LP SolidStart DESIGN SOFTWARE

Client:
Project:
Address: 285 Briarwood Pl
Sanford, NC 27332

Date: 6/20/2018
Designer:
Job Name: J1
Project #:

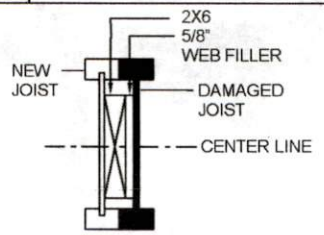
J1 LPI 20Plus 11.875" - PASSED

Level: Level
Ticket: 85058

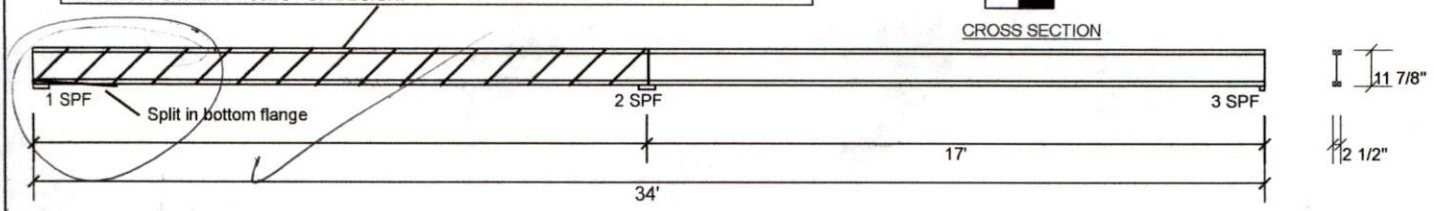
REPAIR NOTES:

1. ATTACH A NEW 11 7/8" LPI 20PLUS X 17'-0" TO EXISTING DAMAGED JOIST. IF THE DAMAGED JOIST IS LEFT IN PLACE, IT SHOULD BE CONNECTED TO THE NEW JOIST
2. CONNECT THE TWO LPI'S USING 2X6 + 5/8" OSB FILLER BLOCKS
3. FASTEN FILLERS THROUGH LPI WEBS USING 2 ROWS OF 8d (2-1/2") NAILS SPACED AT 12" O/C FROM BOTH SIDES STAGGER ROWS AND CLINCHED WHERE POSSIBLE.
4. FLOOR SHEATHING TO BE NAILED TO FLANGES OF BOTH I-JOISTS.

THIS REPAIR IS FOR THE REFERENCED PROJECT ONLY AND SHOULD NOT BE USED WITH ANY OTHER PROJECT OR DESIGN.



CROSS SECTION



Member Information

Type:	Joist	Application:	Floor
Spacing:	16" o.c.	Design Method:	ASD
Moisture Condition:	Dry	Building Code:	IBC/IRC 2015
Deflection LL:	480	Load Sharing:	No
Deflection TL:	240	Deck:	23/32 APA Rated Sturd-I-FloorPlywood Nailed and Glued
Importance:	Normal		
Temperature:	Temp <= 100°F		

Reactions PATTERNED lb (Uplift)

Brg	Live	Dead	Snow	Wind	Const
1	411 (-35)	89	0	0	0
2	1109	277	0	0	0
3	400 (-48)	87	0	0	0

Bearings

Bearing	Length	Cap.	React D/L lb	Total	Ld. Case	Ld. Comb.
1 - SPF	5.500"	43%	88 / 409	497	L_	D+L
2 - SPF	5.500"	54%	280 / 1118	1398	LL	D+L
3 - SPF	1.500"	50%	86 / 398	484	_L	D+L

Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Neg Moment	-2345 ft-lb	17'	3755 ft-lb	0.624 (62%)	D+L	LL
Pos Moment	1727 ft-lb	26'8 7/8"	3755 ft-lb	0.460 (46%)	D+L	_L
Shear	703 lb	17'	1485 lb	0.473 (47%)	D+L	LL
LL Defl inch	0.212 (L/959)	25'10 1/4"	0.423 (L/480)	0.500 (50%)	L	_L
TL Defl inch	0.248 (L/819)	25'11 7/16"	0.847 (L/240)	0.290 (29%)	D+L	_L

Design Notes

1 Provide restraint at supports to ensure lateral stability.
2 Dead Load Deflection: Instant = 0.036", Long Term = 0.055"
3 Bottom flange must be laterally braced at a maximum of 5'8" o.c.

ID	Load Type	Location	Trib Width	Dead 0.9	Live 1	Snow 1.15	Wind 1.6	Const. 1.25	Comments
1	Uniform		1-4-0	10 PSF	40 PSF	0 PSF	0 PSF	0 PSF	

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 10/31/2020

Manufacturer Info

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