

TJI[®] s31, TJI[®] s33, AND TJI[®] s47 JOISTS

Featuring Trus Joist[®] TJI[®] Joists made
in Canada



- Wide Nailing Surface
- Uniform and Predictable
- Lightweight for Fast Installation
- Resource Efficient
- Available in Long Lengths
- Limited Product Warranty





The products in this guide are readily available through our nationwide network of distributors and dealers. For more information on other applications or other Trus Joist® products, contact your Weyerhaeuser representative.

Code Evaluations:

CCMC 13132-R
(excluding 9½" TJI® s47 joists;)
CCRR 0222C

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Why Choose Trus Joist® TJI® Joists?

- Engineered for strength and consistency
- Efficient installation saves time and labor
- Longer lengths allow more versatile floor plans
- Less jobsite waste
- Fewer red tags and callbacks



Weyerhaeuser offers a series of joists made in Canada: Trus Joist® TJI® s31, s33 and s47 joists. These joists offer a wide nailing surface for fast installation and easy handling, and they provide the same guaranteed performance you've come to expect from Trus Joist® products.

TJI® s31, s33 and s47 joists are a resource-efficient building product and meet the requirements of NAHB's green-approved certificates.

This guide features TJI® joists in the following sizes:

Flange Widths: 2½" and 3½"

Depths: 9½", 11⅞", 14", 16", 18", and 20"

Some TJI® joist sizes may not be available in your region. Contact your Weyerhaeuser representative for information.

PRODUCT STORAGE



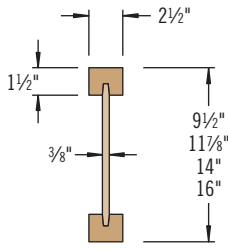
Protect product from sun and water

CAUTION:
Wrap is slippery when wet or icy

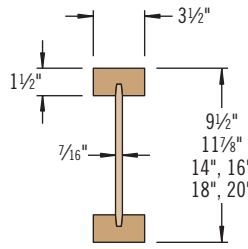
Align stickers (2x3 or larger) directly over support blocks

Use support blocks (6x6 or larger) at 10' on-center to keep bundles out of mud and water

DESIGN PROPERTIES



TJI® s31 and s33 joists



TJI® s47 joists

TJI® joists are intended for dry-use applications

Design Properties

Depth	TJI®	Joist Weight (lbs/ft)	Joist Only EI x 10 ⁶ (in. ² -lbs)	Factored Resistances—Standard Term							
				Maximum Resistive Moment ⁽¹⁾ (ft-lbs)	Maximum Vertical Shear (lbs)	1 3/4" End Reaction (lbs)		3 1/2" Intermediate Reaction (lbs)		5 1/4" Intermediate Reaction (lbs)	
						No Web Stiffeners	With Web Stiffeners ⁽²⁾	No Web Stiffeners	With Web Stiffeners ⁽²⁾	No Web Stiffeners	With Web Stiffeners ⁽²⁾
9 1/2"	s31	2.6	205	4,990	1,900	1,705	N.A.	4,350	N.A.	4,925	N.A.
	s33	2.6	242	6,325	1,900	1,705	N.A.	4,350	N.A.	4,925	N.A.
	s47	3.3	340	8,950	2,645	2,020	N.A.	4,355	N.A.	5,045	N.A.
11 7/8"	s31	2.9	348	6,310	2,415	1,895	2,410	4,350	4,865	5,025	5,545
	s33	2.9	411	8,195	2,415	1,895	2,410	4,350	4,865	5,025	5,545
	s47	3.6	574	11,590	3,040	2,020	2,710	4,355	5,045	5,045	5,730
14"	s31	3.1	511	7,470	2,875	1,895	2,410	4,350	4,865	5,025	5,545
	s33	3.1	602	9,865	2,875	1,895	2,410	4,350	4,865	5,025	5,545
	s47	3.8	840	13,960	3,355	2,020	2,710	4,765	5,455	5,345	6,030
16"	s31	3.4	696	8,550	3,260	1,895	2,410	4,350	4,865	5,025	5,545
	s33	3.4	818	11,440	3,260	1,895	2,410	4,350	4,865	5,025	5,545
	s47	4.0	1,140	16,190	3,680	2,020	2,710	5,050	5,740	5,605	6,290
18"	s47	4.3	1,489	18,305	4,000	2,020	2,710	5,050	5,740	5,675	6,360
20"	s47	4.5	1,889	20,260	4,325	2,020	2,710	5,050	5,740	5,675	6,360

(1) **Caution:** Do not increase joist moment design properties by a repetitive-member-use factor.

(2) See detail W on page 10 for web stiffener requirements and nailing information.

General Notes

- Factored resistances are based on Limit States Design per CSA O86.
- Factored reaction includes all loads on the joist.
- Factored shear is computed at the inside face of supports and includes all loads on the span(s). Factored shear resistance may sometimes be increased at interior supports. For more information contact your Weyerhaeuser representative.

- The following formulas approximate the simple span uniform load deflection of Δ (inches):

For TJI® s31 and s33 Joists

$$\Delta = \frac{22.5 wL^4}{EI} + \frac{2.67 wL^2}{d \times 10^5}$$

For TJI® s47 Joists

$$\Delta = \frac{22.5 wL^4}{EI} + \frac{2.29 wL^2}{d \times 10^5}$$

w = uniform load in pounds per linear foot

L = span in feet

d = out-to-out depth of the joist in inches

EI = value from table above



DO NOT walk on joists until braced.
INJURY MAY RESULT.



DO NOT stack building materials on unbraced joists. Stack only over beams or walls.



DO NOT walk on joists that are lying flat.

WARNING

Joists are unstable until braced laterally

Bracing Includes:

- Blocking
- Hangers
- Rim Board
- Sheathing
- Rim Joist
- Strut Lines

WARNING NOTES: Lack of proper bracing during construction can result in serious accidents. Observe the following guidelines:

- All blocking, hangers, rim boards, and rim joists at the end supports of the TJI® joists must be completely installed and properly nailed.
- Lateral strength, like a braced end wall or an existing deck, must be established at the ends of the bay. This can also be accomplished by a temporary or permanent deck (sheathing) fastened to the first 4 feet of joists at the end of the bay.
- Safety bracing of 1x4 (minimum) must be nailed to a braced end wall or sheathed area (as in note 2) and to each joist. Without this bracing, buckling sideways or rollover is highly probable under light construction loads—such as a worker or one layer of unnailed sheathing.
- Sheathing must be completely attached to each TJI® joist before additional loads can be placed on the system.
- Ends of cantilevers require safety bracing on both the top and bottom flanges.
- The flanges must remain straight within a tolerance of 1/2" from true alignment.

TJ-PRO™ RATING AND FLOOR PERFORMANCE

A poor performing floor can harm a builder's image, compromise build efficiency, and cost money—**regardless of demographic.** That's why we developed TJ-Pro Rating. For over 50 years builders have looked to the Trus Joist name for guidance on floor performance, and our decades of proven success with TJ-Pro Rating is one of the biggest reasons why.

How TJ-Pro Rating Works:

Point values up to 65 are assigned using complex algorithms based on field and laboratory research conducted on over 600 floor system assemblies. It also factors in the variables listed under **Key Factors Affecting Performance** shown on page 5. Ranges can then be regularly correlated to performance expectations for the builder demographics listed below.



Entry-Level

Much of the focus in this demographic revolves around **Economy** (cost) and **Efficiency** concerns. Every dollar counts and cash conversion cycles are monitored closely so there is usually pressure around the construction schedule. TJ-Pro Rating is used in this market to make sure builders are not “overbuilders” by keeping the floor performance “in-check”.



Move-Up / Mid-Level

Builders in this demographic are generally driven by **Efficiency** and **Image**. With constant changes to remain “fresh” and competitive, floor plans can be numerous and contain many options. Use TJ-Pro Rating to maintain consistency in floor feel across the base-model plan, all available options, throughout your subdivisions, and across your business.



High-End Luxury

Decision-drivers for builders in this demographic generally revolves around **Image** and **Efficiency**. In our experience, homeowners in this category expect point values of 45 and greater. Only TJ-Pro Rating can validate that your quality and your brand are not being compromised through changes in floor system design. If you look to improve efficiency by using different assemblies, make sure your TJ-Pro Rating remains relatively consistent.

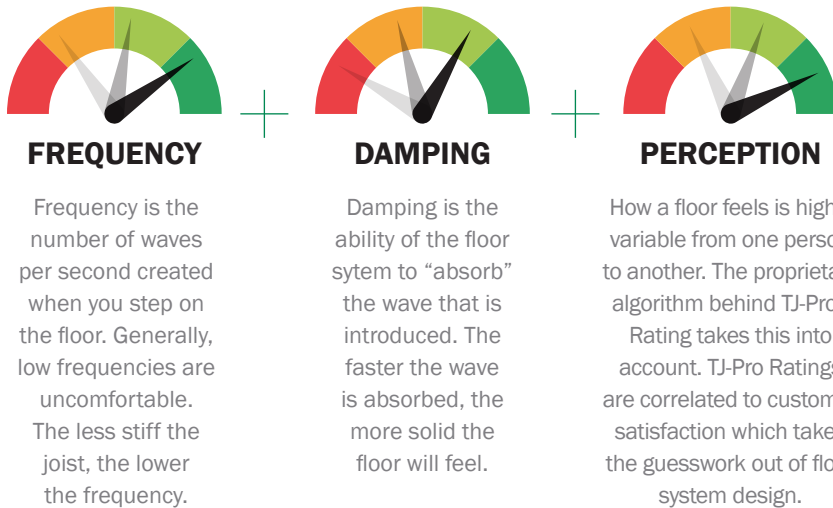


Enhanced Options

Builder sales teams may be able to address a buyer's previous dissatisfaction with underperforming floor systems by offering upgrades, particularly in competitive subdivisions. Use base models with standard floor systems (and performance) to compete but consider an "improved floor option" to both create up-sell opportunities and address those homeowners who may be more sensitive to floor feel than most.

BY THE NUMBERS

Today's consumer understands technology. Explain how your business utilizes the industry's leading design tool that goes beyond the building codes' static deflection and looks at the entire floor system.



At 45 points, customer satisfaction is 84%. At 65 points, it's nearly 100%.



Key Factors Affecting Performance

- **Basic Stiffness** is a combination of joist depths and span.
- **Composite Action**—Careful nailing in conjunction with construction adhesives increases basic stiffness.
- **Continuity**—Continuous joists over several supports generally perform better than simple spans. Care must be taken if the joists continue into another occupancy.
- **Joist Spacing and Deck Stiffness**—Reduced spacing or increased deck thickness generally improves floor performance.
- **Ceilings** directly applied to the bottom edge of the floor members, or equivalent 1x or 2x strapping, is a performance enhancement.
- **Beams**—Floor systems supported by steel or wood beams tend to feel less stiff than those supported by solid bearing walls.
- **Bridging or Blocking** can be a contributor to improved floor performance.
- **Non-bearing Partition Walls** dampen vibration and improve floor performance when installed transverse to the floor joists.
- **Mass** reduces damping in a floor system causing a decrease in floor performance. This impact is more noticeable as span lengths increase.

TJ-Pro Rating is featured in these design software platforms.



Autodesk® Revit® linked to Forte®

VIBRATION CONTROLLED FLOOR SPAN TABLES (STANDARD TERM)

40 PSF Live, 15 PSF Dead Load

5/8" OSB Subfloor (Glue-nailed)													
Depth	TJI®	Directly Applied Ceiling						No Directly Applied Ceiling					
		Simple or Continuous Span			Continuous Span Only			Simple or Continuous Span			Continuous Span Only		
		12" o.c.	16" o.c.	19.2" o.c.	12" o.c.	16" o.c.	19.2" o.c.	12" o.c.	16" o.c.	19.2" o.c.	12" o.c.	16" o.c.	19.2" o.c.
9 1/2"	s31	16'-4"	15'-5"	14'-11"	17'-9"	16'-9"	16'-2"	15'-11"	15'-0"	14'-6"	17'-3"	16'-3"	15'-9"
	s33	16'-9"	15'-10"	15'-3"	18'-3"	17'-2"	16'-7"	16'-4"	15'-5"	14'-11"	17'-9"	16'-9"	16'-2"
	s47	17'-9"	16'-9"	16'-2"	19'-8"	18'-3"	17'-6"	17'-5"	16'-5"	15'-10"	19'-2"	17'-9"	17'-2"
11 1/8"	s31	18'-5"	17'-4"	16'-9"	20'-6"	19'-0"	18'-3"	17'-10"	16'-10"	16'-3"	19'-9"	18'-4"	17'-7"
	s33	19'-1"	17'-9"	17'-2"	21'-2"	19'-8"	18'-10"	18'-6"	17'-3"	16'-8"	20'-5"	18'-11"	18'-2"
	s47	20'-6"	19'-0"	18'-2"	22'-9"	21'-1"	20'-2"	20'-0"	18'-5"	17'-8"	22'-2"	20'-5"	19'-7"
14"	s31	20'-6"	19'-1"	18'-3"	22'-9"	21'-2"	20'-3"	19'-10"	18'-4"	17'-8"	21'-11"	20'-4"	19'-5"
	s33	21'-3"	19'-8"	18'-10"	23'-6"	21'-10"	20'-11"	20'-6"	19'-0"	18'-2"	22'-9"	21'-1"	20'-1"
	s47	22'-10"	21'-2"	20'-2"	25'-4"	23'-5"	22'-5"	22'-2"	20'-6"	19'-7"	24'-7"	22'-9"	21'-8"
16"	s31	22'-5"	20'-9"	19'-11"	24'-10"	23'-1"	22'-1"	21'-7"	20'-0"	19'-1"	23'-11"	22'-2"	21'-2"
	s33	23'-1"	21'-5"	20'-6"	25'-7"	23'-10"	22'-9"	22'-4"	20'-8"	19'-9"	24'-9"	22'-11"	21'-11"
	s47	24'-11"	23'-0"	22'-0"	27'-7"	25'-7"	24'-5"	24'-2"	22'-4"	21'-4"	26'-10"	24'-9"	23'-7"
18"	s47	26'-10"	24'-10"	23'-8"	29'-9"	27'-6"	26'-4"	26'-1"	24'-1"	22'-11"	28'-11"	26'-8"	25'-5"
20"	s47	28'-8"	26'-6"	25'-4"	31'-10"	29'-5"	28'-1"	27'-10"	25'-8"	24'-6"	30'-11"	28'-6"	27'-2"

3/4" OSB Subfloor (Glue-nailed)																	
Depth	TJI®	Directly Applied Ceiling								No Directly Applied Ceiling							
		Simple or Continuous Span				Continuous Span Only				Simple or Continuous Span			Continuous Span Only				
		12" o.c.	16" o.c.	19.2" o.c.	24" o.c.	12" o.c.	16" o.c.	19.2" o.c.	24" o.c.	12" o.c.	16" o.c.	19.2" o.c.	24" o.c.	12" o.c.	16" o.c.	19.2" o.c.	24" o.c.
9 1/2"	s31	17'-2"	16'-3"	15'-8"	14'-11"	18'-10"	17'-7"	17'-0"	15'-9"	16'-9"	15'-10"	15'-3"	14'-7"	18'-3"	17'-1"	16'-6"	15'-9"
	s33	17'-8"	16'-7"	16'-0"	15'-4"	19'-5"	18'-1"	17'-5"	16'-8"	17'-3"	16'-3"	15'-8"	15'-0"	18'-11"	17'-7"	16'-11"	16'-3"
	s47	18'-10"	17'-7"	16'-11"	16'-2"	20'-11"	19'-5"	18'-6"	17'-7"	18'-5"	17'-3"	16'-7"	15'-11"	20'-5"	18'-11"	18'-0"	17'-3"
11 1/8"	s31	19'-8"	18'-3"	17'-6"	16'-10"	21'-9"	20'-3"	19'-4"	17'-9"	19'-0"	17'-8"	17'-1"	16'-4"	21'-0"	19'-6"	18'-7"	17'-8"
	s33	20'-3"	18'-10"	17'-11"	17'-2"	22'-6"	20'-11"	19'-11"	18'-11"	19'-9"	18'-3"	17'-6"	16'-9"	21'-10"	20'-2"	19'-3"	18'-3"
	s47	21'-10"	20'-2"	19'-3"	18'-2"	24'-2"	22'-5"	21'-4"	20'-2"	21'-3"	19'-8"	18'-9"	17'-9"	23'-7"	21'-10"	20'-9"	19'-8"
14"	s31	21'-10"	20'-3"	19'-4"	18'-4"	24'-2"	22'-6"	21'-6"	19'-4"	21'-2"	19'-7"	18'-8"	17'-9"	23'-5"	21'-8"	20'-8"	19'-4"
	s33	22'-7"	20'-11"	19'-11"	18'-11"	25'-0"	23'-3"	22'-2"	21'-0"	21'-11"	20'-3"	19'-4"	18'-3"	24'-3"	22'-5"	21'-4"	20'-3"
	s47	24'-3"	22'-5"	21'-4"	20'-3"	26'-10"	24'-11"	23'-9"	22'-5"	23'-8"	21'-10"	20'-9"	19'-8"	26'-2"	24'-2"	23'-0"	21'-9"
16"	s31	23'-9"	22'-1"	21'-1"	20'-0"	26'-4"	24'-6"	23'-2"	20'-8"	23'-0"	21'-4"	20'-4"	19'-3"	25'-5"	23'-7"	22'-6"	20'-8"
	s33	24'-7"	22'-9"	21'-9"	20'-7"	27'-2"	25'-3"	24'-1"	22'-10" (1)	23'-10"	22'-1"	21'-0"	19'-10"	26'-4"	24'-5"	23'-3"	22'-0" (1)
	s47	26'-5"	24'-5"	23'-3"	22'-0"	29'-3"	27'-1"	25'-10"	24'-5"	25'-9"	23'-9"	22'-7"	21'-4"	28'-6"	26'-4"	25'-1"	23'-8"
18"	s47	28'-5"	26'-4"	25'-1"	23'-9"	31'-6"	29'-2"	27'-10"	26'-4" (1)	27'-9"	25'-7"	24'-4"	23'-0"	30'-9"	28'-5"	27'-0"	25'-6"
20"	s47	30'-5"	28'-2"	26'-10"	25'-4"	34'-1"	31'-3"	29'-9"	28'-2" (1)	29'-8"	27'-5"	26'-0"	24'-7"	32'-11"	30'-4"	28'-10"	27'-3" (1)

(1) Web stiffeners are required at intermediate supports of continuous-span joists when the intermediate bearing length is less than 5/4" and the span on either side of the intermediate bearing is greater than the following spans:

TJI®	Depth	12" o.c.	16" o.c.	19.2" o.c.	24" o.c.
s31	All	Not Required			
s33	All	21'-11"			
s47	9 1/2"-14"	Not Required			
	16"-20"	25'-6"			

▪ **Bold italic** spans indicate floors that would meet National Building Code of Canada (NBCC) vibration criteria but would be considered by 35% of the population to have marginal or unacceptable performance.

