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

Phone #:919-775-1450

Builder: **HH Hunt Homes Raleigh Durham**

Model: **Chatham FA MNR SP 3FL SL GLH**

THE PLACEMENT PLAN NOTES:

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

Approved By: _____ **Date:** _____

** FRAMER MUST REFER TO PLANS WHILE SETTING COMPONENTS.

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

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

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.

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

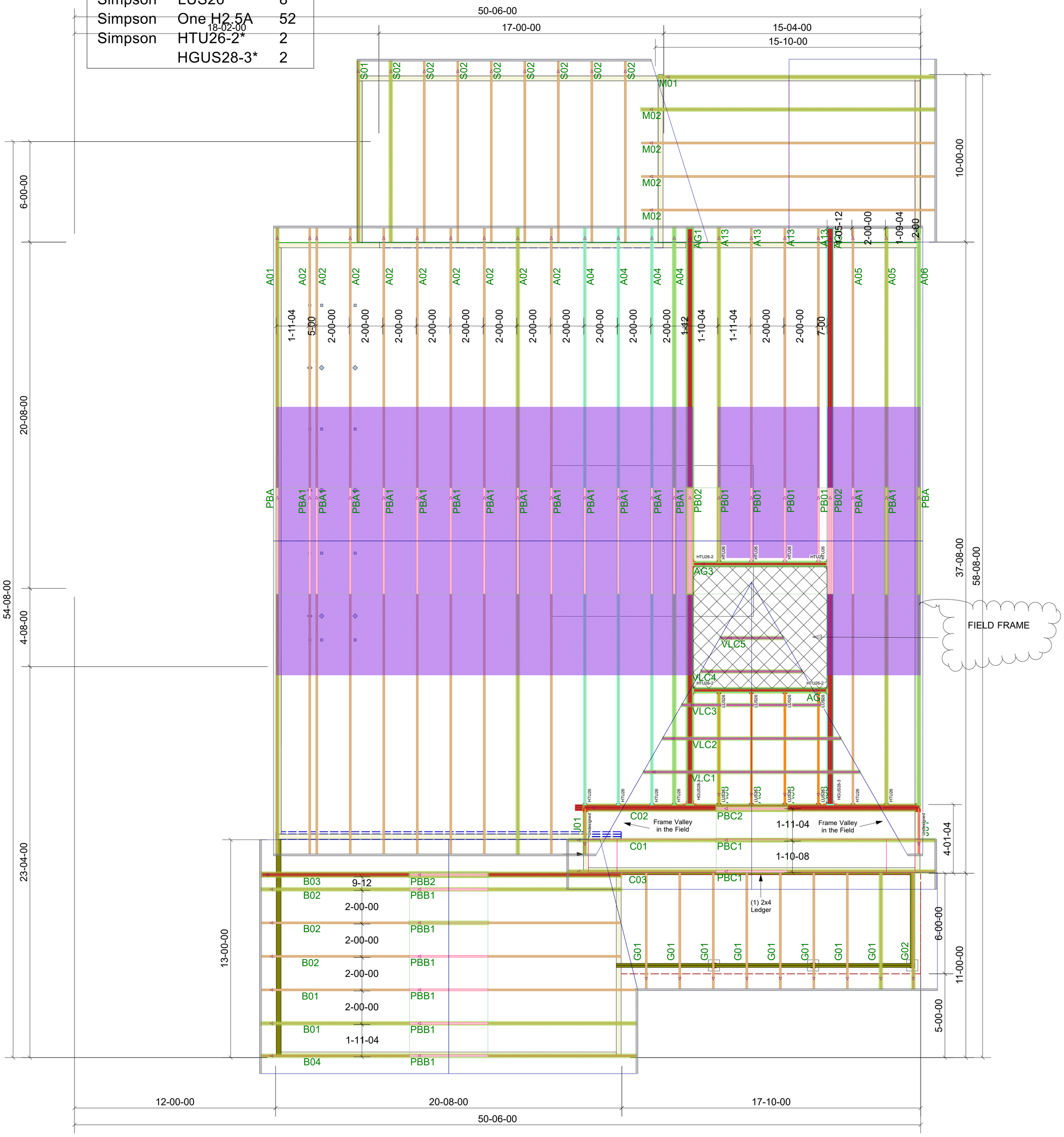
** PLUMBING DROPS NOTED ARE IN THE APPROXIMATE LOCATIONS PER PLAN. BUILDER TO VERIFY LOCATIONS BEFORE SETTING TRUSSES.

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

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

Truss Connector Total List		
Manuf	Product	Qty
Simpson	HTU26	11
Simpson	HTU26-2	2
Simpson	LUS26	8
Simpson	One H2.5A	52
Simpson	HTU26-2*	2
	HGUS28-3*	2

Connector Summary		
Qty	Manuf	Product
1	Simpson	HGUS414
1	Simpson	HU410
1		



Truss Drawing Left End Indicator

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

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

** All uplift connectors shown within these documents are recommendations only. Per ANSI/TPI 1, all uplift connectors are the responsibilty of the bldg designer and or contractor.

Scale: NTS
Date: 4/1/2025
Designer: Blake Scrivner
Project Number: **25030166-01**
Sheet Number: **1/1**

HH Hunt Homes Raleigh Durham

16 Magnolia Acres
Chatham FA Roof

ROOF PLACEMENT PLAN

CARTER Lumber

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 disign of the tuss 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 D'Onifrio Drive: Madison, WI 53179

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

ENGINEERING BY
TRENCO
A MiTek Affiliate

Trenco
818 Soundside Rd
Edenton, NC 27932

Re: 25030166-01
Install 34 Magnolia Acres-Roof-Chatham FA MNR SP 3FL SL GLH

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

Pages or sheets covered by this seal: I72384807 thru I72384843

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

North Carolina COA: C-0844

April 1,2025

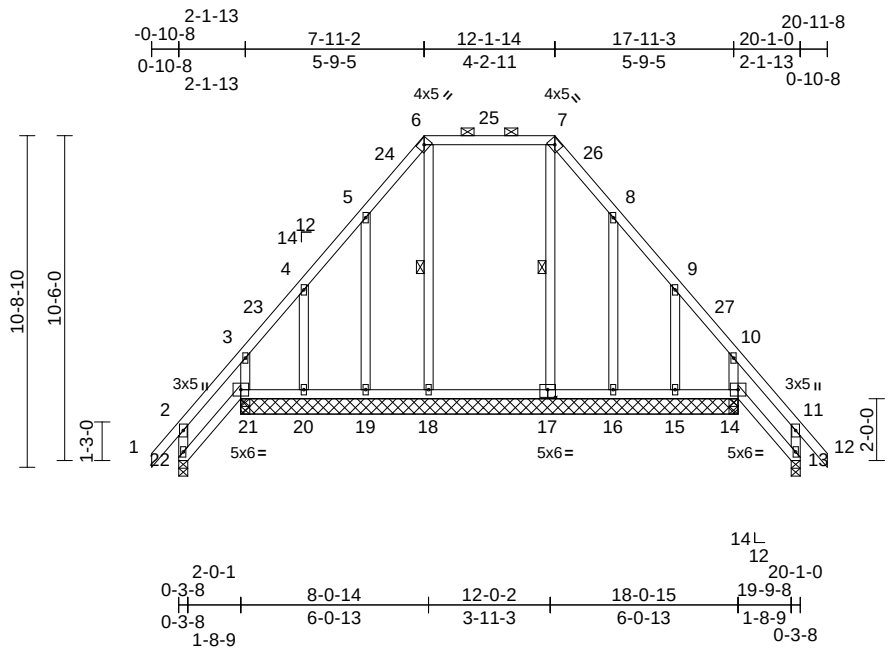
Tony Miller

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

Job	Truss	Truss Type	Qty	Ply	Install 34 Magnolia Acres-Roof-Chatham FA MNR SP 3FL I72384781
25030166-01	C03	Piggyback Base Structural Gable	1	1	Job Reference (optional)

Carter Components (Sanford, NC), Sanford, NC - 27332, Run: 8.73 S Feb 19 2025 Print: 8.730 S Feb 19 2025 MiTek Industries, Inc. Sun Mar 30 12:17:31 Page: 1

ID:suPR1vIfz6sZzh4ukZF9rEzP7vV-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f



Scale = 1:74.5

Plate Offsets (X, Y): [17:0-3-0,0-3-0]

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.43	Vert(LL)	-0.01	21-22	>999	240	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.17	Vert(CT)	-0.01	17-18	>999	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.17	Horz(CT)	-0.01	13	n/a	n/a		
BCLL	0.0*	Code	IRC2021/TPI2014	Matrix-MR								
BCDL	10.0										Weight: 138 lb	FT = 20%

LUMBER

TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2
WEBS 2x4 SP No.3
OTHERS 2x4 SP No.3

BRACING

TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals, and 2-0-0 oc purlins (6-0-0 max.): 6-7.
BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.
WEBS 1 Row at midpt 6-18, 7-17

REACTIONS (size) 13=0-3-8, 14=16-0-14, 15=16-0-14, 16=16-0-14, 17=16-0-14, 18=16-0-14, 19=16-0-14, 20=16-0-14, 21=16-0-14, 22=0-3-8
Max Horiz 22=-293 (LC 12)
Max Uplift 13=-101 (LC 14), 14=-103 (LC 15), 15=-114 (LC 15), 16=-132 (LC 15), 19=-134 (LC 14), 20=-114 (LC 14), 21=-299 (LC 11), 22=-365 (LC 10)
Max Grav 13=154 (LC 25), 14=214 (LC 53), 15=288 (LC 53), 16=264 (LC 53), 17=470 (LC 54), 18=479 (LC 56), 19=262 (LC 51), 20=287 (LC 51), 21=458 (LC 51), 22=421 (LC 13)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 2-22=-232/184, 1-2=0/47, 2-3=-240/248, 3-4=-182/238, 4-5=-265/315, 5-6=-358/420, 6-7=-259/304, 7-8=-357/415, 8-9=-264/302, 9-10=-181/225, 10-11=-209/220, 11-12=0/47, 11-13=-214/159
BOT CHORD 21-22=-248/239, 20-21=-139/142, 19-20=-139/142, 18-19=-139/142, 16-18=-138/141, 15-16=-138/141, 14-15=-138/141, 13-14=-213/208
WEBS 3-21=-283/212, 6-18=-324/111, 7-17=-314/111, 10-14=-273/209, 5-19=-261/149, 4-20=-265/149, 8-16=-261/148, 9-15=-265/150

NOTES

1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) -0-10-8 to 2-1-13, Interior (1) 2-1-13 to 3-8-4, Exterior(2R) 3-8-4 to 16-4-12, Interior (1) 16-4-12 to 17-11-3, Exterior(2E) 17-11-3 to 20-11-8 zone; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
4) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
5) Unbalanced snow loads have been considered for this design.
6) This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 20.0 psf on overhangs non-concurrent with other live loads.
7) Provide adequate drainage to prevent water ponding.
8) All plates are 2x4 MT20 unless otherwise indicated.
9) Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
10) Gable studs spaced at 2-0-0 oc.
11) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
12) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
13) Bearing at joint(s) 22, 13 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
14) N/A
15) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

LOAD CASE(S) Standard

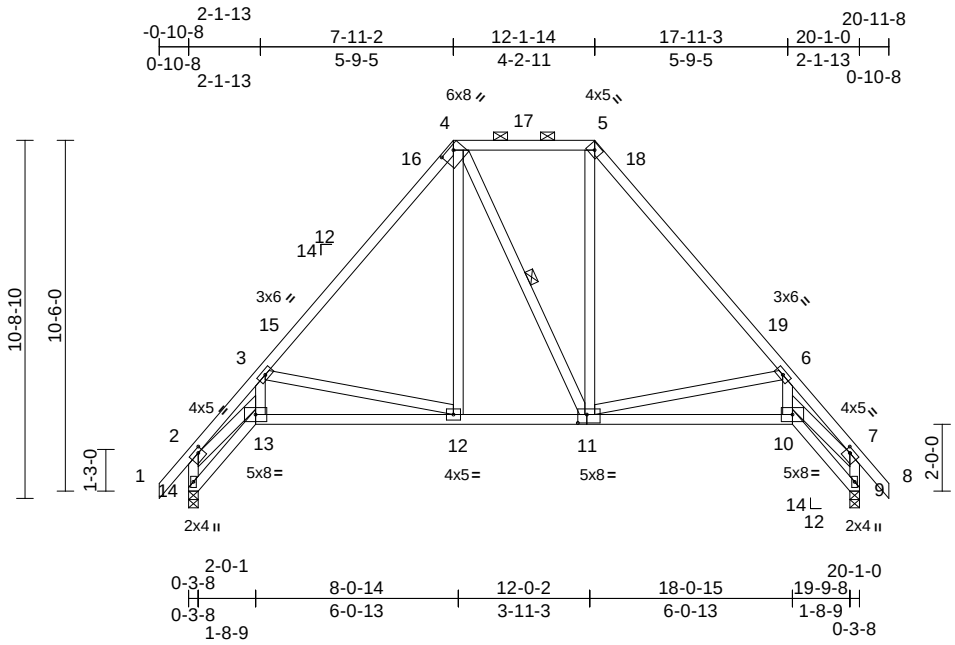
April 1,2025

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

Job	Truss	Truss Type	Qty	Ply	Install 34 Magnolia Acres-Roof-Chatham FA MNR SP 3FL I72384782
25030166-01	C01	Piggyback Base	1	1	Job Reference (optional)

Carter Components (Sanford, NC), Sanford, NC - 27332, Run: 8.73 S Feb 19 2025 Print: 8.730 S Feb 19 2025 MiTek Industries, Inc. Sun Mar 30 12:17:30 Page: 1

ID:suPR1vIfz6sZzh4ukZF9rEzP7vV-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f



Scale = 1:69

Plate Offsets (X, Y): [2:0-1-12,0-1-8], [4:0-4-12,0-1-8], [7:0-1-12,0-1-8], [11:0-3-4,0-3-0]

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.89	Vert(LL)	-0.06	12-13	>999	240	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.52	Vert(CT)	-0.14	12-13	>999	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.79	Horz(CT)	0.21	9	n/a	n/a		
BCLL	0.0*	Code	IRC2021/TPI2014	Matrix-MSH								
BCDL	10.0										Weight: 149 lb	FT = 20%

LUMBER

TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2
WEBS 2x4 SP No.3

BRACING

TOP CHORD Structural wood sheathing directly applied or 1-7-8 oc purlins, except end verticals, and 2-0-0 oc purlins (6-0-0 max.): 4-5.
BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.
WEBS 1 Row at midpt 4-11

REACTIONS (size) 9=0-3-8, 14=0-3-8
Max Horiz 14=-293 (LC 12)
Max Uplift 9=-65 (LC 15), 14=-65 (LC 14)
Max Grav 9=1044 (LC 41), 14=1044 (LC 41)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 2-14=-1029/161, 1-2=0/47, 2-3=-2566/431, 3-4=-1186/124, 4-5=-715/159, 5-6=-1180/136, 6-7=-2535/105, 7-8=0/47, 7-9=-1002/20

BOT CHORD 13-14=-416/387, 12-13=-464/1665, 10-12=-105/1648, 9-10=-132/115

WEBS 2-13=-351/2001, 3-13=-339/1053, 3-12=-1142/439, 4-12=-41/370, 4-11=-133/137, 5-11=-47/367, 6-11=-1126/283, 6-10=0/922, 7-10=-113/2007

NOTES

1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) -0-10-8 to 2-1-13, Interior (1) 2-1-13 to 3-8-4, Exterior(2R) 3-8-4 to 16-4-12, Interior (1) 16-4-12 to 17-11-3, Exterior(2E) 17-11-3 to 20-11-8 zone; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
4) Unbalanced snow loads have been considered for this design.
5) This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 20.0 psf on overhangs non-concurrent with other live loads.
6) Provide adequate drainage to prevent water ponding.
7) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
8) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
9) Bearing at joint(s) 14, 9 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
10) One H2.5A Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 14 and 9. This connection is for uplift only and does not consider lateral forces.
11) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

