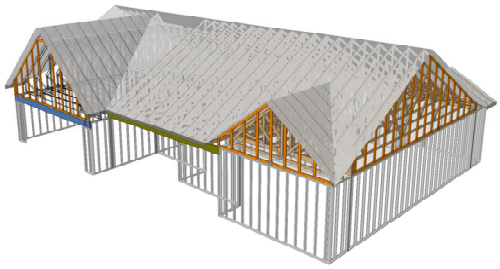
Carter Sanford Component Plant
298 Harvey Faulk Rd
Sanford, NC 27332

Phone #:919-775-1450



Builder: Wellco Contractor

Model: 129 Hidden Lakes Plan 4 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:** _____

General Notes:

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

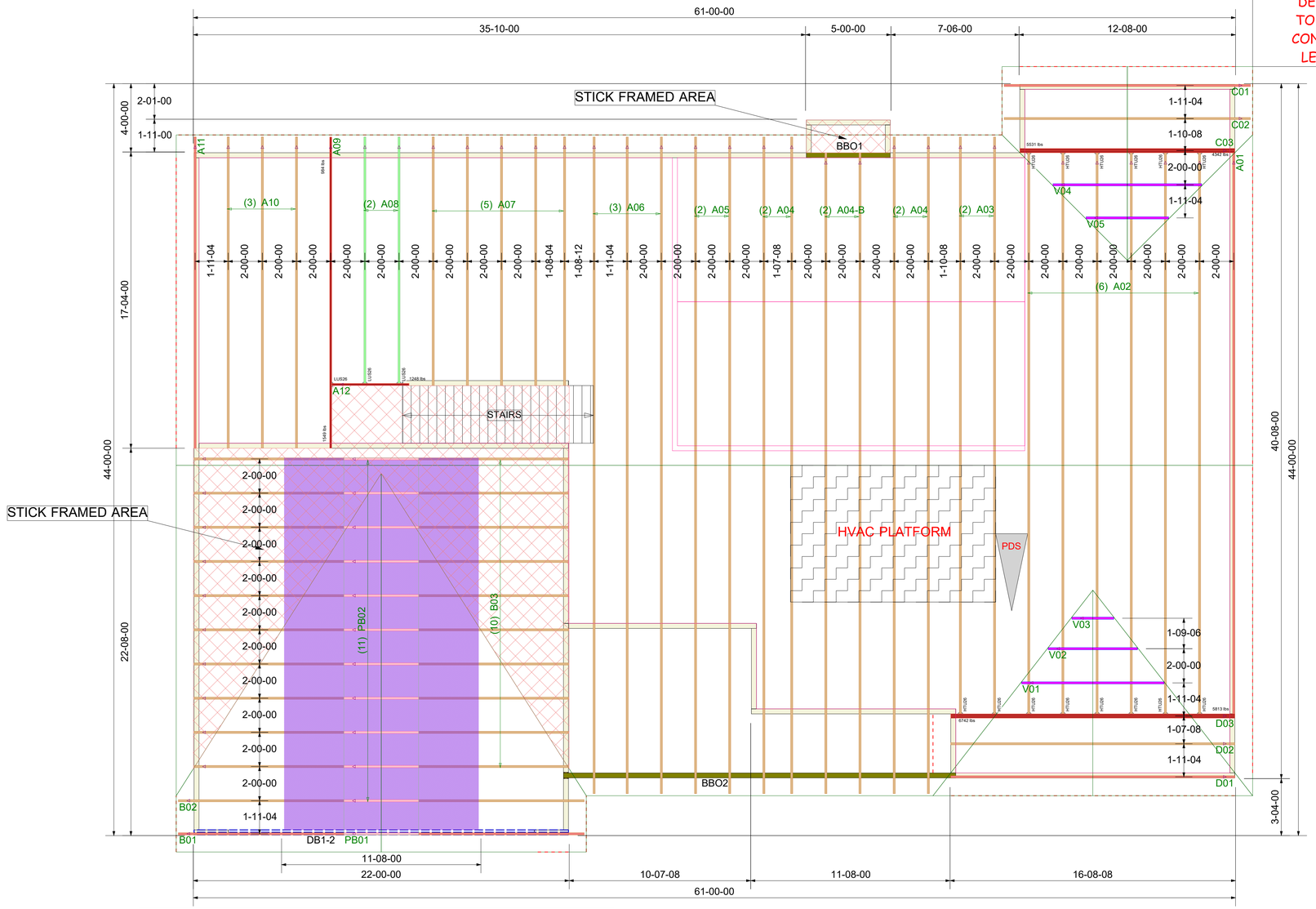
** ALL BEARING POINTS MUST BE INSTALLED PRIOR TO SETTING ANY COMPONENTS.

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

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

** FRAMER MUST REFER TO PLANS WHILE SETTING COMPONENTS.

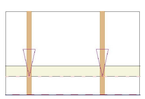
KEMPSVILLE BUILDING MATERIALS IS NOT RESPONSIBLE FOR THE DESIGN OR CALCULATION OF ANY AND ALL I-JOIST AND LVL/PSL BEAM MATERIAL. ALL ENGINEERING AND INFORMATION FOR THIS MATERIAL IS TO BE PROVIDED BY THE ENGINEER OF RECORD MARKED ON APPROVED SET OF PLANS. ALL BEAM PLACEMENTS ARE PER THE ENGINEERING RECEIVED. ALL CONNECTION DETAILS TO BE PROVIDED BY ENGINEER OF RECORD. REFER TO ENGINEER OR RECORD FOR ALL MULTI-PLY LVL/ I-JOIST CONNECTION PATTERNS. BUILDER TO VERIFY ALL MATERIAL LENGTHS, QUANTITIES, AND SIZES PRIOR TO ORDERING.



GARAGE WALLS ARE 1' LOWER THAT THE MAIN HOUSE WALLS (FOR ATTIC REQUIREMENTS)

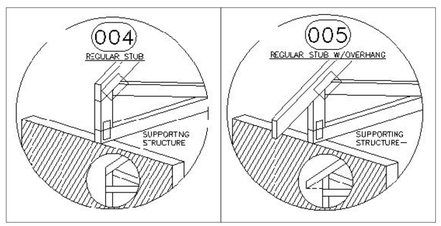
Products					
PlotID	Length	Product	Plies	Net Qty	Fab Type
DB1-2	22-00-00	2.1 RigidLam SP LVL 1-3/4 x 11-7/8	2	2	FF

Truss Connector Total List		
Manuf	Product	Qty
Simpson	HTU26	14
Simpson	LUS26	3
Simpson	One H2.5A	136



Truss Drawing Left End Indicator

FB# - Flush Beam
DB# - Dropped Beam
BBO - Beam that is not supplied by the component plant



** 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 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.

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

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

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

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

CARTER Lumber

Wellco Contractor

129 Hidden Lakes
North-Roof-Plan 4 GLH

ROOF PLACEMENT PLAN

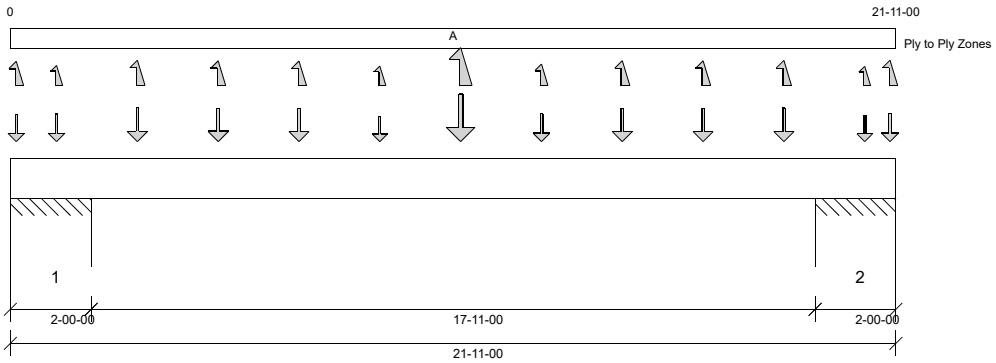
Scale: ***NTS***
Date: 1/9/2025
Designer: Aaron Rogers
Project Number: **25010026-01**
Sheet Number: **1/1**

MiTek	Customer: Street 1: City: Customer Ph...	Job Name: **01** Level: **1st FLOOR** Label: **DB1-2 - i44** Type: **Beam**	**2 Ply Member** **2.1 RigidLam SP LVL 1-3/4 x 11-7/8**	Status: **Design Passed**

Illustration Not to Scale. Pitch: 0/12

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

Report Version: 2023.09.18 01/09/2025 17:59



DESIGN INFORMATION a

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

Lateral Restraint Requirements:

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

Top: 21'- 11" Bottom: 21'- 11"

Bearing Stress of Support Material:

- 425 psi Wall @ 0'- 1 1/2"
- 425 psi Wall @ 1'- 10 1/2"
- 425 psi Wall @ 20'- 1/2"
- 425 psi Wall @ 21'- 9 1/2"

ANALYSIS RESULTS

Design Criteria	Location	Load Combination	LDF	Design	Limit	Result
Max Pos. Moment:	11'- 1 3/4"	D + Lr	1.15	1702 lb ft	16757 lb ft	Passed - 10%
Max Neg. Moment:	20'- 1/2"	D + Lr	1.15	2607 lb ft	16757 lb ft	Passed - 16%
Max Shear:	2'- 11 7/8"	D + Lr	1.15	858 lb	9241 lb	Passed - 9%
Live Load (LL) Pos. Defl.:	11'	Lr		0.034"	L/360	Passed - L/999
Total Load (TL) Pos. Defl.:	10'- 11 7/8"	D + Lr		0.065"	L/240	Passed - L/999

SUPPORT AND REACTION INFORMATION

ID	Input Bearing Length	Controlling Load Combination	LDF	Downward Reaction	Uplift Reaction	Resistance of Member	Resistance of Support	Result
1	8-12	0.6D + 0.6W	1.60	292 lb		31957 lb	13016 lb	Passed - 2%
1	8-12	D + Lr	1.15		-1406 lb	-	-	
1	1-03-04	D + 0.75(L + Lr + 0.6W)	1.60	2490 lb		40031 lb	22684 lb	Passed - 11%
1	1-03-04	0.6D + 0.6W	1.60		-610 lb	-	-	
2	1-03-04	D + 0.75(L + Lr + 0.6W)	1.60	2503 lb		40031 lb	22684 lb	Passed - 11%
2	1-03-04	0.6D + 0.6W	1.60		-622 lb	-	-	
2	8-12	0.6D + 0.6W	1.60	294 lb		31957 lb	13016 lb	Passed - 2%
2	8-12	D + Lr	1.15		-1413 lb	-	-	

LOADING

Type	Start Loc	End Loc	Source	Face	Dead (D)	Live (L)	Snow (S)	Roof Live (Lr)	Wind (W)
Self Weight	0'	21'- 11"	Self Weight	Top	11 lb/ft	-	-	-	-
Point	0'- 1 3/4"	0'- 1 3/4"	B01(c01)	Top	37 lb	-	38 lb	69 lb	46/-151 lb
Point	1'- 1 3/4"	1'- 1 3/4"	B01(c01)	Top	60 lb	-	31 lb	79 lb	30/-97 lb
Point	3'- 1 3/4"	3'- 1 3/4"	B01(c01)	Top	82 lb	-	50 lb	92 lb	54/-164 lb
Point	5'- 1 3/4"	5'- 1 3/4"	B01(c01)	Top	79 lb	-	48 lb	91 lb	52/-157 lb
Point	7'- 1 3/4"	7'- 1 3/4"	B01(c01)	Top	79 lb	-	47 lb	89 lb	52/-155 lb
Point	9'- 1 3/4"	9'- 1 3/4"	B01(c01)	Top	61 lb	-	26 lb	50/-3 lb	23/-87 lb
Point	11'- 1 3/4"	11'- 1 3/4"	B01(c01)	Top	113 lb	-	89 lb	203/-34 lb	49/-294 lb
Point	13'- 1 3/4"	13'- 1 3/4"	B01(c01)	Top	67 lb	-	33 lb	63/-3 lb	31/-112 lb
Point	15'- 1 3/4"	15'- 1 3/4"	B01(c01)	Top	80 lb	-	48 lb	86 lb	53/-158 lb
Point	17'- 1 3/4"	17'- 1 3/4"	B01(c01)	Top	79 lb	-	47 lb	91 lb	51/-157 lb
Point	19'- 1 3/4"	19'- 1 3/4"	B01(c01)	Top	82 lb	-	49 lb	90 lb	54/-162 lb
Point	21'- 1 3/4"	21'- 1 3/4"	B01(c01)	Top	52 lb	-	22 lb	78/-14 lb	20/-71 lb
Point	21'- 9 1/4"	21'- 9 1/4"	B01(c01)	Top	32 lb	-	41 lb	78/-10 lb	50/-155 lb

UNFACTORED REACTIONS

ID	Start Loc	End Loc	Source	Dead (D)	Live (L)	Snow (S)	Roof Live (Lr)	Wind (W)
1	0'	2'	E20(i33)	1250/-681 lb	-	590/-307 lb	1289/-789 lb	404 lb/ -1100 lb
==>	0'- 1 1/2"	0'- 1 1/2"	E20(i33)	-681 lb	-	-307 lb	106/-722 lb	-
==>	1'- 10 1/2"	1'- 10 1/2"	E20(i33)	1250 lb	-	590 lb	1183/-67 lb	-
2	19'- 11"	21'- 11"	E16(i12)	1259/-685 lb	-	596/-310 lb	1321/-804 lb	404 lb/ -1100 lb
==>	20'- 1/2"	20'- 1/2"	E16(i12)	1259 lb	-	596 lb	1195/-76 lb	-
==>	21'- 9 1/2"	21'- 9 1/2"	E16(i12)	-685 lb	-	-310 lb	126/-728 lb	-

DESIGN NOTES

- CAUTION: The maximum net analysis reaction exceeds the user-defined maximum uplift value at one or more supports.
- The dead loads used in the design of this member were applied to the structure as projected dead loads.
- Analysis and Design has been performed using precision loading from actual modeled conditions. Some loads may have been modified to simplify reporting.

MiTek	Customer: Street 1: City: Customer Ph...	Job Name: **01** Level: **1st FLOOR** Label: **DB1-2 - i44** Type: **Beam**	**2 Ply Member** **2.1 RigidLam SP LVL 1-3/4 x 11-7/8**	Status: **Design Passed**

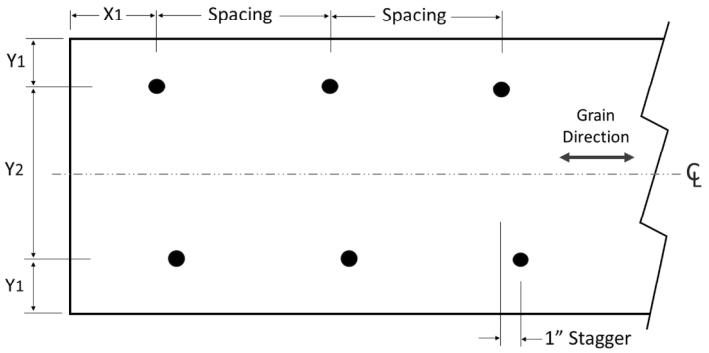
DESIGN NOTES

- Tributary Loads have been generated based on actual spacing between members in the model which may differ from the default system spacing. The actual loads applied to the member are shown in the Specified Loads table.
- Transfer reactions may differ from design results as allowed per building codes and standard load distribution practices.
- This report is based on modeled conditions input by the user. Source information for the loads and supports are provided for reference only. Verify that all loads and support conditions are correct.
- Review all loads and reactions to ensure that the member/bearing/connector/structure can resist adequately. Unless already specified on this report, anchorage for uplift reactions to be specified by others. Installation of member and accessories (if required) as per manufacturer's instruction.
- Beam Stability Factor used in the calculation for Allowable Max Pos Moment (CL) = 0.52

PLY TO PLY CONNECTION

- Zone A: Factored load = 0 plf. Use 12d (0.148"x3.25") nails. LDF = 1.00. Qty = 44. Row = 2, Spacing = 12"
  12d (0.148"x3.25") nails properties: D = 0.148" , L = 3.25". Fastener capacity = 128 lbs. X1 = 2.25" , Y1 = 0.75", Y2 = 1.5"
  Install fasteners from one face.
  X1 = Minimum end distance, X2 = Minimum edge distance, Y2 = Minimum row spacing.