To more accurately predict floor performance, use our TJ-Pro™ Ratings

How to Use These Tables

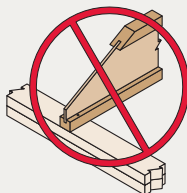
1. Determine the applicable live and dead loads, and the subflooring thickness.
2. Determine whether the ceiling will be directly applied and what the span condition is (simple or continuous).
3. Select on-centre spacing.
4. Scan down the column until you meet or exceed the span of your application.
5. Select TJI® joist and depth.

See page 7 for General Notes

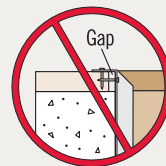
These Conditions Are NOT Permitted:



DO NOT use sawn lumber for rim board or blocking as it may shrink after installation. Use only engineered lumber.



DO NOT bevel cut joist beyond inside face of wall.



DO NOT install hanger overhanging face of plate or beam. Flush bearing plate with inside face of wall or beam.

VIBRATION CONTROLLED FLOOR SPAN TABLES (STANDARD TERM)

40 PSF Live, 25 PSF Dead Load

5/8" OSB Subfloor (Glue-nailed)													
Depth	TJI®	Directly Applied Ceiling						No Directly Applied Ceiling					
		Simple or Continuous Span			Continuous Span Only			Simple or Continuous Span			Continuous Span Only		
		12" o.c.	16" o.c.	19.2" o.c.	12" o.c.	16" o.c.	19.2" o.c.	12" o.c.	16" o.c.	19.2" o.c.	12" o.c.	16" o.c.	19.2" o.c.
9 1/2"	s31	16'-4"	15'-5"	14'-11"	17'-9"	16'-9"	16'-2"	15'-11"	15'-0"	14'-6"	17'-3"	16'-3"	15'-9"
	s33	16'-9"	15'-10"	15'-3"	18'-3"	17'-2"	16'-7"	16'-4"	15'-5"	14'-11"	17'-9"	16'-9"	16'-2"
	s47	17'-9"	16'-9"	16'-2"	19'-8"	18'-3"	17'-6"	17'-5"	16'-5"	15'-10"	19'-2"	17'-9"	17'-2"
11 1/8"	s31	18'-5"	17'-4"	16'-9"	20'-6"	19'-0"	18'-3"	17'-10"	16'-10"	16'-3"	19'-9"	18'-4"	17'-7"
	s33	19'-1"	17'-9"	17'-2"	21'-2"	19'-8"	18'-10"	18'-6"	17'-3"	16'-8"	20'-5"	18'-11"	18'-2"
	s47	20'-6"	19'-0"	18'-2"	22'-9"	21'-1"	20'-2"	20'-0"	18'-5"	17'-8"	22'-2"	20'-5"	19'-7"
14"	s31	20'-6"	19'-1"	18'-3"	22'-9"	21'-2"	20'-1"	19'-10"	18'-4"	17'-8"	21'-11"	20'-4"	19'-5"
	s33	21'-3"	19'-8"	18'-10"	23'-6"	21'-10"	20'-11"	20'-6"	19'-0"	18'-2"	22'-9"	21'-1"	20'-1"
	s47	22'-10"	21'-2"	20'-2"	25'-4"	23'-5"	22'-5"	22'-2"	20'-6"	19'-7"	24'-7"	22'-9"	21'-8"
16"	s31	22'-5"	20'-9"	19'-11"	24'-10"	23'-1"	21'-6"	21'-7"	20'-0"	19'-1"	23'-11"	22'-2"	21'-2"
	s33	23'-1"	21'-5"	20'-6"	25'-7"	23'-10"	22'-9"	22'-4"	20'-8"	19'-9"	24'-9"	22'-11"	21'-11"
	s47	24'-11"	23'-0"	22'-0"	27'-7"	25'-7"	24'-5"	24'-2"	22'-4"	21'-4"	26'-10"	24'-9"	23'-7"
18"	s47	26'-10"	24'-10"	23'-8"	29'-9"	27'-6"	26'-4"	26'-1"	24'-1"	22'-11"	28'-11"	26'-8"	25'-5"
20"	s47	28'-8"	26'-6"	25'-4"	31'-10"	29'-5"	28'-1 ⁽¹⁾	27'-10"	25'-8"	24'-6"	30'-11"	28'-6"	27'-2"

3/4" OSB Subfloor (Glue-nailed)																	
Depth	TJI®	Directly Applied Ceiling								No Directly Applied Ceiling							
		Simple or Continuous Span				Continuous Span Only				Simple or Continuous Span				Continuous Span Only			
		12" o.c.	16" o.c.	19.2" o.c.	24" o.c.	12" o.c.	16" o.c.	19.2" o.c.	24" o.c.	12" o.c.	16" o.c.	19.2" o.c.	24" o.c.	12" o.c.	16" o.c.	19.2" o.c.	24" o.c.
9 1/2"	s31	17'-2"	16'-3"	15'-8"	14'-8"	18'-10"	17'-7"	16'-5"	14'-8"	16'-9"	15'-10"	15'-3"	14'-7"	18'-3"	17'-1"	16'-5"	14'-8"
	s33	17'-8"	16'-7"	16'-0"	15'-4"	19'-5"	18'-1"	17'-5"	16'-6"	17'-3"	16'-3"	15'-8"	15'-0"	18'-11"	17'-7"	16'-11"	16'-3"
	s47	18'-10"	17'-7"	16'-11"	16'-2"	20'-11"	19'-5"	18'-6"	17'-7"	18'-5"	17'-3"	16'-7"	15'-11"	20'-5"	18'-11"	18'-0"	17'-3"
11 1/8"	s31	19'-8"	18'-3"	17'-6"	16'-6"	21'-9"	20'-3"	18'-5"	16'-6"	19'-0"	17'-8"	17'-1"	16'-4"	19'-6"	18'-5"	18'-5"	16'-6"
	s33	20'-3"	18'-10"	17'-11"	17'-2"	22'-6"	20'-11"	19'-11"	18'-10"	19'-9"	18'-3"	17'-6"	16'-9"	21'-10"	20'-2"	19'-3"	18'-3"
	s47	21'-10"	20'-2"	19'-3"	18'-2"	24'-2"	22'-5"	21'-4"	20'-2 ⁽¹⁾	21'-3"	19'-8"	18'-9"	17'-9"	23'-7"	21'-10"	20'-9"	19'-8⁽¹⁾
14"	s31	21'-10"	20'-3"	19'-4"	17'-11"	24'-2"	22'-0"	20'-1"	17'-11"	21'-2"	19'-7"	18'-8"	17'-9"	23'-5"	21'-8"	20'-1"	17'-11"
	s33	22'-7"	20'-11"	19'-11"	18'-11"	25'-0"	23'-3"	22'-2"	20'-8 ⁽¹⁾	21'-11"	20'-3"	19'-4"	18'-3"	24'-3"	22'-5"	21'-4"	20'-3⁽¹⁾
	s47	24'-3"	22'-5"	21'-4"	20'-3"	26'-10"	24'-11"	23'-9"	22'-5 ⁽¹⁾	23'-8"	21'-10"	20'-9"	19'-8"	26'-2"	24'-2"	23'-0"	21'-9⁽¹⁾
16"	s31	23'-9"	22'-1"	21'-1"	19'-3 ⁽¹⁾	26'-4"	23'-7"	21'-6"	19'-3 ⁽¹⁾	23'-0"	21'-4"	20'-4"	19'-3 ⁽¹⁾	25'-5"	23'-7"	21'-6"	19'-3 ⁽¹⁾
	s33	24'-7"	22'-9"	21'-9"	20'-7 ⁽¹⁾	27'-2"	25'-3"	24'-1 ⁽¹⁾	21'-2 ⁽¹⁾	23'-10"	22'-1"	21'-0"	19'-10 ⁽¹⁾	26'-4"	24'-5"	23'-3"	21'-2 ⁽¹⁾
	s47	26'-5"	24'-5"	23'-3"	22'-0"	29'-3"	27'-1"	25'-10"	24'-5⁽¹⁾	25'-9"	23'-9"	22'-7"	21'-4"	28'-6"	26'-4"	25'-1"	23'-8⁽¹⁾
18"	s47	28'-5"	26'-4"	25'-1"	22'-0"	31'-6"	29'-2"	27'-10 ⁽¹⁾	24'-9 ⁽¹⁾	27'-9"	25'-7"	24'-4"	22'-0"	30'-9"	28'-5"	27'-0"	24'-9⁽¹⁾
20"	s47	30'-5"	28'-2"	26'-10"	22'-0"	34'-1"	31'-3"	29'-9 ⁽¹⁾	24'-9 ⁽¹⁾	29'-8"	27'-5"	26'-0"	22'-0"	32'-11"	30'-4"	28'-10⁽¹⁾	24'-9 ⁽¹⁾

(1) Web stiffeners are required at intermediate supports of continuous-span joists when the intermediate bearing length is **less** than 5 1/4" and the span on either side of the intermediate bearing is greater than the following spans:

TJI®	Depth	12" o.c.	16" o.c.	19.2" o.c.	24" o.c.
s31	All			Not Required	18'-11"
s33	All			23'-8"	18'-11"
s47	9 1/2"			Not Required	
	11 1/8"	Not Required		Not Required	18'-11"
	14"			Not Required	20'-9"
	16"			Not Required	22'-0"
	18"-20"			27'-6"	22'-0"

▪ **Bold italic** spans indicate floors that would meet National Building Code of Canada (NBCC) vibration criteria but would be considered by 35% of the population to have marginal or unacceptable performance.

To more accurately predict floor performance, use our TJ-Pro™ Ratings

General Notes

- Tables are based on:
 - Clear distance between supports.
 - Minimum bearing length of 1 3/4" end (no web stiffeners) and 3 1/2" intermediate.
 - Limit States Design per CSA O86.
 - Uniform loads.
 - Single layer of appropriate span-rated OSB.
 - NBCC vibration criteria as ratified by Canadian Construction Materials Centre (CCMC).
- Long term deflection under dead load, which includes the effect of creep, has not been considered.
- For continuous spans, ratio of short span to long span should be 0.4 or greater to prevent uplift.
- Spans generated from Weyerhaeuser software may exceed the spans shown in these tables because software reflects actual design conditions.
- For multi-family applications and other loading conditions not shown, refer to Weyerhaeuser software.

See page 6 for information on how to use these tables

VIBRATION CONTROLLED FLOOR SPAN TABLES (STANDARD TERM)

40 PSF Live, 15 PSF Dead Load

¾" OSB Subfloor (Glue-nailed)																	
Depth	TJI®	Directly Applied Ceiling								No Directly Applied Ceiling							
		Simple or Continuous Span				Continuous Span Only				Simple or Continuous Span				Continuous Span Only			
		12" o.c.	16" o.c.	19.2" o.c.	24" o.c.	12" o.c.	16" o.c.	19.2" o.c.	24" o.c.	12" o.c.	16" o.c.	19.2" o.c.	24" o.c.	12" o.c.	16" o.c.	19.2" o.c.	24" o.c.
9½"	s31	17'-11"	16'-11"	16'-2"	14'-11"	19'-10"	18'-6"	17'-8"	15'-9"	17'-6"	16'-6"	15'-11"	14'-11"	19'-3"	17'-11"	17'-3"	15'-9"
	s33	18'-6"	17'-4"	16'-9"	15'-9"	20'-6"	19'-1"	18'-2"	17'-4"	18'-0"	17'-0"	16'-4"	15'-7"	19'-11"	18'-6"	17'-8"	16'-11"
	s47	19'-10"	18'-5"	17'-8"	16'-10"	22'-0"	20'-5"	19'-6"	18'-4"	19'-5"	18'-0"	17'-4"	16'-6"	21'-6"	19'-11"	19'-0"	17'-11"
11½"	s31	20'-8"	19'-3"	18'-5"	17'-6"	22'-11"	21'-4"	19'-10"	17'-9"	20'-1"	18'-8"	17'-10"	17'-0"	22'-2"	20'-7"	19'-8"	17'-9"
	s33	21'-4"	19'-11"	18'-11"	17'-11"	23'-8"	22'-0"	21'-0"	19'-10"	20'-10"	19'-4"	18'-4"	17'-5"	23'-0"	21'-4"	20'-4"	19'-2"
14"	s47	22'-11"	21'-3"	20'-3"	19'-1"	25'-5"	23'-7"	22'-6"	21'-2"	22'-5"	20'-9"	19'-9"	18'-7"	24'-10"	23'-0"	21'-11"	20'-7"
	s31	23'-0"	21'-5"	20'-5"	19'-3"	25'-5"	23'-9"	21'-8"	19'-4"	22'-4"	20'-8"	19'-8"	18'-7"	24'-8"	22'-11"	21'-8"	19'-4"
	s33	23'-9"	22'-1"	21'-1"	19'-10"	26'-3"	24'-6"	23'-4"	22'-0" ⁽¹⁾	23'-1"	21'-5"	20'-4"	19'-2"	25'-6"	23'-8"	22'-7"	21'-3"
16"	s47	25'-6"	23'-8"	22'-6"	21'-3"	28'-2"	26'-3"	25'-0"	23'-7"	24'-11"	23'-1"	21'-11"	20'-8"	27'-7"	25'-7"	24'-3"	22'-10"
	s31	25'-0"	23'-4"	22'-3"	20'-8"	27'-8"	25'-5"	23'-2"	20'-8"	24'-3"	22'-6"	21'-5"	20'-3"	26'-10"	24'-11"	23'-2"	20'-8"
	s33	25'-10"	24'-1"	22'-11"	21'-7"	28'-7"	26'-8"	25'-5"	24'-0" ⁽¹⁾	25'-1"	23'-3"	22'-2"	20'-10"	27'-9"	25'-9"	24'-6"	23'-1" ⁽¹⁾
18"	s47	27'-9"	25'-9"	24'-6"	23'-1"	30'-8"	28'-6"	27'-2"	25'-8" ⁽¹⁾	27'-1"	25'-1"	23'-10"	22'-5"	30'-0"	27'-10"	26'-5"	24'-10"
	s31	29'-10"	27'-9"	26'-5"	24'-11"	33'-3"	30'-9"	29'-3"	27'-7" ⁽¹⁾	29'-3"	27'-0"	25'-8"	24'-2"	32'-4"	29'-11"	28'-5"	26'-9" ⁽¹⁾
20"	s47	31'-11"	29'-8"	28'-3"	25'-6"	36'-3"	32'-11"	31'-4"	28'-8" ⁽¹⁾	31'-3"	28'-11"	27'-5"	25'-6"	35'-2"	32'-0"	30'-5"	28'-7" ⁽¹⁾

(1) Web stiffeners are required at intermediate supports of continuous-span joists when the intermediate bearing length is **less than 5¼"** and the span on either side of the intermediate bearing is greater than the following spans:

▪ **Bold italic** spans indicate floors that would meet National Building Code of Canada (NBCC) vibration criteria but would be considered by 35% of the population to have marginal or unacceptable performance.

