

SISTEMA SIP

STRUCTURAL INSULATED PANEL



Curso Diseño Constructivo en Madera – Profesor Luis Goldsack Jarpa
Departamento de Ciencias de la Construcción – Facultad de Arquitectura y Urbanismo – Universidad de Chile

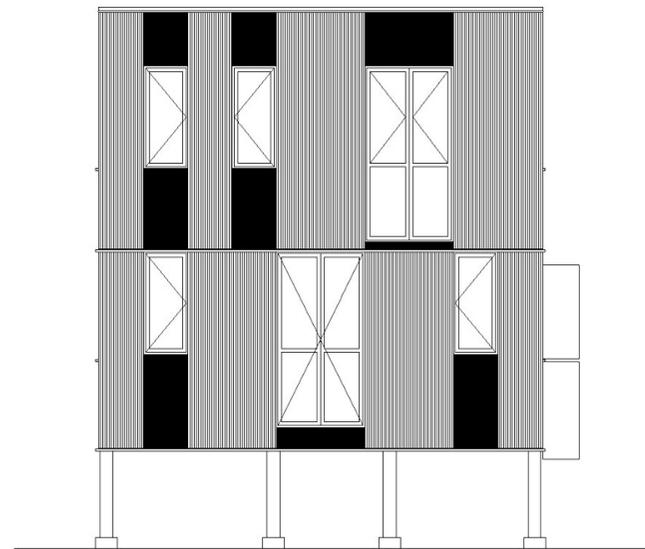
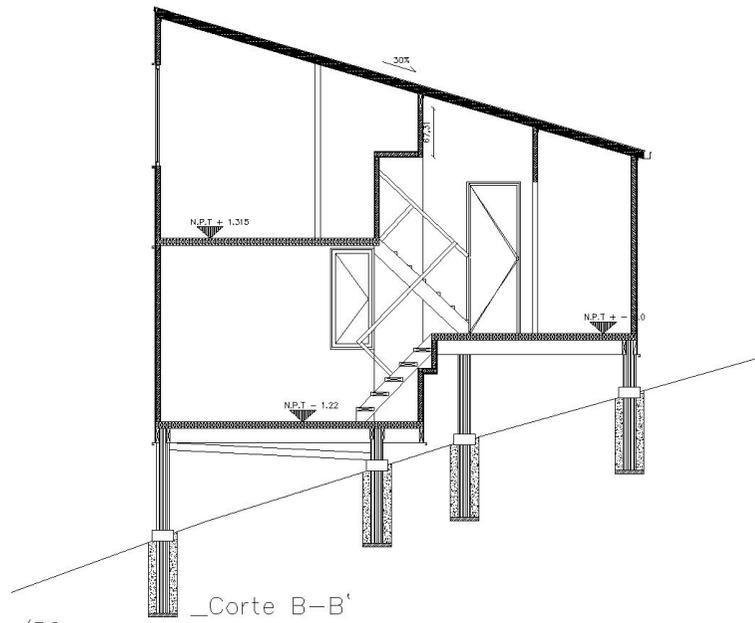
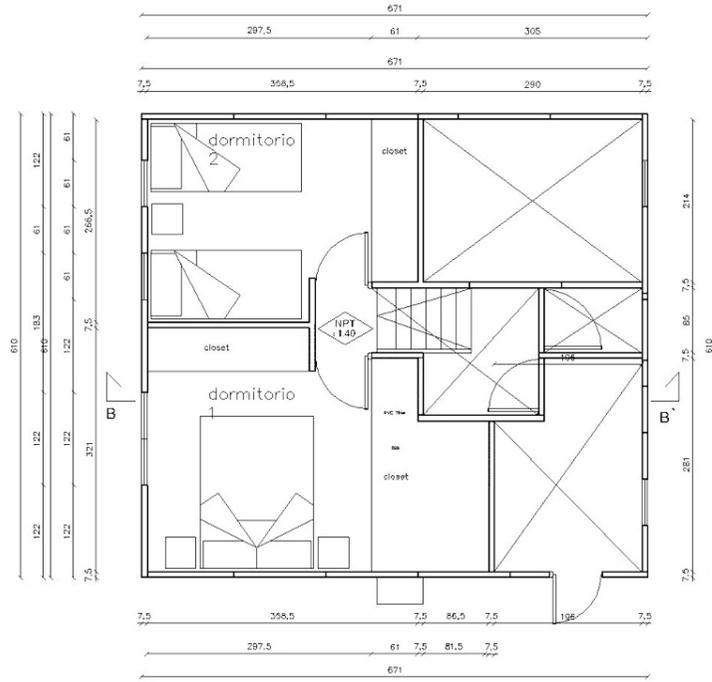
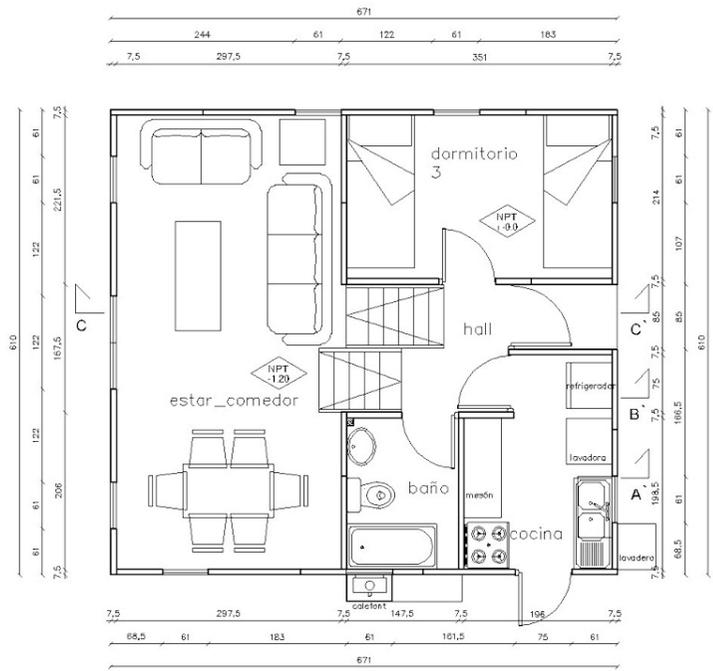
Viviendas sociales en Isla Robinson Crusoe



OWAR arquitectos



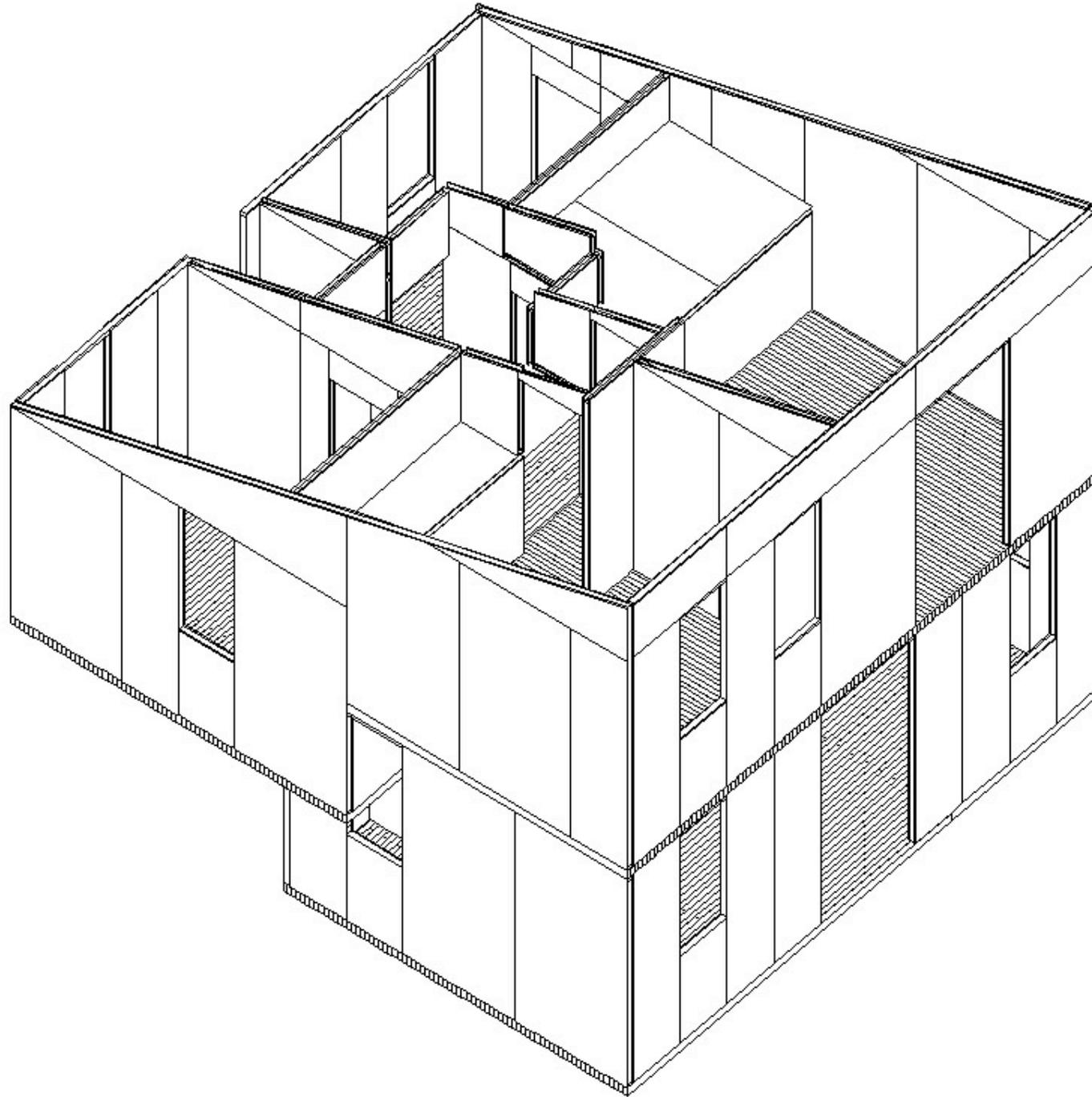


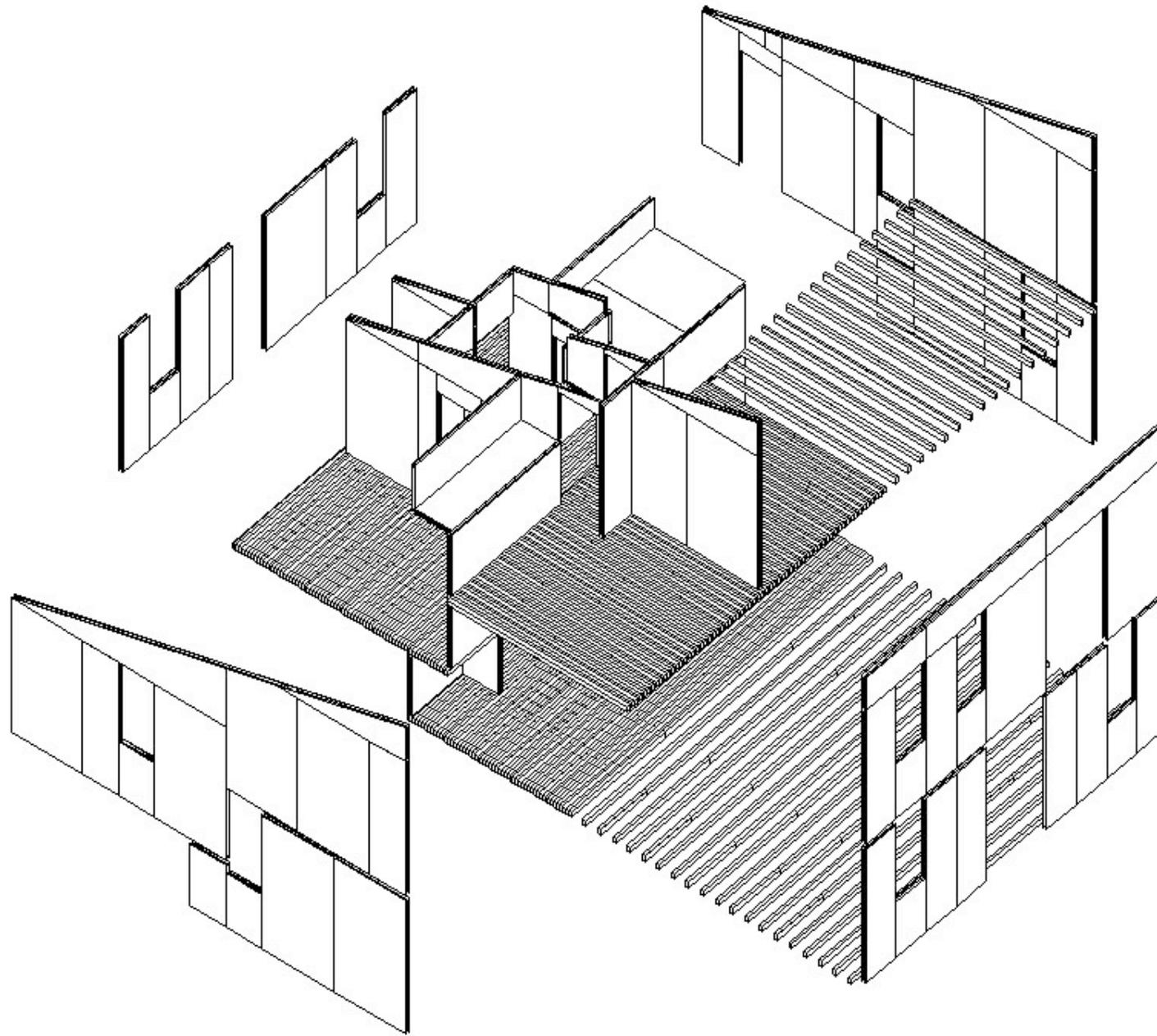








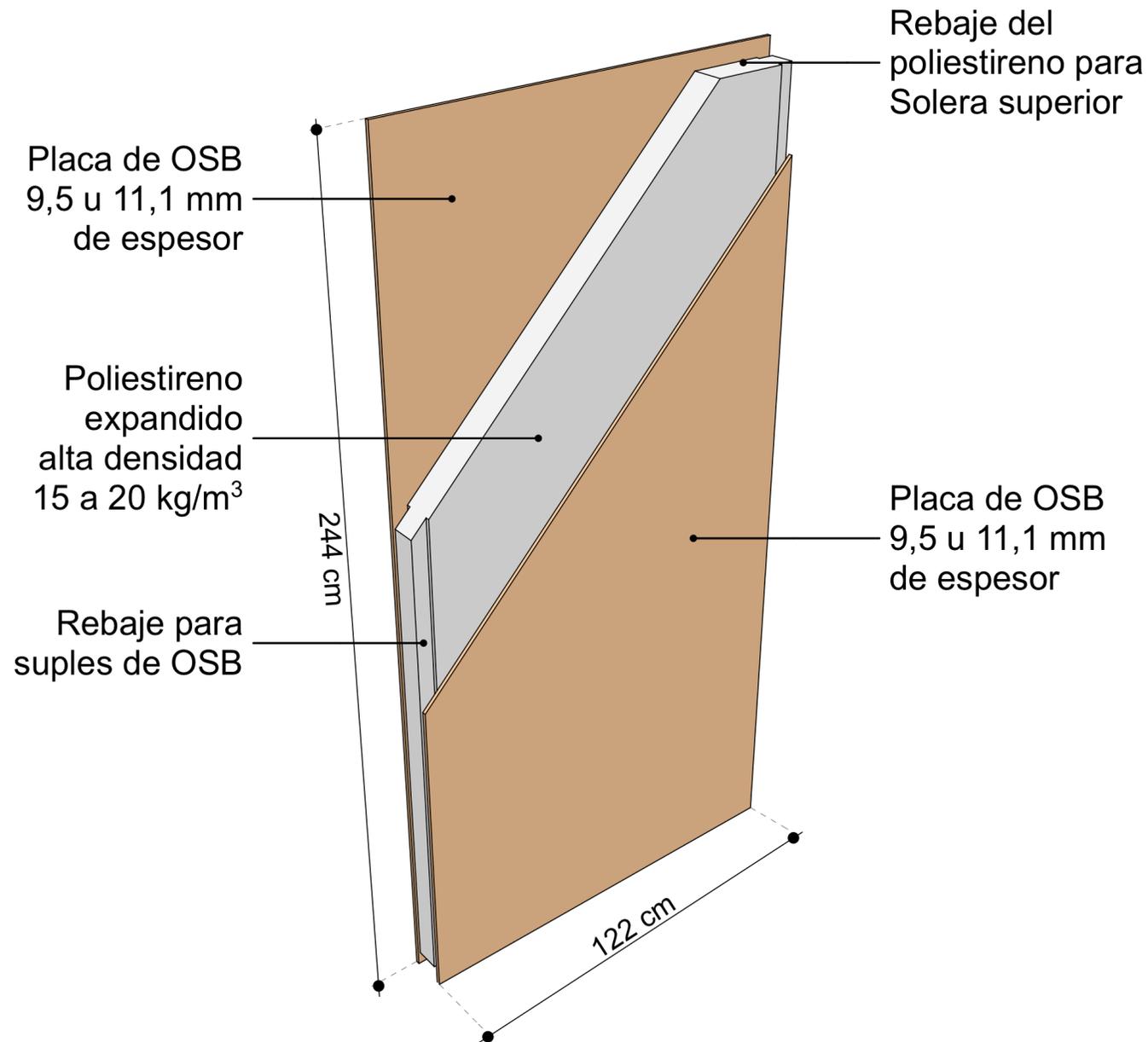




Panel SIP



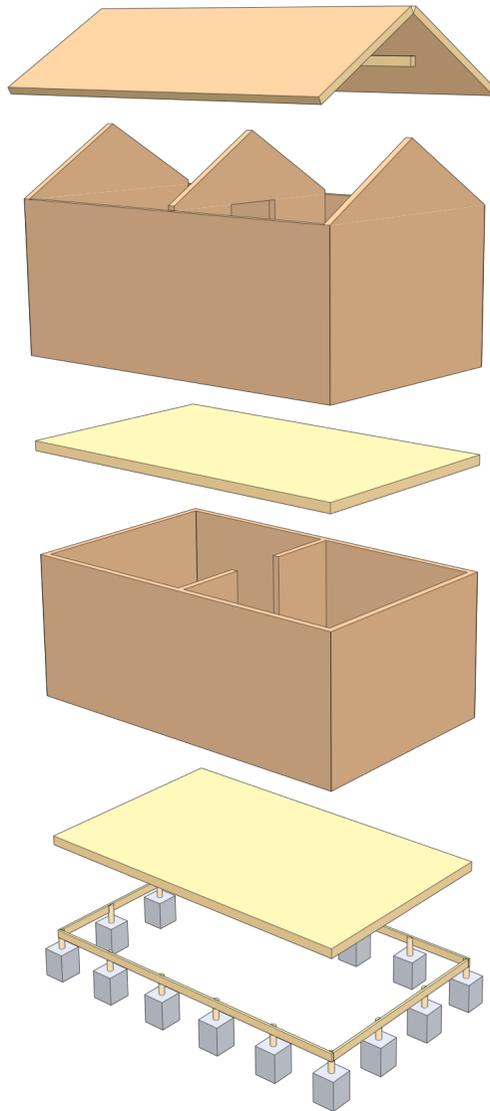
Unidad base, Panel SIP



Sistema estructural de placas

Placas como elemento soportante

Transmisión de cargas estáticas a través de todo el elemento



Cubierta apoyada en una viga de cumbrera y en los muros laterales

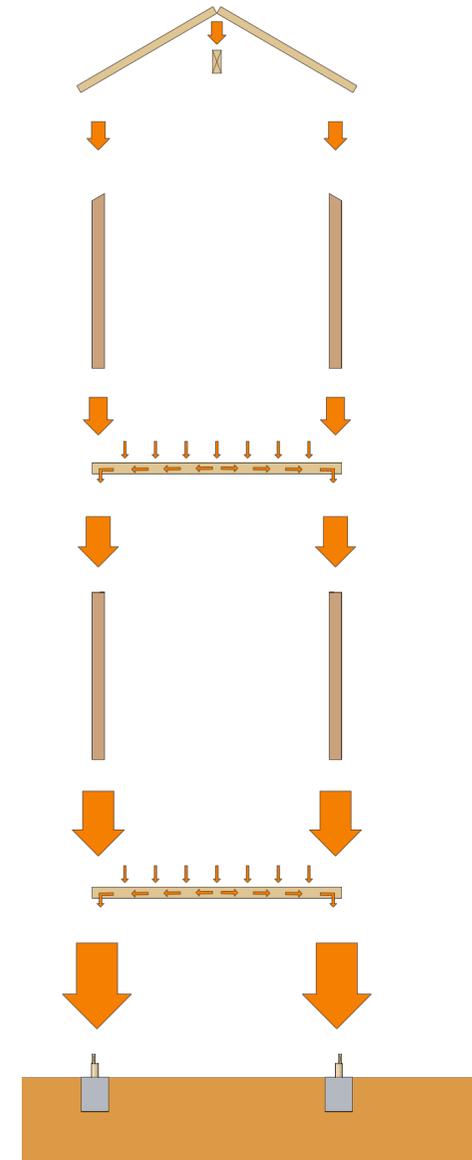
Muros formando encuentros en "L" o "T", con frontones para dar pendiente a la cubierta. Todos apoyados sobre la losa

Losa apoyada sobre muros de 1º Piso

Muros formando encuentros en "L" o "T", y apoyados sobre la losa

Losa apoyada sobre envigado o fundación corrida

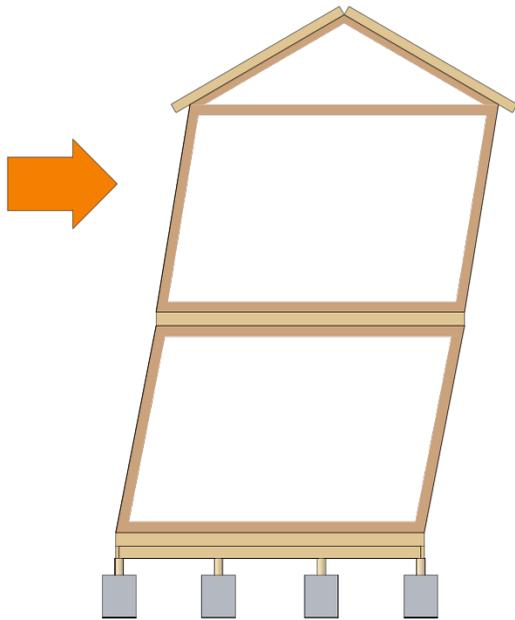
Fundaciones aisladas con envigado o Fundaciones corridas



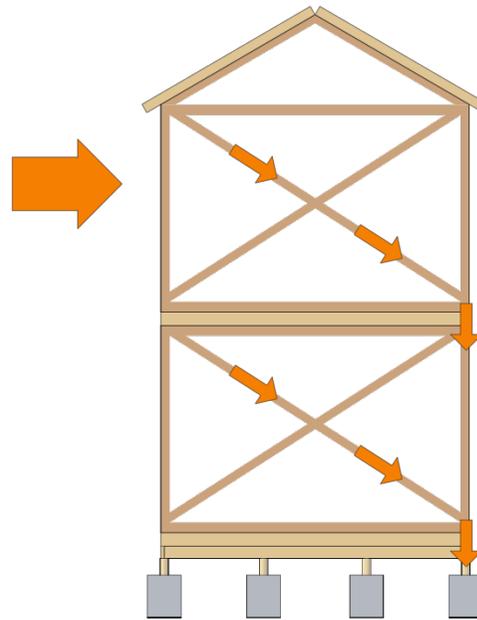
Sistema estructural de placas

Placas como elemento arriostrante

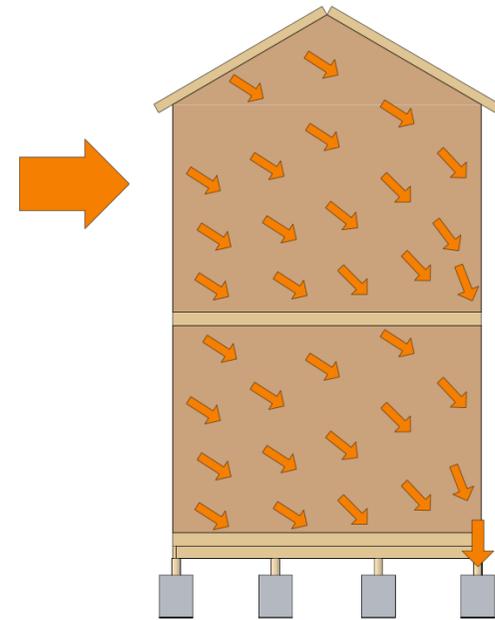
Cargas dinámicas transmitidas al terreno mediante la placa de OSB



