The better way to build™

Installation Manual
EXTERIOR WALL SIPs

Thermapan
Structural
Insulated
Panels

EXTERIOR WALL SIPs Installation Manual

Table of Contents

Topics

Details

EXTERIOR WALL SIPs
Installation Manual

1. General Requirements

1.1 Scope

The basic design and construction requirements for the Thermapan Structural Insulated Panel (SIP) wall system is set forth in this specification. Criteria for materials, environmental control, design loads, and structural design are included. Where requirements are based on internationally recognized standards and specifications, these standards and specifications are referenced without elaboration.

Installers shall reference engineering design package for fastening arrangements.

2. Materials

2.1 The Thermapan Wall SIP is composed of an expanded polystyrene (EPS) foam core laminated between two layers of oriented strand board (OSB) with a structural adhesive. (See Detail W-1)

2.2 Framing Lumber shall be DOC PS 20 or NLGA No.2 or better.

2.3 Wire nails, ring nails, spikes and staples shall conform to CSA B111 or ANSI/ASME B11.1.

2.4 Wood screws shall conform to ANSI/ASME B18.6.1..

2.5 SIP screws shall conform to ICC-AC233.

2.6 Caulking Compounds shall conform to CAN/CGSB 19.13 or ASTM C 920.

2.7 Polyethylene Sheeting shall conform to CAN/CGSB-37.2, CAN/CGSB-37.16, or ASTM D 4397.

2.8 Low expansion foam seal shall conform to AAMA 812-04.

2.9 Structural adhesive shall conform to CAN/CGSB 71GP26, APA AFG-01 or ASTM D3498.

3. Electrical Wiring

3.1 All wire chases to be vertically cut into the wall SIP at a minimum depth of 2”. See Detail W-14.

4. Interior Finish

4.1 The interior of the wall SIP can be finished with any of the common required building code materials. It is recommended that the SIP joints and connections be sealed as per Details AB-1 and AB-2.

5. Exterior Cladding

5.1 A weather barrier is to be installed over the exterior OSB of the SIP and under the cladding and/or furring. Refer to Details W-15 and W-16 and your local building code for compliant weather barrier materials.

MATERIALS ESTIMATING

Above Grade Exterior Walls Estimation Only

Lumber Requirements:

- SPF Single top and bottom plate
- OSB 1-1/8" (28mm) Cap plate – 12 ft (3658mm) lengths

- Every panel requires a spline
- Every corner requires 2 SPF studs
- Windows and doors require jack studs as per OBC and cripples

Caulking and Sealant Requirements:

- Every 1200 sqft (111 m^2) of SIP equals 1 case of Expandable Foam

- Every 2000 sqft (185 m^2) of SIP requires 1 case of Sealant

Fasteners:

- Recommend 2" (50mm) Ring nail or 2" (50mm) screws for connection to panel

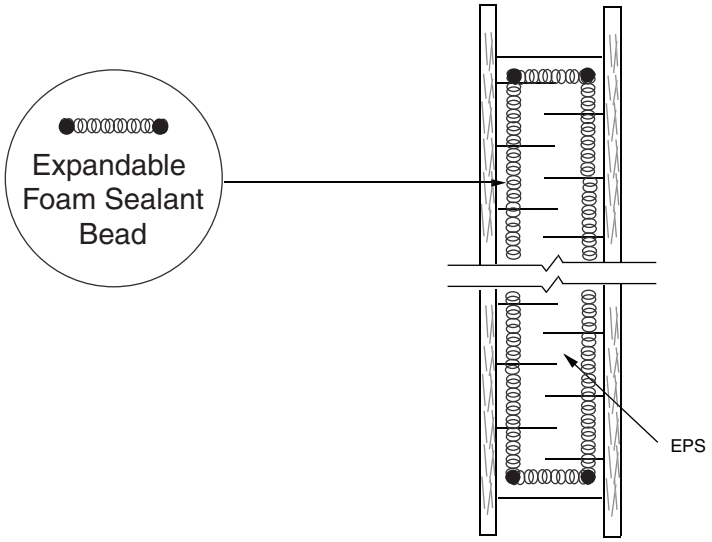
- 3.0 times the square footage of SIPs

AIR BARRIER

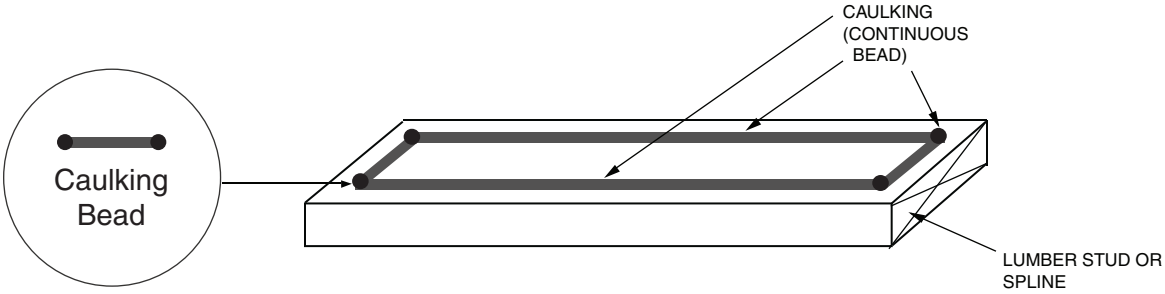
RECOMMENDED DETAILS FOR AIR BARRIER SEALANTS

All sealants, FOAM (A) or CAULKING (B), should be applied onto the SIP in a continuous rectangular pattern along the outer most edge of the area to be sealed.

(A) A low expansion EXPANDABLE FOAM SEALANT should conform to the AAMA 812-04 standard. Apply a 1/2 inch or a 12.5 mm diameter of a *continuous* bead of expandable foam sealant onto the SIP:



(B) A CAULKING SEALANT should conform to ASTM C920-02 and/or CAN/CGSB 19.13-M. Apply a 3/8 inch or a 10 mm diameter *continuous* bead of caulking onto the lumber spline:



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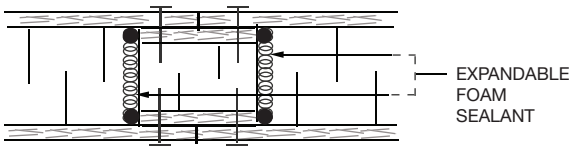
TITLE		PROJECT
AIR BARRIER DETAILS FOR AIR BARRIER SEALANTS		
REFERENCE	SCALE N.T.S.	
DATE NOVEMBER 2010	REVISION 1	DWG. No. AB-1

AIR BARRIER

RECOMMENDED DETAILS FOR SEALING SIP CONNECTIONS

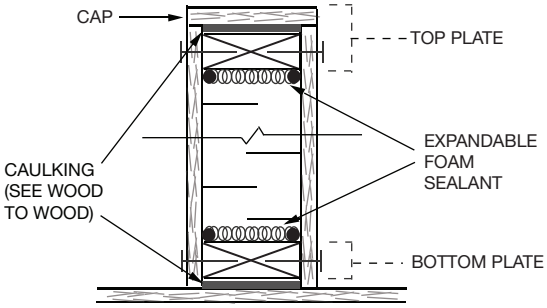
(1) Foam to Foam: Use a low expansion foam sealant.



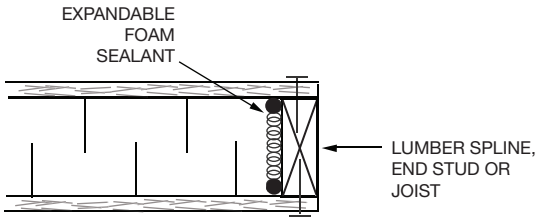
SIP SPLINE JOINT

(2) Foam to Wood: Use a low expansion foam sealant.

PLATES SECTION

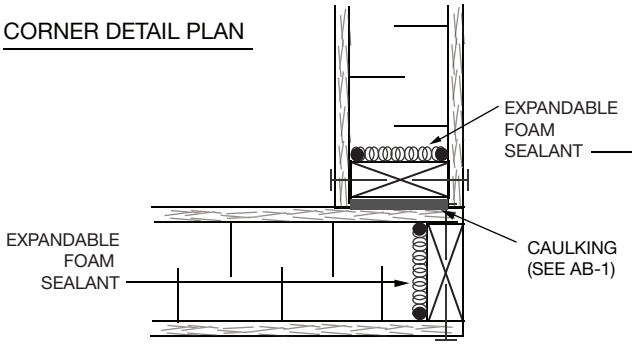


LUMBER SPLINES

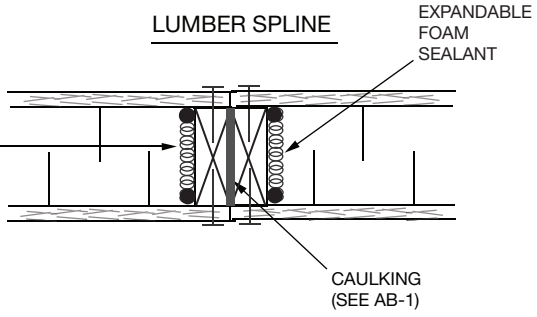


(3) Wood to Wood: Use caulking and a low expansion foam sealant.

CORNER DETAIL PLAN



LUMBER SPLINE



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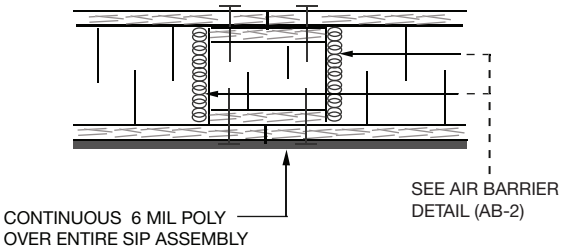
TITLE: AIR BARRIER DETAILS FOR SEALING SIP CONNECTIONS			PROJECT
REFERENCE	SCALE: N.T.S.		
DATE: MAY 2020	REVISION: 1	DWG. No.: AB-2	

VAPOUR BARRIER

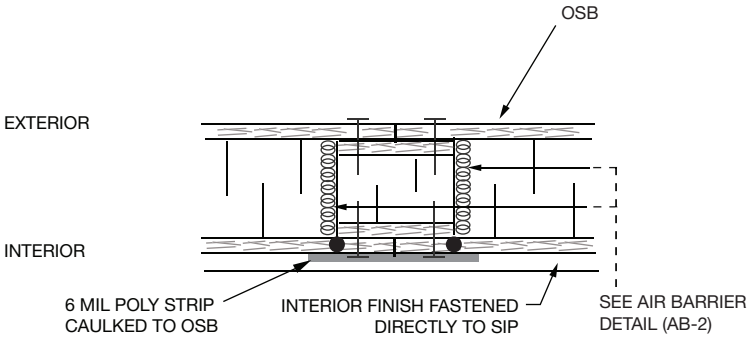
RECOMMENDED DETAILS FOR VAPOUR SEALING SIP CONNECTIONS

The function of a vapour barrier is to control the entry of water vapour into the building assembly. Vapour barriers should not be confused with an air barrier.

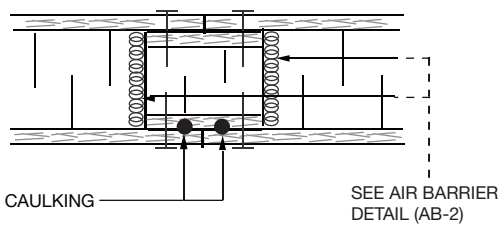
All SIP seams and connections must be VAPOUR SEALED from the INTERIOR.
These are recommended vapour barrier methods:



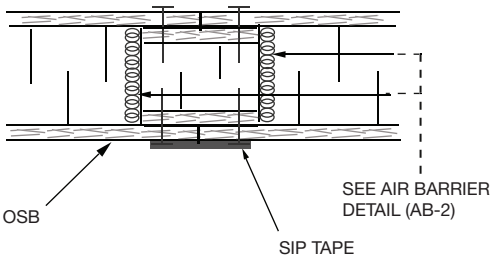
CONTINUOUS 6 MIL POLY
RECOMMENDED



6 MIL POLY STRIPS & CAULKING



CAULKING



SIP TAPE

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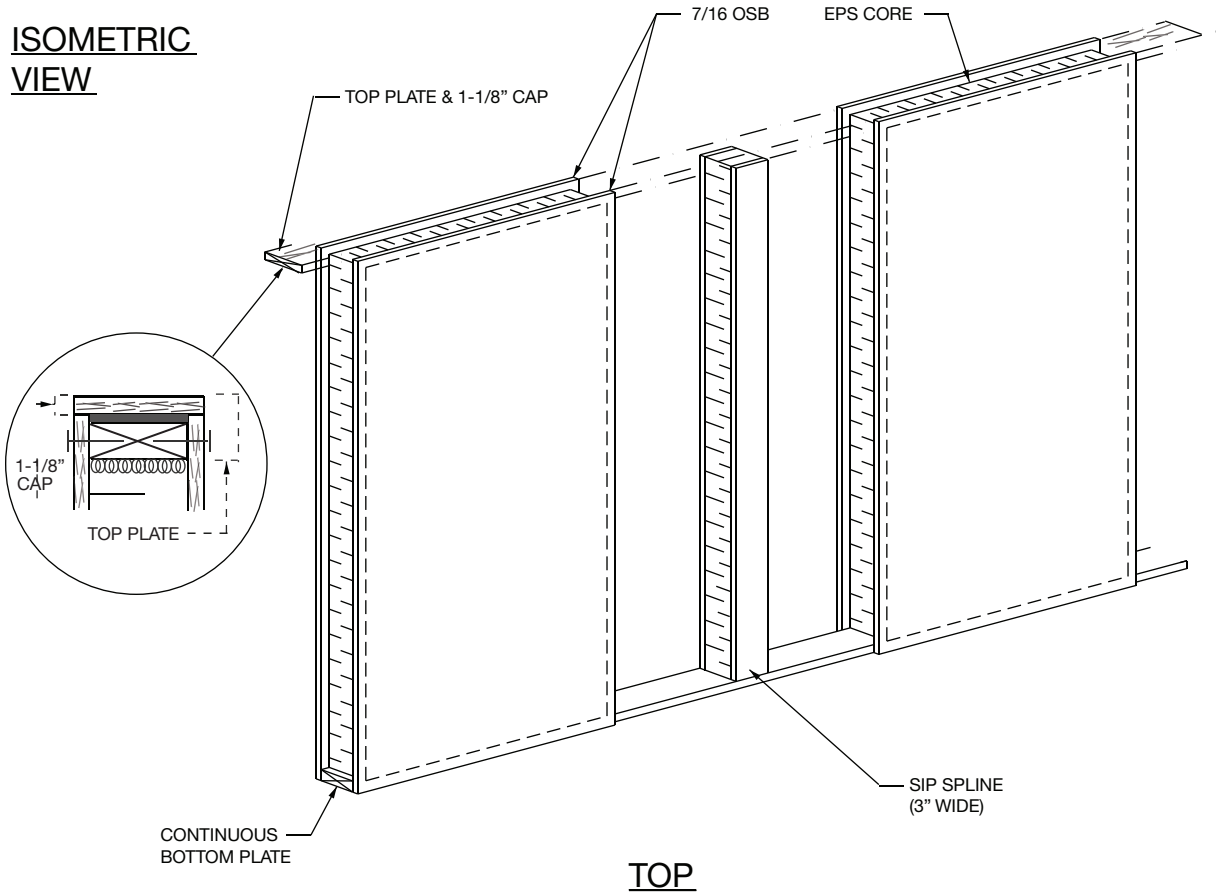
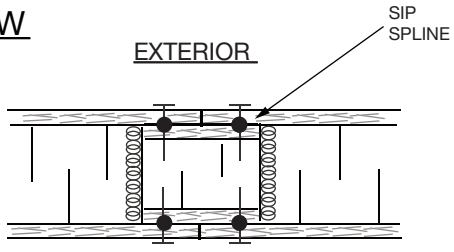
TITLE: VAPOUR BARRIER DETAILS FOR VAPOUR SEALING SIP CONNECTIONS			PROJECT
REFERENCE	SCALE: N.T.S.		
DATE: MAY 2020	REVISION: 2	DWG. No.: VB-1	

ISOMETRIC VIEW



TOP VIEW



NOTE: REFER TO AIR BARRIER (AB-2) DETAIL FOR SEALING SIP CONNECTIONS.

