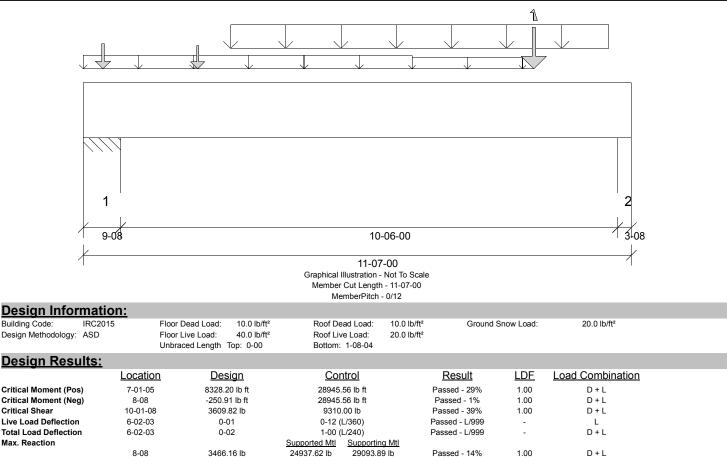


Member Type: Beam | Level: 2nd Floor Designed by Single Member Design Engine

Member: 2 - 1 3/4" x 14" (2.0E 3100) LVL

Page: 1 of 13 Date: 08/16/2021 13:47:34 Status: Design Passed



Design Notes:

11-04-08

* Member design assumed proper ply to ply connection by others. Fastener spacing along length of member must not exceed 4 times depth of member. Verify connection between plies according to code specification and follow the manufacturer's installation instruction. Loads assumed to be distributed equally to each ply.

10718.73 lb

Passed - 40%

1.00

D + L

9187.48 lb

Loading:

					Maximum Load	d Magnitudes	
Type	<u>Start</u>	End	Source	Dead	Floor Live	Roof Live	<u>Snow</u>
Self Weight	0-00	11-07-00	Self Weight	14 lb/ft	-	-	-
Uniform	0-00	6-11-06	FC1 Floor Decking	18 lb/ft	72 lb/ft	-	-
Uniform	3-01-06	11-01-05	Smoothed Load	77 lb/ft	308 lb/ft	-	-
Uniform	6-11-06	9-06-04	FC1 Floor Decking	8 lb/ft	32 lb/ft	-	-
Point	9-06-04	9-06-04	1BM3-2(i1166)	338.00 lb	1267.00/-55.00 lb	-	-
Point	5-00	5-00	FJ16(i1081)	154.00 lb	616.00 lb	-	-
Point	2-05-00	2-05-00	FJ16(i1083)	135.00 lb	538.00 lb	-	-

Support Information:

			_		Maximum Analy	sis Reactions	
Support	<u>Start</u>	End	Source	Dead	Floor Live	Roof Live	Snow
1	0-00	9-08	W35(i37)	763.00 lb	2691.00/-10.00 lb	-	-
2	11-03-08	11-07-00	W40(i40)	810.00 lb	2854.00/-45.00 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.

3652.68 lb

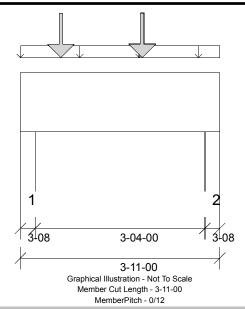
* Analysis and Design has been performed using precision loading from actual modeled conditions. Some loads may have been modified to simplify reporting.

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



Member Type: Beam | Level: 2nd Floor Designed by Single Member Design Engine

Member: 2 - 1 3/4" x 14" (2.0E 3100) LVL



Design Information:

Design intorna							
Building Code: IRC	2015 Floo	or 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) Floo	or Live Load: 40.0 lb/ft ²	Roof Live Load:	20.0 lb/ft ²			
	Unb	praced Length Top: 0-00	Bottom: 1-05-00				
Design Results	<u>:</u>						
	Location	<u>Design</u>	<u>Control</u>		<u>Result</u>	<u>LDF</u>	Load Combination
Critical Moment (Pos)	2-04-12	769.78 lb ft	28945.56 lb ft		Passed - 3%	1.00	D + L
Critical Shear	1-05-08	855.61 lb	9310.00 lb		Passed - 9%	1.00	D + L
Live Load Deflection	1-11-10	0-00	0-12 (L/360)	I	Passed - L/999	-	L
Total Load Deflection	1-11-10	0-00	1-00 (L/240)	I	Passed - L/999	-	D + L
Max. Reaction			Supported Mtl Supportin	ng Mtl			
	2-08	898.47 lb	9187.52 lb 10718.7	'8 lb	Passed - 10%	1.00	D + L
	3-08-08	614.22 lb	9187.63 lb 10718.9	90 lb	Passed - 7%	1.00	D + L

Design Notes:

* Member design assumed proper ply to ply connection by others. Fastener spacing along length of member must not exceed 4 times depth of member. Verify connection between plies according to code specification and follow the manufacturer's installation instruction. Loads assumed to be distributed equally to each ply.

