

BC CALC® Design Report

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

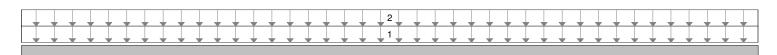
Dry | 1 span | No cantilevers | 0/12 slope

Floor Beam\FB01

October 26, 2017 10:13:18

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:



| B0 | | | 10-00-00 | | | | | B1 |
|-------------------------|---------------------|-----------------|----------------|-------------|----------|------|----------------|----------|
| | | Total of Horizo | ntal Design Sp | oans = 10-0 | 00-00 | | | |
| Reaction Summary (| Down / Uplift)(lbs) | | | | | | | |
| Bearing | Live | Dead | Sno | w | Wind | R | loof Live | |
| B0 | 1,600 / 0 | 835 / 0 | 1,25 | 50 / 0 | | | | |
| B1 | 1,600 / 0 | 835 / 0 | 1,25 | 50 / 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 | 10-00-0 | 0 40 | 10 | | | 08-00-00 |
| 2 | Unf. Area (lb/ft^2) | L 00-00-00 | 10-00-0 | 0 | 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.



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

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

Floor Beam\FB01

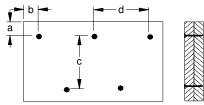
October 26, 2017 10:13:18

BC CALC® Design Report

b Design

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

Connection Diagram



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

Member has no side loads. Connectors are: 16d Sinker Nails File Name: Robinson Description: Designs\FB01 Specifier: Designer: Company: Misc:

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.

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.



Single 9-1/2" AJS® 150

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-1144

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

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

| | $\downarrow \downarrow \downarrow \downarrow \downarrow \downarrow \downarrow \downarrow \downarrow \downarrow \downarrow$ | $\downarrow \downarrow \downarrow \downarrow \downarrow \downarrow \downarrow \downarrow \downarrow \downarrow$ | | $\downarrow \downarrow \downarrow \downarrow \downarrow \downarrow \downarrow \downarrow \downarrow \downarrow \downarrow$ | |
|--|--|---|--|--|--|
|--|--|---|--|--|--|

| B0 | | | | | | | | B1 | |
|---------------------|---------------------|-----------------|-----------------|-----------|----------|--------------------------------------|--|----|--|
| | | Total of Horizo | ntal Design Spa | ns = 15-0 | 9-08 | | | | |
| Reaction Summary (I | Down / Uplift)(lbs) | | | | | | | | |
| Bearing | Live | Dead | Snow | | Wind | Roof Li | ve | | |
| B0 | 421 / 0 | 105 / 0 | | | | | | | |
| B1 | 421 / 0 | 105 / 0 | | | | | | | |
| | | | | Live | Dead | Snow Wine | d Roof Live | OC | |
| Load Summary | | | | | | | | | |
| Tag Description | Load Type | Ref. Start | End | 100% | 90% | 115% 1609 | % 125% | | |
| 1 Standard Load | Unf. Area (lb/ft^2) | L 00-00-00 | 15-09-08 | 40 | 10 | | | 1 | |
| Controls Summary | Value | % Allowable | Duration | Case | Location | Disclosur | e | | |
| Pos. Moment | 2,078 ft-lbs | 73.7% | 100% | 1 | 07-10-12 | | | | |
| End Reaction | 526 lbs | 53.8% | 100% | 1 | 00-00-00 | be verified by anyone who would rely | | | |
| End Shear | 522 lbs | 45% | 100% | 1 | 00-00-14 | | dence of suitabi | | |
| Total Load Defl. | L/455 (0.417") | 52.8% | n/a | 1 | 07-10-12 | | olication. Output ode-accepted d | | |
| Live Load Defl. | L/568 (0.333") | 84.4% | n/a | 2 | 07-10-12 | | id analysis meth | | |
| Max Defl. | 0.417" [`] | 41.7% | n/a | 1 | 07-10-12 | | f Boise Cascade | | |
| Span / Depth | 19.9 | n/a | n/a | 0 | 00-00-00 | | ts must be in ac | | |
| Squash Blocks | Valid | | | | | | llation Guide and es. To obtain Ins | | |
| • | | | | | | | ons, please call | | |
| | | | | | | (800)232-078 | | | |

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 El value based on 23/32" thick OSB sheathing glued and nailed to member.

