

BC CALC® Design Report - US

Build 2627

Job Name: Portland Remodel

Address:

City, State, Zip: Portland, ME

Customer: Eldredge Lumber

Code reports: ESR-1040

File Name: BC

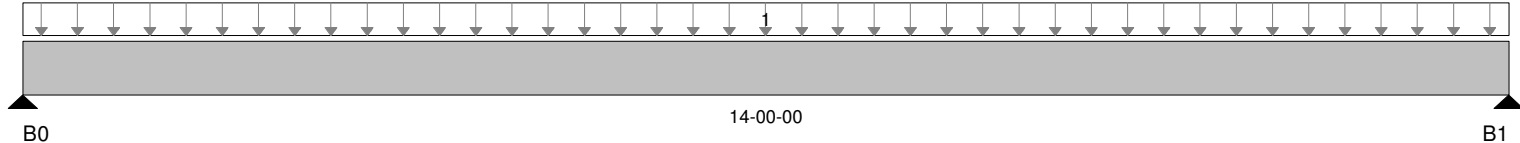
Description: Beam Between Dinette & Kitchen

Specifier:

Designer:

Company:

Misc:



Total of Horizontal Design Spans = 14-00-00

Reaction Summary (Down / Uplift) (lbs)

Bearing	Live	Dead	Snow	Wind	Roof Live
B0	2,800 / 0	820 / 0			
B1	2,800 / 0	820 / 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	14-00-00	40	10				10-00-00

Controls Summary

	Value	% Allowable	Duration	Case	Location
Pos. Moment	12,669 ft-lbs	45.4%	100%	1	07-00-00
End Shear	3,173 lbs	25.1%	100%	1	00-10-06
Total Load Defl.	L/376 (0.447")	63.8%	n/a	1	07-00-00
Live Load Defl.	L/486 (0.346")	74.1%	n/a	2	07-00-00
Max Defl.	0.447"	44.7%	n/a	1	07-00-00
Span / Depth	17.7	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 1-1/2".
- Minimum bearing length for B1 is 1-1/2".
- 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.

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.

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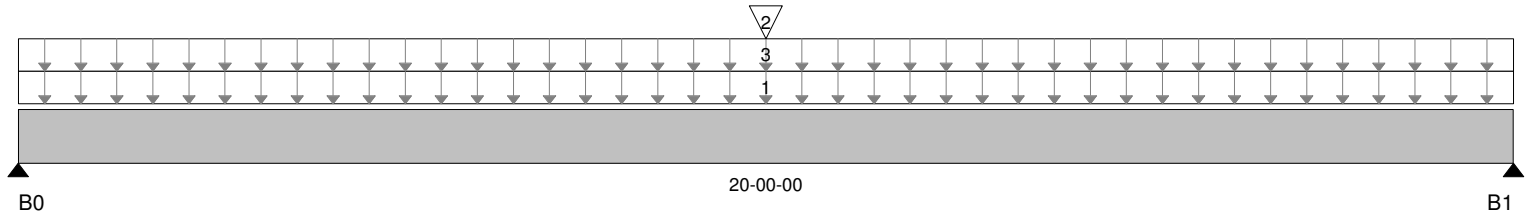
Description: Beam Between Kitchen & Dining

Specifier:

Designer:

Company:

Misc:


Reaction Summary (Down / Uplift) (lbs)

Bearing	Live	Dead	Snow	Wind	Roof Live
B0	3,800 / 0	3,083 / 0	6,000 / 0		
B1	3,800 / 0	3,083 / 0	6,000 / 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	20-00-00	40	10				06-00-00
2	Reaction from Desi...	Conc. Pt. (lbs)	L	10-00-00	10-00-00	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	% Allowable	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

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City, State, Zip: Portland, ME

Customer: Eldredge Lumber

Code reports: ESR-1040

File Name: PortlandRemodel

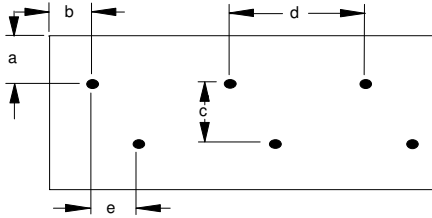
Description: Beam Between Kitchen & Dining

Specifier:

Designer:

Company:

Misc:

Connection Diagram


a minimum = 2"

c = 14"

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.

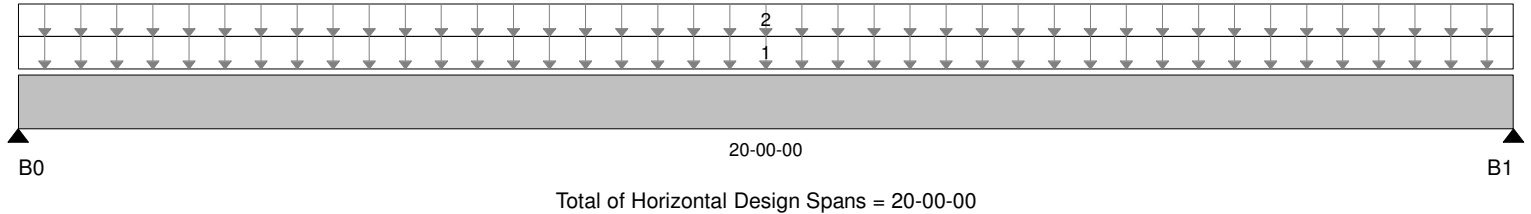
All TrussLok screws may be installed from one side of multiply Versa-Lam beams.

Member has no side loads.

Connectors are: FMTSL005

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

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

Reaction Summary (Down / Uplift) (lbs)

Bearing	Live	Dead	Snow	Wind	Roof Live
B0	7,200 / 0	2,674 / 0			
B1	7,200 / 0	2,674 / 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	20-00-00	40	10				12-00-00
2		Unf. Area (lb/ft ²)	L	00-00-00	20-00-00	20	10				12-00-00

Controls Summary

	Value	% Allowable	Duration	Case	Location
Pos. Moment	49,368 ft-lbs	70.5%	100%	1	10-00-00
End Shear	8,321 lbs	46.3%	100%	1	01-06-14
Total Load Defl.	L/345 (0.697")	69.7%	n/a	1	10-00-00
Live Load Defl.	L/472 (0.508")	76.2%	n/a	2	10-00-00
Max Defl.	0.697"	69.7%	n/a	1	10-00-00
Span / Depth	13.3	n/a	n/a	0	00-00-00

Notes

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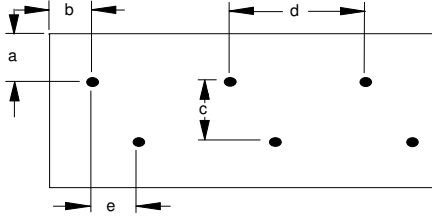
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Specifier:

Designer:

Company:

Misc:

Connection Diagram

a minimum = 2"

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b minimum = 4"

d = 24"

e minimum = 1"

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All TrussLok screws may be installed from one side of multiply Versa-Lam beams.

Member has no side loads.

Connectors are: FMTSL005