Loading:

					Maximum Loa	d Magnitudes	
<u>Type</u>	<u>Start</u>	End	Source	<u>Dead</u>	Floor Live	Roof Live	Snow
Self Weight	0-00	3-11-00	Self Weight	14 lb/ft	-	-	-
Uniform	-0-00	3-11-00	FC1 Floor Decking	3 lb/ft	12 lb/ft	-	-
Point	9-09	9-09	FJ18(i1173)	139.00 lb	556.00 lb	-	-
Point	2-04-12	2-04-12	FJ18(i1186)	140.00 lb	561.00 lb	-	-
upport Info	rmation:						

			_		Maximum Ana	lysis Reactions	
Support Support	<u>Start</u>	End	Source	Dead	Floor Live	Roof Live	Snow
1	0-00	3-08	W40(i40)	202.00 lb	696.00 lb	-	-
2	3-07-08	3-11-00	W41(i41)	145.00 lb	469.00 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.

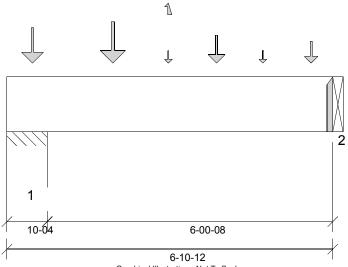
* Analysis and Design has been performed using precision loading from actual modeled conditions. Some loads may have been modified to simplify reporting.

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



Member Type: Beam | Level: 2nd Floor Designed by Single Member Design Engine

Member: 2 - 1 3/4" x 14" (2.0E 3100) LVL



Graphical Illustration - Not To Scale Member Cut Length - 6-10-12 MemberPitch - 0/12

Design Information:

Design informat	<u>1011.</u>						
Building Code: IRC20	D15 Floor	Dead Load: 10.0 lb/ft ²	Roof Dead Load:	10.0 lb/ft ²	Ground 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			
	Unbra	ced Length Top: 0-00	Bottom: 1-01-08				
Design Results:							
	Location	<u>Design</u>	<u>Control</u>	<u>Resul</u>	t <u>LDF</u>	Load Combination	
Critical Moment (Pos)	4-05-04	2640.55 lb ft	28945.56 lb ft	Passed -	9% 1.00	D + L	
Critical Moment (Neg)	9-04	-292.35 lb ft	28945.56 lb ft	Passed -	1% 1.00	D + L	
Critical Shear	2-00-04	1078.97 lb	9310.00 lb	Passed - 1	2% 1.00	D + L	
Live Load Deflection	3-09-04	0-00	0-12 (L/360)	Passed - L	/999 -	L	
Total Load Deflection	3-09-05	0-00	1-00 (L/240)	Passed - L	/999 -	D + L	
Max. Reaction			Supported Mtl Supportin	ng Mtl			
	9-04	3030.81 lb	26840.36 lb 31313.7	75 lb Passed - 7	1.00	D + L	
	6-10-12	1609.32 lb	1609.32 lb 0.00 l	lb Passed - 1	00% 1.00	D + L	

Design Notes:

* Member design assumed proper ply to ply connection by others. Fastener spacing along length of member must not exceed 4 times depth of member. Verify connection between plies according to code specification and follow the manufacturer's installation instruction. Loads assumed to be distributed equally to each ply.

Loading:

				Maximum Load Magnitudes					
Type	<u>Start</u>	End	Source	Dead	Floor Live	Roof Live	<u>Snow</u>		
Self Weight	0-00	6-10-12	Self Weight	14 lb/ft	-	-	-		
Point	6-08	6-08	-	253.00 lb	1010.00 lb	-	-		
Point	2-02-14	2-02-14	-	309.00 lb	1238.00 lb	-	-		
Point	4-05-04	4-05-04	FJ18(i1171)	177.00 lb	710.00 lb	-	-		
Point	6-05-04	6-05-04	FJ18(i1142)	116.00 lb	462.00 lb	-	-		
Point	3-05-00	3-05-00	FJ20(i1120)	-	103.00/-75.00 lb	-	-		
Point	5-05-00	5-05-00	FJ4(i1162)	24.00 lb	95.00 lb	-	-		

Support Information:

