

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

Roof Beam\RB01

Dry | 1 span | No cantilevers | 0/12 slope

BC CALC® Design Report

June 27, 2017 09:44:41

**Build 5966** 

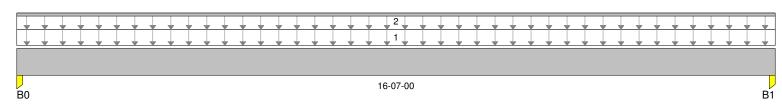
Job Name: Garage

Address:

City, State, Zip: Portland, ME Chick Lumber Customer: ESR-1040 Code reports:

File Name: 6-27-17.bcc Description: Designs\RB01

Specifier: Designer: Company: Misc:



Total Horizontal Product Length = 16-07-00

Reaction Summary (Down / Uplift) (Ibs)							
Bearing	Live	Dead	Snow	Wind	Roof Live		
B0, 3-1/2"		1,095 / 0	829 / 0				
B1, 3-1/2"		1,095 / 0	829 / 0				

					Live	Dead	Snow	Wind Roof Live	Trib.
Load S	Summary								
Tag Des	cription	Load Type	Ref. Start	End	100%	90%	115%	160% 125%	
1 Sta	ndard Load	Unf. Area (lb/ft^2)	L 00-00-00	16-07-00		10	50		02-00-00
2 wal	l	Unf. Lin. (lb/ft)	L 00-00-00	16-07-00		100			n/a

Controls Summary	Value	% Allowabl	e Duration	Case	Location
Pos. Moment	7,542 ft-lbs	30.8%	115%	4	08-03-08
End Shear	1,627 lbs	17.9%	115%	4	01-03-06
Total Load Defl.	L/536 (0.361")	33.6%	n/a	4	08-03-08
Live Load Defl.	L/1,243 (0.156")	19.3%	n/a	5	08-03-08
Max Defl.	0.361"	36.1%	n/a	4	08-03-08
Span / Depth	16.3	n/a	n/a	0	00-00-00
Squash Blocks	Valid				

Bear	ing Supports	Dim. (L x W)	Value	% Allow Support	% Allow Member	Material
B0	Post	3-1/2" x 3-1/2"	1,924 lbs	n/a	20.9%	Unspecified
B1	Post	3-1/2" x 3-1/2"	1,924 lbs	n/a	20.9%	Unspecified

### **Cautions**

For roof members with slope (1/4)/12 or less final design must ensure that ponding instability

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.

Design based on Dry Service Condition.

Fastener Manufacturer:TrussLok (tm)



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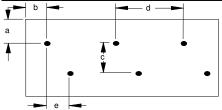
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### **Connection Diagram**



a minimum = 2" c = 7-7/8" b minimum = 4" d = 24"e minimum = 1"

All TrussLok screws may be installed from one side of multiple ply VERSA-LAM beams. All TrussLok screws may be installed from one side of multiply Versa-Lam beams.

Member has no side loads. Connectors are: FMTSL338

#### **Disclosure**

Completeness and accuracy of input must be verified by anyone who would rely on output as evidence of suitability for particular application. Output here 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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