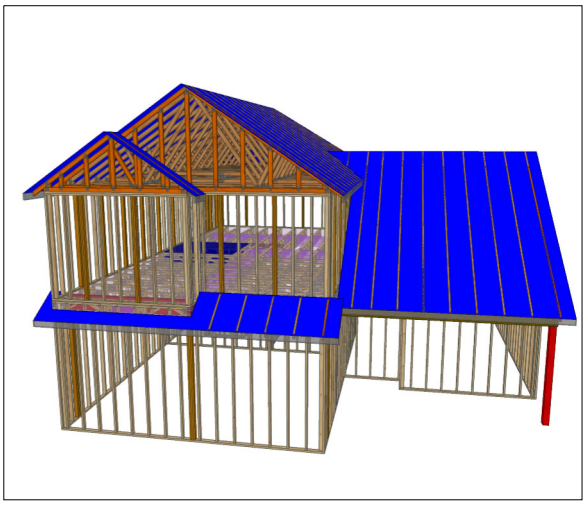
CARTER Lumber

Carter Sanford Component Plant
298 Harvey Faulk Rd
Sanford, NC 27332

Phone #:919-775-1450



Builder: **Wellco Contractor**

Model: **27 Hidden Lakes North**
Plan #17

THE PLACEMENT PLAN NOTES:

1. The Placement Plan is a diagram for truss installation. It is not an engineered drawing and has not been reviewed by an engineer. The Owner/Building Designer is responsible for obtaining an engineer's review if one is required by the local jurisdiction.
2. The responsibilities of the Owner, Contractor, Building Designer, Component Designer and Component Manufacturer shall be as set forth in ANSI/TPI 1. Capitalized terms shall be as defined in ANSI/TP 1 unless otherwise indicated.
3. Each Component is designed as an individual component utilizing information provided by others. The Owner/Building Designer is responsible for reviewing all Component Submittal Packages and individual Component Design Drawings for compliance with the Construction Documents and compatibility with the overall Building design.
4. Contractor will not proceed with component installation until the Owner/Building Designer has reviewed the Component Submittal Package. Questions on the suitability of any Component will be resolved by the Building Designer.
5. The Building Designer and Contractor are responsible for all temporary and permanent bracing.
6. The Placement Plan assumes the building is dimensionally correct, structurally sound, and in a suitable condition to support each Component during installation and thereafter, including but not limited to installation of all bearing points. Proper design and construction of all structural components, including foundations, headers, beams, walls and columns are the responsibility of the Owner, Building Designer and Contractor.
7. Do not cut, drill, or modify any Component without first consulting the Component Manufacturer or Building Designer. Damaged Components shall not be installed unless directed by the Building Designer or approved by the Component Manufacturer.
8. Components must be handled and installed following all applicable safety standards and best practices, including but not limited to BCSI, OSHA, TPI and local codes. Failure to properly handle, brace or otherwise install Component can result in serious injury or death.
9. All uplift connectors shown within these documents are recommendations only. Per ANSI/TPI 1, all uplift connectors are the responsibility of the building designer and or contractor.

Approved By: _____ **Date:** _____

General Notes:

** CUTTING OR DRILLING OF COMPONENTS SHOULD NOT BE DONE WITHOUT CONTACTING COMPONENT SUPPLIER FIRST. CUSTOMER TAKES FULL RESPONSIBILITY FOR COMPONENTS IF CUT BEFORE AUTHORIZATION.

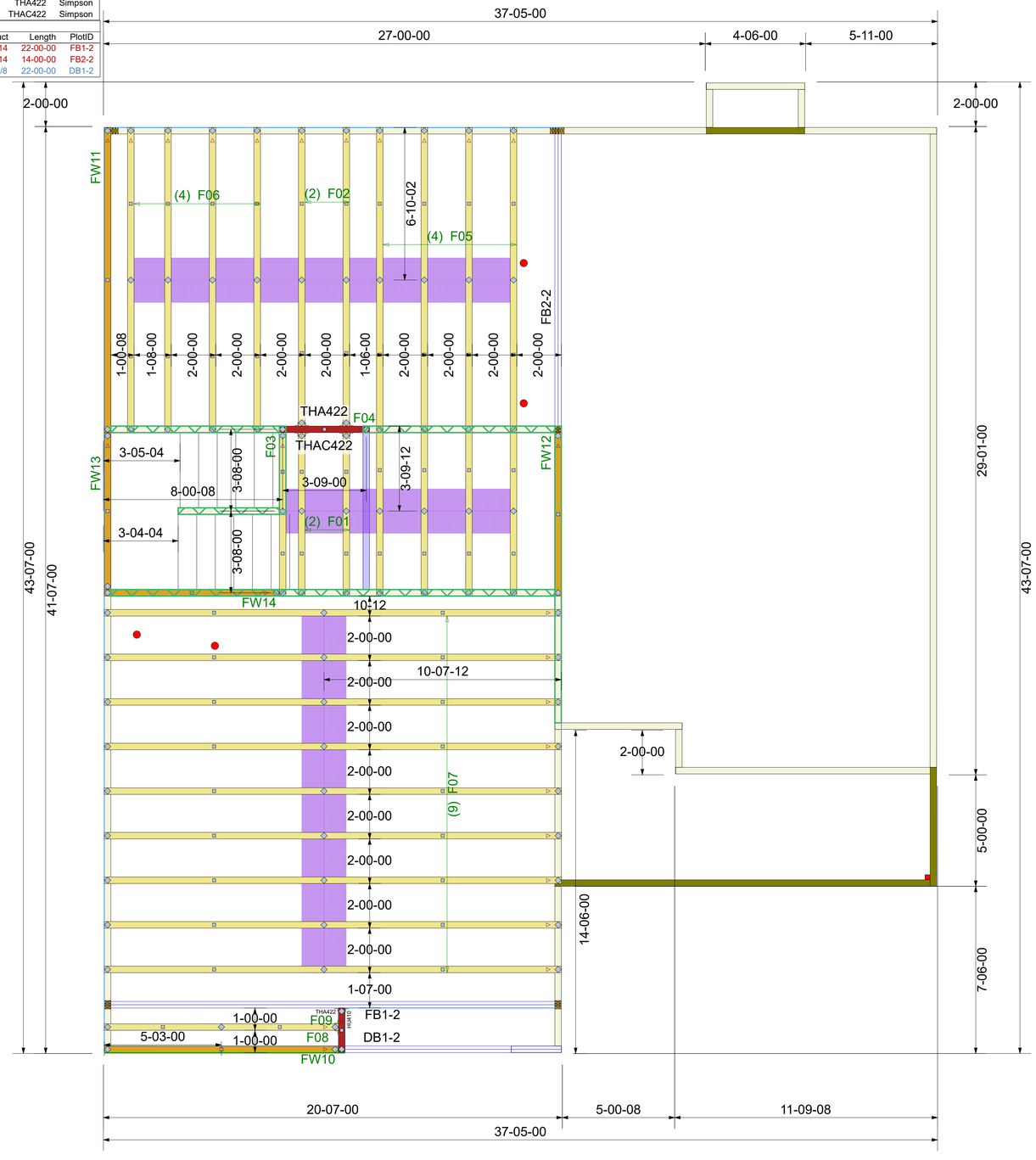
** ALL POINT LOADS FROM ABOVE MUST BE TRANSFERRED TO BEARING FROM UNDER SIDE OF SHEATHING.

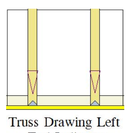
** FRAMER MUST REFER TO PLANS WHILE SETTING COMPONENTS. ** ALL BEARING POINTS MUST BE INSTALLED PRIOR TO SETTING ANY COMPONENTS. ** DAMAGED COMPONENTS SHOULD NOT BE INSTALLED UNLESS TOLD BY THE COMPONENT PLANT.

** TRUSS TO TRUSS CONNECTIONS ARE TOE-NAILED, UNLESS NOTED OTHERWISE. ** DIMENSIONS ARE READ AS: FOOT-INCH-SIXTEENTH. ** GIRDERS MUST BE FULLY CONNECTED TOGETHER PRIOR TO ADDING ANY LOADS.

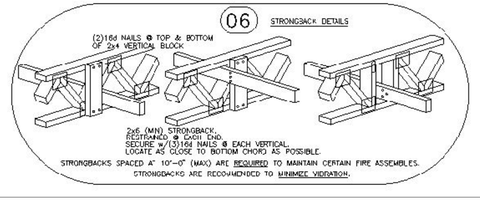
Truss Connector Total List		
Qty	Product	Manuf
1	HU410	Simpson
3	THA422	Simpson
2	THAC422	Simpson

Products					
Fab Type	Net Qty	Plies	Product	Length	PlotID
FF	2	2	2.0 RigidLam DF LVL 1-3/4 x 14	22-00-00	FB1-2
FF	2	2	2.0 RigidLam DF LVL 1-3/4 x 14	14-00-00	FB2-2
FF	2	2	2.1 RigidLam SP LVL 1-3/4 x 11-7/8	22-00-00	DB1-2





Truss Drawing Left End Indicator



Revisions	
00/00/00	Name
00/00/00	Name
00/00/00	Name
00/00/00	Name
00/00/00	Name

THIS IS A TRUSS PLACEMENT DIAGRAM ONLY. These trusses are designed as individual components to be incorporated into the building design at the specification of the building designer. See individual design sheets for each truss design identified on the placement drawing. The building designer is responsible for temporary and permanent bracing of the roof and floor systems and for the overall structure. The design of the truss supported structure including headers, beams, studs, and columns is the responsibility of the building designer. For general guidance regarding the bracing consult "Bracing of Wood Trusses" available from the Truss Plate Institute, 583 D'Onofrio Drive; Madison, WI 53179

CARTER Lumber

Wellco Contractor
27 Hidden Lakes North
Plan #17

FLOOR PLACEMENT PLAN

Scale: *NTS*
Date: 10/8/2025
Designer: Nate Donaldson
Project Number: 25100037-A
Sheet Number: **1/1**

** TRIANGULAR SYMBOL NEAR END OF TRUSS INDICATES LEFT END OF TRUSS AS SHOWN ON INDIVIDUAL TRUSS DRAWINGS.

** PLUMBING DROPS NOTED ARE IN THE APPROXIMATE LOCATIONS PER PLAN. BUILDER TO VERIFY LOCATIONS BEFORE SETTING TRUSSES.

** REFER TO FINAL TRUSS ENGINEERING SHEETS FOR PLY TO PLY CONNECTIONS.

ENGINEERING BY TRENCO
A MiTek Affiliate

RE: 25100037
27 Hidden Lakes North - Plan 17 - 2nd Floor

Trenco
818 Soundside Rd
Edenton, NC 27932

Site Information:

Customer: Wellco Contractor Project Name: 25100037
Lot/Block: 27 Model:
Address: Subdivision: Hidden Lakes North
City: State: NC

General Truss Engineering Criteria & Design Loads (Individual Truss Design Drawings Show Special Loading Conditions):

Design Code: IRC2021/TPI2014 Design Program: MiTek 20/20 8.7
Wind Code: ASCE 7-16 Wind Speed: 130 mph
Roof Load: 40.0 psf Floor Load: N/A psf

This package includes 14 individual, dated Truss Design Drawings and 0 Additional Drawings.

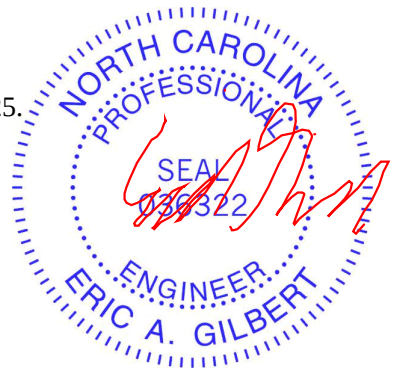
No.	Seal#	Truss Name	Date
1	I73791910	F01	5/29/2025
2	I73791911	F02	5/29/2025
3	I73791912	F03	5/29/2025
4	I73791913	F04	5/29/2025
5	I73791914	F05	5/29/2025
6	I73791915	F06	5/29/2025
7	I73791916	F07	5/29/2025
8	I73791917	F08	5/29/2025
9	I73791918	F09	5/29/2025
10	I73791919	FW10	5/29/2025
11	I73791920	FW11	5/29/2025
12	I73791921	FW12	5/29/2025
13	I73791922	FW13	5/29/2025
14	I73791923	FW14	5/29/2025

The truss drawing(s) referenced above have been prepared by Truss Engineering Co. under my direct supervision based on the parameters provided by Carter Components (Sanford, NC)).

Truss Design Engineer's Name: Gilbert, Eric

My license renewal date for the state of North Carolina is December 31, 2025.

North Carolina COA: C-0844



IMPORTANT NOTE: The seal on these truss component designs is a certification that the engineer named is licensed in the jurisdiction(s) identified and that the designs comply with ANSI/TPI 1. These designs are based upon parameters shown (e.g., loads, supports, dimensions, shapes and design codes), which were given to TRENCO. Any project specific information included is for TRENCO customers file reference purpose only, and was not taken into account in the preparation of these designs. TRENCO has not independently verified the applicability of the design parameters or the designs for any particular building. Before use, the building designer should verify applicability of design parameters and properly incorporate these designs into the overall building design per ANSI/TPI 1, Chapter 2.

