

Trenco

818 Soundside Rd
Edenton, NC 27932

Re: 25-4768-A
RVF-LOT #31 ROOF

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

Pages or sheets covered by this seal: I76040528 thru I76040552

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

North Carolina COA: C-0844



September 2, 2025

Gilbert, Eric

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

Job	Truss	Truss Type	Qty	Ply	RVF-LOT #31 ROOF	176040528
25-4768-A	T01	COMMON	2	1	Job Reference (optional)	

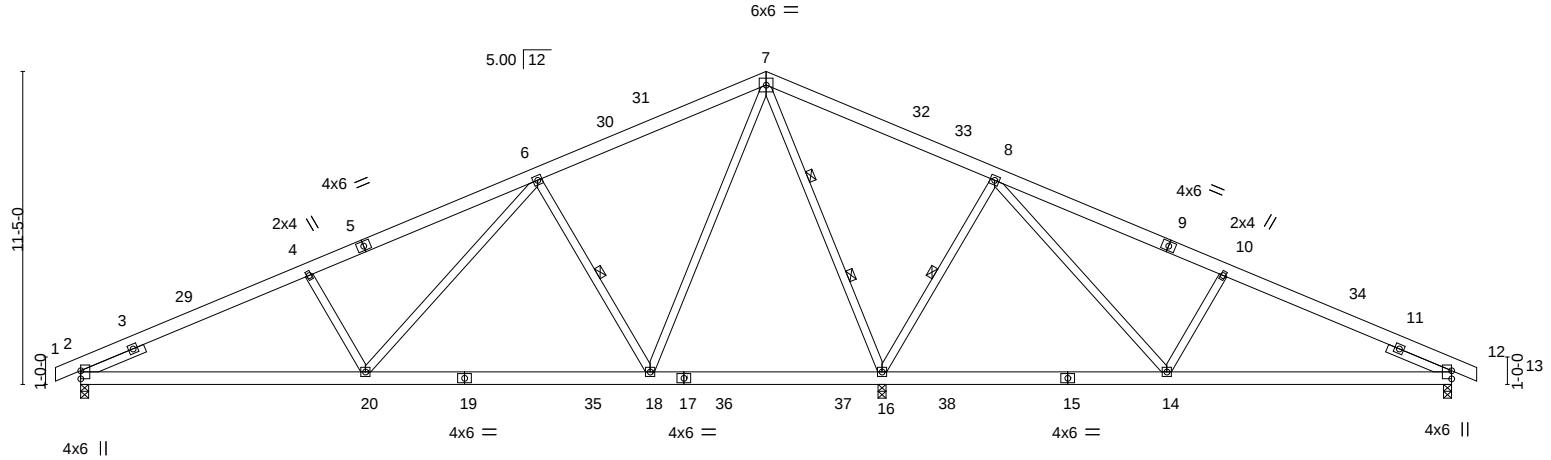
Riverside Roof Truss, LLC, Danville, Va - 24541, 8.830 s Aug 14 2025 MiTek Industries, Inc. Tue Sep 2 08:23:54 2025 Page 1

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0-11-0 8-4-0 16-8-0 25-0-0 33-4-0 41-8-0 50-0-0 50-11-0

0-11-0 8-4-0 8-4-0 8-4-0 8-4-0 8-4-0 8-4-0 0-11-0

Scale = 1:84.0



LOADING (psf)		SPACING-		CSI.		DEFL.		PLATES		GRIP	
TCLL (roof)	20.0	TC	0.47	Vert(LL)	-0.14 18-20	>999	240	MT20		244/190	
Snow (Pf/Pg)	11.6/15.0	BC	0.56	Vert(CT)	-0.25 18-20	>999	180				
TCDL	10.0	WB	0.93	Horz(CT)	0.03 16	n/a	n/a				
BCLL	0.0 *	Code	IRC2018/TPI2014								
BCDL	10.0										
								Weight: 354 lb		FT = 20%	

LUMBER-		BRACING-	
TOP CHORD	2x6 SP No.2	TOP CHORD	Structural wood sheathing directly applied or 5-5-2 oc purlins.
BOT CHORD	2x6 SP No.2	BOT CHORD	Rigid ceiling directly applied or 6-0-0 oc bracing.
WEBS	2x4 SP No.3	WEBS	1 Row at midpt 8-16, 6-18
SLIDER	Left 2x4 SP No.3 2-6-0, Right 2x4 SP No.3 2-6-0		2 Rows at 1/3 pts 7-16

REACTIONS. (size) 2=0-3-8, 16=0-3-8, 12=0-3-8
Max Horz 2=190(LC 15)
Max Uplift 2=-89(LC 16), 16=-146(LC 16), 12=-64(LC 16)
Max Grav 2=1167(LC 28), 16=2839(LC 30), 12=695(LC 29)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-4=-1764/183, 4-6=-1638/205, 6-7=-562/200, 7-8=0/846, 8-10=-628/135, 10-12=-772/114
BOT CHORD 2-20=-75/1742, 18-20=0/936, 14-16=-333/95, 12-14=-7/713
WEBS 7-16=-1838/142, 8-16=-966/214, 8-14=-32/1055, 10-14=-467/168, 7-18=-80/1305, 6-18=-931/212, 6-20=-26/960, 4-20=-415/164

- 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=50ft; eave=6ft; Cat. II; Exp B; Enclosed; MWFRS (directional) and C-C Exterior(2E) -0-11-0 to 4-1-0, Interior(1) 4-1-0 to 25-0-0, Exterior(2R) 25-0-0 to 30-0-0, Interior(1) 30-0-0 to 50-11-0 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=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 4x4 MT20 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, with BCDL = 10.0psf.
 - 9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 12 except (jt=lb) 16=146.
 - 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.



September 2,2025

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

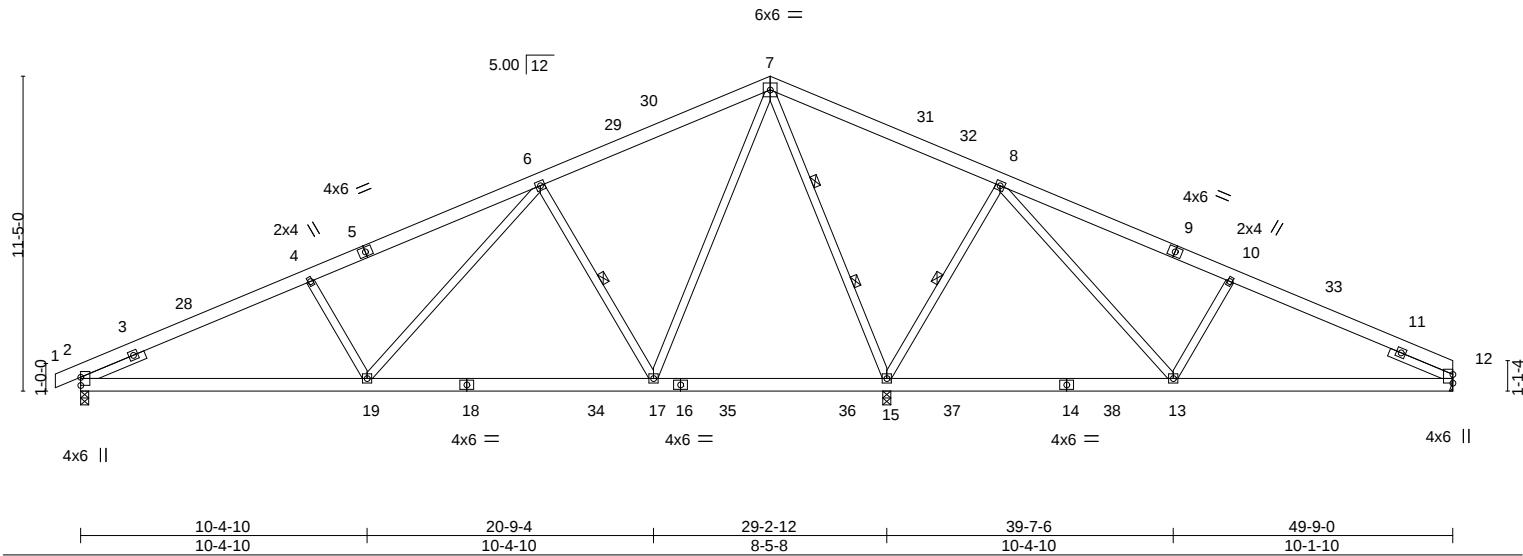
Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall 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

Job	Truss	Truss Type	Qty	Ply	RVF-LOT #31 ROOF	176040529
25-4768-A	T01A	COMMON	2	1	Job Reference (optional)	

Riverside Roof Truss, LLC, Danville, Va - 24541, 8.830 s Aug 14 2025 MiTek Industries, Inc. Tue Sep 2 08:23:55 2025 Page 1
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0-11-0 8-4-0 8-4-0 8-4-0 8-4-0 8-4-0 8-1-0
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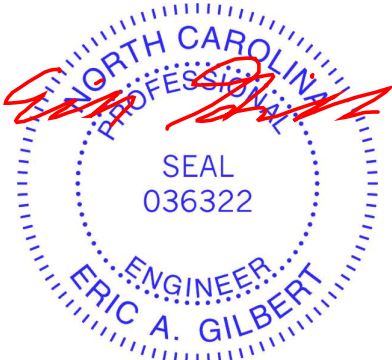
LOADING (psf)		SPACING-		CSI.		DEFL.		PLATES		GRIP	
TCLL (roof)	20.0	2-0-0		TC	0.48	in (loc)	l/defl	L/d	MT20	244/190	
Snow (Pf/Pg)	11.6/15.0	Plate Grip DOL	1.15	BC	0.57	Vert(LL)	-0.14 17-19	>999			
TCDL	10.0	Lumber DOL	1.15	WB	0.93	Vert(CT)	-0.25 17-19	>999			
BCLL	0.0 *	Rep Stress Incr	YES	Matrix-MS		Horz(CT)	0.03 15	n/a			
BCDL	10.0	Code IRC2018/TPI2014						n/a			
Weight: 351 lb										FT = 20%	

LUMBER-		BRACING-	
TOP CHORD	2x6 SP No.2	TOP CHORD	Structural wood sheathing directly applied or 5-5-0 oc purlins.
BOT CHORD	2x6 SP No.2	BOT CHORD	Rigid ceiling directly applied or 6-0-0 oc bracing.
WEBS	2x4 SP No.3	WEBS	1 Row at midpt 6-17, 8-15
SLIDER	Left 2x4 SP No.3 2-6-0, Right 2x4 SP No.3 2-6-0		2 Rows at 1/3 pts 7-15

REACTIONS.	
(size)	2=0-3-8, 15=0-3-8, 12=Mechanical
Max Horz	2=188(LC 15)
Max Uplift	2=-88(LC 16), 15=-150(LC 16), 12=-32(LC 16)
Max Grav	2=1168(LC 28), 15=2834(LC 30), 12=633(LC 29)

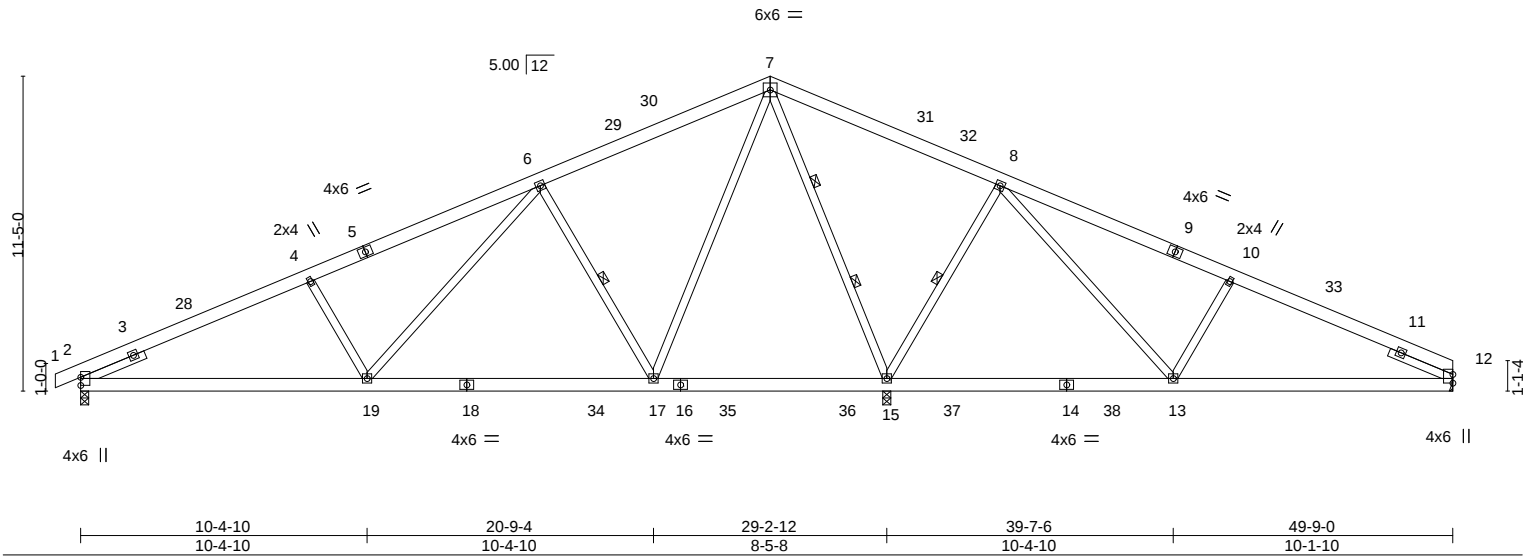
FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.	
TOP CHORD	2-4=-1768/181, 4-6=-1641/203, 6-7=-566/198, 7-8=0/840, 8-10=-604/137, 10-12=-742/116
BOT CHORD	2-19=-96/1740, 17-19=-16/934, 13-15=-328/79, 12-13=-33/685
WEBS	7-17=-79/1303, 6-17=-931/212, 6-19=-26/960, 7-15=-1832/144, 4-19=-415/164, 8-15=-959/214, 8-13=-37/1032, 10-13=-455/172

- 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=50ft; eave=6ft; Cat. II; Exp B; Enclosed; MWFRS (directional) and C-C Exterior(2E) -0-11-0 to 4-0-11, Interior(1) 4-0-11 to 25-0-0, Exterior(2R) 25-0-0 to 29-11-11, Interior(1) 29-11-11 to 49-9-0 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) All plates are 4x4 MT20 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, with BCDL = 10.0psf.
 - 9) Refer to girder(s) for truss to truss connections.
 - 10) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 12 except (jt=lb) 15=150.
 - 11) 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.



