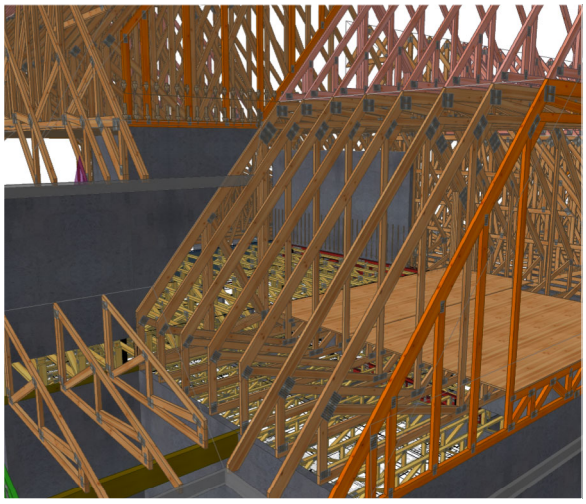
Carter Sanford Component Plant
298 Harvey Faulk Rd
Sanford, NC 27332

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.

Apprved by: _____ **Date:** _____

General Notes:

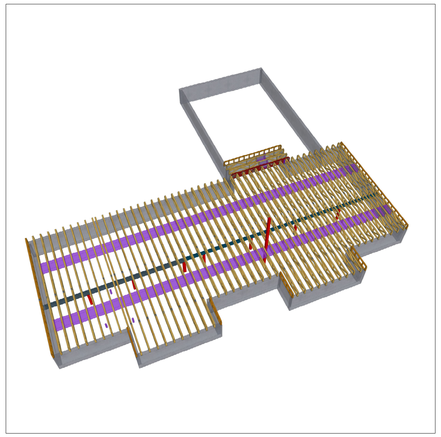
** CUTTING OR DRILLING OF COMPONENTS SHOULD NOT BE DONE WITHOUT CONTACTING COMPONENT SUPPLIER FIRST. CUSTOMER TAKES FULL RESPONSIBILITY FOR COMPONENTS IF CUT BEFORE AUTHORIZATION.

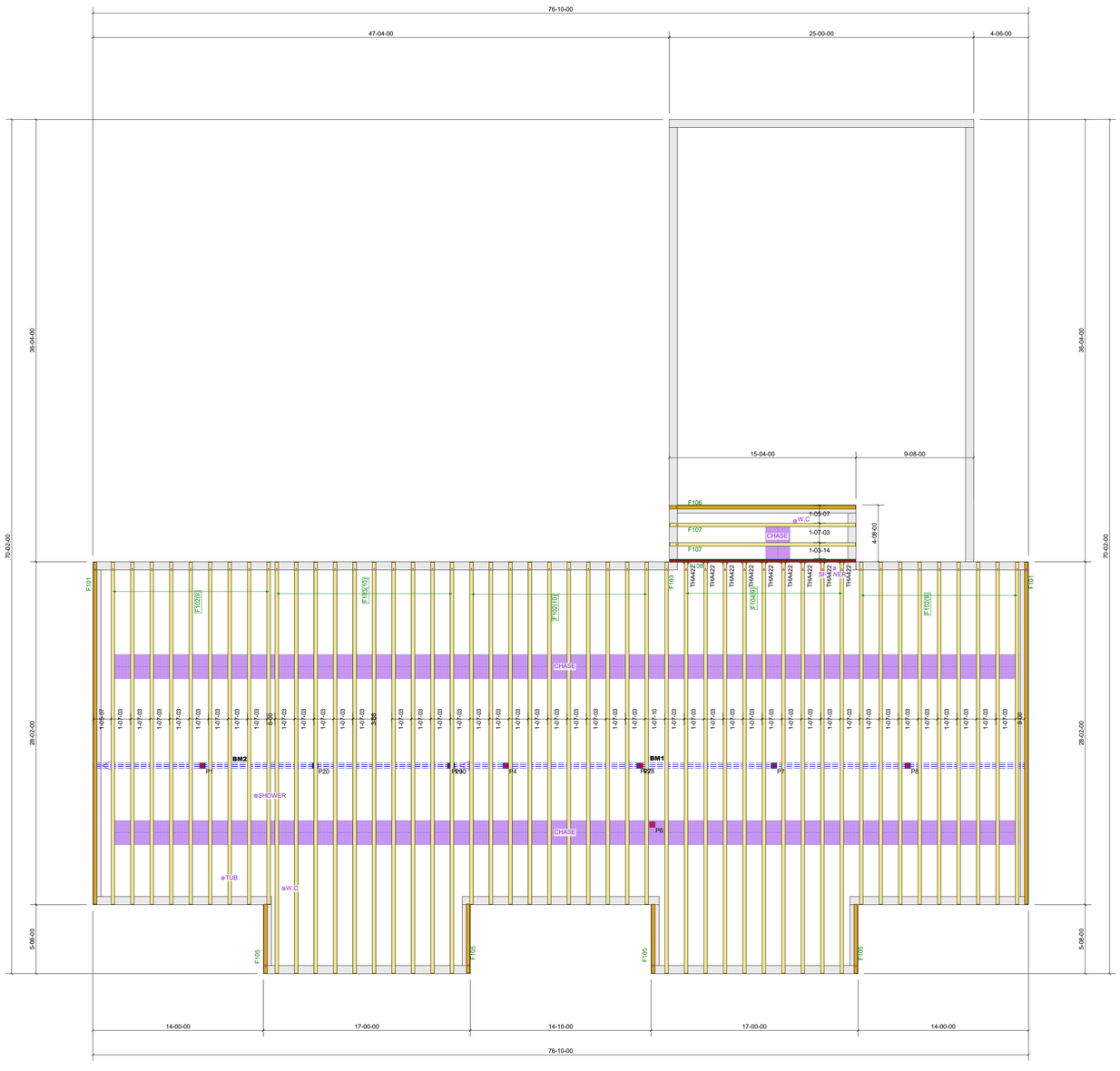
** ALL POINT LOADS FROM ABOVE MUST BE TRANSFERRED TO BEARING FROM UNDER SIDE OF SHEATHING.