May 29, 2025

Gilbert, Eric

Job	Truss	Truss Type	Qty	Ply	27 Hidden Lakes North - Plan 17 - 2nd Floor
25100037	F01	Floor	2	1	I73791910 Job Reference (optional)

Carter Components (Sanford, NC), Sanford, NC - 27332, Run: 8.73 S Feb 19 2025 Print: 8.730 S Feb 19 2025 MiTek Industries, Inc. Wed May 28 10:11:43 Page: 1
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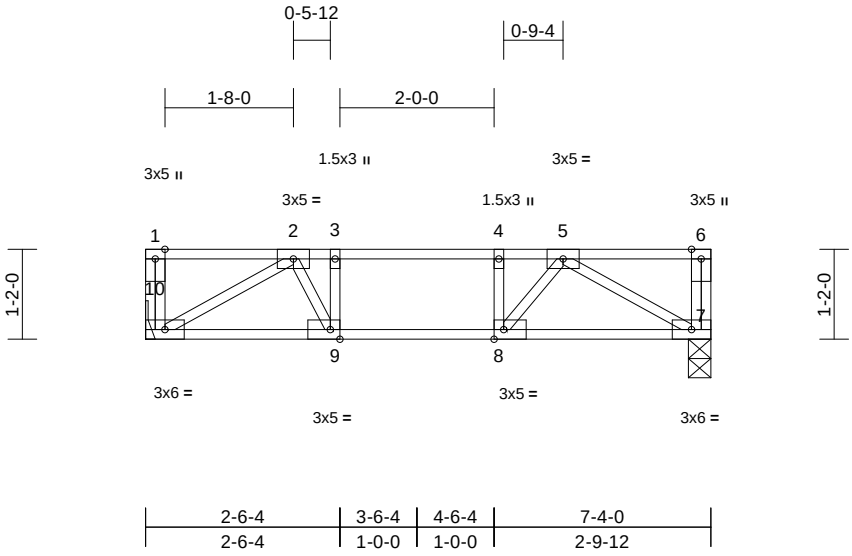

Scale = 1:29.9

Plate Offsets (X, Y): [8:0-1-8,Edge], [9:0-1-8,Edge]

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	40.0	Plate Grip DOL	1.00	TC	0.33	Vert(LL)	-0.03	7-8	>999	480	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.26	Vert(CT)	-0.03	7-8	>999	360		
BCLL	0.0	Rep Stress Incr	YES	WB	0.17	Horz(CT)	0.01	7	n/a	n/a		
BCDL	5.0	Code	IRC2021/TPI2014	Matrix-MSH							Weight: 39 lb	FT = 20%F, 11%E

LUMBER
TOP CHORD 2x4 SP No.2(flat)
BOT CHORD 2x4 SP No.2(flat)
WEBS 2x4 SP No.3(flat)

BRACING
TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (size) 7=0-3-8, 10= Mechanical
Max Grav 7=390 (LC 1), 10=390 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-10=-76/0, 6-7=-76/0, 1-2=0/0, 2-3=-631/0, 3-4=-631/0, 4-5=-631/0, 5-6=0/0
BOT CHORD 9-10=0/525, 8-9=0/631, 7-8=0/516
WEBS 3-9=-266/0, 4-8=-184/0, 2-10=-607/0, 2-9=0/350, 5-7=-597/0, 5-8=0/282

NOTES
1) Unbalanced floor live loads have been considered for this design.
2) Refer to girder(s) for truss to truss connections.
3) Recommend 2x6 strongbacks, on edge, spaced at 10-00-00 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.

LOAD CASE(S) Standard

May 29,2025

ENGINEERING BY TRENCO
A MiTek Affiliate
818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	27 Hidden Lakes North - Plan 17 - 2nd Floor
25100037	F02	Floor	2	1	I73791911
					Job Reference (optional)

Carter Components (Sanford, NC), Sanford, NC - 27332,

Run: 8.73 S Feb 19 2025 Print: 8.730 S Feb 19 2025 MiTek Industries, Inc. Wed May 28 10:11:44 Page: 1
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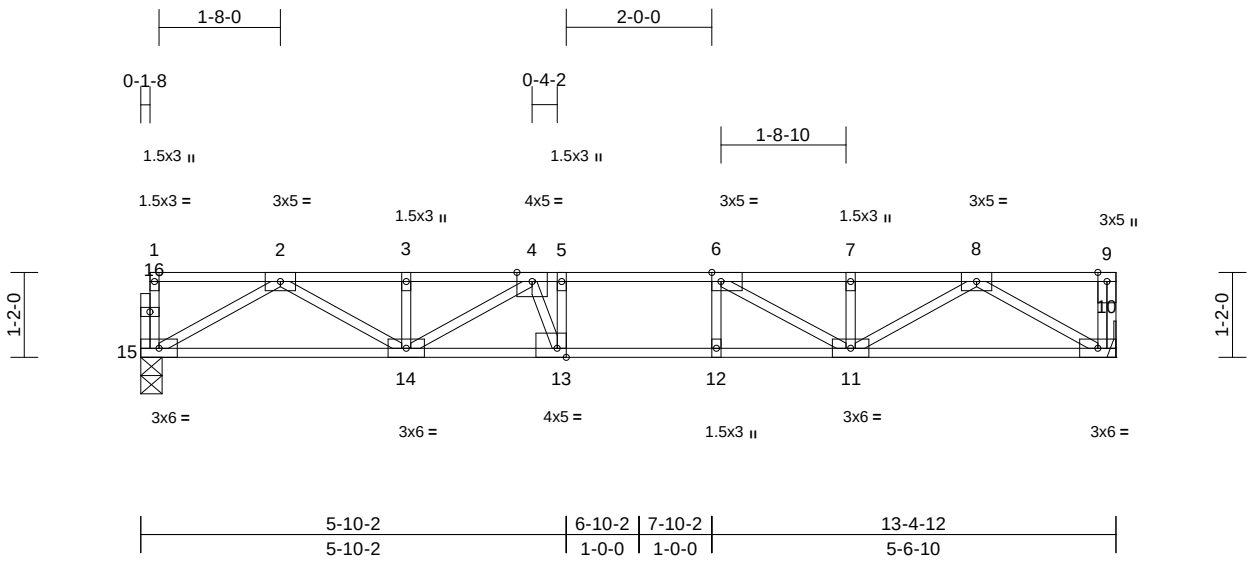

Scale = 1:31.6

Plate Offsets (X, Y): [6:0-1-8,Edge], [13:0-1-8,Edge]

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	40.0	Plate Grip DOL	1.00	TC	0.50	Vert(LL)	-0.13	13-14	>999	480	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.77	Vert(CT)	-0.17	13-14	>937	360		
BCLL	0.0	Rep Stress Incr	YES	WB	0.40	Horz(CT)	0.03	10	n/a	n/a		
BCDL	5.0	Code	IRC2021/TPI2014	Matrix-MSH							Weight: 69 lb	FT = 20%F, 11%E

LUMBER
TOP CHORD 2x4 SP No.2(flat)
BOT CHORD 2x4 SP No.2(flat)
WEBS 2x4 SP No.3(flat)
OTHERS 2x4 SP No.3(flat)

BRACING
TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (size) 10= Mechanical, 15=0-3-8
Max Grav 10=723 (LC 1), 15=717 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-15=-71/0, 9-10=-74/0, 1-2=-4/0, 2-3=-1814/0, 3-4=-1814/0, 4-5=-2241/0, 5-6=-2241/0, 6-7=-1808/0, 7-8=-1808/0, 8-9=0/0
BOT CHORD 14-15=0/1088, 13-14=0/2191, 12-13=0/2241, 11-12=0/2241, 10-11=0/1090
WEBS 5-13=-383/96, 6-12=-44/89, 2-15=-1254/0, 2-14=0/847, 3-14=-172/0, 4-14=-472/0, 4-13=-159/487, 8-10=-1261/0, 8-11=0/838, 7-11=-203/33, 6-11=-661/0

NOTES
1) Unbalanced floor live loads have been considered for this design.
2) Refer to girder(s) for truss to truss connections.
3) Recommend 2x6 strongbacks, on edge, spaced at 10-00-00 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.
4) CAUTION, Do not erect truss backwards.

LOAD CASE(S) Standard

May 29,2025

ENGINEERING BY TRENCO
A MiTek Affiliate
818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	27 Hidden Lakes North - Plan 17 - 2nd Floor
25100037	F03	Floor	1	1	I73791912
					Job Reference (optional)

Carter Components (Sanford, NC), Sanford, NC - 27332,

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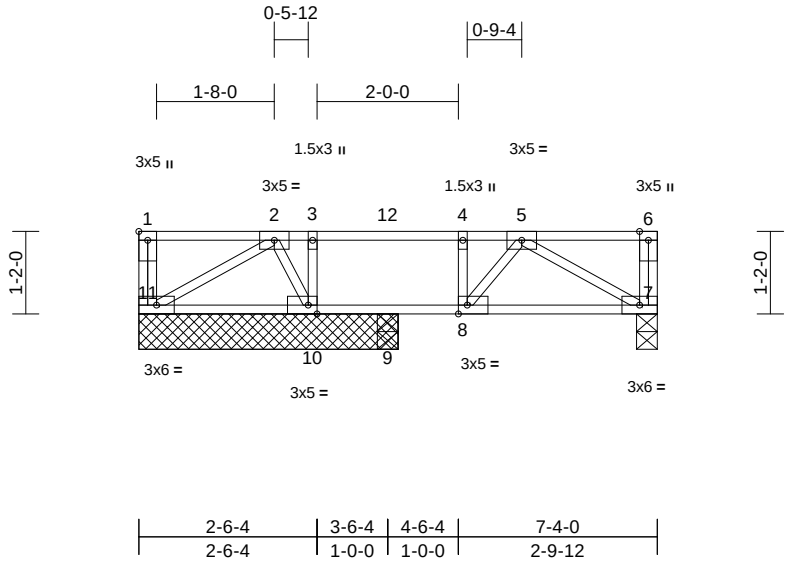

Scale = 1:32.6

Plate Offsets (X, Y): [1:Edge,0-1-8], [8:0-1-8,Edge], [10:0-1-8,Edge]

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	40.0	Plate Grip DOL	1.00	TC	0.28	Vert(LL)	-0.02	7-8	>999	480	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.30	Vert(CT)	-0.03	7-8	>999	360		
BCLL	0.0	Rep Stress Incr	YES	WB	0.14	Horz(CT)	0.00	7	n/a	n/a		
BCDL	5.0	Code	IRC2021/TPI2014	Matrix-MP							Weight: 39 lb	FT = 20%F, 11%E

LUMBER
TOP CHORD 2x4 SP No.2(flat)
BOT CHORD 2x4 SP No.2(flat)
WEBS 2x4 SP No.3(flat)

BRACING
TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS All bearings 3-8-0. except 7=0-3-8, 9=0-3-8
(lb) - Max Uplift All uplift 100 (lb) or less at joint(s) 10
Max Grav All reactions 250 (lb) or less at joint (s) 9, 10 except 7=332 (LC 4), 11=311 (LC 1)

FORCES (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-461/0, 3-12=-461/0, 4-12=-461/0, 4-5=-461/0
BOT CHORD 10-11=0/382, 9-10=0/461, 8-9=0/461, 7-8=0/408
WEBS 2-11=-442/0, 2-10=-28/297, 5-7=-472/0

NOTES
1) Unbalanced floor live loads have been considered for this design.
2) N/A

3) Recommend 2x6 strongbacks, on edge, spaced at 10-00-00 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.

May 29,2025

ENGINEERING BY TRENCO
A MiTek Affiliate
818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	27 Hidden Lakes North - Plan 17 - 2nd Floor
25100037	F04	Floor Girder	1	1	I73791913 Job Reference (optional)

Carter Components (Sanford, NC), Sanford, NC - 27332,

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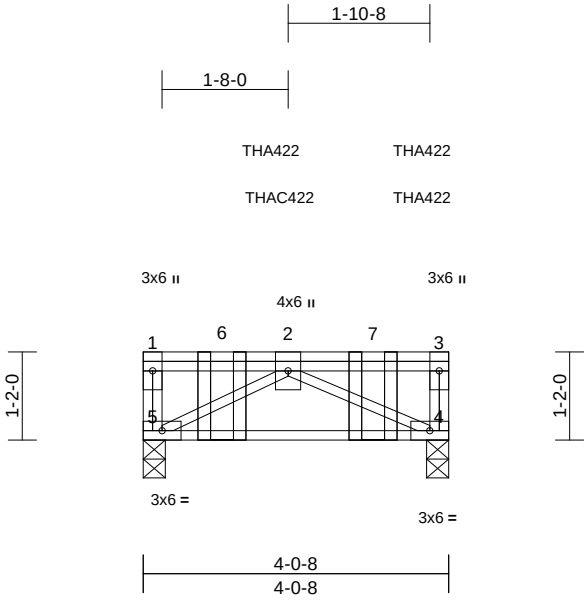

Scale = 1:30.5

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	40.0	Plate Grip DOL	1.00	TC	0.74	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.47	Vert(CT)	-0.03	4-5	>999	360		
BCLL	0.0	Rep Stress Incr	NO	WB	0.37	Horz(CT)	0.01	4	n/a	n/a		
BCDL	5.0	Code	IRC2021/TPI2014	Matrix-MP							Weight: 29 lb	FT = 20%F, 11%E

LUMBER
TOP CHORD 2x4 SP No.2(flat)
BOT CHORD 2x4 SP No.2(flat)
WEBS 2x4 SP No.3(flat)

