILLS, HEADS.
3. DOUBLE STUD IS RECOMMENDED AT JAMBS TO ALLOW FOR GREATER FLEXIBILITY WITH CLADDING TERMINATION AROUND WINDOWS & DOORS.



WINDOW JAMB

UWS-CM10

COLOR FOR VISUAL CLARIFICATION ONLY

MINIMUM REQUIREMENTS

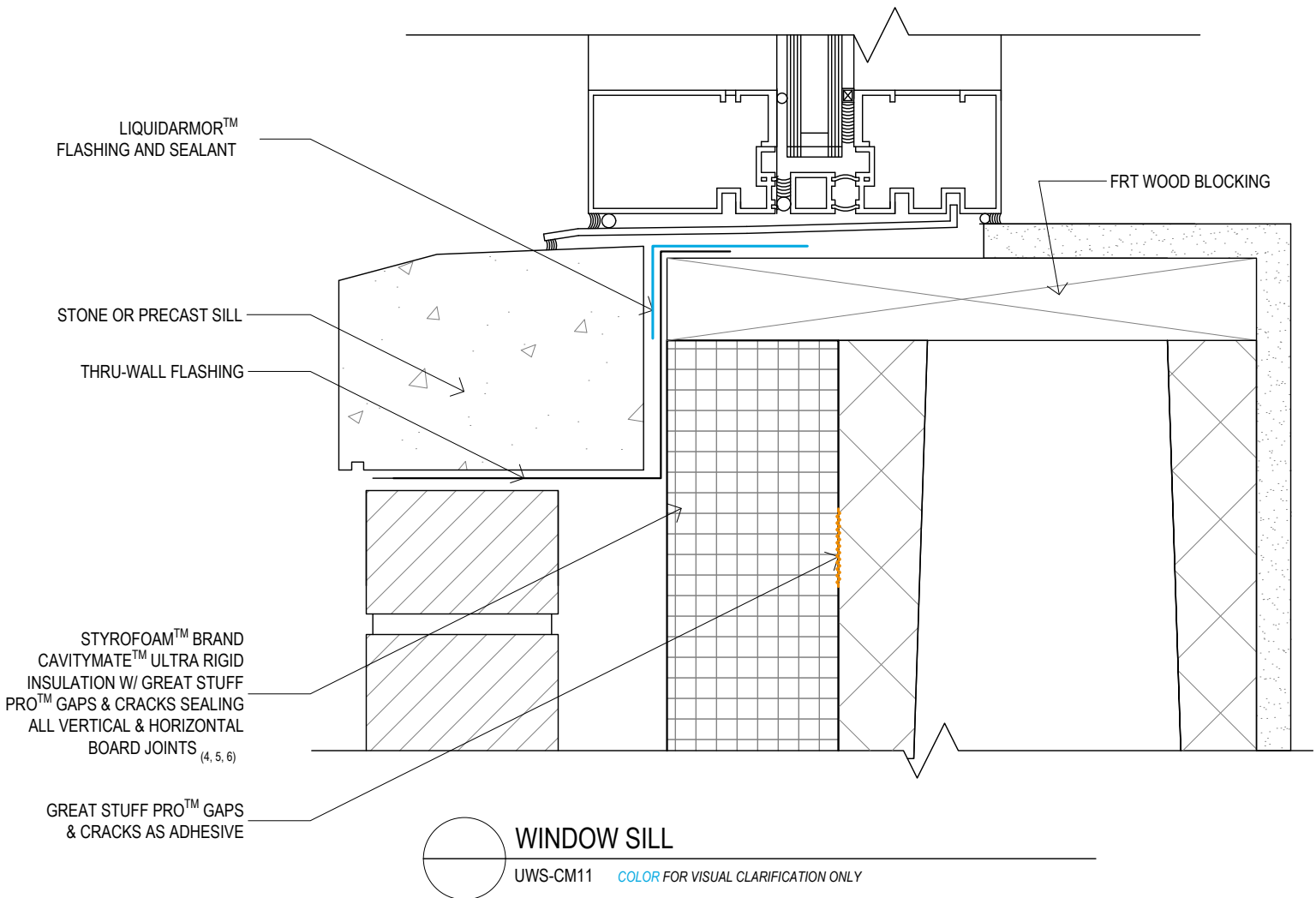
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2. IF NOT USING WOOD BLOCKING AT JAMB, HEAD, SILL, MUST USE METAL ANGLE TRIM ("SHINY 90") TO BRIDGE INSULATION.
3. ACCEPTABLE BLOCKING TYPES: DIMENSIONAL LUMBER (SHOWN), OSB, PLYWOOD, METAL ANGLE TRIM ("SHINY 90").
4. SEE DETAIL UWS-CM02 "SYSTEM OPTIONS" FOR OTHER SYSTEM CONFIGURATIONS AND SEALANT OPTIONS & REQUIREMENTS.
5. INSULATION MUST BE COVERED WITHIN 90 DAYS.
6. SEE DETAIL UWS-CM03 "FASTENING GUIDELINES" FOR RECOMMENDED ATTACHMENT.

DESIGN INTENT

1. USE DUPONT™ LIQUIDARMOR™ FLASHING AND SEALANT TO TRANSITION THE AIR & WATER BARRIERS FROM THE FACE OF INSULATION INTO ALL JAMBS, SILLS, HEADS PRIOR TO INSTALLATION OF WINDOWS & RECEPTORS.
2. SEALANTS AND CAULKS AS SPECIFIED BY WINDOW MANUFACTURER TO BE USED AS PRIMARY DEFENSE AGAINST MOISTURE INTRUSION & AIR INFILTRATION.
3. WINDOW RECEPTOR TO ATTACH TO WOOD BLOCKING THROUGH DUPONT™ SEALANT MEMBRANE FOR ENHANCED AIR AND MOISTURE SEALING.

GENERAL RECOMMENDATIONS

1. WINDOW SEALANT COMPATIBILITY SHOULD BE VERIFIED WITH DUPONT™ FOR LONG-TERM ADHESION TO DUPONT™ FLASHING.
2. WOOD BLOCKING IS PREFERRED TO PROVIDE ADDED RIGIDITY AND A NAILING BASE AT JAMBS, SILLS, HEADS.
3. DOUBLE STUD IS RECOMMENDED AT JAMBS TO ALLOW FOR GREATER FLEXIBILITY WITH CLADDING TERMINATION AROUND WINDOWS & DOORS.



MINIMUM REQUIREMENTS

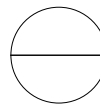
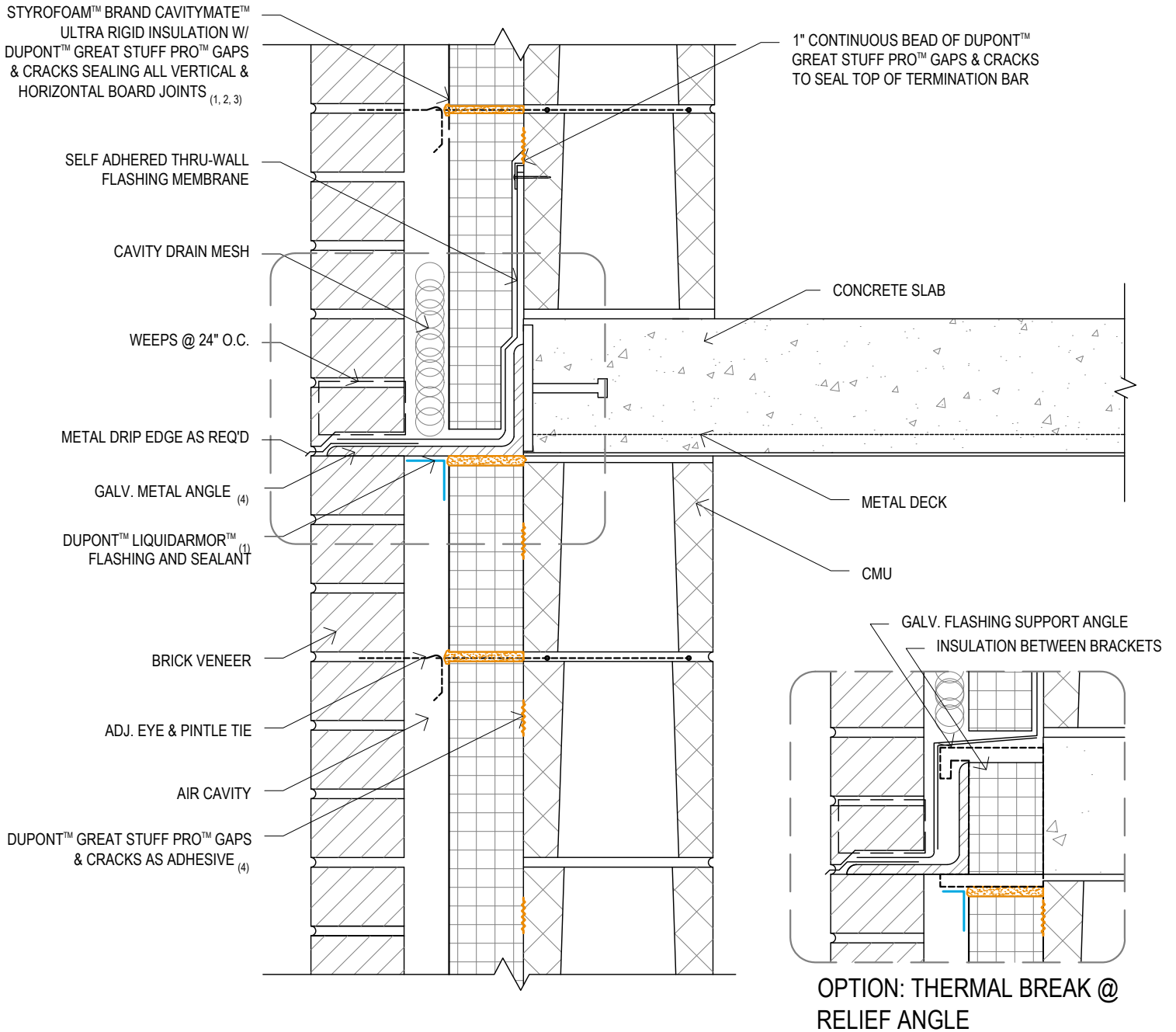
1. DUPONT™ SEALANT TO BE INSTALLED ONTO FACE OF INSULATION BASED ON WIDTH REQUIREMENTS ON DETAIL UWS-CM-02 "SYSTEM OPTIONS" AND MIN . 2" INTO ROUGH OPENING (SILL, JAMB, HEADER) OR 1" PAST INTERIOR CAULK JOINT, WHICHEVER IS GREATER.
2. IF NOT USING WOOD BLOCKING AT JAMB, HEAD, SILL, MUST USE METAL ANGLE TRIM ("SHINY 90") TO BRIDGE INSULATION.
3. ACCEPTABLE BLOCKING TYPES: DIMENSIONAL LUMBER (SHOWN), OSB, PLYWOOD, METAL ANGLE TRIM ("SHINY 90").
4. SEE DETAIL UWS-CM02 "SYSTEM OPTIONS" FOR OTHER SYSTEM CONFIGURATIONS AND SEALANT OPTIONS & REQUIREMENTS.
5. INSULATION MUST BE COVERED WITHIN 90 DAYS.
6. SEE DETAIL UWS-CM03 "FASTENING GUIDELINES" FOR RECOMMENDED ATTACHMENT.



Ultra wall system

Cavitymate™ Ultra Wall System

Edge of Slab Relief Angle

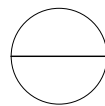
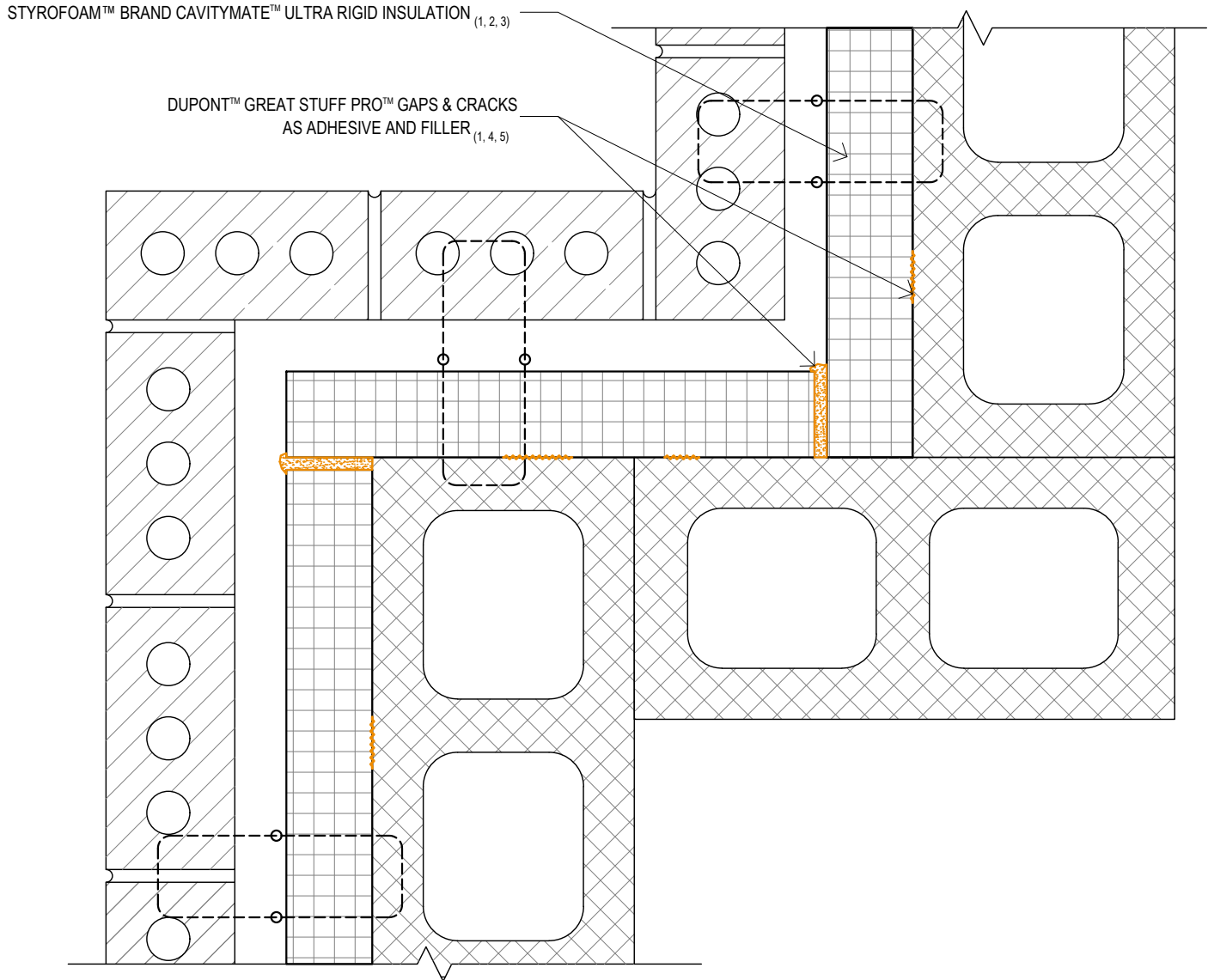


EDGE OF SLAB RELIEF ANGLE

UWS-CM12 COLOR FOR VISUAL CLARIFICATION ONLY

MINIMUM REQUIREMENTS

1. SEE DETAIL UWS-CM02 "SYSTEM OPTIONS" FOR OTHER SYSTEM CONFIGURATIONS AND SEALANT OPTIONS & REQUIREMENTS.
2. INSULATION MUST BE COVERED WITHIN 90 DAYS.
3. SEE DETAIL UWS-CM03 "FASTENING GUIDELINES" FOR RECOMMENDED ATTACHMENT.
4. 1" GAP MAX. BETWEEN BOTTOM OF METAL ANGLE AND TOP OF INSULATION BOARD.

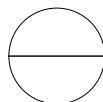
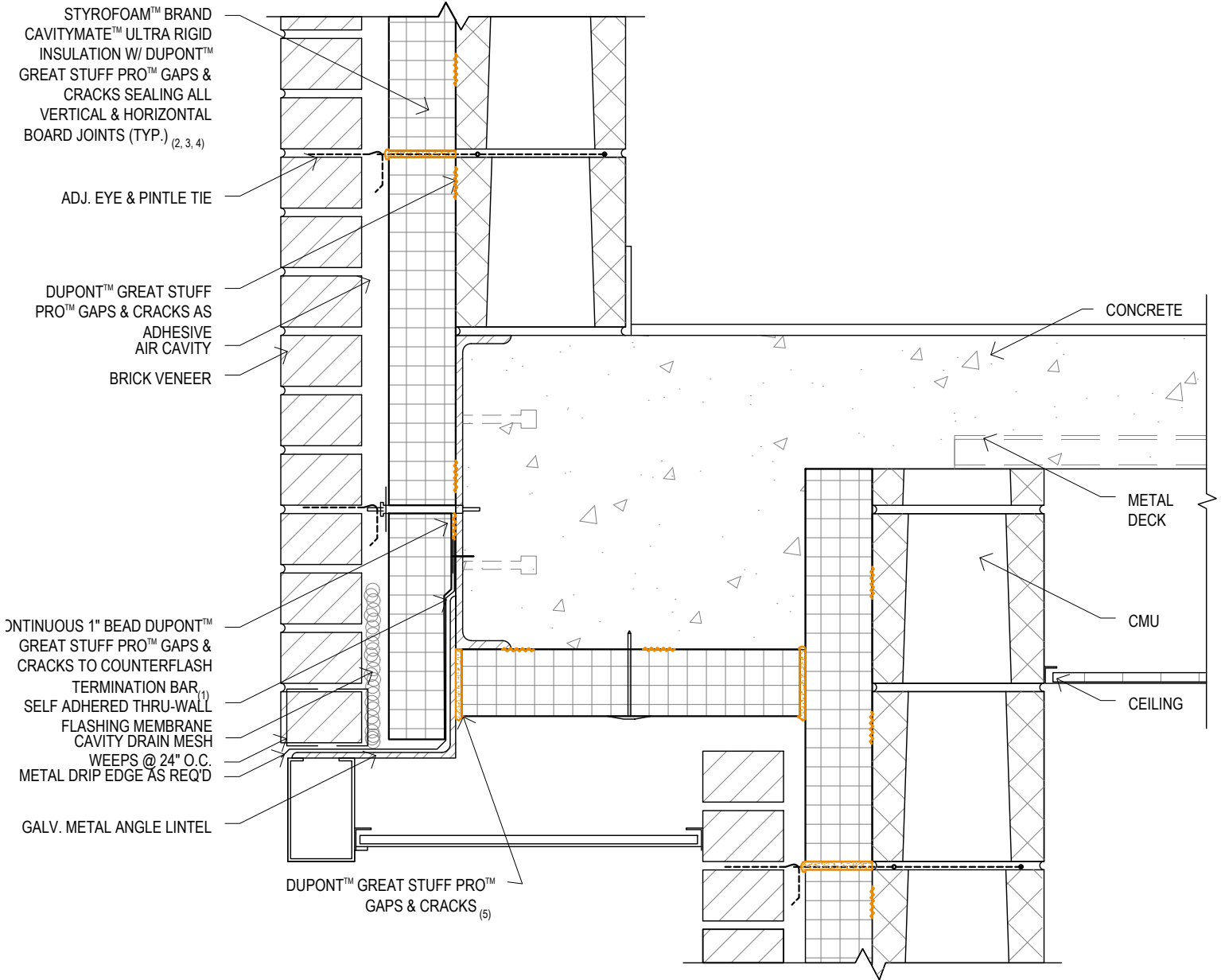


CORNERS

UWS-CM13 COLOR FOR VISUAL CLARIFICATION ONLY

MINIMUM REQUIREMENTS

1. SEE DETAIL UWS-CM02 "SYSTEM OPTIONS" FOR OTHER SYSTEM CONFIGURATIONS AND SEALANT OPTIONS & REQUIREMENTS.
2. INSULATION MUST BE COVERED WITHIN 90 DAYS.
3. BREACHES TO INSULATION MUST BE SEALED PER DETAIL UWS-CM08 "PATCHING INSULATION".
4. SEE DETAIL UWS-CM03 "FASTENING GUIDELINES" FOR RECOMMENDED ATTACHMENT.
5. ALLOW MIN. ¼" TO MAX. 3" GAP BETWEEN INSULATION BOARDS TO ALLOW PROPER INSTALLATION OF DUPONT™ GREAT STUFF PRO™ GAPS & CRACKS.



