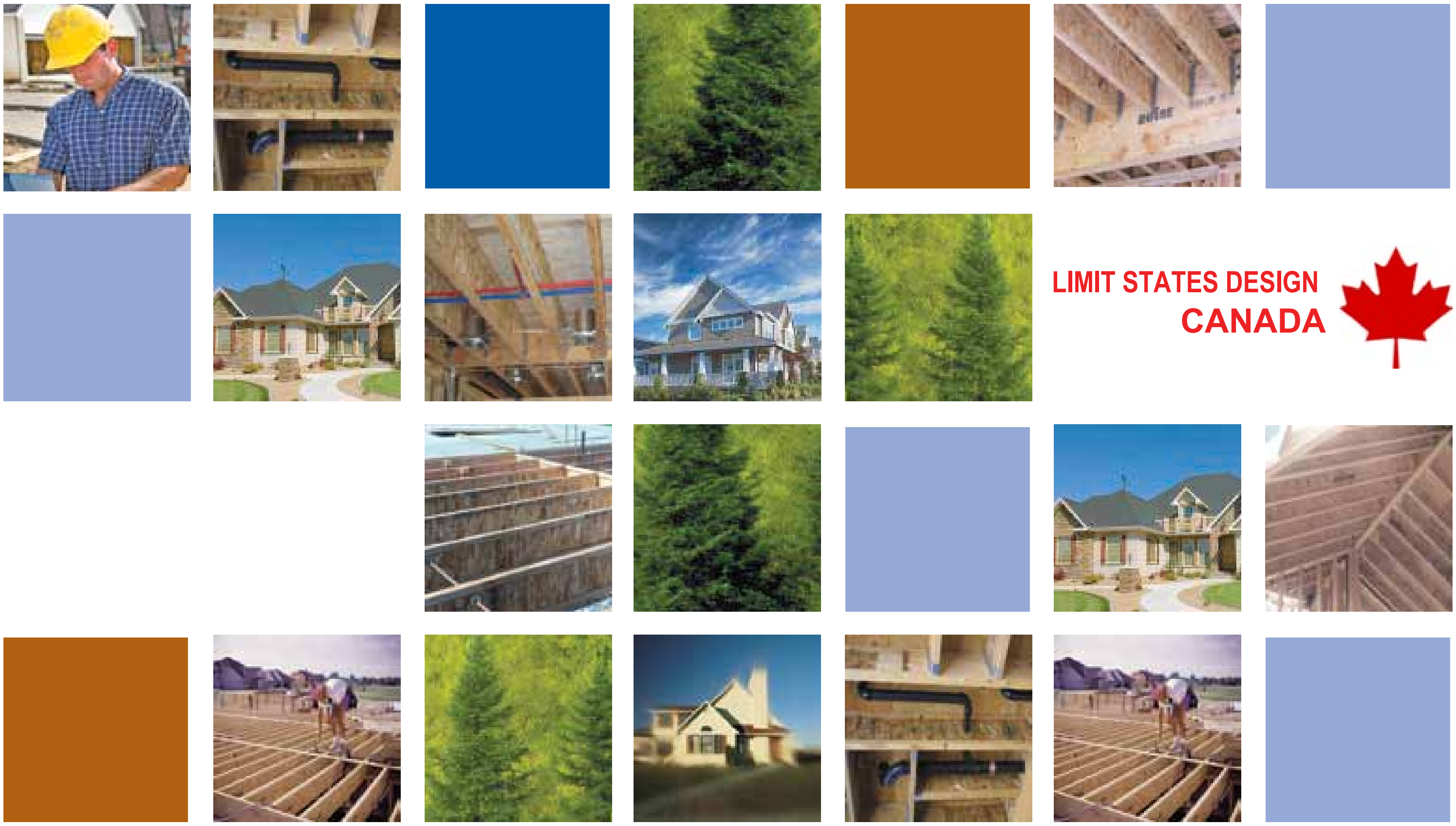


LIMIT STATES DESIGN
CANADA

BCI® SPECIFIER GUIDE

ENGINEERED WOOD PRODUCTS

WESTERN CANADA

CCMC Report Number
13300-R

High Performance
Floor & Roof Systems

Boise Cascade
Engineered Wood Products

WSG CANADA, March 2012

It's the SIMPLE FRAMING SYSTEM®, featuring beams, joists and rim boards that work together as a system, so you spend less time cutting and fitting. In fact, the SIMPLE FRAMING SYSTEM® uses fewer pieces and longer lengths than conventional framing, so you'll complete jobs in less time.

You'll Build Better Homes with the SIMPLE FRAMING SYSTEM®

Now it's easier than ever to design and build better floor systems. When you specify the SIMPLE FRAMING SYSTEM®, your clients will have fewer problems with squeaky floors and ceiling gypsum board cracks. The SIMPLE FRAMING SYSTEM® also means overall better floor and roof framing than dimension lumber allows.

Better Framing Doesn't Have to Cost More

Boise Cascade Engineered Wood Products' SIMPLE FRAMING SYSTEM® often costs less than conventional framing methods when the resulting reduced labor and materials waste are considered. There's less sorting and cost associated with disposing of waste because you order only what you need. Although our longer lengths help your clients get the job done faster, they cost no more.

Environmentally Sound

As an added bonus, floor and roof systems built with BCI® Joists require about half the number of trees as those built with dimension lumber. This helps you design a home both you and future generations will be proud to own.

What Makes the SIMPLE FRAMING SYSTEM® So Simple?

☑ Floor and Roof Framing with BCI® Joists

Light in weight, but heavy-duty, BCI® Joists have a better strength / weight ratio than dimension lumber. Knockouts can be removed for cross-ventilation and wiring.

☑ Ceilings Framed with BCI® Joists

The consistent size of BCI® Joists helps keep gypsum board flat and free of unsightly nail pops and ugly shadows, while keeping finish work to a minimum.

☑ VERSA-LAM® Beams for Floor and Roof Framing

These highly-stable beams are free of the large-scale defects that plague dimension beams. The result is quieter, flatter floors (no camber) and no shrinkage-related call-backs.

☑ Boise Cascade Rimboard

Boise Cascade Engineered Wood Products offer several engineered rimboard products regionally, including BC RIM BOARD® OSB, VERSA-RIM®, VERSA-STRAND™ 0.8 and VERSA-LAM® 1.4 1800 (check supplier or Boise Cascade EWP representative for availability). These products work with BCI® Joists to provide a solid connection at the critical floor/wall intersection.

Table of Contents

Scope: This work includes the complete furnishing and installation of all BCI® Joists as shown on the drawings, herein specified and necessary to complete the work.

Materials: BCI® Joists shall be manufactured by Boise Cascade Engineered Wood Products with oriented strand board webs, VERSA-LAM® laminated veneer lumber flanges and waterproof, structural adhesives.

Joist webs shall be graded Structural I Exposure 1 by an agency listed by a model code evaluation service. Strands on the face layers of the web panels shall be oriented vertically in the joist. The web panels shall be glued together to form a continuous web member. The web panels shall be machined to fit into a groove in the center of the wide face of the flange members so as to form a pressed glue joint at that junction.

Design: The BCI® Joists shall be sized and detailed to fit the dimensions and loads indicated on the plans. All designs shall be in accordance with allowable values and section properties developed in accordance with ASTM D5055, CSA O86, and listed under a CCMC product evaluation.

Drawing: Additional drawings showing layout and detail necessary for determining fit and placement in the building are (are not) to be provided by the supplier.

Fabrication: The BCI® Joists and section properties shall be manufactured in a plant evaluated for fabrication by the governing code evaluation service and under the supervision of a third-party inspection agency listed by the corresponding evaluation service.

Storage and Installation: The BCI® Joists, if stored prior to erection, shall be stored in a vertical and level position and protected from the weather. They shall be handled with care so they are not damaged.

The BCI® Joists are to be installed in accordance with the plans and the Boise Cascade Engineered Wood Products Installation Guide. Temporary construction loads which cause stresses beyond design limits are not permitted. Erection bracing shall be provided to keep the BCI® Joists straight and plumb as required and to assure adequate lateral support for the individual BCI® Joists and the entire system until the sheathing material has been applied.

Codes: The BCI® Joists shall be evaluated by the CCMC evaluation service.

Lifetime Guaranteed Quality and Performance

Boise Cascade warrants its BCI® Joist, VERSA-LAM®, and ALLJOIST® products to comply with our specifications, to be free from defects in material and workmanship, and to meet or exceed our performance specifications for the normal and expected life of the structure when correctly stored, installed and used according to our Installation Guide.

For information about Boise Cascade's engineered wood products, including sales terms and conditions, warranties and disclaimers, visit our website at **www.BC.com/ewp**

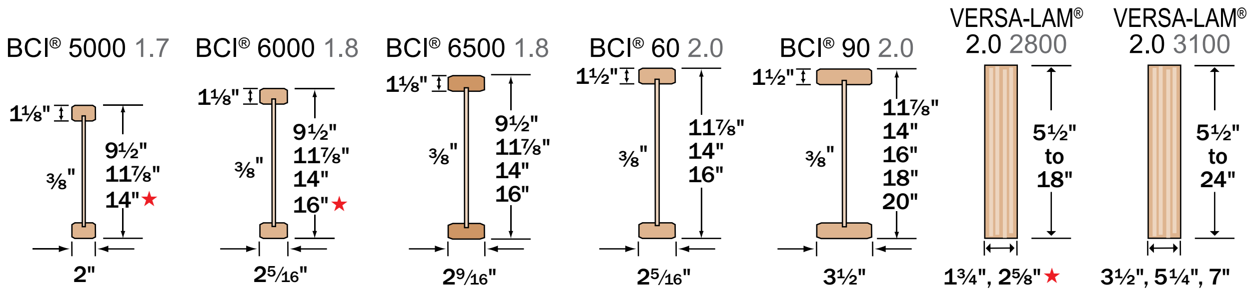
BOISE CASCADE IS CERTIFIED BY SFI, AMERICA'S LEADING FORESTRY CERTIFICATION PROGRAM:

Boise Cascade doesn't own forests, but buys wood fiber in compliance with SFI, the Sustainable Forestry Initiative®, which certifies the dominant share of North American forest acreage -- 160+ million acres. Boise Cascade is an SFI chain-of-custody certified national supplier. Chain-of-custody tracks and records possession and transfer of wood fiber from forest of origin through all stages of distribution and production to the homebuilder. Chain-of-custody assures that Boise Cascade products are made using fiber from responsibly-managed forests and not from areas that are illegally harvested, major tropical wilderness areas or biodiversity hotspots. Boise Cascade's computerized chain-of-custody system documents sourcing of all wood fiber purchased, ensuring that none gets into Boise Cascade inventory unless it comes from acceptable sources.

SUSTAINABLE FORESTRY INITIATIVE
Certified Fiber Sourcing
www.sfiprogram.org

Western Product Profiles

BCI® Joists



★Product may not be available. Check with supplier or Boise representative for availability.

Factored Resistances

Limit States Design (CANADA)

BCI® Joist Series	Joist Depth [in]	Factored Moment Resistance [lbs-ft]	Factored Shear Resistance [lbs]	Joist Stiffness EI [x10⁶ lbs-in²]	Shear Deformation Coefficient, K [x10⁶ lbs]	Joist Weight [lbs/ft]	Factored End Bearing Resistance (lbs) — 1½" Min. Bearing Length(2) — No Web Stiffeners [lbs]	Factored End Bearing Resistance (lbs) — 1½" Min. Bearing Length(2) — WITH Web Stiffeners [lbs]	Factored Intermediate Bearing Resistance (lbs) — 3½" Min. Bearing Length — No Web Stiffeners [lbs]	Factored Intermediate Bearing Resistance (lbs) — 3½" Min. Bearing Length — WITH Web Stiffeners [lbs]
5000 1.7	9½	4130	2520	160	5.2	2.0	1530	2360	3360	4350
	11⅞	5300	2770	265	6.4	2.3	1530	2410	3570	4630
	14	6280	2990	390	7.6	2.5	1530	2530	3760	4890
6000 1.8	9½	5310	2730	190	5.2	2.2	1920	2340	3890	4960
	11⅞	6810	3050	320	6.5	2.5	1930	2640	4020	5310
	14	8080	3330	470	7.6	2.7	1940	2900	4140	5630
	16	9220	3600	635	8.7	2.9	1950	3140	4250	5920
6500 1.8	9½	5880	2730	210	5.3	2.3	1920	2340	3890	4960
	11⅞	7540	3050	350	6.5	2.6	1930	2640	4020	5310
	14	8950	3330	515	7.7	2.9	1940	2900	4140	5630
	16	10210	3600	690	8.7	3.1	1950	3140	4250	5920
60 2.0	11⅞	10370	3050	430	6.6	2.9	1930	2640	4020	5310
	14	12370	3330	635	7.7	3.1	1940	2900	4140	5630
	16	14170	3600	860	8.7	3.3	1950	3140	4250	5920
90 2.0	11⅞	15870	3130	645	6.7	3.9	2000	3160	4850	5910
	14	18940	3640	940	7.8	4.1	2040	3640	4870	6370
	16	21700	4120	1275	8.9	4.4	2080	4080	4900	6790
	18(3)	24430	4600	1660	10	4.6	N/A	4530	N/A	7220
	20(3)	27130	5080	2100	11.1	4.8	N/A	4970	N/A	7640

NOTES:
(1) All resistance factors, as per CSA O86 have been applied.
(2) Minimum bearing length at end support is 1½" for BCI® 5000, 6000 and 6500, and 1¾" for BCI® 60 and 90.
(3) BCI® Joists deeper than 16" require web stiffeners at all bearing locations
(4) The BCI® Joist deflection under uniform load may be calculated with the equation to the right:

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

Δ = deflection [in]
w = uniform load [lb/in]
l = clear span [in]
EI = bending stiffness [lb-in²]
K = shear deformation coefficient [lb]

BUILDING CODE EVALUATION REPORTS
- CCMC Report Number 13300-R

About Floor Performance

Homeowner's expectations and opinions vary greatly due to the subjective nature of rating a new floor. Communication with the ultimate end user to determine their expectation is critical. ***Vibration*** is usually the cause of most complaints. Installing lateral bridging may help; however, squeaks may occur if not installed properly. Spacing the joists closer together does little to affect the perception of the floor's performance. The most common methods used to increase the performance and reduce vibration of wood floor systems is to ***increase the joist depth, limit joist deflections, glue and screw a thicker tongue-and-groove subfloor, install the joists vertically plumb with level-bearing supports, and install a direct-attached ceiling to the bottom flange of the joists***.

⅝" Subfloor (Nailed)

Live Load: 40 psf		Simple Span						Continuous Span					
Dead Load: 15 psf		Bare Joist			Applied ½" Gypsum Ceiling			Bare Joist			Applied ½" Gypsum Ceiling		
Joist Series	Depth [in]	12"	16"	19.2"	12"	16"	19.2"	12"	16"	19.2"	12"	16"	19.2"
BCI® 5000 1.7	9½	14'-2"	13'-3"	12'-8"	14'-7"	13'-7"	13'-1"	15'-4"	14'-4"	13'-9"	15'-10"	14'-9"	14'-2"
	11⅞	15'-11"	14'-10"	14'-3"	16'-5"	15'-4"	14'-8"	17'-3"	16'-1"	15'-6"	17'-9"	16'-7"	15'-11"
	14	17'-4"	16'-2"	15'-6"	17'-10"	16'-8"	16'-0"	19'-0"	17'-6"	16'-10"	19'-9"	18'-1"	17'-5"
BCI® 6000 1.8	9½	14'-9"	13'-9"	13'-3"	15'-2"	14'-2"	13'-7"	16'-0"	14'-11"	14'-4"	16'-5"	15'-4"	14'-9"
	11⅞	16'-7"	15'-5"	14'-10"	17'-0"	15'-10"	15'-3"	17'-11"	16'-9"	16'-1"	18'-7"	17'-3"	16'-6"
	14	18'-0"	16'-10"	16'-2"	18'-7"	17'-3"	16'-7"	19'-11"	18'-3"	17'-6"	20'-8"	18'-11"	18'-0"
	16	19'-8"	18'-0"	17'-3"	20'-4"	18'-8"	17'-9"	21'-9"	19'-11"	18'-11"	22'-7"	20'-8"	19'-8"
BCI® 6500 1.8	9½	15'-1"	14'-1"	13'-6"	15'-5"	14'-5"	13'-10"	16'-4"	15'-3"	14'-7"	16'-9"	15'-8"	15'-0"
	11⅞	16'-11"	15'-9"	15'-1"	17'-4"	16'-2"	15'-6"	18'-4"	17'-1"	16'-5"	19'-0"	17'-7"	16'-10"
	14	18'-5"	17'-2"	16'-5"	19'-1"	17'-7"	16'-11"	20'-5"	18'-9"	17'-10"	21'-2"	19'-5"	18'-5"
	16	20'-1"	18'-5"	17'-7"	20'-10"	19'-1"	18'-1"	22'-3"	20'-5"	19'-5"	23'-1"	21'-2"	20'-1"
BCI® 60 2.0	11⅞	17'-7"	16'-5"	15'-9"	18'-0"	16'-10"	16'-2"	19'-5"	17'-10"	17'-1"	20'-0"	18'-4"	17'-6"
	14	19'-6"	17'-11"	17'-2"	20'-1"	18'-5"	17'-7"	21'-7"	19'-9"	18'-9"	22'-4"	20'-5"	19'-5"
	16	21'-3"	19'-5"	18'-5"	21'-11"	20'-1"	19'-1"	23'-7"	21'-7"	20'-6"	24'-4"	22'-4"	21'-2"
BCI® 90 2.0	11⅞	19'-6"	17'-10"	17'-1"	20'-0"	18'-3"	17'-6"	21'-7"	19'-9"	18'-9"	22'-3"	20'-4"	19'-3"
	14	21'-8"	19'-10"	18'-9"	22'-3"	20'-4"	19'-4"	24'-1"	22'-0"	20'-11"	24'-9"	22'-8"	21'-6"
	16	23'-8"	21'-7"	20'-5"	24'-3"	22'-2"	21'-0"	26'-3"	24'-0"	22'-9"	27'-0"	24'-8"	23'-5"
	18	25'-6"	23'-3"	22'-1"	26'-2"	24'-0"	22'-8"	28'-4"	25'-10"	24'-6"	29'-1"	26'-8"	25'-3"
	20	27'-3"	24'-11"	23'-7"	28'-0"	25'-8"	24'-4"	30'-3"	27'-8"	26'-3"	31'-2"	28'-6"	27'-1"

¾" Subfloor (Nailed)

Live Load: 40 psf		Simple Span						Continuous Span					
Dead Load: 15 psf		Bare Joist			Applied ½" Gypsum Ceiling			Bare Joist			Applied ½" Gypsum Ceiling		
Joist Series	Depth [in]	12"	16"	19.2"	12"	16"	19.2"	12"	16"	19.2"	12"	16"	19.2"
BCI® 5000 1.7	9½	14'-10"	13'-10"	13'-3"	15'-2"	14'-2"	13'-7"	16'-0"	15'-0"	14'-4"	16'-6"	15'-4"	14'-9"
	11⅞	16'-8"	15'-6"	14'-10"	17'-1"	15'-11"	15'-3"	18'-0"	16'-10"	16'-1"	18'-8"	17'-4"	16'-7"
	14	18'-2"	16'-11"	16'-2"	18'-9"	17'-5"	16'-8"	20'-1"	18'-5"	17'-6"	20'-9"	19'-1"	18'-1"
BCI® 6000 1.8	9½	15'-5"	14'-5"	13'-9"	15'-9"	14'-9"	14'-1"	16'-8"	15'-7"	14'-11"	17'-1"	16'-0"	15'-4"
	11⅞	17'-4"	16'-2"	15'-5"	17'-9"	16'-6"	15'-10"	18'-11"	17'-6"	16'-9"	19'-6"	17'-11"	17'-2"
	14	19'-0"	17'-7"	16'-10"	19'-7"	18'-0"	17'-3"	21'-1"	19'-3"	18'-3"	21'-9"	20'-0"	18'-11"
	16	20'-9"	19'-0"	18'-0"	21'-5"	19'-8"	18'-7"	23'-0"	21'-1"	19'-11"	23'-9"	21'-10"	20'-8"
BCI® 6500 1.8	9½	15'-9"	14'-8"	14'-1"	16'-1"	15'-0"	14'-4"	17'-0"	15'-11"	15'-3"	17'-5"	16'-3"	15'-7"
	11⅞	17'-8"	16'-5"	15'-9"	18'-1"	16'-10"	16'-1"	19'-5"	17'-10"	17'-1"	20'-0"	18'-4"	17'-6"
	14	19'-6"	17'-11"	17'-2"	20'-1"	18'-5"	17'-7"	21'-7"	19'-9"	18'-9"	22'-3"	20'-5"	19'-4"
	16	21'-3"	19'-5"	18'-5"	21'-11"	20'-1"	19'-0"	23'-7"	21'-7"	20'-5"	24'-3"	22'-4"	21'-1"
BCI® 60 2.0	11⅞	18'-6"	17'-2"	16'-5"	19'-0"	17'-6"	16'-9"	20'-6"	18'-9"	17'-10"	21'-1"	19'-4"	18'-3"
	14	20'-8"	18'-10"	17'-11"	21'-2"	19'-5"	18'-4"	22'-10"	20'-11"	19'-9"	23'-6"	21'-7"	20'-5"
	16	22'-6"	20'-7"	19'-5"	23'-1"	21'-2"	20'-0"	24'-11"	22'-10"	21'-7"	25'-8"	23'-6"	22'-3"
BCI® 90 2.0	11⅞	20'-8"	18'-10"	17'-10"	21'-1"	19'-3"	18'-2"	22'-10"	20'-11"	19'-9"	23'-5"	21'-5"	20'-3"
	14	23'-0"	20'-11"	19'-9"	23'-6"	21'-6"	20'-3"	25'-6"	23'-3"	22'-0"	26'-1"	23'-10"	22'-7"
	16	25'-0"	22'-10"	21'-7"	25'-7"	23'-5"	22'-1"	27'-9"	25'-5"	24'-0"	28'-5"	26'-0"	24'-7"
	18	27'-0"	24'-8"	23'-3"	27'-7"	25'-3"	23'-11"	29'-11"	27'-5"	25'-10"	30'-7"	28'-1"	26'-7"
	20	28'-11"	26'-4"	24'-11"	29'-6"	27'-0"	25'-7"	32'-0"	29'-3"	27'-8"	32'-10"	30'-1"	28'-5"

NOTES:

- Tables are based on a uniform 40 psf live load and 15 psf dead load (Standard Term Load Duration).
- Floor tile will increase dead load and may require specific deflection limits.
- Minimum bearing length at end supports is 1½" for BCI® 5000, 6000 and 6500, and 1¾" for BCI® 60 and 90.
- Stiffeners required at **ALL** bearing locations for joists deeper than 16" (end bearing, interior bearing, and concentrated load locations).
- Maximum spans are measured in **between the supports** (clearspan) and are based on uniformly loaded joists.
- Live load deflection is limited to L/360 and Total load deflection to L/240. Deflections are based on the bare joist stiffness.
- Spans shown are in accordance with NBCC2005: Part 9, and standard CAN-CSA O86-01.
- When using continuous spans over an intermediate bearing, the shortest span shall not be less than 50% of the longest adjacent span. For other conditions, please contact your distributor or Boise Cascade EWP, for assistance.
- It may be possible to exceed the limitations of these tables by analyzing a specific application with the Boise Cascade BC CALC® software and Boise Cascade WoodSizer software.
- The subfloor shall be CSA rated Oriented Strand Board (OSB), Canadian Softwood Plywood (CSP), or Douglas Fir Plywood (DFP).