TJI®	Depth	12" o.c.	16" o.c.	19.2" o.c.	24" o.c.
s31	All	Not Required			
s33	All	Not Required			21'-11"
s47	9½"-14"	Not Required			
	16"-20"	Not Required			25'-6"

40 PSF Live, 25 PSF Dead Load⁽²⁾

¾" OSB Subfloor (Glue-nailed)																	
Depth	TJI®	Directly Applied Ceiling								No Directly Applied Ceiling							
		Simple or Continuous Span				Continuous Span Only				Simple or Continuous Span				Continuous Span Only			
		12" o.c.	16" o.c.	19.2" o.c.	24" o.c.	12" o.c.	16" o.c.	19.2" o.c.	24" o.c.	12" o.c.	16" o.c.	19.2" o.c.	24" o.c.	12" o.c.	16" o.c.	19.2" o.c.	24" o.c.
9½"	s31	17'-3"	15'-9"	14'-10"	13'-9"	18'-11"	17'-4"	16'-4"	14'-8"	17'-3"	15'-9"	14'-10"	13'-9"	18'-11"	17'-4"	16'-4"	14'-8"
	s33	18'-1"	16'-5"	15'-6"	14'-5"	19'-10"	18'-1"	17'-1"	15'-10"	18'-0"	16'-5"	15'-6"	14'-5"	19'-10"	18'-1"	17'-1"	15'-10"
	s47	19'-10"	18'-3"	17'-2"	15'-11"	22'-0"	20'-1"	18'-11"	17'-7"	19'-5"	18'-0"	17'-2"	15'-11"	21'-6"	19'-11"	18'-11"	17'-7"
11½"	s31	20'-6"	18'-8"	17'-7"	16'-5"	22'-6"	20'-3"	18'-5"	16'-6"	20'-1"	18'-8"	17'-7"	16'-5"	22'-2"	20'-3"	18'-5"	16'-6"
	s33	21'-4"	19'-7"	18'-5"	17'-2"	23'-8"	21'-6"	20'-4"	18'-10"	20'-10"	19'-4"	18'-4"	17'-2"	23'-0"	21'-4"	20'-4"	18'-10"
14"	s47	22'-11"	21'-3"	20'-3"	18'-11" ⁽¹⁾	25'-5"	23'-7"	22'-5"	20'-10" ⁽¹⁾	22'-5"	20'-9"	19'-9"	18'-7"	24'-10"	23'-0"	21'-11"	20'-7" ⁽¹⁾
	s31	23'-0"	21'-2"	20'-0"	17'-11"	25'-5"	22'-0"	20'-1"	17'-11"	22'-4"	20'-8"	19'-8"	17'-11"	24'-8"	22'-0"	20'-1"	17'-11"
	s33	23'-9"	22'-1"	20'-11"	19'-5" ⁽¹⁾	26'-3"	24'-5"	23'-0"	20'-8" ⁽¹⁾	23'-1"	21'-5"	20'-4"	19'-2" ⁽¹⁾	25'-6"	23'-8"	22'-7"	20'-8" ⁽¹⁾
16"	s47	25'-6"	23'-8"	22'-6"	21'-3" ⁽¹⁾	28'-2"	26'-3"	25'-0"	23'-3" ⁽¹⁾	24'-11"	23'-1"	21'-11"	20'-8"	27'-7"	25'-7"	24'-3"	22'-10" ⁽¹⁾
	s31	25'-0"	23'-4"	21'-6"	19'-3" ⁽¹⁾	27'-3"	23'-7"	21'-6"	19'-3" ⁽¹⁾	24'-3"	22'-6"	21'-5"	19'-3" ⁽¹⁾	26'-10"	23'-7"	21'-6"	19'-3" ⁽¹⁾
	s33	25'-10"	24'-0"	22'-11"	20'-7" ⁽¹⁾	28'-7"	26'-8"	24'-11" ⁽¹⁾	21'-2" ⁽¹⁾	25'-1"	23'-3"	22'-2"	20'-7" ⁽¹⁾	27'-9"	25'-9"	24'-6" ⁽¹⁾	21'-2" ⁽¹⁾
18"	s47	27'-9"	25'-9"	24'-6"	22'-0"	30'-8"	28'-6"	27'-2"	24'-5" ⁽¹⁾	27'-1"	25'-1"	23'-10"	22'-0"	30'-0"	27'-10"	26'-5"	24'-5" ⁽¹⁾
	s31	29'-10"	27'-9"	26'-5"	22'-0"	33'-3"	30'-9"	29'-3" ⁽¹⁾	24'-9" ⁽¹⁾	29'-3"	27'-0"	25'-8"	22'-0"	32'-4"	29'-11"	28'-5" ⁽¹⁾	24'-9" ⁽¹⁾
20"	s47	31'-11"	29'-8"	27'-6"	22'-0"	36'-3"	32'-11"	30'-11" ⁽¹⁾	24'-9" ⁽¹⁾	31'-3"	28'-11"	27'-5"	22'-0"	35'-2"	32'-0"	30'-5" ⁽¹⁾	24'-9" ⁽¹⁾

(1) Web stiffeners are required at intermediate supports of continuous-span joists when the intermediate bearing length is **less than 5¼"** and the span on either side of the intermediate bearing is greater than the following spans:

▪ **Bold italic** spans indicate floors that would meet National Building Code of Canada (NBCC) vibration criteria but would be considered by 35% of the population to have marginal or unacceptable performance.

TJI®	Depth	12" o.c.	16" o.c.	19.2" o.c.	24" o.c.
s31	All	Not Required			
s33	All	Not Required			23'-8"
	9½"	Not Required			
s47	11½"	Not Required			18'-11"
	14"	Not Required			20'-9"
	16"-20"	Not Required			27'-6"

(2) Based on deflection criteria of L/360 total load and L/480 live load for ceramic tile applications.

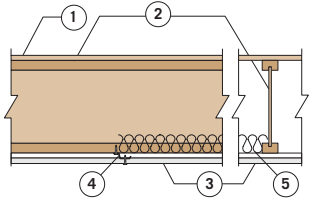
To more accurately predict floor performance, use our TJ-Pro™ Ratings

See pages 6 and 7 for General Notes and information on how to use these tables

FIRE-SAFE CONSTRUCTION

For over 40 years, prefabricated wood I-joists and other Weyerhaeuser building products have established a record of safe and reliable performance in millions of structures. Many of these structures, such as one- or two-family residential dwellings, do not require specific fire-resistance ratings per building codes but may require unrated membrane protection. The information below is intended to help you specify and install Trus Joist® products with fire safety in mind.

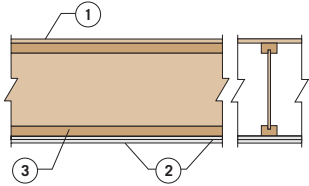
Suggested Minimum Membrane Protection for Unrated Construction



Weyerhaeuser supports the idea that all floor/ceiling and roof/ceiling assemblies in habitable areas be protected by a minimum membrane protection consisting of ½" gypsum board (or equivalent)

1. 48/24 tongue-and-groove, span-rated sheathing (Exposure 1)
2. TJI® joist
3. Single-layer of ½", unrated gypsum board
4. Resilient channels at 16" on-centre (optional)
5. **Optional when used with resilient channels:** Minimum 3½"-thick glass fibre insulation or non-combustible insulation that is rated R-30 or less

One-Hour Assembly for Rated Construction



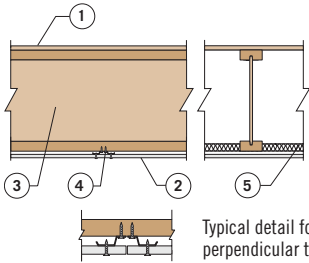
1. 48/24 tongue-and-groove, span-rated sheathing (Exposure 1), glued with a subfloor adhesive and nailed
2. Two layers of ½" Type C gypsum board or two layers ⅝" Type X gypsum board
3. TJI® joist

Optional when used with resilient channels (not shown): 3½"-thick glass fibre insulation or non-combustible insulation.

Note: Resilient channels (with optional insulation) may be installed between the joists and gypsum board if improved STC and IIC sound ratings are desired.

Intertek listing WNR FCA 60-01 (no channels), WNR FCA 60-03 (with channels)

One-Hour Assembly



1. 48/24 tongue-and-groove, span-rated sheathing (Exposure 1), glued with a subfloor adhesive and nailed.
2. ⅝" Type C gypsum board
3. TJI® joist with a minimum depth of 9½" and a minimum flange size of 1½" thick x 3½" wide, spaced at 24" on-centre.
4. Resilient channel at 16" on-centre
5. 1½"-thick (2.5 pcf minimum) mineral wool batts.

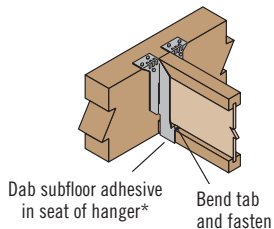
Intertek listing WNR FCA 60-07

For more information on fire assemblies and fire-safe construction, please refer to the Weyerhaeuser Fire-Rated Assemblies and Sprinkler Systems Guide, TJ-1500, or visit weyerhaeuser.com/woodproducts.

TIPS FOR PREVENTING FLOOR NOISE

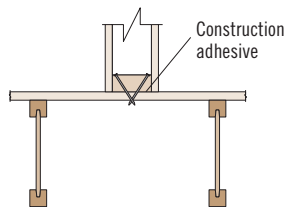
Trus Joist® TJI® joists are structurally uniform and dimensionally stable, and they resist shrinking and twisting. This helps prevent gaps from forming around the nails between the joist and the floor panels—gaps that can potentially cause squeaks or other floor noise. Using TJI® joists can help you build a quieter floor, but only if the entire floor system is installed properly. This is because other components of the floor system, such as hangers, connectors, and nails can be a source of floor noise.

Properly Seat Each Joist in Hanger



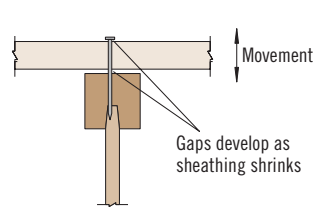
Seat the joist tight to the bottom of the hanger. When using hangers with tabs, bend the flange tabs over and nail to the TJI® joist bottom flange. Placing a dab of subfloor adhesive in the seat of the hanger prior to installing the joist can reduce squeaks.*

Use Adhesive and Special Nailing When Needed



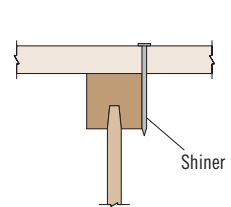
Nail interior partitions to the joists when possible. If the wall can be nailed only to the floor panel, run a bead of adhesive under the wall and either cross nail, nail through and clinch tight, or screw tightly into the wall from below.*

Prevent Shrinkage



Keep building materials dry, and properly glue floor panels to the joists. Panels that become excessively wet during construction shrink as they dry. This shrinkage may leave gaps that allow the panel to move when stepped on.

Avoid "Shiners"



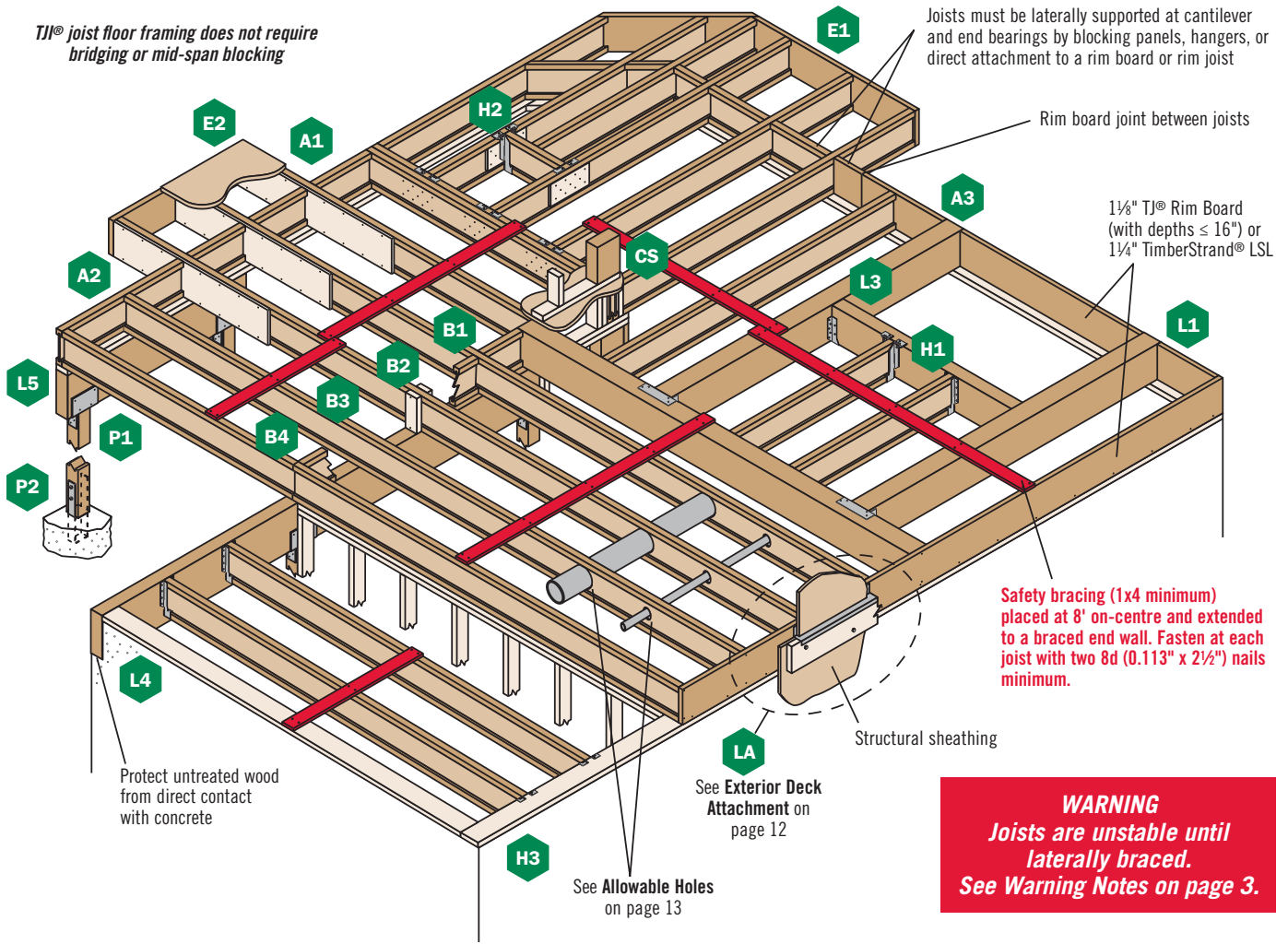
Exercise care when nailing. Nails that barely hit the joists (shiners) do not hold the panel tight to the joist and should be removed. If left in, the nails will rub against the side of the joist when the panel deflects.

* Weyerhaeuser recommends using solvent-based subfloor adhesives that meet ASTM D3498 (AFG-01) performance standards. When latex subfloor adhesive is required, careful selection is necessary due to a wide range of performance between brands.

For more information and tips on how to prevent floor noise, refer to the Weyerhaeuser Prevention and Repair of Floor System Squeaks Technical Resource Sheet, 9009, or contact your Weyerhaeuser representative.

TJI® JOIST FLOOR FRAMING

TJI® joist floor framing does not require bridging or mid-span blocking

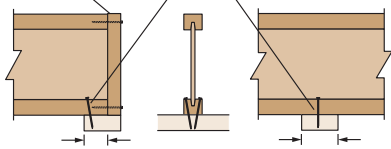


WARNING
Joists are unstable until laterally braced.
See Warning Notes on page 3.

TJI® Joist Nailing Requirements at Bearing

TJI® Joist to Bearing Plate

1 1/8" TJI® Rim Board (with depths ≤ 16") or 1 1/4" TimberStrand® LSL
One 8d (0.113" x 2 1/2") nail each side. Drive nails at an angle at least 1 1/2" from end.



