

Specifier Guide

J,H and U Series I-Joists

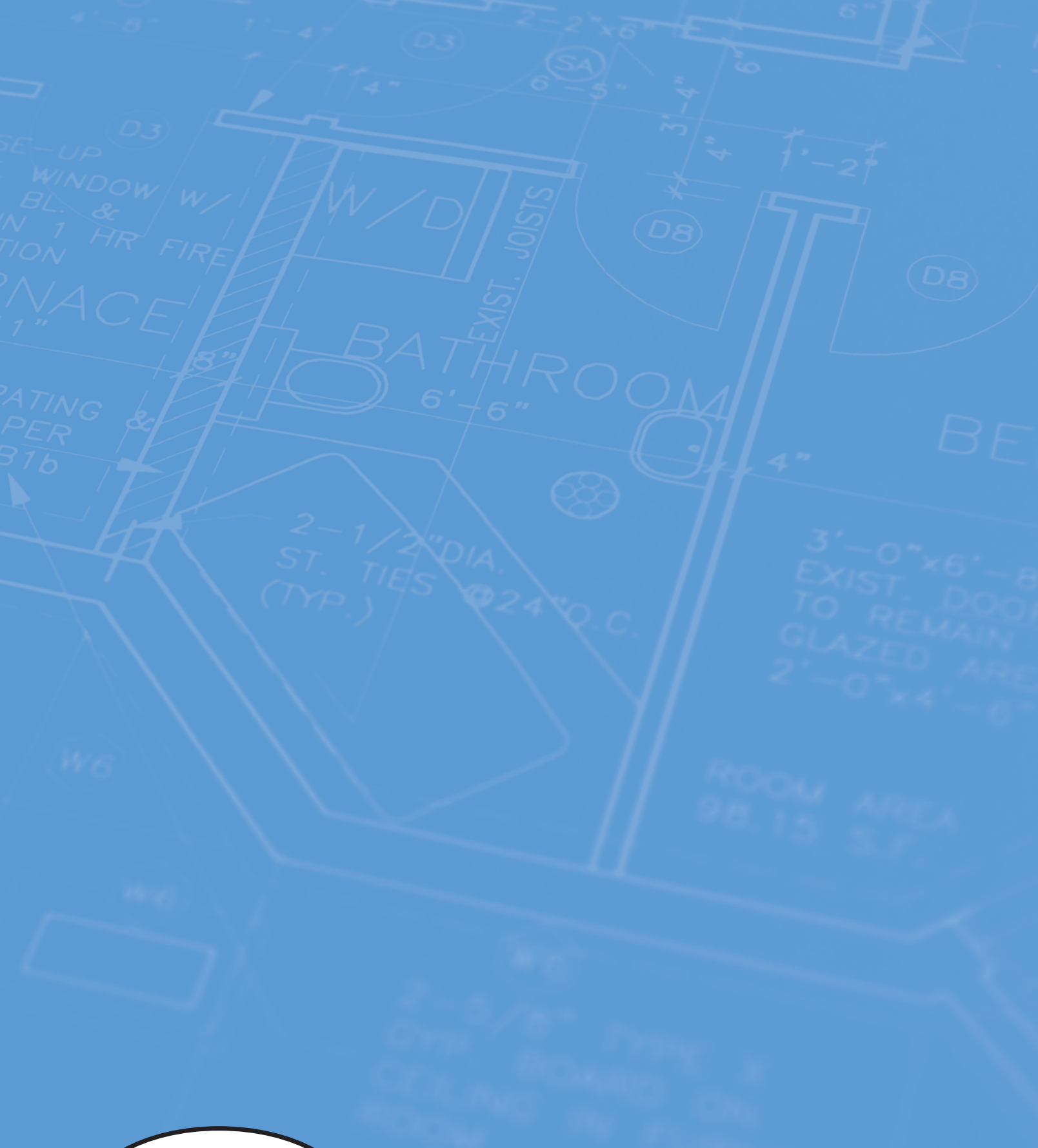


i-joist

BY ALL-FAB

A NASCOR LICENSED MANUFACTURER

USA VERSION



The NASCOR JOISTS
Strong Quiet
Type®

A UNIQUE APPROACH TO THE I-JOIST MARKET

ALL-FAB'S STRONG QUIET TYPE I-JOISTS

All-Fab's Strong Quiet Type® I-joists are manufactured fifteen kilometers north of Winnipeg, in Stony Mountain, Manitoba. Engineered to be structurally superior to solid sawn lumber, these I-joists are manufactured to precise tolerances and will resist shrinking, twisting, warping or crowning. They weigh less, span further and perform better than traditional lumber joists.

Available in three distinct configurations, All-Fab's Strong Quiet Type® I-joists are designed to fit any application.

ALL-FAB'S J SERIES – THE EASY-I®

At All-Fab we manufacture a product that combines the superior performance of an I-joist with the simplicity of a 2x10. Dimensionally stable, and manufactured to resist shrinking, twisting, warping or crowning. All-Fab's Easy-I® comes in 2' increments just like dimensional lumber joists. The J series is a pre-engineered I-joist, designed to look, span and install just like a conventional lumber floor.

ALL-FAB'S WIDE FLANGE I-JOISTS

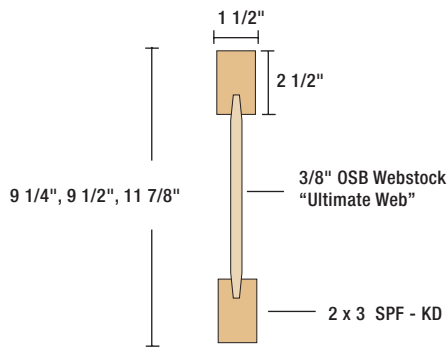
Our Wide Flange Series I-joists offer superior strength and rigidity coupled with numerous on-site benefits for the installer. These joists provide a wider glue and nailing surface and will sit upright on their bearing points prior to nailing, making it much easier for the framer to set and space the joists during installation. Available in 2 1/2" and 3 1/2" widths, these joists are ideal for both residential and light commercial applications.

No matter which All-Fab I-joist you use, the results will be the same – a stronger floor that is easy to install, value priced and guaranteed for the life of the home.

TABLE OF CONTENTS

PRODUCT DESCRIPTION	2
FLOOR SPAN TABLES	3
FLOOR PERFORMANCE	4
FLOOR LAYOUT	4
PHYSICAL PROPERTIES.....	4
HANDLING & INSTALLATION.....	5
FLOOR INSTALLATION DETAILS	5
DOUBLE JOIST FASTENING	6
BACKER & FILLER BLOCK SIZES	7
WEB STIFFENER DETAILS	8
HOLE CHARTS	9
CANTILEVER REINFORCEMENT DETAILS	13
LOAD BEARING CANTILEVERS	14
ROOF LAYOUT.....	15
ROOF SPAN TABLES	16
SLOPE FACTOR TABLES	18
ROOF INSTALLATION DETAILS	19
HANGER SELECTION DETAILS.....	21
FIRE DETAILS.....	23
SOFTWARE	24

PRODUCT DESCRIPTION

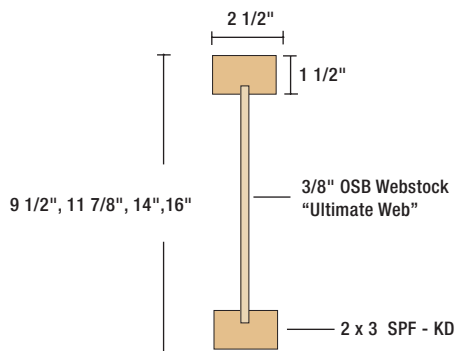


J SERIES

AVAILABLE DEPTHS: 9 1/4", 9 1/2", 11 7/8"

CHORD SIZE: 1 1/2" x 2 1/2"

THE J SERIES IS DESIGNED SPECIFICALLY FOR SHORT SPAN APPLICATIONS. ITS DIMENSIONS AND SPAN CAPACITIES MIRROR THOSE OF DIMENSIONAL LUMBER MAKING IT AN EXCELLENT REPLACEMENT FOR 2x10 AND 2x12 LUMBER JOISTS. IT IS KNOWN IN THE INDUSTRY AS THE EASY-I®.

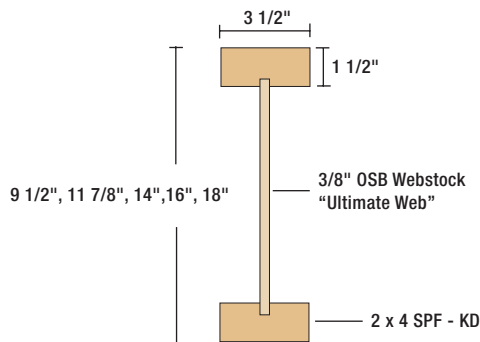


H SERIES

AVAILABLE DEPTHS: 9 1/2", 11 7/8", 14", 16"

CHORD SIZE: 2 1/2" x 1 1/2"

USED PRIMARILY IN RESIDENTIAL AND LIGHT COMMERCIAL PROJECTS, THE H SERIES' EXTRA WIDE FLANGE OFFERS A GENEROUS NAILING SURFACE AND SUPERIOR STRENGTH.



U SERIES

AVAILABLE DEPTHS: 9 1/2", 11 7/8", 14", 16", 18"

CHORD SIZE: 3 1/2" x 1 1/2"

ALL-FAB'S U JOISTS ARE USED IN APPLICATIONS WITH EXTREMELY HEAVY LOADS OR EXCEPTIONALLY LONG SPANS. USED PRIMARILY IN COMMERCIAL APPLICATIONS, THIS JOIST IS ALSO IDEAL FOR ROOF RAFTER SITUATIONS.

FLOOR PERFORMANCE

- DEEPER JOISTS WILL RESULT IN LESS DEFLECTION AND STIFFER FLOORS.
- A SUBFLOOR WHICH IS GLUED AS WELL AS NAILED TO THE JOISTS, WILL CREATE A STIFFER FLOOR AND REDUCE THE LIKELIHOOD OF SQUEAKS.
- THICKER SHEATHING MATERIAL WILL INCREASE FLOOR PERFORMANCE.
- BRIDGING, SOLID BLOCKING, DIRECTLY APPLIED CEILINGS AND STRAPPING WILL ALL REDUCE FLOOR VIBRATION AND IMPROVE OVERALL FLOOR PERFORMANCE.
- ADEQUATE BEARING, AND PROPER INSTALLATION OF JOISTS AND ACCESSORIES IS ESSENTIAL TO FLOOR PERFORMANCE.
- TOTAL LOAD DEFLECTION SHOULD BE LIMITED TO 1/2".

PRODUCT EVALUATIONS
ICBO - PFC 5138
SBCCI - 9920 C
BOCA - 21-11
ICC ESR - 1141

FLOOR SPAN TABLES

SIMPLE SPAN: 40 PSF LL / 10 PSF DL L/480

JOIST DEPTH	JOIST TYPE	O/C SPACING			
		12"	16"	19.2"	24"
10"	J925	16'-4"	14'-10"	13'-11"	12'-10"
	J10	16'-10"	15'-3"	14'-4"	13'-3"
	H10	18'-0"	16'-3"	15'-4"	14'-2"
	U10	19'-8"	17'-10"	16'-9"	15'-6"
12"	J12	20'-2"	18'-4"	17'-2"	15'-7"
	H12	21'-4"	19'-4"	18'-2"	16'-10"
	U12	23'-4"	21'-2"	19'-10"	18'-5"
14"	H14	24'-1"	21'-10"	20'-6"	18'-11"
	U14	26'-5"	23'-11"	22'-6"	20'-10"
16"	H16	26'-7"	24'-1"	22'-8"	20'-11"
	U16	29'-2"	26'-5"	24'-10"	23'-0"
18"	U18	31'-11"	28'-11"	27'-2"	25'-2"

SIMPLE SPAN 40 PSF LL / 25 PSF DL L/480

JOIST DEPTH	JOIST TYPE	O/C SPACING			
		12"	16"	19.2"	24"
10"	J925	16'-4"	14'-8"	13'-5"	12'-0"
	J10	16'-10"	15'-1"	13'-9"	12'-4"
	H10	17'-10"	15'-5"	14'-1"	12'-7"
	U10	19'-8"	17'-3"	15'-9"	14'-1"
12"	J12	19'-4"	16'-4"	15'-3"	13'-8"
	H12	21'-1"	18'-3"	16'-8"	14'-11"
	U12	23'-4"	20'-4"	18'-7"	15'-4"
14"	H14	24'-1"	21'-10"	20'-3"	18'-1"
	U14	26'-5"	23'-6"	21'-5"	19'-2"
16"	H16	26'-7"	24'-1"	22'-1"	19'-9"
	U16	29'-2"	26'-1"	23'-9"	21'-3"
18"	U18	31'-11"	28'-9"	26'-3"	21'-6"

CONTINUOUS SPAN 40 PSF LL / 10 PSF DL L/480

JOIST DEPTH	JOIST TYPE	O/C SPACING			
		12"	16"	19.2"	24"
10"	J925	18'-5"	16'-9"	15'-4"	13'-8"
	J10	19'-0"	17'-3"	15'-9"	14'-1"
	H10	20'-4"	17'-7"	16'-1"	14'-4"
	U10	22'-3"	19'-9"	18'-0"	16'-0"
12"	J12	22'-1"	19'-1"	17'-5"	15'-7"
	H12	24'-1"	20'-10"	19'-0"	17'-0"
	U12	26'-5"	23'-2"	21'-2"	18'-2"
14"	H14	27'-3"	24'-8"	23'-1"	20'-8"
	U14	29'-11"	26'-9"	24'-5"	21'-7"
16"	H16	30'-1"	27'-3"	25'-2"	22'-6"
	U16	33'-1"	29'-9"	27'-2"	24'-1"
18"	U18	36'-2"	32'-9"	29'-11"	25'-7"

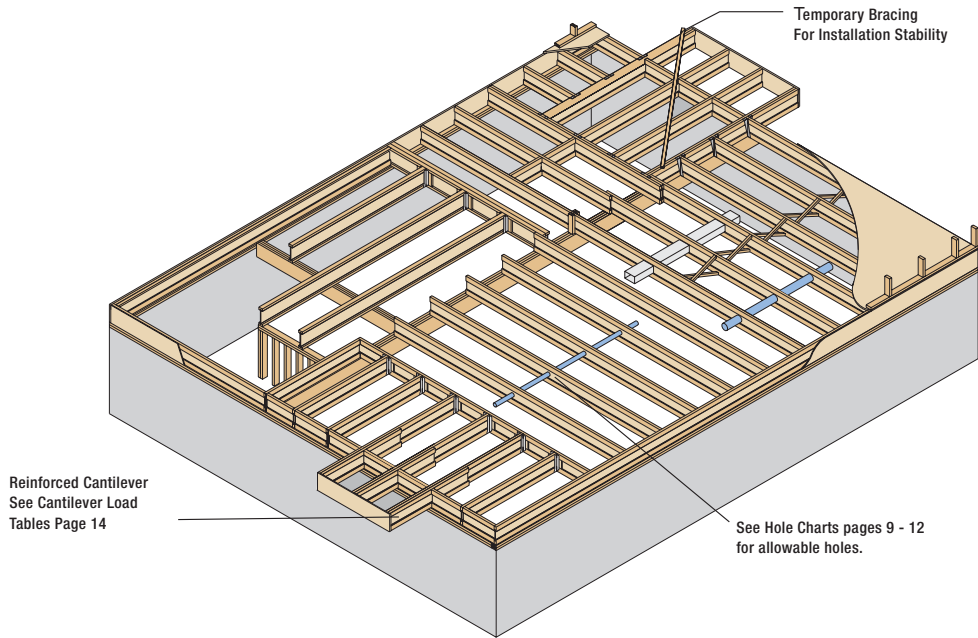
CONTINUOUS SPAN 40 PSF LL / 25 PSF DL L/480

JOIST DEPTH	JOIST TYPE	O/C SPACING			
		12"	16"	19.2"	24"
10"	J925	17'-0"	14'-8"	13'-5"	11'-8"
	J10	17'-5"	15'-1"	13'-9"	11'-11"
	H10	17'-10"	15'-5"	14'-1"	12'-3"
	U10	20'-0"	17'-3"	15'-4"	12'-3"
12"	J12	19'-4"	16'-9"	15'-3"	13'-2"
	H12	21'-1"	18'-3"	16'-8"	14'-0"
	U12	23'-6"	20'-4"	17'-6"	14'-0"
14"	H14	25'-7"	22'-2"	20'-3"	16'-7"
	U14	27'-1"	23'-6"	20'-9"	16'-7"
16"	H16	27'-11"	24'-2"	22'-1"	18'-7"
	U16	30'-1"	26'-1"	23'-2"	18'-7"
18"	U18	33'-3"	28'-9"	24'-7"	19'-8"

NOTES ON SPAN TABLES

- SPAN LENGTHS ARE BASED ON THE CLEAR SPAN, MEASURED FROM THE INSIDE OF THE SUPPORTS.
- SPANS ARE BASED ON UNIFORM LOADING CONDITIONS ONLY
- MINIMUM BEARING LENGTHS FOR END AN INTERIOR SUPPORTS ARE 1 1/2" AND 3 1/2", UNLESS OTHERWISE NOTED.
- BLUE SHADED AREA FOR SIMPLE SPANS: MINIMUM END BEARING LENGTH OF 2 1/2" IS REQUIRED.
- BLUE SHADED ARE FOR CONTINUOUS SPANS: MINIMUM INTERIOR BEARING LENGTH OF 5" PLUS WEB STIFFENERS IS REQUIRED.
- END SPANS OF CONTINUOUS I-JOISTS MUST BE AT LEAST 45% OF THE ADJACENT SPAN.
- DEFLECTION UNDER TOTAL LOAD LIMITED TO L/240.
- A 7% REPETITIVE MEMBER INCREASE HAS BEEN APPLIED TO THE SPANS.
- SPANS ARE BASED ON COMPOSITE ACTION FOR SHEATHING GLUED AND NAILED TO THE I-JOISTS. SPANS FOR COMPOSITE ACTION ARE BASED ON A 3/4" THICK SHEATHING. THE ADHESIVE SHALL COMPLY WITH APA SPECIFICATION AFG-01 AND/OR ASTM D3498. THE SPANS ARE NOT APPLICABLE WHEN THE SHEATHING IS NAILED ONLY TO THE I-JOISTS.

