



INSULSPAN[®]
Structural Insulated Panels

A **CARLISLE** COMPANY

Standard Construction Details

Revision Date: July 21, 2025

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About Insulspan

The industry leader in structural Insulated Panels (SIPs).

Imagine an energy efficient product that lowers consumer energy bills, increases builder productivity and efficiency, and creates high performance structural envelopes. Insulspan Structural Insulated Panels (SIPs) do all this.

Discover the value Insulspan SIPs can offer you.

What are SIPs?

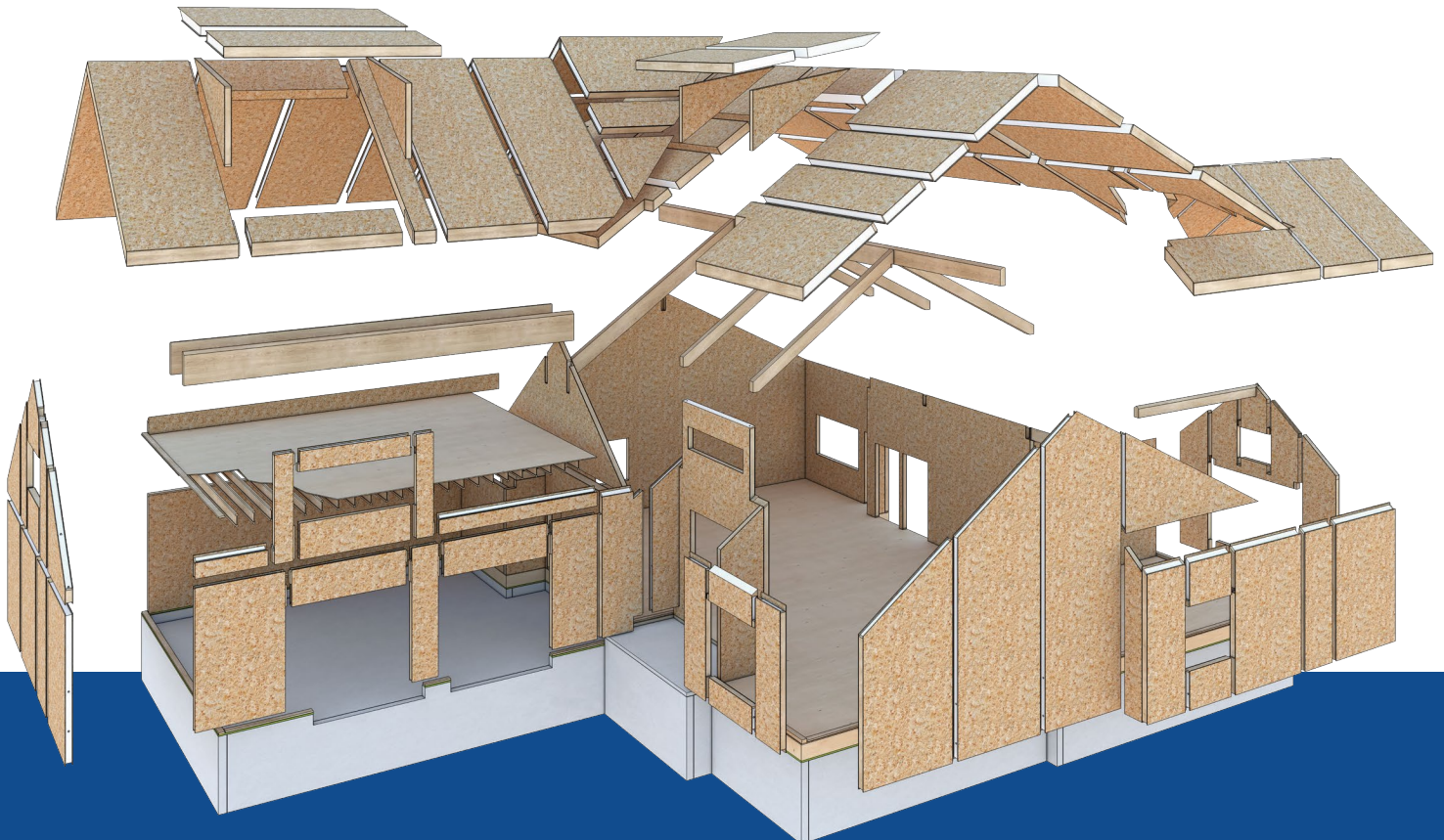
Our high-performance building system consists of insulated foam core sandwiched between two structural facings of oriented strand board (OSB).

SIPs vs. Stick Framing

SIPs Panels come with a whole host of benefits, including shorter construction times, lower energy bills, and smaller HVAC system requirements.

Advantages of Insulspan

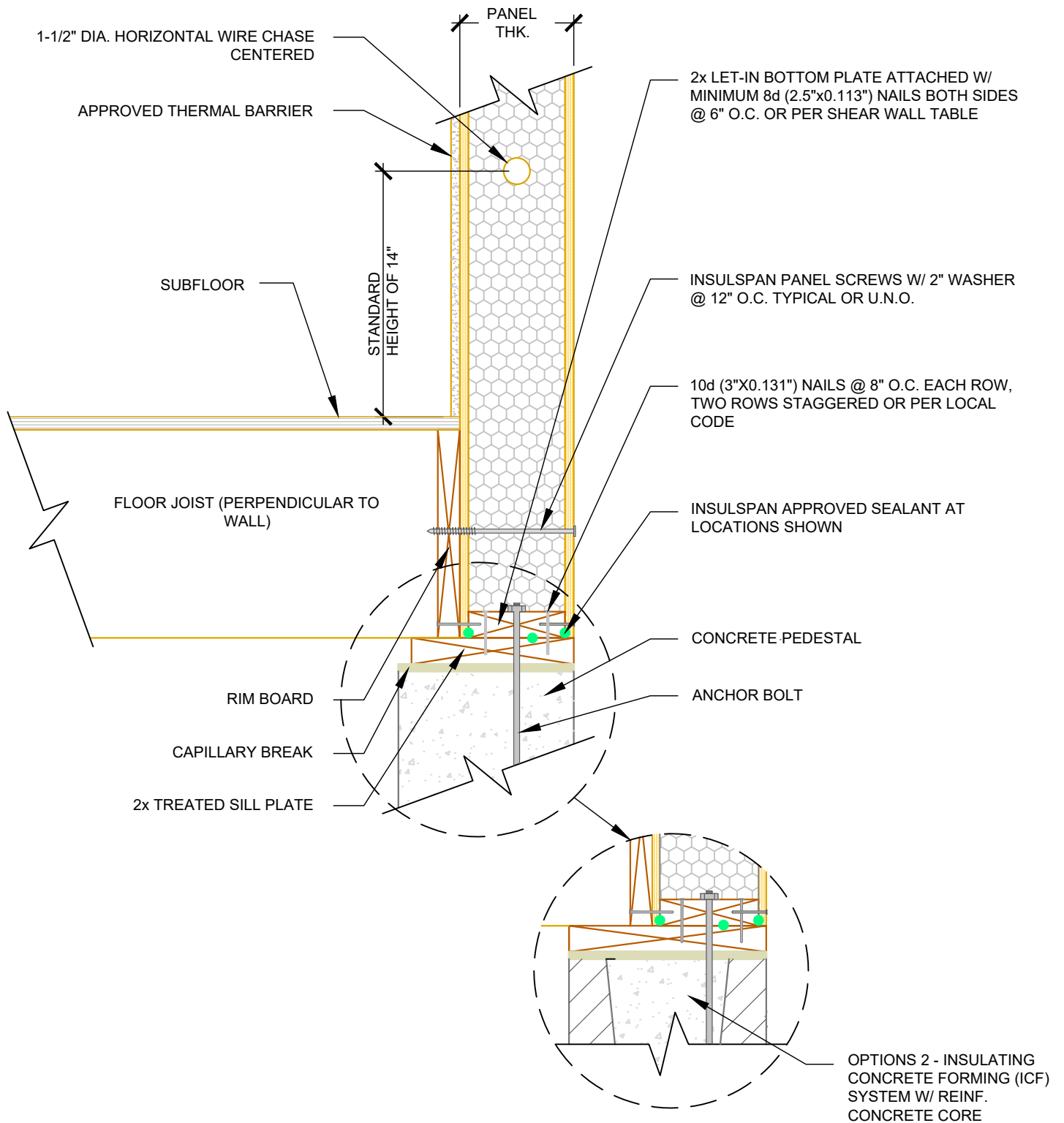
The Insulspan SIP System offers superior energy efficiency, design flexibility, structural strength, increased construction speed and more



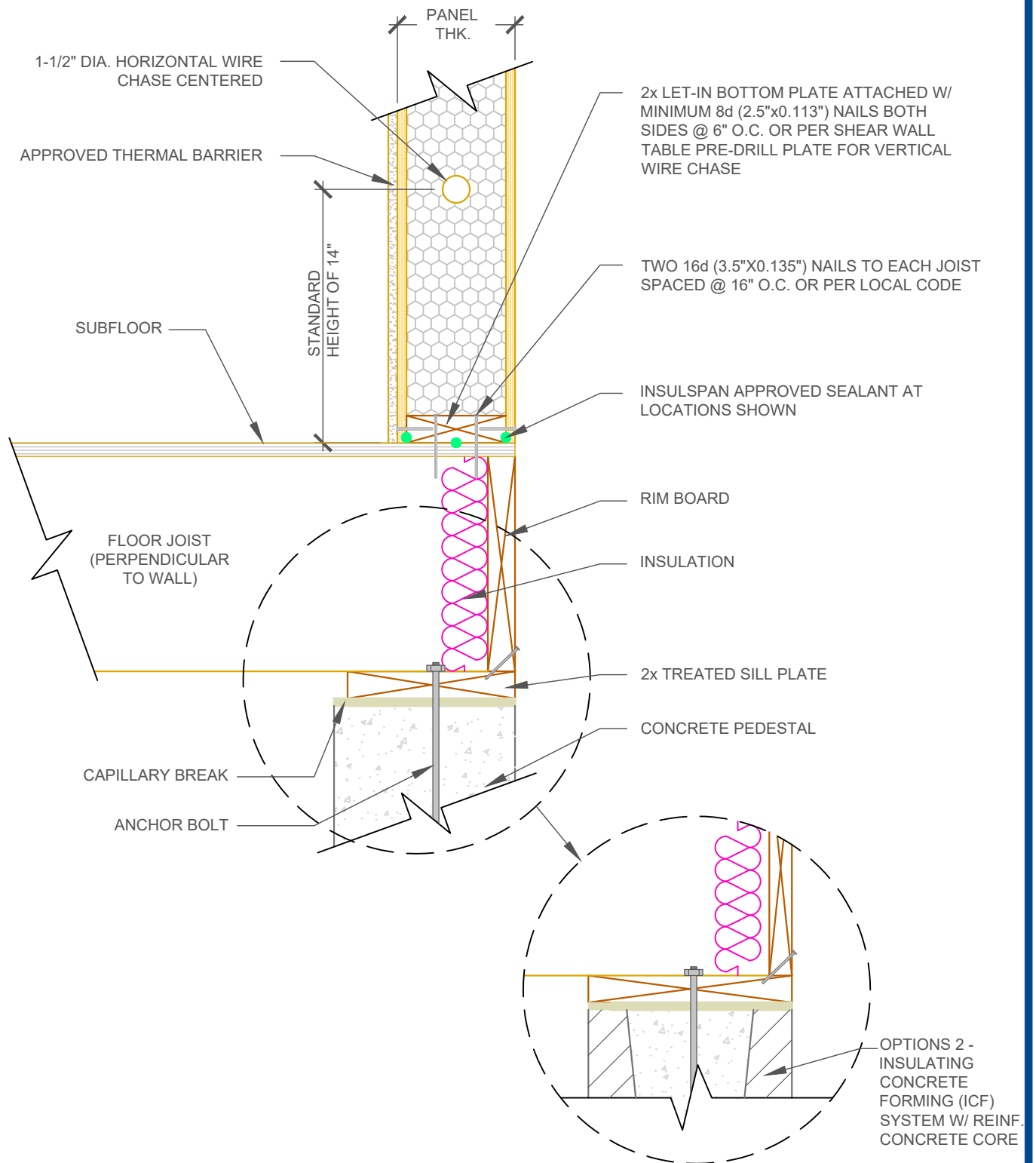
Revision Log

No.	Revision Date	List of revisions
01	July 21, 2025	<ol style="list-style-type: none">1. Updated Insulspan logo is placed.2. Insulspan company website is added in the sheet.3. A separate sheet for General notes is added.4. Standard details are grouped based on the scenario/functionality.5. Title name and the sheet numbers are updated.6. New standard details are added.7. Standard details are established in color format with layer to each in the Autocad file - which is available to download now from www.insulspan.com.8. Hatches are updated and/or added.9. Several details are updated as per the present construction practice.

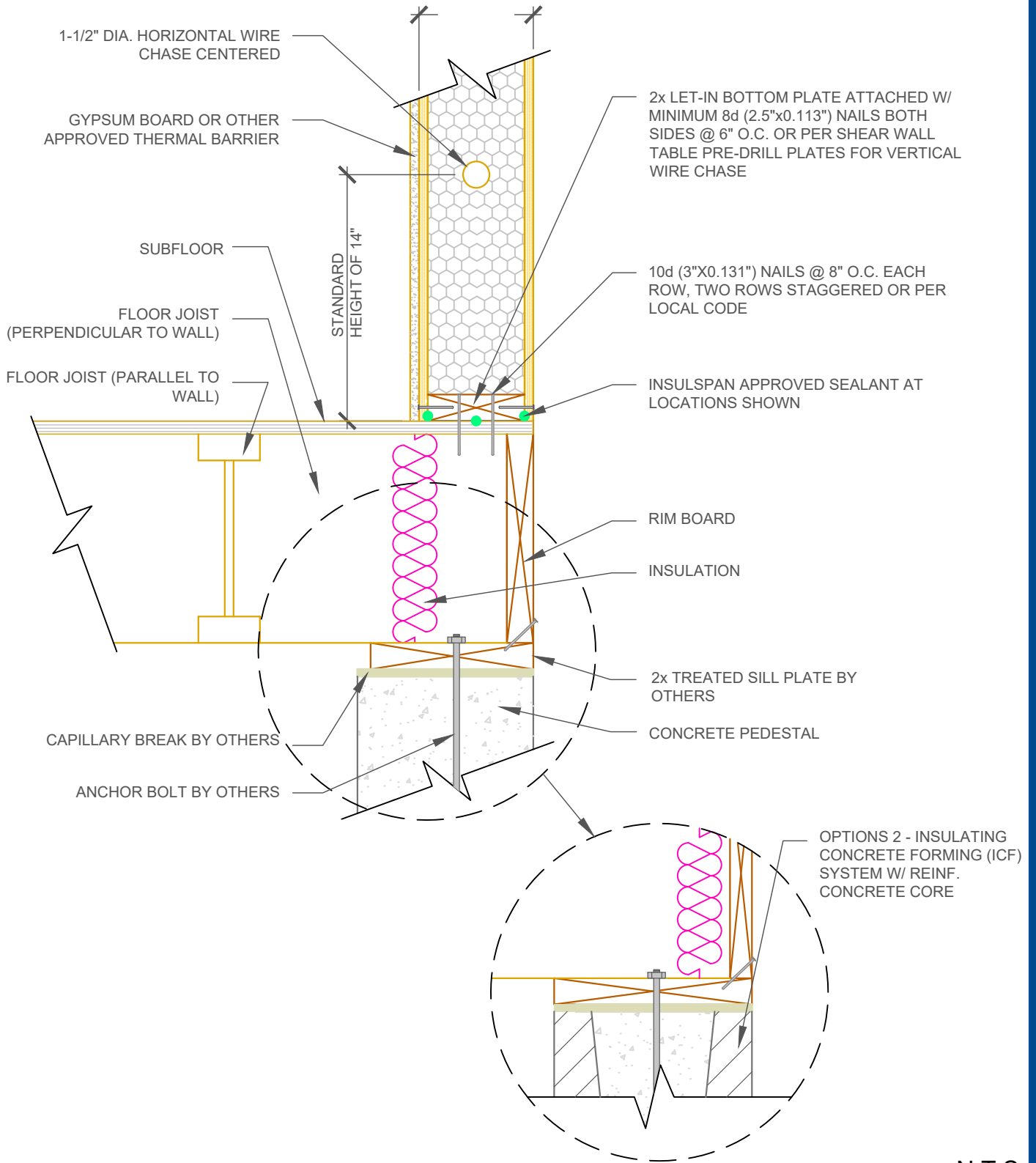
1. THESE TYPICAL DETAIL DRAWINGS ARE FOR INFORMATIONAL PURPOSED ONLY AND PROVIDE A TYPICAL FRAMEWORK FOR A SIP CONSTRUCTION PROJECT. THEY MAY NOT FULFILL ALL PROJECT-SPECIFIC REQUIREMENTS AND SHOULD ONLY BE USED UNDER THE CONSULTATION OF A PROFESSIONAL, SUCH AS A STRUCTURAL ENGINEER.
2. THE CONTRACTOR SHALL VERIFY ALL JOB SITE CONDITIONS AND RELATED DIMENSIONS BEFORE CONSTRUCTION.
3. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ENSURING SAFETY AND PROTECTION IN AN AROUND THE JOB SITE, INCLUDING ADJACENT PROPERTIES.
4. THE CONTRACTOR AND/OR OWNER SHALL ENSURE THAT APPLIED LOADS ON THE STRUCTURE REMAIN WITHIN THE DESIGN LIMITS OF THE STRUCTURAL MEMBERS BEFORE, DURING, AND AFTER CONSTRUCTION.
5. ALL BUILDING COMPONENTS USED IN CONJUNCTION WITH THESE DETAILS SHALL COMPLY WITH APPLICABLE LOCAL BUILDING CODES AND REGULATIONS.
6. THE CONSTRUCTION DETAIL DRAWINGS PROVIDED HERE SHALL BE USED IN CONJUNCTION WITH INSULSPAN'S FINAL CONSTRUCTION DRAWINGS AND INSTALLATION GUIDE. FAILURE TO FOLLOW THE INSTALLATION GUIDE AND CONSTRUCTION DETAILS MAY VOID THE PRODUCT WARRANTY.
7. INSULSPAN APPROVED SEAL TAPE SHALL BE APPLIED TO THE PREDOMINANT WARM SIDE OF THE PANEL JOINT.
8. ALL SIP SCREW FASTENERS ARE BASED ON TYPICAL MINIMUM VALUES. ANY DEVIATION FROM THESE FASTENER DETAILS MUST BE SUPPORTED BY A DESIGN FROM A LICENSED ENGINEER AND/OR APPROVED BY THE INSULSPAN DESIGN TEAM.
9. ALL STRUCTURAL MEMBERS AND CONNECTIONS, EXCEPT FOR SIP PANELS AND THOSE SPECIFIED IN THESE DRAWINGS, SHALL BE SUPPLIED AND DESIGNED BY OTHERS.
10. 6" WIDE INSULSPAN APPROVED PANEL SEAL TAPE SHALL BE USED UNLESS NOTED OTHERWISE.
11. THE STANDARD DETAILS SHOWN HERE ARE NOT TO SCALE (NTS).



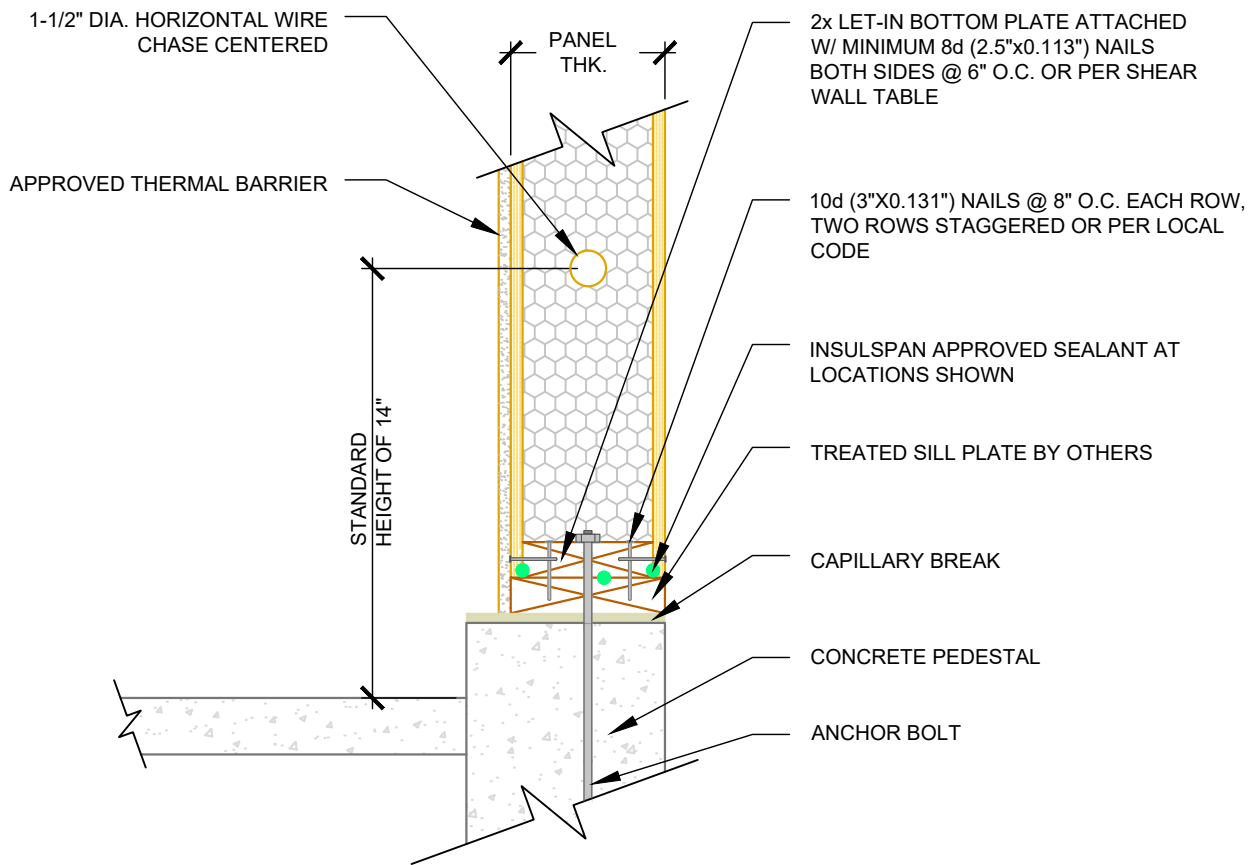
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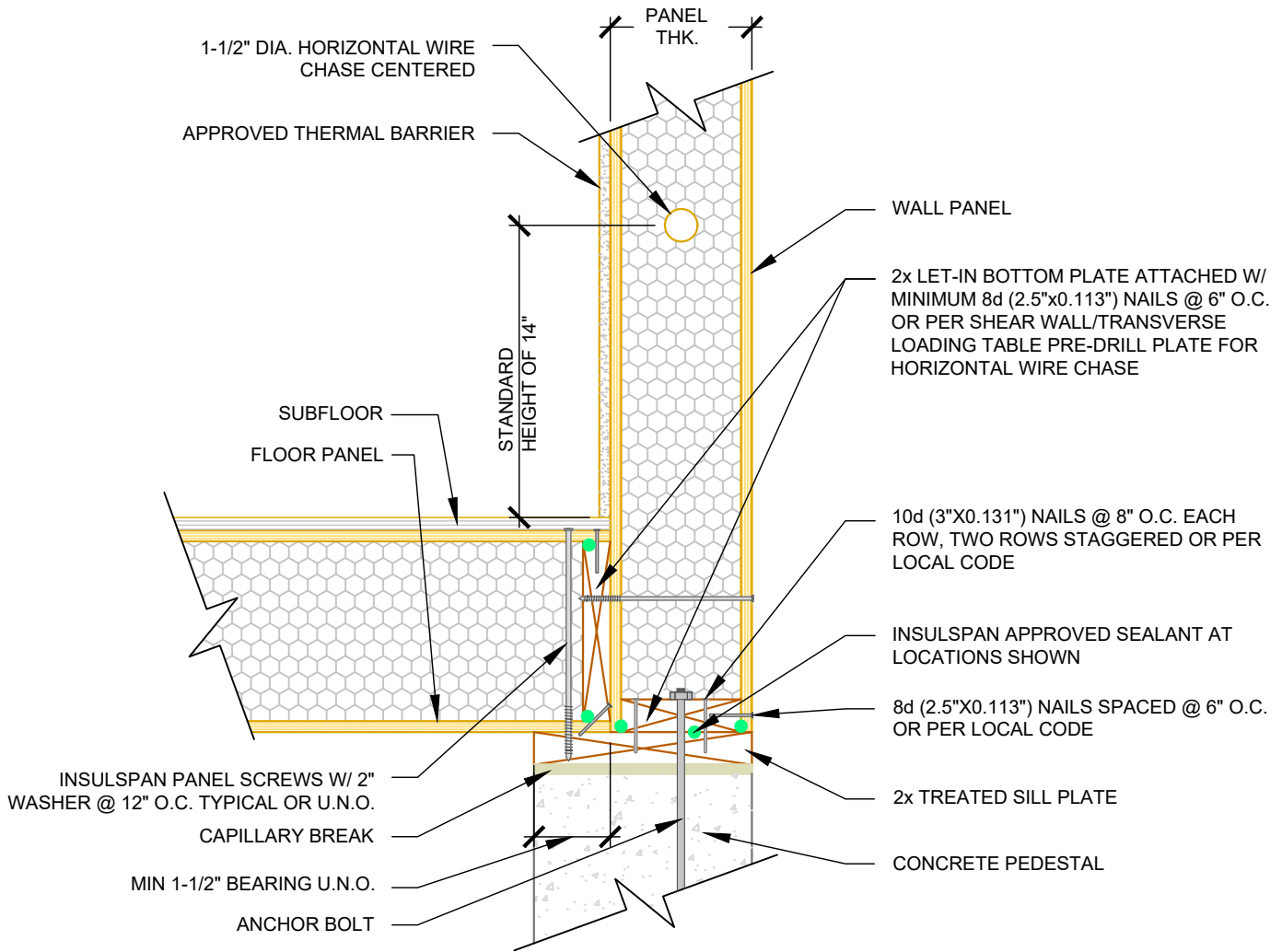
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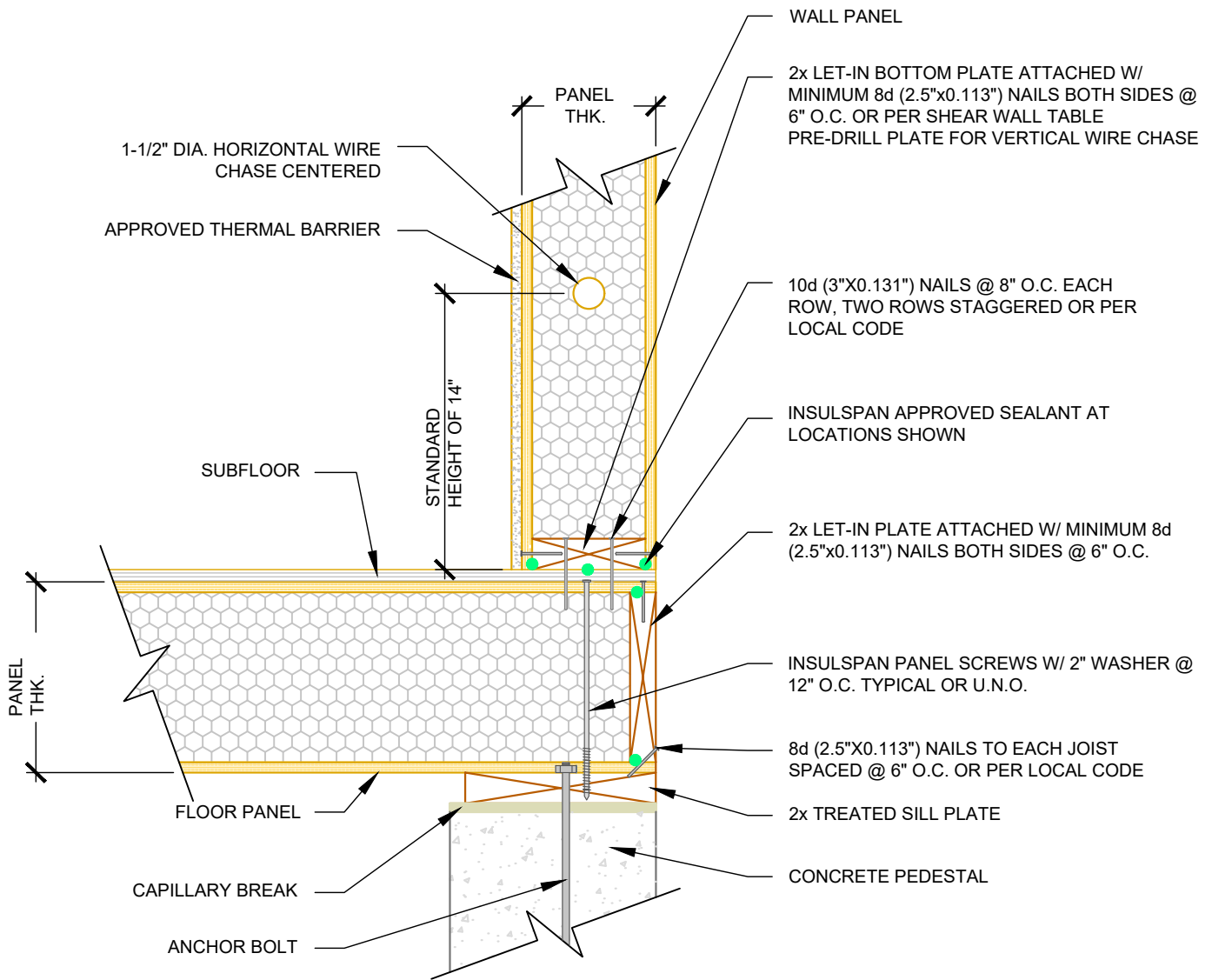


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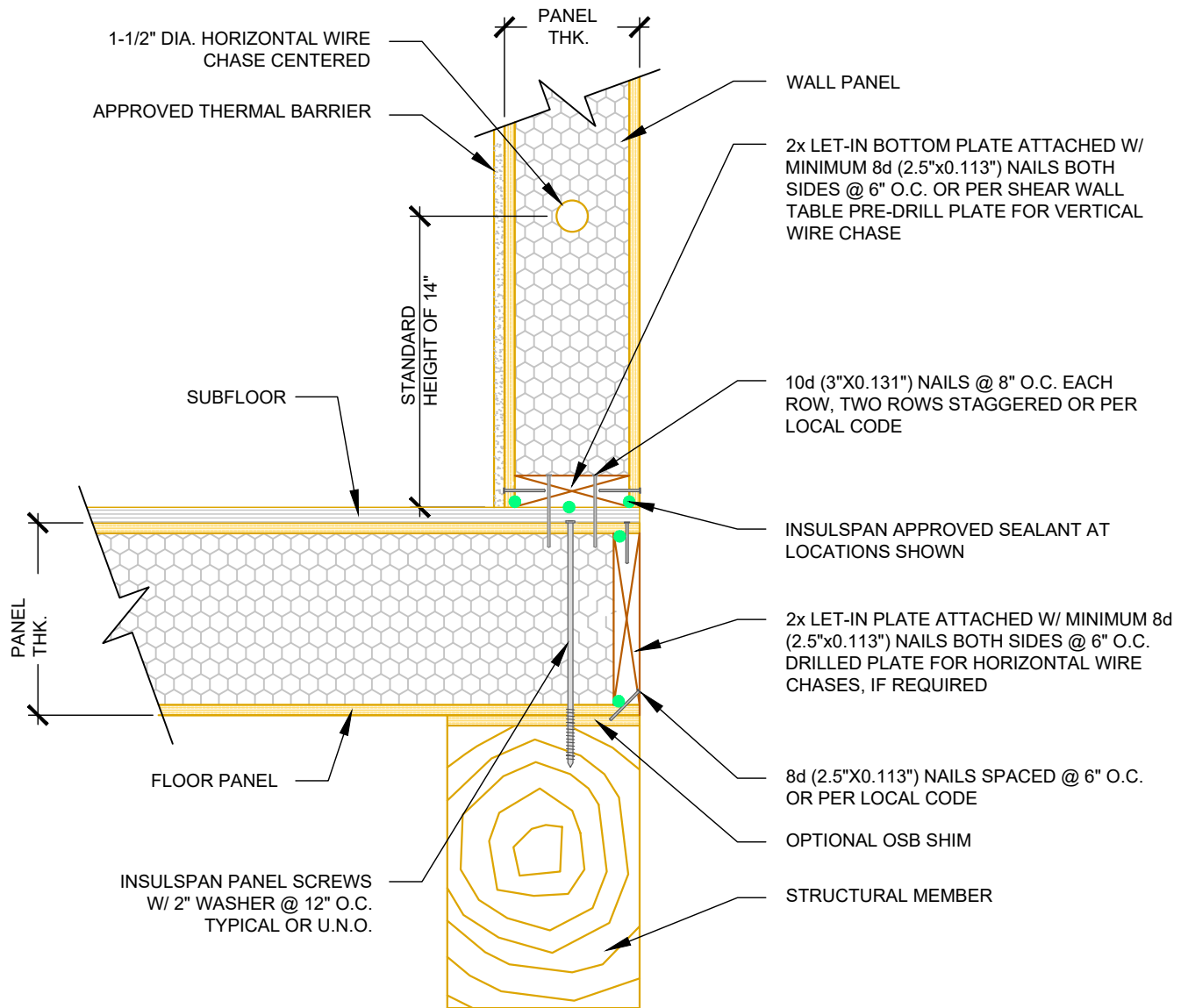