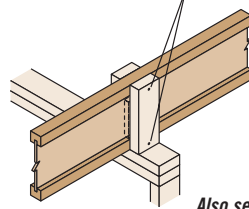
1 3/4" minimum bearing at end support

3 1/2" minimum intermediate bearing; 5 1/4" may be required for maximum capacity

Shear transfer nailing: Use connections equivalent to floor panel nailing schedule

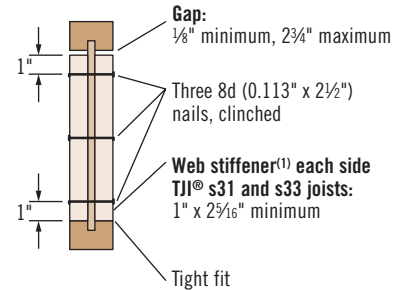
Squash Blocks to TJI® Joist (Load bearing wall above)

One 10d (0.128" x 3") nail into each flange

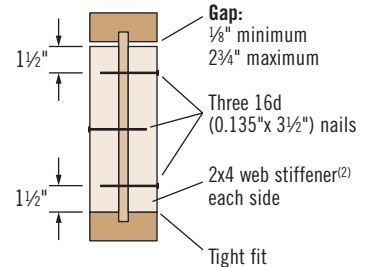


Also see detail B2 on page 11

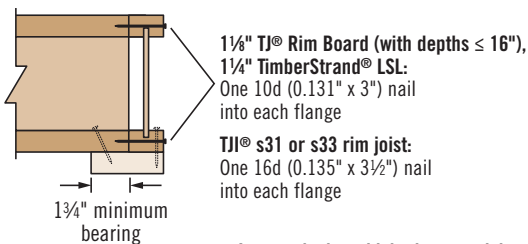
Web Stiffener Attachment



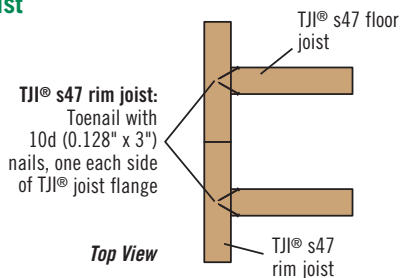
TJI® s47 Joists Only



Rim to TJI® Joist



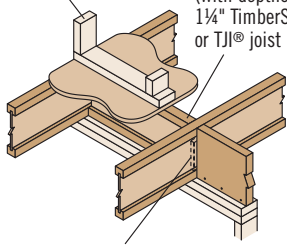
Locate rim board joint between joists



W (1) CSA standards 0151, 0325, or 0437 with face grain vertical
(2) Construction grade or better

FLOOR DETAILS

Load bearing or braced/shear wall above (must stack over wall below)

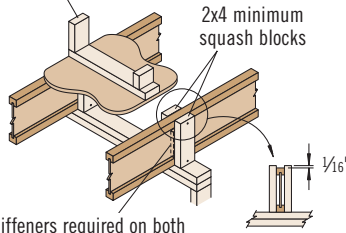


Blocking panel:
1 1/8" TJI® Rim Board
(with depths ≤ 16"),
1 1/4" TimberStrand® LSL,
or TJI® joist

Web stiffeners required on both sides at B1W ONLY. See footnote (1) under span tables.

B1 B1W

Load bearing wall above (must stack over wall below)

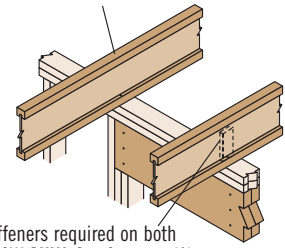


Web stiffeners required on both sides at B2W ONLY. See footnote (1) under span tables.

B2 B2W

Blocking panels may be required with braced/shear walls above or below—see detail B1

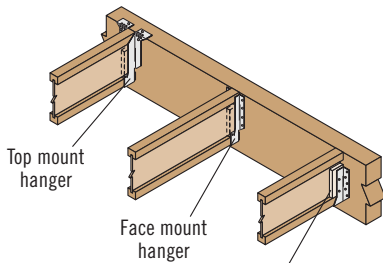
No load bearing wall above



Web stiffeners required on both sides at B3W ONLY. See footnote (1) under span tables.

B3 B3W

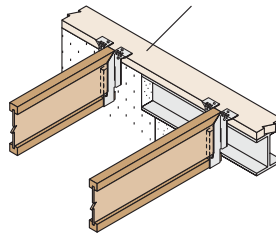
Blocking panels may be required with braced/shear walls above or below—see detail B1



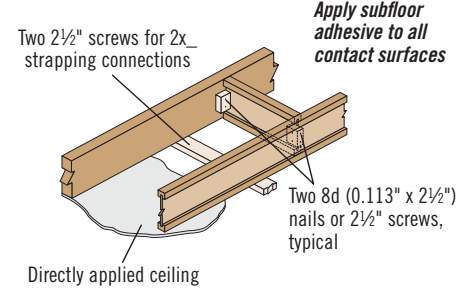
Web stiffeners required if sides of hanger do not laterally support at least 3/8" of TJI® joist top flange

H1

Flush bearing plate required. Maximum 1/4" overhang permitted at beam.



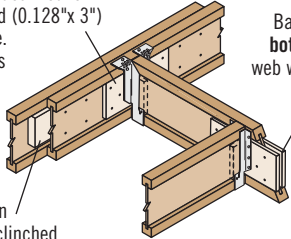
H3



PB1

When specified on the layout, one of the above bracing options is required

Backer block: Install tight to top flange (tight to bottom flange with face mount hangers). Attach with ten 10d (0.128" x 3") nails, clinched when possible. Use 15 nails with joist depths greater than 16" and with multi-family applications.



Backer block both sides of web with single TJI® joist

Filler block: Nail with ten 10d (0.128" x 3") nails, clinched. Use ten 16d (0.135" x 3 1/2") nails from each side with TJI® s47 joists. Use 15 nails with joist depths greater than 16" and with multi-family applications.

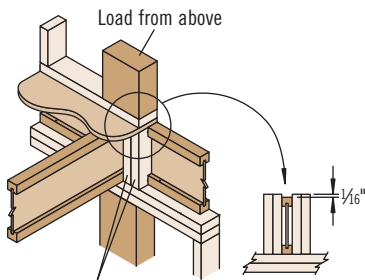
H2

With top mount hangers, backer block required only for factored downward loads exceeding 395 lbs or for uplift conditions

Filler and Backer Block Sizes

TJI®	s31 or s33		s47			
	Depth	9 1/2" or 11 7/8"	14" or 16"	9 1/2" or 11 7/8"	14" or 16"	18" or 20"
Filler Block⁽¹⁾ (Detail H2)	2x6 + 5/8" sheathing	2x8 + 5/8" sheathing	Two 2x6	Two 2x8	Two 2x12	
Cantilever Filler (Detail E4)	2x6 + 5/8" sheathing 4'-0" long	2x10 + 5/8" sheathing 6'-0" long	Not applicable			
Backer Block⁽¹⁾ (Detail F1 or H2)	1" net		2x6	2x8	2x12	

(1) If necessary, increase filler and backer block height for face mount hangers and maintain 1/8" gap at top of joist. See detail W. Filler and backer block dimensions should accommodate required nailing without splitting. The suggested minimum length is 24" for filler and 12" for backer blocks.



2x4 minimum squash blocks; match bearing area of column above

CS

Use 2x4 minimum squash blocks to transfer load around TJI® joist

Fastener Spacing for TJI® Joists

TJI®	Closest On-Centre Spacing per Row ⁽¹⁾		
	8d (0.113" x 2 1/2"), 8d (0.131" x 2 1/2"), 10d (0.128" x 3"), 12d (0.128" x 3 1/4")	10d (0.148" x 3"), 12d (0.148" x 3 1/4"), 16d (0.135" x 3 1/2")	16d (0.162" x 3 1/2")
s31, s33, and s47	3"	4" ⁽²⁾	6"

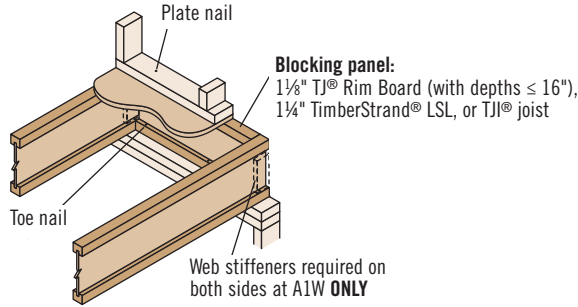
(1) Stagger nails when using 4" on-centre spacing or less and maintain 3/8" joist and panel edge distance. One row of fasteners is permitted (two at abutting panel edges) for diaphragms. For other applications, multiple rows of fasteners are permitted if the rows are offset at least 1/2" and staggered.

(2) Can be reduced to 3" on-centre for light gauge steel straps with 10d (0.148" x 1 1/2") nails.

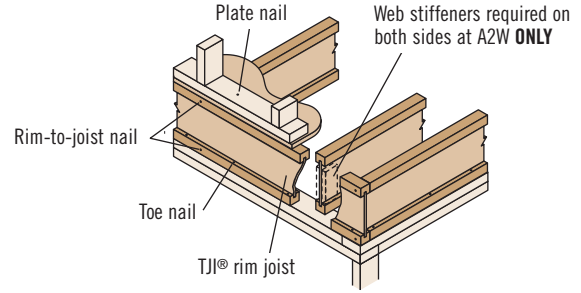
- Maximum spacing of nails is 24" on-centre.
- 14 gauge staples may be substituted for 8d (0.113" x 2 1/2") nails if minimum penetration of 1" is achieved.
- Table also applies to the attachment of TJI® rim joists and blocking panels to the wall plate.

Also see nailing requirements on page 10

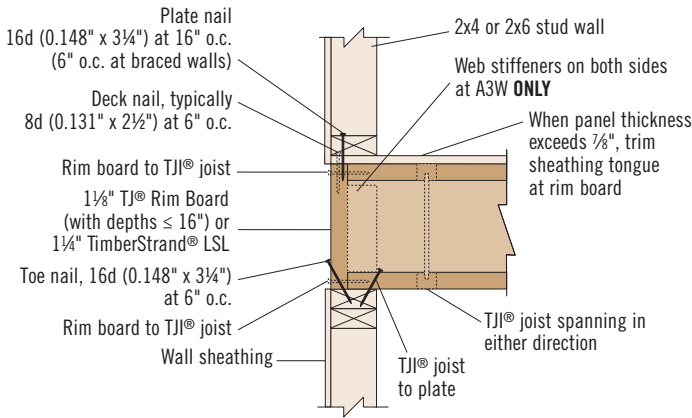
RIM BOARD SELECTION AND INSTALLATION



A1 **A1 W** Attach blocking per fastening instructions in Detail A3.



A2 **A2 W** Must have 1 3/4" minimum joist bearing at ends. Attach rim joist per fastening instructions in Detail A3.



A3 **A3 W**

Nails Installed on the Narrow Face

Nail Size	Closest On-Centre Spacing per Row	
	1 1/8" TJ® Rim Board ⁽¹⁾	1 1/4" TimberStrand® LSL
8d (0.113" or 0.131" x 2 1/2"), 10d (0.128" or 0.148" x 3"), 12d (0.128" or 0.148" x 3 1/4")	6"	4"
16d (0.162" x 3 1/2")	16" ⁽²⁾	6" ⁽³⁾

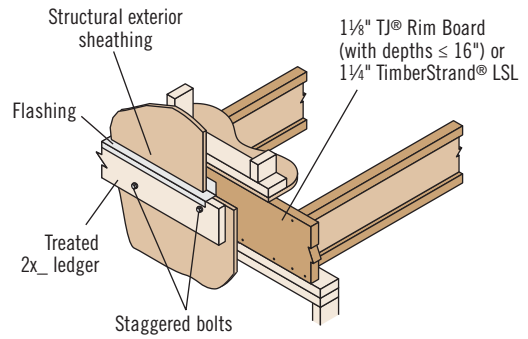
- 1 1/8" TJ® Rim Board is allowed with joist depths ≤ 16" only.
 - Can be reduced to 5" on-centre if nail penetration into the narrow edge is no more than 1 1/4" (to minimize splitting).
 - Can be reduced to 4" on-centre if nail penetration into the narrow edge is no more than 1 1/4" (to minimize splitting).
- To minimize splitting, maintain edge distance and row spacing of 2 1/2 x nail diameter or 3/8", whichever is greater. Multiple rows must be staggered and equally spaced from the centerline of the narrow face axis.
 - 14 gauge staples with minimum penetration of 1" may be substituted for 8d (0.113" x 2 1/2") nails.

Vertical Load Transfer at Bearing⁽¹⁾

Rim or Blocking Material	Uniform Load (PLF)					Concentrated Load (lbs)	
	Depth						
	9 1/2"	11 7/8"	14"	18"	20"	All Depths	
TJ® rim joist	2,985					2,250	—
1 1/8" TJ® Rim Board	7,045 ⁽²⁾	6,625	5,800	—	—	4,930	
1 1/4" TimberStrand® LSL	7,830 ⁽²⁾		7,250	6,290	5,365	5,450	

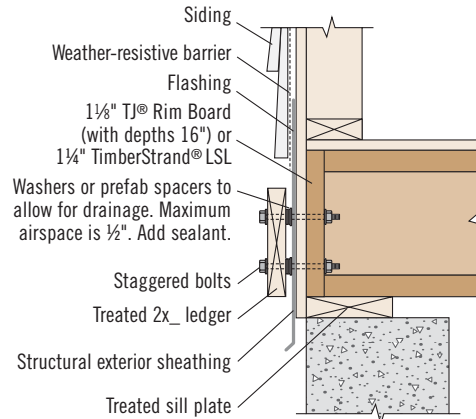
- Values may not be increased for duration of load.
- Capacity is limited to a maximum of 522 psi in accordance with ASTM D7672.

Exterior Deck Attachment



LA

Shimmed Deck Attachment



Ledger Fastener⁽¹⁾ Factored Resistances

Rim Board Material	Factored Resistance Load ⁽²⁾ (lbs/bolt)		
	1/2" Lag Bolt	1/2" Through Bolt	1/2" Through Bolt with Air Space
1 1/8" TJ® Rim Board ⁽³⁾	695	1,005	890 ⁽⁴⁾
1 1/4" TimberStrand® LSL	885	1,050	—

- Corrosion-resistant fasteners required in wet-service applications.
- Factored resistance determined in accordance with ASTM 7672.
- 1 1/8" TJ® Rim Board is allowed with joist depths ≤ 16" only.
- Maximum 1/2" shimmed air space.

General Notes

- Maintain 2" distance (minimum) from edge of ledger to fastener. Stagger bolts.
- Local building codes may require through bolts with washers.
- Lateral restraining connections may be required.