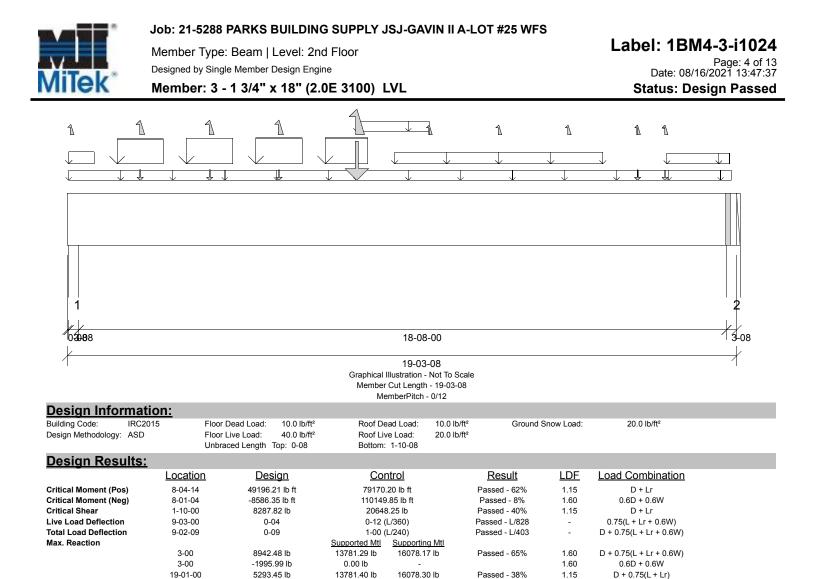
					Maximum Analy	sis Reactions	
Support	Start	End	Source	Dead	Floor Live	Roof Live	<u>Snow</u>
1	0-00	10-04	W39(i39)	646.00 lb	2406.00/-43.00 lb	-	-
2	6-10-12	6-10-12	1BM1-2(i1070)	338.00 lb	1267.00/-55.00 lb	-	-
Connector	r Information:	<u>.</u>					
				Nailing Requireme	<u>nts</u>		
Support	Manufacturer	Model	<u>Top</u>	Face	Member	I ength	Other Information
2	Simpson	HHUS410	-	-	-	N/A	Connector manually specified by the user.

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.



Design Notes:

19-01-00

-587.04 lb

* Member design assumed proper ply to ply connection by others. Fastener spacing along length of member must not exceed 4 times depth of member. Verify connection between plies according to code specification and follow the manufacturer's installation instruction. Loads assumed to be distributed equally to each ply.

1.60

0.6D + 0.6W

0.00 lb

Loading:

<u>.ouunigi</u>							
					Maximum Loa	ad Magnitudes	
<u>Type</u>	<u>Start</u>	End	Source	Dead	Floor Live	Roof Live	Snow
Self Weight	0-00	19-03-08	Self Weight	28 lb/ft	-	-	-
Uniform	0-08	8-04-00	FC1 Floor Decking	-	29 lb/ft	-	-
Uniform	0-08	9-04	W61(i338)	-	-	106 lb/ft	44 lb/ft
Uniform	1-05-04	2-09-04	W61(i338)	512 lb/ft	-	520 lb/ft	218 lb/ft
Uniform	3-05-04	4-09-04	W61(i338)	524 lb/ft	-	543 lb/ft	228 lb/ft
Uniform	5-05-04	6-09-04	W61(i338)	525 lb/ft	-	546 lb/ft	229 lb/ft
Uniform	7-05-04	8-08-00	W61(i338)	552 lb/ft	-	557 lb/ft	234 lb/ft
Uniform	8-04-00	19-01-12	FC1 Floor Decking	-	24 lb/ft	-	-
Uniform	8-04-00	10-05-04	FC1 Floor Decking	-	9 lb/ft	-	-
Uniform	9-05-04	15-05-04	Smoothed Load	30 lb/ft	124 lb/ft	-	-
Uniform	17-03-06	19-01-02	FC1 Floor Decking	-	83 lb/ft	-	-
Point	2-01-04	2-01-04	-	98.00 lb	-	86.00/-4.00 lb	82.00 lb
Point	4-01-04	4-01-04	-	98.00 lb	-	86.00/-4.00 lb	82.00 lb
Point	6-01-04	6-01-04	-	105.00 lb	-	102.00/-5.00 lb	97.00 lb
Point	8-04-03	8-04-03	-	3307.00 lb	122.00 lb	3235.00/-3.70 lb	1255.00 lb
Point	10-05-04	10-05-04	FJ8(i1078)	-	-5.00 lb	-	-
Point	12-05-04	12-05-04	FJ8(i1080)	-	-9.00 lb	-	-
Point	14-05-04	14-05-04	FJ8(i1194)	-	-9.00 lb	-	-
Point	16-05-04	16-05-04	FJ8(i1084)	-	174.00/-6.00 lb	-	-
Point	17-02-12	17-02-12	FJ8(i1188)	-	111.00/-2.00 lb	-	-
Point	1-04	1-04	W61(i338)	-	-	-	-
Support Info	rmation.						
	<u>imanon.</u>						
					<u>Maximum Ana</u>	<u>lysis Reactions</u>	

				_	Maximum Analysis Reactions					
Sup	<u>oport</u>	<u>Start</u>	End	Source	Dead	Floor Live	Roof Live	<u>Snow</u>		
	1	0-08	4-00	W23(i25)	4668.00 lb	648.00/-9.00 lb	4244.00/-12.00 lb	1836.00 lb		
	2	19-00-00	19-03-08	W39(i39)	2757.00 lb	1179.00/-22.00 lb	2174.00/-4.00 lb	898.00 lb		

Errors, Warnings & Notes:

* CAUTION: The maximum net analysis reaction exceeds the user-defined maximum uplift value at one or more supports.

