



RB01 (Roof Beam)

Dry | 1 span | No cant.

October 1, 2020 14:56:03

BC CALC® Member Report

Build 7787

Job name: LOT 1

Address:

City, State, Zip:

Customer: SBS

Code reports: ESR-1040

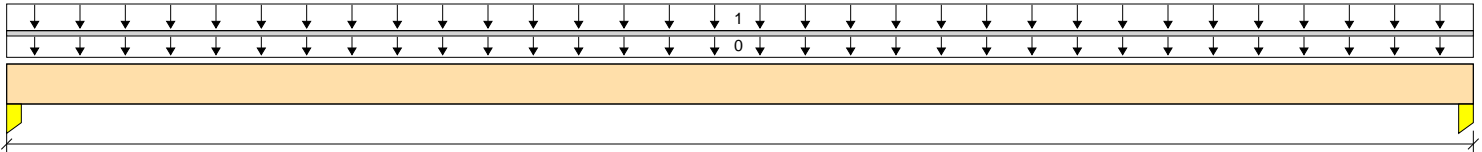
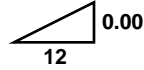
File name:

Description:

Specifier:

Designer: TOM WALKER

Company: LONGLEAF TRUSS COMPANY



Total Horizontal Product Length = 18-00-00

Reaction Summary (Down / Uplift) (lbs)

Bearing	Live	Dead	Snow	Wind	Roof Live
B1, 5-1/2"		1226 / 0	2160 / 0		2160 / 0
B2, 5-1/2"		1226 / 0	2160 / 0		2160 / 0

Load Summary

Tag	Description	Load Type	Ref.	Start	End	Loc.	Live 100%	Dead 90%	Snow 115%	Wind 160%	Roof Live 125%	Tributary
0	Self-Weight	Unf. Lin. (lb/ft)	L	00-00-00	18-00-00	Top	16					00-00-00
1		Unf. Area (lb/ft²)	L	00-00-00	18-00-00	Top	10	20			20	12-00-00

Controls Summary

	Value	% Allowable	Duration	Case	Location
Pos. Moment	13926 ft-lbs	37.9%	115%	5	09-00-00
End Shear	2712 lbs	22.2%	115%	5	01-09-08
Total Load Deflection	L/565 (0.365")	31.9%	n/a	4	09-00-00
Live Load Deflection	L/886 (0.233")	27.1%	n/a	6	09-00-00
Max Defl.	0.365"	73.1%	n/a	4	09-00-00
Span / Depth	12.9				

Bearing Supports

	Dim. (LxW)	Value	% Allow Support	% Allow Member	Material
B1	Column 5-1/2" x 3-1/2"	3386 lbs	21.3%	23.5%	Southern Pine
B2	Column 5-1/2" x 3-1/2"	3386 lbs	21.3%	23.5%	Southern Pine

Cautions

For roof members with slope (1/4)/12 or less final design must ensure that ponding instability will not occur.

For roof members with slope (1/2)/12 or less final design must account for Rain-on-Snow surcharge load.

Notes

- Design meets Code minimum (L/180) Total load deflection criteria.
- Design meets Code minimum (L/240) Live load deflection criteria.
- Design meets arbitrary (0.5") Maximum Total load deflection criteria.
- BC CALC® analysis is based on IBC 2009.
- Design based on Dry Service Condition.
- Calculations assume member is fully braced.

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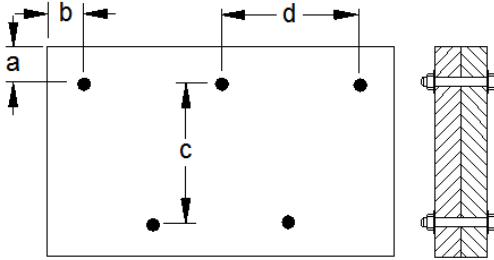
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Connection Diagram: Full Length of Member



a minimum = 2" c = 12"
b minimum = 2-1/2" d = 24"

Bolts are assumed to be Grade A307 or Grade 2 or higher.
Connectors are: 1/2 in. Staggered Through Bolt

Disclosure

Use of the Boise Cascade Software is subject to the terms of the End User License Agreement (EULA). Completeness and accuracy of input must be reviewed and verified by a qualified engineer or other appropriate expert to assure its adequacy, prior to anyone relying on such output as evidence of suitability for a particular application. The output here is 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.

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