Job	Truss	Truss Type	Qty	Ply	RVF-LOT #31 ROOF	176040530
25-4768-A	T01B	COMMON	4	1	Job Reference (optional)	

Riverside Roof Truss, LLC, Danville, Va - 24541, 8.830 s Aug 14 2025 MiTek Industries, Inc. Tue Sep 2 08:23:56 2025 Page 1
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-0-11-0 8-4-0 16-8-0 25-0-0 33-4-0 41-8-0 49-9-0
0-11-0 8-4-0 8-4-0 8-4-0 8-4-0 8-4-0 8-1-0
Scale = 1:83.5



LOADING (psf)		SPACING-		CSI.		DEFL.		PLATES		GRIP	
TCLL (roof)	20.0	2-0-0		TC	0.48	in (loc)	l/defl	L/d	MT20	244/190	
Snow (Pf/Pg)	11.6/15.0	Plate Grip DOL	1.15	BC	0.57	Vert(LL)	-0.14 17-19	>999			
TCDL	10.0	Lumber DOL	1.15	WB	0.93	Vert(CT)	-0.25 17-19	>999			
BCLL	0.0 *	Rep Stress Incr	YES	Matrix-MS		Horz(CT)	0.03 15	n/a			
BCDL	10.0	Code IRC2018/TPI2014									
								Weight: 351 lb		FT = 20%	

LUMBER-		BRACING-	
TOP CHORD	2x6 SP No.2	TOP CHORD	Structural wood sheathing directly applied or 5-5-0 oc purlins.
BOT CHORD	2x6 SP No.2	BOT CHORD	Rigid ceiling directly applied or 6-0-0 oc bracing.
WEBS	2x4 SP No.3	WEBS	1 Row at midpt 6-17, 8-15
SLIDER	Left 2x4 SP No.3 2-6-0, Right 2x4 SP No.3 2-6-0		2 Rows at 1/3 pts 7-15

REACTIONS.	
(size)	2=0-3-8, 15=0-3-8, 12=Mechanical
Max Horz	2=188(LC 15)
Max Uplift	2=-88(LC 16), 15=-150(LC 16), 12=-32(LC 16)
Max Grav	2=1168(LC 28), 15=2834(LC 30), 12=633(LC 29)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.	
TOP CHORD	2-4=-1768/181, 4-6=-1641/203, 6-7=-566/198, 7-8=0/840, 8-10=-604/137, 10-12=-742/116
BOT CHORD	2-19=-96/1740, 17-19=-16/934, 13-15=-328/79, 12-13=-33/685
WEBS	7-17=-79/1303, 6-17=-931/212, 6-19=-26/960, 7-15=-1832/144, 4-19=-415/164, 8-15=-959/214, 8-13=-37/1032, 10-13=-455/172

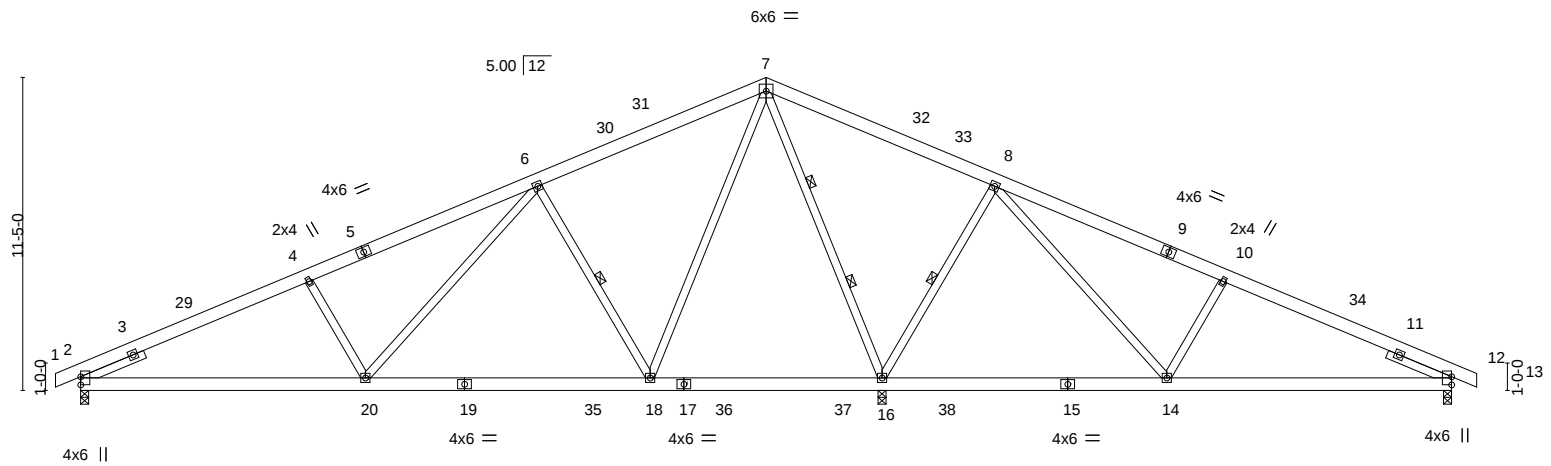
- NOTES-**
- 1) Unbalanced roof live loads have been considered for this design.
 - 2) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; B=45ft; L=50ft; eave=6ft; Cat. II; Exp B; Enclosed; MWFRS (directional) and C-C Exterior(2E) -0-11-0 to 4-0-11, Interior(1) 4-0-11 to 25-0-0, Exterior(2R) 25-0-0 to 29-11-11, Interior(1) 29-11-11 to 49-9-0 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) All plates are 4x4 MT20 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, with BCDL = 10.0psf.
 - 9) Refer to girder(s) for truss to truss connections.
 - 10) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 12 except (jt=lb) 15=150.
 - 11) 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.



September 2,2025

Job	Truss	Truss Type	Qty	Ply	RVF-LOT #31 ROOF	176040531
25-4768-A	T01C	COMMON	2	1	Job Reference (optional)	

Riverside Roof Truss, LLC, Danville, Va - 24541, 8.830 s Aug 14 2025 MiTek Industries, Inc. Tue Sep 2 08:23:56 2025 Page 1
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-0-11-0 8-4-0 16-8-0 25-0-0 33-4-0 41-8-0 50-0-0 59-11-0
0-11-0 8-4-0 8-4-0 8-4-0 8-4-0 8-4-0 8-4-0 0-11-0
Scale = 1:84.0



Job	Truss	Truss Type	Qty	Ply	RVF-LOT #31 ROOF	176040532
25-4768-A	T01GE	COMMON SUPPORTED GAB	1	1		

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

8.830 s Aug 14 2025 MiTek Industries, Inc. Tue Sep 2 08:23:58 2025 Page 1

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Scale = 1:85.7

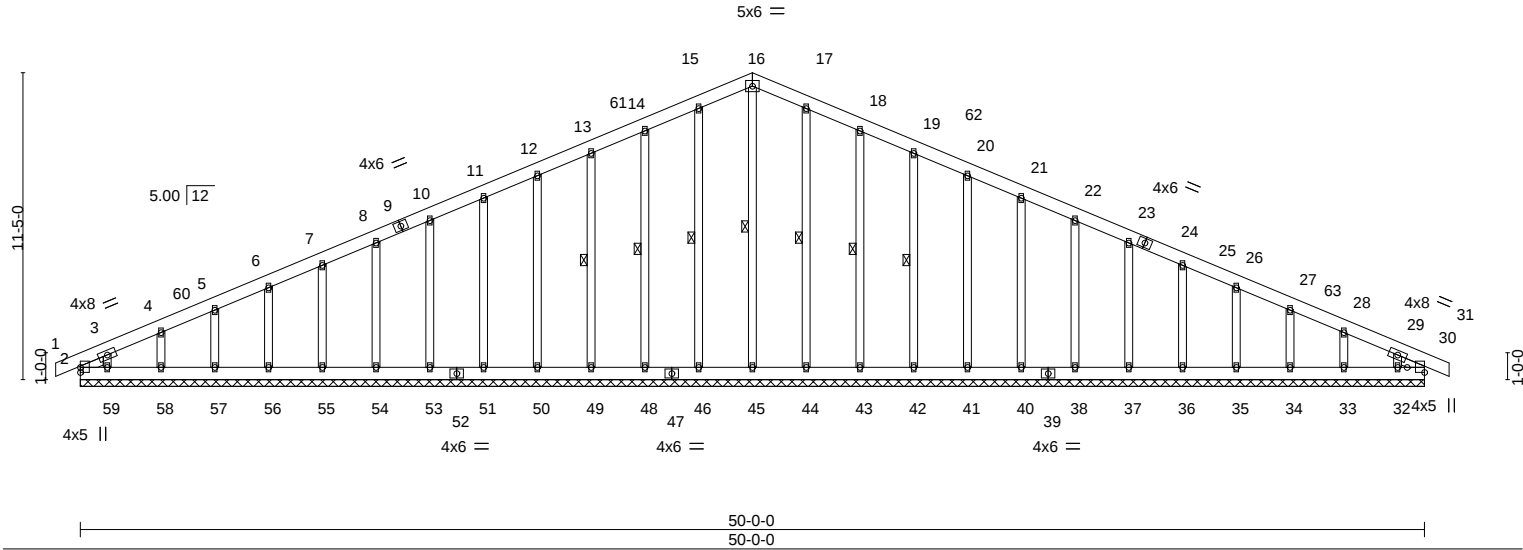


Plate Offsets (X,Y)-- [30:Edge,0-7-13]									
LOADING (psf)		SPACING-		CSI.		DEFL.		PLATES	
TCLL (roof)	20.0	Plate Grip DOL	2-0-0	TC	0.06	in (loc)	l/defl	MT20	GRIP
Snow (Pf/Pg)	11.6/15.0	Lumber DOL	1.15	BC	0.02	Vert(LL)	120		244/190
TCDL	10.0	Rep Stress Incr	YES	WB	0.13	Vert(CT)	120		
BCLL	0.0 *	Code IRC2018/TPI2014		Matrix-S		Horz(CT)	n/a		
BCDL	10.0							Weight: 449 lb	FT = 20%

LUMBER-		BRACING-	
TOP CHORD	2x6 SP No.2	TOP CHORD	Structural wood sheathing directly applied or 6-0-0 oc purlins.
BOT CHORD	2x6 SP No.2	BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing.
OTHERS	2x4 SP No.3	WEBS	1 Row at midpt 16-45, 15-46, 14-48, 13-49, 17-44, 18-43, 19-42
SLIDER	Left 2x4 SP No.3 0-11-5, Right 2x4 SP No.3 0-11-5		

REACTIONS. All bearings 50-0-0.
(lb) - Max Horz 2=-190(LC 14)
Max Uplift All uplift 100 lb or less at joint(s) 48, 49, 50, 51, 53, 54, 55, 56, 57, 58, 59, 43, 42, 41, 40, 38, 37, 36, 35, 34, 33, 32, 2
Max Grav All reactions 250 lb or less at joint(s) 30, 45, 46, 48, 49, 50, 51, 53, 54, 55, 56, 57, 58, 59, 44, 43, 42, 41, 40, 38, 37, 36, 35, 34, 33, 32, 2

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 13-14=-101/250, 14-15=-118/290, 15-16=-127/314, 16-17=-127/314, 17-18=-118/290, 18-19=-101/250

- 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=50ft; eave=2ft; Cat. II; Exp B; Enclosed; MWFRS (directional) and C-C Corner(3E) -0-11-0 to 4-1-0, Exterior(2N) 4-1-0 to 25-0-0, Corner(3R) 25-0-0 to 30-0-0, Exterior(2N) 30-0-0 to 50-11-0 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.
 - 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) 48, 49, 50, 51, 53, 54, 55, 56, 57, 58, 59, 43, 42, 41, 40, 38, 37, 36, 35, 34, 33, 32, 2.
 - Beveled plate or shim required to provide full bearing surface with truss chord at joint(s) 2.
 - 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.



Job	Truss	Truss Type	Qty	Ply	RVF-LOT #31 ROOF	176040533
25-4768-A	T02	COMMON	4	1	Job Reference (optional)	

Riverside Roof Truss, LLC,

Danville, Va - 24541,

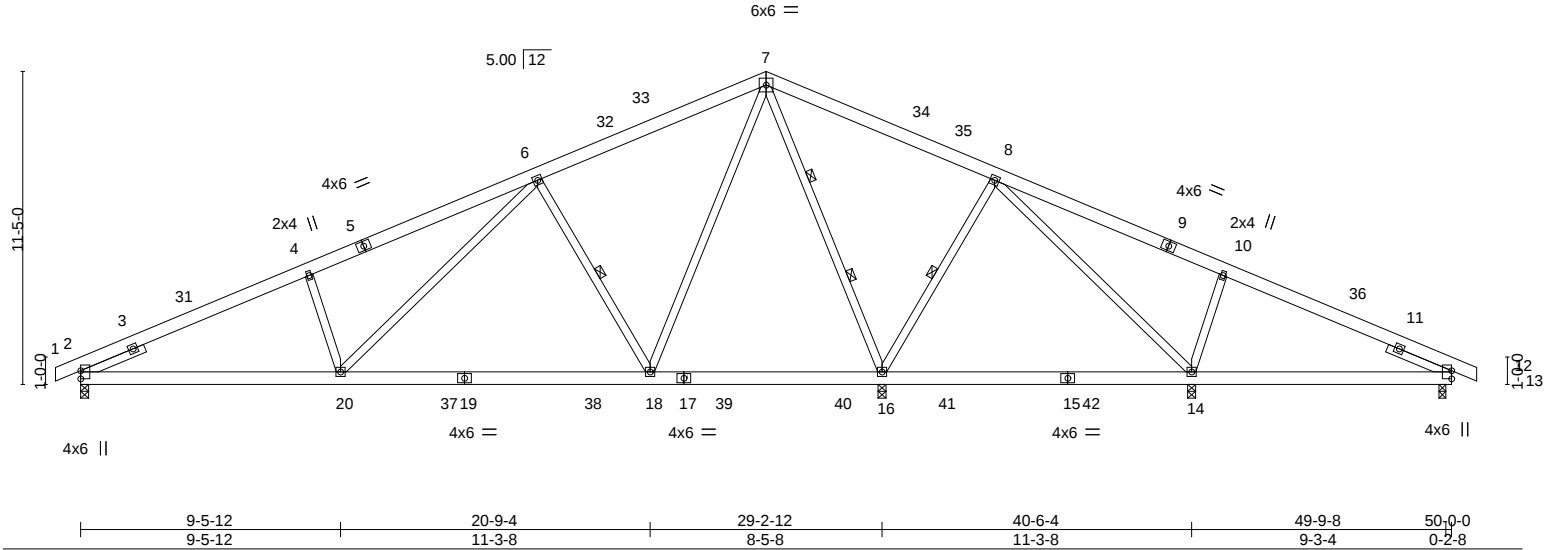
8.830 s Aug 14 2025 MiTek Industries, Inc. Tue Sep 2 08:23:59 2025 Page 1

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0-11-0 8-4-0 16-8-0 25-0-0 33-4-0 41-8-0 50-0-0 50-11-0

0-11-0 8-4-0 8-4-0 8-4-0 8-4-0 8-4-0 8-4-0 0-11-0

Scale = 1:84.0



LOADING (psf)		SPACING-		CSI.		DEFL.		PLATES		GRIP	
TCLL (roof)	20.0	2-0-0		TC	0.44	in (loc)	l/defl	L/d	MT20	244/190	
Snow (Pf/Pg)	11.6/15.0	Plate Grip DOL	1.15	BC	0.60	Vert(LL)	-0.19 18-20	>999			
TCDL	10.0	Lumber DOL	1.15	WB	0.89	Vert(CT)	-0.34 18-20	>999			
BCLL	0.0 *	Rep Stress Incr	YES	Matrix-MS		Horz(CT)	0.03 16	n/a			
BCDL	10.0	Code IRC2018/TPI2014									
								Weight: 355 lb		FT = 20%	

LUMBER-

TOP CHORD 2x6 SP No.2

BOT CHORD 2x6 SP No.2

WEBS 2x4 SP No.3

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

BRACING-

TOP CHORD Structural wood sheathing directly applied or 5-1-12 oc purlins.

BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing, Except:

6-0-0 oc bracing: 14-16.

WEBS 1 Row at midpt 6-18, 8-16

2 Rows at 1/3 pts 7-16

REACTIONS. All bearings 0-3-8 except (jt=length) 12=0-3-0.

(lb) - Max Horz 2=-190(LC 14)

Max Uplift All uplift 100 lb or less at joint(s) 14, 12 except 2=-100(LC 16), 16=-107(LC 16)

Max Grav All reactions 250 lb or less at joint(s) except 2=1213(LC 28), 16=2505(LC 28), 14=617(LC 37), 12=478(LC 35)

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

TOP CHORD 2-4=-1938/194, 4-6=-1853/249, 6-7=-650/225, 7-8=0/700, 10-12=-278/97

BOT CHORD 2-20=-85/1864, 18-20=-20/1032, 14-16=-348/68, 12-14=0/257

WEBS 4-20=-400/167, 6-20=-46/1044, 6-18=-911/217, 7-18=-78/1317, 7-16=-1742/117, 8-16=-630/208, 8-14=-14/462, 10-14=-466/169

- 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; BC DL=6.0psf; h=25ft; B=45ft; L=50ft; eave=6ft; Cat. II; Exp B; Enclosed; MWFRS (directional) and C-C Exterior(2E) -0-11-0 to 4-1-0, Interior(1) 4-1-0 to 25-0-0, Exterior(2R) 25-0-0 to 30-0-0, Interior(1) 30-0-0 to 50-11-0 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.
 - All plates are 4x4 MT20 unless otherwise indicated.
 - 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 BC DL = 10.0psf.
 - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 14, 12 except (jt=lb) 2=100, 16=107.
 - 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.



September 2,2025

Job	Truss	Truss Type	Qty	Ply	RVF-LOT #31 ROOF	176040534
25-4768-A	T03	COMMON	10	1		

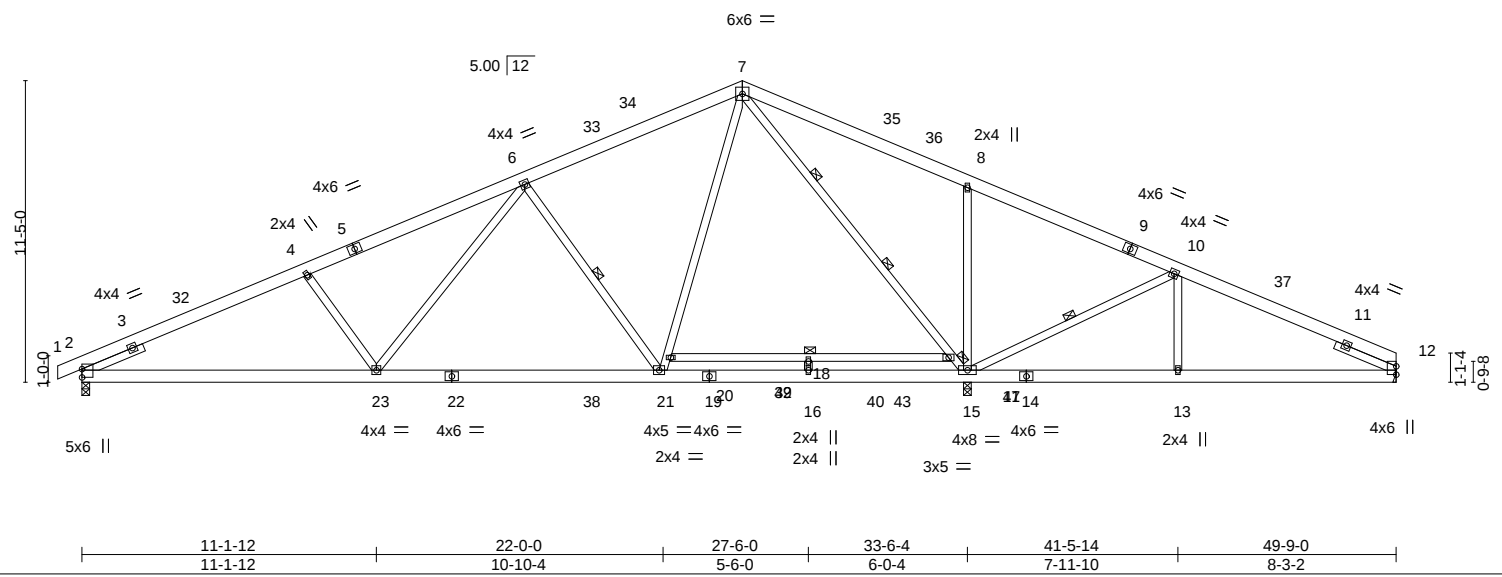
Riverside Roof Truss, LLC, Danville, Va - 24541,

8.830 s Aug 14 2025 MiTek Industries, Inc. Tue Sep 2 08:23:59 2025 Page 1

ID:tdH5WYLnG?jaR9E1eBtqly9_oZxEi_SeA1NaA2AmaR0oLZw6w?EgbgUfzChK22yhjsE

-0-11-0	8-6-5	16-9-3	25-0-0	33-6-4	41-5-14	49-9-0
0-11-0	8-6-5	8-2-13	8-2-13	8-6-4	7-11-10	8-3-2

Scale = 1:87.2



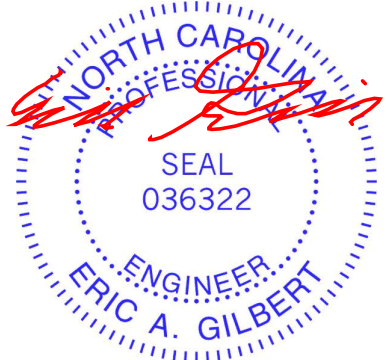
LOADING (psf)		SPACING-		CSI.		DEFL.		PLATES		GRIP	
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.47	Vert(LL)	-0.29 18-20 >999 240	MT20		244/190	
Snow (Pf/Pg)	11.6/15.0	Lumber DOL	1.15	BC	0.95	Vert(CT)	-0.46 18-20 >881 180				
TCDL	10.0	Rep Stress Incr	YES	WB	0.82	Horz(CT)	0.05 15 n/a n/a				
BCLL	0.0 *	Code IRC2018/TPI2014		Matrix-MS							
BCDL	10.0										

LUMBER-		BRACING-	
TOP CHORD	2x6 SP No.2	TOP CHORD	Structural wood sheathing directly applied or 4-4-3 oc purlins.
BOT CHORD	2x6 SP No.2 *Except*	BOT CHORD	Rigid ceiling directly applied or 2-2-0 oc bracing. Except:
	14-19: 2x6 SP 2400F 2.0E, 17-20: 2x4 SP No.2		6-0-0 oc bracing: 17-20
WEBS	2x4 SP No.3 *Except*	WEBS	1 Row at midpt 6-21, 10-15
	7-15: 2x4 SP DSS		2 Rows at 1/3 pts 7-17
SLIDER	Left 2x4 SP No.3 2-6-0, Right 2x4 SP No.3 2-6-0		

REACTIONS.	
(size)	2=0-3-8, 15=0-3-8, 12=Mechanical
Max Horz	2=188(LC 15)
Max Uplift	2=-80(LC 16), 15=-33(LC 16), 12=-26(LC 16)
Max Grav	2=1536(LC 28), 15=3080(LC 30), 12=478(LC 35)

FORCES.	
(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.	
TOP CHORD	2-4=-2591/182, 4-6=-2393/187, 6-7=-1331/169, 7-8=0/688, 8-10=0/662, 10-12=-433/107
BOT CHORD	2-23=-96/2456, 21-23=-6/1755, 16-21=0/811, 15-16=0/811, 13-15=-61/400, 12-13=-61/400
WEBS	4-23=-398/165, 6-23=-20/824, 6-21=-924/211, 20-21=-0/1488, 7-20=0/1600, 7-17=-2116/31, 15-17=-2202/0, 8-15=-539/216, 10-15=-854/150, 16-18=-315/0

- 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=50ft; eave=6ft; Cat. II; Exp B; Enclosed; MWFRS (directional) and C-C Exterior(2E) -0-11-0 to 4-0-11, Interior(1) 4-0-11 to 25-0-0, Exterior(2R) 25-0-0 to 29-11-11, Interior(1) 29-11-11 to 49-9-0 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, with BCDL = 10.0psf.
 - Refer to girder(s) for truss to truss connections.
 - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 15, 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.



September 2,2025

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

Job	Truss	Truss Type	Qty	Ply	RVF-LOT #31 ROOF	176040535
25-4768-A	T03GE	COMMON SUPPORTED GAB	1	1	Job Reference (optional)	

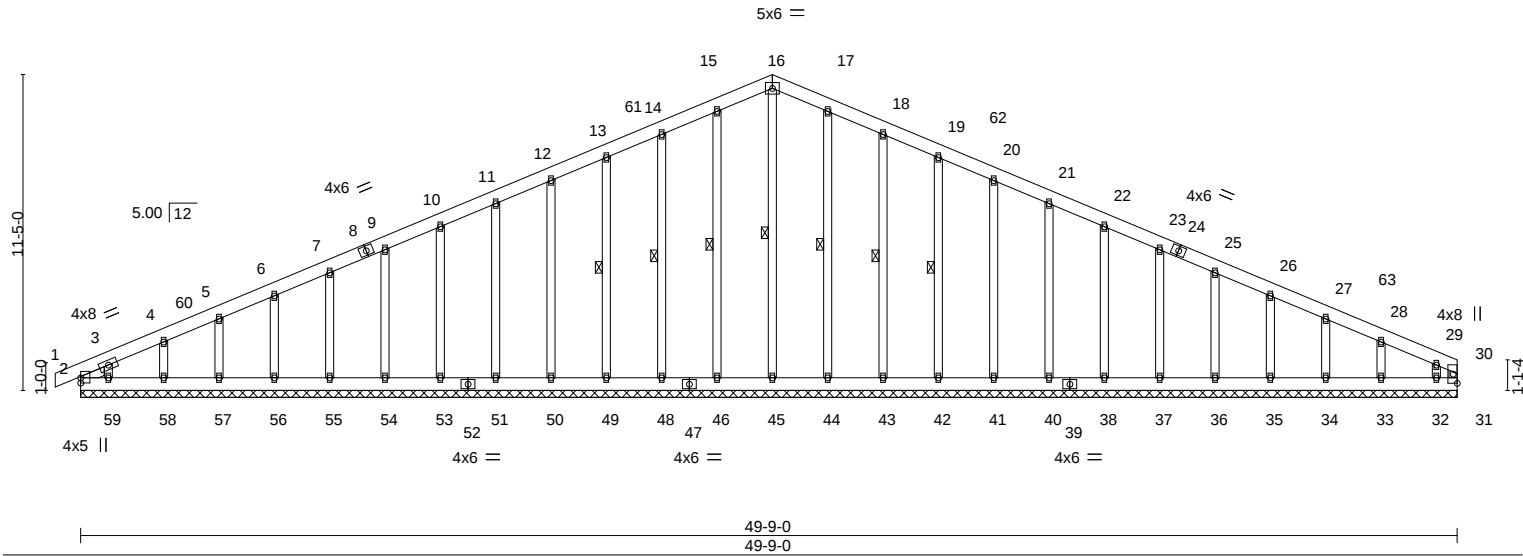
Riverside Roof Truss, LLC, Danville, Va - 24541, 8.830 s Aug 14 2025 MiTek Industries, Inc. Tue Sep 2 08:24:01 2025 Page 1

ID:tdHS5IWyLNg?jaR9E1eBtqly9_-kx2_7gUuhfdHQMk9hs2GQ_?Yqo8H3knxQWAR6wyhjsC

-0-11-0 25-0-0 49-9-0 24-9-0

0-11-0 25-0-0 49-9-0 24-9-0

Scale = 1:83.3



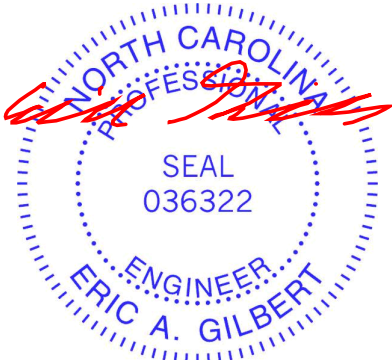
LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof) 20.0	2-0-0	TC 0.12	Vert(LL) -0.00	1	n/r	120	MT20	244/190
Snow (Pf/Pg) 11.6/15.0	Plate Grip DOL 1.15	BC 0.04	Vert(CT) -0.00	1	n/r	120		
TCDL 10.0	Lumber DOL 1.15	WB 0.13	Horz(CT) 0.00	31	n/a	n/a		
BCLL 0.0 *	Rep Stress Incr YES	Matrix-S						
BCDL 10.0	Code IRC2018/TPI2014						Weight: 445 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 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	WEBS 1 Row at midpt 16-45, 15-46, 14-48, 13-49, 17-44, 18-43, 19-42
OTHERS 2x4 SP No.3	
SLIDER Left 2x4 SP No.3 0-11-5	

REACTIONS.	All bearings 49-9-0.
(lb) - Max Horz 2=202(LC 15)	
Max Uplift	All uplift 100 lb or less at joint(s) 31, 48, 49, 50, 51, 53, 54, 55, 56, 57, 58, 59, 43, 42, 41, 40, 38, 37, 36, 35, 34, 33, 2 except 32=-109(LC 16)
Max Grav	All reactions 250 lb or less at joint(s) 31, 45, 46, 48, 49, 50, 51, 53, 54, 55, 56, 57, 58, 59, 44, 43, 42, 41, 40, 38, 37, 36, 35, 34, 33, 32, 2

FORCES.	(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD	13-14=-107/259, 14-15=-121/299, 15-16=-130/323, 16-17=-130/323, 17-18=-121/299, 18-19=-107/259

