

FOLLOW THE LITTLE RED LINE

DEVELOPING AND EXECUTING AIR SEALING STRATEGIES FOR PANELIZED BUILDINGS



PRESENTERS

ILKA CASSIDY | BRYAN BLEIER | STEVE HESSLER



Ilka Cassidy
Holzraum System



Bryan Bleier
New Energy Works



Steve Hessler
Holzraum System

PROJECT & TEAM



PERSPECTIVE - FACTORY SUPPLIED - FACTORY INSTALLED
SCALE: NONE



XP20 WALL & ROOF PANELS - SOUTH PERSPECTIVE
SCALE: NONE

REV_A (Architectural) Checklist: Please verify dimensions, confirm correctness and check boxes to apply

- Building Dimensions
- Wall Panel Specifications
- Clear & Make Good
- Load Path, Designation and Accommodation
- Wall Height
- Rough Opening Size, Horizontal Position, Vertical Position - including exterior doors and windows
- Clear Height Specifications on Joists and Beams
- Wall Anchor and Penetrations, including HVR, Bump House, & Venting Fans
- Panel Installation Sequence
- Interior & Exterior Structure, including joist/beams checks attached to the main pre-fabricated structure
- Builder Scope vs Panel Manufacturer and Installer Scope - (Supply & Install)

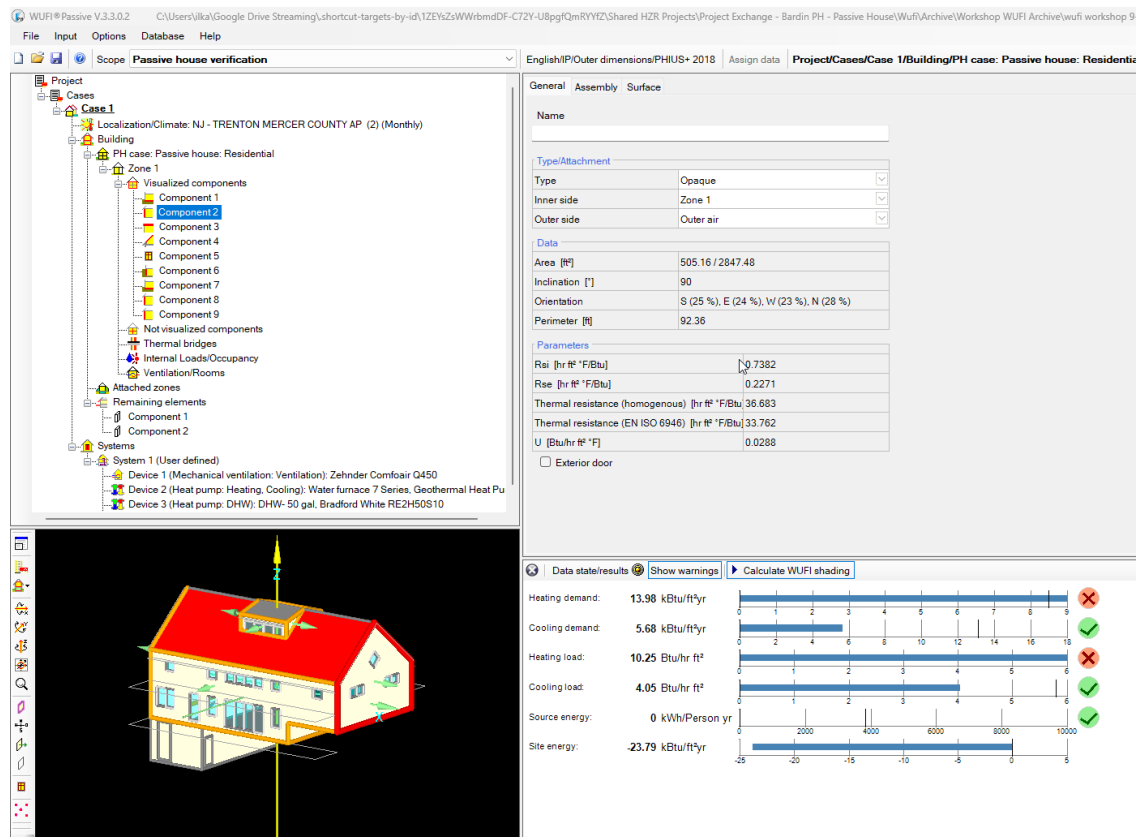
REV_A reviewed by



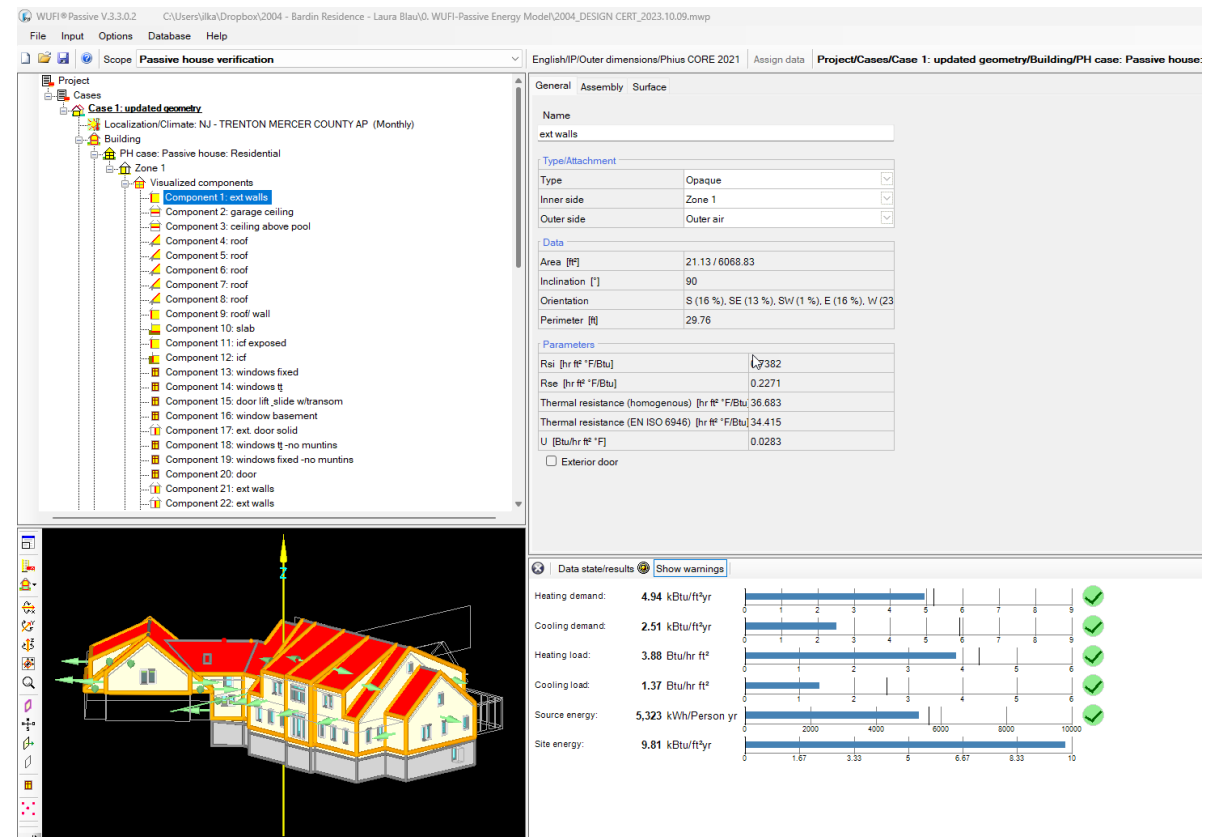
BLUPATH
INSPIRING DESIGN
FOR PLACES TO THRIVE



ENERGY MODEL R-VALUES

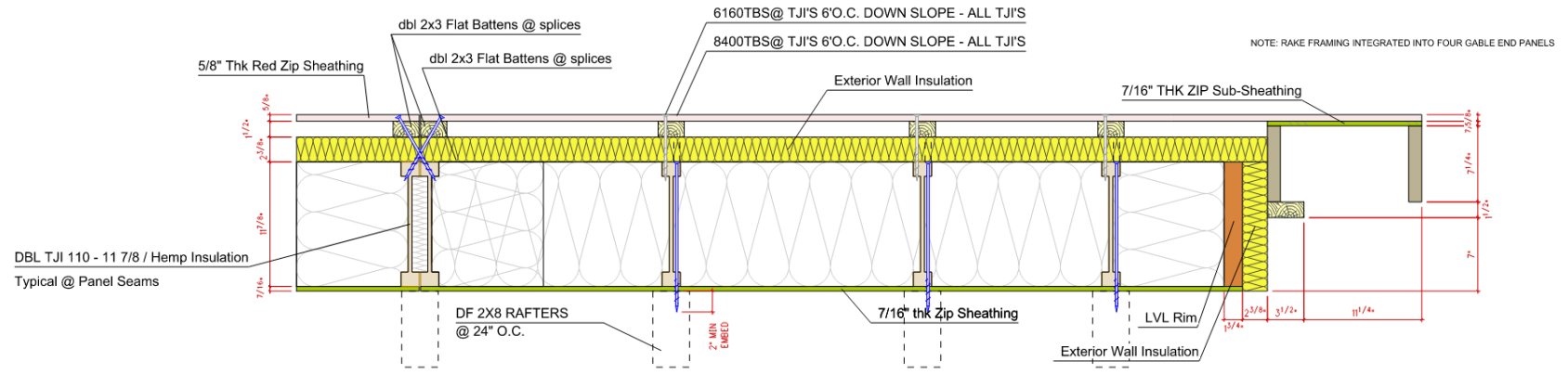


Workshop



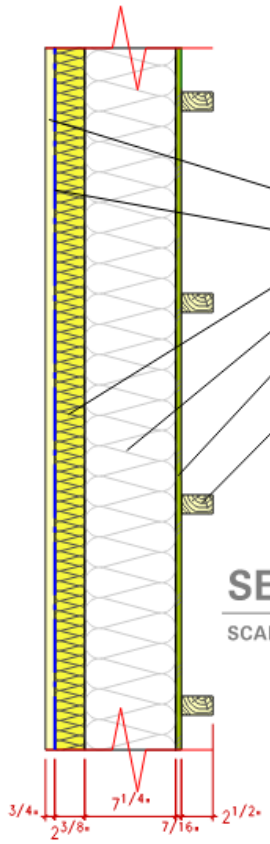
House (Design Certified Phius Core 2021)

ASSEMBLIES XP20 WALL & ROOF



DETAIL O - SECTION THROUGH ROOF PANELS

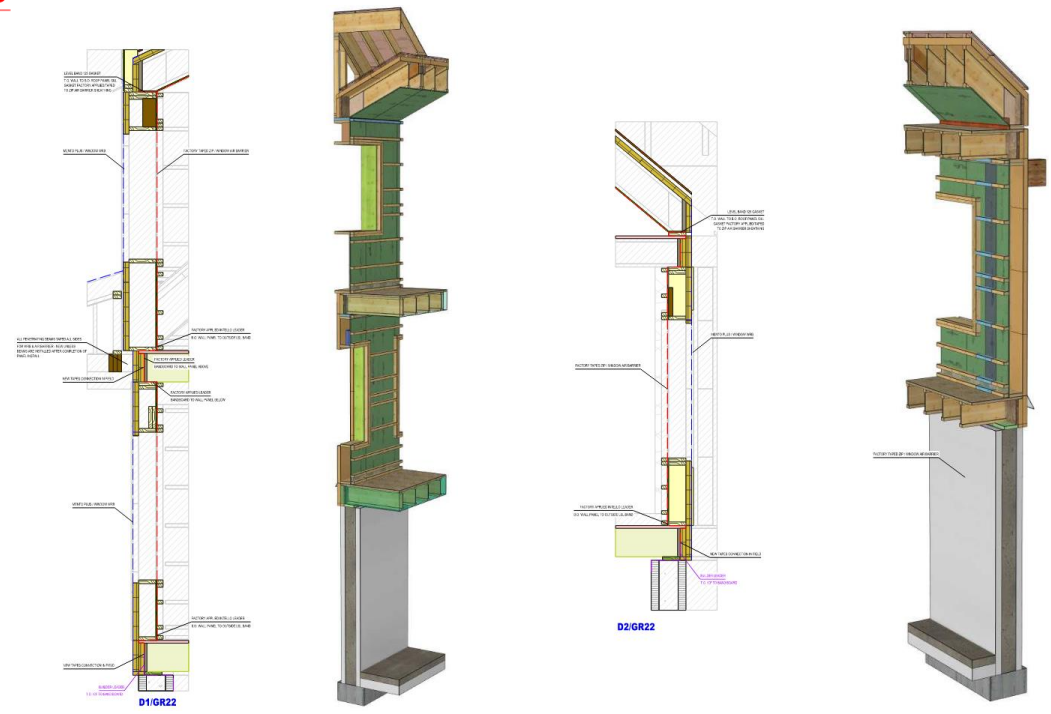
SCALE: 1 1/2" = 1'



- 1X4 VERTICAL FURRING STRIP
- SOLITEX MENTO PLUS MEMBRANE
- 2 3/8" STEICO WOOD FIBER SHEATHING
- 2X8 @ 24" O.C. W/ HEMP INSULATION
- 7/16" ZIP SYSTEM SHEATHING
- 2X3 ON EDGE SERVICE HORIZONTAL CAVITY BATTENS # 16" o.c.

SECTION DTL: TYP EXT WALL ASSEM.

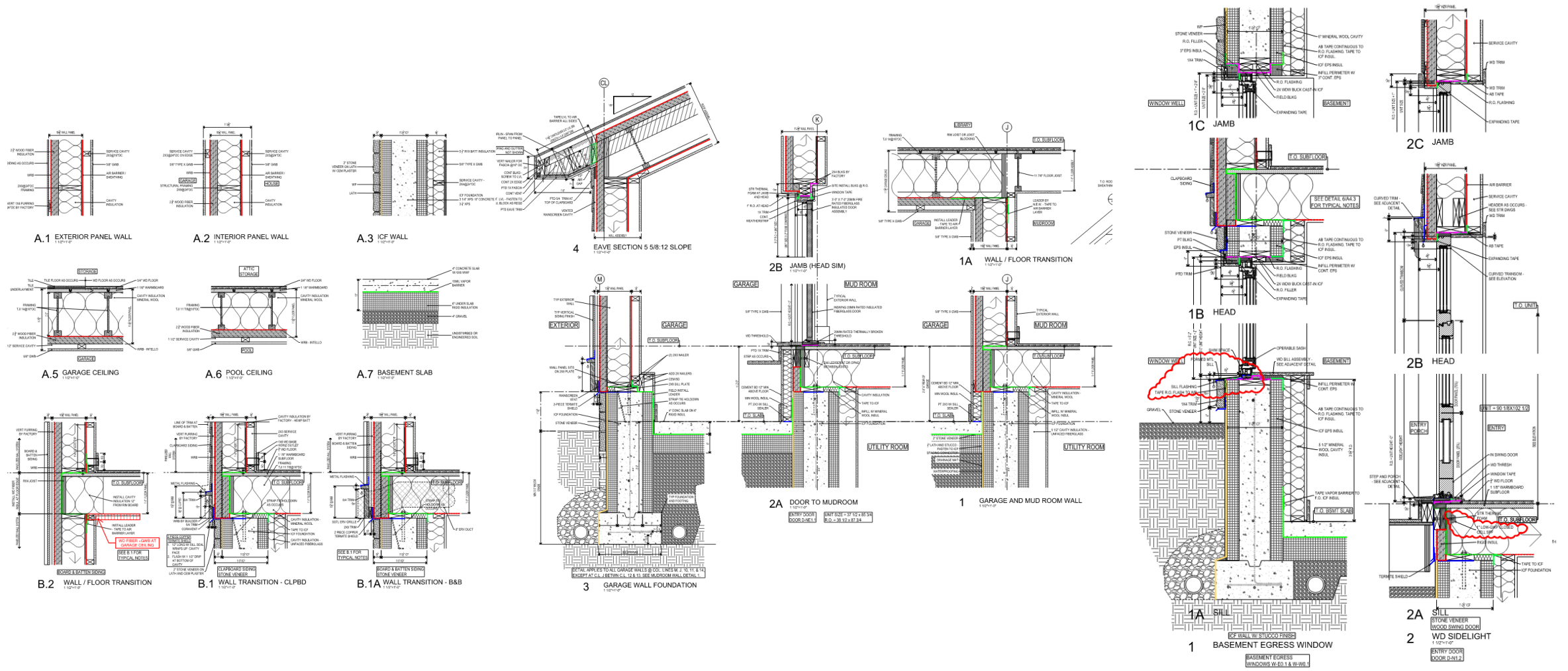
SCALE: 1" = 1'



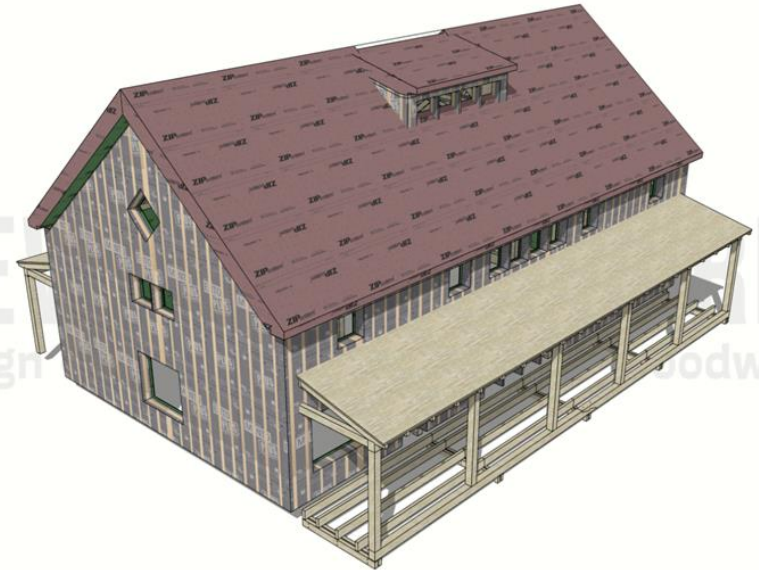
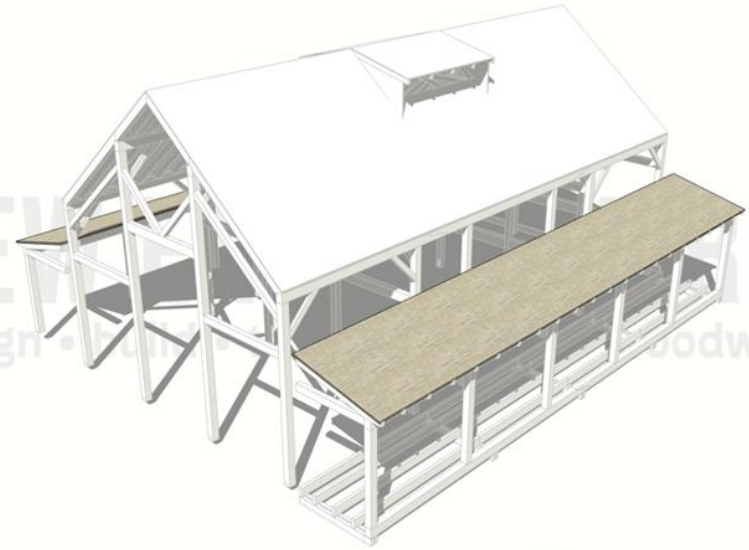
RED LINE DRAWINGS AIR BARRIER - WHOLE BUILDING BOUNDARIES



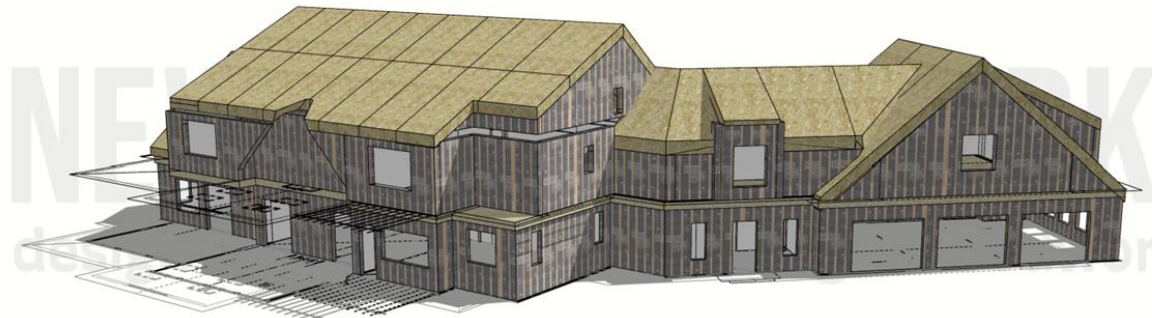
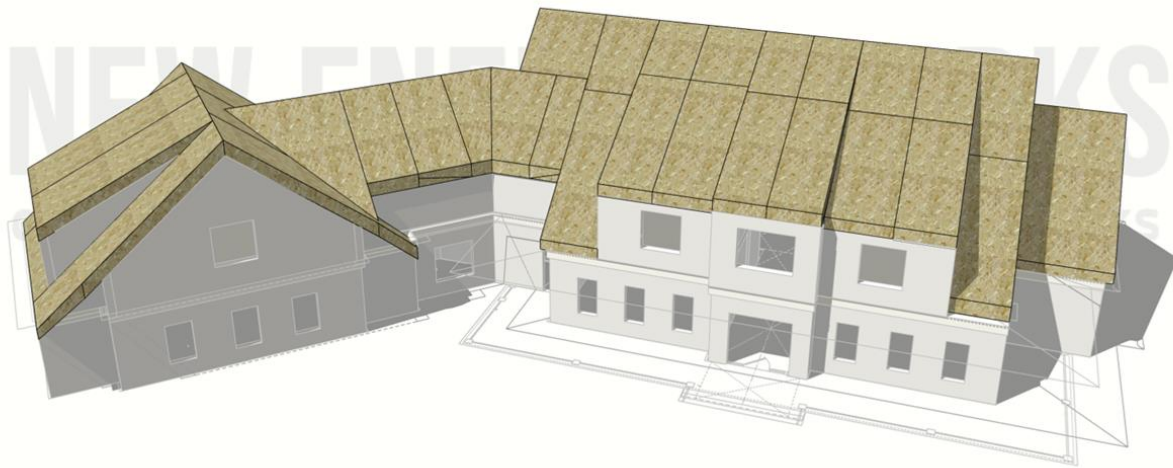
RED LINE DRAWINGS AIR BARRIER - ARCHITECTURAL DETAILS



