Boise Cascade

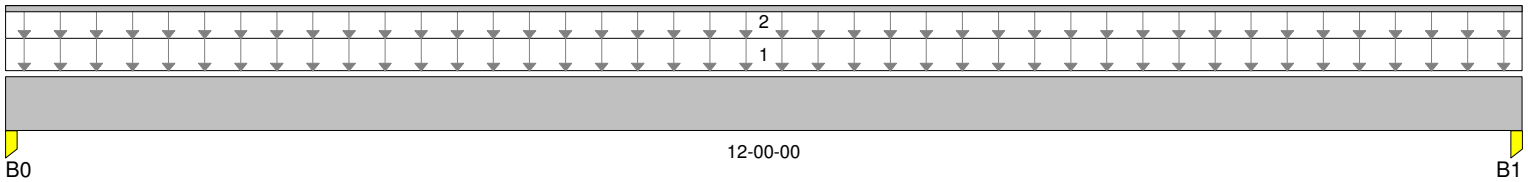
Quadruple 1-3/4" x 9-1/2" VERSA-LAM® 2.0 3100 SP Floor Beam\FB02

Dry | 1 span | No cantilevers | 0/12 slope February 19, 2017 16:54:08

BC CALC® Design Report

Build 5684
Job Name: 127 BRAMBLEWOOD
Address:
City, State, Zip: ,
Customer: ROB TWOMBLY
Code reports: ESR-1040

File Name: BC CALC Project
Description: KITCHEN CEIL BM
Specifier:
Designer:
Company:
Misc:



Total Horizontal Product Length = 12-00-00

Reaction Summary (Down / Uplift) (lbs)

Bearing	Live	Dead	Snow	Wind	Roof Live
B0, 3-1/2"	3,360 / 0	1,556 / 0			
B1, 3-1/2"	3,360 / 0	1,556 / 0			

Load Summary

Tag	Description	Load Type	Ref.	Start	End	Live 100%	Dead 90%	Snow 115%	Wind 160%	Roof Live 125%	Trib.
1	BEDROOM FLOOR	Unf. Area (lb/ft^2)	L	00-00-00	12-00-00	40	10				14-00-00
2	INT WALLS	Unf. Lin. (lb/ft)	L	00-00-00	12-00-00	0	100				n/a

Controls Summary

	Value	% Allowable	Duration	Case	Location
Pos. Moment	13,642 ft-lbs	48.9%	100%	1	06-00-00
End Shear	4,028 lbs	31.9%	100%	1	01-01-00
Total Load Defl.	L/424 (0.327")	56.7%	n/a	1	06-00-00
Live Load Defl.	L/620 (0.224")	58.1%	n/a	2	06-00-00
Max Defl.	0.327"	32.7%	n/a	1	06-00-00
Span / Depth	14.6	n/a	n/a	0	00-00-00

Bearing Supports

		Dim. (L x W)	Value	% Allow Support	% Allow Member	Material
B0	Post	3-1/2" x 3-1/2"	4,916 lbs	n/a	53.5%	Unspecified
B1	Post	3-1/2" x 3-1/2"	4,916 lbs	n/a	53.5%	Unspecified

Cautions

Member is not fully supported at post B0. A connector is required at this bearing.
Member is not fully supported at post B1. A connector is required at this bearing.

Notes

Design meets Code minimum (L/240) Total load deflection criteria.
Design meets Code minimum (L/360) Live load deflection criteria.

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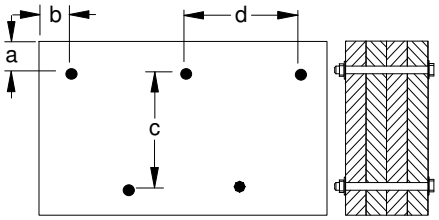
Connection Diagram



a minimum = 2" c = 5-1/2"
b minimum = 2-1/2" d = 24"

Beams 7 inches wide will be assumed to be either top-loaded only, or equally loaded from each side.
Bolts are assumed to be Grade A307 or Grade 2 or higher.
Member has no side loads.
Connectors are: 1/2 in. Staggered Through Bolt

Disclosure

Completeness and accuracy of input must be verified by anyone who would rely on output as evidence of suitability for particular application. Output here based on building code-accepted design properties and analysis methods. Installation of Boise Cascade engineered wood products must be in accordance with current Installation Guide and applicable building codes. To obtain Installation Guide or ask questions, please call (800)232-0788 before installation.