FASTENER INSTALLATION – 2 ROWS (FROM ONE FACE)



ENGINEERING BY
TRENCO
A MiTek Affiliate

Trenco
818 Soundside Rd
Edenton, NC 27932

Re: 25010026-01
129 Hidden Lakes North-Roof-Plan 4 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: I70611595 thru I70611623

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

North Carolina COA: C-0844

January 9,2025

Gilbert, Eric

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

Job	Truss	Truss Type	Qty	Ply	129 Hidden Lakes North-Roof-Plan 4 GLH
25010026-01	V05	Valley	1	1	I70611595 Job Reference (optional)

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

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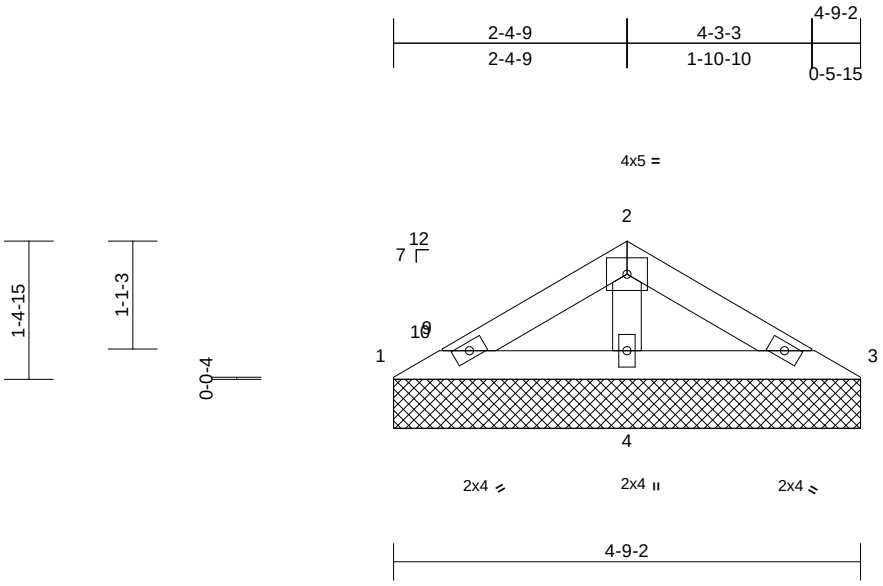

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Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.07	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.09	Vert(TL)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.03	Horiz(TL)	0.00	4	n/a	n/a		
BCLL	0.0*	Code	IRC2021/TPI2014	Matrix-MP								
BCDL	10.0										Weight: 15 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 4-9-2 oc purlins.
BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.

REACTIONS (size) 1=4-9-2, 3=4-9-2, 4=4-9-2
Max Horiz 1=-29 (LC 10)
Max Uplift 3=-13 (LC 15), 4=-17 (LC 14)
Max Grav 1=49 (LC 20), 3=83 (LC 21), 4=268 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-62/95, 2-3=-83/97
BOT CHORD 1-4=-88/64, 3-4=-88/65
WEBS 2-4=-182/74

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 13 lb uplift at joint 3 and 17 lb uplift at joint 4.

LOAD CASE(S) Standard

January 9,2025

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

Job	Truss	Truss Type	Qty	Ply	129 Hidden Lakes North-Roof-Plan 4 GLH
25010026-01	V04	Valley	1	1	I70611596 Job Reference (optional)

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

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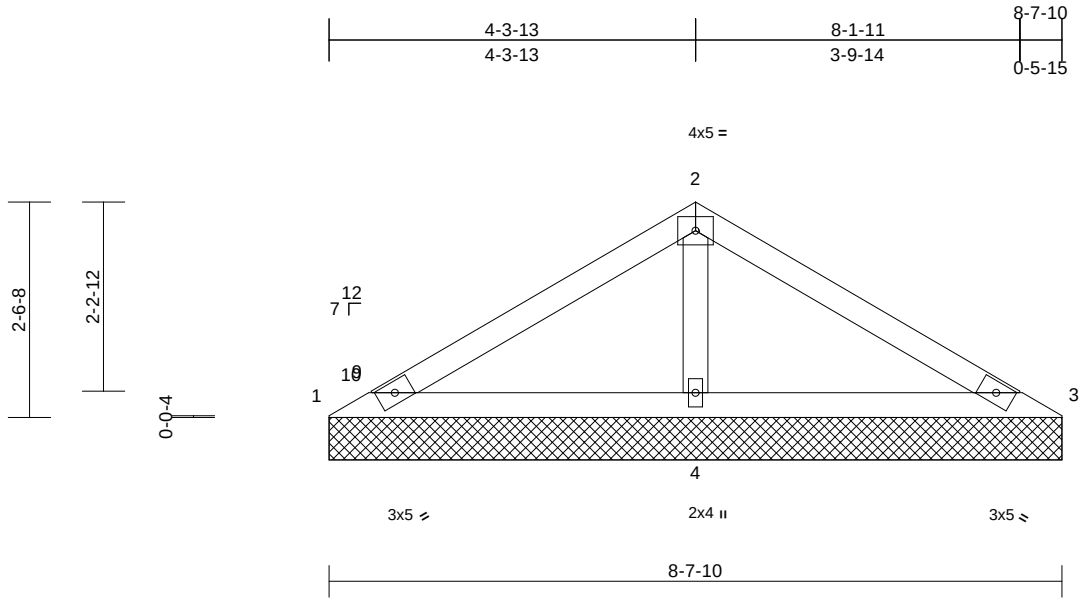

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Loading	(psf)	Spacing	1-11-4	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.34	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.33	Vert(TL)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.10	Horiz(TL)	0.00	4	n/a	n/a		
BCLL	0.0*	Code	IRC2021/TPI2014	Matrix-MP								
BCDL	10.0										Weight: 29 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 8-7-10 oc purlins.
BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.

REACTIONS (size) 1=8-7-10, 3=8-7-10, 4=8-7-10
Max Horiz 1=-53 (LC 10)
Max Uplift 1=-40 (LC 21), 3=-25 (LC 20), 4=-57 (LC 14)
Max Grav 1=65 (LC 20), 3=104 (LC 21), 4=616 (LC 20)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-94/315, 2-3=-98/315
BOT CHORD 1-4=-273/141, 3-4=-273/141
WEBS 2-4=-494/180

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) 0-6-8 to 3-6-8, Exterior(2R) 3-6-8 to 5-8-1, Exterior(2E) 5-8-1 to 8-8-1 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 40 lb uplift at joint 1, 25 lb uplift at joint 3 and 57 lb uplift at joint 4.

LOAD CASE(S) Standard

January 9,2025

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

Job	Truss	Truss Type	Qty	Ply	129 Hidden Lakes North-Roof-Plan 4 GLH
25010026-01	V03	Valley	1	1	I70611597 Job Reference (optional)

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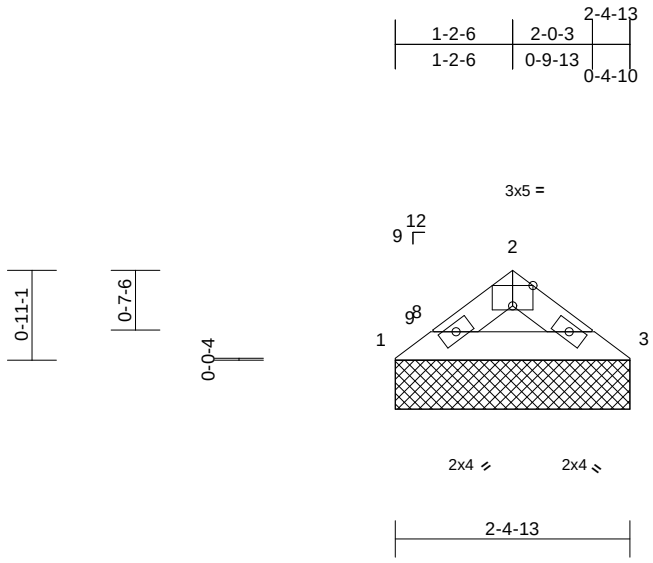

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Plate Offsets (X, Y): [2:0-2-8,Edge]

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	0.03	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.05	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: 7 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 2-4-13 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (size) 1=2-4-13, 3=2-4-13
Max Horiz 1=-16 (LC 10)
Max Uplift 3=-8 (LC 15)
Max Grav 1=74 (LC 20), 3=99 (LC 21)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-120/47, 2-3=-132/51
BOT CHORD 1-3=-28/98

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 8 lb uplift at joint 3.

LOAD CASE(S) Standard

January 9,2025

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

Job	Truss	Truss Type	Qty	Ply	129 Hidden Lakes North-Roof-Plan 4 GLH
25010026-01	V02	Valley	1	1	I70611598 Job Reference (optional)

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

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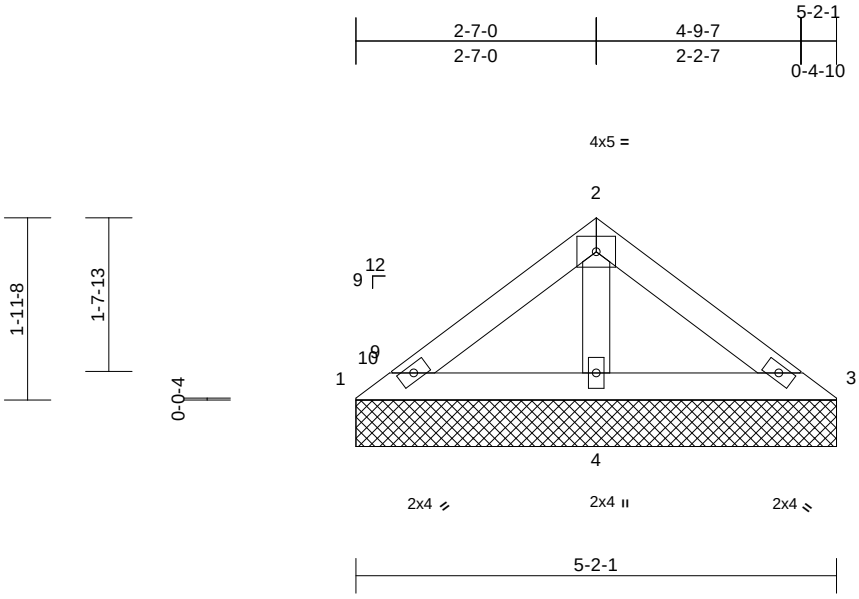

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Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.10	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.12	Vert(TL)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.04	Horiz(TL)	0.00	4	n/a	n/a		
BCLL	0.0*	Code	IRC2021/TPI2014	Matrix-MP								
BCDL	10.0										Weight: 18 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 5-2-1 oc purlins.
BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.

REACTIONS (size) 1=5-2-1, 3=5-2-1, 4=5-2-1
Max Horiz 1=-41 (LC 10)
Max Uplift 3=-9 (LC 15), 4=-29 (LC 14)
Max Grav 1=58 (LC 20), 3=89 (LC 21), 4=312 (LC 20)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-65/114, 2-3=-84/115
BOT CHORD 1-4=-96/88, 3-4=-96/88
WEBS 2-4=-228/102

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 9 lb uplift at joint 3 and 29 lb uplift at joint 4.

LOAD CASE(S) Standard

January 9,2025

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

Job	Truss	Truss Type	Qty	Ply	129 Hidden Lakes North-Roof-Plan 4 GLH
25010026-01	V01	Valley	1	1	I70611599 Job Reference (optional)

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

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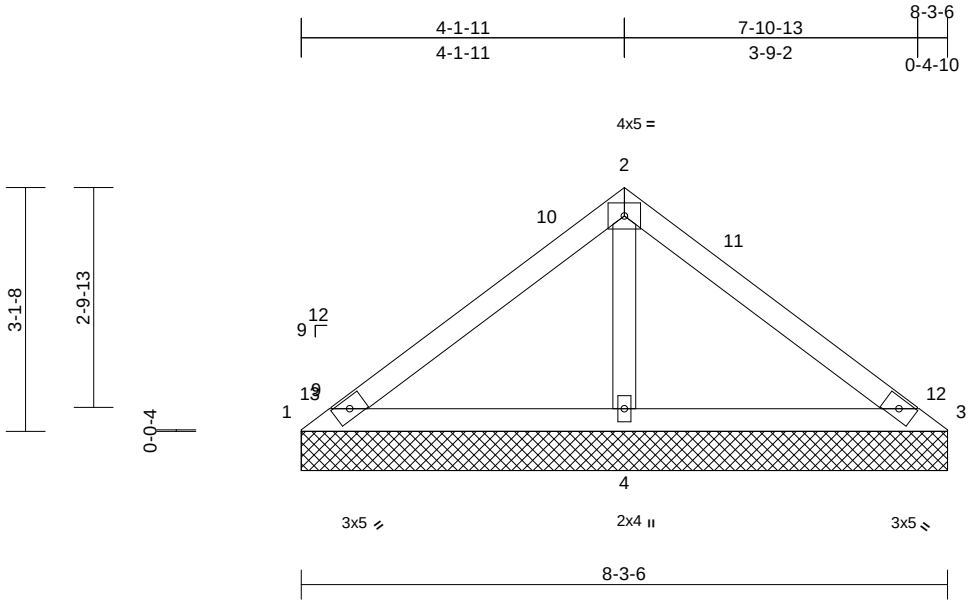

Scale = 1:29.5

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	0.34	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.32	Vert(TL)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.11	Horiz(TL)	0.00	4	n/a	n/a		
BCLL	0.0*	Code	IRC2021/TPI2014	Matrix-MP								
BCDL	10.0										Weight: 30 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 8-3-6 oc purlins.
BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.

REACTIONS (size) 1=8-3-6, 3=8-3-6, 4=8-3-6
Max Horiz 1=-66 (LC 10)
Max Uplift 1=-45 (LC 21), 3=-33 (LC 20), 4=-77 (LC 14)
Max Grav 1=65 (LC 20), 3=87 (LC 21), 4=618 (LC 20)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-102/289, 2-3=-103/287
BOT CHORD 1-4=-231/158, 3-4=-231/158
WEBS 2-4=-497/208

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) 0-5-4 to 3-5-4, Exterior(2R) 3-5-4 to 5-3-12, Exterior(2E) 5-3-12 to 8-3-12 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 45 lb uplift at joint 1, 33 lb uplift at joint 3 and 77 lb uplift at joint 4.

LOAD CASE(S) Standard

January 9,2025

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

Job	Truss	Truss Type	Qty	Ply	129 Hidden Lakes North-Roof-Plan 4 GLH
25010026-01	PB02	Piggyback	11	1	I70611600 Job Reference (optional)

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

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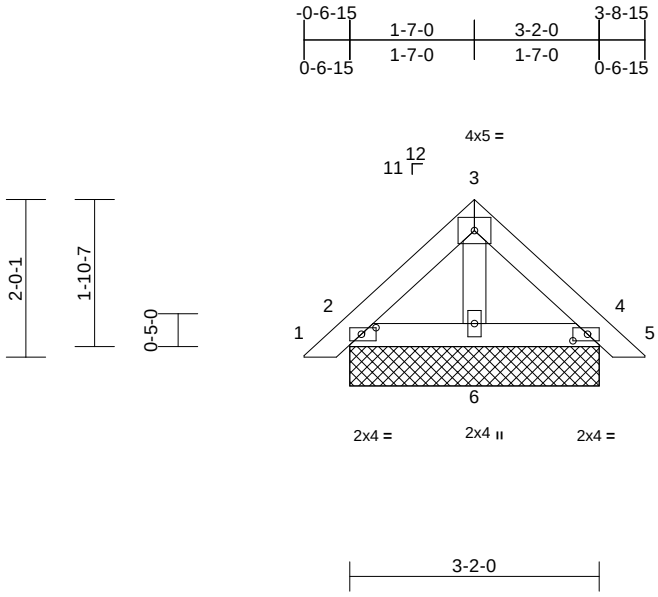

Scale = 1:29.3

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

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	0.04	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: 15 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 4-4-7 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (size) 2=3-2-0, 4=3-2-0, 6=3-2-0
Max Horiz 2=42 (LC 13)
Max Uplift 2=-15 (LC 14), 4=-20 (LC 15), 6=-1 (LC 14)
Max Grav 2=135 (LC 21), 4=135 (LC 22), 6=104 (LC 22)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/23, 2-3=-66/52, 3-4=-66/52, 4-5=0/23
BOT CHORD 2-6=-10/53, 4-6=-10/53
WEBS 3-6=-40/0

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

January 9,2025

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

Job	Truss	Truss Type	Qty	Ply	129 Hidden Lakes North-Roof-Plan 4 GLH
25010026-01	PB01	Piggyback	1	1	I70611601 Job Reference (optional)

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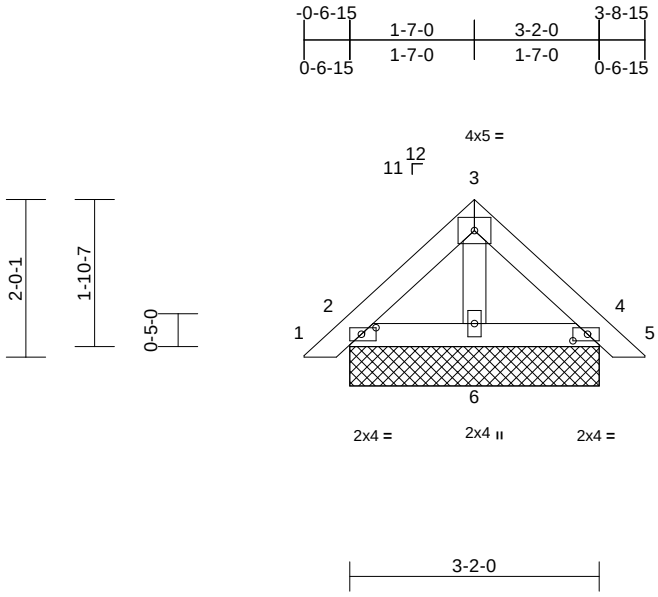

Scale = 1:29.3

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

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	0.04	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.04	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: 15 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 4-4-7 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (size) 2=3-2-0, 4=3-2-0, 6=3-2-0
Max Horiz 2=41 (LC 13)
Max Uplift 2=-15 (LC 14), 4=-20 (LC 15), 6=-1 (LC 14)
Max Grav 2=130 (LC 21), 4=130 (LC 22), 6=101 (LC 22)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/22, 2-3=-64/51, 3-4=-64/51, 4-5=0/22
BOT CHORD 2-6=-10/51, 4-6=-9/51
WEBS 3-6=-39/0