WARNING: Use of Span Tables for Commercial Projects (NBCC2005: Part 4)

All projects within the scope of Part 4 of the National Building Code of Canada (NBCC) must consider the effects of concentrated loads, as stipulated in article 4.1.5.10. The designer of record must verify the effects of a concentrated load on the joists on all projects within the scope of Part 4 of NBCC (2005). Table 4.1.5.10 in NBCC (2005) lists concentrated loads that shall be analyzed with respect to the intended use of the floor. Given the numerous possible permutations, the span tables listed above do not take the effects of concentrated loads into consideration.

Residential Floor Span Tables (Glued & Nailed)

About Floor Performance

Homeowner's expectations and opinions vary greatly due to the subjective nature of rating a new floor. Communication with the ultimate end user to determine their expectation is critical. ***Vibration*** is usually the cause of most complaints. Installing lateral bridging may help; however, squeaks may occur if not installed properly. Spacing the joists closer together does little to affect the perception of the floor's performance. The most common methods used to increase the performance and reduce vibration of wood floor systems is to ***increase the joist depth, limit joist deflections, glue and screw a thicker tongue-and-groove subfloor, install the joists vertically plumb with level-bearing supports, and install a direct-attached ceiling to the bottom flange of the joists***.

⅝" Subfloor (Glued & Nailed)

Live Load: 40 psf		Simple Span						Continuous Span					
Dead Load: 15 psf		Bare Joist			Applied ½" Gypsum Ceiling			Bare Joist			Applied ½" Gypsum Ceiling		
Joist Series	Depth [in]	12"	16"	19.2"	12"	16"	19.2"	12"	16"	19.2"	12"	16"	19.2"
5000 1.7	9½	15'-2"	14'-4"	13'-11"	15'-8"	14'-10"	14'-4"	16'-5"	15'-6"	15'-0"	17'-0"	16'-1"	15'-7"
	11⅞	17'-0"	16'-1"	15'-6"	17'-7"	16'-7"	16'-1"	18'-6"	17'-4"	16'-10"	19'-3"	18'-0"	17'-5"
	14	18'-7"	17'-5"	16'-10"	19'-4"	18'-0"	17'-5"	20'-6"	19'-1"	18'-4"	21'-5"	20'-0"	19'-2"
6000 1.8	9½	15'-8"	14'-10"	14'-4"	16'-2"	15'-3"	14'-9"	17'-0"	16'-0"	15'-6"	17'-6"	16'-6"	16'-0"
	11⅞	17'-7"	16'-7"	16'-0"	18'-1"	17'-1"	16'-6"	19'-3"	17'-11"	17'-4"	20'-0"	18'-7"	17'-11"
	14	19'-4"	18'-0"	17'-4"	20'-1"	18'-8"	17'-11"	21'-4"	19'-10"	19'-0"	22'-3"	20'-8"	19'-10"
	16	21'-0"	19'-6"	18'-8"	21'-10"	20'-4"	19'-5"	23'-3"	21'-7"	20'-8"	24'-2"	22'-6"	21'-7"
6500 1.8	9½	16'-0"	15'-1"	14'-7"	16'-5"	15'-6"	14'-11"	17'-3"	16'-4"	15'-9"	17'-9"	16'-9"	16'-3"
	11⅞	17'-10"	16'-10"	16'-3"	18'-5"	17'-4"	16'-9"	19'-8"	18'-3"	17'-7"	20'-5"	19'-0"	18'-2"
	14	19'-9"	18'-3"	17'-8"	20'-5"	19'-0"	18'-2"	21'-10"	20'-3"	19'-5"	22'-8"	21'-1"	20'-2"
	16	21'-5"	19'-10"	19'-0"	22'-3"	20'-8"	19'-9"	23'-9"	22'-0"	21'-1"	24'-8"	22'-11"	22'-0"
60 2.0	11⅞	18'-7"	17'-5"	16'-10"	19'-2"	17'-10"	17'-3"	20'-7"	19'-1"	18'-3"	21'-3"	19'-9"	18'-11"
	14	20'-8"	19'-2"	18'-4"	21'-4"	19'-10"	18'-11"	22'-11"	21'-2"	20'-3"	23'-8"	22'-0"	21'-0"
	16	22'-6"	20'-10"	19'-11"	23'-3"	21'-7"	20'-8"	24'-11"	23'-1"	22'-1"	25'-9"	23'-11"	22'-11"
90 2.0	11⅞	20'-5"	18'-10"	18'-0"	20'-11"	19'-4"	18'-6"	22'-7"	20'-11"	19'-11"	23'-3"	21'-6"	20'-7"
	14	22'-8"	20'-11"	19'-11"	23'-3"	21'-6"	20'-7"	25'-1"	23'-2"	22'-2"	25'-10"	23'-11"	22'-10"
	16	24'-8"	22'-9"	21'-8"	25'-4"	23'-5"	22'-4"	27'-4"	25'-3"	24'-1"	28'-1"	26'-0"	24'-10"
	18	26'-7"	24'-6"	23'-4"	27'-4"	25'-3"	24'-1"	29'-5"	27'-2"	25'-11"	30'-3"	28'-0"	26'-9"
	20	28'-4"	26'-2"	24'-11"	29'-2"	27'-0"	25'-9"	31'-6"	29'-0"	27'-8"	32'-4"	29'-11"	28'-7"

¾" Subfloor (Glued & Nailed)

Live Load: 40 psf		Simple Span						Continuous Span					
Dead Load: 15 psf		Bare Joist			Applied ½" Gypsum Ceiling			Bare Joist			Applied ½" Gypsum Ceiling		
Joist Series	Depth [in]	12"	16"	19.2"	12"	16"	19.2"	12"	16"	19.2"	12"	16"	19.2"
5000 1.7	9½	16'-2"	15'-3"	14'-8"	16'-7"	15'-8"	15'-0"	17'-5"	16'-5"	15'-10"	18'-0"	17'-0"	16'-0"
	11⅞	18'-0"	17'-0"	16'-5"	18'-8"	17'-7"	16'-11"	19'-11"	18'-6"	17'-9"	20'-8"	19'-4"	18'-2"
	14	20'-0"	18'-7"	17'-9"	20'-9"	19'-4"	18'-6"	22'-1"	20'-6"	19'-7"	23'-0"	21'-5"	19'-10"
6000 1.8	9½	16'-8"	15'-8"	15'-2"	17'-1"	16'-2"	15'-7"	18'-0"	17'-0"	16'-4"	18'-7"	17'-6"	16'-10"
	11⅞	18'-9"	17'-6"	16'-11"	19'-4"	18'-0"	17'-5"	20'-8"	19'-2"	18'-4"	21'-5"	20'-0"	19'-1"
	14	20'-9"	19'-3"	18'-4"	21'-6"	20'-0"	19'-1"	22'-11"	21'-3"	20'-4"	23'-10"	22'-2"	21'-2"
	16	22'-7"	20'-11"	20'-0"	23'-5"	21'-9"	20'-9"	25'-0"	23'-2"	22'-1"	25'-11"	24'-2"	23'-1"
6500 1.8	9½	16'-11"	15'-11"	15'-4"	17'-4"	16'-4"	15'-9"	18'-4"	17'-3"	16'-8"	19'-0"	17'-9"	17'-1"
	11⅞	19'-1"	17'-10"	17'-2"	19'-9"	18'-4"	17'-8"	21'-1"	19'-7"	18'-8"	21'-10"	20'-4"	19'-5"
	14	21'-2"	19'-8"	18'-9"	21'-11"	20'-4"	19'-5"	23'-5"	21'-9"	20'-9"	24'-3"	22'-7"	21'-7"
	16	23'-0"	21'-4"	20'-4"	23'-10"	22'-2"	21'-2"	25'-6"	23'-7"	22'-6"	26'-4"	24'-6"	23'-5"
60 2.0	11⅞	20'-0"	18'-6"	17'-9"	20'-7"	19'-1"	18'-2"	22'-1"	20'-6"	19'-6"	22'-9"	21'-2"	20'-2"
	14	22'-2"	20'-6"	19'-7"	22'-10"	21'-2"	20'-2"	24'-6"	22'-9"	21'-8"	25'-3"	23'-6"	22'-5"
	16	24'-2"	22'-4"	21'-3"	24'-10"	23'-1"	22'-0"	26'-8"	24'-9"	23'-7"	27'-6"	25'-7"	24'-5"
90 2.0	11⅞	21'-10"	20'-2"	19'-3"	22'-4"	20'-8"	19'-8"	24'-2"	22'-4"	21'-4"	24'-9"	22'-11"	21'-10"
	14	24'-3"	22'-5"	21'-4"	24'-10"	23'-0"	21'-10"	26'-11"	24'-10"	23'-7"	27'-6"	25'-6"	24'-3"
	16	26'-5"	24'-4"	23'-2"	27'-0"	25'-0"	23'-10"	29'-3"	27'-0"	25'-8"	29'-11"	27'-9"	26'-5"
	18	28'-5"	26'-3"	24'-11"	29'-1"	26'-11"	25'-8"	31'-6"	29'-1"	27'-8"	32'-3"	29'-10"	28'-5"
	20	30'-4"	28'-0"	26'-7"	31'-1"	28'-9"	27'-5"	34'-0"	31'-0"	29'-6"	35'-1"	31'-11"	30'-5"

WARNING: Use of Span Tables for Commercial Projects (NBCC2005: Part 4)

All projects within the scope of Part 4 of the National Building Code of Canada (NBCC) must consider the effects of concentrated loads, as stipulated in article 4.1.5.10. The designer of record must verify the effects of a concentrated load on the joists on all projects within the scope of Part 4 of NBCC (2005). Table 4.1.5.10 in NBCC (2005) lists concentrated loads that shall be analyzed with respect to the intended use of the floor. Given the numerous possible permutations, the span tables listed above do not take the effects of concentrated loads into consideration.

NOTES:

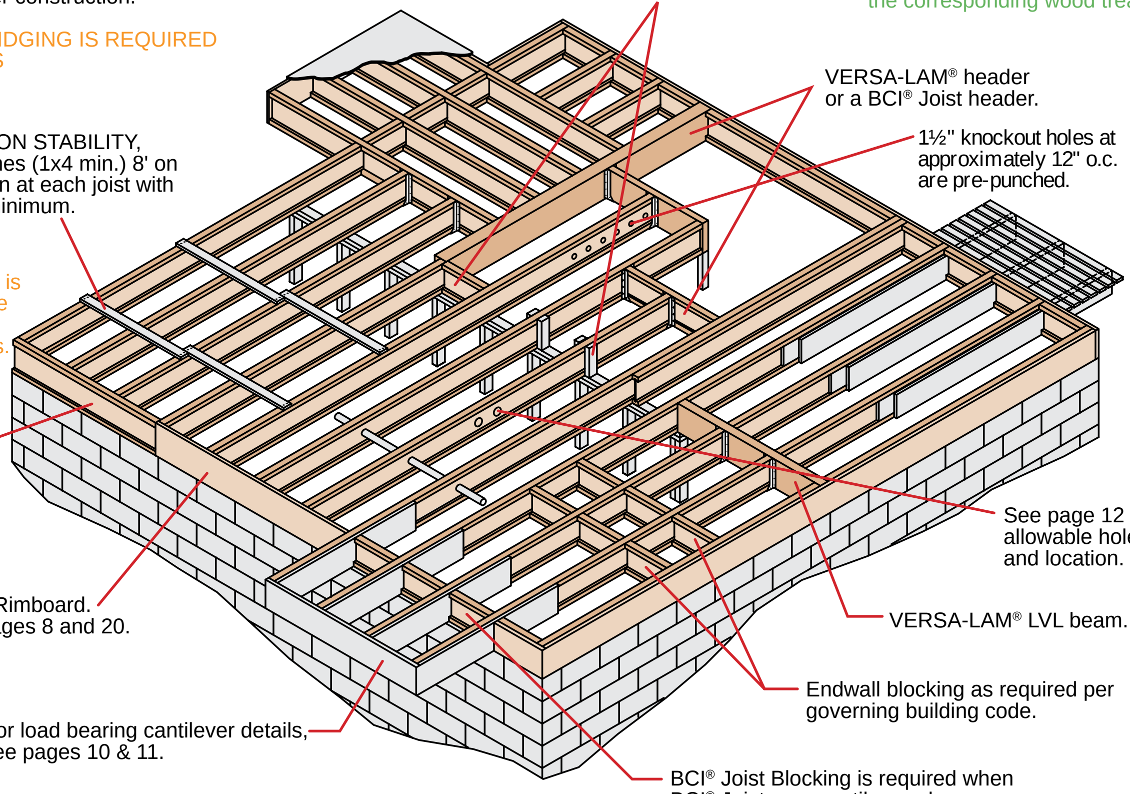
- Tables are based on a uniform 40 psf live load and 15 psf dead load (Standard Term Load Duration).
- Floor tile will increase dead load and may require specific deflection limits.
- Minimum bearing length at end supports is 1½" for BCI® 5000, 6000 and 6500, and 1¾" for BCI® 60 and 90.
- Stiffeners required at **ALL** bearing locations for joists deeper than 16" (end bearing, interior bearing, and concentrated load locations).
- Maximum spans are measured in **between the supports** (clearspan) and are based on uniformly loaded joists.
- Live load deflection is limited to L/360 and Total load deflection to L/240. Deflections are based on the bare joist stiffness.
- Spans shown are in accordance with NBCC2005: Part 9, and standard CAN-CSA O86-01.
- When using continuous spans over an intermediate bearing, the shortest span shall not be less than 50% of the longest adjacent span. For other conditions, please contact your distributor or Boise Cascade EWP, for assistance.
- It may be possible to exceed the limitations of these tables by analyzing a specific application with the Boise Cascade BC CALC® software and Boise Cascade WoodSizer software.
- The subfloor shall be CSA rated Oriented Strand Board (OSB), Canadian Softwood Plywood (CSP), or Douglas Fir Plywood (DFP).
- Subfloor adhesive shall comply with CGSB standard CAN-CGSB 71.26-M88 "Adhesives for Field-gluing Plywood to Lumber Framing for Floor Systems" or APA Performance Specification AFG-01.

BCI® Joists

NOTE
The illustration below is showing several suggested applications for the Boise Cascade EWP products. It is not intended to show an actual house under construction.

When installing Boise Cascade EWP products with treated wood, use only connectors/fasteners that are approved for use with the corresponding wood treatment.

NO MIDSPAN BRIDGING IS REQUIRED FOR BCI® JOISTS



BCI® Joists, VERSA-LAM® and ALLJOIST® must be stored, installed and used in accordance with the Boise Cascade EWP Installation Guide, building codes, and to the extent not inconsistent with the Boise Cascade EWP Installation Guide, usual and customary building practices and standards. VERSA-LAM®, ALLJOIST®, and BCI® Joists must be wrapped, covered, and stored off of the ground on stickers at all times prior to installation. VERSA-LAM®, ALLJOIST® and BCI® Joists are intended only for applications that assure no exposure to weather or the elements and an environment that is free from moisture from any source, or any pest, organism or substance which degrades or damages wood or glue bonds. Failure to correctly store, use or install VERSA-LAM®, ALLJOIST®, and BCI® Joist in accordance with the Boise Cascade EWP Installation Guide will void the limited warranty.

SAFETY WARNING

DO NOT ALLOW WORKERS ON BCI® JOISTS UNTIL ALL HANGERS, BCI® RIM JOISTS, RIM BOARDS, BCI® BLOCKING PANELS, X-BRACING AND TEMPORARY 1x4 STRUT LINES ARE INSTALLED AS SPECIFIED BELOW. SERIOUS ACCIDENTS CAN RESULT FROM INSUFFICIENT ATTENTION TO PROPER BRACING DURING CONSTRUCTION. ACCIDENTS CAN BE AVOIDED UNDER NORMAL CONDITIONS BY FOLLOWING THESE GUIDELINES:

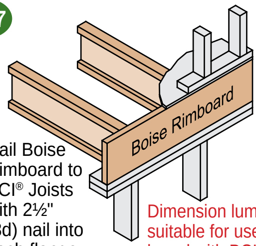
- Build a braced end wall at the end of the bay, or permanently install the first eight feet of BCI® Joists and the first course of sheathing. As an alternate, temporary sheathing may be nailed to the first four feet of BCI® Joists at the end of the bay.
- All hangers, BCI® rim joists, rim boards, BCI® blocking panels, and x-bracing must be completely installed and properly nailed as each BCI® Joist is set.
- Install temporary 1x4 strut lines at no more than eight feet on center as additional BCI® Joists are set. Nail the strut lines to the sheathed area, or braced end wall, and to each BCI® Joist with two 2½" (8d) nails.
- The ends of cantilevers must be temporarily secured by strut lines on both the top and bottom flanges.
- Straighten the BCI® Joists to within ½ inch of true alignment before attaching strut lines and sheathing.
- Remove the temporary strut lines only as required to install the permanent sheathing.
- Failure to install temporary bracing may result in sideways buckling or roll-over under light construction loads.
- Do not stack construction materials (sheathing, drywall, etc) in the middle of BCI® Joist spans, contact Boise Cascade EWP Engineering for proper storage and shoring information.

Floor Framing Details

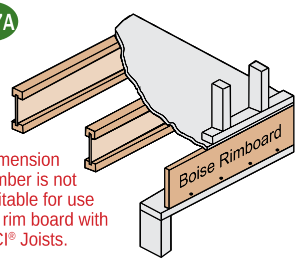
Additional floor framing details available with BC FRAMER® software

END BEARING DETAILS

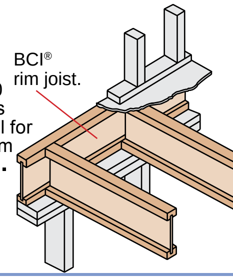
F07



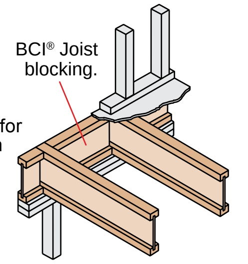
F07A



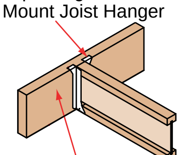
F02



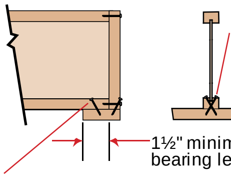
F01



F27A

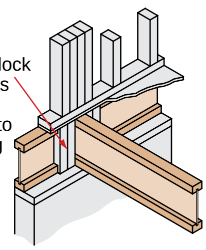


F52

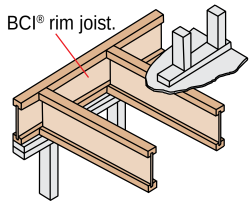


To limit splitting flange, start nails at least 1½" from end. Nails may need to be driven at an angle to limit splitting of bearing plate.

F08



F03

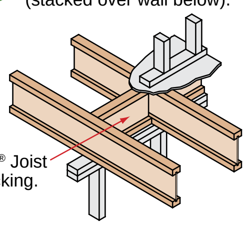


Note: BCI® floor joist must be designed to carry wall above when not stacked over wall below.

INTERMEDIATE BEARING DETAILS

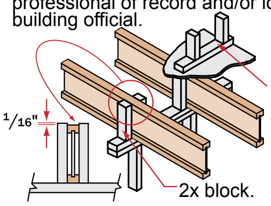
F06

For load bearing wall above (stacked over wall below).



F09

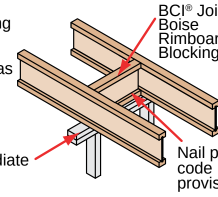
Blocking may be required, consult design professional of record and/or local building official.



Nail block with one 3" (10d) nail into each flange.

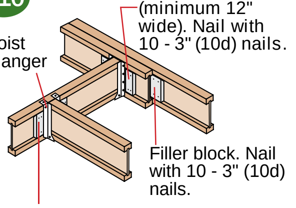
Double Squash Block Vertical Load [lb/ft]				
Size	Joist Spacing [in]			
	12	16	19.2	24
2x4	6457	4843	4036	3229
2x6	10140	7600	6330	5070

1. Squash blocks are to be in full contact with upper floor and lower wall plate.
2. Capacities shown are for a double squash blocks at each joist, SPF or better.



Cross bracing OK as blocking only if support below is not a braced wall panel or shear wall and no wall exists above.

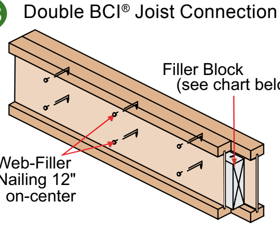
F10



Backer block required where top flange joist hanger load exceeds 250 lbs. Install tight to top flange.

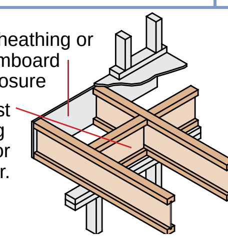
F58

Double BCI® Joist Connection



Connection valid for all applications, contact Boise Cascade EWP engineering for specific conditions.

F05



For load bearing cantilever, see pages 10 and 11. Uplift on backspan shall be considered in all cantilever designs.

BCI® RIM JOISTS AND BCI® BLOCKING

Depth [in]	Series	Vertical Load Resistance No W.S.(1)	Vertical Load Resistance W.S.(2)
9½"	5000 1.7, 6000 1.8, 6500 1.8	2900	N/A
11⅞"	5000 1.7, 6000 1.8, 6500 1.8	2700	N/A
	60 2.0, 90 2.0	3150	N/A
14"	5000 1.7, 6000 1.8, 6500 1.8	2500	N/A
	60 2.0, 90 2.0	3050	N/A
16"	6000 1.8, 6500 1.8	2400	3150
	60 2.0, 90 2.0	2900	3400
18"	60 2.0, 90 2.0	N/A	3400
20"	90 2.0	N/A	3400

(1) No web stiffeners required
(2) Web stiffeners required at each end of blocking, values not applicable for rim joists
N/A: Not applicable

LATERAL SUPPORT

- BCI® Joists shall be laterally supported at the ends with hangers, rimboard, BCI® rim joists or blocking panels. BCI® blocking panels or rimboard are required at cantilever supports.
- Blocking may be required at intermediate bearings for floor diaphragm as per Code, consult local building official.

