

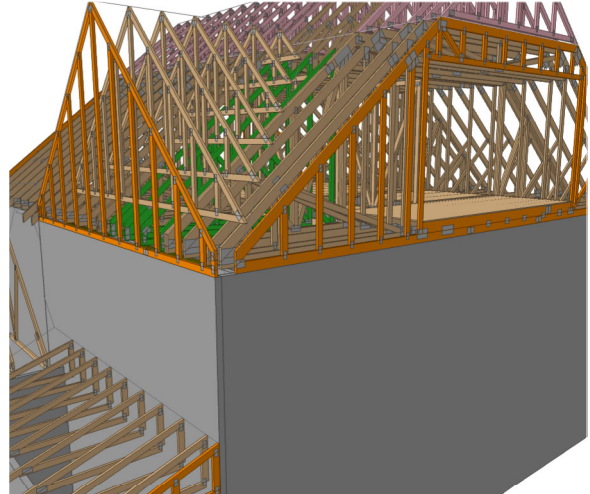


Carter Sanford Component Plant
298 Harvey Faulk Rd
Sanford, NC 27332

Phone #:919-775-1450

Builder: HH Hunt Homes Raleigh
Durham

Model: Greystone FA SP 3FL 3CG FE
GLH



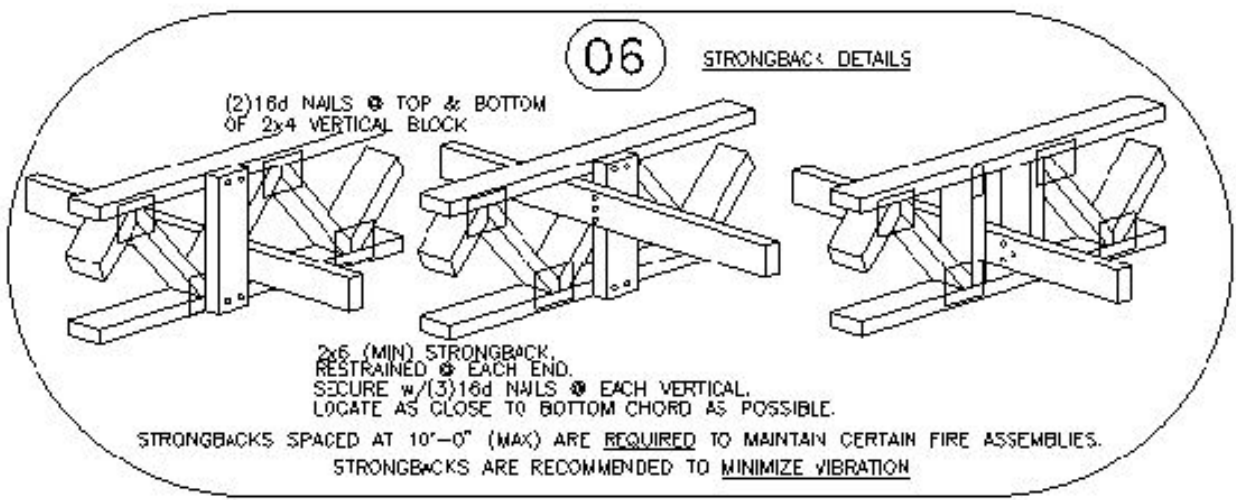
THE PLACEMENT PLAN NOTES:

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: _____

ALL BEARING POINTS MUST BE INSTALLED PRIOR TO SETTING ANY COMPONENTS



TRUSS TO TRUSS CONNECTIONS ARE TOE-NAILED, UNLESS NOTED OTHERWISE

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

Trenco
818 Soundside Rd
Edenton, NC 27932

Re: 25030054-A
Install 50 Magnolia Acres-Crawl-Greystone FA SP 3FL 3CG FE GLH

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

Pages or sheets covered by this seal: I72118827 thru I72118839

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

North Carolina COA: C-0844



March 20,2025

Gilbert, Eric

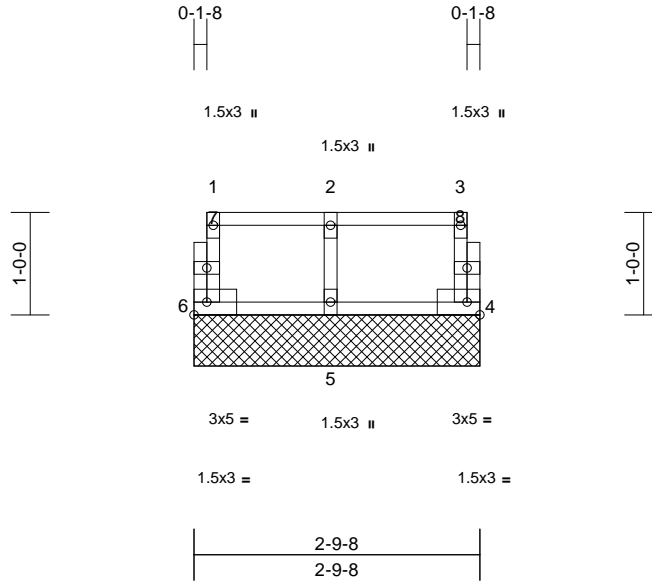
IMPORTANT NOTE: The seal on these truss component designs is a certification that the engineer named is licensed in the jurisdiction(s) identified and that the designs comply with ANSI/TPI 1. These designs are based upon parameters shown (e.g., loads, supports, dimensions, shapes and design codes), which were given to MiTek or TRENCO. Any project specific information included is for MiTek's or TRENCO's customers file reference purpose only, and was not taken into account in the preparation of these designs. MiTek or 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.

Job	Truss	Truss Type	Qty	Ply	Install 50 Magnolia Acres-Crawl-Greystone FA SP 3FL I72118827
25030054-A	FW02	Floor Supported Gable	1	1	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. Tue Mar 18 13:26:13
ID:tHjHbFIVHNji_WWi_YXNCFzXiQ8-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

Page: 1



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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	0.17	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	NO	WB	0.06	Horiz(TL)	0.00	4	n/a	n/a		
BCDL	5.0	Code	IRC2018/TPI2014	Matrix-MR							Weight: 13 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 2-9-8 oc purlins, except end verticals.
BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS	(size)	4=2-9-8, 5=2-9-8, 6=2-9-8
	Max Grav	4=119 (LC 1), 5=260 (LC 1), 6=106 (LC 1)

FORCES	(lb) - Maximum Compression/Maximum Tension
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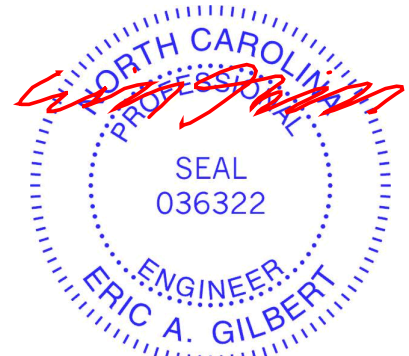
TOP CHORD	1-6=-99/0, 3-4=-114/0, 1-2=-27/0, 2-3=-27/0
BOT CHORD	5-6=0/27, 4-5=0/27
WEBS	2-5=-250/0

NOTES

- Gable requires continuous bottom chord bearing.
- Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
- Gable studs spaced at 1-4-0 oc.
- All bearings are assumed to be SP No.2.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- Load case(s) 1 has/have been modified. Building designer must review loads to verify that they are correct for the intended use of this truss.
- 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

- Dead + Floor Live (balanced): Lumber Increase=1.00, Plate Increase=1.00
Uniform Loads (lb/ft)
Vert: 4-6=-10, 1-3=-190



March 20,2025

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 BEFORE USE.

Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI1 Quality Criteria and DSB-22** available from Truss Plate Institute (www.tpinst.org) and **BCSI Building Component Safety Information** available from the Structural Building Component Association (www.sbcacompnents.com)

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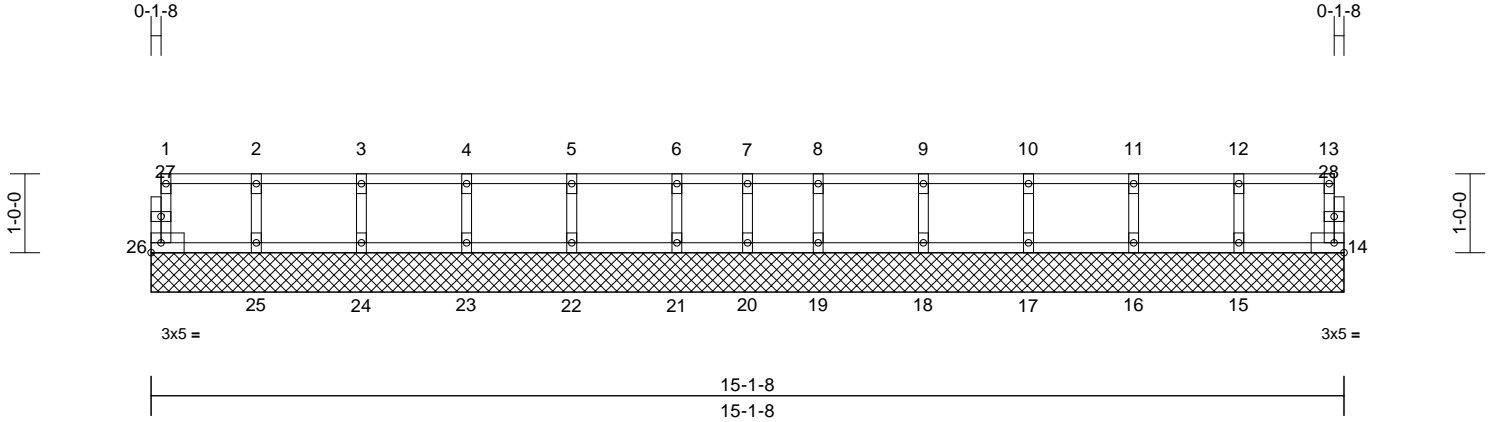
818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Install 50 Magnolia Acres-Crawl-Greystone FA SP 3FL I72118828
25030054-A	F108	Floor Supported Gable	1	1	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. Tue Mar 18 13:26:13
ID:X8VgEzJMRWWAVa2YhCLA3yzXiPQ-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

Page: 1



Scale = 1:29.2

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	0.17	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.02	n/a	-	n/a	999		
BCLL	0.0	Rep Stress Incr	NO	WB	0.06	Horiz(TL)	0.00	14	n/a		
BCDL	5.0	Code	IRC2018/TPI2014	Matrix-MR						Weight: 61 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)	14=15-1-8, 15=15-1-8, 16=15-1-8, 17=15-1-8, 18=15-1-8, 19=15-1-8, 20=15-1-8, 21=15-1-8, 22=15-1-8, 23=15-1-8, 24=15-1-8, 25=15-1-8, 26=15-1-8
	Max Grav	14=101 (LC 1), 15=260 (LC 1), 16=269 (LC 1), 17=264 (LC 1), 18=274 (LC 1), 19=233 (LC 1), 20=146 (LC 1), 21=233 (LC 1), 22=274 (LC 1), 23=264 (LC 1), 24=269 (LC 1), 25=260 (LC 1), 26=101 (LC 1)

FORCES

	(lb) - Maximum Compression/Maximum Tension
TOP CHORD	1-26=-97/0, 13-14=-97/0, 1-2=-21/0, 2-3=-21/0, 3-4=-21/0, 4-5=-21/0, 5-6=-21/0, 6-7=-21/0, 7-8=-21/0, 8-9=-21/0, 9-10=-21/0, 10-11=-21/0, 11-12=-21/0, 12-13=-21/0
BOT CHORD	25-26=0/21, 24-25=0/21, 23-24=0/21, 22-23=0/21, 21-22=0/21, 20-21=0/21, 19-20=0/21, 18-19=0/21, 17-18=0/21, 16-17=0/21, 15-16=0/21, 14-15=0/21
WEBS	2-25=-247/0, 3-24=-256/0, 4-23=-251/0, 5-22=-260/0, 6-21=-222/0, 12-15=-247/0, 11-16=-256/0, 10-17=-251/0, 9-18=-260/0, 8-19=-222/0, 7-20=-139/0

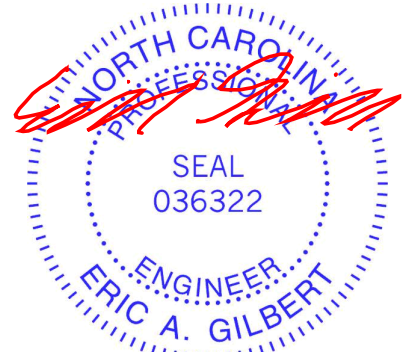
NOTES

- All plates are 1.5x3 MT20 unless otherwise indicated.
- Gable requires continuous bottom chord bearing.

- Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
- Gable studs spaced at 1-4-0 oc.
- All bearings are assumed to be SP No.2 .
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- Load case(s) 1 has/have been modified. Building designer must review loads to verify that they are correct for the intended use of this truss.
- 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

- Dead + Floor Live (balanced): Lumber Increase=1.00, Plate Increase=1.00
Uniform Loads (lb/ft)
Vert: 14-26=-10, 1-13=-190



March 20,2025

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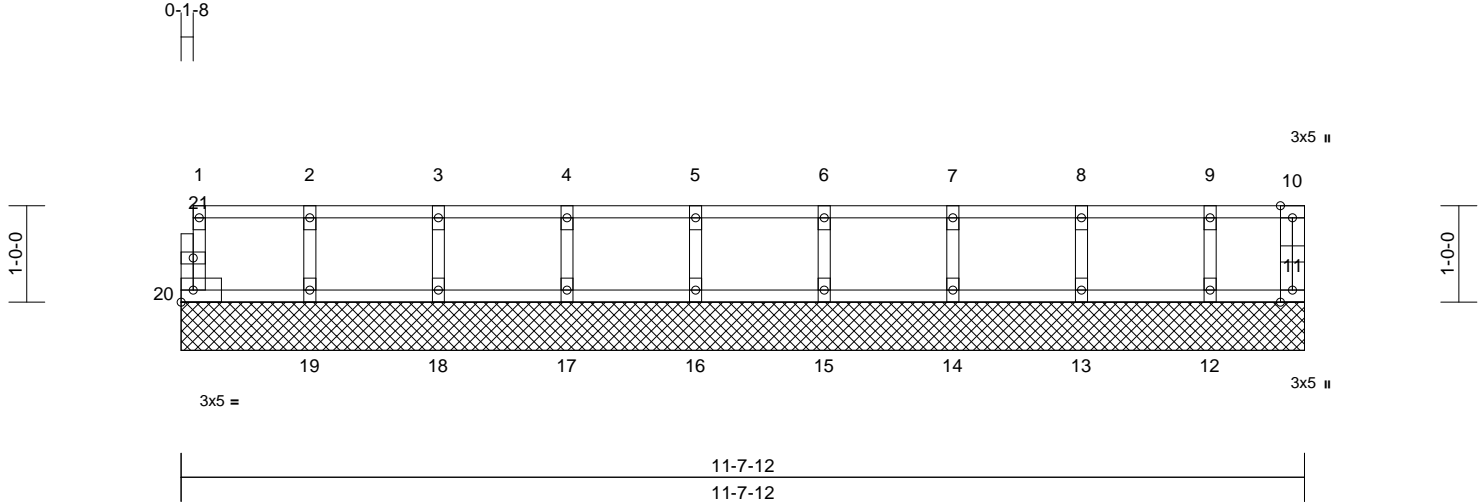
818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Install 50 Magnolia Acres-Crawl-Greystone FA SP 3FL I72118829
25030054-A	FW11	Floor Supported Gable	1	1	Job Reference (optional)

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

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Page: 1



Scale = 1:23.9

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	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.01	n/a	-	n/a	999		
BCLL	0.0	Rep Stress Incr	YES	WB	0.03	Horiz(TL)	0.00	11	n/a		
BCDL	5.0	Code	IRC2021/TPI2014	Matrix-MR						Weight: 48 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)

- 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.
- CAUTION, Do not erect truss backwards.