** ALL BEARING POINTS MUST BE INSTALLED PRIOR TO SETTING ANY COMPONENTS.

** DAMAGED COMPONENTS SHOULD NOT BE INSTALLED UNLESS TOLD TO BY THE COMPONENT PLANT.

** FRAMER MUST REFER TO PLANS WHILE SETTING COMPONENTS.

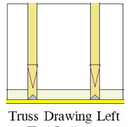




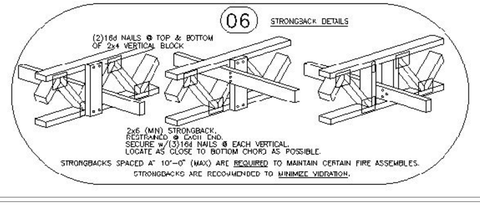
Products

PlotID	Length	Product	Plies	Net Qty	Fab Type
BM1	48-00-00	2.1 RigidLam SP LVL 1-3/4 x 9-1/4	3	3	FF
BM2	30-00-00	2.1 RigidLam SP LVL 1-3/4 x 14	3	3	FF

Floor Hanger List	
THA422	9



Truss Drawing Left End Indicator



PRELIMINARY - NOT FOR CONSTRUCTION

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

** DIMENSIONS ARE READ AS: FOOT-INCH-SIXTEENTH.

** GIRDERS MUST BE FULLY CONNECTED TOGETHER PRIOR TO ADDING ANY LOADS.

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

THIS IS A TRUSS PLACEMENT DIAGRAM ONLY. These trusses are designed as individual components to be incorporated into the building design at the specification of the building designer. See individual design sheets for each truss design identified on the placement drawing. The building designer is responsible for temporary and permanent bracing of the roof and floor systems and for the overall structure. The design of the trusses supported by this truss design assumes standard load duration. This design is based upon parameters shown on the individual design sheets and is for an individual building component. For general guidance regarding the bracing, consult "Bracing of Wood Trusses" available from the Truss Plate Institute, 583 D'Onofrio Drive; Madison, WI 53179

CAPITAL Lumber

Probuild

Overhills

1ST FLOOR TRUSS PLACEMENT PLAN

Scale: ***NTS***

Date: 6/1/2025

Designer: NP

Project Number: 25040114

Sheet Number:

1/3

** 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.

ENGINEERING BY TRENCO
A MiTek Affiliate

Trenco
818 Soundside Rd
Edenton, NC 27932

Re: 25040114-C
Overhills-Crawl-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: I73877246 thru I73877253

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

North Carolina COA: C-0844

June 2,2025

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	Overhills-Crawl-CL-20-020
25040114-C	F105	Floor Supported Gable	4	1	I73877246 Job Reference (optional)

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

Run: 8.73 E Feb 19 2025 Print: 8.730 E Feb 19 2025 MiTek Industries, Inc. Sun Jun 01 21:26:52 Page: 1
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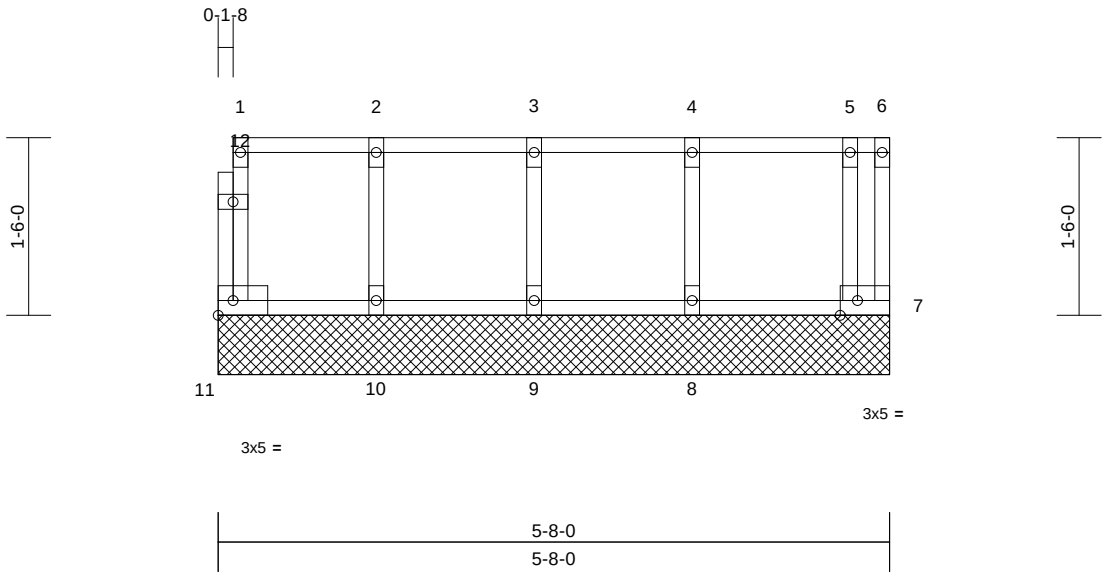

Scale = 1:19.4

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

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

June 2,2025

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

Job	Truss	Truss Type	Qty	Ply	Overhills-Crawl-CL-20-020
25040114-C	F108	Floor Girder	1	2	I73877247 Job Reference (optional)