BRACING
TOP CHORD Structural wood sheathing directly applied or 4-0-8 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (size) 4=0-3-8, 5=0-3-8
Max Grav 4=1143 (LC 1), 5=1120 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-5=-371/0, 3-4=-470/0, 1-2=0/0, 2-3=0/0
BOT CHORD 4-5=0/1336
WEBS 2-5=-1523/0, 2-4=-1488/0

NOTES
1) Recommend 2x6 strongbacks, on edge, spaced at 10-00-00 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.
2) Use Simpson Strong-Tie THAC422 (6-16d Girder, 6-16d Truss) or equivalent at 1-0-8 from the left end to connect truss(es) to front face of top chord.
3) Use Simpson Strong-Tie THA422 (6-16d Girder, 6-10d Truss) or equivalent at 3-0-8 from the left end to connect truss(es) to front face of top chord.
4) Use Simpson Strong-Tie THA422 (6-16d Girder, 6-10d Truss) or equivalent spaced at 2-0-0 oc max. starting at 1-0-8 from the left end to 3-0-8 to connect truss(es) to back face of top chord.
5) Fill all nail holes where hanger is in contact with lumber.
6) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

LOAD CASE(S) Standard
1) Dead + Floor Live (balanced): Lumber Increase=1.00, Plate Increase=1.00
Uniform Loads (lb/ft)
Vert: 4-5=-10, 1-3=-100
Concentrated Loads (lb)
Vert: 6=-921 (F=-294, B=-627), 7=-925 (F=-296, B=-629)

May 29,2025

ENGINEERING BY TRENCO
A MiTek Affiliate
818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	27 Hidden Lakes North - Plan 17 - 2nd Floor
25100037	F05	Floor	4	1	I73791914
					Job Reference (optional)

Carter Components (Sanford, NC), Sanford, NC - 27332,

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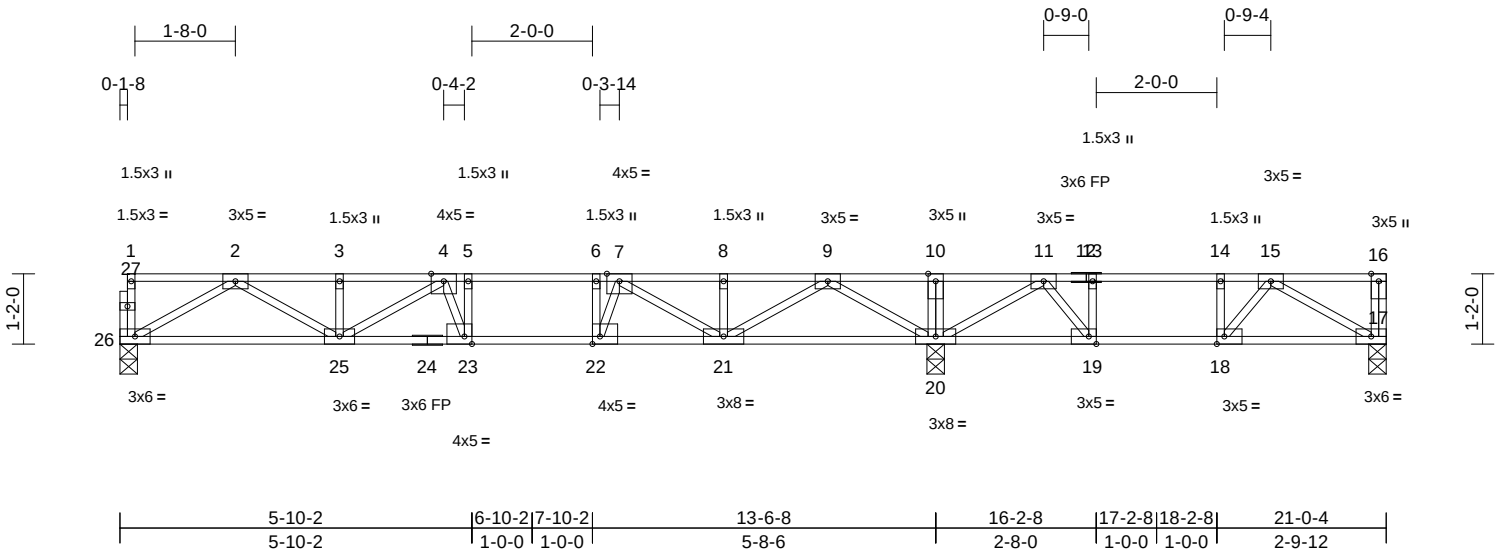


Scale = 1:38.2

Plate Offsets (X, Y): [18:0-1-8,Edge], [19:0-1-8,Edge], [22:0-1-8,Edge], [23:0-1-8,Edge]

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	40.0	Plate Grip DOL	1.00	TC	0.63	Vert(LL)	-0.12	23-25	>999	480	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.73	Vert(CT)	-0.16	23-25	>999	360		
BCLL	0.0	Rep Stress Incr	YES	WB	0.48	Horz(CT)	0.03	17	n/a	n/a		
BCDL	5.0	Code	IRC2021/TPI2014	Matrix-MSH							Weight: 107 lb	FT = 20%F, 11%E

LUMBER
TOP CHORD 2x4 SP No.2(flat)
BOT CHORD 2x4 SP No.2(flat)
WEBS 2x4 SP No.3(flat)
OTHERS 2x4 SP No.3(flat)

BRACING
TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.

REACTIONS (size) 17=0-3-8, 20=0-3-8, 26=0-3-8
Max Grav 17=365 (LC 4), 20=1306 (LC 1), 26=684 (LC 10)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-26=-71/0, 16-17=-74/0, 1-2=-4/0, 2-3=-1706/0, 3-4=-1706/0, 4-5=-2032/0, 5-6=-2032/0, 6-7=-2032/0, 7-8=-1412/0, 8-9=-1412/0, 9-10=0/788, 10-11=0/788, 11-13=-544/146, 13-14=-544/146, 14-15=-544/146, 15-16=0/0
BOT CHORD 25-26=0/1034, 23-25=0/2021, 22-23=0/2032, 21-22=0/1909, 20-21=0/579, 19-20=-357/332, 18-19=-146/544, 17-18=-31/471
WEBS 5-23=-279/159, 6-22=-520/0, 10-20=-218/0, 13-19=-371/0, 14-18=-84/127, 2-26=-1191/0, 2-25=0/784, 3-25=-170/0, 4-25=-368/0, 4-23=-225/339, 9-20=-1353/0, 9-21=0/1007, 8-21=-184/0, 7-21=-621/0, 7-22=0/647, 11-20=-786/0, 11-19=0/573, 15-17=-545/35, 15-18=-186/117

NOTES
1) Unbalanced floor live loads have been considered for this design.
2) All plates are 1.5x3 MT20 unless otherwise indicated.
3) Recommend 2x6 strongbacks, on edge, spaced at 10-00-00 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.
4) CAUTION, Do not erect truss backwards.

LOAD CASE(S) Standard

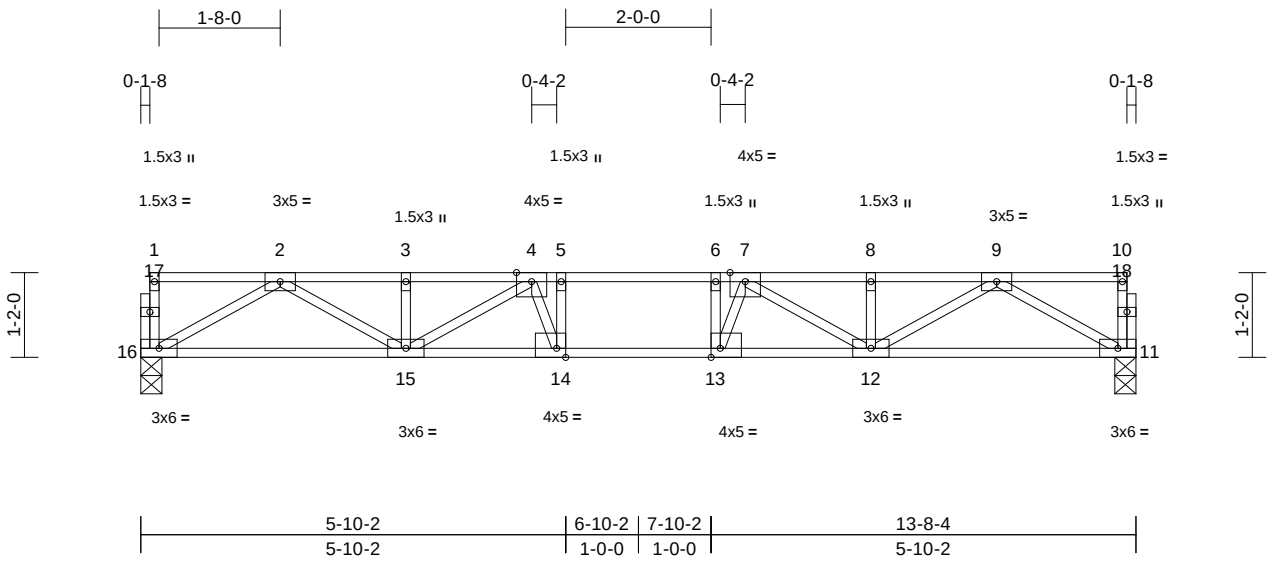
May 29,2025

ENGINEERING BY TRENCO
A MiTek Affiliate
818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	27 Hidden Lakes North - Plan 17 - 2nd Floor
25100037	F06	Floor	4	1	I73791915 Job Reference (optional)

Carter Components (Sanford, NC), Sanford, NC - 27332,

Run: 8.73 S Feb 19 2025 Print: 8.730 S Feb 19 2025 MiTek Industries, Inc. Wed May 28 10:11:45 ID:nA12?0w6Uynonv2O6w?sTPyAP9e-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f



Scale = 1:31.7

Plate Offsets (X, Y): [13:0-1-8,Edge], [14:0-1-8,Edge]

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	40.0	Plate Grip DOL	1.00	TC	0.52	Vert(LL)	-0.12	13-14	>999	480	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.70	Vert(CT)	-0.16	13-14	>980	360		
BCLL	0.0	Rep Stress Incr	YES	WB	0.42	Horz(CT)	0.04	11	n/a	n/a		
BCDL	5.0	Code	IRC2021/TPI2014	Matrix-MSH							Weight: 71 lb	FT = 20%F, 11%E

LUMBER

TOP CHORD 2x4 SP No.2(flat)
BOT CHORD 2x4 SP No.2(flat)
WEBS 2x4 SP No.3(flat)
OTHERS 2x4 SP No.3(flat)

BRACING

TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (size) 11=0-3-8, 16=0-3-8
Max Grav 11=733 (LC 1), 16=733 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-16=-71/0, 10-11=-71/0, 1-2=-4/0, 2-3=-1867/0, 3-4=-1867/0, 4-5=-2344/0, 5-6=-2344/0, 6-7=-2344/0, 7-8=-1867/0, 8-9=-1867/0, 9-10=-4/0
BOT CHORD 15-16=0/1115, 14-15=0/2275, 13-14=0/2344, 12-13=0/2275, 11-12=0/1115
WEBS 5-14=-424/79, 6-13=-424/79, 2-16=-1285/0, 2-15=0/877, 3-15=-173/0, 4-15=-496/0, 4-14=-121/527, 9-11=-1285/0, 9-12=0/877, 8-12=-173/0, 7-12=-496/0, 7-13=-121/527

NOTES

1) Unbalanced floor live loads have been considered for this design.
2) All plates are 1.5x3 MT20 unless otherwise indicated.
3) Recommend 2x6 strongbacks, on edge, spaced at 10-00-00 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.