FLOOR LAYOUT



PHYSICAL PROPERTIES

DESIGN PROPERTIES FOR ALL-FAB I-JOISTS

JOIST TYPE	JOIST DEPTH (INCHES)	JOIST WEIGHT (PLF)	MOMENT (LBS-FT)	SHEAR (LBS)	END REACTION (LBS)				INTERMEDIATE REACTION (LBS)				Ei x10 ⁶ (LBS-IN ²)	K x10 ⁶ (LBS)
					1½" BEARING		2½" BEARING		3½" BEARING		5½" BEARING			
					WEB STIFF. No	WEB STIFF. YES	WEB STIFF. No	WEB STIFF. YES	WEB STIFF. No	WEB STIFF. YES	WEB STIFF. No	WEB STIFF. YES		
J925	9¼	2.10	2,200	950	950	N/A	950	N/A	1900	N/A	1900	N/A	123	11.83
J10	9½	2.20	2,320	970	960	N/A	970	N/A	1940	N/A	1940	N/A	136	12.70
J12	11¾	2.40	2,850	1,070	960	N/A	1070	N/A	2000	N/A	2140	N/A	243	14.50
H10	9½	2.30	2,420	1,000	960	1000	1000	1000	2000	2000	2000	2000	175	11.60
H12	11¾	2.70	3,400	1,140	1000	1140	1140	1140	2200	2280	2280	2280	298	14.50
H14	14	3.00	5,000	1,350	1100	1350	1300	1350	2200	2700	2500	2700	430	15.08
H16	16	3.30	5,940	1,510	1100	1500	1400	1510	2200	2700	2500	3020	584	16.93
U10	9½	2.70	3,040	1,000	900	900	1000	1000	1500	2000	2000	2000	240	11.11
U12	11¾	2.90	4,200	1,140	900	900	1000	1000	1500	2280	2280	2280	406	13.75
U14	14	3.20	5,600	1,350	1200	1200	1350	1350	1500	2500	2500	2700	594	15.76
U16	16	3.40	6,900	1,510	1200	1200	1400	1400	1500	2500	2500	3020	807	17.15
U18	18	3.60	8,400	1,600	1200	1200	1400	1400	1500	2500	2500	3200	1,054	20.04

NOTES

- EI, IS THE BENDING STIFFNESS OF THE SINGLE I-JOIST.
- K, IS THE SHEAR CONSTANT FOR THE SINGLE I-JOIST.
- THE DEFLECTION OF A SIMPLE SPAN I-JOIST CAN BE CALCULATED AS FOLLOWS:

(1) UNIFORM LOAD

$$\Delta = \frac{5WL^4}{384EI} + \frac{WL^2}{K}$$

WHERE,

Δ = I-JOIST DEFLECTION (INCHES)

EI = I-JOIST BENDING STIFFNESS (POUNDS-SQUARE INCH)

K = I-JOIST SHEAR CONSTANT (POUNDS)

L = I-JOIST CLEAR SPAN (INCHES)

W = APPLIED UNIFORM LOAD (POUNDS PER LINEAR INCH)

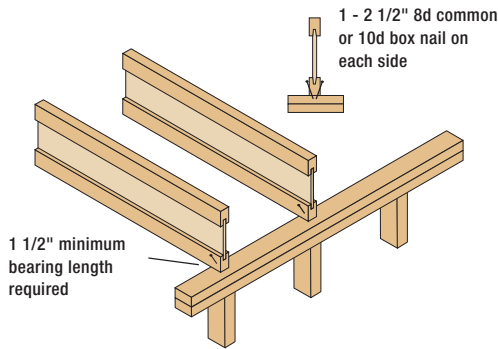
P = APPLIED CONCENTRATED LOAD (POUNDS)

(2) CONCENTRATED LOAD AT MID-SPAN

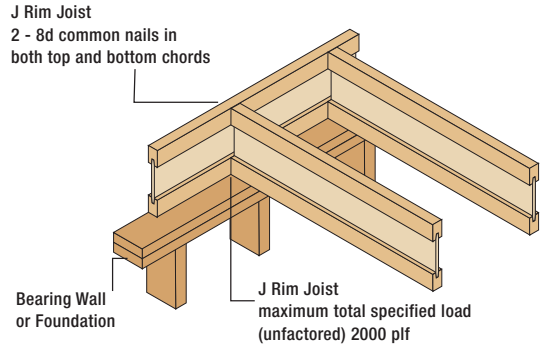
$$\Delta = \frac{PL^3}{48EI} + \frac{2PL}{K}$$

FLOOR INSTALLATION DETAILS

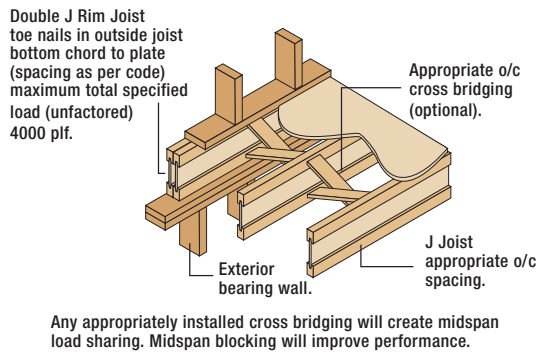
J1 NAILING TO PLATE



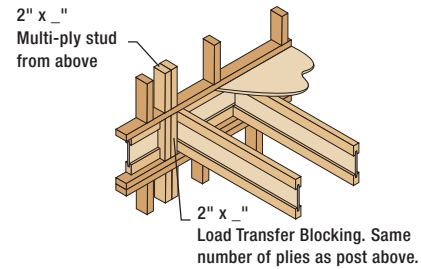
J2 SINGLE RIM JOIST



J3 PARALLEL RIM JOIST & CROSS BRIDGING

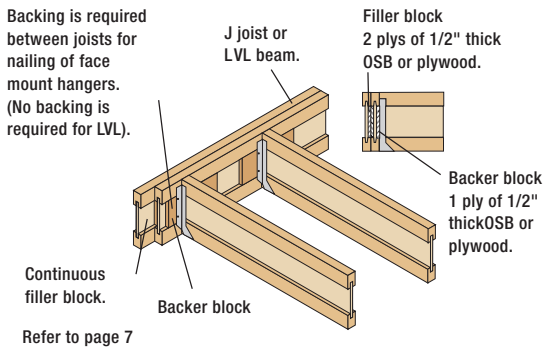


J4 POST LOADS

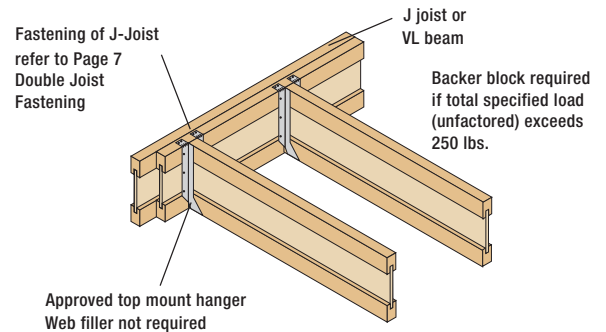


Post loads from above must be transferred to the bearing with vertically oriented, conventional solid blocking if total specified load (unfactored) exceeds 2000 plf.

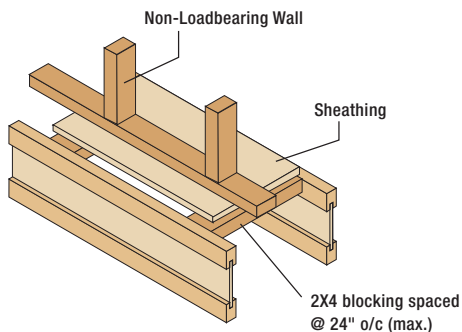
J5 FACE MOUNT HANGER



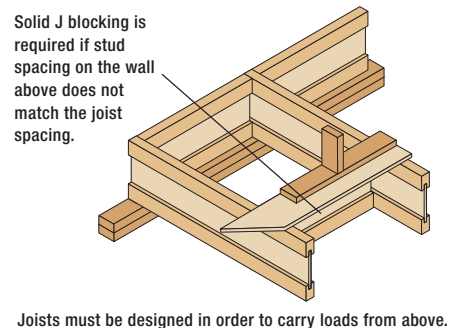
J6 TOP MOUNT HANGER



J7 NON-LOAD BEARING WALL (PARALLEL TO JOIST)

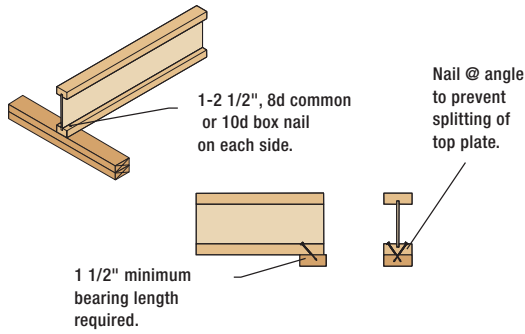


J8 OFF-SET LOAD BEARING WALL

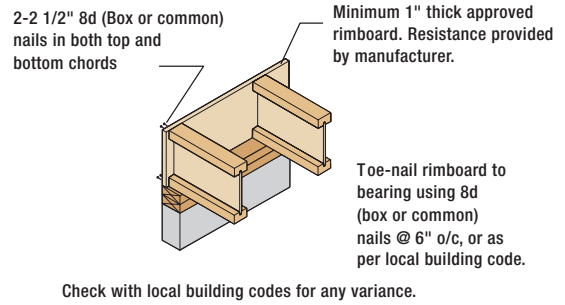


FLOOR INSTALLATION DETAILS

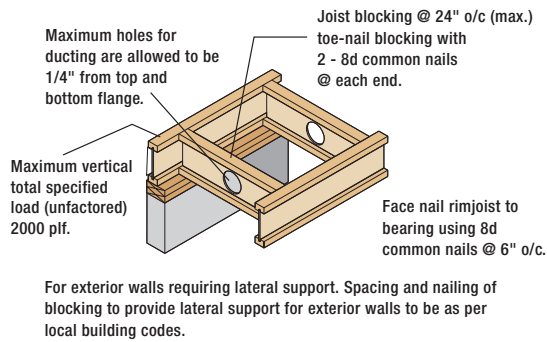
H1 NAILING TO PLATE



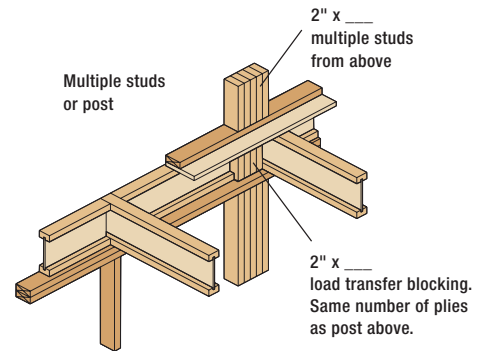
H2 RIM BOARD



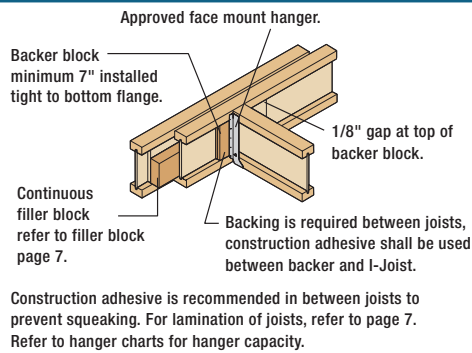
H3 PARALLEL RIM JOIST & BLOCKING



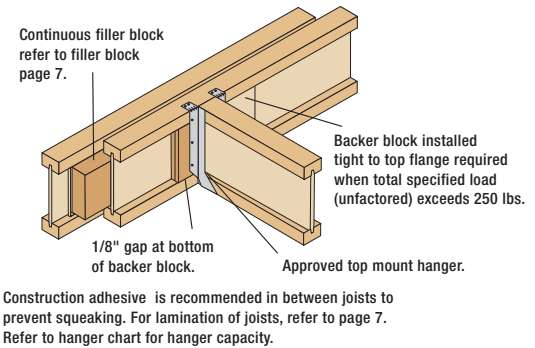
H4 POST LOADS



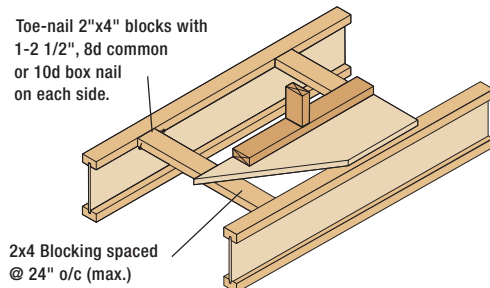
H5 FACE MOUNT HANGER



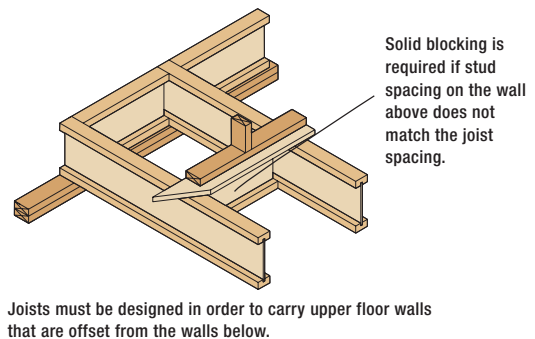
H6 TOP MOUNT HANGER



H7 NON-LOAD BEARING WALL (PARALLEL TO JOIST)

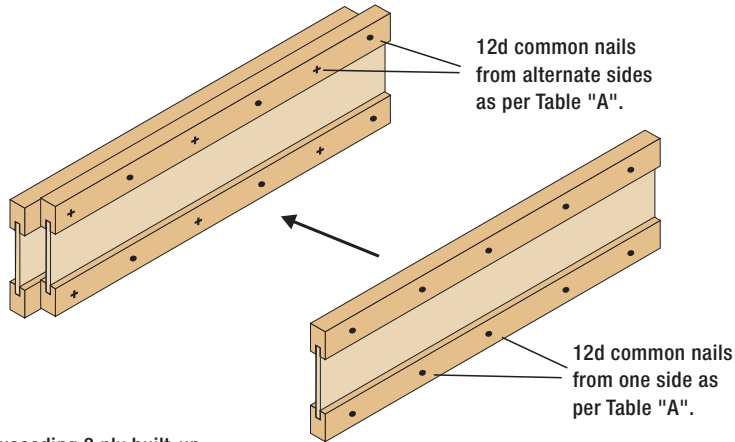


H8 OFF-SET LOAD BEARING WALL



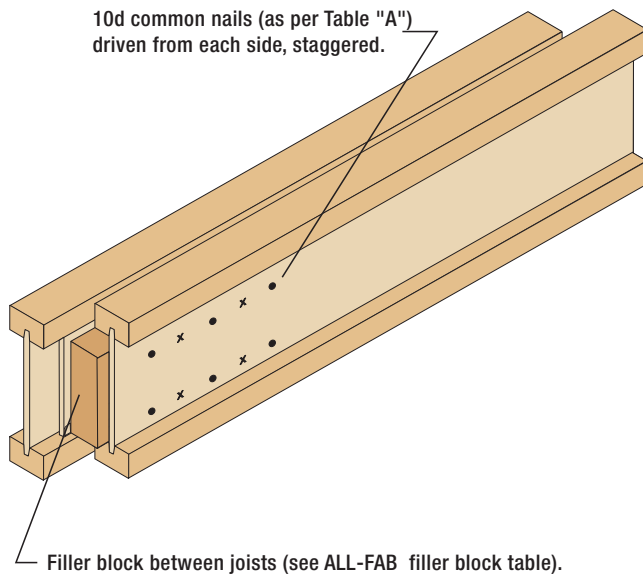
MULTIPLE PLYS

J SERIES



Exceeding 3 ply built-up members is not permitted.

