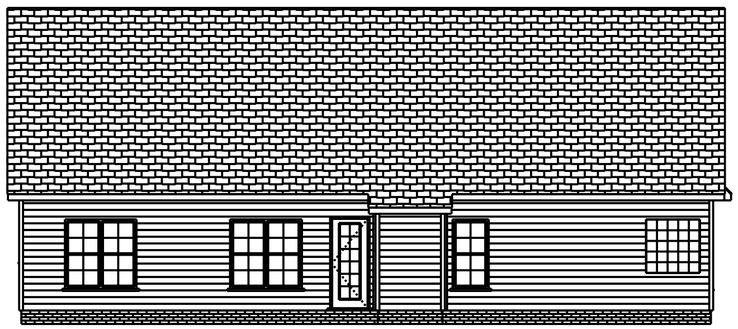
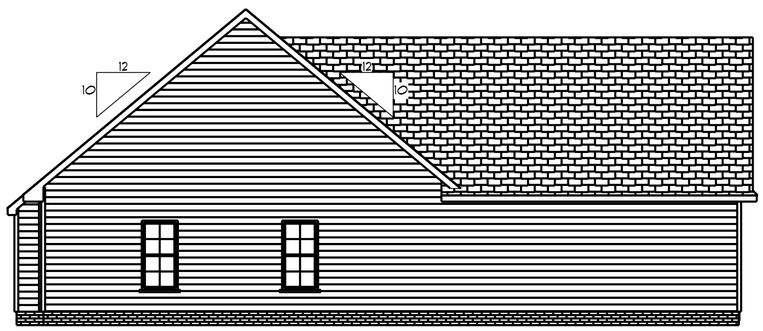
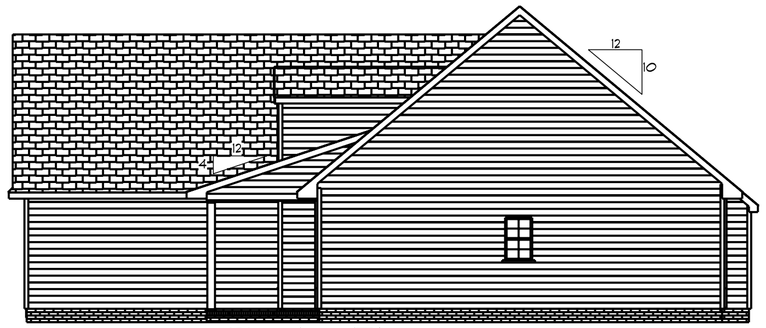
Front Elevation
Scale: 1/4"= 1'0"



Rear Elevation
Scale: 1/8"= 1'0"



Left Elevation
Scale: 1/8"= 1'0"



Right Elevation
Scale: 1/8"= 1'0"

NOTICE TO CONTRACTOR
All construction must comply with current NC Building Codes and is subject to field inspection and verification.

APPROVED
Limited building only review
Permit holder responsible for full compliance with the code

01/29/2025

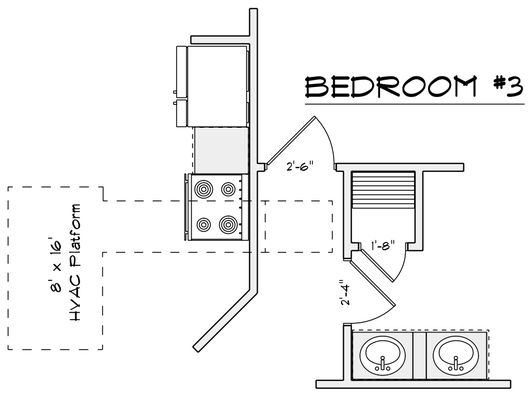
Harnett COUNTY NORTH CAROLINA

DATE: 7/12/2024
REVISED
DRAWING#

SCALE: 1/4"
DRAWN BY
APPROVED

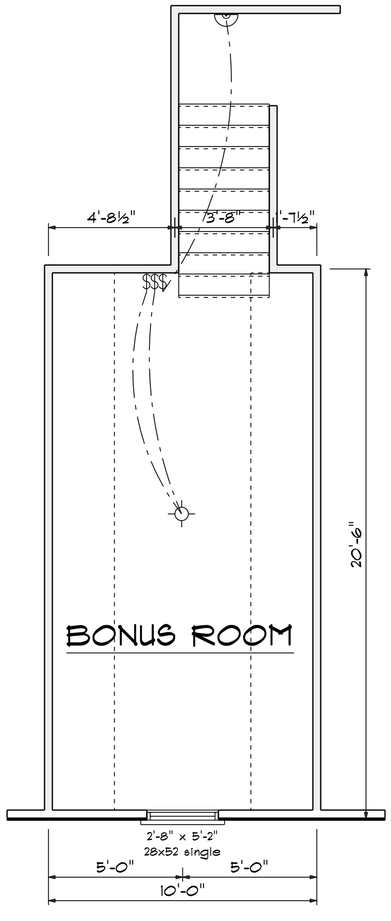
Plan# 8

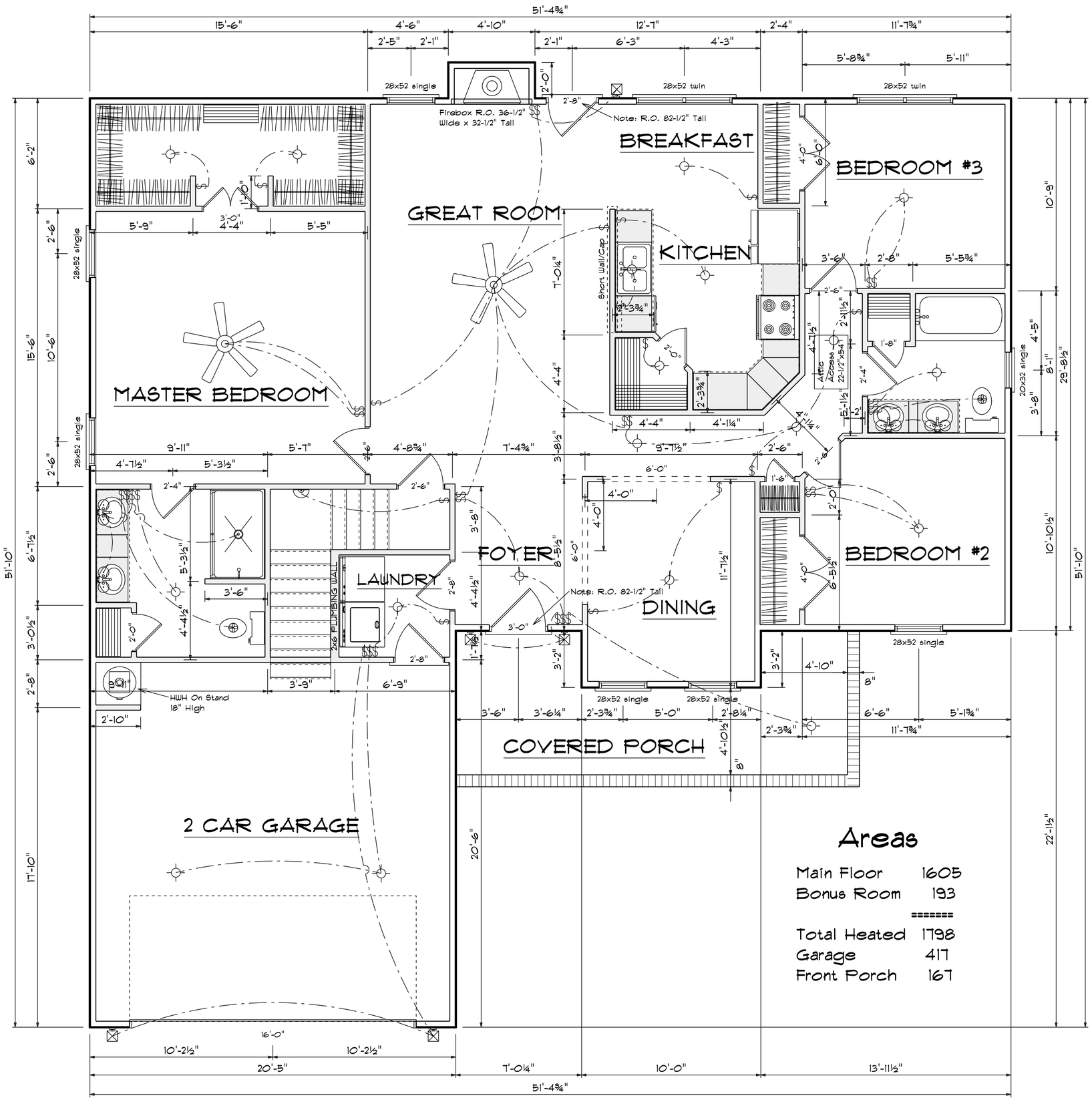
Welleo Contractors Inc.



Floor Plan

Scale: 1/4"= 1'-0"





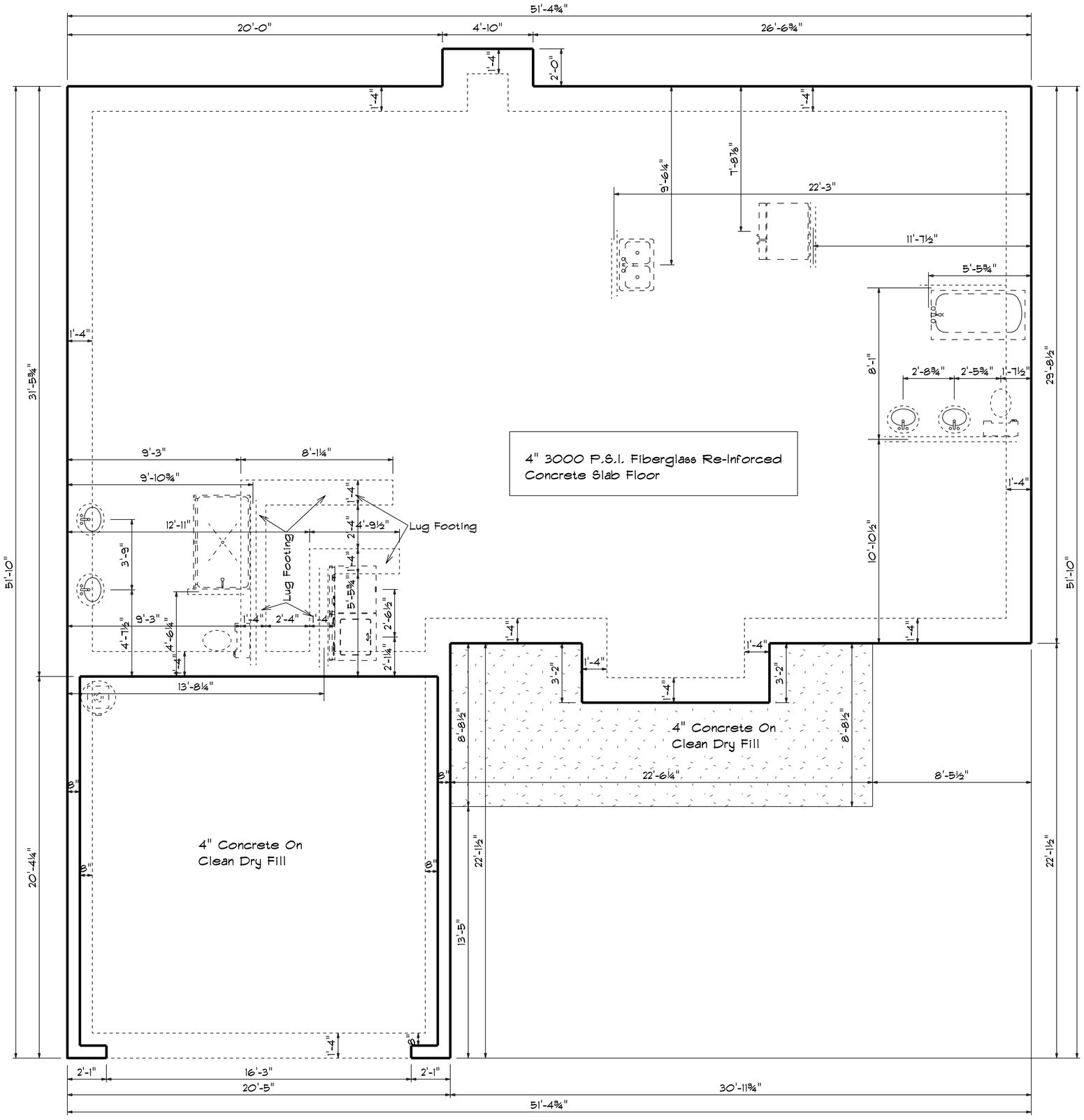
Areas

Main Floor	1605
Bonus Room	193
	=======
Total Heated	1798
Garage	417
Front Porch	167

DATE: 7/12/2024
REVISED
DRAWING#
SCALE: 1/4"
DRAWN BY
APPROVED

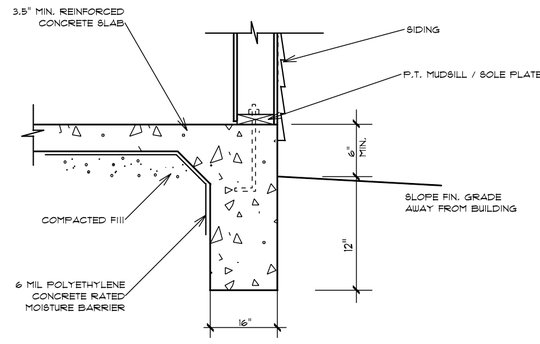
Plan #8

Welco Contractors Inc.

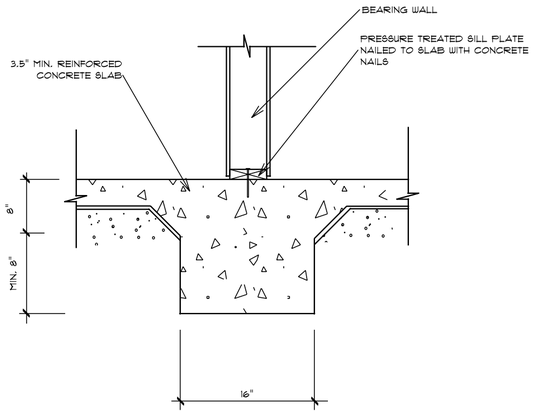


Foundation Plan

Scale: 1/4"= 1'-0"



TURN-DOWN
FOOTING DETAIL



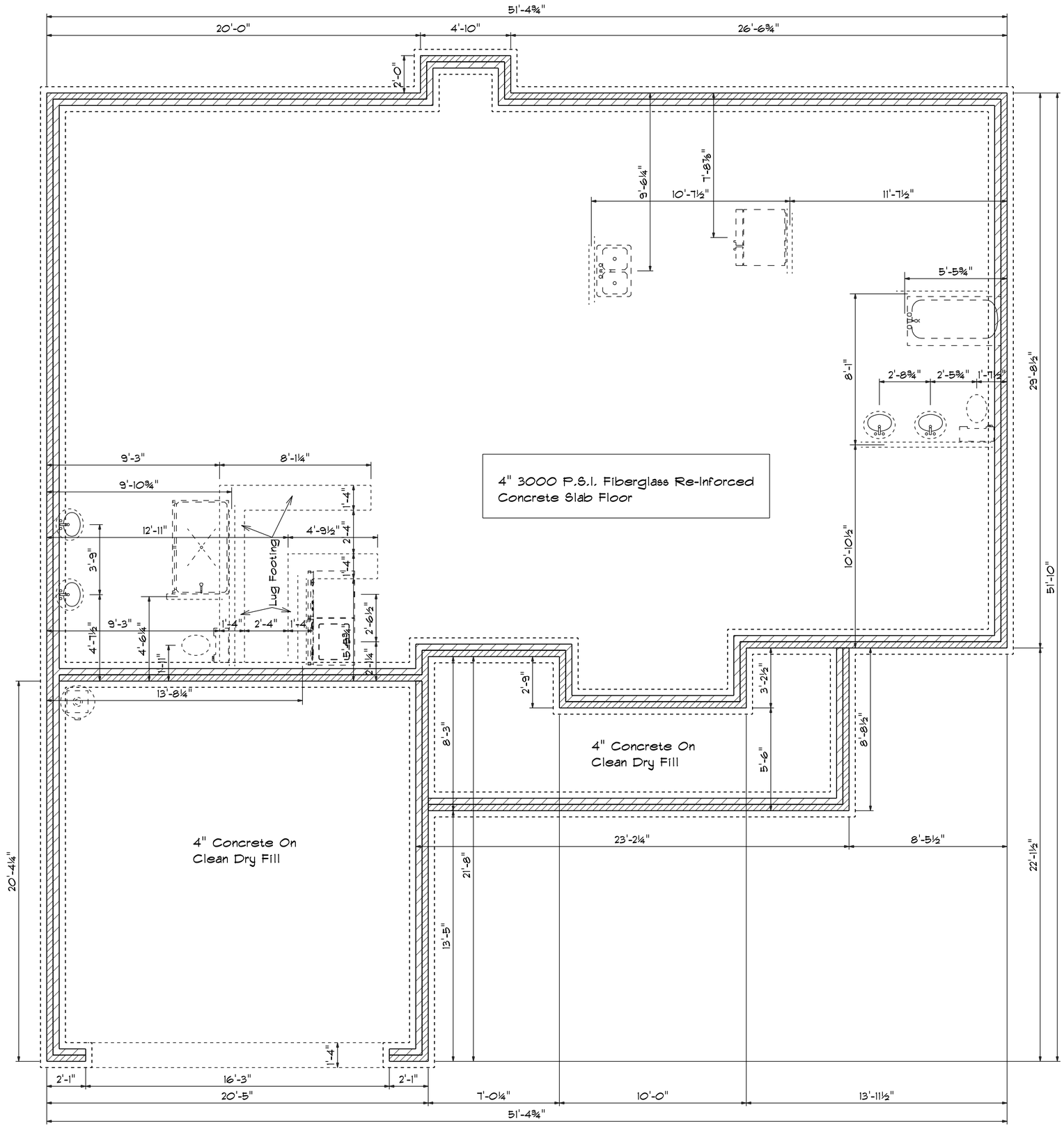
INTEGRAL SLAB FOOTING
DETAIL AT BEARING WALL

DATE: 7/12/2024
REVISED
DRAWING#

SCALE: 1/4"
DRAWN BY
APPROVED

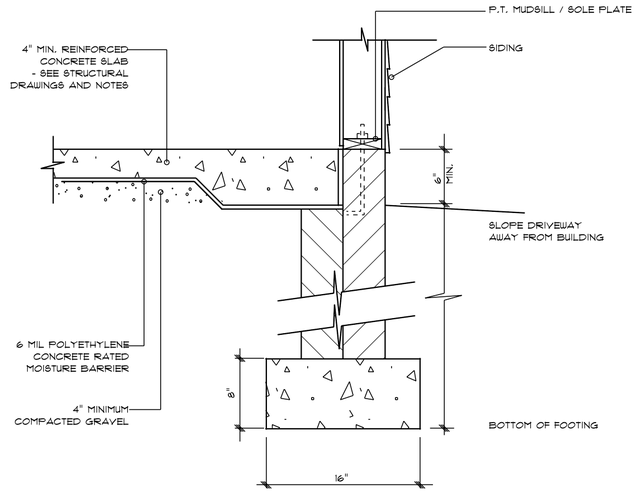
Plan# 8

Welco Contractors Inc.

