

RE: 25-3702-A
SGR-LOT 78 ROOF

Trenco
818 Soundside Rd
Edenton, NC 27932

Site Information:

Customer: Project Name: 25-3702-A
Lot/Block: Model:
Address: Subdivision:
City: State:

General Truss Engineering Criteria & Design Loads (Individual Truss Design Drawings Show Special Loading Conditions):

Design Code: IRC2018/TPI2014 Design Program: MiTek 20/20 8.7
Wind Code: ASCE 7-16 Wind Speed: 130 mph
Roof Load: 40.0 psf Floor Load: N/A psf

This package includes 21 individual, dated Truss Design Drawings and 0 Additional Drawings.

No.	Seal#	Truss Name	Date	No.	Seal#	Truss Name	Date
1	I71333174	PB01	2/11/2025	21	I71333194	V07	2/11/2025
2	I71333175	PB01GE	2/11/2025				
3	I71333176	T01	2/11/2025				
4	I71333177	T01GE	2/11/2025				
5	I71333178	T02	2/11/2025				
6	I71333179	T03	2/11/2025				
7	I71333180	T03AS	2/11/2025				
8	I71333181	T03GE	2/11/2025				
9	I71333182	T03S	2/11/2025				
10	I71333183	T04	2/11/2025				
11	I71333184	T04G	2/11/2025				
12	I71333185	T04GE	2/11/2025				
13	I71333186	T05	2/11/2025				
14	I71333187	T05GE	2/11/2025				
15	I71333188	V01	2/11/2025				
16	I71333189	V02	2/11/2025				
17	I71333190	V03	2/11/2025				
18	I71333191	V04	2/11/2025				
19	I71333192	V05	2/11/2025				
20	I71333193	V06	2/11/2025				

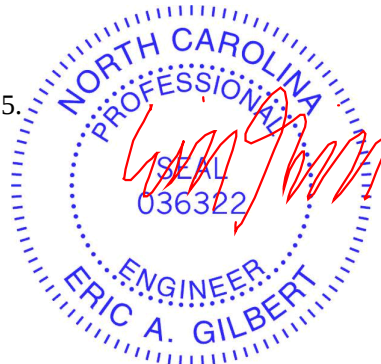
The truss drawing(s) referenced above have been prepared by
Truss Engineering Co. under my direct supervision
based on the parameters provided by Riverside Roof Truss.

Truss Design Engineer's Name: Gilbert, Eric

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

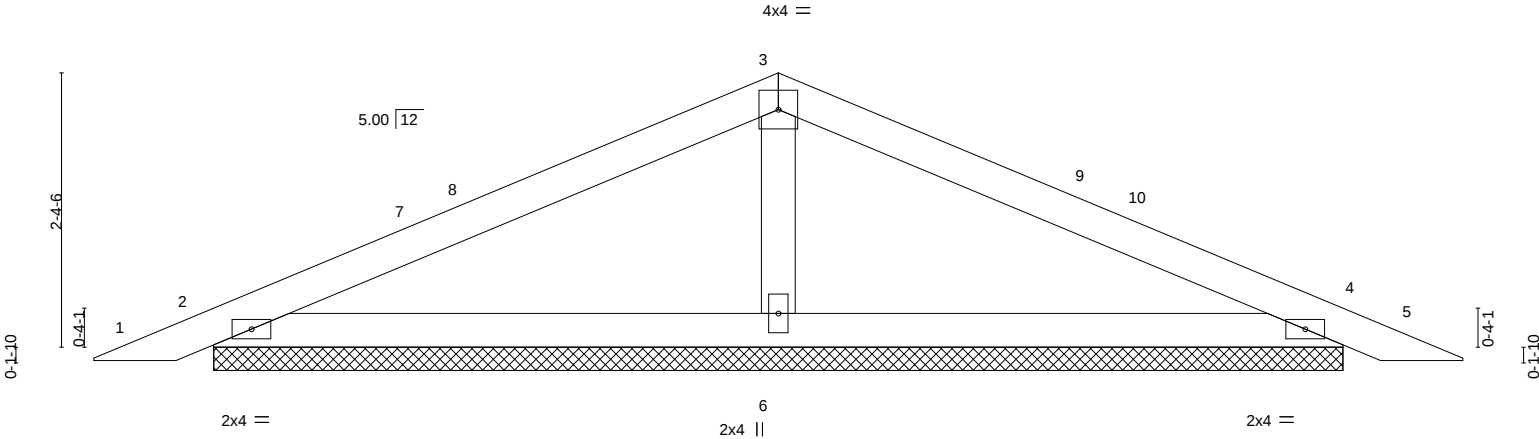
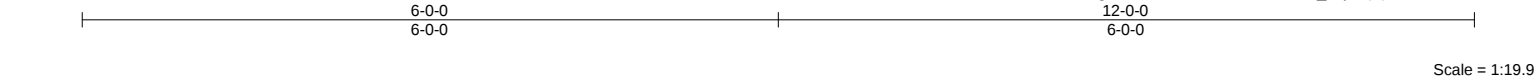
North Carolina COA: C-0844

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 TRENCO. Any project specific information included is for TRENCO customers file reference purpose only, and was not taken into account in the preparation of these designs. 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	SGR-LOT 78 ROOF	171333174
25-3702-A	PB01	Piggyback	19	1		

Riverside Roof Truss, LLC, Danville, Va - 24541, 8.730 s Dec 5 2024 MiTek Industries, Inc. Mon Feb 10 15:08:58 2025 Page 1
ID:07Iz9xtbY5He8mIUvBML?fzV1Kn-dCg2knf067vLzL7rMK8Dn6mSF_KqITQQb03dnMzmVeJ



LOADING (psf)		SPACING-		CSI.		DEFL.				PLATES	GRIP
TCLL (roof)	20.0	2-0-0		TC	0.35	in	(loc)	l/defl	L/d	MT20	244/190
Snow (Pf/Pg)	11.6/15.0	Plate Grip DOL	1.15	BC	0.23	0.01	5	n/r	120		
TCDL	10.0	Lumber DOL	1.15	WB	0.06	0.02	5	n/r	120		
BCLL	0.0 *	Rep Stress Incr	YES	Matrix-S		0.00	4	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014								Weight: 36 lb	FT = 20%

LUMBER-		BRACING-	
TOP CHORD	2x4 SP No.2	TOP CHORD	Structural wood sheathing directly applied or 6-0-0 oc purlins.
BOT CHORD	2x4 SP No.2	BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing.
OTHERS	2x4 SP No.3		

REACTIONS. (size) 2=9-8-13, 4=9-8-13, 6=9-8-13
Max Horz 2=30(LC 15)
Max Uplift 2=-44(LC 16), 4=-44(LC 16), 6=-3(LC 16)
Max Grav 2=220(LC 21), 4=220(LC 22), 6=430(LC 2)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
WEBS 3-6=-284/170

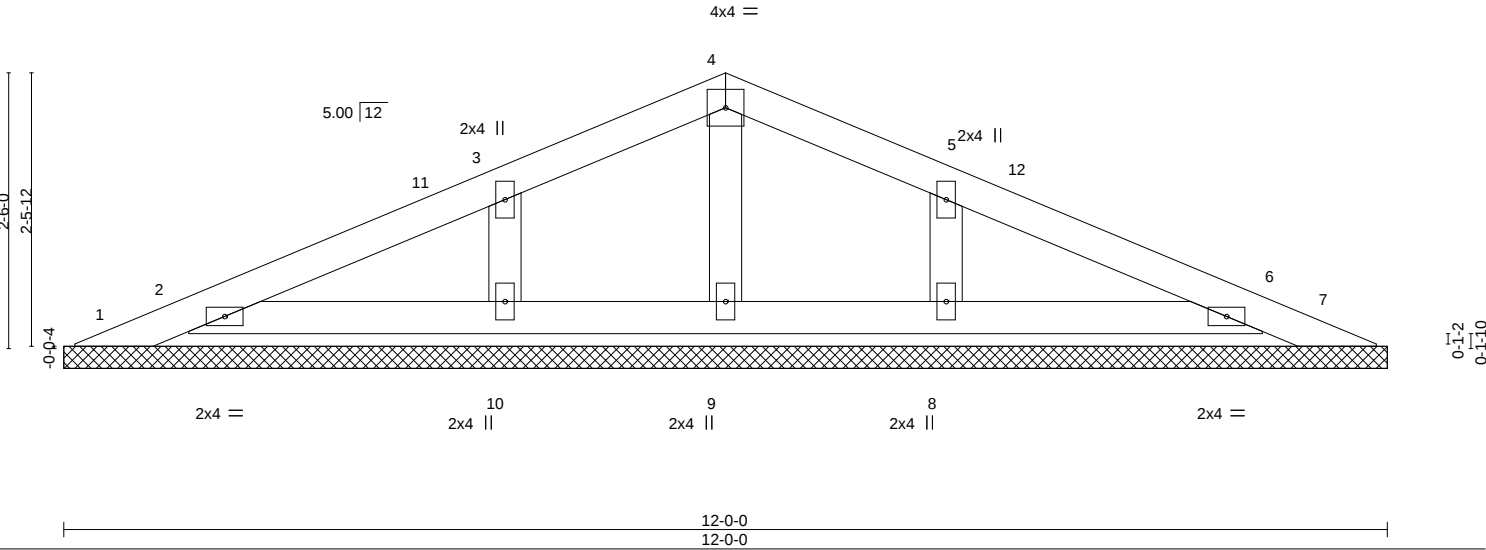
- NOTES-**
- Unbalanced roof live loads have been considered for this design.
 - Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp B; Enclosed; MWFRS (directional) and C-C Exterior(2E) 0-5-7 to 3-5-7, Interior(1) 3-5-7 to 6-0-0, Exterior(2R) 6-0-0 to 9-0-0, Interior(1) 9-0-0 to 11-6-9 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
 - TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=15.0 psf; Pf=11.6 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
 - Unbalanced snow loads have been considered for this design.
 - This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 11.6 psf on overhangs non-concurrent with other live loads.
 - Gable requires continuous bottom chord bearing.
 - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
 - * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
 - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 4, 6.
 - This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
 - See Standard Industry Piggyback Truss Connection Detail for Connection to base truss as applicable, or consult qualified building designer.



February 11, 2025

Job	Truss	Truss Type	Qty	Ply	SGR-LOT 78 ROOF	171333175
25-3702-A	PB01GE	GABLE	2	1	Job Reference (optional)	

Riverside Roof Truss, LLC, Danville, Va - 24541, 8.730 s Dec 5 2024 MiTek Industries, Inc. Mon Feb 10 15:08:59 2025 Page 1
ID:07Iz9xtbY5He8mIUvBML?fzV1Kn-5ODQx6gftQ1CbVi1v1fSKJh?OjqUwpZpgoBKpzmVel



LOADING (psf)		SPACING-		CSI.		DEFL.		PLATES		GRIP	
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.09	Vert(LL)	n/a	MT20		244/190	
Snow (Pf/Pg)	11.6/15.0	Lumber DOL	1.15	BC	0.05	Vert(CT)	n/a				
TCDL	10.0	Rep Stress Incr	YES	WB	0.05	Horz(CT)	0.00				
BCLL	0.0 *	Code IRC2018/TPI2014		Matrix-S							
BCDL	10.0										

LUMBER-		BRACING-	
TOP CHORD	2x4 SP No.2	TOP CHORD	Structural wood sheathing directly applied or 6-0-0 oc purlins.
BOT CHORD	2x4 SP No.2	BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing.
OTHERS	2x4 SP No.3		

REACTIONS. All bearings 12-0-0.
(lb) - Max Horz 1=30(LC 15)
Max Uplift All uplift 100 lb or less at joint(s) 1, 7, 2, 6, 10, 8
Max Grav All reactions 250 lb or less at joint(s) 1, 7, 2, 6, 9, 10, 8

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

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
 - Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; B=45ft; L=24ft; eave=2ft; Cat. II; Exp B; Enclosed; MWFRS (directional) and C-C Corner(3E) 0-5-7 to 3-5-7, Exterior(2N) 3-5-7 to 6-0-0, Corner(3R) 6-0-0 to 9-0-0, Exterior(2N) 9-0-0 to 11-6-9 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
 - 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.
 - TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=15.0 psf; Pf=11.6 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
 - Unbalanced snow loads have been considered for this design.
 - Gable requires continuous bottom chord bearing.
 - Gable studs spaced at 2-0-0 oc.
 - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
 - * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
 - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 7, 2, 6, 10, 8.
 - This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
 - See Standard Industry Piggyback Truss Connection Detail for Connection to base truss as applicable, or consult qualified building designer.



February 11,2025

Job	Truss	Truss Type	Qty	Ply	SGR-LOT 78 ROOF	171333176
25-3702-A	T01	Piggyback Base	6	1	Job Reference (optional)	

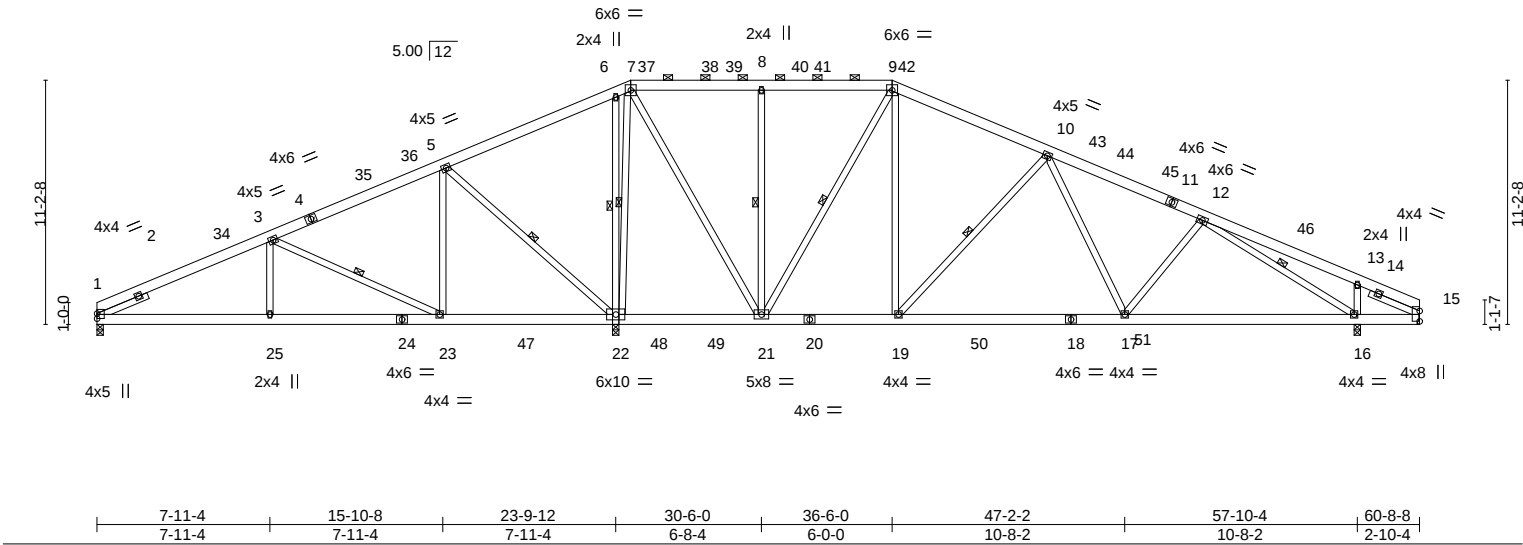
Riverside Roof Truss, LLC, Danville, Va - 24541, 8.730 s Dec 5 2024 MiTek Industries, Inc. Mon Feb 10 15:09:00 2025 Page 1

