

RE: 28964 - Freedom Const\Lot 12 Legacy

Site Information:

Project Customer: Freedom Constructors Project Name:
 Lot/Block: 12 Subdivision: Legacy
 Model: Hignpoint\Bonus LH

Address:
 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 8.4

Wind Code: ASCE 7-16 [All Heights]

Design Method: MWFRS (Directional) ASCE 7-16 [All Heights]

Wind Speed: 140 mph

Floor Load: N/A psf

Roof Load: 40.0 psf

Exposure Category: B

Mean Roof Height (feet): 20

No.	Seal#	Truss Name	Date
1	I77186784	AT1	10/21/25
2	I77186785	AT2	10/21/25
3	I77186786	G1	10/21/25
4	I77186787	GR1	10/21/25
5	I77186788	PB1	10/21/25
6	I77186789	PB2	10/21/25
7	I77186790	PB3	10/21/25
8	I77186791	PB4	10/21/25
9	I77186792	PB5	10/21/25
10	I77186793	PB6	10/21/25
11	I77186794	PB7	10/21/25
12	I77186795	PB8	10/21/25
13	I77186796	T1	10/21/25
14	I77186797	T2	10/21/25
	I77186798	T3	10/21/25
16	I77186799	T4	10/21/25
17	I77186800	T5	10/21/25
18	I77186801	T6	10/21/25
19	I77186802	T7	10/21/25
20	I77186803	TG1	10/21/25
21	I77186804	TGE1	10/21/25
22	I77186805	TGE2	10/21/25
23	I77186806	TGE3	10/21/25
	I77186807	TSGE1	10/21/25
25	I77186808	V1	10/21/25
26	I77186809	V2	10/21/25

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

Truss Design Engineer's Name: Sevier, Scott

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

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.



October 21, 2025

Job 28964	Truss AT1	Truss Type PIGGYBACK ATTIC	Qty 7	Ply 1	Freedom Const\Lot 12 Legacy	I77186784
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C&R Truss, Autryville, NC - 28318,

8.530 s Aug 2 2023 MiTek Industries, Inc. Mon Oct 20 13:17:24 2025 Page 1
ID:joUCX15PbkzRvuH1eD7yz?ySaFl-4PsQW8rW0lvuYEEzbJl?0TohZY9birq2JRFaFyRVz9

-1-10-8 1-10-13 4-9-4 8-5-0 15-7-0 19-2-12 22-1-3 24-0-0 25-10-8
1-10-8 1-10-13 2-10-7 3-7-12 7-2-0 3-7-12 2-10-7 1-10-13 1-10-8

Scale = 1:61.0

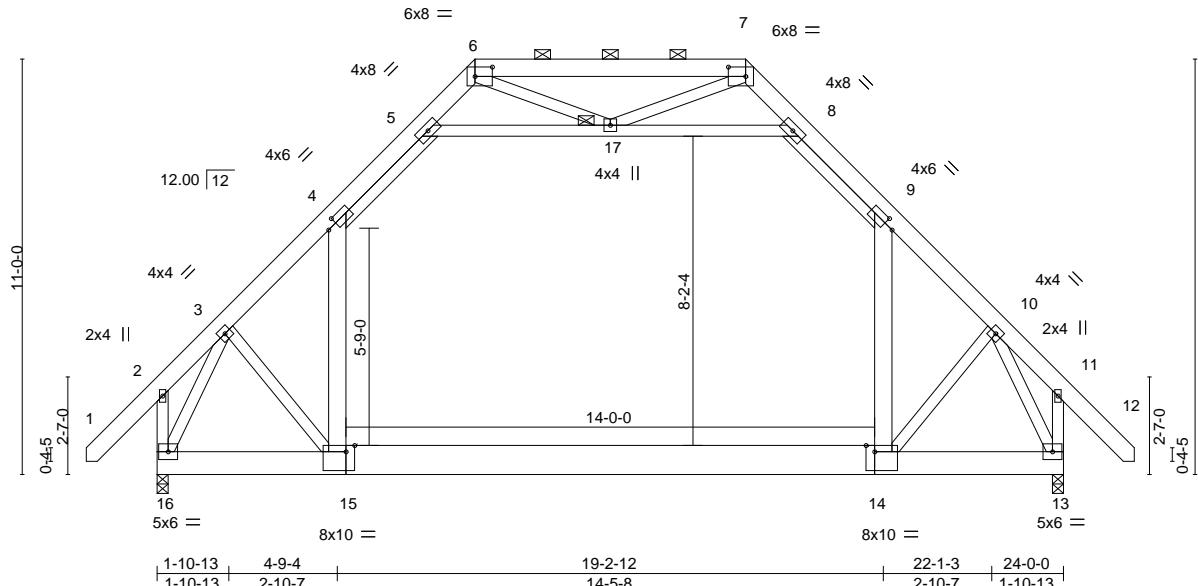


Plate Offsets (X, Y)-- [4:0-3-2,0-2-0], [6:0-5-8,0-3-0], [7:0-5-8,0-3-0], [9:0-3-2,0-2-0], [14:0-2-12,Edge], [15:0-2-12,Edge]

LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL	1.15	TC 0.53	Vert(LL)	-0.25	14-15	>999	360	
TCDL 10.0	Lumber DOL	1.15	BC 0.34	Vert(CT)	-0.31	14-15	>903	240	
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.48	Horz(CT)	0.01	13	n/a	n/a	
BCDL 10.0	Code IRC2018/TPI2014		Matrix-MS	Wind(LL)	-0.04	15	>999	240	Weight: 265 lb FT = 20%

LUMBER-

TOP CHORD 2x6 SP No.1
BOT CHORD 2x8 SP 2400F 2.0E *Except*
14-15: 2x10 SP 2400F 2.0E
WEBS 2x4 SP No.3 *Except*
4-15,9-14: 2x6 SP No.1, 5-8: 2x4 SP 2400F 2.0E
4-5,8-9: 2x4 SP No.2

BRACING-

TOP CHORD Structural wood sheathing directly applied or 5-8-14 oc purlins, except end verticals, and 2-0-0 oc purlins (6-0-0 max.): 6-7.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
JOINTS 1 Brace at Jt(s): 17

REACTIONS.

(size) 16=0-3-8, 13=0-3-8
Max Horz 16=245(LC 6)
Max Grav 16=1441(LC 14), 13=1441(LC 15)

FORCES.

(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 3-4-1402/0, 4-5=-930/57, 5-6=-440/89, 7-8=-440/89, 8-9=-930/57, 9-10=-1401/0, 6-7=-329/170

BOT CHORD 15-16=20/747, 14-15=0/932, 13-14=0/647
WEBS 4-15=12/734, 9-14=12/734, 5-17=-1015/54, 8-17=-1015/54, 3-15=0/405, 10-14=0/406, 3-16=-1587/0, 10-13=-1587/0

NOTES-

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=120mph (3-second gust) Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=20ft; 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
- 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 with a clearance greater than 6-0-0 between the bottom chord and any other members.
- Ceiling dead load (5.0 psf) on member(s). 4-5, 8-9, 5-17, 8-17
- Bottom chord live load (40.0 psf) and additional bottom chord dead load (0.0 psf) applied only to room. 14-15
- 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.
- Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
- Attic room checked for L/360 deflection.



October 21, 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)

ENGINEERING BY
TRENCO
A MiTek Affiliate

818 Soundside Road
Edenton, NC 27932

Job 28964	Truss AT2	Truss Type PIGGYBACK ATTIC	Qty 4	Ply 1	Freedom Const\Lot 12 Legacy	I77186785
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C&R Truss, Autryville, NC - 28318,

8.530 s Aug 2 2023 MiTek Industries, Inc. Mon Oct 20 13:17:25 2025 Page 1

ID:joUCXI5PbkzRvuH1eD7yz?ySaFI-ZcQojUs8921tWipQXlq_YD0zNzuOK9tzHyAo6hyRVz8

1-10-13 | 4-9-4 | 8-5-0 | 15-7-0 | 19-2-12 | 22-1-3 | 24-0-0 | 25-10-8
1-10-13 | 2-10-7 | 3-7-12 | 7-2-0 | 3-7-12 | 2-10-7 | 1-10-13 | 1-10-8

Scale = 1:60.9

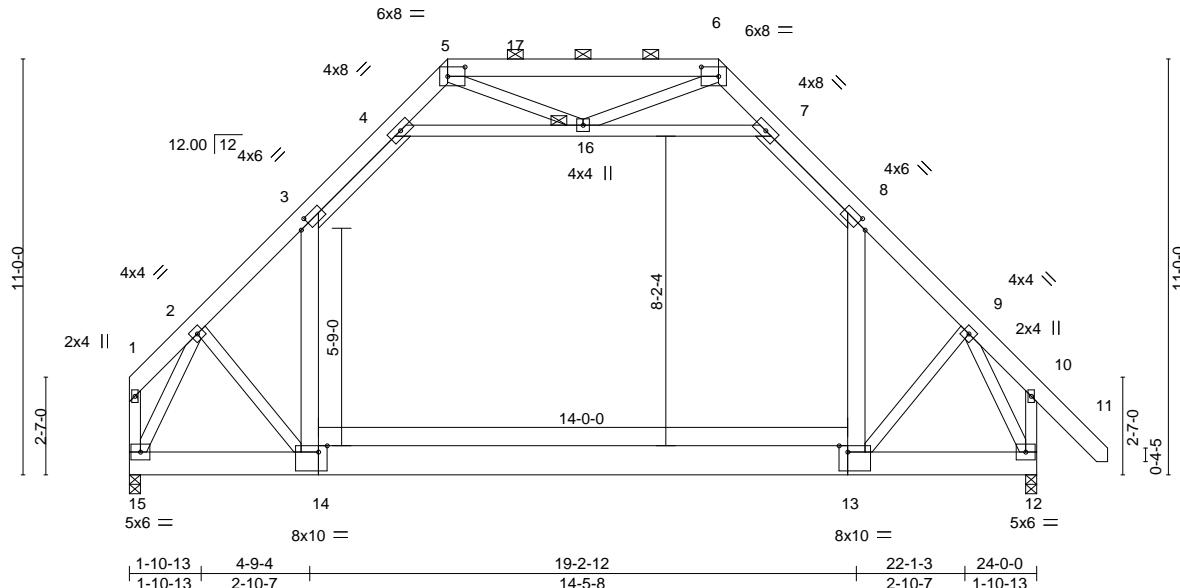


Plate Offsets (X, Y)-- [3:0-3-2,0-2-0], [5:0-5-8,0-3-0], [6:0-5-8,0-3-0], [8:0-3-2,0-2-0], [13:0-2-12,Edge], [14:0-2-12,Edge]

LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	I/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL	1.15	TC 0.54	Vert(LL)	-0.25	13-14	>999	360	
TCDL 10.0	Lumber DOL	1.15	BC 0.34	Vert(CT)	-0.32	13-14	>902	240	
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.49	Horz(CT)	0.01	12	n/a	n/a	
BCDL 10.0	Code IRC2018/TPI2014		Matrix-MS	Wind(LL)	-0.04	14	>999	240	Weight: 260 lb FT = 20%

LUMBER-

TOP CHORD 2x6 SP No.1
BOT CHORD 2x8 SP 2400F 2.0E *Except*
13-14: 2x10 SP 2400F 2.0E
WEBS 2x4 SP No.3 *Except*
3-14,8-13: 2x6 SP No.1, 4-7: 2x4 SP 2400F 2.0E
3-4,7-8: 2x4 SP No.2

BRACING-

TOP CHORD Structural wood sheathing directly applied or 5-8-9 oc purlins, except end verticals, and 2-0-0 oc purlins (6-0-0 max.): 5-6.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
JOINTS 1 Brace at Jt(s): 16

REACTIONS.

(size) 15=0-3-8, 12=0-3-8
Max Horz 15=-233(LC 6)
Max Grav 15=1334(LC 14), 12=1445(LC 15)

FORCES.

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

TOP CHORD 2-3-1415/0, 3-4=-933/56, 4-5=-438/89, 6-7=-439/90, 7-8=-934/55, 8-9=-1408/0,
5-6=-328/171

BOT CHORD 14-15=-14/772, 13-14=0/938, 12-13=0/650

WEBS 3-14=0/740, 8-13=-11/736, 4-16=-1018/51, 7-16=-1019/49, 2-14=-1/376, 9-13=0/409,
2-15=-1597/0, 9-12=-1594/0

NOTES-

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=120mph (3-second gust) Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=20ft; 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
- 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 with a clearance greater than 6-0-0 between the bottom chord and any other members.
- Ceiling dead load (5.0 psf) on member(s). 3-4, 7-8, 4-16, 7-16
- Bottom chord live load (40.0 psf) and additional bottom chord dead load (0.0 psf) applied only to room. 13-14
- 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.
- Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
- Attic room checked for L/360 deflection.



