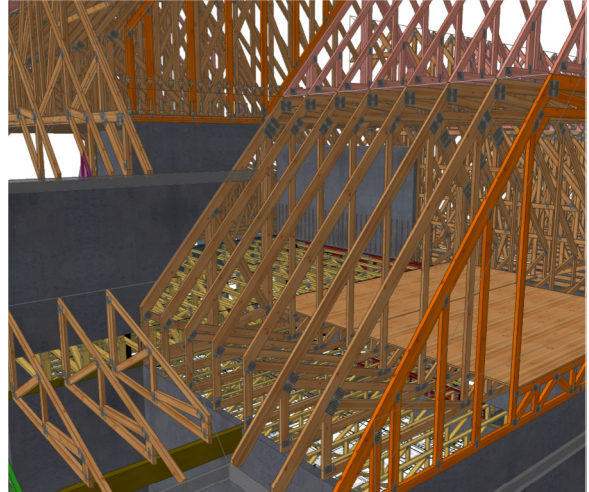




Carter Sanford Component Plant  
298 Harvey Faulk Rd  
Sanford, NC 27332

Phone #:919-775-1450

**Builder: Pro Build**  
**Model: OverHills**



**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.

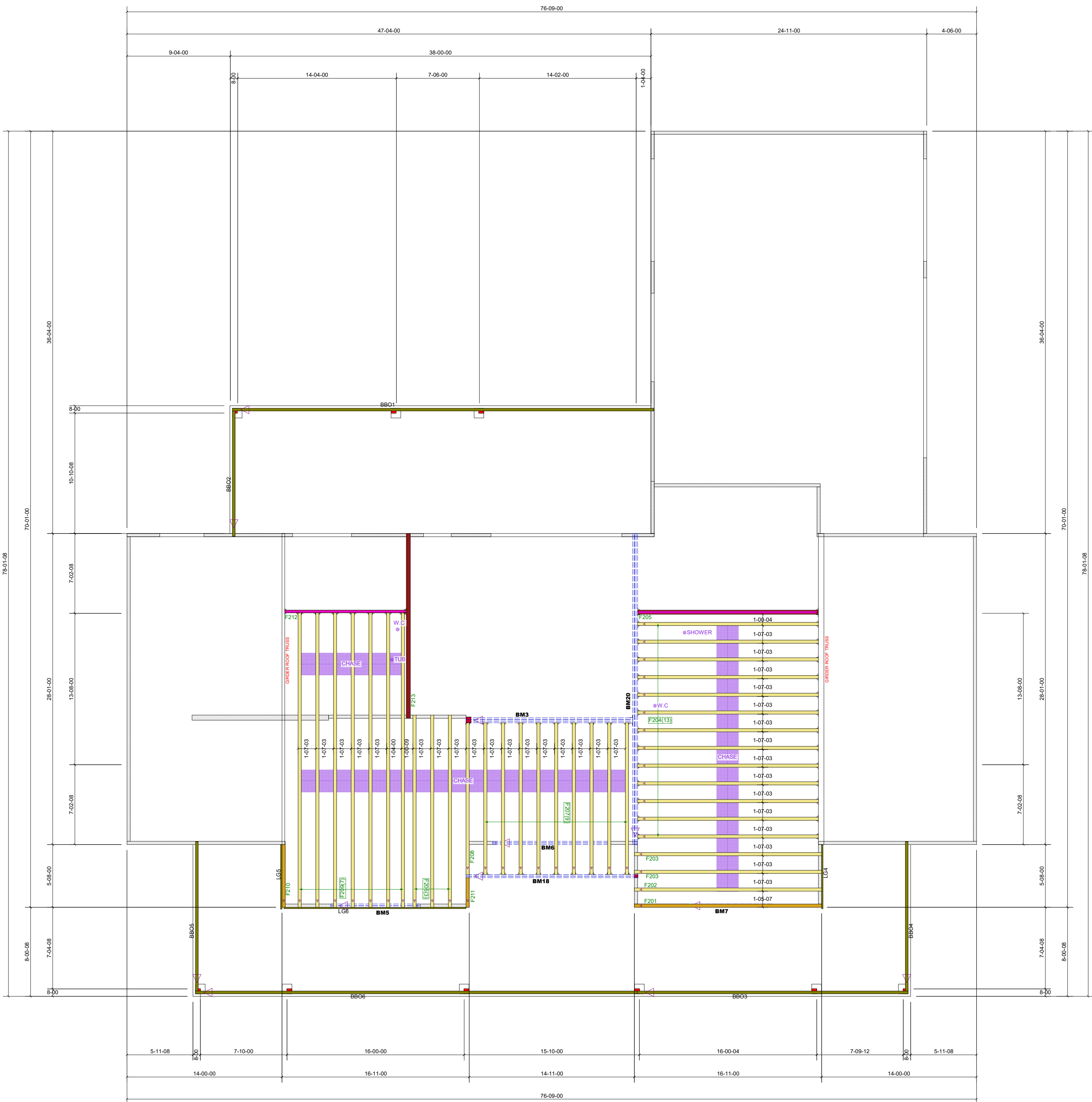
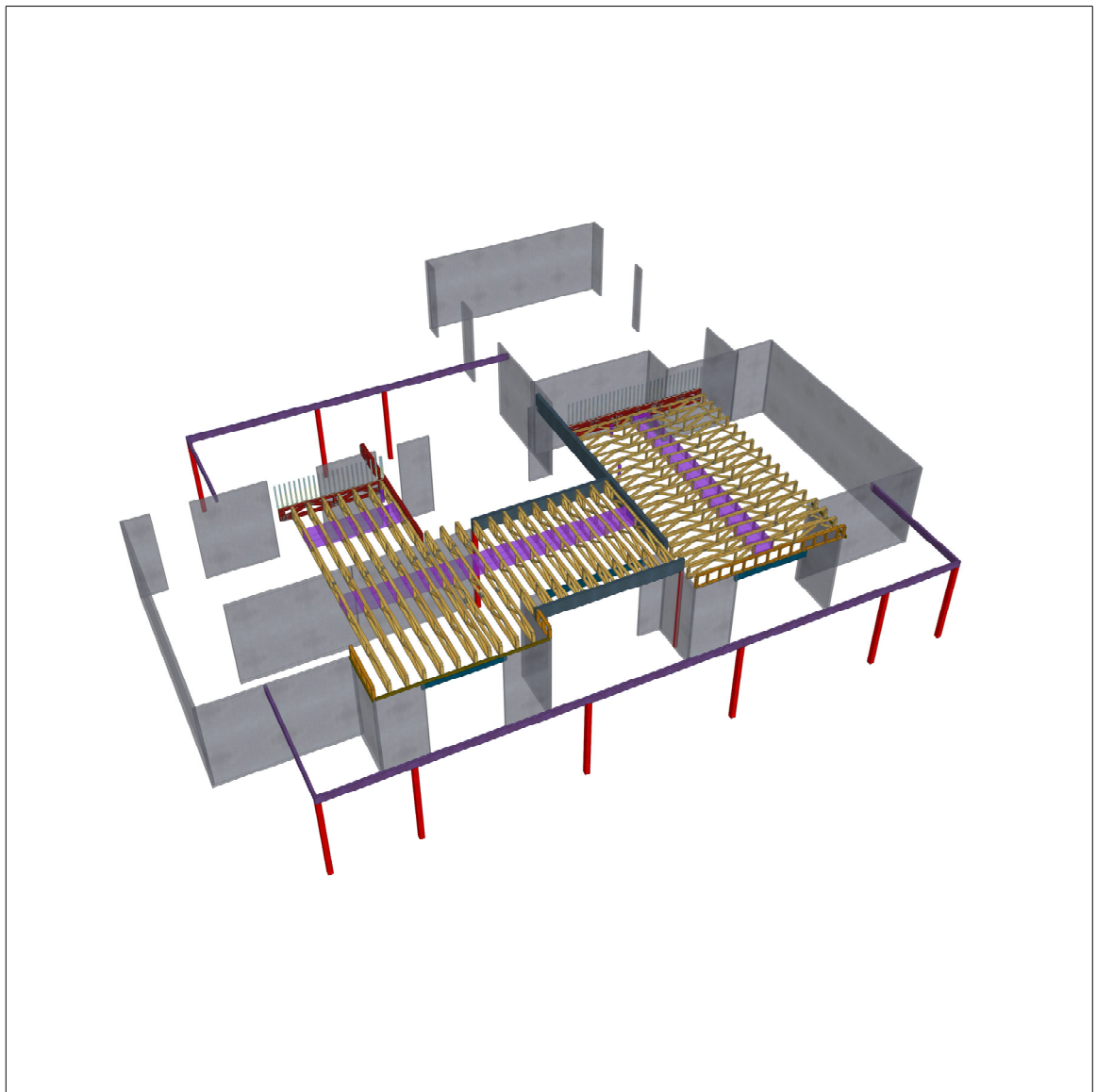
**Apprvd by:** \_\_\_\_\_

**Date:** \_\_\_\_\_

## General Notes:

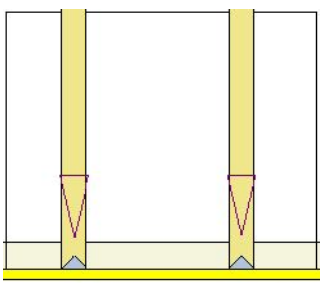
CUTTING OR DRILLING OF COMPONENTS SHOULD NOT BE DONE WITHOUT CONTACTING COMPONENT SUPPLIER FIRST. CUSTOMER TAKES FULL RESPONSIBILITY FOR COMPONENTS IF CUT BEFORE AUTHORIZATION.