CHANGE IN PLANE

UWS-CM14 COLOR FOR VISUAL CLARIFICATION ONLY

MINIMUM REQUIREMENTS

1. SEE DETAIL UWS-CM02 "SYSTEM OPTIONS" FOR OTHER SYSTEM CONFIGURATIONS AND SEALANT OPTIONS & REQUIREMENTS.
2. INSULATION MUST BE COVERED WITHIN 90 DAYS.
3. BREACHES TO INSULATION MUST BE SEALED PER DETAIL UWS-CM08 "PATCHING INSULATION".
4. SEE DETAIL UWS-CM03 "FASTENING GUIDELINES" FOR RECOMMENDED ATTACHMENT.
5. ALLOW MIN. ¼" TO MAX. 3" GAP BETWEEN INSULATION BOARDS TO ALLOW PROPER INSTALLATION OF DUPONT™ GREAT STUFF PRO™ GAPS & CRACKS.

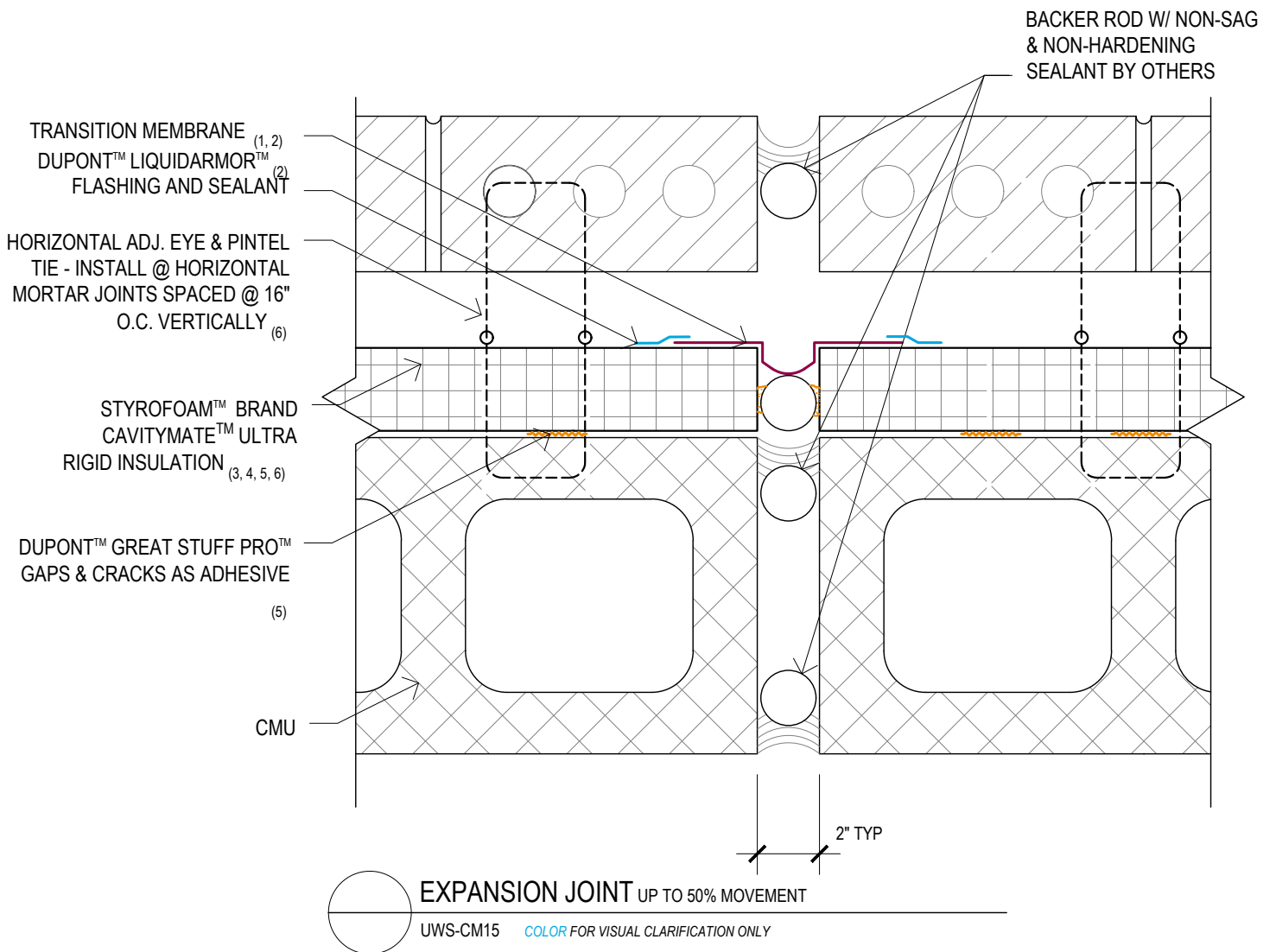
DESIGN INTENT

1. ALLOW UP TO 50% MOVEMENT OF EXPANSION JOINT.
2. MAINTAIN CONTINUITY OF AIR AND WATER BARRIERS ACROSS EXPANSION JOINT USING TRANSITION MEMBRANE.

TRANSITION MEMBRANE RECOMMENDATIONS

- SILICONE TRANSITION STRIP* W/ DUPONT™ LIQUIDARMOR™ LT FLASHING AND SEALANT TO SEAL EDGES TO FACE OF INSULATION.

**OTHER EXPANSION TRANSITION MEMBRANES MAY BE USED. DESIGNER IS RESPONSIBLE FOR SELECTING EXPANSION TRANSITION MEMBRANE AND VERIFYING MATERIAL & ADHESION COMPATIBILITIES.*



MINIMUM REQUIREMENTS

1. TRANSITION MEMBRANE MUST BE CAPABLE OF BRIDGING JOINT WITH UP TO 50% MOVEMENT AND SEALED TO FACE OF INSULATION.
2. CONFIRM WITH MATERIAL MANUFACTURERS ON ADHESION COMPATIBILITY.
3. SEE DETAIL UWS-CM02 "SYSTEM OPTIONS" FOR OTHER SYSTEM CONFIGURATIONS AND SEALANT OPTIONS & REQUIREMENTS.
4. INSULATION MUST BE COVERED WITHIN 90 DAYS.
5. BREACHES TO INSULATION MUST BE SEALED PER DETAIL UWS-CM08 "PATCHING INSULATION".
6. SEE DETAIL UWS-CM03 "FASTENING GUIDELINES" FOR RECOMMENDED ATTACHMENT.

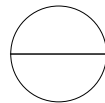
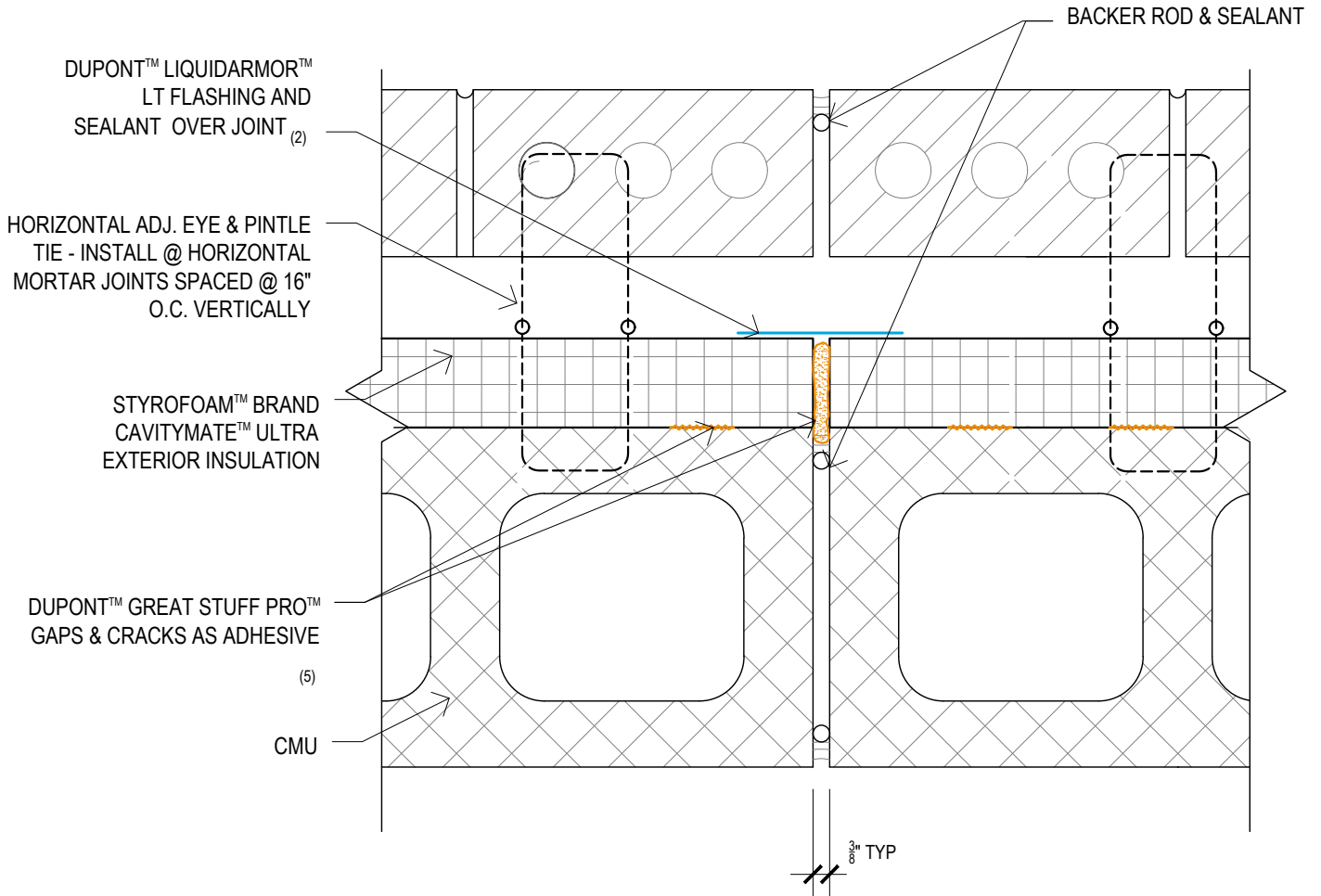


UltraWall/system

details by DOW

Cavitymate™ Ultra Wall System

Control Joint UP TO 25% MOVEMENT



CONTROL JOINT UP TO 25% MOVEMENT

UWS-CM16 COLOR FOR VISUAL CLARIFICATION ONLY

MINIMUM REQUIREMENTS

1. SEE DETAIL UWS-CM02 "SYSTEM OPTIONS" FOR OTHER SYSTEM CONFIGURATIONS AND SEALANT OPTIONS & REQUIREMENTS.
2. DUPONT™ LIQUIDARMOR™ CM AND LIQUIDARMOR™ QS NOT ACCEPTABLE OVER CONTROL JOINT.
3. INSULATION MUST BE COVERED WITHIN 90 DAYS.
4. BREACHES TO INSULATION MUST BE SEALED PER DETAIL UWS-CM08 "PATCHING INSULATION".
5. SEE DETAIL UWS-CM03 "FASTENING GUIDELINES" FOR RECOMMENDED ATTACHMENT.



Ultra wall system

Cavitymate™ Ultra Wall System

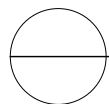
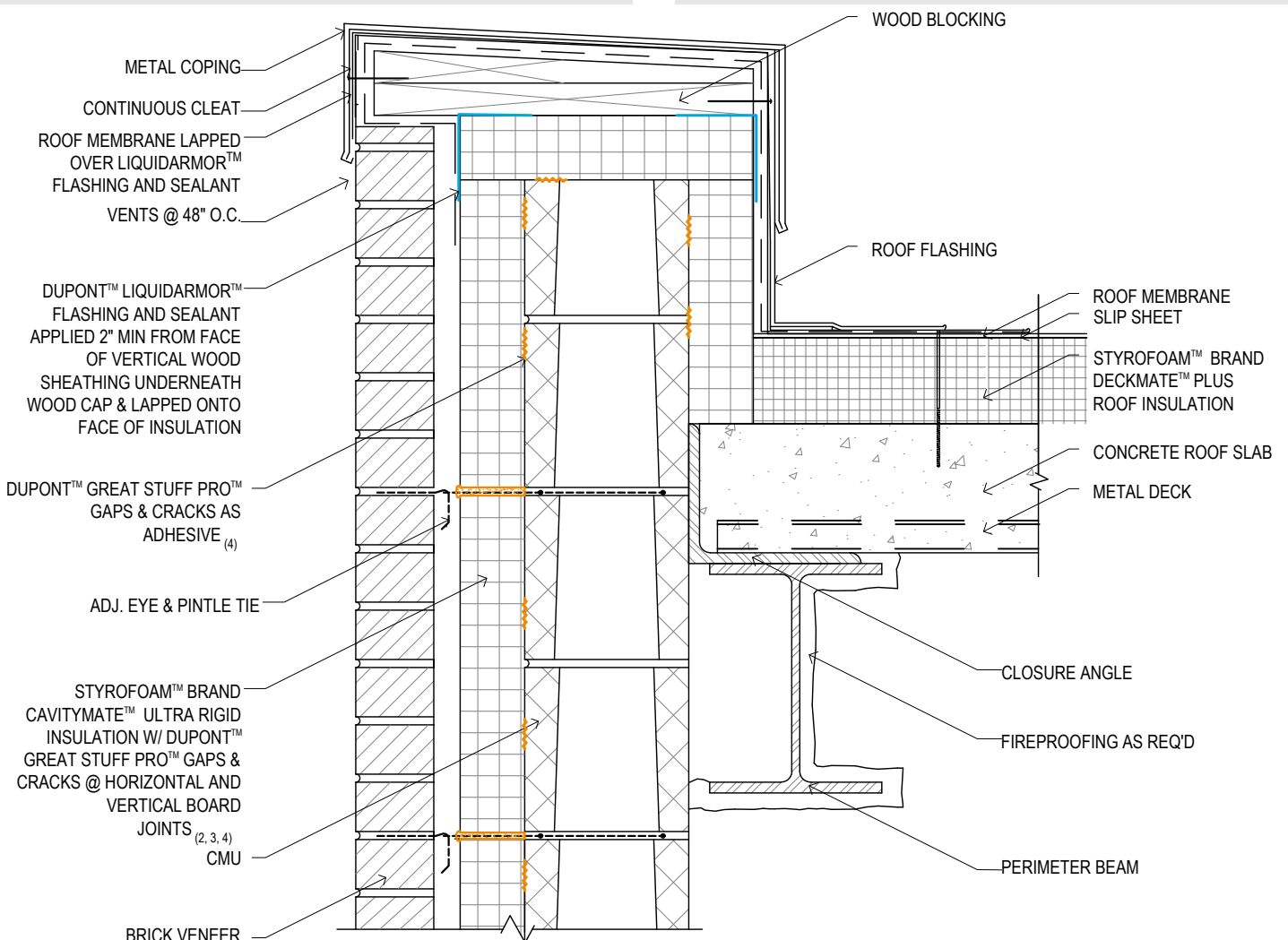
Parapet

DESIGN INTENT

1. SUCCESSFULLY TRANSITION 4 CONTROL LAYERS FROM VERTICAL WALL PLANE TO HORIZONTAL ROOFING PLANE WITHOUT INTERRUPTION.
2. INSULATION & AIR BARRIER TO SEAL OFF UNCONDITIONED PARAPET WALL FROM INTERACTING WITH CONDITIONED INTERIOR AIR TO FURTHER PREVENT CONDENSATION POTENTIAL.
3. TRANSITION TO ROOFING MEMBRANE MATERIALS USING COMPATIBLE MATERIALS.

GENERAL RECOMMENDATIONS

1. COMBINATION OF MATERIALS MAY BE USED TO ENCAPSULATE PARAPET WALL - ALL MANUFACTURERS SHOULD BE CONSULTED TO ENSURE CHEMICAL COMPATIBILITY OF MEMBRANE/TRANSITION MATERIALS TO INSULATION.
2. 3RD PARTY MATERIAL TO TRANSITION FROM ROOFING MEMBRANE OVER/UNDER COPING TO TERMINATE ON FACE OF RIGID INSULATION.
3. DUPONT™ FROTH-PAK™ INSULATION (CLASS A) AT ROOF DECK / PARAPET JUNCTURE TO BE INSTALLED PRIOR TO ROOF INSULATION & MEMBRANE.