October 21, 2025

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ENGINEERING BY
TRENCO
A MiTek Affiliate

818 Soundside Road
Edenton, NC 27932

Job 28964	Truss G1	Truss Type Common Supported Gable	Qty 1	Ply 1	Freedom Const\Lot 12 Legacy	I77186786
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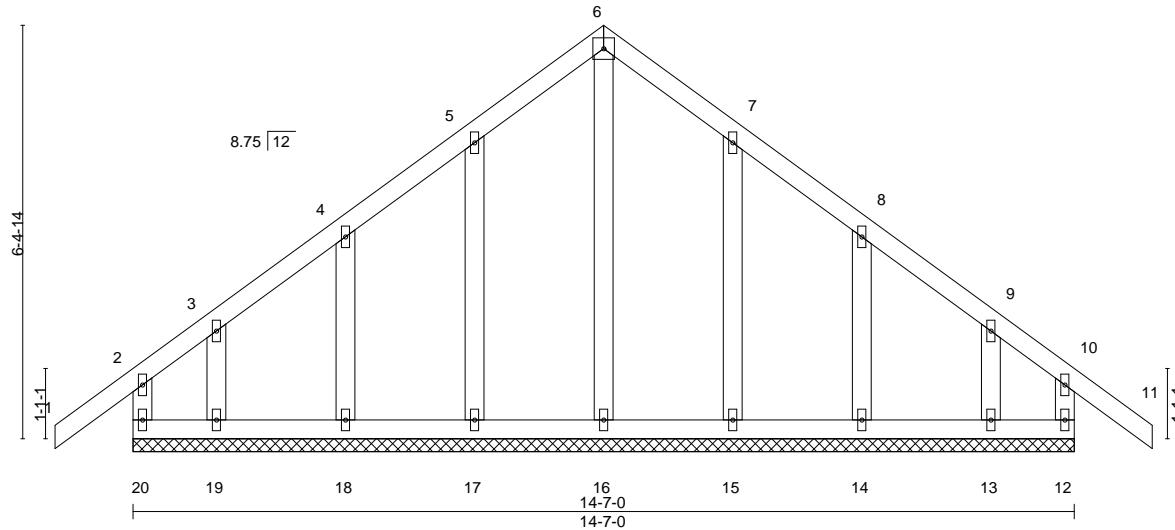
C&R Truss, Autryville, NC - 28318,

8.530 s Aug 2 2023 MiTek Industries, Inc. Mon Oct 20 13:17:25 2025 Page 1
ID:joUCXl5PbkzRvuH1eD7yz?ySaFI-ZcQojUs8921tWipQXlq_YD03mzzzKF5zHyAo6hyRVz8

-1-2-8 7-3-8 14-7-0 15-9-8
1-2-8 7-3-8 7-3-8 1-2-8

4x4 =

Scale = 1:35.7



LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL	1.15	TC 0.13	Vert(LL)	-0.01	11	n/r	120		
TCDL 10.0	Lumber DOL	1.15	BC 0.04	Vert(CT)	-0.01	11	n/r	120		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.09	Horz(CT)	-0.00	12	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-R						Weight: 90 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 14-7-0.
(lb) - Max Horz 20-127(LC 6)
Max Uplift All uplift 100 lb or less at joint(s) 20, 12, 17, 18, 19, 15, 14, 13
Max Grav All reactions 250 lb or less at joint(s) 20, 12, 16, 17, 18, 19, 15, 14, 13

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=120mph (3-second gust) Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=20ft; B=45ft; L=24ft; eave=2ft; 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) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- 4) All plates are 1.5x4 MT20 unless otherwise indicated.
- 5) Gable requires continuous bottom chord bearing.
- 6) Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
- 7) Gable studs spaced at 2-0-0 oc.
- 8) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 9) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas with a clearance greater than 6-0-0 between the bottom chord and any other members.
- 10) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 20, 12, 17, 18, 19, 15, 14, 13.
- 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.



October 21, 2025

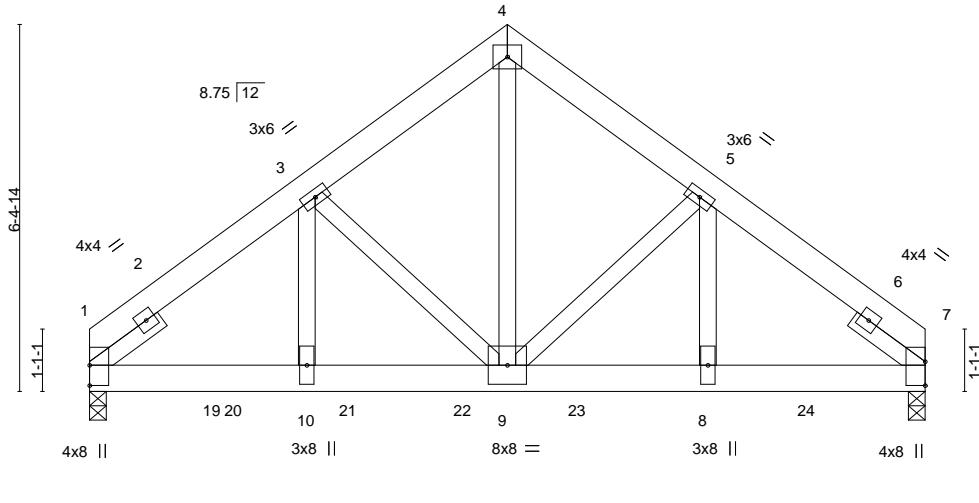
 **WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 BEFORE USE.**

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ENGINEERING BY
TRENCO
A MiTek Affiliate

818 Soundside Road
Edenton, NC 27932

Job 28964	Truss GR1	Truss Type COMMON GIRDER	Qty 1	Ply 3	Freedom Const\Lot 12 Legacy	I77186787
C&R Truss, Autryville, NC - 28318, 8.530 s Aug 2 2023 MiTek Industries, Inc. Mon Oct 20 13:17:26 2025 Page 1 ID:joUCXI5PbzkRvuH1eD7yz?ySaFI-1ozAxqtnwM9k8rOd50LD4RYD0MBB3dm7WcwMe7yRVz7						
	3-9-8	7-3-8	10-9-8	14-7-0		
	3-9-8	3-6-0	3-6-0	3-9-8		
					5x6 =	Scale = 1:40.2



LOADING (psf)	SPACING-	CSI.	DEFL.	PLATES	GRIP
TCLL 20.0	Plate Grip DOL 1.15	TC 0.23	Vert(LL) -0.03 8-9 >999 360	MT20	244/190
TCDL 10.0	Lumber DOL 1.15	BC 0.56	Vert(CT) -0.06 8-9 >999 240		
BCLL 0.0 *	Rep Stress Incr NO	WB 0.39	Horz(CT) 0.02 7 n/a n/a		
BCDL 10.0	Code IRC2018/TPI2014	Matrix-MS	Wind(LL) -0.01 9 >999 240	Weight: 336 lb	FT = 20%

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

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=0-3-8, 7=0-3-8
 Max Horz 1=90(LC 25)
 Max Grav 1=6771(LC 2), 7=4860(LC 2)

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

TOP CHORD 1-3=6530/0, 3-4=4448/0, 4-5=4439/0, 5-7=5880/0
 BOT CHORD 1-10=0/5078, 9-10=0/5078, 8-9=0/4517, 7-8=0/4517
 WEBS 4-9=0/4710, 5-9=1211/0, 5-8=0/1951, 3-9=1987/0, 3-10=0/2804

NOTES-

- 1) 3-ply truss to be connected together with 10d (0.131"x3") nails as follows:
 Top chords connected as follows: 2x6 - 2 rows staggered at 0-9-0 oc.
 Bottom chords connected as follows: 2x6 - 2 rows staggered at 0-5-0 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=120mph (3-second gust) Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=20ft; 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) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 6) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas with a clearance greater than 6-0-0 between the bottom chord and any other members.
- 7) 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.
- 8) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 1312 lb down at 0-6-4, 1320 lb down at 2-6-4, 1320 lb down at 4-6-4, 1320 lb down at 6-6-4, 1320 lb down at 8-6-4, and 1320 lb down at 10-6-4, and 1320 lb down at 12-6-4 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.

LOAD CASE(S) Standard

- 1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
 Uniform Loads (plf)
 Vert: 1-4=60, 4-7=60, 11-15=-20
 Concentrated Loads (lb)
 Vert: 8=-1287(B) 13=-1202(B) 19=-1280 20=-1287(B) 21=-1287(B) 22=-1287(B) 23=-1287(B) 24=-1287(B)



October 21, 2025

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Job 28964	Truss PB3	Truss Type GABLE	Qty 1	Ply 2	Freedom Const\Lot 12 Legacy	I77186790
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C&R Truss, Autryville, NC - 28318,

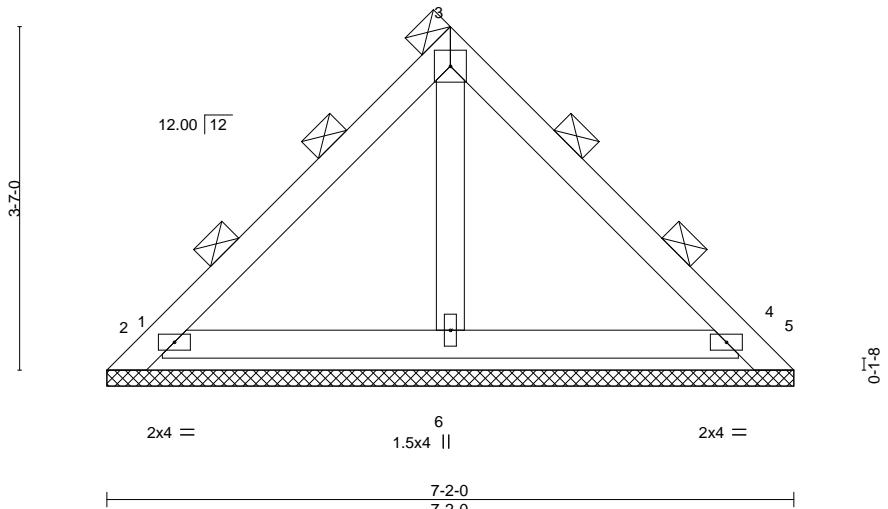
8.530 s Aug 2 2023 MiTek Industries, Inc. Mon Oct 20 13:17:28 2025 Page 1
ID:joUCXI5PbkzRvuH1eD7yz?ySaFl-zB5xLWu1SzPSN9X?CQNhAsec2Az2Xd2QzwPTj0yRVz5

3-7-0
3-7-0

7-2-0
3-7-0

4x4 =

Scale: 1/2"=1'



LOADING (psf) TCLL 20.0 TCDL 10.0 BCLL 0.0 * BCDL 10.0	SPACING- Plate Grip DOL 3-4-0 Lumber DOL 1.15 Rep Stress Incr NO Code IRC2018/TPI2014	CSI. TC 0.06 BC 0.08 WB 0.02 Matrix-P	DEFL. Vert(LL) in (loc) l/defl L/d Vert(CT) n/a - n/a 999 Horz(CT) 0.00 5 n/a n/a	PLATES MT20	GRIP 244/190
				Weight: 56 lb	FT = 20%

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

BRACING-
TOP CHORD 2-0-0 oc purlins (6-0-0 max.)
(Switched from sheeted: Spacing > 2-0-0).
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. All bearings 7-2-0.

(lb) - Max Horz 1=105(LC 7)

Max Uplift All uplift 100 lb or less at joint(s) except 1=-335(LC 13), 5=-278(LC 14), 2=-182(LC 8), 4=-182(LC 8)

Max Grav All reactions 250 lb or less at joint(s) 1, 5 except 2=619(LC 13), 4=577(LC 14), 6=299(LC 3)

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

TOP CHORD 1-2-140/288

NOTES-

- 1-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: 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=120mph (3-second gust) Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=20ft; 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) 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.
- 6) Gable requires continuous bottom chord bearing.
- 7) Gable studs spaced at 4-0-0 oc.
- 8) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 9) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas with a clearance greater than 6-0-0 between the bottom chord and any other members.
- 10) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 335 lb uplift at joint 1, 278 lb uplift at joint 5, 182 lb uplift at joint 2 and 182 lb uplift at joint 4.
- 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.
- 12) See Standard Industry Piggyback Truss Connection Detail for Connection to base truss as applicable, or consult qualified building designer.
- 13) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



October 21, 2025

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-743 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)

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

Job 28964	Truss PB4	Truss Type GABLE	Qty 1	Ply 1	Freedom Const\Lot 12 Legacy	I77186791
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C&R Truss, Autryville, NC - 28318,

8.530 s Aug 2 2023 MiTek Industries, Inc. Mon Oct 20 13:17:29 2025 Page 1
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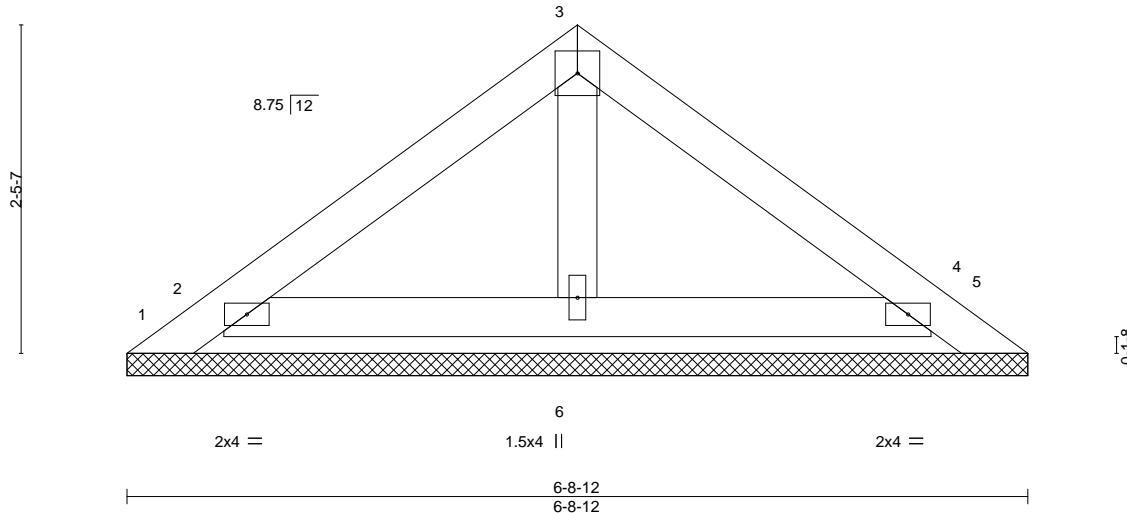
3-4-6

6-8-12

3-4-6

4x4 =

Scale = 1:17.2



LOADING (psf) TCLL 20.0 TCDL 10.0 BCLL 0.0 * BCDL 10.0	SPACING- Plate Grip DOL 1.15 Lumber DOL 1.15 Rep Stress Incr YES Code IRC2018/TPI2014	CSI. TC 0.05 BC 0.07 WB 0.02 Matrix-P	DEFL. Vert(LL) n/a (loc) n/a L/d Vert(CT) n/a - n/a 999 Horz(CT) 0.00 5 n/a n/a	PLATES MT20	GRIP 244/190
				Weight: 23 lb	FT = 20%

LUMBER-

TOP CHORD 2x4 SP 2400F 2.0E

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 6-8-12.

