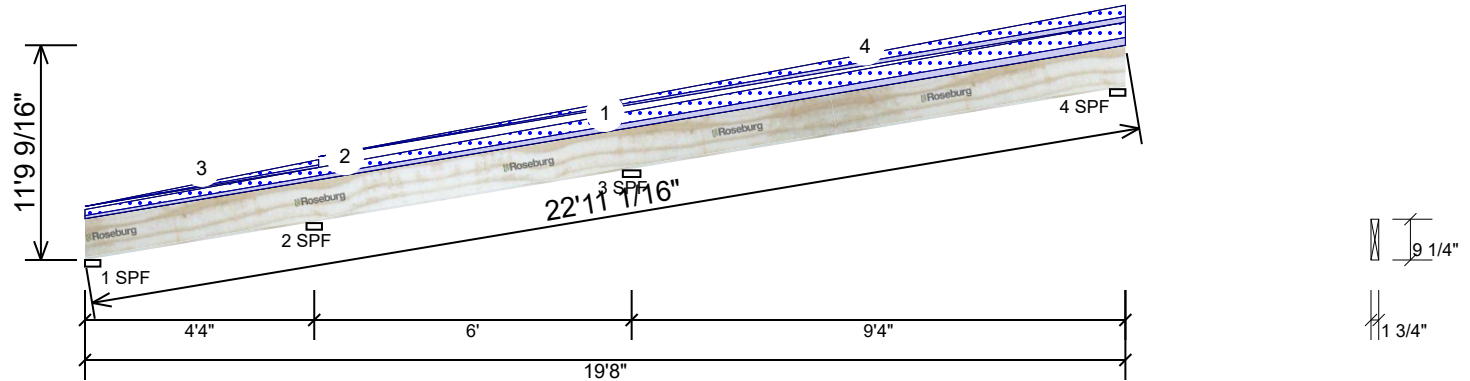


**B16 2.0E Rigidlam LVL 1.750" X 9.250" - PASSED**

Level: Level



**Member Information**

Type:	Girder	Application:	Roof
Plies:	1	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 Ib (Uplift)**

Brg	Direction	Live	Dead	Snow	Wind	Const
1	Vertical	0	143	234	0	0
2	Vertical	0	243	386	0	0
3	Vertical	0	1093	1806	0	0
4	Vertical	0	658	1107	0	0

**Bearings**

Bearing	Length	Dir.	Cap.	React D/L lb	Total	Ld. Case	Ld. Comb.
1 - SPF	3.500"	Vert	16%	143 / 261	404	L_L	D+S
2 - SPF	3.500"	Vert	31%	243 / 557	801	LL_	D+S
3 - SPF	4.000"	Vert	98%	1093 / 1815	2908	_LL	D+S
4 - SPF	3.500"	Vert	68%	658 / 1115	1774	L_L	D+S

**Analysis Results**

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Neg Moment	-2770 ft-lb	10'4"	7659 ft-lb	0.362 (36%)	D+S	_LL
Unbraced	-2770 ft-lb	10'4"	2772 ft-lb	0.999 (100%)	D+S	_LL
Pos Moment	2802 ft-lb	15'9 7/8"	7659 ft-lb	0.366 (37%)	D+S	L_L
Unbraced	2802 ft-lb	15'9 7/8"	2807 ft-lb	0.998 (100%)	D+S	L_L
Shear	1449 lb	11'3 1/4"	3599 lb	0.403 (40%)	D+S	_LL
LL Defl inch	0.128 (L/976)	15'3 13/16"	0.260 (L/480)	0.492 (49%)	S	L_L
TL Defl inch	0.202 (L/618)	15'3 15/16"	0.521 (L/240)	0.388 (39%)	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 Top must be laterally braced at a maximum of 13'8 5/16" o.c. along the slope.
- 6 Bottom must be laterally braced at a maximum of 13'10 1/2" o.c.