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



MiTek*

Member Type: Beam | Level: 2nd Floor Designed by Single Member Design Engine Label: 1BM4-3-i1024 Page: 5 of 13 Date: 08/16/2021 13:47:37 Status: Design Passed

Member: 3 - 1 3/4" x 18" (2.0E 3100) LVL

The dead loads used in the design of this member were applied to the structure as projected dead loads.

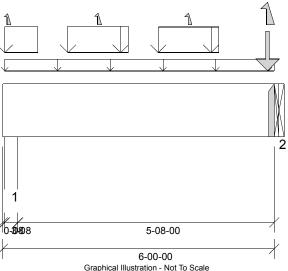
* The member graphic, dimensions, and locations shown on this report are based on the centerline of the member.
* Analysis and Design has been performed using precision loading from actual modeled conditions. Some loads may have been modified to simplify reporting.

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



Member Type: Beam | Level: 2nd Floor Designed by Single Member Design Engine

Member: 1 - 1 3/4" x 14" (2.0E 3100) LVL



Member Cut Length - 6-00-00 MemberPitch - 0/12

Design Information:

Design morn									
Building Code: IR	RC2015	Floor Dead Load:	10.0 lb/ft ²	Roof Dead	Load: 10.0 lb/ft ^a	Ground S	Snow Load:	20.0 lb/ft ²	
Design Methodology: A	SD	Floor Live Load:	40.0 lb/ft ²	Roof Live I	Load: 20.0 lb/ft ²	:			
		Unbraced Length	Top: 0-08	Bottom: 5-	-08-00				
Design Result	ts:								
	Locat	ion De	<u>esign</u>	<u>Contr</u>	ol	Result	LDF	Load Combination	
Critical Moment (Pos)	3-09-0)2 1550	.05 lb ft	16643.70	lb ft	Passed - 9%	1.15	D + Lr	
Critical Moment (Neg)	4-01-0	-369.	.93 lb ft	23156.44	lb ft	Passed - 2%	1.60	0.6D + 0.6W	
Critical Shear	4-10-0	00 1132	2.52 lb	5353.25	5 lb	Passed - 21%	1.15	D + Lr	
Live Load Deflection	3-02-0	06 0	-00	0-12 (L/3	360)	Passed - L/999	-	0.6W	
Total Load Deflection	3-02-0	0 80	-00	1-00 (L/2	240)	Passed - L/999	-	D + 0.75(L + Lr + 0.6W)	
Max. Reaction			Supp	orted Mtl S	Supporting Mtl				
	2-04	1069	9.14 lb 459	93.73 lb	5359.36 lb	Passed - 23%	1.60	D + 0.75(L + Lr + 0.6W)	
	2-04	-282	2.74 lb 0	.00 lb	-		1.60	0.6D + 0.6W	
	6-00-0	00 639 ⁻	1.77 lb 639	91.77 lb	0.00 lb	Passed - 100%	1.15	D + Lr	
	6-00-0	-761	1.87 lb 0	.00 lb	-		1.60	0.6D + 0.6W	

Design Notes:

Loading:

					Maximum Loa	ad Magnitudes	
<u>Type</u>	<u>Start</u>	End	Source	Dead	Floor Live	Roof Live	<u>Snow</u>
Self Weight	0-00	6-00-00	Self Weight	7 lb/ft	-	-	-
Uniform	0-08	6-00-00	FC1 Floor Decking	11 lb/ft	42 lb/ft	-	-
Uniform	0-08	9-04	W60(i340)	211 lb/ft	-	182 lb/ft	63 lb/ft
Uniform	1-05-04	2-09-04	W60(i340)	180 lb/ft	-	202 lb/ft	70 lb/ft
Uniform	3-05-04	4-09-04	W60(i340)	176 lb/ft	-	185 lb/ft	65 lb/ft
Point	1-04	1-04	W60(i340)	-	-	-	-
Point	2-01-04	2-01-04	W60(i340)	-	-	-	-
Point	4-01-04	4-01-04	W60(i340)	-	-	-	-
Point	5-10-04	5-10-04	W60(i340)	3013.00 lb	-	2975.00/-3.00 lb	1165.00 lb

Support Information:

			_		Maximum Analy	sis Reactions	
Support	Start	End	Source	Dead	Floor Live	Roof Live	<u>Snow</u>
1	0-08	4-00	W34(i26)	440.00 lb	129.00 lb	389.00 lb	135.00 lb
2	6-00-00	6-00-00	1BM4-3(i1024)	3307.00 lb	122.00 lb	3235.00/-3.00 lb	1255.00 lb
Connecto	r Information:	<u>.</u>					
			<u>N</u>	ailing Requiremer	<u>nts</u>		
Support	Manufacturer	Model	<u>Top</u>	Face	Member	Iviiii Seal	Other Information
2		IUS1.81/14	-		-	N/A	Connector manually specified by the user.