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Structural Insulated Panels

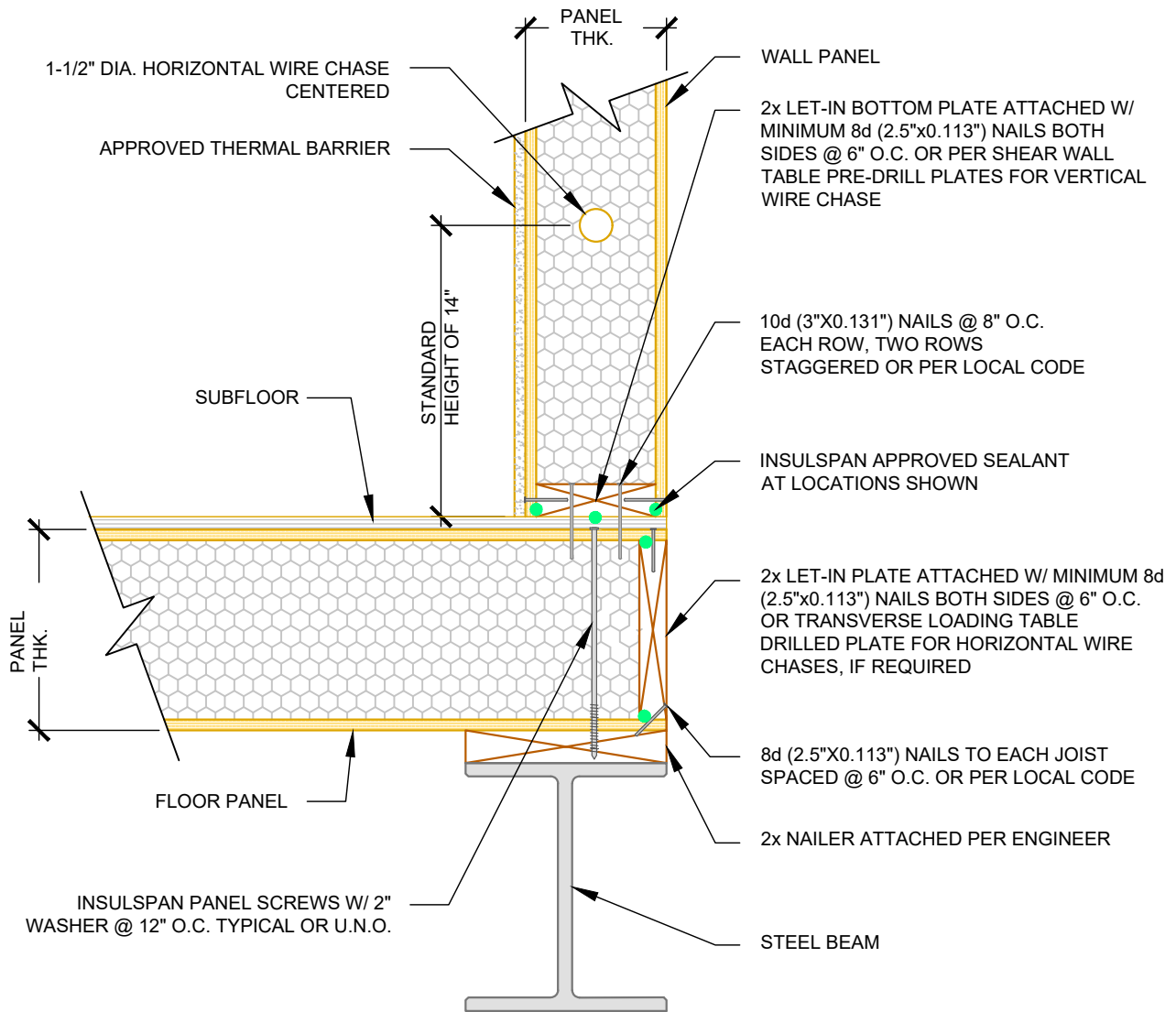
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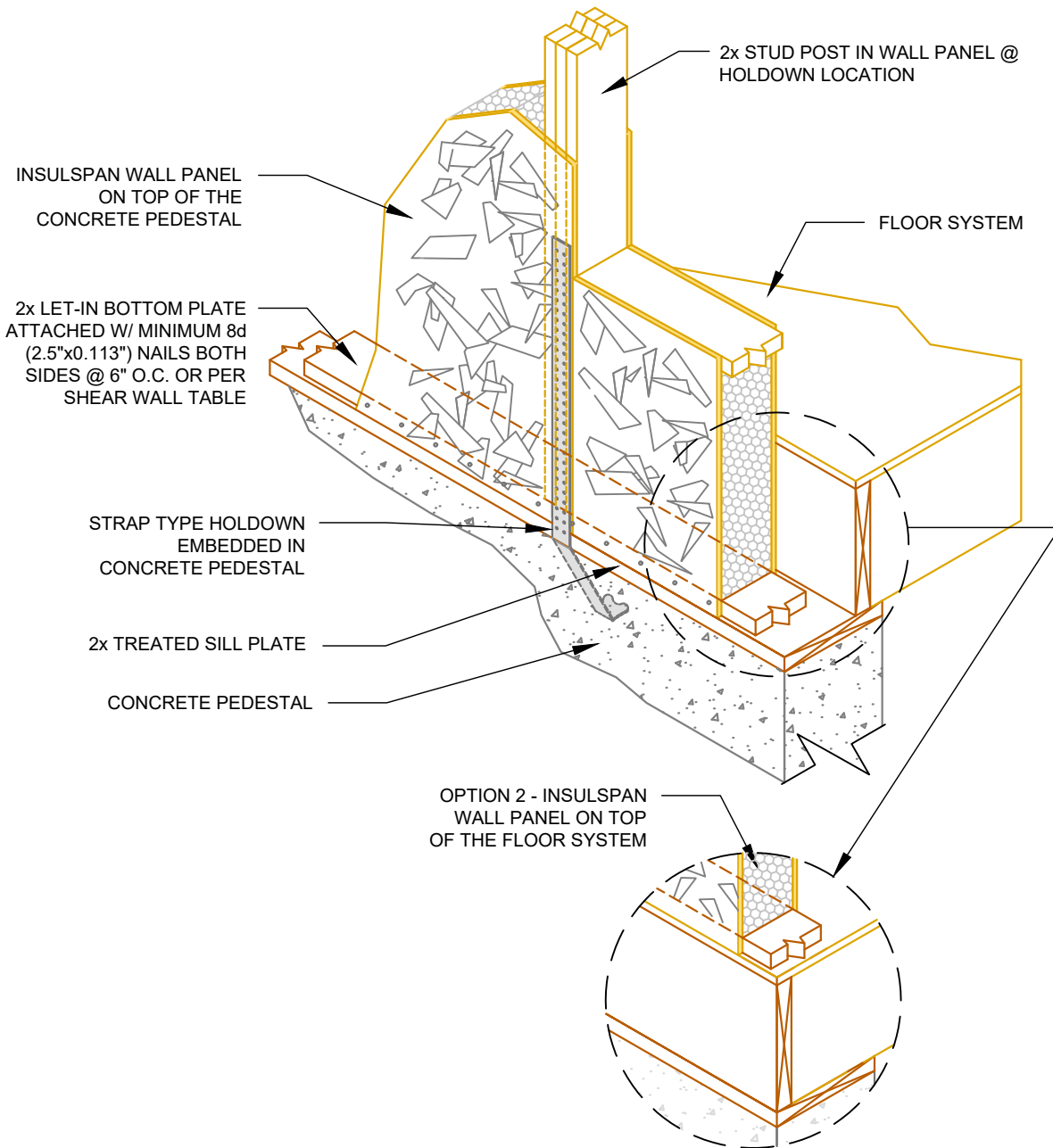
FLOOR OVER STRUCTURAL
MEMBER - LUMBER

REV
21-07-2025

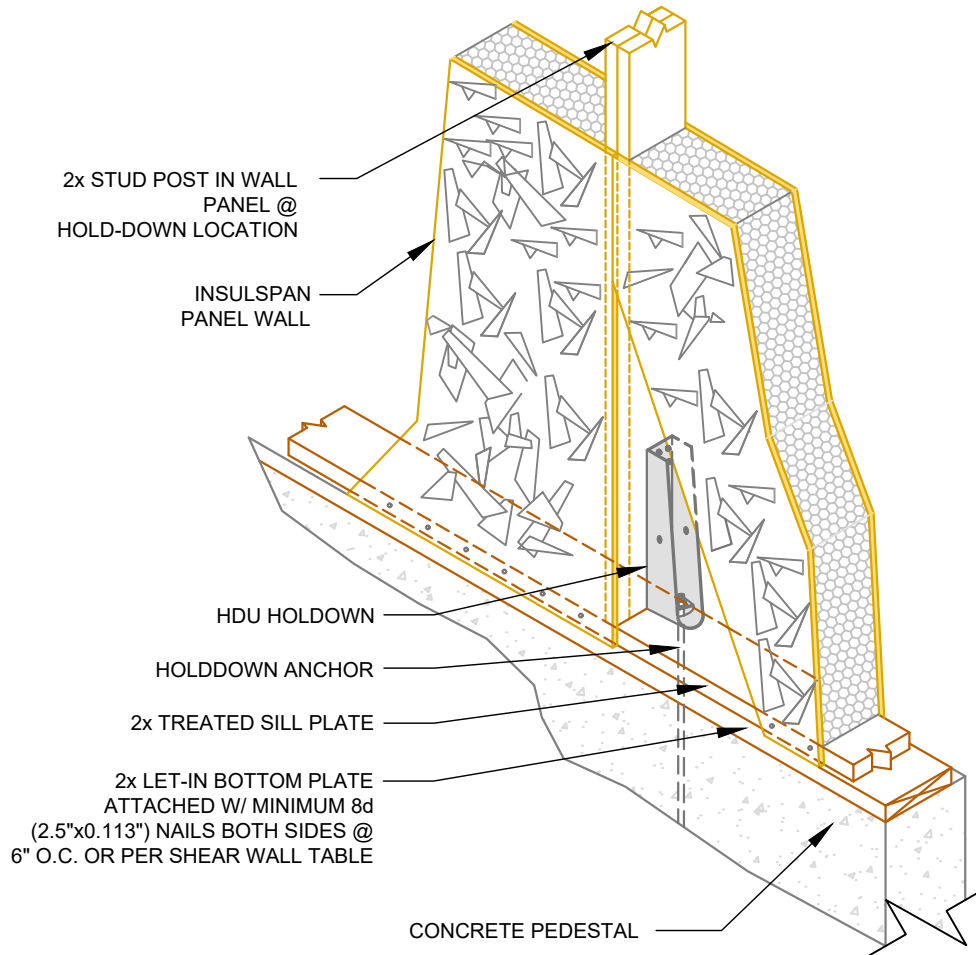
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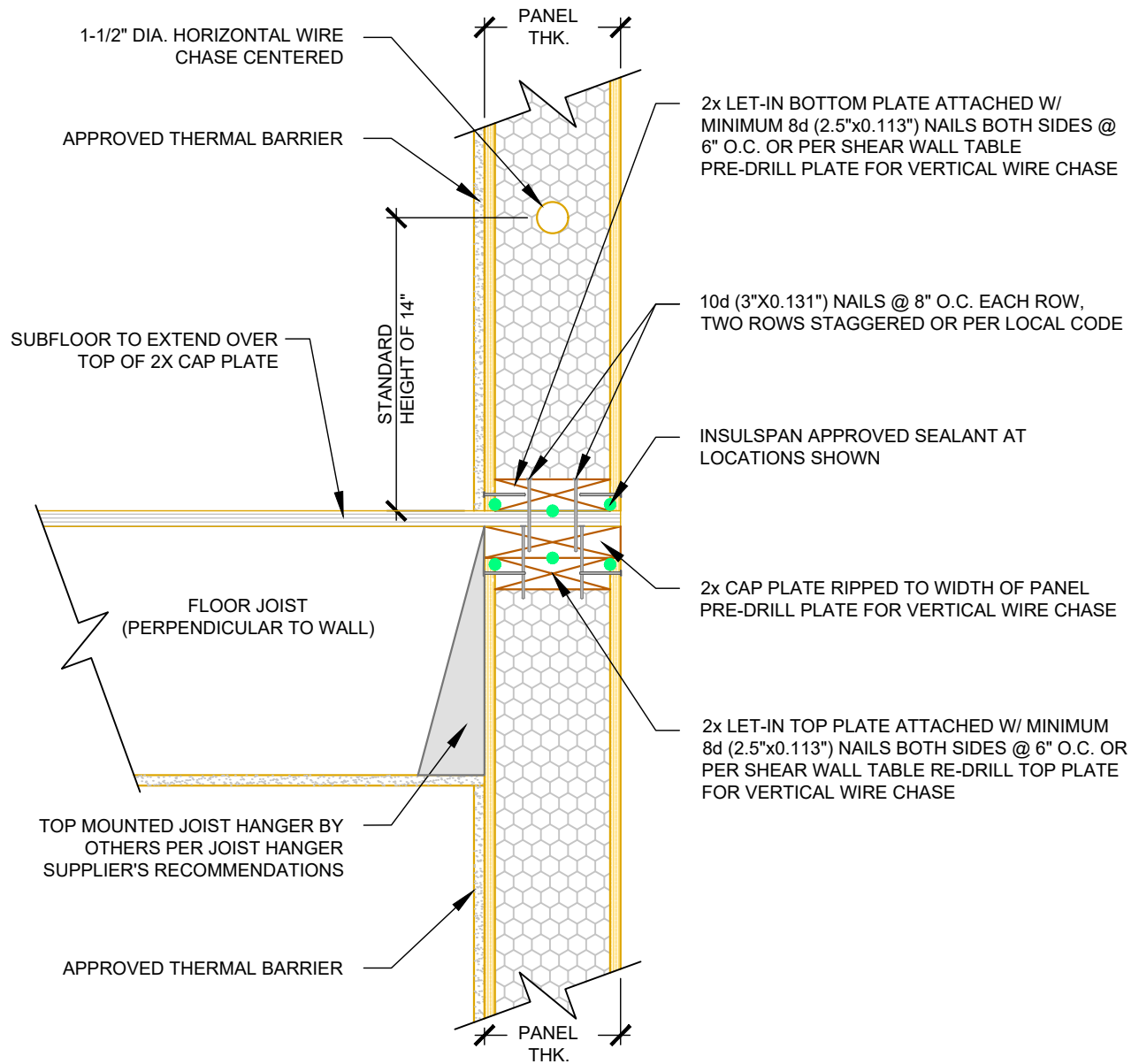
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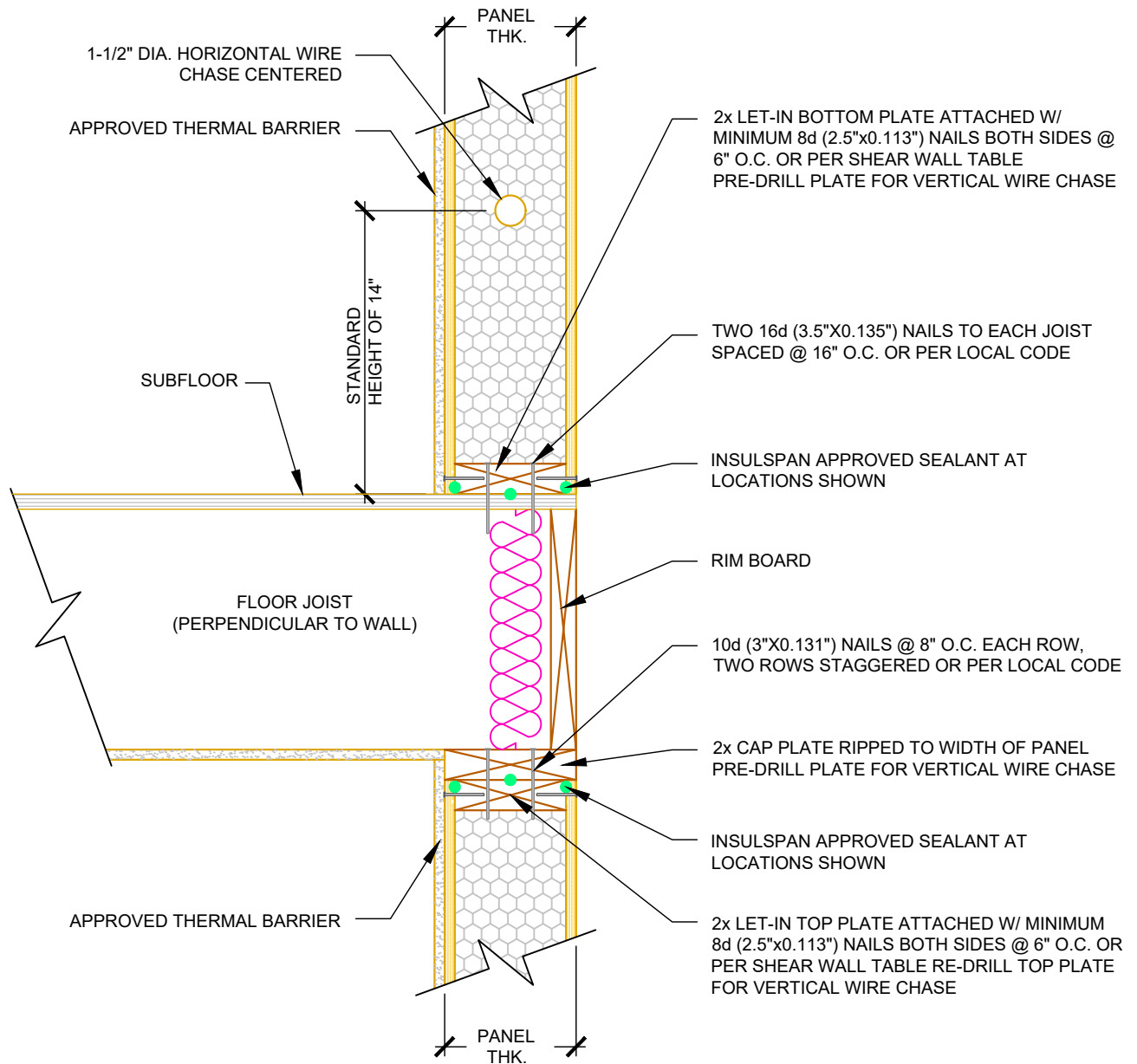
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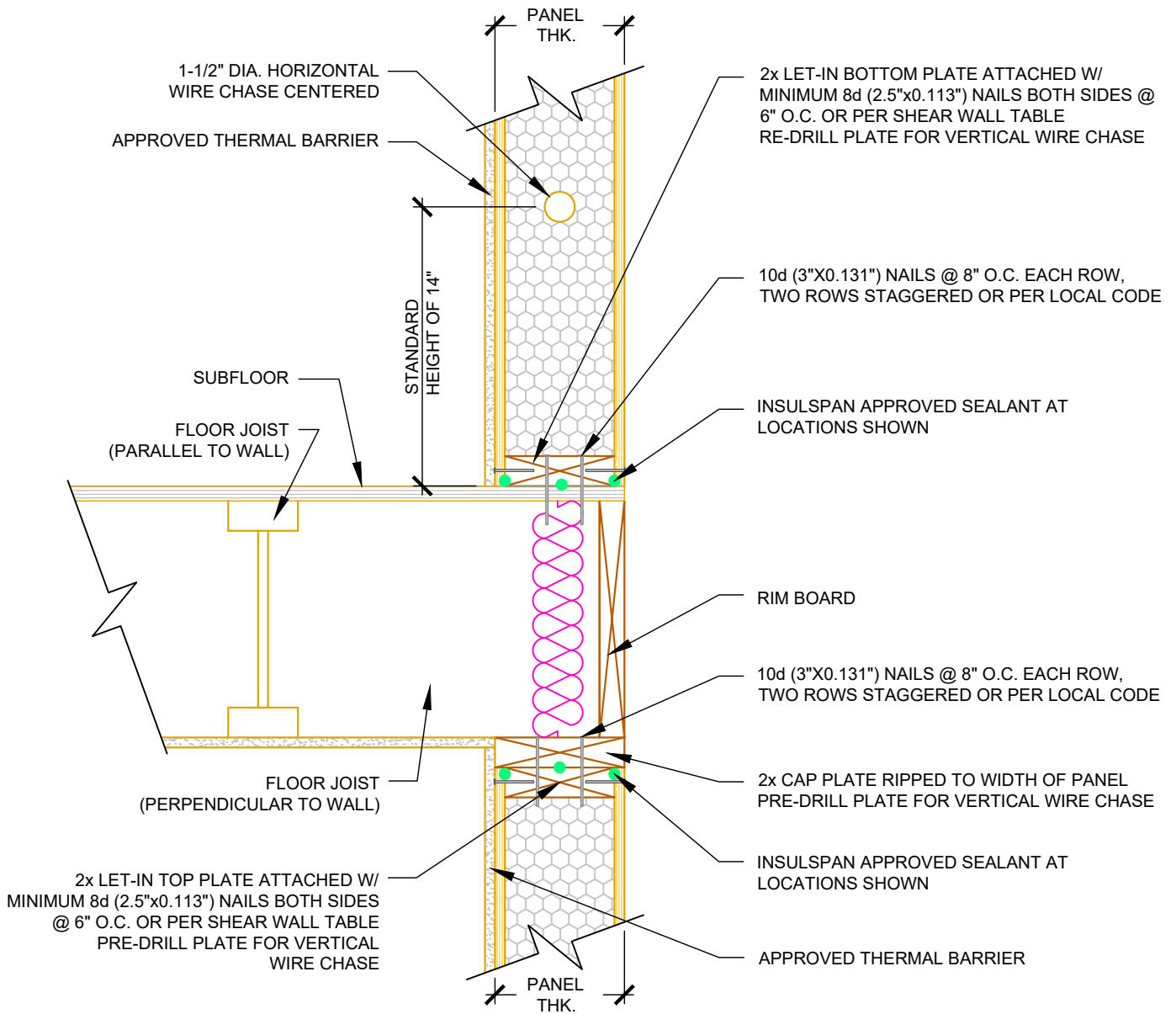
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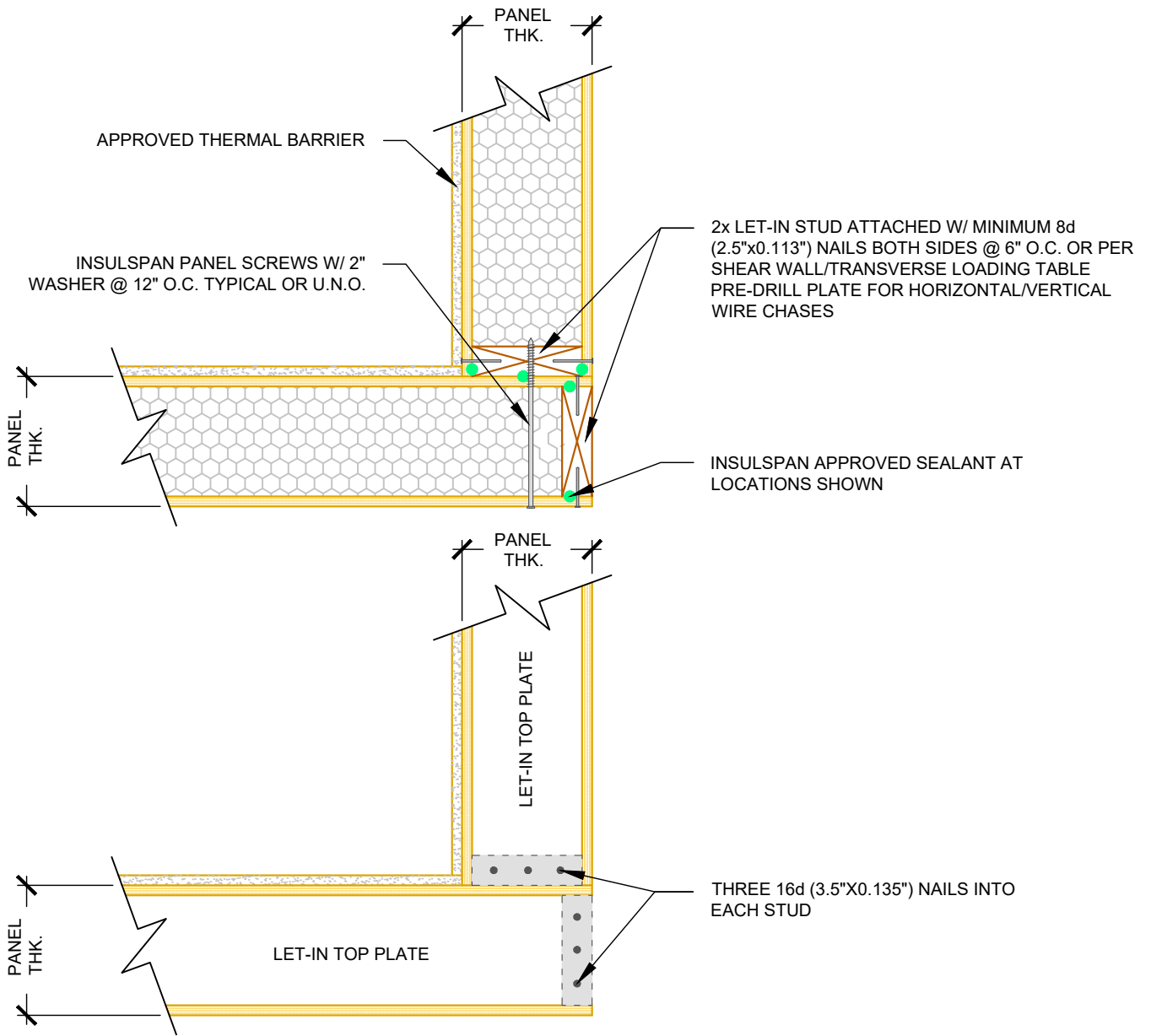
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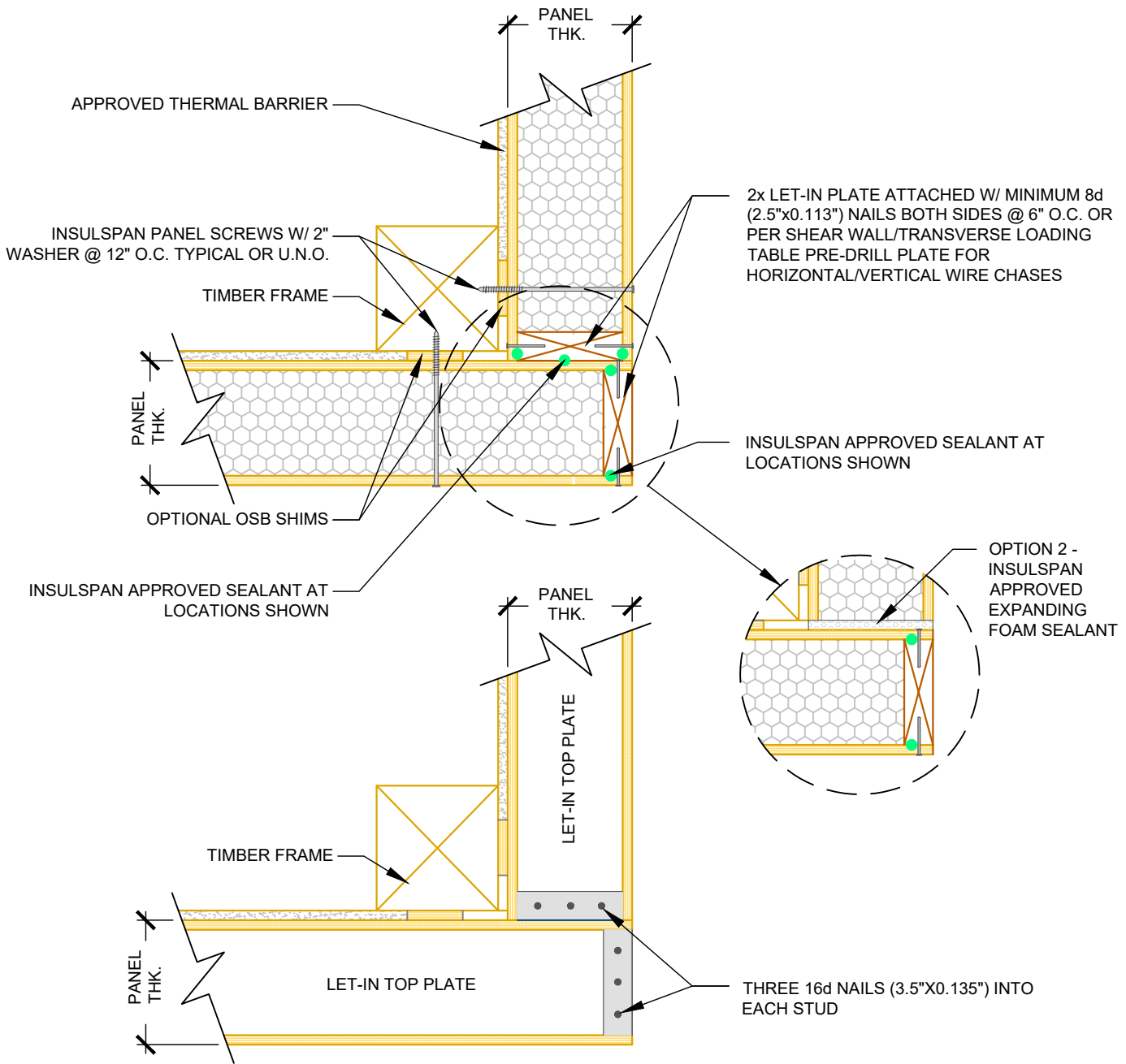
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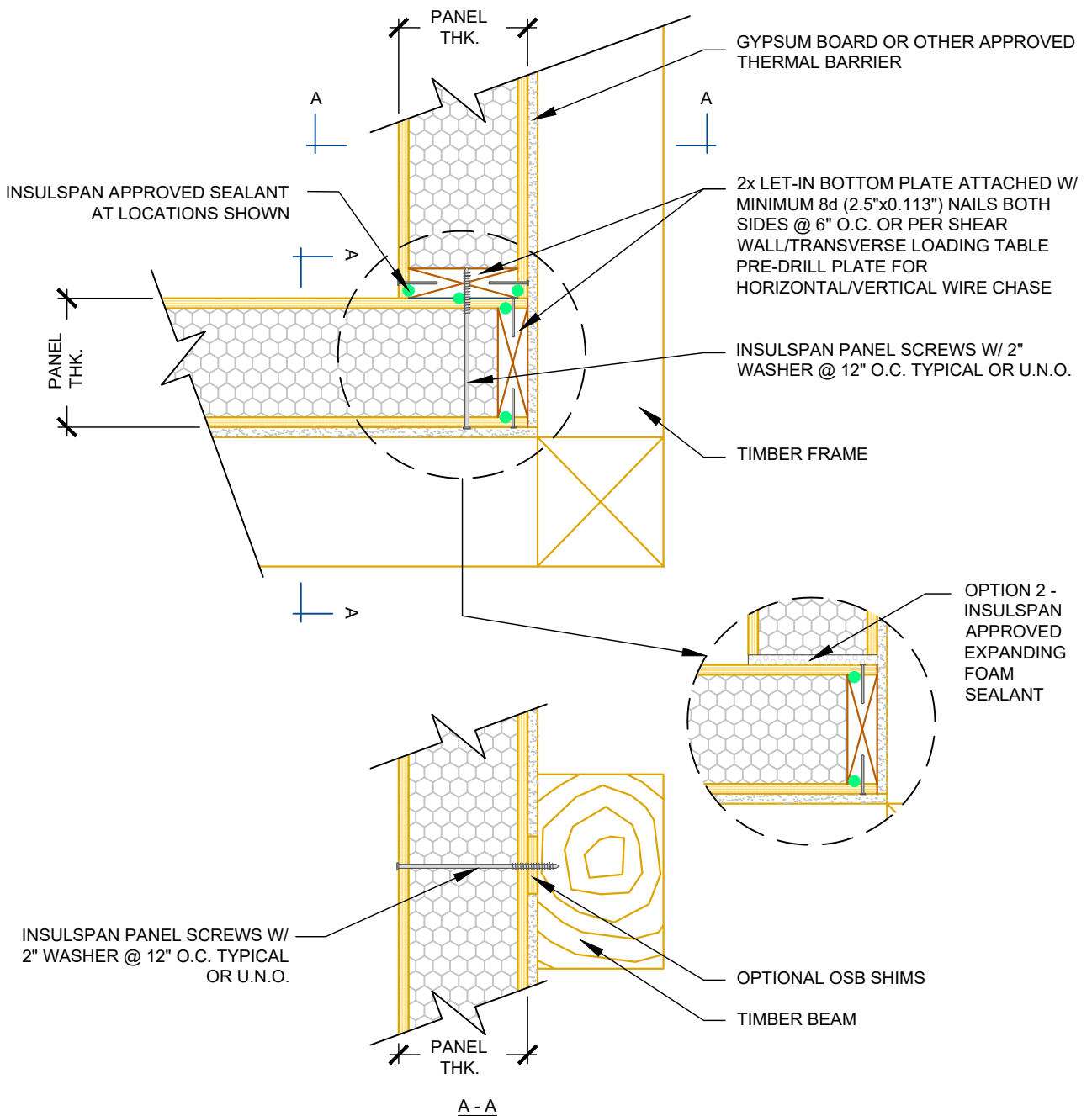
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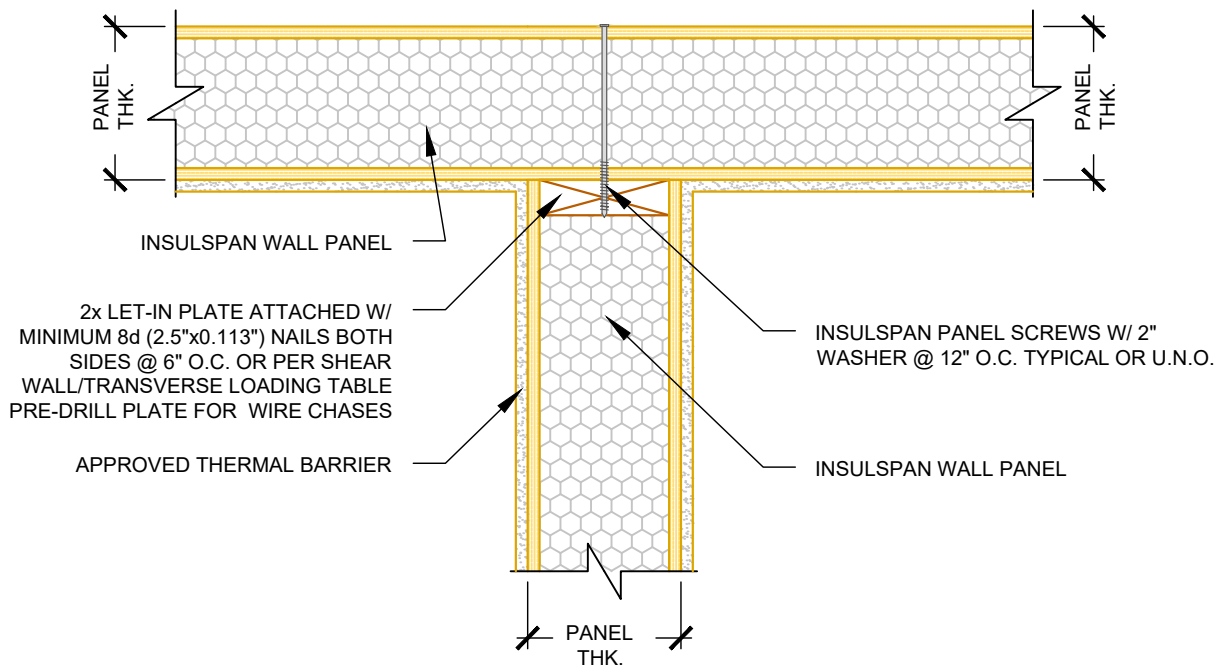
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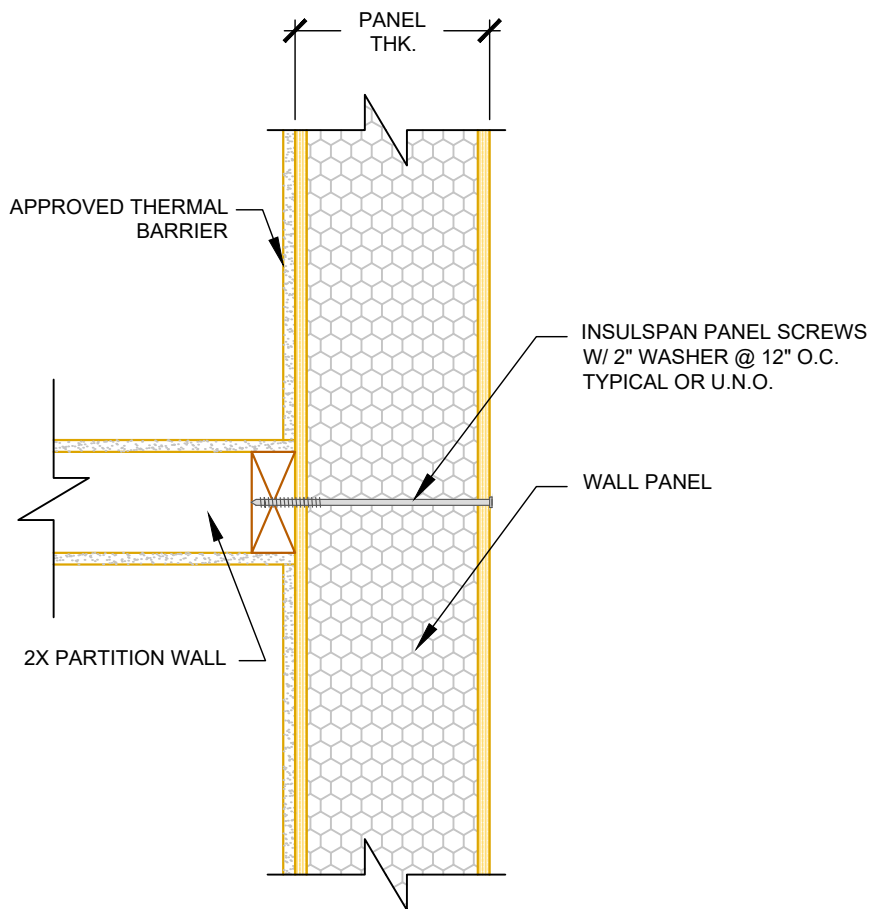
WALL CORNER WITH TIMBER
FRAME OUTSIDE