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

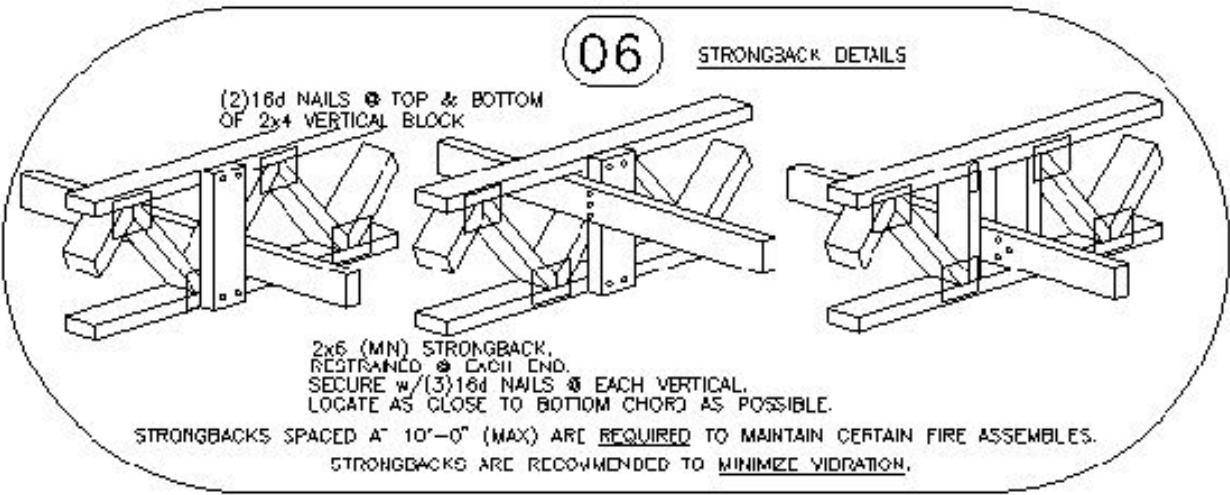


THA422	7
HU410	45
HGUS28-2	2
HGUS210-3	2


MSID	Length	Product	Pics	Net Qty	Fail Type
BM14	38:00.00	2.1 RogiLem SP LVL 1:34x 4 5/4	2	2	FF
BM13	22:00.00	2.1 RogiLem SP LVL 1:34x 4 5/4	2	2	FF
BM6	12:00.00	2.1 RogiLem SP LVL 1:34x 4 5/4	2	2	FF
BM12	19:00.00	2.1 RogiLem SP LVL 1:34x 4 5/4	2	2	FF
BM5	10:00.00	2.1 RogiLem SP LVL 1:34x 4 5/4	2	2	FF
BM7	12:00.00	2.1 RogiLem SP LVL 1:34x 4 5/4	2	2	FF
BM10	6:00.00	2.1 RogiLem SP LVL 1:34x 4 5/4	2	2	FF
BM11	6:00.00	2.1 RogiLem SP LVL 1:34x 4 5/4	2	2	FF
BM9	4:00.00	2.1 RogiLem SP LVL 1:34x 4 5/4	2	2	FF
BM8	14:00.00	2.1 RogiLem SP LVL 1:34x 11/76	2	2	FF
BM15	12:00.00	2.1 RogiLem SP LVL 1:34x 11/76	2	2	FF
BM3	16:00.00	2.1 RogiLem SP LVL 1:34x 11/8	3	3	FF
BM20	35:00.00	2.1 RogiLem SP LVL 1:34x 1/4	3	3	FF



Truss Drawing Left  
End Indicator



**PRELIMINARY - NOT FOR CONSTRUCTION**

Match Legend	
	VALLEY FRAMED BY OTHERS
	FRAMED BY OTHERS

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 as specified by 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 support structure including headers, beams, walls, and columns is the responsibility of the building designer. For general guidance regarding the bracing, consult "Bracing of Wood Truss," available from the Truss Plate Institute, 583 Donlin Drive.



# Probuild

# Overhills

## 2ND FLOOR TRUSS PLACEMENT PLAN

Scale:

**NTS**

Date: \_\_\_\_\_

6/1/2025

---

Designer

NP

Project Number

25040114

**2/3**

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.

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

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

Trenco  
818 Soundside Rd  
Edenton, NC 27932

Re: 25040114-B  
Overhills-2nd Floor-CL-20-020

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: I73877233 thru I73877245

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

North Carolina COA: C-0844



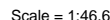
June 2, 2025

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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.

Carter Components (Sanford, NC), Sanford, NC - 27332, Run: 9 E 8.73 Feb 1 2025 Print: 8.730 E Feb 19 2025 MiTek Industries, Inc. Sun Jun 01 21:26:11 Page: 1  
ID:tlxTEN7oa40KRtwhv75DRJzPuS8-RfC?PsB70Hg3NSqPqnL8w3u1TXbGKWrCDoi7J4zJC?fi



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Plate Offsets (X, Y): [6:0-1-8,Edge], [9:0-3-0,Edge], [12:0-1-8,Edge], [18:0-1-8,Edge], [23:0-1-8,Edge]

<b>LUMBER</b>	
TOP CHORD	2x4 SP No.1(flat) *Except* 7-14:2x4 SP No.2 (flat)
BOT CHORD	2x4 SP 2400F 2.0E(flat)
WEBS	2x4 SP No.3(flat)
OTHERS	2x4 SP No.3(flat)

## BRACING

TOP CHORD	Structural wood sheathing directly applied or 2-2-0 oc purlins, except end verticals.
BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing, Except: 6-0-0 oc bracing: 19-21.

## REACTIONS

(size)	15= Mechanical, 19=0-3-8, 25=0-3-8
Max Grav	15=406 (LC 7), 19=1204 (LC 1), 25=743 (LC 10)

## FORCES

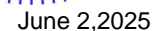
<b>FORCES</b>	(lb) - Maximum Compression/Maximum Tension
<b>TOP CHORD</b>	1-25=-81/0, 14-15=-408/0, 1-2=-4/0, 2-3=-2011/0, 3-4=-2011/0, 4-5=-2066/0, 5-6=-2066/0, 6-8=-946/0, 8-9=-946/0, 9-10=-42/295, 10-11=-665/0, 11-12=-665/0, 12-13=-246/0, 13-14=-246/0
<b>BOT CHORD</b>	24-25=0/1244, 23-24=0/2309, 22-23=0/2066, 21-22=0/2066, 19-21=-295/42, 18-19=0/572, 17-18=0/665, 16-17=0/665, 15-16=0/0
<b>WEBS</b>	5-23=-44/44, 6-22=0/247, 11-18=-160/0, 12-17=-25/20, 2-25=-1400/0, 2-24=0/871, 3-24=-174/0, 4-24=-338/0, 4-23=-393/75, 12-16=-472/0, 13-16=-205/0, 14-16=0/489, 9-19=-852/0, 6-21=-1350/0, 8-21=-158/88, 9-21=0/1152, 10-19=-720/0, 10-18=0/273

## NOTES

- 1) Unbalanced floor live loads have been considered for this design.
- 2) All plates are 1.5x3 MT20 unless otherwise indicated.
- 3) Bearings are assumed to be: Joint 25 SP 2400F 2.0E , Joint 19 SP 2400F 2.0E .

- 4) Refer to girder(s) for truss to truss connections.
- 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

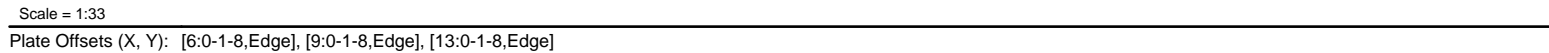


Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall 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/TP1 Quality Criteria and DSB-22** available from Truss Plate Institute ([www.tpinst.org](http://www.tpinst.org)) and **BCSI Building Component Safety Information** available from the Structural Building Components Association ([www.sbcacomponents.com](http://www.sbcacomponents.com))



818 Soundside Road  
Edenton, NC 27932

Carter Components (Sanford, NC), Sanford, NC - 27332, Run: 9 E 8.73 Feb 1 2025 Print: 8.730 E Feb 19 2025 MiTek Industries, Inc. Sun Jun 01 21:26:11 Page: 1  
ID:LzZqxieNhlsW3C84?r7E9GzPXjg-RfC?PsB70Hq3NSgPqnL8w3ulTXbGKwRCDoi7J4zJC?f



<b>LUMBER</b>	
TOP CHORD	2x4 SP 2400F 2.0E(flat)
BOT CHORD	2x4 SP 2400F 2.0E(flat)
WEBS	2x4 SP No.3(flat)
OTHERS	2x4 SP No.3(flat)
<b>BRACING</b>	
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.
<b>REACTIONS</b>	
(size)	10=0-3-8, 16=0-3-8
Max Grav	10=747 (LC 1), 16=747 (LC 1)
<b>FORCES</b>	
	(lb) - Maximum Compression/Maximum Tension
TOP CHORD	1-16=-81/0, 9-10=-724/0, 1-2=-4/0, 2-3=-2025/0, 3-4=-2025/0, 4-5=-2098/0, 5-6=-2098/0, 6-8=-1001/0, 8-9=-1001/0
BOT CHORD	15-16=0/1250, 13-15=0/2338, 12-13=0/2098, 11-12=0/2098, 10-11=0/33
WEBS	5-13=-63/67, 6-12=0/218, 2-16=-1407/0, 2-15=0/879, 3-15=-173/0, 4-15=-356/0, 4-13=-401/152, 6-11=-1239/0, 8-11=-197/70, 9-11=0/1163

- 1) Unbalanced floor live loads have been considered for this design.
- 2) All plates are MT20 plates unless otherwise indicated.
- 3) All bearings are assumed to be SP 2400F 2.0E .
- 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.