MINIMUM BEARING LENGTH FOR BCI® JOISTS

- Minimum bearing length at end support is 1½" for BCI® 5000, 6000 and 6500, and 1¾" for BCI® 60 and 90. 3½ inches is required at cantilever and intermediate supports.
- Longer bearing lengths allow higher reaction values. Refer to the building code evaluation report or the BC CALC® software.

NAILING REQUIREMENTS

- BCI® rim joist, rim board or closure panel to BCI® joist:
  - Rims or closure panel 1¼ inches thick and less:
    2-2½" (8d) nails, one each in the top and bottom flange.
  - BCI® 5000 rim joist: 2-3" (10d) box nails, one each in the top and bottom flange.
  - BCI® 6000, 60 rim joist: 2-3½" (16d) box nails, one each in the top and bottom flange.
  - BCI® 6500, 90 rim joist: Toe-nail top flange to rim joist with 2-3" (10d) box nails, one each side of flange.
- BCI® rim joist, rim board or BCI® blocking panel to support:
  - 2½" (8d) nails at 6 inches on center.
  - When used for shear transfer, follow the building designer's specification.
- BCI® joist to support:
  - 2-2½" (8d) nails, one on each side of the web, placed 1½ inches minimum from the end of the BCI® Joist to limit splitting.
- Sheathing to BCI® joist:
  - Prescriptive residential floor sheathing nailing requires 2½" (8d) common nails @ 6" o.c. on edges and @ 12" o.c. in the field as per Code.
  - BCI® 5000 joist: Maximum nail spacing is 18 inches on center.
  - BCI® 6000, 6500, 60, 90 joist: Maximum nail spacing is 24 inches on center.
  - 14 gauge staples may be substituted for 2½" (8d) nails if the staples penetrate at least 1 inch into the joist.
  - Wood screws may be acceptable, contact local building official and/or Boise Cascade EWP Engineering for further information.

BACKER AND FILLER BLOCK DIMENSIONS

Series	Backer Block Thickness	Filler Block Thickness
5000 1.7	¾" or ⅞" wood panels	Two ¾" wood panels or 2x_
6000 1.8	1⅛" or two ½" wood panels	2x_ + 7/16" or ½" wood panel
6500 1.8	1⅛" or two ⅝" wood panels	2x_ + ⅝" or ¾" wood panel
60 2.0	1⅛" or two ½" wood panels	2x_ + 7/16" or ½" wood panel
90 2.0	2x_ lumber	Double 2x_ lumber

- Cut backer and filler blocks to a maximum depth equal to the web depth minus ¼" to avoid a forced fit.

WEB STIFFENER REQUIREMENTS

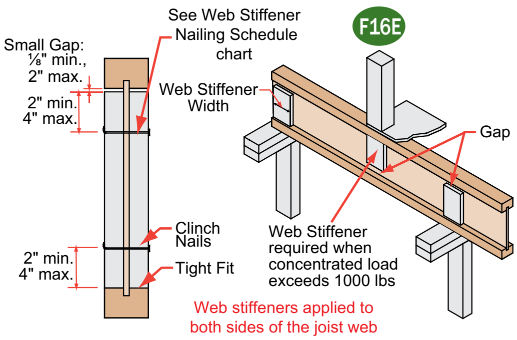
- See *Web Stiffener Requirements* on page 9.

PROTECT BCI® JOISTS FROM THE WEATHER

- BCI® Joists are intended only for applications that provide permanent protection from the weather. Bundles of BCI® Joists should be covered and stored off of the ground on stickers.

Web Stiffener Requirements

F16E



Web Stiffener Specifications			
Series	For Structral Capacity (Min. Thick)	Lateral Restraint in Hanger	Minimum Width
5000 1.7	⅝"	¾"	2 5/16"
6000 1.8	¾"	⅞"	2 5/16"
6500 1.8	¾"	1" or 1⅛"	2 5/16"
60 2.0	¾"	⅞"	2 5/16"
90 2.0	2x4 lumber (vertical)		

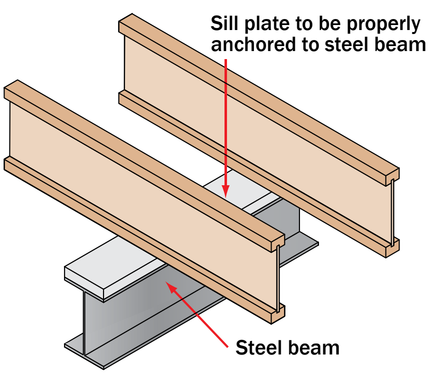
- Web stiffeners are optional except as noted below.
- Web stiffeners are always required for all 18" and 20" BCI® Joist at all bearing locations.
- Web stiffeners are always required in hangers that do not extend up to support the top flange of the BCI® Joist. Web stiffeners may be required with certain sloped or skewed hangers or to achieve uplift values. Refer to the hanger manufacturer's installation requirements.
- Web stiffeners may be cut from structural rated wood panels, engineered rimboard or 2x lumber (BCI® 90 only).
- For Structural Capacity: Web stiffeners needed to increase the BCI® Joist's reaction capacity at a specific bearing location.
- Web stiffeners are always required in certain roof applications. *See Roof Framing Details* on page 13 & 14.
- Web stiffeners are always required under concentrated loads that exceed 1000 pounds. Install the web stiffeners snug to the top flange in this situation. Follow the nailing schedule for intermediate bearings.
- Web stiffeners may be used to increase allowable factored bearing resistances. See *Factored Resistances* on page 4 or the BC CALC® software.

Web Stiffener Nailing Schedule			
BCI® Joist Series	Joist Depth	Bearing Location	
		End	Intermediate
5000 1.7	9½"	2-2½" (8d)	2-2½" (8d)
	11⅞"	2-2½" (8d)	3-2½" (8d)
	14"	2-2½" (8d)	5-2½" (8d)
6000 1.8	9½"	2-2½" (8d)	2-2½" (8d)
	11⅞"	2-2½" (8d)	3-2½" (8d)
	14"	2-2½" (8d)	5-2½" (8d)
	16"	2-2½" (8d)	6-2½" (8d)
6500 1.8	9½"	2-2½" (8d)	2-2½" (8d)
	11⅞"	2-2½" (8d)	3-2½" (8d)
	14"	2-2½" (8d)	5-2½" (8d)
	16"	2-2½" (8d)	6-2½" (8d)
60 2.0	11⅞"	2-2½" (8d)	3-2½" (8d)
	14"	2-2½" (8d)	5-2½" (8d)
	16"	2-2½" (8d)	6-2½" (8d)
90 2.0	11⅞"	3-3½" (16d)	3-3½" (16d)
	14"	5-3½" (16d)	5-3½" (16d)
	16"	6-3½" (16d)	6-3½" (16d)
	18"	7-3½" (16d)	7-3½" (16d)
	20"	8-3½" (16d)	8-3½" (16d)

Connection Details

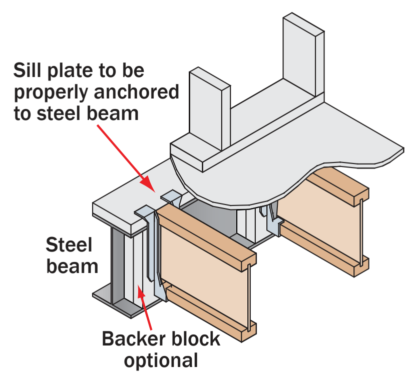
F15D

Connection on Steel Beam



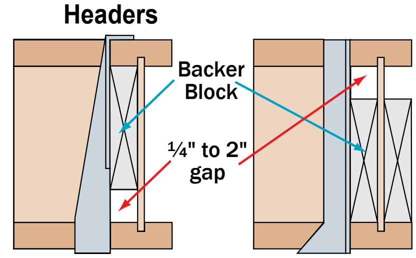
F15E

Connection with Hanger on Steel Beam



F16D

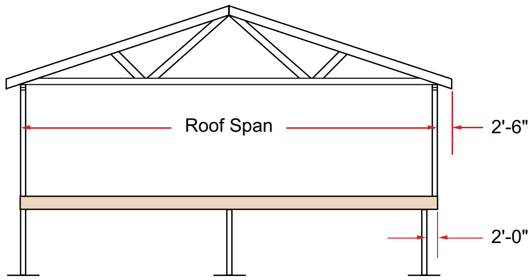
Hanger Connections to BCI® Headers



"Top Mount" Backer block shall be tight to bottom of top flange with ¼" to 2" gap at top of bottom flange.

"Face Mount" Backer block shall be tight to bottom of top flange with ¼" to 2" gap at top of bottom flange.

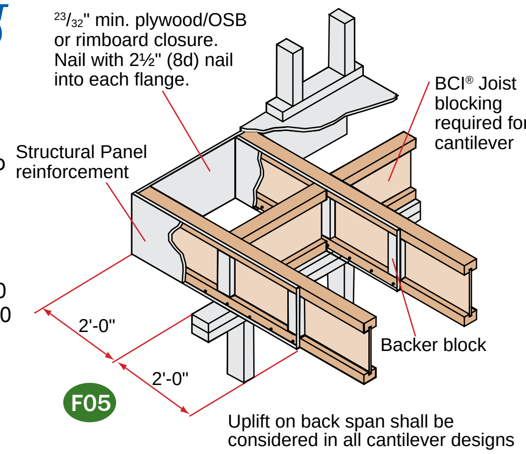
Reinforced Load Bearing Cantilever Detail



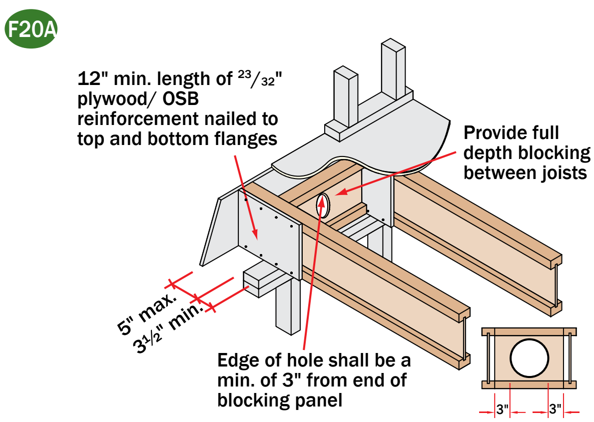
- The tables and details on pages 10 and 11 indicate the type of reinforcements, if any, that are required for load-bearing cantilevers up to a maximum length of 2'-0". Cantilevers longer than 2'-0" cannot be reinforced. **However, longer cantilevers with lower loads may be allowable without reinforcement. Analyze specific applications with the BC CALC® software.**

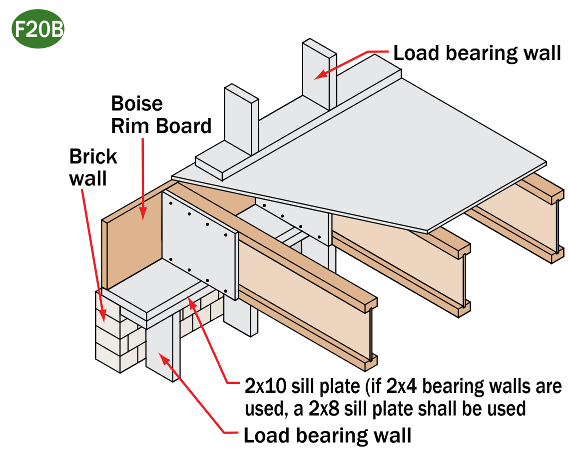
PLYWOOD / OSB REINFORCEMENT
(If Required per Table on page 11)

- $^{23}/_{32}$" Min. x 48" long plywood / OSB rated sheathing must match the full depth of the BCI® Joist. Nail to the BCI® Joist with 2½" (8d) nails at 6" o.c. and nail with 4-2½" (8d) nails into backer block. When reinforcing both sides, stagger nails to limit splitting. Install with horizontal face grain.
- These requirements assume a 100 PLF wall load and apply to BCI® 5000 1.7, 6000 1.8, 6500 1.8, 60 2.0 and 90 2.0 series joists. Additional support may be required for other loadings. See BC CALC® software.
- Contact Boise Cascade EWP Engineering for reinforcement requirements on BCI® Joist depths greater than 16".



Brick Ledge Load Bearing Cantilever Details

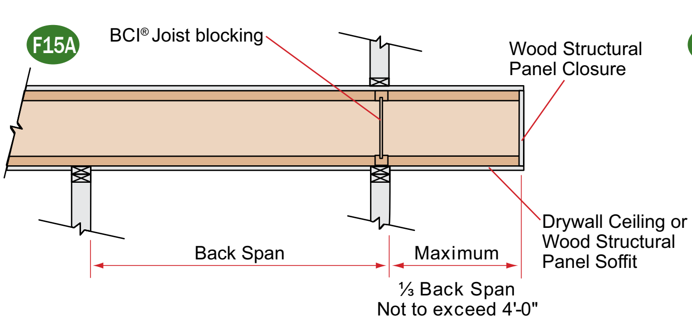


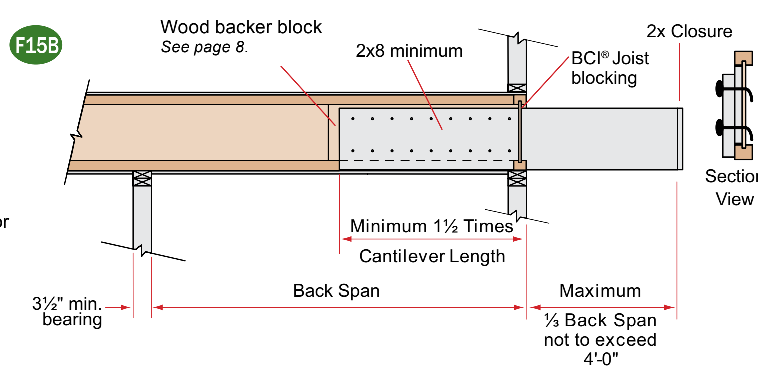


Non-Load Bearing Wall Cantilever Details

BCI® Joists are intended only for applications that provide permanent protection from the weather.

Fasten the 2x8 minimum to the BCI® Joist by nailing through the backer block and joist web with 2 rows of 3" (10d) nails at 6" on center. Use 3½" (16d) nails with BCI® 90 2.0 joists. Clinch all nails.





- These details apply to cantilevers with uniform loads only.
- It may be possible to exceed the limitations of these details by analyzing a specific application with the BC CALC® software.

Reinforced Load Bearing Cantilever Table

BCI® Joists

KEY TO TABLE
- **0** No Reinforcement Required
- **WS** Web Stiffeners at Support
- **1** Web Stiffeners Plus One Reinforcer
- **2** Web Stiffeners Plus Two Reinforcers
- **X** Use Deeper Joists or Closer Spacing

Joist Depth [in]	Joist Series	Roof Truss Span [ft]	Specified Snow Load [psf] 30			40			50		
			Joist Spacing [in]								
			16	19.2	24	16	19.2	24	16	19.2	24
9½"	BCI® 5000 1.7	24	0	0	WS	0	WS	X	0	X	X
		26	0	0	X	0	X	X	0	X	X
		28	0	0	X	0	X	X	X	X	X
		30	0	0	X	0	X	X	X	X	X
		32	0	WS	X	X	X	X	X	X	X
		34	0	X	X	X	X	X	X	X	X
		36	0	X	X	X	X	X	X	X	X
		38	0	X	X	X	X	X	X	X	X
		40	0	X	X	X	X	X	X	X	X
		42	0	X	X	X	X	X	X	X	X
	BCI® 6000 1.8	24	0	0	0	0	0	WS	0	0	X
		26	0	0	0	0	0	1	0	WS	X
		28	0	0	WS	0	0	X	0	WS	X
		30	0	0	WS	0	0	X	0	X	X
		32	0	0	WS	0	0	X	0	X	X
		34	0	0	1	0	WS	X	0	X	X
		36	0	0	X	0	1	X	WS	X	X
		38	0	0	X	0	X	X	X	X	X
		40	0	0	X	0	X	X	X	X	X
		42	0	WS	X	0	X	X	X	X	X
	BCI® 6500 1.8	24	0	0	0	0	0	WS	0	0	1
		26	0	0	0	0	0	1	0	WS	X
		28	0	0	WS	0	0	1	0	WS	X
		30	0	0	WS	0	0	1	0	1	X
		32	0	0	WS	0	WS	X	0	1	X
		34	0	0	1	0	WS	X	0	X	X
		36	0	0	1	0	1	X	WS	X	X
		38	0	0	1	0	1	X	1	X	X
		40	0	0	2	0	1	X	1	X	X
		42	0	WS	X	0	X	X	X	X	X
11⅞"	BCI® 5000 1.7	24	0	0	WS	0	0	WS	0	WS	X
		26	0	0	WS	0	WS	X	0	WS	X
		28	0	0	WS	0	WS	X	0	WS	X
		30	0	0	WS	0	WS	X	WS	X	X
		32	0	0	WS	0	WS	X	WS	X	X
		34	0	WS	WS	0	WS	X	WS	X	X
		36	0	WS	X	WS	X	X	WS	X	X
		38	0	WS	X	WS	X	X	X	X	X
		40	0	WS	X	WS	X	X	X	X	X
		42	0	WS	X	WS	X	X	X	X	X
	BCI® 6000 1.8	24	0	0	0	0	0	WS	0	0	WS
		26	0	0	0	0	0	WS	0	0	1
		28	0	0	WS	0	0	WS	0	WS	1
		30	0	0	WS	0	0	WS	0	WS	2
		32	0	0	WS	0	0	1	0	WS	X
		34	0	0	WS	0	WS	1	0	1	X
		36	0	0	WS	0	WS	1	0	1	X
		38	0	0	WS	0	WS	X	WS	1	X
		40	0	0	1	0	WS	X	WS	X	X
		42	0	0	1	0	1	X	1	X	X
	BCI® 6500 1.8	24	0	0	0	0	0	WS	0	0	WS
		26	0	0	0	0	0	WS	0	WS	1
		28	0	0	WS	0	0	WS	0	WS	1
		30	0	0	WS	0	0	WS	0	WS	X
		32	0	0	WS	0	0	1	0	WS	X
		34	0	0	WS	0	WS	1	0	1	X
		36	0	0	WS	0	WS	1	WS	1	X
		38	0	0	WS	0	WS	X	WS	1	X
		40	0	0	1	0	WS	X	WS	2	X
		42	0	WS	1	0	1	X	1	2	X
	BCI® 60 2.0	24	0	0	0	0	0	WS	0	0	WS
		26	0	0	WS	0	0	WS	0	WS	1
		28	0	0	WS	0	0	WS	0	WS	1
		30	0	0	WS	0	0	WS	0	WS	X
		32	0	0	WS	0	WS	1	0	WS	X
		34	0	0	WS	0	WS	1	0	1	X
		36	0	0	WS	0	WS	X	WS	1	X
		38	0	0	WS	0	WS	X	WS	1	X
		40	0	0	1	0	WS	X	WS	2	X
		42	0	WS	1	0	1	X	1	2	X
	BCI® 90 2.0	24	0	0	0	0	0	0	0	0	WS
		26	0	0	0	0	0	0	0	0	1
		28	0	0	0	0	0	0	0	0	1
		30	0	0	0	0	0	WS	0	0	2
		32	0	0	0	0	0	1	0	0	X
		34	0	0	0	0	0	1	0	0	X
		36	0	0	0	0	0	2	0	1	X
		38	0	0	WS	0	0	2	0	2	X
		40	0	0	WS	0	0	X	0	2	X
		42	0	0	1	0	0	X	0	X	X

Joist Depth [in]	Joist Series	Roof Truss Span [ft]	Specified Snow Load [psf] 30			40			50		
			Joist Spacing [in]								
			16	19.2	24	16	19.2	24	16	19.2	24
14"	BCI® 5000 1.7	24	0	0	WS	0	0	WS	0	WS	1
		26	0	0	WS	0	0	WS	0	WS	X
		28	0	0	WS	0	WS	WS	0	WS	X
		30	0	0	WS	0	WS	1	0	WS	X
		32	0	0	WS	0	WS	X	WS	WS	X
		34	0	0	WS	0	WS	X	WS	1	X
		36	0	0	WS	0	WS	X	WS	1	X
		38	0	WS	WS	WS	WS	X	WS	X	X
		40	0	WS	1	WS	1	X	WS	X	X
		42	0	WS	X	WS	1	X	1	X	X
	BCI® 6000 1.8	24	0	0	0	0	0	WS	0	0	WS
		26	0	0	0	0	0	WS	0	0	WS
		28	0	0	WS	0	0	WS	0	WS	1
		30	0	0	WS	0	0	WS	0	WS	1
		32	0	0	WS	0	0	WS	0	WS	1
		34	0	0	WS	0	WS	WS	0	WS	X
		36	0	0	WS	0	WS	1	0	WS	X
		38	0	0	WS	0	WS	1	WS	1	X
		40	0	0	WS	0	WS	X	WS	1	X
		42	0	0	WS	0	WS	X	WS	1	X
	BCI® 6500 1.8	24	0	0	0	0	0	WS	0	0	WS
		26	0	0	0	0	0	WS	0	0	WS
		28	0	0	WS	0	0	WS	0	WS	1
		30	0	0	WS	0	0	WS	0	WS	1
		32	0	0	WS	0	0	WS	0	WS	X
		34	0	0	WS	0	WS	WS	0	WS	X
		36	0	0	WS	0	WS	1	0	WS	X
		38	0	0	WS	0	WS	1	WS	1	X
		40	0	0	WS	0	WS	X	WS	1	X
		42	0	WS	WS	0	WS	X	WS	1	X
	BCI® 60 2.0	24	0	0	0	0	0	WS	0	0	WS
		26	0	0	WS	0	0	WS	0	WS	WS
		28	0	0	WS	0	0	WS	0	WS	1
		30	0	0	WS	0	0	WS	0	WS	1
		32	0	0	WS	0	WS	WS	0	WS	X
		34	0	0	WS	0	WS	WS	0	WS	X
		36	0	0	WS	0	WS	1	WS	WS	X
		38	0	0	WS	0	WS	1	WS	1	X
		40	0	0	WS	0	WS	X	WS	1	X
		42	0	WS	WS	0	WS	X	WS	1	X
	BCI® 90 2.0	24	0	0	0	0	0	0	0	0	WS
		26	0	0	0	0	0	0	0	0	WS
		28	0	0	0	0	0	WS	0	0	WS
		30	0	0	0	0	0	WS	0	0	WS
		32	0	0	0	0	0	WS	0	0	1
		34	0	0	0	0	0	WS	0	WS	1
		36	0	0	WS	0	0	WS	0	WS	2
		38	0	0	WS	0	0	WS	0	WS	X
		40	0	0	WS	0	0	1	0	WS	X
		42	0	0	WS	0	WS	1	0	1	X
16"	BCI® 6000 1.8	24	0	0	0	0	0	WS	0	0	WS
		26	0	0	0	0	0	WS	0	0	WS
		28	0	0	0	0	0	WS	0	WS	WS
		30	0	0	WS	0	0	WS	0	WS	WS
		32	0	0	WS	0	0	WS	0	WS	1
		34	0	0	WS	0	WS	WS	0	WS	1
		36	0	0	WS	0	WS	WS	0	WS	X
		38	0	0	WS	0	WS	1	WS	WS	X
		40	0	0	WS	0	WS	1	WS	WS	X
		42	0	0	WS	0	WS	1	WS	1	X
	BCI® 6500 1.8	24	0	0	0	0	0	WS	0	0	WS
		26	0	0	0	0	0	WS	0	0	WS
		28	0	0	WS	0	0	WS	0	WS	WS
		30	0	0	WS	0	0	WS	0	WS	WS
		32	0	0	WS	0	0	WS	0	WS	1
		34	0	0	WS	0	WS	WS	0	WS	X
		36	0	0	WS	0	WS	WS	0	WS	X
		38	0	0	WS	0	WS	1	WS	WS	X
		40	0	0	WS	0	WS	1	WS	WS	X
		42	0	WS	WS	0	WS	X	WS	1	X
	BCI® 60 2.0	24	0	0	0	0	0	WS	0	0	WS
		26	0	0	0	0	0	WS	0	WS	WS
		28	0	0	WS	0	0	WS	0	WS	WS
		30	0	0	WS	0	0	WS	0	WS	WS
		32	0	0	WS	0	WS	WS	0	WS	1
		34	0	0	WS	0	WS	WS	0	WS	X
		36	0	0	WS	0	WS	WS	WS	WS	X
		38	0	0	WS	0	WS	1	WS	WS	X
		40	0	0	WS	0	WS	1	WS	WS	X
		42	0	WS	WS	0	WS	X	WS	1	X
	BCI® 90 2.0	24	0	0	0	0	0	0	0	0	WS
		26	0	0	0	0	0	WS	0	0	WS
		28	0	0	0	0	0	WS	0	0	WS
		30	0	0	0	0	0	WS	0	0	WS
		32	0	0	0	0	0	WS	0	0	WS
		34	0	0	WS	0	0	WS	0	WS	WS
		36	0	0	WS	0	0	WS	0	WS	WS
		38	0	0	WS	0	0	WS	0	WS	1
		40	0	0	WS	0	0	WS	0	WS	1
		42	0	0	WS	0	WS	WS	0	WS	X

1. Tables are based on the following loads: 15 psf specified floor dead load, 40 psf specified floor live load, 100 plf specified wall dead load, 10 psf specified roof dead load and the listed specified snow load (Standard Term Load Duration).