Errors, Warnings & Notes:

* CAUTION: The maximum net analysis reaction exceeds the user-defined maximum uplift value at one or more supports.

* 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.

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



Member Type: FloorJoist | Level: 2nd Floor Designed by Single Member Design Engine

Member: 1 - 14" NI-40x

Status: Design Passed

			\downarrow \downarrow						
									<u> </u>
				45.00	0.04				2
1 3408				15-00					
				Graphical Illustration - Member Cut Length MemberPitch	Not To Scale - 15-06-02				
Design Infor Building Code: Design Methodology:	IRC2015	Floor Dead Loa Floor Live Load Unbraced Leng	: 40.0 lb/ft ²	Roof Dead Load: Roof Live Load: Bottom: 15-00-04	10.0 lb/ft ² 20.0 lb/ft ²	Ground Snow	Load:	20.0 lb/ft ²	

<u>Design Results:</u>						
	Location	<u>Design</u>	<u>Control</u>	<u>Result</u>	LDF	Load Combination
Critical Moment (Pos)	7-09-10	2882.31 lb ft	4530.03 lb ft	Passed - 64%	1.00	D + L
Critical Shear	15-03-11	750.62 lb	1730.00 lb	Passed - 43%	1.00	D + L
Live Load Deflection	7-09-10	0-03	0-12 (L/480)	Passed - L/999	-	L
Total Load Deflection	7-09-10	0-03	1-00 (L/240)	Passed - L/851	-	D + L
Max. Reaction			Supported Mtl Supporting Mtl			
	2-08	765.52 lb	1500.00 lb 7656.23 lb	Passed - 51%	1.00	D + L
	15-04-12	780.31 lb	1387.50 lb 5195.35 lb	Passed - 56%	1.00	D + L

Design Notes:

Loading:

					Maximum Loa	nd Magnitudes	
<u>Type</u>	<u>Start</u>	End	Source	Dead	Floor Live	Roof Live	<u>Snow</u>
Uniform	1-12	15-06-02	FC1 Floor Decking	20 lb/ft	80 lb/ft	-	-
Support Info	rmation:						
					Maximum Anal	vsis Reactions	
Support	<u>Start</u>	End	Source	Dead	Floor Live	Roof Live	Snow
1	0-00	3-08	W35(i37)	152.00 lb	610.00 lb	-	-
2	15-03-12	15-06-02	W24(i27)	157.00 lb	627.00 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.

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

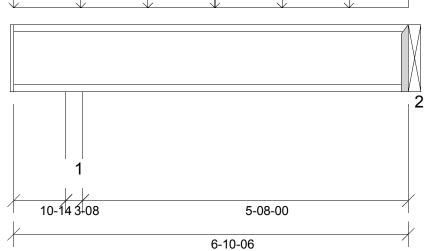


Member Type: FloorJoist | Level: 2nd Floor Designed by Single Member Design Engine

Member: 1 - 14" NI-40x



Page: 8 of 13 Date: 08/16/2021 13:47:38 Status: Design Passed



Graphical Illustration - Not To Scale Member Cut Length - 6-10-06 MemberPitch - 0/12

Design Information:

Design mornic							
Building Code: IRC	C2015 Floor	Dead Load: 10.0 lb/ft ²	Roof Dead Load:	10.0 lb/ft ²	Ground Snow Load:	20.0 lb/ft ²	
Design Methodology: AS	D Floor	Live Load: 40.0 lb/ft ²	Roof Live Load:	20.0 lb/ft ²			
	Unbra	aced Length Top: 0-00	Bottom: 5-08-00				
Design Results	<u>s:</u>						
	Location	<u>Design</u>	<u>Control</u>	<u>F</u>	Result LDF	Load Combination	
Critical Moment (Pos)	3-11-12	415.82 lb ft	4530.03 lb ft	Pas	ssed - 9% 1.00	D + L	
Critical Moment (Neg)	1-00-10	-65.21 lb ft	4530.03 lb ft	Pas	ssed - 1% 1.00	D + L	
Critical Shear	6-10-05	287.86 lb	1730.00 lb	Pas	sed - 17% 1.00	D + L	
Live Load Deflection	3-11-08	0-00	0-12 (L/480)	Pass	sed - L/999 -	L	
Total Load Deflection	3-11-09	0-00	1-00 (L/240)	Pass	sed - L/999 -	D + L	
Max. Reaction			Supported Mtl Supportin	ng Mtl			
	1-00-10	416.43 lb	3130.00 lb 7656.24	4 lb Pas	sed - 13% 1.00	D + L	
	6-10-06	310.26 lb	1325.00 lb 0.00 l	lb Pas	sed - 23% 1.00	D + L	

Design Notes:

* The deflection at the cantilever for either live and/or total loads is less than 3/8" and therefore has been excluded from the deflection ratio considerations.