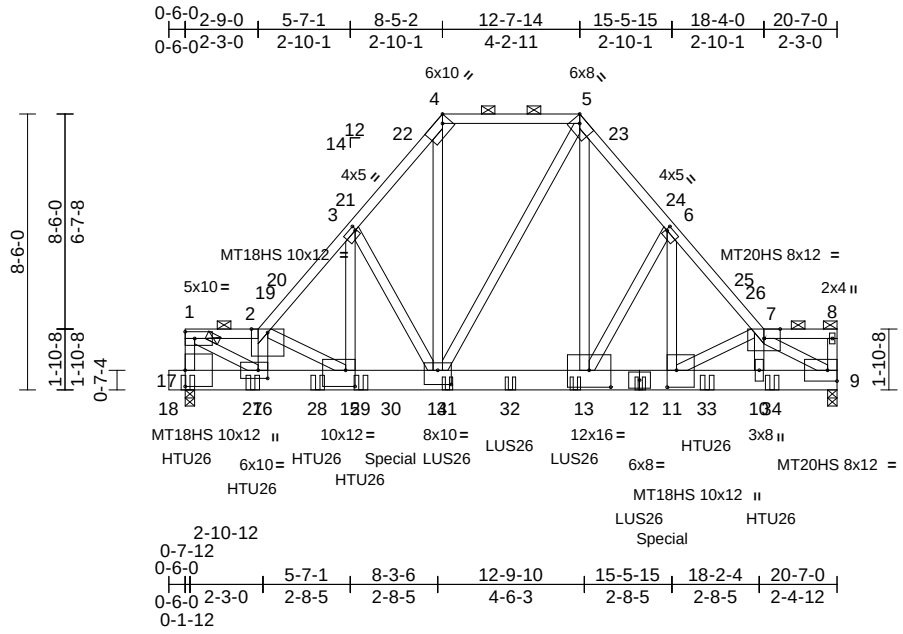
LOAD CASE(S) Standard

April 1,2025

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

Job	Truss	Truss Type	Qty	Ply	Install 34 Magnolia Acres-Roof-Chatham FA MNR SP 3FL I72384783
25030166-01	C02	Piggyback Base Girder	1	3	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 Mar 30 12:17:30 ID:eELW_iMjR57zrwvMG8u8FkzP6oP-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f



Scale = 1:71

Plate Offsets (X, Y): [3:0-0-8,0-1-12], [4:0-2-11,Edge], [5:0-2-11,Edge], [6:0-0-8,0-1-12], [11:0-6-4,0-3-8], [13:0-8-0,0-6-4], [14:0-5-0,0-5-4], [15:0-3-8,0-6-0], [16:0-3-8,0-3-0], [17:0-6-0,Edge]

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.81	Vert(LL)	-0.14	14-15	>999	240	MT18HS	244/190
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.48	Vert(CT)	-0.24	14-15	>973	180	MT20	244/190
TCDL	10.0	Rep Stress Incr	NO	WB	0.93	Horz(CT)	0.03	9	n/a	n/a	MT20HS	187/143
BCLL	0.0*	Code	IRC2021/TPI2014	Matrix-MSH								
BCDL	10.0										Weight: 561 lb	FT = 20%

LUMBER
TOP CHORD 2x4 SP No.2
BOT CHORD 2x8 SP 2400F 2.0E
WEBS 2x4 SP No.3 *Except* 17-1,8-9,3-15,14-4,13-5,6-11:2x4 SP No.2, 16-1,9-7:2x4 SP No.1

BRACING
TOP CHORD Structural wood sheathing directly applied or 4-8-11 oc purlins, except end verticals, and 2-0-0 oc purlins (5-2-9 max.): 1-2, 4-5, 7-8.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (size) 9=0-3-8, 17=0-3-8, (req. 0-3-13)
Max Horiz 17=199 (LC 11)
Max Grav 9=11270 (LC 53), 17=13847 (LC 55)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-17=-9557/0, 1-2=-15222/0, 2-3=-15495/0, 3-4=-11153/0, 4-5=-6993/0, 5-6=-10103/0, 6-7=-14567/0, 7-8=-400/0, 8-9=-254/15
BOT CHORD 17-18=0/0, 16-17=-119/672, 15-16=0/14366, 14-15=0/10313, 13-14=0/6362, 11-13=0/9614, 10-11=0/14498, 9-10=0/14384
WEBS 1-16=0/17384, 2-16=-9488/0, 2-15=-4536/0, 3-15=0/8169, 3-14=-6216/0, 4-14=0/8346, 5-14=0/1447, 5-13=0/6368, 6-13=-6383/0, 6-11=0/8438, 7-11=-5506/0, 7-10=0/1207, 7-9=-16908/0

NOTES

1) 3-ply truss to be connected together as follows:
Top chords connected with 10d (0.131"x3") nails as follows: 2x4 - 1 row at 0-9-0 oc.
Bottom chords connected with 10d (0.148"x3") nails as follows: 2x8 - 4 rows staggered at 0-4-0 oc.
Web chords connected with 10d (0.131"x3") nails as follows: 2x4 - 2 rows staggered at 0-4-0 oc, Except member 5-13 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 roof live loads have been considered for this design.
4) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone; end vertical right exposed; Lumber DOL=1.60 plate grip DOL=1.60
5) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
6) Unbalanced snow loads have been considered for this design.
7) Provide adequate drainage to prevent water ponding.
8) All plates are MT20 plates unless otherwise indicated.
9) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
10) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
11) WARNING: Required bearing size at joint(s) 17 greater than input bearing size.
12) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
13) Use Simpson Strong-Tie HTU26 (20-10d Girder, 14-10dx1 1/2 Truss, Single Ply Girder) or equivalent spaced at 10-8-0 oc max. starting at 0-1-0 from the left end to 18-1-0 to connect truss(es) to back face of bottom chord.
14) Use Simpson Strong-Tie LUS26 (4-10d Girder, 3-10d Truss, Single Ply Girder) or equivalent spaced at 2-0-0 oc max. starting at 8-1-0 from the left end to 14-0-4 to connect truss(es) to back face of bottom chord.
15) Fill all nail holes where hanger is in contact with lumber.
16) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 4819 lb down and 602 lb up at 6-4-4, and 4819 lb down and 602 lb up at 14-8-12 on bottom chord. The design/ selection of such connection device(s) is the responsibility of others.

LOAD CASE(S) Standard

April 1,2025

Continued on page 2

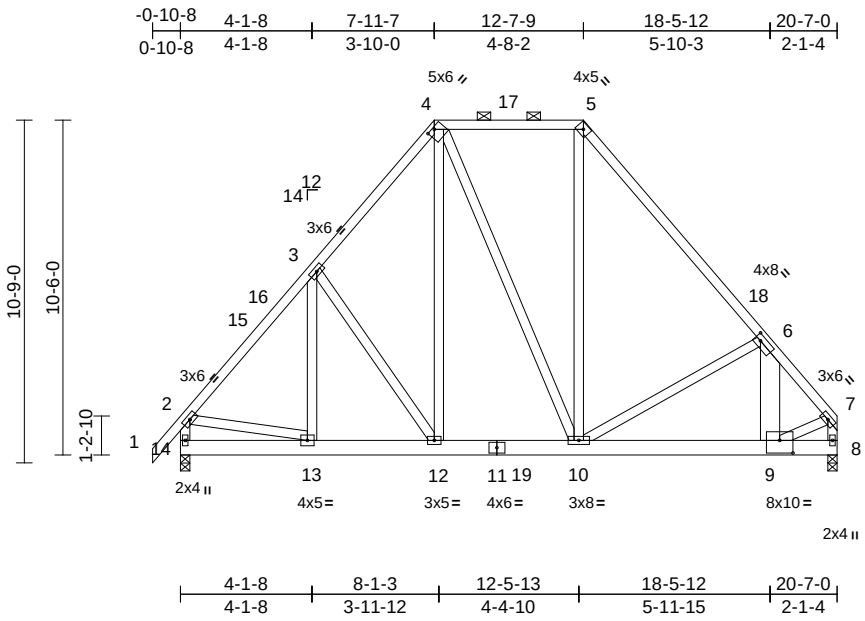
ENGINEERING BY TRENCO
A MiTek Affiliate
818 Soundside Road
Edenton, NC 27932

1) Dead + Snow (balanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (lb/ft)
Vert: 1-2=-60, 2-4=-60, 4-5=-60, 5-7=-60, 7-8=-60, 9-18=-20
Concentrated Loads (lb)
Vert: 17=-1847 (B), 12=-295 (B), 13=-295 (B), 11=-3968 (B), 27=-1843 (B), 28=-1843 (B), 29=-1843 (B), 30=-3968 (B), 31=-295 (B), 32=-295 (B), 33=-1727 (B), 34=-1727 (B)

Job	Truss	Truss Type	Qty	Ply	Install 34 Magnolia Acres-Roof-Chatham FA MNR SP 3FL I72384784
25030166-01	B03	Piggyback Base Girder	1	**2**	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 Mar 30 12:17:30 ID:b8TFWfj9HBKHQYh0wNdyVdzP6TI-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f



Scale = 1:72.2

Plate Offsets (X, Y): [4:0-2-12,0-0-12], [6:0-2-4,0-2-0], [9:0-5-0,0-4-12]

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.41	Vert(LL)	-0.01	9-10	>999	240	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.18	Vert(CT)	-0.03	9-10	>999	180		
TCDL	10.0	Rep Stress Incr	NO	WB	0.31	Horz(CT)	0.01	8	n/a	n/a		
BCLL	0.0*	Code	IRC2021/TPI2014	Matrix-MSH								
BCDL	10.0										Weight: 371 lb	FT = 20%

LUMBER
TOP CHORD 2x4 SP No.2
BOT CHORD 2x6 SP No.2
WEBS 2x4 SP No.3 *Except* 10-4:2x4 SP No.2, 6-9:2x8 SP 2400F 2.0E

BRACING
TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals, and 2-0-0 oc purlins (6-0-0 max.): 4-5.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (size) 8=0-3-8, 14=0-3-8
Max Horiz 14=262 (LC 9)
Max Uplift 8=-229 (LC 13), 14=-88 (LC 12)
Max Grav 8=2286 (LC 46), 14=1179 (LC 46)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/47, 2-3=-1150/120, 3-4=-1028/211, 4-5=-647/212, 5-6=-1215/196, 6-7=-2089/217, 2-14=-1127/107, 7-8=-2213/215
BOT CHORD 13-14=-266/299, 12-13=-145/829, 10-12=-93/657, 9-10=-155/1393, 8-9=-16/57
WEBS 3-13=-78/74, 3-12=-307/199, 4-12=-113/407, 4-10=-134/271, 5-10=-75/530, 6-10=-900/319, 2-13=-8/653, 6-9=-116/977, 7-9=-204/1519

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 0-9-0 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, 2x8 - 2 rows staggered 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 roof live loads have been considered for this design.
4) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone; end vertical left exposed; Lumber DOL=1.60 plate grip DOL=1.60
5) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
6) Unbalanced snow loads have been considered for this design.
7) This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 20.0 psf on overhangs non-concurrent with other live loads.
8) Provide adequate drainage to prevent water ponding.
9) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
10) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
11) One H2.5A Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 8 and 14. This connection is for uplift only and does not consider lateral forces.
12) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
13) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 1436 lb down and 199 lb up at 18-5-12 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.

LOAD CASE(S) Standard
1) Dead + Snow (balanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (lb/ft)
Vert: 1-2=-60, 2-4=-60, 4-5=-60, 5-7=-60, 8-14=-20
Concentrated Loads (lb)
Vert: 9=-1254 (B)

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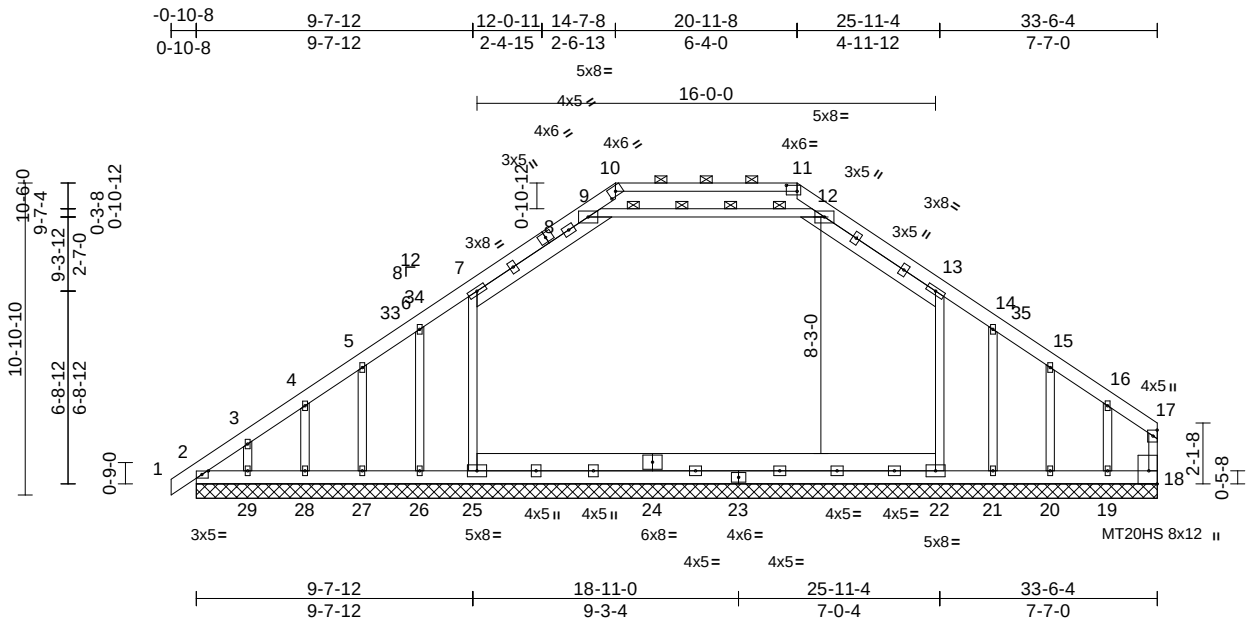
Job	Truss	Truss Type	Qty	Ply	Install 34 Magnolia Acres-Roof-Chatham FA MNR SP 3FL I72384811
25030166-01	A06	Attic Supported Gable	1	1	Job Reference (optional)

Carter Components (Sanford, NC), Sanford, NC - 27332, Run: 8.73 S Feb 19 2025 Print: 8.730 S Feb 19 2025 MiTek Industries, Inc. Sun Mar 30 12:19:52 Page: 1
ID:O3YH_JP5bKizP1XEn6_9hZzP6qx-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f



Scale = 1:80.4

Plate Offsets (X, Y): [2:0-2-11,0-1-8], [10:0-3-0,0-1-13], [11:0-4-8,0-2-8], [18:Edge,0-3-8]

Loading	(psf)	Spacing	1-11-4	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.12	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.32	Vert(CT)	n/a	-	n/a	999	MT20HS	187/143
TCDL	10.0	Rep Stress Incr	YES	WB	0.10	Horz(CT)	0.01	22	n/a	n/a		
BCLL	0.0*	Code	IRC2021/TPI2014	Matrix-MSH								
BCDL	10.0										Weight: 311 lb	FT = 20%

LUMBER

TOP CHORD	2x6 SP No.2 *Except* 10-11,9-12:2x4 SP No.2
BOT CHORD	2x6 SP 2400F 2.0E *Except* 25-24,24-22:2x8 SP 2400F 2.0E
WEBS	2x4 SP No.3 *Except* 18-17:2x4 SP No.1
OTHERS	2x4 SP No.3

BRACING

TOP CHORD	Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals, and 2-0-0 oc purlins (6-0-0 max.): 10-11, 9-12.
BOT CHORD	Rigid ceiling directly applied or 6-0-0 oc bracing.