H / U SERIES



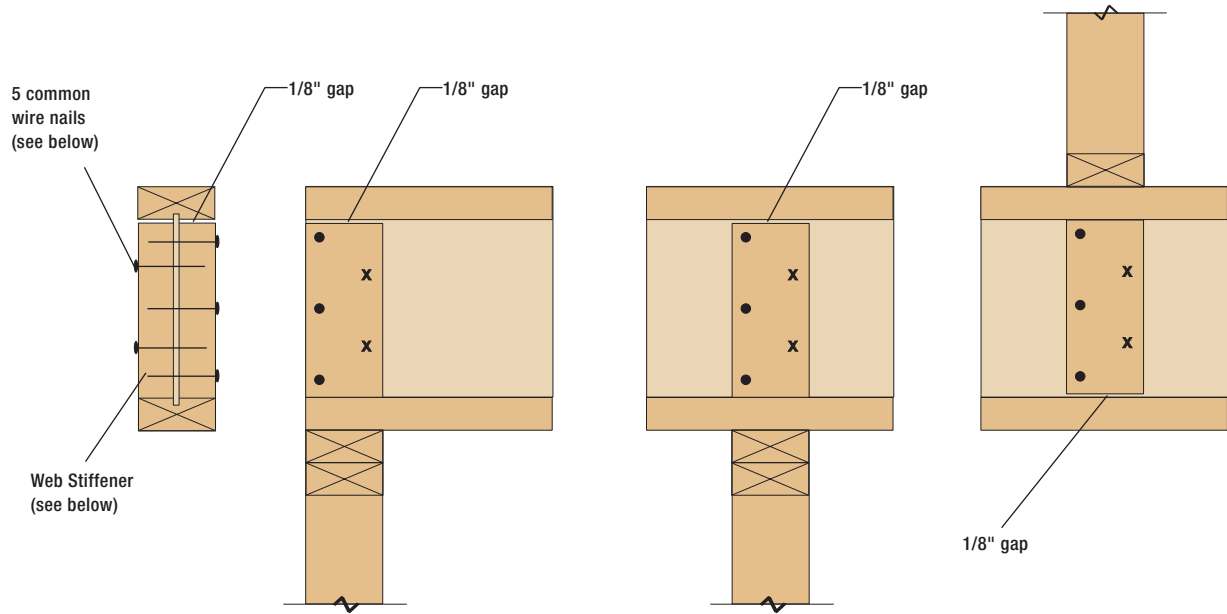
BACKER AND FILLER BLOCK REQUIREMENTS

JOIST TYPE	BACKER BLOCK DIMENSIONS		FILLER BLOCK DIMENSIONS	
	THICKNESS	DEPTH	THICKNESS	DEPTH
J925	1/2"	4-1/8"	1-1/8"	4-1/8"
J10	1/2"	4-3/8"	1-1/8"	4-3/8"
J12	1/2"	6-3/4"	1-1/8"	6-3/4"
H10	1"	6-3/8"	2-1/8"	5-1/2"
H12	1"	8-3/4"	2-1/8"	7-1/4"
H14	1"	10-7/8"	2-1/8"	9-1/4"
H16	1"	12-7/8"	2-1/8"	11-1/4"
U10	1-1/2"	6-3/8"	3"	5-1/2"
U12	1-1/2"	8-3/4"	3"	7-1/4"
U14	1-1/2"	10-7/8"	3"	9-1/4"
U16	1-1/2"	12-7/8"	3"	11-1/4"
U18	1-1/2"	14-7/8"	3"	13-1/4"

TABLE A

NAIL SPACING	ALLOWABLE SIDE LOADS
16" o/c	120 PLF
12" o/c	180 PLF
8" o/c	240 PLF
6" o/c	320 PLF

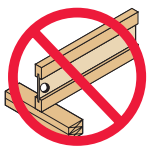
WEB STIFFENER DETAILS



WEB STIFFENER TABLE

	FLOOR	RAFTER	FASTENERS
J	-	1/2" THICK	6d
H	MIN. 3/4" THICK	MIN. 3/4" THICK	8d
U	2 x 4	2 x 4	12d

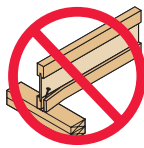
DO NOT...



Drill any holes over a support.



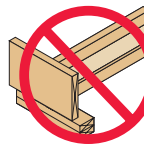
Cut or notch top or bottom chords.



Split the flange. Ensure proper toe nailing.



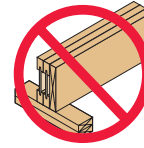
Bevel cut the joist past the inside face of wall.



Use conventional lumber for structural rim or band board.



Install joists on an angle.



Use conventional lumber combined with joists as built-up.



Prolong exposure to the elements, (rain, snow, sun) either on site or at the lumber yard.

NOTES

- WHEN REQUIRED AT BEARING, WEB STIFFENERS MUST BE FIT TIGHTLY TO THE BOTTOM CHORD WITH A 1/8" GAP AT THE TOP CHORD.
- FOR CONCENTRATED LOADS, STIFFENERS MUST HAVE A 1/8" GAP AT BOTTOM CHORD.
- WEB STIFFENERS MAY BE MADE FROM PLYWOOD, OSB OR DIMENSIONAL LUMBER.
- STIFFENER SIZES:
 - H - 3/4" OSB OR PLYWOOD MINIMUM.
 - U - 2x4 MINIMUM.
 - J - 1/2" OSB OR PLYWOOD WEB STIFFENERS ARE NOT REQUIRED EXCEPT IN JOIST HANGERS WHEN THE HANGER DOES NOT Laterally SUPPORT THE TOP CHORD.

HOLE TABLES - J SERIES

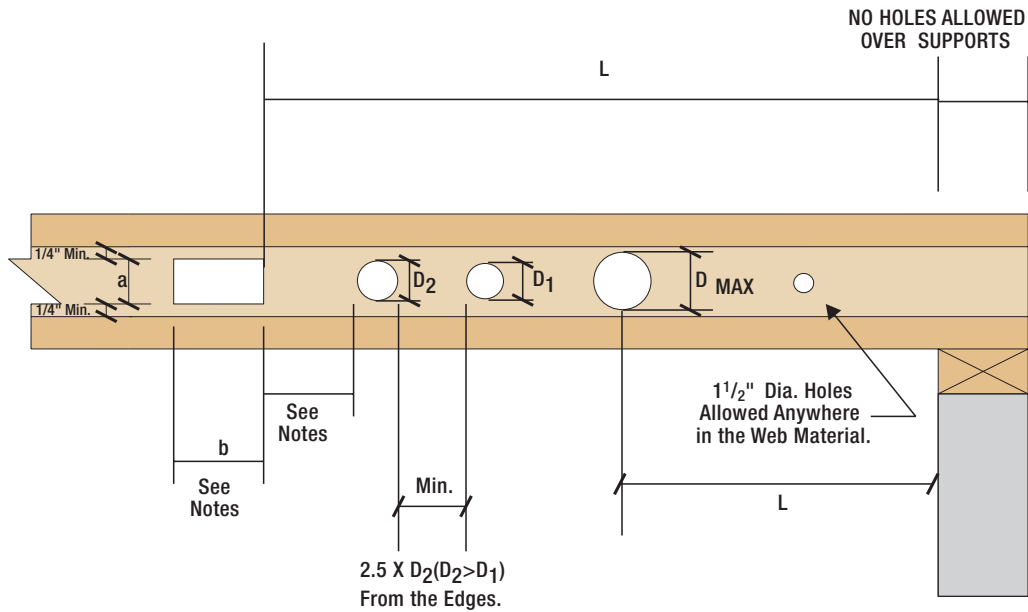
WEB HOLE SPECIFICATIONS

- THE DISTANCE BETWEEN THE EDGE OF THE NEAREST SUPPORT AND THE CENTERLINE OF A ROUND HOLE SHALL NOT BE LESS THAN THAT SHOWN IN EITHER THE J OR H/U SERIES TABLES. THE DISTANCE BETWEEN THE EDGE OF THE NEAREST SUPPORT AND THE EDGE OF A RECTANGULAR/SQUARE HOLE SHALL NOT BE LESS THAN THAT SHOWN IN EITHER THE J OR H/U SERIES TABLES.
- TABLES ARE BASED UPON A MAXIMUM UNIFORM LOAD OF 40 PSF LIVE AND 25 PSF DEAD.
- TABLES CAN BE USED FOR JOIST SPACING OF 24 INCHES OR LESS.
- THE MAXIMUM SIZE ROUND OR RECTANGULAR HOLE PERMITTED TO BE INSTALLED IN THE WEBS SHALL LEAVE A MINIMUM OF 1/4 INCH OF WEB MATERIAL BETWEEN THE TOP AND BOTTOM OF THE HOLE AND THE ADJACENT FLANGE.
- THE MAXIMUM LENGTH OF A RECTANGULAR HOLE, MEASURED PARALLEL TO FLANGES, SHALL BE 1-1/2 TIMES THE HOLE HEIGHT.
- A 1-1/2-INCH DIAMETER ROUND HOLE CAN BE INSTALLED ANYWHERE IN THE WEB EXCEPT DIRECTLY OVER A SUPPORT.
- WHEN INSTALLING MULTIPLE HOLES IN THE WEB, THE SPACING BETWEEN EDGES OF THE HOLES MUST BE AS FOLLOWS:
 - THE SPACING REQUIRED BETWEEN THE EDGES OF ROUND HOLES MUST BE 2-1/2 TIMES THE DIAMETER OF THE LARGEST HOLE.
 - THE SPACING REQUIRED BETWEEN THE EDGES OF RECTANGULAR HOLES MUST BE 5 TIMES THE LENGTH OF THE LARGEST HOLE.
 - THE SPACING BETWEEN THE EDGES OF A ROUND AND RECTANGULAR HOLE MUST BE 5 TIMES THE LENGTH OF THE LARGEST HOLE OR 5 TIMES THE DIAMETER OF THE ROUND HOLE, WHICHEVER IS GREATER.
- DO NOT CUT OR NICK FLANGES WHEN CUTTING HOLES IN THE WEB.
- WHENEVER POSSIBLE, INSTALLED HOLES SHALL BE CENTERED VERTICALLY IN THE WEB.
- CUTTING A RADIUS ON THE CORNERS OF A RECTANGULAR HOLE IS RECOMMENDED.

ALLOWABLE ROUND HOLE LOCATION FOR J SERIES

JOIST TYPE	JOIST SPAN (FT-IN.)	HOLE DIAMETER (INCHES)											
		2	2 1/2	3	3 1/2	3 3/4	4	4 1/2	5	5 1/2	6	6 3/8	
MINIMUM DISTANCE FROM THE INSIDE EDGE OF THE SUPPORT TO CENTRE OF THE HOLE (FT-IN)													
J925	8-0	1-0	1-0	1-0	1-0	1-0							
	10-0	1-0	1-0	1-0	1-0	1-6							
	12-0	1-0	1-6	2-0	2-0	2-6							
	13-2	1-0	1-0	1-0	1-6	1-6							
	14-0	1-0	1-0	1-0	1-0	1-0	1-0						
	15-5	1-0	1-0	1-0	1-0	1-0	1-0						
J10	8-0	1-0	1-0	1-0	1-0	1-0	1-0						
	10-0	1-0	1-0	1-0	1-6	1-6	1-6						
	12-0	1-0	1-6	2-0	2-6	2-6	2-6						
	12-4	1-6	1-6	2-0	2-6	2-6	3-0						
	13-8	1-0	1-0	1-6	2-0	2-0	2-6						
	14-0	1-0	1-0	1-0	1-0	1-0	1-6						
	14-6	1-0	1-0	1-0	1-0	1-6	1-6						
	15-11	1-0	1-0	1-0	1-0	1-0	1-0						
J12	10-0	1-0	1-0	1-0	1-0	1-0	1-0	1-0	1-0	1-0	1-6	2-0	
	12-0	1-0	1-0	1-0	1-0	1-0	1-0	1-0	1-6	2-0	2-6	3-0	
	13-8	1-0	1-0	1-0	1-6	1-6	1-6	2-0	2-6	3-0	3-6	3-6	
	14-0	1-0	1-0	1-0	1-0	1-0	1-0	1-0	1-0	1-6	2-0	2-6	
	15-3	1-0	1-0	1-0	1-0	1-0	1-0	1-6	1-6	2-6	3-0	3-0	
	16-0	1-0	1-0	1-0	1-0	1-0	1-0	1-0	1-0	1-0	1-6	2-0	2-6
	16-9	1-0	1-0	1-0	1-0	1-0	1-0	1-0	1-0	1-0	1-6	2-0	3-0
	18-0	1-0	1-0	1-0	1-0	1-0	1-0	1-0	1-0	1-0	1-0	1-0	1-6
	19-2	1-0	1-0	1-0	1-0	1-0	1-0	1-0	1-0	1-0	1-0	1-0	1-0

