



Roof/Dropped Beams\GDH(i19) (Dropped Beam)

BC CALC® Member Report

Dry | 1 span | No cant.

July 8, 2021 08:45:21

Build 7968

Job name:

File name: 27433A.mmdl

Address:

Description: Roof/Dropped Beams\GDH(i19)

City, State, Zip:

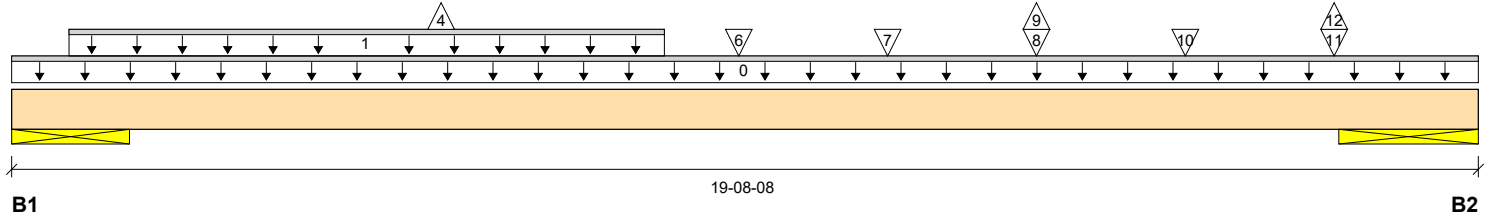
Specifier:

Customer:

Designer:

Code reports: ESR-1040

Company:



Reaction Summary (Down / Uplift) (lbs)

Bearing	Live	Dead	Snow	Wind	Roof Live
B1, 19"		2013 / 0		567 / 1496	1965 / 0
B2, 22-1/2"		2082 / 0		608 / 1676	2097 / 20

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	19-08-08	Top		14				00-00-00
1	Smoothed Load	Unf. Lin. (lb/ft)	L	00-09-04	08-09-04	Top		209			219	n/a
4	D1(c6)	Conc. Pt. (lbs)	L	05-09-04	05-09-04	Top					0	n/a
6	D1(c6)	Conc. Pt. (lbs)	L	09-09-04	09-09-04	Top		420			441	n/a
7	D1(c6)	Conc. Pt. (lbs)	L	11-09-04	11-09-04	Top		423			446	n/a
8	D1(c6)	Conc. Pt. (lbs)	L	13-09-04	13-09-04	Top		404			415	n/a
9	D1(c6)	Conc. Pt. (lbs)	L	13-09-04	13-09-04	Top					-1	n/a
10	D1(c6)	Conc. Pt. (lbs)	L	15-09-04	15-09-04	Top		449			500	n/a
11	D1(c6)	Conc. Pt. (lbs)	L	17-09-04	17-09-04	Top		445			509	n/a
12	D1(c6)	Conc. Pt. (lbs)	L	17-09-04	17-09-04	Top					-19	n/a

Controls Summary

	Value	% Allowable	Duration	Case	Location
Pos. Moment	14818 ft-lbs	42.2%	125%	1	09-09-04
End Shear	3182 lbs	27.3%	125%	1	16-08-00
Total Load Deflection	L/445 (0.441")	53.9%	n/a	1	09-09-04
Live Load Deflection	L/898 (0.219")	40.1%	n/a	139	09-09-04
Max Defl.	0.441"	44.1%	n/a	1	09-09-04
Span / Depth	14.0				

Bearing Supports

	Dim. (LxW)	Value	% Allow Support	% Allow Member	Material
B1	Wall/Plate 19" x 3-1/2"	3979 lbs	8.3%	8.0%	Unspecified
B2	Wall/Plate 22-1/2" x 3-1/2"	4179 lbs	7.3%	7.1%	Unspecified

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.
 Design meets arbitrary (0.75") Maximum live load deflection criteria.
 BC CALC® analysis is based on IBC 2012.
 Wind loads determined from building geometry were used in selected product's verification.
 Design based on Dry Service Condition.
 Calculations assume unbraced length of Top: 01-10-08, Bottom: 19-08-08.

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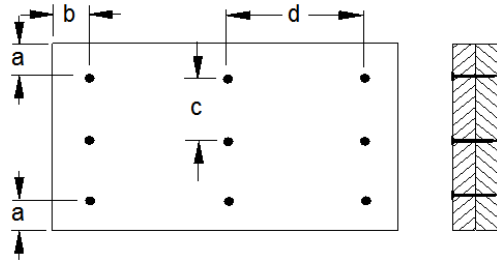
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Connection Diagram: Full Length of Member



a minimum = 2" c = 5"
b minimum = 3" d = 24"

Calculated Side Load = 0.0 lb/ft

Connectors are: 3-1/4 in. Pneumatic Gun Nails

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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