LOAD CASE(S) Standard

May 29,2025

ENGINEERING BY TRENCO
A MiTek Affiliate
818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	27 Hidden Lakes North - Plan 17 - 2nd Floor
25100037	F07	Floor	9	1	I73791916 Job Reference (optional)

Carter Components (Sanford, NC), Sanford, NC - 27332,

Run: 8.73 S Feb 19 2025 Print: 8.730 S Feb 19 2025 MiTek Industries, Inc. Wed May 28 10:11:45 Page: 1
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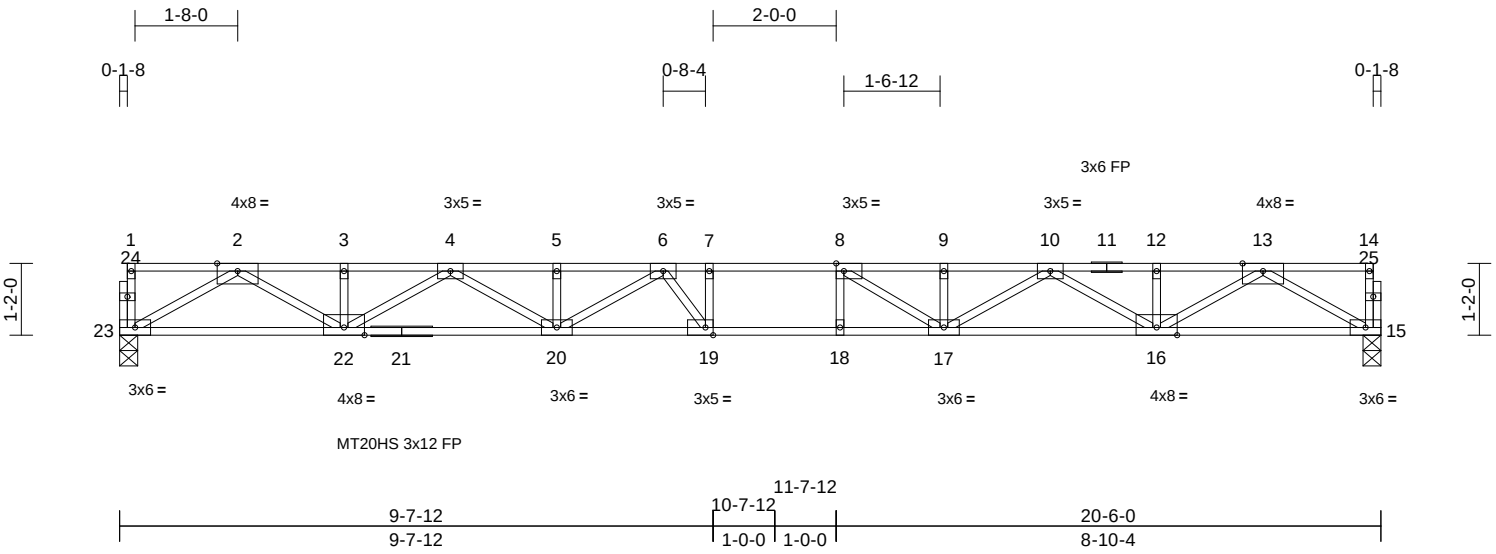

Scale = 1:37.4

Plate Offsets (X, Y): [8:0-1-8,Edge], [19:0-1-8,Edge]

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	40.0	Plate Grip DOL	1.00	TC	0.57	Vert(LL)	-0.42	19	>578	480	MT20HS	187/143
TCDL	10.0	Lumber DOL	1.00	BC	0.77	Vert(CT)	-0.58	19	>420	360	MT20	244/190
BCLL	0.0	Rep Stress Incr	YES	WB	0.76	Horz(CT)	0.09	15	n/a	n/a		
BCDL	5.0	Code	IRC2021/TPI2014	Matrix-MSH							Weight: 104 lb	FT = 20%F, 11%E

LUMBER
TOP CHORD 2x4 SP 2400F 2.0E(flat) *Except* 11-14:2x4 SP No.2(flat)
BOT CHORD 2x4 SP No.1(flat) *Except* 21-15:2x4 SP 2400F 2.0E(flat)
WEBS 2x4 SP No.3(flat)
OTHERS 2x4 SP No.3(flat)

BRACING
TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (size) 15=0-3-8, 23=0-3-8
Max Grav 15=1107 (LC 1), 23=1107 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-23=-73/0, 14-15=-70/0, 1-2=-4/0, 2-3=-3128/0, 3-4=-3128/0, 4-5=-4899/0, 5-6=-4899/0, 6-7=-5349/0, 7-8=-5349/0, 8-9=-4882/0, 9-10=-4882/0, 10-12=-3125/0, 12-13=-3125/0, 13-14=-4/0
BOT CHORD 22-23=0/1756, 20-22=0/4156, 19-20=0/5286, 18-19=0/5349, 17-18=0/5349, 16-17=0/4158, 15-16=0/1760
WEBS 7-19=-365/145, 8-18=-86/160, 2-23=-2026/0, 2-22=0/1602, 3-22=-169/0, 4-22=-1201/0, 4-20=0/867, 5-20=-177/0, 6-20=-592/0, 6-19=-301/582, 13-15=-2030/0, 13-16=0/1594, 12-16=-166/0, 10-16=-1206/0, 10-17=0/846, 9-17=-226/86, 8-17=-931/33

NOTES
1) Unbalanced floor live loads have been considered for this design.
2) All plates are MT20 plates unless otherwise indicated.
3) All plates are 1.5x3 MT20 unless otherwise indicated.
4) Recommend 2x6 strongbacks, on edge, spaced at 10-00-00 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.

LOAD CASE(S) Standard

May 29,2025

ENGINEERING BY TRENCO
A MiTek Affiliate
818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	27 Hidden Lakes North - Plan 17 - 2nd Floor
25100037	F08	Floor	1	1	I73791917
					Job Reference (optional)

Carter Components (Sanford, NC), Sanford, NC - 27332, Run: 8.73 S Feb 19 2025 Print: 8.730 S Feb 19 2025 MiTek Industries, Inc. Wed May 28 10:11:45 Page: 1
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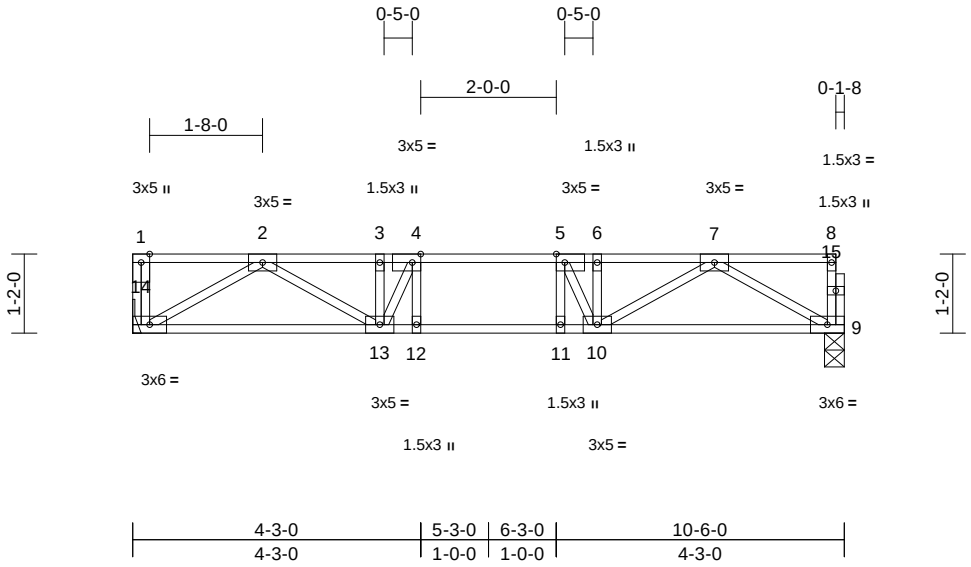

Scale = 1:34

Plate Offsets (X, Y): [4:0-1-8,Edge], [5:0-1-8,Edge]

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	40.0	Plate Grip DOL	1.00	TC	0.34	Vert(LL)	-0.05	12	>999	480	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.49	Vert(CT)	-0.06	12	>999	360		
BCLL	0.0	Rep Stress Incr	YES	WB	0.25	Horz(CT)	0.02	9	n/a	n/a		
BCDL	5.0	Code	IRC2021/TPI2014	Matrix-MSH							Weight: 56 lb	FT = 20%F, 11%E

LUMBER
TOP CHORD 2x4 SP No.2(flat)
BOT CHORD 2x4 SP No.2(flat)
WEBS 2x4 SP No.3(flat)
OTHERS 2x4 SP No.3(flat)

BRACING
TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (size) 9=0-3-8, 14= Mechanical
Max Grav 9=558 (LC 1), 14=564 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-14=-72/0, 8-9=-69/0, 1-2=0/0, 2-3=-1266/0, 3-4=-1266/0, 4-5=-1353/0, 5-6=-1266/0, 6-7=-1266/0, 7-8=-4/0
BOT CHORD 13-14=0/821, 12-13=0/1353, 11-12=0/1353, 10-11=0/1353, 9-10=0/819
WEBS 4-12=-102/90, 5-11=-102/90, 2-14=-949/0, 2-13=0/519, 3-13=-133/117, 4-13=-411/36, 7-9=-943/0, 7-10=0/522, 6-10=-135/116, 5-10=-411/38

NOTES
1) Unbalanced floor live loads have been considered for this design.
2) Refer to girder(s) for truss to truss connections.
3) Recommend 2x6 strongbacks, on edge, spaced at 10-00-00 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.
4) CAUTION, Do not erect truss backwards.

LOAD CASE(S) Standard

May 29,2025

ENGINEERING BY TRENCO
A MiTek Affiliate
818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	27 Hidden Lakes North - Plan 17 - 2nd Floor
25100037	F09	Floor Girder	1	1	I73791918
					Job Reference (optional)

Carter Components (Sanford, NC), Sanford, NC - 27332,

Run: 8.73 S Feb 19 2025 Print: 8.730 S Feb 19 2025 MiTek Industries, Inc. Wed May 28 10:11:45 Page: 1
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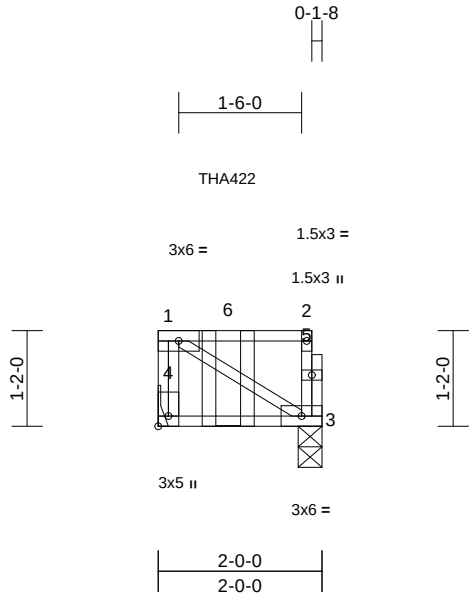

Scale = 1:28.1

Plate Offsets (X, Y): [4:Edge,0-1-8]

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	40.0	Plate Grip DOL	1.00	TC	0.65	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.02	Vert(CT)	0.00	3-4	>999	360		
BCLL	0.0	Rep Stress Incr	NO	WB	0.01	Horz(CT)	0.00	3	n/a	n/a		
BCDL	5.0	Code	IRC2021/TPI2014	Matrix-MP							Weight: 14 lb	FT = 20%F, 11%E

LUMBER
TOP CHORD 2x4 SP 2400F 2.0E(flat)
BOT CHORD 2x4 SP No.2(flat)
WEBS 2x4 SP No.3(flat)
OTHERS 2x4 SP No.3(flat)

BRACING
TOP CHORD Structural wood sheathing directly applied or 2-0-0 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (size) 3=0-3-8, 4= Mechanical
Max Grav 3=290 (LC 1), 4=376 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-4=-367/0, 2-3=-292/0, 1-2=-17/0
BOT CHORD 3-4=0/0
WEBS 1-3=0/20

NOTES
1) Refer to girder(s) for truss to truss connections.
2) Recommend 2x6 strongbacks, on edge, spaced at 10-00-00 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.
3) CAUTION, Do not erect truss backwards.
4) Use Simpson Strong-Tie THA422 (Single Chord Girder) or equivalent at 0-10-4 from the left end to connect truss (es) to back face of top chord.
5) Fill all nail holes where hanger is in contact with lumber.
6) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

LOAD CASE(S) Standard
1) Dead + Floor Live (balanced): Lumber Increase=1.00, Plate Increase=1.00
Uniform Loads (lb/ft)
Vert: 3-4=-10, 1-2=-100
Concentrated Loads (lb)
Vert: 6=-479 (B)

May 29,2025

ENGINEERING BY TRENCO
A MiTek Affiliate
818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	27 Hidden Lakes North - Plan 17 - 2nd Floor
25100037	FW10	Floor Supported Gable	1	1	I73791919
					Job Reference (optional)

Carter Components (Sanford, NC), Sanford, NC - 27332,

Run: 8.73 S Feb 19 2025 Print: 8.730 S Feb 19 2025 MiTek Industries, Inc. Wed May 28 10:11:45 Page: 1
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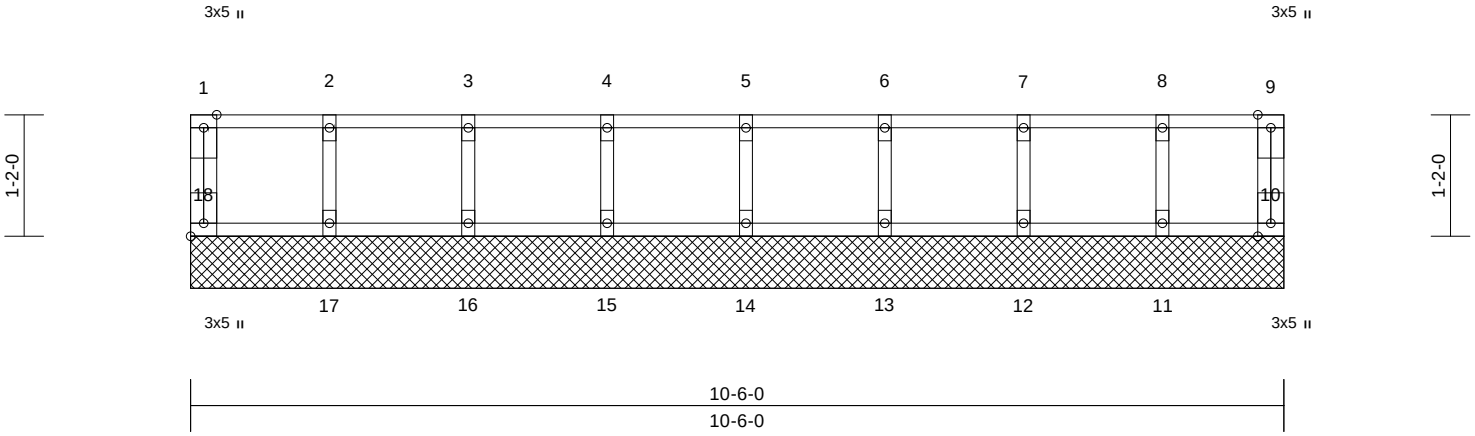