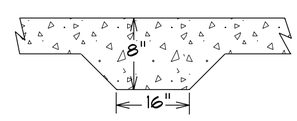


Foundation Plan

Scale: 1/4"= 1'-0"



STEM WALL FOOTING DETAIL



LUG FOOTING DETAIL

DATE: 7/12/2024
REVISED
DRAWING#

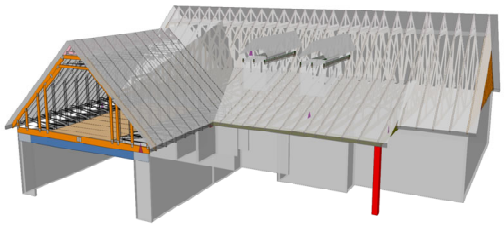
SCALE: 1/4"
DRAWN BY
APPROVED

Plan# 8

Welco Contractors Inc.

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

Phone #:919-775-1450



Builder: Wellco Contractor

Model: 131 Hidden Lakes Plan 8 BNS

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.

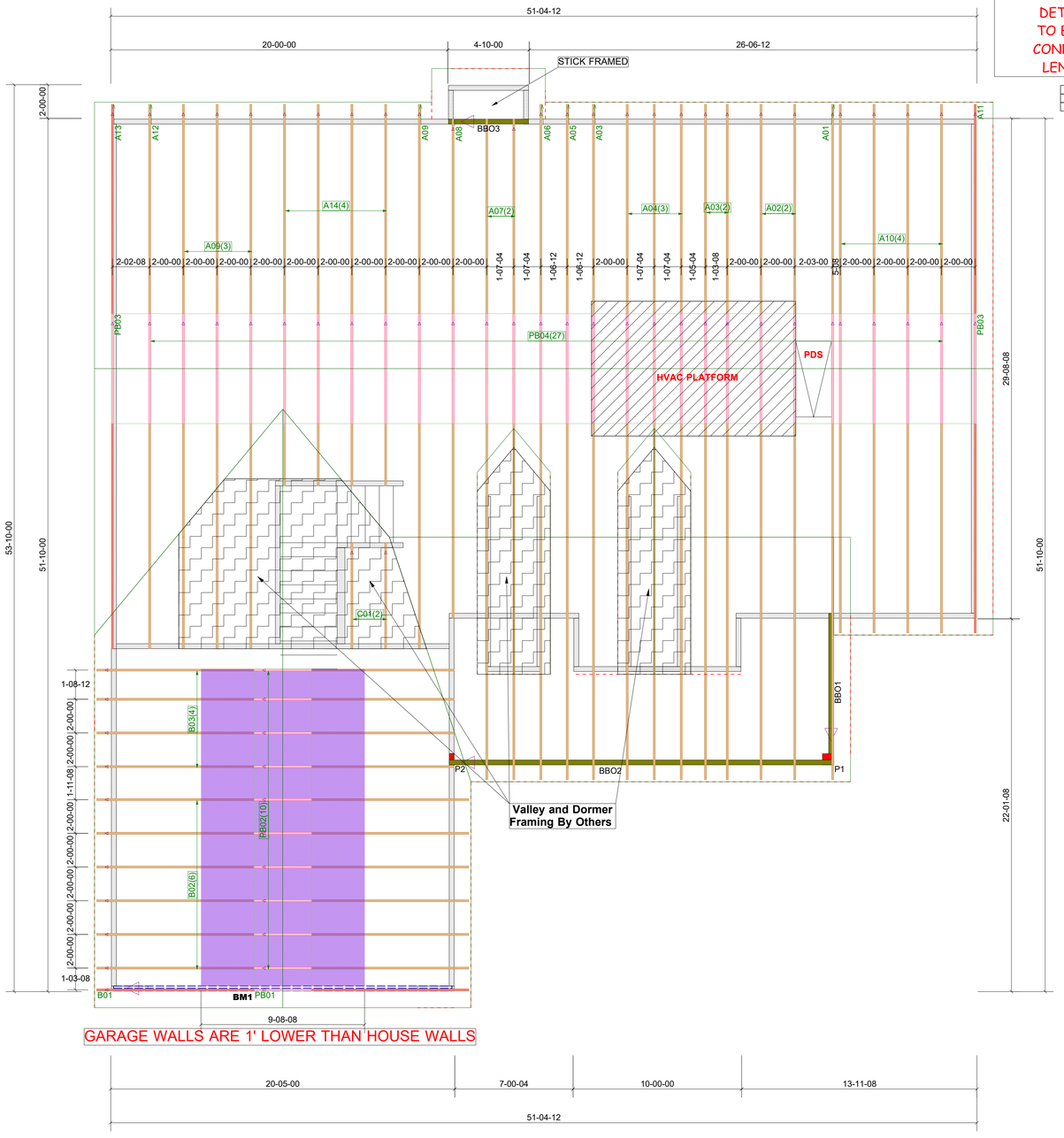
** DAMAGED COMPONENTS SHOULD NOT BE INSTALLED UNLESS TOLD TO BY THE COMPONENT PLANT.

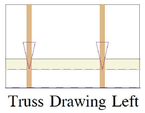
** FRAMER MUST REFER TO PLANS WHILE SETTING COMPONENTS.

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.

(1X)

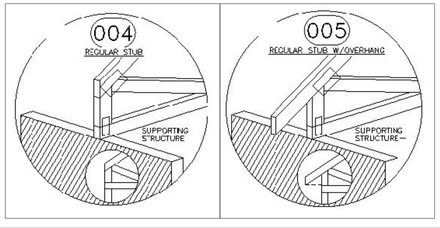
Products					
PlotID	Length	Product	Plies	Net Qty	Fab Type
BM1	22-00-00	2.1 RigidLam SP LVL 1-3/4 x 11-7/8	2	2	FF





Truss Drawing Left End Indicator

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



** All uplift connectors shown within these documents are recommendations only. Per ANSI/TPI 1, all uplift connectors are the responsibility 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 supported structure including headers, beams, and columns 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

131 Hidden Lakes
North-Roof-Plan 8 BNS

ROOF PLACEMENT PLAN

Scale: ***NTS***

Date: 1/8/2025

Designer: Aaron Rogers

Project Number: **25010028-01**

Sheet Number: **1/1**

** 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.

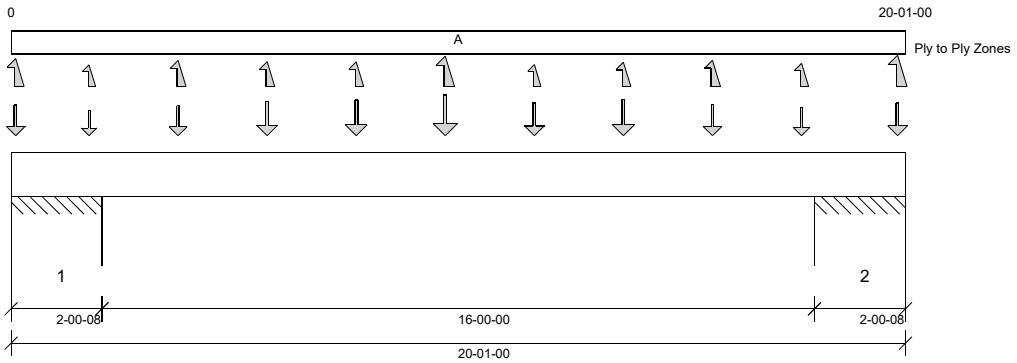
** REFER TO FINAL TRUSS ENGINEERING SHEETS FOR PLY TO PLY CONNECTIONS.

MiTek	Customer: Job Name: City: Customer Ph...	Job Name: **01** Level: **Roof** Label: **BM1 - i64** 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 17:54



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: 20'- 1" Bottom: 20'- 1"

Bearing Stress of Support Material:

- 875 psi Wall @ 0'- 1 1/2"
- 875 psi Wall @ 1'- 11"
- 875 psi Wall @ 18'- 2"
- 875 psi Wall @ 19'- 11 1/2"

ANALYSIS RESULTS

Design Criteria	Location	Load Combination	LDF	Design	Limit	Result
Max Pos. Moment:	9'- 9"	D + 0.75(L + Lr + 0.6W)	1.60	1657 lb ft	19059 lb ft	Passed - 9%
Max Neg. Moment:	1'- 11"	D + 0.75(L + Lr + 0.6W)	1.60	2508 lb ft	19059 lb ft	Passed - 13%
Max Shear:	3'- 3/8"	D + 0.75(L + Lr)	1.15	774 lb	9241 lb	Passed - 8%
Live Load (LL) Pos. Defl.:	10'- 7/8"	0.75(L + Lr + 0.6W)		0.027"	L/360	Passed - L/999
Total Load (TL) Pos. Defl.:	10'- 1/2"	D + 0.75(L + Lr + 0.6W)		0.053"	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	95 lb		31957 lb	26797 lb	Passed - 0%
1	8-12	D + 0.75(L + Lr)	1.15		-1189 lb	-	-	
1	1-03-12	D + 0.75(L + Lr)	1.15	2166 lb		41344 lb	48234 lb	Passed - 5%
1	1-03-12	0.6D + 0.6W	1.60		-347 lb	-	-	
2	1-03-12	D + 0.75(L + Lr)	1.15	2157 lb		41344 lb	48234 lb	Passed - 5%
2	1-03-12	0.6D + 0.6W	1.60		-323 lb	-	-	
2	8-12	0.6D + 0.6W	1.60	71 lb		31957 lb	26797 lb	Passed - 0%
2	8-12	D + 0.75(L + Lr)	1.15		-1184 lb	-	-	

LOADING

Type	Start Loc	End Loc	Source	Face	Dead (D)	Live (L)	Snow (S)	Roof Live (Lr)	Wind (W)
Self Weight	0'	20'- 1"	Self Weight	Top	11 lb/ft	-	-	-	-
Point	0'- 1 1/4"	0'- 1 1/4"	B01(Cond01)	Top	68 lb	0 lb	23 lb	94/-1 lb	47/-195 lb
Point	1'- 9"	1'- 9"	B01(Cond01)	Top	53 lb	-1 lb	14 lb	71 lb	27/-114 lb
Point	3'- 9"	3'- 9"	B01(Cond01)	Top	78 lb	4/-5 lb	21 lb	74 lb	42/-167 lb
Point	5'- 9"	5'- 9"	B01(Cond01)	Top	108 lb	46 lb	19 lb	67 lb	40/-156 lb
Point	7'- 9"	7'- 9"	B01(Cond01)	Top	117 lb	62 lb	19 lb	67/-1 lb	33/-153 lb
Point	9'- 9"	9'- 9"	B01(Cond01)	Top	131 lb	63 lb	27 lb	105/-7 lb	32/-220 lb
Point	11'- 9"	11'- 9"	B01(Cond01)	Top	107 lb	63 lb	14 lb	51/-1 lb	26/-118 lb
Point	13'- 9"	13'- 9"	B01(Cond01)	Top	115 lb	57 lb	18 lb	70 lb	39/-149 lb
Point	15'- 9"	15'- 9"	B01(Cond01)	Top	84 lb	11/-5 lb	21 lb	78/0 lb	41/-168 lb
Point	17'- 9"	17'- 9"	B01(Cond01)	Top	66 lb	-2 lb	17 lb	77 lb	36/-132 lb
Point	19'- 10 7/8"	19'- 10 7/8"	B01(Cond01)	Top	80 lb	0 lb	28 lb	96/-1 lb	53/-238 lb

UNFACTORED REACTIONS

ID	Start Loc	End Loc	Source	Dead (D)	Live (L)	Snow (S)	Roof Live (Lr)	Wind (W)
1	0'	2'- 1/2"	W14(i47)	1279/-666 lb	440/-291 lb	199/-89 lb	849/-432 lb	314 lb/ -1034 lb
==>	0'- 1 1/2"	0'- 1 1/2"	W14(i47)	-666 lb	5/-280 lb	-89 lb	101/-417 lb	-
==>	1'- 11"	1'- 11"	W14(i47)	1279 lb	435/-11 lb	199 lb	748/-15 lb	-
2	18'- 1/2"	20'- 1"	W13(i35)	1271/-657 lb	440/-293 lb	194/-83 lb	838/-433 lb	314 lb/ -1034 lb
==>	18'- 2"	18'- 2"	W13(i35)	1271 lb	435/-12 lb	194 lb	742/-14 lb	-
==>	19'- 11 1/2"	19'- 11 1/2"	W13(i35)	-657 lb	5/-281 lb	-83 lb	96/-419 lb	-

DESIGN NOTES

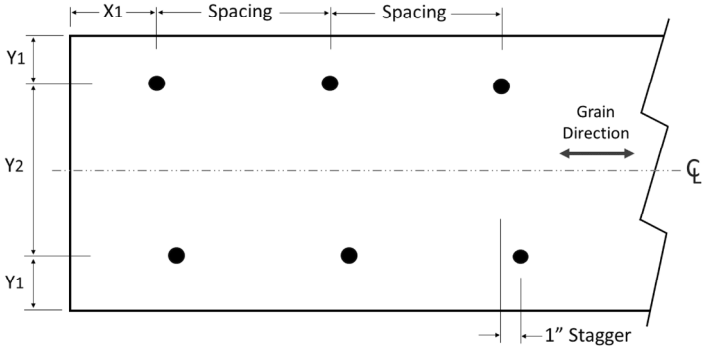
- CAUTION: The maximum net analysis reaction exceeds the user-defined maximum uplift value at one or more supports.
- The dead loads used in the design of this member were applied to the structure as projected dead loads.
- Analysis and Design has been performed using precision loading from actual modeled conditions. Some loads may have been modified to simplify reporting.
- 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) = 0.56

PLY TO PLY CONNECTION

- Zone A: Factored load = 0 plf. Use 12d (0.148"x3.25") nails. LDF = 1.00. Qty = 42. 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: 25010028-01
131 Hidden Lakes North-Roof-Plan 8 BNS

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: I70616291 thru I70616312

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

North Carolina COA: C-0844

January 9,2025

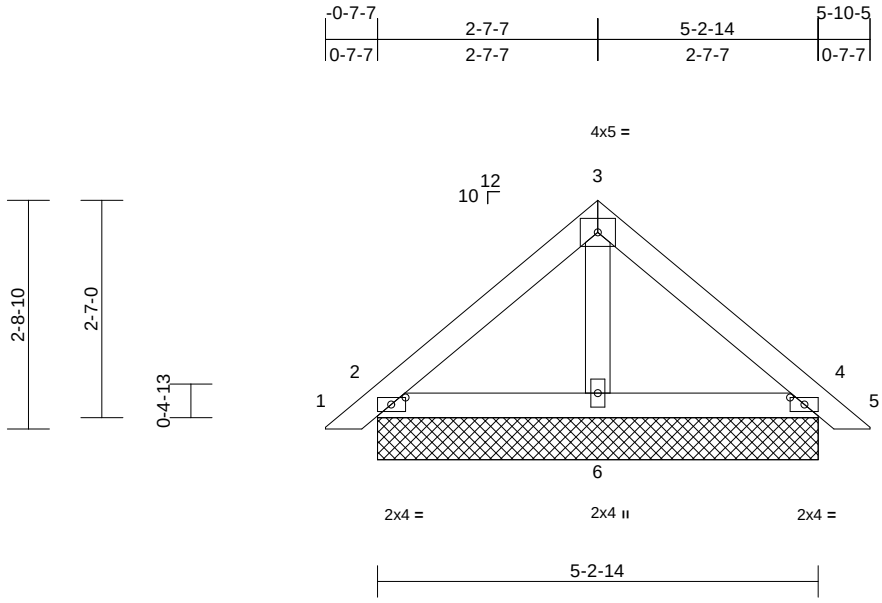
Gilbert, Eric

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	131 Hidden Lakes North-Roof-Plan 8 BNS
25010028-01	PB04	Piggyback	27	1	I70616291 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 10:52:21 ID:nlmykUIFgo4cFw11TyHwqVyStsx-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f



Scale = 1:27.4

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

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	0.09	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf/Pg)	13.9/20.0	Lumber DOL	1.15	BC	0.10	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: 23 lb	FT = 20%

LUMBER

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

BRACING

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

REACTIONS (size) 2=5-2-14, 4=5-2-14, 6=5-2-14
Max Horiz 2=47 (LC 12)
Max Uplift 2=-7 (LC 13), 4=-11 (LC 14)
Max Grav 2=150 (LC 2), 4=150 (LC 2), 6=167 (LC 2)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD	1-2=0/19, 2-3=-117/81, 3-4=-117/87, 4-5=0/19
BOT CHORD	2-6=-15/46, 4-6=-12/49
WEBS	3-6=-62/0

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) 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=1.33
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); Pg=20.0 psf; Pf=13.9 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) This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 13.9 psf on overhangs non-concurrent with other live loads.
6) Gable requires continuous bottom chord bearing.
7) Gable studs spaced at 4-0-0 oc.
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) All bearings are assumed to be SP No.2 .
10) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 7 lb uplift at joint 2, 11 lb uplift at joint 4, 7 lb uplift at joint 2 and 11 lb uplift at joint 4.
11) See Standard Industry Piggyback Truss Connection Detail for Connection to base truss as applicable, or consult qualified building designer.