ID:071z9xtbY5He8mUVbML?zV1Kn-aanp9ShHek93DfHDTIAhsXsmMowbDAej2KYksFzmVeH

7-11-4 15-10-8 23-9-12 24-6-0 30-6-0 36-6-0 43-7-7 50-8-13 57-10-4 60-8-8

7-11-4 7-11-4 7-11-4 0-8-4 6-0-0 6-0-0 7-1-7 7-1-7 7-1-7 2-10-4

Scale = 1:105.8



LOADING (psf)	SPACING-	CSI.	DEFL.	PLATES	GRIP
TCLL (roof) 20.0	2-0-0	TC 0.50	in (loc) l/defl L/d	MT20	244/190
Snow (Pf/Pg) 16.5/15.0	Plate Grip DOL 1.15	BC 0.60	Vert(LL) -0.16 17-19 >999 240		
TCDL 10.0	Lumber DOL 1.15	WB 0.85	Vert(CT) -0.28 17-19 >999 180		
BCLL 0.0 *	Rep Stress Incr YES	Matrix-MS	Horz(CT) 0.04 15 n/a n/a		
BCDL 10.0	Code IRC2018/TPI2014			Weight: 490 lb	FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x6 SP No.2	TOP CHORD Structural wood sheathing directly applied or 5-8-6 oc purlins, except
BOT CHORD 2x6 SP No.2	2-0-0 oc purlins (6-0-0 max.): 7-9.
WEBS 2x4 SP No.3	Rigid ceiling directly applied or 6-0-0 oc bracing.
SLIDER Left 2x4 SP No.3 2-6-0, Right 2x4 SP No.3 2-6-0	WEBS 1 Row at midpt 3-23, 5-22, 6-22, 7-22, 8-21, 9-21, 10-19, 12-16

REACTIONS. All bearings 0-3-8 except (jt=length) 15=Mechanical.
(lb) - Max Horz 1=192(LC 15)
Max Uplift All uplift 100 lb or less at joint(s) 1, 16, 15 except 22=175(LC 16)
Max Grav All reactions 250 lb or less at joint(s) 15 except 1=725(LC 27), 16=1733(LC 28), 22=3282(LC 27)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-3=-962/116, 3-5=-286/126, 5-6=0/956, 6-7=0/641, 7-8=-365/202, 8-9=-365/202, 9-10=-955/223, 10-12=-1683/208
BOT CHORD 1-25=-30/996, 23-25=-30/996, 21-22=-686/187, 19-21=0/798, 17-19=-37/1276, 16-17=-85/1461
WEBS 3-25=0/311, 3-23=-903/133, 5-23=0/726, 5-22=-1211/152, 6-22=-849/214, 7-22=-1476/81, 7-21=-146/1755, 8-21=-507/136, 9-21=-1141/74, 9-19=-21/1011, 10-19=-839/166, 10-17=0/480, 12-16=-1774/139, 13-16=-398/186

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
 - Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; B=45ft; L=61ft; eave=7ft; Cat. II; Exp B; Enclosed; MWFRS (directional) and C-C Exterior(2E) 0-0-0 to 6-0-14, Interior(1) 6-0-14 to 24-6-0, Exterior(2R) 24-6-0 to 33-1-0, Interior(1) 33-1-0 to 36-6-0, Exterior(2R) 36-6-0 to 45-1-0, Interior(1) 45-1-0 to 60-8-8 zone; cantilever left and right exposed ; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
 - TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=15.0 psf; Pf=16.5 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10, Lu=50-0-0; Min. flat roof snow load governs. Rain surcharge applied to all exposed surfaces with slopes less than 0.500/12 in accordance with IBC 1608.3.4.
 - Unbalanced snow loads have been considered for this design.
 - WARNING:** This long span truss requires extreme care and experience for proper and safe handling and erection. For general handling and erection guidance, see Guide to Good Practice for Handling, Installing & Bracing of Metal Plate Connected Wood Trusses ("BCSI"), jointly produced by SBCA and TPI. The building owner or the owner's authorized agent shall contract with a qualified registered design professional for the design and inspection of the temporary installation restraint/bracing and the permanent individual truss member restraint/bracing. MiTek assumes no responsibility for truss manufacture, handling, erection, or bracing.
 - Provide adequate drainage to prevent water ponding.
 - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
 - * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
 - Refer to girder(s) for truss to truss connections.

Job	Truss	Truss Type	Qty	Ply	SGR-LOT 78 ROOF
25-3702-A	T01	Piggyback Base	6	1	I71333176
					Job Reference (optional)

- NOTES-**
- 10) Bearing at joint(s) 22 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
 - 11) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 16, 15 except (jt=lb) 22=175.
 - 12) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
 - 13) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

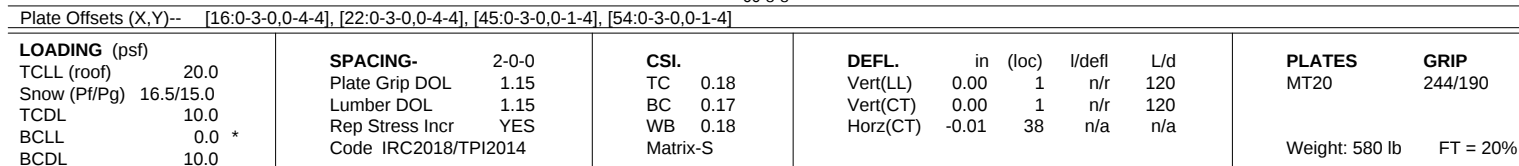
 **WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 BEFORE USE.**

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 and DSB-22** available from Truss Plate Institute (www.tpinst.org) and **BCSI Building Component Safety Information** available from the Structural Building Component Association (www.sbcacomponents.com)



818 Soundside Road
Edenton, NC 27932

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ID:071z9xtbY5He8mlUVbML?izV1Kn-WzvZZ8XALPnSyQcAdAD9xyxBpbjfhFU?Ve1rw8zmVeF
0-11-0 24-6-0 36-6-0 60-8-8
0-11-0 24-6-0 12-0-0 24-2-8
Scale = 1:106.6



REACTIONS. All bearings 58-0-0.
 (lb) - Max Horz 2=212(LC 15)
 Max Uplift All uplift 100 lb or less at joint(s) 2, 51, 52, 54, 57, 58, 59, 60, 62,
 63, 64, 65, 66, 67, 68, 48, 47, 46, 45, 43, 42, 41, 40, 39, 38
 Max Grav All reactions 250 lb or less at joint(s) 2, 49, 50, 51, 52, 54, 55, 56, 57,
 58, 59, 60, 62, 63, 64, 65, 66, 67, 48, 47, 46, 45, 43, 42, 41, 40, 39
 except 68=259(LC 28). 38=542(LC 2)

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

TOP CHORD 2-4=-157/296, 4-5=-126/259, 5-6=-120/258, 6-7=-111/251, 14-15=-91/278,
 15-16=-104/310, 16-17=-99/303, 17-18=-99/303, 18-19=-99/303, 19-20=-99/303,
 20-21=-99/303, 21-22=-99/303, 22-23=-104/310, 23-24=-91/278

WERS 33-38=-284/214

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; B=45ft; L=61ft; eave=2ft; Cat. II; Exp B; Enclosed; MWFRS (directional) and C-C Corner(3E) -0-11-0 to 5-1-14, Exterior(2N) 5-1-14 to 24-6-0, Corner(3R) 24-6-0 to 30-6-0, Exterior(2N) 30-6-0 to 36-6-0, Corner(3R) 36-6-0 to 42-6-0, Exterior(2N) 42-6-0 to 60-6-12 zone; cantilever left and right exposed ; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- 4) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=15.0 psf; Pf=16.5 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10, Lu=50-0.0; Min. flat roof snow load governs. Rain surcharge applied to all exposed surfaces with slopes less than 0.500/12 in accordance with IBC 1608.3.4.
- 5) Unbalanced snow loads have been considered for this design.
- 6) This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 11.6 psf on overhangs non-concurrent with other live loads.
- 7) WARNING: This long span truss requires extreme care and experience for proper and safe handling and erection. For general handling and erection guidance, see Guide to Good Practice for Handling, Installing & Bracing of Metal Plate Connected Wood Trusses ("BCSI"), jointly produced by SBCA and TPI. The building owner or the owner's authorized agent shall contract with a qualified registered design professional for the design and inspection of the temporary installation restraint/bracing and the permanent individual truss member restraint/bracing. MiTek assumes no responsibility for truss manufacture, handling, erection, or



February 11, 2025

Job	Truss	Truss Type	Qty	Ply	SGR-LOT 78 ROOF
25-3702-A	T01GE	PIGGYBACK BASE SUPPO	1	1	I71333177
Job Reference (optional)					

- NOTES-**
- 8) Provide adequate drainage to prevent water ponding.
 - 9) All plates are 2x4 MT20 unless otherwise indicated.
 - 10) Gable studs spaced at 2-0-0 oc.
 - 11) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
 - 12) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
 - 13) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 51, 52, 54, 57, 58, 59, 60, 62, 63, 64, 65, 66, 67, 68, 48, 47, 46, 45, 43, 42, 41, 40, 39, 38.
 - 14) N/A
 - 15) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
 - 16) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

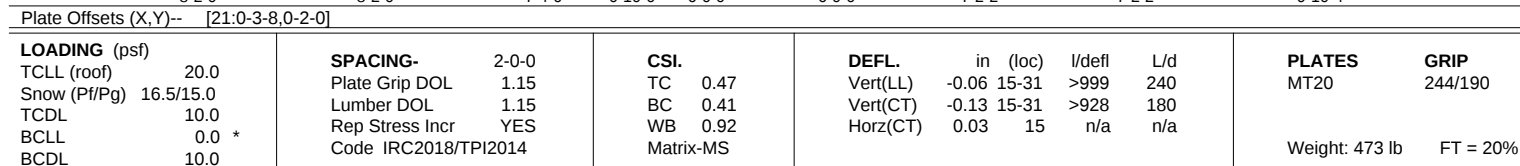
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 0-11-0 8-2-0 8-2-0 8-2-0 6-0-0 6-0-0 7-2-2 7-2-2 9-10-4
 Scale = 1:106



REACTIONS. All bearings 0-3-8 except (jt=length) 14=Mechanical.
(lb) - Max Horz 2=198(LC 15)
Max Uplift All uplift 100 lb or less at joint(s) 2, 15, 14 except 21=143(LC 16)
Max Grav All reactions 250 lb or less at joint(s) except 2=964(LC 28), 21=2793(LC 28), 15=1370(LC 29),
14=594(LC 29)

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

TOP CHORD	2-4=-1325/159, 4-6=-598/152, 6-7=0/574, 7-8=-422/232, 8-9=-422/232, 9-10=-831/245, 10-12=-1068/226, 12-14=-500/195
BOT CHORD	2-24=-69/1354, 22-24=-69/1354, 21-22=0/567, 19-21=-374/141, 18-19=0/692, 17-18=-29/884, 15-17=-87/451, 14-15=-87/451
WEBS	4-24=0/316, 4-22=-873/117, 6-22=0/701, 6-21=-1264/170, 7-21=-1614/190, 7-19=-125/1302, 8-19=-489/132, 9-19=-751/57, 9-18=-11/608, 10-18=-407/121, 12-17=0/572, 12-15=-1002/161

NOTES-

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCFL=6.0psf; BCDL=6.0psf; h=25ft; B=45ft; L=61ft; eave=7ft; Cat. II; Exp B; Enclosed; MWFRS (directional) and C-C Exterior(2E) -0-11-0 to 5-1-14, Interior(1) 5-1-14 to 24-6-0, Exterior(2R) 24-6-0 to 33-1-0, Interior(1) 33-1-0 to 36-6-0, Exterior(2R) 36-6-0 to 45-1-0, Interior(1) 45-1-0 to 60-8-8 zone; cantilever left and right exposed ; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 3) TCELL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=15.0 psf; Pf=16.5 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10, Lu=50-0-0; Min. flat roof snow load governs. Rain surcharge applied to all exposed surfaces with slopes less than 0.500/12 in accordance with IBC 1608.3.4.
- 4) Unbalanced snow loads have been considered for this design.
- 5) This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 11.6 psf on overhangs non-concurrent with other live loads.
- 6) WARNING: This long span truss requires extreme care and experience for proper and safe handling and erection. For general handling and erection guidance, see Guide to Good Practice for Handling, Installing & Bracing of Metal Plate Connected Wood Trusses ("BCSI"), jointly produced by SBCA and TPI. The building owner or the owner's authorized agent shall contract with a qualified registered design professional for the design and inspection of the temporary installation restraint/bracing and the permanent individual truss member restraint/bracing. MiTek assumes no responsibility for truss manufacture, handling, erection, or bracing.
- 7) Provide adequate drainage to prevent water ponding.
- 8) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.