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

Loading:

<u>Luaunig.</u>							
					Maximum Lo	ad Magnitudes	
<u>Type</u>	<u>Start</u>	End	Source	Dead	Floor Live	Roof Live	Snow
Uniform	0-00	6-10-06	FC1 Floor Decking	20 lb/ft	80 lb/ft	-	-
Support In	nformation:						
					Maximum Ana	alysis Reactions	
Support	<u>Start</u>	End	Source	Dead	Floor Live	Roof Live	Snow
1	10-14	1-02-06	W34(i26)	83.00 lb	333.00 lb	-	-
2	6-10-06	6-10-06	1BM4-3(i1024)	60.00 lb	250.00/-9.00 lb	-	-
Connector	r Information:	<u>.</u>					
				Nailing Requirements			
<u>Support</u>	Manufacturer	Model	<u>Top</u>	Face	<u>Member</u>		Other Information
2		ITS2.56/14	-	-	-	N/A	Connector manually specified by the user.

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.

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



Member Type: FloorJoist | Level: 2nd Floor Designed by Single Member Design Engine

Member: 1 - 14" NI-40x

Page: 9 of 13 Date: 08/16/2021 13:47:38 Status: Design Passed

1							
/	 	 	 1	5-00-04	 	 	 2-06
\vdash				15-02-10			$ \rightarrow $

Graphical Illustration - Not To Scale Member Cut Length - 15-02-10 MemberPitch - 0/12

Design Inform	ation:							
Building Code: IR	C2015	Floor Dead Load: 10.0	lb/ft ² Roof De	ad Load: 10.0 lb/ft ²	Ground	Snow Load:	20.0 lb/ft ²	
Design Methodology: AS	SD	Floor Live Load: 40.0						
		Unbraced Length Top: 0-	00 Bottom:	15-00-04				
Design Result	<u>s:</u>							
	Locatio	<u>n Design</u>	<u>Cor</u>	<u>ntrol</u>	<u>Result</u>	<u>LDF</u>	Load Combination	
Critical Moment (Pos)	7-06-10	2279.19 lb ft	4530.0	03 lb ft	Passed - 50%	1.00	D + L	
Critical Shear	0-01	603.27 lb	1730	.00 lb	Passed - 35%	1.00	D + L	
Live Load Deflection	7-06-10	0-02	0-12 (L/480)	Passed - L/999	-	L	
Total Load Deflection	7-06-10	0-03	1-00 (L/240)	Passed - L/999	-	D + L	
Max. Reaction			Supported Mtl	Supporting Mtl				
	0-00	615.34 lb	1325.00 lb	0.00 lb	Passed - 46%	1.00	D + L	
	15-01-04	620.52 lb	1387.50 lb	5195.35 lb	Passed - 45%	1.00	D + L	

Design Notes:

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

Loading:	

					Maximum Lo	ad Magnitudes	
<u>Type</u>	<u>Start</u>	End	Source	<u>Dead</u>	Floor Live	Roof Live	<u>Snow</u>
Uniform	0-00	15-02-10	FC1 Floor Decking	16 lb/ft	64 lb/ft	-	-
Support In	nformation:						
					Maximum Ana	alysis Reactions	
Support	<u>Start</u>	End	Source	Dead	Floor Live	Roof Live	<u>Snow</u>
1	0-00	0-00	1BM1-2(i1070)	123.00 lb	492.00 lb	-	-
2	15-00-04	15-02-10	W24(i27)	124.00 lb	496.00 lb	-	-
Connector	r Information	<u>:</u>					
				Nailing Requirements			
Support	Manufacturer	Model	<u>Top</u>	<u>Face</u>	Member	l ength	Other Information
1		ITS2.56/14	-	-	-	N/A	Connector manually specified by the user.

Errors, Warnings & Notes:

* The dead loads used in the design of this member were applied to the structure as projected dead loads.

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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.

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



Member Type: FloorJoist | Level: 2nd Floor Designed by Single Member Design Engine

Member: 1 - 14" NI-40x

Status: Design Passed

							\downarrow \downarrow	
								2
-08				17-00-04				2.
				17-06-02				
			Graphical II	llustration - Not To Sca				
			Member	Cut Length - 17-06-02 mberPitch - 0/12				
Design Inform								
Building Code: IR Design Methodology: A	SD F	Ioor Dead Load:10.0 lb/ft²Ioor Live Load:40.0 lb/ft²Inbraced LengthTop:0-00	Roof Dea Roof Live Bottom:			Snow Load:	20.0 lb/ft ²	
Design Result	<u>:s:</u>							
	Location	<u>Design</u>	<u>Con</u>	trol	<u>Result</u>	<u>LDF</u>	Load Combination	<u>1</u>
Critical Moment (Pos)	8-09-10	2951.43 lb ft	4530.0		Passed - 65%	1.00	D + L	
Critical Shear	17-03-11	680.05 lb	1730.		Passed - 39%	1.00	D + L	
Live Load Deflection Total Load Deflection	8-09-10 8-09-10	0-04 0-04	0-12 (L 1-00 (L		Passed - L/931 Passed - L/745	-	L D + L	
Max. Reaction	6-09-10	0-04		Supporting Mtl	rasseu - L/745	-	D + L	
	2-08	691.98 lb	1500.00 lb	7656.30 lb	Passed - 46%	1.00	D + L	
	17-04-12	703.78 lb	1387.50 lb	5195.35 lb	Passed - 51%	1.00	D + L	