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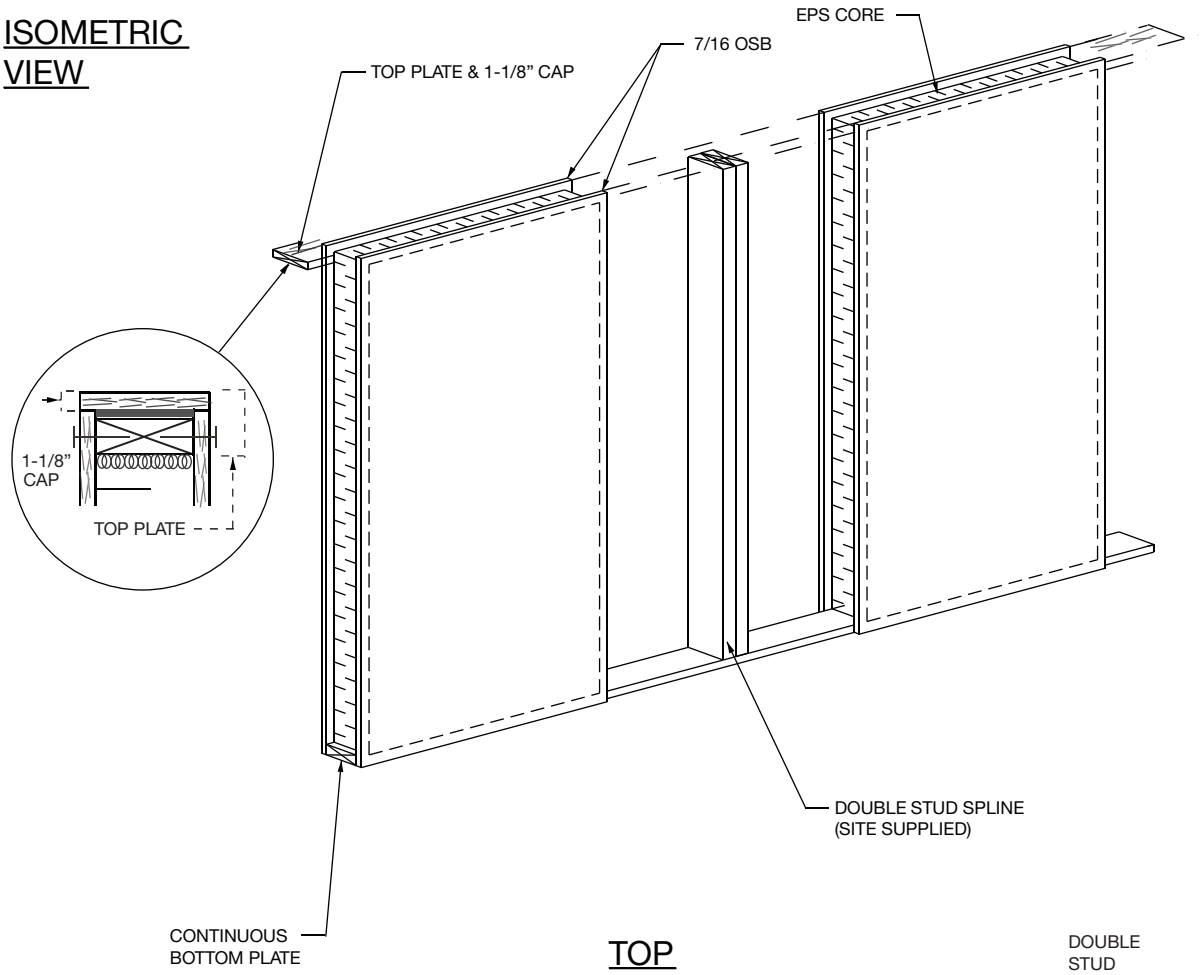
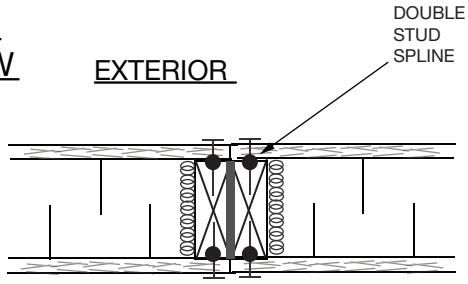
TITLE: FOAM CORE (SIP) SPLINE DETAIL			PROJECT:
REFERENCE:	SCALE: N.T.S.		
DATE: APRIL 2014	REVISION: 6	DWG. No.: W-1	

ISOMETRIC VIEW



TOP VIEW



NOTE: REFER TO AIR BARRIER (AB-2) DETAIL FOR SEALING SIP CONNECTIONS.

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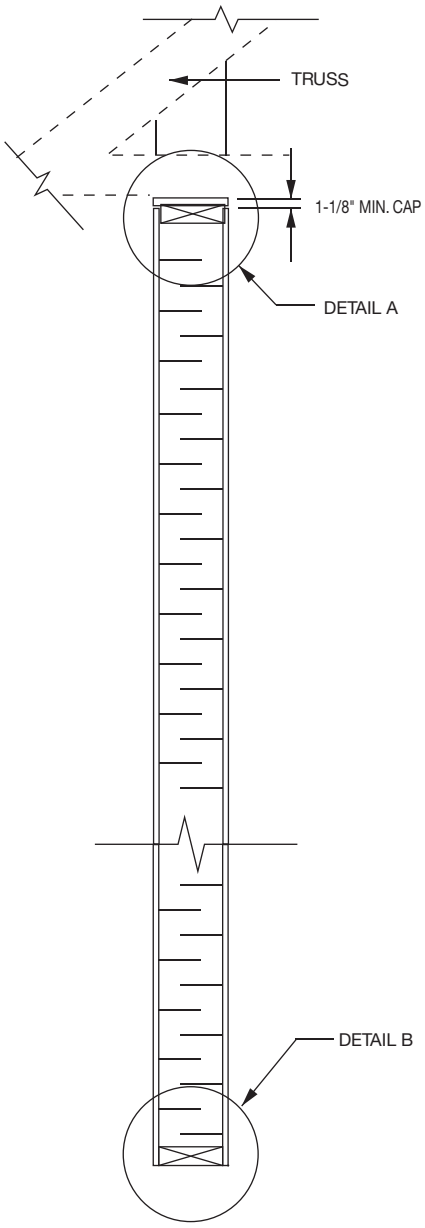
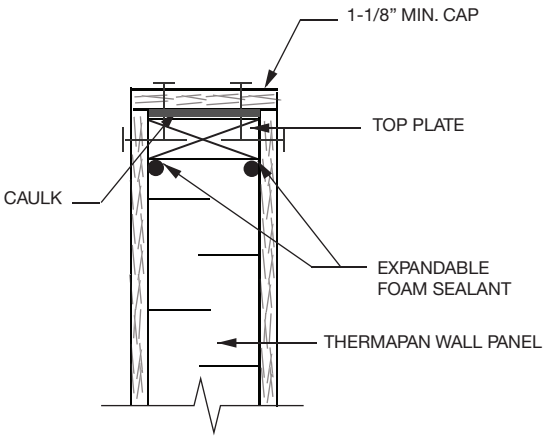
TITLE: WOOD STUD SPLINE JOINT DETAIL			PROJECT:
REFERENCE:	SCALE: N.T.S.		
DATE: APRIL 2014	REVISION: 6	DWG. No.: W-2	

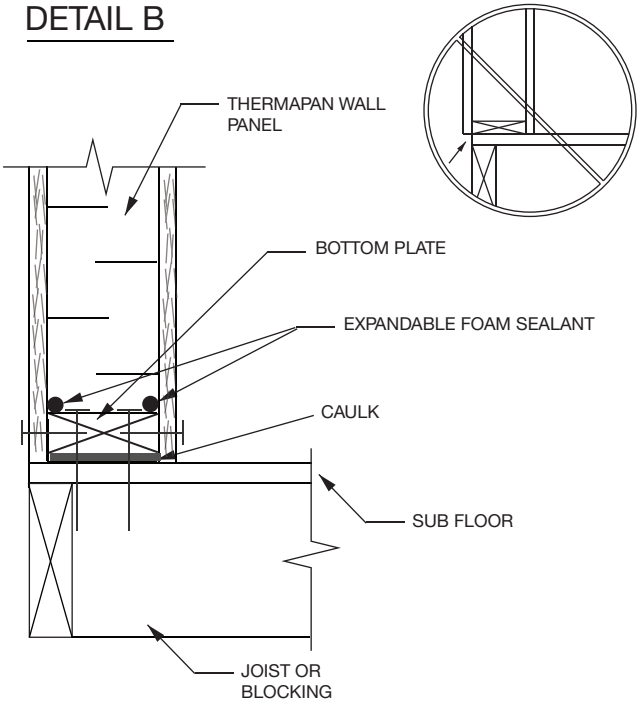


SECTION

DETAIL A



DETAIL B



NOTE: REFER TO AIR BARRIER (AB-2) DETAIL FOR SEALING SIP CONNECTIONS.

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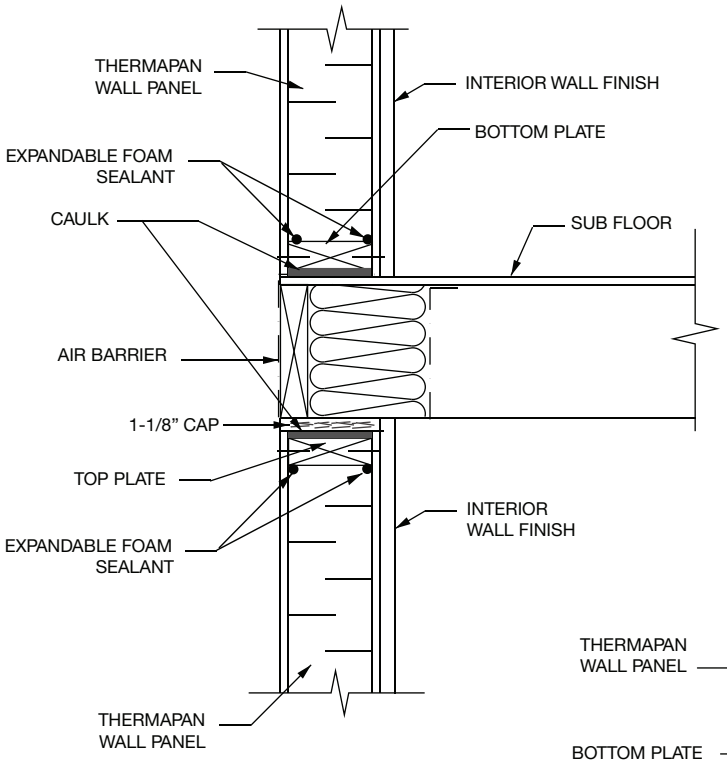
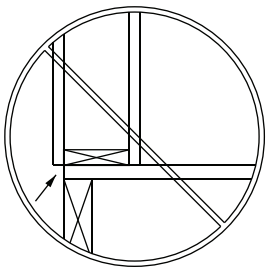
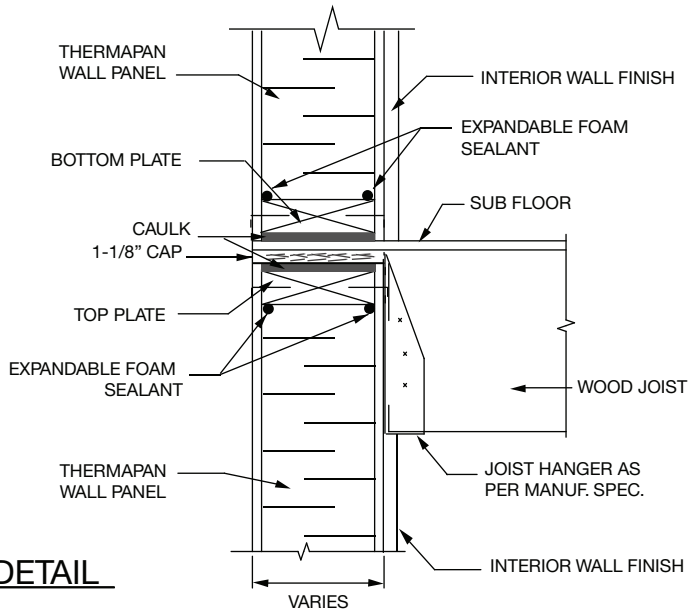
TITLE			PROJECT
TYPICAL WALL SECTION			
REFERENCE	SCALE		
	N.T.S.		
DATE	REVISION	DWG. No.	
APRIL 2014	6	W-3	

PLATFORM FRAMING







SUSPENDED FLOOR DETAIL

NOTE: REFER TO AIR BARRIER (AB-2) DETAIL FOR SEALING SIP CONNECTIONS.

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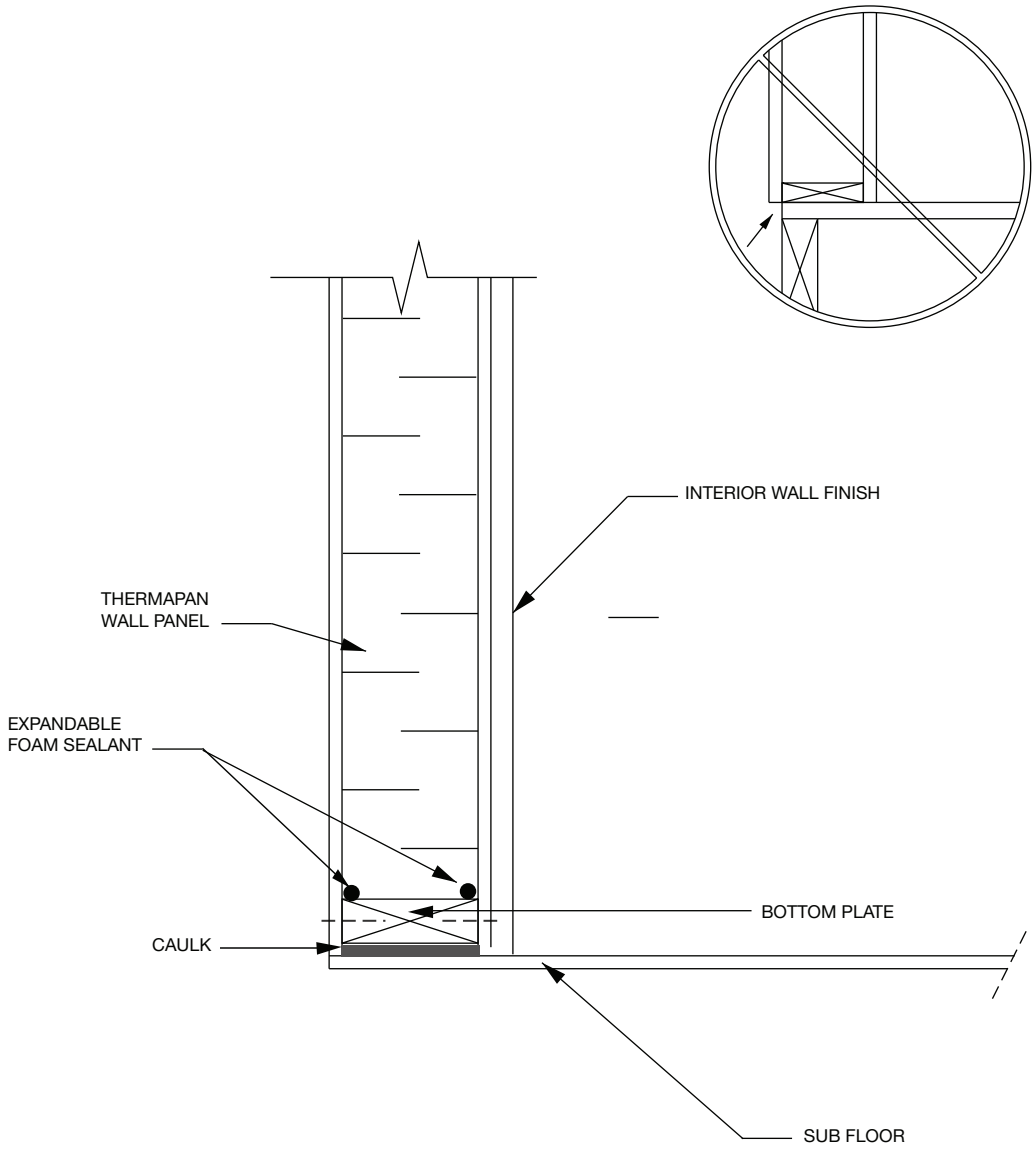
TITLE			PROJECT
FLOOR-TO-WALL CONNECTION DETAIL			
REFERENCE	SCALE		
	N.T.S.		
DATE	REVISION	DWG. No.	
JUNE 2016	6	W-4	



NOTE: REFER TO AIR BARRIER (AB-2) DETAIL FOR SEALING SIP CONNECTIONS.

