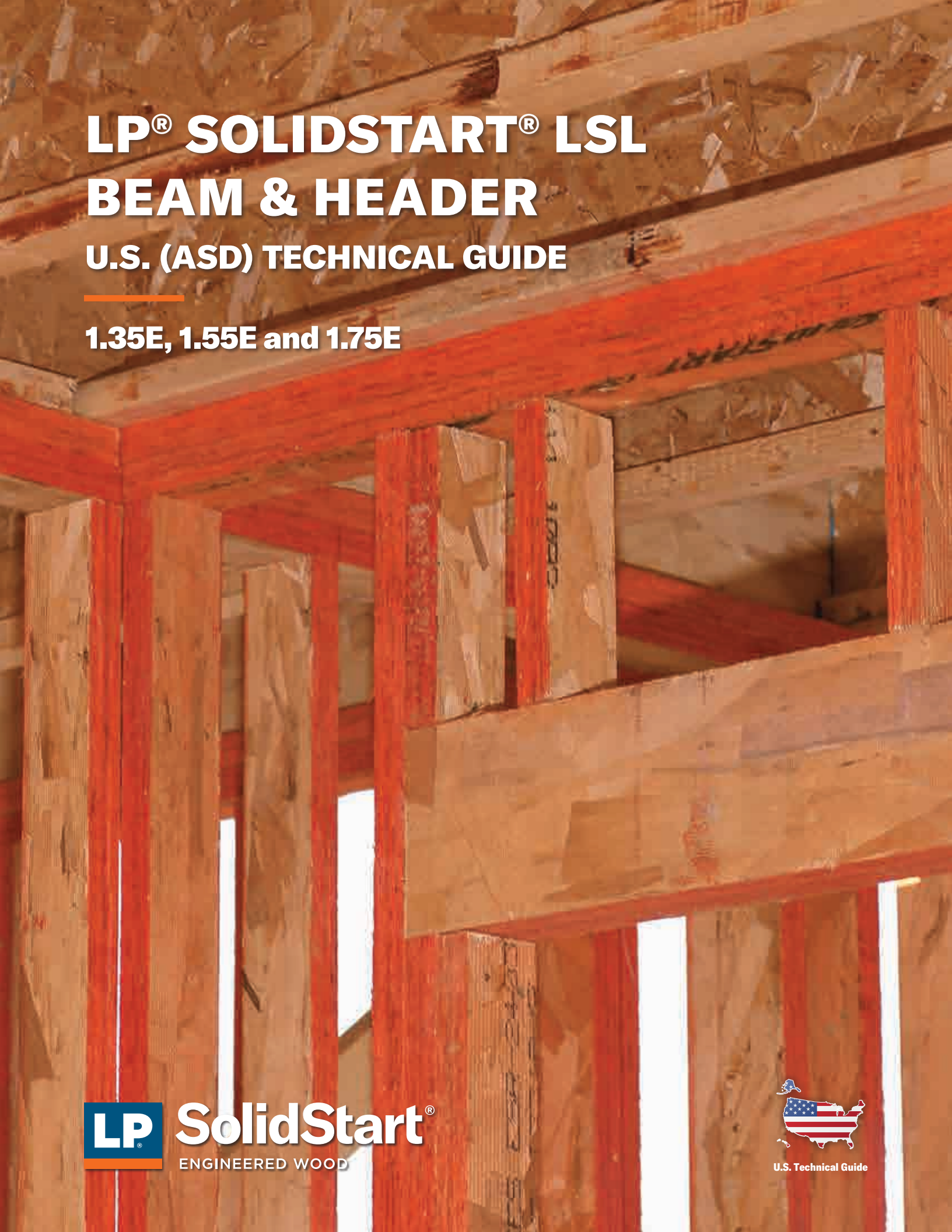

LP® SOLIDSTART® LSL BEAM & HEADER

U.S. (ASD) TECHNICAL GUIDE

1.35E, 1.55E and 1.75E

LP SolidStart® ENGINEERED WOOD

U.S. Technical Guide

Designed to Outperform Dimensional Lumber

LP® SolidStart® Laminated Strand Lumber (LSL) has many advantages over competing products like dimensional lumber, LVL, PSL, and Glulams including connections, consistency, straightness, predictability, and increased design flexibility.

WHAT IS LSL?

LP SolidStart LSL is a strand-based product that uses a technology similar to what is used in oriented strand board. LP's LSL is produced in a single-opening, static, steam-injection press that reduces the resin curing time and therefore improves efficiency. The end product is a long length laminated strand board with properties that make it an ideal product for load-carrying beam and header applications. And compared to dimensional lumber, LP SolidStart LSL can reduce build cycle time because one piece is needed instead of multiple pieces.

1.35E, 1.55E AND 1.75E

LP SolidStart LSL beam and header is available in lengths up to 64'; thicknesses up to 3-1/2"; and standard depths of 4-3/8", 5-1/2", 7-1/4", 9-1/4", 9-1/2", 11-1/4", 11-7/8", 14", 16" and 18". Please verify availability with the LP SolidStart Engineered Wood Products distributor in your area before specifying these products.

SUSTAINABLE

Our wood procurement process targets small, fast growing trees that can be replenished more quickly than larger, older trees.

We use SFI® certified forest management and fiber sourcing systems to help ensure that our wood comes from well-managed forests. All LP SolidStart products are certified to the SFI chain-of-custody standard.

Virtually the entire log is used in our manufacturing process. The wood waste is repurposed or used to help fuel our mills.

We only use low-emitting, safe resins in the manufacture of all LP SolidStart products and do not add any urea-formaldehyde.

LP SolidStart products may help you achieve certification points in a number of leading green building programs.

LIFETIME LIMITED WARRANTY

LP SolidStart Engineered Wood Products are backed by a lifetime limited warranty. Visit LPCorp.com or call 1.888.820.0325 for a copy of the warranty.

SUSTAINABLE FORESTRY INITIATIVE

Good for you. Good for our forests.®

www.sfiprogram.org

SFI-00603

IMPORTANT NOTES

1. LP SolidStart LSL shall be designed for dry-use conditions only. Dry-use applies to products installed in dry, covered and well ventilated interior conditions in which the equivalent moisture content in lumber will not exceed 16%.
2. This guide is valid only for LP SolidStart LSL members supporting loads applied parallel to the face of the strands ("edge" orientation).
3. Ensure that the design loads, duration of load increases and deflection limits that you use to select products from this guide are appropriate for your application and comply with local code requirements. If you do not know the correct design criteria and all the loads imposed on the component from all parts of the structure, seek qualified help from the architect, engineer or designer of the structure. Additional reference data on wood construction is available in the form of building codes, code evaluation reports and other design references.
4. The Quick Reference and Allowable Load tables in this guide are only for uniform loads on simple (single) or equal, continuous (multiple) span members as noted in each table. For other conditions such as concentrated loads, unequal spans, etc., contact your LP SolidStart Engineered Wood Products distributor.
5. Spans are typically measured from center-to-center of supports except for door and window headers. Header spans are measured from the inside face of the supports – the rough opening (RO). A structurally adequate bearing surface under the full width (thickness) of the beam must be provided at each support.
6. Minimum bearing length is 1-1/2" (at least one jack stud or cripple is required) unless otherwise noted for a specific table. Refer to the Reaction Capacity charts and the notes for each table. Verify local code requirements for minimum bearing.
7. Total load deflections are based on instantaneous loading. Long term deflection (creep) under sustained load has not been considered.
8. LP SolidStart LSL is not cambered.
9. Higher grades of LP SolidStart LSL can be substituted for the indicated grade.
10. LP SolidStart LSL sized with the tables and design values in this guide requires continuous lateral restraint of the compression edge. Continuous restraint is defined as a maximum unbraced length of 24". This restraint is normally provided by sheathing and/or other framing members, which shall be adequately anchored to the LSL and the supporting structure. Framing conditions that do not provide continuous lateral restraint require special design. Contact your LP SolidStart Engineered Wood Products distributor. Caution: Failure to provide adequate lateral restraint could result in an unstable member and reduce its load capacity.
11. Lateral restraint shall also be provided at all supports to prevent rotation or twisting.
12. Refer to the Connection Details page for information on designing nailed and bolted connections, minimum nail spacing and end distances, and for properly connecting multiple plies of LSL to form a built-up member.

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LSL 1.35E Product Specifications & Design Values

ALLOWABLE STRESS DESIGN VALUES (PSI)

Grade	Bending Stress F_b [3]	Modulus of Elasticity E (x 10^6 psi)	Shear Stress F_v	Compression Stress	
				F_c (Parallel To Grain)	$F_{c\perp}$ (Perpendicular To Grain)
1730F_b-1.35E	1730	1.35	410	1650	750

NOTES:

1. LP® SolidStart® LSL shall be designed for dry-use conditions only. Dry-use applies to products installed in dry, covered and well ventilated interior conditions in which the equivalent moisture content in lumber will not exceed 16%.
2. The allowable strengths and stiffness are for standard load duration. Bending, Shear and Compression parallel-to-grain shall be adjusted according to code. Modulus of Elasticity and Compression perpendicular-to-grain shall not be adjusted.
3. The allowable Bending Stress is tabulated for 12" depth. For depths other than 12", multiply F_b by $(12/depth)^{0.120}$. For depths less than 3-1/2", multiply F_b by 1.159.
4. Deflection calculations shall include both bending and shear deformations.

Deflection for a simple span, uniform load: $\Delta = \frac{270wL^4}{Ebd^3} + \frac{28.8wL^2}{Ebd}$

Where: Δ = deflection (in), w = uniform load (plf), L = design span (ft), E = modulus of elasticity (from table), b = width (in), d = depth (in)

Equations for other conditions can be found in engineering references.

SECTION PROPERTIES AND ALLOWABLE CAPACITIES

Depth	Weight (lb/ft)		Allowable Moment (lb-ft)		Allowable Shear (lb)		Moment of Inertia (in^4)	
	1-1/2"	3-1/2"	1-1/2"	3-1/2"	1-1/2"	3-1/2"	1-1/2"	3-1/2"
4-3/8"	–	4.7	–	1817	–	4185	–	24
5-1/2"	2.6	5.9	1197	2794	2255	5262	21	49
7-1/4"	3.4	7.8	2013	4696	2972	6936	48	111

NOTES:

1. The Allowable Moment and Shear capacities are for standard load duration and shall be adjusted according to code.
2. 3-1/2" wide members are either a single piece of 3-1/2" LSL or two plies of 1-3/4" LSL. 5-1/4" wide members are either the combination of a single piece of 3-1/2" LSL with a single piece of 1-3/4" LSL or three plies of 1-3/4" LSL.
3. The tabulated weight is an estimate and shall only be used for design purposes. Contact LP for actual shipping weights.

FASTENERS:
Refer to pages 30-31 for information on connecting multiple plies and for the equivalent specific gravity for design of nailed and bolted connections.

REACTION CAPACITY (LBS)

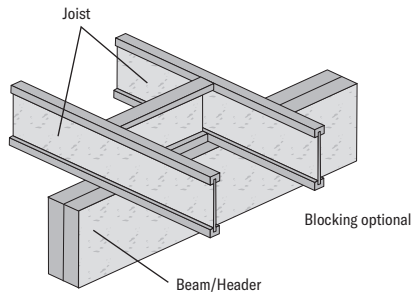
	Bearing Length																					
Width	1-1/2"	2"	2-1/2"	3"	3-1/2"	4"	4-1/2"	5"	5-1/2"	6"	6-1/2"	7"	7-1/2"	8"	8-1/2"	9"	9-1/2"	10"	10-1/2"	11"	11-1/2"	12"
1-1/2"	1687	2250	2812	3375	3937	4500	5062	5625	6187	6750	7312	7875	8437	9000	9562	10125	10687	11250	11812	12375	12937	13500
3-1/2"	3937	5250	6562	7875	9187	10500	11812	13125	14437	15750	17062	18375	19687	21000	22312	23625	24937	26250	27562	28875	30187	31500

NOTES:

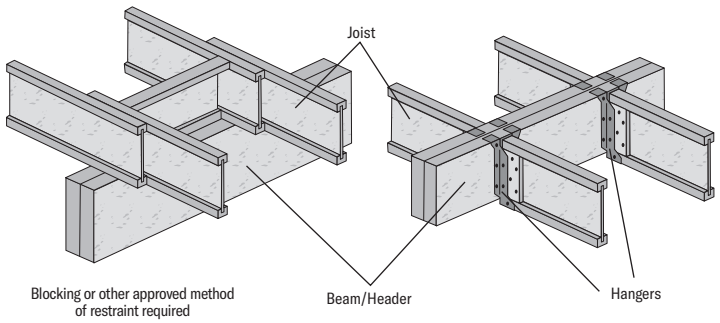
1. The maximum Reactions are based on the compression strength, perpendicular-to-grain, of the LSL. This is suitable for beams bearing on steel or the end-grain of studs.
2. Verify that the support for the beam is structurally adequate to carry the reaction. The compressive strength parallel-to-grain, of studs may require more studs than the bearing length above indicates.
3. For beams bearing on wood plates, the required bearing length will increase based on the bearing strength (compression perpendicular-to-grain) of the species and grade used for the plate material.
4. Verify local code requirements concerning minimum bearing.

1.35E FLOOR BEAM/HEADER QUICK REFERENCE DETAILS (see page 5 for tables)

CONTINUOUS FLOOR JOISTS



SIMPLE-SPAN FLOOR JOISTS

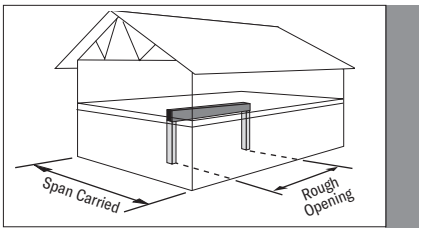


LSL 1.35E Floor Header Quick Reference Tables

TO USE:

1. Select the correct table for the supported floor joist condition (simple or continuous).
2. Choose the required rough opening for the header.
3. Select the span carried by the header across the top of the table.
4. Read the header size or choice of header sizes from the table.

EXAMPLE: A header with a 4'-6" rough opening carries 15'-0" simple span joists on each side.
SOLUTION: Using the Simple-Span Floor Joists table with 30'-0" span carried, select **3-1/2" x 5-1/2".**



CONTINUOUS FLOOR JOISTS (DESIGN FLOOR LOADS: 40 PSF LIVE, 15 PSF DEAD)

Rough Opening	Header Width	Span Carried By Header										
		20'	22'	24'	26'	28'	30'	32'	34'	36'	38'	40'
3'-2"	3-1/2"	4-3/8"	4-3/8"	4-3/8"	4-3/8"	4-3/8"	4-3/8"	4-3/8"	4-3/8"	4-3/8"	4-3/8"	5-1/2"
3'-8"	3-1/2"	4-3/8"	4-3/8"	4-3/8"	4-3/8"	4-3/8"	5-1/2"	5-1/2"	5-1/2"	5-1/2"	5-1/2"	5-1/2"
4'-2"	3-1/2"	4-3/8"	5-1/2"	5-1/2"	5-1/2"	5-1/2"	5-1/2"	5-1/2"	5-1/2"	7-1/4"	7-1/4"	7-1/4"
4'-8"	3-1/2"	5-1/2"	5-1/2"	5-1/2"	5-1/2"	7-1/4"	7-1/4"	7-1/4"	7-1/4"	7-1/4"	**7-1/4"**	**7-1/4"**
5'-2"	3-1/2"	5-1/2"	7-1/4"	7-1/4"	7-1/4"	7-1/4"	7-1/4"	7-1/4"	**7-1/4"**	-	-	-
5'-8"	3-1/2"	7-1/4"	7-1/4"	7-1/4"	7-1/4"	7-1/4"	7-1/4"	-	-	-	-	-
6'-2"	3-1/2"	7-1/4"	7-1/4"	7-1/4"	7-1/4"	-	-	-	-	-	-	-
6'-8"	3-1/2"	7-1/4"	7-1/4"	-	-	-	-	-	-	-	-	-
7'-2"	3-1/2"	-	-	-	-	-	-	-	-	-	-	-
7'-8"	3-1/2"	-	-	-	-	-	-	-	-	-	-	-
8'-2"	3-1/2"	-	-	-	-	-	-	-	-	-	-	-
8'-8"	3-1/2"	-	-	-	-	-	-	-	-	-	-	-

SIMPLE-SPAN FLOOR JOISTS (DESIGN FLOOR LOADS: 40 PSF LIVE, 15 PSF DEAD)

Rough Opening	Header Width	Span Carried By Header										
		20'	22'	24'	26'	28'	30'	32'	34'	36'	38'	40'
3'-2"	3-1/2"	4-3/8"	4-3/8"	4-3/8"	4-3/8"	4-3/8"	4-3/8"	4-3/8"	4-3/8"	4-3/8"	4-3/8"	4-3/8"
3'-8"	3-1/2"	4-3/8"	4-3/8"	4-3/8"	4-3/8"	4-3/8"	4-3/8"	4-3/8"	4-3/8"	5-1/2"	5-1/2"	5-1/2"
4'-2"	3-1/2"	4-3/8"	4-3/8"	4-3/8"	5-1/2"	5-1/2"	5-1/2"	5-1/2"	5-1/2"	5-1/2"	5-1/2"	5-1/2"
4'-8"	3-1/2"	5-1/2"	5-1/2"	5-1/2"	5-1/2"	5-1/2"	5-1/2"	5-1/2"	5-1/2"	7-1/4"	7-1/4"	7-1/4"
5'-2"	3-1/2"	5-1/2"	5-1/2"	5-1/2"	5-1/2"	7-1/4"	7-1/4"	7-1/4"	7-1/4"	7-1/4"	7-1/4"	7-1/4"
5'-8"	3-1/2"	5-1/2"	7-1/4"	7-1/4"	7-1/4"	7-1/4"	7-1/4"	7-1/4"	7-1/4"	7-1/4"	7-1/4"	-
6'-2"	3-1/2"	7-1/4"	7-1/4"	7-1/4"	7-1/4"	7-1/4"	7-1/4"	7-1/4"	-	-	-	-
6'-8"	3-1/2"	7-1/4"	7-1/4"	7-1/4"	7-1/4"	7-1/4"	-	-	-	-	-	-
7'-2"	3-1/2"	7-1/4"	7-1/4"	7-1/4"	-	-	-	-	-	-	-	-
7'-8"	3-1/2"	7-1/4"	-	-	-	-	-	-	-	-	-	-
8'-2"	3-1/2"	-	-	-	-	-	-	-	-	-	-	-
8'-8"	3-1/2"	-	-	-	-	-	-	-	-	-	-	-

NOTES:

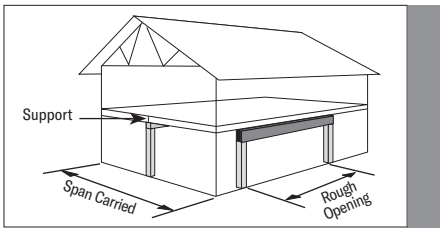
1. Use the Continuous Floor Joists table where the floor joists are continuous (multiple span) over the header.
   Use the Simple-Span Floor Joists table where the floor joists frame into the side of or end on top of the header.
2. Rough Opening is the clear span of the header, equal to the door or window rough opening, and is valid for simple and equal, continuous header spans.
3. End supports require 1-1/2" bearing. Interior supports require 3" bearing, except 6" is required where **bold**. The bearing length is based on the compressive strength, perpendicular-to-grain, of the LSL. See the Reaction Capacity table on page 4 for additional information.
4. Deflections are limited to L/360 live load and L/240 total load.
5. Header width can be either a single piece of LSL or built up from multiple plies that are nailed, bolted or connected with other approved fasteners. Refer to pages 30–31 for connection details.
6. Do not use where marked "-".

LSL 1.35E Combined Header Quick Reference Tables

TO USE:

1. Select the correct table for the roof loads needed.
2. Choose the required rough opening for the header.
3. Select the span carried by the header across the top of the table.
4. Read the header size or choice of header sizes from the table.

EXAMPLE: A header with a 5'-8" rough opening supports a 32'-0" span carried for a 20 psf Roof live load.
SOLUTION: Using the correct table for the roof load with 32'-0" span carried, select **3-1/2" x 7-1/4".**



DESIGN LOADS
ROOF: 20 PSF SNOW OR LIVE (115% or 125%), 15 PSF DEAD
FLOOR: 40 PSF LIVE, 15 PSF DEAD

Rough Opening	Header Width	Span Carried By Header										
		20'	22'	24'	26'	28'	30'	32'	34'	36'	38'	40'
3'-2"	3-1/2"	4-3/8"	4-3/8"	4-3/8"	4-3/8"	4-3/8"	4-3/8"	4-3/8"	4-3/8"	4-3/8"	4-3/8"	4-3/8"
3'-8"	3-1/2"	4-3/8"	4-3/8"	4-3/8"	4-3/8"	4-3/8"	5-1/2"	5-1/2"	5-1/2"	5-1/2"	5-1/2"	5-1/2"
4'-2"	3-1/2"	5-1/2"	5-1/2"	5-1/2"	5-1/2"	5-1/2"	5-1/2"	5-1/2"	5-1/2"	5-1/2"	5-1/2"	7-1/4"
4'-8"	3-1/2"	5-1/2"	5-1/2"	5-1/2"	5-1/2"	5-1/2"	7-1/4"	7-1/4"	7-1/4"	7-1/4"	7-1/4"	7-1/4"
5'-2"	3-1/2"	5-1/2"	7-1/4"	7-1/4"	7-1/4"	7-1/4"	7-1/4"	7-1/4"	7-1/4"	7-1/4"	7-1/4"	7-1/4"
5'-8"	3-1/2"	7-1/4"	7-1/4"	7-1/4"	7-1/4"	7-1/4"	7-1/4"	7-1/4"	7-1/4"	-	-	-
6'-2"	3-1/2"	7-1/4"	7-1/4"	7-1/4"	7-1/4"	7-1/4"	-	-	-	-	-	-
6'-8"	3-1/2"	7-1/4"	7-1/4"	-	-	-	-	-	-	-	-	-
7'-2"	3-1/2"	-	-	-	-	-	-	-	-	-	-	-
7'-8"	3-1/2"	-	-	-	-	-	-	-	-	-	-	-
8'-2"	3-1/2"	-	-	-	-	-	-	-	-	-	-	-
8'-8"	3-1/2"	-	-	-	-	-	-	-	-	-	-	-

DESIGN LOADS
ROOF: 25 PSF SNOW (115%), 15 PSF DEAD
FLOOR: 40 PSF LIVE, 15 PSF DEAD

Rough Opening	Header Width	Span Carried By Header										
		20'	22'	24'	26'	28'	30'	32'	34'	36'	38'	40'
3'-2"	3-1/2"	4-3/8"	4-3/8"	4-3/8"	4-3/8"	4-3/8"	4-3/8"	4-3/8"	4-3/8"	4-3/8"	4-3/8"	4-3/8"
3'-8"	3-1/2"	4-3/8"	4-3/8"	4-3/8"	4-3/8"	5-1/2"	5-1/2"	5-1/2"	5-1/2"	5-1/2"	5-1/2"	5-1/2"
4'-2"	3-1/2"	5-1/2"	5-1/2"	5-1/2"	5-1/2"	5-1/2"	5-1/2"	5-1/2"	5-1/2"	5-1/2"	7-1/4"	7-1/4"
4'-8"	3-1/2"	5-1/2"	5-1/2"	5-1/2"	7-1/4"	7-1/4"	7-1/4"	7-1/4"	7-1/4"	7-1/4"	7-1/4"	7-1/4"
5'-2"	3-1/2"	7-1/4"	7-1/4"	7-1/4"	7-1/4"	7-1/4"	7-1/4"	7-1/4"	7-1/4"	7-1/4"	**7-1/4"**	-
5'-8"	3-1/2"	7-1/4"	7-1/4"	7-1/4"	7-1/4"	7-1/4"	7-1/4"	7-1/4"	-	-	-	-
6'-2"	3-1/2"	7-1/4"	7-1/4"	7-1/4"	7-1/4"	-	-	-	-	-	-	-
6'-8"	3-1/2"	7-1/4"	-	-	-	-	-	-	-	-	-	-
7'-2"	3-1/2"	-	-	-	-	-	-	-	-	-	-	-
7'-8"	3-1/2"	-	-	-	-	-	-	-	-	-	-	-
8'-2"	3-1/2"	-	-	-	-	-	-	-	-	-	-	-
8'-8"	3-1/2"	-	-	-	-	-	-	-	-	-	-	-

NOTES:

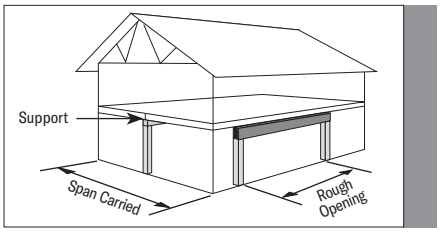
1. Rough Opening is the clear span of the header, equal to the door or window rough opening, and is valid for simple header spans only.
2. End supports require 1-1/2" bearing, except 3" is required where **bold**. The bearing length is based on the compressive strength, perpendicular-to-grain, of the LSL. See the Reaction Capacity table on page 4 for additional information.
3. Deflections are limited to L/360 snow/live load and L/240 total load.
4. Loads include 100 plf for an exterior wall and assume a 2' maximum overhang on the roof and an interior support at mid-span of the floor joists.
5. Header width can be either a single piece of LSL or built up from multiple plies that are nailed, bolted or connected with other approved fasteners. Refer to pages 30–31 for connection details.
6. Do not use where marked "-".

LSL 1.35E Combined Header Quick Reference Tables

TO USE:

1. Select the correct table for the roof loads needed.
2. Choose the required rough opening for the header.
3. Select the span carried by the header across the top of the table.
4. Read the header size or choice of header sizes from the table.

