



**Trenco**  
818 Soundside Rd  
Edenton, NC 27932

Re: P-9669-1  
Cooley v2-Roof

The truss drawing(s) referenced below have been prepared by Truss Engineering Co. under my direct supervision based on the parameters provided by Peak Truss Builders, LLC.

Pages or sheets covered by this seal: I59530078 thru I59530078

My license renewal date for the state of North Carolina is December 31, 2023.

North Carolina COA: C-0844

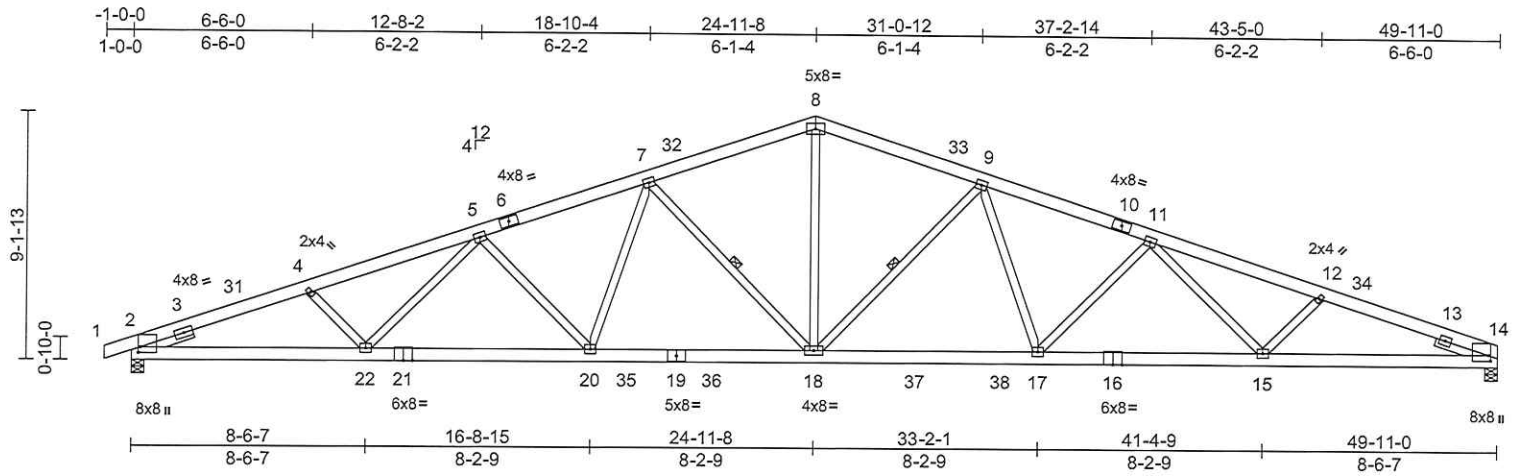


July 17, 2023

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 P-9669-1	Truss T1	Truss Type Common	Qty 24	Ply 1	Cooley v2-Roof	159530078
Peak Truss Builders, LLC, New Hill, NC - 27562,						Job Reference (optional)



Scale = 1:84.5  
 Plate Offsets (X, Y): [2:0-2-8,0-0-14], [14:0-2-8,0-0-14]

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.85	Vert(LL)	-0.31	18	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.88	Vert(CT)	-0.62	17-18	>956	180		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.63	Horz(CT)	0.18	14	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-MS								
											Weight: 350 lb	FT = 20%

**LUMBER**  
 TOP CHORD 2x6 SP No.2  
 BOT CHORD 2x6 SP No.1 \*Except\* 19-16,21-19:2x6 SP No.2  
 WEBS 2x4 SP No.3  
 SLIDER Left 2x4 SP No.3 - 2-0-0, Right 2x4 SP No.3 - 2-0-0

**BRACING**  
 TOP CHORD Structural wood sheathing directly applied or 2-2-0 oc purlins.  
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.  
 WEBS 1 Row at midpt 9-18, 7-18

**REACTIONS**  
 (size) 2=0-5-8, 14=0-5-8  
 Max Horiz 2=96 (LC 10)  
 Max Uplift 2=-287 (LC 11), 14=-243 (LC 11)  
 Max Grav 2=2053 (LC 1), 14=1977 (LC 1)

**FORCES**  
 (lb) - Maximum Compression/Maximum Tension  
 TOP CHORD 1-2=0/23, 2-4=-4473/588, 4-5=-4357/568, 5-7=-3928/563, 7-8=-3053/493, 8-9=-3053/493, 9-11=-3929/564, 11-12=-4367/574, 12-14=-4485/595  
 BOT CHORD 2-22=-500/4144, 20-22=-452/4029, 18-20=-339/3471, 17-18=-340/3472, 15-17=-455/4033, 14-15=-508/4157  
 WEBS 8-18=-180/1527, 9-18=-960/191, 9-17=-27/656, 11-17=-577/161, 11-15=0/207, 12-15=-110/114, 4-22=-105/111, 5-22=0/200, 5-20=-574/159, 7-20=-26/654, 7-18=-958/189

- 2) Wind: ASCE 7-10; Vult=120mph (3-second gust) Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; B=20ft; L=50ft; eave=6ft; Cat. II; Exp B; Enclosed; MWFRS (directional) and C-C Exterior (2) -1-0-0 to 3-11-14, Interior (1) 3-11-14 to 24-11-8, Exterior (2) 24-11-8 to 29-11-6, Interior (1) 29-11-6 to 49-8-4 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - 3) All plates are 4x5 MT20 unless otherwise indicated.
  - 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, with BCDL = 10.0psf.
  - 5) All bearings are assumed to be SP No.3 crushing capacity of 565 psi.
  - 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 287 lb uplift at joint 2 and 243 lb uplift at joint 14.
  - 7) This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- LOAD CASE(S)** Standard

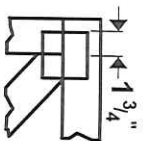


**NOTES**  
 1) Unbalanced roof live loads have been considered for this design.

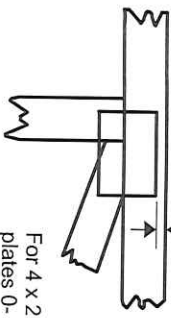


# Symbols

## 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 20/20 software or upon request.

## PLATE SIZE

4 X 4

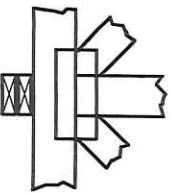
The first dimension is the plate width measured perpendicular to slots. Second dimension is the length parallel to slots.

## 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



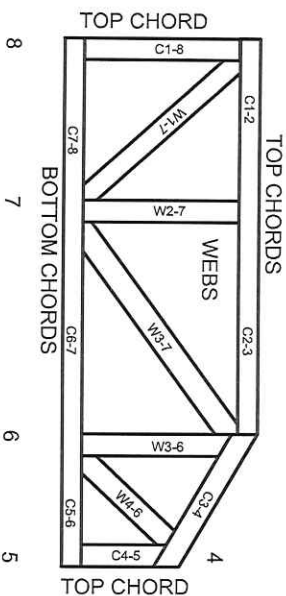
Indicates location where bearings (supports) occur. Icons vary but reaction section indicates joint number where bearings occur. Min size shown is for crushing only.

## Industry Standards:

ANSI/TP11: National Design Specification for Metal Plate Connected Wood Truss Construction.  
DSB-89: Design Standard for Bracing.  
BCSI: Building Component Safety Information, Guide to Good Practice for Handling, Installing & Bracing of Metal Plate Connected Wood Trusses.

# Numbering System

6-4-8 dimensions shown in ft-in-sixteenths (Drawings not to scale)



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-1311, ESR-1352, ESR1988  
ER-3907, ESR-2362, ESR-1397, ESR-3282

Trusses are designed for wind loads in the plane of the truss unless otherwise shown.  
Lumber design values are in accordance with ANSI/TP1 section 6.3 These truss designs rely on lumber values established by others.

© 2012 MITek® All Rights Reserved



MITek Engineering Reference Sheet: MII-7473 rev. 5/19/2020



# 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 warps at joint locations are regulated by ANSI/TP1.
7. Design assumes trusses will be suitably protected from the environment in accord with ANSI/TP1.
8. Unless otherwise noted, moisture content of lumber shall not exceed 19% at time of fabrication.
9. Unless expressly noted, this design is not applicable for use with fire retardant, preservative treated, or green lumber.
10. Camber is a non-structural consideration and is the responsibility of truss fabricator. General practice is to camber for dead load deflection.
11. Plate type, size, orientation and location dimensions indicated are minimum plating requirements.
12. Lumber used shall be of the species and size, and in all respects, equal to or better than that specified.
13. Top chords must be sheathed or purlins provided at spacing indicated on design.
14. Bottom chords require lateral bracing at 10 ft. spacing, or less, if no ceiling is installed, unless otherwise noted.
15. Connections not shown are the responsibility of others.
16. Do not cut or alter truss member or plate without prior approval of an engineer.
17. Install and load vertically unless indicated otherwise.
18. Use of green or treated lumber may pose unacceptable environmental, health or performance risks. Consult with project engineer before use.
19. Review all portions of this design (front, back, words and pictures) before use. Reviewing pictures alone is not sufficient.
20. Design assumes manufacture in accordance with ANSI/TP1 Quality Criteria.
21. The design does not take into account any dynamic or other loads other than those expressly stated.

**Trenco**  
818 Soundside Rd  
Edenton, NC 27932

Re: P-9669-1  
Cooley v2-Roof

The truss drawing(s) referenced below have been prepared by Truss Engineering Co. under my direct supervision based on the parameters provided by Peak Truss Builders, LLC.

Pages or sheets covered by this seal: I59431394 thru I59431407

My license renewal date for the state of North Carolina is December 31, 2023.

