

The better way to build™



Installation Manual NAILBASE PANELS



Thermapan
Structural
Insulated
Panels

NAILBASE SIPs Installation Manual

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NAILBASE SIPs Installation Manual

1. General Requirements

1.1 Scope

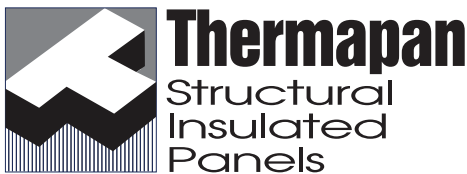
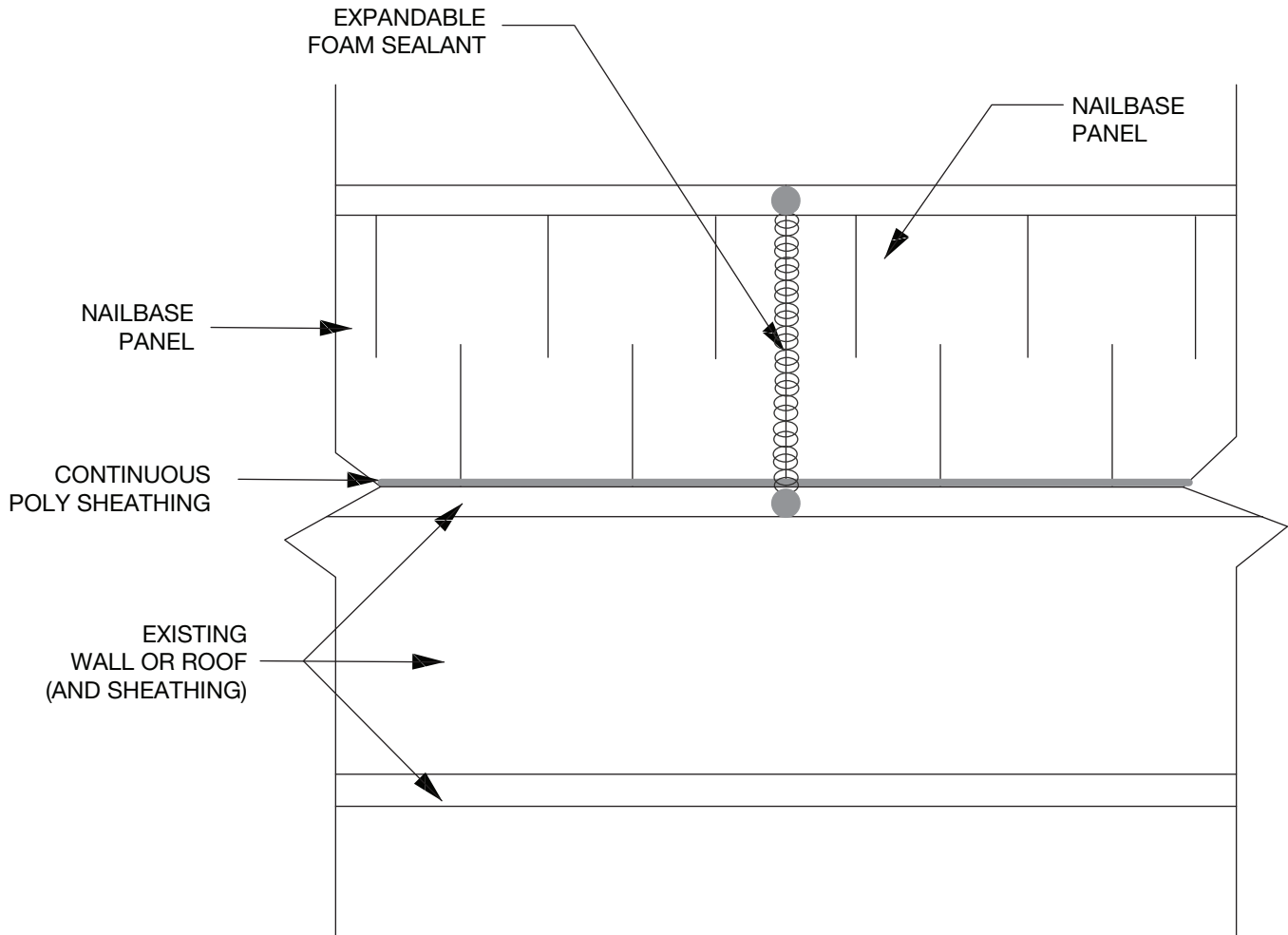
The basic design and construction requirements for the Thermapan Nailbase retrofit panel system is set forth in this specification.

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.

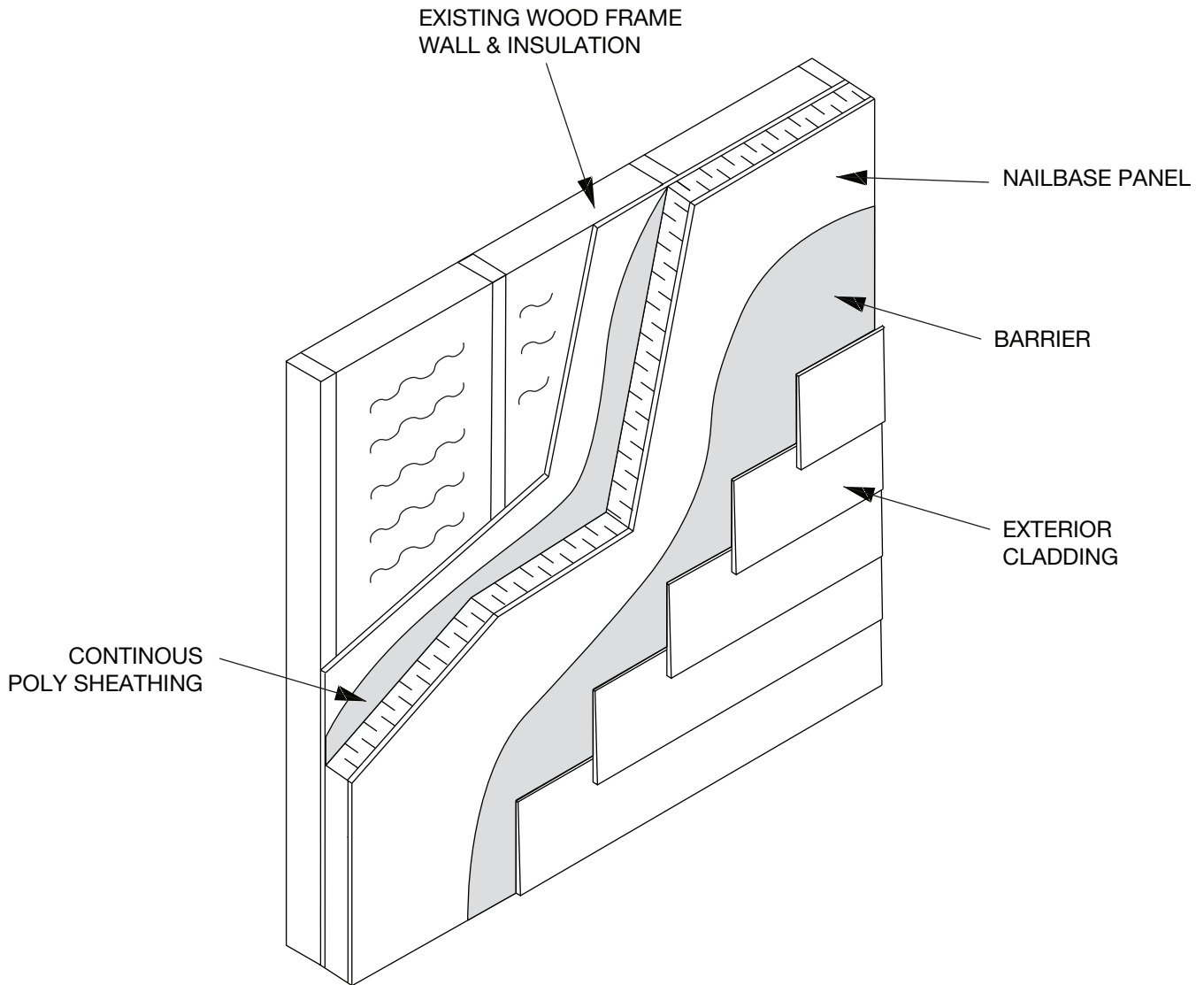
2. Materials

- 2.1** The Thermapan Nailbase SIP is composed of an expanded polystyrene (EPS) foam core laminated on one side with a layer of oriented strand board (OSB) with a structural adhesive.
- 2.2** Framing Lumber shall be DOC PS 20 or NLGA No.2 or better.
- 2.3** SIP screws shall conform to ICC-AC233.
- 2.4** Polyethylene (Poly) Sheathing shall conform to CAN/CGSB-37.2, CAN/CGSB-37.16, or ASTM D 4397.
- 2.5** Low expansion foam seal shall conform to AAMA 812-04.
- 2.6** Sill seal gasket is a flexible polyethylene foam gasketing strip that can help reduce air infiltration between a concrete or masonry surface and a lumber plate.



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1-877-443-WALL (9255)

TITLE		PROJECT	
AIR BARRIER DETAILS FOR NAILBASE PANEL BUTT JOINT			
REFERENCE	SCALE		
	N.T.S.		
DATE	REVISION	DWG. No.	
NOVEMBER 2018		AB-1(NB)	



NOTE: SEE NB-10 & NB-11 FOR EXTERIOR CLADDING OPTIONS



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TITLE

NAILBASE PANEL RETROFIT
OVER EXISTING WALL SHEATHING

PROJECT

REFERENCE

SCALE

N.T.S.

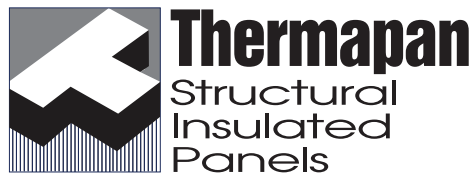
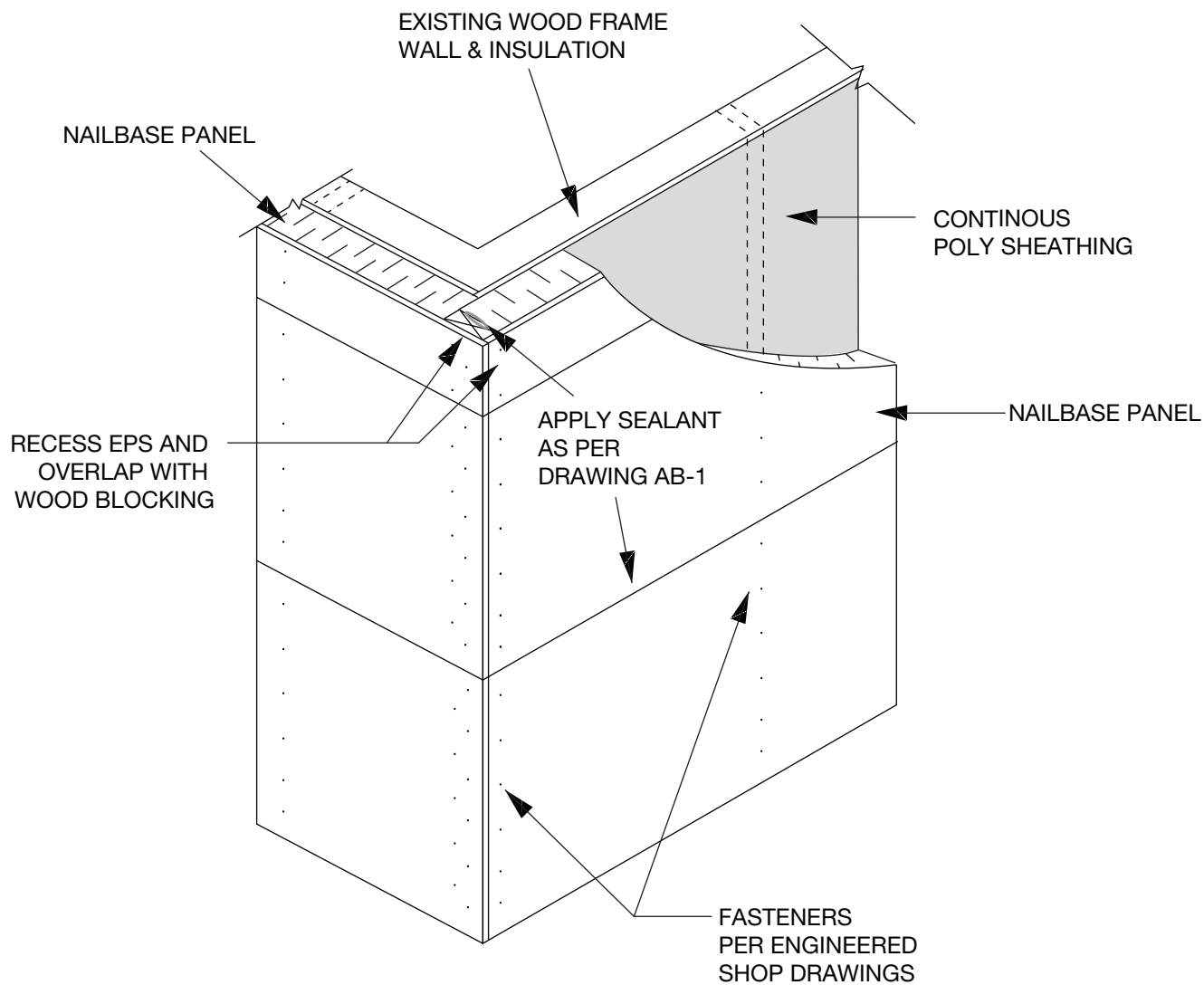
DATE

NOVEMBER 2018

REVISION

DWG. No.