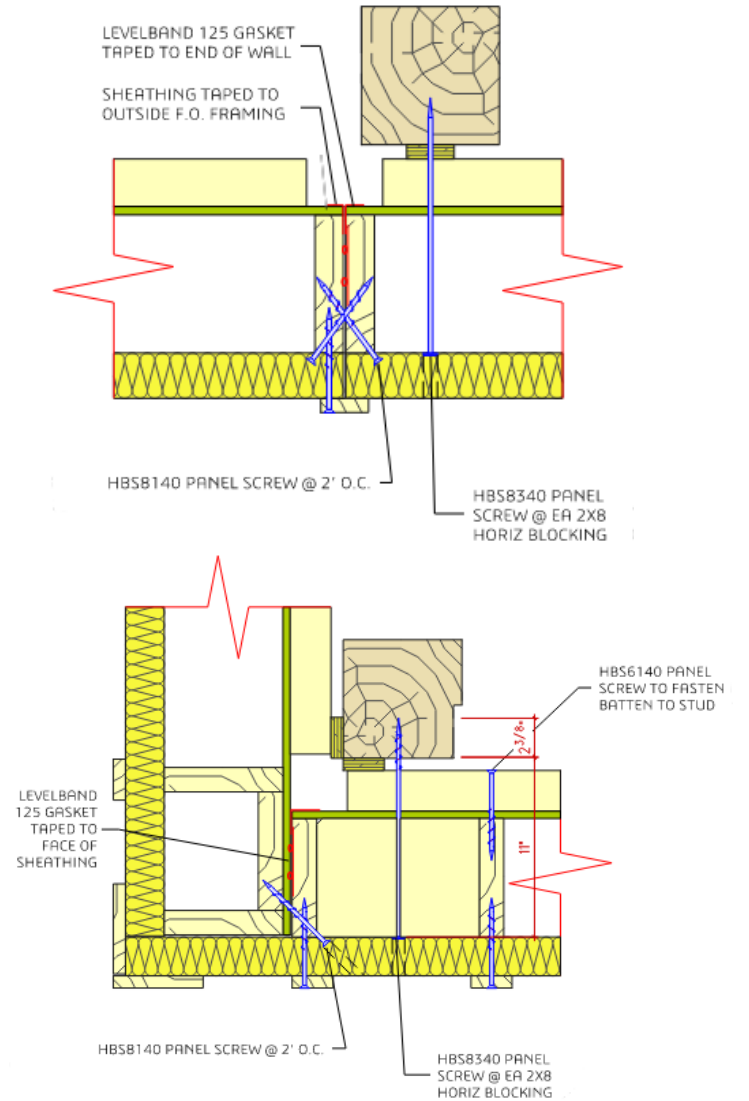
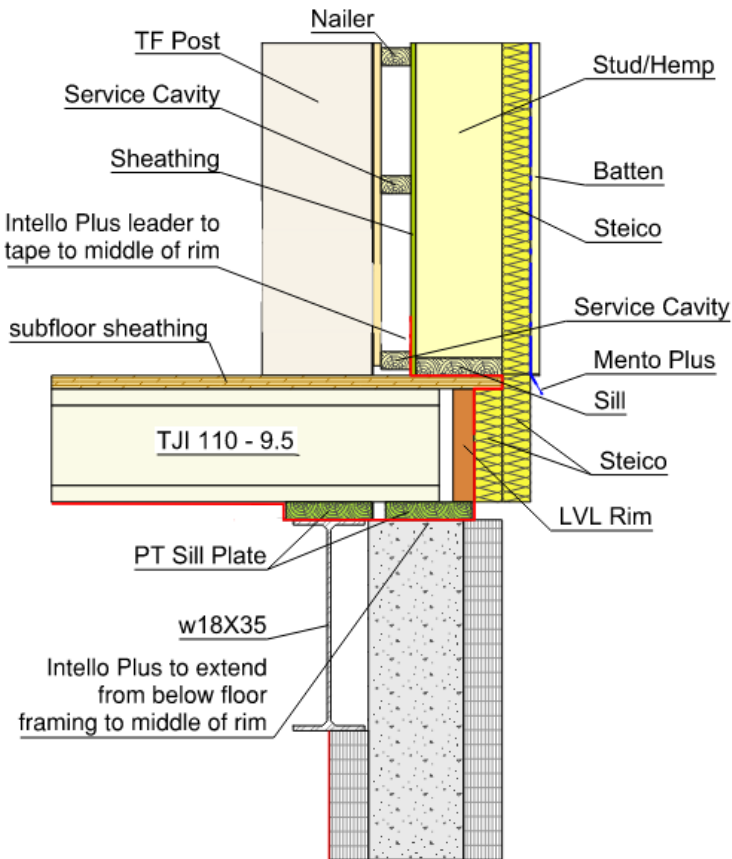
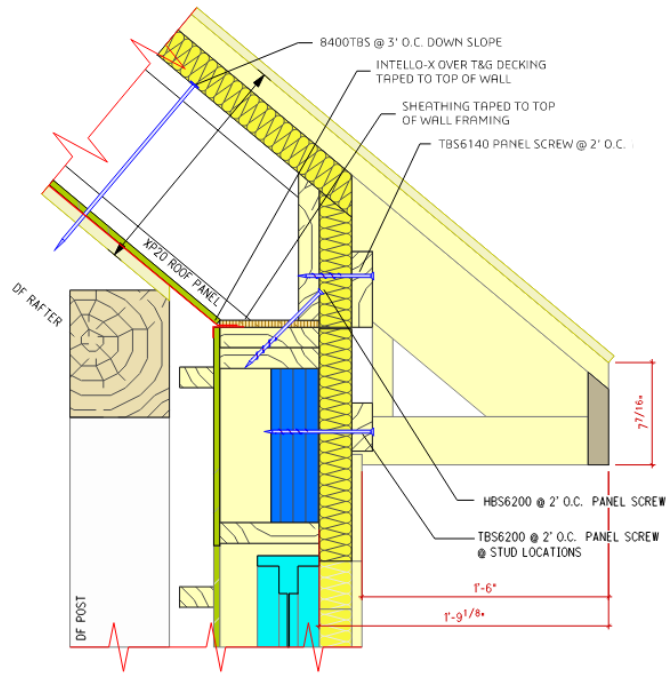
ROUGH ORDER OF MAGNITUDE SCOPE UNDERSTANDING - WORKSHOP



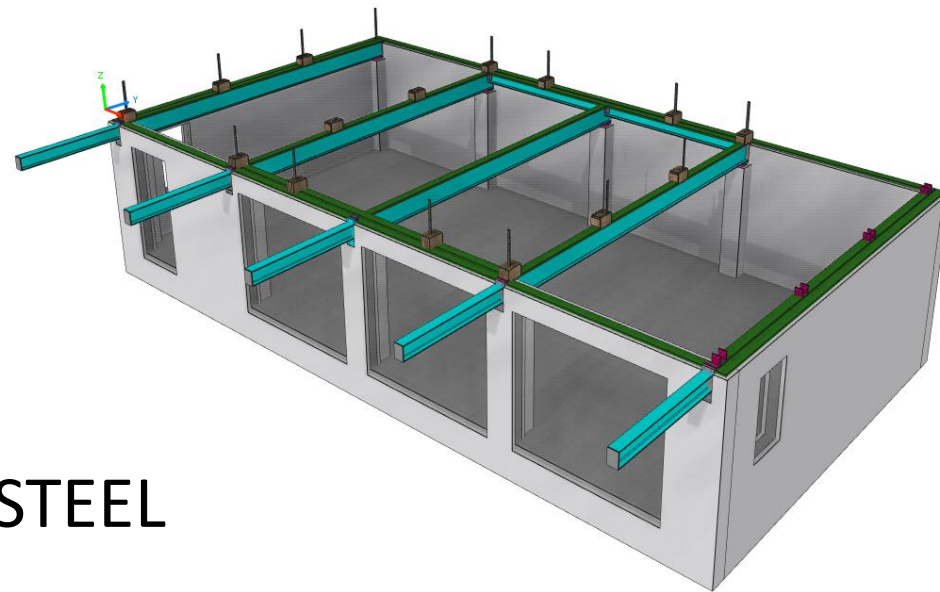
ROUGH ORDER OF MAGNITUDE SCOPE UNDERSTANDING - HOUSE



