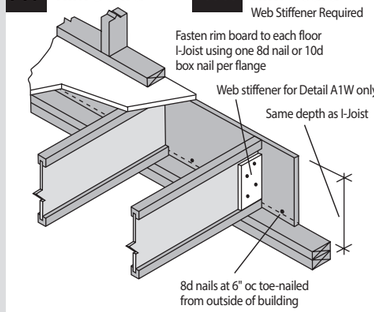
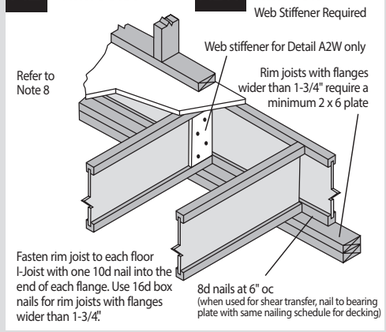
Floor Details

A1 Rim Board



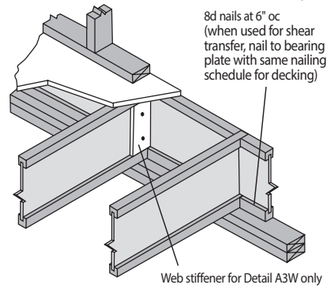
A1W Rim Board
Web Stiffener Required

A2 Rim Joist



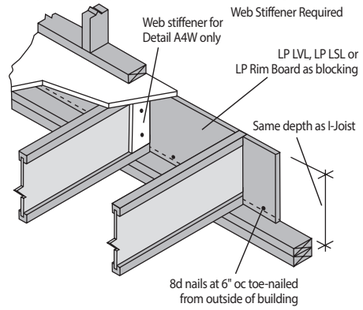
A2W Rim Joist
Web Stiffener Required

A3 Blocking at Exterior Wall



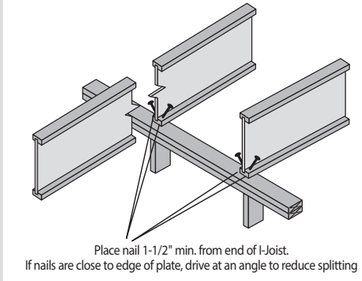
A3W Blocking at Exterior Wall
Web Stiffener Required

A4 Solid Blocking at Exterior Wall

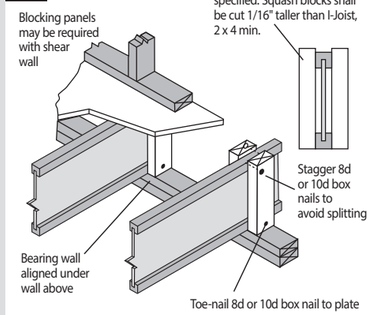


A4W Solid Blocking at Exterior Wall
Web Stiffener Required

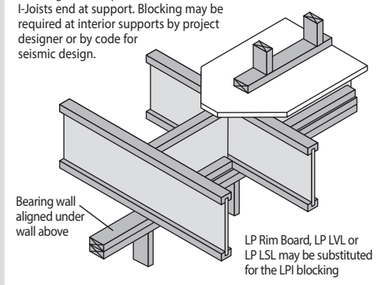
A5 Joist Support Nailing



B2 Squash Blocks

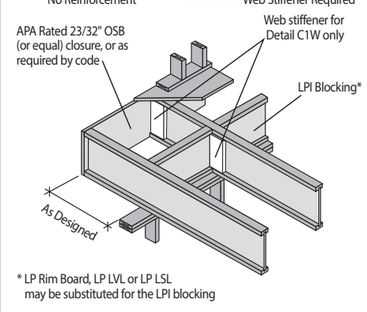


B3 Blocking at Interior Support



C1 Cantilever Detail
No Reinforcement

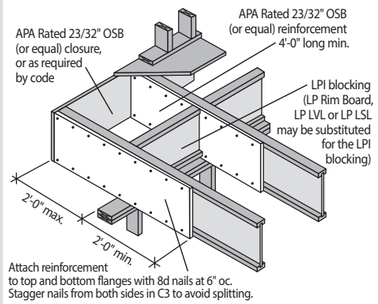
C1W Cantilever Detail
Web Stiffener Required



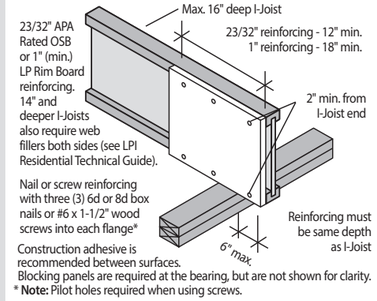
* LP Rim Board, LP LVL or LP LSL may be substituted for the LPI blocking