EXAMPLE: A header with a 5'-8" rough opening supports a 30'-0" span carried for a 30 psf Roof snow load.
SOLUTION: Using the correct table for the roof load with 30'-0" span carried, select **3-1/2" x 7-1/4".**



DESIGN LOADS
ROOF: 30 PSF SNOW (115%), 15 PSF DEAD
FLOOR: 40 PSF LIVE, 15 PSF DEAD

Rough Opening	Header Width	Span Carried By Header										
		20'	22'	24'	26'	28'	30'	32'	34'	36'	38'	40'
3'-2"	3-1/2"	4-3/8"	4-3/8"	4-3/8"	4-3/8"	4-3/8"	4-3/8"	4-3/8"	4-3/8"	4-3/8"	5-1/2"	5-1/2"
3'-8"	3-1/2"	4-3/8"	4-3/8"	4-3/8"	5-1/2"	5-1/2"	5-1/2"	5-1/2"	5-1/2"	5-1/2"	5-1/2"	5-1/2"
4'-2"	3-1/2"	5-1/2"	5-1/2"	5-1/2"	5-1/2"	5-1/2"	5-1/2"	5-1/2"	7-1/4"	7-1/4"	7-1/4"	7-1/4"
4'-8"	3-1/2"	5-1/2"	5-1/2"	7-1/4"	7-1/4"	7-1/4"	7-1/4"	7-1/4"	7-1/4"	7-1/4"	7-1/4"	**7-1/4"**
5'-2"	3-1/2"	7-1/4"	7-1/4"	7-1/4"	7-1/4"	7-1/4"	7-1/4"	7-1/4"	7-1/4"	-	-	-
5'-8"	3-1/2"	7-1/4"	7-1/4"	7-1/4"	7-1/4"	7-1/4"	7-1/4"	-	-	-	-	-
6'-2"	3-1/2"	7-1/4"	7-1/4"	7-1/4"	-	-	-	-	-	-	-	-
6'-8"	3-1/2"	-	-	-	-	-	-	-	-	-	-	-
7'-2"	3-1/2"	-	-	-	-	-	-	-	-	-	-	-
7'-8"	3-1/2"	-	-	-	-	-	-	-	-	-	-	-
8'-2"	3-1/2"	-	-	-	-	-	-	-	-	-	-	-
8'-8"	3-1/2"	-	-	-	-	-	-	-	-	-	-	-

DESIGN LOADS
ROOF: 40 PSF SNOW (115%), 15 PSF DEAD
FLOOR: 40 PSF LIVE, 15 PSF DEAD

Rough Opening	Header Width	Span Carried By Header										
		20'	22'	24'	26'	28'	30'	32'	34'	36'	38'	40'
3'-2"	3-1/2"	4-3/8"	4-3/8"	4-3/8"	4-3/8"	4-3/8"	4-3/8"	5-1/2"	5-1/2"	5-1/2"	5-1/2"	5-1/2"
3'-8"	3-1/2"	4-3/8"	5-1/2"	5-1/2"	5-1/2"	5-1/2"	5-1/2"	5-1/2"	5-1/2"	5-1/2"	5-1/2"	7-1/4"
4'-2"	3-1/2"	5-1/2"	5-1/2"	5-1/2"	5-1/2"	5-1/2"	7-1/4"	7-1/4"	7-1/4"	7-1/4"	**7-1/4"**	**7-1/4"**
4'-8"	3-1/2"	5-1/2"	7-1/4"	7-1/4"	7-1/4"	7-1/4"	7-1/4"	7-1/4"	**7-1/4"**	**7-1/4"**	**7-1/4"**	-
5'-2"	3-1/2"	7-1/4"	7-1/4"	7-1/4"	7-1/4"	7-1/4"	**7-1/4"**	-	-	-	-	-
5'-8"	3-1/2"	7-1/4"	7-1/4"	7-1/4"	7-1/4"	-	-	-	-	-	-	-
6'-2"	3-1/2"	7-1/4"	-	-	-	-	-	-	-	-	-	-
6'-8"	3-1/2"	-	-	-	-	-	-	-	-	-	-	-
7'-2"	3-1/2"	-	-	-	-	-	-	-	-	-	-	-
7'-8"	3-1/2"	-	-	-	-	-	-	-	-	-	-	-
8'-2"	3-1/2"	-	-	-	-	-	-	-	-	-	-	-
8'-8"	3-1/2"	-	-	-	-	-	-	-	-	-	-	-

NOTES:

1. Rough Opening is the clear span of the header, equal to the door or window rough opening, and is valid for simple header spans only.
2. End supports require 1-1/2" bearing, except 3" is required where **bold**. The bearing length is based on the compressive strength, perpendicular-to-grain, of the LSL. See the Reaction Capacity table on page 4 for additional information.
3. Deflections are limited to L/360 snow/live load and L/240 total load.
4. Loads include 100 plf for an exterior wall and assume a 2' maximum overhang on the roof and an interior support at mid-span of the floor joists.
5. Header width can be either a single piece of LSL or built up from multiple plies that are nailed, bolted or connected with other approved fasteners. Refer to pages 30–31 for connection details.
6. Do not use where marked "-".

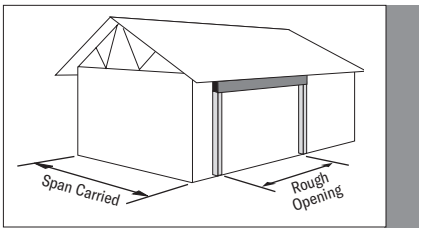
LSL 1.35E Roof Header Quick Reference Tables

TO USE:

1. Select the correct table for the roof loads needed.
2. Choose the required rough opening for the header.
3. Select the span carried by the header across the top of the table.
4. Read the header size or choice of header sizes from the table.

EXAMPLE: A header with a 6'-8" rough opening supports a 34'-0" span carried for a 30 psf Roof snow load.

SOLUTION: Using the correct table for the roof load with 34'-0" span carried, select **3-1/2" x 7-1/4".**



DESIGN LOADS
ROOF: 20 PSF SNOW OR LIVE (115% or 125%), 15 PSF DEAD

Rough Opening	Header Width	Span Carried By Header										
		20'	22'	24'	26'	28'	30'	32'	34'	36'	38'	40'
3'-2"	3-1/2"	4-3/8"	4-3/8"	4-3/8"	4-3/8"	4-3/8"	4-3/8"	4-3/8"	4-3/8"	4-3/8"	4-3/8"	4-3/8"
3'-8"	3-1/2"	4-3/8"	4-3/8"	4-3/8"	4-3/8"	4-3/8"	4-3/8"	4-3/8"	4-3/8"	4-3/8"	4-3/8"	4-3/8"
4'-2"	3-1/2"	4-3/8"	4-3/8"	4-3/8"	4-3/8"	4-3/8"	4-3/8"	4-3/8"	4-3/8"	4-3/8"	4-3/8"	4-3/8"
4'-8"	3-1/2"	4-3/8"	4-3/8"	4-3/8"	4-3/8"	4-3/8"	5-1/2"	5-1/2"	5-1/2"	5-1/2"	5-1/2"	5-1/2"
5'-2"	3-1/2"	4-3/8"	5-1/2"	5-1/2"	5-1/2"	5-1/2"	5-1/2"	5-1/2"	5-1/2"	5-1/2"	5-1/2"	5-1/2"
5'-8"	3-1/2"	5-1/2"	5-1/2"	5-1/2"	5-1/2"	5-1/2"	5-1/2"	5-1/2"	7-1/4"	7-1/4"	7-1/4"	7-1/4"
6'-2"	3-1/2"	5-1/2"	5-1/2"	5-1/2"	7-1/4"	7-1/4"	7-1/4"	7-1/4"	7-1/4"	7-1/4"	7-1/4"	7-1/4"
6'-8"	3-1/2"	7-1/4"	7-1/4"	7-1/4"	7-1/4"	7-1/4"	7-1/4"	7-1/4"	7-1/4"	7-1/4"	7-1/4"	7-1/4"
7'-2"	3-1/2"	7-1/4"	7-1/4"	7-1/4"	7-1/4"	7-1/4"	7-1/4"	7-1/4"	7-1/4"	7-1/4"	-	-
7'-8"	3-1/2"	7-1/4"	7-1/4"	7-1/4"	7-1/4"	7-1/4"	7-1/4"	-	-	-	-	-
8'-2"	3-1/2"	7-1/4"	7-1/4"	7-1/4"	-	-	-	-	-	-	-	-
8'-8"	3-1/2"	7-1/4"	-	-	-	-	-	-	-	-	-	-

DESIGN LOADS
ROOF: 25 PSF SNOW (115%), 15 PSF DEAD

Rough Opening	Header Width	Span Carried By Header										
		20'	22'	24'	26'	28'	30'	32'	34'	36'	38'	40'
3'-2"	3-1/2"	4-3/8"	4-3/8"	4-3/8"	4-3/8"	4-3/8"	4-3/8"	4-3/8"	4-3/8"	4-3/8"	4-3/8"	4-3/8"
3'-8"	3-1/2"	4-3/8"	4-3/8"	4-3/8"	4-3/8"	4-3/8"	4-3/8"	4-3/8"	4-3/8"	4-3/8"	4-3/8"	4-3/8"
4'-2"	3-1/2"	4-3/8"	4-3/8"	4-3/8"	4-3/8"	4-3/8"	4-3/8"	4-3/8"	5-1/2"	5-1/2"	5-1/2"	5-1/2"
4'-8"	3-1/2"	4-3/8"	4-3/8"	4-3/8"	5-1/2"	5-1/2"	5-1/2"	5-1/2"	5-1/2"	5-1/2"	5-1/2"	5-1/2"
5'-2"	3-1/2"	5-1/2"	5-1/2"	5-1/2"	5-1/2"	5-1/2"	5-1/2"	5-1/2"	5-1/2"	5-1/2"	7-1/4"	7-1/4"
5'-8"	3-1/2"	5-1/2"	5-1/2"	5-1/2"	5-1/2"	7-1/4"	7-1/4"	7-1/4"	7-1/4"	7-1/4"	7-1/4"	7-1/4"
6'-2"	3-1/2"	5-1/2"	7-1/4"	7-1/4"	7-1/4"	7-1/4"	7-1/4"	7-1/4"	7-1/4"	7-1/4"	7-1/4"	7-1/4"
6'-8"	3-1/2"	7-1/4"	7-1/4"	7-1/4"	7-1/4"	7-1/4"	7-1/4"	7-1/4"	7-1/4"	7-1/4"	7-1/4"	-
7'-2"	3-1/2"	7-1/4"	7-1/4"	7-1/4"	7-1/4"	7-1/4"	7-1/4"	-	-	-	-	-
7'-8"	3-1/2"	7-1/4"	7-1/4"	7-1/4"	-	-	-	-	-	-	-	-
8'-2"	3-1/2"	7-1/4"	-	-	-	-	-	-	-	-	-	-
8'-8"	3-1/2"	-	-	-	-	-	-	-	-	-	-	-

DESIGN LOADS
ROOF: 30 PSF SNOW (115%), 15 PSF DEAD

Rough Opening	Header Width	Span Carried By Header										
		20'	22'	24'	26'	28'	30'	32'	34'	36'	38'	40'
3'-2"	3-1/2"	4-3/8"	4-3/8"	4-3/8"	4-3/8"	4-3/8"	4-3/8"	4-3/8"	4-3/8"	4-3/8"	4-3/8"	4-3/8"
3'-8"	3-1/2"	4-3/8"	4-3/8"	4-3/8"	4-3/8"	4-3/8"	4-3/8"	4-3/8"	4-3/8"	4-3/8"	4-3/8"	4-3/8"
4'-2"	3-1/2"	4-3/8"	4-3/8"	4-3/8"	4-3/8"	4-3/8"	4-3/8"	5-1/2"	5-1/2"	5-1/2"	5-1/2"	5-1/2"
4'-8"	3-1/2"	4-3/8"	5-1/2"	5-1/2"	5-1/2"	5-1/2"	5-1/2"	5-1/2"	5-1/2"	5-1/2"	5-1/2"	5-1/2"
5'-2"	3-1/2"	5-1/2"	5-1/2"	5-1/2"	5-1/2"	5-1/2"	5-1/2"	5-1/2"	7-1/4"	7-1/4"	7-1/4"	7-1/4"
5'-8"	3-1/2"	5-1/2"	5-1/2"	5-1/2"	7-1/4"	7-1/4"	7-1/4"	7-1/4"	7-1/4"	7-1/4"	7-1/4"	7-1/4"
6'-2"	3-1/2"	7-1/4"	7-1/4"	7-1/4"	7-1/4"	7-1/4"	7-1/4"	7-1/4"	7-1/4"	7-1/4"	7-1/4"	7-1/4"
6'-8"	3-1/2"	7-1/4"	7-1/4"	7-1/4"	7-1/4"	7-1/4"	7-1/4"	7-1/4"	7-1/4"	-	-	-
7'-2"	3-1/2"	7-1/4"	7-1/4"	7-1/4"	7-1/4"	-	-	-	-	-	-	-
7'-8"	3-1/2"	7-1/4"	7-1/4"	-	-	-	-	-	-	-	-	-
8'-2"	3-1/2"	-	-	-	-	-	-	-	-	-	-	-
8'-8"	3-1/2"	-	-	-	-	-	-	-	-	-	-	-

DESIGN LOADS
ROOF: 40 PSF SNOW (115%), 15 PSF DEAD

Rough Opening	Header Width	Span Carried By Header										
		20'	22'	24'	26'	28'	30'	32'	34'	36'	38'	40'
3'-2"	3-1/2"	4-3/8"	4-3/8"	4-3/8"	4-3/8"	4-3/8"	4-3/8"	4-3/8"	4-3/8"	4-3/8"	4-3/8"	4-3/8"
3'-8"	3-1/2"	4-3/8"	4-3/8"	4-3/8"	4-3/8"	4-3/8"	4-3/8"	5-1/2"	5-1/2"	5-1/2"	5-1/2"	5-1/2"
4'-2"	3-1/2"	4-3/8"	5-1/2"	5-1/2"	5-1/2"	5-1/2"	5-1/2"	5-1/2"	5-1/2"	5-1/2"	5-1/2"	5-1/2"
4'-8"	3-1/2"	5-1/2"	5-1/2"	5-1/2"	5-1/2"	5-1/2"	5-1/2"	7-1/4"	7-1/4"	7-1/4"	7-1/4"	7-1/4"
5'-2"	3-1/2"	5-1/2"	5-1/2"	7-1/4"	7-1/4"	7-1/4"	7-1/4"	7-1/4"	7-1/4"	7-1/4"	7-1/4"	7-1/4"
5'-8"	3-1/2"	7-1/4"	7-1/4"	7-1/4"	7-1/4"	7-1/4"	7-1/4"	7-1/4"	7-1/4"	7-1/4"	7-1/4"	7-1/4"
6'-2"	3-1/2"	7-1/4"	7-1/4"	7-1/4"	7-1/4"	7-1/4"	7-1/4"	-	-	-	-	-
6'-8"	3-1/2"	7-1/4"	7-1/4"	7-1/4"	-	-	-	-	-	-	-	-
7'-2"	3-1/2"	7-1/4"	-	-	-	-	-	-	-	-	-	-
7'-8"	3-1/2"	-	-	-	-	-	-	-	-	-	-	-
8'-2"	3-1/2"	-	-	-	-	-	-	-	-	-	-	-
8'-8"	3-1/2"	-	-	-	-	-	-	-	-	-	-	-

NOTES:

1. Rough Opening is the clear span of the header, equal to the door or window rough opening, and is valid for simple header spans only.
2. End supports require 1-1/2" bearing, except 3" is required where **bold**. The bearing length is based on the compressive strength, perpendicular-to-grain, of the LSL. See the Reaction Capacity table on page 4 for additional information.
3. Deflections are limited to L/360 snow/live load and L/240 total load.
4. Loads include 100 plf for an exterior wall and assume a 2' maximum overhang on the roof and an interior support at mid-span of the floor joists.
5. Header width can be either a single piece of LSL or built up from multiple plies that are nailed, bolted or connected with other approved fasteners. Refer to pages 30–31 for connection details.
6. Do not use where marked "-".

LSL 1.35E Uniform Floor and Roof Load (PLF) Tables: 3-1/2"

TO USE:

1. Select the span required. For roofs with a slope of 2:12 or greater, the horizontal span shall be multiplied by the appropriate roof slope adjustment factor from the table at the bottom of this page.
2. Compare the design total load to the Total Load column. For roofs use the appropriate Total Load column for Snow (115%) or Non-Snow (125%).
3. Compare the design live load to the appropriate Live Load column. For roofs use the appropriate Snow/Live Load column for L/360 or L/240. For a snow/live load deflection limit of L/480, compare the design snow/live load to the L/480 Live Load column from the Uniform Floor Load Tables.
4. Select a product that exceeds both the design total and live loads.

FLOOR EXAMPLE:

For an 8' beam span, select a 3-1/2" beam that satisfies an L/360 Live Load deflection limit for the following design loads: Live Load = 390 plf; Total Load = 535 plf

SOLUTION: Use a **3-1/2" x 7-1/4"** (Total Load = 585 plf, Live Load = 399 plf)

ROOF EXAMPLE:

For an 5'-6" horizontal beam span with a pitch of 4:12, select a 3-1/2" beam that satisfies an L/240 Snow Load deflection limit for the following design loads: Snow Load = 720 plf; Total Load = 1120 plf

CALCULATE BEAM SPAN: 5.5' x 1.054 = 5.8' ⟶ **Use Span = 6'**

SOLUTION: Use a **3-1/2" x 7-1/4"** (Total Load = 1192 plf, Snow Load L/240 deflection does not control)

Span	3-1/2" x 4-3/8"			3-1/2" x 5-1/2"			3-1/2" x 7-1/4"			Span
	Live Load		Total Load	Live Load		Total Load	Live Load		Total Load	
	L/480	L/360		L/480	L/360		L/480	L/360		
3'	1106	1474	1647	1984		2521			3691	3'
4'	507	676	924	946	1261	1415	1929		2367	4'
5'	270	361	537	515	687	903	1089	1452	1511	5'
6'	160	214	316	309	412	612	667	890	1047	6'
7'	102	136	200	199	265	392	436	581	767	7'
8'	69	92	133	135	180	264	299	399	585	8'
9'	49	65	93	96	128	185	213	285	419	9'
10'	35	47	66	70	94	134	157	210	307	10'
11'	–	–	–	53	71	100	119	159	231	11'
12'	–	–	–	41	54	76	92	123	177	12'
13'	–	–	–	32	43	58	73	97	138	13'
14'	–	–	–	–	–	–	59	78	110	14'
15'	–	–	–	–	–	–	48	64	88	15'
16'	–	–	–	–	–	–	39	53	71	16'
17'	–	–	–	–	–	–	33	44	58	17'
18'	–	–	–	–	–	–	–	–	–	18'

Span	3-1/2" x 4-3/8"				3-1/2" x 5-1/2"				3-1/2" x 7-1/4"				Span
	Snow/Live Load		Total Load		Snow/Live Load		Total Load		Snow/Live Load		Total Load		
			Snow	Non-Snow			Snow	Non-Snow			Snow	Non-Snow	
	L/360	L/240	115%	125%	L/360	L/240	115%	125%	L/360	L/240	115%	125%	
3'	1474		1852	2014	2645		2849	3098			4246	4616	3'
4'	676	1015	1040	1130	1261		1600	1740	2572		2692	2927	4'
5'	361	541	663	717	687	1031	1022	1111	1452		1720	1870	5'
6'	214	321	423	423	412	618	708	770	890		1192	1296	6'
7'	136	205	268	268	265	398	518	525	581	872	873	950	7'
8'	92	138	180	180	180	270	355	355	399	598	667	725	8'
9'	65	98	126	126	128	192	250	250	285	427	525	562	9'
10'	47	71	91	91	94	141	182	182	210	315	413	413	10'
11'	36	54	67	67	71	106	136	136	159	239	311	311	11'
12'	–	–	–	–	54	82	103	103	123	185	239	239	12'
13'	–	–	–	–	43	65	80	80	97	146	188	188	13'
14'	–	–	–	–	34	52	63	63	78	118	149	149	14'
15'	–	–	–	–	–	–	–	–	64	96	120	120	15'
16'	–	–	–	–	–	–	–	–	53	79	98	98	16'
17'	–	–	–	–	–	–	–	–	44	66	81	81	17'
18'	–	–	–	–	–	–	–	–	37	56	67	67	18'

DESIGN ASSUMPTIONS:

1. Span is the center-to-center distance of the supports, the sloped length for roofs, and is valid for simple or equal, continuous span applications.
2. The values in the tables are for uniform loads only.
3. The Floor Total Load is for normal (100%) duration and the Roof Total Load is for Snow (115%) or Non-Snow (125%) duration. The loads have been adjusted to account for the self-weight of the member.
4. Floor Live Load deflection has been limited to L/360 or L/480 as noted in the table. Roof Snow/Live Load deflection has been limited to L/360 or L/240 as noted in the table.
5. Total deflection has been limited to L/240 for Floors and L/180 for Roofs. Long term deflection (creep) has not been considered.
6. These tables assume full lateral support of the compression edge. Full support is considered to be a maximum unbraced length of 24."
7. Proper bearing must be provided. Bearing length must be checked for support reactions with the table on page 4.

ADDITIONAL NOTES:

1. The allowable loads represent the capacity of the member in pounds per lineal foot (plf) of length.
2. For roofs with a slope of 2:12 or greater, the horizontal span shall be multiplied by the appropriate slope adjustment factor from the table at the bottom of this page.
3. The designer shall check both the Total Load and the appropriate column: Live Load for Floors and Snow/Live Load for Roofs.
4. Where the Live Load for Floors or Snow/Live for Roofs is blank, the Total Load governs the design.
5. To design for a Roof with a live load deflection limit of L/480, use the Uniform Floor Load tables.
6. The member width shall be a single ply of 3-1/2" LSL.
7. Do not use a product where designated "-" without further analysis by a design professional.

SLOPE ADJUSTMENT

Slope	Factor
2:12	1.014
3:12	1.031
4:12	1.054
5:12	1.083
6:12	1.118
7:12	1.158
8:12	1.202
9:12	1.250
10:12	1.302
11:12	1.357
12:12	1.414

ACTUAL DEFLECTION BASED ON SPAN AND LIMIT

Span (ft)	L/480	L/360	L/240
10'	1/4"	5/16"	1/2"
12'	5/16"	3/8"	5/8"
14'	3/8"	7/16"	11/16"
16'	3/8"	9/16"	13/16"
18'	7/16"	5/8"	7/8"
20'	1/2"	11/16"	1"
22'	9/16"	3/4"	1-1/8"
24'	5/8"	13/16"	1-3/16"
26'	5/8"	7/8"	1-5/16"
28'	11/16"	15/16"	1-3/8"
30'	3/4"	1"	1-1/2"

* Deflections rounded to the nearest 1/16".

LSL 1.55E Product Specifications & Design Values

ALLOWABLE STRESS DESIGN VALUES (PSI)

Grade	Bending Stress F_b[3]	Modulus of Elasticity E (x 10^6 psi)	Shear Stress F_v	Compression Stress	
				F_c (Parallel To Grain)	$F_{c\perp}$ (Perpendicular To Grain)
2360F_b-1.55E	2360	1.55	410	2175	875

NOTES:

1. LP® SolidStart® LSL shall be designed for dry-use conditions only. Dry-use applies to products installed in dry, covered and well ventilated interior conditions in which the equivalent moisture content in lumber will not exceed 16%.
2. The allowable strengths and stiffness are for standard load duration. Bending, Shear and Compression parallel-to-grain shall be adjusted according to code. Modulus of Elasticity and Compression perpendicular-to-grain shall not be adjusted.
3. The allowable Bending Stress is tabulated for 12" depth. For depths other than 12", multiply F_b by $(12/depth)^{0.120}$. For depths less than 3-1/2", multiply F_b by 1.159.
4. Deflection calculations shall include both bending and shear deformations.

Deflection for a simple span, uniform load: $\Delta = \frac{270wL^4}{Ebd^3} + \frac{28.8wL^2}{Ebd}$

Where: Δ = deflection (in), w = uniform load (plf), L = design span (ft), E = modulus of elasticity (from table), b = width (in), d = depth (in)

Equations for other conditions can be found in engineering references.

SECTION PROPERTIES AND ALLOWABLE CAPACITIES

Depth	Weight (lb/ft)				Allowable Moment (lb-ft)				Allowable Shear (lb)				Moment of Inertia (in^4)			
	1-1/2"	1-3/4"	3-1/2"	5-1/4"	1-1/2"	1-3/4"	3-1/2"	5-1/4"	1-1/2"	1-3/4"	3-1/2"	5-1/4"	1-1/2"	1-3/4"	3-1/2"	5-1/4"
5-1/2"	2.6	3.1	6.1	9.2	1633	1905	3811	5716	2255	2631	5262	7893	21	24	49	73
7-1/4"	3.5	4.1	8.1	12.2	2745	3203	6406	9609	2973	3468	6936	10404	48	56	111	167
9-1/4"	4.4	5.2	10.3	15.5	4340	5064	10127	15191	3793	4425	8849	13274	99	115	231	346
9-1/2"	4.6	5.3	10.6	15.9	4563	5324	10648	15972	3895	4544	9088	13633	107	125	250	375
11-1/4"	5.4	–	–	–	6271	–	–	–	4613	–	–	–	178	–	–	–
11-7/8"	5.7	6.6	13.3	19.9	6942	8099	16198	24297	4869	5680	11360	17041	209	244	488	733
14"	–	7.8	15.7	23.5	–	11037	22073	33110	–	6697	13393	20090	–	400	800	1201
16"	–	8.9	17.9	26.8	–	14186	28372	42558	–	7653	15307	22960	–	597	1195	1792
18"	–	10.1	20.1	30.2	–	17702	35405	53107	–	8610	17220	25830	–	851	1701	2552

NOTES:

1. The Allowable Moment and Shear capacities are for standard load duration and shall be adjusted according to code.
2. 3-1/2" wide members are either a single piece of 3-1/2" LSL or two plies of 1-3/4" LSL. 5-1/4" wide members are either the combination of a single piece of 3-1/2" LSL with a single piece of 1-3/4" LSL or three plies of 1-3/4" LSL.
3. The tabulated weight is an estimate and shall only be used for design purposes. Contact LP for actual shipping weights.

FASTENERS:

Refer to pages 30-31 for information on connecting multiple plies and for the equivalent specific gravity for design of nailed and bolted connections.

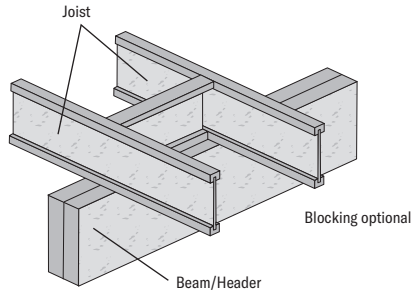
REACTION CAPACITY (LBS)

	Bearing Length																					
Width	1-1/2"	2"	2-1/2"	3"	3-1/2"	4"	4-1/2"	5"	5-1/2"	6"	6-1/2"	7"	7-1/2"	8"	8-1/2"	9"	9-1/2"	10"	10-1/2"	11"	11-1/2"	12"
1-1/2"	1968	2625	3281	3937	4593	5250	5906	6562	7218	7875	8531	9187	9843	10500	11156	11812	12468	13125	13781	14437	15093	15750
1-3/4"	2296	3062	3828	4593	5359	6125	6890	7656	8421	9187	9953	10718	11484	12250	13015	13781	14546	15312	16078	16843	17609	18375
3-1/2"	4593	6125	7656	9187	10718	12250	13781	15312	16843	18375	19906	21437	22968	24500	26031	27562	29093	30625	32156	33687	35218	36750
5-1/4"	6888	9186	11484	13779	16077	18375	20670	22968	25263	27561	29859	32154	34452	36750	39045	41343	43638	45936	48234	50529	52827	55125

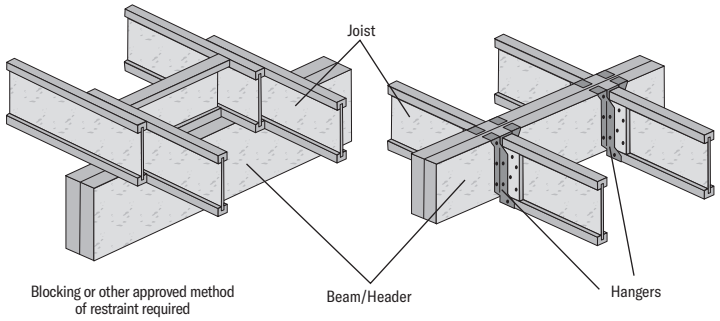
NOTES:

1. The maximum Reactions are based on the compression strength, perpendicular-to-grain, of the LSL. This is suitable for beams bearing on steel or the end-grain of studs.
2. Verify that the support for the beam is structurally adequate to carry the reaction. The compressive strength parallel-to-grain, of studs may require more studs than the bearing length above indicates.
3. For beams bearing on wood plates, the required bearing length will increase based on the bearing strength (compression perpendicular-to-grain) of the species and grade used for the plate material.
4. Verify local code requirements concerning minimum bearing.

CONTINUOUS FLOOR JOISTS



SIMPLE-SPAN FLOOR JOISTS



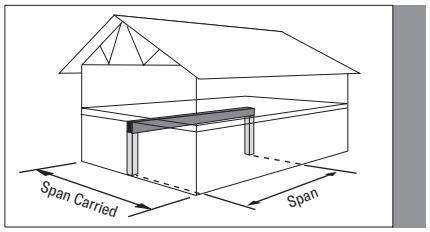
LSL 1.55E Floor Beam Quick Reference Tables

TO USE:

1. Select the correct table for the supported floor joist condition (simple or continuous).
2. Choose the required center-to-center span for the beam in the Span column.
3. Select the span carried by the beam across the top of the table.
4. Read the beam size or choice of beam sizes from the table.