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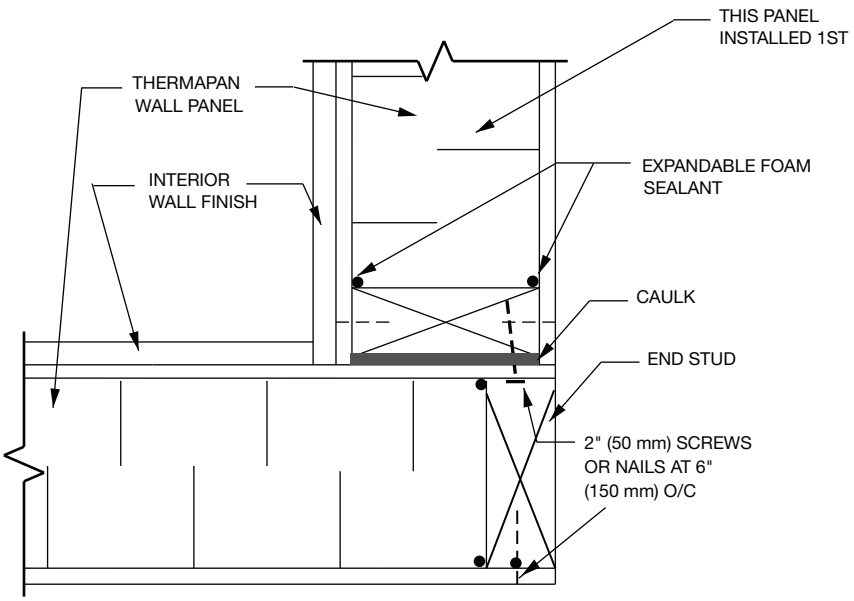
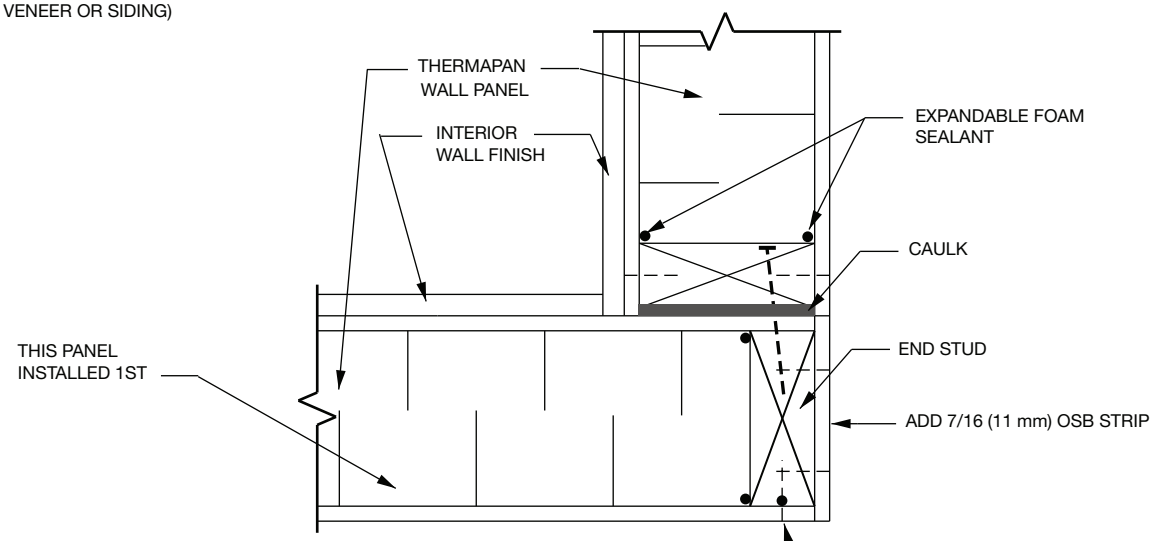
TITLE			PROJECT
SILL PLATE DETAIL			
REFERENCE	SCALE		
	N.T.S.		
DATE	REVISION	DWG. No.	
JUNE 2016	5	W-5	



CORNER DETAIL
(FOR BRICK VENEER OR SIDING)



CORNER DETAIL
(FOR STUCCO)

NOTE: REFER TO AIR BARRIER (AB-2) DETAIL FOR SEALING SIP CONNECTIONS.

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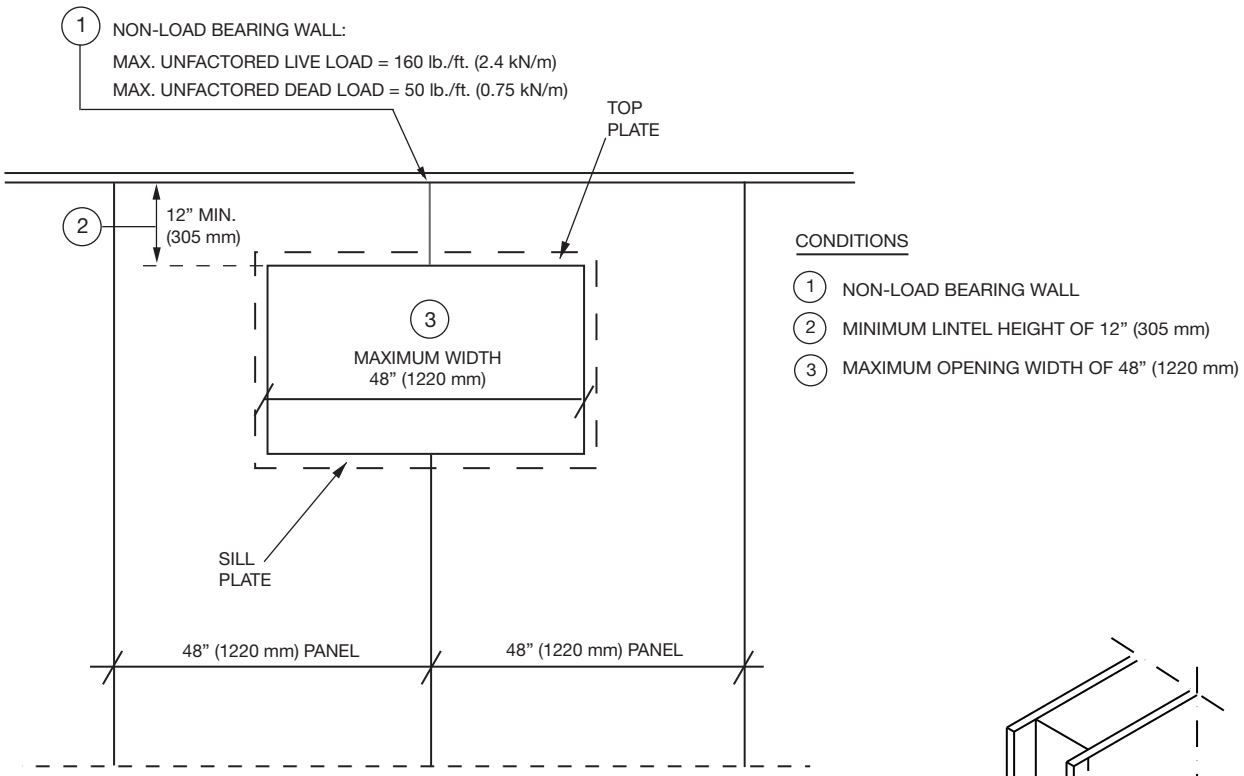
TITLE			PROJECT
WALL BUTT CORNER CONNECTION DETAIL			
REFERENCE	SCALE		
	N.T.S.		
DATE	REVISION	DWG. No.	
JUNE 2016	5	W-6	

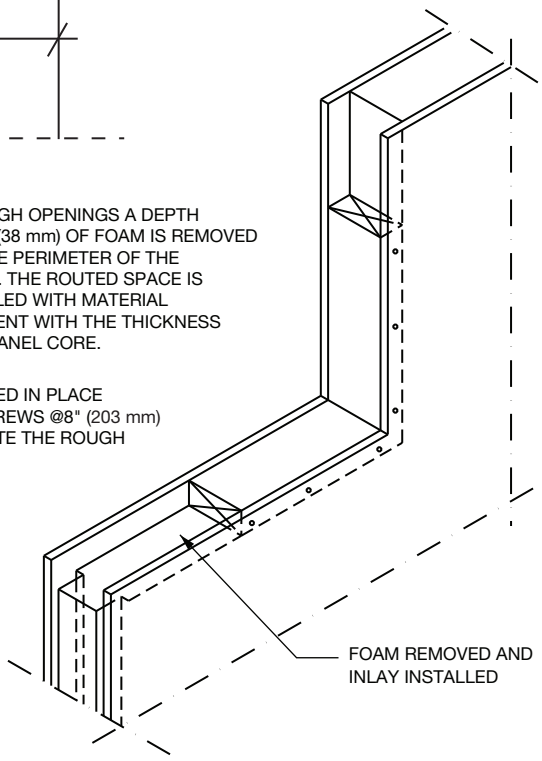


CONDITIONS

1. NON-LOAD BEARING WALL
2. MINIMUM LINTEL HEIGHT OF 12" (305 mm)
3. MAXIMUM OPENING WIDTH OF 48" (1220 mm)

FOR ROUGH OPENINGS A DEPTH OF 1-1/2"(38 mm) OF FOAM IS REMOVED FROM THE PERIMETER OF THE OPENING. THE ROUTED SPACE IS THEN FILLED WITH MATERIAL CONSISTENT WITH THE THICKNESS OF THE PANEL CORE.

THESE ARE SECURED IN PLACE WITH NAILS OR SCREWS @8" (203 mm) O/C MAX.,TO CREATE THE ROUGH OPENING.



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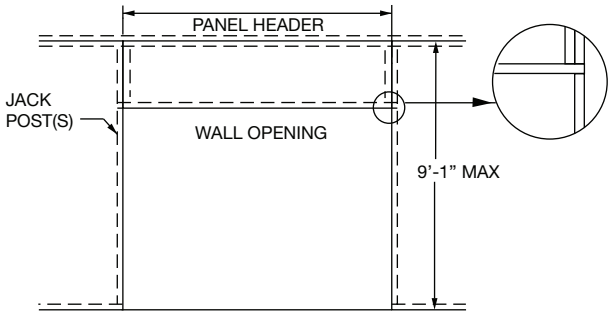
TITLE			PROJECT
WINDOW CUT-OUT (NON-LOAD BEARING WALL)			
REFERENCE	SCALE N.T.S.		
DATE FEBRUARY 2012	REVISION 2	DWG. No. W-7	

DETAIL 1

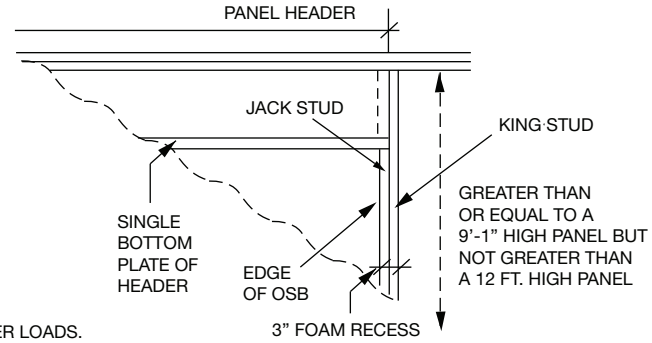


CONDITION 1:

(1) MAX 9'-1" WALL HEIGHT
(2) MAX 5,000 LBS. (22.3 kN) FACTORED REACTION
(3) CONFIRM JACK POST REACTIONS
(4) SINGLE JACK STUD

NOTE: REFER TO APPENDIX A OR DESIGN HANDBOOK FOR ALLOWABLE HEADER LOADS.

DETAIL 2



CONDITION 2:

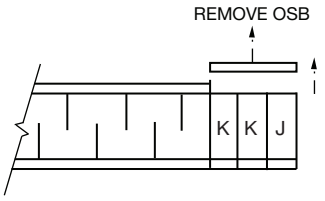
(1) 9'-1" $\leq$ X $\leq$ 12' (WALL HEIGHT)
(2) MAX 5,000 LBS. (22.3 kN) FACTORED REACTION
(3) CONFIRM JACK POST REACTIONS
(4) SINGLE JACK AND KING STUD

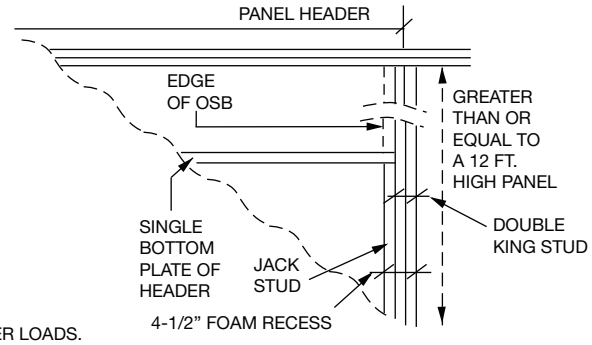
NOTE: OSB TO BE ADDED TO BOTH SIDES OF STUDS WHEN ONLY 1-1/2" FOAM RECESS IS PROVIDED IN WALL PANEL. REFER TO APPENDIX A OR DESIGN HANDBOOK FOR ALLOWABLE HEADER LOADS.

DETAIL 3

INSTALLING STUDS:

1. REMOVE OSB ONE SIDE
2. REMOVE FOAM
3. INSTALL STUDS
4. REPLACE OSB





CONDITION 3:

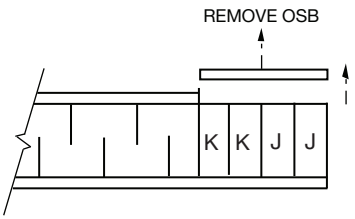
(1) X $\geq$12' (WALL HEIGHT)
(2) MAX 5000 LBS. (22.3 kN) FACTORED REACTION
(3) CONFIRM JACK POST REACTIONS
(4) SINGLE JACK AND DOUBLE KING STUDS

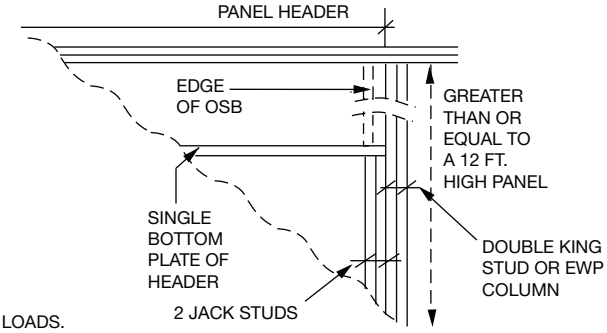
NOTE: REFER TO APPENDIX A OR DESIGN HANDBOOK FOR ALLOWABLE HEADER LOADS.

DETAIL 4

INSTALLING STUDS:

1. REMOVE OSB ONE SIDE
2. REMOVE FOAM
3. INSTALL STUDS
3. REPLACE OSB





CONDITION 4:

(1) X $\geq$12' (WALL HEIGHT)
(2) MAX 10,000 LBS. (44.6 kN) FACTORED REACTION
(3) CONFIRM JACK POST REACTIONS
(4) DOUBLE JACK AND DOUBLE KING STUDS

NOTE: REFER TO APPENDIX A OR DESIGN HANDBOOK FOR ALLOWABLE HEADER LOADS.