NB-1



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TITLE

RETROFIT NAILBASE PANEL
OUTSIDE CORNER

PROJECT

REFERENCE

SCALE

N.T.S.

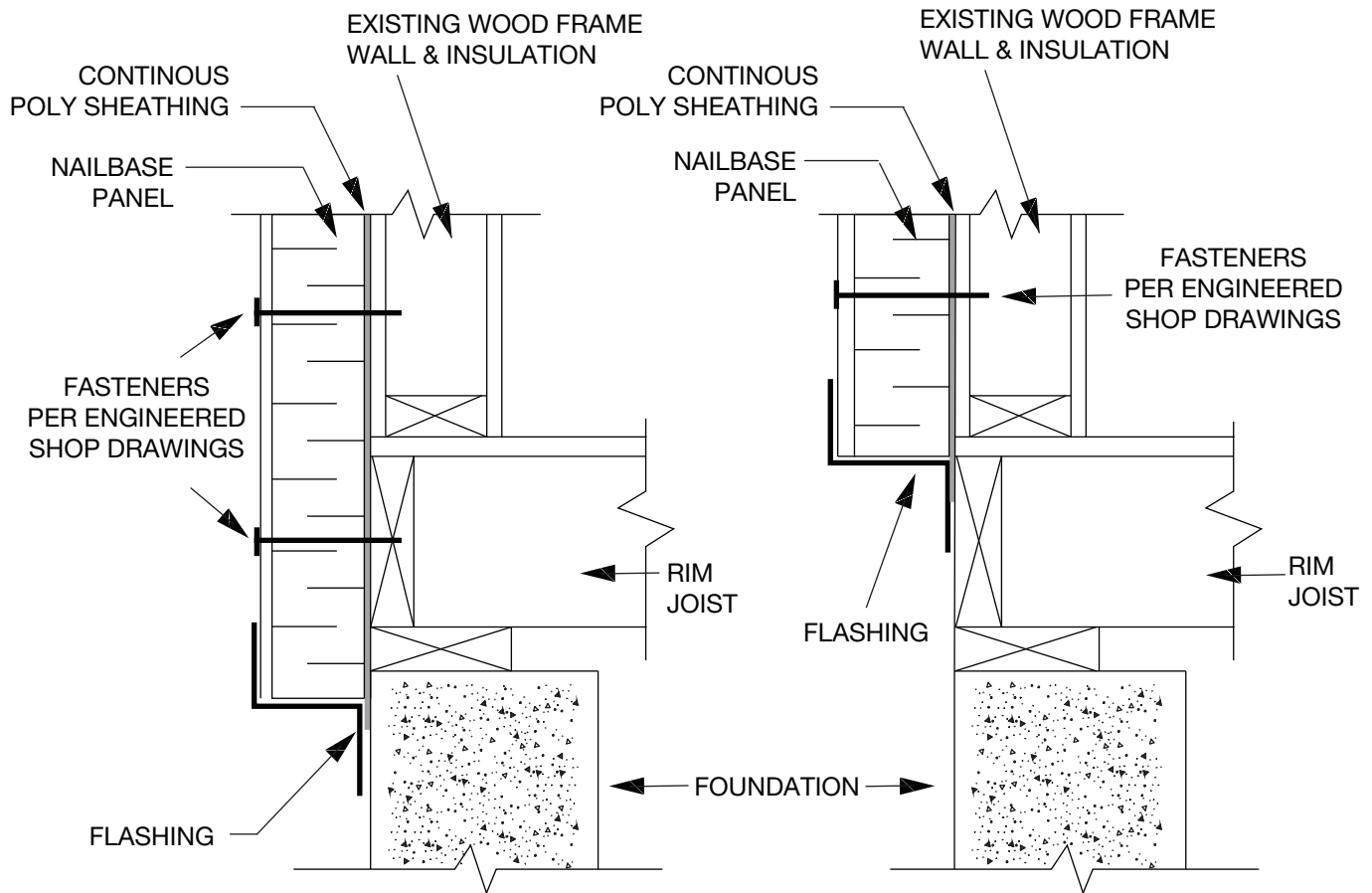
DATE

NOVEMBER 2018

REVISION

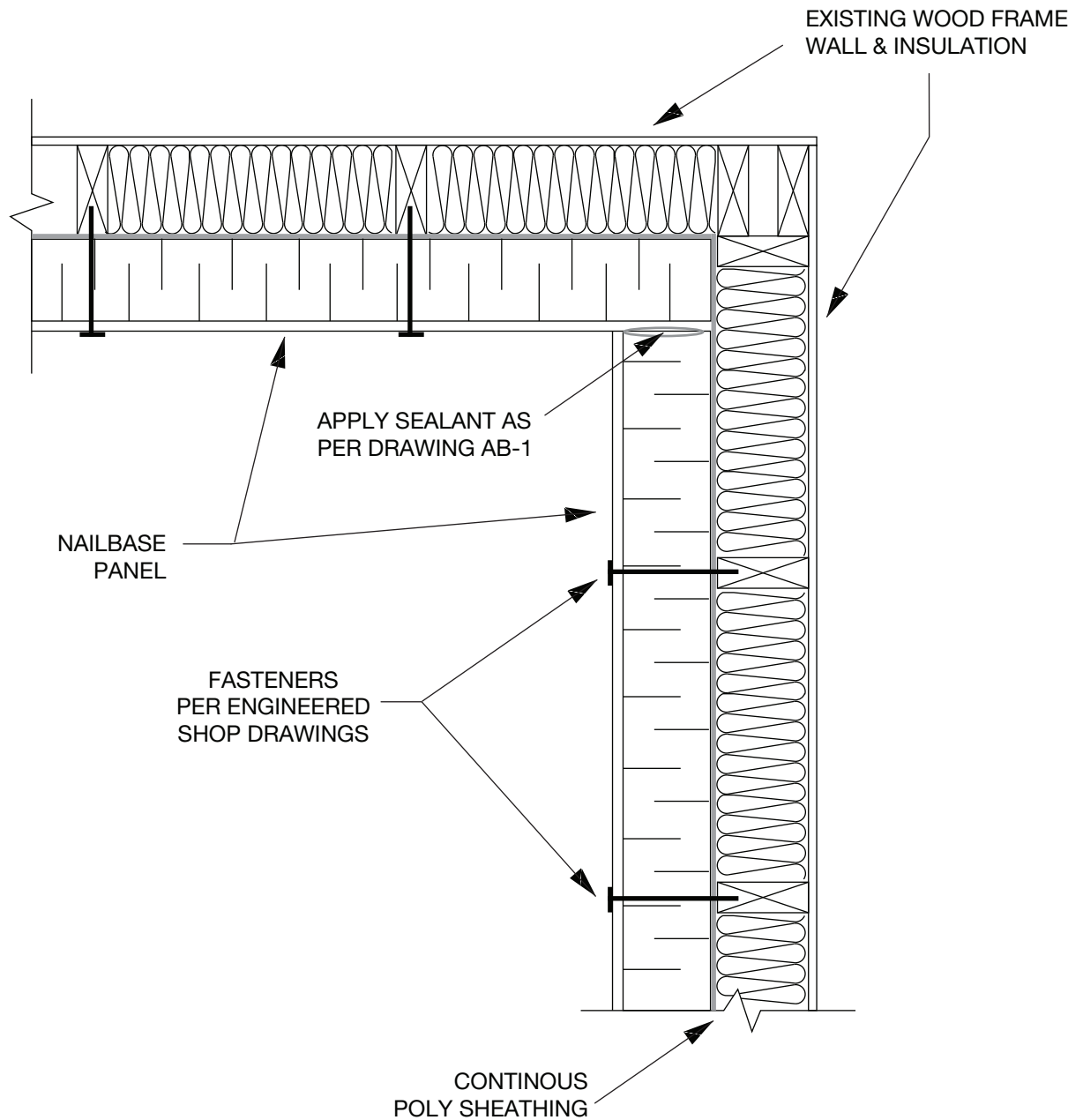
DWG. No.

NB-2



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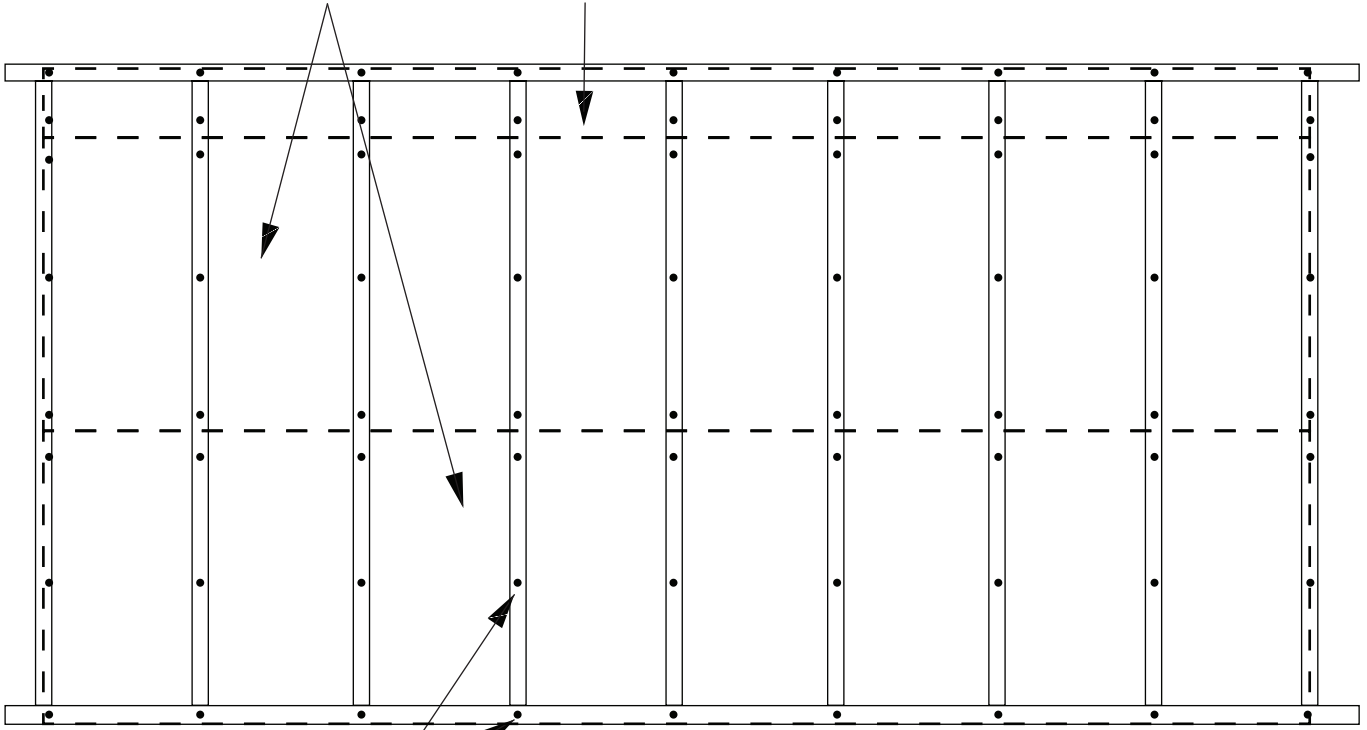
TITLE		PROJECT	
RETROFIT NAILBASE PANEL OVER RIM JOIST			
REFERENCE	SCALE		
	N.T.S.		
DATE	REVISION	DWG. No.	
NOVEMBER 2018		NB-3	



