





This photo is only a partial representation of the full product line. See your local Trus Joist MacMillan Dealer or Technical Representative for a list of products available in your area.

FrameWorks® **Building System**

Trus Joist MacMillan's FrameWorks® building system is the benchmark of quality. When integrated into the frame of the house it significantly increases its value and structural quality.

The FrameWorks® building system from Trus Joist MacMillan includes the company's complete line of engineered structural wood products - Silent Floor® brand floor and roof joists, TimberStrand® LSL rim board, Microllam® LVL headers and beams, and Parallam® PSL headers, beams and columns.

A Quality Building System for **Quality Homes**

Length and strength add a whole new dimension to structural systems with Trus Joist MacMillan's FrameWorks® building system. High quality structural products in lengths to 60 feet make for much faster, easier installation, with no length price premium.

Unparalleled **Technical Support**

Trus Joist MacMillan's goal is solid, durable, comfortable homes. Our strong technical support helps builders create quality structures. With TJ-Beam™ software, sizing solutions for Silent Floor® joists, Microllam® LVL, TimberStrand® LSL and Parallam® PSL

are at your fingertips. Easyto-use software provides fast solutions for sizing simple or multiple span floor and

roof members supporting uniform, triangular or point loading, with output that is clear, concise and easy to read. And our support doesn't stop there. Our dealers and distributors have TJ-Xpert™ software to automatically track loads throughout the structure and develop material lists, framing

plans and installation details.

Specify Trus Joist MacMillan's FrameWorks® Building System

When you specify Trus Joist MacMillan's FrameWorks® building system, you are specifying quality in every way. More importantly, you are specifying a more sound, durable and solid home. The Trus Joist MacMillan FrameWorks® building system is innovative technology designed to get the most from the limited forest resource, plus the best service and guarantee in the business.

This guide contains specifications and details for single-family residential applications of these products in dry use, non-treated conditions. We hope you find it useful. If you have questions, are planning an unusual installation, or need information on a multi-family or commercial application, feel free to call the Trus Joist MacMillan representative nearest you.

CODE EVALUATIONS:

FHA 689, FHA 925, NER 119 and NER 481

NOTE: NER Evaluation includes BOCA, ICBO and SBCCI.

A WORD ABOUT FLOOR PERFORMANCE

Floor performance is a very subjective issue that is influenced by many factors. Listed below are several suggestions that may help in the design of a floor system:

- · Deeper joists will reduce deflection.
- · Thicker floor sheathing and/or reducing the on-center spacing of the joists will improve load sharing.
- Adhesives that permanently bond the sheathing to the joists will improve the stiffness of the floor system, and will also prevent squeaks.
- · Directly applied ceilings, bridging, bottom chord stripping, or full depth blocking, will improve floor performance.
- · Framed partition walls, ceilings and other inherent random dead loads will dampen vibrations.
- Workmanship in the field is critical. Proper on-site storage of construction materials, full joist bearing, adequate and level supports, proper installation of the floor sheathing, and care in the fastening (nailing, adhesives, etc.) are most essential.

It is extremely difficult to predict how a floor may feel; therefore, careful consideration must be made when trying to meet a particular level of satisfaction. The perception and expectation of an end user are important in determining the acceptable level of performance for any floor system. Adequate floor performance may require utilization of any of these factors, or others, depending upon the specific application.



HOMEBUYER'S GUARANTEE

We guarantee that the Trus Joist MacMillan products used in your home have been manufactured to precise tolerances and are free from defects in materials and workmanship. In the unlikely event that your floor or roof system develops squeaks or any other problem caused by such defects, and provided that your floor or roof system has been properly installed, we will promptly remedy that problem at no cost to you.

In addition, if you call us with a problem that you believe may be caused by our products, our representative will contact you within one business day to evaluate the problem and help solve it. Guaranteed.

This guarantee is effective for the life of your home.

Part of the FrameWorks® Building System

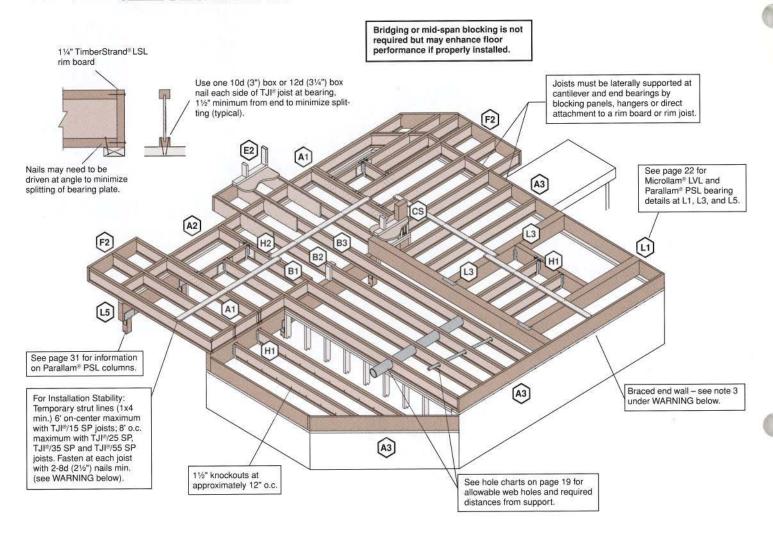
1-800-628-3997

Legacy Literature See Note on Front Cover

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TYPICAL SILENT FLOOR. SYSTEM





WARNING

JOISTS ARE UNSTABLE UNTIL BRACED LATERALLY

BRACING INCLUDES:

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



DO NOT stack building materials on unsheathed joists. Stack only over beams or walls. See note 4 below.

WARNING NOTES:

Lack of concern for proper bracing during construction can result in serious accidents. Under normal conditions if the following guidelines are observed, accidents will be avoided.

- 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) nailed to the first 4 feet of joists at the end of the bay.
- Temporary strut lines of 1x4 (min.) 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 – like a worker and one layer of unnailed sheathing.
- Sheathing must be totally attached to each TJI® joist before additional loads can be placed on the system.
- Ends of cantilevers require strut lines on both the top and bottom flanges.
- The flanges must remain straight within a tolerance of ½" from the true alignment.

40 PSF LIVE LOAD, 10 PSF DEAD LOAD (12 PSF DEAD LOAD AT TJI®/55 SP JOISTS)

(Example: Single layer glue-nailed wood sheathing and direct applied ceiling)

MINIMUM CRITERIA PER CODE

L/360 LIVE LOAD DEFLECTION

JOIST	JOIST		O.C. SF	PACING	The state of the s	
DEPTH	SERIES	12" o.c.	16" o.c.	19.2" o.c.	24" o.c.	
91/2"	TJI®/15 SP	18'-10"	17'-3"	16'-3"	15'-2"	
972	TJI®/25 SP	19'-8"	18'-0"	17'-0"	15'-10"	
100	TJI®/15 SP	22'-5"	20'-6"	19'-4"	E 16'-6"	
117/6"	TJI®/25 SP	23'-5"	21'-5"	20,44	18'-10"(6	
1178	TJI®/35 SP	25'-4"	23'-1"	ONSOF	20'-3"	
	TJI®/55 SP	28'-9"	26'-2" A	200	22'-11"(5	
	TJI®/25 SP	26'-7"	- SK73/ O	22'-11"(6)	19'-8"(6)	
14"	TJI®/35 SP	28'-9"	1169.92	24'-8"	23'-0"(6)	
	TJI®/55 SP	32'-8MP	C63-8.	28'-0"	26'-0"(5)	
S - 10 - 10	TJI®/25 SP	29'-6"	26'-11"(6)	24'-8"(6)	19'-8"(6)	
16"	TJI®/35 SP	31'-10"	29'-0"	27'-4"(6)	23'-2"(6)	
	TJI®/55 SP	36'-1"	32'-10"	30'-11"(5)	28'-9"(5)(6	

IMPROVED PERFORMANCE SYSTEM

L/480 LIVE LOAD DEFLECTION

JOIST	JOIST		0.C. S	PACING	To I House	
DEPTH	SERIES	12" o.c.	16" o.c.	19.2" o.c.	24" o.c.	
91/2"	TJI®/15 SP	17'-0"	15'-6"	14'-8"	13'-8"	
9 1/2	TJI®/25 SP	17'-9"	16'-3"	15'-4"	14'-3"	
1000	TJI®/15 SP	20'-3"	18'-6"	17'-6"	16'-3"	
117/8"	TJI®/25 SP	21'-2"	19'-4"	18'-3"	16'-11"	
1178	TJI®/35 SP	22'-11"	20'-10"	19'-7"	18'-3"	
	TJI®/55 SP	26'-0"	23'-8"	22'-3"	20'-8"	
	TJI®/25 SP	24'-1"	21'-11"	20'-8"	19'-3"(6)	
14"	TJI [®] /35 SP	26'-0"	23'-8"	22'-3"	20'-8"(6)	
	TJI®/55 SP	29'-6"	26'-10"	25'-3"	23'-5"(5)	
	TJI®/25 SP	26'-8"	24'-4"	22'-11"(6)	19'-8"(6)	
16"	TJI®/35 SP	28'-9"	26'-2"	24'-8"	22'-11"(6	
	TJI®/55 SP	32'-8"	29'-8"	27'-11"	25'-11"(5	

40 PSF LIVE LOAD, 20 PSF DEAD LOAD

(Example: Single layer glue-nailed wood sheathing with 3/4" poured gypsum concrete and direct applied ceiling)

MINIMUM CRITERIA PER CODE

L/360 LIVE LOAD DEFLECTION

JOIST	JOIST		O.C. SI	PACING		
DEPTH	SERIES	12" o.c.	16" o.c.	19.2" o.c.	24" o.c.	
91/2"	TJI®/15 SP	18'-10"	17'-1"	15'-7"	13'-9"	
9 /2	TJI®/25 SP	19'-8"	18'-0"	16'-11"	14'-9"(7)	
	TJI®/15 SP	22'-5"	19'-9"	17'-3"	13'-9"	
117/8"	TJI®/25 SP	23'-5"	21'-5"	19'78	16'-5"(6)	
1178	TJI®/35 SP	25'-4"	23'-1"	CHO ME	19'-3"(6)	
	TJI®/55 SP	28'-9"	26'-2"	200	22'-11"	
	TJI®/25 SP	26'-7"	53/201 2	20'-6"(6)	16'-5"(6)	
14"	TJI®/35 SP	28'-9"	118 33	24'-1"(6)	19'-3"(6)	
	TJI®/55 SP	32'-8"MA	-040-	28'-0"(5)	25'-6"(5)(6	
1.8. 11	TJI®/25 SP	29'-6"	24'-8"(6)	20'-6"(6)	16'-5"(8)	
16"	TJI®/35 SP	31'-10"	29'-0"(6)	24'-1"(6)	19'-3"(6)	
	TJI®/55 SP	36'-1"	32'-10"(5)	30'11"(5)(6)	25'-6"(5)(6)	

IMPROVED PERFORMANCE SYSTEM

L/480 LIVE LOAD DEFLECTION

JOIST	JOIST		O.C. S	PACING	A 10 00 00 00
DEPTH	SERIES	12" o.c.	16" o.c.	19.2" o.c.	24" o.c.
91/2"	TJI®/15 SP	17'-0"	15'-6"	14'-8"	13'-8"
372	TJI [®] /25 SP	17'-9"	16'-3"	15'-4"	14'-3"
	TJI®/15 SP	20'-3"	18'-6"	17'-3"	13'-9"
11%"	TJI [®] /25 SP	21'-2"	19'-4"	18'-3"	16'-5"(6)
	TJI®/35 SP	22'-11"	20'-10"	19'-8"	18'-3"(6)
	TJI®/55 SP	26'-0"	23'-8"	22'-3"	20'-8"(5)
	TJI®/25 SP	24'-1"	21'-11"	20'-6"(6)	16'-5"(6)
14"	TJI®/35 SP	26'-0"	23'-8"	22'-3"(6)	19'-3"(5)
	TJI®/55 SP	29'-6"	26'-10"	25'-3"(5)	23'-5"(5)
	TJI®/25 SP	26'-8"	24'-4"(6)	20'-6"(6)	16'-5"(6)
16"	TJI®/35 SP	28'-9"	26'-2"(6)	24'-1"(6)	19'-3"(6)
	TJI®/55 SP	32'-8"	29'-8"	27'-11"(5)	25'-6"(5)(

Although the L/480 Live Load Deflection charts will usually provide better floor performance than the L/360 Live Load Deflection charts, the resulting performance still may not be adequate for your project. See page 3 for *A WORD ABOUT FLOOR PERFORMANCE*, or contact your Trus Joist MacMillan representative for assistance.

GENERAL NOTES:

- Span charts assume composite action with single layer of the appropriate span-rated, glue-nailed wood sheathing for deflection only.
 Spans shall be reduced 5" where sheathing panels are nailed only.
- Spans shown are clear distances between supports and reflect the most restrictive of simple or multiple span applications, based on uniformly loaded joists and include allowable increases for repetitive member use.
- 3. For loading conditions not shown, refer to allowable uniform load tables on page 15.

WEB STIFFENER REQUIREMENTS

End Bearings: Web stiffeners (see detail W on page 7) are not required at end bearings of TJI® floor joists listed in this guide except in hangers when the following conditions exist:

- 4. All Joists: Web stiffeners are required in hangers when the sides of the hanger do not laterally support the TJI® joist top flange. (See detail H1 on page 7.)
- 5. TJI®/55 SP Joists Only: Web stiffeners are required in hangers when the TJI®/55 SP joist span is greater than the spans shown in the following chart:

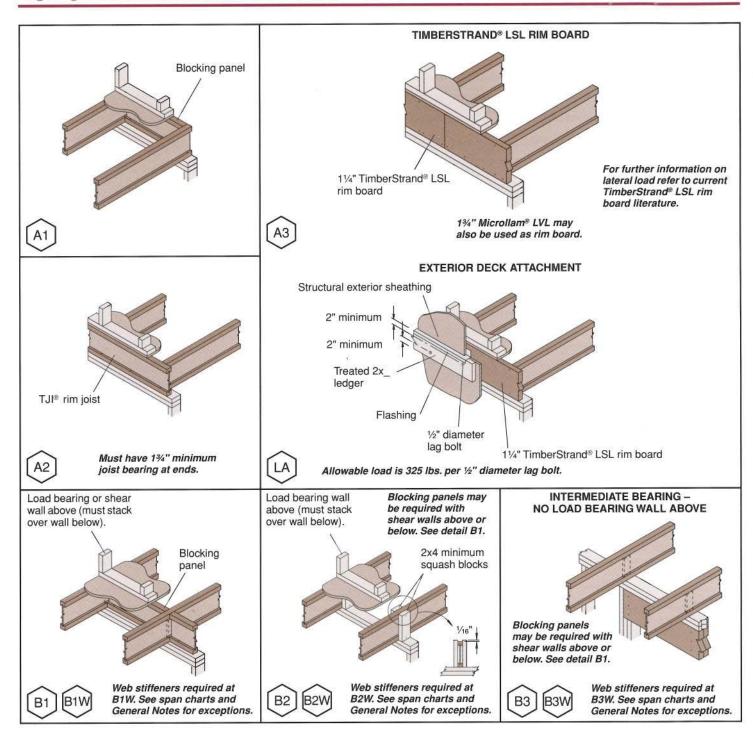
JOIST SERIES	40 PS	SF LIVE LOAD, 1	2 PSF DEAD L	OAD	40 PSF LIVE LOAD, 20 PSF DEAD LOAD				
	12" o.c.	16" o.c.	19.2" o.c.	24" o.c.	12" o.c.	16" o.c.	19.2" o.c.	24"o.c.	
TJI®/55 SP	Not Required	Not Required	28'-8"	22'-11"	Not Required	29'-10"	24'-10"	19'-10"	

6. Intermediate Bearings: At intermediate supports where the joists are continuous span, web stiffeners are required only if the intermediate bearing width is less than 5¼" and the span on either side of the intermediate bearing is greater than the spans shown in the following chart:

JOIST SERIES	40 PS	F LIVE LOAD,	10 PSF DEAD LO	DAD*	40 PSF LIVE LOAD, 20 PSF DEAD LOAD					
	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.		
TJI®/15 SP	W	B STIFFENER	S NOT REQUIRE	D	WEB STIFFENERS NOT REQUIRED					
TJI®/25 SP	Not Required	26'-7"	22'-2"	17'-8"	Not Required	22'-2"	18'-5"	14'-9"		
TJI®/35 SP	Not Required	Not Required	25'-5"	20'-4"	Not Required	25'-5"	21'-2"	16'-11"		
TJI®/55 SP	Not Required	Not Required	Not Required	28'-3"	Not Required	Not Required	30'-7"	24'-5"		

^{*12} PSF Dead Load at TJI®/55 SP joists.

- 7. When using IUT9 hangers with this load/spacing condition the maximum joist span is 14'-3".
- 8. Long term deflection under dead load which includes the effect of creep, common to all wood members, has not been considered for any of the above applications. Shaded spans reflect initial dead load deflection exceeding 0.33", which may be unacceptable. For additional information contact your Trus Joist MacMillan representative.



GENERAL NOTES:

MINIMUM BEARING LENGTH

- 1¾" minimum bearing is required at joist ends.
- 3½" minimum bearing is required when joists are continuous over the support. 5¼" may be required for maximum capacity.

BLOCKING PANELS, RIM BOARDS OR RIM JOISTS

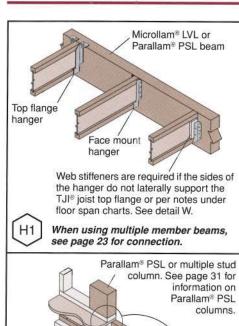
- Vertical load transfer at bearings must be checked for each application. Capacities of rim details shown are as follows:
- Details A1 and A2 provide 2000 plf vertical load transfer for each TJI[®] blocking panel or rim joist.
- Detail A3 provides 3450 plf vertical load transfer for each 1½" TimberStrand® LSL rim board.
 Detail A3 provides 5145 plf vertical load transfer for
- Detail A3 provides 5145 plf vertical load transfer for each 1¾" Microllam® LVL rim board.
- Bracing complying with the code shall be carried to the foundation.

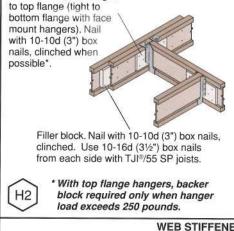
NAILING REQUIREMENTS

- Nail TJI® joists at bearings with 2-10d (3") box or 12d (3¼") box nails (1 each side), 1½" minimum from end to minimize splitting.
- Nail TJI® joist blocking panels or TJI® rim joist to bearing plate with 10d (3") box nails at 6" on-center. Toe-nail TimberStrand® LSL or Microllam® LVL rim board to bearing plate with 10d (3") box nails at 6" on-center or 16d (3½") box nails at 12" on-center. When used for shear transfer, nail to bearing plate with connections equivalent to decking nail schedule.
- Nail 1¾" width (or less) rim board, rim joist or closure to TJI® joist with 2-10d (3") box nails, one each at top and bottom flange. Use 16d (3½") box nails with TJI®/35 SP rim joists. Toe-nail TJI®/55 SP joist to TJI®/55 SP rim joist with one 10d (3") box nail at each side of the top flange.
- Attach 2x4 minimum squash blocks at details B2 and CS to TJI[®] joist with 2-10d (3") box nails, one
 each at top and bottom flange.

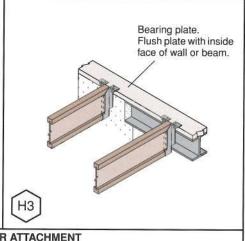
WEB STIFFENER REQUIREMENTS

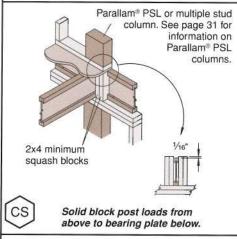
Web stiffeners are required if the sides of the hanger do not laterally support the TJI® joist top flange. Web stiffeners are also required for TJI®/25 SP, TJI®/35 SP and TJI®/55 SP joists per General Notes under floor span charts.

