

Request for  
Engineering Seal



**SOLIDSTART**<sup>®</sup>  
ENGINEERED WOOD PRODUCTS

#:T20210226568

To:	Engineer:	Norm Scheel Structural Engineer
	Phone:	916.536.9585
	Email:	

From:	Name:	Tuong Banh
	Phone:	

Work:	Task:	Repair and Seal
	# Designs :	1
	Extra Pages:	1

Project Information			
Project Name:	Cardinal Crest		
Project Address:	,,		
State Seal:	Missouri	Document to Seal:	
Notes:			

Email	
Customer:	jason.kratz@amerhart.com
Additional:	Tuong.Banh@lpcorp.com

Hard Copy			
Send:	Email		
Company:	Amerhart - Sun Prairie WI		
Attn:	Jason Kratz		
Address:	400 Marshview Drive		
City:	Sun Prairie		
State:		Zip:	53590
Country:			

Regular Mail					
Also Mail:	No	# Copies:		Delivery Method:	
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Attention:					
Address:					
City, State, Zip:				Country:	

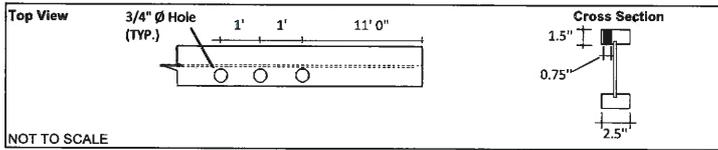
Notes:	
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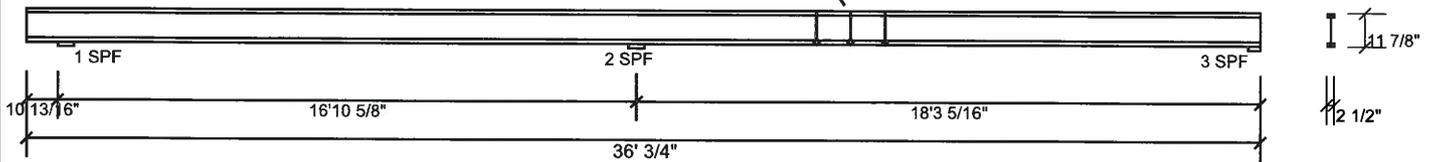
Friday, February 26, 2021

**J2-B LPI 20Plus 11.875" - PASSED**

Level: Ground Floor  
 Ticket: T20210226568



**No Repair Required**  
 This design is for the referenced project only and should not be used with any other project or design.



**Member Information**

**Reactions PATTERNED lb (Uplift)**

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-FloorOSB Nailed and Glued
Importance:	Normal - II		
Temperature:	Temp <= 100°F		
General Load			
Floor Live:	40 PSF		
Dead:	15 PSF		

Brg	Direction	Live	Dead	Snow	Wind	Const
1	Vertical	460 (-44)	148	0	0	0
2	Vertical	1141 (-2)	427	0	0	0
3	Vertical	436 (-30)	146	0	0	0

**Bearings**

Bearing	Length	Dir.	Cap.	React D/L lb	Total	Ld. Case	Ld. Comb.
1 - SPF	5.500"	Vert	24%	146 / 458	604	LL_	D+L
2 - SPF	5.500"	Vert	61%	431 / 1150	1581	_LL	D+L
3 - SPF	4.375"	Vert	50%	144 / 433	578	L_L	D+L