PARAPET - ROOF/WALL JUNCTURE

UWS-CM17 COLOR FOR VISUAL CLARIFICATION ONLY

MINIMUM REQUIREMENTS

1. SEE DETAIL UWS-CM02 "SYSTEM OPTIONS" FOR OTHER SYSTEM CONFIGURATIONS AND SEALANT OPTIONS & REQUIREMENTS.
2. INSULATION MUST BE COVERED WITHIN 90 DAYS.
3. BREACHES TO INSULATION MUST BE SEALED PER DETAIL UWS-CM08 "PATCHING INSULATION".
4. SEE DETAIL UWS-CM03 "FASTENING GUIDELINES" FOR RECOMMENDED ATTACHMENT.

DuPont™ Ultra Wall System Ultra SL Wall System

Detailing Recommendations for Jobs Using Masonry Cladding

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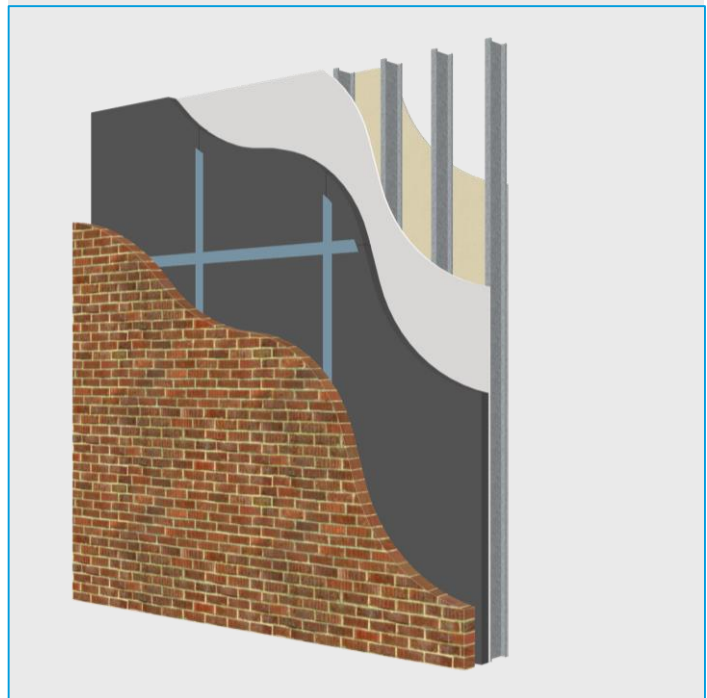
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NAVIGATING

Nomenclature Key



Other system detail sets available at building.dupont.com





Ultra wall system

Ultra SL Wall System

Control Layer Summary

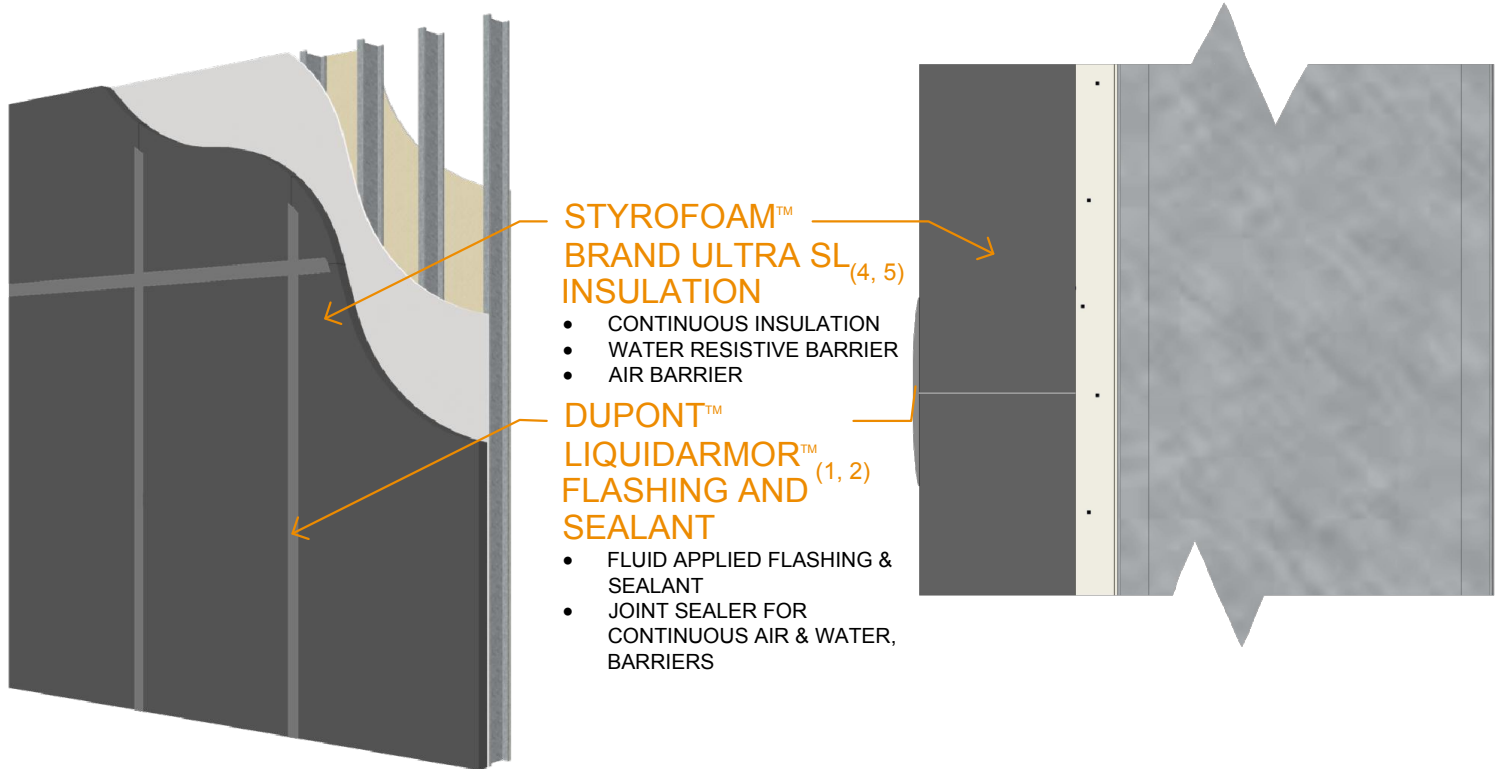
DESIGN INTENT

1. STYROFOAM™ BRAND EXTRUDED POLYSTYRENE RIGID INSULATION ACTS AS PRIMARY CONTROL LAYERS: THERMAL (C), WATER-RESISTIVE, AND AIR SEALING, WHILE DUPONT™ LIQUIDARMOR™ FLASHING AND SEALANT WILL SEAL ALL VERTICAL & HORIZONTAL BOARD JOINTS TO MAKE THE CONTROL LAYERS CONTINUOUS.
2. CONTINUOUS INSULATION THICKNESS TO BE DETERMINED TO MINIMIZE CONDENSATION POTENTIAL AND COMPLY WITH ENERGY CODE.

ASTM STANDARDS

STYROFOAM™ BRAND ULTRA SL INSULATION WITH DUPONT™ LIQUIDARMOR™ FLASHING AND SEALANT

- CLASS A PER ASTM E84
- AIR BARRIER PER ASTM E2357
- WATER BARRIER PER ASTM E331
- R-5.6 @ 1" PER ASTM C518



ULTRA SL SYSTEM | ISOMETRIC

UWS-SL01.1 (EXCLUDES BASE FLASHINGS, FASTENERS, CLADDINGS, ETC.)



ULTRA SL SYSTEM | SECTION

UWS-SL01.2

MINIMUM REQUIREMENTS

1. SEE DETAIL UWS-SL02 "SYSTEM OPTIONS" FOR LIQUIDARMOR™ FLASHING AND SEALANT OPTIONS AND OTHER SYSTEM CONFIGURATIONS.
2. DUPONT™ GREAT STUFF PRO™ GAPS & CRACKS OR WINDOW & DOOR TO BE USED FOR GAPS ≥ 1/4" BEFORE SEALING WITH DUPONT™ LIQUIDARMOR™ FLASHING AND SEALANT.
3. STEEL STUDS MIN. 18 GA. @ 24" MAX. W/ LATERAL BRACING EVERY 48" VERTICALLY.
4. INSULATION MUST BE COVERED WITHIN 90 DAYS.
5. BREACHES TO INSULATION MUST BE SEALED PER DETAIL UWS-SL08 "PATCHING INSULATION".
6. SEE DETAIL UWS-SL03 "FASTENING GUIDELINES" FOR RECOMMENDED TIES.

DESIGN INTENT

1. THE BASIS OF DESIGN FOR THE ULTRA (SL) WALL SYSTEM USES STYROFOAM™ BRAND ULTRA SL INSULATION AND LIQUIDARMOR™ CM OR LT FLASHING AND SEALANT. NOTE THAT OTHER OPTIONS SHOWN ON PAGE ARE ACCEPTABLE PER CODE.
2. THE ULTRA (SL) WALL SYSTEM CAN BE COMPOSED OF SEVERAL DIFFERENT OPTIONS, CHOOSING COMBINATION OF ITEMS FROM SECTIONS (A) THRU (E). ALL OPTIONS WILL MEET CODE FOR CONTINUOUS INSULATION (R-VALUE REQUIREMENTS VARY BY CLIMATE ZONE), AIR BARRIER, AND WATER BARRIER.
3. VERIFY ASSEMBLY HAS **NFPA 285 APPROVAL** IF APPLICABLE, INCLUDING SEAM TREATMENT AND FLASHING MAX. WIDTHS.

WARRANTY AVAILABLE

50 YEAR THERMAL LIMITED WARRANTY FOR STYROFOAM™ BRAND XPS INSULATION 1.5" THICK AND GREATER.

(A) STYROFOAM™ BRAND ULTRA SL INSULATION (1, 2, 3, 4)

(B) SEALANT / FLASHING (4, 5, 6, 7, 8)

1. **DUPONT™ LIQUIDARMOR™ CM FLASHING AND SEALANT**
ACRYLIC BASED FORMULATION
SPRAY OR BRUSH APPLIED
50 +/- 5 WET MILS THICK
2" WIDTH MIN.
35 F TO 120 F
2. **DUPONT™ LIQUIDARMOR™ LT FLASHING AND SEALANT**
SILICONE BASED FORMULATION
TROWEL OR CAULK APPLIED
30 +/- 5 WET MILS THICK
1" WIDTH MIN.
-20 F TO 120 F
3. **DUPONT™ LIQUIDARMOR™ QS FLASHING AND SEALANT**
ACRYLIC BASED FORMULATION
SPRAY OR BRUSH APPLIED
50 +/- 5 WET MILS THICK
2" WIDTH MIN.
40 TO 120 F
4. COMPATIBLE TAPE ALTERNATIVE (7,8)
SEE CURRENT LIST ON THE ANSWER CENTER

(C) EXTERIOR GYPSUM (OPTIONAL)₍₉₎

GYPSUM MAY BE REQUIRED FOR NFPA 285 OR THE FOLLOWING UL HOURLY RATED ASSEMBLIES:

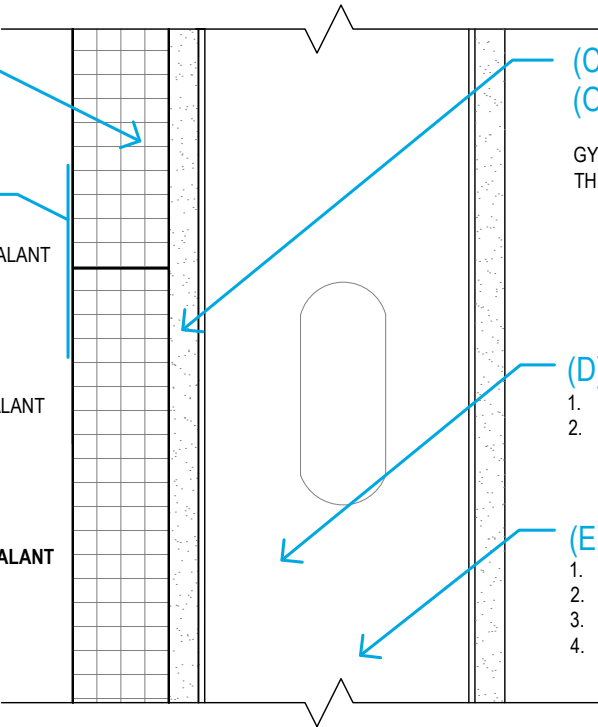
- 1 HR (WOOD) - U0326, U330
- 1 HR (METAL) - U460, V454
- 2 HR (METAL) - U425
- 3 HR (BLOCK) - U912
- 4 HR (BLOCK) - U902

(D) STUD CAVITY INSULATION

1. EMPTY
2. BATT

(E) STUD / SUBSTRATE₍₁₀₎

1. LOAD BEARING METAL STUD
2. NON BEARING METAL STUD
3. WOOD STUD
4. CMU / MASS WALL



SYSTEM OPTIONS

UWS-SL02 COLOR FOR VISUAL CLARIFICATION ONLY

MINIMUM REQUIREMENTS

1. INSULATION MUST BE COVERED WITHIN 90 DAYS.
2. BREACHES TO INSULATION MUST BE SEALED PER DETAIL UWS-SL08 "PATCHING INSULATION".
3. SEE DETAIL UWS-SL03 "FASTENING GUIDELINES" FOR RECOMMENDED TIES & FASTENERS.
4. INSULATION JOINTS TO BE SEALED CENTERED OVER JOINT WITH MIN. 2" WIDTH (CENTERED OVER JOINT) LIQUIDARMOR™ CM OR QS FLASHING AND SEALANT @ 50 +/- 5 WET MILS
OR MIN. 1" WIDTH (CENTERED OVER JOINT) LIQUIDARMOR LT @ 30 +/- 5 WET MILS
OR 4" WIDTH COMPATIBLE TAPE (SEE ANSWER CENTER FOR CURRENT LIST).
5. DUPONT™ LIQUIDARMOR™ CM AND QS CANNOT BE APPLIED OVER LIQUIDARMOR™ LT OR ANY OTHER SILICONE PRODUCTS. LIQUIDARMOR™ LT CAN BE APPLIED OVER LIQUIDARMOR™ CM AND QS.
6. DUPONT™ GREAT STUFF PRO™ GAPS & CRACKS OR WINDOW & DOOR TO BE USED FOR GAPS ≥ 1/4" BEFORE SEALING WITH LIQUIDARMOR™.
7. ALL APPLICATIONS USING COMPATIBLE TAPE MUST BE INSTALLED IN A "SHINGLE LAP" PATTERN VERTICALLY TO PROMOTE WATER SHEDDING.
8. ALL APPLICATIONS USING COMPATIBLE TAPE TO BE INSTALLED USING HARD STRAIGHT EDGING TOOL (HAND PRESSURE NOT ACCEPTABLE).
9. EXTERIOR GYPSUM SHEATHING IS NOT REQUIRED TO MEET WEATHER RESISTIVE & AIR BARRIER REQUIREMENTS, BUT MAY BE REQUIRED FOR HOURLY RATED WALL ASSEMBLIES OR OTHER PROJECT SPECIFICS.
10. STEEL STUDS MIN. 18 GA. @ 24" MAX. W/ LATERAL BRACING EVERY 48" VERTICALLY.



Ultra wall system

Ultra SL Wall System

Fastening Guidelines

DESIGN INTENT

1. SECURE STYROFOAM™ BRAND ULTRA SL INSULATION TO STRUCTURE.
2. USE SELF-SEALED MASONRY TIES AS INSULATION FASTENERS TO MINIMIZE NUMBER OF PENETRATIONS AND MAINTAIN INTEGRITY OF 4 CONTROL LAYERS.
3. MASONRY TIE LENGTH TO ACCOMMODATE INSULATION THICKNESS.

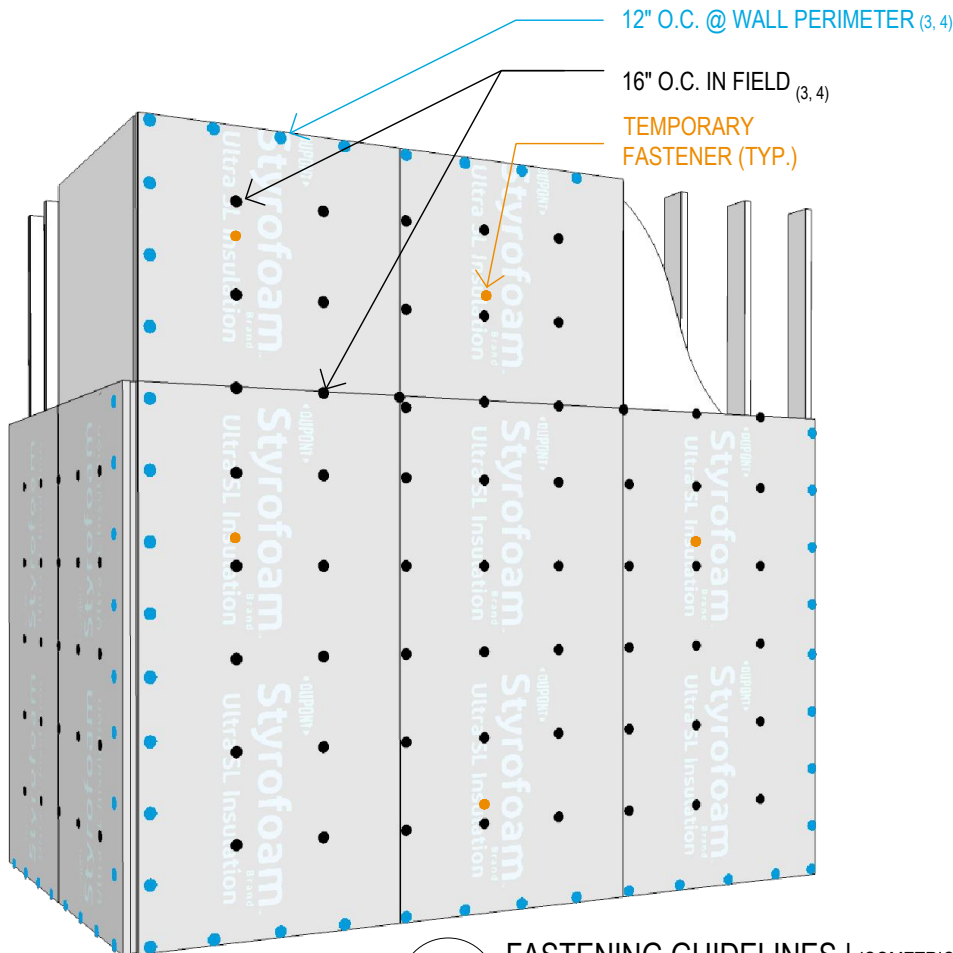
FASTENER / MASONRY TIE RECOMMENDATIONS

SELF-SEALING BARREL STYLE MASONRY TIES (PICTURED BELOW)

- HECKMANN POS-I-TIE WITH RODENHOUSE THERMAL-GRIP CI WASHER
- HOHMANN & BARNARD 2-SEAL TIE, 2-SEAL THERMAL WINGNUT ANCHOR, & THERMAL 2-SEAL TIE
- WIRE-BOND SURE TIE WITH THERMAL WASHER

INSULATION FASTENERS (FOR TEMPORARY BOARD PLACEMENT)

- RODENHOUSE THERMAL GRIP CI WASHER WITH SELF TAPPING SCREW (FOR STEEL STUD WALLS)
- RODENHOUSE THERMAL GRIP WASHER WITH TAP-CON OR SIMILAR MASONRY SCREW (FOR CMU OR CONCRETE WALLS)



MINIMUM REQUIREMENTS

1. STEEL STUDS MIN. 18 GA. @ 24" MAX. O.C. W/ LATERAL BRACING EVERY 48" VERTICALLY.
2. INSULATION BOARDS SHOULD BE INSTALLED IN RUNNING BOND PATTERN.
3. INSULATION TO BE FASTENED @ MAX. 12" O.C. AT WALL PERIMETERS AND AROUND OPENINGS AND MAX 16" O.C. IN WALL FIELD.
4. ALL FASTENERS USED TO SECURE ULTRA SL TO SUBSTRATE TO HAVE A MIN. 2" DIA. WASHER. IF NOT USING RECOMMENDED FASTENERS / TIES, OR IF THESE ARE COUNTERSUNK INTO INSULATION, MUST SEAL WITH LIQUIDARMOR™ FLASHING AND SEALANT USING GUIDELINES ON DETAIL UWS-SL02 "SYSTEM OPTIONS".
5. ONE FASTENER CAN BE USED FOR NO MORE THAN 2 BOARDS. WHERE 3 OR MORE BOARDS MEET, USE AT LEAST 2 FASTENERS.
6. INSULATION MUST BE COVERED WITHIN 90 DAYS.
7. BREACHES TO INSULATION MUST BE SEALED PER DETAIL UWS-SL08 "PATCHING INSULATION".