STANDARD PANEL DETAILS SCOPE UNDERSTANDING



Perspective

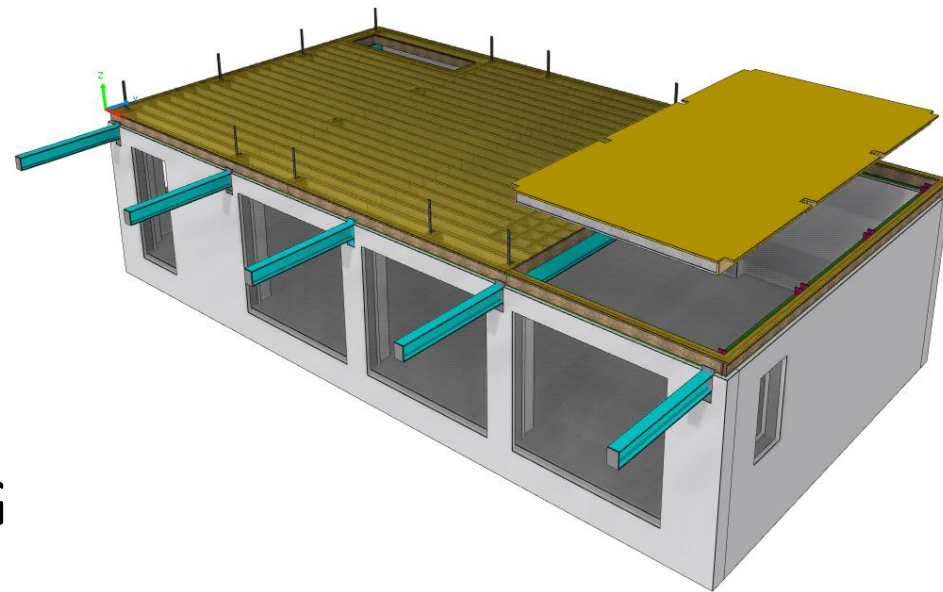


FOUNDATION & STEEL

BUILDER



Perspective

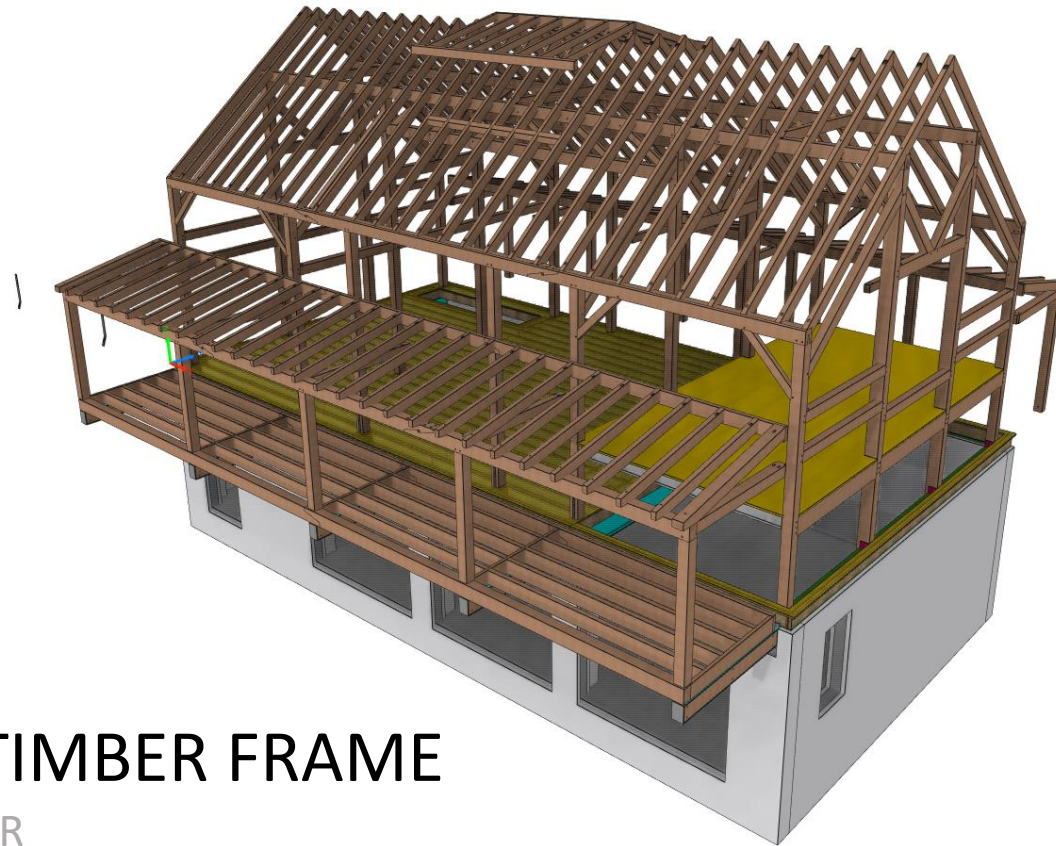


FLOOR FRAMING

BUILDER



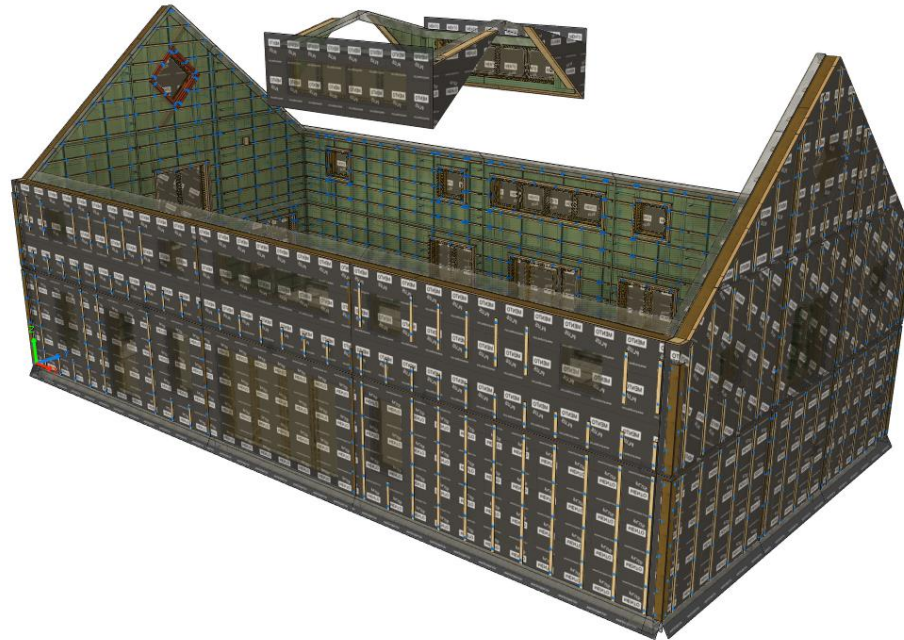
Perspective



STRUCTURAL TIMBER FRAME

PANEL MANUFACTURER 

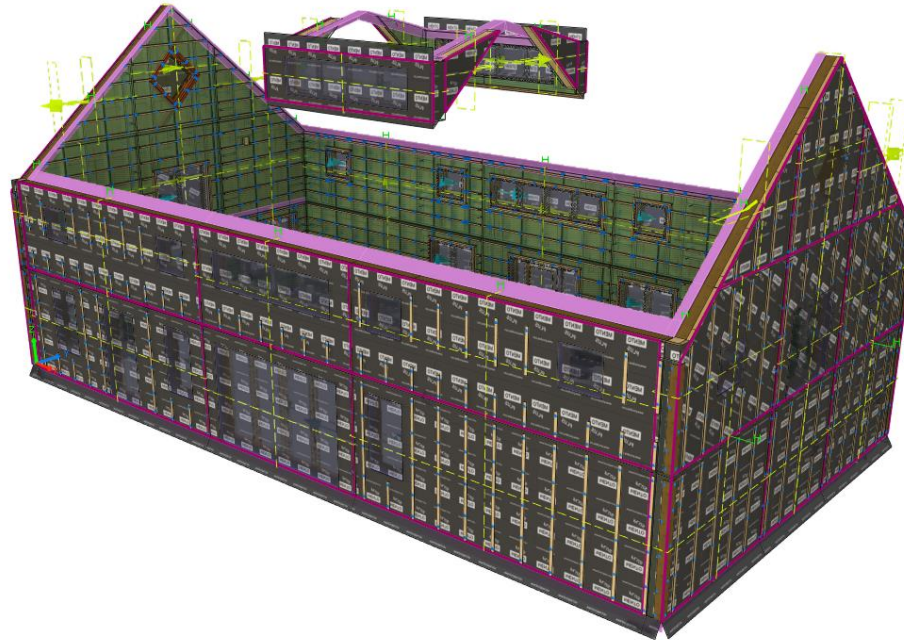
Perspective



XP20 WALL PANELS

PANEL MANUFACTURER 

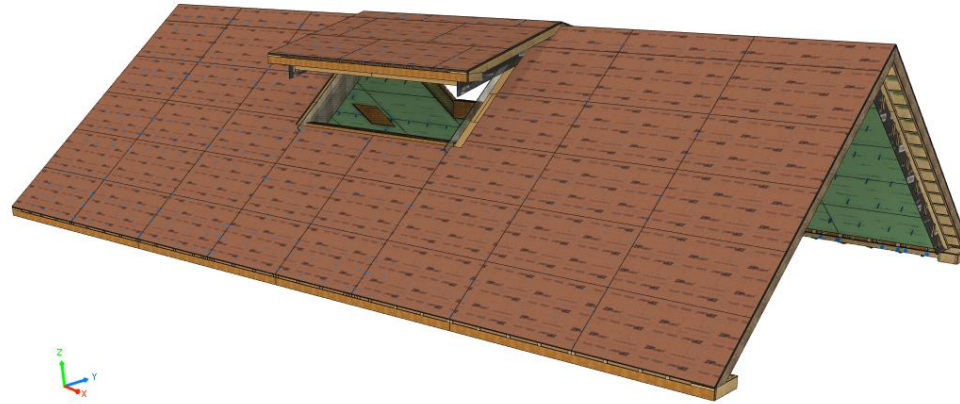
Perspective



Air Barrier Leaders

PANEL MANUFACTURER 

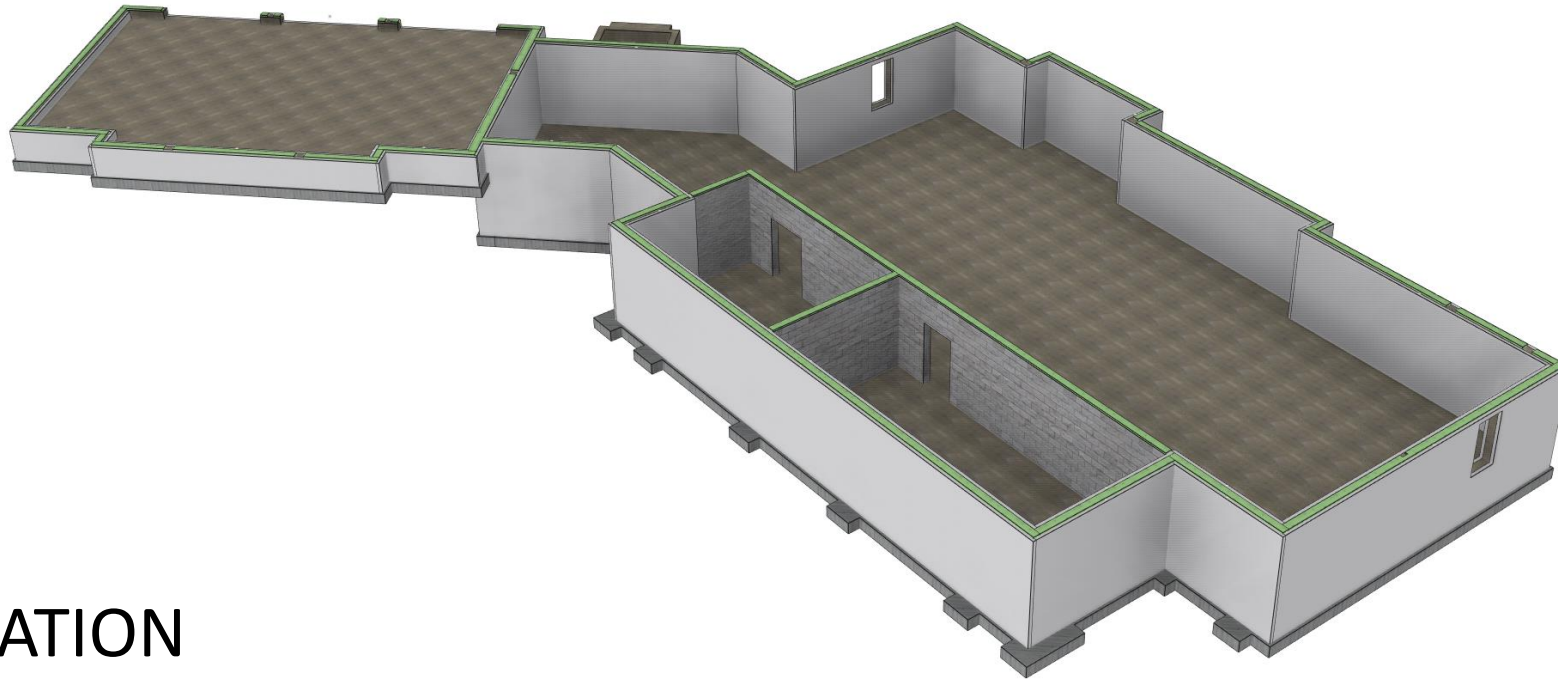
Perspective



XP20 ROOF PANELS

PANEL MANUFACTURER 

SCOPE DEFINITION | HOUSE

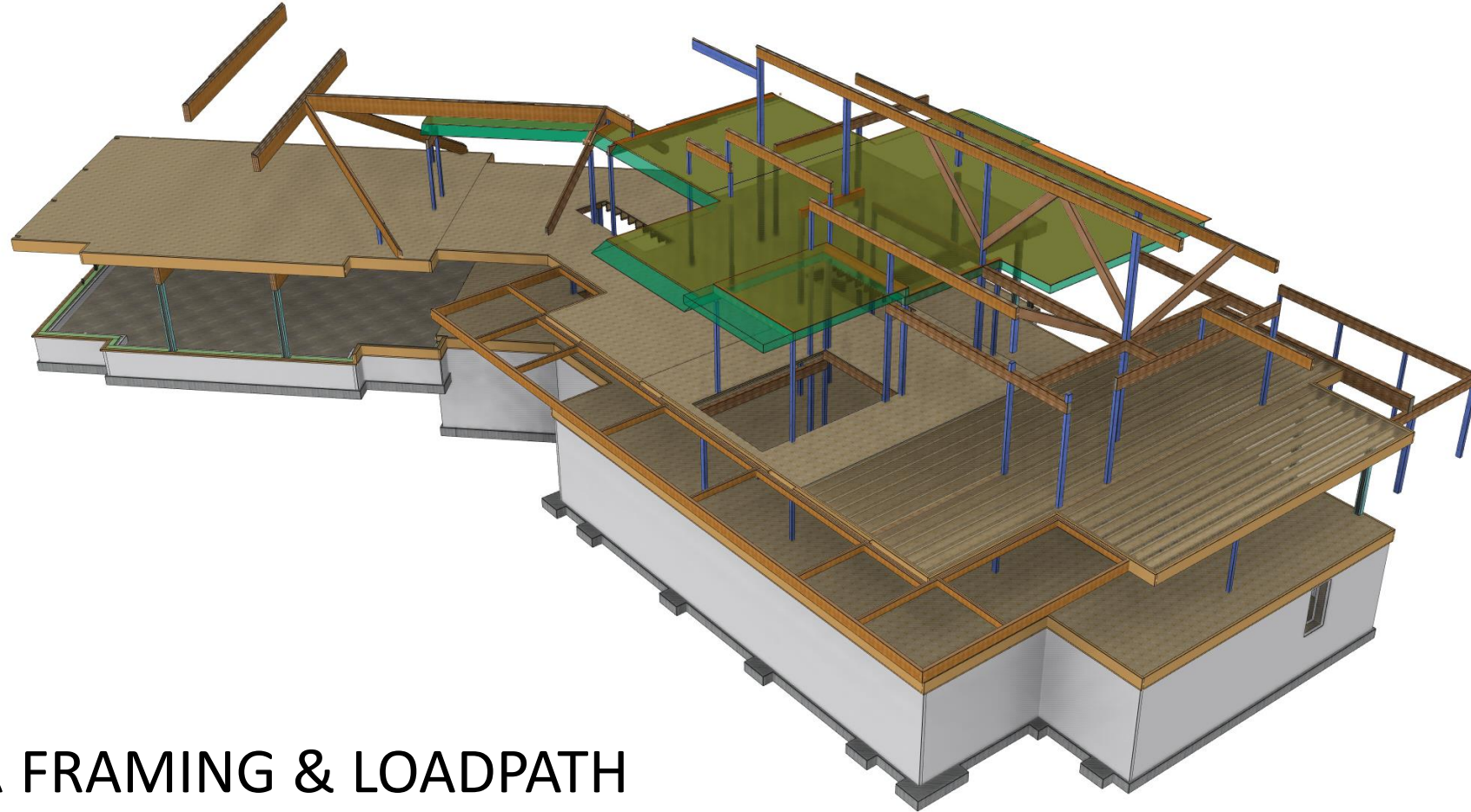


FOUNDATION

BUILDER



SCOPE DEFINITION | HOUSE

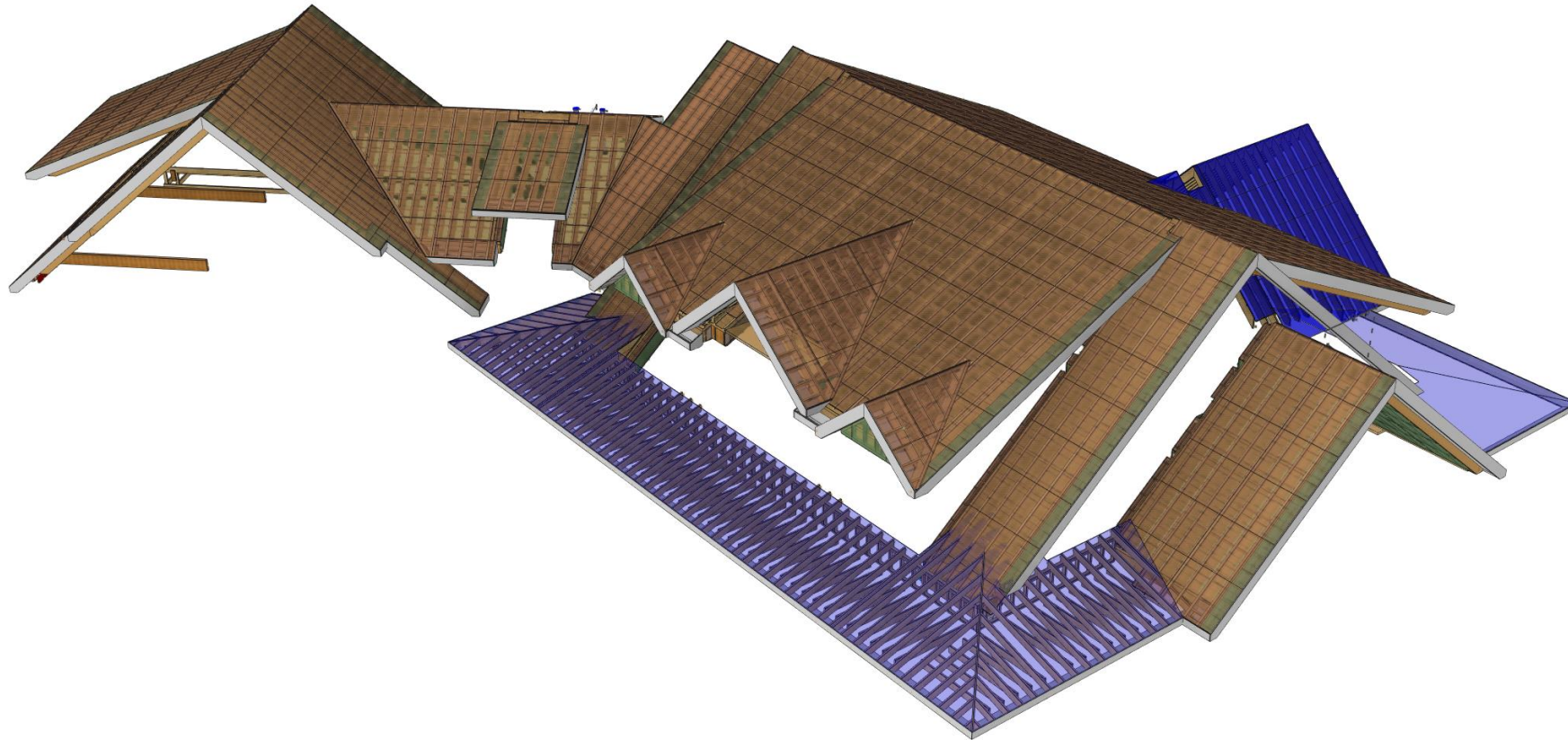


FLOOR FRAMING & LOADPATH

BUILDER



SCOPE DEFINITION | HOUSE

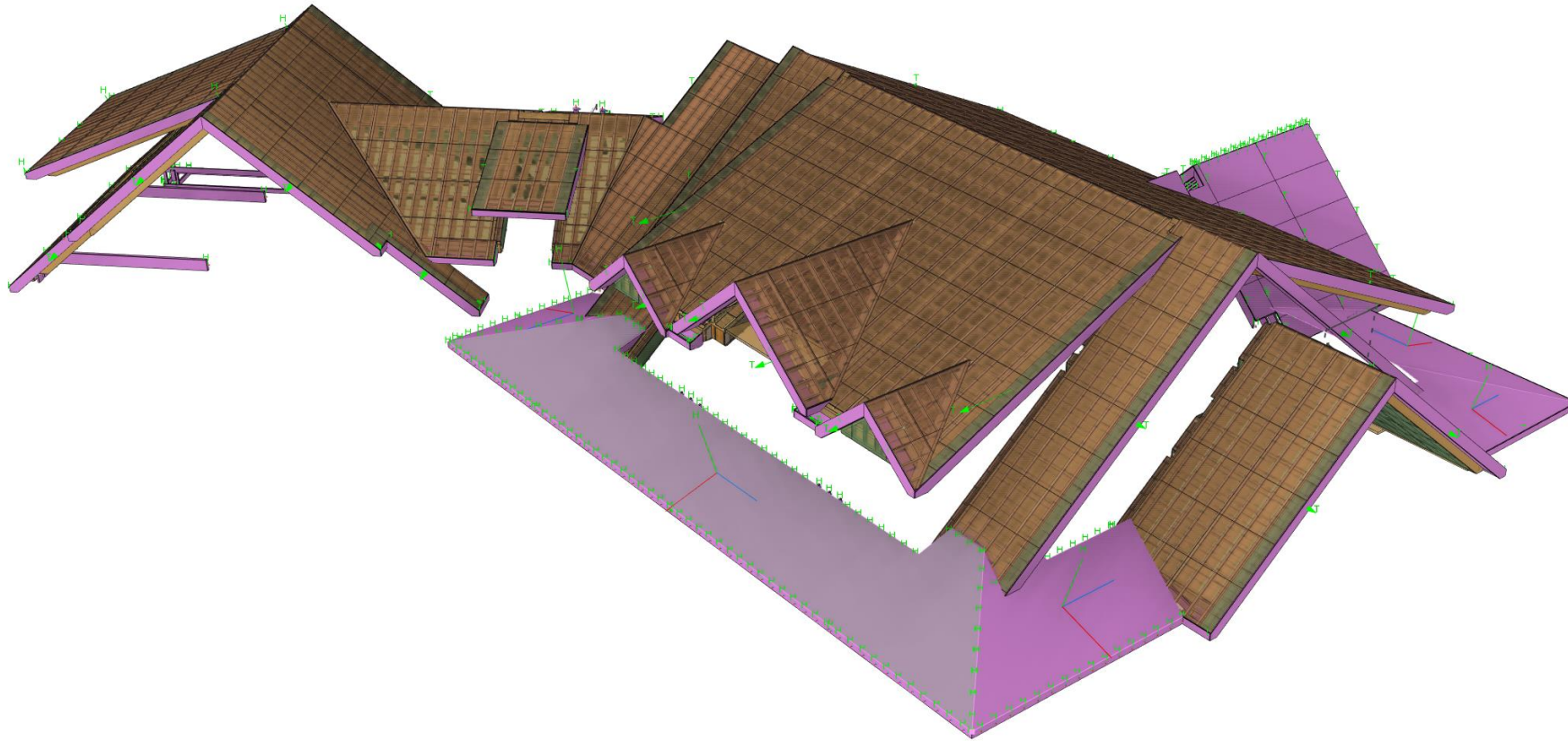


COMPLETE ROOF SCOPE

MANUFACTURER + BUILDER



SCOPE DEFINITION | HOUSE

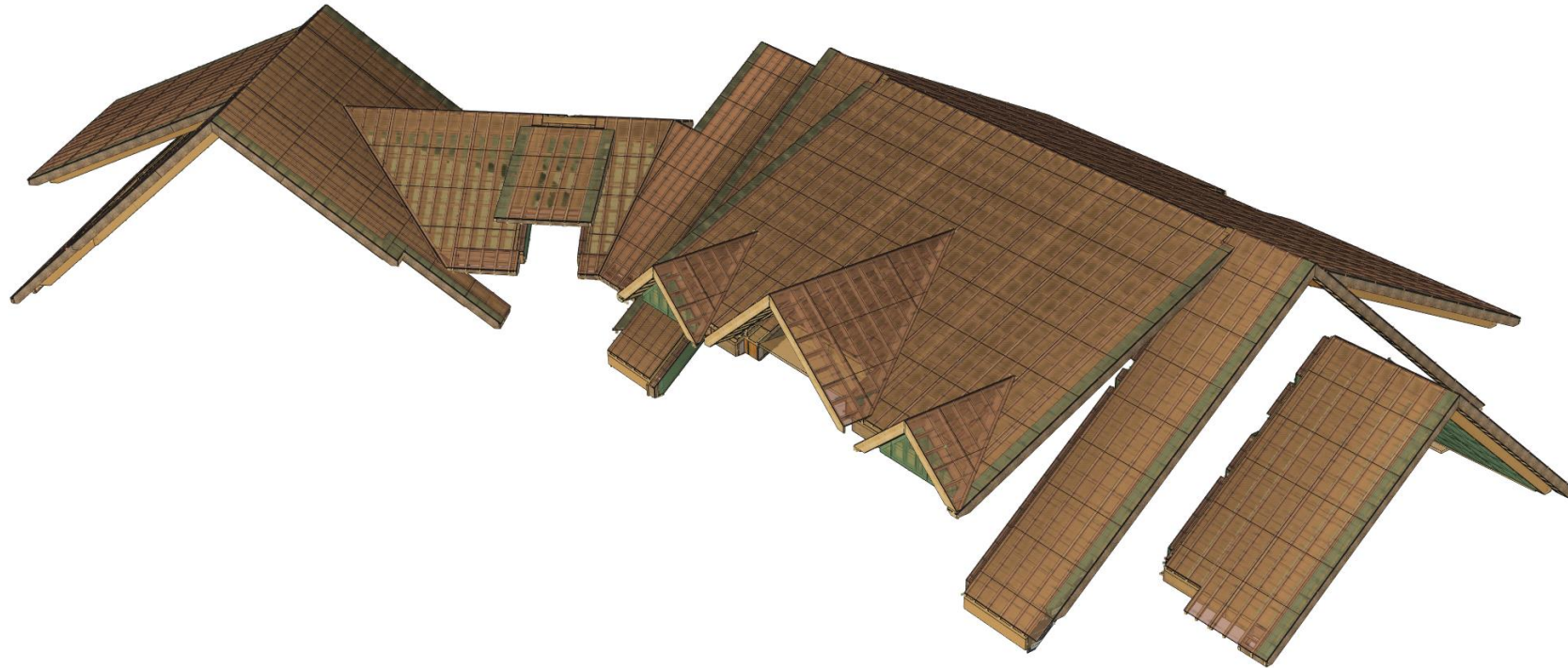


EXTERIOR STRUCTURE ROOFS & FINISH

BUILDER



SCOPE DEFINITION | HOUSE

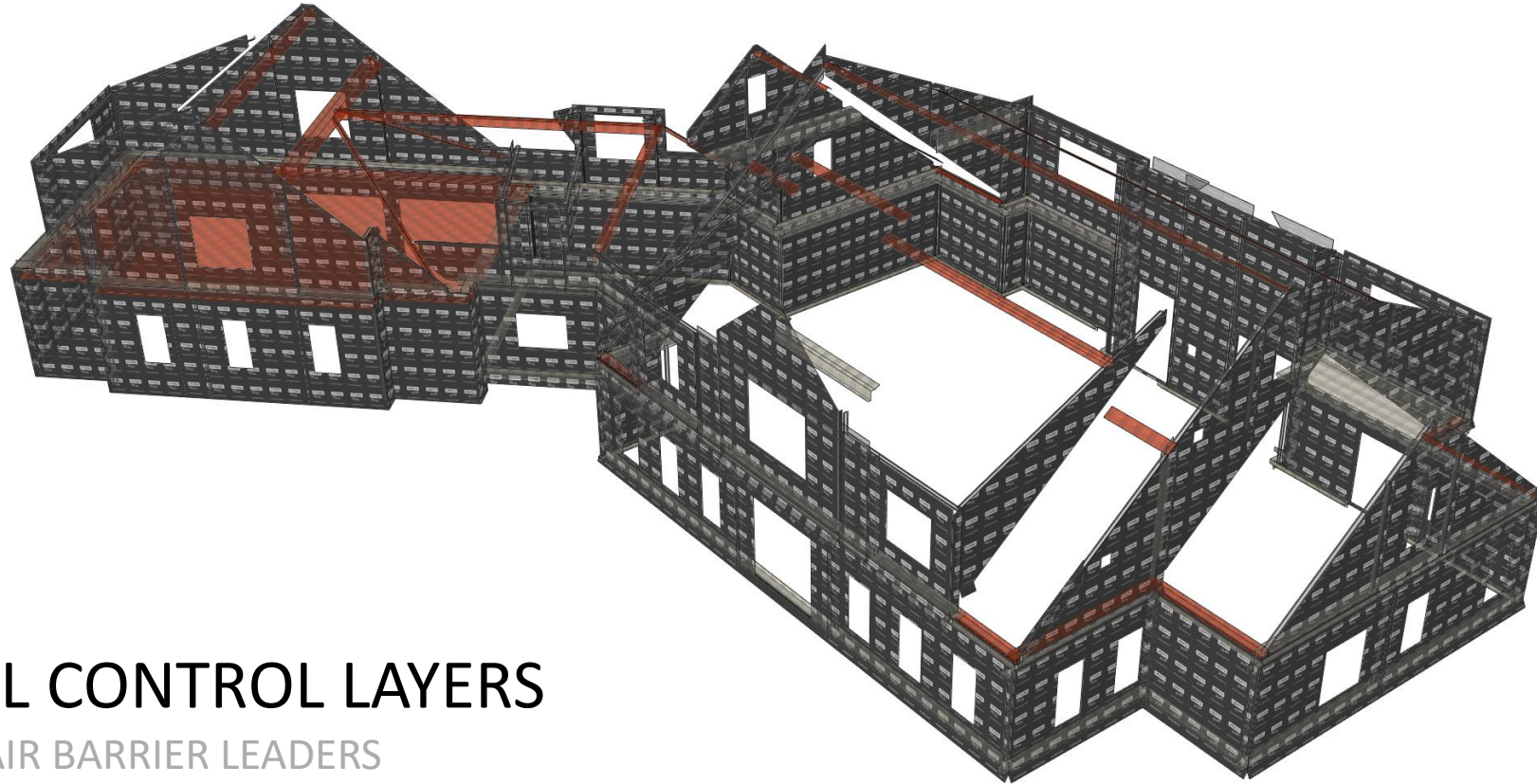


XP20 ROOF PANELS

PANEL MANUFACTURER



SCOPE DEFINITION | HOUSE