Acción del sismo o viento sobre una **estructura sin arriostrar**

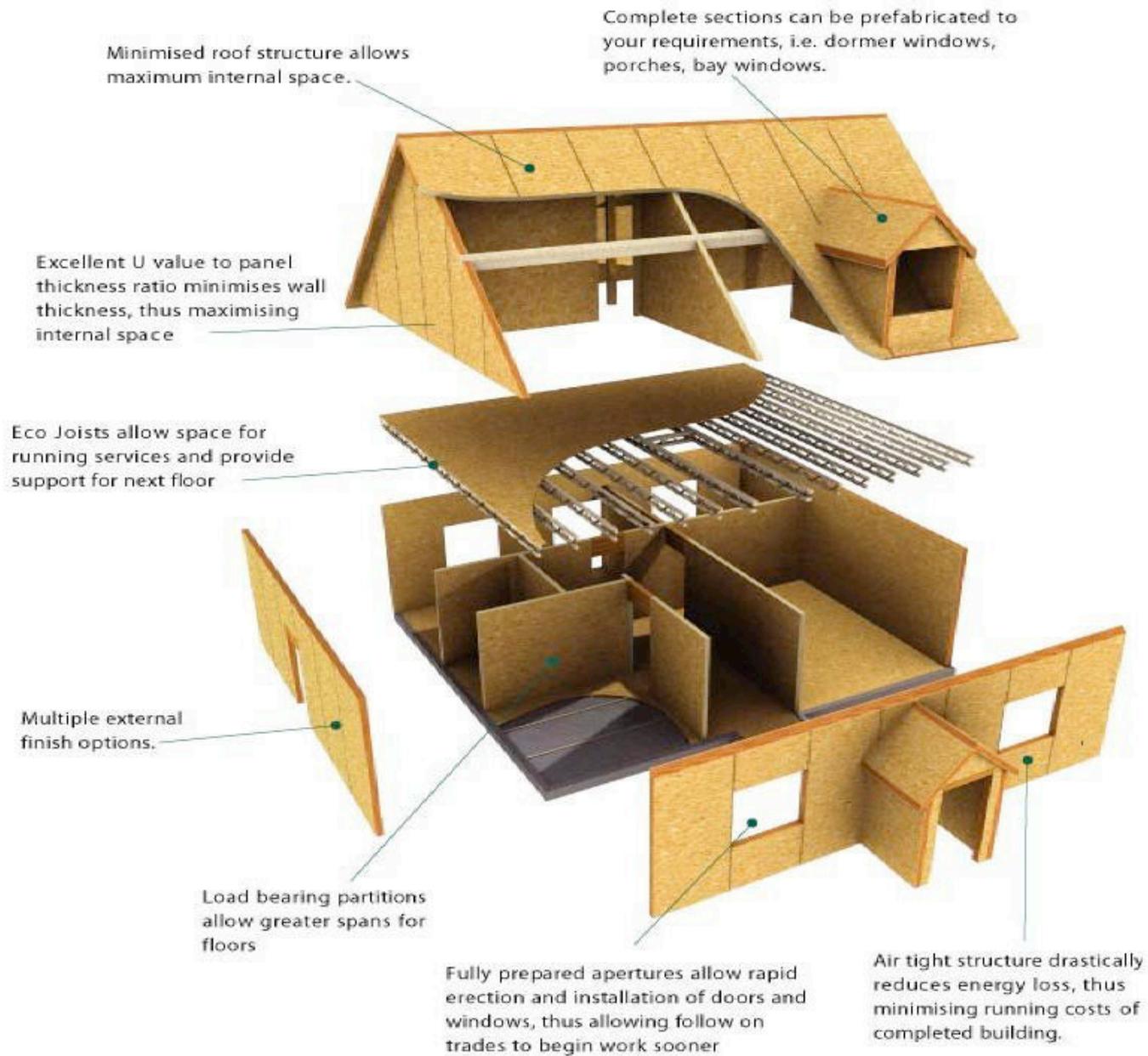


Acción del sismo o viento sobre una **estructura con arriostramiento por diagonales**

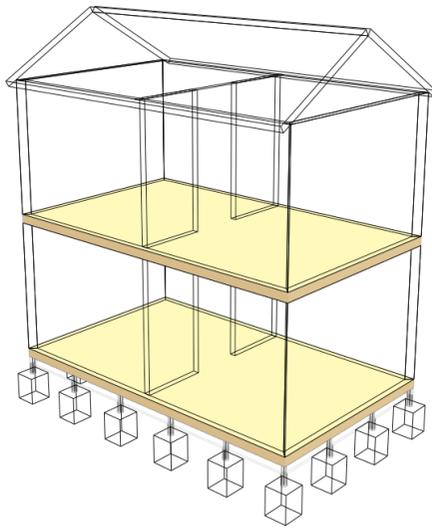


Acción del sismo o viento sobre una **estructura con arriostramiento por Placas**

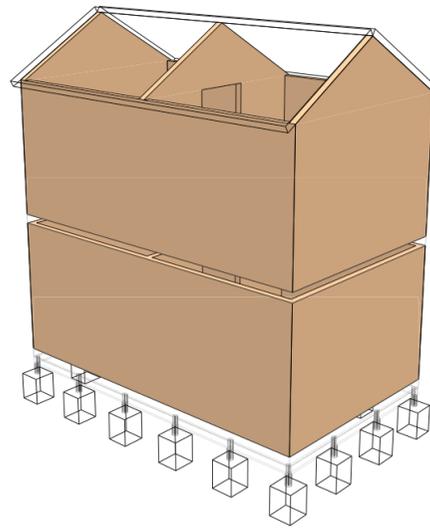
Sistema Constructivo



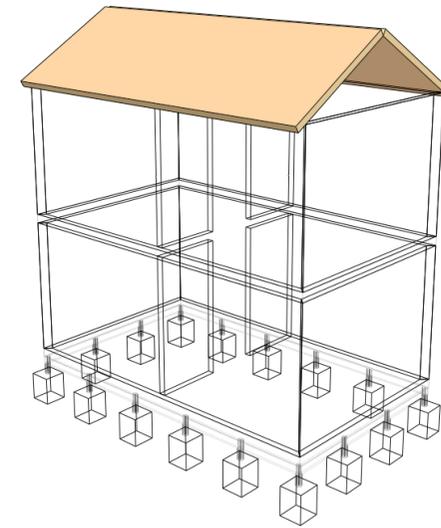
¿Cómo conformar las placas?



Placas horizontales: Losas

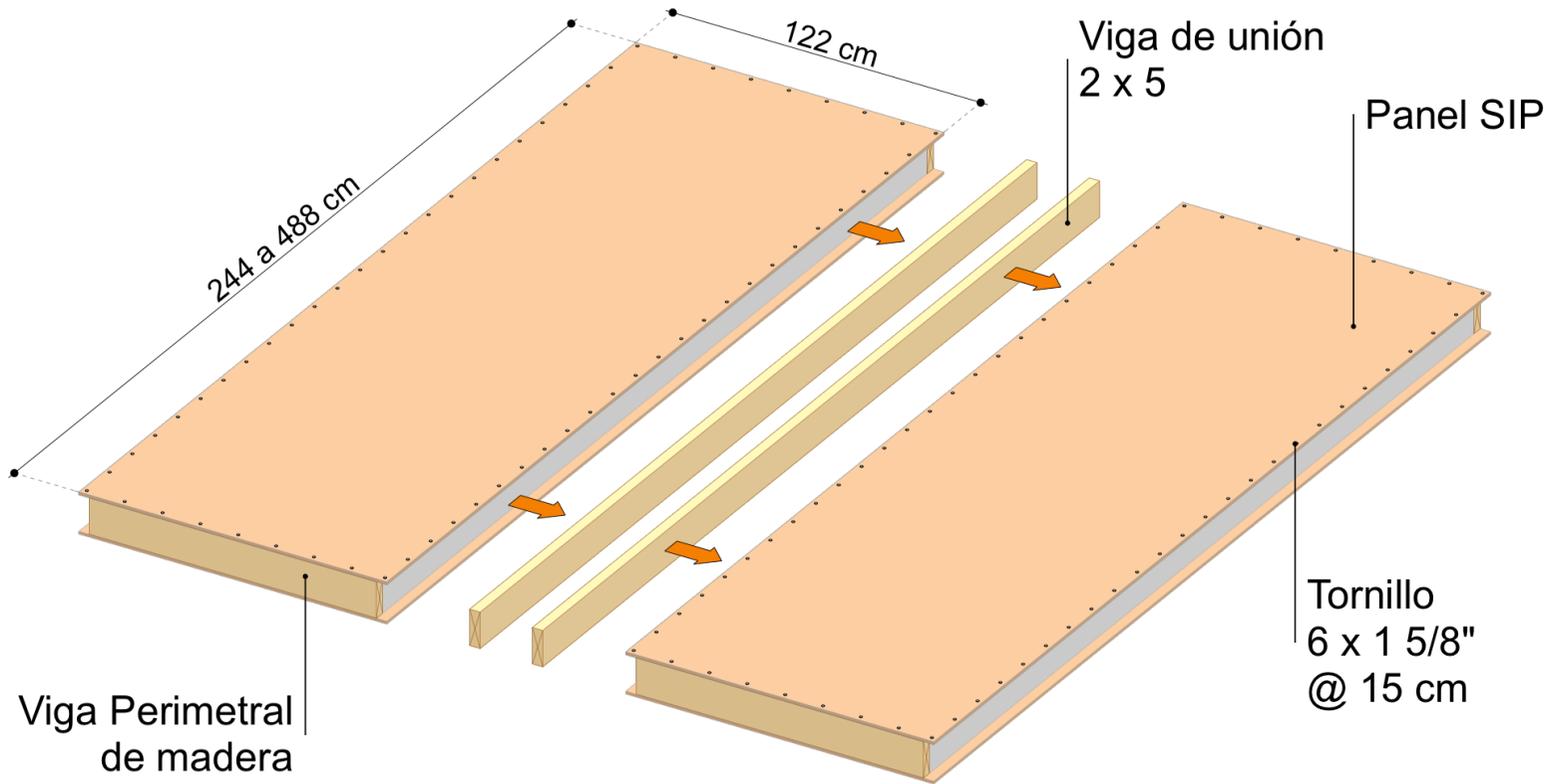
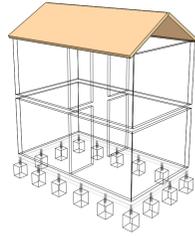
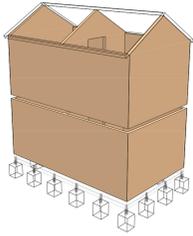
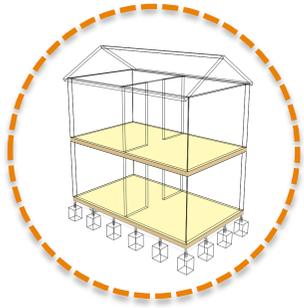


Placas verticales: Muros

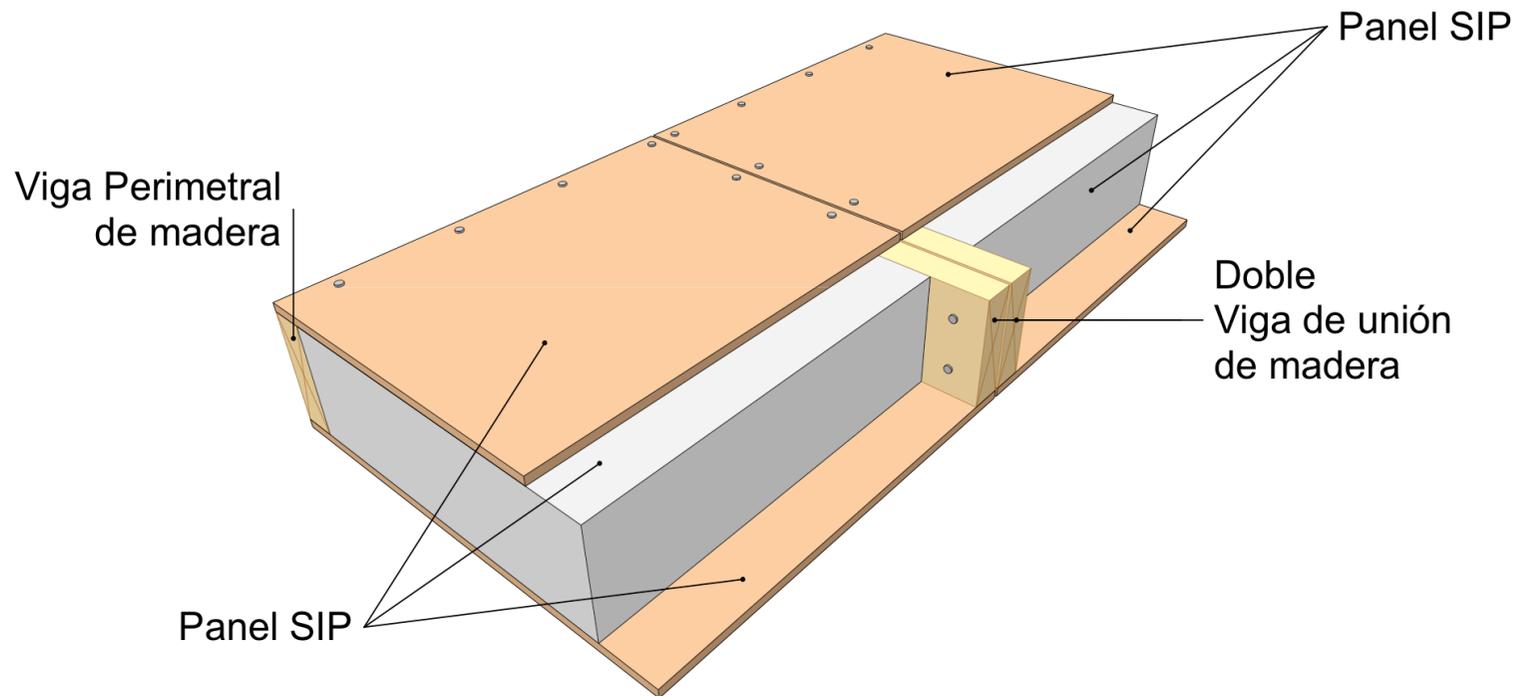
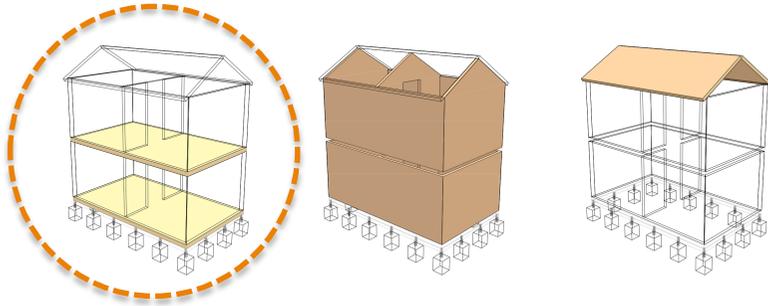


Placas inclinadas: Cubierta

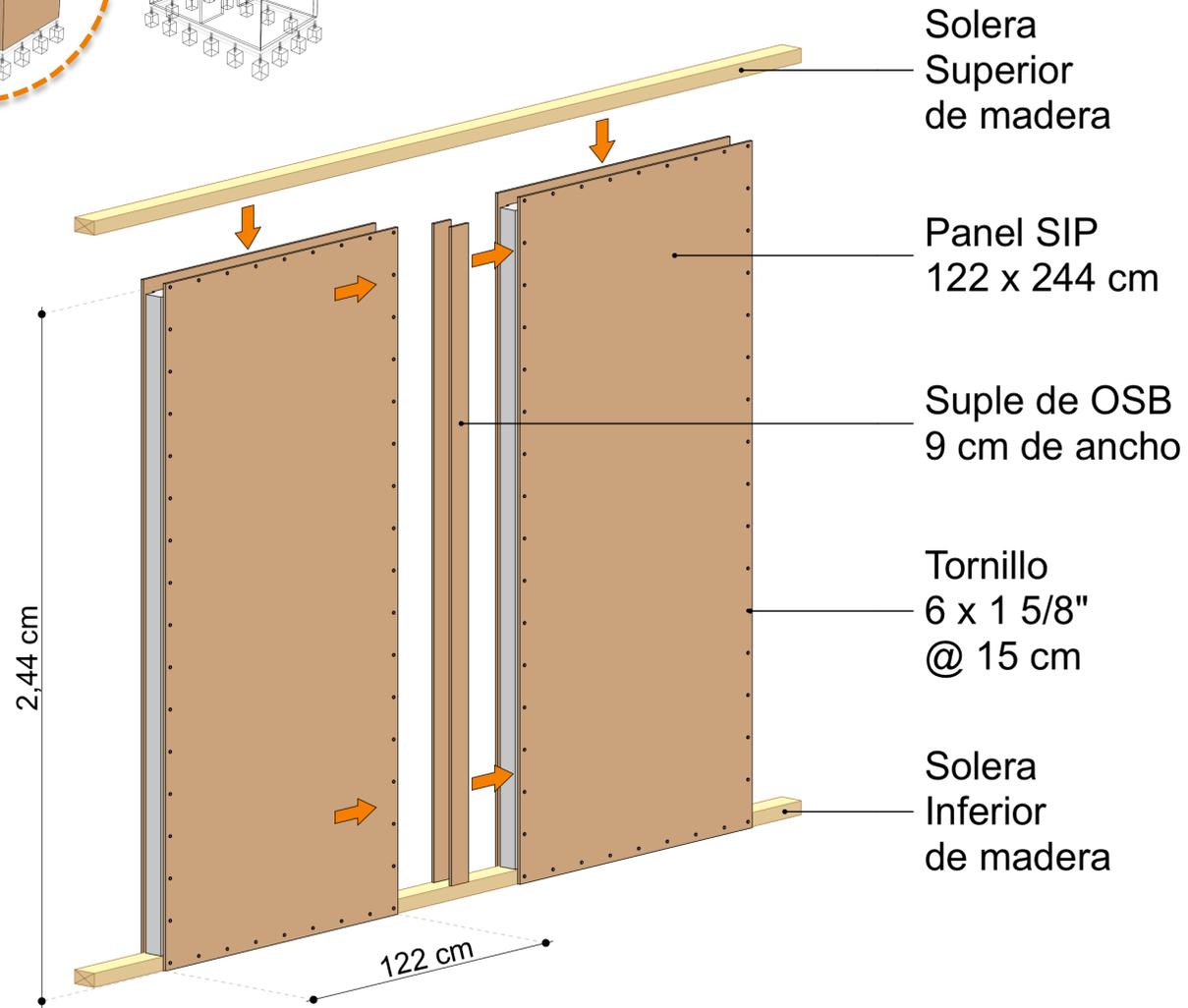
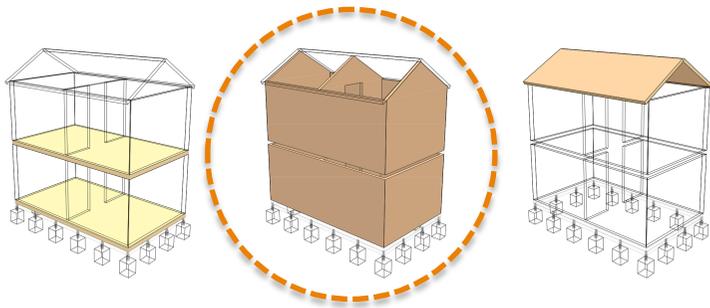
Losas



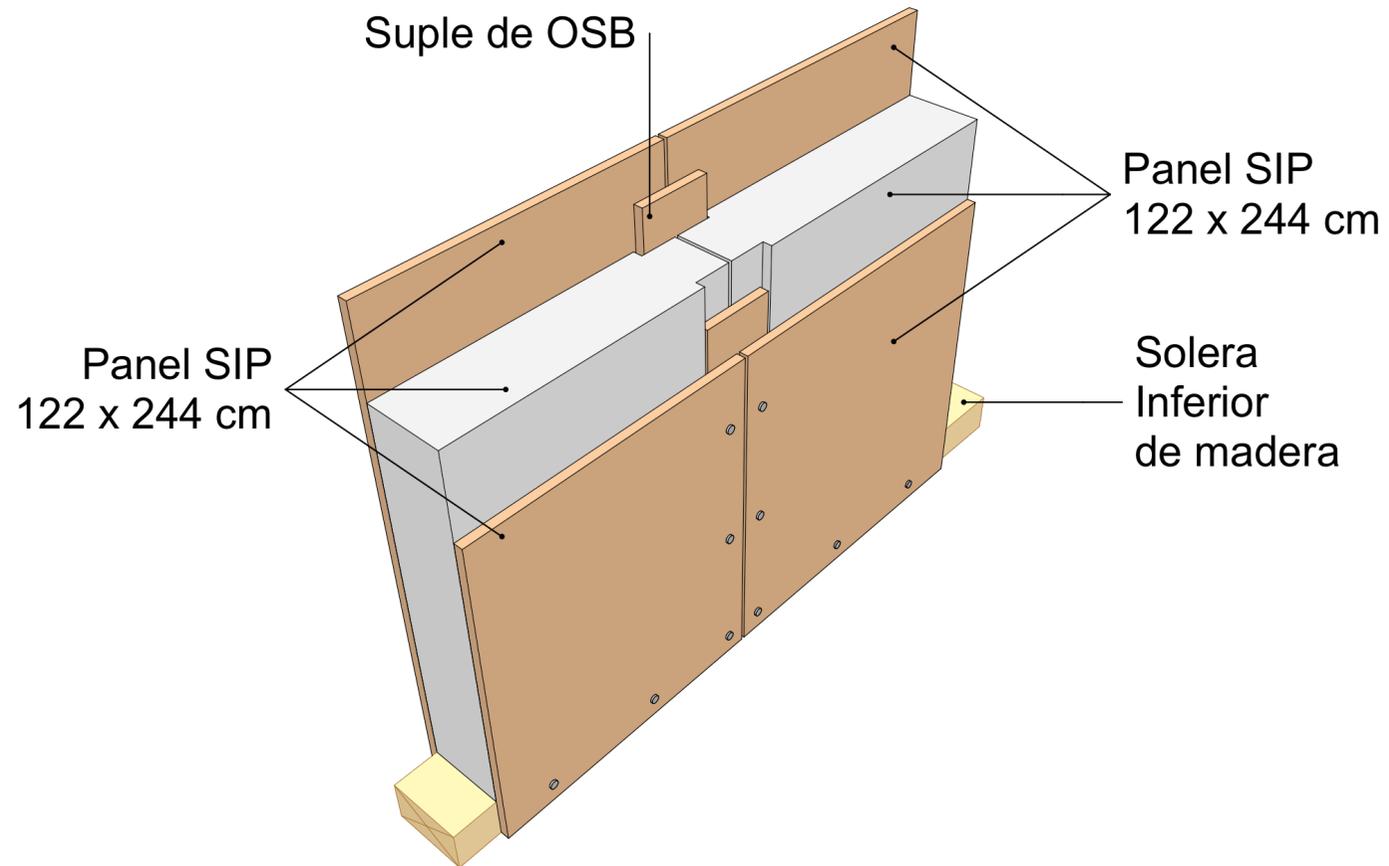
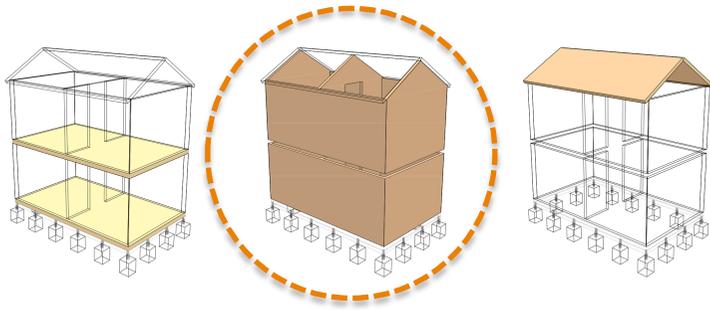
Losas