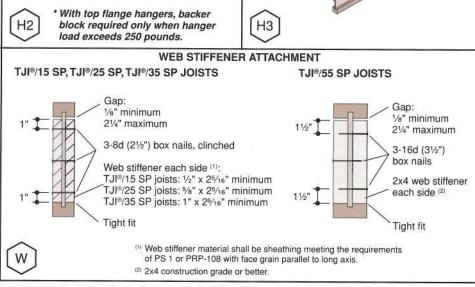




Backer block, install tight

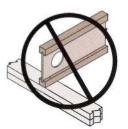






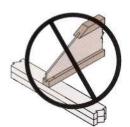
THESE CONDITIONS ARE NOT PERMITTED

DO NOT cut holes too close to supports.



Refer to hole charts on page 19 for minimum distance from bearing wall.

DO NOT bevel cut joist beyond inside face of wall.



DO NOT use solid-sawn dimension lumber for rim board or blocking.



Dimension lumber may shrink after installation.

DO NOT install hanger overhanging face of plate or beam.



Flush bearing plate with inside face of wall or beam.

REFER TO PAGE 6 FOR GENERAL NOTES FOR DETAILS

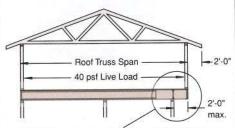
FILLER AND BACKER BLOCK SIZES

	9½" or 11%"	9½" or 11%"	14" or 16"	117/6"	14" or 16"	11%"	14" or 16"
	TJI®/15 SP	TJI [®] /25 SP	TJI®/25 SP	TJI®/35 SP	TJI®/35 SP	TJI®/55 SP	TJI®/55 SP
Filler Block* (Detail H2)	1 1⁄8" net	2x6	2x8	2x6+1/2" plywood	2x8+½" plywood	2-2x6	2-2x8
Cantilever Filler	2x6	2x6	2x10	2x6+1/2" plywood	2x10+1/2" plywood	NC	
(Detail E4)	4'-0" long	4'-0" long	6'-0" long	4'-0" long	6'-0" long	APPLIC	
Backer Block* (Detail F1 or H2)	½" or 5/8"	5/8" or 3/4"	5/8" or 3/4"	1" net	1" net	2x6	2x8

^{*}Filler and backer block length should accommodate required nailing without splitting.

LOAD BEARING CANTILEVER DETAILS

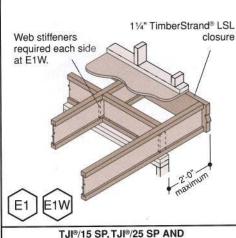
Proper detail selection for each specific application must be determined from tables on pages 9 and 10.



TJI® joists may be cantilevered up to a maximum of 2'-0" when supporting roof load, but may require reinforcement. Consult tables on pages 9 and 10 to determine required reinforcement and details at right for methods of reinforcement.

GENERAL NOTES:

- ¾" reinforcement refers to ¾" CDX plywood or other 3/4" exterior grade 48/24 span-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. Minimum wall plate width is 31/2 inches.
- Other cantilever conditions may be possible. Contact your Trus Joist MacMillan representative for assistance.



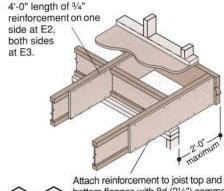
6'-0" length of TJI® joist

reinforcement and filler block. Use 4'-0'

length at 91/2" and

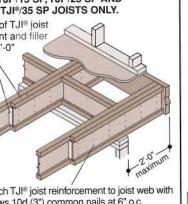
117/8" TJI®

joists.

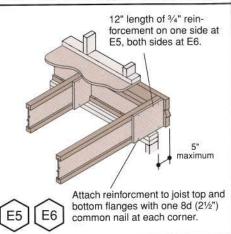


E2

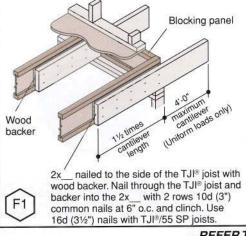
bottom flanges with 8d (21/2") common nails at 6" o.c. When reinforcing both sides, stagger nails to avoid splitting.

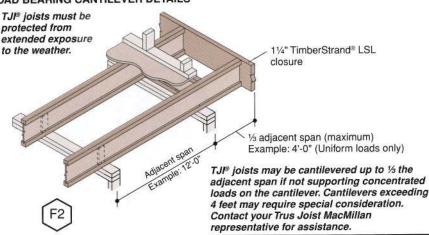


Attach TJI® joist reinforcement to joist web with 3 rows 10d (3") common nails at 6" o.c. clinched. Use 2 rows with 91/2" and 117/8" joists.



NON-LOAD BEARING CANTILEVER DETAILS





REFER TO PAGE 6 FOR GENERAL NOTES FOR DETAILS

Nailing of Sheathing to TJI® Joist Flanges and TimberStrand® LSL or Microllam® LVL Rim Boards

	CLO	CLOSEST O.C. SPACING PER ROW						
NAIL SIZE	TJI®/15 SP	TJI®/25 SP TJI®/35 SP TJI®/55 SP	Microllam® LVL	TimberStrand® LSL				
8d (2½") box	21/2"	2"	3"	4"				
8d (2½") common	31/2"	2"	3"	4"				
10d (3"), 12d (31/4") box	3"	2"	4"	4"				
10d (3"), 12d (31/4") common	41/2"	3"	4"	4"				
16d (3½") common	N.A.	N.A.	8"	6"				

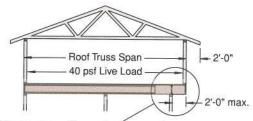
- Maximum spacing of nails is: 18" o.c. for TJI9/15 SP and TJI9/25 SP joists. 24" o.c. for TJI®/35 SP and TJI®/55 SP joists.
- · If more than one row of nails is used, the rows must be offset at least 1/2" and staggered.
- 14 ga. staples may be substituted for 8d (21/2") nails if minimum penetration of 1" into the TJI® joists or rim board is achieved.
- Chart also applies for the attachment of TJI® rim joists and blocking panels to the wall

Jo	ist Layout for
19.2" C	n-Center Spacing
	1 - 193/16"
	2 - 383/8"
	3 - 57 5/8"
	4 - 7613/16"
8'	5 - 96"
	6 - 1153/16"
	7 - 1343/8"
	8 - 1535/8"
	9 - 17213/16"
16'	10 - 192"
	11 - 2113/16"
	12 - 2303/8"
	13 - 2495/8"
	14 - 26813/16"
24'	15 - 288"

TJI® JOIST LOAD BEARING 24" CANTILEVER TABLE

		of Total Load	100	30 PSF			40 PSI		100	50 PSF	
		Joist	16"	19.2"	24"	16"	19.2"	24"	16"	19.2"	24"
1 4 N	S	pacing 24'	0.c.	o.c.	0.0.	o.c.	o.c.	0.C.	O.C.	o.c.	0.C.
D	5	26'	0	0	0	0	0	1	0	1	1 X
91/2" TJI®/15 SP	Roof Truss Span	28'	0	0	1	0	1	1	1	1	X
- E	ISS	30'	0	0	1	0	1	1	1	1	X
7	E	32'	0	0	1	0	1	X	1	1	X
1/2=	300	34'	0	0	1	1	1	X	1	X	X
0		36'	0	1	1	1	1	X	1	X	X
		24'	0	0	0	0	0	1	0	1	1
SP	2	26'	0	0	0	0	0	1	0	1	1
91/21 TJI®/25 SP	Roof Truss Span	28'	0	0	0	0	0	1	0	1	1
(e)	nss	30'	0	0	0	0	0	1	1	1	X
F	E	32'	0	0	1	0	1	1	1	1	X
1/2	Roo	34'	0	0	1	0	1	1	1	1	X
0	-	36'	0	0	1	0	1	1	1	1	X
0		26'	0	0	1	0	1	1	1	1	1
S	an an	28'	0	0	1	0	1	1	1	1	1
15	Sp	30'	0	0	1	1	1	1	1	1	1
TJI®/15 SP	uss	32'	0	0	1	1	1	1	1	1	1
1	Roof Truss Span	34'	0	1	1	1	1	1	1	1	1
117/8"	300	36'	0	1	-1	1	1	1	1	1	X
-	25.05	38'	0	1	1	1	1	1	1	1	X
0		26'	0	0	0	0	0	W	0	W	1
S	an an	28'	0	0	0	0	0	1	0	1	1
25	Sp	30'	0	0	W	0	W	1	W	1	1
117/8" TJI®/25 SP	Roof Truss Span	32'	0	0	W	0	W	1	W	1	1
F.		34'	0	0	W	0	W	1	W	1	1
17/8		36'	0	0	W	0	1	1	1	1	1
-	-	38'	0	0	1	W	1	1	1	1	1
0		26'	0	0	0	0	0	0	0	0	1
SF	117/8" TJI®/35 SP Roof Truss Span	28'	0	0	0	0	0	W	0	W	1
35	Roof Truss Span	30'	0	0	0	0	0	W	0	W	1
5	nss	32'	0	0	0	0	0	1	0	W	1
F	f Tr	34'	0	0	0	0	0	1	0	1	1
17/8	Roo	36'	0	0	0	0	W	1	W	1	1
	177	38'	0	0	W	0	W	1	W	1	2
0		26'	0	0	0	0	0	0	0	0	0
S	an	28'	0	0	0	0	0	0	0	0	0
/55	Sp	30'	0	0	0	0	0	0	0	0	0
5	nss	32'	0	0	0	0	0	0	0	0	1
117/8" TJI®/55 SP	Roof Truss Span	34'	0	0	0	0	0	0	0	0	1
17/8	Roc	36'	0	0	0	0	0	0	0	0	1
-		38'	0	0	0	0	0	0	0	0	1
10 10		26'	0	0	0	0	0	W	0	W	1
		28'	0	0	0	0	0	1	0	1	1
SP	an	30'	0	0	W	0	W	1	W	1	1
52	Sp	32'	0	0	W	0	W	1	W	1	1
14" TJI®/25 SP	Roof Truss Span	34'	0	0	W	0	W	1	W	1	1
F	of Tr	36'	0	0	W	0	1	1	1	1	1
14	Roc	38'	0	0	1	W	1	1	1	1	1
		40'	0	W	1	W	1	1	1	1	1
		42'	0	W	1	W	1	1	1	1	1
		26'	0	0	0	0	0	0	0	0	1
2		28'	0	0	0	0	0	W	0	W	1
SP	oan	30'	0	0	0	0	0	W	0	W	1
35	S	32"	0	0	0	0	0	1	0	W	1
/91	rus	34'	0	0	0	0	0	1	0	1	1
F	of T	36'	0	0	0	0	W	1	W	1	1
14" TJI®/35 SP	Roof Truss Span	38'	0	0	W	0	W	1	W	1	1
		40'	0	0	W	0	W	1	W	1	1
100		42'	0	0	W	0	W	1	1	1	1
300	8 8 8	26'	0	0	0	.0	0	0	0	0	0
_	TEN I	28'	0	0	0	0	0	0	0	0	0
SF	pan	30'	0	0	0	0	0	0	0	0	0
55	SS	32'	0	0	0	0	0	0	0	0	0
-	rus	34'	0	0	0	0	0	0	0	0	0
14" TJI®/55 SP	Roof Truss Span	36'	0	0	0	0	0	0	0	0	1
4	Ro	38'	0	0	0	0	0	0	0	0	1
74 17		40'	0	0	0	0	0	0	0	0	1
1		42'	0	0	0	0	0	0	0	0	- 4

0



TJI® joists may be cantilevered up to a maximum of 2'-0" when supporting roof load, but may require reinforcement. Consult table and refer to footnotes to determine required reinforcement. See details E1, E2, E3 and E4 on page 8 for methods of reinforcement (detail E4 not used with TJI®/55 SP joists).

Numbers in tables refer to footnotes below.

- 0. No reinforcement required.
- W. Web stiffener required each side of joist at bearing (detail E1 on page 8).
- 3/4" x 48" reinforcement required on one side of joist (detail E2 on page 8) or, double the joists (detail E4 on page 8). Detail E4 not used with TJI®/55 SP joists.
- 3/4" x 48" reinforcement required on both sides of joist (detail E3 on page 8) or, double the joists (detail E4 on page 8). Detail E4 not used with TJI®/55 SP joists.
- X. Will not work. Reduce spacing of joists and recheck on table.

GENERAL NOTES:

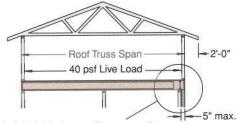
- Assumes a 10 psf roof dead load and 60 plf wall load. Additional support may be required for other loadings.
- 3/4" reinforcement refers to 3/4" CDX plywood or other 3/4" exterior grade 48/24 span-rated sheathing that is cut to match the full depth of the joist. Install with face grain horizontal. Reinforcing member must bear fully on the wall plate. Minimum wall plate width is 31/2 inches.
- · Calculations assume a bearing stress of 480 psi.
- Tables assume roof truss with 24" soffits.

		f Total oad		30 PSF			40 PSF			50 PSF	
		oist acing	16" o.c.	19.2" o.c.	24" o.c.	16" o.c.	19.2" o.c.	24" o.c.	16" o.c.	19.2" o.c.	24' 0.C
	1	26'	0	0	0	0	0	W	0	W	1
		28'	0	0	0	0	0	1	0	1	1
SP	nec	30'	0	0	W	0	W	1	W	1	1
16" TJI®/25	S	32'	0	0	W	0	W	1	W	1	1
=	Roof Truss Span	34'	0	0	W	0	W	1	W	1	1
H	J.	36'	0	0	W	0	1	1	1	1	1
16	Roc	38'	0	0	1	W	1	1	1	1	1
		40'	0	W	1	W.	1	1	1	1	1
		42'	0	W	1	W	1	1	1	1	1
		26'	0	0	0	0	0	0	0	0	1
		28'	0	0	0	0	0	W	0	W	1
SP	oan	30'	0	0	0	0	0	W	0	W	1
35	Sis	32'	0	0	0	0	0	1	0	W	1
16" TJI®/35 SP	Roof Truss Span	34'	0	0	0	0	0	1	0	1	1
F	T to	36'	0	0	0	0	W	1	W	1	1
16	Roc	38'	.0	0	W	0	W	1	W	1	1
		40'	0	0	W	0	W	1	W	1	1
		42'	0	0	W	0	W	1	1	1	1
		26'	0	0	0	0	0	0	0	0	0
20		28'	0	0	0	0	0	0	0	0	0
SP	Jan	30'	0	0	0	0	0	0	0	0	0
TJI®/55	Roof Truss Span	32'	0	0	0	0	0	0	0	0	0
110/	rus	34'	0	0	0	0	0	0	0	0	0
+	of Ti	36'	0	0	0	0	0	0	0	0	0
191	Roc	38'	0	0	0	0	0	0	0	0	0
		40'	0	0	0	0	0	0	0	0	1
-		42'	0	0	0	0	0	0	0	0	1

TJI® Joist Residential Load Bearing Cantilever Tables

TJI® JOIST LOAD BEARING CANTILEVER TABLE - BRICK LEDGE

[Total		30 PSF		50	40 PSF			50 PSF	
1	Jo	oist icing	16" o.c.	19.2" o.c.	24" o.c.	16" o.c.	19.2" o.c.	24" o.c.	16" o.c.	19.2" o.c.	24'
	Ope	24'	0	0	0	0	0	1	1	1	1
	9	26'	0	0	1	0	0	1	1	1	1
7/2" & 11% TJI-/15 SP	Roof Truss Span	28'	0	0	1	0	0	1	1	1	1
5 -1	SS	30'	0	0	1	0	0	1	1	1	1
91/2" & 117/6" TJI//15 SP	星	32'	0	1	1	0	1	1	1	1	2
12%	oot	34'	0	1	1	0	1	1	1	1	2
Q)	Œ	36'	0	1	1	0	1	1	1	1	2
		24'	0	0	0	0	0	1	0	1	1
16	_	26'	0	0	0	0	0	1	0	1	1
D 00	Spa	28'	0	0	0	0	1	1	1	1	1
17%",14" 8 FJI /25 SP	SS	30'	0	0	1	0	1	1	1	1	1
38	Tra	32"	0	0	1	0	1	1	1	1	1
9½",11½",14" & 16" TJM25 SP	Roof Truss Span	34'	0	0	1	0	1	1	1	1	1
316	Œ	36'	0	0	1-	1	1	1	4	1	2
		26'	0	0	0	0	0	1	0	0	0
16"	=	28'	0	0	0	0	0	1	0	1	0
SP 0	Roof Truss Span	30'	0	0	0	0	0	1	0	1	0
	SS	32'	0	0	0	0	0	1	0	1	0
1176", 14" TJI=/35	T	34'	0	0	0	0	1	1	1	1	1
18/2	oot	36'	0	0	1	0	1	1	1	1	2
=	CC CC	38'	0	0	1	0	1	1	1	1	2
		26'	0	0	0	0	0	0	0	0	0
D	-		0	0	0	0	0	0	0	0	0
5	Roof Truss Span	28'	0	0	0	0	0	0	0	0	0
9/2	55	30'	0	0	0	0	0	0	0	0	1
7		32'	0	0	0	0	0	0	0	0	1
18/8	oot	34'	0	0	0	0	0	0	0	0	2
117/8" TJIe/55 SP	TT.		0	0	0	0	0	0	0	0	2
	-	38'	0	0	0	0	0	0	0	0	0
		26'	0	0	0	0	0	0	0	0	0
0.	-	-	0	0	0	0	0	0	0	0	0
S	Spa	30'	0	0	0	0	0	0	0	0	0
12	SS	34'	0	0	0	0	0	0	0	0	0
14" TJI=/55 SP	Roof Truss Span	36'	0	0	0	0	0	0	0	0	2
-	oof	38'	0	0	0	0	0	0	0	0	2
1	Œ	40'	0	0	0	0	0	0	0	0	2
		40'	0	0	0	0	0	0	0	0	2
		26'	0	0	0	0	0	0	0	0	0
3 -		28'	0	0	0	0	0	0	0	0	0
0.	-	30'	0	0	0	0	0	0	0	0	0
S	Spa		0	0	0	0	0	0	0	0	0
/55	SS	32'	0	0	0	0	0	0	0	0	1
5	Tru	1	0	0	0	0	0	0	0	0	2
16" TJI∾/55 SP	Roof Truss Span	36'	0	0	0	0	0	0	0	0	2
16	Œ	38*	0	0	0	0	0	0	0	0	2
		40'	0	0	0	0	0	0	0	0	2
		42'	U	U	U	0	U	0	U	0	1 4



TJI® joists for brick ledge cantilevers may be cantilevered up to 5" when supporting roof load, but may require reinforcement. Consult table and refer to footnotes to determine required reinforcement. See details E5 and E6 on page 8 for method of reinforcement.

Numbers in tables refer to footnotes below.

- 0. No reinforcement required.
- 3/4" x 12" reinforcement required on one side of joist. Attach per detail E5 on page 8.
- 3/4" x 12" reinforcement required on both sides of joist. Attach per detail E6 on page 8.

GENERAL NOTES:

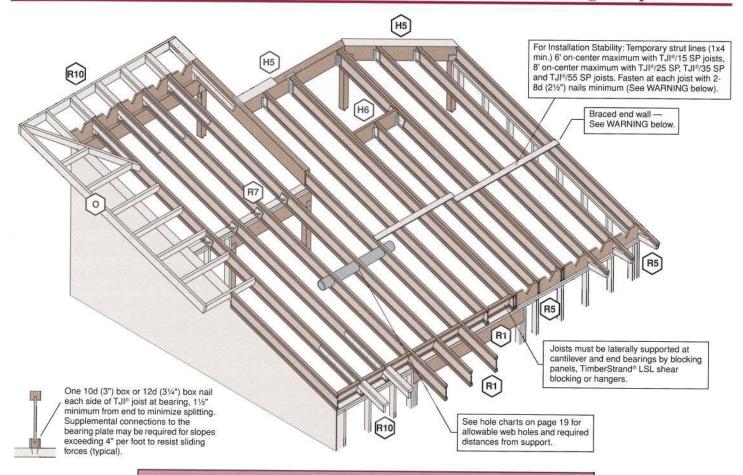
- Assumes a 10 psf roof dead load and 60 plf wall load. Additional support may be required for other loadings.
- 3/4" reinforcement refers to 3/4" CDX plywood or other 3/4" exterior grade 48/24 span-rated sheathing that is cut to match the full depth of the joist. Install with face grain horizontal. Reinforcing member must bear fully on the wall plate. Minimum wall plate width is 31/2 inches.
- · Calculations assume a bearing stress of 480 psi.
- · Table assumes roof truss with 24" soffits.