(lb) - Max Horz 1=38(LC 6)

Max Uplift All uplift 100 lb or less at joint(s) 1, 5, 2, 4

Max Grav All reactions 250 lb or less at joint(s) 1, 5, 2, 4, 6

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=120mph (3-second gust) Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=20ft; B=45ft; L=24ft; eave=2ft; 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
- Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- Gable requires continuous bottom chord bearing.
- Gable studs spaced at 4-0-0 oc.
- This truss has been designed for a 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 with a clearance greater than 6-0-0 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, 2, 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.
- See Standard Industry Piggyback Truss Connection Detail for Connection to base truss as applicable, or consult qualified building designer.



October 21, 2025

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TRENCO
A MiTek Affiliate

818 Soundside Road
Edenton, NC 27932

Job 28964	Truss PB5	Truss Type GABLE	Qty 6	Ply 1	Freedom Const\Lot 12 Legacy	I77186792
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C&R Truss, Autryville, NC - 28318,

8.530 s Aug 2 2023 MiTek Industries, Inc. Mon Oct 20 13:17:29 2025 Page 1
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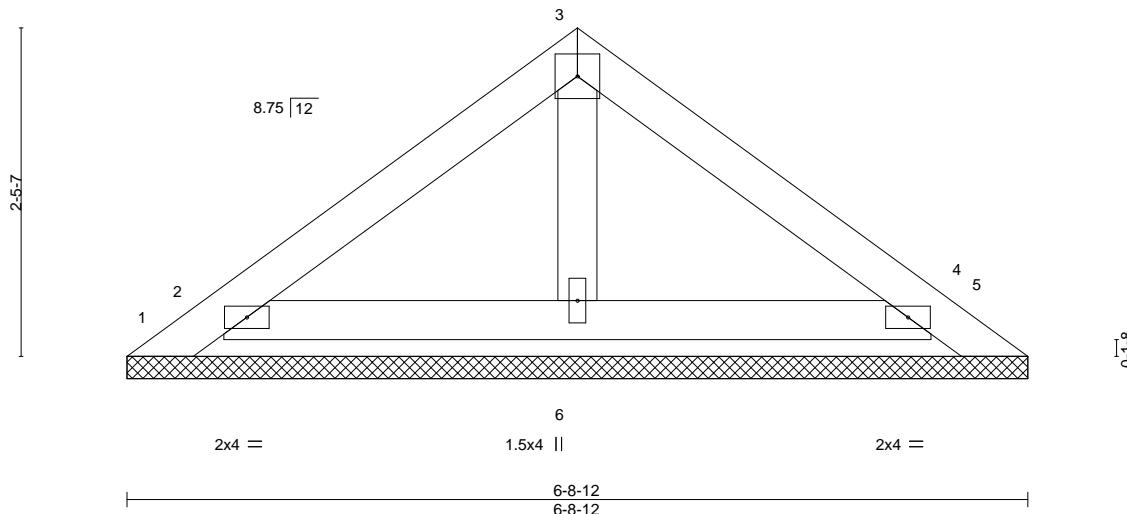
3-4-6

6-8-12

3-4-6

4x4 =

Scale = 1:17.2



LOADING (psf) TCLL 20.0 TCDL 10.0 BCLL 0.0 * BCDL 10.0	SPACING- Plate Grip DOL 1.15 Lumber DOL 1.15 Rep Stress Incr YES Code IRC2018/TPI2014	CSI. TC 0.05 BC 0.07 WB 0.02 Matrix-P	DEFL. Vert(LL) n/a (loc) n/a L/d 999 Vert(CT) n/a - n/a 999 Horz(CT) 0.00 5 n/a n/a	PLATES MT20	GRIP 244/190
				Weight: 23 lb	FT = 20%

LUMBER-

TOP CHORD 2x4 SP 2400F 2.0E

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 6-8-12.

(lb) - Max Horz 1=38(LC 6)

Max Uplift All uplift 100 lb or less at joint(s) 1, 5, 2, 4

Max Grav All reactions 250 lb or less at joint(s) 1, 5, 2, 4, 6

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=120mph (3-second gust) Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=20ft; 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
- Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- Gable requires continuous bottom chord bearing.
- Gable studs spaced at 4-0-0 oc.
- This truss has been designed for a 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 with a clearance greater than 6-0-0 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, 2, 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.
- See Standard Industry Piggyback Truss Connection Detail for Connection to base truss as applicable, or consult qualified building designer.



October 21, 2025

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TRENCO
A MiTek Affiliate

818 Soundside Road
Edenton, NC 27932

Job 28964	Truss PB6	Truss Type GABLE	Qty 18	Ply 1	Freedom Const\Lot 12 Legacy	I77186793
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C&R Truss, Autryville, NC - 28318,

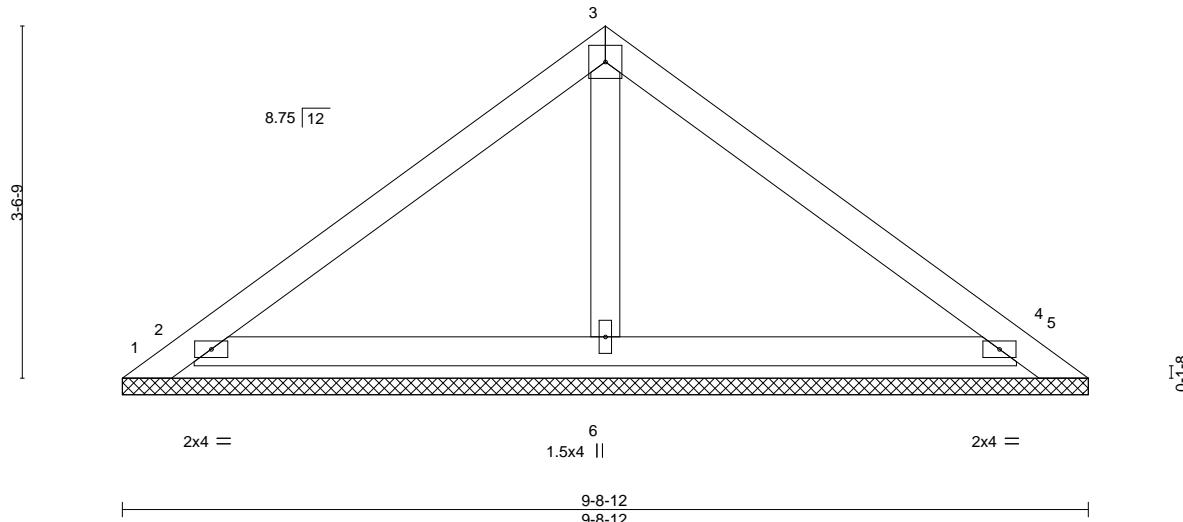
8.530 s Aug 2 2023 MiTek Industries, Inc. Mon Oct 20 13:17:30 2025 Page 1
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4-10-6
4-10-6

4-10-6

4x4 =

Scale = 1:23.2



LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL	1.15	TC 0.12	Vert(LL)	n/a	-	n/a	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.17	Vert(CT)	n/a	-	n/a		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.04	Horz(CT)	0.00	5	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-P				n/a	Weight: 34 lb	FT = 20%

LUMBER-

TOP CHORD 2x4 SP 2400F 2.0E

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 9-8-12.

(lb) - Max Horz 1=57(LC 6)

Max Uplift All uplift 100 lb or less at joint(s) except 1=252(LC 13), 5=228(LC 14), 2=112(LC 8), 4=112(LC 8)

Max Grav All reactions 250 lb or less at joint(s) 1, 5 except 2=474(LC 13), 4=471(LC 1), 6=256(LC 3)

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

NOTES-

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-16; Vult=120mph (3-second gust) Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=20ft; B=45ft; L=24ft; eave=2ft; 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) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- 4) Gable requires continuous bottom chord bearing.
- 5) Gable studs spaced at 4-0-0 oc.
- 6) This truss has been designed for a 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 with a clearance greater than 6-0-0 between the bottom chord and any other members.
- 8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 252 lb uplift at joint 1, 228 lb uplift at joint 5, 112 lb uplift at joint 2 and 112 lb uplift at joint 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.
- 10) See Standard Industry Piggyback Truss Connection Detail for Connection to base truss as applicable, or consult qualified building designer.



October 21, 2025

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ENGINEERING BY
TRENCO
A MiTek Affiliate

818 Soundside Road
Edenton, NC 27932

Job 28964	Truss PB7	Truss Type GABLE	Qty 1	Ply 1	Freedom Const\Lot 12 Legacy	I77186794
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C&R Truss, Autryville, NC - 28318,

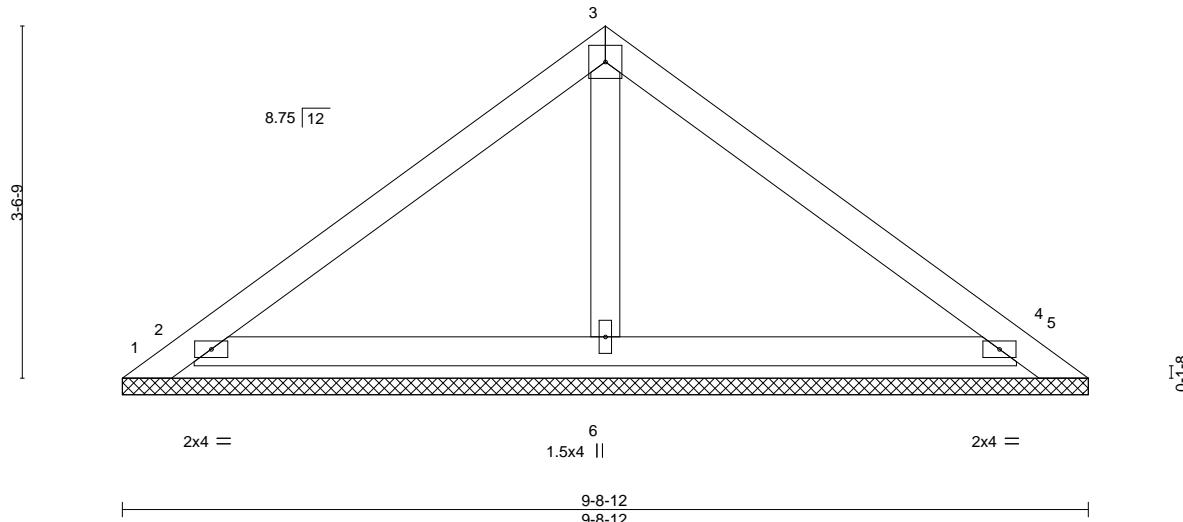
8.530 s Aug 2 2023 MiTek Industries, Inc. Mon Oct 20 13:17:30 2025 Page 1
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4-10-6
4-10-6

4-10-6

4x4 =

Scale = 1:23.2



LOADING (psf) TCLL 20.0 TCDL 10.0 BCLL 0.0 * BCDL 10.0	SPACING- Plate Grip DOL 1.15 Lumber DOL 1.15 Rep Stress Incr YES Code IRC2018/TPI2014	CSI. TC 0.12 BC 0.17 WB 0.04 Matrix-P	DEFL. Vert(LL) n/a (loc) l/defl L/d Vert(CT) n/a - n/a 999 Horz(CT) 0.00 5 n/a n/a	PLATES MT20	GRIP 244/190 Weight: 34 lb FT = 20%
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LUMBER-

TOP CHORD 2x4 SP 2400F 2.0E

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 9-8-12.

(lb) - Max Horz 1=57(LC 6)

Max Uplift All uplift 100 lb or less at joint(s) except 1=252(LC 13), 5=228(LC 14), 2=112(LC 8), 4=112(LC 8)

Max Grav All reactions 250 lb or less at joint(s) 1, 5 except 2=474(LC 13), 4=471(LC 1), 6=256(LC 3)

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

NOTES-

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=120mph (3-second gust) Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=20ft; 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
- Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- Gable requires continuous bottom chord bearing.
- Gable studs spaced at 4-0-0 oc.
- This truss has been designed for a 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 with a clearance greater than 6-0-0 between the bottom chord and any other members.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 252 lb uplift at joint 1, 228 lb uplift at joint 5, 112 lb uplift at joint 2 and 112 lb uplift at joint 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.
- See Standard Industry Piggyback Truss Connection Detail for Connection to base truss as applicable, or consult qualified building designer.