REACTIONS (size) 2=33-6-4, 18=33-6-4, 19=33-6-4, 20=33-6-4, 21=33-6-4, 22=33-6-4, 25=33-6-4, 26=33-6-4, 27=33-6-4, 28=33-6-4, 29=33-6-4
Max Horiz 2=151 (LC 11)
Max Uplift 2=-27 (LC 10), 18=-47 (LC 13), 19=-219 (LC 15), 21=-614 (LC 21), 26=-614 (LC 21), 27=-21 (LC 14), 28=-58 (LC 14), 29=-87 (LC 14)
Max Grav 2=145 (LC 28), 18=190 (LC 15), 19=208 (LC 54), 20=337 (LC 54), 21=-46 (LC 42), 22=1119 (LC 21), 25=1119 (LC 21), 26=-46 (LC 42), 27=347 (LC 52), 28=150 (LC 26), 29=215 (LC 52)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD	1-2=0/28, 2-3=-205/129, 3-4=-150/110, 4-5=-94/95, 5-6=-57/84, 6-7=-57/107, 7-9=-29/62, 9-10=-88/45, 10-11=-112/58, 11-12=-88/45, 12-13=-28/59, 13-14=-57/99, 14-15=-28/48, 15-16=-57/63, 16-17=-146/102, 17-18=-106/48, 9-12=-91/183
BOT CHORD	2-29=-80/105, 28-29=-62/105, 27-28=-62/105, 26-27=-62/105, 25-26=-62/105, 22-25=-69/105, 21-22=-62/105, 20-21=-62/105, 19-20=-62/105, 18-19=-62/105
WEBS	14-21=-184/135, 15-20=-142/73, 16-19=-169/143, 6-26=-184/125, 5-27=-143/80, 4-28=-139/78, 3-29=-133/84, 13-22=-107/11, 7-25=-121/24

NOTES

1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Corner(3E) -0-10-8 to 2-5-12, Exterior(2N) 2-5-12 to 11-3-4, Corner(3R) 11-3-4 to 24-3-12, Exterior (2N) 24-3-12 to 29-9-8, Corner(3E) 29-9-8 to 33-4-8 zone;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
4) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
5) Unbalanced snow loads have been considered for this design.
6) This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 20.0 psf on overhangs non-concurrent with other live loads.
7) Provide adequate drainage to prevent water ponding.
8) All plates are MT20 plates unless otherwise indicated.
9) All plates are 2x4 MT20 unless otherwise indicated.
10) Gable requires continuous bottom chord bearing.
11) Gable studs spaced at 2-0-0 oc.
12) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.

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13) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
14) Ceiling dead load (5.0 psf) on member(s). 7-9, 9-10, 10-11, 11-12, 12-13, 9-12; Wall dead load (5.0psf) on member(s).13-22, 7-25
15) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 614 lb uplift at joint 21, 219 lb uplift at joint 19 and 614 lb uplift at joint 26.

16) One H2.5A Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 18, 25, 20, 27, 28, 29, and 2. This connection is for uplift only and does not consider lateral forces.
17) Beveled plate or shim required to provide full bearing surface with truss chord at joint(s) 2, 30.
18) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
19) Attic room checked for L/360 deflection.

LOAD CASE(S) Standard

Job	Truss	Truss Type	Qty	Ply	Install 34 Magnolia Acres-Roof-Chatham FA MNR SP 3FL I72384786
25030166-01	A01	Attic Supported Gable	1	1	Job Reference (optional)

Carter Components (Sanford, NC), Sanford, NC - 27332, Run: 8.73 S Feb 19 2025 Print: 8.730 S Feb 19 2025 MiTek Industries, Inc. Sun Mar 30 12:17:27 Page: 1

ID:8hGu09xSr2GTgL21F0zrGfzP73l-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

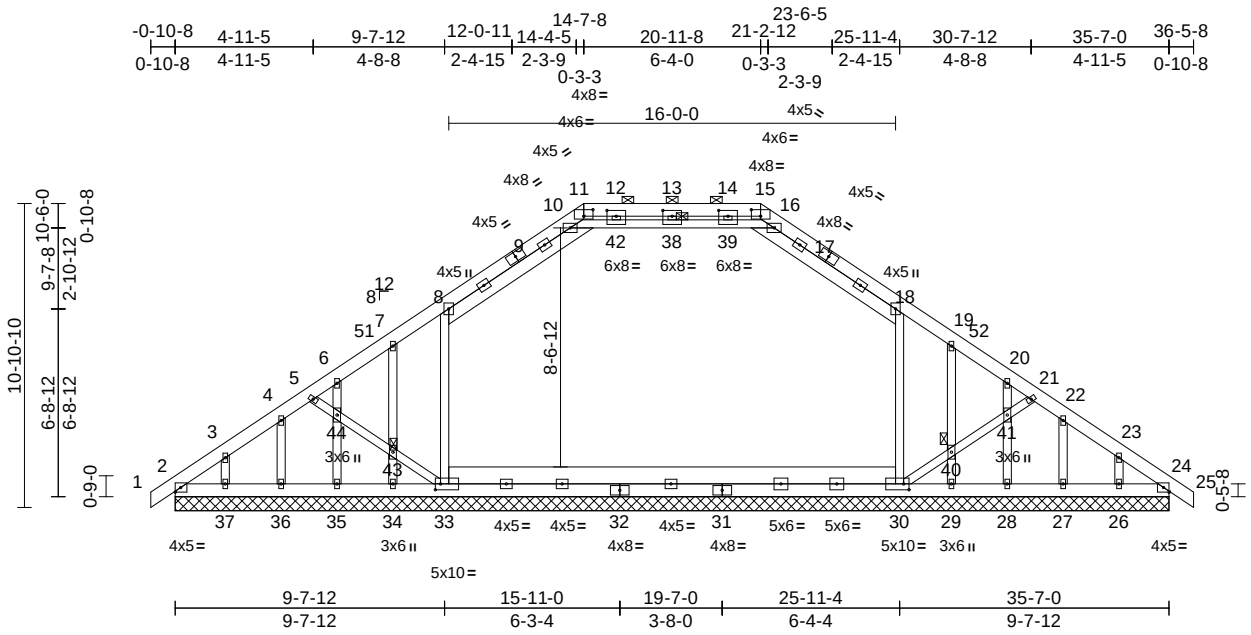

Plate Offsets (X, Y): [11:0-4-0,0-2-13], [15:0-4-0,0-2-13], [30:0-2-4,0-2-8], [33:0-2-4,0-2-8], [38:0-4-0,0-2-8], [39:0-4-0,0-2-8], [42:0-4-0,0-2-8]

Loading	(psf)	Spacing	1-11-4	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.20	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.33	Vert(CT)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.11	Horz(CT)	0.01	24	n/a	n/a		
BCLL	0.0*	Code	IRC2021/TPI2014	Matrix-MSH								
BCDL	10.0										Weight: 346 lb	FT = 20%

LUMBER

TOP CHORD	2x6 SP No.2
BOT CHORD	2x6 SP 2400F 2.0E *Except* 33-30:2x8 SP 2400F 2.0E
WEBS	2x4 SP No.3 *Except* 10-16:2x4 SP No.2
OTHERS	2x4 SP No.3

BRACING

TOP CHORD	Structural wood sheathing directly applied or 6-0-0 oc purlins, except 2-0-0 oc purlins (6-0-0 max.): 11-15.
BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing.
JOINTS	1 Brace at Jt(s): 38, 40, 43

REACTIONS (size) 2=35-7-0, 24=35-7-0, 26=35-7-0, 27=35-7-0, 28=35-7-0, 29=35-7-0, 30=35-7-0, 33=35-7-0, 34=35-7-0, 35=35-7-0, 36=35-7-0, 37=35-7-0

Max Horiz 2=-170 (LC 12)

Max Uplift 2=-73 (LC 10), 24=-53 (LC 11), 26=-79 (LC 15), 27=-15 (LC 10), 29=-640 (LC 21), 34=-639 (LC 21), 36=-30 (LC 11), 37=-81 (LC 14)

Max Grav 2=390 (LC 22), 24=390 (LC 23), 26=192 (LC 54), 27=250 (LC 23), 28=390 (LC 6), 29=-79 (LC 11), 30=1129 (LC 21), 33=1128 (LC 21), 34=-94 (LC 42), 35=390 (LC 5), 36=250 (LC 22), 37=194 (LC 52)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=0/28, 2-3=-419/143, 3-4=-411/132, 4-5=-469/136, 5-6=-499/156, 6-7=-573/163, 7-8=-527/159, 8-10=-541/157, 10-11=-701/169, 11-12=-652/159, 12-13=-652/159, 13-14=-652/159, 14-15=-652/159, 15-16=-701/176, 16-18=-541/157, 18-19=-527/152, 19-20=-573/160, 20-21=-499/146, 21-22=-469/115, 22-23=-411/102, 23-24=-419/113, 24-25=0/28

BOT CHORD 2-37=-122/327, 36-37=-119/327, 35-36=-119/327, 34-35=-119/327, 33-34=-119/327, 30-33=-135/450, 29-30=-82/323, 28-29=-82/323, 27-28=-82/323, 26-27=-82/323, 24-26=-82/323

WEBS 5-44=-34/157, 43-44=-35/160, 33-43=-36/165, 8-33=-136/38, 18-30=-136/34, 30-40=-62/168, 40-41=-60/163, 21-41=-59/161, 10-42=-39/202, 38-42=-39/202, 38-39=-39/202, 16-39=-39/202, 13-38=-73/20, 14-39=-13/34, 19-40=-126/81, 29-40=-126/77, 20-41=-202/51, 28-41=-207/50, 22-27=-221/45, 23-26=-115/86, 12-42=-13/34, 7-43=-125/77, 34-43=-126/75, 6-44=-202/51, 35-44=-207/50, 4-36=-221/46, 3-37=-115/85

NOTES

1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Corner(3E) -0-10-8 to 2-8-3, Exterior(2N) 2-8-3 to 11-0-13, Corner(3R) 11-0-13 to 24-6-3, Exterior(2N) 24-6-3 to 32-10-13, Corner(3E) 32-10-13 to 36-5-8 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
4) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
5) Unbalanced snow loads have been considered for this design.

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6) This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 20.0 psf on overhangs non-concurrent with other live loads.
7) Provide adequate drainage to prevent water ponding.
8) All plates are 2x4 MT20 unless otherwise indicated.
9) Gable requires continuous bottom chord bearing.
10) Gable studs spaced at 2-0-0 oc.
11) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
12) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
13) Ceiling dead load (5.0 psf) on member(s). 8-10, 16-18, 10-42, 38-42, 38-39, 16-39; Wall dead load (5.0psf) on member(s).8-33, 18-30
14) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 73 lb uplift at joint 2, 53 lb uplift at joint 24, 640 lb uplift at joint 29, 15 lb uplift at joint 27, 79 lb uplift at joint 26, 639 lb uplift at joint 34, 30 lb uplift at joint 36, 81 lb uplift at joint 37, 73 lb uplift at joint 2 and 53 lb uplift at joint 24.
15) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
16) Attic room checked for L/360 deflection.

LOAD CASE(S) Standard

Job	Truss	Truss Type	Qty	Ply	Install 34 Magnolia Acres-Roof-Chatham FA MNR SP 3FL I72384787
25030166-01	VLC1	Valley	1	1	Job Reference (optional)

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

Run: 8.73 S Feb 19 2025 Print: 8.730 S Feb 19 2025 MiTek Industries, Inc. Sun Mar 30 12:17:32 Page: 1
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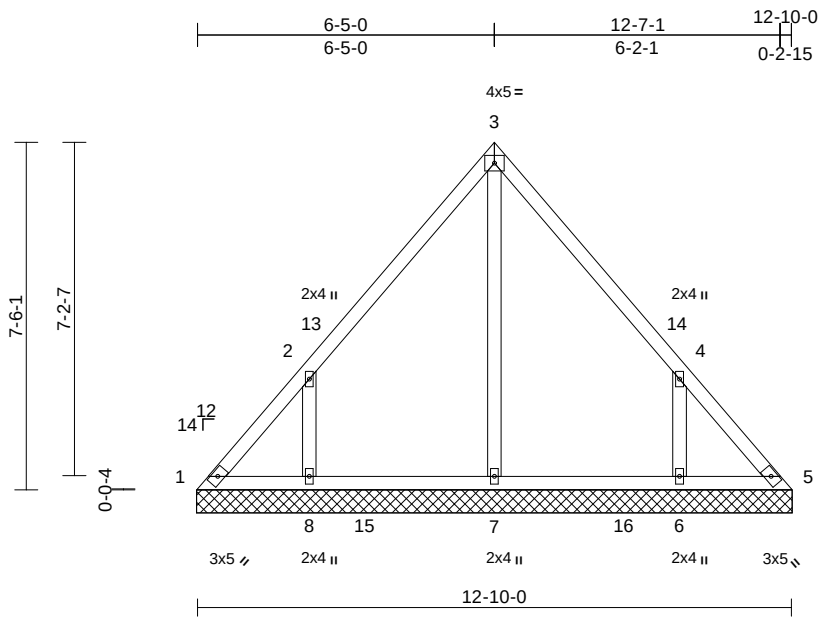

Scale = 1:49.8

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.34	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.18	Vert(TL)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.15	Horiz(TL)	0.00	5	n/a	n/a		
BCLL	0.0*	Code	IRC2021/TPI2014	Matrix-MSH								
BCDL	10.0										Weight: 64 lb	FT = 20%

LUMBER
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2
OTHERS 2x4 SP No.3

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

REACTIONS (size) 1=12-10-7, 5=12-10-7, 6=12-10-7, 7=12-10-7, 8=12-10-7
Max Horiz 1=-179 (LC 12)
Max Uplift 1=-64 (LC 10), 5=-24 (LC 11), 6=-222 (LC 15), 8=-228 (LC 14)
Max Grav 1=154 (LC 30), 5=130 (LC 27), 6=432 (LC 21), 7=355 (LC 27), 8=437 (LC 24)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-198/166, 2-3=-247/140, 3-4=-247/120, 4-5=-171/122
BOT CHORD 1-8=-78/139, 7-8=-78/139, 6-7=-78/139, 5-6=-78/139
WEBS 3-7=-159/0, 2-8=-395/281, 4-6=-395/279

NOTES
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) 0-0-0 to 3-0-0, Interior (1) 3-0-0 to 3-5-3, Exterior(2R) 3-5-3 to 9-5-3, Interior (1) 9-5-3 to 9-10-7, Exterior(2E) 9-10-7 to 12-10-7 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
4) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
5) Unbalanced snow loads have been considered for this design.
6) Gable requires continuous bottom chord bearing.
7) Gable studs spaced at 4-0-0 oc.
8) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
9) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
10) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 64 lb uplift at joint 1, 24 lb uplift at joint 5, 228 lb uplift at joint 8 and 222 lb uplift at joint 6.
11) Beveled plate or shim required to provide full bearing surface with truss chord at joint(s) 1, 5.

