

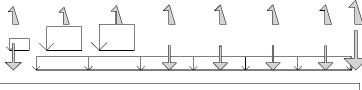
Member Type: Beam | Level: 2nd Floor

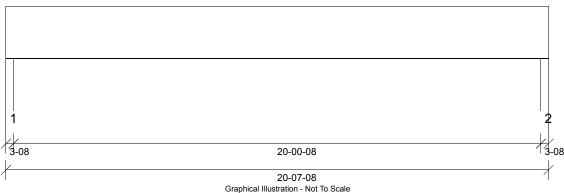
Label: 1BM1-3-i26

Page: 1 of 9 Date: 08/16/2021 12:57:29

Status: Load Distribution Complete

Member: 3 - 1 3/4" x 23 7/8" LVL





Member Cut Length - 20-07-08 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: 20.0 lb/ft²

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

 Unbraced Length
 Top: 7-04-00
 Bottom: 7-00-08

Design Notes:

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

<u>Loading:</u>									
				Maximum Load Magnitudes					
<u>Type</u>	<u>Start</u>	<u>End</u>	Source	<u>Dead</u>	Floor Live	Roof Live	Snow		
Self Weight	0-00	20-07-08	Self Weight	37 lb/ft	-	-	-		
Uniform	7-04-00	8-00-12	W38(i153)	-	-	125 lb/ft	49 lb/ft		
Uniform	8-04-00	20-04-00	Smoothed Load	66 lb/ft	266 lb/ft	-	-		
Uniform	8-08-12	10-00-12	W38(i153)	503 lb/ft	-	465 lb/ft	195 lb/ft		
Uniform	10-08-12	12-00-12	W38(i153)	538 lb/ft	-	610 lb/ft	224 lb/ft		
Point	7-05-10	7-05-10	-	904.00 lb	310.00 lb	752.00/-12.00 lb	374.00 lb		
Point	9-04-12	9-04-12	-	-	-14.00 lb	-	-		
Point	11-04-12	11-04-12	-	-	-14.00 lb	-89.00 lb	-		
Point	13-04-12	13-04-12	-	746.00 lb	-14.00 lb	857.00/-76.00 lb	323.00 lb		
Point	15-04-00	15-04-00	-	739.00 lb	-14.00 lb	842.00/-76.00 lb	317.00 lb		
Point	17-04-00	17-04-00	_	745 00 lb	-14 00 lb	857 00/-77 00 lb	321 00 lb		

Support Information:

19-04-00

20-05-12

Point

			_	<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	W28(i150)	2517.00 lb	1158.00/-25.00 lb	1932.00/-109.00 lb	798.00 lb		
2	20-04-00	20-07-08	-	5841.00 lb	2340.00/-59.00 lb	5666.00/-572.00 lb	2032.00 lb		
++>	20-06-05	20-06-05	W16(i16)	3894.00 lb	1560.00/-39.00 lb	3777.00/-381.00 lb	1355.00 lb		
++>	20-06-15	20-06-15	W20(i20)	1947.00 lb	780.00/-20.00 lb	1889.00/-191.00 lb	677.00 lb		

746.00 lb

1495.00 lb

-14.00 lb

859.00/-77.00 lb

1906.00/-274.00 lb

322.00 lb

578.00 lb

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.

19-04-00

20-05-12

- * 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.

W37(i157)

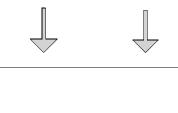


Member Type: Beam | Level: 2nd Floor Designed by Single Member Design Engine

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

Label: 1BM2-2-i878

Page: 2 of 9 Date: 08/16/2021 12:57:29 Status: Design Passed



1 3-08 3-08-08 4-03-08 Graphical Illustration - Not To Scale

Graphical Illustration - Not To Scal Member Cut Length - 4-03-08 MemberPitch - 0/12 3-08

		4 .
I Jacian	Intorm	ation:
Design	11110111	auvii.