North Carolina COA: C-0844



July 11, 2023

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	Cooley v2-Roof	
P-9669-1	T1GE	Common Supported Gable	2	1		159431394
					Job Reference (optional)	

Peak Truss Builders, LLC, New Hill, NC - 27562,

Run: 8.63 S Apr 6 2023 Print: 8.630 S Apr 6 2023 MiTek Industries, Inc. Mon Jul 10 11:26:52  
 ID:1F1vYQZ\_JrOv4JZ3J?pv4Izb\_pZ-RfC?PsB70Hq3NSgPqnL8w3ulTXbGKWrCdoi7J4zJC?f

Page: 2

- 2) Wind: ASCE 7-10; Vult=120mph (3-second gust)  
 Vasd=95mph; TC DL=6.0psf; BCDL=6.0psf; h=30ft;  
 B=20ft; L=50ft; eave=2ft; Cat. II; Exp B; Enclosed;  
 MWFRS (directional) and C-C Corner (3) -1-0-0 to  
 3-11-14, Exterior (2) 3-11-14 to 24-11-8, Corner (3)  
 24-11-8 to 29-11-6, Exterior (2) 29-11-6 to 49-9-4 zone;  
 cantilever left and right exposed ; end vertical left and  
 right exposed;C-C for members and forces & MWFRS  
 for reactions shown; Lumber DOL=1.60 plate grip  
 DOL=1.60
- 3) 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) All plates are 2x4 MT20 unless otherwise indicated.
- 5) Gable requires continuous bottom chord bearing.
- 6) Truss to be fully sheathed from one face or securely  
 braced against lateral movement (i.e. diagonal web).
- 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.3 crushing  
 capacity of 565 psi.
- 10) Provide mechanical connection (by others) of truss to  
 bearing plate capable of withstanding 38 lb uplift at joint  
 55, 21 lb uplift at joint 43, 30 lb uplift at joint 44, 27 lb  
 uplift at joint 45, 27 lb uplift at joint 47, 27 lb uplift at joint  
 48, 27 lb uplift at joint 49, 27 lb uplift at joint 50, 27 lb  
 uplift at joint 51, 29 lb uplift at joint 52, 21 lb uplift at joint  
 53, 45 lb uplift at joint 54, 21 lb uplift at joint 41, 30 lb  
 uplift at joint 40, 27 lb uplift at joint 39, 27 lb uplift at joint  
 38, 27 lb uplift at joint 36, 27 lb uplift at joint 35, 27 lb  
 uplift at joint 34, 27 lb uplift at joint 33, 30 lb uplift at joint  
 32, 17 lb uplift at joint 31 and 57 lb uplift at joint 30.
- 11) This truss is designed in accordance with the 2015  
 International Residential Code sections R502.11.1 and  
 R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard

**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE.**

Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



818 Soundside Road  
 Edenton, NC 27932

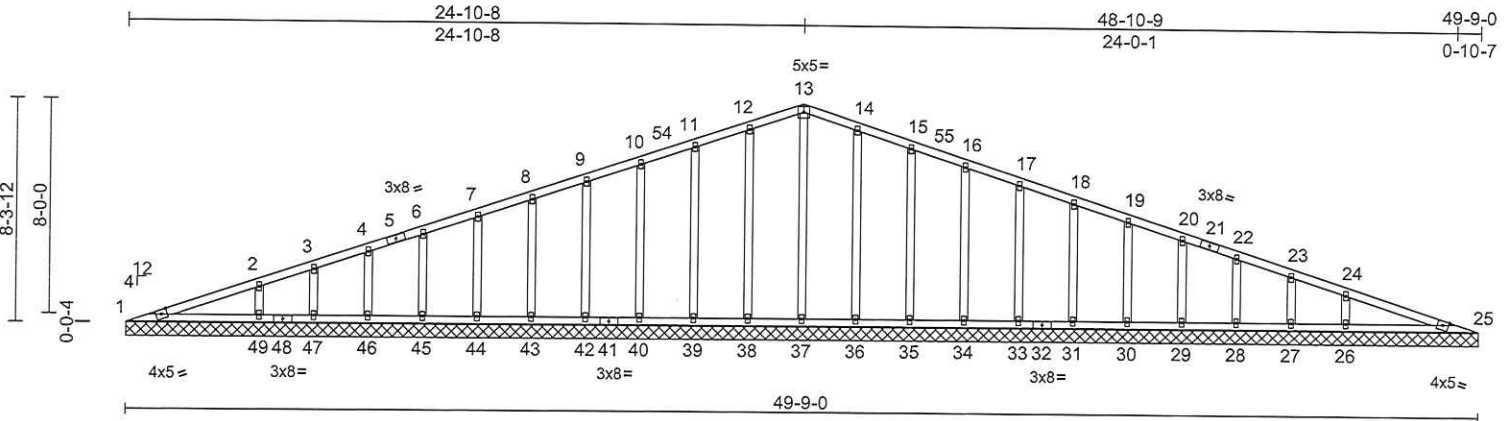


Job P-9669-1	Truss V1	Truss Type Valley	Qty 1	Ply 1	Cooley v2-Roof	159431396
					Job Reference (optional)	

Peak Truss Builders, LLC, New Hill, NC - 27562,

Run: 8.630 S Apr 6 2023 Print: 8.630 S Apr 6 2023 MiTek Industries, Inc. Mon Jul 10 11:26:53  
ID:n0GKIFKURcJcTkqnQpo\_qz5ktO-RfC?PsB70Hq3NSgPqnL8w3uITXbGKwrcDoi7J4zJC?f

Page: 1



Scale = 1:84.9

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	0.16	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.17	Vert(TL)	n/a	-	n/a	999		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.19	Horiz(TL)	0.01	26	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-MS								
											Weight: 283 lb	FT = 20%

LUMBER		Max Grav
TOP CHORD	2x4 SP No.1	1=147 (LC 20), 25=147 (LC 21), 26=396 (LC 21), 27=50 (LC 1), 28=188 (LC 21), 29=153 (LC 1), 30=162 (LC 21), 31=160 (LC 1), 33=160 (LC 21), 34=160 (LC 1), 35=158 (LC 21), 36=170 (LC 21), 37=190 (LC 1), 38=170 (LC 20), 39=158 (LC 20), 40=160 (LC 1), 42=160 (LC 20), 43=160 (LC 1), 44=162 (LC 20), 45=153 (LC 1), 46=188 (LC 20), 47=50 (LC 1), 49=396 (LC 20)
BOT CHORD	2x4 SP No.1	
OTHERS	2x4 SP No.3	
BRACING		FORCES
TOP CHORD	Structural wood sheathing directly applied or 10-0-0 oc purlins.	(lb) - Maximum Compression/Maximum Tension
BOT CHORD	Rigid ceiling directly applied or 6-0-0 oc bracing.	TOP CHORD
REACTIONS	(size)	1-2=-284/141, 2-3=-38/104, 3-4=-25/118, 4-6=-22/113, 6-7=-16/112, 7-8=-10/110, 8-9=-5/109, 9-10=-7/120, 10-11=-16/143, 11-12=-24/168, 12-13=-34/190, 13-14=-34/190, 14-15=-24/168, 15-16=-16/143, 16-17=-7/120, 17-18=0/96, 18-19=0/87, 19-20=0/87, 20-22=0/86, 22-23=-12/91, 23-24=-29/73, 24-25=-284/113
	1=49-9-0, 25=49-9-0, 26=49-9-0, 27=49-9-0, 28=49-9-0, 29=49-9-0, 30=49-9-0, 31=49-9-0, 33=49-9-0, 34=49-9-0, 35=49-9-0, 36=49-9-0, 37=49-9-0, 38=49-9-0, 39=49-9-0, 40=49-9-0, 42=49-9-0, 43=49-9-0, 44=49-9-0, 45=49-9-0, 46=49-9-0, 47=49-9-0, 49=49-9-0	BOT CHORD
	Max Horiz	1-49=-73/263, 47-49=-73/87, 46-47=-73/87, 45-46=-73/87, 44-45=-73/87, 43-44=-73/87, 42-43=-73/87, 40-42=-73/87, 39-40=-73/87, 38-39=-73/87, 37-38=-73/87, 36-37=-73/87, 35-36=-73/87, 34-35=-73/87, 33-34=-73/87, 31-33=-73/87, 30-31=-73/87, 29-30=-73/87, 28-29=-73/87, 27-28=-73/87, 26-27=-73/87, 25-26=-73/263
	Max Uplift	WEBS
	1=-3 (LC 11), 25=-3 (LC 11), 26=-56 (LC 11), 27=-14 (LC 11), 28=-30 (LC 11), 29=-27 (LC 11), 30=-27 (LC 11), 31=-27 (LC 11), 33=-27 (LC 11), 34=-27 (LC 11), 35=-29 (LC 11), 36=-23 (LC 11), 38=-23 (LC 11), 39=-29 (LC 11), 40=-27 (LC 11), 42=-27 (LC 11), 43=-27 (LC 11), 44=-27 (LC 11), 45=-27 (LC 11), 46=-30 (LC 11), 47=-14 (LC 11), 49=-56 (LC 11)	13-37=-150/0, 12-38=-130/55, 11-39=-118/56, 10-40=-120/51, 9-42=-120/51, 8-43=-120/51, 7-44=-121/51, 6-45=-117/51, 4-46=-134/54, 3-47=-63/41, 2-49=-248/79, 14-36=-130/55, 15-35=-118/56, 16-34=-120/51, 17-33=-120/51, 18-31=-120/51, 19-30=-121/51, 20-29=-117/51, 22-28=-134/54, 23-27=-63/41, 24-26=-248/79

NOTES	
1)	Unbalanced roof live loads have been considered for this design.
2)	Wind: ASCE 7-10; Vult=120mph (3-second gust) Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; B=20ft; L=50ft; eave=6ft; Cat. II; Exp B; Enclosed; MWFRS (directional) and C-C Exterior (2) 0-0-12 to 4-11-4, Interior (1) 4-11-4 to 24-11-4, Exterior (2) 24-11-4 to 29-10-15, Interior (1) 29-10-15 to 49-9-12 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3)	Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
4)	All plates are 2x4 MT20 unless otherwise indicated.
5)	Gable requires continuous bottom chord bearing.
6)	Gable studs spaced at 2-0-0 oc.
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.