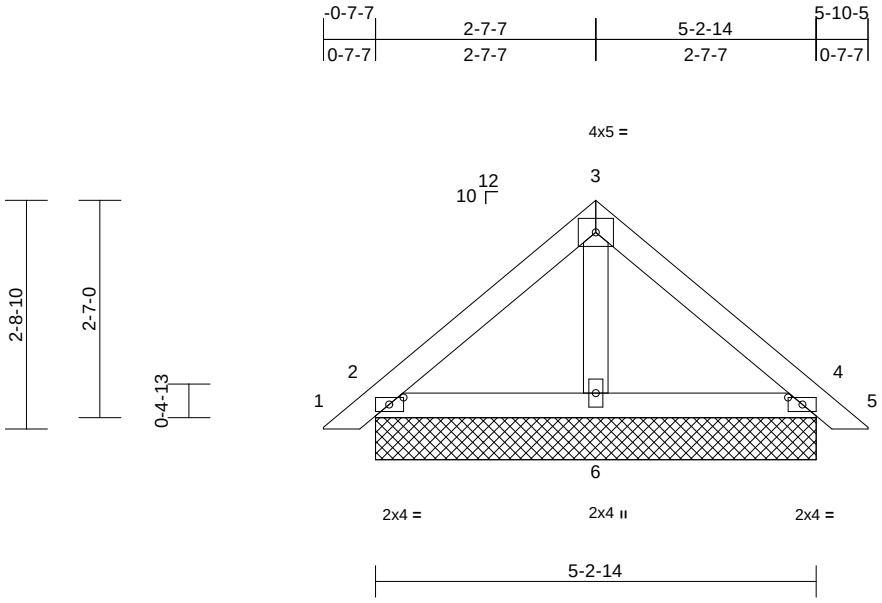
LOAD CASE(S) Standard

January 9,2025

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

Job	Truss	Truss Type	Qty	Ply	131 Hidden Lakes North-Roof-Plan 8 BNS
25010028-01	PB03	Piggyback	2	1	I70616292 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 10:52:21 Page: 1
ID:JZCZX8HdvUyldmSrwFlhHHyStsy-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f



Scale = 1:27.4

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

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	0.09	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf/Pg)	13.9/20.0	Lumber DOL	1.15	BC	0.10	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: 23 lb	FT = 20%

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

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

REACTIONS (size) 2=5-2-14, 4=5-2-14, 6=5-2-14
Max Horiz 2=-47 (LC 11)
Max Uplift 2=-7 (LC 13), 4=-11 (LC 14)
Max Grav 2=150 (LC 2), 4=150 (LC 2), 6=167 (LC 2)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/19, 2-3=-117/81, 3-4=-117/87, 4-5=0/19
BOT CHORD 2-6=-15/46, 4-6=-12/49
WEBS 3-6=-62/0

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) 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=1.33
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); Pg=20.0 psf; Pf=13.9 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) This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 13.9 psf on overhangs non-concurrent with other live loads.
6) Gable requires continuous bottom chord bearing.
7) Gable studs spaced at 2-0-0 oc.
8) * This truss has been designed for a 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) All bearings are assumed to be SP No.2 .
10) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 7 lb uplift at joint 2, 11 lb uplift at joint 4, 7 lb uplift at joint 2 and 11 lb uplift at joint 4.
11) See Standard Industry Piggyback Truss Connection Detail for Connection to base truss as applicable, or consult qualified building designer.

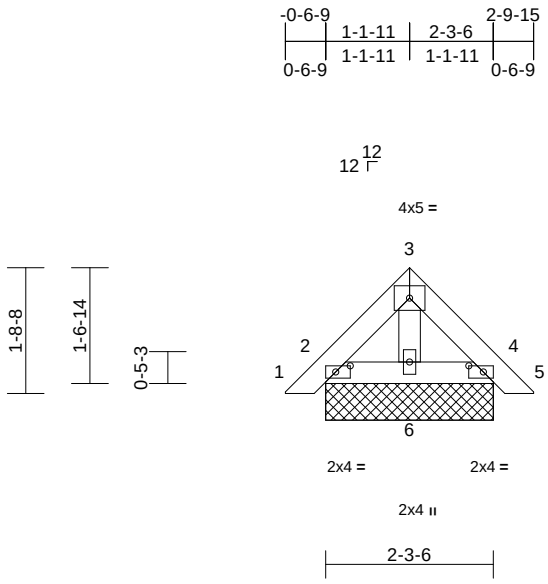
LOAD CASE(S) Standard

January 9,2025

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

Job	Truss	Truss Type	Qty	Ply	131 Hidden Lakes North-Roof-Plan 8 BNS
25010028-01	PB02	Piggyback	10	1	I70616293 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 10:52:21 Page: 1
ID:XCG9EqBIykWPBK9izIqjuvySu7t-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f



Scale = 1:31.3

Plate Offsets (X, Y): [2:0-2-6,0-1-0], [4:0-2-6,0-1-0]

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.02	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf/Pg)	13.9/20.0	Lumber DOL	1.15	BC	0.02	Vert(CT)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.01	Horz(CT)	0.00	4	n/a	n/a		
BCLL	0.0*	Code	IRC2021/TPI2014	Matrix-MP								
BCDL	10.0										Weight: 12 lb	FT = 20%

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

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

REACTIONS (size) 2=2-3-6, 4=2-3-6, 6=2-3-6
Max Horiz 2=28 (LC 12)
Max Uplift 2=-1 (LC 13), 4=-3 (LC 14)
Max Grav 2=75 (LC 2), 4=75 (LC 2), 6=74 (LC 2)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/19, 2-3=-41/36, 3-4=-42/42, 4-5=0/19
BOT CHORD 2-6=-17/59, 4-6=-17/59
WEBS 3-6=-27/2

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) 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=1.33
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); Pg=20.0 psf; Pf=13.9 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) This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 13.9 psf on overhangs non-concurrent with other live loads.
6) Gable requires continuous bottom chord bearing.
7) Gable studs spaced at 4-0-0 oc.
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) All bearings are assumed to be SP 2400F 2.0E .
10) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 1 lb uplift at joint 2, 3 lb uplift at joint 4, 1 lb uplift at joint 2 and 3 lb uplift at joint 4.
11) See Standard Industry Piggyback Truss Connection Detail for Connection to base truss as applicable, or consult qualified building designer.

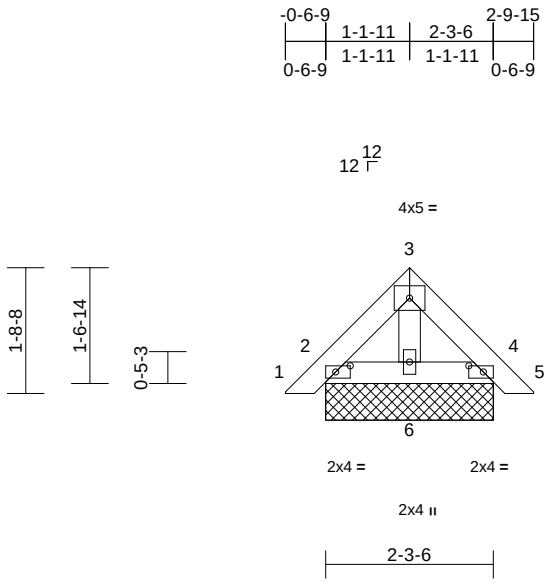
LOAD CASE(S) Standard

January 9,2025

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

Job	Truss	Truss Type	Qty	Ply	131 Hidden Lakes North-Roof-Plan 8 BNS
25010028-01	PB01	Piggyback	1	1	I70616294 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 10:52:20 ID:dt2oKLF_NTOW2D?KIws2eFySu3w-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f Page: 1



Scale = 1:31.3

Plate Offsets (X, Y): [2:0-2-6,0-1-0], [4:0-2-6,0-1-0]

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	0.01	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf/Pg)	13.9/20.0	Lumber DOL	1.15	BC	0.01	Vert(CT)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.00	Horz(CT)	0.00	4	n/a	n/a		
BCLL	0.0*	Code	IRC2021/TPI2014	Matrix-MP								
BCDL	10.0										Weight: 12 lb	FT = 20%

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

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

REACTIONS (size) 2=2-3-6, 4=2-3-6, 6=2-3-6
Max Horiz 2=28 (LC 12)
Max Uplift 2=-2 (LC 13), 4=-4 (LC 14)
Max Grav 2=78 (LC 2), 4=78 (LC 2), 6=69 (LC 2)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/19, 2-3=-43/40, 3-4=-45/47, 4-5=0/19
BOT CHORD 2-6=-14/55, 4-6=-14/55
WEBS 3-6=-24/0

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) 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=1.33
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); Pg=20.0 psf; Pf=13.9 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) This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 13.9 psf on overhangs non-concurrent with other live loads.
6) Gable requires continuous bottom chord bearing.
7) Gable studs spaced at 2-0-0 oc.
8) * This truss has been designed for a 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) All bearings are assumed to be SP 2400F 2.0E .
10) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 2 lb uplift at joint 2, 4 lb uplift at joint 4, 2 lb uplift at joint 2 and 4 lb uplift at joint 4.
11) See Standard Industry Piggyback Truss Connection Detail for Connection to base truss as applicable, or consult qualified building designer.

LOAD CASE(S) Standard

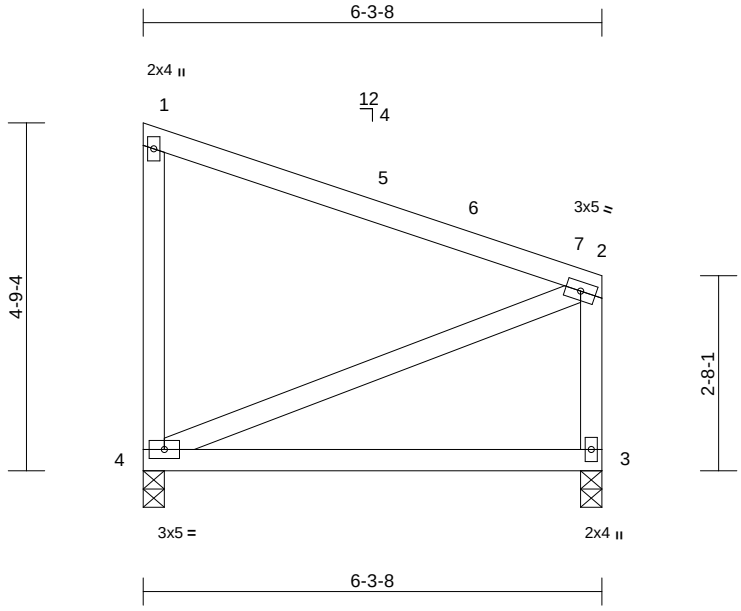
January 9,2025

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

Job	Truss	Truss Type	Qty	Ply	131 Hidden Lakes North-Roof-Plan 8 BNS
25010028-01	C01	Roof Special	2	1	I70616295 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 10:52:20 ID:ApbX_yfV0pcX5QM8iAMo_XyStwL-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f



Scale = 1:31.6

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	0.86	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf/Pg)	13.9/20.0	Lumber DOL	1.15	BC	0.32	Vert(CT)	-0.08	3-4	>926	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.13	Horz(CT)	0.00	3	n/a	n/a		
BCLL	0.0*	Code	IRC2021/TPI2014	Matrix-MP								
BCDL	10.0										Weight: 38 lb	FT = 20%

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

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

REACTIONS (size) 3=0-3-8, 4=0-3-8
Max Horiz 4=-126 (LC 11)
Max Uplift 3=-7 (LC 12), 4=-33 (LC 11)
Max Grav 3=267 (LC 22), 4=274 (LC 22)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-4=-226/179, 1-2=-129/104, 2-3=-236/170
BOT CHORD 3-4=-42/46
WEBS 2-4=-162/228

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) and C-C Exterior(2E) 0-1-12 to 4-4-11, Interior (1) 4-4-11 to 6-1-12 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=1.33
2) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=13.9 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 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.
5) All bearings are assumed to be SP No.2 .
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 7 lb uplift at joint 3 and 33 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	131 Hidden Lakes North-Roof-Plan 8 BNS
25010028-01	B03	Attic	4	1	I70616296 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 10:52:20 Page: 1

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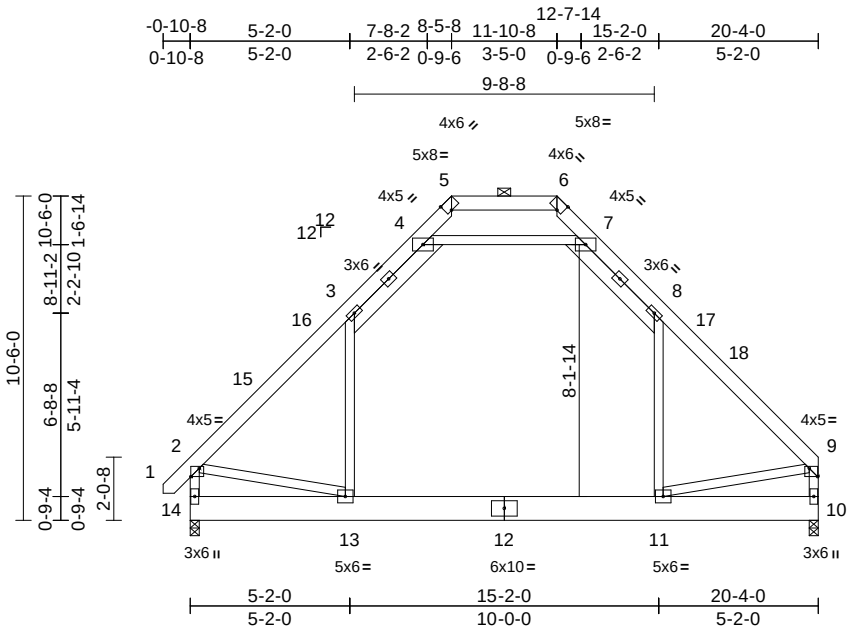

Scale = 1:74.6

Plate Offsets (X, Y): [2:0-3-4,Edge], [5:0-2-2,Edge], [6:0-2-2,Edge], [9:0-3-4,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	0.88	Vert(LL)	-0.11	11-13	>999	240	MT20	244/190
Snow (Pf/Pg)	18.9/20.0	Lumber DOL	1.15	BC	0.21	Vert(CT)	-0.17	11-13	>999	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.29	Horz(CT)	0.00	10	n/a	n/a		
BCLL	0.0*	Code	IRC2021/TPI2014	Matrix-MSH		Attic	-0.06	11-13	>999	360		
BCDL	10.0										Weight: 210 lb	FT = 20%

LUMBER

TOP CHORD 2x6 SP No.2
BOT CHORD 2x10 SP 2400F 2.0E
WEBS 2x4 SP No.3 *Except* 4-7:2x4 SP No.2

BRACING

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

REACTIONS (size) 10=0-3-8, 14=0-3-8
Max Horiz 14=209 (LC 12)
Max Grav 10=1151 (LC 3), 14=1195 (LC 3)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/45, 2-3=-1300/0, 3-4=-876/98, 4-5=-35/394, 5-6=-75/620, 6-7=-44/393, 7-8=-878/110, 8-9=-1291/3, 2-14=-1294/16, 9-10=-1242/0
BOT CHORD 13-14=-205/277, 11-13=0/812, 10-11=-48/134
WEBS 3-13=-12/507, 8-11=-22/497, 4-7=-1492/226, 2-13=0/727, 9-11=0/742

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) and C-C Exterior(2E) -0-8-6 to 2-3-10, Interior (1) 2-3-10 to 8-5-8, Exterior(2E) 8-5-8 to 11-10-8, Exterior(2R) 11-10-8 to 16-1-7, Interior (1) 16-1-7 to 20-2-4 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=1.33
3) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=18.9 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, Lu=50-0-0
4) This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 13.9 psf on overhangs non-concurrent with other live loads.
5) Provide adequate drainage to prevent water ponding.
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) Ceiling dead load (10.0 psf) on member(s). 3-4, 7-8, 4-7
8) Bottom chord live load (40.0 psf) and additional bottom chord dead load (5.0 psf) applied only to room. 11-13
9) All bearings are assumed to be SP 2400F 2.0E .
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

January 9,2025

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

Job	Truss	Truss Type	Qty	Ply	131 Hidden Lakes North-Roof-Plan 8 BNS
25010028-01	B02	Attic	6	1	I70616297 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 10:52:20 Page: 1
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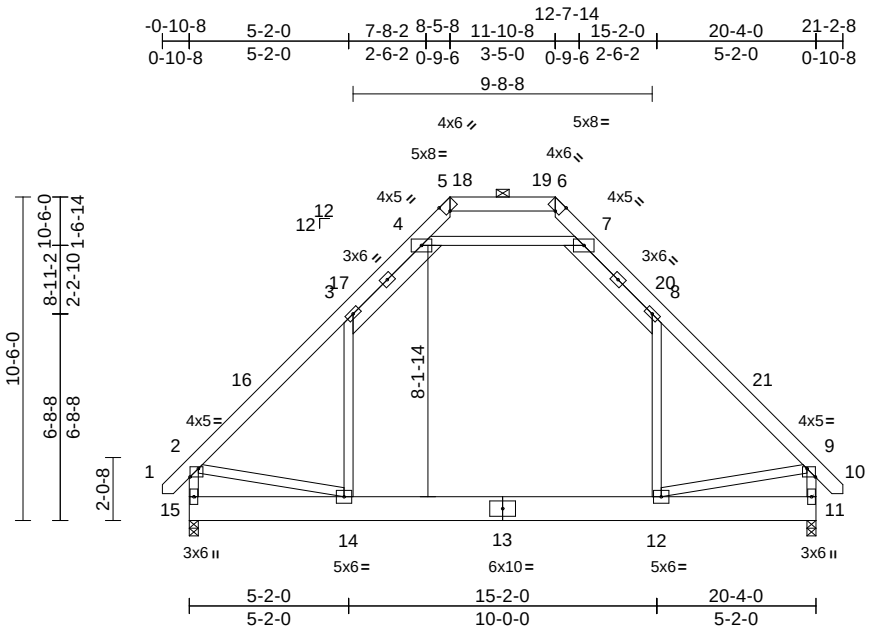

Scale = 1:74.8

Plate Offsets (X, Y): [2:0-3-4,Edge], [5:0-2-2,Edge], [6:0-2-2,Edge], [9:0-3-4,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)	-0.11	12-14	>999	240	MT20	244/190
Snow (Pf/Pg)	18.9/20.0	Lumber DOL	1.15	BC	0.21	Vert(CT)	-0.17	12-14	>999	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.28	Horz(CT)	0.00	11	n/a	n/a		
BCLL	0.0*	Code	IRC2021/TPI2014	Matrix-MSH		Attic	-0.06	12-14	>999	360		
BCDL	10.0										Weight: 212 lb	FT = 20%

LUMBER
TOP CHORD 2x6 SP No.2
BOT CHORD 2x10 SP 2400F 2.0E
WEBS 2x4 SP No.3 *Except* 4-7:2x4 SP No.2

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

REACTIONS (size) 11=0-3-8, 15=0-3-8
Max Horiz 15=-214 (LC 11)
Max Grav 11=1194 (LC 3), 15=1194 (LC 3)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/45, 2-3=-1335/2, 3-4=-916/105, 4-5=-28/390, 5-6=-53/640, 6-7=-28/390, 7-8=-916/105, 8-9=-1335/2, 9-10=0/45, 2-15=-1335/19, 9-11=-1335/19
BOT CHORD 14-15=-195/285, 12-14=0/815, 11-12=-47/168
WEBS 3-14=-13/505, 8-12=-13/505, 4-7=-1561/207, 2-14=0/725, 9-12=0/726