February 11, 2025

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 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 and DSB-22** available from Truss Plate Institute (www.tpinst.org) and **BCSI Building Component Safety Information** available from the Structural Building Components Association (www.sbcacomponents.com)


ENGINEERING BY
TRENCO
 A MiTek Affiliate
 818 Soundside Road
 Edenburg, NC 27922

818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	SGR-LOT 78 ROOF
25-3702-A	T02	Piggyback Base	3	1	I71333178
					Job Reference (optional)

- NOTES-**
- 9) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
 - 10) Refer to girder(s) for truss to truss connections.
 - 11) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 15, 14 except (jt=lb) 21=143.
 - 12) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
 - 13) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

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818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	SGR-LOT 78 ROOF	171333179
25-3702-A	T03	PIGGYBACK BASE	3	1		

Riverside Roof Truss, LLC, Danville, Va - 24541, 8.730 s Dec 5 2024 MiTek Industries, Inc. Mon Feb 10 15:09:05 2025 Page 1
ID:07Iz9xtbY5He8mIUvBML?fvV1Kn-wYbiCAIPSGoLJQ9BGImSzaZdzpa0uPhScCFVXSzmVeC
-0-11-0 8-4-5 16-5-3 24-6-0 30-6-0 36-6-0 39-9-12 46-9-5 53-8-15 61-0-0 61-11-0
0-11-0 8-4-5 8-0-13 8-0-13 6-0-0 6-0-0 3-3-12 6-11-9 6-11-9 7-3-1 0-11-0
Scale = 1:106.8

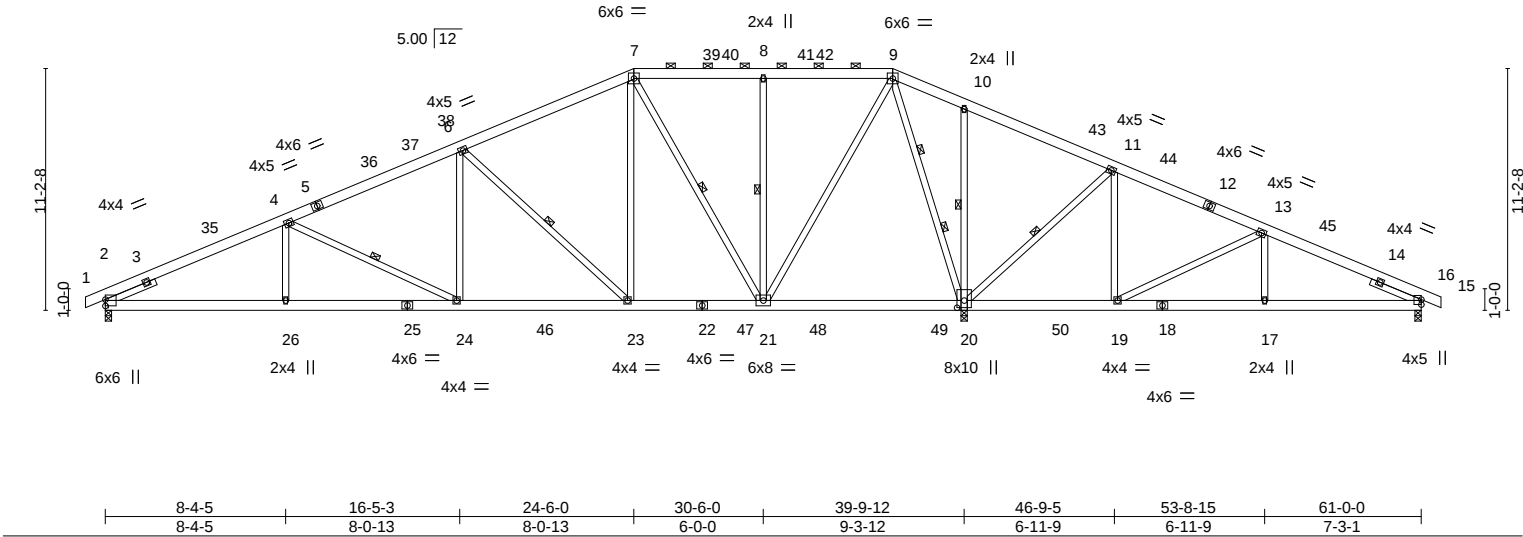


Plate Offsets (X,Y)-- [20:0-4-0,0-4-0]											
LOADING (psf)		SPACING-		CSI.		DEFL.				PLATES	
TCLL (roof)	20.0	2-0-0		TC 0.45		in (loc) l/defl L/d				MT20	
Snow (Pf/Pg)	16.5/15.0	Plate Grip DOL 1.15		BC 0.77		Vert(LL) -0.15 24-26 >999 240				244/190	
TCDL	10.0	Lumber DOL 1.15		WB 0.99		Vert(CT) -0.28 24-26 >999 180					
BCLL	0.0 *	Rep Stress Incr YES		Matrix-MS		Horz(CT) 0.06 20 n/a n/a					
BCDL	10.0	Code IRC2018/TPI2014								Weight: 484 lb FT = 20%	

LUMBER-		BRACING-	
TOP CHORD	2x6 SP No.2	TOP CHORD	Structural wood sheathing directly applied or 3-9-10 oc purlins, except
BOT CHORD	2x6 SP No.2		2-0-0 oc purlins (6-0-0 max.): 7-9.
WEBS	2x4 SP No.3 *Except*		Rigid ceiling directly applied or 6-0-0 oc bracing.
	9-20: 2x4 SP No.2	BOT CHORD	1 Row at midpt 4-24, 6-23, 7-21, 8-21, 10-20, 11-20
SLIDER	Left 2x4 SP No.3 2-6-0, Right 2x4 SP No.3 2-6-0	WEBS	2 Rows at 1/3 pts 9-20

REACTIONS. (size) 2=0-3-8, 15=0-3-8, 20=0-3-8
Max Horz 2=-201(LC 14)
Max Uplift 2=-114(LC 16), 15=-59(LC 16), 20=-180(LC 16)
Max Grav 2=1641(LC 28), 15=579(LC 55), 20=3518(LC 30)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-4=-2845/247, 4-6=-2191/267, 6-7=-1284/260, 7-8=-604/232, 8-9=-604/232, 9-10=0/1192, 10-11=0/1231, 11-13=-20/509, 13-15=-605/119
BOT CHORD 2-26=-143/2694, 24-26=-143/2694, 23-24=-69/2076, 21-23=0/1166, 20-21=-437/161, 19-20=-443/119, 17-19=-77/559, 15-17=-77/559
WEBS 4-26=0/273, 4-24=-690/108, 6-24=0/671, 6-23=-1245/166, 7-23=-39/1101, 7-21=-1148/92, 8-21=-499/141, 9-21=-130/1916, 9-20=-2384/154, 10-20=-460/164, 11-20=-1059/126, 11-19=0/643, 13-19=-832/114, 13-17=0/294

- 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; B=45ft; L=61ft; eave=7ft; Cat. II; Exp B; Enclosed; MWFRS (directional) and C-C Exterior(2E) -0-11-0 to 5-2-3, Interior(1) 5-2-3 to 24-6-0, Exterior(2R) 24-6-0 to 33-1-8, Interior(1) 33-1-8 to 36-6-0, Exterior(2R) 36-6-0 to 45-1-8, Interior(1) 45-1-8 to 61-11-0 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
 - 3) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=15.0 psf; Pf=16.5 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10, Lu=50-0-0; Min. flat roof snow load governs. Rain surcharge applied to all exposed surfaces with slopes less than 0.500/12 in accordance with IBC 1608.3.4.
 - 4) Unbalanced snow loads have been considered for this design.
 - 5) This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 11.6 psf on overhangs non-concurrent with other live loads.
 - 6) WARNING: This long span truss requires extreme care and experience for proper and safe handling and erection. For general handling and erection guidance, see Guide to Good Practice for Handling, Installing & Bracing of Metal Plate Connected Wood Trusses ("BCSI"), jointly produced by SBCA and TPI. The building owner or the owner's authorized agent shall contract with a qualified registered design professional for the design and inspection of the temporary installation restraint/bracing and the permanent individual truss member restraint/bracing. MiTek assumes no responsibility for truss manufacture, handling, erection, or bracing.
 - 7) Provide adequate drainage to prevent water ponding.
- Continued on page 2



February 11, 2025

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ENGINEERING BY
TRENCO
A MiTek Affiliate

818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	SGR-LOT 78 ROOF
25-3702-A	T03	PIGGYBACK BASE	3	1	I71333179
					Job Reference (optional)

- NOTES-**
- 9) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
 - 10) Bearing at joint(s) 20 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
 - 11) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 15 except (jt=lb) 2=114, 20=180.
 - 12) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
 - 13) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 BEFORE USE.

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818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	SGR-LOT 78 ROOF	171333180
25-3702-A	T03AS	PIGGYBACK BASE	1	1		

Riverside Roof Truss, LLC, Danville, Va - 24541, 8.730 s Dec 5 2024 MiTek Industries, Inc. Mon Feb 10 15:09:06 2025 Page 1
ID:07lz9xbY5He8mlUVbML?fzV1Kn-Ok94PWm2DawCxakNq?H56o6nVCwydsAbQG?23vzmVeB
-0-11-0 8-4-5 16-5-3 24-6-0 29-9-12 36-6-0 39-9-12 46-9-5 53-8-15 61-0-0
0-11-0 8-4-5 8-0-13 8-0-13 5-3-12 6-8-4 3-3-12 6-11-9 6-11-9 7-3-1
Scale = 1:108.7

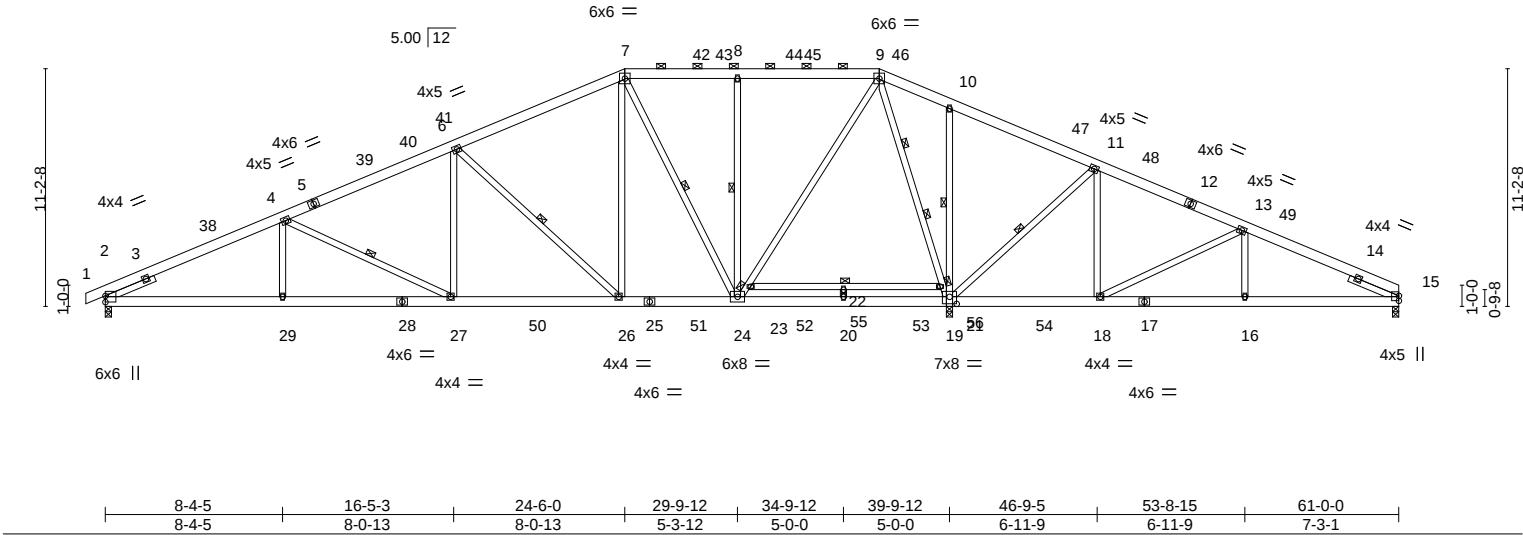


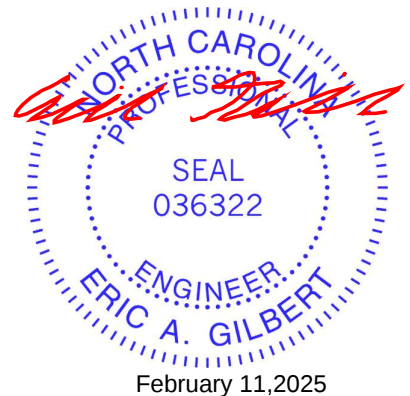
Plate Offsets (X,Y)-- [19:0-4-0,0-4-0]		8-4-5 16-5-3 24-6-0 29-9-12 34-9-12 39-9-12 46-9-5 53-8-15 61-0-0		8-4-5 8-0-13 8-0-13 5-3-12 5-0-0 5-0-0 6-11-9 6-11-9 7-3-1	
LOADING (psf)		SPACING-		CSI.	
TCLL (roof)	20.0	2-0-0		DEFL.	
Snow (Pf/Pg)	16.5/15.0	Plate Grip DOL 1.15		Vert(LL)	-0.24 22 >999 240
TCDL	10.0	Lumber DOL 1.15		Vert(CT)	-0.38 22 >999 180
BCLL	0.0 *	Rep Stress Incr YES		Horz(CT)	0.06 19 n/a n/a
BCDL	10.0	Code IRC2018/TPI2014		PLATES	
				MT20	
				GRIP	
				244/190	
				Weight: 496 lb	
				FT = 20%	

LUMBER-		BRACING-	
TOP CHORD	2x6 SP No.2	TOP CHORD	Structural wood sheathing directly applied or 3-8-14 oc purlins, except
BOT CHORD	2x6 SP No.2 *Except* 21-23: 2x4 SP No.2		2-0-0 oc purlins (6-0-0 max.): 7-9.
WEBS	2x4 SP No.3 *Except* 9-24: 2x4 SP No.2, 9-19: 2x4 SP DSS	BOT CHORD	Rigid ceiling directly applied or 6-0-0 oc bracing. Except: 6-0-0 oc bracing: 21-23
SLIDER	Left 2x4 SP No.3 2-6-0, Right 2x4 SP No.3 2-6-0	WEBS	1 Row at midpt 4-27, 6-26, 7-24, 8-24, 10-19, 11-19 2 Rows at 1/3 pts 9-21

REACTIONS.	
(size)	2=0-3-8, 15=0-3-8, 19=0-3-8
Max Horz	2=199(LC 15)
Max Uplift	2=-101(LC 16), 15=-32(LC 16), 19=-80(LC 16)
Max Grav	2=1664(LC 28), 15=497(LC 55), 19=3937(LC 30)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.	
TOP CHORD	2-4=-2895/218, 4-6=-2250/234, 6-7=-1335/229, 7-8=-767/196, 8-9=-767/196, 9-10=0/1288, 10-11=0/1323, 11-13=0/621, 13-15=-559/179
BOT CHORD	2-29=-137/2735, 27-29=-137/2735, 26-27=-59/2126, 24-26=0/1208, 20-24=-322/168, 19-20=-322/168, 18-19=-545/93, 16-18=-132/516, 15-16=-132/516
WEBS	4-29=0/267, 4-27=-680/112, 6-27=0/680, 6-26=-1256/164, 7-26=-60/1021, 7-24=-996/116, 8-24=-500/142, 23-24=-107/1971, 9-23=-77/2134, 9-21=-2597/117, 19-21=-2746/85, 10-19=-452/160, 11-19=-1033/135, 11-18=0/618, 13-18=-860/121, 13-16=0/309

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
 - Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCCL=6.0psf; BCDL=6.0psf; h=25ft; B=45ft; L=61ft; eave=7ft; Cat. II; Exp B; Enclosed; MWFRS (directional) and C-C Exterior(2E) -0-11-0 to 5-2-3, Interior(1) 5-2-3 to 24-6-0, Exterior(2R) 24-6-0 to 33-1-8, Interior(1) 33-1-8 to 36-6-0, Exterior(2R) 36-6-0 to 45-1-8, Interior(1) 45-1-8 to 61-0-0 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
 - TCCL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=15.0 psf; Pf=16.5 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10, Lu=50-0-0; Min. flat roof snow load governs. Rain surcharge applied to all exposed surfaces with slopes less than 0.500/12 in accordance with IBC 1608.3.4.
 - Unbalanced snow loads have been considered for this design.
 - This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 11.6 psf on overhangs non-concurrent with other live loads.
 - WARNING:** This long span truss requires extreme care and experience for proper and safe handling and erection. For general handling and erection guidance, see Guide to Good Practice for Handling, Installing & Bracing of Metal Plate Connected Wood Trusses ("BCSI"), jointly produced by SBCA and TPI. The building owner or the owner's authorized agent shall contract with a qualified registered design professional for the design and inspection of the temporary installation restraint/bracing and the permanent individual truss member restraint/bracing. MiTek assumes no responsibility for truss manufacture, handling, erection, or



