

RE: 28530 - Wellons Realty\2 Forest Hills

Trenco
818 Soundside Rd
Edenton, NC 27932

Site Information:

Project Customer: Wellons Realty Project Name:
Lot/Block: 2 Subdivision: Forest Hills
Model: High Point GOL
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	I71728076	G1	2/28/25
2	I71728077	G2	2/28/25
3	I71728078	G3	2/28/25
4	I71728079	G4	2/28/25
5	I71728080	GR1	2/28/25
6	I71728081	GR2	2/28/25
7	I71728082	T1	2/28/25
8	I71728083	T2	2/28/25
9	I71728084	T3	2/28/25
10	I71728085	T4	2/28/25
11	I71728086	T5	2/28/25
12	I71728087	T6	2/28/25
13	I71728088	T7	2/28/25
14	I71728089	T8	2/28/25
15	I71728090	V1	2/28/25
16	I71728091	V2	2/28/25
17	I71728092	V3	2/28/25
18	I71728093	V4	2/28/25
19	I71728094	V5	2/28/25
20	I71728095	V6	2/28/25
21	I71728096	V7	2/28/25
22	I71728097	V8	2/28/25

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: Gilbert, Eric

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.

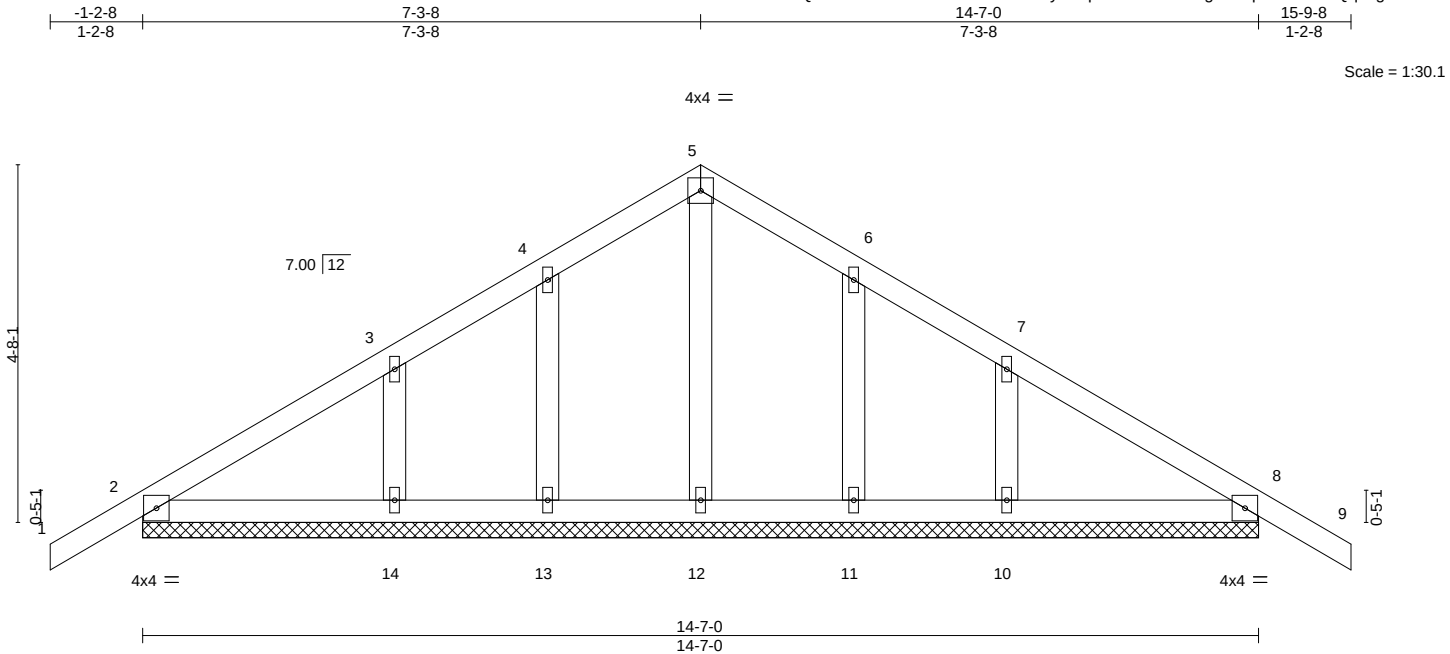


February 28, 2025

Job	Truss	Truss Type	Qty	Ply	Wellons Realty/2 Forest Hills
28530	G1	Common Supported Gable	1	1	171728076
Job Reference (optional)					

C&R Truss, Autryville, NC - 28318,

8.530 s Aug 2 2023 MiTek Industries, Inc. Fri Feb 28 10:52:53 2025 Page 1
ID: ?n1mQlYclOahEvtVIH0KlbztnWf-D9GBYfSspJ8ZnxGcc2vafgaMaqrwBevf5T2QqhgzdiO



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 0.10	Vert(LL)	-0.00	8	n/r	120	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.07	Vert(CT)	0.00	9	n/r	120		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.04	Horz(CT)	0.00	8	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-S						Weight: 72 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 14-7-0.
(lb) - Max Horz 2=108(LC 7)
Max Uplift All uplift 100 lb or less at joint(s) 2, 8, 13, 14, 11, 10
Max Grav All reactions 250 lb or less at joint(s) 2, 8, 12, 13, 14, 11, 10

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=140mph (3-second gust) Vasd=111mph; 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.
- All plates are 1.5x4 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 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) 2, 8, 13, 14, 11, 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.



February 28, 2025

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ENGINEERING BY
TRENCO
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818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Wellons Realty\2 Forest Hills
28530	G2	Common Supported Gable	1	1	171728077
Job Reference (optional)					

C&R Truss, Autryville, NC - 28318, 8.530 s Aug 2 2023 MiTek Industries, Inc. Fri Feb 28 10:52:54 2025 Page 1
ID:?n1mQlYclOahEvtVIH0KlbznWf-hLqa9bSUacQP5ro9lQpBu7WkECLw3OoK7o_M8zgdin

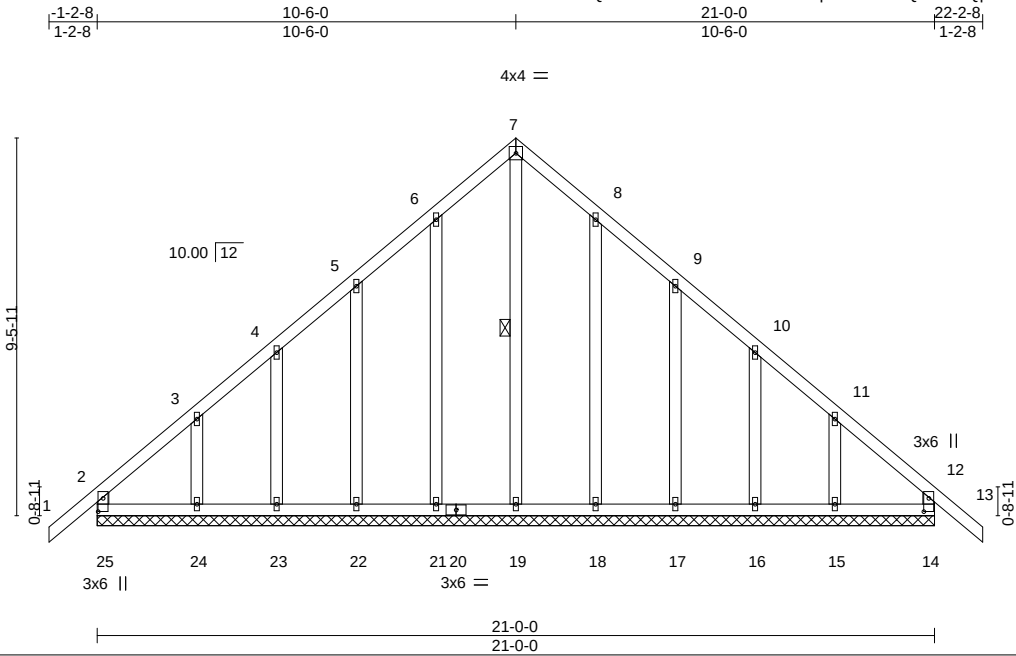


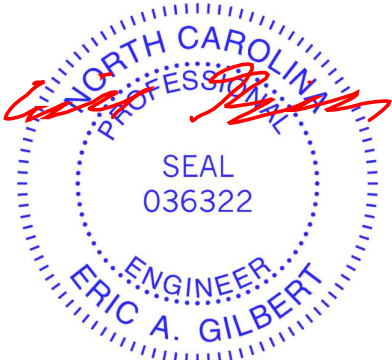
Plate Offsets (X,Y)--		[12:0-4-0,0-1-8], [25:0-4-0,0-1-8]									
LOADING (psf)		SPACING- 2-0-0		CSI.		DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0		Plate Grip DOL 1.15		TC 0.14		Vert(LL)	-0.01 13	n/r	120	MT20	244/190
TCDL 10.0		Lumber DOL 1.15		BC 0.06		Vert(CT)	-0.01 13	n/r	120		
BCLL 0.0 *		Rep Stress Incr YES		WB 0.15		Horz(CT)	0.00 14	n/a	n/a		
BCDL 10.0		Code IRC2018/TPI2014		Matrix-R						Weight: 148 lb	FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x4 SP No.2	TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.
BOT CHORD 2x4 SP No.2	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 2x4 SP No.3	WEBS 1 Row at midpt 7-19
OTHERS 2x4 SP No.3	

REACTIONS. All bearings 21-0-0.
(lb) - Max Horz 25=251(LC 7)
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-
- 1) Unbalanced roof live loads have been considered for this design.
 - 2) Wind: ASCE 7-16; Vult=140mph (3-second gust) Vasd=111mph; 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, with BCDL = 10.0psf.
 - 10) 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.
 - 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.