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) and C-C Exterior(2E) -0-8-6 to 2-3-10, Interior (1) 2-3-10 to 8-5-8, Exterior(2R) 8-5-8 to 11-5-8, Interior (1) 11-5-8 to 11-10-8, Exterior(2R) 11-10-8 to 14-10-8, Interior (1) 14-10-8 to 21-0-6 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.33
3) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=18.9 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, Lu=50-0-0
4) This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 13.9 psf on overhangs non-concurrent with other live loads.
5) Provide adequate drainage to prevent water ponding.
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) Ceiling dead load (10.0 psf) on member(s). 3-4, 7-8, 4-7
8) Bottom chord live load (40.0 psf) and additional bottom chord dead load (5.0 psf) applied only to room. 12-14
9) All bearings are assumed to be SP 2400F 2.0E .
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

January 9,2025

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

Job	Truss	Truss Type	Qty	Ply	131 Hidden Lakes North-Roof-Plan 8 BNS
25010028-01	B01	Piggyback Base Supported Gable	1	1	I70616298 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 10:52:20 Page: 1

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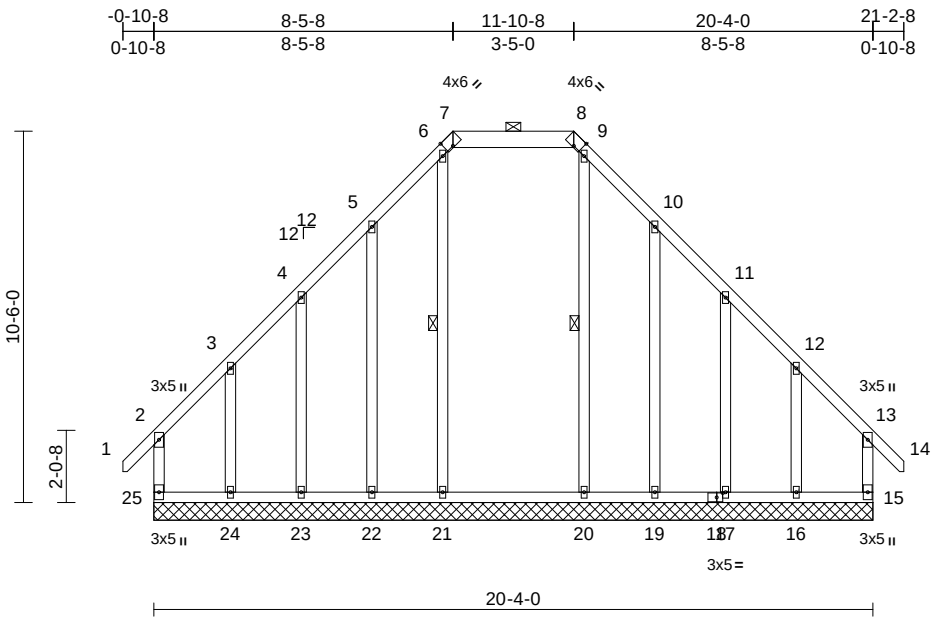

Scale = 1:65.2

Plate Offsets (X, Y): [7:0-2-8,Edge], [8:0-2-8,Edge], [18:0-2-0,0-1-8]

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	0.28	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf/Pg)	18.9/20.0	Lumber DOL	1.15	BC	0.17	Vert(CT)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.19	Horz(CT)	0.00	15	n/a	n/a		
BCLL	0.0*	Code	IRC2021/TPI2014	Matrix-MR								
BCDL	10.0										Weight: 162 lb	FT = 20%

LUMBER

TOP CHORD 2x4 SP No.2 *Except* 7-8:2x6 SP No.2
BOT CHORD 2x4 SP No.2
WEBS 2x4 SP No.3
OTHERS 2x4 SP No.3

BRACING

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

REACTIONS (size) 15=20-4-0, 16=20-4-0, 17=20-4-0, 19=20-4-0, 20=20-4-0, 21=20-4-0, 22=20-4-0, 23=20-4-0, 24=20-4-0, 25=20-4-0
Max Horiz 25=224 (LC 12)
Max Uplift 15=-160 (LC 10), 16=-158 (LC 9), 17=-36 (LC 14), 19=-79 (LC 14), 22=-79 (LC 13), 23=-35 (LC 13), 24=-165 (LC 10), 25=-169 (LC 9)
Max Grav 15=260 (LC 30), 16=308 (LC 31), 17=187 (LC 31), 19=175 (LC 31), 20=364 (LC 32), 21=364 (LC 33), 22=175 (LC 30), 23=186 (LC 30), 24=313 (LC 30), 25=267 (LC 31)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 2-25=-193/157, 1-2=0/51, 2-3=-166/171, 3-4=-102/225, 4-5=-151/332, 5-6=-211/454, 6-7=-177/283, 7-8=-162/355, 8-9=-177/283, 9-10=-217/458, 10-11=-156/337, 11-12=-106/229, 12-13=-157/163, 13-14=0/51, 13-15=-187/161
BOT CHORD 24-25=-116/110, 23-24=-116/110, 22-23=-116/110, 21-22=-116/110, 20-21=-116/110, 19-20=-116/110, 17-19=-116/110, 16-17=-116/110, 15-16=-116/110
WEBS 6-21=-247/32, 5-22=-159/151, 4-23=-163/128, 3-24=-184/155, 9-20=-259/32, 10-19=-159/151, 11-17=-163/129, 12-16=-182/150

NOTES

1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) and C-C Corner (3E) -0-9-12 to 2-2-0, Exterior(2N) 2-2-0 to 8-5-8, Corner (3R) 8-5-8 to 11-5-8, Exterior(2N) 11-5-8 to 11-10-8, Corner(3R) 11-10-8 to 14-10-8, Exterior(2N) 14-10-8 to 21-1-12 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=1.33
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); Pg=20.0 psf; Pf=18.9 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, Lu=50-0-0
5) This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 13.9 psf on overhangs non-concurrent with other live loads.
6) Provide adequate drainage to prevent water ponding.
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 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.
12) All bearings are assumed to be SP No.2 .
13) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 169 lb uplift at joint 25, 160 lb uplift at joint 15, 79 lb uplift at joint 22, 35 lb uplift at joint 23, 165 lb uplift at joint 24, 79 lb uplift at joint 19, 36 lb uplift at joint 17 and 158 lb uplift at joint 16.
14) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
15) 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	131 Hidden Lakes North-Roof-Plan 8 BNS
25010028-01	A14	Piggyback Base	4	1	I70616299 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 10:52:20 Page: 1

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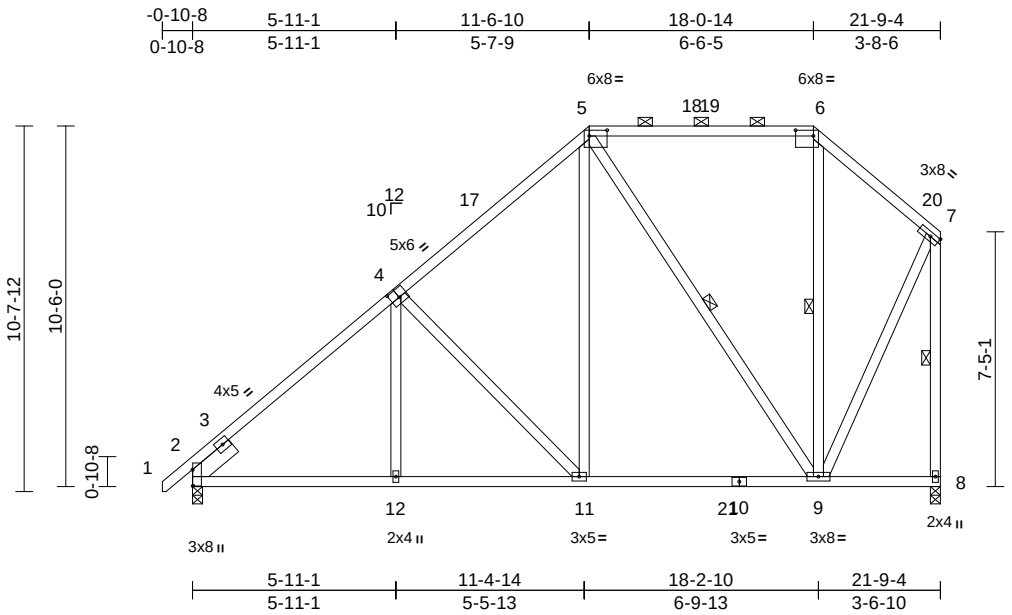

Scale = 1:67.1

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

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	0.69	Vert(LL)	-0.09	9-11	>999	240	MT20	244/190
Snow (Pf/Pg)	18.9/20.0	Lumber DOL	1.15	BC	0.51	Vert(CT)	-0.15	9-11	>999	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.52	Horz(CT)	0.02	8	n/a	n/a		
BCLL	0.0*	Code	IRC2021/TPI2014	Matrix-MSH								
BCDL	10.0										Weight: 165 lb	FT = 20%

LUMBER

TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2
WEBS 2x4 SP No.3 *Except* 9-5:2x4 SP No.2
SLIDER Left 2x6 SP No.2 -- 1-6-0

BRACING

TOP CHORD Structural wood sheathing directly applied or 4-10-15 oc purlins, except end verticals, and 2-0-0 oc purlins (6-0-0 max.): 5-6.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 1 Row at midpt 5-9, 6-9, 7-8

REACTIONS (size) 2=0-3-8, 8=0-3-8
Max Horiz 2=270 (LC 12)
Max Grav 2=1004 (LC 29), 8=958 (LC 3)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/40, 2-5=-1297/204, 5-6=-442/197, 6-7=-599/213, 7-8=-1123/132
BOT CHORD 2-12=-384/1079, 11-12=-311/1079, 9-11=-202/746, 8-9=-119/130
WEBS 4-12=0/184, 4-11=-459/153, 5-11=-29/606, 5-9=-558/116, 6-9=-148/105, 7-9=-122/857

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) and C-C Exterior(2E) -0-9-14 to 2-2-2, Interior (1) 2-2-2 to 11-6-10, Exterior(2R) 11-6-10 to 14-6-10, Interior (1) 14-6-10 to 18-0-14, Exterior(2R) 18-0-14 to 21-0-14, Interior (1) 21-0-14 to 21-7-8 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=1.33
3) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=18.9 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, Lu=50-0-0
4) This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 13.9 psf on overhangs non-concurrent with other live loads.
5) Provide adequate drainage to prevent water ponding.
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) All bearings are assumed to be SP No.2 .
8) 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

January 9,2025

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

Job	Truss	Truss Type	Qty	Ply	131 Hidden Lakes North-Roof-Plan 8 BNS
25010028-01	A13	Piggyback Base Supported Gable	1	1	I70616300 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 10:52:19 Page: 1
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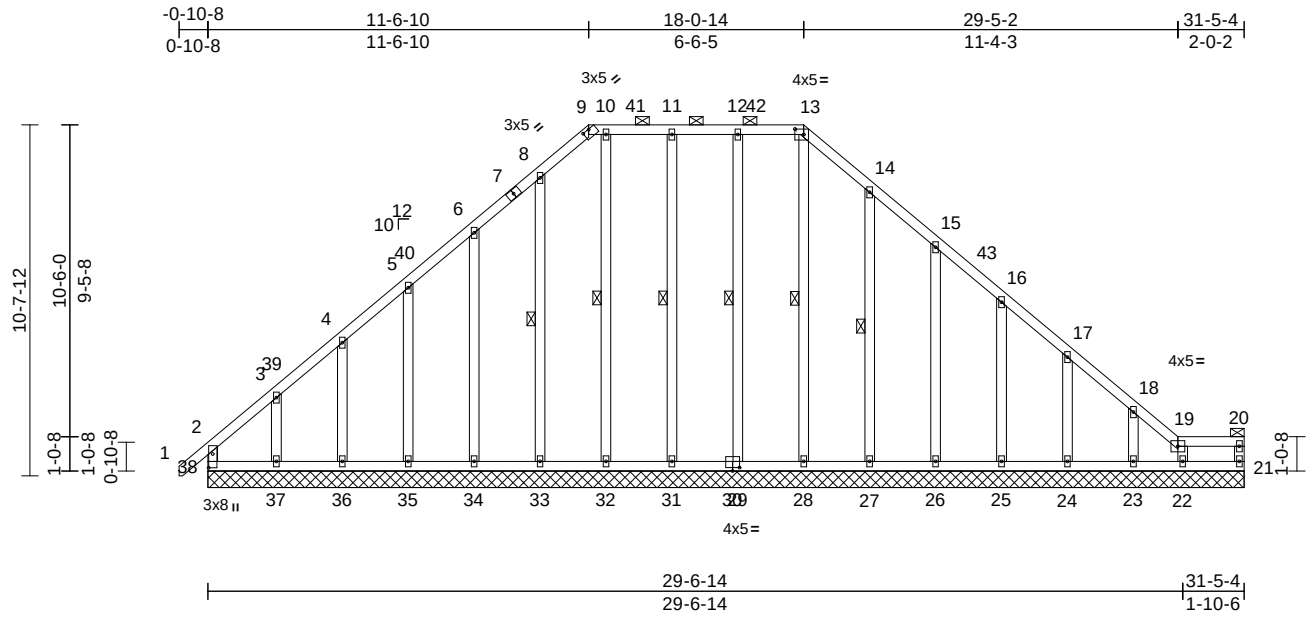

Plate Offsets (X, Y): [9:0-2-8,0-0-3], [13:0-3-4,0-2-0], [30:0-2-8,0-1-4], [38:0-5-0,0-1-8]

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	0.13	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf/Pg)	18.9/20.0	Lumber DOL	1.15	BC	0.08	Vert(CT)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.21	Horz(CT)	0.01	21	n/a	n/a		
BCLL	0.0*	Code	IRC2021/TPI2014	Matrix-MR								
BCDL	10.0										Weight: 244 lb	FT = 20%

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

BRACING
TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals, and 2-0-0 oc purlins (6-0-0 max.): 9-13, 19-20.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing, Except:
6-0-0 oc bracing: 21-22.
WEBS 1 Row at midpt 13-28, 12-29, 11-31, 10-32, 8-33, 14-27

REACTIONS (size) 21=31-5-4, 22=31-5-4, 23=31-5-4, 24=31-5-4, 25=31-5-4, 26=31-5-4, 27=31-5-4, 28=31-5-4, 29=31-5-4, 31=31-5-4, 32=31-5-4, 33=31-5-4, 34=31-5-4, 35=31-5-4, 36=31-5-4, 37=31-5-4, 38=31-5-4
Max Horiz 38=208 (LC 12)
Max Uplift 21=-27 (LC 12), 22=-2 (LC 12), 23=-28 (LC 16), 24=-39 (LC 16), 25=-38 (LC 16), 26=-41 (LC 16), 27=-38 (LC 16), 29=-3 (LC 12), 31=-14 (LC 11), 33=-7 (LC 15), 34=-47 (LC 15), 35=-40 (LC 15), 36=-25 (LC 15), 37=-96 (LC 15), 38=-88 (LC 11)
Max Grav 21=98 (LC 59), 22=174 (LC 45), 23=205 (LC 46), 24=235 (LC 46), 25=229 (LC 46), 26=229 (LC 46), 27=242 (LC 46), 28=150 (LC 64), 29=241 (LC 45), 31=238 (LC 45), 32=186 (LC 65), 33=225 (LC 46), 34=233 (LC 46), 35=228 (LC 46), 36=237 (LC 46), 37=213 (LC 60), 38=215 (LC 34)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 2-38=-179/81, 1-2=0/47, 2-3=-174/153, 3-4=-137/113, 4-5=-139/116, 5-6=-142/170, 6-8=-180/254, 8-9=-195/291, 9-10=-158/256, 10-11=-158/256, 11-12=-158/256, 12-13=-158/256, 13-14=-206/303, 14-15=-167/229, 15-16=-134/151, 16-17=-110/76, 17-18=-119/83, 18-19=-114/95, 19-20=-83/66, 20-21=-86/22
BOT CHORD 37-38=-86/106, 36-37=-86/106, 35-36=-86/106, 34-35=-86/106, 33-34=-86/106, 32-33=-86/106, 31-32=-86/106, 29-31=-86/106, 28-29=-86/106, 27-28=-86/106, 26-27=-86/106, 25-26=-86/106, 24-25=-86/106, 23-24=-86/106, 22-23=-86/106, 21-22=-82/106
WEBS 13-28=-134/36, 12-29=-201/32, 11-31=-199/70, 10-32=-146/30, 8-33=-185/39, 6-34=-213/110, 5-35=-202/92, 4-36=-207/90, 3-37=-166/124, 14-27=-213/91, 15-26=-204/97, 16-25=-202/93, 17-24=-207/94, 18-23=-184/86, 19-22=-134/42

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) and C-C Corner (3E) -0-9-14 to 2-0-14, Exterior(2N) 2-0-14 to 11-6-10, Corner(3R) 11-6-10 to 14-8-5, Exterior(2N) 14-8-5 to 18-0-14, Corner(3R) 18-0-14 to 21-2-10, Exterior(2N) 21-2-10 to 31-3-8 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=1.33
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); Pg=20.0 psf; Pf=18.9 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, Lu=50-0-0
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 2.00 times flat roof load of 13.9 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.