Continued on page 2

**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITTEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE.**

Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see ANSITPI1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



818 Soundside Road  
Edenton, NC 27932



Job P-9669-1	Truss V1	Truss Type Valley	Qty 1	Ply 1	Cooley v2-Roof Job Reference (optional)	159431396
-----------------	-------------	----------------------	----------	----------	--	-----------

Peak Truss Builders, LLC, New Hill, NC - 27562,

Run: 8.63 S Apr 6 2023 Print: 8.630 S Apr 6 2023 MiTek Industries, Inc. Mon Jul 10 11:26:53  
 ID:nN0GKIFKUrCJcTkqnQpo\_gz5ktO-RFC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoiJ4zJC?f

Page: 2

- 8) All bearings are assumed to be SP No.3 crushing capacity of 565 psi.
- 9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 3 lb uplift at joint 1, 3 lb uplift at joint 25, 23 lb uplift at joint 38, 29 lb uplift at joint 39, 27 lb uplift at joint 40, 27 lb uplift at joint 42, 27 lb uplift at joint 43, 27 lb uplift at joint 44, 27 lb uplift at joint 45, 30 lb uplift at joint 46, 14 lb uplift at joint 47, 56 lb uplift at joint 49, 23 lb uplift at joint 36, 29 lb uplift at joint 35, 27 lb uplift at joint 34, 27 lb uplift at joint 33, 27 lb uplift at joint 31, 27 lb uplift at joint 30, 27 lb uplift at joint 29, 30 lb uplift at joint 28, 14 lb uplift at joint 27 and 56 lb uplift at joint 26.
- 10) This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard

**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE.**

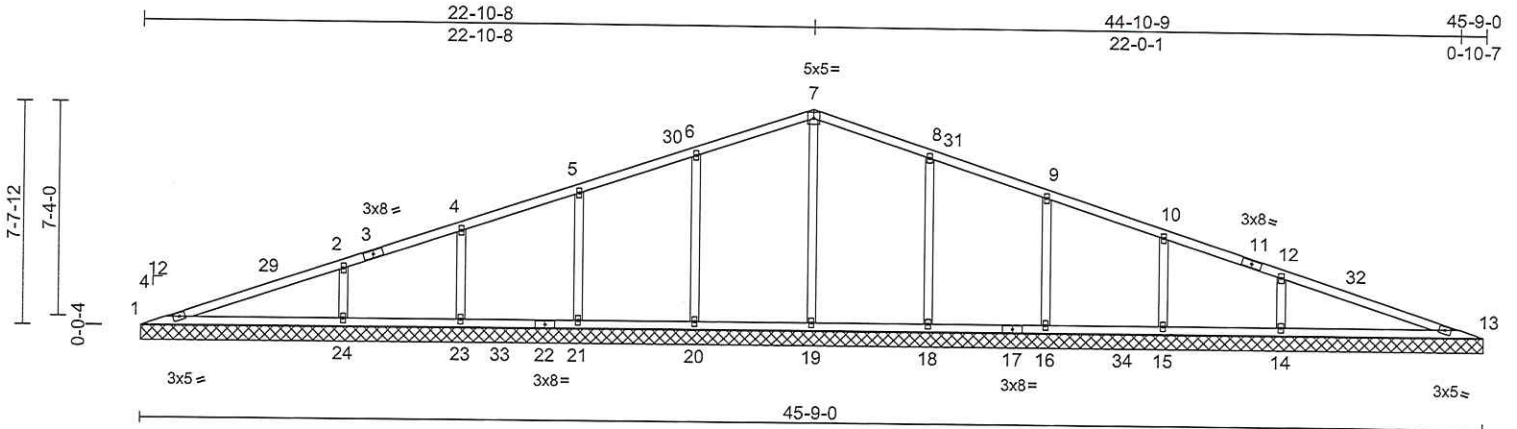
Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information** available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



818 Soundside Road  
 Edenton, NC 27932

Job P-9669-1	Truss V2	Truss Type Valley	Qty 1	Ply 1	Cooley v2-Roof	159431397
Peak Truss Builders, LLC, New Hill, NC - 27562.						Job Reference (optional)

Run: 8.63 S Apr 6 2023 Print: 8.630 S Apr 6 2023 MiTek Industries, Inc. Mon Jul 10 11:26:53  
ID:9y\_inHYSIlg7xvPPYOEuqOz5krj-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f



Scale = 1:78.6

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	0.35	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.34	Vert(TL)	n/a	-	n/a	999		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.37	Horiz(TL)	0.01	24	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-MS								
											Weight: 193 lb	FT = 20%

LUMBER	
TOP CHORD	2x4 SP No.1
BOT CHORD	2x4 SP No.1
OTHERS	2x4 SP No.3

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

REACTIONS	(size)
Max Horiz	1=45-9-0, 13=45-9-0, 14=45-9-0, 15=45-9-0, 16=45-9-0, 18=45-9-0, 19=45-9-0, 20=45-9-0, 21=45-9-0, 23=45-9-0, 24=45-9-0
Max Uplift	1=-81 (LC 9)
Max Grav	1=-9 (LC 11), 13=-9 (LC 11), 14=-87 (LC 11), 15=-42 (LC 11), 16=-56 (LC 11), 18=-59 (LC 11), 20=-59 (LC 11), 21=-56 (LC 11), 23=-42 (LC 11), 24=-87 (LC 11)
	1=181 (LC 20), 13=181 (LC 21), 14=547 (LC 21), 15=234 (LC 1), 16=426 (LC 17), 18=418 (LC 17), 19=509 (LC 16), 20=418 (LC 16), 21=426 (LC 16), 23=234 (LC 1), 24=547 (LC 20)

FORCES	(lb) - Maximum Compression/Maximum Tension
TOP CHORD	1-2=-377/285, 2-4=-53/246, 4-5=-5/261, 5-6=0/258, 6-7=0/254, 7-8=0/254, 8-9=0/258, 9-10=-4/261, 10-12=-52/246, 12-13=-377/285
BOT CHORD	1-24=-209/352, 23-24=-209/147, 21-23=-209/147, 20-21=-209/147, 19-20=-209/147, 18-19=-209/147, 16-18=-209/147, 15-16=-209/147, 14-15=-209/147, 13-14=-209/352
WEBS	7-19=-356/47, 6-20=-258/189, 5-21=-248/120, 4-23=-195/105, 2-24=-363/184, 8-18=-258/189, 9-16=-248/120, 10-15=-195/105, 12-14=-363/184

- NOTES**
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-10; Vult=120mph (3-second gust) Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; B=20ft; L=46ft; eave=2ft; Cat. II; Exp B; Enclosed; MWFRS (directional) and C-C Corner (3) 0-0-12 to 4-7-10, Exterior (2) 4-7-10 to 22-11-4, Corner (3) 22-11-4 to 27-6-2, Exterior (2) 27-6-2 to 45-9-12 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - 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.
  - All plates are 2x4 MT20 unless otherwise indicated.
  - Gable requires continuous bottom chord bearing.
  - Gable studs spaced at 4-0-0 oc.
  - \* 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.
  - All bearings are assumed to be SP No.3 crushing capacity of 565 psi.
  - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 9 lb uplift at joint 1, 59 lb uplift at joint 20, 56 lb uplift at joint 21, 42 lb uplift at joint 23, 87 lb uplift at joint 24, 59 lb uplift at joint 18, 56 lb uplift at joint 16, 42 lb uplift at joint 15, 87 lb uplift at joint 14 and 9 lb uplift at joint 13.
  - This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard



July 11, 2023

**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE.**

Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see ANSITPI1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



818 Soundside Road  
Edenton, NC 27932

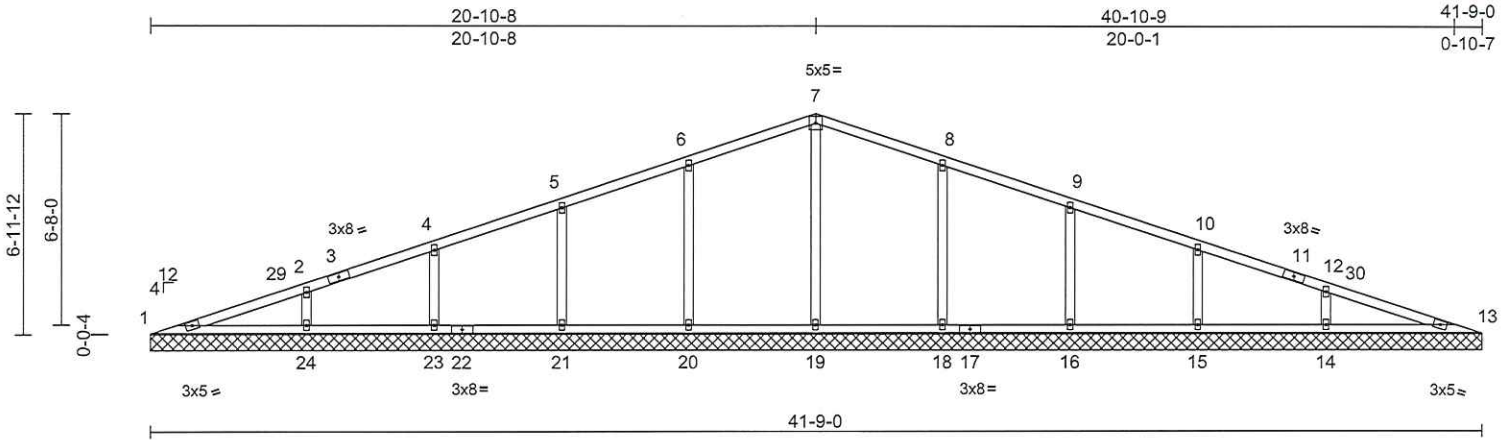


Job	Truss	Truss Type	Qty	Ply	Cooley v2-Roof	159431398
P-9669-1	V3	Valley	1	1	Job Reference (optional)	

Peak Truss Builders, LLC, New Hill, NC - 27562,

Run: 8.63 S Apr 6 2023 Print: 8.630 S Apr 6 2023 MITek Industries, Inc. Mon Jul 10 11:26:54  
 ID:9y\_jnHYSIjg7xvPPYOEuqOz5krj-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

Page: 1



Scale = 1:72.4

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.18	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.16	Vert(TL)	n/a	-	n/a	999		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.23	Horiz(TL)	0.00	14	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-MS							Weight: 171 lb	FT = 20%

**LUMBER**  
 TOP CHORD 2x4 SP No.1  
 BOT CHORD 2x4 SP No.1  
 OTHERS 2x4 SP No.3

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

**REACTIONS** (size)  
 1=41-9-0, 13=41-9-0, 14=41-9-0,  
 15=41-9-0, 16=41-9-0, 18=41-9-0,  
 19=41-9-0, 20=41-9-0, 21=41-9-0,  
 23=41-9-0, 24=41-9-0  
 Max Horiz 1=72 (LC 10)  
 Max Uplift 1=-7 (LC 11), 13=-7 (LC 11),  
 14=-63 (LC 11), 15=-52 (LC 11),  
 16=-54 (LC 11), 18=-60 (LC 11),  
 20=-60 (LC 11), 21=-54 (LC 11),  
 23=-52 (LC 11), 24=-63 (LC 11)  
 Max Grav 1=145 (LC 20), 13=145 (LC 21),  
 14=408 (LC 21), 15=295 (LC 1),  
 16=350 (LC 17), 18=429 (LC 17),  
 19=422 (LC 16), 20=429 (LC 16),  
 21=350 (LC 16), 23=295 (LC 1),  
 24=408 (LC 20)