EXAMPLE: A beam with a 10' span carries 15'-0" simple span joists on each side.

SOLUTION: Using the Simple-Span Floor Joists table with 30'-0" span carried, select either **3-1/2" x 11-7/8"** or **5-1/4" x 9-1/4"**



CONTINUOUS FLOOR JOISTS (DESIGN FLOOR LOADS: 40 PSF LIVE, 15 PSF DEAD)

Span	Beam Width	Span Carried By Beam										
		20'	22'	24'	26'	28'	30'	32'	34'	36'	38'	40'
6'-0"	3-1/2"	7-1/4"	7-1/4"	7-1/4"	7-1/4"	7-1/4"	7-1/4"	7-1/4"	7-1/4"	7-1/4"	9-1/4"	9-1/4"
	5-1/4"	5-1/2"	5-1/2"	5-1/2"	5-1/2"	7-1/4"	7-1/4"	7-1/4"	7-1/4"	7-1/4"	7-1/4"	7-1/4"
8'-0"	3-1/2"	9-1/4"	9-1/4"	9-1/4"	9-1/4"	9-1/4"	9-1/4"	9-1/4"	9-1/2"	11-7/8"	11-7/8"	11-7/8"
	5-1/4"	7-1/4"	7-1/4"	7-1/4"	9-1/4"	9-1/4"	9-1/4"	9-1/4"	9-1/4"	9-1/4"	9-1/4"	9-1/4"
10'-0"	3-1/2"	11-7/8"	11-7/8"	11-7/8"	11-7/8"	11-7/8"	11-7/8"	11-7/8"	11-7/8"	11-7/8"	14"	14"
	5-1/4"	9-1/4"	9-1/4"	9-1/4"	9-1/4"	9-1/2"	11-7/8"	11-7/8"	11-7/8"	11-7/8"	11-7/8"	11-7/8"
12'-0"	3-1/2"	11-7/8"	14"	14"	14"	14"	14"	14"	14"	16"	**16"**	**16"**
	5-1/4"	11-7/8"	11-7/8"	11-7/8"	11-7/8"	11-7/8"	11-7/8"	11-7/8"	11-7/8"	14"	14"	14"
14'-0"	3-1/2"	14"	14"	16"	16"	16"	16"	**16"**	**16"**	**18"**	**18"**	**18"**
	5-1/4"	11-7/8"	14"	14"	14"	14"	14"	14"	14"	14"	16"	16"
16'-0"	3-1/2"	16"	16"	18"	18"	**18"**	**18"**	**18"**	-	-	-	-
	5-1/4"	14"	14"	14"	16"	16"	16"	16"	16"	16"	16"	18"
18'-0"	3-1/2"	18"	18"	-	-	-	-	-	-	-	-	-
	5-1/4"	16"	16"	16"	16"	18"	18"	18"	18"	18"	18"	**18"**
20'-0"	3-1/2"	-	-	-	-	-	-	-	-	-	-	-
	5-1/4"	18"	18"	18"	18"	18"	-	-	-	-	-	-
22'-0"	3-1/2"	-	-	-	-	-	-	-	-	-	-	-
	5-1/4"	18"	-	-	-	-	-	-	-	-	-	-
24'-0"	3-1/2"	-	-	-	-	-	-	-	-	-	-	-
	5-1/4"	-	-	-	-	-	-	-	-	-	-	-
26'-0"	3-1/2"	-	-	-	-	-	-	-	-	-	-	-
	5-1/4"	-	-	-	-	-	-	-	-	-	-	-
28'-0"	3-1/2"	-	-	-	-	-	-	-	-	-	-	-
	5-1/4"	-	-	-	-	-	-	-	-	-	-	-
30'-0"	3-1/2"	-	-	-	-	-	-	-	-	-	-	-
	5-1/4"	-	-	-	-	-	-	-	-	-	-	-

SIMPLE-SPAN FLOOR JOISTS (DESIGN FLOOR LOADS: 40 PSF LIVE, 15 PSF DEAD)

Span	Beam Width	Span Carried By Beam										
		20'	22'	24'	26'	28'	30'	32'	34'	36'	38'	40'
6'-0"	3-1/2"	5-1/2"	5-1/2"	7-1/4"	7-1/4"	7-1/4"	7-1/4"	7-1/4"	7-1/4"	7-1/4"	7-1/4"	7-1/4"
	5-1/4"	5-1/2"	5-1/2"	5-1/2"	5-1/2"	5-1/2"	5-1/2"	5-1/2"	7-1/4"	7-1/4"	7-1/4"	7-1/4"
8'-0"	3-1/2"	7-1/4"	9-1/4"	9-1/4"	9-1/4"	9-1/4"	9-1/4"	9-1/4"	9-1/4"	9-1/4"	9-1/4"	9-1/4"
	5-1/4"	7-1/4"	7-1/4"	7-1/4"	7-1/4"	7-1/4"	7-1/4"	7-1/4"	9-1/4"	9-1/4"	9-1/4"	9-1/4"
10'-0"	3-1/2"	9-1/4"	9-1/4"	9-1/2"	11-7/8"	11-7/8"	11-7/8"	11-7/8"	11-7/8"	11-7/8"	11-7/8"	11-7/8"
	5-1/4"	9-1/4"	9-1/4"	9-1/4"	9-1/4"	9-1/4"	9-1/4"	9-1/4"	9-1/4"	9-1/2"	9-1/2"	11-7/8"
12'-0"	3-1/2"	11-7/8"	11-7/8"	11-7/8"	11-7/8"	14"	14"	14"	14"	14"	14"	14"
	5-1/4"	9-1/4"	9-1/2"	11-7/8"	11-7/8"	11-7/8"	11-7/8"	11-7/8"	11-7/8"	11-7/8"	11-7/8"	11-7/8"
14'-0"	3-1/2"	14"	14"	14"	14"	14"	16"	16"	16"	16"	16"	16"
	5-1/4"	11-7/8"	11-7/8"	11-7/8"	11-7/8"	11-7/8"	14"	14"	14"	14"	14"	14"
16'-0"	3-1/2"	16"	16"	16"	16"	16"	16"	18"	18"	**18"**	**18"**	**18"**
	5-1/4"	14"	14"	14"	14"	14"	14"	14"	16"	16"	16"	16"
18'-0"	3-1/2"	16"	18"	18"	18"	18"	18"	-	-	-	-	-
	5-1/4"	14"	14"	16"	16"	16"	16"	16"	16"	18"	18"	18"
20'-0"	3-1/2"	18"	18"	-	-	-	-	-	-	-	-	-
	5-1/4"	16"	16"	16"	18"	18"	18"	18"	18"	18"	18"	-
22'-0"	3-1/2"	-	-	-	-	-	-	-	-	-	-	-
	5-1/4"	18"	18"	18"	18"	-	-	-	-	-	-	-
24'-0"	3-1/2"	-	-	-	-	-	-	-	-	-	-	-
	5-1/4"	18"	-	-	-	-	-	-	-	-	-	-
26'-0"	3-1/2"	-	-	-	-	-	-	-	-	-	-	-
	5-1/4"	-	-	-	-	-	-	-	-	-	-	-
28'-0"	3-1/2"	-	-	-	-	-	-	-	-	-	-	-
	5-1/4"	-	-	-	-	-	-	-	-	-	-	-
30'-0"	3-1/2"	-	-	-	-	-	-	-	-	-	-	-
	5-1/4"	-	-	-	-	-	-	-	-	-	-	-

NOTES:

1. Use the Continuous Floor Joists table where the floor joists are continuous (multiple span) over the beam.
   Use the Simple-Span Floor Joists table where the floor joists frame into the side of or end on top of the beam.
2. Span is center-to-center of supports and is valid for simple and equal, continuous beam spans.
3. End supports require 3" bearing. Interior supports require 6" bearing, except 7-1/2" is required where **bold**. The bearing length is based on the compressive strength, perpendicular-to-grain, of the LSL. See the Reaction Capacity table on page 10 for additional information.
4. Deflections are limited to L/360 live load and L/240 total load.
5. Beam width can be either a single piece of LSL or built up from multiple plies that are nailed, bolted or connected with other approved fasteners. Refer to pages 30–31 for connection details.
6. Do not use where marked "-".

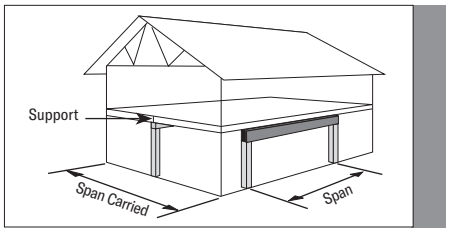
LSL 1.55E Combined Beam Quick Reference Tables

TO USE:

1. Select the correct table for the roof loads needed.
2. Choose the required center-to-center span for the beam in the Span column.
3. Select the span carried by the beam across the top of the table.
4. Read the beam size or choice of beam sizes from the table.

EXAMPLE: A beam with a 9'-6" span supports a 32'-0" span carried for a 20 psf Roof live load.

SOLUTION: Using the correct table for the roof load with 32'-0" span carried, select either **3-1/2" x 11-7/8"** or **5-1/4" x 9-1/2"**



DESIGN LOADS
ROOF: 20 PSF SNOW OR LIVE (115% or 125%), 15 PSF DEAD
FLOOR: 40 PSF LIVE, 15 PSF DEAD

Span	Beam Width	Span Carried By Beam										
		20'	22'	24'	26'	28'	30'	32'	34'	36'	38'	40'
6'-0"	3-1/2"	7-1/4"	7-1/4"	7-1/4"	7-1/4"	7-1/4"	7-1/4"	7-1/4"	7-1/4"	7-1/4"	7-1/4"	9-1/4"
	5-1/4"	5-1/2"	5-1/2"	5-1/2"	5-1/2"	7-1/4"	7-1/4"	7-1/4"	7-1/4"	7-1/4"	7-1/4"	7-1/4"
8'-0"	3-1/2"	9-1/4"	9-1/4"	9-1/4"	9-1/4"	9-1/4"	9-1/4"	9-1/4"	9-1/2"	9-1/2"	11-7/8"	11-7/8"
	5-1/4"	7-1/4"	7-1/4"	7-1/4"	9-1/4"	9-1/4"	9-1/4"	9-1/4"	9-1/4"	9-1/4"	9-1/4"	9-1/4"
9'-6"	3-1/2"	9-1/2"	11-7/8"	11-7/8"	11-7/8"	11-7/8"	11-7/8"	11-7/8"	11-7/8"	11-7/8"	11-7/8"	11-7/8"
	5-1/4"	9-1/4"	9-1/4"	9-1/4"	9-1/4"	9-1/4"	9-1/4"	9-1/2"	9-1/2"	11-7/8"	11-7/8"	11-7/8"
10'-0"	3-1/2"	11-7/8"	11-7/8"	11-7/8"	11-7/8"	11-7/8"	11-7/8"	11-7/8"	11-7/8"	11-7/8"	14"	14"
	5-1/4"	9-1/4"	9-1/4"	9-1/4"	9-1/4"	9-1/2"	11-7/8"	11-7/8"	11-7/8"	11-7/8"	11-7/8"	11-7/8"
12'-0"	3-1/2"	11-7/8"	14"	14"	14"	14"	14"	14"	14"	16"	16"	16"
	5-1/4"	11-7/8"	11-7/8"	11-7/8"	11-7/8"	11-7/8"	11-7/8"	11-7/8"	14"	14"	14"	14"
14'-0"	3-1/2"	14"	16"	16"	16"	16"	16"	16"	18"	18"	**18"**	**18"**
	5-1/4"	14"	14"	14"	14"	14"	14"	14"	14"	16"	16"	16"
16'-0"	3-1/2"	16"	18"	18"	18"	18"	18"	-	-	-	-	-
	5-1/4"	14"	14"	16"	16"	16"	16"	16"	16"	18"	18"	18"
16'-6"	3-1/2"	18"	18"	18"	18"	18"	-	-	-	-	-	-
	5-1/4"	16"	16"	16"	16"	16"	16"	16"	18"	18"	18"	18"
18'-0"	3-1/2"	18"	-	-	-	-	-	-	-	-	-	-
	5-1/4"	16"	16"	18"	18"	18"	18"	18"	18"	-	-	-
18'-6"	3-1/2"	-	-	-	-	-	-	-	-	-	-	-
	5-1/4"	16"	18"	18"	18"	18"	18"	18"	-	-	-	-
20'-0"	3-1/2"	-	-	-	-	-	-	-	-	-	-	-
	5-1/4"	18"	18"	18"	-	-	-	-	-	-	-	-
22'-0"	3-1/2"	-	-	-	-	-	-	-	-	-	-	-
	5-1/4"	-	-	-	-	-	-	-	-	-	-	-
24'-0"	3-1/2"	-	-	-	-	-	-	-	-	-	-	-
	5-1/4"	-	-	-	-	-	-	-	-	-	-	-

DESIGN LOADS
ROOF: 25 PSF SNOW (115%), 15 PSF DEAD
FLOOR: 40 PSF LIVE, 15 PSF DEAD

Span	Beam Width	Span Carried By Beam										
		20'	22'	24'	26'	28'	30'	32'	34'	36'	38'	40'
6'-0"	3-1/2"	7-1/4"	7-1/4"	7-1/4"	7-1/4"	7-1/4"	7-1/4"	7-1/4"	7-1/4"	9-1/4"	9-1/4"	9-1/4"
	5-1/4"	5-1/2"	5-1/2"	5-1/2"	7-1/4"	7-1/4"	7-1/4"	7-1/4"	7-1/4"	7-1/4"	7-1/4"	7-1/4"
8'-0"	3-1/2"	9-1/4"	9-1/4"	9-1/4"	9-1/4"	9-1/4"	9-1/4"	9-1/2"	11-7/8"	11-7/8"	11-7/8"	11-7/8"
	5-1/4"	7-1/4"	7-1/4"	9-1/4"	9-1/4"	9-1/4"	9-1/4"	9-1/4"	9-1/4"	9-1/4"	9-1/4"	9-1/4"
9'-6"	3-1/2"	11-7/8"	11-7/8"	11-7/8"	11-7/8"	11-7/8"	11-7/8"	11-7/8"	11-7/8"	11-7/8"	11-7/8"	14"
	5-1/4"	9-1/4"	9-1/4"	9-1/4"	9-1/4"	9-1/4"	9-1/2"	11-7/8"	11-7/8"	11-7/8"	11-7/8"	11-7/8"
10'-0"	3-1/2"	11-7/8"	11-7/8"	11-7/8"	11-7/8"	11-7/8"	11-7/8"	11-7/8"	14"	14"	14"	14"
	5-1/4"	9-1/4"	9-1/4"	9-1/4"	9-1/2"	11-7/8"	11-7/8"	11-7/8"	11-7/8"	11-7/8"	11-7/8"	11-7/8"
12'-0"	3-1/2"	14"	14"	14"	14"	14"	14"	14"	16"	16"	16"	16"
	5-1/4"	11-7/8"	11-7/8"	11-7/8"	11-7/8"	11-7/8"	11-7/8"	14"	14"	14"	14"	14"
14'-0"	3-1/2"	16"	16"	16"	16"	16"	16"	18"	**18"**	**18"**	**18"**	**18"**
	5-1/4"	14"	14"	14"	14"	14"	14"	14"	16"	16"	16"	16"
16'-0"	3-1/2"	18"	18"	18"	18"	18"	-	-	-	-	-	-
	5-1/4"	14"	16"	16"	16"	16"	16"	16"	18"	18"	18"	18"
16'-6"	3-1/2"	18"	18"	18"	18"	-	-	-	-	-	-	-
	5-1/4"	16"	16"	16"	16"	16"	18"	18"	18"	18"	18"	18"
18'-0"	3-1/2"	-	-	-	-	-	-	-	-	-	-	-
	5-1/4"	16"	18"	18"	18"	18"	18"	18"	-	-	-	-
18'-6"	3-1/2"	-	-	-	-	-	-	-	-	-	-	-
	5-1/4"	18"	18"	18"	18"	18"	-	-	-	-	-	-
20'-0"	3-1/2"	-	-	-	-	-	-	-	-	-	-	-
	5-1/4"	18"	18"	-	-	-	-	-	-	-	-	-
22'-0"	3-1/2"	-	-	-	-	-	-	-	-	-	-	-
	5-1/4"	-	-	-	-	-	-	-	-	-	-	-
24'-0"	3-1/2"	-	-	-	-	-	-	-	-	-	-	-
	5-1/4"	-	-	-	-	-	-	-	-	-	-	-

NOTES:

1. Span is center-to-center of supports and is valid for simple beam spans only.
2. End supports require 3" bearing, except 4-1/2" is required where **bold**. The end supports for the standard garage door spans of 9'-6", 16'-6" and 18'-6" have been limited to 3" (two trimmers) on each end. The bearing length is based on the compressive strength, perpendicular-to-grain, of the LSL. See the Reaction Capacity table on page 10 for additional information.
3. Deflections are limited to L/360 snow/live load and L/240 total load.
4. Loads include 100 plf for an exterior wall and assume a 2' maximum overhang on the roof and an interior support at mid-span of the floor joists.
5. Beam width can be either a single piece of LSL or built up from multiple plies that are nailed, bolted or connected with other approved fasteners. Refer to pages 30–31 for connection details.
6. Do not use where marked "-".

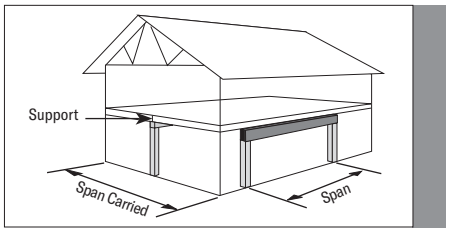
LSL 1.55E Combined Beam Quick Reference Tables

TO USE:

1. Select the correct table for the roof loads needed.
2. Choose the required center-to-center span for the beam in the Span column.
3. Select the span carried by the beam across the top of the table.
4. Read the beam size or choice of beam sizes from the table.

EXAMPLE: A beam with a 9'-6" span supports a 32'-0" span carried for a 40 psf Roof snow load.

SOLUTION: Using the correct table for the roof load with 32'-0" span carried, select either **3-1/2" x 14"** or **5-1/4" x 11-7/8"**



DESIGN LOADS
ROOF: 30 PSF SNOW (115%), 15 PSF DEAD
FLOOR: 40 PSF LIVE, 15 PSF DEAD

Span	Beam Width	Span Carried By Beam										
		20'	22'	24'	26'	28'	30'	32'	34'	36'	38'	40'
6'-0"	3-1/2"	7-1/4"	7-1/4"	7-1/4"	7-1/4"	7-1/4"	7-1/4"	7-1/4"	9-1/4"	9-1/4"	9-1/4"	9-1/4"
	5-1/4"	5-1/2"	5-1/2"	7-1/4"	7-1/4"	7-1/4"	7-1/4"	7-1/4"	7-1/4"	7-1/4"	7-1/4"	7-1/4"
8'-0"	3-1/2"	9-1/4"	9-1/4"	9-1/4"	9-1/4"	9-1/4"	9-1/2"	11-7/8"	11-7/8"	11-7/8"	11-7/8"	11-7/8"
	5-1/4"	7-1/4"	9-1/4"	9-1/4"	9-1/4"	9-1/4"	9-1/4"	9-1/4"	9-1/4"	9-1/4"	9-1/4"	9-1/4"
9'-6"	3-1/2"	11-7/8"	11-7/8"	11-7/8"	11-7/8"	11-7/8"	11-7/8"	11-7/8"	11-7/8"	11-7/8"	14"	14"
	5-1/4"	9-1/4"	9-1/4"	9-1/4"	9-1/4"	9-1/2"	11-7/8"	11-7/8"	11-7/8"	11-7/8"	11-7/8"	11-7/8"
10'-0"	3-1/2"	11-7/8"	11-7/8"	11-7/8"	11-7/8"	11-7/8"	11-7/8"	14"	14"	14"	14"	14"
	5-1/4"	9-1/4"	9-1/4"	9-1/2"	11-7/8"	11-7/8"	11-7/8"	11-7/8"	11-7/8"	11-7/8"	11-7/8"	11-7/8"
12'-0"	3-1/2"	14"	14"	14"	14"	14"	16"	16"	16"	16"	**16"**	**16"**
	5-1/4"	11-7/8"	11-7/8"	11-7/8"	11-7/8"	11-7/8"	14"	14"	14"	14"	14"	14"
14'-0"	3-1/2"	16"	16"	16"	16"	18"	18"	**18"**	**18"**	**18"**	**18"**	**18"**
	5-1/4"	14"	14"	14"	14"	14"	16"	16"	16"	16"	16"	16"
16'-0"	3-1/2"	18"	18"	18"	18"	-	-	-	-	-	-	-
	5-1/4"	16"	16"	16"	16"	16"	18"	18"	18"	18"	18"	18"
16'-6"	3-1/2"	18"	18"	-	-	-	-	-	-	-	-	-
	5-1/4"	16"	16"	16"	16"	18"	18"	18"	18"	18"	18"	-
18'-0"	3-1/2"	-	-	-	-	-	-	-	-	-	-	-
	5-1/4"	18"	18"	18"	18"	18"	-	-	-	-	-	-
18'-6"	3-1/2"	-	-	-	-	-	-	-	-	-	-	-
	5-1/4"	18"	18"	18"	18"	-	-	-	-	-	-	-
20'-0"	3-1/2"	-	-	-	-	-	-	-	-	-	-	-
	5-1/4"	18"	-	-	-	-	-	-	-	-	-	-
22'-0"	3-1/2"	-	-	-	-	-	-	-	-	-	-	-
	5-1/4"	-	-	-	-	-	-	-	-	-	-	-
24'-0"	3-1/2"	-	-	-	-	-	-	-	-	-	-	-
	5-1/4"	-	-	-	-	-	-	-	-	-	-	-

DESIGN LOADS
ROOF: 40 PSF SNOW (115%), 15 PSF DEAD
FLOOR: 40 PSF LIVE, 15 PSF DEAD

Span	Beam Width	Span Carried By Beam										
		20'	22'	24'	26'	28'	30'	32'	34'	36'	38'	40'
6'-0"	3-1/2"	7-1/4"	7-1/4"	7-1/4"	7-1/4"	7-1/4"	9-1/4"	9-1/4"	9-1/4"	9-1/4"	9-1/4"	9-1/4"
	5-1/4"	7-1/4"	7-1/4"	7-1/4"	7-1/4"	7-1/4"	7-1/4"	7-1/4"	7-1/4"	7-1/4"	7-1/4"	7-1/4"
8'-0"	3-1/2"	9-1/4"	9-1/4"	9-1/4"	9-1/2"	11-7/8"	11-7/8"	11-7/8"	11-7/8"	11-7/8"	11-7/8"	11-7/8"
	5-1/4"	9-1/4"	9-1/4"	9-1/4"	9-1/4"	9-1/4"	9-1/4"	9-1/4"	9-1/4"	9-1/4"	9-1/4"	9-1/2"
9'-6"	3-1/2"	11-7/8"	11-7/8"	11-7/8"	11-7/8"	11-7/8"	11-7/8"	14"	14"	14"	14"	14"
	5-1/4"	9-1/4"	9-1/4"	9-1/2"	11-7/8"	11-7/8"	11-7/8"	11-7/8"	11-7/8"	11-7/8"	11-7/8"	11-7/8"
10'-0"	3-1/2"	11-7/8"	11-7/8"	11-7/8"	11-7/8"	14"	14"	14"	14"	14"	14"	**14"**
	5-1/4"	9-1/2"	11-7/8"	11-7/8"	11-7/8"	11-7/8"	11-7/8"	11-7/8"	11-7/8"	11-7/8"	11-7/8"	11-7/8"
12'-0"	3-1/2"	14"	14"	14"	16"	16"	16"	**16"**	**16"**	**16"**	**18"**	**18"**
	5-1/4"	11-7/8"	11-7/8"	11-7/8"	14"	14"	14"	14"	14"	14"	14"	14"
14'-0"	3-1/2"	16"	16"	18"	18"	**18"**	**18"**	**18"**	**18"**	-	-	-
	5-1/4"	14"	14"	14"	16"	16"	16"	16"	16"	16"	16"	18"
16'-0"	3-1/2"	18"	18"	-	-	-	-	-	-	-	-	-
	5-1/4"	16"	16"	16"	18"	18"	18"	18"	18"	18"	-	-
16'-6"	3-1/2"	18"	-	-	-	-	-	-	-	-	-	-
	5-1/4"	16"	16"	18"	18"	18"	18"	18"	-	-	-	-
18'-0"	3-1/2"	-	-	-	-	-	-	-	-	-	-	-
	5-1/4"	18"	18"	18"	-	-	-	-	-	-	-	-
18'-6"	3-1/2"	-	-	-	-	-	-	-	-	-	-	-
	5-1/4"	18"	18"	-	-	-	-	-	-	-	-	-
20'-0"	3-1/2"	-	-	-	-	-	-	-	-	-	-	-
	5-1/4"	-	-	-	-	-	-	-	-	-	-	-
22'-0"	3-1/2"	-	-	-	-	-	-	-	-	-	-	-
	5-1/4"	-	-	-	-	-	-	-	-	-	-	-
24'-0"	3-1/2"	-	-	-	-	-	-	-	-	-	-	-
	5-1/4"	-	-	-	-	-	-	-	-	-	-	-

NOTES:

1. Span is center-to-center of supports and is valid for simple beam spans only.
2. End supports require 3" bearing, except 4-1/2" is required where **bold**. The end supports for the standard garage door spans of 9'-6", 16'-6" and 18'-6" have been limited to 3" (two trimmers) on each end. The bearing length is based on the compressive strength, perpendicular-to-grain, of the LSL. See the Reaction Capacity table on page 10 for additional information.
3. Deflections are limited to L/360 snow/live load and L/240 total load.
4. Loads include 100 plf for an exterior wall and assume a 2' maximum overhang on the roof and an interior support at mid-span of the floor joists.
5. Beam width can be either a single piece of LSL or built up from multiple plies that are nailed, bolted or connected with other approved fasteners. Refer to pages 30–31 for connection details.
6. Do not use where marked "-".

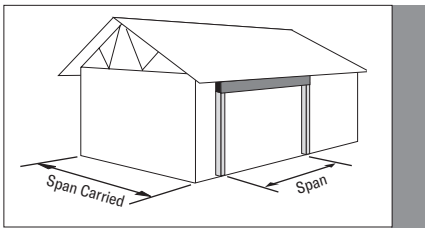
LSL 1.55E Roof Beam Quick Reference Tables

TO USE:

1. Select the correct table for the roof loads needed.
2. Choose the required center-to-center span for the beam in the Span column.
3. Select the span carried by the beam across the top of the table.
4. Read the beam size or choice of beam sizes from the table.

EXAMPLE: A beam with a 16'-6" span supports a 38'-0" span carried for a 25 psf Roof snow load.