**Analysis Results**

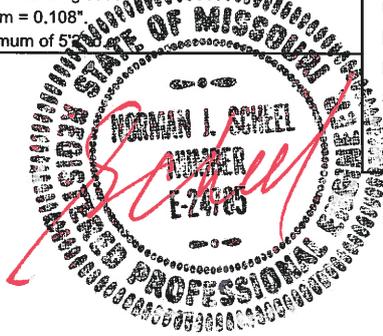
Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Neg Moment	-2735 ft-lb	17'9 1/2"	3755 ft-lb	0.728 (73%)	D+L	_LL
Pos Moment	2103 ft-lb	28'2 1/4"	3755 ft-lb	0.560 (56%)	D+L	L_L
Shear	811 lb	17'9 1/2"	1485 lb	0.546 (55%)	D+L	_LL
LL Defl inch	0.264 (L/817)	27'2 9/16"	0.449 (L/480)	0.588 (59%)	L	L_L
TL Defl inch	0.336 (L/642)	27'4"	0.899 (L/240)	0.374 (37%)	D+L	L_L
LL Cant	-0.031 (2L/690)	Lt Cant	0.200 (2L/480)	0.157 (16%)	L	_L_
TL Cant	-0.039 (2L/558)	Lt Cant	0.300 (2L/240)	0.130 (13%)	D+L	_L_

**Location Analysis**

Analysis Type	Location	Max Value	Ld. Comb.	Ld. Case
Neg Moment	23' 3/4"	-470 ft-lb	D+L	_L_
Pos Moment	23' 3/4"	1139 ft-lb	D+L	L_L
Shear	23' 3/4"	425 lb	D+L	_LL
Down Defl	23' 3/4"	0.246	D+L	L_L
Up Defl	23' 3/4"	0.022	D+L	_L_
Neg Moment	24' 3/4"	-316 ft-lb	D+L	_L_
Pos Moment	24' 3/4"	1478 ft-lb	D+L	L_L
Shear	24' 3/4"	351 lb	D+L	_LL
Down Defl	24' 3/4"	0.282	D+L	L_L
Up Defl	24' 3/4"	0.017	D+L	_L_
Neg Moment	25' 3/4"	-182 ft-lb	D+L	_L_
Pos Moment	25' 3/4"	1744 ft-lb	D+L	L_L
Shear	25' 3/4"	278 lb	D+L	_LL
Down Defl	25' 3/4"	0.309	D+L	L_L
Up Defl	25' 3/4"	0.012	D+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 Dead Load Deflection: Instant = 0.072", Long Term = 0.108"
- 3 Bottom flange must be laterally braced at a maximum of 5'



The signature has been electronically transmitted

**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.  
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**Manufacturer Info**  
 Louisiana-Pacific Corp  
 414 Union Street, Suite 2000  
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 (888) 820-0325  
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 APA: PR-L238, ICC-ES: ESR-1305,  
 LADBS: RR-25099, Florida: FL15401

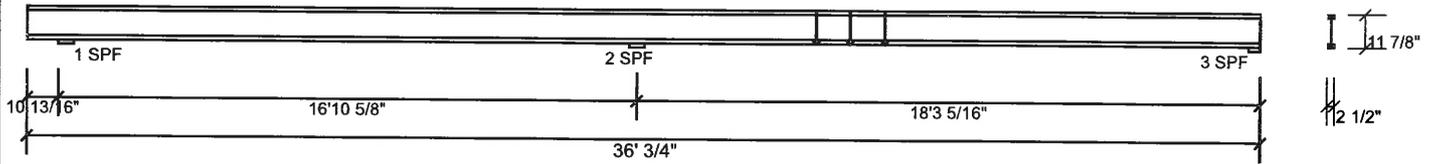
**AMERHART**  
 400 MARSHVIEW DR, WISCONSIN  
 USA  
 53590  
 1-800-879-7123



This design is valid until 9/10/2022

**J2-B LPI 20Plus 11.875" - PASSED**

Level: Ground Floor   
Ticket: T20210226568



ID	Load Type	Location	Trib Width	Dead 0.9	Live 1	Snow 1.15	Wind 1.6	Const. 1.25	Comments
	Part. Uniform	0-0-0 to 36-0-12	0-8-0	15 PSF	40 PSF	0 PSF	0 PSF	0 PSF	
	Part. Uniform	0-0-0 to 36-0-12	0-8-0	15 PSF	40 PSF	0 PSF	0 PSF	0 PSF	

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