Building Code: IRC2015 Floor Dead Load: 10.0 lb/ft² Roof Dead Load: 10.0 lb/ft² Ground Snow Load: 20.0 lb/ft²

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

Roof Live Load: 20.0 lb/ft²

Unbraced Length Top: 0-00 Bottom: 1-09-08

Design Results:

_	<u>Location</u>	<u>Design</u>	<u>Control</u>	Result	<u>LDF</u>	Load Combination
Critical Moment (Pos)	3-00-00	1410.12 lb ft	28945.56 lb ft	Passed - 5%	1.00	D + L
Critical Shear	1-05-08	1551.85 lb	9310.00 lb	Passed - 17%	1.00	D + L
Live Load Deflection	2-01-13	0-00	0-12 (L/360)	Passed - L/999	-	L
Total Load Deflection	2-01-13	0-00	1-00 (L/240)	Passed - L/999	-	D + L
Max. Reaction			Supported Mtl Supporting Mtl			
	2-08	1572.69 lb	9187.50 lb 10718.75 lb	Passed - 17%	1.00	D + L
	4-01-00	1312.64 lb	9187.52 lb 10718.78 lb	Passed - 14%	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	<u>ıd Magnitudes</u>	
<u>Type</u>	<u>Start</u>	<u>End</u>	<u>Source</u>	<u>Dead</u>	Floor Live	Roof Live	<u>Snow</u>
Self Weight	0-00	4-03-08	Self Weight	14 lb/ft	-	-	-
Point	1-00-00	1-00-00	-	292.00 lb	1166.00 lb	-	-
Point	3-00-00	3-00-00	-	273.00 lb	1093.00 lb	-	-

Support Information:

					Maximum Anal	Maximum Analysis Reactions			
<u>Support</u>	<u>Start</u>	<u>End</u>	Source	<u>Dead</u>	Floor Live	Roof Live	Snow		
1	0-00	3-08	W21(i21)	339.00 lb	1233.00 lb	-	-		
2	4-00-00	4-03-08	W24(i24)	287.00 lb	1026.00 lb	-	-		

- * 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.



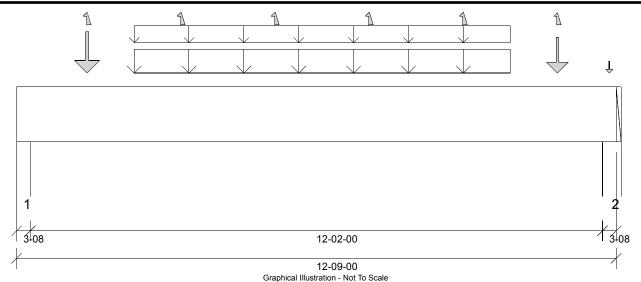
Member Type: Beam | Level: 2nd Floor Designed by Single Member Design Engine

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

Label: 1BM3-2-i908

Page: 3 of 9 Date: 08/16/2021 12:57:30

Status: Design Passed



Member Cut Length - 12-09-00 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: 20.0 lb/ft²
Design Methodology: ASD Floor Live Load: 40.0 lb/ft² Roof Live Load: 20.0 lb/ft²

Unbraced Length Top: 0-00 Bottom: 1-09-08

Design Results:

	Location	<u>Design</u>	<u>Control</u>	Result	LDF	Load Combination
Critical Moment (Pos)	5-06-00	11134.50 lb ft	28945.56 lb ft	Passed - 38%	1.00	D + L
Critical Shear	1-05-08	3406.93 lb	9310.00 lb	Passed - 37%	1.00	D + L
Live Load Deflection	6-04-06	0-03	0-12 (L/360)	Passed - L/932	-	L
Total Load Deflection	6-04-06	0-03	1-00 (L/240)	Passed - L/743	-	D + L
Max. Reaction			Supported Mtl Supporting Mtl			
	2-08	3427.76 lb	9187.63 lb 10718.90 lb	Passed - 37%	1.00	D + L
	12-06-08	3427.41 lb	9187.48 lb 10718.73 lb	Passed - 37%	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:

<u>Type</u>					Maximum Load Magnitudes					
	<u>Start</u>	<u>End</u>	Source	<u>Dead</u>	Floor Live	Roof Live	<u>Snow</u>			
Self Weight	0-00	12-09-00	Self Weight	14 lb/ft	-	-	-			
Uniform	2-06-00	10-06-00	Smoothed Load	78 lb/ft	312 lb/ft	-	-			
Uniform	2-06-00	10-06-00	Smoothed Load	28 lb/ft	158 lb/ft	-	-			
Point	1-06-00	1-06-00	-	205.00 lb	917.00/-98.00 lb	-	-			
Point	3-06-00	3-06-00	FJ22(i906)	-	-98.00 lb	-	-			
Point	5-06-00	5-06-00	FJ22(i862)	-	-98.00 lb	-	-			
Point	7-06-00	7-06-00	FJ22(i899)	-	-98.00 lb	-	-			
Point	9-06-00	9-06-00	FJ22(i883)	-	-98.00 lb	-	-			
Point	11-06-00	11-06-00	- '	171.00 lb	763.00/-79.00 lb	-	-			
Point	12-07-04	12-07-04	W39(i232)	17 00 lb	_	19 00 lb	5.00 lb			