C2 Cantilever Detail
Reinforcement One Side Only

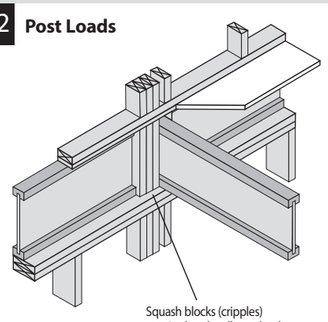
C3 Cantilever Detail
Reinforcement Both Sides



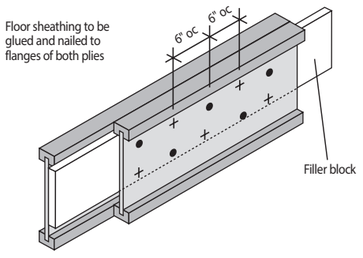
C8 Brick Ledge Cantilever
Full Depth Reinforcing



D2 Post Loads



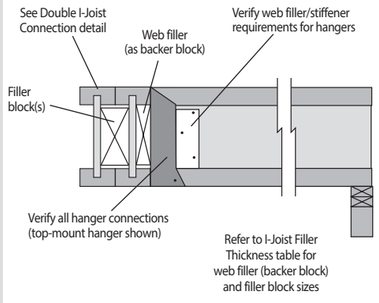
E5 Double I-Joist Connection



See I-Joist Header Cross-Section for information on attaching filler blocks

Refer to I-Joist Filler Thickness table for filler block sizes

E4 I-Joist Header Cross Section



Web Filler/Backer Block: Backer blocks shall be at least 12" long and located behind every supported hanger. For a single I-joist header, install backer blocks to both sides of the web. Two pieces of 2 x 8 (min.) lumber, cut to the proper height (see notes 2 & 3), may be set vertically side-by-side to achieve the required minimum 12" length.

Attach backer blocks with 8d nails (use 10d nails for flanges wider than 2-1/2"). Use a minimum of 10 nails spaced to avoid splitting, with half the nails to each side of the center of the supported hanger.

Note: Backer blocks may be omitted for top-mount hangers supporting only downward loads not exceeding 250 lbs.

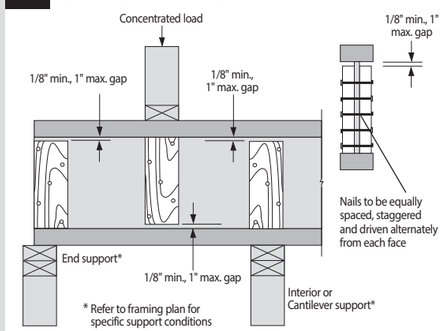
Filler Blocks: Install in minimum 4' long sections at each support, centered behind each supported hanger and at no more than 8' oc. Lumber fillers may be stacked to achieve the required depth (see notes 2 & 3). For example, two 4' long 2 x 8's may be stacked vertically to achieve the filler depth for an 18" deep I-joist (minimum required depth is 18" – 3" – 1" = 14").

Attach filler blocks with 8d nails (10d for flanges wider than 2-1/2") nails spaced 6" oc per row. Use one row of nails in each row of stacked fillers, with a minimum of two rows of nails. Drive every other nail from opposite sides.

NOTES:

1. Backer blocks and filler blocks shall consist of APA Rated wood structural panel (OSB or plywood), 2 x lumber (SPF or better), or LP SolidStart LVL, LSL or OSB Rim Board, with a net thickness equivalent to that shown in the I-Joist Filler Thickness table below.
2. Except as noted in 3, backer blocks and filler blocks shall fit the clear distance between flanges with a gap of at least 1/8," but not more than 1," and shall be of sufficient depth to allow for all hanger nailing into the web. Do not force into place.
3. Backer blocks and filler blocks for double I-joists that are top-loaded only or side-loaded supporting top-mount hangers that do not require nailing into the web, shall be at least 5-1/2" deep for I-joists to 11-7/8" deep, and shall be at least 7-1/4" deep for I-joists 14" and deeper.
4. Install backer blocks tight to top flange for top-loaded joists and for joists supporting top-mount hangers (shown). Install tight to bottom flange for joists supporting face-mount hangers.
5. Clinch nails where possible.
6. For double I-joists, additional nailing may be required to transfer point loads. For additional information, contact your LP SolidStart Engineered Wood Products distributor.