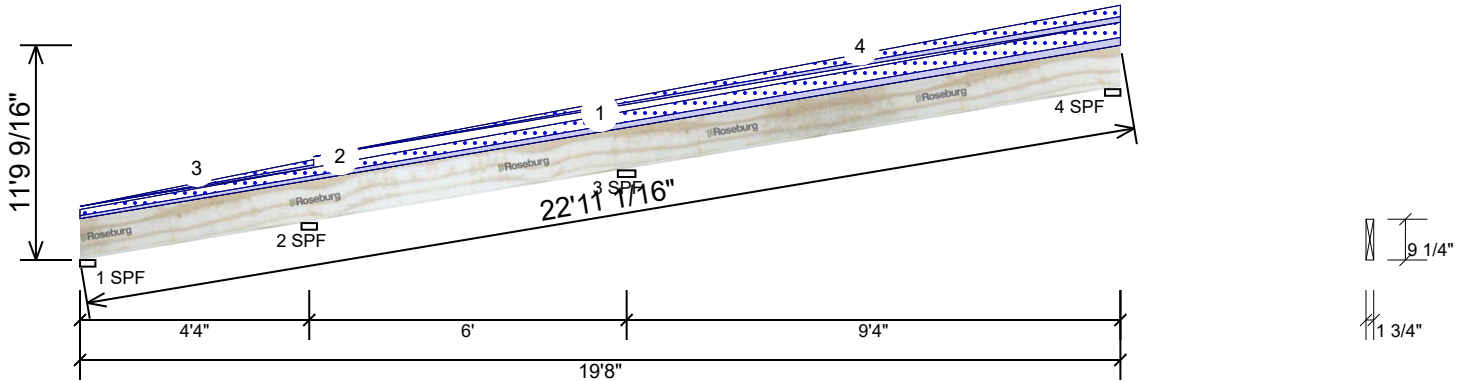
ID	Load Type	Location	Trib Width	Side	Dead 0.9	Live 1	Snow 1.15	Wind 1.6	Const. 1.25	Comments
2	Tapered Start	0-0-0		Top	35 PLF	0 PLF	70 PLF	0 PLF	0 PLF	
	End	19-8-0			90 PLF	0 PLF	175 PLF	0 PLF	0 PLF	
3	Tapered Start	0-0-0		Top	0 PLF	0 PLF	0 PLF	0 PLF	0 PLF	

Continued on page 2...

<p><b>Notes</b></p> <p>Calculated Structured 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.</p> <p><b>Lumber</b></p> <ol style="list-style-type: none"> <li>1. Dry service conditions, unless noted otherwise</li> <li>2. LVL not to be treated with fire retardant or corrosive chemicals</li> </ol>	<p><b>Handling &amp; Installation</b></p> <ol style="list-style-type: none"> <li>1. LVL beams must not be cut or drilled</li> <li>2. Refer to manufacturer's product information regarding installation requirements, multi-ply fastening details, beam strength values, and code approvals</li> <li>3. Damaged Beams must not be used</li> <li>4. Design assumes top edge is laterally restrained</li> <li>5. Provide lateral support at bearing points to avoid lateral displacement and rotation</li> </ol>	<p>6. For flat roofs provide proper drainage to prevent ponding</p>	<p><b>Manufacturer Info</b></p> <p>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</p>	<p>Kempville Building Material 298 Harvey Faulk Road, N.C. U.S.A 27332 919.775.1450</p>
			<p>This design is valid until 5/24/2024</p>	

**B16 2.0E Rigidlam LVL 1.750" X 9.250" - PASSED**

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...Continued from page 1

ID	Load Type	Location	Trib Width	Side	Dead 0.9	Live 1	Snow 1.15	Wind 1.6	Const. 1.25	Comments
	End	4-5-0			30 PLF	0 PLF	60 PLF	0 PLF	0 PLF	
4	Tapered Start	4-5-0		Top	0 PLF	0 PLF	0 PLF	0 PLF	0 PLF	
	End	19-8-0			65 PLF	0 PLF	130 PLF	0 PLF	0 PLF	
	Self Weight				4 PLF					

**Notes**

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**Lumber**

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2. LVL not to be treated with fire retardant or corrosive chemicals

**Handling & Installation**

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**Manufacturer Info**

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