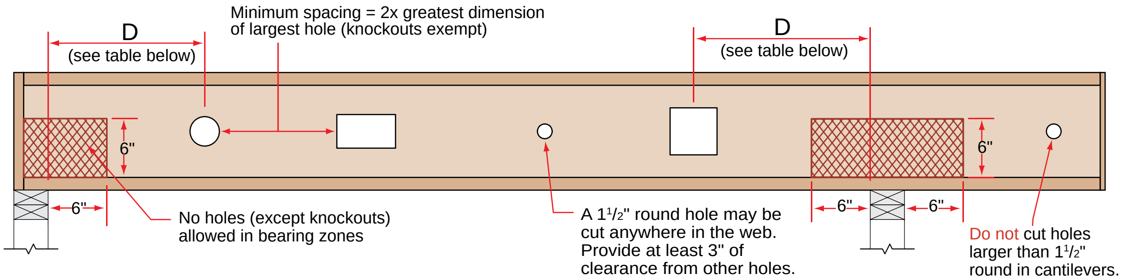
2. Cut 48" long reinforcers to match the joist depth. Use min. 23/32" plywood/OSB-rated sheathing, Exposure 1, 48/24 Span Rating panels. The face grain must be horizontal (measure the 48" dimension along the long edge of the panel).

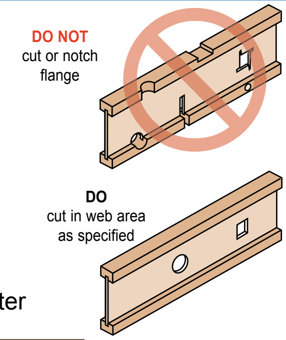
3. Fasten the reinforcer to the joist flanges with 2½" (8d) nails at 6" o.c. When reinforcing both sides, stagger the nails to avoid splitting the joist flanges.

4. Attach web stiffeners per intermediate *Web Stiffener Nailing Schedule* on page 9.

5. Use the BC CALC® software to analyze conditions that are not covered by this table. It may be possible to exceed the limitations of this table by analyzing a specific application with BC CALC® software.

Hole Cutting Charts for Residential Applications (40/15)





BCI® Joists are manufactured with 1½" round perforated knockouts in the web at approximately 12" on center
Minimum distance from support, listed in table below, is required for all holes greater than 1½"

TABLE 1 ROUND HOLES

Minimum distance from inside face of any support to centerline of hole — JOIST DEPTH • HOLE DIAMETER [IN]

Span [ft]	9½"				11⅞"				14"				16"			
	3"	6"	9"	12"	3"	6"	9"	12"	3"	6"	9"	12"	3"	6"	9"	12"
8'	1' - 0"	1' - 0"	-	-	1' - 0"	1' - 0"	-	-	1' - 0"	1' - 0"	1' - 0"	-	1' - 0"	1' - 0"	1' - 0"	1' - 0"
10'	1' - 0"	1' - 0"	-	-	1' - 0"	1' - 0"	-	-	1' - 0"	1' - 0"	1' - 0"	-	1' - 0"	1' - 0"	1' - 0"	1' - 0"
12'	1' - 0"	1' - 6"	-	-	1' - 0"	1' - 0"	-	-	1' - 0"	1' - 0"	1' - 0"	-	1' - 0"	1' - 0"	1' - 0"	1' - 0"
14'	1' - 0"	3' - 0"	-	-	1' - 0"	1' - 0"	-	-	1' - 0"	1' - 0"	1' - 0"	-	1' - 0"	1' - 0"	1' - 0"	1' - 6"
16'	1' - 0"	4' - 0"	-	-	1' - 0"	1' - 0"	-	-	1' - 0"	1' - 0"	1' - 6"	-	1' - 0"	1' - 0"	1' - 0"	3' - 0"
18'	1' - 0"	5' - 0"	-	-	1' - 0"	1' - 6"	-	-	1' - 0"	1' - 0"	2' - 6"	-	1' - 0"	1' - 0"	1' - 0"	4' - 0"
20'	1' - 6"	6' - 6"	-	-	1' - 0"	2' - 6"	-	-	1' - 0"	1' - 0"	3' - 6"	-	1' - 0"	1' - 0"	1' - 6"	5' - 0"
22'	2' - 6"	7' - 6"	-	-	1' - 0"	3' - 6"	-	-	1' - 0"	1' - 0"	4' - 6"	-	1' - 0"	1' - 0"	2' - 6"	6' - 0"
24'	3' - 6"	8' - 6"	-	-	1' - 0"	5' - 0"	-	-	1' - 0"	2' - 0"	6' - 0"	-	1' - 0"	1' - 0"	3' - 6"	7' - 6"
26'	-	-	-	-	2' - 0"	6' - 0"	-	-	1' - 0"	3' - 0"	7' - 0"	-	1' - 0"	1' - 6"	5' - 0"	8' - 6"
28'	-	-	-	-	3' - 0"	7' - 0"	-	-	1' - 0"	4' - 0"	8' - 0"	-	1' - 0"	2' - 6"	6' - 0"	10' - 0"
30'	-	-	-	-	-	-	-	-	1' - 6"	5' - 0"	9' - 6"	-	1' - 0"	3' - 6"	7' - 0"	11' - 0"
32'	-	-	-	-	-	-	-	-	2' - 6"	6' - 6"	10' - 6"	-	1' - 6"	4' - 6"	8' - 6"	12' - 6"
34'	-	-	-	-	-	-	-	-	-	-	-	-	2' - 6"	6' - 0"	9' - 6"	13' - 6"

TABLE 2 SQUARE HOLES

Minimum distance from inside face of any support to centerline of hole — JOIST DEPTH • HOLE SIZE [IN]

Span [ft]	9½"				11⅞"				14"				16"			
	3"	6"	9"	12"	3"	6"	9"	12"	3"	6"	9"	12"	3"	6"	9"	12"
8'	1' - 0"	1' - 0"	-	-	1' - 0"	1' - 0"	-	-	1' - 0"	1' - 0"	1' - 0"	-	1' - 0"	1' - 0"	1' - 0"	1' - 0"
10'	1' - 0"	1' - 0"	-	-	1' - 0"	1' - 0"	-	-	1' - 0"	1' - 0"	1' - 0"	-	1' - 0"	1' - 0"	1' - 0"	2' - 0"
12'	1' - 0"	2' - 6"	-	-	1' - 0"	1' - 0"	-	-	1' - 0"	1' - 0"	1' - 6"	-	1' - 0"	1' - 0"	1' - 0"	3' - 0"
14'	1' - 0"	3' - 6"	-	-	1' - 0"	1' - 6"	-	-	1' - 0"	1' - 0"	2' - 6"	-	1' - 0"	1' - 0"	2' - 0"	4' - 6"
16'	1' - 6"	4' - 6"	-	-	1' - 0"	2' - 6"	-	-	1' - 0"	1' - 0"	4' - 0"	-	1' - 0"	1' - 0"	3' - 0"	5' - 6"
18'	3' - 0"	6' - 0"	-	-	1' - 6"	4' - 0"	-	-	1' - 0"	2' - 0"	5' - 0"	-	1' - 0"	1' - 6"	4' - 0"	7' - 0"
20'	4' - 0"	7' - 0"	-	-	2' - 6"	5' - 0"	-	-	1' - 0"	3' - 6"	6' - 0"	-	1' - 0"	2' - 6"	5' - 0"	8' - 0"
22'	5' - 0"	8' - 6"	-	-	3' - 6"	6' - 0"	-	-	2' - 0"	4' - 6"	7' - 6"	-	1' - 6"	3' - 6"	6' - 6"	9' - 6"
24'	6' - 0"	9' - 6"	-	-	4' - 6"	7' - 6"	-	-	3' - 0"	5' - 6"	8' - 6"	-	2' - 6"	5' - 0"	7' - 6"	10' - 6"
26'	-	-	-	-	5' - 6"	8' - 6"	-	-	4' - 0"	7' - 0"	10' - 0"	-	3' - 6"	6' - 0"	9' - 0"	12' - 0"
28'	-	-	-	-	7' - 0"	10' - 0"	-	-	5' - 0"	8' - 0"	11' - 0"	-	4' - 6"	7' - 0"	10' - 0"	13' - 6"
30'	-	-	-	-	-	-	-	-	6' - 0"	9' - 0"	12' - 6"	-	5' - 6"	8' - 6"	11' - 6"	14' - 6"
32'	-	-	-	-	-	-	-	-	7' - 6"	10' - 6"	13' - 6"	-	7' - 0"	9' - 6"	12' - 6"	*
34'	-	-	-	-	-	-	-	-	-	-	-	-	8' - 0"	10' - 6"	14' - 0"	*

TABLE 3 RECTANGULAR HOLES

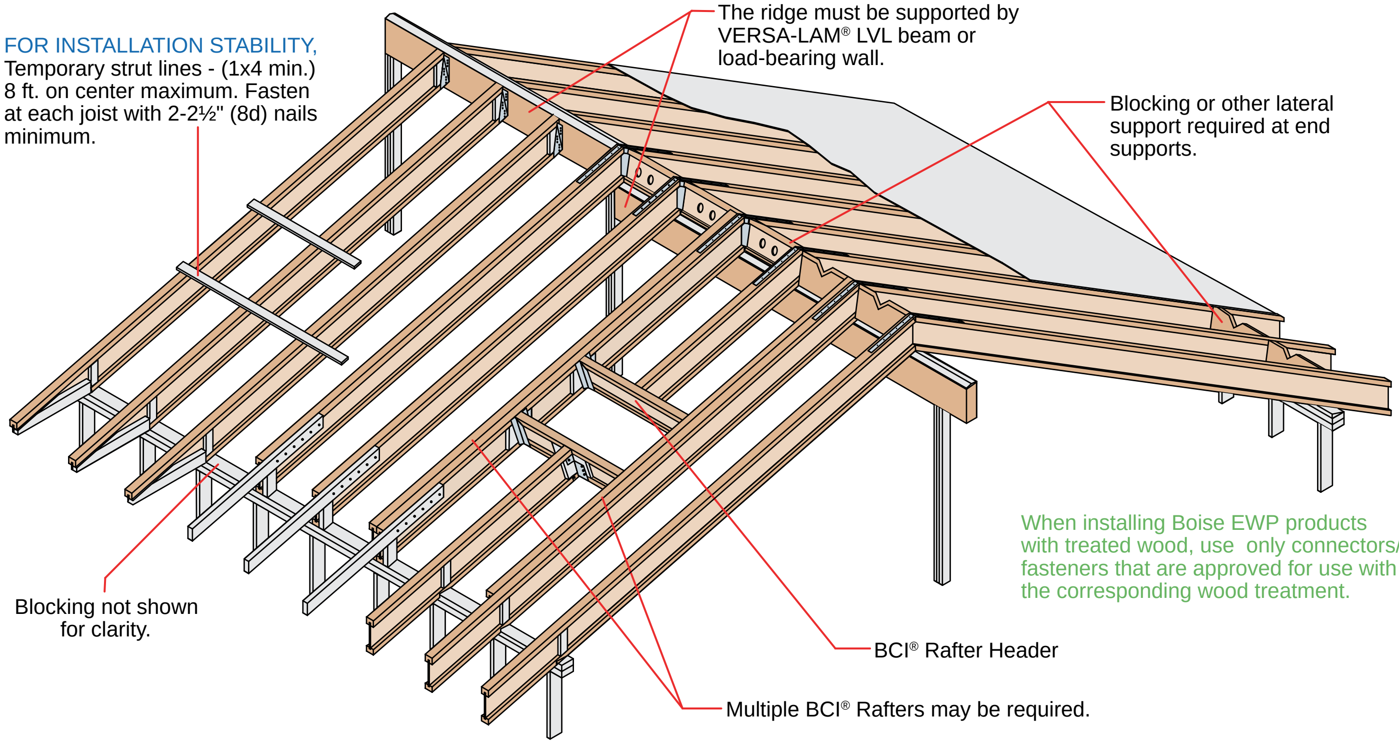
Minimum distance from inside face of any support to centerline of hole — JOIST DEPTH • HOLE SIZE [IN]

Span [ft]	9½"				11⅞"				14"				16"			
	5"x8"	5"x10"	5"x12"	5"x14"	7"x10"	7"x12"	7"x14"	7"x16"	10"x12"	10"x14"	10"x16"	10"x18"	12"x14"	12"x16"	12"x18"	12"x20"
8'	1' - 0"	1' - 0"	1' - 6"	2' - 0"	1' - 0"	1' - 0"	1' - 6"	2' - 6"	1' - 6"	2' - 0"	3' - 0"	3' - 6"	2' - 0"	3' - 0"	*	*
10'	1' - 6"	2' - 0"	2' - 6"	3' - 0"	1' - 6"	2' - 0"	3' - 0"	3' - 6"	2' - 6"	3' - 0"	4' - 0"	*	3' - 0"	4' - 0"	*	*
12'	2' - 6"	3' - 0"	3' - 6"	4' - 6"	2' - 6"	3' - 6"	4' - 0"	5' - 0"	3' - 6"	4' - 6"	5' - 6"	*	4' - 6"	5' - 6"	*	*
14'	3' - 6"	4' - 6"	5' - 0"	5' - 6"	4' - 0"	4' - 6"	5' - 6"	6' - 0"	5' - 0"	5' - 6"	6' - 6"	*	5' - 6"	6' - 6"	*	*
16'	5' - 0"	5' - 6"	6' - 0"	7' - 0"	5' - 0"	6' - 0"	6' - 6"	7' - 6"	6' - 0"	7' - 0"	*	*	7' - 0"	*	*	*
18'	6' - 0"	7' - 0"	7' - 6"	8' - 0"	6' - 0"	7' - 0"	8' - 0"	8' - 6"	7' - 6"	8' - 0"	*	*	8' - 0"	*	*	*
20'	7' - 6"	8' - 0"	8' - 6"	9' - 6"	7' - 6"	8' - 6"	9' - 0"	*	8' - 6"	9' - 6"	*	*	9' - 6"	*	*	*
22'	8' - 6"	9' - 6"	10' - 0"	*	8' - 6"	9' - 6"	10' - 6"	*	10' - 0"	*	*	*	*	*	*	*
24'	10' - 0"	10' - 6"	11' - 6"	*	10' - 0"	11' - 0"	11' - 6"	*	11' - 0"	*	*	*	*	*	*	*
26'	-	-	-	-	11' - 6"	12' - 0"	*	*	12' - 6"	*	*	*	*	*	*	*
28'	-	-	-	-	12' - 6"	13' - 6"	*	*	13' - 6"	*	*	*	*	*	*	*
30'	-	-	-	-	-	-	-	-	*	*	*	*	*	*	*	*
32'	-	-	-	-	-	-	-	-	*	*	*	*	*	*	*	*
34'	-	-	-	-	-	-	-	-	-	-	-	-	*	*	*	*

NOTES

1. Hole may be positioned vertically anywhere in the web.
2. Tables 1-3 are for uniformly loaded maximum loads of 40 psf live loads and 15 psf dead loads on simple span application.
3. For other load conditions or hole sizes, contact your local distributor.
4. It may be possible to exceed the limitations of those tables by analysing a specific situation with the BC CALC® Software.
5. * = Holes may be acceptable, contact your local distributor.

BCI® Rafters



SAFETY WARNING

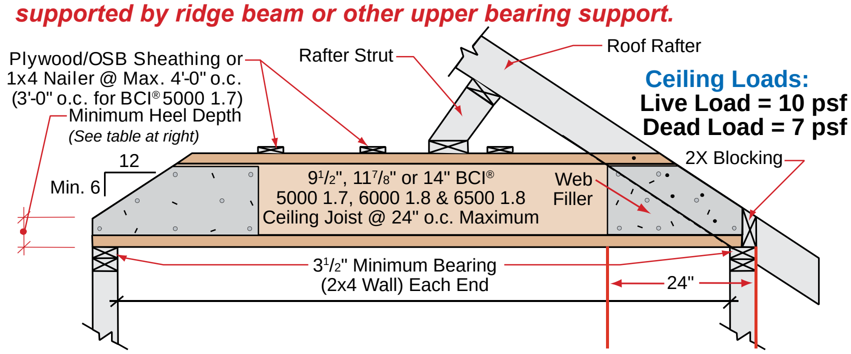
DO NOT ALLOW WORKERS ON BCI® JOISTS UNTIL ALL HANGERS, BCI® RIM JOISTS, RIM BOARDS, BCI® BLOCKING PANELS, X-BRACING AND TEMPORARY 1x4 STRUT LINES ARE INSTALLED AS SPECIFIED BELOW.

SERIOUS ACCIDENTS CAN RESULT FROM INSUFFICIENT ATTENTION TO PROPER BRACING DURING CONSTRUCTION. ACCIDENTS CAN BE AVOIDED UNDER NORMAL CONDITIONS BY FOLLOWING THESE GUIDELINES:

- Build a braced end wall at the end of the bay, or permanently install the first eight feet of BCI® Joists and the first course of sheathing. As an alternate, temporary sheathing may be nailed to the first four feet of BCI® Joists at the end of the bay.
- All hangers, BCI® rim joists, rim boards, BCI® blocking panels, and x-bracing must be completely installed and properly nailed as each BCI® Joist is set.
- Install temporary 1x4 strut lines at no more than eight feet on center as additional BCI® Joists are set. Nail the strut lines to the sheathed area, or braced end wall, and to each BCI® Joist with 2-2½" (8d) nails.
- The ends of cantilevers must be temporarily secured by strut lines on both the top and bottom flanges.
- Straighten the BCI® Joists to within ½ inch of true alignment before attaching strut lines and sheathing.
- Remove the temporary strut lines only as required to install the permanent sheathing.
- Failure to install temporary bracing may result in sideways buckling or roll-over under light construction loads.

BCI® Ceiling Joist with Bevel End Cut *(For Limited-Access Attics Only)*

BCI® Joist shall not be used as collar/tension tie. Roof rafter shall be supported by ridge beam or other upper bearing support.



Maximum Span Lengths Without Roof Loads	
9½" BCI® 5000 1.7 / 6000 1.8 / 6500 1.8	19'-6"
11⅞" BCI® 5000 1.7 / 6000 1.8 / 6500 1.8	22'-0"
14" BCI® 6000 1.8 / 6500 1.8	25'-0"

(If roof loads present, see Notes 2 & 3 at right)

	Joist Depth	End Wall 2 x 4	End Wall 2 x 6
Minimum Heel Depths	9½"	2½"	1½"
	11⅞"	3½"	2½"
	14"	4½"	3½"

NOTES:

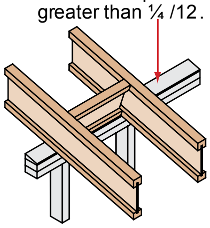
1) Detail is to be used only for ceiling joists with no access to attic space.
2) Ceiling joist must be designed to carry all roof load transferred through rafter struts as shown.
3) BCI® ceiling joist end reaction may not exceed 550 pounds.
4) Minimum roof slope is 6/12.
5) Nail roof rafter to BCI® top flange with 1-3½" (16d) sinker or box nail.
6) 1x4 nailers must be continuous and nailed to a braced end wall.
7) Install a web stiffener on each side of BCI® Joist at beveled ends. Nail roof rafter to BCI® Joist per building code requirements for ceiling joist to roof rafter connection.

Roof Framing Details

Additional roof framing details available with BC FRAMER® software

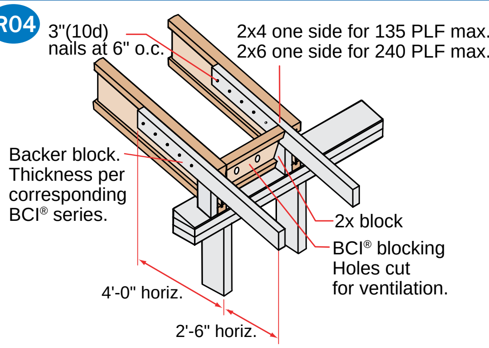
R01

2x beveled plate for slope greater than ¼ /12.