Design Notes:

Loading:

					Maximum Loa	d Magnitudes	
<u>Type</u>	<u>Start</u>	End	Source	<u>Dead</u>	Floor Live	Roof Live	<u>Snow</u>
Uniform	1-12	17-06-02	FC1 Floor Decking	16 lb/ft	64 lb/ft	-	-
Support Info	rmation:						
					Maximum Anal	<u>ysis Reactions</u>	
Support	<u>Start</u>	End	Source	Dead	Floor Live	Roof Live	<u>Snow</u>
1	0-00	3-08	W40(i40)	138.00 lb	552.00 lb	-	-
2	17-03-12	17-06-02	W26(i33)	141.00 lb	565.00 lb	-	-

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Member Type: FloorJoist | Level: 2nd Floor Designed by Single Member Design Engine

Member: 1 - 14" NI-40x

	\checkmark						
1							2
2-06				18-08-00			1 3-0

19-01-14

Graphical Illustration - Not To Scale Member Cut Length - 19-01-14 MemberPitch - 0/12

Design Infor	mation:									
Building Code:	IRC2015	Floor Dead Load:	0.0 lb/ft ²	Roof De	ad Load:	10.0 lb/ft ²	Ground	Snow Load:	20.0 lb/ft ²	
Design Methodology:	ASD	Floor Live Load: 4	10.0 lb/ft ²	Roof Liv	e Load:	20.0 lb/ft ²				
		Unbraced Length Top	: 0-00	Bottom:	18-08-00					
Design Resu	lts:									
	Locatio	<u>n Desig</u>	<u>n</u>	<u>Cor</u>	<u>ntrol</u>		<u>Result</u>	<u>LDF</u>	Load Combination	
Critical Moment (Pos) 9-06-06	2955.16 I	b ft	4530.0	03 lb ft		Passed - 65%	1.00	D + L	
Critical Shear	2-07	621.93	b	1730.	.00 lb		Passed - 36%	1.00	D + L	
Live Load Deflection	9-06-06	0-04		0-12 (I	L/480)		Passed - L/851	-	L	
Total Load Deflection	9-06-06	0-05		1-00 (I	L/240)		Passed - L/681	-	D + L	
Max. Reaction				Supported Mtl	Supporting	Mtl				
	1-06	641.72	b	1387.50 lb	5195.30 ll	b	Passed - 46%	1.00	D + L	
	18-11-06	631.891	b	1500.00 lb	7656.23 I	b	Passed - 42%	1.00	D + L	

Design Notes:

Loading:

				Maximum Load Magnitudes					
<u>Type</u>	<u>Start</u>	End	Source	<u>Dead</u>	Floor Live	Roof Live	<u>Snow</u>		
Uniform	0-00	19-00-02	FC1 Floor Decking	13 lb/ft	53 lb/ft	-	-		
Support Info	rmation:								
					Maximum Anal	<u>ysis Reactions</u>			
Support	Start	End	Source	Dead	Floor Live	Roof Live	<u>Snow</u>		
1	0-00	2-06	W23(i25)	129.00 lb	515.00 lb	-	-		
2	18-10-06	19-01-14	W39(i39)	126.00 lb	504.00 lb	-	-		

Errors, Warnings & Notes:

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Member Type: FloorJoist | Level: 2nd Floor Designed by Single Member Design Engine

Member: 1 - 14" NI-40x

Status: Design Passed

/V	¥	V	V	V	¥	¥	V	V	V	V	
-08					1	7-04-08					/.
-00					I	7-04-00					I
					1	7-10-06					

17-10-06

Graphical Illustration - Not To Scale Member Cut Length - 17-10-06 MemberPitch - 0/12

Design Infor	mation:						
Building Code:	IRC2015	Floor Dead Load: 10.0 lb	/ft ² Roof Dead Load:	10.0 lb/ft ² Grou	nd 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: 0-0	Bottom: 17-04-08				
Design Resu	<u>ults:</u>						
	Locatio	on <u>Design</u>	<u>Control</u>	<u>Result</u>	<u>LDF</u>	Load Combination	
Critical Moment (Pos	s) 8-11-12	2 3845.43 lb ft	4530.03 lb ft	Passed - 85%	1.00	D + L	
Critical Shear	17-07-1	5 868.32 lb	1730.00 lb	Passed - 50%	1.00	D + L	
Live Load Deflection	1 8-11-12	2 0-05	0-12 (L/480)	Passed - L/724	-	L	
Total Load Deflection	n 8-11-12	2 0-06	1-00 (L/240)	Passed - L/579	-	D + L	
Max. Reaction			Supported Mtl Supporting I	VII			
	2-08	883.25 lb	1500.00 lb 7656.21 lb	Passed - 59%	1.00	D + L	
	17-09-0	0 898.00 lb	1387.50 lb 5195.30 lb	Passed - 65%	1.00	D + L	