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

January 9,2025

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

Job	Truss	Truss Type	Qty	Ply	129 Hidden Lakes North-Roof-Plan 4 GLH
25010026-01	D03	Common Girder	1	2	I70611602 Job Reference (optional)

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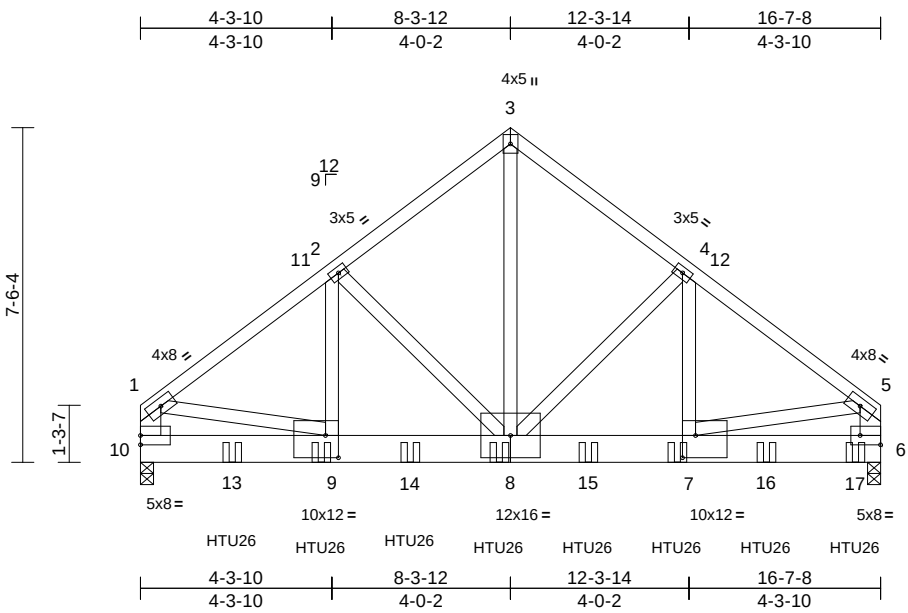

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Plate Offsets (X, Y): [6:Edge,0-2-8], [7:0-3-8,0-6-0], [9:0-3-8,0-6-0]

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	0.48	Vert(LL)	-0.06	7-8	>999	240	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.25	Vert(CT)	-0.11	7-8	>999	180		
TCDL	10.0	Rep Stress Incr	NO	WB	0.84	Horz(CT)	0.01	6	n/a	n/a		
BCLL	0.0*	Code	IRC2021/TPI2014	Matrix-MSH								
BCDL	10.0										Weight: 266 lb	FT = 20%

LUMBER
TOP CHORD 2x4 SP No.2
BOT CHORD 2x8 SP 2400F 2.0E
WEBS 2x4 SP No.3 *Except* 10-1,6-5:2x6 SP No.2, 8-3:2x4 SP No.2

BRACING
TOP CHORD Structural wood sheathing directly applied or 4-11-14 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (size) 6=0-3-8, 10=0-3-8
Max Horiz 10=170 (LC 11)
Max Uplift 10=-348 (LC 12)
Max Grav 6=6742 (LC 22), 10=5813 (LC 21)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-6204/375, 2-3=-4873/323, 3-4=-4873/324, 4-5=-6209/71, 1-10=-4759/294, 5-6=-4753/94
BOT CHORD 9-10=-200/1042, 7-9=-310/5000, 6-7=0/958
WEBS 1-9=-192/4112, 5-7=-124/4079, 2-9=-135/1698, 2-8=-1540/243, 3-8=-302/5556, 4-8=-1567/0, 4-7=0/1704

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, 2x6 - 2 rows staggered at 0-9-0 oc.
Bottom chords connected as follows: 2x8 - 2 rows staggered at 0-6-0 oc.
Web connected as follows: 2x4 - 1 row at 0-9-0 oc, Except member 2-9 2x4 - 1 row at 0-6-0 oc, Except member 4-7 2x4 - 1 row at 0-6-0 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; cantilever left and right exposed ; end vertical left and 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) 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) One H2.5A Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 10. This connection is for uplift only and does not consider lateral forces.
10) Use Simpson Strong-Tie HTU26 (10-16d Girder, 14-10dx1 1/2 Truss) or equivalent spaced at 2-0-0 oc max. starting at 2-0-12 from the left end to 16-0-12 to connect truss(es) to front face of bottom chord.
11) Fill all nail holes where hanger is in contact with lumber.

LOAD CASE(S) Standard
1) Dead + Snow (balanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (lb/ft)
Vert: 1-3=-58, 3-5=-58, 6-10=-19
Concentrated Loads (lb)
Vert: 9=-1282 (F), 7=-1282 (F), 8=-1282 (F), 13=-1282 (F), 14=-1282 (F), 15=-1282 (F), 16=-1417 (F), 17=-1423 (F)

January 9,2025

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

Job	Truss	Truss Type	Qty	Ply	129 Hidden Lakes North-Roof-Plan 4 GLH
25010026-01	D02	Common	1	1	I70611603 Job Reference (optional)

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

Run: 8.73 S Dec 5 2024 Print: 8.730 S Dec 5 2024 MiTek Industries, Inc. Wed Jan 08 10:14:07
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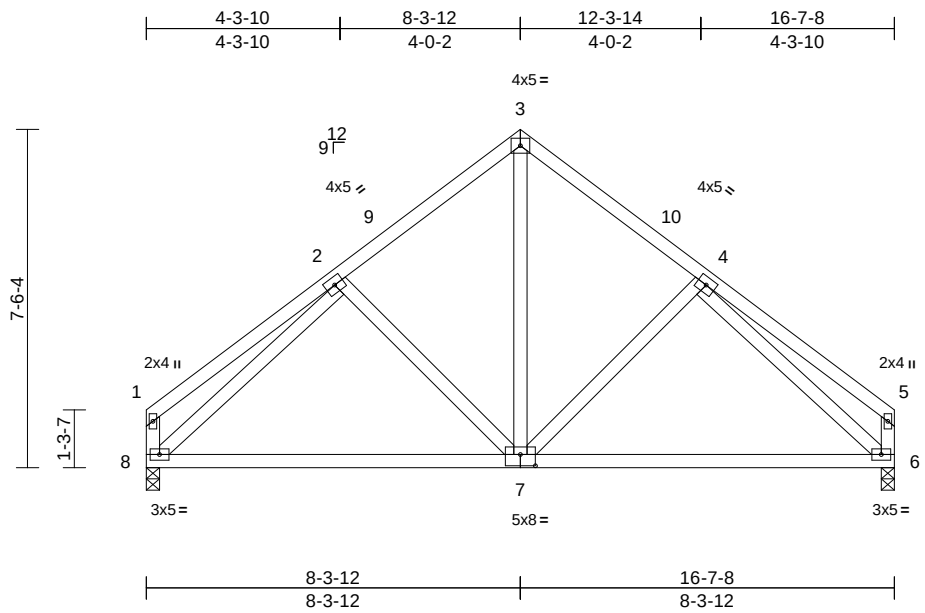
Page: 1



Scale = 1:51.2

Plate Offsets (X, Y): [7:0-4-0,0-3-0]

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	0.33	Vert(LL)	-0.09	7-8	>999	240	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.63	Vert(CT)	-0.18	7-8	>999	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.43	Horz(CT)	0.01	6	n/a	n/a		
BCLL	0.0*	Code	IRC2021/TPI2014	Matrix-MSH								
BCDL	10.0										Weight: 101 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 6-0-0 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (size) 6=0-3-8, 8=0-3-8
Max Horiz 8=180 (LC 11)
Max Uplift 6=-48 (LC 15), 8=-48 (LC 14)
Max Grav 6=709 (LC 21), 8=709 (LC 20)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-221/59, 2-3=-652/141, 3-4=-652/141, 4-5=-197/74, 1-8=-217/67, 5-6=-199/67
BOT CHORD 6-8=-88/557
WEBS 3-7=-65/437, 4-7=-207/168, 2-7=-207/168, 2-8=-672/96, 4-6=-672/57

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) 0-1-12 to 3-1-12, Interior (1) 3-1-12 to 5-3-12, Exterior(2R) 5-3-12 to 11-3-12, Interior (1) 11-3-12 to 13-5-12, Exterior(2E) 13-5-12 to 16-5-12 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 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) One H2.5A Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 8 and 6. This connection is for uplift only and does not consider lateral forces.

LOAD CASE(S) Standard

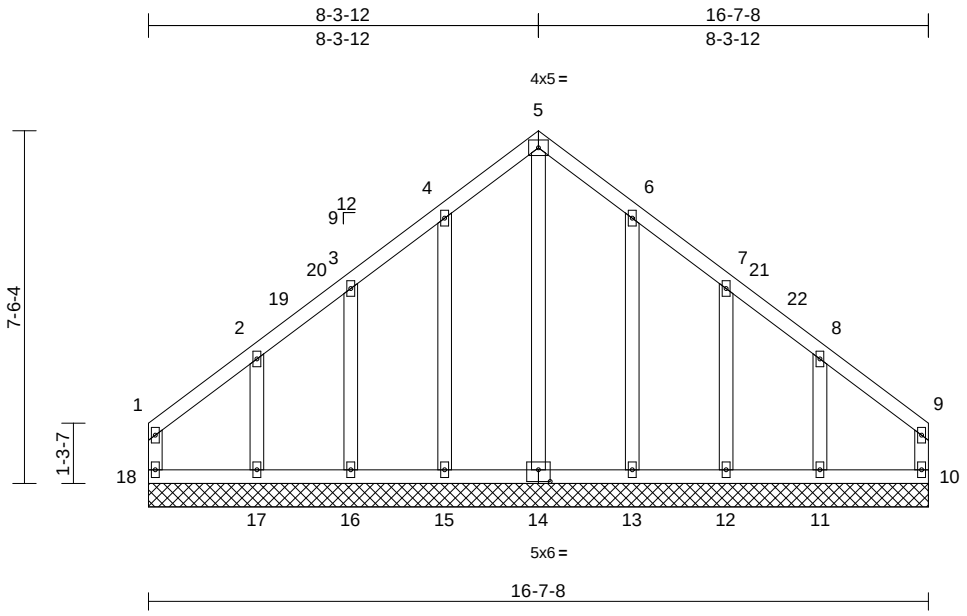
January 9,2025

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

Job	Truss	Truss Type	Qty	Ply	129 Hidden Lakes North-Roof-Plan 4 GLH
25010026-01	D01	Common Supported Gable	1	1	I70611604 Job Reference (optional)

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

Run: 8.73 S Dec 5 2024 Print: 8.730 S Dec 5 2024 MiTek Industries, Inc. Wed Jan 08 10:14:07 ID:l6v?ov43IPJHZn7H_mXxT0zxSOW-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f



Scale = 1:49.1

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

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	0.10	Vert(TL)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.27	Horiz(TL)	0.00	10	n/a	n/a		
BCLL	0.0*	Code	IRC2021/TPI2014	Matrix-MR								
BCDL	10.0										Weight: 104 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) 10=16-7-8, 11=16-7-8, 12=16-7-8, 13=16-7-8, 14=16-7-8, 15=16-7-8, 16=16-7-8, 17=16-7-8, 18=16-7-8
Max Horiz 18=175 (LC 13)
Max Uplift 10=-65 (LC 11), 11=-115 (LC 15), 12=-54 (LC 15), 13=-65 (LC 15), 15=-65 (LC 14), 16=-53 (LC 14), 17=-117 (LC 14), 18=-76 (LC 10)
Max Grav 10=138 (LC 24), 11=234 (LC 30), 12=204 (LC 21), 13=259 (LC 21), 14=197 (LC 15), 15=259 (LC 20), 16=204 (LC 20), 17=239 (LC 29), 18=146 (LC 30)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD	1-18=-106/59, 1-2=-120/106, 2-3=-92/141, 3-4=-108/218, 4-5=-143/290, 5-6=-143/290, 6-7=-108/218, 7-8=-84/142, 8-9=-110/94, 9-10=-99/54
BOT CHORD	17-18=-83/90, 16-17=-83/90, 15-16=-83/90, 13-15=-83/90, 12-13=-83/90, 11-12=-83/90, 10-11=-83/90
WEBS	5-14=-275/80, 4-15=-220/97, 3-16=-167/106, 2-17=-169/142, 6-13=-220/97, 7-12=-167/103, 8-11=-164/154

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) 0-1-12 to 3-1-12, Exterior(2N) 3-1-12 to 5-3-12, Corner(3R) 5-3-12 to 11-3-12, Exterior (2N) 11-3-12 to 13-5-12, Corner(3E) 13-5-12 to 16-5-12 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) All plates are 2x4 MT20 unless otherwise indicated.
7) Gable requires continuous bottom chord bearing.
8) Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
9) Gable studs spaced at 2-0-0 oc.
10) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
11) * 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.
12) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 76 lb uplift at joint 18, 65 lb uplift at joint 10, 65 lb uplift at joint 15, 53 lb uplift at joint 16, 117 lb uplift at joint 17, 65 lb uplift at joint 13, 54 lb uplift at joint 12 and 115 lb uplift at joint 11.

LOAD CASE(S) Standard

January 9,2025

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

Job	Truss	Truss Type	Qty	Ply	129 Hidden Lakes North-Roof-Plan 4 GLH
25010026-01	C03	Common Girder	1	**2**	I70611605 Job Reference (optional)

Carter Components (Sanford, NC), Sanford, NC - 27332, Run: 8.73 S Dec 5 2024 Print: 8.730 S Dec 5 2024 MiTek Industries, Inc. Wed Jan 08 10:14:07 Page: 1
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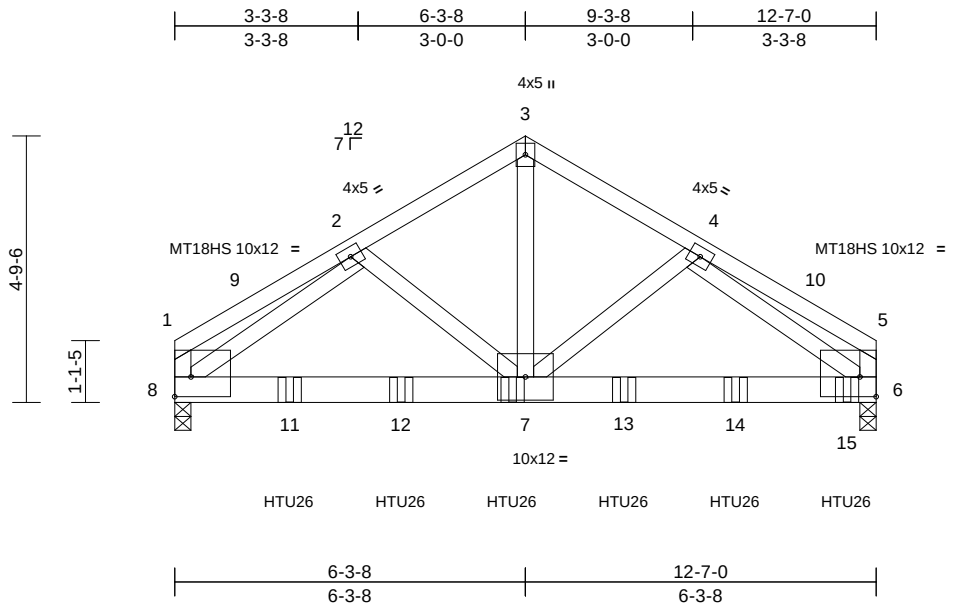

Scale = 1:41.3

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

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	0.95	Vert(LL)	-0.08	6-7	>999	240	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.66	Vert(CT)	-0.15	6-7	>999	180	MT18HS	244/190
TCDL	10.0	Rep Stress Incr	NO	WB	0.92	Horz(CT)	0.02	6	n/a	n/a		
BCLL	0.0*	Code	IRC2021/TPI2014	Matrix-MSH								
BCDL	10.0										Weight: 162 lb	FT = 20%

LUMBER
TOP CHORD 2x4 SP No.2
BOT CHORD 2x6 SP 2400F 2.0E
WEBS 2x4 SP No.3 *Except* 8-1,6-5:2x4 SP No.2

BRACING
TOP CHORD Structural wood sheathing directly applied or 5-8-6 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (size) 6=0-3-8, 8=0-3-8
Max Horiz 8=-108 (LC 8)
Max Uplift 6=-498 (LC 13), 8=-394 (LC 12)
Max Grav 6=5531 (LC 22), 8=4342 (LC 21)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-1301/143, 2-3=-4871/473, 3-4=-4871/473, 4-5=-1464/157, 1-8=-763/102, 5-6=-845/109
BOT CHORD 7-8=-372/3800, 6-7=-343/3760
WEBS 2-8=-3518/321, 4-6=-3363/307, 3-7=-412/4672, 4-7=-96/627, 2-7=-98/657

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 - 3 rows staggered at 0-8-0 oc.
Web connected as follows: 2x4 - 1 row at 0-9-0 oc, Except member 3-7 2x4 - 1 row at 0-6-0 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; cantilever left and right exposed ; end vertical left and 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) 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) One H2.5A Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 8 and 6. This connection is for uplift only and does not consider lateral forces.
11) Use Simpson Strong-Tie HTU26 (10-16d Girder, 14-10dx1 1/2 Truss) or equivalent spaced at 2-0-0 oc max. starting at 2-0-12 from the left end to 12-0-12 to connect truss(es) to back face of bottom chord.
12) Fill all nail holes where hanger is in contact with lumber.

