

GDH1 (Floor Beam)

BC CALC® Member Report

Dry | 1 span | No cant.

November 26, 2019 13:35:48

Build 7295

Job name: NHZ011

File name:

Address:

Description:

City, State, Zip:

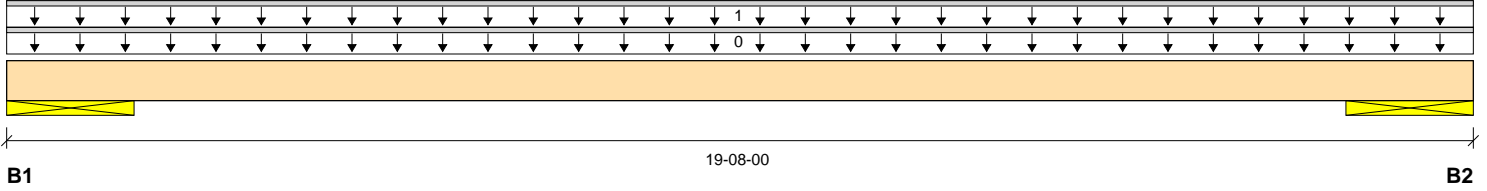
Specifier:

Builder: A&G Residential

Designer: AJ Napier

Code reports: ESR-1040

Company: Builders FirstSource



Total Horizontal Product Length = 19-08-00

Reaction Summary (Down / Uplift) (lbs)

Bearing	Live	Dead	Snow	Wind	Roof Live
B1, 20-1/2"	787 / 0	138 / 0	787 / 0		
B2, 20-1/2"	787 / 0	138 / 0	787 / 0		

Load Summary

Tag	Description	Load Type	Ref.	Start	End	Loc.	100%	90%	115%	160%	Roof Live	Tributary
0	Self-Weight	Unf. Lin. (lb/ft)	L	00-00-00	19-08-00	Top		14				00-00-00
1		Unf. Lin. (lb/ft)	L	00-00-00	19-08-00	Top	80		80			n/a

Controls Summary

	Value	% Allowable	Duration	Case	Location
Pos. Moment	4493 ft-lbs	19.6%	115%	3	09-10-00
End Shear	986 lbs	9.3%	115%	3	02-05-12
Total Load Deflection	L/627 (0.313")	38.3%	n/a	3	09-10-00
Live Load Deflection	L/701 (0.28")	51.4%	n/a	6	09-10-00
Max Defl.	0.313"	31.3%	n/a	3	09-10-00
Span / Depth	21.2				
Dist. Load (B1)	120.00 lb/ft	0.3%	100%		
Dist. Load (B2)	120.00 lb/ft	0.3%	100%		

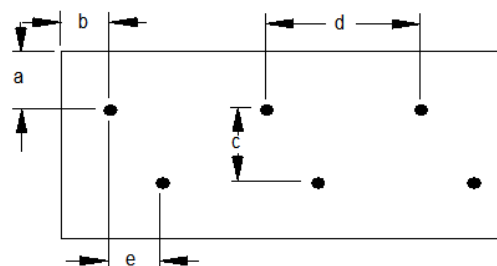
Bearing Supports

	Dim. (LxW)	Value	% Allow Support	% Allow Member	Material
B1	Wall/Plate 20-1/2" x 5-1/4"	1318 lbs	2.9%	1.6%	Spruce-Pine-Fir
B2	Wall/Plate 20-1/2" x 5-1/4"	1318 lbs	2.9%	1.6%	Spruce-Pine-Fir

Notes

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

Connection Diagram: Full Length of Member



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Connection Diagram: Full Length of Member

a minimum = 1-1/2"

c = 6-1/4"

b minimum = 4"

d = 12"

e minimum = 1"

Install screws with screw heads in the loaded ply.

Connectors are: SDS 1/4 x 4-1/2

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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