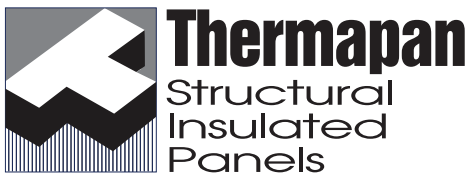
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1-877-443-WALL (9255)

TITLE		PROJECT	
INSIDE CORNER DETAIL			
REFERENCE	SCALE		
	N.T.S.		
DATE	REVISION	DWG. No.	
NOVEMBER 2018		NB-4	

NAILBASE PANELS
 OVER CONTINUOUS POLY SHEATHING
 (TWO 4x16 PANELS & ONE CUT 1X16 PANEL SHOWN)

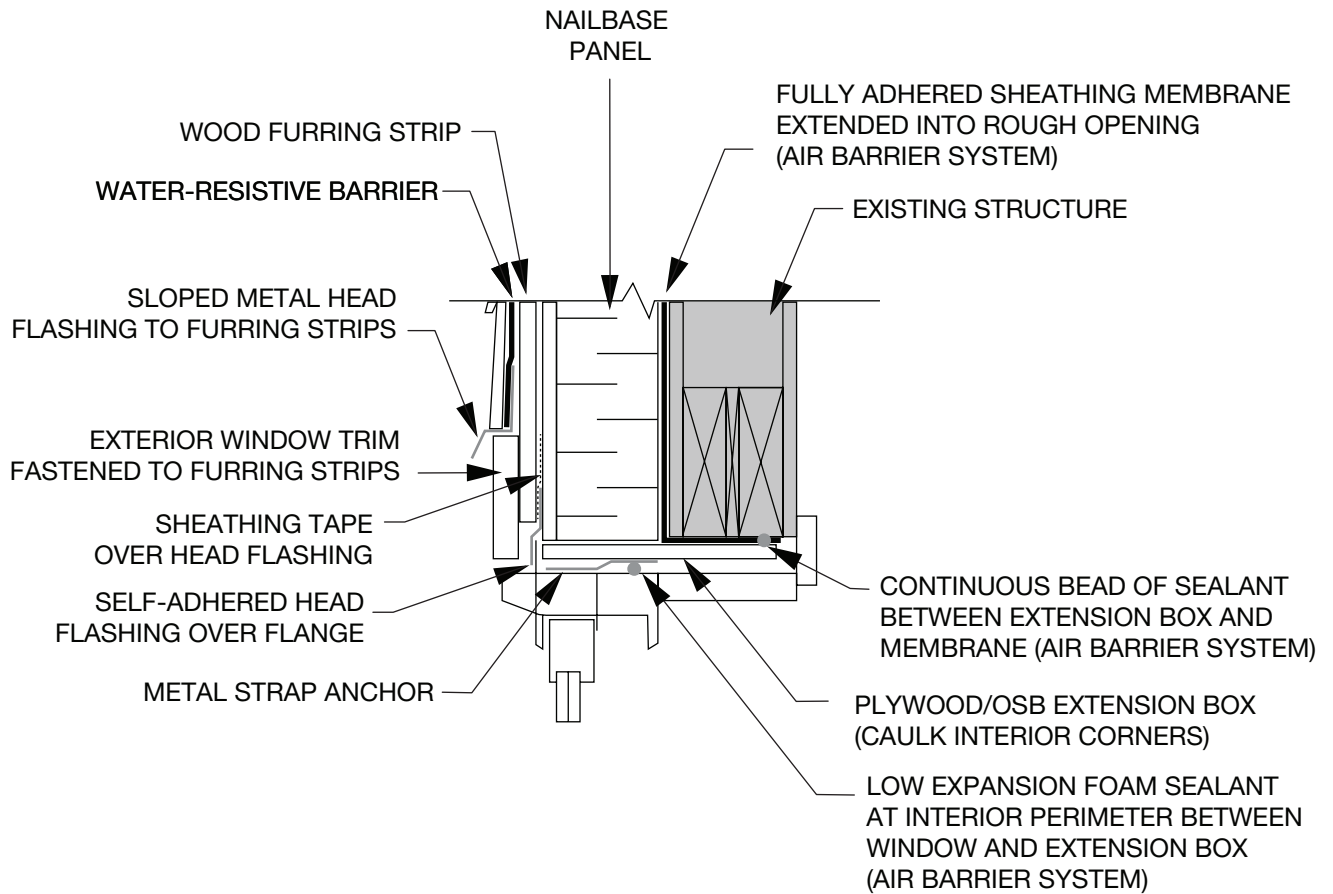


FASTENERS
 PER ENGINEERED
 SHOP DRAWINGS



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TITLE		PROJECT	
RETROFIT NAILBASE PANEL EDGES			
REFERENCE	SCALE		
	N.T.S.		
DATE	REVISION	DWG. No.	
NOVEMBER 2018		NB-5	



NOTE: SEE NB-6B FOR SILL DETAIL



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TITLE

WINDOW MOUNTED
AT EXTERIOR PLANE
(HEADER)

PROJECT

REFERENCE

SCALE

N.T.S.

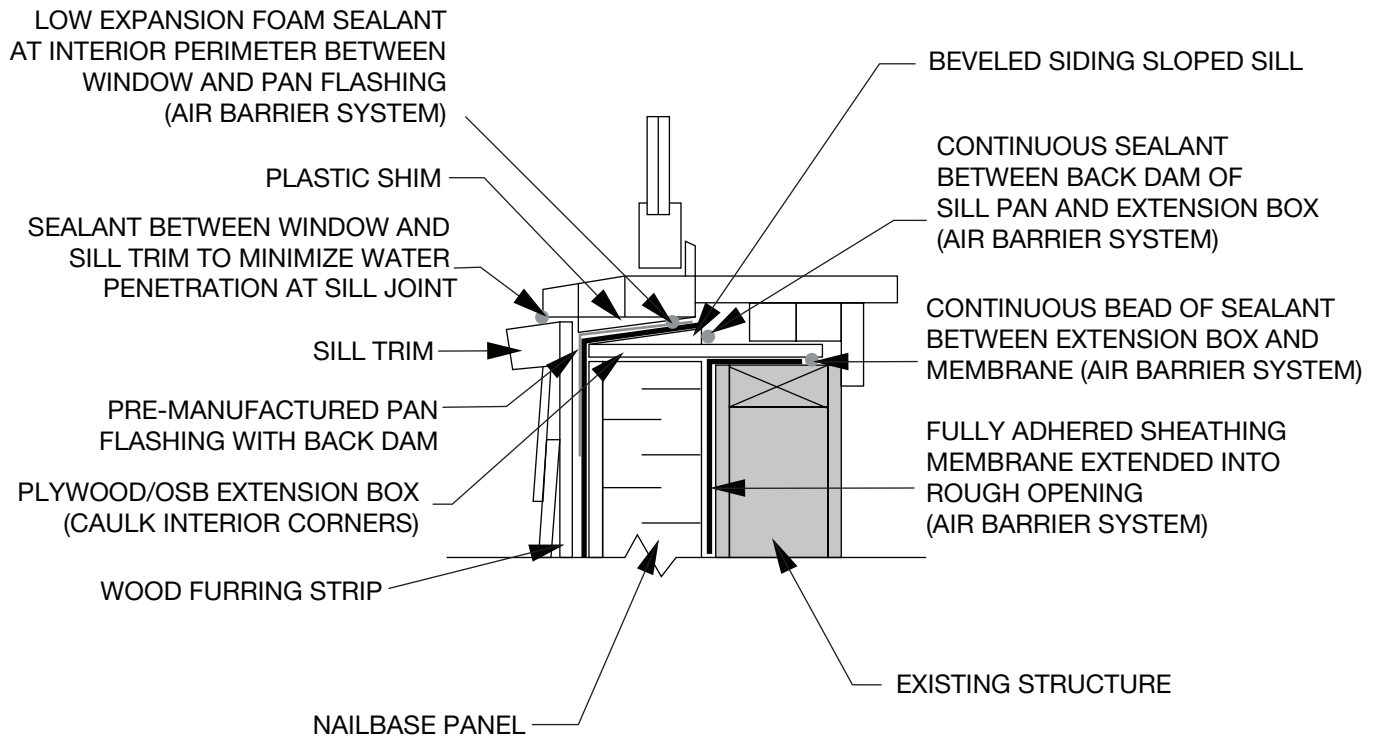
DATE

NOVEMBER 2018

REVISION

DWG. No.

NB-6A

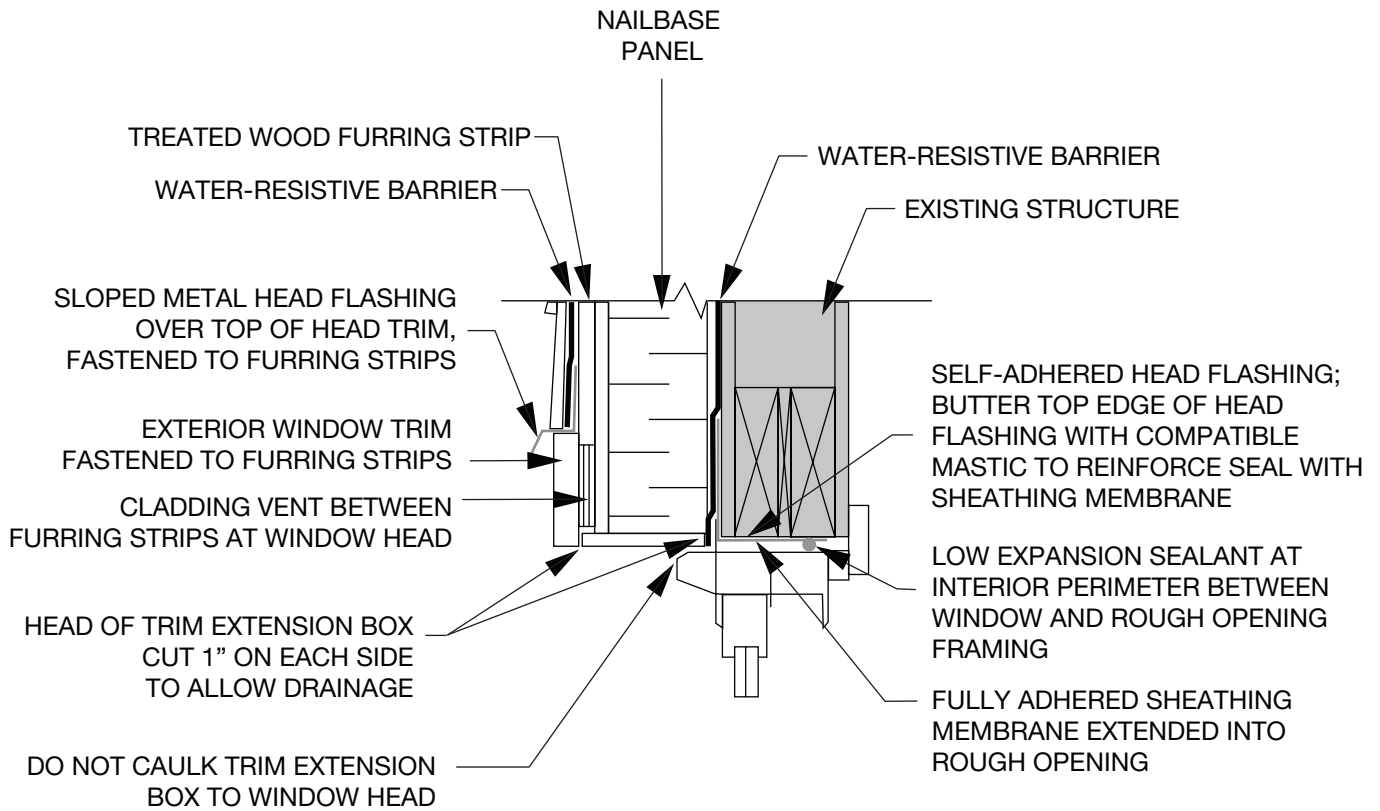


NOTE: SEE NB-6A FOR HEADER DETAIL



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TITLE		WINDOW MOUNTED AT EXTERIOR PLANE (SILL)		PROJECT
REFERENCE	SCALE		N.T.S.	
DATE	REVISION	DWG. No.		
NOVEMBER 2018		NB-6B		



NOTE: SEE NB-7B FOR SILL DETAIL



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TITLE

WINDOW LEFT IN PLACE
(HEADER)

PROJECT

REFERENCE

SCALE

N.T.S.