October 21, 2025

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TRENCO
A MiTek Affiliate

818 Soundside Road
Edenton, NC 27932

Job 28964	Truss PB8	Truss Type GABLE	Qty 1	Ply 1	Freedom Const\Lot 12 Legacy	I77186795
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C&R Truss, Autryville, NC - 28318,

8.530 s Aug 2 2023 MiTek Industries, Inc. Mon Oct 20 13:17:31 2025 Page 1
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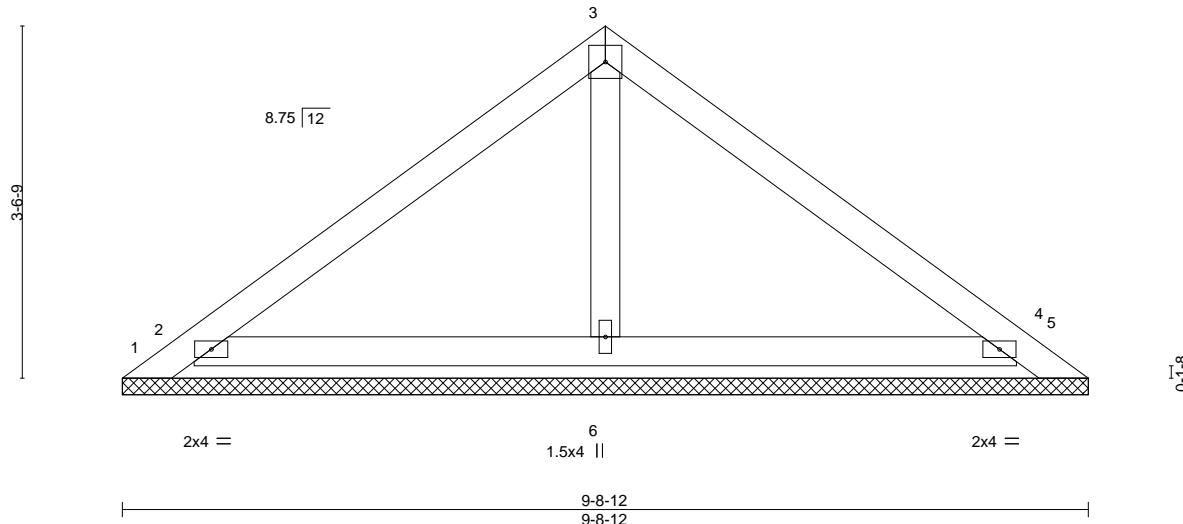
4-10-6
4-10-6

9-8-12

4-10-6

4x4 =

Scale = 1:23.2



LOADING (psf) TCLL 20.0 TCDL 10.0 BCLL 0.0 * BCDL 10.0	SPACING- Plate Grip DOL 1.15 Lumber DOL 1.15 Rep Stress Incr YES Code IRC2018/TPI2014	CSI. TC 0.12 BC 0.17 WB 0.04 Matrix-P	DEFL. Vert(LL) n/a (loc) l/defl L/d Vert(CT) n/a - n/a 999 Horz(CT) 0.00 5 n/a n/a	PLATES MT20	GRIP 244/190
				Weight: 34 lb	FT = 20%

LUMBER-

TOP CHORD 2x4 SP 2400F 2.0E

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 9-8-12.

(lb) - Max Horz 1=57(LC 6)

Max Uplift All uplift 100 lb or less at joint(s) except 1=252(LC 13), 5=228(LC 14), 2=112(LC 8), 4=112(LC 8)

Max Grav All reactions 250 lb or less at joint(s) 1, 5 except 2=474(LC 13), 4=471(LC 1), 6=256(LC 3)

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=120mph (3-second gust) Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=20ft; 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) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- 4) Gable requires continuous bottom chord bearing.
- 5) Gable studs spaced at 4-0-0 oc.
- 6) This truss has been designed for a 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 with a clearance greater than 6-0-0 between the bottom chord and any other members.
- 8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 252 lb uplift at joint 1, 228 lb uplift at joint 5, 112 lb uplift at joint 2 and 112 lb uplift at joint 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.
- 10) See Standard Industry Piggyback Truss Connection Detail for Connection to base truss as applicable, or consult qualified building designer.



October 21, 2025

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TRENCO
A MiTek Affiliate

818 Soundside Road
Edenton, NC 27932

Job 28964	Truss T1	Truss Type Common	Qty 1	Ply 1	Freedom Const\Lot 12 Legacy	I77186796
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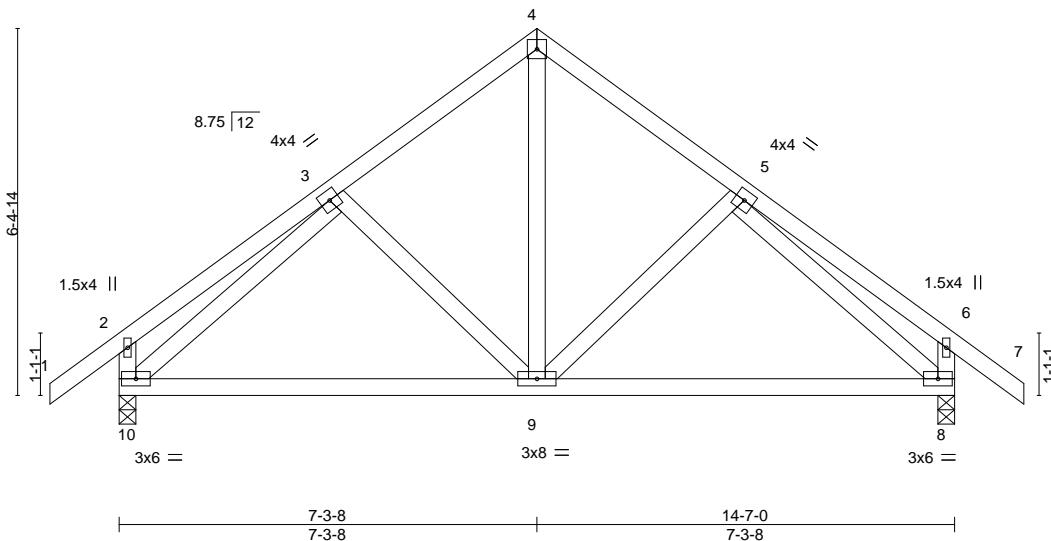
C&R Truss, Autryville, NC - 28318,

8.530 s Aug 2 2023 MiTek Industries, Inc. Mon Oct 20 13:17:31 2025 Page 1
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-1-2-8 3-9-8 7-3-8 10-9-8 14-7-0 15-9-8
1-2-8 3-9-8 3-6-0 3-6-0 3-9-8 1-2-8

4x4 =

Scale = 1:40.2



LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL	1.15	TC 0.34	Vert(LL)	-0.03	8-9	>999	360		
TCDL 10.0	Lumber DOL	1.15	BC 0.20	Vert(CT)	-0.07	8-9	>999	240		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.19	Horz(CT)	0.01	8	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-AS	Wind(LL)	0.00	9	>999	240	Weight: 92 lb	FT = 20%

LUMBER-

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

BRACING-

TOP CHORD Structural wood sheathing directly applied, except end verticals.
BOT CHORD Rigid ceiling directly applied.

REACTIONS. (size) 10=0-3-8, 8=0-3-8

Max Horz 10=127(LC 6)
Max Uplift 10=17(LC 8), 8=17(LC 8)
Max Grav 10=653(LC 1), 8=653(LC 1)

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

TOP CHORD 3-4=-499/41, 4-5=-499/41, 2-10=-269/59, 6-8=-269/59

BOT CHORD 9-10=0/445, 8-9=0/426

WEBS 4-9=0/338, 3-10=-454/0, 5-8=-454/0

NOTES-

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-16; Vult=120mph (3-second gust) Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=20ft; 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) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 4) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas with a clearance greater than 6-0-0 between the bottom chord and any other members.
- 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 17 lb uplift at joint 10 and 17 lb uplift at joint 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.
- 7) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.



October 21, 2025

 **WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-743 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 the Truss Plate Institute (www.tpinst.org) and **BCSI Building Component Safety Information** available from the Structural Building Component Association (www.sbcaccomponents.com)

ENGINEERING BY
TRENCO
A MiTek Affiliate

818 Soundside Road
Edenton, NC 27932

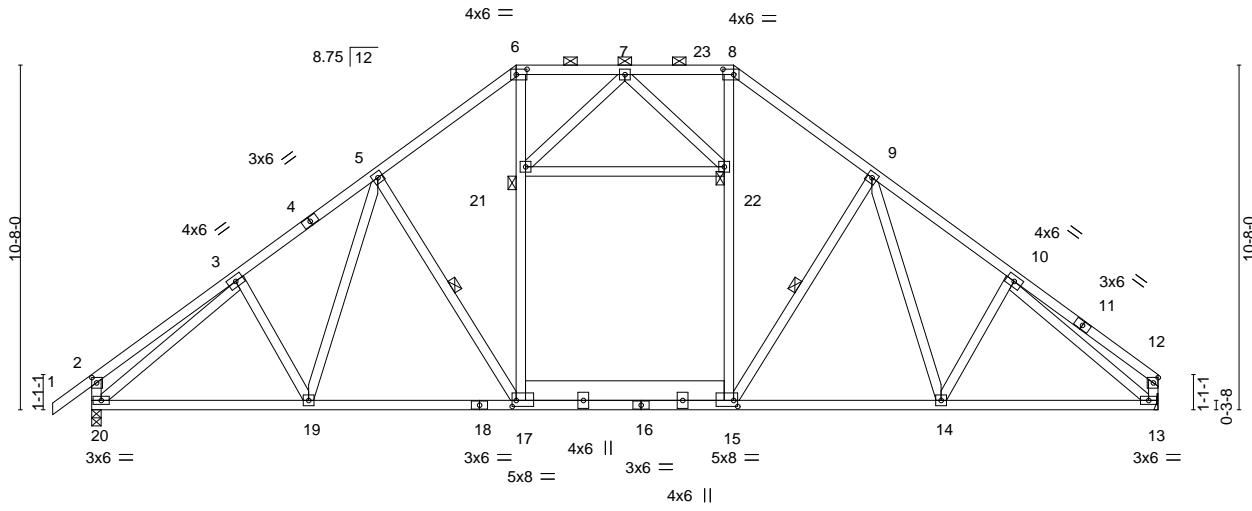
Job 28964	Truss T2	Truss Type Piggyback Base	Qty 6	Ply 1	Freedom Const\Lot 12 Legacy	I77186797
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C&R Truss, Autryville, NC - 28318,

8.530 s Aug 2 2023 MiTek Industries, Inc. Mon Oct 20 13:17:32 2025 Page 1
ID:joUCXI5PbzRvuH1eD7yz?ySaFI-ryLRBtxXWCvtssmmRGSDkioBunG4TCD?uYNgnsyRVz1

1-2-8 4-6-14 8-10-4 13-1-10 16-6-0 19-10-6 24-1-12 28-5-2 33-0-0
1-2-8 4-6-14 4-3-6 4-3-6 3-4-6 3-4-6 4-3-6 4-3-6 4-6-14

Scale = 1:71.3



6-8-9 13-1-10 19-10-6 26-3-7 33-0-0
6-8-9 6-5-1 6-8-12 6-5-1 6-8-9

Plate Offsets (X, Y)-- [2:0-2-0,0-1-12], [6:0-4-0,0-2-0], [8:0-4-0,0-2-0], [15:0-1-8,0-2-4], [17:0-1-8,0-2-4]

LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	I/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL	1.15	TC 0.39	Vert(LL)	-0.18	14-15	>999	360	
TCDL 10.0	Lumber DOL	1.15	BC 0.40	Vert(CT)	-0.24	14-15	>999	240	
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.96	Horz(CT)	0.04	13	n/a	n/a	
BCDL 10.0	Code IRC2018/TPI2014		Matrix-AS	Wind(LL)	-0.11	17-19	>999	240	Weight: 258 lb FT = 20%

LUMBER-

TOP CHORD 2x4 SP 2400F 2.0E
BOT CHORD 2x4 SP 2400F 2.0E *Except*
15-17: 2x8 SP 2400F 2.0E
WEBS 2x4 SP No.2 *Except*
2-20,12-13: 2x4 SP No.3

BRACING-

TOP CHORD Structural wood sheathing directly applied, except end verticals, and 2-0-0 oc purlins (6-0-0 max.): 6-8.
BOT CHORD Rigid ceiling directly applied.
WEBS 1 Row at midpt 5-17, 9-15
JOINTS 1 Brace at Jt(s): 21, 22

REACTIONS.

(size) 20-0-3-8, 13=Mechanical
Max Horz 20=203(LC 7)
Max Grav 20=1556(LC 13), 13=1480(LC 14)

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

TOP CHORD 2-3-367/53, 3-5-1849/42, 5-6-1565/85, 6-7-1255/89, 7-8-1256/89, 8-9-1566/85,
9-10-1859/43, 10-12-359/45, 2-20-393/73, 12-13-306/35
BOT CHORD 19-20=0/1537, 17-19=0/1476, 15-17=0/1263, 14-15=0/1380, 13-14=0/1407
WEBS 5-17-398/77, 17-21=0/644, 6-21-2/704, 15-22=0/646, 8-22-2/705, 9-15-403/77,
3-20-1621/0, 10-13-1637/0

NOTES-

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-16; Vult=120mph (3-second gust) Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=20ft; B=45ft; L=33ft; 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) Provide adequate drainage to prevent water ponding.
- 4) All plates are 4x4 MT20 unless otherwise indicated.
- 5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 6) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas with a clearance greater than 6-0-0 between the bottom chord and any other members, with BCDL = 10.0psf.
- 7) Refer to girder(s) for truss to truss connections.
- 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.
- 9) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.
- 10) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



October 21, 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)

Job 28964	Truss T3	Truss Type PIGGYBACK BASE	Qty 1	Ply 1	Freedom Const\Lot 12 Legacy	I77186798
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C&R Truss, Autryville, NC - 28318,

8.530 s Aug 2 2023 MiTek Industries, Inc. Mon Oct 20 13:17:33 2025 Page 1
ID:joUCXI5PbkzRvuH1eD7yz?ySaFI-K8uqPdyAHW1kTwQz?_zstvLMXBaEcgw97C6DOEyRvz0

1-2-8 5-1-12 9-1-11 13-1-10 18-0-0 22-10-6 27-1-12 31-5-2 36-0-0
1-2-8 5-1-12 3-11-15 3-11-15 4-10-6 4-10-6 4-3-6 4-3-6 4-6-14