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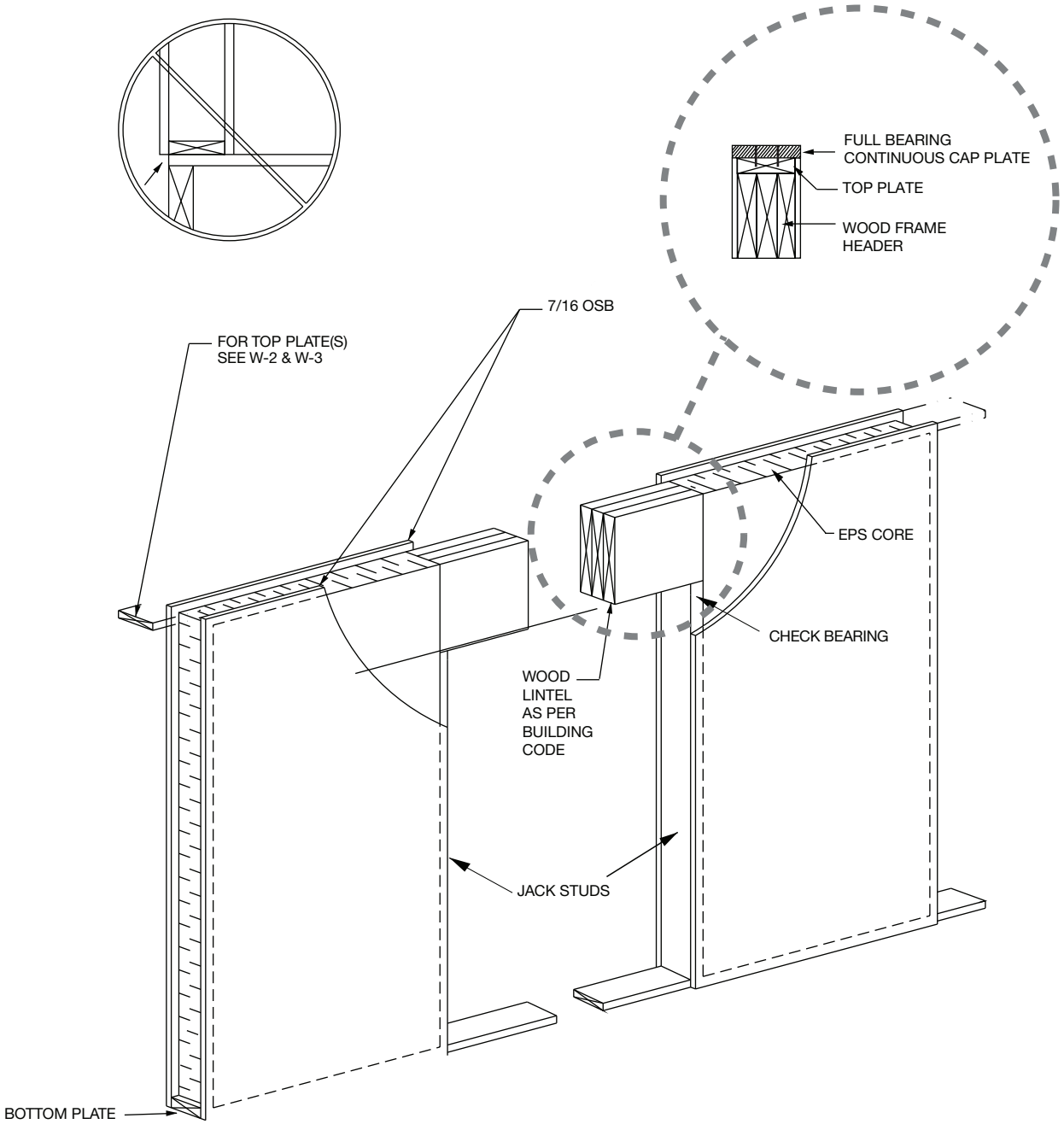
TITLE		PROJECT
PANEL LINTEL/HEADER DETAILS & BEARING CONDITIONS 1 - 4		
REFERENCE	SCALE N.T.S.	
DATE NOVEMBER 2023	REVISION 1	DWG. No. W-8



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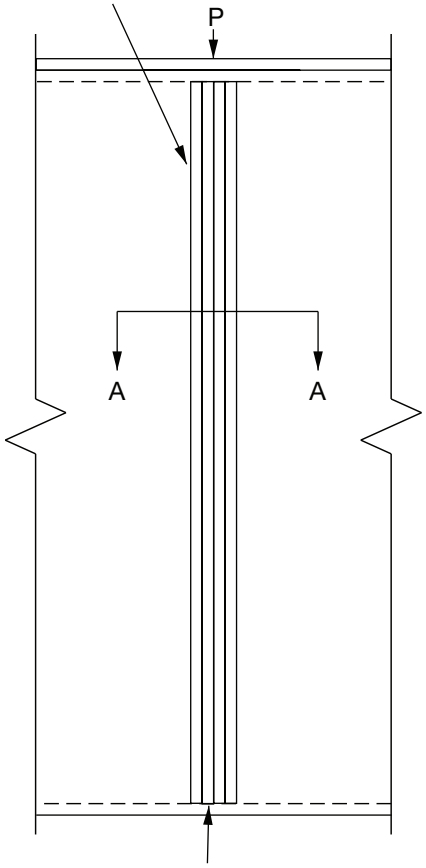
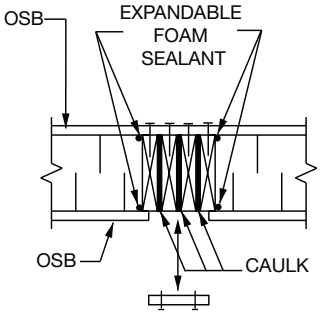
TITLE: LINTEL DETAIL (HEADER BY OTHERS)			PROJECT
REFERENCE	SCALE: N.T.S.		
DATE: NOVEMBER 2021	REVISION: 5	DWG. No.: W-9	

COLUMN (BUILT-UP STUDS, TIMBER, STEEL, ETC.)
INSTALL AS PER LOCAL BUILDING CODE.



REMOVE BOTTOM PLATE SECTION AND INSTALL COLUMN DIRECTLY ONTO FLOOR IF LOAD IS GREATER THAN BEARING RESISTANCE OF WOOD PLATE.

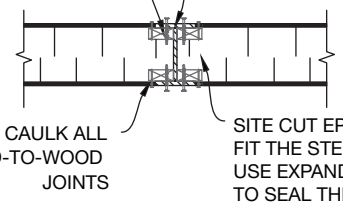
SECTION A-A



TYPICAL STEEL POST TO SIP CONNECTIONS

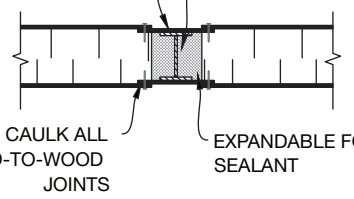
FASTEN WOOD BLOCKING TO STEEL COLUMN USING STEEL-TO-WOOD SCREWS AND FASTEN SIP PANEL SKIN TO BLOCKING USING 8d NAILS @ 6" O.C. TYP.

WIDE FLANGE STEEL POST



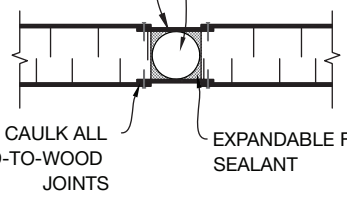
FASTEN STRIP OF OSB/PLYWOOD TO SIP SKIN USING 8d NAILS @ 6" O.C. TYP.

WIDE FLANGE STEEL POST



FASTEN STRIP OF OSB/PLYWOOD TO SIP SKIN USING 8d NAILS @ 6" O.C. TYP.

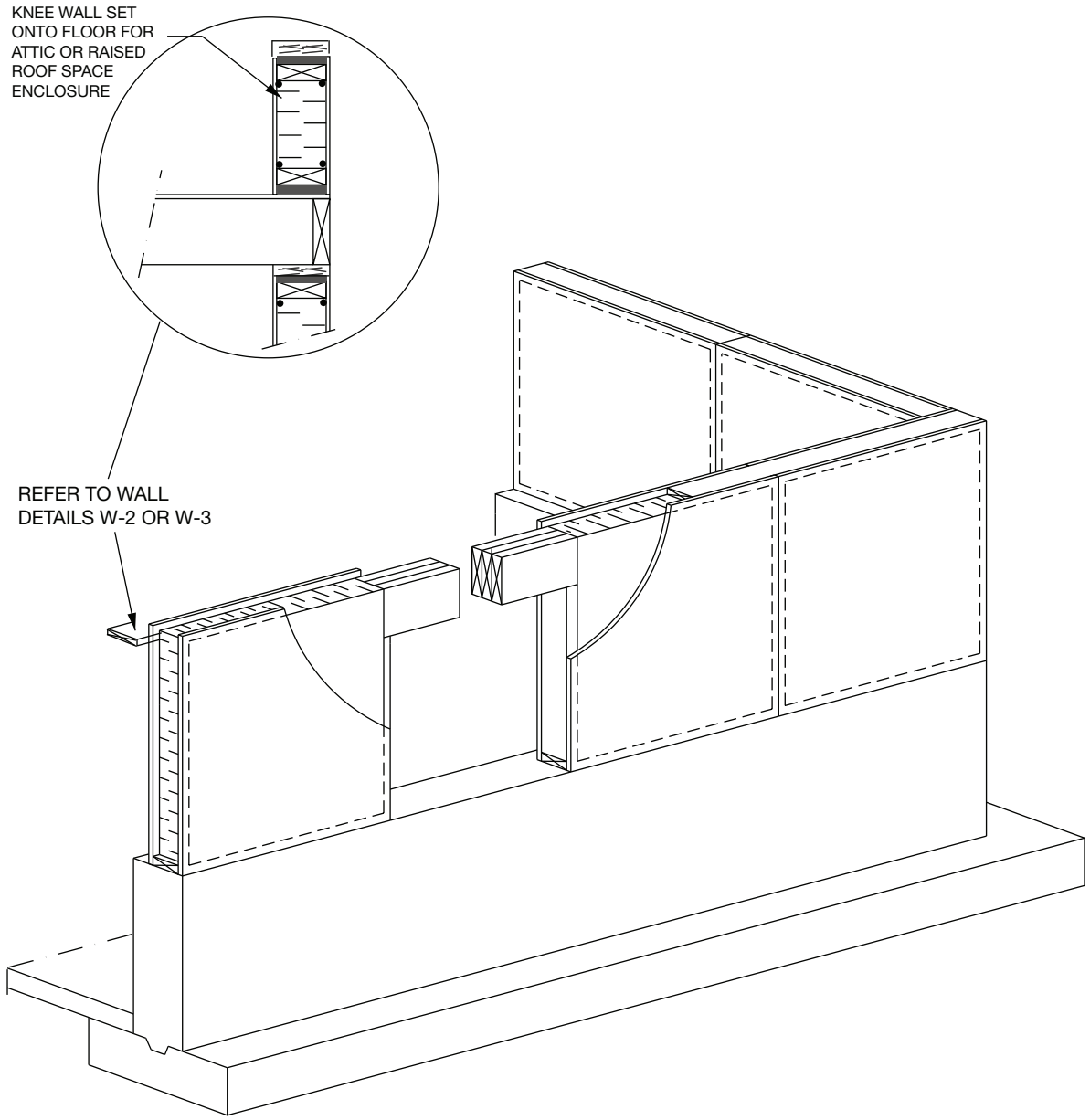
ROUND STEEL POST



Thermapan
Structural Insulated Panels

www.thermapan.com
1-877-443-WALL (9255)

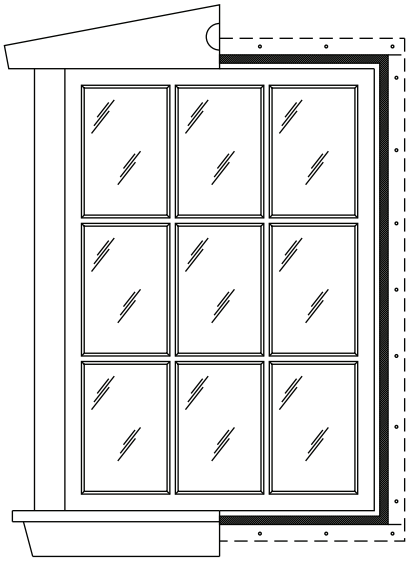
TITLE		PROJECT
POINT LOAD DETAIL		
REFERENCE	SCALE	
	N.T.S.	
DATE	REVISION	DWG. No.
AUGUST 2025	5	W-10

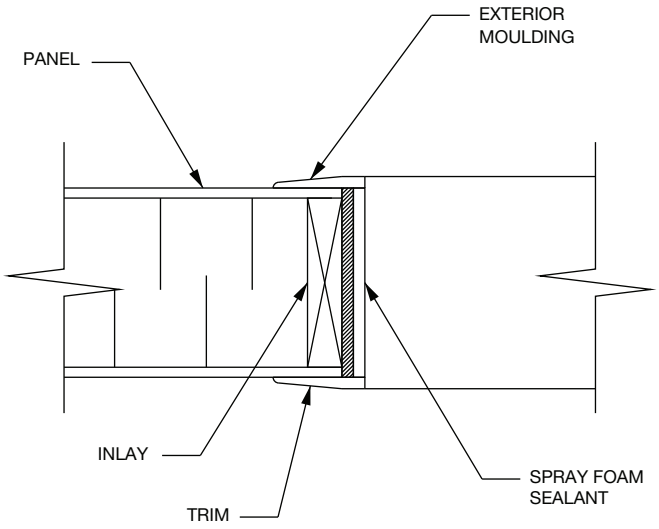


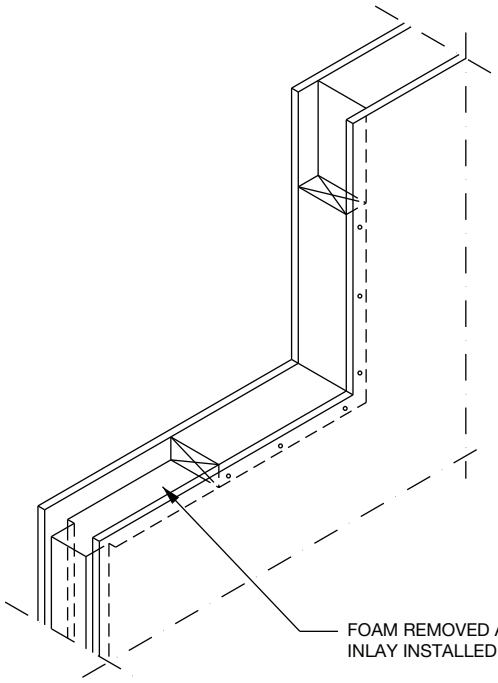
Thermapan Structural Insulated Panels

www.thermapan.com
1-877-443-WALL (9255)

TITLE		PROJECT
KNEE WALL DETAIL		
REFERENCE	SCALE	
	N.T.S.	
DATE	REVISION	DWG. No.
MAY 2009	1	W-11







FOR ROUGH OPENINGS A DEPTH OF 1 1/2 " OF FOAM IS REMOVED FROM THE PERIMETER OF THE OPENING. THE ROUTED SPACE IS THEN FILLED WITH A MATERIAL CONSISTENT WITH THE THICKNESS OF THE PANEL CORE.

THESE ARE SECURED IN PLACE WITH NAILS OR SCREWS @8" O/C MAX., TO CREATE THE ROUGH OPENING.

THE WINDOW OR DOOR IS THEN INSTALLED CONVENTIONALLY.

NOTE: REFER TO LINTEL DETAILS W-7.

Thermapan
Structural Insulated Panels

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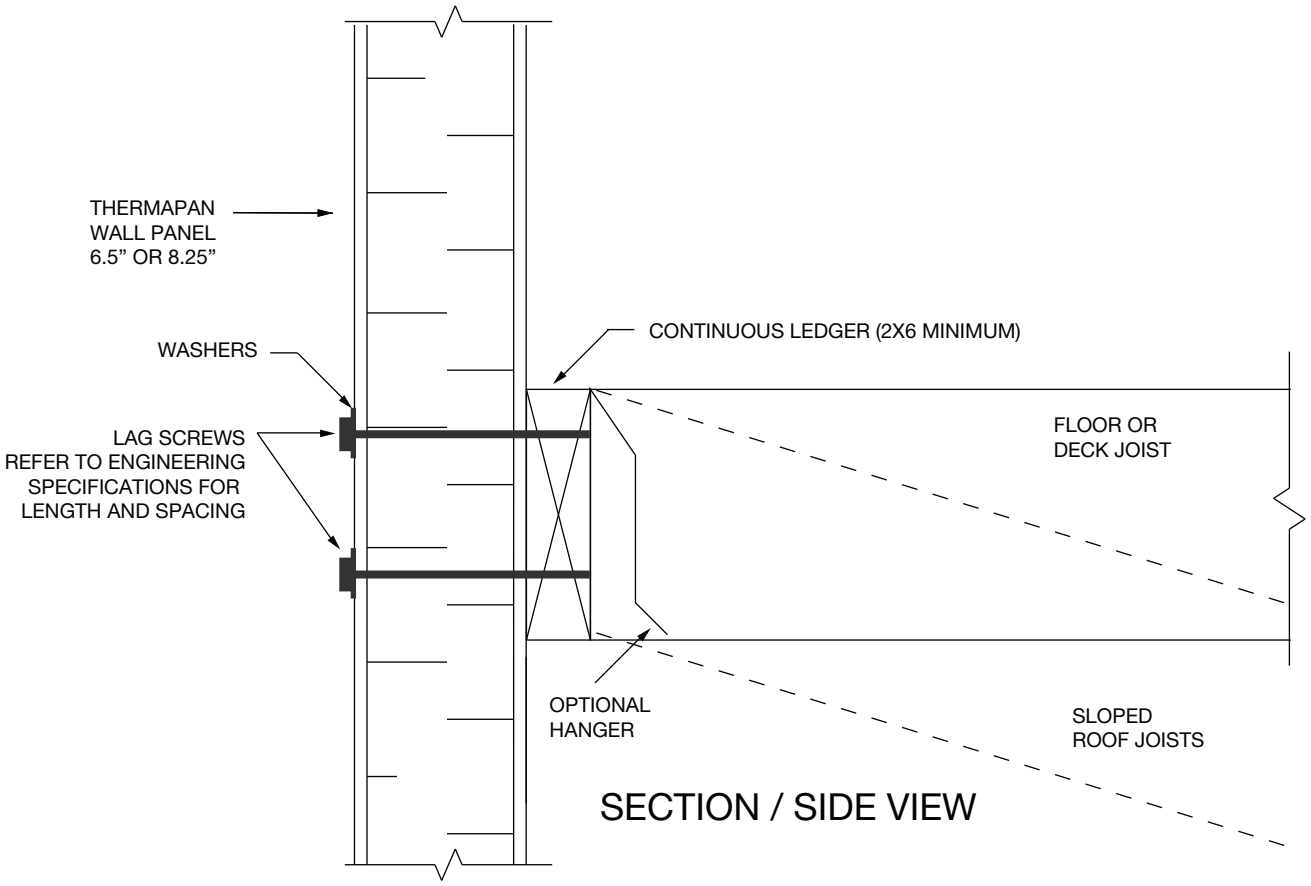
1-877-443-WALL (9255)