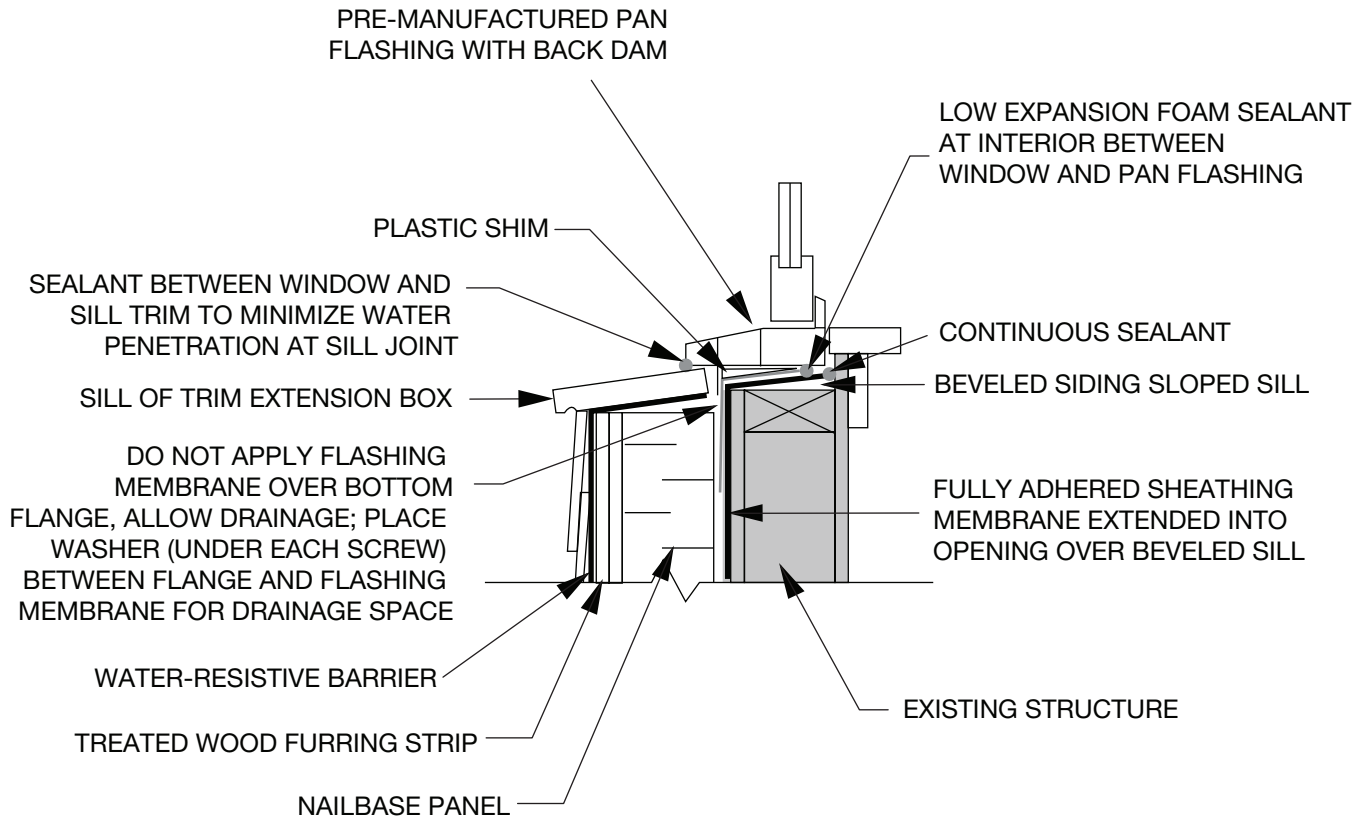
DATE

NOVEMBER 2018

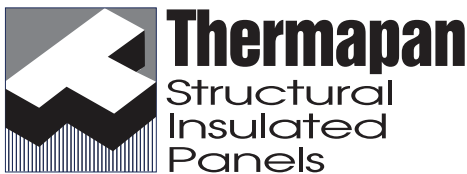
REVISION

DWG. No.

NB-7A

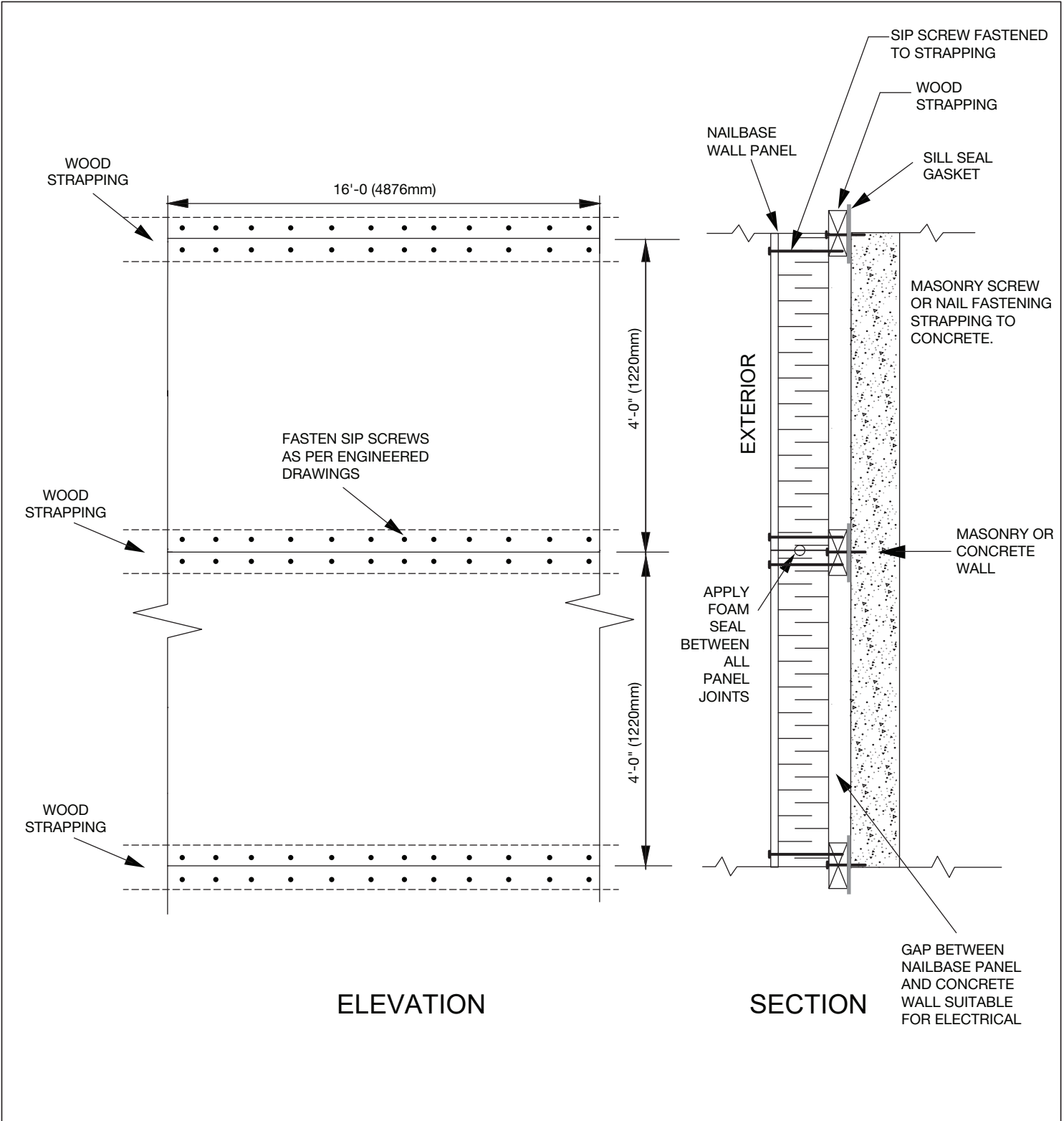


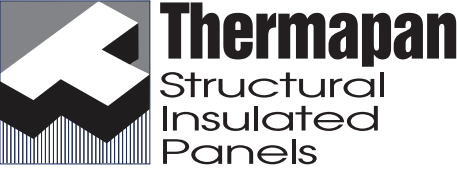
NOTE: SEE NB-7A FOR HEADER DETAIL



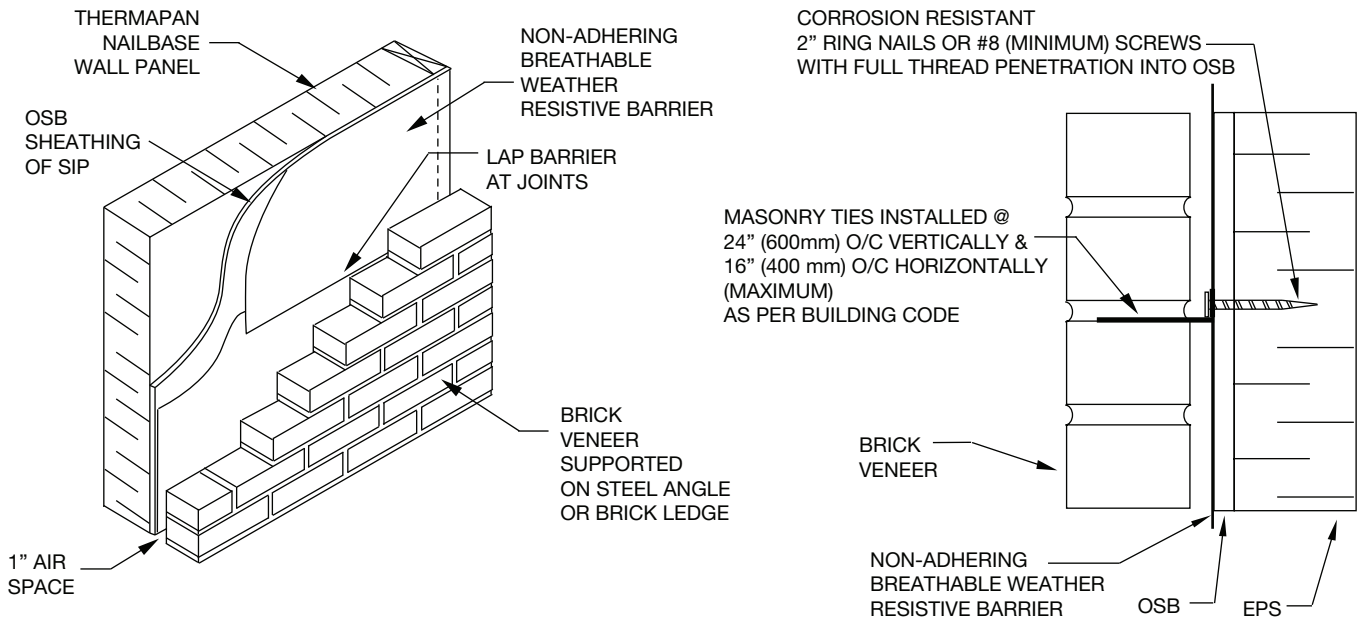
www.thermapan.com
1-877-443-WALL (9255)

TITLE		PROJECT	
WINDOW LEFT IN PLACE (SILL)			
REFERENCE	SCALE		
	N.T.S.		
DATE	REVISION	DWG. No.	
NOVEMBER 2018		NB-7B	

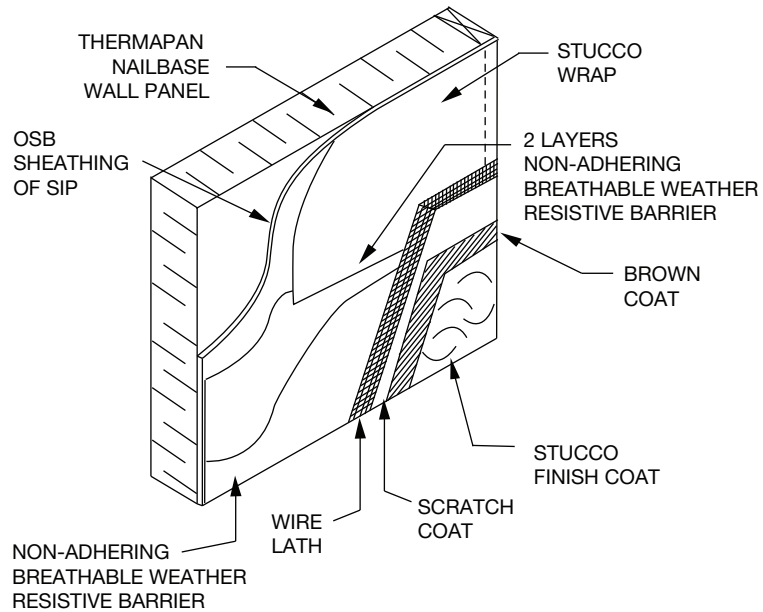


 <p>www.thermapan.com 1-877-443-WALL (9255)</p>	TITLE		PROJECT	
	<p>NAILBASE WALL ATTACHMENT (CONCRETE OR MASONRY WALL)</p>			
	REFERENCE	SCALE		
	N.T.S.			
DATE	REVISION	DWG. No.		
NOVEMBER 2018		NB-8		

MASONRY VENEER



STUCCO



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1-877-443-WALL (9255)

TITLE

EXTERIOR WALL CLADDING
BRICK & STUCCO

PROJECT

REFERENCE

SCALE

N.T.S.