Scale = 1:72.8

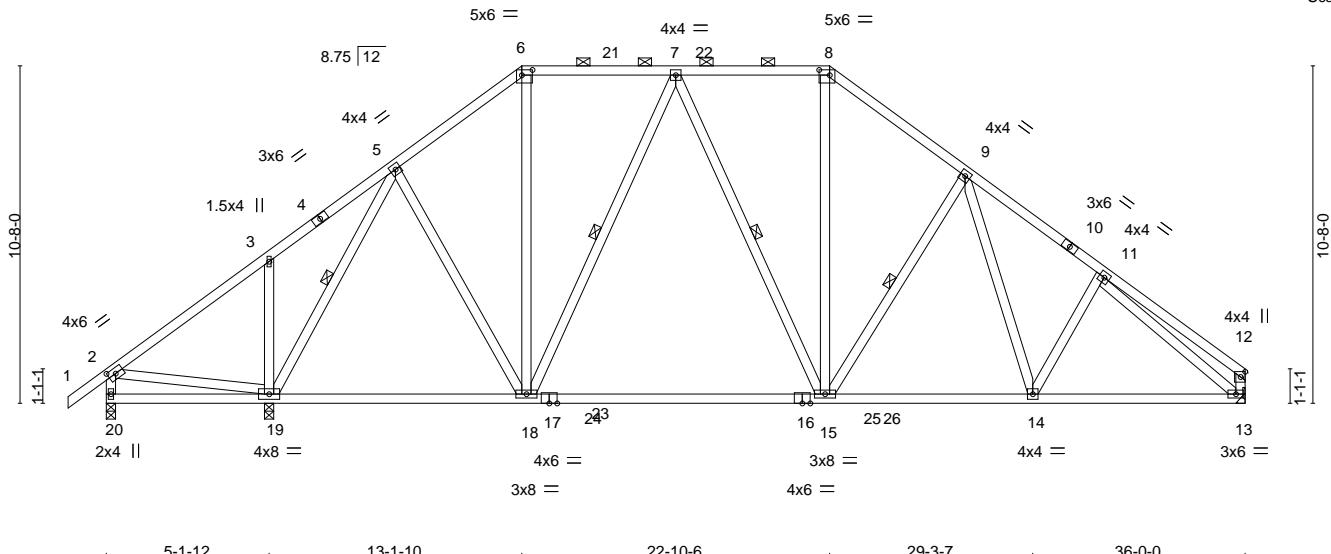


Plate Offsets (X, Y)-- [2:0-2-14,0-2-0], [6:0-4-0,0-2-0], [8:0-4-0,0-2-0]

LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	I/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL	1.15	TC 0.40	Vert(LL)	-0.20 15-18	>999	360		
TCDL 10.0	Lumber DOL	1.15	BC 0.47	Vert(CT)	-0.32 15-18	>999	240		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.87	Horz(CT)	0.04 13	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-AS	Wind(LL)	0.02 14-15	>999	240	Weight: 259 lb	FT = 20%

LUMBER-

TOP CHORD 2x4 SP 2400F 2.0E
BOT CHORD 2x4 SP 2400F 2.0E
WEBS 2x4 SP No.2 *Except*
2-20,12-13: 2x4 SP No.3

BRACING-

TOP CHORD Structural wood sheathing directly applied, except end verticals, and
2-0-0 oc purlins (6-0-0 max.): 6-8.
BOT CHORD Rigid ceiling directly applied.
WEBS 1 Row at midpt 5-19, 7-18, 7-15, 9-15

REACTIONS. (size) 20=0-3-8, 19=0-3-8, 13=Mechanical

Max Horz 20=205(LC 7)
Max Uplift 20=3(LC 8)
Max Grav 20=269(LC 19), 19=1824(LC 13), 13=1383(LC 14)

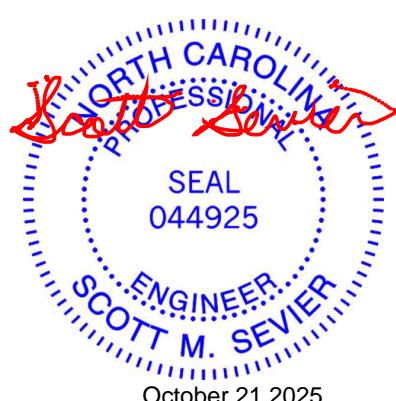
FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.

TOP CHORD 5-6=1125/79, 6-7=870/84, 7-8=1119/84, 8-9=1431/79, 9-11=1711/43,
11-12=365/42, 12-13=307/34

BOT CHORD 18-19=0/713, 15-18=0/1077, 14-15=0/1233, 13-14=0/1297
WEBS 3-19=301/98, 5-19=1397/0, 5-18=0/502, 6-18=0/422, 7-18=-455/28, 8-15=0/574,
9-15=-372/81, 11-13=-1481/0

NOTES-

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-16; Vult=120mph (3-second gust) Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=20ft; B=45ft; L=36ft; eave=5ft; 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) Provide adequate drainage to prevent water ponding.
- 4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 5) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas with a clearance greater than 6-0-0 between the bottom chord and any other members, with BCDL = 10.0psf.
- 6) Refer to girder(s) for truss to truss connections.
- 7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 3 lb uplift at joint 20.
- 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.
- 9) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.
- 10) 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-743 rev. 1/2/2023 BEFORE USE.**

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Job 28964	Truss T4	Truss Type Piggyback Base	Qty 5	Ply 1	Freedom Const\Lot 12 Legacy	I77186799
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C&R Truss, Autryville, NC - 28318,

8.530 s Aug 2 2023 MiTek Industries, Inc. Mon Oct 20 13:17:33 2025 Page 1
ID:joUCXI5PbzRvuH1eD7yz?ySaFI-K8uqPdyAHW1kTwQz?_zstvLMXBaECg197C6DOEyRvz0

1-1-2-8 5-1-12 9-1-11 13-1-10 18-0-0 22-10-6 27-1-12 31-5-2 36-0-0 37-2-8
1-2-8 5-1-12 3-11-15 3-11-15 4-10-6 4-10-6 4-3-6 4-3-6 4-6-14 1-2-8

Scale = 1:73.7

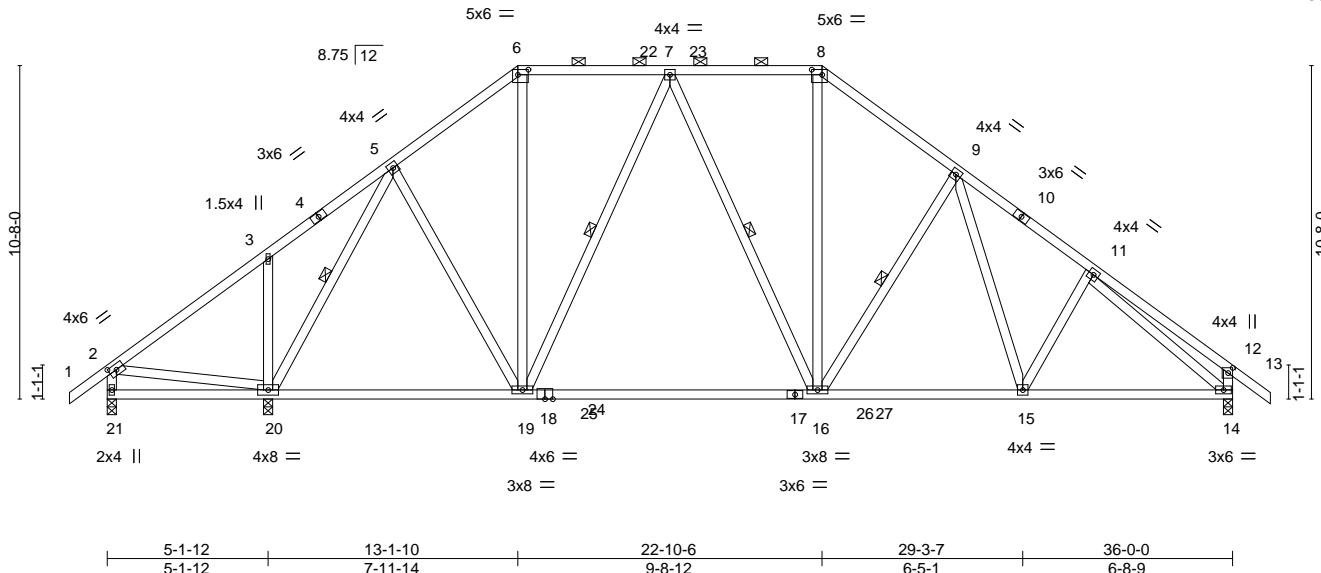


Plate Offsets (X, Y)-- [2:0-2-14,0-2-0], [6:0-4-0,0-2-0], [8:0-4-0,0-2-0], [12:0-2-0,0-1-12]

LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	I/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL	1.15	TC 0.40	Vert(LL)	-0.20 16-19	>999	360		
TCDL 10.0	Lumber DOL	1.15	BC 0.47	Vert(CT)	-0.32 16-19	>999	240		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.86	Horz(CT)	0.04 14	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-AS	Wind(LL)	0.02 15-16	>999	240	Weight: 261 lb	FT = 20%

LUMBER-

TOP CHORD 2x4 SP 2400F 2.0E
BOT CHORD 2x4 SP 2400F 2.0E
WEBS 2x4 SP No.2 *Except*
2-21,12-14: 2x4 SP No.3

BRACING-

TOP CHORD Structural wood sheathing directly applied, except end verticals, and 2-0-0 oc purlins (6-0-0 max.): 6-8.
BOT CHORD Rigid ceiling directly applied.
WEBS 1 Row at midpt 5-20, 7-19, 7-16, 9-16

REACTIONS. (size) 21=0-3-8, 20=0-3-8, 14=0-3-8

Max Horz 21=211(LC 7)
Max Uplift 21=10(LC 8)
Max Grav 21=270(LC 19), 20=1824(LC 13), 14=1458(LC 14)

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

TOP CHORD 5-6=1124/82, 6-7=869/86, 7-8=1116/85, 8-9=1429/80, 9-11=1701/42,
11-12=366/50, 12-14=390/71

BOT CHORD 19-20=0/720, 16-19=0/1084, 15-16=0/1237, 14-15=0/1280
WEBS 3-20=301/98, 5-20=1396/0, 5-19=0/501, 6-19=0/422, 7-19=-453/27, 8-16=0/573,
9-16=369/81, 11-14=1470/0

NOTES-

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-16; Vult=120mph (3-second gust) Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=20ft; B=45ft; L=36ft; eave=5ft; 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) Provide adequate drainage to prevent water ponding.
- 4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 5) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas with a clearance greater than 6-0-0 between the bottom chord and any other members, with BCDL = 10.0psf.
- 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 10 lb uplift at joint 21.
- 7) 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.
- 8) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.
- 9) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



October 21, 2025

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ENGINEERING BY
TRENCO
A MiTek Affiliate

818 Soundside Road
Edenton, NC 27932

Job 28964	Truss T5	Truss Type Piggyback Base	Qty 1	Ply 1	Freedom Const\Lot 12 Legacy	I77186800
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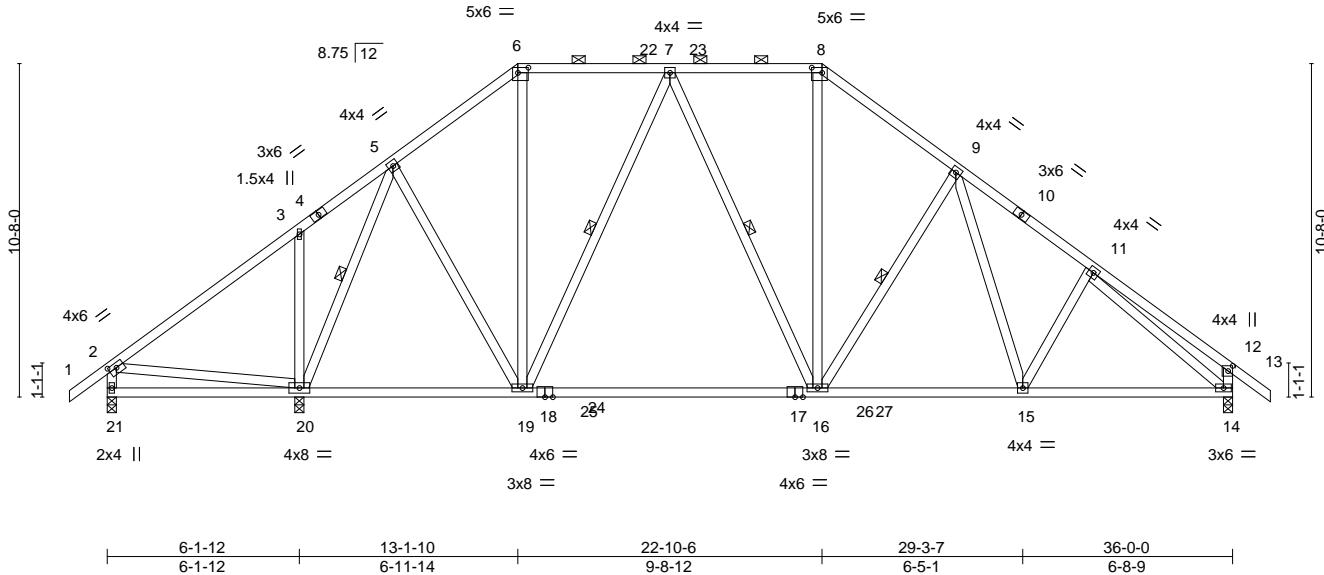
C&R Truss, Autryville, NC - 28318,

8.530 s Aug 2 2023 MiTek Industries, Inc. Mon Oct 20 13:17:34 2025 Page 1

ID:joUCX15PbkzRvuH1eD7yz?ySaFl-oLSCcZzo1p9b54?9ZhU5P7tXJbxxt8uLssnwgyRVz?