**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/TPI 1 Quality Criteria and DSB-22** available from Truss Plate Institute ([www.tpinst.org](http://www.tpinst.org)) and **BCSI Building Component Safety Information** available from the Structural Building Component Association ([www.sbccomponents.com](http://www.sbccomponents.com))

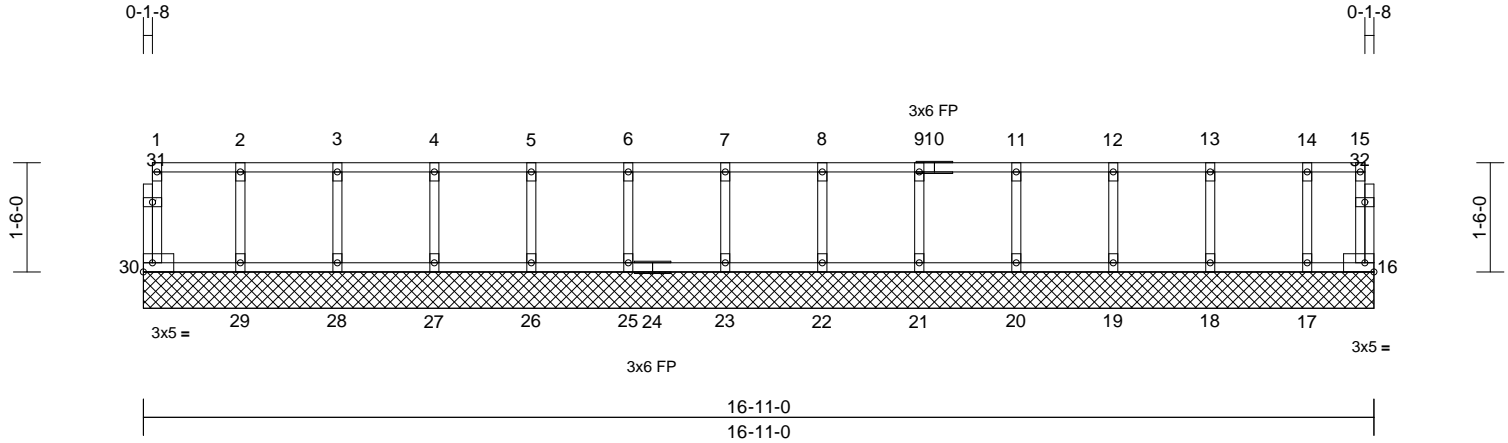


Job	Truss	Truss Type	Qty	Ply	Overhills-2nd Floor-CL-20-020
25040114-B	F201	Floor Supported Gable	1	1	173877235
					Job Reference (optional)

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

Run: 9 E 8.73 Feb 1 2025 Print: 8.730 E Feb 19 2025 MiTek Industries, Inc. Sun Jun 01 21:26:10  
ID:jtufIM7QGDz5JdZRUXWK2ozPfz6-RfC?PsB70Hq3NSgPqnL8w3ulTXbGKWrcDoi7J4zJC?f

Page: 1



Scale = 1:31.7

Loading	(psf)	Spacing	1-7-3	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	40.0	Plate Grip DOL	1.00	TC	0.06	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	16	n/a	n/a		
BCDL	5.0	Code	IRC2021/TPI2014	Matrix-R							Weight: 79 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)

16=16-11-0, 17=16-11-0,  
18=16-11-0, 19=16-11-0,  
20=16-11-0, 21=16-11-0,  
22=16-11-0, 23=16-11-0,  
25=16-11-0, 26=16-11-0,  
27=16-11-0, 28=16-11-0,  
29=16-11-0, 30=16-11-0  
Max Grav 16=26 (LC 1), 17=94 (LC 1),  
18=122 (LC 1), 19=116 (LC 1),  
20=118 (LC 1), 21=117 (LC 1),  
22=117 (LC 1), 23=117 (LC 1),  
25=117 (LC 1), 26=117 (LC 1),  
27=117 (LC 1), 28=117 (LC 1),  
29=117 (LC 1), 30=42 (LC 1)

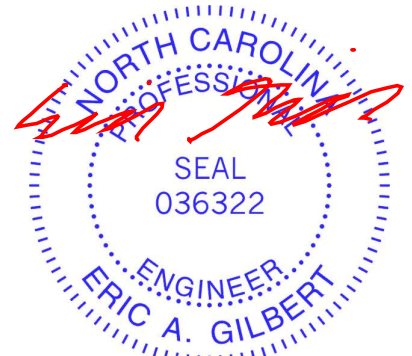
**FORCES** (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-30=-39/0, 15-16=-21/0, 1-2=-4/0, 2-3=-4/0,  
3-4=-4/0, 4-5=-4/0, 5-6=-4/0, 6-7=-4/0,  
7-8=-4/0, 8-9=-4/0, 9-11=-4/0, 11-12=-4/0,  
12-13=-4/0, 13-14=-4/0, 14-15=-4/0  
BOT CHORD 29-30=0/4, 28-29=0/4, 27-28=0/4, 26-27=0/4,  
25-26=0/4, 23-25=0/4, 22-23=0/4, 21-22=0/4,  
20-21=0/4, 19-20=0/4, 18-19=0/4, 17-18=0/4,  
16-17=0/4  
WEBS 2-29=-106/0, 3-28=-107/0, 4-27=-106/0,  
5-26=-107/0, 6-25=-107/0, 7-23=-107/0,  
8-22=-107/0, 9-21=-107/0, 11-20=-107/0,  
12-19=-106/0, 13-18=-110/0, 14-17=-88/0

**NOTES**

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



June 2,2025

**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)

ENGINEERING BY  
**TRENCO**  
A MiTek Affiliate

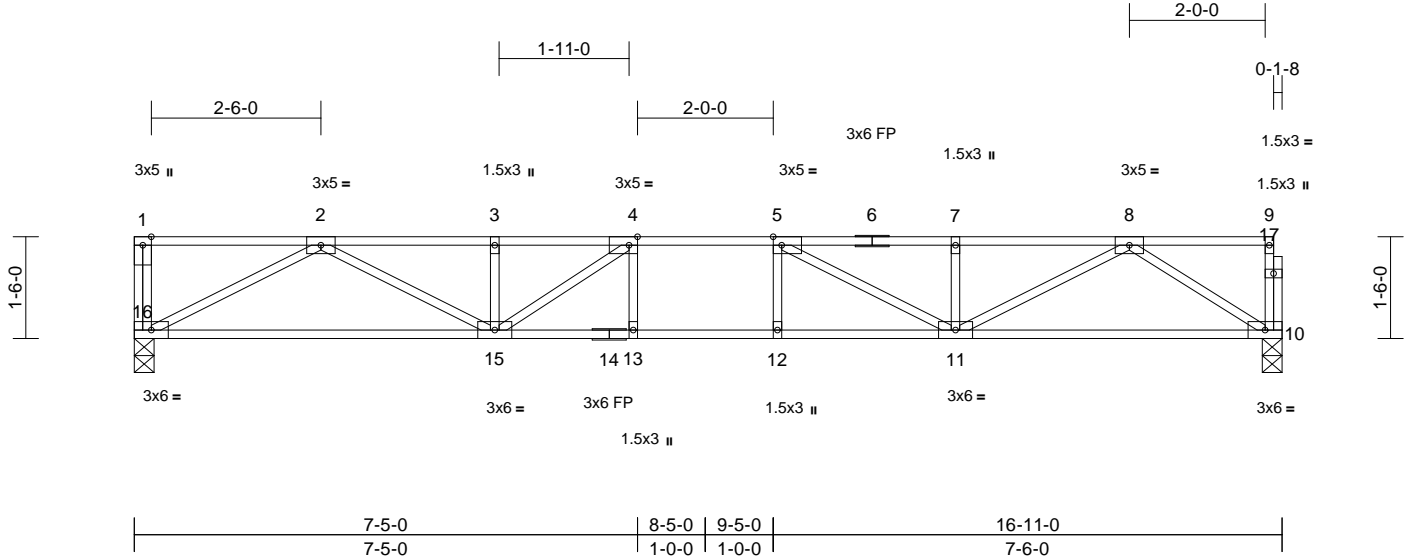
818 Soundside Road  
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Overhills-2nd Floor-CL-20-020	173877236
25040114-B	F203	Floor	2	1	Job Reference (optional)	

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

Run: 9 E 8.73 Feb 1 2025 Print: 8.730 E Feb 19 2025 MiTek Industries, Inc. Sun Jun 01 21:26:11  
ID:jtuflM7QGdz5JdZRUXWK2ozPfz6-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrcDoi7J4zJC7f