DATE

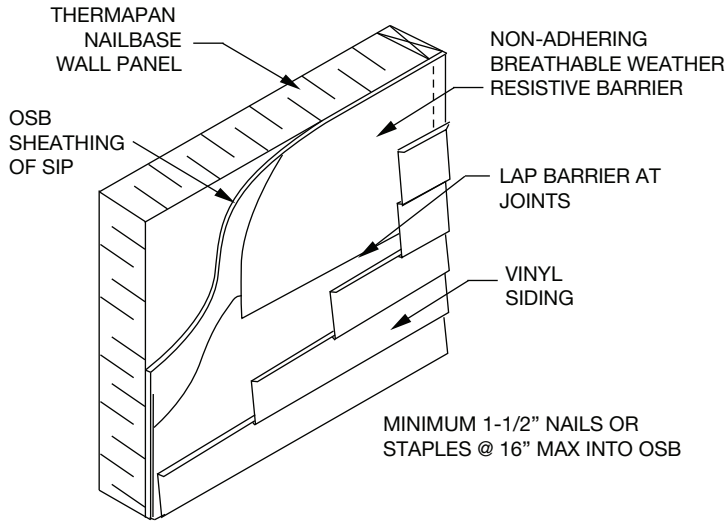
NOVEMBER 2018

REVISION

DWG. No.

NB-9

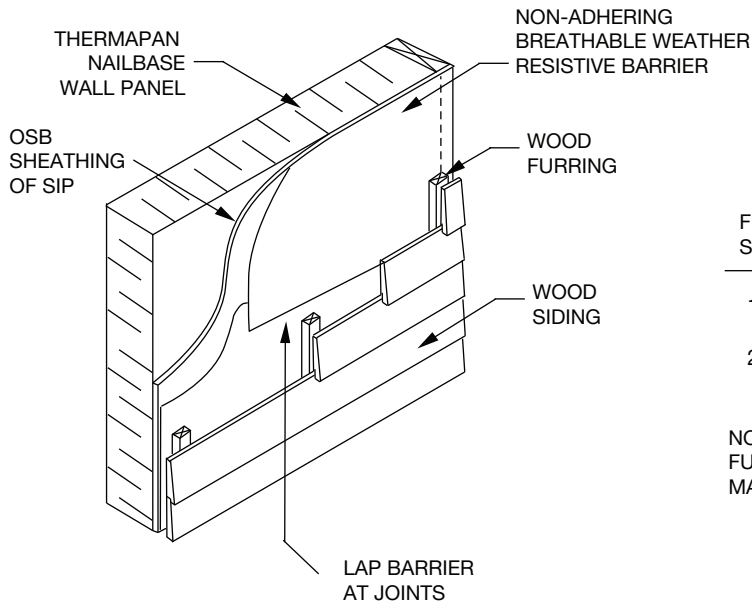
VINYL SIDING



FIBRE CEMENT SIDING

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

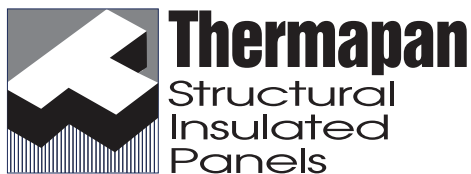
WOOD SIDING



FURRING REQUIREMENTS

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.



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TITLE

EXTERIOR WALL CLADDING:
SIDING

PROJECT

REFERENCE

SCALE

N.T.S.

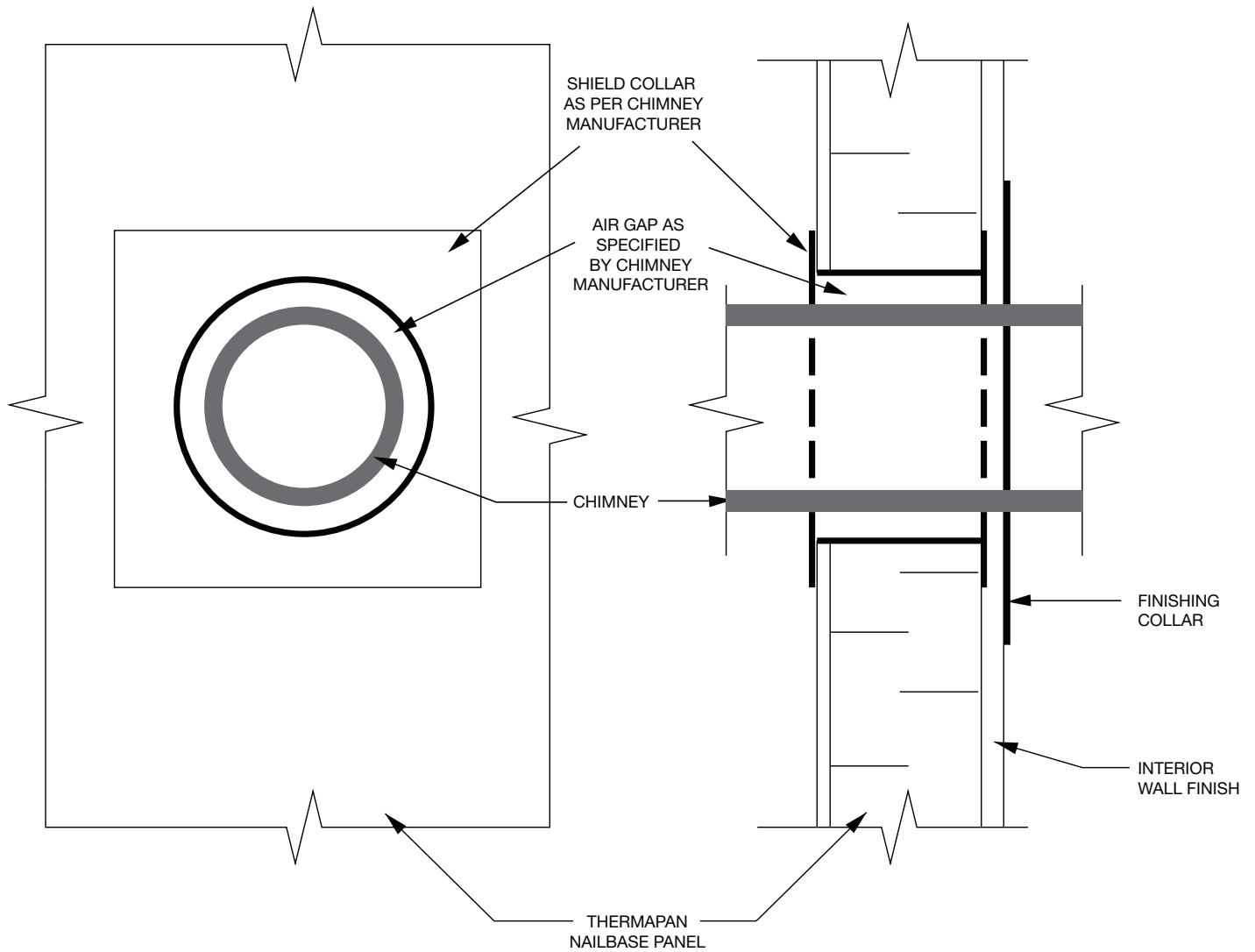
DATE

NOVEMBER 2018

REVISION

DWG. No.

NB-10

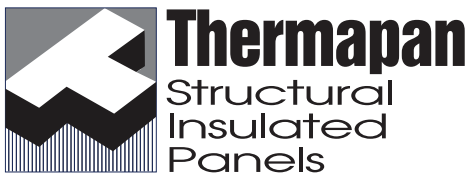
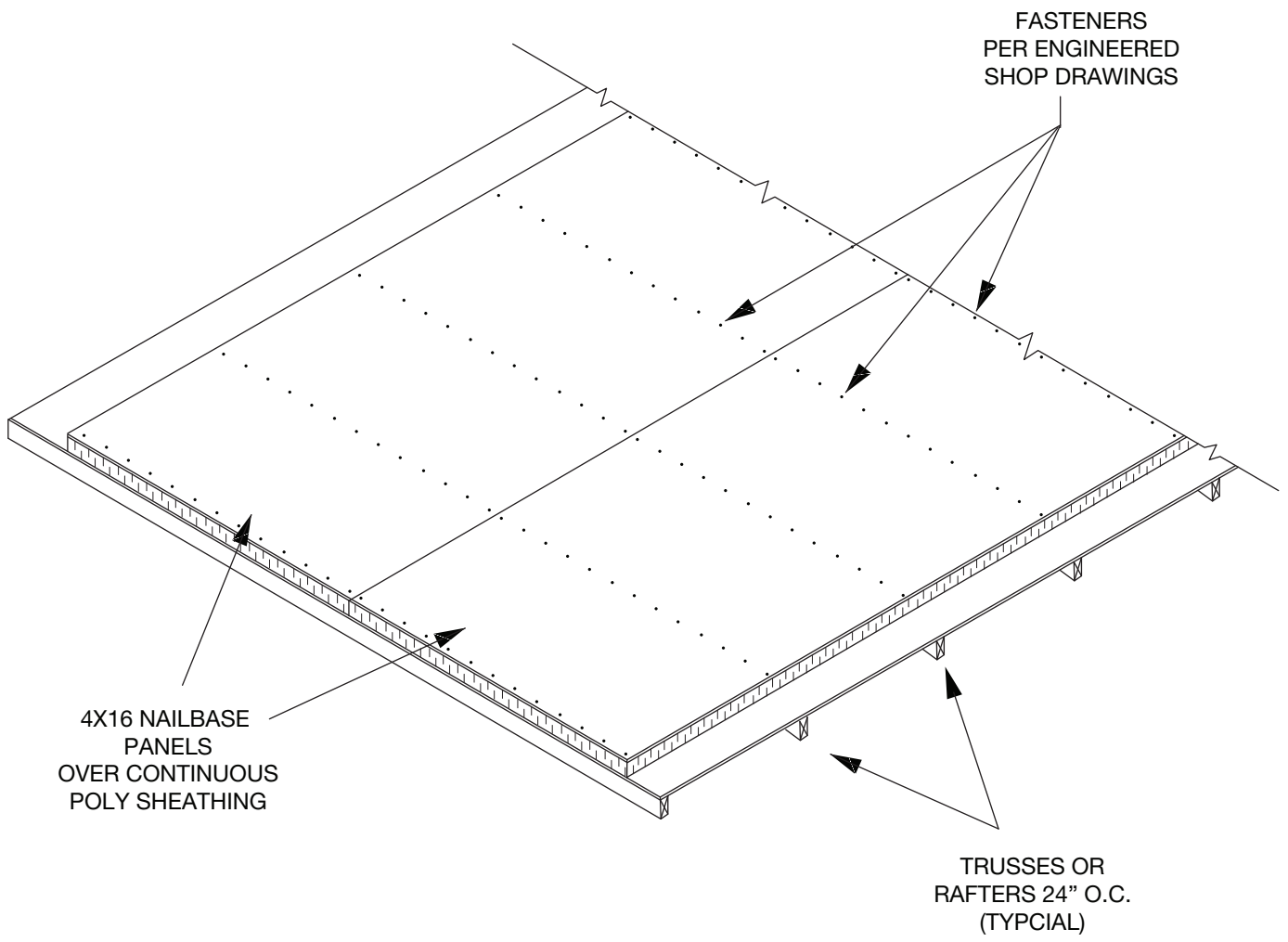


NOTE: ABOVE DETAILS ARE TYPICAL REQUIREMENTS TO INSTALL A PREFABRICATED METAL CHIMNEY IN A THERMAPAN STRUCTURAL INSULATED PANEL. THE CHIMNEY INSTALLATION MUST COMPLY WITH THE CHIMNEY MANUFACTURERS'S SPECIFICATION AND THE APPLICABLE BUILDING CODE.



