



**Boise Cascade®**  
ENGINEERED WOOD PRODUCTS

# Deep Depth Boise Cascade® BCI® Joists



## Deep BCI® Joists Can Make A Difference in Your Next Light Commercial Project

**Apartments | Condominiums | Townhouses | Student Housing  
Hotels | Government Housing | Assisted Living Facilities**

Boise Cascade's deep depth joists provide the long spans and load-carrying capacity for light commercial structures. When matched with 1<sup>5</sup>/<sub>16</sub>" Versa-Lam® LVL rim board, these deep depth joists help construction run smoothly and efficiently. But those aren't the only benefits you'll see when you specify BCI® joists in your next project.

### FASTER

- ▶ Ready-to-ship inventory means reduced lead times and fast delivery\*.
- ▶ Design and create layouts quickly with our BC Framer®, BC FastPlan®, BC Estimator® and BC Calc® software.

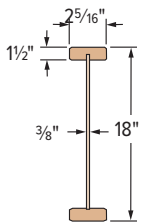
### STRONGER

- ▶ Deep depth BCI® joists can handle longer clear spans and heavier loads.
- ▶ Enhance overall performance by integrating joists with Boise Cascade® Versa-Lam® LVL beams, Versa-Stud® LVL walls and Boise Cascade® Rimboard.

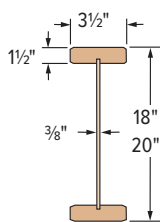
### EASIER

- ▶ Allowable holes permit larger ductwork than similar-depth open web trusses.
- ▶ Achieve a one-hour fire-resistive assembly using BCI® 60 or BCI® 90 joists with a single layer 5/8" gypsum board ceiling with resilient channels, 1x4 furring strip, and mineral fiber insulation (see APA PR-S201 FR4 for details).
- ▶ "Cut unit" service available from Boise Cascade EWP mills for commercial projects.

### Deep Depth BCI® Joists and 1<sup>5</sup>/<sub>16</sub>" Versa-Lam® LVL Rim Board: Series and Sizes\*



**BCI® 60 2.0 Joists**



**BCI® 90 2.0 Joists**



**1<sup>5</sup>/<sub>16</sub>" Versa-Lam® LVL  
1.5E 1800**



### BCI® JOIST BENEFITS

- ▶ Allows large holes for HVAC system
- ▶ Field-trimmable, no special skills or tools needed
- ▶ Pre-stamped knockout holes
- ▶ Stocked sizes mean reduced lead times and fast delivery
- ▶ Easily integrates with Boise Cascade® Rimboard and Versa-Lam® LVL products
- ▶ Limited lifetime warranty

\* Lead times and available sizes may vary by region.

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# Deep Depth Boise Cascade® BCI® Joists

## BCI® Joist Floor Span Table

Based on Multi-Family Dwellings and Hotels: Private Rooms

BCI® Joist		40 PSF Live Load, 25 PSF Dead Load							
		L/480 Live Load Deflection				L/600 Live Load Deflection			
Depth	Series	12" o.c.	16" o.c.	19.2" o.c.	24" o.c.	12" o.c.	16" o.c.	19.2" o.c.	24" o.c.
18"	60 2.0	31'-11"	29'-2"	27'-0"	24'-2"	29'-6"	26'-11"	25'-5"	23'-7"
	90 2.0	35'-11"	32'-8"	30'-9"	25'-4"	33'-2"	30'-2"	28'-5"	25'-4"
20"	90 2.0	38'-10"	35'-4"	32'-11"	26'-4"	35'-11"	32'-7"	30'-9"	26'-4"

\* For complete specification and installation information regarding BCI® joists, refer to Boise Cascade Specifier Guides. Lead times and available sizes may vary by region.

### NOTES\*

- ▶ Table values are based on:
  - 40 psf live load for floors of multi-family dwellings and hotel private rooms per Table 1607.1 of the IBC®.
  - the most restrictive of simple or multiple span applications.
  - minimum 2" end bearing and 3½" intermediate bearing lengths.
- ▶ Table values are the maximum allowable clear distance between supports and assume 2<sup>3</sup>/<sub>32</sub>" minimum plywood/OSB-rated sheathing is glued and nailed to joists.
- ▶ Spans are limited by allowable moment and reaction values, total load deflection of L/240. Live load deflection limits are as shown, in addition to a maximum actual live load deflection of 1".
- ▶ It may be possible to exceed the limitations of this table by using BC Calc® sizing software.

### Web Stiffener Requirements

Web stiffeners are required at all bearing locations for joist depths of 18" and deeper.

## 1<sup>5</sup>/<sub>16</sub>" Versa-Lam® LVL 1.5E 1800 (1) (2)

Vertical Load Capacity 16" Max. Depth		Vertical Load Capacity 20" Max. Depth		Vertical Load Capacity 24" Max. Depth		Specific Gravity (3)	Closest Allowable Nail Spacing — Narrow Face (in)					
Uniform (PLF)	Point (lb)	Uniform (PLF)	Point (lb)	Uniform (PLF)	Point (lb)		8d box	8d common	10d or 12d box	16d box	10d or 12d common, or 16d sinker	16d common
6,000	4,450	5,450	4,450	5,200	3,850	0.5	3	3	3	3	4	6

### NOTES

- (1) See ICC-ES®/APA® ESR-1040 for further information.
- (2) Maximum lateral capacity (lb/ft): Permitted per building code for all nominal 2" thick framing blocked and unblocked diaphragms.
- (3) Equivalency for lateral fastener design.

With defect-free products and unsurpassed customer service, Boise Cascade helps you build structures **Faster. Stronger. Easier.**

### Limited Lifetime Warranty

All Boise Cascade BCI® joist, Versa-Lam® LVL, and AJS® joist products are covered by a limited lifetime warranty for the expected life of the structure. View the complete warranty on our website.

[bc.com/terms-conditions/sales-terms-and-conditions](http://bc.com/terms-conditions/sales-terms-and-conditions)



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The Boise Cascade EWP sales and distribution teams are here to help with your next light commercial project. For more information go to [bc.com/ewp](http://bc.com/ewp) or call our support center at **800-232-0788**.