Also see nailing requirements on page 10

ALLOWABLE HOLES

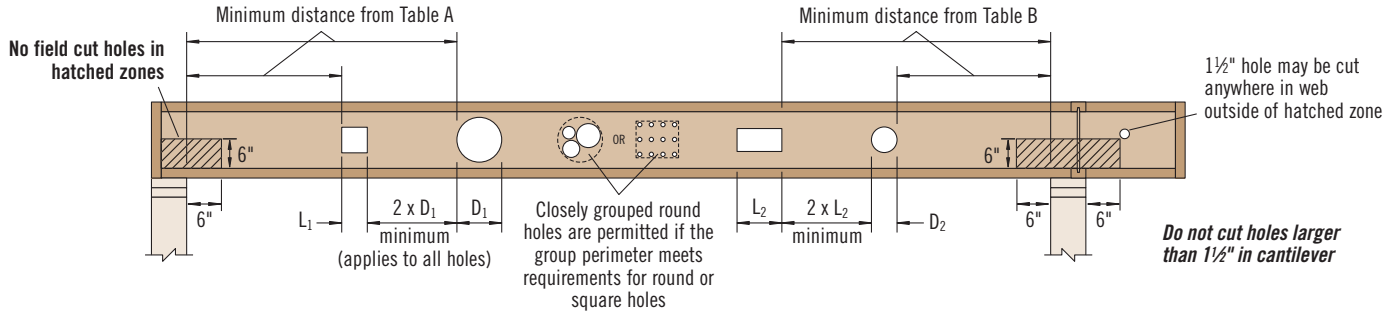


Table A—End Support

Minimum distance from edge of hole to inside face of nearest end support

Depth	TJI®	Round Hole Size											Square or Rectangular Hole Size										
		2"	3"	4"	5"	6 1/4"	7"	8 5/8"	10 3/4"	12 3/4"	14 3/4"	16 3/4"	2"	3"	4"	5"	6 1/4"	7"	8 5/8"	10 3/4"	12 3/4"	14 3/4"	16 3/4"
9 1/2"	s31	1'-0"	2'-0"	2'-6"	3'-6"	5'-6"							1'-0"	1'-6"	2'-6"	4'-0"	4'-6"						
	s33	1'-6"	2'-6"	3'-0"	4'-0"	6'-0"							1'-0"	2'-0"	3'-0"	4'-6"	5'-0"						
	s47	1'-0"	1'-0"	2'-6"	4'-0"	6'-0"							1'-6"	2'-6"	3'-6"	5'-0"	5'-6"						
11 7/8"	s31	1'-0"	1'-6"	1'-6"	2'-0"	3'-0"	3'-6"	6'-0"					1'-0"	1'-6"	2'-6"	3'-0"	4'-6"	5'-0"	6'-0"				
	s33	1'-0"	1'-6"	2'-6"	3'-0"	3'-6"	4'-6"	7'-0"					1'-0"	2'-0"	3'-0"	3'-6"	5'-6"	6'-0"	7'-0"				
	s47	1'-0"	1'-0"	2'-0"	3'-0"	4'-0"	4'-6"	7'-0"					2'-0"	3'-0"	3'-6"	4'-6"	6'-6"	6'-6"	7'-6"				
14"	s31	1'-0"	1'-0"	1'-0"	1'-6"	2'-0"	2'-6"	3'-0"	6'-0"				1'-0"	1'-6"	2'-0"	2'-6"	3'-6"	4'-6"	6'-0"	7'-6"			
	s33	1'-0"	1'-0"	1'-6"	2'-0"	2'-6"	3'-0"	4'-6"	8'-0"				1'-0"	1'-6"	2'-6"	3'-0"	4'-6"	5'-6"	7'-0"	8'-6"			
	s47	1'-0"	1'-0"	1'-0"	1'-6"	2'-6"	3'-6"	5'-0"	8'-6"				1'-0"	2'-0"	3'-0"	4'-0"	5'-6"	6'-6"	8'-0"	9'-6"			
16"	s31	1'-0"	1'-0"	1'-0"	1'-0"	1'-6"	1'-6"	2'-6"	3'-6"	6'-0"			1'-0"	1'-0"	1'-6"	2'-0"	3'-0"	3'-6"	6'-0"	7'-0"	9'-6"		
	s33	1'-0"	1'-0"	1'-0"	1'-0"	1'-6"	2'-0"	3'-6"	5'-0"	8'-0"			1'-0"	1'-0"	1'-6"	2'-6"	4'-0"	4'-6"	7'-0"	9'-0"	10'-6"		
	s47	1'-0"	1'-0"	1'-0"	1'-0"	1'-6"	2'-0"	3'-6"	5'-6"	9'-0"			1'-0"	1'-0"	2'-6"	3'-6"	4'-6"	5'-6"	8'-6"	10'-0"	11'-0"		
18"	s47	1'-0"	1'-0"	1'-0"	1'-0"	1'-0"	1'-0"	2'-0"	4'-0"	6'-0"	9'-6"		1'-0"	1'-0"	1'-0"	2'-6"	4'-0"	5'-0"	7'-0"	10'-6"	12'-0"	13'-6"	
20"	s47	1'-0"	1'-0"	1'-0"	1'-0"	1'-0"	1'-0"	1'-6"	2'-6"	4'-6"	6'-6"	10'-0"	1'-0"	1'-0"	1'-0"	1'-0"	2'-6"	3'-6"	6'-0"	10'-0"	11'-6"	13'-0"	14'-6"

Table B—Intermediate or Cantilever Support

Minimum distance from edge of hole to inside face of nearest intermediate or cantilever support

Depth	TJI®	Round Hole Size											Square or Rectangular Hole Size										
		2"	3"	4"	5"	6 1/4"	7"	8 5/8"	10 3/4"	12 3/4"	14 3/4"	16 3/4"	2"	3"	4"	5"	6 1/4"	7"	8 5/8"	10 3/4"	12 3/4"	14 3/4"	16 3/4"
9 1/2"	s31	2'-0"	3'-0"	4'-0"	5'-0"	8'-6"							2'-0"	3'-0"	4'-0"	5'-6"	6'-6"						
	s33	2'-6"	3'-6"	5'-0"	6'-6"	9'-0"							2'-0"	3'-6"	4'-6"	6'-6"	7'-6"						
	s47	1'-6"	3'-0"	4'-6"	6'-0"	8'-6"							3'-0"	4'-6"	5'-6"	7'-6"	8'-0"						
11 7/8"	s31	1'-6"	2'-0"	2'-6"	3'-6"	4'-6"	5'-0"	9'-0"					1'-6"	2'-6"	3'-6"	4'-6"	7'-0"	7'-6"	9'-0"				
	s33	2'-0"	3'-0"	3'-6"	4'-6"	5'-6"	7'-0"	10'-6"					2'-0"	3'-0"	4'-0"	5'-6"	8'-6"	9'-0"	10'-0"				
	s47	1'-0"	1'-0"	2'-0"	3'-6"	5'-6"	7'-0"	11'-0"					2'-0"	3'-6"	5'-0"	6'-6"	9'-6"	10'-0"	11'-0"				
14"	s31	1'-0"	1'-0"	1'-6"	2'-0"	3'-0"	3'-6"	5'-0"	9'-0"				1'-0"	1'-6"	2'-6"	4'-0"	5'-6"	6'-6"	9'-0"	11'-6"			
	s33	1'-0"	1'-0"	2'-0"	3'-0"	4'-0"	5'-0"	6'-6"	12'-0"				1'-0"	2'-0"	3'-6"	4'-6"	6'-6"	8'-0"	11'-0"	13'-0"			
	s47	1'-0"	1'-0"	1'-0"	2'-0"	4'-0"	5'-0"	7'-6"	12'-6"				1'-0"	2'-6"	4'-0"	6'-0"	8'-0"	10'-0"	12'-0"	13'-6"			
16"	s31	1'-0"	1'-0"	1'-0"	1'-0"	2'-0"	2'-6"	3'-6"	5'-6"	9'-6"			1'-0"	1'-0"	1'-6"	3'-0"	4'-6"	5'-6"	9'-0"	11'-0"	14'-0"		
	s33	1'-0"	1'-0"	1'-0"	1'-0"	2'-6"	3'-6"	5'-0"	7'-6"	12'-6"			1'-0"	1'-0"	2'-0"	3'-6"	5'-6"	7'-0"	11'-0"	13'-6"	15'-6"		
	s47	1'-0"	1'-0"	1'-0"	1'-0"	2'-0"	3'-0"	5'-6"	9'-0"	14'-0"			1'-0"	1'-6"	3'-0"	5'-0"	7'-0"	8'-6"	13'-0"	15'-0"	16'-6"		
18"	s47	1'-0"	1'-0"	1'-0"	1'-0"	1'-0"	1'-0"	3'-0"	6'-6"	9'-6"	14'-6"		1'-0"	1'-0"	1'-6"	3'-6"	6'-0"	7'-6"	11'-0"	15'-6"	17'-0"	18'-6"	
20"	s47	1'-0"	1'-0"	1'-0"	1'-0"	1'-0"	1'-0"	1'-6"	3'-6"	7'-0"	10'-6"	15'-0"	1'-0"	1'-0"	1'-0"	1'-0"	4'-0"	5'-6"	9'-0"	15'-0"	16'-6"	18'-0"	19'-6"

▪ Rectangular holes based on measurement of longest side.

How to Use These Tables

- Using **Table A**, **Table B**, or both if required, determine the hole shape/size and select the TJI® joist and depth.
- Scan horizontally until you intersect the correct hole size column.
- Measurement shown is minimum distance from edge of hole to support.
- Maintain the required minimum distance from the end **and** the intermediate or cantilever support.

General Notes

- Holes may be located vertically anywhere within the web. Leave 1/8" of web (minimum) at top and bottom of hole.
- For simple span (5' minimum) uniformly loaded joists meeting the requirements of this guide, one maximum size round hole may be located at the centre of the joist span **provided that no other holes occur in the joist**.
- Distances are based on the maximum uniform loads shown in this guide. For other load conditions or hole configurations use Forte® software or contact your Weyerhaeuser representative.

DO NOT
cut or notch flange.



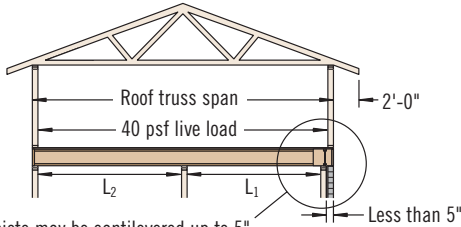
DO NOT
cut holes in cantilever reinforcement.



CANTILEVERS

Cantilevers Less than 5" (Brick Ledge)

See Section A of cantilever table on page 15

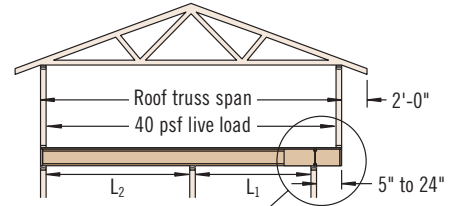


TJI® joists may be cantilevered up to 5" when supporting roof load, assuming:

- simple or continuous span
- $L_1 \leq L_2$
- minimum backspan = 2x cantilever length

Cantilevers 5" to 24"

See Section B of cantilever table on page 15



TJI® joists may be cantilevered 5" to 24" when supporting roof load, assuming:

- simple or continuous span
- $L_1 \leq L_2$
- minimum backspan = 2x cantilever length

PB1

Cantilever back span must be permanently braced with either direct-applied ceiling along entire length or permanent bracing at $\frac{1}{3}$ points. See detail PB1 below for connections.

E1, E1W

Web stiffeners required both sides at E1W ONLY

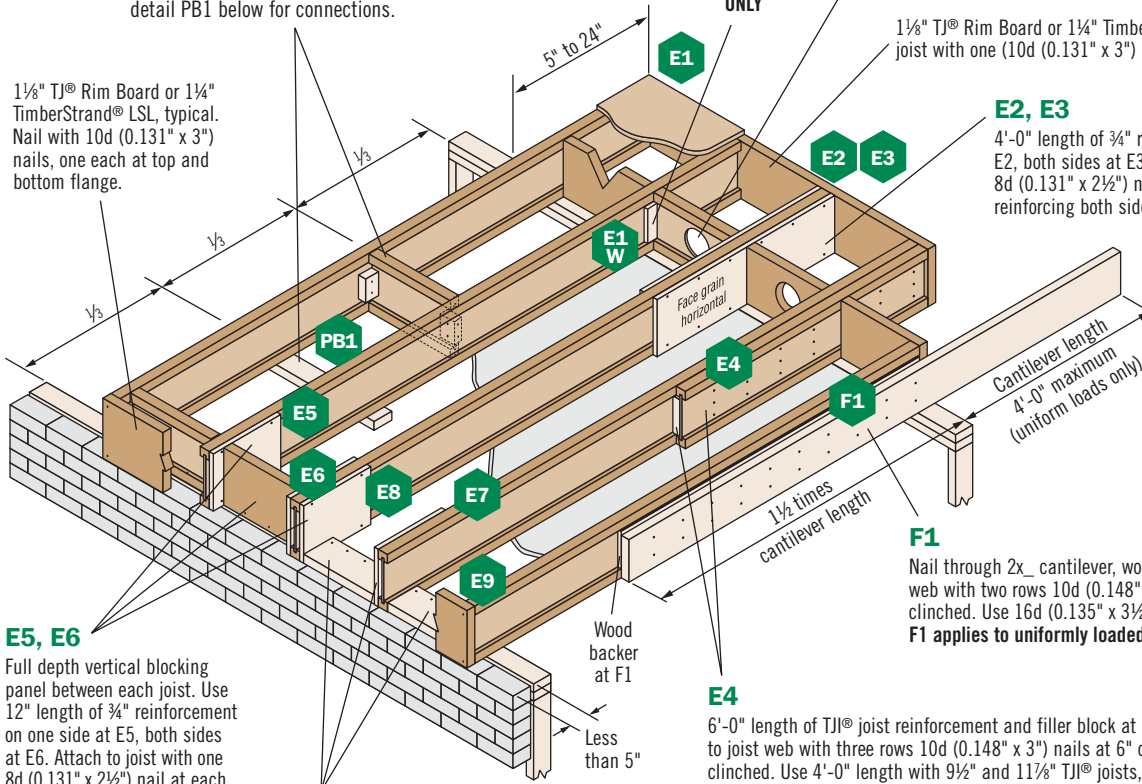
8" diameter maximum hole for $1\frac{1}{8}$ "–20" deep blocking panels; 6" diameter maximum for blocking panels $9\frac{1}{2}$ " deep or shorter than 12" long. **Do not cut flanges.**

$1\frac{1}{8}$ " TJI® Rim Board or $1\frac{1}{4}$ " TimberStrand® LSL, typical. Attach to joist with one (10d (0.131" x 3")) nail at top and bottom flange.

$1\frac{1}{8}$ " TJI® Rim Board or $1\frac{1}{4}$ " TimberStrand® LSL, typical. Nail with 10d (0.131" x 3") nails, one each at top and bottom flange.

E2, E3

4'-0" length of $\frac{3}{4}$ " reinforcement on one side at E2, both sides at E3. Attach to joist flange with 8d (0.131" x 2½") nails at 6" on-centre. When reinforcing both sides, stagger nails.



E5, E6

Full depth vertical blocking panel between each joist. Use 12" length of $\frac{3}{4}$ " reinforcement on one side at E5, both sides at E6. Attach to joist with one 8d (0.131" x 2½") nail at each corner.

E7, E8, E9

Horizontal blocking panel between each joist. 12" length of $\frac{3}{4}$ " reinforcement on one side with E7, both sides with E8. Attach to joist with one 8d (0.131" x 2½") nail at each corner. No reinforcement at E9. Nail rim to blocking panel and blocking panel to plate with connections equivalent to floor panel schedule.

E4

6'-0" length of TJI® joist reinforcement and filler block at E4. Attach to joist web with three rows 10d (0.148" x 3") nails at 6" on-centre, clinched. Use 4'-0" length with $9\frac{1}{2}$ " and $11\frac{7}{8}$ " TJI® joists, and attach to joist web with two rows 10d (0.148" x 3") nails at 6" on-centre, clinched. **Not for use with TJI® s47 joists.**

F1

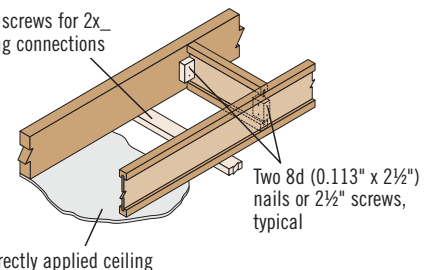
Nail through 2x cantilever, wood backer, and TJI® joist web with two rows 10d (0.148" x 3") nails at 6" on-centre, clinched. Use 16d (0.135" x 3½") nails with TJI® s47 joists. **F1 applies to uniformly loaded joists only.**

TJI® joists are intended for dry-use applications

Details E2–E9 are not for use with joist depths > 16".

For more information on details E1–E9, refer to our cover sheets and AutoCAD details online at weyerhaeuser.com/woodproducts/software-learning.

