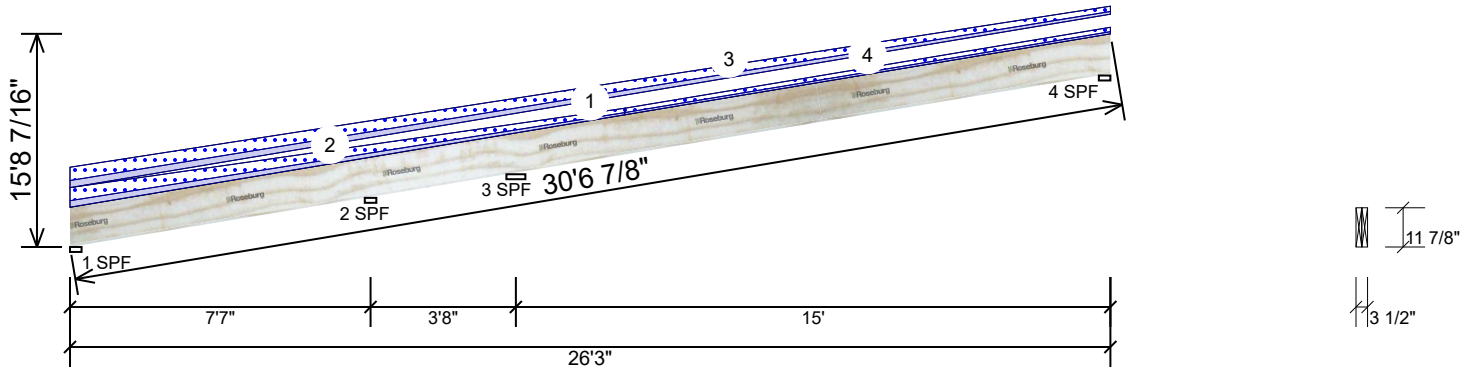


B9 2.0E Rigidlam LVL 1.750" X 11.875" 2-Ply - PASSED

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	1447	2387	0	0
2	Vertical	0	1299	2160	0	0
3	Vertical	0	3151	5013	0	0
4	Vertical	0	1230	1964	0	0

Bearings

Bearing	Length	Dir.	Cap.	React D/L lb	Total	Ld. Case	Ld. Comb.
1 - SPF	3.500"	Vert	74%	1447 / 2400	3847	L_L	D+S
2 - SPF	3.500"	Vert	85%	1299 / 3128	4427	LL_	D+S
3 - SPF	5.750"	Vert	99%	3151 / 5346	8497	_LL	D+S
4 - SPF	3.500"	Vert	61%	1230 / 1967	3198	L_L	D+S

Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Neg Moment	-12019 ft-lb	11'3"	24470 ft-lb	0.491 (49%)	D+S	_LL
Unbraced	-12019 ft-lb	11'3"	12034 ft-lb	0.999 (100%)	D+S	_LL
Pos Moment	9171 ft-lb	19'10 7/8"	24470 ft-lb	0.375 (37%)	D+S	L_L
Unbraced	9171 ft-lb	19'10 7/8"	9181 ft-lb	0.999 (100%)	D+S	L_L
Shear	3834 lb	12'5 3/4"	9241 lb	0.415 (41%)	D+S	_LL
LL Defl inch	0.249 (L/815)	19'4 3/16"	0.422 (L/480)	0.589 (59%)	S	L_L
TL Defl inch	0.404 (L/502)	19'4 1/4"	0.845 (L/240)	0.478 (48%)	D+S	L_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 10'3 5/8" o.c. along the slope.
- 8 Bottom must be laterally braced at a maximum of 7'3 3/16" 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

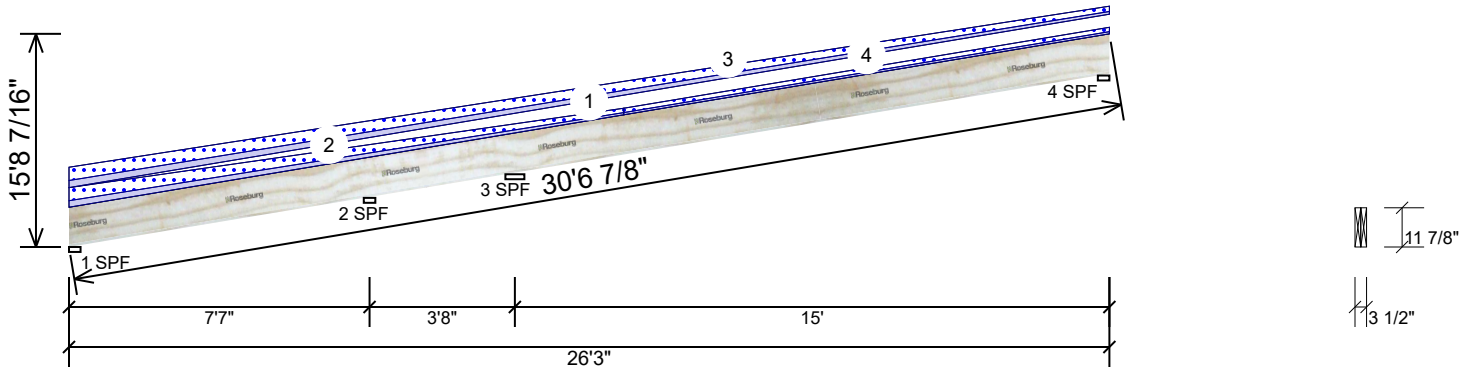
Manufacturer Info

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

B9 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	180 PLF	0 PLF	360 PLF	0 PLF	0 PLF	Rf Load
	End	14-0-0			60 PLF	0 PLF	120 PLF	0 PLF	0 PLF	
3	Tapered Start	0-0-0		Top	195 PLF	0 PLF	365 PLF	0 PLF	0 PLF	Rf Load
	End	26-3-0			75 PLF	0 PLF	145 PLF	0 PLF	0 PLF	
4	Tapered Start	14-0-0		Top	60 PLF	0 PLF	120 PLF	0 PLF	0 PLF	Rf Load
	End	26-3-0			60 PLF	0 PLF	120 PLF	0 PLF	0 PLF	
	Self Weight				11 PLF					

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