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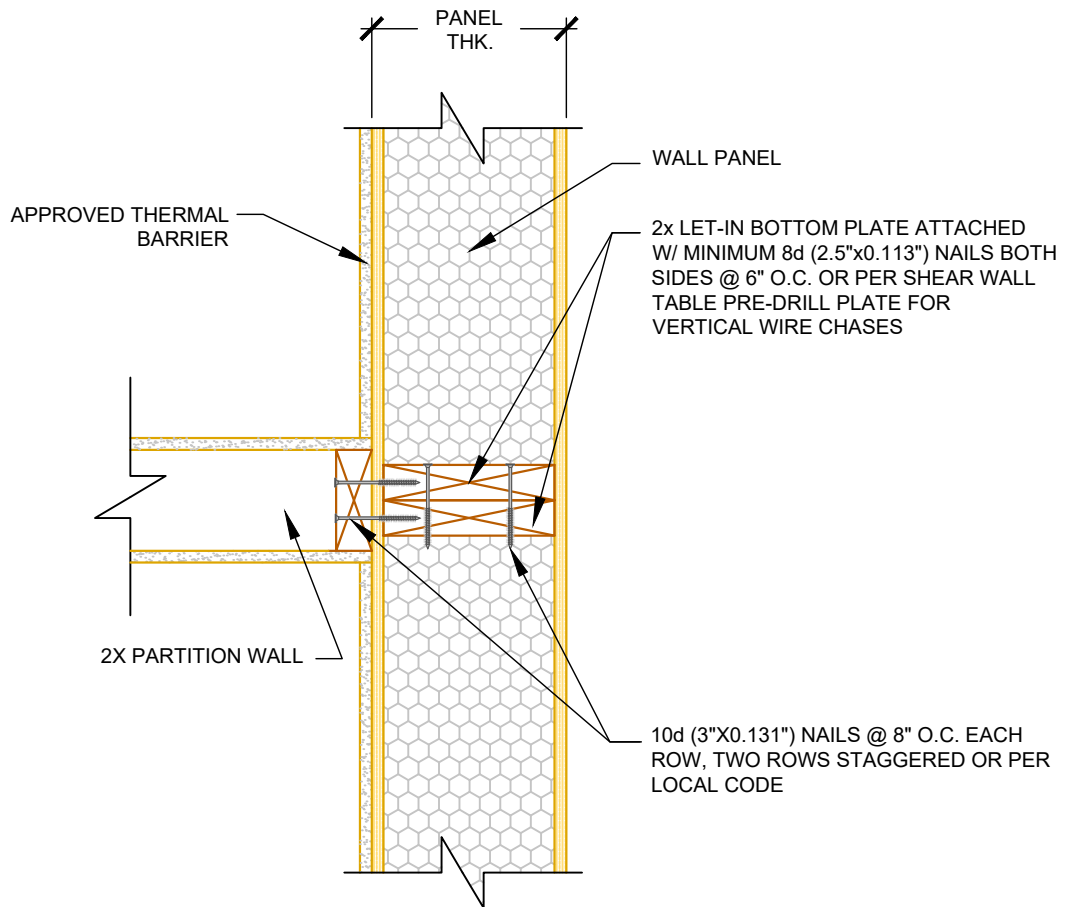
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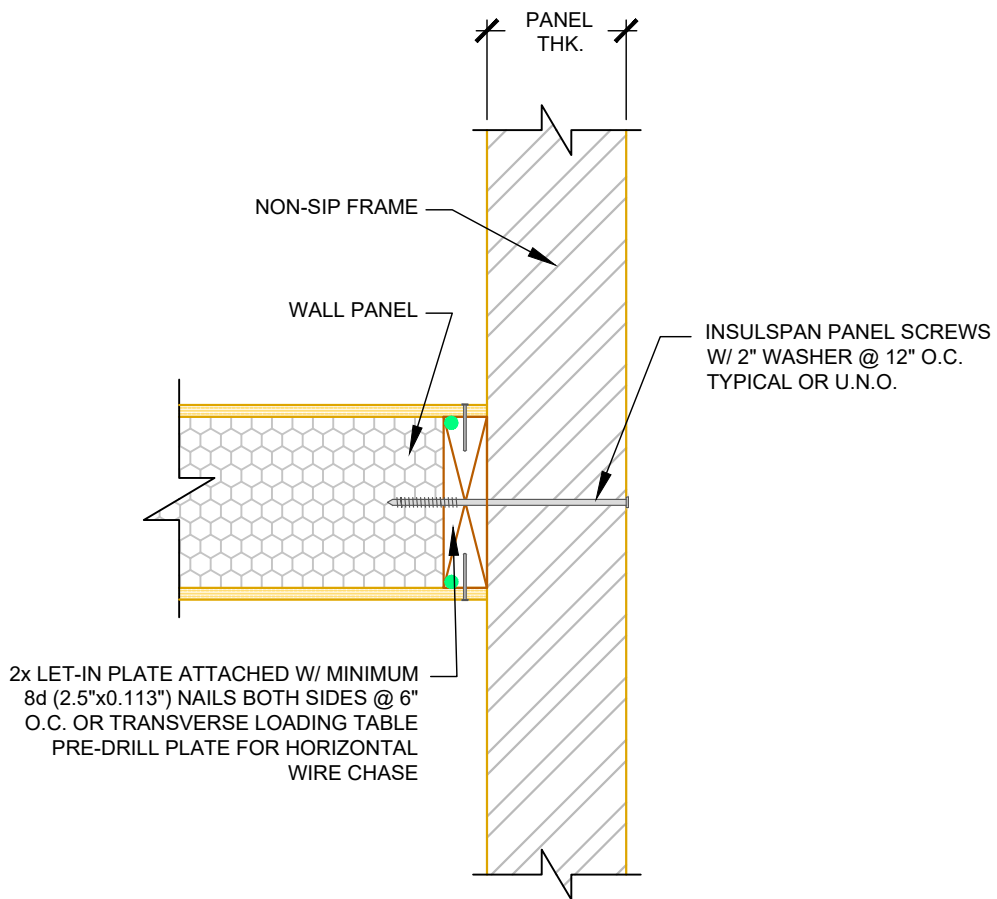
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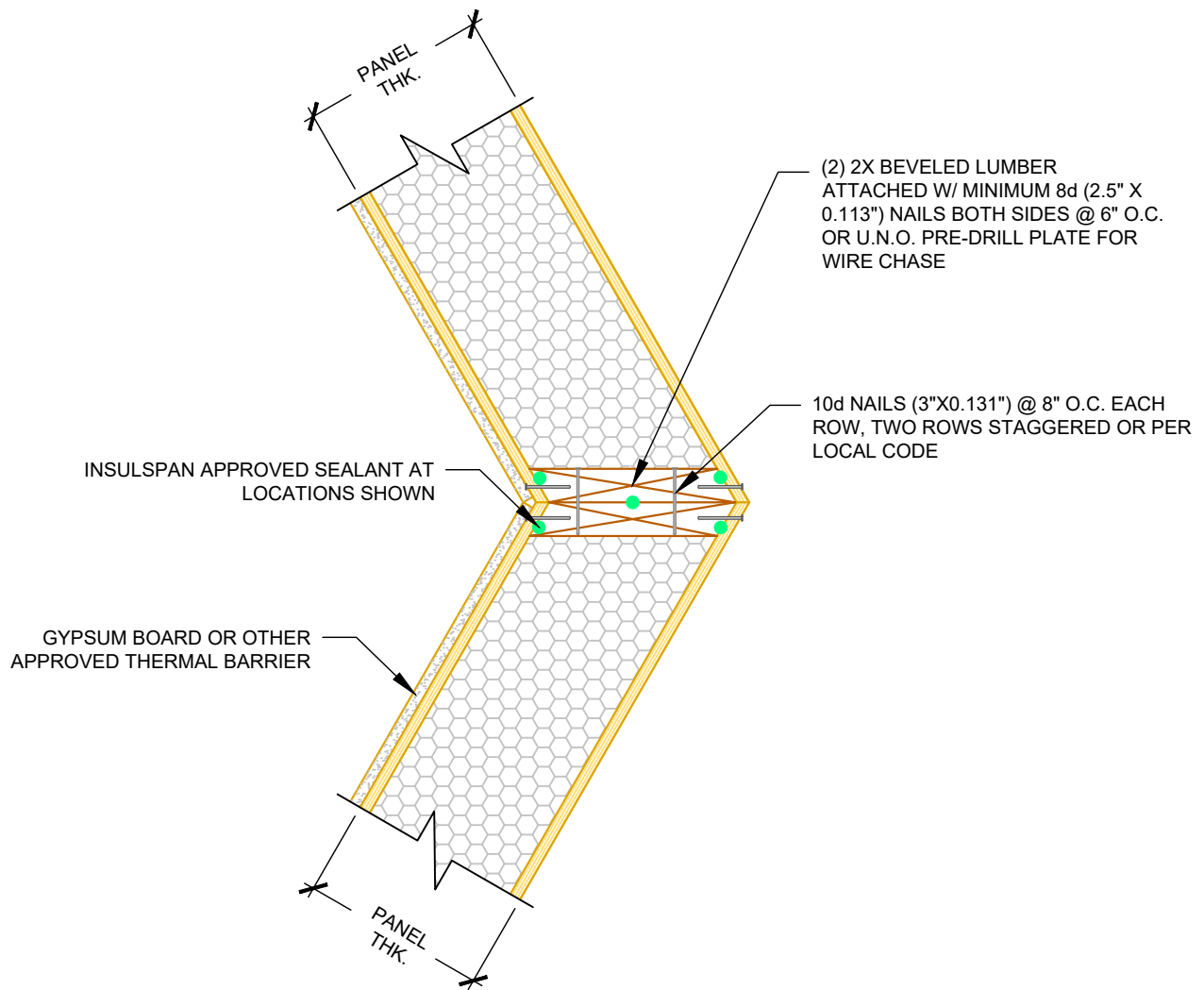
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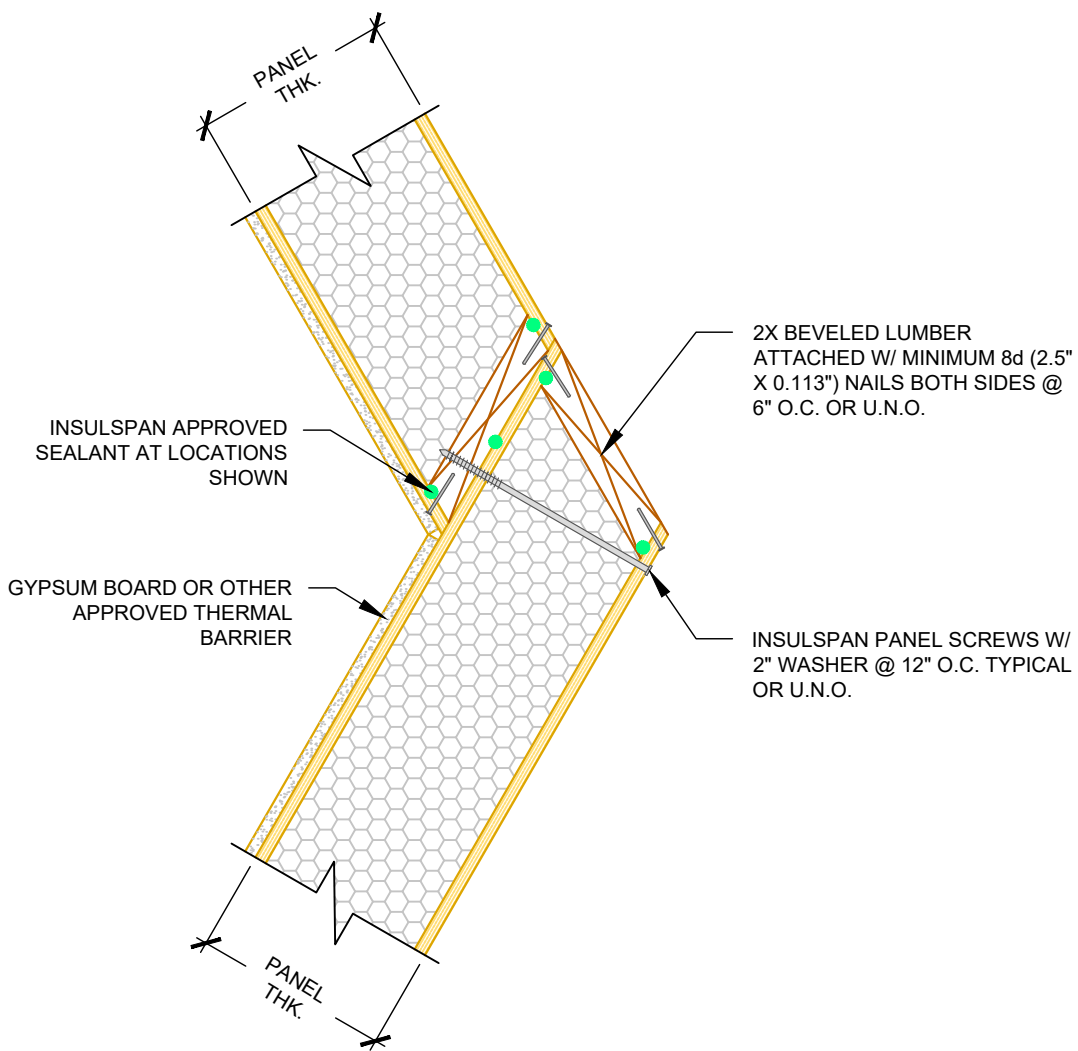
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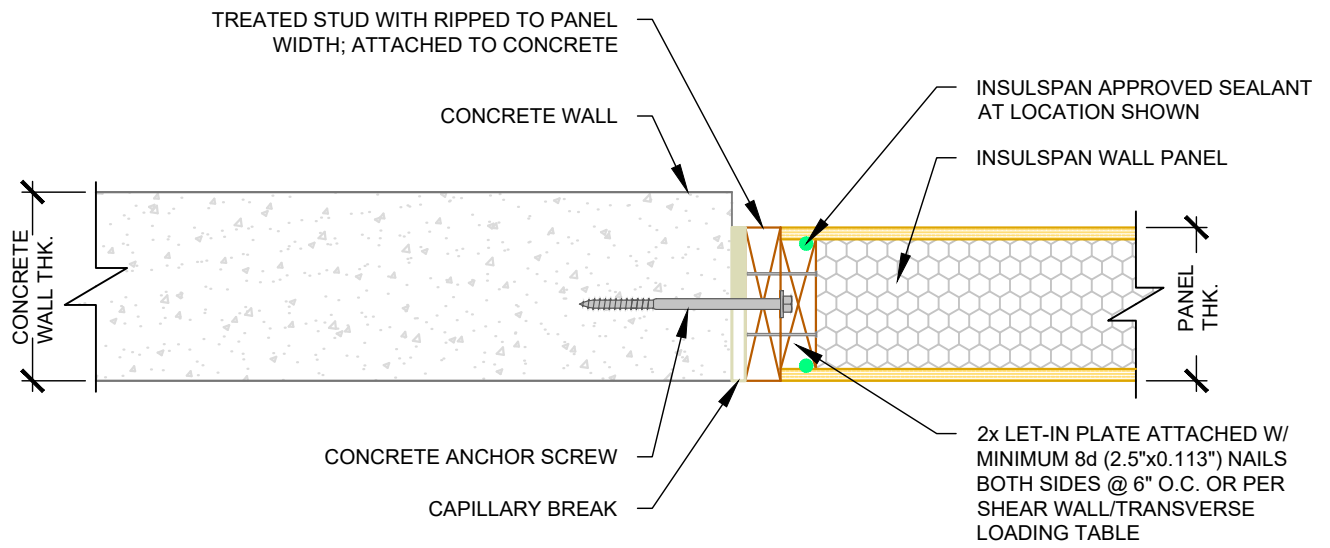
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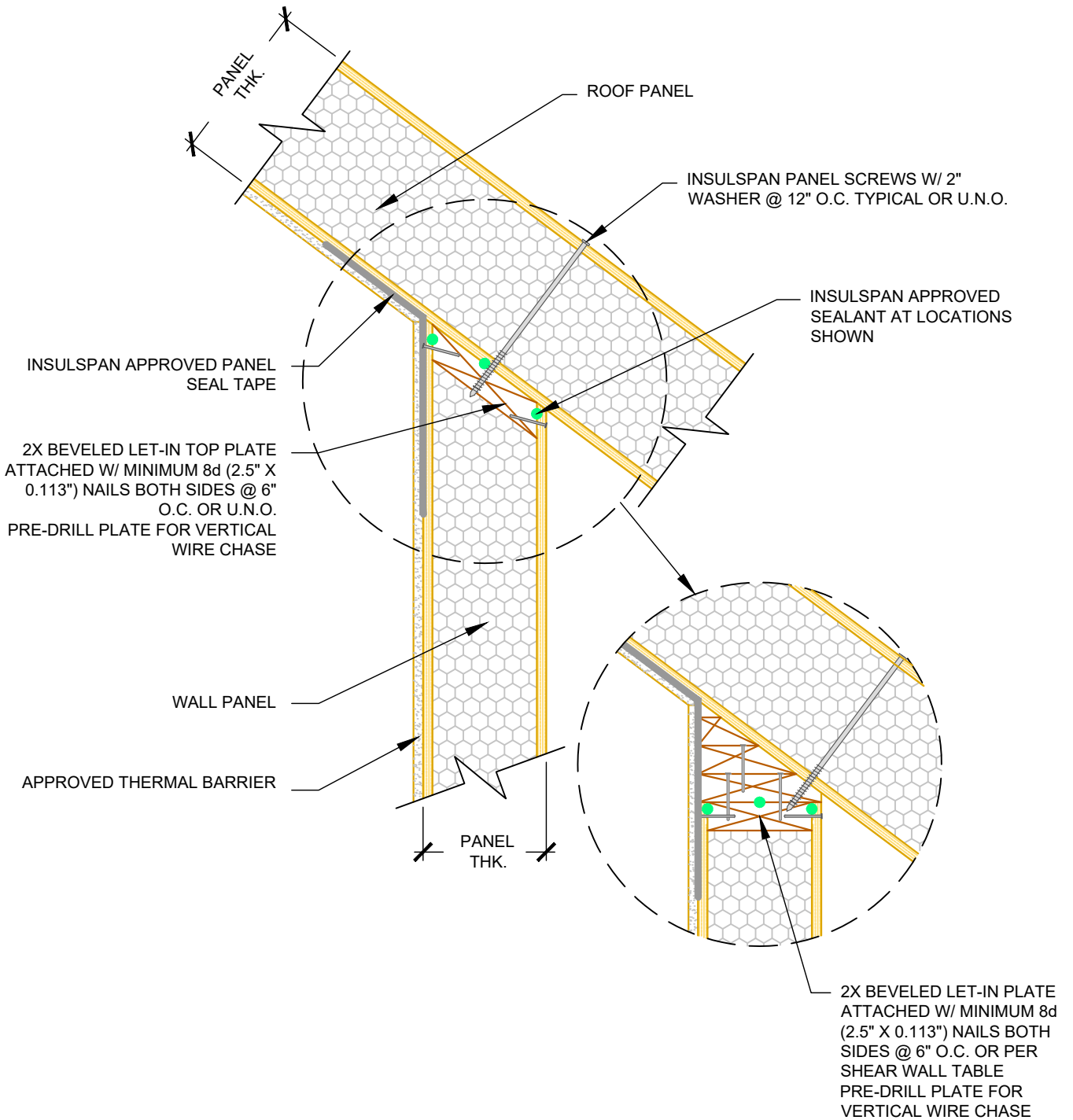
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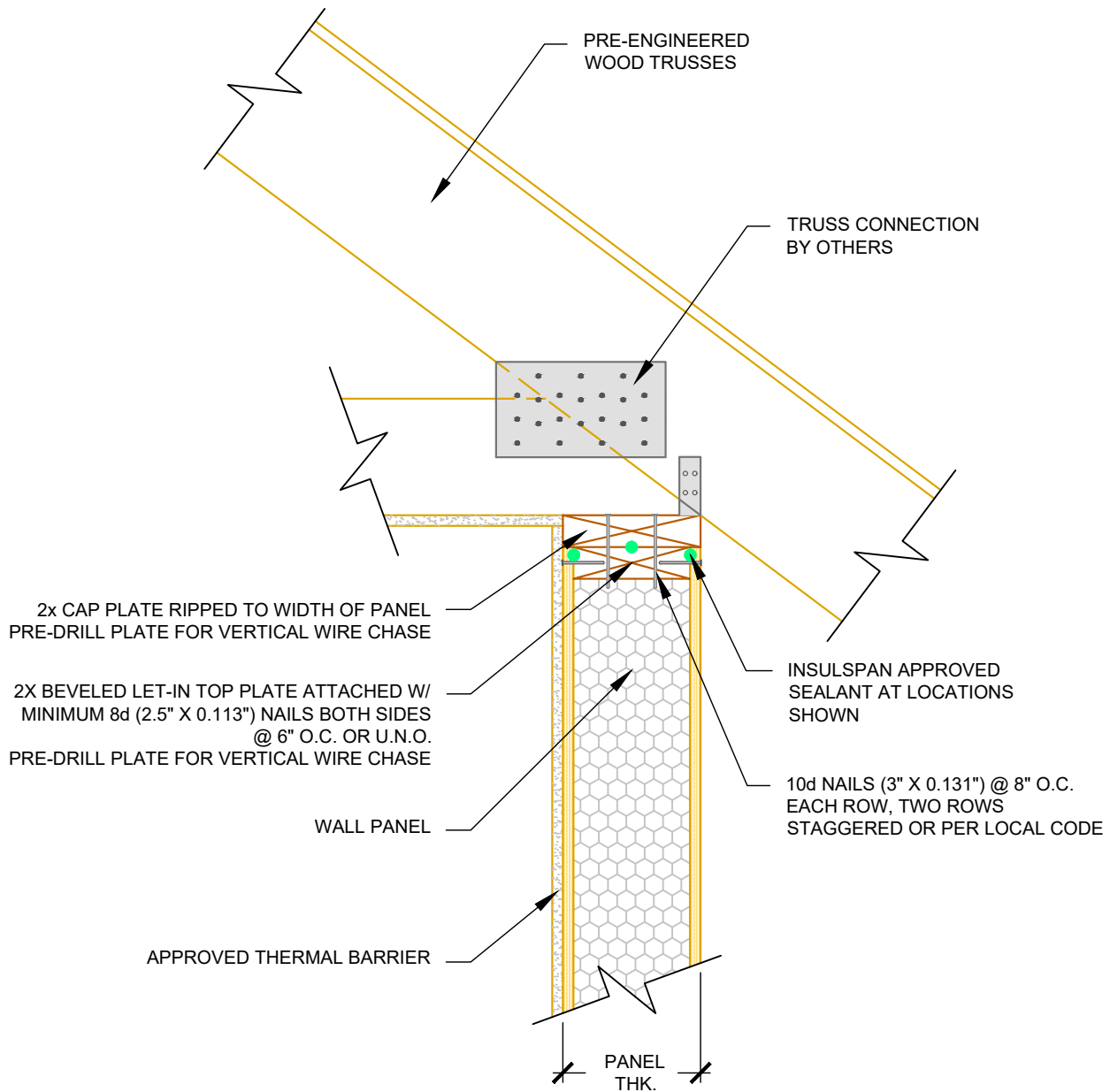
WALL END TO CONCRETE WALL