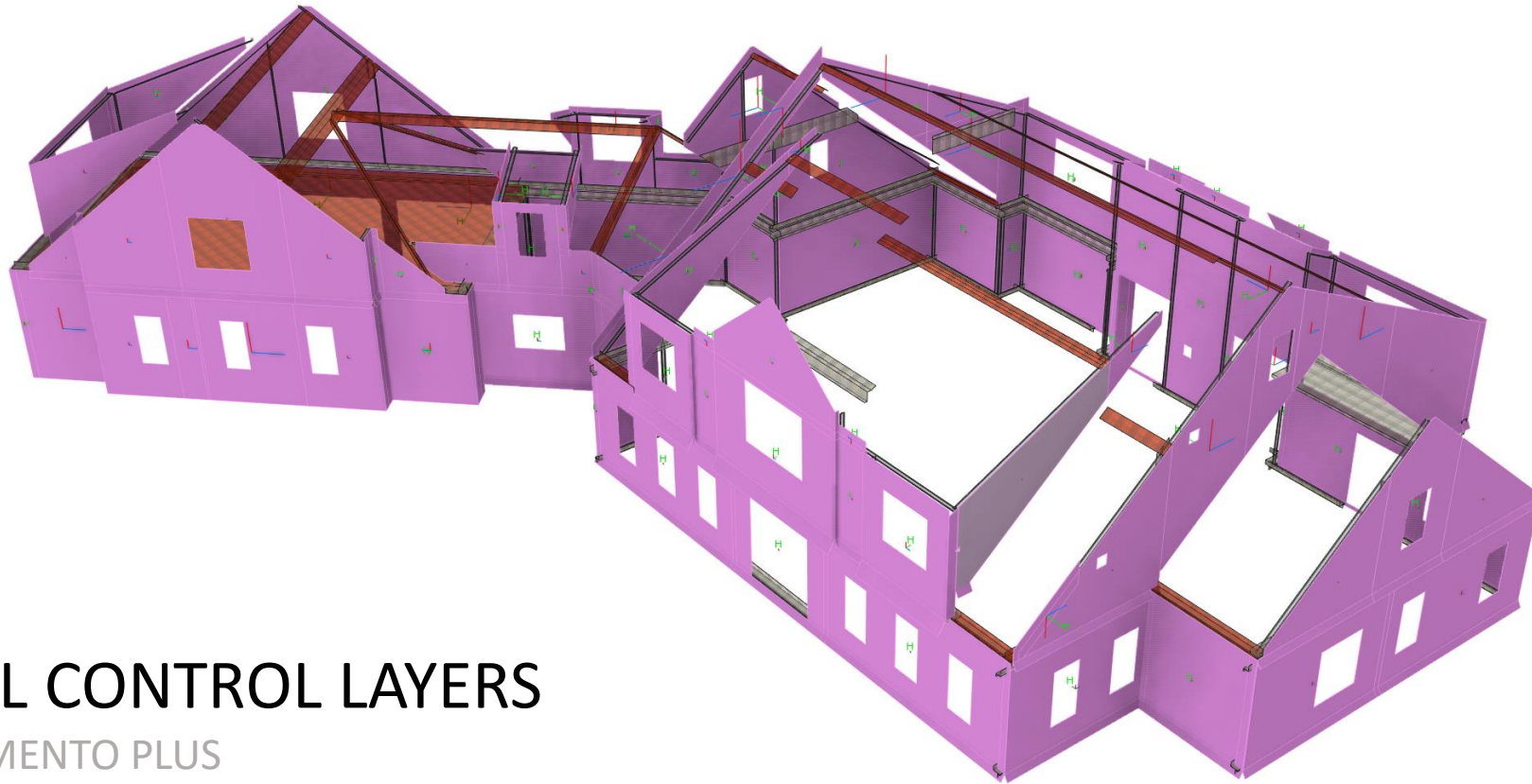


PANEL CONTROL LAYERS

WRB | AIR BARRIER LEADERS



SCOPE DEFINITION | HOUSE

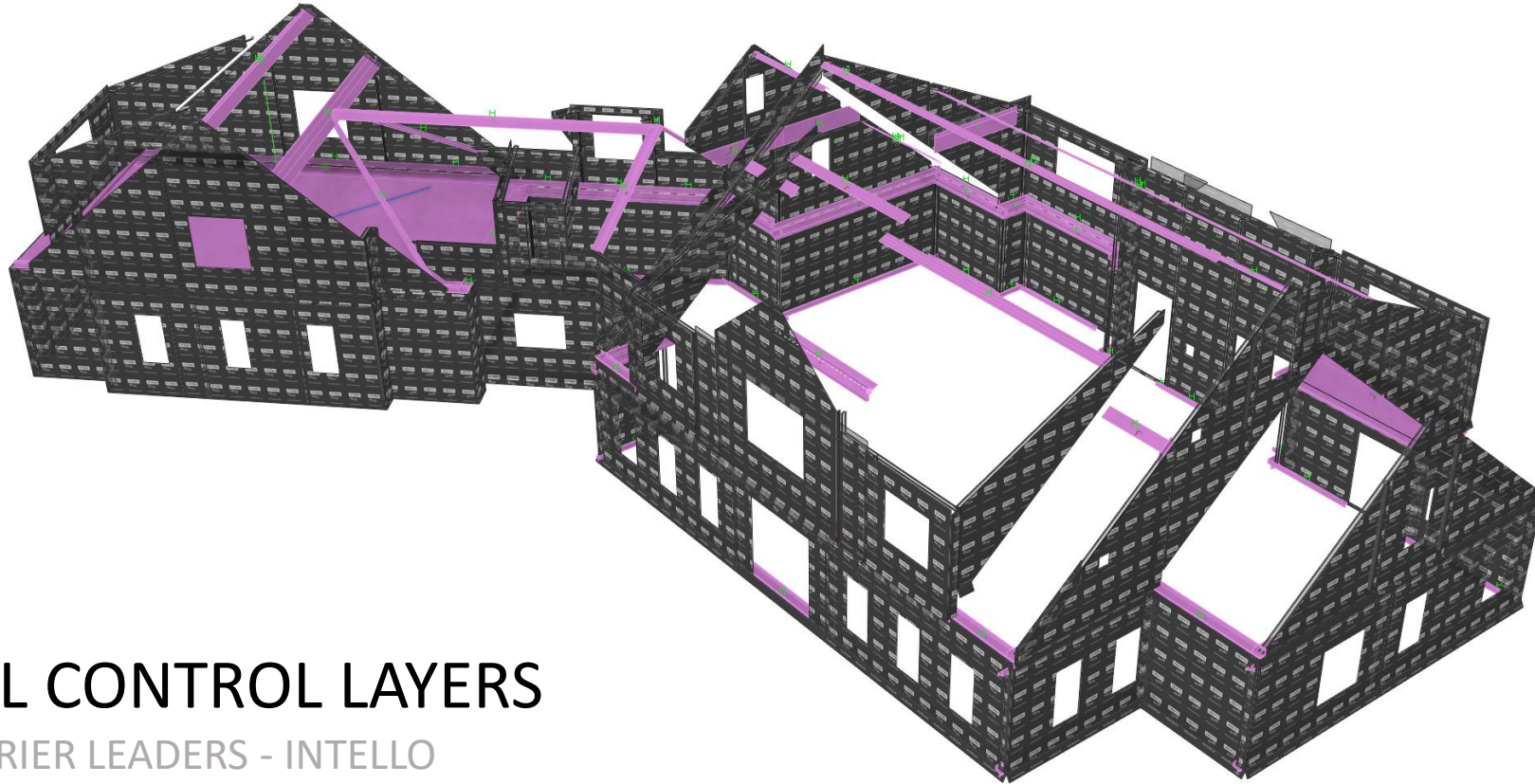


PANEL CONTROL LAYERS

WRB – MENTO PLUS



SCOPE DEFINITION | HOUSE

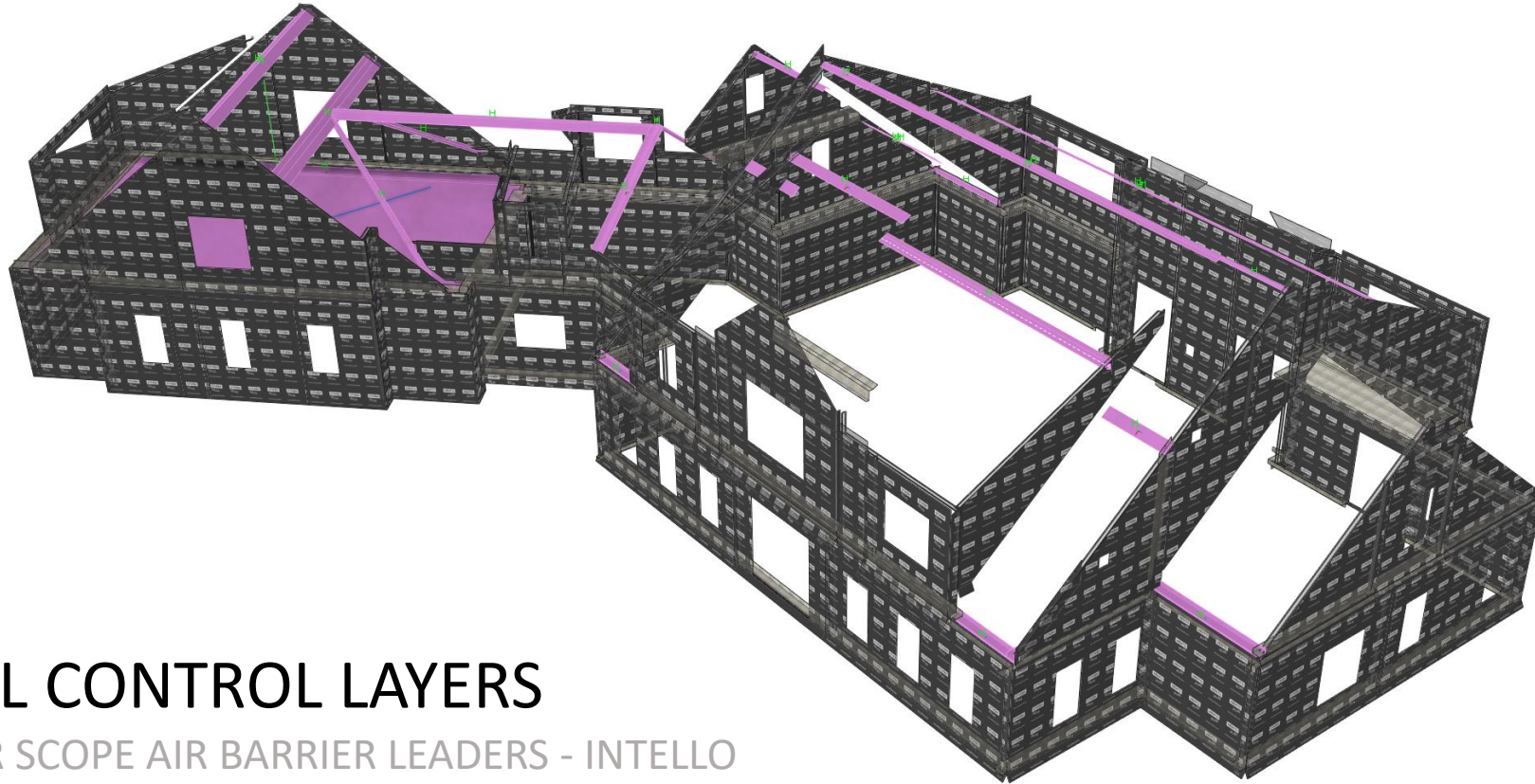


PANEL CONTROL LAYERS

AIR BARRIER LEADERS - INTELLO



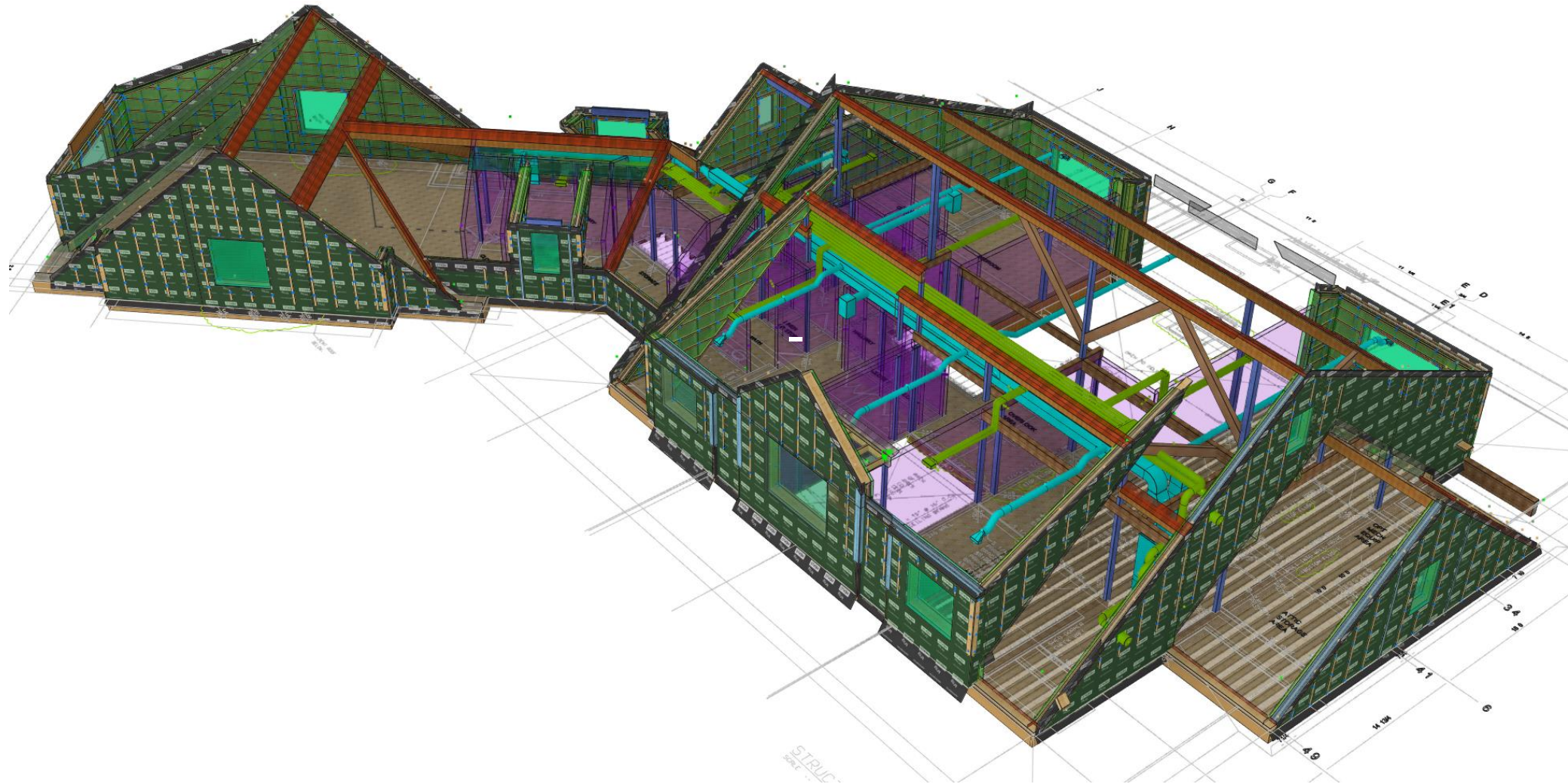
SCOPE DEFINITION | HOUSE



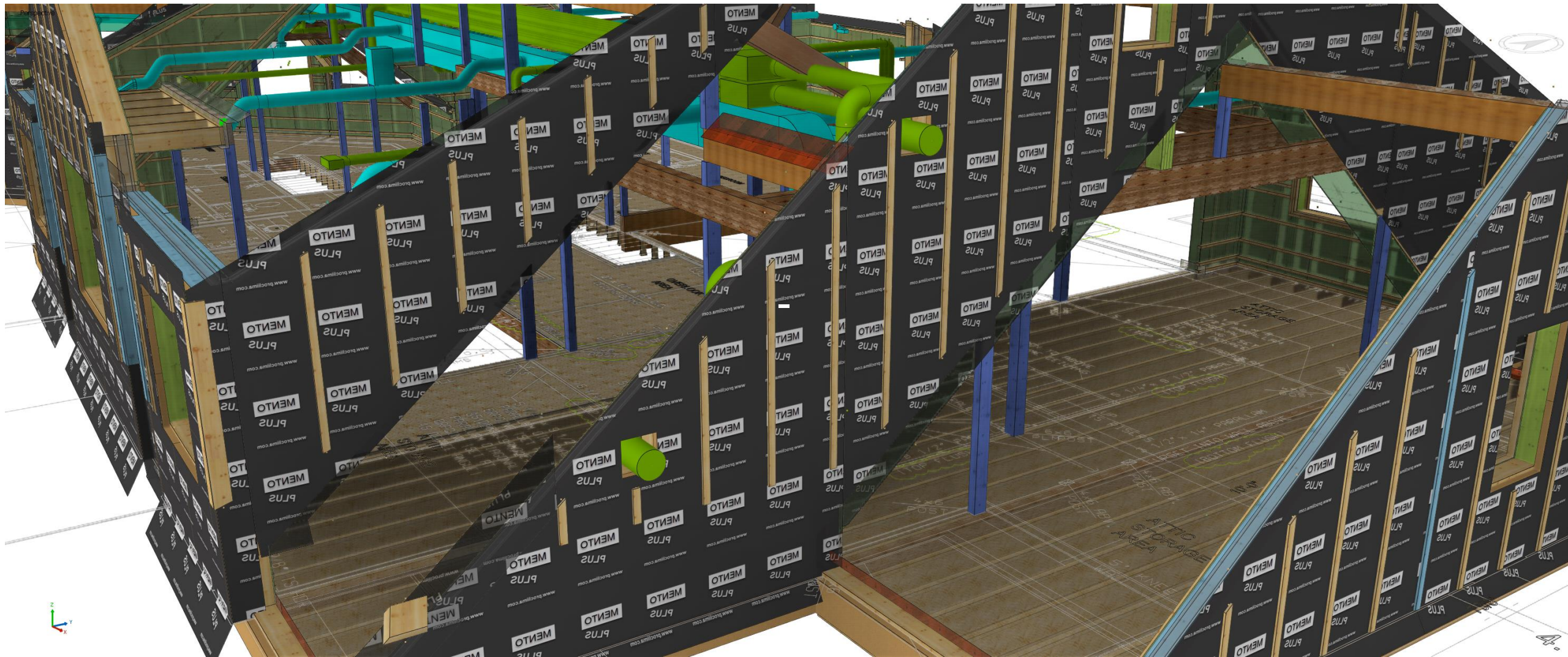
PANEL CONTROL LAYERS
BUILDER SCOPE AIR BARRIER LEADERS - INTELLO



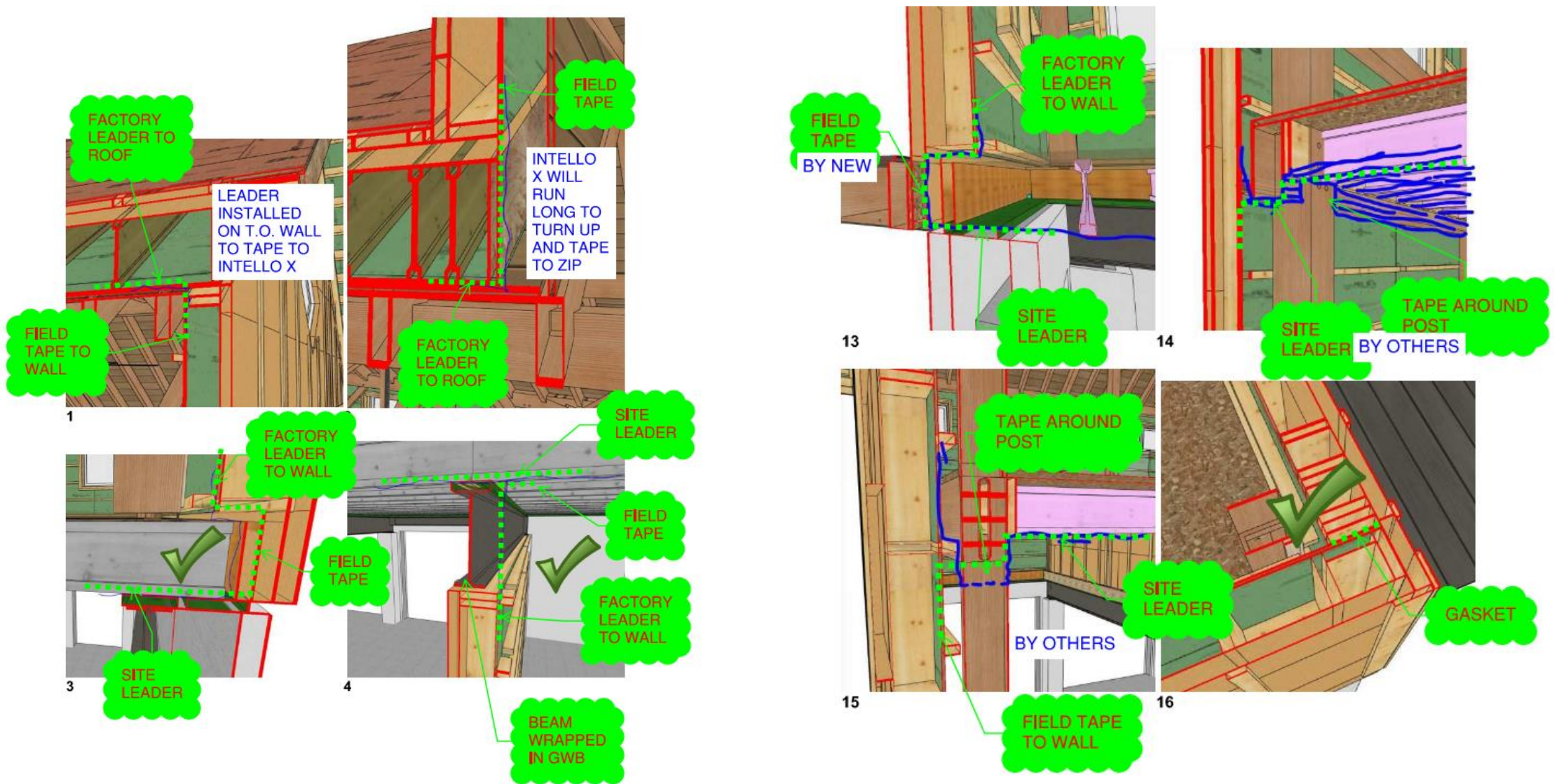
MEP COORDINATION | UPPER LEVEL



MEP COORDINATION | UPPER LEVEL



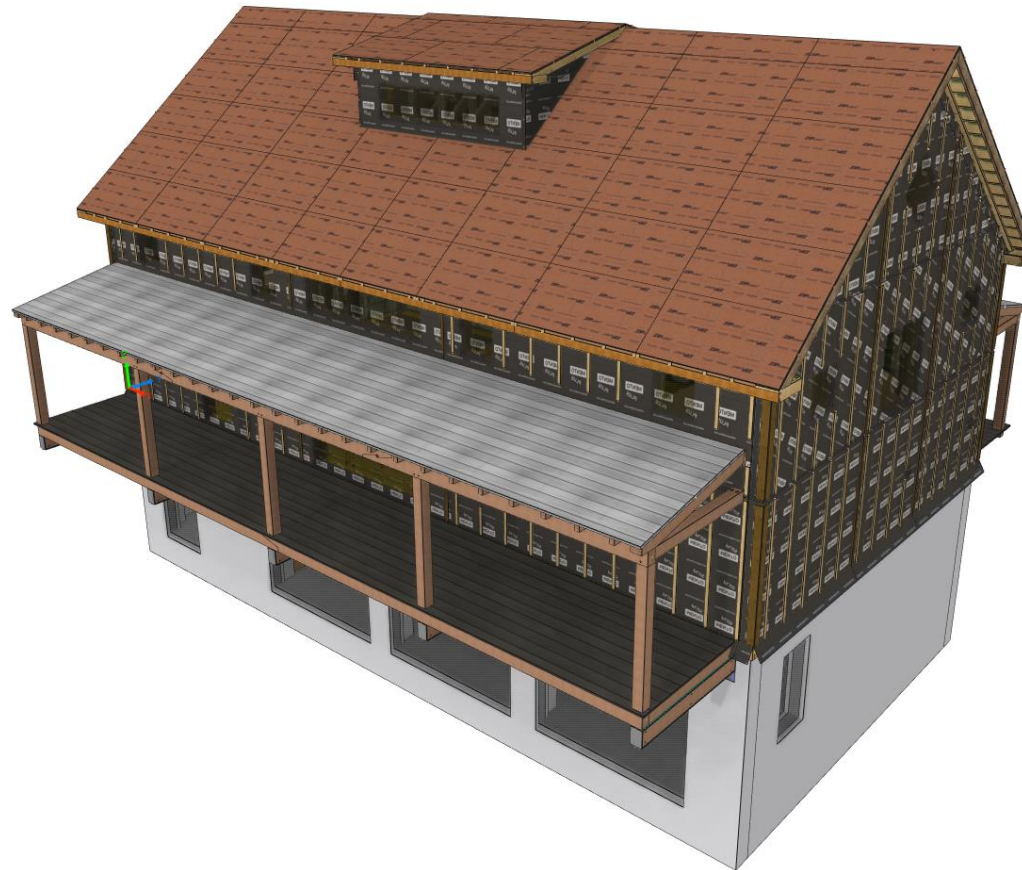
'TRICKY SPOTS' DISCUSSION BETWEEN MANUFACTURER, PRODUCTION DESIGNER & CPHC



'TRICKY SPOTS' DISCUSSION BETWEEN MANUFACTURER, PRODUCTION DESIGNER & CPHC

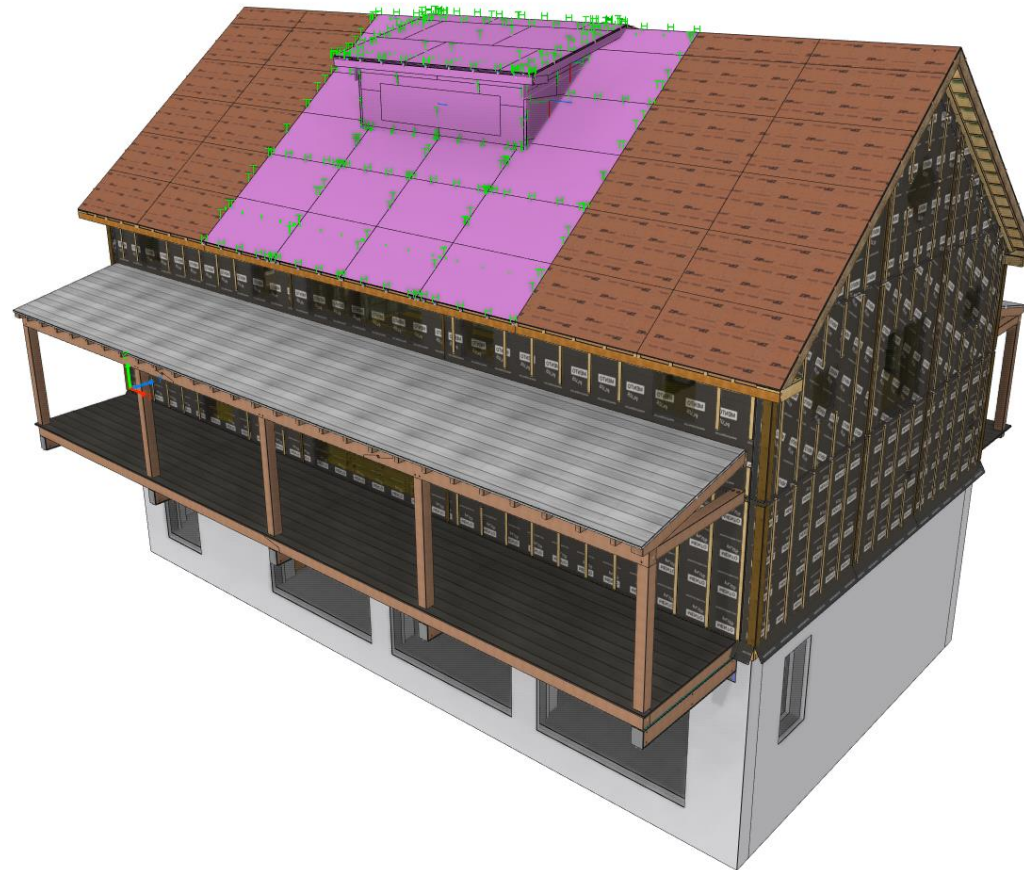
PANEL PARTS AND RELATIONSHIPS – DORMER TO MAIN ROOF ASSEMBLIES

Perspective

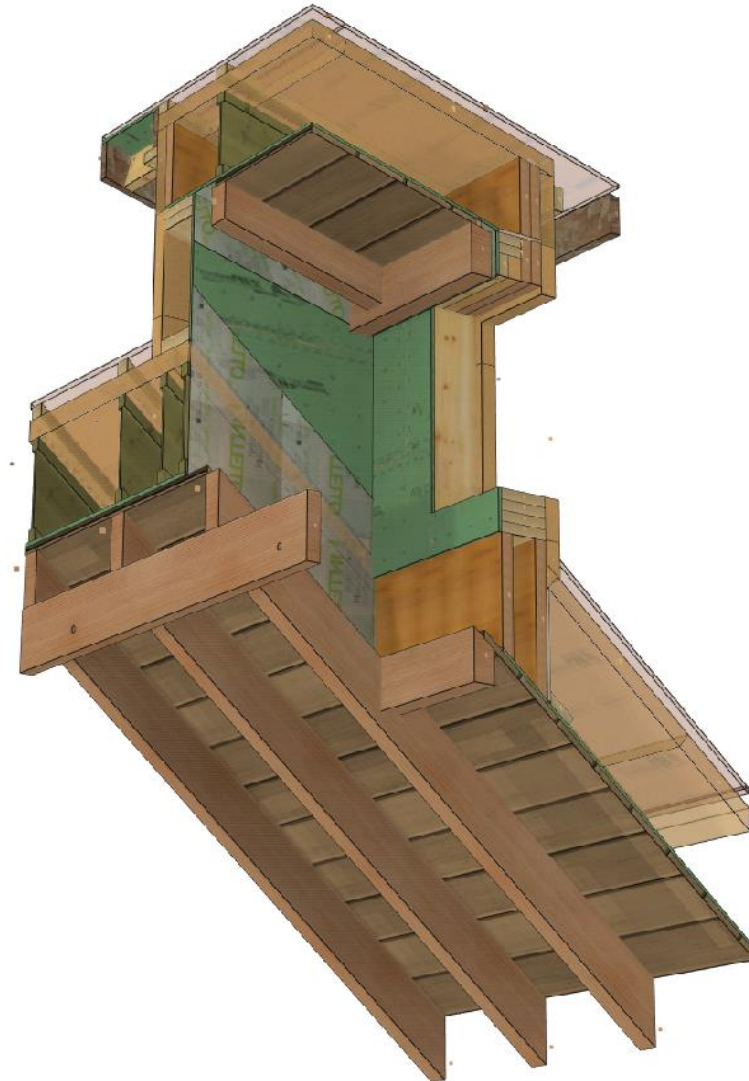
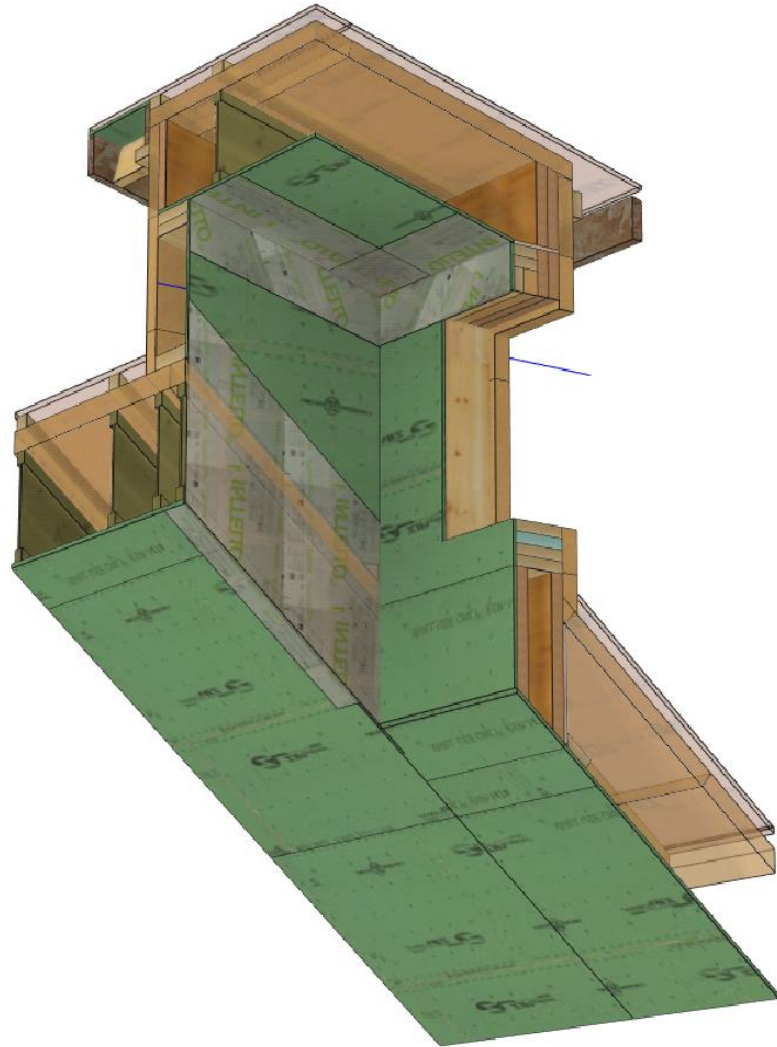


PANEL PARTS AND RELATIONSHIPS – DORMER TO MAIN ROOF ASSEMBLIES

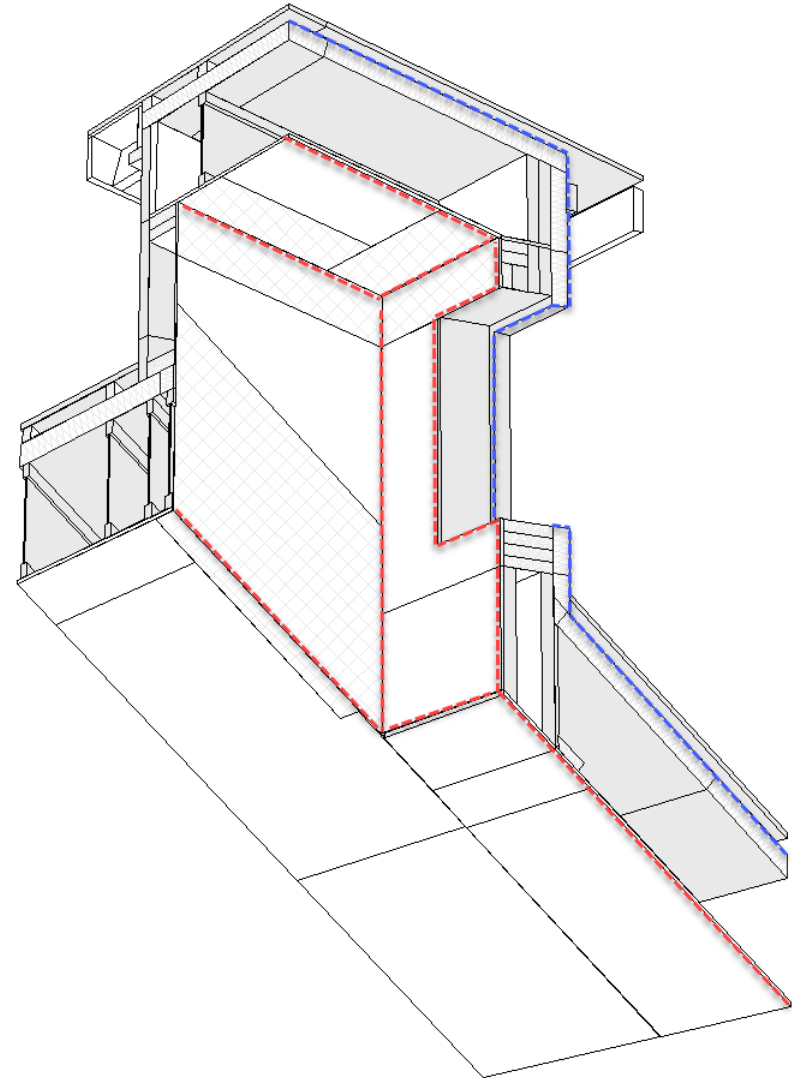
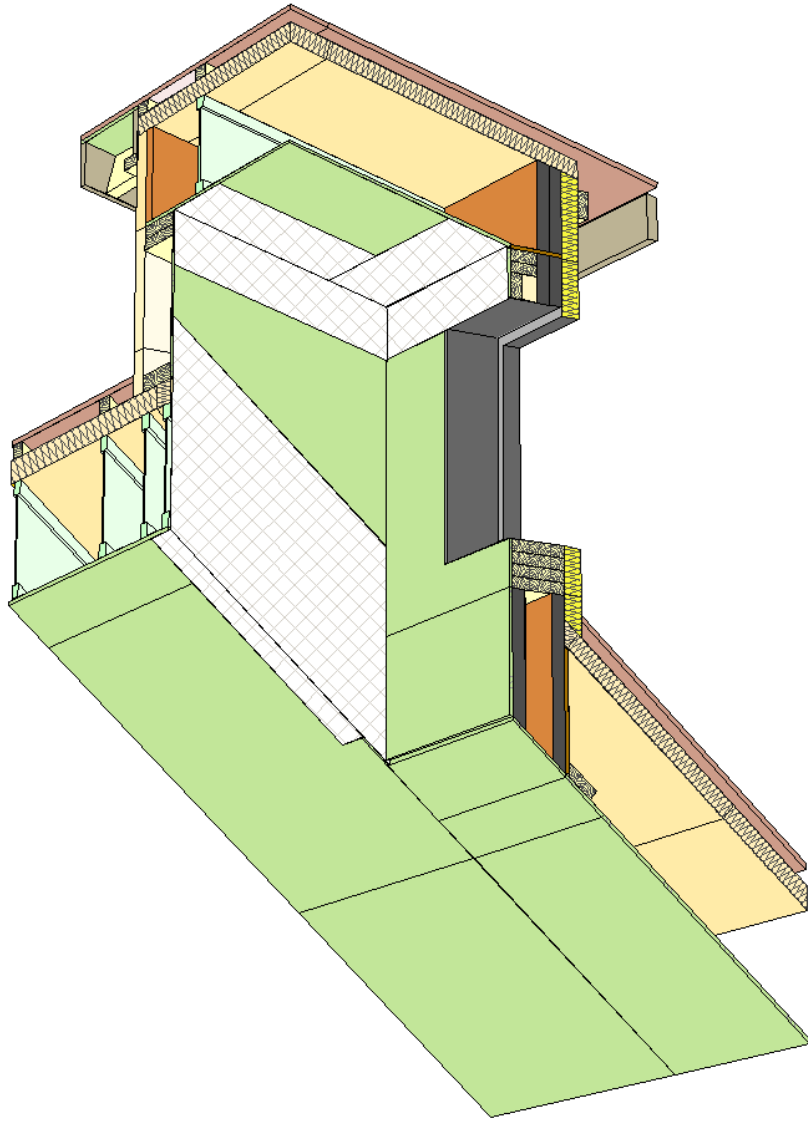
Perspective