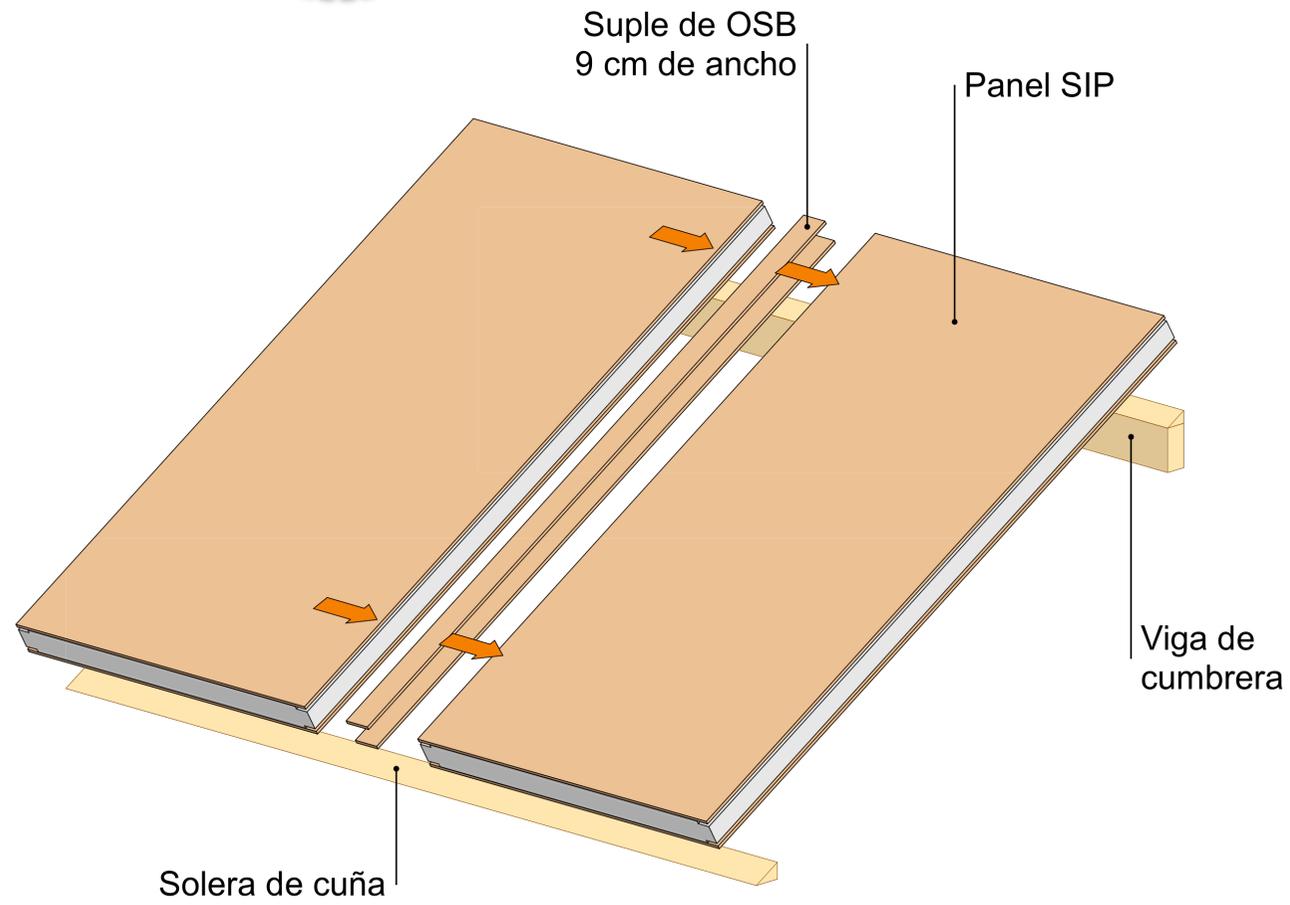
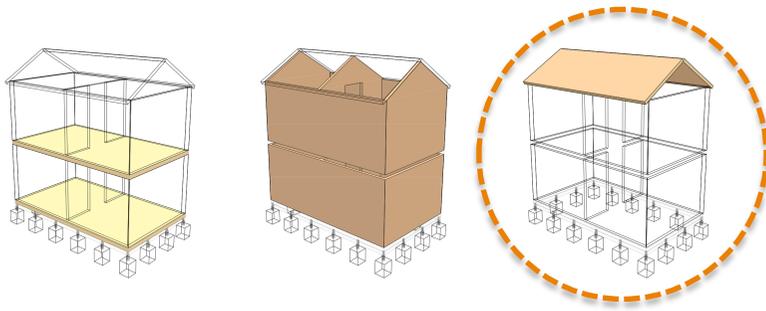
Muros



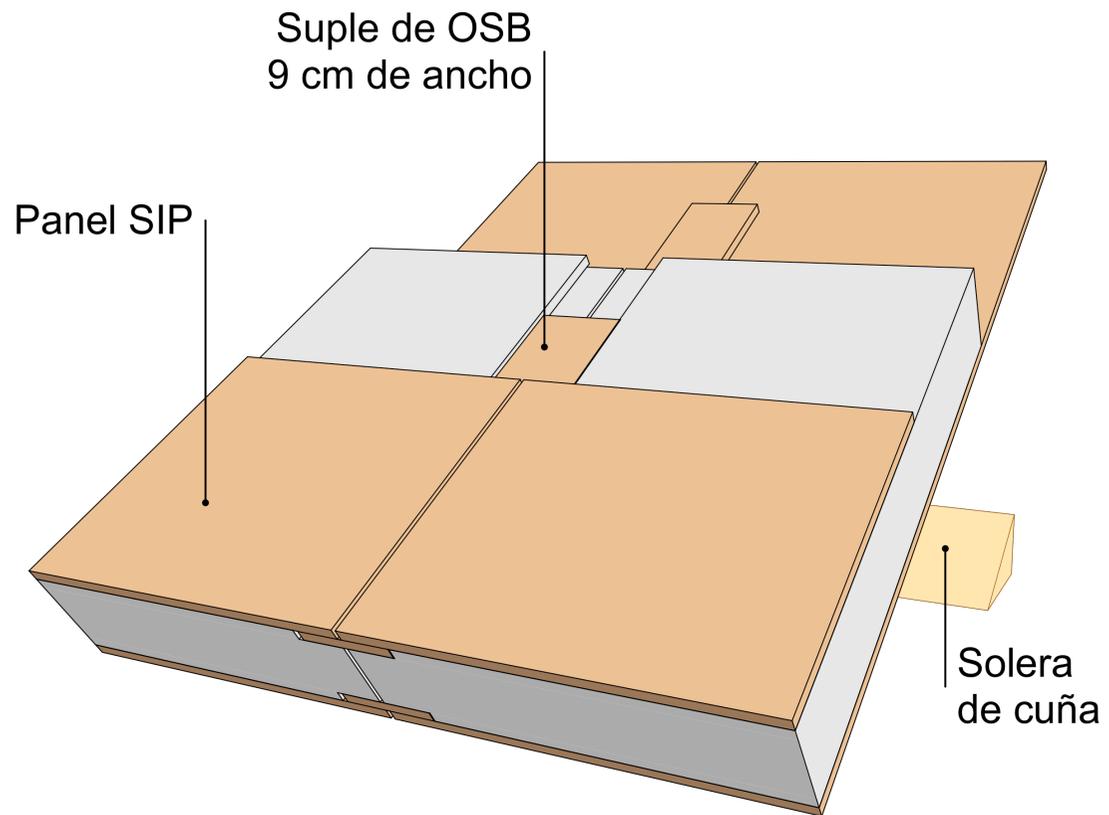
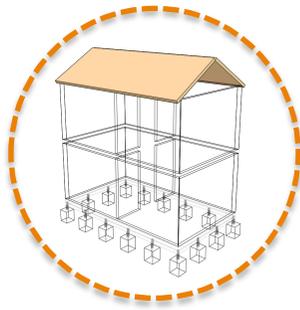
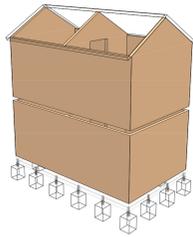
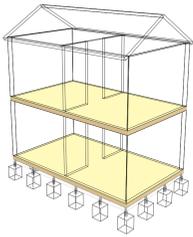
Muros



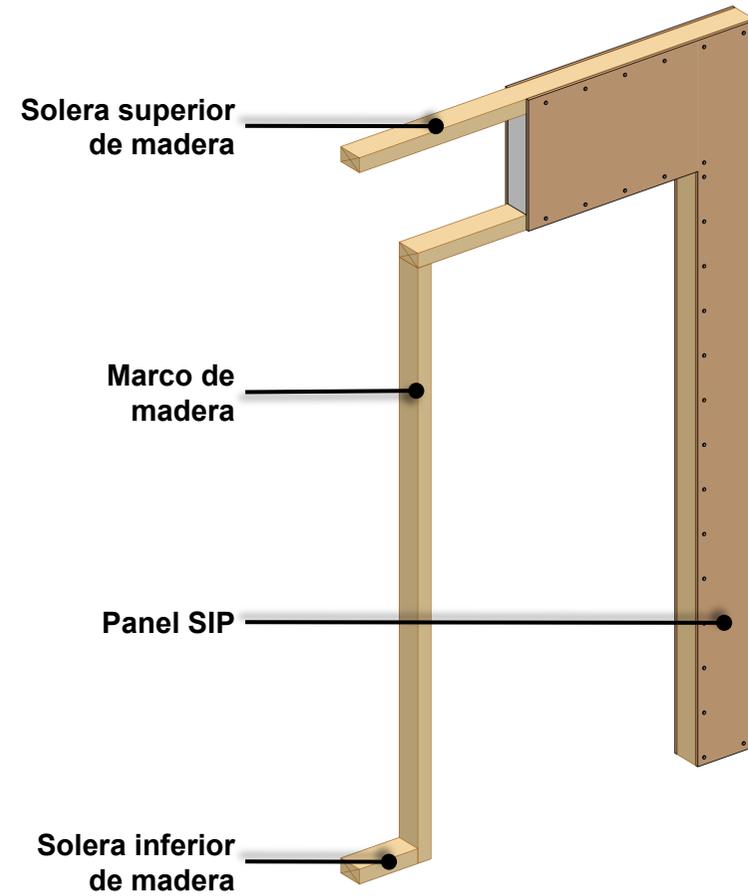
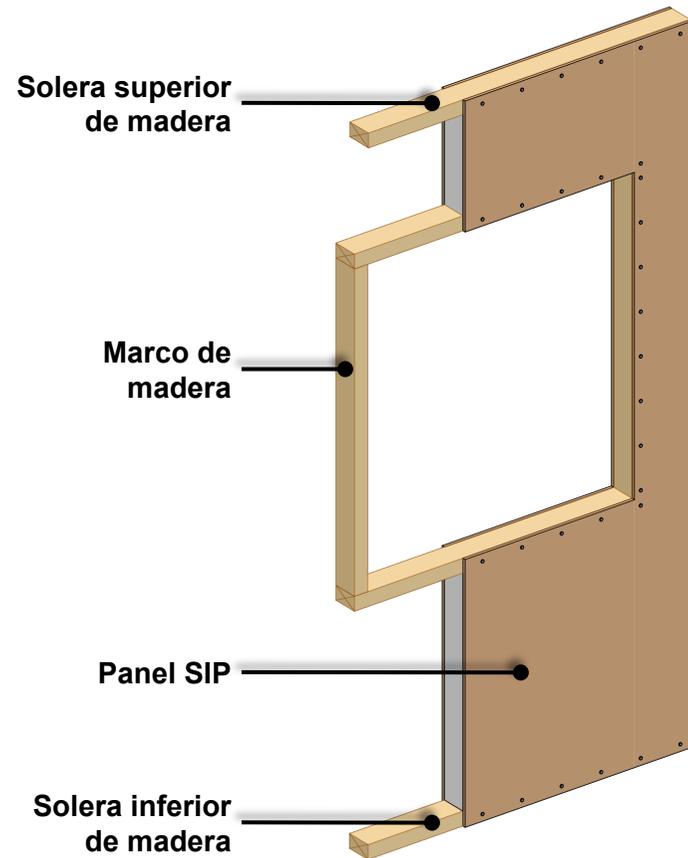
Cubierta



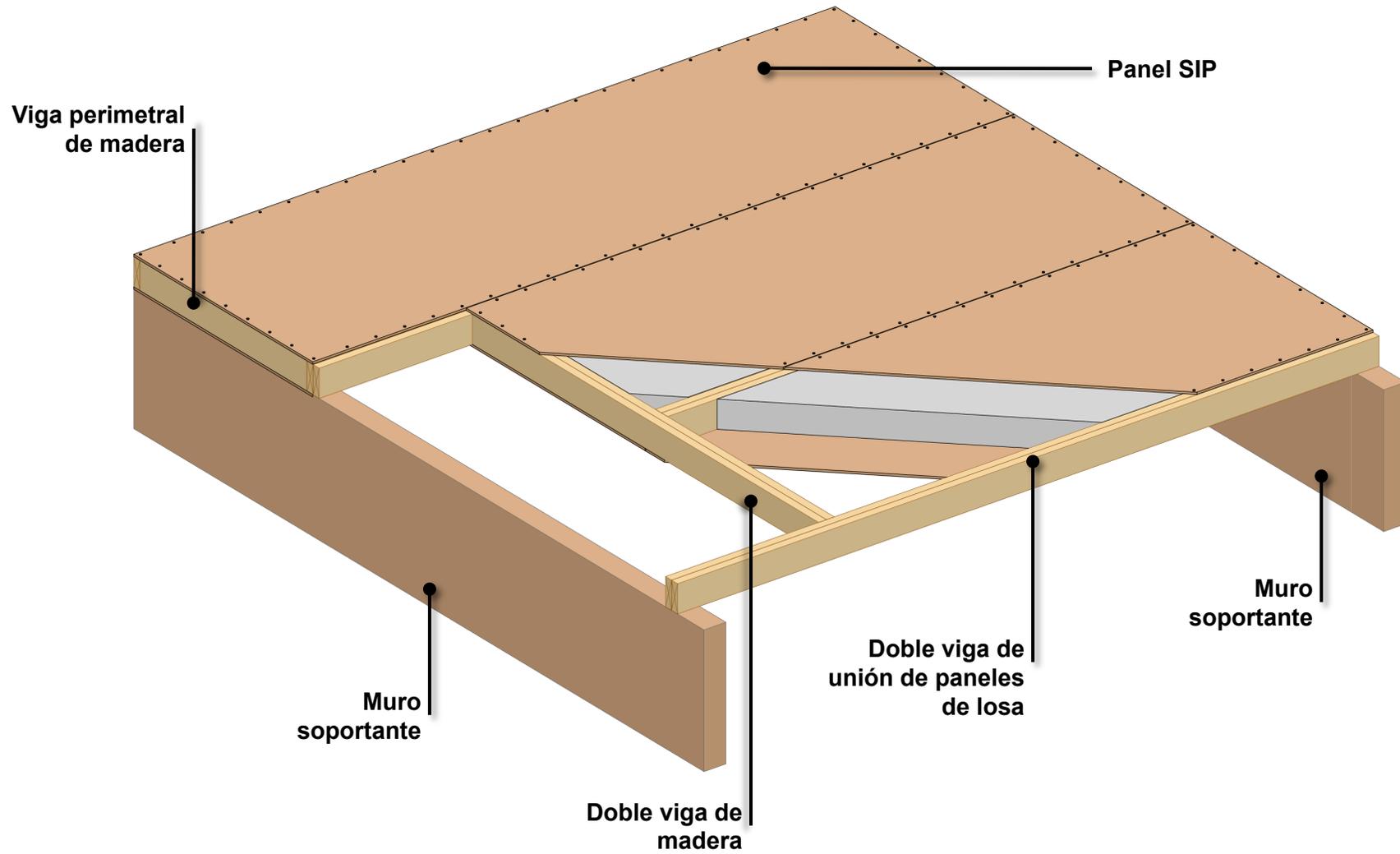
Cubierta



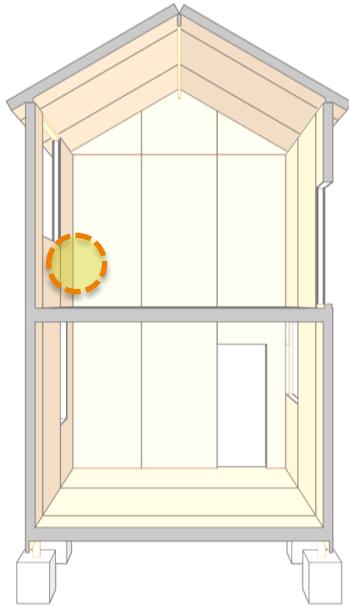
Vanos de ventanas y puertas



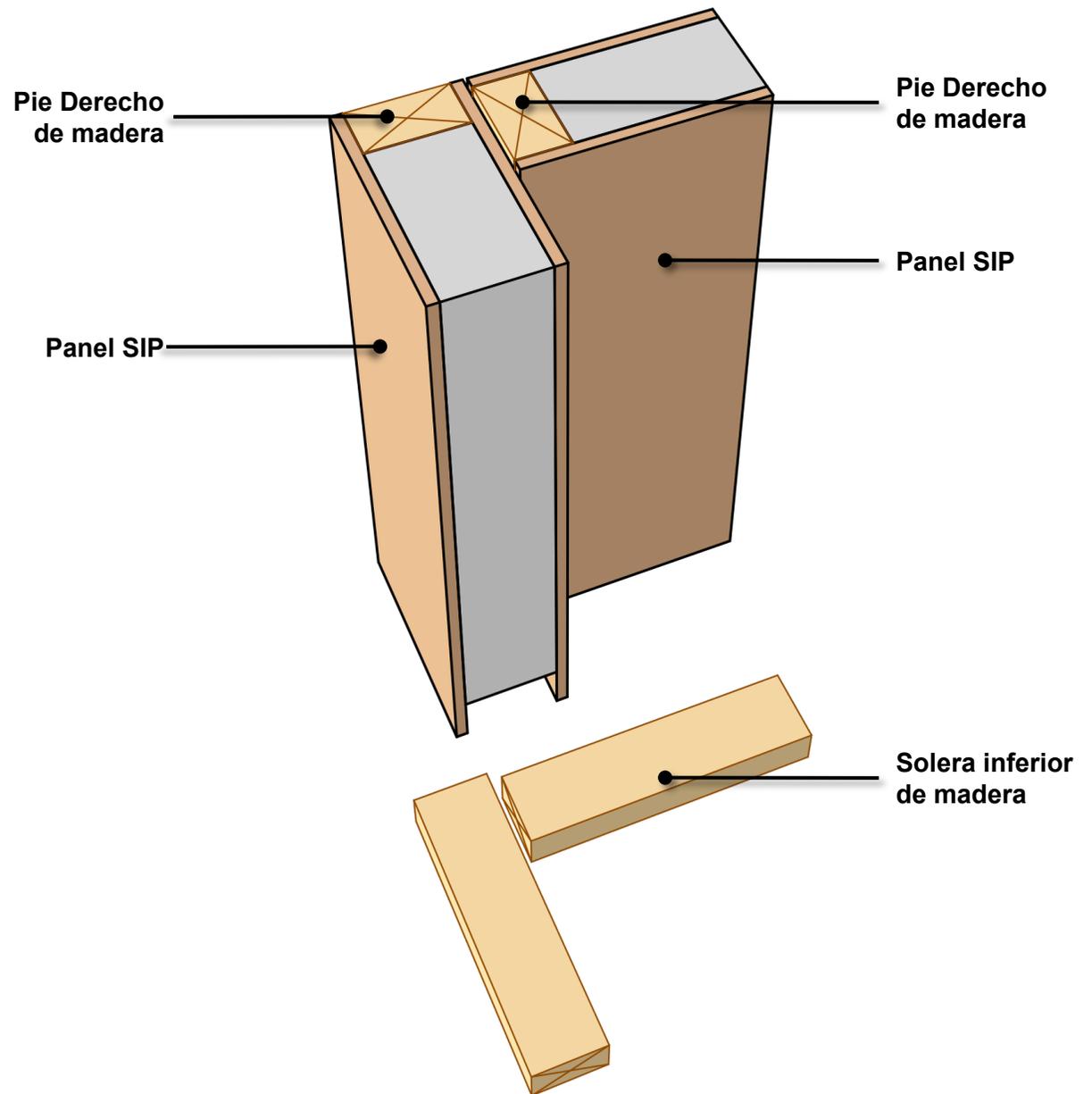
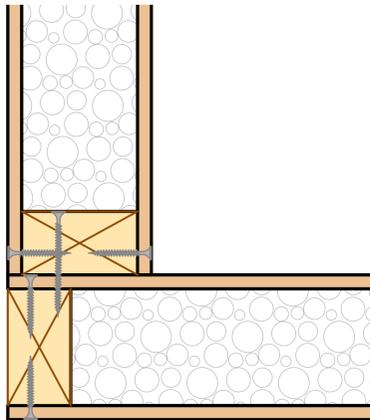
Vacíos de losa



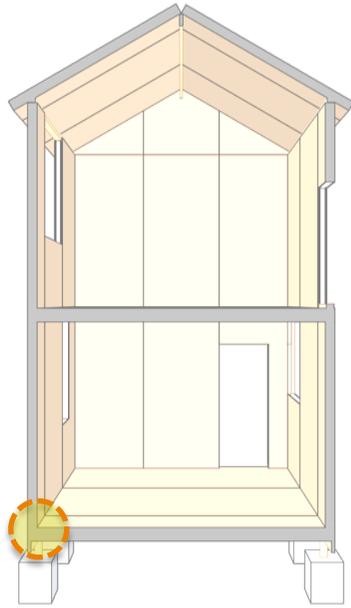
Encuentro Muro - Muro en L



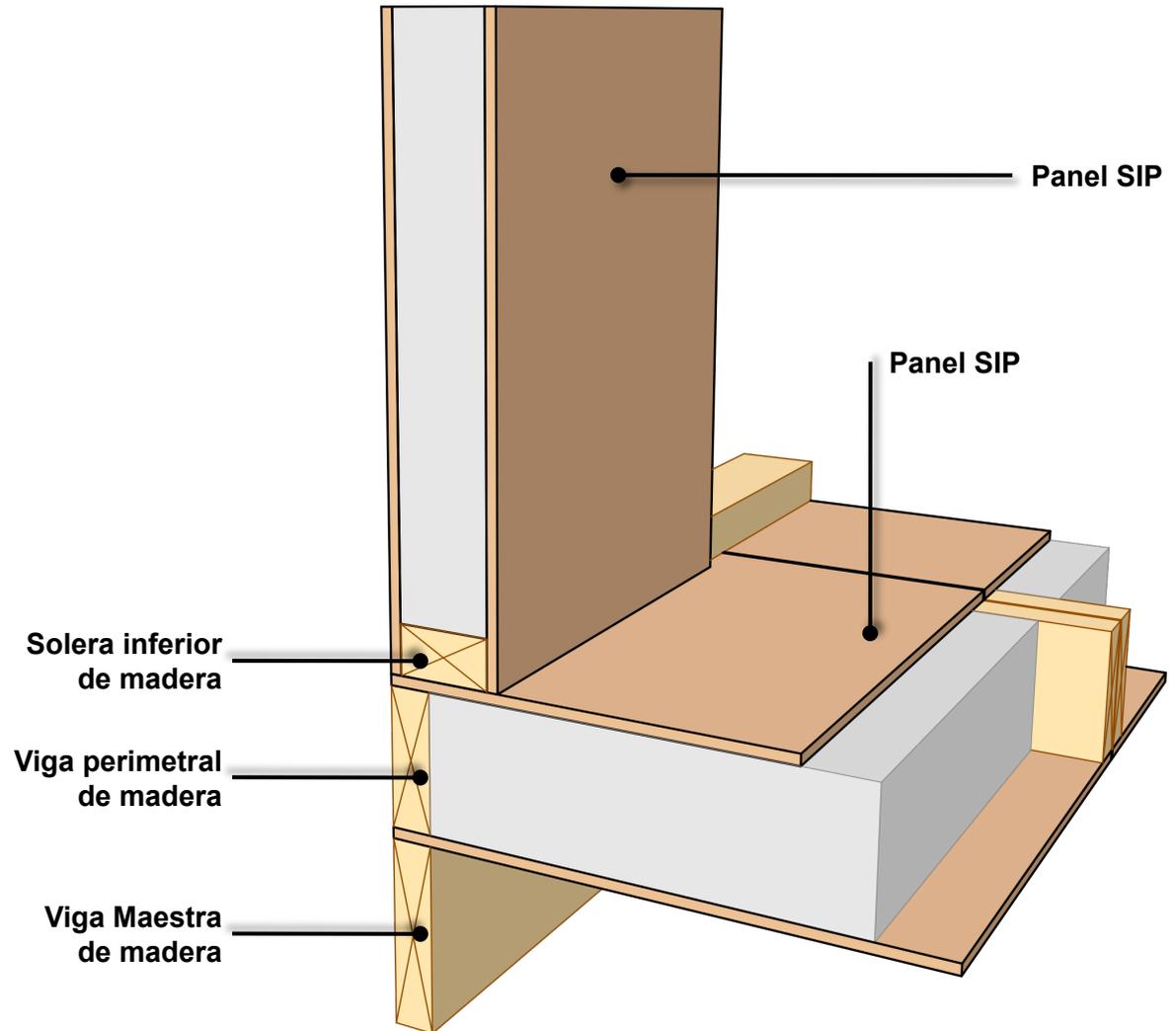
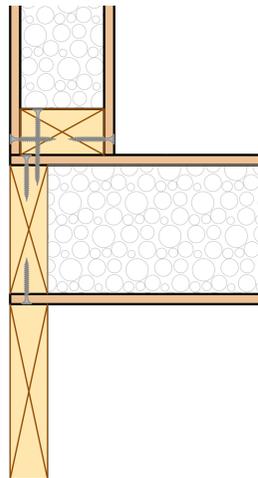
Detalle en planta