1-1-2-8 6-1-12 9-1-11 13-1-10 18-0-0 22-10-6 27-1-12 31-5-2 36-0-0 37-2-8
1-2-8 6-1-12 2-11-15 3-11-15 4-10-6 4-10-6 4-3-6 4-3-6 4-6-14 1-2-8

Scale = 1:73.7



6-1-12 13-1-10 22-10-6 29-3-7 36-0-0
6-1-12 6-11-14 9-8-12 6-5-1 6-8-9

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

LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	I/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL	1.15	TC 0.40	Vert(LL)	-0.21 16-19	>999	360		
TCDL 10.0	Lumber DOL	1.15	BC 0.44	Vert(CT)	-0.34 16-19	>999	240		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.82	Horz(CT)	0.03 14	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-AS	Wind(LL)	0.02 15-16	>999	240	Weight: 263 lb	FT = 20%

LUMBER-

TOP CHORD 2x4 SP 2400F 2.0E
BOT CHORD 2x4 SP 2400F 2.0E
WEBS 2x4 SP No.2 *Except*
2-21,12-14: 2x4 SP No.3

BRACING-

TOP CHORD Structural wood sheathing directly applied, except end verticals, and 2-0-0 oc purlins (6-0-0 max.): 6-8.
BOT CHORD Rigid ceiling directly applied.
WEBS 1 Row at midpt 5-20, 7-19, 7-16, 9-16

REACTIONS. (size) 21=0-3-8, 20=0-3-8, 14=0-3-8

Max Horz 21=211(LC 7)
Max Uplift 21=14(LC 8)
Max Grav 21=311(LC 19), 20=1797(LC 13), 14=1409(LC 14)

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

TOP CHORD 5-6=973/85, 6-7=756/89, 7-8=-1054/87, 8-9=-1353/82, 9-11=-1630/44, 11-12=-359/50,
2-21=-256/47, 12-14=-385/71

BOT CHORD 20-21=-137/306, 19-20=0/540, 16-19=0/995, 15-16=0/1176, 14-15=0/1227
WEBS 3-20=-320/103, 5-20=-1321/0, 5-19=0/634, 6-19=0/335, 7-19=-511/24, 8-16=0/529,
9-16=-372/81, 11-14=-1404/0

NOTES-

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-16; Vult=120mph (3-second gust) Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=20ft; B=45ft; L=36ft; eave=5ft; 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) Provide adequate drainage to prevent water ponding.
- 4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 5) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas with a clearance greater than 6-0-0 between the bottom chord and any other members, with BCDL = 10.0psf.
- 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 14 lb uplift at joint 21.
- 7) 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.
- 8) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.
- 9) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



October 21, 2025

 **WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-743 rev. 1/2/2023 BEFORE USE.**

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ENGINEERING BY
TRENCO
A MiTek Affiliate

818 Soundside Road
Edenton, NC 27932

Job 28964	Truss T6	Truss Type PIGGYBACK BASE	Qty 1	Ply 1	Freedom Const\Lot 12 Legacy	I77186801
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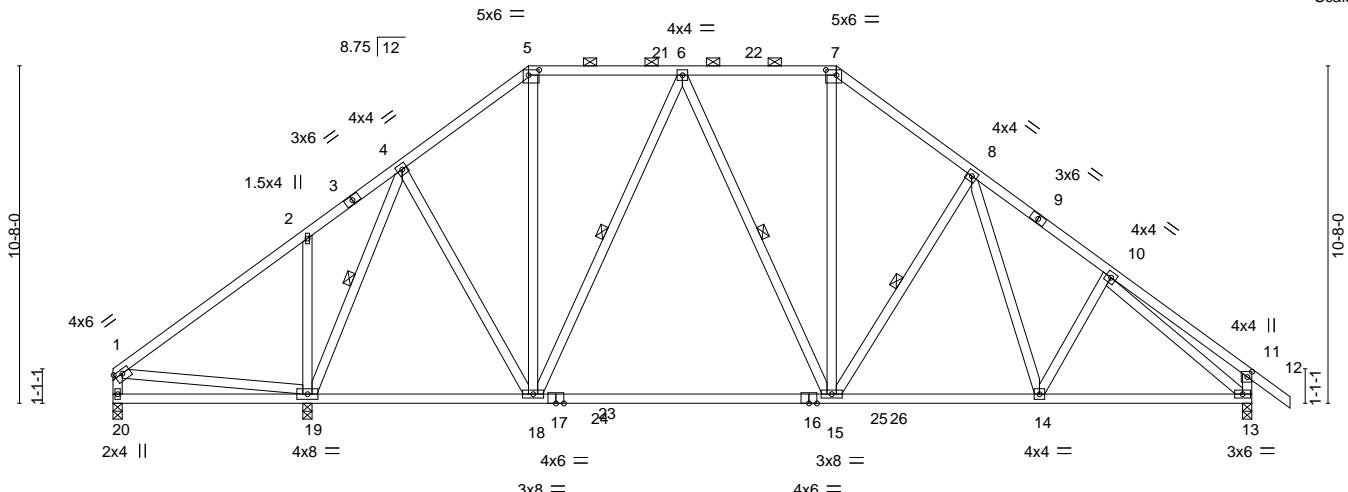
C&R Truss, Autryville, NC - 28318,

8.530 s Aug 2 2023 MiTek Industries, Inc. Mon Oct 20 13:17:35 2025 Page 1

ID:joUCXI5PbkzRvuH1eD7yz?ySaFl-GX0apv_Qo7HSjEaL6P?KyKqij?H6gb7SaWbKS6yRvz_

6-1-12 9-1-11 13-1-10 18-0-0 22-10-6 27-1-12 31-5-2 36-0-0 37-2-8
6-1-12 2-11-15 3-11-15 4-10-6 4-10-6 4-3-6 4-3-6 4-6-14 1-2-8

Scale = 1:72.8



6-1-12 13-1-10 22-10-6 29-3-7 36-0-0
6-1-12 6-11-14 9-8-12 6-5-1 6-8-9

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

LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	I/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL	1.15	TC 0.42	Vert(LL)	-0.21 15-18	>999	360		
TCDL 10.0	Lumber DOL	1.15	BC 0.44	Vert(CT)	-0.34 15-18	>999	240		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.83	Horz(CT)	0.03 13	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-AS	Wind(LL)	0.02 14-15	>999	240	Weight: 261 lb	FT = 20%

LUMBER-

TOP CHORD 2x4 SP 2400F 2.0E
BOT CHORD 2x4 SP 2400F 2.0E
WEBS 2x4 SP No.2 *Except*
1-20,11-13: 2x4 SP No.3

BRACING-

TOP CHORD Structural wood sheathing directly applied, except end verticals, and 2-0-0 oc purlins (6-0-0 max.): 5-7.
BOT CHORD Rigid ceiling directly applied.
WEBS 1 Row at midpt 4-19, 6-18, 6-15, 8-15

REACTIONS. (size) 20=0-3-8, 19=0-3-8, 13=0-3-8

Max Horz 20=205(LC 6)
Max Grav 20=222(LC 19), 19=1804(LC 13), 13=1409(LC 14)

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

TOP CHORD 4-5=-973/83, 5-6=-756/89, 6-7=-1055/86, 7-8=-1353/81, 8-10=-1630/43, 10-11=-359/50,

11-13=-385/71

BOT CHORD 19-20=-131/304, 18-19=0/540, 15-18=0/996, 14-15=0/1176, 13-14=0/1227

WEBS 2-19=-335/111, 4-19=-1313/0, 4-18=0/633, 5-18=0/335, 6-18=-511/24, 7-15=0/529,
8-15=-372/81, 10-13=-1404/0

NOTES-

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-16; Vult=120mph (3-second gust) Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=20ft; B=45ft; L=36ft; eave=5ft; 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) Provide adequate drainage to prevent water ponding.
- 4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 5) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas with a clearance greater than 6-0-0 between the bottom chord and any other members, with BCDL = 10.0psf.
- 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.
- 7) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.
- 8) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



October 21, 2025

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ENGINEERING BY
TRENCO
A MiTek Affiliate

818 Soundside Road
Edenton, NC 27932

Job 28964	Truss T7	Truss Type Piggyback Base	Qty 10	Ply 1	Freedom Const\Lot 12 Legacy	I77186802						
C&R Truss, Autryville, NC - 28318,	8.530 s Aug 2 2023 MiTek Industries, Inc. Mon Oct 20 13:17:35 2025 Page 1 ID:joUCXI5PbzRvuH1eD7yz?ySaFI-GX0apv_Qo7HSjEa6P?KyKQfQ?HOgdwSaWbKS6yRVz_											
1-2-8 4-6-14 8-10-4 13-1-10 18-0-0 22-10-6 24-10-8 1-2-8 4-6-14 4-3-6 4-3-6 4-10-6 4-10-6 2-0-2												
Scale = 1:61.4												

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

LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	I/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL	1.15	TC 0.63	Vert(LL)	-0.22 11-13	>999	360		
TCDL 10.0	Lumber DOL	1.15	BC 0.42	Vert(CT)	-0.35 11-13	>844	240		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.65	Horz(CT)	0.02 10	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-AS	Wind(LL)	0.02 11-13	>999	240	Weight: 210 lb	FT = 20%

LUMBER-

TOP CHORD 2x4 SP 2400F 2.0E
BOT CHORD 2x4 SP 2400F 2.0E
WEBS 2x4 SP No.2 *Except*
9-10,12-15: 2x4 SP No.3

BRACING-

TOP CHORD Structural wood sheathing directly applied, except end verticals, and 2-0-0 oc purlins (6-0-0 max.): 6-8.
BOT CHORD Rigid ceiling directly applied.
WEBS 1 Row at midpt 5-13, 7-11, 8-11, 9-10

REACTIONS. (size) 10=0-3-8, 15=0-3-8

Max Horz 15=284(LC 7)
Max Uplift 10=-10(LC 5), 15=-1(LC 8)
Max Grav 10=1212(LC 13), 15=1164(LC 13)

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

TOP CHORD 2-3=-319/50, 3-5=-1283/45, 5-6=-979/83, 6-7=-748/87, 7-8=-297/90, 8-9=-407/125,

9-10=-1297/5, 2-15=-356/71

BOT CHORD 14-15=-128/1099, 13-14=-101/994, 11-13=-87/594

WEBS 5-14=0/258, 5-13=-389/82, 6-13=0/330, 7-13=0/485, 7-11=-782/73, 9-11=-23/1142,

3-15=-1101/0

NOTES-

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-16; Vult=120mph (3-second gust) Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=20ft; B=45ft; L=25ft; 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) Provide adequate drainage to prevent water ponding.
- 4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 5) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas with a clearance greater than 6-0-0 between the bottom chord and any other members, with BCDL = 10.0psf.
- 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 10 lb uplift at joint 10 and 1 lb uplift at joint 15.
- 7) 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.
- 8) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.
- 9) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



October 21, 2025

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Job 28964	Truss TGE1	Truss Type GABLE	Qty 1	Ply 1	Freedom Const\Lot 12 Legacy	I77186804
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C&R Truss, Autryville, NC - 28318,

8.530 s Aug 2 2023 MiTek Industries, Inc. Mon Oct 20 13:17:37 2025 Page 1

ID:joUCX15PbkzRvuH1eD7yz?ySaFl-Cw8KEa?gKkXAyYkkEp2o1IV0Qo_C8a3l2q4RW?yRVyy

-1-10-8 1-10-13 4-9-4 8-5-0 15-7-0 19-2-12 22-1-3 24-0-0 25-10-8
1-10-8 1-10-13 2-10-7 3-7-12 7-2-0 3-7-12 2-10-7 1-10-13 1-10-8

Scale = 1:66.7

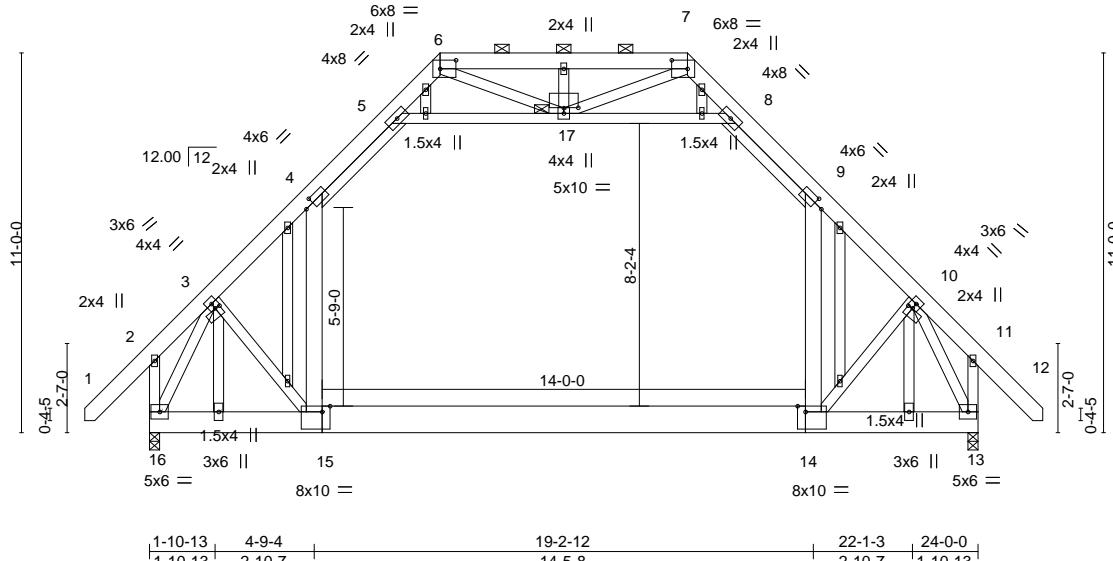


Plate Offsets (X, Y)-- [3:0-1-12,0-0-4], [4:0-3-2,0-2-0], [6:0-5-8,0-3-0], [7:0-5-8,0-3-0], [9:0-3-2,0-2-0], [10:0-1-12,0-0-4], [14:0-2-12,Edge], [15:0-2-12,Edge], [17:0-5-0,0-0-2]

LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	I/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL	1.15	TC 0.53	Vert(LL)	-0.25	14-15	>999	360	
TCDL 10.0	Lumber DOL	1.15	BC 0.34	Vert(CT)	-0.31	14-15	>903	240	
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.48	Horz(CT)	0.01	13	n/a	n/a	
BCDL 10.0	Code IRC2018/TPI2014		Matrix-MS	Wind(LL)	-0.04	15	>999	240	Weight: 293 lb FT = 20%

LUMBER-

TOP CHORD 2x6 SP No.1
BOT CHORD 2x8 SP 2400F 2.0E *Except*
14-15: 2x10 SP 2400F 2.0E
WEBS 2x4 SP No.3 *Except*
4-15,9-14: 2x6 SP No.1, 5-8: 2x4 SP 2400F 2.0E
4-5,8-9: 2x4 SP No.2
OTHERS 2x4 SP No.3

REACTIONS.