LOAD CASE(S) Standard
1) Dead + Snow (balanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (lb/ft)
Vert: 1-3=-58, 3-5=-58, 6-8=-19
Concentrated Loads (lb)
Vert: 7=-1291 (B), 11=-1291 (B), 12=-1291 (B), 13=-1291 (B), 14=-1291 (B), 15=-1297 (B)

January 9,2025

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

Job	Truss	Truss Type	Qty	Ply	129 Hidden Lakes North-Roof-Plan 4 GLH
25010026-01	C02	Common	1	1	I70611606 Job Reference (optional)

Carter Components (Sanford, NC), Sanford, NC - 27332, Run: 8.73 S Dec 5 2024 Print: 8.730 S Dec 5 2024 MiTek Industries, Inc. Wed Jan 08 10:14:07 Page: 1
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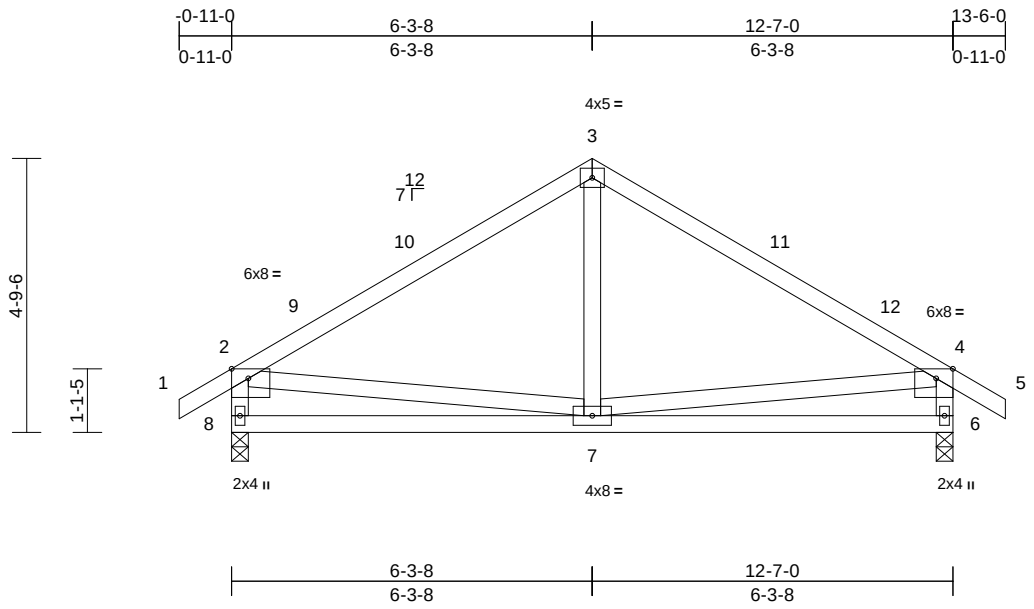

Scale = 1:40.2

Plate Offsets (X, Y): [2:0-3-8,Edge], [4:0-3-8,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	0.71	Vert(LL)	-0.03	7-8	>999	240	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.34	Vert(CT)	-0.06	7-8	>999	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.12	Horz(CT)	0.00	6	n/a	n/a		
BCLL	0.0*	Code	IRC2021/TPI2014	Matrix-MSH								
BCDL	10.0										Weight: 70 lb	FT = 20%

LUMBER
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2
WEBS 2x4 SP No.3 *Except* 8-2,6-4:2x4 SP No.2

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) 6=0-3-8, 8=0-3-8
Max Horiz 8=-129 (LC 12)
Max Uplift 6=-63 (LC 15), 8=-63 (LC 14)
Max Grav 6=646 (LC 22), 8=646 (LC 21)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/32, 2-3=-603/109, 3-4=-603/109, 4-5=0/32, 2-8=-591/161, 4-6=-591/157
BOT CHORD 7-8=-145/362, 6-7=-106/362
WEBS 3-7=0/231, 2-7=-41/281, 4-7=-45/281

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) -0-11-0 to 2-1-0, Interior (1) 2-1-0 to 3-3-8, Exterior(2R) 3-3-8 to 9-3-8, Interior (1) 9-3-8 to 10-6-0, Exterior(2E) 10-6-0 to 13-6-0 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) 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) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
7) * 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.
8) One H2.5A Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 8 and 6. This connection is for uplift only and does not consider lateral forces.

LOAD CASE(S) Standard

January 9,2025

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

Job	Truss	Truss Type	Qty	Ply	129 Hidden Lakes North-Roof-Plan 4 GLH
25010026-01	C01	Common Supported Gable	1	1	I70611607 Job Reference (optional)

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

Run: 8.73 S Dec 5 2024 Print: 8.730 S Dec 5 2024 MiTek Industries, Inc. Wed Jan 08 10:14:07 Page: 1
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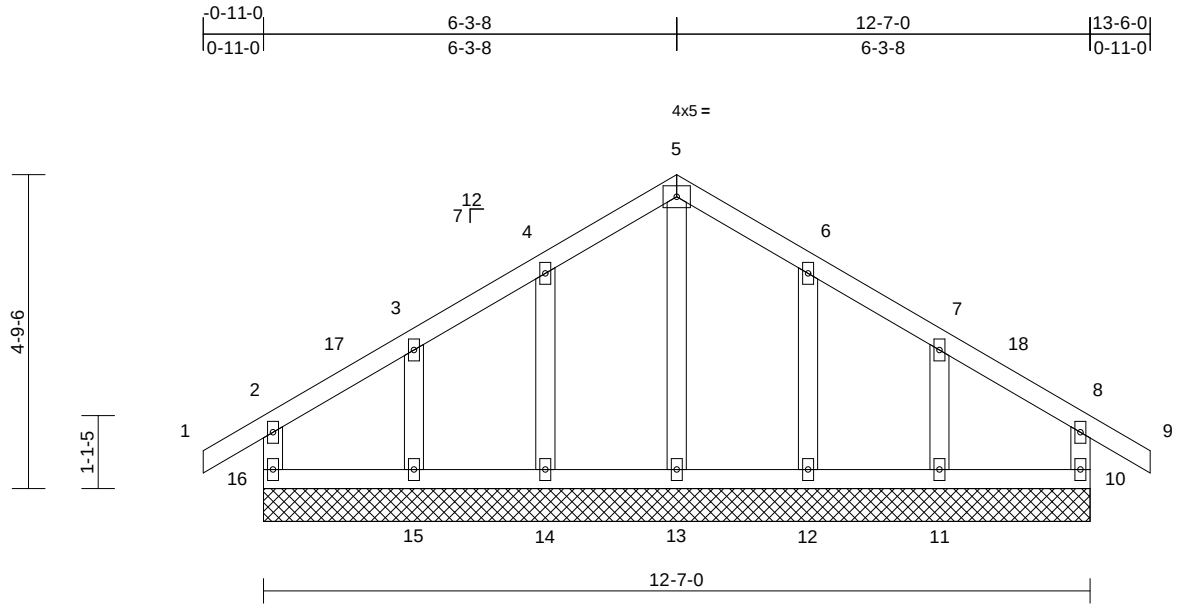

Scale = 1:35.1

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	0.11	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.04	Vert(CT)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.06	Horz(CT)	0.00	10	n/a	n/a		
BCLL	0.0*	Code	IRC2021/TPI2014	Matrix-MR								
BCDL	10.0										Weight: 67 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 6-0-0 oc bracing.

REACTIONS (size) 10=12-7-0, 11=12-7-0, 12=12-7-0, 13=12-7-0, 14=12-7-0, 15=12-7-0, 16=12-7-0
Max Horiz 16=125 (LC 13)
Max Uplift 10=-34 (LC 14), 11=-69 (LC 15), 12=-46 (LC 15), 14=-45 (LC 14), 15=-71 (LC 14), 16=-37 (LC 15)
Max Grav 10=153 (LC 22), 11=223 (LC 22), 12=244 (LC 22), 13=150 (LC 21), 14=244 (LC 21), 15=223 (LC 21), 16=153 (LC 21)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 2-16=-135/150, 1-2=0/31, 2-3=-71/70, 3-4=-60/137, 4-5=-89/199, 5-6=-89/199, 6-7=-59/139, 7-8=-63/66, 8-9=0/31, 8-10=-135/142
BOT CHORD 15-16=-58/68, 14-15=-58/68, 13-14=-58/68, 12-13=-58/68, 11-12=-58/68, 10-11=-58/68
WEBS 5-13=-126/3, 4-14=-207/100, 3-15=-180/111, 6-12=-207/97, 7-11=-180/121

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) -0-11-0 to 2-3-8, Exterior(2N) 2-3-8 to 3-3-8, Corner(3R) 3-3-8 to 9-3-8, Exterior(2N) 9-3-8 to 10-3-8, Corner(3E) 10-3-8 to 13-6-0 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) 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) All plates are 2x4 MT20 unless otherwise indicated.
8) Gable requires continuous bottom chord bearing.
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.
13) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 37 lb uplift at joint 16, 34 lb uplift at joint 10, 45 lb uplift at joint 14, 71 lb uplift at joint 15, 46 lb uplift at joint 12 and 69 lb uplift at joint 11.

LOAD CASE(S) Standard

January 9,2025

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

Job	Truss	Truss Type	Qty	Ply	129 Hidden Lakes North-Roof-Plan 4 GLH
25010026-01	B03	Attic	10	1	I70611608 Job Reference (optional)

Carter Components (Sanford, NC), Sanford, NC - 27332, Run: 8.73 S Dec 5 2024 Print: 8.730 S Dec 5 2024 MiTek Industries, Inc. Wed Jan 08 10:14:07 Page: 1
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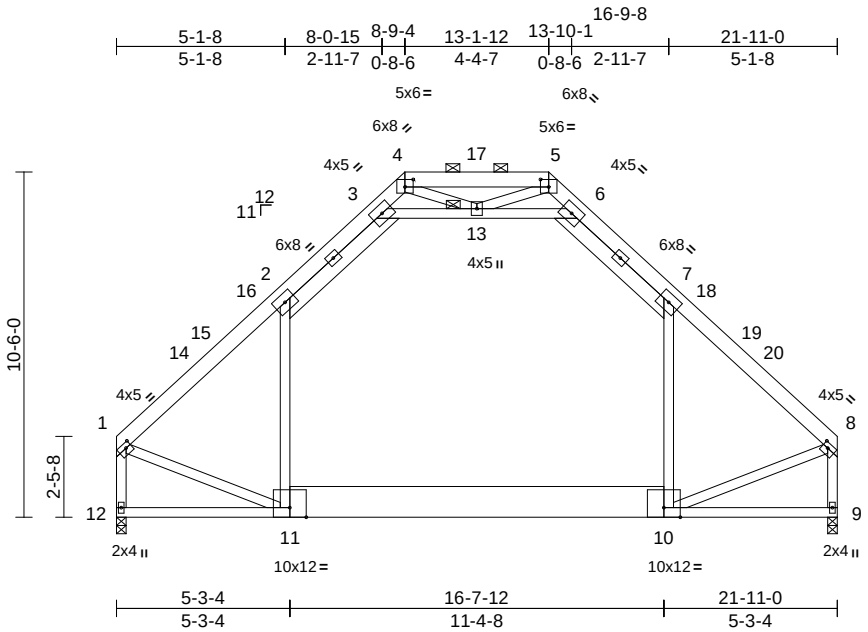

Scale = 1:70.1

Plate Offsets (X, Y): [1:0-2-0,0-1-12], [4:0-3-0,0-2-12], [5:0-3-0,0-2-12], [8:0-2-0,0-1-12]

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	0.52	Vert(LL)	-0.13	10-11	>999	240	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.35	Vert(CT)	-0.19	10-11	>999	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.36	Horz(CT)	0.00	9	n/a	n/a		
BCLL	0.0*	Code	IRC2021/TPI2014	Matrix-MSH		Attic	-0.11	10-11	>999	360		
BCDL	10.0										Weight: 214 lb	FT = 20%

LUMBER
TOP CHORD 2x6 SP 2400F 2.0E *Except* 4-5:2x6 SP No.2
BOT CHORD 2x4 SP No.2 *Except* 11-10:2x12 SP 2400F 2.0E
WEBS 2x4 SP No.3 *Except* 3-6:2x4 SP No.2, 3-2,6-7:2x6 SP No.2

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.
JOINTS 1 Brace at Jt(s): 13

REACTIONS (size) 9=0-3-8, 12=0-3-8
Max Horiz 12=-261 (LC 10)
Max Grav 9=1415 (LC 47), 12=1415 (LC 47)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-1440/0, 2-3=-1027/133, 3-4=-239/598, 4-5=-59/763, 5-6=-239/598, 6-7=-1032/126, 7-8=-1433/0, 1-12=-1479/0, 8-9=-1491/0
BOT CHORD 9-12=-263/959
WEBS 2-11=-51/489, 7-10=-51/489, 3-13=-1818/231, 6-13=-1827/231, 1-11=-4/954, 8-10=-6/956, 4-13=-149/262, 5-13=-149/262

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) 0-1-12 to 3-1-12, Interior (1) 3-1-12 to 4-6-6, Exterior(2R) 4-6-6 to 17-4-10, Interior (1) 17-4-10 to 18-9-4, Exterior(2E) 18-9-4 to 21-9-4 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) Provide adequate drainage to prevent water ponding.
6) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
7) * 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.
8) Ceiling dead load (5.0 psf) on member(s). 2-3, 6-7, 3-13, 6-13; Wall dead load (5.0psf) on member(s).2-11, 7-10
9) Bottom chord live load (40.0 psf) and additional bottom chord dead load (5.0 psf) applied only to room. 10-11
10) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
11) Attic room checked for L/360 deflection.

LOAD CASE(S) Standard

NORTH CAROLINA PROFESSIONAL SEAL 036322 ENGINEER ERIC A. GILBERT

January 9,2025

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

Job	Truss	Truss Type	Qty	Ply	129 Hidden Lakes North-Roof-Plan 4 GLH
25010026-01	B02	Attic	1	1	I70611609 Job Reference (optional)

Carter Components (Sanford, NC), Sanford, NC - 27332, Run: 8.73 S Dec 5 2024 Print: 8.730 S Dec 5 2024 MiTek Industries, Inc. Wed Jan 08 10:14:07 Page: 1

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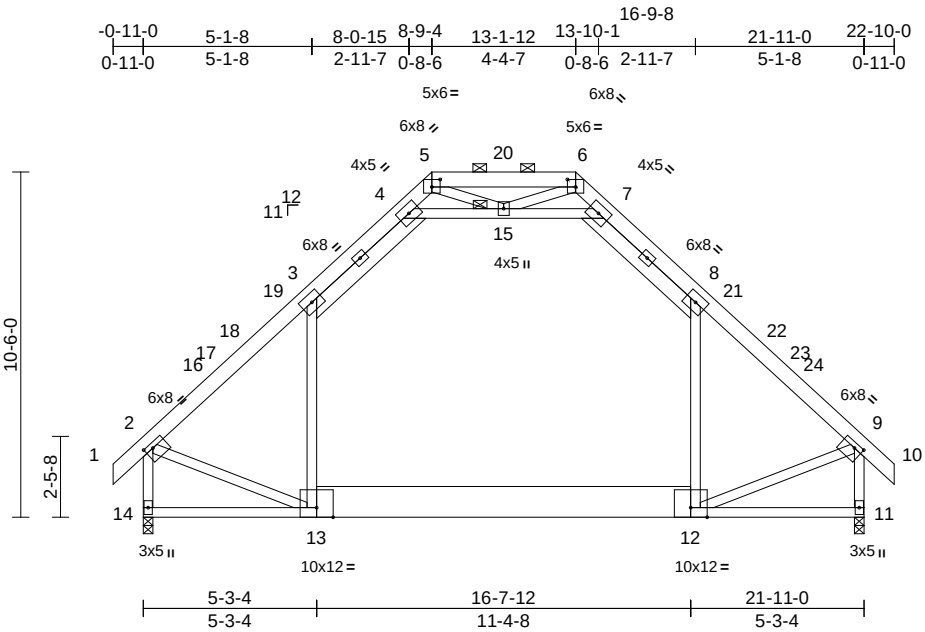

Scale = 1:70.1

Plate Offsets (X, Y): [2:0-3-0,0-1-12], [5:0-3-0,0-2-12], [6:0-3-0,0-2-12], [9:0-3-0,0-1-12]

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	1.00	Vert(LL)	0.16	13-14	>999	240	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.38	Vert(CT)	-0.22	12-13	>999	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.35	Horz(CT)	0.00	11	n/a	n/a		
BCLL	0.0*	Code	IRC2021/TPI2014	Matrix-MSH		Attic	-0.13	12-13	>999	360		
BCDL	10.0										Weight: 220 lb	FT = 20%

LUMBER

TOP CHORD 2x6 SP No.2

BOT CHORD 2x4 SP No.2 *Except* 13-12:2x12 SP 2400F 2.0E

WEBS 2x4 SP No.3 *Except* 4-7:2x4 SP No.2, 4-3,7-8:2x6 SP No.2

BRACING

TOP CHORD Structural wood sheathing directly applied, except end verticals, and 2-0-0 oc purlins (6-0-0 max.): 5-6.

BOT CHORD Rigid ceiling directly applied or 9-11-7 oc bracing.