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

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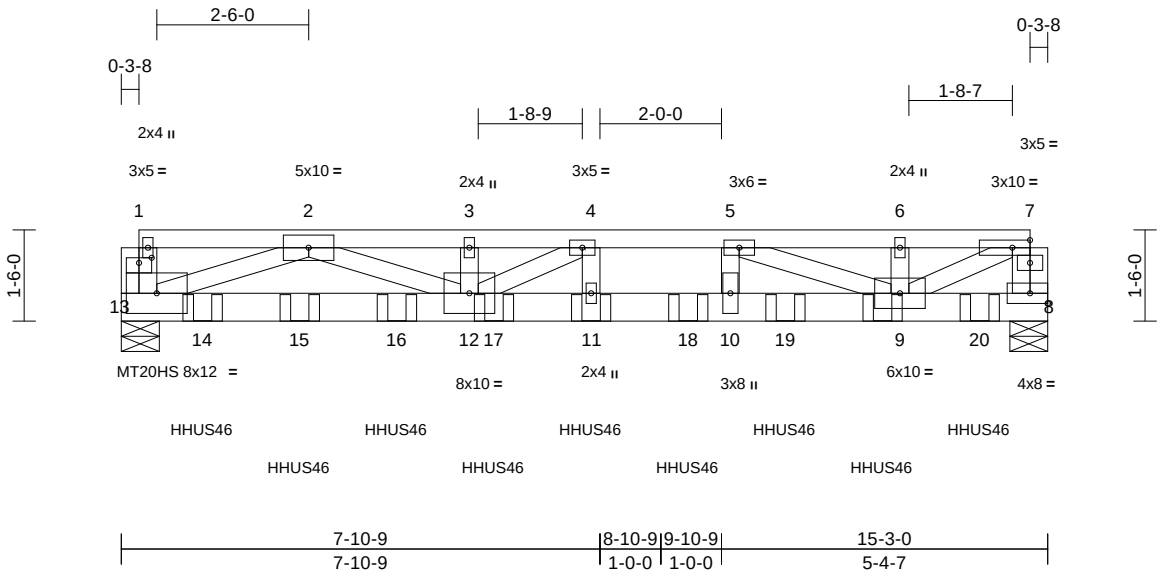

Scale = 1:37.9

Plate Offsets (X, Y): [1:0-2-8,0-1-0]

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	0.78	Vert(LL)	-0.27	11-12	>662	480	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.59	Vert(CT)	-0.36	11-12	>489	360	MT20HS	187/143
BCLL	0.0	Rep Stress Incr	NO	WB	0.81	Horz(CT)	0.04	8	n/a	n/a		
BCDL	5.0	Code	IRC2021/TPI2014	Matrix-SH							Weight: 167 lb	FT = 11%

LUMBER
TOP CHORD 2x4 SP No.2
BOT CHORD 2x6 SP 2400F 2.0E
WEBS 2x4 SP No.2
OTHERS 2x4 SP No.2

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) 8=0-7-8, 13=0-7-8
Max Grav 8=3699 (LC 1), 13=3584 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-13=-143/0, 7-8=-2859/0, 1-2=-827/0, 2-3=-11027/0, 3-4=-11027/0, 4-5=-10875/0, 5-6=-5631/0, 6-7=-5631/0
BOT CHORD 12-13=0/6386, 11-12=0/10875, 10-11=0/10875, 9-10=0/10875, 8-9=0/528
WEBS 4-11=-614/741, 5-10=0/1781, 2-13=-5993/0, 2-12=0/5044, 3-12=-140/36, 4-12=-1775/1225, 5-9=-5654/0, 6-9=-121/83, 7-9=0/5764

NOTES
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 0-2-0 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.
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) All bearings are assumed to be SP 2400F 2.0E .
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) Use Simpson Strong-Tie HHUS46 (14-10d Girder, 6-10d Truss) or equivalent spaced at 1-7-3 oc max. starting at 1-4-1 from the left end to 14-1-9 to connect truss(es) to front face of bottom chord.
8) Fill all nail holes where hanger is in contact with lumber.

LOAD CASE(S) Standard
1) Dead + Floor Live (balanced): Lumber Increase=1.00, Plate Increase=1.00
Uniform Loads (lb/ft)
Vert: 8-13=-8, 1-7=-80
Concentrated Loads (lb)
Vert: 11=-666 (F), 9=-666 (F), 14=-666 (F), 15=-666 (F), 16=-666 (F), 17=-666 (F), 18=-666 (F), 19=-666 (F), 20=-666 (F)

June 2,2025

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

Job	Truss	Truss Type	Qty	Ply	Overhills-Crawl-CL-20-020
25040114-C	F107	Floor	2	1	I73877248 Job Reference (optional)

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

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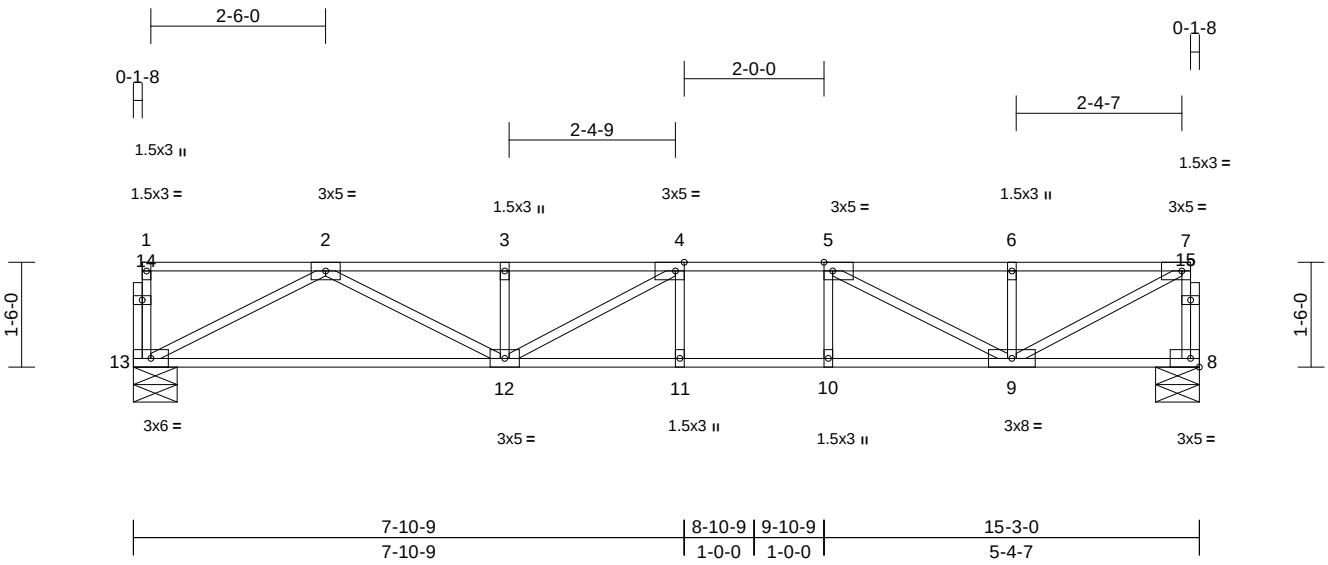