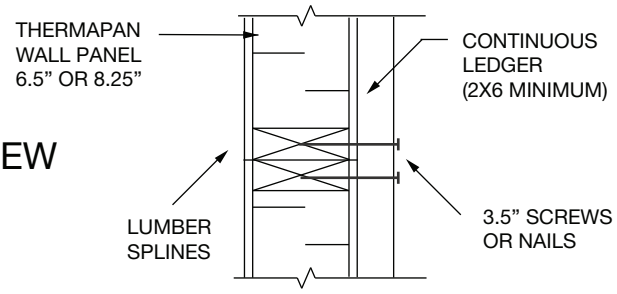
TITLE			PROJECT
DOOR & WINDOW ROUGH OPENINGS			
REFERENCE	SCALE		
	N.T.S.		
DATE	REVISION	DWG. No.	
FEBRUARY 2012	3	W-12	



SECTION / SIDE VIEW

LEDGER CAN ALSO BE NAILED OR SCREWED
(3.5” LONG) INTO LUMBER SPLINES (IF USED) AT 4’ O/C

PLAN VIEW



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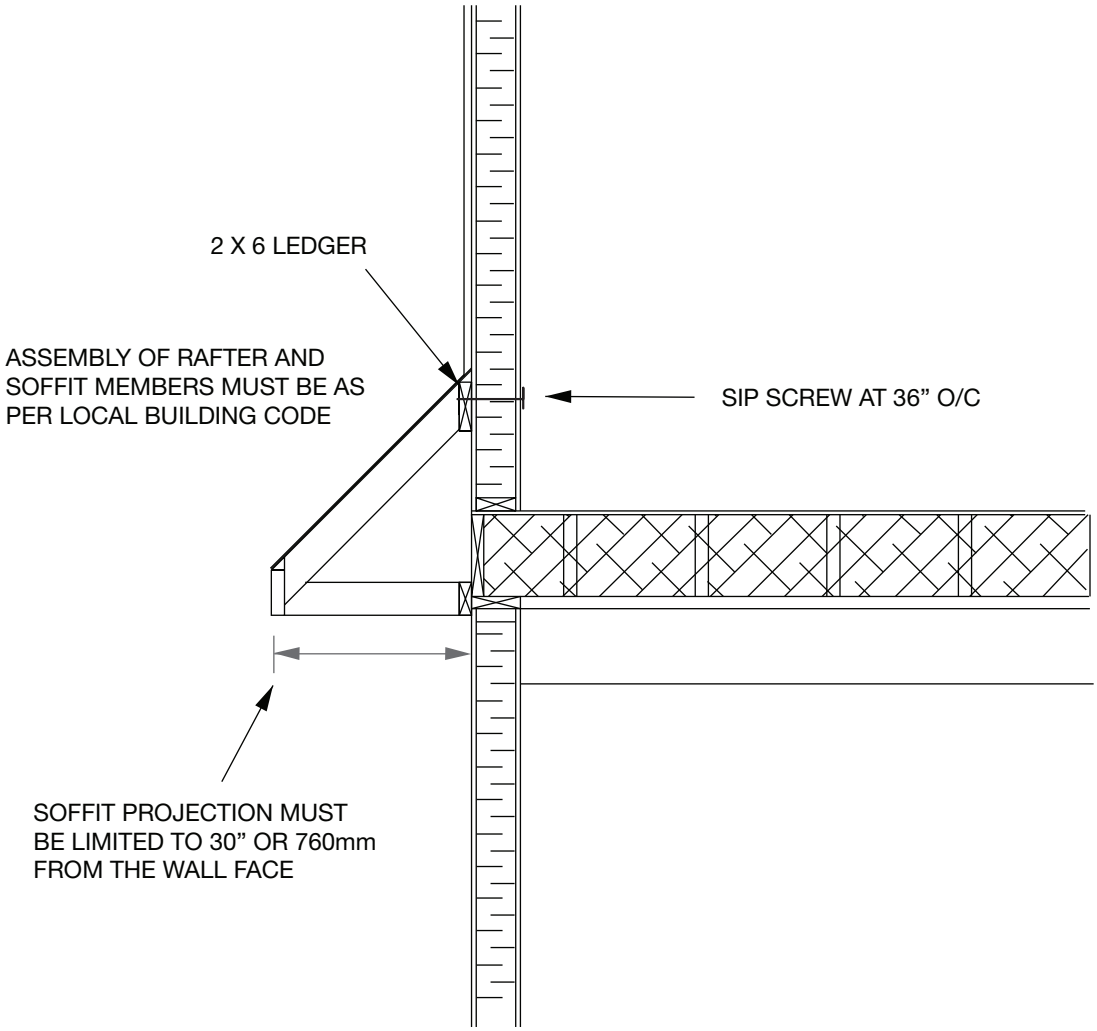
Insulated
Panels

www.thermapan.com
1-877-443-WALL (9255)

TITLE: WOOD LEDGER ATTACHED TO SIP WALL PANEL©			PROJECT:
REFERENCE:	SCALE: NTS		
DATE: APRIL 2020	REVISION: 3	DWG. No.: W-13	



Thermapan Structural Insulated Panels

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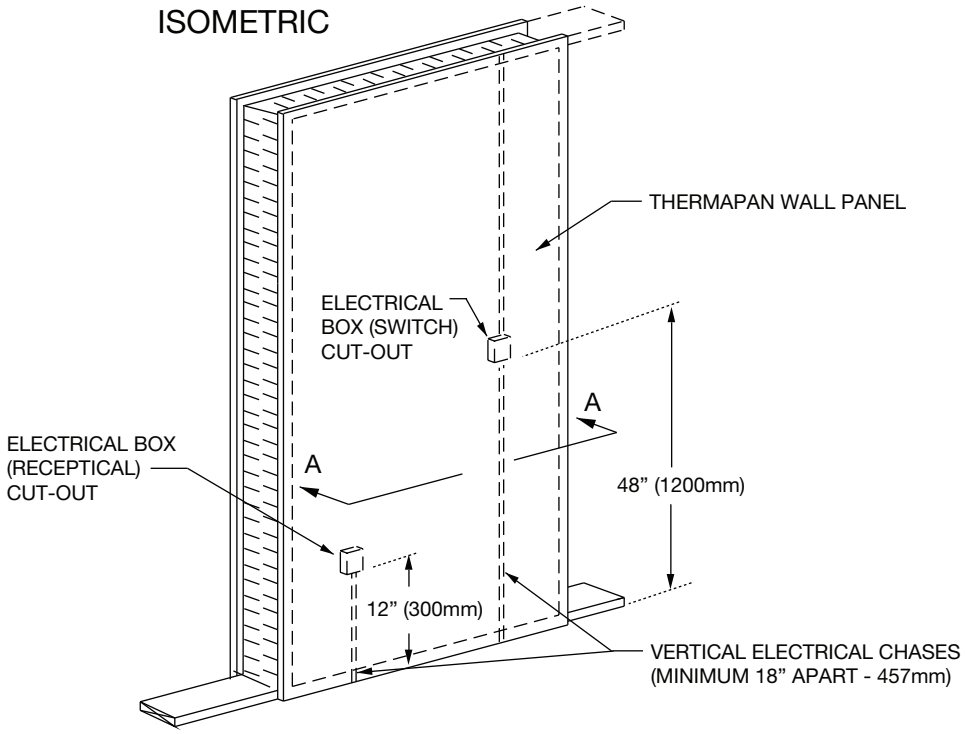
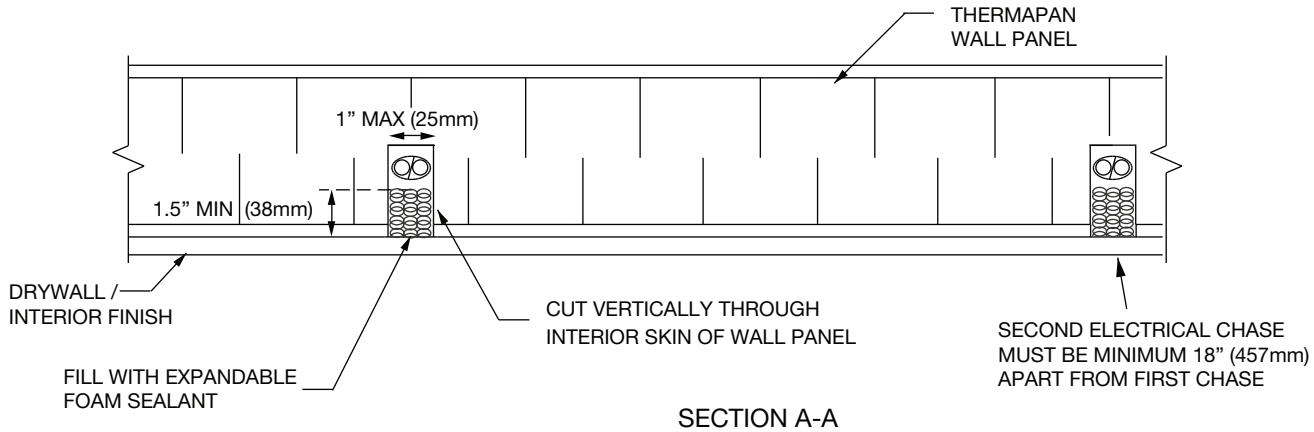
1-877-443-WALL (9255)

TITLE		PROJECT
KICKER TRUSS DETAIL		
REFERENCE	SCALE	
	N.T.S.	
DATE	REVISION	DWG. No.
OCTOBER 2021	1	W-14

ISOMETRIC





SECTION A-A

NOTES:
1. MAXIMUM OF TWO (2) VERTICAL CHASES PERMITTED FOR WALL PANELS 2'-6" (760mm) TO 4' (1220 mm) WIDE, MINIMUM 18"(457mm) APART.
2. MAXIMUM OF ONE (1) VERTICAL CHASE PERMITTED FOR WALL PANELS LESS THAN 2'-6" WIDE (760mm) .

Thermapan Structural Insulated Panels

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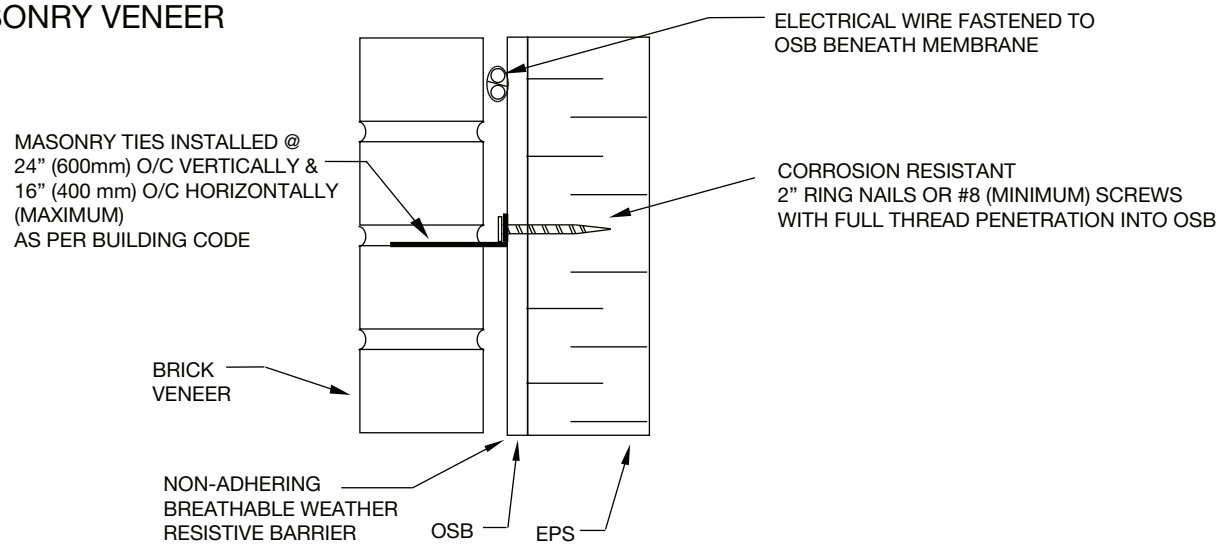
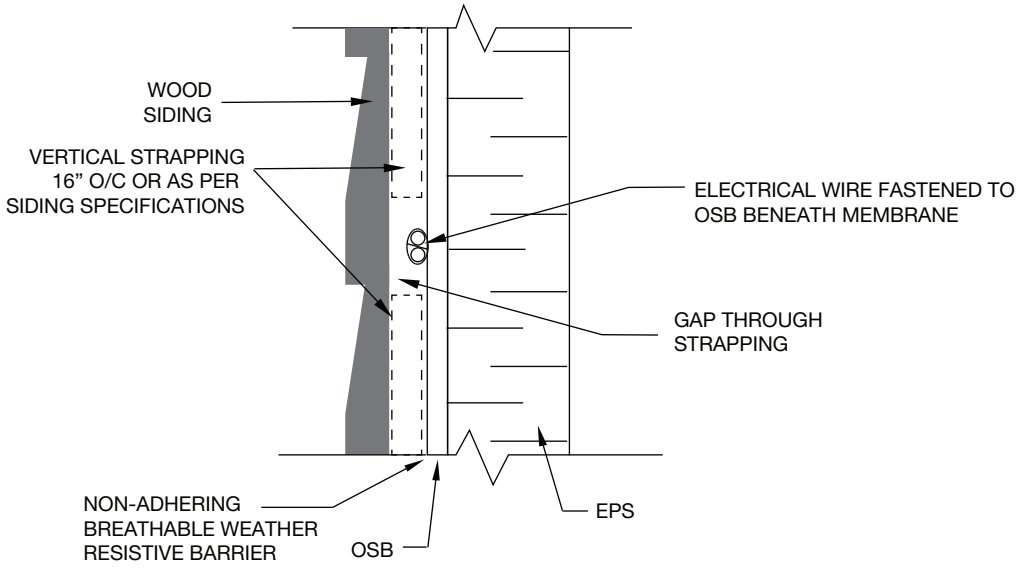
1-877-443-WALL (9255)

TITLE		PROJECT
VERTICAL ELECTRICAL CHASE©		
REFERENCE	SCALE	
DATE: FEBRUARY 2018	REVISION: 2	DWG. No.: W-15

MASONRY VENEER



WOOD SIDING



Thermapan
Structural
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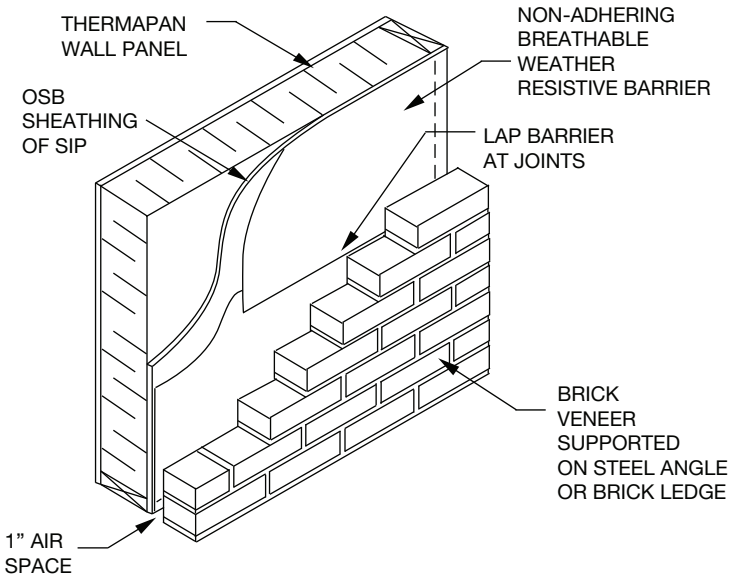
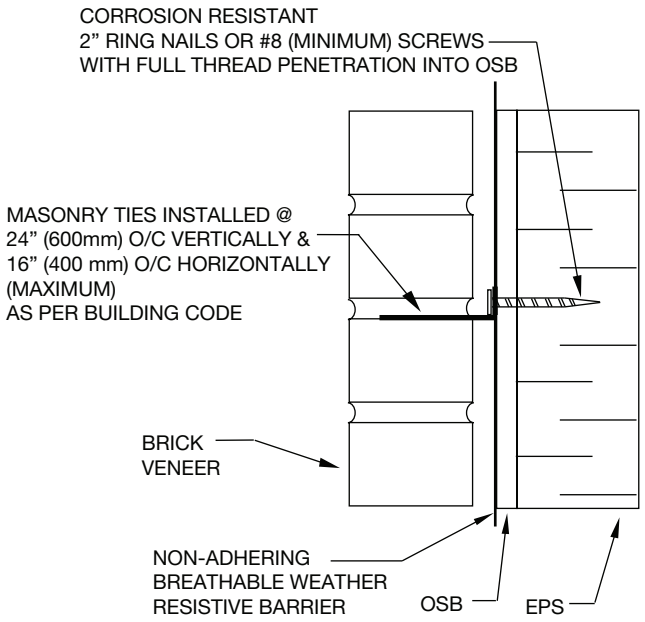
Panels

www.thermapan.com
1-877-443-WALL (9255)