JOINTS 1 Brace at Jt(s): 15

REACTIONS (size) 11=0-3-8, 14=0-3-8
Max Horiz 14=-284 (LC 12)
Max Grav 11=1469 (LC 48), 14=1469 (LC 48)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=0/43, 2-3=-1440/0, 3-4=-1025/136, 4-5=-230/625, 5-6=-47/801, 6-7=-230/626, 7-8=-1030/130, 8-9=-1433/5, 9-10=0/43, 2-14=-1521/16, 9-11=-1533/0

BOT CHORD 11-14=-283/963

WEBS 3-13=-47/491, 8-12=-47/491, 4-15=-1852/237, 7-15=-1868/237, 2-13=-12/954, 9-12=-14/956, 5-15=-142/256, 6-15=-142/256

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) -0-11-0 to 2-1-0, Interior (1) 2-1-0 to 4-6-6, Exterior(2R) 4-6-6 to 17-4-10, Interior (1) 17-4-10 to 19-10-0, Exterior(2E) 19-10-0 to 22-10-0 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) 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) Ceiling dead load (5.0 psf) on member(s). 3-4, 7-8, 4-15, 7-15; Wall dead load (5.0psf) on member(s).3-13, 8-12
10) Bottom chord live load (40.0 psf) and additional bottom chord dead load (5.0 psf) applied only to room. 12-13
11) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
12) Attic room checked for L/360 deflection.

LOAD CASE(S) Standard

January 9,2025

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

Job	Truss	Truss Type	Qty	Ply	129 Hidden Lakes North-Roof-Plan 4 GLH
25010026-01	B01	Piggyback Base Structural Gable	1	1	I70611610 Job Reference (optional)

Carter Components (Sanford, NC), Sanford, NC - 27332, Run: 8.73 S Dec 5 2024 Print: 8.730 S Dec 5 2024 MiTek Industries, Inc. Wed Jan 08 10:14:06 Page: 1
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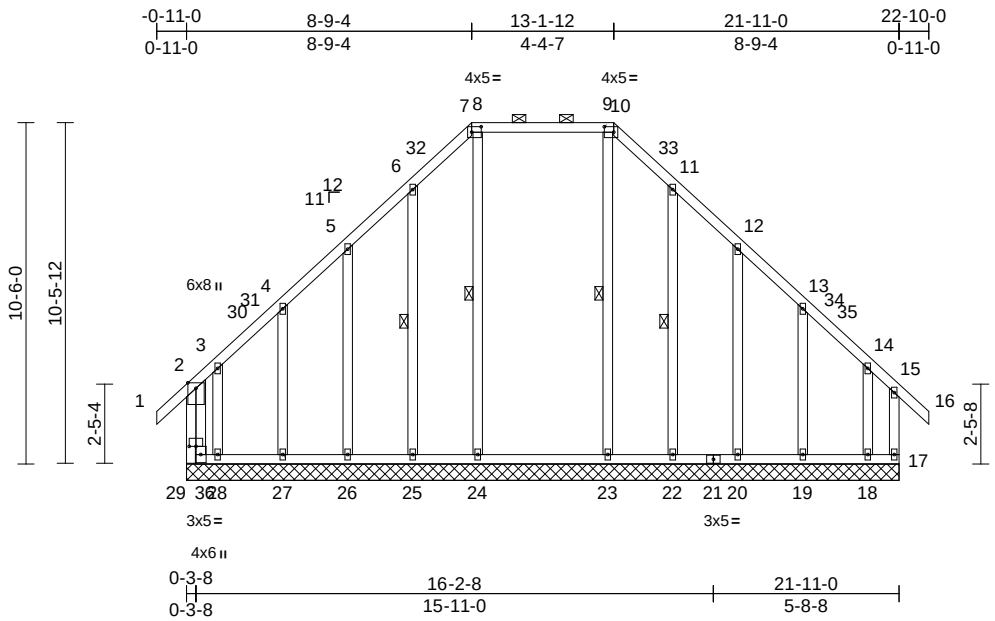


Scale = 1:70.9

Plate Offsets (X, Y): [7:0-3-8,0-2-0], [10:0-3-8,0-2-0], [29:0-2-8,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	0.33	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.26	Vert(CT)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.18	Horz(CT)	0.00	17	n/a	n/a		
BCLL	0.0*	Code	IRC2021/TPI2014	Matrix-MR								
BCDL	10.0										Weight: 184 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 (10-0-0 max.): 7-10.
BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.
WEBS 1 Row at midpt 8-24, 6-25, 9-23, 11-22

REACTIONS (size) 17=21-11-0, 18=21-11-0, 19=21-11-0, 20=21-11-0, 22=21-11-0, 23=21-11-0, 24=21-11-0, 25=21-11-0, 26=21-11-0, 27=21-11-0, 28=21-11-0, 29=21-11-0
Max Horiz 29=-281 (LC 12)
Max Uplift 17=-216 (LC 11), 18=-229 (LC 10), 19=-79 (LC 15), 20=-93 (LC 15), 22=-70 (LC 15), 24=-20 (LC 11), 25=-73 (LC 14), 26=-93 (LC 14), 27=-69 (LC 14), 28=-568 (LC 11), 29=-623 (LC 10)
Max Grav 17=246 (LC 51), 18=299 (LC 13), 19=236 (LC 53), 20=270 (LC 53), 22=223 (LC 53), 23=438 (LC 56), 24=456 (LC 56), 25=229 (LC 51), 26=270 (LC 51), 27=219 (LC 51), 28=660 (LC 12), 29=677 (LC 13)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 2-29=-466/433, 1-2=0/47, 2-3=-413/404, 3-4=-183/197, 4-5=-168/269, 5-6=-149/365, 6-7=-146/428, 7-8=-117/352, 8-9=-117/352, 9-10=-117/352, 10-11=-146/428, 11-12=-121/365, 12-13=-80/269, 13-14=-54/178, 14-15=-117/126, 15-16=0/42, 15-17=-161/122
BOT CHORD 28-29=-96/100, 27-28=-96/100, 26-27=-96/100, 25-26=-96/100, 24-25=-96/100, 23-24=-96/100, 22-23=-96/100, 20-22=-96/100, 19-20=-96/100, 18-19=-96/100, 17-18=-96/100
WEBS 8-24=-308/77, 6-25=-196/90, 5-26=-214/121, 4-27=-191/116, 3-28=-384/356, 9-23=-309/41, 11-22=-189/86, 12-20=-213/121, 13-19=-196/111, 14-18=-144/130

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) -0-11-0 to 2-1-0, Exterior(2N) 2-1-0 to 5-9-4, Corner(3R) 5-9-4 to 16-1-12, Exterior(2N) 16-1-12 to 19-10-0, Corner(3E) 19-10-0 to 22-10-0 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) 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, with BCDL = 10.0psf.

January 9,2025

Continued on page 2

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

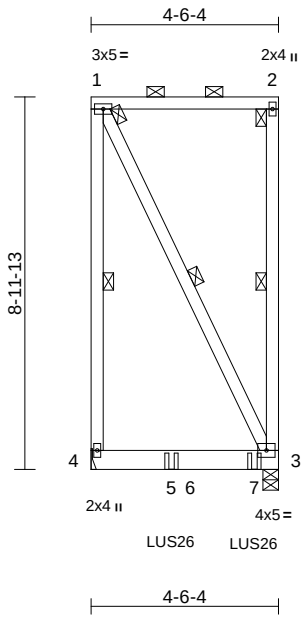
14) Bearing at joint(s) 29 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
15) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 623 lb uplift at joint 29, 216 lb uplift at joint 17, 20 lb uplift at joint 24, 73 lb uplift at joint 25, 93 lb uplift at joint 26, 69 lb uplift at joint 27, 568 lb uplift at joint 28, 70 lb uplift at joint 22, 93 lb uplift at joint 20, 79 lb uplift at joint 19 and 229 lb uplift at joint 18.
16) Beveled plate or shim required to provide full bearing surface with truss chord at joint(s) 29.
17) 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	129 Hidden Lakes North-Roof-Plan 4 GLH
25010026-01	A12	Flat Girder	1	1	I70611611 Job Reference (optional)

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

Run: 8.73 S Dec 5 2024 Print: 8.730 S Dec 5 2024 MiTek Industries, Inc. Wed Jan 08 10:14:06 ID:AASGDpA57TkzwIWP68lQQ7zxSTY-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f



Scale = 1:55.6

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	0.99	Vert(LL)	-0.03	3-4	>999	240	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.54	Vert(CT)	-0.06	3-4	>868	180		
TCDL	10.0	Rep Stress Incr	NO	WB	0.15	Horz(CT)	0.00	3	n/a	n/a		
BCLL	0.0*	Code	IRC2021/TPI2014	Matrix-MP								
BCDL	10.0										Weight: 55 lb	FT = 20%

LUMBER
TOP CHORD 2x4 SP No.2
BOT CHORD 2x6 SP 2400F 2.0E
WEBS 2x4 SP No.3

BRACING
TOP CHORD 2-0-0 oc purlins: 1-2, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 1 Row at midpt 1-4, 2-3, 1-3

REACTIONS (size) 3=0-4-8, 4= Mechanical
Max Horiz 4=-286 (LC 8)
Max Uplift 3=-435 (LC 9), 4=-379 (LC 8)
Max Grav 3=1248 (LC 21), 4=831 (LC 22)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-4=-281/342, 1-2=-106/81, 2-3=-123/51
BOT CHORD 3-4=-250/224
WEBS 1-3=-325/325

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; cantilever left and right exposed ; end vertical left and right exposed; 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) Provide adequate drainage to prevent water ponding.
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, with BCDL = 10.0psf.
7) Refer to girder(s) for truss to truss connections.
8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 379 lb uplift at joint 4.
9) One H2.5A Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 3. 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.
11) Use Simpson Strong-Tie LUS26 (4-10d Girder, 4-10d Truss, Single Ply Girder) or equivalent spaced at 2-0-0 oc max. starting at 1-11-4 from the left end to 3-11-4 to connect truss(es) to back face of bottom chord.
12) Fill all nail holes where hanger is in contact with lumber.
13) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

LOAD CASE(S) Standard
1) Dead + Snow (balanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (lb/ft)
Vert: 1-2=-58, 3-4=-19
Concentrated Loads (lb)
Vert: 5=-660 (B), 7=-666 (B)

January 9,2025

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

Job	Truss	Truss Type	Qty	Ply	129 Hidden Lakes North-Roof-Plan 4 GLH
25010026-01	A11	Monopitch Supported Gable	1	1	I70611612 Job Reference (optional)

Carter Components (Sanford, NC), Sanford, NC - 27332, Run: 8.73 S Dec 5 2024 Print: 8.730 S Dec 5 2024 MiTek Industries, Inc. Wed Jan 08 10:14:06 Page: 1

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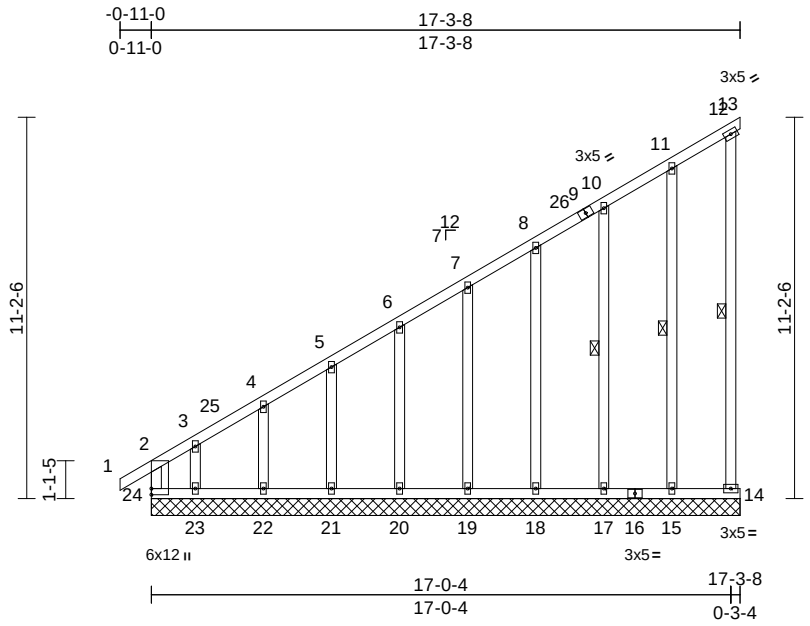

Scale = 1:67.7

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	0.94	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.39	Vert(CT)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.14	Horz(CT)	-0.03	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 *Except* 12-14:2x4 SP No.2
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.
WEBS 1 Row at midpt 12-14, 11-15, 10-17

REACTIONS (size) 13=17-3-8, 14=17-3-8, 15=17-3-8, 17=17-3-8, 18=17-3-8, 19=17-3-8, 20=17-3-8, 21=17-3-8, 22=17-3-8, 23=17-3-8, 24=17-3-8
Max Horiz 24=383 (LC 11)
Max Uplift 13=-139 (LC 14), 14=-266 (LC 13), 15=-68 (LC 14), 17=-43 (LC 14), 18=-52 (LC 14), 19=-48 (LC 14), 20=-47 (LC 14), 21=-56 (LC 14), 22=-18 (LC 14), 23=-301 (LC 11), 24=-208 (LC 12)
Max Grav 13=180 (LC 13), 14=234 (LC 10), 15=234 (LC 21), 17=223 (LC 21), 18=161 (LC 21), 19=162 (LC 25), 20=161 (LC 25), 21=164 (LC 25), 22=163 (LC 21), 23=270 (LC 12), 24=424 (LC 11)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 2-24=-293/352, 1-2=0/31, 2-3=-391/493, 3-4=-294/378, 4-5=-274/361, 5-6=-246/333, 6-7=-225/307, 7-8=-212/281, 8-10=-197/254, 10-11=-192/237, 11-12=-134/163, 12-13=-152/90, 12-14=-261/177
BOT CHORD 23-24=-131/206, 22-23=-131/206, 21-22=-131/206, 20-21=-131/206, 19-20=-131/206, 18-19=-131/206, 17-18=-131/206, 15-17=-131/206, 14-15=-131/206
WEBS 11-15=-214/83, 10-17=-184/112, 8-18=-137/81, 7-19=-136/85, 6-20=-135/84, 5-21=-138/86, 4-22=-126/79, 3-23=-266/193

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) -0-11-0 to 2-1-0, Exterior(2N) 2-1-0 to 17-3-8 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
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) All plates are 2x4 MT20 unless otherwise indicated.
7) Gable requires continuous bottom chord bearing.
8) Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
9) Gable studs spaced at 2-0-0 oc.
10) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
11) * 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.
12) Bearing at joint(s) 13 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
13) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 208 lb uplift at joint 24, 139 lb uplift at joint 13, 266 lb uplift at joint 14, 68 lb uplift at joint 15, 43 lb uplift at joint 17, 52 lb uplift at joint 18, 48 lb uplift at joint 19, 47 lb uplift at joint 20, 56 lb uplift at joint 21, 18 lb uplift at joint 22 and 301 lb uplift at joint 23.

LOAD CASE(S) Standard

January 9,2025

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

Job	Truss	Truss Type	Qty	Ply	129 Hidden Lakes North-Roof-Plan 4 GLH
25010026-01	A10	Monopitch	3	1	I70611613 Job Reference (optional)

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

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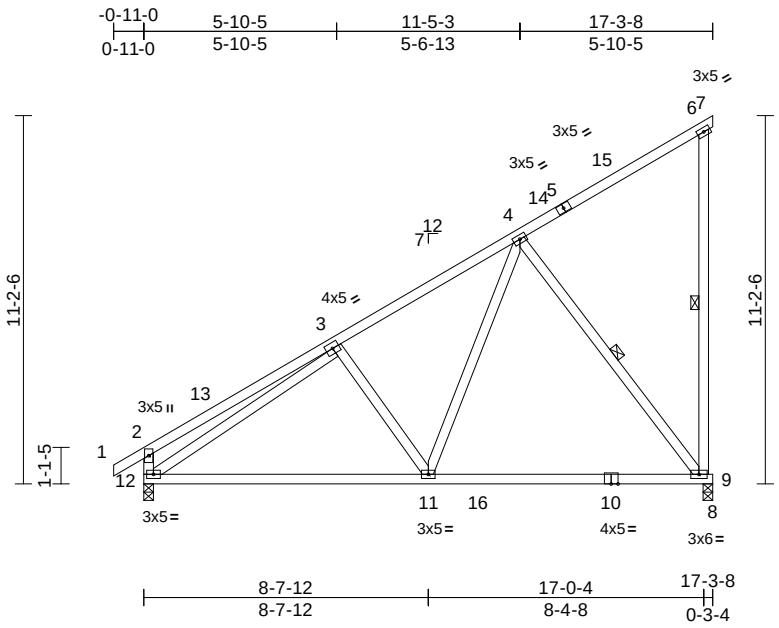

Scale = 1:70

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	0.78	Vert(LL)	-0.23	9-11	>888	240	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.83	Vert(CT)	-0.34	9-11	>591	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.66	Horz(CT)	0.02	9	n/a	n/a		
BCLL	0.0*	Code	IRC2021/TPI2014	Matrix-MSH								
BCDL	10.0										Weight: 116 lb	FT = 20%

LUMBER
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2
WEBS 2x4 SP No.3 *Except* 6-9:2x4 SP No.2

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.
WEBS 1 Row at midpt 6-9, 4-9

REACTIONS (size) 9=0-3-8, 12=0-3-8
Max Horiz 12=395 (LC 11)
Max Uplift 9=-175 (LC 14), 12=-62 (LC 14)
Max Grav 9=924 (LC 25), 12=822 (LC 30)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/32, 2-3=-417/120, 3-4=-828/160, 4-6=-216/178, 6-7=-13/0, 6-9=-261/69, 2-12=-397/137
BOT CHORD 11-12=-168/976, 9-11=-123/591, 8-9=0/0
WEBS 3-11=-283/195, 4-11=-61/637, 4-9=-804/216, 3-12=-710/65

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) -0-11-0 to 2-1-0, Interior (1) 2-1-0 to 14-3-8, Exterior(2E) 14-3-8 to 17-3-8 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
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, with BCDL = 10.0psf.
7) One H2.5A Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 9 and 12. This connection is for uplift only and does not consider lateral forces.