February 28,2025

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TRENCO
A MiTek Affiliate
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Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Wellons Realty\2 Forest Hills
28530	G3	GABLE	1	1	171728078
Job Reference (optional)					

C&R Truss, Autryville, NC - 28318,

8.530 s Aug 2 2023 MiTek Industries, Inc. Fri Feb 28 10:52:54 2025 Page 1
ID:?n1mQlYcIOahEvtVIH0KlbztWf-hLqa9bSUacQP5ro9lQpBu7YAEC3w4roK7o_M8zgdIN

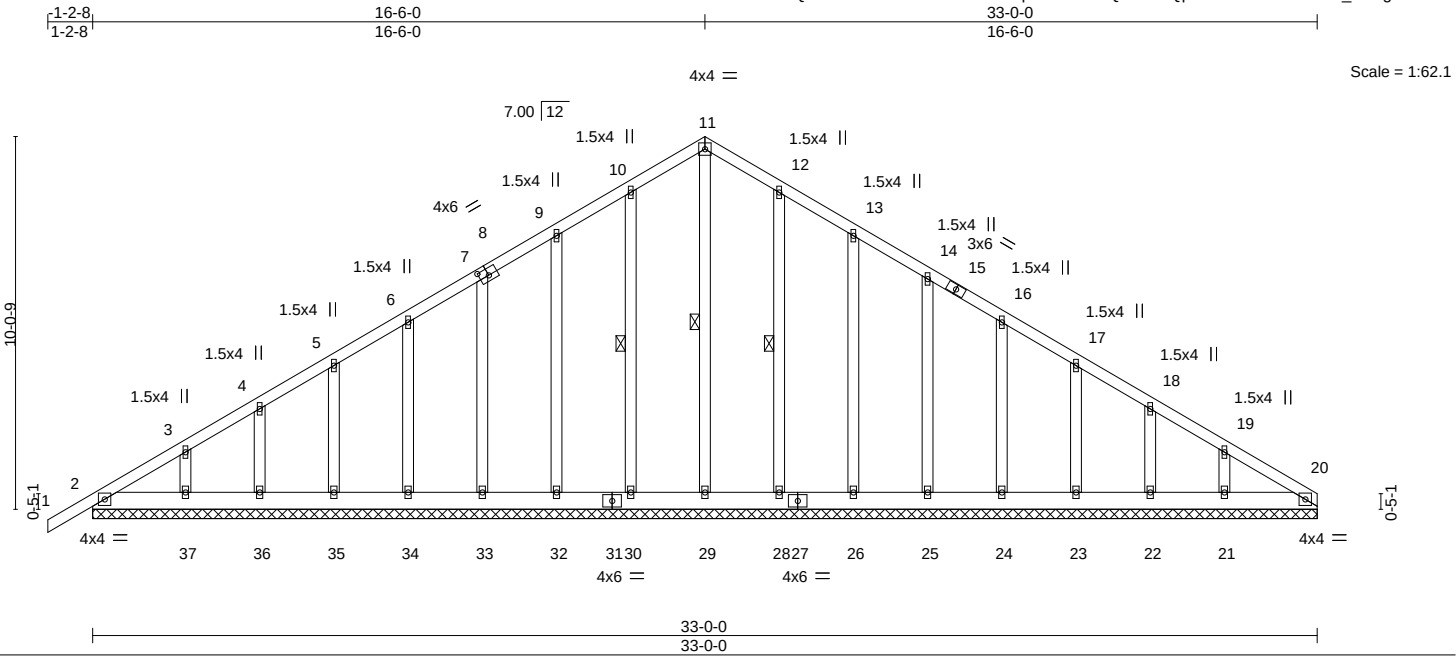


Plate Offsets (X,Y)--		[8:0-3-0,0-2-4]			
LOADING (psf)	SPACING- 2-0-0	CSI.	DEFL. in (loc) l/defl L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL 1.15	TC 0.04	Vert(LL) -0.00 1 n/r 120	MT20	244/190
TCDL 10.0	Lumber DOL 1.15	BC 0.02	Vert(CT) -0.00 1 n/r 120		
BCLL 0.0 *	Rep Stress Incr YES	WB 0.12	Horz(CT) 0.00 20 n/a n/a		
BCDL 10.0	Code IRC2018/TPI2014	Matrix-S		Weight: 247 lb	FT = 20%

LUMBER-

TOP CHORD 2x4 SP 2400F 2.0E
BOT CHORD 2x6 SP No.1
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.
WEBS 1 Row at midpt 11-29, 10-30, 12-28

REACTIONS.

All bearings 33-0-0.
(lb) - Max Horz 2=222(LC 7)
Max Uplift All uplift 100 lb or less at joint(s) 2, 30, 32, 33, 34, 35, 36, 37, 28, 26, 25, 24, 23, 22, 21
Max Grav All reactions 250 lb or less at joint(s) 2, 20, 29, 30, 32, 33, 34, 35, 36, 37, 28, 26, 25, 24, 23, 22, 21

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

NOTES-

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-16; Vult=140mph (3-second gust) Vasd=111mph; 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) All plates are 2x4 MT20 unless otherwise indicated.
- 5) Gable requires continuous bottom chord bearing.
- 6) Gable studs spaced at 2-0-0 oc.
- 7) This truss has been designed for a 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) 2, 30, 32, 33, 34, 35, 36, 37, 28, 26, 25, 24, 23, 22, 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.



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818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Wellons Realty\2 Forest Hills
28530	G4	GABLE	1	1	171728079
Job Reference (optional)					

C&R Truss, Autryville, NC - 28318,

8.530 s Aug 2 2023 MiTek Industries, Inc. Fri Feb 28 10:52:55 2025 Page 1
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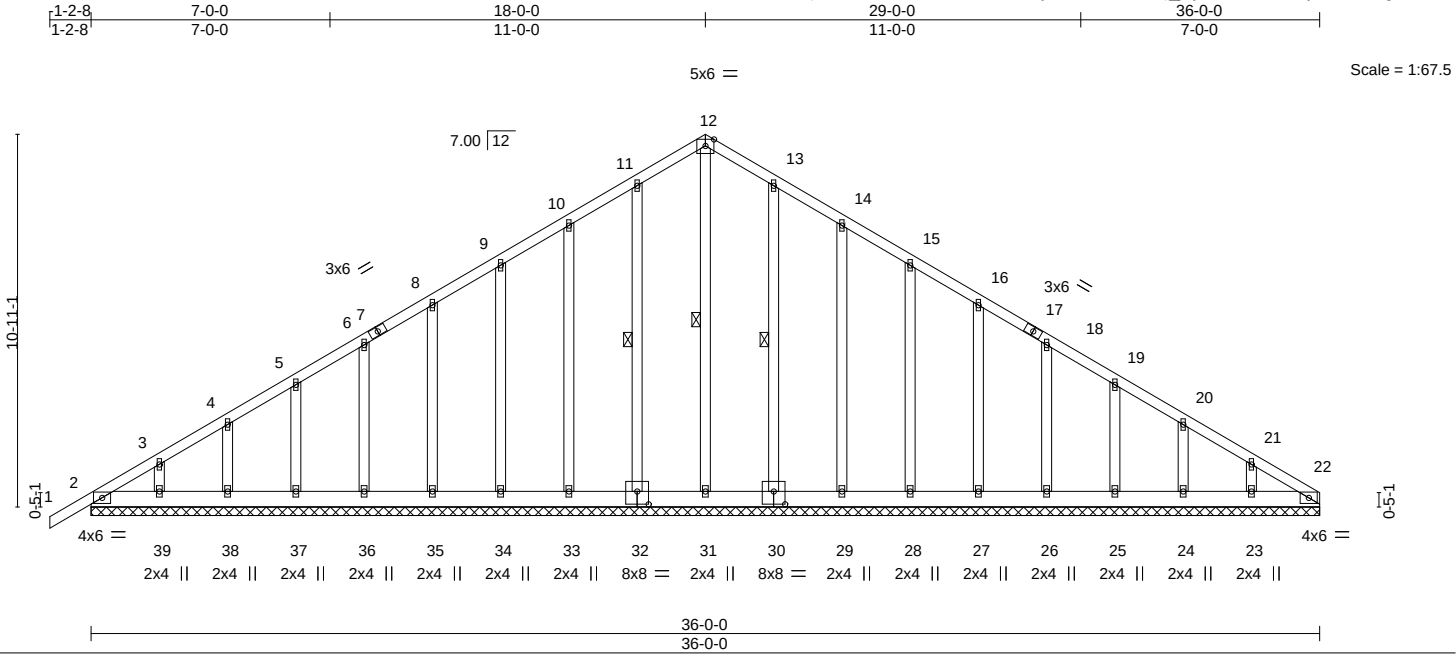