Scale = 1:22.1

Plate Offsets (X, Y): [18:Edge,0-1-8]

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	40.0	Plate Grip DOL	1.00	TC	0.08	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.01	Vert(TL)	n/a	-	n/a	999		
BCLL	0.0	Rep Stress Incr	YES	WB	0.03	Horiz(TL)	0.00	10	n/a	n/a		
BCDL	5.0	Code	IRC2021/TPI2014	Matrix-MR							Weight: 46 lb	FT = 20%F, 11%E

LUMBER
TOP CHORD 2x4 SP No.2(flat)
BOT CHORD 2x4 SP No.2(flat)
WEBS 2x4 SP No.3(flat)
OTHERS 2x4 SP No.3(flat)

BRACING
TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (size) 10=10-6-0, 11=10-6-0, 12=10-6-0, 13=10-6-0, 14=10-6-0, 15=10-6-0, 16=10-6-0, 17=10-6-0, 18=10-6-0
Max Grav 10=53 (LC 1), 11=132 (LC 1), 12=150 (LC 1), 13=146 (LC 1), 14=147 (LC 1), 15=146 (LC 1), 16=147 (LC 1), 17=145 (LC 1), 18=61 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-18=-56/0, 9-10=-47/0, 1-2=-9/0, 2-3=-9/0, 3-4=-9/0, 4-5=-9/0, 5-6=-9/0, 6-7=-9/0, 7-8=-9/0, 8-9=-9/0
BOT CHORD 17-18=0/9, 16-17=0/9, 15-16=0/9, 14-15=0/9, 13-14=0/9, 12-13=0/9, 11-12=0/9, 10-11=0/9
WEBS 2-17=-131/0, 3-16=-134/0, 4-15=-133/0, 5-14=-134/0, 6-13=-133/0, 7-12=-136/0, 8-11=-121/0

NOTES
1) All plates are 1.5x3 MT20 unless otherwise indicated.
2) Gable requires continuous bottom chord bearing.
3) Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
4) Gable studs spaced at 1-4-0 oc.
5) Recommend 2x6 strongbacks, on edge, spaced at 10-00-00 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.

LOAD CASE(S) Standard

May 29,2025

ENGINEERING BY TRENCO
A MiTek Affiliate
818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	27 Hidden Lakes North - Plan 17 - 2nd Floor
25100037	FW11	Floor Supported Gable	1	1	I73791920 Job Reference (optional)

Carter Components (Sanford, NC), Sanford, NC - 27332,

Run: 8.73 S Feb 19 2025 Print: 8.730 S Feb 19 2025 MiTek Industries, Inc. Wed May 28 10:11:45 Page: 1
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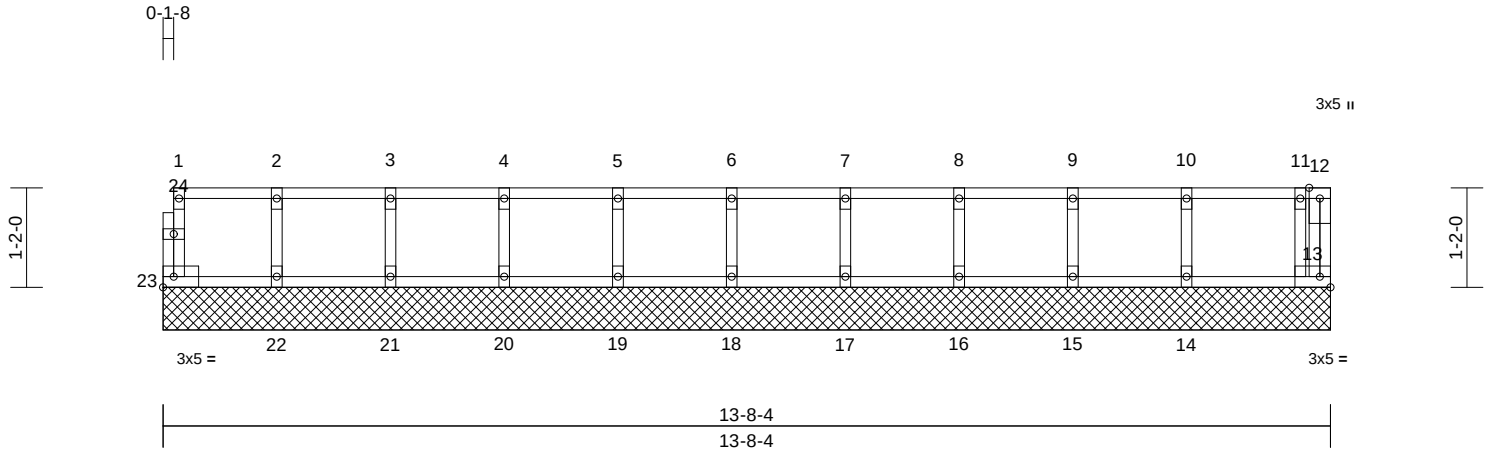

Scale = 1:27

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	40.0	Plate Grip DOL	1.00	TC	0.09	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.03	Vert(TL)	n/a	-	n/a	999		
BCLL	0.0	Rep Stress Incr	YES	WB	0.03	Horiz(TL)	0.00	13	n/a	n/a		
BCDL	5.0	Code	IRC2021/TPI2014	Matrix-MR							Weight: 59 lb	FT = 20%F, 11%E

LUMBER
TOP CHORD 2x4 SP No.2(flat)
BOT CHORD 2x4 SP No.2(flat)
WEBS 2x4 SP No.3(flat)
OTHERS 2x4 SP No.3(flat)

BRACING
TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (size) 13=13-8-4, 14=13-8-4, 15=13-8-4, 16=13-8-4, 17=13-8-4, 18=13-8-4, 19=13-8-4, 20=13-8-4, 21=13-8-4, 22=13-8-4, 23=13-8-4
Max Grav 13=88 (LC 1), 14=160 (LC 1), 15=143 (LC 1), 16=148 (LC 1), 17=146 (LC 1), 18=147 (LC 1), 19=147 (LC 1), 20=146 (LC 1), 21=150 (LC 1), 22=136 (LC 1), 23=62 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-23=-54/0, 12-13=0/11, 1-2=-15/0, 2-3=-15/0, 3-4=-15/0, 4-5=-15/0, 5-6=-15/0, 6-7=-15/0, 7-8=-15/0, 8-9=-15/0, 9-10=-15/0, 10-11=-15/0, 11-12=-2/0
BOT CHORD 22-23=0/15, 21-22=0/15, 20-21=0/15, 19-20=0/15, 18-19=0/15, 17-18=0/15, 16-17=0/15, 15-16=0/15, 14-15=0/15, 13-14=0/15
WEBS 2-22=-127/0, 3-21=-135/0, 4-20=-133/0, 5-19=-133/0, 6-18=-133/0, 7-17=-133/0, 8-16=-134/0, 9-15=-131/0, 10-14=-142/0, 11-13=-94/0

NOTES
1) All plates are 1.5x3 MT20 unless otherwise indicated.
2) Gable requires continuous bottom chord bearing.
3) Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
4) Gable studs spaced at 1-4-0 oc.
5) Recommend 2x6 strongbacks, on edge, spaced at 10-00-00 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.
6) CAUTION, Do not erect truss backwards.

LOAD CASE(S) Standard

May 29,2025

ENGINEERING BY TRENCO
A MiTek Affiliate
818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	27 Hidden Lakes North - Plan 17 - 2nd Floor
25100037	FW12	Floor Supported Gable	1	1	I73791921
					Job Reference (optional)

Carter Components (Sanford, NC), Sanford, NC - 27332,

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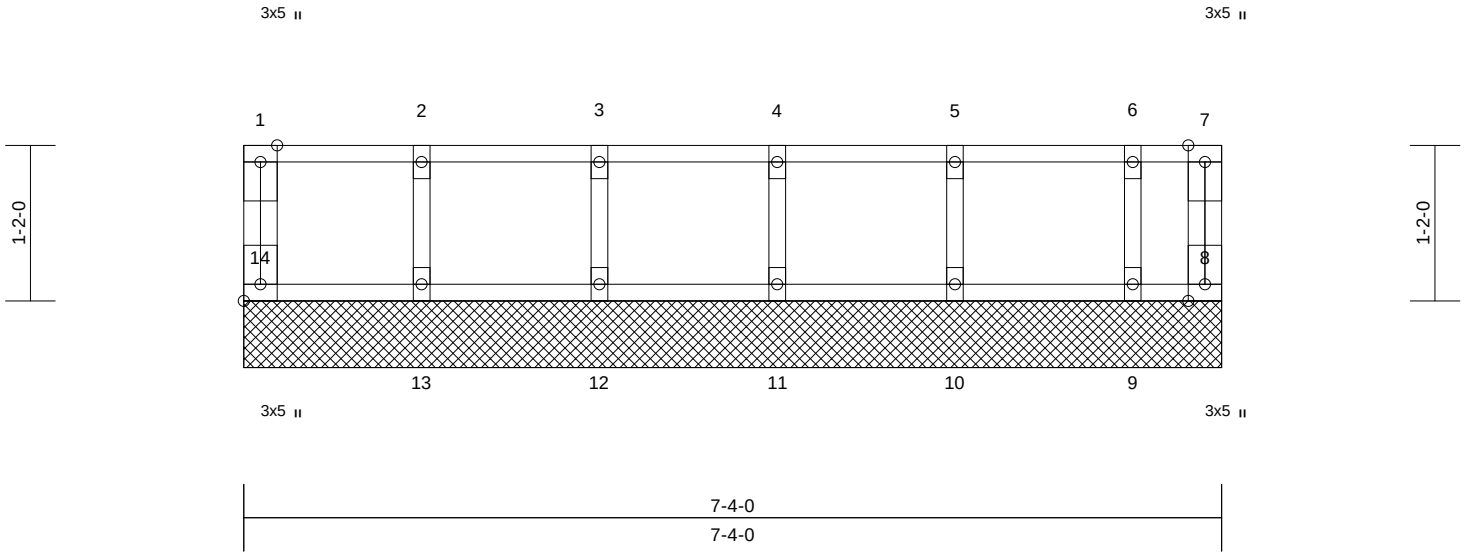


Scale = 1:17.3

Plate Offsets (X, Y): [14:Edge,0-1-8]

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	40.0	Plate Grip DOL	1.00	TC	0.08	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.02	Vert(TL)	n/a	-	n/a	999		
BCLL	0.0	Rep Stress Incr	YES	WB	0.03	Horiz(TL)	0.00	8	n/a	n/a		
BCDL	5.0	Code	IRC2021/TPI2014	Matrix-MR							Weight: 34 lb	FT = 20%F, 11%E

LUMBER
TOP CHORD 2x4 SP No.2(flat)
BOT CHORD 2x4 SP No.2(flat)
WEBS 2x4 SP No.3(flat)
OTHERS 2x4 SP No.3(flat)

BRACING
TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (size) 8=7-4-0, 9=7-4-0, 10=7-4-0, 11=7-4-0, 12=7-4-0, 13=7-4-0, 14=7-4-0
Max Grav 8=23 (LC 1), 9=105 (LC 1), 10=153 (LC 1), 11=145 (LC 1), 12=147 (LC 1), 13=147 (LC 1), 14=59 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-14=-55/0, 7-8=-14/0, 1-2=-7/0, 2-3=-7/0, 3-4=-7/0, 4-5=-7/0, 5-6=-7/0, 6-7=-7/0
BOT CHORD 13-14=0/7, 12-13=0/7, 11-12=0/7, 10-11=0/7, 9-10=0/7, 8-9=0/7
WEBS 2-13=-132/0, 3-12=-134/0, 4-11=-132/0, 5-10=-139/0, 6-9=-102/0

NOTES
1) All plates are 1.5x3 MT20 unless otherwise indicated.
2) Gable requires continuous bottom chord bearing.
3) Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
4) Gable studs spaced at 1-4-0 oc.
5) Recommend 2x6 strongbacks, on edge, spaced at 10-00-00 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.