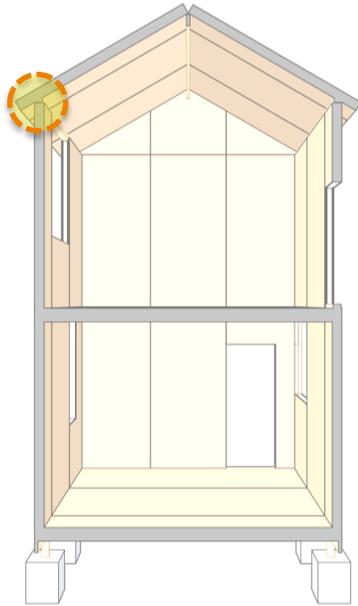
Encuentro Muro - Piso



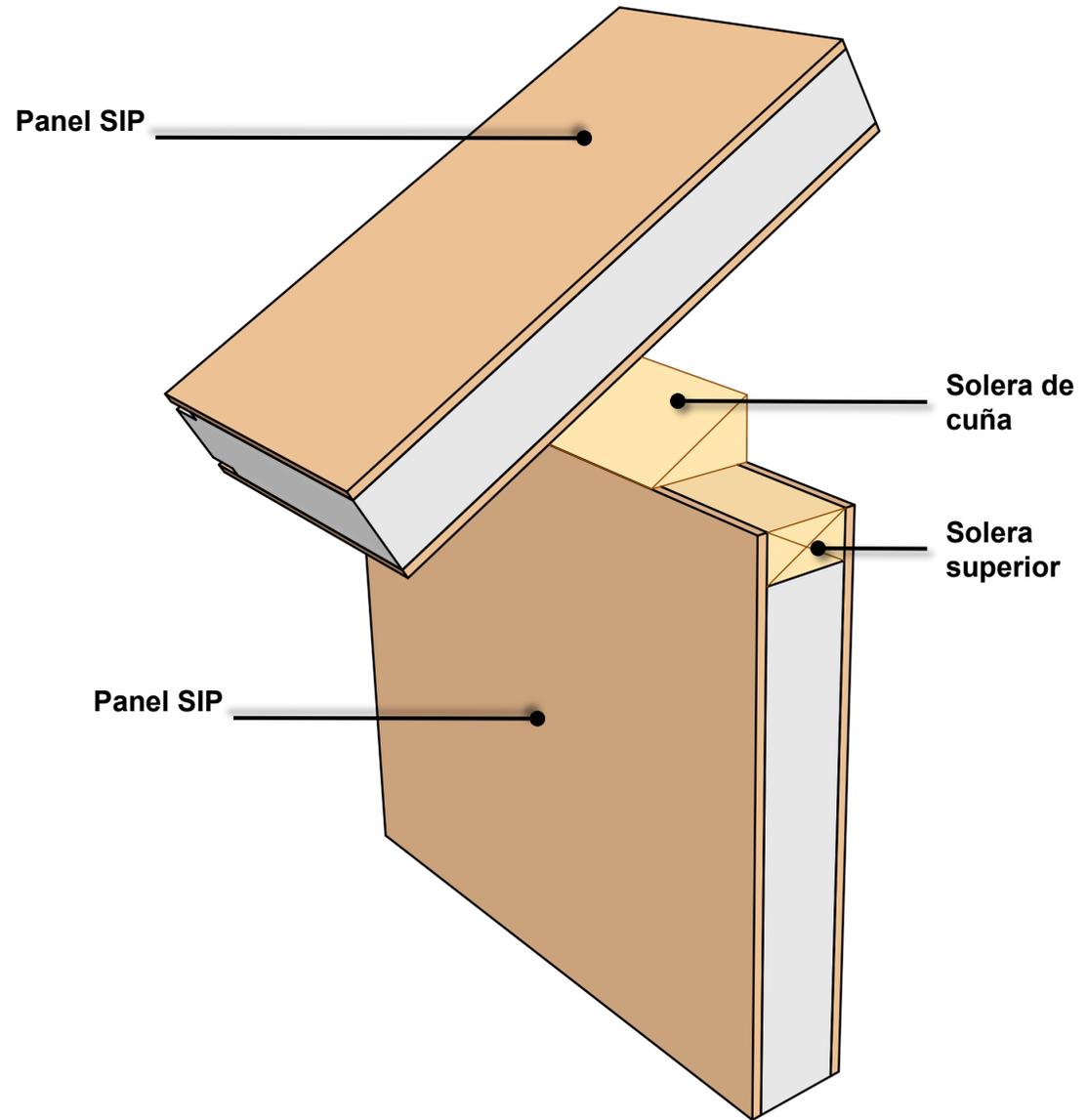
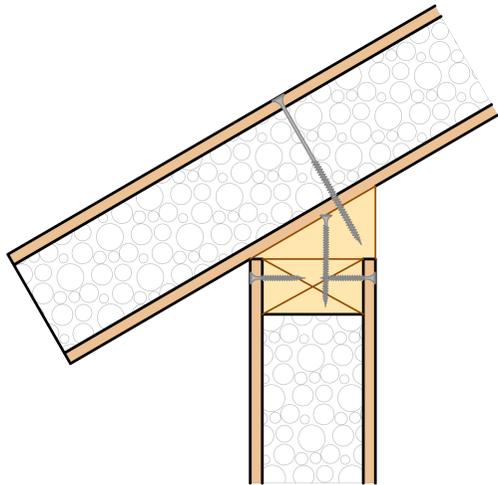
Detalle en corte



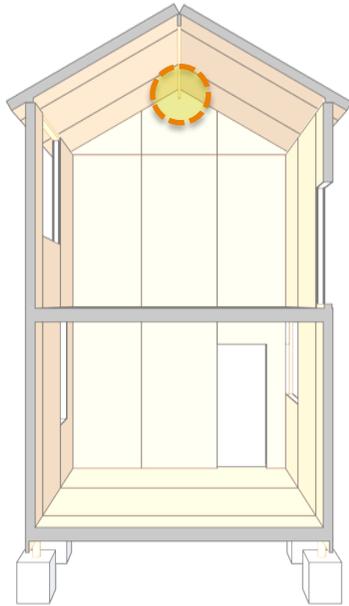
Encuentro Muro - Cubierta



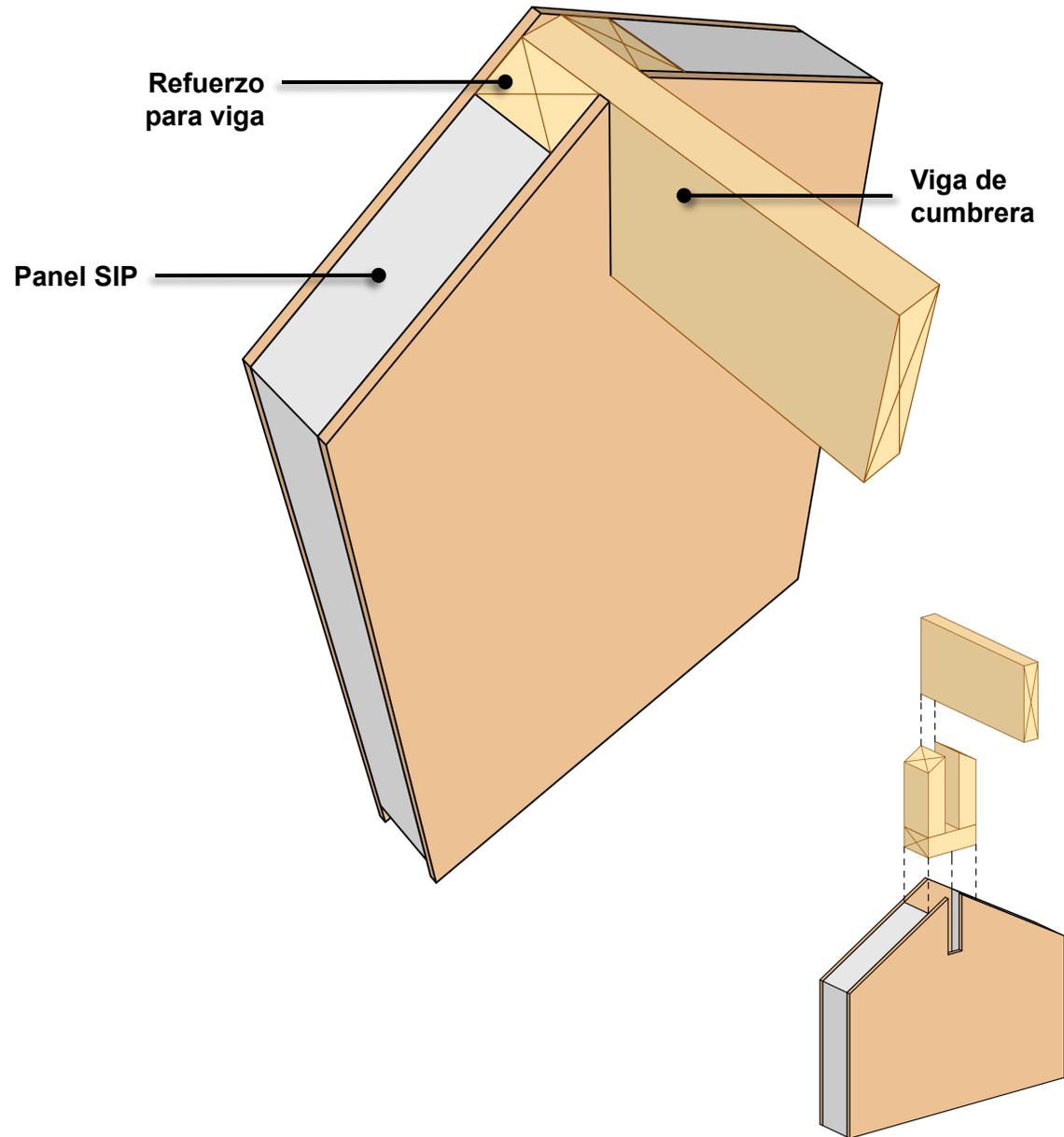
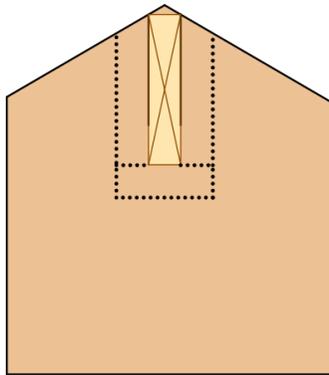
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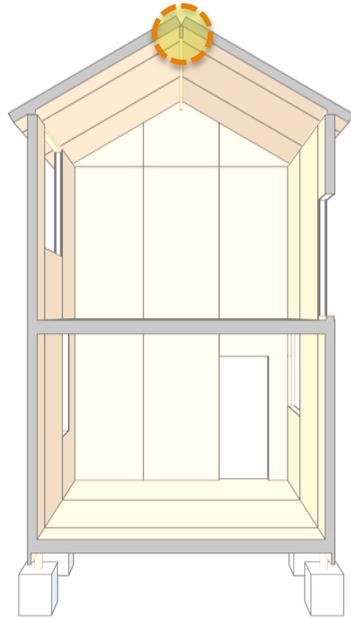
Encuentro Viga cumbrera - Frontón



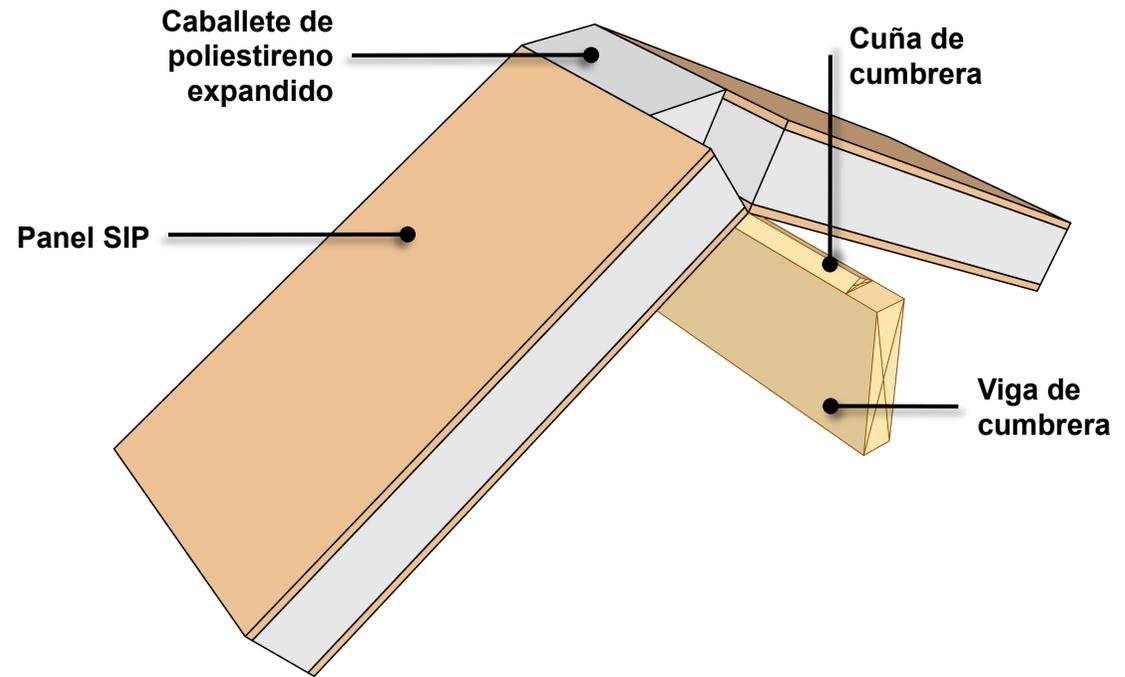
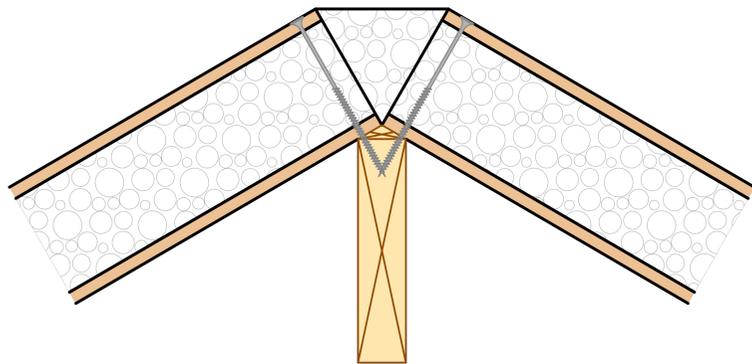
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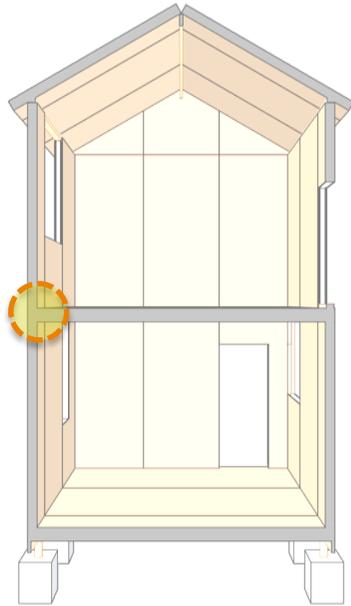
Encuentro Cubierta - Viga cumbrera



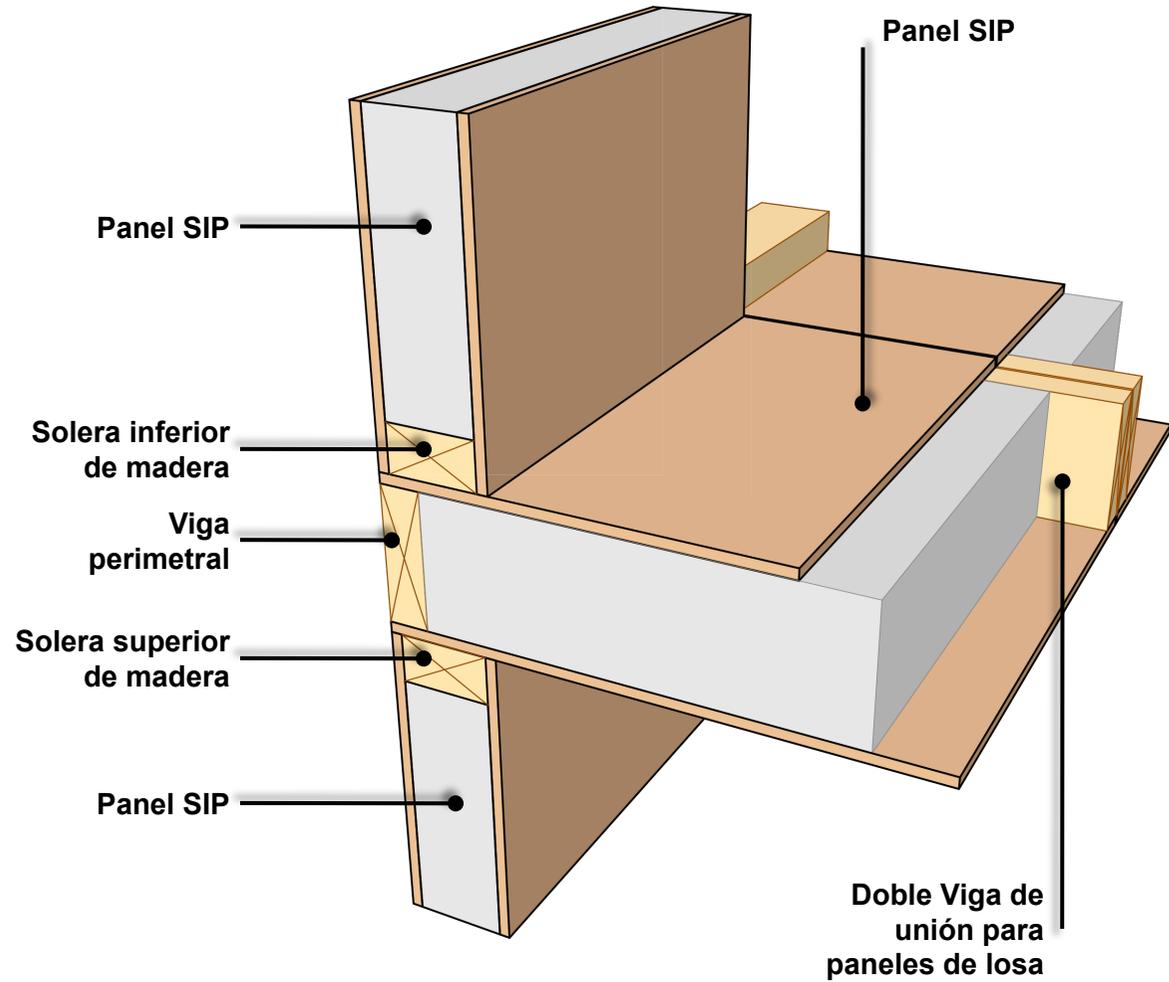
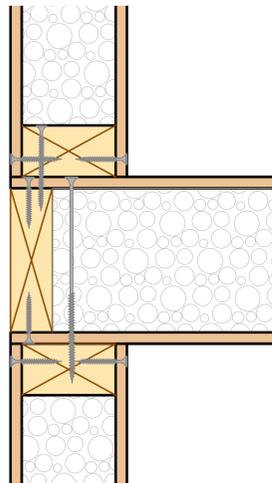
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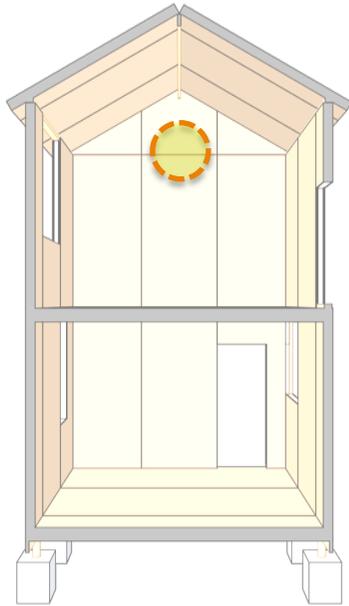
Encuentro Muro - Entrepiso



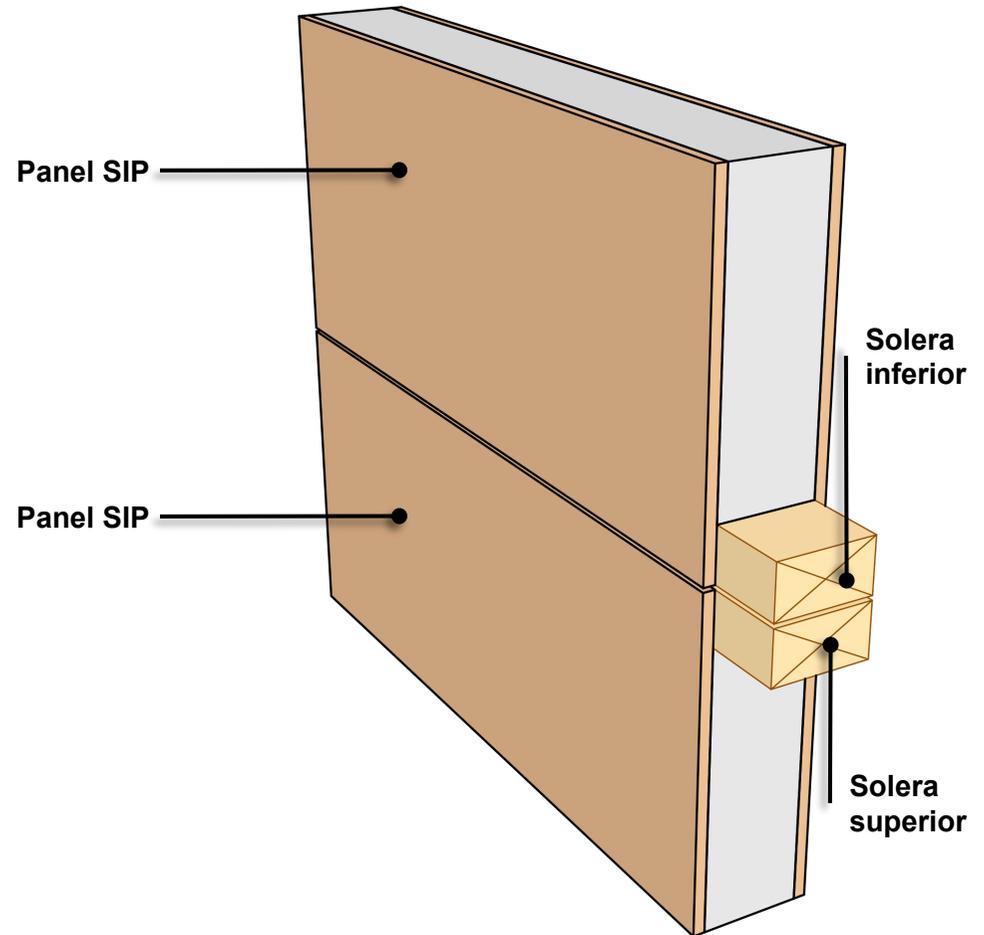
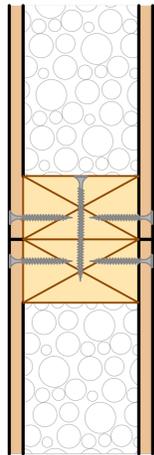
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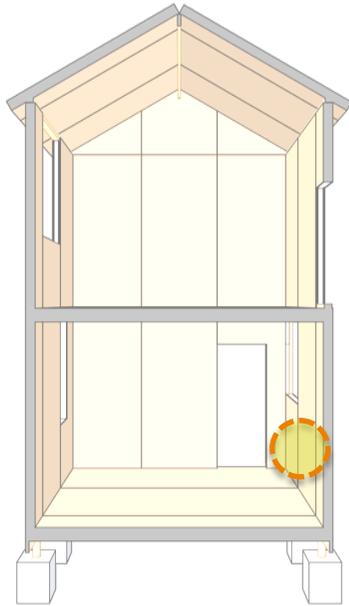
Continuidad vertical Muro - Muro