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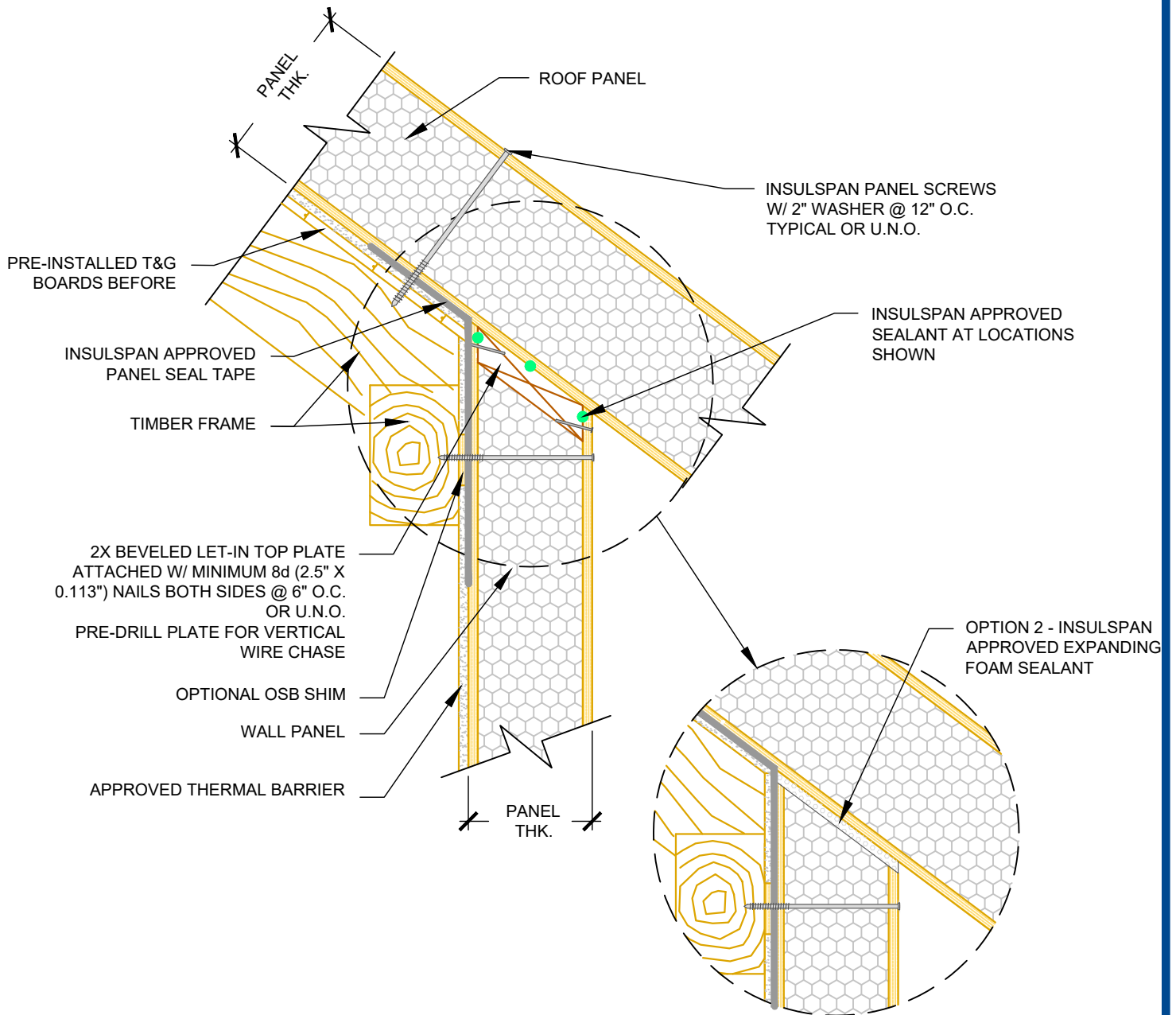
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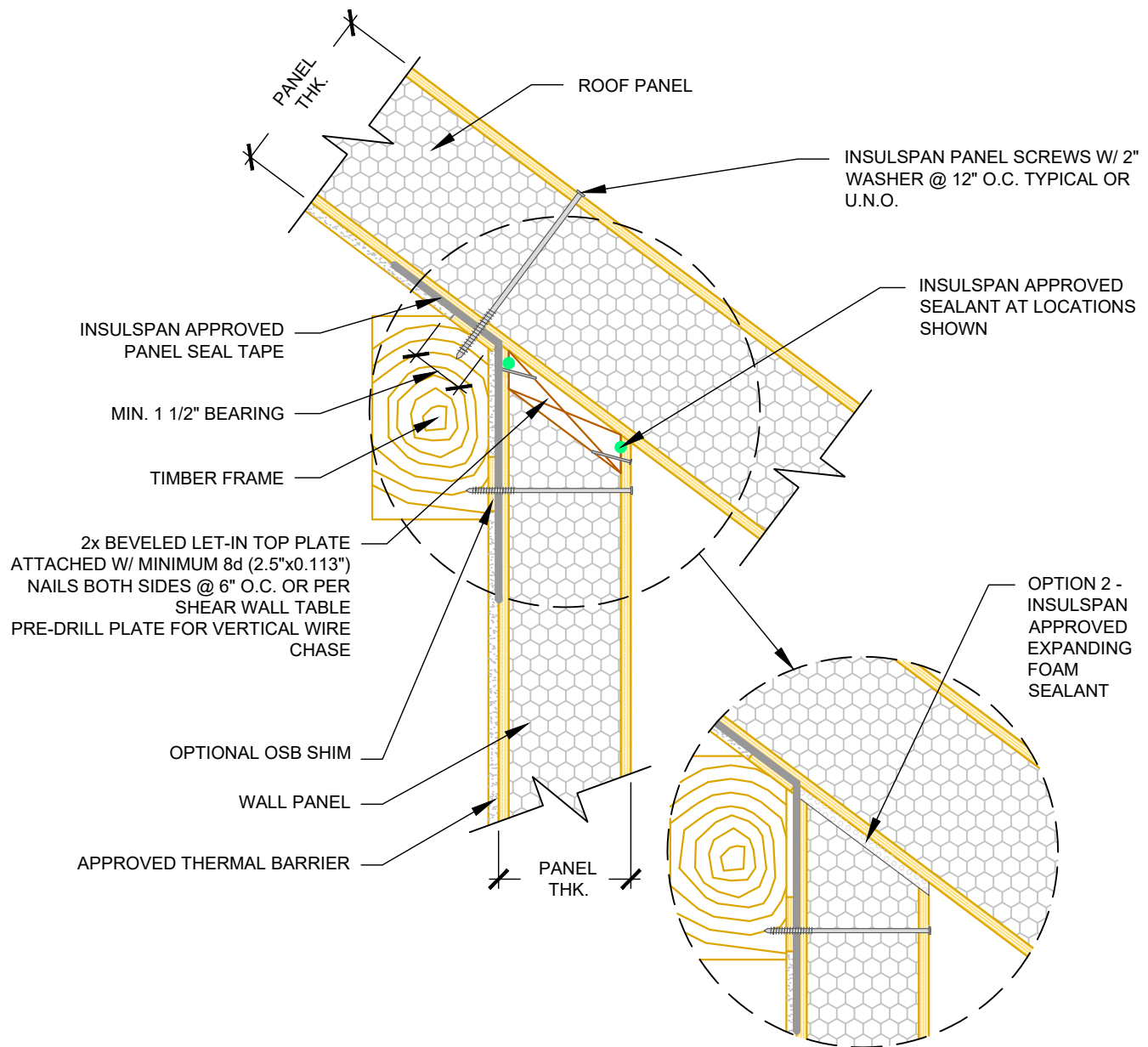
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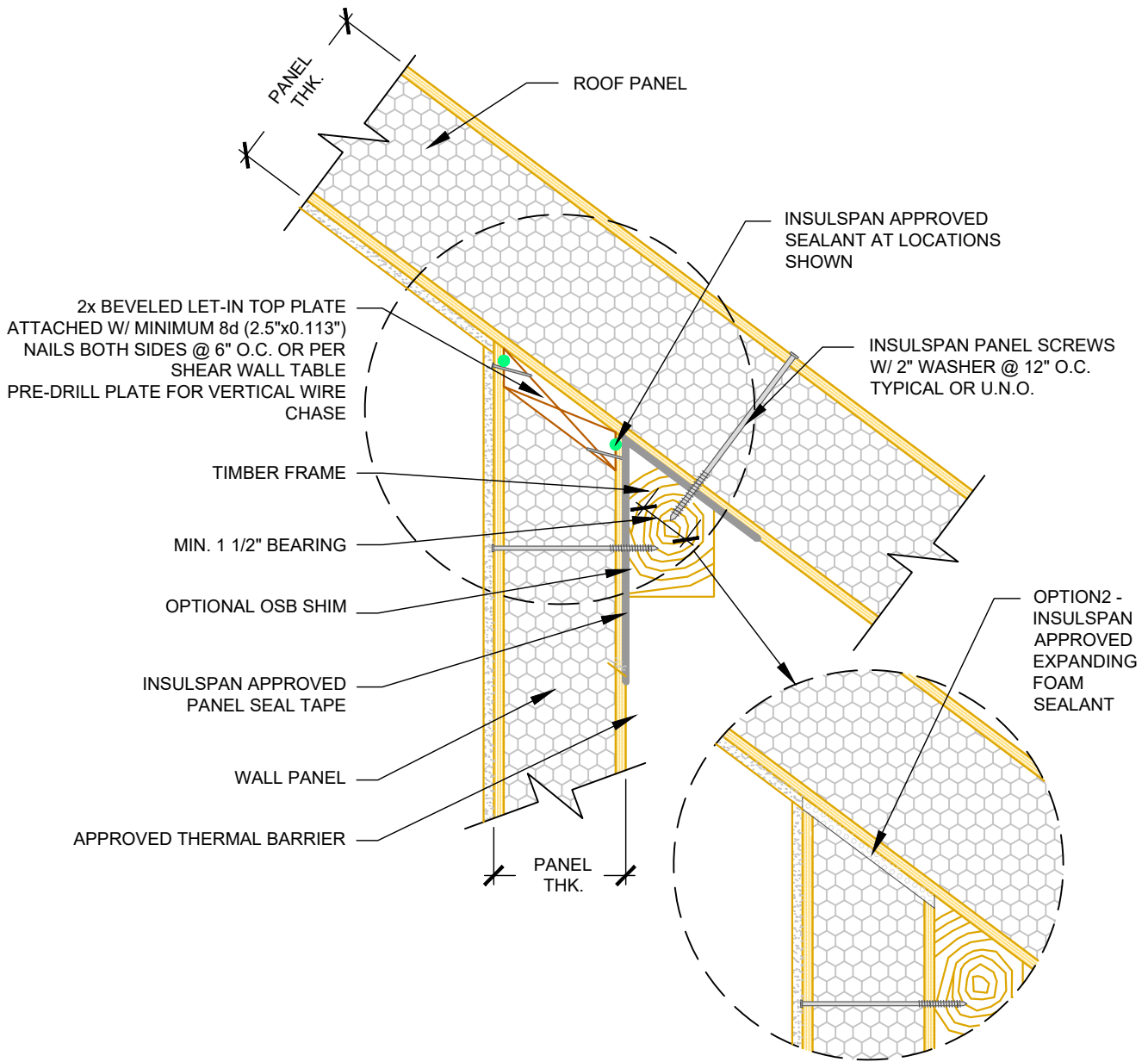
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Structural Insulated Panels

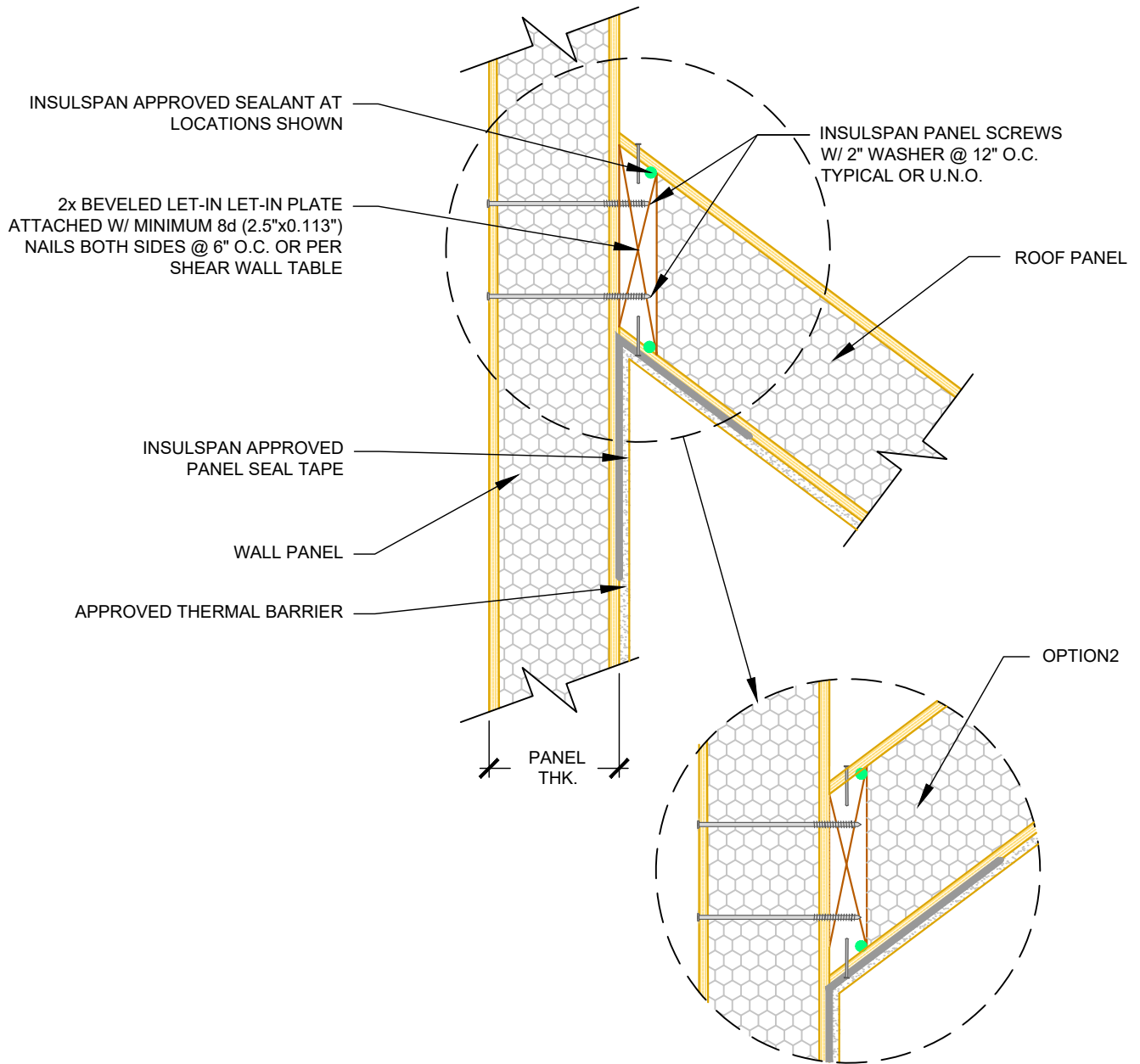
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WALL TO ROOF WITH EXTERIOR LUMBER RAFTER

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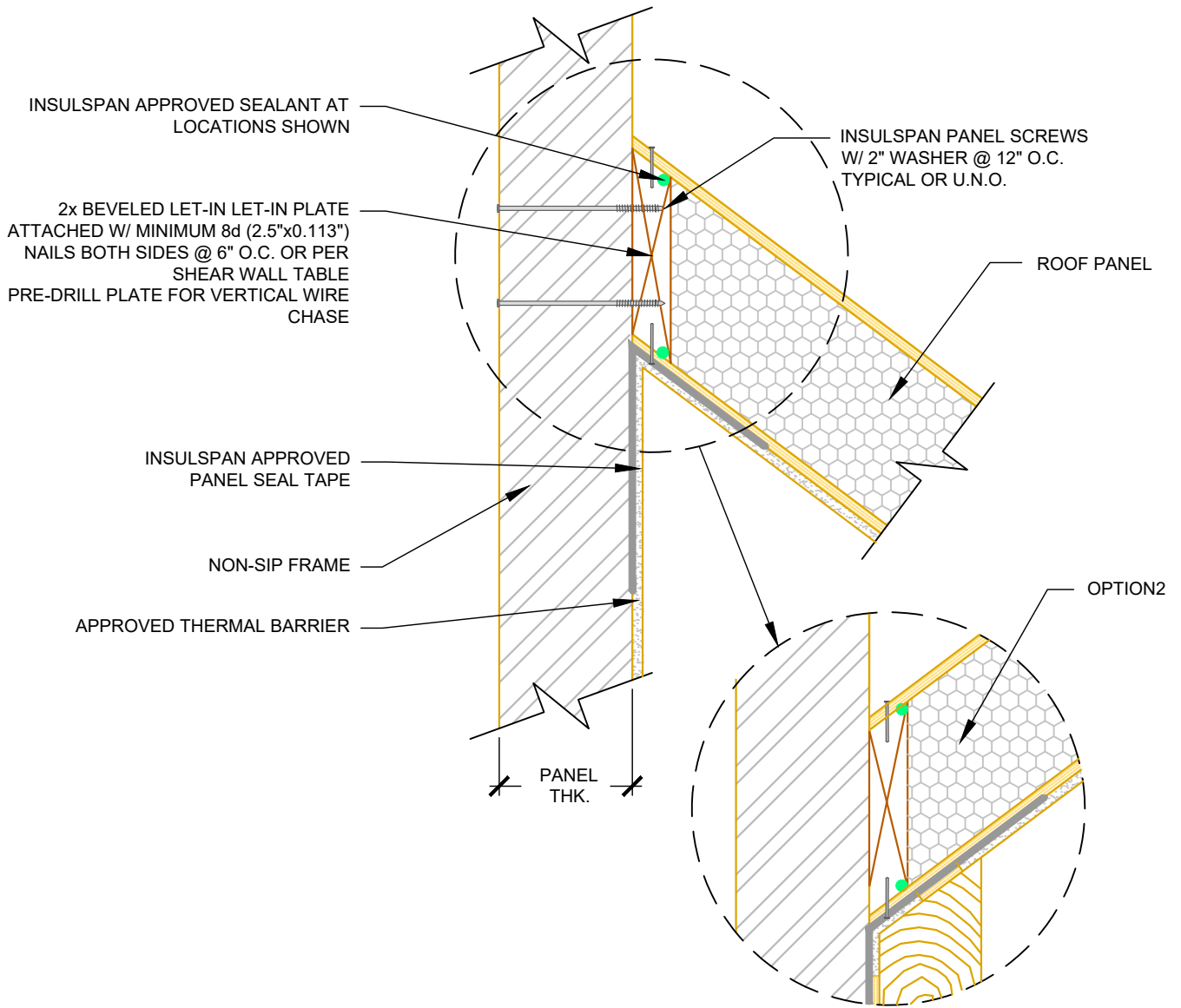
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ROOF LEDGER TO WALL

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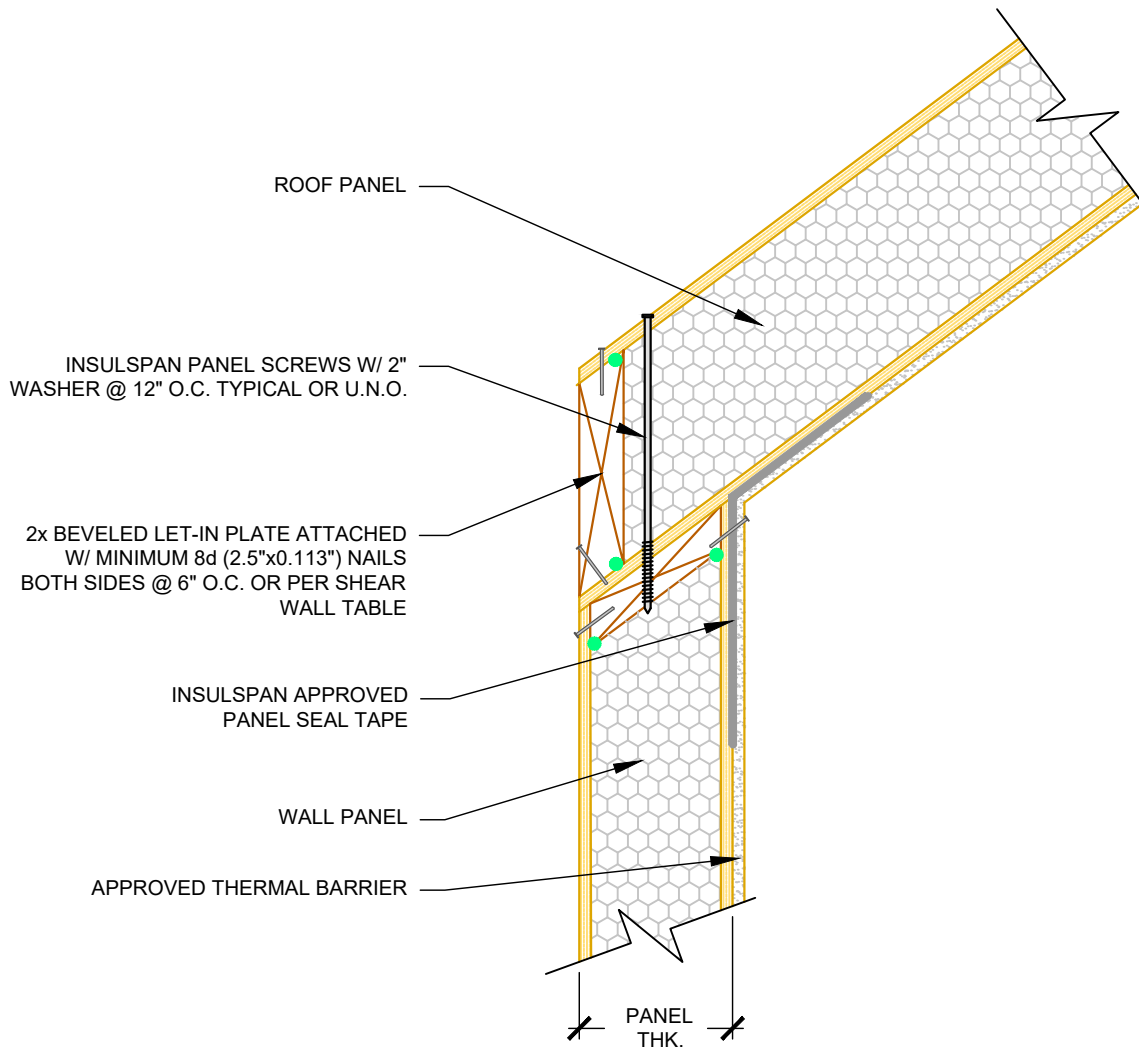
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ROOF LEDGER TO NON-SIP WALL

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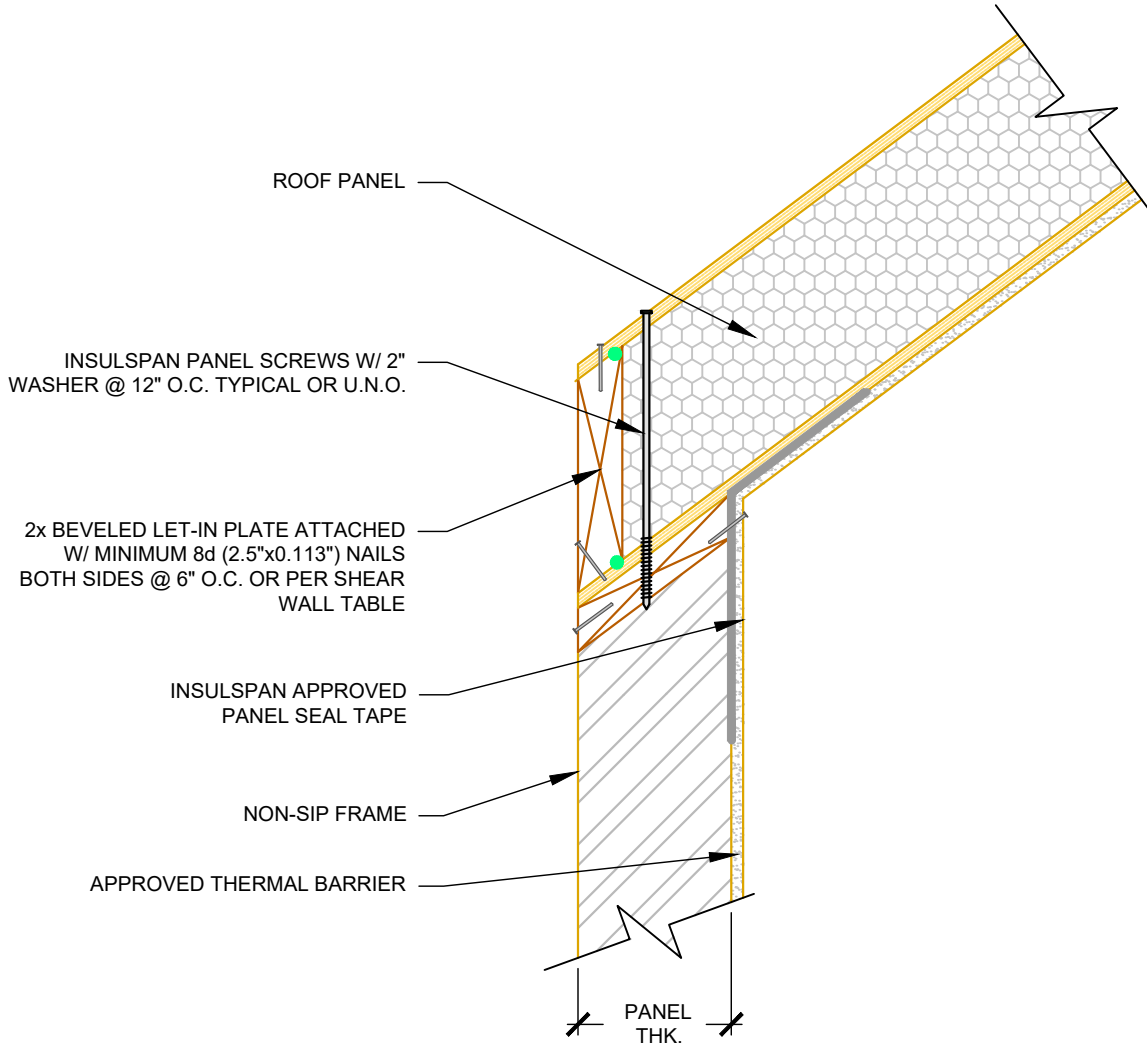
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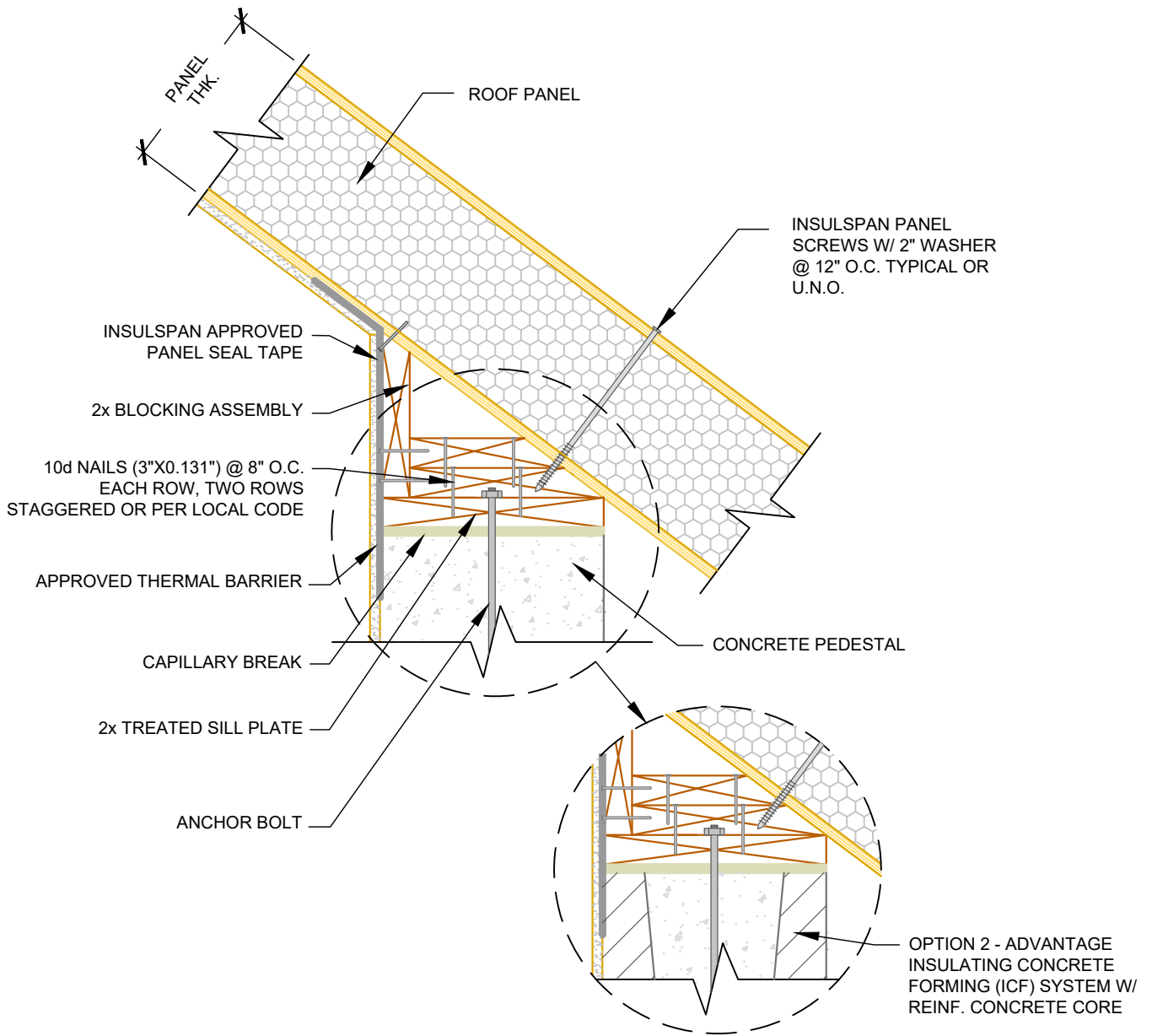
WALL TO ROOF EAVE WITH NO OVERHANG

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N.T.S



N.T.S

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Structural Insulated Panels

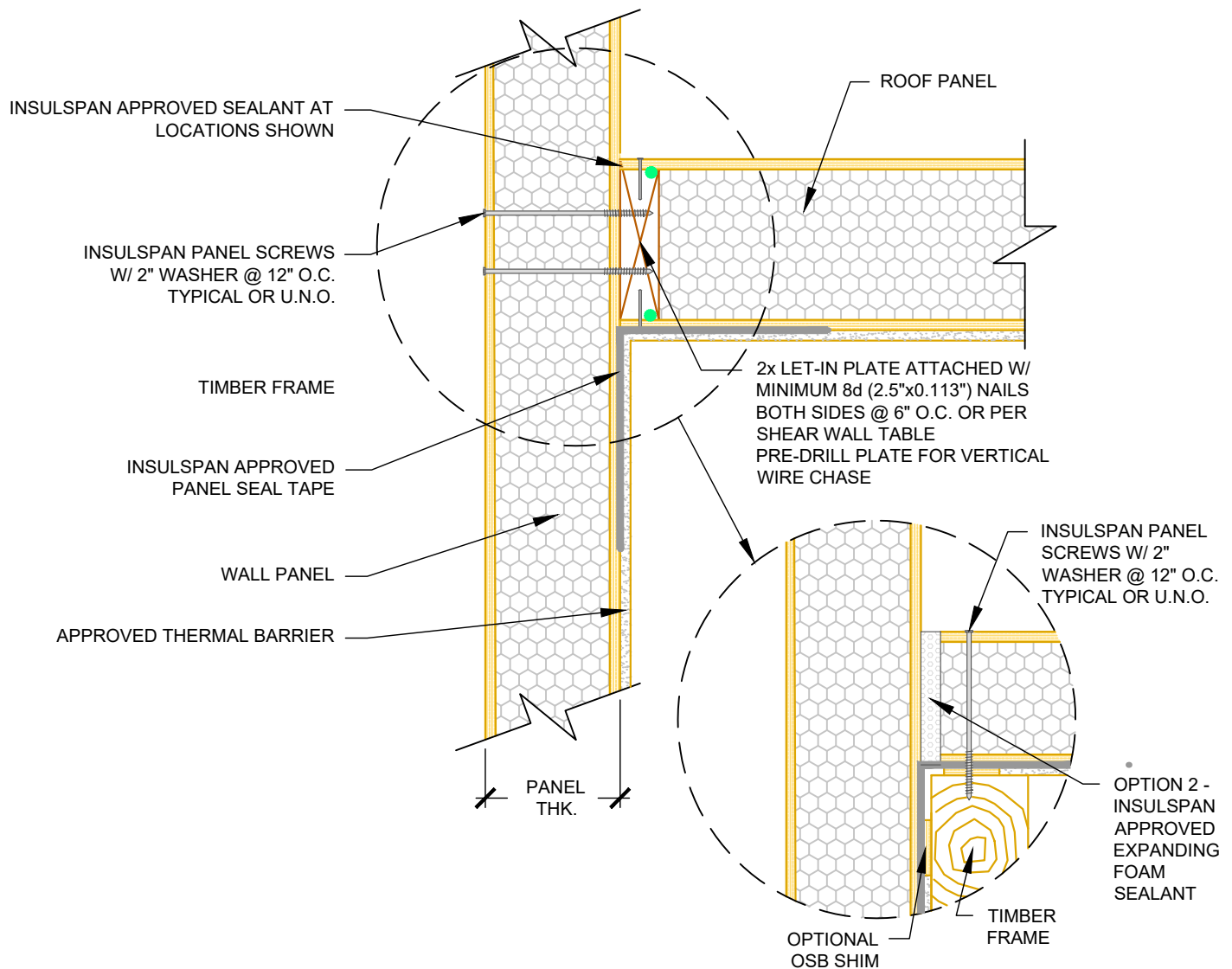
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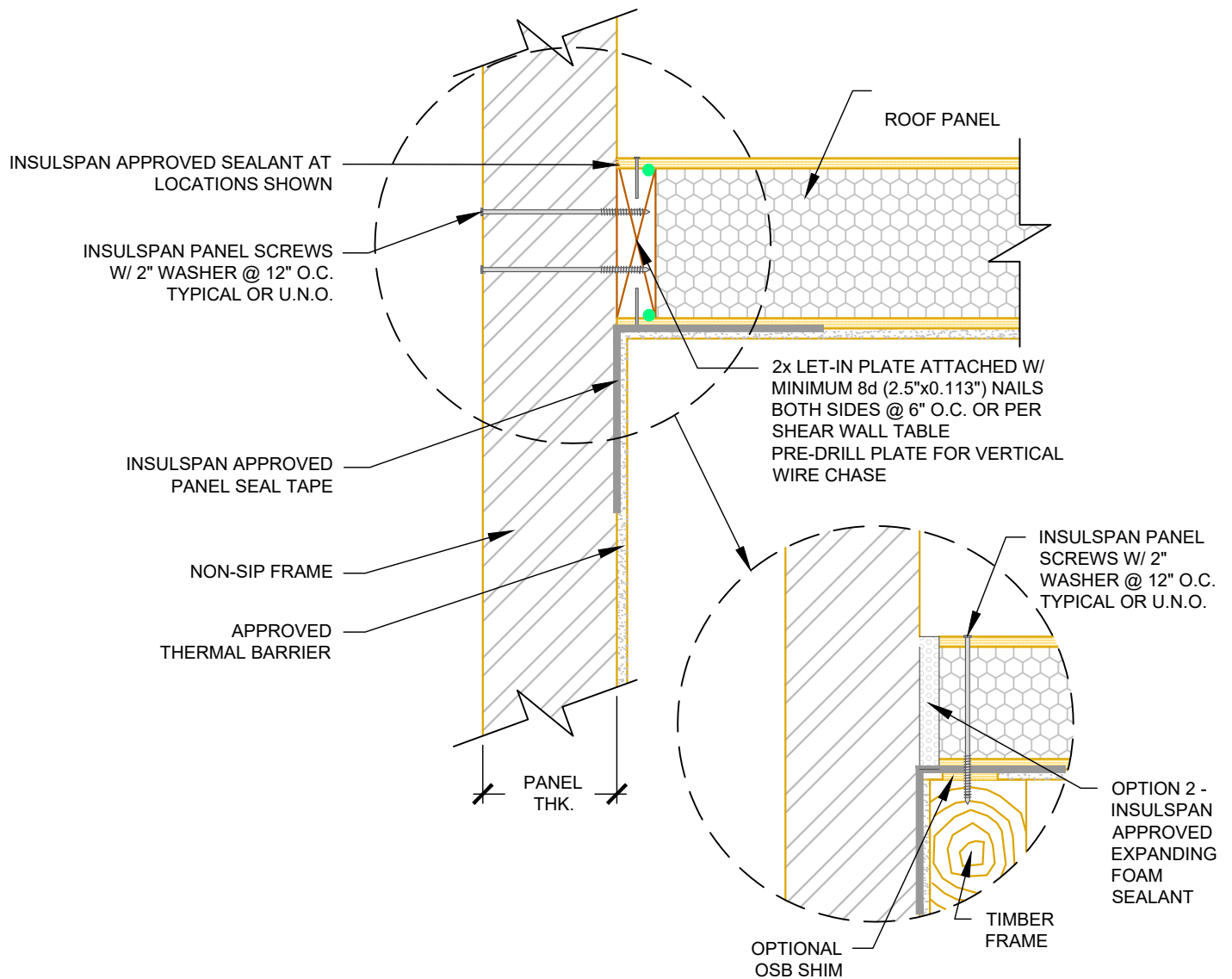
ROOF TO ICF CONCRETE WALL

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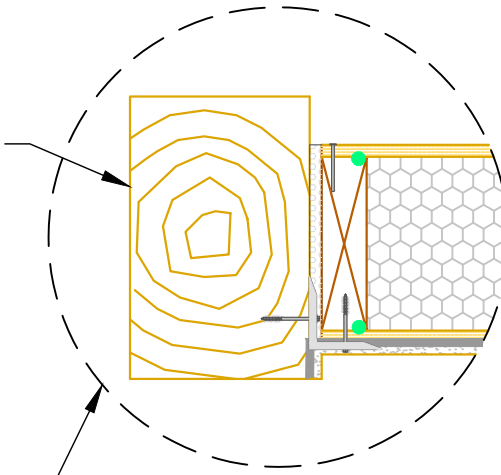


N.T.S



N.T.S

OPTIONS 3 -
CONNECTION WITH
TIMBER FRAME



INSULSPAN APPROVED
EXPANDING FOAM SEALANT

STEEL ANGLE MEMBER AND
FASTENER AS PER
REQUIREMENT

INSULSPAN APPROVED
PANEL SEAL TAPE

NON-SIP FRAME

APPROVED
THERMAL BARRIER

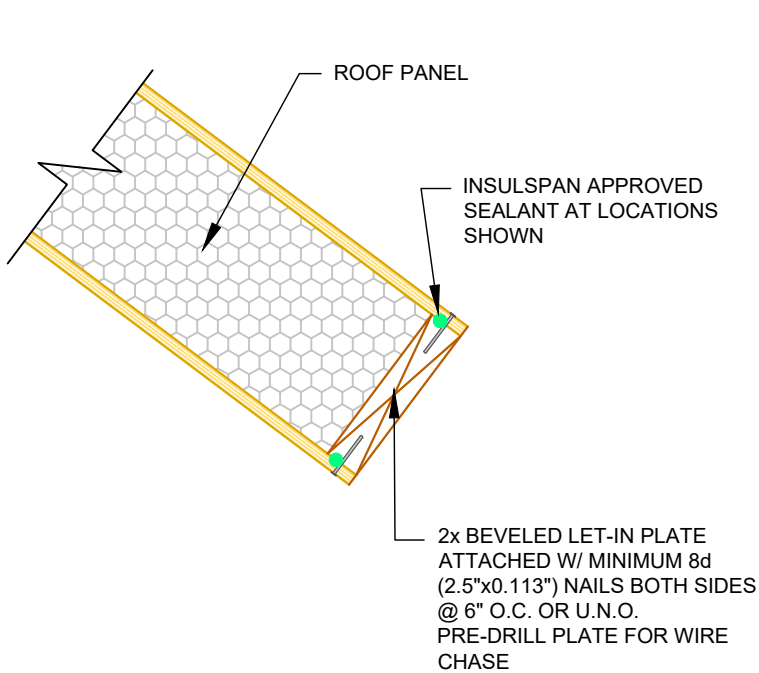
PANEL
THK.

