
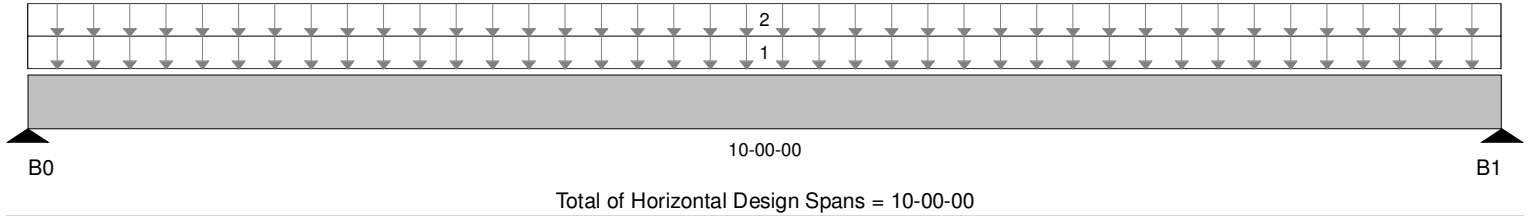


BC CALC® Design Report 

Build 6080
 Job Name: Mark & Colleen Robinson
 Address:
 City, State, Zip: Peaks Island, ME
 Customer: Eldredge Lumber
 Code reports: ESR-1040

File Name: Robinson
 Description: Designs\FB01
 Specifier:
 Designer:
 Company:
 Misc:



Reaction Summary (Down / Uplift) (lbs)

Bearing	Live	Dead	Snow	Wind	Roof Live
B0	1,600 / 0	835 / 0	1,250 / 0		
B1	1,600 / 0	835 / 0	1,250 / 0		

Load Summary

Tag	Description	Load Type	Ref.	Start	End	100%	90%	115%	160%	125%	Trib.
1	Standard Load	Unf. Area (lb/ft ²)	L	00-00-00	10-00-00	40	10				08-00-00
2		Unf. Area (lb/ft ²)	L	00-00-00	10-00-00		15	50			05-00-00

Controls Summary

	Value	% Allowable	Duration	Case	Location
Pos. Moment	7,432 ft-lbs	30.4%	115%	3	05-00-00
End Shear	2,341 lbs	25.8%	115%	3	01-00-12
Total Load Defl.	L/876 (0.137")	27.4%	n/a	3	05-00-00
Live Load Defl.	L/999 (0.098")	n/a	n/a	6	05-00-00
Max Defl.	0.137"	13.7%	n/a	3	05-00-00
Span / Depth	10.1	n/a	n/a	0	00-00-00
Squash Blocks	Valid				

Notes

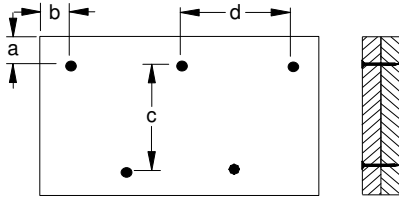
Entered/Displayed Horizontal Span Length(s) = Clear Span + 1/2 min. end bearing + 1/2 intermediate bearing
 Design meets Code minimum (L/240) Total load deflection criteria.
 Design meets Code minimum (L/360) Live load deflection criteria.
 Design meets arbitrary (1") Maximum Total load deflection criteria.
 Minimum bearing length for B0 is 1-1/2".
 Minimum bearing length for B1 is 1-1/2".
 Calculations assume member is fully braced.
 Design based on Dry Service Condition.

BC CALC® Design Report 

Build 6080
Job Name: Mark & Colleen Robinson
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Description: Designs\FB01
Specifier:
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Company:
Misc:

Connection Diagram



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

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

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.

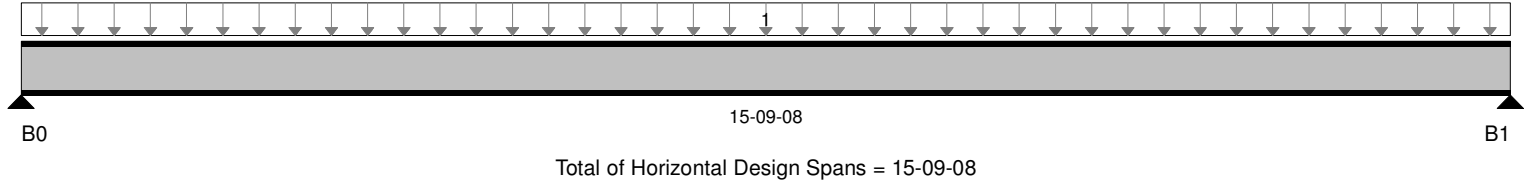
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BC CALC® Design Report


 Dry | 1 span | No cantilevers | 0/12 slope
 16 OCS | Non-Repetitive | Glued & nailed construction

October 26, 2017 10:13:19

 Build 6080
 Job Name: Mark & Colleen Robinson
 Address:
 City, State, Zip: Peaks Island, ME
 Customer: Eldredge Lumber
 Code reports: ESR-1144

 File Name: Robinson
 Description: Designs\J01
 Specifier:
 Designer:
 Company:
 Misc:


Reaction Summary (Down / Uplift) (lbs)

Bearing	Live	Dead	Snow	Wind	Roof Live
B0	421 / 0	105 / 0			
B1	421 / 0	105 / 0			

Load Summary

Tag	Description	Load Type	Ref.	Start	End	100%	90%	115%	160%	125%	OCS
1	Standard Load	Unf. Area (lb/ft ²)	L	00-00-00	15-09-08	40	10				16