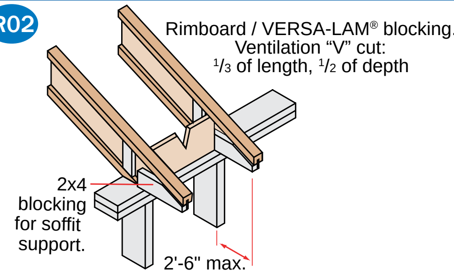


Simpson VPA or USP TMP connectors or equal can be used in lieu of beveled plate for slopes from 3/12 to 12/12.

R04

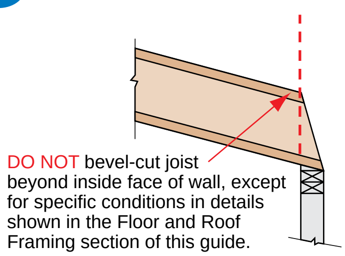


R02

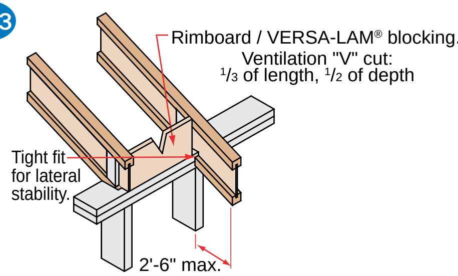


Flange of BCI® Joists may be birdsmouth cut only at the low end of the joist. Birdsmouth cut BCI® joist must bear fully on plate, web stiffener required each side. Bottom flange shall be fully supported.

DN05

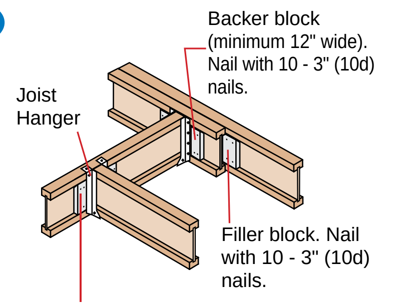


R03



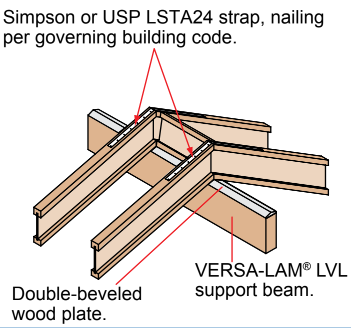
Flange of BCI® Joists may be birdsmouth cut only at the low end of the joist. Birdsmouth cut BCI® Joist must bear fully on plate, web stiffener required each side.

R07

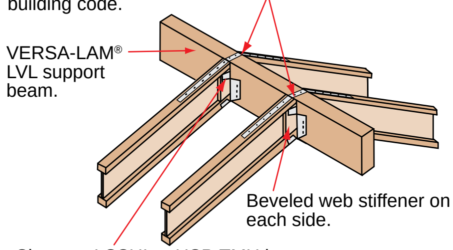


Backer block required where top flange joist hanger load exceeds 250 lbs. Install tight to top flange.

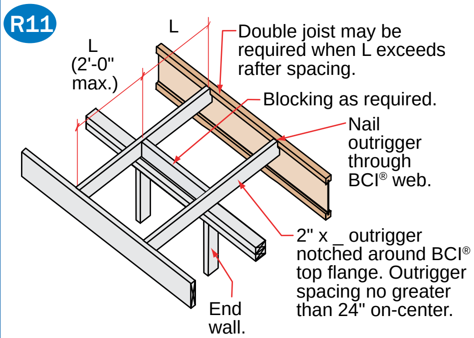
R05



R06



R11



LATERAL SUPPORT

- BCI® Joists must be laterally supported at end supports (including supports adjacent to overhangs) with hangers, rimboard, or blocking (VERSA-LAM®, Boise Cascade Rimboard or BCI® Joist). Metal cross bracing or other x-bracing provides adequate lateral support for BCI® Joists, consult governing building code for roof diaphragm connection provisions.

MINIMUM BEARING LENGTH FOR BCI® JOISTS

- Minimum bearing length at end support is 1½" for BCI® 5000, 6000 and 6500, and 1¾" for BCI® 60 and 90. 3½ inches is required at cantilever and intermediate supports.
- Longer bearing lengths allow higher reaction values. Refer to the building code evaluation report or the BC CALC® software.

NAILING REQUIREMENTS

- BCI® rim joist, rim board or closure panel to BCI® joist:
  - Rims or closure panel 1¾ inches thick and less: 2-2½" (8d) nails, one each in the top and bottom flange.
  - BCI® 5000 rim joist: 2-3" (10d) box nails, one each in the top and bottom flange.
  - BCI® 6000, 60 rim joist: 2-3½" (16d) box nails, one each in the top and bottom flange.
  - BCI® 6500, 90 rim joist: Toe-nail top flange to rim joist with 2-3" (10d) box nails, one each side of flange.
- BCI® rim joist, rim board or BCI® blocking panel to support:
  - 2½" (8d) nails at 6 inches on center.
  - When used for shear transfer, follow the building designer's specification.
- BCI® joist to support:
  - 2-2½" (8d) nails, one on each side of the web, placed 1½ inches minimum from the end of the BCI® Joist to limit splitting.
- Sheathing to BCI® joist:
  - BCI® 5000 joist: Maximum nail spacing is 18 inches on center.
  - BCI® 6000, 6500, 60, 90 joist: Maximum nail spacing is 24 inches on center.
  - 14 gauge staples may be substituted for 2½" (8d) nails if the staples penetrate at least 1 inch into the joist.
  - Wood screws may be acceptable, contact local building official and/or Boise Cascade EWP Engineering for further information.

BACKER AND FILLER BLOCK DIMENSIONS

Series	Backer Block Thickness	Filler Block Thickness
5000 1.7	¾" or ⅞" wood panels	Two ¾" wood panels or 2 x _
6000 1.8	1⅛" or two ½" wood panels	2 x _ + ⅝" or ¾" wood panel
6500 1.8	1⅛" or two ½" wood panels	2 x _ + ⅝" or ¾" wood panel
60 2.0	1⅛" or two ½" wood panels	2 x _ + ⅝" or ¾" wood panel
90 2.0	2 x _ lumber	Double 2 x _ lumber

- Cut backer and filler blocks to a maximum depth equal to the web depth minus ¼" to avoid a forced fit.

WEB STIFFENER REQUIREMENTS

- See *Web Stiffener Requirements* on page 9.

MAXIMUM SLOPE

- Unless otherwise noted, all roof details are valid for slopes of 12 in 12 or less.

VENTILATION

- The 1½ inch, pre-stamped knock-out holes spaced at 12 inches on center along the BCI® Joist may all be knocked out and used for cross ventilation. Deeper joists than what is structurally needed may be advantageous in ventilation design. Consult local building official and/or ventilation specialist for specifc ventilation requirements.

BIRDSMOUTH CUTS

- BCI® Joists may be birdsmouth cut only at the low end support. BCI® joists with birdsmouth cuts may cantilever up to 2'-6" past the low end support. The bottom flange must sit fully on the support and may not overhang the inside face of the support. High end supports and intermediate supports may not be birdsmouth cut.

PROTECT BCI® JOISTS FROM THE WEATHER

- BCI® Joists are intended only for applications that provide permanent protection from the weather. Bundles of BCI® Joists should be covered and stored off of the ground on stickers.

Loads	Series	Depth (in)	Low Roof Slope			High Roof Slope		
			16"	19.2"	24"	16"	19.2"	24"
Specified Dead Load = 10 psf Specified Snow Load = 20 psf	5000 1.7	9½"	19'-1"	18'-2"	17'-2"	16'-10"	16'-1"	15'-3"
		11⅞"	21'-9"	20'-9"	19'-7"	19'-2"	18'-4"	17'-4"
		14"	23'-10"	22'-9"	21'-6"	21'-0"	20'-1"	19'-0"
	6000 1.8	9½"	19'-11"	19'-0"	17'-11"	17'-7"	16'-10"	15'-10"
		11⅞"	22'-8"	21'-7"	20'-5"	20'-0"	19'-1"	18'-1"
		14"	24'-11"	23'-9"	22'-6"	22'-0"	21'-0"	19'-10"
		16"	26'-10"	25'-8"	24'-2"	23'-9"	22'-8"	21'-5"
	6500 1.8	9½"	25'-6"	24'-4"	23'-0"	22'-6"	21'-6"	20'-4"
		11⅞"	27'-5"	26'-2"	24'-9"	24'-3"	23'-2"	21'-11"
		14"	29'-4"	28'-0"	26'-5"	25'-11"	24'-9"	23'-4"
		16"	31'-1"	29'-8"	28'-1"	27'-6"	26'-3"	24'-10"
	60 2.0	11⅞"	28'-11"	27'-7"	26'-1"	25'-7"	24'-5"	23'-1"
		14"	30'-11"	29'-6"	27'-10"	27'-4"	26'-1"	24'-8"
		16"	32'-10"	31'-4"	29'-7"	29'-0"	27'-8"	26'-2"
	90 2.0	11⅞"	31'-10"	30'-4"	28'-8"	28'-2"	26'-10"	25'-4"
		14"	34'-0"	32'-5"	30'-7"	30'-1"	28'-8"	27'-1"
		16"	36'-0"	34'-5"	32'-6"	31'-10"	30'-5"	28'-9"
Specified Dead Load = 10 psf Specified Snow Load = 30 psf	5000 1.7	9½"	17'-9"	16'-11"	16'-0"	15'-10"	15'-1"	14'-3"
		11⅞"	20'-3"	19'-4"	18'-3"	18'-0"	17'-2"	16'-3"
		14"	22'-2"	21'-2"	20'-0"	19'-8"	18'-10"	17'-9"
	6000 1.8	9½"	18'-6"	17'-8"	16'-8"	16'-6"	15'-9"	14'-10"
		11⅞"	21'-1"	20'-1"	19'-0"	18'-9"	17'-11"	16'-11"
		14"	23'-2"	22'-2"	20'-11"	20'-7"	19'-8"	18'-7"
		16"	25'-0"	23'-10"	22'-6"	22'-3"	21'-3"	20'-0"
	6500 1.8	9½"	23'-9"	22'-8"	21'-5"	21'-1"	20'-2"	19'-0"
		11⅞"	25'-7"	24'-5"	23'-0"	22'-9"	21'-8"	20'-6"
		14"	27'-4"	26'-1"	24'-7"	24'-3"	23'-2"	21'-10"
		16"	29'-0"	27'-8"	26'-1"	25'-9"	24'-7"	23'-3"
	60 2.0	11⅞"	26'-11"	25'-8"	24'-3"	23'-11"	22'-10"	21'-7"
		14"	28'-9"	27'-6"	25'-11"	25'-7"	24'-5"	23'-1"
		16"	30'-7"	29'-2"	27'-6"	27'-2"	25'-11"	24'-6"
	90 2.0	11⅞"	29'-7"	28'-3"	26'-8"	26'-4"	25'-2"	23'-9"
		14"	31'-8"	30'-2"	28'-6"	28'-2"	26'-10"	25'-4"
		16"	33'-6"	32'-0"	30'-2"	29'-10"	28'-6"	26'-10"

- Spans apply to simple span application only.
- For BCI® 5000, 6000 and 6500, the minimum end bearing lengths are 1½" at high end and 3½" at lower end.
- For BCI® 60 and 90, the minimum end bearing lengths are 1¾" at high end and 3½" at lower end.
- Maximum spans are measured, centerline to centerline of bearing, on horizontal projection, and based on uniformly loaded joists.
- Live load deflection is limited to L/240. Total load deflection is limited to L/180 or 1".
- Refer to appropriate sections of the BCI® Specifier Guide for installation guidelines and construction details.
- Allowable spans assume no composite action provided by sheathing.
- Low roof slope is from ¼/12 to 6/12.
- High roof slope is from 6/12 to 12/12.
- Table assumes a 2 foot roof overhang.
- It may be possible to exceed the limitations of this table by analyzing a specific application with the BC CALC® software.
- Slope roof joists at least ¼" over 12" to minimize ponding.
- Allowable spans and loads shall be adjusted and checked for wind load as required by local building code.

WARNING: Use of Span Tables for Commercial Projects (NBCC2005: Part 4)

All projects within the scope of Part 4 of the National Building Code of Canada (NBCC) must consider the effects of concentrated loads, as stipulated in article 4.1.5.10. The designer of record must verify the effects of a concentrated load on the joists on all projects within the scope of Part 4 of NBCC (2005). Table 4.1.5.10 in NBCC (2005) lists concentrated loads that shall be analyzed with respect to the intended use of the floor. Given the numerous possible permutations, the span tables listed above do not take the effects of concentrated loads into consideration.

Roof Span Tables

Loads	Series	Depth (in)	Low Roof Slope			High Roof Slope		
			16"	19.2"	24"	16"	19.2"	24"
Specified Dead Load = 10 psf Specified Snow Load = 40 psf	5000 1.7	9½"	16'-9"	16'-0"	14'-9"	15'-0"	14'-4"	13'-6"
		11⅞"	19'-1"	18'-3"	16'-9"	17'-1"	16'-3"	15'-5"
		14"	21'-0"	20'-0"	18'-3"	18'-8"	17'-10"	16'-10"
	6000 1.8	9½"	17'-6"	16'-9"	15'-9"	15'-8"	14'-11"	14'-1"
		11⅞"	19'-11"	19'-0"	18'-0"	17'-9"	17'-0"	16'-1"
		14"	21'-11"	20'-11"	19'-9"	19'-7"	18'-8"	17'-8"
		16"	23'-8"	22'-7"	21'-4"	21'-1"	20'-2"	19'-0"
	6500 1.8	9½"	22'-5"	21'-5"	20'-2"	20'-0"	19'-1"	18'-1"
		11⅞"	24'-2"	23'-1"	21'-9"	21'-7"	20'-7"	19'-5"
		14"	25'-10"	24'-8"	23'-3"	23'-0"	22'-0"	20'-9"
		16"	27'-5"	26'-2"	24'-8"	24'-5"	23'-4"	22'-0"
	60 2.0	11⅞"	25'-5"	24'-3"	22'-11"	22'-8"	21'-8"	20'-6"
		14"	27'-3"	25'-11"	24'-6"	24'-3"	23'-2"	21'-11"
		16"	28'-11"	27'-7"	26'-0"	25'-9"	24'-7"	23'-3"
	90 2.0	11⅞"	28'-0"	26'-8"	25'-2"	25'-0"	23'-10"	22'-6"
		14"	29'-11"	28'-6"	26'-11"	26'-8"	25'-6"	24'-0"
		16"	31'-8"	30'-3"	28'-6"	28'-4"	27'-0"	25'-6"
Specified Dead Load = 10 psf Specified Snow Load = 50 psf	5000 1.7	9½"	16'-0"	15'-0"	13'-5"	14'-4"	13'-8"	12'-11"
		11⅞"	18'-3"	17'-1"	15'-3"	16'-4"	15'-7"	14'-9"
		14"	20'-0"	18'-7"	16'-7"	17'-11"	17'-1"	16'-2"
	6000 1.8	9½"	16'-9"	15'-11"	15'-1"	15'-0"	14'-3"	13'-6"
		11⅞"	19'-0"	18'-2"	17'-2"	17'-0"	16'-3"	15'-4"
		14"	20'-11"	20'-0"	18'-10"	18'-9"	17'-11"	16'-11"
		16"	22'-7"	21'-6"	20'-4"	20'-2"	19'-3"	18'-2"
	6500 1.8	9½"	21'-5"	20'-5"	19'-3"	19'-2"	18'-3"	17'-3"
		11⅞"	23'-1"	22'-0"	20'-9"	20'-8"	19'-8"	18'-7"
		14"	24'-8"	23'-6"	22'-2"	22'-1"	21'-0"	19'-10"
		16"	26'-2"	25'-0"	23'-7"	23'-5"	22'-4"	21'-1"
	60 2.0	11⅞"	24'-4"	23'-2"	21'-10"	21'-9"	20'-9"	19'-7"
		14"	26'-0"	24'-9"	23'-5"	23'-3"	22'-2"	20'-11"
		16"	27'-7"	26'-4"	24'-10"	24'-8"	23'-6"	22'-3"
	90 2.0	11⅞"	26'-9"	25'-6"	23'-2"	23'-11"	22'-10"	21'-7"
		14"	28'-6"	27'-3"	25'-8"	25'-7"	24'-4"	23'-0"
		16"	30'-3"	28'-10"	27'-3"	27'-1"	25'-10"	24'-5"

- Spans apply to simple span application only.
- For BCI® 5000, 6000 and 6500, the minimum end bearing lengths are 1½'' at high end and 3½'' at lower end.
- For BCI® 60 and 90, the minimum end bearing lengths are 1¾'' at high end and 3½'' at lower end.
- Maximum spans are measured, centerline to centerline of bearing, on horizontal projection, and based on uniformly loaded joists.
- Live load deflection is limited to L/240. Total load deflection is limited to L/180 or 1".
- Refer to appropriate sections of the BCI® Specifier Guide for installation guidelines and construction details.
- Allowable spans assume no composite action provided by sheathing.
- Low roof slope is from ¼/12 to 6/12.
- High roof slope is from 6/12 to 12/12.
- Table assumes a 2 foot roof overhang.
- It may be possible to exceed the limitations of this table by analyzing a specific application with the BC CALC® software.
- Slope roof joists at least ¼" over 12" to minimize ponding.
- Allowable spans and loads shall be adjusted and checked for wind load as required by local building code.

WARNING: Use of Span Tables for Commercial Projects (NBCC2005: Part 4)

All projects within the scope of Part 4 of the National Building Code of Canada (NBCC) must consider the effects of concentrated loads, as stipulated in article 4.1.5.10. The designer of record must verify the effects of a concentrated load on the joists on all projects within the scope of Part 4 of NBCC (2005). Table 4.1.5.10 in NBCC (2005) lists concentrated loads that shall be analyzed with respect to the intended use of the floor. Given the numerous possible permutations, the span tables listed above do not take the effects of concentrated loads into consideration.

Limit States Design - Standard Term Load Duration

Deflection Criteria: L/240 (Live Load) & L/180 (Total Load)

BCI® 5000 1.7 Series									
	2" Flange Width								
	9½" BCI® 5000 1.7			11⅞" BCI® 5000 1.7			14" BCI® 5000 1.7		
	Deflection (unfactored)		Factored Strength Resistance	Deflection (unfactored)		Factored Strength Resistance	Deflection (unfactored)		Factored Strength Resistance
Span Length [ft]	L/240 (Live)	L/180 (Total)		L/240 (Live)	L/180 (Total)		L/240 (Live)	L/180 (Total)	
8	--	--	336	--	--	357	--	--	376
10	--	--	268	--	--	285	--	--	300
12	--	--	224	--	--	285	--	--	300
14	--	--	168	--	--	204	--	--	214
16	81	--	129	--	--	165	--	--	188
18	58	--	101	--	--	130	--	--	155
20	42	--	82	--	--	106	--	--	125
22	32	43	68	53	--	87	--	--	103
24	25	33	57	41	--	73	--	--	87
26	19	26	48	33	--	62	47	--	74

PSF to PLF CONVERSION TABLE

Joist Spacing	LOAD (psf)							
	20	25	30	35	40	45	50	60
12"	20	25	30	35	40	45	50	60
16"	27	33	40	47	53	60	67	80
19.2"	32	40	48	56	64	72	80	96
24"	40	50	60	70	80	90	100	120

TO CONVERT FROM SPECIFIED LOAD (PLF) TO FACTORED LOAD (PLF)

- Factored (PLF) = 1.25 x Specified Dead Load (PLF) + 1.50 x Specified Live/Snow Load (PLF)

General Notes

1. The spans listed are the clear span distance between supports.
2. Table is valid for simple and continuous span applications under uniform load.
3. Design of continuous spans shall be based on the longest span. The shorter span shall not be less than 50% of the longest length.
4. Table assumes a fully laterally restrained compression flange.
5. The repetitive member factor, K_H is not applicable.
6. Table assumes a minimum bearing length with no stiffeners.

DEAD LOAD SLOPE FACTOR

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

How to calculate a roof plf loading:

Joist: BCI® 5000, 9½"
Spacing: 24" o.c.
Span: 16'-0"
Roof Pitch: 4/12

Snow Load : SL = 30 lbs/ft²

Dead Load : DL = 10 lbs/ft²

Design Criteria:

Live Load Deflection: L/240
Total Load Deflection: L/180

Applied Load:

WSL = SL x tributary width

$WSL = \frac{30\ lbs}{ft^2} \times \frac{24\ in}{12\ in\ /\ ft}$

WSL = 60 plf (lbs/ft)

WDL = DL x tributary width x slope factor

$WDL = \frac{10\ lbs}{ft^2} \times \frac{24\ in}{12\ in\ /\ ft} \times 1.054$

WDL = 21.1 plf (lbs/ft)

WSL = WSL = 60 plf
WTL = WSL + WDL = 81.1 plf
WF = 1.25 x WDL + 1.50 x WSL = 117 plf (Factored)

Check Capacities :

Live Load (L/240): 60 plf < 81 plf -> ok
Total Load (L/180): 81.1 plf < -- -> ok
Factored Resistance: 117 plf <129 plf -> ok

Note:

For roof pitches greater than a 2/12, approximate the increased dead load by multiplying the specified dead load by the slope factor.

