

The better way to build™



Installation Manual

FOUNDATION SIPs & FROST WALLS SIPs



Thermapan
Structural
Insulated
Panels

PWF FOUNDATION & FROST WALL SIPs Installation Manual

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PWF FOUNDATION & FROST WALL SIPs Installation Manual

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FOUNDATION SIPs & FROST WALL SIPs Installation Manual

1. General Requirements

1.1 Scope

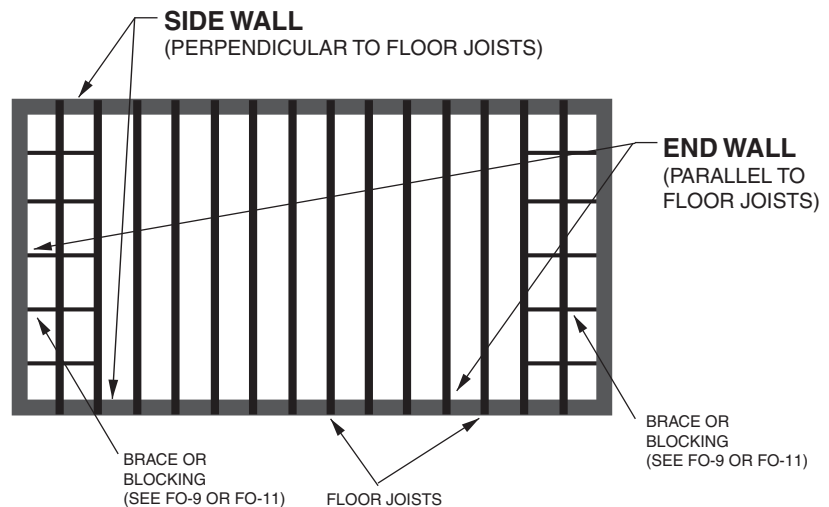
The basic design and construction requirements for the Thermapan Permanent Wood Structural Insulated Panel (PW SIP) foundation systems are set forth in this specification. Criteria for materials, preservative treatment, soil characteristics, environmental control, design loads, and structural design 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. Terms

End Walls are the exterior walls parallel to the floor joists. They do not support the floor joists.

Side Walls are the exterior walls that are perpendicular to the floor joists.



3. Materials

PW SIP Foundation Wall (See Figure FO-1)

- 3.1** The Thermapan PW SIP is composed of an expanded polystyrene (EPS) foam core laminated between two layers of preservative treated plywood with a structural adhesive.
- 3.2** Top Plate **(See Detail FO-1)**. The top plate shall be untreated DOC PS 20 or NLGA No.2 or better.
- 3.3** Cap Plate **(See Detail FO-1)**. The cap plate shall be untreated DOC PS 20 or NLGA No.2 or better. If the cap plate is to be used as a brick ledge, it shall be treated to AWPA U4B and CSA O080-08 U4B.
- 3.4** Framing Lumber shall be pressure treated DOC PS 20 or NLGA No.2 or better and shall be treated to AWPA U4B and CSA O080-08 U4B. Cut ends shall be treated with preservatives. **(See Detail FO-1)**
- 3.5** Fasteners and Connectors. Fasteners used shall be of Type 304, Type 316 stainless steel or ASTM A153 Hot Dip Galvanized. Connectors shall conform to ASTM A653.
- 3.6** Caulking Compounds shall conform to CAN/CGSB 19.13 or ASTM C 920.
- 3.7** Manufactured Drainage Layer shall conform to ICC-ES AC114.
- 3.8** Granular Drainage Layer shall consist of clean crushed stone or clean gravel which will pass through a 40 mm (1.5 in) sieve and contain not more than 10% of fine material that will pass a 4mm (0.15 in) sieve.
- 3.9** Low expansion foam seal shall conform to AAMA 812-04.

4. Site Preparation

- 4.1 Excavation requirements shall conform to those of the appropriate building code.
- 4.2 All top soil and vegetation matter that would be under the building must be removed.
- 4.3 The bottom of the excavation must be free of all organic matter and standing water.
- 4.4 A continuous granular drainage layer shall be installed under floors of PW-SIP-F's and not be less than 125mm (5").
- 4.5 The excavation and granular drainage layer shall drain to a sump, which shall be provided with positive drainage, by gravity or pump, to a final disposal point outside the building.
- 4.6 Perimeter drainage tile or pipe shall **NOT BE USED** with PW-SIP foundations.

5. Footings – Concrete

- 5.1 Concrete footings supporting PW SIP foundation walls shall be constructed in conformance with appropriate building code.
- 5.2 Concrete footings shall be placed on undisturbed soil or on 125mm (5") granular drainage layer. **See Detail FO-2**
- 5.3 When concrete footings are placed on undisturbed soil, drainage shall be provided by casting 51mm (2") inner diameter water passages (pipes) at 1200mm (4') on centre in the footing. **See Detail FO-2**
- 5.4 Concrete footings shall be designed for point loads. **See Details FO-5 and FO-6.**
- 5.5 The use of any drainage tile or pipe will void the Thermapan warranty.

6. Foundation Columns

Columns supporting floor beams and/or point loads above shall be constructed in conformance with appropriate building code.
See Details FO-5 and FO-6

7. Exterior Walls

Framing and fastening around wall openings shall conform to **Detail FO-7**

8. Concrete Slab Floors

Concrete slab floors shall not be less than 75mm (3") thick exclusive of concrete topping. **See Detail FO-2.**

9. Crawl Spaces

Crawl spaces (with no concrete slab) shall be backfilled and compacted to a minimum of 2/5 of the exterior backfill height for lateral support and lined with a poly ground cover. **See Detail FO-3.**

10. First Floors

- 10.1** The first floor system is an integral part of the entire foundation.
- 10.2** Floor at the top of the foundations shall be constructed to prevent inward movement of the exterior walls due to lateral pressure.
- 10.3** A PW-SIP foundation shall never be backfilled before the entire first floor system (joists, subfloor, etc.) and basement floor are completely installed.
- 10.4** Support for side walls see **Detail FO-8.**
- 10.5** Support for end walls see **Detail FO-9.**
- 10.6** When the backfill heights are at different heights around the building, additional nailing requirements must be incorporated for the foundation wall sheathing.

11. Stairwell Openings

- 11.1** When openings are greater than 1200mm (4') from a side wall and 1800mm (6') from an endwall, stairwell opening construction shall conform to the minimum requirements for wood frame construction in the appropriate building code.
- 11.2** When openings are closer to their adjacent walls than specified previously, they shall conform to the following **Details FO-10 and FO-11.**

12. Support of

See Detail FO-8 or FW-1.

Masonry Veneer

13. Exterior Moisture Barrier **See Detail FO-2.**

- 13.1** The below grade portion of the exterior face of the wall sheathing on a PW-SIP foundation enclosing living space shall be protected by a moisture barrier and manufactured drainage layer.
- 13.2** A manufactured drainage layer shall be applied over the exterior wall sheathing and at the soil grade. The manufactured drainage layer is to be installed as per the manufacturer's instructions.
- 13.3** The manufactured drainage layer shall cover the entire surface below grade and extend to the bottom edge of the concrete footing. It shall not obstruct the required drainage passages
- 13.4** The adherence of any water-proofing membrane to any Thermapan SIP PWF plywood surface will void the Thermapan warranty.

14. PWF Wall to Existing Foundation **See Detail FO-12.**

15. Electrical Wiring

- 15.1** All wire chases to be vertically cut into the PW-SIP at a minimum depth of 2". **See Detail FO-13.**
- 15.2** All electrical boxes shall be plastic.
- 15.3** All fasteners shall be of Type 304, Type 316 stainless steel or ASTM A153 Hot Dip Galvanized.

16. Interior Finish

The interior of the PW-SIP foundation can be finished with any of

the common materials. The interior plywood of the SIP makes this a relatively simple operation without consuming floor area as would be the case with other types of foundations that require interior wood frame walls to be built before finishing.

17. Frost Walls

See Details FW-1, FW-2, FW-3 and/or FW-4.

18. Backfilling

- 18.1** PWF SIP foundations shall not be backfilled until the basement floor slab and the floor on top of the foundation are completely installed.
- 18.2** Heavy equipment and loads shall be kept a safe distance from foundations.
- 18.3** Backfill shall be placed in uniform lifts not exceeding 600mm (2') around the foundation.
- 18.4** The site shall be graded sloping away from the foundation or to appropriate building code.
- 18.5** For additional backfilling and site drainage details beyond this manual refer to your local building code and the following building standards: 1) Canada – CAN/CSA-S406-92 Construction of Preserved Wood Foundations and 2) USA - ANSI / AWC PWF-2015 - Permanent Wood Foundation Design Specification.

MATERIALS ESTIMATING

Foundations/Frost Walls Estimation Only

Lumber Requirements:

- Single bottom plate: 14ft (4268mm) or 16ft (4678mm) lengths are best
- Single top plates plus a cap plate can be SPF unless siding is brick and backfill height is less than 12" (300mm) from top of the panel use PWF
- Every panel requires 2 studs
- Every corner requires 2 studs
- Calculate number of outside corners – every 4 requires a sheet of PWF Plywood

Caulking and Sealant Requirements:

- Every 1200 sqft (111 m²) of SIP equals 1 case of Expandable Foam
- Every 2000 sqft (185 m²) of SIP requires 1 case of Sealant

Fasteners:

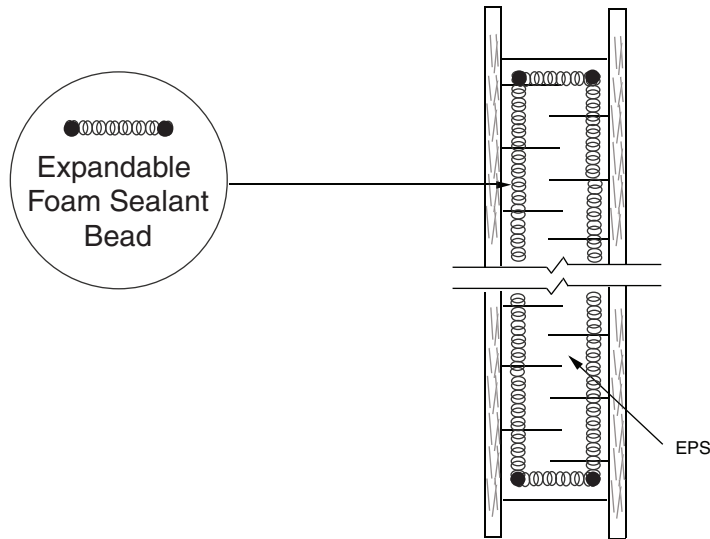
- Recommend 2" (50mm) nails/screws
- 3.0 times sqft of panel equals number of fasteners
- All floor joists require framing straps [e.g. USP PWFS24]

AIR BARRIER

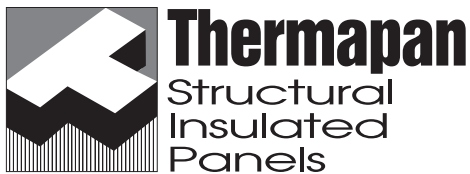
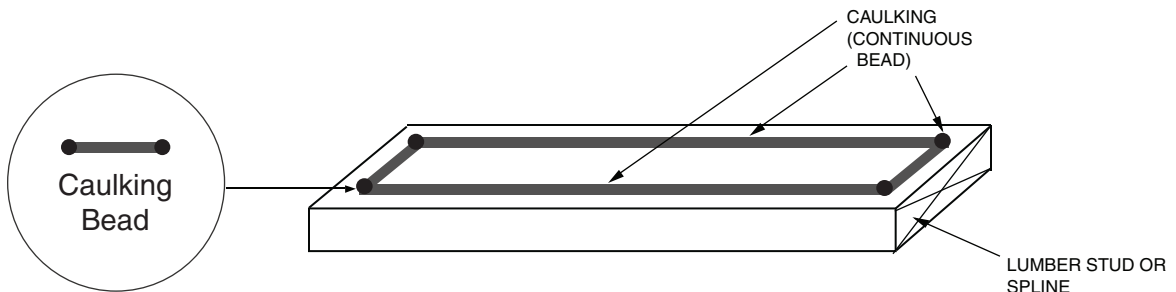
RECOMMENDED DETAILS FOR AIR BARRIER SEALANTS

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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1-877-443-WALL (9255)

TITLE

AIR BARRIER DETAILS FOR AIR BARRIER SEALANTS

PROJECT

REFERENCE

SCALE

N.T.S.

DATE

NOVEMBER 2010

REVISION

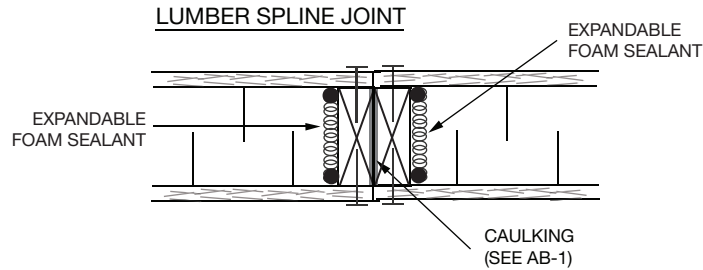
DWG. No.

1 AB-1

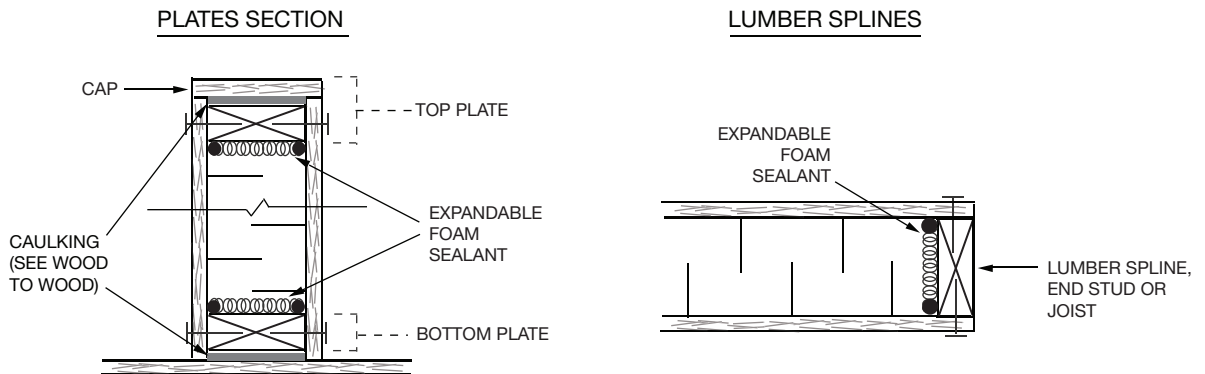
AIR BARRIER

RECOMMENDED DETAILS FOR SEALING SIP CONNECTIONS

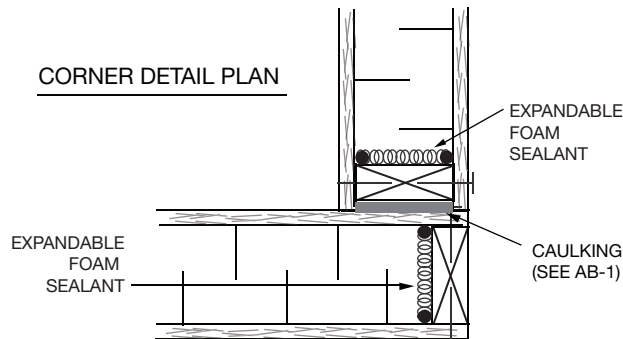
(1) Wood to Wood Spline Joint: Use caulking and a low expansion foam sealant.



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



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



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TITLE

AIR BARRIER DETAILS
FOR SEALING
PWF SIP CONNECTIONS

PROJECT

REFERENCE

SCALE

N.T.S.

DATE

JUNE 2020

REVISION

DWG. No.

AB-2

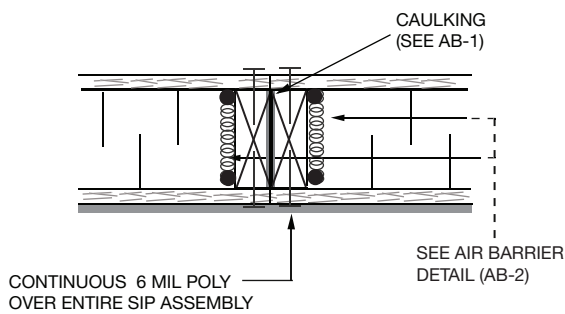
VAPOUR BARRIER

RECOMMENDED DETAILS FOR VAPOUR SEALING SIP CONNECTIONS

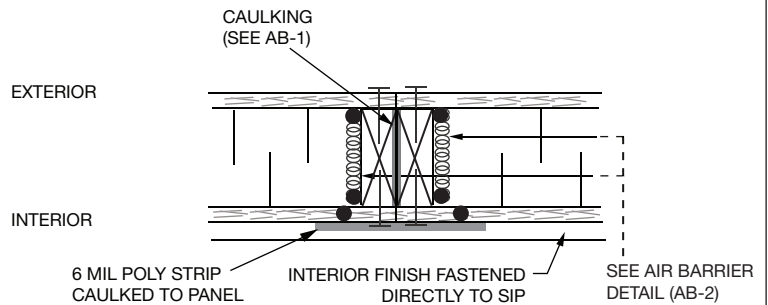
The function of a vapour barrier is to control the entry of water vapour into the building assembly. Vapour barriers should not be confused with an air barrier.

