

Member Type: FloorJoist | Level: 2nd Floor

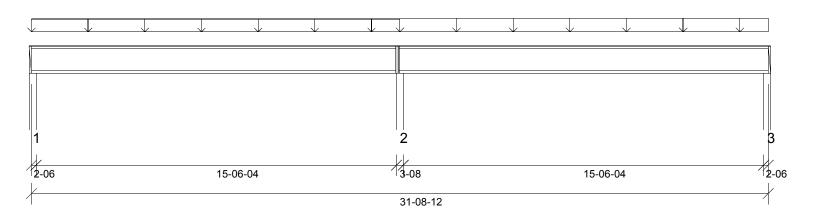
Designed by Single Member Design Engine

Member: 1 - 14" NI-40x

Label: FJ32-i465

Page: 1 of 4 Date: 08/16/2021 11:47:25

Status: Design Passed



Graphical Illustration - Not To Scale Member Cut Length - 31-08-12 MemberPitch - 0/12

Design Infor	<u>mation:</u>									
Building Code: Design Methodology:	IRC2015 ASD	Floor Dead Load: Floor Live Load: Unbraced Length	10.0 lb/ft² 40.0 lb/ft² Top: 0-00	Roof Liv	ead Load: ve Load: 15-06-04	10.0 lb/ft² 20.0 lb/ft²	Ground S	inow Load:	20.0 lb/ft²	
Design Resu	ılts:									
	<u>Locat</u>	<u>ion</u> <u>De</u>	<u>sign</u>	<u>Cor</u>	<u>ntrol</u>		<u>Result</u>	<u>LDF</u>	Load Combination	
Critical Moment (Pos	24-10	-09 1811	.47 lb ft	4530.	03 lb ft		Passed - 40%	1.00	D + L	
Critical Moment (Neg) 15-10-	-06 -2232	2.11 lb ft	4530.	03 lb ft		Passed - 49%	1.00	D + L	
Critical Shear	16-00	-03 759	.15 lb	1730	.00 lb		Passed - 44%	1.00	D + L	
Live Load Deflection	24-02	-01 C	-02	0-12 (L/480)		Passed - L/999	-	L	
Total Load Deflection	1 24-03	-04 C	-02	1-00 (L/240)		Passed - L/999	-	D + L	
Max. Reaction				Supported Mtl	Supporting	<u>a Mtl</u>				
	1-06	3 439	.13 lb	1387.50 lb	5195.31	lb	Passed - 32%	1.00	D + L	
	15-10	-06 141	7.36 lb	3130.00 lb	7656.28	lb	Passed - 45%	1.00	D + L	
	31-07	-06 555	.05 lb	1387.51 lb	5195.45	lb	Passed - 40%	1.00	D + L	

Design Notes:

.oading:											
				Maximum Load Magnitudes							
<u>Type</u>	<u>Start</u>	<u>End</u>	Source	<u>Dead</u>	Floor Live	Roof Live	Snow				
Uniform	0-00	15-10-06	FC1 Floor Decking	13 lb/ft	51 lb/ft	-	-				
Uniform	15-10-06	31-08-12	FC1 Floor Decking	16 lb/ft	64 lb/ft	-	-				
Support Information:											
				Maximum Analysis Reactions							
Support	Start	<u>End</u>	Source	Dead	Floor Live	Roof Live	Snow				
1	0-00	2-06	W18(i13)	75.00 lb	364.00/-63.00 lb	-	-				
2	15-08-10	16-00-02	W19(i19)	283.00 lb	1134.00 lb	-	-				
3	31-06-06	31-08-12	W13(i15)	101.00 lb	454.00/-50.00 lb	-	-				

Errors, Warnings & Notes:

- * The dead loads used in the design of this member were applied to the structure as projected dead loads.
- * 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.
- * A load bearing wall is supported by the I-joist at a location where the I-joist is supported by a member below. Please see manufacturer installation guidelines for requirements of blocking/squash blocks.



Member Type: FloorJoist | Level: 2nd Floor

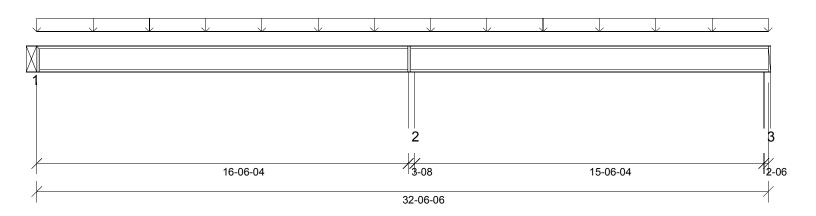
Designed by Single Member Design Engine

Member: 1 - 14" NI-40x

Label: FJ34-i548

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Status: Design Passed



Graphical Illustration - Not To Scale Member Cut Length - 32-06-06 MemberPitch - 0/12

