

Single 7" x 9-1/2" VERSA-LAM® 2.0 3100 DF

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

Floor Beam\FB01

Wednesday, August 27, 2014

Products L.L.C.

BC CALC® Design Report - US

Build 2627		File Name: BC
Job Name:	Portland Remodel	Description: Beam Between Dinette & Kitchen
Address:		Specifier:
City, State, Zip:	Portland, ME	Designer:
Customer:	Eldredge Lumber	Company:
Code reports:	ESR-1040	Misc:

▲ B0			14-00-00						A R1					
Total of Horizontal Design Spans = 14-00-00														
Reaction Summary (I	Reaction Summary (Down / Uplift) (lbs)													
Bearing	Live	Dead	Snow		Wind	F	Roof Liv	е						
B0	2,800 / 0	820 / 0												
B1	2,800 / 0	820 / 0												
				Live	Dead	Snow	Wind	Roof Live	Trib.					
Load Summary														
Tag Description	Load Type	Ref. Start	End	100%	90%	115%	160%	125%						
1 Standard Load	Unf. Area (lb/ft^2)	L 00-00-00) 14-00-00	40	10				10-00-00					
						Disc	Disclosure							
Controls Summary	Value	% Allowable	Duration	Case	Location	Compl	eteness	and accuracy	y of input must					
Pos. Moment	12,669 ft-lbs	45.4%	100%	1	07-00-00	be ver	ified by	anyone who w	vould rely on					
End Shear	3,173 lbs	25.1%	100%	1	00-10-06	output	as evid	ence of suitab	oility for					
Total Load Defl.	L/376 (0.447")	63.8%	n/a	1	07-00-00	on buil	lding co	de-accepted c	design					
Live Load Defl.	L/486 (0.346")	74.1%	n/a	2	07-00-00	proper	ties and	analysis met	hods.					
Max Defl.	0.447"	44.7%	n/a	1	07-00-00	Installa	ation of I	BOISE engine	ered wood					
Span / Depth	17.7	n/a	n/a	0	00-00-00	produc	ts must	be in accorda	ance with					
Notes						buildin	g codes	. To obtain Ins	stallation Guide					
Design meets Code mini	imum (I /240) Total load	deflection crite	eria			(800)2	32-0788	B before instal	lation.\n\nBC					
Design meets Code mini	imum (1/360) Live load	deflection crite	eria			CALC	B, BC F	RAMER® , A.	JS™,					
Design meets arbitrary (1") Maximum total load	deflection crite	ria			ALLJC	DIST®, I	BC RIM BOAF	RD™, BCl® ,					
Minimum bearing length	for B0 is 1-1/2"		ina.			BOISE	:GLULA	AM™, SIMPLE EDSA LAM®						
Minimum bearing length	for B1 is 1-1/2"					PLUS	B. VER	SA-RIM®.						
Entered/Displayed Horiz	ontal Span Length(s) –	Clear Span +	1/2 min end h	earing 4	L	VERS	A-STRA	ND®, VERSA	A-STUD® are					
1/0 intermediate bearing				caring 1	F	tradem	narks of	Boise Cascad	de Wood					

1/2 intermediate bearing

Calculations assume Member is Fully Braced.

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



BC CALC® Design Report - US

Triple 1-3/4" x 18" VERSA-LAM® 2.0 3100 SP

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

Floor Beam\FB02

Wednesday, August 27, 2014

Build 2627 Job Name: Portland Remodel Address:	File Name: PortlandRemodel Description: Beam Between Kitchen & Dining Specifier:
City, State, Zip: Portland, ME	Designer:
Customer: Eldredge Lumber	Company:
Code reports: ESR-1040	Misc:

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Tota	l of Horizontal	Design Spans = 20-00-00	

Reaction Summary (Down / Uplift) (Ibs)												
Bea	aring	Live	Dead	Snow		Wind	R	oof Live				
B0	1	3,800 / 0	3,083 / 0	6,000 /	0							
B1		3,800 / 0	3,083 / 0	6,000 /	0							
				L	_ive	Dead	Snow	Wind Roof Live	Trib.			
Lo	ad Summary											
Та	g Description	Load Type	Ref. Start	End 1	100%	90%	115%	160% 125%				
1	Standard Load	Unf. Area (lb/ft^2)	L 00-00-00	20-00-00 4	40	10			06-00-00			
2	Reaction from Desi	Conc. Pt. (lbs)	L 10-00-00	10-00-00 2	2,800	820			n/a			
3		Unf. Area (lb/ft^2)	L 00-00-00	20-00-00	-	15	50		12-00-00			