PSF TO PLF CONVERSION TABLE

Load in lbs. per lineal foot (PLF)

o.c.		LOAD IN LBS. PER SQUARE FOOT (PSF)											
Spacing	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				

TJI® Joist Residential Roof Framing & Span Chart



WARNING
Unbraced joists are unstable. See complete warning on page 4.

RESIDENTIAL ROOF SPAN CHART

Low Slope: 6"/12" or less

High Slope: Over 6"/12" through 12"/12"

					01-11-2	S TO T	DES	SIGN LIV	E LOAD	(LL) Al	ND DEA	LOAD	(DL) IN	PSF	05 050	M. W.S.	330.00
				N	ON-SNC	W (125°		- 3-	LES IN			V LOAD					-
O.C. SPACING	DEPTH	SERIES	SLOPE	16LL 15DL	16LL 20DL	20LL 15DL	20LL 20DL	20LL 15DL	20LL 20DL	25LL 15DL	25LL 20DL	30LL 15DL	30LL 20DL	40LL 15DL	40LL 20DL	50LL 15DL	50LL 20DL
		TJI®/15 SP	LOW	N.A.	N.A.	20'-3"	19'-4"	20'-3"	19'-4"	19'-5"	18'-7"	18'-8"	17'-11"	17'-5"	16'-11"	16'-6"	16'-0"
7501.0	91/2"	10171331	HIGH	18'-9"	17'-8"	18'-1"	17'-2"	18'-1"	17'-2"	17'-5"	16'-7"	16'-10"	16'-1"	15'-9"	15'-2"	15'-0"	14'-6"
	0 /2	TJI®/25 SP	LOW	N.A.	N.A.	21'-4"	20'-3"	21'-4"	20'-3"	20'-5"	19'-6"	19'-7"	18'-10"	18'-4"	17'-9"	17'-4"	16'-10
		10172001	HIGH	19'-8"	18'-6"	19'-0"	18'-0"	19'-0"	18'-0"	18'-3"	17'-5"	17'-8"	16'-10"	16'-7"	16'-0"	15'-9"	15'-3"
		TJI®/15 SP	LOW	N.A.	N.A.	24'-6"	23'-4"	24'-6"	23'-4"	23'-5"	22'-5"	22'-6"	21'-8"	21'-1"	20'-5"	19'-11"	19'-3"
		10111001	HIGH	22'-7"	21'-3"	21'-10"	20'-8"	21'-10"	20'-8"	21'-0"	20'-0"	20'-3"	19'-4"	19'-1"	18'-4"	18'-1"	17'-6"
		TJI®/25 SP	LOW	N.A.	N.A.	25'-7"	24'-5"	25'-7"	24'-5"	24'-6"	23'-6"	23'-7"	22'-8"	22'-1"	21'-4"	20'-10"	20'-3"
	117/8"	101720 01	HIGH	23'-8"	22'-4"	22'-10"	21'-8"	22'-10"	21'-8"	22'-0"	20'-11"	21'-3"	20'-3"	19'-11"	19'-3"	18'-11"	18'-4"
		TJI®/35 SP	LOW	N.A.	N.A.	27'-10"	26'-6"	27'-10"	26'-6"	26'-8"	25'-6"	25'-7"	24'-8"	23'-11"	23'-2"	22'-8"	22'-0"
		101700 01	HIGH	25'-9"	24'-3"	24'-10"	23'-6"	24'-10"	23'-6"	23'-11"	22'-9"	23'-1"	22'-1"	21'-8"	20'-11"	20'-7"	19'-11
		TJI8/55 SP	LOW	N.A.	N.A.	31'-11"	30'-4"	31'-11"	30'-4"	30'-6"	29'-3"	29'-4"	28'-5"	27'-5"	26'-7"	25'-11"	25'-2"
16"		1011100001	HIGH	29'-5"	27'-9"	28'-5"	26'-11"	28'-5"	26'-11"	27'-4"	26'-1"	26'-5"	25'-3"	24'-10"	23'-11"	23'-7"	22'-10
		TJI®/25 SP	LOW	N.A.	N.A.	29'-4"	27'-11"	29'-4"	27'-11"	28'-0"	26'-10"	27'-0"	25'-11"	25'-3"	24'-5"	23'-6"	21'-10
Nile !			HIGH	27'-1"	25'-6"	26'-2"	24'-9"	26'-2"	24'-9"	25'-2"	23'-11"	24'-3"	23'-2"	22'-10"	22'-0"	21'-8"	20'-8"
33003	14"	TJI9/35 SP	LOW	N.A.	N.A.	31'-9"	30'-3"	31'-9"	30'-3"	30'-5"	29'-1"	29'-3"	28'-1"	27'-4"	26'-5"	25'-10"	25'-1"
100 700		his fell france and	HIGH	29'-4"	27'-8"	28'-4"	26'-10"	28'-4"	26'-10"	27'-3"	25'-11"	26'-4"	25'-2"	24'-9"	23'-10"	23'-6"	22'-9"
34 111		TJI8/55 SP	LOW	N.A.	N.A.	36'-4"	34'-7"	36'-4"	34'-7"	34'-9"	33'-3"	33'-5"	32'-2"	31'-3"	30'-3"	29'-6"	28'-9"
			HIGH	33'-6"	31'-7"	32'-5"	30'-8"	32'-5"	30'-8"	31'-2"	29'-8"	30'-1"	28'-9"	28'-3"	27'-3"	26'-10"	26'-0"
10000		TJI®/25 SP	LOW	N.A.	N.A.	32'-8"	31'-1"	32'-8"	31'-1"	31'-3"	29'-11"	30'-1"	28'-11"	27'-10"	25'-6"	23'-6"	21'-10'
2 2 3			HIGH	30'-2"	28'-5"	29'-2"	27'-7"	29'-2"	27'-7"	28'-0"	26'-8"	27'-0"	25'-10"	25'-5"	23'-8"	22'-8"	20'-8"
	16"	TJI®/35 SP	LOW	N.A.	N.A.	35'-4"	33'-8"	35'-4"	33'-8"	33'-10"	32'-5"	32'-6"	31'-3"	30'-5"	29'-3"	27'-0"	25'-1"
Williams !			HIGH	32'-8"	30'-9"	31'-6"	29'-10"	31'-6"	29'-10"	30'-4"	28'-10"	29'-3"	28'-0"	27'-6"	26'-6"	26'-1"	25'-3"
100		TJI®/55 SP	LOW	N.A.	N.A.	40'-4"	38'-5"	40'-4"	38'-5"	38'-7"	36'-11"	37'-1"	35'-8"	34'-8"	33'-7"	32'-10"	31'-11'
	ALC: NO	101 00 01	HIGH	37'-3"	35'-1"	36'-0"	34'-1"	36'-0"	34'-1"	34'-7"	32'-11"	33'-5"	31'-11"	31'-5"	30'-3"	29'-10"	28'-10"

See page 12 for applicable notes.

TJI® Joist Residential Roof Span Chart

RESIDENTIAL ROOF SPAN CHART

Low Slope: 6"/12" or less

High Slope: Over 6"/12" through 12"/12"

				BANK TOWN			DES	IGN LIVI	ELOAD	(LL) AN	D DEAD	LOAD (DL) IN F	PSF			
				N/	ON-SNO	N (1259					SNOW	LOAD A	AREA (1	15%)			
				16LL	16LL	20LL	20LL	20LL	20LL	25LL	25LL	30LL	30LL	40LL	40LL	50LL	50LL
O.C. SPACING	DEPTH	SERIES	SLOPE	15DL	20DL	15DL	20DL	15DL	20DL	15DL	20DL	15DL	20DL	15DL	20DL	15DL	20DL
PACING	DEFIN		LOW	N.A.	N.A.	19'-1"	18'-2"	19'-1"	18'-2"	18'-3"	17'-5"	17'-6"	16'-10"	16'-5"	15'-10"	15'-6"	15'-1"
		TJI®/15 SP	HIGH	17'-7"	16'-7"	17'-0"	16'-1"	17'-0"	16'-1"	16'-4"	15'-7"	15'-9"	15'-1"	14'-10"	14'-3"	14'-1"	13'-7"
	91/2"		LOW	N.A.	N.A.	20'-0"	19'-1"	20'-0"	19'-1"	19'-2"	18'-4"		17'-8"	17'-2"	16'-8"	16'-3"	15'-10"
		TJI®/25 SP	HIGH	18'-6"	17'-5"	17'-10"	16'-11"	17'-10"	16'-11"	17'-2"	16'-4"	16'-7"	15'-10"	15'-7"	15'-0"	14'-9"	14'-3"
			LOW	N.A.	N.A.	23'-0"	21'-11"	23'-0"	21'-11"	22'-0"	21'-1"	21'-2"	20'-4"	19'-9"	18'-11"	18'-4"	17'-0"
	PART I	TJI®/15 SP	HIGH	21'-3"	20'-0"	20'-6"	19'-5"	20'-6"	19'-5"	19'-8"	18'-9"	19'-0"	18'-2"	17'-11"	17'-3"	17'-0"	16'-5"
			LOW	N.A.	N.A.	24'-1"	22'-11"	24'-1"	22'-11"	23'-0"	22'-1"	22'-2"	21'-3"	20'-8"	20'-0"	19'-7"	18'-2"
		TJI®/25 SP	HIGH	22'-3"	20'-11"	21'-6"	20'-4"	21'-6"	20'-4"	20'-8"	19'-8"	19'-11"	19'-1"	18'-9"	18'-0"	17'-9"	20'-8"
	111/8"		LOW	N.A.	N.A.	26'-2"	24'-11"	26'-2"	24'-11"	25'-0"	23'-11"	24'-1"	23'-1"	22'-6"	21'-9"	21'-3"	18'-8"
		TJI®/35 SP	HIGH	24'-2"	22'-9"	23'-4"	22'-1"	23'-4"	22'-1"	22'-5"	21'-4"	21'-8"	20'-8"	20'-4"	19'-7"	19'-4"	
			LOW	N.A.	N.A.	29'-11"	28'-6"	29'-11"	28'-6"	28'-8"	27'-5"	27'-6"	26'-6"	25'-9"	24'-11"		23'-8"
		TJI®/55 SP	HIGH	27'-8"	26'-1"	26'-9"	25'-4"	26'-9"	25'-4"	25'-8"	24'-5"	24'-10"	23'-9"	23'-4"	22'-5"	22'-1"	18'-2"
19.2"		Name and Address of the Owner, where	LOW	N.A.	N.A.	27'-6"	26'-2"	27'-6"	26'-2"	26'-4"	25'-2"	25'-4"	24'-4"	23'-2"	21'-3"	19'-7"	17'-2"
		TJI®/25 SP	HIGH	25'-5"	23'-11"	24'-7"	23'-3"	24'-7"	23'-3"	23'-7"	22'-6"	22'-9"	21'-9"	21'-5"	19'-8"	18'-11"	20'-10
			LOW	N.A.	N.A.	29'-10'	28'-5"	29'-10"	28'-5"	28'-7"	27'-4"	27'-5"	26'-5"	25'-8"	24'-4"	22'-6"	21'-2"
	14"	TJI [®] /35 SP	HIGH	27'-7"	26'-0"	26'-7"	25'-3"	26'-7"	25'-3"	25'-7"	24'-4"	24'-8"	23'-8"	23'-3"	22'-4"	27'-9"	26'-11
			LOW	N.A.	N.A.	34'-1"	32'-6"	34'-1"	32'-6"	32'-7"	31'-3"	31'-4"	30'-2"	29'-4"	28'-5" 25'-7"	25'-2"	24'-5"
		TJI®/55 SP	HIGH	31'-6"	29'-8"	30'-5"	28'-10'	30'-5"	28'-10"	29'-3"	27'-10"	28'-3"	27'-0"	26'-7"		19'-7"	18'-2"
			LOW	N.A.	N.A.	30'-8"	29'-3"	30'-8"	29'-3"	29'-4"	28'-1"	28'-3"	25'-6"	23'-2"	21'-3" 19'-8"	18'-11'	17'-2"
		TJI®/25 SP	HIGH	28'-4"	26'-8"	27'-4"	25'-11'	27'-4"	25'-11"	26'-4"	25'-1"	25'-5"	23'-1"	22'-0"	T. C. Marian	22'-6"	20'-10
		- 110/05 05	LOW	N.A.	N.A.	33'-2"	31'-7"	33'-2"	31'-7"	31'-9"	30'-5"	30'-6"	29'-3"	26'-7"	24'-4"	23'-3"	21'-2"
	16"	TJI®/35 SP	HIGH	30'-8"	28'-11'	29'-7"	28'-1"	29'-7"	28'-1"	28'-6"	27'-1"	27'-6"	26'-3"	25'-10'	24'-3"	30'-0"	27'-8'
		T 112/55 OD	LOW	N.A.	N.A.	37'-10	" 36'-1"	37'-10'		36'-3"	34'-8"	34'-10"		32'-7"	28'-5"	28'-0"	25'-7"
		TJI®/55 SP	HIGH	35'-0"	33'-0"	33'-9"	32'-0"	33'-9"	32'-0"	32'-6"	30'-11"	31'-4"	30'-0"	29'-6"	14'-8"	14'-2"	13'-7'
100 10		THEATON	LOW	N.A.	N.A.	17'-8"	16'-9"	17'-8"	16'-9"	16'-10"	16'-2"	16'-3"	15'-7"	15'-2"	13'-2"	13'-0"	12'-7'
	01/11	TJI%/15 SP	HIGH	16'-4"	15'-4"	15'-9"	14'-11	15'-9"	14'-11'	15'-2"	14'-5"	14'-7"	13'-11'		15'-5"	15'-0"	14'-6'
	91/2"	T 118/05 CD	LOW	N.A.	N.A.	18'-6"	17'-7"	18'-6"	17'-7"	17'-8"	16'-11'	17'-0"	16'-4"	15'-11	13'-10'		13'-3'
		TJI®/25 SP	HIGH	17'-1"	16'-1"	16'-6"	15'-8"	16'-6"	15'-8"	15'-11'	15'-1"	15'-4"	14'-8"	17'-4"	15'-10		13'-7'
		THEME OF	LOW	N.A.	N.A.	21'-3"	20'-3"	21'-3"	20'-3"	20'-4"	19'-5"	19'-7"	18'-6"		15'-9"	15'-1"	13'-9'
		TJI®/15 SP	HIGH	19'-8"	18'-6"	19'-0"	18'-0"	19'-0"	18'-0"	18'-3"	17'-4"	17'-7"	16'-10	18'-6"	16'-11		14'-6'
		TJI®/25 SP	LOW	N.A.	N.A.	22'-3"	21'-2"	22'-3"	21'-2"	21'-4"	20'-5"	20'-6"	17'-8"	17'-4"	15'-9"	15'-1"	13'-8'
	447/11	131-125 SF	HIGH	20'-7"	19'-5"	19'-11	" 18'-10		" 18'-10'		18'-2"	18'-5"	21'-5"	20'-9"	19'-5"	17'-11	
	117/8"	TJI®/35 SP	LOW	N.A.	N.A.	24'-2"	23'-0"	24'-2"	23'-0"	23'-2"	22'-2"	20'-1"	19'-2"	18'-10	17'-9"	17'-0"	
		131733 31	HIGH	22'-5"	21'-1"	21'-7"	20'-5"	21'-7"	20'-5"	20'-9"	19'-9"	25'-6"	24'-6"	23'-10	" 23'-0"	22'-6"	
		TJI®/55 SP	LOW	N.A.	N.A.	27'-8"	26'-5"	27'-8"	26'-5"	26'-6"	25'-4"	22'-11	21'-11		20'-9"	20'-6"	19'-1
0.417		101/33/31	HIGH	25'-8"	24'-2"	24'-9"	23'-5"	24'-9"	23'-5"	23'-9"	22'-8"	22'-8"	20'-4"	18'-6"	16'-11	_	14'-6
24"		TJI®/25 SP	LOW	N.A.	N.A.	25'-6"	24'-3"	25'-6"	24'-3"	24'-4"		21'-0"	18'-6"	17'-7"	15'-9"	15'-1"	
		101 /20 01	HIGH	23'-7"	22'-2"	22'-9"	21'-6"	22'-9"	21'-6"	21'-10	25'-3"	25'-5"	24'-5"	21'-3"	19'-5"	17'-11	
	14"	TJI®/35 SF	LOW	N.A.	N.A.	27'-7"	26'-3"	27'-7"	26'-3"	26'-5"	22'-7"	22'-10	AV.		19'-5"	18'-7"	
	14	101733 31	HIGH	25'-6"	24'-1"	24'-8"	23'-4"		23'-4"	23'-8"	28'-11		27'-11		25'-8"	24'-0"	22'-1
	V 72. 3.	TJI®/55 SF	LOW	N.A.	N.A.	31'-7"	-	The state of the s	30'-1"	_	25'-9"	26'-2"	25'-0"	The state of the s	23'-5"	22'-6"	20'-5
	A PRINCE	101 700 01	HIGH	29'-2"		28'-2"			26'-8"	27'-1"	22'-8"	22'-8"	20'-4"		16'-11		
	N STORY	TJI®/25 SF	LOW	N.A.	N.A.	28'-5'		The same of the sa	-	25'-6"	20'-2"	21'-0"	18'-6"	The second second	15'-9"	15'-1"	-
	S DEVIS	101723 31	HIGH			25'-4'				23'-4"	26'-0"	26'-0"	23'-4"		19'-5"		
	16"	TJI®/35 SF	LOW	N.A.	N.A.	30'-9'	-	-		29'-3"	-	" 25'-5"	22'-9"		19'-5"		
	10	101/00/01	HIGH			27'-5'				26'-4"	32'-1"	32'-3"	30'-7"		25'-8"		-
	126 18	TJI®/55 SF	LOW	N.A.	N.A.	35'-1'	_	-	-	33'-6"	-	29'-0"	27'-6"	and the second second	23'-5"		_
	0 30 30 5	101/33/31	HIGH	32'-5"	30'-6"	31'-4'	29'-8'	31'-4"	29'-8"	30'-1"	28'-8"	29-0	21-0	20-2	20 0	0	

GENERAL NOTES:

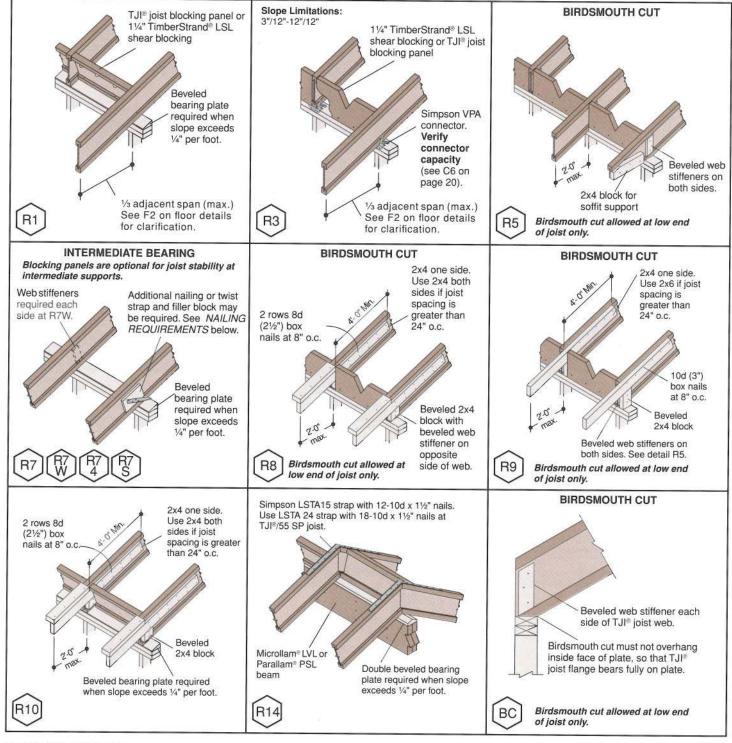
- Roof surface must be sloped ¼" in 12" minimum to provide positive drainage.
- 2. Maximum deflection is limited to L/180 at total load, and L/240 at live load.
- 3. For loads not shown, refer to allowable uniform load tables on page 16.
- 4. Charts are based on a support beam or wall at the high end. Applications utilizing ridge boards are not covered by these charts.
- 5. Spans shown are horizontal clear distances between supports and reflect the most restrictive of simple or multiple span applications, based on uniformly loaded joists and include allowable increases for repetitive member use.