All SIP seams and connections must be VAPOUR SEALED from the INTERIOR.

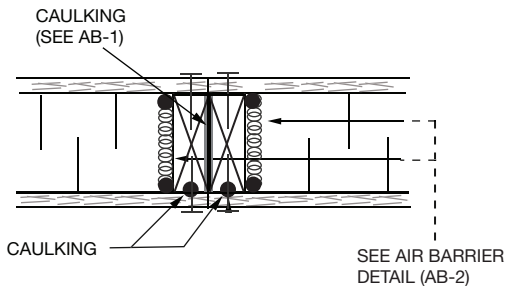
These are recommended vapour barrier methods:



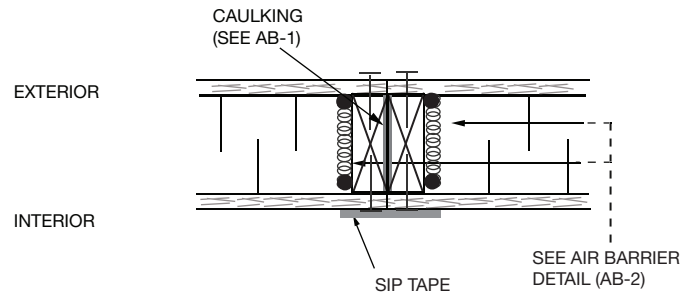
CONTINUOUS 6 MIL POLY
RECOMMENDED



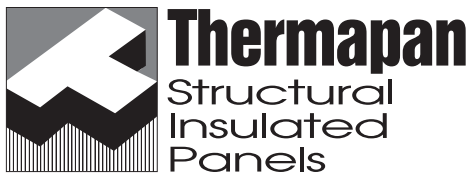
6 MIL POLY STRIPS & CAULKING



CAULKING



SIP TAPE



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TITLE

VAPOUR BARRIER DETAILS
FOR VAPOUR SEALING
PWF SIP CONNECTIONS

PROJECT

REFERENCE

SCALE

N.T.S.

DATE

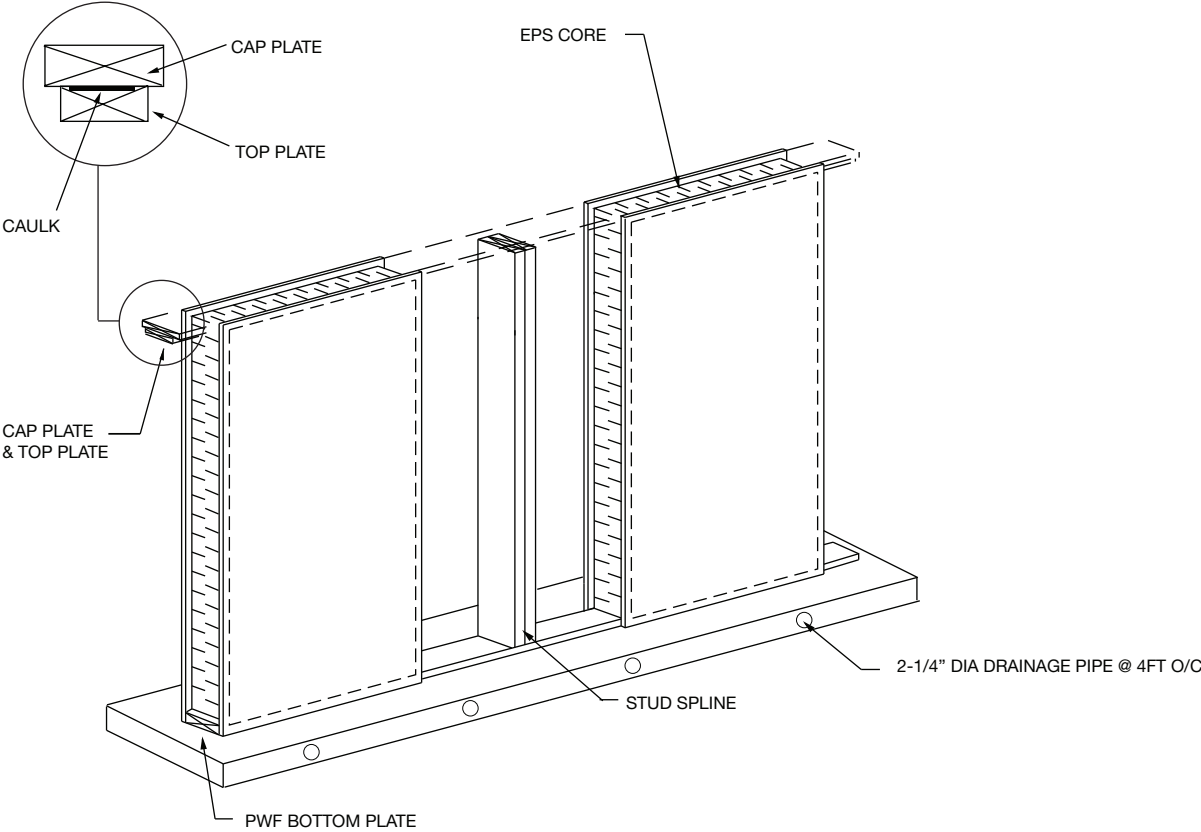
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REVISION

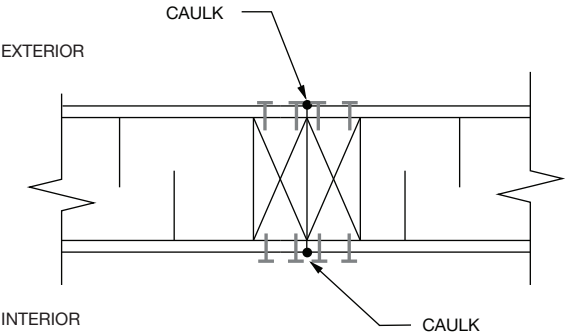
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VB-1

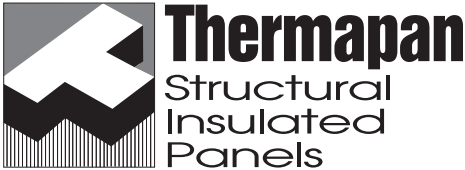
ISOMETRIC VIEW



TOP PLAN

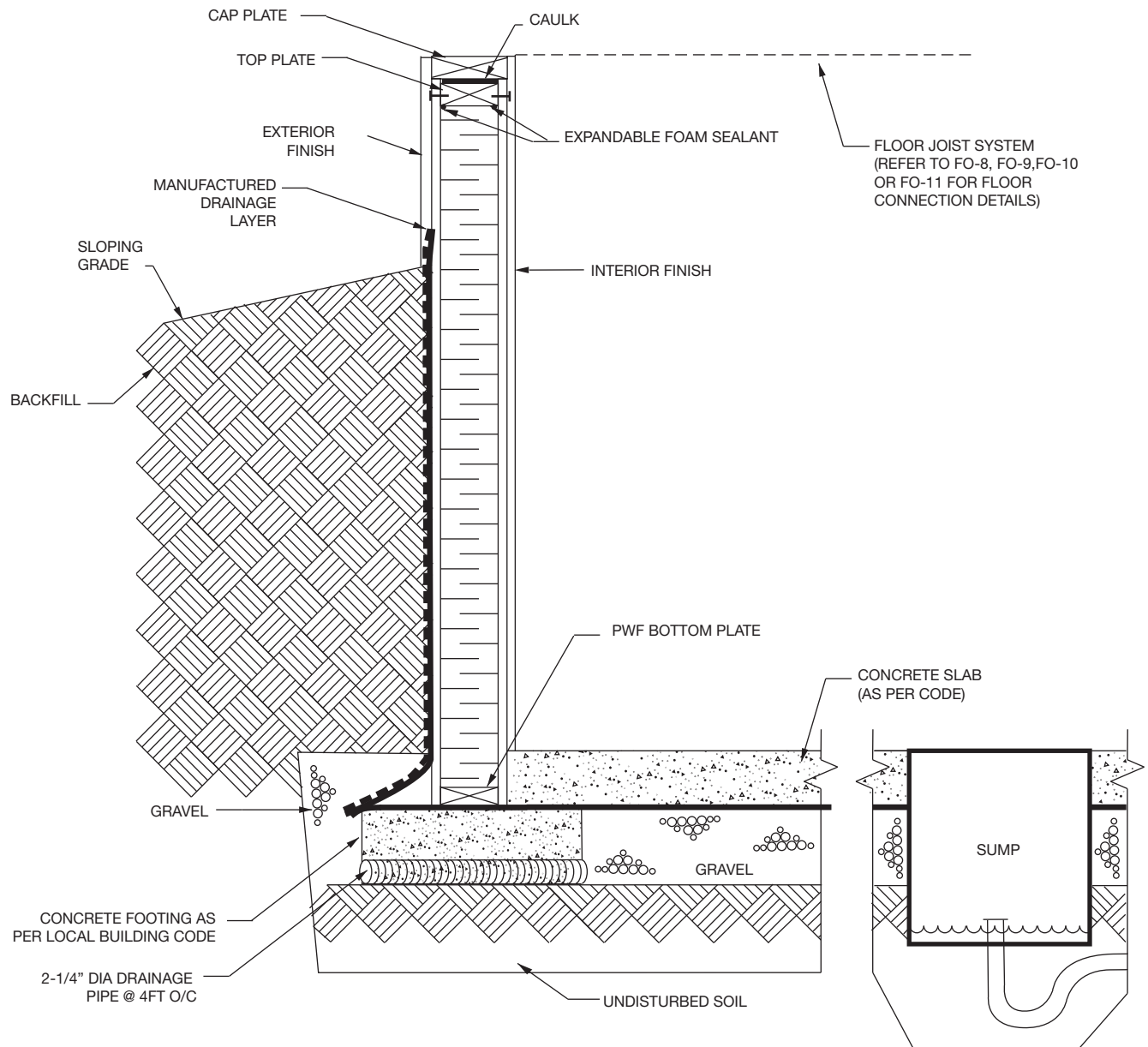


NOTES: REFER TO AIR BARRIER (AB-1) DETAILS FOR SEALING SIP CONNECTIONS.

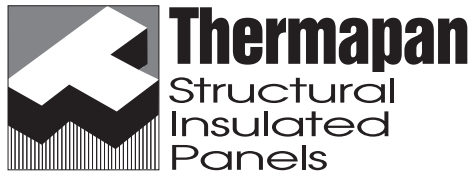


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TITLE		PROJECT	
FOUNDATION WALL LUMBER SPLINE CONNECTIONS			
REFERENCE	SCALE		N.T.S.
DATE	REVISION	DWG. No.	
MAY 2023	5	FO-1	



NOTES: THE ADHERENCE OF ANY WATER-PROOFING MEMBRANE TO ANY THERMAPAN SIP
PWF PLYWOOD SURFACE WILL VOID THE THERMAPAN WARRANTY
REFER TO AIR BARRIER (AB-1) DETAILS FOR SEALING SIP CONNECTIONS.



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1-877-443-WALL (9255)

TITLE

TYPICAL FOUNDATION WALL (CONCRETE FOOTING)

PROJECT

REFERENCE

SCALE

N.T.S.

DATE

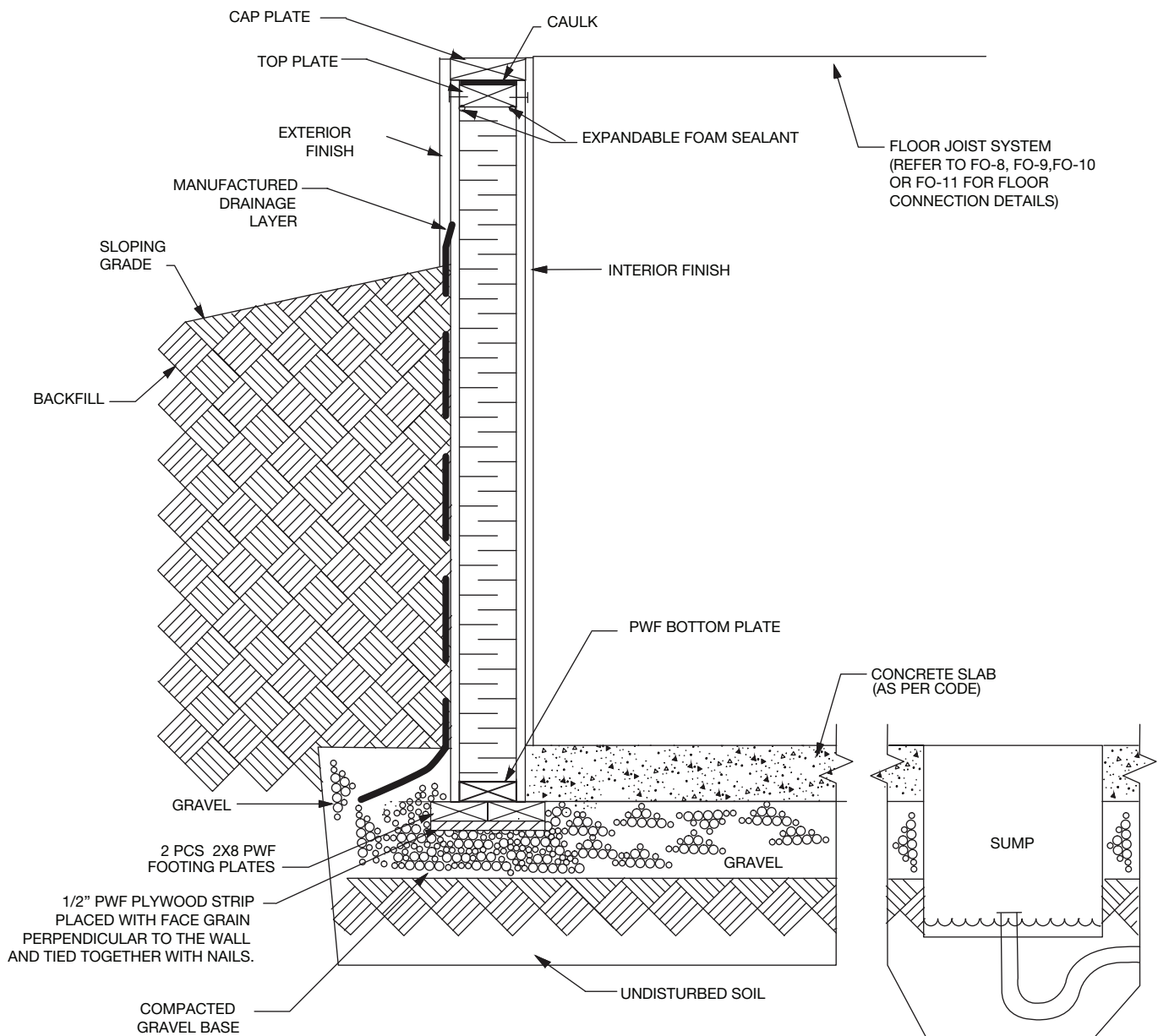
MAY 2023

REVISION

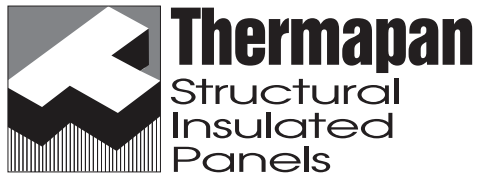
DWG. NO.

5

FO-2



NOTES: THE ADHERENCE OF ANY WATER-PROOFING MEMBRANE TO ANY THERMAPAN SIP PWF PLYWOOD SURFACE WILL VOID THE THERMAPAN WARRANTY
REFER TO AIR BARRIER (AB-1) DETAILS FOR SEALING SIP CONNECTIONS.



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1-877-443-WALL (9255)

TITLE

TYPICAL FOUNDATION WALL
(PRESERVED WOOD FOOTING)

PROJECT

REFERENCE

SCALE

N.T.S.