Design based on Dry Service Condition.

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.

| Boise Cascade | Single 3- | 1/2" x 9-1/2 | 2" VERSA | -LAM | ® 2.0 3100 | SP | Roof Bea | am∖RB01 |
|---|---|---|--|--|--|--|----------------|-----------------|
| - | | Dry 2 spans | Right cantilev | er 0/12 | slope | | October 26, 20 |)17 10:13:19 |
| BC CALC® Design Rep | port | | | | | | | |
| Build 6080 | | | | | Robinson | | | |
| | Colleen Robinson | | | | Designs\RB01 | | | |
| Address: City, State, Zip: Peaks I | cland ME | | | cifier: igner: | | | | |
| | je Lumber | | | igner. ipany: | | | | |
| Code reports: ESR-10 | | | Mise | | | | | |
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| | | | 12 | | | | | |
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| | | | \downarrow \downarrow \downarrow \downarrow \downarrow | | | \downarrow \downarrow \downarrow | | |
| | | | | | | | | |
| | | | | | | | | |
| B0 | 09-11-12 | | | B1 | | (| 07-00-04 | |
| | | Total of Horizo | ntal Design Spa | ns = 17-0 | 0-00 | | | |
| Reaction Summary (| Down / Uplift) (lbs) | | | | | | | |
| Bearing | Live | Dead | Snow | | Wind | R | oof Live | |
| B0 | | 537/0 | 1,852 | | | | | |
| B1 | | 1,193 / 0 | 3,513 | 0 | | | | |
| | | | | | | | | |
| | | | | Live | Dead | Snow | Wind Roof Live | Trib. |
| Load Summary | | | | | | | | Trib. |
| Tag Description | Load Type | Ref. Start | End | 100% | 90% | 115% | Wind Roof Live | |
| Tag Description1Standard Load | Unf. Area (lb/ft^2) | L 00-00-00 | 09-11-12 | 100% | 90% 15 | <u>115%</u> 50 | | 08-00-00 |
| Tag Description | | | 09-11-12 | 100% | 90% | 115% | | |
| Tag Description1Standard Load2 | Unf. Area (lb/ft^2) Trapezoidal (lb/ft) | L 00-00-00 L 09-11-12 | 09-11-12 17-00-00 | 100% | 90% 15 105 0 | <u>115%</u> 50 350 | | 08-00-00 n/a |
| Tag Description 1 Standard Load 2 Standard Load Controls Summary | Unf. Area (lb/ft^2) Trapezoidal (lb/ft) Value | L 00-00-00 L 09-11-12 % Allowable | 09-11-12 17-00-00 Duration | 100% Case | 90% 15 105 0 Location | <u>115%</u> 50 350 | | 08-00-00 n/a |
| Tag Description 1 Standard Load 2 Standard Load Controls Summary Pos. Moment | Unf. Area (lb/ft^2) Trapezoidal (lb/ft) <u>Value</u> 5,385 ft-lbs | L 00-00-00 L 09-11-12 | 09-11-12 17-00-00 | 100% | 90% 15 105 0 | <u>115%</u> 50 350 | | 08-00-00 n/a |
| Tag Description 1 Standard Load 2 Standard Load Controls Summary | Unf. Area (lb/ft^2) Trapezoidal (lb/ft) Value 5,385 ft-lbs -3,975 ft-lbs 1,930 lbs | L 00-00-00 L 09-11-12 <u>% Allowable</u> 33.5% | 09-11-12 17-00-00 <u>Duration</u> 115% | 100% Case 7 | 90% 15 105 0 Location 04-05-14 | <u>115%</u> 50 350 | | 08-00-00 n/a |