WEB STIFFENER REQUIREMENTS

- 6. Spans shown assume no web stiffeners at intermediate bearings. Longer spans may be possible. Use TJ-Beam™ design software or consult your Trus Joist MacMillan representative.
- 7. TJI®/15 SP, TJI®/25 SP and TJI®/35 SP Joists: Web stiffeners (see detail W on page 7) are required if the sides of the hanger do not laterally support the TJI® joist top flange. Web stiffeners are also required at all sloped hanger and birdsmouth cut locations.
- 8. TJI®/55 SP Joists: Web stiffeners are required at all hanger and birdsmouth cut locations.

Legacy Literature See Note on Front Cover

TJI® Joist Residential Roof Details



GENERAL NOTES:

MINIMUM BEARING LENGTH

- · 13/4" minimum bearing is required at joist ends.
- 3½" minimum bearing is required when joists are continuous over the support.

SLOPE/BEVEL PLATE CRITERIA

- Unless otherwise noted, all details are valid to maximum 12" per foot slope.
- A sloped bearing surface is required for all slopes exceeding ½" per foot for wood bearing surfaces. Where reaction allows, Simpson VPA connectors may be used in lieu of beveled bearing plate. See R3 for additional information. At the low end of joists a birdsmouth cut may be used without a beveled bearing surface. See detail BC.
- Slope seats for hangers are required when the roof slope exceeds ½" per foot. Beveled web stiffeners are required at sloped seat hangers.
- Supplemental connections to the bearing plate may be required for sloped conditions beyond 4" per foot to resist sliding forces.

NAILING REQUIREMENTS

- Nail joists at end bearings with 2-10d (3") box or 12d (31/4") box nails (1 each side), 11/2" minimum from end to minimize splitting.
- Nail joists at intermediate bearings with:

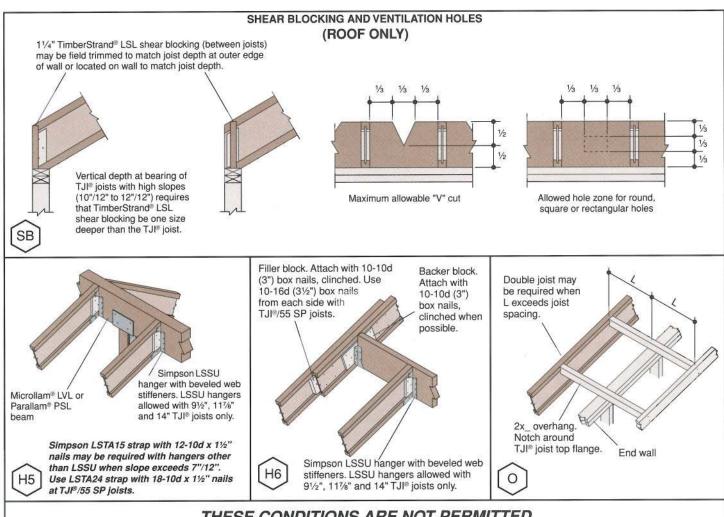
2-10d (3") box or 12d (31/4") box nails (1 each side) when roof slope is less than 4" per foot. See detail R7.

4-10d (3") box or 12d (31/4") box nails (2 each side) when roof slope is from 4" per foot to 5" per foot. See detail R74.

4-10d (3") box or 12d (31/4") box nails (2 each side) plus a twist strap and filler block when roof slope is greater than 5" per foot. See detail R7S.

Nail TJI® joist blocking panels to bearing plate with 10d (3") box nails at 6" on-center. Toe-nail TimberStrand® LSL shear blocking to bearing plate with 10d (3") box nails at 6" on-center or 16d (3½") box nails at 12" on-center. When used for shear transfer, nail to bearing plate with connections equivalent to decking nail schedule.

General Notes continued on next page.



THESE CONDITIONS ARE NOT PERMITTED

DO NOT cut holes too close to supports



Refer to hole charts on page 19 for minimum distance from bearing wall.

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 13.

REFER TO PAGE 13 FOR ADDITIONAL GENERAL NOTES FOR DETAILS

LATERAL SUPPORT TO PREVENT JOIST ROLLOVER

All roof joists must be laterally supported at cantilever and end bearings to prevent joist rollover. Use TJI® joist blocking panels, TimberStrand® LSL shear blocking or metal cross bracing. Attach metal cross bracing with 2-10d x 11/2" nails at each end. Metal cross bracing may not provide adequate lateral load transfer.

WEB STIFFENER REQUIREMENTS

- TJI®/15 SP, TJI®/25 SP and TJI®/35 SP Joists: Web stiffeners are required if the sides of the hanger do not laterally support the TJI® joist top flange. Web stiffeners are also required at all sloped hanger and birdsmouth
- TJI®/55 SP Joists: Web stiffeners are required at all hanger and birdsmouth cut locations.

FILLER AND BACKER BLOCK SIZES

	9½" or 11¾" TJI³/15 SP	9½" or 11¾" TJI®/25 SP	14" or 16" TJI®/25 SP	117/6" TJI®/35 SP	14" or 16" TJI®/35 SP	11%" TJI®/55 SP	14" or 16" TJI®/55 SP
Filler Block (Detail H6)	11/s" net	2×6	2x8	2x6+½" plywood	2x8+½" plywood	2-2x6	2-2x8
Backer Block (Detail H6)	½" or 5/8"	5/8" or 3/4"	5/8" or 3/4"	1" net	1" net	2x6	2x8

Filler and backer block length should accommodate required nailing without splitting.

Values shown are in pounds per lineal foot (PLF)

		TJI®/	15 SP		
JOIST	91/2"TJ	I®/15 SP	11%"T.	II®/15 SP	JOIST
CLEAR SPAN (Ft.)	LIVE LOAD L/480	TOTAL LOAD	LIVE LOAD L/480	TOTAL LOAD	CLEAR SPAN (Ft.)
6		271		271	6
8		205		205	8
10	146	164		164	10
12	89	137		137	12
14	59	114	98	118	14
16	40	80	68	103	16
18	29	58	49	92	18
20	21	43	36	73	20
22	16	32	28	56	22

				TJI®/2	25 SP				
JOIST	91/2" TJ	18/25 SP	11%"T.	JI®/25 SP	14" TJI	®/25 SP	16" TJI	®/25 SP	JOIST
CLEAR SPAN (Ft.)	LIVE LOAD L/480	TOTAL	LIVE LOAD L/480	TOTAL LOAD	LIVE LOAD L/480	TOTAL LOAD	LIVE LOAD L/480	TOTAL LOAD	CLEAR SPAN (Ft.)
6		290		290		290		290	6
8	16.	219		219		219		219	8
10	164	176		176		176		176	10
12	102	147		147		147		147	12
14	67	126	111	126		126		126	14
16	46	92	77	110		110		110	16
18	33	66	56	98	81	98		98	18
20	24	49	41	83	60	89	82	89	20
22	18	37	32	63	46	81	63	81	22
24	14	29	25	50	36	72	49	74	24
26	11	23	20	39	29	58	39	68	26
28		Paller	16	32	23	47	32	63	28
30			13	26	19	38	26	52	30

			TJI®/	35 SP		18.30	
JOIST	117/8" T.	II®/35 SP	14" TJI	®/35 SP	16" TJ	107/35 SP	JOIST
CLEAR SPAN (Ft.)	LIVE LOAD L/480	TOTAL LOAD	LIVE LOAD L/480	TOTAL LOAD	LIVE LOAD L/480	TOTAL LOAD	CLEAR SPAN (Ft.)
6		333		333		333	6
8		251		251		251	8
10		201		201		201	10
12		168		168		168	12
14	137	144		144		144	14
16	96	127	120,000	127		127	16
18	70	113	100	113		113	18
20	52	101	75	101	101	101	20
22	40	80	58	92	78	92	22
24	31	62	45	85	61	85	24
26	25	50	36	72	49	78	26
28	20	40	29	59	40	73	28
30	17	33	24	48	33	65	30
32	14	27	20	40	27	54	32

			TJI®/	55 SP			
JOIST	117/8"TJ	II®/55 SP	14" TJI	[⊗] /55 SP	16" TJ	19/55 SP	JOIST
CLEAR SPAN (Ft.)	LIVE LOAD L/480	TOTAL LOAD	LIVE LOAD L/480	TOTAL LOAD	LIVE LOAD L/480	TOTAL LOAD	CLEAR SPAN (Ft.)
6		480*		480*		480*	6
8		362*	2 900	362*		362*	8
10		291*		291*		291*	10
12		243*		243*		243*	12
14	195*	209*		209*		209*	14
16	138	183*	and the second	183*		183*	16
18	101	163*	144*	163*		163*	18
20	76	147*	109	147*	144*	147*	20
22	59	117*	84	133*	112*	133*	22
24	46	92	66	122*	88	122*	24
26	36	73	53	106*	71	113*	26
28	30	59	43	86*	58	105*	28
30	24	49	35	71	47	95*	30
32	20	41	29	59	39	79*	32
34	17	34	25	50	33	67	34
36			21	42	28	56	36

^{*} Joist reaction (simple span) exceeds 1200 lbs., web stiffeners are required at hanger locations. Web stiffeners may be required for other conditions, see note 3 below.

GENERAL NOTES:

- 1. Load capacity assumes no composite action provided by sheathing.
- 2. These values reflect the most restrictive of simple span or multiple span applications.
- Web stiffeners are required if the sides of the hanger do not laterally support the TJI® joist top flange. Web stiffeners are also required at all TJI®/55 SP joist hanger locations where joist reactions exceed 1200 pounds.

FLOOR JOIST SIZING

- 4. To size a joist for use in a floor, it is necessary to check both live load and total load. When live load is not shown, total load will control.
- 5. Total Load column limits joist deflection to L/240. Live load column is based on joist deflection of L/480.
- For live load deflection limits of L/360 (minimum code criteria), multiply value in live load column by 1.33. The resulting live load shall not exceed the total load shown.

PSF TO PLF CONVERSION TABLE

Load in pounds per lineal foot (PLF)

O.C.		LOAD IN LBS. PER SQUARE FOOT (PSF)												
SPACING	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					

TJI® Joist Allowable Uniform Load - Roof

Values shown are in pounds per lineal foot (PLF)

	10 10 1		TJI®/	15 SP		
	91/2'	"TJI®/15	SP	117/8	"TJI8/1	5 SP
JOIST	TOTAL	LOAD	DEFL.	TOTAL	LOAD	DEFL
SPAN(6) (Ft.)	Snow 115%	Non- Snow 125%	L/240	Snow 115%	Non- Snow 125%	L/240
6	311	338		311	338	4
8	235	256		235	256	
10	188	205		188	205	
12	157	171		157	171	
14	131	142	117	135	147	
16	101	107	80	118	128	
18	77	77	58	105	115	98
20	57	57	43	86	93	73
22	43	43	32	71	74	56
24	33	33	25	57	57	43
26	26	26	20	46	46	35
28				37	37	28
30				30	30	23

	-	Name of				TJI8/2	25 SP					
	91/2	'TJI®/25	SP	111%	"TJI®/2	5 SP	14"	TJ1®/25	SP	16"	TJI*/25	SP
JOIST	TOTAL	LOAD	DEFL.	TOTAL	LOAD	DEFL.	TOTAL	LOAD	DEFL.	TOTAL	LOAD	DEFL.
SPAN ⁽⁶⁾ (Ft.)	Snow 115%	Non- Snow 125%	L/240	Snow 115%	Non- Snow 125%	L/240	Snow 115%	Non- Snow 125%	L/240	Snow 115%	Non- Snow 125%	L/240
6	333	362		333	362		333	362		333	362	
8	251	273	74	251	273		251	273		251	273	
10	202	220		202	220		202	220		202	220	
12	169	183	1	169	183		169	183	E- E	169	183	9-15
14	144	157	134	144	157		144	157		144	157	
16	118	123	92	126	137		126	137		126	137	THE R
18	88	88	66	112	122	111	112	122		112	122	
20	65	65	49	101	110	83	102	111	18 8	102	111	14 5
22	49	49	37	83	84	63	93	101	92	93	101	
24	38	38	29	66	66	50	85	92	72	85	92	
26	30	30	23	52	52	39	73	77	58	78	85	79
28			1	42	42	32	62	62	47	72	78	64
30				34	34	26	51	51	38	65	69	52
32				28	28	21	42	42	32	57	58	44
34							35	35	26	48	48	36

		1000		Т	JI®/35 S	P			
	117/8	"TJI®/3	5 SP	14"	TJI®/35	SP	16"	TJI®/35	SP
JOIST	TOTAL	LOAD	DEFL.	TOTAL	LOAD	DEFL.	TOTAL	LOAD	DEFL.
SPAN(6) (Ft.)	Snow 115%	Non- Snow 125%	L/240	Snow 115%	Non- Snow 125%	L/240	Snow 115%	Non- Snow 125%	L/240
6	382	416		382	416		382	416	
8	288	313		288	313		288	313	
10	231	251		231	251		231	251	
12	193	210		193	210		193	210	
14	165	180		165	180		165	180	
16	146	158		146	158		146	158	
18	129	141	140	129	141		129	141	
20	116	126	104	116	126		116	126	
22	105	106	80	105	115		105	115	
24	83	83	62	97	106	91	97	106	
26	66	66	50	89	96	72	89	97	
28	53	53	40	78	78	59	83	91	80
30	44	44	33	64	64	48	78	85	65
32	36	36	27	53	53	40	72	72	54
34	30	30	23	45	45	34	61	61	46

	E				JI®/55 S	P			303	
	111/6	11%" TJI®/55 SP			TJI®/55	SP	16" TJI®/55 SP			
JOIST	TOTAL	OTAL LOAD DEFL.		TOTAL	LOAD	DEFL.	TOTAL	DEFL.		
SPAN(6) (Ft.)	Snow 115%	Non- Snow 125%	L/240	Snow 115%	Non- Snow 125%	L/240	Snow 115%	Non- Snow 125%	L/240	
6	551*	600*		551*	600*		551*	600		
8	416*	452*		416*	452*		416*	452*		
10	334*	363*		334*	363*		334*	363*		
12	279*	303*		279*	303*		279*	303*		
14	240*	261*		240*	261*		240*	261*		
16	210*	228*		210*	228*	- 13	210*	228*		
18	187*	203*	203*	187*	203*		187*	203*		
20	169*	183*	152*	169*	183*		169*	183*		
22	152*	156*	117*	152*	166*		152*	166*		
24	122*	122*	92	140*	152*	132*	140*	152*		
26	97*	97*	73	129*	141*	106*	129*	141*		
28	79	79	59	114*	114*	86*	120*	131*	116*	
30	65	65	49	94*	94*	71	112*	122*	95*	
32	54	54	41	78*	78*	59	105*	105*	79*	
34	45	45	34	66	66	50	89*	89*	67	
36	38	38	29	56	56	42	75*	75*	56	
38	33	33	25	48	48	36	64*	64*	48	
40	28	28	21	41	41	31	56	56	42	

^{*}Joist reaction (simple span) exceeds 1200 lbs., web stiffeners are required at hanger locations. Web stiffeners may be required for other conditions, see note 3 below.

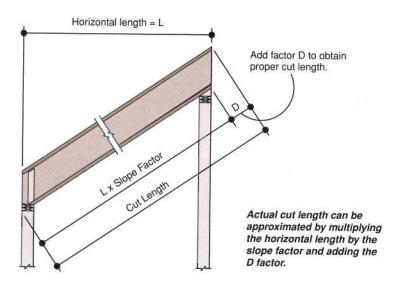
GENERAL NOTES:

- 1. Load capacity assumes no composite action provided by sheathing.
- 2. These values reflect the most restrictive of simple span or multiple span applications.
- 3. Web stiffeners are required if the sides of the hanger do not laterally support the TJI® joist top flange. Web stiffeners are also required at all sloped hanger locations, all birdsmouth cut locations, and for TJI®/55 SP joists at all hanger locations where joist reactions exceed 1200 pounds.

ROOF JOIST SIZING

- 4. Roof surface must be sloped 1/4" in 12" minimum to provide positive drainage.
- Total Load column limits joist deflection to L/180. For stiffer deflection criteria, check the L/240 column. Some codes may require an L/240 live load deflection limit; check the L/240 column at live load. Check your local code for roof deflection criteria.
- For roof slopes greater than 2" per foot, consideration must be given to the increased dead load and deflection caused by actual sloped length. Approximate this effect by multiplying the horizontal clear span by the slope factor from the SLOPE FACTOR TABLE on page 17 to determine the JOIST CLEAR SPAN.

TJI® JOIST CUT LENGTH CALCULATION



SLOPE	ELECTRICAL PROPERTY.	D FA	CTOR	
SLOPE	91/2"	117/8"	14"	16"
2½ in 12	2"	21/2"	3"	33/8"
3 in 12	23/8"	3"	31/2"	4"
3½ in 12	21/8"	31/2"	41/8"	43/4"
4 in 12	31/4"	4"	43/4"	53/8"
4½ in 12	35/8"	41/2"	51/4"	6"
5 in 12	4"	5"	57/8"	63/4"
6 in 12	43/4"	6"	7"	8"
7 in 12	55/8"	7"	81/4"	93/8"
8 in 12	63/8"	8"	93/8"	10¾
9 in 12	71/8"	9"	101/2"	12"
10 in 12	8"	10"	113/4"	13%'
11 in 12	83/4"	11"	127/8"	143/4
12 in 12	91/2"	117/8"	14"	16"

SLOPE FACTOR TABLE

SLOPE	FACTOR
2½ in 12	1.022
3 in 12	1.031
3½ in 12	1.042
4 in 12	1.054
4½ in 12	1.068
5 in 12	1.083
6 in 12	1.118
7 in 12	1.158
8 in 12	1.202
9 in 12	1.250
10 in 12	1.302
11 in 12	1.357
12 in 12	1.414

Material Weights

Include TJI® joist weights in dead load calculations – see chart on page 18 for joist weights.

Southern Pine Sheathing*

Roofing Materials

 Asphalt shingles
 2.5 psf

 Wood shingles
 2.0 psf

 Clay Tile
 9.0 to 14.0 psf

 Slate (%" thick)
 15 psf

Roll or Batt Insulation

Floors

 Hardwood (Nominal 1")
 4.0 psf

 Concrete (1" thick)
 12.0 psf

 Regular
 12.0 psf

 Lightweight
 8.0 to 10.0 psf

 Sheet vinyl
 0.5 psf

 Carpet and Pad
 1.0 psf

 ¾" ceramic or quarry tile
 10.0 psf

 Gypsum concrete (¾")
 6.5 psf

Ceilings

Acoustical fiber tile	1.0 psf
½" gypsum board	2.2 psf
%" gypsum board	2.8 psf
Plaster (1" thick)	8.0 nsf

* For Douglas fir weights, decrease southern pine weights by 10%.

	1 (S) 18 (S)	B	ASIC PROPERTI	IES		REAC	TION PROPER	TIES
Joist		I-I-I	Maximum Resistive	Joist Only	Maximum Vertical	Maximum End	Maximum Intermedi Reaction (Lbs.)	
Series	Joist Depth (Inches)	Joist Weight (Lbs./Ft.)	Moment (FtLbs.)	El x 10 ⁶ (In. ² Lbs.)	Shear (Lbs.)	Reaction (Lbs.)	No Web Stiffeners	With Web Stiffeners
	91/2	2.2	2860	164	1120	945	2085	N.A.
TJI®/15 SP	117/8	2.5	3800	286	1420	945	2085	N.A.
	91/2	2.4	3370	190	1120	1115	2230	N.A.
	117/8	2.7	4480	329	1420	1115	2230	2480
TJI®/25 SP	14	2.9	5480	490	1710	1115	2230	2480
	16	3.3	6425	677	1970	1115	2230	2480
	117/8	3.3	5960	423	1420	1275	2555	2910
TJI®/35 SP	14	3.5	7300	626	1710	1275	2555	2910
, , , , , , , , , , , , , , , , , , , ,	16	3.8	8560	859	1970	1275	2555	2910
	117/8	4.7	9140	633	1925	1540	3690	4165
TJI®/55 SP	14	5.0	11195	932	2125	1540	3690	4165
	16	5.3	13135	1273	2330	1540	3690	4165

GENERAL NOTES:

- Design reaction includes all loads on the joist. Design shear is computed at the face of supports including all loads on the span(s). Allowable shear may sometimes be increased at interior supports in accordance with NER-200 and these increases are reflected in span tables.
- The reaction values above are based on an assumed minimum bearing length of 1¾" at ends, 3½" at intermediate supports.
- The following formula approximates the uniform load deflection of $\boldsymbol{\Delta}$ (inches):

For TJI®/15 SP, TJI®/25 SP and TJI®/35 SP Joists

$$\Delta = \frac{22.5 \text{ wL}^4}{10^{-100} \text{ m}^4} + \frac{2.67 \text{ wL}^2}{10^{-100} \text{ m}^4}$$

For TJI®/55 SP Joists

$$\Delta = \frac{22.5 \text{ wL}^4}{\text{Fl}} + \frac{2.29 \text{ wL}^2}{\text{d x } 10^5}$$

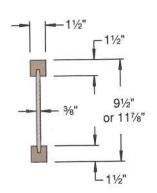
w = uniform load in pounds per lineal foot

L = clear span in feet

d = out to out depth of the joist in inches

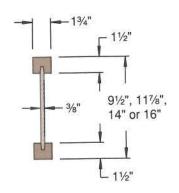
EI = value from table

PRODUCT DESCRIPTION



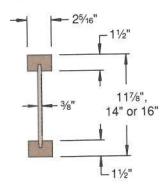
TJI®/15 SP Joists

Top and bottom flanges of
11/2" x 11/2" Microllam® LVL with
%" Performance Plus® web.