SOLUTION: Using the correct table for the roof load with 38'-0" span carried, select either **3-1/2" x 18"** or **5-1/4" x 16"**



DESIGN LOADS
ROOF: 20 PSF SNOW OR LIVE (115% or 125%), 15 PSF DEAD

Span	Beam Width	Span Carried By Beam										
		20'	22'	24'	26'	28'	30'	32'	34'	36'	38'	40'
6'-0"	3-1/2"	5-1/2"	5-1/2"	5-1/2"	5-1/2"	5-1/2"	5-1/2"	5-1/2"	7-1/4"	7-1/4"	7-1/4"	7-1/4"
	5-1/4"	5-1/2"	5-1/2"	5-1/2"	5-1/2"	5-1/2"	5-1/2"	5-1/2"	5-1/2"	5-1/2"	5-1/2"	5-1/2"
8'-0"	3-1/2"	7-1/4"	7-1/4"	7-1/4"	7-1/4"	7-1/4"	7-1/4"	7-1/4"	9-1/4"	9-1/4"	9-1/4"	9-1/4"
	5-1/4"	5-1/2"	7-1/4"	7-1/4"	7-1/4"	7-1/4"	7-1/4"	7-1/4"	7-1/4"	7-1/4"	7-1/4"	7-1/4"
9'-6"	3-1/2"	9-1/4"	9-1/4"	9-1/4"	9-1/4"	9-1/4"	9-1/4"	9-1/4"	9-1/4"	9-1/4"	9-1/4"	9-1/4"
	5-1/4"	7-1/4"	7-1/4"	7-1/4"	7-1/4"	7-1/4"	9-1/4"	9-1/4"	9-1/4"	9-1/4"	9-1/4"	9-1/4"
10'-0"	3-1/2"	9-1/4"	9-1/4"	9-1/4"	9-1/4"	9-1/4"	9-1/4"	9-1/4"	9-1/4"	9-1/2"	11-7/8"	11-7/8"
	5-1/4"	7-1/4"	7-1/4"	7-1/4"	9-1/4"	9-1/4"	9-1/4"	9-1/4"	9-1/4"	9-1/4"	9-1/4"	9-1/4"
12'-0"	3-1/2"	9-1/2"	11-7/8"	11-7/8"	11-7/8"	11-7/8"	11-7/8"	11-7/8"	11-7/8"	11-7/8"	11-7/8"	11-7/8"
	5-1/4"	9-1/4"	9-1/4"	9-1/4"	9-1/4"	9-1/4"	9-1/4"	9-1/2"	11-7/8"	11-7/8"	11-7/8"	11-7/8"
14'-0"	3-1/2"	11-7/8"	11-7/8"	11-7/8"	11-7/8"	14"	14"	14"	14"	14"	14"	14"
	5-1/4"	11-7/8"	11-7/8"	11-7/8"	11-7/8"	11-7/8"	11-7/8"	11-7/8"	11-7/8"	11-7/8"	11-7/8"	11-7/8"
16'-0"	3-1/2"	14"	14"	14"	14"	14"	16"	16"	16"	16"	16"	16"
	5-1/4"	11-7/8"	11-7/8"	11-7/8"	11-7/8"	14"	14"	14"	14"	14"	14"	14"
16'-6"	3-1/2"	14"	14"	14"	16"	16"	16"	16"	16"	16"	16"	18"
	5-1/4"	11-7/8"	11-7/8"	11-7/8"	14"	14"	14"	14"	14"	14"	14"	14"
18'-0"	3-1/2"	16"	16"	16"	16"	16"	16"	18"	18"	18"	18"	18"
	5-1/4"	14"	14"	14"	14"	14"	14"	16"	16"	16"	16"	16"
18'-6"	3-1/2"	16"	16"	16"	16"	18"	18"	18"	18"	18"	18"	-
	5-1/4"	14"	14"	14"	14"	14"	16"	16"	16"	16"	16"	16"
20'-0"	3-1/2"	16"	18"	18"	18"	18"	18"	-	-	-	-	-
	5-1/4"	14"	16"	16"	16"	16"	16"	16"	18"	18"	18"	18"
22'-0"	3-1/2"	18"	18"	-	-	-	-	-	-	-	-	-
	5-1/4"	16"	16"	16"	18"	18"	18"	18"	18"	18"	-	-
24'-0"	3-1/2"	-	-	-	-	-	-	-	-	-	-	-
	5-1/4"	18"	18"	18"	18"	-	-	-	-	-	-	-

DESIGN LOADS
ROOF: 25 PSF SNOW (115%), 15 PSF DEAD

Span	Beam Width	Span Carried By Beam										
		20'	22'	24'	26'	28'	30'	32'	34'	36'	38'	40'
6'-0"	3-1/2"	5-1/2"	5-1/2"	5-1/2"	5-1/2"	5-1/2"	7-1/4"	7-1/4"	7-1/4"	7-1/4"	7-1/4"	7-1/4"
	5-1/4"	5-1/2"	5-1/2"	5-1/2"	5-1/2"	5-1/2"	5-1/2"	5-1/2"	5-1/2"	5-1/2"	5-1/2"	5-1/2"
8'-0"	3-1/2"	7-1/4"	7-1/4"	7-1/4"	7-1/4"	9-1/4"	9-1/4"	9-1/4"	9-1/4"	9-1/4"	9-1/4"	9-1/4"
	5-1/4"	7-1/4"	7-1/4"	7-1/4"	7-1/4"	7-1/4"	7-1/4"	7-1/4"	7-1/4"	7-1/4"	7-1/4"	7-1/4"
9'-6"	3-1/2"	9-1/4"	9-1/4"	9-1/4"	9-1/4"	9-1/4"	9-1/4"	9-1/4"	9-1/4"	9-1/2"	11-7/8"	11-7/8"
	5-1/4"	7-1/4"	7-1/4"	7-1/4"	9-1/4"	9-1/4"	9-1/4"	9-1/4"	9-1/4"	9-1/4"	9-1/4"	9-1/4"
10'-0"	3-1/2"	9-1/4"	9-1/4"	9-1/4"	9-1/4"	9-1/4"	9-1/2"	9-1/2"	11-7/8"	11-7/8"	11-7/8"	11-7/8"
	5-1/4"	7-1/4"	9-1/4"	9-1/4"	9-1/4"	9-1/4"	9-1/4"	9-1/4"	9-1/4"	9-1/4"	9-1/4"	9-1/4"
12'-0"	3-1/2"	11-7/8"	11-7/8"	11-7/8"	11-7/8"	11-7/8"	11-7/8"	11-7/8"	11-7/8"	11-7/8"	14"	14"
	5-1/4"	9-1/4"	9-1/4"	9-1/4"	9-1/4"	9-1/2"	11-7/8"	11-7/8"	11-7/8"	11-7/8"	11-7/8"	11-7/8"
14'-0"	3-1/2"	11-7/8"	11-7/8"	14"	14"	14"	14"	14"	14"	14"	16"	16"
	5-1/4"	11-7/8"	11-7/8"	11-7/8"	11-7/8"	11-7/8"	11-7/8"	11-7/8"	11-7/8"	14"	14"	14"
16'-0"	3-1/2"	14"	14"	14"	16"	16"	16"	16"	16"	16"	18"	18"
	5-1/4"	11-7/8"	11-7/8"	14"	14"	14"	14"	14"	14"	14"	14"	16"
16'-6"	3-1/2"	14"	14"	16"	16"	16"	16"	16"	16"	18"	18"	18"
	5-1/4"	11-7/8"	14"	14"	14"	14"	14"	14"	14"	16"	16"	16"
18'-0"	3-1/2"	16"	16"	16"	18"	18"	18"	18"	18"	18"	-	-
	5-1/4"	14"	14"	14"	14"	16"	16"	16"	16"	16"	16"	16"
18'-6"	3-1/2"	16"	16"	18"	18"	18"	18"	18"	18"	-	-	-
	5-1/4"	14"	14"	14"	16"	16"	16"	16"	16"	16"	18"	18"
20'-0"	3-1/2"	18"	18"	18"	18"	-	-	-	-	-	-	-
	5-1/4"	16"	16"	16"	16"	16"	18"	18"	18"	18"	18"	18"
22'-0"	3-1/2"	-	-	-	-	-	-	-	-	-	-	-
	5-1/4"	16"	18"	18"	18"	18"	18"	-	-	-	-	-
24'-0"	3-1/2"	-	-	-	-	-	-	-	-	-	-	-
	5-1/4"	18"	18"	-	-	-	-	-	-	-	-	-

NOTES:

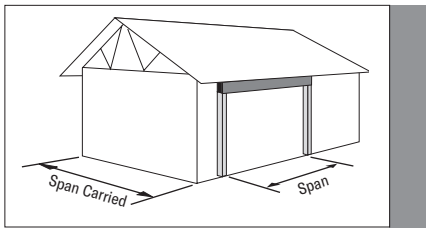
1. Span is center-to-center of supports and is valid for simple beam spans only.
2. End supports require 3" bearing, except 4-1/2" is required where **bold**. The end supports for the standard garage door spans of 9'-6", 16'-6" and 18'-6" have been limited to 3" (two trimmers) on each end. The bearing length is based on the compressive strength, perpendicular-to-grain, of the LSL. See the Reaction Capacity table on page 10 for additional information.
3. Deflections are limited to L/360 snow/live load and L/240 total load.
4. Loads assume a 2' maximum overhang on the roof.
5. Beam width can be either a single piece of LSL or built up from multiple plies that are nailed, bolted or connected with other approved fasteners. Refer to pages 30–31 for connection details.
6. Do not use where marked "-".

LSL 1.55E Roof Beam Quick Reference Tables

TO USE:

1. Select the correct table for the roof loads needed.
2. Choose the required center-to-center span for the beam in the Span column.
3. Select the span carried by the beam across the top of the table.
4. Read the beam size or choice of beam sizes from the table.

EXAMPLE: A beam with a 16'-6" span supports a 38'-0" span carried for a 40 psf Roof snow load.
SOLUTION: Using the correct table for the roof load with 38'-0" span carried, select a **5-1/4" x 18"**
NOTE: A 3-1/2" beam does not work at an 18" depth.



DESIGN LOADS
ROOF: 30 PSF SNOW (115%), 15 PSF DEAD

Span	Beam Width	Span Carried By Beam										
		20'	22'	24'	26'	28'	30'	32'	34'	36'	38'	40'
6'-0"	3-1/2"	5-1/2"	5-1/2"	5-1/2"	7-1/4"	7-1/4"	7-1/4"	7-1/4"	7-1/4"	7-1/4"	7-1/4"	7-1/4"
	5-1/4"	5-1/2"	5-1/2"	5-1/2"	5-1/2"	5-1/2"	5-1/2"	5-1/2"	5-1/2"	5-1/2"	5-1/2"	5-1/2"
8'-0"	3-1/2"	7-1/4"	7-1/4"	7-1/4"	9-1/4"	9-1/4"	9-1/4"	9-1/4"	9-1/4"	9-1/4"	9-1/4"	9-1/4"
	5-1/4"	7-1/4"	7-1/4"	7-1/4"	7-1/4"	7-1/4"	7-1/4"	7-1/4"	7-1/4"	7-1/4"	7-1/4"	9-1/4"
9'-6"	3-1/2"	9-1/4"	9-1/4"	9-1/4"	9-1/4"	9-1/4"	9-1/4"	9-1/2"	11-7/8"	11-7/8"	11-7/8"	11-7/8"
	5-1/4"	7-1/4"	7-1/4"	9-1/4"	9-1/4"	9-1/4"	9-1/4"	9-1/4"	9-1/4"	9-1/4"	9-1/4"	9-1/4"
10'-0"	3-1/2"	9-1/4"	9-1/4"	9-1/4"	9-1/2"	9-1/2"	11-7/8"	11-7/8"	11-7/8"	11-7/8"	11-7/8"	11-7/8"
	5-1/4"	9-1/4"	9-1/4"	9-1/4"	9-1/4"	9-1/4"	9-1/4"	9-1/4"	9-1/4"	9-1/4"	9-1/4"	9-1/4"
12'-0"	3-1/2"	11-7/8"	11-7/8"	11-7/8"	11-7/8"	11-7/8"	11-7/8"	14"	14"	14"	14"	14"
	5-1/4"	9-1/4"	9-1/4"	9-1/2"	11-7/8"	11-7/8"	11-7/8"	11-7/8"	11-7/8"	11-7/8"	11-7/8"	11-7/8"
14'-0"	3-1/2"	14"	14"	14"	14"	14"	14"	14"	16"	16"	16"	16"
	5-1/4"	11-7/8"	11-7/8"	11-7/8"	11-7/8"	11-7/8"	11-7/8"	14"	14"	14"	14"	14"
16'-0"	3-1/2"	14"	16"	16"	16"	16"	16"	16"	18"	18"	18"	18"
	5-1/4"	14"	14"	14"	14"	14"	14"	14"	14"	16"	16"	16"
16'-6"	3-1/2"	16"	16"	16"	16"	16"	18"	18"	18"	18"	18"	18"
	5-1/4"	14"	14"	14"	14"	14"	14"	16"	16"	16"	16"	16"
18'-0"	3-1/2"	16"	16"	18"	18"	18"	18"	18"	-	-	-	-
	5-1/4"	14"	14"	16"	16"	16"	16"	16"	16"	18"	18"	18"
18'-6"	3-1/2"	16"	18"	18"	18"	18"	18"	-	-	-	-	-
	5-1/4"	14"	16"	16"	16"	16"	16"	16"	18"	18"	18"	18"
20'-0"	3-1/2"	18"	18"	-	-	-	-	-	-	-	-	-
	5-1/4"	16"	16"	16"	18"	18"	18"	18"	18"	18"	-	-
22'-0"	3-1/2"	-	-	-	-	-	-	-	-	-	-	-
	5-1/4"	18"	18"	18"	18"	-	-	-	-	-	-	-
24'-0"	3-1/2"	-	-	-	-	-	-	-	-	-	-	-
	5-1/4"	18"	-	-	-	-	-	-	-	-	-	-

DESIGN LOADS
ROOF: 40 PSF SNOW (115%), 15 PSF DEAD

Span	Beam Width	Span Carried By Beam										
		20'	22'	24'	26'	28'	30'	32'	34'	36'	38'	40'
6'-0"	3-1/2"	7-1/4"	7-1/4"	7-1/4"	7-1/4"	7-1/4"	7-1/4"	7-1/4"	7-1/4"	7-1/4"	7-1/4"	7-1/4"
	5-1/4"	5-1/2"	5-1/2"	5-1/2"	5-1/2"	5-1/2"	7-1/4"	7-1/4"	7-1/4"	7-1/4"	7-1/4"	7-1/4"
8'-0"	3-1/2"	9-1/4"	9-1/4"	9-1/4"	9-1/4"	9-1/4"	9-1/4"	9-1/4"	9-1/4"	9-1/4"	9-1/2"	9-1/2"
	5-1/4"	7-1/4"	7-1/4"	7-1/4"	7-1/4"	7-1/4"	9-1/4"	9-1/4"	9-1/4"	9-1/4"	9-1/4"	9-1/4"
9'-6"	3-1/2"	9-1/4"	9-1/4"	9-1/2"	11-7/8"	11-7/8"	11-7/8"	11-7/8"	11-7/8"	11-7/8"	11-7/8"	11-7/8"
	5-1/4"	9-1/4"	9-1/4"	9-1/4"	9-1/4"	9-1/4"	9-1/4"	9-1/4"	9-1/4"	9-1/2"	9-1/2"	11-7/8"
10'-0"	3-1/2"	9-1/2"	11-7/8"	11-7/8"	11-7/8"	11-7/8"	11-7/8"	11-7/8"	11-7/8"	11-7/8"	11-7/8"	11-7/8"
	5-1/4"	9-1/4"	9-1/4"	9-1/4"	9-1/4"	9-1/4"	9-1/4"	9-1/2"	11-7/8"	11-7/8"	11-7/8"	11-7/8"
12'-0"	3-1/2"	11-7/8"	11-7/8"	14"	14"	14"	14"	14"	14"	14"	14"	16"
	5-1/4"	11-7/8"	11-7/8"	11-7/8"	11-7/8"	11-7/8"	11-7/8"	11-7/8"	11-7/8"	11-7/8"	14"	14"
14'-0"	3-1/2"	14"	14"	14"	16"	16"	16"	16"	16"	16"	18"	18"
	5-1/4"	11-7/8"	11-7/8"	14"	14"	14"	14"	14"	14"	14"	14"	16"
16'-0"	3-1/2"	16"	16"	16"	18"	18"	18"	18"	18"	-	-	-
	5-1/4"	14"	14"	14"	16"	16"	16"	16"	16"	16"	16"	18"
16'-6"	3-1/2"	16"	18"	18"	18"	18"	18"	-	-	-	-	-
	5-1/4"	14"	14"	16"	16"	16"	16"	16"	16"	18"	18"	18"
18'-0"	3-1/2"	18"	18"	18"	-	-	-	-	-	-	-	-
	5-1/4"	16"	16"	16"	16"	18"	18"	18"	18"	18"	18"	-
18'-6"	3-1/2"	18"	18"	-	-	-	-	-	-	-	-	-
	5-1/4"	16"	16"	16"	18"	18"	18"	18"	18"	-	-	-
20'-0"	3-1/2"	-	-	-	-	-	-	-	-	-	-	-
	5-1/4"	18"	18"	18"	18"	-	-	-	-	-	-	-
22'-0"	3-1/2"	-	-	-	-	-	-	-	-	-	-	-
	5-1/4"	18"	-	-	-	-	-	-	-	-	-	-
24'-0"	3-1/2"	-	-	-	-	-	-	-	-	-	-	-
	5-1/4"	-	-	-	-	-	-	-	-	-	-	-

NOTES:

1. Span is center-to-center of supports and is valid for simple beam spans only.
2. End supports require 3" bearing, except 4-1/2" is required where **bold**. The end supports for the standard garage door spans of 9'-6", 16'-6" and 18'-6" have been limited to 3" (two trimmers) on each end. The bearing length is based on the compressive strength, perpendicular-to-grain, of the LSL. See the Reaction Capacity table on page 10 for additional information.
3. Deflections are limited to L/360 snow/live load and L/240 total load.
4. Loads assume a 2' maximum overhang on the roof.
5. Beam width can be either a single piece of LSL or built up from multiple plies that are nailed, bolted or connected with other approved fasteners. Refer to pages 30–31 for connection details.
6. Do not use where marked "-".

LSL 1.55E Uniform Floor Load (PLF) Tables: 1-1/2"

TO USE:

1. Select the span required.
2. Compare the design total load to the Total Load column.
3. Compare the design live load to the appropriate Live Load column.
4. Select a product that exceeds both the design total and live loads.

EXAMPLE:

For a 11'-0" beam span, select a 2- and 3-ply beam that satisfies an L/360 Live Load deflection limit for the following design loads: Live Load = 640 plf; Total Load = 900 plf

SOLUTION FOR A 2-PLY BEAM:

Total Load per ply = 900/2 = 450 plf
Live Load per ply = 640/2 =320 plf

Use 2 plies 1-1/2" x 11-7/8"
(Total Load = 453 plf, Live Load = 321 plf)

SOLUTION FOR A 3-PLY BEAM:

Total Load per ply = 900/3 = 300 plf
Live Load per ply = 640/3 = 214 plf

Use 3 plies 1-1/2" x 11-1/4"
(Total Load = 408 plf, Live Load = 276 plf)

Span	1-1/2" x 5-1/2"			1-1/2" x 7-1/4"			1-1/2" x 9-1/4"			Span
	Live Load		Total Load	Live Load		Total Load	Live Load		Total Load	
	L/480	L/360		L/480	L/360		L/480	L/360		
5'	253	338	504	536	714	885	998		1208	5'
6'	152	202	301	328	438	613	629	839	965	6'
7'	97	130	193	214	286	425	418	558	708	7'
8'	66	88	130	147	196	291	291	388	541	8'
9'	47	62	91	105	140	206	210	280	415	9'
9'-6"	40	53	77	90	120	176	180	240	356	9'-6"
10'	34	46	66	77	103	151	156	208	307	10'
11'	–	–	–	58	78	114	119	158	233	11'
12'	–	–	–	45	60	87	92	123	180	12'
13'	–	–	–	36	48	68	73	98	142	13'
14'	–	–	–	–	–	–	59	79	114	14'
15'	–	–	–	–	–	–	48	64	92	15'
16'	–	–	–	–	–	–	40	53	75	16'
16'-6"	–	–	–	–	–	–	36	48	68	16'-6"
17'	–	–	–	–	–	–	33	44	62	17'
18'	–	–	–	–	–	–	–	–	–	18'
18'-6"	–	–	–	–	–	–	–	–	–	18'-6"
19'	–	–	–	–	–	–	–	–	–	19'
20'	–	–	–	–	–	–	–	–	–	20'

Span	1-1/2" x 9-1/2"			1-1/2" x 11-1/4"			1-1/2" x 11-7/8"			Span
	Live Load		Total Load	Live Load		Total Load	Live Load		Total Load	
	L/480	L/360		L/480	L/360		L/480	L/360		
5'	1066		1241			1470			1552	5'
6'	674	898	1014	1032		1224	1177		1292	6'
7'	449	599	744	700	934	1019	804	1072	1107	7'
8'	313	417	568	494	659	779	570	760	862	8'
9'	226	301	447	360	480	614	417	556	679	9'
9'-6"	194	259	384	310	414	551	360	480	609	9'-6"
10'	168	224	331	270	360	496	313	417	549	10'
11'	128	171	252	207	276	408	240	321	453	11'
12'	100	133	195	162	216	318	188	251	372	12'
13'	79	105	154	129	172	252	150	200	295	13'
14'	64	85	123	104	139	203	122	162	238	14'
15'	52	69	100	85	114	165	100	133	194	15'
16'	43	57	82	71	94	136	83	110	160	16'
16'-6"	39	52	74	65	86	124	76	101	146	16'-6"
17'	36	48	67	59	79	113	69	92	133	17'
18'	30	40	56	50	67	95	59	78	112	18'
18'-6"	–	–	–	46	62	87	54	72	103	18'-6"
19'	–	–	–	43	57	80	50	67	95	19'
20'	–	–	–	37	49	68	43	57	81	20'

DESIGN ASSUMPTIONS:

1. Span is the center-to-center distance of the supports and is valid for simple or equal, continuous span applications.
2. The values in the tables are for uniform loads only.
3. Total Load is for normal (100%) duration and has been adjusted to account for the self-weight of the member.
4. Live Load deflection has been limited to L/360 or L/480 as noted in the table.
5. Total deflection has been limited to L/240. Long term deflection (creep) has not been considered.
6. These tables assume full lateral support of the compression edge. Full support is considered to be a maximum unbraced length of 24".
7. Proper bearing must be provided. Bearing length must be checked for support reactions with the table on page 10.

ACTUAL DEFLECTION BASED ON SPAN AND LIMIT

Span (ft)	L/480	L/360	L/240
10'	1/4"	5/16"	1/2"
12'	5/16"	3/8"	5/8"
14'	3/8"	7/16"	11/16"
16'	3/8"	9/16"	13/16"
18'	7/16"	5/8"	7/8"
20'	1/2"	11/16"	1"
22'	9/16"	3/4"	1-1/8"
24'	5/8"	13/16"	1-3/16"
26'	5/8"	7/8"	1-5/16"
28'	11/16"	15/16"	1-3/8"
30'	3/4"	1"	1-1/2"

* Deflections rounded to the nearest 1/16".

ADDITIONAL NOTES:

1. The allowable loads represent the capacity of the member in pounds per lineal foot (plf) of length.
2. The designer shall check both the Total Load and the appropriate Live Load column.
3. Where the Live Load is blank, the Total Load governs the design.
4. Depths of 16" and greater shall be used with a minimum of two plies unless designed specifically as a single ply with proper lateral bracing, such as a marriage beam for each half of a manufactured home before the units are joined.
5. The allowable loads in the table are for a single ply of LSL. Multiply the values by the number of plies of equal thickness to size a built-up member or divide the required loads by the number of equal thickness plies to directly verify the capacity of each individual ply. Example: double the allowable loads in the table for a 2-ply member or divide the required uniform loads by 2 to verify each ply of a 2-ply member.
6. The member width shall be properly built up by connecting plies of the same grade of LSL. Refer to the multiple-ply connections on pages 30–31.
7. Do not use a product where designated "-" without further analysis by a design professional.

LSL 1.55E Uniform Floor Load (PLF) Tables: 1-3/4"

TO USE:

1. Select the span required.
2. Compare the design total load to the Total Load column.
3. Compare the design live load to the appropriate Live Load column.
4. Select a product that exceeds both the design total and live loads.

EXAMPLE:

For a 12'-0" beam span, select a 2- and 3-ply beam that satisfies an L/360 Live Load deflection limit for the following design loads: Live Load = 400 plf; Total Load = 520 plf

SOLUTION FOR A 2-PLY BEAM:

Total Load per ply = 520/2 = 260 plf
Live Load per ply = 400/2 = 200 plf

Use 2 plies 1-3/4" x 11-1/4"
(Total Load = 372 plf, Live Load = 252 plf)

SOLUTION FOR A 3-PLY BEAM:

Total Load per ply = 520/3 = 174 plf
Live Load per ply = 400/3 = 134 plf

Use 3 plies 1-3/4" x 9-1/4"
(Total Load = 211 plf, Live Load = 144 plf)

Span	1-3/4" x 5-1/2"			1-3/4" x 7-1/4"			1-3/4" x 9-1/4"			Span
	Live Load		Total Load	Live Load		Total Load	Live Load		Total Load	
	L/480	L/360		L/480	L/360		L/480	L/360		
5'	296	394	589	625	833	1020	1164		1410	5'
6'	177	236	352	383	511	707	734	978	1120	6'
7'	114	152	225	250	333	496	488	651	821	7'
8'	77	103	152	171	229	339	339	453	627	8'
9'	55	73	107	122	163	241	245	326	484	9'
9'-6"	47	62	91	105	140	206	210	280	415	9'-6"
10'	40	53	77	90	120	177	182	242	359	10'
11'	30	40	58	68	91	133	138	185	272	11'
12'	–	–	–	53	71	102	108	144	211	12'
13'	–	–	–	42	56	80	85	114	166	13'
14'	–	–	–	33	45	63	69	92	133	14'
15'	–	–	–	–	–	–	56	75	108	15'
16'	–	–	–	–	–	–	46	62	88	16'
16'-6"	–	–	–	–	–	–	42	57	80	16'-6"
17'	–	–	–	–	–	–	39	52	73	17'
18'	–	–	–	–	–	–	33	44	61	18'
18'-6"	–	–	–	–	–	–	30	40	55	18'-6"
19'	–	–	–	–	–	–	–	–	–	19'
20'	–	–	–	–	–	–	–	–	–	20'

Span	1-3/4" x 9-1/2"			1-3/4" x 11-1/4"			1-3/4" x 11-7/8"			Span
	Live Load		Total Load	Live Load		Total Load	Live Load		Total Load	
	L/480	L/360		L/480	L/360		L/480	L/360		
5'	1243		1448			1715			1811	5'
6'	786	1048	1177	1204		1428	1373		1508	6'
7'	524	699	863	817	1089	1188	938	1250	1291	7'
8'	365	487	660	576	769	908	665	886	1005	8'
9'	264	352	520	420	560	716	486	648	793	9'
9'-6"	226	302	448	362	483	642	420	560	711	9'-6"
10'	196	261	387	315	420	579	365	487	641	10'
11'	149	199	294	241	322	477	281	374	528	11'
12'	116	155	228	189	252	372	220	293	434	12'
13'	92	123	180	150	200	295	175	234	344	13'
14'	74	99	144	121	162	237	142	189	278	14'
15'	61	81	117	99	133	193	116	155	226	15'
16'	50	67	96	82	110	159	96	129	187	16'
16'-6"	46	61	87	75	101	145	88	118	170	16'-6"
17'	42	56	79	69	92	132	81	108	156	17'
18'	35	47	66	58	78	111	68	91	131	18'
18'-6"	33	44	60	54	72	102	63	84	120	18'-6"
19'	30	40	55	50	67	94	58	78	111	19'
20'	–	–	–	43	57	80	50	67	94	20'

DESIGN ASSUMPTIONS:

1. Span is the center-to-center distance of the supports and is valid for simple or equal, continuous span applications.
2. The values in the tables are for uniform loads only.
3. Total Load is for normal (100%) duration and has been adjusted to account for the self-weight of the member.
4. Live Load deflection has been limited to L/360 or L/480 as noted in the table.
5. Total deflection has been limited to L/240. Long term deflection (creep) has not been considered.
6. These tables assume full lateral support of the compression edge. Full support is considered to be a maximum unbraced length of 24".
7. Proper bearing must be provided. Bearing length must be checked for support reactions with the table on page 10.