Plate Offsets (X,Y)--		[30:0-4-0,0-4-8], [32:0-4-0,0-4-8]	
LOADING (psf)	SPACING-	2-0-0	CSI.
TCLL 20.0	Plate Grip DOL	1.15	TC 0.10
TCDL 10.0	Lumber DOL	1.15	BC 0.02
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.15
BCDL 10.0	Code	IRC2018/TPI2014	Matrix-S
		DEFL.	in (loc) l/defl L/d
		Vert(LL)	-0.00 1 n/r 120
		Vert(CT)	-0.00 1 n/r 120
		Horz(CT)	0.00 22 n/a n/a
		PLATES	GRIP
		MT20	244/190
		Weight: 282 lb	FT = 20%

LUMBER-

TOP CHORD 2x4 SP No.2
BOT CHORD 2x6 SP No.1
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.
WEBS 1 Row at midpt 12-31, 11-32, 13-30

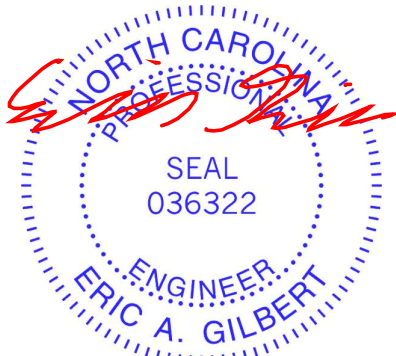
REACTIONS.

All bearings 36-0-0.
(lb) - Max Horz 2=241(LC 7)
Max Uplift All uplift 100 lb or less at joint(s) 2, 22, 32, 33, 34, 35, 36, 37, 38, 39, 30, 29, 28, 27, 26, 25, 24, 23
Max Grav All reactions 250 lb or less at joint(s) 2, 22, 31, 32, 33, 34, 35, 36, 37, 38, 39, 30, 29, 28, 27, 26, 25, 24, 23

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=140mph (3-second gust) Vasd=111mph; TCCL=6.0psf; BCDL=6.0psf; h=20ft; B=45ft; L=36ft; 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) 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) 2, 22, 32, 33, 34, 35, 36, 37, 38, 39, 30, 29, 28, 27, 26, 25, 24, 23.
- 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.



February 28,2025

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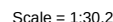
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FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.

TOP CHORD	1-2=-862/712, 2-3=-5738/540, 3-4=-5755/541, 4-5=-8914/783
BOT CHORD	1-8=-568/6939, 7-8=-3686/639, 6-7=-632/7700, 5-6=-632/7700
WEBS	3-7=-479/5530, 4-7=-3396/935, 4-6=-244/3285, 2-7=-2466/257, 2-8=-168/2383

- 1) 2-ply truss to be connected together with 10d (0.131"x3") nails as follows:
Top chords connected as follows: 2x4 - 1 row at 0-7-0 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=140mph (3-second gust) Vasd=111mph; 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) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 1=414, 5=550.
- 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) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 1299 lb down and 121 lb up at 2-0-12, 1299 lb down and 121 lb up at 4-0-12, 1299 lb down and 121 lb up at 6-0-12, 1299 lb down and 121 lb up at 8-0-12, 1299 lb down and 121 lb up at 10-0-12, 1299 lb down and 121 lb up at 12-0-12, and 1178 lb down and 108 lb up at 12-5-4, and 1183 lb down and 103 lb up at 14-0-12 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.

LOAD CASE(S) Standard

February 28, 2025

Continued on page 2



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Job	Truss	Truss Type	Qty	Ply	Wellons Realty/2 Forest Hills
28530	GR1	Common Girder	1	2	171728080

LOAD CASE(S) Standard

- 1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
- Uniform Loads (plf)
- Vert: 1-3=-60, 3-5=-60, 9-12=-20
- Concentrated Loads (lb)
- Vert: 8=-1299(F) 14=-1183(F) 15=-1299(F) 16=-1299(F) 17=-1299(F) 18=-1299(F) 19=-1299(F) 20=-1178(F)

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

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818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Wellons Realty\2 Forest Hills
28530	GR2	Common Girder	1	2	171728081

C&R Truss, Autryville, NC - 28318,

8.530 s Aug 2 2023 MiTek Industries, Inc. Fri Feb 28 10:52:57 2025 Page 1
ID:?n1mQlYcOahEvtVIH0KlbztnWf-5wVindVMtXe_GZZNru_WpWl0wR8X7OoF040ezTzgdIK

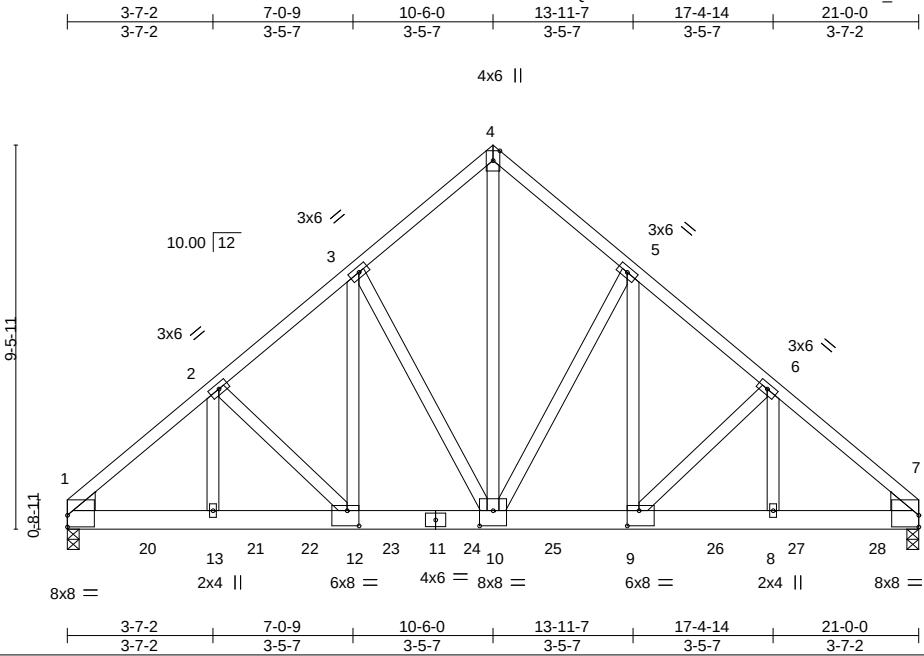


Plate Offsets (X,Y)--										[1:0-0-0,0-3-7], [7:0-0-0,0-3-7], [9:0-3-8,0-4-8], [10:0-4-0,0-4-8], [12:0-3-8,0-4-8]									
LOADING (psf)		SPACING- 2-0-0			CSI.		DEFL. in (loc) l/defl L/d			PLATES		GRIP							
TCLL	20.0	Plate Grip DOL 1.15			TC 0.20		Vert(LL) -0.04 10-12 >999 360			MT20		244/190							
TCDL	10.0	Lumber DOL 1.15			BC 0.35		Vert(CT) -0.08 10-12 >999 240												
BCLL	0.0 *	Rep Stress Incr NO			WB 0.30		Horz(CT) 0.02 7 n/a n/a												
BCDL	10.0	Code IRC2018/TPI2014			Matrix-MS		Wind(LL) 0.01 12 >999 240			Weight: 330 lb		FT = 20%							

LUMBER-

TOP CHORD 2x4 SP No.2
BOT CHORD 2x6 SP No.1
WEBS 2x4 SP No.3 *Except*
4-10: 2x4 SP No.2
WEDGE
Left: 2x6 SP No.2 , Right: 2x6 SP No.2

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=-209(LC 6)
Max Grav 1=2546(LC 1), 7=2695(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-2=-3246/0, 2-3=-2755/0, 3-4=-2150/0, 4-5=-2150/0, 5-6=-2761/0, 6-7=-3272/0
BOT CHORD 1-13=0/2424, 12-13=0/2424, 10-12=0/2081, 9-10=0/2085, 8-9=0/2446, 7-8=0/2446
WEBS 4-10=0/2458, 5-10=-1000/0, 5-9=0/1058, 6-9=-511/0, 6-8=0/502, 3-10=-992/0,
3-12=0/1047, 2-12=-486/0, 2-13=0/474

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=140mph (3-second gust) Vasd=111mph; 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
- 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.
- 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.
- Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 356 lb down at 1-11-4, 356 lb down at 3-11-4, 356 lb down at 5-11-4, 356 lb down at 7-11-4, 356 lb down at 9-11-4, 356 lb down at 11-11-4, 356 lb down at 13-11-4, 356 lb down at 15-11-4, and 356 lb down at 17-11-4, and 356 lb down at 19-11-4 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.