| Tag Description1Standard Load2Controls SummaryPos. MomentNeg. MomentEnd ShearCont. Shear | Unf. Area (lb/ft^2) Trapezoidal (lb/ft) Value 5,385 ft-lbs -3,975 ft-lbs 1,930 lbs 2,544 lbs | L 00-00-00 L 09-11-12 % Allowable 33.5% 24.8% 26.6% 35% | 09-11-12 17-00-00 <u>Duration</u> 115% 115% 115% 115% 115% | 100% Case 7 9 7 9 7 9 | 90% 15 105 0 <u>Location</u> 04-05-14 09-11-12 00-10-06 09-00-08 | <u>115%</u> 50 350 | | 08-00-00 n/a |
| Tag Description1Standard Load2Controls SummaryPos. MomentNeg. MomentEnd ShearCont. ShearTotal Load Defl. | Unf. Area (lb/ft^2) Trapezoidal (lb/ft) 5,385 ft-lbs -3,975 ft-lbs 1,930 lbs 2,544 lbs L/658 (0.182") | L 00-00-00 L 09-11-12 % Allowable 33.5% 24.8% 26.6% 35% 27.4% | 09-11-12 17-00-00 <u>Duration</u> 115% 115% 115% 115% n/a | 100% Case 7 9 7 9 7 9 7 | 90% 15 105 0 <u>Location</u> 04-05-14 09-11-12 00-10-06 09-00-08 04-09-09 | <u>115%</u> 50 350 | | 08-00-00 n/a |
| Tag Description1Standard Load2Controls SummaryPos. MomentNeg. MomentEnd ShearCont. ShearTotal Load Defl.Live Load Defl. | Unf. Area (lb/ft^2) Trapezoidal (lb/ft) Value 5,385 ft-lbs -3,975 ft-lbs 1,930 lbs 2,544 lbs L/658 (0.182") 2xL/712 (-0.237") | L 00-00-00 L 09-11-12 % Allowable 33.5% 24.8% 26.6% 35% 27.4% 33.7% | 09-11-12 17-00-00 <u>Duration</u> 115% 115% 115% 115% n/a n/a | 100% Case 7 9 7 9 7 9 7 10 | 90% 15 105 0 Location 04-05-14 09-11-12 00-10-06 09-00-08 04-09-09 17-00-00 | <u>115%</u> 50 350 | | 08-00-00 n/a |
| Tag Description1Standard Load2Controls SummaryPos. MomentNeg. MomentEnd ShearCont. ShearTotal Load Defl.Live Load Defl.Live Load Defl.Total Neg. Defl. | Unf. Area (lb/ft^2) Trapezoidal (lb/ft) Value 5,385 ft-lbs -3,975 ft-lbs 1,930 lbs 2,544 lbs L/658 (0.182") 2xL/712 (-0.237") 2xL/706 (-0.239") | L 00-00-00 L 09-11-12 33.5% 24.8% 26.6% 35% 27.4% 33.7% 25.5% | 09-11-12 17-00-00 <u>Duration</u> 115% 115% 115% 115% n/a n/a n/a n/a | 100% Case 7 9 7 9 7 9 7 10 7 | 90% 15 105 0 Location 04-05-14 09-11-12 00-10-06 09-00-08 04-09-09 17-00-00 17-00-00 | <u>115%</u> 50 350 | | 08-00-00 n/a |
| Tag Description1Standard Load2Controls SummaryPos. MomentNeg. MomentEnd ShearCont. ShearTotal Load Defl.Live Load Defl.Live Load Defl.Total Neg. Defl.Max Defl. | Unf. Area (lb/ft^2) Trapezoidal (lb/ft) Value 5,385 ft-lbs -3,975 ft-lbs 1,930 lbs 2,544 lbs L/658 (0.182") 2xL/712 (-0.237") 2xL/706 (-0.239") 0.182" | L 00-00-00 L 09-11-12 33.5% 24.8% 26.6% 35% 27.4% 33.7% 25.5% 18.2% | 09-11-12 17-00-00 115% 115% 115% 115% 115% n/a n/a n/a n/a n/a | 100% Case 7 9 7 9 7 9 7 10 7 7 | 90% 15 105 0 Location 04-05-14 09-11-12 00-10-06 09-00-08 04-09-09 17-00-00 17-00-00 04-09-09 | <u>115%</u> 50 350 | | 08-00-00 n/a |