Scale = 1:33

Plate Offsets (X, Y): [4:0-1-8,Edge], [5:0-1-8,Edge], [7:0-1-8,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	0.67	Vert(LL)	-0.20	11-12	>913	480	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.75	Vert(CT)	-0.25	11-12	>713	360		
BCLL	0.0	Rep Stress Incr	YES	WB	0.55	Horz(CT)	0.03	8	n/a	n/a		
BCDL	5.0	Code	IRC2021/TPI2014	Matrix-SH							Weight: 80 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 6-0-0 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (size) 8=0-7-8, 13=0-7-8
Max Grav 8=655 (LC 1), 13=655 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-13=-84/0, 7-8=-640/0, 1-2=-4/0, 2-3=-1683/0, 3-4=-1683/0, 4-5=-1733/0, 5-6=-1037/0, 6-7=-1037/0
BOT CHORD 12-13=0/1064, 11-12=0/1733, 10-11=0/1733, 9-10=0/1733, 8-9=0/29
WEBS 4-11=-131/30, 5-10=-2/160, 2-13=-1197/0, 2-12=0/702, 3-12=-252/0, 4-12=-311/129, 5-9=-824/0, 6-9=-240/9, 7-9=0/1151

NOTES
1) Unbalanced floor live loads have been considered for this design.
2) All bearings are assumed to be SP No.1 .
3) Recommend 2x6 strongbacks, on edge, spaced at 10-00-00 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.

LOAD CASE(S) Standard

June 2,2025

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

Job	Truss	Truss Type	Qty	Ply	Overhills-Crawl-CL-20-020
25040114-C	F106	Floor Supported Gable	1	1	I73877249 Job Reference (optional)

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

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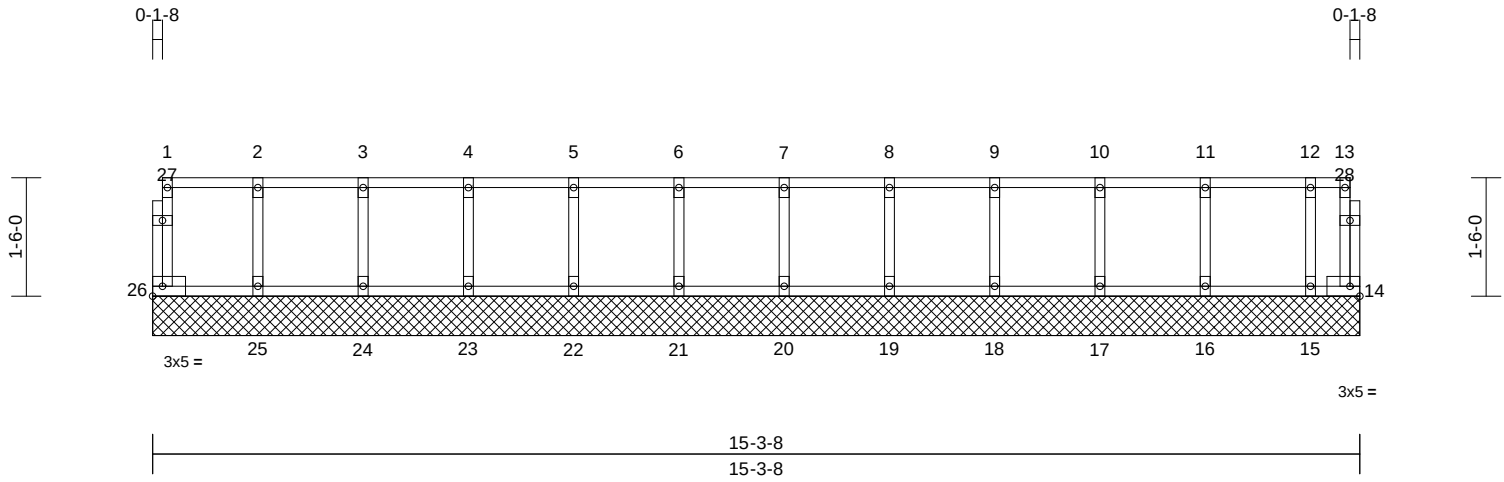

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Loading	(psf)	Spacing	1-7-3	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	40.0	Plate Grip DOL	1.00	TC	0.06	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.02	Vert(TL)	n/a	-	n/a	999		
BCLL	0.0	Rep Stress Incr	YES	WB	0.03	Horiz(TL)	0.00	14	n/a	n/a		
BCDL	5.0	Code	IRC2021/TPI2014	Matrix-R							Weight: 72 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=15-3-8, 15=15-3-8, 16=15-3-8, 17=15-3-8, 18=15-3-8, 19=15-3-8, 20=15-3-8, 21=15-3-8, 22=15-3-8, 23=15-3-8, 24=15-3-8, 25=15-3-8, 26=15-3-8
Max Grav 14=11 (LC 1), 15=82 (LC 1), 16=123 (LC 1), 17=116 (LC 1), 18=118 (LC 1), 19=117 (LC 1), 20=117 (LC 1), 21=117 (LC 1), 22=117 (LC 1), 23=117 (LC 1), 24=117 (LC 1), 25=118 (LC 1), 26=42 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-26=-39/0, 13-14=-4/0, 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, 9-10=-4/0, 10-11=-4/0, 11-12=-4/0, 12-13=-4/0
BOT CHORD 25-26=0/4, 24-25=0/4, 23-24=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, 15-16=0/4, 14-15=0/4
WEBS 2-25=-106/0, 3-24=-107/0, 4-23=-106/0, 5-22=-107/0, 6-21=-107/0, 7-20=-107/0, 8-19=-107/0, 9-18=-107/0, 10-17=-105/0, 11-16=-111/0, 12-15=-81/0

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.