LOAD CASE(S) Standard

April 1,2025

ENGINEERING BY TRENCO
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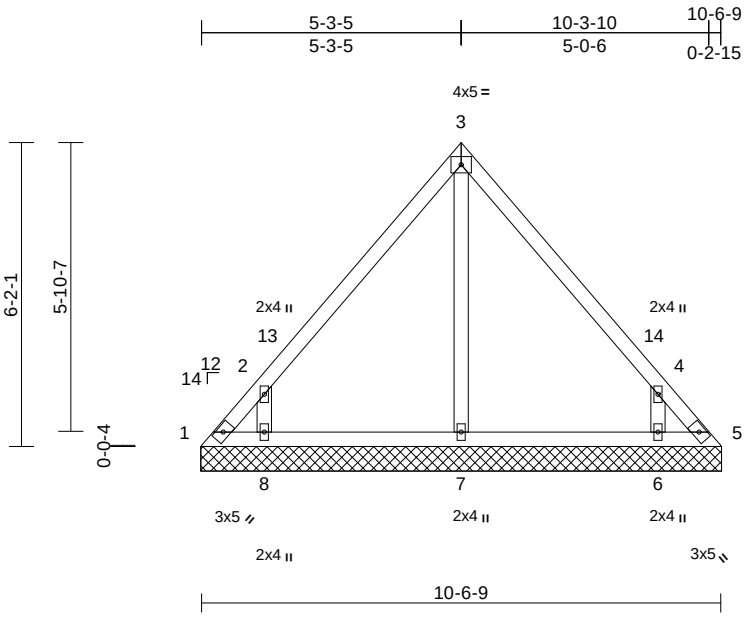
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Install 34 Magnolia Acres-Roof-Chatham FA MNR SP 3FL I72384788
25030166-01	VLC2	Valley	1	1	Job Reference (optional)

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

Run: 8.73 S Feb 19 2025 Print: 8.730 S Feb 19 2025 MiTek Industries, Inc. Sun Mar 30 12:17:32 ID:f_ZBvkPEpHHPsbk5W6jOFGzOull-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f



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Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.36	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.13	Vert(TL)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.10	Horiz(TL)	0.00	5	n/a	n/a		
BCLL	0.0*	Code	IRC2021/TPI2014	Matrix-MSH								
BCDL	10.0										Weight: 50 lb	FT = 20%

LUMBER
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2
OTHERS 2x4 SP No.3

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

REACTIONS (size) 1=10-7-0, 5=10-7-0, 6=10-7-0, 7=10-7-0, 8=10-7-0
Max Horiz 1=-146 (LC 10)
Max Uplift 1=-108 (LC 12), 5=-73 (LC 13), 6=-211 (LC 15), 8=-219 (LC 14)
Max Grav 1=148 (LC 14), 5=125 (LC 15), 6=466 (LC 21), 7=218 (LC 21), 8=466 (LC 20)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-251/178, 2-3=-266/116, 3-4=-266/101, 4-5=-229/163
BOT CHORD 1-8=-84/109, 7-8=-50/106, 6-7=-50/106, 5-6=-84/121
WEBS 3-7=-130/0, 2-8=-492/344, 4-6=-492/341

NOTES
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) 0-0-0 to 3-0-0, Exterior(2R) 3-0-0 to 7-7-0, Exterior(2E) 7-7-0 to 10-7-0 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
4) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
5) Unbalanced snow loads have been considered for this design.
6) Gable requires continuous bottom chord bearing.
7) Gable studs spaced at 4-0-0 oc.
8) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
9) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
10) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 108 lb uplift at joint 1, 73 lb uplift at joint 5, 219 lb uplift at joint 8 and 211 lb uplift at joint 6.
11) Beveled plate or shim required to provide full bearing surface with truss chord at joint(s) 1, 5.

LOAD CASE(S) Standard

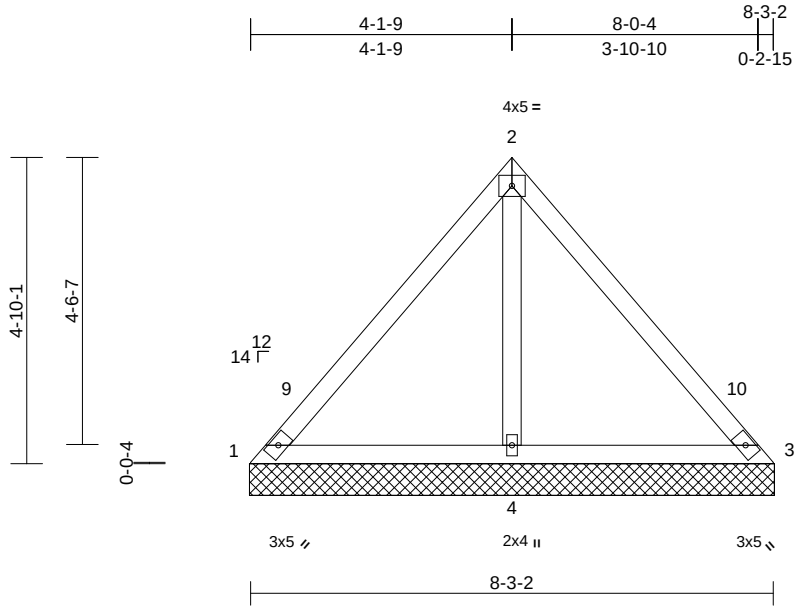
April 1,2025

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

Job	Truss	Truss Type	Qty	Ply	Install 34 Magnolia Acres-Roof-Chatham FA MNR SP 3FL I72384789
25030166-01	VLC3	Valley	1	1	Job Reference (optional)

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

Run: 8.73 S Feb 19 2025 Print: 8.730 S Feb 19 2025 MiTek Industries, Inc. Sun Mar 30 12:17:32 ID:f_ZBvkPEpHHPsbk5W6jOFGzOull-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f



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Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.39	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.38	Vert(TL)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.22	Horiz(TL)	0.00	3	n/a	n/a		
BCLL	0.0*	Code	IRC2021/TPI2014	Matrix-MP								
BCDL	10.0										Weight: 36 lb	FT = 20%

LUMBER
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2
OTHERS 2x4 SP No.3

BRACING
TOP CHORD Structural wood sheathing directly applied or 8-3-2 oc purlins.
BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.

REACTIONS (size) 1=8-3-9, 3=8-3-9, 4=8-3-9
Max Horiz 1=-113 (LC 10)
Max Uplift 1=-35 (LC 21), 3=-35 (LC 20), 4=-170 (LC 14)
Max Grav 1=85 (LC 20), 3=85 (LC 21), 4=658 (LC 21)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-137/283, 2-3=-137/283
BOT CHORD 1-4=-229/164, 3-4=-229/164
WEBS 2-4=-591/210

NOTES
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) 0-0-0 to 3-0-0, Exterior(2R) 3-0-0 to 5-3-9, Exterior(2E) 5-3-9 to 8-3-9 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
4) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
5) Unbalanced snow loads have been considered for this design.
6) Gable requires continuous bottom chord bearing.
7) Gable studs spaced at 4-0-0 oc.
8) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
9) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
10) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 35 lb uplift at joint 1, 35 lb uplift at joint 3 and 170 lb uplift at joint 4.
11) Beveled plate or shim required to provide full bearing surface with truss chord at joint(s) 1, 3.

LOAD CASE(S) Standard

April 1,2025

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

Job	Truss	Truss Type	Qty	Ply	Install 34 Magnolia Acres-Roof-Chatham FA MNR SP 3FL I72384790
25030166-01	VLC4	Valley	1	1	Job Reference (optional)

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

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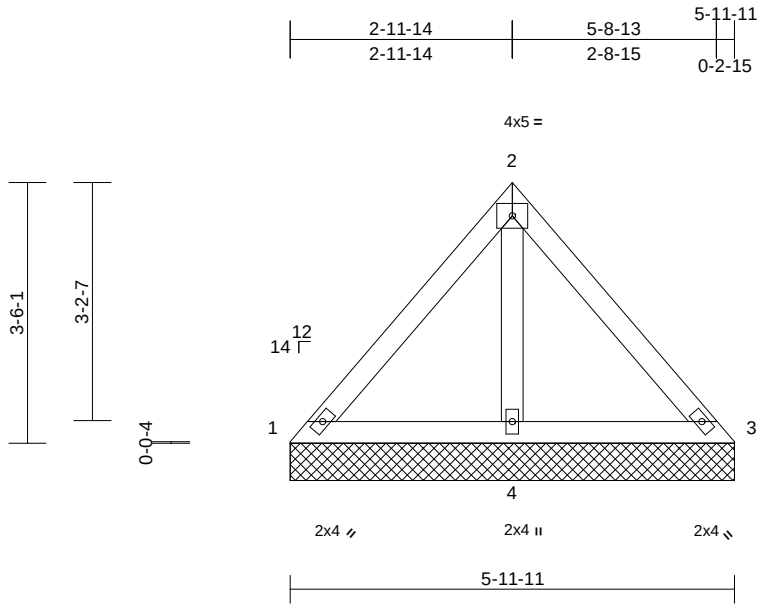

Scale = 1:31

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.17	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.20	Vert(TL)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.07	Horiz(TL)	0.00	3	n/a	n/a		
BCLL	0.0*	Code	IRC2021/TPI2014	Matrix-MP								
BCDL	10.0										Weight: 26 lb	FT = 20%

LUMBER
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2
OTHERS 2x4 SP No.3

BRACING
TOP CHORD Structural wood sheathing directly applied or 5-11-11 oc purlins.
BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.

REACTIONS (size) 1=5-11-11, 3=5-11-11, 4=5-11-11
Max Horiz 1=81 (LC 11)
Max Uplift 4=-87 (LC 14)
Max Grav 1=112 (LC 20), 3=112 (LC 21), 4=401 (LC 20)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-83/145, 2-3=-83/145
BOT CHORD 1-4=-128/100, 3-4=-128/100
WEBS 2-4=-317/102

NOTES
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
4) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
5) Unbalanced snow loads have been considered for this design.
6) Gable requires continuous bottom chord bearing.
7) Gable studs spaced at 4-0-0 oc.
8) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
9) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
10) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 87 lb uplift at joint 4.

LOAD CASE(S) Standard

April 1,2025

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

Job	Truss	Truss Type	Qty	Ply	Install 34 Magnolia Acres-Roof-Chatham FA MNR SP 3FL I72384791
25030166-01	VLC5	Valley	1	1	Job Reference (optional)

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

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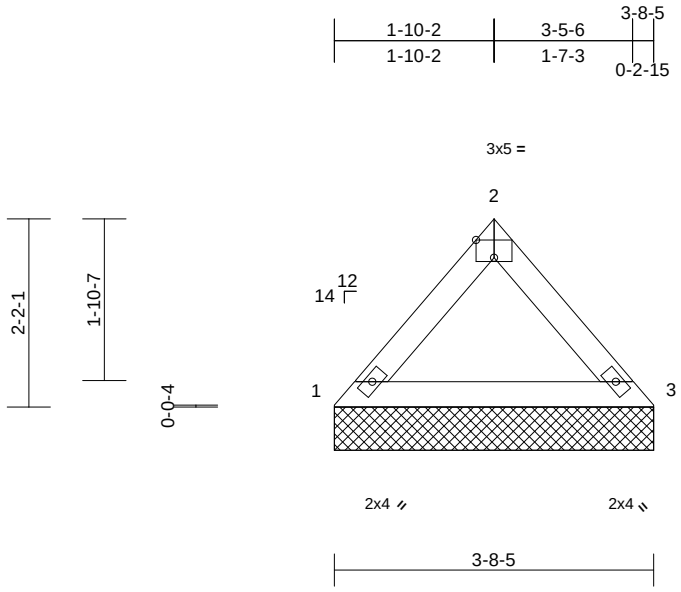

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Plate Offsets (X, Y): [2:Edge,0-2-7]

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.10	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.09	Vert(TL)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.00	Horiz(TL)	0.00	3	n/a	n/a		
BCLL	0.0*	Code	IRC2021/TPI2014	Matrix-MP								
BCDL	10.0										Weight: 13 lb	FT = 20%

LUMBER
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2

BRACING
TOP CHORD Structural wood sheathing directly applied or 3-8-5 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (size) 1=3-8-5, 3=3-8-5
Max Horiz 1=-48 (LC 12)
Max Uplift 1=-10 (LC 15), 3=-10 (LC 14)
Max Grav 1=181 (LC 20), 3=181 (LC 21)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-204/27, 2-3=-204/28
BOT CHORD 1-3=-24/126

NOTES
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
4) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
5) Unbalanced snow loads have been considered for this design.
6) Gable requires continuous bottom chord bearing.
7) Gable studs spaced at 4-0-0 oc.
8) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
9) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
10) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 10 lb uplift at joint 1 and 10 lb uplift at joint 3.

LOAD CASE(S) Standard

April 1,2025

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

Job	Truss	Truss Type	Qty	Ply	Install 34 Magnolia Acres-Roof-Chatham FA MNR SP 3FL I72384792
25030166-01	PBC2	Piggyback	1	2	Job Reference (optional)

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

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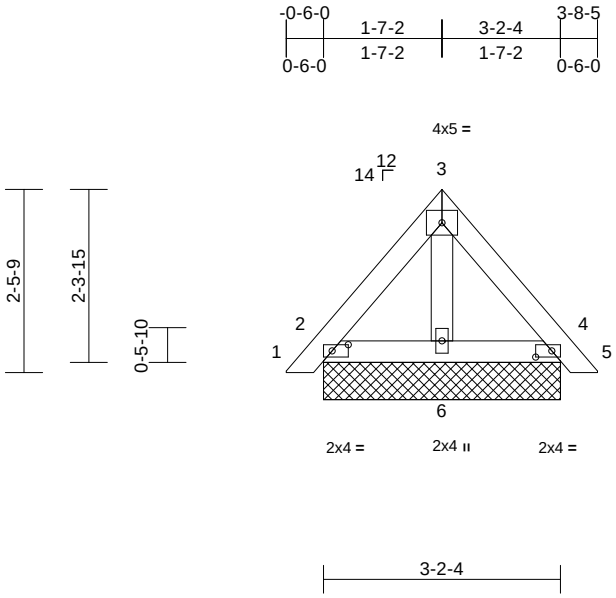

Scale = 1:31

Plate Offsets (X, Y): [2:0-2-10,0-1-0], [4:0-2-10,0-1-0]

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.02	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.02	Vert(CT)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.00	Horz(CT)	0.00	4	n/a	n/a		
BCLL	0.0*	Code	IRC2021/TPI2014	Matrix-MP								
BCDL	10.0										Weight: 33 lb	FT = 20%

LUMBER
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2
OTHERS 2x4 SP No.3

BRACING
TOP CHORD Structural wood sheathing directly applied or 4-2-11 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (size) 2=3-2-4, 4=3-2-4, 6=3-2-4
Max Horiz 2=-55 (LC 12)
Max Uplift 2=-16 (LC 15), 4=-15 (LC 15), 6=-1 (LC 14)
Max Grav 2=138 (LC 21), 4=138 (LC 22), 6=99 (LC 21)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/23, 2-3=-81/38, 3-4=-81/34, 4-5=0/23
BOT CHORD 2-6=-25/44, 4-6=-17/44
WEBS 3-6=-35/0

NOTES
1) 2-ply truss to be connected together as follows:
Top chords connected with 10d (0.131"x3") nails as follows: 2x4 - 1 row at 0-9-0 oc.
Bottom chords connected with 10d (0.131"x3") nails 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 roof live loads have been considered for this design.
4) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
5) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
6) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
7) Unbalanced snow loads have been considered for this design.
8) This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 20.0 psf on overhangs non-concurrent with other live loads.
9) Gable requires continuous bottom chord bearing.
10) Gable studs spaced at 4-0-0 oc.
11) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
12) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
13) N/A
14) See Standard Industry Piggyback Truss Connection Detail for Connection to base truss as applicable, or consult qualified building designer.