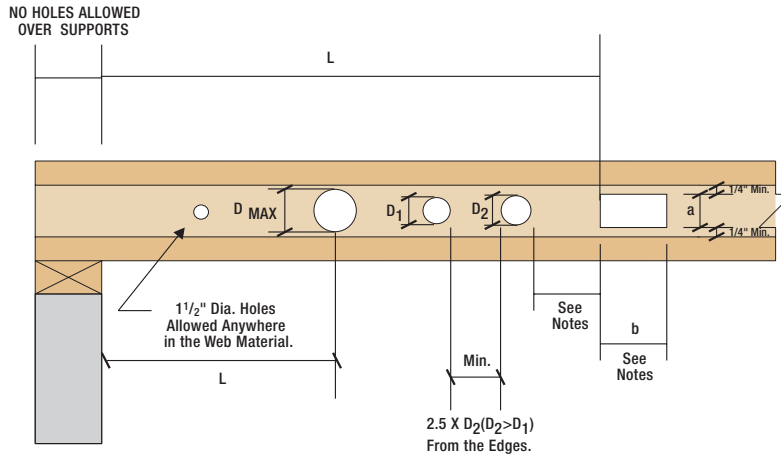
HOLE TABLES - J SERIES



ALLOWABLE RECTANGULAR HOLE LOCATION FOR J SERIES

JOIST TYPE	JOIST SPAN (FT-IN.)	HOLE HEIGHT (INCHES)										
		2	2 1/2	3	3 1/2	3 3/4	4	4 1/2	5	5 1/2	6	6 3/8
		MINIMUM DISTANCE FROM THE INSIDE EDGE OF THE SUPPORT TO EDGE OF THE HOLE (FT-IN)										
J925	8-0	1-0	1-0	1-0	1-0	1-0						
	10-0	1-0	1-0	1-6	2-0	2-0						
	12-0	1-6	2-0	2-6	3-0	3-0						
	13-2	1-0	1-0	1-6	2-6	2-6						
	14-0	1-0	1-0	1-0	1-6	1-6						
	15-5	1-0	1-0	1-0	1-0	1-0						
J10	8-0	1-0	1-0	1-0	1-6	1-6	1-6					
	10-0	1-6	1-6	2-0	2-6	2-6	2-6					
	12-0	2-6	2-6	3-0	3-6	3-6	3-6					
	12-4	2-6	3-0	3-0	3-6	3-6	3-6					
	13-8	2-0	2-6	3-0	3-0	3-6	3-6					
	14-0	1-0	1-6	2-0	2-6	2-6	2-6					
	14-6	1-0	1-6	2-0	2-6	2-6	3-0					
	15-11	1-0	1-0	1-0	1-6	1-6	1-6					
J12	10-0	1-0	1-0	1-0	1-6	1-6	1-6	2-0	2-6	2-6	3-0	3-0
	12-0	1-0	1-6	2-0	2-6	2-6	2-6	3-0	3-6	3-6	4-0	4-0
	13-8	2-0	2-6	2-6	3-0	3-6	3-6	4-0	4-0	4-6	5-0	5-0
	14-0	1-0	1-0	1-0	2-0	2-6	2-6	3-0	3-6	4-0	4-0	4-6
	15-3	1-0	2-0	2-6	3-0	3-0	3-6	3-6	4-0	4-6	5-0	5-0
	16-0	1-0	1-0	1-6	2-0	2-6	2-6	3-0	3-6	4-0	4-6	4-6
	16-9	1-0	1-0	2-0	2-6	3-0	3-0	3-6	4-0	4-6	5-0	5-0
	18-0	1-0	1-0	1-0	1-0	1-0	1-6	2-0	2-6	3-0	3-6	4-0
	19-2	1-0	1-0	1-0	1-0	1-6	2-0	2-6	3-0	4-0	4-6	4-6

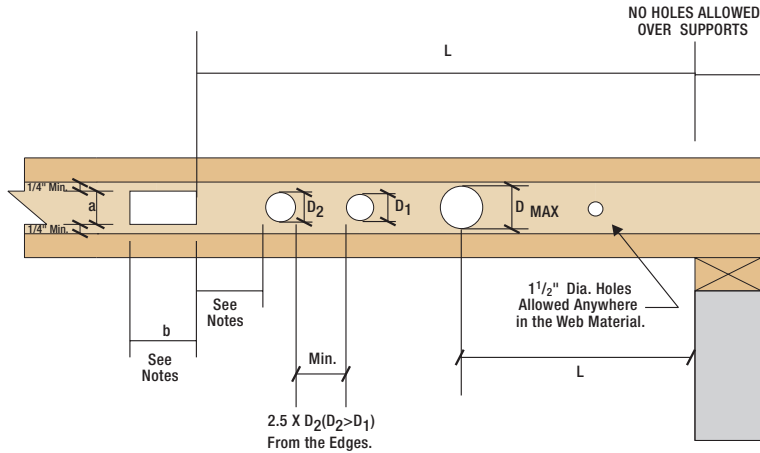
HOLE TABLES - H / U SERIES



ALLOWABLE ROUND HOLE LOCATION FOR H / U SERIES

JOIST TYPE	JOIST SPAN (FT-IN.)	HOLE HEIGHT (INCHES)											
		2	4	5	6	7	8 3/8	10	10 1/2	12	12 1/2	13	14 1/2
		MINIMUM DISTANCE FROM THE INSIDE EDGE OF THE SUPPORT TO CENTRE OF THE HOLE (FT-IN)											
H/ U10	12-0	1-0	2-6	3-0	3-6								
	12-7	1-6	3-0	3-6	4-0								
	14-0	1-0	2-6	3-0	4-0								
	14-1	1-0	2-6	3-0	4-0								
	15-5	1-0	2-0	2-6	3-6								
	16-0	1-0	1-0	1-0	1-6								
	17-3	1-0	1-0	1-6	2-0								
H/ U12	14-0	1-6	2-6	3-6	4-0	4-6	5-0						
	14-11	1-6	3-0	4-0	4-6	5-0	5-6						
	16-0	1-0	2-6	3-0	4-0	4-6	5-0						
	16-8	1-0	2-6	3-6	4-0	4-6	5-6						
	18-0	1-0	2-0	3-0	3-6	4-6	5-0						
	18-3	1-0	2-0	3-0	4-0	4-6	5-0						
	20-0	1-0	1-0	1-6	2-6	3-6	4-6						
20-6	1-0	1-0	1-6	2-6	3-6	4-6							
H/ U14	16-0	1-0	1-6	2-0	3-0	3-6	5-0	6-6	7-0				
	18-0	1-0	2-6	3-0	4-0	4-6	6-0	7-6	8-0				
	18-1	1-0	2-6	3-0	4-0	4-6	6-0	7-6	8-0				
	19-9	1-0	1-0	2-0	3-0	4-0	5-6	7-6	8-0				
	20-0	1-0	1-0	1-0	1-6	2-6	4-6	7-0	7-6				
	21-0	1-0	1-0	1-0	2-0	2-6	5-0	7-6	8-0				
	22-0	1-0	1-0	1-0	1-0	1-0	3-0	6-0	7-0				
23-1	1-0	1-0	1-0	1-0	1-6	3-6	6-6	7-6					
H/ U16	18-0	1-0	2-6	3-6	4-0	4-6	5-6	6-6	7-0	7-6	7-6		
	19-9	1-6	3-6	4-0	5-0	5-6	6-6	7-6	7-6	8-6	8-6		
	20-0	1-0	1-6	2-6	3-6	4-6	5-6	6-6	7-0	7-6	8-0		
	21-10	1-0	2-6	3-6	4-6	5-0	6-6	7-6	8-0	8-6	9-0		
	22-0	1-0	1-0	1-6	3-0	4-0	5-6	6-6	7-0	8-0	8-0		
	23-2	1-0	1-0	2-6	3-6	4-6	6-0	7-0	7-6	8-6	9-0		
	24-0	1-0	1-0	1-0	1-0	2-0	4-0	5-6	6-0	7-6	7-6		
25-6	1-0	1-0	1-0	1-6	3-0	4-6	6-6	7-0	8-6	8-6			
U18	20-0	1-0	1-0	1-6	2-0	2-6	3-6	4-6	5-0	6-0	6-6	7-0	8-0
	22-0	1-0	2-0	2-6	3-0	3-6	4-6	5-6	6-0	7-0	7-6	8-0	9-0
	23-6	1-6	2-6	3-0	3-6	4-6	5-0	6-6	6-6	8-0	8-6	8-6	10-0
	24-0	1-0	1-0	1-0	1-6	2-6	3-6	5-0	5-6	7-0	7-6	8-0	9-6
	26-0	1-0	1-0	2-0	2-6	3-6	4-6	6-0	6-6	7-6	8-6	9-0	10-6
	26-3	1-0	1-0	2-0	2-6	3-6	4-6	6-0	6-6	8-0	8-6	9-0	10-6
	28-0	1-0	1-0	1-0	1-0	2-0	3-6	5-0	5-6	7-6	8-0	8-6	10-6
	28-9	1-0	1-0	1-0	1-6	2-6	4-0	5-6	6-0	7-6	8-6	9-0	11-0
	30-0	1-0	1-0	1-0	1-0	1-0	1-0	2-6	3-6	5-6	6-6	7-0	9-6

HOLE TABLES - H / U SERIES

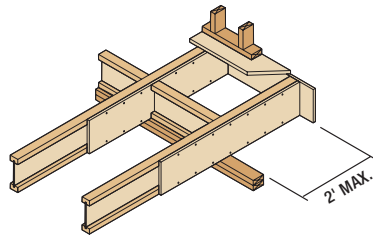


ALLOWABLE RECTANGULAR HOLE LOCATION FOR H / U SERIES

JOIST TYPE	JOIST SPAN (FT-IN.)	HOLE HEIGHT (INCHES)											
		2	4	5	6	7	8 3/8	10	10 1/2	12	12 1/2	13	14 1/2
MINIMUM DISTANCE FROM THE INSIDE EDGE OF THE SUPPORT TO EDGE OF THE HOLE (FT-IN.)													
H/ U10	12-0	2-0	3-6	4-0	4-6								
	12-7	2-0	4-0	4-6	5-0								
	14-0	1-6	3-6	4-6	5-0								
	14-1	1-6	3-6	4-6	5-0								
	15-5	1-0	3-6	4-6	5-0								
	16-0	1-0	1-6	3-6	4-0								
	17-3	1-0	2-0	4-0	5-0								
H/ U12	14-0	2-0	4-0	4-6	5-0	5-6	6-0						
	14-11	2-0	4-0	5-0	5-6	6-0	6-6						
	16-0	1-6	3-6	4-6	5-6	6-0	6-6						
	16-8	1-6	4-0	5-0	5-6	6-6	7-0						
	18-0	1-0	3-6	4-6	5-6	6-6	7-0						
	18-3	1-0	3-6	5-0	6-0	6-6	7-6						
	20-0	1-0	2-6	4-0	5-0	6-0	7-0						
	20-6	1-0	2-6	4-0	5-6	6-6	7-6						
H/ U14	16-0	1-6	3-6	4-6	5-0	5-6	6-6	7-0	7-6				
	18-0	2-6	4-6	5-6	6-0	6-6	7-6	8-0	8-6				
	18-1	2-6	4-6	5-6	6-0	6-6	7-6	8-0	8-6				
	19-9	1-0	3-6	5-0	6-0	6-6	7-6	8-6	8-6				
	20-0	1-0	2-6	3-6	5-0	6-0	7-0	8-0	8-6				
	21-0	1-0	3-0	4-0	5-6	6-0	7-6	8-6	9-0				
	22-0	1-0	1-0	2-6	4-0	5-0	6-0	8-0	8-6				
	23-1	1-0	1-0	3-0	4-6	6-0	7-6	8-6	9-0				
H/ U16	18-0	1-6	4-0	5-0	6-0	6-6	7-6	8-0	8-6	8-6	8-6		
	19-9	2-6	4-6	5-6	6-6	7-6	8-6	9-0	9-0	9-6	9-6		
	20-0	1-0	3-6	4-6	5-6	6-6	7-6	8-6	9-0	9-0	9-0		
	21-10	1-6	4-0	5-6	6-6	7-6	8-6	9-6	9-6	10-0	10-0		
	22-0	1-0	2-6	4-0	5-6	6-6	8-0	9-0	9-6	10-0	10-0		
	23-2	1-0	3-6	5-0	6-0	7-6	8-6	9-6	10-0	10-6	10-6		
	24-0	1-0	1-0	2-6	4-6	6-0	7-6	9-0	9-6	10-0	10-0		
	25-6	1-0	1-6	3-6	5-0	6-6	8-6	10-0	10-0	10-6	11-0		
U18	20-0	1-6	3-6	4-6	5-6	6-0	7-0	8-0	8-0	8-6	8-6	9-0	9-0
	22-0	2-6	4-6	5-6	6-6	7-0	8-0	9-0	9-0	9-6	9-6	10-0	10-0
	23-6	3-0	5-6	6-0	7-0	7-6	8-6	9-6	9-6	10-0	10-6	10-6	10-6
	24-0	1-0	3-6	4-6	6-0	6-6	8-0	9-0	9-0	10-0	10-0	10-0	10-6
	26-0	2-0	4-6	5-6	7-0	7-6	9-0	10-0	10-0	11-0	11-0	11-0	11-6
	26-3	2-0	4-6	6-0	7-0	8-0	9-0	10-0	10-6	11-0	11-0	11-6	11-6
	28-0	1-0	3-6	5-0	6-6	7-6	9-0	10-0	10-6	11-0	11-6	11-6	12-0
	28-9	1-0	4-0	5-6	6-6	8-0	9-0	10-6	11-0	11-6	11-6	12-0	12-0
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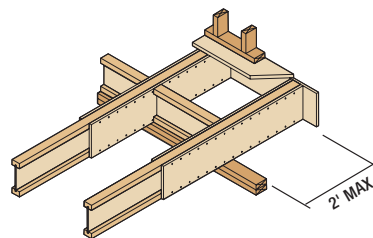
CANTILEVER REINFORCEMENT DETAILS

A H/U SERIES



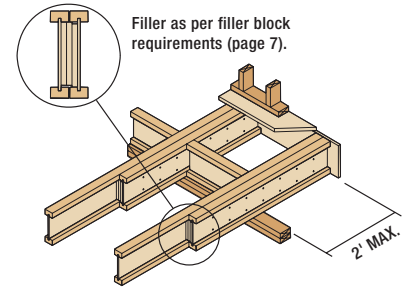
23/32" OSB/PLYWOOD MIN. 48" LONG ATTACHED WITH TWO ROWS OF 8d COMMON NAILS @ 6" o/c TO ONE SIDE OF THE JOIST. OSB/PLYWOOD MUST BE CUT ALONG THE 8' LENGTH.

B H/U SERIES



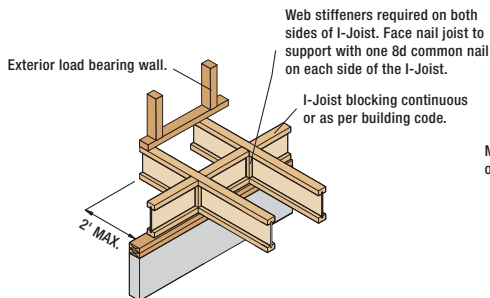
23/32" OSB/PLYWOOD MIN. 48" LONG ATTACHED WITH TWO ROWS OF 8d COMMON @ 6" o/c TO BOTH SIDES OF THE JOIST. OSB/PLYWOOD MUST BE CUT ALONG THE 8' LENGTH.

C H/U SERIES

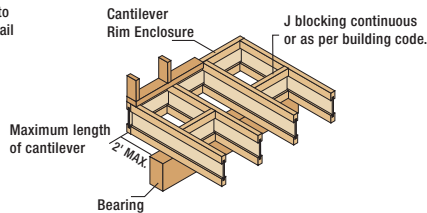


EXTRA JOIST MIN. 72" LONG ATTACHED WITH TWO ROWS OF 16d COMMON @ 12" o/c TO ONE SIDE OF THE JOIST. NAILING SHOULD BE THROUGH JOIST WEB AND BE CLINCHED. USE 3 ROWS OF NAILS FOR U JOISTS.

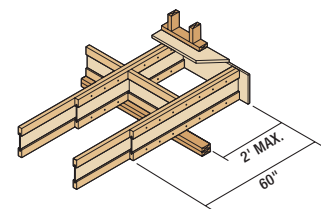
N H SERIES



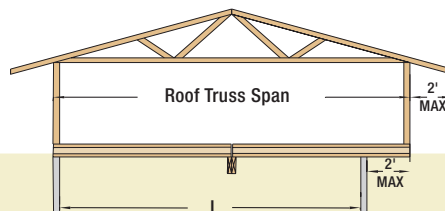
N J SERIES



C J SERIES



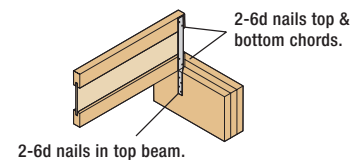
J Series Joists minimum length of 60" attached to one side of the joist with two rows of 10d common nails @ 6" o/c to one side of the joist.