**FORCES** (lb) - Maximum Compression/Maximum Tension  
 TOP CHORD 1-2=-278/137, 2-4=-30/125, 4-5=-7/125,  
 5-6=0/123, 6-7=-20/169, 7-8=-20/169,  
 8-9=0/117, 9-10=0/112, 10-12=-30/109,  
 12-13=-278/120  
 BOT CHORD 1-24=-73/257, 23-24=-73/99, 21-23=-73/99,  
 20-21=-73/99, 19-20=-73/99, 18-19=-73/99,  
 16-18=-73/99, 15-16=-73/99, 14-15=-73/99,  
 13-14=-74/257  
 WEBS 7-19=-263/33, 6-20=-260/176,  
 5-21=-239/115, 4-23=-230/116,  
 2-24=-275/151, 8-18=-260/176,  
 9-16=-239/115, 10-15=-230/116,  
 12-14=-275/151

**NOTES**

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-10; Vult=120mph (3-second gust) Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; B=20ft; L=42ft; eave=2ft; Cat. II; Exp B; Enclosed; MWFRS (directional) and C-C Corner (3) 0-0-12 to 4-2-14, Exterior (2) 4-2-14 to 20-11-4, Corner (3) 20-11-4 to 24-11-4, Exterior (2) 24-11-4 to 41-9-12 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 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.
- All plates are 2x4 MT20 unless otherwise indicated.
- Gable requires continuous bottom chord bearing.
- Gable studs spaced at 4-0-0 oc.
- \* 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.
- All bearings are assumed to be SP No.3 crushing capacity of 565 psi.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 7 lb uplift at joint 1, 60 lb uplift at joint 20, 54 lb uplift at joint 21, 52 lb uplift at joint 23, 63 lb uplift at joint 24, 60 lb uplift at joint 18, 54 lb uplift at joint 16, 52 lb uplift at joint 15, 63 lb uplift at joint 14 and 7 lb uplift at joint 13.
- This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

**LOAD CASE(S)** Standard



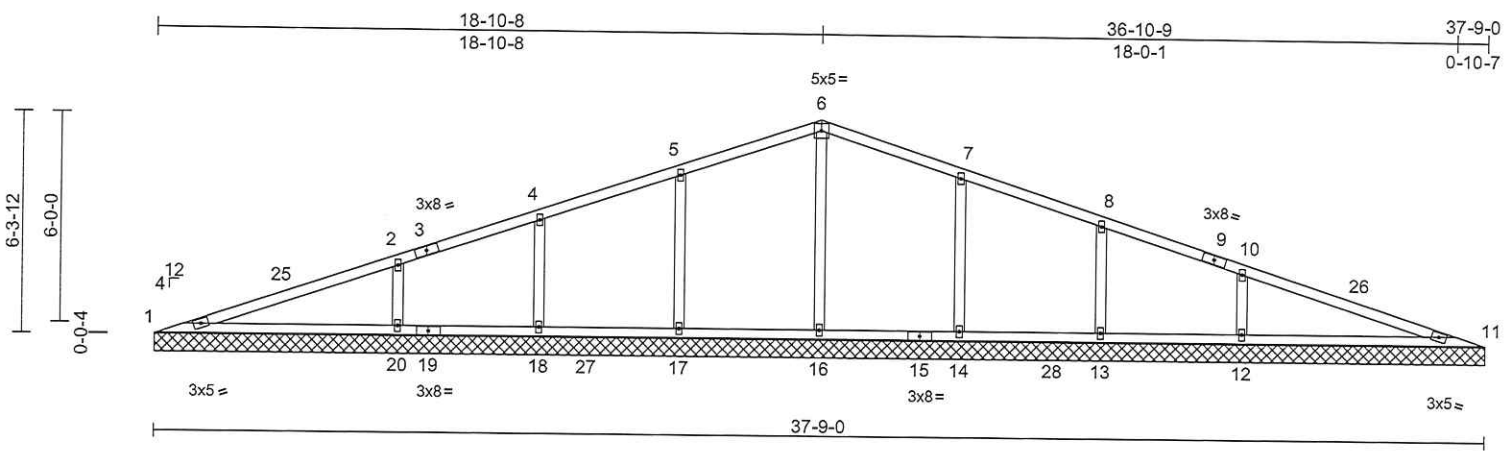
**WARNING** - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE.  
 Design valid for use only with MITek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601

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

Job	Truss	Truss Type	Qty	Ply	Cooley v2-Roof	Job Reference (optional)
P-9669-1	V4	Valley	1	1		159431399

Peak Truss Builders, LLC, New Hill, NC - 27562,

Run: 8.63 S Apr 6 2023 Print: 8.630 S Apr 6 2023 MiTek Industries, Inc. Mon Jul 10 11:26:54  
 ID:9y\_inHYSIjg7xvPPYOEuqOz5krj-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDol7J4zJC?f



Scale = 1:65.5

Loading	(psf)	Spacing		CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	2-0-0	TC	0.36	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.34	Vert(TL)	n/a	-	n/a	999		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.27	Horiz(TL)	0.01	20	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-MS								
											Weight: 149 lb	FT = 20%

**LUMBER**  
 TOP CHORD 2x4 SP No.1  
 BOT CHORD 2x4 SP No.1  
 OTHERS 2x4 SP No.3

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

**REACTIONS (size)**  
 1=37-9-0, 11=37-9-0, 12=37-9-0,  
 13=37-9-0, 14=37-9-0, 16=37-9-0,  
 17=37-9-0, 18=37-9-0, 20=37-9-0  
 Max Horiz 1=63 (LC 10)  
 Max Uplift 1=-10 (LC 11), 11=-10 (LC 11),  
 12=-88 (LC 11), 13=-40 (LC 11),  
 14=-64 (LC 11), 17=-64 (LC 11),  
 18=-40 (LC 11), 20=-88 (LC 11)  
 Max Grav 1=172 (LC 20), 11=172 (LC 21),  
 12=546 (LC 21), 13=230 (LC 1),  
 14=443 (LC 17), 16=518 (LC 18),  
 17=443 (LC 16), 18=230 (LC 1),  
 20=546 (LC 20)

**FORCES (lb) - Maximum Compression/Maximum Tension**  
 TOP CHORD 1-2=-349/329, 2-4=-45/291, 4-5=-1/307,  
 5-6=0/298, 6-7=0/298, 7-8=0/307,  
 8-10=-43/291, 10-11=-349/329  
 BOT CHORD 1-20=-251/325, 18-20=-251/140,  
 17-18=-251/140, 16-17=-251/140,  
 14-16=-251/140, 13-14=-251/140,  
 12-13=-251/140, 11-12=-251/325  
 WEBS 6-16=-378/75, 5-17=-273/180, 4-18=-190/92,  
 2-20=-364/171, 7-14=-273/180,  
 8-13=-190/92, 10-12=-364/171

- Wind: ASCE 7-10; Vult=120mph (3-second gust)  
 Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft;  
 B=20ft; L=38ft; eave=2ft; Cat. II; Exp B; Enclosed;  
 MWFRS (directional) and C-C Corner (3) 0-0-12 to  
 3-10-1, Exterior (2) 3-10-1 to 18-11-4, Corner (3)  
 18-11-4 to 22-11-4, Exterior (2) 22-11-4 to 37-9-12 zone;  
 cantilever left and right exposed; end vertical left and  
 right exposed; C-C for members and forces & MWFRS  
 for reactions shown; Lumber DOL=1.60 plate grip  
 DOL=1.60
- 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.
- All plates are 2x4 MT20 unless otherwise indicated.
- Gable requires continuous bottom chord bearing.
- Gable studs spaced at 4-0-0 oc.
- \* 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.
- All bearings are assumed to be SP No.3 crushing  
 capacity of 565 psi.
- Provide mechanical connection (by others) of truss to  
 bearing plate capable of withstanding 10 lb uplift at joint  
 1, 64 lb uplift at joint 17, 40 lb uplift at joint 18, 88 lb  
 uplift at joint 20, 64 lb uplift at joint 14, 40 lb uplift at joint  
 13, 88 lb uplift at joint 12 and 10 lb uplift at joint 11.
- This truss is designed in accordance with the 2015  
 International Residential Code sections R502.11.1 and  
 R802.10.2 and referenced standard ANSI/TPI 1.

**LOAD CASE(S)** Standard

**NOTES**  
 1) Unbalanced roof live loads have been considered for  
 this design.



July 11, 2023

**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE.**  
 Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not  
 a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall  
 building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing  
 is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the  
 fabrication, storage, delivery, erection and bracing of trusses and truss systems, see ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component  
 Safety Information available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601

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

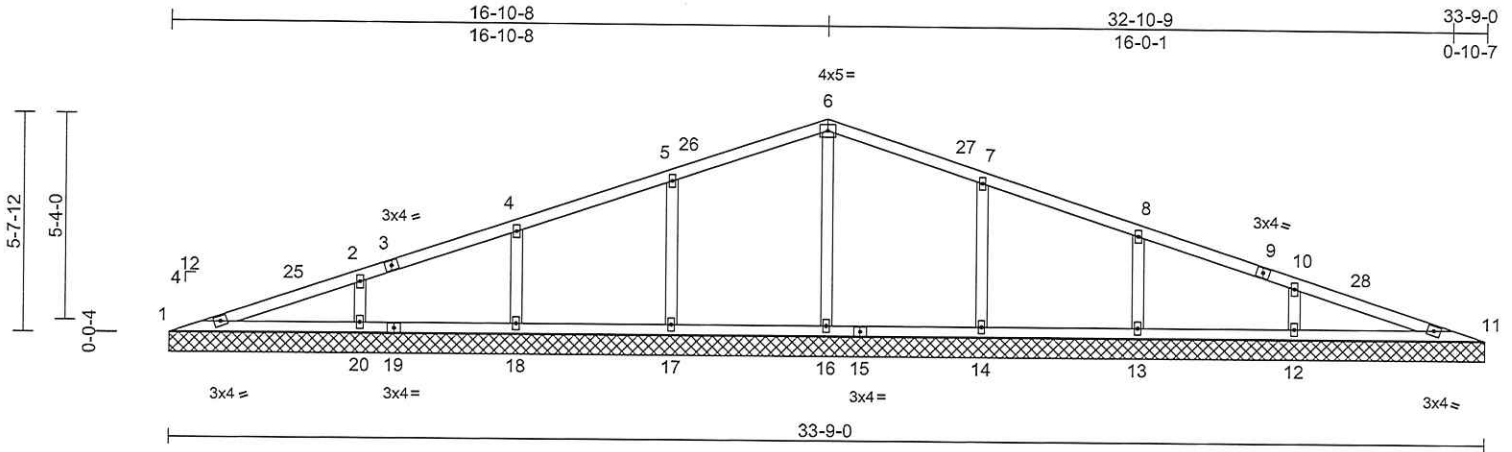


Job P-9669-1	Truss V5	Truss Type Valley	Qty 1	Ply 1	Cooley v2-Roof	Job Reference (optional) I59431400
-----------------	-------------	----------------------	----------	----------	----------------	---------------------------------------