LOAD CASE(S) Standard

April 1,2025

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

Job	Truss	Truss Type	Qty	Ply	Install 34 Magnolia Acres-Roof-Chatham FA MNR SP 3FL I72384793
25030166-01	G02	Monopitch Supported Gable	1	1	Job Reference (optional)

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

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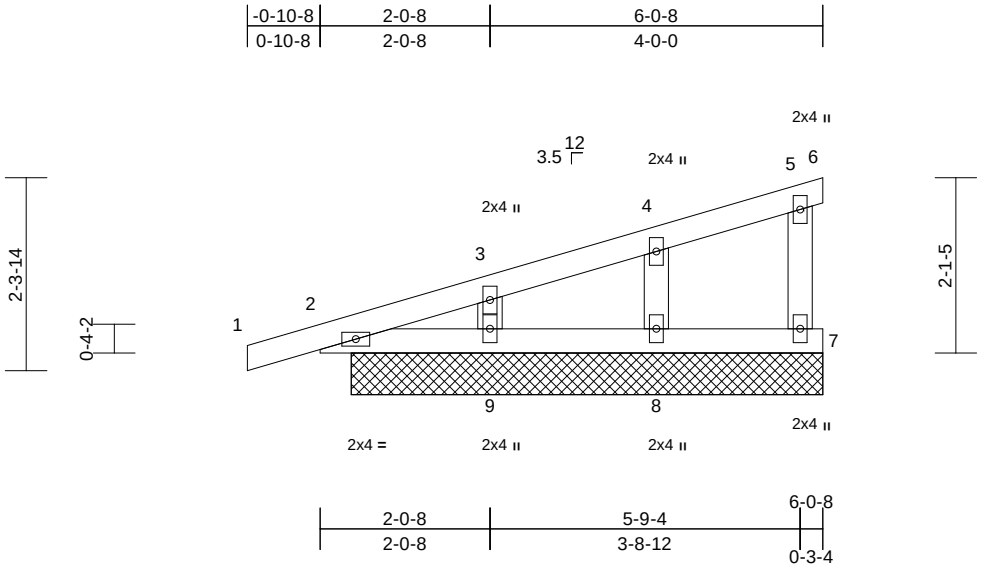


Scale = 1:27.7

Loading	(psf)	Spacing	1-11-4	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.14	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.15	Vert(CT)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.05	Horz(CT)	0.00	6	n/a	n/a		
BCLL	0.0*	Code	IRC2021/TPI2014	Matrix-MP								
BCDL	10.0										Weight: 24 lb	FT = 20%

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

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) 2=5-8-0, 6=5-8-0, 7=5-8-0, 8=5-8-0, 9=5-8-0
Max Horiz 2=75 (LC 10)
Max Uplift 2=-60 (LC 10), 6=-15 (LC 21), 7=-24 (LC 14), 8=-35 (LC 10), 9=-22 (LC 20)
Max Grav 2=336 (LC 21), 6=5 (LC 14), 7=107 (LC 21), 8=235 (LC 21), 9=54 (LC 7)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/21, 2-3=-145/135, 3-4=-85/32, 4-5=-29/16, 5-6=-11/4, 5-7=-96/95
BOT CHORD 2-9=-116/155, 8-9=0/0, 7-8=0/0
WEBS 4-8=-183/177, 3-9=-87/93

NOTES
1) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Corner(3E) -0-10-8 to 2-0-8, Exterior(2N) 2-0-8 to 6-0-8 zone;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
3) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
4) Unbalanced snow loads have been considered for this design.
5) This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 20.0 psf on overhangs non-concurrent with other live loads.
6) Gable studs spaced at 2-0-0 oc.
7) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
8) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 15 lb uplift at joint 6, 24 lb uplift at joint 7, 60 lb uplift at joint 2, 35 lb uplift at joint 8, 22 lb uplift at joint 9 and 60 lb uplift at joint 2.

LOAD CASE(S) Standard

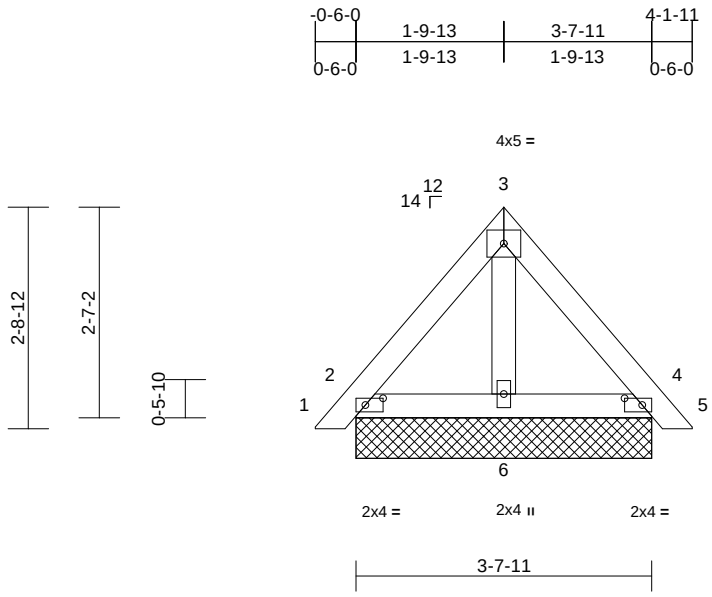
April 1,2025

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

Job	Truss	Truss Type	Qty	Ply	Install 34 Magnolia Acres-Roof-Chatham FA MNR SP 3FL I72384794
25030166-01	PBB2	Piggyback	1	2	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 Mar 30 12:17:31 ID:DQvM4golvBEltvkNaF4WrdzOWL?-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f



Scale = 1:28.4

Plate Offsets (X, Y): [2:0-2-10,0-1-0], [4:0-2-10,0-1-0]

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.03	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.03	Vert(CT)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.00	Horz(CT)	0.00	4	n/a	n/a		
BCLL	0.0*	Code	IRC2021/TPI2014	Matrix-MP								
BCDL	10.0										Weight: 38 lb	FT = 20%

LUMBER
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2
OTHERS 2x4 SP No.3

BRACING
TOP CHORD Structural wood sheathing directly applied or 4-8-2 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (size) 2=3-7-11, 4=3-7-11, 6=3-7-11
Max Horiz 2=-61 (LC 12)
Max Uplift 2=-19 (LC 15), 4=-18 (LC 15)
Max Grav 2=157 (LC 21), 4=157 (LC 22), 6=112 (LC 21)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/23, 2-3=-98/44, 3-4=-98/40, 4-5=0/23
BOT CHORD 2-6=-30/50, 4-6=-19/47
WEBS 3-6=-38/0

NOTES
1) 2-ply truss to be connected together as follows:
Top chords connected with 10d (0.131"x3") nails as follows: 2x4 - 1 row at 0-9-0 oc.
Bottom chords connected with 10d (0.131"x3") nails 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 roof live loads have been considered for this design.
4) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
5) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
6) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
7) Unbalanced snow loads have been considered for this design.
8) This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 20.0 psf on overhangs non-concurrent with other live loads.
9) Gable requires continuous bottom chord bearing.
10) Gable studs spaced at 4-0-0 oc.
11) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
12) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
13) N/A
14) See Standard Industry Piggyback Truss Connection Detail for Connection to base truss as applicable, or consult qualified building designer.

LOAD CASE(S) Standard

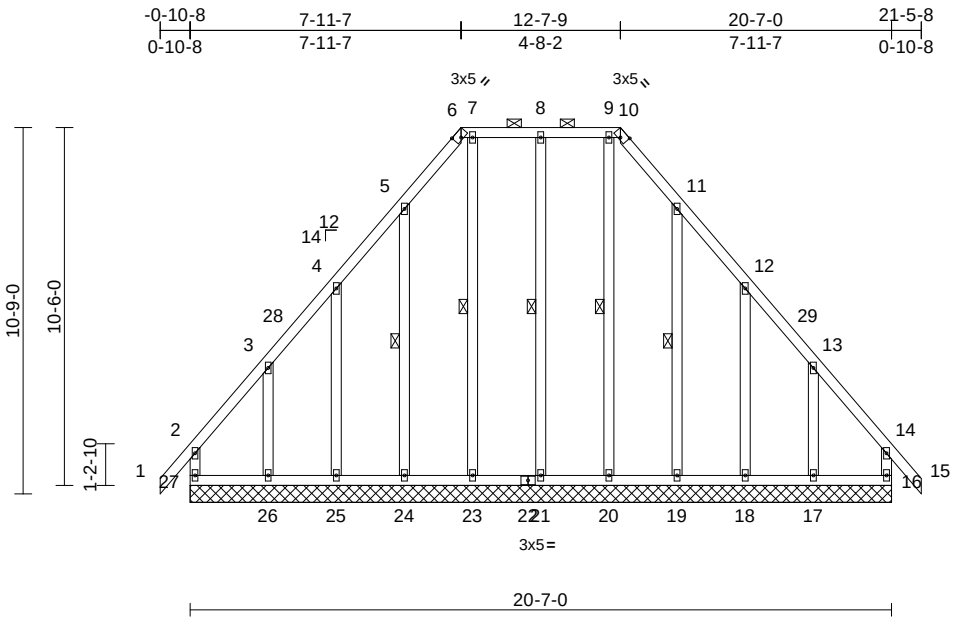
April 1,2025

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

Job	Truss	Truss Type	Qty	Ply	Install 34 Magnolia Acres-Roof-Chatham FA MNR SP 3FL I72384795
25030166-01	B04	Piggyback Base Supported Gable	1	1	Job Reference (optional)

Carter Components (Sanford, NC), Sanford, NC - 27332, Run: 8.73 S Feb 19 2025 Print: 8.730 S Feb 19 2025 MiTek Industries, Inc. Sun Mar 30 12:17:30 Page: 1

ID:?FtLvZdnlgsi8lvr3LwnHLzOVtX-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f



Scale = 1:67.6

Plate Offsets (X, Y): [6:0-2-5,Edge], [10:0-2-5,Edge]

Loading	(psf)	Spacing	1-11-4	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.22	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.14	Vert(CT)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.17	Horz(CT)	0.00	16	n/a	n/a		
BCLL	0.0*	Code	IRC2021/TPI2014	Matrix-MR								
BCDL	10.0										Weight: 176 lb	FT = 20%

LUMBER

TOP CHORD	2x4 SP No.2
BOT CHORD	2x4 SP No.2
WEBS	2x4 SP No.3
OTHERS	2x4 SP No.3

BRACING

TOP CHORD	Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals, and 2-0-0 oc purlins (6-0-0 max.): 6-10.
BOT CHORD	Rigid ceiling directly applied or 6-0-0 oc bracing.
WEBS	1 Row at midpt 8-21, 7-23, 5-24, 9-20, 11-19

REACTIONS (size) 16=20-7-0, 17=20-7-0, 18=20-7-0, 19=20-7-0, 20=20-7-0, 21=20-7-0, 23=20-7-0, 24=20-7-0, 25=20-7-0, 26=20-7-0, 27=20-7-0

Max Horiz 27=-281 (LC 12)

Max Uplift 16=-136 (LC 11), 17=-218 (LC 15), 18=-108 (LC 15), 19=-93 (LC 15), 21=-42 (LC 10), 23=-3 (LC 13), 24=-95 (LC 14), 25=-107 (LC 14), 26=-223 (LC 14), 27=-161 (LC 10)

Max Grav 16=241 (LC 51), 17=291 (LC 53), 18=245 (LC 41), 19=251 (LC 53), 20=245 (LC 54), 21=258 (LC 40), 23=251 (LC 56), 24=254 (LC 51), 25=245 (LC 41), 26=301 (LC 51), 27=262 (LC 53)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD	2-27=-213/139, 1-2=0/45, 2-3=-209/198, 3-4=-142/182, 4-5=-215/271, 5-6=-286/358, 6-7=-211/272, 7-8=-211/272, 8-9=-211/272, 9-10=-211/272, 10-11=-286/358, 11-12=-216/270, 12-13=-135/171, 13-14=-181/172, 14-15=0/45, 14-16=-195/117
BOT CHORD	26-27=-136/147, 25-26=-136/147, 24-25=-136/147, 23-24=-136/147, 21-23=-136/147, 20-21=-136/147, 19-20=-136/147, 18-19=-136/147, 17-18=-136/147, 16-17=-136/147
WEBS	8-21=-237/81, 7-23=-230/117, 5-24=-235/114, 4-25=-264/145, 3-26=-258/199, 9-20=-230/116, 11-19=-235/113, 12-18=-266/145, 13-17=-248/196

NOTES

1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Corner(3E) -0-10-8 to 2-3-8, Exterior(2N) 2-3-8 to 4-11-7, Corner(3R) 4-11-7 to 15-7-9, Exterior(2N) 15-7-9 to 18-3-8, Corner(3E) 18-3-8 to 21-5-8 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
4) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
5) Unbalanced snow loads have been considered for this design.
6) This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 20.0 psf on overhangs non-concurrent with other live loads.
7) Provide adequate drainage to prevent water ponding.
8) All plates are 2x4 MT20 unless otherwise indicated.
9) Gable requires continuous bottom chord bearing.
10) Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
11) Gable studs spaced at 2-0-0 oc.
12) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
13) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.

April 1,2025

Continued on page 2

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

14) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 161 lb uplift at joint 27, 136 lb uplift at joint 16, 42 lb uplift at joint 21, 3 lb uplift at joint 23, 95 lb uplift at joint 24, 107 lb uplift at joint 25, 223 lb uplift at joint 26, 93 lb uplift at joint 19, 108 lb uplift at joint 18 and 218 lb uplift at joint 17.
15) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

LOAD CASE(S) Standard

Job	Truss	Truss Type	Qty	Ply	Install 34 Magnolia Acres-Roof-Chatham FA MNR SP 3FL I72384796
25030166-01	B01	Piggyback Base	2	1	Job Reference (optional)

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

Run: 8.73 S Feb 19 2025 Print: 8.730 S Feb 19 2025 MiTek Industries, Inc. Sun Mar 30 12:17:29 Page: 1
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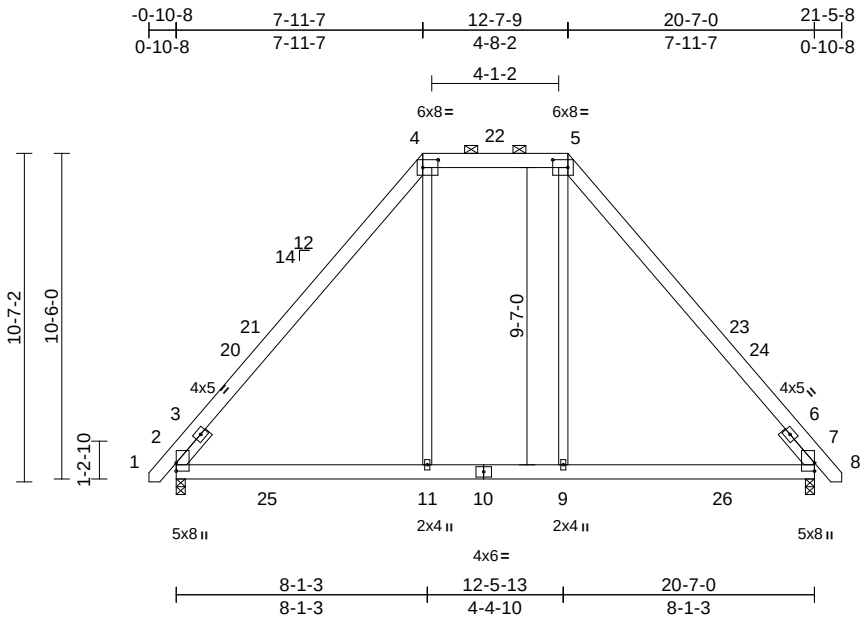


Scale = 1:74.3

Plate Offsets (X, Y): [4:0-5-14,0-3-0], [5:0-5-14,0-3-0]

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.59	Vert(LL)	0.15	11-14	>999	240	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.48	Vert(CT)	-0.18	11-14	>999	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.16	Horz(CT)	0.05	7	n/a	n/a		
BCLL	0.0*	Code	IRC2021/TPI2014	Matrix-MSH								
BCDL	10.0										Weight: 156 lb	FT = 20%

LUMBER
TOP CHORD 2x6 SP No.2
BOT CHORD 2x6 SP No.2
WEBS 2x4 SP No.3
SLIDER Left 2x4 SP No.2 -- 1-6-0, Right 2x4 SP No.2 -- 1-6-0