TITLE			PROJECT
ELECTRICAL WIRE FASTENED TO SIP EXTERIOR			
REFERENCE	SCALE		
	N.T.S.		
DATE	REVISION	DWG. No.	
MARCH 2021		W-16	

MASONRY VENEER





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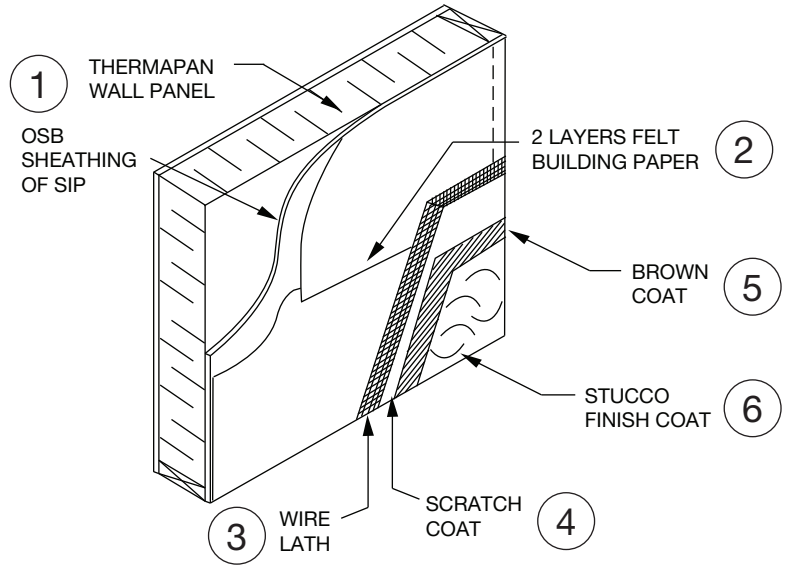
Insulated
Panels

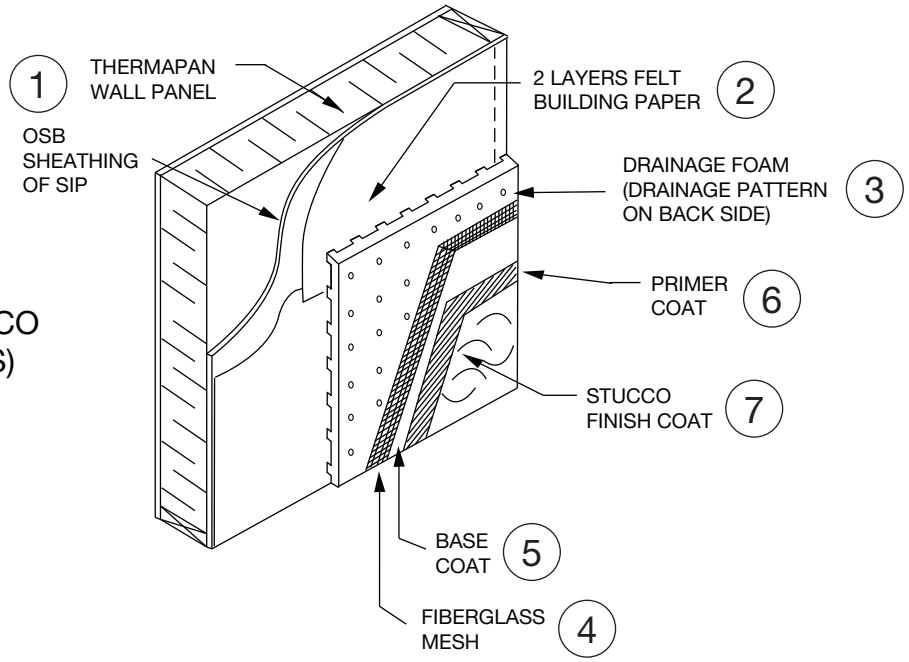
www.thermapan.com
1-877-443-WALL (9255)

TITLE		PROJECT
EXTERIOR WALL CLADDING BRICK & CULTURED STONE		
REFERENCE	SCALE N.T.S.	
DATE MARCH 2023	REVISION	DWG. No. W-17

STUCCO
(TRADITIONAL)



STUCCO
(EIFS)



Thermapan
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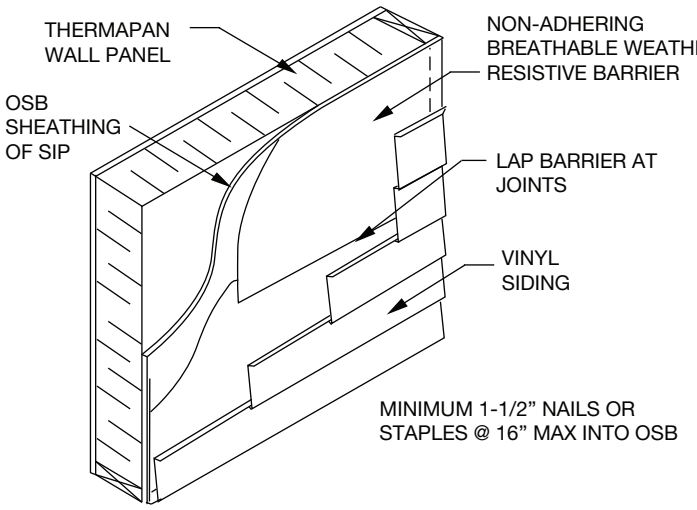
Insulated
Panels

www.thermapan.com
1-877-443-WALL (9255)

TITLE			PROJECT
EXTERIOR WALL CLADDING STUCCO (TRADITIONAL & EIFS)			
REFERENCE	SCALE N.T.S.		
DATE MARCH 2023	REVISION	DWG. No. W-18	

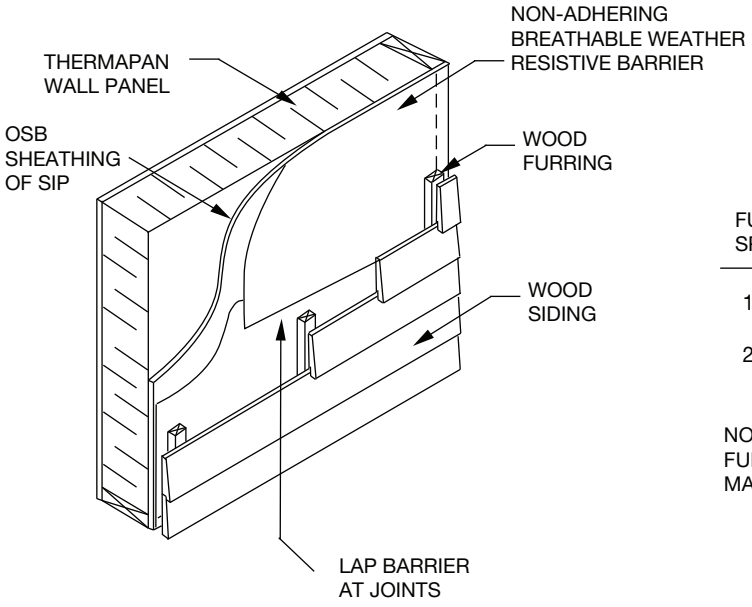
VINYL SIDING



FIBRE CEMENT SIDING

FOR FIBRE CEMENT LAP SIDING REFER TO MANUFACTURER'S RECOMMENDED FASTENING METHODS.

WOOD SIDING



FURRING REQUIREMENTS (WOOD SIDING)

FURRING SPACING	FASTENER SPACING (MIN 1-1/2" SCREWS)	FASTENER SPACING (MIN 1-1/4" NAILS)
16" O/C	10" O/C	8" O/C
24" O/C	8" O/C	8" O/C

NOTE: ALL NAILS TO BE RING (ANNULARLY THREADED). FURRING TO BE AS RECOMMENDED BY SIDING MANUFACTURER.

Thermapan Structural Insulated Panels

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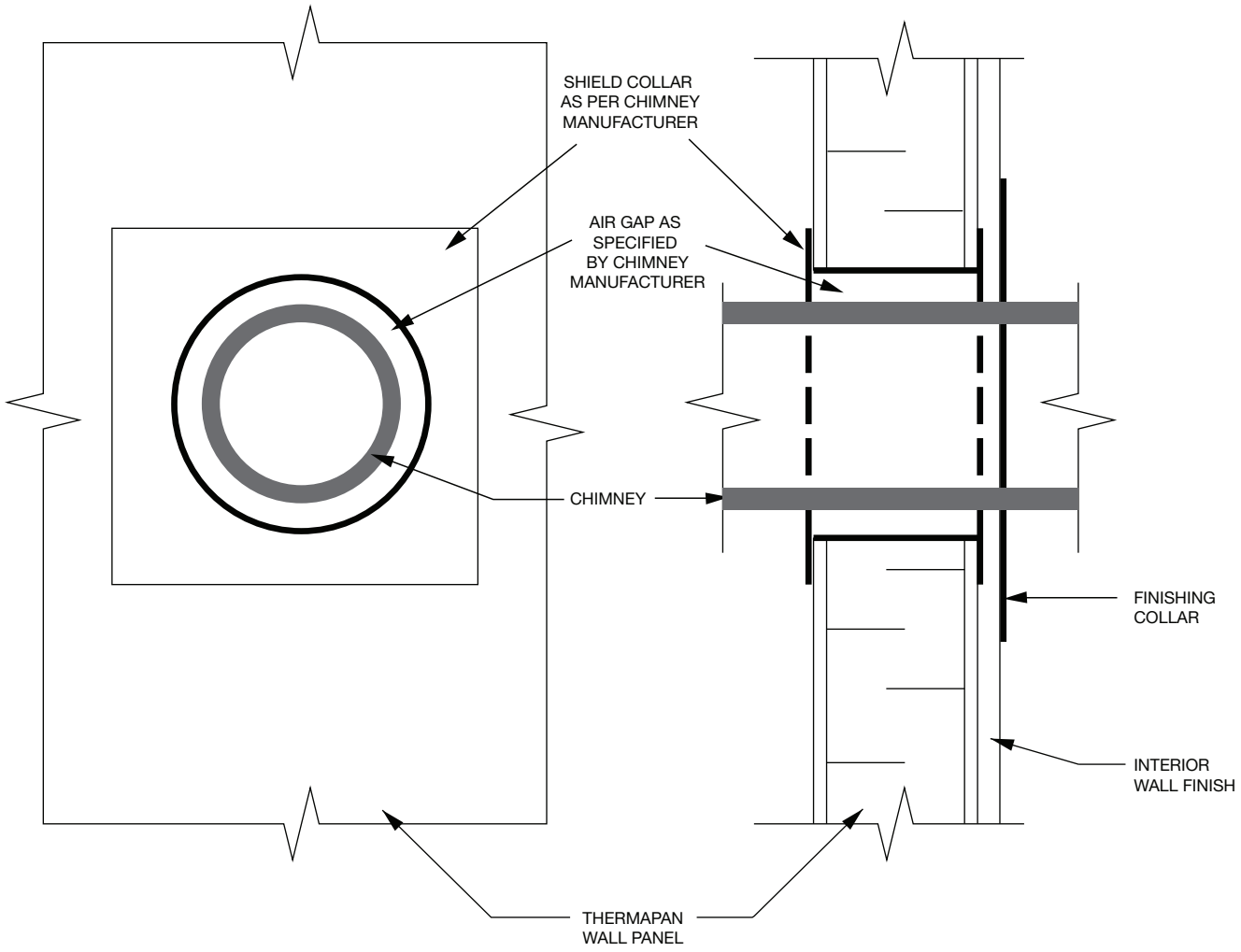
1-877-443-WALL (9255)

TITLE			PROJECT
EXTERIOR WALL CLADDING: SIDING			
REFERENCE	SCALE N.T.S.		
DATE AUGUST 2017	REVISION 3	DWG. No. W-19	



NOTE: ABOVE DETAILS ARE TYPICAL REQUIREMENTS TO INSTALL A PREFABRICATED METAL CHIMNEY IN A THERMAPAN STRUCTURAL INSULATED PANEL. THE CHIMNEY INSTALLATION MUST COMPLY WITH THE CHIMNEY MANUFACTURERS'S SPECIFICATION AND THE APPLICABLE BUILDING CODE.

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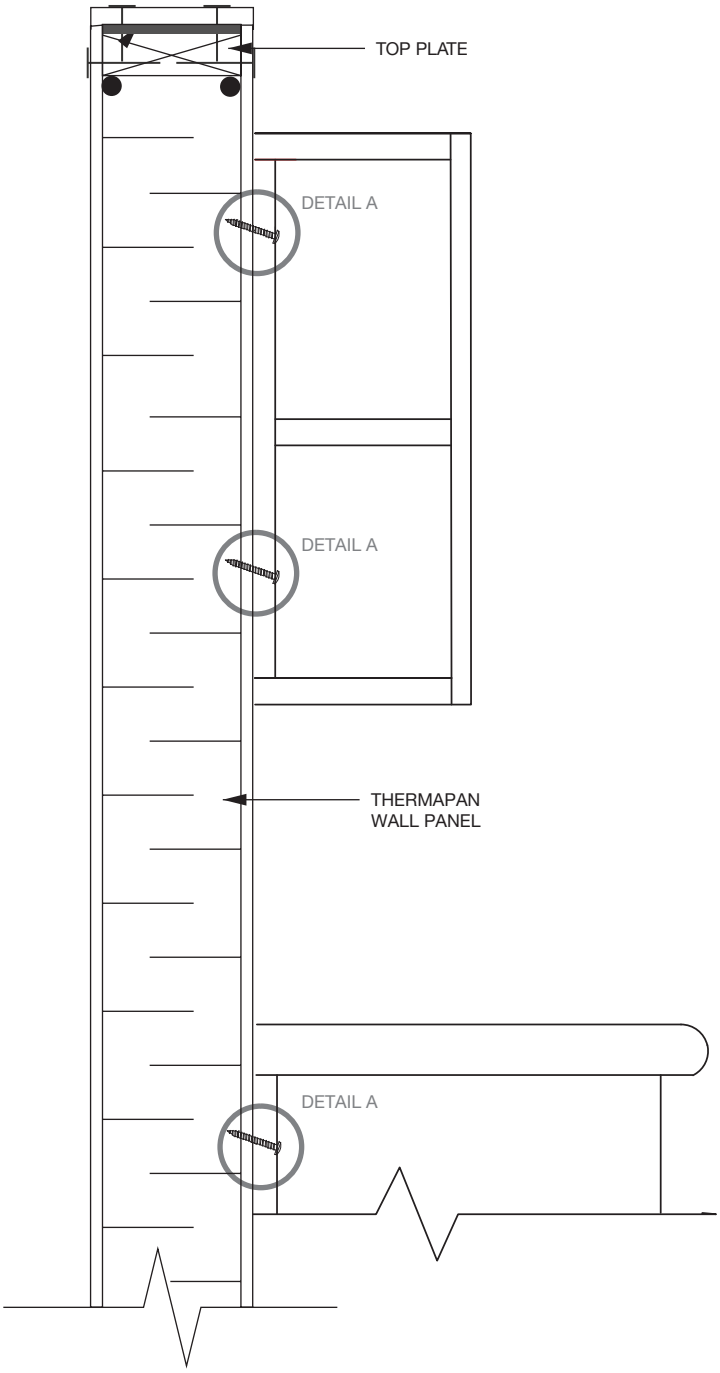
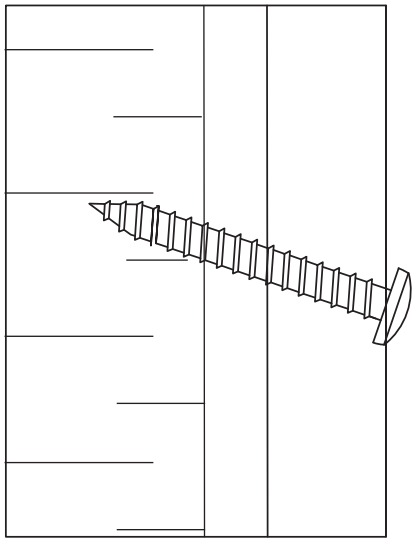
1-877-443-WALL (9255)

TITLE			PROJECT
PRE-FABRICATED METAL CHIMNEY INSTALLATION IN WALL			
REFERENCE	SCALE		
	N.T.S.		
DATE	REVISION	DWG. No.	
FEBRUARY 2019		W-21	



DETAIL A



NOTE: NUMBER 1O TYPE A SHEET METAL SCREWS CAN RESIST A PULL OUT OF 106 POUNDS IN 7/16" OSB. CONTRACTOR TO CONFIRM LOAD TO BE SECURED AND NUMBER OF FASTENERS REQUIRED. FULL THICKNESS OF OSB TO RECEIVE SCREW THREAD ON ANGLE AS DETAILED

*THE GIVEN LOAD CAPACITY OF THE SCREW IS BASED ON THE AVERAGE ULTIMATE FAILURE LOAD DIVIDED BY A FACTOR OF SAFETY OF 3 AND TAKING INTO ACCOUNT A LONG TERM LOAD DURATION FACTOR OF 0.9. DESIGNERS MUST USE THE APPROPRIATE SAFETY FACTOR AND LOAD DURATION FACTOR FOR EACH LOADING CONDITION.