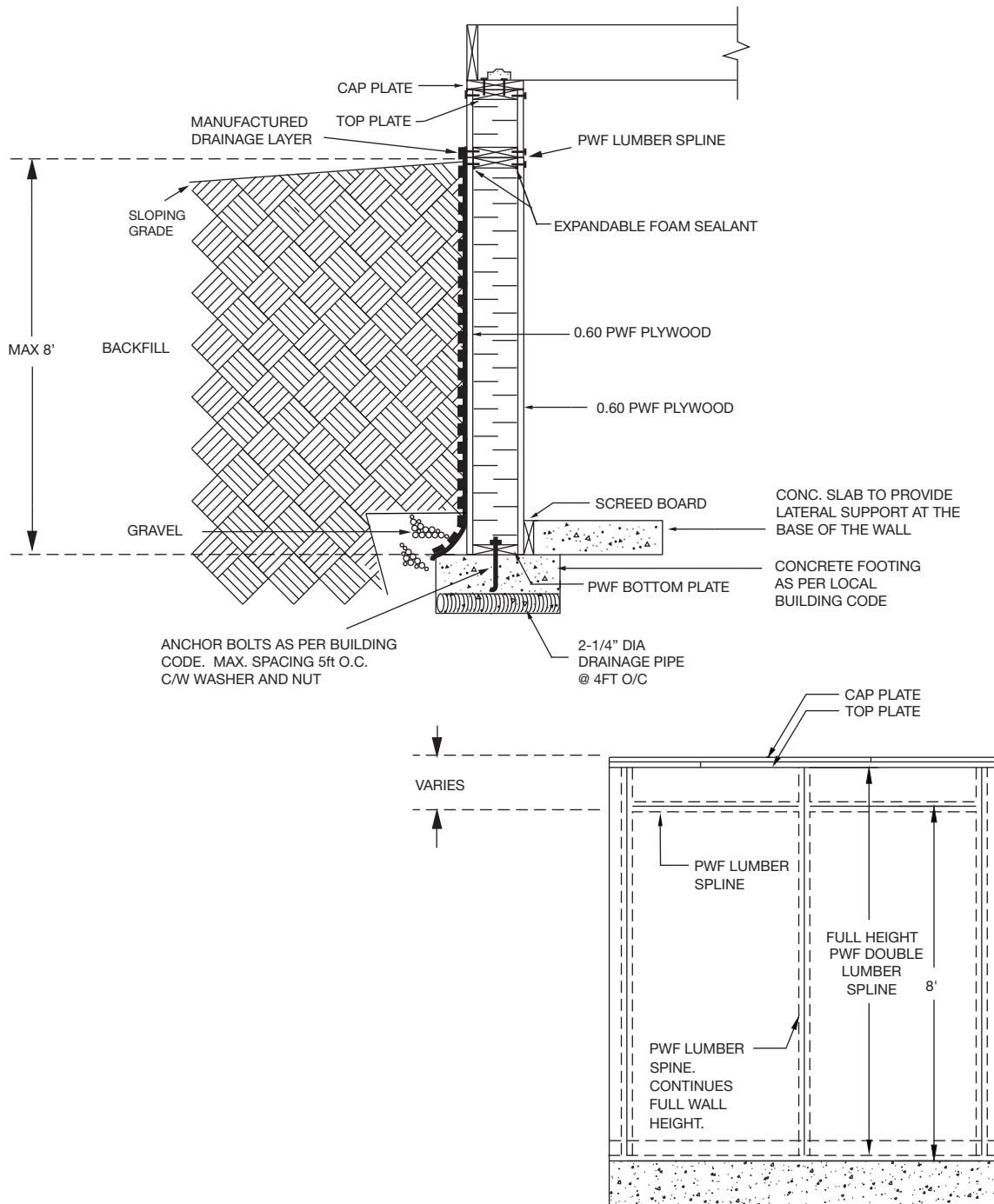
DATE

MAY 2023

REVISION

DWG. NO.

FO-3



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TITLE

FOUNDATION WALL ASSEMBLY > 8'0 IN HEIGHT

PROJECT

REFERENCE

SCALE

N.T.S.

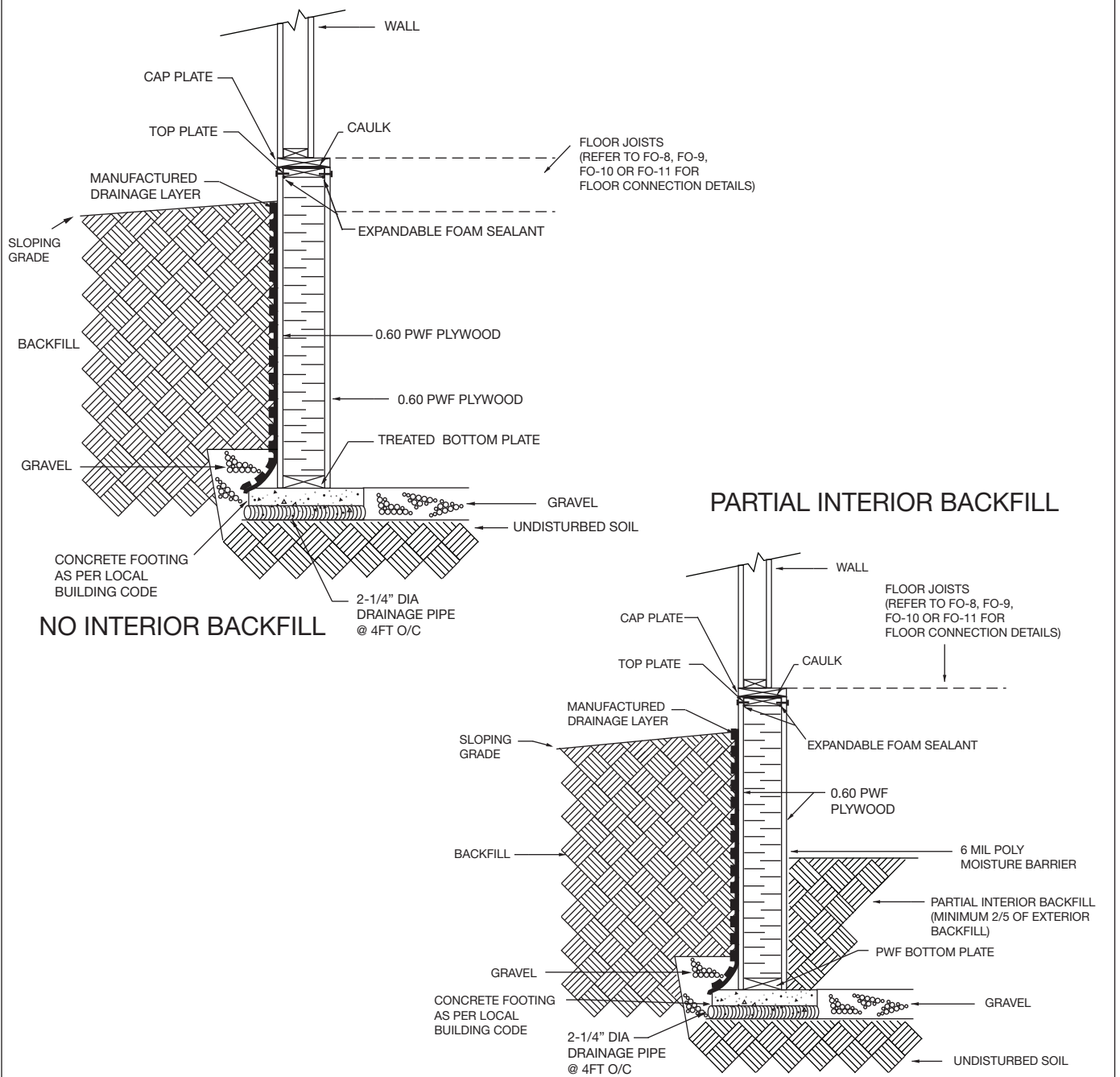
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MAY 2023

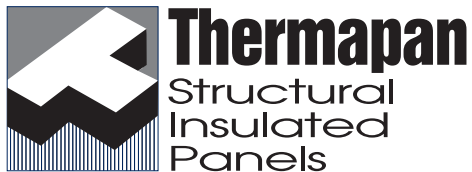
REVISION

DWG. No.

FO-4

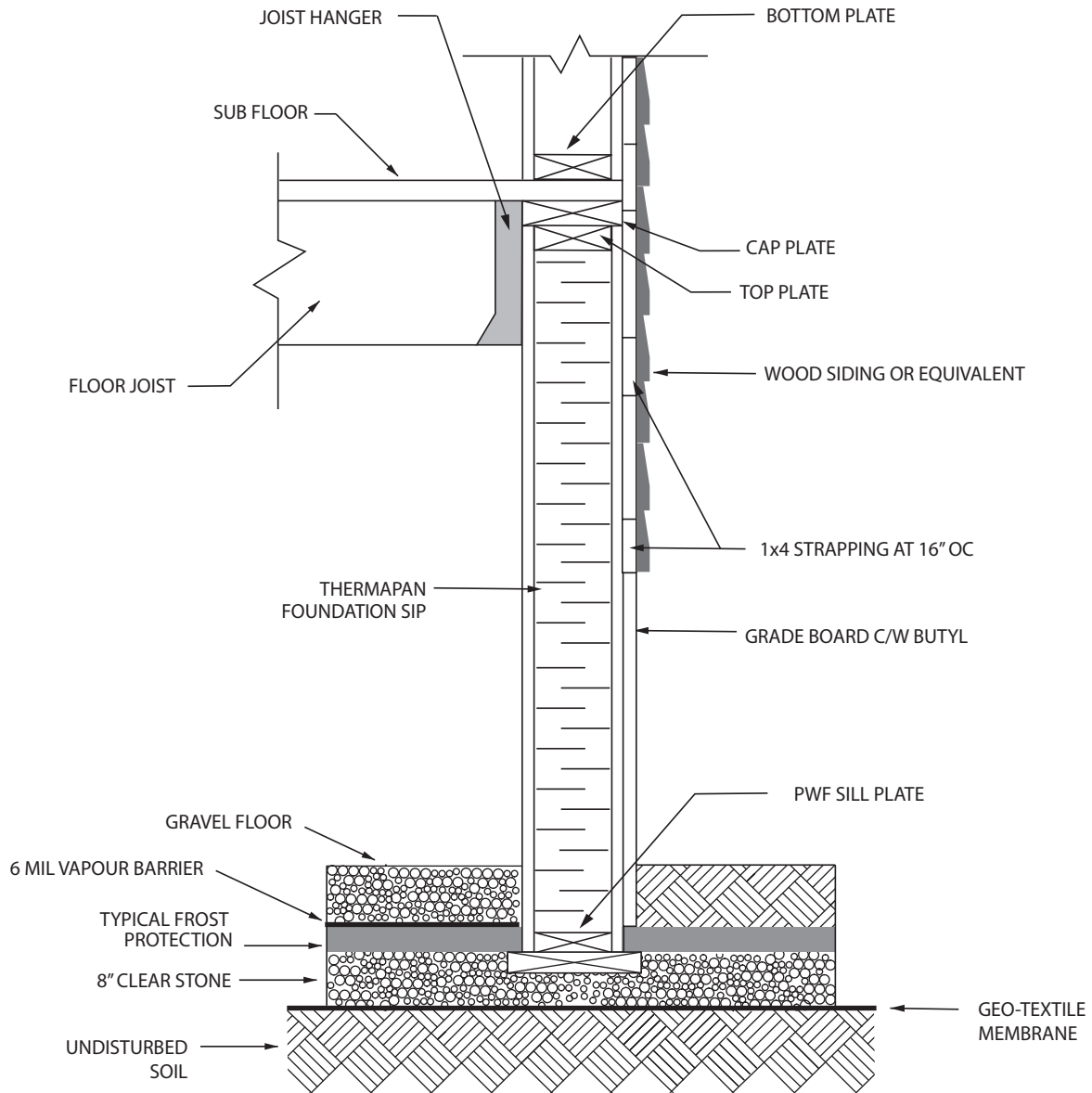


NOTE: THE ADHERENCE OF ANY WATER-PROOFING MEMBRANE TO ANY THERMAPAN SIP PWF PLYWOOD SURFACE WILL VOID THE THERMAPAN WARRANTY.
REFER TO AIR BARRIER (AB-1) DETAILS FOR SEALING SIP CONNECTIONS.



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TITLE		PROJECT	
CRAWL SPACE WALL DETAIL			
REFERENCE	SCALE		
	N.T.S.		
DATE	REVISION	DWG. No.	
MAY 2023	5	FO-5	



NOTE: THE ADHERENCE OF ANY WATER-PROOFING MEMBRANE TO ANY
THERMAPAN SIP PWF PLYWOOD SURFACE WILL VOID THE THERMAPAN WARRANTY.



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TITLE

CRAWL SPACE WALL –
TUNDRA SOIL

PROJECT

REFERENCE

SCALE

N.T.S.

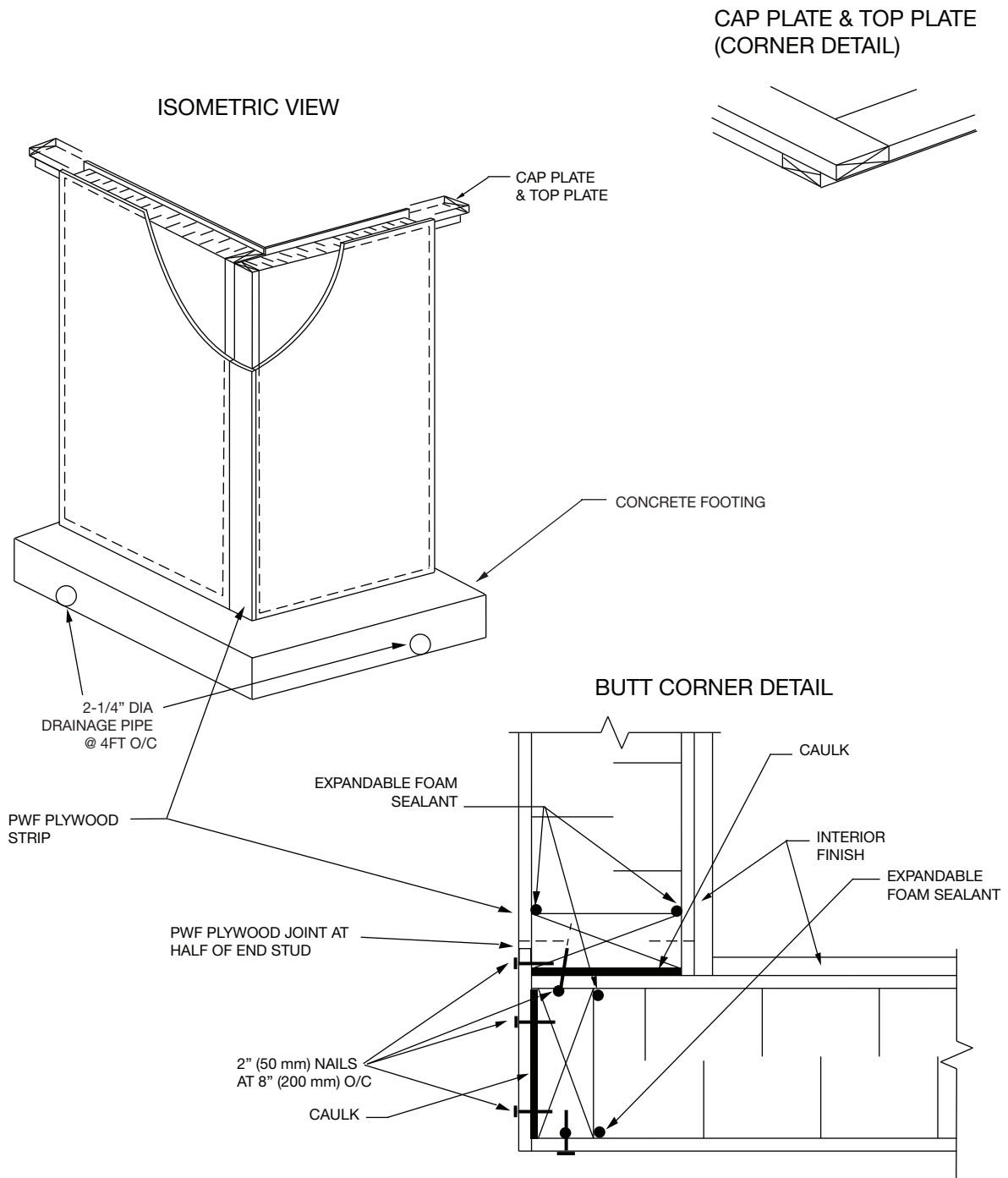
DATE

MARCH 2021

REVISION

DWG. No.

FO-6



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TITLE

FOUNDATION CORNER DETAIL

REFERENCE

SCALE

N.T.S.