<u>Design Infor</u>	<u>mation:</u>								
Building Code:	IRC2015	Floor Dead Load:	10.0 lb/ft ²	Roof Dead Load:	10.0 lb/ft ²	Ground S	Snow Load:	20.0 lb/ft ²	
Design Methodology:	ASD	Floor Live Load:	40.0 lb/ft ²	Roof Live Load:	20.0 lb/ft ²				
		Unbraced Length	Top: 0-00	Bottom: 16-06-04					
Design Resu	ılts:								
_	<u>Locati</u>	<u>on</u> <u>De</u>	<u>sign</u>	<u>Control</u>		<u>Result</u>	<u>LDF</u>	Load Combination	
Critical Moment (Pos	7-01-0	0 2004.	59 lb ft	4530.03 lb ft		Passed - 44%	1.00	D + L	
Critical Moment (Neg	16-08-0	00 -2631	.36 lb ft	4530.03 lb ft		Passed - 58%	1.00	D + L	
Critical Shear	16-06-0	03 812	.04 lb	1730.00 lb		Passed - 47%	1.00	D + L	
Live Load Deflection	7-10-0	4 0-	-02	0-12 (L/480)		Passed - L/999	-	L	
Total Load Deflection	n 7-08-1	5 0-	03	1-00 (L/240)		Passed - L/999	-	D + L	
Max. Reaction				Supported Mtl Supporting	MtI				

0.00 lb

7656.18 lb

5195.35 lb

Passed - 44%

Passed - 52%

Passed - 40%

1.00

1.00

1.00

D+L

D + L

D + L

1325.00 lb

3130.00 lb

1387.50 lb

Design Notes:

0-00

16-08-00

32-05-00

577.81 lb

1620.68 lb

551.76 lb

Loading:										
					Maximum Load	d Magnitudes				
<u>Type</u>	<u>Start</u>	<u>End</u>	<u>Source</u>	<u>Dead</u>	Floor Live	Roof Live	<u>Snow</u>			
Uniform	0-00	32-06-06	FC1 Floor Decking	16 lb/ft	64 lb/ft	-	-			
Support In	nformation:									
				Maximum Analysis Reactions						
Support	<u>Start</u>	<u>End</u>	Source	<u>Dead</u>	Floor Live	Roof Live	Snow			
1	0-00	0-00	1BM1-2(i76)	104.00 lb	474.00/-58.00 lb	-	-			
2	16-06-04	16-09-12	W19(i19)	324.00 lb	1297.00 lb	-	-			
3	32-04-00	32-06-06	W13(i15)	96.00 lb	456.00/-72.00 lb	-	-			
Connector	r Information:	1								
				Nailing Requiremen	<u>nts</u>					
<u>Support</u>	<u>Manufacturer</u>	Model	<u>Top</u>	<u>Face</u>	<u>Member</u>	<u>IVIIII OEal</u> I Anath	Other Information			
1		ITS2.56/14	-	-	-	N/A	Connector manually specified by the user.			

Errors, Warnings & Notes:

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- * A load bearing wall is supported by the I-joist at a location where the I-joist is supported by a member below. Please see manufacturer installation guidelines for requirements of blocking/squash blocks.

^{*} The required bearing length for this member is the same for both with and without web stiffeners (112)

⁻ This report is based on modeled conditions input by the user. Source information for the loads and supports are provided for reference only. Verify that all loads and support conditions are correct.

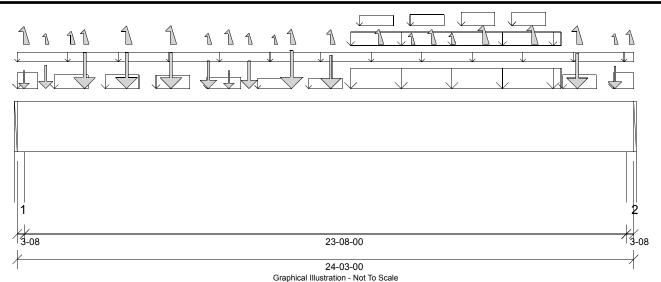


Member Type: Beam | Level: 2nd Floor

Label: 1BM1-2-i76

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Member: 2 - 1 3/4" x 23 7/8" LVL **Status: Load Distribution Complete**



Member Cut Length - 24-03-00 MemberPitch - 0/12

Design Information:

Building Code: IRC2015 Floor Dead Load: 10.0 lb/ft² Roof Dead Load: 10.0 lb/ft² Ground Snow Load:

Design Methodology: ASD Floor Live Load: 40.0 lb/ft² Roof Live Load: 20.0 lb/ft2

Unbraced Length Top: 0-00 Bottom: 1-04-11

20.0 lb/ft²

Design Notes:

Member was not designed due to missing strength properties. If possible select a new material or change the orientation of the member.