LOAD CASE(S) Standard

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=11-7-12, 12=11-7-12,
13=11-7-12, 14=11-7-12,
15=11-7-12, 16=11-7-12,
17=11-7-12, 18=11-7-12,
19=11-7-12, 20=11-7-12
Max Grav 11=42 (LC 1), 12=121 (LC 1),
13=152 (LC 1), 14=145 (LC 1),
15=147 (LC 1), 16=147 (LC 1),
17=147 (LC 1), 18=147 (LC 1),
19=147 (LC 1), 20=53 (LC 1)

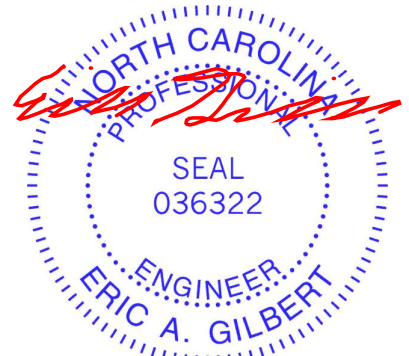
FORCES

(lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-20=-50/0, 10-11=-35/0, 1-2=-8/0, 2-3=-8/0,
3-4=-8/0, 4-5=-8/0, 5-6=-8/0, 6-7=-8/0,
7-8=-8/0, 8-9=-8/0, 9-10=-8/0
BOT CHORD 19-20=0/8, 18-19=0/8, 17-18=0/8, 16-17=0/8,
15-16=0/8, 14-15=0/8, 13-14=0/8, 12-13=0/8,
11-12=0/8
WEBS 2-19=-132/0, 3-18=-134/0, 4-17=-133/0,
5-16=-133/0, 6-15=-134/0, 7-14=-132/0,
8-13=-138/0, 9-12=-113/0

NOTES

- All plates are 1.5x3 MT20 unless otherwise indicated.
- Gable requires continuous bottom chord bearing.
- Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
- Gable studs spaced at 1-4-0 oc.
- All bearings are assumed to be SP No.2 .



March 20,2025

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 BEFORE USE.

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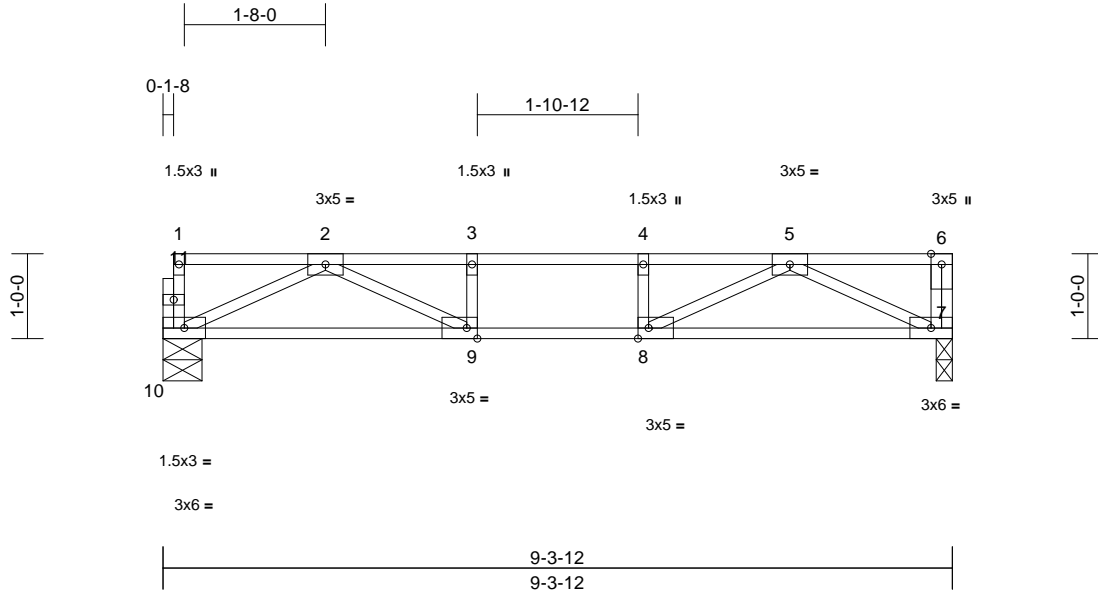
818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Install 50 Magnolia Acres-Crawl-Greystone FA SP 3FL I72118830
25030054-A	F104	Floor	1	1	Job Reference (optional)

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

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Page: 1



Scale = 1:27.2

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	0.36	Vert(LL)	-0.07	9-10	>999	480	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.43	Vert(CT)	-0.09	9-10	>999	360		
BCLL	0.0	Rep Stress Incr	YES	WB	0.26	Horz(CT)	0.01	7	n/a	n/a		
BCDL	5.0	Code	IRC2021/TPI2014	Matrix-MSH							Weight: 45 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) 7=0-2-5, 10=0-5-8
Max Grav 7=498 (LC 1), 10=492 (LC 1)

FORCES (lb) - Maximum Compression/Maximum
Tension

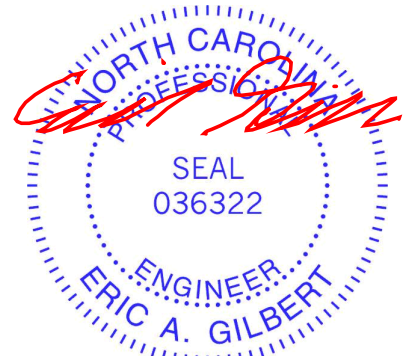
TOP CHORD 1-10=-72/0, 6-7=-74/0, 1-2=-5/0, 2-3=-1260/0,
3-4=-1260/0, 4-5=-1260/0, 5-6=0/0

BOT CHORD 9-10=0/833, 8-9=0/1260, 7-8=0/835
WEBS 5-7=-930/0, 2-10=-922/0, 5-8=0/544,
2-9=0/545, 4-8=-188/0, 3-9=-189/0

NOTES

- 1) Unbalanced floor live loads have been considered for this design.
- 2) All bearings are assumed to be SP No.2 .
- 3) Provide mechanical connection (by others) of truss to bearing plate at joint(s) 7.
- 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.
- 5) CAUTION, Do not erect truss backwards.

LOAD CASE(S) Standard



March 20,2025

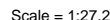
WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 BEFORE USE.

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ENGINEERING BY
TRENCO
A MITEK Affiliate

818 Soundside Road
Edenton, NC 27932

Carter Components (Sanford, NC), Sanford, NC - 27332, Run: 8.73 S Feb 19 2025 Print: 8.730 S Feb 19 2025 MiTek Industries, Inc. Tue Mar 18 13:26:13 Page: 1
ID:LR1FVO1liGFazxFdmKaz2wzrQXZ-RfC?PsB70Ha3NSaPqnL8w3ulTXbGKWrCDoi7J4zJC?i



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	0.21	Vert(LL)	-0.01	8-9	>999	480	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.17	Vert(CT)	-0.02	8-9	>999	360		
BCLL	0.0	Rep Stress Incr	YES	WB	0.13	Horz(CT)	0.00	8	n/a	n/a		
BCDL	5.0	Code	IRC2021/TPI2014	Matrix-MSH							Weight: 49 lb	FT = 20%F, 11%E

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)

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, Except: 6-0-0 oc bracing: 11-12.