LOAD CASE(S) Standard

January 9,2025

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

Job	Truss	Truss Type	Qty	Ply	129 Hidden Lakes North-Roof-Plan 4 GLH
25010026-01	A09	Monopitch Girder	1	1	I70611614 Job Reference (optional)

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

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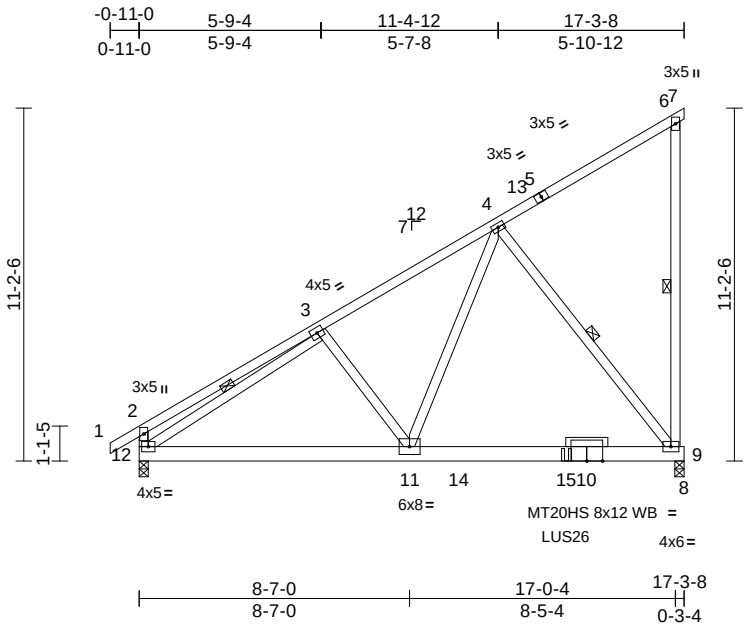
Page: 1



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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	0.68	Vert(LL)	0.22	9-11	>940	240	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.68	Vert(CT)	-0.27	9-11	>744	180	MT20HS	187/143
TCDL	10.0	Rep Stress Incr	NO	WB	0.44	Horz(CT)	0.01	9	n/a	n/a		
BCLL	0.0*	Code	IRC2021/TPI2014	Matrix-MSH								
BCDL	10.0										Weight: 131 lb	FT = 20%

LUMBER

TOP CHORD	2x4 SP No.2
BOT CHORD	2x6 SP 2400F 2.0E
WEBS	2x4 SP No.3 *Except* 6-9:2x4 SP No.2
OTHERS	2x4 SP No.3

BRACING

TOP CHORD	Structural wood sheathing directly applied or 5-2-8 oc purlins, except end verticals.
BOT CHORD	Rigid ceiling directly applied or 8-6-8 oc bracing.
WEBS	1 Row at midpt 6-9, 3-12, 4-9

REACTIONS (size) 9=0-3-8, 12=0-3-8
Max Horiz 12=392 (LC 33)
Max Uplift 9=-485 (LC 12), 12=-143 (LC 12)
Max Grav 9=1549 (LC 22), 12=984 (LC 22)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD	1-2=0/32, 2-3=-322/185, 3-4=-1224/279, 4-6=-216/125, 6-7=-13/0, 6-9=-261/70, 2-12=-354/166
BOT CHORD	11-12=-322/1163, 9-11=-210/671, 8-9=0/0
WEBS	3-12=-1157/201, 4-9=-1018/353, 4-11=-276/1057, 3-11=-202/232

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; cantilever left and right exposed ; end vertical left and right exposed; 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) All plates are MT20 plates unless otherwise indicated.
6) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
7) * 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.
8) One H2.5A Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 9 and 12. This connection is for uplift only and does not consider lateral forces.
9) Use Simpson Strong-Tie LUS26 (4-10d Girder, 3-10d Truss, Single Ply Girder) or equivalent at 13-6-12 from the left end to connect truss(es) to back face of bottom chord.
10) Fill all nail holes where hanger is in contact with lumber.
11) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

LOAD CASE(S) Standard

1) Dead + Snow (balanced): Lumber Increase=1.15, Plate Increase=1.15
   Uniform Loads (lb/ft)
   Vert: 1-2=-60, 2-6=-60, 6-7=-60, 8-12=-20
   Concentrated Loads (lb)
   Vert: 15=-594 (B)

January 9,2025

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

Job	Truss	Truss Type	Qty	Ply	129 Hidden Lakes North-Roof-Plan 4 GLH
25010026-01	A08	Jack-Closed	2	1	I70611615 Job Reference (optional)

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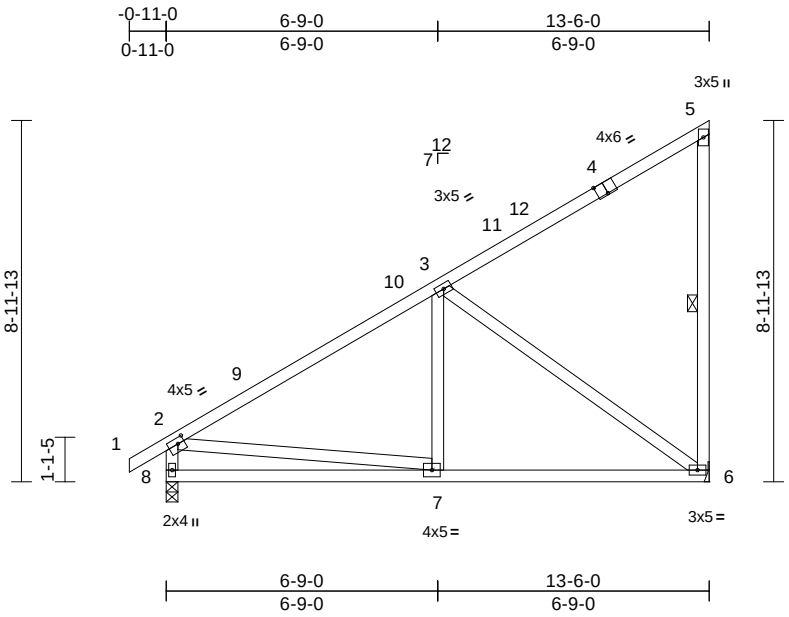

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Plate Offsets (X, Y): [2:0-2-0,0-1-12], [4:0-3-0,Edge]

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	0.87	Vert(LL)	-0.05	6-7	>999	240	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.44	Vert(CT)	-0.10	6-7	>999	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.76	Horz(CT)	0.01	6	n/a	n/a		
BCLL	0.0*	Code	IRC2021/TPI2014	Matrix-MSH								
BCDL	10.0										Weight: 86 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 6-0-0 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 1 Row at midpt 5-6

REACTIONS (size) 6= Mechanical, 8=0-3-8
Max Horiz 8=316 (LC 11)
Max Uplift 6=-79 (LC 11), 8=-42 (LC 14)
Max Grav 6=680 (LC 21), 8=630 (LC 21)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 2-8=-571/135, 1-2=0/32, 2-3=-670/96, 3-5=-209/160, 5-6=-269/72
BOT CHORD 7-8=-308/490, 6-7=-109/575
WEBS 2-7=-34/349, 3-7=0/279, 3-6=-605/128

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) -0-11-0 to 2-1-0, Interior (1) 2-1-0 to 9-1-5, Exterior(2R) 9-1-5 to 13-4-4 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
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) All bearings are assumed to be User Defined .
8) Refer to girder(s) for truss to truss connections.
9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 79 lb uplift at joint 6.
10) One H2.5A Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 8. This connection is for uplift only and does not consider lateral forces.

LOAD CASE(S) Standard

January 9,2025

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

Job	Truss	Truss Type	Qty	Ply	129 Hidden Lakes North-Roof-Plan 4 GLH
25010026-01	A07	Monopitch	5	1	I70611616 Job Reference (optional)

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

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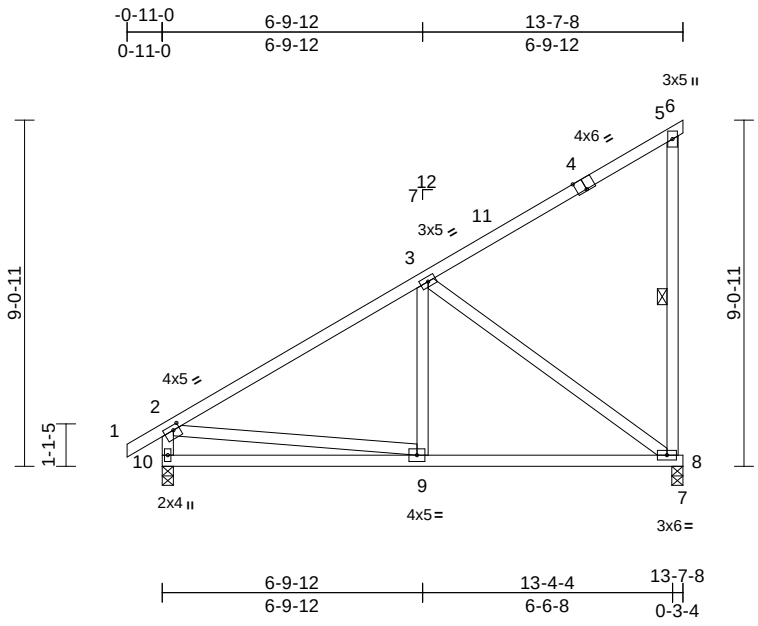

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Plate Offsets (X, Y): [2:0-2-0,0-1-8], [4:0-3-0,Edge]

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	0.79	Vert(LL)	-0.04	8-9	>999	240	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.44	Vert(CT)	-0.09	8-9	>999	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.78	Horz(CT)	0.01	8	n/a	n/a		
BCLL	0.0*	Code	IRC2021/TPI2014	Matrix-MSH								
BCDL	10.0										Weight: 87 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 6-0-0 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 1 Row at midpt 5-8

REACTIONS (size) 8=0-3-8, 10=0-3-8
Max Horiz 10=318 (LC 13)
Max Uplift 8=-140 (LC 14), 10=-50 (LC 14)
Max Grav 8=705 (LC 21), 10=626 (LC 21)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/32, 2-3=-658/117, 3-5=-210/167, 5-6=-13/0, 5-8=-294/73, 2-10=-565/158
BOT CHORD 9-10=-311/567, 8-9=-108/606, 7-8=0/0
WEBS 3-9=0/278, 3-8=-634/189, 2-9=-48/321

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) -0-11-0 to 2-1-0, Interior (1) 2-1-0 to 10-7-8, Exterior(2E) 10-7-8 to 13-7-8 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
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) One H2.5A Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 10 and 8. This connection is for uplift only and does not consider lateral forces.

LOAD CASE(S) Standard

January 9,2025

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

Job	Truss	Truss Type	Qty	Ply	129 Hidden Lakes North-Roof-Plan 4 GLH
25010026-01	A06	Common	3	1	I70611617 Job Reference (optional)

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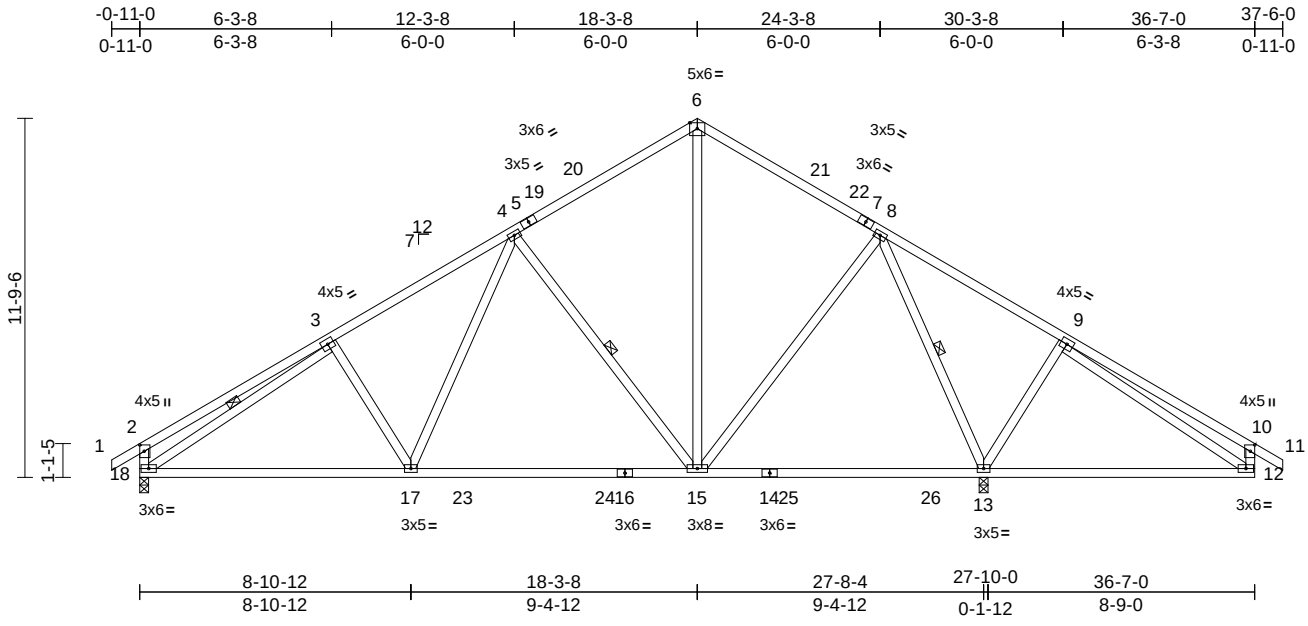

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Plate Offsets (X, Y): [2:0-2-8,0-1-12], [10:0-2-8,0-1-12]

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	0.73	Vert(LL)	-0.22	15-17	>999	240	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.94	Vert(CT)	-0.35	15-17	>950	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.70	Horz(CT)	0.03	13	n/a	n/a		
BCLL	0.0*	Code	IRC2021/TPI2014	Matrix-MSH								
BCDL	10.0										Weight: 229 lb	FT = 20%

LUMBER
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2
WEBS 2x4 SP No.3 *Except* 15-6:2x4 SP No.2

BRACING
TOP CHORD Structural wood sheathing directly applied or 4-5-9 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 2-2-0 oc bracing.
WEBS 1 Row at midpt 4-15, 8-13, 3-18

REACTIONS (size) 13=0-3-8, 18=0-3-8
Max Horiz 18=-284 (LC 12)
Max Uplift 13=-192 (LC 15), 18=-132 (LC 14)
Max Grav 13=2126 (LC 3), 18=1185 (LC 25)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/31, 2-3=-495/150, 3-4=-1560/215, 4-6=-844/183, 6-8=-844/208, 8-9=-208/760, 9-10=-266/231, 10-11=0/31, 2-18=-444/155, 10-12=-320/188
BOT CHORD 17-18=-220/1369, 15-17=-102/1033, 13-15=-70/254, 12-13=-393/275
WEBS 3-17=-223/187, 4-17=-50/598, 4-15=-741/234, 6-15=-93/428, 8-15=-31/755, 8-13=-1779/301, 9-13=-434/211, 3-18=-1224/35, 9-12=-437/693

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) -0-11-0 to 2-8-14, Interior (1) 2-8-14 to 14-7-10, Exterior(2R) 14-7-10 to 21-11-6, Interior (1) 21-11-6 to 33-10-2, Exterior(2E) 33-10-2 to 37-6-0 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) 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) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
7) * 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.
8) One H2.5A Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 13 and 18. This connection is for uplift only and does not consider lateral forces.