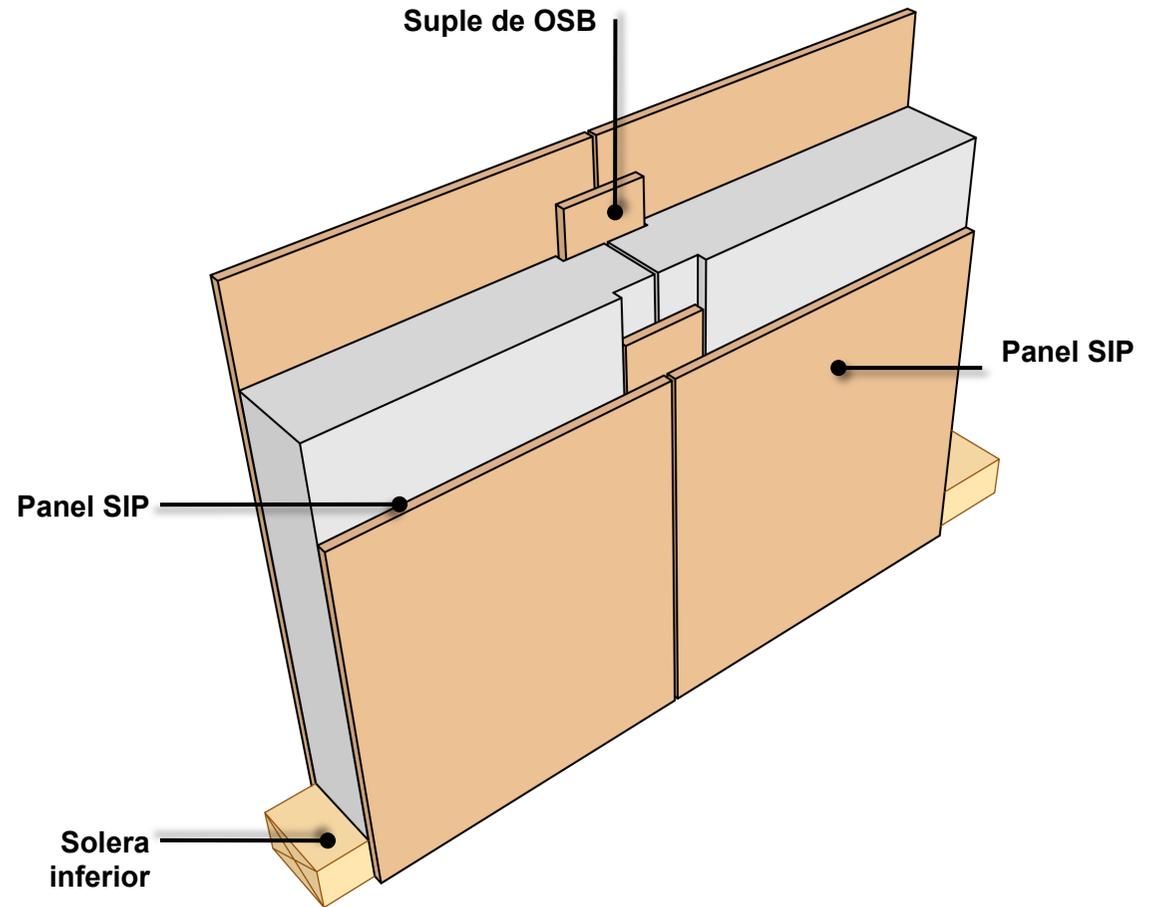
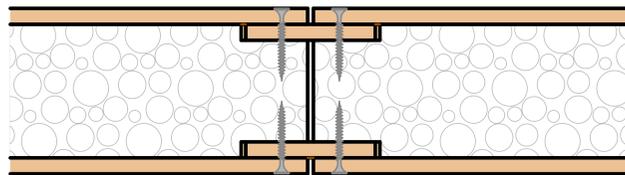
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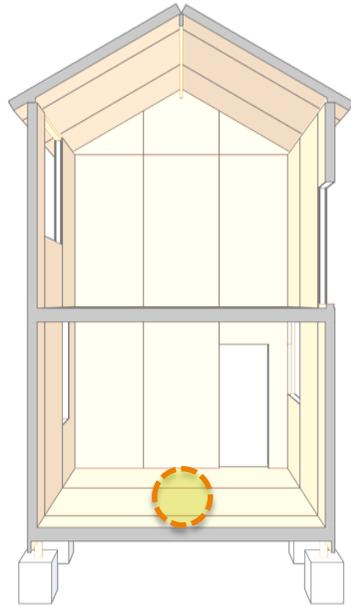
Continuidad horizontal Muro - Muro



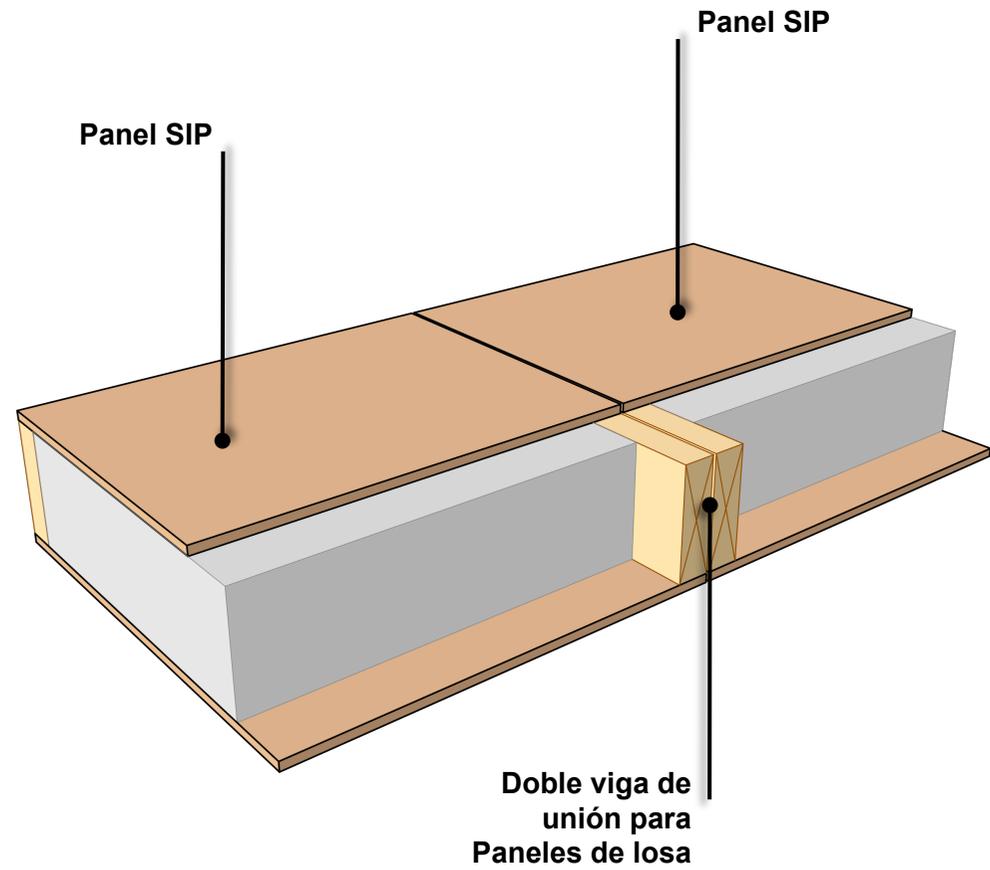
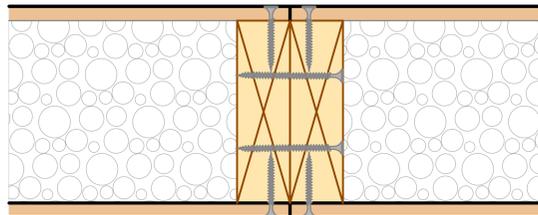
Detalle en planta



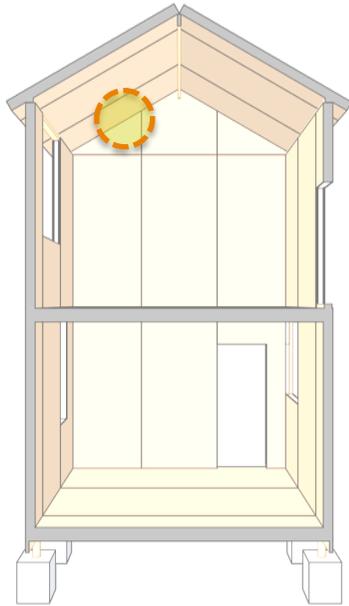
Continuidad Losa - Losa



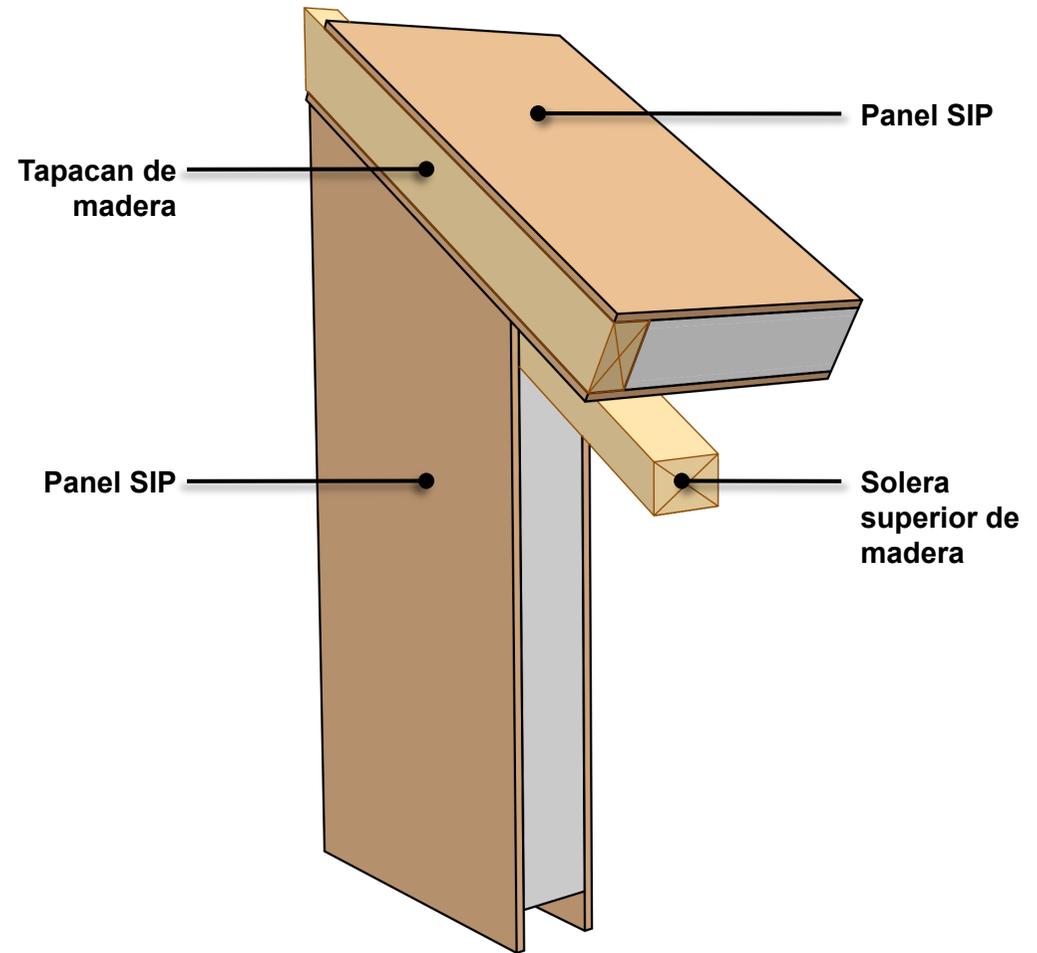
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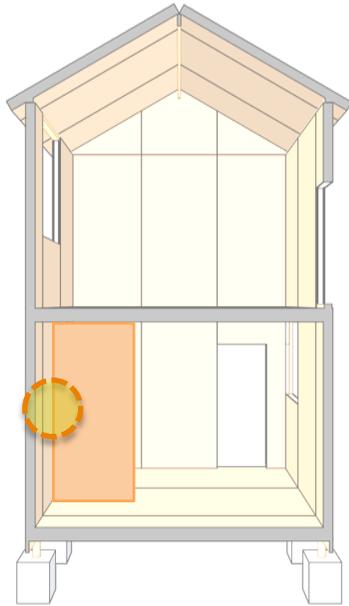
Encuentro Cubierta - Frontón



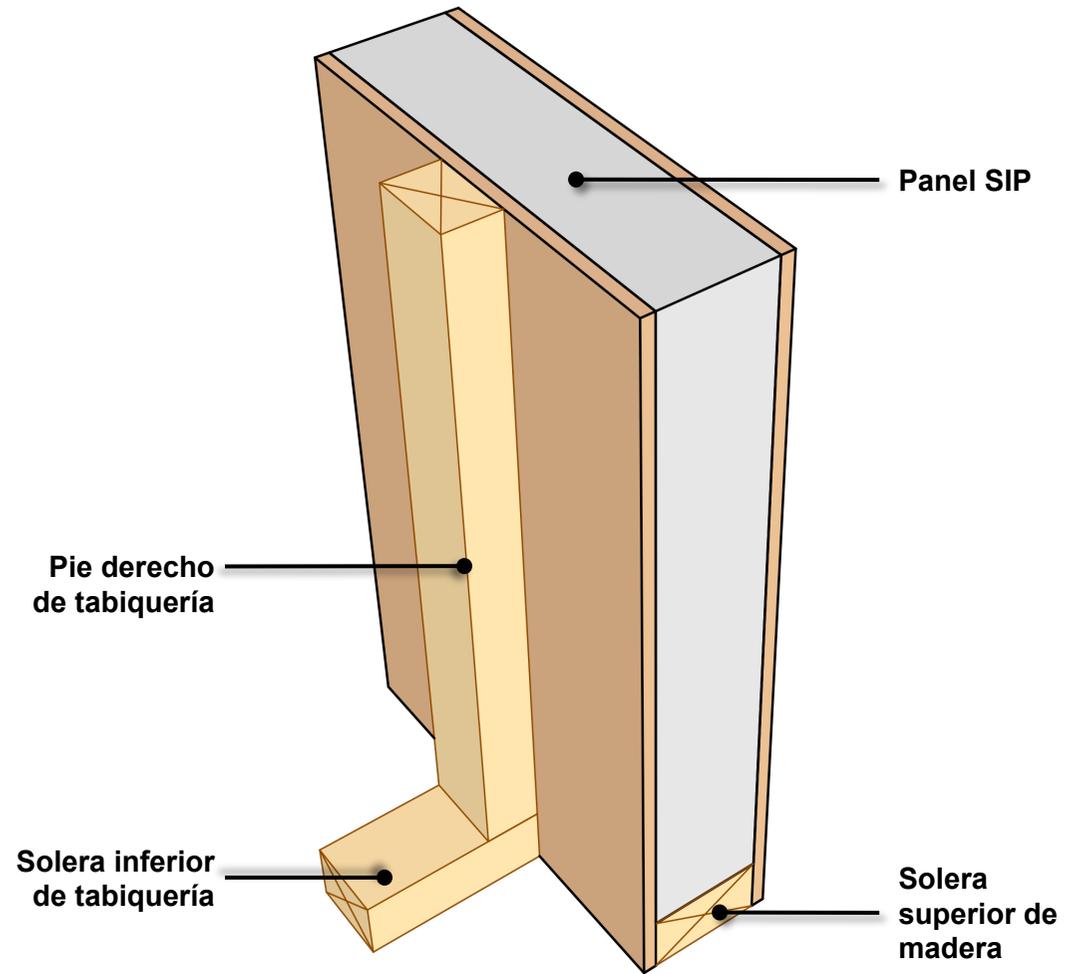
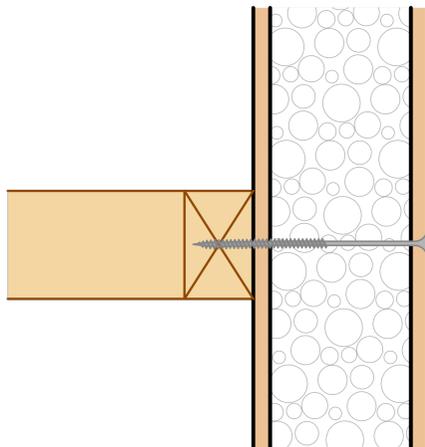
Detalle en planta



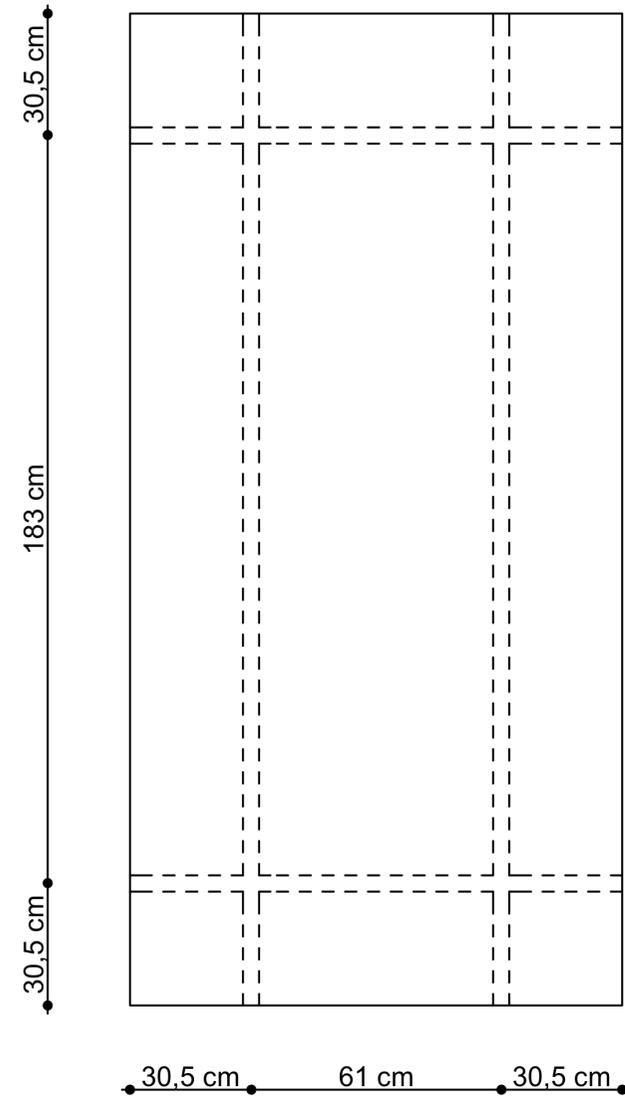
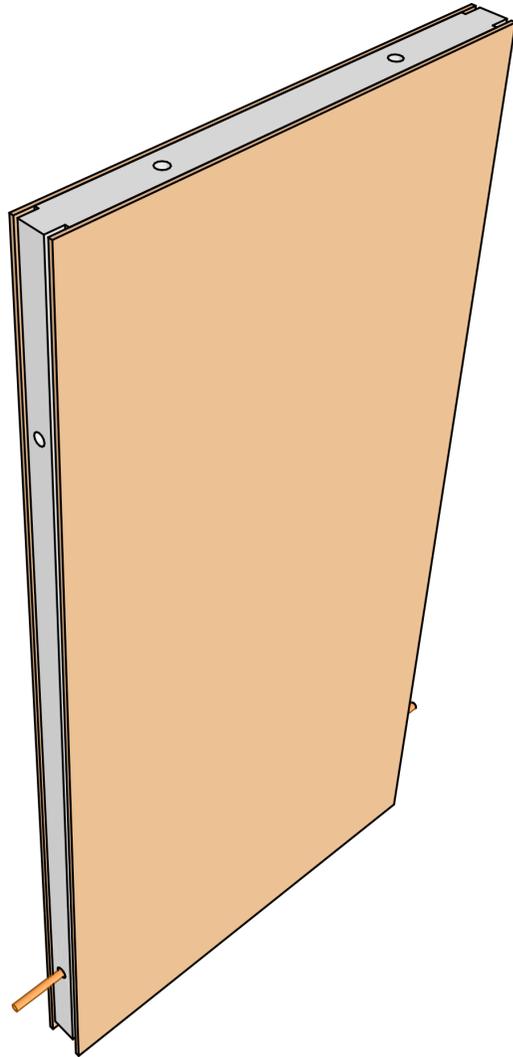
Encuentro Muro - Tabiquería tradicional