LOAD CASE(S) Standard

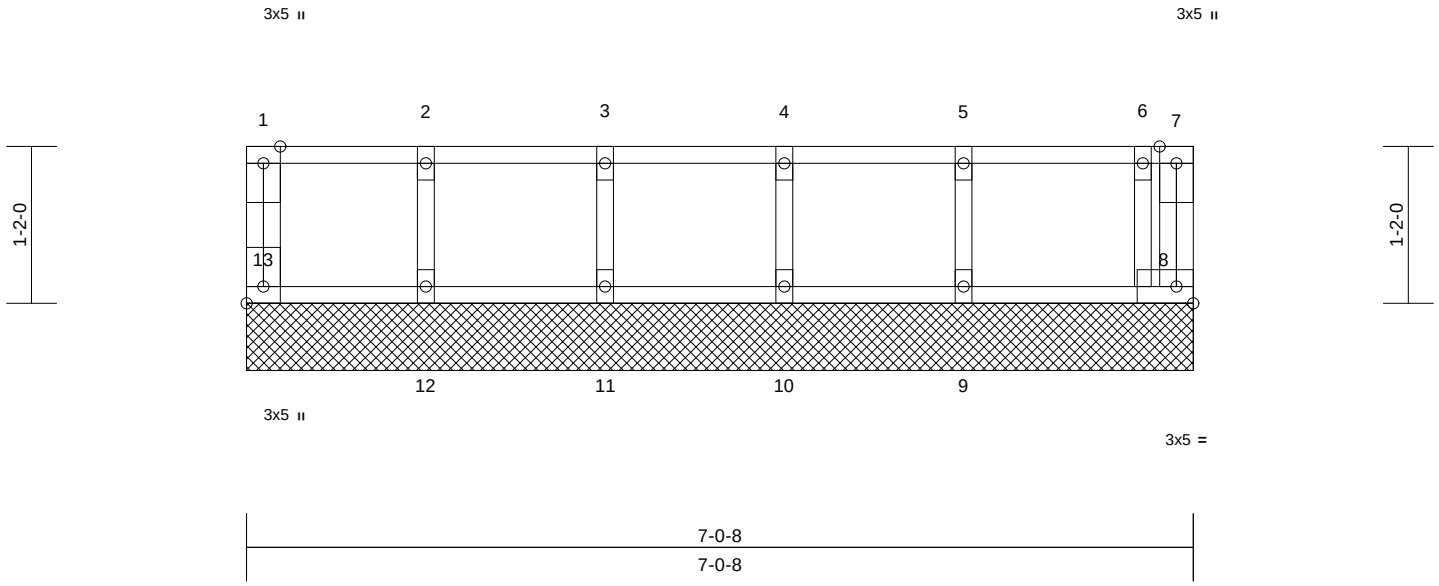
May 29,2025

ENGINEERING BY TRENCO
A MiTek Affiliate
818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	27 Hidden Lakes North - Plan 17 - 2nd Floor
25100037	FW13	Floor Supported Gable	1	1	I73791922
					Job Reference (optional)

Carter Components (Sanford, NC), Sanford, NC - 27332,

Run: 8.73 S Feb 19 2025 Print: 8.730 S Feb 19 2025 MiTek Industries, Inc. Wed May 28 10:11:45 Page: 1
ID:K3bN3xk8jXDHJCgGXUiahXyAP8b-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f



Scale = 1:17.1

Plate Offsets (X, Y): [13:Edge,0-1-8]

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	40.0	Plate Grip DOL	1.00	TC	0.09	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.03	Vert(TL)	n/a	-	n/a	999		
BCLL	0.0	Rep Stress Incr	YES	WB	0.03	Horiz(TL)	0.00	8	n/a	n/a		
BCDL	5.0	Code	IRC2021/TPI2014	Matrix-MR							Weight: 33 lb	FT = 20%F, 11%E

LUMBER

TOP CHORD	2x4 SP No.2(flat)
BOT CHORD	2x4 SP No.2(flat)
WEBS	2x4 SP No.3(flat)
OTHERS	2x4 SP No.3(flat)

BRACING

TOP CHORD	Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.
BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (size) 8=7-0-8, 9=7-0-8, 10=7-0-8, 11=7-0-8, 12=7-0-8, 13=7-0-8
Max Grav 8=90 (LC 1), 9=159 (LC 1), 10=142 (LC 1), 11=151 (LC 1), 12=134 (LC 1), 13=69 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD	1-13=-60/0, 7-8=0/11, 1-2=-16/0, 2-3=-16/0, 3-4=-16/0, 4-5=-16/0, 5-6=-16/0, 6-7=-2/0
BOT CHORD	12-13=0/16, 11-12=0/16, 10-11=0/16, 9-10=0/16, 8-9=0/16
WEBS	2-12=-126/0, 3-11=-136/0, 4-10=-130/0, 5-9=-142/0, 6-8=-97/0

NOTES

1) All plates are 1.5x3 MT20 unless otherwise indicated.
2) Gable requires continuous bottom chord bearing.
3) Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
4) Gable studs spaced at 1-4-0 oc.
5) Recommend 2x6 strongbacks, on edge, spaced at 10-00-00 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.

LOAD CASE(S) Standard

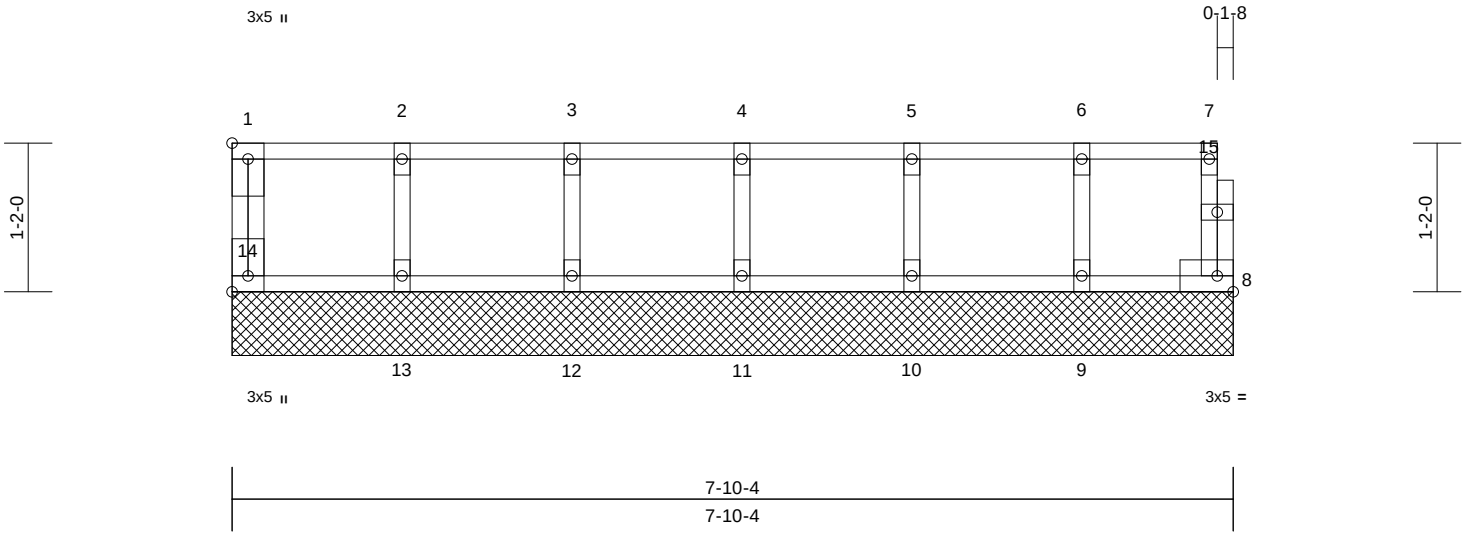
May 29,2025

ENGINEERING BY
TRENCO
A MiTek Affiliate
818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	27 Hidden Lakes North - Plan 17 - 2nd Floor
25100037	FW14	Floor Supported Gable	1	1	I73791923
					Job Reference (optional)

Carter Components (Sanford, NC), Sanford, NC - 27332,

Run: 8.73 S Feb 19 2025 Print: 8.730 S Feb 19 2025 MiTek Industries, Inc. Wed May 28 10:11:45 Page: 1
ID:GSi7UcmOF9T?YWqffvk2myyAP8Z-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f



Scale = 1:18.1

Plate Offsets (X, Y): [1:Edge,0-1-8], [14:Edge,0-1-8]

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	40.0	Plate Grip DOL	1.00	TC	0.08	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.01	Vert(TL)	n/a	-	n/a	999		
BCLL	0.0	Rep Stress Incr	YES	WB	0.03	Horiz(TL)	0.00	8	n/a	n/a		
BCDL	5.0	Code	IRC2021/TPI2014	Matrix-MR							Weight: 35 lb	FT = 20%F, 11%E

LUMBER

TOP CHORD	2x4 SP No.2(flat)
BOT CHORD	2x4 SP No.2(flat)
WEBS	2x4 SP No.3(flat)
OTHERS	2x4 SP No.3(flat)

BRACING

TOP CHORD	Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.
BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (size) 8=7-10-4, 9=7-10-4, 10=7-10-4, 11=7-10-4, 12=7-10-4, 13=7-10-4, 14=7-10-4
Max Grav 8=49 (LC 1), 9=133 (LC 1), 10=150 (LC 1), 11=146 (LC 1), 12=148 (LC 1), 13=144 (LC 1), 14=61 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD	1-14=-56/0, 7-8=-43/0, 1-2=-9/0, 2-3=-9/0, 3-4=-9/0, 4-5=-9/0, 5-6=-9/0, 6-7=-9/0
BOT CHORD	13-14=0/9, 12-13=0/9, 11-12=0/9, 10-11=0/9, 9-10=0/9, 8-9=0/9
WEBS	2-13=-131/0, 3-12=-134/0, 4-11=-132/0, 5-10=-136/0, 6-9=-122/0

NOTES

1) All plates are 1.5x3 MT20 unless otherwise indicated.
2) Gable requires continuous bottom chord bearing.
3) Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
4) Gable studs spaced at 1-4-0 oc.
5) Recommend 2x6 strongbacks, on edge, spaced at 10-00-00 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.
6) CAUTION, Do not erect truss backwards.

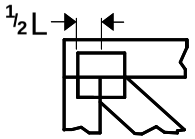
LOAD CASE(S) Standard

May 29,2025

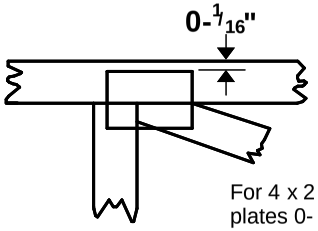
ENGINEERING BY TRENCO
A MiTek Affiliate
818 Soundside Road
Edenton, NC 27932

Symbols

PLATE LOCATION AND ORIENTATION



Center plate on joint unless x, y offsets are indicated. Dimensions are in ft-in-sixteenths. Apply plates to both sides of truss and fully embed teeth.



For 4 x 2 orientation, locate plates 0- 1/16" from outside edge of truss.

This symbol indicates the required direction of slots in connector plates.

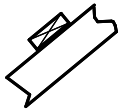
* Plate location details available in MiTek software or upon request.

PLATE SIZE

4 x 4

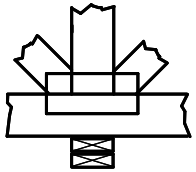
The first dimension is the plate width measured perpendicular to slots. Second dimension is the length parallel to slots.

LATERAL BRACING LOCATION



Indicated by symbol shown and/or by text in the bracing section of the output. Use T or I bracing if indicated.

BEARING

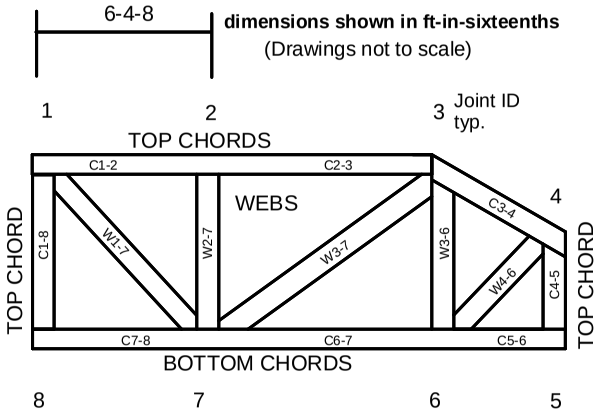


Indicates location where bearings (supports) occur. Icons vary but reaction section indicates joint number/letter where bearings occur. Min size shown is for crushing only.

Industry Standards:

ANSI/TPI1: National Design Specification for Metal Plate Connected Wood Truss Construction.
DSB-22: Design Standard for Bracing.
BCSI: Building Component Safety Information, Guide to Good Practice for Handling, Installing, Restraining & Bracing of Metal Plate Connected Wood Trusses.

Numbering System



JOINTS ARE GENERALLY NUMBERED/LETTERED CLOCKWISE AROUND THE TRUSS STARTING AT THE JOINT FARTHEST TO THE LEFT.

CHORDS AND WEBS ARE IDENTIFIED BY END JOINT NUMBERS/LETTERS.

Product Code Approvals

ICC-ES Reports:

ESR-1988, ESR-2362, ESR-2685, ESR-3282
ESR-4722, ESL-1388

Design General Notes

Trusses are designed for wind loads in the plane of the truss unless otherwise shown.

Lumber design values are in accordance with ANSI/TPI 1 section 6.3 These truss designs rely on lumber values established by others.