				Maximum Load Magnitudes						
<u>Type</u>	<u>Start</u>	<u>End</u>	Source	<u>Dead</u>	Floor Live	Roof Live	<u>Snow</u>			
Self Weight	0-00	24-03-00	Self Weight	24 lb/ft	-	-	-			
Uniform	-0-00	24-03-00	FC1 Floor Decking	2 lb/ft	8 lb/ft	-	-			
Uniform	-0-00	9-12	W29(i246)	60 lb/ft	-	78 lb/ft	28 lb/ft			
Uniform	1-05-08	2-09-08	W29(i246)	52 lb/ft	-	50 lb/ft	15 lb/ft			
Uniform	3-05-08	4-09-08	W29(i246)	50 lb/ft	-	49 lb/ft	17 lb/ft			
Uniform	5-05-08	6-09-08	W29(i246)	51 lb/ft	-	45 lb/ft	16 lb/ft			
Uniform	7-05-08	8-09-08	W29(i246)	37 lb/ft	-	19 lb/ft	-			
Uniform	9-05-08	10-09-08	W29(i246)	29 lb/ft	-	-	-			
Uniform	11-05-08	12-09-08	W29(i246)	30 lb/ft	-	-	_			
Uniform	13-01-07	21-04-12	Smoothed Load	63 lb/ft	286 lb/ft	-	-			
Uniform	13-01-07	21-04-12	Smoothed Load	45 lb/ft	-	46 lb/ft	27 lb/ft			
Uniform	13-05-08	14-09-08	W29(i246)	29 lb/ft	-	-	-			
Uniform	15-05-08	16-09-08	W29(i246)	37 lb/ft	-	19 lb/ft	-			
Uniform	17-05-08	18-09-08	W29(i246)	51 lb/ft	-	45 lb/ft	17 lb/ft			
Uniform	19-05-08	20-09-08	W29(i246)	50 lb/ft	-	49 lb/ft	17 lb/ft			
Uniform	21-05-08	22-09-08	W29(i246)	52 lb/ft	-	50 lb/ft	14 lb/ft			
Uniform	23-05-04	24-03-00	W29(i246)	60 lb/ft	-	78 lb/ft	28 lb/ft			
Point	3-04	3-04	-	93.00 lb	-	95.00/-5.00 lb	55.00 lb			
Point	2-07-13	2-07-13	-	198.00 lb	474.00/-54.00 lb	95.00/-5.00 lb	55.00 lb			
Point	8-03-14	8-03-14	-	93.00 lb	-	95.00/-8.00 lb	55.00 lb			
Point	12-04-01	12-04-01	-	184.00 lb	417.00/-51.00 lb	95.00/-5.00 lb	55.00 lb			
Point	16-03-12	16-03-12	-	-	-	-8.00 lb	-			
Point	1-01-08	1-01-08	FJ34(i559)	85.00 lb	363.00/-48.00 lb	-	-			
Point	7-06-04	7-06-04	FJ34(i474)	104.00 lb	474.00/-58.00 lb	-	-			
Point	9-01-07	9-01-07	FJ34(i475)	104.00 lb	474.00/-58.00 lb	-	-			
Point	10-09-08	10-09-08	<u>-</u>	210.00 lb	531.00/-65.00 lb	95.00/-5.00 lb	55.00 lb			
Point	15-06-03	15-06-03	FJ34(i535)	-	-58.00 lb	-	-			
Point	17-01-06	17-01-06	FJ34(i553)	-	-58.00 lb	-	-			
Point	23-06-02	23-06-02	FJ34(i546)	76.00 lb	346.00/-42.00 lb	-	-			
Point	2-01-09	2-01-09	W29(i246)	-	-	-	-			
Point	4-03-10	4-03-10	-	203.00 lb	474.00/-33.00 lb	95.00/-5.00 lb	55.00 lb			
Point	6-00-09	6-00-09	-	197.00 lb	474.00/-58.00 lb	95.00/-5.00 lb	55.00 lb			
Point	10-01-09	10-01-09	W29(i246)	-	-	-3.00 lb	-1.00 lb			
Point	14-02-14	14-02-14	- ,	-	-58.00 lb	-8.00 lb	-1.00 lb			
Point	18-04-01	18-04-01	-	-	-58.00 lb	-5.00 lb	-			
Point	20-03-03	20-03-03	-	-	-58.00 lb	-5.00 lb	-			
Point	22-00-06	22-00-06	-	195.00 lb	474.00/-58.00 lb	90.00/-4.00 lb	52.00 lb			
Point	24-01-04	24-01-04	W29(i246)	-	-	-	-			

			_	<u>Maximum Analysis Reactions</u>					
Support	<u>Start</u>	<u>End</u>	Source	<u>Dead</u>	Floor Live	Roof Live	Snow		
1	0-00	3-08	W17(i14)	2035.00 lb	3516.00/-394.00 lb	886.00/-38.00 lb	444.00 lb		

⁻ Transfer reactions may differ from design results as allowed per building codes and standard load distribution practices.

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1966.00 lb

3576.00/-421.00 lb

Member Type: Beam | Level: 2nd Floor

Label: 1BM1-2-i76

399.00 lb

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Status: Load Distribution Complete

811.00/-33.00 lb

Member: 2 - 1 3/4" x 23 7/8" LVL 24-03-00

Errors, Warnings & Notes:

23-11-08

- The dead loads used in the design of this member were applied to the structure as projected dead loads.
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W15(i16)