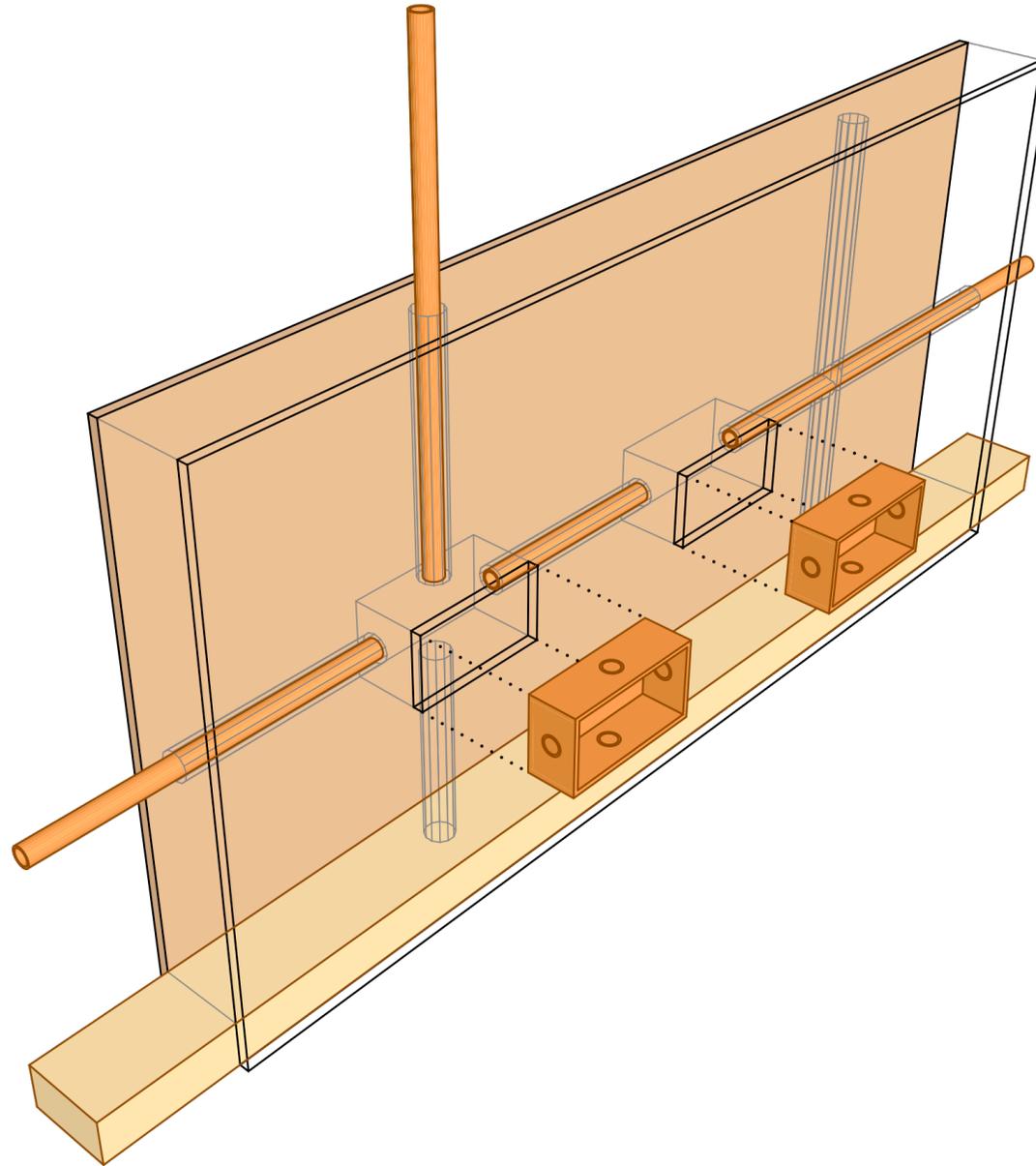
Detalle en planta



Instalaciones



Instalaciones

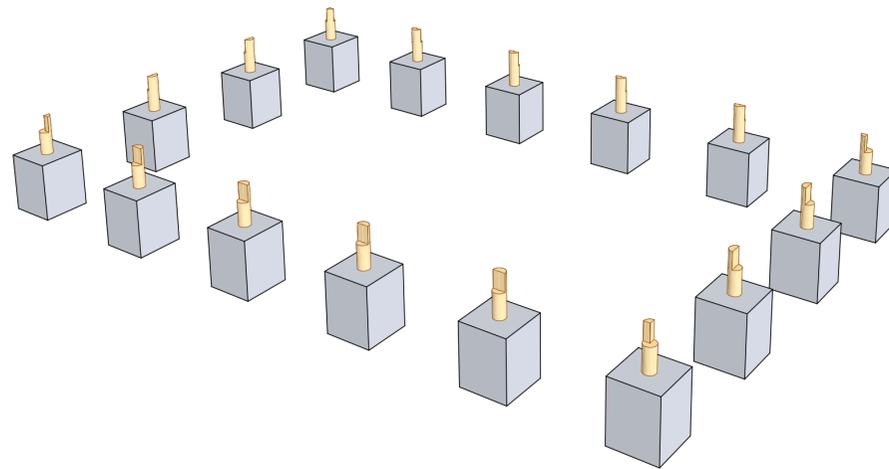


Secuencia constructiva

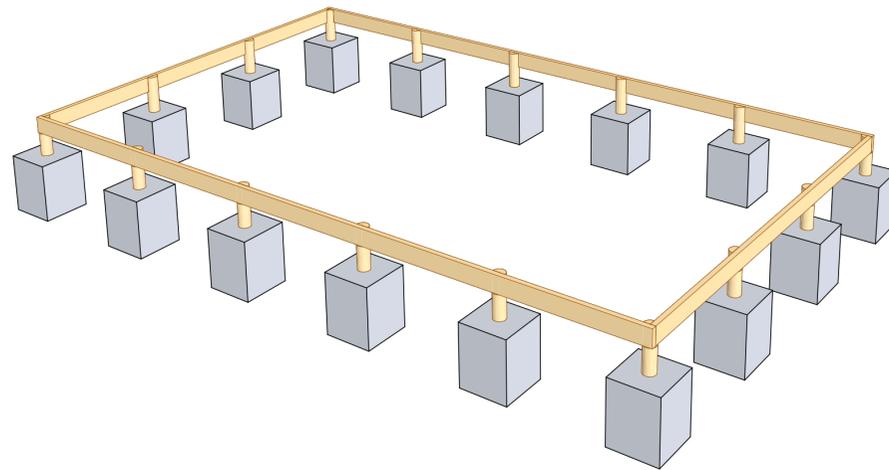




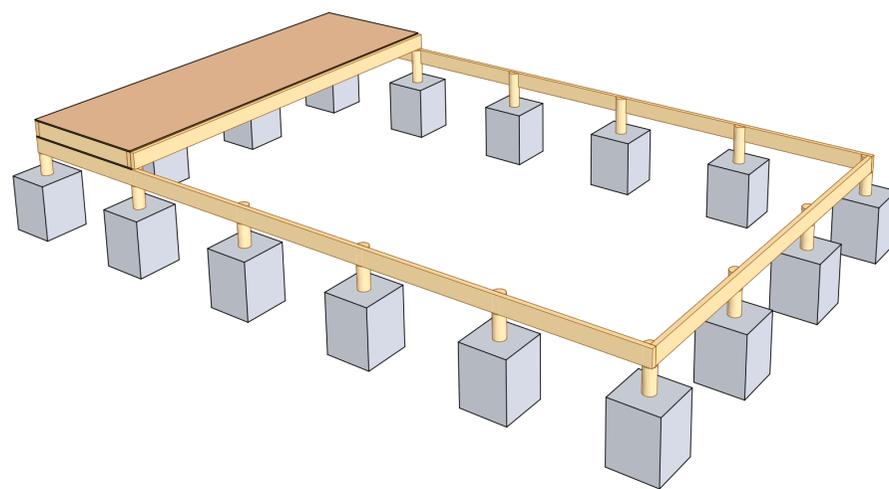
Fundaciones



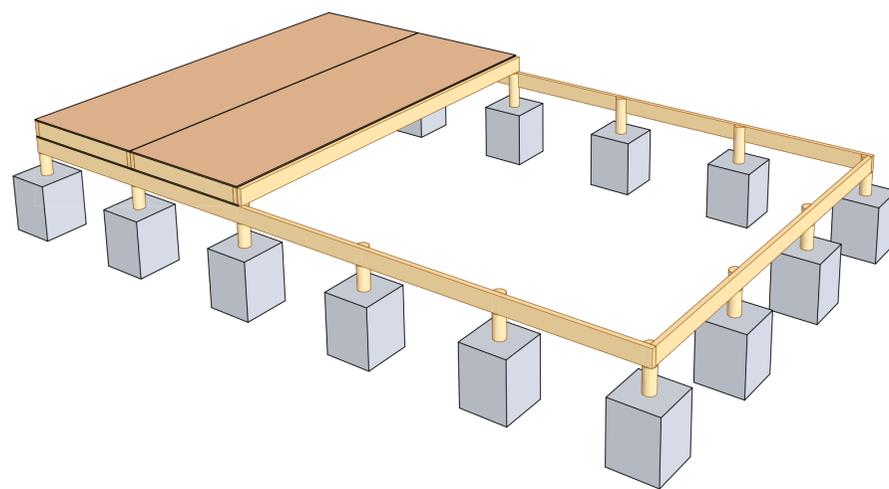
Fundaciones



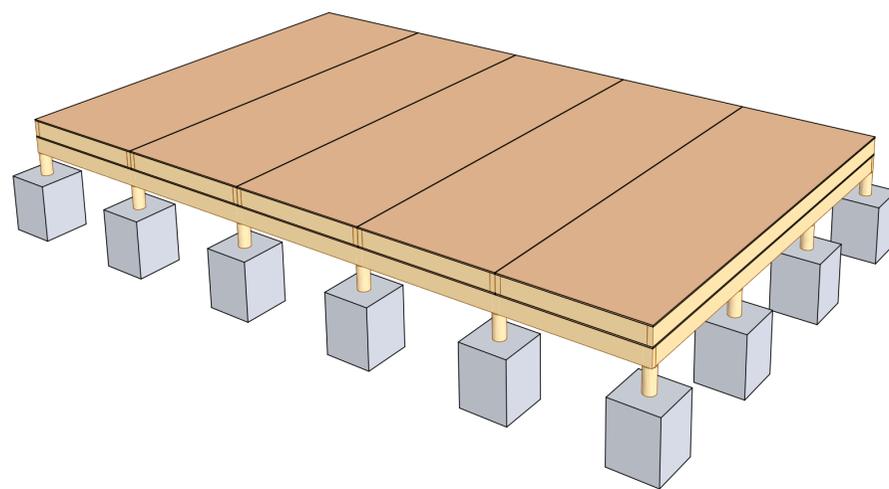
Losa



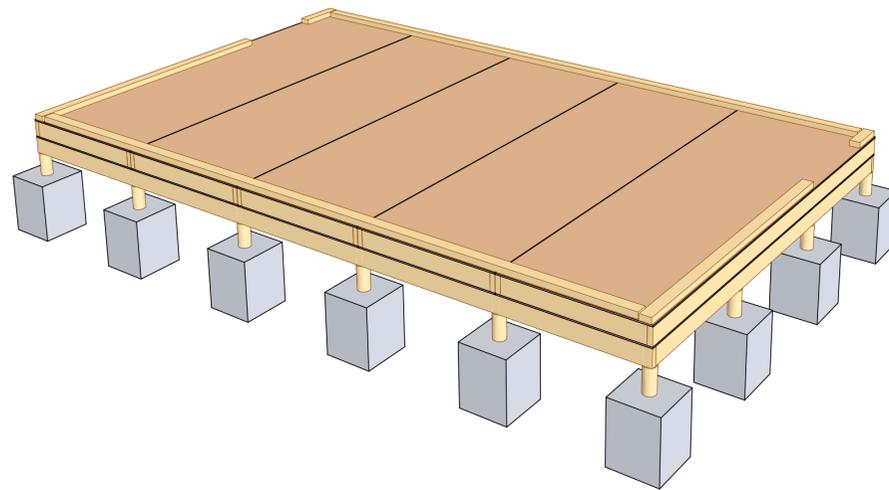
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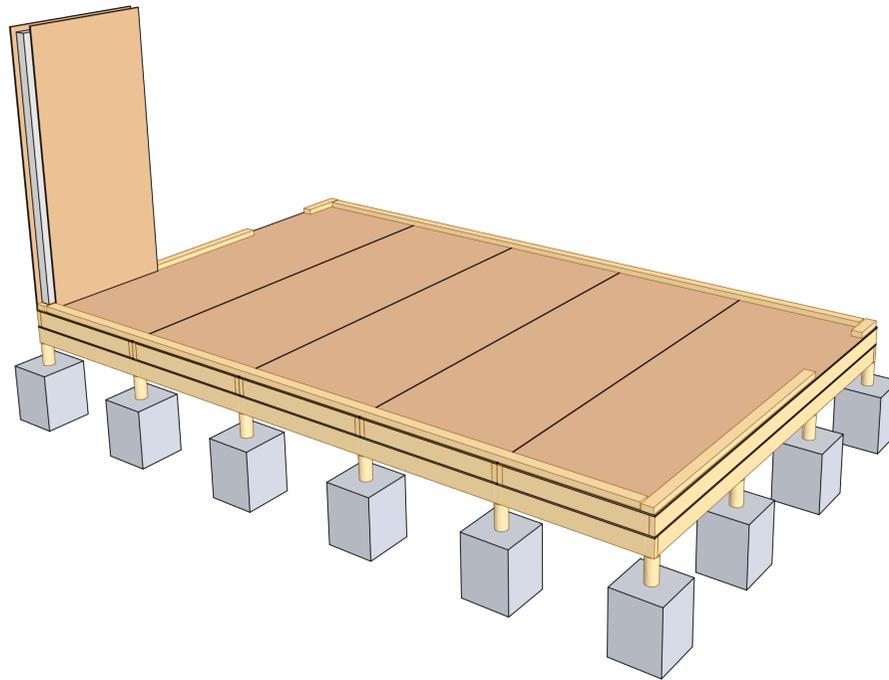
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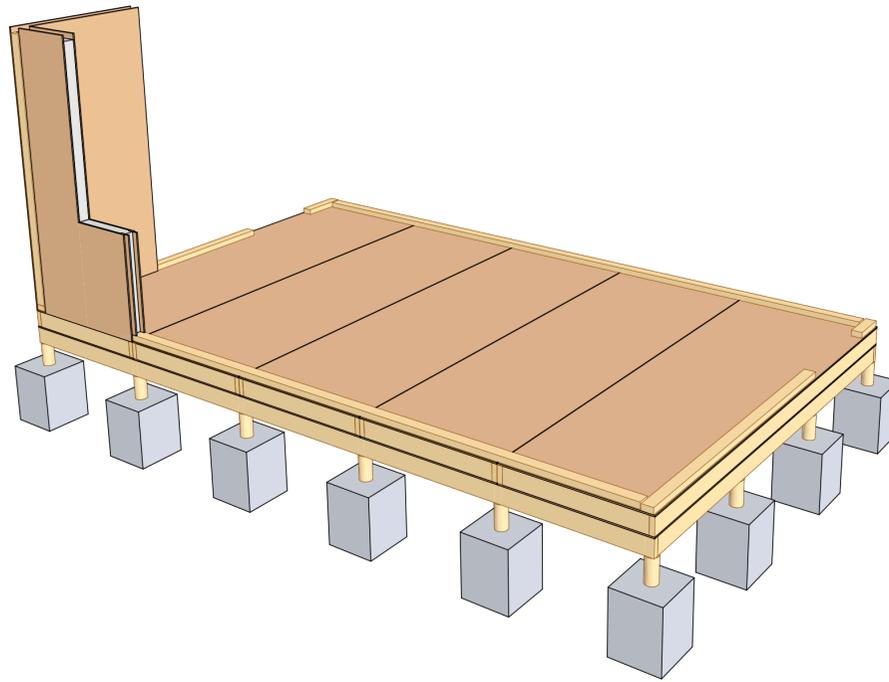
Soleras inferiores