Page: 1



Scale = 1:34

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

Loading	(psf)	Spacing	1-7-3	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL	40.0	Plate Grip DOL	1.00	TC	0.51	Vert(LL)	-0.17	11-12	>999	480	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.82	Vert(CT)	-0.22	11-12	>910	360		
BCLL	0.0	Rep Stress Incr	YES	WB	0.45	Horz(CT)	0.04	10	n/a	n/a		
BCDL	5.0	Code	IRC2021/TPI2014	Matrix-SH							Weight: 88 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=0-3-8, 16=0-3-8  
Max Grav 10=728 (LC 1), 16=733 (LC 1)

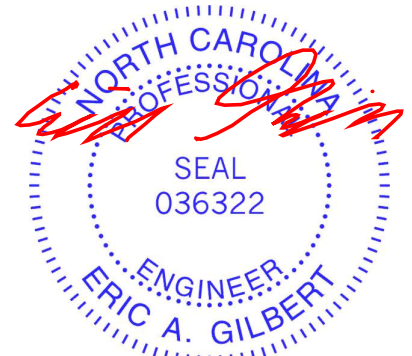
FORCES (lb) - Maximum Compression/Maximum  
Tension

TOP CHORD 1-16=-85/0, 9-10=-65/0, 1-2=0/0,  
2-3=-1934/0, 3-4=-1934/0, 4-5=-2202/0,  
5-7=-1837/0, 7-8=-1837/0, 8-9=-3/0  
BOT CHORD 15-16=0/1205, 13-15=0/2202, 12-13=0/2202,  
11-12=0/2202, 10-11=0/1006  
WEBS 4-13=-77/98, 5-12=-69/88, 2-16=-1361/0,  
2-15=0/827, 3-15=-214/20, 4-15=-523/0,  
5-11=-584/0, 7-11=-246/0, 8-11=0/943,  
8-10=-1194/0

#### NOTES

- 1) Unbalanced floor live loads have been considered for this design.
- 2) All bearings are assumed to be SP No.2 .
- 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



June 2,2025

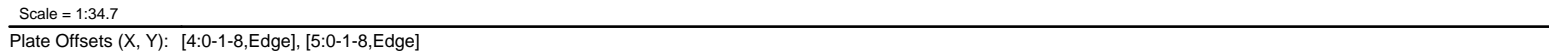
**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 BEFORE USE.**

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/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 Component Association (www.sbcacompnents.com)

ENGINEERING BY  
**TRENCO**  
A MiTek Affiliate

818 Soundside Road  
Edenton, NC 27932

Carter Components (Sanford, NC), Sanford, NC - 27332, Run: 9 E 8.73 Feb 1 2025 Print: 8.730 E Feb 19 2025 MiTek Industries, Inc. Sun Jun 01 21:26:11 Page: 1  
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<b>LUMBER</b>	
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)
<b>BRACING</b>	
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.
<b>REACTIONS</b> (size) 10=0-3-8, 16=0-3-8	
	Max Grav 10=728 (LC 1), 16=728 (LC 1)
<b>FORCES</b> (lb) - Maximum Compression/Maximum Tension	
TOP CHORD	1-16=-82/0, 9-10=-65/0, 1-2=-4/0, 2-3=-1934/0, 3-4=-1934/0, 4-5=-2202/0, 5-7=-1837/0, 7-8=-1837/0, 8-9=-3/0
BOT CHORD	15-16=0/1204, 13-15=0/2202, 12-13=0/2202, 11-12=0/2202, 10-11=0/1006
WEBS	4-13=-77/98, 5-12=-69/88, 2-16=-1355/0, 2-15=0/829, 3-15=-216/20, 4-15=-523/0, 5-11=-584/0, 7-11=-246/0, 8-11=0/943, 8-10=-1194/0

- 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 No.2.
- 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.

**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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Job	Truss	Truss Type	Qty	Ply	Overhills-2nd Floor-CL-20-020	173877238
25040114-B	F213	Floor Girder	1	3	Job Reference (optional)	

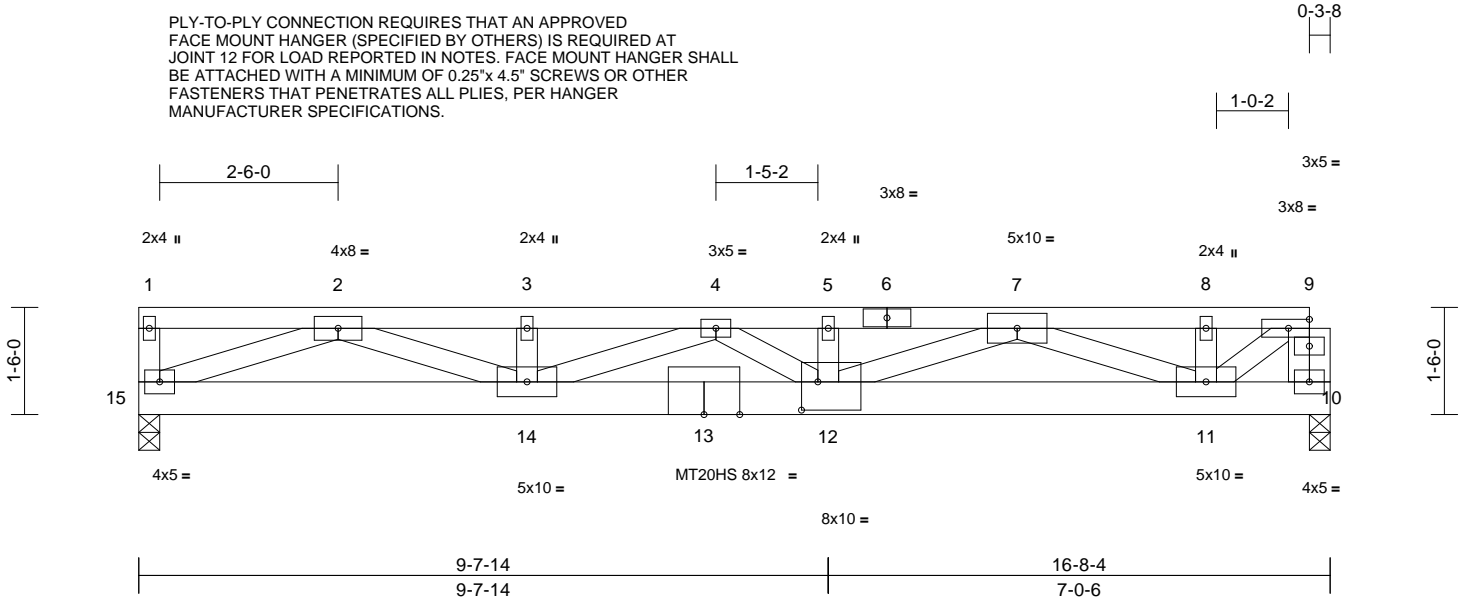
Carter Components (Sanford, NC), Sanford, NC - 27332,

Run: 8.73 E Nov 16 2023 Print: 8.730 E Nov 16 2023 MiTek Industries, Inc. Mon Jun 02 13:23:29

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PLY-TO-PLY CONNECTION REQUIRES THAT AN APPROVED FACE MOUNT HANGER (SPECIFIED BY OTHERS) IS REQUIRED AT JOINT 12 FOR LOAD REPORTED IN NOTES. FACE MOUNT HANGER SHALL BE ATTACHED WITH A MINIMUM OF 0.25"x 4.5" SCREWS OR OTHER FASTENERS THAT PENETRATES ALL PLIES, PER HANGER MANUFACTURER SPECIFICATIONS.



Scale = 1:32.3

Plate Offsets (X, Y): [12:0-2-12,0-4-12]

Loading	(psf)	Spacing	1-7-3	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	40.0	Plate Grip DOL	1.00	TC	0.96	Vert(LL)	-0.20	12-14	>980	480	MT20HS	187/143
TCDL	10.0	Lumber DOL	1.00	BC	0.66	Vert(CT)	-0.40	12-14	>482	360	MT20	244/190
BCLL	0.0	Rep Stress Incr	YES	WB	0.79	Horz(CT)	0.05	10	n/a	n/a		
BCDL	5.0	Code	IRC2021/TPI2014	Matrix-SH							Weight: 281 lb	FT = 11%

#### LUMBER

TOP CHORD	2x4 SP 2400F 2.0E *Except* 6-9:2x4 SP No.1
BOT CHORD	2x6 SP 2400F 2.0E
WEBS	2x4 SP No.3 *Except* 14-2,12-7,11-9:2x4 SP No.2
OTHERS	2x4 SP No.3

#### BRACING

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

REACTIONS	(size) 10=0-3-8, 15=0-3-8
	Max Grav 10=4337 (LC 1), 15=3281 (LC 1)

FORCES	(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
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TOP CHORD	9-10=-4254/0, 1-2=-272/0, 2-3=-13714/0, 3-4=-13714/0, 4-5=-22195/0, 5-6=-22195/0, 6-7=-22195/0, 7-8=-5702/0, 8-9=-5702/0
BOT CHORD	14-15=0/7230, 13-14=0/19474, 12-13=0/19474, 11-12=0/14505, 10-11=0/431
WEBS	5-12=0/384, 2-15=-7561/0, 2-14=0/7046, 4-14=-6259/0, 4-12=0/3345, 7-12=0/8356, 7-11=-9566/0, 9-11=0/6676

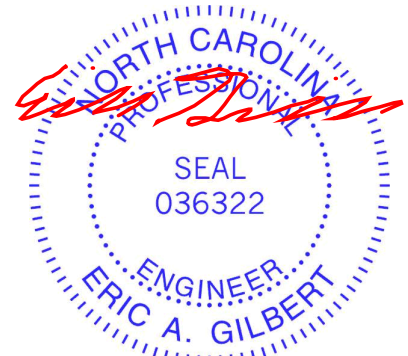
#### NOTES

- N/A
- 3-ply truss to be connected together with 10d (0.131"x3") nails as follows:  
Top chords connected as follows: 2x4 - 2 rows staggered at 0-4-0 oc.  
Bottom chords connected as follows: 2x6 - 3 rows staggered at 0-4-0 oc.  
Web connected as follows: 2x4 - 1 row at 0-9-0 oc.