ACTUAL DEFLECTION BASED ON SPAN AND LIMIT

Span (ft)	L/480	L/360	L/240
10'	1/4"	5/16"	1/2"
12'	5/16"	3/8"	5/8"
14'	3/8"	7/16"	11/16"
16'	3/8"	9/16"	13/16"
18'	7/16"	5/8"	7/8"
20'	1/2"	11/16"	1"
22'	9/16"	3/4"	1-1/8"
24'	5/8"	13/16"	1-3/16"
26'	5/8"	7/8"	1-5/16"
28'	11/16"	15/16"	1-3/8"
30'	3/4"	1"	1-1/2"

* Deflections rounded to the nearest 1/16".

ADDITIONAL NOTES:

1. The allowable loads represent the capacity of the member in pounds per lineal foot (plf) of length.
2. The designer shall check both the Total Load and the appropriate Live Load column.
3. Where the Live Load is blank, the Total Load governs the design.
4. Depths of 16" and greater shall be used with a minimum of two plies unless designed specifically as a single ply with proper lateral bracing, such as a marriage beam for each half of a manufactured home before the units are joined.
5. The allowable loads in the table are for a single ply of LSL. Multiply the values by the number of plies of equal thickness to size a built-up member or divide the required loads by the number of equal thickness plies to directly verify the capacity of each individual ply. Example: double the allowable loads in the table for a 2-ply member or divide the required uniform loads by 2 to verify each ply of a 2-ply member.
6. The member width shall be properly built up by connecting plies of the same grade of LSL. Refer to the multiple-ply connections on pages 30–31.
7. Do not use a product where designated "-" without further analysis by a design professional.

LSL 1.55E Uniform Roof Load (PLF) Tables: 1-1/2"

TO USE:

1. Select the span required. For roofs with a slope of 2:12 or greater, the horizontal span shall be multiplied by the appropriate roof slope adjustment factor from the table at the bottom of this page.
2. Compare the design total load to the appropriate Total Load column for Snow (115%) or Non-Snow (125%).
3. Compare the design snow/live load to the appropriate Snow/Live Load column for L/360 or L/240. For a snow/live load deflection limit of L/480, compare the design snow/live load to the L/480 Live Load column from the Uniform Floor Load Tables.
4. Select a product that exceeds both the design total and live loads.

EXAMPLE:

For a 12' beam span with a pitch of 4:12, select a 2- and 3-ply beam that satisfies an L/240 Snow Load deflection limit for the following design loads:
Snow Load = 600 plf; Total Load = 740 plf

CALCULATE BEAM SPAN: 12' x 1.054 = 12.65' ⟶ **Use Span = 13'**

SOLUTION FOR A 2-PLY BEAM:

Total Load per ply = 740/2 = 370 plf
Snow Load per ply = 600/2 = 300 plf

Use 2 plies 1-1/2" x 11-7/8"
(Total Load = 372 plf, Snow Load = 301 plf)

SOLUTION FOR A 3-PLY BEAM:

Total Load per ply = 740/3 = 247 plf
Snow Load per ply = 600/3 = 200 plf

Use 3 plies 1-1/2" x 11-1/4"
(Total Load = 335 plf, Snow Load = 258 plf)

Span	1-1/2" x 5-1/2"				1-1/2" x 7-1/4"				1-1/2" x 9-1/4"				Span
	Snow/Live Load		Total Load		Snow/Live Load		Total Load		Snow/Live Load		Total Load		
	L/360	L/240	Snow 115%	Non-Snow 125%	L/360	L/240	Snow 115%	Non-Snow 125%	L/360	L/240	Snow 115%	Non-Snow 125%	
5'	338	507	598	650	714	1072	1006	1094	1331		1391	1512	5'
6'	202	304	403	403	438	657	698	759	839		1104	1201	6'
7'	130	195	258	258	286	429	511	556	558	837	810	881	7'
8'	88	133	174	174	196	294	389	389	388	582	619	673	8'
9'	62	94	123	123	140	210	277	277	280	420	488	531	9'
9'-6"	53	80	104	104	120	180	236	236	240	360	438	476	9'-6"
10'	46	69	89	89	103	155	203	203	208	312	394	411	10'
11'	34	52	67	67	78	117	153	153	158	238	312	312	11'
12'	–	–	–	–	60	91	118	118	123	185	242	242	12'
13'	–	–	–	–	48	72	92	92	98	147	191	191	13'
14'	–	–	–	–	38	58	74	74	79	118	153	153	14'
15'	–	–	–	–	31	47	59	59	64	97	124	124	15'
16'	–	–	–	–	–	–	–	–	53	80	102	102	16'
16'-6"	–	–	–	–	–	–	–	–	48	73	93	93	16'-6"
17'	–	–	–	–	–	–	–	–	44	67	85	85	17'
18'	–	–	–	–	–	–	–	–	37	56	71	71	18'
18'-6"	–	–	–	–	–	–	–	–	34	52	65	65	18'-6"
19'	–	–	–	–	–	–	–	–	32	48	60	60	19'
20'	–	–	–	–	–	–	–	–	–	–	–	–	20'

Span	1-1/2" x 9-1/2"				1-1/2" x 11-1/4"				1-1/2" x 11-7/8"				Span
	Snow/Live Load		Total Load		Snow/Live Load		Total Load		Snow/Live Load		Total Load		
	L/360	L/240	Snow 115%	Non-Snow 125%	L/360	L/240	Snow 115%	Non-Snow 125%	L/360	L/240	Snow 115%	Non-Snow 125%	
5'	1421		1428	1553			1692	1839			1786	1941	5'
6'	898		1161	1263	1376		1409	1532	1569		1487	1617	6'
7'	599	899	852	926	934		1172	1274	1072		1274	1385	7'
8'	417	626	651	708	659		896	974	760		992	1078	8'
9'	301	452	513	558	480	720	706	768	556	834	782	851	9'
9'-6"	259	389	460	501	414	621	633	689	480	720	701	763	9'-6"
10'	224	336	415	444	360	540	571	621	417	626	632	688	10'
11'	171	256	337	337	276	414	471	512	321	481	522	568	11'
12'	133	200	262	262	216	324	395	427	251	377	437	476	12'
13'	105	158	207	207	172	258	335	339	200	301	372	396	13'
14'	85	128	166	166	139	209	273	273	162	244	319	319	14'
15'	69	104	135	135	114	171	223	223	133	200	261	261	15'
16'	57	86	111	111	94	142	184	184	110	166	215	215	16'
16'-6"	52	79	101	101	86	130	167	167	101	152	197	197	16'-6"
17'	48	72	92	92	79	119	153	153	92	139	180	180	17'
18'	40	61	77	77	67	100	129	129	78	118	151	151	18'
18'-6"	37	56	71	71	62	93	118	118	72	109	139	139	18'-6"
19'	34	52	65	65	57	86	109	109	67	100	128	128	19'
20'	30	45	55	55	49	74	93	93	57	86	110	110	20'

SLOPE ADJUSTMENT

Slope	Factor
2:12	1.014
3:12	1.031
4:12	1.054
5:12	1.083
6:12	1.118
7:12	1.158
8:12	1.202
9:12	1.250
10:12	1.302
11:12	1.357
12:12	1.414

DESIGN ASSUMPTIONS:

1. Span is the center-to-center distance of the supports, along the sloped length of the member and is valid for simple or equal, continuous span applications.
2. The values in the tables are for uniform loads only.
3. Total Load is for Snow (115%) or Non-Snow (125%) duration, as noted in the table, and has been adjusted to account for the self-weight of the member.
4. Snow/Live Load deflection has been limited to L/360 or L/240 as noted in the table.
5. Total deflection has been limited to L/180. Long term deflection (creep) has not been considered.
6. These tables assume full lateral support of the compression edge. Full support is considered to be a maximum unbraced length of 24".
7. Proper bearing must be provided. Bearing length must be checked for support reactions with the table on page 10.

ADDITIONAL NOTES:

1. The allowable loads represent the capacity of the member in pounds per lineal foot (plf) of length.
2. For roofs with a slope of 2:12 or greater, the horizontal span shall be multiplied by the appropriate slope adjustment factor from the table above.
3. The designer shall check both the appropriate Total Load and the appropriate Snow/Live Load column.
4. Where the Snow/Live Load is blank, the Total Load governs the design.
5. Depths of 16" and greater shall be used with a minimum of two plies unless designed specifically as a single ply with proper lateral bracing, such as a marriage beam for each half of a manufactured home before the units are joined.
6. The allowable loads in the table are for a single ply of LSL. Multiply the values by the number of plies of equal thickness to size a built-up member or divide the required loads by the number of equal thickness plies to directly verify the capacity of each individual ply. Example: double the allowable loads in the table for a 2-ply member or divide the required uniform loads by 2 to verify each ply of a 2-ply member.
7. The member width shall be properly built up by connecting plies of the same grade of LSL. Refer to the multiple-ply connections on pages 30–31.
8. Do not use a product where designated "-" without further analysis by a design professional.

LSL 1.55E Uniform Roof Load (PLF) Tables: 1-3/4"

TO USE:

1. Select the span required. For roofs with a slope of 2:12 or greater, the horizontal span shall be multiplied by the appropriate roof slope adjustment factor from the table at the bottom of this page.
2. Compare the design total load to the appropriate Total Load column for Snow (115%) or Non-Snow (125%).
3. Compare the design snow/live load to the appropriate Snow/Live Load column for L/360 or L/240. For a snow/live load deflection limit of L/480, compare the design snow/live load to the L/480 Live Load column from the Uniform Floor Load Tables.
4. Select a product that exceeds both the design total and live loads.

EXAMPLE:

For a 12' beam span with a pitch of 4:12, select a 2- and 3-ply beam that satisfies an L/240 Snow Load deflection limit for the following design loads:
Snow Load = 720 plf; Total Load = 1120 plf

CALCULATE BEAM SPAN: 12' x 1.054 = 12.65' ⟶ **Use Span = 13'**

SOLUTION FOR A 2-PLY BEAM:

Total Load per ply = 1120/2 = 560 plf
Snow Load per ply = 720/2 = 360 plf

Use 2 plies 1-3/4" x 14"
(Total Load = 592 plf, Snow Load = 558 plf)

SOLUTION FOR A 3-PLY BEAM:

Total Load per ply = 1120/3 = 374 plf
Snow Load per ply = 720/3 = 240 plf

Use 3 plies 1-3/4" x 11-7/8"
(Total Load = 434 plf, Snow Load = 351 plf)

Span	1-3/4" x 5-1/2"				1-3/4" x 7-1/4"				1-3/4" x 9-1/4"				1-3/4" x 9-1/2"				Span
	Snow/Live Load		Total Load		Snow/Live Load		Total Load		Snow/Live Load		Total Load		Snow/Live Load		Total Load		
	L/360	L/240	Snow 115%	Non-Snow 125%	L/360	L/240	Snow 115%	Non-Snow 125%	L/360	L/240	Snow 115%	Non-Snow 125%	L/360	L/240	Snow 115%	Non-Snow 125%	
5'	394	592	698	759	833	1250	1174	1277	1553		1623	1764	1658		1666	1812	5'
6'	236	355	470	470	511	766	814	885	978		1288	1401	1048		1355	1473	6'
7'	152	228	301	301	333	500	597	649	651	977	945	1028	699	1049	994	1081	7'
8'	103	155	204	204	229	343	454	454	453	679	722	786	487	731	760	826	8'
9'	73	110	143	143	163	245	323	323	326	490	569	619	352	528	599	651	9'
9'-6"	62	94	122	122	140	210	276	276	280	421	511	555	302	453	537	584	9'-6"
10'	53	80	104	104	120	181	237	237	242	364	460	480	261	392	484	518	10'
11'	40	61	78	78	91	137	179	179	185	277	365	365	199	299	394	394	11'
12'	31	47	59	59	71	106	138	138	144	216	283	283	155	233	306	306	12'
13'	–	–	–	–	56	84	108	108	114	171	223	223	123	185	241	241	13'
14'	–	–	–	–	45	67	86	86	92	138	179	179	99	149	194	194	14'
15'	–	–	–	–	36	55	69	69	75	113	145	145	81	122	157	157	15'
16'	–	–	–	–	30	45	56	56	62	93	119	119	67	101	129	129	16'
16'-6"	–	–	–	–	–	–	–	–	57	85	109	109	61	92	118	118	16'-6"
17'	–	–	–	–	–	–	–	–	52	78	99	99	56	84	107	107	17'
18'	–	–	–	–	–	–	–	–	44	66	83	83	47	71	90	90	18'
18'-6"	–	–	–	–	–	–	–	–	40	61	76	76	44	66	82	82	18'-6"
19'	–	–	–	–	–	–	–	–	37	56	70	70	40	61	76	76	19'
20'	–	–	–	–	–	–	–	–	32	48	59	59	35	52	64	64	20'

Span	1-3/4" x 11-7/8"				1-3/4" x 14"				1-3/4" x 16"				1-3/4" x 18"				Span
	Snow/Live Load		Total Load		Snow/Live Load		Total Load		Snow/Live Load		Total Load		Snow/Live Load		Total Load		
	L/360	L/240	Snow 115%	Non-Snow 125%	L/360	L/240	Snow 115%	Non-Snow 125%	L/360	L/240	Snow 115%	Non-Snow 125%	L/360	L/240	Snow 115%	Non-Snow 125%	
5'			2083	2265			2456	2670			2807	2931			2929	2929	5'
6'	1831		1735	1886			2045	2224			2338	2441			2439	2439	6'
7'	1250		1486	1616	1877		1752	1905			2002	2091			2089	2089	7'
8'	886		1157	1258	1352		1532	1666	1877		1751	1828			1827	1827	8'
9'	648	973	913	993	1001		1245	1354	1407		1555	1624	1877		1623	1623	9'
9'-6"	560	840	818	890	870		1117	1215	1228		1437	1538	1647		1537	1537	9'-6"
10'	487	731	738	803	760		1007	1095	1077		1296	1409	1451		1459	1459	10'
11'	374	562	609	662	588	883	831	904	840		1069	1163	1141		1326	1326	11'
12'	293	440	510	555	464	696	697	758	667		897	976	911		1120	1214	12'
13'	234	351	434	462	372	558	592	645	537	806	763	830	738		953	1037	13'
14'	189	284	372	372	302	453	510	555	438	658	656	714	605		820	893	14'
15'	155	233	304	304	249	373	443	482	362	543	571	621	501	752	713	776	15'
16'	129	193	251	251	207	311	388	406	302	453	500	545	420	630	626	681	16'
16'-6"	118	177	229	229	189	284	365	372	277	416	470	512	385	578	588	640	16'-6"
17'	108	162	210	210	174	261	341	341	255	382	442	481	355	532	553	602	17'
18'	91	137	177	177	148	222	288	288	216	325	393	424	302	453	492	536	18'
18'-6"	84	127	163	163	136	205	265	265	200	300	372	392	280	420	465	507	18'-6"
19'	78	117	150	150	126	189	245	245	185	278	352	362	259	389	441	480	19'
20'	67	101	128	128	109	163	210	210	160	240	312	312	224	337	397	432	20'

SLOPE ADJUSTMENT

Slope	Factor
2:12	1.014
3:12	1.031
4:12	1.054
5:12	1.083
6:12	1.118
7:12	1.158
8:12	1.202
9:12	1.250
10:12	1.302
11:12	1.357
12:12	1.414

DESIGN ASSUMPTIONS:

1. Span is the center-to-center distance of the supports, along the sloped length of the member and is valid for simple or equal, continuous span applications.
2. The values in the tables are for uniform loads only.
3. Total Load is for Snow (115%) or Non-Snow (125%) duration, as noted in the table, and has been adjusted to account for the self-weight of the member.
4. Snow/Live Load deflection has been limited to L/360 or L/240 as noted in the table.
5. Total deflection has been limited to L/180. Long term deflection (creep) has not been considered.
6. These tables assume full lateral support of the compression edge. Full support is considered to be a maximum unbraced length of 24".
7. Proper bearing must be provided. Bearing length must be checked for support reactions with the table on page 10.

ADDITIONAL NOTES:

1. The allowable loads represent the capacity of the member in pounds per lineal foot (plf) of length.
2. For roofs with a slope of 2:12 or greater, the horizontal span shall be multiplied by the appropriate slope adjustment factor from the table above.
3. The designer shall check both the appropriate Total Load and the appropriate Snow/Live Load column.
4. Where the Snow/Live Load is blank, the Total Load governs the design.
5. Depths of 16" and greater shall be used with a minimum of two plies unless designed specifically as a single ply with proper lateral bracing, such as a marriage beam for each half of a manufactured home before the units are joined.
6. The allowable loads in the table are for a single ply of LSL. Multiply the values by the number of plies of equal thickness to size a built-up member or divide the required loads by the number of equal thickness plies to directly verify the capacity of each individual ply. Example: double the allowable loads in the table for a 2-ply member or divide the required uniform loads by 2 to verify each ply of a 2-ply member.
7. The member width shall be properly built up by connecting plies of the same grade of LSL. Refer to the multiple-ply connections on pages 30–31.
8. Do not use a product where designated "-" without further analysis by a design professional.

LSL 1.75E Product Specifications & Design Values

ALLOWABLE STRESS DESIGN VALUES (PSI)

Grade	Bending Stress F_b[3]	Modulus of Elasticity E (x 10^6 psi)	Shear Stress F_v	Compression Stress	
				F_c (Parallel To Grain)	$F_{c\perp}$ (Perpendicular To Grain)
2500F_b-1.75E	2500	1.75	410	2450	950

NOTES:

1. LP® SolidStart® LSL shall be designed for dry-use conditions only. Dry-use applies to products installed in dry, covered and well ventilated interior conditions in which the equivalent moisture content in lumber will not exceed 16%.
2. The allowable strengths and stiffness are for standard load duration. Bending, Shear and Compression parallel-to-grain shall be adjusted according to code. Modulus of Elasticity and Compression perpendicular-to-grain shall not be adjusted.
3. The allowable Bending Stress is tabulated for 12" depth. For depths other than 12", multiply F_b by $(12/depth)^{0.120}$. For depths less than 3-1/2", multiply F_b by 1.159.
4. Deflection calculations shall include both bending and shear deformations.

Deflection for a simple span, uniform load: $\Delta = \frac{270wL^4}{Ebd^3} + \frac{28.8wL^2}{Ebd}$

Where: Δ = deflection (in), w = uniform load (plf), L = design span (ft), E = modulus of elasticity (from table), b = width (in), d = depth (in)

Equations for other conditions can be found in engineering references.

SECTION PROPERTIES AND ALLOWABLE CAPACITIES

Depth	Weight (lb/ft)			Allowable Moment (lb-ft)			Allowable Shear (lb)			Moment of Inertia (in^4)		
	1-3/4"	3-1/2"	5-1/4"	1-3/4"	3-1/2"	5-1/4"	1-3/4"	3-1/2"	5-1/4"	1-3/4"	3-1/2"	5-1/4"
5-1/2"	–	6.4	–	–	4037	–	–	5262	–	–	49	–
7-1/4"	–	8.5	–	–	6786	–	–	6936	–	–	111	–
9-1/4"	5.4	10.8	16.2	5364	10728	16092	4425	8849	13274	115	231	346
9-1/2"	5.5	11.1	16.6	5640	11280	16920	4544	9088	13633	125	250	375
11-1/4"	–	13.1	–	–	15500	–	–	10763	–	–	415	–
11-7/8"	6.9	13.9	20.8	8579	17159	25738	5680	11360	17041	244	488	733
14"	8.2	16.3	24.5	11691	23383	35074	6697	13393	20090	400	800	1201
16"	9.3	18.7	28.0	15028	30055	45083	7653	15307	22960	597	1195	1792

NOTES:

1. The Allowable Moment and Shear capacities are for standard load duration and shall be adjusted according to code.
2. 3-1/2" wide members are either a single piece of 3-1/2" LSL or two plies of 1-3/4" LSL. 5-1/4" wide members are either the combination of a single piece of 3-1/2" LSL with a single piece of 1-3/4" LSL or three plies of 1-3/4" LSL.
3. The tabulated weight is an estimate and shall only be used for design purposes. Contact LP for actual shipping weights.

FASTENERS:

Refer to pages 30–31 for information on connecting multiple plies and for the equivalent specific gravity for design of nailed and bolted connections.

REACTION CAPACITY (LBS)

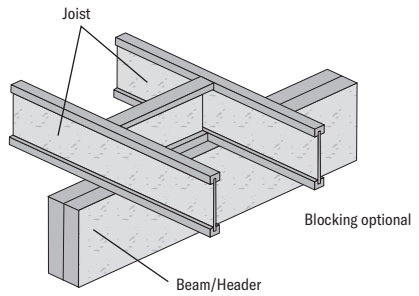
	Bearing Length																					
Width	1-1/2"	2"	2-1/2"	3"	3-1/2"	4"	4-1/2"	5"	5-1/2"	6"	6-1/2"	7"	7-1/2"	8"	8-1/2"	9"	9-1/2"	10"	10-1/2"	11"	11-1/2"	12"
1-3/4"	2493	3325	4156	4987	5818	6650	7481	8312	9143	9975	10806	11637	12468	13300	14131	14962	15793	16625	17456	18287	19118	19950
3-1/2"	4987	6650	8312	9975	11637	13300	14962	16625	18287	19950	21612	23275	24937	26600	28262	29925	31587	33250	34912	36575	38237	39900
5-1/4"	7481	9975	12468	14962	17456	19950	22443	24937	27431	29925	32418	34912	37406	39900	42393	44887	47381	49875	52368	54862	57356	59850

NOTES:

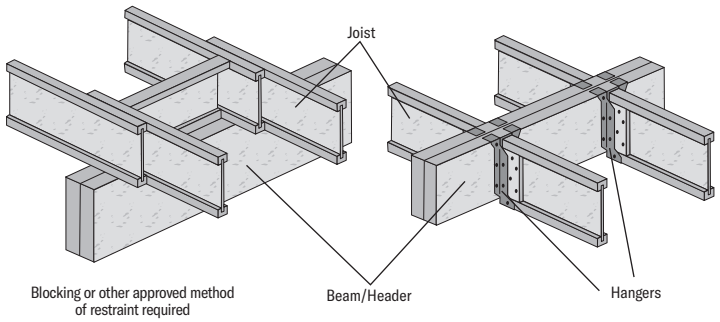
1. The maximum Reactions are based on the compression strength, perpendicular-to-grain, of the LSL. This is suitable for beams bearing on steel or the end-grain of studs.
2. Verify that the support for the beam is structurally adequate to carry the reaction. The compressive strength parallel-to-grain, of studs may require more studs than the bearing length above indicates.
3. For beams bearing on wood plates, the required bearing length will increase based on the bearing strength (compression perpendicular-to-grain) of the species and grade used for the plate material.
4. Verify local code requirements concerning minimum bearing.

1.75E FLOOR BEAM QUICK REFERENCE DETAILS (see page 21 for tables)

CONTINUOUS FLOOR JOISTS



SIMPLE-SPAN FLOOR JOISTS



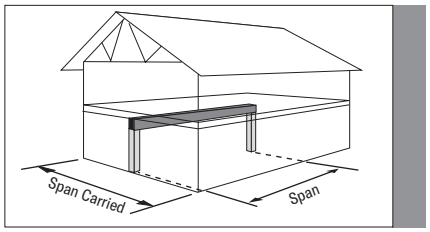
LSL 1.75E Floor Beam Quick Reference Tables

TO USE:

1. Select the correct table for the supported floor joist condition (simple or continuous).
2. Choose the required center-to-center span for the beam in the Span column.
3. Select the span carried by the beam across the top of the table.
4. Read the beam size or choice of beam sizes from the table.

EXAMPLE: A beam with a 10' span carries 15'-0" simple span joists on each side.