DATE

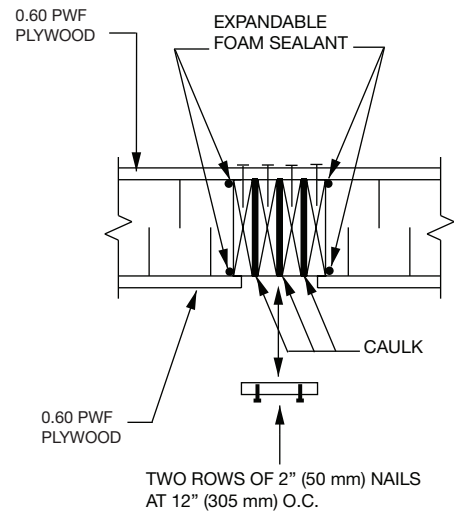
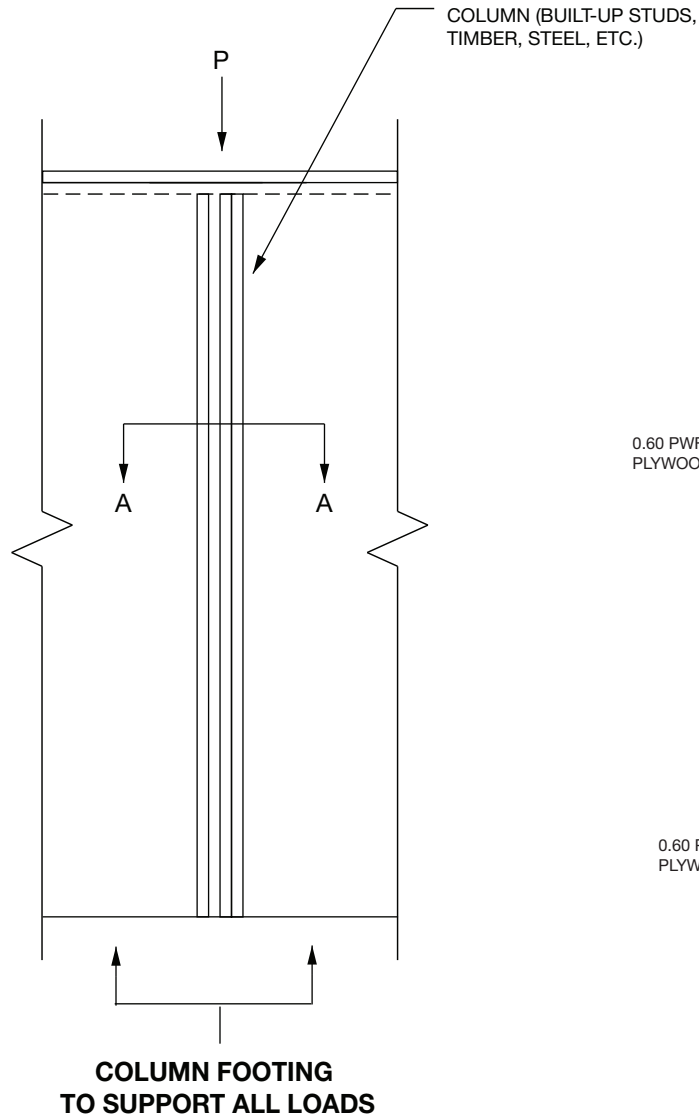
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DWG. NO.

FEBRUARY 2012

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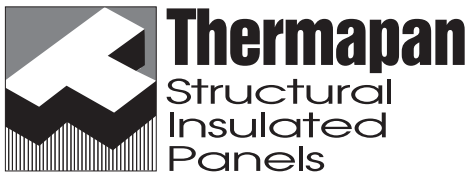
FO-7



SECTION A-A

NOTES: COLUMNS SUPPORTING FLOOR BEAMS SHALL BE CONSTRUCTED IN CONFORMANCE WITH LOCAL BUILDING CODE.

REFER TO AIR BARRIER (AB-1) DETAILS FOR SEALING SIP CONNECTIONS.



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TITLE

POINT LOAD DETAIL - WOOD COLUMN

PROJECT

REFERENCE

SCALE

N.T.S.

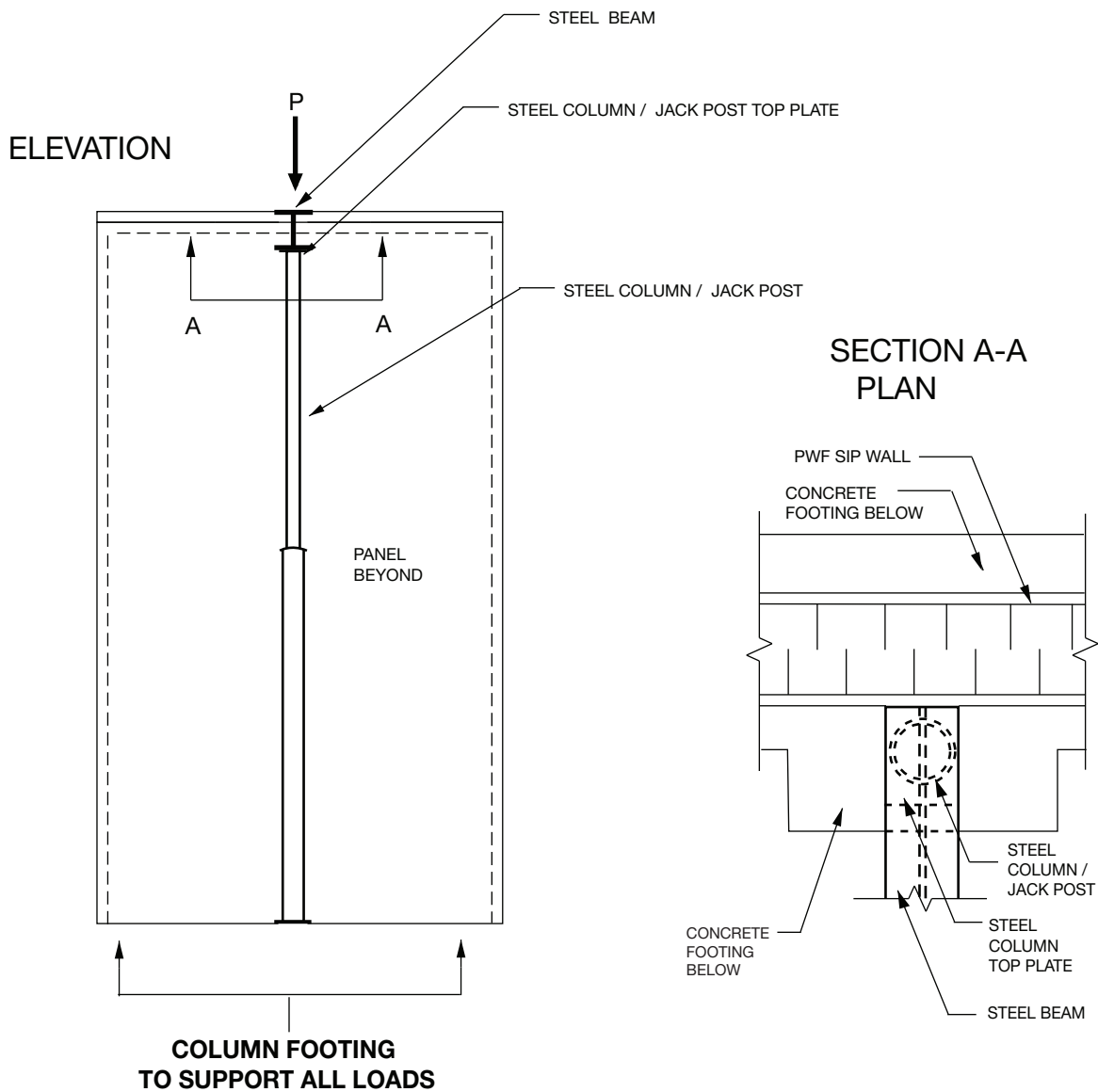
DATE

NOVEMBER 2011

REVISION

DWG. No.

2
FO-8



NOTE: COLUMNS SUPPORTING FLOOR BEAMS AND FOOTINGS SHALL CONFORM WITH LOCAL BUILDING CODE.



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TITLE

POINT LOAD DETAIL - STEEL COLUMN

PROJECT

REFERENCE

SCALE

N.T.S.

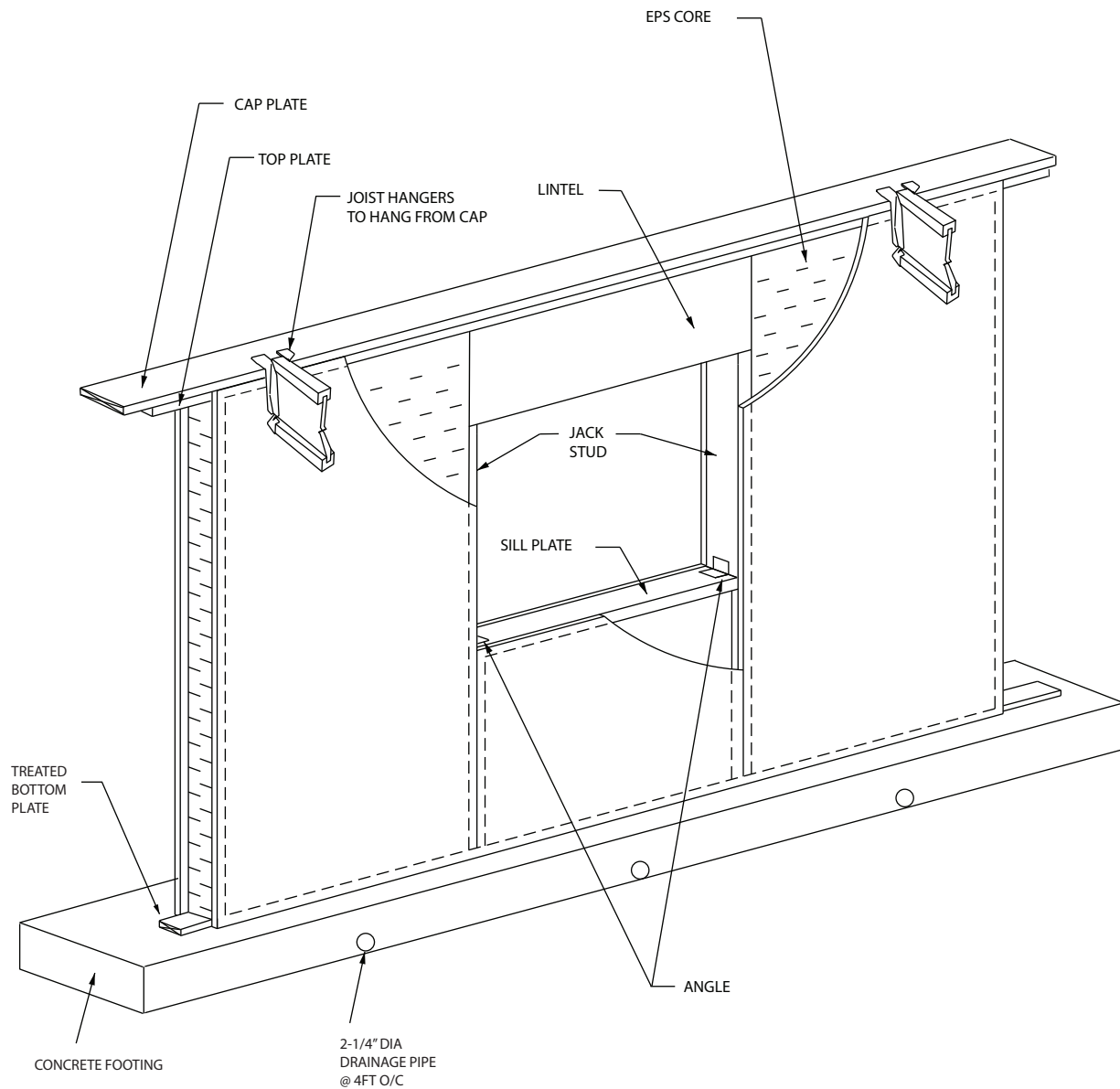
DATE

MAY 2011

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DWG. No.

FO-9



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



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TITLE

SUSPENDED FLOOR WINDOW HEADER DETAIL

REFERENCE

SCALE

N.T.S.

DATE

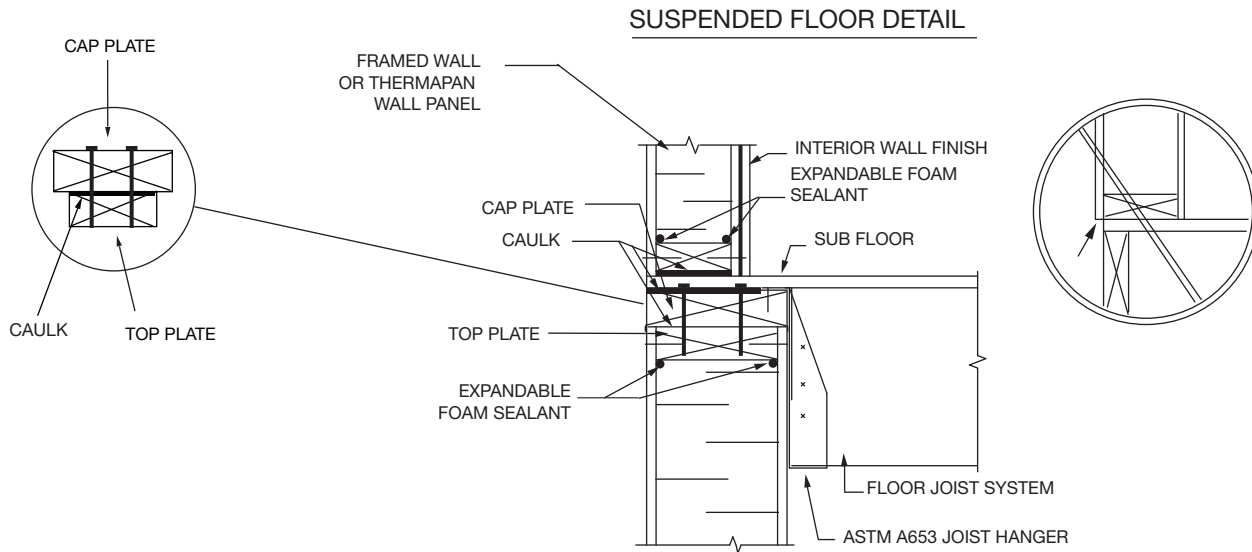
SEPTEMBER 2018

REVISION

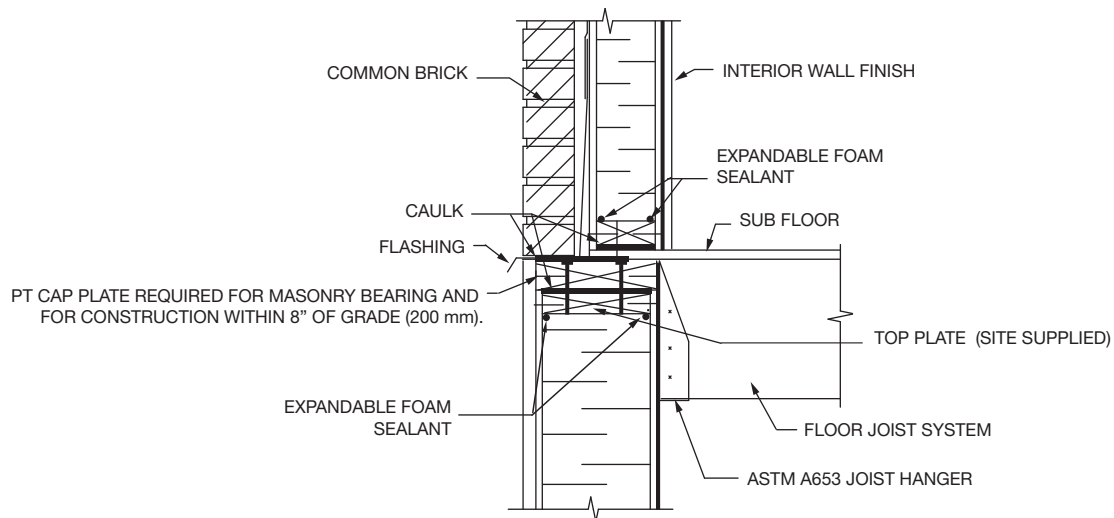
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DWG. No.