Definitions:

WSL	Uniform Snow Load	[lb/ft]
WDL	Uniform Dead Load	[lb/ft]
WTL	Uniform Total Load	[lb/ft]
WF	Uniform Factored Load	[lb/ft]

Roof Allowable Uniform Loads, plf

Limit States Design - Standard Term Load Duration

Deflection Criteria: L/240 (Live Load) & L/180 (Total Load)

BCI® 6000 1.8 Series

2 5/16" Flange Width

Span Length [ft]	9½" BCI® 6000 1.8 Deflection (unfactored) L/240 (Live)	L/180 (Total)	Factored Strength Resistance	11⅞" BCI® 6000 1.8 Deflection (unfactored) L/240 (Live)	L/180 (Total)	Factored Strength Resistance	14" BCI® 6000 1.8 Deflection (unfactored) L/240 (Live)	L/180 (Total)	Factored Strength Resistance	16" BCI® 6000 1.8 Deflection (unfactored) L/240 (Live)	L/180 (Total)	Factored Strength Resistance
8	--	--	389	--	--	402	--	--	414	--	--	425
10	--	--	311	--	--	321	--	--	331	--	--	340
12	--	--	311	--	--	321	--	--	331	--	--	340
14	139	--	216	--	--	229	--	--	236	--	--	242
16	95	--	165	--	--	201	--	--	207	--	--	212
18	68	--	131	112	--	168	--	--	184	--	--	188
20	50	67	106	83	--	136	--	--	161	--	--	170
22	38	50	87	63	--	112	--	--	133	--	--	152
24	29	39	73	49	--	94	71	--	112	--	--	128
26	23	31	62	38	51	80	56	--	95	--	--	109

BCI® 6500 1.8 Series

2 9/16" Flange Width

Span Length [ft]	9½" BCI® 6500 1.8 Deflection (unfactored) L/240 (Live)	L/180 (Total)	Factored Strength Resistance	11⅞" BCI® 6500 1.8 Deflection (unfactored) L/240 (Live)	L/180 (Total)	Factored Strength Resistance	14" BCI® 6500 1.8 Deflection (unfactored) L/240 (Live)	L/180 (Total)	Factored Strength Resistance	16" BCI® 6500 1.8 Deflection (unfactored) L/240 (Live)	L/180 (Total)	Factored Strength Resistance
8	--	--	389	--	--	402	--	--	414	--	--	425
10	--	--	311	--	--	321	--	--	331	--	--	340
12	--	--	259	--	--	268	--	--	276	--	--	283
14	--	--	222	--	--	229	--	--	236	--	--	242
16	105	--	183	--	--	201	--	--	207	--	--	212
18	75	--	145	--	--	178	--	--	184	--	--	188
20	55	73	117	91	--	151	--	--	165	--	--	170
22	41	55	97	69	--	124	--	--	147	--	--	154
24	32	43	81	54	--	104	77	--	124	--	--	141
26	25	26	69	43	57	89	61	--	105	--	--	120

Limit States Design - Standard Term Load Duration

Deflection Criteria: L/240 (Live Load) & L/180 (Total Load)

BCI® 60 2.0 Series

2⁵⁄₁₆" Flange Width

Span Length [ft]	11⅞" BCI® 60 2.0			14" BCI® 60 2.0			16" BCI® 60 2.0		
	Deflection (unfactored)		Factored Strength Resistance	Deflection (unfactored)		Factored Strength Resistance	Deflection (unfactored)		Factored Strength Resistance
	L/240 (Live)	L/180 (Total)		L/240 (Live)	L/180 (Total)		L/240 (Live)	L/180 (Total)	
8	--	--	402	--	--	414	--	--	425
10	--	--	321	--	--	331	--	--	340
12	--	--	268	--	--	276	--	--	283
14	--	--	229	--	--	236	--	--	242
16	--	--	201	--	--	207	--	--	212
18	--	--	178	--	--	184	--	--	188
20	--	--	160	--	--	165	--	--	170
22	83	--	146	--	--	150	--	--	154
24	65	86	134	--	--	138	--	--	141
26	51	68	122	75	--	127	--	--	130

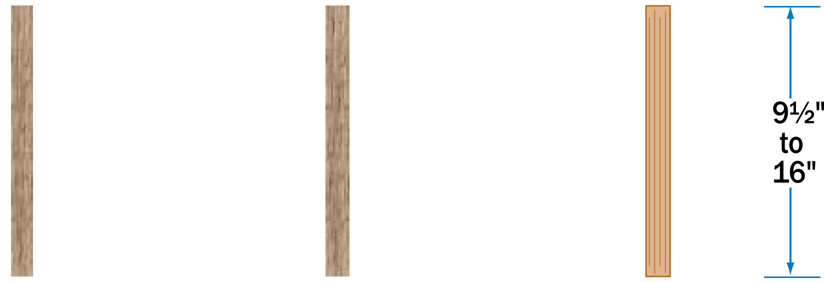
BCI® 90 2.0 Series

3½" Flange Width

Span Length [ft]	11⅞" BCI® 90 2.0			14" BCI® 90 2.0			16" BCI® 90 2.0			18" BCI® 90 2.0			20" BCI® 90 2.0		
	Deflection (unfactored)		Factored Strength Resistance	Deflection (unfactored)		Factored Strength Resistance	Deflection (unfactored)		Factored Strength Resistance	Deflection (unfactored)		Factored Strength Resistance	Deflection (unfactored)		Factored Strength Resistance
	L/240 (Live)	L/180 (Total)		L/240 (Live)	L/180 (Total)		L/240 (Live)	L/180 (Total)		L/240 (Live)	L/180 (Total)		L/240 (Live)	L/180 (Total)	
8	--	--	485	--	--	487	--	--	490	--	--	722	--	--	764
10	--	--	388	--	--	389	--	--	392	--	--	577	--	--	611
12	--	--	323	--	--	324	--	--	326	--	--	481	--	--	509
14	--	--	277	--	--	278	--	--	280	--	--	412	--	--	436
16	--	--	242	--	--	243	--	--	245	--	--	361	--	--	382
18	--	--	215	--	--	216	--	--	217	--	--	320	--	--	339
20	--	--	194	--	--	194	--	--	196	--	--	288	--	--	305
22	--	--	176	--	--	177	--	--	178	--	--	262	--	--	277
24	95	--	161	--	--	162	--	--	163	--	--	240	--	--	254
26	75	--	149	--	--	149	--	--	150	--	--	222	--	--	235

Boise Cascade Rimboard

Boise Cascade Rimboard Product Profiles



**1" & 1⅛"
BC RIM
BOARD™ OSB**

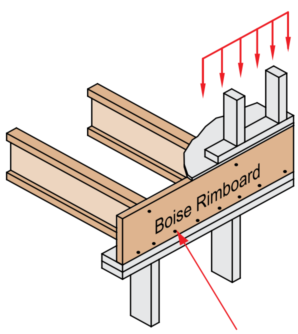
**1¼"
VERSA-STRAND®
0.8**

**1⁵⁄₁₆"
VERSA-LAM®
1.4 1800**

*18 inch and 20 inch deep rimboard are special order products, contact local supplier or Boise Cascade representative for product availability.

F07 Perpendicular

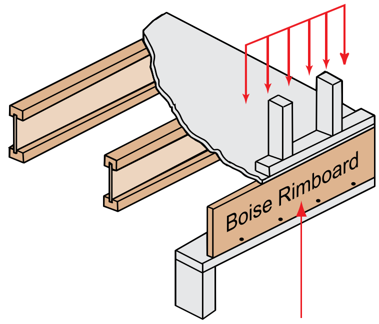
See chart for vertical load resistance.



When used for shear transfer, nail to bearing plate with the same nailing capacity as required by the horizontal diaphragm schedule.

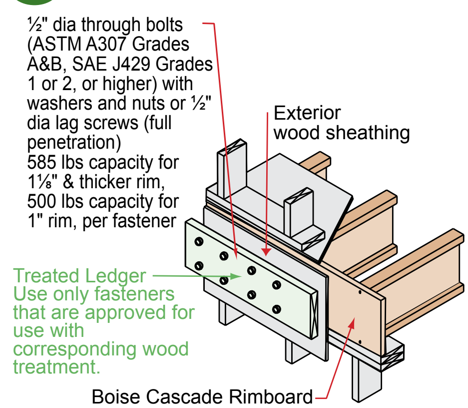
F07A Parallel

See chart for vertical load resistance.



When used for shear transfer, nail to bearing plate with the same nailing capacity as required by the horizontal diaphragm schedule.

F56



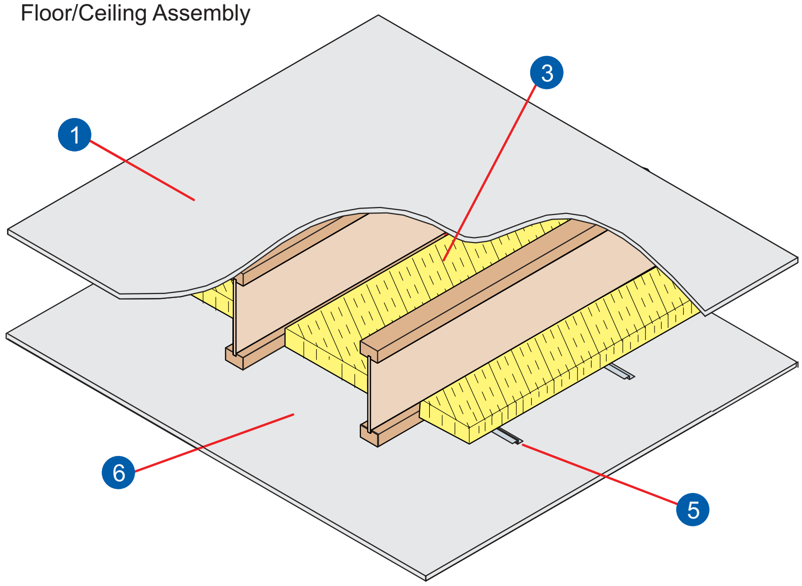
Design of moisture control by others
(only structural components shown above)

Boise Cascade Rimboard Properties

Rim Board Type	Thickness [in]	φH	φV [lb/ft]		φZ	φP
		[lb/ft]	d ≤ 16"	d > 16"	[lb]	[lb]
Boise Cascade Rimboard	1"	235	5500	2750	495	5840
	1⅛"	235	7340	5000	585	5840
Boise Cascade Rimboard Plus	1⅛"	260	8090	5340	585	5840
Boise Cascade VERSA-STRAND 0.8E	1¼"	310	9460	5820	830	8990
Boise Cascade VERSA-LAM 1.4 1800	1⁵⁄₁₆"	SEE NOTE 7	10000	9090	585	7420

1. φH = Factored horizontal (shear) load transfer capacity is based on the minimum nailing attachment schedule specified in NBCC 2005 and APA document D340CA.
2. φV = Factored uniform bearing (vertical) load resistance. The uniform bearing load shall be simultaneously satisfied with the concentrated vertical load resistance, when applicable.
3. φZ = Factored lateral resistance of a ½ inch (12.7 mm) diameter lag screw.
4. φP = Factored concentrated vertical load resistance based on 4½ inch (114 mm) bearing length. The concentrated vertical load shall be simultaneously satisfied with the uniform bearing load capacity, when applicable.
5. All tabulated values are applicable to the standard-term load duration and permitted to be adjusted for other load durations in accordance with CSA O86.
6. See CCMC Evaluation Report No. 13143 for further product information on Boise Cascade VERSA-STRAND 0.8E.
7. Refer to 1½ inch (38 mm) D. Fir lumber at table 9.5.2 of CSA O86.

45 Minute Fire Rating
Floor/Ceiling Assembly

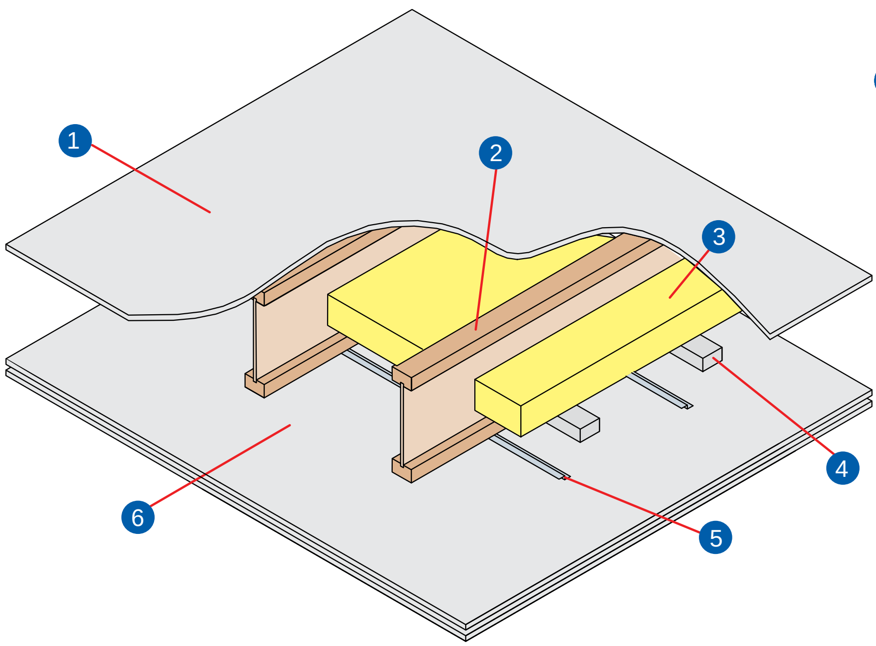


3 Insulation
3½" thick, minimum 2.5 pcf, mineral wool insulation batts.

6 Gypsum Wallboard
One layer of ⅝" Type C gypsum wallboard installed perpendicular to channels with end joints staggered 48". Boards to be fastened to channels with minimum 1⅛" Type S drywall screws located 12" on center. Gypsum wallboard joints shall be covered with tape and coated with gypsum joint compound.

REFERENCE:
PFS BCI®, Assembly 4

1 Hour Fire Rating
Floor/Ceiling Assembly
STC 55 with Resilient Channels and Insulation
STC 48 with Resilient Channels and WITHOUT Insulation



3 Insulation (optional)
3½" fiberglass batt insulation.

6 Gypsum Wallboard
Two layers of ½" Type C or ⅝" Type X gypsum wallboard. Base layer installed perpendicular to joists or channels and fastened with 1¾" screws located at 12" on center. Face layer installed parallel to base layer with end and edge joints staggered 16" minimum and fastened with 2¼" screws located at 12" on center on intermediate joists, and 8" on center at end joints. Gypsum wallboard joints shall be covered with tape and coated with gypsum joint compound.

REFERENCES:
PFS BCI®, Assembly 1
PFS BCI®, Assembly 2

1 Subfloor
Minimum ⅝" plywood or OSB sheathing fastened to joists in accordance with Code specifications. Construction adhesive is optional.

2 Structural Members
BCI® Joists having a minimum depth of 9½" and spaced at 24" o.c. maximum.

4 Insulation Supports
Nominal 2x3 strapping located 16" o.c. or equivalent method to retain insulation above joist flanges.

5 Resilient Channels
Minimum 25 gauge ½" offset RC-1 galvanized steel channels installed perpendicular to joists spaced at 16" o.c. maximum and fastened with 1½" screws at each joist intersection.

USP STRUCTURAL CONNECTORS® A GIBRALTAR INDUSTRIES COMPANY

SINGLE I-JOISTS – Canadian/Factored Resistance (lbs)

Joist Height	Top Mount Hangers[5] USP Stock No.[1]	Fastener Schedule[4] Header	Fastener Schedule[4] Joist	SPF Uplift[3] 115%	Down 100%[2] DF	Down 100%[2] SPF	Face Mount Hangers USP Stock No.[1]	Fastener Schedule[4] Header	Fastener Schedule[4] Joist	SPF Uplift[3] 115%	Down 100%[2] DF	Down 100%[2] SPF
BCI® 5000						Joist Width = 2″						
9-1/2	TFL2095	(6) 10d	(2) 10d x 1-1/2	530	2495	1771	THF20925 Min	(8) 10d	(2) 10d x 1-1/2	373	3050	2166
							THF20925 Max	(12) 10d	(2) 10d x 1-1/2	373	3225	2290
11-7/8	TFL20118	(6) 10d	(2) 10d x 1-1/2	530	2495	1771	THF20112 Min	(8) 10d	(2) 10d x 1-1/2	373	3050	2166
							THF20112 Max	(16) 10d	(2) 10d x 1-1/2	373	4135	2936
14	TFL2014	(6) 10d	(2) 10d x 1-1/2	530	2495	1771	THF20140 Min	(12) 10d	(2) 10d x 1-1/2	373	3815	2709
							THF20140 Max	(20) 10d	(2) 10d x 1-1/2	373	4045	2872
BCI® 60/6000						Joist Width = 2-5/16″						
9-1/2	TFL2395	(6) 10d	(2) 10d x 1-1/2	530	2495	1771	THF23925	(12) 10d	(2) 10d x 1-1/2	238	3310	2350
11-7/8	TFL23118	(6) 10d	(2) 10d x 1-1/2	530	2495	1771	THF23118	(14) 10d	(2) 10d x 1-1/2	511	3310	2350
14	TFL2314	(6) 10d	(2) 10d x 1-1/2	530	2495	1771	THF23140	(18) 10d	(2) 10d x 1-1/2	511	4405	3128
16	TFL2316	(6) 10d	(2) 10d x 1-1/2	530	2495	1771	THF23160	(22) 10d	(2) 10d x 1-1/2	511	4405	3128
BCI® 6500						Joist Width = 2-9/16″						
9-1/2	TFL2595	(6) 10d	(2) 10d x 1-1/2	530	2495	1771	THF25925	(12) 10d	(2) 10d x 1-1/2	238	3310	2350
11-7/8	TFL25118	(6) 10d	(2) 10d x 1-1/2	530	2495	1771	THF25112	(14) 10d	(2) 10d x 1-1/2	511	3310	2350
14	TFL2514	(6) 10d	(2) 10d x 1-1/2	530	2495	1771	THF25140	(18) 10d	(2) 10d x 1-1/2	511	4405	3128
16	TFL2516	(6) 10d	(2) 10d x 1-1/2	530	2495	1771	THF25160	(22) 10d	(2) 10d x 1-1/2	511	4405	3128
BCI® 90						Joist Width = 3-1/2″						
11-7/8	THO35118	(10) 10d	(2) 10d x 1-1/2	355	2975	2115	THF35112	(16) 10d	(2) 10d x 1-1/2	330	5240	3720
14	THO35140	(12) 10d	(2) 10d x 1-1/2	355	4450	3160	THF35140	(20) 10d	(2) 10d x 1-1/2	330	6680	4743
16	THO35160	(12) 10d	(2) 10d x 1-1/2	355	4450	3160	THF35157	(22) 10d	(2) 10d x 1-1/2	330	6680	4743
18	TFI418	(6) 16d	(2) 10d x 1-1/2	385	4190	2975	THF35157	(22) 10d	(2) 10d x 1-1/2	330	6680	4743
20	TFI420	(6) 16d	(2) 10d x 1-1/2	385	4190	2975	THF35157	(22) 10d	(2) 10d x 1-1/2	330	6680	4743

Joist Height	Skewed 45° Hangers USP Stock No.[1]	Fastener Schedule[4] Plate	Fastener Schedule[4] Rafter	SPF Uplift[3] 115%	Down 100%[2] DF	Down 100%[2] SPF	Slope and Skew Hangers USP Stock No.[1,6]	Fastener Schedule[4] Header	Fastener Schedule[4] Joist	SPF Uplift[3] 115%	Down 100%[2] DF	Down 100%[2] SPF
BCI® 5000						Joist Width = 2″						
9-1/2	SKH2020L/R	(14) 10d	(10) 10d x 1-1/2	2065	2175	1545	LSSH20	(10) 10d	(7) 10d x 1-1/2	1030	2620	1860
11-7/8	SKH2020L/R	(14) 10d	(10) 10d x 1-1/2	2065	2175	1545	LSSH20	(10) 10d	(7) 10d x 1-1/2	1030	2620	1860
14	SKH2024L/R	(16) 10d	(10) 10d x 1-1/2	2065	4740	3365	LSSH20	(10) 10d	(7) 10d x 1-1/2	1030	2620	1860
BCI® 60/6000						Joist Width = 2-5/16″						
9-1/2	SKH2320L/R	(14) 10d	(10) 10d x 1-1/2	2065	2175	1545	LSSH23	(10) 10d	(7) 10d x 1-1/2	1030	2620	1860
11-7/8	SKH2320L/R	(14) 10d	(10) 10d x 1-1/2	2065	2175	1545	LSSH23	(10) 10d	(7) 10d x 1-1/2	1030	2620	1860
14	SKH2324L/R	(16) 10d	(10) 10d x 1-1/2	2065	4740	3365	LSSH23	(10) 10d	(7) 10d x 1-1/2	1030	2620	1860
16	SKH2324L/R	(16) 10d	(10) 10d x 1-1/2	2065	4740	3365	LSSH23[8]	(10) 10d	(7) 10d x 1-1/2	1030	2620	1860
BCI® 6500						Joist Width = 2-9/16″						
9-1/2	SKH2520L/R	(14) 10d	(10) 10d x 1-1/2	2065	3265	2320	LSSH25	(14) 16d	(12) 10d x 1-1/2	1390	4260	3025
11-7/8	SKH2520L/R	(14) 10d	(10) 10d x 1-1/2	2065	3265	2320	LSSH25	(14) 16d	(12) 10d x 1-1/2	1390	4260	3025
14	SKH2524L/R	(16) 10d	(10) 10d x 1-1/2	2065	3265	2320	LSSH25	(14) 16d	(12) 10d x 1-1/2	1390	4260	3025
16	SKH2524L/R	(16) 10d	(10) 10d x 1-1/2	2065	3265	2320	LSSH25[8]	(14) 16d	(12) 10d x 1-1/2	1390	4260	3025
BCI® 90						Joist Width = 3-1/2″						
11-7/8	SKH410L/R[7]	(16) 16d	(10) 16d	2530	3690	2620	LSSH35	(14) 16d	(12) 10d x 1-1/2	1845	5230	3715
14	SKH414L/R[7]	(22) 16d	(10) 16d	2530	7405	5260	LSSH35	(14) 16d	(12) 10d x 1-1/2	1845	5230	3715
16	SKH414L/R[7]	(22) 16d	(10) 16d	2530	7405	5260	LSSH35[8]	(14) 16d	(12) 10d x 1-1/2	1845	5230	3715
18	SKH414L/R[7]	(22) 16d	(10) 16d	2530	7405	5260	LSSH35[8]	(14) 16d	(12) 10d x 1-1/2	1845	5230	3715
20	SKH414L/R[7]	(22) 16d	(10) 16d	2530	7405	5260	LSSH35[8]	(14) 16d	(12) 10d x 1-1/2	1845	5230	3715

Joist Height	Adjustable Height Hangers USP Stock No.[1,9]	Fastener Schedule[4] Header	Fastener Schedule[4] Joist	SPF Uplift[3] 115%	Down 100%[2] DF	Down 100%[2] SPF
BCI® 5000		Joist Width = 2″				
9-1/2 - 14	-- --	-- --	-- --	-- --	-- --	-- --
BCI® 60/6000		Joist Width = 2-5/16″				
9-1/2	-- --	-- --	-- --	-- --	-- --	-- --
11-7/8	MSH2322	(6) 10d	(4) 10d x 1-1/2	-- --	1185	840
14	MSH2322	(6) 10d	(4) 10d x 1-1/2	-- --	1185	840
16	MSH2322	(6) 10d	(4) 10d x 1-1/2	-- --	1185	840
BCI® 6500		Joist Width = 2-9/16″				
9-1/2	-- --	-- --	-- --	-- --	-- --	-- --
11-7/8	MSH322	(6) 10d	(4) 10d x 1-1/2	-- --	1185	840
14	MSH322	(6) 10d	(4) 10d x 1-1/2	-- --	1185	840
16	MSH322	(6) 10d	(4) 10d x 1-1/2	-- --	1185	840
BCI® 90		Joist Width = 3-1/2″				
11-7/8	MSH422	(6) 10d	(4) 10d	-- --	1105	785
14 - 20	-- --	-- --	-- --	-- --	-- --	-- --

1) Shaded hangers require web stiffeners at joist ends. Web stiffeners may be required for non-shaded hangers by I-joist manufacturers.
2) Factored resistance is based on hanger attachment to a DF-L or S-P-F species solid sawn header. Some loads may be increased for duration of load adjustments. Refer to USP Full Line Catalog for details.
3) Uplift loads have been increased 15% for wind and seismic loading; no further increase shall be permitted.
4) 10d x 1-1/2″ nails are 9 gauge (0.148″ diameter) by 1-1/2″ long. Minimum nail penetration shall be 1-1/2″ for 10d nails and 1-5/8″ for 16d nails.
5) Top Mount Hangers require minimum 3″ header width for THO series hangers; 3-1/2″ minimum header thickness for all other stock numbers.
6) Hangers utilizing 16d nails are not compatible with BCI® joists.
7) Miter cut required on end of joist to achieve design loads.
8) LSTA24 strap required along top chord for lateral restraint.
9) For additional sizes, stock numbers, and modifications not shown, refer to USP's Full Line Catalog.

