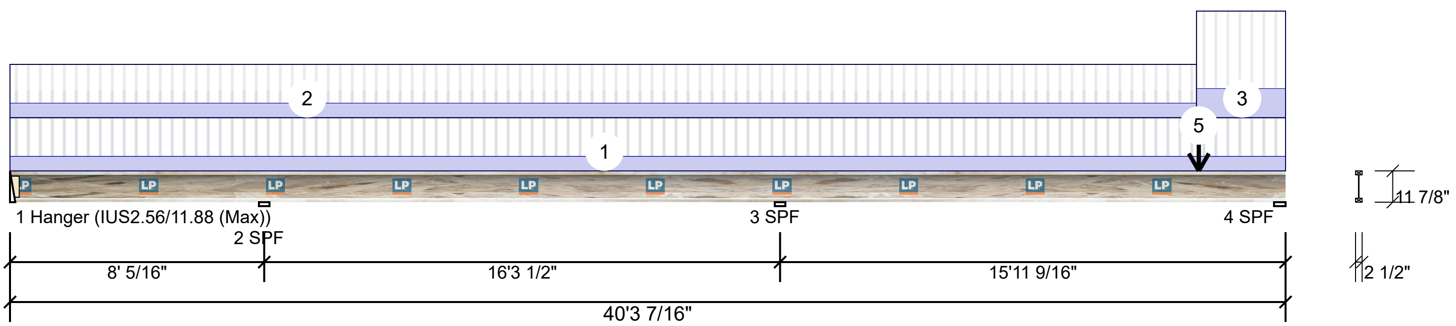
isDesign	Client:	Date:	2/23/2021	
	Project:	Input by:	JASON KRATZ	
	Address:	Job Name:	joist repair	
		Project #:		

FB6-B LPI 20Plus 11.875" - PASSED

Level: Ground Floor



Member Information

Type:	Girder	Application:	Floor
Plies:	1	Design Method:	ASD
Moisture Condition:	Dry	Building Code:	IBC/IRC 2015
Deflection LL:	360	Load Sharing:	No
Deflection TL:	240	Deck:	Not Checked
Importance:	Normal - II		
Temperature:	Temp <= 100°F		
General Load			
Floor Live:	40 PSF		
Dead:	15 PSF		

Reactions PATTERNED lb (Uplift)

Brg	Live	Dead	Snow	Wind	Const
1	235 (-110)	45	0	0	0
2	804 (-113)	259	0	0	0
3	1060 (-12)	392	0	0	0
4	634 (-19)	220	0	0	0

Bearings

Bearing	Length	Cap.	React D/L lb	Total	Ld. Case	Ld. Comb.
1 - Hanger	2.000"	22%	45 / 242	287 (-72)	L_L	D+L(D+L)
2 - SPF	4.000"	45%	258 / 818	1076	LL_	D+L
3 - SPF	4.000"	61%	394 / 1068	1462	_LL	D+L
4 - SPF	4.375"	73%	218 / 631	849	L_L	D+L

Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Neg Moment	-2319 ft-lb	24'3 7/8"	3755 ft-lb	0.618 (62%)	D+L	_LL
Pos Moment	2043 ft-lb	34'3 7/8"	3755 ft-lb	0.544 (54%)	D+L	L_L
Shear	816 lb	39'11 13/16"	1485 lb	0.550 (55%)	D+L	L_L
LL Defl inch	0.237 (L/793)	32'9 15/16"	0.522 (L/360)	0.450 (45%)	L	L_L
TL Defl inch	0.306 (L/615)	32'11 3/16"	0.783 (L/240)	0.390 (39%)	D+L	L_L

Design Notes

1. Provide lateral support to prevent rotation at end bearings and at interior bearings when required by code for seismic design.
2. Dead Load Deflection: Instant = 0.069", Long Term = 0.103"
3. Fill all hanger nailing holes.
4. Girders are designed to be supported on the bottom edge only.
5. Tie-down connection required at bearing 1 for uplift 72 lb (Combination D+L, Load Case _L_).
6. Top flange must be laterally braced at a maximum of 6'3" o.c.
7. Bottom flange must be laterally braced at a maximum of 5'9" o.c.
8. Web stiffeners required at Bearing 1.

ID	Load Type	Location	Trib Width	Side	Dead 0.9	Live 1	Snow 1.15	Wind 1.6	Const. 1.25	Comments
1	Tie-In	0-0-0 to 40-3-7	0-8-0	Top	15 PSF	40 PSF	0 PSF	0 PSF	0 PSF	
2	Tie-In	0-0-0 to 37-5-11	0-8-0	Top	15 PSF	40 PSF	0 PSF	0 PSF	0 PSF	
3	Tie-In	37-5-11 to 40-3-7	1-4-0	Top	15 PSF	40 PSF	0 PSF	0 PSF	0 PSF	
4	Point	37-6-9		Near Face	82 lb	227 lb	0 lb	0 lb	0 lb	FB5
5	Point	37-6-9		Near Face	0 lb	-24 lb	0 lb	0 lb	0 lb	FB5

Notes

This component analysis is based on the loads, geometry and other conditions as entered by the user and listed in this report. The user is responsible to ensure the accuracy of the input and the applicability to the actual conditions of the structure for which this component is intended. This analysis is valid only for the product listed.

This design is valid until 10/31/2021

Manufacturer Info

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