SOLUTION: Using the Simple-Span Floor Joists table with 30'-0" span carried, select either **3-1/2" x 11-7/8"** or **5-1/4" x 9-1/4"**



CONTINUOUS FLOOR JOISTS (DESIGN FLOOR LOADS: 40 PSF LIVE, 15 PSF DEAD)

Span	Beam Width	Span Carried By Beam										
		20'	22'	24'	26'	28'	30'	32'	34'	36'	38'	40'
6'-0"	3-1/2"	5-1/2"	7-1/4"	7-1/4"	7-1/4"	7-1/4"	7-1/4"	7-1/4"	7-1/4"	7-1/4"	7-1/4"	7-1/4"
	5-1/4"	5-1/2"	5-1/2"	5-1/2"	5-1/2"	5-1/2"	5-1/2"	7-1/4"	7-1/4"	7-1/4"	7-1/4"	7-1/4"
8'-0"	3-1/2"	9-1/4"	9-1/4"	9-1/4"	9-1/4"	9-1/4"	9-1/4"	9-1/4"	9-1/4"	9-1/4"	9-1/2"	9-1/2"
	5-1/4"	7-1/4"	7-1/4"	7-1/4"	7-1/4"	7-1/4"	9-1/4"	9-1/4"	9-1/4"	9-1/4"	9-1/4"	9-1/4"
10'-0"	3-1/2"	9-1/4"	9-1/2"	11-7/8"	11-7/8"	11-7/8"	11-7/8"	11-7/8"	11-7/8"	11-7/8"	11-7/8"	11-7/8"
	5-1/4"	9-1/4"	9-1/4"	9-1/4"	9-1/4"	9-1/4"	9-1/4"	9-1/2"	11-7/8"	11-7/8"	11-7/8"	11-7/8"
12'-0"	3-1/2"	11-7/8"	11-7/8"	11-7/8"	14"	14"	14"	14"	14"	14"	14"	**16"**
	5-1/4"	9-1/2"	11-7/8"	11-7/8"	11-7/8"	11-7/8"	11-7/8"	11-7/8"	11-7/8"	11-7/8"	11-7/8"	11-7/8"
14'-0"	3-1/2"	14"	14"	14"	14"	16"	16"	16"	16"	**16"**	-	-
	5-1/4"	11-7/8"	11-7/8"	11-7/8"	14"	14"	14"	14"	14"	14"	14"	14"
16'-0"	3-1/2"	16"	16"	16"	16"	-	-	-	-	-	-	-
	5-1/4"	14"	14"	14"	14"	14"	16"	16"	16"	16"	16"	16"
18'-0"	3-1/2"	-	-	-	-	-	-	-	-	-	-	-
	5-1/4"	16"	16"	16"	16"	16"	16"	-	-	-	-	-
20'-0"	3-1/2"	-	-	-	-	-	-	-	-	-	-	-
	5-1/4"	16"	-	-	-	-	-	-	-	-	-	-
22'-0"	3-1/2"	-	-	-	-	-	-	-	-	-	-	-
	5-1/4"	-	-	-	-	-	-	-	-	-	-	-
24'-0"	3-1/2"	-	-	-	-	-	-	-	-	-	-	-
	5-1/4"	-	-	-	-	-	-	-	-	-	-	-
26'-0"	3-1/2"	-	-	-	-	-	-	-	-	-	-	-
	5-1/4"	-	-	-	-	-	-	-	-	-	-	-
28'-0"	3-1/2"	-	-	-	-	-	-	-	-	-	-	-
	5-1/4"	-	-	-	-	-	-	-	-	-	-	-
30'-0"	3-1/2"	-	-	-	-	-	-	-	-	-	-	-
	5-1/4"	-	-	-	-	-	-	-	-	-	-	-

SIMPLE-SPAN FLOOR JOISTS (DESIGN FLOOR LOADS: 40 PSF LIVE, 15 PSF DEAD)

Span	Beam Width	Span Carried By Beam										
		20'	22'	24'	26'	28'	30'	32'	34'	36'	38'	40'
6'-0"	3-1/2"	5-1/2"	5-1/2"	5-1/2"	7-1/4"	7-1/4"	7-1/4"	7-1/4"	7-1/4"	7-1/4"	7-1/4"	7-1/4"
	5-1/4"	5-1/2"	5-1/2"	5-1/2"	5-1/2"	5-1/2"	5-1/2"	5-1/2"	5-1/2"	5-1/2"	7-1/4"	7-1/4"
8'-0"	3-1/2"	7-1/4"	7-1/4"	7-1/4"	9-1/4"	9-1/4"	9-1/4"	9-1/4"	9-1/4"	9-1/4"	9-1/4"	9-1/4"
	5-1/4"	7-1/4"	7-1/4"	7-1/4"	7-1/4"	7-1/4"	7-1/4"	7-1/4"	7-1/4"	7-1/4"	9-1/4"	9-1/4"
10'-0"	3-1/2"	9-1/4"	9-1/4"	9-1/4"	9-1/2"	11-7/8"	11-7/8"	11-7/8"	11-7/8"	11-7/8"	11-7/8"	11-7/8"
	5-1/4"	9-1/4"	9-1/4"	9-1/4"	9-1/4"	9-1/4"	9-1/4"	9-1/4"	9-1/4"	9-1/4"	9-1/4"	9-1/4"
12'-0"	3-1/2"	11-7/8"	11-7/8"	11-7/8"	11-7/8"	11-7/8"	11-7/8"	11-7/8"	14"	14"	14"	14"
	5-1/4"	9-1/4"	9-1/4"	9-1/2"	11-7/8"	11-7/8"	11-7/8"	11-7/8"	11-7/8"	11-7/8"	11-7/8"	11-7/8"
14'-0"	3-1/2"	11-7/8"	14"	14"	14"	14"	14"	14"	14"	16"	16"	16"
	5-1/4"	11-7/8"	11-7/8"	11-7/8"	11-7/8"	11-7/8"	11-7/8"	11-7/8"	14"	14"	14"	14"
16'-0"	3-1/2"	14"	14"	16"	16"	16"	16"	16"	16"	-	-	-
	5-1/4"	11-7/8"	14"	14"	14"	14"	14"	14"	14"	14"	16"	16"
18'-0"	3-1/2"	16"	16"	16"	-	-	-	-	-	-	-	-
	5-1/4"	14"	14"	14"	16"	16"	16"	16"	16"	16"	16"	16"
20'-0"	3-1/2"	-	-	-	-	-	-	-	-	-	-	-
	5-1/4"	16"	16"	16"	16"	16"	-	-	-	-	-	-
22'-0"	3-1/2"	-	-	-	-	-	-	-	-	-	-	-
	5-1/4"	16"	-	-	-	-	-	-	-	-	-	-
24'-0"	3-1/2"	-	-	-	-	-	-	-	-	-	-	-
	5-1/4"	-	-	-	-	-	-	-	-	-	-	-
26'-0"	3-1/2"	-	-	-	-	-	-	-	-	-	-	-
	5-1/4"	-	-	-	-	-	-	-	-	-	-	-
28'-0"	3-1/2"	-	-	-	-	-	-	-	-	-	-	-
	5-1/4"	-	-	-	-	-	-	-	-	-	-	-
30'-0"	3-1/2"	-	-	-	-	-	-	-	-	-	-	-
	5-1/4"	-	-	-	-	-	-	-	-	-	-	-

NOTES:

1. Use the Continuous Floor Joists table where the floor joists are continuous (multiple span) over the beam. Use the Simple-Span Floor Joists table where the floor joists frame into the side of or end on top of the beam.
2. Span is center-to-center of supports and is valid for simple and equal, continuous beam spans.
3. End supports require 3" bearing. Interior supports require 6" bearing, except 7-1/2" is required where **bold**. The bearing length is based on the compressive strength, perpendicular-to-grain, of the LSL. See the Reaction Capacity table on page 20 for additional information.
4. Deflections are limited to L/360 live load and L/240 total load.
5. Beam width can be either a single piece of LSL or built up from multiple plies that are nailed, bolted or connected with other approved fasteners. Refer to pages 30–31 for connection details.
6. Do not use where marked "-".

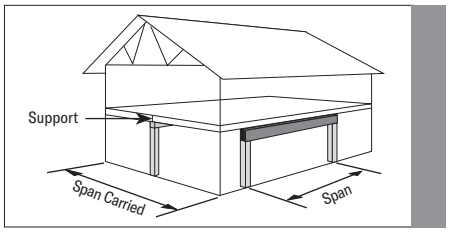
LSL 1.75E Combined Beam Quick Reference Tables

TO USE:

1. Select the correct table for the roof loads needed.
2. Choose the required center-to-center span for the beam in the Span column.
3. Select the span carried by the beam across the top of the table.
4. Read the beam size or choice of beam sizes from the table.

EXAMPLE: A beam with a 9'-6" span supports a 32'-0" span carried for a 20 psf Roof live load.

SOLUTION: Using the correct table for the roof load with 32'-0" span carried, select either **3-1/2" x 11-7/8"** or **5-1/4" x 9-1/4"**



DESIGN LOADS
ROOF: 20 PSF SNOW OR LIVE (115% or 125%), 15 PSF DEAD
FLOOR: 40 PSF LIVE, 15 PSF DEAD

Span	Beam Width	Span Carried By Beam										
		20'	22'	24'	26'	28'	30'	32'	34'	36'	38'	40'
6'-0"	3-1/2"	7-1/4"	7-1/4"	7-1/4"	7-1/4"	7-1/4"	7-1/4"	7-1/4"	7-1/4"	7-1/4"	7-1/4"	7-1/4"
	5-1/4"	5-1/2"	5-1/2"	5-1/2"	5-1/2"	5-1/2"	5-1/2"	7-1/4"	7-1/4"	7-1/4"	7-1/4"	7-1/4"
8'-0"	3-1/2"	9-1/4"	9-1/4"	9-1/4"	9-1/4"	9-1/4"	9-1/4"	9-1/4"	9-1/4"	9-1/4"	9-1/4"	9-1/2"
	5-1/4"	7-1/4"	7-1/4"	7-1/4"	7-1/4"	7-1/4"	9-1/4"	9-1/4"	9-1/4"	9-1/4"	9-1/4"	9-1/4"
9'-6"	3-1/2"	9-1/4"	9-1/4"	9-1/2"	11-7/8"	11-7/8"	11-7/8"	11-7/8"	11-7/8"	11-7/8"	11-7/8"	11-7/8"
	5-1/4"	9-1/4"	9-1/4"	9-1/4"	9-1/4"	9-1/4"	9-1/4"	9-1/4"	9-1/4"	9-1/4"	9-1/2"	9-1/2"
10'-0"	3-1/2"	9-1/2"	11-7/8"	11-7/8"	11-7/8"	11-7/8"	11-7/8"	11-7/8"	11-7/8"	11-7/8"	11-7/8"	11-7/8"
	5-1/4"	9-1/4"	9-1/4"	9-1/4"	9-1/4"	9-1/4"	9-1/4"	9-1/2"	9-1/2"	11-7/8"	11-7/8"	11-7/8"
12'-0"	3-1/2"	11-7/8"	11-7/8"	14"	14"	14"	14"	14"	14"	14"	14"	14"
	5-1/4"	11-7/8"	11-7/8"	11-7/8"	11-7/8"	11-7/8"	11-7/8"	11-7/8"	11-7/8"	11-7/8"	11-7/8"	14"
14'-0"	3-1/2"	14"	14"	14"	16"	16"	16"	16"	16"	16"	16"	-
	5-1/4"	11-7/8"	11-7/8"	14"	14"	14"	14"	14"	14"	14"	14"	14"
16'-0"	3-1/2"	16"	16"	16"	-	-	-	-	-	-	-	-
	5-1/4"	14"	14"	14"	14"	16"	16"	16"	16"	16"	16"	16"
16'-6"	3-1/2"	16"	16"	-	-	-	-	-	-	-	-	-
	5-1/4"	14"	14"	16"	16"	16"	16"	16"	16"	16"	-	-
18'-0"	3-1/2"	-	-	-	-	-	-	-	-	-	-	-
	5-1/4"	16"	16"	16"	16"	-	-	-	-	-	-	-
18'-6"	3-1/2"	-	-	-	-	-	-	-	-	-	-	-
	5-1/4"	16"	16"	16"	-	-	-	-	-	-	-	-
20'-0"	3-1/2"	-	-	-	-	-	-	-	-	-	-	-
	5-1/4"	-	-	-	-	-	-	-	-	-	-	-
22'-0"	3-1/2"	-	-	-	-	-	-	-	-	-	-	-
	5-1/4"	-	-	-	-	-	-	-	-	-	-	-
24'-0"	3-1/2"	-	-	-	-	-	-	-	-	-	-	-
	5-1/4"	-	-	-	-	-	-	-	-	-	-	-

DESIGN LOADS
ROOF: 25 PSF SNOW (115%), 15 PSF DEAD
FLOOR: 40 PSF LIVE, 15 PSF DEAD

Span	Beam Width	Span Carried By Beam										
		20'	22'	24'	26'	28'	30'	32'	34'	36'	38'	40'
6'-0"	3-1/2"	7-1/4"	7-1/4"	7-1/4"	7-1/4"	7-1/4"	7-1/4"	7-1/4"	7-1/4"	7-1/4"	7-1/4"	7-1/4"
	5-1/4"	5-1/2"	5-1/2"	5-1/2"	5-1/2"	7-1/4"	7-1/4"	7-1/4"	7-1/4"	7-1/4"	7-1/4"	7-1/4"
8'-0"	3-1/2"	9-1/4"	9-1/4"	9-1/4"	9-1/4"	9-1/4"	9-1/4"	9-1/4"	9-1/4"	9-1/2"	9-1/2"	11-7/8"
	5-1/4"	7-1/4"	7-1/4"	7-1/4"	7-1/4"	9-1/4"	9-1/4"	9-1/4"	9-1/4"	9-1/4"	9-1/4"	9-1/4"
9'-6"	3-1/2"	9-1/4"	9-1/2"	11-7/8"	11-7/8"	11-7/8"	11-7/8"	11-7/8"	11-7/8"	11-7/8"	11-7/8"	11-7/8"
	5-1/4"	9-1/4"	9-1/4"	9-1/4"	9-1/4"	9-1/4"	9-1/4"	9-1/4"	9-1/2"	9-1/2"	11-7/8"	11-7/8"
10'-0"	3-1/2"	11-7/8"	11-7/8"	11-7/8"	11-7/8"	11-7/8"	11-7/8"	11-7/8"	11-7/8"	11-7/8"	11-7/8"	14"
	5-1/4"	9-1/4"	9-1/4"	9-1/4"	9-1/4"	9-1/4"	9-1/2"	11-7/8"	11-7/8"	11-7/8"	11-7/8"	11-7/8"
12'-0"	3-1/2"	11-7/8"	14"	14"	14"	14"	14"	14"	14"	14"	16"	16"
	5-1/4"	11-7/8"	11-7/8"	11-7/8"	11-7/8"	11-7/8"	11-7/8"	11-7/8"	11-7/8"	14"	14"	14"
14'-0"	3-1/2"	14"	14"	16"	16"	16"	16"	16"	16"	-	-	-
	5-1/4"	11-7/8"	14"	14"	14"	14"	14"	14"	14"	14"	16"	16"
16'-0"	3-1/2"	16"	16"	-	-	-	-	-	-	-	-	-
	5-1/4"	14"	14"	16"	16"	16"	16"	16"	16"	16"	-	-
16'-6"	3-1/2"	16"	-	-	-	-	-	-	-	-	-	-
	5-1/4"	14"	16"	16"	16"	16"	16"	16"	-	-	-	-
18'-0"	3-1/2"	-	-	-	-	-	-	-	-	-	-	-
	5-1/4"	16"	16"	16"	-	-	-	-	-	-	-	-
18'-6"	3-1/2"	-	-	-	-	-	-	-	-	-	-	-
	5-1/4"	16"	16"	-	-	-	-	-	-	-	-	-
20'-0"	3-1/2"	-	-	-	-	-	-	-	-	-	-	-
	5-1/4"	-	-	-	-	-	-	-	-	-	-	-
22'-0"	3-1/2"	-	-	-	-	-	-	-	-	-	-	-
	5-1/4"	-	-	-	-	-	-	-	-	-	-	-
24'-0"	3-1/2"	-	-	-	-	-	-	-	-	-	-	-
	5-1/4"	-	-	-	-	-	-	-	-	-	-	-

NOTES:

1. Span is center-to-center of supports and is valid for simple beam spans only.
2. End supports require 3" bearing, except 4-1/2" is required where **bold**. The end supports for the standard garage door spans of 9'-6", 16'-6" and 18'-6" have been limited to 3" (two trimmers) on each end. The bearing length is based on the compressive strength, perpendicular-to-grain, of the LSL. See the Reaction Capacity table on page 20 for additional information.
3. Deflections are limited to L/360 snow/live load and L/240 total load.
4. Loads include 100 plf for an exterior wall and assume a 2' maximum overhang on the roof and an interior support at mid-span of the floor joists.
5. Beam width can be either a single piece of LSL or built up from multiple plies that are nailed, bolted or connected with other approved fasteners. Refer to pages 30-31 for connection details.
6. Do not use where marked "-".

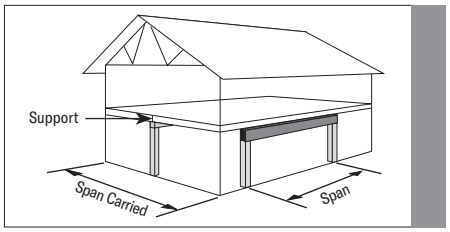
LSL 1.75E Combined Beam Quick Reference Tables

TO USE:

1. Select the correct table for the roof loads needed.
2. Choose the required center-to-center span for the beam in the Span column.
3. Select the span carried by the beam across the top of the table.
4. Read the beam size or choice of beam sizes from the table.

EXAMPLE: A beam with a 9'-6" span supports a 32'-0" span carried for a 30 psf Roof snow load.

SOLUTION: Using the correct table for the roof load with 32'-0" span carried, select either **3-1/2" x 11-7/8"** or **5-1/4" x 9-1/2"**



DESIGN LOADS
ROOF: 30 PSF SNOW (115%), 15 PSF DEAD
FLOOR: 40 PSF LIVE, 15 PSF DEAD

Span	Beam Width	Span Carried By Beam										
		20'	22'	24'	26'	28'	30'	32'	34'	36'	38'	40'
6'-0"	3-1/2"	7-1/4"	7-1/4"	7-1/4"	7-1/4"	7-1/4"	7-1/4"	7-1/4"	7-1/4"	7-1/4"	9-1/4"	9-1/4"
	5-1/4"	5-1/2"	5-1/2"	5-1/2"	7-1/4"	7-1/4"	7-1/4"	7-1/4"	7-1/4"	7-1/4"	7-1/4"	7-1/4"
8'-0"	3-1/2"	9-1/4"	9-1/4"	9-1/4"	9-1/4"	9-1/4"	9-1/4"	9-1/4"	9-1/2"	11-7/8"	11-7/8"	11-7/8"
	5-1/4"	7-1/4"	7-1/4"	7-1/4"	9-1/4"	9-1/4"	9-1/4"	9-1/4"	9-1/4"	9-1/4"	9-1/4"	9-1/4"
9'-6"	3-1/2"	9-1/2"	11-7/8"	11-7/8"	11-7/8"	11-7/8"	11-7/8"	11-7/8"	11-7/8"	11-7/8"	11-7/8"	11-7/8"
	5-1/4"	9-1/4"	9-1/4"	9-1/4"	9-1/4"	9-1/4"	9-1/4"	9-1/2"	11-7/8"	11-7/8"	11-7/8"	11-7/8"
10'-0"	3-1/2"	11-7/8"	11-7/8"	11-7/8"	11-7/8"	11-7/8"	11-7/8"	11-7/8"	11-7/8"	11-7/8"	14"	14"
	5-1/4"	9-1/4"	9-1/4"	9-1/4"	9-1/4"	9-1/2"	11-7/8"	11-7/8"	11-7/8"	11-7/8"	11-7/8"	11-7/8"
12'-0"	3-1/2"	11-7/8"	14"	14"	14"	14"	14"	14"	14"	16"	16"	16"
	5-1/4"	11-7/8"	11-7/8"	11-7/8"	11-7/8"	11-7/8"	11-7/8"	11-7/8"	14"	14"	14"	14"
14'-0"	3-1/2"	14"	16"	16"	16"	16"	16"	16"	-	-	-	-
	5-1/4"	14"	14"	14"	14"	14"	14"	14"	14"	16"	16"	16"
16'-0"	3-1/2"	16"	-	-	-	-	-	-	-	-	-	-
	5-1/4"	14"	16"	16"	16"	16"	16"	16"	16"	-	-	-
16'-6"	3-1/2"	-	-	-	-	-	-	-	-	-	-	-
	5-1/4"	16"	16"	16"	16"	16"	16"	-	-	-	-	-
18'-0"	3-1/2"	-	-	-	-	-	-	-	-	-	-	-
	5-1/4"	16"	16"	-	-	-	-	-	-	-	-	-
18'-6"	3-1/2"	-	-	-	-	-	-	-	-	-	-	-
	5-1/4"	16"	-	-	-	-	-	-	-	-	-	-
20'-0"	3-1/2"	-	-	-	-	-	-	-	-	-	-	-
	5-1/4"	-	-	-	-	-	-	-	-	-	-	-
22'-0"	3-1/2"	-	-	-	-	-	-	-	-	-	-	-
	5-1/4"	-	-	-	-	-	-	-	-	-	-	-
24'-0"	3-1/2"	-	-	-	-	-	-	-	-	-	-	-
	5-1/4"	-	-	-	-	-	-	-	-	-	-	-

DESIGN LOADS
ROOF: 40 PSF SNOW (115%), 15 PSF DEAD
FLOOR: 40 PSF LIVE, 15 PSF DEAD

Span	Beam Width	Span Carried By Beam										
		20'	22'	24'	26'	28'	30'	32'	34'	36'	38'	40'
6'-0"	3-1/2"	7-1/4"	7-1/4"	7-1/4"	7-1/4"	7-1/4"	7-1/4"	7-1/4"	9-1/4"	9-1/4"	9-1/4"	9-1/4"
	5-1/4"	5-1/2"	5-1/2"	7-1/4"	7-1/4"	7-1/4"	7-1/4"	7-1/4"	7-1/4"	7-1/4"	7-1/4"	7-1/4"
8'-0"	3-1/2"	9-1/4"	9-1/4"	9-1/4"	9-1/4"	9-1/4"	9-1/2"	11-7/8"	11-7/8"	11-7/8"	11-7/8"	11-7/8"
	5-1/4"	7-1/4"	9-1/4"	9-1/4"	9-1/4"	9-1/4"	9-1/4"	9-1/4"	9-1/4"	9-1/4"	9-1/4"	9-1/4"
9'-6"	3-1/2"	11-7/8"	11-7/8"	11-7/8"	11-7/8"	11-7/8"	11-7/8"	11-7/8"	11-7/8"	14"	14"	14"
	5-1/4"	9-1/4"	9-1/4"	9-1/4"	9-1/4"	9-1/2"	11-7/8"	11-7/8"	11-7/8"	11-7/8"	11-7/8"	11-7/8"
10'-0"	3-1/2"	11-7/8"	11-7/8"	11-7/8"	11-7/8"	11-7/8"	11-7/8"	14"	14"	14"	14"	14"
	5-1/4"	9-1/4"	9-1/4"	9-1/2"	11-7/8"	11-7/8"	11-7/8"	11-7/8"	11-7/8"	11-7/8"	11-7/8"	11-7/8"
12'-0"	3-1/2"	14"	14"	14"	14"	14"	16"	16"	16"	**16"**	**16"**	**16"**
	5-1/4"	11-7/8"	11-7/8"	11-7/8"	11-7/8"	11-7/8"	14"	14"	14"	14"	14"	14"
14'-0"	3-1/2"	16"	16"	16"	16"	-	-	-	-	-	-	-
	5-1/4"	14"	14"	14"	14"	14"	16"	16"	16"	16"	16"	16"
16'-0"	3-1/2"	-	-	-	-	-	-	-	-	-	-	-
	5-1/4"	16"	16"	16"	16"	16"	-	-	-	-	-	-
16'-6"	3-1/2"	-	-	-	-	-	-	-	-	-	-	-
	5-1/4"	16"	16"	16"	16"	-	-	-	-	-	-	-
18'-0"	3-1/2"	-	-	-	-	-	-	-	-	-	-	-
	5-1/4"	-	-	-	-	-	-	-	-	-	-	-
18'-6"	3-1/2"	-	-	-	-	-	-	-	-	-	-	-
	5-1/4"	-	-	-	-	-	-	-	-	-	-	-
20'-0"	3-1/2"	-	-	-	-	-	-	-	-	-	-	-
	5-1/4"	-	-	-	-	-	-	-	-	-	-	-
22'-0"	3-1/2"	-	-	-	-	-	-	-	-	-	-	-
	5-1/4"	-	-	-	-	-	-	-	-	-	-	-
24'-0"	3-1/2"	-	-	-	-	-	-	-	-	-	-	-
	5-1/4"	-	-	-	-	-	-	-	-	-	-	-

NOTES:

1. Span is center-to-center of supports and is valid for simple beam spans only.
2. End supports require 3" bearing, except 4-1/2" is required where **bold**. The end supports for the standard garage door spans of 9'-6", 16'-6" and 18'-6" have been limited to 3" (two trimmers) on each end. The bearing length is based on the compressive strength, perpendicular-to-grain, of the LSL. See the Reaction Capacity table on page 20 for additional information.
3. Deflections are limited to L/360 snow/live load and L/240 total load.
4. Loads include 100 plf for an exterior wall and assume a 2' maximum overhang on the roof and an interior support at mid-span of the floor joists.
5. Beam width can be either a single piece of LSL or built up from multiple plies that are nailed, bolted or connected with other approved fasteners. Refer to pages 30-31 for connection details.
6. Do not use where marked "-".

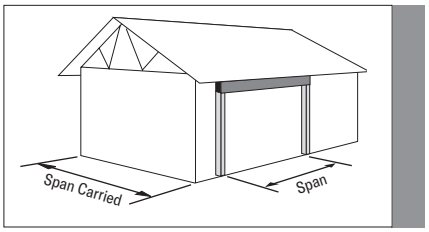
LSL 1.75E Roof Beam Quick Reference Tables

TO USE:

1. Select the correct table for the roof loads needed.
2. Choose the required center-to-center span for the beam in the Span column.
3. Select the span carried by the beam across the top of the table.
4. Read the beam size or choice of beam sizes from the table.

EXAMPLE: A beam with a 16'-6" span supports a 38'-0" span carried for a 25 psf Roof snow load.

SOLUTION: Using the correct table for the roof load with 38'-0" span carried, select either **3-1/2" x 16"** or **5-1/4" x 14."**



DESIGN LOADS
ROOF: 20 PSF SNOW OR LIVE (115% or 125%), 15 PSF DEAD

Span	Beam Width	Span Carried By Beam										
		20'	22'	24'	26'	28'	30'	32'	34'	36'	38'	40'
6'-0"	3-1/2"	5-1/2"	5-1/2"	5-1/2"	5-1/2"	5-1/2"	5-1/2"	5-1/2"	5-1/2"	5-1/2"	5-1/2"	7-1/4"
	5-1/4"	5-1/2"	5-1/2"	5-1/2"	5-1/2"	5-1/2"	5-1/2"	5-1/2"	5-1/2"	5-1/2"	5-1/2"	5-1/2"
8'-0"	3-1/2"	7-1/4"	7-1/4"	7-1/4"	7-1/4"	7-1/4"	7-1/4"	7-1/4"	7-1/4"	7-1/4"	9-1/4"	9-1/4"
	5-1/4"	5-1/2"	5-1/2"	5-1/2"	7-1/4"	7-1/4"	7-1/4"	7-1/4"	7-1/4"	7-1/4"	7-1/4"	7-1/4"
9'-6"	3-1/2"	7-1/4"	9-1/4"	9-1/4"	9-1/4"	9-1/4"	9-1/4"	9-1/4"	9-1/4"	9-1/4"	9-1/4"	9-1/4"
	5-1/4"	7-1/4"	7-1/4"	7-1/4"	7-1/4"	7-1/4"	7-1/4"	7-1/4"	7-1/4"	9-1/4"	9-1/4"	9-1/4"
10'-0"	3-1/2"	9-1/4"	9-1/4"	9-1/4"	9-1/4"	9-1/4"	9-1/4"	9-1/4"	9-1/4"	9-1/4"	9-1/4"	9-1/2"
	5-1/4"	7-1/4"	7-1/4"	7-1/4"	7-1/4"	7-1/4"	9-1/4"	9-1/4"	9-1/4"	9-1/4"	9-1/4"	9-1/4"
12'-0"	3-1/2"	9-1/4"	9-1/4"	9-1/2"	11-7/8"	11-7/8"	11-7/8"	11-7/8"	11-7/8"	11-7/8"	11-7/8"	11-7/8"
	5-1/4"	9-1/4"	9-1/4"	9-1/4"	9-1/4"	9-1/4"	9-1/4"	9-1/4"	9-1/4"	9-1/2"	9-1/2"	11-7/8"
14'-0"	3-1/2"	11-7/8"	11-7/8"	11-7/8"	11-7/8"	11-7/8"	11-7/8"	14"	14"	14"	14"	14"
	5-1/4"	9-1/4"	9-1/2"	11-7/8"	11-7/8"	11-7/8"	11-7/8"	11-7/8"	11-7/8"	11-7/8"	11-7/8"	11-7/8"
16'-0"	3-1/2"	14"	14"	14"	14"	14"	14"	14"	16"	16"	16"	16"
	5-1/4"	11-7/8"	11-7/8"	11-7/8"	11-7/8"	11-7/8"	11-7/8"	14"	14"	14"	14"	14"
16'-6"	3-1/2"	14"	14"	14"	14"	14"	16"	16"	16"	16"	16"	16"
	5-1/4"	11-7/8"	11-7/8"	11-7/8"	11-7/8"	14"	14"	14"	14"	14"	14"	14"
18'-0"	3-1/2"	14"	14"	16"	16"	16"	16"	16"	16"	-	-	-
	5-1/4"	11-7/8"	14"	14"	14"	14"	14"	14"	14"	16"	16"	16"
18'-6"	3-1/2"	14"	16"	16"	16"	16"	16"	-	-	-	-	-
	5-1/4"	14"	14"	14"	14"	14"	14"	14"	16"	16"	16"	16"
20'-0"	3-1/2"	16"	16"	16"	-	-	-	-	-	-	-	-
	5-1/4"	14"	14"	14"	16"	16"	16"	16"	16"	16"	16"	-
22'-0"	3-1/2"	-	-	-	-	-	-	-	-	-	-	-
	5-1/4"	16"	16"	16"	16"	16"	-	-	-	-	-	-
24'-0"	3-1/2"	-	-	-	-	-	-	-	-	-	-	-
	5-1/4"	16"	-	-	-	-	-	-	-	-	-	-