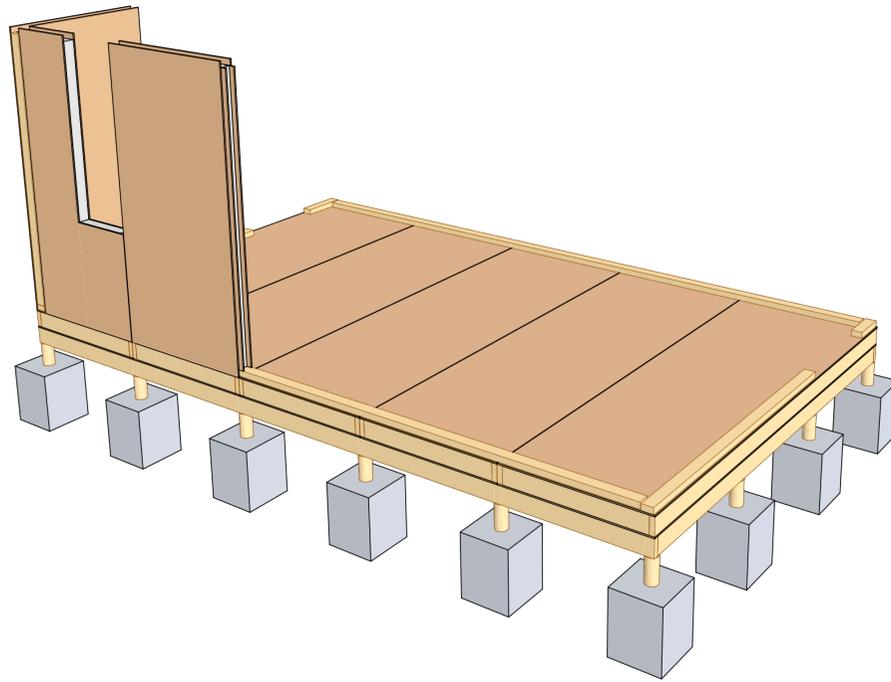
Colocación de paneles



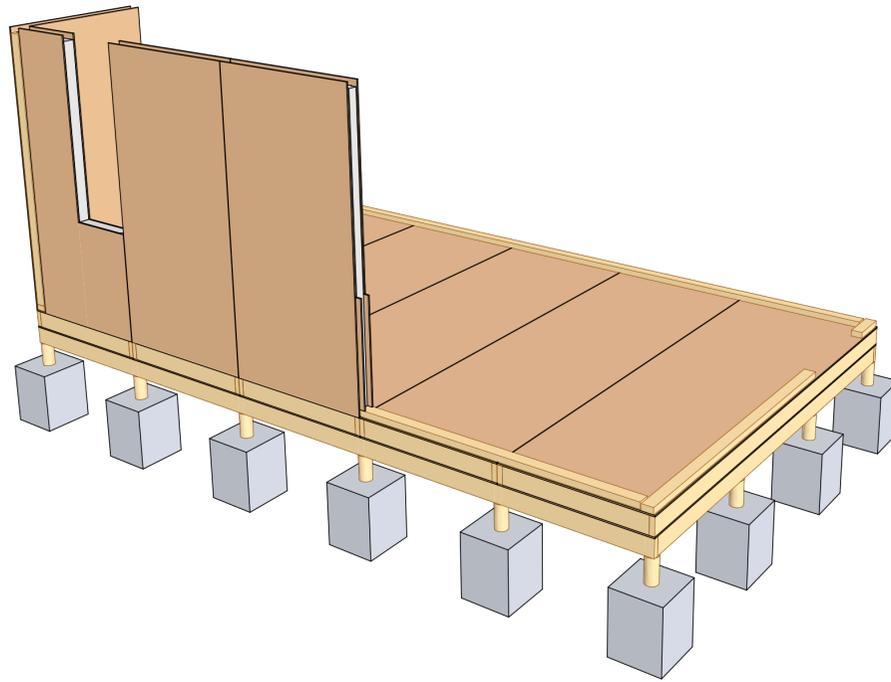
Colocación de paneles



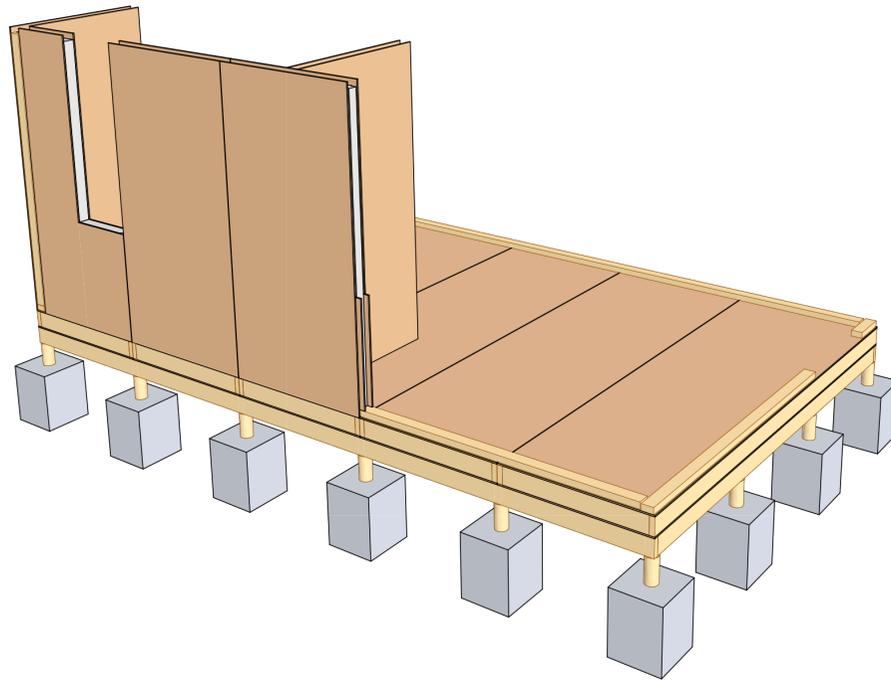
Colocación de paneles



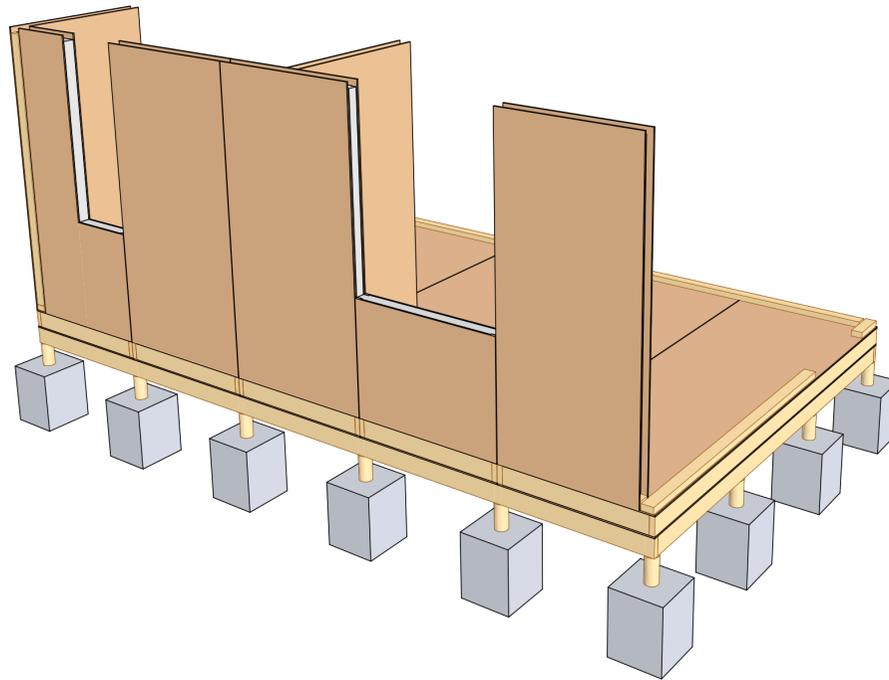
Colocación de paneles



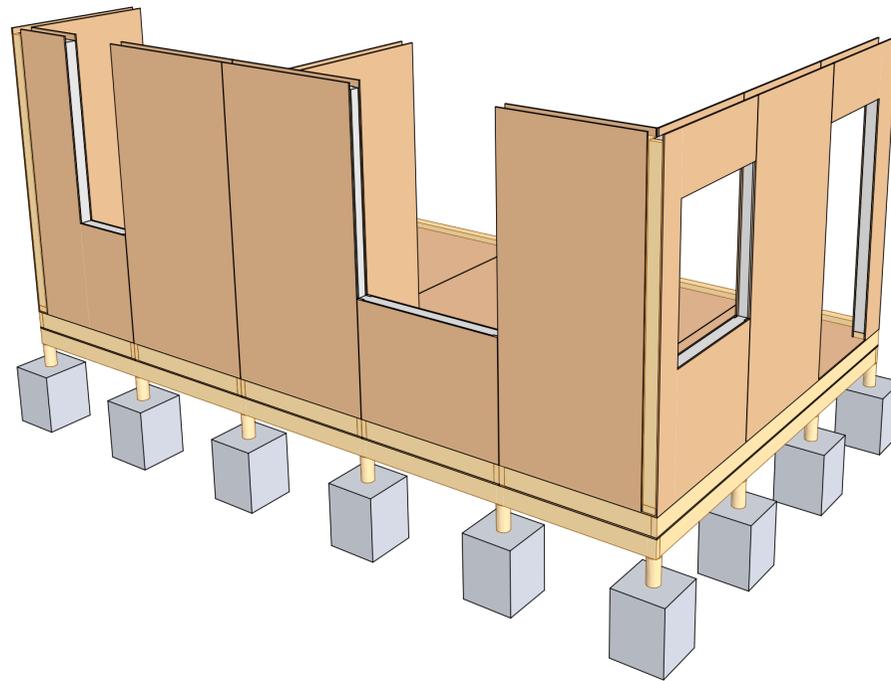
Colocación de paneles



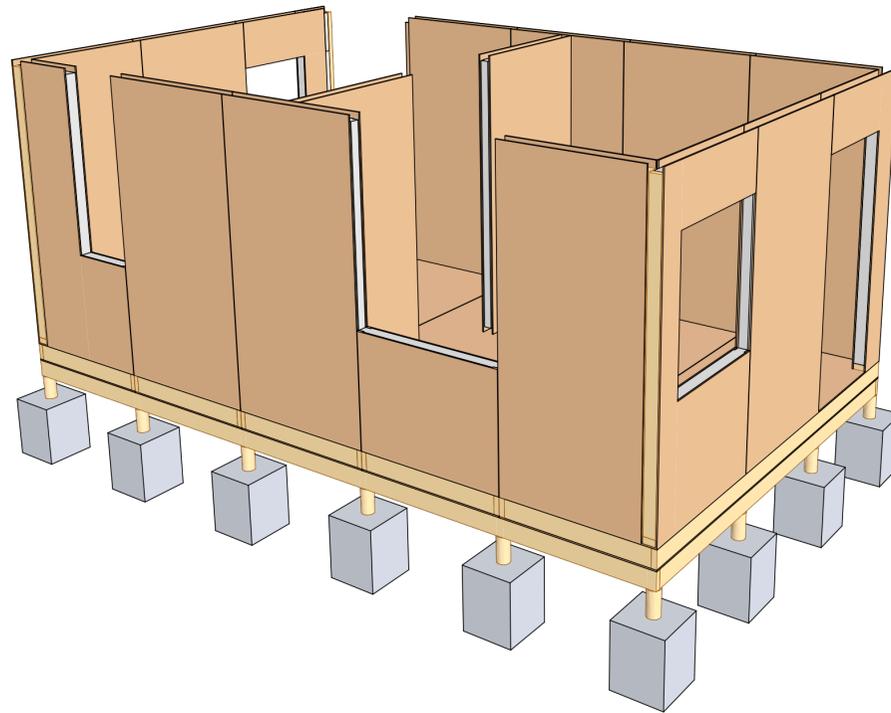
Colocación de paneles



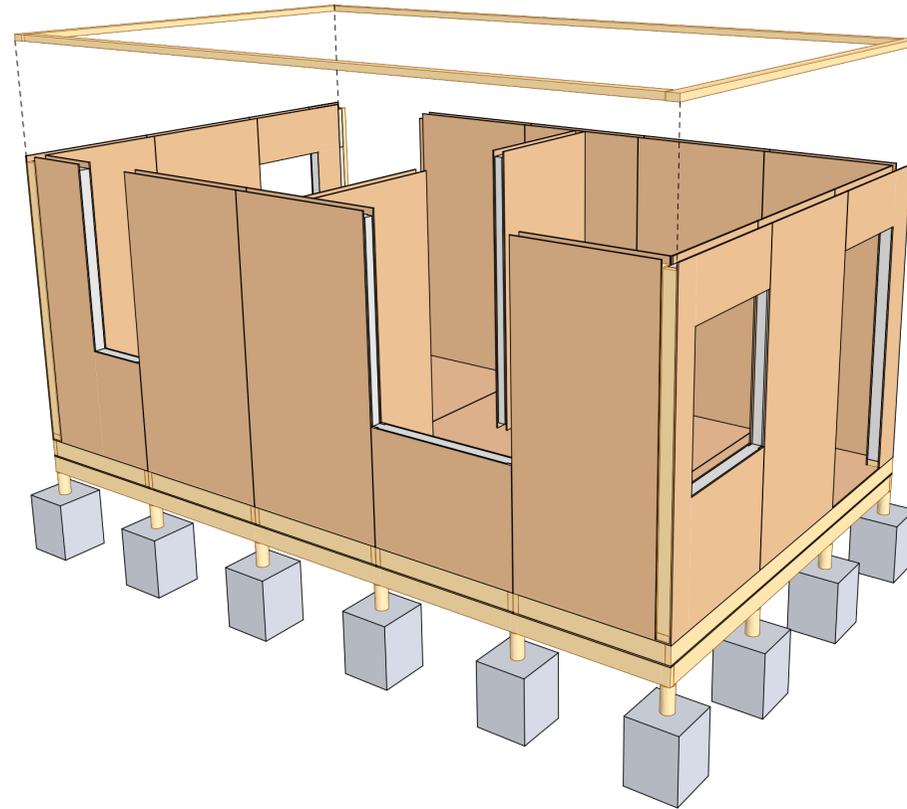
Colocación de paneles



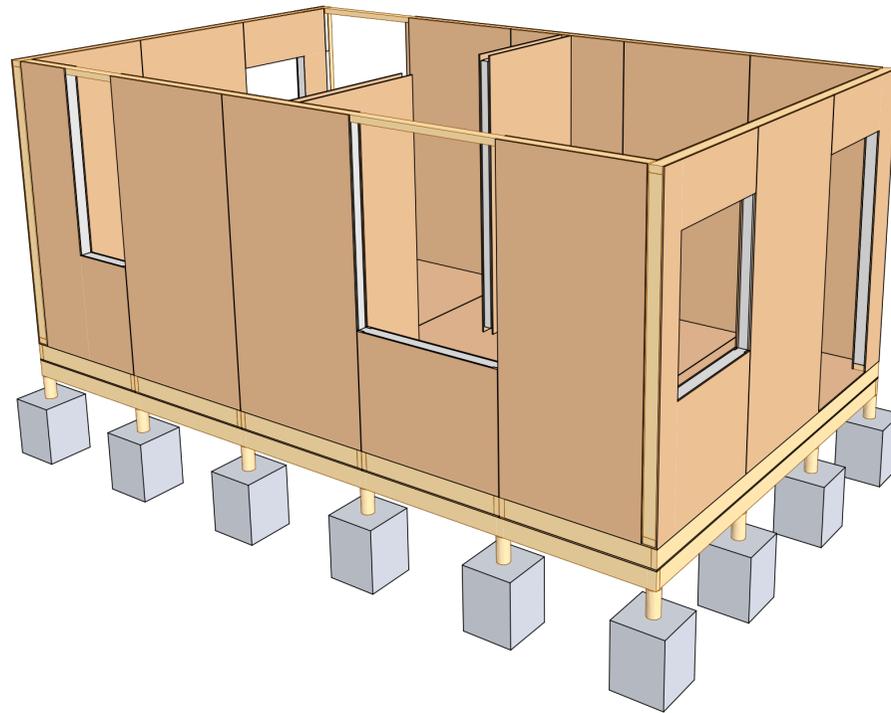
Colocación de paneles



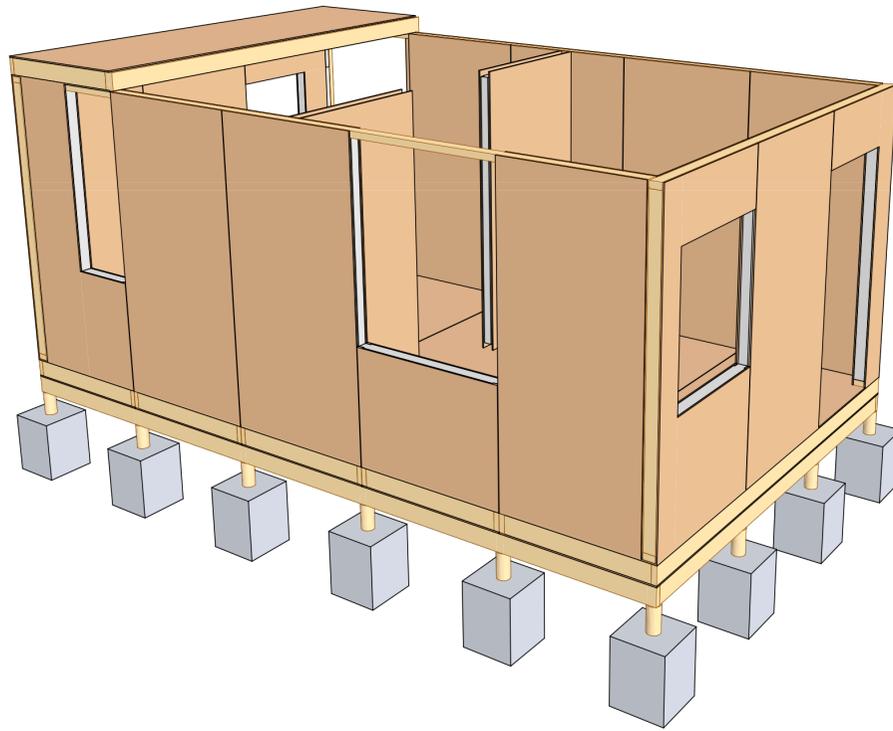
Soleras superiores



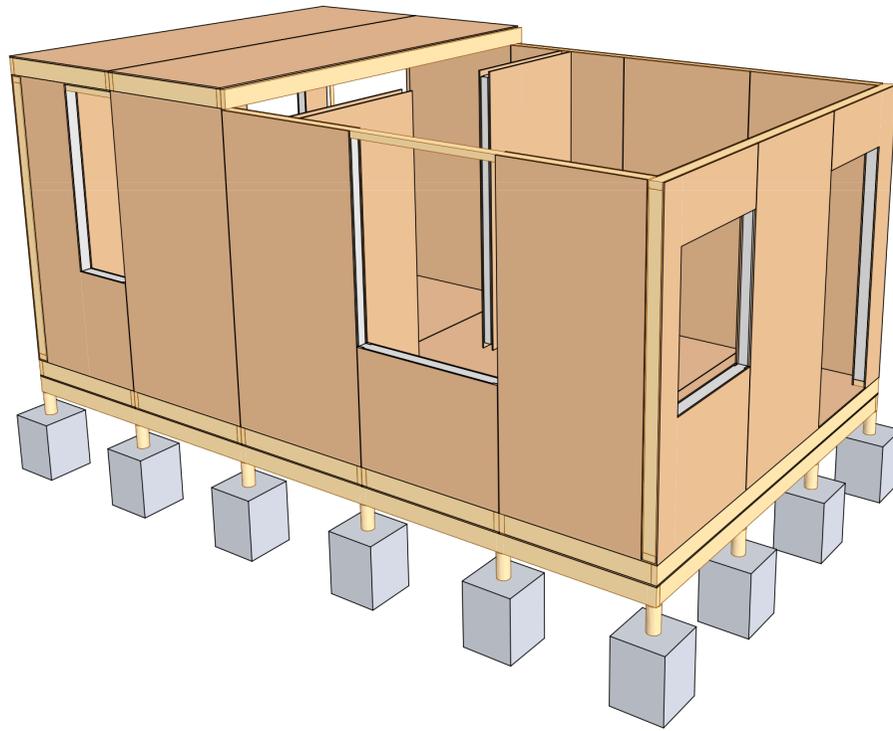
Soleras superiores



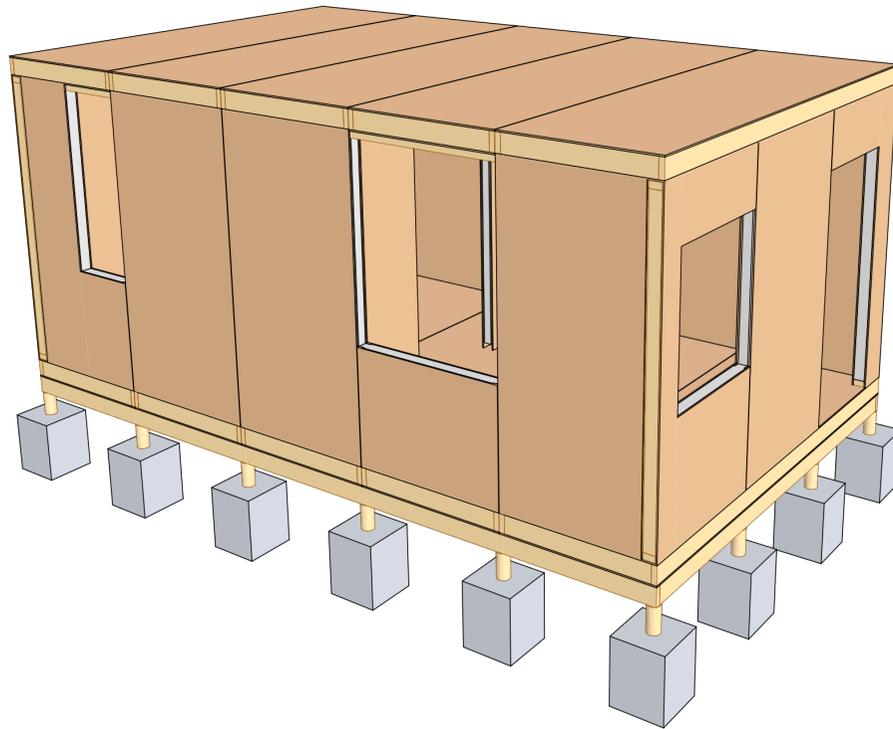
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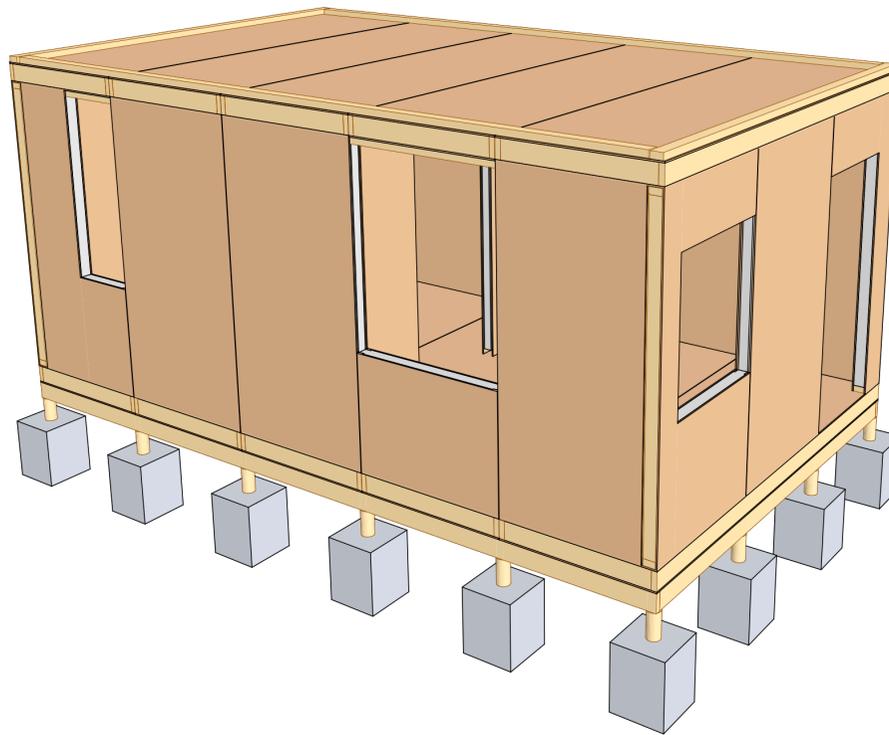
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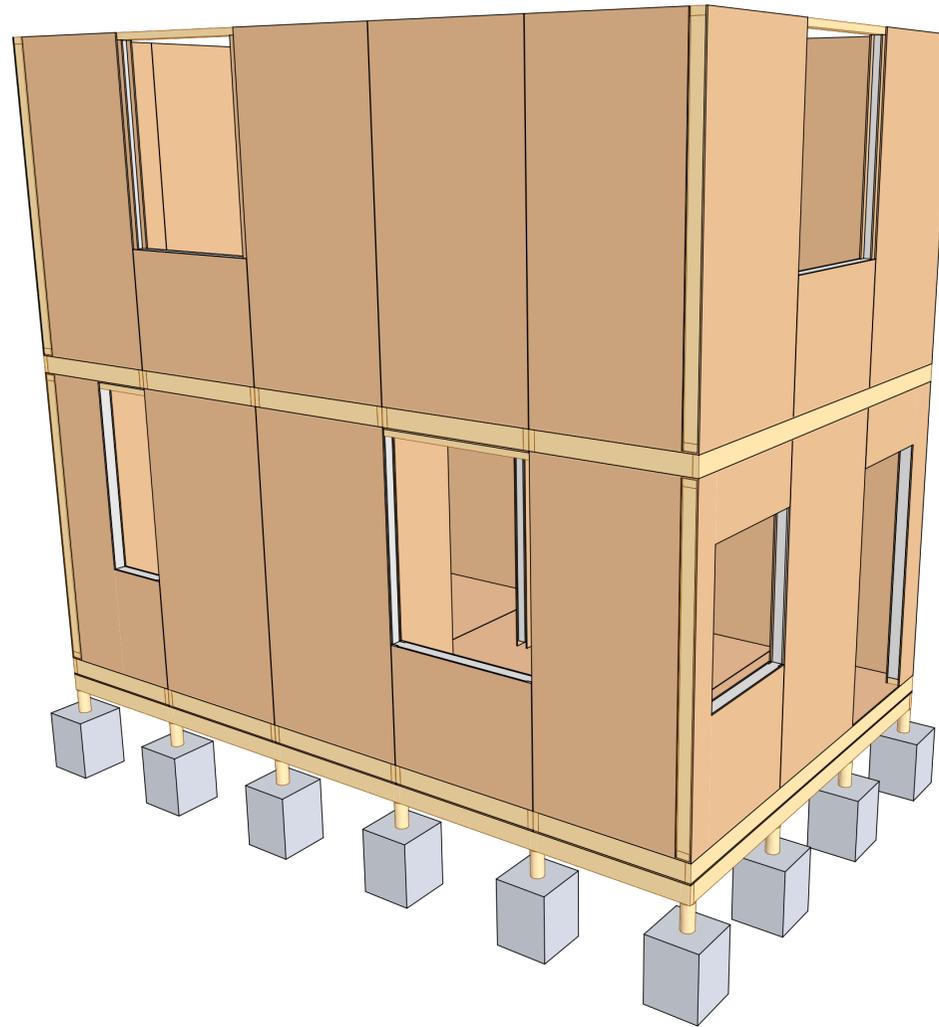
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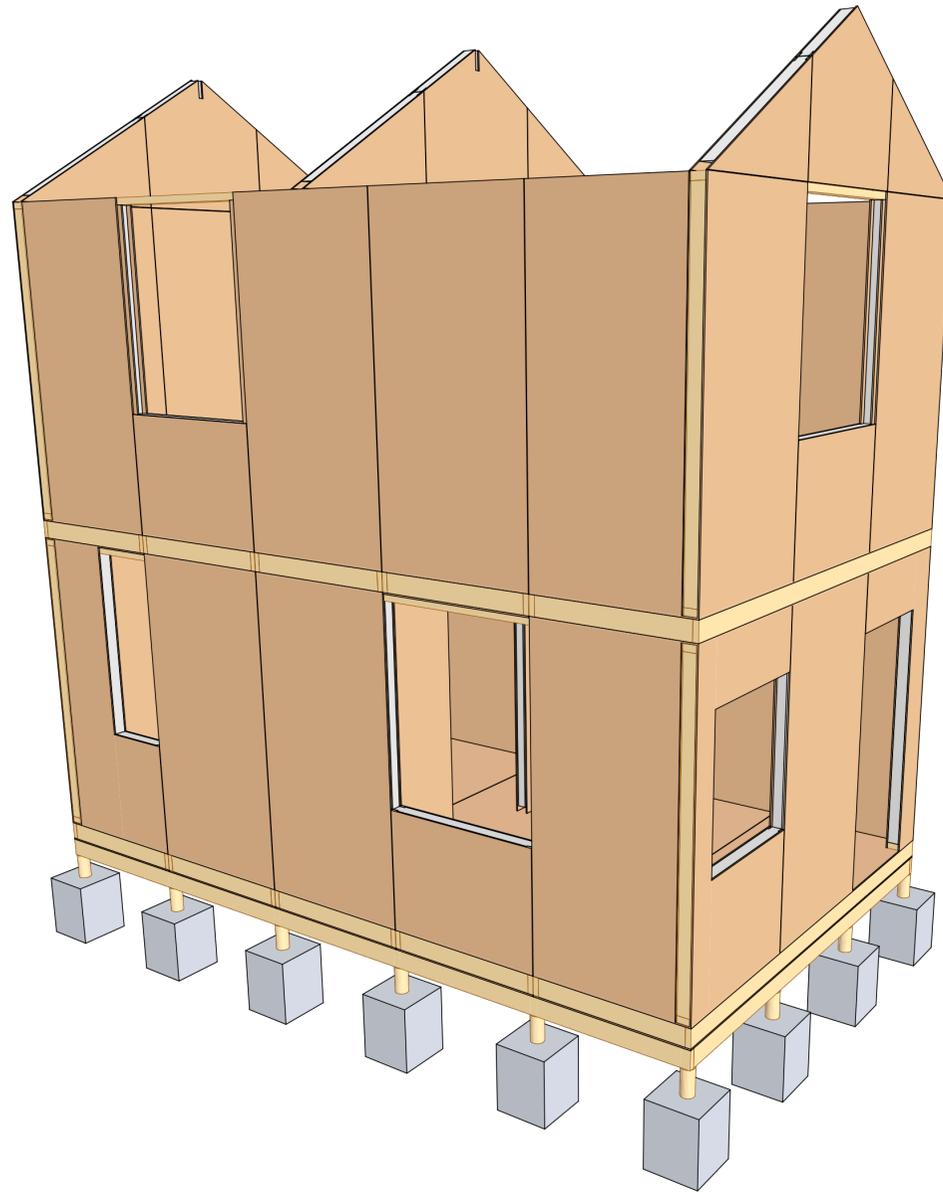
Muros 2º Piso (soleras inferiores, paneles y solera superior)



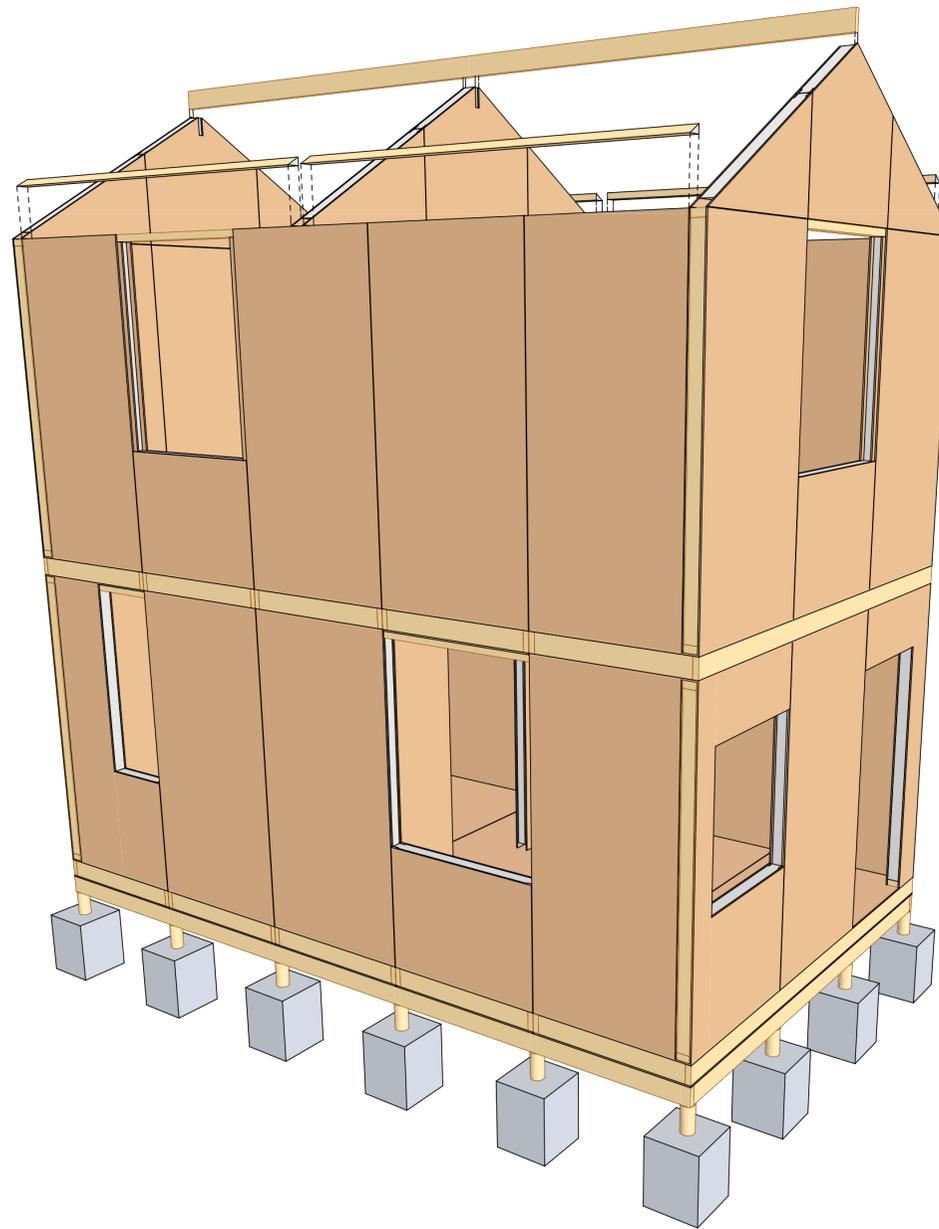
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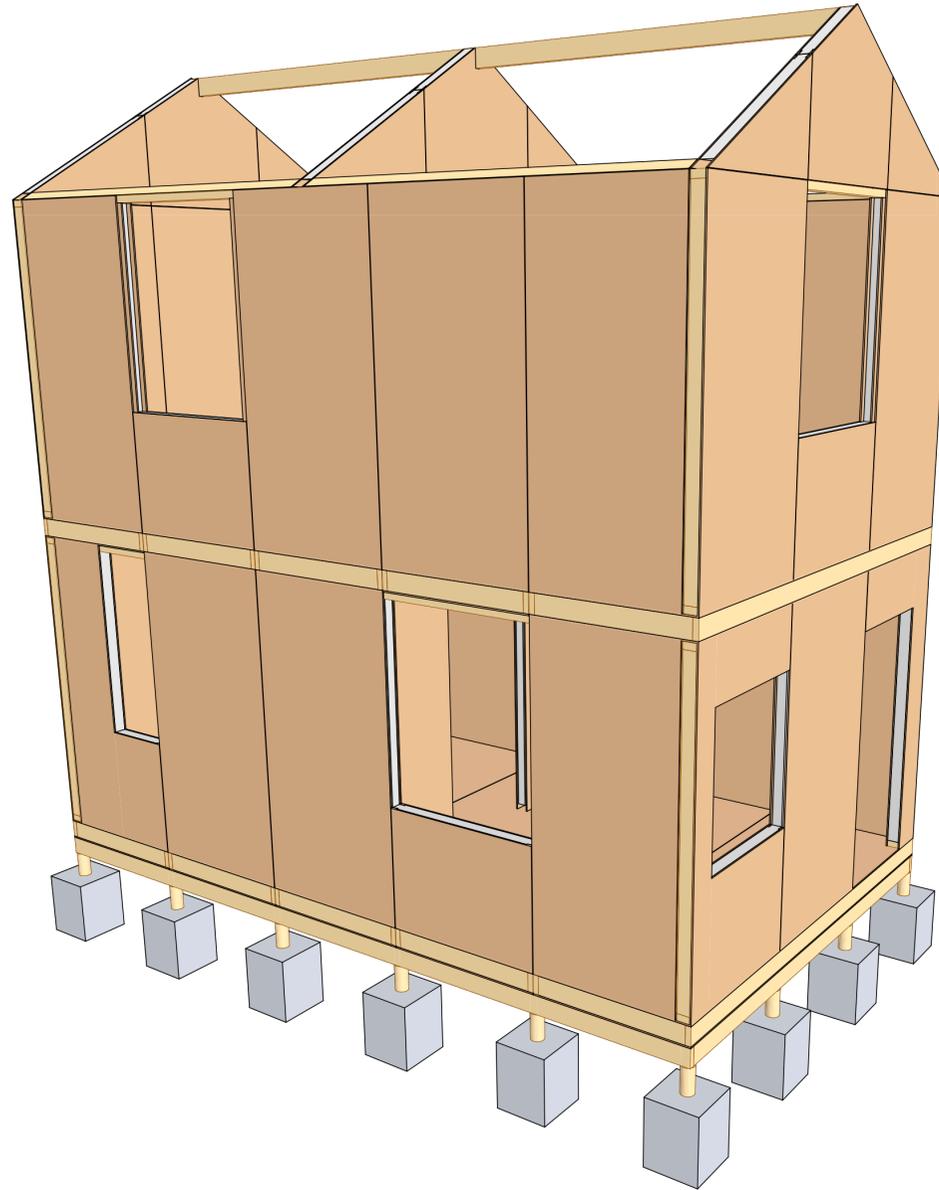
Frontones