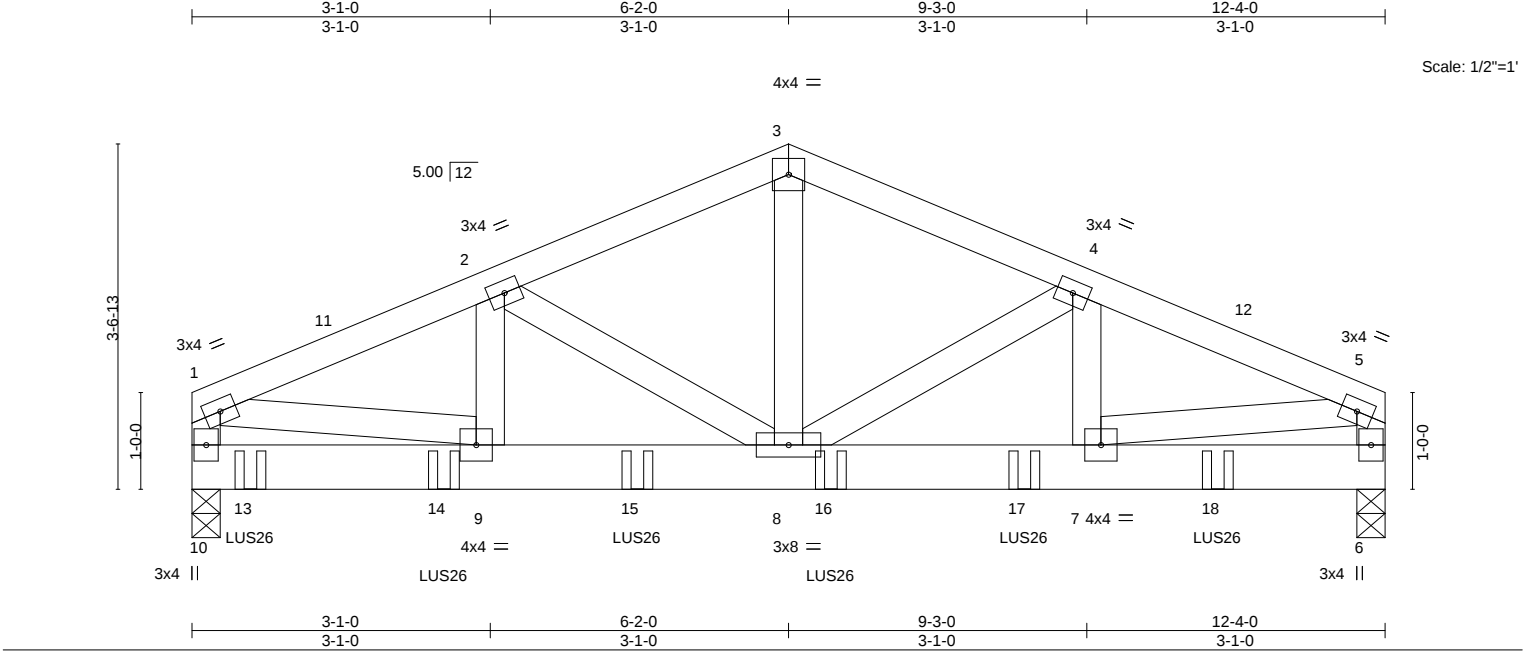
- NOTES-**
- 1) Unbalanced roof live loads have been considered for this design.
 - 2) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; B=45ft; L=50ft; eave=2ft; Cat. II; Exp B; Enclosed; MWFRS (directional) and C-C Corner(3E) -0-11-0 to 4-0-11, Exterior(2N) 4-0-11 to 25-0-0, Corner(3R) 25-0-0 to 29-11-11, Exterior(2N) 29-11-11 to 49-7-4 zone; cantilever left and right exposed ; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
 - 3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
 - 4) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); 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
 - 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) All plates are 2x4 MT20 unless otherwise indicated.
 - 8) Gable requires continuous bottom chord bearing.
 - 9) Gable studs spaced at 2-0-0 oc.
 - 10) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
 - 11) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
 - 12) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 31, 48, 49, 50, 51, 53, 54, 55, 56, 57, 58, 59, 43, 42, 41, 40, 38, 37, 36, 35, 34, 33, 2 except (jt=lb) 32=109.
 - 13) Beveled plate or shim required to provide full bearing surface with truss chord at joint(s) 2.
 - 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.



September 2,2025

Job	Truss	Truss Type	Qty	Ply	RVF-LOT #31 ROOF	176040536
25-4768-A	T04G	Common Girder	1	2	Job Reference (optional)	

Riverside Roof Truss, LLC, Danville, Va - 24541, 8.830 s Aug 14 2025 MiTek Industries, Inc. Tue Sep 2 08:24:02 2025 Page 1
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LOADING (psf)	SPACING-	CS.	DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof) 20.0	2-0-0	TC 0.44	Vert(LL) -0.03	8-9	>999	240		MT20	244/190
Snow (Pf/Pg) 11.6/15.0	Plate Grip DOL 1.15	BC 0.42	Vert(CT) -0.05	8-9	>999	180			
TCDL 10.0	Lumber DOL 1.15	WB 0.49	Horz(CT) 0.01	6	n/a	n/a			
BCLL 0.0 *	Rep Stress Incr NO	Matrix-MS							
BCDL 10.0	Code IRC2018/TPI2014								
								Weight: 153 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 2x6 SP No.2	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 2x4 SP No.3	

REACTIONS. (size) 10=0-3-8, 6=0-3-8
Max Horz 10=-54(LC 35)
Max Uplift 10=-172(LC 12), 6=-150(LC 12)
Max Grav 10=2460(LC 2), 6=2119(LC 2)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-2=-2977/227, 2-3=-2486/211, 3-4=-2486/211, 4-5=-2974/227, 1-10=-1771/141, 5-6=-1774/142
BOT CHORD 9-10=-40/406, 8-9=-171/2707, 7-8=-171/2704, 6-7=-26/387
WEBS 3-8=-108/1677, 4-8=-538/62, 4-7=-74/372, 2-8=-541/61, 2-9=-73/375, 1-9=-151/2360, 5-7=-152/2377

- NOTES-**
- 2-ply truss to be connected together with 10d (0.131"x3") nails as follows:
Top chords connected as follows: 2x4 - 1 row at 0-9-0 oc.
Bottom chords connected as follows: 2x6 - 2 rows staggered at 0-9-0 oc.
Webs connected as follows: 2x4 - 1 row at 0-9-0 oc.
 - All loads are considered equally applied to all plies, except if noted as front (F) or back (B) face in the LOAD CASE(S) section. Ply to ply connections have been provided to distribute only loads noted as (F) or (B), unless otherwise indicated.
 - 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); cantilever left and right exposed ; end vertical left and right exposed; 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 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) except (jt=lb) 10=172, 6=150.
 - 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.
 - Use Simpson Strong-Tie LUS26 (4-10d Girder, 3-10d Truss) or equivalent spaced at 8-0-0 oc max. starting at 0-7-4 from the left end to 10-7-4 to connect truss(es) to front face of bottom chord.
 - Use Simpson Strong-Tie LUS26 (4-10d Girder, 3-10d Truss) or equivalent spaced at 2-0-0 oc max. starting at 4-7-4 from the left end to 8-7-4 to connect truss(es) to front face of bottom chord.

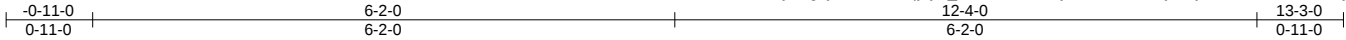
Job	Truss	Truss Type	Qty	Ply	RVF-LOT #31 ROOF
25-4768-A	T04G	Common Girder	1	2	176040536

LOAD CASE(S) Standard
1) Dead + Snow (balanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (plf)
Vert: 1-3=-43, 3-5=-43, 6-10=-20
Concentrated Loads (lb)
Vert: 13=-453(F) 14=-447(F) 15=-448(F) 16=-448(F) 17=-448(F) 18=-448(F)

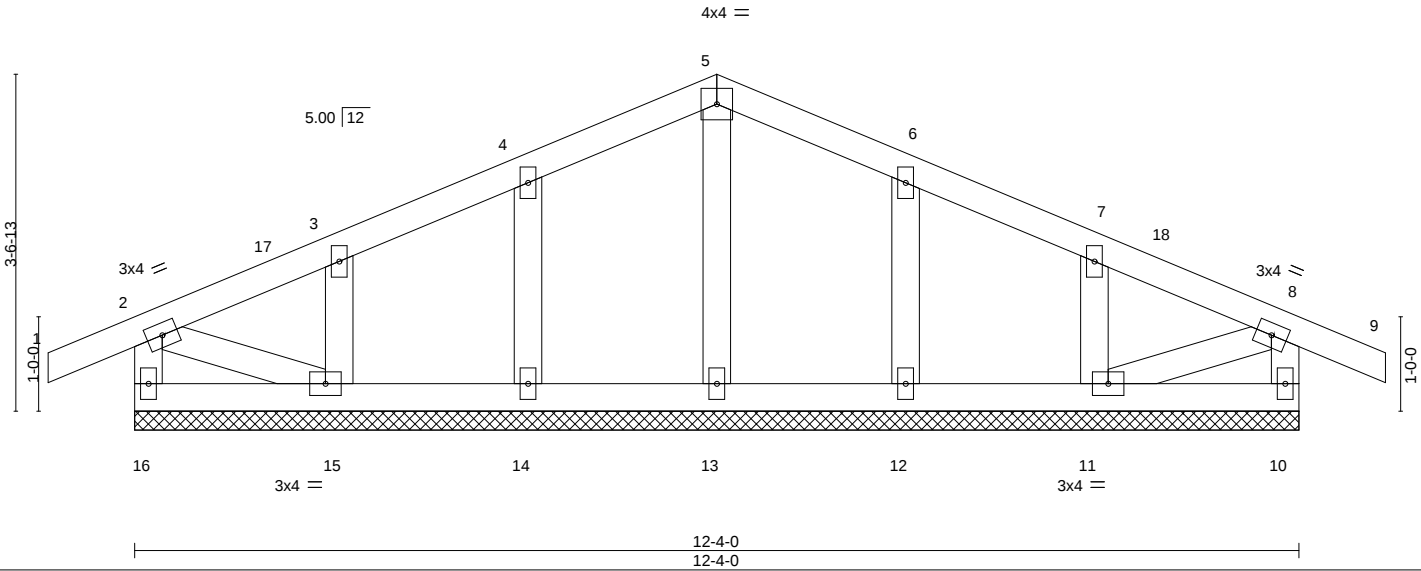
Job	Truss	Truss Type	Qty	Ply	RVF-LOT #31 ROOF	176040537
25-4768-A	T04GE	COMMON SUPPORTED GAB	1	1	Job Reference (optional)	

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

8.830 s Aug 14 2025 MiTek Industries, Inc. Tue Sep 2 08:24:02 2025 Page 1
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Scale = 1:24.4



LOADING (psf)		SPACING-		CSI.		DEFL.				PLATES	GRIP
TCLL (roof)	20.0	2-0-0		TC	0.08	in	(loc)	l/defl	L/d	MT20	244/190
Snow (Pf/Pg)	11.6/15.0	Plate Grip DOL	1.15	BC	0.03	Vert(LL)	-0.00	9	n/r		
TCDL	10.0	Lumber DOL	1.15	WB	0.03	Vert(CT)	-0.00	9	n/r		
BCLL	0.0 *	Rep Stress Incr	YES	Matrix-S		Horz(CT)	0.00	10	n/a		
BCDL	10.0	Code IRC2018/TPI2014								Weight: 63 lb	FT = 20%

LUMBER-

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

BRACING-

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

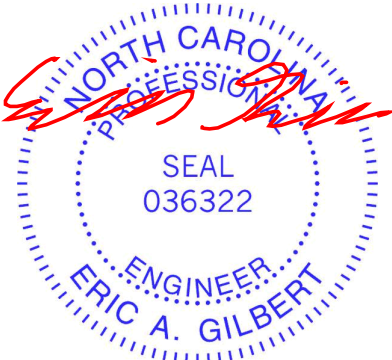
REACTIONS.

All bearings 12-4-0.
(lb) - Max Horz 16=-62(LC 14)
Max Uplift All uplift 100 lb or less at joint(s) 16, 10, 14, 15, 12, 11
Max Grav All reactions 250 lb or less at joint(s) 16, 10, 13, 14, 15, 12, 11

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 2-2-0, Exterior(2N) 2-2-0 to 6-2-0, Corner(3R) 6-2-0 to 9-2-0, Exterior(2N) 9-2-0 to 13-3-0 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) 16, 10, 14, 15, 12, 11.
- 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.



September 2, 2025

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ENGINEERING BY
TRENCO
A MiTek Affiliate

818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	RVF-LOT #31 ROOF	176040538
25-4768-A	T05	COMMON	2	1	Job Reference (optional)	

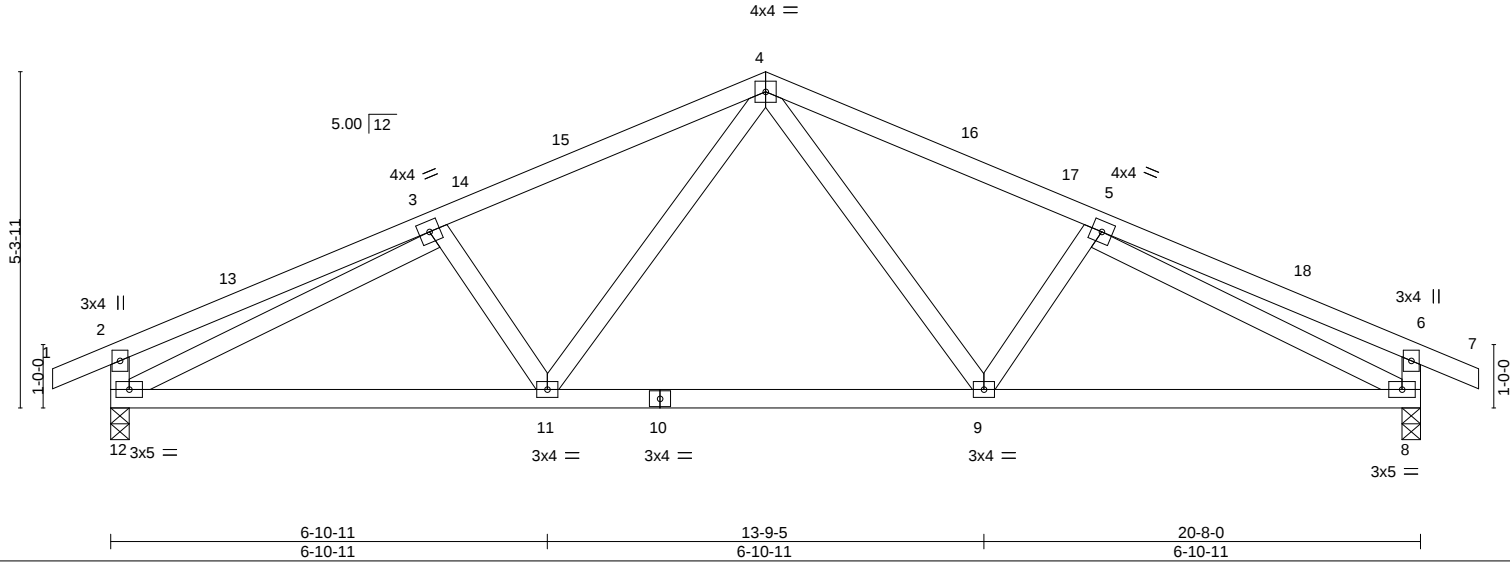
Riverside Roof Truss, LLC, Danville, Va - 24541,

8.830 s Aug 14 2025 MiTek Industries, Inc. Tue Sep 2 08:24:03 2025 Page 1

ID:tdHSSiWYLnG?jaR9E1eBtqly9_hKAKYMW9DGt?fgUXpH5kVP5p?cjiXWrEtpfYBpyhjsA

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

Scale = 1:36.4



LOADING (psf)		SPACING-		CSI.		DEFL.		PLATES		GRIP	
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.40	Vert(LL)	-0.05 11-12 >999 240	MT20		244/190	
Snow (Pf/Pg)	11.6/15.0	Lumber DOL	1.15	BC	0.50	Vert(CT)	-0.11 11-12 >999 180				
TCDL	10.0	Rep Stress Incr	YES	WB	0.67	Horz(CT)	0.03 8 n/a n/a				
BCLL	0.0 *	Code IRC2018/TPI2014		Matrix-MS							
BCDL	10.0										
								Weight: 111 lb		FT = 20%	

LUMBER-

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

BRACING-

TOP CHORD Structural wood sheathing directly applied or 5-1-13 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS.