DESIGN INTENT

1. MUST MAINTAIN CONTINUITY OF ALL CONTROL LAYERS AT TRANSITIONS FROM ULTRA SL WALL SYSTEM TO OTHER SYSTEMS.
2. ENSURE COMPATIBILITY WHERE DOW FLASHING MATERIALS JOIN MATERIALS PRODUCED BY OTHER MANUFACTURERS.
3. COUNTERFLASH MATERIALS TO PROMOTE WATERSHEDDING AT TRANSITION LOCATIONS
4. CONCRETE & CMU APPLICATIONS: ENSURE ADEQUATE LIQUIDARMOR™ FLASHING AND SEALANT THICKNESS IS APPLIED FOR PROPER ADHESION TO AGGREGATE.

COMPATIBILITY RECOMMENDATIONS

1. CHEMICALLY COMPATIBLE ADHESIVE TECHNOLOGIES WITH STYROFOAM™ BRAND XPS INSULATION AND LIQUIDARMOR™ FLASHING AND SEALANT (NOTE CHEMICAL COMPATIBILITY IS NOT A QUALIFIER OF LONG-TERM ADHESION):
ACRYLIC & ACRYLIC LATEX • BUTYL • RUBBERIZED ASPHALT • SILICONE • HOT RUBBER
2. COMPATIBILITY OF PRODUCTS/CHEMISTRIES NOT LISTED ABOVE MUST BE VERIFIED BY RESPECTIVE MANUFACTURER.
3. DESIGNER IS RESPONSIBLE TO VERIFY COMPATIBILITY OF MATERIALS WITH ADDITIONAL COMPONENTS IN ASSEMBLY.

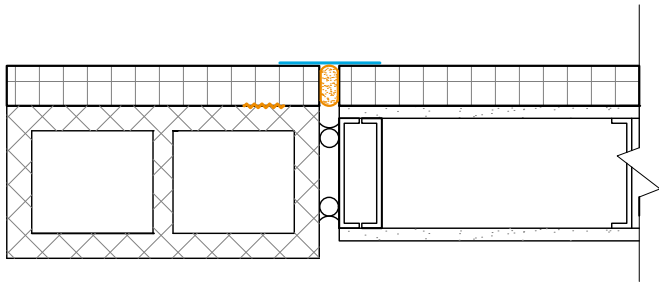
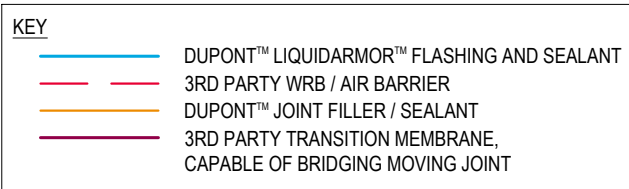


FIG 1: TRANSITION FROM CMU TO STUD | PLAN
UWS-CM04.1 (NOTE: NOT AN EXPANSION JOINT DETAIL - MOVEMENT NOT TO EXCEED 15%)

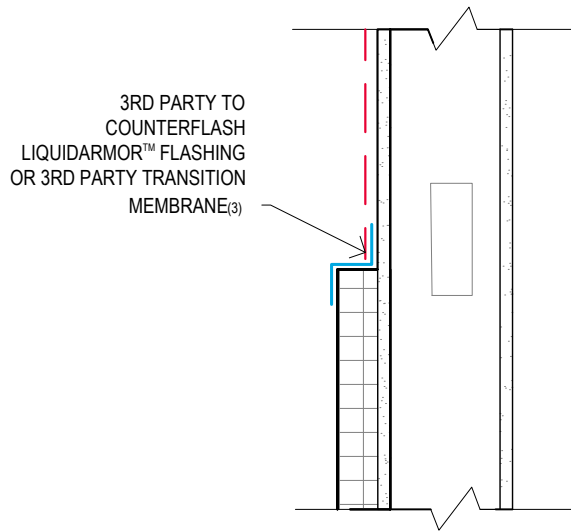


FIG 2: VERTICAL TRANSITION OF OTHER WRB TO ULTRA SL | SECTION
UWS-SL04.2

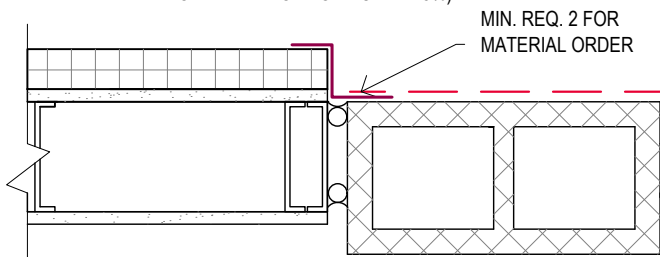


FIG 3: TRANSITION FROM ULTRA TO WRB ON CMU | PLAN
UWS-SL04.3

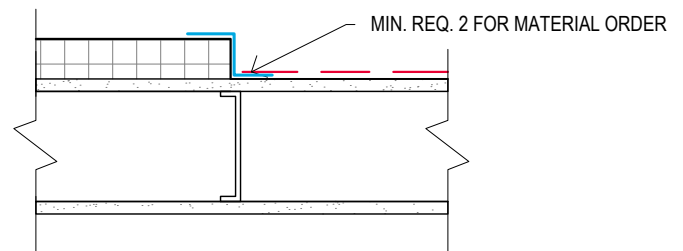
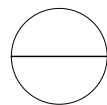


FIG 4: HORIZONTAL TRANSITION OF ULTRA SL TO OTHER WRB | PLAN
UWS-SL04.4



TRANSITIONS

UWS-SL04 COLOR FOR VISUAL CLARIFICATION ONLY

MINIMUM REQUIREMENTS

1. OVERLAP OF SEALANT ADHESION ON ANY TRANSITION FROM FACE OF ULTRA SL ONTO ADJACENT MATERIALS MUST USE LIQUIDARMOR™ FLASHING AND SEALANT. SEE APPLICATION REQUIREMENTS ON DETAIL UWS-SL02.
2. CONFIRM WITH MATERIAL MANUFACTURERS FOR ADHESION COMPATIBILITY AND ORDER OF INSTALLATION.
3. FIG. 1, GREAT STUFF PRO™ GAPS & CRACKS OR WINDOW & DOOR TO FILL JOINTS ≥ 1/4" PRIOR TO FLASHING WITH MIN. OVERLAP TO FACE OF REQUIREMENTS ON DETAIL UWS-SL02 TO EACH FACE OF ULTRA SL.
4. FIG. 2, 3, 4, SEE MIN. WIDTH OF LIQUIDARMOR™ FLASHING AND SEALANT REQUIREMENTS ON DETAIL UWS-SL02 ONTO FACE OF ULTRA SL AND FACE OF OTHER SUBSTRATE.

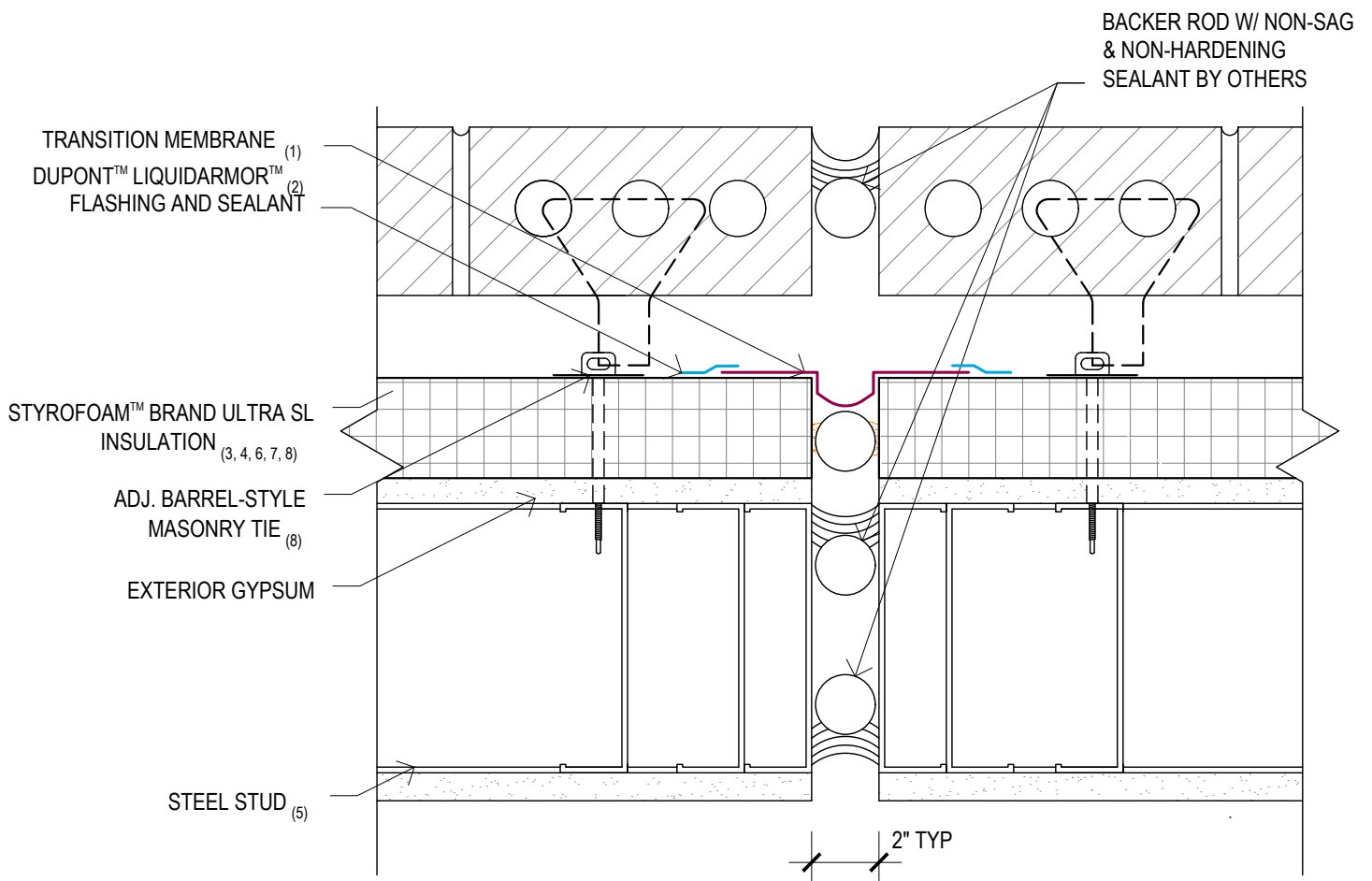
DESIGN INTENT

1. ALLOW UP TO 50% MOVEMENT OF EXPANSION JOINT.
2. MAINTAIN CONTINUITY OF AIR AND WATER BARRIERS ACROSS EXPANSION JOINT USING TRANSITION MEMBRANE.

TRANSITION MEMBRANE RECOMMENDATIONS

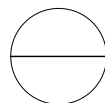
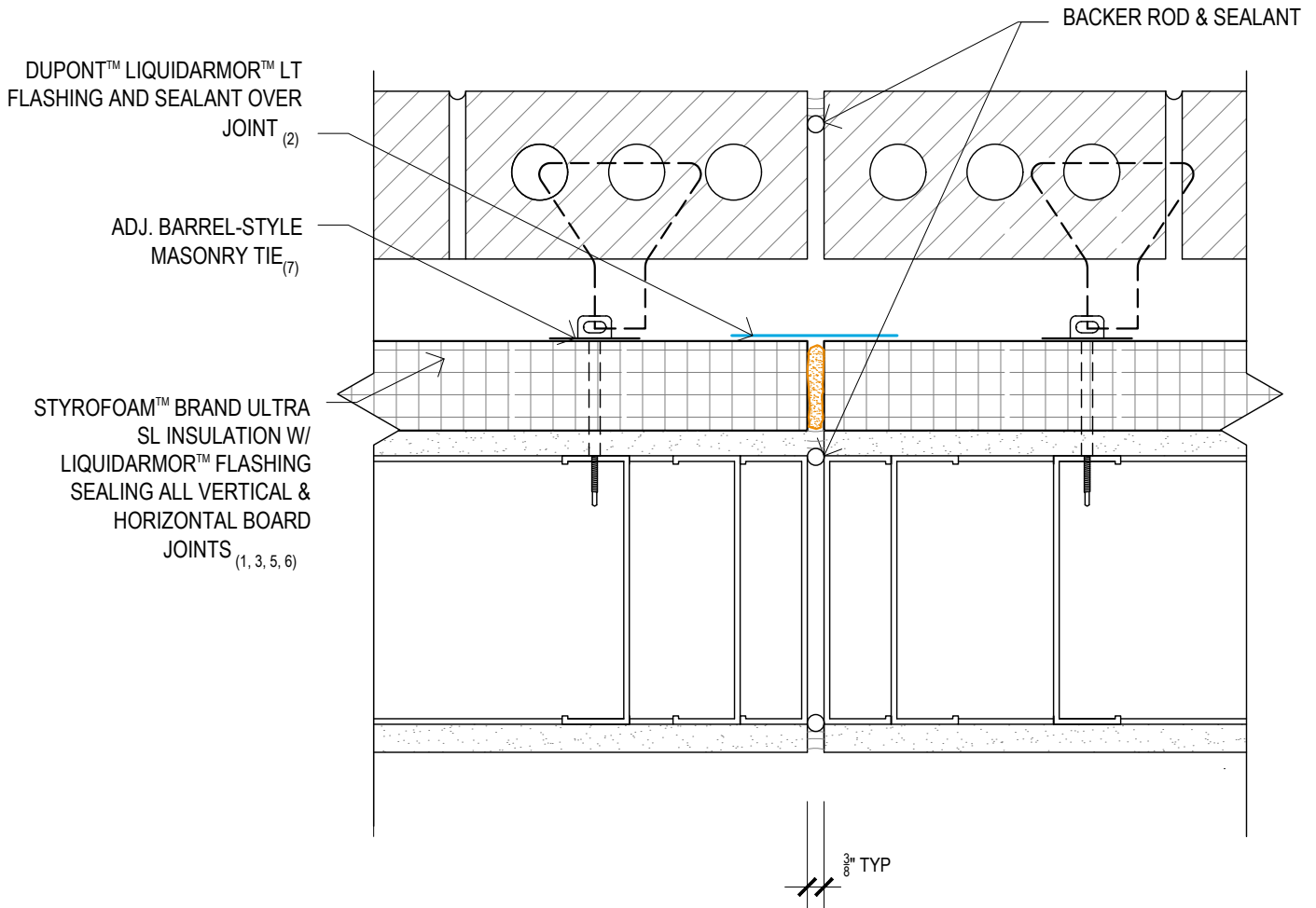
- SILICONE TRANSITION STRIP* WITH LIQUIDARMOR™ LT FLASHING AND SEALANT TO SEAL EDGES TO FACE OF INSULATION.

**OTHER EXPANSION TRANSITION MEMBRANES MAY BE USED. DESIGNER IS RESPONSIBLE FOR SELECTING EXPANSION TRANSITION MEMBRANE AND VERIFYING MATERIAL & ADHESION COMPATIBILITIES.*



MINIMUM REQUIREMENTS

1. TRANSITION MEMBRANE TO BE CAPABLE OF BRIDGING EXPANSION JOINT WITH UP TO 50% MOVEMENT AND SEALED TO FACE OF INSULATION.
2. CONFIRM WITH MATERIAL MANUFACTURERS ON ADHESION COMPATIBILITIES.
3. SEE DETAIL UWS-SL02 "SYSTEM OPTIONS" FOR LIQUIDARMOR OPTIONS AND OTHER SYSTEM CONFIGURATIONS.
4. GREAT STUFF PRO™ GAPS & CRACKS OR WINDOW & DOOR TO BE USED FOR GAPS ≥ 1/4" BEFORE SEALING WITH LIQUIDARMOR™ FLASHING AND SEALANT.
5. STEEL STUDS MIN. 18 GA. @ 24" MAX. W/ LATERAL BRACING EVERY 48" VERTICALLY.
6. INSULATION MUST BE COVERED WITHIN 90 DAYS.
7. BREACHES TO INSULATION MUST BE SEALED PER DETAIL UWS-SL08 "PATCHING INSULATION".
8. SEE DETAIL UWS-SL03 "FASTENING GUIDELINES" FOR RECOMMENDED TIES.