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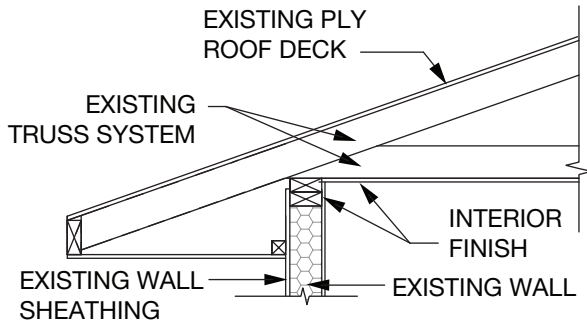
TITLE		PROJECT	
PRE-FABRICATED METAL CHIMNEY INSTALLATION IN WALL			
REFERENCE	SCALE		
	N.T.S.		
DATE	REVISION	DWG. No.	
OCTOBER 2019		NB-11	



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TITLE		PROJECT	
RETROFIT NAILBASE PANELS ON ROOF STRUCTURE			
REFERENCE	SCALE		
	N.T.S.		
DATE	REVISION	DWG. No.	
NOVEMBER 2018		NB-12	

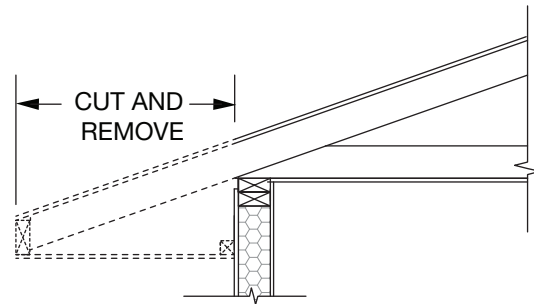
**STEP 1
ANALYSE CONSTRUCTION DETAIL**



TYPICAL EAVE CONSTRUCTION DETAIL

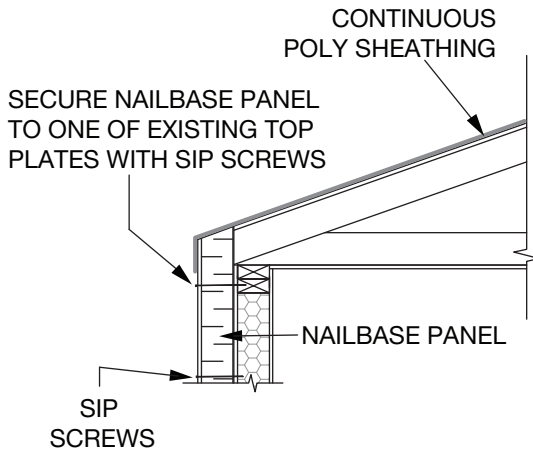
**STEP 2
REMOVE OVERHANG PORTION AS SHOWN**

REMOVE ROOF PLY, TRUSS OVERHANG FACIA AND SOFFIT AS REQUIRED AT FACE OF WALL SHEATHING

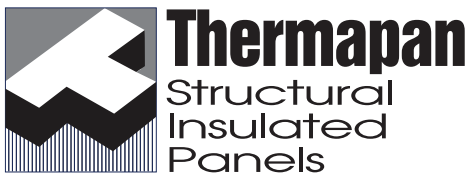
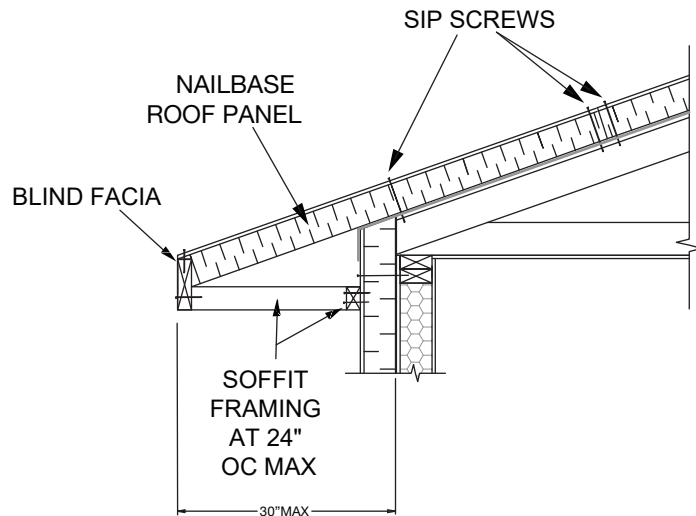


**STEP 3
INSTALL NAIL BASE WALL PANEL AND VAPOUR BARRIER ON ROOF**

INSTALL NAIL BASE PANEL ONTO WALL SHEATHING. SECURE PANEL TO TOP PLATE AS SHOWN AND INSTALL 2X3 FRAMING AT 24" OC TO SUPPORT SOFFIT AND BLIND FACIA



**STEP 4
INSTALL NAIL BASE ROOF PANEL BLIND FACIA AND SOFFIT TO CREATE OVERHANG**



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TITLE

RETROFIT ROOF & WALL NAILBASE CONNECTION AT OVERHANG

PROJECT

REFERENCE

SCALE

N.T.S.

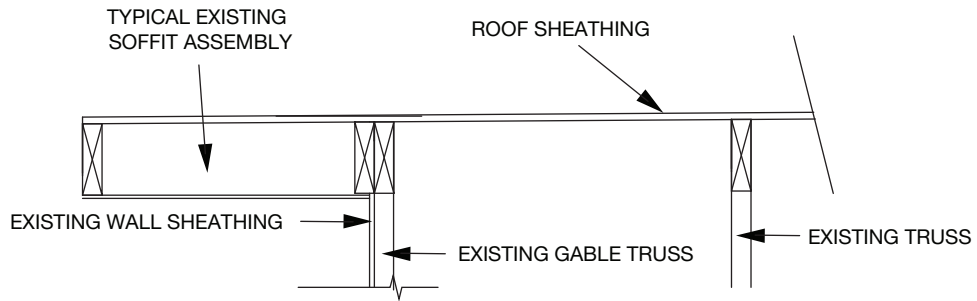
DATE

NOVEMBER 2018

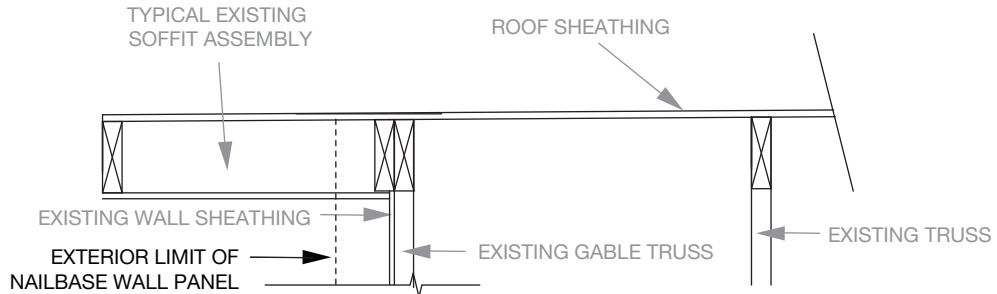
REVISION

DWG. No.