Job	Truss	Truss Type	Qty	Ply	SGR-LOT 78 ROOF
25-3702-A	T03AS	PIGGYBACK BASE	1	1	I71333180
					Job Reference (optional)

- NOTES-**
- 7) Provide adequate drainage to prevent water ponding.
 - 8) All plates are 2x4 MT20 unless otherwise indicated.
 - 9) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
 - 10) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
 - 11) Bearing at joint(s) 19 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
 - 12) Provide metal plate or equivalent at bearing(s) 19 to support reaction shown.
 - 13) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 15, 19 except (jt=lb) 2=101.
 - 14) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
 - 15) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

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818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	SGR-LOT 78 ROOF	171333181
25-3702-A	T03GE	PIGGYBACK BASE SUPPO	1	1		

Riverside Roof Truss, LLC, Danville, Va - 24541, 8.730 s Dec 5 2024 MiTek Industries, Inc. Mon Feb 10 15:09:08 2025 Page 1
ID:071z9xbY5He8mlUVbML?fzV1Kn-L7GqqBnllBAwAtumxQJZBDBEN0oJ5zzuuaU98nzmVe9
-0-11-0 24-6-0 36-6-0 61-0-0 61-11-0
0-11-0 24-6-0 12-0-0 24-6-0 0-11-0
Scale = 1:107.3

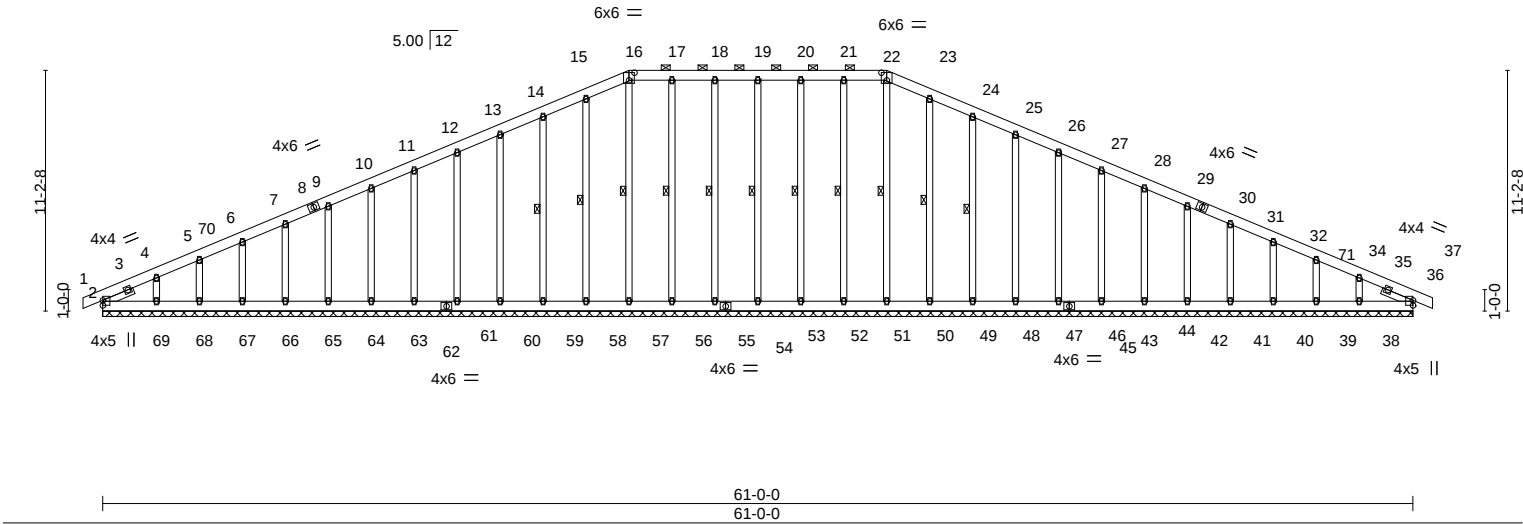


Plate Offsets (X,Y)-- [16:0-3-0,0-4-4], [22:0-3-0,0-4-4]		61-0-0 61-0-0	
LOADING (psf)	SPACING-	CSI.	DEFL.
TCLL (roof) 20.0	2-0-0	TC 0.05	in (loc) l/defl L/d
Snow (Pf/Pg) 16.5/15.0	Plate Grip DOL 1.15	BC 0.03	Vert(LL) -0.00 36 n/r 120
TCDL 10.0	Lumber DOL 1.15	WB 0.18	Vert(CT) 0.00 36 n/r 120
BCLL 0.0 *	Rep Stress Incr YES	Matrix-S	Horz(CT) 0.01 36 n/a n/a
BCDL 10.0	Code IRC2018/TPI2014		
		Weight: 586 lb FT = 20%	

LUMBER-	BRACING-
TOP CHORD 2x6 SP No.2	TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except
BOT CHORD 2x6 SP No.2	2-0-0 oc purlins (6-0-0 max.): 16-22.
OTHERS 2x4 SP No.3	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
SLIDER Left 2x4 SP No.3 1-6-5, Right 2x4 SP No.3 1-6-5	WEBS 1 Row at midpt 22-50, 21-51, 20-52, 19-53, 18-55, 17-56, 16-57, 15-58, 14-59, 23-49, 24-48

REACTIONS. All bearings 61-0-0.
(lb) - Max Horz 2=-200(LC 14)
Max Uplift All uplift 100 lb or less at joint(s) 2, 52, 53, 55, 58, 59, 60, 61, 63, 64, 65, 66, 67, 68, 69, 49, 48, 47, 46, 44, 43, 42, 41, 40, 39, 38
Max Grav All reactions 250 lb or less at joint(s) 2, 50, 51, 52, 53, 55, 56, 57, 58, 59, 60, 61, 63, 64, 65, 66, 67, 68, 69, 49, 48, 47, 46, 44, 43, 42, 41, 40, 39, 38, 36

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 14-15=-115/287, 15-16=-128/319, 16-17=-122/311, 17-18=-122/311, 18-19=-122/311, 19-20=-122/311, 20-21=-122/311, 21-22=-122/311, 22-23=-128/319, 23-24=-115/287

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
 - Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; B=45ft; L=61ft; eave=2ft; Cat. II; Exp B; Enclosed; MWFRS (directional) and C-C Corner(3E) -0-11-0 to 5-2-3, Exterior(2N) 5-2-3 to 24-6-0, Corner(3R) 24-6-0 to 30-6-0, Exterior(2N) 30-6-0 to 36-6-0, Corner(3R) 36-6-0 to 42-6-0, Exterior(2N) 42-6-0 to 61-11-0 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
 - 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.
 - TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=15.0 psf; Pf=16.5 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10, Lu=50-0-0; Min. flat roof snow load governs. Rain surcharge applied to all exposed surfaces with slopes less than 0.500/12 in accordance with IBC 1608.3.4.
 - Unbalanced snow loads have been considered for this design.
 - This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 11.6 psf on overhangs non-concurrent with other live loads.
 - WARNING: This long span truss requires extreme care and experience for proper and safe handling and erection. For general handling and erection guidance, see Guide to Good Practice for Handling, Installing & Bracing of Metal Plate Connected Wood Trusses ("BCSI"), jointly produced by SBCA and TPI. The building owner or the owner's authorized agent shall contract with a qualified registered design professional for the design and inspection of the temporary installation restraint/bracing and the permanent individual truss member restraint/bracing. MiTek assumes no responsibility for truss manufacture, handling, erection, or bracing.
 - Provide adequate drainage to prevent water ponding.
 - All plates are 2x4 MT20 unless otherwise indicated.
 - Gable requires continuous bottom chord bearing.
 - Gable end placed at 2-0-0 oc.



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Job	Truss	Truss Type	Qty	Ply	SGR-LOT 78 ROOF
25-3702-A	T03GE	PIGGYBACK BASE SUPPO	1	1	I71333181
Job Reference (optional)					

- NOTES-**
- 12) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
 - 13) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
 - 14) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 52, 53, 55, 58, 59, 60, 61, 63, 64, 65, 66, 67, 68, 69, 49, 48, 47, 46, 44, 43, 42, 41, 40, 39, 38.
 - 15) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
 - 16) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

 **WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 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 and DSB-22** available from Truss Plate Institute (www.tpinst.org) and **BCSI Building Component Safety Information** available from the Structural Building Component Association (www.sbcacomponents.com)

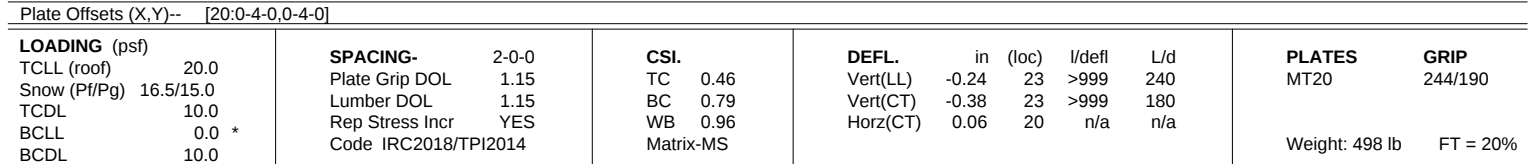


818 Soundside Road
Edenton, NC 27932

Riverside Roof Truss, LLC, Danville, Va - 24541, 8.730 s Dec 5 2024 MiTek Industries, Inc. Mon Feb 10 15:09:10 2025 Page 1

ID:071z9xtbY5He8mlUVbML?fv1Kn-HWObFtpYHpQePB183rM1GeGVqHuZgFCgczmVe7

Scale = 1:108.8



REACTIONS. (size) 2=0-3-8, 15=0-3-8, 20=0-3-8
Max Horz 2=-201(LC 14)
Max Uplift 2=-103(LC 16), 15=-64(LC 16), 20=-75(LC 16)
Max Grav 2=1663(LC 28), 15=552(LC 55), 20=3938(LC 30)

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

TOP CHORD 2-4=-2893/223, 4-6=-2248/239, 6-7=-1335/234, 7-8=-767/201, 8-9=-767/201,
9-10=0/1293, 10-11=0/1327, 11-13=0/626, 13-15=-550/182

BOT CHORD 2-30=-121/2737, 28-30=-121/2737, 27-28=-43/2129, 25-27=0/1210, 21-25=-325/179,
20-21=-325/179, 19-20=-546/108, 17-19=-135/507, 15-17=-135/507

WEBS 4-30=0/267, 4-28=-680/112, 6-28=0/680, 6-27=-1256/164, 7-27=-60/1021,
7-25=-997/114, 8-25=-500/142, 24-25=-105/1972, 9-24=-74/2135, 9-22=-2600/112,
20-22=-2749/79, 10-20=-452/160, 11-20=-1032/135, 11-19=0/616, 13-19=-855/110,
13-17=0/308

- NOTES-**
- 1) Unbalanced roof live loads have been considered for this design.
 - 2) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCFLD=6.0psf; BCDL=6.0psf; h=25ft; B=45ft; L=61ft; eave=7ft; Cat. II; Exp B; Enclosed; MWFRS (directional) and C-C Exterior(2E) -0-11-0 to 5-2-3, Interior(1) 5-2-3 to 24-6-0, Exterior(2R) 24-6-0 to 33-1-8, Interior(1) 33-1-8 to 36-6-0, Exterior(2R) 36-6-0 to 45-1-8, Interior(1) 45-1-8 to 61-11-0 zone; cantilever left and right exposed ; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
 - 3) TCFL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=15.0 psf; Pf=16.5 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10, Lu=50-0-0; Min. flat roof snow load governs. Rain surcharge applied to all exposed surfaces with slopes less than 0.500/12 in accordance with IBC 1608.3.4.
 - 4) Unbalanced snow loads have been considered for this design.
 - 5) This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 11.6 psf on overhangs non-concurrent with other live loads.
 - 6) WARNING: This long span truss requires extreme care and experience for proper and safe handling and erection. For general handling and erection guidance, see Guide to Good Practice for Handling, Installing & Bracing of Metal Plate Connected Wood Trusses ("BCSI"), jointly produced by SBCA and TPI. The building owner or the owner's authorized agent shall contract with a qualified registered design professional for the design and inspection of the temporary installation restraint/bracing and the permanent individual truss member restraint/bracing. MiTek assumes no responsibility for truss manufacture, handling, erection, or



February 11, 2025

Job	Truss	Truss Type	Qty	Ply	SGR-LOT 78 ROOF
25-3702-A	T03S	PIGGYBACK BASE	6	1	I71333182
Job Reference (optional)					

- NOTES-**
- 7) Provide adequate drainage to prevent water ponding.
 - 8) All plates are 2x4 MT20 unless otherwise indicated.
 - 9) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
 - 10) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
 - 11) Bearing at joint(s) 20 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
 - 12) Provide metal plate or equivalent at bearing(s) 20 to support reaction shown.
 - 13) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 15, 20 except (jt=lb) 2=103.
 - 14) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
 - 15) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 BEFORE USE.