- All loads are considered equally applied to all plies, except if noted as front (F) or back (B) face in the LOAD CASE(S) section. Ply to ply connections have been provided to distribute only loads noted as (F) or (B), unless otherwise indicated.
- Unbalanced floor live loads have been considered for this design.
- N/A
- All plates are MT20 plates unless otherwise indicated.
- The Fabrication Tolerance at joint 13 = 11%, joint 6 = 11%
- 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.
- Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 6189 lb down at 9-7-12 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.

#### LOAD CASE(S) Standard

- Dead + Floor Live (balanced): Lumber Increase=1.00, Plate Increase=1.00  
Uniform Loads (lb/ft)  
Vert: 10-15=-8, 1-9=-80  
Concentrated Loads (lb)  
Vert: 12=-6189 (B)



June 2,2025

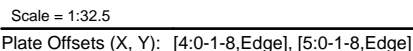
**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 BEFORE USE.**

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818 Soundside Road  
Edenton, NC 27932

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**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) 10= Mechanical, 16= Mechanical  
Max Grav 10=707 (LC 1), 16=707 (LC 1)

**FORCES** (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-16=-84/0, 9-10=-55/0, 1-2=0/0,  
2-3=-1835/0, 3-4=-1835/0, 4-5=-2049/0,  
5-7=-1684/0, 7-8=-1684/0, 8-9=0/0

BOT CHORD 15-16=0/1157, 13-15=0/2049, 12-13=0/2049,  
11-12=0/2049, 10-11=0/852

WEBS 4-13=-80/97, 5-12=-64/84, 2-16=-1307/0,  
2-15=0/769, 3-15=-204/29, 4-15=-475/15,  
5-11=-567/0, 7-11=-246/0, 8-11=0/944,  
8-10=-1065/0

- 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'-0" o.c. 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.

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

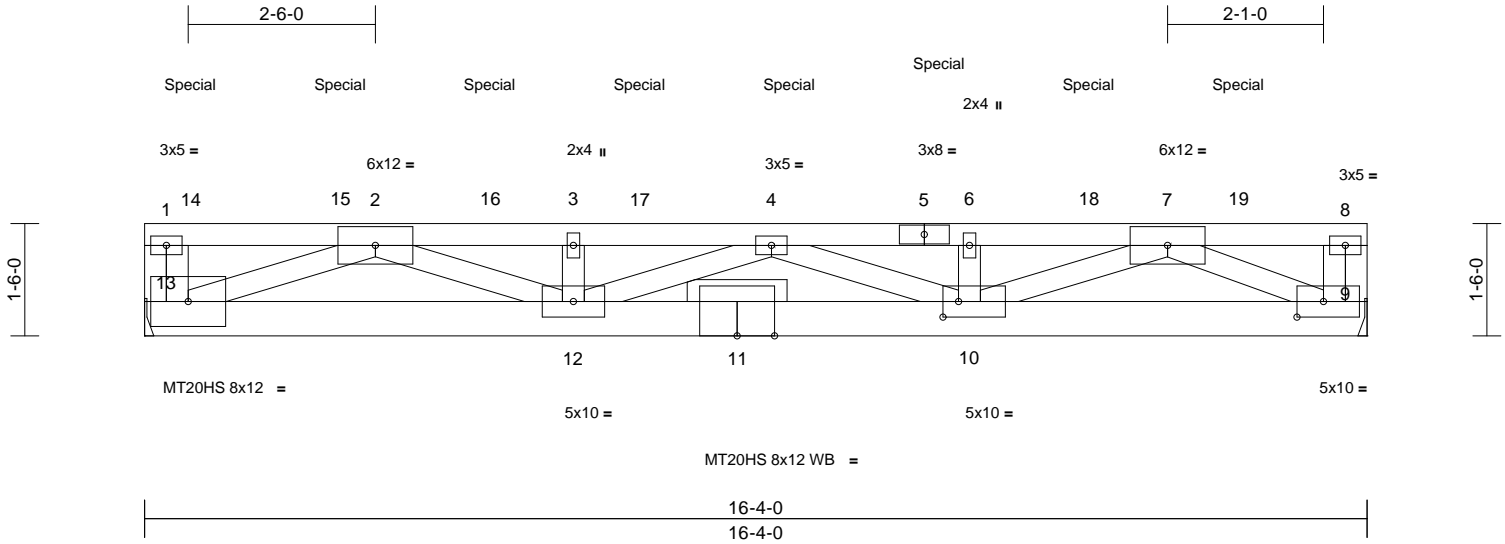
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Job	Truss	Truss Type	Qty	Ply	Overhills-2nd Floor-CL-20-020	173877240
25040114-B	F205	Floor Girder	1	3	Job Reference (optional)	

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

Run: 9 S 8.73 Feb 1 2025 Print: 8.730 S Feb 19 2025 MiTek Industries, Inc. Sun Jun 01 21:26:11  
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Page: 1



Scale = 1:30.8

Plate Offsets (X, Y): [9:0-4-4,0-2-8], [10:0-2-8,0-2-8]

Loading	(psf)	Spacing	1-7-3	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	40.0	Plate Grip DOL	1.00	TC	0.79	Vert(LL)	-0.15	10-12	>999	480	MT20HS	187/143
TCDL	10.0	Lumber DOL	1.00	BC	0.82	Vert(CT)	-0.46	10-12	>413	360	MT20	244/190
BCLL	0.0	Rep Stress Incr	NO	WB	0.80	Horz(CT)	0.07	9	n/a	n/a		
BCDL	5.0	Code	IRC2021/TPI2014	Matrix-SH							Weight: 281 lb	FT = 11%

**LUMBER**  
TOP CHORD 2x4 SP 2400F 2.0E  
BOT CHORD 2x6 SP 2400F 2.0E  
WEBS 2x4 SP No.3 \*Except\* 13-2,12-2,10-7,9-7:2x4 SP No.2  
OTHERS 2x4 SP No.3

**BRACING**  
TOP CHORD Structural wood sheathing directly applied or 4-11-10 oc purlins, except end verticals.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS** (size) 9= Mechanical, 13= Mechanical  
Max Grav 9=7047 (LC 9), 13=7109 (LC 9)

**FORCES** (lb) - Maximum Compression/Maximum Tension  
TOP CHORD 1-13=-1342/0, 8-9=-1053/0, 1-2=-959/0, 2-3=-21357/0, 3-4=-21357/0, 4-6=-20557/0, 6-7=-20557/0, 7-8=-817/0  
BOT CHORD 12-13=0/14358, 10-12=0/23955, 9-10=0/12733  
WEBS 2-13=-14446/0, 2-12=0/7606, 3-12=-2201/0, 4-12=-2823/0, 4-10=-3693/0, 6-10=-2155/0, 7-10=0/8502, 7-9=-13186/0

- NOTES**
- 3-ply truss to be connected together with 10d (0.131"x3") nails as follows:  
Top chords connected as follows: 2x4 - 1 row at 0-7-0 oc.  
Bottom chords connected as follows: 2x6 - 2 rows staggered at 0-9-0 oc.  
Web connected as follows: 2x4 - 1 row at 0-9-0 oc.
  - All loads are considered equally applied to all plies, except if noted as front (F) or back (B) face in the LOAD CASE(S) section. Ply to ply connections have been provided to distribute only loads noted as (F) or (B), unless otherwise indicated.
  - Unbalanced floor live loads have been considered for this design.

- All plates are MT20 plates unless otherwise indicated.
- The Fabrication Tolerance at joint 11 = 11%, joint 5 = 11%
- Refer to girder(s) for truss to truss connections.
- Load case(s) 1, 2, 5, 6, 8, 9 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.
- Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 219 lb down and 115 lb up at 0-7-8, 310 lb down and 126 lb up at 2-7-8, 310 lb down and 126 lb up at 4-7-8, 310 lb down and 126 lb up at 6-7-8, 310 lb down and 126 lb up at 8-7-8, 310 lb down and 126 lb up at 10-7-8, and 310 lb down and 126 lb up at 12-7-8, and 349 lb down and 97 lb up at 14-7-8 on top chord. The design/selection of such connection device(s) is the responsibility of others.