Design Notes:

Loading:

				Maximum Load Magnitudes						
<u>Type</u>	<u>Start</u>	End	Source	<u>Dead</u>	Floor Live	Roof Live	<u>Snow</u>			
Uniform	1-12	17-10-06	FC1 Floor Decking	20 lb/ft	80 lb/ft	-	-			
Support Info	rmation:									
					Maximum Anal	<u>ysis Reactions</u>				
Support	<u>Start</u>	End	Source	Dead	Floor Live	Roof Live	Snow			
1	0-00	3-08	W39(i39)	176.00 lb	704.00 lb	-	-			
2	17-08-00	17-10-06	W29(i31)	180.00 lb	721.00 lb	-	-			

Errors, Warnings & Notes:

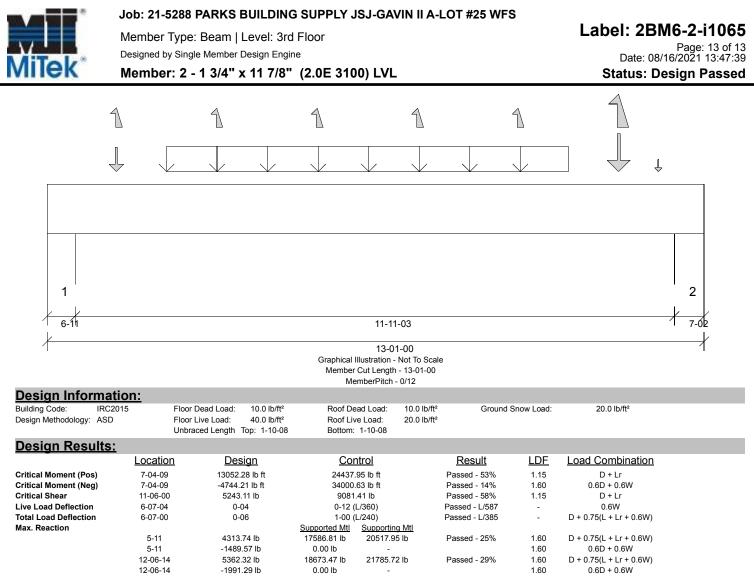
The dead loads used in the design of this member were applied to the structure as projected dead loads.

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Design Notes:

* Member design assumed proper ply to ply connection by others. Fastener spacing along length of member must not exceed 4 times depth of member. Verify connection between plies according to code specification and follow the manufacturer's installation instruction. Loads assumed to be distributed equally to each ply.

Loading:

				Maximum Load Magnitudes					
<u>Type</u>	<u>Start</u>	End	Source	Dead	Floor Live	Roof Live	<u>Snow</u>		
Self Weight	0-00	13-01-00	Self Weight	12 lb/ft	-	-	-		
Uniform	2-04-09	10-04-09	Smoothed Load	327 lb/ft	-	321 lb/ft	135 lb/ft		
Point	1-04-09	1-04-09	A3(c01)	673.00 lb	-	679.00 lb	284.00 lb		
Point	3-04-09	3-04-09	A3(c02)	-	-	-	-		
Point	5-04-09	5-04-09	A4(c01)	-	-	-0.80 lb	-		
Point	7-04-09	7-04-09	A4(c02)	-	-	-0.70 lb	-		
Point	9-04-09	9-04-09	A4(c03)	-	-	-0.70 lb	-		
Point	11-04-09	11-04-09	A4(c04)	1048.00 lb	-	1428.00/-2.00 lb	599.00 lb		
Point	12-02-01	12-02-01	A5A(c01)	333.00 lb	-	-	-		

Support Information:

			_	Maximum Analysis Reactions						
Support	<u>Start</u>	End	Source	Dead	Floor Live	Roof Live	Snow			
1	0-00	6-11	-	2157.00 lb	-	2085.00/-1.00 lb	874.00 lb			
++>	2-02	2-02	W49(i343)	1360.00 lb	-	1315.00/-1.00 lb	551.00 lb			
++>	6-00	6-00	W50(i333)	797.00 lb	-	770.00 lb	323.00 lb			
2	12-05-14	13-01-00	-	2673.00 lb	-	2590.00/-3.00 lb	1086.00 lb			
++>	12-06-10	12-06-10	W52(i339)	930.00 lb	-	901.00/-1.00 lb	378.00 lb			
++>	12-10-11	12-10-11	W53(i345)	1743.00 lb	-	1689.00/-2.00 lb	708.00 lb			

Errors, Warnings & Notes:

* CAUTION: The maximum net analysis reaction exceeds the user-defined maximum uplift value at one or more supports.

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