Controls Summary

	Value	% Allowable	Duration	Case	Location
Pos. Moment	2,078 ft-lbs	73.7%	100%	1	07-10-12
End Reaction	526 lbs	53.8%	100%	1	00-00-00
End Shear	522 lbs	45%	100%	1	00-00-14
Total Load Defl.	L/455 (0.417")	52.8%	n/a	1	07-10-12
Live Load Defl.	L/568 (0.333")	84.4%	n/a	2	07-10-12
Max Defl.	0.417"	41.7%	n/a	1	07-10-12
Span / Depth	19.9	n/a	n/a	0	00-00-00
Squash Blocks	Valid				

Disclosure

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Notes

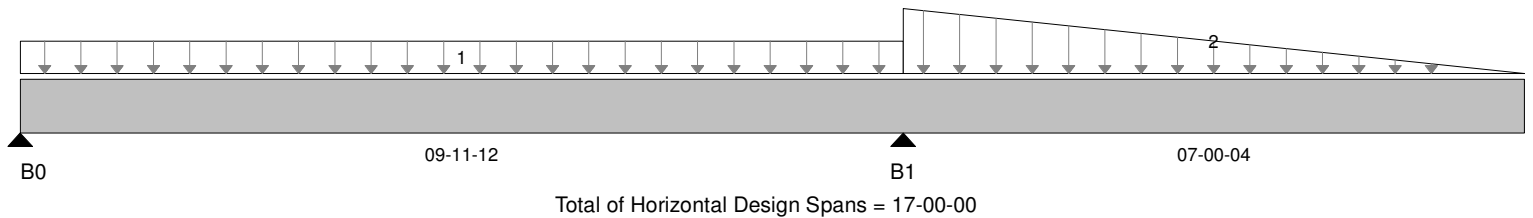
Entered/Displayed Horizontal Span Length(s) = Clear Span + 1/2 min. end bearing + 1/2 intermediate bearing
 Design meets Code minimum (L/240) Total load deflection criteria.
 Design meets User specified (L/480) Live load deflection criteria.
 Design meets arbitrary (1") Maximum Total load deflection criteria.
 Minimum bearing length for B0 is 1-1/2".
 Minimum bearing length for B1 is 1-1/2".
 Calculations assume member is fully braced.
 Composite EI value based on 23/32" thick OSB sheathing glued and nailed to member.
 Design based on Dry Service Condition.

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BC CALC® Design Report 

Build 6080
 Job Name: Mark & Colleen Robinson
 Address:
 City, State, Zip: Peaks Island, ME
 Customer: Eldredge Lumber
 Code reports: ESR-1040

File Name: Robinson
 Description: Designs\RB01
 Specifier:
 Designer:
 Company:
 Misc:



Reaction Summary (Down / Uplift) (lbs)

Bearing	Live	Dead	Snow	Wind	Roof Live
B0		537 / 0	1,852 / 0		
B1		1,193 / 0	3,513 / 0		

Load Summary

Tag	Description	Load Type	Ref.	Start	End	100%	90%	115%	160%	125%	Trib.
1	Standard Load	Unf. Area (lb/ft ²)	L	00-00-00	09-11-12	15	50				08-00-00
2	Trapezoidal (lb/ft)		L	09-11-12	17-00-00	105	350	0			n/a

Controls Summary

	Value	% Allowable	Duration	Case	Location
Pos. Moment	5,385 ft-lbs	33.5%	115%	7	04-05-14
Neg. Moment	-3,975 ft-lbs	24.8%	115%	9	09-11-12
End Shear	1,930 lbs	26.6%	115%	7	00-10-06
Cont. Shear	2,544 lbs	35%	115%	9	09-00-08
Total Load Defl.	L/658 (0.182")	27.4%	n/a	7	04-09-09
Live Load Defl.	2xL/712 (-0.237")	33.7%	n/a	10	17-00-00
Total Neg. Defl.	2xL/706 (-0.239")	25.5%	n/a	7	17-00-00
Max Defl.	0.182"	18.2%	n/a	7	04-09-09
Cant. Max Defl.	-0.239"	23.9%	n/a	7	17-00-00
Span / Depth	12.6	n/a	n/a	0	00-00-00
Squash Blocks	Valid				

Cautions

Long Cantilever: Sheathing required on bottom flange and adjacent back span or bracing designed by the design professional of record. Design professional of record must address uplift at supports.
 For roof members with slope (1/4)/12 or less final design must ensure that ponding instability will not occur.
 For roof members with slope (1/2)/12 or less final design must account for Rain-on-Snow surcharge load.

Notes



Single 3-1/2" x 9-1/2" VERSA-LAM® 2.0 3100 SP

Roof Beam\RB01

Dry | 2 spans | Right cantilever | 0/12 slope

October 26, 2017 10:13:19

BC CALC® Design Report



Build 6080
Job Name: Mark & Colleen Robinson
Address:
City, State, Zip: Peaks Island, ME
Customer: Eldredge Lumber
Code reports: ESR-1040

File Name: Robinson
Description: Designs\RB01
Specifier:
Designer:
Company:
Misc:

Entered/Displayed Horizontal Span Length(s) = Clear Span + 1/2 min. end bearing + 1/2 intermediate bearing
Design meets Code minimum (L/180) Total load deflection criteria.
Design meets Code minimum (2xL/240) Live load deflection criteria.
Design meets arbitrary (1") Maximum Total load deflection criteria.
Design meets arbitrary (1") Cantilever Maximum Total load deflection criteria.
Minimum bearing length for B0 is 1-1/2".
Minimum bearing length for B1 is 1-13/16".
Calculations assume member is fully braced.
Design based on Dry Service Condition.
Cantilevers require sheathed bottom flanges, blocking at cantilever support and closure at ends.

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