| Tag Description1Standard Load2Controls SummaryPos. MomentNeg. MomentEnd ShearCont. ShearCont. ShearTotal Load Defl.Live Load Defl.Live Load Defl.Total Neg. Defl.Max Defl.Cant. Max Defl. | Unf. Area (lb/ft^2) Trapezoidal (lb/ft) Value 5,385 ft-lbs -3,975 ft-lbs 1,930 lbs 2,544 lbs L/658 (0.182") 2xL/712 (-0.237") 2xL/706 (-0.239") 0.182" -0.239" | L 00-00-00 L 09-11-12 % Allowable 33.5% 24.8% 26.6% 35% 27.4% 33.7% 25.5% 18.2% 23.9% | 09-11-12 17-00-00 <u>Duration</u> 115% 115% 115% 115% n/a n/a n/a n/a n/a n/a | 100% Case 7 9 7 9 7 10 7 7 7 7 7 | 90% 15 105 0 Location 04-05-14 09-11-12 00-10-06 09-00-08 04-09-09 17-00-00 17-00-00 04-09-09 17-00-00 | <u>115%</u> 50 350 | | 08-00-00 n/a |
| Tag Description1Standard Load2Controls SummaryPos. MomentNeg. MomentEnd ShearCont. ShearTotal Load Defl.Live Load Defl.Live Load Defl.Total Neg. Defl.Max Defl. | Unf. Area (lb/ft^2) Trapezoidal (lb/ft) Value 5,385 ft-lbs -3,975 ft-lbs 1,930 lbs 2,544 lbs L/658 (0.182") 2xL/712 (-0.237") 2xL/706 (-0.239") 0.182" | L 00-00-00 L 09-11-12 33.5% 24.8% 26.6% 35% 27.4% 33.7% 25.5% 18.2% | 09-11-12 17-00-00 115% 115% 115% 115% 115% n/a n/a n/a n/a n/a | 100% Case 7 9 7 9 7 9 7 10 7 7 | 90% 15 105 0 Location 04-05-14 09-11-12 00-10-06 09-00-08 04-09-09 17-00-00 17-00-00 04-09-09 | <u>115%</u> 50 350 | | 08-00-00 n/a |
| Tag Description1Standard Load2Controls SummaryPos. MomentEnd ShearCont. ShearCont. ShearTotal Load Defl.Live Load Defl.Live Load Defl.Cont. Max Defl.Cant. Max Defl.Span / DepthSquash Blocks | Unf. Area (lb/ft^2) Trapezoidal (lb/ft) Value 5,385 ft-lbs -3,975 ft-lbs 1,930 lbs 2,544 lbs L/658 (0.182") 2xL/712 (-0.237") 2xL/706 (-0.239") 0.182" -0.239" 12.6 | L 00-00-00 L 09-11-12 % Allowable 33.5% 24.8% 26.6% 35% 27.4% 33.7% 25.5% 18.2% 23.9% | 09-11-12 17-00-00 <u>Duration</u> 115% 115% 115% 115% n/a n/a n/a n/a n/a n/a | 100% Case 7 9 7 9 7 10 7 7 7 7 7 | 90% 15 105 0 Location 04-05-14 09-11-12 00-10-06 09-00-08 04-09-09 17-00-00 17-00-00 04-09-09 17-00-00 | <u>115%</u> 50 350 | | 08-00-00 n/a |
| Tag Description1Standard Load2Controls SummaryPos. MomentNeg. MomentEnd ShearCont. ShearTotal Load Defl.Live Load Defl.Live Load Defl.Total Neg. Defl.Max Defl.Cant. Max Defl.Span / DepthSquash BlocksCautions | Unf. Area (lb/ft^2) Trapezoidal (lb/ft) 5,385 ft-lbs -3,975 ft-lbs 1,930 lbs 2,544 lbs L/658 (0.182") 2xL/712 (-0.237") 2xL/706 (-0.239") 0.182" -0.239" 12.6 Valid | L 00-00-00 L 09-11-12 % Allowable 33.5% 24.8% 26.6% 35% 27.4% 33.7% 25.5% 18.2% 23.9% n/a | 09-11-12 17-00-00 <u>Duration</u> 115% 115% 115% 115% n/a n/a n/a n/a n/a n/a n/a | 100% Case 7 9 7 9 7 10 7 7 7 0 | 90% 15 105 0 Location 04-05-14 09-11-12 00-10-06 09-00-08 04-09-09 17-00-00 17-00-00 04-09-09 17-00-00 04-09-09 | <u>115%</u> 50 350 | | 08-00-00 n/a |