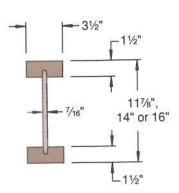


TJI®/25 SP Joists

Top and bottom flanges of 134" x 11/2" Microllam® LVL with 36" Performance Plus® web.



TJI®/35 SP Joists
Top and bottom flanges of 25/16" x 11/2" Microllam® LVL with %" Performance Plus® web.



TJI®/55 SP Joists

Top and bottom flanges of 3½" x 1½" Microllam® LVL with 7/16" Performance Plus® web.

TJI® Hole Charts - Round, Square and Rectangular Holes

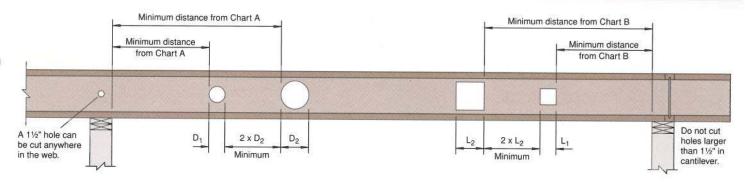


CHART A - ROUND HOLES

MINIMUM DISTANCE FROM INSIDE FACE OF ANY SUPPORT TO NEAREST EDGE OF HOLE

JOIST	JOIST							ROUND H	OLE SIZ	E	100	The same of		1308	
DEPTH	SERIES	2"	3"	4"	5"	6"	61/4"	7"	8"	85%"	9"	10"	103/4"	12"	123/4"
91/2"	TJI®/15 SP	1'-0"	2'-0"	3'-6"	5'-0"	7'-0"	7'-6"		_	-	_		_		_
972	TJI®/25 SP	1'-0"	2'-6"	4'-0"	6'-0"	7'-6"	8'-0"	1	_	-	-	_	_	-0	_
	TJI®/15 SP	1'-0"	1'-0"	1'-0"	1'-6"	3'-0"	3'-6"	5'-0"	7'-0"	8'-6"			_		_
117/8"	TJI®/25 SP	1'-0"	1'-0"	2'-0"	3'-6"	5'-0"	5'-0"	6'-6"	8'-0"	9'-6"		-	-		-
1178	TJI®/35 SP	1'-0"	2'-0"	3'-6"	5'-0"	6'-6"	6'-6"	7'-6"	9'-6"	10'-6"	_	_			_
	TJI®/55 SP	1'-0"	2'-6"	3'-6"	5'-0"	6'-6"	7'-0"	8'-0"	9'-6"	11'-0"		_	_		
100	TJI®/25 SP	1'-0"	1'-0"	1'-0"	1'-0"	1'-6"	2'-0"	3'-6"	5'-0"	6'-0"	7'-0"	8'-6"	10'-0"	Su-30	_
14"	TJI®/35 SP	1'-0"	1'-0"	1'-0"	2'-0"	3'-6"	4'-0"	5'-0"	7'-0"	8'-0"	8'-6"	10'-0"	11'-6"	11-11	-
	TJI®/55 SP	1'-0"	1'-0"	2'-6"	3'-6"	5'-0"	5'-6"	6'-6"	8'-0"	9'-0"	9'-6"	11'-0"	12'-6"	8-0	
	TJI®/25 SP	1'-0"	1'-0"	1'-0"	1'-0"	1'-0"	1'-0"	1'-0"	1'-6"	2'-6"	3'-6"	5'-6"	7'-0"	9'-6"	11'-0"
16"	TJI®/35 SP	1'-0"	1'-0"	1'-0"	1'-0"	1'-0"	1'-0"	1'-6"	3'-6"	4'-6"	5'-6"	7'-0"	8'-6"	11'-0"	12'-6"
	TJI®/55 SP	1'-0"	1'-0"	1'-0"	1'-6"	3'-0"	3'-6"	4'-6"	6'-0"	7'-0"	7'-6"	9'-6"	10'-6"	12'-6"	14'-0"

CHART B - SQUARE OR RECTANGULAR HOLES

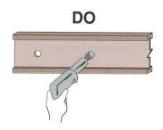
MINIMUM DISTANCE FROM INSIDE FACE OF ANY SUPPORT TO NEAREST EDGE OF HOLE

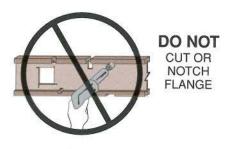
JOIST	JOIST	SQUARE OR RECTANGULAR HOLE SIZE*								ZE*		11	State No.	- Marian	
DEPTH	SERIES	2"	3"	4"	5"	6"	61/4"	7"	8"	85/8"	9"	10"	103/4"	12"	123/4"
91/2"	TJI®/15 SP	1'-0"	2'-0"	4'-0"	6'-0"	-	_	_	_	_	0-		_		1,777
972	TJI®/25 SP	1'-0"	2'-6"	4'-6"	6'-6"	-	W	_	_	-	_	-			1 - 0
Signa	TJI®/15 SP	1'-0"	1'-0"	2'-0"	4'-6"	7'-6"	7'-6"	8'-0"	9'-0"			_		200	
11%"	TJI®/25 SP	1'-0"	1'-6"	3'-6"	5'-6"	8'-0"	8'-6"	8'-6"	9'-6"	_	_	1 2			
1178	TJI®/35 SP	1'-0"	2'-6"	4'-6"	6'-6"	9'-0"	9'-0"	9'-6"	9'-6"	_	_	_			0_0
100	TJI®/55 SP	3'-6"	4'-6"	6'-0"	7'-6"	9'-6"	9'-6"	10'-0"	10'-6"	10'-6"	-				14-11
	TJI®/25 SP	1'-0"	1'-0"	1'-6"	4'-0"	6'-0"	6'-6"	8'-6"	10'-0"	10'-6"	11'-0"	11'-6"	12'-0"		13
14"	TJI®/35 SP	1'-0"	1'-0"	2'-6"	4'-6"	7'-0"	7'-6"	9'-6"	11'-0"	11'-0"	11'-6"	12'-0"	12'-6"		
	TJI®/55 SP	2'-6"	4'-0"	5'-6"	7'-6"	9'-0"	9'-6"	10'-6"	12'-0"	12'-0"	12'-0"	13'-0"	13'-0"	_	==
	TJI [®] /25 SP	1'-0"	1'-0"	1'-0"	1'-6"	4'-0"	4'-6"	6'-6"	9'-6"	11'-0"	11'-6"	12'-6"	13'-0"	14'-0"	14'-6"
16"	TJI®/35 SP	1'-0"	1'-0"	1'-0"	2'-6"	5'-0"	5'-6"	7'-6"	10'-6"	12'-0"	12'-6"	13'-0"	13'-6"	14'-6"	15'-0"
	TJI®/55 SP	1'-0"	2'-6"	4'-6"	6'-0"	8'-0"	8'-6"	10'-0"	12'-0"	13'-6"	13'-6"	14'-0"	14'-6"	15'-0"	16'-0"

^{*} Rectangular holes based on measurement of longest side.

GENERAL NOTES:

- 1. If more than one hole is to be cut in the web, the length of the uncut web between holes must be twice the length of the longest dimension of the largest adjacent hole. Holes may be located vertically anywhere within the web.
- 2. TJI® joists are manufactured with 11/2" perforated knockouts in the web at approximately 12" on-center along the length of the joist.
- The distances in the hole charts are based on uniformly loaded joists using maximum loads shown for any of the tables listed within this guide.
 For other load conditions or hole configurations not included in these charts, contact your Trus Joist MacMillan representative.





Full depth rectangular holes are also possible. Contact your Trus Joist MacMillan representative for assistance.

TJI® Joist Residential Framing Connectors (Simpson Strong-Tie®)

C1 - TOP FLANGE SINGLE JOIST HANGER

DEPTH	JOIST	HANGER		
DEPIN	TJI*/15 SP	ITT29.5		
91/2"	TJI®/25 SP	ITT9.5(1)		
	TJI®/15 SP	ITT211.88		
11%"	TJI®/25 SP	ITT11.88 ⁽²⁾		
	TJI /35 SP	ITT3511.88(1)		
	TJI®/55 SP	ITT411.88(1)(2)(
	TJI®/25 SP	ITT14		
4.411	TJI*/35 SP	ITT3514 ⁽¹⁾		
14"	TJI ⁸ /55 SP	ITT414(1)(2)(3)		
MIN SV	TJI®/25 SP	ITT16(1)		
	TJI ⁶ /35 SP	MIT3516(4)		
16"	TJI®/55 SP	MIT416(4)(5)		

- (1) Capacity with a TJI® joist header is 1050 lbs.
- (2) Capacities with Parallam® PSL and Microllam® LVL headers are 1300 lbs. and 1450 lbs. respectively.
- (3) Requires web stiffeners when joist reaction exceeds 1475 lbs.
- (4) Capacity with a TJI® joist header is 1230 lbs.
- (5) Requires web stiffeners when joist reaction exceeds 1675 lbs.

C3 - FACE MOUNT SINGLE JOIST HANGER

EPTH	JOIST	HANGER		
	TJI®/15 SP	IUT29(2)		
91/2"	TJI®/25 SP	IUT9(5)		
	TJI*/15 SP	IUT211(6)		
	TJI®/25 SP	IUT11		
117/6"	TJI*/35 SP	IUT3512(3)		
	TJI®/55 SP	IUT412(3)(4)		
	TJI ⁶ /25 SP	IUT14		
	TJI®/35 SP	IUT3514		
14"	TJI®/55 SP	IUT414(4)		
	TJI*/25 SP	IUT14 ^(f)		
	TJI®/35 SP	IUT3514(1)		
16"	TJI [®] /55 SP	IUT414(1)		

- (1) Requires web stiffeners.
- (2) Capacity with a TJI® joist header is 730 lbs. (100%) or 910 lbs. (125%).
- (3) Capacity is 1110 lbs. (100%) or 1390 lbs. (125%).
- (4) Requires web stiffeners when joist reaction exceeds 1475 lbs.
- (5) Capacity is 890 lbs. (100%) or 1110 lbs. (125%).
- (6) Capacity with a TJI® joist header is 910 lbs. (100%) or 1140 lbs. (125%).

C5 – FACE MOUNT SKEWED 45° JOIST HANGER

JOIST	HANGER
9½" and 11¾" TJI®/15 SP	SUR210 or SUL210(1)
9½" and 11½" TJI®/25 SP	SURI9 or SULI9(2)
11%", 14" and 16" TJI"/25 SP	SURI11 or SULI11
117/8" and 14" TJI®/35 SP	SURI3510/12 or SULI3510/12
14" and 16" TJI®/35 SP	SURI3514/20 or SULI3514/20
111/8" TJI=/55 SP	SUR410 or SUL410
14" and 16" TJI%55 SP	SUR414 or SUL414

- All hangers require web stiffeners.
- (1) Minimum of double TJI® joist header or 1¾" minimum width Microllam® LVL or Parallam® PSL header required.
- (2) Capacity with TJI® joist header or 1¾" minimum width Microllam® LVL or Parallam® PSL header is 895 lbs. (100%) or 1115 lbs. (125%).

C7 - VARIABLE SLOPE SEAT JOIST HANGER

HANGER		
LSSU28(1)(2)		
LSSU210(1)(2)		
LSSUI25(3)		
LSSUI35(3)(5)		
LSSU410 ⁽⁴⁾		

- All hangers require web stiffeners.
- (1) Minimum of double TJI® joist header or 1¾" minimum width Microllam® LVL or Parallam® PSL header is required.
- (2) Capacity when skewed is 885 lbs. (3) Capacity when skewed is 995 lbs. (100%) or 1065 lbs. (125%).
- (4) Requires 2" minimum header width
- (5) Non-skewed capacity is 1110 lbs. (100%) or 1390 lbs. (125%).

Hanger can be field adjusted for slopes and skews of up to 45 degrees.

C2 - TOP FLANGE DOUBLE JOIST HANGER

		The second	MAXIMUM LOAD (LBS.)	
DEPTH	JOIST	HANGER	FLOOR	ROOF (125%)
	TJI*/15 SP	MIT29.5-2	1890(2)	2000 2
91/2"	101 100	MIT49.5	2000(2)	2000(2)
The same of the sa	THE RESERVE OF THE PARTY OF THE	MIT211.88-2	1890(2)	2000(2)
	101.11.0	MIT411.88	2000(3)	2000
117/8"	TJI8/35 SP	MIT3511.88-2	2000(2)	2000(2)
	TJI®/55 SP	WPI411.88-2(1)	3080(3)	3255(3)
-	TJI®/25 SP	MIT414	2000(2)	2000(2)
14"	TJI#/35 SP	MIT3514-2	2000(3)	2000(2)
14	TJI**/55 SP	WPI414-2(1)	3080(3)	3255(3)
	TJI8/25 SP	MIT416	2000(2)	2000(2)
16"	TJ18/35 SP	WP3516-2	2550(3)	3190(3)
10	TJI®/55 SP	WPI416-2(1)	3080(3)	3255(3)

- Loads shown require 3½" minimum header width
- (1) Requires web stiffeners.
- (2) Capacity with a TJI® joist header is 1230 lbs.
- (3) Capacity with a TJI® joist header is 2030 lbs.

C4 - FACE MOUNT DOUBLE JOIST HANGER

			MAXIMUM LOAD (LE	
DEPTH	JOIST	HANGER	FLOOR	ROOF (125%)
	T.II®/15 SP	U210-2	1860	2330
91/2"	The second second	U410	1860	2330
		U210-2	1860	2330
		U410	1860	2330
11%"	Market Post-	U3512-2	2130	2660
	The state of the s	HU412-2	2950	3685
	The state of the s	U414	2130	2660
14"	TJIP/15 SP TJIP/15 SP TJIP/15 SP TJIP/15 SP TJIP/35 SP TJIP/35 SP TJIP/35 SP TJIP/35 SP TJIP/35 SP TJIP/35 SP TJIP/35 SP	U3512-2	2130	2660
200		HU414-2	3080	3850
		U414	2130	2660
16"		U3512-2	2130	2660
	TJI®/55 SP	HU414-2	3080	3850

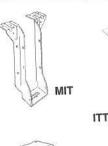
· All hangers require web stiffeners and a 2" minimum header width.

Legacy Literature See Note on Front Cover

C6 – VARIABLE SLOPE SEAT CONNECTOR

JOIST	CONNECTOR	MAXIMUM LOAD (LBS.)
TJI ⁹ /15 SP	VPA2	1050
TJI9/25 SP	VPA25	1050
TJI®/35 SP	VPA35	1500
TJ19/55 SP	VPA4	1500

VPA connector may be used only on slopes of 3"/12" through 12"/12".

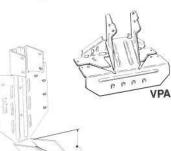


















SUR

TOP VIEW

GENERAL NOTES: Some hangers shown have less capacity than that of the TJI® joists. For single joist applications

- beyond those shown in the span charts and all double joist applications, hanger capacity must be checked. Refer to applicable footnotes on tables C1 through C7. Hanger capacities will need to be checked if hanger is supported from other than Trus Joist MacMillan products or Douglas fir-larch or southern pine species support members. Contact your Trus Joist MacMillan representative for assistance.
- Hanger loads shown are the lesser of the joist(s) or hanger capacity.
- Hangers can only achieve maximum capacity if all round nail holes and all triangular nail holes (when present) are filled with the proper nails. Single joist hangers require 10d (3") common header and 10d x 11/2" joist nails except the LSSU410 which requires 16d (31/2") common header nails, and the SUR/L410 and SUR/L414 which require 10d (3") common joist nails. When used with a single TJP/15 SP joist header, the IUT29 and IUT211 hangers require 10d x 1½" header nails. Double joist hangers require 16d (3½") common header and 10d x 1½" joist nails for top flange hangers and 10d (3") common joist nails for face mount hangers except the HU412-2 and HU414-2 which require 16d (3½") common joist nails. Top flange hangers supported by a TJI^S joist header require 10d x 1½" header and joist nails
- In some cases, the hangers shown may have greater capacity when used in conjunction with certain
- supporting member categories or support member criteria. TJI® joist headers must be of the same number and size (joist depth and flange width) or greater than the joist(s) supported by the header.
- Leave 1/16" clearance between end of TJI® joist and support member or hanger.
- The hangers listed above are manufactured by Simpson Strong-Tie® Company, Inc. For additional information please refer to current Simpson Strong-Tie® Company, Inc. literature.

C1 – TOP FLANGE SINGLE JOIST HANGER

DEPTH	JOIST	HANGER
916"	TJI ⁰ /15 SP	THO15950
972	TJI [®] /25 SP	THO17950
	TJI®/15 SP	THO15118
11%"	TJI®/25 SP	THO17118
11/8	TJI®/35 SP	THO23118
	TJI*/55 SP	THO35118 ^{rt}
	TJP/25 SP	THO17140
14"	TJ17/35 SP	THO23140
	TJI®/55 SP	THO35140
	TJI®/25 SP	THO17160
16"	TJI*/35 SP	THO23160
N 10 1	TJI®/55 SP	THO35160(1)

- Minimum required header width is equal to the width of the supported member.
- (1) Requires web stiffeners when joist reaction exceeds 1360 lbs

C3 – FACE MOUNT SINGLE JOIST HANGER

DEPTH	JOIST	HANGER
916"	TJI ⁰ /15 SP	THF15925(3)
9/2	TJI*/25 SP	THF17925
	TJI*/15 SP	THF15112(1)(3)
1176"	TJI*/25 SP	THF17112
11/8	TJI®/35 SP	THF23118
200	TJI®/25 SP TJI®/35 SP TJI®/55 SP TJI®/55 SP	THF35112(2)(4)
	TJI*/25 SP	THF17140
14"	TJI*/25 SP TJI*/15 SP TJI*/25 SP	THF23140
	TJI*/55 SP	THF35140(2)
	TJI®/25 SP	THF17157
16"	TJI®/35 SP	THF23160
	TJI®/55 SP	THF35157(2)

- Unless otherwise noted, requires minimum single TJI[®] joist header or 1¾" minimum width Microllam[®] LVL, Parallam[®] PSL or TimberStrand[®] LSL header.
- (1) Capacity is 1050 lbs. (125%).
- (2) Requires web stiffeners when joist reaction exceeds 1360 lbs.
- (3) Requires 1¾" minimum width Microllam® LVL, Parallam® PSL or TimberStrand® LSL header.
- (4) Requires web stiffeners.

C5 – FACE MOUNT SKEWED 45° JOIST HANGER

JOIST	HANGER	
9½" TJI%/15 SP	SKH1520	
11%" TJI%15 SP	SKH1524	
91/2" TJI% 25 SP	SKH1720	
117/6" - 16" TJI®/25 SP	SKH1724	
11%" - 16" TJI®/35 SP	SKH2324	
11%" TJI*/55 SP	SKH410	
14" - 16" TJI 55 SP	SKH414	

 All hangers require web stiffeners and 1¾" minimum header width.