LOAD CASE(S) Standard

Continued on page 2

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February 28, 2025

ENGINEERING BY
TRENCO
A MiTek Affiliate

818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Wellons Realty/2 Forest Hills
28530	GR2	Common Girder	1	2	171728081

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, 14-17=-20
- Concentrated Loads (lb)
- Vert: 9=-356(F) 20=-356(F) 21=-356(F) 22=-356(F) 23=-356(F) 24=-356(F) 25=-356(F) 26=-356(F) 27=-356(F) 28=-356(F)

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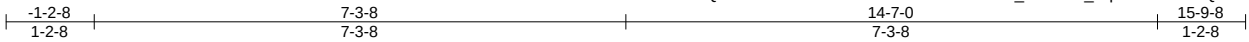


818 Soundside Road
Edenton, NC 27932

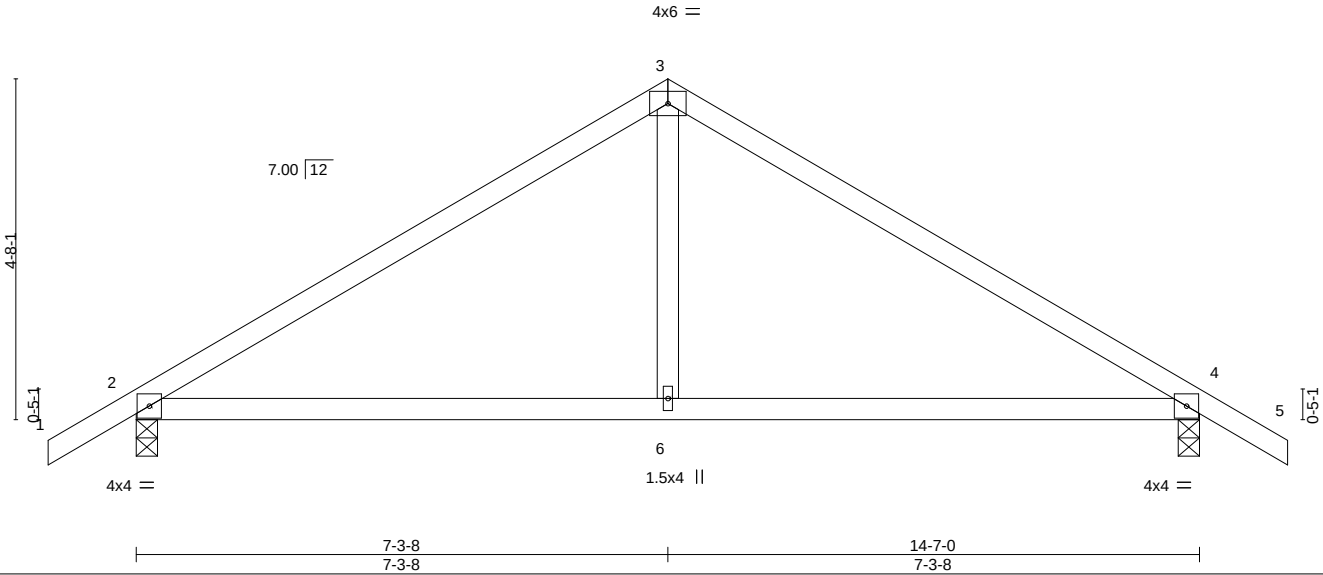
Job	Truss	Truss Type	Qty	Ply	Wellons Realty\2 Forest Hills
28530	T1	Common	1	1	171728082
Job Reference (optional)					

C&R Truss, Autryville, NC - 28318,

8.530 s Aug 2 2023 MiTek Industries, Inc. Fri Feb 28 10:52:57 2025 Page 1
ID:?n1mQIYclOahEvtVIH0KlbztWf-5wVindVMtXe_GZZNru_WpWlxwRAH7QUF040ezTzgdIK



Scale = 1:31.6



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 0.52	Vert(LL)	-0.06	6-9	>999	360	MT20	244/190
BCDL 10.0	Lumber DOL	1.15	BC 0.24	Vert(CT)	-0.11	6-9	>999	240		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.13	Horz(CT)	0.01	2	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-AS	Wind(LL)	0.04	6-9	>999	240		
									Weight: 57 lb	FT = 20%

LUMBER-

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

BRACING-

TOP CHORD Structural wood sheathing directly applied.
BOT CHORD Rigid ceiling directly applied.

REACTIONS.

(size) 2=0-3-8, 4=0-3-8
Max Horz 2=-108(LC 6)
Max Uplift 2=-86(LC 8), 4=-86(LC 8)
Max Grav 2=656(LC 1), 4=656(LC 1)

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

TOP CHORD 2-3=-754/79, 3-4=-754/79
BOT CHORD 2-6=0/566, 4-6=0/566
WEBS 3-6=0/339

NOTES-

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-16; Vult=140mph (3-second gust) Vasd=111mph; TC DL=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 100 lb uplift at joint(s) 2, 4.
- 6) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 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.



February 28, 2025

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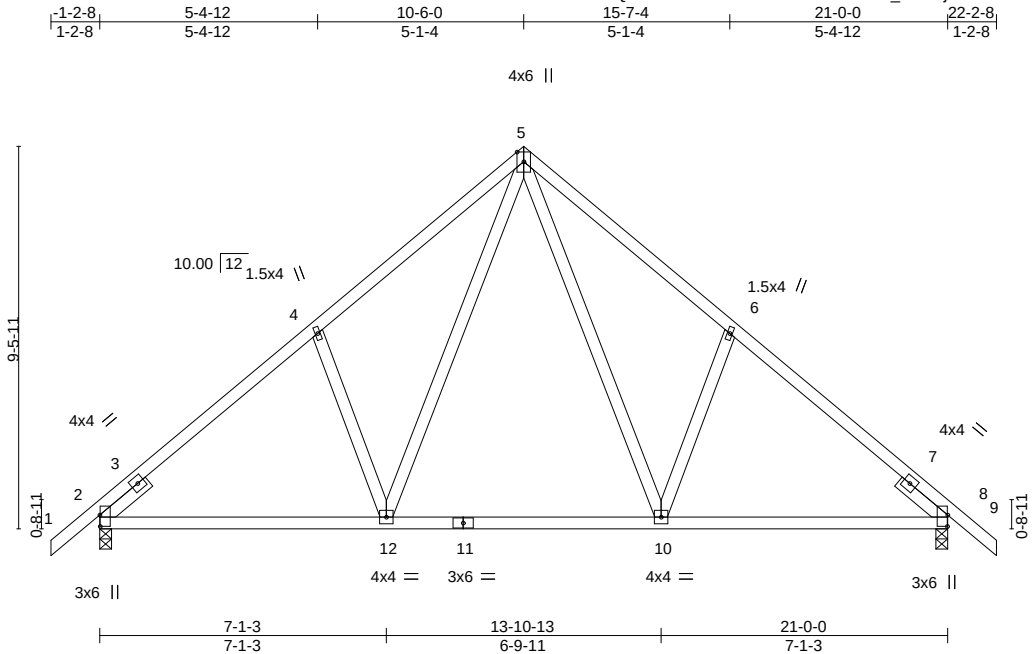
ENGINEERING BY
TRENCO
A MiTek Affiliate

818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Wellons Realty/2 Forest Hills
28530	T2	Common	5	1	171728083
Job Reference (optional)					

C&R Truss, Autryville, NC - 28318,

8.530 s Aug 2 2023 MiTek Industries, Inc. Fri Feb 28 10:52:58 2025 Page 1
ID: ?n1mQIYclOahEvtVIH0KlbztWf-Z634?zW_ermruj8ZOvIMkHByrWUsskOFkmBVvzgdIJ



Scale = 1:57.1

Plate Offsets (X,Y)--	[2:0-3-6,0-0-2], [8:0-3-6,0-0-2]	
LOADING (psf)	SPACING-	2-0-0
TCLL 20.0	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	0.25
	BC	0.24
	WB	0.19
	Matrix-AS	
	DEFL.	in (loc) l/defl L/d
	Vert(LL)	-0.11 10-12 >999 360
	Vert(CT)	-0.15 10-12 >999 240
	Horz(CT)	0.02 8 n/a n/a
	Wind(LL)	0.02 10-19 >999 240
	PLATES	GRIP
	MT20	244/190
	Weight: 124 lb	FT = 20%

LUMBER-

TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP 2400F 2.0E
WEBS 2x4 SP No.3
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.
BOT CHORD Rigid ceiling directly applied.

