

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

Floor Beam\FB01

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

Thursday, November 07, 2013

BC CALC® Design Report - US

Build 2565

Job Name: A

ANNE PATNAUDE

Address: City, State, Zip: , Customer:

Code reports: ESR-1040

File Name: BC CALC Project Description: Designs\FB01

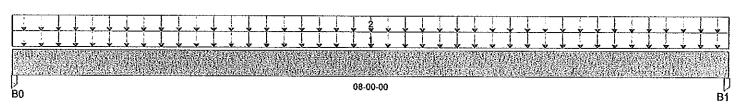
Specifier: Designer:

Company: Misc:

60 GROVESIDE

268 A019

2013-02238



Total Horizontal Product Length = 08-00-00

Reaction Summary	(Down / Uplift) (the)				· · · · · · · · · · · · · · · · · · ·	
Bearing	Live	Dead	Snow	Wind	Roof Live	
B0, 4-1/2"		1,169 / 0	3,120 / 0		Y	
B1, 4-1/2"		1,169 / 0	3,120 / 0			

				LIVE	Dead	Snow	Wind Roof Live	Trłb.
Load Summary								
Tag Description	Load Type	Ref. Start	End	100%	90%	115%	160% 125%	
1	Unf. Area (lb/ft^2)	L 00-00-00	08-00-00	0	15			06-00-00
2	Unf. Area (lb/ft^2)	L 00-00-00	08-00-00		15	60		13-00-00

Controls Summary	Value	% Ailowab	le Duration	Case	Location
Pos. Moment	7,291 ft-lbs	75.7%	115%	1	04-00-00
End Shear	3,239 lbs	58.4%	115%	1	00-11-12
Total Load Defl.	L/276 (0,321")	87.1%	n/a	1	04-00-00
Live Load Defl.	L/379 (0.234")	95%	n/a	2	04-00-00
Max Defi.	0.321"	32.1%	n/a	1	04-00-00
Span / Depth	12.2	n/a	n/a	0	00-00-00

Beari	ng Supports	Dim. (L x W)	Value	% Allow Support	% Allow Member	Material	ÇI bi
B0 B1	Post Post	4-1/2" x 3-1/2" 4-1/2" x 3-1/2"		37.6% 37.6%	36.3% 36.3%	Spruce Pine Spruce Pine	Fir (8

Headu auslide

<u>Notes</u>

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. Design based on Dry Service Condition. Deflections less than 1/8" were ignored in the results.

User Notes

This design is provided as a courtesy to the builder and does NOT guarantee a complete structural review of this project. Neither lateral nor sizemic analysis has been considered. All bearing conditions, connections, spans, o.c. spacing, loading and product usages shall be verified by the builder and engineer of record. This design shall be reviewed, verified and approved by the builder, project engineer and local building department prior to ordering materials.

Disclosure

Completeness and accuracy of input must be verified by anyone who would rely on output as evidence of sultability for particular application. Output here based on building code-accepted design properties and analysis methods. Installation of BOISE 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.

BC CALC®, BC FRAMER®, AJS™, ALLJOIST®, BC RIM BOARD™, BCI®, BOISE GLULAM™, SIMPLE FRAMING SYSTEM®, VERSA-LAM®, VERSA-RIM PLUS®, VERSA-RIM®, VERSA-STRAND®, VERSA-STUD® are trademarks of Boise Cascade Wood Products L.L.C.



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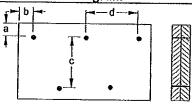
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Connection Diagram



a minimum = 2" b minimum = 3" c = 3-1/4" d = 24"

Member has no side loads. Connectors are: 16d Sinker Nails

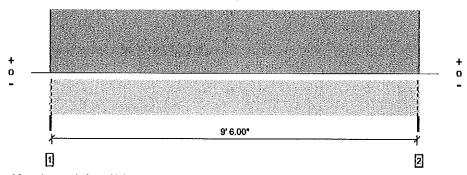
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2 piece(s) 1 3/4" x 9 1/2" 1.9E Microllam® LVL

Overall Length; 9' 9.00"



All locations are measured from the outside face of left support (or left cantilever end). All dimensions are horizontal.

Design Results	Actual @ Location	Allowed	Result	LDF	Load: Combination (Pattern)
Member Reaction (lbs)	2092 @ 0	2126 (1.50")	Passed (98%)	••	1.0 D + 1.0 L (All Spans)
Shear (lbs)	1699 @ 11.00"	6318	Passed (27%)	1.00	1.0 D + 1.0 L (All Spans)
Moment (Ft-lbs)	5100 @ 4' 10,50"	11775	Passed (43%)	1.00	1.0 D + 1.0 t. (All Spans)
Live Load Defl. (In)	0.113 @ 4' 10.50"	0.244	Passed (L/999+)		1.0 D + 1.0 L (All Spans)
Total Load Defl. (in)	0.202 @ 4' 10.50"	0.488	Passed (L/578)		1.0 D + 1.0 L (All Spans)

System: Floor

Member Type: Flush Beam Building Use: Residential Building Code: IBC Design Methodology: ASD

- · Deflection criteria: LL (L/480) and TL (L/240).
- Bracing (Lu): All compression edges (top and bottom) must be braced at 9' 9.00° o/c unless detailed otherwise. Proper attachment and positioning of lateral bracing is required to achieve member stability.

		Bearing Leng	th	Load	s to Suppor	ts (lbs)	
Supports	Total	Avallable	Required	Dead	Floor Live	Total	Accessories
1 - Stud wall - HF	1,50"	1.50*	1.50"	922	1170	2092	Blocking
2 - Stud wall - HF	1.50*	1.50"	1.50"	922	1170	2092	Blocking

· Blocking Panels are assumed to carry no loads applied directly above them and the full load is applied to the member being designed.

Weyerhaeuser Notes

Weyerhaeuser warrants that the sizing of its products will be in accordance with Weyerhaeuser product design criteria and published design values. Weyerhaeuser expressly disclains any other warranties related to the software. Refer to current Weyerhaeuser literature for installation details.

(www.woodbywy.com) Accessories (Rim Board, Blocking Panels and Squash Blocks) are not designed by this software. Use of this software is not intended to circumvent the need for a design professional as determined by the authority having jurisdiction. The designer of record, builder or framer is responsible to assure that this calculation is compatible with the overall project. Products manufactured at Weyerhaeuser facilities are third-party certified to sustainable

The product application, Input design loads, dimensions and support information have been provided by Forte Software Operator



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Forte Software Operator	Job Notes	
Guy Poisson Hammond Lumber (207) 495-3303 gpoisson@hammondiumber.com		