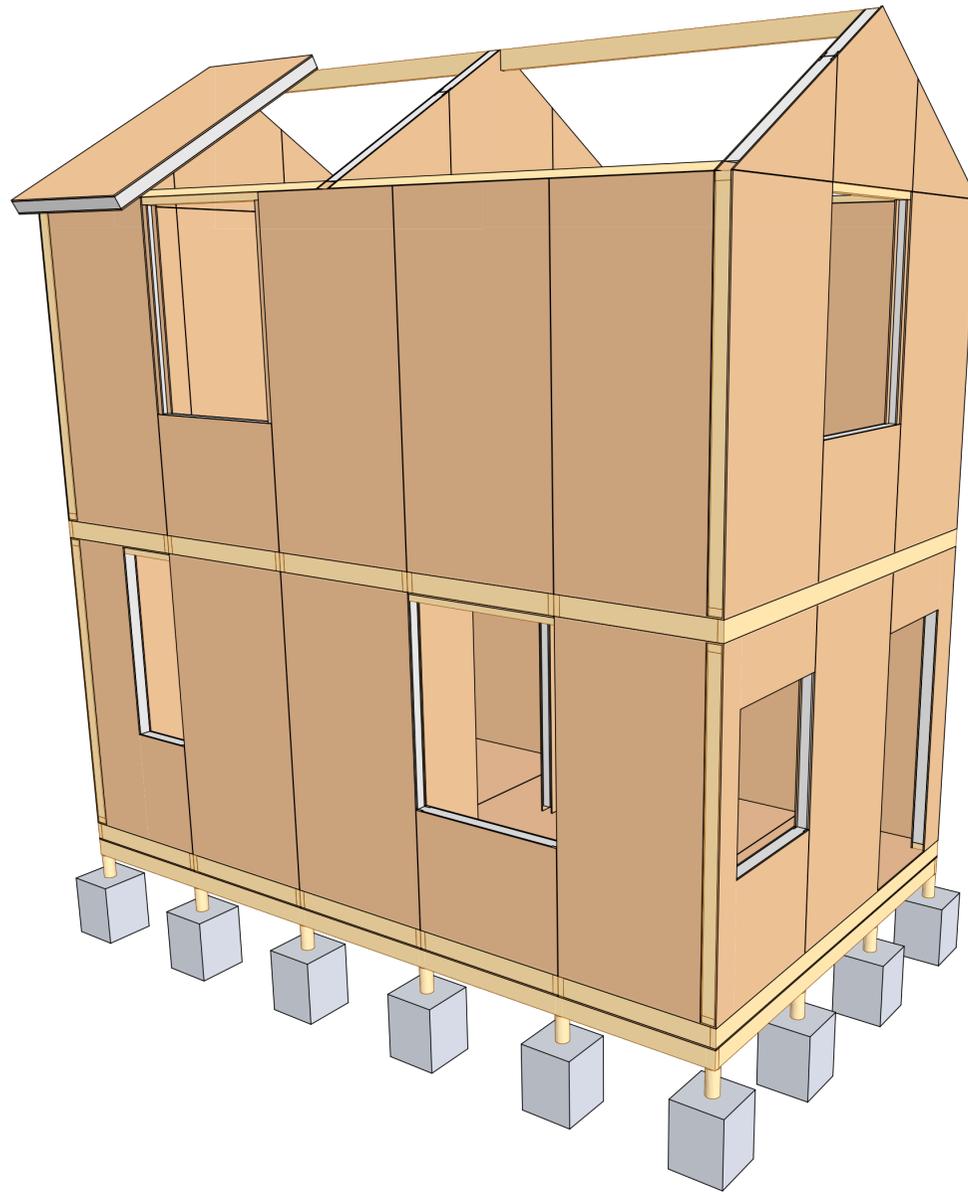
Viga de cumbrera y soleras de cuña



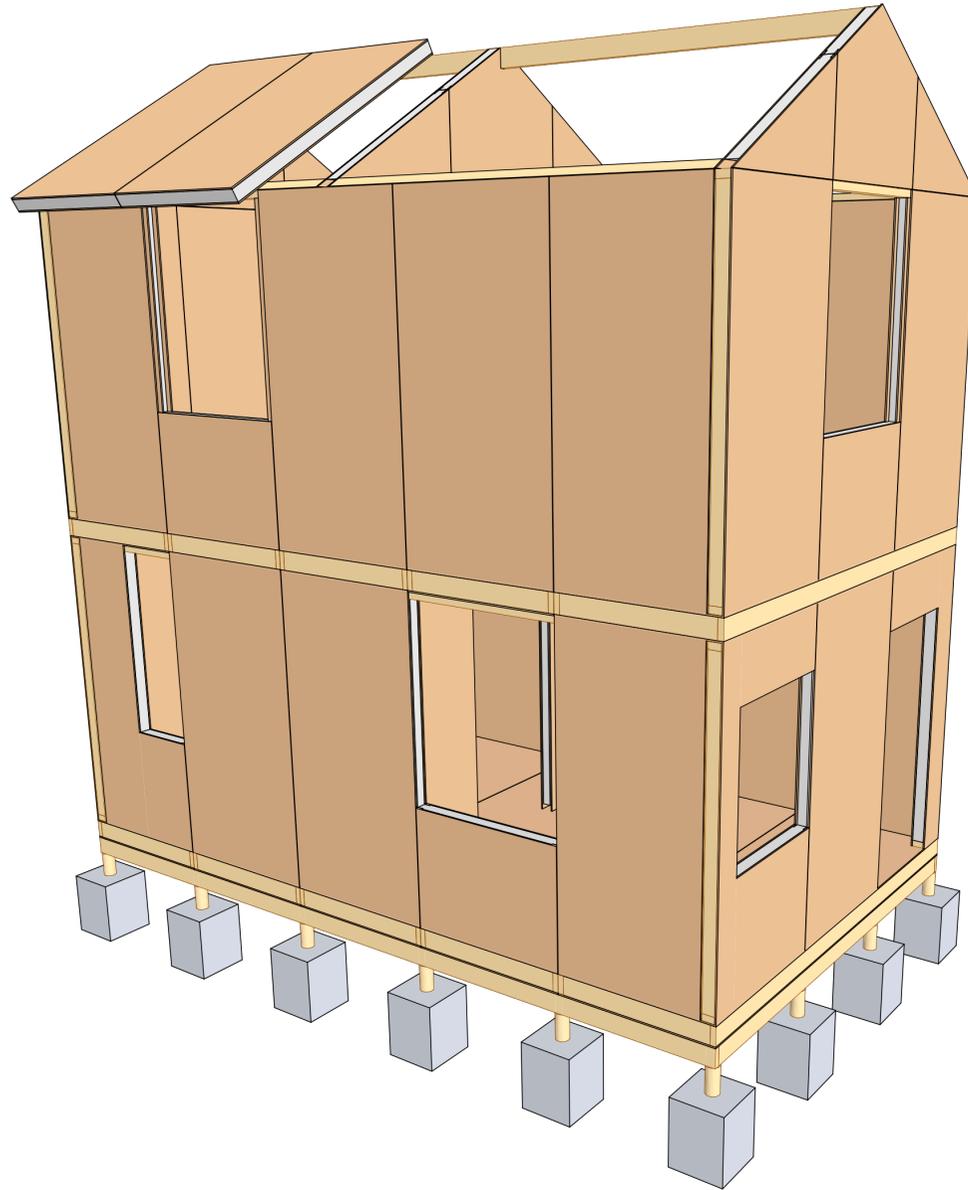
Viga de cumbrera y soleras de cuña



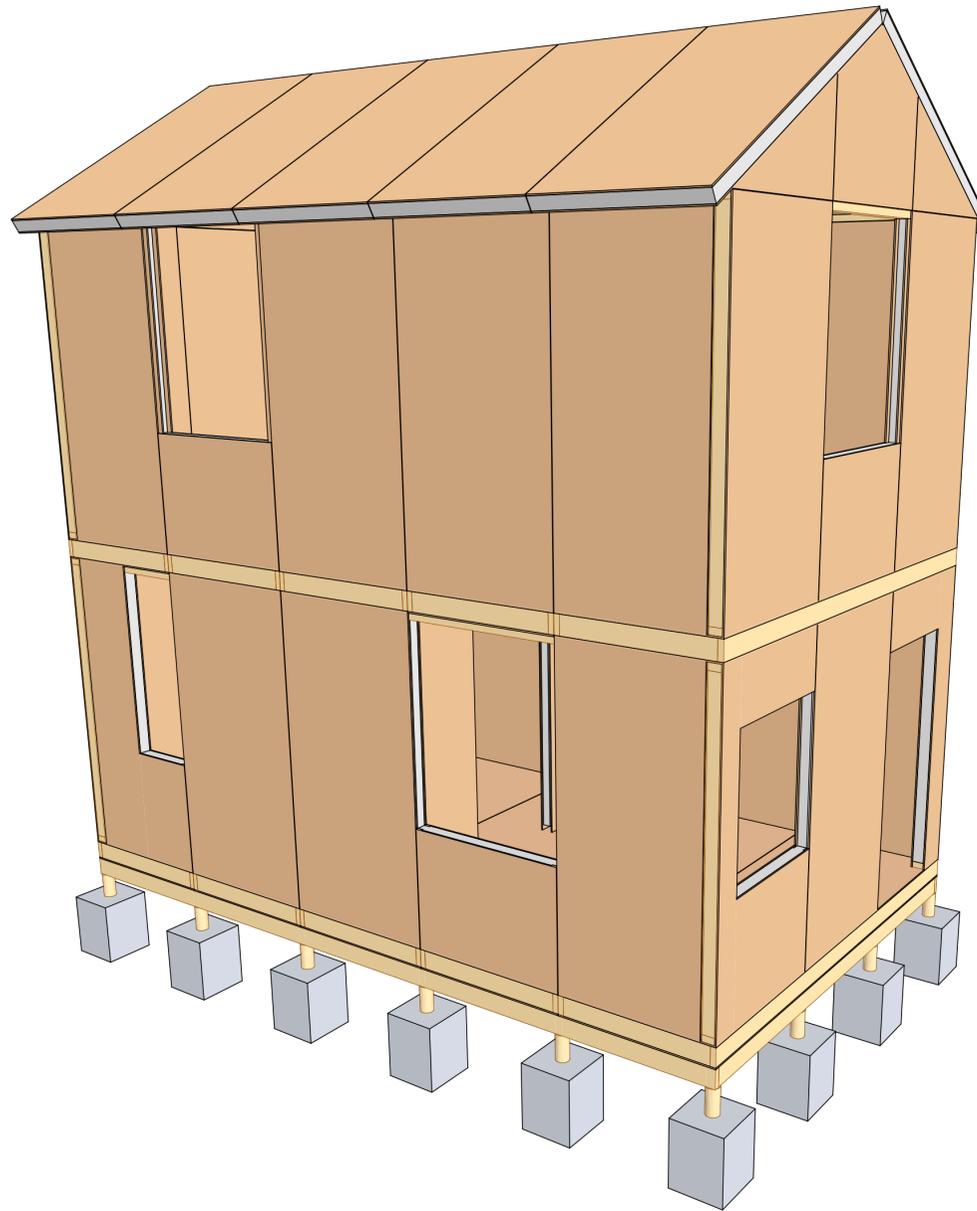
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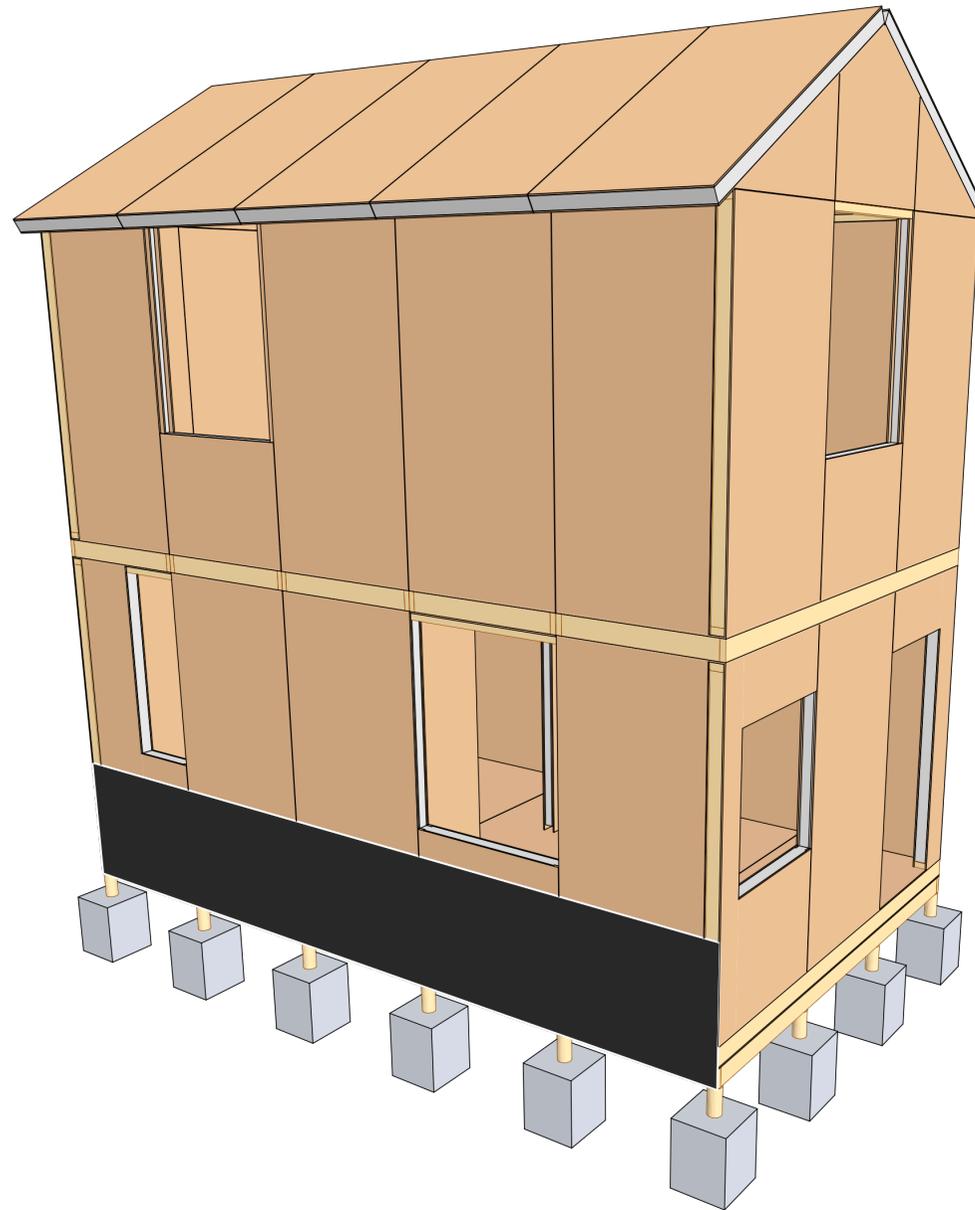
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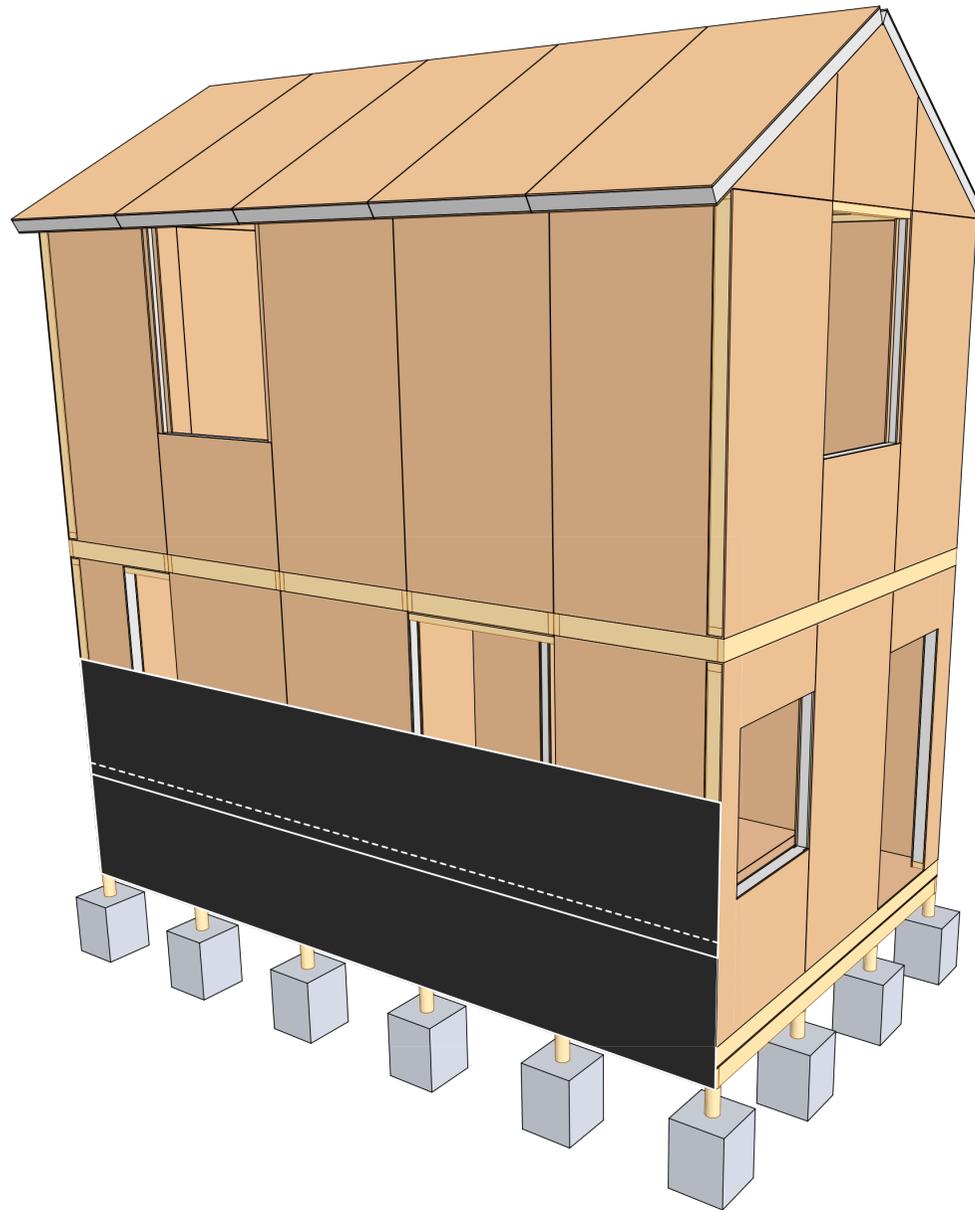
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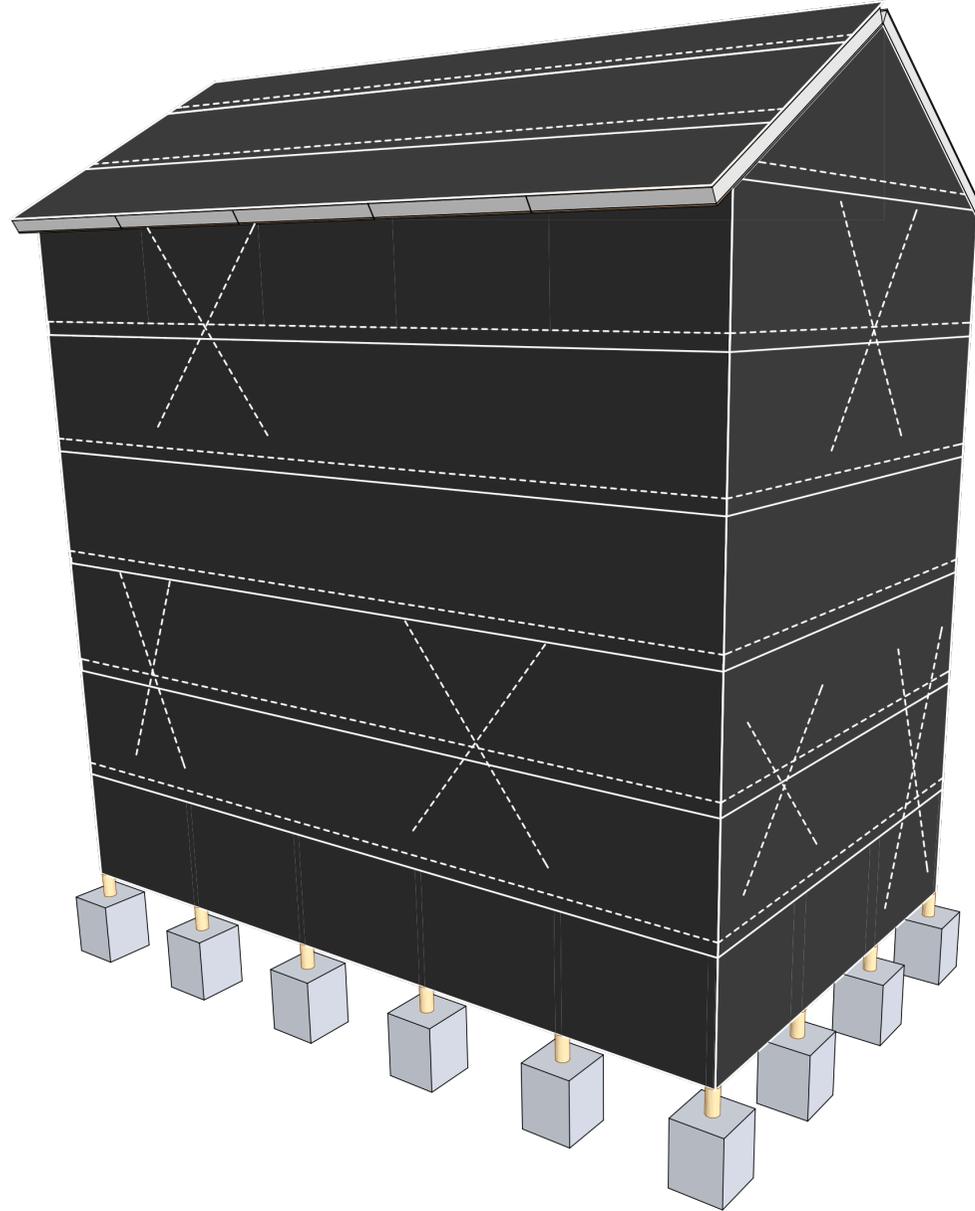
Barrera de humedad



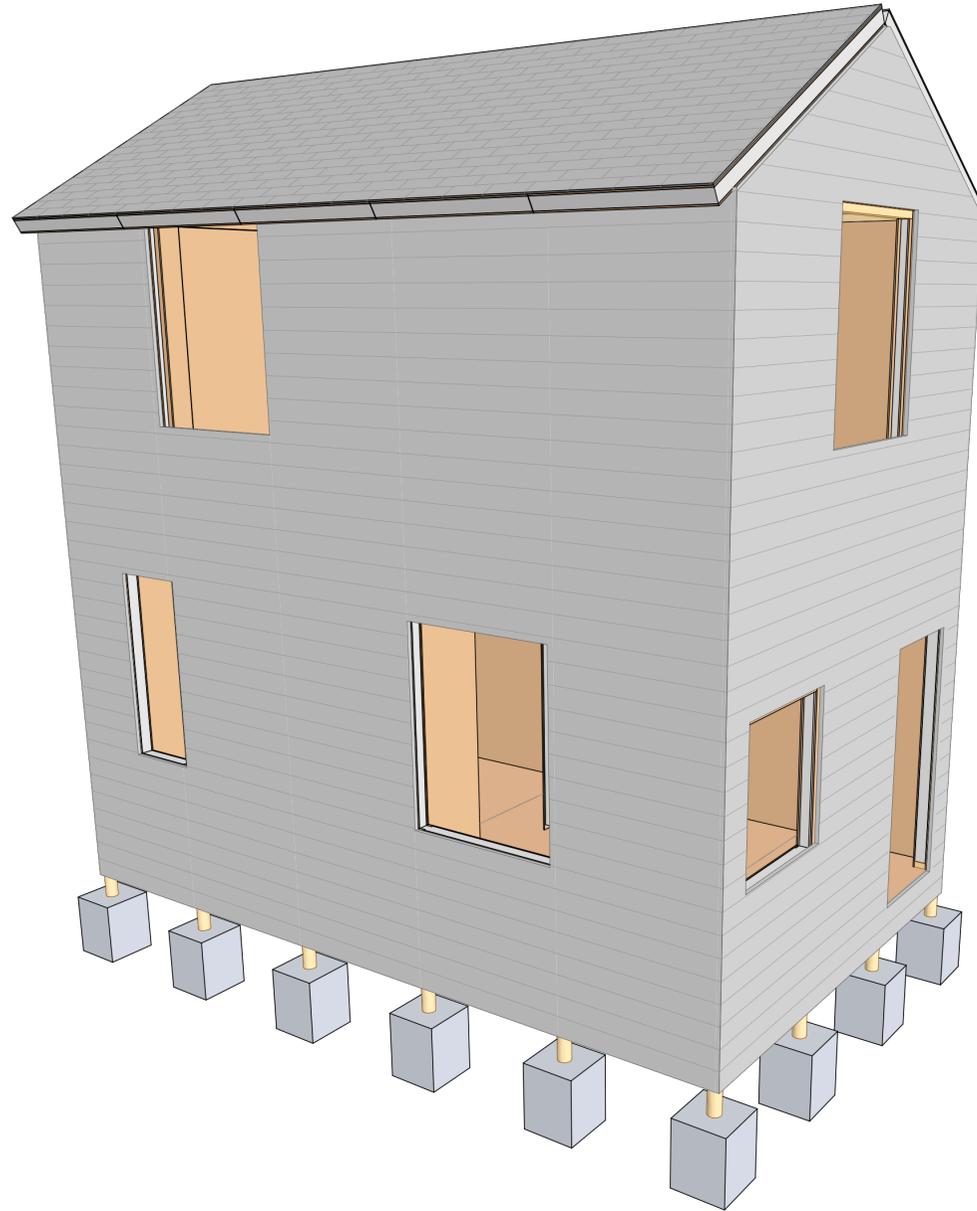
Barrera de humedad



Barrera de humedad



Revestimientos exteriores



Puertas y ventanas