REACTIONS.

(size) 2=0-3-8, 8=0-3-8
Max Horz 2=233(LC 7)
Max Uplift 2=-106(LC 8), 8=-106(LC 8)
Max Grav 2=928(LC 13), 8=928(LC 14)

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

TOP CHORD 2-4=-1050/116, 4-5=-987/214, 5-6=-987/214, 6-8=-1050/116
BOT CHORD 2-12=0/889, 10-12=0/604, 8-10=0/778
WEBS 5-10=-86/547, 6-10=-276/170, 5-12=-86/546, 4-12=-276/170

NOTES-

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-16; Vult=140mph (3-second gust) Vasd=111mph; 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, with BCDL = 10.0psf.
- 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=106, 8=106.
- 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.



February 28,2025

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ENGINEERING BY
TRENCO
A MiTek Affiliate

818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Wellons Realty/2 Forest Hills
28530	T3	Common	6	1	171728084
Job Reference (optional)					

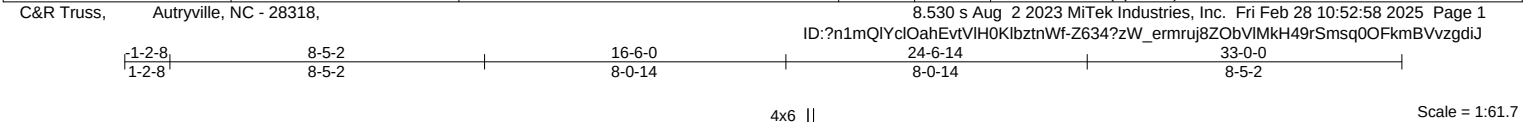


Plate Offsets (X,Y)--	[2:0-2-0,0-1-10], [8:0-2-0,0-1-10]
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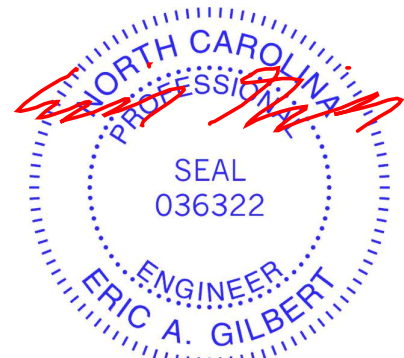
LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL	1.15	TC 0.68	Vert(LL)	-0.23 9-12	>999	360	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.48	Vert(CT)	-0.33 9-12	>999	240		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.37	Horz(CT)	0.05 8	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-AS	Wind(LL)	0.10 9-18	>999	240	Weight: 184 lb	FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x4 SP No.2	TOP CHORD Structural wood sheathing directly applied.
BOT CHORD 2x6 SP No.1	BOT CHORD Rigid ceiling directly applied.
WEBS 2x4 SP No.3	

REACTIONS. (size) 2=0-3-8, 8=Mechanical
Max Horz 2=222(LC 7)
Max Uplift 2=-144(LC 8), 8=-101(LC 8)
Max Grav 2=1432(LC 13), 8=1365(LC 14)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-2225/213, 3-5=-2037/265, 5-7=-2043/269, 7-8=-2230/217
BOT CHORD 2-12=-87/1987, 9-12=0/1286, 8-9=-91/1835
WEBS 5-9=-64/975, 7-9=-472/207, 5-12=-58/967, 3-12=-470/205

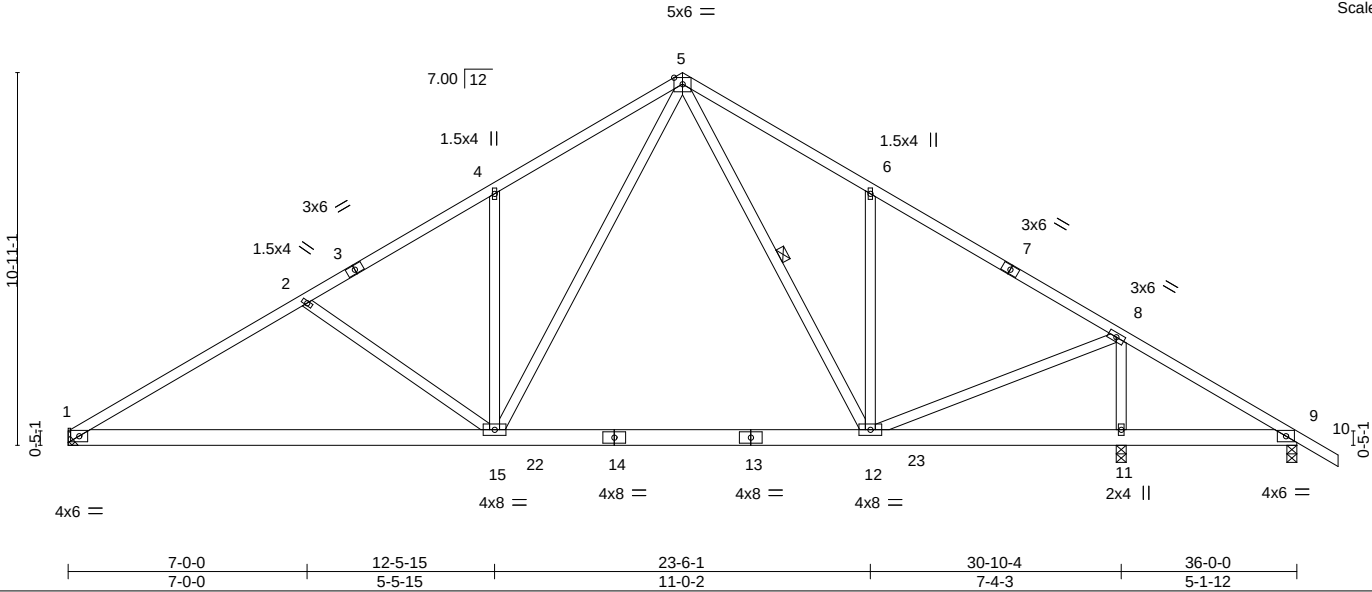
- NOTES-**
- Unbalanced roof live loads have been considered for this design.
 - Wind: ASCE 7-16; Vult=140mph (3-second gust) Vasd=111mph; TCDL=6.0psf; BCDL=6.0psf; h=20ft; B=45ft; L=33ft; eave=4ft; Cat. II; Exp B; Enclosed; MWFRS (directional); cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
 - 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, 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) except (jt=lb) 2=144, 8=101.
 - 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.
 - 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.



February 28,2025

Job	Truss	Truss Type	Qty	Ply	Wellons Realty\2 Forest Hills
28530	T4	COMMON	1	1	171728085
Job Reference (optional)					

C&R Truss, Autryville, NC - 28318, 8.530 s Aug 2 2023 MiTek Industries, Inc. Fri Feb 28 10:52:59 2025 Page 1
ID: ?n1mQIYclOahEvtVIH0KlbztWf-2JdSCJWcP9viVsilyJ0_uqxldFoYbELXUOV1Lzgdil
7-0-0 12-5-15 18-0-0 23-6-1 30-10-4 36-0-0 37-2-8
7-0-0 5-5-15 5-6-1 5-6-1 7-4-3 5-1-12 1-2-8
5x6 = Scale = 1:67.5



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 0.51	Vert(LL) -0.22 12-15 >999 360	MT20	244/190
TCDL 10.0	Lumber DOL 1.15	BC 0.51	Vert(CT) -0.34 15-18 >999 240		
BCLL 0.0 *	Rep Stress Incr YES	WB 0.55	Horz(CT) 0.02 11 n/a n/a		
BCDL 10.0	Code IRC2018/TPI2014	Matrix-AS	Wind(LL) 0.08 15-18 >999 240	Weight: 229 lb	FT = 20%

LUMBER-

TOP CHORD 2x4 SP No.2
BOT CHORD 2x6 SP No.1
WEBS 2x4 SP No.3

BRACING-

TOP CHORD Structural wood sheathing directly applied.
BOT CHORD Rigid ceiling directly applied.
WEBS 1 Row at midpt 5-12

REACTIONS.