Apply subfloor adhesive to all contact surfaces



When specified on the layout, one of the above bracing options is required

CANTILEVERS

Cantilever Reinforcement

Depth	TJI®	Roof Truss Span	Section A: Cantilevers less than 5" (Brick Ledge)									Section B: Cantilevers 5" to 24"								
			Unfactored Roof Total Load									Unfactored Roof Total Load								
			35 PSF			45 PSF			55 PSF			35 PSF			45 PSF			55 PSF		
			On-Centre Joist Spacing									On-Centre Joist Spacing								
16"	19.2"	24"	16"	19.2"	24"	16"	19.2"	24"	16"	19.2"	24"	16"	19.2"	24"	16"	19.2"	24"			
9½" 11⅞" 14" 16"	s31	18'			E5			E5		E5	E5							E2		
		20'			E5		E5	E5		E5	E5					E2		E2		
		22'			E5		E5	E5	E5	E5	E5					E2		E2	E3	
		24'		E5	E5		E5	E5	E5	E5	E5					E2		E2	X	
		26'		E5	E5	E5	E5	E5	E5	E5	E5					E3	E2	E3	X	
		28'		E5	E5	E5	E5	E5	E5	E5	E6			E2		X	E2	X	X	
		30'		E5	E5	E5	E5	E5	E5	E5	E6			E3	E2	E3	X	E3	X	X
		32'	E5	E5	X	E5	E5	X	E5	E5	X		E2	X	E2	X	X	X	X	X
		34'	E5	X	X	E5	X	X	E5	X	X		E3	X	E3	X	X	X	X	X
36'	X	X	X	X	X	X	X	X	X	E2	X	X	X	X	X	X	X	X		
9½" 11⅞" 14" 16"	s33	18'			E5			E5		E5	E5							E2		
		20'			E5		E5	E5		E5	E5					E2		E2		
		22'			E5		E5	E5	E5	E5	E5					E2		E2	E2	
		24'		E5	E5		E5	E5	E5	E5	E5					E2		E2	E3	
		26'		E5	E5	E5	E5	E5	E5	E5	E5					E2		E2	X	
		28'		E5	E5	E5	E5	E5	E5	E5	E6			E2		E2	E3	E2	E3	X
		30'		E5	E5	E5	E5	E5	E5	E5	E6			E2		E2	X	E2	X	X
		32'	E5	E5	X	E5	E5	X	E5	E5	X			E3	E2	E3	X	E3	X	X
		34'	E5	E5	X	E5	E5	X	E5	E5	X		E2	X	E2	X	X	X	X	X
36'	E5	X	X	E5	X	X	E5	X	X		E2	X	E3	X	X	X	X	X		
9½" 11⅞" 14" 16"	s47	22'						E5		E5	E5									
		24'			E5			E5		E5	E5									
		26'			E5		E5	E5		E5	E5								E2	
		28'			E5		E5	E5	E5	E5	E6								E2	
		30'			E5		E5	E5	E5	E5	E6							E2	E2	E3
		32'		E5	E5	E5	E5	E5	E5	E5	E6					E2		E2	X	
		34'		E5	E5	E5	E5	E6	E5	E5	E6				E2	E3	E2	E3	X	
		36'		E5	X	E5	E5	X	E5	E6	X			E2		E2	X	E2	X	X
		38'		E5	X	E5	E5	X	E5	E6	X			X		E3	X	E3	X	X
40'	E5	X	X	E5	X	X	E5	X	X			X	E2	E3	X	X	X	X		
18" 20"	s47	22'						X		X	X									
		24'			X			X		X	X									
		26'			X		X	X		X	X									
		28'			X		X	X	X	X	X									
		30'			X		X	X	X	X	X									
		32'		X	X	X	X	X	X	X	X									
		34'		X	X	X	X	X	X	X	X									
		36'		X	X	X	X	X	X	X	X									
		38'		X	X	X	X	X	X	X	X								E1W	
40'	X	X	X	X	X	X	X	X	X								E1W			

How to Use This Table

1. Identify TJI® joist and depth.
2. Locate the **Roof Truss Span** (horizontal) that meets or exceeds your condition.
3. Identify the cantilever condition (less than 5" or 5" to 24") and locate the **Unfactored Roof Total Load** and **On-Centre Joist Spacing** for your application.
4. Scan down to find the appropriate cantilever detail and refer to drawing on page 14:
 - Blank cells indicate no reinforcement is required.
 - E4 may be used in place of E2 or E3 except when using TJI® s47 joists.
 - X indicates cantilever will not work. Use Forte® or Javelin® software, or reduce spacing of joists and recheck table.

General Notes

- Table is based on:
 - 15 psf unfactored roof dead load on a horizontal projection.
 - 80 plf unfactored exterior wall load with 3'-0" maximum width window or door openings. For larger openings, or multiple 3'-0" width openings spaced less than 6'-0" on-centre, additional joists beneath the opening's trimmers may be required.
 - More restrictive of simple or continuous span.
 - Roof truss with 24" soffits.
 - 40/15 psf floor load.
- ¾" reinforcement refers to ¾" standard sheathing grade of Douglas fir or Canadian softwood plywood or other ¾" exterior grade 48/24-rated sheathing that is cut to match the full depth of the TJI® joist. Install with face grain horizontal. Reinforcing member must bear fully on the wall plate.
- Designed for 2x4 and 2x6 plate widths.
- For conditions beyond the scope of this table, including cantilevers longer than 24", use Forte® or Javelin® software.

ROOF SPAN TABLE (STANDARD TERM)

Maximum Horizontal Clear Spans—Roof

O.C. Spacing	Depth	TJI®	Unfactored Snow Load (LL) and Dead Load (DL) in PSF							
			25LL + 15DL		30LL + 15DL		40LL + 15DL		50LL + 15DL	
			Low	High	Low	High	Low	High	Low	High
16"	9½"	s31	19'-8"	18'-3"	18'-5"	17'-1"	16'-8"	15'-6"	15'-5"	14'-4"
		s33	20'-9"	19'-3"	19'-6"	18'-1"	17'-7"	16'-4"	16'-3"	15'-2"
		s47	23'-3"	21'-7"	21'-10"	20'-3"	19'-9"	18'-4"	18'-3"	17'-0"
	11⅞"	s31	23'-6"	21'-9"	22'-0"	20'-6"	19'-11"	18'-6"	18'-5"	17'-2"
		s33	24'-10"	23'-0"	23'-3"	21'-7"	21'-1"	19'-7"	19'-5"	18'-1"
		s47	27'-9"	25'-9"	26'-1"	24'-2"	23'-7"	21'-11"	21'-9"	20'-3"
	14"	s31	26'-9"	24'-10"	25'-1"	23'-4"	22'-8"	21'-1"	21'-0"	19'-6"
		s33	28'-2"	26'-2"	26'-6"	24'-7"	23'-11"	22'-3"	22'-2"	20'-7"
		s47	31'-7"	29'-3"	29'-7"	27'-6"	26'-10"	24'-11"	24'-9"	23'-1"
	16"	s31	29'-6"	27'-6"	27'-9"	25'-10"	25'-0"	23'-5"	23'-0"	21'-8"
		s33	31'-3"	29'-0"	29'-4"	27'-3"	26'-7"	24'-8"	24'-7"	22'-10"
		s47	35'-0"	32'-5"	32'-10"	30'-6"	29'-8"	27'-7"	27'-6"	25'-7"
18"	s47	39'-3"	N.A.	36'-10"	N.A.	33'-4"	N.A.	30'-10"	N.A.	
20"	s47	42'-6"	N.A.	39'-11"	N.A.	36'-1"	N.A.	32'-0"	N.A.	
19.2"	9½"	s31	18'-5"	17'-1"	17'-4"	16'-1"	15'-7"	14'-6"	14'-5"	13'-5"
		s33	19'-6"	18'-1"	18'-3"	17'-0"	16'-6"	15'-4"	15'-3"	14'-2"
		s47	21'-10"	20'-3"	20'-6"	19'-1"	18'-6"	17'-3"	17'-1"	15'-11"
	11⅞"	s31	22'-0"	20'-6"	20'-8"	19'-3"	18'-8"	17'-5"	17'-3"	16'-1"
		s33	23'-3"	21'-7"	21'-10"	20'-4"	19'-9"	18'-4"	18'-3"	17'-0"
		s47	26'-1"	24'-2"	24'-5"	22'-9"	22'-1"	20'-7"	20'-5"	19'-0"
	14"	s31	25'-1"	23'-4"	23'-6"	21'-10"	21'-3"	19'-10"	19'-7"	18'-4"
		s33	26'-6"	24'-7"	24'-10"	23'-1"	22'-5"	20'-11"	20'-9"	19'-4"
		s47	29'-7"	27'-6"	27'-10"	25'-10"	25'-2"	23'-5"	23'-3"	21'-8"
	16"	s31	26'-11"	25'-8"	25'-4"	24'-3"	22'-10"	22'-0"	21'-0"	20'-4"
		s33	29'-4"	27'-3"	27'-7"	25'-7"	24'-11"	23'-2"	23'-0"	21'-5"
		s47	32'-10"	30'-6"	30'-10"	28'-8"	27'-10"	25'-11"	25'-9"	24'-0"
18"	s47	36'-10"	N.A.	34'-7"	N.A.	31'-3"	N.A.	26'-7"	N.A.	
20"	s47	39'-11"	N.A.	37'-5"	N.A.	31'-8"	N.A.	26'-7"	N.A.	
24"	9½"	s31	17'-1"	15'-10"	16'-0"	14'-10"	14'-5"	13'-5"	13'-4"	12'-5"
		s33	18'-0"	16'-9"	16'-11"	15'-9"	15'-3"	14'-2"	14'-1"	13'-1"
		s47	20'-2"	18'-9"	18'-11"	17'-8"	17'-1"	15'-11"	15'-9"	14'-9"
	11⅞"	s31	20'-5"	18'-11"	19'-1"	17'-9"	17'-3"	16'-1"	15'-11"	14'-10"
		s33	21'-6"	20'-0"	20'-2"	18'-9"	18'-3"	17'-0"	16'-10"	15'-8"
		s47	24'-1"	22'-5"	22'-7"	21'-0"	20'-5"	19'-0"	18'-5"	17'-7"
	14"	s31	22'-6"	21'-6"	21'-2"	20'-3"	19'-1"	18'-4"	17'-6"	16'-11"
		s33	24'-6"	22'-9"	23'-0"	21'-4"	20'-9"	19'-4"	18'-5"	17'-10"
		s47	27'-5"	25'-6"	25'-9"	23'-11"	23'-3"	21'-8"	20'-2"	19'-9"
	16"	s31	24'-0"	23'-0"	22'-7"	21'-9"	20'-5"	19'-9"	18'-5"	18'-3"
		s33	27'-2"	25'-3"	25'-6"	23'-8"	21'-11"	21'-5"	18'-5"	18'-6"
		s47	30'-5"	28'-3"	28'-6"	26'-6"	24'-10"	23'-2"	20'-11"	19'-9"
18"	s47	34'-1"	N.A.	31'-3"	N.A.	25'-4"	N.A.	21'-3"	N.A.	
20"	s47	35'-5"	N.A.	31'-3"	N.A.	25'-4"	N.A.	21'-3"	N.A.	

How to Use This Table

- Determine appropriate unfactored snow and dead load.
- If your slope is 6:12 or less, use the **Low** slope column. If it is between 6:12 and 12:12, use the **High** column.
- Scan down the column until you find a span that meets or exceeds the span of your application.
- Select TJI® joist and on-centre spacing.

General Notes

- Table is based on:
 - Minimum bearing length of 1¾" end and 3½" intermediate, without web stiffeners.
 - Uniform loads.
 - More restrictive of simple or continuous span.
 - Minimum roof slope of ¼:12.
 - 18" and 20" deep joists limited to a maximum roof slope of 3:12.
- Unfactored total load joist deflection limited to L/180.
- Unfactored live load joist deflection limited to L/360.
- For continuous spans, ratio of short span to long span should be 0.4 or greater to prevent uplift.
- A support beam or wall at the high end is required. Ridge board applications do not provide adequate support.
- For flat roofs or other loading conditions not shown, refer to Weyerhaeuser software.

FACTORED RESISTANCE ROOF LOAD TABLES

Roof—Standard Term (PLF) for 8'–16' Spans

Depth	TJI®	Roof Joist Horizontal Clear Span														
		8'			10'			12'			14'			16'		
		Unfactored Deflection Resistance	Factored Strength Resistance		Unfactored Deflection Resistance	Factored Strength Resistance		Unfactored Deflection Resistance	Factored Strength Resistance		Unfactored Deflection Resistance	Factored Strength Resistance		Unfactored Deflection Resistance	Factored Strength Resistance	
Live Load L/360	Total Load L/180	Total Load	Live Load L/360	Total Load L/180	Total Load	Live Load L/360	Total Load L/180	Total Load	Live Load L/360	Total Load L/180	Total Load	Live Load L/360	Total Load L/180	Total Load		
9½"	s31	*	*	418	*	*	336	144	*	270	95	*	199	65	*	153
	s33	*	*	418	*	*	336	166	*	279	110	*	236	76	*	194
	s47	*	*	427	*	*	343	*	*	286	150	*	246	105	*	215
11⅞"	s31	*	*	427	*	*	342	*	*	286	155	*	246	108	*	193
	s33	*	*	427	*	*	342	*	*	286	*	*	246	124	*	215
	s47	*	*	427	*	*	343	*	*	286	*	*	246	*	*	215
14"	s31	*	*	427	*	*	342	*	*	286	*	*	246	*	*	215
	s33	*	*	427	*	*	342	*	*	286	*	*	246	*	*	215
	s47	*	*	467	*	*	375	*	*	313	*	*	269	*	*	236
16"	s31	*	*	427	*	*	342	*	*	286	*	*	246	*	*	215
	s33	*	*	427	*	*	342	*	*	286	*	*	246	*	*	215
	s47	*	*	495	*	*	398	*	*	332	*	*	285	*	*	250
18"	s47	*	*	495	*	*	398	*	*	332	*	*	285	*	*	250
20"	s47	*	*	495	*	*	398	*	*	332	*	*	285	*	*	250

Roof—Standard Term (PLF) for 18'–26' Spans

Depth	TJI®	Roof Joist Horizontal Clear Span														
		18'			20'			22'			24'			26'		
		Unfactored Deflection Resistance	Factored Strength Resistance		Unfactored Deflection Resistance	Factored Strength Resistance		Unfactored Deflection Resistance	Factored Strength Resistance		Unfactored Deflection Resistance	Factored Strength Resistance		Unfactored Deflection Resistance	Factored Strength Resistance	
Live Load L/360	Total Load L/180	Total Load	Live Load L/360	Total Load L/180	Total Load	Live Load L/360	Total Load L/180	Total Load	Live Load L/360	Total Load L/180	Total Load	Live Load L/360	Total Load L/180	Total Load		
9½"	s31	47	*	121	34	*	98	26	53	81						
	s33	54	*	153	40	81	124	31	62	103	24	48	86			
	s47	75	*	192	56	113	172	43	86	145	33	67	122	26	53	104
11⅞"	s31	78	*	153	58	*	124	44	*	102	34	*	86			
	s33	90	*	191	67	*	161	51	*	133	40	*	112	32	64	95
	s47	123	*	192	92	*	172	71	*	157	55	*	144	44	88	133
14"	s31	111	*	181	83	*	147	64	*	121	50	*	102	39	*	87
	s33	129	*	191	96	*	172	74	*	157	58	*	135	46	*	115
	s47	*	*	210	*	*	189	101	*	172	80	*	157	63	*	145
16"	s31	*	*	191	111	*	168	85	*	139	67	*	117	53	*	100
	s33	*	*	191	*	*	172	99	*	157	77	*	144	62	*	133
	s47	*	*	222	*	*	200	*	*	182	106	*	167	85	*	154
18"	s47	*	*	222	*	*	200	*	*	182	*	*	167	*	*	154
20"	s47	*	*	222	*	*	200	*	*	182	*	*	167	*	*	154

* Indicates value does not control.