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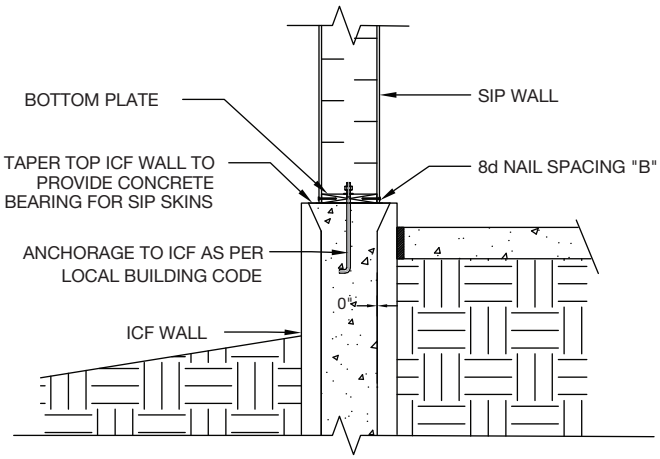
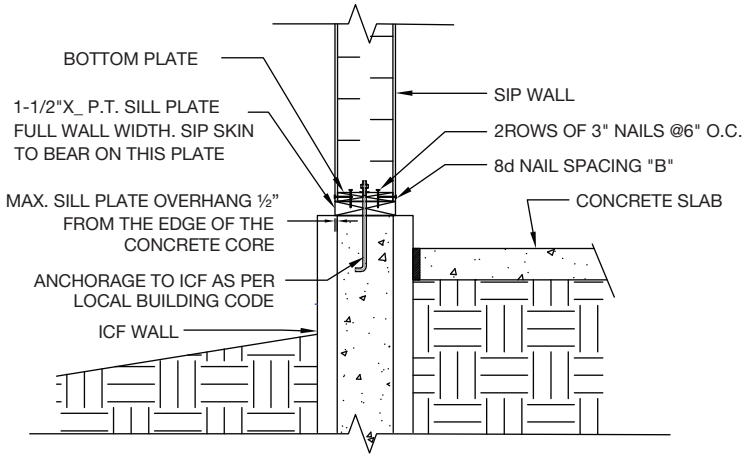
TITLE			PROJECT
SCREW FASTENER DETAIL FOR SECURING SHELVING TO THERMAPAN PANEL			
REFERENCE	SCALE		
	N.T.S.		
DATE	REVISION	DWG. No.	
MARCH 2022	1	W-22	



SIP WALL TO ICF CONNECTION
(TAPERED TOP OF ICF WALL)



SIP WALL TO ICF CONNECTION
(SQUARE TOP OF ICF WALL)

Thermapan
Structural Insulated Panels

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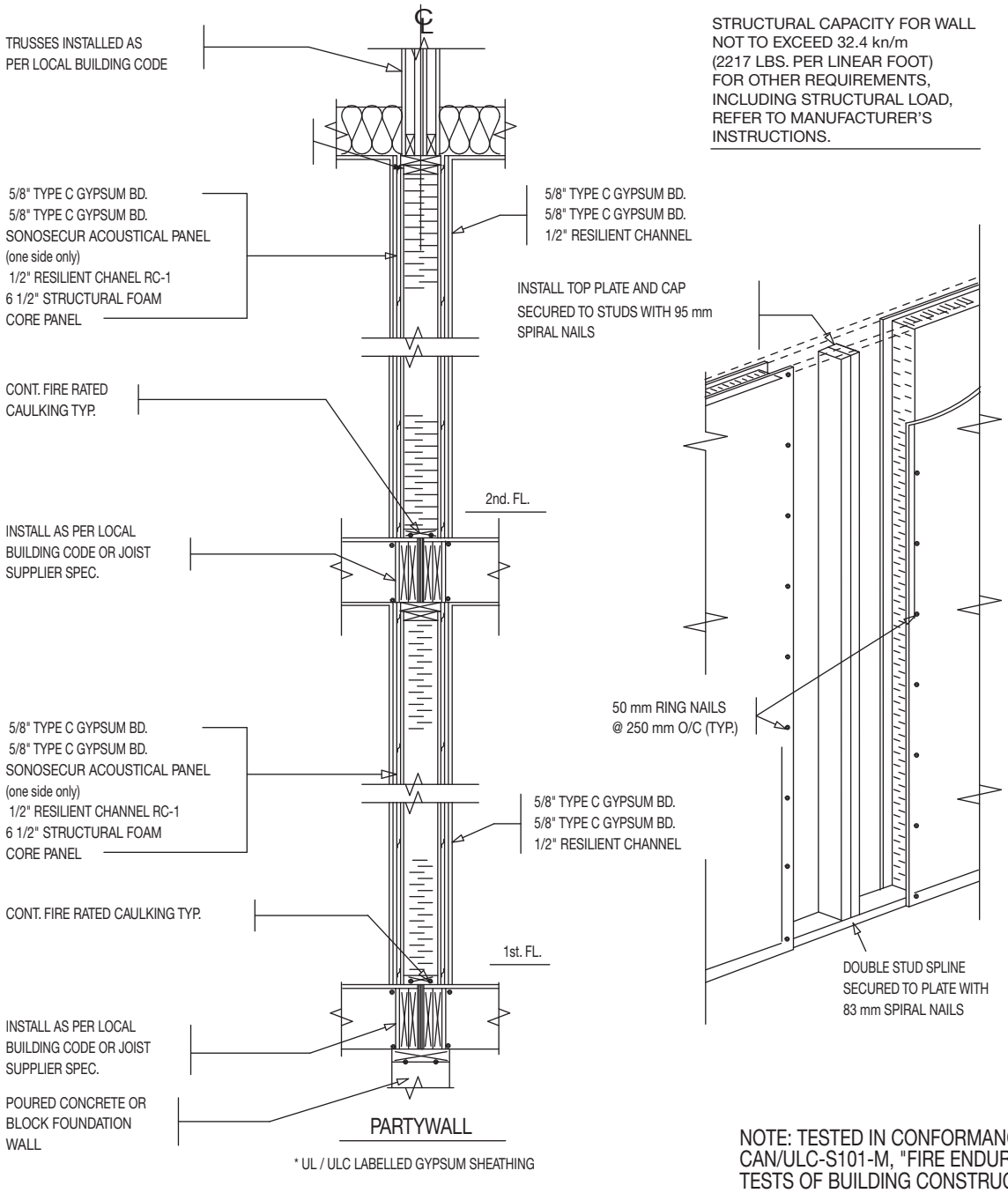
TITLE		PROJECT
WALL SIP TO ICF CONNECTION DETAIL		
REFERENCE	SCALE	
	N.T.S.	
DATE	REVISION	DWG. No.
MARCH 2024	1	W-23



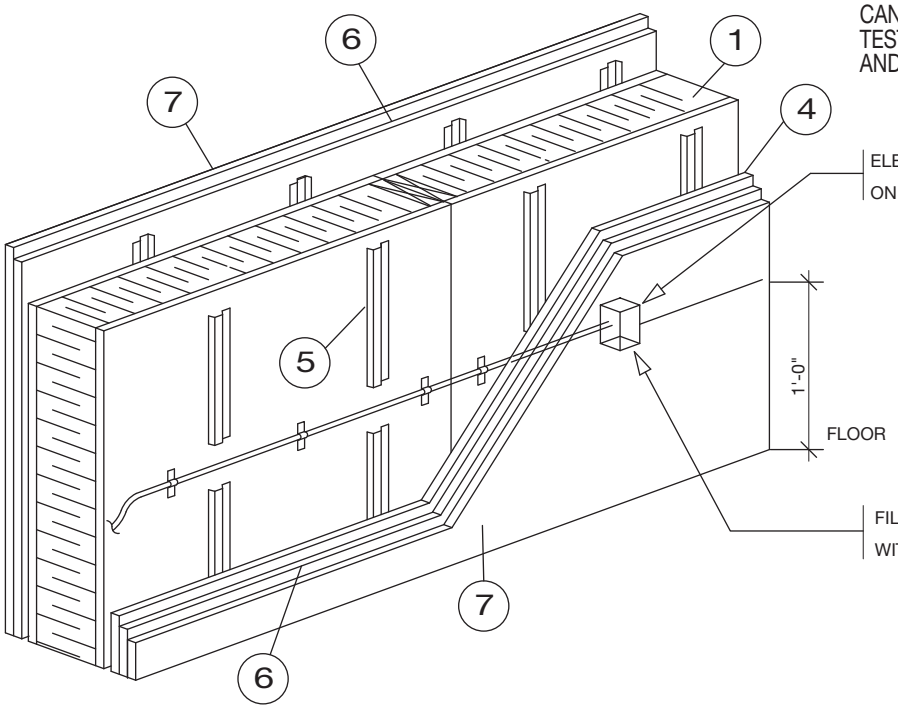
NOTE: TESTED IN CONFORMANCE WITH CAN/ULC-S101-M, "FIRE ENDURANCE TESTS OF BUILDING CONSTRUCTION AND MATERIALS"

Thermapan Structural Insulated Panels

www.thermapan.com
1-877-443-WALL (9255)

TITLE		PROJECT
60 MIN. PARTYWALL SINGLE WALL STC RATING 50		
REFERENCE	SCALE	
	N.T.S.	
DATE	REVISION	DWG. No.
JULY 2023	9	W-PW-1

NOTE: TESTED IN CONFORMANCE WITH CAN/ULC-S101-M, "FIRE ENDURANCE TESTS OF BUILDING CONSTRUCTION AND MATERIALS"



ELECTRICAL OUTLET MOUNTED ON ACOUSTICAL CAULK

FILL ANY GAP AROUND BOX WITH FIRE RATED CAULK

1. 6.5" SIP
4. SONOSECUR
5. RESILIENT CHANNEL
6. GYPSUM 5/8" TYPE C
7. GYPSUM 5/8" TYPE C

ASSEMBLY OF RESILIENT CHANNEL (5)

THE RESILIENT CHANNELS ARE ORIENTED VERTICALLY AT 16" (400 mm) OC AND SECURED WITH 1" (25 mm) TYPE W GYPSUM BOARD SCREWS AT 16" (400 mm) OC TO THE STRUCTURAL INSULATED PANEL (SIP)

ASSEMBLY OF SONOSECUR ACOUSTIC PANEL (4)

TACK THE SONOSECUR ACOUSTIC PANEL WITH 1" (25 mm) LONG TYPE W GYPSUM BOARD SCREWS TO HOLD IN PLACE. THE SONOSECUR ACOUSTIC PANEL IS ASSEMBLED ON ONE SIDE ONLY.

ASSEMBLY OF FIRST LAYER 5/8" TYPE C GYPSUM (6)

INSTALL THE FIRST GYPSUM LAYER (6) VERTICALLY ONTO RESILIENT CHANNELS WITH 1" (25 mm) TYPE W GYPSUM SCREWS SPACED 16" (400 mm) OC.

ASSEMBLY OF SECOND LAYER 5/8" TYPE C GYPSUM (7)

THE JOINTS OF THE SECOND LAYER SHOULD BE OFFSET AND STAGGERED FROM FIRST LAYER. THE SECOND LAYER SHOULD HAVE 1.75" (44 mm) SCREWS AT 12" (304 mm) OC . THE FIRST LAYER OF GYPSUM DOES NOT HAVE TO BE TAPED. ONLY THE SECOND LAYER HAS TO BE FINISHED. JOINTS SHOULD BE COVERED WITH COMPOUND, COVERED WITH JOINT TAPE AND COVERED WITH AN ADDITIONAL TWO COATS OF JOINT COMPOUND. SCREW HEADS COVERED WITH JOINT COMPOUND.

UL GYPSUM BOARD FIRECODE "C"

Thermapan Structural Insulated Panels

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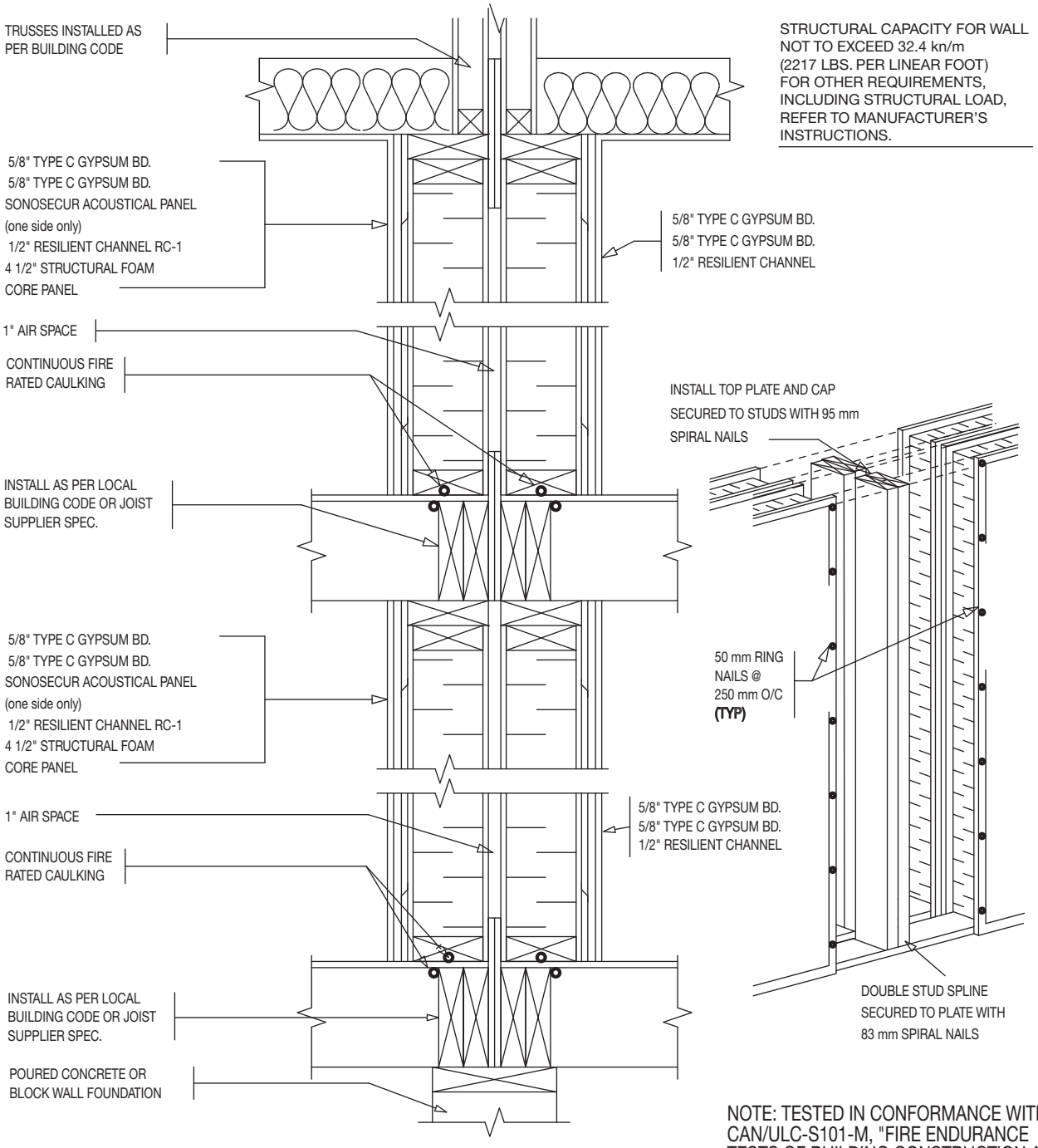
TITLE

PARTYWALL ELECTRICAL DETAIL
(60 MINUTE WALL RATED ASSEMBLY (SINGLE WALL) STC RATING 50)

PROJECT

REFERENCE	SCALE	
8015	N.T.S.	
DATE	REVISION	DWG. No.
JULY 2023	9	W-PW-2



ULC LABELLED CANADIAN GYPSUM COMPANY "SHEETROCK FIRECODE C" OR "SHEETROCK SW FIRECODE C"

