

Member Report

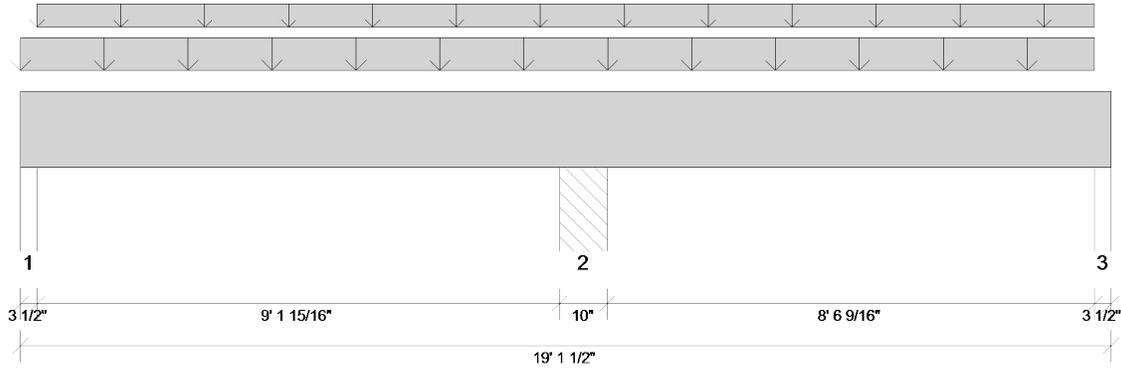
Label: M1-2 | Design Tag: i753

2 piece(s) of 1 3/4" x 16" 2.0E Microllam® LVL

Member Type: Beam | Level: 2nd Floor

Design Passed

Product is Sufficient for Application and Loads Described



Building Code: IBC 2021

Design Methodology: ASD

Member Cut Length: 19' 1 1/2"

Member Drawing Not to Scale

Design Results:	Design @ Location	Allowed	Result	LDF	Load Combination - (Load Group)
Critical Reaction	4883 lb @ 9' 10 7/16"	26250 lb (10")	Passed - 19%	-	1.0 D + 0.75 L + 0.75 S - (0)
Shear	1762 lb @ 8' 1 7/16"	12236 lb	Passed - 14%	1.15	1.0 D + 0.75 L + 0.75 S - (0)
Moment	-4598 lb-ft @ 9' 10 7/16"	35781 lb-ft	Passed - 13%	1.15	1.0 D + 0.75 L + 0.75 S - (0)
Live Load Deflection	0.02" @ 4' 7 5/8"	0.32" L/360	Passed - L/999	-	1.0 D + 0.75 L + 0.75 S - (0)
Total Load Deflection	0.03" @ 4' 6 1/8"	0.49" L/240	Passed - L/999	-	1.0 D + 0.75 L + 0.75 S - (0)

Design Notes:

- * Top Edge Bracing (Lu): Top compression edge must be braced at 19-02-00 o/c based on loads applied, unless detailed otherwise.
- * Bottom Edge Bracing (Lu): Bottom compression edge must be braced at 19-02-00 o/c based on loads applied, unless detailed otherwise.
- * Allowed moment does not reflect the adjustment for the beam stability factor.

Supports:

Support	Start : End	Req'd Br'g	Source	Maximum Loads to Supports			
				Dead	Floor Live	Roof Live	Snow
1	0" : 3 1/2"	1.5"	B10(i35)	780 lb	405 / -49 lb	-	763 lb
2	9' 5 7/16" : 10' 3 7/16"	1.86"	PBO7(i46)	2375 lb	1126 lb	-	2151 lb
3	18' 10" : 19' 1 1/2"	1.5"	B6(i26)	670 lb	382 / -64 lb	-	664 lb

Loads:

Type	Start : End (Side)	Combine	Source	Maximum Loads on Member			
				Dead	Floor Live	Roof Live	Snow
Self Weight	0" : 19' 1 1/2"	-	Self Weight	15 lb/ft	-	-	-
Uniform	-0" : 18' 10" (Top)	-	PLT26(i121)	140 lb/ft	-	-	184 lb/ft
Uniform	3 1/2" : 18' 10" (Back)	-	User Load	49 lb/ft	97 lb/ft	-	-

Errors, Warnings, & Notes:

- * If sloping roof loads are applied to this member, the roof dead load has been adjusted for slope.
- * The member graphic, dimensions, and locations shown on this report are based on the centerline of the member.
- * Analysis and Design has been performed using precision loading from actual modeled conditions. Some loads may have been modified to simplify reporting.
- * Load Duration Factors: Dead - 0.90, Floor Live - 1.00, Roof Live - 1.25, Snow - 1.15



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