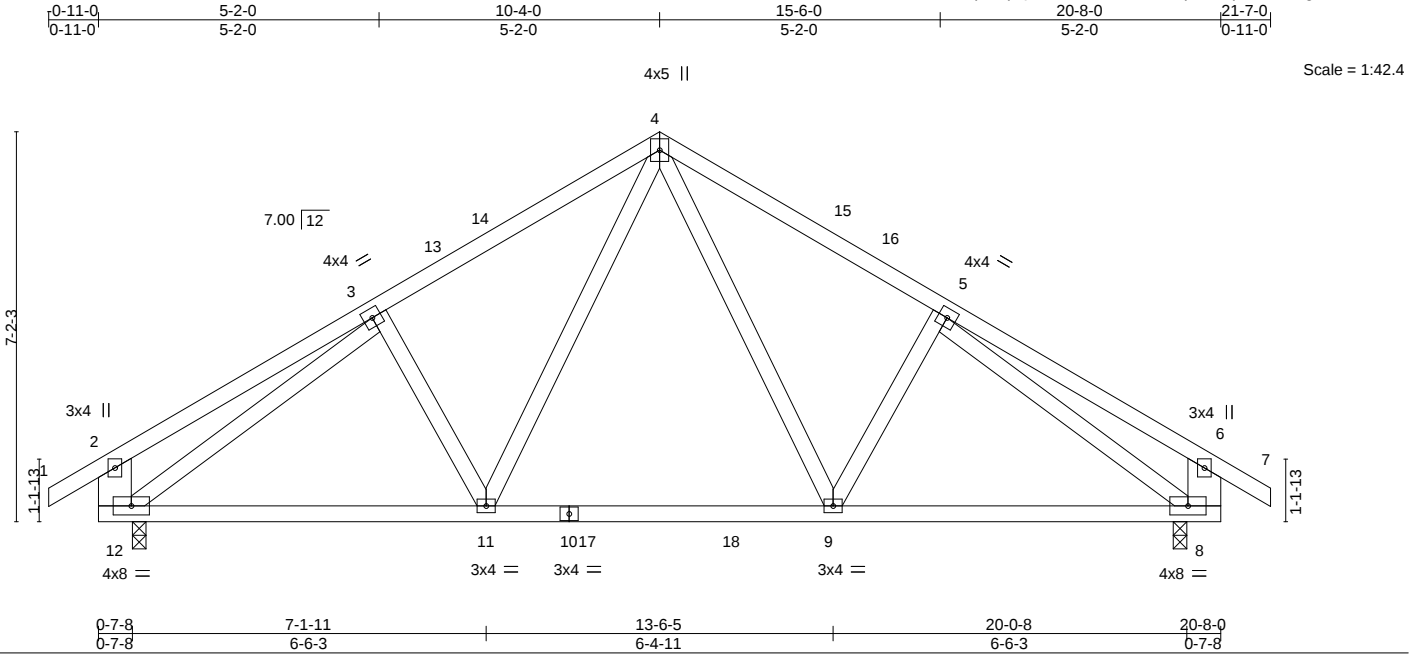
Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall 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 and DSB-22** available from Truss Plate Institute (www.tpinst.org) and **BCSI Building Component Safety Information** available from the Structural Building Component Association (www.sbcacompnents.com)



818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	SGR-LOT 78 ROOF	171333183
25-3702-A	T04	Common	1	1	Job Reference (optional)	

Riverside Roof Truss, LLC, Danville, Va - 24541, 8.730 s Dec 5 2024 MiTek Industries, Inc. Mon Feb 10 15:09:10 2025 Page 1
ID:071z9xtbY5He8mUVbML?fzV1Kn-HWObFtpYHpQePB183rM1GeGUoQLEZmpBLuzGCgzmVe7



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	0.40	Vert(LL)	-0.06	9-11	>999	240	244/190
Snow (Pf/Pg)	11.6/15.0	Lumber DOL	1.15	BC	0.51	Vert(CT)	-0.11	8-9	>999	180	
TCDL	10.0	Rep Stress Incr	YES	WB	0.61	Horz(CT)	0.03	8	n/a	n/a	
BCLL	0.0 *	Code IRC2018/TPI2014		Matrix-MS							
BCDL	10.0										
										Weight: 126 lb	FT = 20%

LUMBER-		BRACING-	
TOP CHORD	2x4 SP No.2	TOP CHORD	Structural wood sheathing directly applied or 5-8-5 oc purlins, except end verticals.
BOT CHORD	2x4 SP No.2	BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS	2x4 SP No.3 *Except*		
	2-12,6-8: 2x8 SP DSS		

REACTIONS.	(size) 8=0-3-0, 12=0-3-0
	Max Horz 12=164(LC 15)
	Max Uplift 8=-87(LC 16), 12=-87(LC 16)
	Max Grav 8=960(LC 29), 12=960(LC 28)

FORCES.	(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD	2-3=-272/92, 3-4=-1017/155, 4-5=-1017/155, 5-6=-272/92, 2-12=-308/109, 6-8=-308/109
BOT CHORD	11-12=-54/955, 9-11=0/702, 8-9=-40/863
WEBS	4-9=-33/430, 5-8=-901/62, 4-11=-33/430, 3-12=-902/62

- NOTES-**
- 1) Unbalanced roof live loads have been considered for this design.
 - 2) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TC DL=6.0psf; BCDL=6.0psf; h=25ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp B; Enclosed; MWFRS (directional) and C-C Exterior(2E) -0-11-0 to 2-1-0, Interior(1) 2-1-0 to 10-4-0, Exterior(2R) 10-4-0 to 13-4-0, Interior(1) 13-4-0 to 21-7-0 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
 - 3) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=15.0 psf; Pf=11.6 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
 - 4) Unbalanced snow loads have been considered for this design.
 - 5) This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 11.6 psf on overhangs non-concurrent with other live loads.
 - 6) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
 - 7) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
 - 8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 8, 12.
 - 9) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



February 11,2025

Job	Truss	Truss Type	Qty	Ply	SGR-LOT 78 ROOF	171333184
25-3702-A	T04G	COMMON GIRDER	1	1	Job Reference (optional)	

Riverside Roof Truss, LLC, Danville, Va - 24541,

8.730 s Dec 5 2024 MiTek Industries, Inc. Mon Feb 10 15:09:11 2025 Page 1
ID:07Iz9xtbY5He8mUVbML?fzV1Kn-liyzSDqA26YV1LcLcZtGprpZ9DepIbfKaYipl6zmVe6

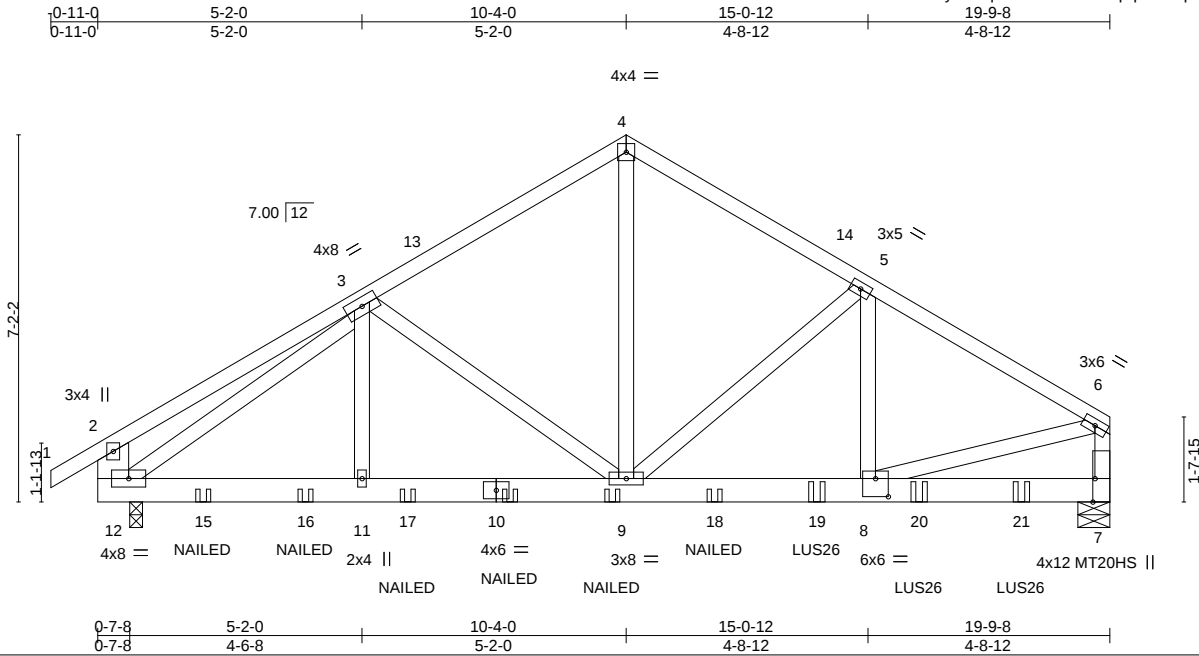


Plate Offsets (X,Y)-- [7:0-5-8,Edge], [8:0-3-0,0-4-4]															
LOADING (psf)		SPACING-		2-0-0		CSI.		DEFL.		in (loc) I/defl L/d		PLATES		GRIP	
TCLL (roof) 20.0		Plate Grip DOL		1.15		TC 0.78		Vert(LL)		-0.05 7-8 >999 240		MT20		244/190	
Snow (Pf/Pg) 11.6/15.0		Lumber DOL		1.15		BC 0.75		Vert(CT)		-0.09 7-8 >999 180		MT20HS		187/143	
TCDL 10.0		Rep Stress Incr		NO		WB 0.76		Horz(CT)		0.02 7 n/a n/a					
BCLL 0.0 *		Code IRC2018/TPI2014				Matrix-MS									
BCDL 10.0												Weight: 138 lb		FT = 20%	

LUMBER-	BRACING-
TOP CHORD 2x4 SP No.2	TOP CHORD Structural wood sheathing directly applied or 4-0-11 oc purlins, except end verticals.
BOT CHORD 2x6 SP No.2	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 2x4 SP No.3 *Except* 2-12: 2x8 SP DSS	

REACTIONS.	(size) 12=0-3-0, 7=0-7-8
	Max Horz 12=164(LC 11)
	Max Uplift 12=-415(LC 12), 7=-372(LC 12)
	Max Grav 12=1406(LC 2), 7=1908(LC 2)

FORCES.	(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD	2-3=-311/182, 3-4=-1059/399, 4-5=-1053/402, 5-6=-1895/446, 2-12=-332/163, 6-7=-1464/336
BOT CHORD	11-12=-329/1025, 9-11=-330/1025, 8-9=-307/1582
WEBS	4-9=-313/755, 5-9=-1052/160, 5-8=-120/894, 3-12=-954/309, 6-8=-302/1467

- 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; B=45ft; L=24ft; eave=4ft; Cat. II; Exp B; Enclosed; MWFRS (directional); cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
 - 3) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=15.0 psf; Pf=11.6 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
 - 4) Unbalanced snow loads have been considered for this design.
 - 5) This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 11.6 psf on overhangs non-concurrent with other live loads.
 - 6) All plates are MT20 plates unless otherwise indicated.
 - 7) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
 - 8) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
 - 9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 12=415, 7=372.
 - 10) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
 - 11) Use Simpson Strong-Tie LUS26 (4-10d Girder, 3-10d Truss, Single Ply Girder) or equivalent spaced at 2-0-0 oc max. starting at 14-0-12 from the left end to 18-0-12 to connect truss(es) to back face of bottom chord.
 - 12) Fill all nail holes where hanger is in contact with lumber.
 - 13) "NAILED" indicates 3-10d (0.148"x3") or 3-12d (0.148"x3.25") toe-nails per NDS guidelines.
 - 14) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 532 lb down and 39 lb up at 0-3-10 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
 - 15) In the CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).



February 11, 2025

Job	Truss	Truss Type	Qty	Ply	SGR-LOT 78 ROOF
25-3702-A	T04G	COMMON GIRDER	1	1	I71333184
Job Reference (optional)					

LOAD CASE(S) Standard

1) Dead + Snow (balanced): Lumber Increase=1.15, Plate Increase=1.15

Uniform Loads (plf)

Vert: 1-2=-43, 2-4=-43, 4-6=-43, 7-12=-20

Concentrated Loads (lb)

Vert: 10=68(B) 9=68(B) 12=-417 15=68(B) 16=68(B) 17=68(B) 18=68(B) 19=-395(B) 20=-395(B) 21=-395(B)

 **WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 BEFORE USE.**

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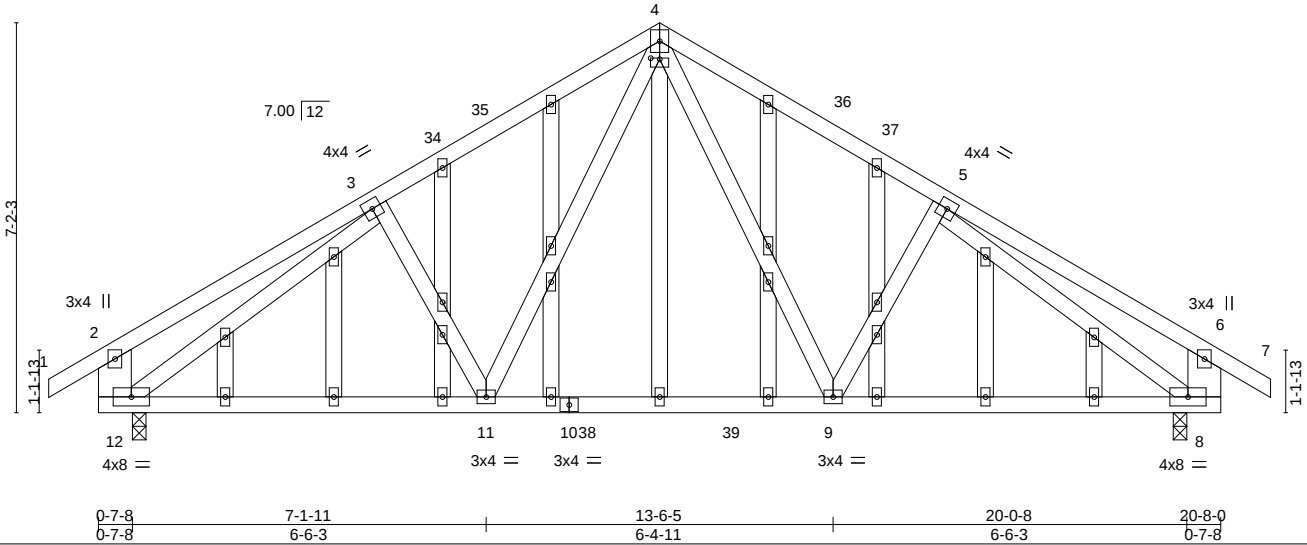
818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	SGR-LOT 78 ROOF	171333185
25-3702-A	T04GE	GABLE	1	1	Job Reference (optional)	

Riverside Roof Truss, LLC, Danville, Va - 24541, 8.730 s Dec 5 2024 MiTek Industries, Inc. Mon Feb 10 15:09:12 2025 Page 1
ID:07Iz9xtbY5He8mIUvBML?fv1Kn-DuWLGZqopQgMfVBXAGOV3Mqud1i1gJUupCSNHZzmVe5

0-11-0 5-2-0 10-4-0 15-6-0 20-8-0 21-7-0
0-11-0 5-2-0 5-2-0 5-2-0 5-2-0 0-11-0

4x5 || Scale = 1:42.4

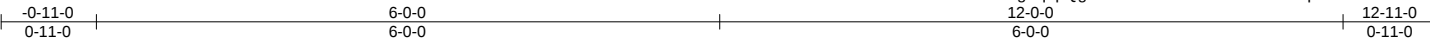


Job	Truss	Truss Type	Qty	Ply	SGR-LOT 78 ROOF	171333186
25-3702-A	T05	Common	5	1	Job Reference (optional)	