(size) 1=Mechanical, 11=0-3-8, 9=0-3-8
Max Horz 1=-241(LC 6)
Max Uplift 1=-88(LC 8), 11=-155(LC 8), 9=-50(LC 21)
Max Grav 1=1232(LC 13), 11=1733(LC 14), 9=129(LC 20)

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

TOP CHORD 1-2=-1977/204, 2-4=-1664/174, 4-5=-1691/289, 5-6=-1233/266, 6-8=-1219/135, 8-9=-71/401
BOT CHORD 1-15=-60/1813, 12-15=0/974, 11-12=-291/125, 9-11=-291/125
WEBS 2-15=-383/157, 4-15=-336/163, 5-15=-124/1142, 5-12=-89/319, 6-12=-417/195, 8-12=-38/1382, 8-11=-1618/221

NOTES-

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-16; Vult=140mph (3-second gust) Vasd=111mph; 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) 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, with BCDL = 10.0psf.
- 5) Refer to girder(s) for truss to truss connections.
- 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 9 except (jt=lb) 11=155.
- 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.



February 28, 2025

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ENGINEERING BY
TRENCO
A MiTek Affiliate

818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Wellons Realty\2 Forest Hills
28530	T5	Common	5	1	171728086
Job Reference (optional)					

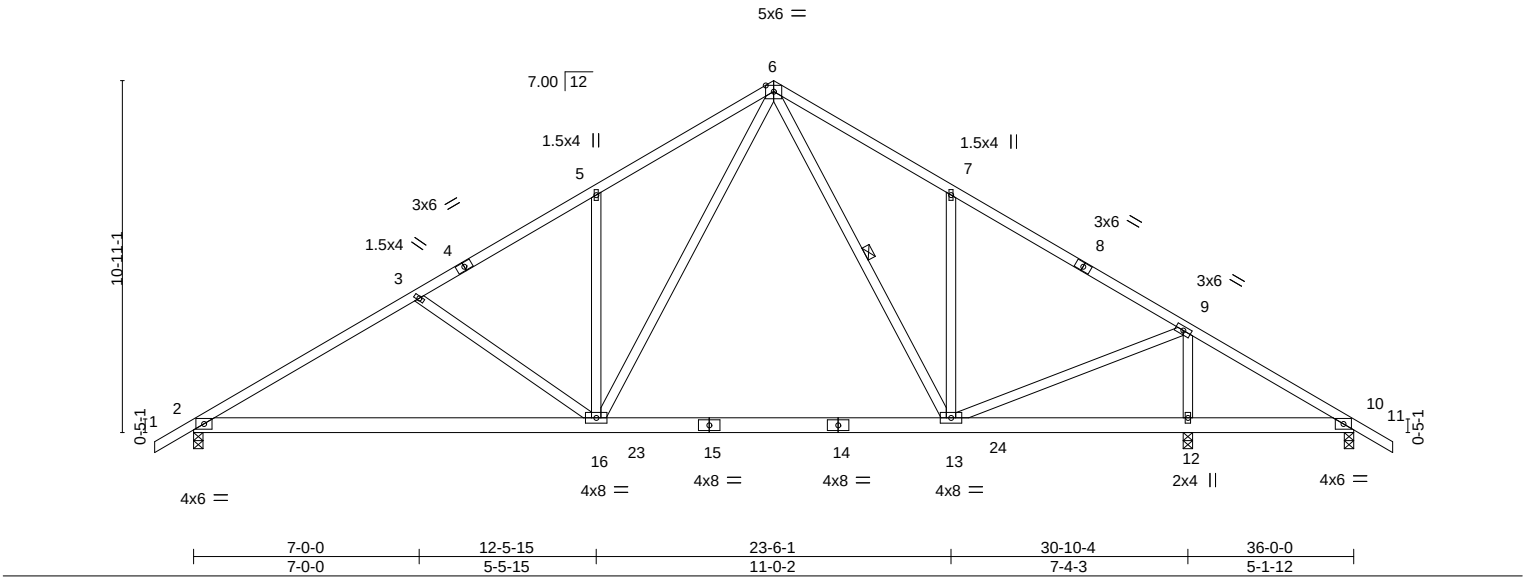
C&R Truss, Autryville, NC - 28318,

8.530 s Aug 2 2023 MiTek Industries, Inc. Fri Feb 28 10:52:59 2025 Page 1

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1-2-8 7-0-0 12-5-15 18-0-0 23-6-1 30-10-4 36-0-0 37-2-8
1-2-8 7-0-0 5-5-15 5-6-1 5-6-1 7-4-3 5-1-12 1-2-8

Scale = 1:71.5



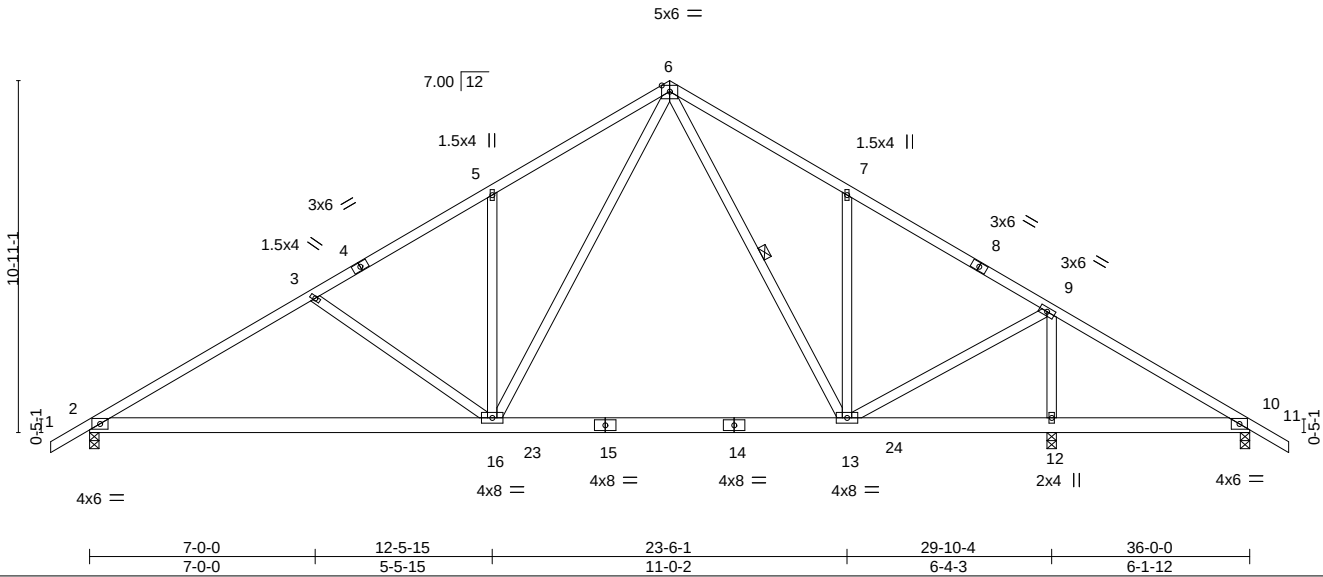
Job	Truss	Truss Type	Qty	Ply	Wellons Realty/2 Forest Hills
28530	T6	Common	2	1	171728087
					Job Reference (optional)

C&R Truss, Autryville, NC - 28318,

8.530 s Aug 2 2023 MiTek Industries, Inc. Fri Feb 28 10:53:00 2025 Page 1
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1-2-8	7-0-0	12-5-15	18-0-0	23-6-1	29-10-4	36-0-0	37-2-8
1-2-8	7-0-0	5-5-15	5-6-1	5-6-1	6-4-3	6-1-12	1-2-8

Scale = 1:71.5

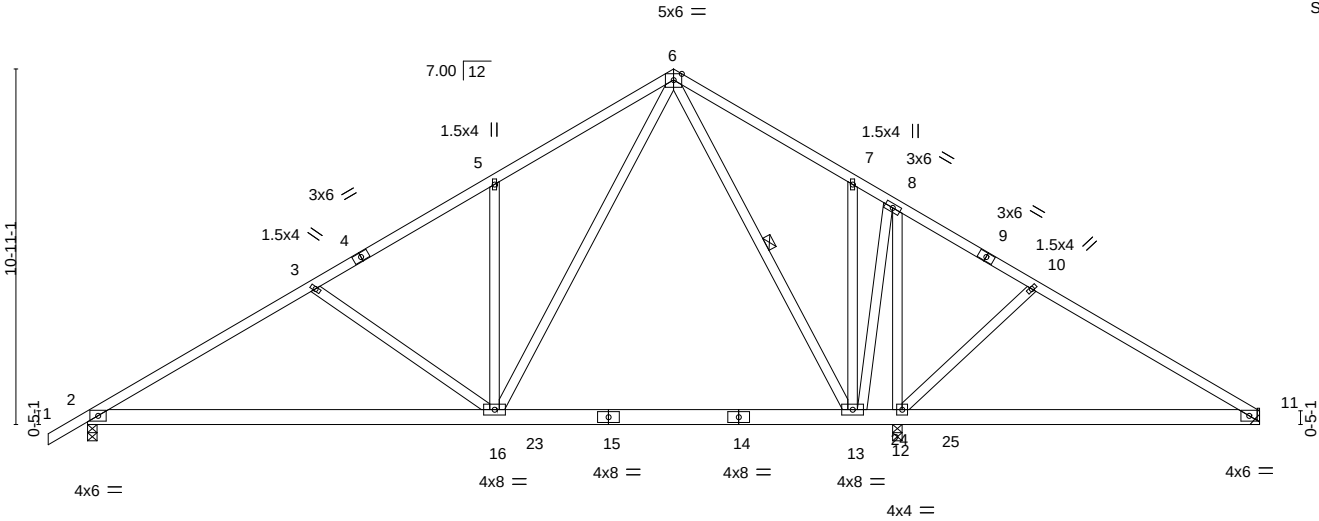


Job	Truss	Truss Type	Qty	Ply	Wellons Realty\2 Forest Hills
28530	T7	FAN	10	1	171728088
Job Reference (optional)					