(size) 12=0-3-8, 8=0-3-8
Max Horz 12=-85(LC 14)
Max Uplift 12=-83(LC 16), 8=-83(LC 16)
Max Grav 12=879(LC 2), 8=879(LC 2)

FORCES.

(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-266/89, 3-4=-1170/233, 4-5=-1170/233, 5-6=-266/89, 2-12=-292/132, 6-8=-292/132
BOT CHORD 11-12=-162/1110, 9-11=-68/831, 8-9=-148/1110
WEBS 4-9=-35/369, 4-11=-35/369, 3-12=-1055/159, 5-8=-1055/159

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) -0-11-0 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
- 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) 12, 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.



September 2, 2025

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ENGINEERING BY
TRENCO
A MiTek Affiliate

818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	RVF-LOT #31 ROOF	176040539
25-4768-A	T05G	Common Girder	1	3	Job Reference (optional)	

Riverside Roof Truss, LLC, Danville, Va - 24541, 8.830 s Aug 14 2025 MiTek Industries, Inc. Tue Sep 2 08:24:04 2025 Page 1
ID:tdHSSiWYLnG?jaR9E1eBtqly9_-9Wk7liWn_a?SHp2kN_cz2ddxo02BG0b06TO5jFyhjs9

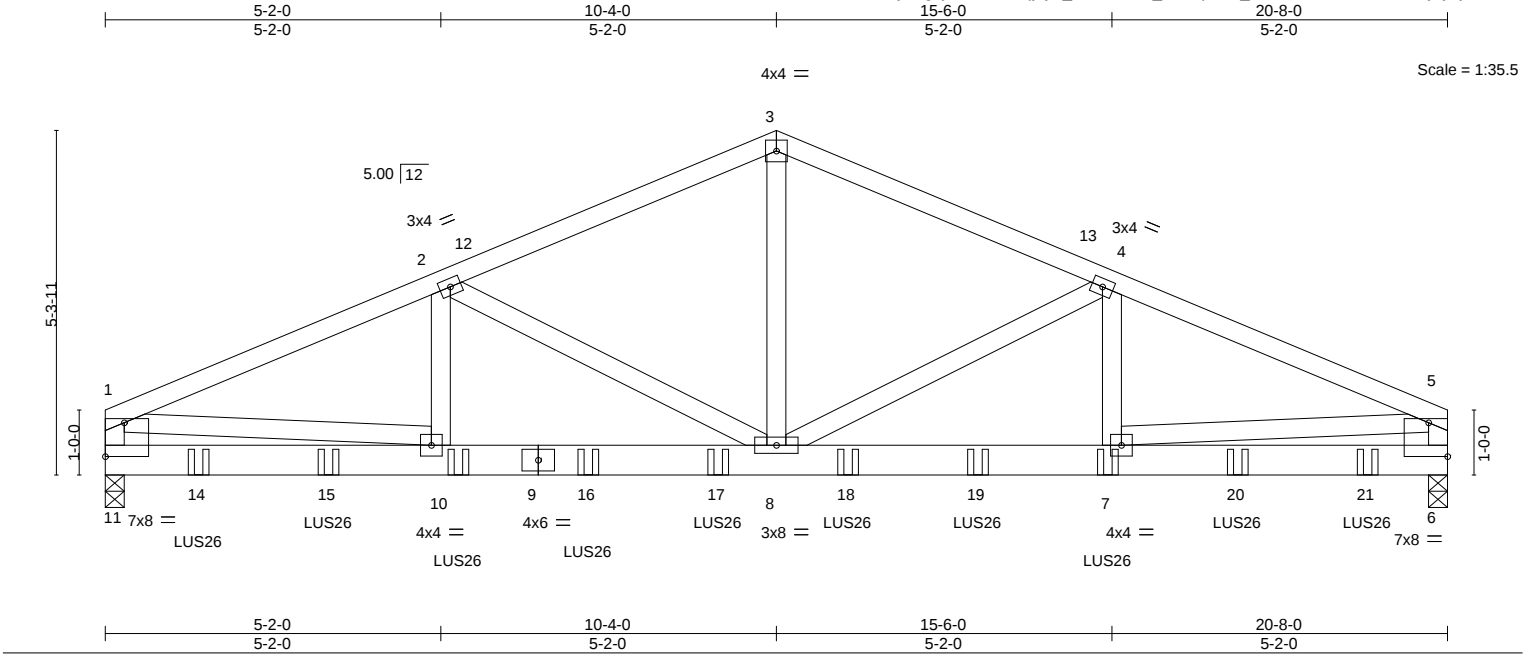


Plate Offsets (X,Y)-- [6:Edge,0-6-4], [11:Edge,0-6-4]																
LOADING (psf)		SPACING-		2-0-0		CSI.		DEFL.		in (loc) l/defl L/d		PLATES		GRIP		
TCLL (roof)	20.0	Plate Grip DOL		1.15		TC	0.59	Vert(LL)	-0.06	7-8	>999	240	MT20	244/190		
Snow (Pf/Pg)	11.6/15.0	Lumber DOL		1.15		BC	0.48	Vert(CT)	-0.10	7-8	>999	180				
TCDL	10.0	Rep Stress Incr		NO		WB	0.51	Horz(CT)	0.02	6	n/a	n/a				
BCLL	0.0 *	Code IRC2018/TPI2014				Matrix-MS							Weight: 382 lb		FT = 20%	
BCDL	10.0															

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 2x6 SP No.2	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 2x4 SP No.3	

REACTIONS.	(size) 11=0-3-8, 6=0-3-8
	Max Horz 11=-76(LC 10)
	Max Uplift 11=-236(LC 12), 6=-239(LC 12)
	Max Grav 11=3086(LC 2), 6=3124(LC 2)

FORCES.	(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD	1-2=-4894/396, 2-3=-3729/337, 3-4=-3729/337, 4-5=-4896/397, 1-11=-2508/219, 5-6=-2509/219
BOT CHORD	10-11=-64/818, 8-10=-312/4460, 7-8=-312/4462, 6-7=-64/812
WEBS	3-8=-172/2511, 4-8=-1263/137, 4-7=-59/786, 2-8=-1261/137, 2-10=-59/785, 1-10=-250/3676, 5-7=-250/3682

- NOTES-**
- 1) 3-ply truss to be connected together with 10d (0.131"x3") nails as follows:
Top chords connected as follows: 2x4 - 1 row at 0-9-0 oc.
Bottom chords connected as follows: 2x6 - 2 rows staggered at 0-9-0 oc.
Webs connected as follows: 2x4 - 1 row at 0-9-0 oc.
 - 2) All loads are considered equally applied to all plies, except if noted as front (F) or back (B) face in the LOAD CASE(S) section. Ply to ply connections have been provided to distribute only loads noted as (F) or (B), unless otherwise indicated.
 - 3) Unbalanced roof live loads have been considered for this design.
 - 4) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; 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
 - 5) 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
 - 6) Unbalanced snow loads have been considered for this design.
 - 7) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
 - 8) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 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) 11=236, 6=239.
 - 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) or equivalent spaced at 2-0-0 oc max. starting at 1-5-4 from the left end to 17-5-4 to connect truss(es) to front face of bottom chord.
 - 12) Use Simpson Strong-Tie LUS26 (4-10d Girder, 3-10d Truss) or equivalent at 19-5-4 from the left end to connect truss(es) to front face of bottom chord, skewed 0.0 deg.to the right, sloping 0.0 deg. down.



September 2,2025

Job	Truss	Truss Type	Qty	Ply	RVF-LOT #31 ROOF
25-4768-A	T05G	Common Girder	1	3	176040539

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

8.830 s Aug 14 2025 MiTek Industries, Inc. Tue Sep 2 08:24:04 2025 Page 2
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NOTES-
13) Fill all nail holes where hanger is in contact with lumber.

LOAD CASE(S) Standard
1) Dead + Snow (balanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (plf)
Vert: 1-3=-43, 3-5=-43, 6-11=-20
Concentrated Loads (lb)
Vert: 7=-319(F) 10=-319(F) 14=-319(F) 15=-319(F) 16=-319(F) 17=-319(F) 18=-319(F) 19=-319(F) 20=-319(F) 21=-319(F)

Job	Truss	Truss Type	Qty	Ply	RVF-LOT #31 ROOF	176040540
25-4768-A	T05GE	COMMON SUPPORTED GAB	1	1	Job Reference (optional)	

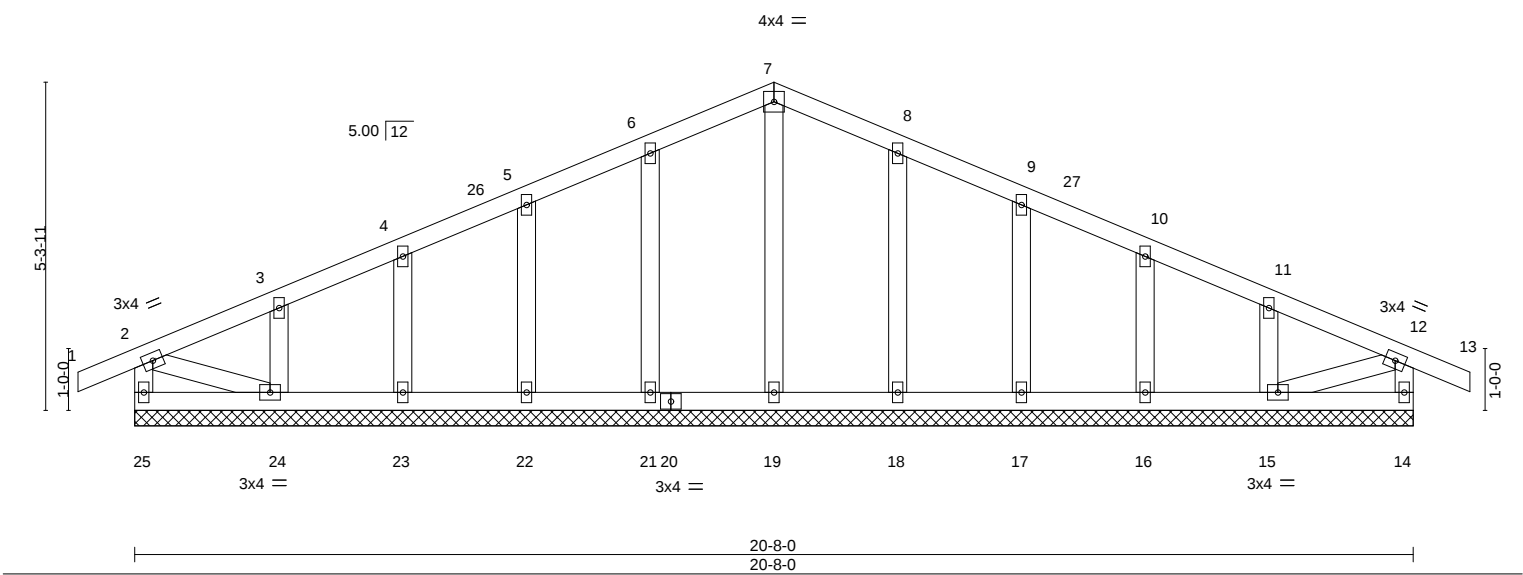
Riverside Roof Truss, LLC, Danville, Va - 24541,

8.830 s Aug 14 2025 MiTek Industries, Inc. Tue Sep 2 08:24:05 2025 Page 1

ID:tdHS5iWyLng?jaR9E1eBtqly9_-djlVz2XPlt7juzdwwi7CqQADWPVL?azXL78fFhyhs8

0-11-0 10-4-0 20-8-0 21-7-0
0-11-0 10-4-0 10-4-0 0-11-0

Scale = 1:37.2



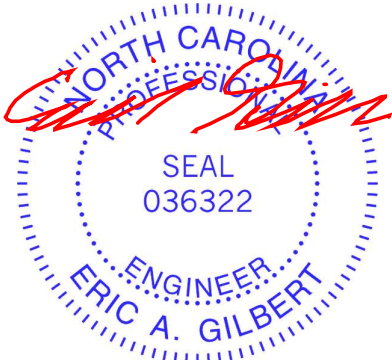
LOADING (psf)		SPACING-		CSI.		DEFL.				PLATES	GRIP
TCLL (roof)	20.0	2-0-0		TC	0.08	in	(loc)	l/defl	L/d	MT20	244/190
Snow (Pf/Pg)	11.6/15.0	Plate Grip DOL	1.15	BC	0.04	Vert(LL)	-0.00	13	n/r		
TCDL	10.0	Lumber DOL	1.15	WB	0.05	Vert(CT)	-0.00	13	n/r		
BCLL	0.0 *	Rep Stress Incr	YES	Matrix-S		Horz(CT)	0.00	14	n/a		
BCDL	10.0	Code IRC2018/TPI2014								Weight: 114 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, Except: 6-0-0 oc bracing: 24-25,14-15.
WEBS	2x4 SP No.3		
OTHERS	2x4 SP No.3		

REACTIONS. All bearings 20-8-0.
(lb) - Max Horz 25=-85(LC 14)
Max Uplift All uplift 100 lb or less at joint(s) 25, 14, 21, 22, 23, 24, 18, 17, 16, 15
Max Grav All reactions 250 lb or less at joint(s) 25, 14, 19, 21, 22, 23, 24, 18, 17, 16, 15

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 2-4-0, Exterior(2N) 2-4-0 to 10-4-0, Corner(3R) 10-4-0 to 13-4-0, Exterior(2N) 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
 - 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) 25, 14, 21, 22, 23, 24, 18, 17, 16, 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.