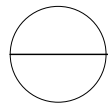
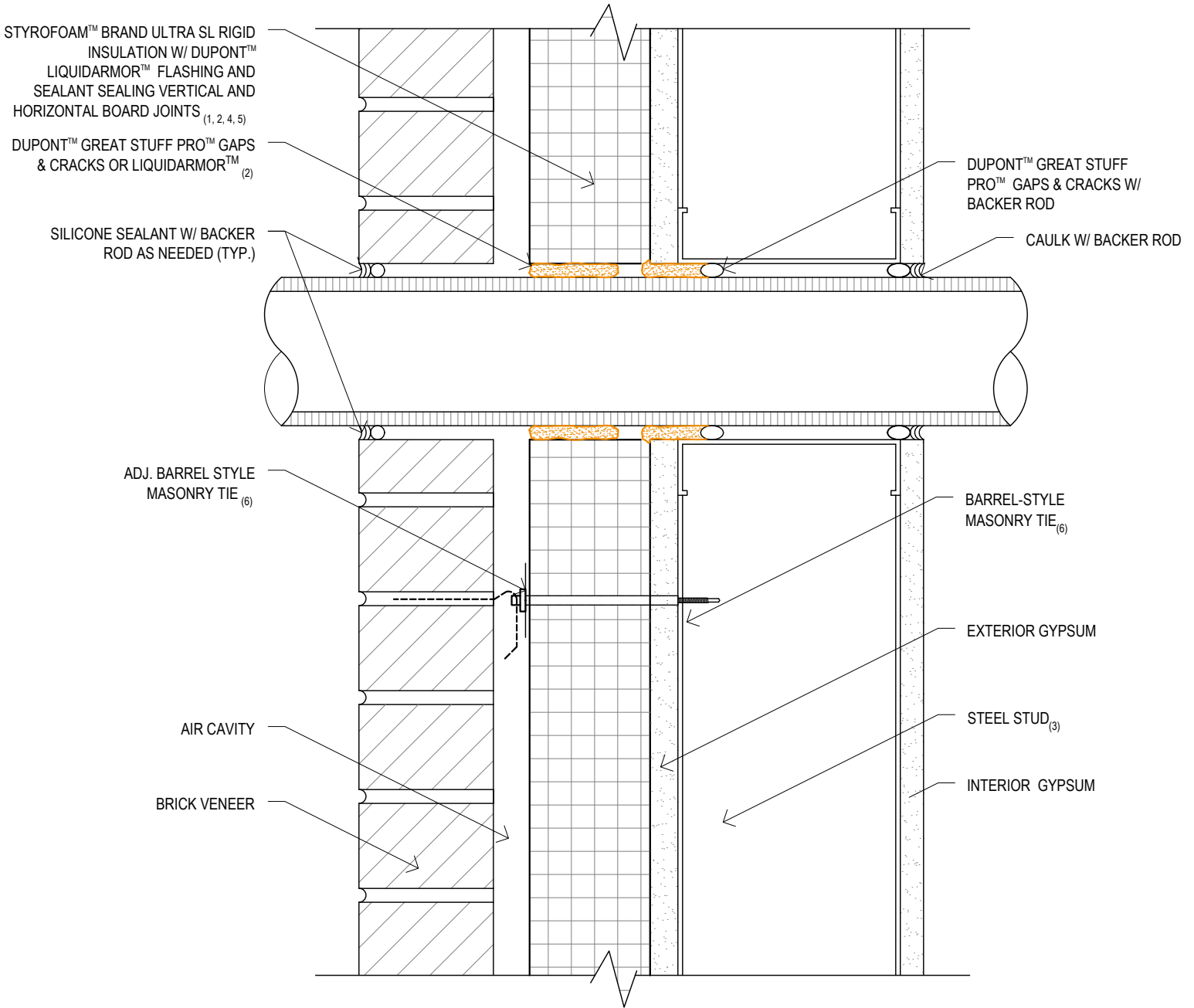


CONTROL JOINT UP TO 25% MOVEMENT

UWS-SL06 COLOR FOR VISUAL CLARIFICATION ONLY

MINIMUM REQUIREMENTS

1. SEE DETAIL UWS-SL02 "SYSTEM OPTIONS" FOR LIQUIDARMOR™ FLASHING AND SEALANT OPTIONS AND OTHER SYSTEM CONFIGURATIONS.
2. DUPONT™ LIQUIDARMOR™ CM FLASHING AND SEALANT NOT ACCEPTABLE OVER CONTROL JOINT.
3. DUPONT™ GREAT STUFF PRO™ GAPS & CRACKS OR WINDOW & DOOR TO BE USED FOR GAPS ≥ 1/4" BEFORE SEALING WITH LIQUIDARMOR™ FLASHING AND SEALANT.
4. STEEL STUDS MIN. 18 GA. @ 24" MAX. W/ LATERAL BRACING EVERY 48" VERTICALLY.
5. INSULATION MUST BE COVERED WITHIN 90 DAYS.
6. BREACHES TO INSULATION MUST BE SEALED PER DETAIL UWS-SL08 "PATCHING INSULATION".
7. SEE DETAIL UWS-SL03 "FASTENING GUIDELINES" FOR RECOMMENDED TIES.



PENETRATION

UWS-SL07 COLOR FOR VISUAL CLARIFICATION ONLY

MINIMUM REQUIREMENTS

1. SEE DETAIL UWS-SL02 "SYSTEM OPTIONS" FOR LIQUIDARMOR™ FLASHING AND SEALANT OPTIONS AND OTHER SYSTEM CONFIGURATIONS.
2. GREAT STUFF PRO™ GAPS & CRACKS OR WINDOW & DOOR TO BE USED FOR GAPS ≥ 1/4" BEFORE SEALING WITH LIQUIDARMOR™.
3. STEEL STUDS MIN. 18 GA. @ 24" MAX. W/ LATERAL BRACING EVERY 48" VERTICALLY.
4. INSULATION MUST BE COVERED WITHIN 90 DAYS.
5. BREACHES TO INSULATION MUST BE SEALED PER DETAIL UWS-SL08 "PATCHING INSULATION".
6. SEE DETAIL UWS-SL03 "FASTENING GUIDELINES" FOR RECOMMENDED TIES.

DESIGN INTENT

1. MAINTAIN INTEGRITY OF 4 CONTROL LAYERS BY PATCHING AS APPROPRIATE.
2. USE RESPECTIVE PATCHING TECHNIQUE, DICTATED BY SIZE OF OPENING OR DAMAGED AREA.

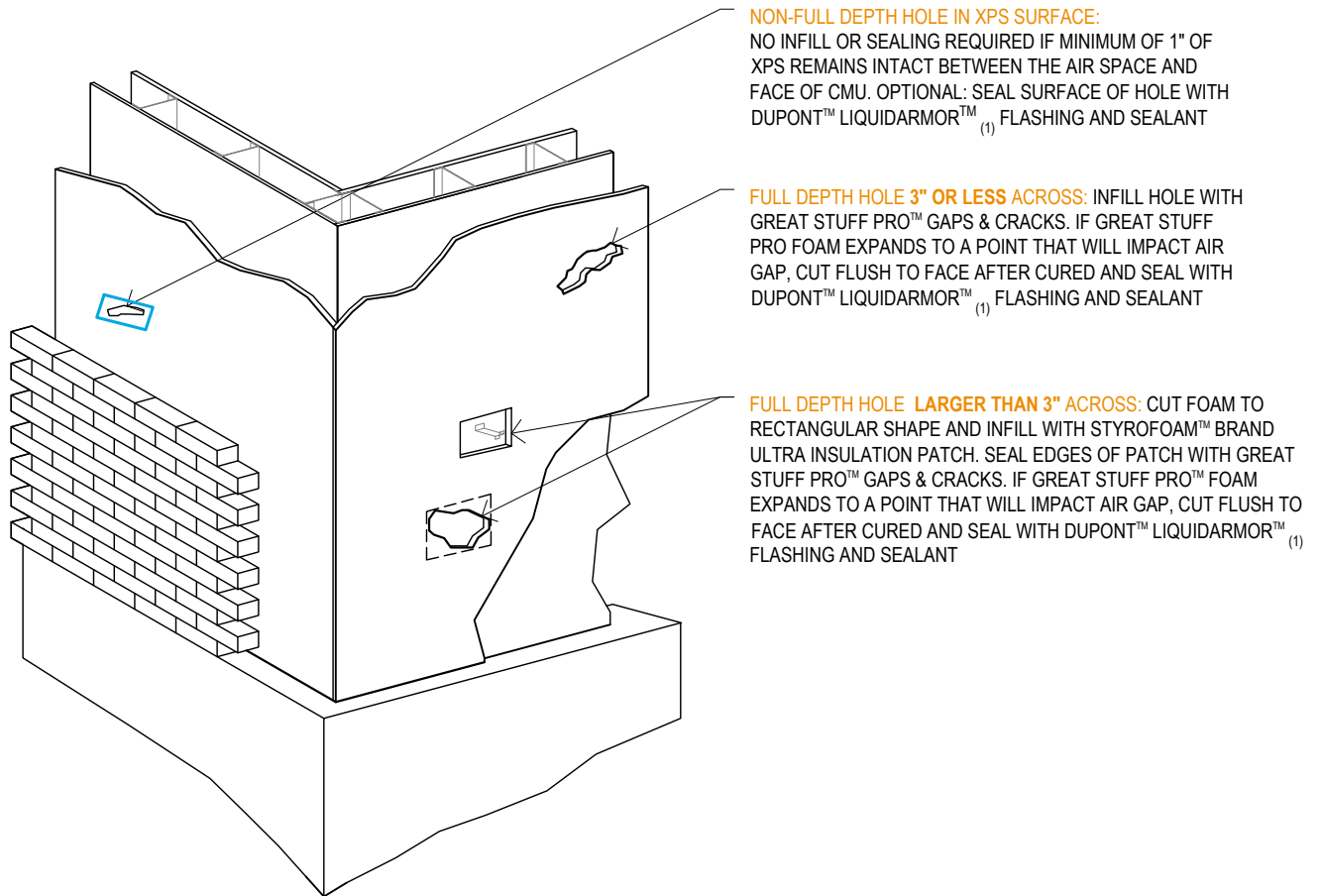
SEALANT OPTIONS

ONE COMPONENT FOAM

- DUPONT™ GREAT STUFF PRO™ GAPS & CRACKS
- DUPONT™ GREAT STUFF PRO™ WINDOW & DOOR

FLUID APPLIED

- DUPONT™ LIQUIDARMOR™ LT FLASHING AND SEALANT
 - DUPONT™ LIQUIDARMOR™ QS FLASHING AND SEALANT
 - DUPONT™ LIQUIDARMOR™ CM FLASHING AND SEALANT
- COMPATIBLE TAPE (SEE DETAIL UWS-SL02)



NON-FULL DEPTH HOLE IN XPS SURFACE:

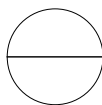
NO INFILL OR SEALING REQUIRED IF MINIMUM OF 1" OF XPS REMAINS INTACT BETWEEN THE AIR SPACE AND FACE OF CMU. OPTIONAL: SEAL SURFACE OF HOLE WITH DUPONT™ LIQUIDARMOR™ (1) FLASHING AND SEALANT

FULL DEPTH HOLE 3" OR LESS ACROSS:

INFILL HOLE WITH GREAT STUFF PRO™ GAPS & CRACKS. IF GREAT STUFF PRO FOAM EXPANDS TO A POINT THAT WILL IMPACT AIR GAP, CUT FLUSH TO FACE AFTER CURED AND SEAL WITH DUPONT™ LIQUIDARMOR™ (1) FLASHING AND SEALANT

FULL DEPTH HOLE LARGER THAN 3" ACROSS:

CUT FOAM TO RECTANGULAR SHAPE AND INFILL WITH STYROFOAM™ BRAND ULTRA INSULATION PATCH. SEAL EDGES OF PATCH WITH GREAT STUFF PRO™ GAPS & CRACKS. IF GREAT STUFF PRO™ FOAM EXPANDS TO A POINT THAT WILL IMPACT AIR GAP, CUT FLUSH TO FACE AFTER CURED AND SEAL WITH DUPONT™ LIQUIDARMOR™ (1) FLASHING AND SEALANT

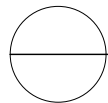
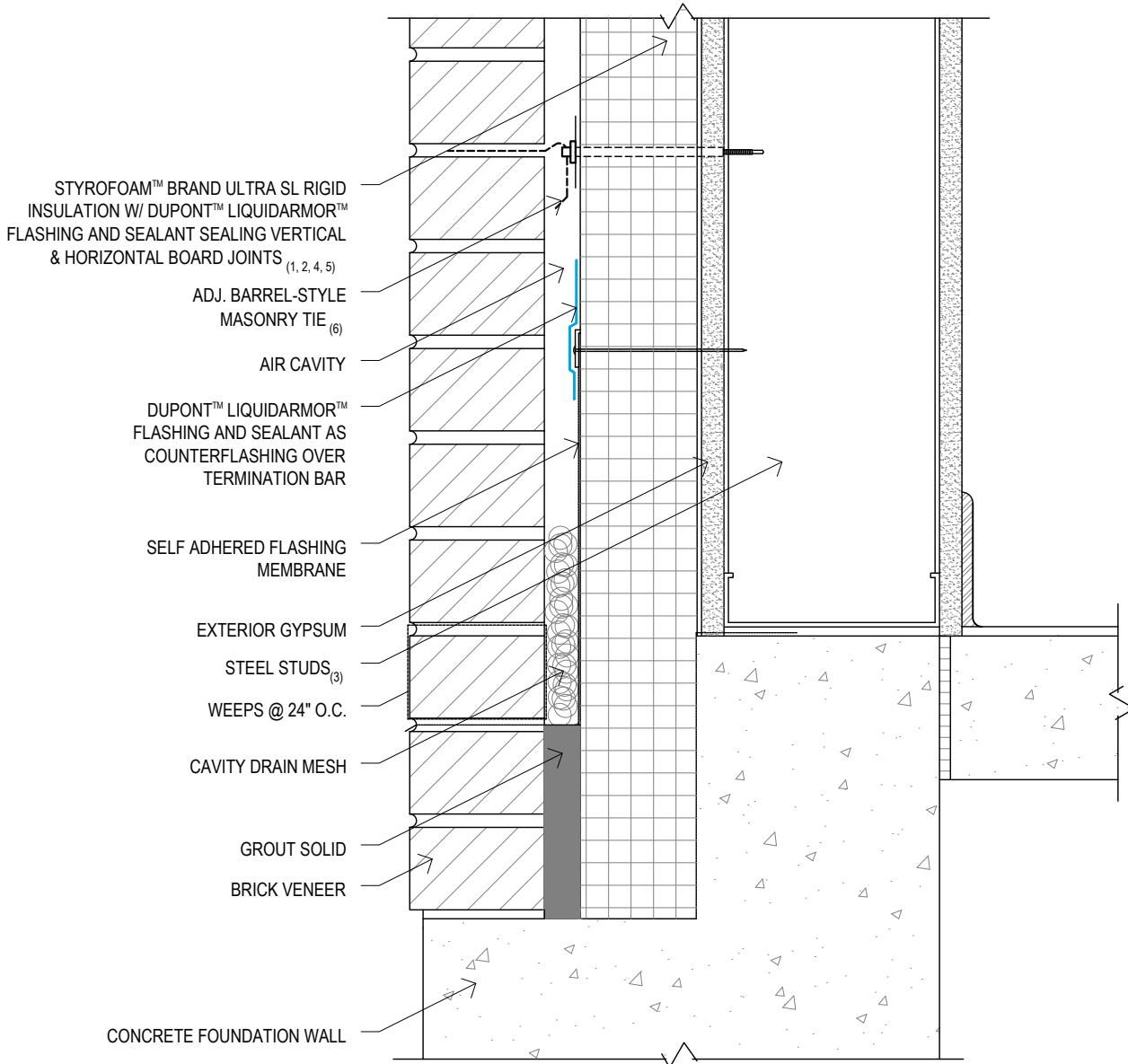


REPAIRING HOLES IN INSULATION

UWS-SL08 COLOR FOR VISUAL CLARIFICATION ONLY

MINIMUM REQUIREMENTS

1. SEE DETAIL UWS-SL02 "SYSTEM OPTIONS" FOR LIQUIDARMOR OPTIONS AND OTHER SYSTEM CONFIGURATIONS.
2. DUPONT™ GREAT STUFF PRO™ GAPS & CRACKS OR WINDOW & DOOR TO BE USED FOR GAPS $\geq 1/4"$ BEFORE SEALING WITH DUPONT™ LIQUIDARMOR™ FLASHING AND SEALANT.
3. STEEL STUDS MIN. 18 GA. @ 24" MAX. W/ LATERAL BRACING EVERY 48" VERTICALLY.
4. INSULATION MUST BE COVERED WITHIN 90 DAYS.
5. SEE DETAIL UWS-SL03 "FASTENING GUIDELINES" FOR RECOMMENDED TIES.