January 9,2025

Continued on page 2

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

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) All bearings are assumed to be SP No.2 .
14) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 88 lb uplift at joint 38, 27 lb uplift at joint 21, 3 lb uplift at joint 29, 14 lb uplift at joint 31, 7 lb uplift at joint 33, 47 lb uplift at joint 34, 40 lb uplift at joint 35, 25 lb uplift at joint 36, 96 lb uplift at joint 37, 38 lb uplift at joint 27, 41 lb uplift at joint 26, 38 lb uplift at joint 25, 39 lb uplift at joint 24, 28 lb uplift at joint 23 and 2 lb uplift at joint 22.
15) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

LOAD CASE(S) Standard

Job	Truss	Truss Type	Qty	Ply	131 Hidden Lakes North-Roof-Plan 8 BNS
25010028-01	A12	Piggyback Base	1	1	I70616301 Job Reference (optional)

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

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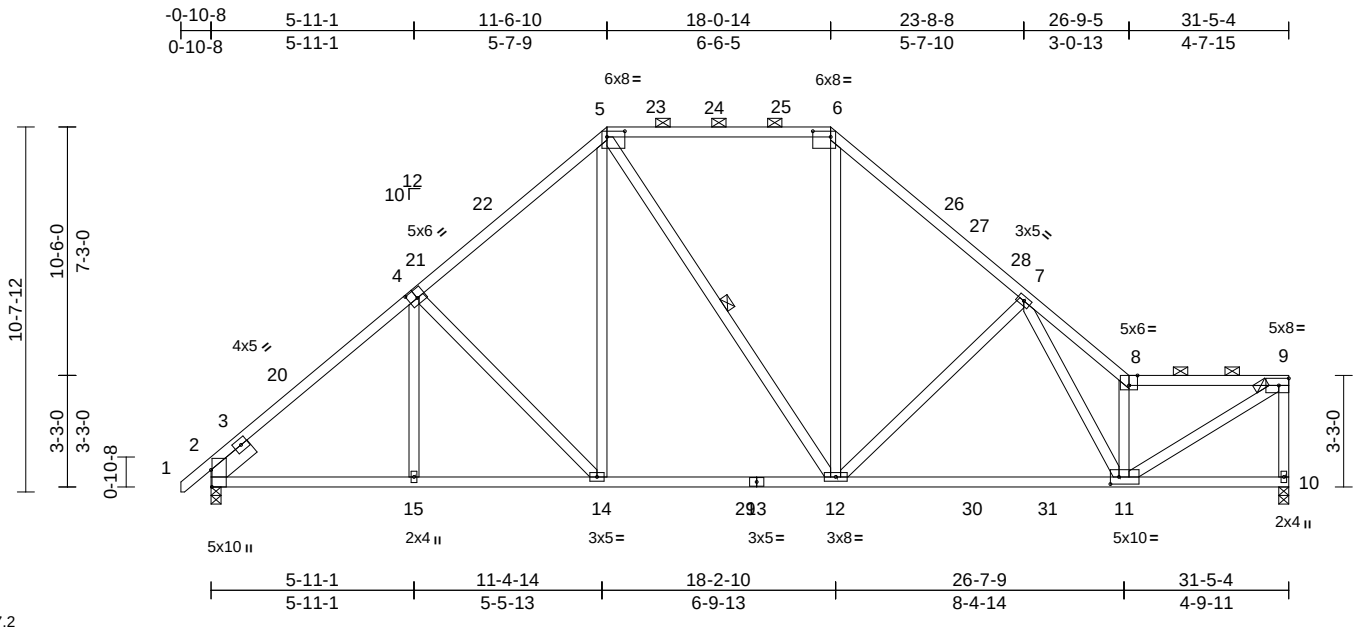
Page: 1



Scale = 1:67.2

Plate Offsets (X, Y): [2:0-5-15,Edge], [4:0-3-0,0-3-0], [5:0-6-4,0-2-0], [6:0-6-4,0-2-0], [8:0-3-0,Edge], [11:0-3-0,0-2-8]

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	0.91	Vert(LL)	-0.21	11-12	>999	240	MT20	244/190
Snow (Pf/Pg)	18.9/20.0	Lumber DOL	1.15	BC	0.92	Vert(CT)	-0.39	11-12	>971	180		
TCDL	10.0	Rep Stress Incr	YES	WB	1.00	Horz(CT)	0.06	10	n/a	n/a		
BCLL	0.0*	Code	IRC2021/TPI2014	Matrix-MSH								
BCDL	10.0										Weight: 210 lb	FT = 20%

LUMBER

TOP CHORD	2x4 SP No.2 *Except* 5-6:2x4 SP No.1
BOT CHORD	2x4 SP No.2
WEBS	2x4 SP No.3 *Except* 12-5:2x4 SP No.2
SLIDER	Left 2x6 SP No.2 -- 1-6-0

BRACING

TOP CHORD	Structural wood sheathing directly applied or 2-2-0 oc purlins, except end verticals, and 2-0-0 oc purlins (2-2-0 max.): 5-6, 8-9.
BOT CHORD	Rigid ceiling directly applied or 2-2-0 oc bracing.
WEBS	1 Row at midpt 5-12

REACTIONS (size) 2=0-3-8, 10=0-3-8
Max Horiz 2=227 (LC 14)
Max Grav 2=1556 (LC 60), 10=1425 (LC 54)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD	1-2=0/40, 2-5=-2197/238, 5-6=-1407/234, 6-7=-1961/230, 7-8=-3020/233, 8-9=-2418/160, 9-10=-1607/116
BOT CHORD	2-15=-227/1657, 14-15=-188/1657, 12-14=-87/1286, 11-12=-175/1917, 10-11=-41/69
WEBS	4-15=0/165, 4-14=-512/143, 5-14=-28/632, 5-12=-79/197, 6-12=-17/797, 8-11=-2039/180, 9-11=-146/2799, 7-12=-812/176, 7-11=-32/999

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) and C-C Exterior(2E) -0-9-14 to 2-3-14, Interior (1) 2-3-14 to 11-6-10, Exterior(2R) 11-6-10 to 14-8-5, Interior (1) 14-8-5 to 18-0-14, Exterior(2R) 18-0-14 to 21-2-10, Interior (1) 21-2-10 to 31-3-8 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=1.33
3) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=18.9 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, Lu=50-0-0
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 2.00 times flat roof load of 13.9 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 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) All bearings are assumed to be SP No.2 .
9) 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

January 9,2025

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

Job	Truss	Truss Type	Qty	Ply	131 Hidden Lakes North-Roof-Plan 8 BNS
25010028-01	A11	Piggyback Base Supported Gable	1	1	I70616302 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 10:52:19 Page: 1
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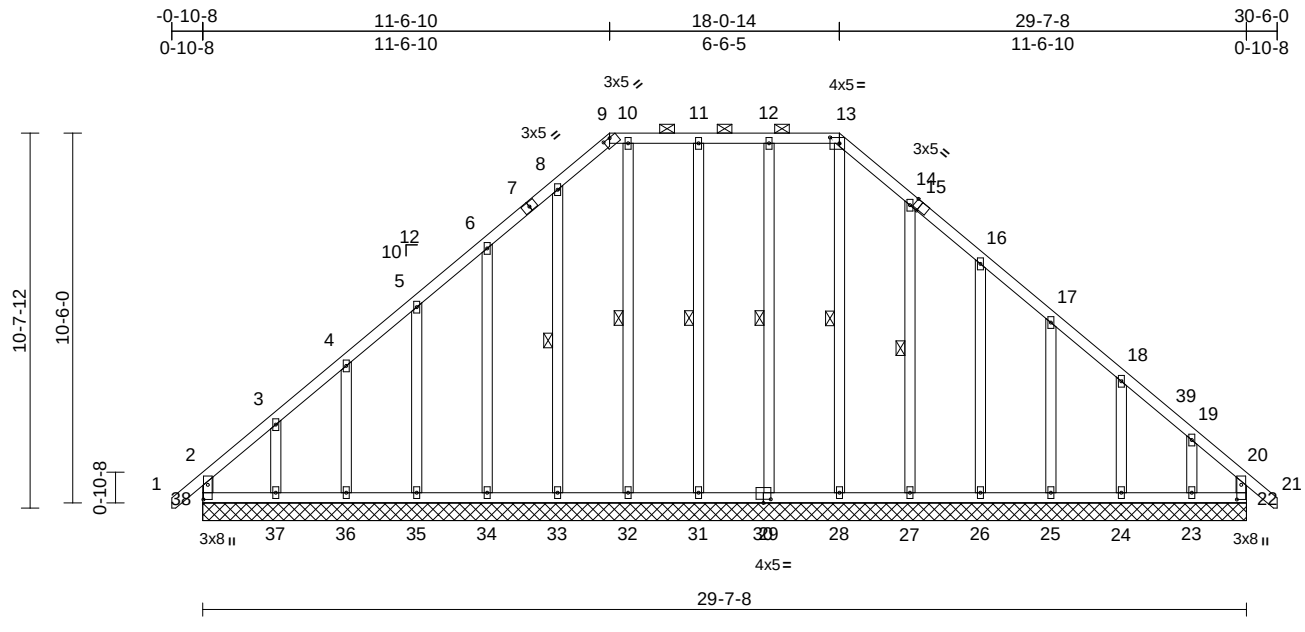

Scale = 1:65.4

Plate Offsets (X, Y): [9:0-2-8,0-0-3], [13:0-3-4,0-2-0], [15:0-2-0,Edge], [22:0-5-0,0-1-8], [30:0-2-8,0-1-4], [38:0-5-0,0-1-8]

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	0.13	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf/Pg)	18.9/20.0	Lumber DOL	1.15	BC	0.08	Vert(CT)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.16	Horz(CT)	0.01	22	n/a	n/a		
BCLL	0.0*	Code	IRC2021/TPI2014	Matrix-MR								
BCDL	10.0										Weight: 240 lb	FT = 20%

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

BRACING
TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals, and 2-0-0 oc purlins (6-0-0 max.): 9-13.
BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.
WEBS 1 Row at midpt 13-28, 12-29, 11-31, 10-32, 8-33, 14-27

REACTIONS (size) 22=29-7-8, 23=29-7-8, 24=29-7-8, 25=29-7-8, 26=29-7-8, 27=29-7-8, 28=29-7-8, 29=29-7-8, 31=29-7-8, 32=29-7-8, 33=29-7-8, 34=29-7-8, 35=29-7-8, 36=29-7-8, 37=29-7-8, 38=29-7-8
Max Horiz 38=-213 (LC 11)
Max Uplift 22=-68 (LC 10), 23=-95 (LC 14), 24=-29 (LC 14), 25=-40 (LC 14), 26=-40 (LC 14), 27=-38 (LC 14), 29=-3 (LC 10), 31=-14 (LC 9), 33=-7 (LC 13), 34=-47 (LC 13), 35=-40 (LC 13), 36=-25 (LC 13), 37=-95 (LC 13), 38=-83 (LC 9)
Max Grav 22=173 (LC 29), 23=174 (LC 30), 24=169 (LC 30), 25=169 (LC 30), 26=168 (LC 30), 27=176 (LC 30), 28=155 (LC 31), 29=167 (LC 35), 31=163 (LC 36), 32=169 (LC 32), 33=167 (LC 29), 34=169 (LC 29), 35=171 (LC 29), 36=162 (LC 35), 37=209 (LC 29), 38=200 (LC 30)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 2-38=-166/76, 1-2=0/47, 2-3=-166/153, 3-4=-115/108, 4-5=-107/110, 5-6=-106/164, 6-8=-153/248, 8-9=-176/286, 9-10=-146/252, 10-11=-146/252, 11-12=-146/252, 12-13=-146/252, 13-14=-182/297, 14-16=-137/223, 16-17=-98/146, 17-18=-86/80, 18-19=-93/84, 19-20=-141/119, 20-21=0/47, 20-22=-142/59
BOT CHORD 37-38=-98/133, 36-37=-98/133, 35-36=-98/133, 34-35=-98/133, 33-34=-98/133, 32-33=-98/133, 31-32=-98/133, 29-31=-98/133, 28-29=-98/133, 27-28=-98/133, 26-27=-98/133, 25-26=-98/133, 24-25=-98/133, 23-24=-98/133, 22-23=-98/133
WEBS 13-28=-131/29, 12-29=-129/31, 11-31=-139/69, 10-32=-130/25, 8-33=-127/39, 6-34=-158/110, 5-35=-150/92, 4-36=-151/90, 3-37=-162/123, 14-27=-156/91, 16-26=-151/97, 17-25=-150/93, 18-24=-155/93, 19-23=-139/113

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) and C-C Corner (3E) -0-9-14 to 2-0-14, Exterior(2N) 2-0-14 to 11-6-10, Corner(3R) 11-6-10 to 14-6-10, Exterior(2N) 14-6-10 to 18-0-14, Corner(3R) 18-0-14 to 21-0-14, Exterior(2N) 21-0-14 to 30-5-6 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.33
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); Pg=20.0 psf; Pf=18.9 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, Lu=50-0-0
5) This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 13.9 psf on overhangs non-concurrent with other live loads.
6) Provide adequate drainage to prevent water ponding.
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 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) All bearings are assumed to be SP No.2 .

January 9,2025

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13) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 83 lb uplift at joint 38, 68 lb uplift at joint 22, 3 lb uplift at joint 29, 14 lb uplift at joint 31, 7 lb uplift at joint 33, 47 lb uplift at joint 34, 40 lb uplift at joint 35, 25 lb uplift at joint 36, 95 lb uplift at joint 37, 38 lb uplift at joint 27, 40 lb uplift at joint 26, 40 lb uplift at joint 25, 29 lb uplift at joint 24 and 95 lb uplift at joint 23.
14) 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	131 Hidden Lakes North-Roof-Plan 8 BNS
25010028-01	A10	Piggyback Base	4	1	I70616303 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 10:52:19 Page: 1
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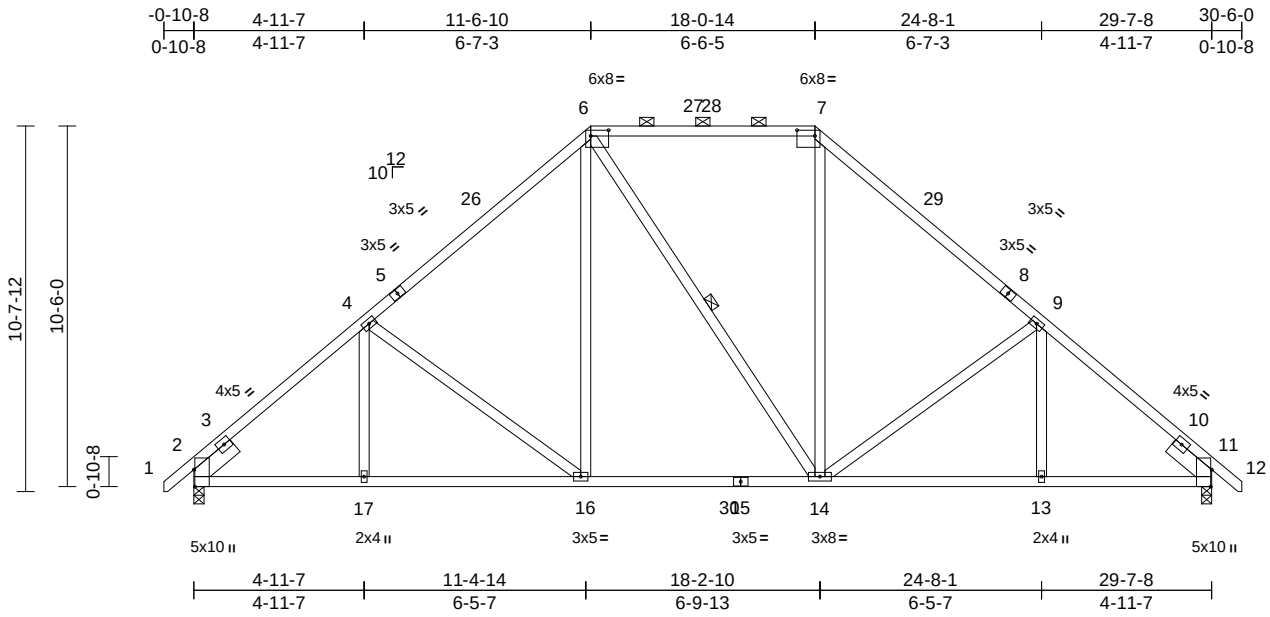

Scale = 1:67.1

Plate Offsets (X, Y): [2:0-5-15,Edge], [6:0-6-4,0-2-0], [7:0-6-4,0-2-0], [11:0-5-15,Edge]

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.81	Vert(LL)	-0.11	14-16	>999	240	MT20	244/190
Snow (Pf/Pg)	18.9/20.0	Lumber DOL	1.15	BC	0.84	Vert(CT)	-0.19	16-17	>999	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.48	Horz(CT)	0.07	11	n/a	n/a		
BCLL	0.0*	Code	IRC2021/TPI2014	Matrix-MSH								
BCDL	10.0										Weight: 192 lb	FT = 20%

LUMBER
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2
WEBS 2x4 SP No.3 *Except* 14-6:2x4 SP No.2
SLIDER Left 2x6 SP No.2 -- 1-6-0, Right 2x6 SP No.2 -- 1-6-0

BRACING
TOP CHORD Structural wood sheathing directly applied or 2-2-0 oc purlins, except 2-0-0 oc purlins (4-7-8 max.): 6-7.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 1 Row at midpt 6-14

REACTIONS (size) 2=0-3-8, 11=0-3-8
Max Horiz 2=-194 (LC 11)
Max Grav 2=1344 (LC 29), 11=1339 (LC 30)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/40, 2-4=-1883/154, 4-6=-1587/215, 6-7=-1161/225, 7-9=-1579/215, 9-11=-1876/154, 11-12=0/40
BOT CHORD 2-17=-117/1363, 16-17=-32/1363, 14-16=0/1030, 13-14=-33/1358, 11-13=-35/1358
WEBS 4-17=0/159, 4-16=-403/144, 6-16=-3/539, 6-14=-117/118, 7-14=-6/523, 9-14=-404/145, 9-13=0/162

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) and C-C Exterior(2E) -0-9-14 to 2-2-2, Interior (1) 2-2-2 to 11-6-10, Exterior(2R) 11-6-10 to 14-6-10, Interior (1) 14-6-10 to 18-0-14, Exterior(2R) 18-0-14 to 21-0-14, Interior (1) 21-0-14 to 30-5-6 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.33
3) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=18.9 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, Lu=50-0-0
4) This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 13.9 psf on overhangs non-concurrent with other live loads.
5) Provide adequate drainage to prevent water ponding.
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) All bearings are assumed to be SP No.2 .
8) 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

January 9,2025

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

Job	Truss	Truss Type	Qty	Ply	131 Hidden Lakes North-Roof-Plan 8 BNS
25010028-01	A09	Piggyback Base	4	1	I70616304 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 10:52:19 Page: 1
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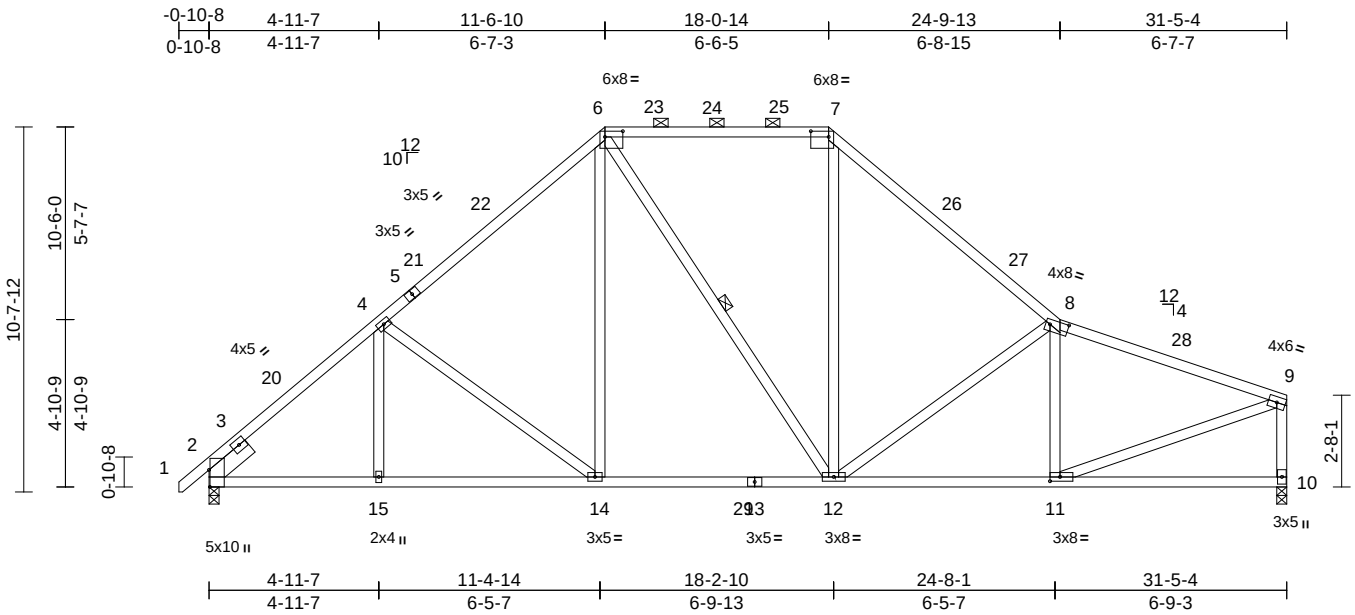