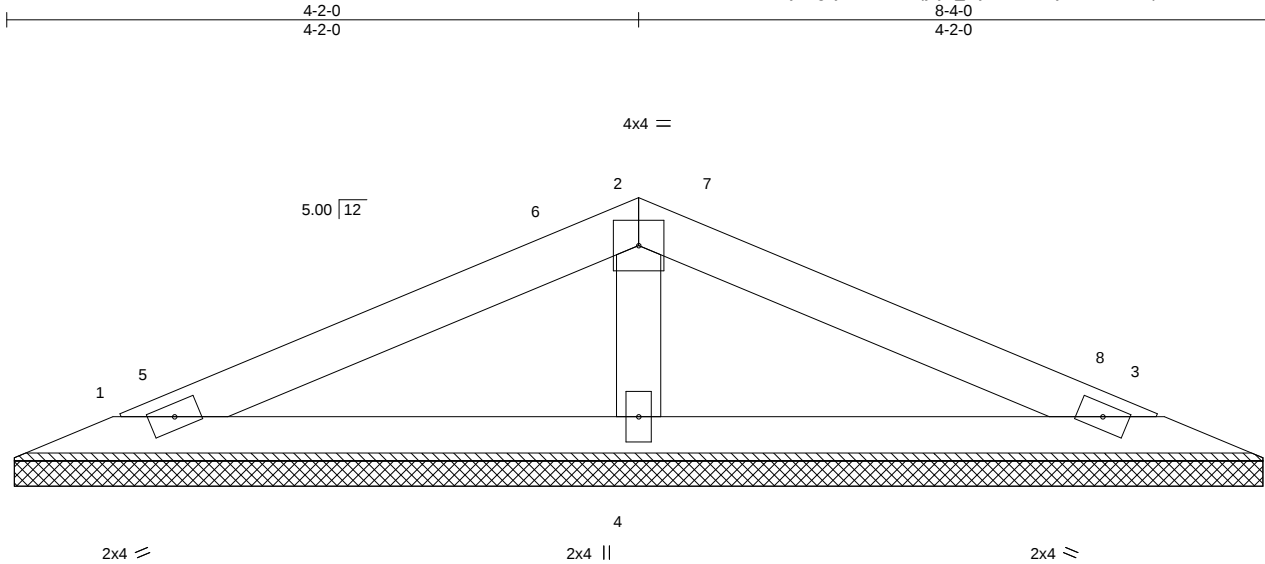


September 2,2025

Job	Truss	Truss Type	Qty	Ply	RVF-LOT #31 ROOF	176040541
25-4768-A	V01	Valley	1	1	Job Reference (optional)	

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

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ID:tdHS5iWylNg?jaR9E1eBtqly9_-djlVz2XPlt7juzdwwi7CagABFPU4?a7XL78fFhyhs8



LOADING (psf)		SPACING-		CSI.		DEFL.		PLATES		GRIP	
TCLL (roof)	20.0	2-0-0	Plate Grip DOL	1.15	TC	0.22	in (loc)	l/defl	L/d	MT20	244/190
Snow (Pf/Pg)	11.6/15.0	Lumber DOL	1.15	BC	0.12	Vert(LL)	n/a	-	n/a	999	
TCDL	10.0	Rep Stress Incr	YES	WB	0.04	Vert(CT)	n/a	-	n/a	999	
BCLL	0.0 *	Code IRC2018/TPI2014		Matrix-P		Horz(CT)	0.00	3	n/a	n/a	
BCDL	10.0									Weight: 25 lb	FT = 20%

LUMBER-

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

BRACING-

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

REACTIONS.

(size) 1=8-2-13, 3=8-2-13, 4=8-2-13
Max Horz 1=18(LC 15)
Max Uplift 1=-19(LC 16), 3=-19(LC 16)
Max Grav 1=136(LC 20), 3=136(LC 21), 4=277(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; 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) 0-9-1 to 3-9-1, Interior(1) 3-9-1 to 4-2-0, Exterior(2R) 4-2-0 to 7-2-0, Interior(1) 7-2-0 to 7-6-15 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.



September 2,2025

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ENGINEERING BY
TRENCO
A MiTek Affiliate

818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	RVF-LOT #31 ROOF
25-4768-A	V02	Valley	1	1	176040542
Riverside Roof Truss, LLC, Danville, Va - 24541,					Job Reference (optional)

8.830 s Aug 14 2025 MiTek Industries, Inc. Tue Sep 2 08:24:06 2025 Page 1
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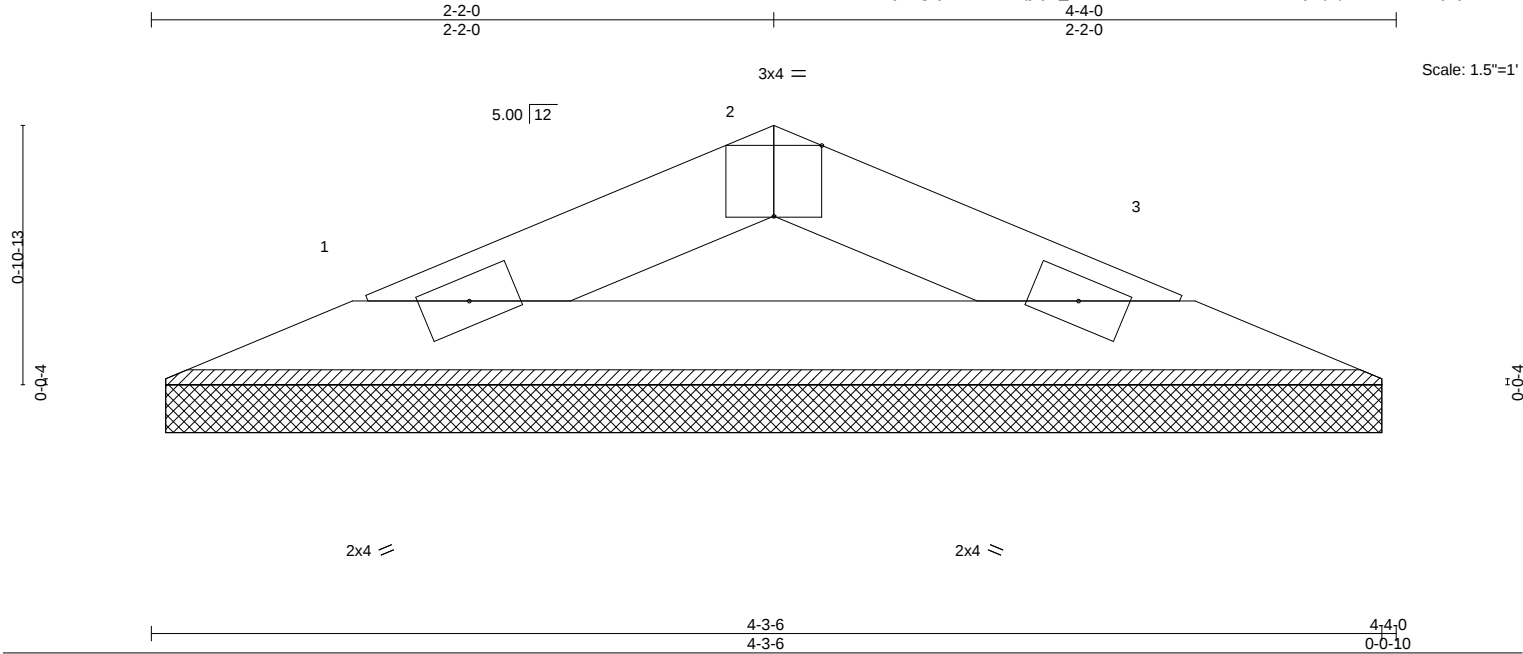


Plate Offsets (X,Y)-- [2:0-2-0,Edge]									
LOADING (psf)		SPACING-		CSI.		DEFL.		PLATES	
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.05	in (loc)	l/defl	L/d	MT20
Snow (Pf/Pg)	11.6/15.0	Lumber DOL	1.15	BC	0.10	n/a	-	n/a	244/190
TCDL	10.0	Rep Stress Incr	YES	WB	0.00	n/a	-	n/a	
BCLL	0.0 *	Code IRC2018/TPI2014		Matrix-P		0.00	3	n/a	
BCDL	10.0								
								Weight: 11 lb FT = 20%	

LUMBER-		BRACING-	
TOP CHORD	2x4 SP No.2	TOP CHORD	Structural wood sheathing directly applied or 4-4-0 oc purlins.
BOT CHORD	2x4 SP No.2	BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS.	
(size)	1=4-2-13, 3=4-2-13
Max Horz	1=-8(LC 14)
Max Uplift	1=-7(LC 16), 3=-7(LC 16)
Max Grav	1=113(LC 2), 3=113(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; 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
 - 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.



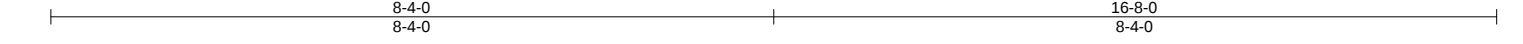
September 2,2025

Job	Truss	Truss Type	Qty	Ply	RVF-LOT #31 ROOF	176040543
25-4768-A	V03	Valley	1	1	Job Reference (optional)	

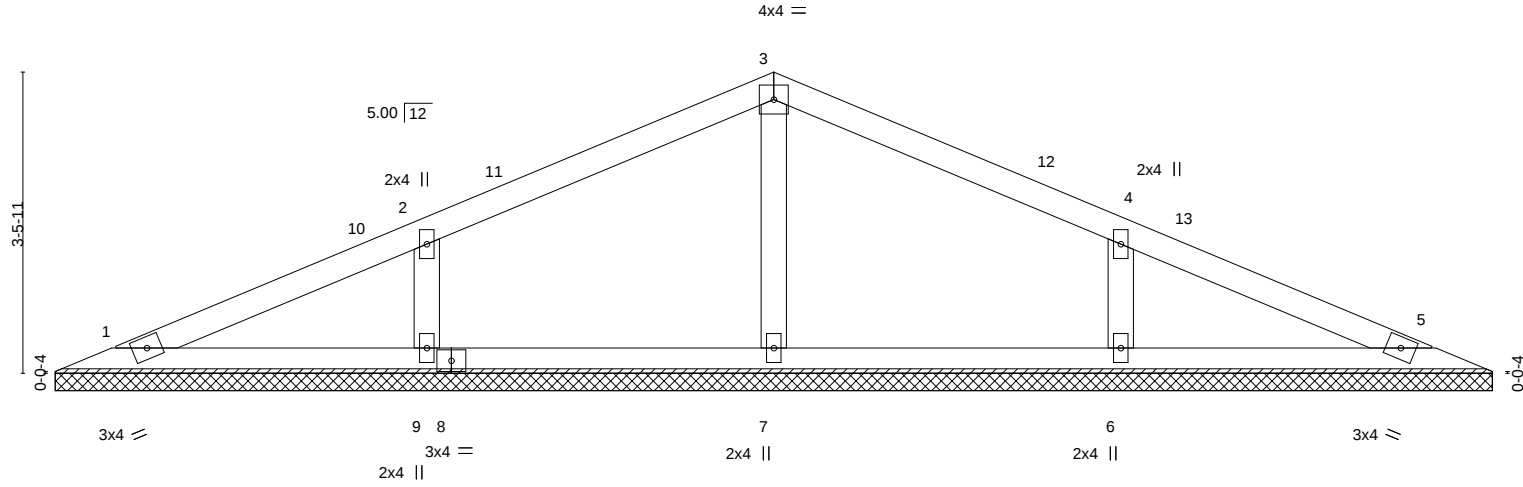
Riverside Roof Truss, LLC, Danville, Va - 24541,

8.830 s Aug 14 2025 MiTek Industries, Inc. Tue Sep 2 08:24:06 2025 Page 1

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Scale = 1:26.6



0-0:10 0-0:10	16-8-0 16-7-6								
LOADING (psf)	SPACING-	CSI.	DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof) 20.0	2-0-0	TC 0.21	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: 57 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 16-6-13.
(lb) - Max Horz 1=41(LC 15)
Max Uplift All uplift 100 lb or less at joint(s) 1, 5, 9, 6
Max Grav All reactions 250 lb or less at joint(s) 1, 5 except 7=274(LC 2), 9=359(LC 33), 6=359(LC 34)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
WEBS 2-9=-270/157, 4-6=-270/157

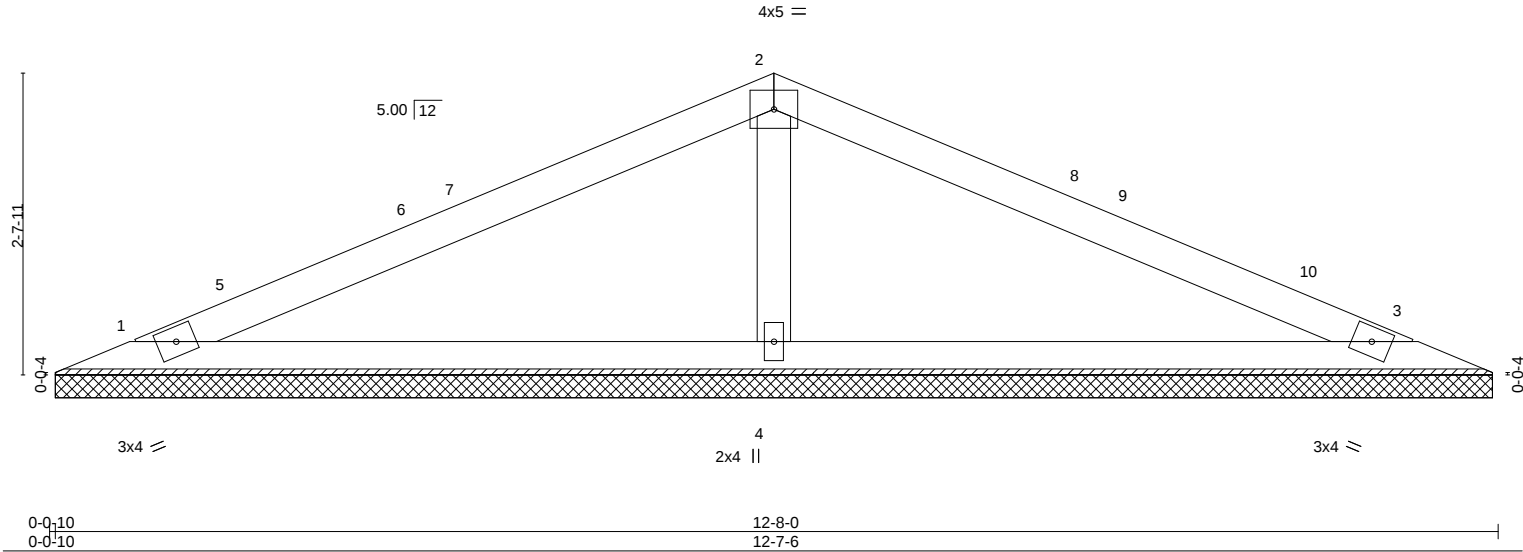
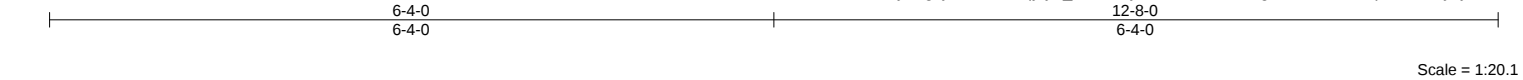
- NOTES-**
- Unbalanced roof live loads have been considered for this design.
 - Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp B; Enclosed; MWFRS (directional) and C-C Exterior(2E) 0-9-1 to 3-9-1, Interior(1) 3-9-1 to 8-4-0, Exterior(2R) 8-4-0 to 11-4-0, Interior(1) 11-4-0 to 15-10-15 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, 5, 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.