C&R Truss, Autryville, NC - 28318, 8.530 s Aug 2 2023 MiTek Industries, Inc. Fri Feb 28 10:53:00 2025 Page 1
ID: ?n1mQIYclOahEvtVIH0KlbztWf-WVBrQfXFA51Z70lyW0XDR9NUdf8DKa_hi2FlanzgdiH

1-2-8	6-5-2	7-0-0	12-2-9	18-0-0	23-9-7	29-0-0	29-6-14	36-0-0
1-2-8	6-5-2	0-6-14	5-2-9	5-9-7	5-9-7	5-2-9	0-6-14	6-5-2

Scale = 1:70.8



		12-6-0		23-6-0		25-0-4		36-0-0			
		12-6-0		11-0-0		1-6-4		10-11-12			
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 0.43	Vert(LL)	-0.18 13-16	>999	360	MT20	244/190
	TCDL	10.0	Lumber DOL	1.15	BC 0.48	Vert(CT)	-0.32 16-19	>940	240		
	BCLL	0.0 *	Rep Stress Incr	YES	WB 0.98	Horz(CT)	0.02 11	n/a	n/a		
	BCDL	10.0	Code IRC2018/TPI2014		Matrix-AS	Wind(LL)	0.06 16-19	>999	240	Weight: 240 lb	FT = 20%

LUMBER-

TOP CHORD 2x4 SP No.2
BOT CHORD 2x6 SP No.1
WEBS 2x4 SP No.3

BRACING-

TOP CHORD Structural wood sheathing directly applied.
BOT CHORD Rigid ceiling directly applied.
WEBS 1 Row at midpt 6-13

REACTIONS.

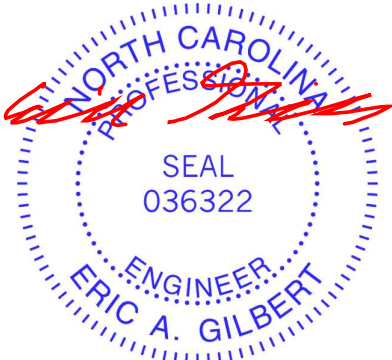
(size) 2=0-3-8, 12=0-3-8, 11=Mechanical
Max Horz 2=241(LC 7)
Max Uplift 2=-103(LC 8), 12=-164(LC 8)
Max Grav 2=1052(LC 13), 12=1647(LC 14), 11=376(LC 20)

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

TOP CHORD 2-3=-1482/144, 3-5=-1169/115, 5-6=-1195/229, 6-7=-276/147, 10-11=-308/28
BOT CHORD 2-16=-40/1378, 13-16=0/544
WEBS 5-16=-334/161, 7-13=-290/124, 3-16=-383/155, 6-16=-117/1128, 6-13=-720/33,
10-12=-349/143, 8-12=-1239/120, 8-13=-73/1067

NOTES-

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=140mph (3-second gust) Vasd=111mph; TC DL=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
- 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, 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) except (jt=lb) 2=103, 12=164.
- 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.
- 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.



February 28, 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.sbcacompoments.com)

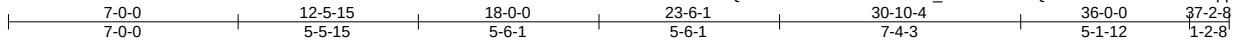
ENGINEERING BY
TRENCO
A MITEK Affiliate

818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Wellons Realty/2 Forest Hills
28530	T8	GABLE	1	1	171728089
Job Reference (optional)					

C&R Truss, Autryville, NC - 28318,

8.530 s Aug 2 2023 MiTek Industries, Inc. Fri Feb 28 10:53:01 2025 Page 1
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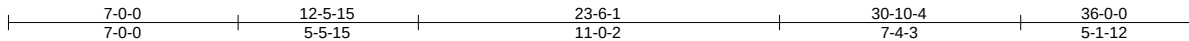
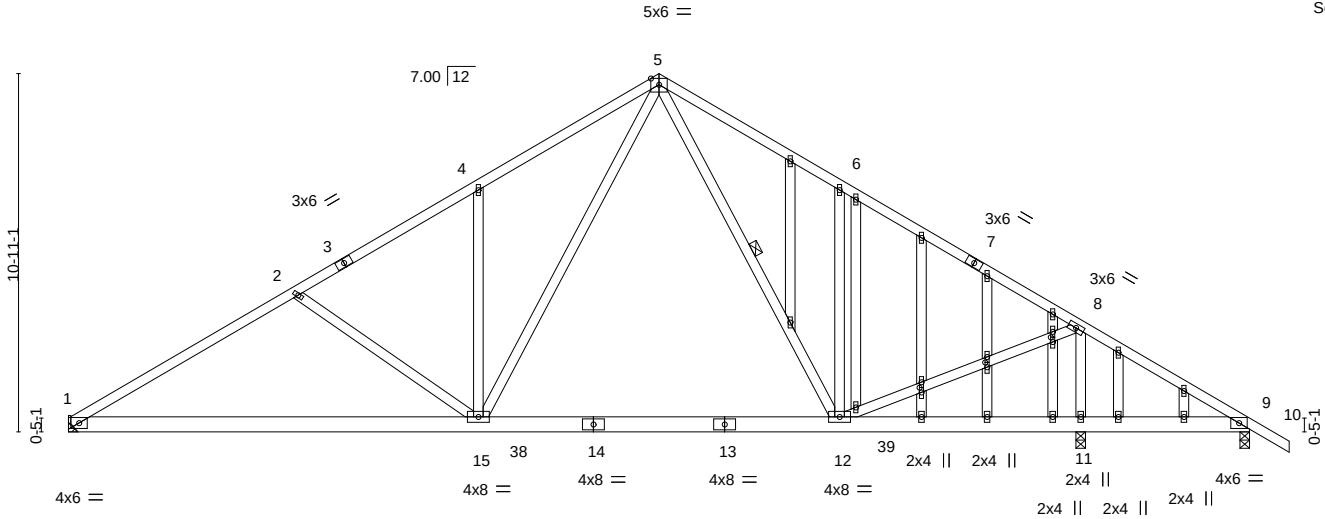


Plate Offsets (X,Y)-- [21:0-1-12,0-0-12], [24:0-1-12,0-0-12], [27:0-1-12,0-0-12]

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 0.51	Vert(LL)	-0.22 12-15	>999	360	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.51	Vert(CT)	-0.34 15-34	>999	240		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.55	Horz(CT)	0.02 11	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-AS	Wind(LL)	0.08 15-34	>999	240	Weight: 269 lb	FT = 20%

LUMBER-

TOP CHORD 2x4 SP No.2
BOT CHORD 2x6 SP No.1
WEBS 2x4 SP No.3
OTHERS 2x4 SP No.3

BRACING-

TOP CHORD Structural wood sheathing directly applied.
BOT CHORD Rigid ceiling directly applied.
WEBS 1 Row at midpt 5-12

REACTIONS.

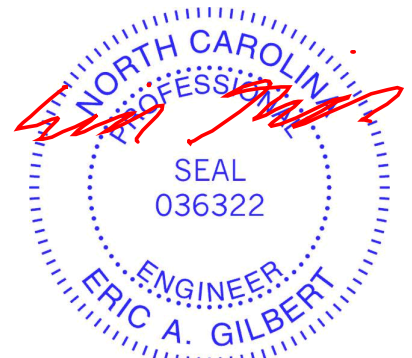
(size) 1=Mechanical, 11=0-3-8, 9=0-3-8
Max Horz 1=-241(LC 6)
Max Uplift 1=-88(LC 8), 11=-155(LC 8), 9=-50(LC 21)
Max Grav 1=1232(LC 13), 11=1733(LC 14), 9=129(LC 20)

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

TOP CHORD 1-2=-1977/204, 2-4=-1664/174, 4-5=-1691/289, 5-6=-1233/266, 6-8=-1219/135, 8-9=-71/401
BOT CHORD 1-15=-60/1813, 12-15=0/974, 11-12=-291/125, 9-11=-291/125
WEBS 2-15=-383/157, 4-15=-336/163, 5-15=-124/1142, 5-12=-89/319, 6-12=-417/195, 8-12=-38/1382, 8-11=-1618/221

NOTES-

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=140mph (3-second gust) Vasd=111mph; 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
- Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- All plates are 1.5x4 MT20 unless otherwise indicated.
- 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 with a clearance greater than 6-0-0 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) 1, 9 except (jt=lb) 11=155.
- 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.
- 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.