Max Grav 8=268 (LC 4), 11=555 (LC 7),
13=220 (LC 8)

Tension

TOP CHORD 1-13=-69/0, 7-8=-83/0, 1-2=-5/0, 2-3=-163/59,
3-4=-163/59, 4-5=-37/173, 5-6=-370/0,
6-7=0/0

BOT CHORD 12-13=0/286, 11-12=-173/37, 10-11=0/370,
9-10=0/370, 8-9=0/370

WEBS 4-11=-370/0, 5-11=-463/0, 6-8=-409/0,
5-10=0/43, 6-9=-10/18, 2-13=-313/0,
2-12=-262/0, 3-12=-133/39, 4-12=0/28

- 1) Unbalanced floor live loads have been considered for this design.
- 2) All bearings are assumed to be SP No.2 .
- 3) Provide mechanical connection (by others) of truss to bearing plate at joint(s) 8.
- 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.
- 5) CAUTION. Do not erect truss backwards.

 WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 BEFORE USE.

Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TP1 Quality Criteria and DSB-22** available from Truss Plate Institute (www.tpinst.org) and **BCSI Building Component Safety Information** available from the Structural Building Components Association (www.sbcacomponents.com)

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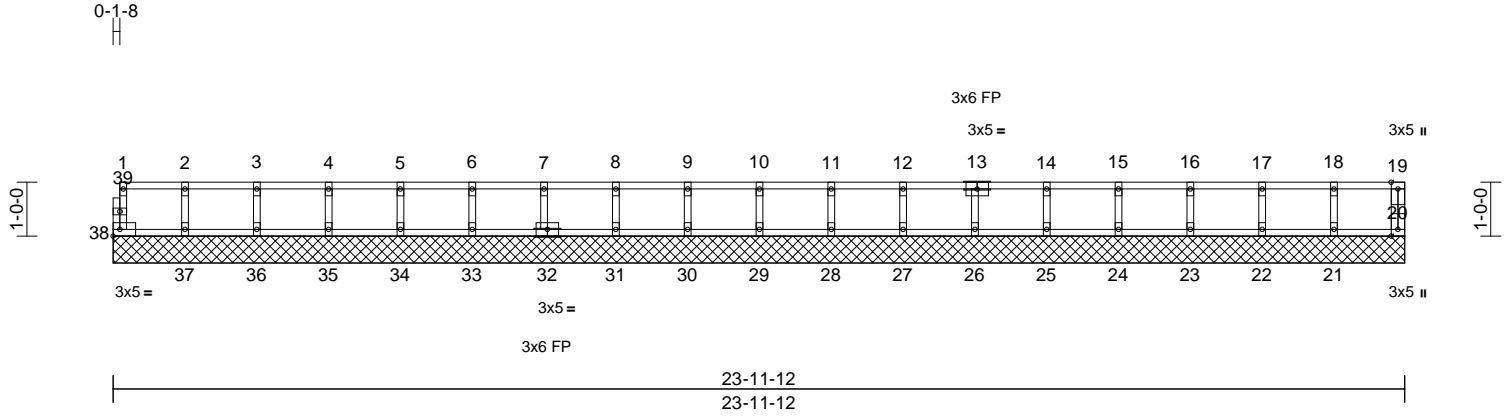
818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Install 50 Magnolia Acres-Crawl-Greystone FA SP 3FL I72118832
25030054-A	FW23	Floor Supported Gable	1	1	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. Tue Mar 18 13:26:13
ID:Ax1fbV8NHEjvOwi6cypJE6zrQW8-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrcDoi7J4zJC?f

Page: 1



Scale = 1:42.8

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	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.01	n/a	-	n/a	999		
BCLL	0.0	Rep Stress Incr	YES	WB	0.03	Horiz(TL)	0.00	20	n/a		
BCDL	5.0	Code	IRC2021/TPI2014	Matrix-MR						Weight: 94 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)
20=23-11-12, 21=23-11-12,
22=23-11-12, 23=23-11-12,
24=23-11-12, 25=23-11-12,
26=23-11-12, 27=23-11-12,
28=23-11-12, 29=23-11-12,
30=23-11-12, 31=23-11-12,
32=23-11-12, 33=23-11-12,
34=23-11-12, 35=23-11-12,
36=23-11-12, 37=23-11-12,
38=23-11-12
Max Grav 20=59 (LC 1), 21=144 (LC 1),
22=148 (LC 1), 23=146 (LC 1),
24=148 (LC 1), 25=143 (LC 1),
26=147 (LC 1), 27=150 (LC 1),
28=146 (LC 1), 29=147 (LC 1),
30=147 (LC 1), 31=146 (LC 1),
32=147 (LC 1), 33=147 (LC 1),
34=147 (LC 1), 35=146 (LC 1),
36=148 (LC 1), 37=142 (LC 1),
38=57 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-38=-52/0, 19-20=-54/0, 1-2=-13/0,
2-3=-13/0, 3-4=-13/0, 4-5=-13/0, 5-6=-13/0,
6-7=-13/0, 7-8=-3/0, 8-9=-3/0, 9-10=-3/0,
10-11=-3/0, 11-12=-3/0, 12-14=-10/0,
14-15=-10/0, 15-16=-10/0, 16-17=-10/0,
17-18=-10/0, 18-19=-10/0

BOT CHORD 37-38=0/13, 36-37=0/13, 35-36=0/13,
34-35=0/13, 33-34=0/13, 31-33=0/13,
30-31=0/3, 29-30=0/3, 28-29=0/3, 27-28=0/3,
26-27=0/3, 25-26=0/10, 24-25=0/10,
23-24=0/10, 22-23=0/10, 21-22=0/10,
20-21=0/10
WEBS 2-37=-129/0, 3-36=-134/0, 4-35=-133/0,
5-34=-133/0, 6-33=-133/0, 7-32=-134/0,
8-31=-133/0, 9-30=-133/0, 10-29=-134/0,
11-28=-132/0, 12-27=-137/0, 13-26=-134/0,
14-25=-130/0, 15-24=-134/0, 16-23=-133/0,
17-22=-134/0, 18-21=-130/0

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) All bearings are assumed to be SP No.2.
6) 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.
7) CAUTION, Do not erect truss backwards.

LOAD CASE(S) Standard



March 20,2025

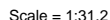
WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 BEFORE USE.

Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI1 Quality Criteria and DSB-22** available from Truss Plate Institute (www.tpinst.org) and **BCSI Building Component Safety Information** available from the Structural Building Component Association (www.sbcacompnents.com)

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Edenton, NC 27932

Carter Components (Sanford, NC), Sanford, NC - 27332, Run: 8.73 S Feb 19 2025 Print: 8.730 S Feb 19 2025 MiTek Industries, Inc. Tue Mar 18 13:26:13 Page: 1
ID:P70CLyqh9YaSu4HJeBsSirzrQWX-RfC?PsB70Hq3NSqPanL8w3ulTXbGKWrCDoi7J4zJC?f



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	0.76	Vert(LL)	-0.19	11-12	>717	480	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.66	Vert(CT)	-0.26	11-12	>522	360		
BCLL	0.0	Rep Stress Incr	YES	WB	0.37	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

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

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.