September 2,2025

Job	Truss	Truss Type	Qty	Ply	RVF-LOT #31 ROOF	176040544
25-4768-A	V04	Valley	1	1	Job Reference (optional)	

Riverside Roof Truss, LLC, Danville, Va - 24541, 8.830 s Aug 14 2025 MiTek Industries, Inc. Tue Sep 2 08:24:07 2025 Page 1
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LOADING (psf)	SPACING-	CSI.	DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof) 20.0	2-0-0	TC 0.48	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf/Pg) 11.6/15.0	Plate Grip DOL 1.15	BC 0.31	Vert(CT)	n/a	-	n/a	999		
TCDL 10.0	Lumber DOL 1.15	WB 0.07	Horz(CT)	0.00	3	n/a	n/a		
BCLL 0.0 *	Rep Stress Incr YES	Matrix-S							
BCDL 10.0	Code IRC2018/TPI2014							Weight: 40 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=12-6-13, 3=12-6-13, 4=12-6-13
	Max Horz 1=-30(LC 14)
	Max Uplift 1=-21(LC 16), 3=-21(LC 16), 4=-11(LC 16)
	Max Grav 1=201(LC 33), 3=201(LC 34), 4=500(LC 2)

FORCES.	(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
WEBS	2-4=-337/182

- 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) and C-C Exterior(2E) 0-9-1 to 3-9-1, Interior(1) 3-9-1 to 6-4-0, Exterior(2R) 6-4-0 to 9-4-0, Interior(1) 9-4-0 to 11-10-15 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, 4.
 - 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.



September 2,2025

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)

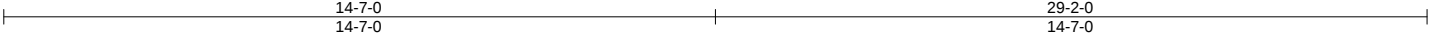
ENGINEERING BY
TRENCO
A MiTek Affiliate

818 Soundside Road
Edenton, NC 27932

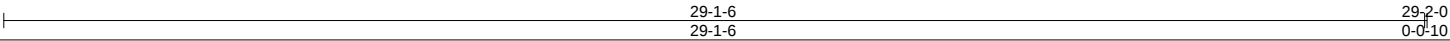
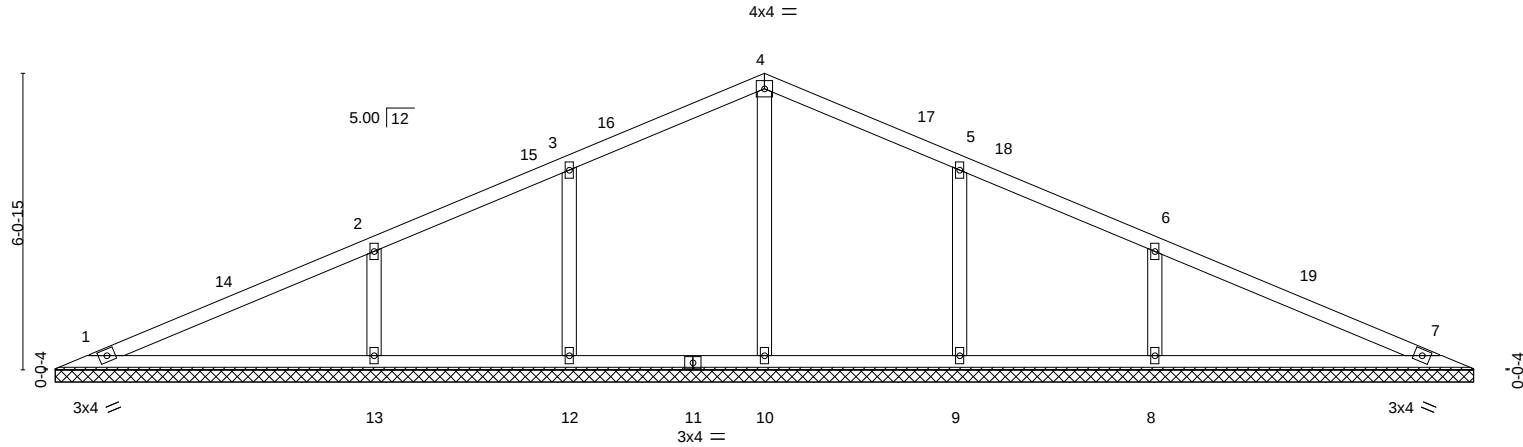
Job	Truss	Truss Type	Qty	Ply	RVF-LOT #31 ROOF	176040546
25-4768-A	V06	Valley	1	1	Job Reference (optional)	

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

8.830 s Aug 14 2025 MiTek Industries, Inc. Tue Sep 2 08:24:08 2025 Page 1
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Scale = 1:47.2



LOADING (psf)		SPACING-		CSI.		DEFL.		PLATES		GRIP	
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.43	Vert(LL)	n/a - n/a	999	MT20	244/190	
Snow (Pf/Pg)	11.6/15.0	Lumber DOL	1.15	BC	0.30	Vert(CT)	n/a - n/a	999			
TCDL	10.0	Rep Stress Incr	YES	WB	0.14	Horz(CT)	0.00 7 n/a	n/a			
BCLL	0.0 *	Code IRC2018/TPI2014		Matrix-S							
BCDL	10.0								Weight: 114 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 29-0-13.	
(lb) - Max Horz	1=82(LC 15)
Max Uplift	All uplift 100 lb or less at joint(s) 1, 7, 12, 13, 9, 8
Max Grav	All reactions 250 lb or less at joint(s) 1, 7 except 10=414(LC 27), 12=333(LC 27), 13=531(LC 27), 9=332(LC 28), 8=531(LC 28)

FORCES.	
(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.	
WEBS	2-13=-347/132, 6-8=-347/132

- 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=29ft; eave=4ft; Cat. II; Exp B; Enclosed; MWFRS (directional) and C-C Exterior(2E) 0-9-1 to 3-9-1, Interior(1) 3-9-1 to 14-7-0, Exterior(2R) 14-7-0 to 17-7-0, Interior(1) 17-7-0 to 28-4-15 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) All plates are 2x4 MT20 unless otherwise indicated.
 - 6) Gable requires continuous bottom chord bearing.
 - 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, with BCDL = 10.0psf.
 - 9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 7, 12, 13, 9, 8.
 - 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.



September 2,2025

Job	Truss	Truss Type	Qty	Ply	RVF-LOT #31 ROOF	176040547
25-4768-A	V07	Valley	1	1	Job Reference (optional)	

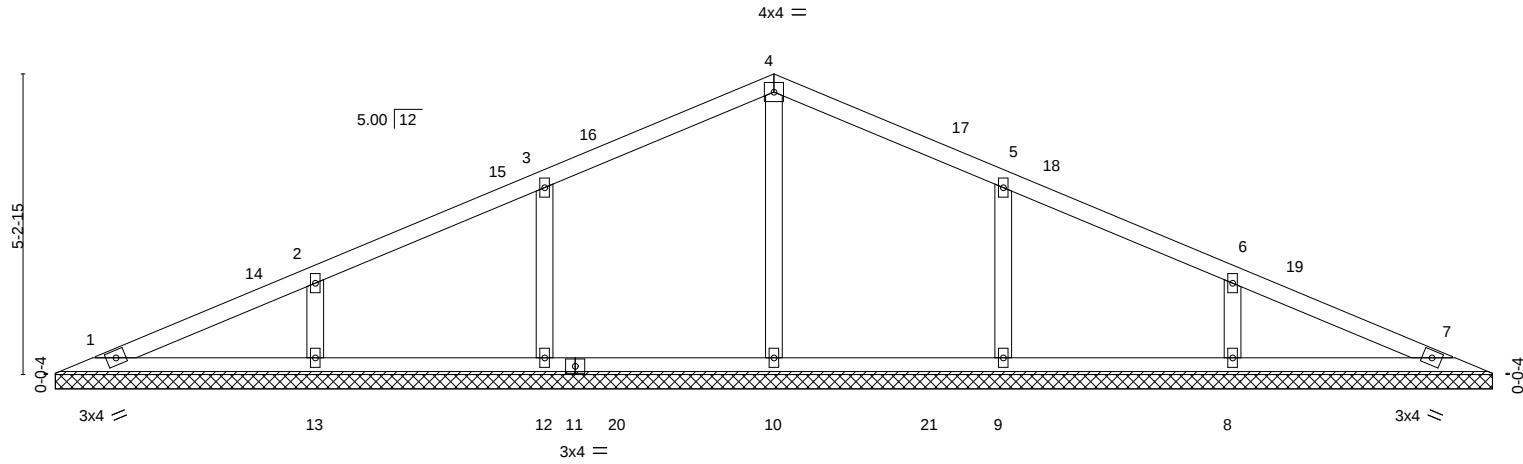
Riverside Roof Truss, LLC, Danville, Va - 24541,

8.830 s Aug 14 2025 MiTek Industries, Inc. Tue Sep 2 08:24:09 2025 Page 1

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25-2-0
12-7-0

Scale = 1:40.2



0-0-10 0-0-10	25-2-0 25-1-6								
LOADING (psf)	SPACING-	CSI.	DEFL.	PLATES	GRIP				
TCLL (roof) 20.0	2-0-0	TC 0.19	in (loc) l/defl L/d	MT20	244/190				
Snow (Pf/Pg) 11.6/15.0	Plate Grip DOL 1.15	BC 0.17	Vert(LL) n/a - n/a 999						
TCDL 10.0	Lumber DOL 1.15	WB 0.10	Vert(CT) n/a - n/a 999						
BCLL 0.0 *	Rep Stress Incr YES	Matrix-S	Horz(CT) 0.00 7 n/a n/a						
BCDL 10.0	Code IRC2018/TPI2014								
				Weight: 95 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 25-0-13.
(lb) - Max Horz 1=-63(LC 14)
Max Uplift All uplift 100 lb or less at joint(s) 12, 13, 9, 8
Max Grav All reactions 250 lb or less at joint(s) 1, 7 except 10=379(LC 27), 12=368(LC 27), 13=382(LC 27), 9=368(LC 28), 8=382(LC 28)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
WEBS 3-12=-256/119, 2-13=-255/110, 5-9=-256/119, 6-8=-255/110

- 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=25ft; eave=4ft; Cat. II; Exp B; Enclosed; MWFRS (directional) and C-C Exterior(2E) 0-9-1 to 3-9-1, Interior(1) 3-9-1 to 12-7-0, Exterior(2R) 12-7-0 to 15-7-0, Interior(1) 15-7-0 to 24-4-15 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) All plates are 2x4 MT20 unless otherwise indicated.
 - 6) Gable requires continuous bottom chord bearing.
 - 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, with BCDL = 10.0psf.
 - 9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 12, 13, 9, 8.
 - 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.



September 2,2025

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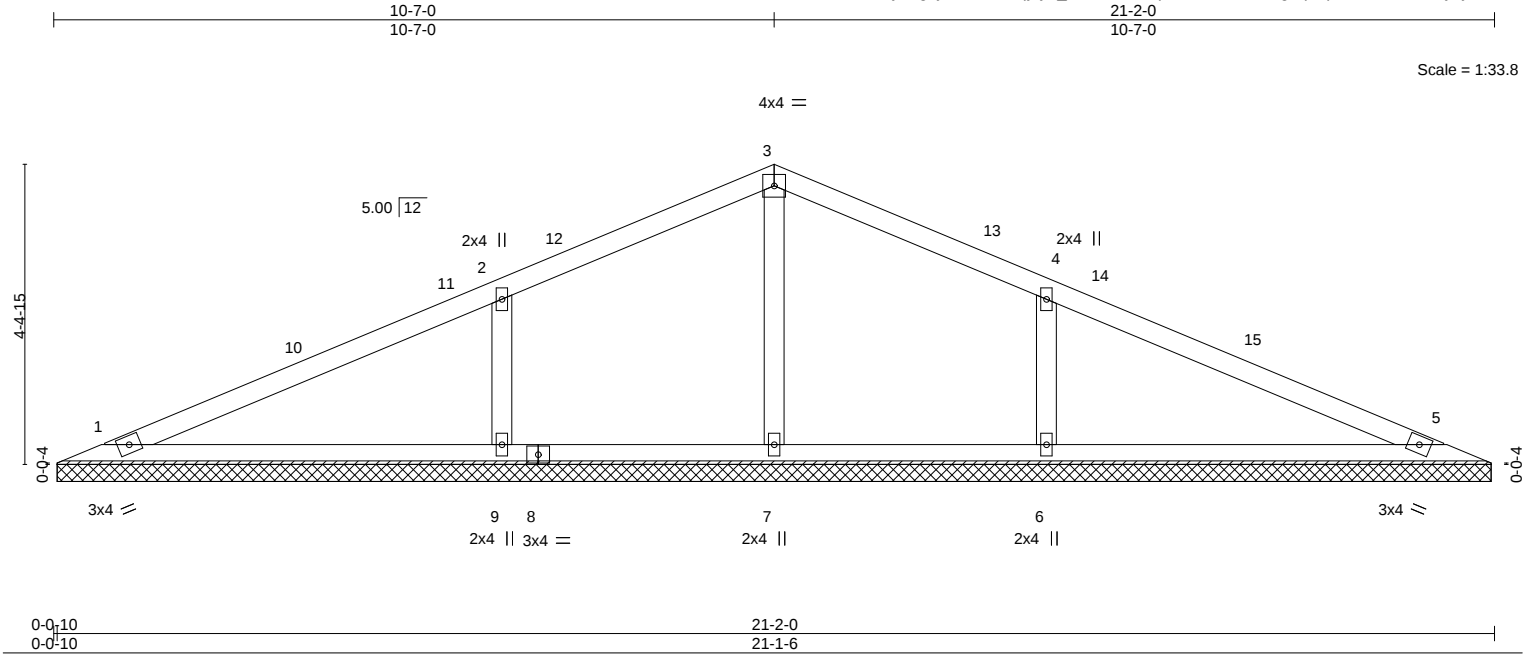
ENGINEERING BY
TRENCO
A MiTek Affiliate
818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	RVF-LOT #31 ROOF	176040548
25-4768-A	V08	Valley	1	1	Job Reference (optional)	

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

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LOADING (psf)		SPACING-		CSI.		DEFL.		PLATES		GRIP	
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.43	Vert(LL)	n/a	MT20		244/190	
Snow (Pf/Pg)	11.6/15.0	Lumber DOL	1.15	BC	0.27	Vert(CT)	n/a				
TCDL	10.0	Rep Stress Incr	YES	WB	0.08	Horz(CT)	0.00				
BCLL	0.0 *	Code IRC2018/TPI2014		Matrix-S							
BCDL	10.0										
								Weight: 75 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 21-0-13.
(lb) - Max Horz 1=-53(LC 14)
Max Uplift All uplift 100 lb or less at joint(s) 1, 5, 9, 6
Max Grav All reactions 250 lb or less at joint(s) 1, 5, 7 except 9=500(LC 33), 6=500(LC 34)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
WEBS 2-9=-365/174, 4-6=-365/174

- 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) 0-9-1 to 3-9-1, Interior(1) 3-9-1 to 10-7-0, Exterior(2R) 10-7-0 to 13-7-0, Interior(1) 13-7-0 to 20-4-15 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, 5, 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.



