

Dry Service Conditions

EXTERIOR EWP PRODUCTS:
Engineered Wood Products are designed for dry service conditions only.
Builder is responsible for protecting Engineered Wood Products from wet service conditions.
Build slope for drainage and ensure adequate ventilation in floor container.
Homeowner is responsible for maintaining exterior protection of the Engineered Wood Products.

#6 STANDARD DETAILS.
See detail schedule on page 3 of installation guide.

NAILING REQUIREMENTS

TJI joists at bearings: Two 8d (2 1/2") box nails (1 each side), 1/2" minimum from end.

Blocking panels, rim joist or rim board to bearing plate:
TJI blocking panels or rim joist: 10d (3") box nails at 6" o.c.
True joist rim board: Toenail with 10d (3") box nails at 6" o.c. or 16d (2 1/4") box nails at 12" o.c.
Shear transfer: Connections equivalent to decking nail schedule.

Rim board, rim joist or closure to TJI joist:
1/2" width or less: Two 10d (3") box nails, one each at top and bottom flange.
3/4" thru 2 1/2" widths: Two 16d (2 1/4") box nails, one each at top and bottom flange.
3" width: Toenail joist to rim joist with one 10d (3") box nail each side of joist top flange.

2x4 minimum squash blocks: Two 10d (3") box nails, one each at top and bottom flange.

Double Shear Nailing

Double Shear Nailing - Side View

Double Shear Nailing - Top View
Min. 3" Common Nails Req'd Unless Otherwise Noted on Layout

All hangers are to be installed as per Simpson Strong Tie specifications.

All HUS, HGUS, LUS & HHUS hangers require shear nailing.

Dome or Tab Hole
- Do Not Bend Tabs

DROPPED FLOOR DETAIL NOT TO SCALE

3 PLYS OF 3/4" PLYWOOD

FLUSH BEAM

TJI JOIST

F/M HANGER

Built-up LVL beam or equivalent

For connecting beams see beam manufacturer's user guide.

DROPPED FLOOR DETAIL NOT TO SCALE

One 8d nail at top and bottom flange

Face-mounted hanger installed per manufacturer's recommendations

Web stiffeners as required (see web stiffener details)

Attach rim board to top plate or beam as per detail A3

For connecting beams see beam manufacturer's user guide.

SPLIT LEVEL BEARING NOT TO SCALE

One 8d nail at top and bottom flange

Stub bearing wall

Rim board (see manufacturer's user guide for product information)

Attach rim board to top plate or beam as per detail A3

One 8d nail at each side of TJI web

2x6 Block Hangers 90°

SECTION A-A

PLAN VIEW B-B

2x6 SPF#2 OR BETTER (BOTH SIDES)
2" W x 3 1/2" BOX NAILS (FROM EACH SIDE STAGGERED)

1/8" GAP

3 - 3 1/2" NAILS EACH BLOCK @ ENDS

MAXIMUM CAPACITY (50% FACTORED)

2x6 Block Hangers 30° to 90°

SECTION A-A

PLAN VIEW B-B

1 1/8" TIMBERSTRAND REM BOARD
2" W x 3 1/2" BOX NAILS (FROM EACH SIDE STAGGERED)

1/8" GAP

3 - 3 1/2" NAILS EACH PIECE @ ENDS

MAXIMUM CAPACITY (50% FACTORED)

NUMBER OF PLYS REQUIRED FOR 8' POST REACTION ONLY REACTIONS OVER 1000 lbs ARE SHOWN ON LAYOUT

MAXIMUM REACTION (UNBRACED CONDITIONS, TUL)	SPFH3/stud grade	SPFH2/or better	Post Req'd
1844 lbs	2547 lbs	2-2x4	2-2x4
4536 lbs	6717 lbs	3-2x4	3-2x4
7017 lbs	10858 lbs	4-2x4	4-2x4
2898 lbs	3870 lbs	2-2x6	2-2x6
7130 lbs	10545 lbs	3-2x6	3-2x6
11031 lbs	17148 lbs	4-2x6	4-2x6

Maximum reactions assumed to be centered over the column.
This table is in accordance with the 2017 Canadian Wood Design Manual and is provided for reference only.

NUMBER OF PLYS REQUIRED FOR 9' POST REACTION ONLY REACTIONS OVER 1000 lbs ARE SHOWN ON LAYOUT

MAXIMUM REACTION (UNBRACED CONDITIONS, TUL)	SPFH3/stud grade	SPFH2/or better	Post Req'd
1466 lbs	1907 lbs	2-2x4	2-2x4
3992 lbs	5752 lbs	3-2x4	3-2x4
6398 lbs	8744 lbs	4-2x4	4-2x4
2299 lbs	3005 lbs	2-2x6	2-2x6
6285 lbs	9055 lbs	3-2x6	3-2x6
10255 lbs	15735 lbs	4-2x6	4-2x6

Maximum reactions assumed to be centered over the column.
This table is in accordance with the 2017 Canadian Wood Design Manual and is provided for reference only.

NUMBER OF PLYS REQUIRED FOR 10' POST REACTION ONLY REACTIONS OVER 1000 lbs ARE SHOWN ON LAYOUT

MAXIMUM REACTION (UNBRACED CONDITIONS, TUL)	SPFH3/stud grade	SPFH2/or better	Post Req'd
1160 lbs	1484 lbs	2-2x4	2-2x4
3479 lbs	4886 lbs	3-2x4	3-2x4
5303 lbs	7005 lbs	4-2x4	4-2x4
1822 lbs	2337 lbs	2-2x6	2-2x6
5477 lbs	7700 lbs	3-2x6	3-2x6
9466 lbs	14233 lbs	4-2x6	4-2x6

Maximum reactions assumed to be centered over the column.
This table is in accordance with the 2017 Canadian Wood Design Manual and is provided for reference only.