For further information please call 1.800.328.5934 or go to www.USPconnectors.com

USP STRUCTURAL CONNECTORS® A GIBRALTAR INDUSTRIES COMPANY

DOUBLE I-JOISTS – Canadian/Factored Resistance (lbs)

Joist Height	Top Mount Hangers[5] USP Stock No.[1]	Fastener Schedule[4,8] Header	Joist	SPF Uplift[3] 115%	Down 100%[2] DF	SPF	Face Mount Hangers USP Stock No.[1]	Fastener Schedule[4,8] Header	Joist	SPF Uplift[3] 115%	Down 100%[2] DF	SPF
Double BCI® 5000							**Joist Width = 4″**					
9-1/2	THO20950-2	(10) 16d	(6) 10d	1570	4370	3100	THF20925-2	(12) 10d	(6) 10d	2361	5255	3731
11-7/8	THO20118-2	(10) 16d	(6) 10d	1570	4820	3425	THF20112-2	(16) 10d	(6) 10d	2361	6855	4867
14	THO20140-2	(12) 16d	(6) 10d	1570	6060	4305	THF20140-2	(20) 10d	(6) 10d	2361	6735	4782
Double BCI® 60/6000							**Joist Width = 4-5/8″**					
9-1/2	THO23950-2	(10) 16d	(6) 10d	1570	6005	4265	THF23925-2	(14) 10d	(6) 10d	2361	5240	3720
11-7/8	THO23118-2	(10) 16d	(6) 10d	1570	6005	4265	THF23118-2	(16) 10d	(6) 10d	2361	6855	4867
14	THO23140-2	(12) 16d	(6) 10d	1570	7290	5175	THF23140-2	(20) 10d	(6) 10d	2361	6680	4743
16	THO23160-2	(12) 16d	(6) 10d	1570	7290	5175	THF23160-2	(24) 10d	(6) 10d	2361	6680	4743
Double BCI® 6500							**Joist Width = 5-1/8″**					
9-1/2	THO25950-2	(10) 16d	(6) 10d	1570	6005	4265	THF25925-2	(12) 10d	(6) 10d	2361	5240	3720
11-7/8	THO25118-2	(10) 16d	(6) 10d	1570	6005	4265	THF25112-2	(16) 10d	(6) 10d	2361	5240	3720
14	THO25140-2	(12) 16d	(6) 10d	1570	6645	4715	THF25140-2	(20) 10d	(6) 10d	2361	6680	4743
16	THO25160-2	(12) 16d	(6) 10d	1570	6645	4715	THF25160-2	(24) 10d	(6) 10d	2361	6680	4743
Double BCI® 90							**Joist Width = 7″**					
11-7/8	BPH71118	(10) 16d	(6) 10d	885	5055	4725	HD7100	(12) 16d	(6) 10d	3149	7215	5123
14	BPH7114	(10) 16d	(6) 10d	885	5055	4725	HD7100	(12) 16d	(6) 10d	3149	7215	5123
16	BPH7116	(10) 16d	(6) 10d	885	5055	4725	HD7140	(20) 16d	(8) 10d	3149	7215	5123
18	BPH7118	(10) 16d	(6) 10d	885	5055	4725	HD7140	(20) 16d	(8) 10d	3149	7215	5123
20	BPH7120	(10) 16d	(6) 10d	885	5055	4725	HD7140	(20) 16d	(8) 10d	3149	7215	5123

Joist Height	Skewed 45° Hangers USP Stock No.[1,6]	Fastener Schedule[4,8] Header	Joist	SPF Uplift[3] 115%	Down 100%[2] DF	SPF	Adjustable Height Hangers USP Stock No.[1,9]	Fastener Schedule[4,8] Header	Joist	SPF Uplift[3] 115%	Down 100%[2] DF	SPF
BCI® 5000							**Joist Width = 4″**		**Joist Width = 4″**			
9-1/2	SKH2020L/R-2[7]	(14) 10d	(10) 10d	2530	5430	3855	-- --	-- --	-- --	-- --	-- --	-- --
11-7/8	SKH2020L/R-2[7]	(14) 10d	(10) 10d	2530	5430	3855	-- --	-- --	-- --	-- --	-- --	-- --
14	SKH2024L/R-2[7]	(16) 10d	(10) 10d	2530	5055	3590	-- --	-- --	-- --	-- --	-- --	-- --
Double BCI® 60/6000							**Joist Width = 4-5/8″**		**Joist Width = 4-5/8″**			
9-1/2	SKH2320L/R-2[7]	(14) 10d	(10) 10d	2530	5430	3855	MSH2322-2[6]	(6) 10d	(4) 10d	-- --	1490	1055
11-7/8	SKH2320L/R-2[7]	(14) 10d	(10) 10d	2530	5430	3855	MSH2322-2[6]	(6) 10d	(4) 10d	-- --	1490	1055
14	SKH2324L/R-2[7]	(16) 10d	(10) 10d	2530	5055	3590	MSH2322-2[6]	(6) 10d	(4) 10d	-- --	1490	1055
16	SKH2324L/R-2[7]	(16) 10d	(10) 10d	2530	5055	3590	-- --	-- --	-- --	-- --	-- --	-- --
Double BCI® 6500							**Joist Width = 5-1/8″**		**Joist Width = 5-1/8″**			
9-1/2	SKH2520L/R-2[7]	(14) 10d	(10) 10d	2530	5430	3855	MSH2622-2[6]	(6) 10d	(4) 10d	-- --	1490	1055
11-7/8	SKH2520L/R-2[7]	(14) 10d	(10) 10d	2530	5430	3855	MSH2622-2[6]	(6) 10d	(4) 10d	-- --	1490	1055
14	SKH2524L/R-2[7]	(16) 10d	(10) 10d	2530	5055	3590	MSH2622-2[6]	(6) 10d	(4) 10d	-- --	1490	1055
16	SKH2524L/R-2[7]	(16) 10d	(10) 10d	2530	5055	3590	-- --	-- --	-- --	-- --	-- --	-- --
Double BCI® 90							**Joist Width = 7″**		**Joist Width = 7″**			
11-7/8	HD7100-SK45L/R[6,7]	(12) 16d	(6) 10d	2361	7215	5123	MSH422-2	(8) 16d	(6) 16d	-- --	2295	1630
14	HD7100-SK45L/R[6,7]	(12) 16d	(6) 10d	2361	7215	5123	-- --	-- --	-- --	-- --	-- --	-- --
16	HD7140-SK45L/R[6,7]	(20) 16d	(8) 10d	2361	7215	5123	-- --	-- --	-- --	-- --	-- --	-- --
18	HD7140-SK45L/R[6,7]	(20) 16d	(8) 10d	2361	7215	5123	-- --	-- --	-- --	-- --	-- --	-- --
20	HD7140-SK45L/R[6,7]	(20) 16d	(8) 10d	2361	7215	5123	-- --	-- --	-- --	-- --	-- --	-- --

Joist Wdith	Variable Pitch Connectors USP Stock No.[1,9]	Fastener Schedule[4] Header	Joist	SPF Uplift[3] 115%	Down 100%[2] DF	SPF
BCI® 5000						
2	TMP21	(6) 10d	(4) 10d x 1-1/2	275	1860	1860
	TMPH21	(10) 10d	(8) 10d x 1-1/2	215	3485	2995
BCI® 60/6000						
2-5/16″	TMP23	(6) 10d	(4) 10d x 1-1/2	275	2570	2570
	TMPH23	(10) 10d	(8) 10d x 1-1/2	215	3485	2995
BCI® 6500						
2-9/16″	TMP25	(6) 10d	(4) 10d x 1-1/2	275	2630	2630
	TMPH25	(10) 10d	(8) 10d x 1-1/2	215	3485	2995
BCI® 90						
3-1/2″	TMP4	(6) 10d	(4) 10d x 1-1/2	275	2835	2835
	TMPH4	(10) 10d	(8) 10d x 1-1/2	215	3485	2995

1) Shaded hangers require web stiffeners at joist ends. Web stiffeners may be required for non-shaded hangers by I-joist manufacturers.
2) Factored resistance is based on hanger attachment to a DF-L or S-P-F species solid sawn header. Some loads may be increased for duration of load adjustments. Refer to USP Full Line Catalog for details.
3) Uplift loads have been increased 15% for wind and seismic loading; no further increase shall be permitted.
4) Minimum nail penetration shall be 1-1/2″ for 10d nails and 1-5/8″ for 16d nails. 16d sinkers (0.148″ diameter) by 3-1/4″ long may be substituted for 10d common nails with no load reduction.
5) Top Mount Hangers require minimum 3″ header width for THO series hangers; 3-1/2″ minimum header thickness for all other stock numbers.
6) Hangers are special order. Consult USP for pricing and lead times.
7) Miter cut required on end of joist to achieve design loads.
8) Hangers utilizing 16d nails are not compatible with BCI® joists.
9) For additional sizes, stock numbers, and modifications not shown, refer to USP's Full Line Catalog.

1) Shaded hangers require web stiffeners at joist ends. Web stiffeners may be required for non-shaded hangers by I-joist manufacturers.
2) Factored resistance is based on hanger attachment to a DF-L or S-P-F species solid sawn. Some loads may be increased for duration of load adjustments. Refer to USP Full Line Catalog for details.
3) Uplift loads have been increased 15% for wind and seismic loading; no further increase shall be permitted.
4) 10d x 1-1/2″ nails are 9 gauge (0.148″" diameter) by 1-1/2″ long. Minimum nail penetration shall be 1-1/2″ for 10d nails.

For further information please call 1.800.328.5934 or go to www.USPconnectors.com

SINGLE I-JOISTS – Canadian/Factored Resistance (lbs)

SIMPSON Strong-Tie

Joist Height	Top Flange							Snap-In							Face Mount						
	Model	B Dim	Fastener Type		Uplift (115)	Down Load		Model	B Dim	Fastener Type		Uplift (115)	Down Load		Model	B Dim	Fastener Type		Uplift (115)	Down Load	
			Header	Joist		DF	SPF			Header	Joist		DF	SPF			Header	Joist		DF	SPF
BCI 4500								Joist Width = 1¾"													
9½	LT179	2	6-10d	1-#8x1¼WS	100	2620	1725	IUS1.81/9.5	2	8-10d	—	145	2385	1700	LF179	2	10-10d	1-#8x1¼WS	100	2525	2155
11⅞	LT171188	2	6-10d	1-#8x1¼WS	100	2620	1725	IUS1.81/11.88	2	10-10d	—	145	2565	1835	LF1711	2	12-10d	1-#8x1¼WS	100	2840	2155
14	LT1714	2	6-10d	1-#8x1¼WS	100	2620	1725	IUS1.81/14	2	12-10d	—	145	2565	1835	LF1714	2	14-10d	1-#8x1¼WS	100	2840	2155
16	LT1716	2	6-10d	1-#8x1¼WS	100	2620	1725	IUS1.81/16	2	14-10d	—	145	2725	1950	MIU1.81/16	2½	24-16d	2-10dx1½	270	3555	2690
BCI 5000[2]								Joist Width = 2"													
9½	ITS2.06/9.5	2	6-10d	—	175	2235	1690	IUS2.06/9.5	2	8-10d	—	145	2385	1700	No LF Hanger for these sizes						
11⅞	ITS2.06/11.88	2	6-10d	—	175	2235	1690	IUS2.06/11.88	2	10-10d	—	145	2565	1835							
14	ITS2.06/14	2	6-10d	—	175	2235	1690	IUS2.06/14	2	12-10d	—	145	2565	1835							
BCI 60/6000[2]								Joist Width = 2 5/16"													
9½	LT239	2	6-10d	1-#8x1¼WS	100	2620	1725	IUS2.37/9.5	2	8-10d	—	145	2385	1700	LF239	2	10-10d	1-#8x1¼WS	100	2525	2155
11⅞	LT231188	2	6-10d	1-#8x1¼WS	100	2620	1725	IUS2.37/11.88	2	10-10d	—	145	2565	1835	LF2311	2	12-10d	1-#8x1¼WS	100	2880	2270
14	LT2314	2	6-10d	1-#8x1¼WS	100	2620	1725	IUS2.37/14	2	12-10d	—	145	2565	1835	LF2314	2	14-10d	1-#8x1¼WS	100	3235	2380
16	LT2316	2	6-10d	1-#8x1¼WS	100	2620	1725	IUS2.37/16	2	14-10d	—	145	2725	1950	MIU2.37/16	2½	24-16d	2-10dx1½	375	4930	3485
BCI 6500[2]								Joist Width = 2 9/16"													
9½	LT259	2	6-10d	1-#8x1¼WS	100	2620	1725	IUS2.56/9.5	2	8-10d	—	145	2385	1700	LF259	2	10-10d	1-#8x1¼WS	100	2525	2155
11⅞	LT251188	2	6-10d	1-#8x1¼WS	100	2620	1725	IUS2.56/11.88	2	10-10d	—	145	2565	1835	LF2511	2	12-10d	1-#8x1¼WS	100	2880	2270
14	LT2514	2	6-10d	1-#8x1¼WS	100	2620	1725	IUS2.56/14	2	12-10d	—	145	2565	1835	LF2514	2	14-10d	1-#8x1¼WS	100	3235	2380
16	LT2516	2	6-10d	1-#8x1¼WS	100	2620	1725	IUS2.56/16	2	14-10d	—	145	2725	1950	MIU2.56/16	2½	24-16d	2-10dx1½	375	4930	3485
BCI 90								Joist Width = 3½"													
11⅞	LT351188	2	6-10d	2-#8x1¼WS	100	2620	1725	IUS3.56/11.88	2	12-10d	—	145	2375	1695	LF3511	2	12-10d	2-#8x1¼WS	100	2880	2270
14	LT3514	2	6-10d	2-#8x1¼WS	100	2620	1725	IUS3.56/14	2	12-10d	—	145	2375	1695	LF3514	2	14-10d	2-#8x1¼WS	100	3235	2380
16	LT3516	2	6-10d	2-#8x1¼WS	100	2620	1725	IUS3.56/16	2	14-10d	—	145	2375	1695	MIU3.56/16	2½	24-16d	2-10dx1½	375	4930	3480
18	MIT418	2½	8-16d	2-10dx1½	535	3480	2415	No IUS Hanger for these sizes							MIU3.56/18	2½	26-16d	2-10dx1½	375	4930	3480
20	MIT420	2½	8-16d	2-10dx1½	535	3480	2415								MIU3.56/20	2½	28-16d	2-10dx1½	375	4930	3480

1. Shaded hangers require web stiffeners at joist ends. Web stiffeners may be required by others for non-shaded hangers.
2. At max capacity shown hangers may exceed standard ⅛" deflection by 1/32".
3. THAI hangers require a minimum of 4 top and two face nails installed.
4. The B Dim is the depth of the hanger seat.

Joist Height	45° Skew							Adjustable Height							Field Slope & Skew						
	Model	B Dim	Fastener Type		Uplift (115)	Down Load		Model	B Dim	Fastener Type		Uplift (115)	Down Load		Model	B Dim	Fastener Type		Uplift (115)	Down Load	
			Header	Joist		DF	SPF			Header	Joist		DF	SPF			Header	Joist		DF	SPF
BCI 4500								Joist Width = 1¾"													
9½	SUR/L1.81/9	3 3/16	14-16d	2-10dx1½	275	3140	2220	THAI1.81/22	2¼	6-10d	2-10dx1½	—	2740	2075	LSSUI25	3½	9-10d	7-10dx1½	1285	2090	1495
11⅞	SUR/L1.81/11	3 3/16	16-16d	2-10dx1½	275	3140	2220	THAI1.81/22	2¼	6-10d	2-10dx1½	—	2740	2075	LSSUI25	3½	9-10d	7-10dx1½	1285	2090	1495
14	SUR/L1.81/14	3 3/16	18-16d	2-10dx1½	275	3140	2220	THAI1.81/22	2¼	6-10d	2-10dx1½	—	2740	2075	LSSUI25	3½	9-10d	7-10dx1½	1285	2090	1495
16	SUR/L1.81/14	3 3/16	18-16d	2-10dx1½	275	3140	2220	See Canadian *Wood Construction Connectors* catalogue for hanger selection.							See Canadian *Wood Construction Connectors* catalogue for hanger selection.						
BCI 5000[2]								Joist Width = 2"													
9½	SUR/L2.06/9	3 3/16	14-16d	2-10dx1½	385	3945	2780	THAI2.06/22	2¼	6-10d	2-10dx1½	—	2740	2075	LSSUI2.06	3½	9-10d	7-10dx1½	1285	2090	1495
11⅞	SUR/L2.06/11	3 3/16	16-16d	2-10dx1½	385	3945	2780	THAI2.06/22	2¼	6-10d	2-10dx1½	—	2740	2075	LSSUI2.06	3½	9-10d	7-10dx1½	1285	2090	1495
14	SUR/L2.06/11	3 3/16	16-16d	2-10dx1½	385	3945	2780	THAI2.06/22	2¼	6-10d	2-10dx1½	—	2740	2075	LSSUI2.06	3½	9-10d	7-10dx1½	1285	2090	1495
BCI 60/6000[2]								Joist Width = 2 5/16"													
9½	SUR/L2.37/9	3 3/16	14-16d	2-10dx1½	385	3945	2780	THAI3522	2¼	6-10d	2-10dx1½	—	2740	2075	LSSUI35	3½	9-10d	7-10dx1½	1285	2090	1495
11⅞	SUR/L2.37/11	3 3/16	16-16d	2-10dx1½	385	3945	2780	THAI3522	2¼	6-10d	2-10dx1½	—	2740	2075	LSSUI35	3½	9-10d	7-10dx1½	1285	2090	1495
14	SUR/L2.37/14	3 3/16	18-16d	2-10dx1½	385	3945	2780	THAI3522	2¼	6-10d	2-10dx1½	—	2740	2075	LSSUI35	3½	9-10d	7-10dx1½	1285	2090	1495
16	SUR/L2.37/14	3 3/16	18-16d	2-10dx1½	385	3945	2780	See Canadian *Wood Construction Connectors* catalogue for hanger selection.							See Canadian *Wood Construction Connectors* catalogue for hanger selection.						
BCI 6500[2]								Joist Width = 2 9/16"													
9½	SUR/L2.56/9	3 3/16	14-16d	2-10dx1½	385	3945	2780	THAI322	2¼	6-10d	2-10dx1½	—	2740	2075	LSSUH310	3½	14-16d	12-10dx1½	1725	2620	1850
11⅞	SUR/L2.56/11	3 3/16	16-16d	2-10dx1½	385	3945	2780	THAI322	2¼	6-10d	2-10dx1½	—	2740	2075	LSSUH310	3½	14-16d	12-10dx1½	1725	2620	1850
14	SUR/L2.56/14	3 3/16	18-16d	2-10dx1½	385	3945	2780	THAI322	2¼	6-10d	2-10dx1½	—	2740	2075	LSSUH310	3½	14-16d	12-10dx1½	1725	2620	1850
16	SUR/L2.56/14	3 3/16	18-16d	2-10dx1½	385	3945	2780	See Canadian *Wood Construction Connectors* catalogue for hanger selection.							See Canadian *Wood Construction Connectors* catalogue for hanger selection.						
BCI 90								Joist Width = 3½"													
11⅞	SUR/L410	2⅝	14-16d	6-16d	1975	4065	2875	THAI422	2¼	6-10d	2-10dx1½	—	2740	2075	LSSU410	3½	14-16d	12-10dx1½	1725	3055	2160
14	SUR/L414	2½	18-16d	8-16d	2175	4095	2895	THAI422	2¼	6-10d	2-10dx1½	—	2740	2075	LSSU410	3½	14-16d	12-10dx1½	1725	3055	2160
16	SUR/L414	2½	18-16d	8-16d	2175	4095	2895	See Canadian *Wood Construction Connectors* catalogue for hanger selection.							See Canadian *Wood Construction Connectors* catalogue for hanger selection.						
18	SUR/L414	2½	18-16d	8-16d	2175	4095	2895														
20	SUR/L414	2½	18-16d	8-16d	2175	4095	2895														

DOUBLE I-JOISTS – Canadian/Factored Resistance (lbs)