Scale = 1:67.2

Plate Offsets (X, Y): [2:0-5-15,Edge], [6:0-6-4,0-2-0], [7:0-6-4,0-2-0], [8:0-6-8,0-1-12], [11:0-3-8,0-1-8]

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	0.96	Vert(LL)	-0.12	12-14	>999	240	MT20	244/190
Snow (Pf/Pg)	18.9/20.0	Lumber DOL	1.15	BC	0.88	Vert(CT)	-0.21	12-14	>999	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.93	Horz(CT)	0.05	10	n/a	n/a		
BCLL	0.0*	Code	IRC2021/TPI2014	Matrix-MSH								
BCDL	10.0										Weight: 204 lb	FT = 20%

LUMBER
TOP CHORD 2x4 SP No.1 *Except* 7-8:2x4 SP 2400F 2.0E, 8-9,1-5:2x4 SP No.2
BOT CHORD 2x4 SP No.1 *Except* 13-10:2x4 SP No.2
WEBS 2x4 SP No.3 *Except* 12-6:2x4 SP No.2
SLIDER Left 2x6 SP No.2 -- 1-6-0

BRACING
TOP CHORD Structural wood sheathing directly applied, except end verticals, and 2-0-0 oc purlins (3-3-12 max.): 6-7.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 1 Row at midpt 6-12

REACTIONS (size) 2=0-3-8, 10=0-3-8
Max Horiz 2=-188 (LC 13)
Max Grav 2=1533 (LC 60), 10=1356 (LC 3)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/40, 2-4=-2099/298, 4-6=-1773/349, 6-7=-1282/354, 7-8=-1807/341, 8-9=-1992/301, 9-10=-1415/249
BOT CHORD 2-15=-279/1596, 14-15=-279/1596, 12-14=-125/1211, 11-12=-272/1869, 10-11=-42/102
WEBS 4-15=0/149, 4-14=-469/190, 6-14=-30/590, 6-12=-92/189, 7-12=-30/637, 8-12=-773/210, 8-11=-428/174, 9-11=-251/1922

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) and C-C Exterior(2E) -0-9-14 to 2-3-14, Interior (1) 2-3-14 to 11-6-10, Exterior(2R) 11-6-10 to 14-8-5, Interior (1) 14-8-5 to 18-0-14, Exterior(2R) 18-0-14 to 21-2-10, Interior (1) 21-2-10 to 31-3-8 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=1.33
3) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=18.9 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, Lu=50-0-0
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 2.00 times flat roof load of 13.9 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 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) Bearings are assumed to be: Joint 2 SP No.1 , Joint 10 SP No.2 .
9) 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

January 9,2025

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

Job	Truss	Truss Type	Qty	Ply	131 Hidden Lakes North-Roof-Plan 8 BNS
25010028-01	A08	Piggyback Base	1	1	I70616305 Job Reference (optional)

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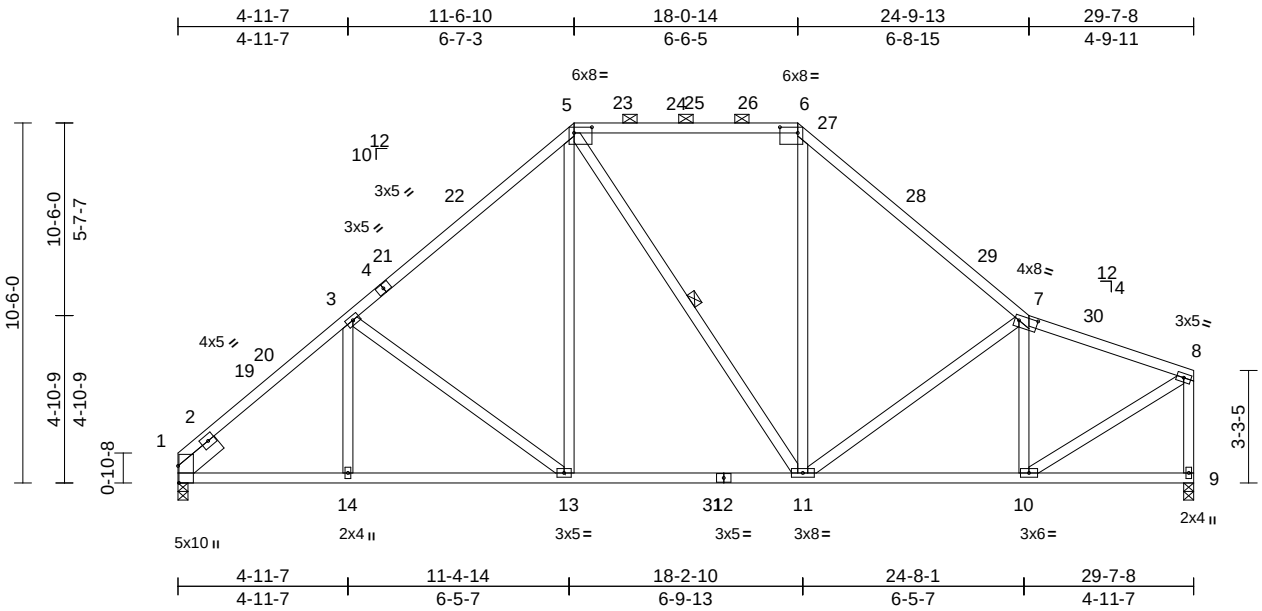

Scale = 1:67.2

Plate Offsets (X, Y): [1:0-5-15,Edge], [5:0-6-4,0-2-0], [6:0-6-4,0-2-0], [7:0-6-8,0-1-12]

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.92	Vert(LL)	-0.10	11-13	>999	240	MT20	244/190
Snow (Pf/Pg)	18.9/20.0	Lumber DOL	1.15	BC	0.77	Vert(CT)	-0.18	13-14	>999	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.60	Horz(CT)	0.04	9	n/a	n/a		
BCLL	0.0*	Code	IRC2021/TPI2014	Matrix-MSH								
BCDL	10.0										Weight: 196 lb	FT = 20%

LUMBER
TOP CHORD 2x4 SP No.1 *Except* 6-7:2x4 SP 2400F 2.0E, 7-8,4-1:2x4 SP No.2
BOT CHORD 2x4 SP No.2 *Except* 12-1:2x4 SP No.1
WEBS 2x4 SP No.3 *Except* 11-5:2x4 SP No.2
SLIDER Left 2x6 SP No.2 -- 1-6-0

BRACING
TOP CHORD Structural wood sheathing directly applied, except end verticals, and 2-0-0 oc purlins (3-9-3 max.): 5-6.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 1 Row at midpt 5-11

REACTIONS (size) 1=0-3-8, 9=0-3-8
Max Horiz 1=-188 (LC 11)
Max Grav 1=1417 (LC 59), 9=1287 (LC 53)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-3=-1980/285, 3-5=-1646/334, 5-6=-1129/333, 6-7=-1605/310, 7-8=-1489/245, 8-9=-1373/228
BOT CHORD 1-14=-296/1524, 13-14=-296/1524, 11-13=-141/1128, 10-11=-225/1397, 9-10=-40/56
WEBS 3-14=0/157, 3-13=-481/191, 5-13=-31/593, 5-11=-125/110, 6-11=-5/507, 7-11=-382/164, 7-10=-666/197, 8-10=-226/1621

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) and C-C Exterior(2E) 0-0-0 to 3-0-0, Interior (1) 3-0-0 to 11-6-10, Exterior(2R) 11-6-10 to 14-6-10, Interior (1) 14-6-10 to 18-0-14, Exterior(2R) 18-0-14 to 21-0-14, Interior (1) 21-0-14 to 29-5-12 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=1.33
3) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=18.9 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, Lu=50-0-0
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 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) Bearings are assumed to be: Joint 1 SP No.1 , Joint 9 SP No.2 .
8) 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

January 9,2025

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

Job	Truss	Truss Type	Qty	Ply	131 Hidden Lakes North-Roof-Plan 8 BNS
25010028-01	A07	Piggyback Base	2	1	I70616306 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 10:52:18 Page: 1
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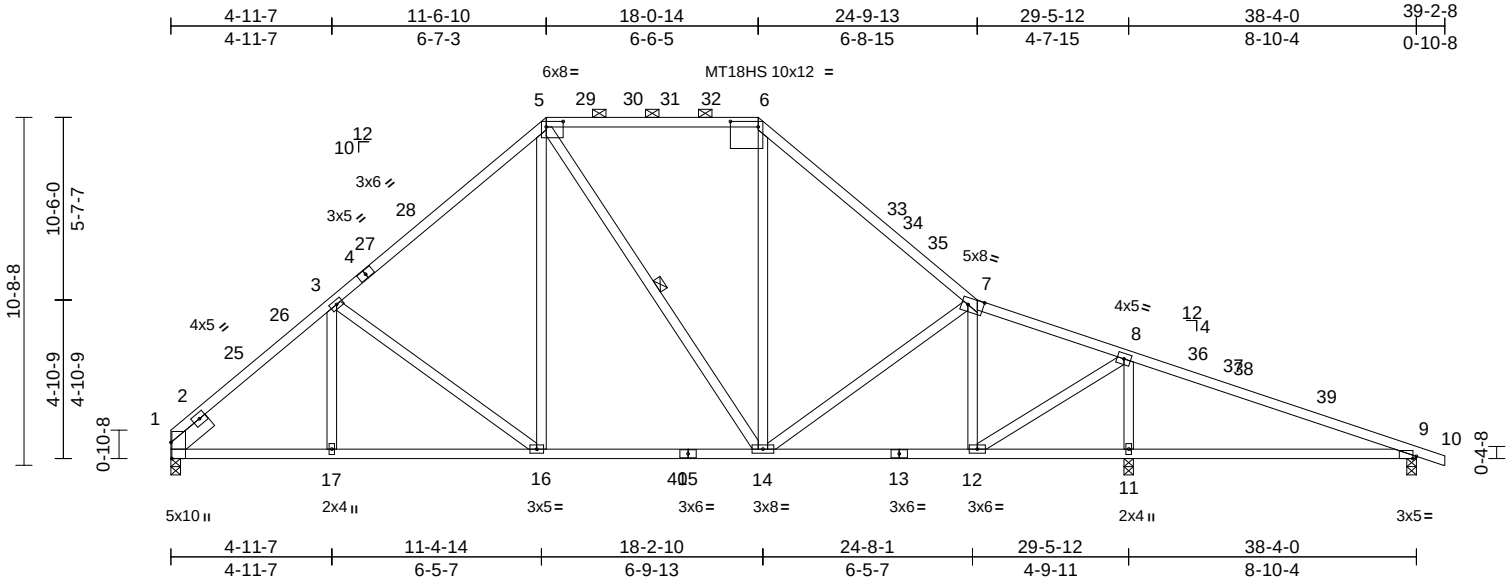

Scale = 1:70.9

Plate Offsets (X, Y): [1:0-5-15,Edge], [5:0-6-4,0-2-0], [6:0-10-4,0-2-0], [7:0-5-12,0-2-8], [9:0-1-5,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	0.74	Vert(LL)	-0.15	11-24	>691	240	MT20	244/190
Snow (Pf/Pg)	18.9/20.0	Lumber DOL	1.15	BC	0.50	Vert(CT)	-0.32	11-24	>332	180	MT18HS	244/190
TCDL	10.0	Rep Stress Incr	NO	WB	0.63	Horz(CT)	0.03	11	n/a	n/a		
BCLL	0.0*	Code	IRC2021/TPI2014	Matrix-MSH								
BCDL	10.0										Weight: 224 lb	FT = 20%

LUMBER
TOP CHORD 2x4 SP 2400F 2.0E
BOT CHORD 2x4 SP 2400F 2.0E
WEBS 2x4 SP No.3 *Except* 14-5:2x4 SP No.2
SLIDER Left 2x6 SP No.2 -- 1-6-0

BRACING
TOP CHORD Structural wood sheathing directly applied or 5-6-9 oc purlins, except
2-0-0 oc purlins (6-0-0 max.): 5-6.
BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.
WEBS 1 Row at midpt 5-14

REACTIONS (size) 1=0-3-8, 9=0-3-8, 11=0-3-8
Max Horiz 1=-199 (LC 11)
Max Uplift 9=-23 (LC 12)
Max Grav 1=1407 (LC 60), 9=388 (LC 68), 11=2417 (LC 3)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-3=-1964/265, 3-5=-1625/311, 5-6=-1112/301, 6-7=-1606/278, 7-8=-1560/148, 8-9=-155/269, 9-10=0/20
BOT CHORD 1-17=-104/1433, 16-17=-104/1433, 14-16=0/1029, 12-14=0/1301, 11-12=-147/84, 9-11=-147/173
WEBS 3-16=-488/201, 5-16=-37/591, 5-14=-141/161, 6-14=0/474, 7-14=-363/74, 7-12=-769/96, 8-12=-62/1660, 8-11=-2263/0, 3-17=0/160

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) and C-C Exterior(2E) 0-0-0 to 3-10-0, Interior (1) 3-10-0 to 11-6-10, Exterior(2R) 11-6-10 to 15-4-10, Interior (1) 15-4-10 to 18-0-14, Exterior(2R) 18-0-14 to 21-10-14, Interior (1) 21-10-14 to 39-2-3 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=1.33
3) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=18.9 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, Lu=50-0-0
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 2.00 times flat roof load of 13.9 psf on overhangs non-concurrent with other live loads.
6) Provide adequate drainage to prevent water ponding.
7) All plates are MT20 plates unless otherwise indicated.
8) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
9) All bearings are assumed to be SP 2400F 2.0E .
10) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 23 lb uplift at joint 9.
11) Load case(s) 1, 2 has/have been modified. Building designer must review loads to verify that they are correct for the intended use of this truss.
12) 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
1) Dead + Snow (balanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (lb/ft)
Vert: 1-5=-48, 5-6=-58, 6-34=-48, 10-38=-48, 18-22=-20
Trapezoidal Loads (lb/ft)
Vert: 34=-68-to-35=-71, 35=-71-to-7=-77, 7=-77-to-8=-95, 8=-95-to-36=-102, 36=-102-to-37=-107, 37=-107-to-38=-108
2) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (lb/ft)
Vert: 1-5=-60, 5-6=-60, 6-34=-60, 10-38=-60, 18-22=-20
Trapezoidal Loads (lb/ft)
Vert: 34=-120-to-35=-123, 35=-123-to-7=-129, 7=-129-to-8=-147, 8=-147-to-36=-155, 36=-155-to-37=-159, 37=-159-to-38=-160

January 9,2025

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

Job	Truss	Truss Type	Qty	Ply	131 Hidden Lakes North-Roof-Plan 8 BNS
25010028-01	A06	Piggyback Base	1	1	I70616307 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 10:52:18 Page: 1
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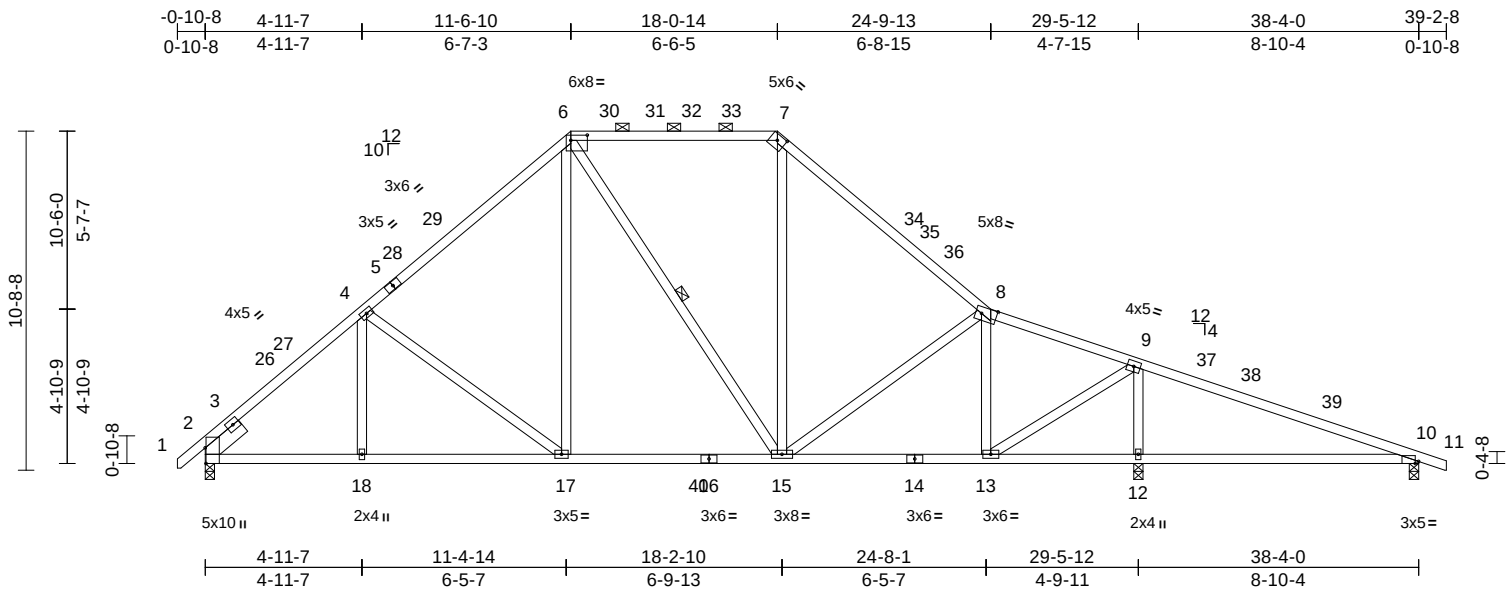

Scale = 1:72.8

Plate Offsets (X, Y): [2:0-5-15,Edge], [6:0-6-4,0-2-0], [7:0-3-2,0-2-2], [8:0-5-12,0-2-8], [10:0-1-5,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	0.92	Vert(LL)	-0.15	12-25	>690	240	MT20	244/190
Snow (Pf/Pg)	18.9/20.0	Lumber DOL	1.15	BC	0.51	Vert(CT)	-0.32	12-25	>331	180		
TCDL	10.0	Rep Stress Incr	NO	WB	0.63	Horz(CT)	0.03	12	n/a	n/a		
BCLL	0.0*	Code	IRC2021/TPI2014	Matrix-MSH								
BCDL	10.0										Weight: 225 lb	FT = 20%