Controls Summary	Value	% Allowab	e Duration	Case	Location
Pos. Moment	59,466 ft-lbs	73.9%	115%	3	10-00-00
End Shear	9,022 lbs	43.7%	115%	3	01-06-14
Total Load Defl.	L/301 (0.798")	79.8%	n/a	3	10-00-00
Live Load Defl.	L/426 (0.563")	84.4%	n/a	6	10-00-00
Max Defl.	0.798"	79.8%	n/a	3	10-00-00
Span / Depth	13.3	n/a	n/a	0	00-00-00

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.

Minimum bearing length for B0 is 2-5/8".

Minimum bearing length for B1 is 2-5/8".

Entered/Displayed Horizontal Span Length(s) = Clear Span + 1/2 min. end bearing +

1/2 intermediate bearing

Calculations assume Member is Fully Braced.

Design based on Dry Service Condition.

Deflections less than 1/8" were ignored in the results.

Fastener Manufacturer: TrussLok (tm)

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 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.\n\nBC ČALĆ®, 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.



Floor Beam\FB02

Wednesday, August 27, 2014

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

BC CALC® Design Report - US

Build 2627 Job Name: Portland Remodel Address: City, State, Zip: Portland, ME Eldredge Lumber Customer: ESR-1040 Code reports:

File Name: PortlandRemodel Description: Beam Between Kitchen & Dining Specifier: . Designer: Company: Misc:

Connection Diagram



c = 14" a minimum = 2" b minimum = 4" d = 24" e minimum = 1"

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. 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: FMTSL005



Triple 1-3/4" x 18" VERSA-LAM® 2.0 3100 SP

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

Floor Beam\FB03

Wednesday, August 27, 2014

BC CALC® Design Report - US

Build 2627		File Name: PortlandRemodel
Job Name: Portland	Remodel	Description: Beam Between Living & Dining
Address:		Specifier:
City, State, Zip: Portland	, ME	Designer:
Customer: Eldredge	e Lumber	Company:
Code reports: ESR-104	10	Misc:



■ B0			20-00-00						■ B1
		Total of Hori	zontal Design Spa	uns = 20-0	00-00				
Reaction Summary (Down / Uplift)(lbs)								
Bearing	Live	Dead	Snow		Wind	F	Roof Liv	e	
B0	7,200 / 0	2,674 /	0						
B1	7,200 / 0	2,674 /	0						
				Live	Dead	Snow	Wind	Roof Live	Trib.
Load Summary									
Tag Description	Load Type	Ref. Start	End	100%	90%	115%	160%	125%	
1 Standard Load	Unf. Area (lb/ft^2)	L 00-00-	00 20-00-00	40	10				12-00-00
2	Unf. Area (lb/ft^2)	L 00-00-0	00 20-00-00	20	10				12-00-00
						Disc	losure	•	
Controls Summary	Value	% Allowab	le Duration	Case	Location	Comp	eteness	and accuracy	y of input must
Pos. Moment	49,368 ft-lbs	70.5%	100%	1	10-00-00	be ver	ified by	anyone who v	vould rely on
End Shear	8,321 lbs	46.3%	100%	1	01-06-14	output	as evid	ence of suitab	ility for
Total Load Defl.	L/345 (0.697")	69.7%	n/a	1	10-00-00	particu on bui	llar appl	ication. Outpu	It here based
Live Load Defl.	L/472 (0.508")	76.2%	n/a	2	10-00-00	proper	ties and	l analvsis met	hods.
Max Defl.	0.697"	69.7%	n/a	1	10-00-00	Installa	ation of	BOISE engine	ered wood
Span / Depth	13.3	n/a	n/a	0	00-00-00	produo curren	cts must t Installa	be in accordation Guide ar	ance with Id applicable
Notes						buildin or ask	g codes questio	s. To obtain Ins ns, please cal	stallation Guide

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.

Minimum bearing length for B0 is 2-1/2".

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Entered/Displayed Horizontal Span Length(s) = Clear Span + 1/2 min. end bearing +

1/2 intermediate bearing

Calculations assume Member is Fully Braced.

Design based on Dry Service Condition.

Deflections less than 1/8" were ignored in the results.

Fastener Manufacturer: TrussLok (tm)

(800)232-0788 before installation.\n\nBC 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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Connection Diagram



a minimum = 2" c = 14" 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: FMTSL005