ROOF PANEL

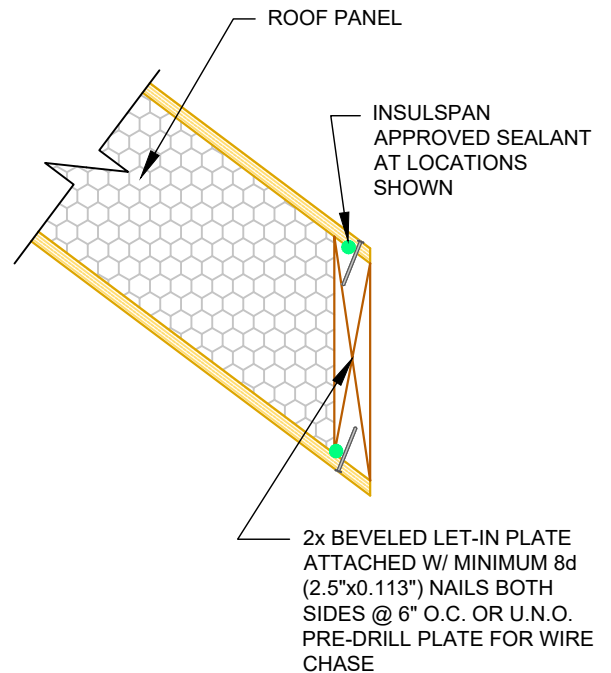
2x LET-IN PLATE ATTACHED W/
MINIMUM 8d (2.5"x0.113") NAILS
BOTH SIDES @ 6" O.C.

OPTION 2 -
INVERTED STEEL
ANGLE MEMBER
AND FASTENER AS
PER REQUIREMENT

N.T.S

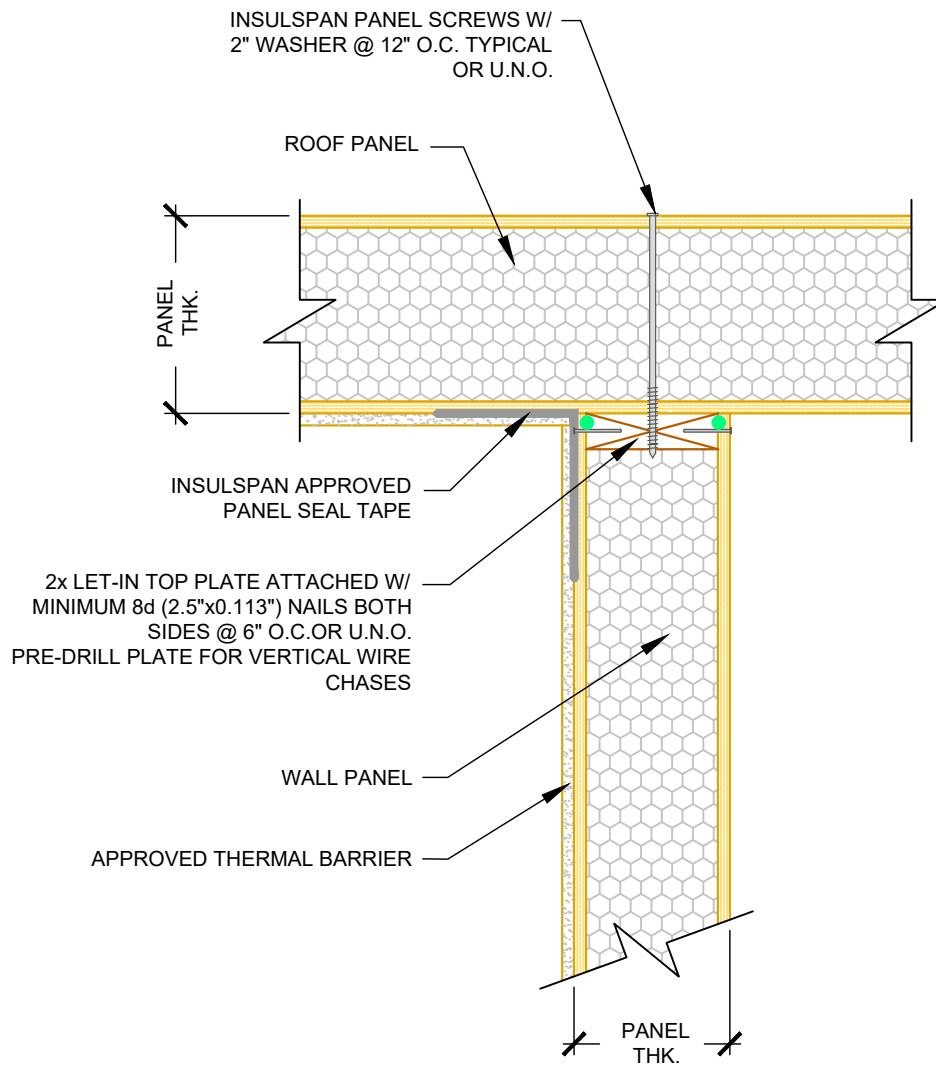


SQUARE CUT TYPE

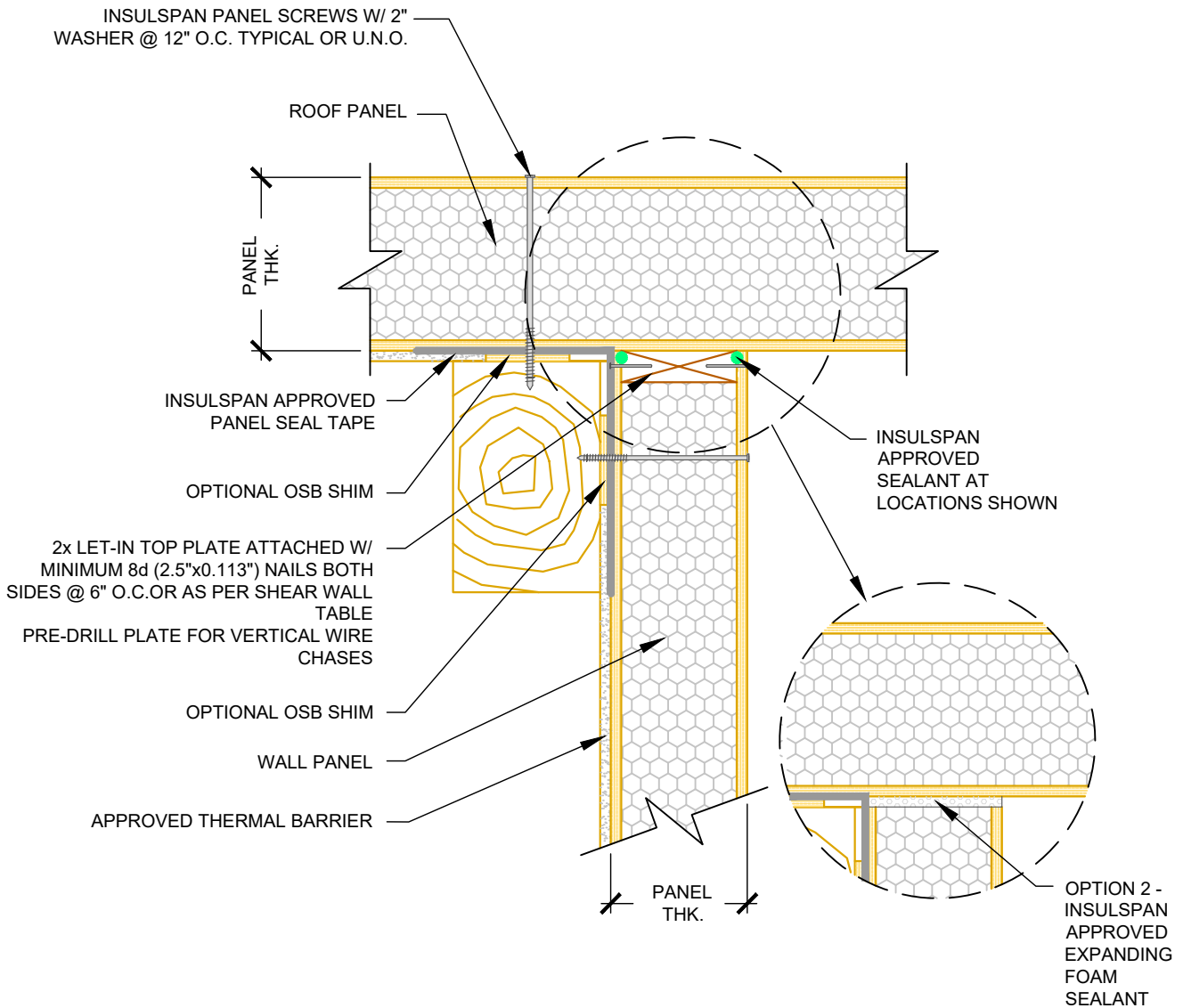


PLUMB CUT TYPE

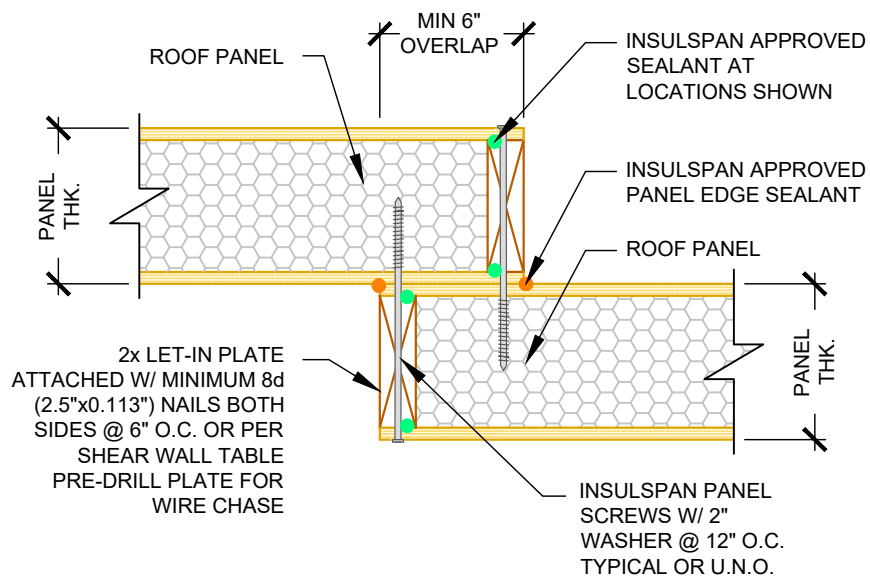
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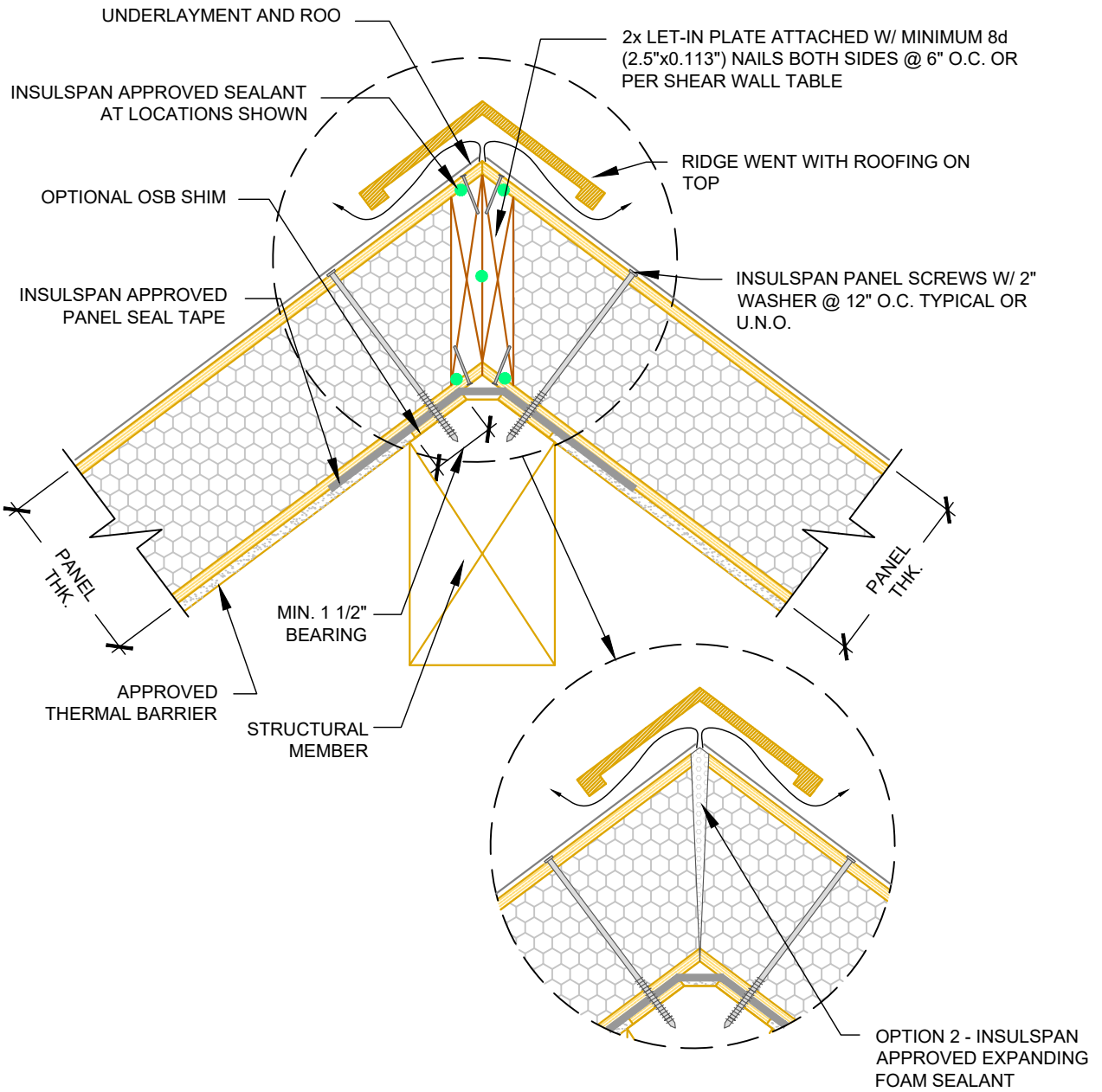
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N.T.S



N.T.S



N.T.S

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Structural Insulated Panels

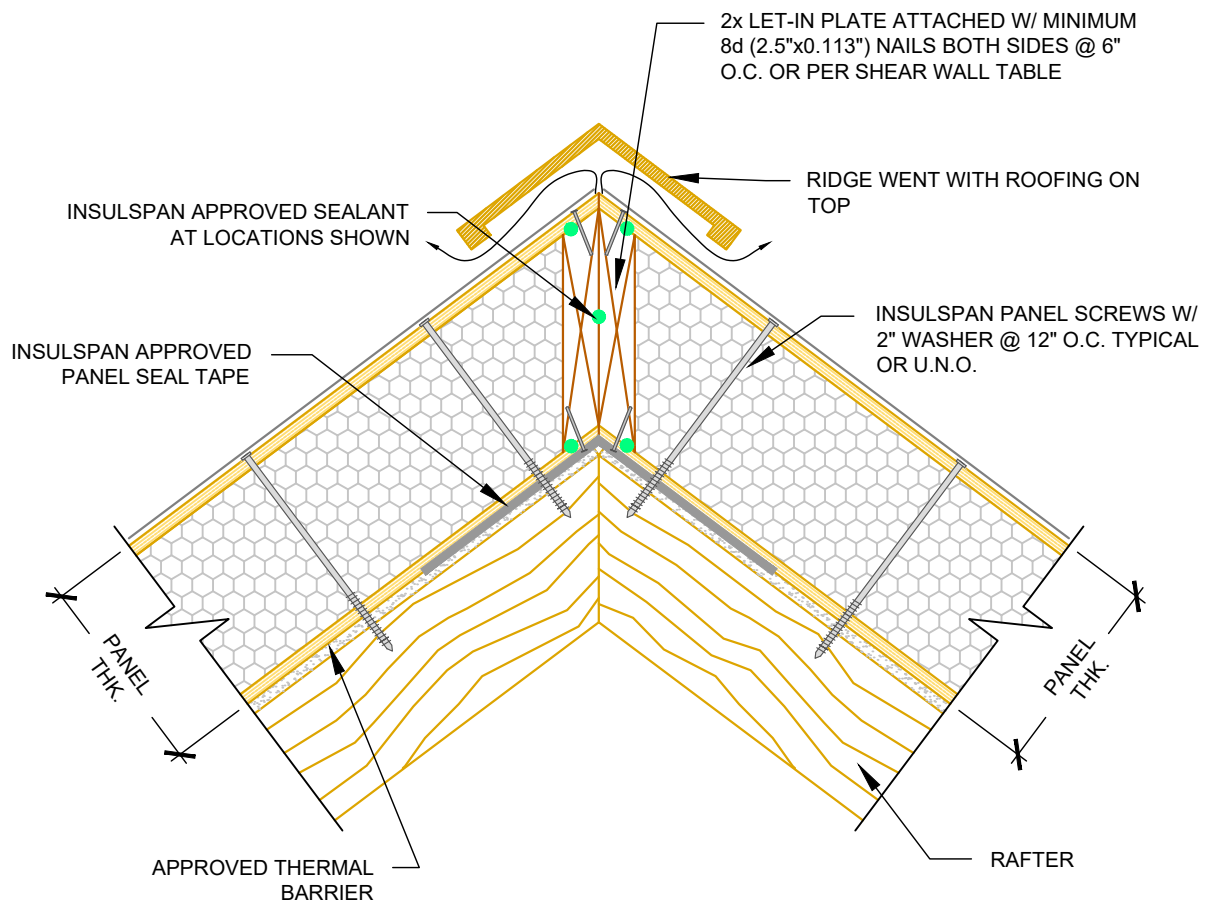
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ROOF RIDGE WITH BEAM

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N.T.S

2x BEVELED LET-IN PLATE ATTACHED W/
 MINIMUM 8d (2.5"x0.113") NAILS BOTH SIDES
 @ 6" O.C. OR U.N.O.
 PRE-DRILL PLATE FOR WIRE CHASES

INSULSPAN APPROVED SEALANT AT
 LOCATIONS SHOWN

PANEL EDGE SEALANT

INSULSPAN PANEL SCREWS W/ 2"
 WASHER @ 12" O.C. TYPICAL OR
 U.N.O.

OPTIONAL OSB SHIM

12
 12

INSULSPAN APPROVED
 PANEL SEAL TAPE

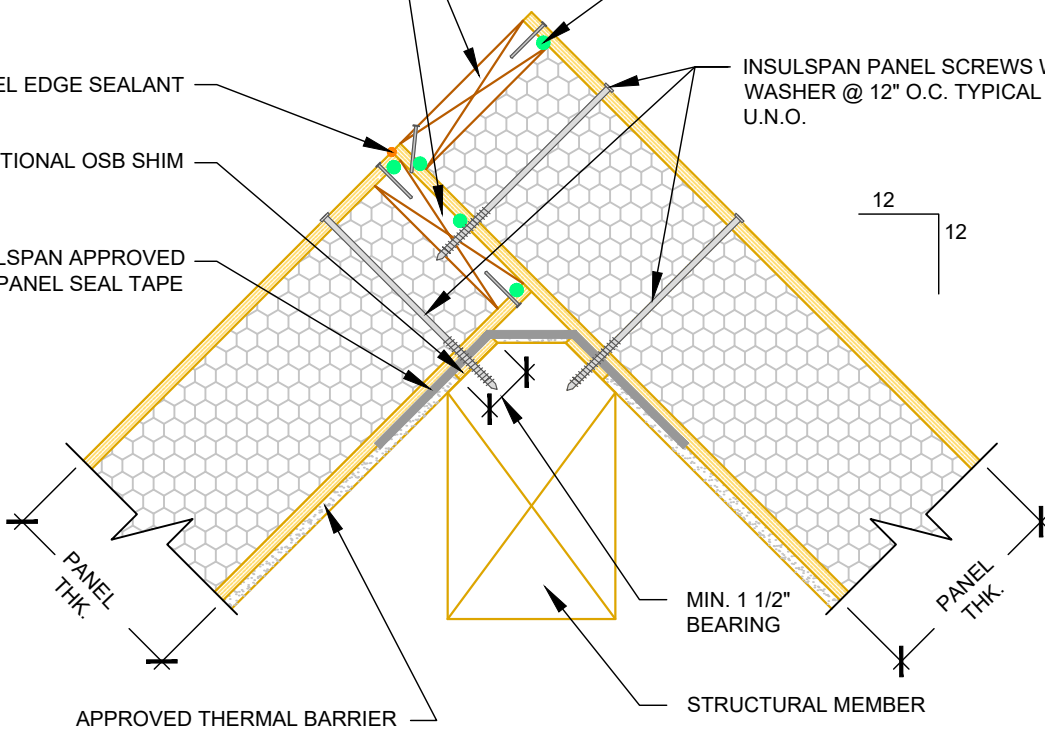
PANEL
 THK.

MIN. 1 1/2"
 BEARING

PANEL
 THK.

APPROVED THERMAL BARRIER

STRUCTURAL MEMBER



N.T.S

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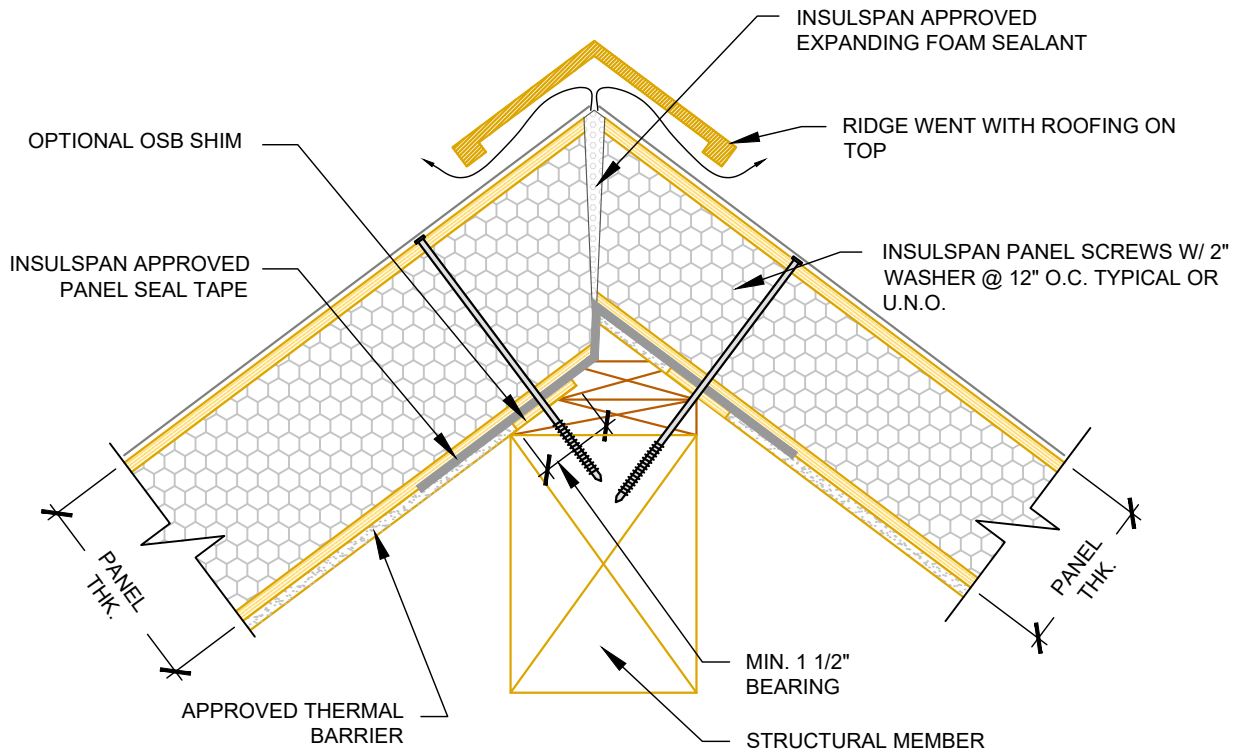
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ROOF PANEL OVERLAY WITH RIDGE
 BEAM

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Structural Insulated Panels

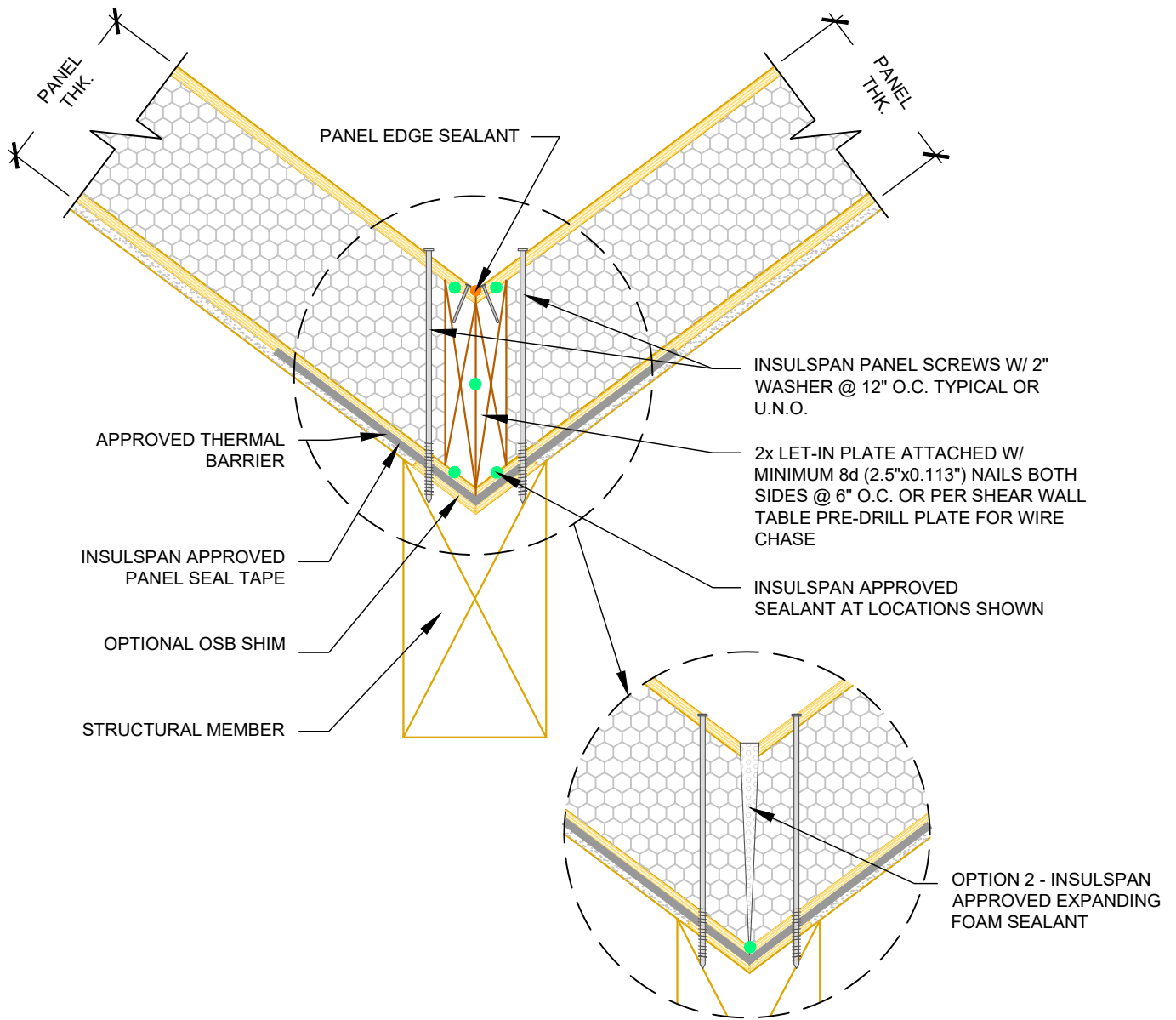
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ROOF RIDGE WITH DIFFERENT THICKNESS

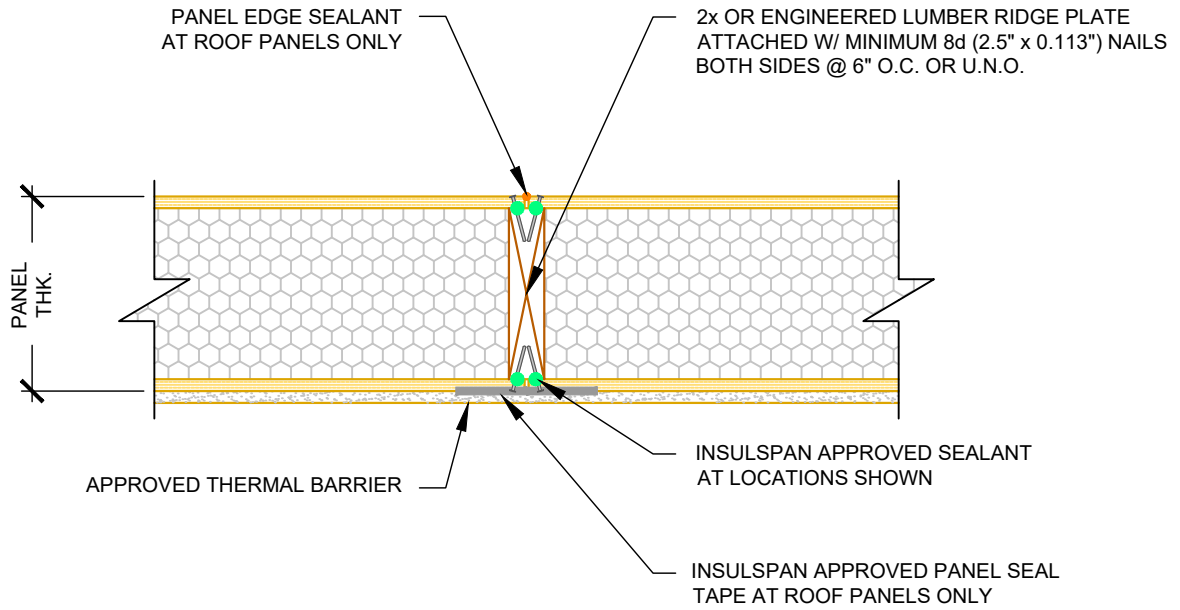
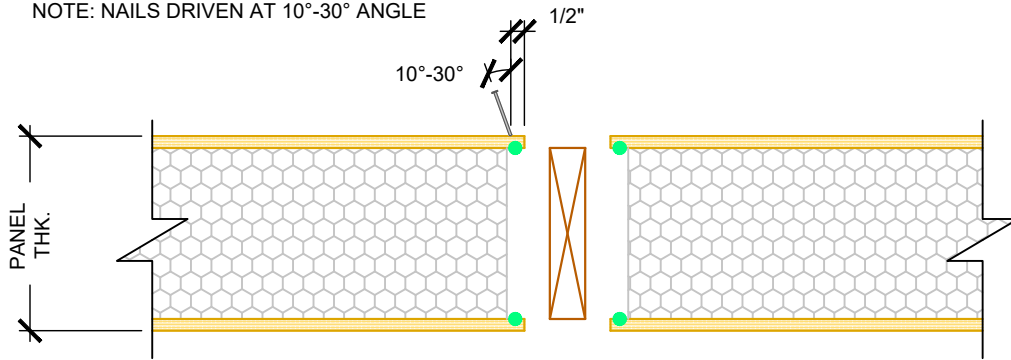
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NOTE: NAILS DRIVEN AT 10°-30° ANGLE