LUMBER
TOP CHORD 2x4 SP 2400F 2.0E *Except* 6-7:2x4 SP No.1
BOT CHORD 2x4 SP 2400F 2.0E
WEBS 2x4 SP No.3 *Except* 15-6:2x4 SP No.2
SLIDER Left 2x6 SP No.2 -- 1-6-0

BRACING
TOP CHORD Structural wood sheathing directly applied or 5-6-0 oc purlins, except 2-0-0 oc purlins (4-0-3 max.): 6-7.
BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.
WEBS 1 Row at midpt 6-15

REACTIONS (size) 2=0-3-8, 10=0-3-8, 12=0-3-8
Max Horiz 2=-198 (LC 13)
Max Uplift 10=-23 (LC 12)
Max Grav 2=1444 (LC 60), 10=385 (LC 68), 12=2421 (LC 3)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/40, 2-4=-1960/259, 4-6=-1622/307, 6-7=-1109/299, 7-8=-1603/277, 8-9=-1553/147, 9-10=-151/279, 10-11=0/20
BOT CHORD 2-18=-103/1429, 17-18=-103/1429, 15-17=0/1026, 13-15=0/1294, 12-13=-156/87, 10-12=-156/170
WEBS 4-17=-487/201, 6-17=-38/591, 6-15=-141/158, 7-15=0/473, 8-15=-361/73, 8-13=-772/96, 9-13=-63/1665, 9-12=-2267/0, 4-18=0/159

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) and C-C Exterior(2E) -0-9-14 to 3-0-2, Interior (1) 3-0-2 to 11-6-10, Exterior(2R) 11-6-10 to 15-4-10, Interior (1) 15-4-10 to 18-0-14, Exterior(2R) 18-0-14 to 21-10-14, Interior (1) 21-10-14 to 39-2-3 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=1.33
3) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=18.9 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, Lu=50-0-0
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 2.00 times flat roof load of 13.9 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 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) All bearings are assumed to be SP 2400F 2.0E .
9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 23 lb uplift at joint 10.
10) Load case(s) 1, 2 has/have been modified. Building designer must review loads to verify that they are correct for the intended use of this truss.
11) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

LOAD CASE(S) Standard
1) Dead + Snow (balanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (lb/ft)
Vert: 1-6=-48, 6-7=-58, 7-35=-48, 11-38=-48, 19-23=-20
Trapezoidal Loads (lb/ft)
Vert: 35=-68-to-36=-71, 36=-71-to-8=-77, 8=-77-to-9=-95, 9=-95-to-37=-102, 37=-102-to-38=-108
2) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (lb/ft)
Vert: 1-6=-60, 6-7=-60, 7-35=-60, 11-38=-60, 19-23=-20
Trapezoidal Loads (lb/ft)
Vert: 35=-120-to-36=-123, 36=-123-to-8=-129, 8=-129-to-9=-147, 9=-147-to-37=-155, 37=-155-to-38=-160

January 9,2025

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

Job	Truss	Truss Type	Qty	Ply	131 Hidden Lakes North-Roof-Plan 8 BNS
25010028-01	A05	Piggyback Base	1	1	I70616308 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 10:52:17 Page: 1
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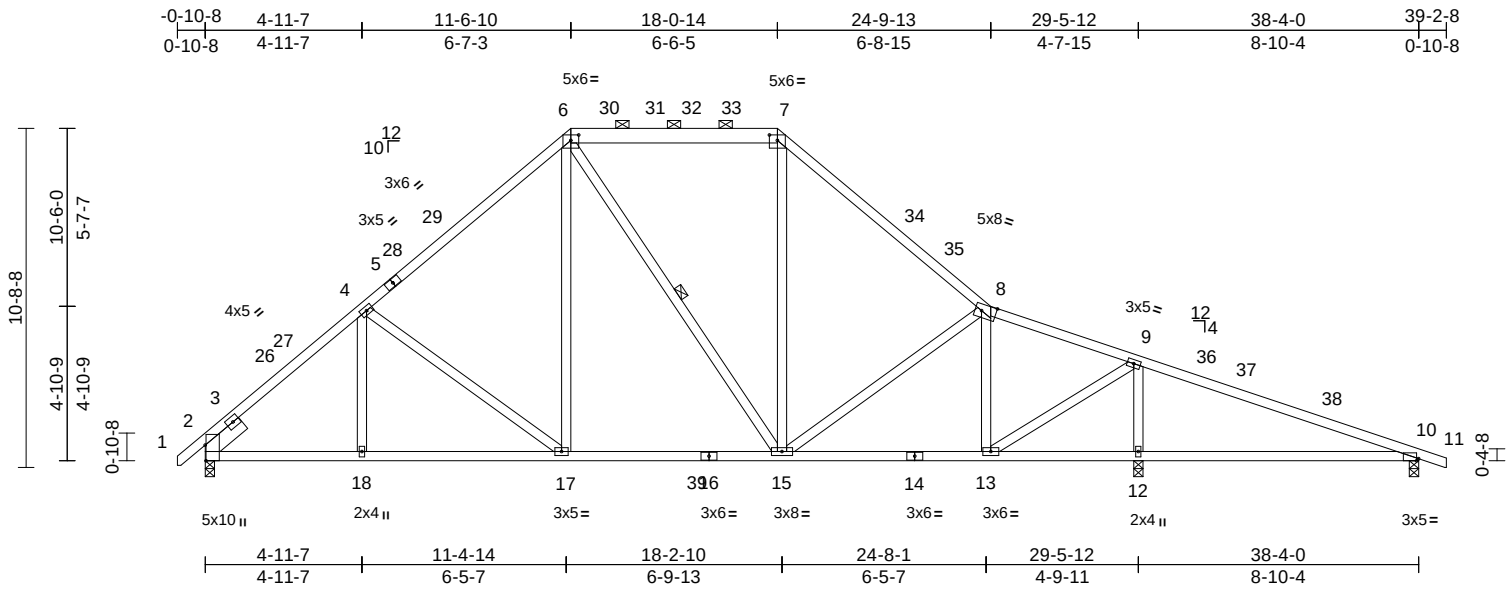

Scale = 1:72.8

Plate Offsets (X, Y): [2:0-5-15,Edge], [6:0-3-0,0-2-1], [7:0-3-0,0-2-1], [8:0-5-8,0-2-8], [10:0-0-13,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	0.56	Vert(LL)	-0.14	12-25	>746	240	MT20	244/190
Snow (Pf/Pg)	18.9/20.0	Lumber DOL	1.15	BC	0.44	Vert(CT)	-0.29	12-25	>372	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.59	Horz(CT)	0.03	12	n/a	n/a		
BCLL	0.0*	Code	IRC2021/TPI2014	Matrix-MSH								
BCDL	10.0										Weight: 231 lb	FT = 20%

LUMBER
TOP CHORD 2x4 SP 2400F 2.0E *Except* 6-7:2x6 SP No.2
BOT CHORD 2x4 SP 2400F 2.0E
WEBS 2x4 SP No.3 *Except* 15-6:2x4 SP No.2
SLIDER Left 2x6 SP No.2 -- 1-6-0

BRACING
TOP CHORD Structural wood sheathing directly applied or 5-8-12 oc purlins, except 2-0-0 oc purlins (6-0-0 max.): 6-7.
BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.
WEBS 1 Row at midpt 6-15

REACTIONS (size) 2=0-3-8, 10=0-3-8, 12=0-3-8
Max Horiz 2=-197 (LC 13)
Max Uplift 10=-48 (LC 12)
Max Grav 2=1423 (LC 60), 10=352 (LC 68), 12=1765 (LC 3)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/40, 2-4=-1931/289, 4-6=-1593/339, 6-7=-1076/341, 7-8=-1523/325, 8-9=-1286/252, 9-10=-148/241, 10-11=0/20
BOT CHORD 2-18=-125/1404, 17-18=-125/1404, 15-17=0/1012, 13-15=-79/1133, 12-13=-166/55, 10-12=-166/151
WEBS 4-17=-473/193, 6-17=-33/583, 6-15=-172/99, 7-15=-13/445, 8-15=-191/151, 8-13=-707/151, 9-13=-155/1555, 9-12=-1629/310, 4-18=0/162

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) and C-C Exterior(2E) -0-9-14 to 3-0-2, Interior (1) 3-0-2 to 11-6-10, Exterior(2R) 11-6-10 to 15-4-10, Interior (1) 15-4-10 to 18-0-14, Exterior(2R) 18-0-14 to 21-10-14, Interior (1) 21-10-14 to 39-2-3 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=1.33
3) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=18.9 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, Lu=50-0-0
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 2.00 times flat roof load of 13.9 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 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) All bearings are assumed to be SP 2400F 2.0E .
9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 48 lb uplift at joint 10.
10) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

LOAD CASE(S) Standard

January 9,2025

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

Job	Truss	Truss Type	Qty	Ply	131 Hidden Lakes North-Roof-Plan 8 BNS
25010028-01	A04	Piggyback Base	3	1	I70616309 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 10:52:17 Page: 1

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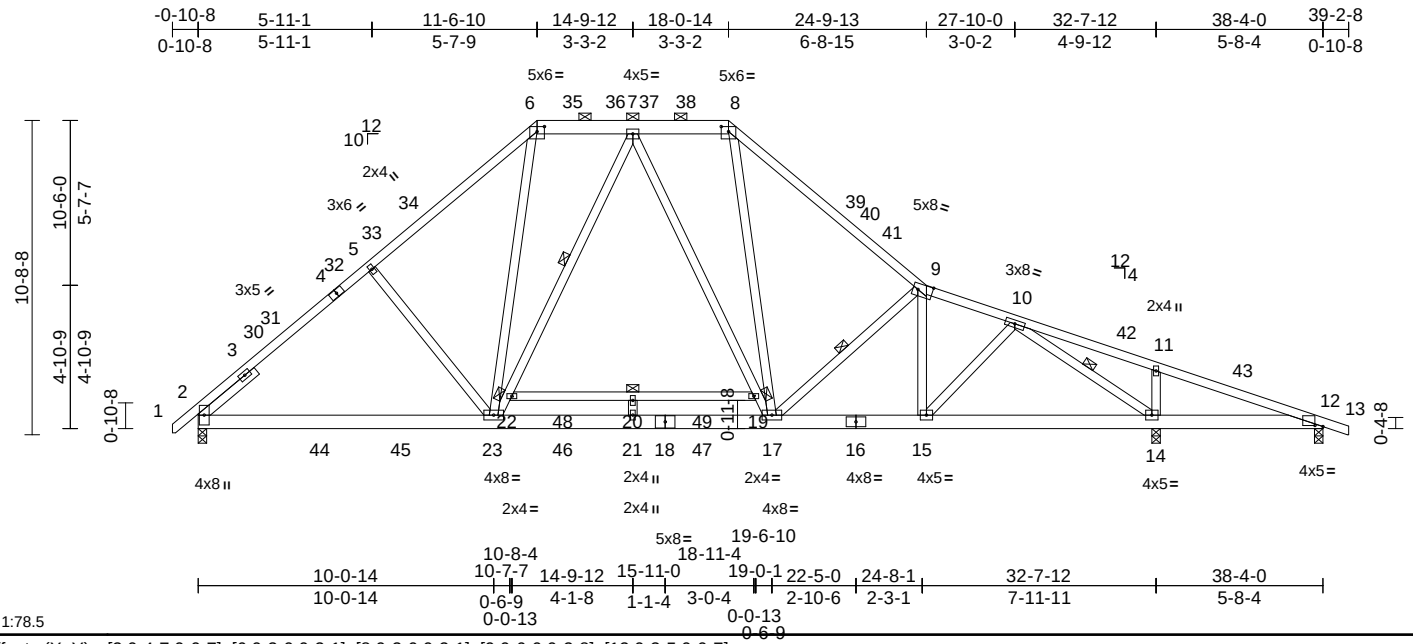

Scale = 1:78.5

Plate Offsets (X, Y): [2:0-4-7,0-0-7], [6:0-3-0,0-2-1], [8:0-3-0,0-2-1], [9:0-6-0,0-2-8], [12:0-3-5,0-0-7]

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.75	Vert(LL)	-0.16	19-20	>999	240	MT20	244/190
Snow (Pf/Pg)	18.9/20.0	Lumber DOL	1.15	BC	0.37	Vert(CT)	-0.29	19-20	>999	180		
TCDL	10.0	Rep Stress Incr	NO	WB	0.79	Horz(CT)	0.04	14	n/a	n/a		
BCLL	0.0*	Code	IRC2021/TPI2014	Matrix-MSH								
BCDL	10.0										Weight: 285 lb	FT = 20%

LUMBER

TOP CHORD 2x4 SP 2400F 2.0E *Except* 6-8:2x6 SP 2400F 2.0E

BOT CHORD 2x6 SP 2400F 2.0E *Except* 22-19:2x4 SP No.2

WEBS 2x4 SP No.3 *Except* 23-7,17-7:2x4 SP No.2

SLIDER Left 2x4 SP No.3 -- 2-6-0

BRACING

TOP CHORD Structural wood sheathing directly applied or 4-4-11 oc purlins, except 2-0-0 oc purlins (6-0-0 max.): 6-8.

BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.

WEBS 1 Row at midpt 9-17, 7-22, 10-14

REACTIONS (size) 2=0-3-8, 12=0-3-8, 14=0-3-8

Max Horiz 2=-197 (LC 13)

Max Uplift 12=-64 (LC 12)

Max Grav 2=1845 (LC 60), 12=110 (LC 68), 14=2692 (LC 3)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=0/40, 2-5=-2514/180, 5-6=-2338/229, 6-7=-1557/247, 7-8=-1755/218, 8-9=-2635/153, 9-10=-2980/9, 10-11=0/422, 11-12=-70/408, 12-13=0/20

BOT CHORD 2-23=-59/1840, 21-23=0/1588, 17-21=0/1588, 15-17=0/2721, 14-15=0/2346, 12-14=-347/75, 20-22=-47/0, 19-20=-47/0

WEBS 5-23=-385/235, 6-23=-7/1061, 8-17=0/1156, 9-17=-1187/32, 9-15=-466/116, 11-14=-592/1, 22-23=-453/30, 7-22=-407/56, 7-19=0/304, 17-19=-87/256, 20-21=-242/0, 10-15=-75/725, 10-14=-3324/0

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) and C-C Exterior(2E) -0-9-14 to 3-0-2, Interior (1) 3-0-2 to 11-6-10, Exterior(2R) 11-6-10 to 15-4-10, Interior (1) 15-4-10 to 18-0-14, Exterior(2R) 18-0-14 to 21-10-14, Interior (1) 21-10-14 to 39-2-3 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=1.33
3) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=18.9 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, Lu=50-0-0
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 2.00 times flat roof load of 13.9 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 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) All bearings are assumed to be SP 2400F 2.0E .
9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 64 lb uplift at joint 12.
10) Load case(s) 1, 2 has/have been modified. Building designer must review loads to verify that they are correct for the intended use of this truss.
11) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

LOAD CASE(S) Standard

1) Dead + Snow (balanced): Lumber Increase=1.15, Plate Increase=1.15
   Uniform Loads (lb/ft)
   Vert: 1-6=-48, 6-8=-58, 8-40=-48, 11-13=-48, 12-24=-20, 19-22=-20
   Trapezoidal Loads (lb/ft)
   Vert: 40=-68-to-41=-71, 41=-71-to-9=-77, 9=-77-to-10=-89, 10=-89-to-42=-102, 42=-102-to-11=-107
2) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
   Uniform Loads (lb/ft)
   Vert: 1-6=-60, 6-8=-60, 8-40=-60, 11-13=-60, 12-24=-20, 19-22=-20
   Trapezoidal Loads (lb/ft)
   Vert: 40=-120-to-41=-123, 41=-123-to-9=-129, 9=-129-to-10=-141, 10=-141-to-42=-155, 42=-155-to-11=-159

January 9,2025

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

Job	Truss	Truss Type	Qty	Ply	131 Hidden Lakes North-Roof-Plan 8 BNS
25010028-01	A03	Piggyback Base	3	1	I70616310 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 10:52:17 Page: 1
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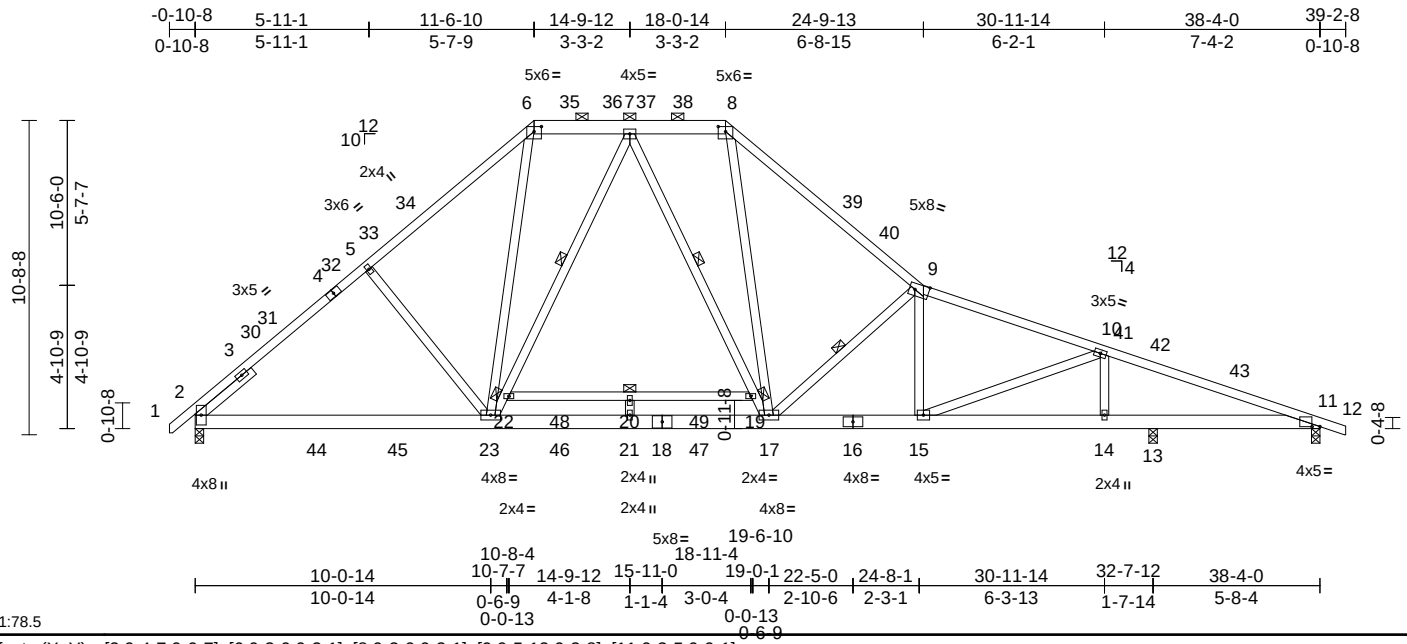