BRACING
TOP CHORD Structural wood sheathing directly applied or 5-1-4 oc purlins, except 2-0-0 oc purlins (6-0-0 max.): 4-5.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (size) 2=0-3-8, 7=0-3-8
Max Horiz 2=-251 (LC 12)
Max Uplift 2=-65 (LC 14), 7=-65 (LC 15)
Max Grav 2=1152 (LC 47), 7=1152 (LC 47)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/32, 2-4=-1319/271, 4-5=-824/215, 5-7=-1318/271, 7-8=0/32
BOT CHORD 2-11=-248/645, 9-11=-45/649, 7-9=-108/643
WEBS 4-11=-42/414, 5-9=-42/414

NOTES
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) -0-8-6 to 2-3-10, Interior (1) 2-3-10 to 3-8-9, Exterior(2R) 3-8-9 to 16-10-7, Interior (1) 16-10-7 to 18-3-6, Exterior(2E) 18-3-6 to 21-3-6 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
4) Unbalanced snow loads have been considered for this design.
5) This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 20.0 psf on overhangs non-concurrent with other live loads.
6) Provide adequate drainage to prevent water ponding.
7) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
8) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
9) One H2.5A Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 2 and 7. This connection is for uplift only and does not consider lateral forces.
10) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

LOAD CASE(S) Standard

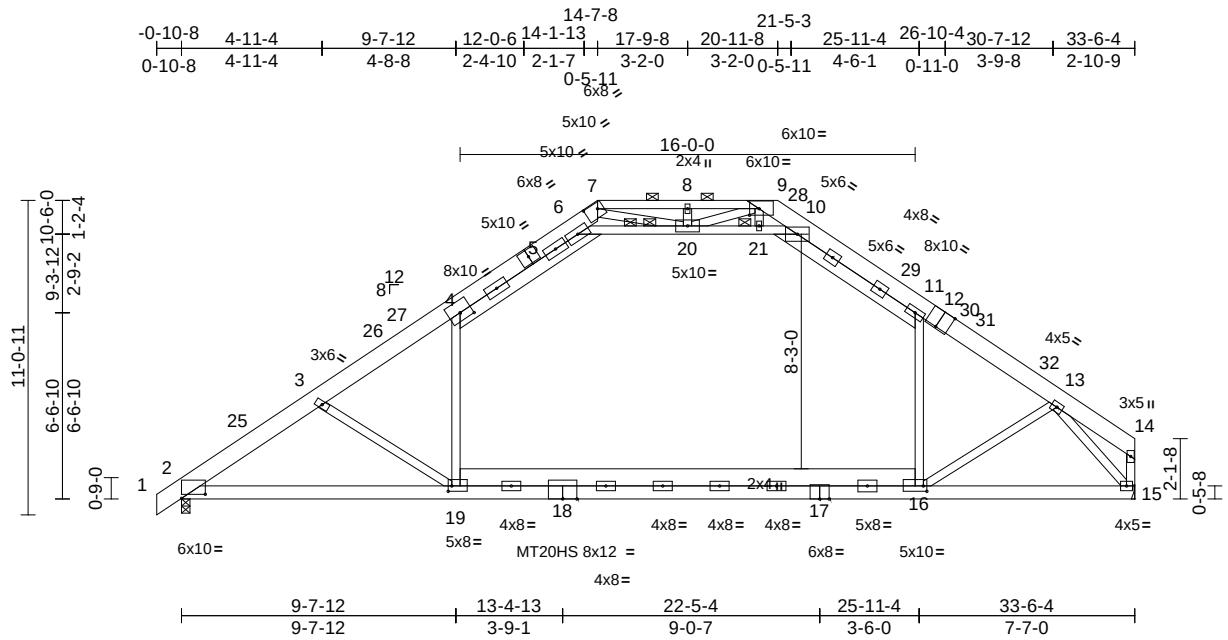
April 1,2025

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

Job	Truss	Truss Type	Qty	Ply	Install 34 Magnolia Acres-Roof-Chatham FA MNR SP 3FL I72384801
25030166-01	A05	Attic	2	1	Job Reference (optional)

Carter Components (Sanford, NC), Sanford, NC - 27332, Run: 8.73 S Feb 19 2025 Print: 8.730 S Feb 19 2025 MiTek Industries, Inc. Sun Mar 30 12:17:29 Page: 1

ID:QKwHoQyCEzkbcI5iCHYd9HzP76I-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f



Scale = 1:81

Plate Offsets (X, Y): [2:0-10-0,0-1-11], [4:0-5-0,0-3-4], [7:0-5-8,0-2-8], [9:0-4-0,0-2-12], [12:0-5-0,Edge], [16:0-1-8,0-2-4], [19:0-1-8,0-2-4]

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.72	Vert(LL)	-0.49	16-19	>812	240	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.60	Vert(CT)	-0.75	16-19	>531	180	MT20HS	187/143
TCDL	10.0	Rep Stress Incr	YES	WB	0.92	Horz(CT)	0.04	15	n/a	n/a		
BCLL	0.0*	Code	IRC2021/TPI2014	Matrix-MSH		Attic	-0.33	16-19	>586	360		
BCDL	10.0										Weight: 336 lb	FT = 20%

LUMBER

TOP CHORD 2x8 SP 2400F 2.0E *Except* 7-9:2x4 SP No.2, 4-6,10-11:2x6 SP No.2

BOT CHORD 2x6 SP 2400F 2.0E *Except* 19-16:2x8 SP 2400F 2.0E

WEBS 2x4 SP No.3 *Except* 6-10:2x4 SP No.2

BRACING

TOP CHORD Structural wood sheathing directly applied or 4-10-14 oc purlins, except end verticals, and 2-0-0 oc purlins (6-0-0 max.): 7-9.

BOT CHORD Rigid ceiling directly applied or 9-2-5 oc bracing.

WEBS 1 Row at midpt 6-20, 10-20

JOINTS 1 Brace at Jt(s): 20

This truss requires both edges of the bottom chord be sheathed in the room area.

REACTIONS (size) 2=0-3-8, 15= Mechanical

Max Horiz 2=239 (LC 11)

Max Grav 2=2015 (LC 52), 15=2059 (LC 48)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=0/29, 2-3=-3518/0, 3-4=-3016/0, 4-6=-2147/92, 6-7=0/1339, 7-8=-86/1582, 8-9=-86/1582, 9-10=0/1454, 10-11=-2194/87, 11-13=-2808/0, 13-14=-75/80, 14-15=-77/75

BOT CHORD 2-19=-91/2942, 16-19=0/2090, 15-16=0/1743

WEBS 3-19=-1079/239, 4-19=0/1395, 11-16=0/1016, 13-16=-121/528, 6-20=-3924/107, 20-21=-3925/62, 10-21=-3986/63, 13-15=-2867/0, 8-20=-251/82, 7-20=-345/713, 9-21=-6/391, 9-20=-272/721

NOTES

1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) -0-10-8 to 2-5-12, Interior (1) 2-5-12 to 9-7-8, Exterior(2R) 9-7-8 to 25-1-14, Interior (1) 25-1-14 to 30-0-5, Exterior(2E) 30-0-5 to 33-4-8 zone;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
4) Unbalanced snow loads have been considered for this design.
5) This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 20.0 psf on overhangs non-concurrent with other live loads.
6) Provide adequate drainage to prevent water ponding.
7) All plates are MT20 plates unless otherwise indicated.
8) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
9) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
10) Ceiling dead load (5.0 psf) on member(s). 4-6, 10-11, 6-20, 20-21, 10-21; Wall dead load (5.0psf) on member (s).4-19, 11-16
11) Bottom chord live load (40.0 psf) and additional bottom chord dead load (5.0 psf) applied only to room. 16-19
12) Refer to girder(s) for truss to truss connections.
13) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
14) Attic room checked for L/360 deflection.

LOAD CASE(S) Standard

April 1,2025

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

Job	Truss	Truss Type	Qty	Ply	Install 34 Magnolia Acres-Roof-Chatham FA MNR SP 3FL I72384797
25030166-01	PBA	Piggyback	2	1	Job Reference (optional)

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

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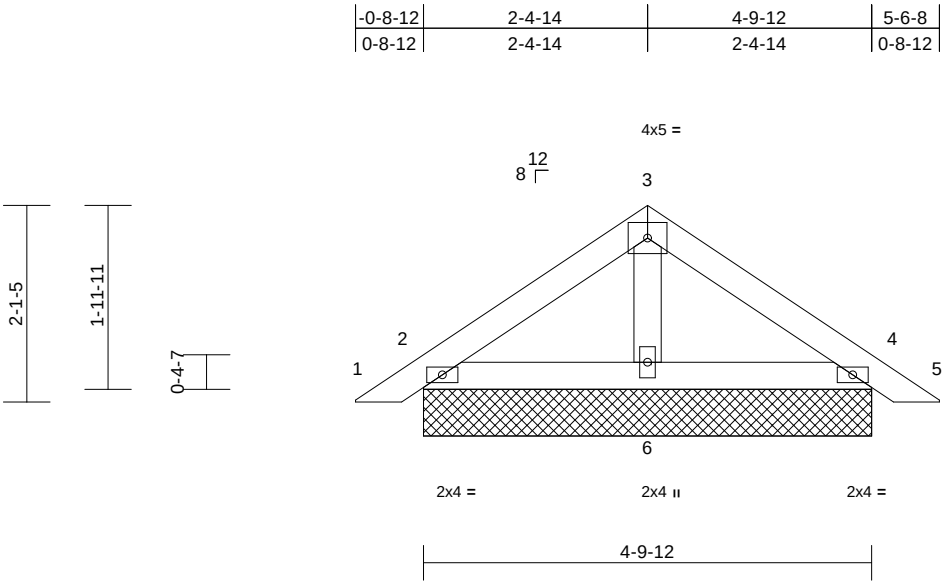

Scale = 1:24.7

Loading	(psf)	Spacing	1-11-4	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.09	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.17	Vert(CT)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.02	Horz(CT)	0.00	4	n/a	n/a		
BCLL	0.0*	Code	IRC2021/TPI2014	Matrix-MP								
BCDL	10.0										Weight: 20 lb	FT = 20%

LUMBER
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.3
OTHERS 2x4 SP No.3

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

REACTIONS (size) 2=4-9-12, 4=4-9-12, 6=4-9-12
Max Horiz 2=-44 (LC 12)
Max Uplift 2=-26 (LC 14), 4=-32 (LC 15)
Max Grav 2=185 (LC 21), 4=185 (LC 22), 6=168 (LC 21)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/24, 2-3=-86/86, 3-4=-86/86, 4-5=0/24
BOT CHORD 2-6=-8/40, 4-6=-3/40
WEBS 3-6=-79/27

NOTES
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Corner(3E) zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
4) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
5) Unbalanced snow loads have been considered for this design.
6) This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 20.0 psf on overhangs non-concurrent with other live loads.
7) Gable requires continuous bottom chord bearing.
8) Gable studs spaced at 2-0-0 oc.
9) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
10) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
11) N/A
12) See Standard Industry Piggyback Truss Connection Detail for Connection to base truss as applicable, or consult qualified building designer.

LOAD CASE(S) Standard

April 1,2025

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

Job	Truss	Truss Type	Qty	Ply	Install 34 Magnolia Acres-Roof-Chatham FA MNR SP 3FL I72384798
25030166-01	J01	Jack-Open Supported Gable	2	1	Job Reference (optional)

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

Run: 8.73 S Feb 19 2025 Print: 8.730 S Feb 19 2025 MiTek Industries, Inc. Sun Mar 30 12:17:31 Page: 1
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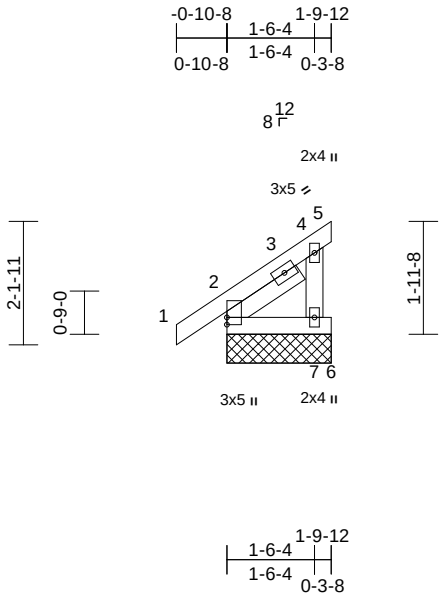

Scale = 1:40

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.08	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.03	Vert(CT)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.04	Horz(CT)	0.00	5	n/a	n/a		
BCLL	0.0*	Code	IRC2021/TPI2014	Matrix-MP								
BCDL	10.0										Weight: 12 lb	FT = 20%

LUMBER
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2
WEBS 2x4 SP No.3
SLIDER Left 2x4 SP No.3 -- 1-6-0

BRACING
TOP CHORD Structural wood sheathing directly applied or 1-9-12 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (size) 2=1-9-12, 5=1-9-12, 6=1-9-12, 7=1-9-12
Max Horiz 2=63 (LC 14)
Max Uplift 5=-6 (LC 12), 6=-20 (LC 25), 7=-66 (LC 14)
Max Grav 2=179 (LC 21), 5=9 (LC 14), 6=12 (LC 14), 7=119 (LC 21)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/44, 2-4=-74/39, 4-5=-15/11
BOT CHORD 2-7=0/0, 6-7=0/0
WEBS 4-7=-97/144

NOTES
1) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Corner(3E) zone; end vertical left exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
3) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
4) Unbalanced snow loads have been considered for this design.
5) This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 20.0 psf on overhangs non-concurrent with other live loads.
6) Gable requires continuous bottom chord bearing.
7) Gable studs spaced at 2-0-0 oc.
8) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
9) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
10) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 20 lb uplift at joint 6, 6 lb uplift at joint 5 and 66 lb uplift at joint 7.

LOAD CASE(S) Standard

April 1,2025

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

Job	Truss	Truss Type	Qty	Ply	Install 34 Magnolia Acres-Roof-Chatham FA MNR SP 3FL I72384799
25030166-01	PBC1	Piggyback	2	1	Job Reference (optional)

Carter Components (Sanford, NC), Sanford, NC - 27332, Run: 8.73 S Feb 19 2025 Print: 8.730 S Feb 19 2025 MiTek Industries, Inc. Sun Mar 30 12:17:31 Page: 1
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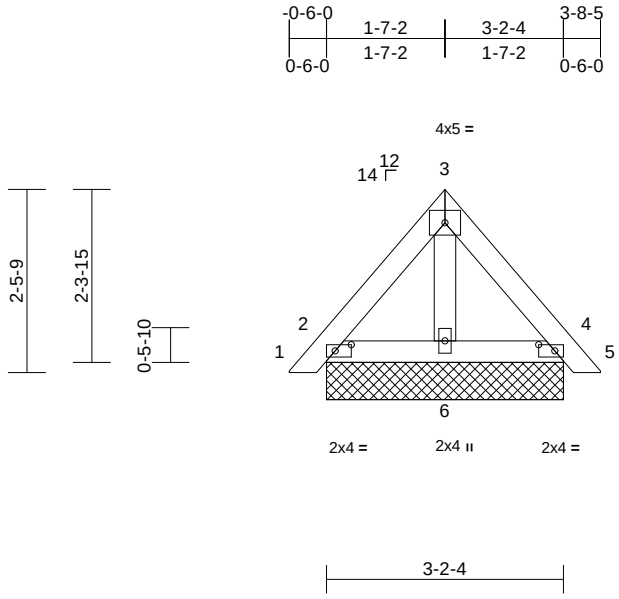

Scale = 1:31

Plate Offsets (X, Y): [2:0-2-10,0-1-0], [4:0-2-10,0-1-0]

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.04	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.05	Vert(CT)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.01	Horz(CT)	0.00	4	n/a	n/a		
BCLL	0.0*	Code	IRC2021/TPI2014	Matrix-MP								
BCDL	10.0										Weight: 17 lb	FT = 20%

LUMBER
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2
OTHERS 2x4 SP No.3

BRACING
TOP CHORD Structural wood sheathing directly applied or 4-2-11 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (size) 2=3-2-4, 4=3-2-4, 6=3-2-4
Max Horiz 2=-55 (LC 12)
Max Uplift 2=-15 (LC 15), 4=-14 (LC 15), 6=-3 (LC 14)
Max Grav 2=139 (LC 21), 4=139 (LC 22), 6=98 (LC 21)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/23, 2-3=-82/37, 3-4=-82/33, 4-5=0/23
BOT CHORD 2-6=-21/44, 4-6=-17/44
WEBS 3-6=-33/0

NOTES
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
4) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
5) Unbalanced snow loads have been considered for this design.
6) This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 20.0 psf on overhangs non-concurrent with other live loads.
7) Gable requires continuous bottom chord bearing.
8) Gable studs spaced at 4-0-0 oc.
9) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
10) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
11) N/A
12) See Standard Industry Piggyback Truss Connection Detail for Connection to base truss as applicable, or consult qualified building designer.