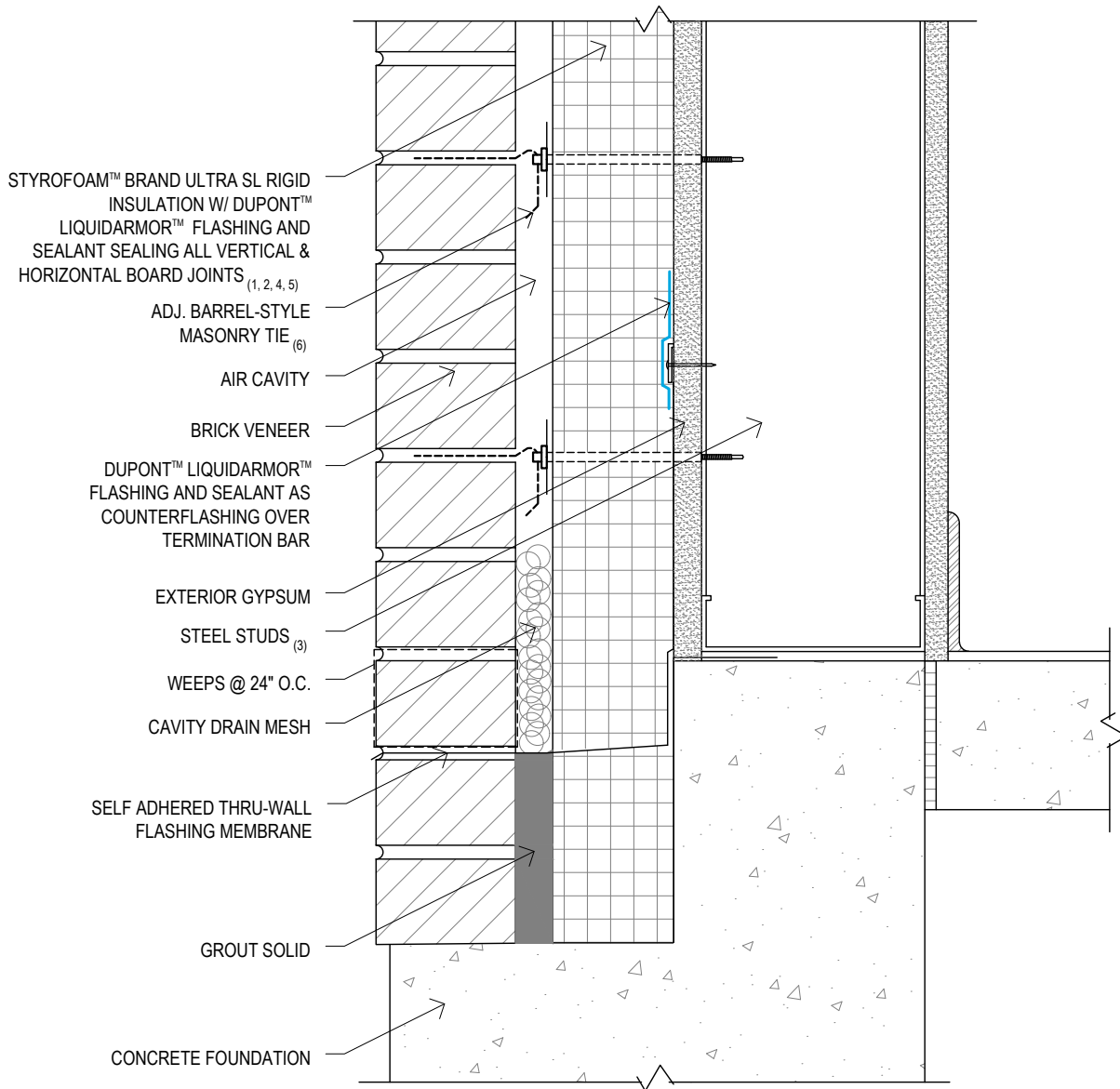


FOUNDATION - FACE FLASHED

UWS-SL09 COLOR FOR VISUAL CLARIFICATION ONLY

MINIMUM REQUIREMENTS

1. SEE DETAIL UWS-SL02 "SYSTEM OPTIONS" FOR DUPONT™ LIQUIDARMOR™ FLASHING AND SEALANT OPTIONS AND OTHER SYSTEM CONFIGURATIONS.
2. DUPONT™ GREAT STUFF PRO™ GAPS & CRACKS OR WINDOW & DOOR TO BE USED FOR GAPS ≥ 1/4" BEFORE SEALING WITH DUPONT™ LIQUIDARMOR™ FLASHING AND SEALANT.
3. STEEL STUDS MIN. 18 GA. @ 24" MAX. W/ LATERAL BRACING EVERY 48" VERTICALLY.
4. INSULATION MUST BE COVERED WITHIN 90 DAYS.
5. BREACHES TO INSULATION MUST BE SEALED PER DETAIL UWS-SL08 "PATCHING INSULATION".
6. SEE DETAIL UWS-SL03 "FASTENING GUIDELINES" FOR RECOMMENDED TIES.



FOUNDATION - STUD FLASHED
UWS-SL10 COLOR FOR VISUAL CLARIFICATION ONLY

MINIMUM REQUIREMENTS

1. SEE DETAIL UWS-SL02 "SYSTEM OPTIONS" FOR LIQUIDARMOR™ FLASHING AND SEALANT OPTIONS AND OTHER SYSTEM CONFIGURATIONS.
2. DUPONT™ GREAT STUFF PRO™ GAPS & CRACKS OR WINDOW & DOOR TO BE USED FOR GAPS ≥ 1/4" BEFORE SEALING WITH DUPONT™ LIQUIDARMOR™ FLASHING AND SEALANT.
3. STEEL STUDS MIN. 18 GA. @ 24" MAX. W/ LATERAL BRACING EVERY 48" VERTICALLY.
4. INSULATION MUST BE COVERED WITHIN 90 DAYS.
5. BREACHES TO INSULATION MUST BE SEALED PER DETAIL UWS-SL08 "PATCHING INSULATION".
6. SEE DETAIL UWS-SL03 "FASTENING GUIDELINES" FOR RECOMMENDED TIES.



Ultra wall system

Ultra SL Wall System

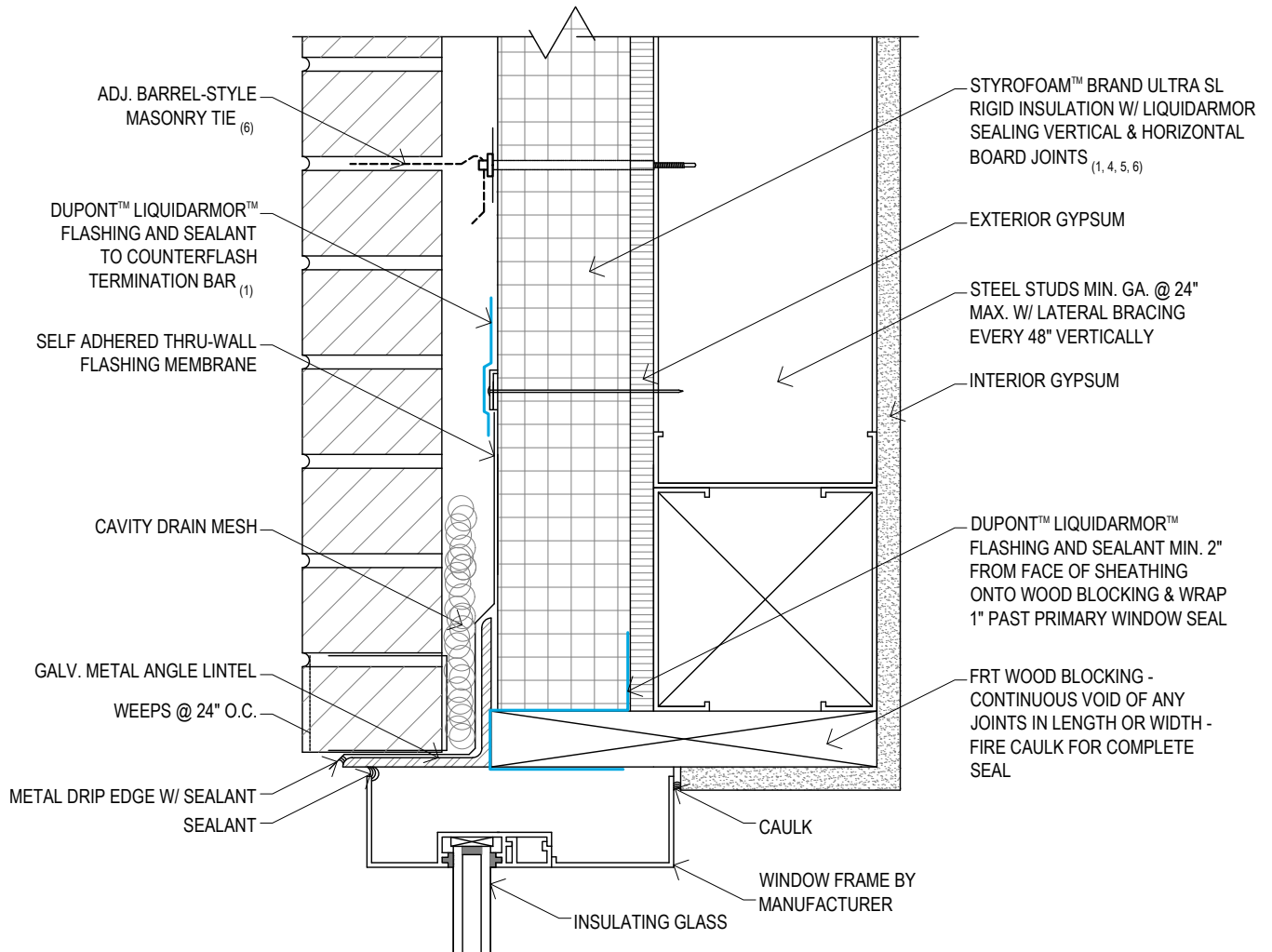
Win. Head - In-Wall Fireblock

DESIGN INTENT

1. USE DUPONT™ LIQUIDARMOR™ FLASHING AND SEALANT TO TRANSITION THE AIR & WATER BARRIERS FROM THE FACE OF INSULATION INTO ALL JAMBS, SILLS, HEADS PRIOR TO INSTALLATION OF WINDOWS & RECEPTORS.
2. SEALANTS AND CAULKS AS SPECIFIED BY WINDOW MANUFACTURER TO BE USED AS PRIMARY DEFENSE AGAINST MOISTURE INTRUSION & AIR INFILTRATION.
3. WINDOW RECEPTOR TO ATTACH TO WOOD BLOCKING THROUGH DUPONT™ SEALANT MEMBRANE FOR ENHANCED AIR AND MOISTURE SEALING.

GENERAL RECOMMENDATIONS

1. WINDOW SEALANT COMPATIBILITY SHOULD BE VERIFIED WITH DOW FOR LONG-TERM ADHESION TO DOW FLASHING.
2. WOOD BLOCKING IS PREFERRED TO PROVIDE ADDED RIGIDITY AND A NAILING BASE AT JAMBS, SILLS, HEADS.
3. DOUBLE STUD IS RECOMMENDED AT JAMBS TO ALLOW FOR GREATER FLEXIBILITY WITH CLADDING TERMINATION AROUND WINDOWS & DOORS.



WINDOW HEAD - FACE FLASHED IN-WALL FIREBLOCK
 UWS-SL11 *COLOR FOR VISUAL CLARIFICATION ONLY*

MINIMUM REQUIREMENTS

1. DUPONT™ SEALANT TO BE INSTALLED ONTO FACE OF INSULATION BASED ON WIDTH REQUIREMENTS ON DETAIL UWS-SL-02 "SYSTEM OPTIONS" AND MIN . 2" INTO ROUGH OPENING (SILL, JAMB, HEADER) OR 1" PAST INTERIOR CAULK JOINT, WHICHEVER IS GREATER.
2. IF NOT USING WOOD BLOCKING AT JAMB, HEAD, SILL, MUST USE METAL ANGLE TRIM ("SHINY 90") TO BRIDGE INSULATION.
3. ACCEPTABLE BLOCKING TYPES: DIMENSIONAL LUMBER (SHOWN), OSB, PLYWOOD, METAL ANGLE TRIM ("SHINY 90").
4. SEE DETAIL UWS-SL02 "SYSTEM OPTIONS" FOR OTHER SYSTEM CONFIGURATIONS AND SEALANT OPTIONS & REQUIREMENTS.
5. INSULATION MUST BE COVERED WITHIN 90 DAYS.
6. SEE DETAIL UWS-SL03 "FASTENING GUIDELINES" FOR RECOMMENDED ATTACHMENT.



Ultra wall system

Ultra SL Wall System

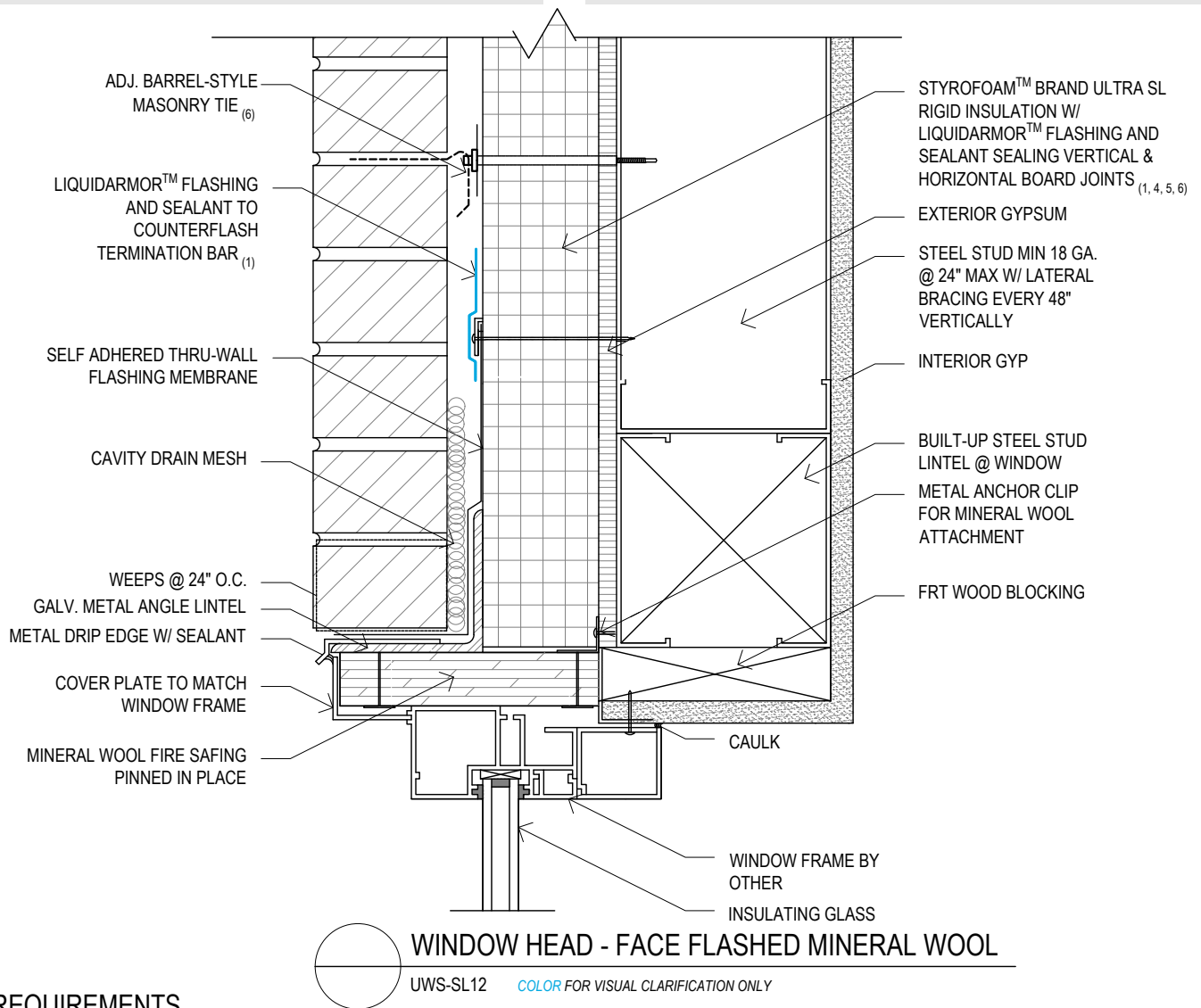
Win. Head - Face Mineral Wool

DESIGN INTENT

1. USE DUPONT™ LIQUIDARMOR™ FLASHING AND SEALANT TO TRANSITION THE AIR & WATER BARRIERS FROM THE FACE OF INSULATION INTO ALL JAMBS, SILLS, HEADS PRIOR TO INSTALLATION OF WINDOWS & RECEPTORS.
2. SEALANTS AND CAULKS AS SPECIFIED BY WINDOW MANUFACTURER TO BE USED AS PRIMARY DEFENSE AGAINST MOISTURE INTRUSION & AIR INFILTRATION.
3. WINDOW RECEPTOR TO ATTACH TO WOOD BLOCKING THROUGH DUPONT™ SEALANT MEMBRANE FOR ENHANCED AIR AND MOISTURE SEALING.

GENERAL RECOMMENDATIONS

1. WINDOW SEALANT COMPATIBILITY SHOULD BE VERIFIED WITH DOW FOR LONG-TERM ADHESION TO DOW FLASHING.
2. WOOD BLOCKING IS PREFERRED TO PROVIDE ADDED RIGIDITY AND A NAILING BASE AT JAMBS, SILLS, HEADS.
3. DOUBLE STUD IS RECOMMENDED AT JAMBS TO ALLOW FOR GREATER FLEXIBILITY WITH CLADDING TERMINATION AROUND WINDOWS & DOORS.