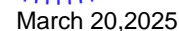
Max Grav 9=614 (LC 1), 16=620 (LC 1)

TOP CHORD 1-16=-46/31, 8-9=-33/46, 1-2=0/0,
2-3=-1345/0, 3-4=-1345/0, 4-5=-2041/0,
5-6=-1392/0, 6-7=-1392/0, 7-8=-2/3

WEBS 4-13=0/168, 5-12=-3/157, 4-14=-833/0,
2-16=-1488/0, 2-15=0/302, 3-14=-6/134,
5-11=-781/0, 7-9=-1538/0, 6-11=-21/125,
7-10=0/305

- 1) Unbalanced floor live loads have been considered for this design.
- 2) All plates are 1.5x3 MT20 unless otherwise indicated.
- 3) All bearings are assumed to be SP 2400F 2.0E .
- 4) Provide mechanical connection (by others) of truss to bearing plate at joint(s) 16.
- 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



Design valid for use only with MiTeK® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI1 Quality Criteria and DSB-22** available from Truss Plate Institute (www.tpinet.org) and **BCSI Building Component Safety Information** available from the Structural Building Components Association (www.sbcacomponents.com)



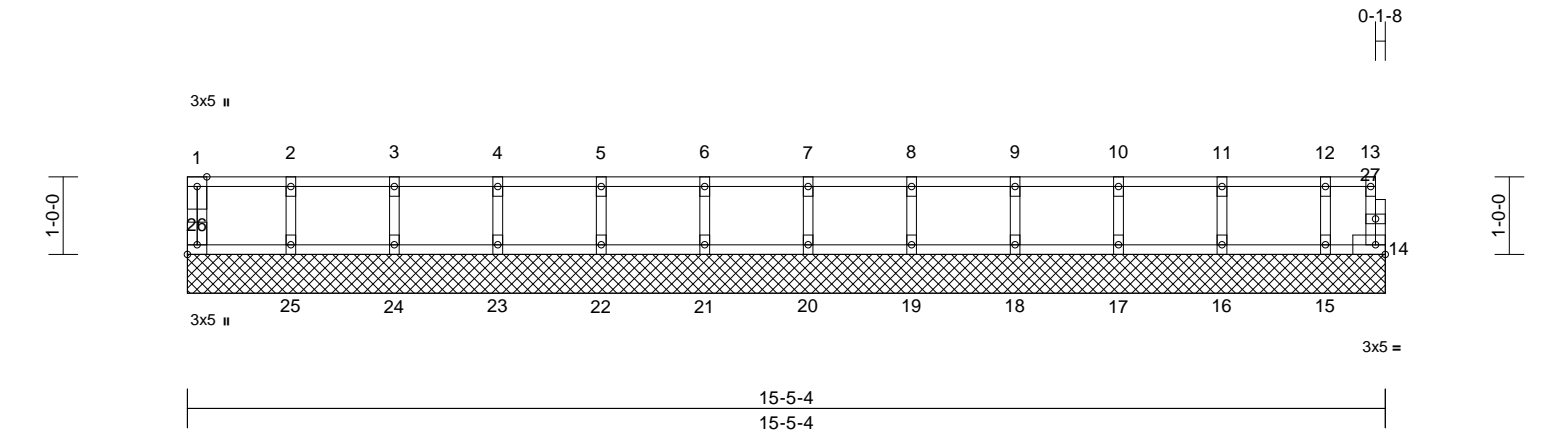
818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Install 50 Magnolia Acres-Crawl-Greystone FA SP 3FL I72118834
25030054-A	FW15A	Floor Supported Gable	2	1	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. Tue Mar 18 13:26:13
ID:IAo8I85sD?DUvJOLN6kN4GzrQWC-RfC?PsB70Hq3NSgPqnL8w3ulTXbGKWrcDoi7J4zJC?f

Page: 1



Scale = 1:29.7															
Plate Offsets (X, Y): [26: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	14	n/a	n/a		
BCDL		5.0	Code		IRC2021/TPI2014	Matrix-MR								Weight: 62 lb	FT = 20%F, 11%E

LUMBER		3) Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
TOP CHORD	2x4 SP No.2(flat)	4) Gable studs spaced at 1-4-0 oc.
BOT CHORD	2x4 SP No.2(flat)	5) All bearings are assumed to be SP No.2 .
WEBS	2x4 SP No.3(flat)	6) 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.
OTHERS	2x4 SP No.3(flat)	7) CAUTION, Do not erect truss backwards.
BRACING		LOAD CASE(S) Standard
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)		
14=15-5-4, 15=15-5-4, 16=15-5-4, 17=15-5-4, 18=15-5-4, 19=15-5-4, 20=15-5-4, 21=15-5-4, 22=15-5-4, 23=15-5-4, 24=15-5-4, 25=15-5-4, 26=15-5-4		
Max Grav		
14=22 (LC 1), 15=111 (LC 1), 16=153 (LC 1), 17=145 (LC 1), 18=147 (LC 1), 19=147 (LC 1), 20=147 (LC 1), 21=147 (LC 1), 22=147 (LC 1), 23=147 (LC 1), 24=146 (LC 1), 25=148 (LC 1), 26=58 (LC 1)		
FORCES (lb) - Maximum Compression/Maximum Tension		
TOP CHORD	1-26=-54/0, 13-14=-16/0, 1-2=-7/0, 2-3=-7/0, 3-4=-7/0, 4-5=-7/0, 5-6=-7/0, 6-7=-7/0, 7-8=-7/0, 8-9=-7/0, 9-10=-7/0, 10-11=-7/0, 11-12=-7/0, 12-13=-7/0	
BOT CHORD	25-26=0/7, 24-25=0/7, 23-24=0/7, 22-23=0/7, 21-22=0/7, 20-21=0/7, 19-20=0/7, 18-19=0/7, 17-18=0/7, 16-17=0/7, 15-16=0/7, 14-15=0/7	
WEBS	2-25=-133/0, 3-24=-134/0, 4-23=-133/0, 5-22=-133/0, 6-21=-133/0, 7-20=-133/0, 8-19=-133/0, 9-18=-134/0, 10-17=-132/0, 11-16=-139/0, 12-15=-105/0	

NOTES
1) All plates are 1.5x3 MT20 unless otherwise indicated.
2) Gable requires continuous bottom chord bearing.

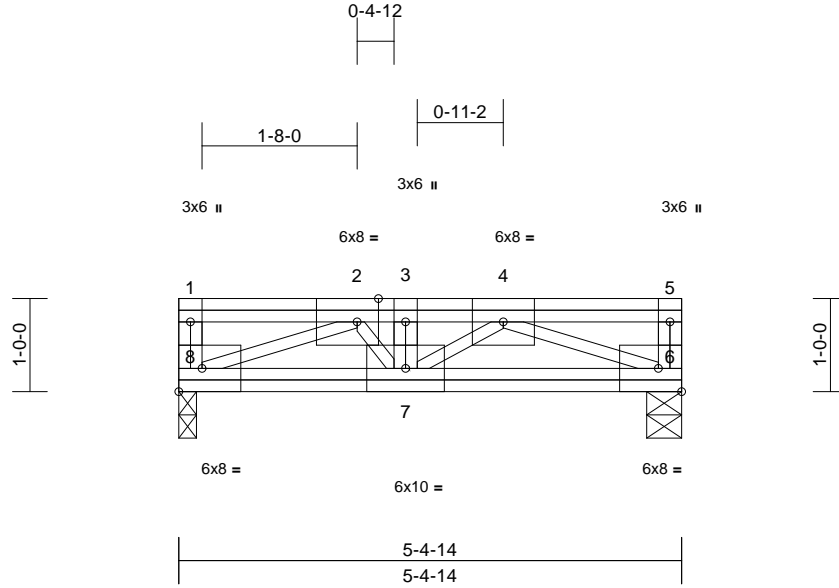
March 20,2025

Job	Truss	Truss Type	Qty	Ply	Install 50 Magnolia Acres-Crawl-Greystone FA SP 3FL
25030054-A	F106	Floor	2	1	I72118835
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. Tue Mar 18 13:26:13
ID:QtPmie6Uiwm9xll6bWLDUzrQbL-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

Page: 1



Scale = 1:24.8

Plate Offsets (X, Y): [2:0-2-12,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	0.40	Vert(LL)	-0.05	6-7	>999	480	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.74	Vert(CT)	-0.06	6-7	>985	360		
BCLL	0.0	Rep Stress Incr	NO	WB	0.92	Horz(CT)	0.01	6	n/a	n/a		
BCDL	5.0	Code	IRC2021/TPI2014	Matrix-MP							Weight: 44 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
5-4-14 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc
bracing.