NOTES

- DESIGN ASSUMPTIONS: ROOF DEAD LOAD OF 10 PSF WALL LOAD OF 80 PLF AND A FLOOR LOAD OF 40 PSF LIVE AND 10 PSF DEAD.
- A MINIMUM INTERIOR BEARING LENGTH OF 3 1/2" IS REQUIRED.
- LETTERS USED IN THE TABLE REFER TO THE NOTES ABOVE AND THE REINFORCED CANTILEVER DETAILS.
 - N NO REINFORCEMENT REQUIRED.
 - A ALL-FAB JOIST REINFORCED WITH 23/32" THICK PANEL ON ONE SIDE ONLY.
 - B ALL-FAB JOIST REINFORCED WITH 23/32" THICK PANEL ON BOTH SIDES.
 - C ALL-FAB JOIST REINFORCED WITH ALL-FAB JOIST.
 - WS WEB STIFFENER REQUIRED AT INTERIOR BEARING.
 - X WILL NOT WORK. REDUCE JOIST SPACING OR TRY A DEEPER JOIST DEPTH.
- DETAILS REQUIRE A FRAMING STRAP AT THE INTERIOR BEARING.
- I-JOIST BLOCKING CONTINUOUS OR AS PER BUILDING CODE.

UPLIFT CONNECTOR



CANTILEVER REINFORCEMENT REQUIRES A MINIMUM 1 1/4" x 20 GAUGE FRAMING STRAPS AS SHOWN ABOVE.

CANTILEVER LOAD TABLES

J SERIES JOISTS

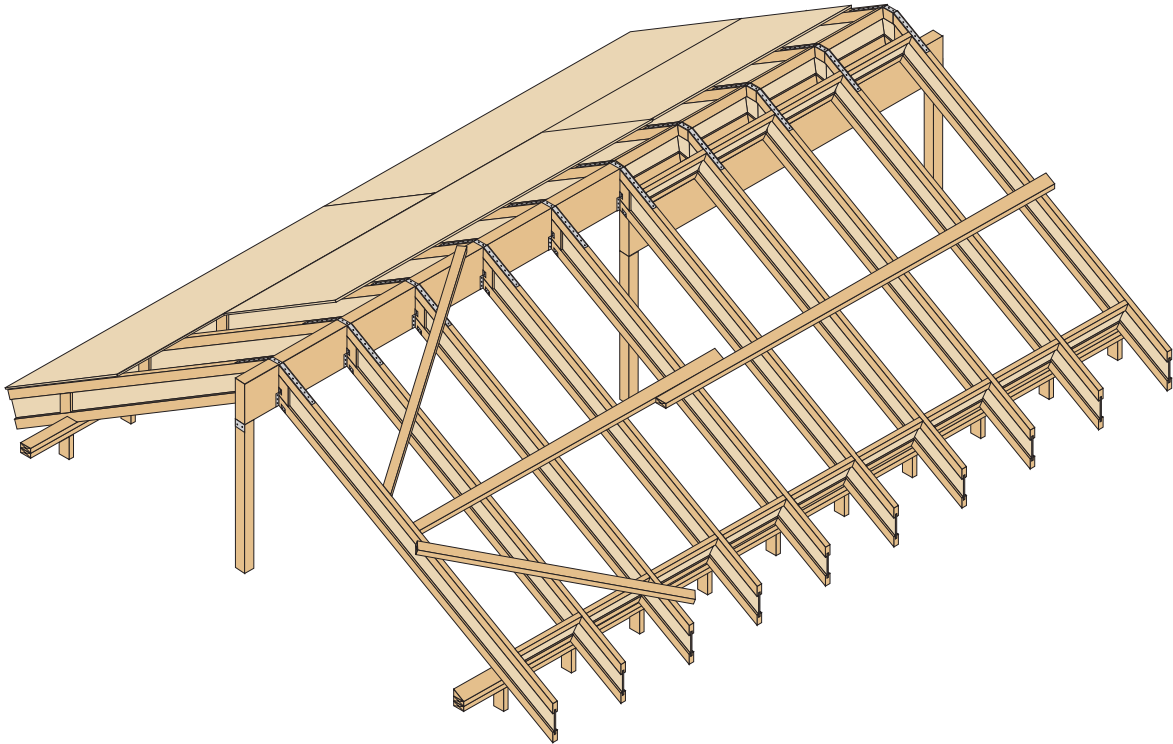
JOIST TYPE	ROOF TRUSS SPAN (FT)	TL = 30 PSF JOIST SPACING (IN.)				TL = 40 PSF JOIST SPACING (IN.)				TL = 50 PSF JOIST SPACING (IN.)				TL = 60 PSF JOIST SPACING (IN.)			
		12	16	19.2	24	12	16	19.2	24	12	16	19.2	24	12	16	19.2	24
		J925	22	N	N	N	C	N	N	C	C	N	C	C	C	N	C
	24	N	N	N	C	N	N	C	C	N	C	C	X	N	C	C	X
	26	N	N	N	C	N	N	C	C	N	C	C	X	N	C	C	X
	28	N	N	N	X	N	C	C	X	N	C	C	X	C	C	X	X
	30	N	N	X	X	N	C	X	X	N	C	X	X	C	C	X	X
	32	N	X	X	X	N	X	X	X	N	X	X	X	C	X	X	X
J10	22	N	N	N	C	N	N	C	C	N	C	C	C	N	C	C	X
	24	N	N	N	C	N	N	C	C	N	C	C	X	N	C	C	X
	26	N	N	N	C	N	N	C	C	N	C	C	X	N	C	C	X
	28	N	N	N	C	N	N	C	C	N	C	C	X	C	C	X	X
	30	N	N	N	X	N	C	C	X	N	C	C	X	C	C	X	X
	32	N	N	C	X	N	C	X	X	N	C	X	X	C	C	X	X
	34	N	X	X	X	N	X	X	X	C	X	X	X	C	X	X	X
	36	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
J12	22	N	N	N	N	N	N	N	C	N	N	C	C	N	C	C	X
	24	N	N	N	N	N	N	N	C	N	N	C	C	N	C	C	X
	26	N	N	N	C	N	N	C	C	N	C	C	X	N	C	C	X
	28	N	N	N	C	N	N	C	C	N	C	C	X	N	C	C	X
	30	N	N	N	C	N	N	C	C	N	C	C	X	N	C	C	X
	32	N	N	N	C	N	N	C	C	N	C	C	X	C	C	X	X
	34	N	N	C	C	N	C	C	X	N	C	C	X	C	C	X	X
	36	N	N	C	X	N	C	C	X	N	C	C	X	C	C	X	X
	38	N	N	C	X	N	C	C	X	C	C	X	X	C	X	X	X

H & U SERIES JOIST

JOIST TYPE	ROOF TRUSS SPAN (FT)	TL = 30 PSF JOIST SPACING (IN.)				TL = 40 PSF JOIST SPACING (IN.)				TL = 50 PSF JOIST SPACING (IN.)				TL = 60 PSF JOIST SPACING (IN.)			
		12	16	19.2	24	12	16	19.2	24	12	16	19.2	24	12	16	19.2	24
		H/U10	22	N	N	N	A	N	N	N	B,C	N	N	A	X	N	A
	24	N	N	N	A	N	N	A	B,C	N	A	B,C	X	N	A	X	X
	26	N	N	N	A	N	N	A	B,C	N	A	B,C	X	N	B,C	X	X
	28	N	N	N	A	N	N	A	X	N	A	B,C	X	N	B,C	X	X
	30	N	N	N	B,C	N	A	A	X	N	A	X	X	A	B,C	X	X
	32	N	N	A	B,C	N	A	B,C	X	N	B,C	X	X	A	X	X	X
	34	N	N	A	X	N	A	X	X	N	B,C	X	X	B,C	X	X	X
H/U12	22	N	N	N	N	N	N	N	A	N	N	A,B	C	N	N	A	X
	24	N	N	N	N	N	N	N	A	N	N	A	B,C	N	A	B,C	X
	26	N	N	N	N	N	N	N	B,C	N	N	A	X	N	A	B,C	X
	28	N	N	N	A	N	N	A	B,C	N	A	B,C	X	N	A	X	X
	30	N	N	N	A	N	N	A	B,C	N	A	B,C	X	N	B,C	X	X
	32	N	N	N	A	N	N	A	X	N	A	B,C	X	N	B,C	X	X
	34	N	N	N	A	N	N	A	X	N	A	X	X	A	B,C	X	X
	36	N	N	N	B,C	N	A	B,C	X	N	B,C	X	X	A	X	X	X
H/U14	24	N	N	N	N	N	N	N	WS	N	N	N	A	N	N	A	B
	26	N	N	N	N	N	N	N	A	N	N	WS	B,C	N	N	A	X
	28	N	N	N	N	N	N	N	A	N	N	A	B,C	N	WS	B,C	X
	30	N	N	N	N	N	N	N	A	N	N	A	X	N	A	B,C	X
	32	N	N	N	WS	N	N	WS	A	N	N	A	X	N	A	B	X
	34	N	N	N	WS	N	N	WS	B,C	N	WS	B,C	X	N	A	X	X
	36	N	N	N	A	N	N	A	B,C	N	A	B,C	X	N	B,C	X	X
H/U16	26	N	N	N	N	N	N	N	WS	N	N	WS	A	N	N	A	B,C
	28	N	N	N	N	N	N	N	WS	N	N	WS	A	N	WS	A	X
	30	N	N	N	WS	N	N	WS	N	N	N	WS	B,C	N	WS	A	X
	32	N	N	N	WS	N	N	WS	A	N	N	A	B,C	N	WS	B,C	X
	34	N	N	N	WS	N	N	WS	A	N	WS	A	X	N	A	B,C	X
	36	N	N	N	WS	N	N	WS	A	N	WS	A	X	N	A	B	X
	38	N	N	N	WS	N	N	WS	B,C	N	WS	A	X	N	A	X	X
	40	N	N	WS	WS	N	WS	WS	B,C	N	WS	B,C	X	N	A	X	X
U18	26	N	N	WS	WS	N	WS	WS	WS	N	WS	WS	A	WS	WS	WS	B
	28	N	WS	WS	WS	N	WS	WS	WS	N	WS	WS	A	WS	WS	WS	B
	30	N	WS	WS	WS	N	WS	WS	WS	WS	WS	WS	A	WS	WS	A	X
	32	N	WS	WS	WS	N	WS	WS	WS	WS	WS	WS	B	WS	WS	A	X
	34	N	WS	WS	WS	N	WS	WS	A	WS	WS	WS	B	WS	WS	A	X
	36	N	WS	WS	WS	WS	WS	WS	A	WS	WS	WS	A	B	WS	A	X
	38	N	WS	WS	WS	WS	WS	WS	A	WS	WS	WS	A	WS	A	B	X
	40	N	WS	WS	WS	WS	WS	WS	B	WS	WS	WS	B	WS	A	X	X



ROOF LAYOUT



J SERIES RAFTER SPANS

SPACING	JOIST TYPE	ROOF SLOPE	NON-SNOW (125%) LIVE/DEAD LOAD (PSF)			SNOW (115%) LIVE/DEAD LOAD (PSF)								
			20/10	20/15	20/20	20/10	20/15	30/10	30/15	40/10	40/15	50/10	50/15	50/20
12" o.c.	J925	Low	21'-9"	20'-7"	19'-8"	21'-9"	20'-7"	19'-10"	19'-0"	18'-2"	17'-9"	6'-10"	16'-10"	16'-5"
		High	19'-6"	18'-4"	17'-5"	19'-6"	18'-4"	17'-11"	17'-0"	16'-9"	16'-1"	15'-7"	15'-3"	14'-9"
	J10	Low	22'-6"	21'-3"	20'-4"	22'-6"	21'-3"	20'-6"	19'-8"	18'-9"	18'-5"	17'-5"	17'-5"	16'-11"
		High	20'-2"	19'-0"	18'-0"	20'-2"	19'-0"	18'-6"	17'-7"	17'-4"	16'-7"	16'-2"	15'-9"	15'-3"
	J12	Low	27'-4"	25'-10"	24'-8"	27'-4"	25'-10"	24'-10"	23'-10"	22'-10"	22'-2"	21'-2"	20'-5"	19'-8"
		High	24'-6"	23'-0"	21'-10"	24'-6"	23'-0"	22'-6"	21'-5"	21'-0"	20'-2"	19'-7"	19'-2"	18'-7"
16" o.c.	J925	Low	19'-9"	18'-8"	17'-10"	19'-9"	18'-8"	18'-0"	17'-3"	16'-6"	16'-2"	15'-3"	15'-3"	14'-10"
		High	17'-9"	16'-8"	15'-9"	17'-9"	16'-8"	16'-3"	15'-6"	15'-2"	14'-7"	14'-2"	13'-10"	13'-5"
	J10	Low	20'-5"	19'-4"	18'-5"	20'-5"	19'-4"	18'-7"	17'-10"	17'-1"	16'-8"	15'-10"	15'-10"	15'-4"
		High	18'-4"	17'-3"	16'-4"	18'-4"	17'-3"	16'-10"	16'-0"	15'-8"	15'-1"	14'-8"	14'-4"	13'-10"
	J12	Low	24'-9"	23'-5"	22'-4"	24'-9"	23'-5"	22'-7"	21'-2"	20'-3"	19'-3"	18'-6"	17'-9"	17'-10"
		High	22'-3"	20'-11"	19'-10"	22'-3"	20'-11"	20'-5"	19'-5"	19'-1"	18'-3"	17'-9"	17'-2"	16'-4"
19.2" o.c.	J925	Low	18'-7"	17'-7"	16'-9"	18'-7"	17'-7"	16'-11"	16'-2"	15'-6"	15'-2"	14'-4"	14'-2"	13'-8"
		High	16'-8"	15'-8"	14'-10"	16'-8"	15'-8"	15'-3"	14'-7"	14'-3"	13'-8"	13'-4"	13'-0"	12'-7"
	J10	Low	19'-3"	18'-2"	17'-4"	19'-3"	18'-2"	17'-6"	16'-9"	16'-0"	15'-8"	15'-1"	14'-8"	14'-0"
		High	17'-3"	16'-2"	15'-4"	17'-3"	16'-2"	15'-10"	15'-1"	14'-9"	14'-2"	13'-9"	13'-6"	13'-0"
	J12	Low	23'-4"	22'-1"	21'-0"	23'-4"	21'-10"	20'-7"	19'-4"	18'-6"	17'-6"	16'-11"	16'-2"	15'-6"
		High	20'-11"	19'-8"	18'-8"	20'-11"	19'-8"	19'-2"	18'-3"	17'-11"	16'-11"	16'-6"	15'-8"	14'-11"
24" o.c.	J925	Low	17'-3"	16'-4"	15'-6"	17'-3"	16'-4"	15'-8"	15'-0"	14'-4"	13'-9"	13'-3"	12'-8"	12'-2"
		High	15'-6"	14'-6"	13'-9"	15'-6"	14'-6"	14'-2"	13'-6"	13'-3"	12'-8"	12'-4"	12'-1"	11'-8"
	J10	Low	17'-10"	16'-10"	16'-1"	17'-10"	16'-10"	16'-3"	15'-6"	14'-10"	14'-2"	13'-7"	13'-0"	12'-6"
		High	16'-0"	15'-0"	14'-3"	16'-0"	15'-0"	14'-8"	13'-11"	13'-8"	13'-2"	12'-9"	12'-6"	12'-0"
	J12	Low	21'-7"	20'-4"	18'-11"	21'-2"	19'-6"	18'-5"	17'-3"	16'-6"	15'-8"	15'-1"	14'-5"	13'-11"
		High	19'-5"	18'-3"	17'-3"	19'-5"	18'-3"	17'-9"	16'-6"	16'-1"	15'-1"	14'-9"	14'-0"	13'-4"