W1 Web Stiffener Detail



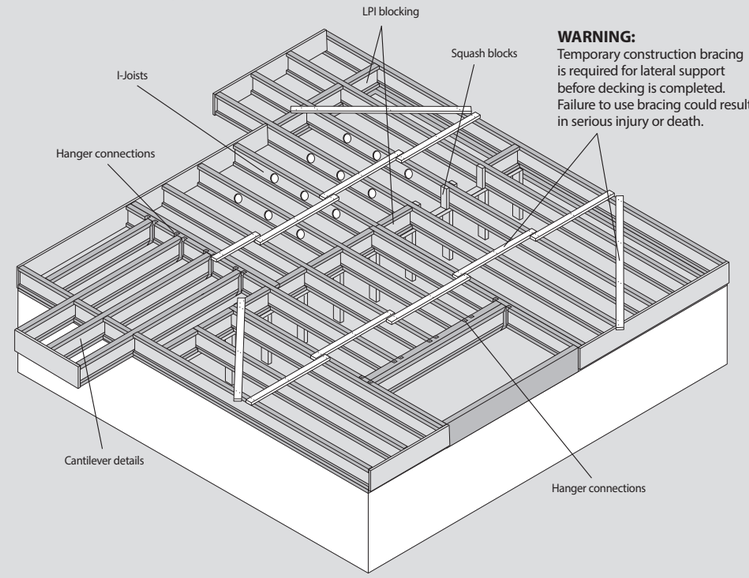
Floor Layout (typical)

TEMPORARY BRACING

- Use at least 1x4 temporary bracing members nailed to each I-Joist with two 8d nails.
- Keep the main runs parallel and no more than 8'-0" apart.
- Use long pieces, not short blocks; lap the ends to keep a continuous line of bracing.
- To prevent endwise movement of the continuous 1 x 4 lines of bracing, anchor them at the ends and at 25'-0" intervals into a stable end wall or an area braced by sheathing or diagonal bracing.
- Remember, the continuous 1 x 4 bracing is not effective unless attached to the braced area.
- Use particular care removing temporary bracing when applying sheathing. Remove the bracing as the sheathing is attached.

NOTES FOR FLOOR LAYOUT:

- I-Joists must be supported laterally at all bearings and the ends of cantilevers.
- Unless specified, bridging or mid-span blocking is not required; however, it may enhance floor performance if used properly.
- Verify capacity and fastening of hangers and connectors.
- Some wind or seismic loads may require different or additional details and connections.



WARNING:
Temporary construction bracing is required for lateral support before decking is completed. Failure to use bracing could result in serious injury or death.

I-JOIST FILLER THICKNESS

SERIES	FILLER BLOCK	WEB FILLER/BACKER BLOCK
LPI 18, LPI 20Plus, LPI 32Plus	2-1/8"	1"
LPI 20FB	1-1/2"	23/32"
LPI 36	1-7/8"	7/8"
LPI 42FB	2-1/2"	1-1/4"
LPI 42Plus, LPI 52Plus, LPI 56	3"	1-1/2"
LPI 450	1-1/2"	23/32"
LPI 530	1-3/4"	7/8"

NOTES:

1. Backer blocks and filler blocks shall consist of APA Rated wood structural panel (OSB or plywood), or 2x lumber (SPF or better).
2. LP LVL, LSL or OSB Rim Board may also be used.
3. Refer to the Notes for the I-Joist Header Cross-Section to the left for details on the required height and length, and nailing of the backer blocks and filler blocks.

WEB STIFFENER REQUIREMENTS

SERIES	MIN. THICKNESS	NAIL SIZE	NAIL QTY., MAX. STIFFENER HEIGHT FOR JOIST DEPTHS			
			9-1/2"	11-7/8"	14"	16"
LPI 18, LPI 20Plus, LPI 32Plus, LPI 450, LPI 530	23/32"	8d (2-1/2")	3, 6-3/8"	3, 8-3/4"	3, 10-7/8"	3, 12-7/8"
LPI 36	23/32"	8d (2-1/2")	–	4, 8-3/4"	5, 10-7/8"	6, 12-7/8"
LPI 42Plus, LPI 52Plus	1-1/2" (2 x)	10d (3")	3, 6-3/8"	3, 8-3/4"	3, 10-7/8"	3, 12-7/8"
LPI 56	1-1/2" (2 x)	10d (3")	–	4, 8-3/4"	5, 10-7/8"	6, 12-7/8"

NOTE: Web stiffeners are not applicable to the LPI 20FB and LPI 42FB series.

NOTES:

1. Web stiffeners shall be installed in pairs – one to each side of the web. Web stiffeners are always required for the "Bird's Mouth" roof joist bearing detail.
2. Web stiffeners shall be cut to fit between the flanges of the LP SolidStart I-Joist, leaving a minimum 1/8" gap (1" maximum). At bearing locations, the stiffeners shall be installed tight to the bottom flange. At locations of concentrated loads, the stiffeners shall be installed tight to the top flange.
3. Web stiffeners shall be cut from APA Rated OSB (or equal) or from LP SolidStart LVL, LSL or OSB Rim Board. 2x lumber is permissible. Do NOT use 1x lumber as it tends to split. Do NOT build up the required stiffener thickness from multiple pieces.
4. Web stiffeners shall be the same width as the bearing surface, with a minimum of 3-1/2".
5. See Web Stiffener Requirements for minimum stiffener thickness, maximum stiffener height and required nailing.