LOAD CASE(S) Standard

January 9,2025

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

Job	Truss	Truss Type	Qty	Ply	129 Hidden Lakes North-Roof-Plan 4 GLH
25010026-01	A05	Roof Special	2	1	I70611618 Job Reference (optional)

Carter Components (Sanford, NC), Sanford, NC - 27332, Run: 8.73 S Dec 5 2024 Print: 8.730 S Dec 5 2024 MiTek Industries, Inc. Wed Jan 08 10:14:05 Page: 1
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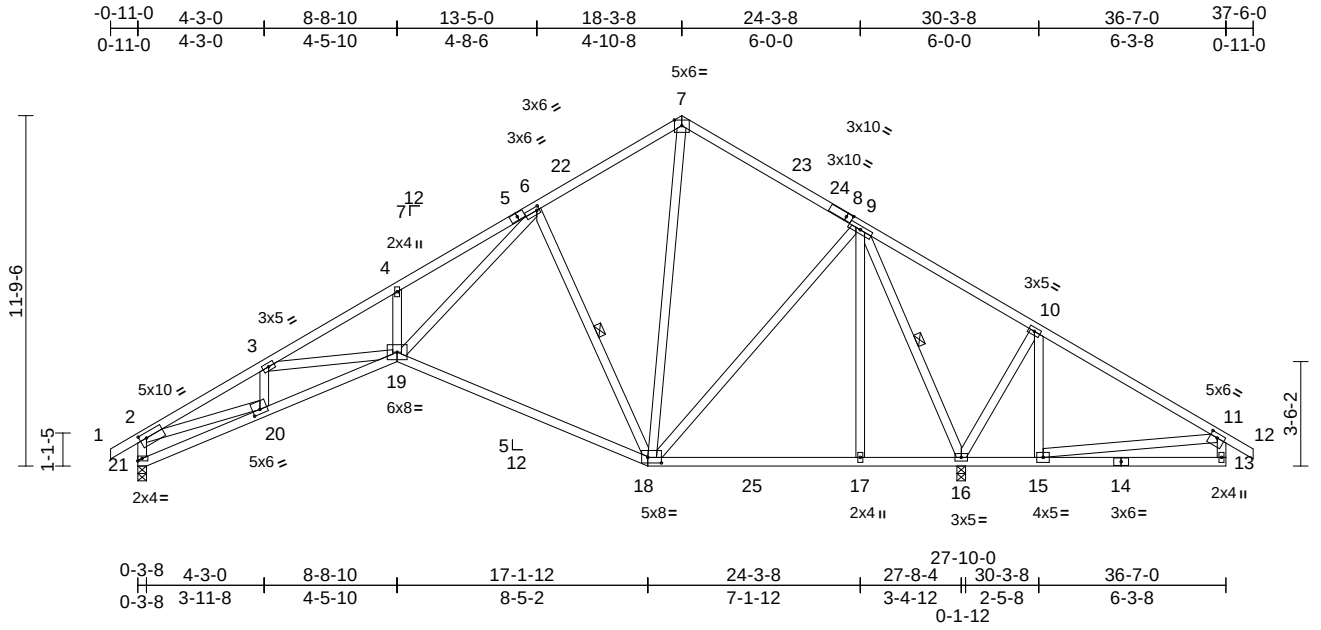

Scale = 1:77.5

Plate Offsets (X, Y): [2:0-2-12,0-2-0], [6:0-1-0,0-1-8], [8:0-2-8,0-1-8], [11:0-3-0,0-1-12], [18:0-5-8,0-2-4], [20:0-3-0,0-1-12]

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	0.32	Vert(LL)	-0.24	18-19	>999	240	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.37	Vert(CT)	-0.49	18-19	>677	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.93	Horz(CT)	0.22	16	n/a	n/a		
BCLL	0.0*	Code	IRC2021/TPI2014	Matrix-MSH								
BCDL	10.0										Weight: 245 lb	FT = 20%

LUMBER
TOP CHORD 2x4 SP 2400F 2.0E
BOT CHORD 2x4 SP 2400F 2.0E
WEBS 2x4 SP No.3 *Except* 21-2,13-11,18-9,7-18,6-18:2x4 SP 2400F 2.0E, 6-19:2x4 SP No.2

BRACING
TOP CHORD Structural wood sheathing directly applied or 4-2-15 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.
WEBS 1 Row at midpt 9-16, 6-18

REACTIONS (size) 16=0-3-8, 21=0-3-8
Max Horiz 21=-295 (LC 12)
Max Uplift 16=-198 (LC 15), 21=-136 (LC 14)
Max Grav 16=2147 (LC 3), 21=1186 (LC 25)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/32, 2-3=-3218/444, 3-4=-3611/455, 4-6=-3649/566, 6-7=-899/221, 7-9=-855/224, 9-10=-215/806, 10-11=-187/536, 11-12=0/32, 2-21=-1309/232, 11-13=-42/113
BOT CHORD 20-21=-297/465, 19-20=-513/3031, 18-19=-126/1276, 17-18=-60/279, 16-17=-60/279, 15-16=-405/258, 13-15=-66/195
WEBS 2-20=-293/2512, 11-15=-563/308, 9-18=-77/665, 9-17=0/316, 9-16=-1977/270, 10-16=-527/252, 10-15=-130/275, 7-18=-132/490, 3-19=0/366, 4-19=-299/164, 6-19=-428/2918, 6-18=-1183/297, 3-20=-436/116

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) -0-11-0 to 2-8-14, Interior (1) 2-8-14 to 14-7-10, Exterior(2R) 14-7-10 to 21-11-6, Interior (1) 21-11-6 to 33-10-2, Exterior(2E) 33-10-2 to 37-6-0 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) 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) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
7) * 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.
8) Bearing at joint(s) 21 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
9) One H2.5A Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 21 and 16. This connection is for uplift only and does not consider lateral forces.

LOAD CASE(S) Standard

January 9,2025

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

Job	Truss	Truss Type	Qty	Ply	129 Hidden Lakes North-Roof-Plan 4 GLH
25010026-01	A04-B	Roof Special	2	1	I70611619 Job Reference (optional)

Carter Components (Sanford, NC), Sanford, NC - 27332, Run: 8.73 S Dec 5 2024 Print: 8.730 S Dec 5 2024 MiTek Industries, Inc. Wed Jan 08 10:14:05 Page: 1
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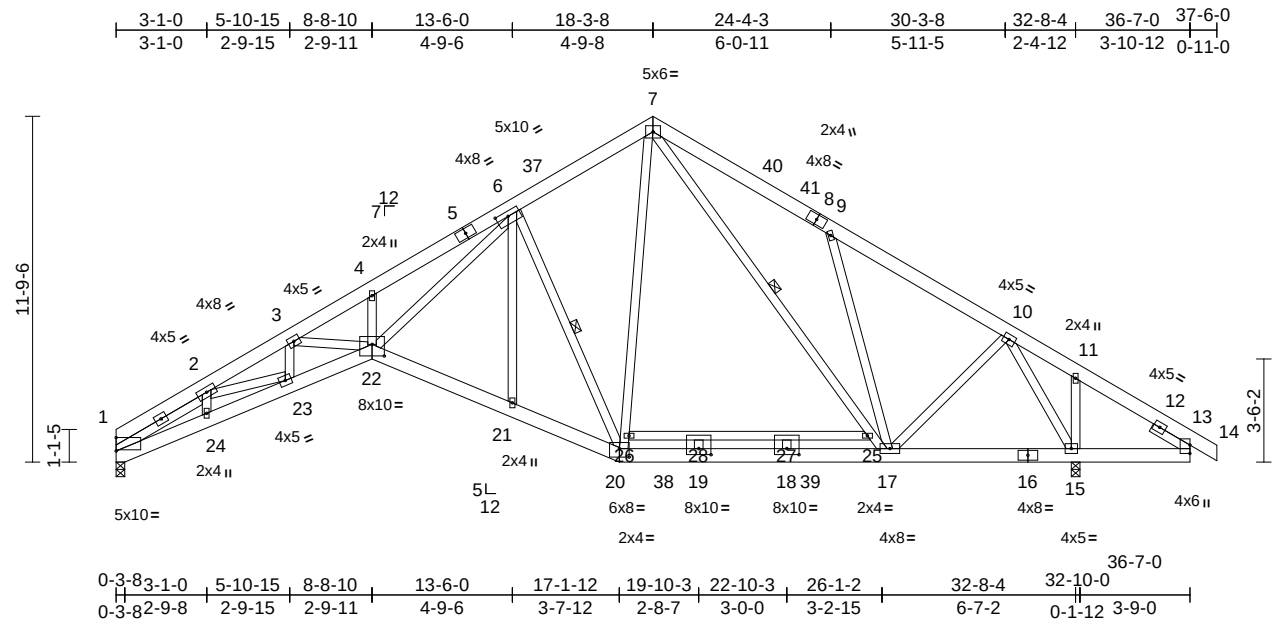

Scale = 1:78.5

Plate Offsets (X, Y): [1:Edge,0-5-8], [6:0-5-0,0-2-0], [20:0-4-0,0-3-8], [22:0-5-0,0-4-12], [27:0-5-0,0-2-8], [28:0-5-0,0-2-8]

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	0.34	Vert(LL)	-0.20	22	>999	240	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.81	Vert(CT)	-0.42	21-22	>928	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.50	Horz(CT)	0.29	15	n/a	n/a		
BCLL	0.0*	Code	IRC2021/TPI2014	Matrix-MSH								
BCDL	10.0										Weight: 324 lb	FT = 20%

LUMBER
TOP CHORD 2x6 SP No.2
BOT CHORD 2x6 SP No.2
WEBS 2x4 SP 2400F 2.0E *Except* 11-15,2-24,23-2:2x4 SP No.3
SLIDER Left 2x4 SP No.2 -- 3-6-1, Right 2x4 SP No.3 -- 1-6-0

BRACING
TOP CHORD Structural wood sheathing directly applied or 3-1-15 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing, Except:
6-0-0 oc bracing: 13-15.
WEBS 1 Row at midpt 7-17, 6-20

REACTIONS (size) 1=0-3-8, 15=0-3-8
Max Horiz 1=-259 (LC 12)
Max Uplift 1=-56 (LC 14), 15=-38 (LC 15)
Max Grav 1=1369 (LC 21), 15=1830 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-1608/165, 2-3=-4736/316, 3-4=-4850/250, 4-6=-4846/345, 6-7=-1492/107, 7-9=-1675/228, 9-10=-1435/0, 10-11=-63/291, 11-13=-125/342, 13-14=0/28
BOT CHORD 1-24=-369/2986, 23-24=-381/3125, 22-23=-364/4378, 21-22=0/1805, 20-21=-12/1810, 19-20=0/946, 18-19=0/946, 17-18=0/946, 15-17=0/628, 13-15=-226/155
WEBS 9-17=-606/299, 7-25=-244/430, 17-25=-257/447, 6-21=0/161, 20-26=-43/864, 7-26=-23/882, 3-23=-341/16, 4-22=-142/131, 3-22=0/129, 6-22=-322/3498, 10-17=0/706, 6-20=-1434/253, 26-28=-10/84, 27-28=-10/84, 25-27=-10/84, 18-27=0/28, 19-28=0/39, 10-15=-1701/2, 11-15=-252/92, 2-24=-309/59, 2-23=0/1216

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 3-7-14, Interior (1) 3-7-14 to 14-7-10, Exterior(2R) 14-7-10 to 21-11-6, Interior (1) 21-11-6 to 33-10-2, Exterior(2E) 33-10-2 to 37-6-0 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) 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, 21-2-0 from left end, supported at two points, 5-0-0 apart.
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) 1 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) 1 and 15. This connection is for uplift only and does not consider lateral forces.

LOAD CASE(S) Standard

January 9,2025

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

Job	Truss	Truss Type	Qty	Ply	129 Hidden Lakes North-Roof-Plan 4 GLH
25010026-01	A04	Roof Special	4	1	I70611620 Job Reference (optional)

Carter Components (Sanford, NC), Sanford, NC - 27332, Run: 8.73 S Dec 5 2024 Print: 8.730 S Dec 5 2024 MiTek Industries, Inc. Wed Jan 08 10:14:05 Page: 1
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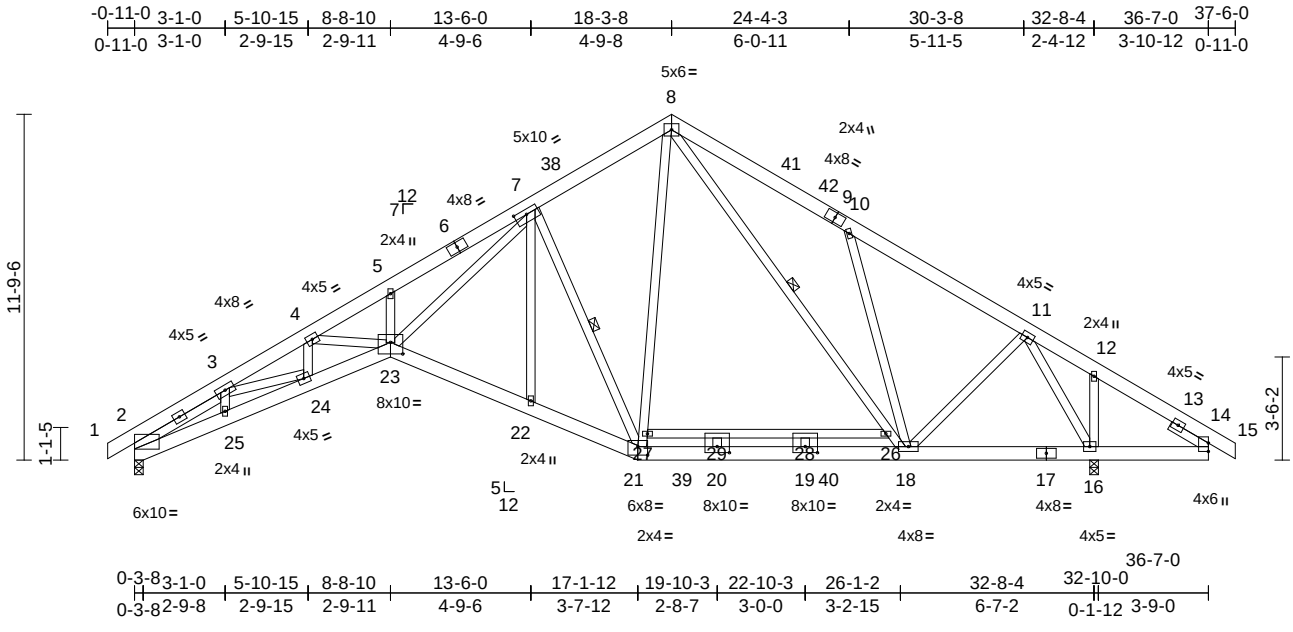

Scale = 1:78.5

Plate Offsets (X, Y): [2:Edge,0-0-0], [7:0-5-0,0-2-0], [21:0-4-0,0-3-8], [23:0-5-0,0-4-12], [28:0-5-0,0-2-8], [29:0-5-0,0-2-8]

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	0.34	Vert(LL)	-0.20	23	>999	240	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.81	Vert(CT)	-0.42	22-23	>930	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.50	Horz(CT)	0.29	16	n/a	n/a		
BCLL	0.0*	Code	IRC2021/TPI2014	Matrix-MSH								
BCDL	10.0										Weight: 327 lb	FT = 20%

LUMBER
TOP CHORD 2x6 SP No.2
BOT CHORD 2x6 SP No.2
WEBS 2x4 SP 2400F 2.0E *Except* 25-3,3-24,12-16:2x4 SP No.3
SLIDER Left 2x4 SP No.2 -- 3-6-1, Right 2x4 SP No.3 -- 1-6-0

BRACING
TOP CHORD Structural wood sheathing directly applied or 3-2-0 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing, Except:
6-0-0 oc bracing: 14-16.
WEBS 1 Row at midpt 8-18, 7-21

REACTIONS (size) 2=0-3-8, 16=0-3-8
Max Horiz 2=263 (LC 13)
Max Uplift 2=-73 (LC 14), 16=-38 (LC 15)
Max Grav 2=1425 (LC 21), 16=1829 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/28, 2-3=-1591/164, 3-4=-4726/316, 4-5=-4843/250, 5-7=-4839/344, 7-8=-1491/106, 8-10=-1674/228, 10-11=-1434/0, 11-12=-63/291, 12-14=-125/342, 14-15=0/28
BOT CHORD 2-25=-369/2970, 24-25=-381/3110, 23-24=-363/4368, 22-23=0/1803, 21-22=-12/1808, 20-21=0/945, 19-20=0/945, 18-19=0/945, 16-18=0/628, 14-16=-226/155
WEBS 10-18=-606/299, 8-26=-244/430, 18-26=-257/447, 7-22=0/161, 21-27=-43/862, 8-27=-23/880, 4-24=-344/17, 5-23=-142/131, 4-23=0/131, 7-23=-322/3491, 11-18=0/706, 7-21=-1432/253, 27-29=-10/84, 28-29=-10/84, 26-28=-10/84, 19-28=0/28, 20-29=0/39, 11-16=-1700/2, 3-25=-310/59, 3-24=0/1222, 12-16=-252/92

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) -0-11-0 to 2-8-14, Interior (1) 2-8-14 to 14-7-10, Exterior(2R) 14-7-10 to 21-11-6, Interior (1) 21-11-6 to 33-10-2, Exterior(2E) 33-10-2 to 37-6-0 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) 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, 21-2-0 from left end, supported at two points, 5-0-0 apart.
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) 2 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) 2 and 16. This connection is for uplift only and does not consider lateral forces.

