Boise Cascade

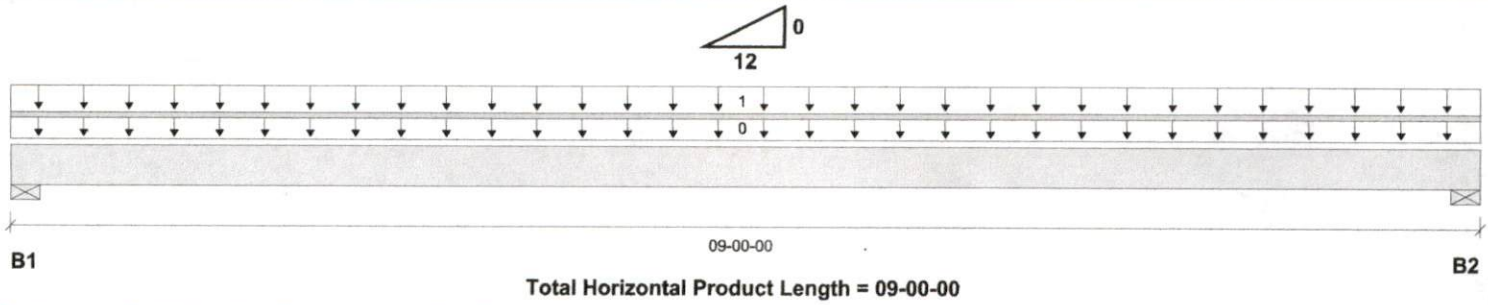
Double 2 x 12 SP #2

RB01 (Roof Beam)

PASSED

BC CALC® Member Report
Build 6782
Dry | 1 span | No cant.
January 16, 2019 09:02:03

Job name:		File name:	
Address:		Description:	
City, State, Zip:		Specifier:	
Builder:		Designer:	Rodney Evans
Code reports:	SPIB	Company:	84 Lumber



Total Horizontal Product Length = 09-00-00

Reaction Summary (Down / Uplift) (lbs)

Bearing	Live	Dead	Snow	Wind	Roof Live
B1, 3-1/2"		710 / 0	900 / 0		
B2, 3-1/2"		710 / 0	900 / 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	09-00-00	Top		8				00-00-00
1	Standard Load	Unf. Area (lb/ft²)	L	00-00-00	09-00-00	Top		15	20			10-00-00

Controls Summary

	Value	% Allowable	Duration	Case	Location
Pos. Moment	3263 ft-lbs	71.7%	115%	4	04-06-00
End Shear	1170 lbs	25.8%	115%	4	01-02-12
Total Load Deflection	L/999 (0.086")	n\a	n\a	4	04-06-00
Live Load Deflection	L/999 (0.048")	n\a	n\a	5	04-06-00
Max Defl.	0.086"	n\a	n\a	4	04-06-00
Span / Depth	9.1				

Bearing Supports

		Dim. (LxW)	Value	% Allow Support	% Allow Member	Material
B1	Wall/Plate	3-1/2" x 3"	1610 lbs	n\a	27.1%	Unspecified
B2	Wall/Plate	3-1/2" x 3"	1610 lbs	n\a	27.1%	Unspecified

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 (1") Maximum Total load deflection criteria.

Calculations assume member is fully braced.

BC CALC® analysis is based on IBC 2009.

Design based on Dry Service Condition.

The analysis of solid sawn wood members is in accordance with the NDS and is limited to the output shown above. All other support and design for these products, including but not limited to notching, connections, installation, and engineer/architect certification is the responsibility of the project's design professional of record.

Disclosure