MiTek®

ENGINEERING BY TRENCO
A MiTek Affiliate

MiTek Engineering Reference Sheet: MII-7473 rev. 1/2/2023

General Safety Notes

Failure to Follow Could Cause Property Damage or Personal Injury

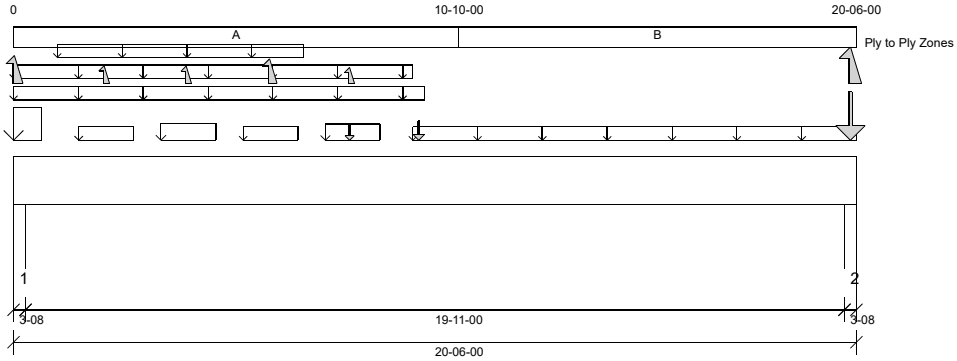
1. Additional stability bracing for truss system, e.g. diagonal or X-bracing, is always required. See BCSI.
2. Truss bracing must be designed by an engineer. For wide truss spacing, individual lateral braces themselves may require bracing, or alternative Tor I bracing should be considered.
3. Never exceed the design loading shown and never stack materials on inadequately braced trusses.
4. Provide copies of this truss design to the building designer, erection supervisor, property owner and all other interested parties.
5. Cut members to bear tightly against each other.
6. Place plates on each face of truss at each joint and embed fully. Knots and wane at joint locations are regulated by ANSI/TPI 1.
7. Design assumes trusses will be suitably protected from the environment in accord with ANSI/TPI 1.
8. Unless otherwise noted, moisture content of lumber shall not exceed 19% at time of fabrication.
9. Unless expressly noted, this design is not applicable for use with fire retardant, preservative treated, or green lumber.
10. Camber is a non-structural consideration and is the responsibility of truss fabricator. General practice is to camber for dead load deflection.
11. Plate type, size, orientation and location dimensions indicated are minimum plating requirements.
12. Lumber used shall be of the species and size, and in all respects, equal to or better than that specified.
13. Top chords must be sheathed or purlins provided at spacing indicated on design.
14. Bottom chords require lateral bracing at 10 ft. spacing, or less, if no ceiling is installed, unless otherwise noted.
15. Connections not shown are the responsibility of others.
16. Do not cut or alter truss member or plate without prior approval of an engineer.
17. Install and load vertically unless indicated otherwise.
18. Use of green or treated lumber may pose unacceptable environmental, health or performance risks. Consult with project engineer before use.
19. Review all portions of this design (front, back, words and pictures) before use. Reviewing pictures alone is not sufficient.
20. Design assumes manufacture in accordance with ANSI/TPI 1 Quality Criteria.
21. The design does not take into account any dynamic or other loads other than those expressly stated.

MiTek	Customer: Street 1: City: Customer Ph...	Job Name: **A** Level: **1st FLOOR** Label: **FB1-2 - i49** Type: **Beam**	**2 Ply Member** **2.0 RigidLam DF LVL 1-3/4 x 14**	Status: **Design Passed**

Illustration Not to Scale. Pitch: 0/12

Designed by Single Member Design Engine in MiTek® Structure Version 8.7.3.303.Update13.26

Report Version: 2023.09.18 10/08/2025 15:56



DESIGN INFORMATION a

Building Code:	IRC 2021
Design Methodology:	ASD
Risk Category:	II (General Construction) Residential
Service Condition:	Dry
System Spacing:	-
LL Deflection Limit:	L/360, 0.75" (absolute)
TL Deflection Limit:	L/240, 1.00" (absolute)

Lateral Restraint Requirements:

Both ends of the member and the outer supports must be laterally restrained. Top and bottom edges of the member must be fully restrained or have the following maximum unbraced length:

Top: 0' Bottom: 0'

Bearing Stress of Support Material:

- 425 psi Wall @ 0'- 2 1/2"
- 425 psi Wall @ 20'- 3 1/2"

ANALYSIS RESULTS

Design Criteria	Location	Load Combination	LDF	Design	Limit	Result
Max Pos. Moment:	9'- 10 1/4"	D + L	1.00	6741 lb ft	28972 lb ft	Passed - 23%
Max Shear:	1'- 5 1/2"	D + L	1.00	1289 lb	9473 lb	Passed - 14%
Live Load (LL) Pos. Defl.:	10'- 1/4"	0.75(L + Lr + 0.6W)		0.139"	L/360	Passed - L/999
Total Load (TL) Pos. Defl.:	9'- 10 5/16"	D + 0.75(L + Lr + 0.6W)		0.312"	L/240	Passed - L/765

SUPPORT AND REACTION INFORMATION

ID	Input Bearing Length	Controlling Load Combination	LDF	Downward Reaction	Uplift Reaction	Resistance of Member	Resistance of Support	Result
1	3-08	D + 0.75(L + Lr)	1.15	2077 lb		9187 lb	5206 lb	Passed - 40%
2	3-08	D + L	1.00	1549 lb		9188 lb	5206 lb	Passed - 30%

LOADING

Type	Start Loc	End Loc	Source	Face	Dead (D)	Live (L)	Snow (S)	Roof Live (Lr)	Wind (W)
Self Weight	0'	20'- 6"	Self Weight	Top	13 lb/ft	-	-	-	-
Uniform	-0'	10'	E17(i25)	Top	65 lb/ft	-	-	-	-
Uniform	-0'	9'- 8 1/2"	FC1 Floor Decking (Plan View Fill)	Top	9 lb/ft	35 lb/ft	-	-	-
Uniform	-0'	0'- 8 1/4"	E17(i25)	Top	391 lb/ft	-	259 lb/ft	374 lb/ft	138 lb/ft
Uniform	1'- 3/4"	7'- 3/4"	Smoothed Load	Front	18 lb/ft	-	11 lb/ft	20 lb/ft	8 lb/ft
Uniform	1'- 7"	2'- 11"	E17(i25)	Top	32 lb/ft	-	19 lb/ft	36 lb/ft	20 lb/ft
Uniform	3'- 7"	4'- 11"	E17(i25)	Top	94 lb/ft	-	58 lb/ft	105 lb/ft	17 lb/ft
Uniform	5'- 7"	6'- 11"	E17(i25)	Top	-	-	-	54 lb/ft	29 lb/ft
Uniform	7'- 7"	8'- 11"	E17(i25)	Top	-	-	-	32 lb/ft	184 lb/ft
Uniform	9'- 8 1/2"	20'- 6"	FC1 Floor Decking (Plan View Fill)	Top	13 lb/ft	52 lb/ft	-	-	-
Point	2'- 2 7/16"	2'- 2 7/16"	-	Front	-	-	-	-27 lb	-166 lb
Point	4'- 2 3/8"	4'- 2 3/8"	-	Front	-	-	-	-8 lb	-175 lb
Point	6'- 2 3/4"	6'- 2 3/4"	-	Front	-32 lb	-	-18 lb	-105 lb	-272 lb
Point	8'- 2 1/16"	8'- 2 1/16"	-	Front	-	-	-	51/-53 lb	59/-82 lb
Point	9'- 10 1/4"	9'- 10 1/4"	F09(c01)	Front	126 lb	119 lb	-	-	-
Point	0'- 1/4"	0'- 1/4"	E17(i25)	Top	-	-	-	-	-540 lb
Point	20'- 4 1/4"	20'- 4 1/4"	E14(i26)	Top	479 lb	-	257 lb	371 lb	129/-825 lb

UNFACTORED REACTIONS

ID	Start Loc	End Loc	Source	Dead (D)	Live (L)	Snow (S)	Roof Live (Lr)	Wind (W)
1	0'	0'- 3 1/2"	E9(i5)	1273 lb	465 lb	305 lb	612/-137 lb	137 lb/ -930 lb
2	20'- 2 1/2"	20'- 6"	E7(i2)	997 lb	548 lb	285 lb	488/-56 lb	137 lb/ -930 lb

DESIGN NOTES

- The dead loads used in the design of this member were applied to the structure as projected dead loads.
- Analysis and Design has been performed using precision loading from actual modeled conditions. Some loads may have been modified to simplify reporting.
- Tributary Loads have been generated based on actual spacing between members in the model which may differ from the default system spacing. The actual loads applied to the member are shown in the Specified Loads table.
- 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.
- Review all loads and reactions to ensure that the member/bearing/connector/structure can resist adequately. Unless already specified on this report, anchorage for uplift reactions to be specified by others. Installation of member and accessories (if required) as per manufacturer's instruction.
- Beam Stability Factor used in the calculation for Allowable Max Pos Moment (CL) = 1.00

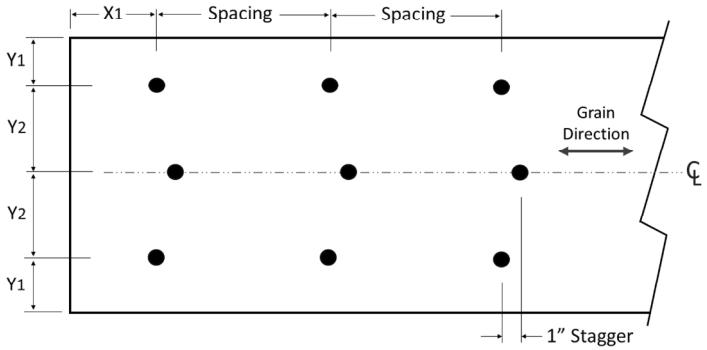
PLY TO PLY CONNECTION

MiTek	Customer: Street 1: City: Customer Ph...	Job Name: **A** Level: **1st FLOOR** Label: **FB1-2 - i49** Type: **Beam**	**2 Ply Member** **2.0 RigidLam DF LVL 1-3/4 x 14**	Status: **Design Passed**

PLY TO PLY CONNECTION

- Zone A: Factored load = 129 plf. Use 12d (0.148"x3.25") nails. LDF = 1.00. Qty = 33. Row = 3, Spacing = 12"
  Zone B: Factored load = 0 plf. Use 12d (0.148"x3.25") nails. LDF = 1.00. Qty = 30. Row = 3, Spacing = 12"
  12d (0.148"x3.25") nails properties: D = 0.148" , L = 3.25". Fastener capacity = 117 lbs. X1 = 2.25" , Y1 = 0.75", Y2 = 1.5"
  Install fasteners from one face.
  X1 = Minimum end distance, X2 = Minimum edge distance, Y2 = Minimum row spacing.

FASTENER INSTALLATION – 3 ROWS (FROM ONE FACE)

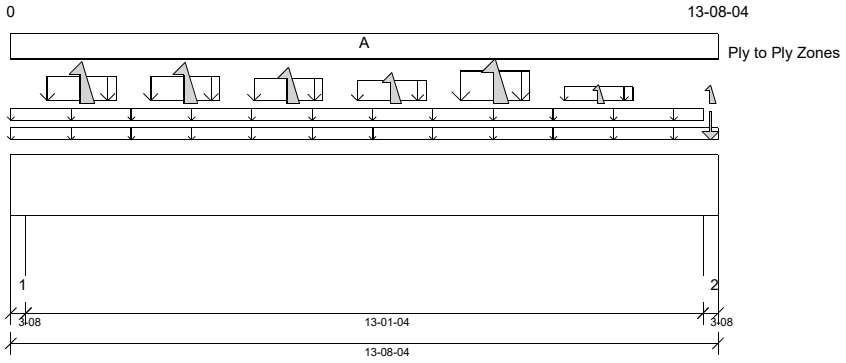


MiTek	Customer: Street 1: City: Customer Ph...	Job Name: **A** Level: **1st FLOOR** Label: **FB2-2 - i47** Type: **Beam**	**2 Ply Member** **2.0 RigidLam DF LVL 1-3/4 x 14**	Status: **Design Passed**

Illustration Not to Scale. Pitch: 0/12

Designed by Single Member Design Engine in MiTek® Structure Version 8.7.3.303.Update13.26

Report Version: 2023.09.18 10/08/2025 15:56



DESIGN INFORMATION a

Building Code:	IRC 2021
Design Methodology:	ASD
Risk Category:	II (General Construction) Residential
Service Condition:	Dry
System Spacing:	-
LL Deflection Limit:	L/360, 0.75" (absolute)
TL Deflection Limit:	L/240, 1.00" (absolute)

Lateral Restraint Requirements:

Both ends of the member and the outer supports must be laterally restrained. Top and bottom edges of the member must be fully restrained or have the following maximum unbraced length:

Top: 0' Bottom: 0'

Bearing Stress of Support Material:

- 425 psi Wall @ 0'- 2 1/2"
- 425 psi Wall @ 13'- 5 3/4"

ANALYSIS RESULTS

Design Criteria	Location	Load Combination	LDF	Design	Limit	Result
Max Pos. Moment:	6'- 11 15/16"	D + Lr	1.15	10642 lb ft	33318 lb ft	Passed - 32%
Max Neg. Moment:	3'- 4 1/2"	0.6D + 0.6W	1.60	858 lb ft	46355 lb ft	Passed - 2%
Max Shear:	1'- 5 1/2"	D + Lr	1.15	2644 lb	10894 lb	Passed - 24%
Live Load (LL) Pos. Defl.:	6'- 9 5/8"	0.75(L + Lr + 0.6W)		0.089"	L/360	Passed - L/999
Total Load (TL) Pos. Defl.:	6'- 9 7/8"	D + 0.75(L + Lr + 0.6W)		0.216"	L/240	Passed - L/726

SUPPORT AND REACTION INFORMATION

ID	Input Bearing Length	Controlling Load Combination	LDF	Downward Reaction	Uplift Reaction	Resistance of Member	Resistance of Support	Result
1	3-08	D + Lr	1.15	3295 lb		9188 lb	5206 lb	Passed - 63%
1	3-08	0.6D + 0.6W	1.60		-346 lb	-	-	
2	3-08	D + Lr	1.15	2889 lb		9188 lb	5206 lb	Passed - 55%