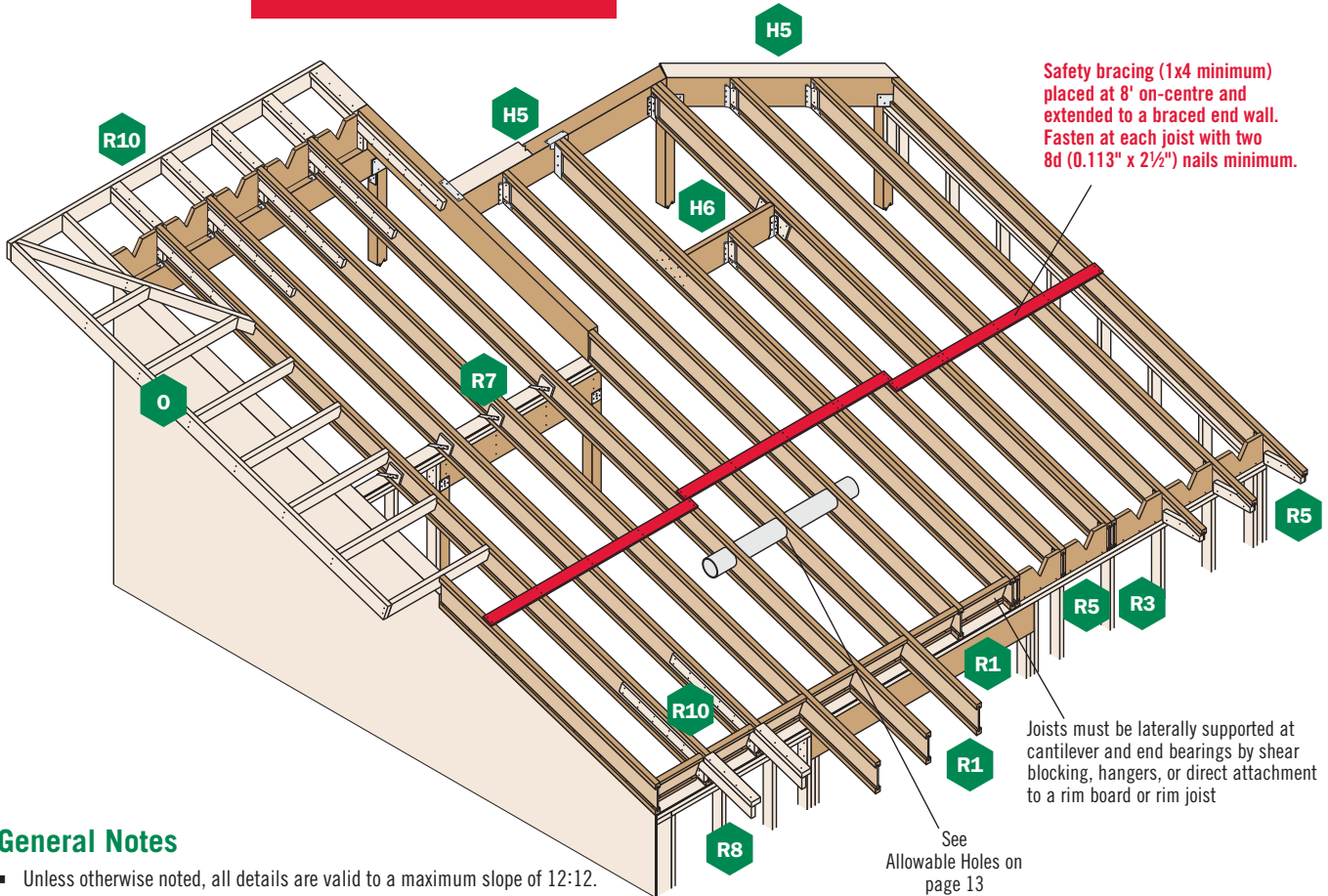
How to Use These Tables

1. Calculate actual factored total load and unfactored snow and total load on the joist in pounds per linear foot (plf).
2. Select appropriate **Roof Joist Horizontal Clear Span**. For slopes greater than 2:12, approximate the increased dead load by multiplying the joist horizontal clear span by the **Slope Factor** on page 21.
3. Scan down the columns to find a TJI® joist that meets or exceeds the actual unfactored snow and total loads, and the factored total load. All three columns must be checked.

General Notes

- Tables are based on:
 - Minimum bearing length of 1¾" end and 3½" intermediate, without web stiffeners.
 - Uniform loads.
 - No composite action provided by sheathing.
 - More restrictive of simple or continuous span.
 - Minimum roof slope of ¼:12.
 - Maximum slope of 3:12 for 18" and 20" deep joists.

WARNING
Joists are unstable until laterally braced.
See Warning Notes on page 3.



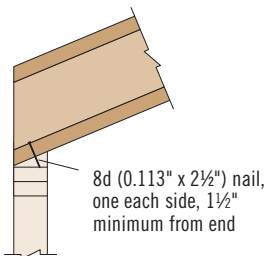
General Notes

- Unless otherwise noted, all details are valid to a maximum slope of 12:12. 18" and 20" deep joists have a maximum slope of 3:12.
- Web stiffeners are required if the sides of the hanger do not laterally support at least ⅓" of the TJI® joist top flange.

TJI® Joist Nailing Requirements at Bearing

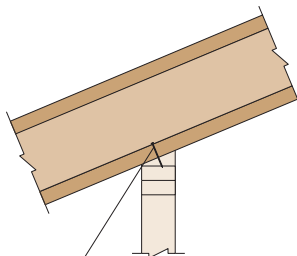
TJI® Joist to Bearing Plate

End Bearing
(1¼" minimum bearing required)



When slope exceeds ¼:12, a beveled bearing plate, variable slope seat connector, or birdsmouth cut (at low end of joist only) is required

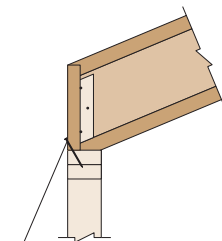
Intermediate Bearing
(3½" minimum bearing required)



Slopes 3:12 or less:
One 8d (0.113" x 2½") nail each side. See detail R7.
Slopes greater than 3:12 (for depths ≤ 16" only):
Two 8d (0.113" x 2½") nails each side, plus a twist strap and backer block. See detail R7S.

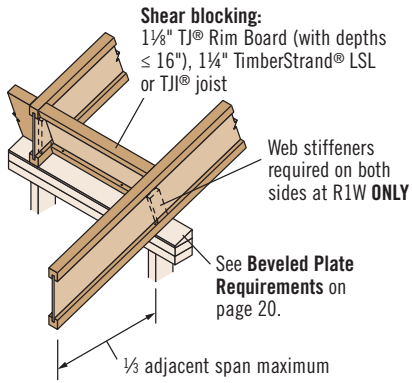
When slope exceeds ¼:12 for a 2x4 wall or ⅛:12 for a 2x6 wall, a beveled bearing plate or variable slope seat connector is required.

Blocking to Bearing Plate

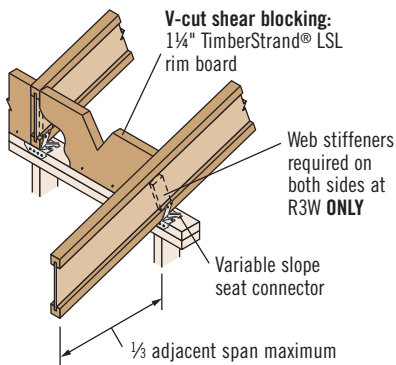


1¼" TJI® Rim Board (with depths ≤ 16") or 1¼" TimberStrand® LSL:
Toenail with 10d (0.131" x 3") nails at 6" on-centre or 16d (0.135" x 3½") nails at 12" on-centre
TJI® joist blocking:
10d (0.128" x 3") nails at 6" on-centre
Shear transfer nailing:
Minimum, use connections equivalent to sheathing nail schedule

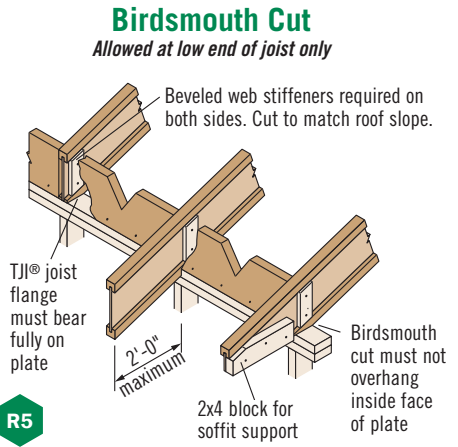
ROOF DETAILS



R1 R1W



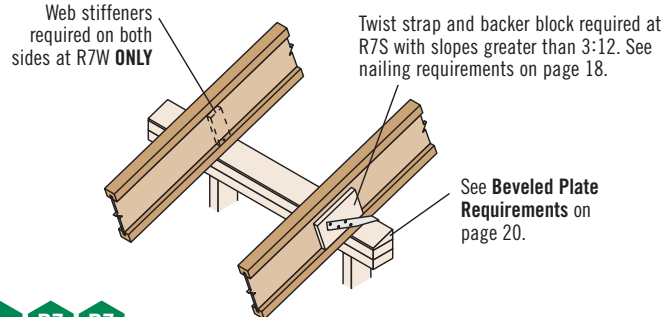
R3 R3W



R5

Intermediate Bearing

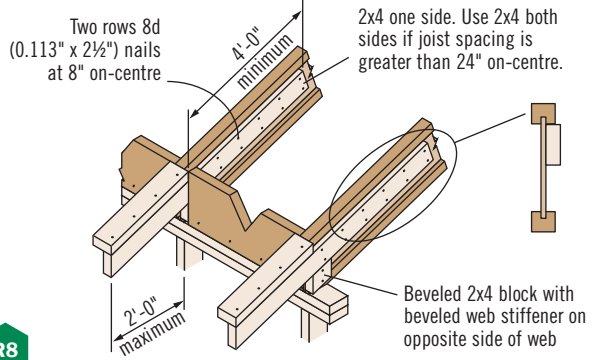
Blocking panels or shear blocking may be specified for joist stability at intermediate supports



R7 R7W R7S

Birdsmouth Cut

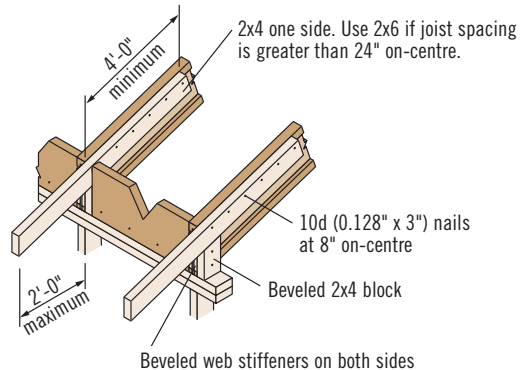
Allowed at low end of joist only



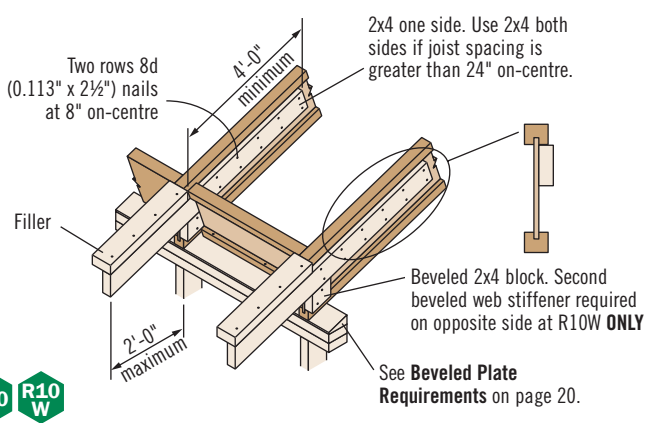
R8

Birdsmouth Cut

Allowed at low end of joist only



R9



R10 R10W

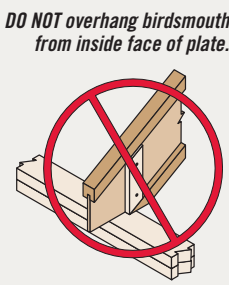
These Conditions Are NOT Permitted



DO NOT cut holes too close to support.
Refer to Allowable Holes on page 13 for minimum distance from support.



DO NOT bevel cut joist beyond inside face of wall.

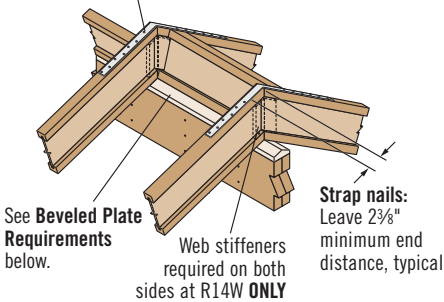


DO NOT overhang birdsmouth cut from inside face of plate.

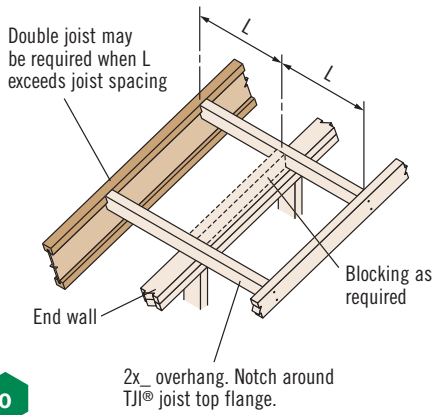
TJI joist flange must bear fully on the plate. See detail BC on page 20.

ROOF DETAILS

LSTA18 (Simpson or USP) strap with twelve 10d (0.148" x 1½") nails



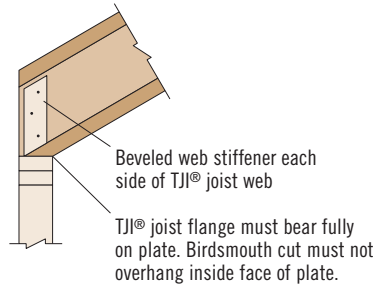
R14 **R14W** Additional blocking may be required for shear transfer



O

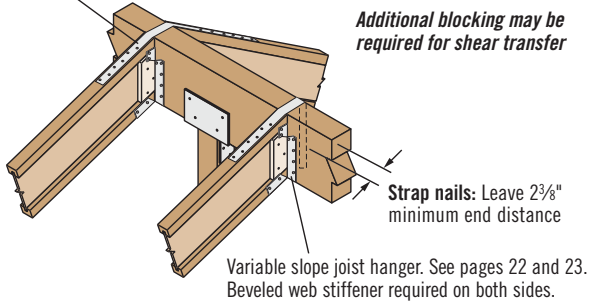
Birdsmouth Cut

Allowed at low end of joist only



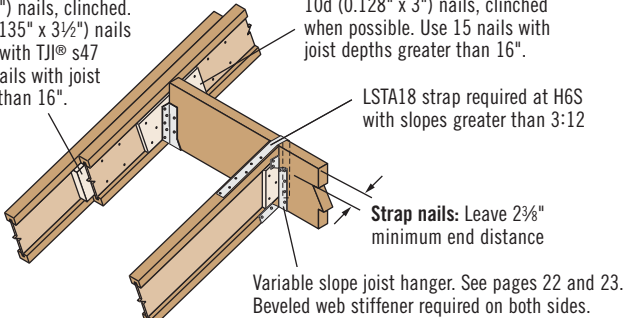
BC

LSTA24 (Simpson or USP) strap with twelve 10d (0.148" x 1½") nails required at H5S with slopes greater than 3:12



H5 **H5S** Detail H5S is allowed only with joist depths ≤ 16".

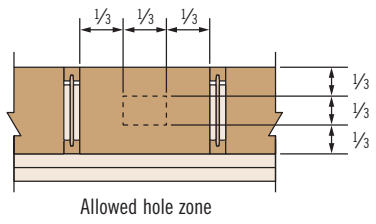
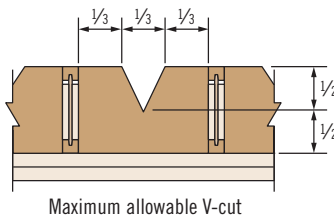
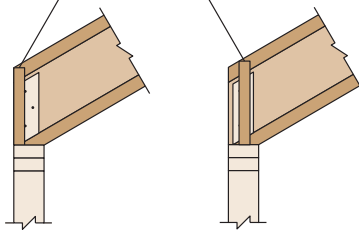
Filler block: Attach with ten 10d (0.128" x 3") nails, clinched. Use ten 16d (0.135" x 3½") nails from each side with TJI® s47 joists. Use 15 nails with joist depths greater than 16".



H6 **H6S** Detail H6S is allowed only with joist depths ≤ 16".

Shear Blocking and Ventilation Holes (Roof Only)

Field trim to match joist depth at outer edge of wall or locate on wall to match joist depth.



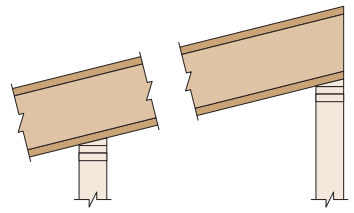
SB For TJI® joists with slopes of 10:12 to 12:12, the vertical depth of shear blocking at bearing will require 1½" TJI® Rim Board or 1¼" TimberStrand® LSL that is one size deeper than the TJI® joist. DO NOT use 1½" TJI® Rim Board with 18"-20" TJI® joists.

Filler and Backer Block Sizes

TJI® Depth	s31 or s33		s47		
	9½" or 11⅞"	14" or 16"	9½" or 11⅞"	14" or 16"	18" or 20"
Filler Block (Detail H6)	2x6 + ⅝" sheathing	2x8 + ⅝" sheathing	Two 2x6	Two 2x8	Two 2x12
Backer Block (Detail H6)	1" net		2x6	2x8	2x12

▪ If necessary, increase filler and backer block height for face mount hangers and maintain ⅛" gap at top of joist; see detail W on page 10. Filler and backer block dimensions should accommodate required nailing without splitting. The suggested minimum length is 24" for filler and 12" for backer blocks.