DESIGN LOADS
ROOF: 25 PSF SNOW (115%), 15 PSF DEAD

Span	Beam Width	Span Carried By Beam										
		20'	22'	24'	26'	28'	30'	32'	34'	36'	38'	40'
6'-0"	3-1/2"	5-1/2"	5-1/2"	5-1/2"	5-1/2"	5-1/2"	5-1/2"	5-1/2"	7-1/4"	7-1/4"	7-1/4"	7-1/4"
	5-1/4"	5-1/2"	5-1/2"	5-1/2"	5-1/2"	5-1/2"	5-1/2"	5-1/2"	5-1/2"	5-1/2"	5-1/2"	5-1/2"
8'-0"	3-1/2"	7-1/4"	7-1/4"	7-1/4"	7-1/4"	7-1/4"	7-1/4"	7-1/4"	9-1/4"	9-1/4"	9-1/4"	9-1/4"
	5-1/4"	5-1/2"	7-1/4"	7-1/4"	7-1/4"	7-1/4"	7-1/4"	7-1/4"	7-1/4"	7-1/4"	7-1/4"	7-1/4"
9'-6"	3-1/2"	9-1/4"	9-1/4"	9-1/4"	9-1/4"	9-1/4"	9-1/4"	9-1/4"	9-1/4"	9-1/4"	9-1/4"	9-1/2"
	5-1/4"	7-1/4"	7-1/4"	7-1/4"	7-1/4"	7-1/4"	9-1/4"	9-1/4"	9-1/4"	9-1/4"	9-1/4"	9-1/4"
10'-0"	3-1/2"	9-1/4"	9-1/4"	9-1/4"	9-1/4"	9-1/4"	9-1/4"	9-1/4"	9-1/4"	9-1/2"	11-7/8"	11-7/8"
	5-1/4"	7-1/4"	7-1/4"	7-1/4"	9-1/4"	9-1/4"	9-1/4"	9-1/4"	9-1/4"	9-1/4"	9-1/4"	9-1/4"
12'-0"	3-1/2"	9-1/2"	11-7/8"	11-7/8"	11-7/8"	11-7/8"	11-7/8"	11-7/8"	11-7/8"	11-7/8"	11-7/8"	11-7/8"
	5-1/4"	9-1/4"	9-1/4"	9-1/4"	9-1/4"	9-1/4"	9-1/4"	9-1/2"	11-7/8"	11-7/8"	11-7/8"	11-7/8"
14'-0"	3-1/2"	11-7/8"	11-7/8"	11-7/8"	14"	14"	14"	14"	14"	14"	14"	14"
	5-1/4"	11-7/8"	11-7/8"	11-7/8"	11-7/8"	11-7/8"	11-7/8"	11-7/8"	11-7/8"	11-7/8"	11-7/8"	11-7/8"
16'-0"	3-1/2"	14"	14"	14"	14"	14"	16"	16"	16"	16"	16"	16"
	5-1/4"	11-7/8"	11-7/8"	11-7/8"	11-7/8"	14"	14"	14"	14"	14"	14"	14"
16'-6"	3-1/2"	14"	14"	14"	16"	16"	16"	16"	16"	16"	16"	-
	5-1/4"	11-7/8"	11-7/8"	14"	14"	14"	14"	14"	14"	14"	14"	14"
18'-0"	3-1/2"	16"	16"	16"	16"	16"	-	-	-	-	-	-
	5-1/4"	14"	14"	14"	14"	14"	14"	16"	16"	16"	16"	16"
18'-6"	3-1/2"	16"	16"	16"	16"	-	-	-	-	-	-	-
	5-1/4"	14"	14"	14"	14"	14"	16"	16"	16"	16"	16"	16"
20'-0"	3-1/2"	16"	-	-	-	-	-	-	-	-	-	-
	5-1/4"	14"	16"	16"	16"	16"	16"	16"	-	-	-	-
22'-0"	3-1/2"	-	-	-	-	-	-	-	-	-	-	-
	5-1/4"	16"	16"	16"	-	-	-	-	-	-	-	-
24'-0"	3-1/2"	-	-	-	-	-	-	-	-	-	-	-
	5-1/4"	-	-	-	-	-	-	-	-	-	-	-

NOTES:

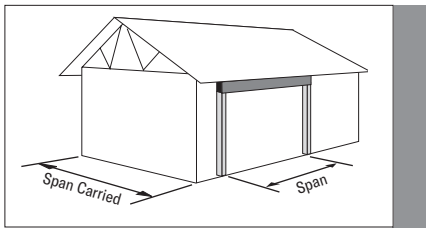
1. Span is center-to-center of supports and is valid for simple beam spans only.
2. End supports require 3" bearing, except 4-1/2" is required where **bold**. The end supports for the standard garage door spans of 9'-6", 16'-6" and 18'-6" have been limited to 3" (two trimmers) on each end. The bearing length is based on the compressive strength, perpendicular-to-grain, of the LSL. See the Reaction Capacity table on page 20 for additional information.
3. Deflections are limited to L/360 snow/live load and L/240 total load.
4. Loads assume a 2' maximum overhang on the roof.
5. Beam width can be either a single piece of LSL or built up from multiple plies that are nailed, bolted or connected with other approved fasteners. Refer to pages 30–31 for connection details.
6. Do not use where marked "-".

LSL 1.75E Roof Beam Quick Reference Tables

TO USE:

1. Select the correct table for the roof loads needed.
2. Choose the required center-to-center span for the beam in the Span column.
3. Select the span carried by the beam across the top of the table.
4. Read the beam size or choice of beam sizes from the table.

EXAMPLE: A beam with a 16'-6" span supports a 38'-0" span carried for a 40 psf Roof snow load.
SOLUTION: Using the correct table for the roof load with 38'-0" span carried, select a **5-1/4" x 16"**
NOTE: A 3-1/2" beam does not work.



DESIGN LOADS
ROOF: 30 PSF SNOW (115%), 15 PSF DEAD

Span	Beam Width	Span Carried By Beam										
		20'	22'	24'	26'	28'	30'	32'	34'	36'	38'	40'
6'-0"	3-1/2"	5-1/2"	5-1/2"	5-1/2"	5-1/2"	5-1/2"	7-1/4"	7-1/4"	7-1/4"	7-1/4"	7-1/4"	7-1/4"
	5-1/4"	5-1/2"	5-1/2"	5-1/2"	5-1/2"	5-1/2"	5-1/2"	5-1/2"	5-1/2"	5-1/2"	5-1/2"	5-1/2"
8'-0"	3-1/2"	7-1/4"	7-1/4"	7-1/4"	7-1/4"	7-1/4"	9-1/4"	9-1/4"	9-1/4"	9-1/4"	9-1/4"	9-1/4"
	5-1/4"	7-1/4"	7-1/4"	7-1/4"	7-1/4"	7-1/4"	7-1/4"	7-1/4"	7-1/4"	7-1/4"	7-1/4"	7-1/4"
9'-6"	3-1/2"	9-1/4"	9-1/4"	9-1/4"	9-1/4"	9-1/4"	9-1/4"	9-1/4"	9-1/4"	9-1/2"	11-7/8"	11-7/8"
	5-1/4"	7-1/4"	7-1/4"	7-1/4"	9-1/4"	9-1/4"	9-1/4"	9-1/4"	9-1/4"	9-1/4"	9-1/4"	9-1/4"
10'-0"	3-1/2"	9-1/4"	9-1/4"	9-1/4"	9-1/4"	9-1/4"	9-1/2"	9-1/2"	11-7/8"	11-7/8"	11-7/8"	11-7/8"
	5-1/4"	7-1/4"	9-1/4"	9-1/4"	9-1/4"	9-1/4"	9-1/4"	9-1/4"	9-1/4"	9-1/4"	9-1/4"	9-1/4"
12'-0"	3-1/2"	11-7/8"	11-7/8"	11-7/8"	11-7/8"	11-7/8"	11-7/8"	11-7/8"	11-7/8"	11-7/8"	14"	14"
	5-1/4"	9-1/4"	9-1/4"	9-1/4"	9-1/4"	9-1/2"	11-7/8"	11-7/8"	11-7/8"	11-7/8"	11-7/8"	11-7/8"
14'-0"	3-1/2"	11-7/8"	11-7/8"	14"	14"	14"	14"	14"	14"	14"	16"	16"
	5-1/4"	11-7/8"	11-7/8"	11-7/8"	11-7/8"	11-7/8"	11-7/8"	11-7/8"	11-7/8"	14"	14"	14"
16'-0"	3-1/2"	14"	14"	14"	16"	16"	16"	16"	16"	16"	-	-
	5-1/4"	11-7/8"	11-7/8"	14"	14"	14"	14"	14"	14"	14"	14"	16"
16'-6"	3-1/2"	14"	14"	16"	16"	16"	16"	16"	16"	-	-	-
	5-1/4"	11-7/8"	14"	14"	14"	14"	14"	14"	14"	16"	16"	16"
18'-0"	3-1/2"	16"	16"	16"	16"	-	-	-	-	-	-	-
	5-1/4"	14"	14"	14"	14"	16"	16"	16"	16"	16"	16"	16"
18'-6"	3-1/2"	16"	16"	-	-	-	-	-	-	-	-	-
	5-1/4"	14"	14"	14"	16"	16"	16"	16"	16"	16"	-	-
20'-0"	3-1/2"	-	-	-	-	-	-	-	-	-	-	-
	5-1/4"	16"	16"	16"	16"	16"	-	-	-	-	-	-
22'-0"	3-1/2"	-	-	-	-	-	-	-	-	-	-	-
	5-1/4"	16"	-	-	-	-	-	-	-	-	-	-
24'-0"	3-1/2"	-	-	-	-	-	-	-	-	-	-	-
	5-1/4"	-	-	-	-	-	-	-	-	-	-	-

DESIGN LOADS
ROOF: 40 PSF SNOW (115%), 15 PSF DEAD

Span	Beam Width	Span Carried By Beam										
		20'	22'	24'	26'	28'	30'	32'	34'	36'	38'	40'
6'-0"	3-1/2"	5-1/2"	7-1/4"	7-1/4"	7-1/4"	7-1/4"	7-1/4"	7-1/4"	7-1/4"	7-1/4"	7-1/4"	7-1/4"
	5-1/4"	5-1/2"	5-1/2"	5-1/2"	5-1/2"	5-1/2"	5-1/2"	5-1/2"	7-1/4"	7-1/4"	7-1/4"	7-1/4"
8'-0"	3-1/2"	7-1/4"	9-1/4"	9-1/4"	9-1/4"	9-1/4"	9-1/4"	9-1/4"	9-1/4"	9-1/4"	9-1/4"	9-1/4"
	5-1/4"	7-1/4"	7-1/4"	7-1/4"	7-1/4"	7-1/4"	7-1/4"	7-1/4"	9-1/4"	9-1/4"	9-1/4"	9-1/4"
9'-6"	3-1/2"	9-1/4"	9-1/4"	9-1/4"	9-1/2"	11-7/8"	11-7/8"	11-7/8"	11-7/8"	11-7/8"	11-7/8"	11-7/8"
	5-1/4"	9-1/4"	9-1/4"	9-1/4"	9-1/4"	9-1/4"	9-1/4"	9-1/4"	9-1/4"	9-1/4"	9-1/4"	9-1/4"
10'-0"	3-1/2"	9-1/4"	9-1/2"	11-7/8"	11-7/8"	11-7/8"	11-7/8"	11-7/8"	11-7/8"	11-7/8"	11-7/8"	11-7/8"
	5-1/4"	9-1/4"	9-1/4"	9-1/4"	9-1/4"	9-1/4"	9-1/4"	9-1/4"	9-1/4"	9-1/2"	11-7/8"	11-7/8"
12'-0"	3-1/2"	11-7/8"	11-7/8"	11-7/8"	11-7/8"	14"	14"	14"	14"	14"	14"	14"
	5-1/4"	9-1/2"	11-7/8"	11-7/8"	11-7/8"	11-7/8"	11-7/8"	11-7/8"	11-7/8"	11-7/8"	11-7/8"	11-7/8"
14'-0"	3-1/2"	14"	14"	14"	14"	16"	16"	16"	16"	16"	16"	16"
	5-1/4"	11-7/8"	11-7/8"	11-7/8"	11-7/8"	14"	14"	14"	14"	14"	14"	14"
16'-0"	3-1/2"	16"	16"	16"	16"	-	-	-	-	-	-	-
	5-1/4"	14"	14"	14"	14"	14"	16"	16"	16"	16"	16"	16"
16'-6"	3-1/2"	16"	16"	16"	-	-	-	-	-	-	-	-
	5-1/4"	14"	14"	14"	14"	16"	16"	16"	16"	16"	16"	-
18'-0"	3-1/2"	-	-	-	-	-	-	-	-	-	-	-
	5-1/4"	16"	16"	16"	16"	16"	16"	-	-	-	-	-
18'-6"	3-1/2"	-	-	-	-	-	-	-	-	-	-	-
	5-1/4"	16"	16"	16"	16"	16"	-	-	-	-	-	-
20'-0"	3-1/2"	-	-	-	-	-	-	-	-	-	-	-
	5-1/4"	16"	-	-	-	-	-	-	-	-	-	-
22'-0"	3-1/2"	-	-	-	-	-	-	-	-	-	-	-
	5-1/4"	-	-	-	-	-	-	-	-	-	-	-
24'-0"	3-1/2"	-	-	-	-	-	-	-	-	-	-	-
	5-1/4"	-	-	-	-	-	-	-	-	-	-	-

NOTES:

1. Span is center-to-center of supports and is valid for simple beam spans only.
2. End supports require 3" bearing, except 4-1/2" is required where **bold**. The end supports for the standard garage door spans of 9'-6", 16'-6" and 18'-6" have been limited to 3" (two trimmers) on each end. The bearing length is based on the compressive strength, perpendicular-to-grain, of the LSL. See the Reaction Capacity table on page 20 for additional information.
3. Deflections are limited to L/360 snow/live load and L/240 total load.
4. Loads assume a 2' maximum overhang on the roof.
5. Beam width can be either a single piece of LSL or built up from multiple plies that are nailed, bolted or connected with other approved fasteners. Refer to pages 30–31 for connection details.
6. Do not use where marked "-".

LSL 1.75E Uniform Floor Load (PLF) Tables: 1-3/4" and 3-1/2"

TO USE:

1. Select the span required.
2. Compare the design total load to the Total Load column.
3. Compare the design live load to the appropriate Live Load column.
4. Select a product that exceeds both the design total and live loads.

EXAMPLE:

For a 16'-6" beam span, select a 2- and 3-ply beam that satisfies an L/360 Live Load deflection limit for the following design loads: Live Load = 480 plf; Total Load = 660 plf

SOLUTION FOR A 2-PLY BEAM:

Total Load per ply = 660/2 = 330 plf
Live Load per ply = 480/2 = 240 plf

Use 2 plies 1-3/4" x 16"
(Total Load = 432 plf, Live Load = 313 plf)

SOLUTION FOR A 3-PLY BEAM:

Total Load per ply = 660/3 = 220 plf
Live Load per ply = 480/3 = 160 plf

Use 3 plies 1-3/4" x 14"
(Total Load = 313 plf, Live Load = 214 plf)

Span	1-3/4" x 9-1/4"			1-3/4" x 9-1/2"			1-3/4" x 11-7/8"			1-3/4" x 14"			1-3/4" x 16"			Span
	Live Load		Total Load	Live Load		Total Load	Live Load		Total Load	Live Load		Total Load	Live Load		Total Load	
	L/480	L/360		L/480	L/360		L/480	L/360		L/480	L/360		L/480	L/360		
5'	1315		1410	1404		1448			1810			2134			2439	5'
6'	828	1105	1174	888	1184	1206			1507			1777			2031	6'
7'	551	735	870	592	789	915	1059		1291			1522			1740	7'
8'	383	511	665	412	550	699	750	1001	1065	1145		1331			1521	8'
9'	276	368	524	298	397	551	549	732	840	848	1131	1146	1191		1351	9'
9'-6"	237	316	470	256	341	494	474	632	753	736	982	1028	1040		1279	9'-6"
10'	205	274	405	221	295	438	412	550	679	643	858	927	912		1192	10'
11'	156	209	308	169	225	332	317	423	560	498	664	764	711	949	984	11'
12'	122	162	238	131	175	258	248	331	469	393	524	641	565	753	825	12'
13'	96	129	188	104	139	203	198	264	390	315	420	545	455	606	702	13'
14'	78	104	150	84	112	163	160	214	314	256	341	469	371	495	604	14'
15'	63	85	122	69	92	132	131	175	256	210	281	407	306	409	524	15'
16'	52	70	100	57	76	108	109	145	212	175	234	343	256	341	460	16'
16'-6"	48	64	91	52	69	99	100	133	193	160	214	313	234	313	432	16'-6"
17'	44	59	83	47	63	90	91	122	176	147	196	287	216	288	406	17'
18'	37	49	69	40	53	75	77	103	148	125	167	242	183	244	358	18'
18'-6"	34	46	63	37	49	69	71	95	136	115	154	223	169	226	330	18'-6"
19'	31	42	58	34	46	63	66	88	125	107	142	206	157	209	305	19'
20'	–	–	–	–	–	–	57	76	107	92	123	176	135	181	262	20'
21'	–	–	–	–	–	–	49	66	92	80	106	152	118	157	226	21'
22'	–	–	–	–	–	–	43	57	79	70	93	131	103	137	197	22'
23'	–	–	–	–	–	–	37	50	68	61	82	114	90	121	172	23'
24'	–	–	–	–	–	–	33	44	60	54	72	100	80	106	151	24'
25'	–	–	–	–	–	–	–	–	–	48	64	88	71	94	133	25'
26'	–	–	–	–	–	–	–	–	–	42	57	77	63	84	117	26'
27'	–	–	–	–	–	–	–	–	–	38	51	68	56	75	104	27'
28'	–	–	–	–	–	–	–	–	–	34	46	60	51	68	92	28'
29'	–	–	–	–	–	–	–	–	–	31	41	54	46	61	82	29'
30'	–	–	–	–	–	–	–	–	–	–	–	–	41	55	74	30'

Span	3-1/2" x 5-1/2"			3-1/2"x 7-1/4"			Span
	Live Load		Total Load	Live Load		Total Load	
	L/480	L/360		L/480	L/360		
5'	668	891	1285	1412	1882	2163	5'
6'	400	534	795	865	1154	1499	6'
7'	258	344	509	565	753	1099	7'
8'	175	233	344	388	517	767	8'
9'	124	165	242	277	369	546	9'
9'-6"	106	141	206	237	316	466	9'-6"
10'	91	121	176	204	272	400	10'
11'	69	92	131	155	206	301	11'
12'	53	71	100	120	160	232	12'
13'	42	56	77	95	126	181	13'
14'	33	45	61	76	102	144	14'
15'	–	–	–	62	83	116	15'
16'	–	–	–	51	68	94	16'
16'-6"	–	–	–	47	62	85	16'-6"
17'	–	–	–	43	57	77	17'
18'	–	–	–	36	48	64	18'
18'-6"	–	–	–	33	44	58	18'-6"
19'	–	–	–	–	–	–	19'
20'	–	–	–	–	–	–	20'
21'	–	–	–	–	–	–	21'
22'	–	–	–	–	–	–	22'

DESIGN ASSUMPTIONS:

1. Span is the center-to-center distance of the supports and is valid for simple or equal, continuous span applications.
2. The values in the tables are for uniform loads only.
3. Total Load is for normal (100%) duration and has been adjusted to account for the self-weight of the member.
4. Live Load deflection has been limited to L/360 or L/480 as noted in the table.
5. Total deflection has been limited to L/240. Long term deflection (creep) has not been considered.
6. These tables assume full lateral support of the compression edge. Full support is considered to be a maximum unbraced length of 24".
7. Proper bearing must be provided. Bearing length must be checked for support reactions with the table on page 20.

ADDITIONAL NOTES:

1. The allowable loads represent the capacity of the member in pounds per lineal foot (plf) of length.
2. The designer shall check both the Total Load and the appropriate Live Load column.
3. Where the Live Load is blank, the Total Load governs the design.
4. Depths of 16" and greater shall be used with a minimum of two plies unless designed specifically as a single ply with proper lateral bracing, such as a marriage beam for each half of a manufactured home before the units are joined.
5. The allowable loads in the table are for a single ply of LSL. Multiply the values by the number of plies of equal thickness to size a built-up member or divide the required loads by the number of equal thickness plies to directly verify the capacity of each individual ply. Example: double the allowable loads in the table for a 2-ply member or divide the required uniform loads by 2 to verify each ply of a 2-ply member.
6. The member width shall be properly built up by connecting plies of the same grade of LSL. Refer to the multiple-ply connections on pages 30–31.
7. Do not use a product where designated "-" without further analysis by a design professional.

ACTUAL DEFLECTION BASED ON SPAN AND LIMIT

Span (ft)	L/480	L/360	L/240
10'	1/4"	5/16"	1/2"
12'	5/16"	3/8"	5/8"
14'	3/8"	7/16"	11/16"
16'	3/8"	9/16"	13/16"
18'	7/16"	5/8"	7/8"
20'	1/2"	11/16"	1"
22'	9/16"	3/4"	1-1/8"
24'	5/8"	13/16"	1-3/16"
26'	5/8"	7/8"	1-5/16"
28'	11/16"	15/16"	1-3/8"
30'	3/4"	1"	1-1/2"

* Deflections rounded to the nearest 1/16".

LSL 1.75E Uniform Roof Load (PSF) Tables: 1-3/4" and 3-1/2"

TO USE:

1. Select the span required. For roofs with a slope of 2:12 or greater, the horizontal span shall be multiplied by the appropriate roof slope adjustment factor from the table at the bottom of this page.
2. Compare the design total load to the appropriate Total Load column for Snow (115%) or Non-Snow (125%).
3. Compare the design snow/live load to the appropriate Snow/Live Load column for L/360 or L/240. For a snow/live load deflection limit of L/480, compare the design snow/live load to the L/480 Live Load column from the Uniform Floor Load Tables.
4. Select a product that exceeds both the design total and live loads.

EXAMPLE:

For a 12' beam span with a pitch of 4:12, select a 2- and 3-ply beam that satisfies an L/240 Snow Load deflection limit for the following design loads:
Snow Load = 720 plf; Total Load = 1120 plf

CALCULATE BEAM SPAN: 12' x 1.054 = 12.65' ⟶ **Use Span = 13'**

SOLUTION FOR A 2-PLY BEAM:

Total Load per ply = 1120/2 = 560 plf
Snow Load per ply = 720/2 = 360 plf

Use 2 plies 1-3/4" x 14"
(Total Load = 628 plf, Snow Load = 630 plf

SOLUTION FOR A 3-PLY BEAM:

Total Load per ply = 1120/3 = 374 plf
Snow Load per ply = 720/3 = 240 plf

Use 3 plies 1-3/4" x 11-7/8"
(Total Load = 460 plf, Snow Load = 396 plf

Span	1-3/4" x 9-1/4"				1-3/4" x 9-1/2"				1-3/4" x 11-7/8"				1-3/4" x 14"				1-3/4" x 16"				Span
	Snow/Live Load		Total Load		Snow/Live Load		Total Load		Snow/Live Load		Total Load		Snow/Live Load		Total Load		Snow/Live Load		Total Load		
	L/360	L/240	Snow 115%	Non-Snow 125%	L/360	L/240	Snow 115%	Non-Snow 125%	L/360	L/240	Snow 115%	Non-Snow 125%	L/360	L/240	Snow 115%	Non-Snow 125%	L/360	L/240	Snow 115%	Non-Snow 125%	
5'	1753		1622	1764			1666	1812			2083	2265			2456	2670			2807	3052	5'
6'	1105		1351	1469	1184		1388	1509			1735	1886			2045	2224			2337	2541	6'
7'	735		1001	1089	789		1053	1145	1412		1486	1615			1752	1905			2002	2177	7'
8'	511	767	765	832	550	825	805	875	1001		1226	1333	1527		1532	1666			1750	1904	8'
9'	368	553	603	656	397	596	635	690	732		967	1052	1131		1319	1435	1588		1555	1691	9'
9'-6"	316	475	541	588	341	512	569	619	632		867	943	982		1183	1287	1386		1472	1601	9'-6"
10'	274	411	488	531	295	443	513	558	550	825	782	851	858		1067	1160	1216		1373	1493	10'
11'	209	313	402	412	225	338	423	445	423	634	645	702	664		880	958	949		1133	1232	11'
12'	162	244	320	320	175	263	346	346	331	497	541	588	524	786	738	803	753		950	1034	12'
13'	129	193	253	253	139	209	273	273	264	396	460	500	420	630	628	683	606		808	879	13'
14'	104	156	203	203	112	168	219	219	214	321	395	421	341	512	540	588	495	743	696	757	14'
15'	85	127	165	165	92	138	178	178	175	263	343	344	281	421	469	511	409	613	605	658	15'
16'	70	105	135	135	76	114	147	147	145	218	285	285	234	351	411	448	341	512	530	577	16'
16'-6"	64	96	123	123	69	104	133	133	133	200	260	260	214	321	386	420	313	469	498	542	16'-6"
17'	59	88	112	112	63	95	122	122	122	183	238	238	196	295	364	385	288	432	469	510	17'
18'	49	74	94	94	53	80	102	102	103	155	200	200	167	250	323	326	244	367	417	454	18'
18'-6"	46	69	86	86	49	74	94	94	95	143	184	184	154	231	300	300	226	339	394	429	18'-6"
19'	42	63	79	79	46	69	86	86	88	132	170	170	142	214	277	277	209	314	373	406	19'
20'	36	54	67	67	39	59	73	73	76	114	145	145	123	184	238	238	181	271	336	353	20'
21'	31	47	57	57	34	51	62	62	66	99	125	125	106	160	205	205	157	236	304	305	21'
22'	–	–	–	–	–	–	–	–	57	86	108	108	93	140	178	178	137	206	266	266	22'
23'	–	–	–	–	–	–	–	–	50	75	94	94	82	123	155	155	121	181	232	232	23'
24'	–	–	–	–	–	–	–	–	44	66	82	82	72	108	136	136	106	160	204	204	24'
25'	–	–	–	–	–	–	–	–	39	59	72	72	64	96	120	120	94	142	180	180	25'
26'	–	–	–	–	–	–	–	–	35	52	63	63	57	85	106	106	84	127	160	160	26'
27'	–	–	–	–	–	–	–	–	31	47	56	56	51	76	94	94	75	113	142	142	27'
28'	–	–	–	–	–	–	–	–	–	–	–	–	46	69	83	83	68	102	127	127	28'
29'	–	–	–	–	–	–	–	–	–	–	–	–	41	62	74	74	61	92	113	113	29'
30'	–	–	–	–	–	–	–	–	–	–	–	–	37	56	66	66	55	83	102	102	30'

Span	3-1/2" x 5-1/2"				3-1/2" x 7-1/4"				Span
	Snow/Live Load		Total Load		Snow/Live Load		Total Load		
	L/360	L/240	Snow 115%	Non-Snow 125%	L/360	L/240	Snow 115%	Non-Snow 125%	
5'	891	1337	1479	1608	1882		2488	2705	5'
6'	534	801	1025	1062	1154	1731	1725	1876	6'
7'	344	516	681	681	753	1130	1265	1376	7'
8'	233	350	461	461	517	776	967	1026	8'
9'	165	248	325	325	369	554	730	730	9'
9'-6"	141	212	276	276	316	474	624	624	9'-6"
10'	121	182	237	237	272	409	537	537	10'
11'	92	138	177	177	206	310	405	405	11'
12'	71	106	136	136	160	240	312	312	12'
13'	56	84	105	105	126	190	245	245	13'
14'	45	67	83	83	102	153	195	195	14'
15'	36	55	67	67	83	124	158	158	15'
16'	–	–	–	–	68	103	129	129	16'
16'-6"	–	–	–	–	62	94	117	117	16'-6"
17'	–	–	–	–	57	86	106	106	17'
18'	–	–	–	–	48	72	88	88	18'
18'-6"	–	–	–	–	44	67	81	81	18'-6"
19'	–	–	–	–	41	62	74	74	19'
20'	–	–	–	–	35	53	62	62	20'
21'	–	–	–	–	–	–	–	–	21'
22'	–	–	–	–	–	–	–	–	22'