LOAD CASE(S) Standard

June 2,2025

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

Job	Truss	Truss Type	Qty	Ply	Overhills-Crawl-CL-20-020
25040114-C	F102	Floor	28	1	I73877250 Job Reference (optional)

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

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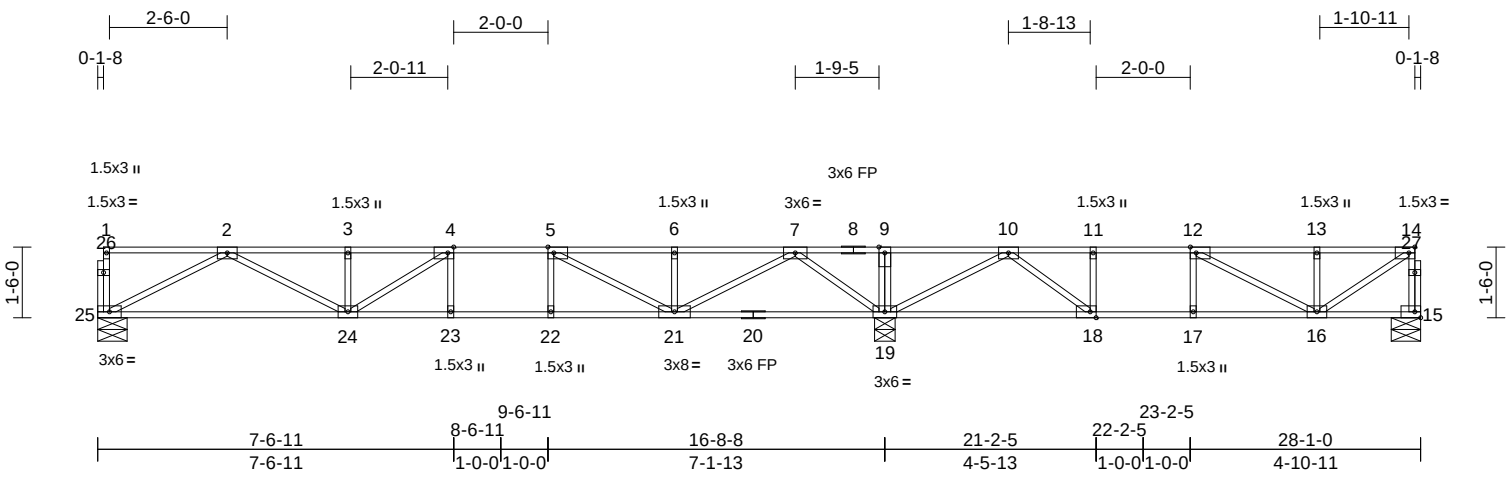


Scale = 1:48.9

Plate Offsets (X, Y): [4:0-1-8,Edge], [5:0-1-8,Edge], [12:0-1-8,Edge], [14:0-1-8,Edge], [18:0-1-8,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	0.63	Vert(LL)	-0.17	23-24	>999	480	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.89	Vert(CT)	-0.22	23-24	>887	360		
BCLL	0.0	Rep Stress Incr	YES	WB	0.53	Horz(CT)	0.04	15	n/a	n/a		
BCDL	5.0	Code	IRC2021/TPI2014	Matrix-SH							Weight: 145 lb	FT = 20%F, 11%E

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

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

REACTIONS (size) 15=0-7-8, 19=0-5-4, 25=0-7-8
Max Grav 15=455 (LC 4), 19=1366 (LC 1), 25=686 (LC 10)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-25=-83/0, 14-15=-452/0, 1-2=-4/0, 2-3=-1785/0, 3-4=-1785/0, 4-5=-1942/0, 5-6=-1421/0, 6-7=-1421/0, 7-9=0/829, 9-10=0/831, 10-11=-852/45, 11-12=-852/45, 12-13=-603/0, 13-14=-603/0
BOT CHORD 24-25=0/1123, 23-24=0/1942, 22-23=0/1942, 21-22=0/1942, 19-21=-6/495, 18-19=-277/530, 17-18=-45/852, 16-17=-45/852, 15-16=0/21
WEBS 4-23=-102/39, 5-22=-15/117, 9-19=-205/0, 11-18=-251/0, 12-17=-76/0, 2-25=-1264/0, 2-24=0/751, 3-24=-234/0, 4-24=-321/69, 5-21=-699/0, 6-21=-232/4, 7-21=0/1114, 7-19=-1194/0, 10-19=-994/0, 10-18=0/557, 12-16=-281/139, 13-16=-256/0, 14-16=0/705

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) 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