C7 – VARIABLE SLOPE SEAT JOIST HANGER

JOIST	HANGER
9½"TJI%15 SP	TMU26
11%" TJI%/15 SP	TMU26
9½"-16" TJI [®] /25 SP	TMU179
11%" - 16" TJI% 35 SP	TMU23
11%" - 16" TJI%55 SP	TMU48

- All hangers require web stiffeners and 1¾" minimum header width.
- KANT-SAG® LSTI22 strap with 8-10d x 1½® nails (per end) is required for slopes of 7"/12" or greater.

Hanger can be field adjusted for slopes and skews of up to 45 degrees.

Legacy Literature See Note on Front Cover

C2 – TOP FLANGE DOUBLE JOIST HANGER

DEPTH	JOIST	HANGER	MAXIMUM	LOAD (LBS.)
DEF III	30131	HANGER	FLOOR	ROOF (125%)
91/2"	TJI ⁹ /15 SP	THO15950-2(1)(2)	1890	2360
3/2	TJN9/25 SP	THO15950-2(1)(27) 1890 THO35950 2050 THO15118-2(1)(21) 1890 THO35118 2050 THO23118-2(2)(31) 2050 PHM35118-2(3) 3080 THO35140 2230	2050	
	TJI®/15 SP	THO15118-2(1)(2)	1890	2360
117/4"	TJI*/25 SP	THO35118	2050	2050
1128	TJI*/35 SP	THO23118-2(2)(3)	2550	3190
	TJI®/55 SP	PHM35118-2(3)	3080	3590
	TJI®/25 SP	THO35140	2230	2350
14"	TJI%/35 SP	THO23140-2(2)(3)	2550	3190
	TJ19/55 SP	PHM3514-2(3)	3080	3590
	TJH*/25 SP	THO35160	2230	2350
16"	TJI®/35 SP	THO23160-2(2)(3)	2550	3190
	TJI®/55 SP	PHM3516-2(3)	3080	3590

- Onless otherwise noted, loads shown require minimum of double TJI* joist header or 1¼* mi mum width Microllam® LVL, Parallam® PSL or TimberStrand® LSL header.
- (1) May not be used with a TJI* joist header. Requires 1¾* minimum width Microllam* LVL, Parallam* PSL or TimberStrand* LSL header.
- (2) Requires web stiffeners.
- (3) May not be used with a TJI® joist header. Requires 2" minimum width Microllam® LVL, Parallam® PSL or TimberStrand® LSL header.

C4 – FACE MOUNT DOUBLE JOIST HANGER

DEPTH	JOIST	HANGER	MAXIMUM	LOAD (LBS.)
DEFIN	30131	HANGER	FLOOR	ROOF (125%)
91/9"	TJI [®] /15 SP	THF15925-2(1)	1355	1695
	TJP*/25 SP	THF35925(1)	1345	1680
	TJI®/15 SP	THF15112-200	1580	1975
111/8"	TJI*/25 SP	THF35112	1790	2240
1178	TJI*/35 SP	THF23118-2(1)	1810	2260
	TJI ⁹ /55 SP	HD7120(1)(2)	2175	2720
083	TJI®/25 SP	THF35140	2230	2790
14"	TJI*/35 SP	THF23140-2(1)	2240	2800
	TJI**/55 SP	HD7140(1)(2)	2720	3400
0.0	TJI®/25 SP	THF35157	2230	2790
16"	TJI ⁹ /35 SP	THF23160-2(1)	2550	3190
	TJI ⁹ /55 SP	HD7140(1)(2)	2720	3400

- Unless otherwise noted, loads shown require 1¾" minimum header width.
- (1) Requires web stiffeners
- (2) Requires 2" minimum header width.

C6 – VARIABLE SLOPE SEAT CONNECTOR

JOIST	CONNECTOR	MAXIMUM LOAD (LBS.)
TJI®/15 SP	TMP2	990
131 / 15 SP	TMPH2(2)	1440(1)
TJI®/25 SP	TMP175	1150
131-725 SP	TMPH175(2)	1720(1)
TJI*/35 SP	TMP23	1970
131735 58	TMPH23(2)	1865(1)
TJI%55 SP	TMP4	1970
1017/33 SP	TMPH4 ⁽²⁾	2205(1)

- TMP connectors may only be used on slopes of 1"/12" to 6"/12".
 TMPH connectors may only be used on slopes of 6"/12" to 12"/12"
- (1) May be used at end bearings only.
- (2) All TMPH connectors require web stiffeners.

GENERAL NOTES:

Some hangers shown have less capacity than that of the TJI® joists. For single joist applications beyond those shown in the span charts and all double joist applications, hanger capacity must be checked. Refer to applicable footnotes on tables C1 through C7.

TMP

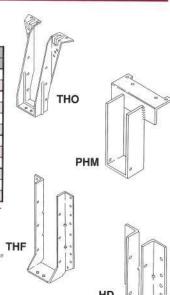
- Hanger capacities will need to be checked if hanger is supported from other than Trus Joist MacMillan products or Douglas fir-larch or southern pine species support members. Contact your Trus Joist MacMillan representative for assistance.
- Hanger loads shown are the lesser of the joist(s) or hanger capacity.
- Hangers can only achieve maximum capacity if all nails holes are filled with the proper nails. In some cases, the hangers shown may have greater capacity when used in conjunction with certain supporting member categories or support member criteria.
- · All face mount hangers require the following nails:

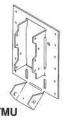
Header (support member) nails must be 10d (3") common for all single and double joist hangers except the HD7120 and HD7140 which require 16d (3½") common header nails. Joist nails must be 10d x 1½" for all single joist hangers except the SKH410 and SKH414 which require 16d (3½") common joist nails and the THF35112, THF35140 and THF35157 which require 10d (3") common joist nails. All double joist hangers require 10d (3") common joist nails.

· All top flange hangers require the following nails:

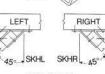
Header (support member) nails must be $10d \times 11\%$ " for all single joist hangers and 16d (31%)") common for all double joist hangers except the THO15950-2 and THO15118-2 which require 10d (3") common header nails and the double TJI $^{\circ}$ /25 SP series hangers which require $10d \times 11\%$ header nails. Top flange hangers requiring 10d (3") common header nails, or greater, may not be used with TJI $^{\circ}$ joist headers. Joist nails must be $10d \times 11\%$ for all single and double joist hangers except the double TJI $^{\circ}$ /35 SP series hangers which require 10d (3") common joist nails.

- TJI[®] joist headers must be of the same number and size (joist depth and flange width) or greater than the joist(s) supported by the header.
- Leave 1/16" clearance between end of TJI® joist and support member or hanger.
- The hangers listed above are manufactured by United Steel Products Company (KANT-SAG®). For additional information please refer to current KANT-SAG® literature.













Microllam® LVL and Parallam® PSL Headers and Beams



Microllam® laminated veneer lumber (LVL) is engineered with sheets of thin veneer structurally bonded together to make headers and beams which span much longer distances and support heavier loads than ordinary lumber. Microllam® LVL headers and beams are available in the following sizes:

Widths:

Depths:

5½", 7¼", 9½", 11¾", 14", 16" and 18"

Parallam® parallel strand lumber (PSL) is made from long, thin strands of wood structurally bonded together in a patented microwave process to make large cross section beams and columns. Parallam® PSL headers and beams are available in the following sizes:

Depths:

13/4", 211/16", 31/2", 51/4" and 7"

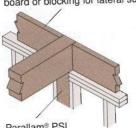
91/4", 91/2", 111/4", 117/6", 14", 16" and 18"

Parallam® PSL columns and posts are available in the following sizes: $31\!/\!\!\!\!/^* \times 31\!/\!\!\!\!/^*, \, 31\!/\!\!\!\!/^* \times 51\!/\!\!\!\!/^*, \, 31\!/\!\!\!\!/^* \times 7", \, 51\!/\!\!\!/^* \times 51\!/\!\!\!/^*, \, 51\!/\!\!\!/^* \times 7"$ and $7" \times 7"$

BEARING DETAILS

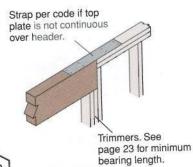


TimberStrand® LSL (or TJI® joist) rim board or blocking for lateral support.

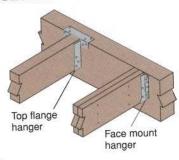


Parallam® PSL column. Verify column capacity (page 31).

BEARING FOR DOOR OR WINDOW HEADER



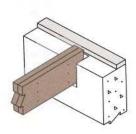




See Microllam® LVL & Parallam® PSL Framing Connectors on pages 28 & 29.

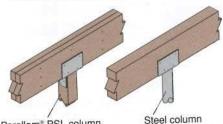
BEARING LENGTH IS EXTREMELY CRITICAL AND MUST BE CONSIDERED FOR EACH APPLICATION.

BEARING AT CONCRETE WALL



Protect wood from direct contact with concrete.

BEARING AT WOOD OR STEEL COLUMN



Parallam® PSL column with column cap with column cap

L₅

Verify column capacity (page 31) and bearing length (page 23).

CONNECTION OF MULTIPLE PIECES OF TOP-LOADED BEAMS

13/4" Width Pieces:

Minimum of 2 rows 16d (3½") nails at 12" o.c.
 Minimum of 3 rows 16d (3½") nails at 12" o.c.

for 14", 16" and 18" beams.

31/2" Width Pieces:

 Minimum of 2 rows 1/2" bolts at 24" o.c. staggered.





For side-loaded multiple member beams, additional nailing or bolting may be required. See page 23.

GENERAL NOTES:

- Bearing length should never be less than 1½" at ends, 3½" at intermediate supports.
- Bearing across the full width of the beam is required.
- Beams require lateral support at bearing points.
- Lateral support of beam compression edge is required at intervals of 24" o.c. or closer.
- 1¾" x 16" and 1¾" x 18" beams are to be used in multiple member units only.

Multiple pieces of Microllam® LVL or Parallam® PSL can be nailed or bolted together to form a header or beam of the required size, up to a maximum width of 7 inches. For top-loaded beams, see detail L6 above. For side-loaded beams, see page 23.

MULTIPLE MEMBER CONNECTIONS FOR SIDE-LOADED BEAMS

ASSEMBLY A 2 pcs. 13/4"



ASSEMBLY B 3 pcs. 13/4"



ASSEMBLY C 1 pc. 1¾" 1 pc. 3½"



ASSEMBLY D 1 pc. 13/4" 1 pc. 31/2"



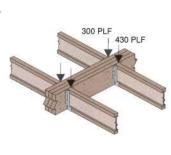
ASSEMBLY E 2 pcs. 31/2"



Maximum Uniform Load applied to either outside member (lbs. per lin. ft.)

	Nailed Co	nnection®	Through Bolte	d Connection
Multiple Assembly (see pictures)	2 rows 16d (3½") common wire at 12" o.c.	3 rows 16d (3½") common wire at 12" o.c.	2 rows ½" bolts at 24" o.c.	2 rows ½" bolts at 12" o.c.
A	470	705	505	1010
B ⁽⁵⁾	355	530	380	760
С	340	510	505	1010
D(5)(6)	310	465	460	920
E(6)	NOT APP	LICABLE	860	1720

EXAMPLE PROBLEM



SOLUTION:

First, check allowable load tables to verify that 3 pcs. can carry the total load of 730 plf with proper live load deflection criteria. Maximum load applied to either outside member is 430 plf. For a 3 pc. 13½" multiple assembly, 2 rows 16d (3½") nails at 12" o.c. is good for only 355 plf. Therefore, use 3 rows 16d (3½") nails at 12" o.c. (good for 530 plf). Alternate: 2 rows ½" bolts at 12" o.c.

GENERAL NOTES:

- 1. Verify adequacy of beam in uniform load tables, pages 25 and 26.
- 2. Values listed are for 100% stress level. Increase 15% for snow loaded roof conditions or 25% for non-snow roof conditions, where code allows.
- 3. Nailed Connection values may be doubled for 6" o.c. or tripled for 4" o.c. nail spacing.
- 4. Bolts are to be material conforming to ASTM standard A307 (machine bolts). Bolt holes are to be the same diameter as the bolt, and located 2" from the top and bottom of the member. Washers should be used under head and nut.
- 5. For a three-piece member, the nailing specified is from each side.
- 6. 7" wide beams should only be side-loaded when loads are applied to both sides of the members (to minimize rotation).
- Beams wider than 7" require special consideration by the design professional.

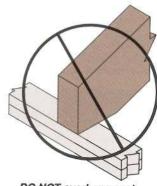
Legacy Literature See Note on Front Cover

BEARING LENGTH REQUIREMENTS

Reaction		Bean	n Width	
(Pounds)	13/4"	31/2"	51/4"	7"
1,000	1.50	1.50	1.50	1.50
2,000	2.00	1.50	1.50	1.50
3,000	2.75	1.50	1.50	1.50
4,000	3.75	2.00	1.50	1.50
5,000	4.50	2.25	1.50	1.50
6,000	5.50	2.75	2.00	1,50
7,000	6.25	3.25	2.25	1.75
8,000	7.25	3.75	2.50	2.00
9,000	8.00	4.00	2.75	2.00
10,000	9.00	4.50	3.00	2.25
11,000	9.75	5.00	3.25	2.50
12,000	10.75	5.50	3.75	2.75
13,000	11.50	5.75	4.00	3.00
14,000	12.50	6.25	4.25	3.25
15,000	13.25	6.75	4.50	3.50
16,000	14.25	7.25	4.75	3.75
17,000	15.00	7.50	5.00	3.75
18,000	16.00	8.00	5.50	4.00
19,000		8.50	5.75	4.25
20,000		9.00	6.00	4.50
21,000		9.25	6.25	4.75
22,000		9.75	6.50	5.00
23,000		10.25	6.75	5.25
24,000		10.75	7.25	5.50
25,000		11.00	7.50	5.50
26,000		11.50	7.75	5.75
27,000		12.00	8.00	6.00
28,000	100	12.50	8.25	6.25
29,000		12.75	8.50	6.50
30,000		13.25	9.00	6.75

GENERAL NOTES:

- Bearing length should never be less than 1½" at ends, 3½" at intermediate supports.
- Bearing across the full width of the beam is required.
- Bearing lengths are based on 650 psi bearing stress (bearing stresses cannot be increased for duration of load). Bearing length may need to be increased if support member's allowable bearing stress is less.
- · Beams require lateral support at bearing points.
- Lateral support of beam compression edge is required at intervals of 24" o.c. or closer.
- 1¾" x 16" and 1¾" x 18" beams are to be used in multiple member units only.



DO NOT overhang seat cuts on Microllam® LVL or Parallam® PSL beams from inside face of support member.

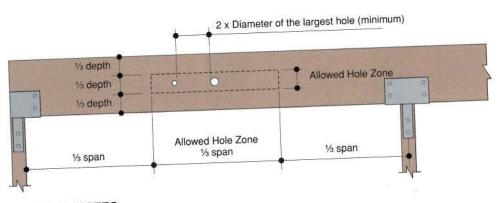
NAILS INSTALLED ON THE NARROW FACE

NAIL SIZE	Closest O.C. Sp	pacing per Row
WAIL SIZE	Microllam® LVL	Parallam® PSL
8d (21/2") common	3"	3"
10d (3") or 12d (31/4") common	4"	4"
16d (3½") common	8"	5"

If more than one row of nails is used the rows must be offset at least 1/2 inch.

Microllam® LVL and Parallam® PSL Headers and Beams

ALLOWABLE HOLES (Uniformly Loaded Beams)





DO NOT cut, notch or drill holes in Microllam® LVL or Parallam® PSL except as indicated in chart and illustration.

GENERAL NOTES:

- The Allowed Hole Zone in this chart is suitable for uniformly loaded beams using maximum loads for any tables listed in this guide. For other load conditions or hole configurations, please contact your Trus Joist MacMillan representative.
- If more than one hole is to be cut in beam, the length of the uncut beam between holes must be a minimum of twice the diameter of the largest hole.
- Rectangular holes are not allowed.
- Holes in cantilevers require additional analysis.

BEAM DEPTH	MAXIMUM ROUND HOLE SIZE
51/2"	13/4"
71/4" through 18"	2"

FLOOR BEAM SIZING TABLE

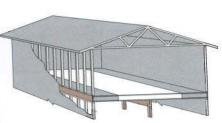
GENERAL NOTES:

- Table may be used to size 2.0E Microllam® LVL or 2.0E Parallam® PSL beams.
- Table assumes a residential floor loading of 40 psf live load and 12 psf dead load with beam deflection limited to L/360 at live load. For other loading conditions refer to allowable uniform load tables on page 25 or contact your Trus Joist MacMillan representative for assistance.
- Table assumes a continuous floor joist span and a simple or continuous beam span.
- Reduction in live load has been applied in accordance with UBC 1606, NBC 1115.1 and SBC 1203.2.
- Minimum beam support to be double trimmers (3" bearing) at ends and 71/2" bearing at intermediate supports of continuous spans. In shaded areas, support beams with triple trimmers (41/2" bearing) at ends and 111/4" bearing at intermediate supports of continuous spans. See page 31 for information on Parallam® PSL columns and posts.
- Beam widths of 31/2" and 51/4" may be one piece or multiple pieces as shown in the chart at right.

		BEAM WIDTH
BEAM DEPTH	31/2"	51/4"
51/2" & 71/4"	Two 13/4"	Three 1¾"
91/4"-18"	One 3½" or Two 1¾"	One 51/4" or Three 13/4" or One 31/2" & One 13/4"

Multiple member beams must be properly connected together. See pages 22 and 23 for connection details.

Column		U			st spans on	both sides	17'	18'	20'
Spacing	11'	12'	13'	14'			5¼" x 9¼"	51/4" x 91/4"	
401	3½" x 9¼"	51/4" x 91/4"	51/4" x 91/4"	51/4" x 91/4"	5¼" x 9¼" 3½" x 11¼"	51/4" x 91/4" 31/2" x 111/4"	31/2" x 111/4"	31/2" x 111/4"	3½" x 11¼
10'	372 X 974	31/2" x 91/2"	3½" x 11¼"	3½" x 11¼"		The second secon	51/4" x 111/4"	51/4" x 111/4"	51/4" x 117/8
12'	5¼" x 9½"	3½" x 11¼"	51/4" x 111/4" 31/2" x 117/6"	51/4" x 111/4" 31/2" x 117/6"	5¼" x 11¼" 3½" x 14"	3½" x 14"	31/2" x 14"	31/2" x 14"	3½" × 14"
	3½" x 11¼"		The second second	51/4" x 117/8"	71.00	51/4" x 14"	51/4" x 14"	51/4" x 14"	5¼" x 14"
-	51/4" x 111/4"	51/4" x 111/4"	51/4" x 117/8"	7500 USB (4075)	31/2" x 14"	31/2" x 16"	3½" x 16"	3½" x 16"	31/2" x 16"
14'	31/2" x 14"	3½" x 14"	3½" x 14"	3½" x 14"		51/4" x 14"	51/4" x 14"	51/4" x 16"	51/4" x 16'
	51/4" x 14"	51/4" x 14"	51/4" x 14"	51/4" x 14"	51/4" x 14"	Control Control	3½" x 18"	31/2" x 18"	31/2" x 18"
16'	31/2" x 16"	3½" x 16"	3½" x 16"	31/2" x 16"	31/2" x 16"	31/2" x 16"	372 X 10	0/2 /	The state of the s
		51/4" x 16"	51/4" x 16"	51/4" x 16"	51/4" x 16"	51/4" x 16"	51/4" x 16"	51/4" x 16"	51/4" x 18
18'	51/4" x 14"	31/2" x 18"	3½" x 18"	31/2" x 18"	3½" x 18"	3½" x 18"	15.07 (00,000)		N. M. Contract
			E1111 - 1011	E1/." v 18"	51/4" x 18"	51/4" x 18"	51/4" x 18"	51/4" x 18"	51/4" x 18
20'	3½" x 16" 5½" x 16" 3½" x 18"	3½" x 18" 5½" x 16"	51/4" x 16"	51/4" x 18"	51/4" x 18"		51/4" x 18"	5¼" x 18"	51/



Non-shaded portion indicates area of load on beam.