FO-10



**SUSPENDED FLOOR DETAIL
(BRICK VENEER/PANEL FOUNDATION)**



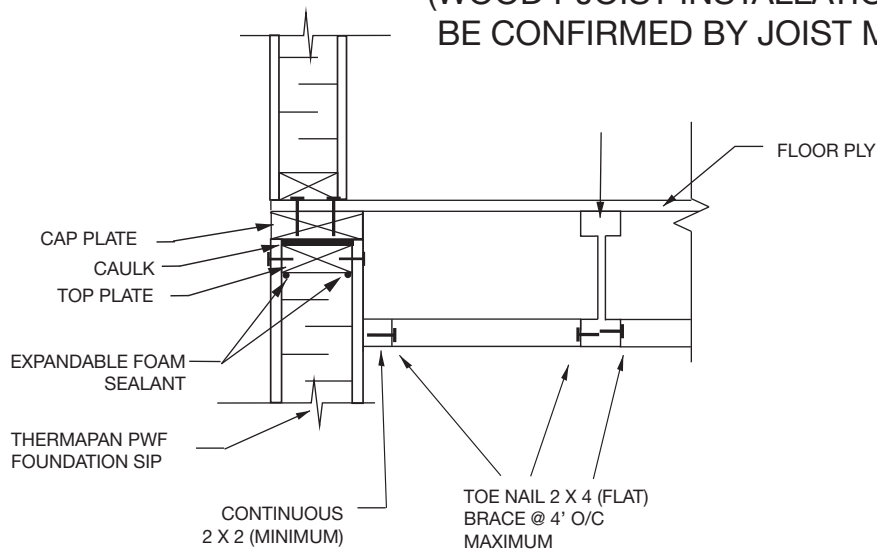
NOTES: REFER TO AIR BARRIER (AB-1) DETAILS FOR SEALING SIP CONNECTIONS.



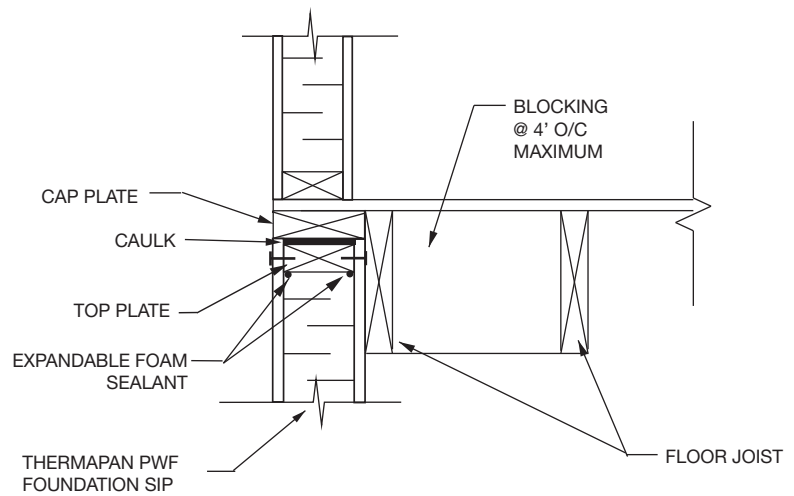
www.thermapan.com
1-877-443-WALL (9255)

TITLE		PROJECT	
SUSPENDED (HUNG) FLOOR CONNECTIONS (SIDE WALLS)			
REFERENCE	SCALE		
	N.T.S.		
DATE	REVISION	DWG. No.	
FEBRUARY 2012	2	FO-11	

WOOD I-JOIST FLOOR DETAIL
(WOOD I-JOIST INSTALLATION TO
BE CONFIRMED BY JOIST MANUFACTURER)



2X_ JOIST FLOOR DETAIL



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



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TITLE

SUSPENDED (HUNG)
FLOOR CONNECTIONS
(END WALLS)

PROJECT

REFERENCE

SCALE

N.T.S.

DATE

FEBRUARY 2012

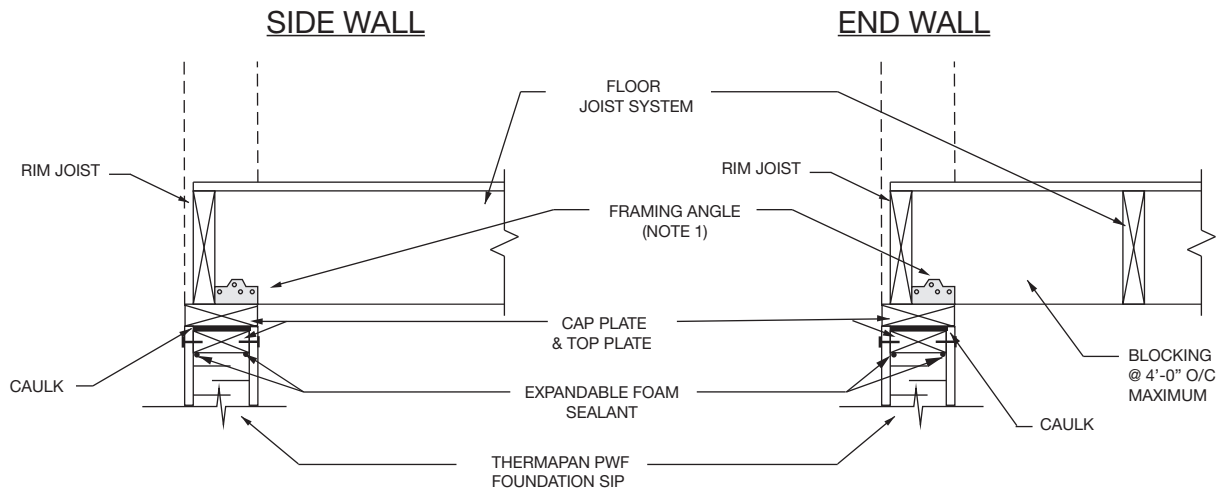
REVISION

2

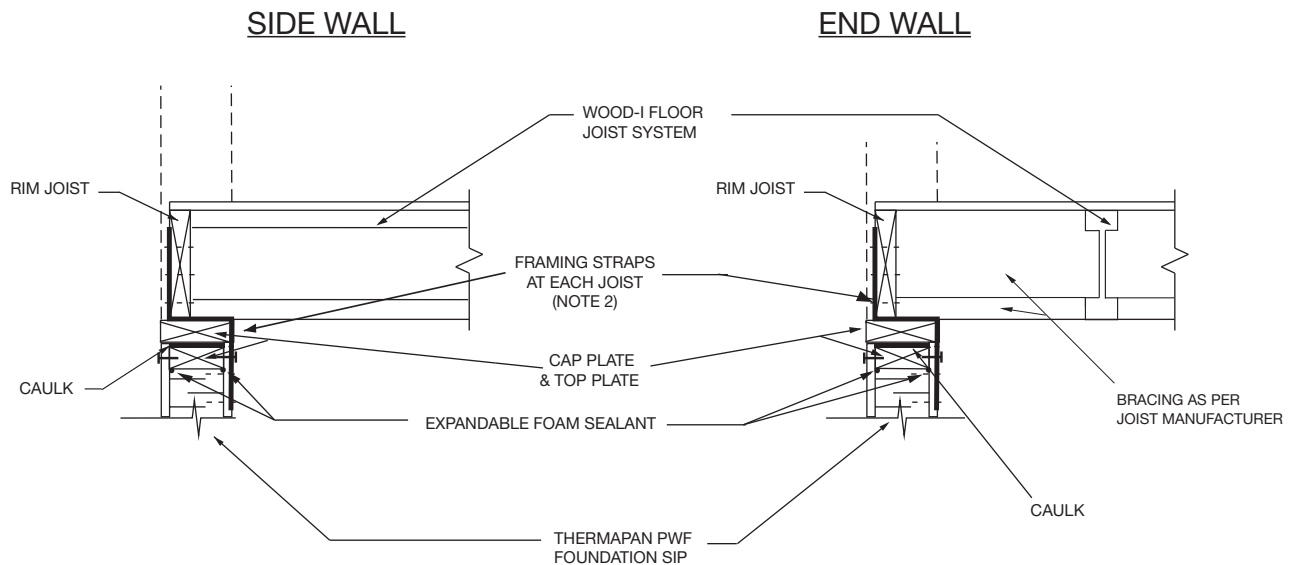
DWG. NO.

FO-12

STANDARD FLOOR JOIST



WOOD-I FLOOR JOIST (INSTALLATION TO BE CONFIRMED BY JOIST MANUFACTURER)



NOTES:

1. SIMPSON A34 OR EQUAL (GALVANIZED)
2. 1.5"x16" 20 GAUGE (GALVANIZED)

REFER TO AIR BARRIER (AB-1) DETAILS FOR SEALING SIP CONNECTIONS.



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

TITLE

PLATFORM FLOOR CONNECTIONS

PROJECT

REFERENCE

SCALE

N.T.S.

DATE

JANUARY 2021

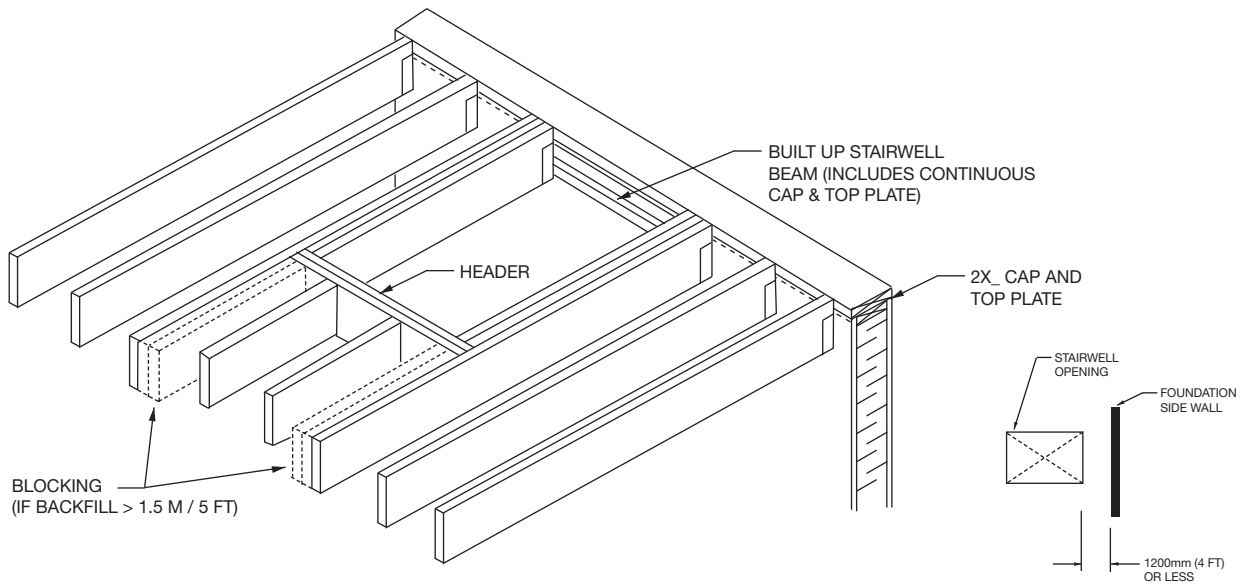
REVISION

DWG. No.

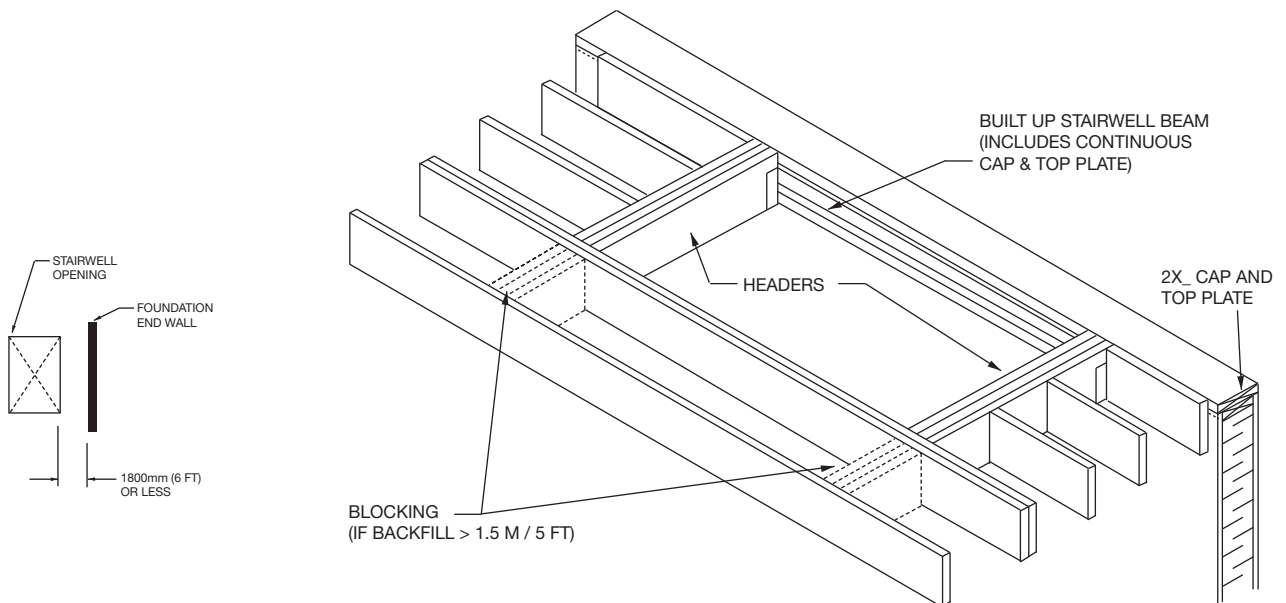
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FO-13

STAIRWELL OPENING PERPENDICULAR TO SIDE WALL



STAIRWELL OPENING PARALLEL TO END WALL



NOTES: ABOVE DETAILS APPLY TO OPENINGS LESS THAN 1200mm (4 FT) FROM A SIDE WALL OR LESS THAN 1800mm (6 FT) FROM AN END WALL. OPENINGS FURTHER THAN THESE MEASUREMENTS CAN BE FRAMED AS PER STANDARD FRAMING METHODS



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1-877-443-WALL (9255)

TITLE

STAIRWELL OPENINGS

PROJECT

REFERENCE

SCALE

N.T.S.

DATE

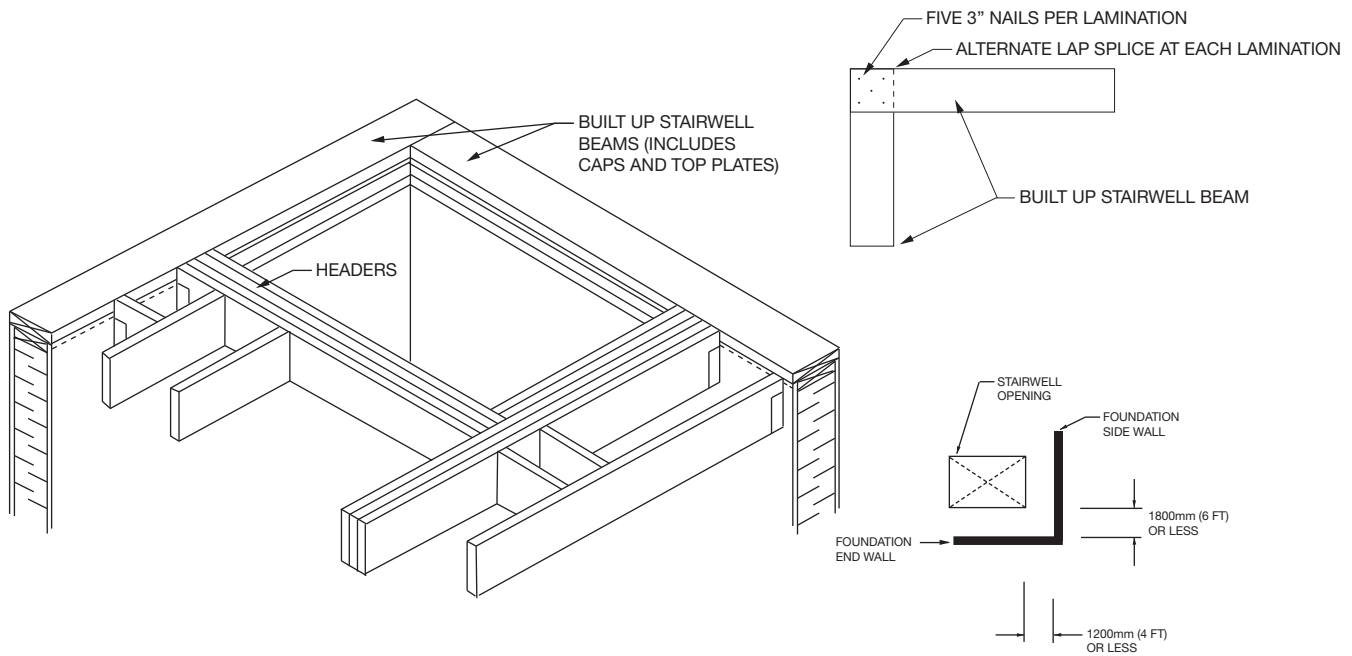
REVISION

DWG. NO.