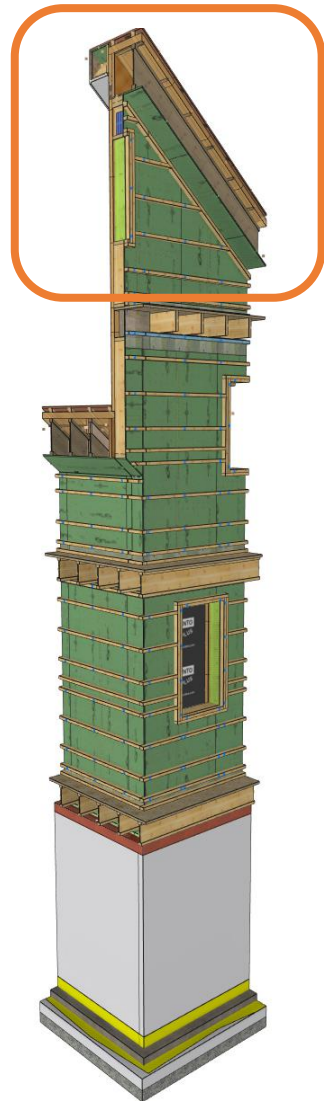
PANEL PARTS AND RELATIONSHIPS – DORMER TO MAIN ROOF ASSEMBLIES



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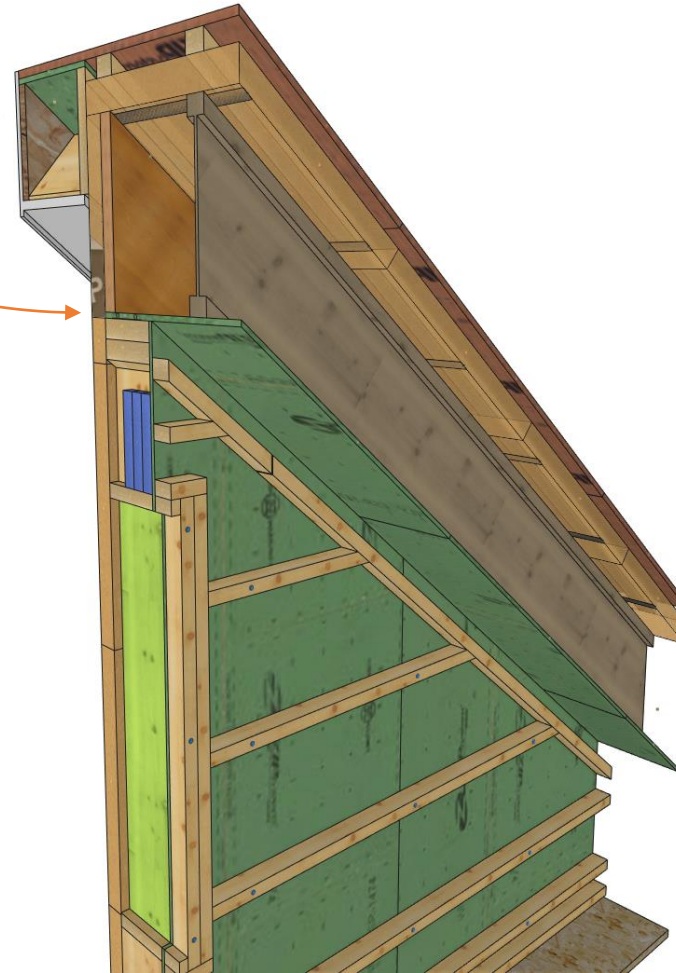


AIR TIGHTNESS CONTINUITY – RED LINE FROM HEAD TO TOE



Perspective

∞
GASKET



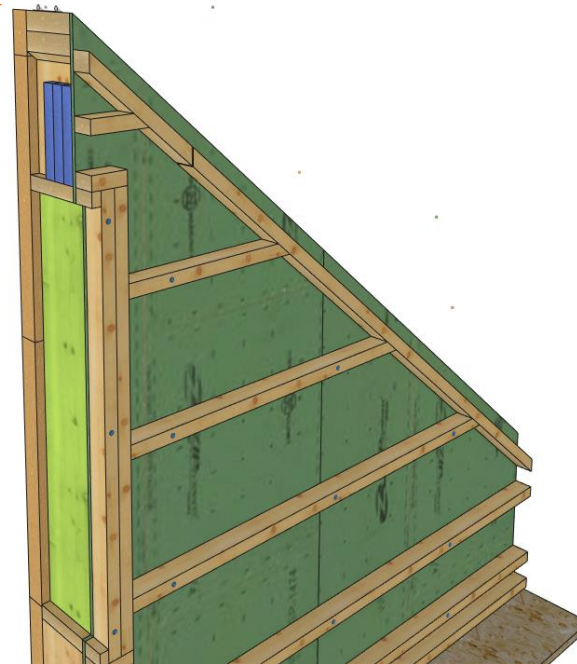
AIR TIGHTNESS CONTINUITY – RED LINE FROM HEAD TO TOE



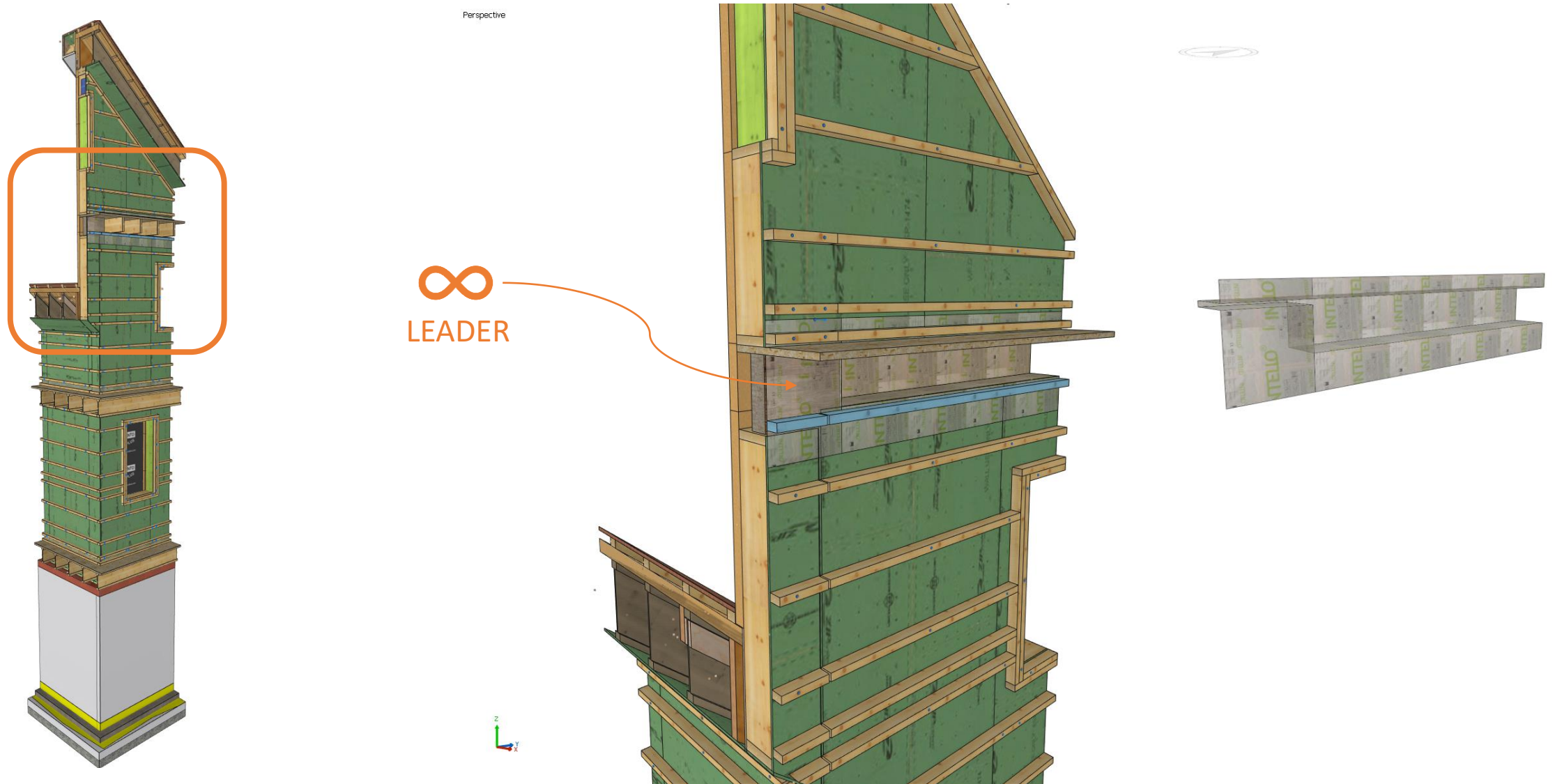
Perspective



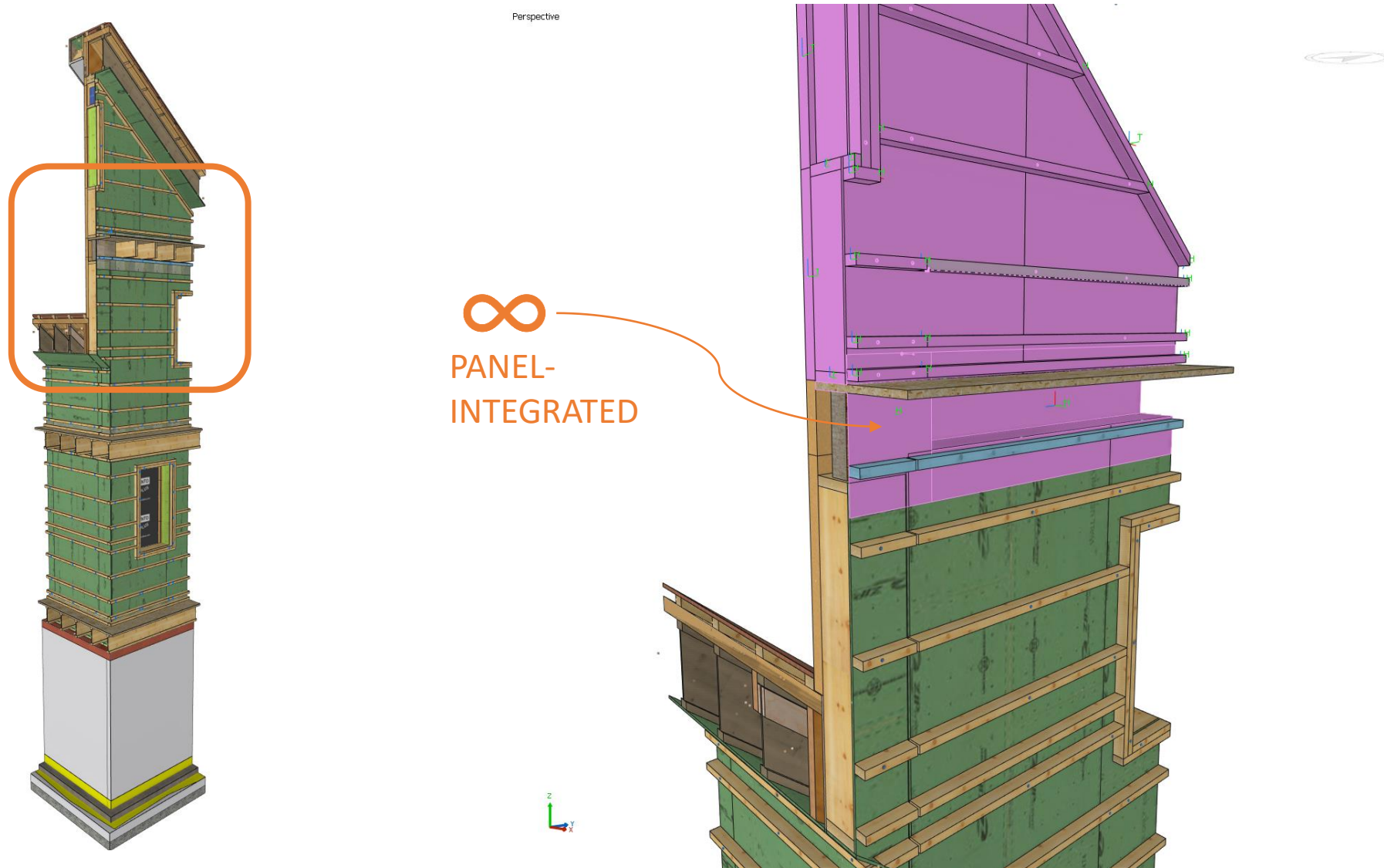
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GASKET



AIR TIGHTNESS CONTINUITY – RED LINE FROM HEAD TO TOE



AIR TIGHTNESS CONTINUITY – RED LINE FROM HEAD TO TOE



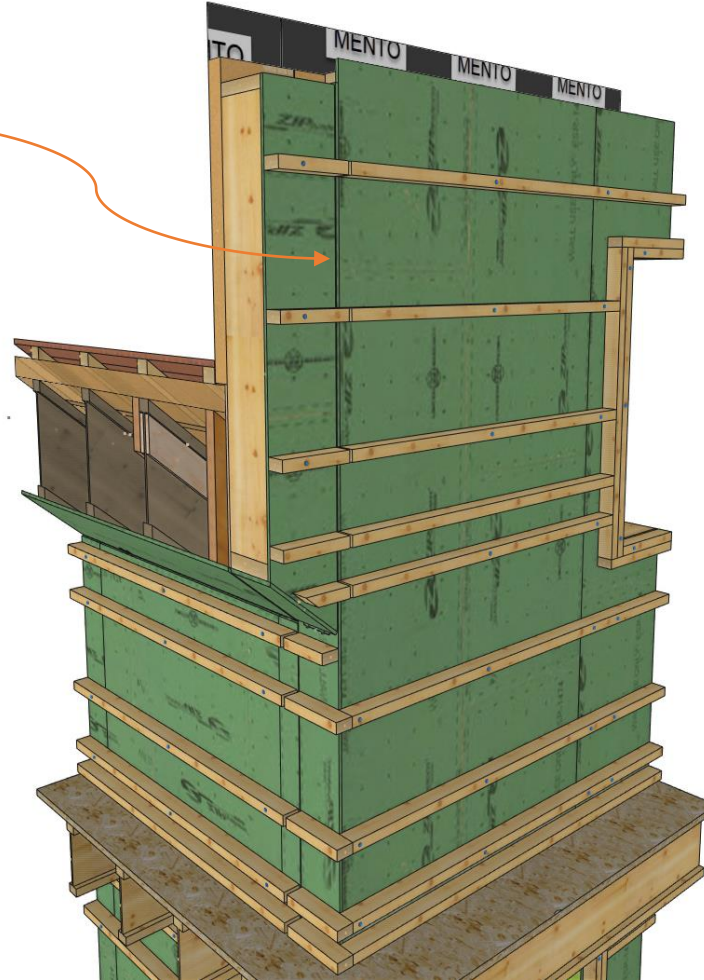
AIR TIGHTNESS CONTINUITY – RED LINE FROM HEAD TO TOE



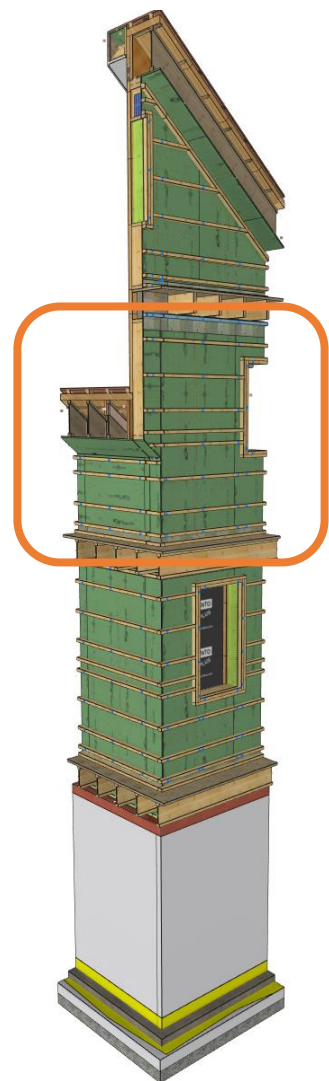
Perspective



∞
GASKET

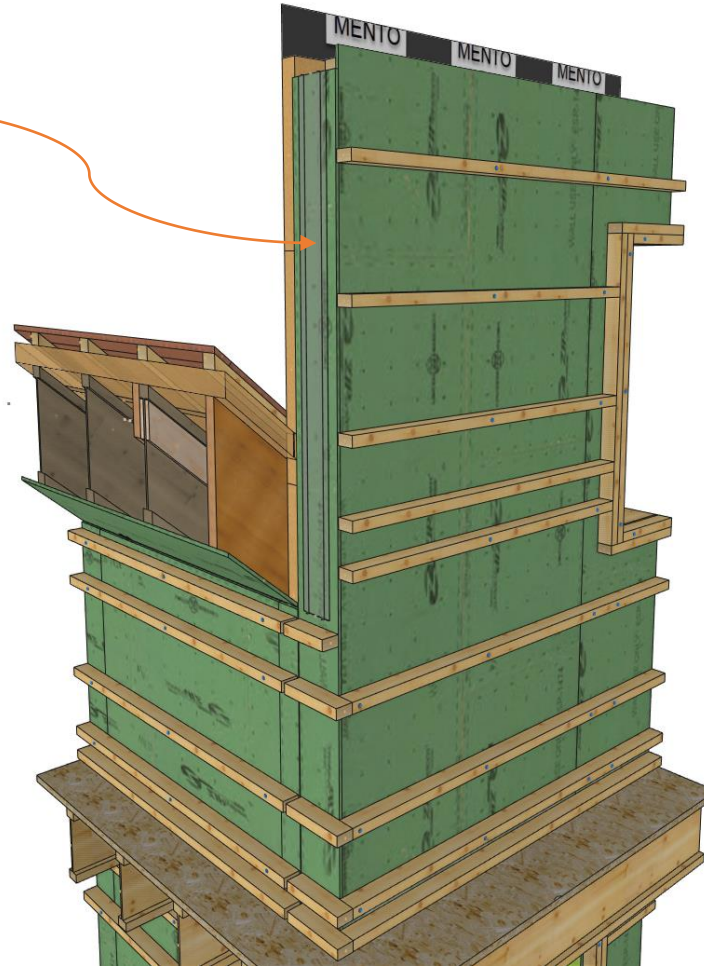


AIR TIGHTNESS CONTINUITY – RED LINE FROM HEAD TO TOE

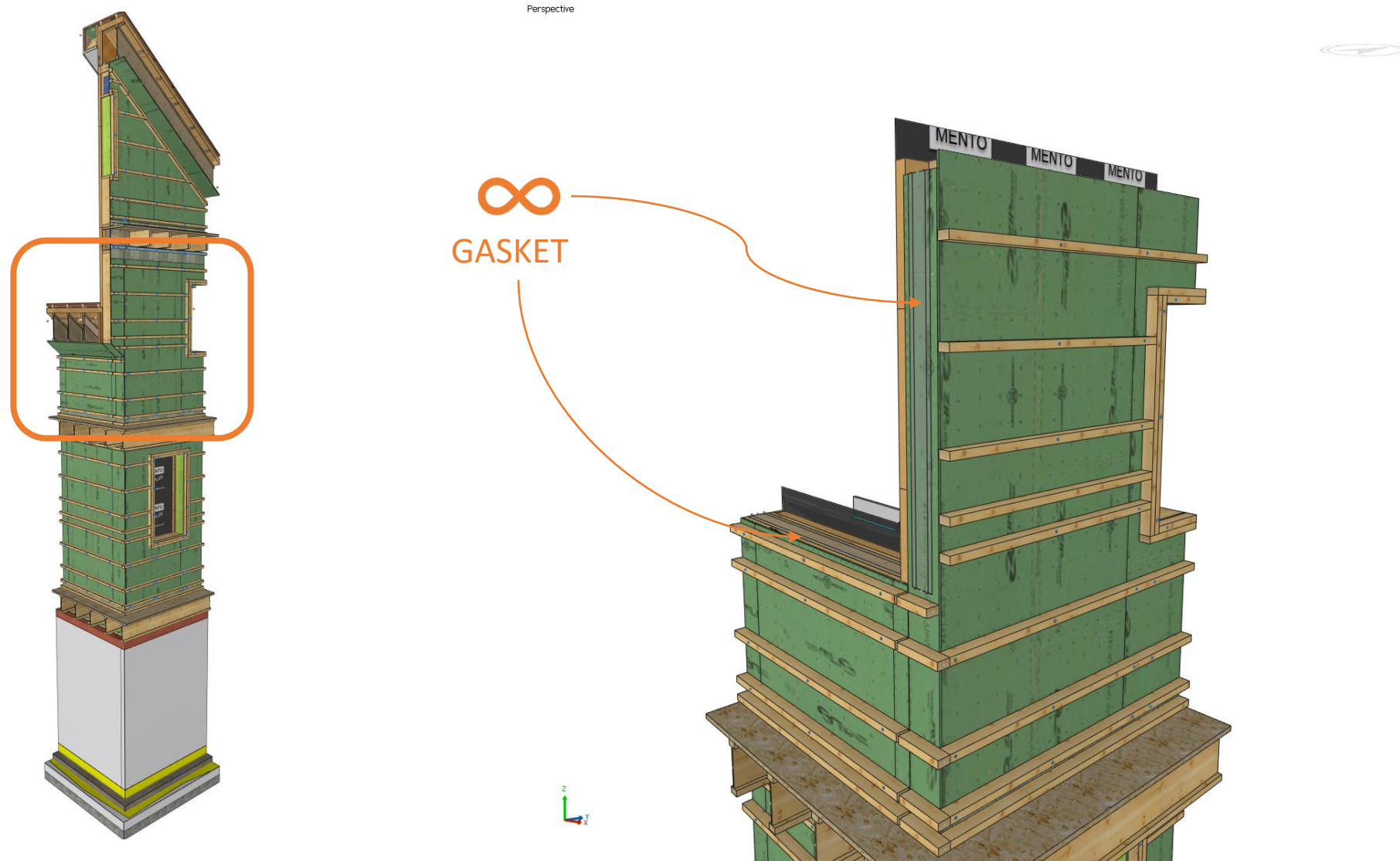


Perspective

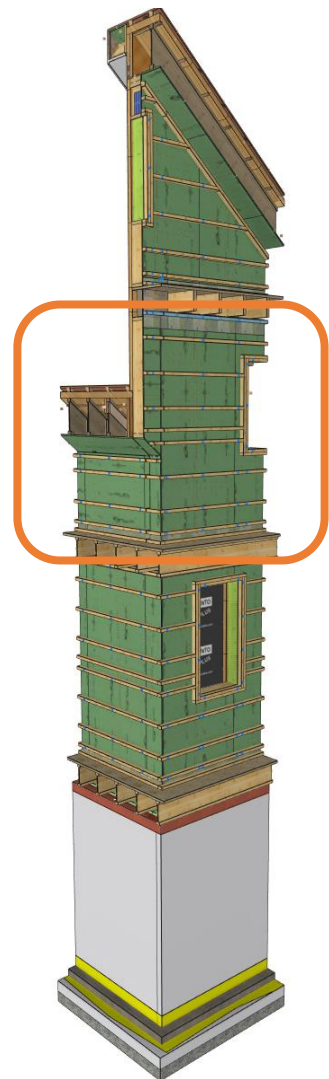
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GASKET



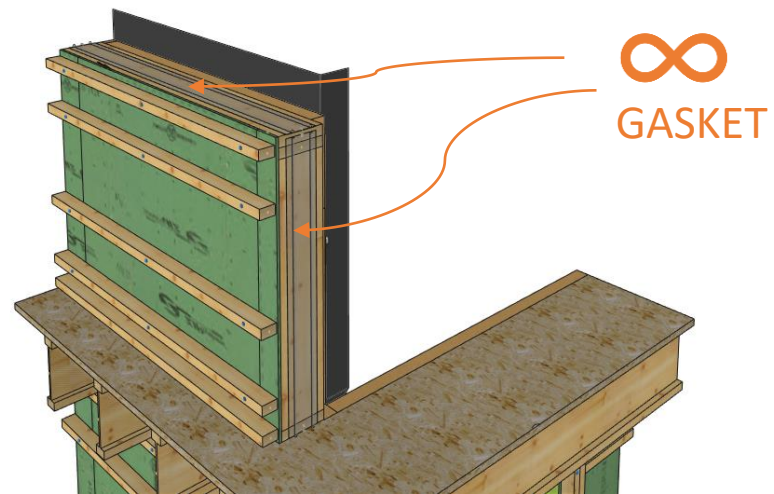
AIR TIGHTNESS CONTINUITY – RED LINE FROM HEAD TO TOE



