



SOLIDSTART®

ENGINEERED WOOD PRODUCTS

Handling & Installation Recommendations

LP® SolidStart® I-Joists, LP SolidStart LVL & LP SolidStart LSL

Note: For specific strength and span information, please consult specific product brochures.

Important Notes

WARNING: Failure to follow proper procedures for handling, storage and installation could result in unsatisfactory performance, unsafe structures and possible collapse.

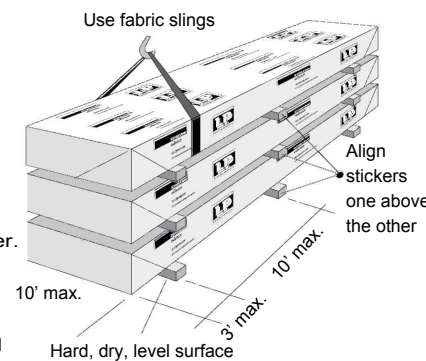
These instructions are offered as a guide to good practice in the handling, storage and installation of LP® SolidStart® I-Joists, LP SolidStart LVL & LP SolidStart LSL beams. They are, however, solely general recommendations and, in some instances, other or additional precautions may be desirable. In all cases, the procedures used should be as specified by the architect/engineer responsible for the entire building.

- This is not intended as a manual for selecting products and assumes that components and details have been specified correctly.
- Consult the LP SolidStart I-Joist, LP SolidStart LVL & LP SolidStart LSL brochures or contact your LP SolidStart products distributor for assistance.
- All rim joists, blocking, connections and temporary bracing must be installed before erectors are allowed on the structure.
- No loads other than the weight of the erectors are to be imposed on the structure before it is permanently sheathed.
- After sheathing, do not overload joists with construction materials exceeding design loads.
- LP SolidStart I-Joists, LP SolidStart LVL & LP SolidStart LSL beams must be used under dry, covered and well ventilated interior conditions in which the equivalent moisture content in lumber will not exceed 16%.

Handling & Storage

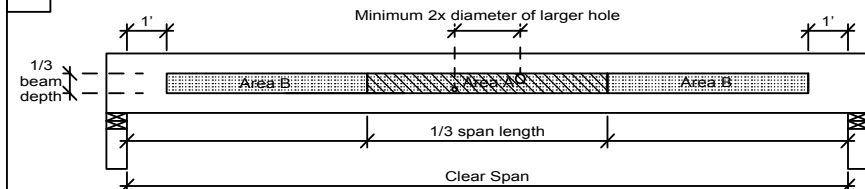
Keep LP SolidStart I-Joists, LP SolidStart LVL & LP SolidStart LSL beams dry.

- Unload products carefully by lifting. Support the bundles to reduce excessive bowing. Individual products should be handled in a manner which prevents physical damage during measuring, cutting, erection, etc. I-Joists should be handled vertically and not flatwise.
- Keep stored in wrapped and strapped bundles, stacked no more than 10' high. Support and separate bundles with 2 x 4 (or larger) stickers spaced no more than 10' apart. Keep stickers in line vertically.
- Product must not be stored in contact with the ground, or have prolonged exposure to the weather.
- Use forklifts and cranes carefully to avoid damaging product.
- Do not use visually damaged product. Call your local LP SolidStart Engineered Wood Products distributor for assistance when damaged products are encountered.



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BEAM HOLE DETAILS



NOTES:

1. These guidelines apply to uniformly loaded beams selected from the Quick Reference Tables or the Uniform Load Tables or designed with LP's design/specification software only. For all other applications, such as beams with concentrated loads, please contact your LP® SolidStart® Engineered Wood Products distributor for assistance.
2. Round holes can be drilled anywhere in "Area A" provided that: no more than four holes are cut, with the minimum spacing described in the diagram. The maximum hole size is 1-1/2" for depths up to 9-1/4," and 2" for depths greater than 9-1/4."
3. Rectangular holes are NOT allowed.
4. DO NOT drill holes in cantilevers without prior approval from the project designer.
5. Other hole sizes and configurations MAY be possible with further engineering analysis. For more information, contact your LP SolidStart Engineered Wood Products distributor.
6. Up to three 3/4" holes may be drilled in "Area B" to accommodate wiring and/or water lines. These holes shall be at least 12" apart. The holes shall be located in the middle third of the depth, or a minimum of 3" from the bottom and top of the beam. For beams shallower than 9-1/4", locate holes at mid-depth.
7. Protect plumbing holes from moisture.