RAFTER SPAN TABLES

H SERIES RAFTER SPANS

SPACING	JOIST TYPE	ROOF SLOPE	NON-SNOW (125%) LIVE/DEAD LOAD (PSF)			SNOW (115%) LIVE/DEAD LOAD (PSF)									
			20/10	20/15	20/20	20/10	20/15	30/10	30/15	40/10	40/15	50/10	50/15	50/20	
12" o.c.	H10	Low	24'-6"	23'-2"	22'-1"	24'-6"	23'-2"	22'-3"	21'-4"	20'-5"	20'-0"	18'-11"	18'-10"	18'-1"	
		High	21'-11"	20'-7"	19'-7"	21'-11"	20'-7"	20'-2"	19'-2"	18'-10"	18'-1"	17'-6"	17'-2"	16'-7"	
	H12	Low	29'-3"	27'-8"	26'-4"	29'-3"	27'-8"	26'-7"	25'-6"	24'-5"	23'-11"	22'-7"	22'-4"	21'-6"	
		High	26'-3"	24'-8"	23'-4"	26'-3"	24'-8"	24'-1"	22'-11"	22'-6"	21'-7"	20'-11"	20'-6"	19'-10"	
	H14	Low	33'-0"	31'-3"	29'-9"	33'-0"	31'-3"	30'-1"	28'-10"	27'-7"	27'-0"	25'-7"	25'-7"	24'-10"	
		High	29'-8"	27'-10"	26'-5"	29'-8"	27'-10"	27'-2"	25'-10"	25'-5"	24'-4"	23'-8"	23'-2"	22'-5"	
	H16	Low	36'-7"	34'-7"	33'-0"	36'-7"	34'-7"	33'-4"	31'-11"	30'-6"	29'-11"	28'-4"	28'-4"	27'-6"	
		High	32'-10"	30'-10"	29'-3"	32'-10"	30'-10"	30'-1"	28'-8"	28'-1"	27'-0"	26'-3"	25'-8"	24'-10"	
16" o.c.	H10	Low	22'-2"	21'-0"	20'-0"	22'-2"	21'-0"	20'-3"	19'-4"	18'-6"	17'-8"	17'-1"	16'-4"	15'-8"	
		High	19'-11"	18'-9"	17'-9"	19'-11"	18'-9"	18'-3"	17'-5"	17'-1"	16'-5"	15'-11"	15'-7"	15'-1"	
	H12	Low	26'-6"	25'-1"	23'-11"	26'-6"	25'-1"	24'-2"	23'-2"	22'-1"	21'-0"	20'-3"	19'-4"	18'-7"	
		High	23'-10"	22'-4"	21'-2"	23'-10"	22'-4"	21'-10"	20'-9"	20'-5"	19'-7"	18'-0"	18'-7"	17'-10"	
	H14	Low	30'-0"	28'-4"	27'-0"	30'-0"	28'-4"	27'-3"	26'-2"	25'-0"	24'-6"	23'-2"	23'-2"	22'-7"	
		High	26'-11"	25'-3"	23'-11"	26'-11"	25'-3"	24'-8"	23'-6"	23'-1"	22'-1"	21'-6"	21'-0"	20'-4"	
	H16	Low	33'-2"	31'-5"	29'-11"	33'-2"	31'-5"	30'-3"	28'-11"	27'-8"	27'-1"	25'-8"	25'-7"	24'-7"	
		High	29'-10"	28'-0"	26'-6"	29'-10"	28'-0"	27'-4"	26'-0"	25'-6"	24'-6"	23'-10"	23'-3"	22'-6"	
19.2" oc.	H10	Low	20'-11"	19'-9"	18'-10"	20'-11"	19'-9"	19'-0"	17'-10"	17'-0"	16'-2"	15'-7"	14'-11"	14'-4"	
		High	18'-9"	17'-7"	16'-8"	18'-9"	17'-7"	17'-2"	16'-4"	16'-1"	15'-5"	15'-0"	14'-5"	13'-9"	
	H12	Low	24'-11"	23'-7"	22'-6"	24'-11"	23'-7"	22'-6"	21'-1"	20'-2"	19'-2"	18'-5"	17'-8"	17'-0"	
		High	22'-5"	21'-0"	19'-11"	22'-5"	21'-0"	20'-7"	19'-6"	19'-2"	18'-5"	17'-11"	17'-1"	16'-4"	
	H14	Low	28'-2"	26'-8"	25'-5"	28'-2"	26'-8"	25'-8"	24'-7"	23'-6"	23'-0"	21'-10"	21'-5"	20'-7"	
		High	25'-4"	23'-9"	22'-6"	25'-4"	23'-9"	23'-3"	22'-1"	21'-8"	20'-9"	20'-2"	19'-9"	19'-2"	
	H16	Low	31'-3"	29'-6"	28'-2"	31'-3"	29'-6"	28'-5"	27'-3"	26'-1"	25'-4"	24'-2"	23'-4"	22'-5"	
		High	28'-0"	26'-4"	24'-11"	28'-0"	26'-4"	25'-9"	24'-5"	24'-0"	23'-0"	22'-4"	21'-11"	21'-2"	
24" o.c.	H10	Low	19'-4"	18'-4"	17'-5"	19'-4"	17'-11"	17'-0"	15'-11"	15'-3"	14'-5"	13'-11"	13'-4"	12'-9"	
		High	17'-5"	16'-4"	15'-6"	17'-5"	16'-4"	15'-11"	15'-2"	14'-9"	13'-11"	13'-7"	12'-11"	12'-4"	
	H12	Low	23'-2"	21'-11"	20'-8"	23'-2"	21'-4"	20'-1"	18'-10"	18'-0"	17'-2"	16'-6"	15'-9"	15'-2"	
		High	20'-9"	19'-6"	18'-6"	20'-9"	19'-6"	19'-1"	18'-0"	17'-6"	16'-6"	16'-1"	15'-3"	14'-7"	
	H14	Low	26'-2"	24'-9"	23'-7"	26'-2"	24'-9"	23'-10"	22'-9"	21'-10"	20'-9"	20'-0"	19'-2"	18'-5"	
		High	23'-6"	22'-0"	20'-11"	23'-6"	22'-0"	21'-6"	20'-6"	20'-1"	19'-3"	18'-9"	18'-4"	17'-8"	
	H16	Low	28'-11"	27'-5"	26'-1"	28'-11"	27'-5"	26'-4"	25'-0"	23'-10"	22'-8"	21'-10"	20'-11"	20'-1"	
		High	26'-0"	24'-5"	23'-2"	26'-0"	24'-5"	23'-10"	22'-8"	22'-3"	21'-4"	20'-9"	20'-3"	19'-3"	

NOTES

- SPANS SHOWN ARE HORIZONTAL CLEAR DISTANCE BETWEEN SUPPORTS, UNIFORMLY LOADED JOISTS AND INCLUDE ALLOWABLE INCREASE FOR REPETITIVE MEMBERS. SPANS APPLY TO SIMPLY SUPPORTED JOISTS ONLY.
- LOW SLOPE IS DEFINED AS ANY ROOF SLOPE LESS THAN OR EQUAL TO 6 IN 12.
- HIGH SLOPE IS DEFINED AS ANY ROOF SLOPE GREATER THAN 6 IN 12 AND LESS THAN OR EQUAL TO 12 IN 12
- DEFLECTION LIMITS: LIVE LOAD DEFLECTION EQUAL TO L/240 AND TOTAL LOAD DEFLECTION EQUAL TO L/180.
- MINIMUM END BEARING LENGTH IS 2 1/2", UNLESS OTHERWISE NOTED.
- B LUE SHADED AREAS : MINIMUM END BEARING LENGTH IS 4".

RAFTER SPAN TABLES

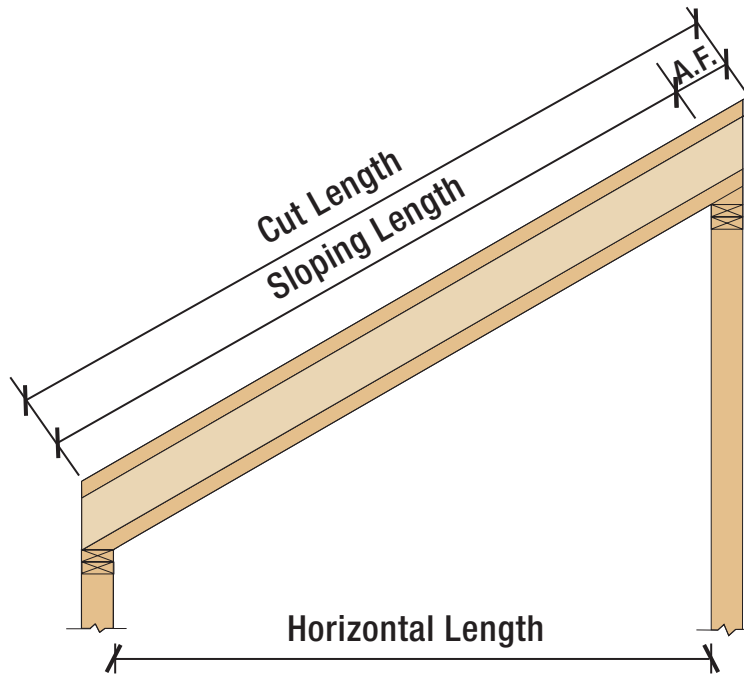
U SERIES RAFTER SPANS

SPACING	JOIST TYPE	ROOF SLOPE	NON-SNOW (125%) LIVE/DEAD LOAD (PSF)			SNOW (115%) LIVE/DEAD LOAD (PSF)									
			20/10	20/15	20/20	20/10	20/15	30/10	30/15	40/10	40/15	50/10	50/15	50/20	
12" o.c.	U10	Low	27'-2"	25'-8"	24'-6"	27'-2"	25'-8"	24'-9"	23'-8"	22'-8"	22'-2"	21'-0"	21'-0"	20'-4"	
		High	24'-5"	22'-11"	21'-8"	24'-5"	22'-11"	22'-4"	21'-3"	20'-11"	20'-0"	19'-6"	19'-0"	18'-5"	
	U12	Low	32'-5"	30'-8"	29'-3"	32'-5"	30'-8"	29'-6"	28'-3"	27'-0"	26'-6"	25'-1"	24'-10"	23'-10"	
		High	29'-1"	27'-3"	25'-11"	29'-1"	27'-3"	26'-8"	25'-4"	24'-11"	23'-11"	23'-3"	22'-8"	22'-0"	
	U14	Low	36'-9"	34'-9"	33'-2"	36'-9"	34'-9"	33'-6"	32'-1"	30'-8"	30'-1"	28'-6"	28'-5"	27'-7"	
		High	33'-0"	31'-0"	29'-5"	33'-0"	31'-0"	30'-3"	28'-10"	28'-3"	27'-2"	26'-4"	25'-9"	25'-0"	
	U16	Low	40'-9"	38'-6"	36'-9"	40'-9"	38'-6"	37'-1"	35'-6"	34'-0"	33'-3"	31'-6"	31'-6"	30'-7"	
		High	36'-7"	34'-4"	32'-7"	36'-7"	34'-4"	33'-7"	31'-11"	31'-4"	30'-1"	29'-2"	28'-7"	27'-8"	
	U18	Low	44'-6"	42'-2"	40'-2"	44'-6"	42'-2"	40'-7"	38'-10"	37'-2"	36'-5"	34'-6"	34'-5"	33'-6"	
		High	40'-0"	37'-6"	35'-7"	40'-0"	37'-6"	36'-8"	34'-11"	34'-3"	32'-10"	31'-11"	31'-3"	30'-3"	
	16" o.c.	U10	Low	24'-8"	23'-4"	22'-3"	24'-8"	23'-4"	22'-5"	21'-6"	20'-7"	19'-10"	19'-1"	18'-4"	17'-7"
			High	22'-2"	20'-9"	19'-8"	22'-2"	20'-9"	20'-4"	19'-4"	18'-11"	18'-2"	17'-8"	17'-3"	16'-9"
U12		Low	29'-5"	27'-10"	26'-6"	29'-5"	27'-10"	26'-9"	25'-8"	24'-6"	23'-4"	22'-6"	21'-6"	20'-8"	
		High	26'-5"	24'-9"	23'-6"	26'-5"	24'-9"	24'-2"	23'-0"	22'-7"	21'-8"	21'-1"	20'-7"	19'-10"	
U14		Low	33'-5"	31'-7"	30'-1"	33'-5"	31'-7"	30'-5"	29'-1"	27'-10"	26'-11"	25'-10"	24'-10"	23'-10"	
		High	30'-0"	28'-2"	26'-8"	30'-0"	28'-2"	27'-6"	26'-2"	25'-8"	24'-11"	23'-11"	23'-5"	22'-8"	
U16		Low	37'-0"	35'-0"	33'-4"	37'-0"	35'-0"	33'-8"	32'-3"	30'-10"	29'-11"	28'-7"	27'-7"	26'-6"	
		High	33'-2"	31'-2"	29'-6"	33'-2"	31'-2"	30'-5"	29'-0"	28'-5"	27'-3"	26'-6"	25'-11"	25'-1"	
U18		Low	40'-5"	38'-3"	36'-6"	40'-5"	38'-3"	36'-10"	35'-3"	33'-9"	33'-0"	31'-3"	30'-5"	29'-3"	
		High	36'-4"	34'-1"	32'-4"	36'-4"	34'-1"	33'-4"	31'-8"	31'-1"	29'-10"	29'-0"	28'-4"	27'-5"	
19.2" o.c.		U10	Low	23'-2"	21'-11"	20'-11"	23'-2"	21'-11"	21'-1"	19'-11"	19'-1"	18'-1"	17'-5"	16'-8"	16'-0"
			High	20'-10"	19'-6"	18'-6"	20'-10"	19'-6"	19'-1"	18'-2"	17'-10"	17'-1"	16'-7"	16'-2"	15'-5"
	U12	Low	27'-8"	26'-2"	24'-11"	27'-8"	26'-2"	25'-0"	23'-6"	22'-5"	21'-4"	20'-6"	19'-8"	18'-10"	
		High	24'-10"	23'-4"	22'-1"	24'-10"	23'-4"	22'-9"	21'-8"	21'-3"	20'-5"	19'-10"	19'-0"	18'-2"	
	U14	Low	31'-5"	29'-8"	28'-4"	31'-5"	29'-8"	28'-7"	27'-1"	25'-11"	24'-7"	23'-8"	22'-8"	21'-9"	
		High	28'-2"	26'-5"	25'-1"	28'-2"	26'-5"	25'-10"	24'-7"	24'-2"	23'-2"	22'-6"	21'-11"	20'-11"	
	U16	Low	34'-9"	32'-11"	31'-4"	34'-9"	32'-11"	31'-8"	30'-1"	28'-9"	27'-4"	26'-4"	25'-2"	24'-2"	
		High	31'-3"	29'-4"	27'-9"	31'-3"	29'-4"	28'-8"	27'-3"	26'-9"	25'-8"	24'-11"	24'-4"	23'-3"	
	U18	Low	38'-0"	36'-0"	34'-3"	38'-0"	36'-0"	34'-7"	33'-2"	31'-9"	30'-2"	29'-0"	27'-9"	26'-8"	
		High	34'-2"	32'-1"	30'-5"	34'-2"	32'-1"	31'-4"	29'-9"	29'-3"	28'-0"	27'-3"	26'-8"	25'-8"	
	24" o.c.	U10	Low	21'-6"	20'-4"	19'-5"	21'-6"	20'-2"	19'-0"	17'-10"	17'-1"	16'-2"	15'-7"	14'-11"	14'-4"
			High	19'-4"	18'-1"	17'-2"	19'-4"	18'-1"	17'-8"	16'-10"	16'-6"	15'-7"	15'-3"	14'-5"	13'-9"
U12		Low	25'-8"	24'-3"	23'-0"	25'-8"	23'-8"	22'-4"	21'-0"	20'-1"	19'-0"	18'-4"	17'-7"	16'-10"	
		High	23'-0"	21'-7"	20'-5"	23'-0"	21'-7"	21'-1"	20'-1"	19'-6"	18'-4"	17'-11"	17'-0"	16'-3"	
U14		Low	29'-1"	27'-6"	26'-3"	29'-1"	27'-4"	25'-10"	24'-3"	23'-2"	22'-0"	21'-2"	20'-3"	19'-6"	
		High	26'-2"	24'-6"	23'-3"	26'-2"	24'-6"	24'-0"	22'-10"	22'-5"	21'-2"	20'-8"	19'-8"	18'-9"	
U16		Low	32'-3"	30'-6"	29'-1"	32'-3"	30'-4"	28'-8"	26'-11"	25'-9"	24'-5"	23'-6"	22'-6"	21'-7"	
		High	29'-0"	27'-2"	25'-9"	29'-0"	27'-2"	26'-7"	25'-3"	24'-9"	23'-6"	23'-0"	21'-10"	20'-9"	
U18		Low	35'-3"	33'-4"	31'-9"	35'-3"	33'-4"	31'-8"	29'-8"	28'-5"	26'-11"	25'-11"	24'-10"	23'-10"	
		High	31'-8"	29'-9"	28'-2"3	31'-8"	29'-9"	29'-1"	27'-7"	27'-1"	25'-11"	25'-3"	24'-1"	22'-11"	

NOTES

- SPANS SHOWN ARE HORIZONTAL CLEAR DISTANCE BETWEEN SUPPORTS, UNIFORMLY LOADED JOISTS AND INCLUDE ALLOWABLE INCREASE FOR REPETITIVE MEMBERS. SPANS APPLY TO SIMPLY SUPPORTED JOISTS ONLY.
- LOW SLOPE IS DEFINED AS ANY ROOF SLOPE LESS THAN OR EQUAL TO 6 IN 12.
- HIGH SLOPE IS DEFINED AS ANY ROOF SLOPE GREATER THAN 6 IN 12 AND LESS THAN OR EQUAL TO 12 IN 12
- DEFLECTION LIMITS: LIVE LOAD DEFLECTION EQUAL TO L/240 AND TOTAL LOAD DEFLECTION EQUAL TO L/180.
- MINIMUM END BEARING LENGTH IS 2 1/2", UNLESS OTHERWISE NOTED.
- BLUE SHADED AREAS: MINIMUM END BEARING LENGTH IS 4".