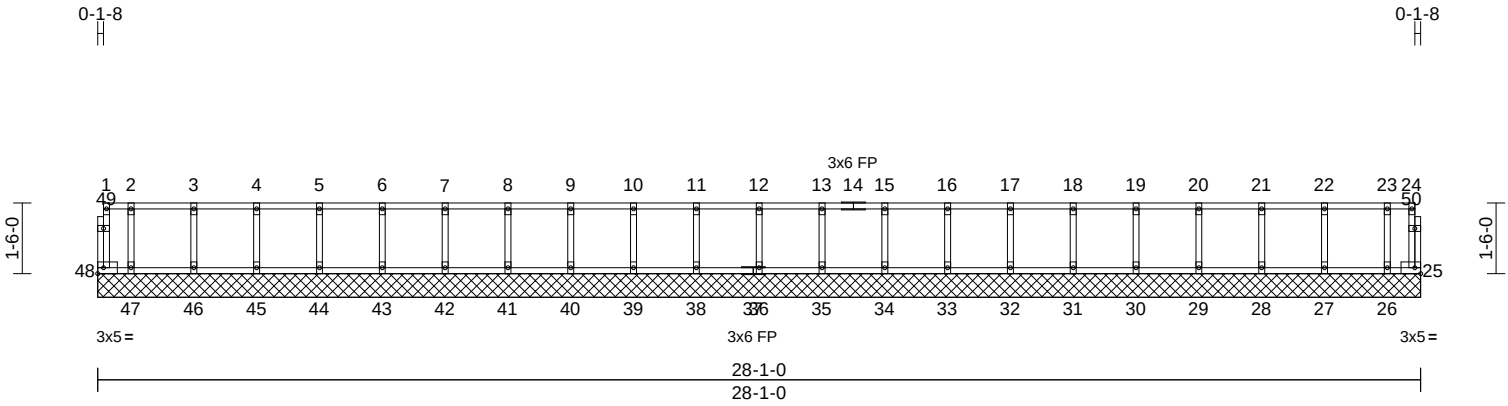
June 2,2025

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

Job	Truss	Truss Type	Qty	Ply	Overhills-Crawl-CL-20-020
25040114-C	F101	Floor Supported Gable	2	1	I73877251 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. Sun Jun 01 21:26:50 Page: 1
ID:?FDOyqHyW3fUVtPBAMqGT2zPuRx-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f



Scale = 1:48.9

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	0.06	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	25	n/a	n/a		
BCDL	5.0	Code	IRC2021/TPI2014	Matrix-R							Weight: 129 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) 25=28-1-0, 26=28-1-0, 27=28-1-0, 28=28-1-0, 29=28-1-0, 30=28-1-0, 31=28-1-0, 32=28-1-0, 33=28-1-0, 34=28-1-0, 35=28-1-0, 36=28-1-0, 38=28-1-0, 39=28-1-0, 40=28-1-0, 41=28-1-0, 42=28-1-0, 43=28-1-0, 44=28-1-0, 45=28-1-0, 46=28-1-0, 47=28-1-0, 48=28-1-0
Max Grav 25=5 (LC 1), 26=96 (LC 1), 27=121 (LC 1), 28=116 (LC 1), 29=118 (LC 1), 30=117 (LC 1), 31=117 (LC 1), 32=117 (LC 1), 33=117 (LC 1), 34=117 (LC 1), 35=117 (LC 1), 36=117 (LC 1), 38=117 (LC 1), 39=117 (LC 1), 40=117 (LC 1), 41=117 (LC 1), 42=117 (LC 1), 43=117 (LC 1), 44=118 (LC 1), 45=116 (LC 1), 46=121 (LC 1), 47=96 (LC 1), 48=5 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-48=-5/0, 24-25=-5/0, 1-2=0/0, 2-3=0/0, 3-4=0/0, 4-5=0/0, 5-6=0/0, 6-7=0/0, 7-8=0/0, 8-9=0/0, 9-10=0/0, 10-11=0/0, 11-12=0/0, 12-13=0/0, 13-15=0/0, 15-16=0/0, 16-17=0/0, 17-18=0/0, 18-19=0/0, 19-20=0/0, 20-21=0/0, 21-22=0/0, 22-23=0/0, 23-24=0/0
BOT CHORD 47-48=0/0, 46-47=0/0, 45-46=0/0, 44-45=0/0, 43-44=0/0, 42-43=0/0, 41-42=0/0, 40-41=0/0, 39-40=0/0, 38-39=0/0, 36-38=0/0, 35-36=0/0, 34-35=0/0, 33-34=0/0, 32-33=0/0, 31-32=0/0, 30-31=0/0, 29-30=0/0, 28-29=0/0, 27-28=0/0, 26-27=0/0, 25-26=0/0
WEBS 12-36=-107/0, 11-38=-107/0, 10-39=-107/0, 9-40=-107/0, 8-41=-107/0, 7-42=-107/0, 6-43=-107/0, 5-44=-107/0, 4-45=-106/0, 3-46=-111/0, 2-47=-87/0, 13-35=-107/0, 15-34=-107/0, 16-33=-107/0, 17-32=-107/0, 18-31=-107/0, 19-30=-107/0, 20-29=-107/0, 21-28=-106/0, 22-27=-111/0, 23-26=-87/0

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.