**LOAD CASE(S)** Standard

- Dead + Floor Live (balanced): Lumber Increase=1.00, Plate Increase=1.00  
Uniform Loads (lb/ft)  
Vert: 9-13=-8, 1-8=-806  
Concentrated Loads (lb)  
Vert: 5=-117 (B), 4=-117 (B), 14=-120 (B), 15=-117 (B), 16=-117 (B), 17=-117 (B), 18=-117 (B), 19=-159 (B)
- Dead + Uninhabitable Attic Storage: Lumber Increase=1.00, Plate Increase=1.00  
Uniform Loads (lb/ft)  
Vert: 9-13=-8, 1-8=-806  
Concentrated Loads (lb)  
Vert: 5=-117 (B), 4=-117 (B), 14=-120 (B), 15=-117 (B), 16=-117 (B), 17=-117 (B), 18=-117 (B), 19=-159 (B)

- Dead + 0.75 Roof Live (balanced) + 0.75 Uninhab. Attic Storage + 0.75 Attic Floor: Lumber Increase=1.00, Plate Increase=1.00  
Uniform Loads (lb/ft)  
Vert: 9-13=-8, 1-8=-737  
Concentrated Loads (lb)  
Vert: 5=-216 (B), 4=-216 (B), 14=-156 (B), 15=-216 (B), 16=-216 (B), 17=-216 (B), 18=-216 (B), 19=-255 (B)
- Dead + 0.75 Snow (balanced) + 0.75 Uninhab. Attic Storage + 0.75 Attic Floor: Lumber Increase=1.00, Plate Increase=1.00  
Uniform Loads (lb/ft)  
Vert: 9-13=-8, 1-8=-737  
Concentrated Loads (lb)  
Vert: 5=-185 (B), 4=-185 (B), 14=-164 (B), 15=-185 (B), 16=-185 (B), 17=-185 (B), 18=-185 (B), 19=-225 (B)
- Dead + 0.75 Snow (bal.) + 0.75 Uninhab. Attic Storage + 0.75 Attic Floor + 0.75(0.6 MWFRS Wind (Neg. Int))  
Left: Lumber Increase=1.00, Plate Increase=1.00  
Uniform Loads (lb/ft)  
Vert: 9-13=-8, 1-8=-737



June 2,2025

Continued on page 2

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818 Soundside Road  
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Overhills-2nd Floor-CL-20-020
25040114-B	F205	Floor Girder	1	3	Job Reference (optional)

I73877240

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

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Page: 2

Concentrated Loads (lb)

Vert: 5=-280 (B), 4=-280 (B), 14=-219 (B), 15=-280 (B), 16=-280 (B), 17=-280 (B), 18=-280 (B), 19=-319 (B)

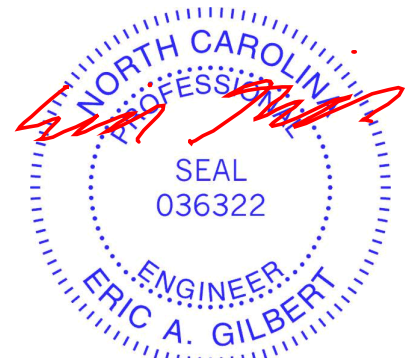
- 9) Dead + 0.75 Roof Live (bal.) + 0.75 Uninhab. Attic Storage + 0.75 Attic Floor + 0.75(0.6 MWFRS Wind (Neg. Int) Left): Lumber Increase=1.00, Plate Increase=1.00

Uniform Loads (lb/ft)

Vert: 9-13=-8, 1-8=-737

Concentrated Loads (lb)

Vert: 5=-310 (B), 4=-310 (B), 14=-211 (B), 15=-310 (B), 16=-310 (B), 17=-310 (B), 18=-310 (B), 19=-349 (B)



June 2, 2025

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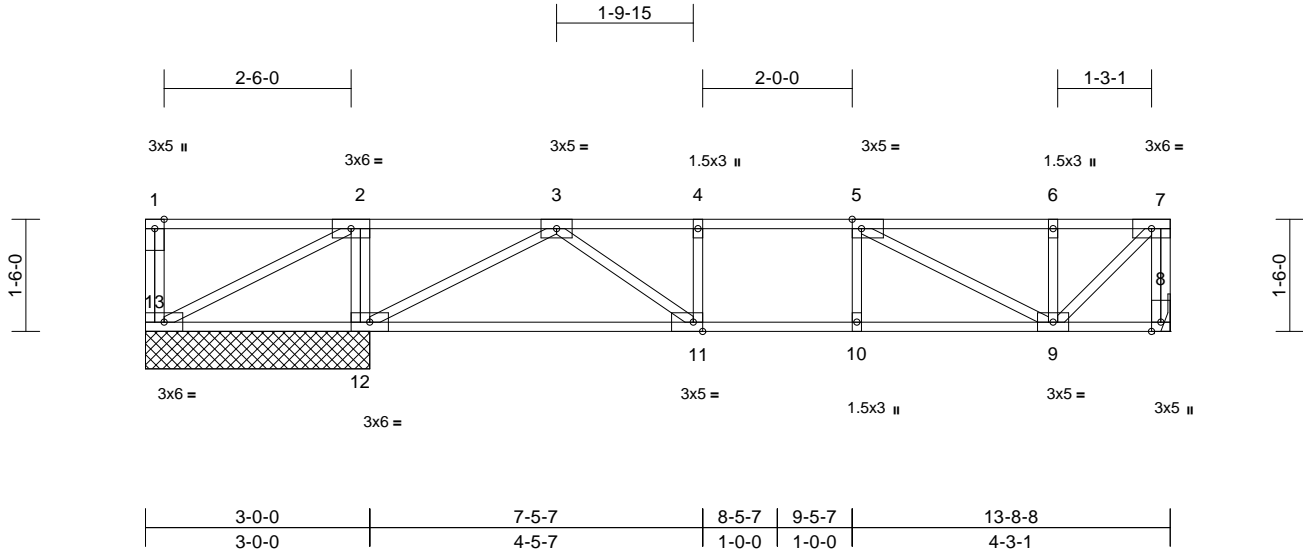
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Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Overhills-2nd Floor-CL-20-020	I73877241
25040114-B	F208	Floor	1	1	Job Reference (optional)	

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

Run: 9 E 8.73 Feb 1 2025 Print: 8.730 E Feb 19 2025 MiTek Industries, Inc. Sun Jun 01 21:26:11  
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Page: 1



Scale = 1:30.8

Plate Offsets (X, Y): [5:0-1-8,Edge], [11:0-1-8,Edge]

Loading	(psf)	Spacing	1-7-3	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	40.0	Plate Grip DOL	1.00	TC	0.45	Vert(LL)	-0.04	9-10	>999	480	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.35	Vert(CT)	-0.06	9-10	>999	360		
BCLL	0.0	Rep Stress Incr	YES	WB	0.28	Horz(CT)	0.01	8	n/a	n/a		
BCDL	5.0	Code	IRC2021/TPI2014	Matrix-SH							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)

#### 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, Except:  
6-0-0 oc bracing: 12-13.

**REACTIONS** (size) 8= Mechanical, 12=3-0-0, 13=3-0-0  
Max Uplift 13=-122 (LC 7)  
Max Grav 8=438 (LC 4), 12=847 (LC 7),  
13=148 (LC 8)

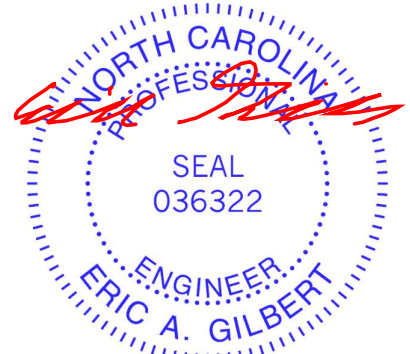
**FORCES** (lb) - Maximum Compression/Maximum  
Tension

TOP CHORD 1-13=-93/0, 7-8=-437/0, 1-2=0/0,  
2-3=-94/423, 3-4=-779/0, 4-5=-779/0,  
5-6=-427/0, 6-7=-427/0  
BOT CHORD 12-13=-423/94, 11-12=0/506, 10-11=0/779,  
9-10=0/779, 8-9=0/0  
WEBS 4-11=-167/0, 5-10=-16/24, 5-9=-397/0,  
6-9=-204/0, 7-9=0/590, 2-12=-466/0,  
3-12=-823/0, 3-11=0/352, 2-13=-105/473

#### NOTES

- Unbalanced floor live loads have been considered for this design.
- Bearings are assumed to be: Joint 12 SP No.2 .
- Refer to girder(s) for truss to truss connections.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 122 lb uplift at joint 13.
- 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



June 2,2025

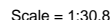
**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 BEFORE USE.**

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)

ENGINEERING BY  
**TRENCO**  
A MiTek Affiliate

818 Soundside Road  
Edenton, NC 27932

Carter Components (Sanford, NC), Sanford, NC - 27332, Run: 9 E 8.73 Feb 1 2025 Print: 8.730 E Feb 19 2025 MiTek Industries, Inc. Sun Jun 01 21:26:11 Page: 1  
ID:AgKh7y?Ww?iIEl9mK1wt1CzPuSl-RfC?PsB70Hq3NSaPanL8w3uITXbGKWrcDOI7J4zJC?f



<b>Loading</b>	(psf)	<b>Spacing</b>	1-7-3	<b>CSI</b>		<b>DEFL</b>	in	(loc)	l/defl	L/d	<b>PLATES</b>	<b>GRIP</b>
TCLL	40.0	Plate Grip DOL	1.00	TC	0.45	Vert(LL)	-0.04	9-10	>999	480	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.35	Vert(CT)	-0.06	9-10	>999	360		
BCLL	0.0	Rep Stress Incr	YES	WB	0.28	Horz(CT)	0.01	8	n/a	n/a		
BCDL	5.0	Code	IRC2021/TPI2014	Matrix-SH							Weight: 76 lb	FT = 20%F, 11%E

## LOAD CASE(S) Standard

## NOTES

- 1) Unbalanced floor live loads have been considered for this design.
- 2) Bearings are assumed to be: , Joint 12 SP No.2 .
- 3) Refer to girder(s) for truss to truss connections.
- 4) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 127 lb uplift at joint 13.
- 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.