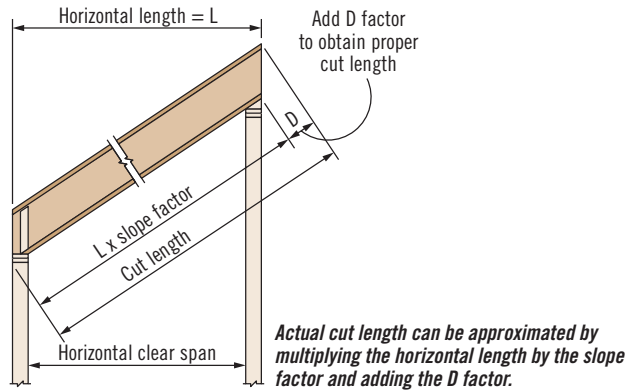
Beveled Plate Requirements



Required Bearing Length	Maximum Slope Without Beveled Plate
1¾"	½:12
3½"	¼:12
5½"	⅛:12

See General Notes and nailing requirements on page 18

CUT LENGTH CALCULATION



D Factors

Depth	Slope												
	2½:12	3:12	3½:12	4:12	4½:12	5:12	6:12	7:12	8:12	9:12	10:12	11:12	12:12
9½"	2"	2¾"	2⅞"	3¼"	3⅝"	4"	4¾"	5⅝"	6⅜"	7⅛"	8"	8¾"	9½"
11⅞"	2½"	3"	3½"	4"	4½"	5"	6"	7"	8"	9"	10"	11"	11⅞"
14"	3"	3½"	4⅛"	4¾"	5¼"	5⅞"	7"	8¼"	9⅜"	10½"	11¾"	12⅞"	14"
16"	3⅜"	4"	4¾"	5⅜"	6"	6¾"	8"	9⅜"	10¾"	12"	13⅜"	14¾"	16"
18"	3¾"	4½"											
20"	4¼"	5"											

Slope Factors

Slope	2½:12	3:12	3½:12	4:12	4½:12	5:12	6:12	7:12	8:12	9:12	10:12	11:12	12:12
Factor	1.021	1.031	1.042	1.054	1.068	1.083	1.118	1.158	1.202	1.250	1.302	1.357	1.414

MATERIAL WEIGHTS AND CONVERSION TABLES

Material Weights

(Include TJI® weights in dead load calculations—see **Design Properties** table on page 3 for joist weights)

Floor Panels

Southern Pine

½" plywood	1.7 psf
⅝" plywood	2.0 psf
¾" plywood	2.5 psf
1⅞" plywood	3.8 psf
½" OSB	1.8 psf
⅝" OSB	2.2 psf
¾" OSB	2.7 psf
⅞" OSB	3.1 psf
1⅞" OSB	4.1 psf

Based on: Southern pine – 40 pcf for plywood, 44 pcf for OSB

Roofing

Asphalt shingles	2.5 psf
Wood shingles	2.0 psf
Clay tile	9.0 to 14.0 psf
Slate (¾" thick)	15.0 psf

Roll or Batt Insulation (1" thick):

Rock wool	0.2 psf
Glass wool	0.1 psf

Floor Finishes

Hardwood (nominal 1")	4.0 psf
Sheet vinyl	0.5 psf
Carpet and pad	1.0 psf
¾" ceramic or quarry tile	10.0 psf

Concrete:

Regular (1")	12.0 psf
Lightweight (1")	8.0 to 10.0 psf
Gypsum concrete (¾")	6.5 psf

Ceilings

Acoustical fibre tile	1.0 psf
½" gypsum board	2.2 psf
⅝" gypsum board	2.8 psf
Plaster (1" thick)	8.0 psf

PSF to PLF

O.C. Spacing	Load in Pounds Per Square Foot (PSF)								
	20	25	30	35	40	45	50	55	60
12"	20	25	30	35	40	45	50	55	60
16"	27	34	40	47	54	60	67	74	80
19.2"	32	40	48	56	64	72	80	88	96
24"	40	50	60	70	80	90	100	110	120

Metric to Imperial

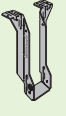
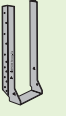
Metric Unit	Imperial Conversion
1 kN	0.2248 kip
1 N	0.2248 lb
1 m	3.281 ft
1 mm	0.0394 in.
1 kg	2.205 lb mass
1 N • m	0.7376 lb • ft
1 N • m	8.851 lb • in.
1 mm ⁴	2.402 x 10 ⁻⁶ in. ⁴
1 Pa	0.0209 lb/ft ²
1 kPa	0.1450 lb/in. ²

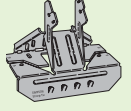
Imperial to Metric

Imperial Unit	Metric Conversion
1 kip	4.448 kN
1 lb	4.448 N
1 ft	0.3048 m
1 in.	25.40 mm
1 lb mass	0.4536 kg
1 lb • ft	1.356 N • m
1 lb • in.	0.1130 N • m
1 in. ⁴	0.4162 x 10 ⁶ mm ⁴
1 lb/ft ²	47.88 Pa
1 lb/in. ²	6.895 kPa

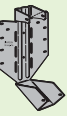
FRAMING CONNECTORS (SIMPSON STRONG-TIE®)

Joist		Single Joist—Top Mount				Single Joist—Face Mount				Face Mount Skewed 45° Joist Hanger			
													
Depth	TJI®	Hanger	Fac. Res. (lbs)	Nailing		Hanger	Fac. Res. (lbs)	Nailing		Hanger	Fac. Res. (lbs)	Nailing	
				Header	Joist			Header	Joist			Header	Joist
9½"	s31, s33	ITS2.56/9.5	1,690	10d	N.A.	IUS2.56/9.5	1,690	10d	N.A.	SUR/L2.56/9	1,900	16d	10d x 1½"
		LT259	1,725	10d	#8 x 1¼" wood screw	LF259	1,760	10d	#8 x 1¼" wood screw				
	s47	ITS3.56/9.5	1,690	10d	N.A.	IUS3.56/9.5	1,685	10d	N.A.	SUR/L410	2,150	16d	16d
		LT359	1,725	10d	#8 x 1¼" wood screw	LF359	2,065	10d	#8 x 1¼" wood screw				
11⅝"	s31, s33	ITS2.56/11.88	1,690	10d	N.A.	IUS2.56/11.88	1,820	10d	N.A.	SUR/L2.56/11	2,245	16d	10d x 1½"
		LT251188	1,725	10d	#8 x 1¼" wood screw	LF2511	1,955	10d	#8 x 1¼" wood screw				
	s47	ITS3.56/11.88	1,690	10d	N.A.	IUS3.56/11.88	1,685	10d	N.A.	SUR/L410	2,225	16d	16d
		LT351188	1,725	10d	#8 x 1¼" wood screw	LF3511	2,065	10d	#8 x 1¼" wood screw				
14"	s31, s33	ITS2.56/14	1,690	10d	N.A.	IUS2.56/14	1,820	10d	N.A.	SUR/L2.56/14	2,245	16d	10d x 1½"
		LT2514	1,725	10d	#8 x 1¼" wood screw	LF2514	1,955	10d	#8 x 1¼" wood screw				
	s47	ITS3.56/14	1,690	10d	N.A.	IUS3.56/14	1,685	10d	N.A.	SUR/L414	2,185	16d	16d
		LT3514	1,725	10d	#8 x 1¼" wood screw	LF3514	2,065	10d	#8 x 1¼" wood screw				
16"	s31, s33	ITS2.56/16	1,690	10d	N.A.	IUS2.56/16	1,935	10d	N.A.	SUR/L2.56/14	2,245	16d	10d x 1½"
		LT2516	1,725	10d	#8 x 1¼" wood screw	MIU2.56/16	2,080	16d	10d x 1½"				
	s47	ITS3.56/16	1,690	10d	N.A.	IUS3.56/16	1,685	10d	N.A.	SUR/L414	2,185	16d	16d
		LT3516	1,725	10d	#8 x 1¼" wood screw	MIU3.56/16	2,160	16d	10d x 1½"				
18"	s47	MIT418	2,160	16d	10d x 1½"	MIU3.56/18	2,160	16d	10d x 1½"	SUR/L414	2,185	16d	16d
20"	s47	MIT420	2,160	16d	10d x 1½"	MIU3.56/20	2,160	16d	10d x 1½"	SUR/L414	2,185	16d	16d

Joist		Double Joist—Top Mount				Double Joist—Face Mount			
									
Depth	TJI®	Hanger	Fac. Res. (lbs)	Nailing		Hanger	Fac. Res. (lbs)	Nailing	
				Header	Joist			Header	Joist
9½"	s31, s33	MIT39.5-2	2,420	16d	10d x 1½"	MIU5.12/9	3,230	16d	10d x 1½"
	s47	B7.12/9.5	3,910	16d	16d	HU410-2	4,225	16d	16d
11⅝"	s31, s33	MIT311.88-2	2,420	16d	10d x 1½"	MIU5.12/11	3,230	16d	10d x 1½"
	s47	B7.12/11.88	3,910	16d	16d	HU412-2	4,225	16d	16d
14"	s31, s33	MIT314-2	2,420	16d	10d x 1½"	MIU5.12/14	3,485	16d	10d x 1½"
	s47	B7.12/14	3,910	16d	16d	HU414-2	4,325	16d	16d
16"	s31, s33	MIT5.12/16	2,420	16d	10d x 1½"	MIU5.12/16	3,485	16d	10d x 1½"
	s47	B7.12/16	3,910	16d	16d	HU414-2	4,325	16d	16d
18"	s47	B7.12/18	3,910	16d	16d	HU414-2	4,325	16d	16d
20"	s47	B7.12/20	3,910	16d	16d	HU414-2	4,325	16d	16d

Joist		Variable Slope Seat Connector ⁽¹⁾			
					
TJI®	Hanger	Fac. Res. (lbs)	Nailing		
			Header	Joist	
s31, s33	VPA3	1,760	10d	10d x 1½"	
s47	VPA4	1,855	10d	10d x 1½"	

Hanger information on these two pages was provided by either Simpson Strong-Tie® or USP Structural Connectors®. For additional information, please refer to their literature.

Joist		Variable Slope Seat Joist Hanger ⁽²⁾			
					
TJI®	Hanger	Fac. Res. (lbs)		Nailing	
		Sloped Only	Sloped and Skewed	Header	Joist
s31, s33	LSSUH310	1,900	1,665	16d	10d x 1½"
s47	LSSUH410	2,350	1,665	16d	10d x 1½"

General Notes


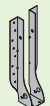
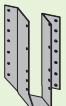
Bold italic hangers require web stiffeners.

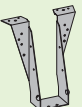
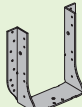
Factored resistances will vary with different nailing criteria or other support conditions; contact your Weyerhaeuser representative for assistance.

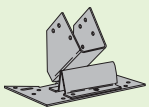
- Hanger factored resistances shown are either joist bearing or hanger factored resistance—whichever is less. Joist end reaction must be checked to ensure it does not exceed the factored resistance shown in the tables.
- All factored resistances are for downward loads, standard term.
- Fill all round, dimple, and positive-angle nail holes.
- Use sloped seat hangers and beveled web stiffeners when TJI® joist slope exceeds ¼:12.
- Leave ⅛" clearance (⅛" maximum) between the end of the supported joist and the header or hanger.
- Nails: 16d = 0.162" x 3½", 10d = 0.148" x 3", and 10d x 1½" = 0.148" x 1½".

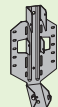
See additional notes on page 23

FRAMING CONNECTORS (USP STRUCTURAL CONNECTORS®)

Joist		Single Joist—Top Mount				Single Joist—Face Mount				Face Mount Skewed 45° Joist Hanger			
													
Depth	TJI®	Hanger	Fac. Res. (lbs)	Nailing		Hanger	Fac. Res. (lbs)	Nailing		Hanger	Fac. Res. (lbs)	Nailing	
				Header	Joist			Header	Joist			Header	Joist
9½"	s31, s33	TFL2595	1,760	10d	10d x 1½"	THF25925	1,870	10d	10d x 1½"	SKH2520L/R	1,735	10d	10d x 1½"
	s47	TH035950	2,140	10d	10d x 1½"	THF35925	2,160	10d	10d x 1½"	SKH410L/R ⁽³⁾	2,160	16d	16d
11⅞"	s31, s33	TFL25118	1,955	10d	10d x 1½"	THF25112	2,080	10d	10d x 1½"	SKH2520L/R	1,925	10d	10d x 1½"
	s47	TH035118	2,140	10d	10d x 1½"	THF35112	2,160	10d	10d x 1½"	SKH410L/R ⁽³⁾	2,160	16d	16d
14"	s31, s33	TFL2514	1,955	10d	10d x 1½"	THF25140	2,080	10d	10d x 1½"	SKH2524L/R	1,925	10d	10d x 1½"
	s47	TH035140	2,140	10d	10d x 1½"	THF35140	2,160	10d	10d x 1½"	SKH414L/R ⁽³⁾	2,160	16d	16d
16"	s31, s33	TFL2516	1,955	10d	10d x 1½"	THF25160	2,080	10d	10d x 1½"	SKH2524L/R	1,925	10d	10d x 1½"
	s47	TH035160	2,140	10d	10d x 1½"	THF35157	2,160	10d	10d x 1½"	SKH414L/R ⁽³⁾	2,160	16d	16d
18"	s47	TFI418	2,160	16d	10d x 1½"	THF35165	2,160	10d	10d x 1½"	SKH414L/R ⁽³⁾	2,160	16d	16d
20"	s47	TFI420	2,160	16d	10d x 1½"	THF35165	2,160	10d	10d x 1½"	SKH414L/R ⁽³⁾	2,160	16d	16d

Joist		Double Joist—Top Mount				Double Joist—Face Mount			
									
Depth	TJI®	Hanger	Fac. Res. (lbs)	Nailing		Hanger	Fac. Res. (lbs)	Nailing	
				Header	Joist			Header	Joist
9½"	s31, s33	TH025950-2	3,800	16d	10d	THF25925-2	3,745	10d	10d
	s47	BPH7195	4,340	16d	10d	HD7100	3,865	16d	10d
11⅞"	s31, s33	TH025118-2	4,400	16d	10d	THF25112-2	4,115	10d	10d
	s47	BPH71118	4,305	16d	10d	HD7120	3,670	16d	10d
14"	s31, s33	TH025140-2	4,400	16d	10d	THF25140-2	4,160	10d	10d
	s47	BPH7114	4,305	16d	10d	HD7140	4,325	16d	10d
16"	s31, s33	TH025160-2	4,400	16d	10d	THF25160-2	4,160	10d	10d
	s47	BPH7116	4,305	16d	10d	HD7140	4,325	16d	10d
18"	s47	BPH7118	4,305	16d	10d	HD7140	4,325	16d	10d
20"	s47	BPH7120	4,305	16d	10d	HD7140	4,325	16d	10d

Joist		Variable Slope Seat Connector ⁽⁴⁾			
					
TJI®	Hanger	Fac. Res. (lbs)	Nailing		
			Header	Joist	
s31, s33	TMP25	1,900	10d	10d x 1½"	
	TMPH25	1,900	10d	10d x 1½"	
9½ – 16"	TMP4	2,175	10d	10d x 1½"	
	TMPH4	2,350	10d	10d x 1½"	
18", 20"	TMP4	2,175	10d	10d x 1½"	

Joist		Variable Slope Seat Joist Hanger ⁽²⁾			
					
TJI®	Hanger	Fac. Res. (lbs)		Nailing	
		Sloped Only	Sloped and Skewed	Header	Joist
s31, s33	LSSH25	1,900	1,900	16d	10d x 1½"
s47	LSSH35	2,255	2,255	16d	10d x 1½"

Support Requirements

- Support material assumed to be Trus Joist® engineered lumber or sawn lumber (Douglas fir, southern pine, or spruce-pine-fir species).
- Minimum support width for single- and double-joist top mount hangers is 3" (1½" for ITS hangers).
- Minimum support width for face mount hangers with 10d and 16d nails (clinched) is 1½" and 1¾", respectively.

Footnotes:

- For TJI® joist depths less than 18", VPA connectors are allowed on slopes of 3:12 through 12:12. For joist depths 18" and deeper, use only at a 3:12 slope.
- For TJI® joist depths less than 18", LSSU, LSSUH, and LSSH hangers can be field adjusted for slopes and skews of up to 45 degrees. For joist depths 18" and deeper, use only at a 3:12 slope; skew up to 45 degrees. Additional lateral restraints are required for 16", 18", and 20" deep TJI® joists.
- Miter cut is required at end of joist.
- TMP connectors are allowed on slopes of 1:12 through 6:12 only, and TMPH connectors are allowed on slopes of 6:12 through 12:12 only. For joist depths 18" and deeper, maximum slope is 3:12.

See General Notes on page 22

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Floors and Roofs: Start with the best framing components in the industry: our Trus Joist® TJI® joists; TimberStrand® LSL rim board; and TimberStrand® LSL, Microllam® LVL, and Parallam® PSL headers and beams. Pull them all together with our self-gapping and self-draining Weyerhaeuser Edge Gold™ floor panels and durable Weyerhaeuser roof sheathing.

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Software Solutions: Whether you are a design professional or lumber dealer, Weyerhaeuser offers an array of software packages to help you specify individual framing members, create cut lists, manage inventories—even help you design a complete structural frame. Contact your Weyerhaeuser representative to find out how to get the software you need.

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