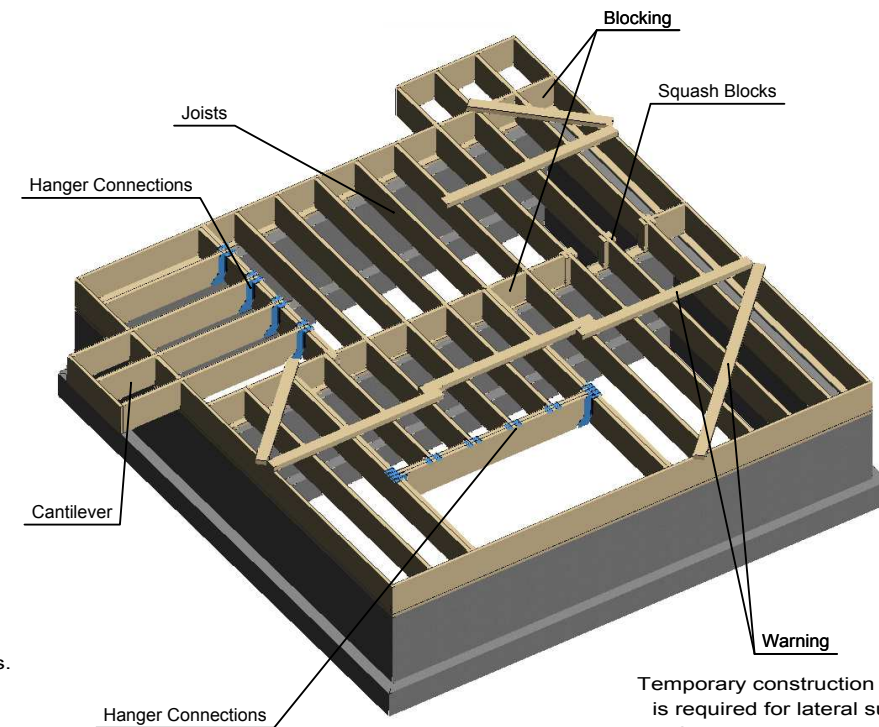
Floor Layout (typical)

TEMPORARY BRACING

- Use at least 1x4 temporary bracing members nailed to each Joist with two 8d nails.
- Keep them 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:

- 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.



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

P8 Connection Assemblies

Detail A Maximum 4" Wide 2-ply Beams	Detail B Maximum 6" Wide 3-ply Beams	Detail C Maximum 5-1/2" Wide 2-ply Beams	Detail D Maximum 9-1/4" Wide 3-ply Beams	Detail E Maximum 7-1/4" Wide 2-ply Beams	Detail F Maximum 7" Wide 3 or 4-ply Beams	Detail G Maximum 9" Wide 2-ply Beams	Detail H Maximum 7" Wide 2, 3, or 4-ply Beams
<p>Notes:</p> <ol style="list-style-type: none"> 1. Use 2 rows of nails for depths to 12." Use 3 rows of nails for depths greater than 12," up to 18." Use 4 rows of nails for depths greater than 18," up to 24." 2. 16d box (3-1/2" x 0.135") or common (3-1/2" x 0.162") nails shall be used for 1-3/4" and 2" thick plies. 10d box (3" x 0.128") or common (3" x 0.148") nails shall be used for 1-1/2" thick plies. 16d sinkers (3-1/4" x 0.148") may be used for 1-3/4" and 2" plies provided the nails are driven alternating from each face (see note 3). 3. For detail A or when attaching the first two plies for details B and F (optional), the nails may be driven all from one face or alternating from both faces. If the nails do not fully penetrate the second ply, then the nails shall be driven from both faces. 4. When driving nails from each face, alternate every other nail in each row. 5. For detail C/E, when side-loaded, the larger side-load shall be applied to the thicker ply (main member). 6. For details F and H, it is permissible to nail the plies together before bolting or driving Simpson SDS or SDW (or equal) screws. Nail two plies together then nail one additional ply to each side. 7. Beams wider than 5-1/2" shall be top-loaded or side-loaded from both sides to prevent rotation. Consult a professional engineer for other options. 8. Other nail, screw or bolt configurations are possible. Contact your LP SolidStart Engineered Wood Products distributor. 							

Customer Service and Product Technical Support: 1.888.820.0325 E-mail: customer.support@lpcorp.com. Visit our web site at: www.lpcorp.com.

LP SolidStart Material Safety Data Sheets (MSDS) may be found on our website, www.lpcorp.com.

LP SolidStart Engineered Wood Products are manufactured at different locations in the United States and Canada. Please verify availability with the LP SolidStart Engineered Wood Products distributor in your area before specifying these products.

Cal. Prop 65 Warning: Use of this product may result in exposure to wood dust, known to the State of California to cause cancer.

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NOTE: Louisiana-Pacific Corporation periodically updates and revises its product information. To verify that this version is current, contact the sales offices.