June 2, 2025

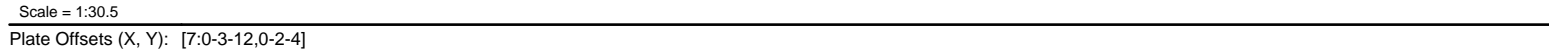


Design valid for use only with MiTeK® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall 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](http://www.tpinet.org)) and **BCSI Building Component Safety Information** available from the Structural Building Components Association ([www.sbcacomponents.com](http://www.sbcacomponents.com))



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Carter Components (Sanford, NC), Sanford, NC - 27332, Run: 9 E 8.73 Feb 1 2025 Print: 8.730 E Feb 19 2025 MiTek Industries, Inc. Sun Jun 01 21:26:12 Page: 1  
ID:Kh6PRPzF9xOexJ4k2O1UG2zPXiO-RIC?PsB70Hq3NSgPqnL8w3ulTXbGKWrCDoi7J4zJC?fi

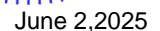


<b>LUMBER</b>		6) Load case(s) 1, 2, 5, 6, 8, 9 has/have been modified. Building designer must review loads to verify that they are correct for the intended use of this truss.	5) Dead + 0.75 Roof Live (balanced) + 0.75 Uninhab. Attic Storage + 0.75 Attic Floor: Lumber Increase=1.00, Plate Increase=1.00 Uniform Loads (lb/ft) Vert: 6-8=-8, 1-5=-737 Concentrated Loads (lb) Vert: 5=-160 (B), 6=-327 (F), 2=-151 (B), 9=-324 (F), 10=-324 (F), 11=-324 (F), 12=-324 (F), 13=-324 (F), 14=-324 (F), 15=-151 (B), 16=-151 (B), 17=-151 (B), 18=-151 (B)
TOP CHORD	2x4 SP 2400F 2.0E		
BOT CHORD	2x4 SP 2400F 2.0E		
WEBS	2x4 SP No.3 *Except* 8-2,7-4,6-4:2x4 SP No.2	7) 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.	
<b>BRACING</b>		8) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 216 lb down and 119 lb up at 1-3-4, 215 lb down and 119 lb up at 3-3-4, 215 lb down and 119 lb up at 5-3-4, 215 lb down and 119 lb up at 7-3-4, and 215 lb down and 119 lb up at 9-3-4, and 225 lb down and 113 lb up at 10-8-4 on top chord, and 399 lb down at 1-4-3, 399 lb down at 2-11-6, 399 lb down at 4-6-9, 399 lb down at 6-1-12, 399 lb down at 7-8-15, and 399 lb down at 9-4-2, and 402 lb down at 10-8-4 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.	6) Dead + 0.75 Snow (balanced) + 0.75 Uninhab. Attic Storage + 0.75 Attic Floor: Lumber Increase=1.00, Plate Increase=1.00 Uniform Loads (lb/ft) Vert: 6-8=-8, 1-5=-737 Concentrated Loads (lb) Vert: 5=-168 (B), 6=-327 (F), 2=-159 (B), 9=-324 (F), 10=-324 (F), 11=-324 (F), 12=-324 (F), 13=-324 (F), 14=-324 (F), 15=-159 (B), 16=-159 (B), 17=-159 (B), 18=-159 (B)
<b>REACTIONS</b> (size) 6= Mechanical, 8= Mechanical Max Grav 6=6195 (LC 1), 8=5762 (LC 1)			
<b>FORCES</b> (lb) - Maximum Compression/Maximum Tension			
TOP CHORD	1-8=-1248/0, 5-6=-1154/0, 1-2=-760/0, 2-3=-12993/0, 3-4=-12993/0, 4-5=-559/0		
BOT CHORD	7-8=0/9710, 6-7=0/8593		
WEBS	2-8=-9753/0, 2-7=0/3608, 3-7=-2163/0, 4-7=0/4836, 4-6=-9065/0		

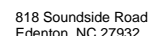
- 1) 2-ply truss to be connected together with 10d (0.131"x3") nails as follows:  
Top chords connected as follows: 2x4 - 1 row at 0-6-0 oc.  
Bottom chords connected as follows: 2x4 - 1 row at 0-9-0 oc.  
Web connected as follows: 2x4 - 1 row at 0-9-0 oc.
- 2) All loads are considered equally applied to all plies, except if noted as front (F) or back (B) face in the LOAD CASE(S) section. Ply to ply connections have been provided to distribute only loads noted as (F) or (B), unless otherwise indicated.
- 3) Unbalanced floor live loads have been considered for this design.
- 4) All plates are MT20 plates unless otherwise indicated.
- 5) Refer to girder(s) for truss to truss connections.

- 1) Dead + Floor Live (balanced): Lumber Increase=1.00, Plate Increase=1.00  
Uniform Loads (lb/ft)  
Vert: 6-8=-8, 1-5=-806  
Concentrated Loads (lb)  
Vert: 5=-124 (B), 6=-402 (F), 2=-115 (B), 9=-399 (F), 10=-399 (F), 11=-399 (F), 12=-399 (F), 13=-399 (F), 14=-399 (F), 15=-115 (B), 16=-115 (B), 17=-115 (B), 18=-115 (B)
- 2) Dead + Uninhabitable Attic Storage: Lumber Increase=1.00, Plate Increase=1.00  
Uniform Loads (lb/ft)  
Vert: 6-8=-8, 1-5=-806  
Concentrated Loads (lb)  
Vert: 5=-124 (B), 6=-402 (F), 2=-115 (B), 9=-399 (F), 10=-399 (F), 11=-399 (F), 12=-399 (F), 13=-399 (F), 14=-399 (F), 15=-115 (B), 16=-115 (B), 17=-115 (B), 18=-115 (B)

- 5) Dead + 0.75 Roof Live (balanced) + 0.75 Uninhab. Attic Storage + 0.75 Attic Floor: Lumber Increase=1.00,  
Plate Increase=1.00  
Uniform Loads (lb/ft)  
Vert: 6-8=-8, 1-5=-737  
Concentrated Loads (lb)  
Vert: 5=-160 (B), 6=-327 (F), 2=-151 (B), 9=-324 (F),  
10=-324 (F), 11=-324 (F), 12=-324 (F), 13=-324 (F),  
14=-324 (F), 15=-151 (B), 16=-151 (B), 17=-151 (B),  
18=-151 (B)
- 6) Dead + 0.75 Snow (balanced) + 0.75 Uninhab. Attic Storage + 0.75 Attic Floor: Lumber Increase=1.00,  
Plate Increase=1.00  
Uniform Loads (lb/ft)  
Vert: 6-8=-8, 1-5=-737  
Concentrated Loads (lb)  
Vert: 5=-168 (B), 6=-327 (F), 2=-159 (B), 9=-324 (F),  
10=-324 (F), 11=-324 (F), 12=-324 (F), 13=-324 (F),  
14=-324 (F), 15=-159 (B), 16=-159 (B), 17=-159 (B),  
18=-159 (B)
- 8) Dead + 0.75 Snow (bal.) + 0.75 Uninhab. Attic Storage + 0.75 Attic Floor + 0.75(0.6 MWFRS Wind (Neg. Int) Left): Lumber Increase=1.00, Plate Increase=1.00



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Job	Truss	Truss Type	Qty	Ply	Overhills-2nd Floor-CL-20-020
25040114-B	F212	Floor Girder	1	2	Job Reference (optional)

I73877243

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

Run: 9 E 8.73 Feb 1 2025 Print: 8.730 E Feb 19 2025 MiTek Industries, Inc. Sun Jun 01 21:26:12  
ID:Kh6PRPzF9xOexJ4k2O1UG2zPXfO-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

Page: 2

## Uniform Loads (lb/ft)

Vert: 6-8=-8, 1-5=-737

## Concentrated Loads (lb)

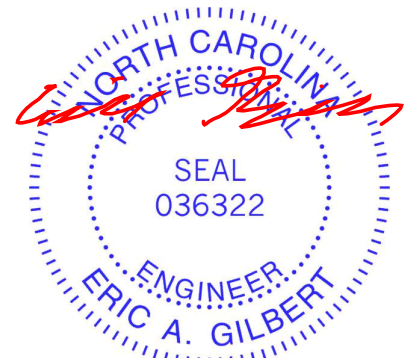
Vert: 5=-225 (B), 6=-327 (F), 2=-215 (B), 9=-324 (F),  
10=-324 (F), 11=-324 (F), 12=-324 (F), 13=-324 (F),  
14=-324 (F), 15=-216 (B), 16=-215 (B), 17=-215 (B),  
18=-215 (B)

- 9) Dead + 0.75 Roof Live (bal.) + 0.75 Uninhab. Attic  
Storage + 0.75 Attic Floor + 0.75(0.6 MWFRS Wind  
(Neg. Int) Left): Lumber Increase=1.00, Plate  
Increase=1.00