LOAD CASE(S) Standard

April 1,2025

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

Job	Truss	Truss Type	Qty	Ply	Install 34 Magnolia Acres-Roof-Chatham FA MNR SP 3FL I72384800
25030166-01	B02	Piggyback Base	3	1	Job Reference (optional)

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

Run: 8.73 S Feb 19 2025 Print: 8.730 S Feb 19 2025 MiTek Industries, Inc. Sun Mar 30 12:17:29 Page: 1
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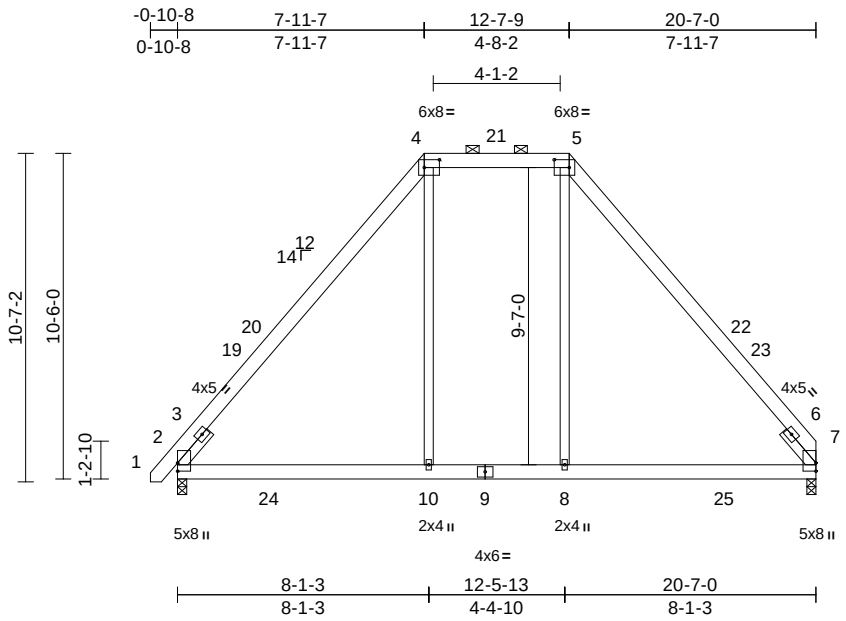


Scale = 1:74.3

Plate Offsets (X, Y): [4:0-5-14,0-3-0], [5:0-5-14,0-3-0]

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.59	Vert(LL)	0.15	10-17	>999	240	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.48	Vert(CT)	-0.18	10-17	>999	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.17	Horz(CT)	0.05	7	n/a	n/a		
BCLL	0.0*	Code	IRC2021/TPI2014	Matrix-MSH								
BCDL	10.0										Weight: 154 lb	FT = 20%

LUMBER
TOP CHORD 2x6 SP No.2
BOT CHORD 2x6 SP No.2
WEBS 2x4 SP No.3
SLIDER Left 2x4 SP No.3 -- 1-6-0, Right 2x4 SP No.3 -- 1-6-0

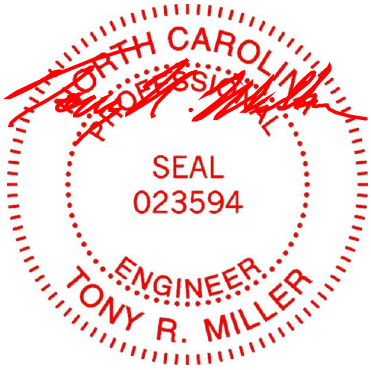
BRACING
TOP CHORD Structural wood sheathing directly applied or 5-1-0 oc purlins, except 2-0-0 oc purlins (6-0-0 max.): 4-5.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (size) 2=0-3-8, 7=0-3-8
Max Horiz 2=243 (LC 13)
Max Uplift 2=-65 (LC 14), 7=-51 (LC 15)
Max Grav 2=1152 (LC 47), 7=1116 (LC 47)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/32, 2-4=-1319/265, 4-5=-825/215, 5-7=-1319/321
BOT CHORD 2-10=-260/636, 8-10=-51/640, 7-8=-113/634
WEBS 4-10=-42/415, 5-8=-42/414

NOTES
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) -0-8-6 to 2-3-10, Interior (1) 2-3-10 to 3-8-9, Exterior(2R) 3-8-9 to 16-10-7, Interior (1) 16-10-7 to 17-7-0, Exterior(2E) 17-7-0 to 20-7-0 zone; end vertical left exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
4) Unbalanced snow loads have been considered for this design.
5) This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 20.0 psf on overhangs non-concurrent with other live loads.
6) Provide adequate drainage to prevent water ponding.
7) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
8) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
9) One H2.5A Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 7 and 2. This connection is for uplift only and does not consider lateral forces.
10) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

LOAD CASE(S) Standard



April 1,2025

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

Job	Truss	Truss Type	Qty	Ply	Install 34 Magnolia Acres-Roof-Chatham FA MNR SP 3FL I72384802
25030166-01	A04	Attic	4	1	Job Reference (optional)

Carter Components (Sanford, NC), Sanford, NC - 27332, Run: 8.73 S Feb 19 2025 Print: 8.730 S Feb 19 2025 MiTek Industries, Inc. Sun Mar 30 12:17:28 Page: 1

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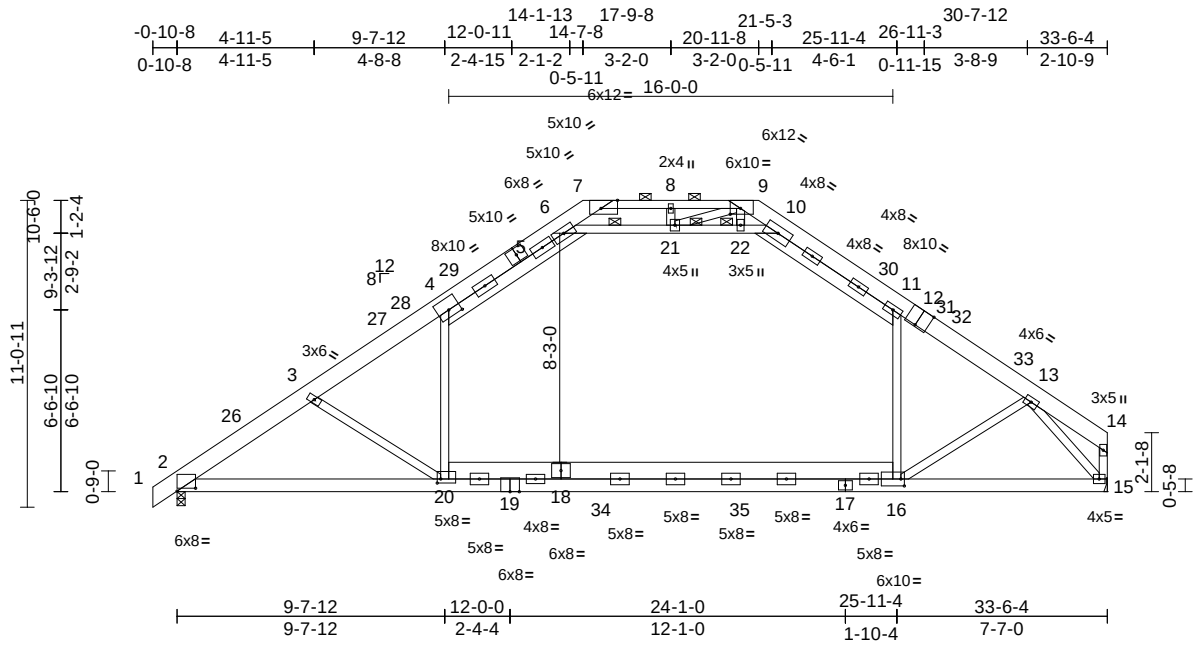

Scale = 1:83

Plate Offsets (X, Y): [2:0-8-0,0-1-3], [4:0-5-0,0-3-0], [7:0-7-2,Edge], [9:0-4-8,0-2-8], [12:0-5-0,Edge], [16:0-1-8,0-3-0], [20:0-1-8,0-1-12]

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.79	Vert(LL)	-0.52	16-20	>777	240	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.70	Vert(CT)	-0.89	16-20	>448	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.99	Horz(CT)	0.06	15	n/a	n/a		
BCLL	0.0*	Code	IRC2021/TPI2014	Matrix-MSH		Attic	-0.35	16-20	>562	360		
BCDL	10.0										Weight: 333 lb	FT = 20%

LUMBER

TOP CHORD 2x8 SP 2400F 2.0E *Except* 7-9:2x4 SP No.2, 4-6,10-11:2x6 SP No.2

BOT CHORD 2x6 SP 2400F 2.0E *Except* 20-18,18-16:2x8 SP 2400F 2.0E

WEBS 2x4 SP No.3 *Except* 6-10:2x4 SP No.2

BRACING

TOP CHORD Structural wood sheathing directly applied or 4-5-7 oc purlins, except end verticals, and 2-0-0 oc purlins (10-0-0 max.): 7-9.

BOT CHORD Rigid ceiling directly applied or 7-0-8 oc bracing.

WEBS 1 Row at midpt 6-21, 10-21

JOINTS 1 Brace at Jt(s): 21

This truss requires both edges of the bottom chord be sheathed in the room area.

REACTIONS (size) 2=0-3-8, 15= Mechanical

Max Horiz 2=238 (LC 11)

Max Grav 2=2119 (LC 52), 15=2173 (LC 48)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=0/29, 2-3=-3721/0, 3-4=-3199/0, 4-6=-2270/5, 6-7=0/1377, 7-8=0/1747, 8-9=0/1742, 9-10=0/1601, 10-11=-2312/0, 11-13=-2987/0, 13-14=-67/99, 14-15=-60/94

BOT CHORD 2-20=0/3095, 16-20=0/2229, 15-16=0/1849

WEBS 4-20=0/1529, 11-16=0/1129, 6-21=-3898/0, 21-22=-4221/0, 10-22=-4286/0, 13-16=-92/554, 13-15=-3063/0, 8-21=-170/156, 9-22=0/419, 3-20=-1101/199, 9-21=-333/771

NOTES

1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) -0-10-8 to 2-5-12, Interior (1) 2-5-12 to 10-4-7, Exterior(2R) 10-4-7 to 25-1-14, Interior (1) 25-1-14 to 30-0-5, Exterior(2E) 30-0-5 to 33-4-8 zone;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
4) Unbalanced snow loads have been considered for this design.
5) This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 20.0 psf on overhangs non-concurrent with other live loads.
6) 200.0lb AC unit load placed on the bottom chord, 17-9-8 from left end, supported at two points, 5-0-0 apart.
7) Provide adequate drainage to prevent water ponding.
8) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
9) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
10) Ceiling dead load (5.0 psf) on member(s). 4-6, 10-11, 6-21, 21-22, 10-22; Wall dead load (5.0psf) on member (s).4-20, 11-16
11) Bottom chord live load (40.0 psf) and additional bottom chord dead load (5.0 psf) applied only to room. 16-20
12) Refer to girder(s) for truss to truss connections.
13) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
14) Attic room checked for L/360 deflection.

LOAD CASE(S) Standard

April 1,2025

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

Job	Truss	Truss Type	Qty	Ply	Install 34 Magnolia Acres-Roof-Chatham FA MNR SP 3FL I72384803
25030166-01	PBB1	Piggyback	6	1	Job Reference (optional)

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

Run: 8.73 S Feb 19 2025 Print: 8.730 S Feb 19 2025 MiTek Industries, Inc. Sun Mar 30 12:17:31
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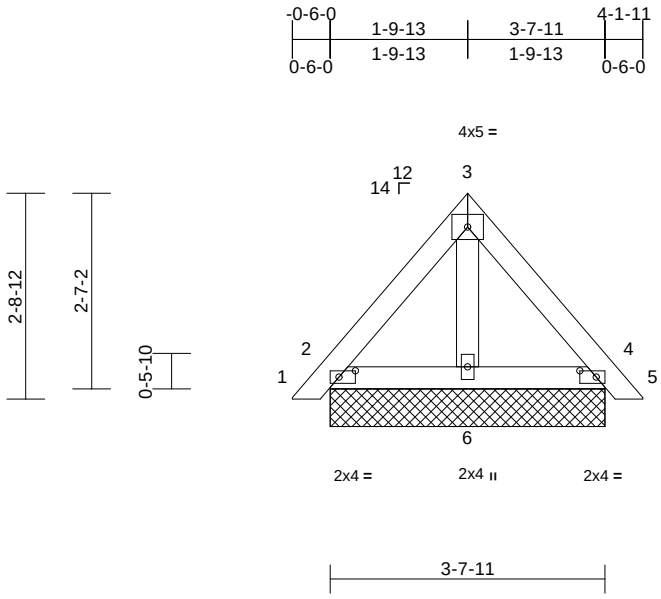


Scale = 1:30.5

Plate Offsets (X, Y): [2:0-2-10,0-1-0], [4:0-2-10,0-1-0]

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.06	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.06	Vert(CT)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.01	Horz(CT)	0.00	4	n/a	n/a		
BCLL	0.0*	Code	IRC2021/TPI2014	Matrix-MP								
BCDL	10.0										Weight: 19 lb	FT = 20%

LUMBER
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2
OTHERS 2x4 SP No.3

BRACING
TOP CHORD Structural wood sheathing directly applied or 4-8-2 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (size) 2=3-7-11, 4=3-7-11, 6=3-7-11
Max Horiz 2=-61 (LC 12)
Max Uplift 2=-18 (LC 15), 4=-17 (LC 15), 6=-1 (LC 14)
Max Grav 2=157 (LC 21), 4=157 (LC 22), 6=111 (LC 21)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/23, 2-3=-99/43, 3-4=-99/40, 4-5=0/23
BOT CHORD 2-6=-25/48, 4-6=-19/48
WEBS 3-6=-36/0

NOTES
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
4) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
5) Unbalanced snow loads have been considered for this design.
6) This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 20.0 psf on overhangs non-concurrent with other live loads.
7) Gable requires continuous bottom chord bearing.
8) Gable studs spaced at 4-0-0 oc.
9) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
10) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
11) N/A
12) See Standard Industry Piggyback Truss Connection Detail for Connection to base truss as applicable, or consult qualified building designer.