(size) 16=0-3-8, 13=0-3-8
Max Horz 16=-245(LC 6)
Max Grav 16=1441(LC 14), 13=1441(LC 15)

FORCES.

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

TOP CHORD 3-4=-1402/0, 4-5=-930/57, 5-6=-440/89, 7-8=-440/89, 8-9=-930/57, 9-10=-1401/0,
6-7=-329/170

BOT CHORD 15-16=20/747, 14-15=0/932, 13-14=0/647

WEBS 4-15=-12/734, 9-14=-12/734, 5-17=-1015/54, 8-17=-1015/54, 3-15=0/405, 10-14=0/406,

3-16=-1587/0, 10-13=-1587/0

NOTES-

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-16; Vult=120mph (3-second gust) Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=20ft; 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) 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) Provide adequate drainage to prevent water ponding.
- 5) Cable studs spaced at 2-0-0 oc.
- 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 with a clearance greater than 6-0-0 between the bottom chord and any other members.
- 8) Ceiling dead load (5.0 psf) on member(s). 4-5, 8-9, 5-17, 8-17
- 9) Bottom chord live load (40.0 psf) and additional bottom chord dead load (0.0 psf) applied only to room. 14-15
- 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) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
- 12) Attic room checked for L/360 deflection.



October 21, 2025

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ENGINEERING BY
TRENCO
A MiTek Affiliate

818 Soundside Road
Edenton, NC 27932

Job 28964	Truss TGE2	Truss Type GABLE	Qty 1	Ply 1	Freedom Const\Lot 12 Legacy	I77186805
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C&R Truss, Autryville, NC - 28318,

8.530 s Aug 2 2023 MiTek Industries, Inc. Mon Oct 20 13:17:38 2025 Page 1

ID:joUCX15PbkzRvuH1eD7yz?ySaFl-g6ijSw0I52g1ahlwoXZ1az2laCPHt7?uGUq_2RyRVyx

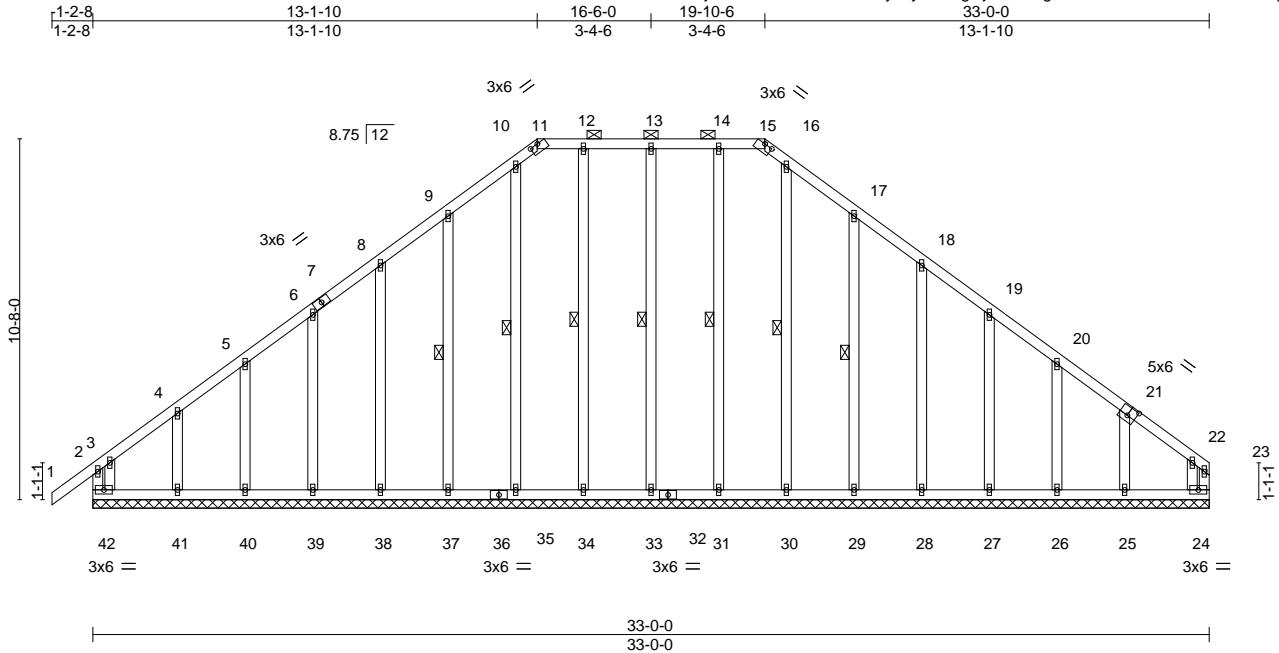


Plate Offsets (X,Y)-- [11:0-3-0,0-0-0], [15:0-3-0,0-0-0], [21:0-3-0,0-3-0]

LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in	(loc)	I/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL	1.15	TC 0.12	Vert(LL)	-0.00	1	n/r	120	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.03	Vert(CT)	-0.00	1	n/r	120		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.11	Horz(CT)	-0.00	24	n/a	n/a		
BCDL 10.0	Code	IRC2018/TPI2014	Matrix-R						Weight: 267 lb	FT = 20%

LUMBER-

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

BRACING-

TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals, and 2-0-0 oc purlins (6-0-0 max.): 11-15.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 1 Row at midpt 13-33, 12-34, 10-35, 9-37, 14-31, 16-30, 17-29

REACTIONS.

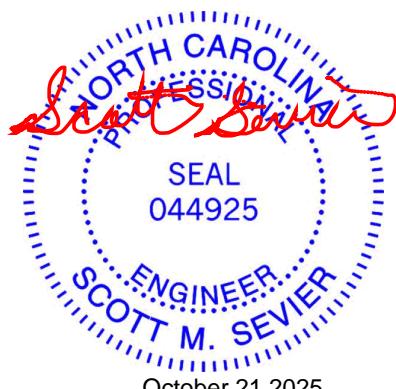
All bearings 33-0-0.
(lb) - Max Horz 42-203(LC 7)
Max Uplift All uplift 100 lb or less at joint(s) 42, 24, 33, 37, 38, 39, 40, 41, 29, 28, 27, 26, 25
Max Grav All reactions 250 lb or less at joint(s) 42, 24, 33, 34, 35, 37, 38, 39, 40, 41, 31, 30, 29, 28, 27, 26, 25

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=120mph (3-second gust) Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=20ft; B=45ft; L=33ft; eave=2ft; 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) 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) Provide adequate drainage to prevent water ponding.
- 5) All plates are 1.5x4 MT20 unless otherwise indicated.
- 6) Gable requires continuous bottom chord bearing.
- 7) Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
- 8) Gable studs spaced at 2-0-0 oc.
- 9) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 10) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas with a clearance greater than 6-0-0 between the bottom chord and any other members, with BCDL = 10.0psf.
- 11) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 42, 24, 33, 37, 38, 39, 40, 41, 29, 28, 27, 26, 25.
- 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.



October 21, 2025

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Job 28964	Truss TGE3	Truss Type GABLE	Qty 1	Ply 1	Freedom Const\Lot 12 Legacy	I77186806
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C&R Truss, Autryville, NC - 28318,

8.530 s Aug 2 2023 MiTek Industries, Inc. Mon Oct 20 13:17:38 2025 Page 1
ID:joUCXI5PbkzRvuH1eD7yz?ySaFl-g6ijSw0l52g1ahlwoXZ1az2BICOf71uGUq_2RyRVyx

1-2-8 13-1-10 22-10-6 24-10-8
1-2-8 13-1-10 9-8-12 2-0-2

Scale = 1:65.2

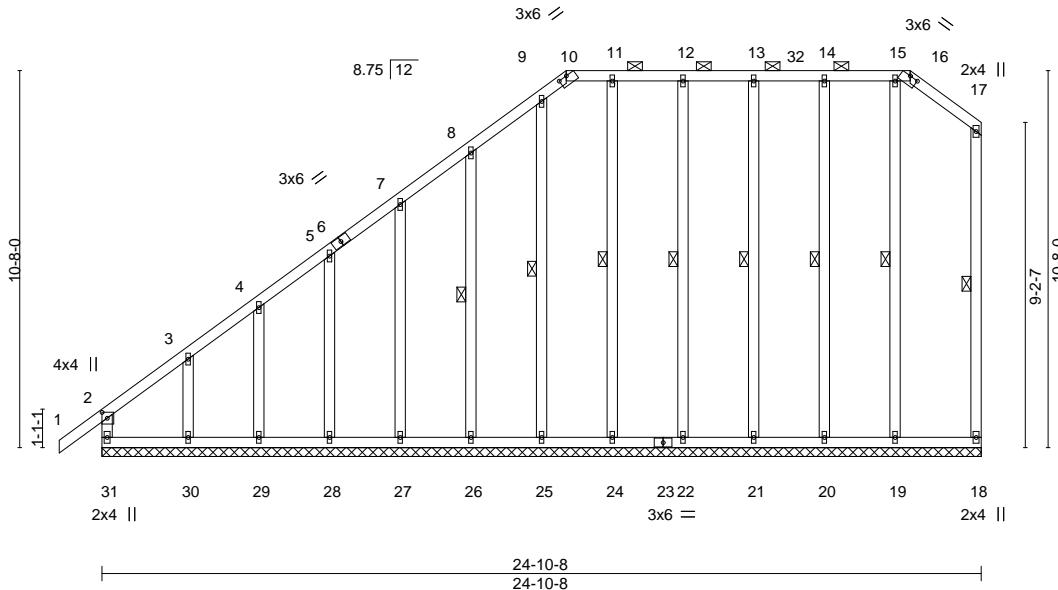


Plate Offsets (X,Y)-- [2:0-2-0,0-1-12], [10:0-3-0,0-0-0], [16:0-3-0,0-0-0]

LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in	(loc)	I/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL	1.15	TC 0.53	Vert(LL)	-0.00	1	n/r	120	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.07	Vert(CT)	-0.00	1	n/r	120		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.11	Horz(CT)	-0.00	18	n/a	n/a		
BCDL 10.0	Code	IRC2018/TPI2014	Matrix-R						Weight: 224 lb	FT = 20%

LUMBER-

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

BRACING-

TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals, and 2-0-0 oc purlins (6-0-0 max.): 10-16.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 1 Row at midpt 17-18, 9-25, 8-26, 11-24, 12-22, 13-21, 14-20, 15-19

REACTIONS.

All bearings 24-10-8.
(lb) - Max Horz 31=284(LC 7)
Max Uplift All uplift 100 lb or less at joint(s) 31, 18, 25, 26, 27, 28, 29, 24, 22, 21, 20, 19 except 30=-132(LC 5)
Max Grav All reactions 250 lb or less at joint(s) 18, 25, 26, 27, 28, 29, 30, 24, 22, 21, 20 except 31=296(LC 14), 19=261(LC 15)

FORCES.

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

TOP CHORD 2-3=-265/175

NOTES-

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-16; Vult=120mph (3-second gust) Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=20ft; B=45ft; L=25ft; eave=2ft; 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) 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) Provide adequate drainage to prevent water ponding.
- 5) All plates are 1.5x4 MT20 unless otherwise indicated.
- 6) Gable requires continuous bottom chord bearing.
- 7) Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
- 8) Gable studs spaced at 2-0-0 oc.
- 9) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 10) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas with a clearance greater than 6-0-0 between the bottom chord and any other members, with BCDL = 10.0psf.
- 11) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 31, 18, 25, 26, 27, 28, 29, 24, 22, 21, 20, 19 except (jt=lb) 30=132.
- 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.