LOADING

Type	Start Loc	End Loc	Source	Face	Dead (D)	Live (L)	Snow (S)	Roof Live (Lr)	Wind (W)
Self Weight	0'	13'- 8 1/4"	Self Weight	Top	13 lb/ft	-	-	-	-
Uniform	0'	13'- 8 1/4"	FC1 Floor Decking (Plan View Fill)	Top	11 lb/ft	43 lb/ft	-	-	-
Uniform	-0'	13'- 4 3/4"	E18(i27)	Top	65 lb/ft	-	-	-	-
Uniform	0'- 8 1/2"	2'- 1/2"	E18(i27)	Top	322 lb/ft	-	236 lb/ft	341 lb/ft	112 lb/ft
Uniform	2'- 8 1/2"	4'- 1/2"	E18(i27)	Top	320 lb/ft	-	233 lb/ft	337 lb/ft	110 lb/ft
Uniform	4'- 8 1/2"	6'- 1/2"	E18(i27)	Top	290 lb/ft	-	191 lb/ft	278 lb/ft	91 lb/ft
Uniform	6'- 8 1/2"	8'- 1/2"	E18(i27)	Top	260 lb/ft	-	150 lb/ft	217 lb/ft	71 lb/ft
Uniform	8'- 8 1/2"	10'- 1/2"	E18(i27)	Top	537 lb/ft	-	309 lb/ft	467 lb/ft	150 lb/ft
Uniform	10'- 8 1/2"	12'- 1/2"	E18(i27)	Top	49 lb/ft	-	47 lb/ft	68 lb/ft	25 lb/ft
Point	1'- 4 1/2"	1'- 4 1/2"	E18(i27)	Top	-	-	-	-	-787 lb
Point	3'- 4 1/2"	3'- 4 1/2"	E18(i27)	Top	-	-	-	-	-767 lb
Point	5'- 4 1/2"	5'- 4 1/2"	E18(i27)	Top	-	-	-	-	-639 lb
Point	7'- 4 1/2"	7'- 4 1/2"	E18(i27)	Top	-	-	-	-	-508 lb
Point	9'- 4 1/2"	9'- 4 1/2"	E18(i27)	Top	-	-	-	-23 lb	-837 lb
Point	11'- 4 1/2"	11'- 4 1/2"	E18(i27)	Top	-	-	-	-	-203 lb
Point	13'- 6 1/2"	13'- 6 1/2"	E19(i29)	Top	198 lb	-	80 lb	123/-10 lb	37/-179 lb

UNFACTORED REACTIONS

ID	Start Loc	End Loc	Source	Dead (D)	Live (L)	Snow (S)	Roof Live (Lr)	Wind (W)
1	0'	0'- 3 1/2"	1(i18)	1961 lb	294 lb	917 lb	1335/-7 lb	572 lb/ -2538 lb
2	13'- 4 3/4"	13'- 8 1/4"	E6(i3)	1811 lb	294 lb	727 lb	1077/-26 lb	572 lb/ -2538 lb

DESIGN NOTES

- The dead loads used in the design of this member were applied to the structure as projected dead loads.
- Analysis and Design has been performed using precision loading from actual modeled conditions. Some loads may have been modified to simplify reporting.
- Tributary Loads have been generated based on actual spacing between members in the model which may differ from the default system spacing. The actual loads applied to the member are shown in the Specified Loads table.
- 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.
- Review all loads and reactions to ensure that the member/bearing/connector/structure can resist adequately. Unless already specified on this report, anchorage for uplift reactions to be specified by others. Installation of member and accessories (if required) as per manufacturer's instruction.
- Beam Stability Factor used in the calculation for Allowable Max Pos Moment (CL) = 1.00

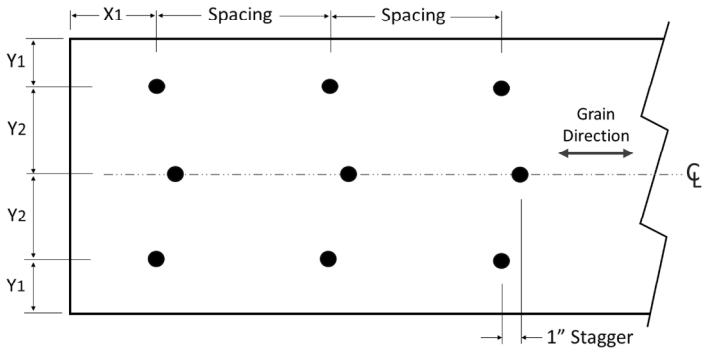
PLY TO PLY CONNECTION

MiTek	Customer: Street 1: City: Customer Ph...	Job Name: **A** Level: **1st FLOOR** Label: **FB2-2 - i47** Type: **Beam**	**2 Ply Member** **2.0 RigidLam DF LVL 1-3/4 x 14**	Status: **Design Passed**

PLY TO PLY CONNECTION

- Zone A: Factored load = 0 plf. Use 12d (0.148"x3.25") nails. LDF = 1.00. Qty = 42. Row = 3, Spacing = 12"
  12d (0.148"x3.25") nails properties: D = 0.148" , L = 3.25". Fastener capacity = 117 lbs. X1 = 2.25" , Y1 = 0.75", Y2 = 1.5"
  Install fasteners from one face.
  X1 = Minimum end distance, X2 = Minimum edge distance, Y2 = Minimum row spacing.

FASTENER INSTALLATION – 3 ROWS (FROM ONE FACE)

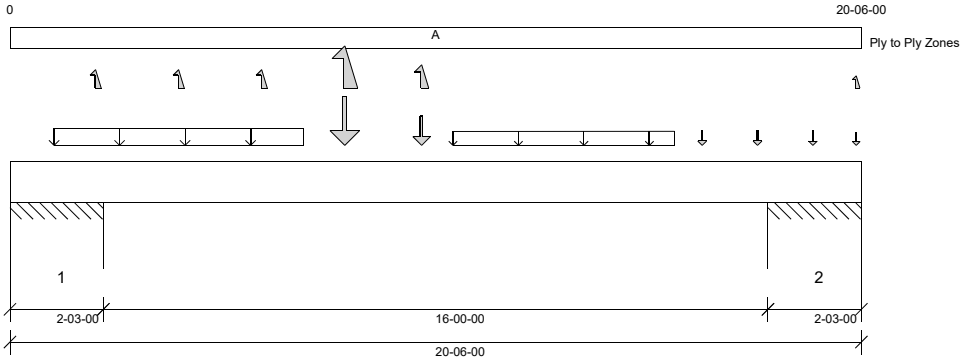


MiTek	Customer: Street 1: City: Customer Ph...	Job Name: **A** Level: **1st FLOOR** Label: **DB1-2 - i51** Type: **Beam**	**2 Ply Member** **2.1 RigidLam SP LVL 1-3/4 x 11-7/8**	Status: **Design Passed**

Illustration Not to Scale. Pitch: 0/12

Designed by Single Member Design Engine in MiTek® Structure Version 8.7.3.303.Update13.26

Report Version: 2023.09.18 10/08/2025 15:56



DESIGN INFORMATION a

Building Code:	IRC 2021
Design Methodology:	ASD
Risk Category:	II (General Construction) Residential
Service Condition:	Dry
System Spacing:	-
LL Deflection Limit:	L/360, 0.75" (absolute)
TL Deflection Limit:	L/240, 1.00" (absolute)

Lateral Restraint Requirements:

Both ends of the member and the outer supports must be laterally restrained. Top and bottom edges of the member must be fully restrained or have the following maximum unbraced length:

Top: 10'- 6" Bottom: 20'- 6"

Bearing Stress of Support Material:

- 725 psi Wall @ 0'- 1 1/2"
- 725 psi Wall @ 2'- 1 1/2"
- 725 psi Wall @ 18'- 4 1/2"
- 725 psi Wall @ 20'- 4 1/2"

ANALYSIS RESULTS

Design Criteria	Location	Load Combination	LDF	Design	Limit	Result
Max Pos. Moment:	9'- 10 1/4"	D + 0.75(L + Lr)	1.15	1658 lb ft	22719 lb ft	Passed - 7%
Max Neg. Moment:	2'- 1 1/2"	D + 0.75(L + Lr + 0.6W)	1.60	2549 lb ft	18716 lb ft	Passed - 14%
Max Shear:	3'- 2 7/8"	D + Lr	1.15	809 lb	9241 lb	Passed - 9%
Live Load (LL) Pos. Defl.:	9'- 8 7/8"	0.75(L + Lr + 0.6W)		0.028"	L/360	Passed - L/999
Total Load (TL) Pos. Defl.:	9'- 9 7/8"	D + 0.75(L + Lr + 0.6W)		0.053"	L/240	Passed - L/999

SUPPORT AND REACTION INFORMATION

ID	Input Bearing Length	Controlling Load Combination	LDF	Downward Reaction	Uplift Reaction	Resistance of Member	Resistance of Support	Result
1	9-08	0.6D + 0.6W	1.60	451 lb		24938 lb	24106 lb	Passed - 2%
1	9-08	D + 0.75(L + Lr + 0.6W)	1.60		-1259 lb	-	-	
1	1-05-08	D + 0.75(L + Lr + 0.6W)	1.60	2323 lb		45938 lb	44406 lb	Passed - 5%
1	1-05-08	0.6D + 0.6W	1.60		-811 lb	-	-	
2	1-04-00	D + L	1.00	1435 lb		42000 lb	40600 lb	Passed - 4%
2	1-04-00	0.6D + 0.6W	1.60		-201 lb	-	-	
2	11-00	0.6D + 0.6W	1.60	200 lb		28875 lb	27913 lb	Passed - 1%
2	11-00	D + 0.75(L + Lr + 0.6W)	1.60		-972 lb	-	-	

LOADING

Type	Start Loc	End Loc	Source	Face	Dead (D)	Live (L)	Snow (S)	Roof Live (Lr)	Wind (W)
Self Weight	0'	20'- 6"	Self Weight	Top	11 lb/ft	-	-	-	-
Uniform	1'- 3/4"	7'- 3/4"	Smoothed Load	Top	29 lb/ft	-	28 lb/ft	41 lb/ft	18 lb/ft
Tapered	10'- 8"	16'	Smoothed Load	Top	16 lb/ft	25 To 28 lb/ft	-	-	-
Point	2'- 3/4"	2'- 3/4"	D02(c02)	Top	-	-	-	-	-146 lb
Point	4'- 3/4"	4'- 3/4"	D02(c01)	Top	-	-	-	-	-146 lb
Point	6'- 3/4"	6'- 3/4"	D02(c03)	Top	-	-	-	-	-146 lb
Point	8'- 3/4"	8'- 3/4"	D02(c04)	Top	180 lb	-	224 lb	323 lb	141/-706 lb
Point	9'- 10 15/16"	9'- 10 15/16"	-	Top	177 lb	139/-1 lb	28 lb	41 lb	14/-259 lb
Point	16'- 8"	16'- 8"	FW10(c01)	Top	21 lb	35 lb	-	-	-
Point	18'	18'	FW10(c01)	Top	21 lb	35 lb	-	-	-
Point	19'- 4"	19'- 4"	FW10(c01)	Top	19 lb	30 lb	-	-	-
Point	20'- 4 1/2"	20'- 4 1/2"	FW10(c01)	Top	8 lb	12/-1 lb	-	-	-

UNFACTORED REACTIONS

ID	Start Loc	End Loc	Source	Dead (D)	Live (L)	Snow (S)	Roof Live (Lr)	Wind (W)
1	0'	2'- 3"	E20(i48)	1118/-606 lb	320/-212 lb	683/-360 lb	987/-520 lb	261 lb/ -1112 lb
==>	0'- 1 1/2"	0'- 1 1/2"	E20(i48)	-606 lb	1/-211 lb	-360 lb	-520 lb	-
==>	2'- 1 1/2"	2'- 1 1/2"	E20(i48)	1118 lb	319/-1 lb	683 lb	987 lb	-
2	18'- 3"	20'- 6"	E8(i12)	897/-497 lb	579/-297 lb	301/-204 lb	435/-295 lb	261 lb/ -1112 lb
==>	18'- 4 1/2"	18'- 4 1/2"	E8(i12)	897 lb	553/-1 lb	301 lb	435 lb	-
==>	20'- 4 1/2"	20'- 4 1/2"	E8(i12)	-497 lb	26/-296 lb	-204 lb	-295 lb	-

DESIGN 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.
- Analysis and Design has been performed using precision loading from actual modeled conditions. Some loads may have been modified to simplify reporting.
- Tributary Loads have been generated based on actual spacing between members in the model which may differ from the default system spacing. The actual loads applied to the member are shown in the Specified Loads table.
- 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.
- Review all loads and reactions to ensure that the member/bearing/connector/structure can resist adequately. Unless already specified on this report, anchorage for uplift reactions to be specified by others. Installation of member and accessories (if required) as per manufacturer's instruction.

MiTek	Customer: Street 1: City: Customer Ph...	Job Name: **A** Level: **1st FLOOR** Label: **DB1-2 - i51** Type: **Beam**	**2 Ply Member** **2.1 RigidLam SP LVL 1-3/4 x 11-7/8**	Status: **Design Passed**

- Beam Stability Factor used in the calculation for Allowable Max Pos Moment (CL) = 0.85

PLY TO PLY CONNECTION

- Zone A: Factored load = 0 plf. Use 12d (0.148"x3.25") nails. LDF = 1.00. Qty = 42. Row = 2, Spacing = 12"
  12d (0.148"x3.25") nails properties: D = 0.148" , L = 3.25". Fastener capacity = 128 lbs. X1 = 2.25" , Y1 = 0.75", Y2 = 1.5"
  Install fasteners from one face.
  X1 = Minimum end distance, X2 = Minimum edge distance, Y2 = Minimum row spacing.

FASTENER INSTALLATION – 2 ROWS (FROM ONE FACE)