Scale = 1:78.5

Plate Offsets (X, Y): [2:0-4-7,0-0-7], [6:0-3-0,0-2-1], [8:0-3-0,0-2-1], [9:0-5-12,0-2-8], [11:0-3-5,0-0-1]

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	0.63	Vert(LL)	-0.19	19-20	>999	240	MT20	244/190
Snow (Pf/Pg)	18.9/20.0	Lumber DOL	1.15	BC	0.60	Vert(CT)	-0.34	19-20	>999	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.52	Horz(CT)	0.05	11	n/a	n/a		
BCLL	0.0*	Code	IRC2021/TPI2014	Matrix-MSH								
BCDL	10.0										Weight: 281 lb	FT = 20%

LUMBER
TOP CHORD 2x4 SP 2400F 2.0E *Except* 6-8:2x6 SP No.2
BOT CHORD 2x6 SP 2400F 2.0E *Except* 22-19:2x4 SP No.2
WEBS 2x4 SP No.3 *Except* 23-7,17-7:2x4 SP No.2
SLIDER Left 2x4 SP No.3 -- 2-6-0

BRACING
TOP CHORD Structural wood sheathing directly applied or 4-3-7 oc purlins, except 2-0-0 oc purlins (5-4-8 max.): 6-8.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing, Except: 6-0-0 oc bracing: 20-22,19-20.
WEBS 1 Row at midpt 9-17, 7-22, 7-19

REACTIONS (size) 2=0-3-8, 11=0-3-8, 13=0-3-8
Max Horiz 2=-197 (LC 13)
Max Uplift 11=-7 (LC 12)
Max Grav 2=1871 (LC 60), 11=586 (LC 3), 13=1483 (LC 3)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/40, 2-5=-2570/265, 5-6=-2395/315, 6-7=-1593/305, 7-8=-1785/332, 8-9=-2656/315, 9-10=-3036/328, 10-11=-1798/187, 11-12=0/20
BOT CHORD 2-23=-90/1882, 21-23=0/1608, 17-21=0/1608, 15-17=-159/2818, 14-15=-98/1639, 13-14=-98/1639, 11-13=-98/1639, 20-22=-49/0, 19-20=-49/0
WEBS 5-23=-386/232, 6-23=-59/1076, 8-17=-18/1197, 9-17=-1289/281, 9-15=-217/51, 10-15=-68/1364, 10-14=-1199/210, 22-23=-429/71, 7-22=-367/97, 7-19=-60/304, 17-19=-109/213, 20-21=-241/0

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) and C-C Exterior(2E) -0-9-14 to 3-0-2, Interior (1) 3-0-2 to 11-6-10, Exterior(2R) 11-6-10 to 15-4-10, Interior (1) 15-4-10 to 18-0-14, Exterior(2R) 18-0-14 to 21-10-14, Interior (1) 21-10-14 to 39-2-3 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=1.33
3) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=18.9 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, Lu=50-0-0
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 2.00 times flat roof load of 13.9 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 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) All bearings are assumed to be SP 2400F 2.0E .
9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 7 lb uplift at joint 11.
10) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

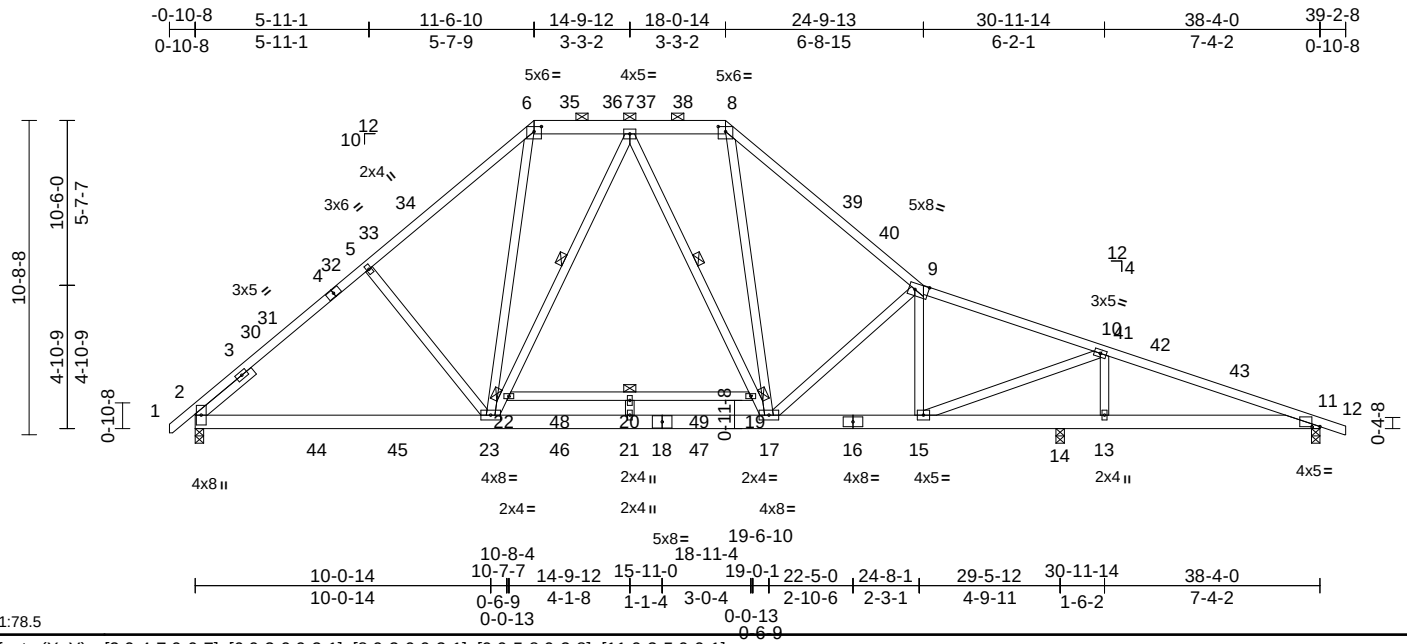
LOAD CASE(S) Standard

January 9,2025

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

Job	Truss	Truss Type	Qty	Ply	131 Hidden Lakes North-Roof-Plan 8 BNS
25010028-01	A02	Piggyback Base	2	1	I70616311 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 10:52:17 Page: 1
ID:MWoy01pDqO4gVE2jqoTOR9yStn6-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f



Scale = 1:78.5

Plate Offsets (X, Y): [2:0-4-7,0-0-7], [6:0-3-0,0-2-1], [8:0-3-0,0-2-1], [9:0-5-8,0-2-8], [11:0-3-5,0-0-1]

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	0.59	Vert(LL)	-0.15	19-20	>999	240	MT20	244/190
Snow (Pf/Pg)	18.9/20.0	Lumber DOL	1.15	BC	0.62	Vert(CT)	-0.27	19-20	>999	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.44	Horz(CT)	0.03	11	n/a	n/a		
BCLL	0.0*	Code	IRC2021/TPI2014	Matrix-MSH								
BCDL	10.0										Weight: 281 lb	FT = 20%

LUMBER
TOP CHORD 2x4 SP 2400F 2.0E *Except* 6-8:2x6 SP No.2
BOT CHORD 2x6 SP 2400F 2.0E *Except* 22-19:2x4 SP No.2
WEBS 2x4 SP No.3 *Except* 23-7,17-7:2x4 SP No.2
SLIDER Left 2x4 SP No.3 -- 2-6-0

BRACING
TOP CHORD Structural wood sheathing directly applied or 4-9-9 oc purlins, except 2-0-0 oc purlins (5-10-2 max.): 6-8.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing, Except: 6-0-0 oc bracing: 20-22,19-20.
WEBS 1 Row at midpt 7-22, 7-19

REACTIONS (size) 2=0-3-8, 11=0-3-8, 14=0-3-8
Max Horiz 2=-197 (LC 13)
Max Uplift 11=-19 (LC 12)
Max Grav 2=1740 (LC 60), 11=658 (LC 3), 14=1549 (LC 3)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/40, 2-5=-2348/250, 5-6=-2173/300, 6-7=-1442/295, 7-8=-1507/314, 8-9=-2244/287, 9-10=-2023/254, 10-11=-1033/158, 11-12=0/20
BOT CHORD 2-23=-84/1716, 21-23=0/1395, 17-21=0/1395, 15-17=-89/1831, 14-15=-73/944, 13-14=-73/944, 11-13=-73/944, 20-22=-49/0, 19-20=-49/0
WEBS 5-23=-393/233, 6-23=-50/939, 8-17=0/931, 9-17=-393/216, 9-15=-834/98, 10-15=-21/1119, 10-13=-1075/185, 22-23=-313/88, 7-22=-266/114, 7-19=-143/173, 17-19=-206/118, 20-21=-246/0

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) and C-C Exterior(2E) -0-9-14 to 3-0-2, Interior (1) 3-0-2 to 11-6-10, Exterior(2R) 11-6-10 to 15-4-10, Interior (1) 15-4-10 to 18-0-14, Exterior(2R) 18-0-14 to 21-10-14, Interior (1) 21-10-14 to 39-2-3 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=1.33
3) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=18.9 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, Lu=50-0-0
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 2.00 times flat roof load of 13.9 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 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) All bearings are assumed to be SP 2400F 2.0E .
9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 19 lb uplift at joint 11.
10) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

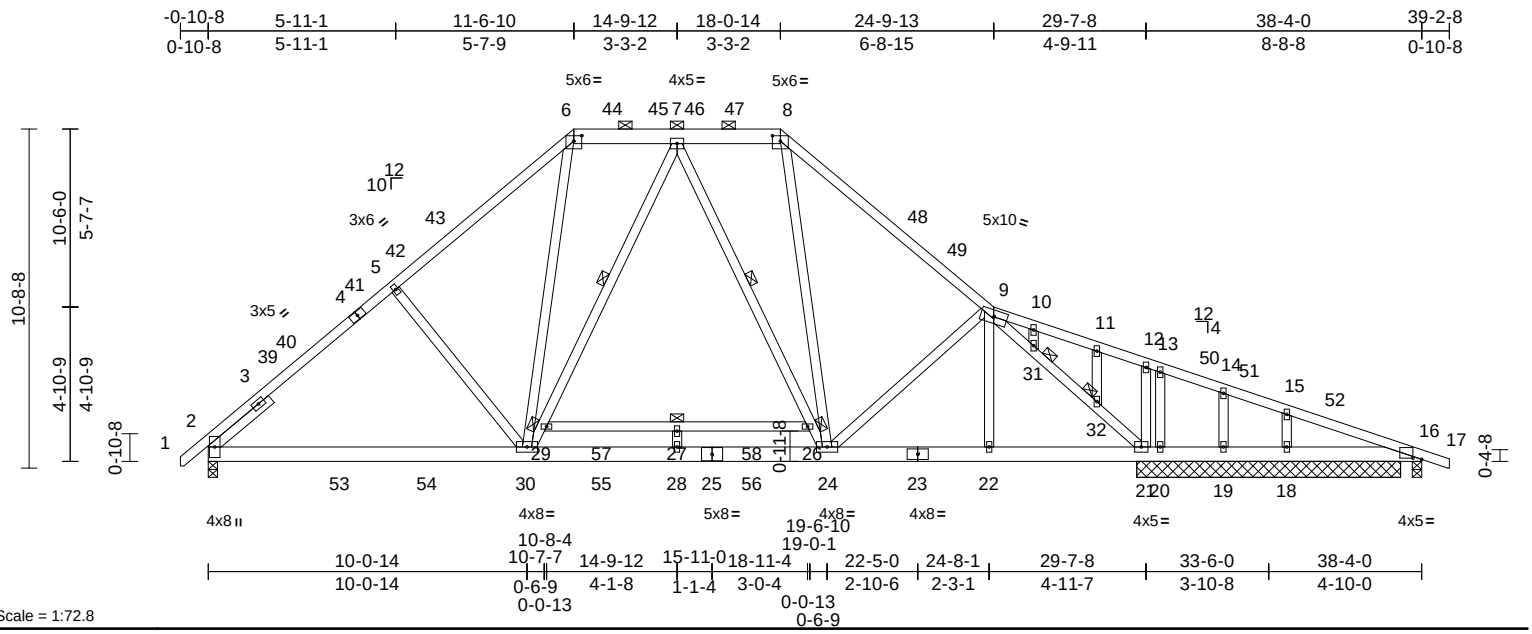
LOAD CASE(S) Standard

January 9,2025

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

Job	Truss	Truss Type	Qty	Ply	131 Hidden Lakes North-Roof-Plan 8 BNS
25010028-01	A01	Piggyback Base	1	1	I70616312 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 10:52:15 Page: 1
ID:W66ZyDGUHtdTlz_MXhi8wtyStqO-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f



Scale = 1:72.8

Plate Offsets (X, Y): [2:0-4-7,0-0-7], [6:0-3-0,0-2-1], [8:0-3-0,0-2-1], [16:0-3-5,0-0-7]

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.94	Vert(LL)	-0.18	27	>999	240	MT20	244/190
Snow (Pf/Pg)	18.9/20.0	Lumber DOL	1.15	BC	0.77	Vert(CT)	-0.30	27	>999	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.44	Horz(CT)	0.04	21	n/a	n/a		
BCLL	0.0*	Code	IRC2021/TPI2014	Matrix-MSH								
BCDL	10.0										Weight: 293 lb	FT = 20%

LUMBER
TOP CHORD 2x4 SP No.2 *Except* 4-6:2x4 SP 2400F 2.0E, 6-8:2x6 SP No.2, 8-9:2x4 SP No.1
BOT CHORD 2x6 SP No.2 *Except* 29-26:2x4 SP No.2
WEBS 2x4 SP No.3 *Except* 24-7,30-7:2x4 SP No.2
OTHERS 2x4 SP No.3
SLIDER Left 2x4 SP No.3 -- 2-6-0

BRACING
TOP CHORD Structural wood sheathing directly applied, except 2-0-0 oc purlins (6-0-0 max.): 6-8.
BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.
WEBS 1 Row at midpt 9-32, 7-26, 7-29
JOINTS 1 Brace at Jt(s): 29, 26, 32

REACTIONS (size) 2=0-3-8, 16=0-3-8, 18=8-4-0, 19=8-4-0, 20=8-4-0, 21=8-4-0
Max Horiz 2=-197 (LC 13)
Max Uplift 16=-35 (LC 12), 18=-18 (LC 16), 19=-2 (LC 16), 20=-719 (LC 3)
Max Grav 2=1644 (LC 60), 16=135 (LC 68), 18=361 (LC 70), 19=106 (LC 44), 20=-103 (LC 12), 21=2467 (LC 3)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/40, 2-5=-2187/234, 5-6=-2012/283, 6-7=-1332/282, 7-8=-1280/289, 8-9=-1914/250, 9-10=0/395, 10-11=0/330, 11-12=0/335, 12-13=0/359, 13-14=-6/336, 14-15=-27/335, 15-16=-88/359, 16-17=0/20
BOT CHORD 2-30=-85/1594, 28-30=0/1231, 24-28=0/1231, 22-24=-37/1321, 21-22=-39/1322, 20-21=-334/101, 19-20=-334/101, 18-19=-334/101, 16-18=-335/102, 27-29=-52/0, 26-27=-52/0
WEBS 5-30=-395/234, 6-30=-41/840, 8-24=0/728, 9-24=-104/185, 9-22=-31/38, 9-31=-2334/195, 31-32=-2218/169, 21-32=-2271/187, 12-21=-389/90, 7-26=-220/98, 24-26=-319/69, 29-30=-217/99, 7-29=-166/178, 27-28=-225/0, 10-31=-40/172, 11-32=-78/28, 13-20=-19/119, 14-19=-95/44, 15-18=-202/79

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) and C-C Exterior(2E) -0-9-14 to 3-0-2, Interior (1) 3-0-2 to 11-6-10, Exterior(2R) 11-6-10 to 15-4-10, Interior (1) 15-4-10 to 18-0-14, Exterior(2R) 18-0-14 to 21-10-14, Interior (1) 21-10-14 to 39-2-3 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=1.33
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); Pg=20.0 psf; Pf=18.9 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, Lu=50-0-0
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 2.00 times flat roof load of 13.9 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 studs spaced at 2-0-0 oc.
10) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
11) All bearings are assumed to be SP No.2 .
12) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 719 lb uplift at joint 20, 2 lb uplift at joint 19, 18 lb uplift at joint 18 and 35 lb uplift at joint 16.
13) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

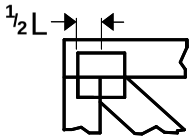
LOAD CASE(S) Standard

January 9,2025

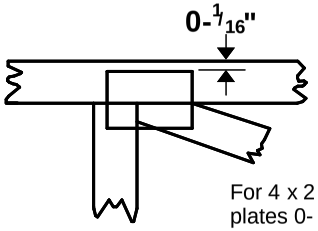
ENGINEERING BY TRENCO
A MiTek Affiliate
818 Soundside Road
Edenton, NC 27932

Symbols

PLATE LOCATION AND ORIENTATION



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



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

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

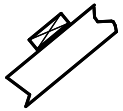
* Plate location details available in MiTek software or upon request.

PLATE SIZE

4 x 4

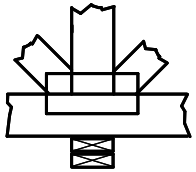
The first dimension is the plate width measured perpendicular to slots. Second dimension is the length parallel to slots.

LATERAL BRACING LOCATION



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

BEARING

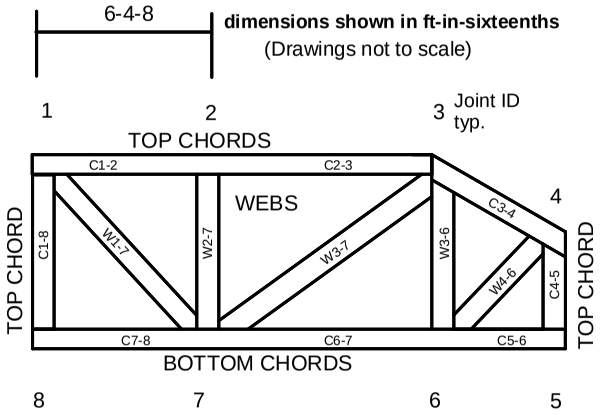


Indicates location where bearings (supports) occur. Icons vary but reaction section indicates joint number/letter where bearings occur. Min size shown is for crushing only.

Industry Standards:

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

Numbering System



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

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

Product Code Approvals

ICC-ES Reports:

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

Design General Notes

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

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

MiTek®

ENGINEERING BY TRENCO
A MiTek Affiliate

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

General Safety Notes

Failure to Follow Could Cause Property Damage or Personal Injury

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