REACTIONS (size) 6=0-4-8, 8=0-2-5
Max Grav 6=1405 (LC 1), 8=1662 (LC 1)

FORCES (lb) - Maximum Compression/Maximum
Tension

TOP CHORD 1-8=-117/0, 5-6=-97/0, 1-2=0/0, 2-3=-4398/0,
3-4=-4398/0, 4-5=0/0

BOT CHORD 7-8=0/3560, 6-7=0/3007

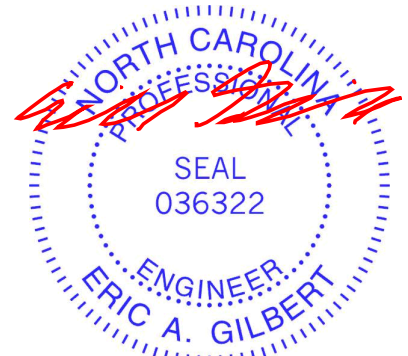
WEBS 4-6=-3260/0, 2-8=-3859/0, 3-7=-2253/0,
2-7=0/1469, 4-7=0/1709

NOTES

- All bearings are assumed to be SP No.2 .
- Provide mechanical connection (by others) of truss to bearing plate at joint(s) 8.
- 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

- Dead + Floor Live (balanced): Lumber Increase=1.00,
Plate Increase=1.00
Uniform Loads (lb/ft)
Vert: 6-8=-10, 1-5=-100
Concentrated Loads (lb)
Vert: 3=-2500



March 20,2025

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 BEFORE USE.

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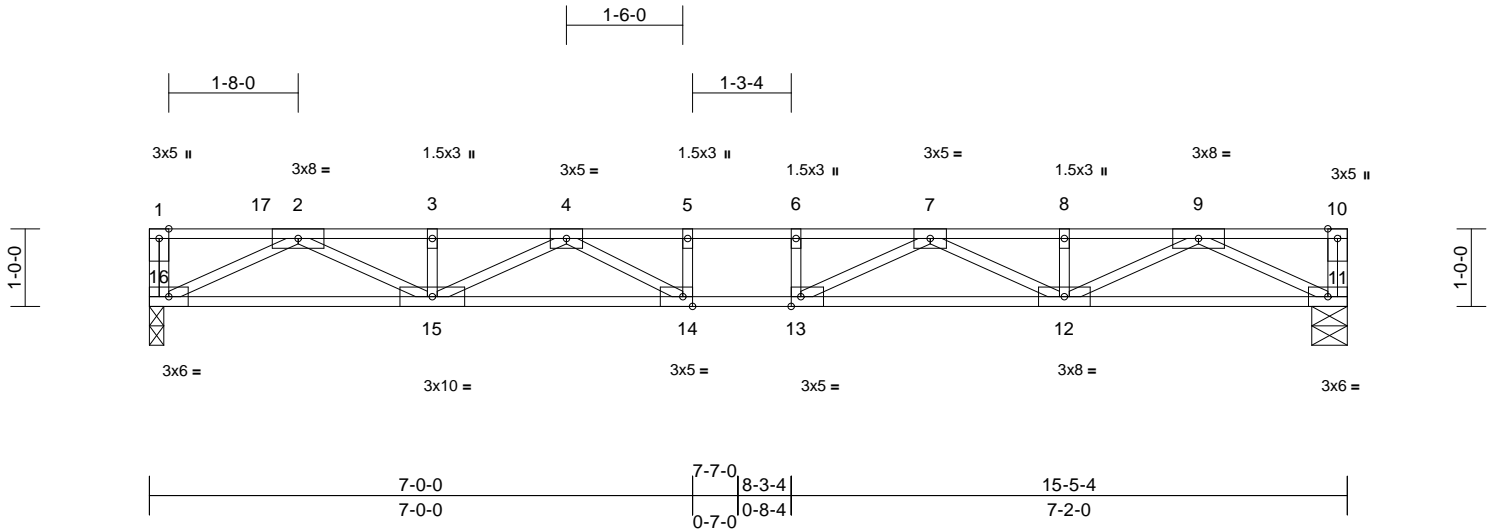
818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Install 50 Magnolia Acres-Crawl-Greystone FA SP 3FL
25030054-A	F102	Floor	7	1	I72118836
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. Tue Mar 18 13:26:12
ID:vh8iKsM5RZiYoa6v7ehNvczrQZk-RfC?PsB70Hq3NSgPqnL8w3ulTXbGKWrCDoi7J4zJC?f

Page: 1



Scale = 1:29.7

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	0.68	Vert(LL)	-0.25	13-14	>734	480	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.91	Vert(CT)	-0.39	14-15	>462	360		
BCLL	0.0	Rep Stress Incr	NO	WB	0.67	Horz(CT)	0.06	11	n/a	n/a		
BCDL	5.0	Code	IRC2021/TPI2014	Matrix-MSH							Weight: 76 lb	FT = 20%F, 11%E

LUMBER

TOP CHORD 2x4 SP No.2(flat)
BOT CHORD 2x4 SP No.1(flat)
WEBS 2x4 SP No.3(flat)

BRACING

TOP CHORD Structural wood sheathing directly applied or 5-8-14 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS

(size) 11=0-5-8, 16=0-2-3
Max Grav 11=887 (LC 1), 16=1109 (LC 1)

FORCES

(lb) - Maximum Compression/Maximum Tension

TOP CHORD

1-16=-103/0, 10-11=-74/0, 1-2=0/0,
2-3=-3276/0, 3-4=-3276/0, 4-5=-4043/0,
5-6=-4043/0, 6-7=-4043/0, 7-8=-2805/0,
8-9=-2805/0, 9-10=0/0

BOT CHORD

15-16=0/2024, 14-15=0/3865, 13-14=0/4043,
12-13=0/3590, 11-12=0/1629

WEBS

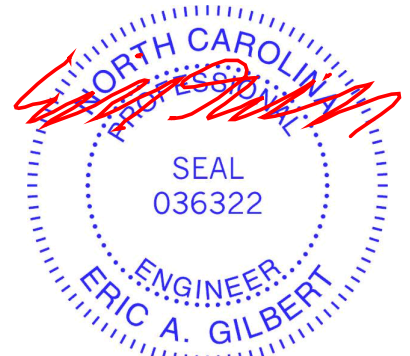
5-14=-158/17, 2-16=-2252/0, 2-15=0/1404,
3-15=-295/0, 9-11=-1813/0, 9-12=0/1319,
8-12=-164/0, 4-15=-659/0, 4-14=-176/460,
7-12=-879/0, 7-13=0/774, 6-13=-240/0

NOTES

- Unbalanced floor live loads have been considered for this design.
- All bearings are assumed to be SP No.1.
- Provide mechanical connection (by others) of truss to bearing plate at joint(s) 16.
- Load case(s) 1 has/have been modified. Building designer must review loads to verify that they are correct for the intended use of this truss.
- 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

- Dead + Floor Live (balanced): Lumber Increase=1.00,
Plate Increase=1.00
Uniform Loads (lb/ft)
Vert: 11-16=-10, 1-10=-100
Concentrated Loads (lb)
Vert: 3=-162, 17=-162



March 20,2025

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 BEFORE USE.