SIMPSON Strong-Tie®

Joist Height	Top Flange							Face Mount							45° Skew						
	Model	B Dim	Fastener Type		Uplift	Down Load		Model	B Dim	Fastener Type		Uplift	Down Load		Model	B Dim	Fastener Type		Uplift	Down Load	
			Header	Joist	(115)	DF	SPF			Header	Joist	(115)	DF	SPF			Header	Joist	(115)	DF	SPF
Double BCI 4500								Joist Width = 3½"													
9½	MIT49.5	2½	8-16d	2-10dx1½	535	3480	2415	MIU3.56/9	2½	16-16d	2-10dx1½	375	4550	3215	HSUR/L410	2 7/16	20-16d	6-16d	1975	5270	3730
11⅞	MIT411.88	2½	8-16d	2-10dx1½	535	3480	2415	MIU3.56/11	2½	20-16d	2-10dx1½	375	4550	3215	HSUR/L410	2 7/16	20-16d	6-16d	1975	5270	3730
14	MIT414	2½	8-16d	2-10dx1½	535	3480	2415	MIU3.56/14	2½	22-16d	2-10dx1½	375	4930	3485	HSUR/L414	2 7/16	26-16d	8-16d	2615	6880	4665
16	MIT416	2½	8-16d	2-10dx1½	535	3480	2415	MIU3.56/16	2½	24-16d	2-10dx1½	375	4930	3485	HSUR/L414	2 7/16	26-16d	8-16d	2615	6880	4665
Double BCI 5000[3]								Joist Width = 4"													
9½	MIT4.12/9.5	2½	8-16d	2-10dx1½	535	3480	2415	MIU4.12/9	2½	16-16d	2-10dx1½	375	4550	3215	HSUR/L4.12/9	3	12-16d	2-10dx1½	275	2995	2350
11⅞	MIT4.12/11.88	2½	8-16d	2-10dx1½	535	3480	2415	MIU4.12/11	2½	20-16d	2-10dx1½	375	4550	3215	HSUR/L4.12/11	3	16-16d	2-10dx1½	275	4195	2965
14	MIT4.12/14	2½	8-16d	2-10dx1½	535	3480	2415	MIU4.12/14	2½	22-16d	2-10dx1½	375	4930	3485	HSUR/L4.12/14	3	20-16d	2-10dx1½	275	4195	2965
Double BCI 60								Joist Width = 4⅝"													
11⅞	MIT3511.88-2	2½	8-16d	2-10dx1½	535	3480	2415	MIU4.75/11	2½	20-16d	2-10dx1½	375	4550	3215	HSUR/L4.75/11	2¾	16-16d	2-10dx1½	275	4195	2965
14	MIT3514-2	2½	8-16d	2-10dx1½	535	3480	2415	MIU4.75/14	2½	22-16d	2-10dx1½	375	4930	3485	HSUR/L4.75/14	2¾	20-16d	2-10dx1½	275	4195	2965
16	MIT4.75/16	2½	8-16d	2-10dx1½	535	3480	2415	MIU4.75/16	2½	24-16d	2-10dx1½	375	4930	3485	HSUR/L4.75/16	2¾	24-16d	2-10dx1½	275	4195	2965
Double BCI 6000[3]								Joist Width = 4⅝"													
9½	MIT359.5-2	2½	8-16d	2-10dx1½	535	3480	2415	MIU4.75/9	2½	16-16d	2-10dx1½	375	4550	3215	HSUR/L4.75/9	2¾	12-16d	2-10dx1½	275	2995	2350
11⅞	MIT3511.88-2	2½	8-16d	2-10dx1½	535	3480	2415	MIU4.75/11	2½	20-16d	2-10dx1½	375	4550	3215	HSUR/L4.75/11	2¾	16-16d	2-10dx1½	275	4195	2965
14	MIT3514-2	2½	8-16d	2-10dx1½	535	3480	2415	MIU4.75/14	2½	22-16d	2-10dx1½	375	4930	3485	HSUR/L4.75/14	2¾	20-16d	2-10dx1½	275	4195	2965
16	MIT4.75/16	2½	8-16d	2-10dx1½	535	3480	2415	MIU4.75/16	2½	24-16d	2-10dx1½	375	4930	3485	HSUR/L4.75/16	2¾	24-16d	2-10dx1½	275	4195	2965
Double BCI 6500[3]								Joist Width = 5⅛"													
9½	MIT39.5-2	2½	8-16d	2-10dx1½	535	3480	2415	MIU5.12/9	2½	16-16d	2-10dx1½	375	4550	3215	HSUR/L5.12/9	2 13/16	12-16d	2-10dx1½	275	2995	2350
11⅞	MIT311.88-2	2½	8-16d	2-10dx1½	535	3480	2415	MIU5.12/11	2½	20-16d	2-10dx1½	375	4550	3215	HSUR/L5.12/11	2 13/16	16-16d	2-10dx1½	275	4195	2965
14	MIT314-2	2½	8-16d	2-10dx1½	535	3480	2415	MIU5.12/14	2½	22-16d	2-10dx1½	375	4930	3485	HSUR/L5.12/14	2 13/16	20-16d	2-10dx1½	275	4195	2965
16	MIT5.12/16	2½	8-16d	2-10dx1½	535	3480	2415	MIU5.12/16	2½	24-16d	2-10dx1½	375	4930	3485	HSUR/L5.12/16	2 13/16	24-16d	2-10dx1½	275	4195	2965
Double BCI 90								Joist Width = 7"													
11⅞	B7.12/11.88	2½	14-16d	6-16d	1650	5940	3910	HU412-2	2½	22-16d	8-16d	2635	5780	4670	HU412-2X[2]	2½	22-16d	8-16d	1975	3775	3035
14	B7.12/14	2½	14-16d	6-16d	1650	5940	3910	HU414-2	2½	26-16d	12-16d	3800	7025	5780	HU414-2X[2]	2½	26-16d	12-16d	2850	4565	3755
16	B7.12/16	2½	14-16d	6-16d	1650	5940	3910	HU414-2	2½	26-16d	12-16d	3800	7025	5780	HU414-2X[2]	2½	26-16d	12-16d	2850	4565	3755
18	B7.12/18	2½	14-16d	6-16d	1650	5940	3910	HU414-2	2½	26-16d	12-16d	3800	7025	5780	See Canadian *Wood Construction Connectors* catalogue for hanger selection.						
20	B7.12/20	2½	14-16d	6-16d	1650	5940	3910	See Canadian *Wood Construction Connectors* catalogue for hanger selection.													

1. Shaded hangers require web stiffeners at joist ends. Web stiffeners may be required by others for non-shaded hangers.
2. Skew option must be special ordered. Specify skew angle and direction (e.g. HU412-2x, SKR45°).
3. At max capacity shown hangers may exceed standard ⅛" deflection by 1/32".
4. THAI-2 must be special ordered. Specify width between 3⅛" and 5 5/16".
5. LSU's are field sloped only. Skew option must be factory ordered.

Joist Height	Adjustable Height							Field Slope & Skew						
	Model	B Dim	Fastener Type		Uplift	Down Load		Model	B Dim	Fastener Type		Uplift	Down Load	
			Header	Joist	(115)	DF	SPF			Header	Joist	(115)	DF	SPF
Double BCI 4500								Joist Width = 3½"						
9½	THAI422	2½	6-10d	2-10dx1½	—	2740	2075	LSSU410	3½	14-16d	12-10dx1½	1725	3055	2160
11⅞	THAI422	2½	6-10d	2-10dx1½	—	2740	2075	LSSU410	3½	14-16d	12-10dx1½	1725	3055	2160
14	THAI422	2½	6-10d	2-10dx1½	—	2740	2075	LSSU410	3½	14-16d	12-10dx1½	1725	3055	2160
16	See Canadian *Wood Construction Connectors* catalogue for hanger selection.							See Canadian *Wood Construction Connectors* catalogue for hanger selection.						
Double BCI 5000[3]														
9½	THAI-2[4]	2½	6-10d	2-10dx1½	—	2935	2935	LSU4.12[5]	3½	24-16d	16-10dx1½	1960	3765	2665
11⅞	THAI-2[4]	2½	6-10d	2-10dx1½	—	2935	2935	LSU4.12[5]	3½	24-16d	16-10dx1½	1960	3765	2665
14	THAI-2[4]	2½	6-10d	2-10dx1½	—	2935	2935	LSU4.12[5]	3½	24-16d	16-10dx1½	1960	3765	2665
Double BCI 60/6000[3]								Joist Width = 4⅝"						
9½	THAI-2[4]	2½	6-10d	2-10dx1½	—	2935	2935	LSU3510.2[5]	3½	24-16d	16-10dx1½	1960	3765	2665
11⅞	THAI-2[4]	2½	6-10d	2-10dx1½	—	2935	2935	LSU3510.2[5]	3½	24-16d	16-10dx1½	1960	3765	2665
14	THAI-2[4]	2½	6-10d	2-10dx1½	—	2935	2935	LSU3510.2[5]	3½	24-16d	16-10dx1½	1960	3765	2665
16	See Canadian *Wood Construction Connectors* catalogue for hanger selection.							See Canadian *Wood Construction Connectors* catalogue for hanger selection.						
Double BCI 6500[3]								Joist Width = 5⅛"						
9½	THAI-2[4]	2½	6-10d	2-10dx1½	—	2935	2935	LSU5.12[5]	3½	24-16d	16-10dx1½	1285	2600	1835
11⅞	THAI-2[4]	2½	6-10d	2-10dx1½	—	2935	2935	LSU5.12[5]	3½	24-16d	16-10dx1½	1285	2600	1835
14	THAI-2[4]	2½	6-10d	2-10dx1½	—	2935	2935	LSU5.12[5]	3½	24-16d	16-10dx1½	1285	2600	1835
16	See Canadian *Wood Construction Connectors* catalogue for hanger selection.							See Canadian *Wood Construction Connectors* catalogue for hanger selection.						
Double BCI 90								Joist Width = 7"						
11⅞	See Canadian *Wood Construction Connectors* catalogue for hanger selection.							See Canadian *Wood Construction Connectors* catalogue for hanger selection.						
14														
16														
18														
20														

HOW TO PICK A HANGER:

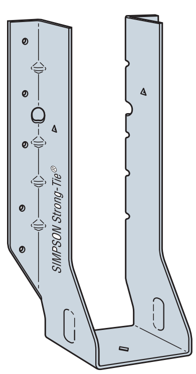
1. Find your joist size in this guide.
2. Choose your header type. Solid header or I-joist.
   - Solid headers include solid sawn Douglas Fir, Spruce-Pine Fir, and LVL.
   - For I-joist header see page 8.
3. Locate your connector type in the table.
   - Face mount, top flange, skewed, sloped, etc.
4. Select a hanger from the table.
5. Confirm that your factored joist reaction is less than the factored resistance of hanger. If yes, you have successfully selected your hanger.

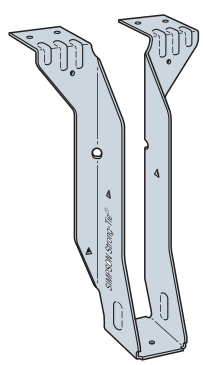
If you did not find a suitable hanger; please see the current Canadian Wood Construction Connectors catalogue or call Simpson Strong-Tie at (800) 999-5099.

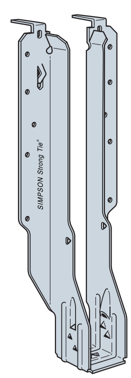
You will need the following information:
- Download
- Uplift
- Header condition
- Bearing length requirement

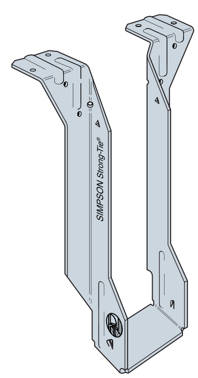
General Notes

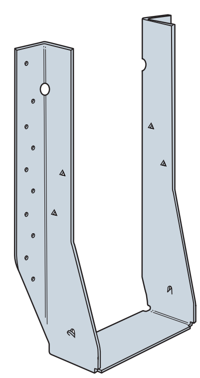
1. See current Canadian Wood Construction Connectors catalogue for Important Information and General Notes section and for hanger models, joist sizes, and header situations not shown. See the Simpson Strong-Tie Connector Guide CSG-BCCANBCI10 1/12 for installation information.
2. Unless otherwise noted, factored resistances (downloads) listed address hanger/header/fastener limitations assuming header material is Douglas Fir-Larch or Spruce Pine Fir. For LVL headers made primarily of Douglas Fir/Southern Pine, use the values found in the DF column. For LVL headers made primarily from Spruce Pine Fir or similar less dense veneers, use the values found in the SPF column. Loads are in pounds. Joist reaction should be checked by a qualified designer to ensure proper hanger selection.
3. Factored uplift resistances (uplift) listed assume SPF joist and header and have been increased by 15% for earthquake and wind loading with no further increase allowed. Reduce loads according to code for normal duration loading such as cantilever construction.
4. If hanger height is less than 60% of joist height, joist rotation may occur; see information in the Simpson Strong-Tie Connector Guide CSG-BCCANBCI10 1/12.
5. Top flange hanger configuration and thickness of top flange need to be considered for flush frame conditions, see the Simpson Strong-Tie Connector Guide CSG-BCCANBCI10 1/12.
6. For this publication, carrying members are assumed to be at least 5½ inches tall. The horizontal thickness of the carrying member must be at least the length of nail being used or the hanger top flange dimension, whichever is greater. ***Exception:*** *narrower carrying members may be used with face mount hangers but the horizontal thickness must be at least 1¾ inches for 10d nails; 2 inches for 16d nails. Clinch nails on back side.*
7. THAI hangers in this publication are based on a "top flange" installation and require that the carrying member have a horizontal thickness of at least 2½ inches. Backer blocks are required when the header is an I-joist.
8. All nails shown are common nails unless otherwise noted.
9. I-joists that are used as headers require backer blocks. See the Simpson Strong-Tie Connector Guide CSG-BCCANBCI10 1/12, Wood I-Joist Headers below for additional information.
10. **Multiple Members:** Multiple members should be adequately connected together to act as one unit.

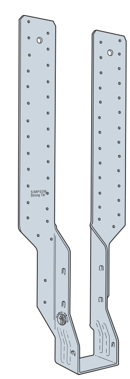

LF

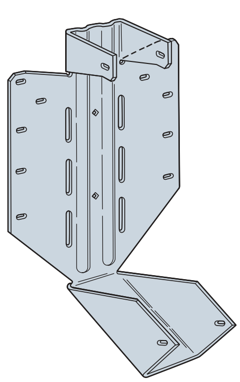

LT

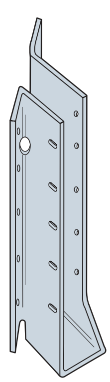

IUS

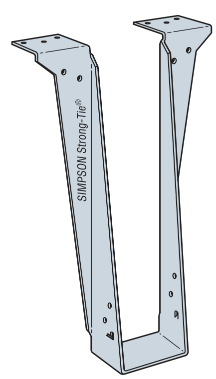

MIT

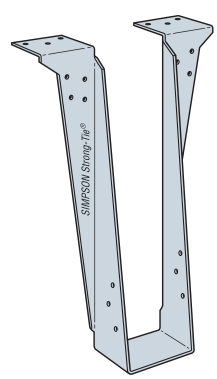

MIU

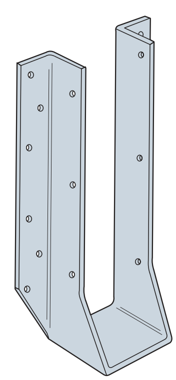

THAI


LSSU


SUL


LBV


B


HU

Weights of Building Materials

CEILING	Pounds Per Square Foot [PSF]
Acoustical fiber tile (1)	1
Suspended steel channel system (1)	2
Suspended wood channel system	2.5
2x8 ceiling joists @ 16" o.c., R-49 insulation, ½" gypsum board	7
1" Plaster	8
½" gypsum board	2.2
⅝" gypsum board	2.75

ROOF	Pounds Per Square Foot [PSF]
Fiberglass shingles	3
Asphalt shingles (1)	2
Wood shingles (1)	3
Spanish clay tile (1)	19
Composition Roofing:	
Three-ply ready roofing (1)	1
Four-ply felt and gravel (1)	5.5
Five-ply felt and gravel (1)	6
20 gage metal deck (1)	2.5
18 gage metal deck (1)	3
1" fiberglass batt insulation	0.04
1" loose fiberglass insulation	0.04
1" loose cellulose insulation	0.14
1" rigid insulation (1)	1.5
3/16" slate (1)	7
¼" slate (1)	10
Single-ply (no ballast) (1)	0.7
Single-ply (ballasted)	11
Dry gravel (1)	8.7
2x8 rafters @ 16" o.c., fiberglass shingles, 15# felt, ⅜" sheathing	8
Skylight: metal frame w/ ⅜" wire glass (1)	8

FLOOR	Pounds Per Square Foot [PSF]
1" reinforced regular weight concrete	12.5
1" plain lightweight concrete (1)	8
7/16" cementitious backerboard	3
Ceramic or quarry tile (¾") on ½" mortar bed (1)	16
Ceramic or quarry tile (¾") on 1" mortar bed (1)	23
1" mortar bed	12
1" slate (1)	15
⅜" marble tile	6
⅜" ceramic floor tile (1)	4.7
Hardwood flooring, 7/7-in (1)	4
¼" linoleum or asphalt tile (1)	1
BCI®/AJS® joists @ 16" o.c., ¾" sheathing, ½" gypsum board	10
¾" Gyp-Crete topping	6.5
Carpet & Pad	2.0
Waterproofing Membranes	
Bituminous, smooth surface (1)	1.5
Liquid applied (1)	1

MISCELLANEOUS	Pounds Per Square Foot [PSF]
1" of sand	8
1" of water	5.2
Hay: baled, dry (2)	15 PSF(2)
Straw: baled, dry (2)	8 PSF(2)
Saturated soil (garden/landscaped roof)	135 PCF
Grand piano	1000 LBS

(1) Minimum Design Loads for Buildings and Other Structures, ASCE 7-05.

(2) National Farm Building Code (Canada) 1995. Value in pounds per cubic foot (PCF), multiply by maximum height to obtain PSF.

SHEATHING	Pounds Per Square Foot [PSF]
11/32" or ⅜" Plywood – OSB (3)	1.0 – 1.2
15/32" or ½" Plywood – OSB (3)	1.4 – 1.7
19/32" or ⅝" Plywood – OSB (3)	1.8 – 2.1
23/32" or ¾" Plywood – OSB (3)	2.2 – 2.5
⅞" Plywood – OSB (3)	2.6 – 2.9
1⅛" Plywood – OSB (3)	3.3 – 3.6
½" cementitious backerboard	3
1½" softwood T & G decking	4.6

FLOOR FRAMING	Pounds Per Square Foot [PSF]
2x4 @ 16" o.c.	1.1
2x6 @ 16" o.c.	1.7
2x8 @ 16" o.c.	2.2
2x10 @ 16" o.c.	2.9
2x12 @ 16" o.c.	3.5
BCI® 4500s, 5000 or 5000s @ 12" o.c.	2.1 – 2.9
BCI® 4500s, 5000 or 5000s @ 16" o.c.	1.6 – 2.2
BCI® 4500s, 5000 or 5000s @ 19.2" o.c.	1.3 – 1.8
BCI® 4500s, 5000 or 5000s @ 24" o.c.	1.1 – 1.5
BCI® 6000 or 6000s @ 12" o.c.	2.5 – 3.4
BCI® 6000 or 6000s @ 16" o.c.	1.9 – 2.6
BCI® 6000 or 6000s @19.2" o.c.	1.6 - 2.1
BCI® 6000 or 6000s @ 24" o.c.	1.3 - 1.7
BCI® 60, 60s, 6500 or 6500s @ 12" o.c.	2.5 – 3.8
BCI® 60, 60s, 6500 or 6500s @ 16" o.c.	1.9 – 2.9
BCI® 60, 60s, 6000 or 6500s @19.2" o.c.	1.6 – 2.4
BCI® 60, 60s, 6500 or 6500s @ 24" o.c.	1.3 – 1.9
BCI® 90, 90s or 90e @ 12" o.c.	3.9 – 5.4
BCI® 90, 90s or 90e @ 16" o.c.	2.9 – 4.1
BCI® 90, 90s or 90e @ 19.2" o.c.	2.4 – 3.4
BCI® 90, 90s or 90e @ 24" o.c.	1.9 – 2.7
AJS® 140 or 20 @ 12" o.c.	2.2 – 3.3
AJS® 140 or 20 @ 16" o.c.	1.7 – 2.5
AJS® 140 or 20 @ 19.2" o.c.	1.4 – 2.1
AJS® 140 or 20 @ 24" o.c.	1.1 – 1.7
AJS® 25 @ 12" o.c.	3.1 – 5.4
AJS® 25 @ 16" o.c.	2.3 – 4.1
AJS® 25 @ 19.2" o.c.	1.9 – 3.4
AJS® 25 @ 24" o.c.	1.6 – 2.7

WALL	Pounds Per Square Foot [PSF]
5/16" x 7½" fiber cement lap siding	3
4" clay brick (1)	39
¼" ceramic wall tile (1)	3.1
1¾" Cultured Stone	12
2x4 studs @ 16" o.c., ⅝" gypsum, insulation, ⅜" siding (1)	11
2x6 studs @ 16" o.c., ⅝" gypsum, insulation, ⅜" siding (1)	12
Wood or steel studs, ½" gypsum board each side (1)	8
Exterior stud walls w/ brick veneer (1)	48
Stucco	10
Log Wall: 10" diameter	26
Glass Block:	
4" Thick - standard (hollow)	20
3" Thick - standard (hollow)	16
4" Thick - thin face	30
3" Thick - solid glass block	40
Windows: glass, frame and sash (1)	8
Include at least 1.5 psf in all dead load summations to account for incidentals such as plumbing, ducts, light fixtures, etc.	

(3) Approximate Engineering Dead Load Weight of Wood Structural Panels, APA EWS TT-019, 2005.

Great products are only the beginning.®

Boise Cascade Engineered Wood Products are manufactured by Boise Cascade
Distributed across Canada by CanWelBroadLeaf Building Materials Division
Sold by your better local building materials retailer

CanWelBroadLeaf™
Products You Want. People You Trust.

www.canwelbroadleaf.com

Langley 5350 – 275th Street Langley, BC V4W 4A3 Phone: 604 607-6885 1 800 665-3448	**Saskatoon** 11 Capital Circle Corman Park, SK S7R 0H4 Phone: 306 933-2500 1 877 954-4448	**Brampton** 15 West Drive Brampton, ON L6T 3T5 Phone: 905 792-9903 1 800 792-9903	**Dartmouth** 70 Simmonds Drive Dartmouth, NS B3B 1P6 Phone: 902 468-9865 1 800 565-7913
Kelowna 205 Campion Street Kelowna, BC V1X 7S9 Phone: 250 765-2036 1 877 488-8899	**Regina** 1055 Fleury Street Regina, SK S4N 4W9 Phone: 306 569-9071 1 800 567-6226	**Ottawa** 700 Industriel Avenue, Suite 401 Ottawa, ON K1G 0Y9 Phone: 613 247-8682 1 800 267-1305	**Deer Lake** 10 Spillway Road Dear lake, NL A8A 3E7 Phone: 709 635-4345 1 800 563-7517
Calgary 4510 – 76th Ave S.E. Calgary, AB T2C 2V2 Phone: 403 279-7108 1 877 656-6166	**Winnipeg** 350 De Baets Street Winnipeg, MB R2J 0H4 Phone: 204 633-4890 1 800 665-1923	**Blainville** 651, boulevard Industriel Blainville, QC J7C 3V3 Phone: 450 435-6911 1 800 361-5345	**St-John's** 42 Sagona Avenue Donovans Industriel Park Mount-Pearl, NL A1N 4R3 Phone: 709 745-6760 1 888 745-6760
Edmonton 11553 – 154th Street Edmonton, AB T5M 3N7 Phone: 780 451-3850 1 800 268-7569	**Sudbury** 725 Martindale Road Sudbury, ON P3E 4P8 Phone: 705 674-6469 1 800 461-1105	**Québec** 170, Liverpool St-Augustin-de-Desmaures, QC G3A 2M5 Phone: 418 878-6081 1 877 877-6081	

Your local retailer

The information provided herein was up-to-date at the time of printing. This document may be superseded by a updated version. Please confirm that this specifier guide is the most current version at www.bc.com/ewp.

CCMC Report Number 13300-R

The information in this document pertains to use in CANADA ONLY, Limit States Design. Refer to the ALLJOIST Specifier Guide for use in the United States.

455, boulevard Fénelon, suite 102
Dorval (Québec) QC H9S 5T8
www.BC.com/ewp

Boise Cascade
Engineered Wood Products