October 21, 2025

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ENGINEERING BY
TRENCO
A MiTek Affiliate

818 Soundside Road
Edenton, NC 27932

Job 28964	Truss TSGE1	Truss Type GABLE	Qty 1	Ply 1	Freedom Const\Lot 12 Legacy	I77186807
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C&R Truss, Autryville, NC - 28318,

8.530 s Aug 2 2023 MiTek Industries, Inc. Mon Oct 20 13:17:39 2025 Page 1

ID:joUCX15PbkzRvuH1eD7yz?ySaFl-8iG5fG1wsMouBrt6LE4G6AbO0ccdcOW1V8ZYatRvwy

1-1-2-8 5-1-12 9-1-11 13-1-10 18-0-0 22-10-6 27-1-12 31-5-2 36-0-0 37-2-8
1-2-8 5-1-12 3-11-15 3-11-15 4-10-6 4-10-6 4-3-6 4-3-6 4-6-14 1-2-8

Scale = 1:73.7

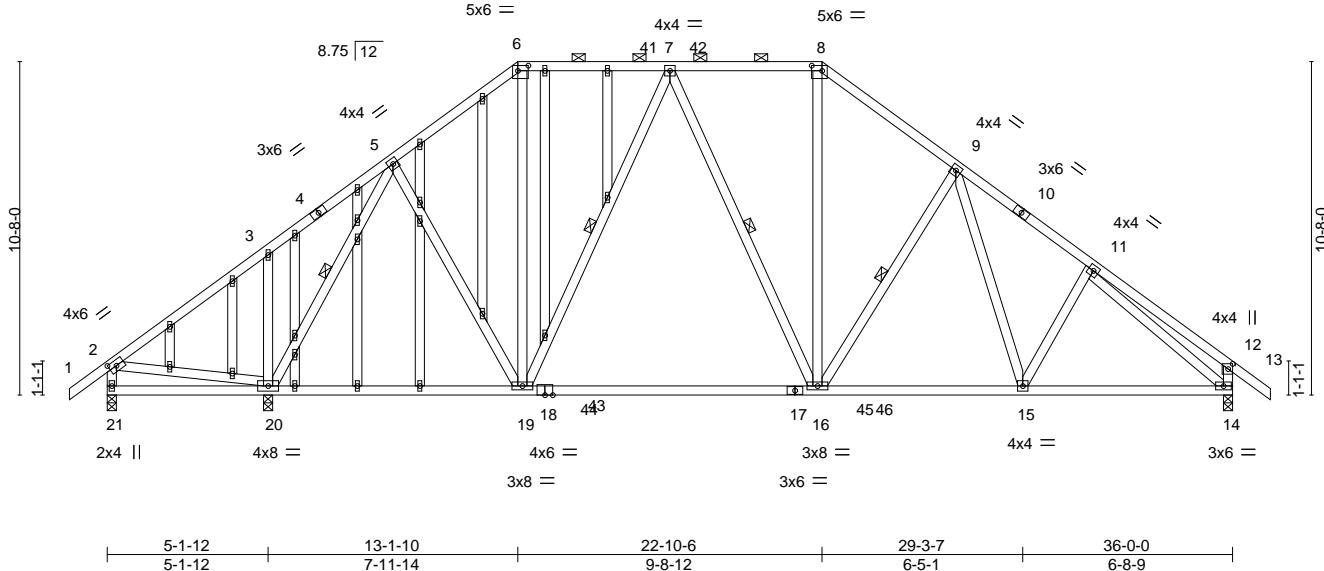


Plate Offsets (X,Y)-- [2:0-2-14,0-2-0], [6:0-4-0,0-2-0], [8:0-4-0,0-2-0], [12:0-2-0,0-1-12]

LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	I/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL	1.15	TC 0.40	Vert(LL)	-0.20	16-19	>999	360	
TCDL 10.0	Lumber DOL	1.15	BC 0.47	Vert(CT)	-0.32	16-19	>999	240	
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.86	Horz(CT)	0.04	14	n/a	n/a	
BCDL 10.0	Code IRC2018/TPI2014		Matrix-AS	Wind(LL)	0.02	15-16	>999	240	Weight: 326 lb FT = 20%

LUMBER-

TOP CHORD 2x4 SP 2400F 2.0E
BOT CHORD 2x4 SP 2400F 2.0E
WEBS 2x4 SP No.2 *Except*
2-21,12-14: 2x4 SP No.3
OTHERS 2x4 SP No.3

BRACING-

TOP CHORD Structural wood sheathing directly applied, except end verticals, and
2-0-0 oc purlins (6-0-0 max.): 6-8.
BOT CHORD Rigid ceiling directly applied.
WEBS 1 Row at midpt 5-20, 7-19, 7-16, 9-16

REACTIONS.

(size) 21=0-3-8, 20=0-3-8, 14=0-3-8
Max Horz 21=211(LC 7)
Max Uplift 21=10(LC 8)
Max Grav 21=270(LC 19), 20=1824(LC 13), 14=1458(LC 14)

FORCES.

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

TOP CHORD 5-6-1124/82, 6-7-869/86, 7-8-1116/85, 8-9-1429/80, 9-11-1701/42,
11-12-366/50, 12-14-390/71

BOT CHORD 19-20=0/720, 16-19=0/1084, 15-16=0/1237, 14-15=0/1280

WEBS 3-20=301/98, 5-20=1396/0, 5-19=0/501, 6-19=0/422, 7-19=453/27, 8-16=0/573,

9-16=369/81, 11-14=1470/0

NOTES-

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-16; Vult=120mph (3-second gust) Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=20ft; B=45ft; L=36ft; eave=5ft; 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) 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) Provide adequate drainage to prevent water ponding.
- 5) All plates are 1.5x4 MT20 unless otherwise indicated.
- 6) Gable studs spaced at 2-0-0 oc.
- 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 with a clearance greater than 6-0-0 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) 21.
- 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) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.
- 12) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



October 21, 2025

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ENGINEERING BY
TRENCO
A MiTek Affiliate

818 Soundside Road
Edenton, NC 27932

Job 28964	Truss V1	Truss Type Valley	Qty 1	Ply 1	Freedom Const\Lot 12 Legacy	I77186808
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C&R Truss, Autryville, NC - 28318,

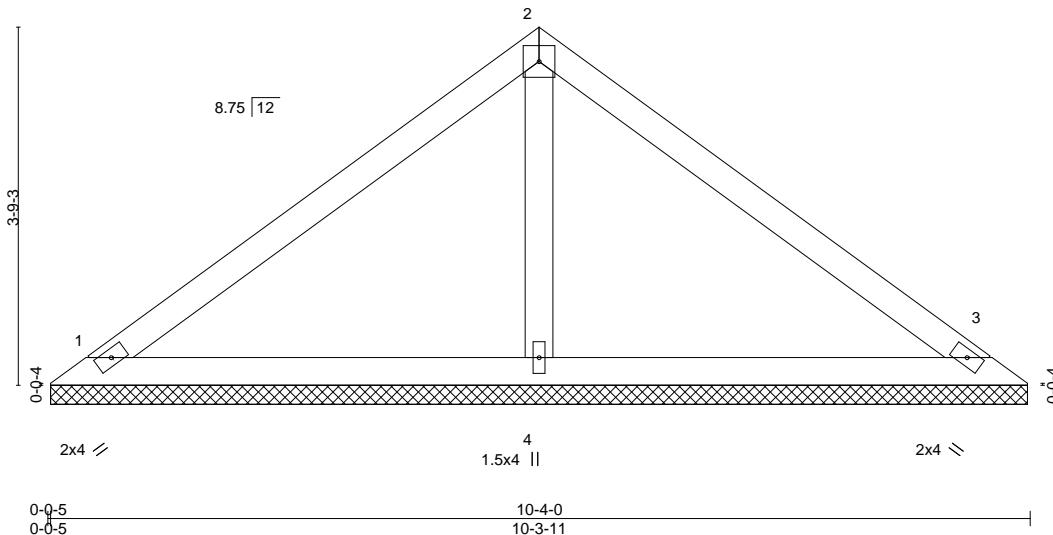
8.530 s Aug 2 2023 MiTek Industries, Inc. Mon Oct 20 13:17:40 2025 Page 1
ID:joUCXI5PbkRvuH1eD7yz?ySaFl-cUqTtc2Zdfwl?SjvzbVfO7df01kL2GBkoJ57KyRVyv

5-2-0
5-2-0

10-4-0
5-2-0

4x4 =

Scale: 1/2"=1'



LOADING (psf) TCLL 20.0 TCDL 10.0 BCLL 0.0 * BCDL 10.0	SPACING- Plate Grip DOL 1.15 Lumber DOL 1.15 Rep Stress Incr YES Code IRC2018/TPI2014	CSI. TC 0.15 BC 0.22 WB 0.06 Matrix-S	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	GRIP 244/190
				Weight: 37 lb	FT = 20%

LUMBER-

TOP CHORD 2x4 SP 2400F 2.0E
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=10-3-5, 3=10-3-5, 4=10-3-5
Max Horz 1=-58(LC 6)
Max Uplift 1=-11(LC 8), 3=-11(LC 8)
Max Grav 1=198(LC 1), 3=198(LC 1), 4=358(LC 1)

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=120mph (3-second gust) Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=20ft; 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) Gable requires continuous bottom chord bearing.
- 4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 5) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas with a clearance greater than 6-0-0 between the bottom chord and any other members.
- 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 3.
- 7) 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.



October 21, 2025

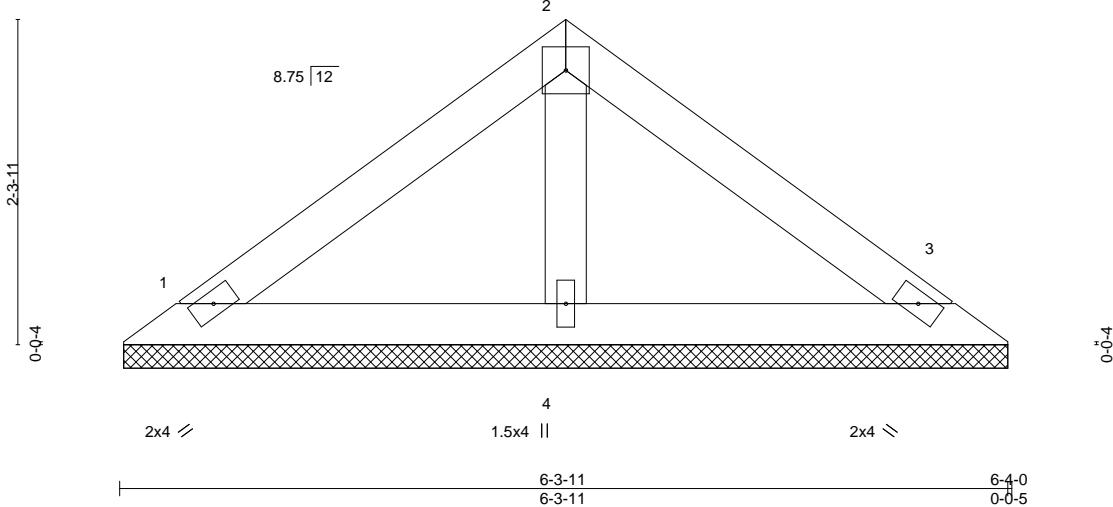
 **WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 BEFORE USE.**

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TRENCO
A MiTek Affiliate

818 Soundside Road
Edenton, NC 27932

Job 28964	Truss V2	Truss Type Valley	Qty 1	Ply 1	Freedom Const\Lot 12 Legacy	I77186809
C&R Truss, Autryville, NC - 28318,					8.530 s Aug 2 2023 MiTek Industries, Inc. Mon Oct 20 13:17:40 2025 Page 1 ID:joUCXI5PbkzRvuH1eD7yz?ySaFI-cUqTtc2Zdfwl?SjvzbVfO7f203_L2sBkoJ57KyRVyv	
			3-2-0		6-4-0	
			3-2-0		3-2-0	
				4x4 =		Scale = 1:16.4



LOADING (psf) TCLL 20.0 TCDL 10.0 BCLL 0.0 * BCDL 10.0	SPACING- Plate Grip DOL 1.15 Lumber DOL 1.15 Rep Stress Incr YES Code IRC2018/TPI2014	CSI. TC 0.06 BC 0.08 WB 0.03 Matrix-P	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	GRIP 244/190
				Weight: 22 lb	FT = 20%

LUMBER-
TOP CHORD 2x4 SP 2400F 2.0E
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=6-3-5, 3=6-3-5, 4=6-3-5
Max Horz 1=33(LC 6)
Max Uplift 1=10(LC 8), 3=10(LC 8)
Max Grav 1=124(LC 1), 3=124(LC 1), 4=188(LC 1)

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=120mph (3-second gust) Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=20ft; 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) Gable requires continuous bottom chord bearing.
- 4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 5) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas with a clearance greater than 6-0-0 between the bottom chord and any other members.
- 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 3.
- 7) 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.



October 21, 2025

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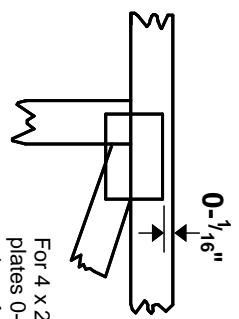
Symbols

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.



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

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

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

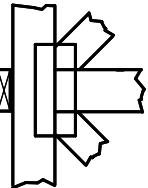
The first dimension is the plate width measured perpendicular to slots. Second dimension is the length parallel to slots.

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:

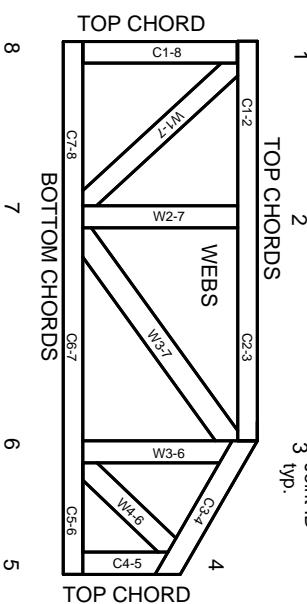
ANSI/TP1: National Design Specification for Metal Plate Connected Wood Truss Construction.

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

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



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

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

Product Code Approvals

ICC-ES Reports:

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

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

Lumber design values are in accordance with ANSI/TP1 section 6.3. These truss designs rely on lumber values established by others.

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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! 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/TP1.

7. Design assumes trusses will be suitably protected from the environment in accord with ANSI/TP1.

8. Unless otherwise noted, moisture content of lumber shall not exceed 19% at time of fabrication.

9. Unless expressly noted, this design is not applicable for use with fire retardant, preservative treated, or green lumber.

10. Camber is a non-structural consideration and is the responsibility of truss fabricator. General practice is to camber for dead load deflection.

11. Plate type, size, orientation and location dimensions indicated are minimum plating requirements.

12. Lumber used shall be of the species and size, and in all respects, equal to or better than that specified.

13. Top chords must be sheathed or purlins provided at spacing indicated on design.

14. Bottom chords require lateral bracing at 10 ft. spacing, or less, if no ceiling is installed, unless otherwise noted.

15. Connections not shown are the responsibility of others.

16. Do not cut or alter truss member or plate without prior approval of an engineer.

17. Install and load vertically unless indicated otherwise.

18. Use of green or treated lumber may pose unacceptable environmental, health or performance risks. Consult with project engineer before use.

19. Review all portions of this design (front, back, words and pictures) before use. Reviewing pictures alone is not sufficient.

20. Design assumes manufacture in accordance with ANSI/TP1 Quality Criteria.

21. The design does not take into account any dynamic or other loads other than those expressly stated.

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