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Structural Insulated Panels

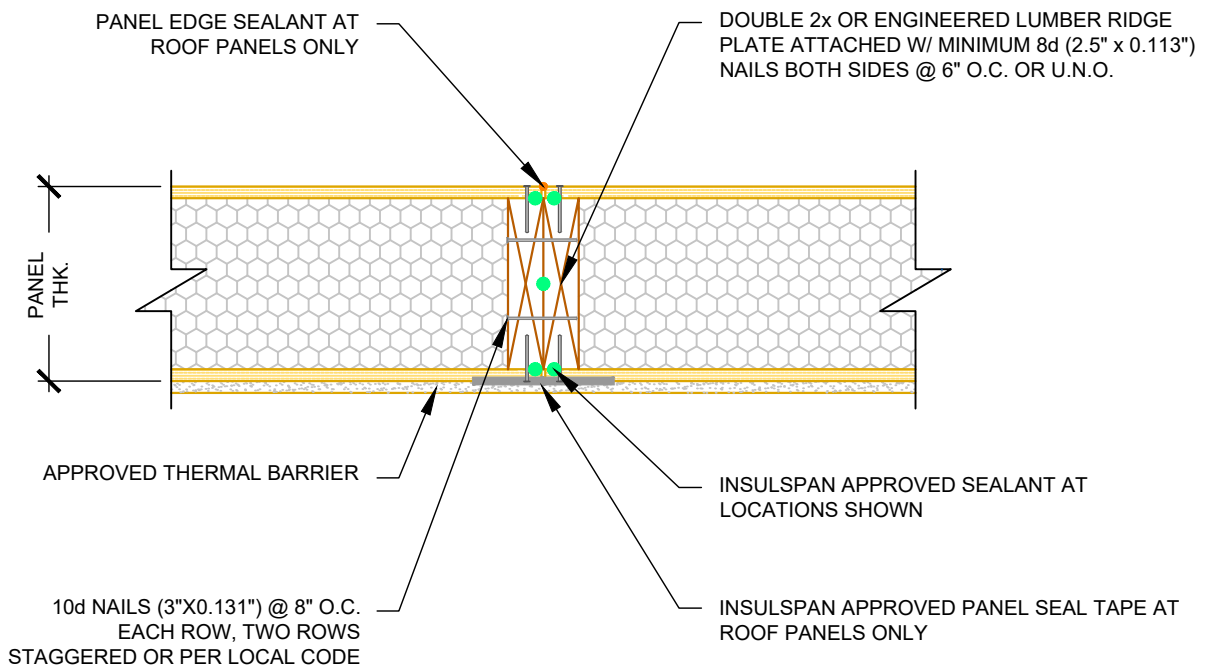
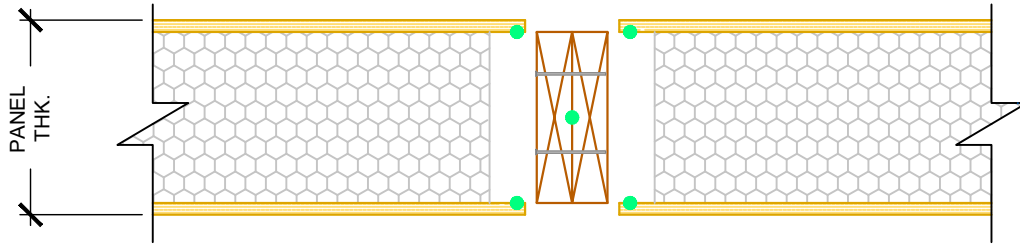
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SINGLE LUMBER SPLINE

REV
21-07-2025

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N.T.S

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Structural Insulated Panels

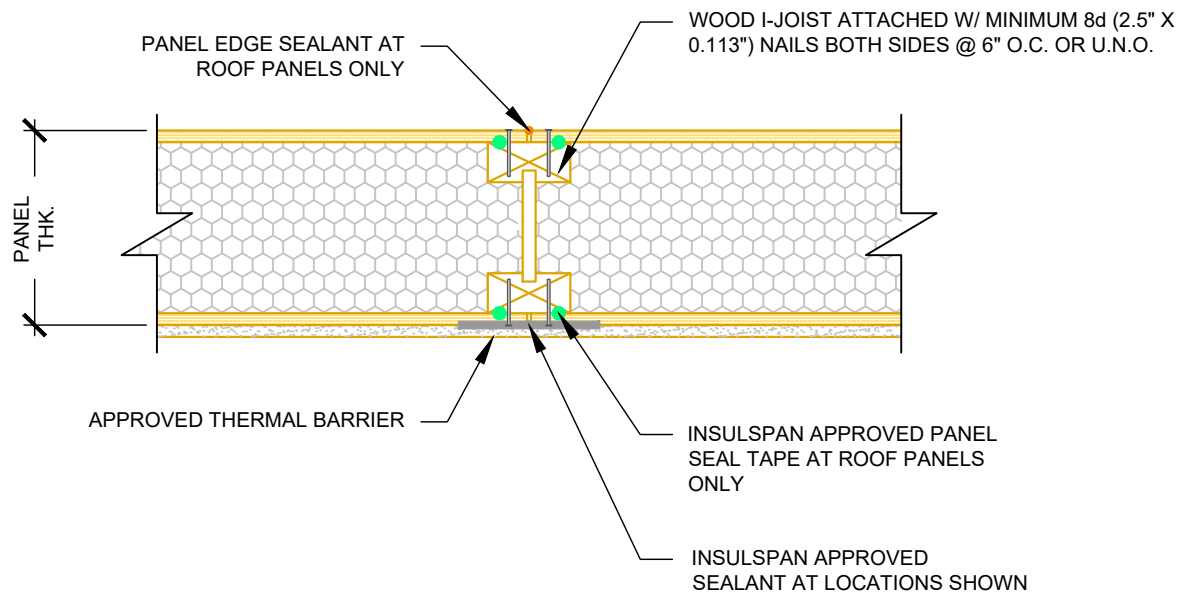
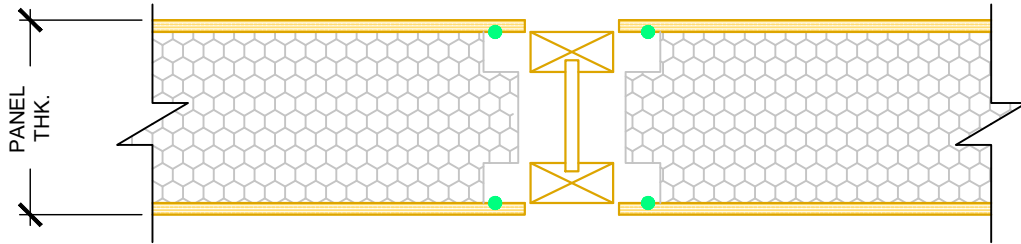
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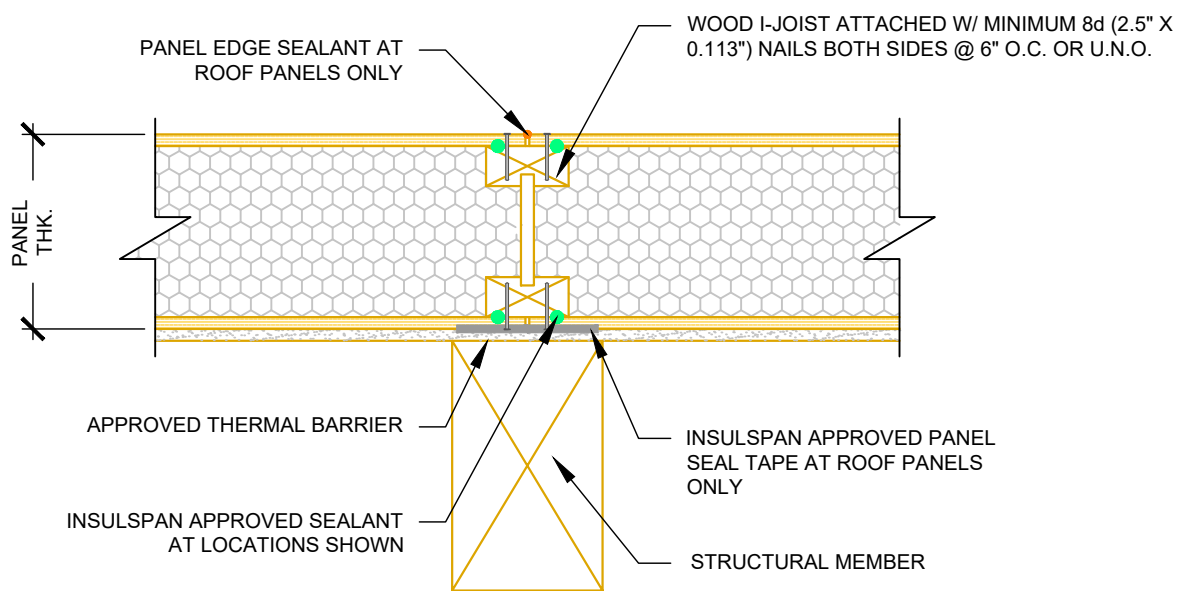
DOUBLE LUMBER SPLINE

REV
21-07-2025

DWG
302



N.T.S



N.T.S

INSULSPAN
Structural Insulated Panels

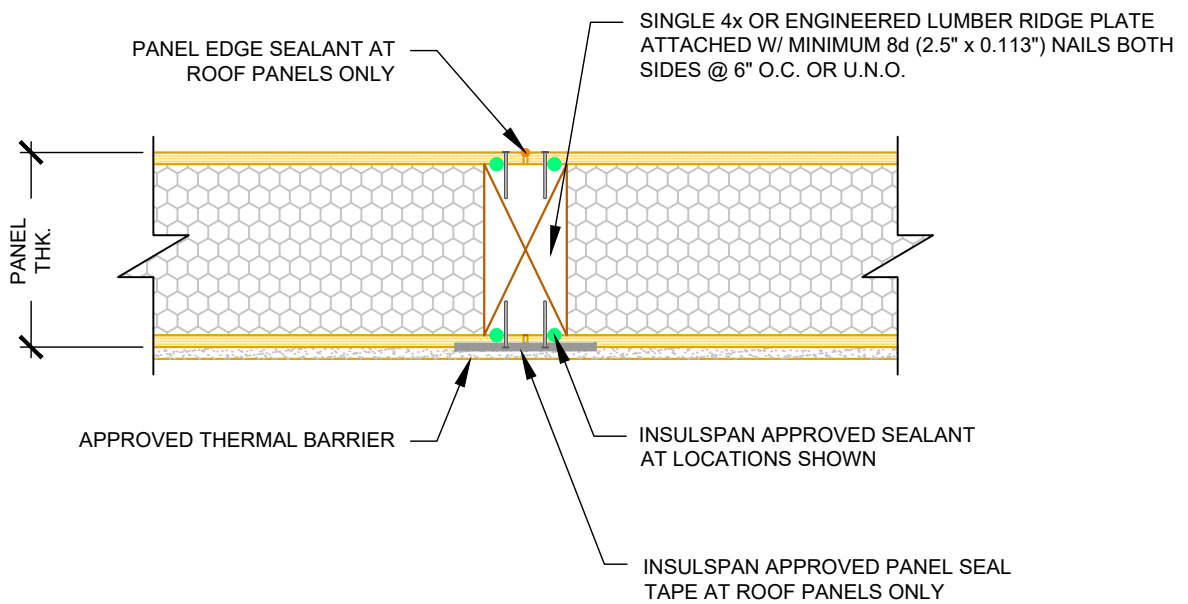
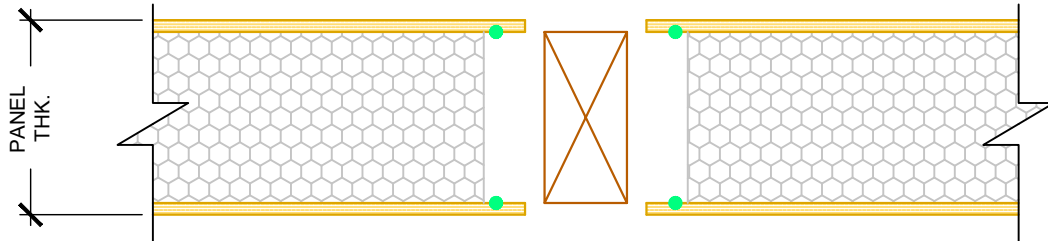
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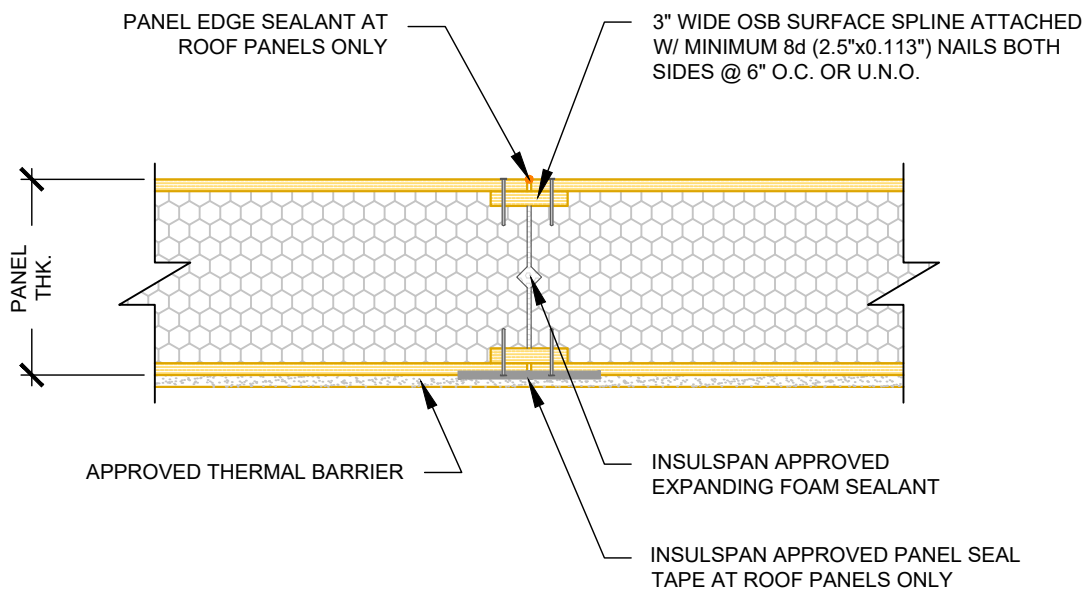
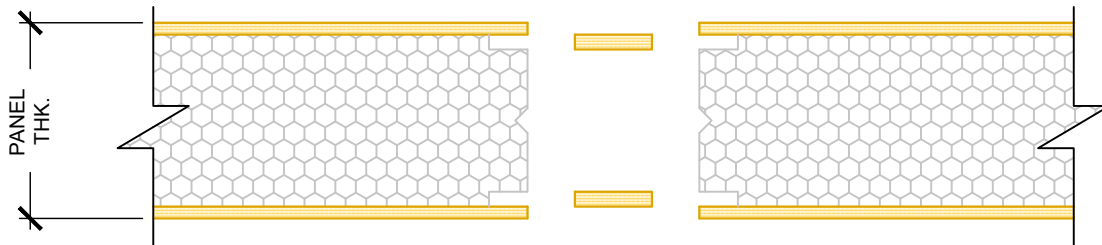
I-JOIST SPLINE AT INTERMEDIATE BEAM

REV
21-07-2025

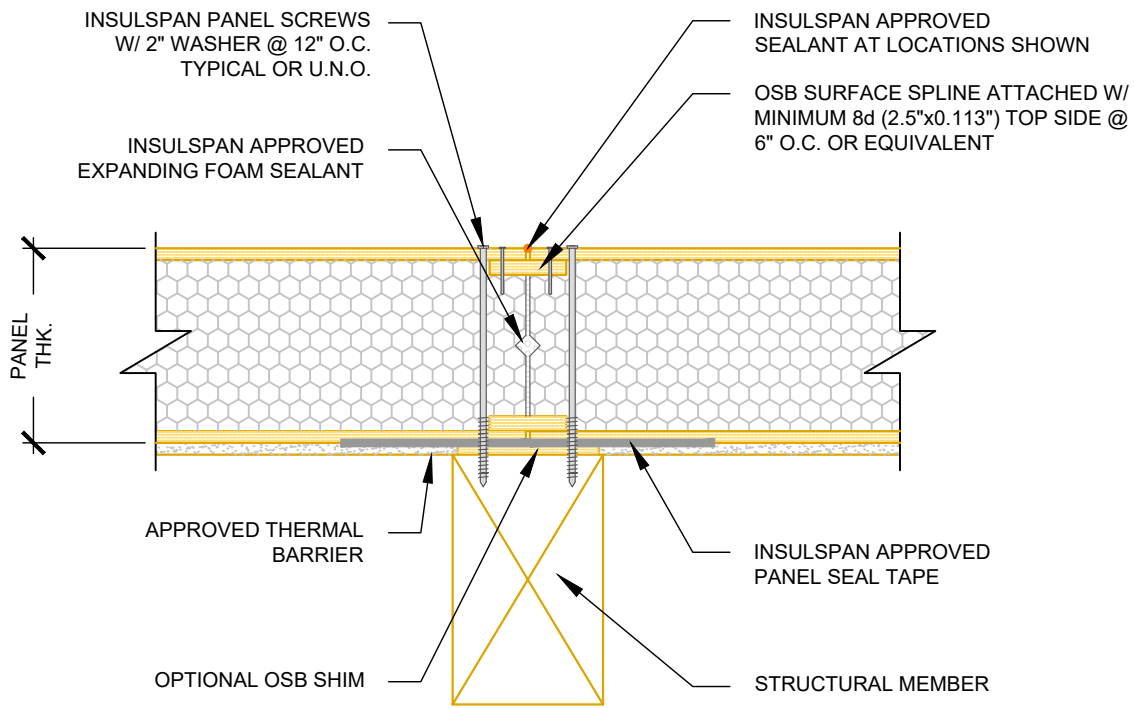
DWG
304



N.T.S



N.T.S



N.T.S

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Structural Insulated Panels

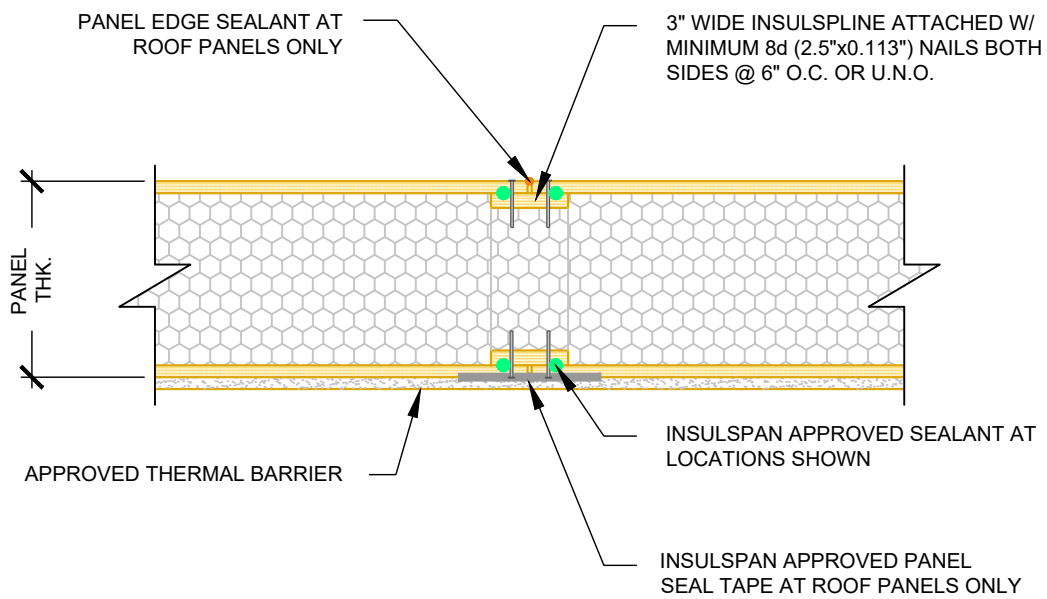
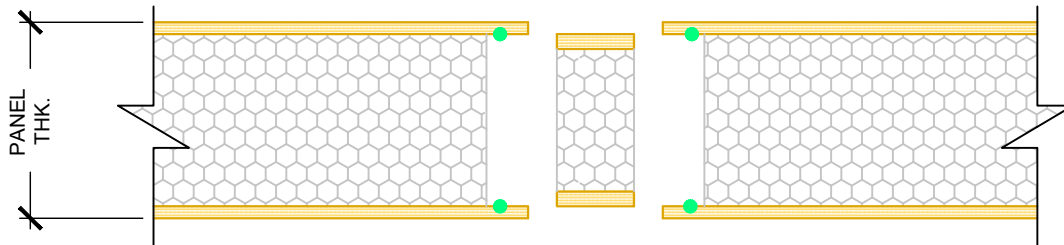
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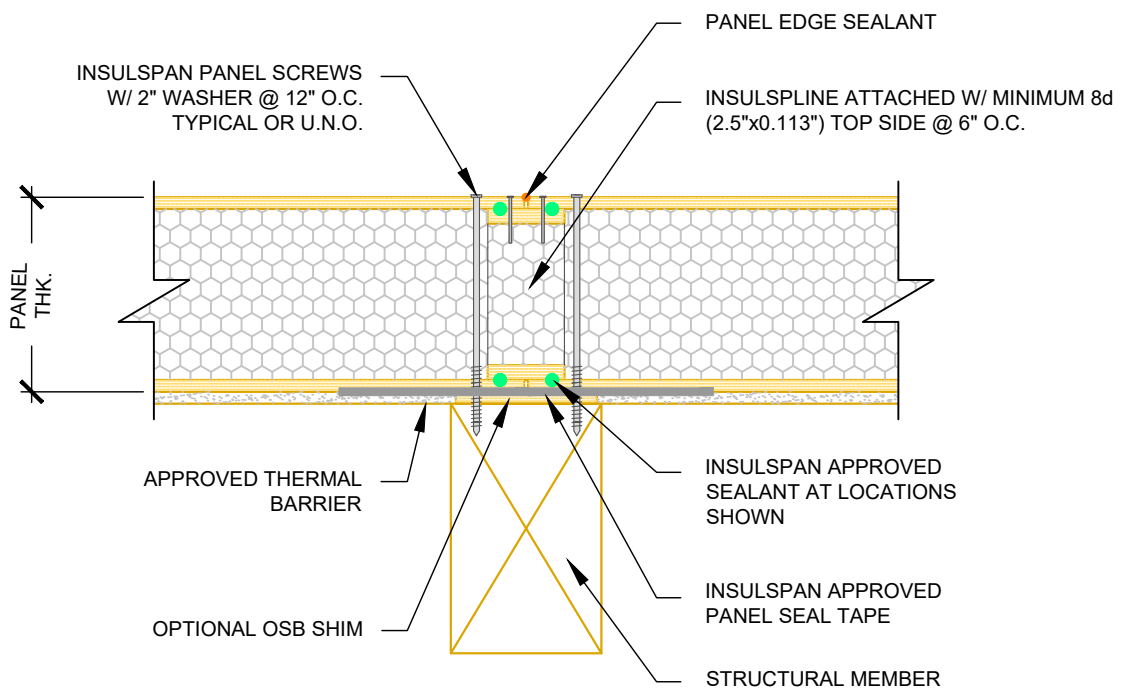
OSB SURFACE SPLINE AT
INTERMEDIATE BEAM

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21-07-2025

DWG
307



N.T.S



N.T.S

INSULSPAN
Structural Insulated Panels

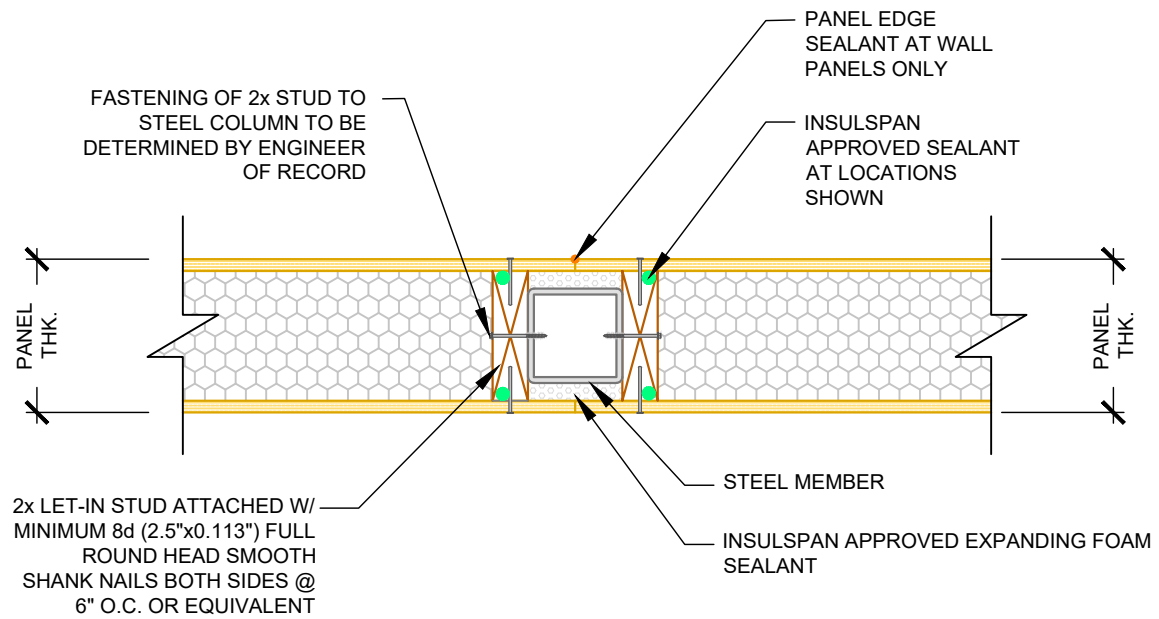
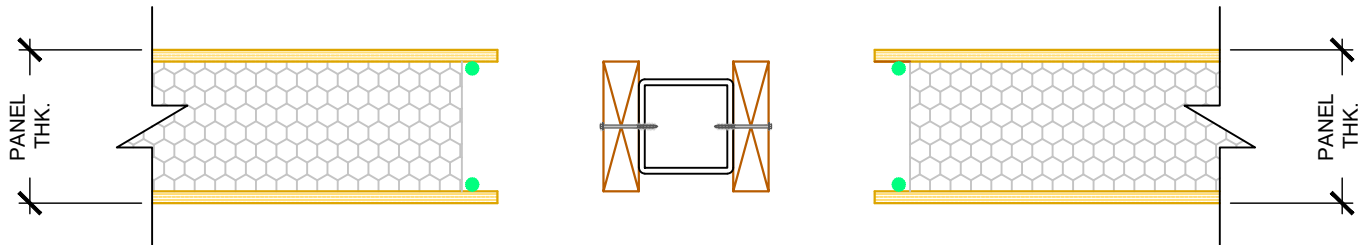
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INSULSPLINE AT INTERMEDIATE BEAM

REV
21-07-2025

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309



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INSULSPAN
Structural Insulated Panels

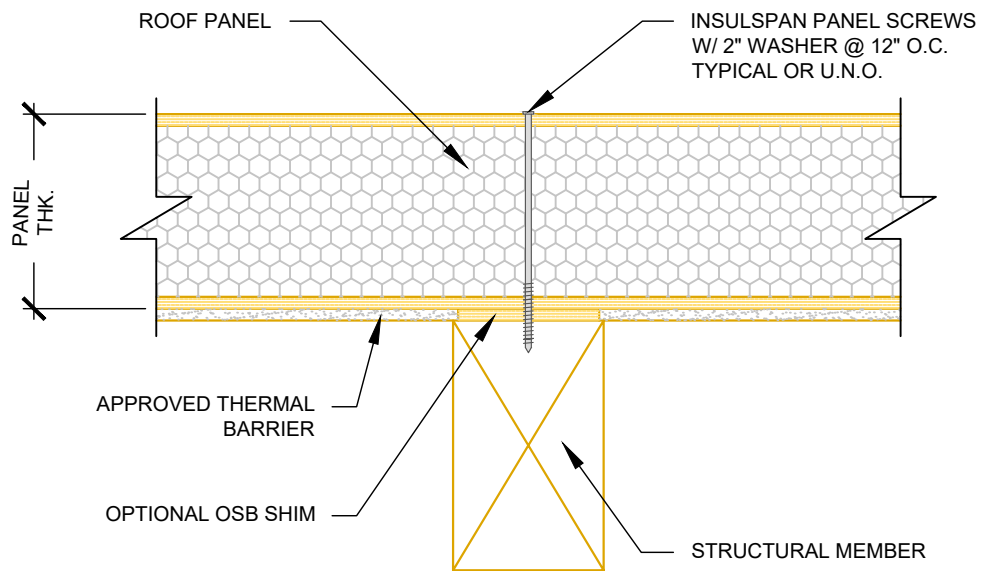
A CARLISLE COMPANY

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HSS 2X SPLINE

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21-07-2025

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310



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INSULSPAN
Structural Insulated Panels

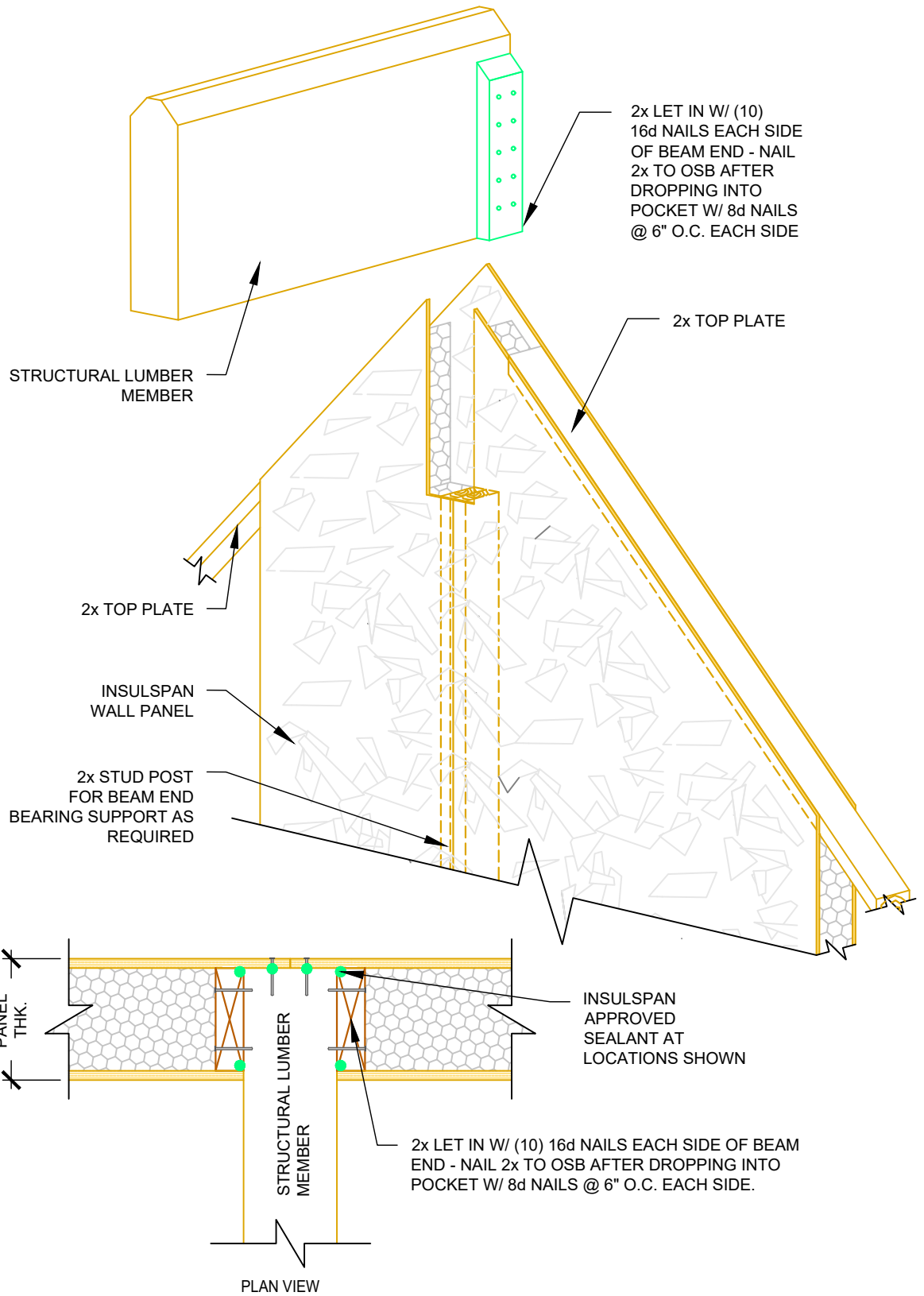
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ROOF AT INTERMEDIATE BEAM

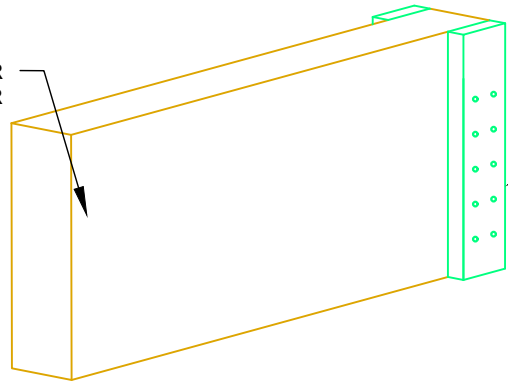
REV
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311