NOTE: TESTED IN CONFORMANCE WITH CAN/ULC-S101-M, "FIRE ENDURANCE TESTS OF BUILDING CONSTRUCTION AND MATERIALS"

Thermapan Structural Insulated Panels

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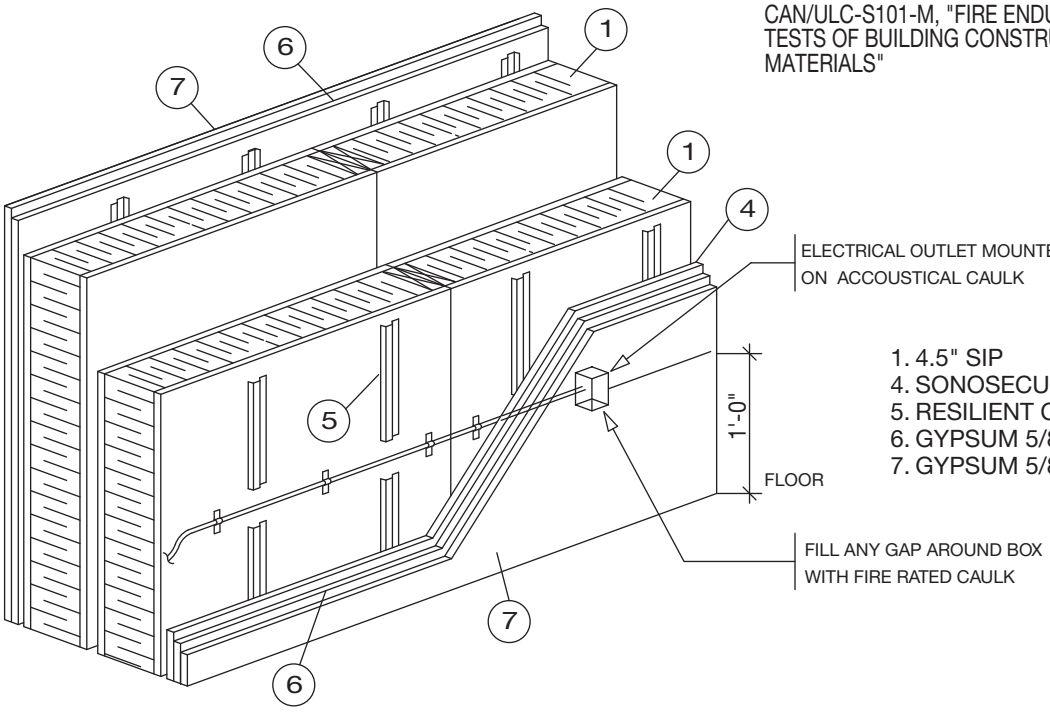
1-877-443-WALL (9255)

TITLE		PROJECT
60 MIN. PARTYWALL DOUBLE WALL STC RATING 50		
REFERENCE: 7016	SCALE: N.T.S.	
DATE: JULY 2023	REVISION: 6	DWG. No.: W-PW-3

NOTE: TESTED IN CONFORMANCE WITH CAN/ULC-S101-M, "FIRE ENDURANCE TESTS OF BUILDING CONSTRUCTION AND MATERIALS"



1. 4.5" SIP
4. SONOSECUR
5. RESILIENT CHANNEL
6. GYPSUM 5/8" TYPE C
7. GYPSUM 5/8" TYPE C

ASSEMBLY OF RESILIENT CHANNEL (5)

THE RESILIENT CHANNELS ARE ORIENTED VERTICALLY AT 16" (400 mm) OC AND SECURED WITH 1" (25 mm) TYPE W GYPSUM BOARD SCREWS AT 16" (400 mm) OC TO THE STRUCTURAL INSULATED PANEL (SIP).

ASSEMBLY OF SONOSECUR ACOUSTIC PANEL (4)

TACK THE SONOSECUR ACOUSTIC PANEL WITH 1" (25 mm) LONG TYPE W GYPSUM BOARD SCREWS TO HOLD IN PLACE. THE SONOSECUR ACOUSTIC PANEL IS ASSEMBLED ON ONE SIDE ONLY.

ASSEMBLY OF FIRST LAYER 5/8" TYPE C GYPSUM (6)

INSTALL THE FIRST GYPSUM LAYER (6) VERTICALLY ONTO RESILIENT CHANNELS WITH 1" (25 mm) TYPE W GYPSUM SCREWS SPACED 16" (400 mm) OC.

ASSEMBLY OF SECOND LAYER 5/8" TYPE C GYPSUM (7)

THE JOINTS OF THE SECOND LAYER SHOULD BE OFFSET AND STAGGERED FROM FIRST LAYER. THE SECOND LAYER SHOULD HAVE 1.75" (44 mm) SCREWS AT 12" (304 mm) OC . THE FIRST LAYER OF GYPSUM DOES NOT HAVE TO BE TAPED. ONLY THE SECOND LAYER HAS TO BE FINISHED. JOINTS SHOULD BE COVERED WITH COMPOUND, COVERED WITH JOINT TAPE AND COVERED WITH AN ADDITIONAL TWO COATS OF JOINT COMPOUND. SCREW HEADS COVERED WITH JOINT COMPOUND.

UL GYPSUM BOARD FIRECODE "C"

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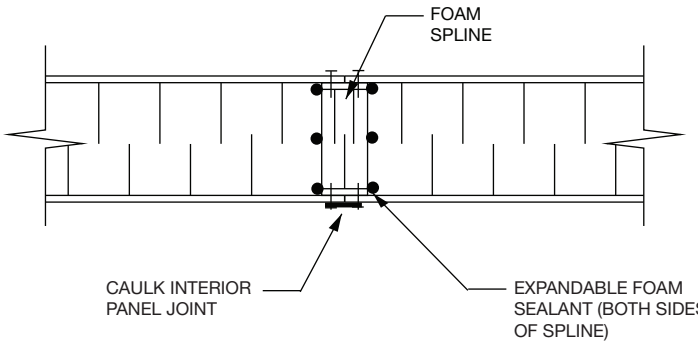
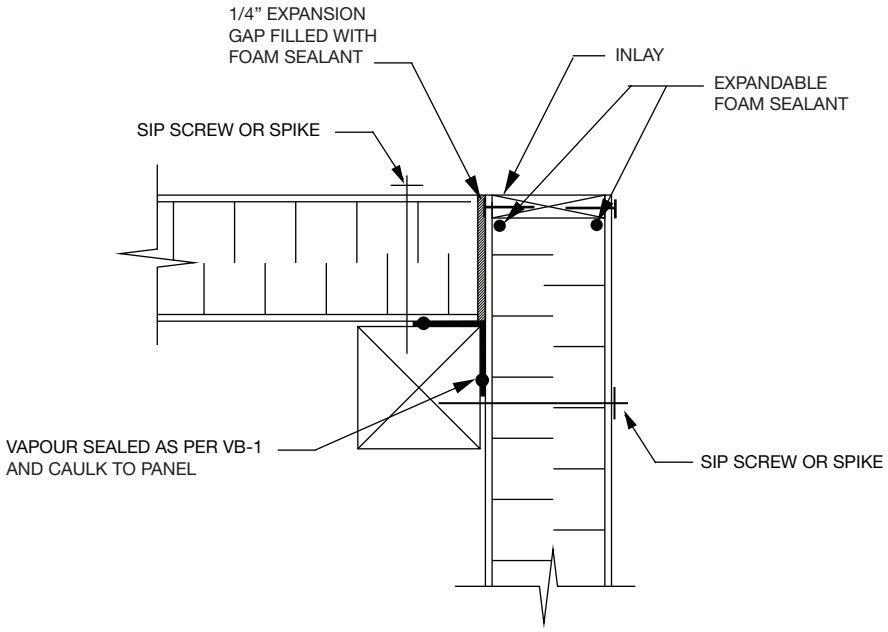
TITLE

PARTYWALL ELECTRICAL DETAIL
(60 MIN. WALL RATED ASSEMBLY (DOUBLE WALL) STC RATING 50)

PROJECT

REFERENCE	SCALE		
8015	N.T.S.		
DATE	REVISION	DWG. No.	
JULY 2023	7	W-PW-4	





NOTE: REFER TO W-1 FOR SPLINE CONNECTION DETAILS. REFER TO AIR BARRIER (AB-1 & AB-2) DETAILS FOR SEALING SIP CONNECTIONS.

THE PANELS ARE FASTENED TO THE POST AT THE CORNERS AS SHOWN LEAVING A GAP TO BE SEALED WITH EXPANDING SPRAY FOAM.

DIMENSIONAL LUMBER INLAYS COMPLETE THE NAILING SURFACE AT THE CORNER.

Thermapan
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Insulated
Panels

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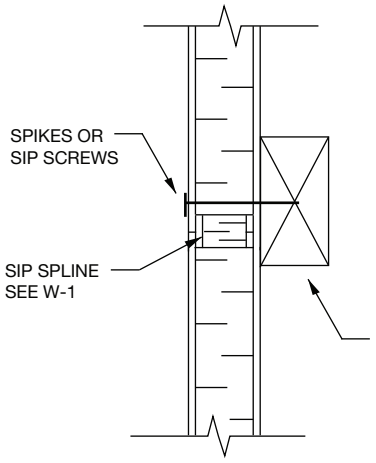
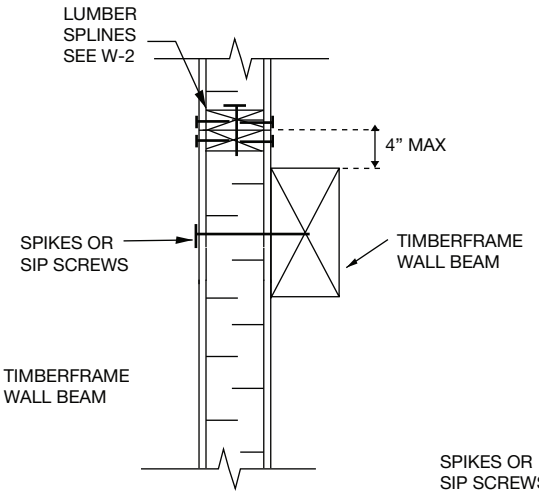
1-877-443-WALL (9255)

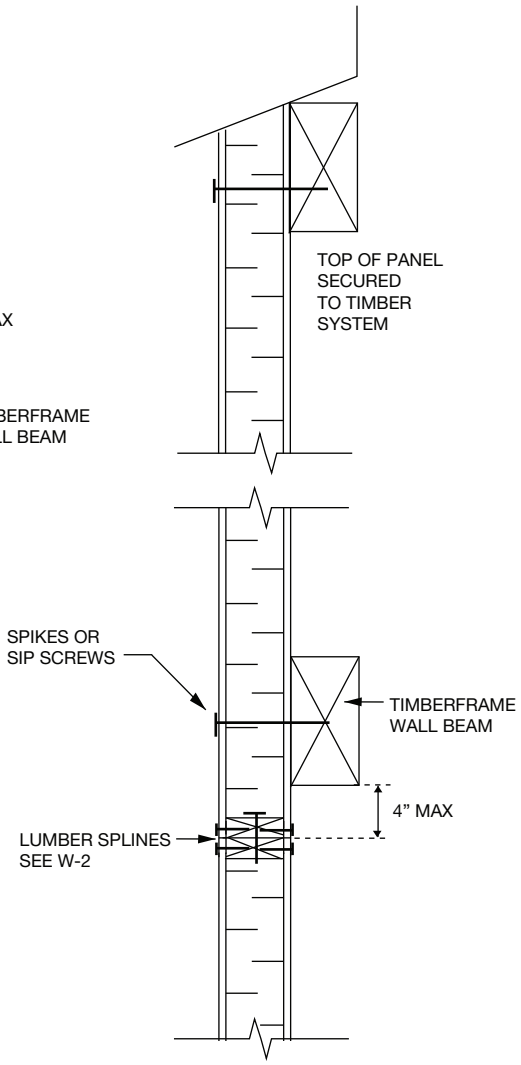
TITLE			PROJECT
VERTICAL PANEL CONNECTIONS SPLINE & CORNER (TIMBERFRAME)			
REFERENCE	SCALE N.T.S.		
DATE APRIL 2014	REVISION 6	DWG. No. W-TF-1	



TOP OF BOTTOM
PANEL @ BEAM



TOP OF BOTTOM
PANEL ABOVE BEAM



TOP OF BOTTOM
PANEL BELOW
BEAM

NOTE: REFER TO AIR BARRIER (AB-1 & AB-2) DETAILS FOR SEALING SIP CONNECTIONS.

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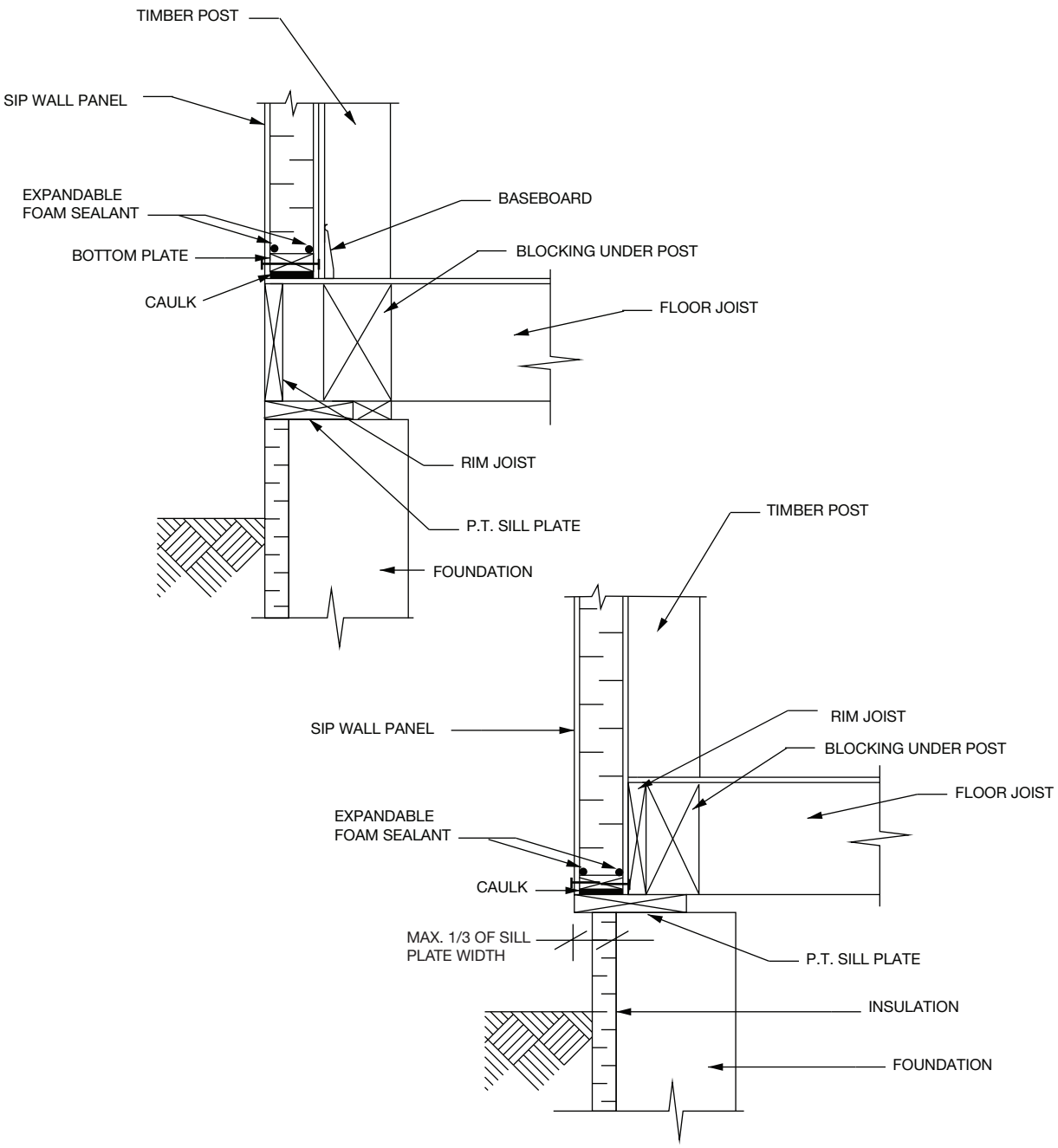
TITLE: HORIZONTAL CONNECTIONS AT BEAMS (TIMBERFRAME)			PROJECT
REFERENCE	SCALE: N.T.S.		
DATE: APRIL 2014	REVISION: 3	DWG. No.: W-TF-2	



NOTE: REFER TO AIR BARRIER (AB-2) DETAIL FOR SEALING SIP CONNECTIONS.

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TITLE			PROJECT
FOUNDATION DETAILS DECK OPTIONS (TIMBERFRAME)			
REFERENCE	SCALE N.T.S.		
DATE APRIL 2014	REVISION 5	DWG. No. W-TF-3	