Support Information:

				Maximum Analysis Reactions					
Support	<u>Start</u>	<u>End</u>	Source	<u>Dead</u>	Floor Live	Roof Live	<u>Snow</u>		
1	0-00	3-08	W24(i24)	703.00 lb	2725.00/-286.00 lb	-	-		
2	12-05-08	12-09-00	W15(i18)	717.00 lb	2711.00/-283.00 lb	19.00 lb	5.00 lb		

- * The dead loads used in the design of this member were applied to the structure as projected dead loads.
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- * Analysis and Design has been performed using precision loading from actual modeled conditions. Some loads may have been modified to simplify reporting.



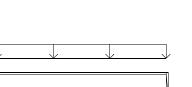
Member Type: FloorJoist | Level: 2nd Floor

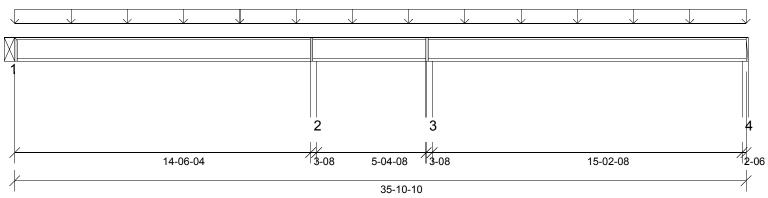
Designed by Single Member Design Engine

Member: 1 - 14" NI-40x

Label: FJ36-i887

Page: 4 of 9 Date: 08/16/2021 12:57:30 Status: Design Passed





Graphical Illustration - Not To Scale . Member Cut Length - 35-10-10 MemberPitch - 0/12

<u>Design innor</u>	IIIalio	<u>'11-</u>									
Building Code:	IRC2015	Flo	or Dead Load:	10.0 lb/ft ²	Roof D	ead Load:	10.0 lb/ft ²	Ground S	Snow Load:	20.0 lb/ft ²	
Design Methodology:	ASD	Flo	or Live Load:	40.0 lb/ft ²	Roof Li	ve Load:	20.0 lb/ft ²				
		Uni	braced Length	Top: 0-00	Bottom	: 15-02-08					
Design Resu	ults:										
		Location	<u>De</u>	sign_	<u>Co</u>	<u>ntrol</u>		Result	<u>LDF</u>	Load Combination	
Critical Moment (Pos	s)	29-03-15	2072.	91 lb ft	4530	.03 lb ft		Passed - 46%	1.00	D + L	
Critical Moment (Neg	g)	20-04-00	-2261.	44 lb ft	4530	.03 lb ft		Passed - 50%	1.00	D + L	
Critical Shear		20-05-13	903.	15 lb	1730	0.00 lb		Passed - 52%	1.00	D + L	
Live Load Deflection	1	28-08-01	0-	02	0-12	(L/480)		Passed - L/999	-	L	
Total Load Deflection	n	28-08-02	0-	02	1-00	(L/240)		Passed - L/999	-	D + L	
Max. Reaction					Supported Mtl	Supporting	a Mtl				
		0-00	662.	06 lb	1325.00 lb	0.00 lb)	Passed - 50%	1.00	D + L	
		14-08-00	1087	.07 lb	3130.00 lb	7656.23	lb	Passed - 35%	1.00	D + L	
		20-04-00	1568	.08 lb	3130.00 lb	7656.28	lb	Passed - 50%	1.00	D + L	
		35-09-04	664.	98 lb	1387.50 lb	5195.35	lb	Passed - 48%	1.00	D + L	

Design Notes:

Design Information:

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

Loading:							
					Maximum Loa	d Magnitudes	
<u>Type</u>	<u>Start</u>	<u>End</u>	Source	<u>Dead</u>	Floor Live	Roof Live	<u>Snow</u>
Uniform	0-00	35-10-10	FC1 Floor Decking	20 lb/ft	80 lb/ft	-	-
Support In	nformation:						
					Maximum Analy	sis Reactions	
Support	<u>Start</u>	<u>End</u>	Source	<u>Dead</u>	Floor Live	Roof Live	<u>Snow</u>
1	0-00	0-00	1BM1-3(i26)	131.00 lb	531.00/-14.00 lb	-	-
2	14-06-04	14-09-12	W19(i19)	217.00 lb	1244.00 lb	-	-
3	20-02-04	20-05-12	W21(i21)	248.00 lb	1186.00/-99.00 lb	-	-
4	35-08-04	35-10-10	W14(i14)	132.00 lb	533.00/-5.00 lb	-	-
Connecto	r Information:	<u>.</u>					
			1	Nailing Requireme	nts_		
Support	<u>Manufacturer</u>	<u>Model</u>	<u>Top</u>	<u>Face</u>	<u>Member</u>	I Anath	Other Information
1		ITS2.56/14	-	-	-	N/A	Connector manually specified by the user.

- * 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.

⁻ 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: FloorJoist | Level: 2nd Floor

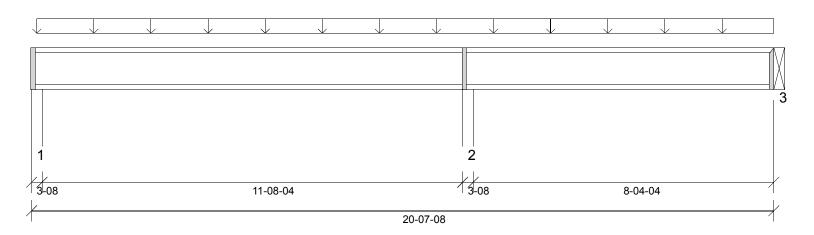
Designed by Single Member Design Engine

Member: 1 - 14" NI-40x

Label: FJ22-i906

Page: 5 of 9 Date: 08/16/2021 12:57:31

Status: Design Passed



Graphical Illustration - Not To Scale Member Cut Length - 20-07-08 MemberPitch - 0/12

<u>Design Informat</u>	<u>ion:</u>								
Building Code: IRC20)15 Floor	Dead Load: 10.0 lb/f	t² Roof D	ead Load:	10.0 lb/ft ²	Ground S	Snow Load:	20.0 lb/ft ²	
Design Methodology: ASD	Floor	Live Load: 40.0 lb/f	ft ² Roof Li	ive Load:	20.0 lb/ft ²				
	Unbr	aced Length Top: 0-00	Bottom	: 11-08-04					
Design Results:									
	<u>Location</u>	<u>Design</u>	<u>Co</u>	ntrol		Result	<u>LDF</u>	Load Combination	
Critical Moment (Pos)	5-02-13	1262.85 lb ft	4530	.03 lb ft		Passed - 28%	1.00	D + L	
Critical Moment (Neg)	12-01-08	-1412.01 lb ft	4530	.03 lb ft		Passed - 31%	1.00	D + L	
Critical Shear	11-11-11	699.20 lb	1730	0.00 lb		Passed - 40%	1.00	D + L	
Live Load Deflection	5-09-02	0-01	0-12	(L/480)		Passed - L/999	-	L	
Total Load Deflection	5-08-10	0-01	1-00	(L/240)		Passed - L/999	-	D + L	
Max. Reaction			Supported Mtl	Supporting	Mtl				
	2-08	508.85 lb	1500.00 lb	7656.30 I	lb	Passed - 34%	1.00	D + L	
	12-01-08	1305.42 lb	3130.00 lb	7656.18 I	lb	Passed - 42%	1.00	D + L	
	20-07-08	370.97 lb	1325.00 lb	0.00 lb		Passed - 28%	1.00	D + L	
	20-07-08	-42.81 lb	0.00 lb	-			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 Load Magnitudes						
<u>Type</u>	<u>Start</u>	<u>End</u>	Source	<u>Dead</u>	Floor Live	Roof Live	Snow			
Uniform	1-12	20-07-08	FC1 Floor Decking	20 lb/ft	80 lb/ft	-	-			
Support In	nformation:									
					Maximum Anal	ysis Reactions				
Support	<u>Start</u>	<u>End</u>	Source	<u>Dead</u>	Floor Live	Roof Live	Snow			
1	0-00	3-08	W16(i16)	96.00 lb	409.00/-25.00 lb	-	-			
2	11-11-12	12-03-04	W25(i25)	262.00 lb	1048.00 lb	-	-			
3	20-07-08	20-07-08	1BM3-2(i908)	55.00 lb	316.00/-98.00 lb	-	-			
Connecto	r Information	<u>:</u>								
				Nailing Requiremen	ts					
Support	<u>Manufacturer</u>	<u>Model</u>	<u>Top</u>	<u>Face</u>	<u>Member</u>	l ength	Other Information			
3		ITS2.56/14	-	-	-	N/A	Connector manually specified by the user			

