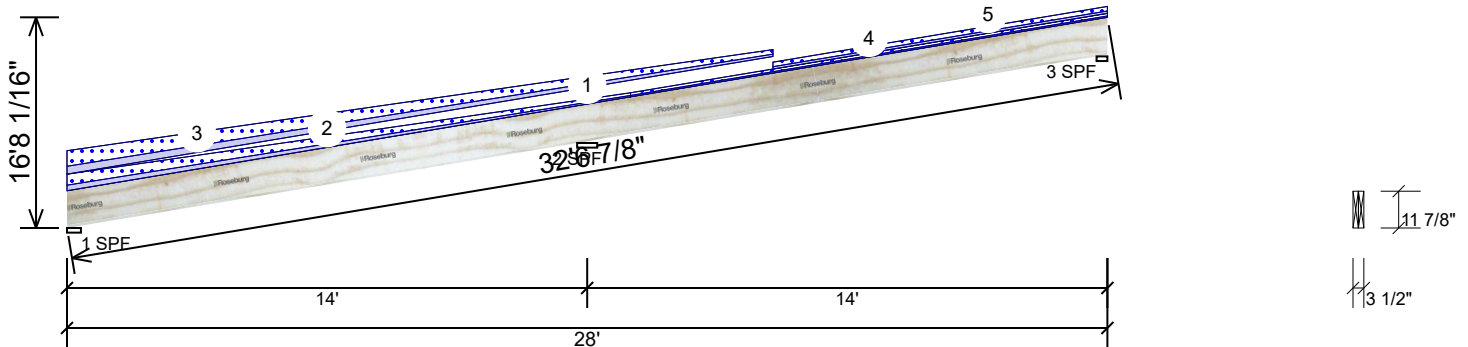


B11 2.0E Rigidlam LVL 1.750" X 11.875" 2-Ply - PASSED

Level: Level



Member Information

Type:	Girder	Application:	Roof
Plies:	2	Slope:	6.66/12
Moisture Condition:	Dry	Design Method:	ASD
Deflection LL:	480	Building Code:	IBC/IRC 2015
Deflection TL:	240	Load Sharing:	No
Importance:	Normal - II	Deck:	Not Checked
Temperature:	Temp <= 100°F		

Reactions UNPATTERNED lb (Uplift)

Brg	Direction	Live	Dead	Snow	Wind	Const
1	Vertical	0	2392	4057	0	0
2	Vertical	0	3646	5935	0	0
3	Vertical	0	691	1058	0	0

Bearings

Bearing	Length	Dir.	Cap.	React D/L lb	Total	Ld. Case	Ld. Comb.
1 - SPF	4.500"	Vert	97%	2392 / 4133	6524	L_	D+S
2 - SPF	6.500"	Vert	99%	3646 / 5935	9581	LL	D+S
3 - SPF	3.500"	Vert	37%	691 / 1233	1923	_L	D+S

Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Neg Moment	-14456 ft-lb	14'	24470 ft-lb	0.591 (59%)	D+S	LL
Unbraced	-14456 ft-lb	14'	14491 ft-lb	0.998 (100%)	D+S	LL
Pos Moment	15188 ft-lb	5'8 1/16"	24470 ft-lb	0.621 (62%)	D+S	L_
Unbraced	15188 ft-lb	5'8 1/16"	15243 ft-lb	0.996 (100%)	D+S	L_
Shear	4970 lb	14'8 1/2"	9241 lb	0.538 (54%)	D+S	LL
LL Defl inch	0.382 (L/491)	6'6 7/16"	0.391 (L/480)	0.977 (98%)	S	L_
TL Defl inch	0.588 (L/320)	6'5 13/16"	0.783 (L/240)	0.751 (75%)	D+S	L_

Design Notes

- 1 Provide support to prevent lateral movement and rotation at the end bearings. Lateral support may also be required at the interior bearings by the building code.
- 2 Refer to manufacturer's literature for sloped bearing detail.
- 3 Attach with enough nails to prevent sliding between the joist and the sloped bearing wedge at each support.
- 4 Girders are designed to be supported on the bottom edge only.
- 5 Multiple plies must be fastened together as per manufacturer's details.
- 6 Top loads must be supported equally by all plies.
- 7 Top must be laterally braced at a maximum of 5'5 15/16" o.c. along the slope.
- 8 Bottom must be laterally braced at a maximum of 5'10" o.c.
- 9 Lateral slenderness ratio based on single ply width.