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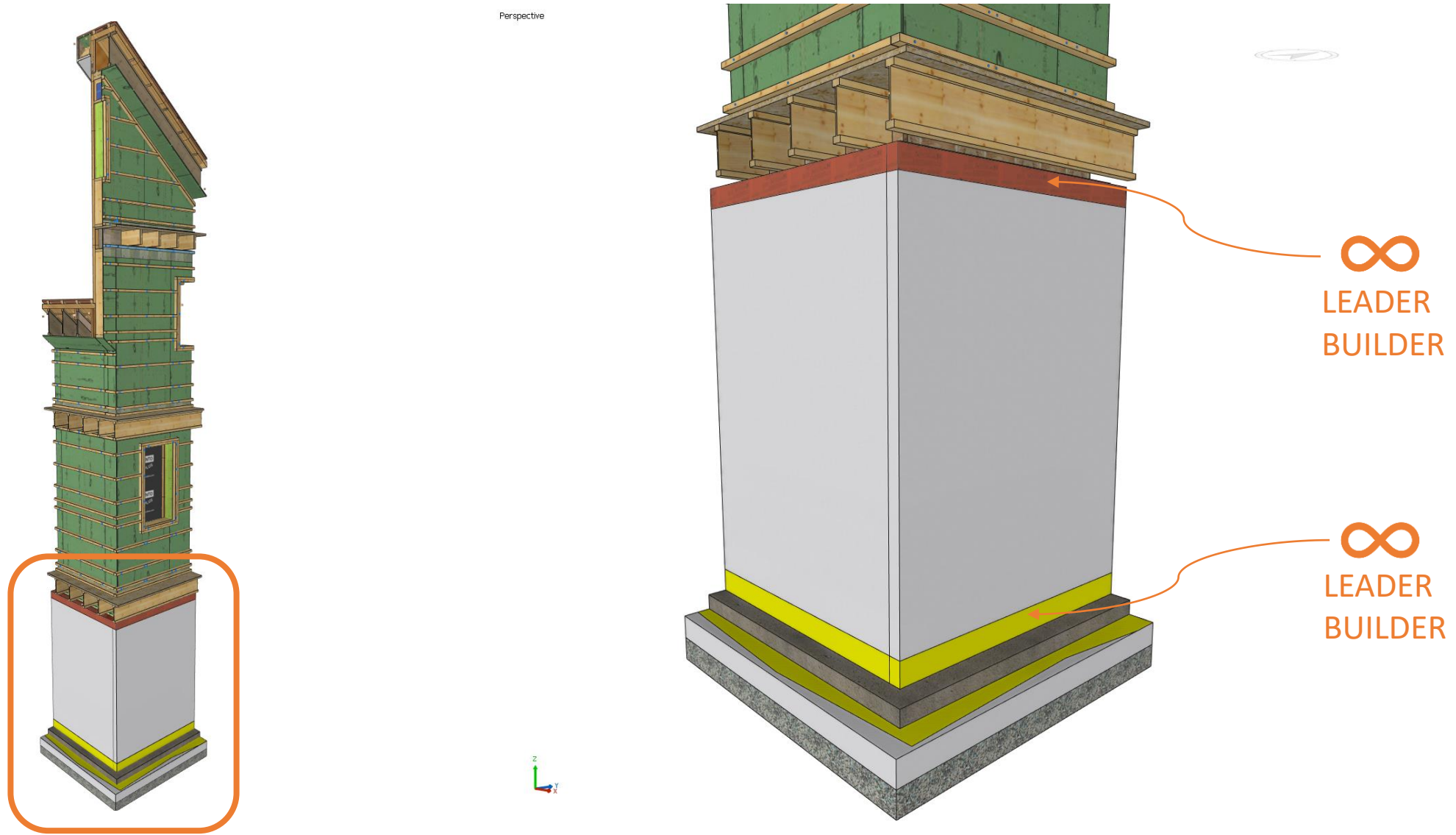
Perspective



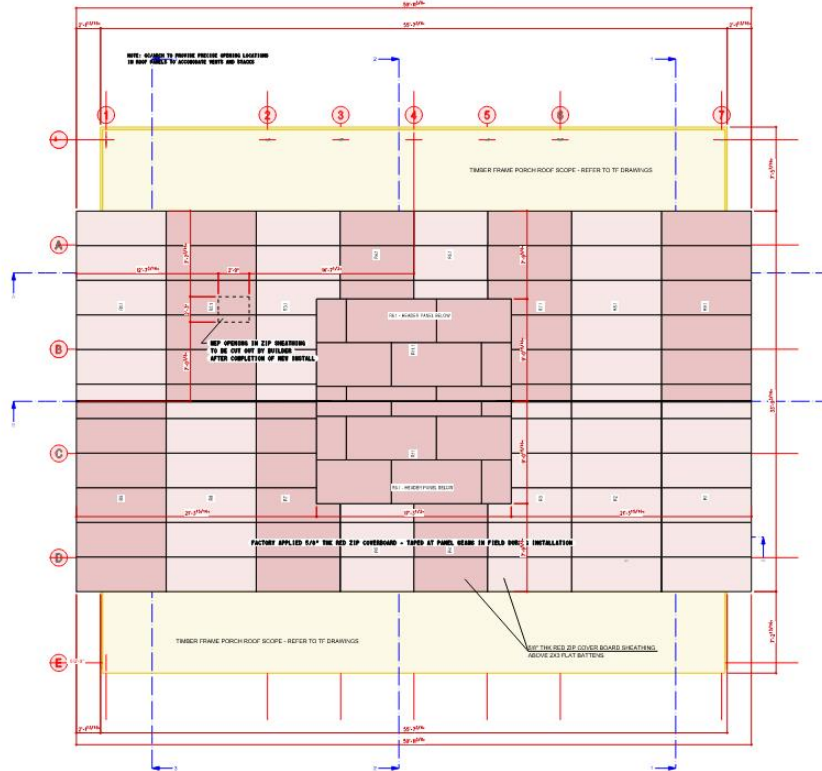
AIR TIGHTNESS CONTINUITY – RED LINE FROM HEAD TO TOE



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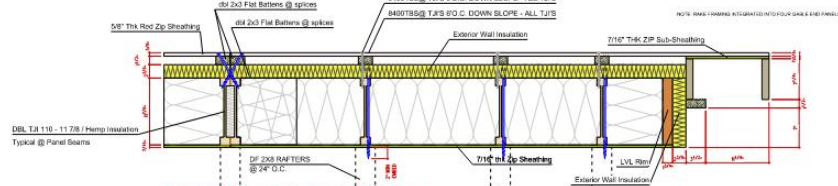


GEOMETRY APPROVAL DRAWINGS



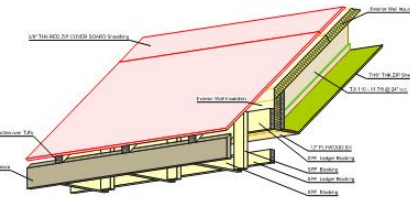
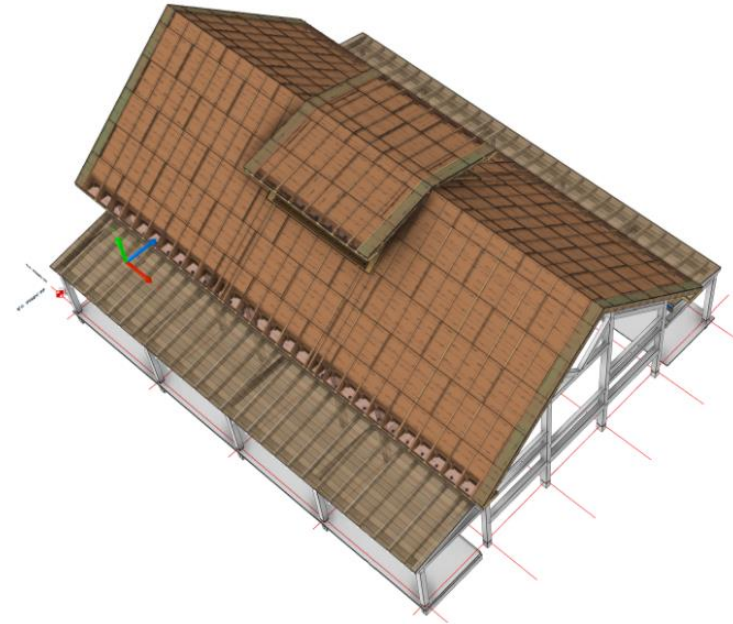
PLAN - XP20 ROOF PANELS AND TIMBER FRAME PORCH ROOF SCOPES

SCALE: 1/8" = 1'-0"



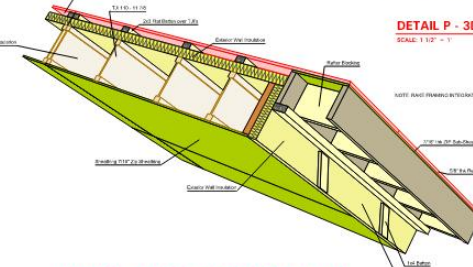
DETAIL O - SECTION THROUGH ROOF PANELS

SCALE: 1/2" = 1'



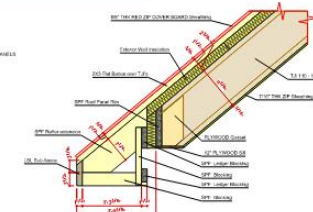
DETAIL P - 3D SECTION THROUGH EAVE FRAMING

SCALE: 1/2" = 1'



DETAIL O - 3D SECTION THROUGH ROOF PANELS

SCALE: NONE

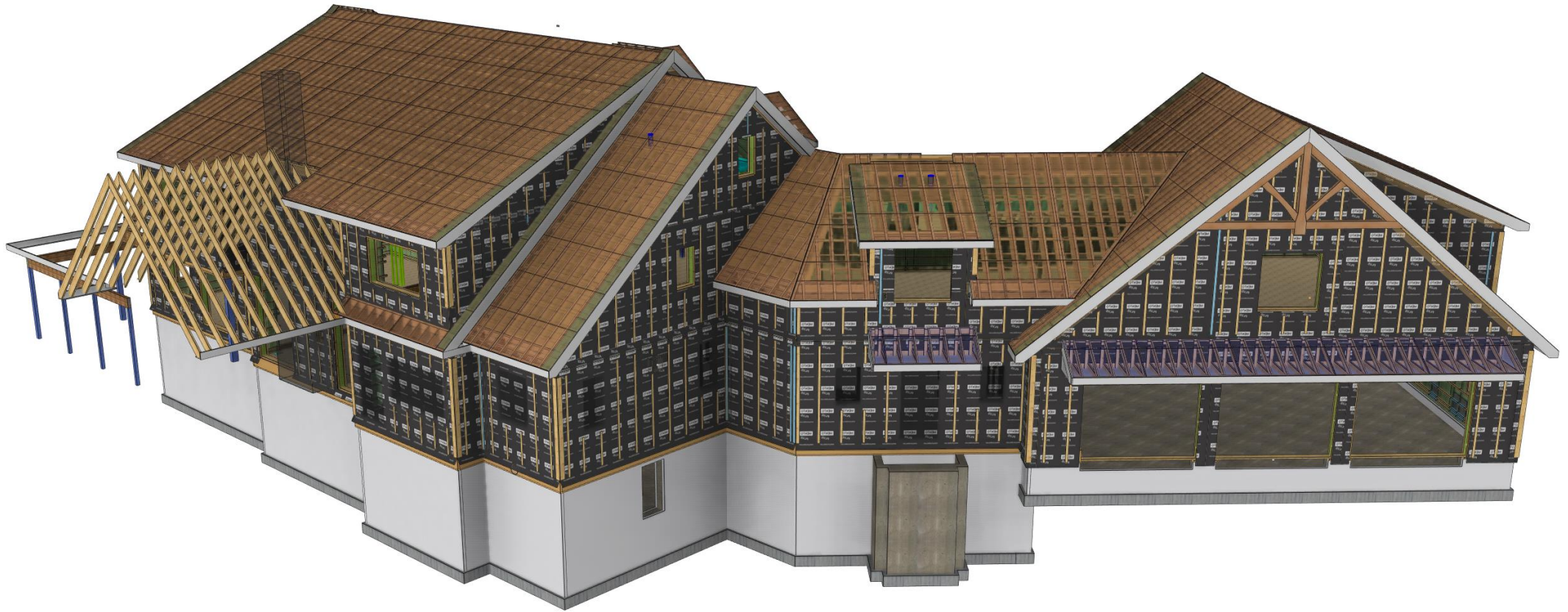


DETAIL P - SECTION THROUGH EAVE FRAMING

SCALE: 1/2" = 1'

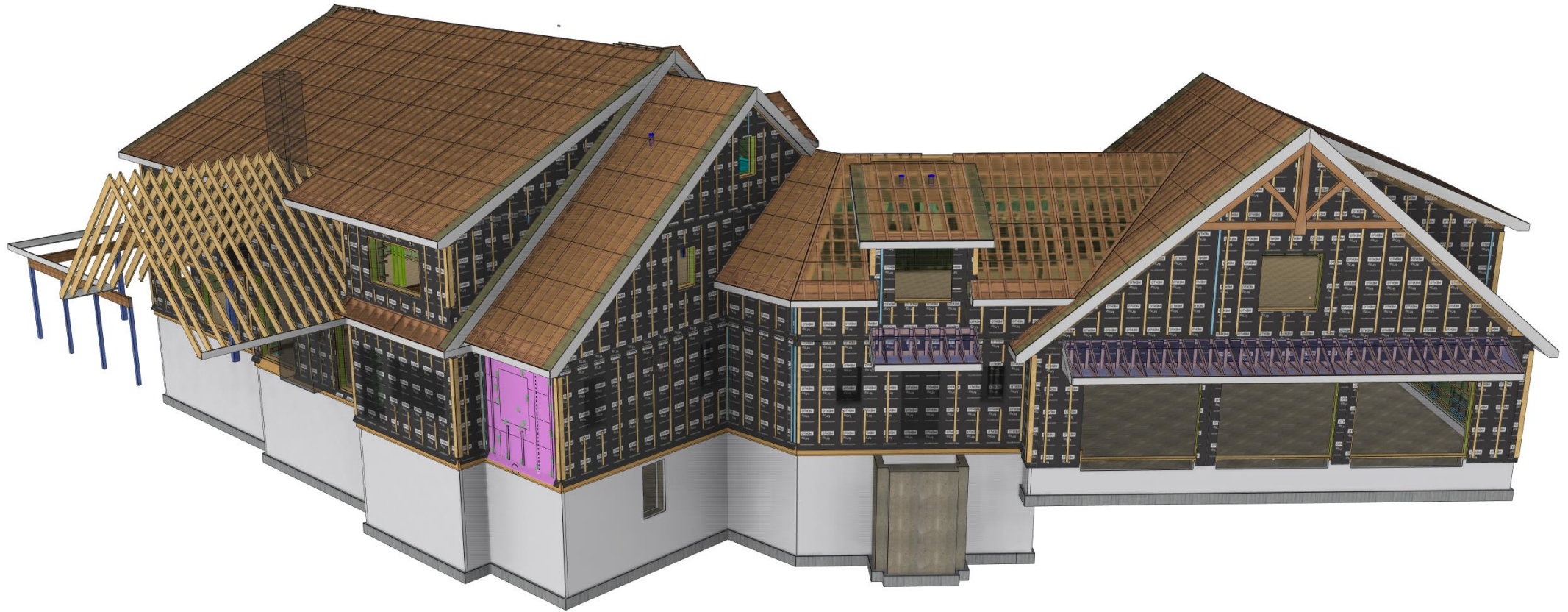
PANEL PARTS AND RELATIONSHIPS – A LOOK AT WALL PANEL MN-4

Perspective

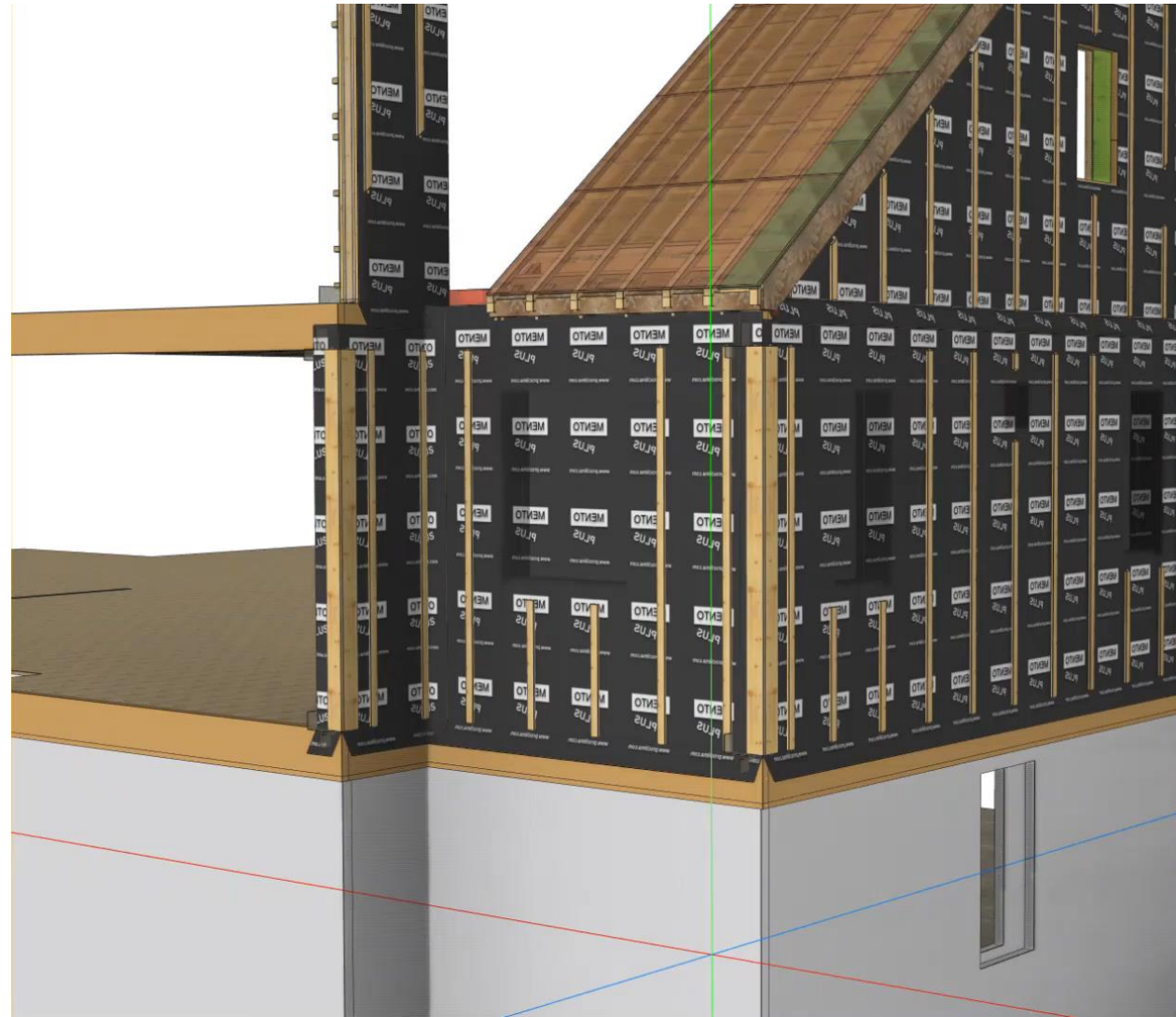


PANEL PARTS AND RELATIONSHIPS – A LOOK AT WALL PANEL MN-4

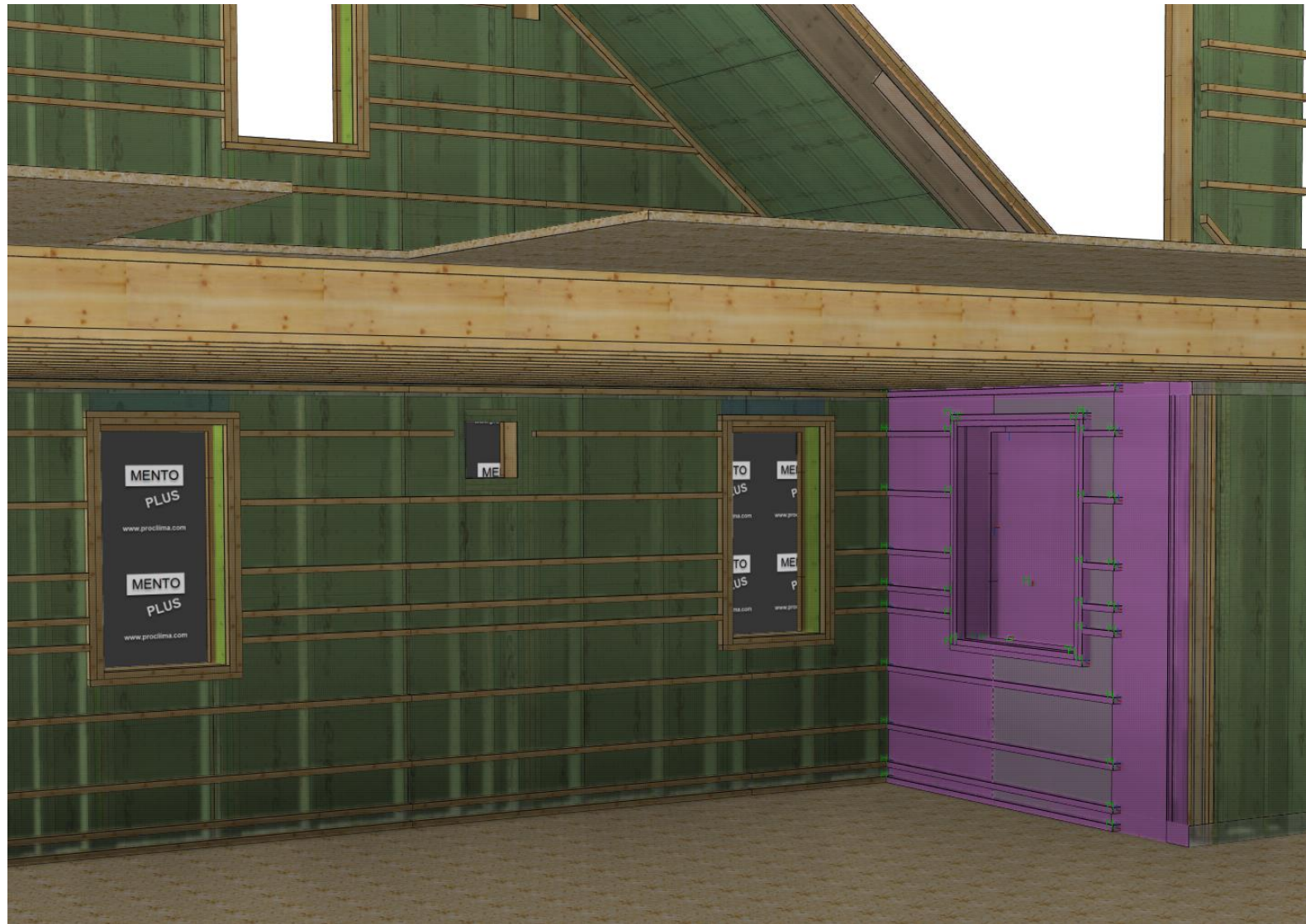
Perspective



PANEL PARTS AND RELATIONSHIPS – A LOOK AT WALL PANEL MN-4



PANEL PARTS AND RELATIONSHIPS – A LOOK AT WALL PANEL MN-4



PANEL PARTS AND RELATIONSHIPS – A LOOK AT WALL PANEL MN-4

Perspective



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Perspective



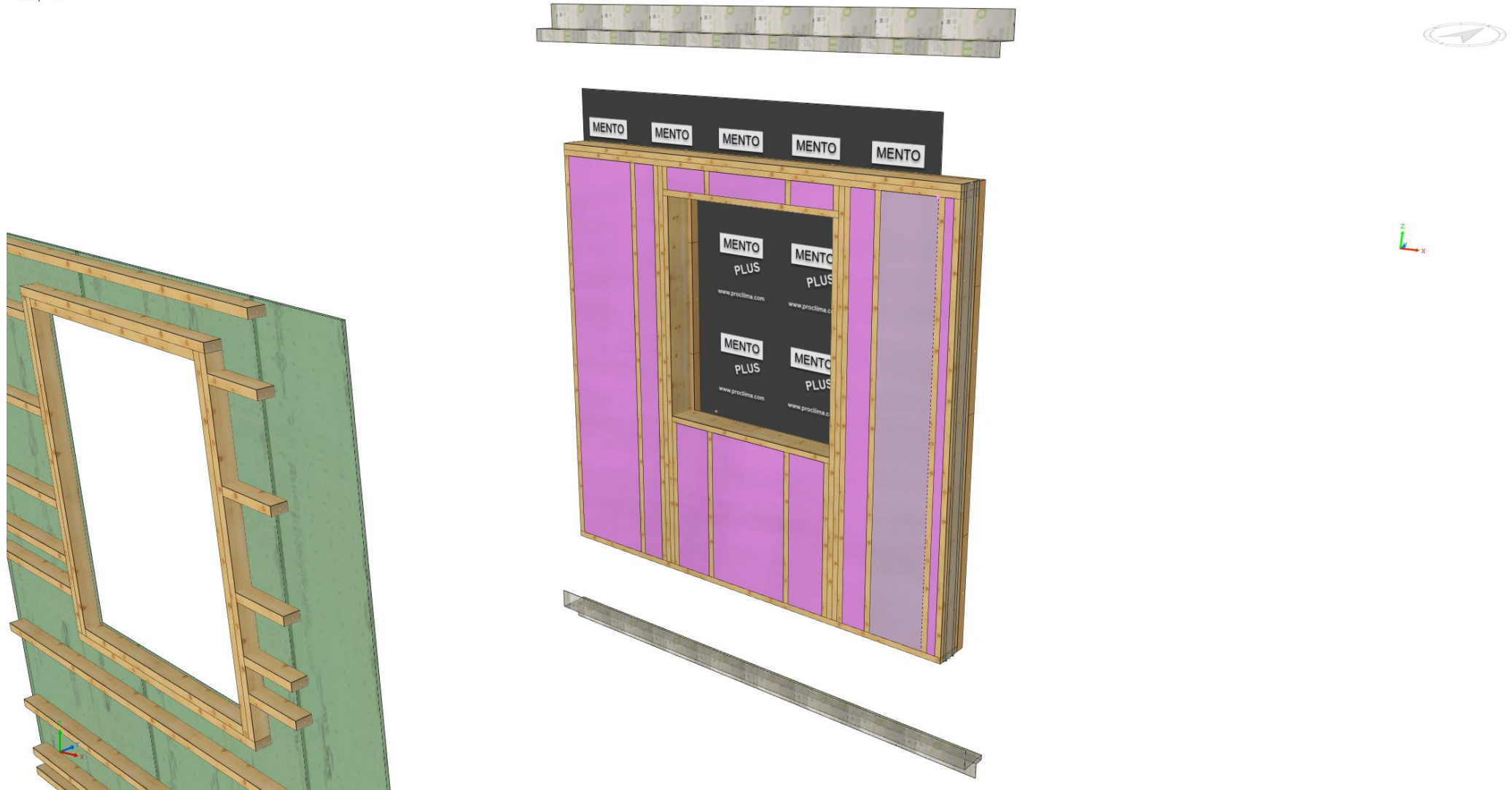
PANEL PARTS AND RELATIONSHIPS – A LOOK AT WALL PANEL MN-4