Riverside Roof Truss, LLC, Danville, Va - 24541,

8.730 s Dec 5 2024 MiTek Industries, Inc. Mon Feb 10 15:09:12 2025 Page 1

ID:071z9xtbY5He8mIUvBML?fzV1Kn-DuWlgZqopQgMfVBXAGOVl3MnEd5x1nhUpCSNHZzmVe5



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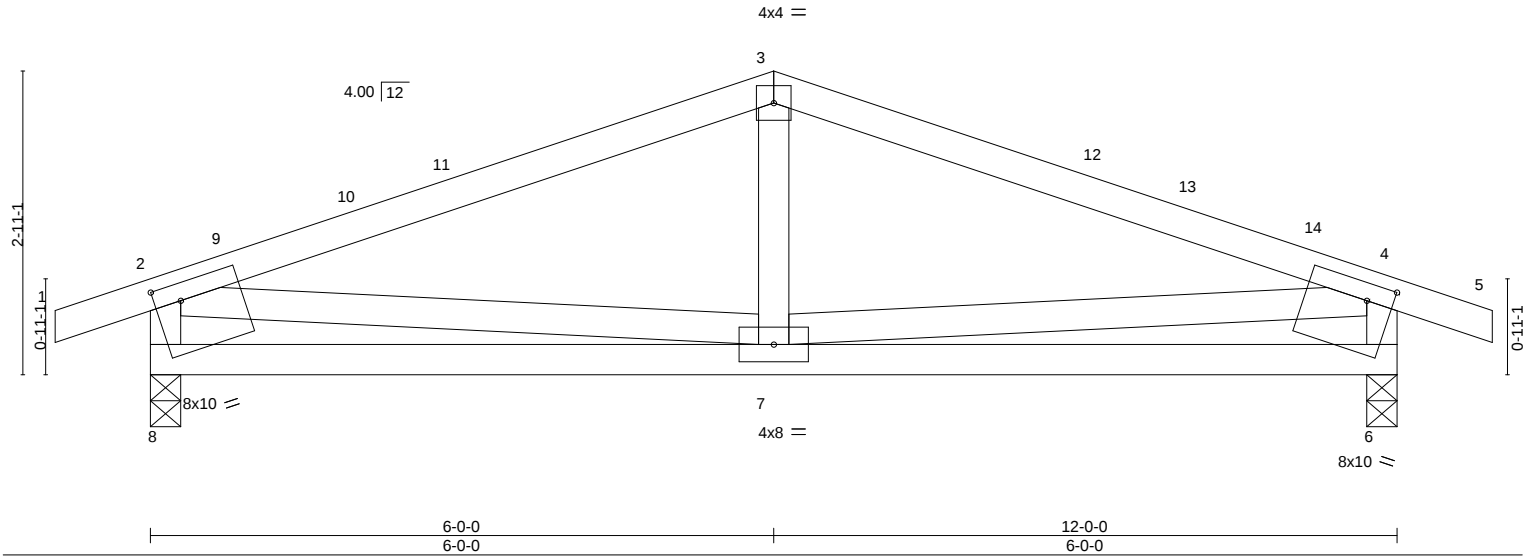


Plate Offsets (X,Y)--		[6:0-3-0,0-2-0], [8:0-3-0,0-2-0]	
LOADING (psf)		SPACING-	2-0-0
TCLL (roof)	20.0	Plate Grip DOL	1.15
Snow (Pf/Pg)	11.6/15.0	Lumber DOL	1.15
TCDL	10.0	Rep Stress Incr	YES
BCLL	0.0 *	Code IRC2018/TPI2014	
BCDL	10.0		
		CSI.	
		TC	0.64
		BC	0.31
		WB	0.14
		Matrix-MS	
		DEFL.	
		in (loc)	l/defl L/d
		Vert(LL)	-0.03 6-7 >999 240
		Vert(CT)	-0.06 6-7 >999 180
		Horz(CT)	0.01 6 n/a n/a
		PLATES	GRIP
		MT20	244/190
		Weight: 61 lb	FT = 20%

LUMBER-		BRACING-	
TOP CHORD	2x4 SP No.2	TOP CHORD	Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.
BOT CHORD	2x4 SP No.2	BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS	2x4 SP No.3		

REACTIONS.	(size) 8=0-3-8, 6=0-3-8
	Max Horz 8=46(LC 15)
	Max Uplift 8=-62(LC 16), 6=-62(LC 16)
	Max Grav 8=532(LC 2), 6=532(LC 2)

FORCES.	(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD	2-3=-658/217, 3-4=-658/217, 2-8=-478/234, 4-6=-478/234
BOT CHORD	7-8=-182/301, 6-7=-137/301
WEBS	2-7=-47/329, 4-7=-51/329

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
 - Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TC DL=6.0psf; BCDL=6.0psf; h=25ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp B; Enclosed; MWFRS (directional) and C-C Exterior(2E) -0-11-0 to 2-1-0, Interior(1) 2-1-0 to 6-0-0, Exterior(2R) 6-0-0 to 9-0-0, Interior(1) 9-0-0 to 12-11-0 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
 - TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=15.0 psf; Pf=11.6 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
 - Unbalanced snow loads have been considered for this design.
 - This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 11.6 psf on overhangs non-concurrent with other live loads.
 - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
 - * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
 - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 8, 6.
 - This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



February 11,2025

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 BEFORE USE.

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ENGINEERING BY
TRENCO
A MiTek Affiliate

818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	SGR-LOT 78 ROOF	171333187
25-3702-A	T05GE	Common Supported Gable	1	1	Job Reference (optional)	

Riverside Roof Truss, LLC, Danville, Va - 24541, 8.730 s Dec 5 2024 MiTek Industries, Inc. Mon Feb 10 15:09:13 2025 Page 1

ID:07Iz9xtbY5He8mIUvBML?fzV1Kn-h54jtrRakoDGemjkzvkuGu4b1VVmGOd1sBwp?zmVe4

-0-11-0

0-11-0

6-0-0

6-0-0

12-0-0

6-0-0

12-11-0

0-11-0

Scale = 1:22.2

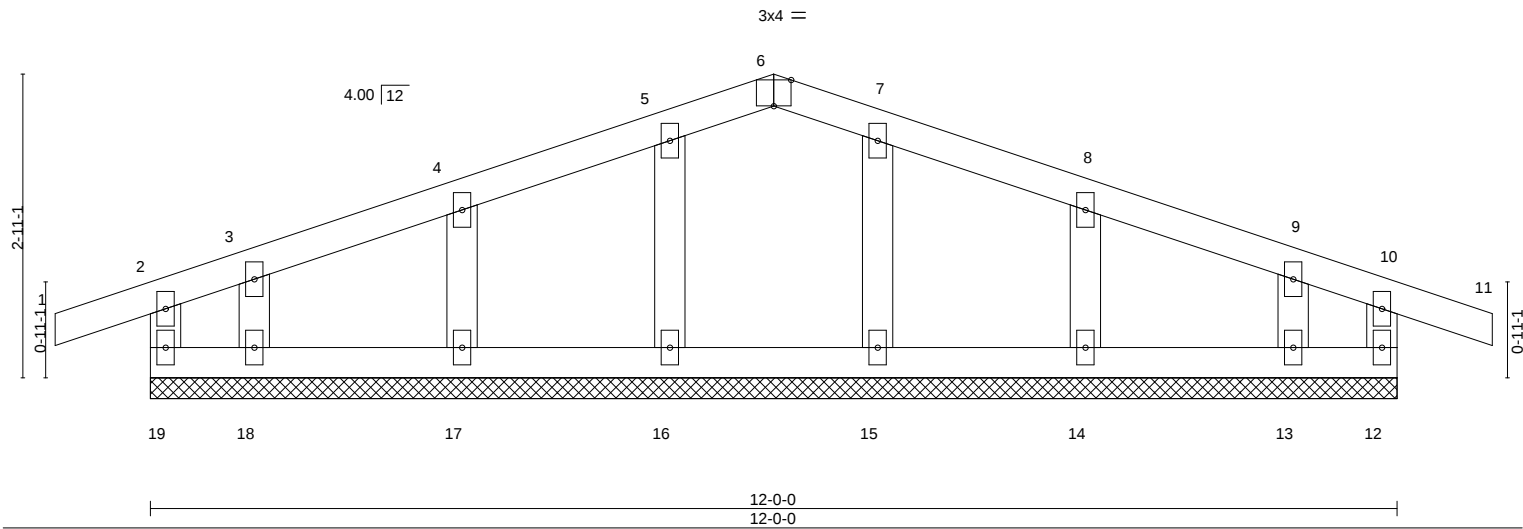


Plate Offsets (X,Y)-- [6:0-2-0,Edge]		12-0-0		12-0-0	
LOADING (psf)		SPACING-		CSI.	
TCLL (roof)	20.0	2-0-0		TC 0.08	
Snow (Pf/Pg)	11.6/15.0	Plate Grip DOL 1.15		BC 0.03	
TCDL	10.0	Lumber DOL 1.15		WB 0.04	
BCLL	0.0 *	Rep Stress Incr YES		Matrix-R	
BCDL	10.0	Code IRC2018/TPI2014			
				DEFL.	
				in (loc) l/defl L/d	
				Vert(LL) -0.00 11 n/r 120	
				Vert(CT) -0.00 11 n/r 120	
				Horz(CT) 0.00 12 n/a n/a	
				PLATES	
				MT20	
				GRIP	
				244/190	
				Weight: 53 lb	
				FT = 20%	

LUMBER-		BRACING-	
TOP CHORD	2x4 SP No.2	TOP CHORD	Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.
BOT CHORD	2x4 SP No.2	BOT CHORD	Rigid ceiling directly applied or 6-0-0 oc bracing.
WEBS	2x4 SP No.3		
OTHERS	2x4 SP No.3		

REACTIONS. All bearings 12-0-0.
(lb) - Max Horz 19=46(LC 15)
Max Uplift All uplift 100 lb or less at joint(s) 19, 12, 17, 18, 14, 13
Max Grav All reactions 250 lb or less at joint(s) 19, 12, 16, 17, 18, 15, 14, 13

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

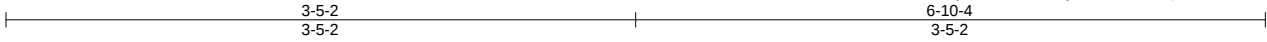
- NOTES-**
- Unbalanced roof live loads have been considered for this design.
 - Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; B=45ft; L=24ft; eave=2ft; Cat. II; Exp B; Enclosed; MWFRS (directional) and C-C Corner(3E) -0-11-0 to 2-1-0, Exterior(2N) 2-1-0 to 6-0-0, Corner(3R) 6-0-0 to 9-0-0, Exterior(2N) 9-0-0 to 12-11-0 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
 - 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.
 - TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=15.0 psf; Pf=11.6 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
 - Unbalanced snow loads have been considered for this design.
 - This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 11.6 psf on overhangs non-concurrent with other live loads.
 - All plates are 2x4 MT20 unless otherwise indicated.
 - Gable requires continuous bottom chord bearing.
 - Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
 - Gable studs spaced at 2-0-0 oc.
 - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
 - * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
 - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 19, 12, 17, 18, 14, 13.
 - This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



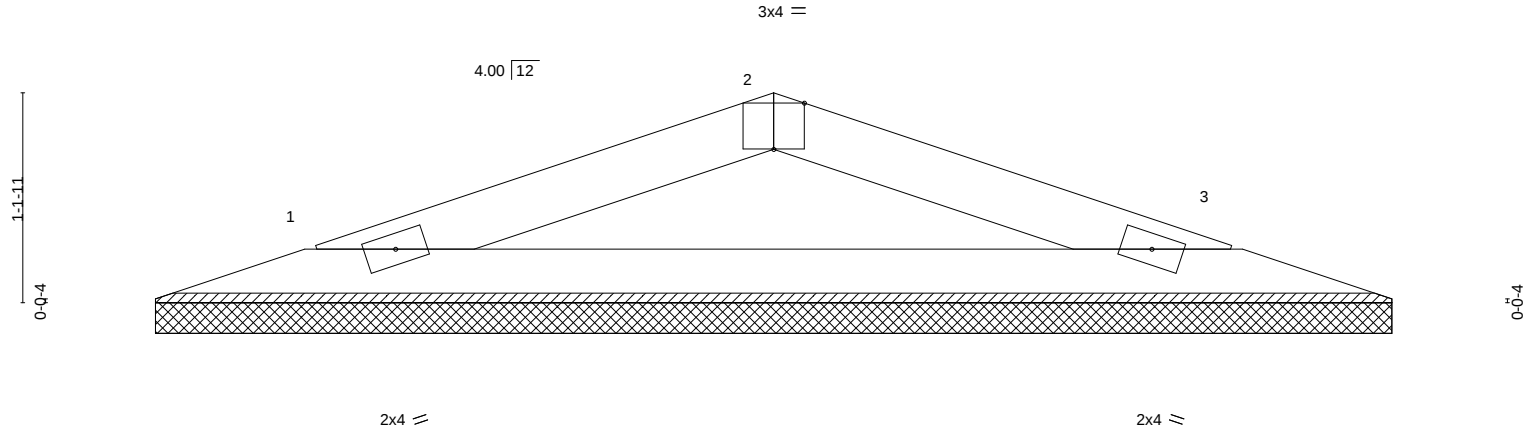
February 11,2025

Job	Truss	Truss Type	Qty	Ply	SGR-LOT 78 ROOF
25-3702-A	V01	Valley	1	1	171333188
Riverside Roof Truss, LLC, Danville, Va - 24541,					Job Reference (optional)

8.730 s Dec 5 2024 MiTek Industries, Inc. Mon Feb 10 15:09:13 2025 Page 1
ID:07Iz9xtbY5He8mIUvBML?fzV1Kn-h54jivrRakoDGemjkzvkuGu3d1QvmG3d1sBwp?zmVe4



Scale = 1:12.5



0-0-12 0-0-12		6-10-4 6-9-8	
Plate Offsets (X,Y)--		[2:0-2-0,Edge]	
LOADING (psf)		SPACING-	2-0-0
TCLL (roof)	20.0	Plate Grip DOL	1.15
Snow (Pf/Pg)	11.6/15.0	Lumber DOL	1.15
TCDL	10.0	Rep Stress Incr	YES
BCLL	0.0 *	Code	IRC2018/TPI2014
BCDL	10.0		
		CSI.	
		TC	0.15
		BC	0.32
		WB	0.00
		Matrix-P	
		DEFL.	
		in (loc)	l/defl L/d
		Vert(LL)	n/a - n/a 999
		Vert(CT)	n/a - n/a 999
		Horz(CT)	0.00 3 n/a n/a
		PLATES	GRIP
		MT20	244/190
		Weight: 18 lb	FT = 20%

LUMBER-		BRACING-	
TOP CHORD	2x4 SP No.2	TOP CHORD	Structural wood sheathing directly applied or 6-0-0 oc purlins.
BOT CHORD	2x4 SP No.2	BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) 1=6-8-12, 3=6-8-12
Max Horz 1=-9(LC 14)
Max Uplift 1=-12(LC 16), 3=-12(LC 16)
Max Grav 1=199(LC 2), 3=199(LC 2)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-2=-251/243, 2-3=-251/252

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
 - Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp B; Enclosed; MWFRS (directional) and C-C Exterior(2E) zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
 - TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=15.0 psf; Pf=11.6 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
 - Unbalanced snow loads have been considered for this design.
 - Gable requires continuous bottom chord bearing.
 - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
 - * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
 - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 3.
 - This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