MAY 2011

1

FO-14



FRAMING FOR FLOOR OPENINGS GREATER THAN 1200mm (4 ft) IN OPENING WIDTH (WOOD SLEEPER OR CONCRETE SLAB FLOOR TYPES)

Stairwell Opening Width*	Backfill Height (Max)	Number of Stairwell Beam Laminations			Minimum No. of Joist Headers	Maximum spacing for subfloor joist header and trimmer joist nailing, 76 mm (3") nails
		2x6	2x8	2x10		
≤ 3200 mm 10'6"	1500 mm (6'0")	3	2	-	2	2 rows, 150 mm (6") centres
	2300 mm (7'6")	9	6	4	3	2 rows, 50 mm (2") centres
	2900 mm (9'6")	-	10	7	3	2 rows, 50 mm (2") centres
≤ 3600 mm 12'0"	1500 mm (6'0")	3	3	2	2	2 rows, 150 mm (6") centres
	2300 mm (7'6")	11	8	5	3	2 rows, 50 mm (2") centres
	2900 mm (9'6")	-	12	8	3	2 rows, 50 mm (2") centres
≤ 4300 mm 14'0"	1500 mm (6'0")	5	3	2	2	2 rows, 150 mm (6") centres
	2300 mm (7'6")	-	11	8	3	2 rows, 50 mm (2") centres
	2900 mm (9'6")	-	-	12	3	2 rows, 50 mm (2") centres

NOTES: ABOVE DETAILS AND TABLE APPLY TO OPENINGS LESS THAN 1200mm (4 FT) FROM A SIDE WALL OR LESS THAN 1800mm (6 FT) FROM AN END WALL. OPENINGS FURTHER THAN THESE MEASUREMENTS CAN BE FRAMED AS PER STANDARD FRAMING METHODS.

* THE WIDTH IS MEASURED PARALLEL TO THE FOUNDATION WALL. THE REQUIREMENTS OF THIS TABLE SHALL APPLY AS APPROPRIATE TO A STAIRWELL BEAM LYING IN THE DIRECTION OF MEASUREMENT. IN THE CASE OF A STAIRWELL CORNER OPENING, THE TABULATED WIDTH AND FRAMING REQUIREMENTS SHALL BE APPLIED SEPARATELY AND INDEPENDENTLY IN BOTH MAJOR DIRECTIONS.

** JOIST HEADERS WHICH EXCEED 3200 mm (10'6") IN UNSUPPORTED LENGTH SHALL ALSO BE SIZED BY CALCULATION OR MAY BE DETERMINED FROM TABLES FOR BUILTUP FLOOR BEAMS.

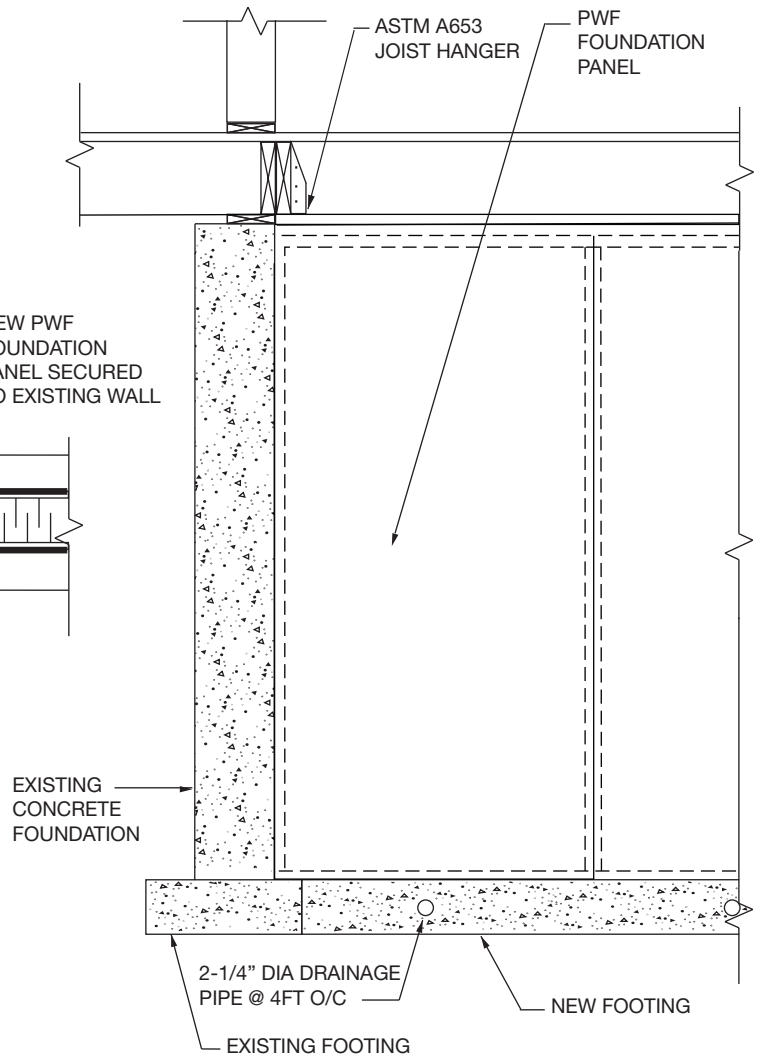
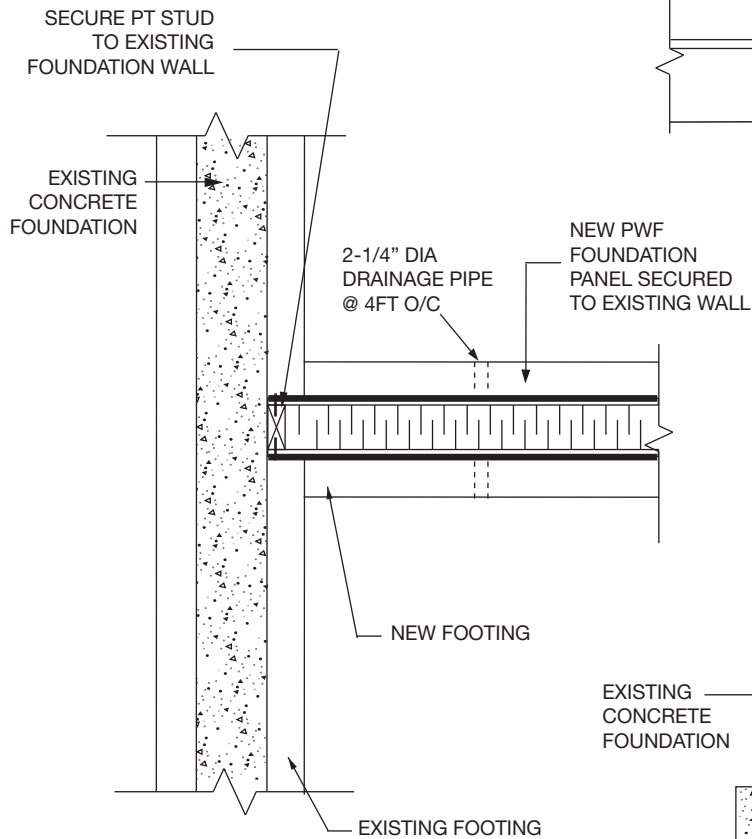


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1-877-443-WALL (9255)

TITLE		CORNER STAIRWELL OPENINGS & FRAMING TABLE		PROJECT
REFERENCE		SCALE		
		N.T.S.		
DATE		REVISION	DWG. NO.	
MAY 2011		1	FO-15	

TOP PLAN

ELEVATION



NOTE: THE ADHERENCE OF ANY WATER-PROOFING MEMBRANE TO ANY THERMAPAN SIP PWF PLYWOOD SURFACE WILL VOID THE THERMAPAN WARRANTY.



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

TITLE

FASTENING PWF WALL
TO EXISTING FOUNDATION

PROJECT

REFERENCE

SCALE

N.T.S.

DATE

FEBRUARY 2012

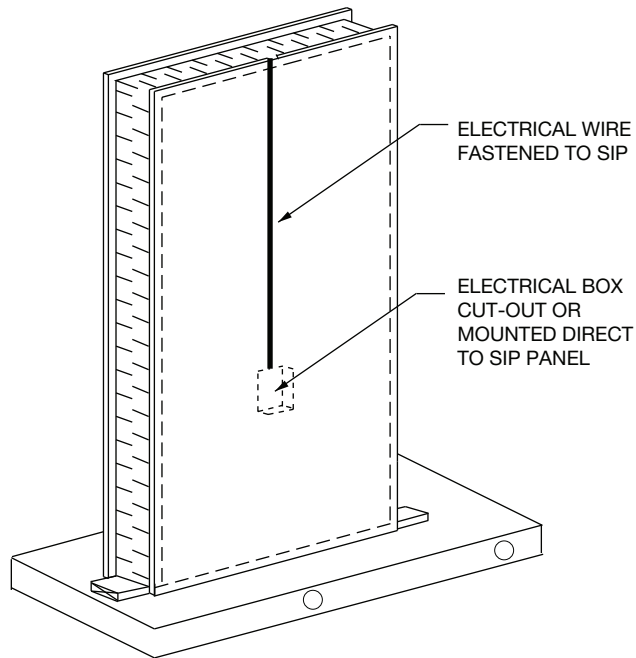
REVISION

2

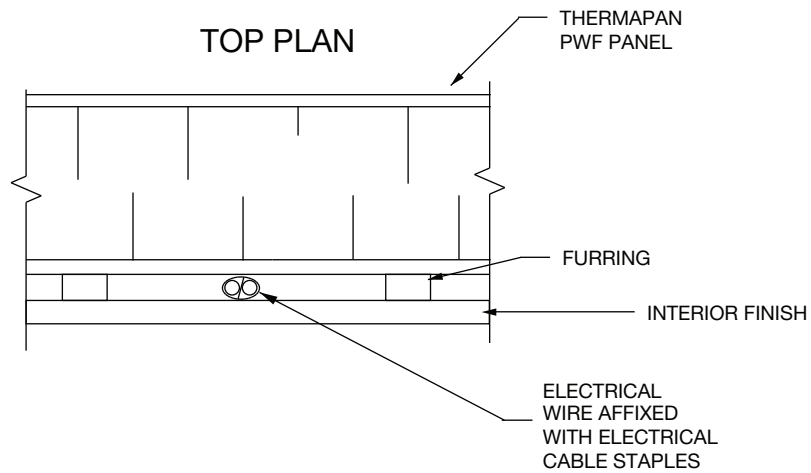
DWG. NO.

FO-16

ISOMETRIC VIEW
(FINISHING NOT SHOWN)



TOP PLAN



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1-877-443-WALL (9255)

TITLE

**ELECTRICAL
INSTALLATION**

PROJECT

REFERENCE

SCALE

N.T.S.

DATE

FEBRUARY 2016

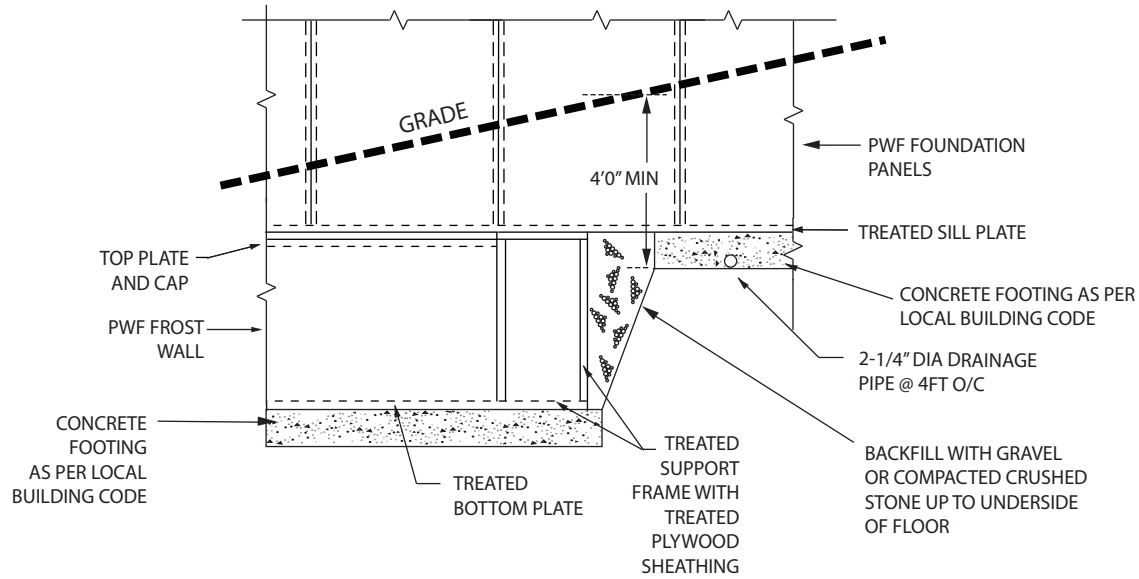
REVISION

4

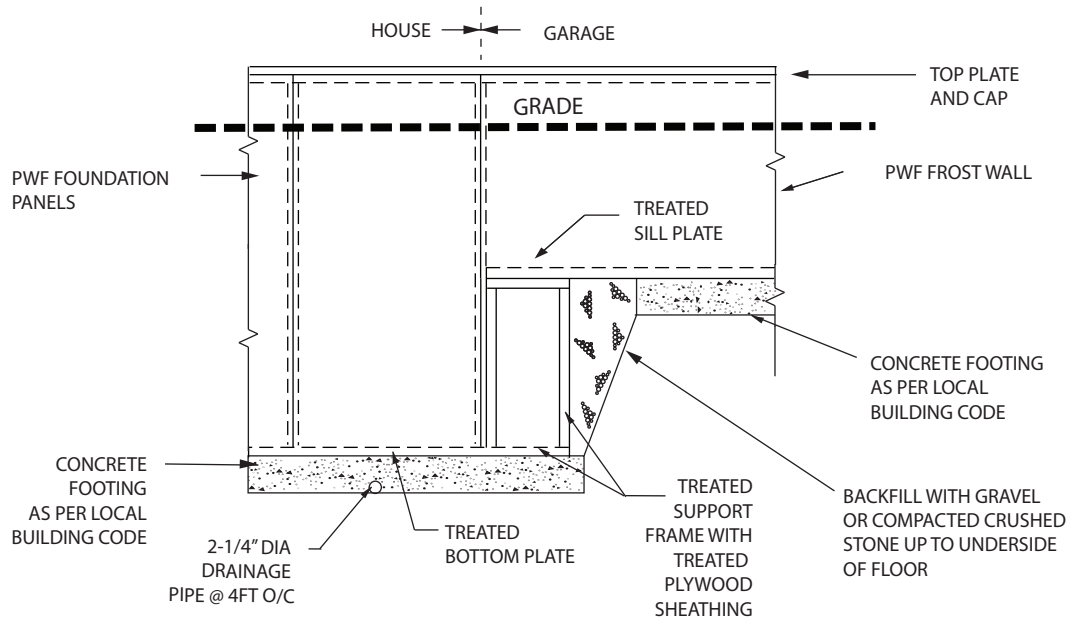
DWG. No.

FO-17

PWF BASEMENT WALL ALIGNED WITH FROST WALL



SIP FOUNDATION TO GARAGE FOUNDATION



NOTE: THE ADHERENCE OF ANY WATER-PROOFING MEMBRANE TO ANY THERMAPAN SIP PWF PLYWOOD SURFACE WILL VOID THE THERMAPAN WARRANTY.



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1-877-443-WALL (9255)

TITLE

BASEMENT PWF WALL CONNECTION TO FROST WALL

PROJECT

REFERENCE

SCALE

N.T.S.