LOAD CASE(S) Standard

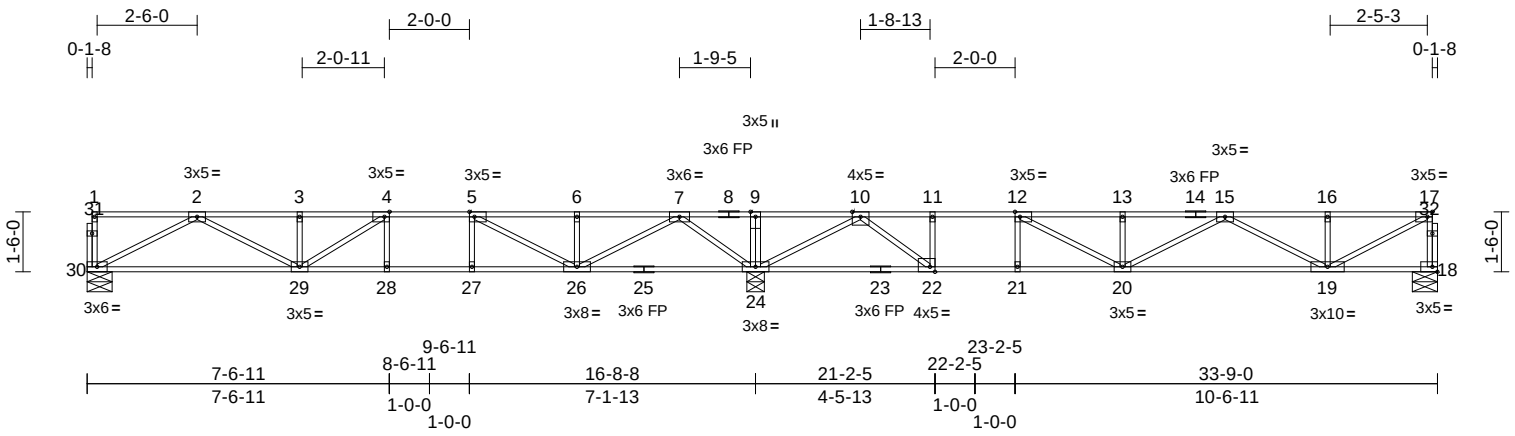
June 2,2025

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

Job	Truss	Truss Type	Qty	Ply	Overhills-Crawl-CL-20-020
25040114-C	F103	Floor	11	1	I73877252 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. Sun Jun 01 21:26:51 Page: 1
ID:?FDOyqHyW3fUVtPBAMqGT2zPuRx-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f



Scale = 1:57.6

Plate Offsets (X, Y): [4:0-1-8,Edge], [5:0-1-8,Edge], [12:0-1-8,Edge], [17:0-1-8,Edge], [22:0-1-8,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	0.75	Vert(LL)	-0.30	20-21	>677	480	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.90	Vert(CT)	-0.40	20-21	>502	360		
BCLL	0.0	Rep Stress Incr	YES	WB	0.62	Horz(CT)	0.05	18	n/a	n/a		
BCDL	5.0	Code	IRC2021/TPI2014	Matrix-SH							Weight: 173 lb	FT = 20%F, 11%E

LUMBER
TOP CHORD 2x4 SP No.2(flat) *Except* 8-14:2x4 SP 2400F 2.0E(flat)
BOT CHORD 2x4 SP No.2(flat) *Except* 23-18:2x4 SP 2400F 2.0E(flat)
WEBS 2x4 SP No.3(flat)
OTHERS 2x4 SP No.3(flat)

BRACING
TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing, Except:
6-0-0 oc bracing: 24-26,22-24.

REACTIONS (size) 18=0-7-8, 24=0-5-4, 30=0-7-8
Max Grav 18=712 (LC 4), 24=1615 (LC 1), 30=667 (LC 10)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-30=-83/0, 17-18=-703/0, 1-2=-4/0, 2-3=-1718/0, 3-4=-1718/0, 4-5=-1827/0, 5-6=-1260/0, 6-7=-1260/0, 7-9=0/947, 9-10=0/949, 10-11=-1761/0, 11-12=-1761/0, 12-13=-2209/0, 13-15=-2209/0, 15-16=-1187/0, 16-17=-1187/0
BOT CHORD 29-30=0/1088, 28-29=0/1827, 27-28=0/1827, 26-27=0/1827, 24-26=-72/289, 22-24=-340/948, 21-22=0/1761, 20-21=0/1761, 19-20=0/1858, 18-19=0/32
WEBS 4-28=-104/28, 5-27=-8/117, 9-24=-232/0, 11-22=-497/0, 12-21=-222/0, 2-30=-1224/0, 2-29=0/715, 3-29=-236/0, 4-29=-274/83, 5-26=-723/0, 6-26=-228/4, 7-26=0/1138, 7-24=-1209/0, 10-24=-1503/0, 10-22=0/1156, 12-20=0/726, 13-20=-338/0, 15-20=0/399, 15-19=-761/0, 16-19=-238/0, 17-19=0/1311

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 30 SP No.2 , Joint 24 SP No.2 , Joint 18 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.
5) CAUTION, Do not erect truss backwards.

LOAD CASE(S) Standard

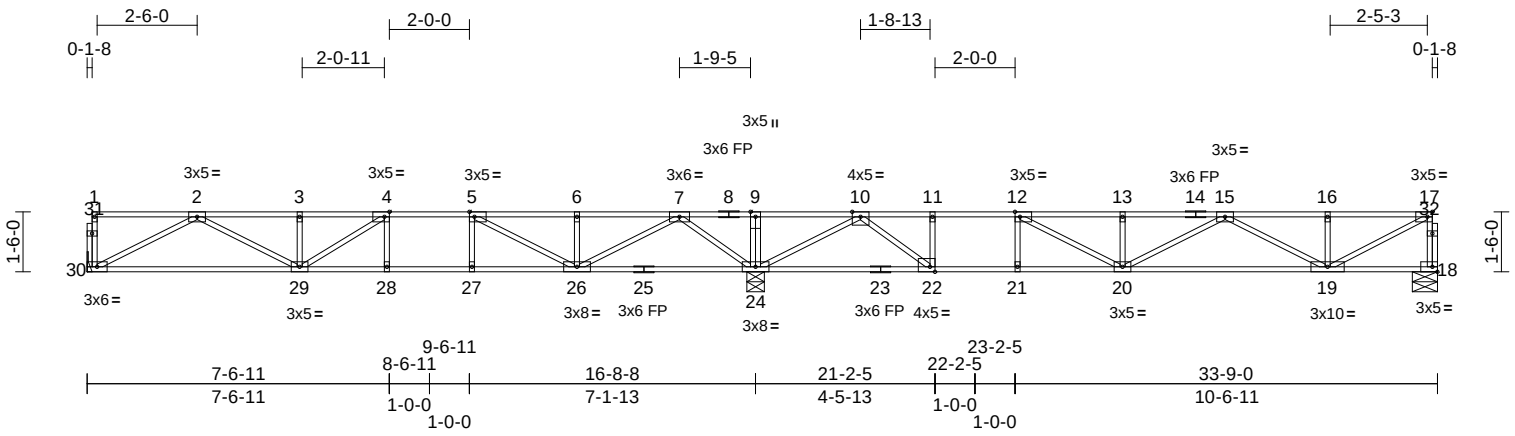
June 2,2025

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

Job	Truss	Truss Type	Qty	Ply	Overhills-Crawl-CL-20-020
25040114-C	F104	Floor	9	1	I73877253 Job Reference (optional)