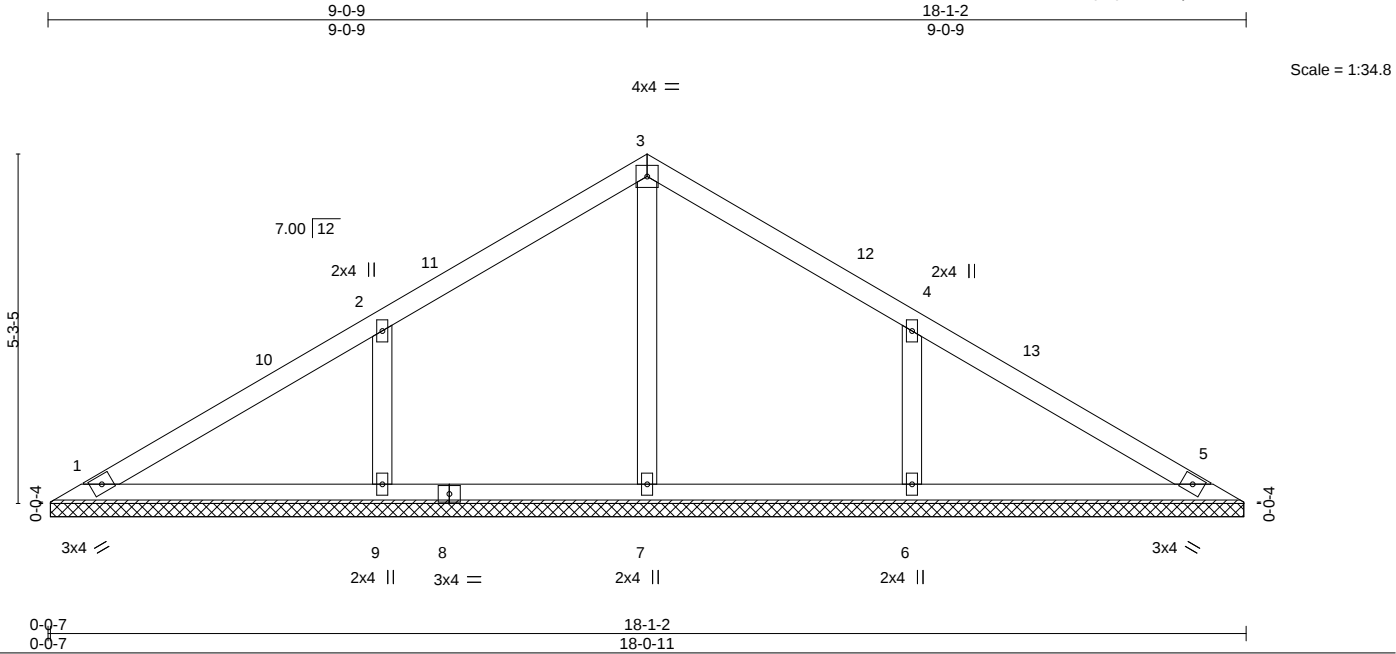
February 11,2025

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

Job	Truss	Truss Type	Qty	Ply	SGR-LOT 78 ROOF
25-3702-A	V02	Valley	1	1	171333189
Job Reference (optional)					

Riverside Roof Truss, LLC, Danville, Va - 24541, 8.730 s Dec 5 2024 MiTek Industries, Inc. Mon Feb 10 15:09:14 2025 Page 1
ID:07lz9xtbY5He8mlUVbML?fvV1Kn-9Hd55Fs3L1w4uoLvHqZQURCNRpVi1mGWxTLRzmVe3



LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof) 20.0	2-0-0	TC 0.27	Vert(LL) n/a	-	n/a	999	MT20	244/190
Snow (Pf/Pg) 11.6/15.0	Plate Grip DOL 1.15	BC 0.16	Vert(CT) n/a	-	n/a	999		
TCDL 10.0	Lumber DOL 1.15	WB 0.08	Horz(CT) 0.00	5	n/a	n/a		
BCLL 0.0 *	Rep Stress Incr YES	Matrix-S						
BCDL 10.0	Code IRC2018/TPI2014						Weight: 70 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.

All bearings 18-0-5.
(lb) - Max Horz 1=99(LC 15)
Max Uplift All uplift 100 lb or less at joint(s) 9, 6
Max Grav All reactions 250 lb or less at joint(s) 1, 5, 7 except 9=412(LC 33), 6=412(LC 34)

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

WEBS 2-9=-305/140, 4-6=-305/140

NOTES-

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp B; Enclosed; MWFRS (directional) and C-C Exterior(2E) 0-6-8 to 3-6-8, Interior(1) 3-6-8 to 9-0-9, Exterior(2R) 9-0-9 to 12-0-9, Interior(1) 12-0-9 to 17-6-10 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
- TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=15.0 psf; Pf=11.6 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
- Unbalanced snow loads have been considered for this design.
- Gable requires continuous bottom chord bearing.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 9, 6.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



February 11, 2025

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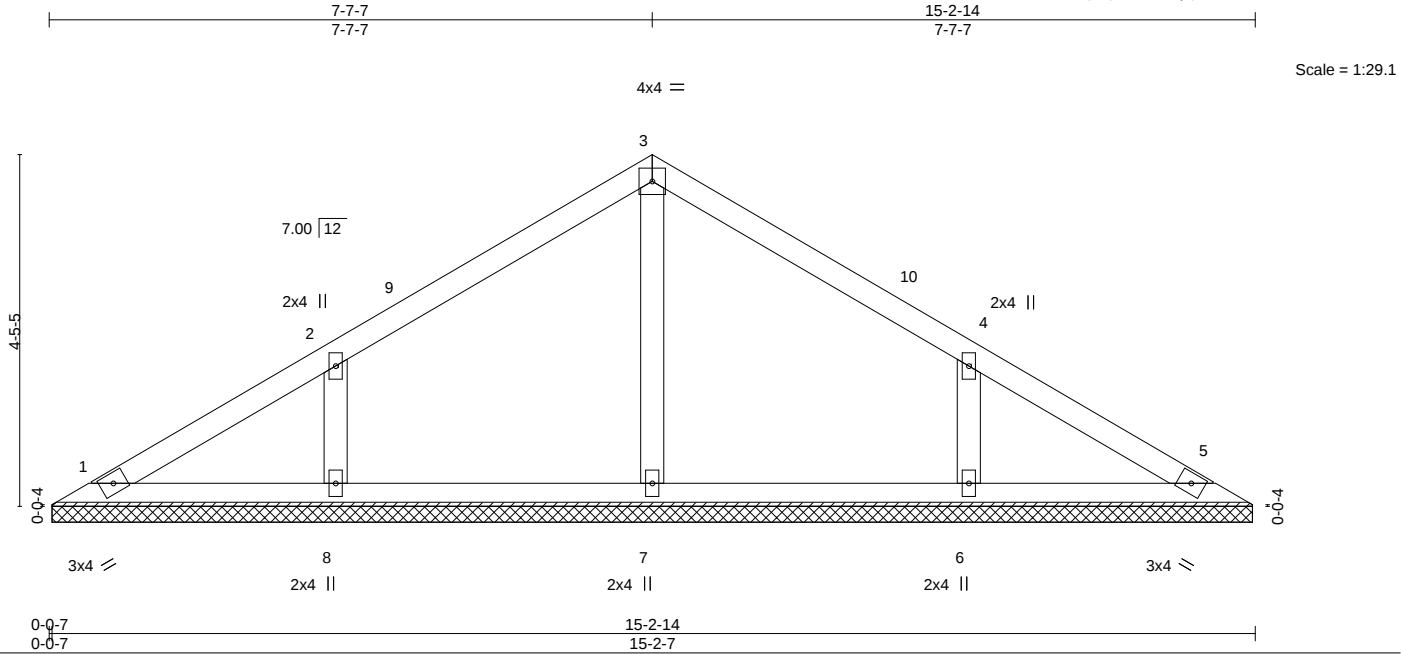
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ENGINEERING BY
TRENCO
A MiTek Affiliate

818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	SGR-LOT 78 ROOF	171333190
25-3702-A	V03	Valley	1	1	Job Reference (optional)	

Riverside Roof Truss, LLC, Danville, Va - 24541, 8.730 s Dec 5 2024 MiTek Industries, Inc. Mon Feb 10 15:09:14 2025 Page 1
ID:07Iz9xtbY5He8mIUvBML?fzV1Kn-9Hd55Fs3L1w4uoLvHqZzQURDXRqQViGmGWxTLRzmVe3



LOADING (psf)	SPACING-	CS.	DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof) 20.0	2-0-0	TC 0.20	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf/Pg) 11.6/15.0	Plate Grip DOL 1.15	BC 0.11	Vert(CT)	n/a	-	n/a	999		
TCDL 10.0	Lumber DOL 1.15	WB 0.07	Horz(CT)	0.00	5	n/a	n/a		
BCLL 0.0 *	Rep Stress Incr YES	Matrix-S							
BCDL 10.0	Code IRC2018/TPI2014							Weight: 57 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.

All bearings 15-2-0.
(lb) - Max Horz 1=-82(LC 14)
Max Uplift All uplift 100 lb or less at joint(s) 8, 6
Max Grav All reactions 250 lb or less at joint(s) 1, 5 except 7=267(LC 2), 8=335(LC 33), 6=335(LC 34)

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

WEBS 2-8=-254/134, 4-6=-254/134

NOTES-

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp B; Enclosed; MWFRS (directional) and C-C Exterior(2E) 0-6-8 to 3-7-7, Interior(1) 3-7-7 to 7-7-7, Exterior(2R) 7-7-7 to 10-7-7, Interior(1) 10-7-7 to 14-8-6 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=15.0 psf; Pf=11.6 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
- Unbalanced snow loads have been considered for this design.
- Gable requires continuous bottom chord bearing.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 8, 6.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



February 11, 2025

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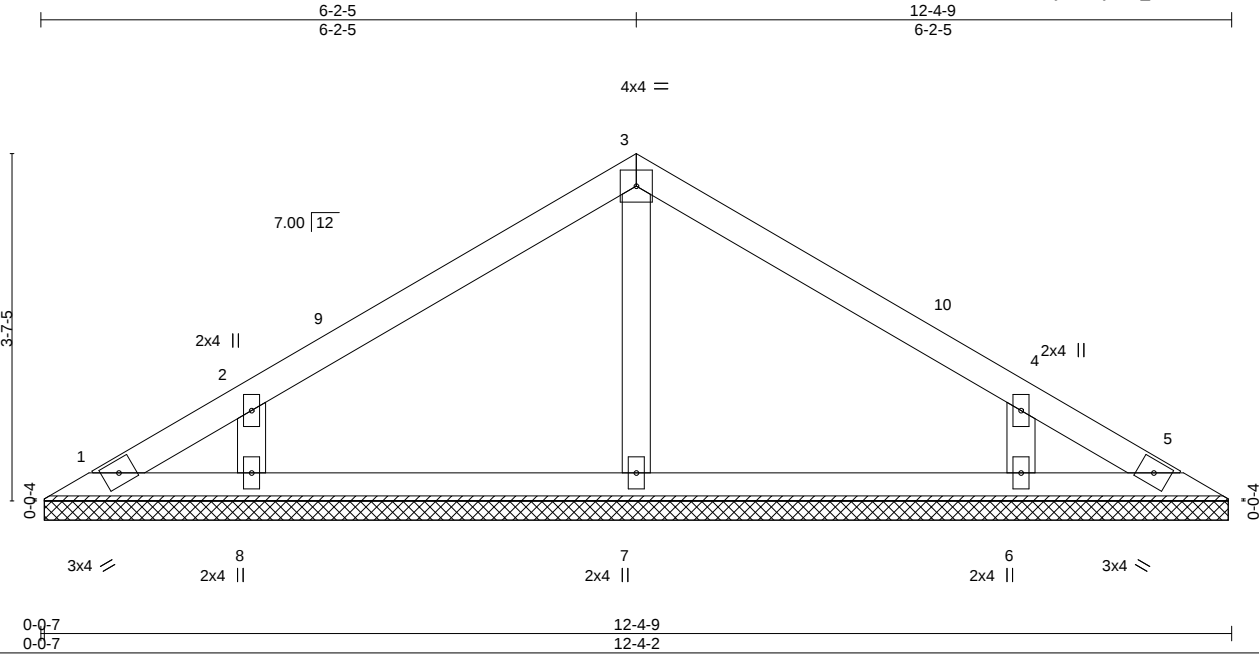
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ENGINEERING BY
TRENCO
A MiTek Affiliate

818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	SGR-LOT 78 ROOF	171333191
25-3702-A	V04	Valley	1	1	Job Reference (optional)	

Riverside Roof Truss, LLC, Danville, Va - 24541, 8.730 s Dec 5 2024 MiTek Industries, Inc. Mon Feb 10 15:09:15 2025 Page 1
ID:071z9xtbY5He8mIUvbmL?fzV1Kn-dTBUIbth6L2xWyw6rOyCzh_ODrAVE9hwVAg1utzmVe2



LOADING (psf)	SPACING-	CS.	DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof) 20.0	2-0-0	TC 0.20	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf/Pg) 11.6/15.0	Plate Grip DOL 1.15	BC 0.12	Vert(CT)	n/a	-	n/a	999		
TCDL 10.0	Lumber DOL 1.15	WB 0.05	Horz(CT)	0.00	5	n/a	n/a		
BCLL 0.0 *	Rep Stress Incr YES	Matrix-S							
BCDL 10.0	Code IRC2018/TPI2014							Weight: 44 lb	FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x4 SP No.2	TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins.
BOT CHORD 2x4 SP No.2	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
OTHERS 2x4 SP No.3	

REACTIONS. All bearings 12-3-11.
(lb) - Max Horz 1=-66(LC 14)
Max Uplift All uplift 100 lb or less at joint(s) 1, 5, 8, 6
Max Grav All reactions 250 lb or less at joint(s) 1, 5 except 7=277(LC 2), 8=309(LC 20), 6=309(LC 21)

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

- NOTES-**
- 1) Unbalanced roof live loads have been considered for this design.
 - 2) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCCL=6.0psf; BCDL=6.0psf; h=25ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp B; Enclosed; MWFRS (directional) and C-C Exterior(2E) 0-6-8 to 3-6-8, Interior(1) 3-6-8 to 6-2-5, Exterior(2R) 6-2-5 to 9-2-5, Interior(1) 9-2-5 to 11-10-1 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
 - 3) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=15.0 psf; Pf=11.6 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
 - 4) Unbalanced snow loads have been considered for this design.
 - 5) Gable requires continuous bottom chord bearing.
 - 6) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
 - 7) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
 - 8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 5, 8, 6.
 - 9) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