DATE

SEPTEMBER 2018

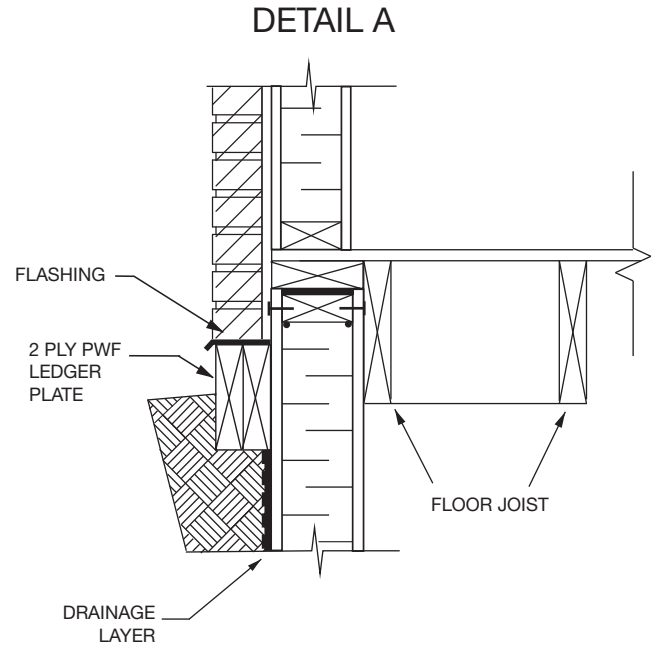
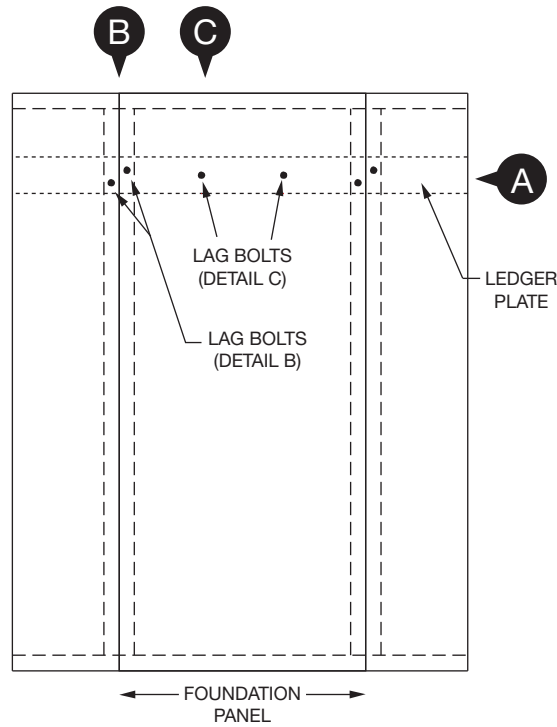
REVISION

DWG. NO.

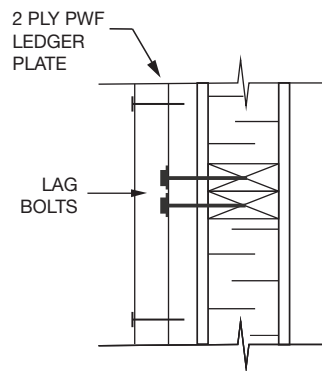
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FO-18

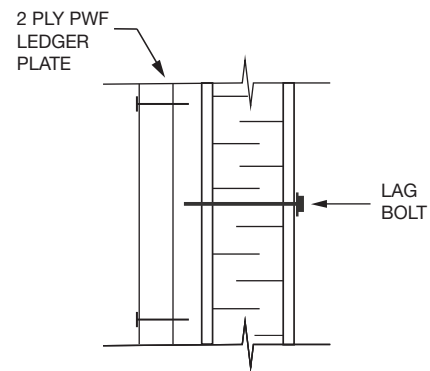
FOUNDATION WALL ELEVATION



**DETAIL B
(TOP VIEW AT STUD SPLINE)**



**DETAIL C
(TOP VIEW WITHIN PANEL)**



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1-877-443-WALL (9255)

TITLE

**BRICK LEDGER DETAIL
SECURED TO
SIP FOUNDATION**

PROJECT

REFERENCE

SCALE

N.T.S.

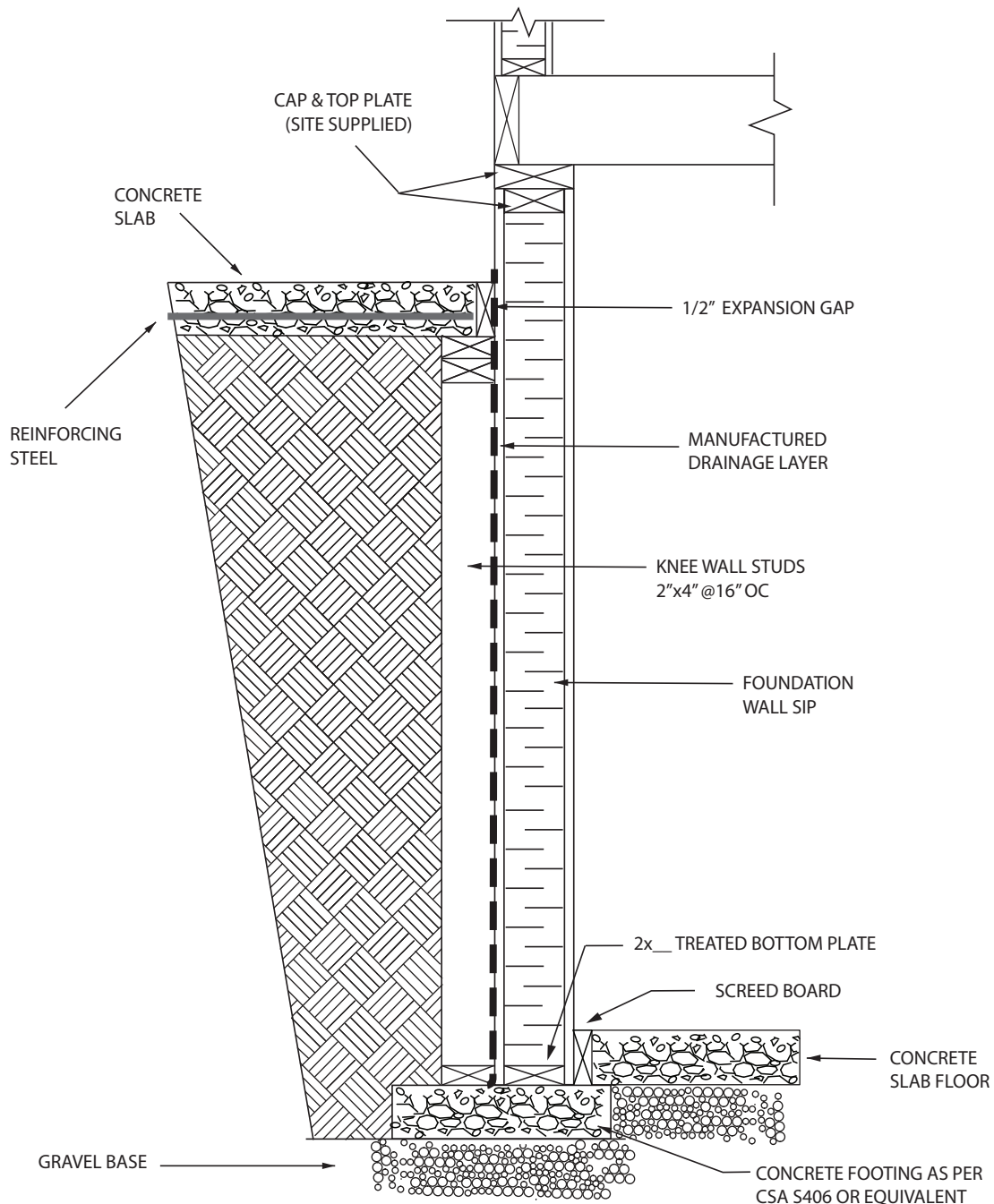
DATE

JUNE 2020

REVISION

DWG. NO.

FO-19



NOTE: THE ADHERENCE OF ANY WATER-PROOFING MEMBRANE TO ANY THERMAPAN SIP PWF PLYWOOD SURFACE WILL VOID THE THERMAPAN WARRANTY.



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1-877-443-WALL (9255)

TITLE

**SURCHARGE FROM DRIVEWAY
SLAB OR PATIO SLAB**

PROJECT

REFERENCE

SCALE

N.T.S.

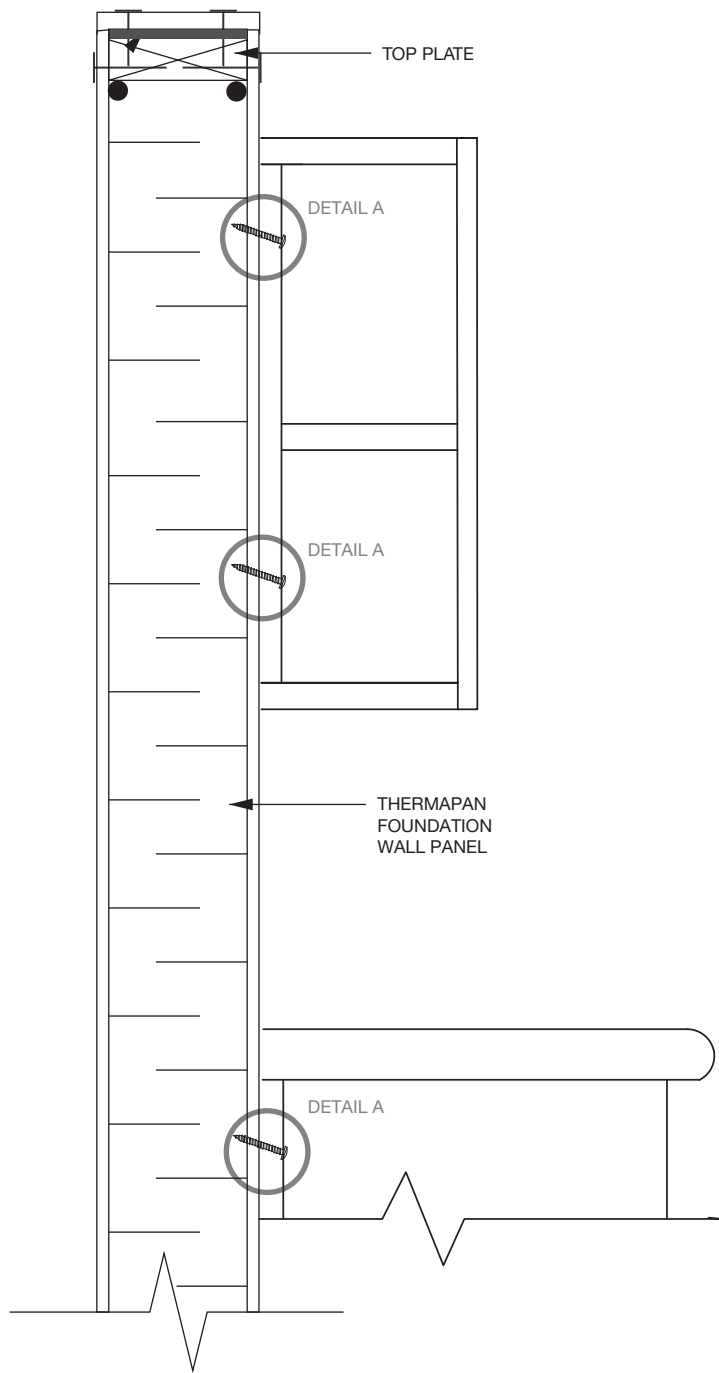
DATE

JANUARY 2021

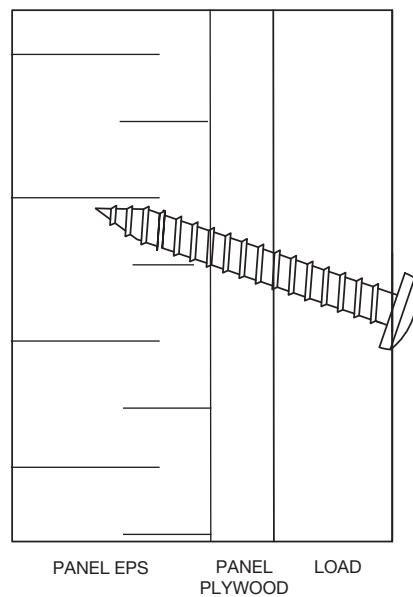
REVISION

DWG. No.

FO-20



DETAIL A



NOTE: NUMBER 10 TYPE A SHEET METAL SCREWS CAN RESIST A PULL OUT OF 120 POUNDS IN PLYWOOD. CONTRACTOR TO CONFIRM LOAD TO BE SECURED AND NUMBER OF FASTENERS REQUIRED. FULL THICKNESS OF PLYWOOD TO RECEIVE SCREW THREAD ON ANGLE AS DETAILED



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1-877-443-WALL (9255)

TITLE

SCREW FASTENER DETAIL FOR SECURING SHELVING TO FOUNDATION PANEL

PROJECT

REFERENCE

SCALE

N.T.S.

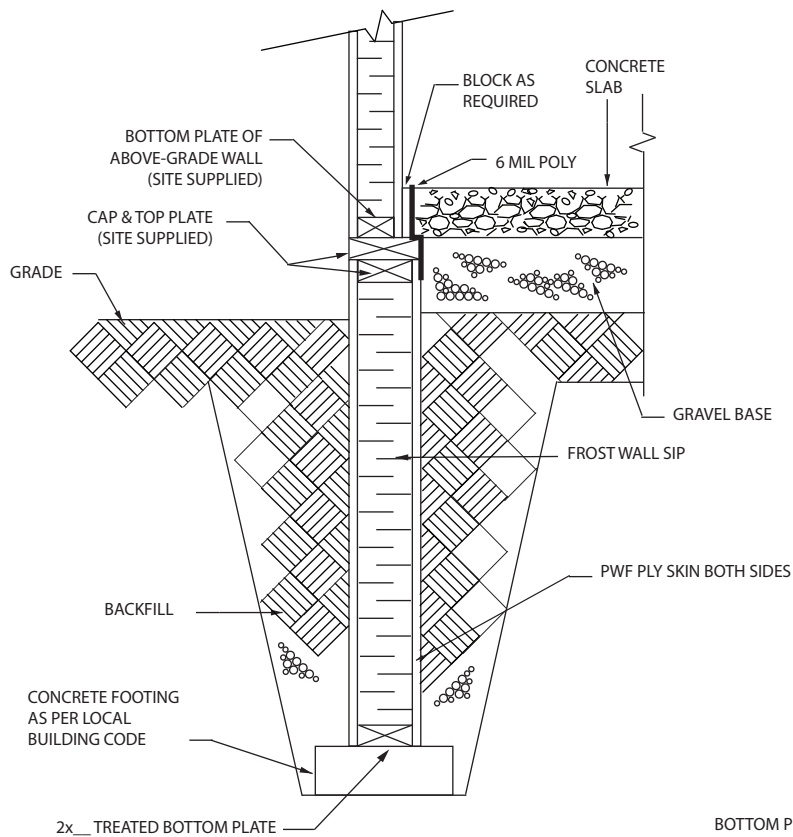
DATE

FEBRUARY 2020

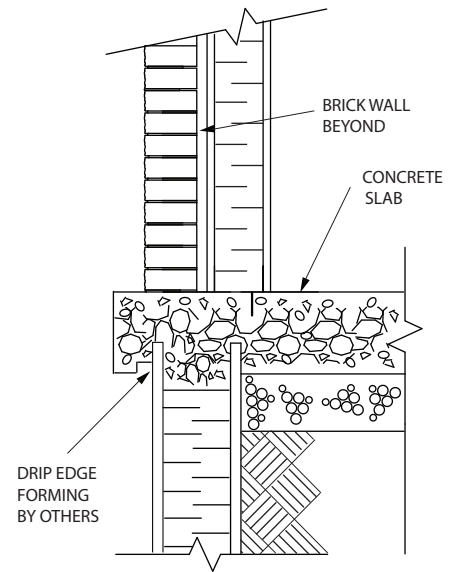
REVISION

DWG. No.