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STRUCTURAL LUMBER MEMBER



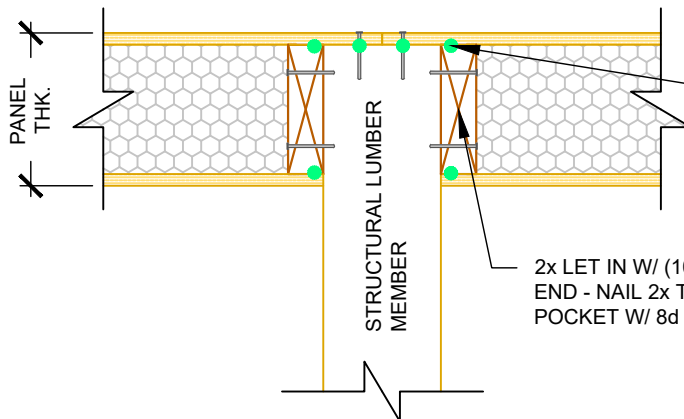
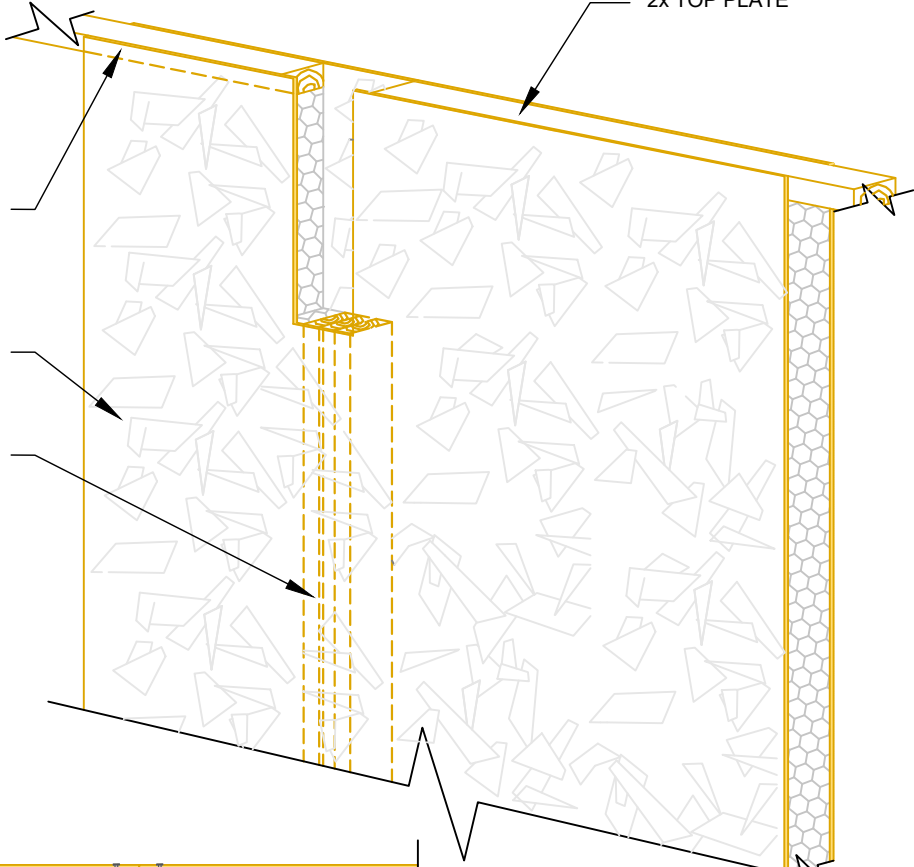
2x LET IN W/ (10) 16d NAILS EACH SIDE OF BEAM END - NAIL 2x TO OSB AFTER DROPPING INTO POCKET W/ 8d NAILS @ 6" O.C. EACH SIDE

2x TOP PLATE

2x TOP PLATE

INSULSPAN WALL PANEL

2x STUD POST FOR BEAM END BEARING SUPPORT AS REQUIRED

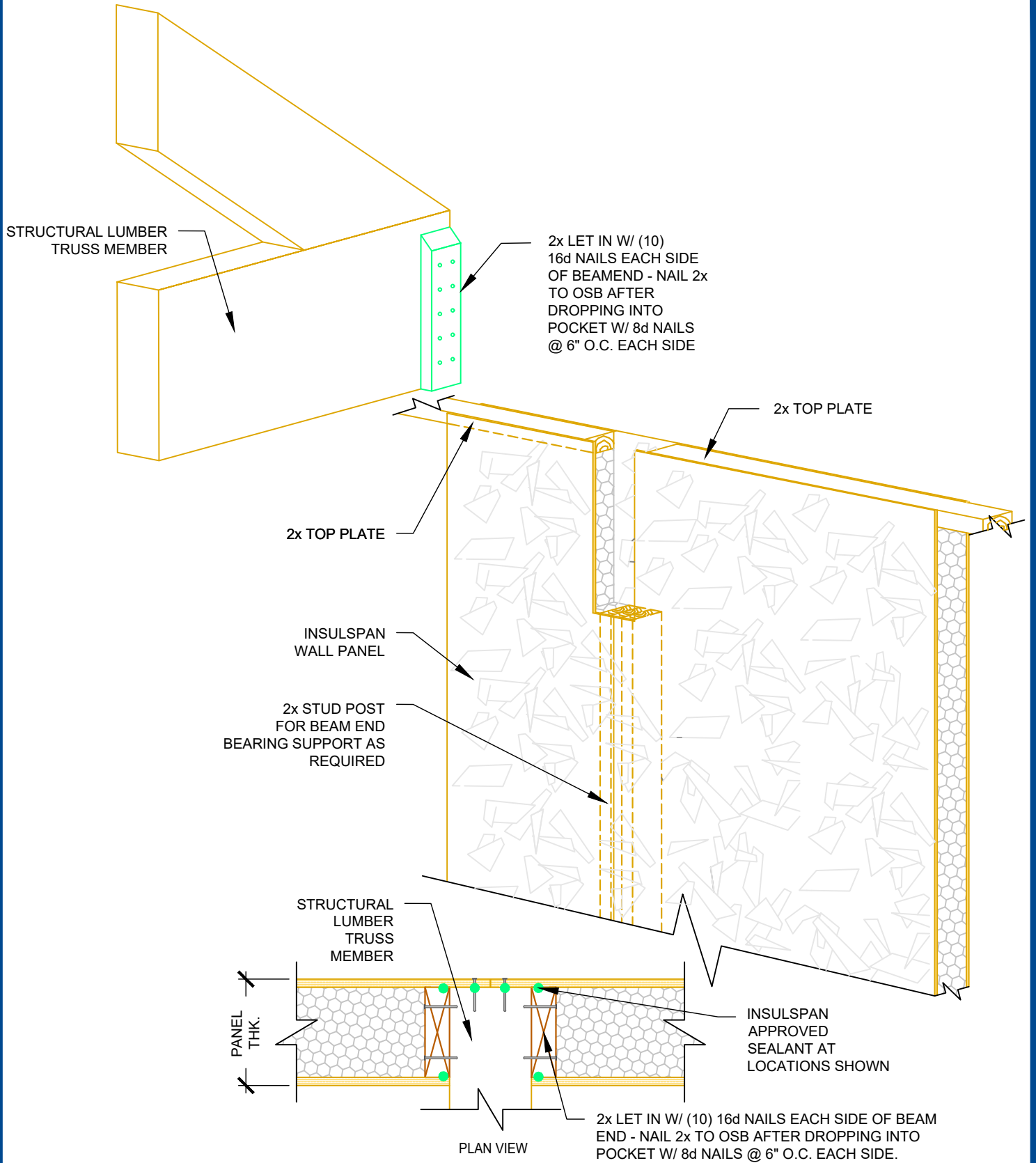


PLAN VIEW

INSULSPAN APPROVED SEALANT AT LOCATIONS SHOWN

2x LET IN W/ (10) 16d NAILS EACH SIDE OF BEAM END - NAIL 2x TO OSB AFTER DROPPING INTO POCKET W/ 8d NAILS @ 6" O.C. EACH SIDE.

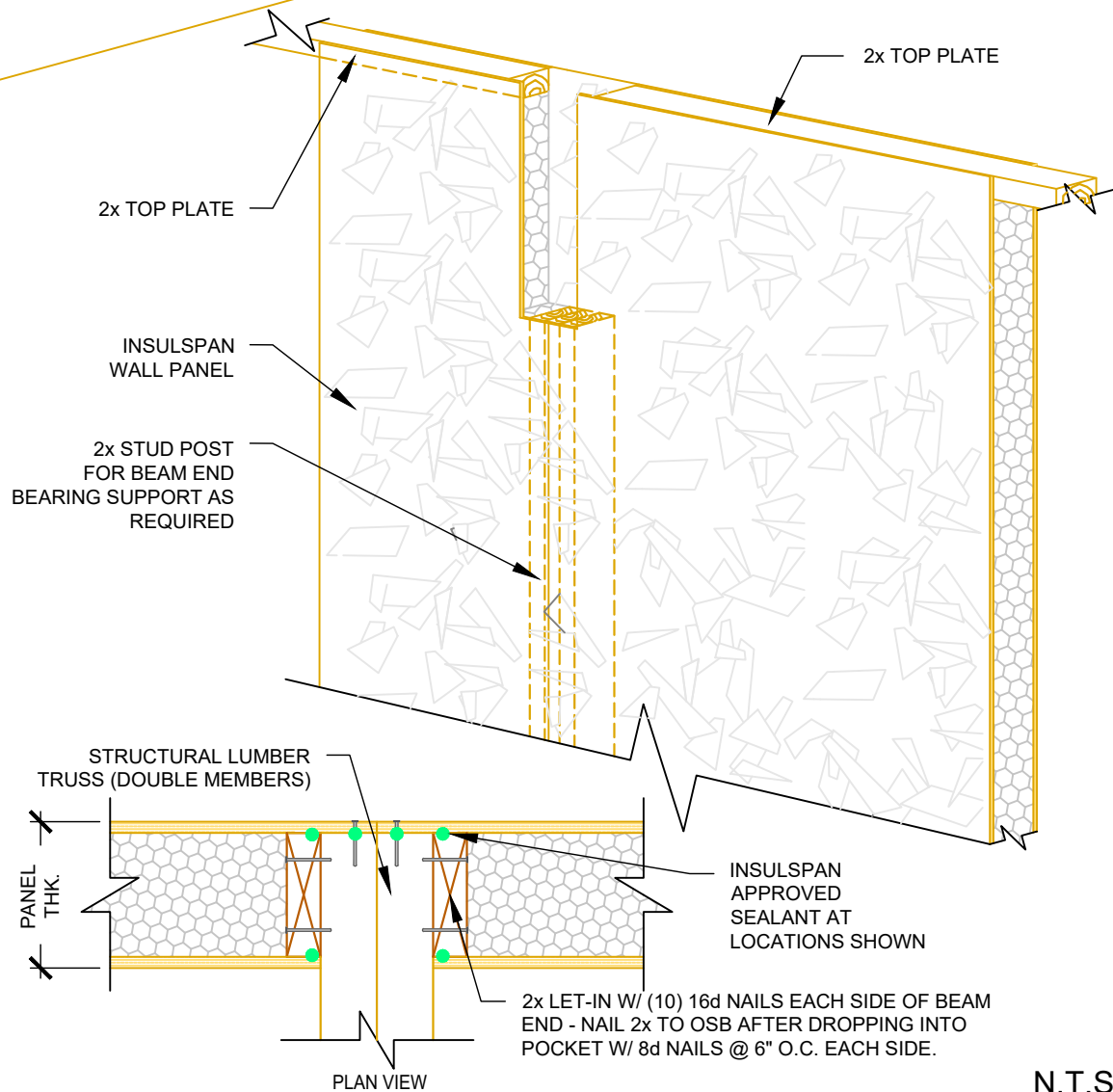
N.T.S



N.T.S

STRUCTURAL LUMBER TRUSS (DOUBLE MEMBERS)

2x LET IN W/ (10) 16d NAILS EACH SIDE OF BEAM END - NAIL 2x TO OSB AFTER DROPPING INTO POCKET W/ 8d NAILS @ 6" O.C. EACH SIDE



N.T.S

INSULSPAN
Structural Insulated Panels

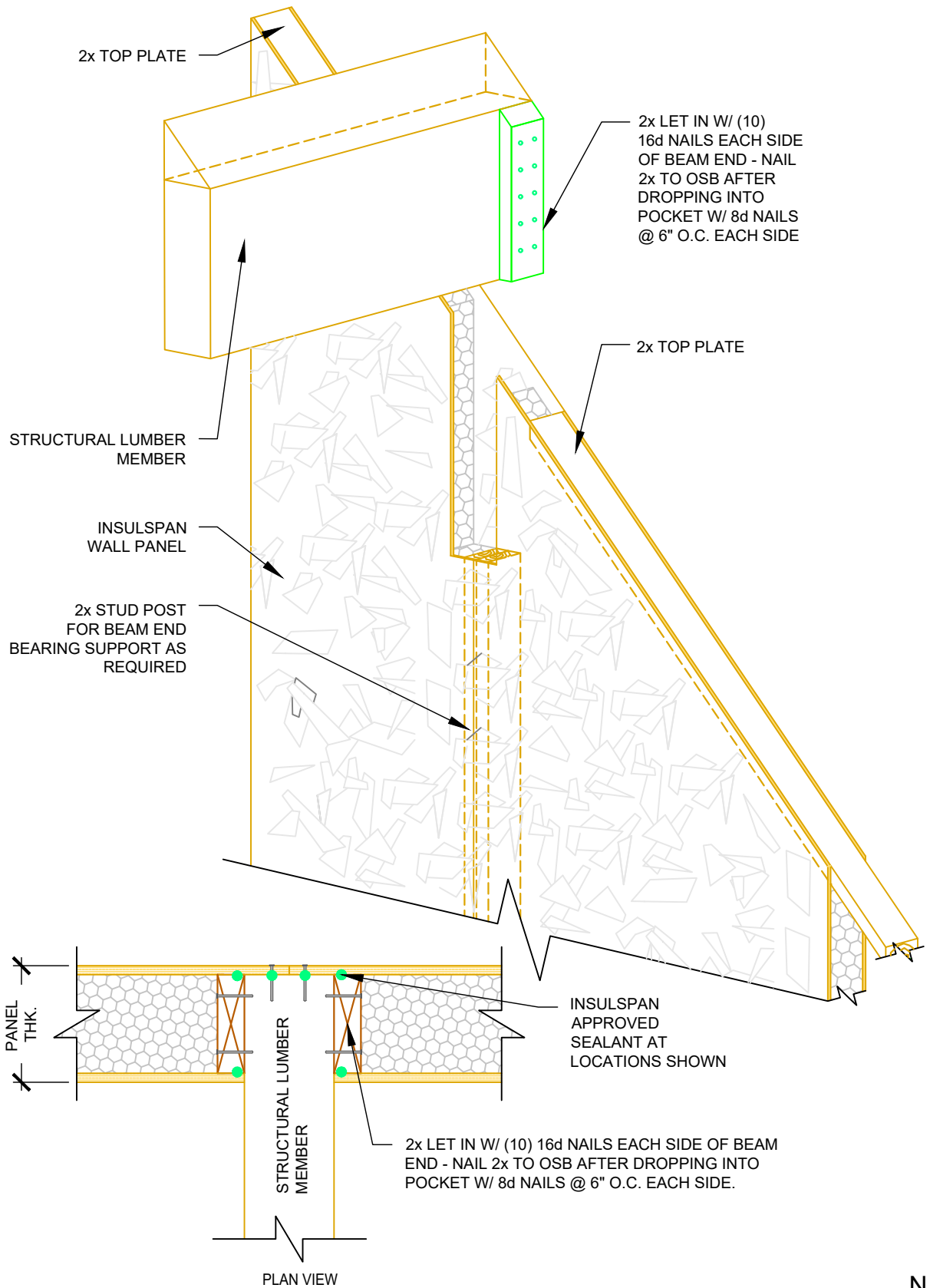
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FLAT ROOF WITH TRUSS - DOUBLE MEMBERS

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INSULSPAN
Structural Insulated Panels

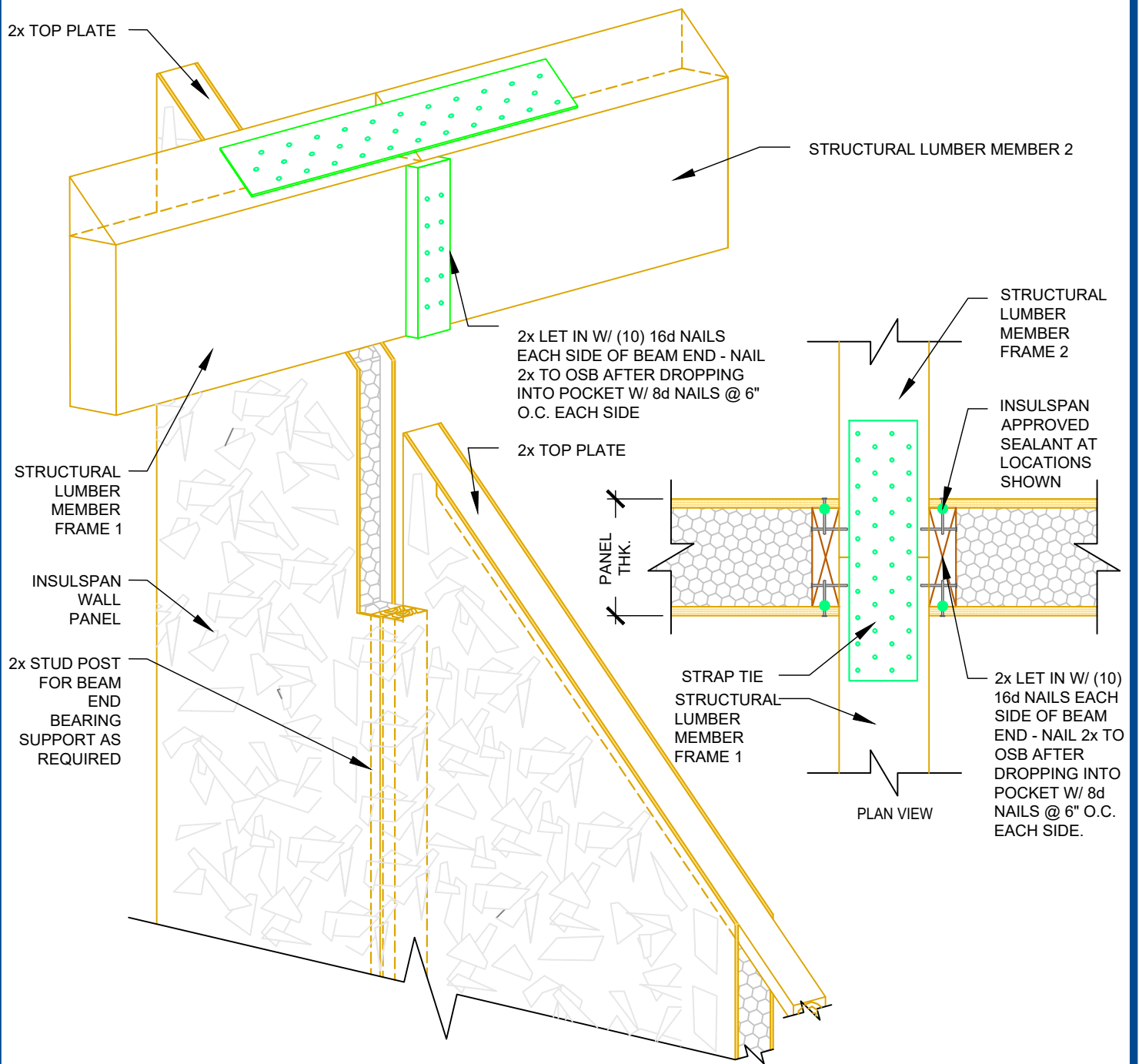
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LEAN ROOF WITH PURLIN

REV
21-07-2025

DWG
335



N.T.S

INSULSPAN
Structural Insulated Panels

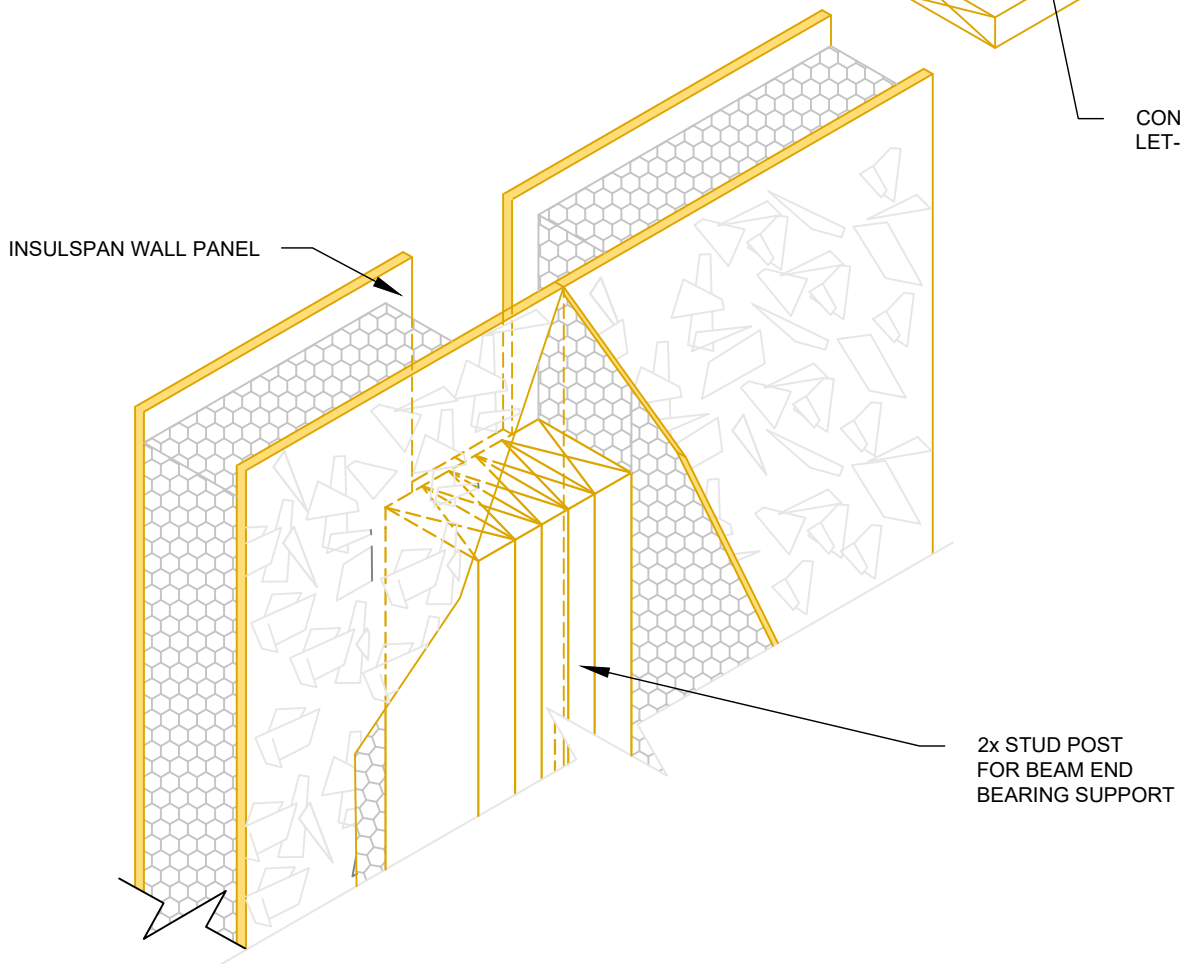
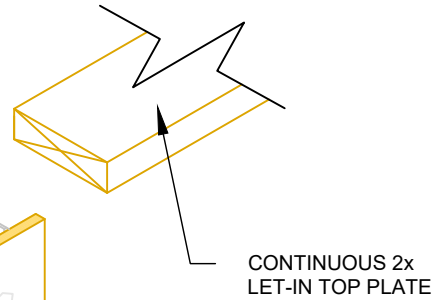
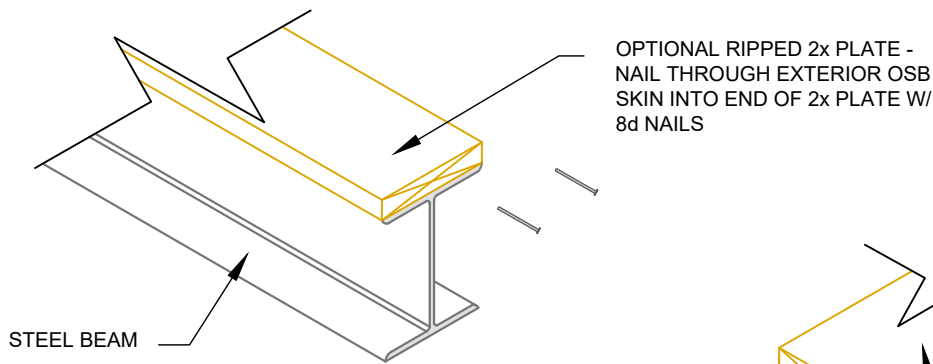
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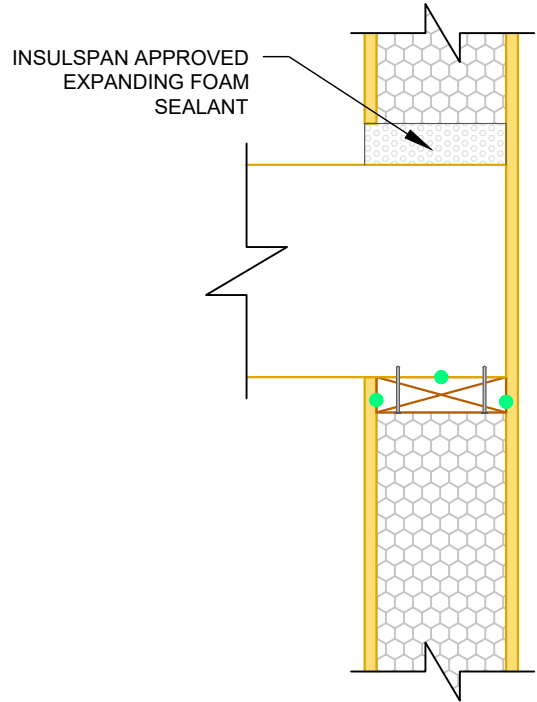
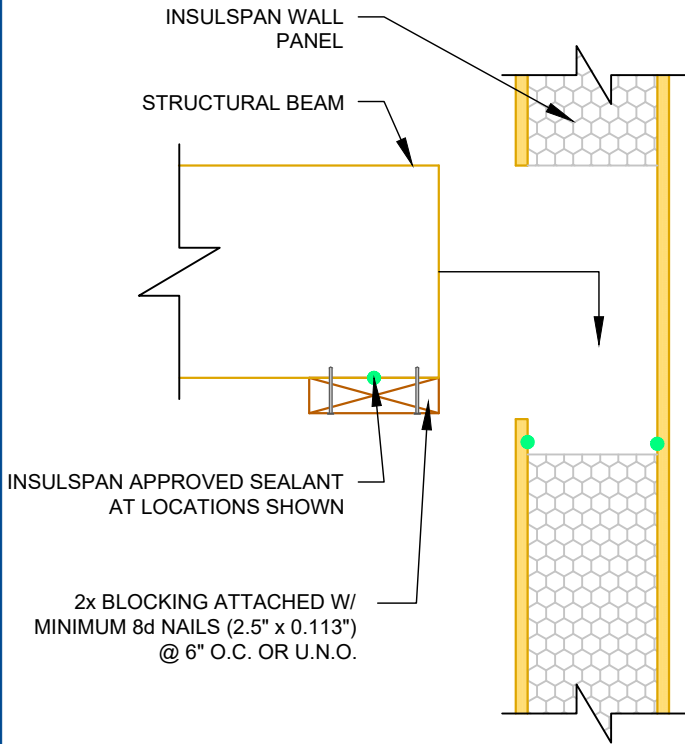
LEAN ROOF WITH CONTINUOUS
PURLIN

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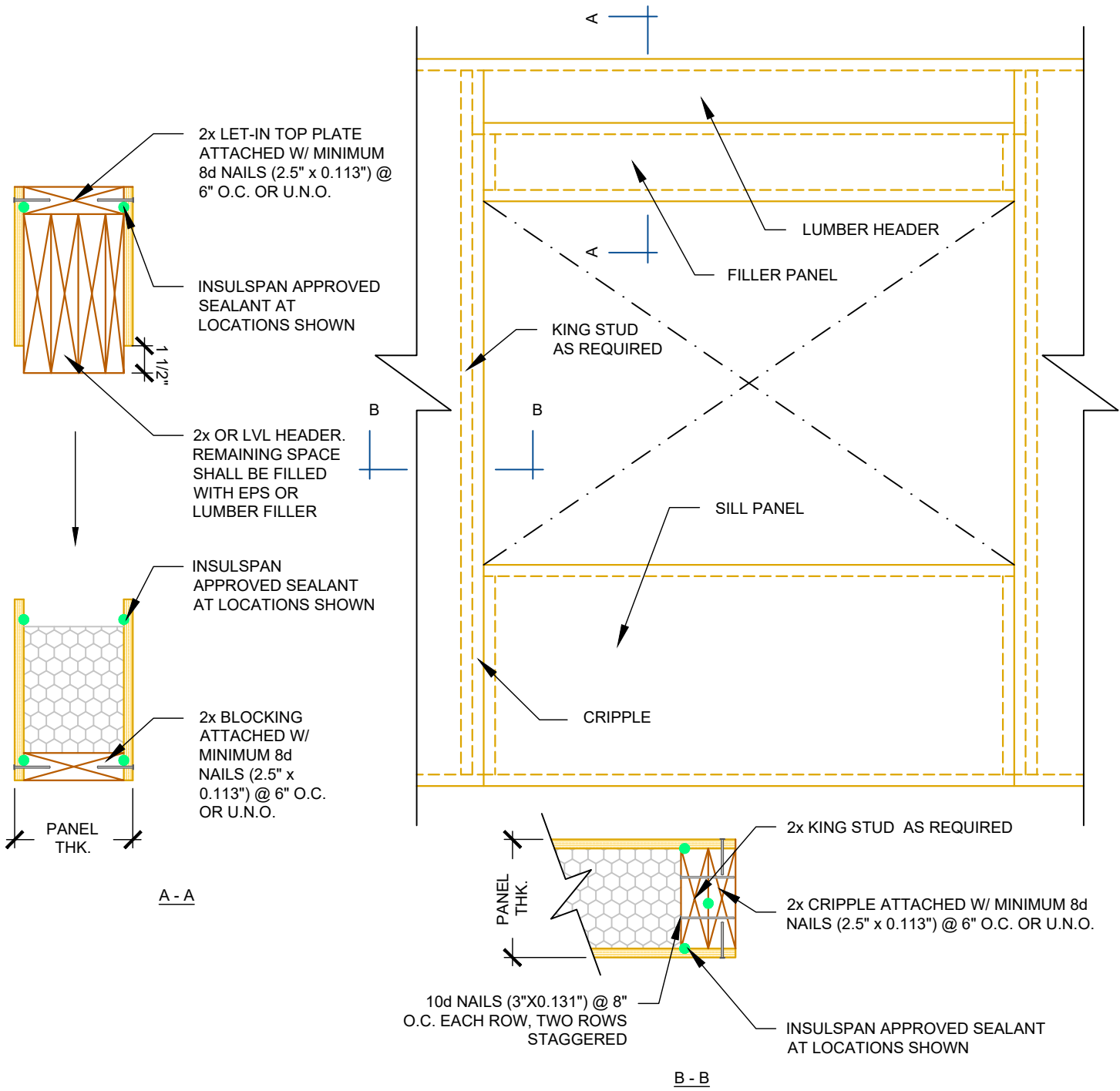
DWG
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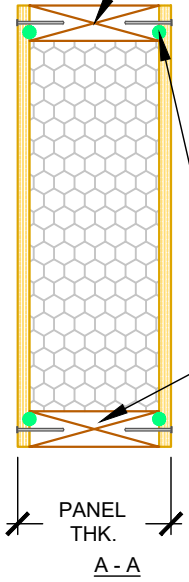
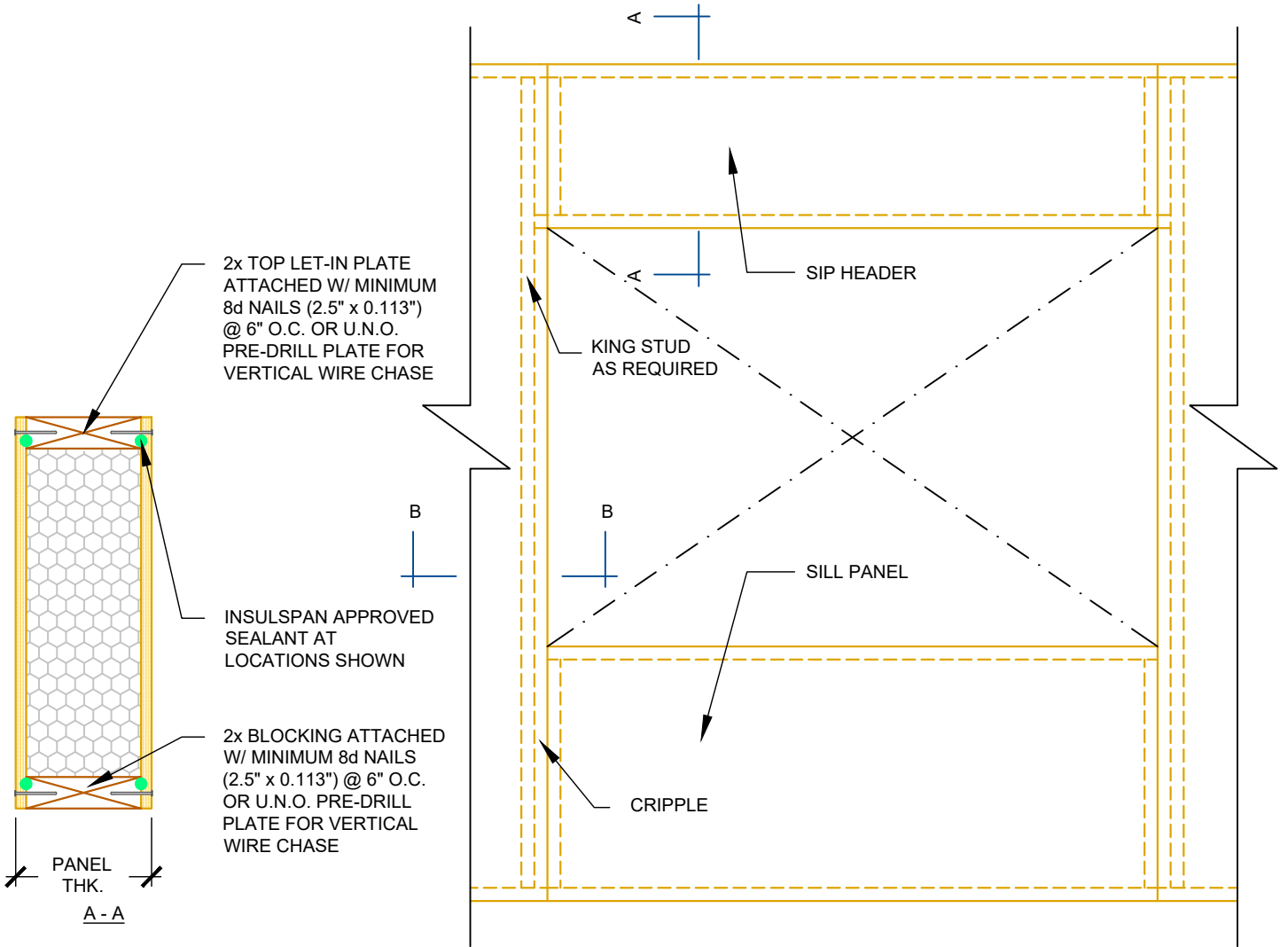


