

# Triple 1-3/4" x 9-1/2" VERSA-LAM® 2.0 3100 SP

## Floor Beam\FB03

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

February 19, 2017 16:54:27

BC CALC® Design Report

**Build 5684** Job Name:

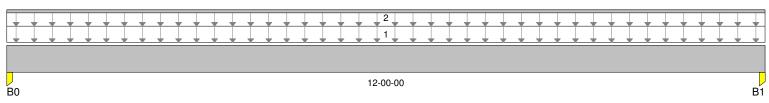
127 BRAMBLEWOOD

Address: City, State, Zip:,

Customer: **ROB TWOMBLY** Code reports: ESR-1040

File Name: BC CALC Project Description: LIV / DIN CEIL BM

Specifier: Designer: Company: Misc:



#### Total Horizontal Product Length = 12-00-00

| Reaction Summary (Down / Uplift) (Ibs) |           |           |      |      |           |  |
|--|-----------|-----------|------|------|-----------|--|
| Bearing                                | Live      | Dead      | Snow | Wind | Roof Live |  |
| B0, 3-1/2"                             | 1,920 / 0 | 1,167 / 0 |      |      |           |  |
| B1, 3-1/2"                             | 1,920 / 0 | 1,167 / 0 |      |      |           |  |

|                 |                     |            |          | Live | Dead | Snow | Wind Roof Live | Trib.    |
|-----------------|---------------------|------------|----------|------|------|------|----------------|----------|
| Load Summary    |                     |            |          |      |      |      |                |          |
| Tag Description | Load Type           | Ref. Start | End      | 100% | 90%  | 115% | 160% 125%      |          |
| 1 BEDROOM       | Unf. Area (lb/ft^2) | L 00-00-00 | 12-00-00 | 40   | 10   |      |                | 08-00-00 |
| 2 INT WALLS     | Unf. Lin. (lb/ft)   | L 00-00-00 | 12-00-00 | 0    | 100  |      |                | n/a      |

| <b>Controls Summary</b> | Value          | % Allowable | Duration | Case | Location |
|-------------------------|----------------|-------------|----------|------|----------|
| Pos. Moment             | 8,566 ft-lbs   | 40.9%       | 100%     | 1    | 06-00-0  |
| End Shear               | 2,529 lbs      | 26.7%       | 100%     | 1    | 01-01-00 |
| Total Load Defl.        | L/506 (0.274") | 47.4%       | n/a      | 1    | 06-00-00 |
| Live Load Defl.         | L/813 (0.17")  | 44.3%       | n/a      | 2    | 06-00-00 |
| Max Defl.               | 0.274"         | 27.4%       | n/a      | 1    | 06-00-00 |
| Span / Depth            | 14.6           | n/a         | n/a      | 0    | 00-00-00 |

| Beari | ng Supports | Dim. (L x W)    | Value     | % Allow<br>Support | % Allow<br>Member | Material    |
|-------|-------------|-----------------|-----------|--------------------|-------------------|-------------|
| B0    | Post        | 3-1/2" x 3-1/2" | 3,087 lbs | n/a                | 33.6%             | Unspecified |
| B1    | Post        | 3-1/2" x 3-1/2" | 3,087 lbs | n/a                | 33.6%             | Unspecified |

### **Cautions**

Member is not fully supported at post B0. A connector is required at this bearing. Member is not fully supported at post B1. A connector is required at this bearing.

### **Notes**

Design meets Code minimum (L/240) Total load deflection criteria. Design meets Code minimum (1/200) Live lead deflection evitorie



# Triple 1-3/4" x 9-1/2" VERSA-LAM® 2.0 3100 SP

Specifier:

## Floor Beam\FB03

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

February 19, 2017 16:54:27

BC CALC® Design Report

**Build 5684** Job Name: 127 BRAMBLEWOOD Description: LIV / DIN CEIL BM

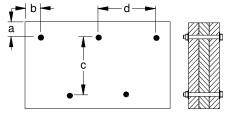
Address: City, State, Zip:,

Customer:

Designer: **ROB TWOMBLY** Company: Code reports: ESR-1040 Misc:

File Name: BC CALC Project

## **Connection Diagram**



a minimum = 2" c = 5-1/2" b minimum = 2-1/2" d = 24"

Bolts are assumed to be Grade A307 or Grade 2 or higher.

Member has no side loads.

Connectors are: 1/2 in. Staggered Through Bolt

#### **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.