February 11, 2025

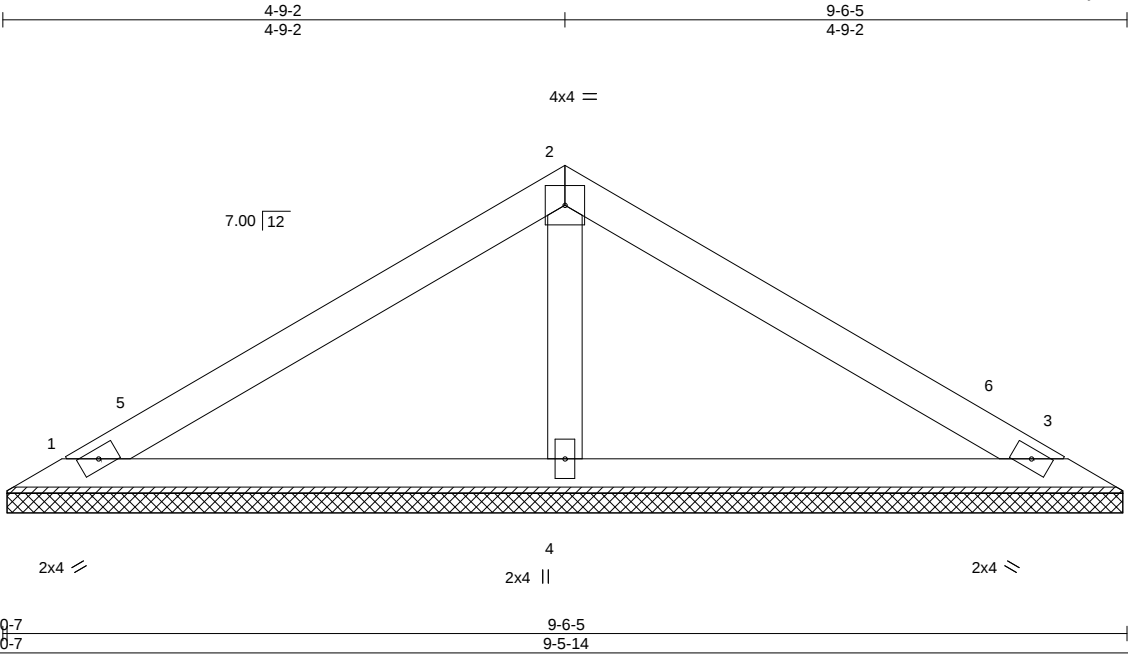
WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 BEFORE USE.
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ENGINEERING BY
TRENCO
A MiTek Affiliate
818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	SGR-LOT 78 ROOF	171333192
25-3702-A	V05	Valley	1	1	Job Reference (optional)	

Riverside Roof Truss, LLC, Danville, Va - 24541,

8.730 s Dec 5 2024 MiTek Industries, Inc. Mon Feb 10 15:09:16 2025 Page 1
ID:071z9xbY5He8mlUVbML?fzV1Kn-6flsVwtJtfAo86VIP6TRWvWYyEUszc?3jqQaQKzmVe1



LOADING (psf)		SPACING-		CSI.		DEFL.		PLATES		GRIP	
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.27	Vert(LL)	n/a	MT20		244/190	
Snow (Pf/Pg)	11.6/15.0	Lumber DOL	1.15	BC	0.18	Vert(CT)	n/a				
TCDL	10.0	Rep Stress Incr	YES	WB	0.05	Horz(CT)	0.00				
BCLL	0.0 *	Code IRC2018/TPI2014		Matrix-S							
BCDL	10.0										

LUMBER-		BRACING-	
TOP CHORD	2x4 SP No.2	TOP CHORD	Structural wood sheathing directly applied or 6-0-0 oc purlins.
BOT CHORD	2x4 SP No.2	BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing.
OTHERS	2x4 SP No.3		

REACTIONS.	
(size)	1=9-5-7, 3=9-5-7, 4=9-5-7
Max Horz	1=-49(LC 14)
Max Uplift	1=-20(LC 16), 3=-20(LC 16)
Max Grav	1=160(LC 2), 3=160(LC 2), 4=356(LC 2)

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

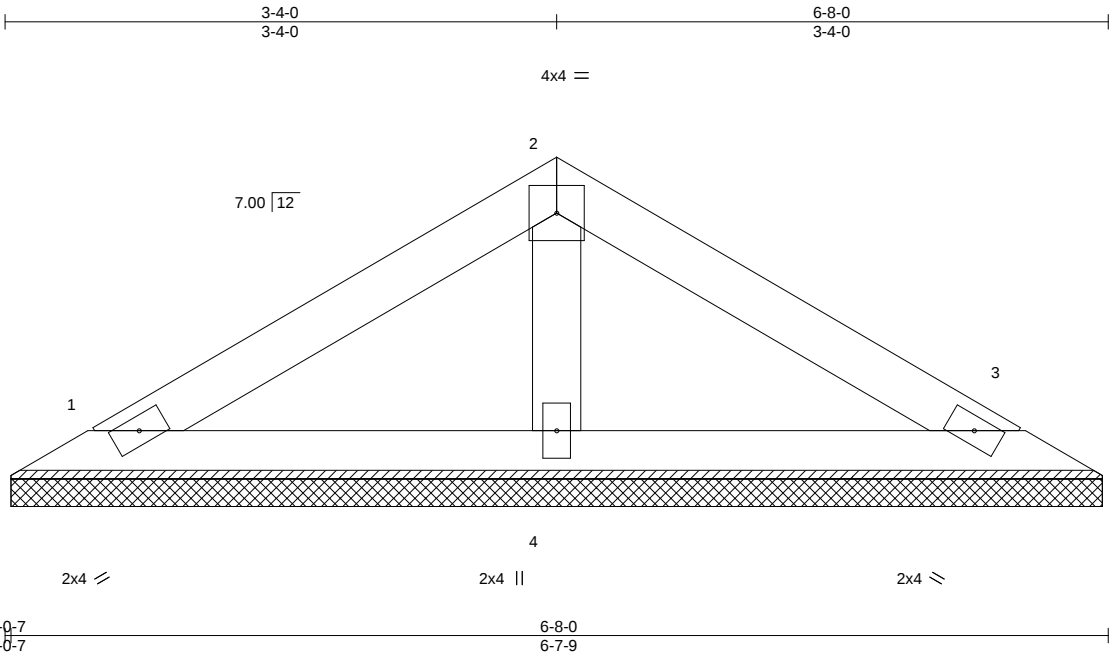
- NOTES-**
- 1) Unbalanced roof live loads have been considered for this design.
 - 2) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCCL=6.0psf; BCDL=6.0psf; h=25ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp B; Enclosed; MWFRS (directional) and C-C Exterior(2E) 0-6-8 to 3-6-8, Interior(1) 3-6-8 to 4-9-2, Exterior(2R) 4-9-2 to 7-9-2, Interior(1) 7-9-2 to 8-11-13 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
 - 3) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=15.0 psf; Pf=11.6 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
 - 4) Unbalanced snow loads have been considered for this design.
 - 5) Gable requires continuous bottom chord bearing.
 - 6) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
 - 7) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
 - 8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 3.
 - 9) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



February 11, 2025

Job	Truss	Truss Type	Qty	Ply	SGR-LOT 78 ROOF
25-3702-A	V06	Valley	1	1	I71333193
Riverside Roof Truss, LLC, Danville, Va - 24541,					Job Reference (optional)

8.730 s Dec 5 2024 MiTek Industries, Inc. Mon Feb 10 15:09:16 2025 Page 1
ID:07Iz9xbY5He8mIUvBML?fzV1Kn-6flsVwtJtfAo86VIP6TRWvWasEVPzcl3jqQaQKzmVe1



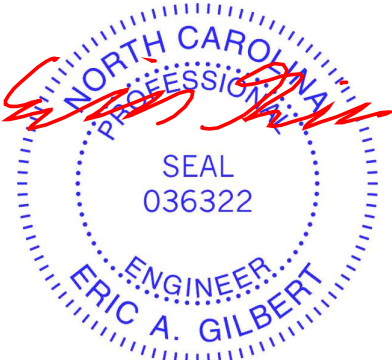
LOADING (psf)		SPACING-		CSI.		DEFL.		PLATES		GRIP	
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.15	Vert(LL)	n/a	MT20		244/190	
Snow (Pf/Pg)	11.6/15.0	Lumber DOL	1.15	BC	0.08	Vert(CT)	n/a				
TCDL	10.0	Rep Stress Incr	YES	WB	0.03	Horz(CT)	0.00				
BCLL	0.0 *	Code IRC2018/TPI2014		Matrix-P							
BCDL	10.0										
								Weight: 21 lb		FT = 20%	

LUMBER-		BRACING-	
TOP CHORD	2x4 SP No.2	TOP CHORD	Structural wood sheathing directly applied or 6-0-0 oc purlins.
BOT CHORD	2x4 SP No.2	BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing.
OTHERS	2x4 SP No.3		

REACTIONS.	
(size)	1=6-7-2, 3=6-7-2, 4=6-7-2
Max Horz	1=33(LC 15)
Max Uplift	1=-19(LC 16), 3=-19(LC 16)
Max Grav	1=118(LC 20), 3=118(LC 21), 4=213(LC 2)

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

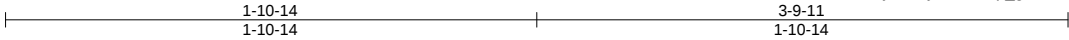
- NOTES-**
- Unbalanced roof live loads have been considered for this design.
 - Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCCL=6.0psf; BCDL=6.0psf; h=25ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp B; Enclosed; MWFRS (directional) and C-C Exterior(2E) zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
 - TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=15.0 psf; Pf=11.6 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
 - Unbalanced snow loads have been considered for this design.
 - Gable requires continuous bottom chord bearing.
 - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
 - * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
 - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 3.
 - This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



February 11,2025

Job	Truss	Truss Type	Qty	Ply	SGR-LOT 78 ROOF
25-3702-A	V07	Valley	1	1	I71333194
Riverside Roof Truss, LLC, Danville, Va - 24541,					Job Reference (optional)

8.730 s Dec 5 2024 MiTek Industries, Inc. Mon Feb 10 15:09:17 2025 Page 1
ID:07Iz9xtbY5He8mIUvBML?fzV1Kn-asJEjGuxeylelG4Uzp_g263nNerVi32DyU98ymzmVe0



Scale = 1:8.3

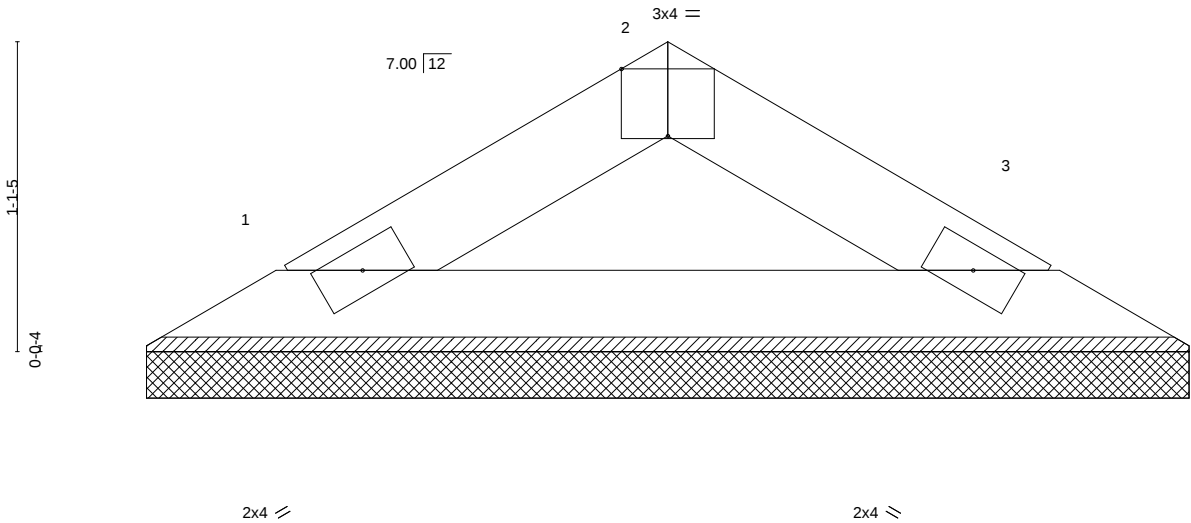


Plate Offsets (X,Y)--	[2:0-2-0,Edge]	3-9-5	3-9-11
		3-9-5	0-0-7

LOADING (psf)	SPACING-	CSI.	DEFL.	PLATES	GRIP
TCLL (roof) 20.0	2-0-0	TC 0.03	in (loc) l/defl L/d	MT20	244/190
Snow (Pf/Pg) 11.6/15.0	Plate Grip DOL 1.15	BC 0.09	Vert(LL) n/a - n/a 999		
TCDL 10.0	Lumber DOL 1.15	WB 0.00	Vert(CT) n/a - n/a 999		
BCLL 0.0 *	Rep Stress Incr YES	Matrix-P	Horz(CT) 0.00 3 n/a n/a		
BCDL 10.0	Code IRC2018/TPI2014			Weight: 10 lb	FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x4 SP No.2	TOP CHORD Structural wood sheathing directly applied or 3-9-11 oc purlins.
BOT CHORD 2x4 SP No.2	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) 1=3-8-14, 3=3-8-14
Max Horz 1=-16(LC 14)
Max Uplift 1=-7(LC 16), 3=-7(LC 16)
Max Grav 1=109(LC 2), 3=109(LC 2)

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

NOTES-

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCCL=6.0psf; BCDL=6.0psf; h=25ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp B; Enclosed; MWFRS (directional) and C-C Exterior(2E) zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=15.0 psf; Pf=11.6 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
- Unbalanced snow loads have been considered for this design.
- Gable requires continuous bottom chord bearing.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 3.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



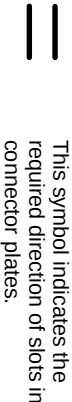
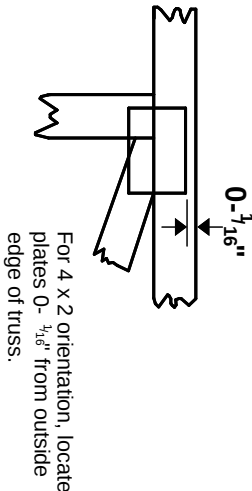
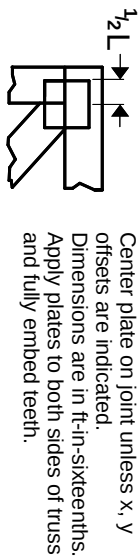
February 11,2025

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ENGINEERING BY
TRENCO
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818 Soundside Road
Edenton, NC 27932

Symbols

PLATE LOCATION AND ORIENTATION



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

PLATE SIZE

4 X 4

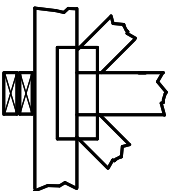
The first dimension is the plate width measured perpendicular to slots. Second dimension is the length parallel to slots.

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.

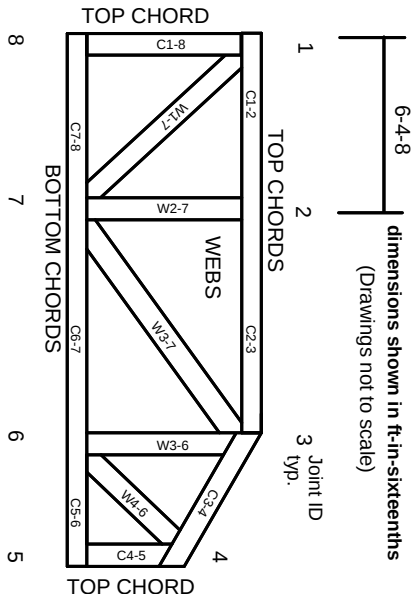
BEARING



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/TPI.1: 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.

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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.

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