SLOPE FACTOR TABLES



NOTES

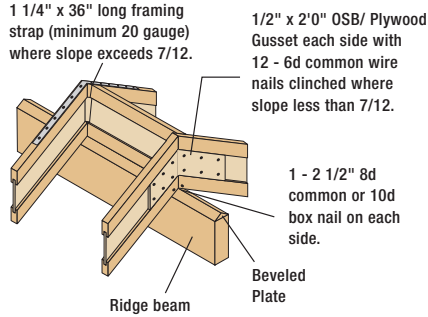
SLOPING LENGTH = HORIZONTAL LENGTH X SLOPE FACTOR
 CUT LENGTH = SLOPING LENGTH + A.F. (ADDITIONAL FACTOR)

FACTORS FOR CONVERSION OF HORIZONTAL SPANS

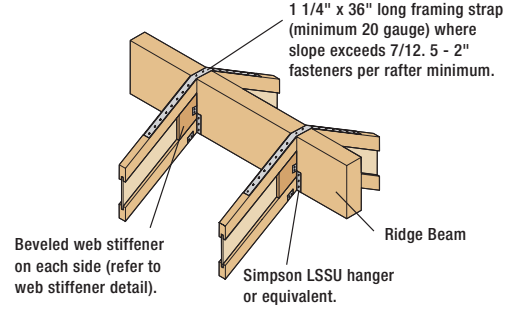
ROOF SLOPE (IN 12)	SLOPE FACTOR	ADDITIONAL FACTOR JOIST DEPTH (INCHES)					
		9 1/4	9 1/2	11 7/8	14	16	18
3	1.031	2.313	2.375	2.969	3.500	4.000	4.500
3 1/2	1.042	2.698	2.771	3.464	4.083	4.667	5.250
4	1.054	3.083	3.167	3.958	4.667	5.333	6.000
4 1/2	1.068	3.469	3.563	4.453	5.250	6.000	6.750
5	1.083	3.854	3.958	4.948	5.833	6.667	7.500
5 1/2	1.100	4.240	4.354	5.443	6.417	7.333	8.250
6	1.118	4.625	4.750	5.938	7.000	8.000	9.000
6 1/2	1.137	5.010	5.146	6.432	7.583	8.667	9.750
7	1.158	5.396	5.542	6.927	8.167	9.333	10.500
7 1/2	1.179	5.781	5.938	7.422	8.750	10.000	11.250
8	1.202	6.167	6.333	7.917	9.333	10.667	12.000
8 1/2	1.225	6.552	6.729	8.411	9.917	11.333	12.750
9	1.250	6.938	7.125	8.906	10.500	12.000	13.500
9 1/2	1.275	7.323	7.521	9.401	11.083	12.667	14.250
10	1.302	7.708	7.917	9.896	11.667	13.333	15.000
10 1/2	1.329	8.094	8.313	10.391	12.250	14.000	15.750
11	1.357	8.479	8.708	10.885	12.833	14.667	16.500
11 1/2	1.385	8.865	9.104	11.380	13.417	15.333	17.250
12	1.414	9.250	9.500	11.875	14.000	16.000	18.000

ROOF INSTALLATION DETAILS

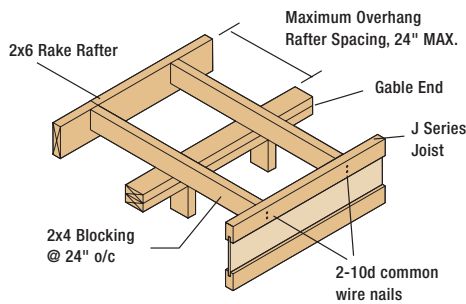
JR1 RAFTER CONNECTION AT RIDGE BEAM



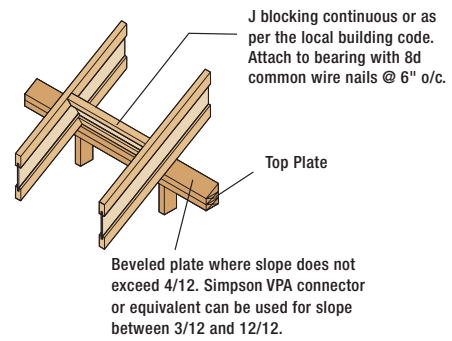
JR2 RAFTER TO RIDGE BEAM CONNECTION



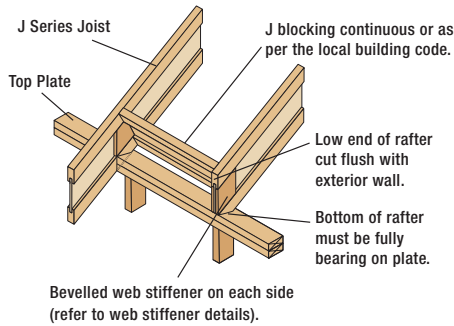
JR3 OVERHANG AT GABLE END



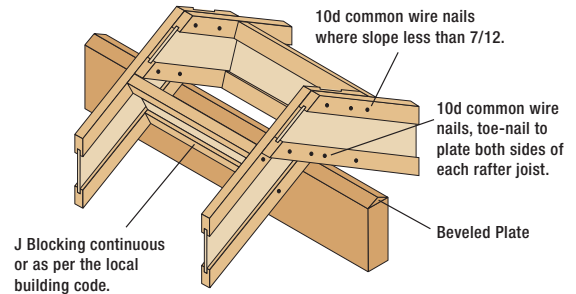
JR4 CANTILEVERED RAFTER



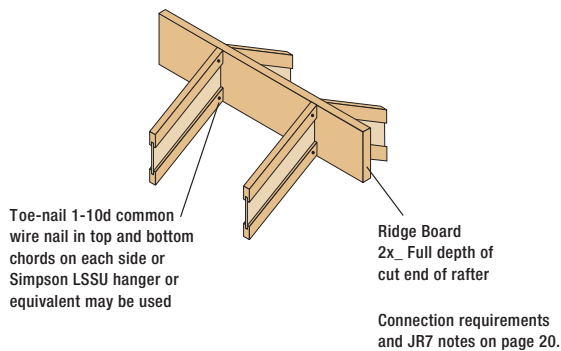
JR5 SEAT CUT FOR EAVES



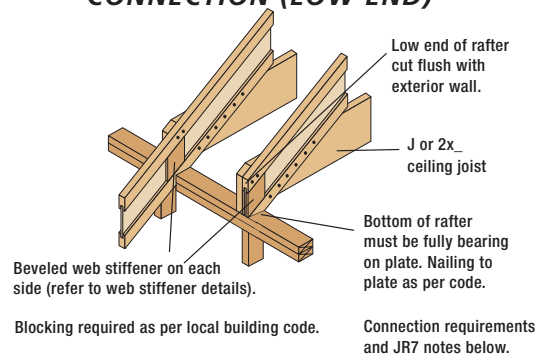
JR6 OVERLAPPING CONNECTION AT RIDGE BEAM



JR7 RIDGE BOARD CONNECTION (HIGH END)

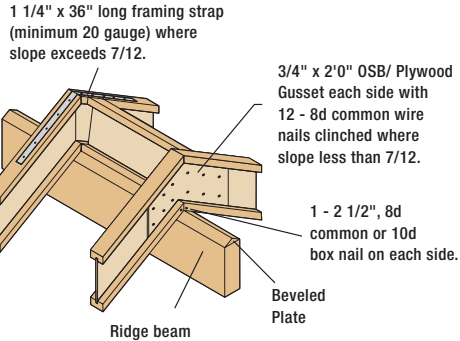


JR7 CEILING TO JOIST RAFTER CONNECTION (LOW END)

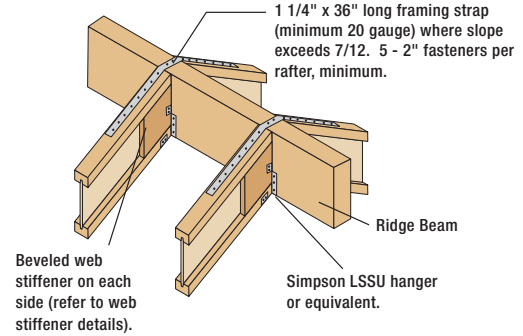


ROOF INSTALLATION DETAILS

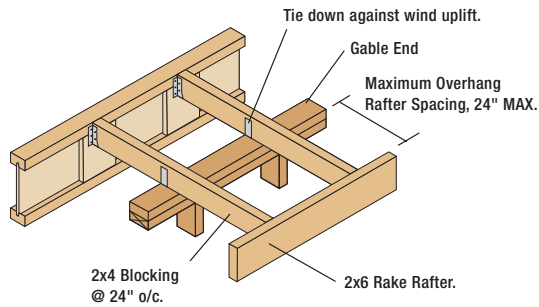
HR1 RAFTER CONNECTION AT RIDGE BEAM



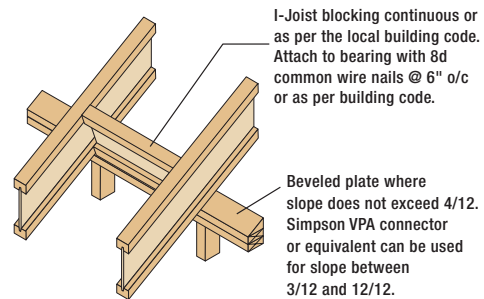
HR2 RAFTER TO RIDGE BEAM CONNECTION



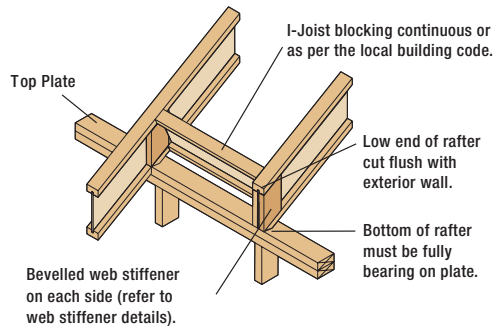
HR3 OVERHANG AT GABLE END



HR4 CANTILEVERED RAFTER



HR5 SEAT CUT FOR EAVES



J RAFTER-CEILING JOIST CONNECTION

RAFTER SLOPE	UP TO 28 FT HOUSE		UP TO 32 FT HOUSE					
	30LL	40 LL	30LL	40LL	30LL	40LL		
4 IN 12	6	8	7	9	7	9	8	11
5 IN 12	5	6	6	8	5	7	7	9
6 IN 12	4	5	5	6	5	6	5	7
7 IN 12	3	5	4	6	4	5	5	6
8 IN 12	3	4	4	5	3	5	4	6
9 IN 12	3	4	3	4	3	4	4	5
10 IN 12	3	3	3	4	3	4	3	5
11 IN 12	3	3	3	4	3	4	3	4
12 IN 12	3	3	3	3	3	3	3	4

NUMBER OF NAILS REQUIRED FOR RAFTER TO CEILING JOIST CONNECTION

JR7 NOTES

- DETAIL SPECIFIES THE REQUIRED NUMBER OF NAILS FOR THE RAFTER TO CEILING JOIST CONNECTION.
- CEILING JOISTS MUST SERVE AS A CONTINUOUS TIE BETWEEN BOTH SIDES OF THE ROOF.
- OVERLAPPING CEILING JOISTS MUST BE CONNECTED WITH TWICE THE NAILS REQUIRED FOR THE RAFTER TO CEILING JOIST CONNECTION.
- LIVE LOADS AS PER CHART.
- DETAIL ASSUMES 17 PSF DEAD LOAD.
- MINIMUM 3" 10d COMMON NAILS.
- RECOMMENDED MAXIMUM NAIL SPACING IS 2-1/2" WITH 3" 10d NAILS PARALLEL TO GRAIN.
- WEB FILLER MAY BE REQUIRED FOR CERTAIN CASES. (USE 1/2" OSB OR PLYWOOD ON ALL SIDES OF JOIST).
- COLLAR TIES ARE RECOMMENDED, BUT NOT REQUIRED.
- CHECK SPAN CHART FOR APPROPRIATE PRODUCT.

SINGLE HANGER TABLES

TOP MOUNT HANGERS

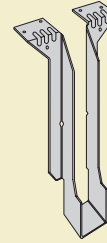
JOIST HEIGHT	MODEL	FASTENER TYPE		UPLIFT(LBS) (133)	DOWNLOAD(LBS)	
		HEADER	JOIST		DF	SPF
J SERIES						
9 ¼	ITT29.25	6-10d	2-10dx1 ½	245	1450	1200
9 ½	ITT29.5	6-10d	2-10dx1 ½	245	1450	1200
11 7/8	ITT211.88	6-10d	2-10dx1 ½	245	1450	1200
H SERIES						
9 ½	ITT39.5	6-10d	2-10dx1 ½	245	1450	1200
11 7/8	ITT311.88	6-10d	2-10dx1 ½	245	1450	1200
14	ITT314	6-10d	2-10dx1 ½	245	1450	1200
16	ITT316	6-10d	2-10dx1 ½	245	1450	1200
U SERIES						
9 ½	ITT49.5	6-10d	2-10dx1 ½	245	1450	1200
11 7/8	ITT411.88	6-10d	2-10dx1 ½	245	1450	1200
14	ITT414	6-10d	2-10dx1 ½	245	1450	1200
16	ITT416	6-10d	2-10dx1 ½	245	1450	1200
18	ITT418	6-10d	2-10dx1 ½	240	2400	1665

FACE MOUNT HANGERS

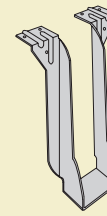
JOIST HEIGHT	MODEL	FASTENER TYPE		UPLIFT(LBS) (133)	DOWNLOAD(LBS)	
		HEADER	JOIST		DF	SPF
J SERIES						
9 ¼	IUT29	8-10d	2-10dx1 ½	245	890	770
9 ½	IUT29	8-10d	2-10dx1 ½	245	890	770
11 7/8	IUT211	10-10d	2-10dx1 ½	245	1100	960
H SERIES						
9 ½	IUT310	8-10d	2-10dx1 ½	245	890	770
11 7/8	IUT312	10-10d	2-10dx1 ½	245	1100	960
14	IUT314	14-10d	2-10dx1 ½	245	1555	1345
16	IUT316	16-10d	2-10dx1 ½	245	1775	1535
U SERIES						
9 ½	IUT410	8-10d	2-10dx1 ½	245	890	770
11 7/8	IUT412	10-10d	2-10dx1 ½	245	1100	960
14	IUT414	14-10d	2-10dx1 ½	245	1555	1345
16	IUT416	16-10d	2-10dx1 ½	245	1775	1535
18	IUT416	16-10d	2-10dx1 ½	245	1775	1535