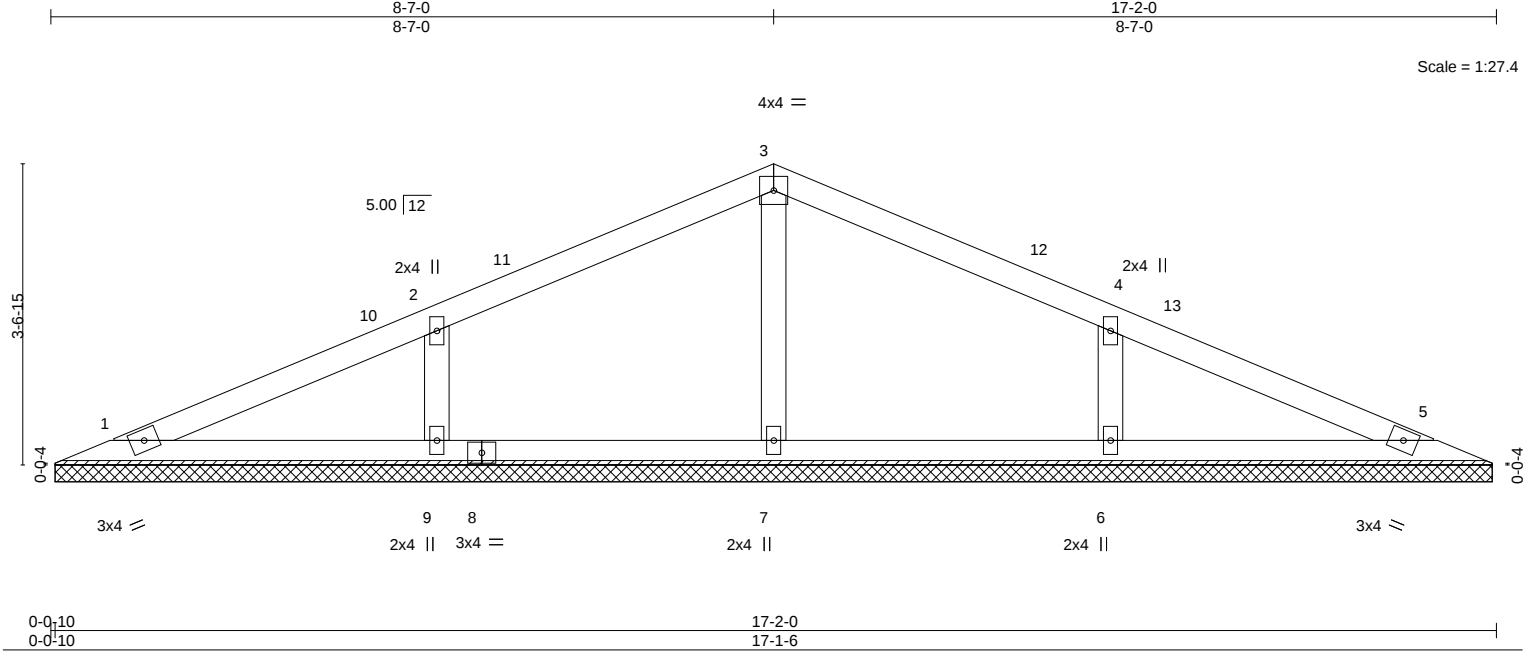
September 2,2025

Job	Truss	Truss Type	Qty	Ply	RVF-LOT #31 ROOF	176040549
25-4768-A	V09	Valley	1	1	Job Reference (optional)	

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

8.830 s Aug 14 2025 MiTek Industries, Inc. Tue Sep 2 08:24:10 2025 Page 1

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LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.23	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf/Pg)	11.6/15.0	Lumber DOL	1.15	BC	0.13	Vert(CT)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.06	Horz(CT)	0.00	5	n/a	n/a		
BCLL	0.0 *	Code IRC2018/TPI2014		Matrix-S							Weight: 59 lb	FT = 20%
BCDL	10.0											

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 17-0-13.
(lb) - Max Horz 1=-42(LC 14)
Max Uplift All uplift 100 lb or less at joint(s) 1, 5, 9, 6
Max Grav All reactions 250 lb or less at joint(s) 1, 5 except 7=268(LC 2), 9=373(LC 33), 6=373(LC 34)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
WEBS 2-9=-279/158, 4-6=-279/158

- 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) 0-9-1 to 3-9-1, Interior(1) 3-9-1 to 8-7-0, Exterior(2R) 8-7-0 to 11-7-0, Interior(1) 11-7-0 to 16-4-15 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, 5, 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.

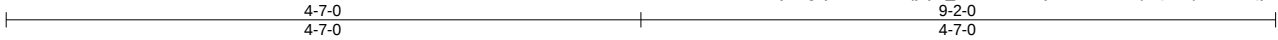


September 2,2025

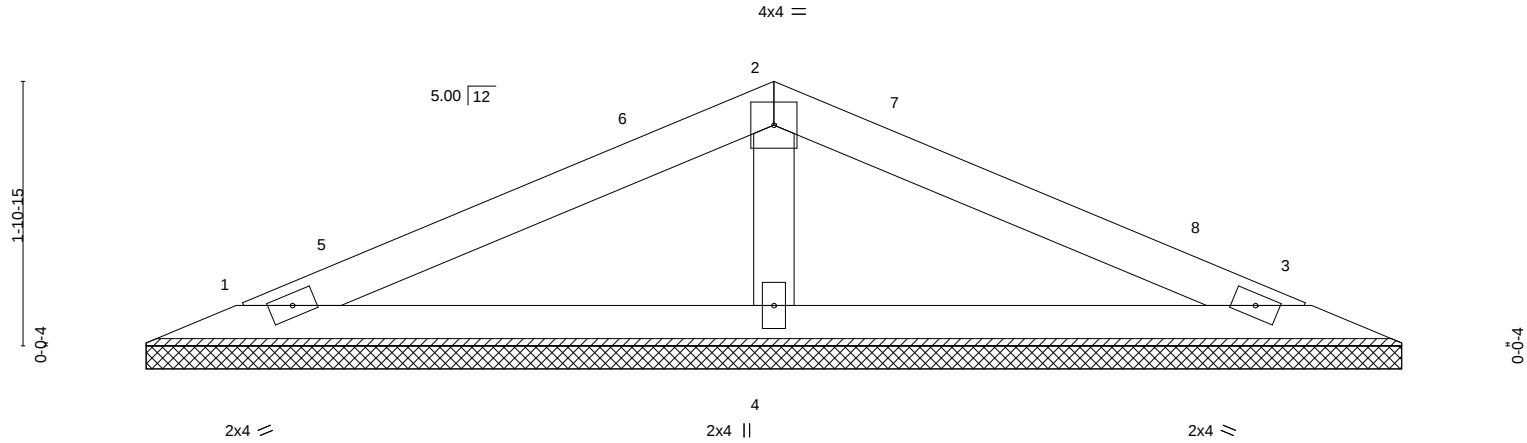
Job	Truss	Truss Type	Qty	Ply	RVF-LOT #31 ROOF	176040551
25-4768-A	V11	Valley	1	1	Job Reference (optional)	

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

8.830 s Aug 14 2025 MiTek Industries, Inc. Tue Sep 2 08:24:11 2025 Page 1
ID:tdHSSiWYLn9?jaR9E1eBtqly9_-StfmD5cALjttcu54HzEcq5QDzqW2PIXQj3bzTLyhjs2



Scale = 1:16.6



0-0-10				9-2-0																					
0-0-10				9-1-6																					
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 0.21				Vert(LL)		n/a		-		n/a		999		MT20		244/190	
Snow (Pf/Pg)		11.6/15.0		Lumber DOL		1.15		BC 0.15				Vert(CT)		n/a		-		n/a		999					
TCDL		10.0		Rep Stress Incr		YES		WB 0.05				Horz(CT)		0.00		3		n/a		n/a					
BCLL		0.0 *		Code IRC2018/TPI2014				Matrix-S														Weight: 28 lb		FT = 20%	
BCDL		10.0																							

LUMBER-

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

BRACING-

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

REACTIONS.

(size) 1=9-0-13, 3=9-0-13, 4=9-0-13
Max Horz 1=21(LC 15)
Max Uplift 1=-15(LC 16), 3=-15(LC 16), 4=-8(LC 16)
Max Grav 1=142(LC 20), 3=142(LC 21), 4=343(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; 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) 0-9-1 to 3-9-1, Interior(1) 3-9-1 to 4-7-0, Exterior(2R) 4-7-0 to 7-7-0, Interior(1) 7-7-0 to 8-4-15 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, 4.
- 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.



September 2,2025

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)

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818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	RVF-LOT #31 ROOF
25-4768-A	V12	Valley	1	1	176040552
Job Reference (optional)					

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

8.830 s Aug 14 2025 MiTek Industries, Inc. Tue Sep 2 08:24:11 2025 Page 1
ID:tdHS5IWyLNg?jaR9E1eBtqly9_-StfrmD5cALjtcu54HzEcq5QF?qWiPIGQj3bzTLyhjs2

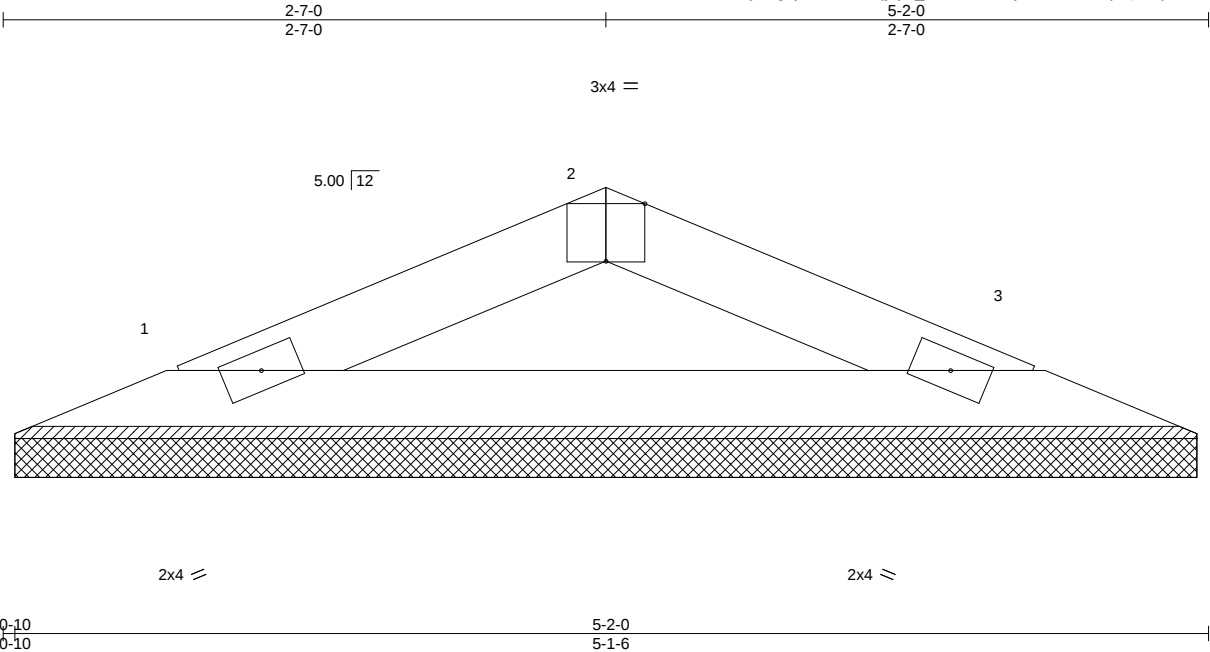


Plate Offsets (X,Y)-- [2:0-2-0,Edge]		5-2-0	
0-0-10		5-1-6	
0-0-10			
LOADING (psf)		SPACING-	
TCLL (roof)	20.0	2-0-0	
Snow (Pf/Pg)	11.6/15.0	Plate Grip DOL	1.15
TCDL	10.0	Lumber DOL	1.15
BCLL	0.0 *	Rep Stress Incr	YES
BCDL	10.0	Code	IRC2018/TPI2014
		CSI.	
		TC	0.08
		BC	0.17
		WB	0.00
		Matrix-P	
		DEFL.	
		in (loc)	l/defl
		Vert(LL)	n/a - n/a 999
		Vert(CT)	n/a - n/a 999
		Horz(CT)	0.00 3 n/a n/a
		PLATES	
		MT20	244/190
		GRIP	
		Weight: 13 lb	FT = 20%

LUMBER-

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

BRACING-

TOP CHORD Structural wood sheathing directly applied or 5-2-0 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS.

(size) 1=5-0-13, 3=5-0-13
Max Horz 1=10(LC 15)
Max Uplift 1=9(LC 16), 3=9(LC 16)
Max Grav 1=146(LC 2), 3=146(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; 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
- 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.



September 2,2025

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

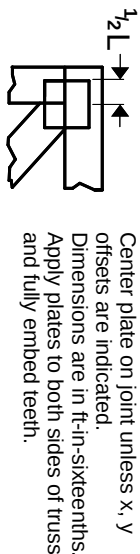
Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall 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)

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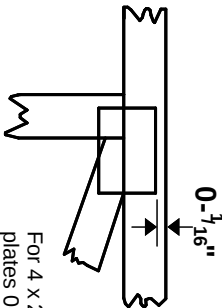
818 Soundside Road
Edenton, NC 27932

Symbols

PLATE LOCATION AND ORIENTATION



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



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

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

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

PLATE SIZE

4 X 4

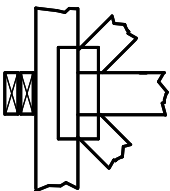
The first dimension is the plate width measured perpendicular to slots. Second dimension is the length parallel to slots.

LATERAL BRACING LOCATION



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

BEARING



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

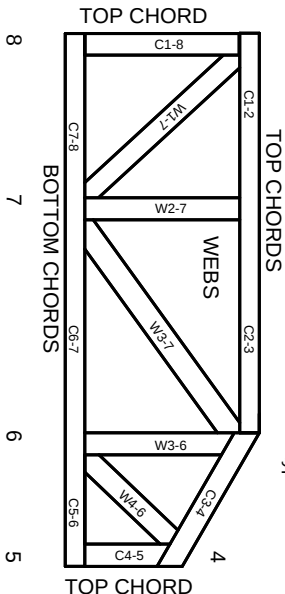
Industry Standards:

ANSI/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



1 2 3 Joint ID typ.



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