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<p>P1 TOP LOADED BEAM-NAILED CONNECTION (See Connection Assemblies for more details)</p> <p>Minimum nail sizes: 1-3/4" and 2" plies: 16d box (3-1/2" x 0.135")</p> <p>1-1/2" plies: 10d box (3" x 0.128")</p> <p>Two rows for depths up to 12" Three rows for depths up to 18"</p> <p>Framing is applied to top of the beam so that each ply carries an equal load</p>	<p>P2 TOP LOADED BEAM-BOLTED CONNECTION (See Connection Assemblies for more details)</p> <p>Framing is applied to top of the beam so that each ply carries an equal load</p> <p>Nails are permissible but NOT required. See notes for Connection Assemblies.</p> <p>1/2" diameter ASTM grade A-307 (or better) bolts. Use washers on both faces.</p>	<p>A1I RIM BOARD</p> <p>Fasten rim board to each floor Joist using one 8d nail or 10d box nail 1" from the top and bottom surface</p> <p>Same depth as Joist</p> <p>8d nails at 6" o.c. toe-nailed from outside of building.</p>	<p>A4I SOLID BLOCKING AT EXTERIOR WALL</p> <p>LP LSL, LP LVL or LP Rim Board may be used as Blocking</p> <p>Same depth as Joist</p> <p>8d nails at 6" o.c. toe-nailed from outside of building.</p>	<p>A5I JOIST SUPPORT NAILING</p> <p>Secure Joist to plate with three (3) 8d or 10d box nails. Toe nail two nails from on one side the third from the other side.</p> <p>Place nail 1-1/2" min. from end of Joist. If nails are close to edge of plate, drive at an angle to reduce splitting.</p>
<p>P3 Beam Connection</p> <p>Structurally adequate hanger</p> <p>Hanger shall apply load equally to each ply or special design required</p>	<p>P4 STEEL AND WOOD COLUMN</p> <p>Framing details such as joists and sheathing shall be provided to prevent beam from twisting or rotating at support</p> <p>Simpson® PC or CC, USP® PCM or CC or equal post or column cap</p> <p>Provide specified bearing length "L"</p> <p>Simpson® CCO, USP® CCS or equal column cap</p>	<p>A7v SOLID RIM AS STARTER JOIST</p> <p>8d nails at 6" o.c. toe-nailed from outside of building.</p> <p>Provide blocking for lateral support as required. LP LSL, LP LVL or LP Rim Board may be used as Starter Joist</p>	<p>B3c JOIST END OVER INTERIOR SUPPORT</p> <p>LP LSL, LP LVL or LP Rim Board may be used as Blocking</p> <p>Blocking is required when Joists end at support</p> <p>lapping</p> <p>butting</p>	<p>B3I BLOCKING AT INTERIOR SUPPORT</p> <p>Blocking is not required if no wall above unless Joists end at support. Blocking may be required at interior supports by project designer or by code for seismic design</p> <p>Bearing wall aligned under wall above</p> <p>LP LSL, LP LVL or LP Rim Board may be used as Blocking</p>
<p>P6 FLOOR BEAM (Flush Ceiling)</p> <p>Top mount hangers recommended</p> <p>Prevent the beam from rotating by using rim or blocking</p> <p>Check stiffener / filler requirements depending on load and hanger type</p>	<p>P7 CONCRETE WALL</p> <p>NOTE: Protect wood from contact with concrete as required by code</p> <p>Simpson® GLB, USP® LBS or equal seat</p>	<p>B4I JOIST NAILING AT INTERIOR SUPPORT</p> <p>Secure Joist to plate with three (3) 8d or 10d box nails. Toe nail two nails from on one side the third from the other side.</p>	<p>B9 Clear Span Bracing- Strapping (when called for by joist design/layout)</p> <p>Attach Strapping to Joists with (2) 8d nails per joist</p> <p>1x4 Strapping, lapped</p> <p>Nail Strapping and Decking to Blocking with (3) 8d nails</p> <p>Tie Strapping to Wall or Solid Blocking every 25' max.</p>	<p>B9b Clear Span Bracing- Blocking (when called for by joist design/layout)</p> <p>(2) 16d nails per end, top and bottom, or (4) 8d or 10d box nails per end when toe nailing, 2-top and 2-bottom.</p>
<p>Q1 WINDOW / DOOR HEADER</p> <p>Rim Board</p> <p>Provide specified or prescriptive bearing length</p>	<p>Q2 WINDOW / DOOR HEADER</p> <p>Continuous plate</p> <p>Provide specified or prescriptive bearing length</p>	<p>C1I Load Bearing Cantilever Detail</p> <p>APA-Rated 23/32" OSB (or equal) closure, or as required by code</p> <p>As Designed</p> <p>LP Blocking*</p> <p>* LP LSL, LP LVL or LP Rim Board may be used as Blocking</p>	<p>D2 POST LOADS</p> <p>Squash blocks (cripples) required under all post loads</p>	<p>R9 DON'T bore holes or notch unless reviewed by a design professional.</p> <p>Exception: Small holes may be drilled in accordance with the Beam Hole Details.</p>