ALLOWABLE UNIFORM APPLIED LOAD - FLOOR (PLF)

GENERAL NOTES:

- Values shown are the maximum uniform loads, in pounds per lineal foot (plf), that can be applied to the beam in addition to its own weight.
- Tables are based on uniform loads and the most restrictive of simple or continuous span.
- Microllam® LVL and Parallam® PSL beams are made without camber; therefore, in addition to complying with the deflection limits of the applicable building code, other deflection considerations, such as long term deflection under sustained loads (including creep) and aesthetics, must be evaluated.
- Lateral support of beam compression edge is required at intervals of 24" o.c. or closer.
- 5. Lateral support of beams is required at bearing points.
- 6. Bearing area to be calculated for specific application; see table on page 23.

FLOOR BEAM SIZING

13/4"x16" and 13/4"x18"

- To size a beam for use in a floor it is necessary to check both live load and total load. Make sure the selected beam will work in both columns. When no live load is shown, total load will control.
- Total load column limits deflection to L/240. Live load column is based on deflection of L/360. All members 71/4" and less in depth are restricted to a maximum deflection of 5/16". Check local code for other deflection criteria.
- For deflection limits of L/240 and L/480 multiply loads shown in live load column by 1.5 and 0.75 respectively. The resulting live load shall not exceed the total load shown.

1¾" 2.0E MICROLLAM® LVL

												are to be		
	One 13	1/4"x51/2"	One 13	4"x71/4"	One 13	3/4"x91/2"	One 1%	4"x117/8"	One 1	3/4"x14"	One 1	3/4"x16"	One 1	3/4"x18"
SPAN (Ft.)	LIVE LOAD L/360	TOTAL LOAD	LIVE LOAD L/360	TOTAL LOAD	LIVE LOAD L/360	TOTAL LOAD	LIVE LOAD L/360	TOTAL	LIVE LOAD L/360	TOTAL	LIVE LOAD L/360	TOTAL	LIVE LOAD L/360	TOTAL
6	305	455	659	762		1062		1424		1776		2152		2581
8	133	153	295	342	628	745		978	1.2	1195		1415		1656
10		62		142	337	502	628	744		899		1053		1218
12		28		67	200	296	379	551	599	720		838		962
14				35	128	188	244	361	390	549	566	695	780	794
16		3		19	87	125	166	244	267	394	390	538	542	672
18					61	87	118	171	190	279	279	411	390	529
20					45	62	87	124	140	204	207	302	289	425
22	1				34	46	65	92	106	153	157	227	220	322
24	7				26	34	51	70	82	117	122	175	171	248
26					20	26	40	54	65	91	96	137	136	195
28						20	32	42	52	71	77	108	109	155
30						15	26	33	42	57	63	87	89	125

Table is for one 1¾" beam. When properly connected together, double the values for two 1¾" beams, triple for three. See pages 22 and 23 for connection details.

3½" 2.0E PARALLAM® PSL (For 1¾", 5¼" and 7" beams, see multiplier below)

											beams	are to be nember	used in	multiple
	One 31	/2"x91/4"	One 31	2"x91/2"	One 31/	2"x111/4"	One 31/	2"x117/8"	One 3	½"x14"	One 3	½"x16"	One 3	½"x18"
SPAN (Ft.)	LIVE LOAD L/360	TOTAL	LIVE LOAD L/360	TOTAL	LIVE LOAD L/360	TOTAL	LIVE LOAD L/360	TOTAL	LIVE LOAD L/360	TOTAL	LIVE LOAD L/360	TOTAL	LIVE LOAD L/360	TOTAL
6		2090		2162		2694		2897		3651		4462		5393
8	1169	1469	1257	1517		1861		1990		2455		2935		3460
10	626	929	675	1003	1084	1420	1257	1514		1848		2184		2544
12	372	548	401	592	651	964	758	1092	1198	1480	1721	1738		2010
14	238	347	257	375	419	616	489	721	780	1093	1132	1409	1561	1660
16	161	231	174	251	285	415	333	487	535	787	780	1074	1084	1344
18	114	160	123	174	202	291	237	342	381	557	559	822	780	1058
20	83	115	90	125	148	210	174	248	281	407	414	603	579	850
22	63	84	68	91	112	156	131	184	213	304	314	454	441	643
24	48	62	52	68	86	118	102	140	165	232	244	349	343	496
26	38	47	41	51	68	90	80	107	130	180	193	272	272	389
28	30	35	33	39	55	70	64	84	105	142	155	216	219	310
30	25	27	27	30	44	54	52	66	85	113	127	173	179	250

Table can be used for 1¾", 3½", 5½" or 7" width beams. Use the following multipliers to calculate the allowable load for each width:

13½" width beam:
3½" width beam:
5½" width beam:
5½" width beam:
Use values in table x 0.50
Use values in table x 1.50
Use values in table x 2.00

(a) Table is for one 3½" beam. When properly connected together, double the values for two 3½" beams. See pages 22 and 23 for connection details.

Microllam® LVL and Parallam® PSL Headers and Beams

ALLOWABLE UNIFORM APPLIED LOAD - ROOF (PLF)

- 1. Values shown are the maximum uniform loads, in pounds per lineal foot (plf), that can be applied to the beam in addition to its own weight.
- 2. Tables are based on uniform loads and the most restrictive of simple or continuous span. Total load column limits deflection to L/180. For stiffer deflection criteria check L/240 column at total load. All members 71/4" and less in depth are
- restricted to a maximum deflection of 5/16". Check local code for other deflection criteria. 4. Microllam® LVL and Parallam® PSL beams are made without camber; therefore, in addition to complying with the deflection limits of the applicable building code, other deflection considerations, such as ponding (positive drainage is essential), long term deflection under sustained loads (including
- 5. Roof members shall either be sloped for drainage or designed to account for load and deflection as specified in the applicable building code.
- 6. Lateral support of beam compression edge is required at intervals of 24" o.c. or closer.
- Lateral support of beams is required at bearing points.
- 8. Bearing area to be calculated for specific application; see table on page 23.

13/4" 2.0E MICROLLAM® LVL

3/4"	2.0E	MIC	ROL	LAN	N® LV	L										13/4"X	16" and 1	13/4"x18" iple men	beams a ber unit	re to be s only.	used
										0	43/ Put 1	76"	On	e 13/4"x1	4"	On	e 1¾"x1	6"	-	ie 13/4"x1	
Г	On	e 13/4"x5	1/2"	On	e 13/4"x7	1/4"	On	e 13/4"x9	1/2"		13/4"x11	DEFL.	TOTAL	No.	DEFL.	TOTAL	LOAD	DEFL.	TOTAL	LOAD	DEFL
	TOTAL		DEFL.	TOTAL	LOAD	DEFL.	TOTAL	LOAD	DEFL.	TOTAL	LOAD	DEFL.	TOTAL	Non-			Non-			Non-	
PAN		Non-		Snow	Non- Snow		Snow	Non- Snow		Snow	Non- Snow 125%	L/240	Snow 115%	Snow 125%	L/240	Snow 115%	Snow 125%	L/240	Snow 115%	Snow 125%	L/240
(Ft.)	Snow 115%	Snow 125%	L/240	115%	125%	L/240	115%	125%	L/240	115%	1781	LIZTO	2044	2222		2476	2692		2970	3229	
6	474	474	458	877	954		1223	1329		1638	1000000		1375	1495		1629	1771		1906	2072	
8	153	153		342	342		858	933		1126	1224		1035	1126		1213	1319		1402	1524	
10	62	62		142	142		604	657	506	857	932	500	829	902		965	1050		1108	1205	
12	28	28		67	67	1 1	397	397	301	635	691	568	633	689	585	801	871		915	995	
	20	20		35	35		252	252	193	465	483	367		525	401	620	675	585	774	842	
14				19	19		169	169	130	327	327	250	483	374	286	488	532	419	609	663	585
16				100	0.53		118	118	92	231	231	177	374		211	394	406	310	492	535	434
18							85	85	67	168	168	130	274	274	- Min 11.1	306	306	236	405	432	331
20							63	63	51	125	125	98	206	206	-	236	236	183	334	334	257
22						-	47	47	39	95	95	76	158	158		-	185	145	263	263	204
24							36	36	31	74	74	60	123	123		185	147	116	210		
26							28	28	25	58	58	48	98	98	1000	147	-		170	40,586	
28							1000			46	46	39	78	78	64			7850	1030000	0	
30						0.5	1 22	22		46	Comban	13/." bo	ame tri	nle for	three. S	ee pag	es 22 a	nd 23 fc	or conn	ection (jetaiis.

Table is for one 1%" beam. When properly connected together, double the values for two 134" beams, triple for three. See pages 22 and 23 for connection details.

31/2" 2.0E PARALLAM® PSL (For 13/4", 51/4" and 7" beams, see multiplier below)

72	Z.UL		.,			36				beams						174 X10	5" and 13 multip	le memb	er units	only.	
											01/11-447	7.11	Or	ne 31/2"x1	4"	On	e 31/2"x1	6"	On	e 31/2"x1	8"
- 1	One	31/2"x9	1/4"	On	e 31/2"x9	1/2"	One	31/2"x11	1/4"	Sec. 19.	31/2"x117	No.		LOAD	DEFL.	TOTAL	LOAD	DEFL.	TOTAL	LOAD	DEFL
	TOTAL	Service Delication	DEFL.	TOTAL	LOAD	DEFL.	TOTAL	LOAD	DEFL.	TOTAL	The state of the s	DEFL.	TOTAL	Non-			Non-		100	Non-	
SPAN		Non-	DETE	Snow	Non- Snow		Snow	Non- Snow	27772452	Snow	Non- Snow 125%	L/240	Snow 115%	Snow 125%	L/240	Snow 115%	Snow 125%	L/240	Snow 115%	Snow 125%	L/240
(Ft.)	Snow 115%	Snow 125%	L/240	115%	125%	L/240	115%	125%	L/240	115%	3625	L'ZTO	4201	4568		5134	5582		6205	6747	
6	2405	2616		2488	2705		3100	3370	1	3334			2826	3073		3378	3673		3982	4330	
8	1691	1839	11-11-11	1746	1899		2142	2329		2291	2491		2127	2314		2514	2734		2929	3185	
10	1132	1231	940	1190	1295	1013	1635	1778	1626	1743	1896	1107	1704	1854		2001	2176		2314	2517	
	734	734	558	793	793	602	1135	1235	976	1258	1369	1137		1370	1171	1623	1765		1912	2080	
12	1000	466	357	504	504	386	826	826	629	921	966	734	1259		802	1238	1347	1171	1549	1685	1
14	466		241	338	338	261	558	558	428	654	654	500	960	1045		974	1061	839	1220	1328	117
16	312	312	100		236	185	392	392	303	461	461	355	748	748	572		810	621	984	1071	869
18	217	217	171	236		135	285	285	223	335	335	261	547	547	422	786	-	472	810	863	66
20	156	156	125	170	170	N. Carrie	212	212	168	250	250	197	411	411	320	611	611	117,000		668	515
22	115	115	94	126	126	102		161	130	191	191	153	315	315	248	471	471	366	668	526	10500
24	87	87	73	95	95	79	161	124	102	148	148	120	246	246	196	369	369	290	526		329
26	66	66	57	72	72	62	124		82	116	116	97	195	195	157	294	294	233	420	420	
28	51	51	46	56	56	50	97	97		11000	92	79	156	156	128	236	236	190	339	339	26
30	39	39	37	43	43	40	77	77	67	92 a multip		7.000	100015		load to	r oach i	width:		W 2-167 11		

Table can be used for 1¾", 3½", 5¼" or 7" width beams. Use the following multipliers to calculate the allowable load for each width:

13/4" width beam:

Use values in table x 0.50

31/2" width beam(a): Use values in table

51/4" width beam: 7" width beam:

Use values in table x 1.50 Use values in table x 2.00

(a) Table is for one 3½" beam. When properly connected together, double the values for two 3½" beams. See pages 22 and 23 for connection details.

GARAGE DOOR HEADER SIZING TABLE

For Single Story Applications

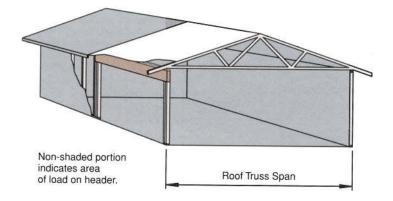
	f Load				OW (125%)		2000	Maria Maria		SNOW	(115%)		
	SF)		20LL + 12DL			20LL + 25DI			25LL + 12DI			30LL + 12DL	
	h Door ing Size	9'-3"	16'-3"	18'-3"	9'-3"	16'-3"	18'-3"	9'-3"	16'-3"	18'-3"	9'-3"	16'-3"	18'-3"
	22'	5¼" x 7¼" 1¾" x 9¼"	51/4" x 91/4" 31/2" x 111/4" 13/4" x 14"	5¼" x 11¼" 3½" x 11%"	1¾" x 9¼"	5¼" x 11¼" 3½" x 11%"	5¼" x 11%" 3½" x 14"	5¼" x 7½" 1¾" x 9¼"	3½" x 11¼"	5¼" x 11¼" 3½" x 14"	5¼" x 7¼" 1¾" x 9¼"	5¼" x 11¼" 3½" x 117%"	5¼" x 11%' 3½" x 14"
peu	24'	5¼" x 7¼" 1¾" x 9¼"	5¼" x 9¼" 3½" x 11¼" 1¾" x 14"	5¼" x 11¼" 3½" x 14"	13/4" × 91/4"	51/4" x 111/4" 31/2" x 14"	51/4" x 117/8" 31/2" x 14"	51/4" x 71/4" 13/4" x 91/4"	5½" x 11½" 3½" x 11½"	51/4" x 111/4" 31/2" x 14"	1¾" x 9¼"	5¼" x 11¼" 3½" x 11%"	51/4" x 117/6" 31/2" x 14"
Soffit Assumed	26'	51/4" x 71/4" 13/4" x 91/4"	5¼" x 9½" 3½" x 11¼" 1¾" x 14"	5¼" x 11¼" 3½" x 14"	1¾" x 9¼"	5¼" x 11¼" 3½" x 14"	3½" x 14"	1¾" x 9¼"	51/4" x 111/4" 31/2" x 117/8"	5¼" x 11%" 3½" x 14"	3½" x 9¼" 1¾" x 9½"	5¼" x 11¼" 3½" x 14"	5¼" x 11%' 3½" x 14"
	28'	5¼" x 7¼" 1¾" x 9¼"	3½" x 11¼"	5¼" x 11¼" 3½" x 14"	3½" x 9¼" 1¾" x 11¼"	5¼" x 11¼" 3½" x 14"	51/4" x 14" 31/2" x 16"	1¾" x 9¼"	5¼" x 11¼" 3½" x 11¾"	51/4" x 117/4" 31/2" x 14"	3½" x 9¼" 1¾" x 11¼"	5¼" x 11¼" 3½" x 14"	3½" x 14"
in in Feet	30'	5¼" x 7¼" 1¾" x 9¼"	5¼" x 11¼" 3½" x 11¾"	5¼" x 11¼" 3½" x 14"	3½" x 9¼" 1¾" x 11¼"	5¼" x 11¼" 3½" x 14"	5½" x 14" 3½" x 16"	3½" x 9¼" 1¾" x 9½"	5¼" x 11¼" 3½" x 14"	5¼" x 11½" 3½" x 14"	3½" x 9¼" 1¾" x 11¼"	5¼" x 11¼" 3½" x 14"	51/4" x 14" 31/2" x 16"
Roof Truss Span in Feet with 24"	32'	1¾" x 9¼"	51/4" x 111/4" 31/2" x 117/8"	5¼" x 11¼" 3½" x 14"	3½" x 9¼" 1¾" x 11¼"	51/4" x 117/6" 31/2" x 14"	5¼" x 14" 3½" x 16"	3½" x 9¾" 1¾" x 11¼"	5¼" x 11¼" 3½" x 14"	3½" x 14"	3½" x 9¼" 1¾" x 11¼"	51/4" x 111/4" 31/2" x 14"	51/4" x 14" 31/2" x 16"
Roof	34'	1¾" x 9¼"	5¼" x 11¼"	5¼" x 11%"	3½" x 9¼"	5¼" x 11¾"	51⁄4" x 14"	3½" x 9¼"	5¼" x 11¼"	5¼" x 14"	3½" x 9¼"	5¼" x 11%"	51/4" x 14"
			3½" x 11%" 5¼" x 11¼"	3½" x 14" 5¼" x 11%"	1¾" x 11¼" 3½" x 9¼"	3½" x 14" 5¼" x 11%"	3½" x 16" 5¼" x 14"	1¾" x 11¼" 3½" x 9¼"	3½" x 14" 5¼" x 11¼"	3½" x 16" 5¼" x 14"	13/4" x 11/4" 31/2" x 91/4"	3½" x 14" 5¼" x 11½"	3½" x 16" 5¼" x 14"
	36'	134" x 914"	3½" x 11%"	3½" x 14"	1¾" x 11¼"	31/2" x 14"	3½" x 16"	194" x 111/4"	3½" x 14"	3½" x 16"	13/4" × 111/4"	3½" x 14"	3½ x 16"

GENERAL NOTES:

- Table may be used to size 2.0E Microllam® LVL or 2.0E Parallam® PSL headers.
- Table assumes a simple span header supporting ½ of the total roof load.
- Deflection limited to L/240 at live load or L/180 at total load. All members 71/4" and less in depth are restricted to a maximum deflection of 5/16".
- Reduction in live load has been applied in accordance with UBC 1606, NBC 1110.2 and SBC 1203.6 for the header sizes listed in the non-snow (125%) columns.
- Minimum header support to be double trimmers (3" bearing).
 In shaded areas, support headers with triple trimmers (4½" bearing).
- For loading conditions not shown refer to allowable uniform load tables on page 26 or contact your Trus Joist MacMillan representative for assistance.
- Header widths of 3½" and 5½" may be one piece or multiple pieces as shown in the following chart:

	Н	EADER WIDTH
HEADER DEPTH	31/2"	51/4"
51/2" and 71/4"	Two 13/4"	Three 1%"
91/4"-18"	One 3½" or Two 1¾"	One 51/4" or Three 13/4" or One 31/2" & One 13/4"

Multiple member headers must be properly connected together. See pages 22 and 23 for connection details.



Microllam® LVL & Parallam® PSL Framing Connectors (Simpson Strong-Tie®)













The minimum support for top flange hangers (except GLTV and HGLTV) is 211/16" or wider Microllam® LVL, Parallam® PSL, TimberStrand® LSL, glulam or 4x4 or larger solid-sawn lumber. The GLTV and HLTV hangers require 3½" minimum support width. The minimum support width for all face mount hangers is 2".

TOP FLANGE HANGERS

	S	UPPORTED MEMBER DEPTH	HANGER	LOAD			
		91/4"	WPU1.81/9.25				
		01/11	MIT9.5				
		91/2"	WPU1.81/9.5				
3	.	111/4"	WPU1.81/11.25				
1 6	4/4	117/8"	MIT11.88				
		1178	WPU1.81/11.88	4			
1		14"	MIT1.81/14	-			
L			WPU1.81/14				
T		91/4"	HWU3.56/9.25	-			
1	1	0,7	GLTV3.56/9.25	-			
1		91/2"	HWU3.56/9.5	-			
Т		9/2	GLTV3.59	-			
1		111/4"	HWU3.56/11.25	-			
		and the same	GLTV3.56/11.25	1			
	31/2"	117/8"	HWU3.56/11.88				
	3		GLTV3.511				
1		14"	HWU3.56/14				
4		1000	GLTV3.514				
SUPPORTED MEMBER WILLIA	72	16"	HWU3.56/16				
		Tanks	GLTV3.516	✓			
		18"	HWU3.56/18 GLTV3.518	벨 벨			
			HWU5.50/9.25	- B			
ME		91/4"	GLTV5.50/9.25	I A			
	3		HWU5.50/9.5	Ш			
=		91/2"	HGLTV5.59	ш			
ò			HWU5.50/11.25	၂ တ			
声		111/4"	GLTV5.50/11.25				
S	51/4"	To a second	HWU5.50/11.88				
	1	117/8"	HGLTV5.511				
		-	HWU5.50/14				
		14"	HGLTV5.514				
	1	16"	HGLTV5.516				
		18"	HGLTV5.518				
	T	91/4"	HWU7.12/9.25				
		974	GLTV49.25-2				
		91/2"	HWU7.12/9.5				
		572	GLTV49.5-2				
		111/4"	HWU7.12/11.25				
	1	- ANEVASE	HGLTV411.25-2				
	1	117/8"	HWU7.12/11.88				
1		1170	HGLTV411.88-7	2			
	1	14"	HWU7.12/14				
			HGLTV414-2				
		16"	HGLTV416-2				

FACE MOUNT HANGERS

		SUPPORTED MEMBER DEPTH	HANGER	MAXIMUM LOAD (LBS.)
T		91/4" - 14"	HU9	3215(1)
1	13/4"	111/4" - 14"	HU11	4020
	-	14"	HU14	4540
SUPPORTED MEMBER WID IN		91/4" - 14"	HU410	2410(1)
ا ڳ		111/4" - 16"	HU412	2950(1)
	31/2"		HU414	3215(1)
ΞĮ		14" - 18"	HU416	3485(1)
ž		91/4" - 117/8"	HU610	2410(1)
9		The same of the same	HU612	2950(1)
E	51/4"	117/8" - 18"	HU614	3215(1)
ō		14" - 18"	HU616	3485(1)
P		91/4" - 14"	HU410-2	2410(1)
S	1.1		HU412-2	2950(1)
	1	14" - 18"	HU414-2	3485(1)

⁽¹⁾ Value may be increased for duration of load.

