



## Double 1-3/4" x 11-7/8" VERSA-LAM® 2.0 3100 SP

**PASSED** 

LVL1 (Floor Beam)

Dry | 1 span | No cant.

February 4, 2019 10:07:44

BC CALC® Member Report

Build 6782 Job name:

Address: City, State, Zip:

Builder:

Code reports:

ESR-1040

File name:

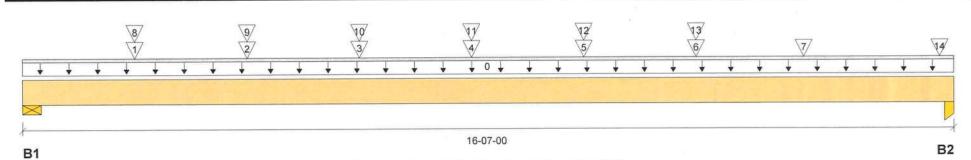
Description:

Specifier:

Designer:

Scott Jonas

**Builders First Source** Company:



#### Total Horizontal Product Length = 16-07-00

Reaction Summary (Down / Uplift) (lbs)

**Roof Live** Wind Bearing Live Dead Snow B1, 3-1/2" 1064 / 0 2363 / 0 1032 / 0 2322 / 0 B2, 3-1/2"

Load Summary							Live	Dead	Snow	Wind	Roof Live	Tributary
Tag	Description	Load Type	Ref.	Start	End	Loc.	100%	90%	115%	160%	125%	
0	Self-Weight	Unf. Lin. (lb/ft)	L	00-00-00	16-07-00	Top		12				00-00-00
1	FL5	Conc. Pt. (lbs)	L	02-00-00	02-00-00	Top	154	65				n\a
2	FL6	Conc. Pt. (lbs)	L	04-00-00	04-00-00	Тор	99	44				n\a
3	FL7	Conc. Pt. (lbs)	L	06-00-00	06-00-00	Top	155	68				n\a
4	FL8	Conc. Pt. (lbs)	L	08-00-00	08-00-00	Top	249	99				n\a
5	FL9	Conc. Pt. (lbs)	L	10-00-00	10-00-00	Top	339	131				n\a
6	FL10	Conc. Pt. (lbs)	L	12-00-00	12-00-00	Top	379	150				n\a
7	FL10	Conc. Pt. (lbs)	L	13-11-00	13-11-00	Top	379	131				n\a
8	FL12	Conc. Pt. (lbs)	L	02-00-00	02-00-00	Top	425	167				n\a
9	FL13	Conc. Pt. (lbs)	L	04-00-00	04-00-00	Top	499	197				n\a
10	FL14	Conc. Pt. (lbs)	L	06-00-00	06-00-00	Top	479	203				n\a
11	FL14	Conc. Pt. (lbs)	L	08-00-00	08-00-00	Top	479	203				n\a
12	FL14	Conc. Pt. (lbs)	L	10-00-00	10-00-00	Top	479	203				n\a
13	FL15	Conc. Pt. (lbs)	L	12-00-00	12-00-00	Top	455	187				n\a
14	FL16	Conc. Pt. (lbs)	L	16-04-00	16-04-00	Тор	115	48				n\a

<b>Controls Summary</b>	Value	% Allowable	Duration	Case	Location
Pos. Moment	16210 ft-lbs	76.2 %	100%	1	08-00-00
End Shear	3411 lbs	43.2 %	100%	1	01-03-06
Total Load Deflection	L/254 (0.761")	94.4 %	n\a	1	08-03-00
Live Load Deflection	L/367 (0.527")	98.1 %	n\a	2	08-03-00
Max Defl.	0.761"	76.1 %	n\a	1	08-03-00
Span / Depth	16.3				

Beari	ing Supports	Dim. (LxW)	Value	% Allow Support	% Allow Member	Material	
B1	Wall/Plate	3-1/2" x 3-1/2"	3426 lbs	n\a	37.3 %	Unspecified	
B2	Column	3-1/2" x 3-1/2"	3354 lbs	n\a	36.5 %	Unspecified	





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#### 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.

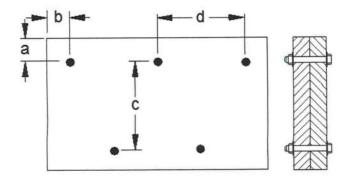
Design based on Dry Service Condition.

Connection design assumes point load is top-loaded. For connection design of side-loaded point loads, please consult a technical representative or professional of Record.

Bolts are assumed to be Grade A307 or Grade 2 or higher.

Member has no side loads.

# Connection Diagram: Full Length of Member



a minimum = 2"

c = 7-7/8"

b minimum = 2-1/2"

d = 24"

Connection design assumes point load is top-loaded. For connection design of side-loaded point loads, please consult a technical representative or professional of Record.

Bolts are assumed to be Grade A307 or Grade 2 or higher.

Member has no side loads.

Connectors are: 1/2 in. Staggered Through Bolt

### Disclosure

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