Perspective



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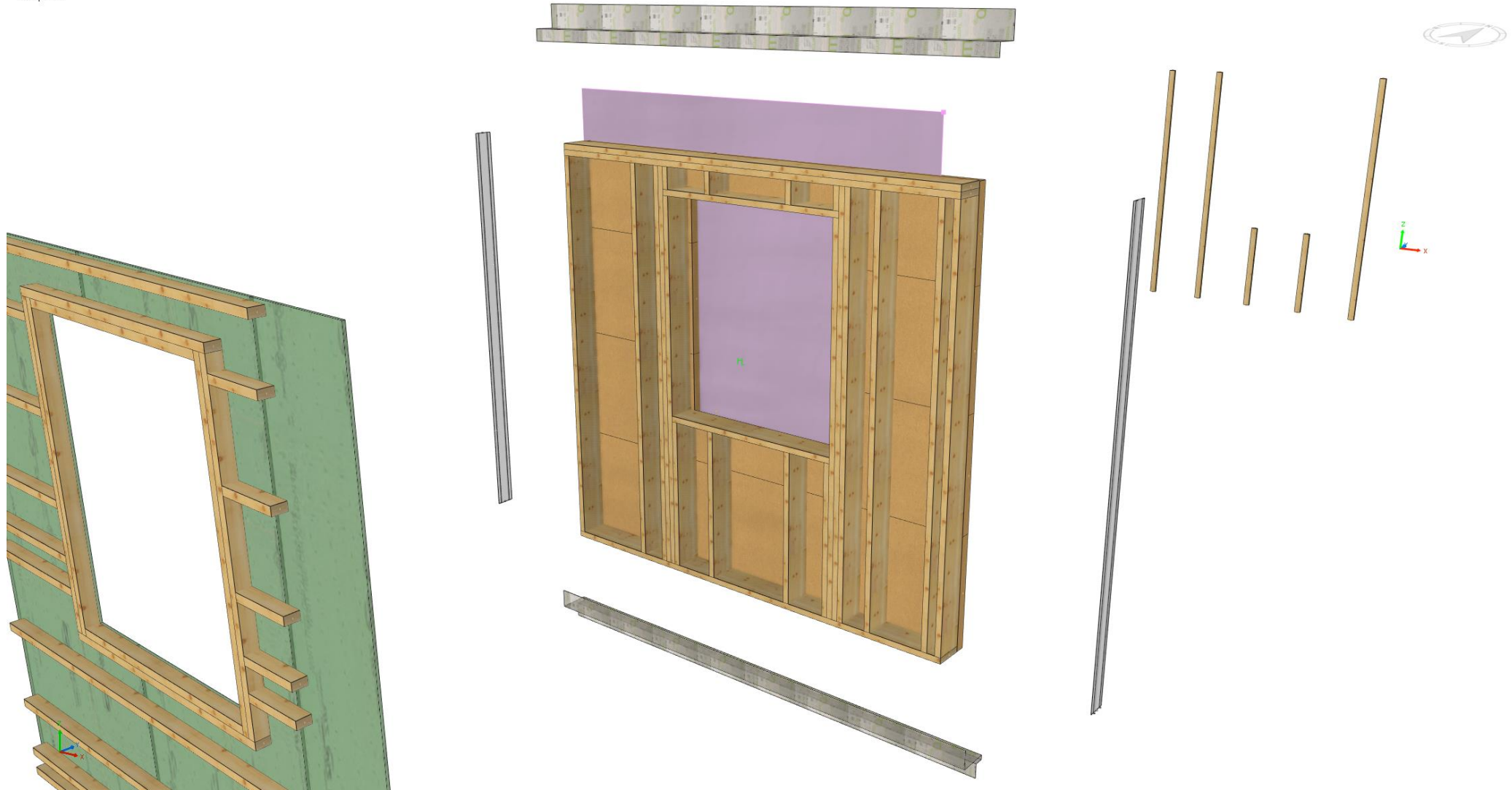
PANEL PARTS AND RELATIONSHIPS – A LOOK AT WALL PANEL MN-4

Perspective



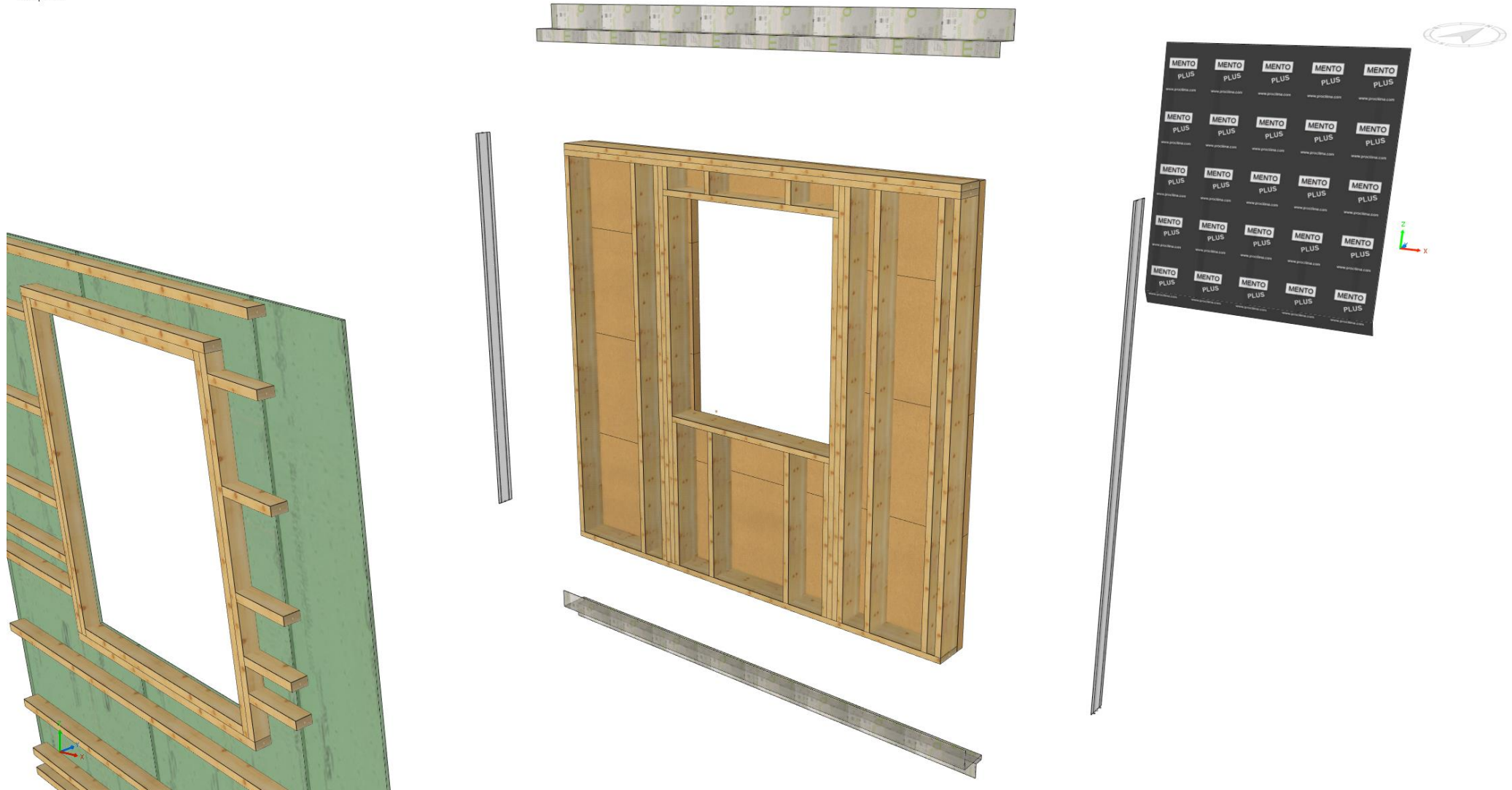
PANEL PARTS AND RELATIONSHIPS – A LOOK AT WALL PANEL MN-4

Perspective



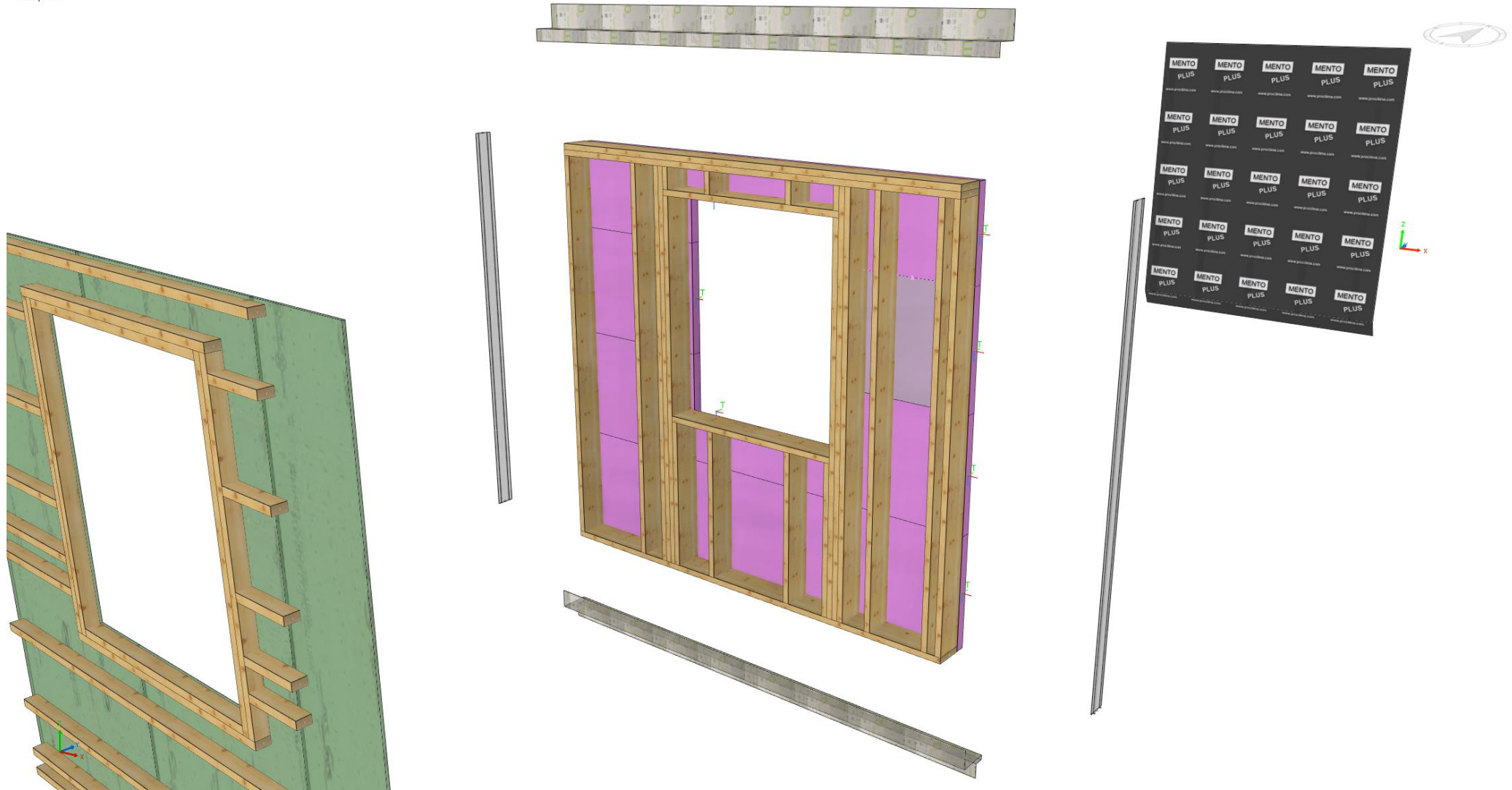
PANEL PARTS AND RELATIONSHIPS – A LOOK AT WALL PANEL MN-4

Perspective



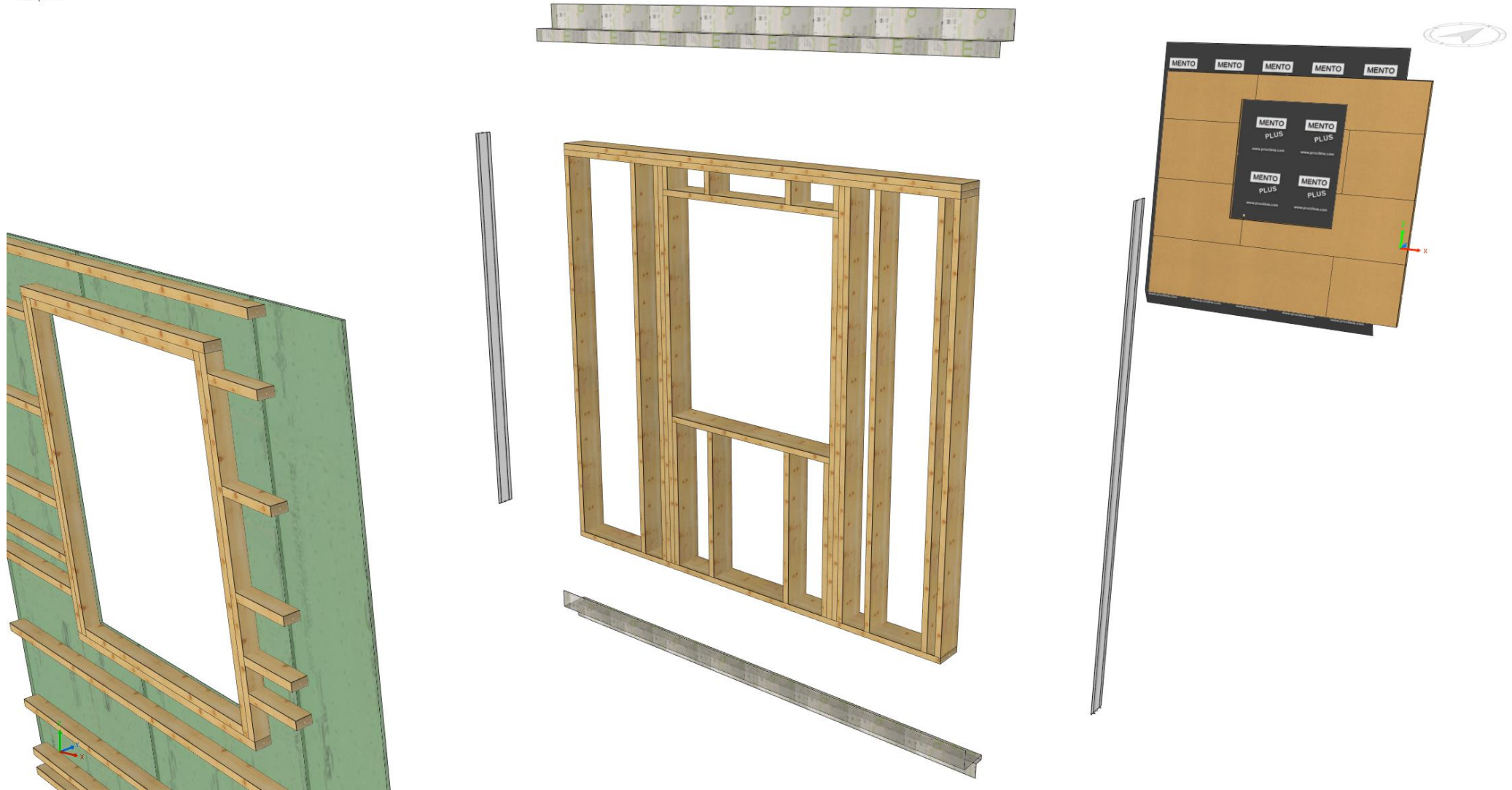
PANEL PARTS AND RELATIONSHIPS – A LOOK AT PANEL MN-4

Perspective



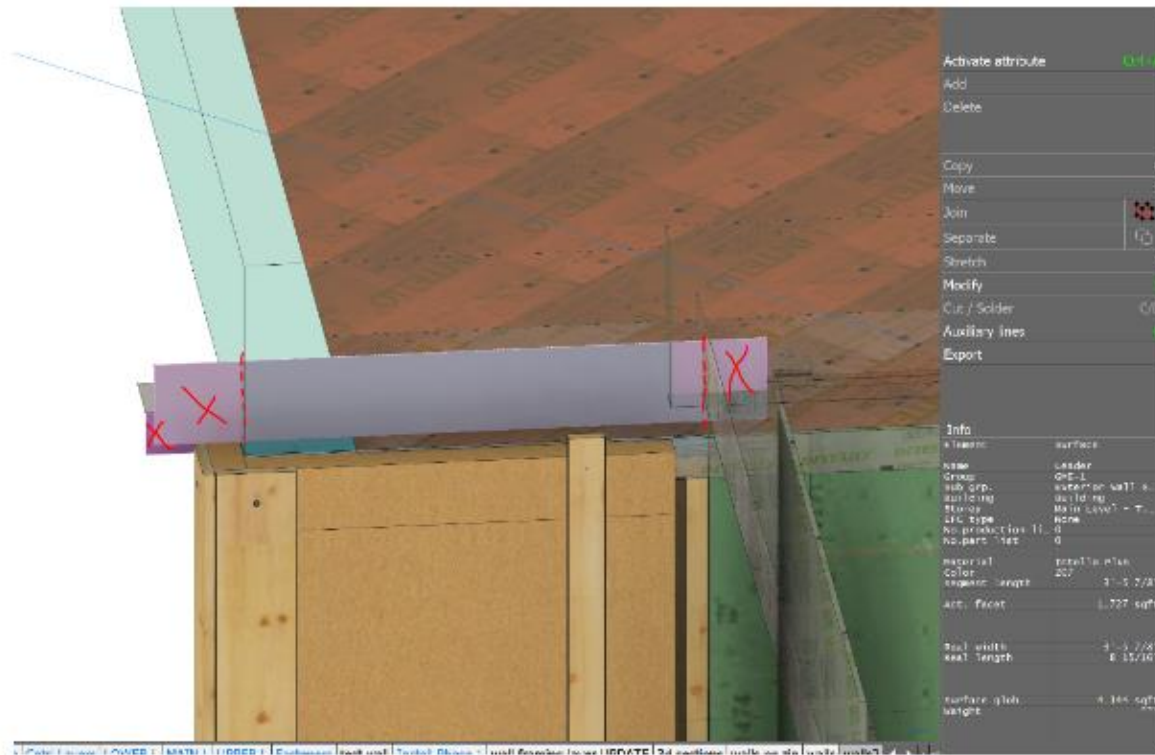
PANEL PARTS AND RELATIONSHIPS – A LOOK AT PANEL MN-4

Perspective

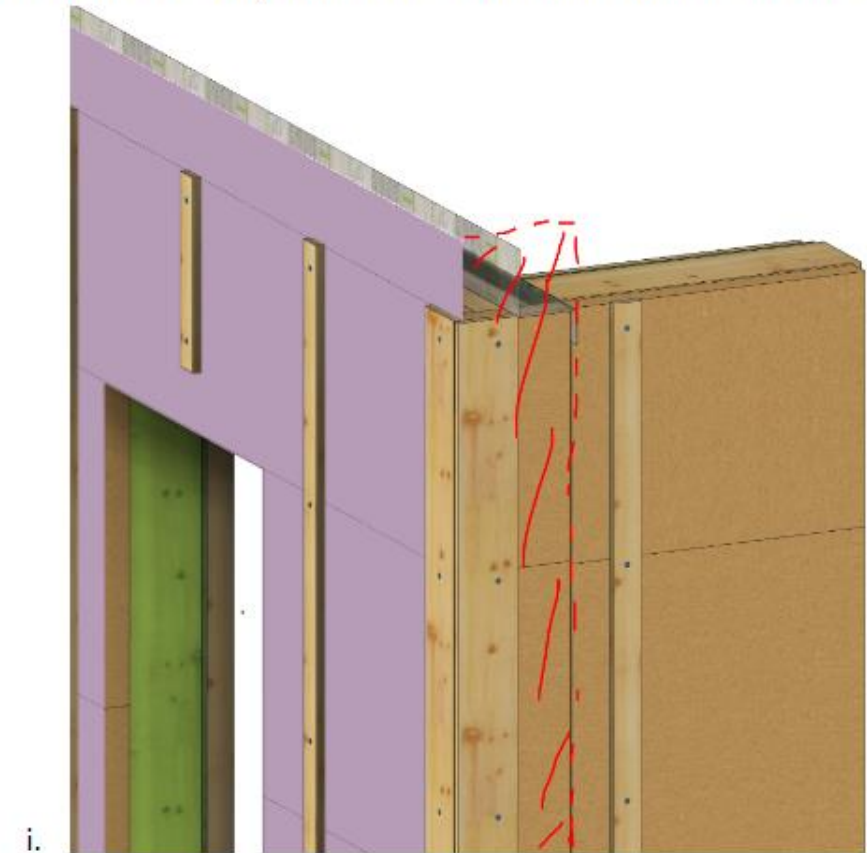


FACTORY REVIEW PROCESS

Can the leader that turns to the exterior be trimmed to edges of framing? On the exterior, this gets us to the outside corner of the floor system



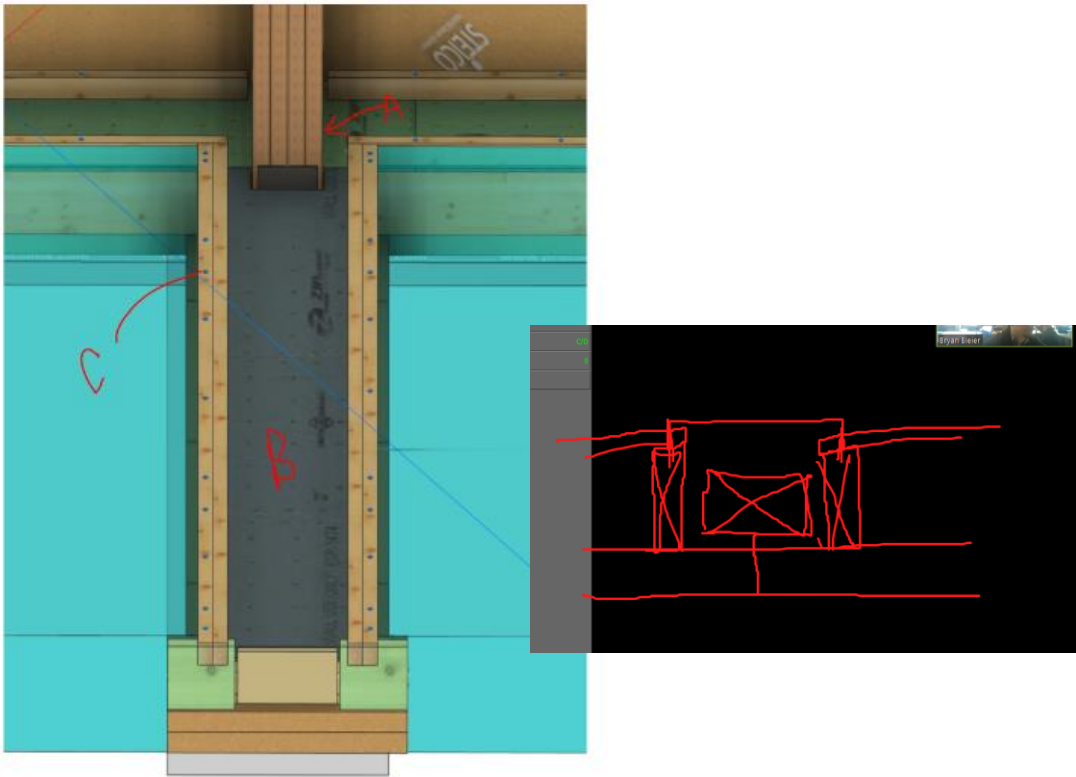
a. Extend Mento to wrap around the corner and terminate at the edge of wall