MINIMUM REQUIREMENTS

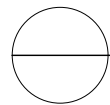
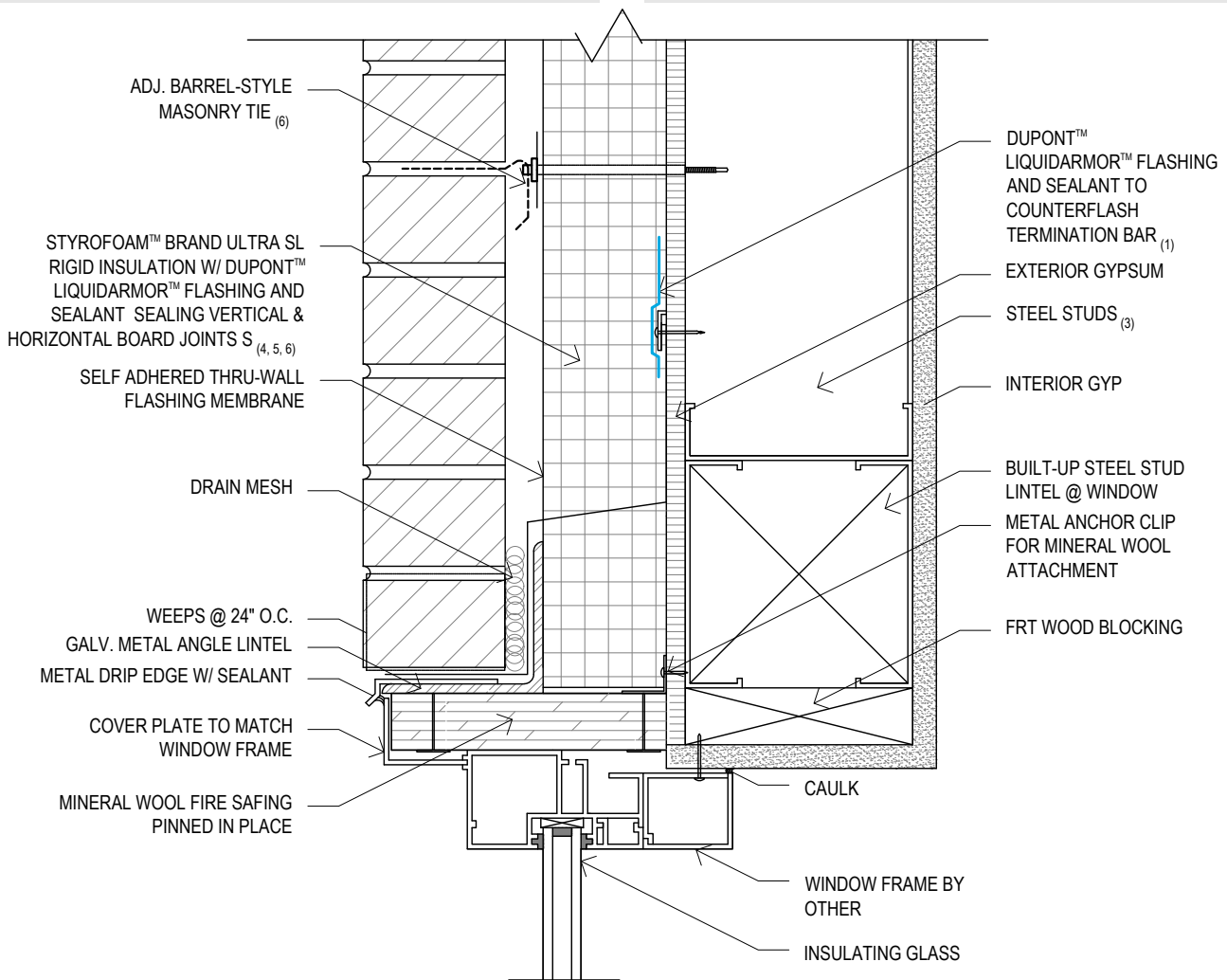
1. DUPONT™ SEALANT TO BE INSTALLED ONTO FACE OF INSULATION BASED ON WIDTH REQUIREMENTS ON DETAIL UWS-SL-02 "SYSTEM OPTIONS" AND MIN . 2" INTO ROUGH OPENING (SILL, JAMB, HEADER) OR 1" PAST INTERIOR CAULK JOINT, WHICHEVER IS GREATER.
2. IF NOT USING WOOD BLOCKING AT JAMB, HEAD, SILL, MUST USE METAL ANGLE TRIM ("SHINY 90") TO BRIDGE INSULATION.
3. ACCEPTABLE BLOCKING TYPES: DIMENSIONAL LUMBER (SHOWN), OSB, PLYWOOD, METAL ANGLE TRIM ("SHINY 90").
4. SEE DETAIL UWS-SL02 "SYSTEM OPTIONS" FOR OTHER SYSTEM CONFIGURATIONS AND SEALANT OPTIONS & REQUIREMENTS.
5. INSULATION MUST BE COVERED WITHIN 90 DAYS.
6. SEE DETAIL UWS-SL03 "FASTENING GUIDELINES" FOR RECOMMENDED ATTACHMENT.

DESIGN INTENT

1. USE DUPONT™ LIQUIDARMOR™ FLASHING AND SEALANT TO TRANSITION THE AIR & WATER BARRIERS FROM THE FACE OF INSULATION INTO ALL JAMBS, SILLS, HEADS PRIOR TO INSTALLATION OF WINDOWS & RECEPTORS.
2. SEALANTS AND CAULKS AS SPECIFIED BY WINDOW MANUFACTURER TO BE USED AS PRIMARY DEFENSE AGAINST MOISTURE INTRUSION & AIR INFILTRATION.
3. WINDOW RECEPTOR TO ATTACH TO WOOD BLOCKING THROUGH DUPONT SEALANT MEMBRANE FOR ENHANCED AIR AND MOISTURE SEALING.

GENERAL RECOMMENDATIONS

1. WINDOW SEALANT COMPATIBILITY SHOULD BE VERIFIED WITH DOW FOR LONG-TERM ADHESION TO DOW FLASHING.
2. WOOD BLOCKING IS PREFERRED TO PROVIDE ADDED RIGIDITY AND A NAILING BASE AT JAMBS, SILLS, HEADS.
3. DOUBLE STUD IS RECOMMENDED AT JAMBS TO ALLOW FOR GREATER FLEXIBILITY WITH CLADDING TERMINATION AROUND WINDOWS & DOORS.



WINDOW HEAD - STUD FLASHED MINERAL WOOL

UWS-SL13 COLOR FOR VISUAL CLARIFICATION ONLY

MINIMUM REQUIREMENTS

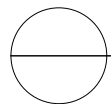
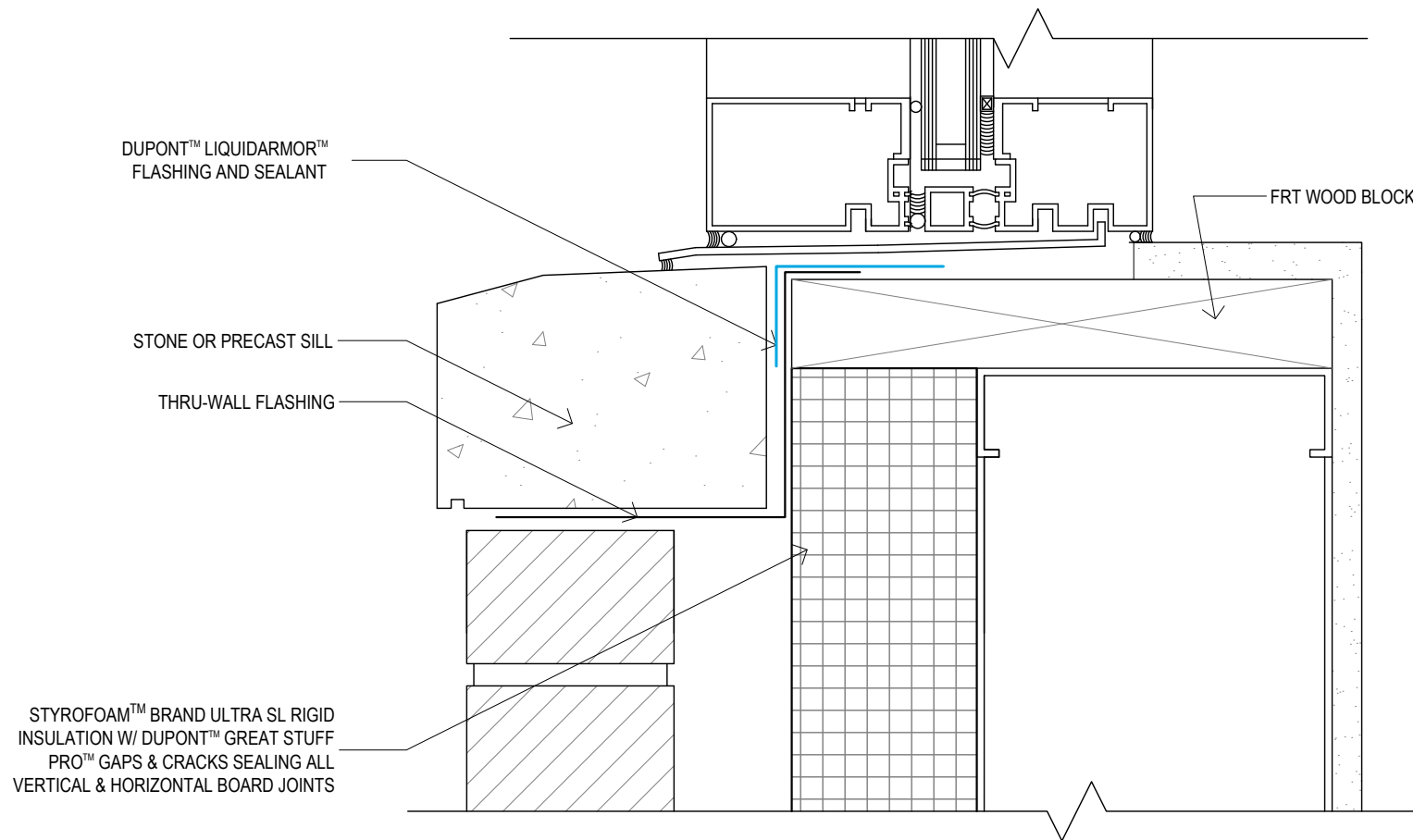
1. DUPONT™ SEALANT TO BE INSTALLED ONTO FACE OF INSULATION BASED ON WIDTH REQUIREMENTS ON DETAIL UWS-SL-02 "SYSTEM OPTIONS" AND MIN . 2" INTO ROUGH OPENING (SILL, JAMB, HEADER) OR 1" PAST INTERIOR CAULK JOINT, WHICHEVER IS GREATER.
2. IF NOT USING WOOD BLOCKING AT JAMB, HEAD, SILL, MUST USE METAL ANGLE TRIM ("SHINY 90") TO BRIDGE INSULATION.
3. ACCEPTABLE BLOCKING TYPES: DIMENSIONAL LUMBER (SHOWN), OSB, PLYWOOD, METAL ANGLE TRIM ("SHINY 90").
4. SEE DETAIL UWS-SL02 "SYSTEM OPTIONS" FOR OTHER SYSTEM CONFIGURATIONS AND SEALANT OPTIONS & REQUIREMENTS.
5. INSULATION MUST BE COVERED WITHIN 90 DAYS.
6. SEE DETAIL UWS-SL03 "FASTENING GUIDELINES" FOR RECOMMENDED ATTACHMENT.

DESIGN INTENT

1. USE DUPONT™ LIQUIDARMOR™ FLASHING AND SEALANT TO TRANSITION THE AIR & WATER BARRIERS FROM THE FACE OF INSULATION INTO ALL JAMBS, SILLS, HEADS PRIOR TO INSTALLATION OF WINDOWS & RECEPTORS.
2. SEALANTS AND CAULKS AS SPECIFIED BY WINDOW MANUFACTURER TO BE USED AS PRIMARY DEFENSE AGAINST MOISTURE INTRUSION & AIR INFILTRATION.
3. WINDOW RECEPTOR TO ATTACH TO WOOD BLOCKING THROUGH DUPONT SEALANT MEMBRANE FOR ENHANCED AIR AND MOISTURE SEALING.

GENERAL RECOMMENDATIONS

1. WINDOW SEALANT COMPATIBILITY SHOULD BE VERIFIED WITH DOW FOR LONG-TERM ADHESION TO DOW FLASHING.
2. WOOD BLOCKING IS PREFERRED TO PROVIDE ADDED RIGIDITY AND A NAILING BASE AT JAMBS, SILLS, HEADS.
3. DOUBLE STUD IS RECOMMENDED AT JAMBS TO ALLOW FOR GREATER FLEXIBILITY WITH CLADDING TERMINATION AROUND WINDOWS & DOORS.



WINDOW SILL

UWS-SL14 COLOR FOR VISUAL CLARIFICATION ONLY

MINIMUM REQUIREMENTS

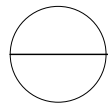
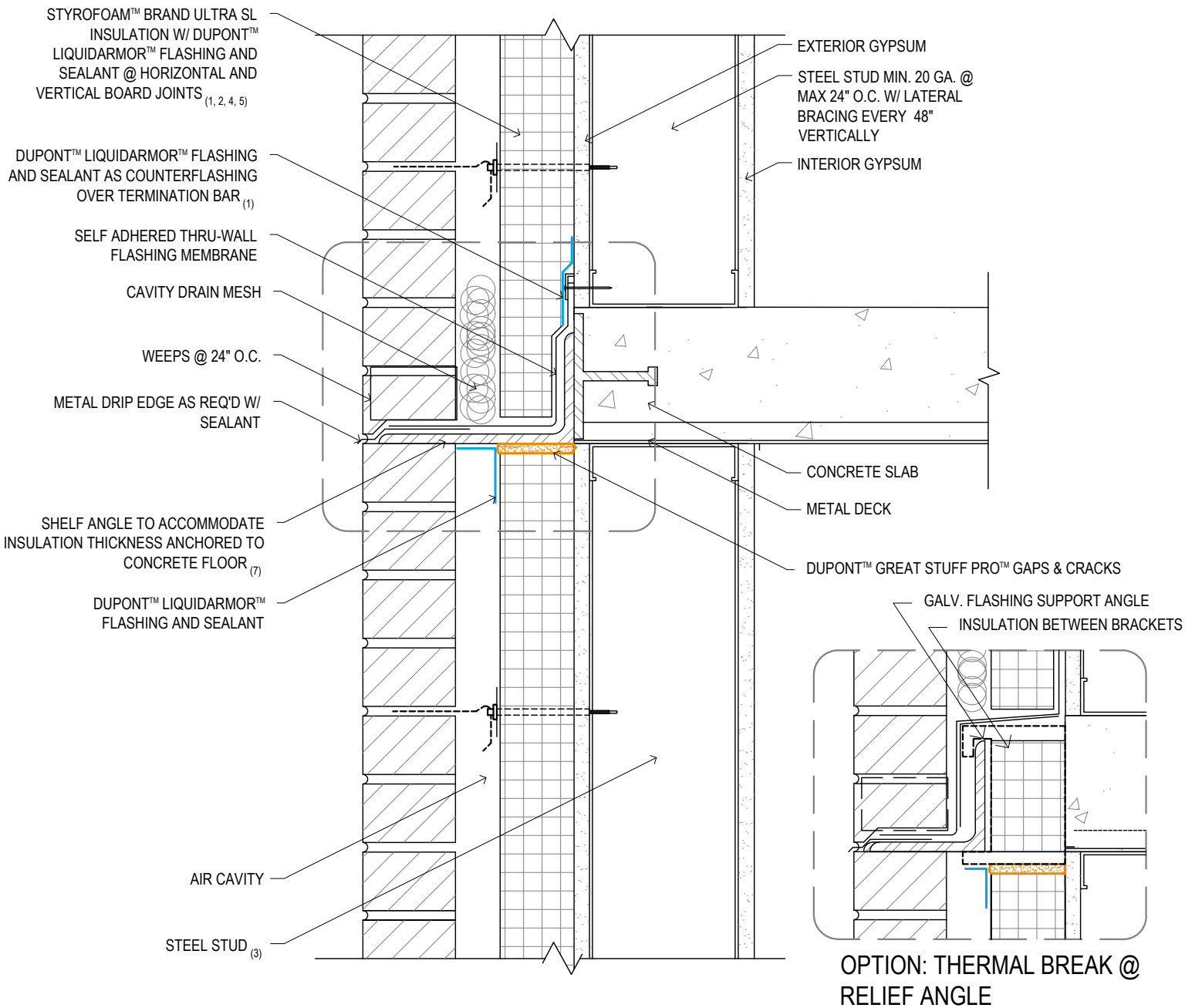
1. DUPONT SEALANT TO BE INSTALLED ONTO FACE OF INSULATION BASED ON WIDTH REQUIREMENTS ON DETAIL UWS-SL-02 "SYSTEM OPTIONS" AND MIN . 2" INTO ROUGH OPENING (SILL, JAMB, HEADER) OR 1" PAST INTERIOR CAULK JOINT, WHICHEVER IS GREATER.
2. IF NOT USING WOOD BLOCKING AT JAMB, HEAD, SILL, MUST USE METAL ANGLE TRIM ("SHINY 90") TO BRIDGE INSULATION.
3. ACCEPTABLE BLOCKING TYPES: DIMENSIONAL LUMBER (SHOWN), OSB, PLYWOOD, METAL ANGLE TRIM ("SHINY 90").
4. SEE DETAIL UWS-SL02 "SYSTEM OPTIONS" FOR OTHER SYSTEM CONFIGURATIONS AND SEALANT OPTIONS & REQUIREMENTS.
5. INSULATION MUST BE COVERED WITHIN 90 DAYS.
6. SEE DETAIL UWS-SL03 "FASTENING GUIDELINES" FOR RECOMMENDED ATTACHMENT.



Ultra wall system

Ultra SL Wall System

Edge of Slab Relief Angle



EDGE OF SLAB RELIEF ANGLE

UWS-SL15 COLOR FOR VISUAL CLARIFICATION ONLY

MINIMUM REQUIREMENTS

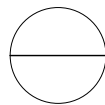
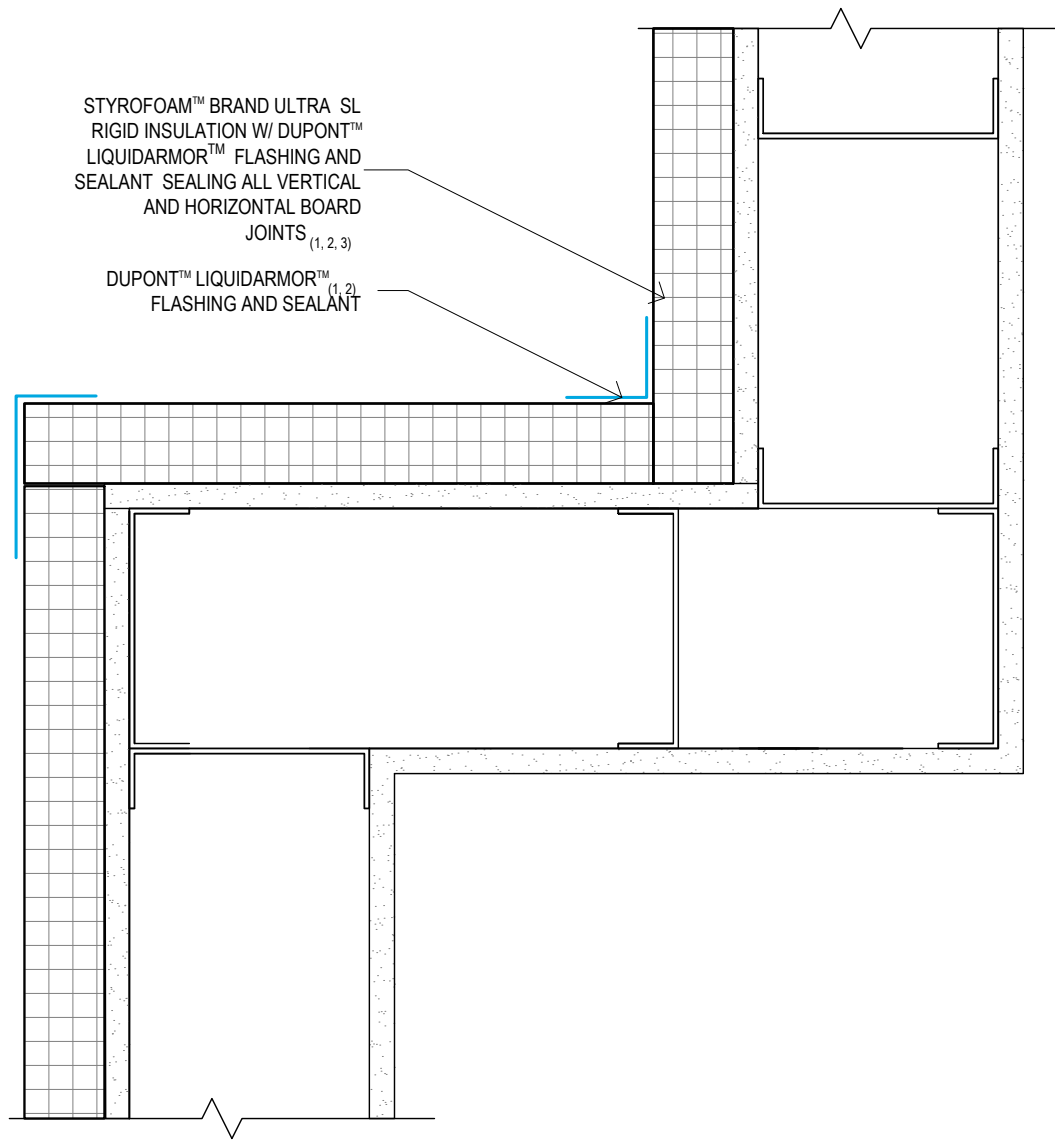
1. SEE DETAIL UWS-SL02 "SYSTEM OPTIONS" FOR DUPONT™ LIQUIDARMOR™ FLASHING OPTIONS AND OTHER SYSTEM CONFIGURATIONS.
2. DUPONT™ GREAT STUFF PRO™ GAPS & CRACKS OR WINDOW & DOOR TO BE USED FOR GAPS $\geq 1/4"$ BEFORE SEALING WITH DUPONT™ LIQUIDARMOR™ FLASHING AND SEALANT.
3. STEEL STUDS MIN. 18 GA. @ 24" MAX. W/ LATERAL BRACING EVERY 48" VERTICALLY.
4. INSULATION MUST BE COVERED WITHIN 90 DAYS.
5. BREACHES TO INSULATION MUST BE SEALED PER DETAIL UWS-SL08 "PATCHING INSULATION".
6. SEE DETAIL UWS-SL03 "FASTENING GUIDELINES" FOR RECOMMENDED TIES.
7. 1" GAP MAX. BETWEEN BOTTOM OF METAL ANGLE AND TOP OF INSULATION BOARD.