LOAD CASE(S) Standard

January 9,2025

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

Job	Truss	Truss Type	Qty	Ply	129 Hidden Lakes North-Roof-Plan 4 GLH
25010026-01	A03	Roof Special	2	1	I70611621 Job Reference (optional)

Carter Components (Sanford, NC), Sanford, NC - 27332, Run: 8.73 S Dec 5 2024 Print: 8.730 S Dec 5 2024 MiTek Industries, Inc. Wed Jan 08 10:14:05 Page: 1
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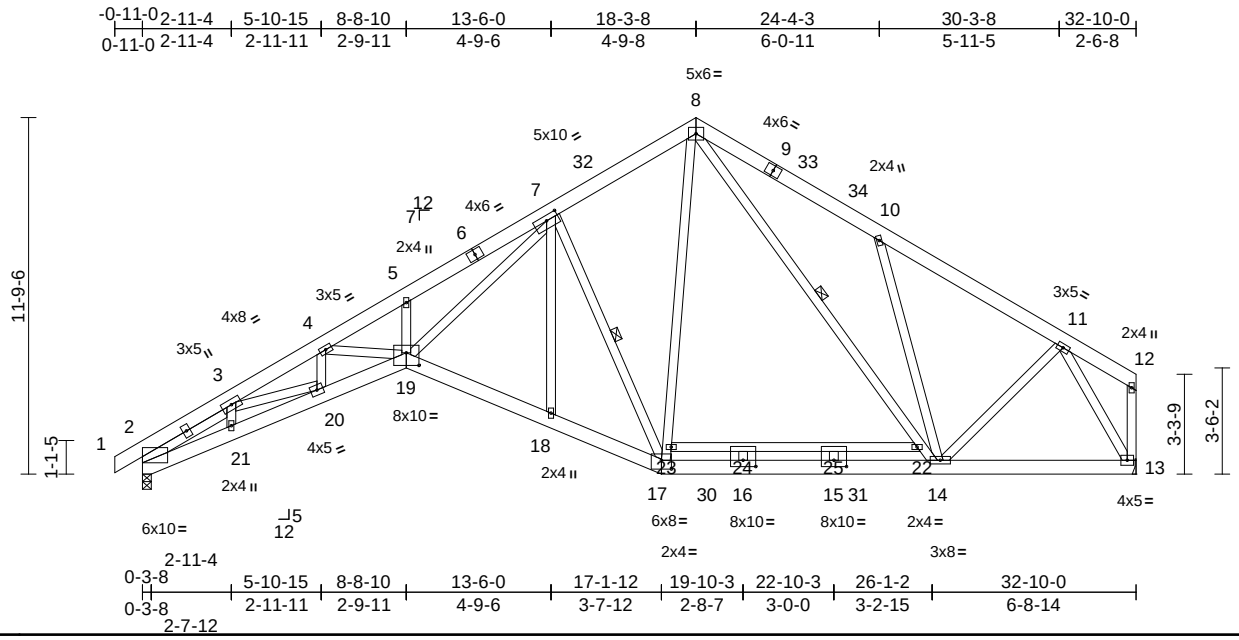


Scale = 1:76.1

Plate Offsets (X, Y): [2:Edge,0-0-0], [7:0-4-12,0-2-0], [17:0-4-0,0-3-8], [19:0-5-0,0-5-0], [24:0-5-0,0-2-8], [25:0-5-0,0-2-8]

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	0.35	Vert(LL)	-0.20	19	>999	240	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.82	Vert(CT)	-0.42	18-19	>924	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.33	Horz(CT)	0.30	13	n/a	n/a		
BCLL	0.0*	Code	IRC2021/TPI2014	Matrix-MSH								
BCDL	10.0										Weight: 303 lb	FT = 20%

LUMBER
TOP CHORD 2x6 SP No.2
BOT CHORD 2x6 SP No.2
WEBS 2x4 SP 2400F 2.0E *Except* 13-12:2x4 SP No.3
SLIDER Left 2x4 SP No.2 -- 3-4-1

BRACING
TOP CHORD Structural wood sheathing directly applied or 3-1-3 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 1 Row at midpt 8-14, 7-17

REACTIONS (size) 2=0-3-8, 13= Mechanical
Max Horiz 2=303 (LC 13)
Max Uplift 2=-73 (LC 14)
Max Grav 2=1441 (LC 21), 13=1436 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 12-13=-39/41, 1-2=0/28, 2-3=-1631/161, 3-4=-4945/319, 4-5=-5073/255, 5-7=-5062/348, 7-8=-1521/127, 8-10=-1746/225, 10-11=-1509/25, 11-12=-55/83
BOT CHORD 2-21=-372/3083, 20-21=-386/3233, 19-20=-372/4663, 18-19=-2/1952, 17-18=-16/1959, 16-17=0/1037, 15-16=0/1037, 14-15=0/1037, 13-14=-16/826
WEBS 11-14=0/607, 11-13=-1682/0, 17-23=-42/861, 8-23=-22/878, 8-22=-241/535, 14-22=-255/555, 23-24=-10/88, 24-25=-10/88, 22-25=-10/88, 7-17=-1487/255, 7-18=0/163, 3-20=0/1385, 4-20=-364/19, 4-19=0/132, 5-19=-130/130, 7-19=-327/3698, 10-14=-600/299, 16-24=0/40, 15-25=0/25, 3-21=-335/61

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) -0-11-0 to 2-4-6, Interior (1) 2-4-6 to 15-0-2, Exterior(2R) 15-0-2 to 21-6-14, Interior (1) 21-6-14 to 29-4-14, Exterior(2E) 29-4-14 to 32-8-4 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) 200.0lb AC unit load placed on the bottom chord, 21-2-0 from left end, supported at two points, 5-0-0 apart.
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) Refer to girder(s) for truss to truss connections.
10) Bearing at joint(s) 2 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
11) One H2.5A Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 2. This connection is for uplift only and does not consider lateral forces.

LOAD CASE(S) Standard

January 9,2025

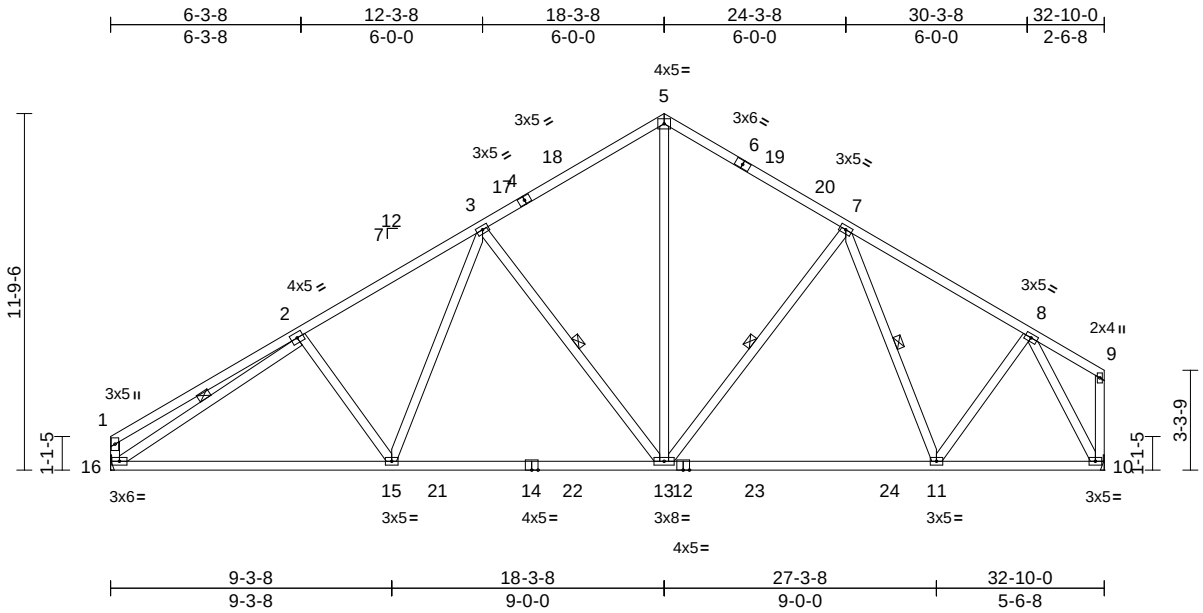
ENGINEERING BY TRENCO A MiTek Affiliate
818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	129 Hidden Lakes North-Roof-Plan 4 GLH
25010026-01	A02	Common	6	1	I70611622 Job Reference (optional)

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

Run: 8.73 S Dec 5 2024 Print: 8.730 S Dec 5 2024 MiTek Industries, Inc. Wed Jan 08 10:14:04 ID:HCwwAkMFCIebD9JdNSjJJ5zxSip-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

Page: 1



Scale = 1:76.1

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)	-0.20	11-13	>999	240	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.73	Vert(CT)	-0.34	11-13	>999	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.86	Horz(CT)	0.06	10	n/a	n/a		
BCLL	0.0*	Code	IRC2021/TPI2014	Matrix-MSH								
BCDL	10.0										Weight: 213 lb	FT = 20%

LUMBER
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.1
WEBS 2x4 SP No.3 *Except* 13-5:2x4 SP No.2

BRACING
TOP CHORD Structural wood sheathing directly applied or 3-7-0 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 1 Row at midpt 7-13, 7-11, 3-13, 2-16

REACTIONS (size) 10= Mechanical, 16= Mechanical
Max Horiz 16=306 (LC 13)
Max Uplift 10=-101 (LC 15), 16=-124 (LC 14)
Max Grav 10=1493 (LC 25), 16=1512 (LC 24)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-478/100, 2-3=-2246/231, 3-5=-1580/246, 5-7=-1582/247, 7-8=-1552/189, 8-9=-59/85, 1-16=-389/106, 9-10=-45/44
BOT CHORD 15-16=-260/1993, 13-15=-132/1697, 11-13=-48/1392, 10-11=-84/898
WEBS 5-13=-113/1158, 7-13=-263/197, 7-11=-274/75, 8-11=0/696, 3-13=-737/237, 3-15=-44/548, 2-15=-186/194, 2-16=-1946/134, 8-10=-1856/146

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) 0-1-12 to 3-5-2, Interior (1) 3-5-2 to 15-0-2, Exterior(2R) 15-0-2 to 21-6-14, Interior (1) 21-6-14 to 29-4-14, Exterior(2E) 29-4-14 to 32-8-4 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) All plates are 3x5 MT20 unless otherwise indicated.
6) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
7) * 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.
8) Refer to girder(s) for truss to truss connections.
9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 124 lb uplift at joint 16 and 101 lb uplift at joint 10.

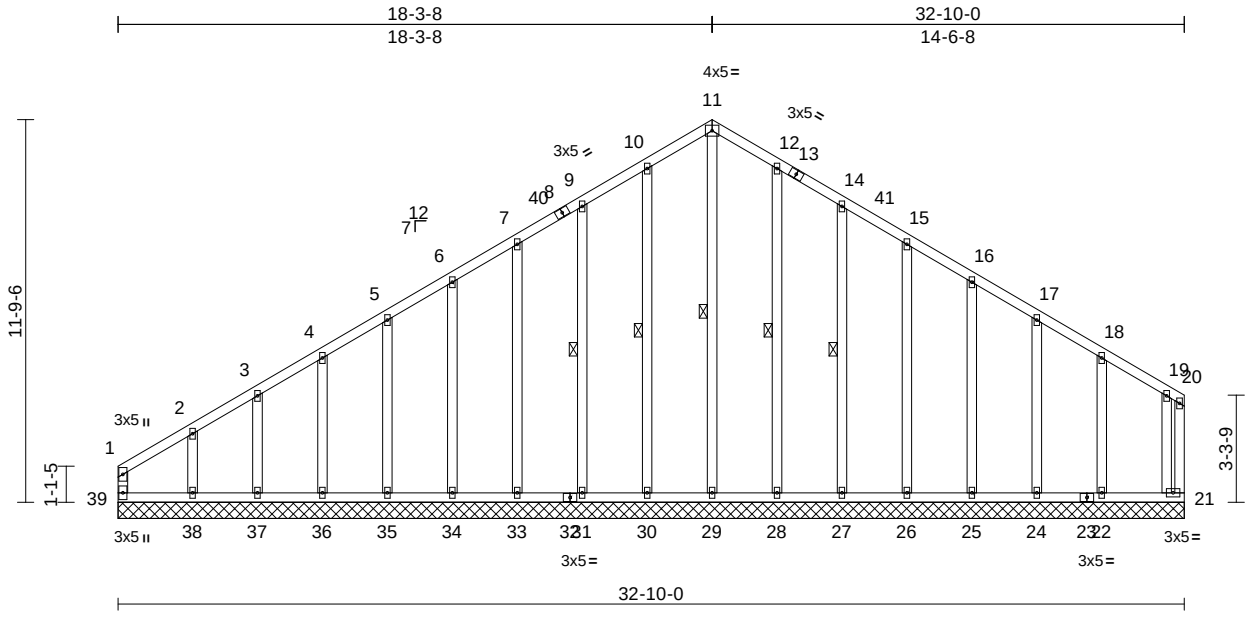
LOAD CASE(S) Standard

January 9,2025

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

Job	Truss	Truss Type	Qty	Ply	129 Hidden Lakes North-Roof-Plan 4 GLH
25010026-01	A01	Common Supported Gable	1	1	I70611623 Job Reference (optional)

Carter Components (Sanford, NC), Sanford, NC - 27332, Run: 8.73 S Dec 5 2024 Print: 8.730 S Dec 5 2024 MiTek Industries, Inc. Wed Jan 08 10:14:03 Page: 1
ID:OWv?hUk4IKip2dw78rVBPezxSxp-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f



Scale = 1:71

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	0.31	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	0.19	Horiz(TL)	0.00	21	n/a	n/a		
BCLL	0.0*	Code	IRC2021/TPI2014	Matrix-MR								
BCDL	10.0										Weight: 267 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 *Except* 29-11,30-10,28-12:2x4 SP No.2

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.
WEBS 1 Row at midpt 11-29, 10-30, 9-31, 12-28, 14-27

REACTIONS (size) 21=32-10-0, 22=32-10-0, 24=32-10-0, 25=32-10-0, 26=32-10-0, 27=32-10-0, 28=32-10-0, 29=32-10-0, 30=32-10-0, 31=32-10-0, 33=32-10-0, 34=32-10-0, 35=32-10-0, 36=32-10-0, 37=32-10-0, 38=32-10-0, 39=32-10-0
Max Horiz 39=306 (LC 11)
Max Uplift 21=-51 (LC 14), 22=-88 (LC 15), 24=-40 (LC 15), 25=-53 (LC 15), 26=-49 (LC 15), 27=-57 (LC 15), 28=-38 (LC 15), 29=-55 (LC 13), 30=-41 (LC 14), 31=-55 (LC 14), 33=-49 (LC 14), 34=-51 (LC 14), 35=-48 (LC 14), 36=-59 (LC 14), 37=-17 (LC 14), 38=-174 (LC 11), 39=-202 (LC 10)
Max Grav 21=124 (LC 24), 22=239 (LC 25), 24=156 (LC 21), 25=171 (LC 25), 26=167 (LC 21), 27=226 (LC 21), 28=252 (LC 21), 29=276 (LC 15), 30=252 (LC 20), 31=226 (LC 20), 33=167 (LC 20), 34=167 (LC 24), 35=164 (LC 24), 36=176 (LC 29), 37=154 (LC 1), 38=302 (LC 24), 39=282 (LC 13)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-39=-199/154, 1-2=-301/270, 2-3=-250/226, 3-4=-246/231, 4-5=-230/226, 5-6=-216/223, 6-7=-202/251, 7-9=-188/297, 9-10=-176/347, 10-11=-157/386, 11-12=-147/386, 12-14=-128/347, 14-15=-109/297, 15-16=-95/251, 16-17=-80/204, 17-18=-73/160, 18-19=-65/103, 19-20=-106/121, 20-21=-160/150
BOT CHORD 38-39=-65/80, 37-38=-65/80, 36-37=-65/80, 35-36=-65/80, 34-35=-65/80, 33-34=-65/80, 31-33=-65/80, 30-31=-65/80, 29-30=-65/80, 28-29=-65/80, 27-28=-65/80, 26-27=-65/80, 25-26=-65/80, 24-25=-65/80, 22-24=-65/80, 21-22=-65/80
WEBS 11-29=-320/95, 10-30=-212/65, 9-31=-186/79, 7-33=-140/74, 6-34=-140/75, 5-35=-140/74, 4-36=-143/78, 3-37=-129/66, 2-38=-195/137, 12-28=-212/62, 14-27=-186/81, 15-26=-140/73, 16-25=-140/77, 17-24=-140/64, 18-22=-173/112, 19-21=-192/156

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) 0-1-12 to 3-5-2, Exterior(2N) 3-5-2 to 15-0-2, Corner(3R) 15-0-2 to 21-6-14, Exterior(2N) 21-6-14 to 29-4-14, Corner(3E) 29-4-14 to 32-8-4 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) All plates are 2x4 MT20 unless otherwise indicated.
7) Gable requires continuous bottom chord bearing.

January 9,2025

Continued on page 2

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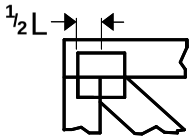
818 Soundside Road
Edenton, NC 27932

8) Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
9) Gable studs spaced at 2-0-0 oc.
10) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
11) * 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.

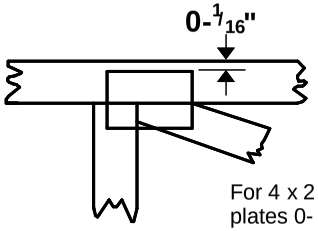
LOAD CASE(S) Standard

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.

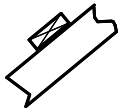
* Plate location details available in MiTek software or upon request.

PLATE SIZE

4 x 4

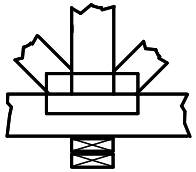
The first dimension is the plate width measured perpendicular to slots. Second dimension is the length parallel to slots.

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

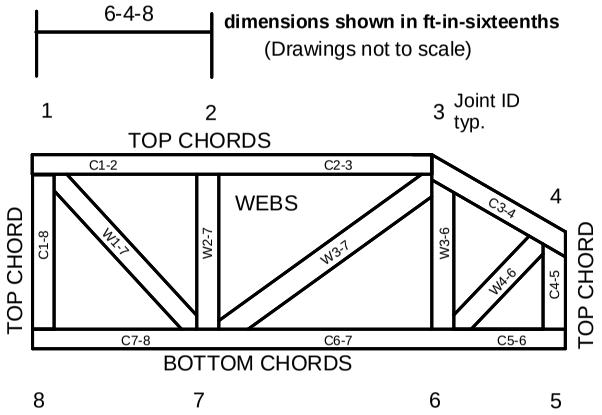


Indicates location where bearings (supports) occur. Icons vary but reaction section indicates joint number/letter where bearings occur. Min size shown is for crushing only.

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
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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.