

**1st Floor\Dropped Beams\GDH(i181) (Dropped Beam)**

BC CALC® Member Report

Dry | 2 spans | No cant.

October 6, 2020 08:23:52

Build 7493

Job name:

File name: 2000813A.mmdl

Address:

Description: 1st Floor\Dropped Beams\GDH(i181)

City, State, Zip:

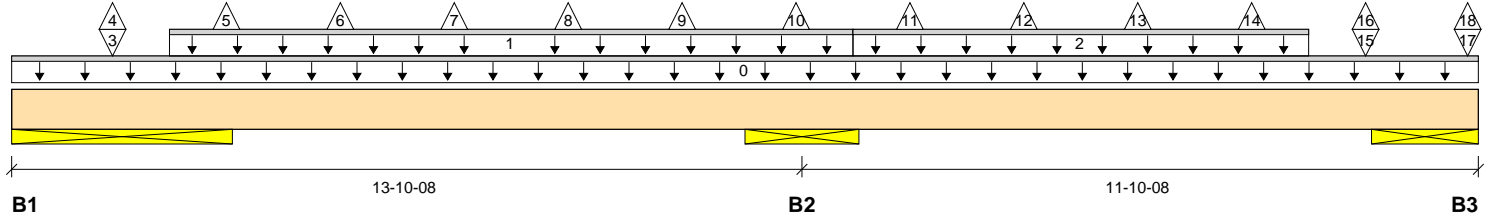
Specifier:

Customer:

Designer:

Code reports: ESR-1040

Company:



Total Horizontal Product Length = 25-09-00

**Reaction Summary (Down / Uplift) (lbs)**

Bearing	Live	Dead	Snow	Wind	Roof Live
B1, 46-1/2"		1717 / 0		825 / 1155	2025 / 304
B2, 24"		3370 / 0		1563 / 2057	3836 / 364
B3, 22-1/2"		1659 / 0		712 / 860	1892 / 275

**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	25-09-00	Top		12				00-00-00
1	Smoothed Load	Unf. Lin. (lb/ft)	L	02-09-04	14-09-04	Top		251			296	n/a
2	Smoothed Load	Unf. Lin. (lb/ft)	L	14-09-04	22-09-04	Top		258			304	n/a
3	DE(c1)	Conc. Pt. (lbs)	L	01-09-04	01-09-04	Top		433			540	n/a
4	DE(c1)	Conc. Pt. (lbs)	L	01-09-04	01-09-04	Top					-52	n/a
5	D(c1)	Conc. Pt. (lbs)	L	03-09-04	03-09-04	Top					-55	n/a
6	D(c2)	Conc. Pt. (lbs)	L	05-09-04	05-09-04	Top					-55	n/a
7	D(c3)	Conc. Pt. (lbs)	L	07-09-04	07-09-04	Top					-55	n/a
8	D(c4)	Conc. Pt. (lbs)	L	09-09-04	09-09-04	Top					-55	n/a
9	D(c5)	Conc. Pt. (lbs)	L	11-09-04	11-09-04	Top					-55	n/a
10	D(c6)	Conc. Pt. (lbs)	L	13-09-04	13-09-04	Top					-55	n/a
11	D1(c1)	Conc. Pt. (lbs)	L	15-09-04	15-09-04	Top					-57	n/a
12	D1(c2)	Conc. Pt. (lbs)	L	17-09-04	17-09-04	Top					-57	n/a
13	D1(c3)	Conc. Pt. (lbs)	L	19-09-04	19-09-04	Top					-57	n/a
14	D1(c4)	Conc. Pt. (lbs)	L	21-09-04	21-09-04	Top					-57	n/a
15	D1(c5)	Conc. Pt. (lbs)	L	23-09-04	23-09-04	Top		502			576	n/a
16	D1(c5)	Conc. Pt. (lbs)	L	23-09-04	23-09-04	Top					-53	n/a
17	D1(c6)	Conc. Pt. (lbs)	L	25-06-12	25-06-12	Top		425			424	n/a
18	D1(c6)	Conc. Pt. (lbs)	L	25-06-12	25-06-12	Top					-57	n/a

**Controls Summary**

	Value	% Allowable	Duration	Case	Location
Pos. Moment	3875 ft-lbs	14.8%	125%	1	19-09-04
Neg. Moment	-4633 ft-lbs	18.0%	125%	3	12-10-08
End Shear	1542 lbs	15.6%	125%	1	04-10-06
Cont. Shear	3006 lbs	30.5%	125%	4	15-10-06
Total Load Deflection	L/999 (0.047")	n/a	n/a	1	19-09-04
Live Load Deflection	L/999 (0.036")	n/a	n/a	200	19-07-00
Total Neg. Defl.	L/999 (-0.001")	n/a	n/a	4	12-10-08
Max Defl.	0.047"	n/a	n/a	1	19-09-04
Span / Depth	10.2				
Conc. Load (B1)	1095 lbs	11.9%	100%		
Conc. Load (B2)	1095 lbs	11.9%	100%		
Conc. Load (B3)	849 lbs	9.2%	100%		

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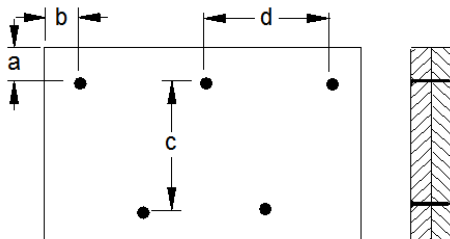
Company:

Bearing Supports	Dim. (LxW)	Value	% Allow Support	% Allow Member	Material
B1	Wall/Plate 46-1/2" x 3-1/2"	3668 lbs	3.1%	3.0%	Unspecified
B2	Wall/Plate 24" x 3-1/2"	7164 lbs	11.8%	11.4%	Unspecified
B3	Wall/Plate 22-1/2" x 3-1/2"	3444 lbs	6.0%	5.8%	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.  
 Calculations assume unbraced length of Top: 01-10-08, Bottom: 01-10-08.  
 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.

**Connection Diagram: Full Length of Member**



a minimum = 2"      c = 7-7/8"  
 b minimum = 3"      d = 24"

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

**Disclosure**

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