Peak Truss Builders, LLC, New Hill, NC - 27562,

Run: 8.63 S Apr 6 2023 Print: 8.630 S Apr 6 2023 MITek Industries, Inc. Mon Jul 10 11:26:54  
ID:d9Y5?dZ421o\_Z3\_b65I7Mbz5kri-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

Page: 1



Scale = 1:59.2

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.18	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.16	Vert(TL)	n/a	-	n/a	999		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.16	Horiz(TL)	0.00	12	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-MS								
											Weight: 130 lb	FT = 20%

**LUMBER**

TOP CHORD 2x4 SP No.1  
BOT CHORD 2x4 SP No.1  
OTHERS 2x4 SP No.3

**BRACING**

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

**REACTIONS** (size) 1=33-9-0, 11=33-9-0, 12=33-9-0, 13=33-9-0, 14=33-9-0, 16=33-9-0, 17=33-9-0, 18=33-9-0, 20=33-9-0  
Max Horiz 1=54 (LC 10)  
Max Uplift 1=-9 (LC 11), 11=-9 (LC 11), 12=-64 (LC 11), 13=-50 (LC 11), 14=-61 (LC 11), 17=-61 (LC 11), 18=-50 (LC 11), 20=-64 (LC 11)  
Max Grav 1=141 (LC 20), 11=141 (LC 21), 12=408 (LC 21), 13=291 (LC 1), 14=362 (LC 17), 16=446 (LC 18), 17=363 (LC 16), 18=291 (LC 1), 20=408 (LC 20)

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

TOP CHORD 1-2=-266/143, 2-4=-18/132, 4-5=0/134, 5-6=0/128, 6-7=0/127, 7-8=0/133, 8-10=-17/128, 10-11=-266/139  
BOT CHORD 1-20=-88/246, 18-20=-88/88, 17-18=-88/88, 16-17=-88/88, 14-16=-88/88, 13-14=-88/88, 12-13=-88/88, 11-12=-88/246  
WEBS 6-16=-274/60, 5-17=-263/162, 4-18=-225/107, 2-20=-276/136, 7-14=-263/162, 8-13=-225/107, 10-12=-276/136

**NOTES**

1) Unbalanced roof live loads have been considered for this design.

- Wind: ASCE 7-10; Vult=120mph (3-second gust) Vasd=95mph; TCDL=6.0psf, BCDL=6.0psf; h=30ft; B=20ft; L=34ft; eave=2ft; Cat. II; Exp B; Enclosed; MWFRS (directional) and C-C Corner (3) 0-0-12 to 3-5-4, Exterior (2) 3-5-4 to 16-11-4, Corner (3) 16-11-4 to 20-3-12, Exterior (2) 20-3-12 to 33-9-12 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 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.
- All plates are 2x4 MT20 unless otherwise indicated.
- Gable requires continuous bottom chord bearing.
- Gable studs spaced at 4-0-0 oc.
- \* 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.
- All bearings are assumed to be SP No.3 crushing capacity of 565 psi.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 9 lb uplift at joint 1, 61 lb uplift at joint 17, 50 lb uplift at joint 18, 64 lb uplift at joint 20, 61 lb uplift at joint 14, 50 lb uplift at joint 13, 64 lb uplift at joint 12 and 9 lb uplift at joint 11.
- This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

**LOAD CASE(S)** Standard



July 11, 2023

**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE.**

Design valid for use only with MITek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see ANSITPI1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601

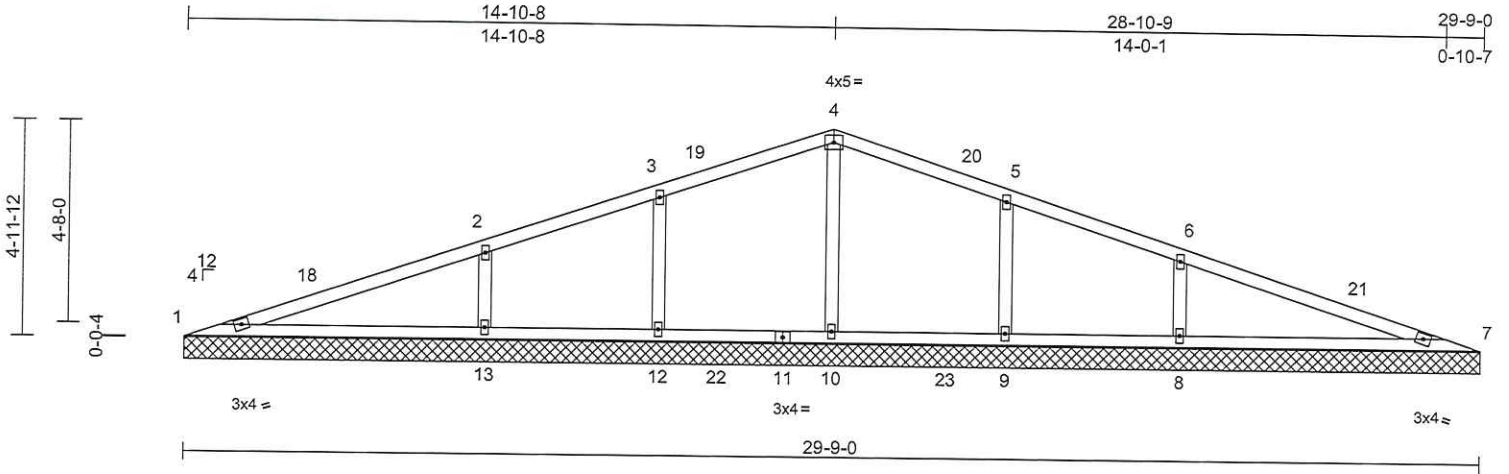
ENGINEERING BY  
**TRENCO**  
A MITek Affiliate

818 Soundside Road  
Edenton, NC 27932

Job P-9669-1	Truss V6	Truss Type Valley	Qty 1	Ply 1	Cooley v2-Roof	Job Reference (optional) I59431401
-----------------	-------------	----------------------	----------	----------	----------------	---------------------------------------

Peak Truss Builders, LLC, New Hill, NC - 27562,

Run: 8.63 S Apr 6 2023 Print: 8.630 S Apr 6 2023 MiTek Industries, Inc. Mon Jul 10 11:26:55  
ID:d9Y5dZ421o\_Z3\_b6517Mbz5kri-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC7f



Scale = 1:53

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.36	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.33	Vert(TL)	n/a	-	n/a	999		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.20	Horiz(TL)	0.01	13	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-MS								

Weight: 109 lb FT = 20%

**LUMBER**  
TOP CHORD 2x4 SP No.1  
BOT CHORD 2x4 SP No.1  
OTHERS 2x4 SP No.3

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

**REACTIONS** (size) 1=29-9-0, 7=29-9-0, 8=29-9-0, 9=29-9-0, 10=29-9-0, 12=29-9-0, 13=29-9-0  
Max Horiz 1=-45 (LC 9)  
Max Uplift 1=-11 (LC 11), 7=-11 (LC 11), 8=-86 (LC 11), 9=47 (LC 11), 10=-3 (LC 11), 12=47 (LC 11), 13=-86 (LC 11)  
Max Grav 1=160 (LC 20), 7=160 (LC 21), 8=536 (LC 21), 9=254 (LC 21), 10=602 (LC 18), 12=254 (LC 20), 13=536 (LC 20)

**FORCES** (lb) - Maximum Compression/Maximum Tension  
TOP CHORD 1-2=-310/394, 2-3=-42/358, 3-4=0/367, 4-5=0/367, 5-6=-41/358, 6-7=-310/394  
BOT CHORD 1-13=-313/288, 12-13=-313/135, 10-12=-313/135, 9-10=-313/135, 8-9=-313/135, 7-8=-313/288  
WEBS 4-10=-443/114, 3-12=-216/143, 2-13=-356/160, 5-9=-216/143, 6-8=-356/160

**NOTES**  
1) Unbalanced roof live loads have been considered for this design.

- 2) Wind: ASCE 7-10; Vult=120mph (3-second gust) Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; B=20ft; L=30ft; eave=2ft; Cat. II; Exp B; Enclosed; MWFRS (directional) and C-C Corner (3) 0-0-12 to 3-0-12, Exterior (2) 3-0-12 to 14-11-4, Corner (3) 14-11-4 to 17-11-4, Exterior (2) 17-11-4 to 29-9-12 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- 4) All plates are 2x4 MT20 unless otherwise indicated.
- 5) Gable requires continuous bottom chord bearing.
- 6) Gable studs spaced at 4-0-0 oc.
- 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.3 crushing capacity of 565 psi.
- 9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 11 lb uplift at joint 1, 11 lb uplift at joint 7, 3 lb uplift at joint 10, 47 lb uplift at joint 12, 86 lb uplift at joint 13, 47 lb uplift at joint 9 and 86 lb uplift at joint 8.
- 10) This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

**LOAD CASE(S)** Standard



**WARNING** - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITTEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE.

Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



818 Soundside Road  
Edenton, NC 27932

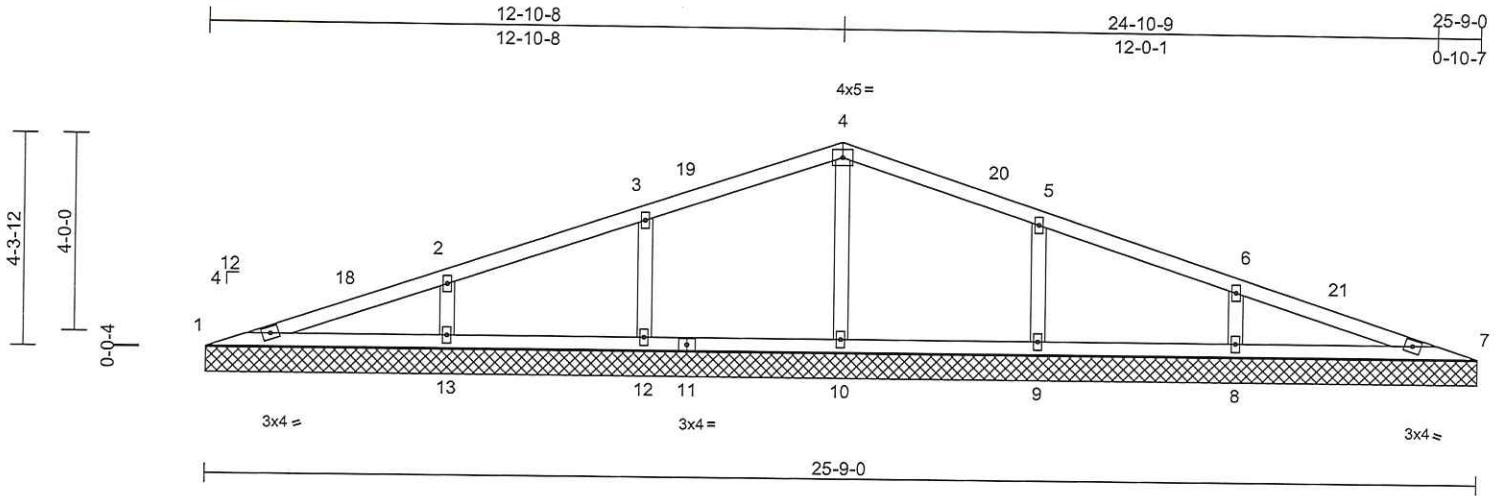


Job P-9669-1	Truss V7	Truss Type Valley	Qty 1	Ply 1	Cooley v2-Roof Job Reference (optional)	I59431402
-----------------	-------------	----------------------	----------	----------	--	-----------

Peak Truss Builders, LLC, New Hill, NC - 27562,

Run: 8.63 S Apr 6 2023 Print: 8.630 S Apr 6 2023 MiTek Industries, Inc. Mon Jul 10 11:26:55  
ID:d9Y5?dZ421o\_Z3\_b65I7Mbz5kri-RfC?PsB70Hq3NSgPqnl8w3uITXbGKWrcDoi7J4zJC?f

Page: 1



Scale = 1:46.7

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	0.18	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.16	Vert(TL)	n/a	-	n/a	999		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.10	Horiz(TL)	0.00	13	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-MS							Weight: 92 lb	FT = 20%

**LUMBER**

TOP CHORD 2x4 SP No.1  
BOT CHORD 2x4 SP No.1  
OTHERS 2x4 SP No.3

**BRACING**

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

**REACTIONS**

(size) 1=25-9-0, 7=25-9-0, 8=25-9-0,  
9=25-9-0, 10=25-9-0, 12=25-9-0,  
13=25-9-0  
Max Horiz 1=-39 (LC 9)  
Max Uplift 1=-11 (LC 11), 7=-11 (LC 11),  
8=-64 (LC 11), 9=-57 (LC 11),  
12=-57 (LC 11), 13=-64 (LC 11)  
Max Grav 1=136 (LC 20), 7=136 (LC 21),  
8=400 (LC 21), 9=315 (LC 21),  
10=387 (LC 1), 12=315 (LC 20),  
13=400 (LC 20)

**FORCES**

(lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=-250/170, 2-3=-15/161, 3-4=0/160,  
4-5=0/160, 5-6=-14/161, 6-7=-250/170  
BOT CHORD 1-13=-119/231, 12-13=-119/83,  
10-12=-119/83, 9-10=-119/83, 8-9=-119/83,  
7-8=-119/231  
WEBS 4-10=-299/90, 3-12=-250/154,  
2-13=-268/130, 5-9=-250/154, 6-8=-268/130

**NOTES**

1) Unbalanced roof live loads have been considered for this design.

- Wind: ASCE 7-10; Vult=120mph (3-second gust) Vasd=95mph; TC DL=6.0psf; BCDL=6.0psf; h=30ft; B=20ft; L=26ft; eave=2ft; Cat. II; Exp B; Enclosed; MWFRS (directional) and C-C Corner (3) 0-0-12 to 3-0-12, Exterior (2) 3-0-12 to 12-11-4, Corner (3) 12-11-4 to 15-11-4, Exterior (2) 15-11-4 to 25-9-12 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 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.
- All plates are 2x4 MT20 unless otherwise indicated.
- Gable requires continuous bottom chord bearing.
- Gable studs spaced at 4-0-0 oc.
- \* 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.
- All bearings are assumed to be SP No.3 crushing capacity of 565 psi.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 11 lb uplift at joint 1, 11 lb uplift at joint 7, 57 lb uplift at joint 12, 64 lb uplift at joint 13, 57 lb uplift at joint 9 and 64 lb uplift at joint 8.
- This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard



July 11, 2023

**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE.**

Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



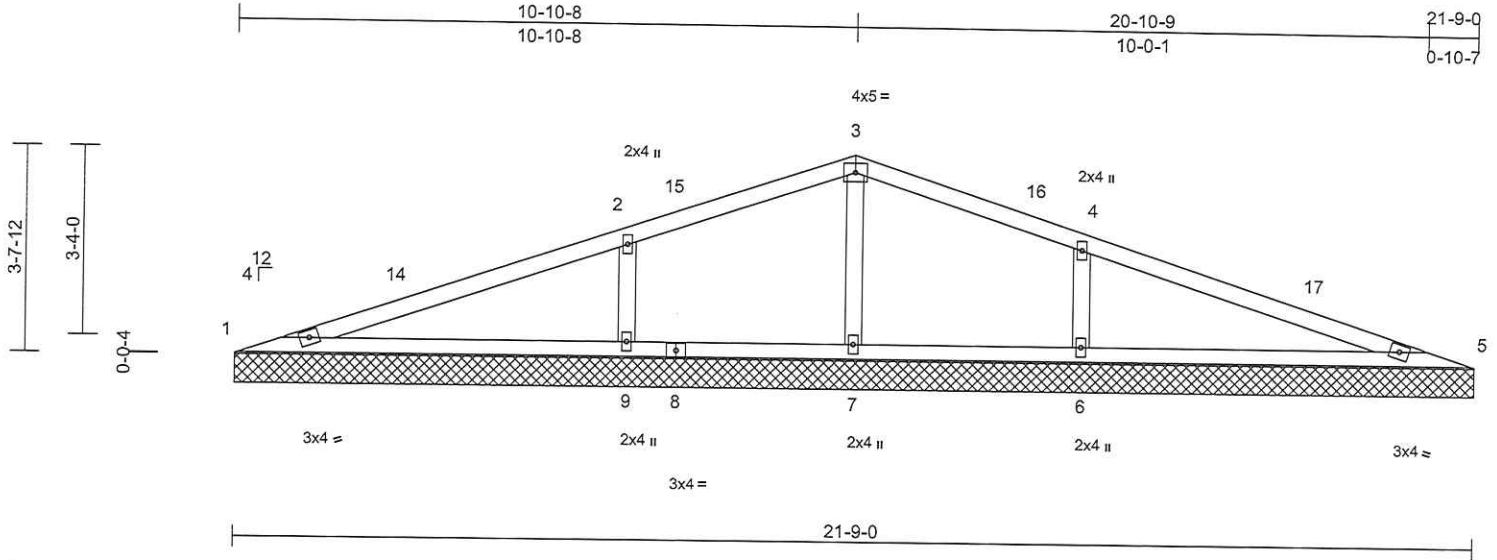
818 Soundside Road  
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Cooley v2-Roof	
P-9669-1	V8	Valley	1	1		I59431403
Job Reference (optional)						

Peak Truss Builders, LLC, New Hill, NC - 27562,

Run: 8.63 S Apr 6 2023 Print: 8.630 S Apr 6 2023 MiTek Industries, Inc. Mon Jul 10 11:26:55  
 ID:d9Y5?dZ421o\_Z3\_b65I7MbZ5kri-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC7f

Page: 1



Scale = 1:40.5

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	0.38	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.31	Vert(TL)	n/a	-	n/a	999		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.12	Horiz(TL)	0.00	9	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-MS								
											Weight: 73 lb	FT = 20%

**LUMBER**  
 TOP CHORD 2x4 SP No.1  
 BOT CHORD 2x4 SP No.1  
 OTHERS 2x4 SP No.3

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

**REACTIONS** (size) 1=21-9-0, 5=21-9-0, 6=21-9-0, 7=21-9-0, 9=21-9-0  
 Max Horiz 1=33 (LC 10)  
 Max Uplift 1=-10 (LC 11), 5=-10 (LC 11), 6=-93 (LC 11), 7=-8 (LC 11), 9=-93 (LC 11)  
 Max Grav 1=138 (LC 20), 5=138 (LC 21), 6=553 (LC 21), 7=427 (LC 1), 9=553 (LC 20)

**FORCES** (lb) - Maximum Compression/Maximum Tension  
 TOP CHORD 1-2=-243/493, 2-3=-38/445, 3-4=-37/445, 4-5=-243/493  
 BOT CHORD 1-9=-407/224, 7-9=-407/143, 6-7=-407/143, 5-6=-407/224  
 WEBS 3-7=-419/123, 2-9=-374/183, 4-6=-374/183

- 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.
- Gable requires continuous bottom chord bearing.
- Gable studs spaced at 4-0-0 oc.
- \* 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.
- All bearings are assumed to be SP No.3 crushing capacity of 565 psi.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 10 lb uplift at joint 1, 10 lb uplift at joint 5, 8 lb uplift at joint 7, 93 lb uplift at joint 9 and 93 lb uplift at joint 6.
- This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

**LOAD CASE(S)** Standard

- NOTES**
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-10; Vult=120mph (3-second gust) Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; B=20ft; L=22ft; eave=2ft; Cat. II; Exp B; Enclosed; MWFRS (directional) and C-C Corner (3) 0-0-12 to 3-0-12, Exterior (2) 3-0-12 to 10-11-4, Corner (3) 10-11-4 to 13-11-4, Exterior (2) 13-11-4 to 21-9-12 zone; cantilever left and right exposed ; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60