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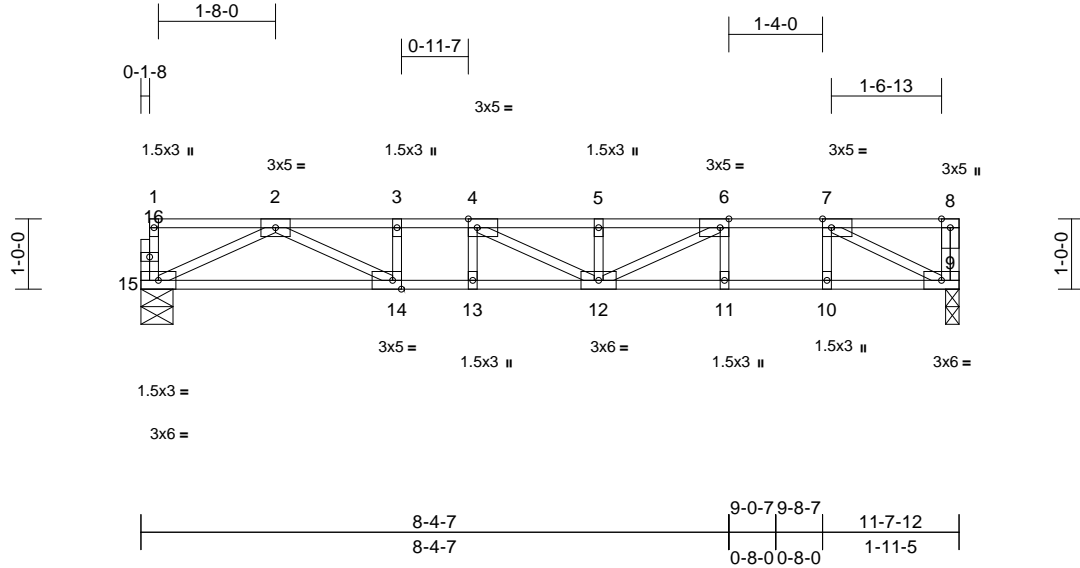
818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Install 50 Magnolia Acres-Crawl-Greystone FA SP 3FL I72118837
25030054-A	F103	Floor	8	1	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. Tue Mar 18 13:26:12
ID:dEv2q9iM3zsfDngRh9heSEzrQY_-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

Page: 1



Scale = 1:32.8

Plate Offsets (X, Y): [4:0-1-8,Edge], [6:0-1-8,Edge], [7:0-1-8,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	0.85	Vert(LL)	-0.19	11-12	>711	480	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.93	Vert(CT)	-0.26	11-12	>522	360		
BCLL	0.0	Rep Stress Incr	YES	WB	0.43	Horz(CT)	0.02	9	n/a	n/a		
BCDL	5.0	Code	IRC2021/TPI2014	Matrix-MSH							Weight: 58 lb	FT = 20%F, 11%E

LUMBER

TOP CHORD 2x4 SP No.2(flat)
BOT CHORD 2x4 SP No.1(flat)
WEBS 2x4 SP No.3(flat)
OTHERS 2x4 SP No.3(flat)

BRACING

TOP CHORD Structural wood sheathing directly applied or
5-3-4 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc
bracing, Except:
2-2-0 oc bracing: 11-12.

REACTIONS (size) 9=0-2-5, 15=0-5-8
Max Grav 9=627 (LC 1), 15=621 (LC 1)

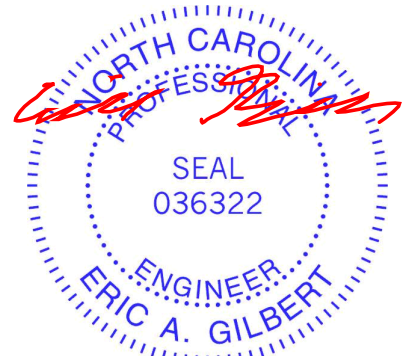
FORCES (lb) - Maximum Compression/Maximum
Tension

TOP CHORD 1-15=-76/0, 8-9=-17/56, 1-2=-5/0,
2-3=-1846/0, 3-4=-1846/0, 4-5=-2130/0,
5-6=-2130/0, 6-7=-1367/0, 7-8=0/0
BOT CHORD 14-15=0/1104, 13-14=0/1846, 12-13=0/1846,
11-12=0/1367, 10-11=0/1367, 9-10=0/1367
WEBS 6-11=-291/0, 7-10=0/293, 6-12=0/893,
2-15=-1223/0, 5-12=-334/0, 2-14=0/831,
4-12=0/450, 3-14=-252/0, 4-13=-168/0,
7-9=-1528/0

NOTES

- 1) Unbalanced floor live loads have been considered for this design.
- 2) All bearings are assumed to be SP No.1 .
- 3) Provide mechanical connection (by others) of truss to bearing plate at joint(s) 9.
- 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.
- 5) CAUTION, Do not erect truss backwards.

LOAD CASE(S) Standard



March 20,2025

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Edenton, NC 27932

Carter Components (Sanford, NC), Sanford, NC - 27332, Run: 8.73 S Feb 19 2025 Print: 8.730 S Feb 19 2025 MiTek Industries, Inc. Tue Mar 18 13:26:13 Page: 1
ID:ixu?hjWlWFAI8xi6Z1t678zrQWY-RfC?PsB70Hg3NsQpLnL8w3uITXBGKWrcDoj7J4zJC?f

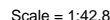


Plate Offsets (X, Y): [4:0-1-8,Edge], [5:0-1-8,Edge], [9:0-1-8,Edge], [14:0-1-8,Edge], [15:0-1-8,Edge], [21:0-1-8,Edge]

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

29=0-5-8
Max Uplift 17=-22 (LC 3)
Max Grav 17=221 (LC 5), 20=793 (LC 4),
23=1090 (LC 16), 29=577 (LC 14)

FORCES

Tension

TOP CHORD

1-29=72/0, 16-17=101/0, 1-2=5/0,
2-3=1599/0, 3-4=1599/0, 4-5=1732/0,
5-6=1363/0, 6-7=1363/0, 7-8=0/743,
8-9=0/743, 9-10=486/333, 10-12=486/333,
12-13=0/633, 13-14=0/633, 14-15=234/177,
15-16=0/0

BOT CHORD

28-29=0/1009, 27-28=0/1732, 26-27=0/1732,
25-26=0/1732, 23-25=0/624, 22-23=333/486,
21-22=333/486, 20-21=260/265,
19-20=177/234, 18-19=177/234,
17-18=177/234

WEBS

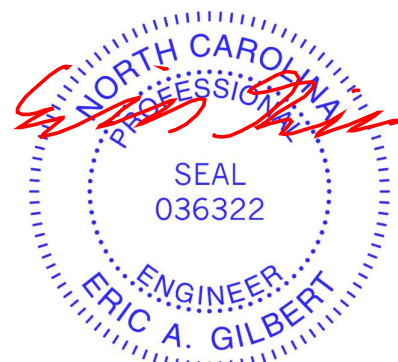
4-27=87/40, 5-26=27/106, 8-23=163/0,
13-20=167/0, 2-29=1117/0, 7-23=1314/0,
12-20=745/0, 9-23=860/0, 12-21=81/262,
9-22=0/88, 10-21=121/28, 14-20=747/0,
15-17=258/196, 14-19=0/95, 15-18=73/0,
2-28=0/661, 3-28=202/0, 4-28=319/71,
7-25=0/868, 6-25=173/16, 5-25=548/0

NOTES

- 1) Unbalanced floor live loads have been considered for this design.