SLOPE ADJUSTMENT

Slope	Factor
2:12	1.014
3:12	1.031
4:12	1.054
5:12	1.083
6:12	1.118
7:12	1.158
8:12	1.202
9:12	1.250
10:12	1.302
11:12	1.357
12:12	1.414

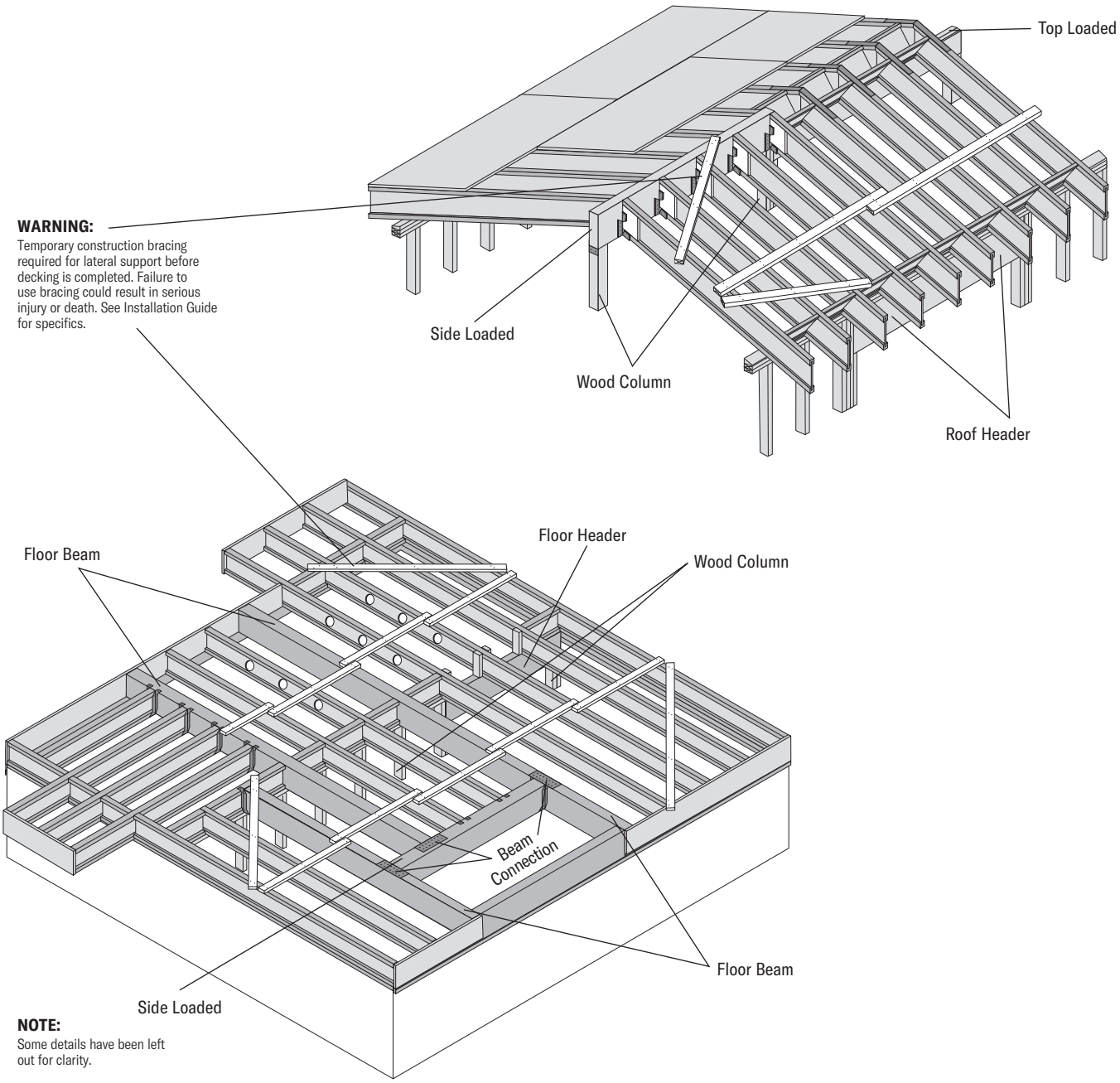
DESIGN ASSUMPTIONS:

1. Span is the center-to-center distance of the supports, along the sloped length of the member and is valid for simple or equal, continuous span applications.
2. The values in the tables are for uniform loads only.
3. Total Load is for Snow (115%) or Non-Snow (125%) duration, as noted in the table, and has been adjusted to account for the self-weight of the member.
4. Snow/Live Load deflection has been limited to L/360 or L/240 as noted in the table.
5. Total deflection has been limited to L/180. Long term deflection (creep) has not been considered.
6. These tables assume full lateral support of the compression edge. Full support is considered to be a maximum unbraced length of 24".
7. Proper bearing must be provided. Bearing length must be checked for support reactions with the table on page 20.

ADDITIONAL NOTES:

1. The allowable loads represent the capacity of the member in pounds per lineal foot (plf) of length.
2. For roofs with a slope of 2:12 or greater, the horizontal span shall be multiplied by the appropriate slope adjustment factor from the table above.
3. The designer shall check both the appropriate Total Load and the appropriate Snow/Live Load column.
4. Where the Snow/Live Load is blank, the Total Load governs the design.
5. Depths of 16" and greater shall be used with a minimum of two plies unless designed specifically as a single ply with proper lateral bracing, such as a marriage beam for each half of a manufactured home before the units are joined.
6. The allowable loads in the table are for a single ply of LSL. Multiply the values by the number of plies of equal thickness to size a built-up member or divide the required loads by the number of equal thickness plies to directly verify the capacity of each individual ply. Example: double the allowable loads in the table for a 2-ply member or divide the required uniform loads by 2 to verify each ply of a 2-ply member.
7. The member width shall be properly built up by connecting plies of the same grade of LSL. Refer to the multiple-ply connections on pages 30–31.
8. Do not use a product where designated "-" without further analysis by a design professional.

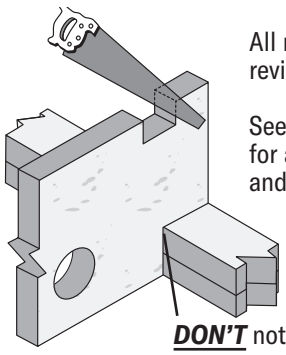
Temporary Bracing & Warnings



WARNING

The following conditions are NOT permitted!

DO NOT USE VISUALLY DAMAGED PRODUCTS WITHOUT FIRST CHECKING WITH YOUR LOCAL LP® SOLIDSTART® ENGINEERED WOOD PRODUCTS DISTRIBUTOR OR SALES OFFICE. (SEE BACK COVER FOR DETAILS.)

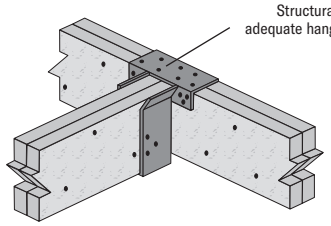


All notched or drilled beams must be reviewed by a design professional.

See hole detail on page 29 for allowable hole sizes and locations.

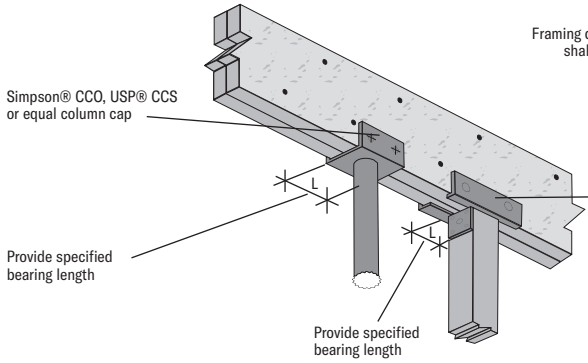
DON'T notch beam at support.

P3 BEAM CONNECTION



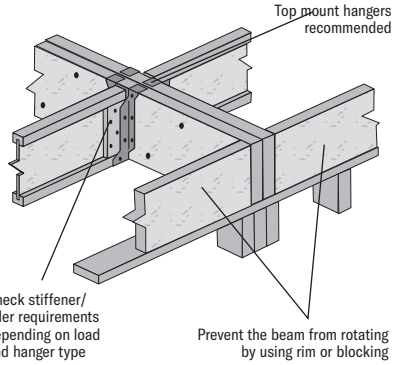
Hanger shall apply load equally to each ply or special design required

P4 STEEL COLUMN & WOOD COLUMN

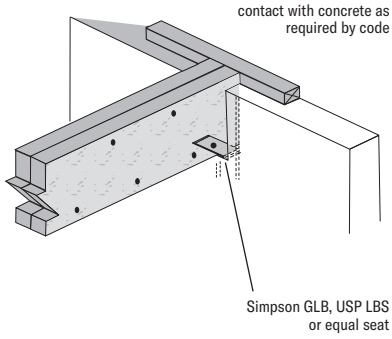


P5

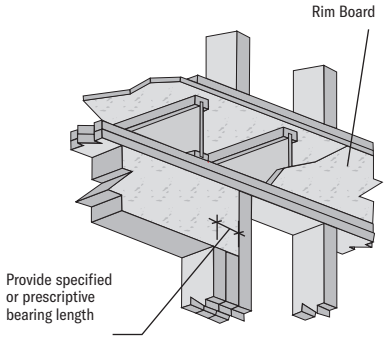
P6 FLOOR BEAM
(Flush ceiling)



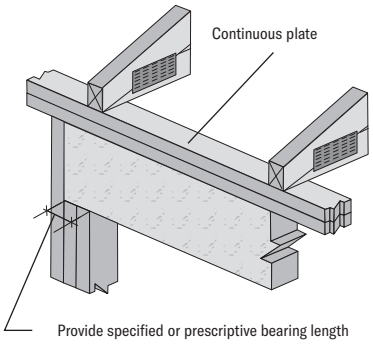
P7 CONCRETE WALL



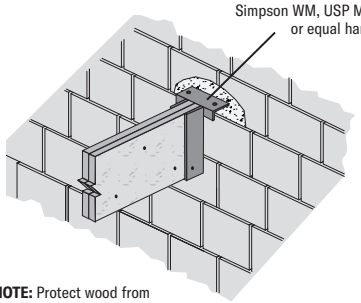
Q1 WINDOW/DOOR HEADER



Q2 WINDOW/DOOR HEADER

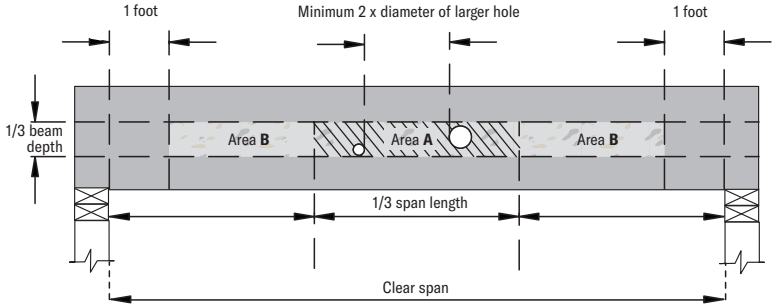


Q4 MASONRY HANGER



NOTE: Protect wood from contact with concrete as required by code

BEAM HOLE DETAILS

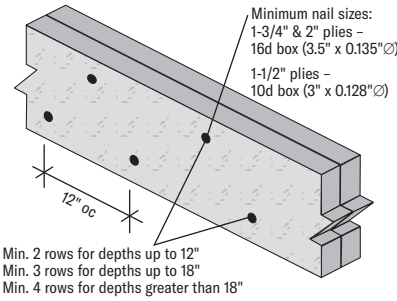


NOTES:

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.

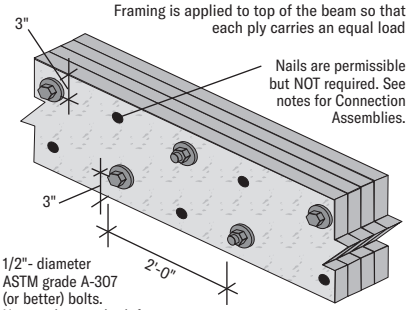
Connection Details

P1 **TOP-LOADED BEAM – NAILED CONNECTION**
(See Connection Assemblies for more details)



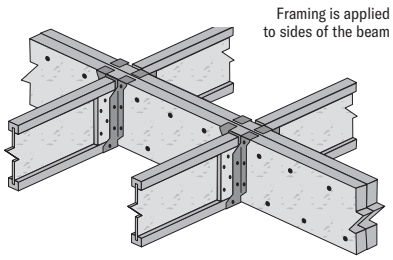
Min. 2 rows for depths up to 12"
Min. 3 rows for depths up to 18"
Min. 4 rows for depths greater than 18"
Framing is applied to top of the beam so that each ply carries an equal load

P2 **TOP-LOADED BEAM – BOLTED CONNECTION**
(See Connection Assemblies for more details)



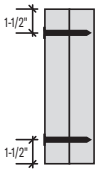
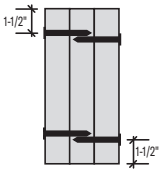
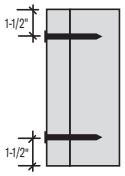
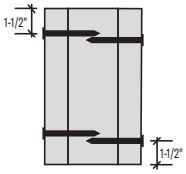
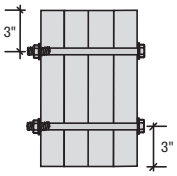
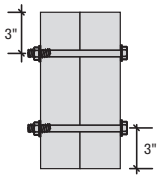
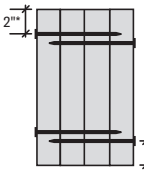
1/2"- diameter ASTM grade A-307 (or better) bolts.
Use washers on both faces.

Q3 **SIDE-LOADED BEAM**
(See Connection Assemblies for more details)



SIDE LOADS ARE NOT RECOMMENDED FOR BEAMS OVER 5-1/4" WIDE UNLESS EQUALLY APPLIED TO BOTH FACES
See Connection Assemblies for more information

CONNECTION ASSEMBLIES

DETAIL A	DETAIL B	DETAIL C/E	DETAIL D	DETAIL F	DETAIL G	DETAIL H
MAXIMUM 4" WIDE 2-PLY BEAMS	**MAXIMUM 6" WIDE 3-PLY BEAMS**	**MAXIMUM 7-1/4" WIDE 2-PLY BEAMS**	**MAXIMUM 9-1/4" WIDE 3-PLY BEAMS**	**MAXIMUM 7" WIDE 3- OR 4-PLY BEAMS**	**MAXIMUM 7" WIDE 2-PLY BEAMS**	**MAXIMUM 7" WIDE 2-, 3- OR 4-PLY BEAMS**
						
2" max. ply thickness	2" max. ply thickness	2" maximum side member 3-1/2" main member for C 5-1/4" main member for E	2" maximum side members 5-1/4" maximum main member			Simpson SDS 1/4" x 6" Simpson SDW 6-3/4" or equal Simpson SDW may be driven from one side.

* Minimum of 2" or the screw mfg.'s edge distance.

UNIFORM SIDE-LOAD CAPACITY (PLF)

Connection Detail	2 Rows of Nails at 12" oc	3 Rows of Nails at 12" oc	2 Rows of 1/2" Bolts at 24" oc	2 Rows of 1/2" Bolts at 12" oc
A	412	618	506	1012
B	309	464	380	760
C	309	464	522	1044
D	275	412	464	928
F	na	na	337	674
G	na	na	858	1716
H	Refer to Simpson Strong-Tie® catalog for SDS capacities.			

NAIL SCHEDULE

Nail Length (in)	Nail Diameter (in)	Lateral Load Capacity (lbs)	Nail Size Factor	Nail Type
3-1/2"	0.162	141	1.37	16d common
	0.135	103	1.00	16d box
3-1/4"	0.148	118	1.15	16d sinker/12d common
	0.120	81	0.79	Power-driven nail[13]
3"	0.148	99	0.96	10d common
	0.128	91	0.88	10d box
	0.120	81	0.79	Power-driven nail[13]

NOTES:

1. When driving nails from each face, alternate every other nail in each row.
2. Unless specifically designed, use 3-1/2" nails for 1-3/4" and 2" thick plies and use 3" nails for 1-1/2" thick plies. If the nails do not fully penetrate the second ply (main member), then the nails shall be driven from both faces.
3. 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".
4. Values are for standard load duration and shall be adjusted according to code.
5. The Uniform Side-Load Capacity values are the maximum load that can be applied to either side of the beam, based on the selected connection detail, and represent loads applied uniformly such as joists supported by hangers spaced 24" oc or less. Connections for discrete point loads may be determined with this table by calculating the equivalent fastener schedule within a 2' length centered about the point load. Details **B** and **D** shall have the back ply connected with a number of nails equal to half that used to connect the front ply – see the Side-Load Connection Example and detail on page 31. All nail and bolt spacing requirements shall be verified. The full length of the beam shall be connected with the standard connection or with the appropriate uniform side-load connection from this table. The beam shall be designed to support all applied loads.
6. The values for Uniform Side-Load Capacity for nails and Lateral Load Capacity (from Nail Schedule) are based on Douglas Fir lumber equivalence for a 16d box (3-1/2" x 0.135"Ø) nails for 1-3/4" LSL. For other nail sizes, multiply the Uniform Side-Load Capacity by the Nail Size Factor from the Nail Schedule. For 1-1/2" LSL, multiply by the Nail Size Factor for the appropriate 3" nail. Higher capacities may be calculated using the equivalent specific gravities tabulated in the Fastener Design table on page 31.
7. The values for the Uniform Side-Load Capacity for bolts are based on Douglas Fir lumber equivalence for ASTM grade A-307, 1/2"Ø bolts, for loads applied perpendicular-to-grain. For 1-1/2" LSL, multiply these values by 0.86 or calculate for the needed detail. Higher bolt capacities may be calculated using the equivalent specific gravities tabulated in the Fastener Design table on page 31.
8. For nails at 8" oc, multiply the capacity by 1.5. For nails at 6" oc, multiply the capacity by 2. For four rows of nails, double the two-row capacity.
9. 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.
10. For detail **C**, when side-loaded, the larger side-load shall be applied to the thicker ply (main member).
11. For details **F** and **H**, it is permissible to nail the plies together before bolting or driving Simpson SDS (or equal) screws. Nail two plies together then nail one additional ply to each side.
12. Beams wider than 5-1/4" shall be top-loaded or side-loaded from both sides to prevent rotation. For side loads applied to one side of a beam only, the project designer shall verify torsional capacity or detail the beam to prevent rotation due to any side loads. Consult a design professional for other options.
13. Power-driven nails shall conform to ICC-ES report ESR-1539 (International Staple, Nail and Tool Association) for power-driven staples and nails.
14. Other nail, screw or bolt configurations are possible. Refer to the Fastener Design table on page 31 or contact your LP® SolidStart® Engineered Wood Products distributor.

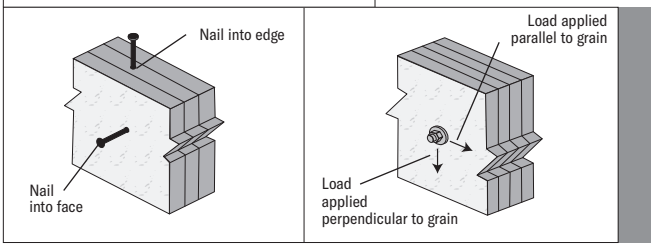
FASTENER DESIGN

Equivalent Specific Gravity					
Nails and Wood Screws				Bolts and Lag Screws	
Withdrawal		Dowel Bearing		Dowel Bearing (into the face only)	
Edge	Face	Edge	Face	Load Applied Parallel to Grain	Load Applied Perpendicular to Grain
0.46	0.50	0.50	0.55	0.50	0.58

NOTES:

1. The equivalent specific gravity for each connection type listed above is for standard load duration and shall be adjusted according to code.
2. Fastener spacing, end and edge distance shall be as specified by code except for nail spacing as specified below.
3. See details to right for fastener and applied load orientation.

FASTENER & LOAD ORIENTATION



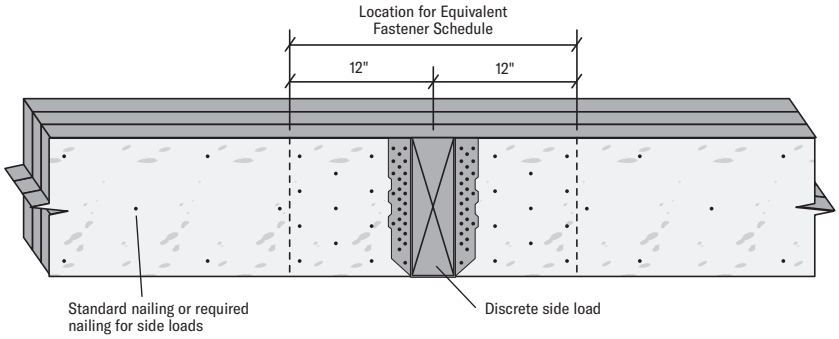
NAIL SPACING REQUIREMENTS

LSL Ply Thickness	Fastener Orientation	Nail Size (common or box)	Minimum End Distance	Minimum Nail Spacing per Row	
				Single Row	Multiple Row
≥ 1-1/2"	Edge[7]	8d & smaller	2"	3"	3"
		10d & 12d	2"	3"	4"
		16d[5]	2-1/2"	4"[4]	6"
	Face[8]	8d & smaller	7/8"	1"	
		10d & 12d	7/8"	1"	
		16d[5]	7/8"	1-1/2"	

NOTES:

1. Edge distance shall be such that does not cause splitting.
2. Multiple rows of nails shall be offset at least 1/2" and staggered, and equally spaced about the centerline of the edge or face (whichever applies).
3. Edge orientation refers to nails driven into the narrow edge of the LSL, parallel to the face of the strands. Face orientation refers to nails driven into the wide face of the LSL, perpendicular to the face of the strands. (See Fastener & Load Orientation details above.)
4. Nails listed are common wire nails.
5. 16d sinkers (3-1/4" x 0.148"Ø) can be spaced the same as the 10d and 12d nails.
6. For box nails, the spacing and end distance requirements of the next shorter common nail may be used (e.g., a 16d box nail may be spaced the same as a 10d or 12 common nail).
7. Nail penetration for edge nailing must not exceed 2" for 16d common nails (3-1/2" by 0.162" diameter) and 2-1/2" for all nails with a smaller shank diameter.
8. Minimum nail spacing for the face orientation is applicable to nails that are installed in rows that are parallel to the direction of the face grain (length) of the LSL. For nails driven into the face in rows that are perpendicular to the direction of the face grain (thickness/depth) of the LSL, the minimum nail spacing must be sufficient to prevent splitting of the wood.

SIDE-LOAD CONNECTION EXAMPLE



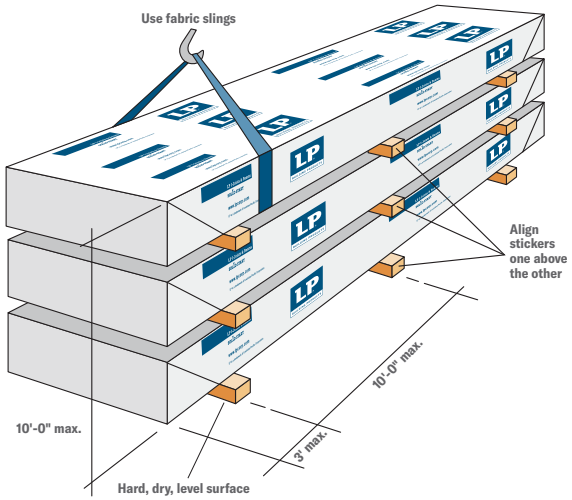
EXAMPLE: Assuming a properly designed 3-ply 14" beam, determine the equivalent connection to support a 3300 lb point load applied to the side of the beam.

SOLUTION:

1. Determine the equivalent PLF load over the 2' length by dividing the applied load by 2: 3300 lb / 2' = 1650 plf
2. Divide the equivalent PLF load by the capacity for the appropriate detail. For a 14" depth, 3 rows of nails are required. For Detail **B** with 3 rows of nails at 12" oc: 1650 plf / 464 plf = 3.6
3. The required total number of nails is: 3.6 * 3 rows of nails @ 12" oc = 10.8 nails per foot
4. Connect the front (loaded) ply with the nailing determined in step 3: drive 11 16d box nails within 12" to each side of the point load (a total of 22 nails). Verify nail spacing.
5. Connect the back ply with half the number of nails determined in step 4: drive 6 16d box nails, from the back, within 12" to each side of the point load (a total of 12 nails). Verify nail spacing.
6. Connect full length of member with the standard nailing or as required for side loads.
7. Project designer shall detail to prevent rotation of the beam due to the applied side load.

HANDLING & STORAGE GUIDELINES

- **WARNING:** Failure to follow proper procedures for handling, storage and installation could result in unsatisfactory performance, unsafe structures and possible collapse.
- Keep LP® SolidStart® LSL dry. These products are intended to resist the effects of moisture on structural performance from normal construction delays but are not intended for permanent exposure to the weather.
- 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.
- Keep products 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 a visually damaged product. Call your local LP SolidStart Engineered Wood Products distributor for assistance when damaged products are encountered.



- For satisfactory performance, LP SolidStart LSL must be used under dry, covered and well-ventilated interior conditions in which the equivalent moisture content in lumber will not exceed 16%.
- For built-up members, LP SolidStart LSL shall be dry before nailing or bolting to avoid trapping moisture.
- LP SolidStart I-Joists, LSL and LVL shall not be used for unintended purposes such as ramps and planks.

LP SolidStart LSL 1.35E
LP SolidStart LSL 1.55E
LP SolidStart LSL 1.75E

LP SolidStart LSL 1.35E, 1.55E and 1.75E are available in:

- Lengths up to 48'. Longer lengths may be available for 1-3/4" and 3-1/2" thicknesses.
- Thicknesses up to 3-1/2".
- Depths of 4-3/8," 5-1/2," 7-1/4," 9-1/4," 9-1/2," 11-1/4," 11-7/8," 14," 16" and 18". Not all depths are available in all grades.

Contact your local distributor for availability.

CODE EVALUATION

Code evaluation reports can be obtained at www.lpcorp.com

- ICC ESR 2403
- APA PR-L280
- Florida FL15228
- LA City RR-25783

For more information on the full line of LP SolidStart Engineered Wood Products or the nearest distributor, visit our web site at LPCorp.com.

Phone: 1-888-820-0325
E-mail: customer.support@LPCorp.com.

LP SolidStart Engineered Wood Products are manufactured at different locations in the United States and Canada.

SUSTAINABLE FORESTRY INITIATIVE
Good for you. Good for our forests.
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BV-SFICOC-US09000262

PEFC
PEFC/29-31-102

LP SolidStart® ENGINEERED WOOD

For product catalog & complete warranty details, visit LPCorp.com

Cal. Prop 65 Warning:

WARNING: Drilling, sawing, sanding or machining wood products can expose you to wood dust, a substance known to the State of California to cause cancer. Avoid inhaling wood dust or use a dust mask or other safeguards for personal protection. For more information go to www.P65Warnings.ca.gov.wood.

NOTE: Louisiana-Pacific Corporation periodically updates and revises its product information. To verify that this version is current, contact the nearest sales office, visit LPCorp.com, or call 1-888-820-0325.

LPEW0391 10/19 OS/ARGENT