July 11, 2023

**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE.**

Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



818 Soundside Road  
 Edenton, NC 27932

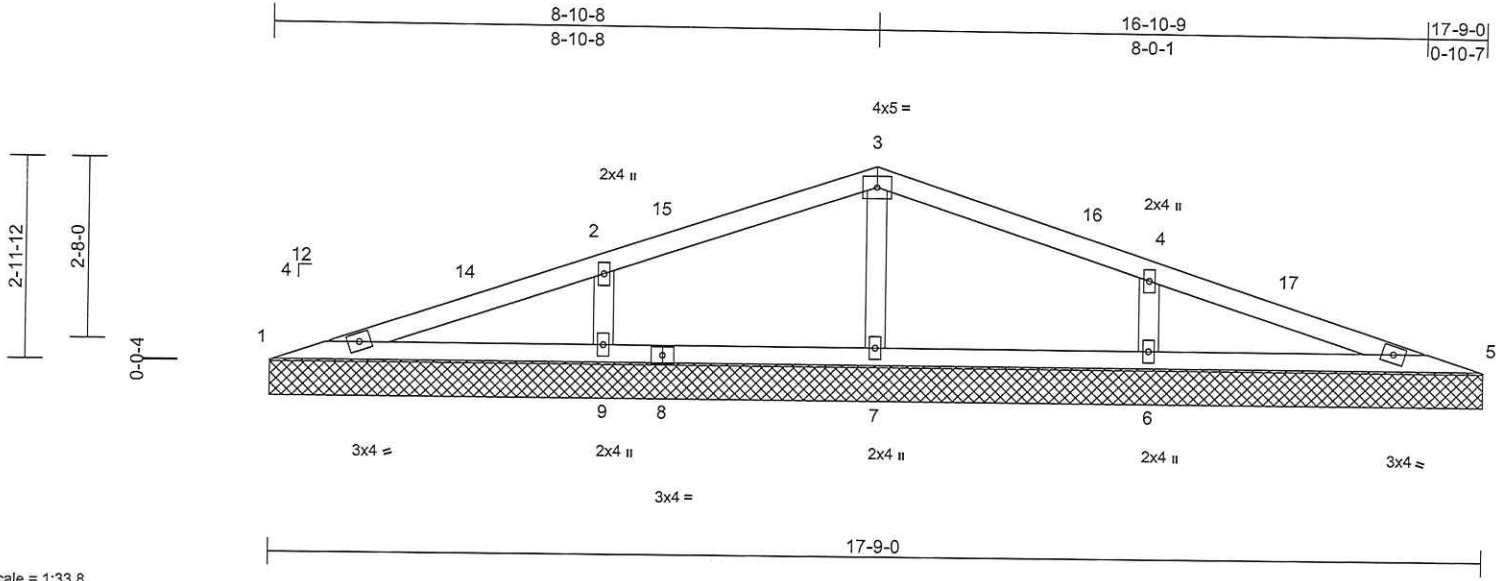


Job	Truss	Truss Type	Qty	Ply	Cooley v2-Roof	
P-9669-1	V9	Valley	1	1		I59431404
Job Reference (optional)						

Peak Truss Builders, LLC, New Hill, NC - 27562,

Run: 8.63 S Apr 6 2023 Print: 8.630 S Apr 6 2023 MiTek Industries, Inc. Mon Jul 10 11:26:55  
 ID:d9Y5?dZ421o\_Z3\_b65I7Mbz5kri-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

Page: 1



Scale = 1:33.8

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	0.21	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.14	Vert(TL)	n/a	-	n/a	999		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.07	Horiz(TL)	0.00	9	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-MS							Weight: 58 lb	FT = 20%

**LUMBER**  
 TOP CHORD 2x4 SP No.1  
 BOT CHORD 2x4 SP No.1  
 OTHERS 2x4 SP No.3

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

**REACTIONS** (size) 1=17-9-0, 5=17-9-0, 6=17-9-0, 7=17-9-0, 9=17-9-0  
 Max Horiz 1=27 (LC 10)  
 Max Uplift 1=-12 (LC 11), 5=-12 (LC 11), 6=-72 (LC 11), 7=-7 (LC 11), 9=-72 (LC 11)  
 Max Grav 1=124 (LC 20), 5=124 (LC 21), 6=420 (LC 21), 7=365 (LC 1), 9=420 (LC 20)

**FORCES** (lb) - Maximum Compression/Maximum Tension  
 TOP CHORD 1-2=-213/220, 2-3=0/205, 3-4=0/205, 4-5=-213/220  
 BOT CHORD 1-9=-165/195, 7-9=-165/77, 6-7=-165/77, 5-6=-165/195  
 WEBS 3-7=-311/113, 2-9=-293/155, 4-6=-293/155

- 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.
  - Gable requires continuous bottom chord bearing.
  - Gable studs spaced at 4-0-0 oc.
  - \* 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.
  - All bearings are assumed to be SP No.3 crushing capacity of 565 psi.
  - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 12 lb uplift at joint 1, 12 lb uplift at joint 5, 7 lb uplift at joint 7, 72 lb uplift at joint 9 and 72 lb uplift at joint 6.
  - This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- LOAD CASE(S)** Standard

- NOTES**
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-10; Vult=120mph (3-second gust) Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; B=20ft; L=20ft; eave=2ft; Cat. II; Exp B; Enclosed; MWFRS (directional) and C-C Corner (3) 0-0-12 to 3-0-12, Exterior (2) 3-0-12 to 8-11-4, Corner (3) 8-11-4 to 11-11-4, Exterior (2) 11-11-4 to 17-9-12 zone; cantilever left and right exposed ; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60



**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITTEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE.**  
 Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601

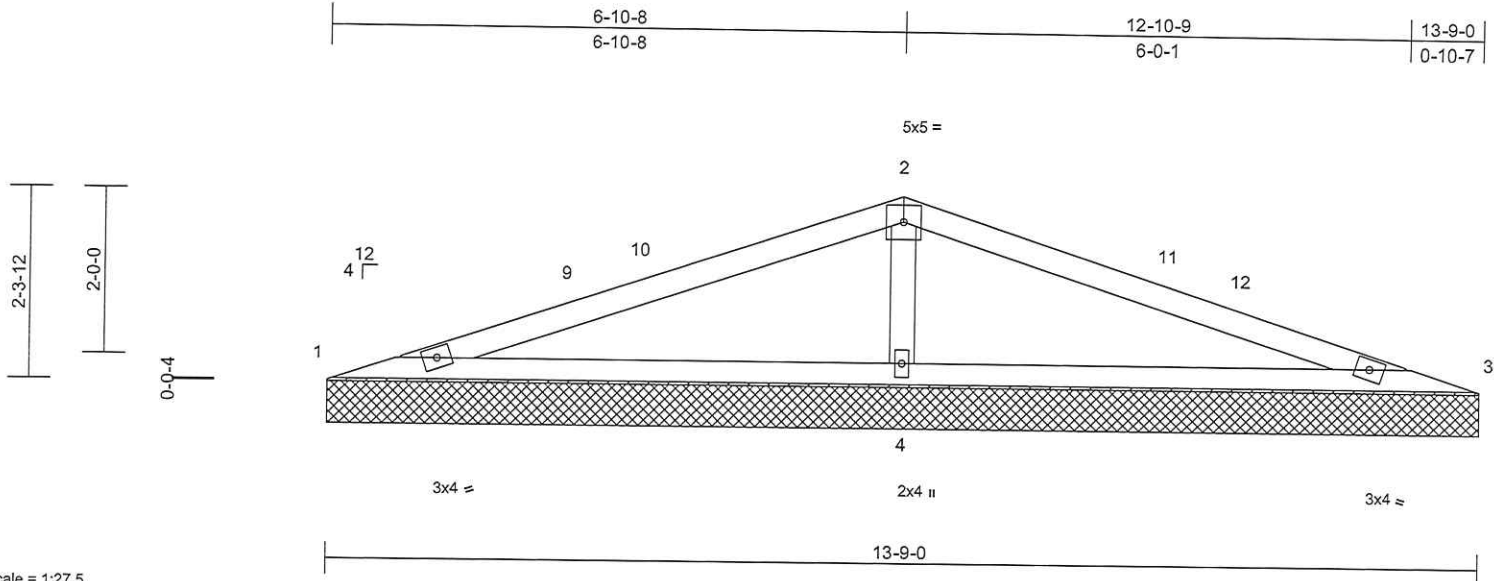
ENGINEERING BY  
**TRENCO**  
 A MiTek Affiliate  
 818 Soundside Road  
 Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Cooley v2-Roof	
P-9669-1	V10	Valley	1	1		I59431405
						Job Reference (optional)

Peak Truss Builders, LLC, New Hill, NC - 27562,

Run: 8.63 E Feb 23 2023 Print: 8.630 E Feb 23 2023 MiTek Industries, Inc. Tue Jul 11 11:42:10  
 ID:gmQKaxXpXQYgKlrc\_gjHfAz5krk-1?mrvTAd\_NcmhBdIYwKv0a4?b\_b1wmbE7n6lyzJTT

Page: 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	0.39	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.37	Vert(TL)	n/a	-	n/a	999		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.16	Horiz(TL)	0.00	4	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-MS							Weight: 42 lb	FT = 20%

**LUMBER**  
 TOP CHORD 2x4 SP No.1  
 BOT CHORD 2x4 SP No.1  
 OTHERS 2x4 SP No.3

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

**REACTIONS** (lb/size)  
 1=61/13-9-0, 3=61/13-9-0,  
 4=977/13-9-0  
 Max Horiz 1=20 (LC 10)  
 Max Uplift 1=-22 (LC 21), 3=-22 (LC 20),  
 4=-128 (LC 11)  
 Max Grav 1=115 (LC 20), 3=115 (LC 21),  
 4=977 (LC 1)

**FORCES** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 1-9=-208/590, 9-10=-200/606,  
 2-10=-197/663, 2-11=-196/663,  
 11-12=-198/606, 3-12=-206/590  
 BOT CHORD 1-4=-575/243, 3-4=-575/243  
 WEBS 2-4=-744/319

- 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.
  - Gable requires continuous bottom chord bearing.
  - Gable studs spaced at 4-0-0 oc.
  - \* 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.
  - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 22 lb uplift at joint 1, 22 lb uplift at joint 3 and 128 lb uplift at joint 4.
  - This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- LOAD CASE(S)** Standard

**NOTES**

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-10; Vult=120mph (3-second gust) Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; B=20ft; L=20ft; eave=2ft; Cat. II; Exp B; Enclosed; MWFRS (directional) and C-C Corner (3) 0-0-12 to 3-0-12, Exterior (2) 3-0-12 to 6-11-4, Corner (3) 6-11-4 to 9-11-4, Exterior (2) 9-11-4 to 13-9-12 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60