NUMBER OF PLYS REQUIRED FOR 12' POST REACTION ONLY REACTIONS OVER 1000 lbs ARE SHOWN ON LAYOUT

MAXIMUM REACTION (UNBRACED CONDITIONS, TUL)	SPFH2/or better	Post Req'd
942 lbs	1484 lbs	2-2x4
3480 lbs	4886 lbs	3-2x4
4640 lbs	7005 lbs	4-2x4
1482 lbs	2337 lbs	2-2x6
5566 lbs	7700 lbs	3-2x6
11539 lbs	14233 lbs	4-2x6

Maximum reactions assumed to be centered over the column.
This table is in accordance with the 2017 Canadian Wood Design Manual and is provided for reference only.

Non Load Bearing Wall Parallel to Joist

Glue and nail all connections.

2x4 at 48" o.c. w/ 2x4 plate over may be required to support load or as required per local building code.

Double joists may be required to support load or as required per local building code.

Semi-Flush Beam Design Notes

- 1 - Floor joists (11-7/8" or 14"). (Deeper joists require engineering review)
- 2 - Semi-Flush LVL beam. Beam designed as flush beam. Lamination detail as indicated on floor layout. Beam drop 6" maximum (7" maximum for 14" joists).
- 3 - Face/Top mount hanger.
- 4 - Subfloor sheathing. Screwed and glued.
- 5 - SPF No.2 blocking on flat. Nail using 2-rows of 3" nails @ 8" o/c per ply. (Adhesive optional)
- 6 - Blocking to be continuous for the full length of the beam and cut only as required for plumbing and/or mechanical.
- 7 - SPF No.2 blocking on edge. Nail using 2-rows of 3" nails @ 8" o/c per ply. (Adhesive optional)
- 8 - Blocking to be continuous for the full length of the beam and cut only as required for plumbing and/or mechanical.
- 9 - CS16 straps attaching the SPF No.2 blocking to the LVL beam @ joist spacing (Full depth of the beam and blocking)
- 10 - 1" OSB/Phywood Filler applied at the center of the blocking.
- 11 - Web stiffeners both sides as required based on hanger height and/or bearing requirement.

Semi-Flush Beam Detail - A
Blocking on Flat - Face Mount Hangers

Center 4x8 Panel Over Beam

Min. 11-7/8" Floor Depth

Semi-Flush Beam Detail - B
Blocking on Edge - Face Mount Hangers

Center 4x8 Panel Over Beam

Min. 11-7/8" Floor Depth

Semi-Flush Beam Detail - C
Blocking on Flat - Top Mount Hangers

Center 4x8 Panel Over Beam

Min. 11-7/8" Floor Depth

Screw Patterns for Side Loaded Point Loads

FLATLOCK Screws (4" x 3 1/2", 5" or 6")
Box Nails 10d (0.128"x3")
1 1/4" width pieces (2, 3 & 4 Plys)

Minimum end distance for screws is 6"
Note: Nailing patterns will follow the same layout as for the screws

General Notes:

Detail applies to Part 9 residential applications only.
Design of TJI floor members in Level software or literature is required.
Web stiffeners at bearings or cantilever reinforcement may be required depending on the design.
Refer to detail V of Level Specifier's Guide TJI-5000 for web stiffener nailing instructions.
Blocking at the cantilever bearing to be added at the discretion of the building designer or engineer.

Cantilevered TJI to Deck Connection

Cantilevered Width Max. 10ft

Maximum load from one floor and roof above.

TJI Blocking is not required over support when cantilevered width is less than or equal to 10ft.

nH 8d (0.131"x2 1/2") @ 6" o.c.

nH 8 structural panel attached to the underside of joist (SPFH3 verification as required per code)

10d (0.128"x3") @ 6" o.c.

Maximum 2' overhang

Cantilevered TJI to Deck Connection

FLASHING

2-1/2" DIAMETER LAG BOLTS OR THROUGH BOLTS STAGGERED OR THROUGH BOLTS STAGGERED FASTENERS REQUIRED FOR TREATED LUMBER

2-1/2" NAILS THROUGH SHEATHING INTO TOP OF REM BOARD SPACED AT 12" o.c.

1-1/8" or 1-1/4" REM BOARD

BLOCKING PANEL

CANTILEVERED JOIST

INVERTED FACE MOUNT HANGER

48" maximum

2x LEDGER AS PER CODE (TREATED LEDGER RECOMMENDED)

L5T49 OR M5T49 STRAP TIE EVERY 48" OR SHEATHING FASTENED TO BOTTOM OF TJI JOIST AND CONNECTED TO RIMBOARD WITH 2-1/2" NAILS @ 6" o.c.

Reduction Factor For Face Mount Hangers in Rimboard Applications
Copy these factors to hanger capacities found in Wood Const. Connection Cat. (C-CAN12)

Joist Hanger	Face Nails Specified	Face Nails For TJI Rimboard	1-1/8" TJI Rimboard	1-1/2" Timberstrand
LF	10d	10d clinched	0.75	1.0
HUS	10d	10d clinched	0.75	1.0
HED, U, HLU	16d	16d clinched	0.75	1.0

(1) Maximum factored download permitted by any hanger on SQ rimboard is 5780 lbs.
(2) NAILS: 16d @ 0.148" dia. x 3" long, 16d @ 0.162" dia. x 3-1/2" long.
(3) Do not use 10d x 1-1/2" face nails.

Blocking Installation Detail

ABSOLUTELY NO TOENAILING ALLOWED

Apply adhesion adhesive to all contact surfaces

Two 8d (0.113" x 2 1/4") nails or 2# screws, through web into typical 2x block

Alternate block location to opposite side of web for continuous mid-span blocking