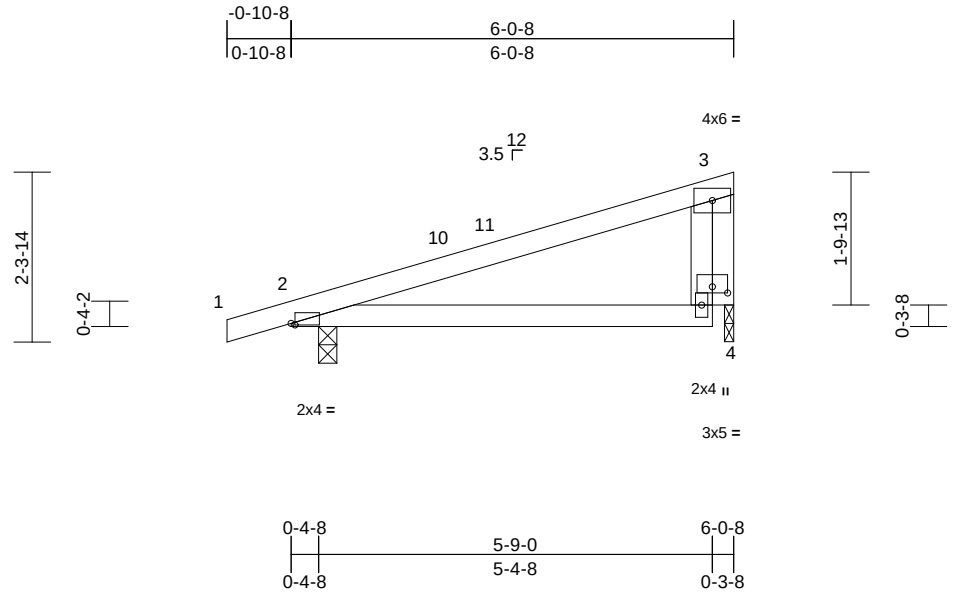
LOAD CASE(S) Standard

April 1,2025

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

Job	Truss	Truss Type	Qty	Ply	Install 34 Magnolia Acres-Roof-Chatham FA MNR SP 3FL I72384805
25030166-01	G01	Monopitch	8	1	Job Reference (optional)

Carter Components (Sanford, NC), Sanford, NC - 27332, Run: 8.73 S Feb 19 2025 Print: 8.730 S Feb 19 2025 MiTek Industries, Inc. Sun Mar 30 12:17:31 Page: 1
ID:JHuAcM1ilxfnQCok2NlpG1zOUQ2-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f



Scale = 1:31.4

Plate Offsets (X, Y): [2:0-0-10,0-0-4], [4:0-2-8,0-1-0]

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.59	Vert(LL)	0.08	4-9	>873	240	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.39	Vert(CT)	-0.10	4-9	>696	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.00	Horz(CT)	0.00	2	n/a	n/a		
BCLL	0.0*	Code	IRC2021/TPI2014	Matrix-MP								
BCDL	10.0										Weight: 24 lb	FT = 20%

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

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) 2=0-3-0, 4=0-1-8
Max Horiz 2=74 (LC 10)
Max Uplift 2=-120 (LC 10), 4=-86 (LC 10)
Max Grav 2=417 (LC 21), 4=275 (LC 21)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/21, 2-3=-117/138, 3-4=-199/168
BOT CHORD 2-4=-137/147

NOTES
1) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) -0-10-8 to 2-1-8, Interior (1) 2-1-8 to 2-9-0, Exterior(2E) 2-9-0 to 5-9-0 zone; porch left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
3) Unbalanced snow loads have been considered for this design.
4) This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 20.0 psf on overhangs non-concurrent with other live loads.
5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
6) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
7) Bearing at joint(s) 4 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
8) Provide mechanical connection (by others) of truss to bearing plate at joint(s) 4.
9) One H2.5A Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 2 and 4. This connection is for uplift only and does not consider lateral forces.

LOAD CASE(S) Standard

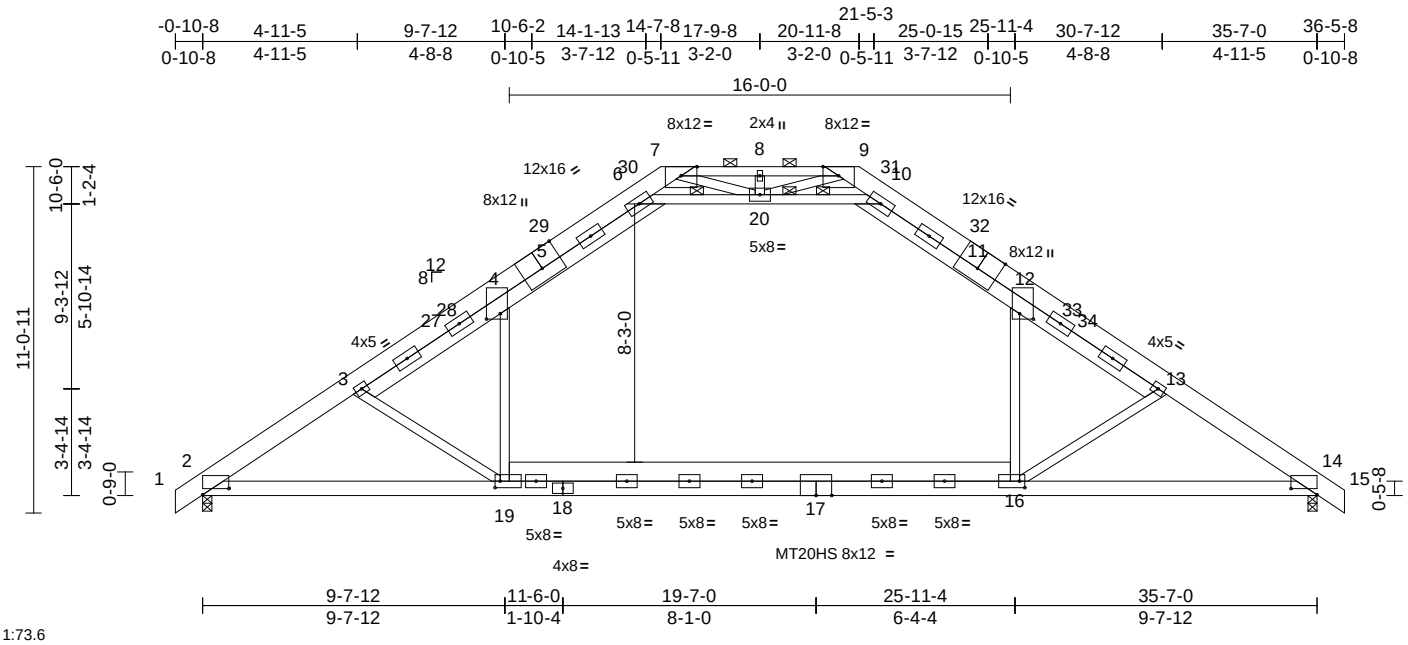
April 1,2025

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

Job	Truss	Truss Type	Qty	Ply	Install 34 Magnolia Acres-Roof-Chatham FA MNR SP 3FL I72384804
25030166-01	A02	Attic	9	1	Job Reference (optional)

Carter Components (Sanford, NC), Sanford, NC - 27332, Run: 8.73 S Feb 19 2025 Print: 8.730 S Feb 19 2025 MiTek Industries, Inc. Sun Mar 30 12:17:28 Page: 1

ID:JBGVv2qNH5pOFMbYQPrV4TzP75A-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f



Scale = 1:73.6

Plate Offsets (X, Y): [2:0-10-0,0-2-6], [4:0-2-1,0-5-4], [5:0-8-0,Edge], [11:0-8-0,Edge], [12:0-2-1,0-5-4], [14:0-10-0,0-2-6], [16:0-2-0,0-2-8], [19:0-2-0,0-2-8]

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.85	Vert(LL)	-0.50	16-19	>855	240	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.50	Vert(CT)	-0.77	16-19	>555	180	MT20HS	187/143
TCDL	10.0	Rep Stress Incr	YES	WB	0.64	Horz(CT)	0.04	14	n/a	n/a		
BCLL	0.0*	Code	IRC2021/TPI2014	Matrix-MSH		Attic	-0.33	16-19	>591	360		
BCDL	10.0										Weight: 368 lb	FT = 20%

LUMBER

TOP CHORD 2x8 SP 2400F 2.0E *Except* 7-9:2x4 SP No.3, 3-6,10-13:2x6 SP No.2

BOT CHORD 2x6 SP 2400F 2.0E *Except* 19-16:2x8 SP 2400F 2.0E

WEBS 2x4 SP No.3 *Except* 6-10:2x4 SP No.2

BRACING

TOP CHORD Structural wood sheathing directly applied or 3-8-2 oc purlins, except 2-0-0 oc purlins (6-0-0 max.): 7-9.

BOT CHORD Rigid ceiling directly applied or 9-3-11 oc bracing.

WEBS 1 Row at midpt 6-20, 10-20

JOINTS 1 Brace at Jt(s): 20

This truss requires both edges of the bottom chord be sheathed in the room area.

REACTIONS (size) 2=0-3-8, 14=0-3-8

Max Horiz 2=-248 (LC 12)

Max Grav 2=2142 (LC 52), 14=2142 (LC 54)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=0/29, 2-3=-3838/0, 3-4=-3338/0, 4-6=-2445/117, 6-7=-21/1531, 7-8=-46/1385, 8-9=-46/1385, 9-10=-21/1531, 10-12=-2445/117, 12-13=-3338/0, 13-14=-3838/0, 14-15=0/29

BOT CHORD 2-19=-41/3114, 16-19=0/2400, 14-16=0/3114

WEBS 3-19=-875/240, 4-19=0/1336, 12-16=0/1336, 13-16=-879/243, 6-20=-4408/87, 10-20=-4408/87, 8-20=-231/81, 7-20=-315/929, 9-20=-315/929

NOTES

1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) -0-10-8 to 2-8-3, Interior (1) 2-8-3 to 11-4-11, Exterior(2R) 11-4-11 to 24-2-5, Interior (1) 24-2-5 to 32-10-13, Exterior(2E) 32-10-13 to 36-5-8 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
4) Unbalanced snow loads have been considered for this design.
5) This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 20.0 psf on overhangs non-concurrent with other live loads.
6) Provide adequate drainage to prevent water ponding.
7) All plates are MT20 plates unless otherwise indicated.
8) All plates are 5x10 MT20 unless otherwise indicated.
9) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
10) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
11) Ceiling dead load (5.0 psf) on member(s). 4-6, 10-12, 6-20, 10-20; Wall dead load (5.0psf) on member (s).4-19, 12-16
12) Bottom chord live load (40.0 psf) and additional bottom chord dead load (5.0 psf) applied only to room. 16-19
13) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
14) Attic room checked for L/360 deflection.

LOAD CASE(S) Standard

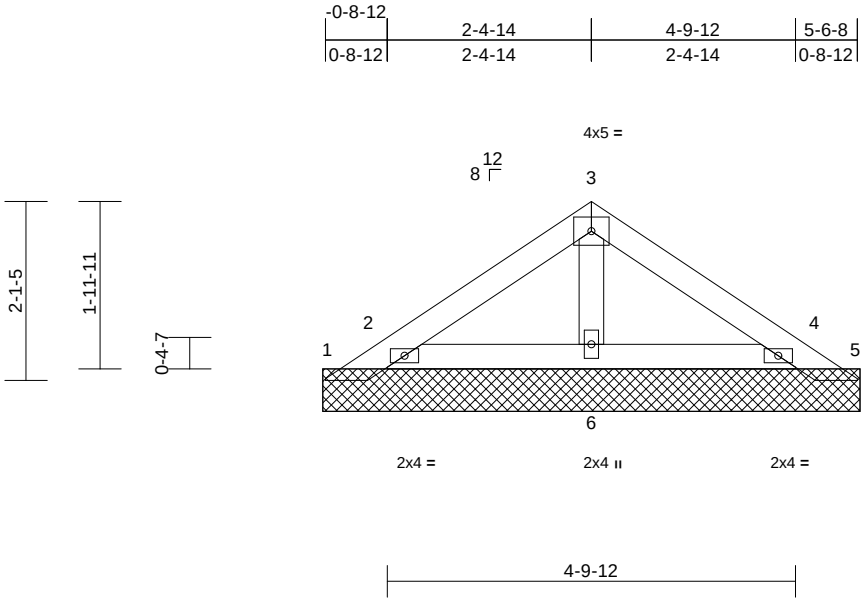
April 1,2025

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

Job	Truss	Truss Type	Qty	Ply	Install 34 Magnolia Acres-Roof-Chatham FA MNR SP 3FL I72384806
25030166-01	PBA1	Piggyback	15	1	Job Reference (optional)

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

Run: 8.73 S Feb 19 2025 Print: 8.730 S Feb 19 2025 MiTek Industries, Inc. Sun Mar 30 12:17:31 ID:616w0a5_SydQxmWUHwLu??zP7Dt-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f



Scale = 1:27.2

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.13	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.23	Vert(TL)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.05	Horiz(TL)	0.00	5	n/a	n/a		
BCLL	0.0*	Code	IRC2021/TPI2014	Matrix-MP								
BCDL	10.0										Weight: 20 lb	FT = 20%

LUMBER
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.3
OTHERS 2x4 SP No.3

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

REACTIONS (size) 1=6-4-0, 2=6-4-0, 4=6-4-0, 5=6-4-0, 6=6-4-0
Max Horiz 1=45 (LC 11)
Max Uplift 1=-82 (LC 21), 2=-65 (LC 14), 4=-1 (LC 15), 5=-11 (LC 15), 6=-19 (LC 15)
Max Grav 1=46 (LC 14), 2=275 (LC 21), 4=3 (LC 22), 5=107 (LC 22), 6=341 (LC 22)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-59/92, 2-3=-44/107, 3-4=-40/136, 4-5=-56/27
BOT CHORD 2-6=-83/80, 4-6=-83/80
WEBS 3-6=-225/85

NOTES
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
4) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
5) Unbalanced snow loads have been considered for this design.
6) Gable requires continuous bottom chord bearing.
7) Gable studs spaced at 4-0-0 oc.
8) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
9) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
10) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 82 lb uplift at joint 1, 11 lb uplift at joint 5 and 19 lb uplift at joint 6.
11) One H2.5A Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 2 and 4. This connection is for uplift only and does not consider lateral forces.
12) See Standard Industry Piggyback Truss Connection Detail for Connection to base truss as applicable, or consult qualified building designer.

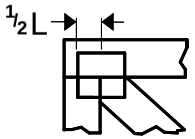
LOAD CASE(S) Standard

April 1,2025

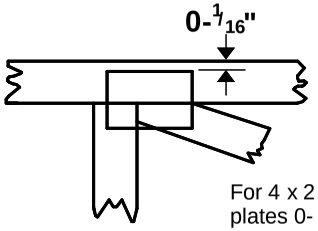
ENGINEERING BY TRENCO
A MiTek Affiliate
818 Soundside Road
Edenton, NC 27932

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.

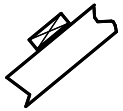
* Plate location details available in MiTek software or upon request.

PLATE SIZE

4 x 4

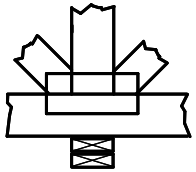
The first dimension is the plate width measured perpendicular to slots. Second dimension is the length parallel to slots.

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

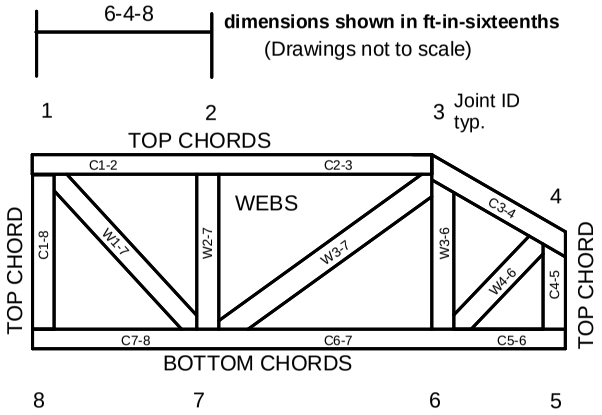


Indicates location where bearings (supports) occur. Icons vary but reaction section indicates joint number/letter where bearings occur. Min size shown is for crushing only.

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.