| Tag Description1Standard Load2Controls SummaryPos. MomentEnd ShearCont. ShearTotal Load Defl.Live Load Defl.Live Load Defl.Cant. Max Defl.Cant. Max Defl.Span / DepthSquash BlocksCautionsLong Cantilever: Sheat | Unf. Area (lb/ft^2) Trapezoidal (lb/ft) Value 5,385 ft-lbs -3,975 ft-lbs 1,930 lbs 2,544 lbs L/658 (0.182") 2xL/712 (-0.237") 2xL/706 (-0.239") 0.182" -0.239" 12.6 Valid hing required on bottom | L 00-00-00 L 09-11-12 % Allowable 33.5% 24.8% 26.6% 35% 27.4% 33.7% 25.5% 18.2% 23.9% n/a flange and adja | 09-11-12 17-00-00 <u>Duration</u> 115% 115% 115% 115% n/a n/a n/a n/a n/a n/a n/a | 100% Case 7 9 7 9 7 10 7 7 0 an or bra | 90% 15 105 0 Location 04-05-14 09-11-12 00-10-06 09-00-08 04-09-09 17-00-00 17-00-00 04-09-09 17-00-00 04-09-09 17-00-00 04-09-09 17-00-00 04-09-09 | <u>115%</u> 50 350 | | 08-00-00 n/a |
| Tag Description1Standard Load2Controls SummaryPos. MomentEnd ShearCont. ShearTotal Load Defl.Live Load Defl.Live Load Defl.Cant. Max Defl.Span / DepthSquash BlocksCautionsLong Cantilever: Sheathdesigned by the design | Unf. Area (lb/ft^2) Trapezoidal (lb/ft) 5,385 ft-lbs -3,975 ft-lbs 1,930 lbs 2,544 lbs L/658 (0.182") 2xL/712 (-0.237") 2xL/706 (-0.239") 0.182" -0.239" 12.6 Valid | L 00-00-00 L 09-11-12 % Allowable 33.5% 24.8% 26.6% 35% 27.4% 33.7% 25.5% 18.2% 23.9% n/a flange and adja | 09-11-12 17-00-00 <u>Duration</u> 115% 115% 115% 115% n/a n/a n/a n/a n/a n/a n/a | 100% Case 7 9 7 9 7 10 7 7 0 an or bra | 90% 15 105 0 Location 04-05-14 09-11-12 00-10-06 09-00-08 04-09-09 17-00-00 17-00-00 04-09-09 17-00-00 04-09-09 17-00-00 04-09-09 17-00-00 04-09-09 | <u>115%</u> 50 350 | | 08-00-00 n/a |
| Tag Description1Standard Load2Controls SummaryPos. MomentEnd ShearCont. ShearTotal Load Defl.Live Load Defl.Live Load Defl.Cant. Max Defl.Span / DepthSquash BlocksCautionsLong Cantilever: Sheathdesigned by the designuplift at supports. | Unf. Area (lb/ft^2) Trapezoidal (lb/ft) Value 5,385 ft-lbs -3,975 ft-lbs 1,930 lbs 2,544 lbs L/658 (0.182") 2xL/712 (-0.237") 2xL/706 (-0.239") 0.182" -0.239" 12.6 Valid hing required on bottom professional of record. I | L 00-00-00 L 09-11-12 % Allowable 33.5% 24.8% 26.6% 35% 27.4% 33.7% 25.5% 18.2% 23.9% n/a flange and adja Design profess | 09-11-12 17-00-00 <u>Duration</u> 115% 115% 115% 115% n/a n/a n/a n/a n/a n/a n/a n/a n/a | 100% Case 7 9 7 10 7 7 7 0 | 90% 15 105 0 Location 04-05-14 09-11-12 00-10-06 09-00-08 04-09-09 17-00-00 17-00-00 04-09-09 17-00-00 00-00-00 00-00-00 17-00-00 00-00-00 17-00-00 00-00-00 17-00-00 00-00-00 17-00-00 00-00-00 17-00-00 | <u>115%</u> 50 350 | | 08-00-00 n/a |