## Uniform Loads (lb/ft)

Vert: 6-8=-8, 1-5=-737

## Concentrated Loads (lb)

Vert: 5=-217 (B), 6=-327 (F), 2=-207 (B), 9=-324 (F),  
10=-324 (F), 11=-324 (F), 12=-324 (F), 13=-324 (F),  
14=-324 (F), 15=-208 (B), 16=-207 (B), 17=-207 (B),  
18=-207 (B)

June 2, 2025

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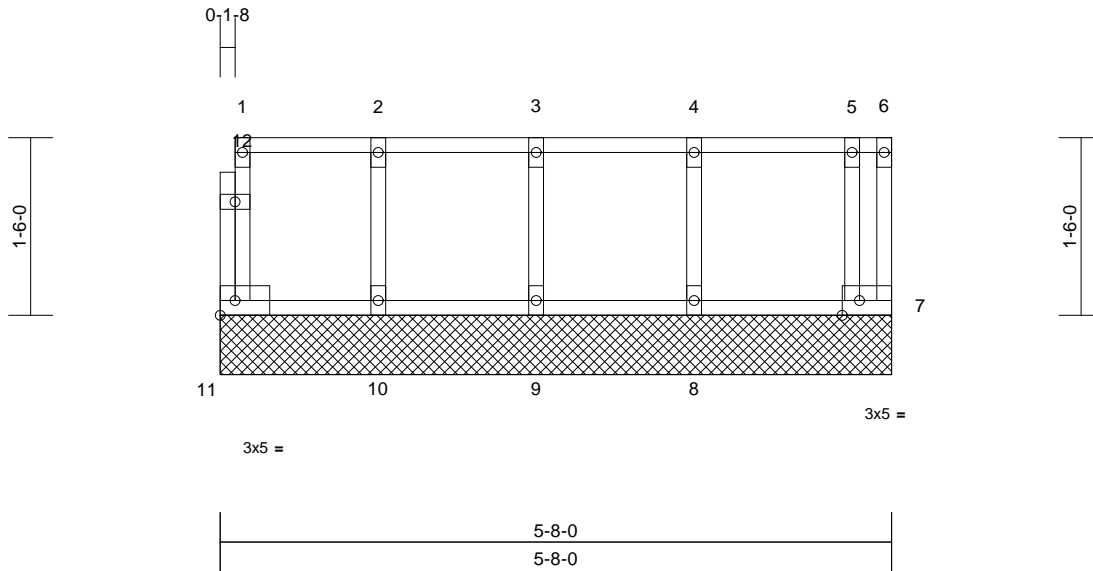
Job	Truss	Truss Type	Qty	Ply	Overhills-2nd Floor-CL-20-020
25040114-B	F210	Floor Supported Gable	1	1	Job Reference (optional)

I73877244

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

Run: 9 E 8.73 Feb 1 2025 Print: 8.730 E Feb 19 2025 MiTek Industries, Inc. Sun Jun 01 21:26:11  
ID:j8Q5sAL4GR6hsEMj1ZJJE0zPfyr-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWRCDoi7J4zJC?f

Page: 1



Scale = 1:19.4

Plate Offsets (X, Y): [7:0-1-12,Edge]

Loading	(psf)	Spacing	1-7-3	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL	40.0	Plate Grip DOL	1.00	TC	0.07	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	7	n/a	n/a		
BCDL	5.0	Code	IRC2021/TPI2014	Matrix-R							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)  
 OTHERS 2x4 SP No.3(flat)

**BRACING**

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

**REACTIONS** (size) 7=5-8-0, 8=5-8-0, 9=5-8-0,  
 10=5-8-0, 11=5-8-0  
 Max Grav 7=74 (LC 1), 8=126 (LC 1), 9=117  
 (LC 1), 10=109 (LC 1), 11=49 (LC  
 1)

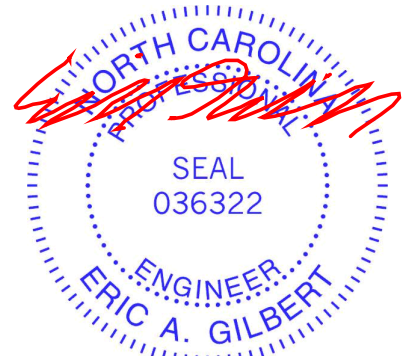
**FORCES** (lb) - Maximum Compression/Maximum  
 Tension

TOP CHORD 1-11=-43/0, 6-7=0/10, 1-2=-9/0, 2-3=-9/0,  
 3-4=-9/0, 4-5=-9/0, 5-6=-1/0  
 BOT CHORD 10-11=0/9, 9-10=0/9, 8-9=0/9, 7-8=0/9  
 WEBS 2-10=-102/0, 3-9=-106/0, 4-8=-113/0,  
 5-7=-80/0

**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 .
- 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



June 2,2025

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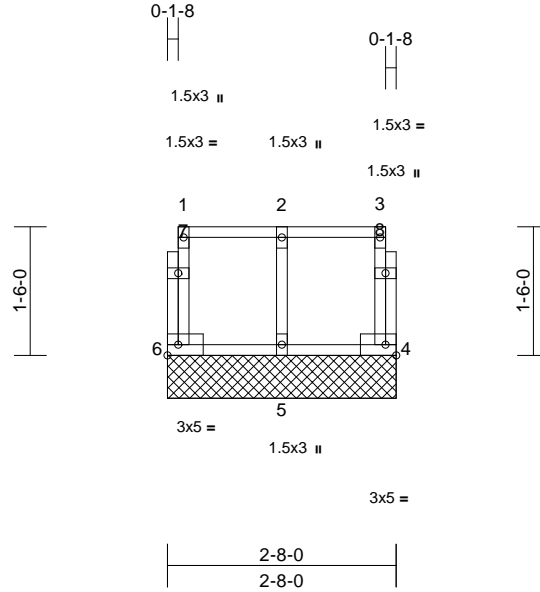
818 Soundside Road  
 Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Overhills-2nd Floor-CL-20-020
25040114-B	F211	Floor Supported Gable	1	1	Job Reference (optional)
					I73877245

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

Run: 9 E 8.73 Feb 1 2025 Print: 8.730 E Feb 19 2025 MiTek Industries, Inc. Sun Jun 01 21:26:11  
ID:tlxTEN7oa40KRtwhv75DRJzPuS8-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

Page: 1



Scale = 1:26.9

Loading	(psf)	Spacing	1-7-3	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	40.0	Plate Grip DOL	1.00	TC	0.05	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	0.02	Horiz(TL)	0.00	4	n/a	n/a		
BCDL	5.0	Code	IRC2021/TPI2014	Matrix-R							Weight: 16 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 2-8-0 oc purlins, except end verticals.
BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS	(size)	4=2-8-0, 5=2-8-0, 6=2-8-0
	Max Grav	4=47 (LC 1), 5=109 (LC 1), 6=47 (LC 1)

FORCES	(lb) - Maximum Compression/Maximum Tension
TOP CHORD	1-6=-42/0, 3-4=-42/0, 1-2=-7/0, 2-3=-7/0
BOT CHORD	5-6=0/7, 4-5=0/7
WEBS	2-5=-100/0

#### 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 .
- 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



June 2,2025

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

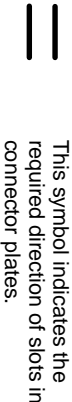
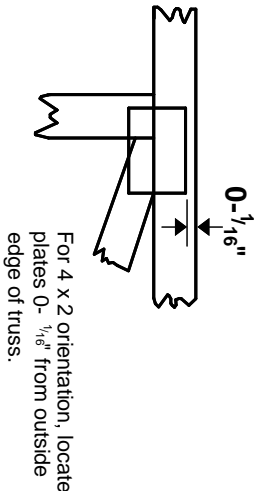
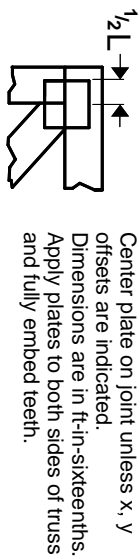
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# Symbols

## PLATE LOCATION AND ORIENTATION



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

## PLATE SIZE

**4 X 4**

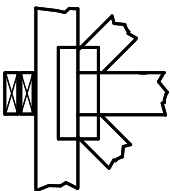
The first dimension is the plate width measured perpendicular to slots. Second dimension is the length parallel to slots.

## 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.

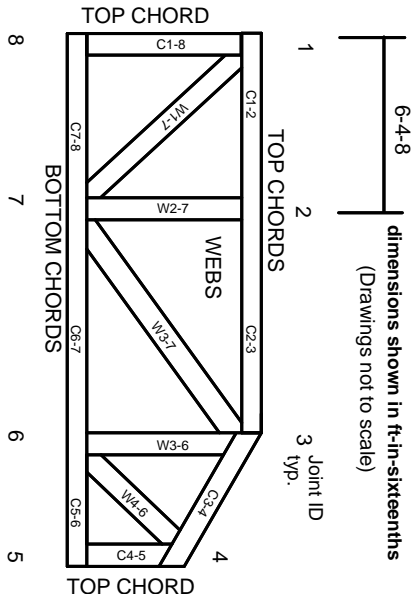
## BEARING



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/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 1 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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