

Cont. Beam Example 1-Floor Beam B-1

Digital Canal
 Project: Examples
 Job: Example Problems
 Client: Digital Canal Corporation

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 15:12:00 09/21/09
 Designed by: auderer
 Checked by: _____

Input Data

Design of 3 1/8"x16 1/2" 20F-V3-Un-Balanced Layup-Glulam - Western

Left Cantilever: None	Main Span: 25.7694	Right Cantilever: None
Check for repetitive use? Yes	Tributary Width: 4	Slope: 3:12
Dead Load: 0.02 ksf	Live Load: 0 ksf	Snow Load: 0.02 ksf
Allow. LL Deflection: L/240	Allow. TL Deflection: L/180	DOL: 1.150
E _s : 1600 ksi	F _v : 0.265 ksi	F _b : 2 ksi

User Defined Loads

Load Case	Load Type	Distance(s) to Start ft	Load Length ft	Load at Start klf	Load at End klf
Floor Live	Concentrated	5		0.5	
Floor Live	Linear	12	6	0.05	0.15

Design Checks

	Reaction K	Bending - X ksi	Shear ksi	LL Defl. in	TL Defl. in
Max. Value	3.968	2.03	0.094	-1.1677	-1.6366
Allowable	6.791	2.293	0.305	1.2885	1.718
% of Allow.	58	89	31	90	95
Location	0	12.8847	1.69838	12.8848	12.8848

Reactions and Bearing

Support Location ft	Min. Bearing in	Reaction K
0	2.29	3.96825
25.7694	2.225	3.85474

Self-weight of member is included.

Member has an actual/allowable ratio in span 1 of 95 %.

Design is governed by total deflection.

Governing load combination is Dead+0.75*Wind in Pos X+0.75*Floor Live+0.75*Snow Condition 2 w/Pattern Loads.

Maximum hanger forces: 3.968 K (Left) and 3.855 K (Right).

Timber design is governed by NDS 2005.