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

Run: 8.73 E Feb 19 2025 Print: 8.730 E Feb 19 2025 MiTek Industries, Inc. Sun Jun 01 21:26:51 Page: 1
ID:?FDOyqHyW3fUVtPBAMqGT2zPuRx-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f



Scale = 1:57.6

Plate Offsets (X, Y): [4:0-1-8,Edge], [5:0-1-8,Edge], [12:0-1-8,Edge], [17:0-1-8,Edge], [22:0-1-8,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	0.73	Vert(LL)	-0.29	20-21	>689	480	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.68	Vert(CT)	-0.40	20-21	>510	360		
BCLL	0.0	Rep Stress Incr	YES	WB	0.63	Horz(CT)	0.04	18	n/a	n/a		
BCDL	5.0	Code	IRC2021/TPI2014	Matrix-SH							Weight: 173 lb	FT = 20%F, 11%E

LUMBER
TOP CHORD 2x4 SP No.2(flat) *Except* 8-14:2x4 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)

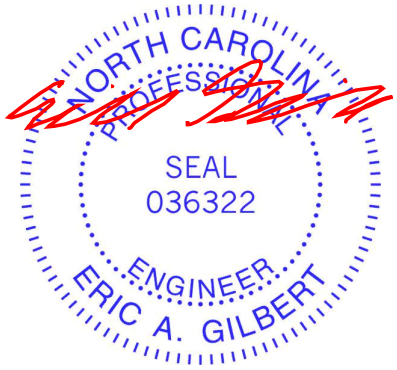
BRACING
TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing, Except:
6-0-0 oc bracing: 24-26,22-24.

REACTIONS (size) 18=0-7-8, 24=0-5-4, 30= Mechanical
Max Grav 18=714 (LC 4), 24=1607 (LC 1), 30=671 (LC 10)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-30=-82/0, 17-18=-704/0, 1-2=-4/0, 2-3=-1733/0, 3-4=-1733/0, 4-5=-1856/0, 5-6=-1300/0, 6-7=-1300/0, 7-9=0/918, 9-10=0/920, 10-11=-1776/0, 11-12=-1776/0, 12-13=-2217/0, 13-15=-2217/0, 15-16=-1190/0, 16-17=-1190/0
BOT CHORD 29-30=0/1097, 28-29=0/1856, 27-28=0/1856, 26-27=0/1856, 24-26=-37/336, 22-24=-306/967, 21-22=0/1776, 20-21=0/1776, 19-20=0/1864, 18-19=0/32
WEBS 4-28=-123/36, 5-27=-15/134, 9-24=-231/0, 11-22=-486/0, 12-21=-223/0, 2-30=-1234/0, 2-29=0/721, 3-29=-224/0, 4-29=-289/75, 5-26=-717/0, 6-26=-227/0, 7-26=0/1133, 7-24=-1203/0, 10-24=-1499/0, 10-22=0/1143, 12-20=0/707, 13-20=-334/0, 15-20=0/401, 15-19=-765/0, 16-19=-238/0, 17-19=0/1315

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 24 SP 2400F 2.0E , Joint 18 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

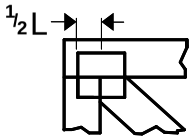


June 2,2025

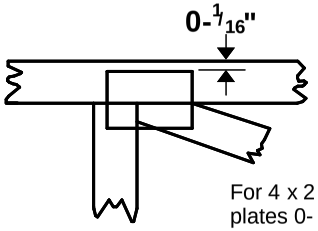
ENGINEERING BY TRENCO
A MiTek Affiliate
818 Soundside Road
Edenton, NC 27932

Symbols

PLATE LOCATION AND ORIENTATION



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



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

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

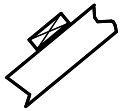
* Plate location details available in MiTek software or upon request.

PLATE SIZE

4 x 4

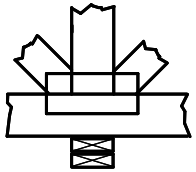
The first dimension is the plate width measured perpendicular to slots. Second dimension is the length parallel to slots.

LATERAL BRACING LOCATION



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

BEARING

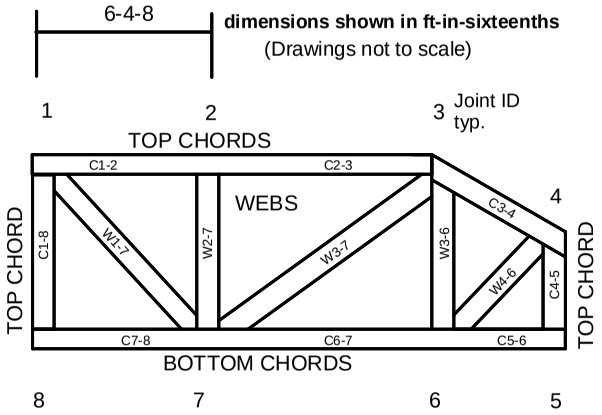


Indicates location where bearings (supports) occur. Icons vary but reaction section indicates joint number/letter where bearings occur. Min size shown is for crushing only.

Industry Standards:

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

Numbering System



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

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

Product Code Approvals

ICC-ES Reports:

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

Design General Notes

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

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

MiTek®

ENGINEERING BY TRENCO
A MiTek Affiliate

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

General Safety Notes

Failure to Follow Could Cause Property Damage or Personal Injury

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