- * 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.
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Member Type: FloorJoist | Level: 2nd Floor

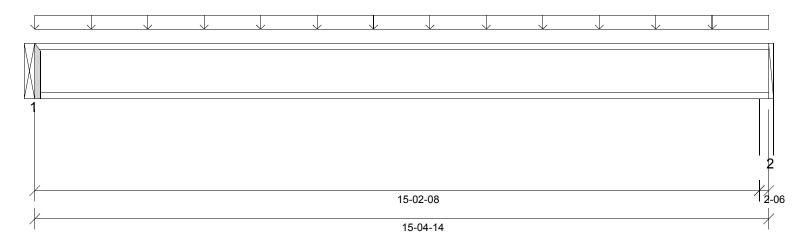
Designed by Single Member Design Engine

Member: 1 - 14" NI-40x

Label: FJ16-i868

Page: 6 of 9 Date: 08/16/2021 12:57:31

Status: Design Passed



Graphical Illustration - Not To Scale Member Cut Length - 15-04-14 MemberPitch - 0/12

	WEIDEFFIELT - 0/12										
Design Inform	mation:										
Building Code:	IRC2015	Floor Dead Load:	10.0 lb/ft ²	Roof Dead Load:	10.0 lb/ft ²	Ground Snow Load:	20.0 lb/ft²				
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: 15-02-08							
Design Resu	lts:										

Design Results.							
	<u>Location</u>	<u>Design</u>	<u>Control</u>	<u>Result</u>	<u>LDF</u>	Load Combination	
Critical Moment (Pos)	7-07-12	2922.09 lb ft	4530.03 lb ft	Passed - 65%	1.00	D + L	
Critical Shear	0-01	763.95 lb	1730.00 lb	Passed - 44%	1.00	D + L	
Live Load Deflection	7-07-12	0-03	0-12 (L/480)	Passed - L/999	-	L	
Total Load Deflection	7-07-12	0-03	1-00 (L/240)	Passed - L/840	-	D + L	
Max. Reaction			Supported Mtl Supporting	<u>ig Mtl</u>			
	0-00	779.05 lb	1325.00 lb 0.00 l	b Passed - 59%	1.00	D + L	
	15-03-08	785.53 lb	1387.50 lb 5195.30	D lb Passed - 57%	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 Load 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	15-04-14	FC1 Floor Decking	20 lb/ft	80 lb/ft	-	-				
Support In	nformation:										
					Maximum Analy	sis Reactions					
<u>Support</u>	<u>Start</u>	<u>End</u>	<u>Source</u>	<u>Dead</u>	Floor Live	Roof Live	Snow				
1	0-00	0-00	1BM3-2(i908)	156.00 lb	623.00 lb	-	-				
2	15-02-08	15-04-14	W14(i14)	157.00 lb	628.00 lb	-	-				
Connector	r Information:	<u>.</u>									
		_	<u>. I</u>	Nailing Requiremen	<u>ts</u>						
<u>Support</u>	<u>Manufacturer</u>	<u>Model</u>	<u>Top</u>	<u>Face</u>	<u>Member</u>	I Anath	Other Information				
1		ITS2.56/14	-	-	-	N/A	Connector manually specified by the user.				