N.T.S



N.T.S

LUMBER HEADER

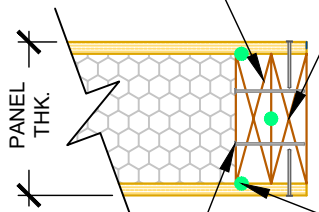


2x TOP LET-IN PLATE
ATTACHED W/ MINIMUM
8d NAILS (2.5" x 0.113")
@ 6" O.C. OR U.N.O.
PRE-DRILL PLATE FOR
VERTICAL WIRE CHASE

INSULSPAN APPROVED
SEALANT AT
LOCATIONS SHOWN

2x BLOCKING ATTACHED
W/ MINIMUM 8d NAILS
(2.5" x 0.113") @ 6" O.C.
OR U.N.O. PRE-DRILL
PLATE FOR VERTICAL
WIRE CHASE

2x KING STUD AS REQUIRED

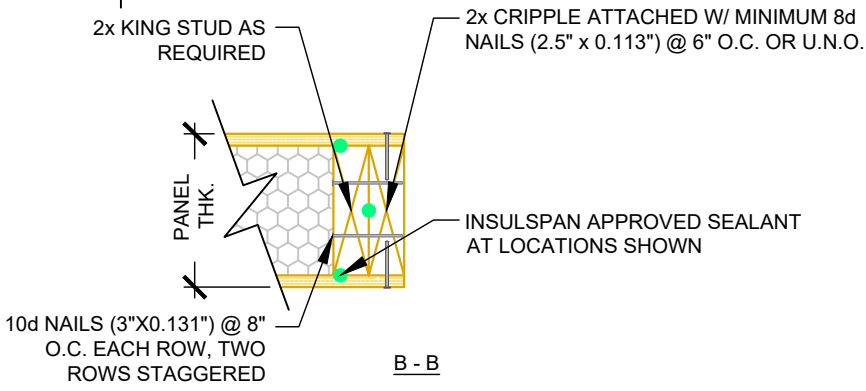
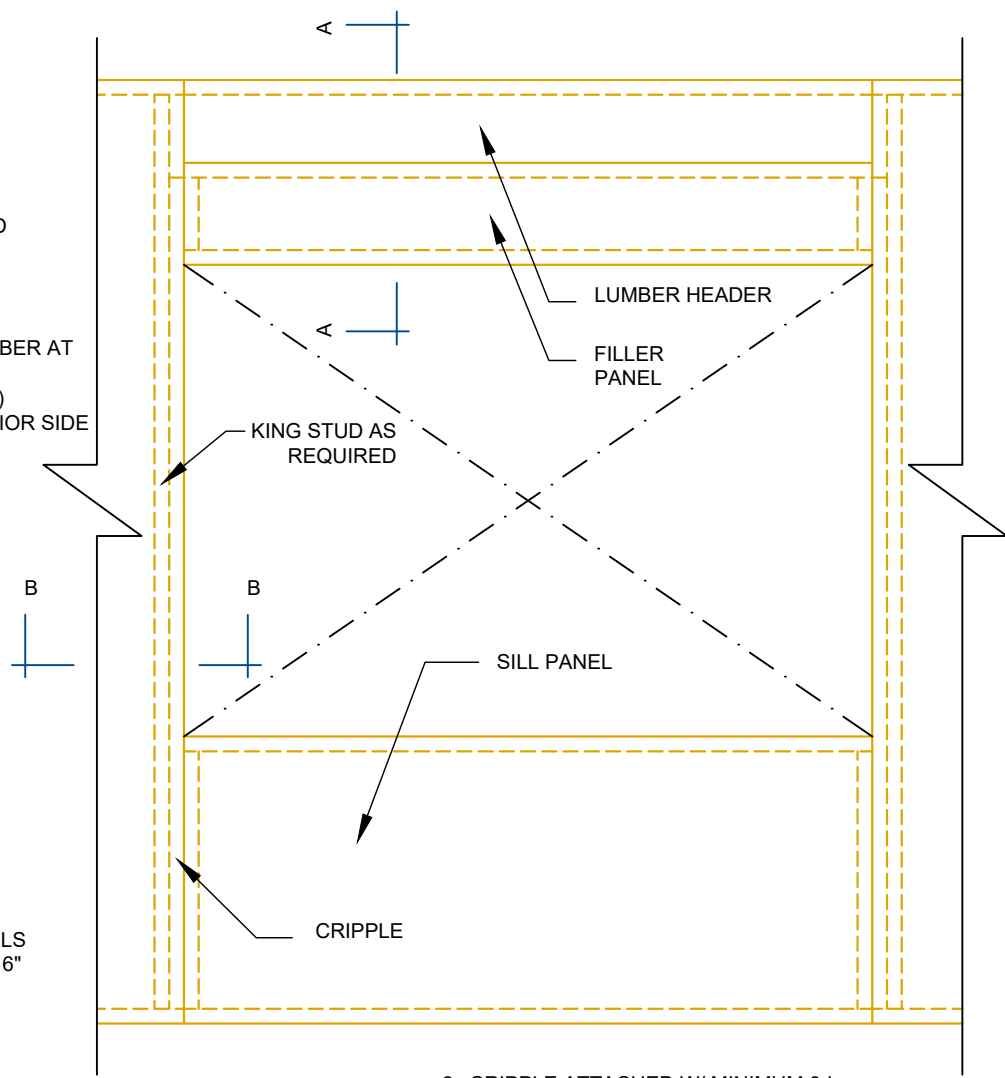
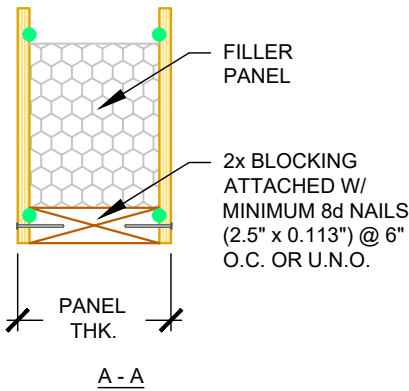
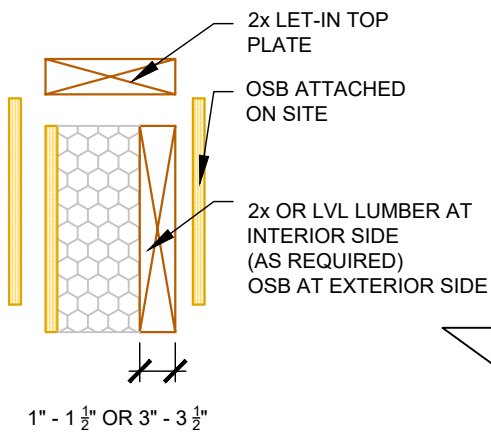


2x CRIPPLE ATTACHED W/ MINIMUM 8d
NAILS (2.5" x 0.113") @ 6" O.C. OR U.N.O.

INSULSPAN APPROVED SEALANT AT
LOCATIONS SHOWN

10d NAILS (3"X0.131") @ 8" O.C. EACH
ROW, TWO ROWS STAGGERED

N.T.S



N.T.S

2x TOP LET-IN PLATE
ATTACHED W/
MINIMUM 8d NAILS
(2.5" x 0.113") @ 6"
O.C. OR U.N.O.

INSULSPAN APPROVED
SEALANT AT
LOCATIONS SHOWN

2x BLOCKING ATTACHED
W/ MINIMUM 8d NAILS
(2.5" x 0.113") @ 6" O.C.
OR U.N.O.

PANEL
THK.

A - A

2x ATTACHED W/
MINIMUM 8d NAILS
(2.5" x 0.113") @ 6"
O.C. OR U.N.O.

PANEL
THK.

INSULSPAN APPROVED SEALANT
AT LOCATIONS SHOWN

B - B

A

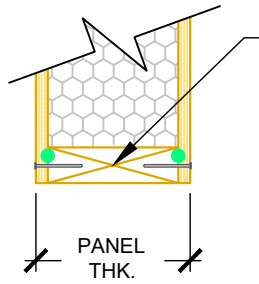
2X BLOCKING

A

B

B

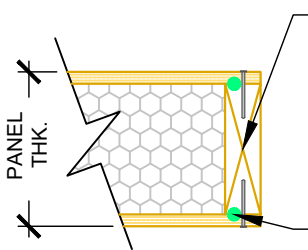
N.T.S



2x BLOCKING
ATTACHED W/
MINIMUM 8d NAILS
(2.5" x 0.113") @ 6"
O.C. OR U.N.O.

PANEL
THK.

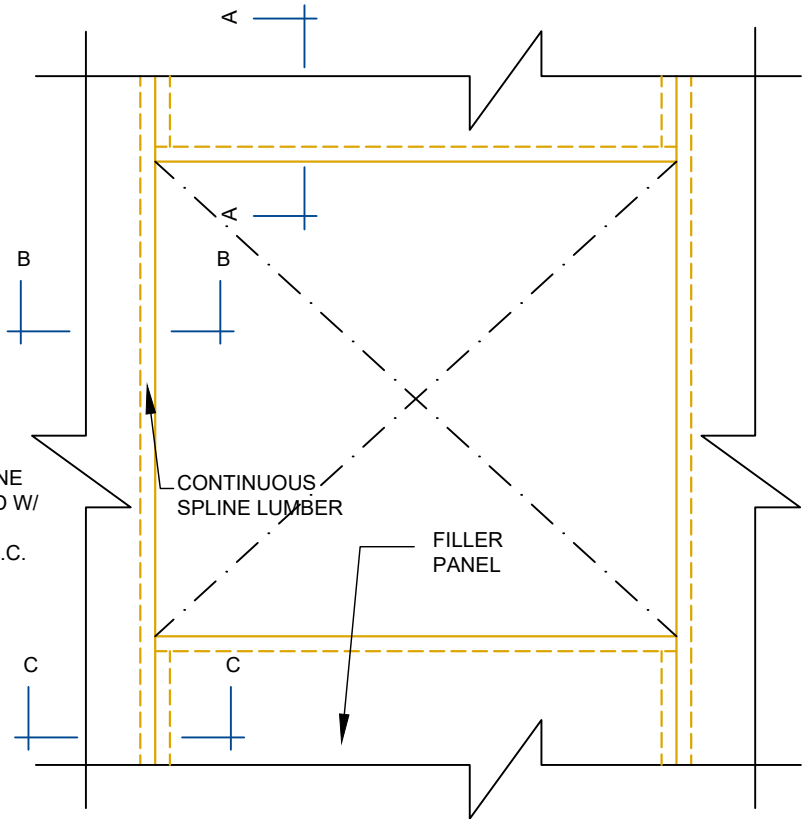
A - A



CONTINUOUS SPLINE
LUMBER ATTACHED W/
MINIMUM 8d NAILS
(2.5"X0.113") @ 6" O.C.

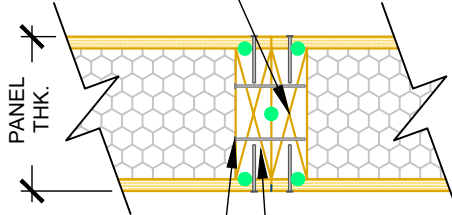
PANEL
THK.

INSULSPAN
APPROVED
SEALANT AT
LOCATIONS
SHOWN



B - B

SPLINE LUMBER FOR
FILLER PANEL

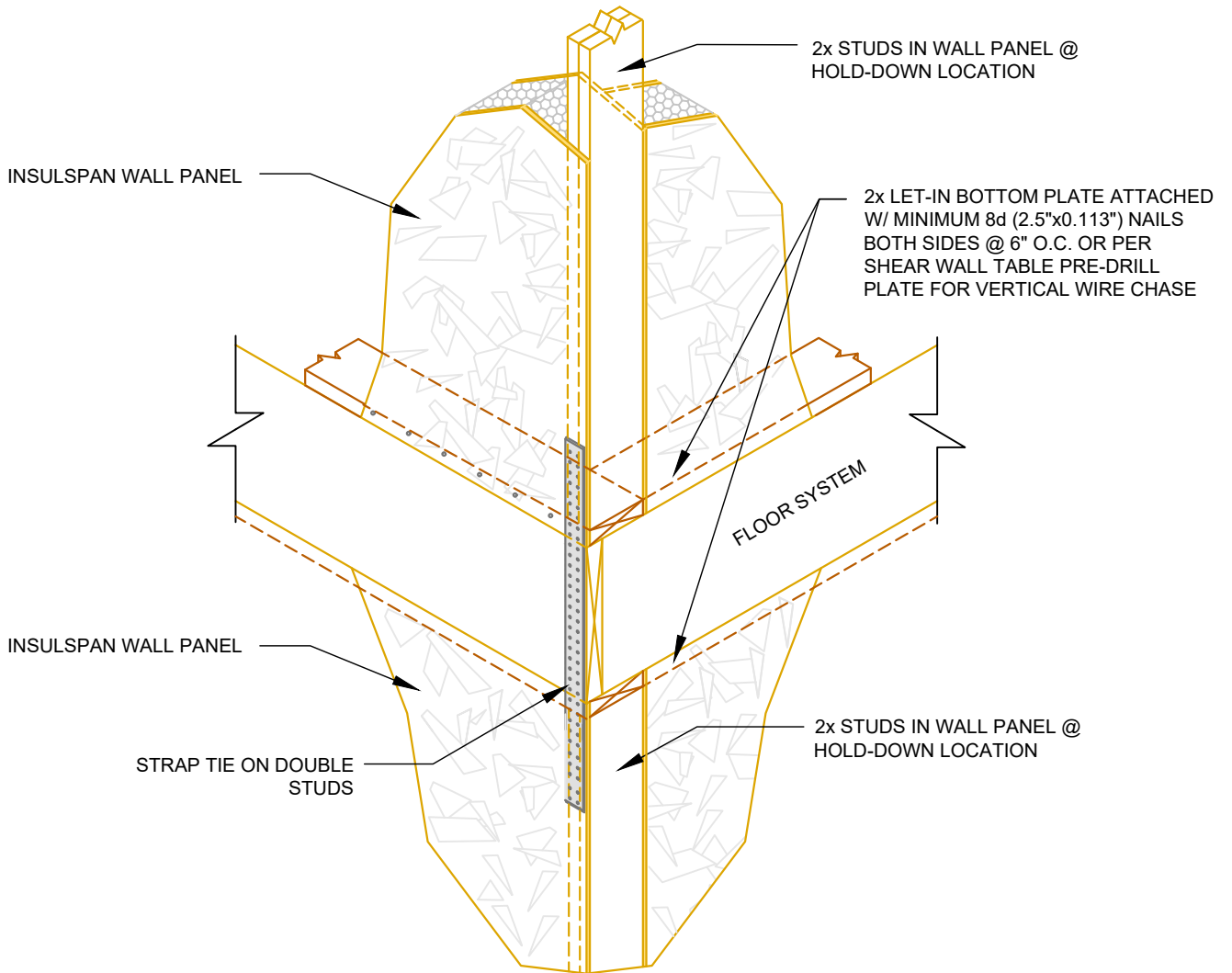


10d NAILS (3"X0.131") @ 8" O.C.
EACH ROW, TWO ROWS
STAGGERED

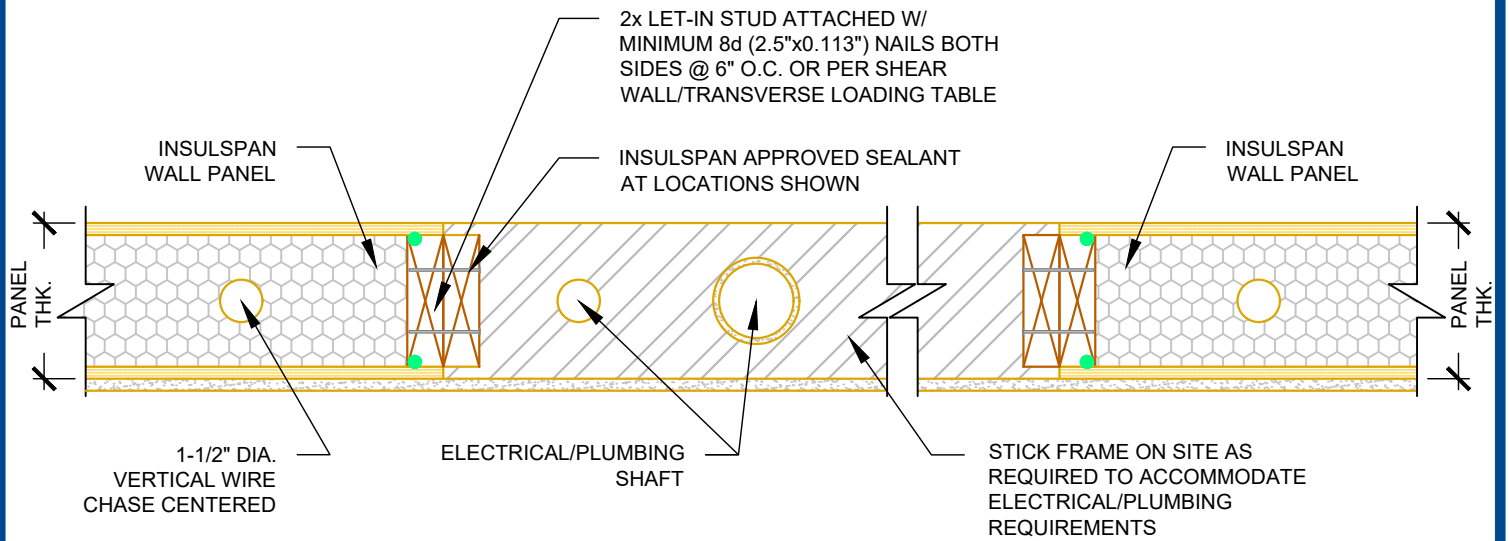
CONTINUOUS SPLINE LUMBER
PRE-DRILL PLATE FOR
VERTICAL WIRE CHASE

C - C

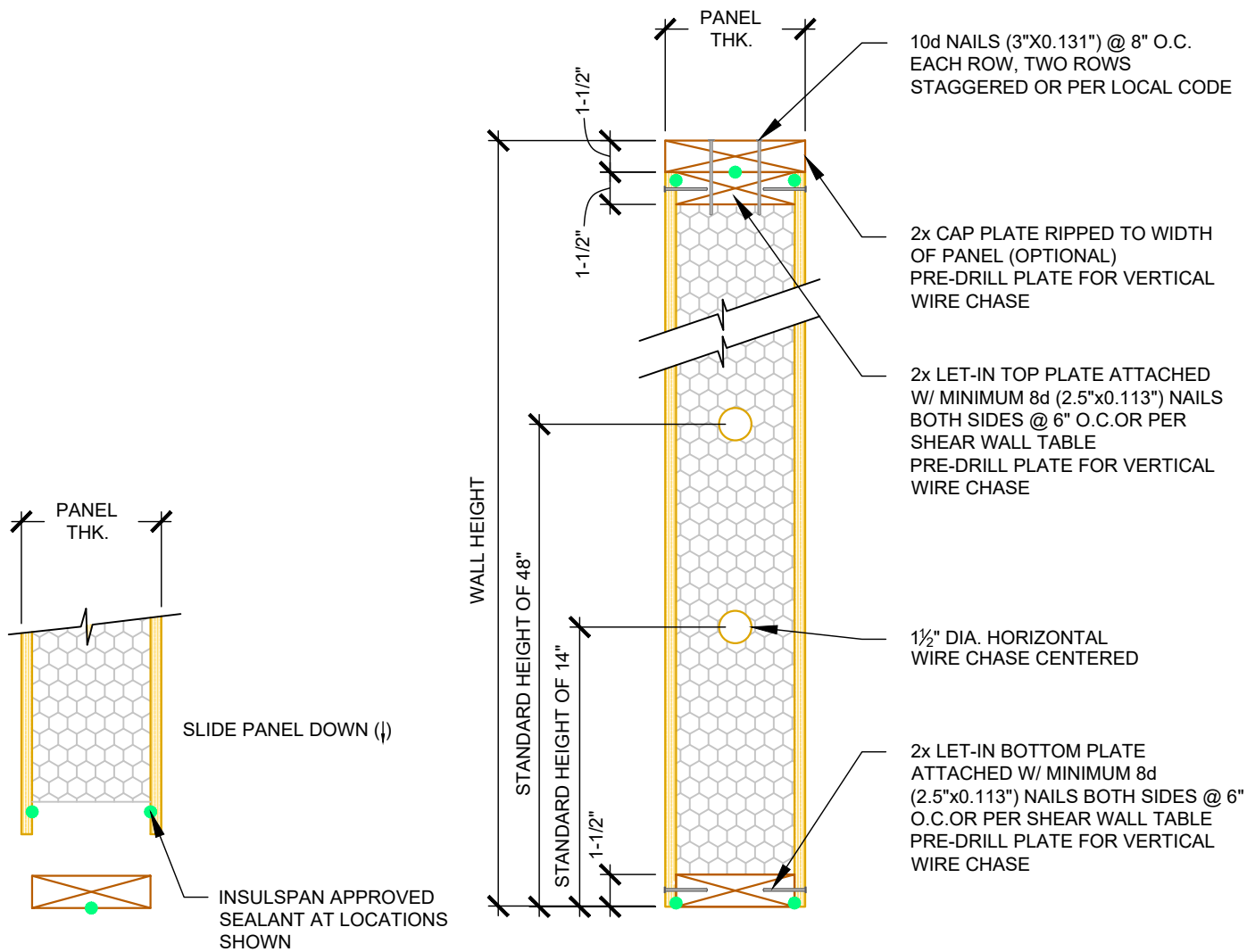
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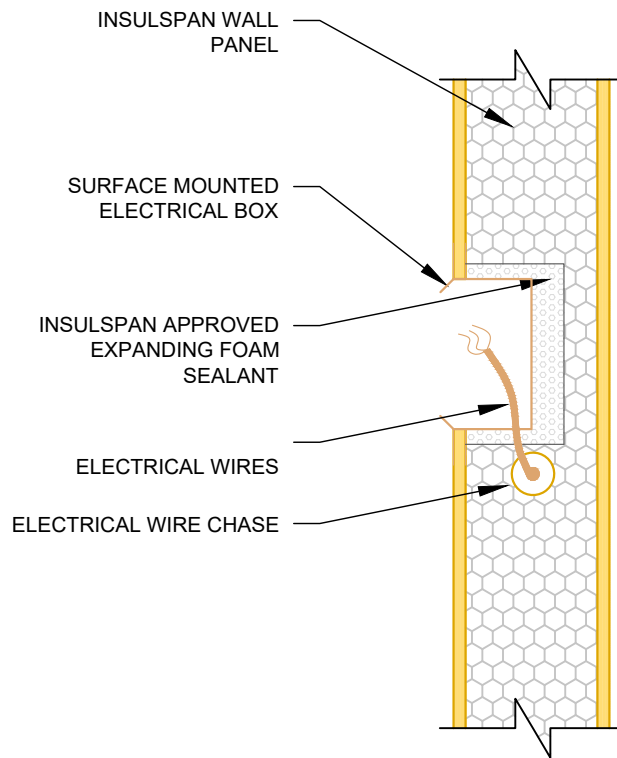
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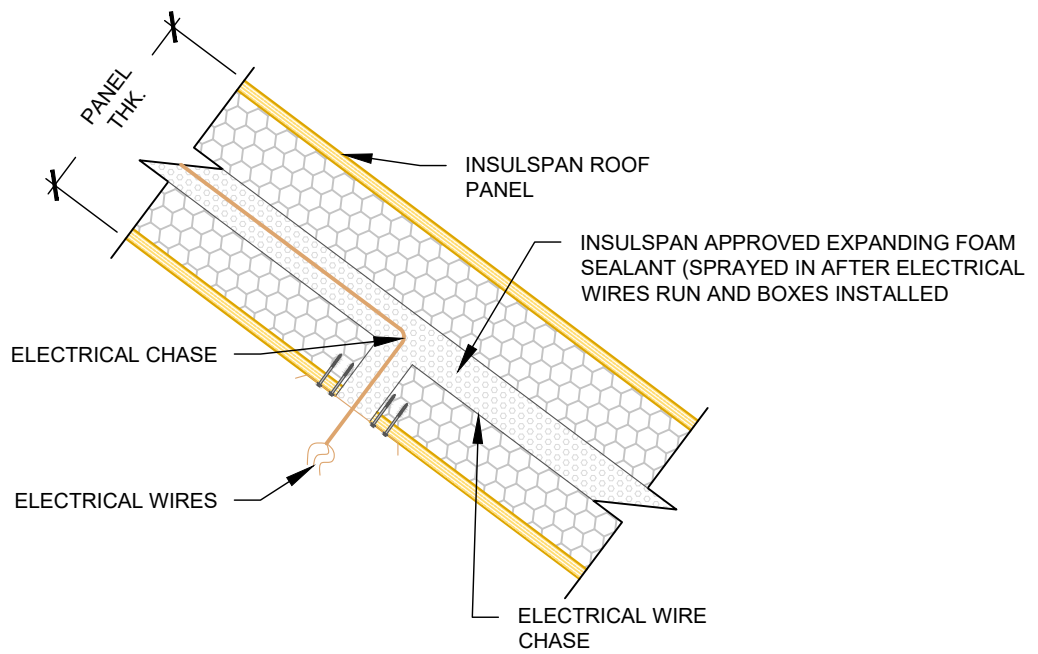
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N.T.S

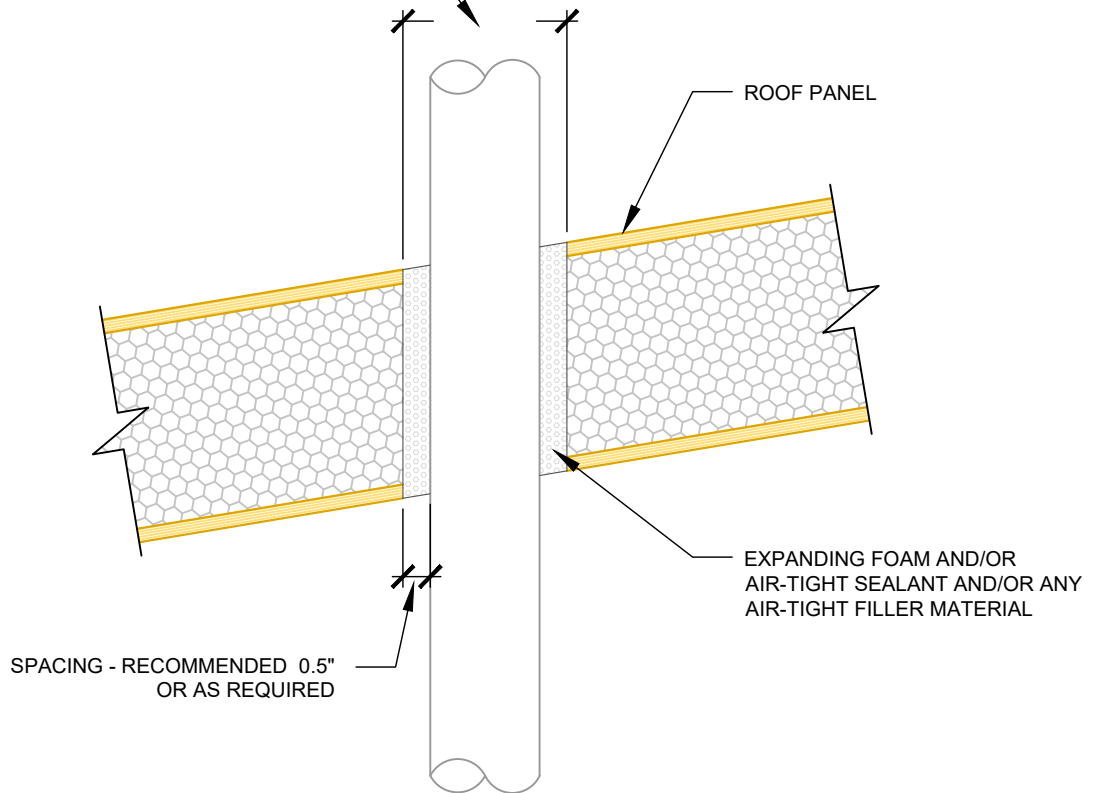


N.T.S



N.T.S

2xSPACING + SHAFT DIAMETER



N.T.S

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Structural Insulated Panels

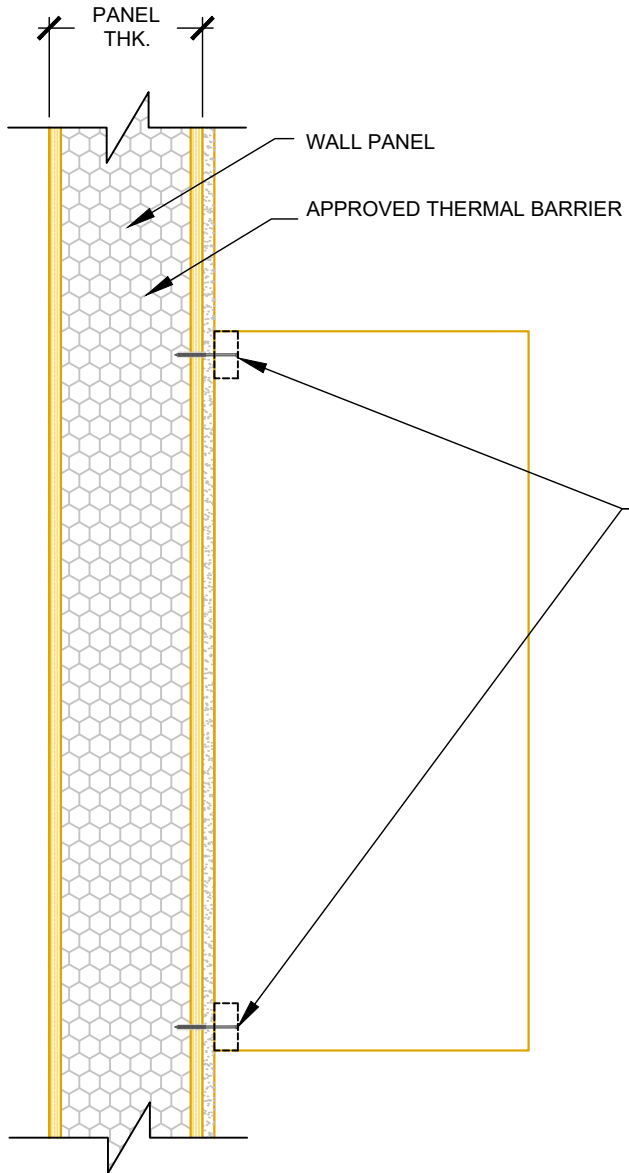
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CHIMNEY SHAFT DETAIL FOR SIP ROOF

REV
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WALL CABINET INSTALLED WITH #8 x 2" DECK SCREWS
 TOP & BOTTOM RAILS (1x2) SPACE U.N.O.
 ALLOWABLE WITHDRAWAL LOAD PER SCREW = 35 LBS
 ALLOWABLE SHEAR LOAD PER SCREW = 35 LBS

N.T.S