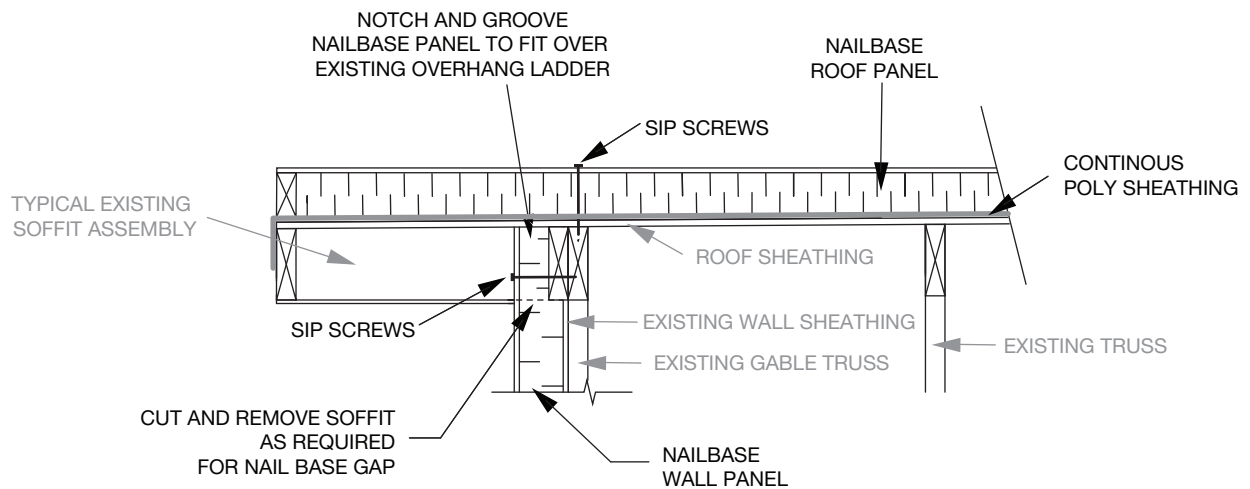
NB-13



TYPICAL GABLE OVERHANG CONSTRUCTION DETAIL



OVERHANG ADJUSTMENT FOR NAIL BASE ATTACHMENT

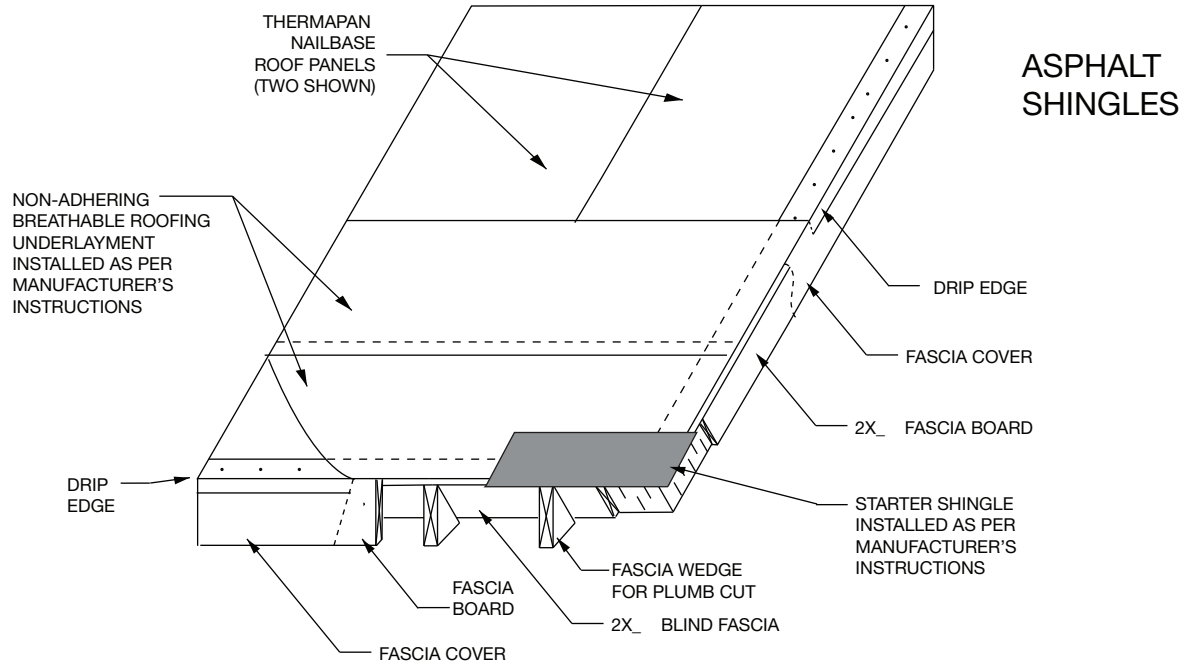


NAIL BASE WALL AND ROOF INSTALLATION FOR TYPICAL GABLE OVERHANG INSTALLATION

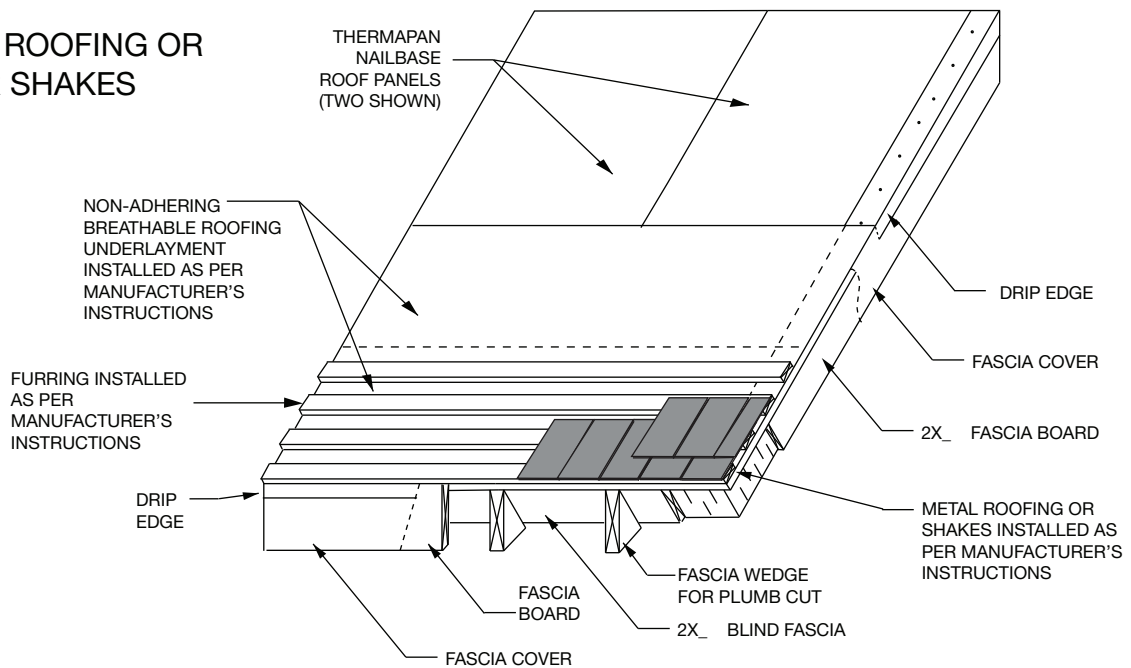


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TITLE		PROJECT	
NAILBASE ROOF OVERHANG DETAILS			
REFERENCE	SCALE		
	N.T.S.		
DATE	REVISION	DWG. No.	
NOVEMBER 2018		NB-14	



METAL ROOFING OR CEDAR SHAKES



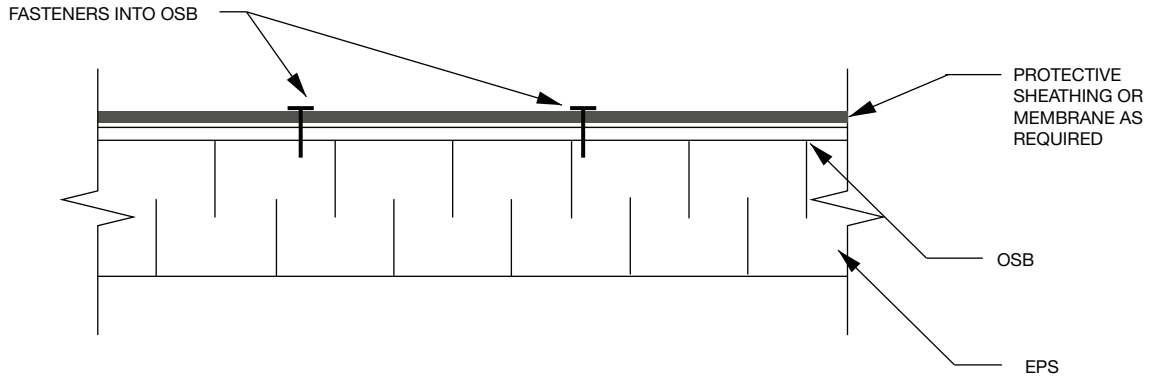
NOTE: VENTILATION OF ROOF NOT REQUIRED.



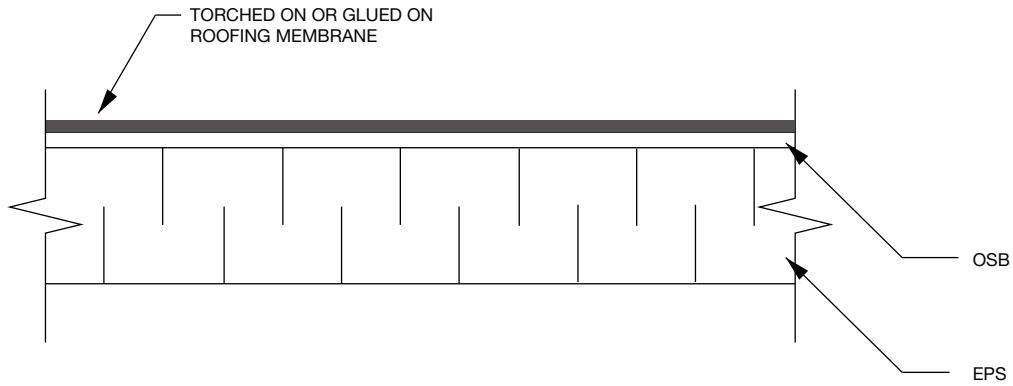
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TITLE		PROJECT	
SLOPED ROOFING APPLIED TO NAILBASE SIPS			
REFERENCE	SCALE		
	N.T.S.		
DATE	REVISION	DWG. No.	
NOVEMBER 2018		NB-15	

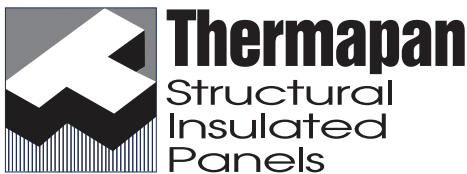
**NON-ADHERED MEMBRANE
(EPDM, PVC, TPO, ETC.)**



ADHERED ROOFING MEMBRANE



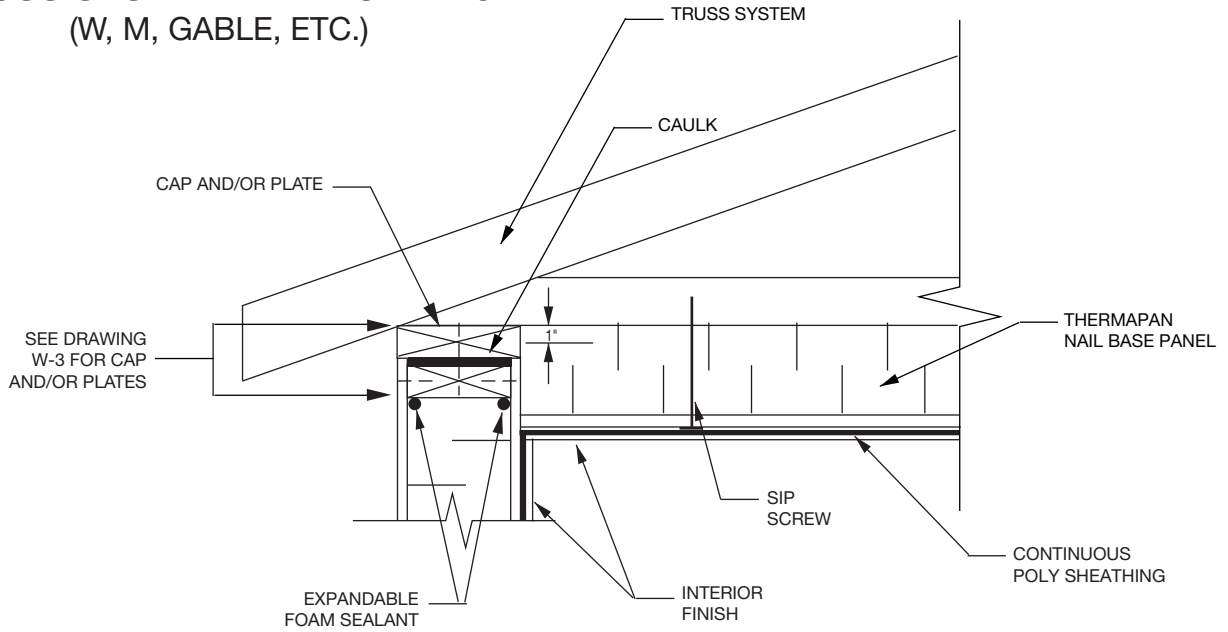
- NOTES:
- NAILBASE SIP SURFACE TO BE DRY.
 - INSTALL MEMBRANE ACCORDING TO MEMBRANE MANUFACTURER'S DETAILS AND CONFORM TO REQUIREMENTS OF LOCAL BUILDING CODE.



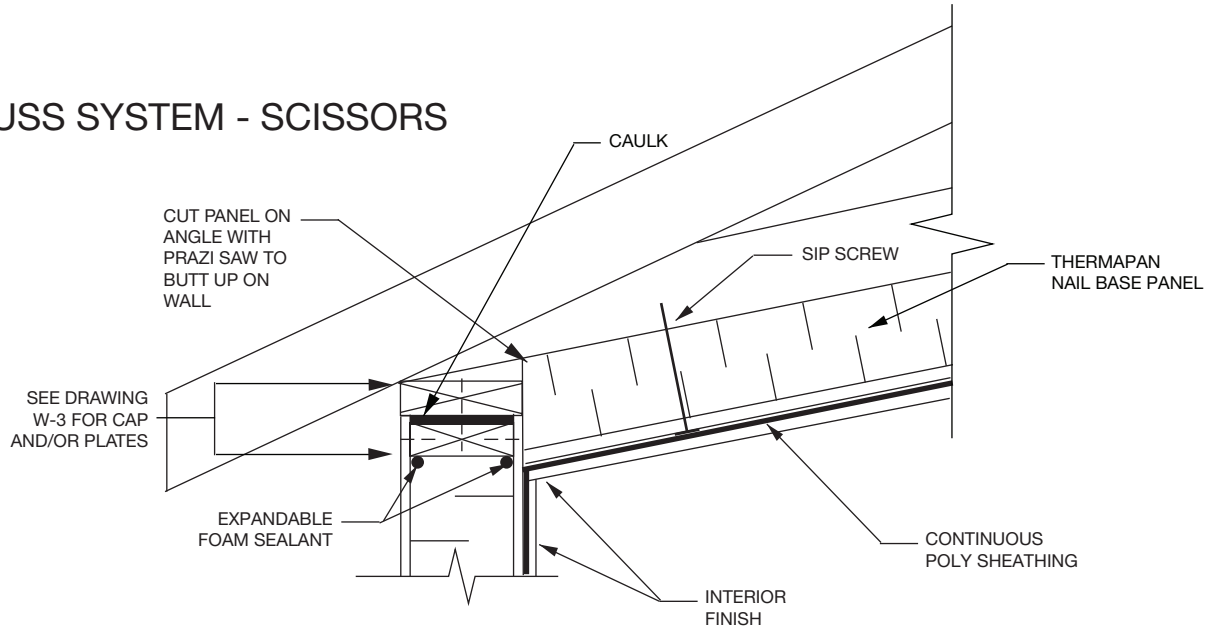
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1-877-443-WALL (9255)

TITLE		PROJECT	
FLAT ROOFING APPLIED TO NAILBASE SIPS			
REFERENCE	SCALE		
	N.T.S.		
DATE	REVISION	DWG. No.	
NOVEMBER 2018		NB-16	

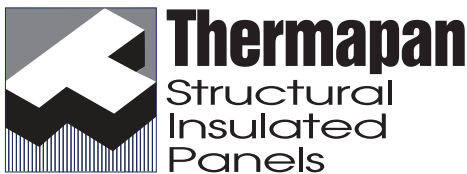
TRUSS SYSTEM - FLAT CEILING (W, M, GABLE, ETC.)