- 2) All plates are 3x5 MT20 unless otherwise indicated.
 - 3) All bearings are assumed to be SP No.2.
 - 4) Provide mechanical connection (by others) of truss to bearing plate at joint(s) 17.
 - 5) One H2.5A Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 17. This connection is for uplift only and does not consider lateral forces.
 - 6) 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.
 - 7) CAUTION, Do not erect truss backwards.
- LOAD CASE(S)** Standard

LOAD CASE(S) Standard



March 20.2025



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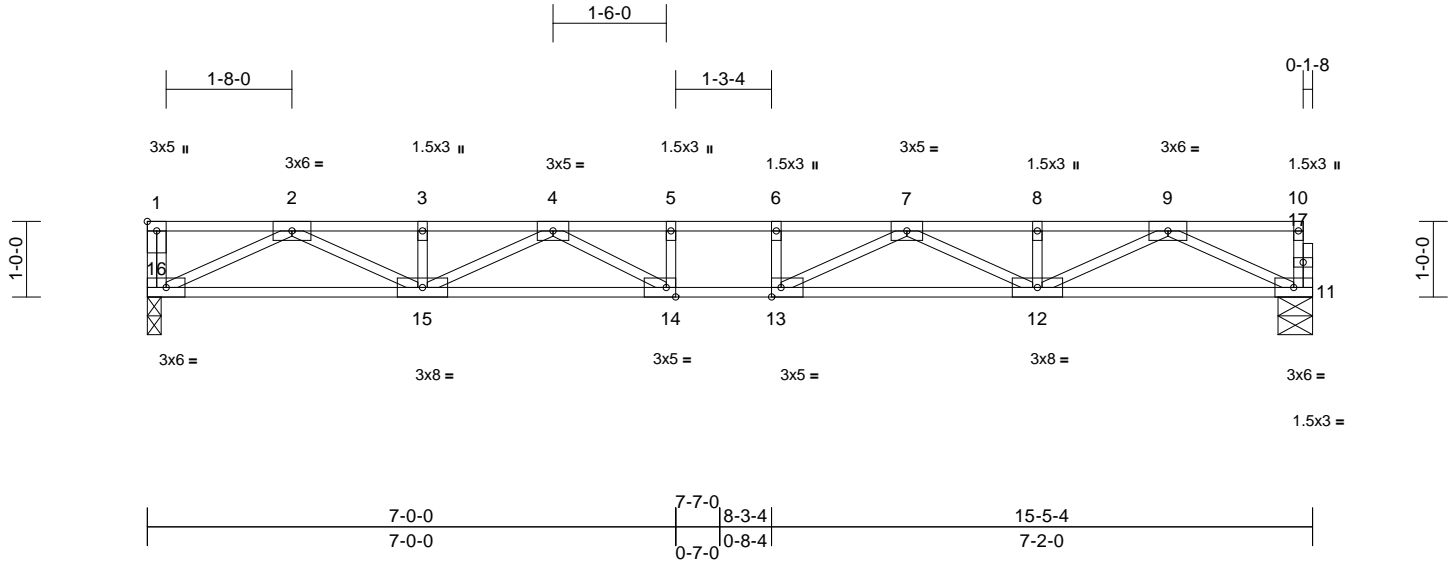
818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Install 50 Magnolia Acres-Crawl-Greystone FA SP 3FL I72118839
25030054-A	F101	Floor	13	1	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. Tue Mar 18 13:26:11
ID:OQlxgqn2CJ9aUylehUpaq_zrQZB-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

Page: 1



Scale = 1:30.5

Plate Offsets (X, Y): [1:Edge,0-1-8], [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	0.47	Vert(LL)	-0.26	13-14	>693	480	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.98	Vert(CT)	-0.36	13-14	>505	360		
BCLL	0.0	Rep Stress Incr	YES	WB	0.58	Horz(CT)	0.06	11	n/a	n/a		
BCDL	5.0	Code	IRC2021/TPI2014	Matrix-MSH							Weight: 76 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 2-2-0 oc
bracing.

REACTIONS (size) 11=0-5-8, 16=0-2-3
Max Grav 11=829 (LC 1), 16=835 (LC 1)

FORCES (lb) - Maximum Compression/Maximum
Tension

TOP CHORD 1-16=-75/0, 10-11=-72/0, 1-2=0/0,
2-3=-2602/0, 3-4=-2602/0, 4-5=-3594/0,
5-6=-3594/0, 6-7=-3594/0, 7-8=-2603/0,
8-9=-2603/0, 9-10=-5/0

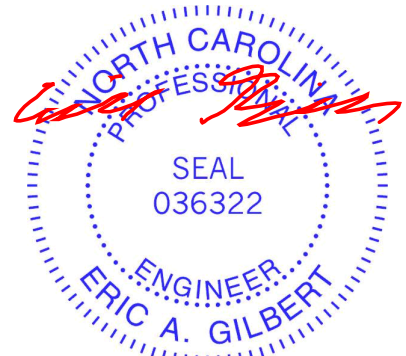
BOT CHORD 15-16=0/1523, 14-15=0/3277, 13-14=0/3594,
12-13=0/3280, 11-12=0/1523

WEBS 5-14=-217/0, 2-16=-1695/0, 2-15=0/1208,
3-15=-167/0, 9-11=-1689/0, 9-12=0/1210,
8-12=-164/0, 4-15=-757/0, 4-14=-21/620,
7-12=-759/0, 7-13=-29/619, 6-13=-200/0

NOTES

- 1) Unbalanced floor live loads have been considered for this design.
- 2) All bearings are assumed to be SP No.2 .
- 3) Provide mechanical connection (by others) of truss to bearing plate at joint(s) 16.
- 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.
- 5) CAUTION, Do not erect truss backwards.

LOAD CASE(S) Standard



March 20,2025

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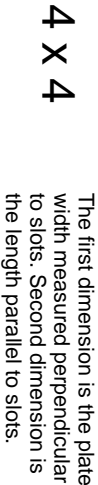
Symbols

PLATE LOCATION AND ORIENTATION

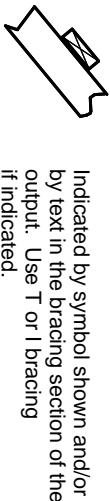


* Plate location details available in MITek software or upon request.

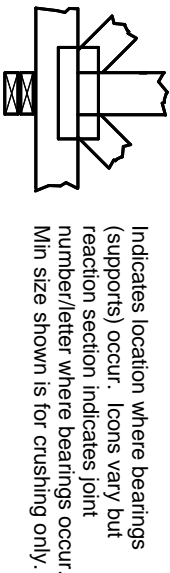
PLATE SIZE



LATERAL BRACING LOCATION

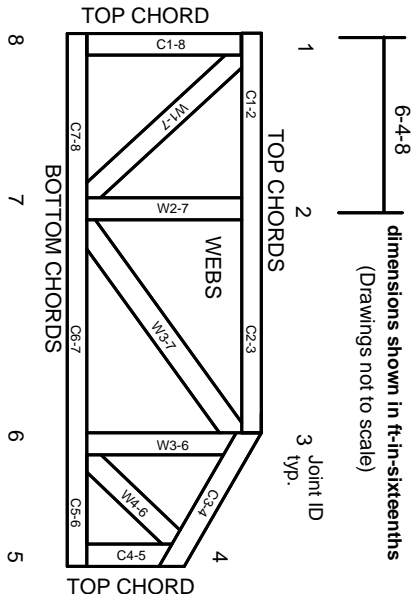


BEARING



Industry Standards:
ANSI/TP1: National Design Specification for Metal Plate Connected Wood Truss Construction.
DSB-22: 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/TP1 section 6.3. These truss designs rely on lumber values established by others.

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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/TP1 1.
7. Design assumes trusses will be suitably protected from the environment in accord with ANSI/TP1 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/TP1 1 Quality Criteria.
21. The design does not take into account any dynamic or other loads other than those expressly stated.

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