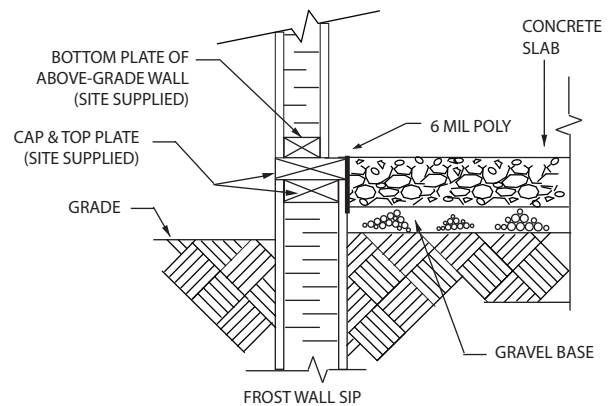
FO-21



**TYPICAL FROST WALL
FOUNDATION SECTION**



**GARAGE DOOR
FLOOR DETAIL SECTION**



**OPTION: TOP OF SLAB FLUSH
OR BELOW TOP OF FROST WALL**

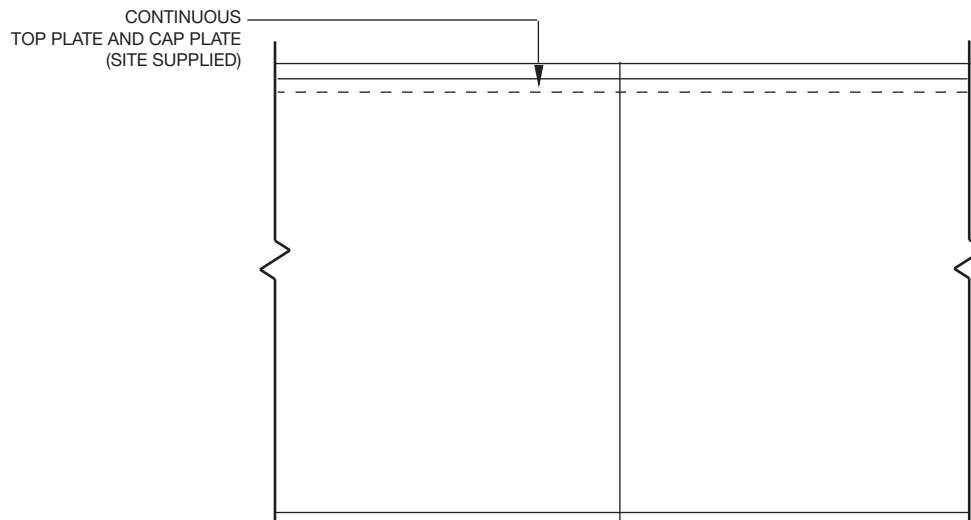
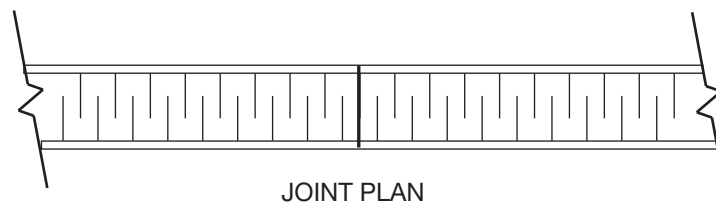
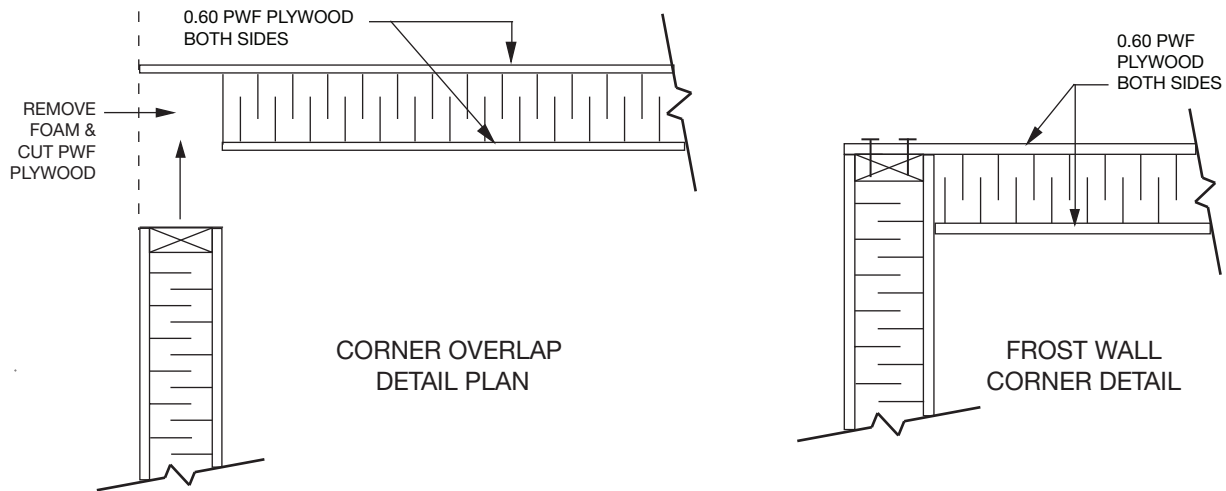
NOTE: THE ADHERENCE OF ANY WATER-PROOFING MEMBRANE TO ANY THERMAPAN SIP PWF PLYWOOD SURFACE
WILL VOID THE THERMAPAN WARRANTY.



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TITLE		PROJECT	
FROST WALL DETAILS			
REFERENCE	SCALE		N.T.S.
DATE	REVISION	DWG. No.	
SEPTEMBER 2018	3	FW-1	



NOTE: THE ADHERENCE OF ANY WATER-PROOFING MEMBRANE TO ANY THERMAPAN SIP PWF PLYWOOD SURFACE WILL VOID THE THERMAPAN WARRANTY.



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1-877-443-WALL (9255)

TITLE

FROST WALL PANEL CONNECTIONS

PROJECT

REFERENCE

SCALE

N.T.S.

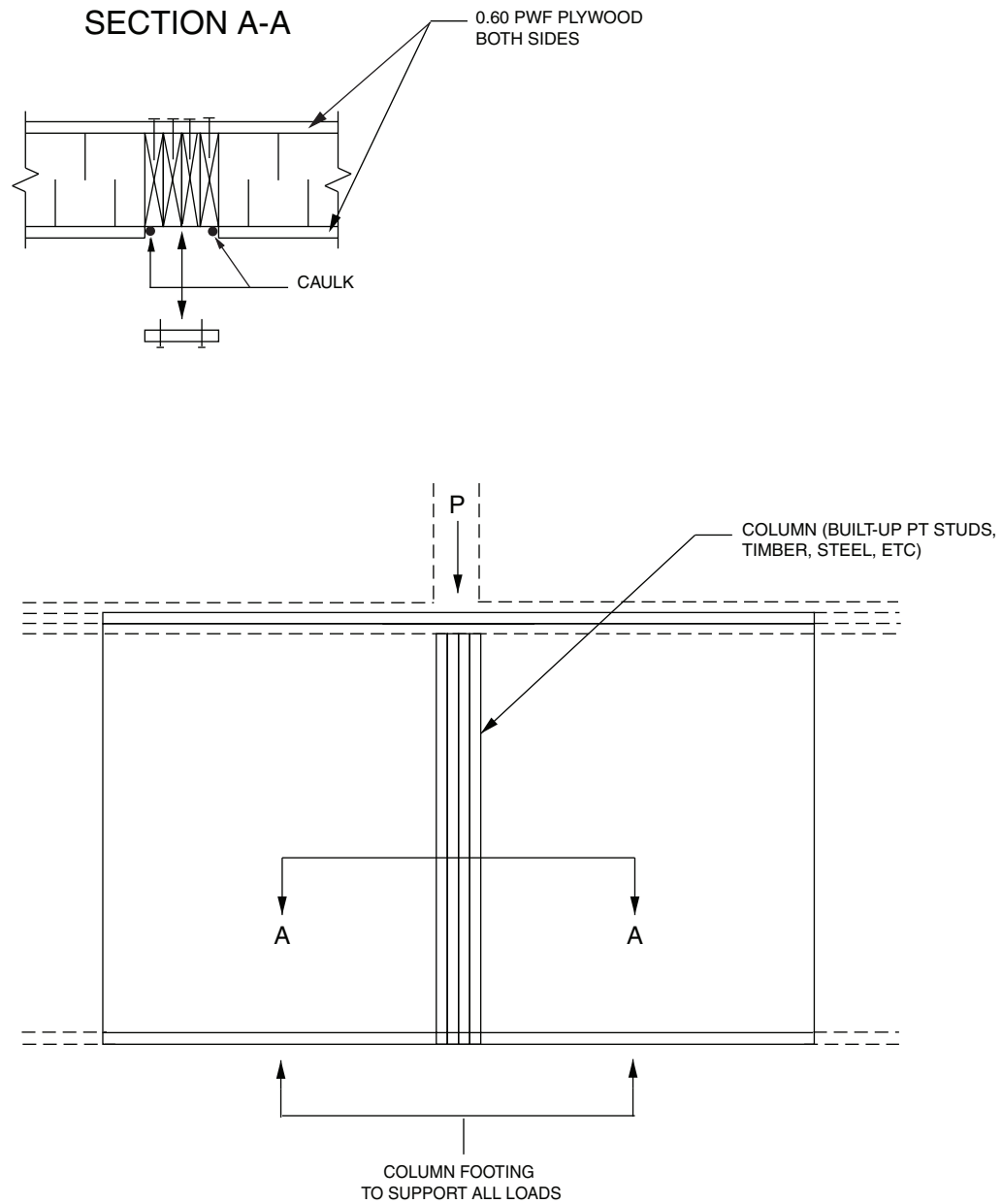
DATE

OCTOBER 2019

REVISION

DWG. No.

FW-2



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

TITLE

FROST WALL POINT LOAD DETAIL

PROJECT

REFERENCE

SCALE

N.T.S.

DATE

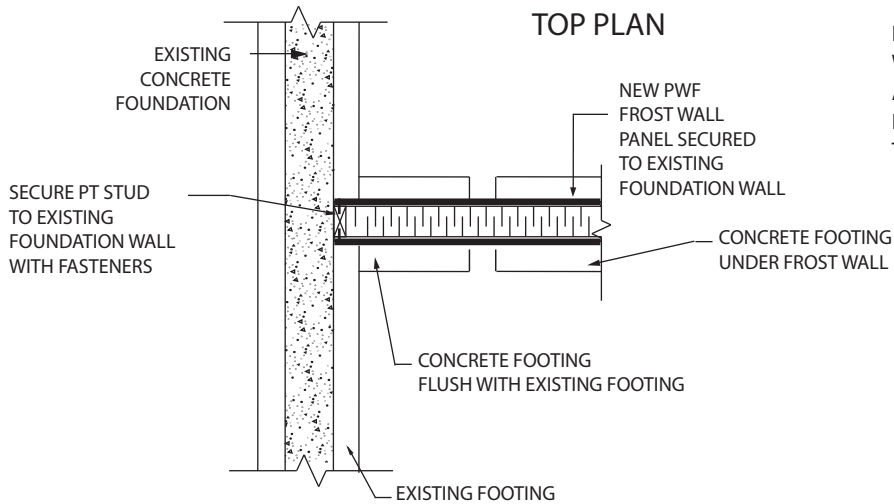
FEBRUARY 2012

REVISION

DWG. No.

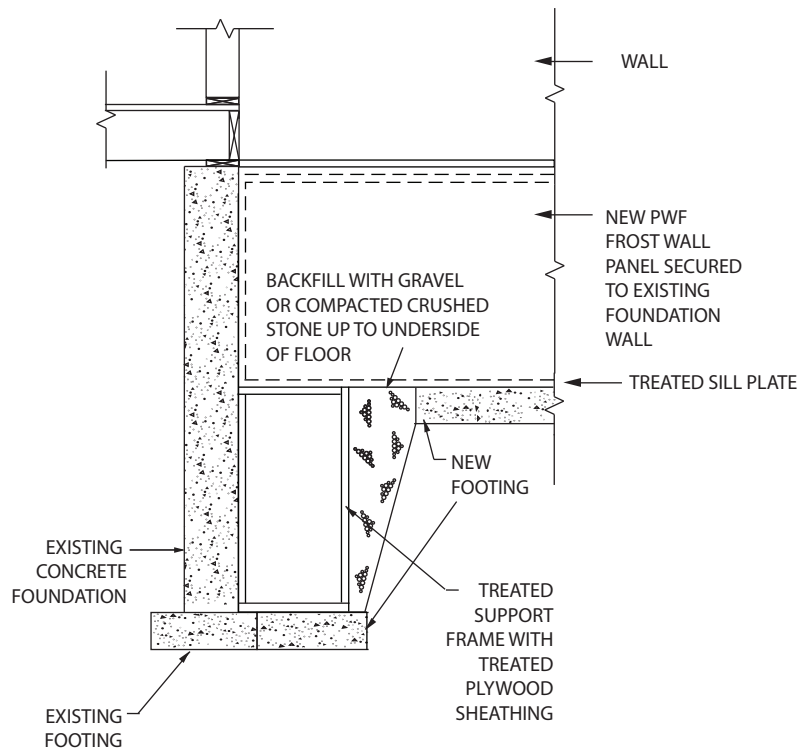
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FW-3



NOTE: THE ADHERENCE OF ANY WATER-PROOFING MEMBRANE TO ANY THERMAPAN SIP PWF PLYWOOD SURFACE WILL VOID THE THERMAPAN WARRANTY.

ELEVATION - NEW GARAGE FOUNDATION



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1-877-443-WALL (9255)

TITLE

**FASTENING PWF FROST WALL
TO EXISTING FOUNDATION**

PROJECT

REFERENCE

SCALE

N.T.S.

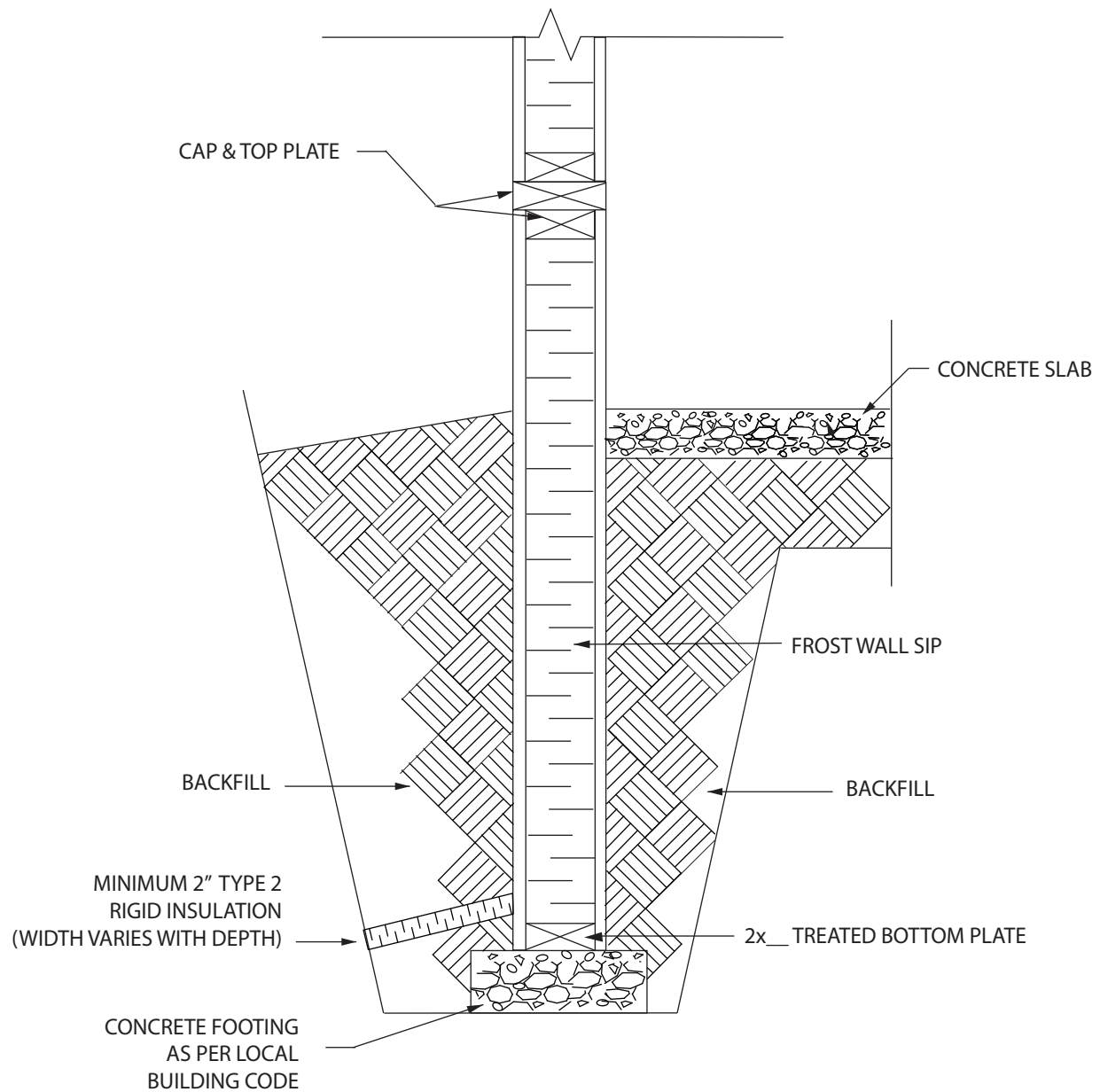
DATE

SEPTEMBER 2018

REVISION

DWG. NO.

3 FW-4



NOTE: THE ADHERENCE OF ANY WATER-PROOFING MEMBRANE TO ANY THERMAPAN SIP PWF PLYWOOD SURFACE
WILL VOID THE THERMAPAN WARRANTY.



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TITLE

SHALLOW FROST WALL

PROJECT

REFERENCE

SCALE

N.T.S.

DATE

APRIL 2020

REVISION

DWG. No.

1

FW-5