TRUSS SYSTEM - SCISSORS

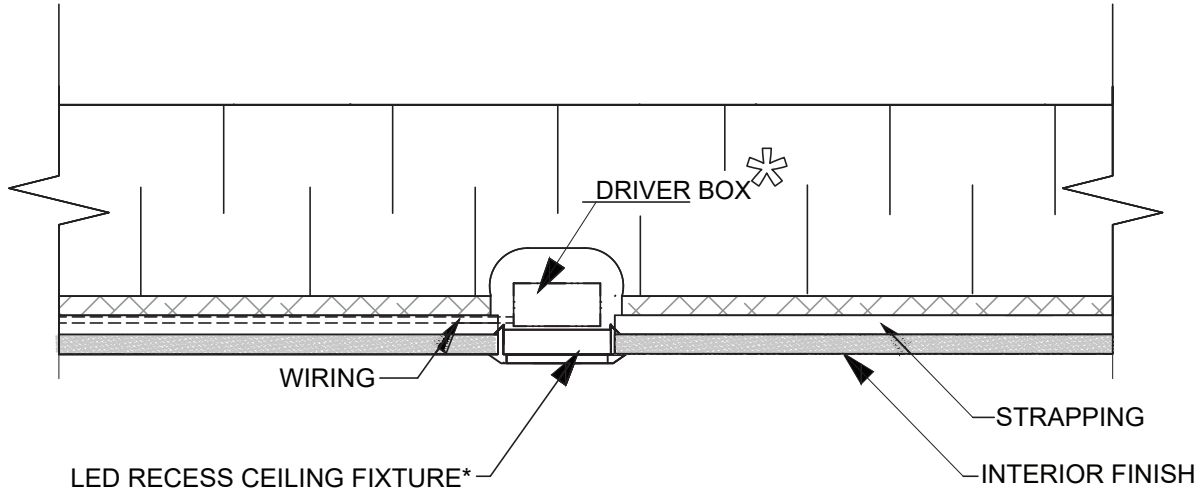


NOTES: SIP SCREWS TO BE INSTALLED EVERY 2' O/C BOTH DIRECTIONS.
REFER TO AIR BARRIER (AB-3) DETAILS FOR SEALING
NAILBASE PANEL CONNECTIONS.



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TITLE		PROJECT	
NAILBASE CEILING PANEL			
REFERENCE	SCALE		
	N.T.S.		
DATE	REVISION	DWG. No.	
NOVEMBER 2018		NB-17	



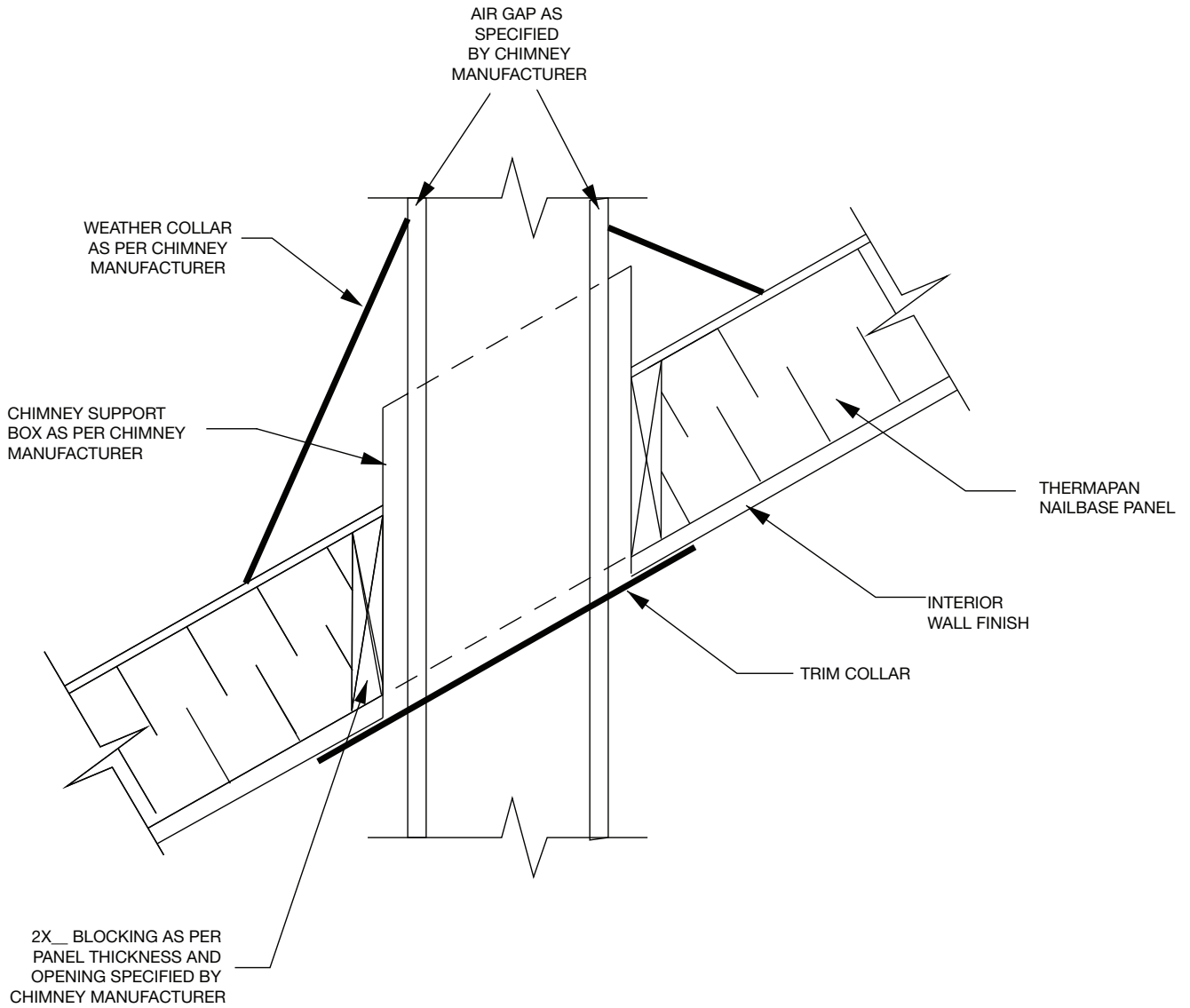
*** FIXTURE SPECIFICATIONS**

FIXTURE TO HAVE AMBIENT OPERATING TEMPERATURE +140F(+40C) MAXIMUM
 INSTALL AS PER MANUFACTURERS SPECIFICATIONS

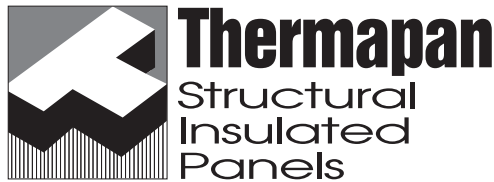


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TITLE		LED POT LIGHT INSTALLATION IN CEILING SIPS		PROJECT
REFERENCE		SCALE		
		N.T.S.		
DATE		REVISION	DWG. No.	
NOVEMBER 2018			NB-18	



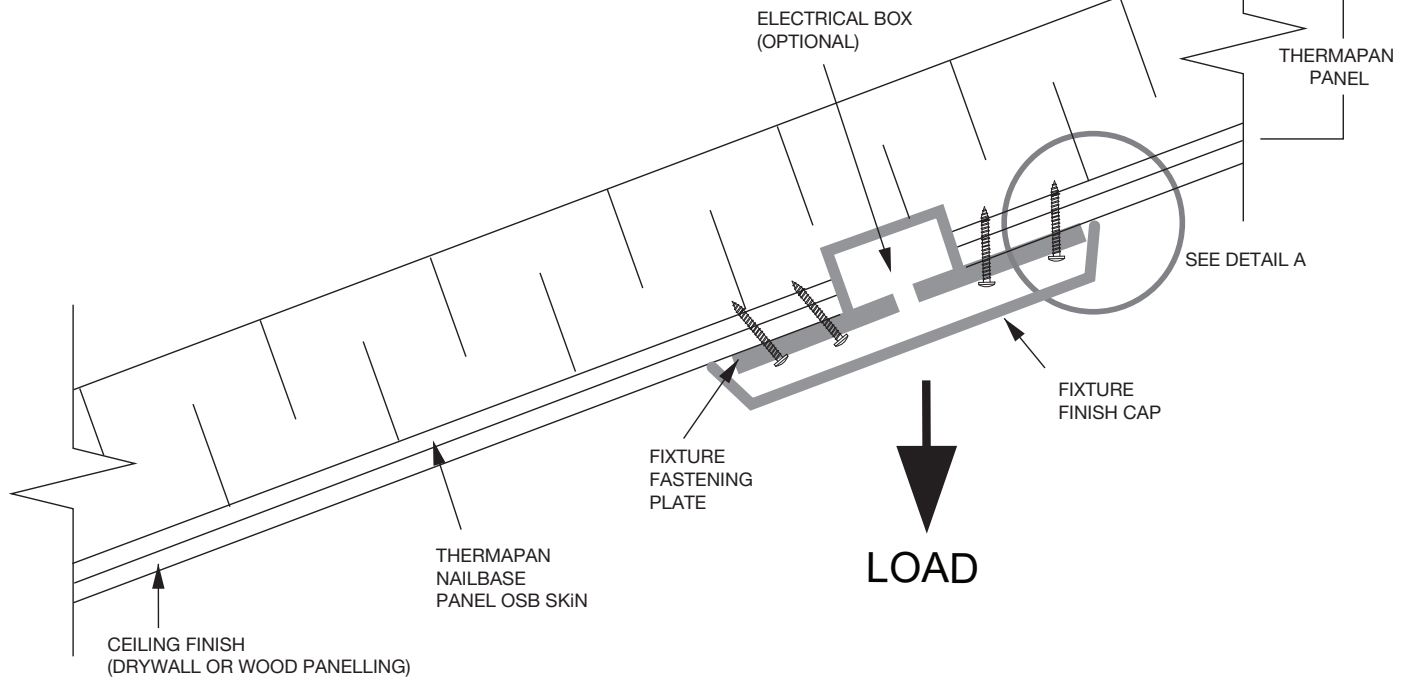
NOTE: ABOVE DETAILS ARE TYPICAL REQUIREMENTS TO INSTALL A PREFABRICATED METAL CHIMNEY IN A THERMAPAN STRUCTURAL INSULATED PANEL. THE CHIMNEY INSTALLATION MUST COMPLY WITH THE CHIMNEY MANUFACTURERS'S SPECIFICATION AND THE APPLICABLE BUILDING CODE.



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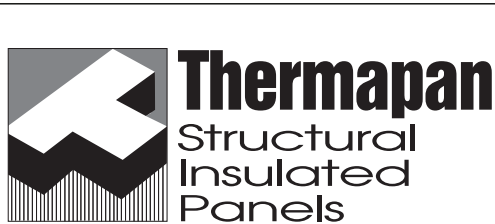
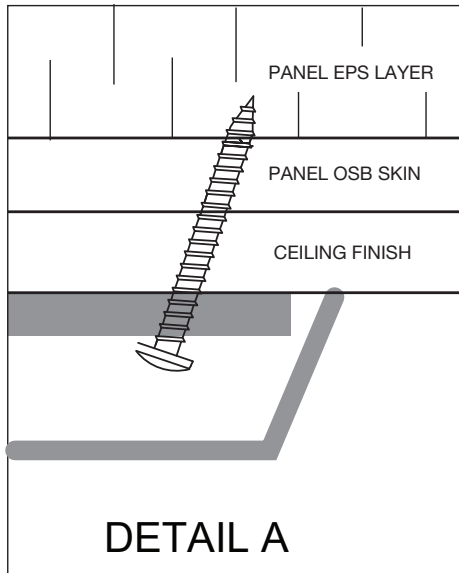
TITLE		PROJECT	
PRE-FABRICATED METAL CHIMNEY – ROOF INSTALLATION			
REFERENCE	SCALE		
	N.T.S.		
DATE	REVISION	DWG. No.	
OCTOBER 2019		NB-19	

TYPICAL SIP ROOF SECTION



CEILING LOAD RESISTANCE CAN BE ACHIEVED WITH NUMBER 10 SHEET METAL SCREWS INSTALLED TO A SIP CEILING FINISH AS DETAILED OR TO THE SIP SKIN DIRECTLY.

EACH SCREW CAN RESIST A PULL OUT OF 90 POUNDS IN 7/16" OSB. CONTRACTOR TO CONFIRM LOAD TO BE SECURED AND NUMBER OF FASTENERS REQUIRED. MINIMUM 4 SCREWS PER FIXTURES. FULL THICKNESS OF OSB TO RECEIVE SCREW THREAD ON ANGLE AS DETAILED



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TITLE		PROJECT	
SCREW FASTENER DETAIL FOR SECURING LOAD TO NAILBASE CEILING PANEL			
REFERENCE	SCALE		
	N.T.S.		
DATE	REVISION	DWG. No.	
FEBRUARY 2020		NB-20	