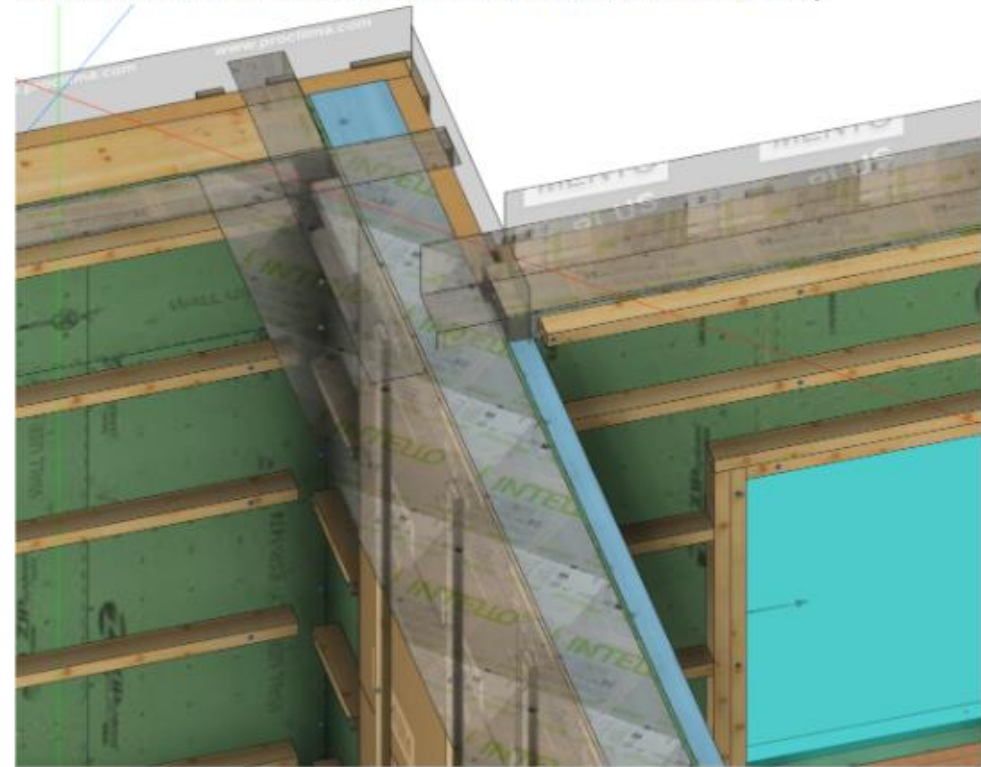
FACTORY REVIEW PROCESS

35. Garage Jack Walls

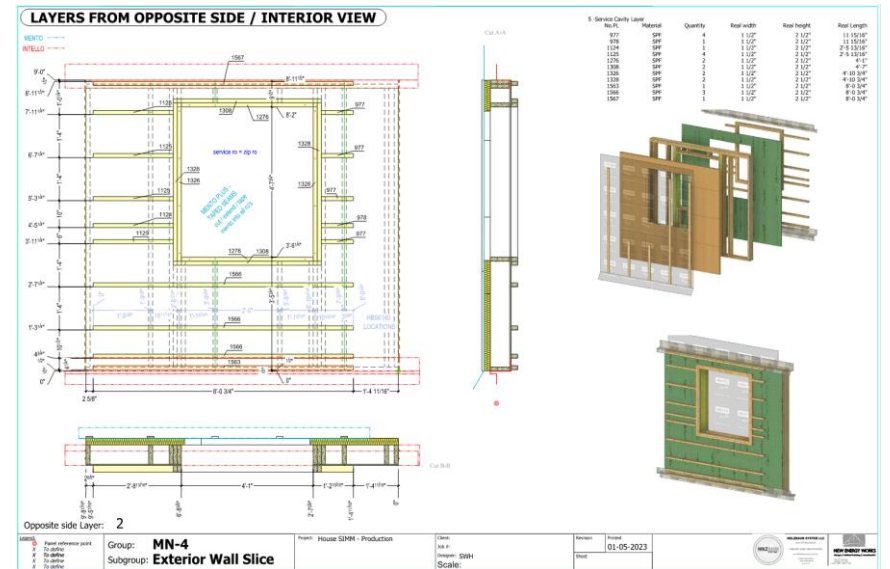
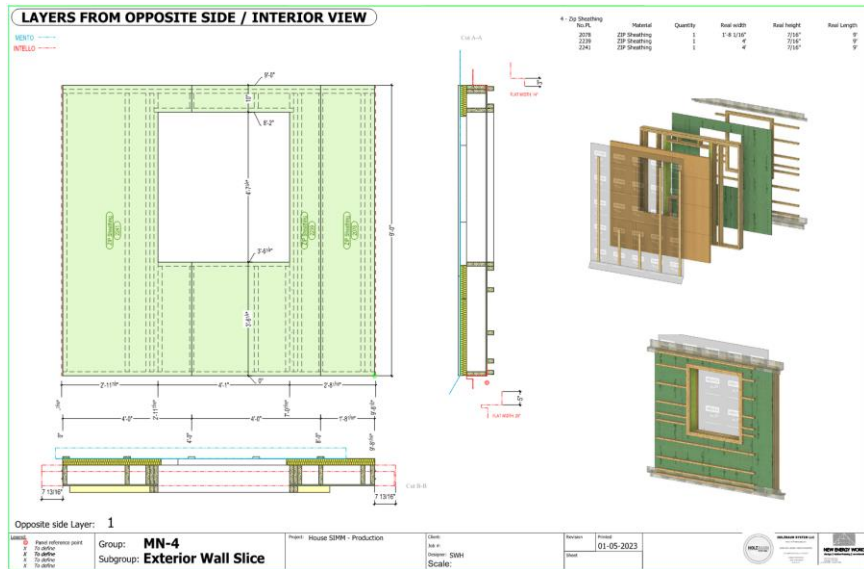
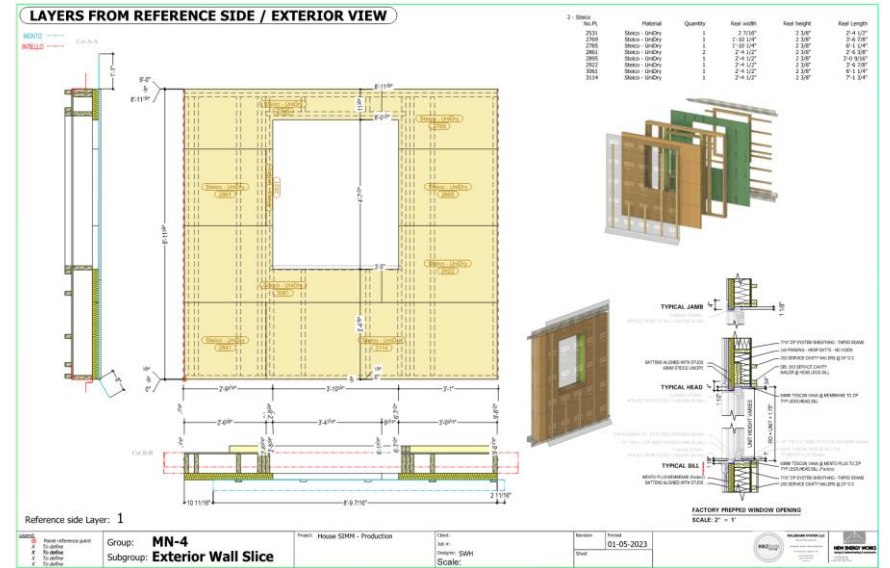
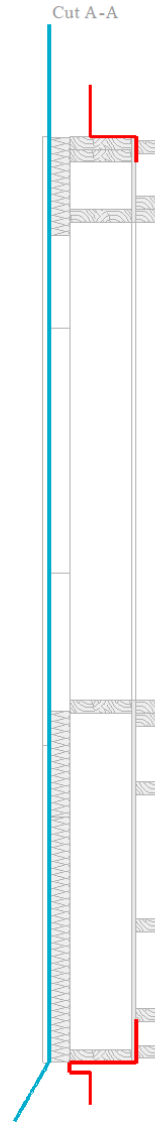
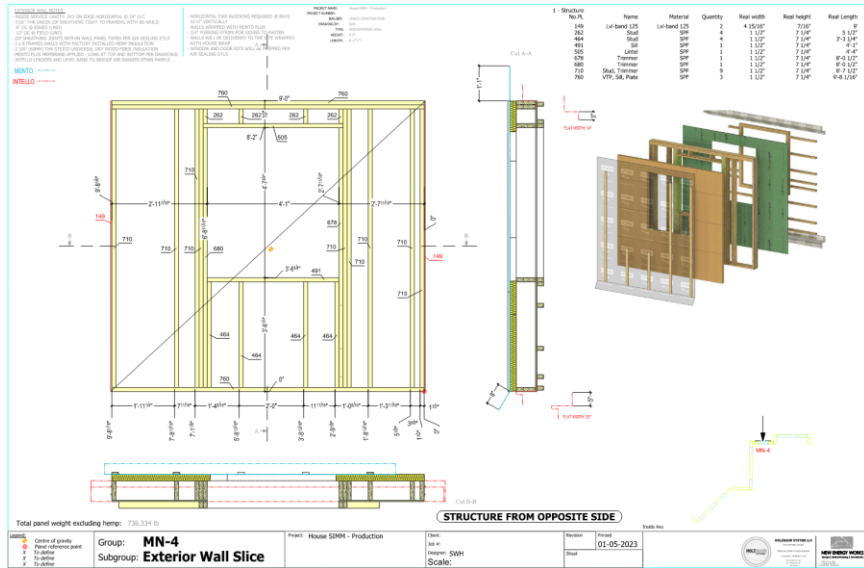
- What's the air sealing strategy around these beams? Are these beams going in after the walls?
- If this is field applied, I think these (4) battens need to be as well. Maybe the sheathing needs to go all the way to the roof here also?
- Why are there so many screws holding these battens on?



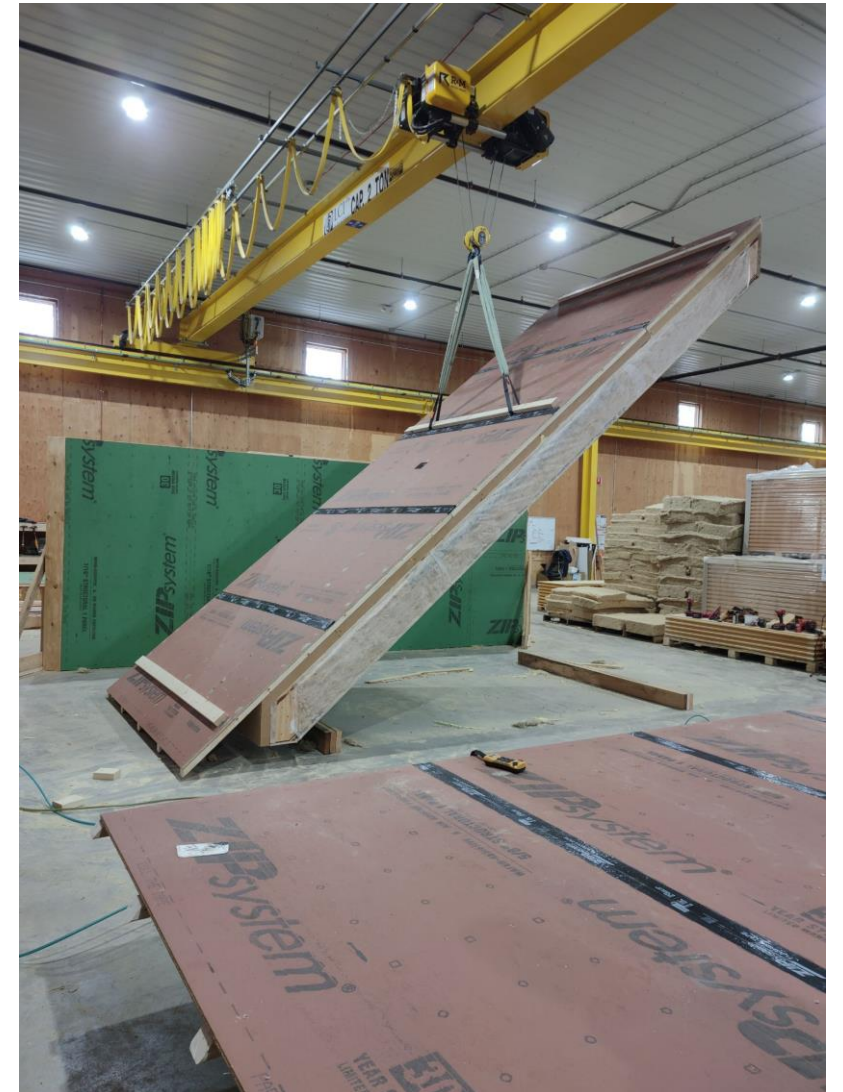
- We're going to need section cuts/sequencing details included in the geometry drawings for the pressure boundary transitions at this garage demising wall.



WALL PANEL DRAWINGS



PANEL FABRICATION



PANEL FABRICATION



PANEL INSTALLATION WORKSHOP



PANEL INSTALLATION WORKSHOP



PANEL INSTALLATION WORKSHOP



PANEL INSTALLATION WORKSHOP



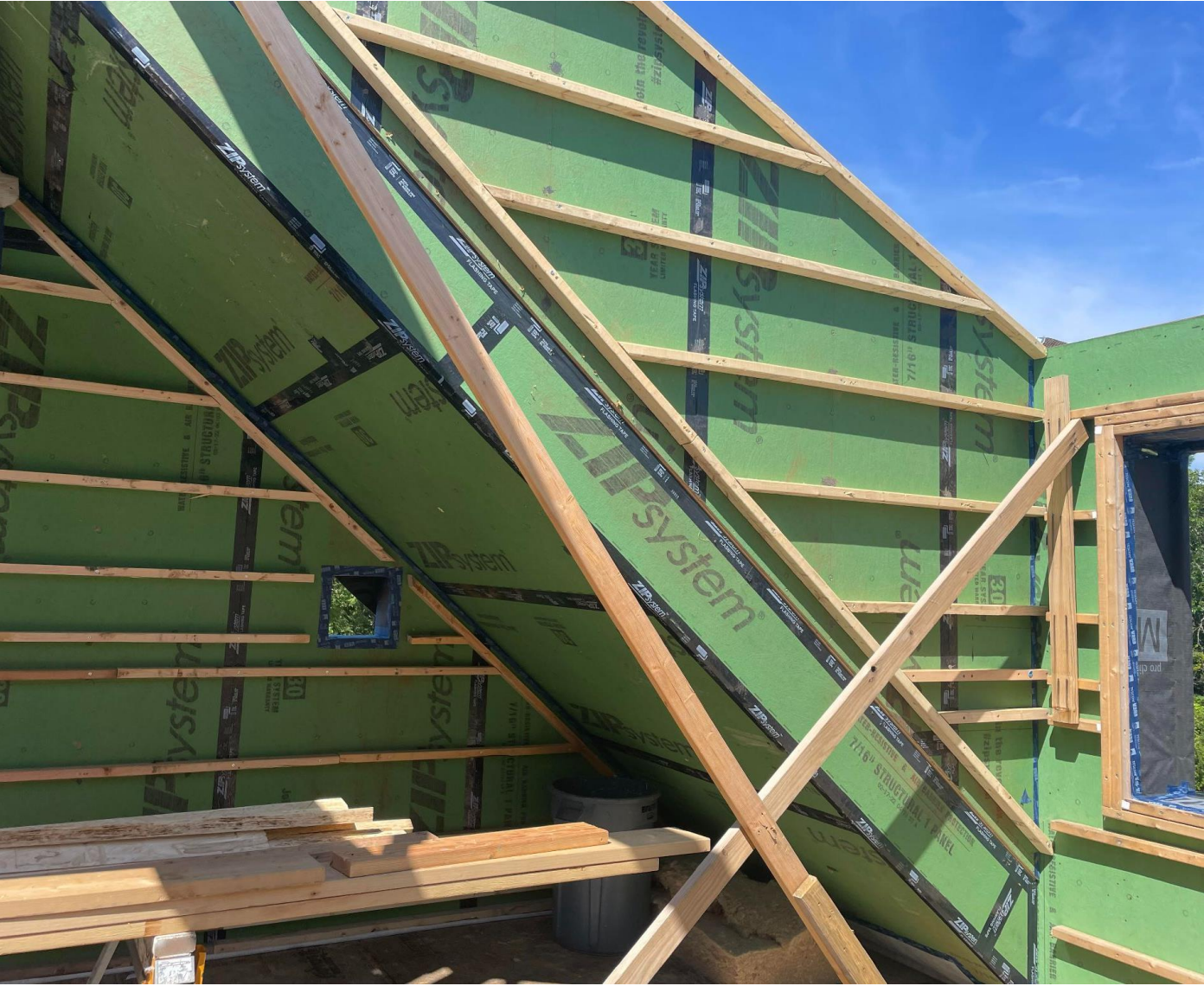
PANEL INSTALLATION HOUSE



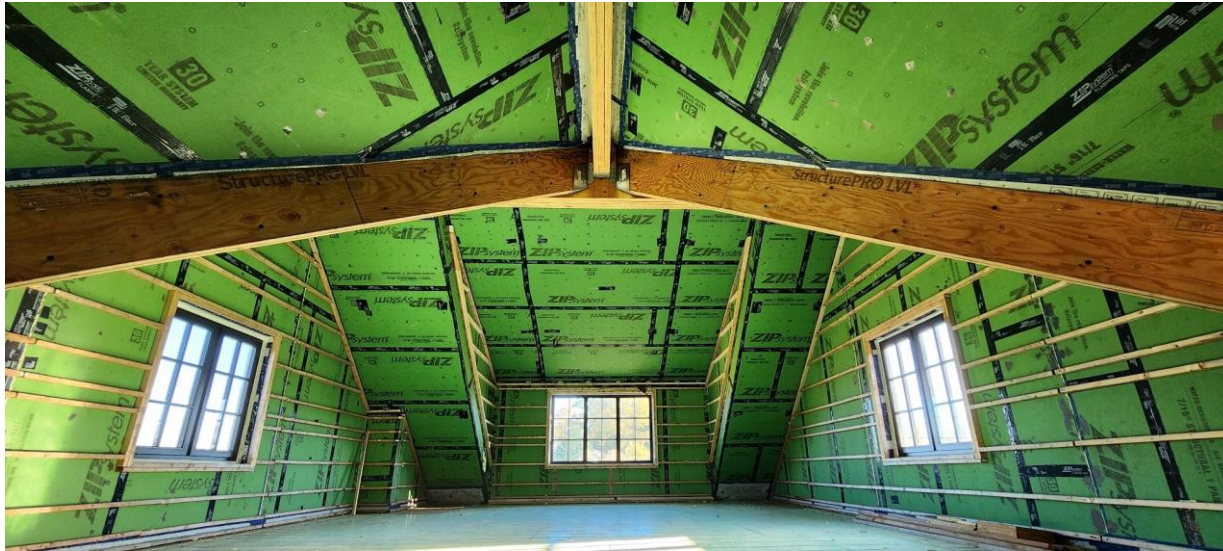
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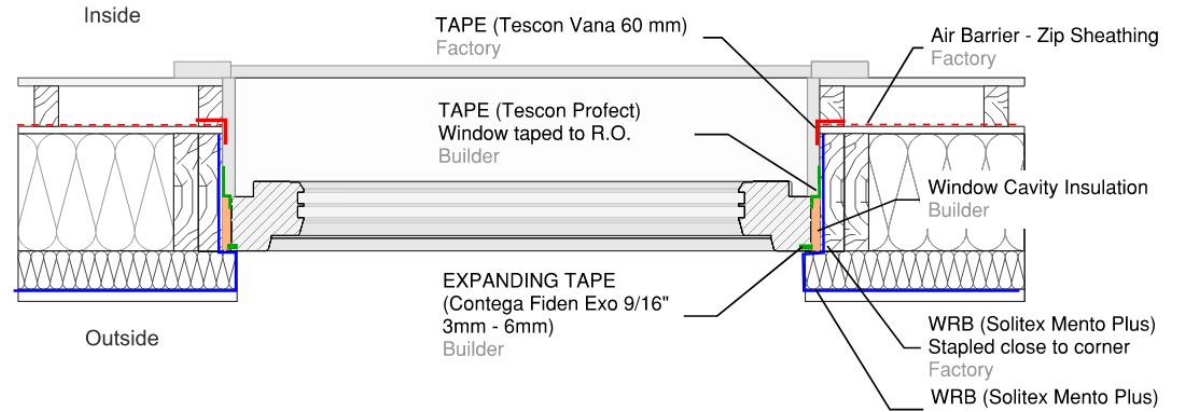
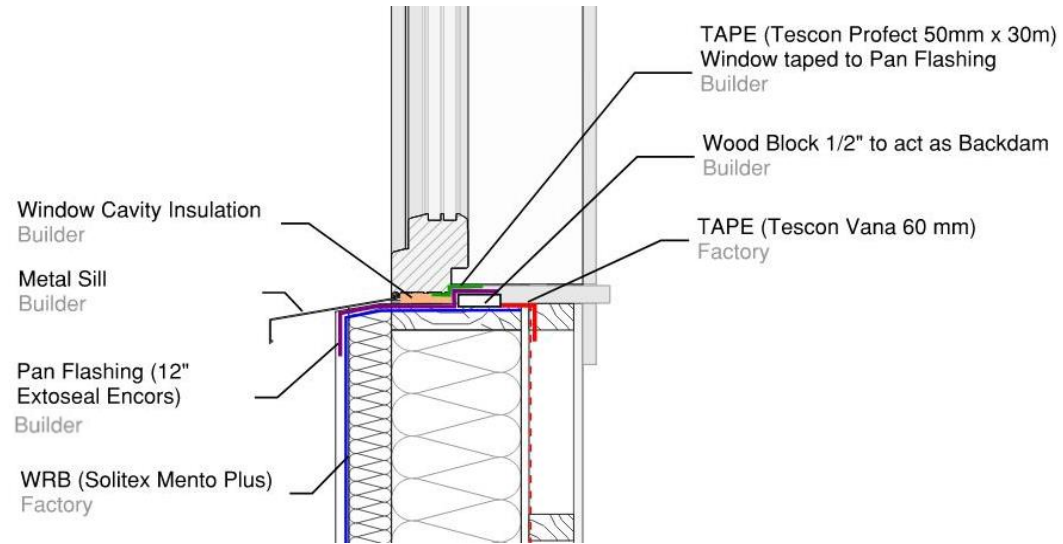
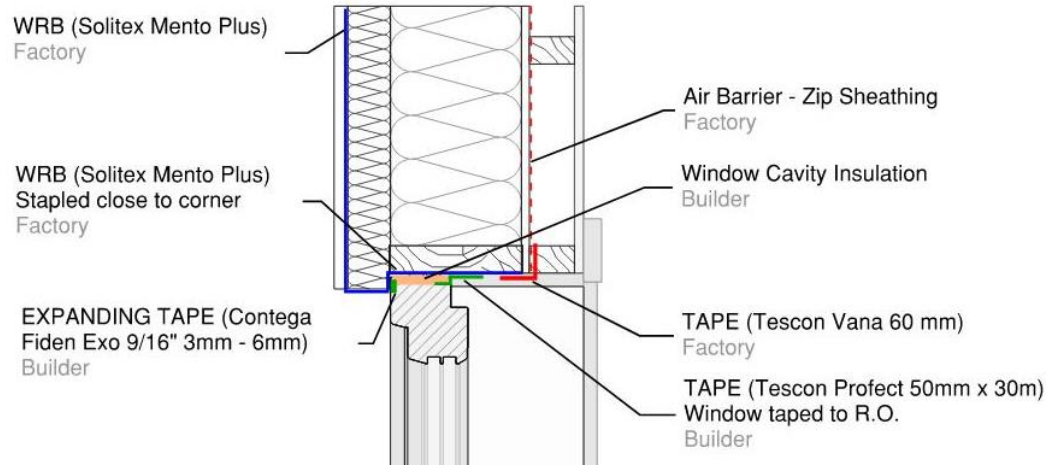
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WINDOW INSTALLATION



REIMAGINE BUILDINGS



Search

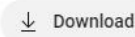
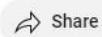


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