Ultra wall system

Ultra SL Wall System

Corners

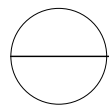
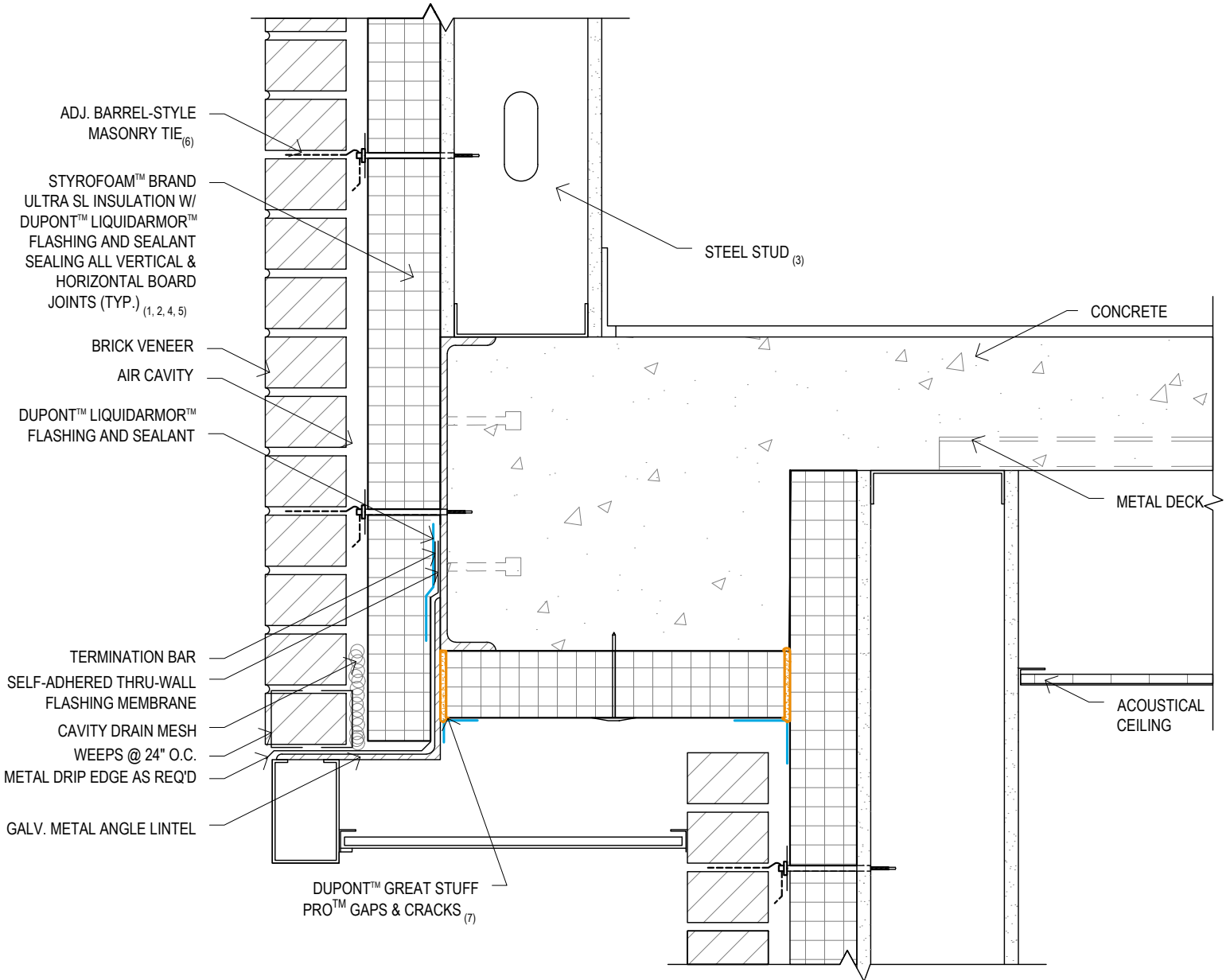


CORNERS

UWS-SL16 COLOR FOR VISUAL CLARIFICATION ONLY

MINIMUM REQUIREMENTS

1. SEE DETAIL UWS-SL02 "SYSTEM OPTIONS" FOR DUPONT™ LIQUIDARMOR™ FLASHING AND SEALANT APPLICATION REQUIREMENTS AND OTHER SYSTEM CONFIGURATIONS.
2. DUPONT™ GREAT STUFF PRO™ GAPS & CRACKS OR WINDOW & DOOR TO BE USED FOR GAPS $\geq 1/4"$ BEFORE SEALING WITH DUPONT™ LIQUIDARMOR™ FLASHING AND SEALANT.
3. INSULATION MUST BE COVERED WITHIN 90 DAYS.



CHANGE IN PLANE

UWS-SL17 *COLOR FOR VISUAL CLARIFICATION ONLY*

MINIMUM REQUIREMENTS

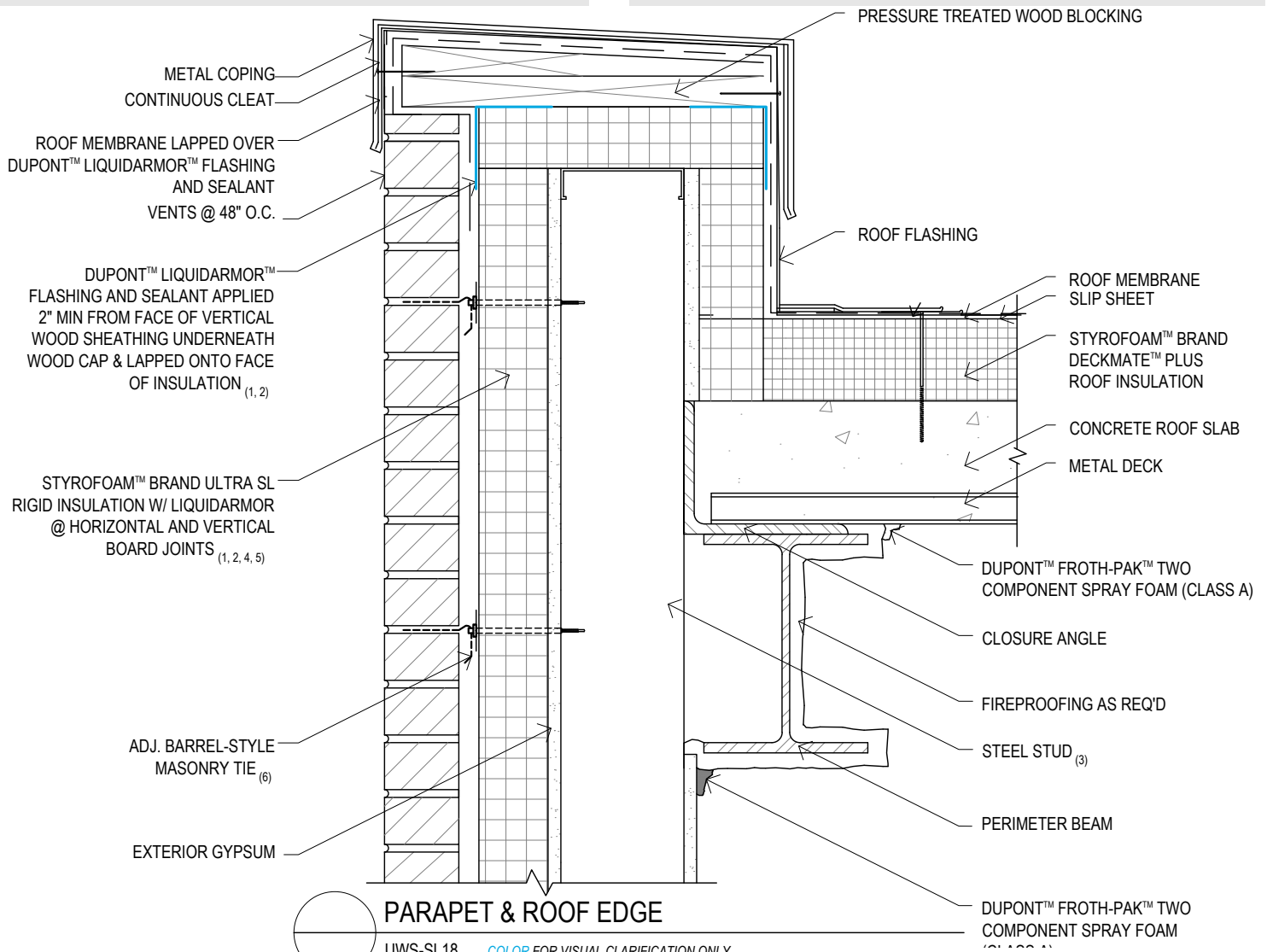
1. SEE DETAIL UWS-SL02 "SYSTEM OPTIONS" FOR SEALANT OPTIONS AND OTHER SYSTEM CONFIGURATIONS.
2. DUPONT™ GREAT STUFF PRO™ GAPS & CRACKS OR WINDOW & DOOR TO BE USED FOR GAPS $\geq 1/4"$ BEFORE SEALING WITH DUPONT™ LIQUIDARMOR™ FLASHING AND SEALANT.
3. STEEL STUDS MIN. 18 GA. @ 24" MAX. W/ LATERAL BRACING EVERY 48" VERTICALLY.
4. INSULATION MUST BE COVERED WITHIN 90 DAYS.
5. BREACHES TO INSULATION MUST BE SEALED PER DETAIL UWS-SL08 "PATCHING INSULATION".
6. SEE DETAIL UWS-SL03 "FASTENING GUIDELINES" FOR RECOMMENDED TIES.
7. INSULATION BOARDS TO HAVE MIN. $1/4"$ TO MAX. 1" GAP TO ALLOW FOR PROPER INSTALLATION OF DUPONT™ GREAT STUFF PRO™ GAPS & CRACKS⁷

DESIGN INTENT

1. SUCCESSFULLY TRANSITION 4 CONTROL LAYERS FROM VERTICAL WALL PLANE TO HORIZONTAL ROOFING PLANE WITHOUT INTERRUPTION.
2. INSULATION & AIR BARRIER TO SEAL OFF UNCONDITIONED PARAPET WALL FROM INTERACTING WITH CONDITIONED INTERIOR AIR TO FURTHER PREVENT CONDENSATION POTENTIAL.
3. TRANSITION TO ROOFING MEMBRANE MATERIALS USING COMPATIBLE MATERIALS.

GENERAL RECOMMENDATIONS

1. COMBINATION OF MATERIALS MAY BE USED TO ENCAPSULATE PARAPET WALL - ALL MANUFACTURERS SHOULD BE CONSULTED TO ENSURE CHEMICAL COMPATIBILITY OF MEMBRANE/TRANSITION MATERIALS TO INSULATION.
2. 3RD PARTY MATERIAL TO TRANSITION FROM ROOFING MEMBRANE OVER/UNDER COPING TO TERMINATE ON FACE OF RIGID INSULATION.
3. DUPONT™ FROTH-PAK™ INSULATION (CLASS A) AT ROOF DECK / PARAPET JUNCTURE TO BE INSTALLED PRIOR TO ROOF INSULATION & MEMBRANE.



MINIMUM REQUIREMENTS

1. SEE DETAIL UWS-SL02 "SYSTEM OPTIONS" FOR DUPONT™ SEALANT OPTIONS AND OTHER SYSTEM CONFIGURATIONS.
2. DUPONT™ GREAT STUFF PRO™ GAPS & CRACKS OR WINDOW & DOOR TO BE USED FOR GAPS $\geq 1/4"$ BEFORE SEALING WITH DUPONT™ LIQUIDARMOR™ FLASHING AND SEALANT.
3. STEEL STUDS MIN. 18 GA. @ 24" MAX. W/ LATERAL BRACING EVERY 48" VERTICALLY.
4. INSULATION MUST BE COVERED WITHIN 90 DAYS.
5. BREACHES TO INSULATION MUST BE SEALED PER DETAIL UWS-SL08 "PATCHING INSULATION".
6. SEE DETAIL UWS-SL03 "FASTENING GUIDELINES" FOR RECOMMENDED TIES.

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Illustrations are not intended to replace the need for design by appropriate professionals such as architects or engineers.

Styrofoam™ Brand Spray Polyurethane Foam contains isocyanate, hydrofluorocarbon blowing agent and polyol. Read the instructions and (Material) Safety Data Sheet ((M)SDS) carefully before use. Wear protective clothing (including long sleeves), gloves, goggles and proper respiratory protection. Supplied air or an approved air-purifying respirator equipped with an organic vapor sorbent and a P100 particulate filter is required to maintain exposure levels below ACGIH, OSHA, WEEL or other applicable limits. Provide adequate ventilation. Contents under pressure. STYROFOAM™ Brand SPF should be installed by a trained SPF applicator.

CAUTION: When cured, these products are combustible and will burn if exposed to open flame or sparks from high-energy sources. Do not expose to temperatures above 240°F (116°C). For more information, consult (Material) Safety Data Sheet ((M)SDS), call DuPont at 1-866-583-BLUE (2583) or contact your local building inspector. In an emergency, call 1-989-636-4400 in the U.S. or 1-519-339-3711 in Canada.

DuPont™ Great Stuff Pro™ Insulating Foam sealant and adhesive products contain isocyanate and a flammable blowing agent. Read all instructions and (Material) Safety Data Sheet ((M)SDS), carefully before use. Eliminate all sources of ignition before use. Cover all skin. Wear long sleeves, gloves, and safety glasses or goggles. Not for use in aviation, or food/beverage contact, or as structural support in marine applications. Provide adequate ventilation or wear proper respiratory protection. Contents under pressure. Not to be used for filling closed cavities or voids such as behind walls and under tub surrounds.

CAUTION: When cured, these products are combustible and will burn if exposed to open flame or sparks from high-energy sources. Do not expose to temperatures above 240°F (116°C). For more information, consult (Material) Safety Data Sheet ((M)SDS), call DuPont at 1-866-583-BLUE (2583) or contact your local building inspector. In an emergency, call 1-989-636-4400 in the U.S. or 1-519-339-3711 in Canada.

Polyurethane Foam Insulation and Sealant

CAUTION: When cured, these products are combustible and will burn if exposed to open flame or sparks from high-energy sources. Do not expose to temperatures above 240°F (116°C). For more information, consult (Material) Safety Data Sheet ((M)SDS), call DuPont at 1-866-583-BLUE (2583) or contact your local building inspector. In an emergency, call 1-989-636-4400 in the U.S. or 1-519-339-3711 in Canada.

CAUTION: This product is combustible and shall only be used as specified by the local building code with respect to flame spread classification and to the use of a suitable thermal barrier. For more information, consult (Material) Safety Data Sheet ((M)SDS), call DuPont at 1-866-583-BLUE (2583) or contact your local building inspector. In an emergency, call 1-989-636-4400 in the U.S. or 1-519-339-3711 in Canada.

DuPont™ LiquidArmor™

Read the instructions and (Material) Safety Data Sheets ((M)SDS) carefully before use. It is recommended that spray applicators and those working in the spray area wear eye protection. Contact with exposed skin may cause skin discoloration and dryness. Gloves are recommended for prolonged exposures. Ensure adequate ventilation during spray applications.

DuPont™ Thermax™ Brand Polyisocyanurate Insulation

CAUTION: This product is combustible and shall only be used as specified by the local building code with respect to flame spread classification and to the use of a suitable thermal barrier. For more information, consult (Material) Safety Data Sheet ((M)SDS), call DuPont at 1-866-583-BLUE (2583), or contact your local building inspector. In an emergency, call 1-989-636-4400.

DuPont™ Styrofoam™ Brand Extruded Polystyrene Foam Insulation

CAUTION: This product is combustible. Protect from high heat sources. A protective barrier or thermal barrier may be required as specified in the appropriate building code. For more information, consult (Material) Safety Data Sheet ((M)SDS), call DuPont at 1-866-583-BLUE (2583) or contact your local building inspector. In an emergency, call 1-989-636-4400 in the U.S. or 1-519-339-3711 in Canada.

WARNING: Rigid foam insulation does not constitute a working walkable surface or qualify as a fall protection product.

Building and/or construction practices unrelated to building materials could greatly affect moisture and the potential for mold formation. No material supplier including DuPont can give assurance that mold will not develop in any specific system.

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