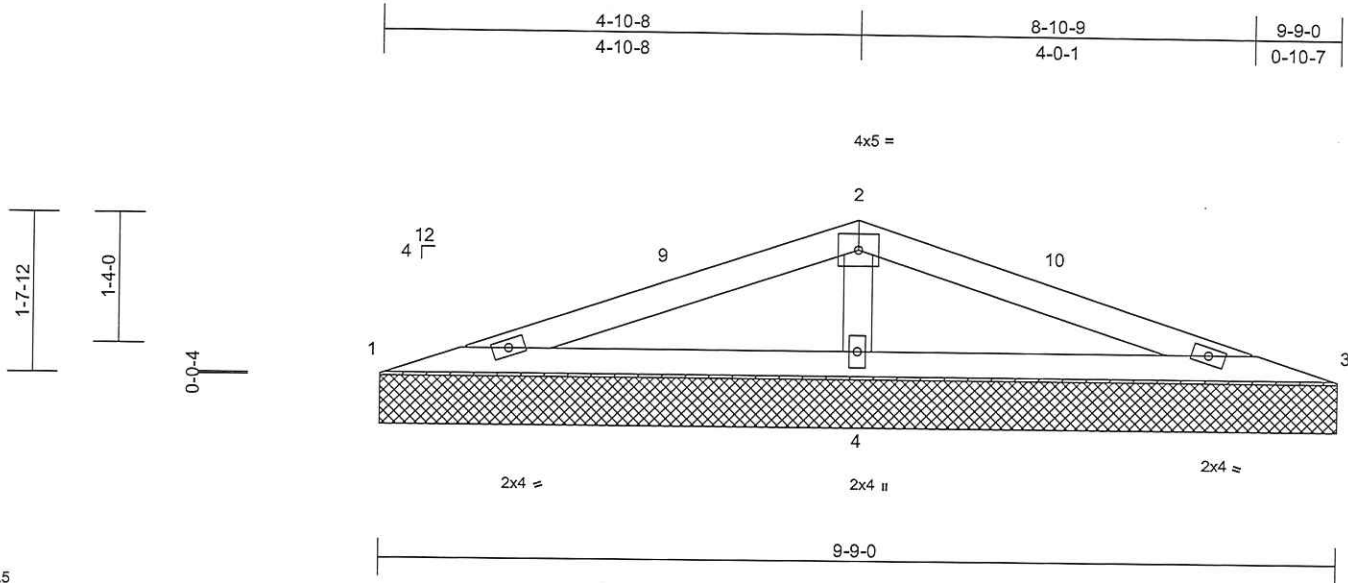


Job	Truss	Truss Type	Qty	Ply	Cooley v2-Roof	I59431406
P-9669-1	V11	Valley	1	1	Job Reference (optional)	

Peak Truss Builders, LLC, New Hill, NC - 27562,

Run: 8.63 E Feb 23 2023 Print: 8.630 E Feb 23 2023 MITek Industries, Inc. Tue Jul 11 11:42:27  
 ID:gmQKaxXpXQYGKIrC\_gjHHAz5krk-zfP1vyPYW7nvYc8Gw2mC?Vlunf7HYeiZyhEHH9yzJTA

Page: 1



Scale = 1:23.5

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.17	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.19	Vert(TL)	n/a	-	n/a	999		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.09	Horiz(TL)	0.00	4	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-MS							Weight: 29 lb	FT = 20%

**LUMBER**  
 TOP CHORD 2x4 SP No.1  
 BOT CHORD 2x4 SP No.1  
 OTHERS 2x4 SP No.3

**BRACING**  
 TOP CHORD Structural wood sheathing directly applied or 9-9-0 oc purlins.  
 BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.

**REACTIONS** (lb/size) 1=82/9-9-0, 3=82/9-9-0,  
 4=616/9-9-0  
 Max Horiz 1=14 (LC 10)  
 Max Uplift 1=-10 (LC 11), 3=-10 (LC 11),  
 4=-77 (LC 11)  
 Max Grav 1=110 (LC 20), 3=110 (LC 21),  
 4=616 (LC 1)

**FORCES** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 1-9=-167/309, 2-9=-134/347, 2-10=-132/347,  
 3-10=-137/309  
 BOT CHORD 1-4=-293/175, 3-4=-293/175  
 WEBS 2-4=-437/238

- Gable requires continuous bottom chord bearing.
  - Gable studs spaced at 4-0-0 oc.
  - \* 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.
  - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 10 lb uplift at joint 1, 10 lb uplift at joint 3 and 77 lb uplift at joint 4.
  - This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- LOAD CASE(S)** Standard

- NOTES**
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-10; Vult=120mph (3-second gust) Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; B=20ft; L=20ft; eave=2ft; Cat. II; Exp B; Enclosed; MWFRS (directional) and C-C Corner (3) 0-0-12 to 3-0-12, Exterior (2) 3-0-12 to 4-11-4, Corner (3) 4-11-4 to 8-0-15, Exterior (2) 8-0-15 to 9-9-12 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - 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.



July 11, 2023

**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE.**

Design valid for use only with MITek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see ANSITPI1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601

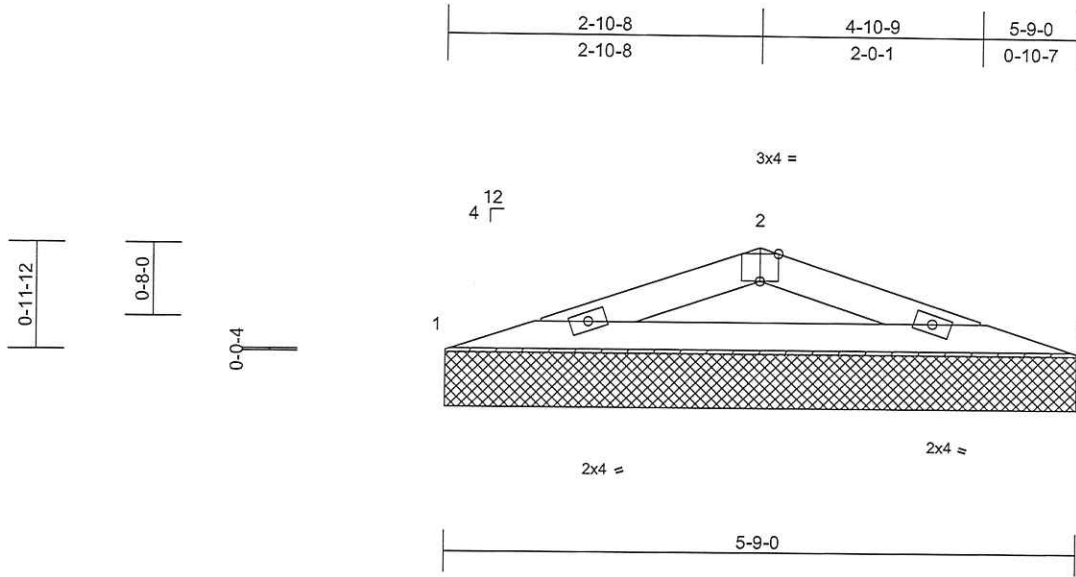
ENGINEERING BY  
**TRENCO**  
 A MITek Affiliate  
 818 Soundside Road  
 Edenton, NC 27932

Job P-9669-1	Truss V12	Truss Type Valley	Qty 1	Ply 1	Cooley v2-Roof Job Reference (optional)	I59431407
-----------------	--------------	----------------------	----------	----------	--	-----------

Peak Truss Builders, LLC, New Hill, NC - 27562,

Run: 8.63 E Feb 23 2023 Print: 8.630 E Feb 23 2023 MiTek Industries, Inc. Tue Jul 11 11:42:39  
ID:gmQKaxXpXQYgKfC\_gjHfAz5krk-cz7ZQ3Y4hpHC\_S3adZ\_0V1oxWVDCM41KjY8wjSyzJT\_

Page: 1



Scale = 1:21

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

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.18	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.18	Vert(TL)	n/a	-	n/a	999		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.00	Horiz(TL)	0.01	3	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-MP							Weight: 15 lb	FT = 20%

**LUMBER**

TOP CHORD 2x4 SP No.1  
BOT CHORD 2x4 SP No.1

**BRACING**

TOP CHORD Structural wood sheathing directly applied or 5-9-0 oc purlins.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS** (lb/size) 1=230/5-9-0, 3=230/5-9-0  
Max Horiz 1=-8 (LC 9)  
Max Uplift 1=-28 (LC 11), 3=-28 (LC 11)

**FORCES** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.

TOP CHORD 1-2=-551/330, 2-3=-417/268  
BOT CHORD 1-3=-298/516

**NOTES**

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-10; Vult=120mph (3-second gust) Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; B=20ft; L=20ft; eave=2ft; Cat. II; Exp B; Enclosed; MWFRS (directional) and C-C Corner (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=1.60
- 3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- 4) Gable requires continuous bottom chord bearing.
- 5) Gable studs spaced at 4-0-0 oc.
- 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) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 28 lb uplift at joint 1 and 28 lb uplift at joint 3.
  - 8) This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- LOAD CASE(S)** Standard



**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITTEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE.**

Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information** available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601

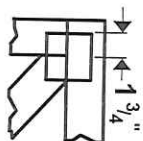
ENGINEERING BY  
**TRENCO**  
A MiTek Affiliate

818 Soundside Road  
Edenton, NC 27932

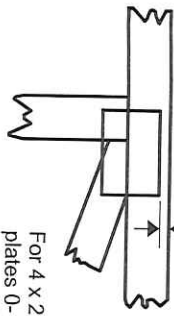


# Symbols

## 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- $\frac{1}{16}$ " from outside edge of truss.



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

\* Plate location details available in MITek 20/20 software or upon request.

## PLATE SIZE

4 X 4

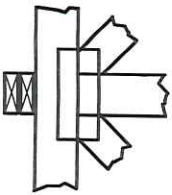
The first dimension is the plate width measured perpendicular to slots. Second dimension is the length parallel to slots.

## 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

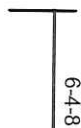


Indicates location where bearings (supports) occur. Icons vary but reaction section indicates joint number where bearings occur. Min size shown is for crushing only.

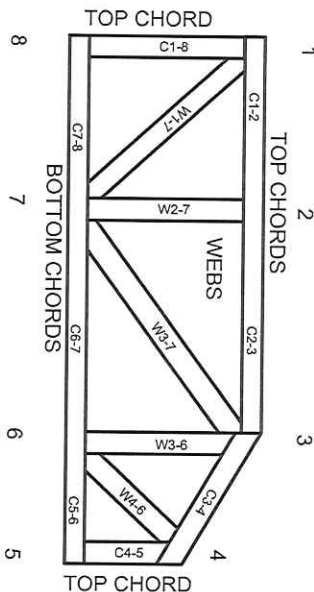
## Industry Standards:

ANSI/TPI1: National Design Specification for Metal Plate Connected Wood Truss Construction.  
DSB-89: Design Standard for Bracing.  
BCSI: Building Component Safety Information, Guide to Good Practice for Handling, Installing & Bracing of Metal Plate Connected Wood Trusses.

# Numbering System



dimensions shown in ft-in-sixteenths (Drawings not to scale)



JOINTS ARE GENERALLY NUMBERED/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-1311, ESR-1352, ESR1988  
ER-3907, ESR-2362, ESR-1397, ESR-3282

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.

© 2012 MITek® All Rights Reserved



MITek Engineering Reference Sheet: Mill-7473 rev. 5/19/2020



# 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 lightly 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. Gamber 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.