45° SKEW HANGERS

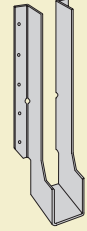
JOIST HEIGHT	MODEL	FASTENER TYPE		UPLIFT(LBS) (133)	DOWNLOAD(LBS)	
		HEADER	JOIST		DF	SPF
J SERIES						
9 ¼	SUR/L210	10-16d	10-10dx1 ½	1200	1330	1150
9 ½	SUR/L210	10-16d	10-10dx1 ½	1200	1330	1150
11 7/8	SUR/L210	10-16d	10-10dx1 ½	1200	1330	1150
H SERIES						
9 ½	SUR/L310	14-16d	6-10dx1 ½	720	1860	1610
11 7/8	SUR/L310	14-16d	6-10dx1 ½	720	1860	1610
14	SUR/L314	18-16d	8-10dx1 ½	960	2395	1795
16	SUR/L314	18-16d	8-10dx1 ½	960	2395	1795
U SERIES						
9 ½	SUR/L410	14-16d	6-16d	1065	1860	1610
11 7/8	SUR/L410	14-16d	6-16d	1065	1860	1610
14	SUR/L414	18-16d	8-16d	1420	2395	1795
16	SUR/L414	18-16d	8-16d	1420	2395	1795
18	SUR/L414	18-16d	8-16d	1420	2395	1795



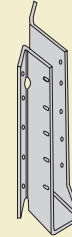
ITT



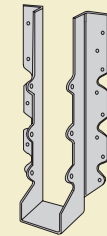
MIT



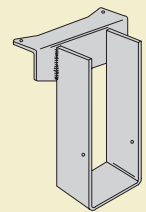
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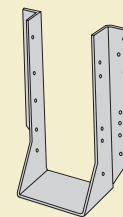
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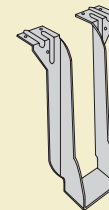
U



WP/WPI



HU



MIT



DOUBLE HANGER TABLES

TOP MOUNT HANGERS

JOIST HEIGHT	MODEL	FASTENER TYPE		UPLIFT(LBS) (133)	DOWNLOAD(LBS)	
		HEADER	JOIST		DF	SPF
J SERIES						
9 ¼	LBV29.25-2	6-16d	2-10dx1 ½	240	2035	2035
9 ½	MIT29.5-2	6-16d	2-10dx1 ½	240	2400	1665
11 7/8	MIT211.88-2	6-16d	2-10dx1 ½	240	2400	1665
H SERIES						
9 ½	MIT39.5-2	6-16d	2-10dx1 ½	240	2400	1665
11 7/8	MIT311.88-2	6-16d	2-10dx1 ½	240	2400	1665
14	MIT314-2	6-16d	2-10dx1 ½	240	2400	1665
16	WPI316-2	3-16d	2-10dx1 ½	-	3255	2600
U SERIES						
9 ½	WPI49.5-2	3-16d	2-10dx1 ½	-	3255	2600
11 7/8	WPI411.88	3-16d	2-10dx1 ½	-	3255	2600
14	WPI414-2	3-16d	2-10dx1 ½	-	3255	2600
16	WPI416-2	3-16d	2-10dx1 ½	-	3255	2600
18	WPI418-2	3-16d	2-10dx1 ½	-	3255	2600

FACE MOUNT HANGERS

JOIST HEIGHT	MODEL	FASTENER TYPE		UPLIFT(LBS) (133)	DOWNLOAD(LBS)	
		HEADER	JOIST		DF	SPF
J SERIES						
9 ¼	MIU29-2	14-16d	2-10dx1 ½	240	1860	1610
9 ½	MIU29-2	14-16d	2-10dx1 ½	240	1860	1610
11 7/8	MIU211-2	14-16d	2-10dx1 ½	240	2130	1840
H SERIES						
9 ½	MIU39-2	14-16d	2-10dx1 ½	240	1860	1610
11 7/8	MIU311.88-2	16-16d	2-10dx1 ½	240	2130	1840
14	MIU314-2	18-16d	2-10dx1 ½	240	2395	2070
16	MIU314-2	20-16d	2-10dx1 ½	240	2660	2300
U SERIES						
9 ½	HU410-2	18-16d	8-16d	1430	2410	2090
11 7/8	HU412-2	22-16d	8-16d	1430	2950	2550
14	HU414-2	26-16d	12-16d	2145	3485	3015
16	HU414-2	26-16d	12-16d	2145	3485	3015
18	HU414-2	26-16d	12-16d	2145	3485	3015

45° SKEW HANGERS

JOIST HEIGHT	MODEL	FASTENER TYPE		UPLIFT(LBS) (133)	DOWNLOAD(LBS)	
		HEADER	JOIST		DF	SPF
J SERIES						
9 ¼	SUR/L210-2	14-16d	6-16dx2 ½	720	1860	1610
9 ½	SUR/L210-2	14-16d	6-16dx2 ½	720	1860	1610
11 7/8	SUR/L210-2	14-16d	6-16dx2 ½	720	1860	1610
H SERIES						
9 ½	HU310-2X	14-16d	6-10d	680	1875	1625
11 7/8	HU312-2X	16-16d	6-10d	680	2145	1855
14	HU314-2X	18-16d	8-10d	905	2410	2090
16	HU314-2X	18-16d	8-10d	905	2410	2090
U SERIES						
9 ½	HU410-2X	18-16d	8-16d	1070	2410	2090
11 7/8	HU412-2X	22-16d	8-16d	1070	2950	2550
14	HU414-2X	26-16d	12-16d	1610	3485	3015
16	HU414-2X	26-16d	12-16d	1610	3485	3015
18	HU414-2X	26-16d	12-16d	1610	3485	3015

NOTES ON HANGER CHARTS

BLUE SHADED HANGERS REQUIRE WEB STIFFENERS AT JOIST ENDS. WEB STIFFENERS MAY BE REQUIRED FOR NON-SHADED HANGERS BY I-JOIST MANUFACTURER.

LOADS LISTED ARE BASED ON HANGER ATTACHMENT TO A DF SPECIES OF LVL OR SOLID SAWN HEADER OR SPF SOLID SAWN HEADER.

HU HANGERS USE BOTH ROUND AND TRIANGLE HOLES.

DOWNLOAD COLUMN REPRESENTS 100% LOAD DURATION.

UPLIFT LOADS HAVE BEEN INCREASED 33% FOR WIND AND EARTHQUAKE LOADING WITH NO FURTHER INCREASE ALLOWED. REDUCE ACCORDING TO THE CODE FOR NORMAL LOADING CRITERIA LIKE CANTILEVER CONSTRUCTION.

TOP FLANGE HANGER LOADS LISTED REQUIRED A MINIMUM HEADER WIDTH OF 3" FOR ITT AND MIT HANGERS AND 3 1/2" FOR ALL OTHERS.

MINIMUM NAIL PENETRATION REQUIRED TO ACHIEVE LOADS LISTED FOR FACE MOUNT HANGERS:

- 1 3/4" (10d COMMON)
- 2" (16d COMMON)

TOP FLANGE HANGER CONFIGURATION AND THICKNESS OF TOP FLANGE NEED TO BE CONSIDERED FOR FLUSH FRAME CONDITIONS.

REFER TO THE CURRENT COMPOSITE WOOD PRODUCTS CONNECTORS CATALOG FOR HANGER MODELS AND JOIST SIZES NOT SHOWN.

I-JOIST TALLER THAN 14" REQUIRE LATERAL RESTRAINT AT THE TOP CHORD (OR NEAR THE TOP) WHEN USED WITH THE THAI HANGER. LATERAL RESTRAINT CAN BE ACCOMPLISHED WITH BLOCKING.

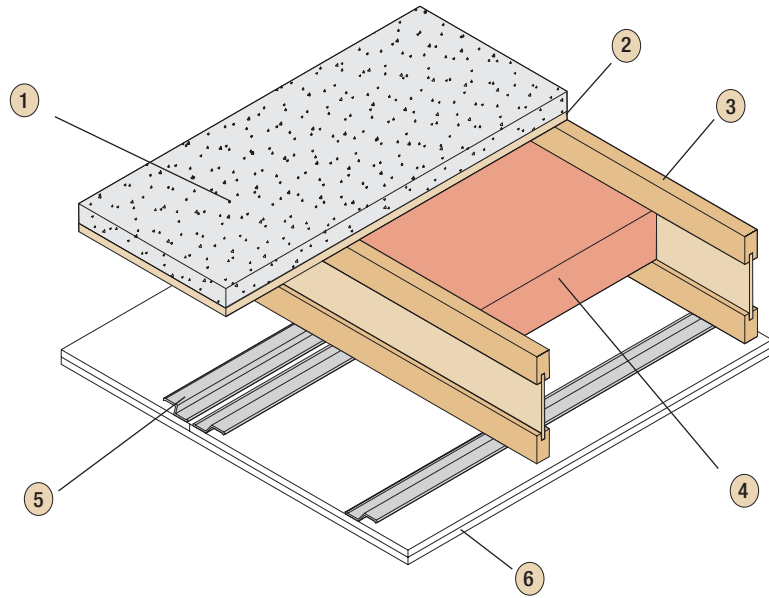
WHEN WEB STIFFENERS ARE REQUIRED, THE THICKNESS OF THE WEB STIFFENERS SHOULD PROVIDE AN OUTSIDE SURFACE EVEN WITH THE OUTSIDE EDGE OF THE FLANGE.

ONE-HOUR FIRE SOUND ASSEMBLY

SOUND TEST DATA FOR 60 MINUTE FIRE ASSEMBLY

STC=52	
PAD & CARPET	IIC=75
LAMINATES FOR LIFE	IIC=54
SWIFTLOCK LAMINATE	IIC=54
STARSTEP VINYL	IIC=52
INITIATOR VINYL	IIC=53
BELLISIMO VINYL	IIC=53

ALL-FAB ASSEMBLY WITH 3/4" MAXXON UNDERLAY TOPPING, 2 LAYERS 1/2" TYPE X DRYWALL
SOUND TESTS COMPLETED BY ITS.
* TEST REPORT # J20050694.

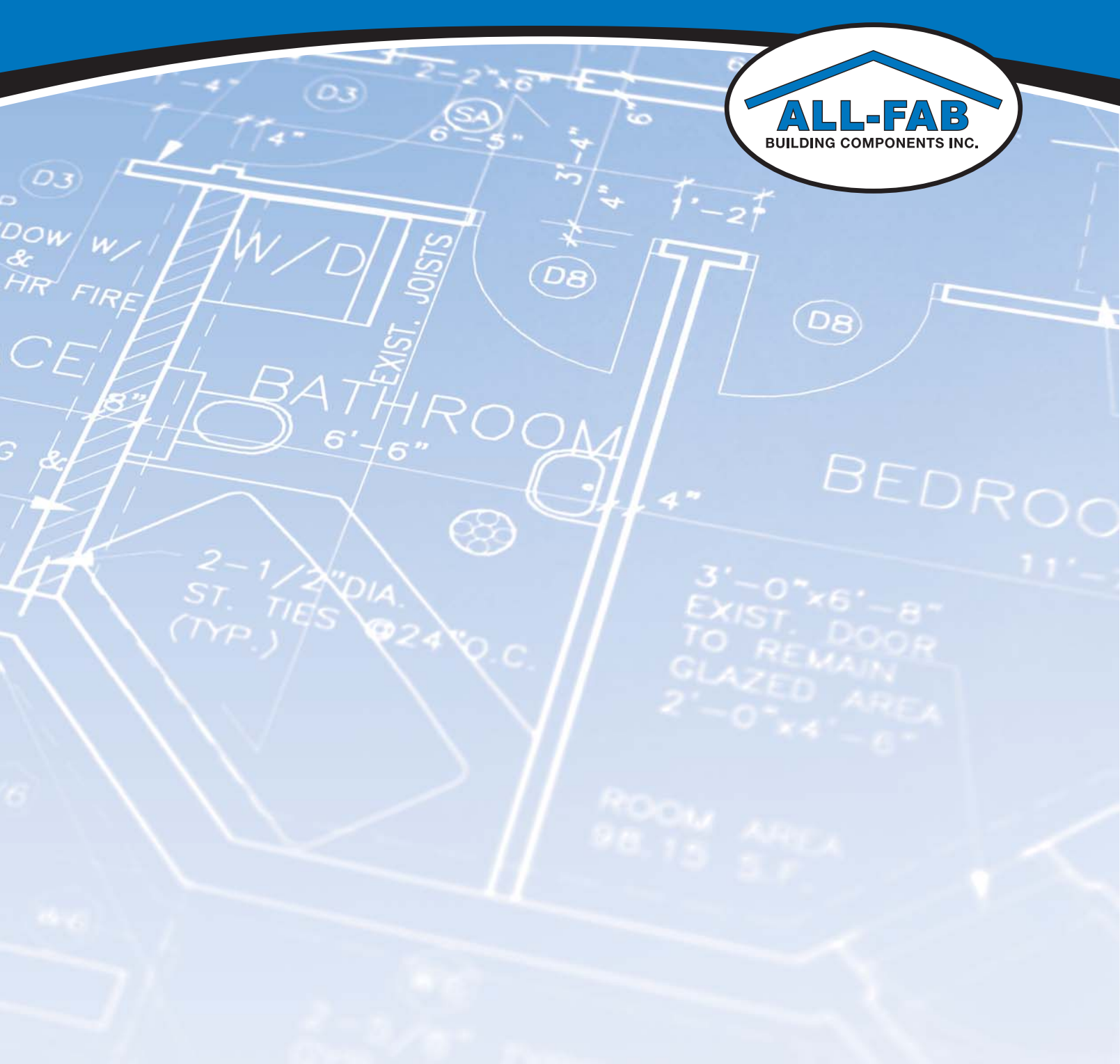


FIRE ASSEMBLY COMPONENTS

- TOPPING (OPTIONAL) - LIGHTWEIGHT CONCRETE OR PROPRIETARY TOPPING.
- SUB-FLOOR - MINIMUM 5/8" TONGUE AND GROOVE PLYWOOD OR OSB.
- ALL-FAB JOISTS 9 1/2" OR HIGHER INSTALLED AT 24" O/C MAXIMUM.
- INSULATION (OPTIONAL) - MAXIMUM 6" THICKNESS FIBERGLASS BATT INSULATION LOCATED ABOVE THE BOTTOM CHORD OF THE JOISTS.
- RESILIENT CHANNELS - NOM 1/2" OFFSET, 24 GAUGE GALVANIZED STEEL CHANNELS INSTALLED PERPENDICULAR TO JOISTS AND SPACED 16" O/C MAXIMUM. ADDITIONAL CHANNELS REQUIRED AT GYPSUM BOARD END JOINTS AT BOTH LAYERS OF GYPSUM WALLBOARD SUCH THAT EACH BOARD RESTS ON ITS OWN CHANNEL.
- GYPSUM WALLBOARD - 2 LAYERS OF 1/2" TYPE X OR TYPE C GYPSUM WALLBOARD, INSTALLED PERPENDICULAR TO FURRING CHANNELS. BASE LAYER GYPSUM WALLBOARD END JOINTS TO BE STAGGERED 48". FACE LAYER END AND EDGE JOINTS TO BE STAGGERED FROM THOSE OF BASE LAYER.

HANDLING & INSTALLATION

- KEEP ALL-FAB JOISTS ELEVATED AND PLACE ON A SOLID DRY SURFACE.
- AVOID PROLONGED EXPOSURE TO THE ELEMENTS.
- DO NOT STACK BUILDING MATERIALS ON JOISTS THAT ARE NOT PROPERLY SUPPORTED, BRACED AND SHEATHED TO PROVIDE LATERAL SUPPORT.
- SHEATHING MUST BE PROPERLY ATTACHED TO THE JOISTS BEFORE ANY LOADS CAN BE APPLIED TO THE SYSTEM.
- BRACE THE ENDS OF CANTILEVERS TO PREVENT UNWANTED MOVEMENT.
- LOADING OR WALKING ON AN IMPROPERLY BRACED FLOOR SYSTEM CAN RESULT IN JOIST ROLL OVER OR BUCKLING, INCREASING THE CHANCE OF PERSONAL INJURY OR DAMAGE TO THE FLOOR JOISTS.



The NASCOR JOISTS
Strong Quiet
Type

GUARANTEED FOR LIFE

I-Joist floor products are guaranteed to meet exact tolerances. Joists will remain straight, warp free, contain no twists or crowns and will not shrink. This guarantee is extended over the entire life of the home.

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