Notes

Calculated Structural Designs is responsible only of the structural adequacy of this component based on the design criteria and loadings shown. It is the responsibility of the customer and/or the contractor to ensure the component suitability of the intended application, and to verify the dimensions and loads.

Lumber

1. Dry service conditions, unless noted otherwise
2. LVL not to be treated with fire retardant or corrosive

Handling & Installation

1. LVL beams must not be cut or drilled
2. Refer to manufacturer's product information regarding installation requirements, multi-ply fastening details, beam strength values, and code approvals
3. Damaged Beams must not be used
4. Design assumes top edge is laterally restrained
5. Provide lateral support at bearing points to avoid lateral displacement and rotation

6. For flat roofs provide proper drainage to prevent ponding

This design is valid until 5/24/2024

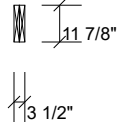
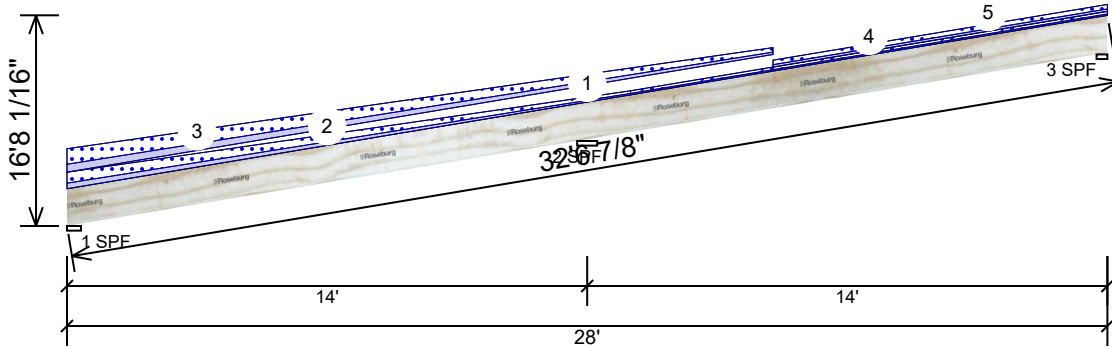
Manufacturer Info

Roseburg Forest Products
4500 Riddle By-pass Rd
Riddle, OR 97469
(541) 784-4005
www.roseburg.com
APA: PR-L289, PR-L270, ICC-ES:
ESR-1210

Kempville Building Material
298 Harvey Faulk Road, N.C.
U.S.A
27332
919.775.1450

B11 2.0E Rigidlam LVL 1.750" X 11.875" 2-Ply - PASSED

Level: Level



ID	Load Type	Location	Trib Width	Side	Dead 0.9	Live 1	Snow 1.15	Wind 1.6	Const. 1.25	Comments
2	Tapered Start	0-0-0		Top	165 PLF	0 PLF	330 PLF	0 PLF	0 PLF	Rf Load
	End	15-2-0			40 PLF	0 PLF	80 PLF	0 PLF	0 PLF	
3	Tapered Start	0-0-0		Top	235 PLF	0 PLF	465 PLF	0 PLF	0 PLF	Rf Load
	End	19-0-0			70 PLF	0 PLF	135 PLF	0 PLF	0 PLF	
4	Tapered Start	15-2-0		Top	40 PLF	0 PLF	80 PLF	0 PLF	0 PLF	Rf Load
	End	28-0-0			40 PLF	0 PLF	80 PLF	0 PLF	0 PLF	
5	Tapered Start	19-0-0		Top	70 PLF	0 PLF	135 PLF	0 PLF	0 PLF	Rf Load
	End	28-0-0			70 PLF	0 PLF	135 PLF	0 PLF	0 PLF	
	Self Weight				11 PLF					

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