- * The dead loads used in the design of this member were applied to the structure as projected dead loads.
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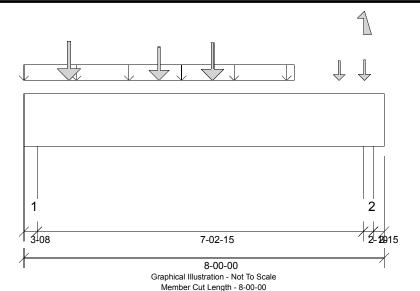
Member Type: Beam | Level: 2nd Floor Designed by Single Member Design Engine

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

Label: 1BM4-2-i771

Page: 7 of 9 Date: 08/16/2021 12:57:31

Status: Design Passed



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: 20.0 lb/ft²

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

Roof Live Load: 20.0 lb/ft²

Unbraced Length Top: 0-00 Bottom: 1-09-08

Design Results:

	Location	<u>Design</u>	<u>Control</u>	Result	LDF	Load Combination
Critical Moment (Pos)	3-07-03	3430.80 lb ft	28945.56 lb ft	Passed - 12%	1.00	D + L
Critical Shear	1-05-08	1974.57 lb	9310.00 lb	Passed - 21%	1.00	D + L
Live Load Deflection	3-10-01	0-00	0-12 (L/360)	Passed - L/999	-	L
Total Load Deflection	3-10-01	0-00	1-00 (L/240)	Passed - L/999	-	D + L
Max. Reaction			Supported Mtl Supporting Mtl			
	2-08	1995.41 lb	9187.42 lb 10718.66 lb	Passed - 22%	1.00	D + L
	7-07-12	1295.90 lb	6890.59 lb 8039.03 lb	Passed - 19%	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.
- * 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>	<u>End</u>	Source	<u>Dead</u>	Floor Live	Roof Live	Snow		
Self Weight	0-00	8-00-00	Self Weight	14 lb/ft	-	-	-		
Uniform	0-00	6-00-00	Smoothed Load	36 lb/ft	144 lb/ft	-	-		
Point	7-00-00	7-00-00	FJ8(i884)	46.00 lb	184.00 lb	-	-		
Point	7-06-12	7-06-12	FJ8(i770)	-100.00 lb	103.00 lb	13.00/-133.00 lb	-41.00 lb		
Point	1-00-00	1-00-00	FJ14(i905)	136.00 lb	543.00 lb	-	-		
Point	3-00-00	3-00-00	FJ14(i890)	109.00 lb	436.00 lb	-	-		
Point	4-02-04	4-02-04	FJ12(i901)	128.00 lb	512.00 lb	-	-		

Support Information:

			_	<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	W20(i20)	444.00 lb	1551.00 lb	-	-		
2	7-06-07	7-09-01	W26(i142)	205.00 lb	1091.00 lb	13.00/-133.00 lb	-41.00 lb		

- * 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.



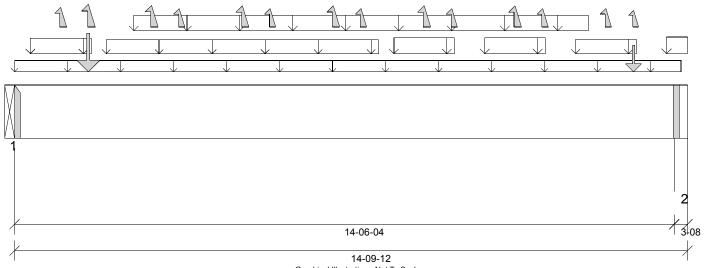
Member Type: Beam | Level: 2nd Floor Designed by Single Member Design Engine

Label: 1BM5-2-i778

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Status: Design Passed

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



Graphical Illustration - Not To Scale Member Cut Length - 14-09-12 MemberPitch - 0/12

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1545II			orm) I I -

Building Code: IRC2015 Floor Dead Load: 10.0 lb/ft² Roof Dead Load: 10.0 lb/ft² Ground Snow Load: 20.0 lb/ft² 40.0 lb/ft² Design Methodology: ASD Floor Live Load: Roof Live Load: 20.0 lb/ft2

Unbraced Length Top: 0-00 Bottom: 1-10-08

Design Results:

	Location	<u>Design</u>	<u>Cor</u>	<u>ntrol</u>	Result	<u>LDF</u>	Load Combination
Critical Moment (Pos)	7-07-08	6216.45 lb ft	33287	.39 lb ft	Passed - 19%	1.15	D + 0.75(L + Lr)
Critical Moment (Neg)	7-00-03	-676.78 lb ft	46312	.89 lb ft	Passed - 1%	1.60	0.6D + 0.6W
Critical Shear	1-02-00	1532.98 lb	10706	6.50 lb	Passed - 14%	1.15	D + 0.75(L + Lr)
Live Load Deflection	7-03-06	0-01	0-12 (L/360)	Passed - L/999	-	0.75(L + Lr + 0.6W)
Total Load Deflection	7-03-07	0-03	1-00 (L/240)	Passed - L/999	-	D + 0.75(L + Lr + 0.6W)
Max. Reaction			Supported Mtl	Supporting Mtl			
	0-00	1698.72 lb	1698.72 lb	0.00 lb	Passed - 100%	1.15	D + 0.75(L + Lr)
	0-00	-184.83 lb	0.00 lb	-		1.60	0.6D + 0.6W
	14-07-04	1668.91 lb	9187.51 lb	10718.76 lb	Passed - 18%	1.15	D + 0.75(L + Lr)
	14-07-04	-105.33 lb	0.00 lb	-		1.60	0.6D + 0.6W

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>	<u>End</u>	Source	<u>Dead</u>	Floor Live	Roof Live	Snow		
Self Weight	0-00	14-09-12	Self Weight	14 lb/ft	-	-	-		
Uniform	0-00	14-08-00	FC1 Floor Decking	10 lb/ft	40 lb/ft	-	-		
Uniform	4-03	1-08-03	W31(i155)	53 lb/ft	-	68 lb/ft	22 lb/ft		
Uniform	2-00-03	8-00-03	W31(i155)	39 lb/ft	-	45 lb/ft	17 lb/ft		
Uniform	2-07-08	12-07-08	Smoothed Load	63 lb/ft	-	56 lb/ft	34 lb/ft		
Uniform	8-04-03	9-08-03	W31(i155)	59 lb/ft	-	67 lb/ft	25 lb/ft		
Uniform	10-04-03	11-08-03	W31(i155)	58 lb/ft	-	64 lb/ft	25 lb/ft		
Uniform	12-04-03	13-08-03	W31(i155)	53 lb/ft	-	56 lb/ft	17 lb/ft		
Uniform	14-04-03	14-09-12	W31(i155)	62 lb/ft	-	74 lb/ft	19 lb/ft		
Point	1-07-08	1-07-08	E1(c01)	154.00 lb	-	171.00/-5.00 lb	103.00 lb		
Point	3-07-08	3-07-08	E1(c02)	-	-	-3.00 lb	-		
Point	5-07-08	5-07-08	E1(c03)	-	-	-3.00 lb	-		
Point	7-07-08	7-07-08	E1(c04)	-	-	-3.00 lb	-		
Point	9-07-08	9-07-08	E1(c05)	-	-	-3.00 lb	-		
Point	11-07-08	11-07-08	E1(c06)	-	-	-3.00 lb	-		
Point	13-07-08	13-07-08	E1(c07)	113.00 lb	-	87.00/-2.00 lb	53.00 lb		
Point	1-00-03	1-00-03	W31(i155)	-	-	-	-		
Point	3-00-03	3-00-03	W31(i155)	-	-	-	-		
Point	5-00-03	5-00-03	W31(i155)	-	-	-	-		
Point	7-00-03	7-00-03	W31(i155)	-	-	-	-		
Point	9-00-03	9-00-03	W31(i155)	-	-	-	-		
Point	11-00-03	11-00-03	W31(i155)	-	-	-	-		
Point	13-00-03	13-00-03	W31(i155)	-	-	-	-		

Support Information:

			_	Maximum Analysis Reactions					
<u>Support</u>	<u>Start</u>	<u>End</u>	Source	<u>Dead</u>	Floor Live	Roof Live	<u>Snow</u>		
1	0-00	0-00	1BM1-3(i26)	904.00 lb	310.00 lb	752.00/-12.00 lb	374.00 lb		
2	14-06-04	14-09-12	W12(i15)	913.00 lb	295.00 lb	712.00/-10.00 lb	348.00 lb		

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

⁻ 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 Designed by Single Member Design Engine

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

Label: 1BM5-2-i778

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Status: Design Passed

<u></u>	4	1.05-0.00	4:
Conn	ector	Intorn	nation:

Nailing Requirements ıvıırı seal Member <u>Support</u> Manufacturer Model Top Other Information Face I anath Connector manually specified by the user MIU3.56/14 N/A

- * 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.