| Tag Description1Standard Load2Controls SummaryPos. MomentEnd ShearCont. ShearTotal Load Defl.Live Load Defl.Live Load Defl.Cant. Max Defl.Span / DepthSquash BlocksCautionsLong Cantilever: Sheathdesigned by the designuplift at supports. | Unf. Area (lb/ft^2) Trapezoidal (lb/ft) Value 5,385 ft-lbs -3,975 ft-lbs 1,930 lbs 2,544 lbs L/658 (0.182") 2xL/712 (-0.237") 2xL/706 (-0.239") 0.182" -0.239" 12.6 Valid hing required on bottom | L 00-00-00 L 09-11-12 % Allowable 33.5% 24.8% 26.6% 35% 27.4% 33.7% 25.5% 18.2% 23.9% n/a flange and adja Design profess | 09-11-12 17-00-00 <u>Duration</u> 115% 115% 115% 115% n/a n/a n/a n/a n/a n/a n/a n/a n/a | 100% Case 7 9 7 10 7 7 7 0 | 90% 15 105 0 Location 04-05-14 09-11-12 00-10-06 09-00-08 04-09-09 17-00-00 17-00-00 04-09-09 17-00-00 00-00-00 00-00-00 17-00-00 00-00-00 17-00-00 00-00-00 17-00-00 00-00-00 17-00-00 00-00-00 17-00-00 | <u>115%</u> 50 350 | | 08-00-00 n/a |
| Tag Description1Standard Load2Controls SummaryPos. MomentEnd ShearCont. ShearTotal Load Defl.Live Load Defl.Live Load Defl.Cant. Max Defl.Span / DepthSquash BlocksCautionsLong Cantilever: Sheatdesigned by the designuplift at supports.For roof members withwill not occur.For roof members with | Unf. Area (lb/ft^2) Trapezoidal (lb/ft) Value 5,385 ft-lbs -3,975 ft-lbs 1,930 lbs 2,544 lbs L/658 (0.182") 2xL/712 (-0.237") 2xL/706 (-0.239") 0.182" -0.239" 12.6 Valid hing required on bottom professional of record. I | L 00-00-00 L 09-11-12 % Allowable 33.5% 24.8% 26.6% 35% 27.4% 33.7% 25.5% 18.2% 23.9% n/a flange and adja Design professional design must | 09-11-12 17-00-00 Duration 115% 115% 115% 115% 115% n/a n/a n/a n/a n/a n/a n/a n/a | 100% Case 7 9 7 10 7 7 7 0 an or bra must ac onding in | 90% 15 105 0 Location 04-05-14 09-11-12 00-10-06 09-00-08 04-09-09 17-00-00 17-00-00 04-09-09 17-00-00 00-00 00-00-00 | <u>115%</u> 50 350 | | 08-00-00 n/a |
| Tag Description1Standard Load2Controls SummaryPos. MomentEnd ShearCont. ShearTotal Load Defl.Live Load Defl.Live Load Defl.Max Defl.Gant. Max Defl.Span / DepthSquash BlocksCautionsLong Cantilever: Sheatdesigned by the designuplift at supports.For roof members withwill not occur. | Unf. Area (lb/ft^2) Trapezoidal (lb/ft) Value 5,385 ft-lbs -3,975 ft-lbs 1,930 lbs 2,544 lbs L/658 (0.182") 2xL/712 (-0.237") 2xL/706 (-0.239") 0.182" -0.239" 12.6 Valid Professional of record. In slope (1/4)/12 or less fin | L 00-00-00 L 09-11-12 % Allowable 33.5% 24.8% 26.6% 35% 27.4% 33.7% 25.5% 18.2% 23.9% n/a flange and adja Design professional design must | 09-11-12 17-00-00 Duration 115% 115% 115% 115% 115% n/a n/a n/a n/a n/a n/a n/a n/a | 100% Case 7 9 7 10 7 7 7 0 an or bra must ac onding in | 90% 15 105 0 Location 04-05-14 09-11-12 00-10-06 09-00-08 04-09-09 17-00-00 17-00-00 04-09-09 17-00-00 00-00 00-00-00 | <u>115%</u> 50 350 | | 08-00-00 n/a |

Notes



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

Roof Beam\RB01 October 26, 2017 10:13:19

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

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.

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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