GENERAL NOTES:

- Hanger capacity may be more or less than that of the supported member; therefore, both the hanger and Microllam® LVL, Parallam® PSL or TimberStrand® LSL capacities
- Hanger capacities shown are based on the assumption that hanger is supported from Trus Joist MacMillan products or Douglas fir-larch or southern pine species support members. For other conditions, contact your Trus Joist MacMillan representative for
- Hangers can only achieve their maximum capacity if all round nail holes and all triangular nail holes (when present) are filled with the proper nails. All hangers listed require 16d (3½") common header (support member) nails and 10d x 1½" nails into the supported member, except the HU410 through HU416 which require 10d (3") common nails into the supported member, and the GLTV, HGLTV and HU610 through HU616, which require 16d (31/2") common nails into the supported member. In some cases, hangers have greater capacity when supported from certain member categories and with alternate nailing schedules.
- Leave 1/16" clearance between end of Microllam® LVL, Parallam® PSL or TimberStrand® LSL and support member or hanger.

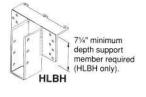
The hangers listed are manufactured by Simpson Strong-Tie® Company, Inc. For additional information, please refer to current Simpson Strong-Tie® Company, Inc. literature.

Table A - Maximum Load (Lbs.)

	SUPPORT MEMBER (HEADER)												
TOP FLANGE HANGER	Microllam®	2 or more pieces 1¾" Parallam® PSL	2 ¹¹ / ₁₆ " or wider Parallam® PSL	TimberStrand® LSL	Douglas fir-larch, southern pine								
LVL		6000	7400(1)	5750	7000								
GLTV	7500	22 mar 6 m	0.794.740.00	7325	8665								
HGLTV	10500	6000	7800(1)	1000									
HWU	6000(2)	5500	5500	5500	6000(2)								
	-	2000	2000	2000	2500								
MIT	2650			4490	4165								
WPU	4490	4490	4490	4490	1100								

- Loads in Table A may not be increased for duration of load.
- (1) GLTV and HGLTV require 31/2" minimum header width.
- (2) Load may be increased to 6335 lbs. for supported member widths of $3\frac{1}{2}$ " or less.

Microllam® LVL & Parallam® PSL Framing Connectors (KANT-SAG®)















The minimum support for top flange hangers is 3½" or wider Microllam® LVL, Parallam® PSL, TimberStrand® LSL, glulam or 4x4 or larger solid-sawn lumber . The minimum support width for all face mount hangers is 2".

TOP FLANGE HANGERS

		SUPPORTED MEMBER DEPTH	HANGER	MAXIMUM LOAD
		01/.!!	PH17925	
	10	91/4"	BPH17925	
13		91/2"	PH1795	
28		972	BPH1795	
	13/4"	111/4"	PH17112	
8	100	11.74	BPH17112	
		117/8"	PH17118	
		1178	BPH17118	
		14"	PH1714	
93			BPH1714	
18		91/4"	BPH35925	
		3/4	LBH35925	
		91/2"	BPH3595	
		072	LBH3595	
		111/4"	BPH35112	
130	31/2"	1124	HLBH35112	-1
1000	3	117/8"	BPH35118	
		34.48	HLBH35118	O)
I		14"	BPH3514	
PT			HLBH3514	
3		16"	HLBH3516	- ✓
SUPPORTED MEMBER WIDTH		18"	HLBH3518	48
MB		91/4"	BPH52925	TABLE
Æ			HLBH52925	9
O		91/2"	BPH5295	」 ≱
표			HLBH5295	111
OR		111/4"	BPH52112	SE
PP	51/4"		HLBH52112	J 0,
SU	5	117/8"	BPH52118	
10			HLBH52118	_
		14"	BPH5214	_
			HLBH5214	
		16"	HLBH5216	_
		18"	HLBH5218	4
		91/4"	BPH71925	
			HLBH71925	
		91/2"	BPH7195	
			HLBH7195	
	800	111/4"	BPH71112	
	-		HLBH71112	24
	1	111/8"	BPH71118	
20	-	0	HLBH71118	4
		14"	LBH7114	-
	1		HLBH7114	4
1		16"	LBH7116	- 1
150	1		HLBH7116	
		18"	LBH7118	4 1
			HLBH7118	

FACE MOUNT HANGERS

		SUPPORTED MEMBER	HANGER		XIMUM D (LBS.)		
		DEPTH		FLOOR	ROOF (125%)		
		91/4" - 14"	THF17925	1345	1530		
		111/4" - 14"	THF17112	1790	1870		
E	13/4"	1174 - 14	HD17112	2720	3150		
MEMBER WIDTH		14"	THF17140	2240	2800		
2			HD1714	2990	3695		
		91/4" - 14"	THD410	5090	6365		
١	31/2"	111/4" - 14"	THD412	6430	6650		
E L		14" - 18"	THD414	7770	9715		
		91/4" - 117/8"	THD610	5090	6365		
	51/4"	111/4" - 16"	THD612	6430	6650		
SUPPORTED		14" - 18"	THD614	7770	9715		
	1	91/4" - 14"	HD7100	1630	2040		
S	1	111/4" - 16"	HD7120	2175	2720		
	7	16"	HD7160	3265	4080		
		18"	HD7180	3810	4760		

GENERAL NOTES:

- Hanger capacity may be more or less than that of the supported member; therefore, both the hanger and Microllam® LVL, Parallam® PSL or TimberStrand® LSL capacities must be checked
- Hanger capacities shown are based on the assumption that hanger is supported from Trus Joist MacMillan products or Douglas fir-larch or southern pine species support members. For other conditions, contact your Trus Joist MacMillan representative for assistance.
- Hangers can only achieve their maximum capacity if all nail holes are filled with the proper nails. All hangers listed require 16d (3½") common header (support member) nails and 10d x 1½" nails into the supported member, except the THF series which requires 10d (3") common header nails, the HD and THD series which require 10d (3") common nails into the supported member and the HLBH series which require 16d R.S. (9 gauge x 3½", hardened, threaded and bright) header nails supplied by KANT-SAG® and 16d (3½") common nails into the supported member.
- Leave ½6" clearance between end of Microllam® LVL, Parallam® PSL or TimberStrand® LSL and support member or hanger.

The hangers listed are manufactured by United Steel Products Company (KANT-SAG®). For additional information, please refer to current KANT-SAG® literature.

Table A - Maximum Load (Lbs.)

		SUPPORT MEMBER (HEADER)									
TOP FLANGE HANGER	SUPPORTED MEMBER WIDTH	Microllam® LVL	Parallam® PSL	TimberStrand® LSL	Douglas fir-larch, southern pine						
PH	13/4"	2600	2600	2440	2435						
ВРН	13/4"	3395	3395	3395	3000						
ВРП	3½" to 7"	3680	3510	3775	3510						
LBH	31/2"	6500	6400	6010	6400						
LBH	7"	6500	6560	6010	6400						
HLBH	3½" to 7"	10620	7765(1)	9600	9600						

- Loads in Table A assume 2 pieces of 1¾" minimum width Microllam® LVL, TimberStrand® LSL or Parallam® PSL and may not be increased for duration of load.
- (1) Capacity with a single piece 31/2" or wider Parallam® PSL header is 8350 lbs.

Microllam® LVL & Parallam® PSL Design Properties

Design values shown are for 100% load duration

13/4" 2.0E MICROLLAM® LVL

DEPTH											
51/2"	71/4"	91/2"	117/8"	14"	16"	18"					
	4.000	6,625	10,040	13,645	17,500	21,800					
VA 122311 1		3,160	3,950	4,610	5,220	5,830					
The Contract			245	400	595	850					
			6.0	7.1	8.1	9.1					
	5½" 2,390 1,830 25 2.8	2,390 4,000 1,830 2,410 25 55	2,390 4,000 6,625 1,830 2,410 3,160 25 55 125	5½" 7¼" 9½" 11½" 2,390 4,000 6,625 10,040 1,830 2,410 3,160 3,950 25 55 125 245	5½" 7¼" 9½" 11¾" 14" 2,390 4,000 6,625 10,040 13,645 1,830 2,410 3,160 3,950 4,610 25 55 125 245 400	5½" 7¾" 9½" 11¾" 14" 16" 2,390 4,000 6,625 10,040 13,645 17,500 1,830 2,410 3,160 3,950 4,610 5,220 25 55 125 245 400 595					

GENERAL NOTES:

- · Lateral support is required at all bearing points and along compression edge at intervals of 24" on-center or closer.
- Beam weights shown are for ES Microllam® LVL. For WS Microllam® LVL, reduce weights by 10%.
- See NER-481 for additional design information.

2.0E MICROLLAM® LVL ALLOWABLE DESIGN STRESSES

G = 125,000 psiShear modulus of elasticity

 $E = 2.0 \times 10^6 \text{ psi}$ Modulus of elasticity $F_b = 2925 \, psi^{(1)}$ Flexural stress

Compression perpendicular to grain

parallel to glue line $F_{c\perp} = 750 \text{ psi}^{(2)(3)}$

Compression parallel to grain $F_{cll} = 2640^{(4)} \text{ psi}$ Horizontal shear perpendicular

to glue line F_v = 285 psi

(1) For 12-inch depth. For others, multiply by $\left\lceil \frac{12}{d} \right\rceil$ 0.136

- (2) F_{c⊥} shall not be increased for duration of load.
- (3) 880 psi for ES Microllam® LVL.
- (4) 2725 psi for WS Microllam® LVL.

13/4" 2.0E PARALLAM® PSL

EVICE SERVICE SERVICE	DEPTH											
DESIGN PROPERTY	91/4"	91/2"	111/4"	117/8"	14"	16"	18"					
Moment (ft. lbs.)	6.210	6.530	8,985	9,950	13,580	17,475	21,830					
Shear (lbs.)	3.130	3,215	3,805	4,020	4,735	5,415	6,090					
Moment of Inertia (in.4)	115	125	210	245	400	595	850					
Weight (lbs./lin. ft.)	5.1	5.2	6.2	6.5	7.7	8.8	9.8					

211/16" 2.0E PARALLAM® PSL

	DEPTH											
DESIGN PROPERTY	91/4"	91/2"	111/4"	117/8"	14"	16"	18"					
Moment (ft. lbs.)	9.535	10,025	13,800	15,280	20,855	26,840	33,530					
Shear (lbs.)	4.805	4,935	5,845	6,170	7,275	8,315	9,350					
Moment of Inertia (in.4)	175	190	320	375	615	915	1,305					
Weight (lbs./lin. ft.)	7.8	8.0	9.5	10.0	11.8	13.4	15.1					

31/2" 2.0E PARALLAM® PSL

San		1115		DEPTH			
DESIGN PROPERTY	91/4"	91/2"	111/4"	117/8"	14"	16"	18"
Moment (ft. lbs.)	12,415	13,055	17,970	19,900	27,160	34,955	43,665
Shear (lbs.)	6.260	6,430	7,615	8,035	9,475	10,825	12,180
Moment of Inertia (in.4)	230	250	415	490	800	1,195	1,700
Weight (lbs./lin. ft.)	10.1	10.4	12.3	13.0	15.3	17.5	19.7

51/4" 2.0E PARALLAM® PSL

Commence of the same	DEPTH											
DESIGN PROPERTY	91/4"	91/2"	111/4"	117/8"	14"	16"	18"					
Moment (ft. lbs.)	18.625	19,585	26,955	29,855	40,740	52,430	65,495					
Shear (lbs.)	9.390	9,645	11,420	12,055	14,210	16,240	18,270					
Moment of Inertia (in.4)	CARR	375	625	735	1,200	1,790	2,550					
Weight (lbs./lin. ft.)	15.2	15.6	18.5	19.5	23.0	26.3	29.5					

7" 2.0E PARALLAM® PSL

	DEPTH										
DESIGN PROPERTY	91/4"	91/2"	111/4"	117/8"	14"	16"	18"				
Moment (ft. lbs.)	24.830	26,115	35,940	39,805	54,325	69,905	87,325				
Shear (lbs.)	12.520	Committee of the				21,655					
Moment of Inertia (in.4)	460	500	830	975	1,600	2,390	3,400				
Weight (lbs./lin. ft.)	20.2	20.8	24.6	26.0	30.6	35.0	39.4				

2.0E PARALLAM® PSL ALLOWABLE DESIGN STRESSES

= 125,000 psi Shear modulus of elasticity = 2.0 x 10⁶ psi Modulus of elasticity E

= 2900 psi(1) Flexural stress

Compression perpendicular to grain parallel to wide face of strands Fc1 Compression parallel to grain

= 650 psi(2)(3) Fcll = 2900 psi

Horizontal shear perpendicular to wide face of strands F_v

= 290 psi

(1) For 12-inch depth. For others, multiply by $\left[\frac{12}{d}\right]$ 0.111

- (2) F_{c⊥} shall not be increased for duration of load.
- (3) 750 psi for all ES Parallam® PSL and 1¾" thick WS Parallam® PSL.

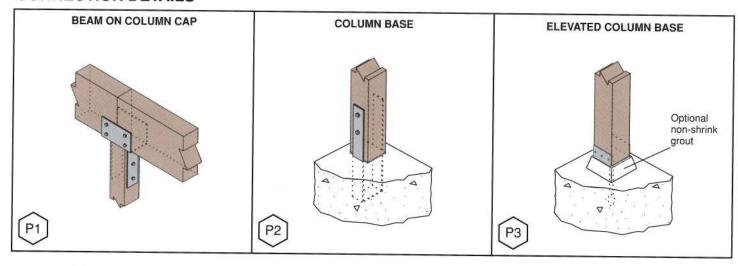
GENERAL NOTES:

- · Lateral support is required at all bearing points and along compression edge at intervals of 24" on-center or closer.
- Beam weights shown are for ES Parallam® PSL. For WS Parallam® PSL, reduce weights by 10%.
- See NER-481 for additional design information.

ES indicates Eastern Species. Eastern Species may include southern pine or yellow poplar.

WS indicates Western Species. Western Species may include Douglas fir, lodgepole pine, western hemlock or white fir.

CONNECTION DETAILS



ALLOWABLE AXIAL LOADS

			16 3 65		A	LLOWAE	BLE AXIA	L LOAD	ON PAR	ALLAM	PSL CO	LUMNS	(In Poun	ds)		all Disa		W 3 00
COLUMN				311190		VALER				MN SIZE	V HOVE	-11						
LENGTH4	3½" x 3½"			3½" x 5¼"			3½" x 7"		51/4" x 51/4"		5¼" x 7"			7" x 7"				
	100%	115%	125%	100%	115%	125%	100%	115%	125%	100%	115%	125%	100%	115%	125%	100%	115%	125%
4'-0"	15,085	16,612	17,538									100000000000000000000000000000000000000	The state of the s				110.0	12070
5'-0"	12,811	13,779	14,340	19,217	20,669	21,510										W-1		
6'-0"	10,598	11,202	11,551	15,897	16,804	17,326	21,196	22,405	23,101	33,300	36,685	38,743						
7'-0"	8,740	9,143	9,375	13,111	13,715	14,063	17,481	18,287	18.751	30.016	32,551	34.041				- 2000		
8'-0"	7,270	7,553	7,716	10,905	11,330	11,574	14,539	15,106	15,432	26.655	28,499	29,565	35,540	37,998	39.420			
9'-0"	6,115	6,323	6,441	9,173	9,484	9.662	12.231	12,645	12,883	23,484	24.845	25,631	31,312	33,127	34.175			
10'-0"	5,203	5,359	5,449	7,805	8,039	8,173	10,407	10.718	10.897	20,667	21,703	22,300	27,556	28.937	29,733			
11'-0"	4,474	4,595	4,663	6,712	6,892	6.995	8.949	9.189	9.327	18,239	19.047	19,512	24.318	25,395	26.016			
12'-0"	3,885	3,979	4,033	5,827	5,969	6.050	7,770	7,959	8.067	16,166	16,810	17,180	21,555	22,413	22.907			
13'-0"	3,402	3,478	3,521	5,103	5.217	5.282	6,804	6.956	7,042	14,401	14,922	15,221	19,201	19.895	20.295			
14'-0"	3,003	3,064	3.099	4.504	4.596	4.649	6.005	6,129	6,199	12.893	13,320	13.566	17,190	17,760	18.088	24.100	05.700	00.700
15'-0"								0,120	0,100	11.599	11,954	12.158	15,465	15,939	16,210	34,168	35,796	36,736
16'-0"										10.483	10,781	10,952	13,465	14,375	The state of the s	31,164	32,526	33,311
17'-0"										9.516	9,769	9,914	12,688	-	14,603	28,498	29,648	30,312
18'-0"										8,673	8.890	9,914		13,025	13,218	26,130	27,112	27,677
19'-0"	W	2		1	-					7.935	8,122	754.500.000	11,565	11,853	12,018	24,027	24,871	25,356
20'-0"										7,286	SHALL SHOW	8,228	10,581	10,829	10,971	22,153	22,885	23,305
21'-0"					-			0		The second second second	7,447	7,540	9,715	9,930	10,053	20,481	21,118	21,484
22'-0"										6,712	6,853	6,933	8,949	9,137	9,244	18,983	19,542	19,862
23'-0"																17,638	18,131	18,413
24'-0"																16,427	16,863	17,113
San																15,333	15,722	15,944

GENERAL NOTES:

- 1. Table applies to solid, one-piece column members used in dry service conditions.
- 2. Loads shown have been adjusted to accommodate the worst case of the following eccentric conditions; 0.167 of column thickness (first dimension) or 0.167 of column width.
- 3. Loads are based on simple axial loaded columns using the design provisions of the National Design Specification® for Wood Construction (NDS), 1991 edition. For side loads or other combined bending and axial loads see provisions of NDS, 1991 edition.
- 4. Table assumes that the column is unbraced, except at the column ends and the effective column length is equal to the actual column length.

1.8E PARALLAM® PSL ALLOWABLE DESIGN STRESSES (100% Load Duration)

Modulus of elasticity $E = 1.8 \times 10^6 \text{ psi}$

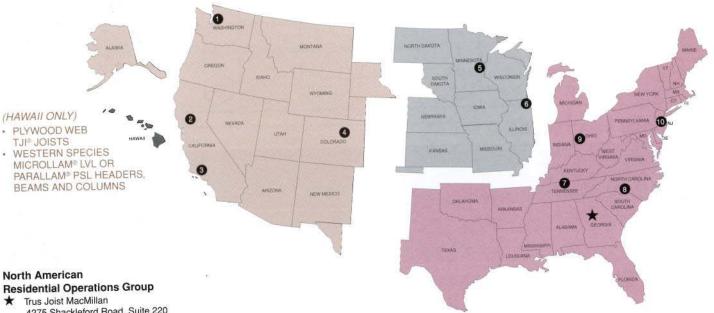
Flexural stress $F_b = 2400 \text{ psi}^{(1)}$ Compression parallel to grain $F_{cll} = 2500 \text{ psi}$

(1) For 12-inch depth. For others, multiply by $\left[\frac{12}{d}\right]$ 0.111

rus Joist MacMillan now offers a product line that includes Western Species or Eastern Species products. Some of these products have different properties and capacities. The map below indicates the general distribution of each species, although some overlap may occur. To be sure the product you specify is readily available in your project's location, contact your local Trus Joist MacMillan representative, or call 1-800-628-3997 for the representative near you. The regional offices listed below represent over 175 technical representatives throughout North America.

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