February 28, 2025

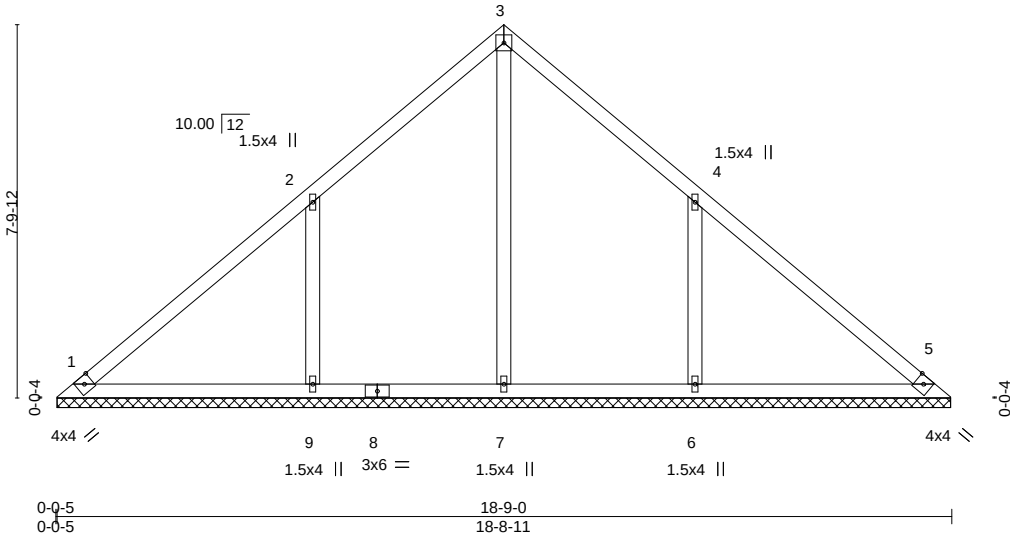
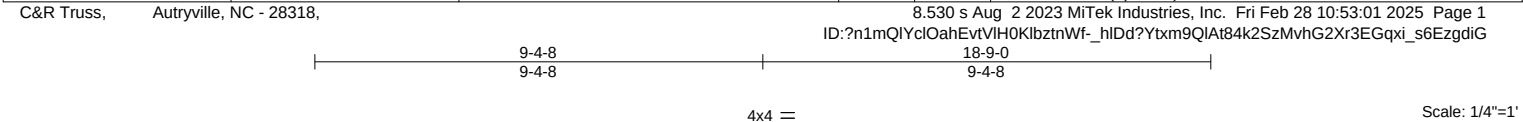
WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 BEFORE USE.

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	Truss	Truss Type	Qty	Ply	Wellons Realty/2 Forest Hills
28530	V1	Valley	1	1	171728090
C&R Truss, Autryville, NC - 28318,					Job Reference (optional)



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 0.31	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.20	Vert(CT)	n/a	-	n/a	999		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.14	Horz(CT)	0.00	5	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-S						Weight: 85 lb	FT = 20%

LUMBER-

TOP CHORD 2x4 SP No.2

BOT CHORD 2x4 SP No.2

OTHERS 2x4 SP No.3

BRACING-

TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins.

BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. All bearings 18-8-6.
 (lb) - Max Horz 1=179(LC 7)
 Max Uplift All uplift 100 lb or less at joint(s) except 9=-151(LC 8), 6=-151(LC 8)
 Max Grav All reactions 250 lb or less at joint(s) 1, 5 except 7=329(LC 13), 9=533(LC 13), 6=533(LC 14)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
WEBS 2-9=-359/203, 4-6=-358/203

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
 - Wind: ASCE 7-16; Vult=140mph (3-second gust) Vasd=111mph; 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
 - 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 with a clearance greater than 6-0-0 between the bottom chord and any other members, with BCDL = 10.0psf.
 - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 151 lb uplift at joint 9 and 151 lb uplift at joint 6.
 - This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

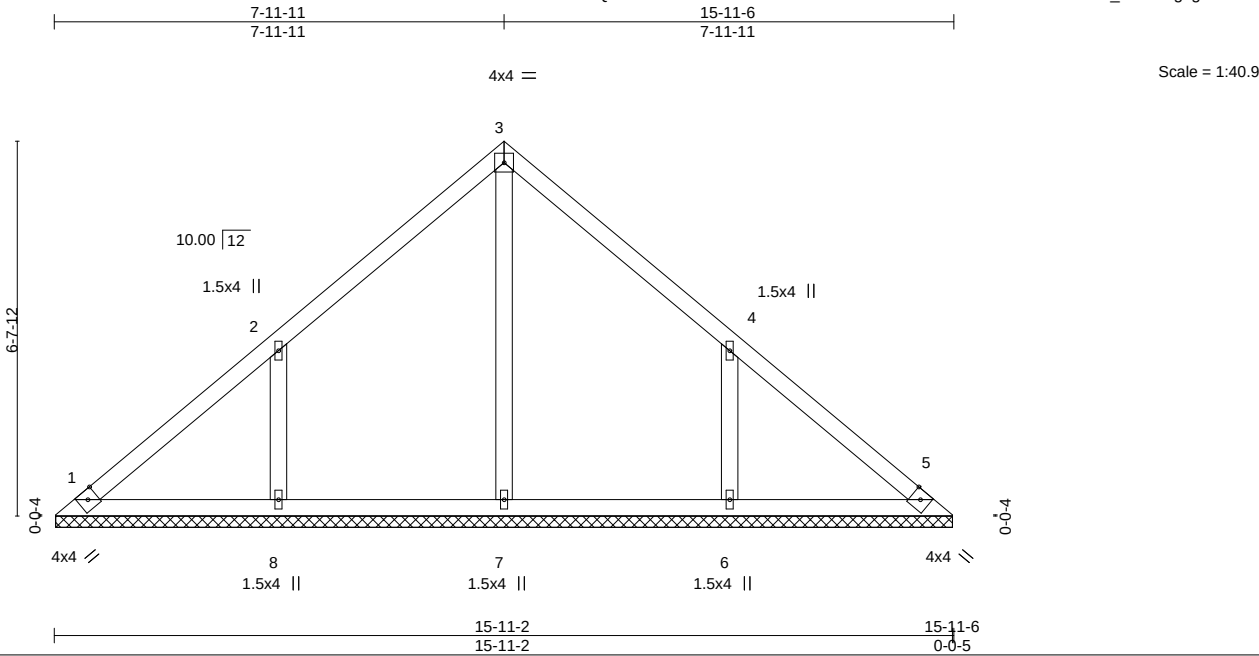


February 28,2025

Job	Truss	Truss Type	Qty	Ply	Wellons Realty\2 Forest Hills
28530	V2	Valley	1	1	171728091
					Job Reference (optional)

C&R Truss, Autryville, NC - 28318,

8.530 s Aug 2 2023 MiTek Industries, Inc. Fri Feb 28 10:53:02 2025 Page 1
ID: ?n1mQlYclOahEvtVIH0KlbztWf-StJbrKZVi4HHMKSKdRahWaSvOSvMoi1_AmKpegzgdIF



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 0.09	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.12	Vert(CT)	n/a	-	n/a	999		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.11	Horz(CT)	0.00	5	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-S						Weight: 70 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.

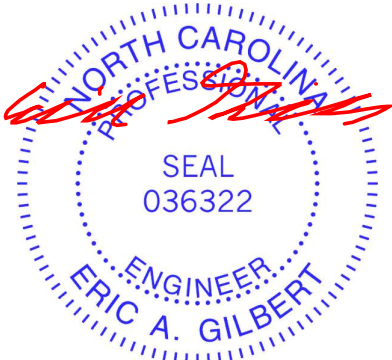
All bearings 15-10-13.
(lb) - Max Horz 1=-151(LC 6)
Max Uplift All uplift 100 lb or less at joint(s) except 8=-123(LC 8), 6=-123(LC 8)
Max Grav All reactions 250 lb or less at joint(s) 1, 5, 7 except 8=389(LC 13), 6=389(LC 14)

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

WEBS 2-8=-299/168, 4-6=-299/168

NOTES-

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=140mph (3-second gust) Vasd=111mph; TC DL=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
- 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 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 123 lb uplift at joint 8 and 123 lb uplift at joint 6.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



February 28,2025

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

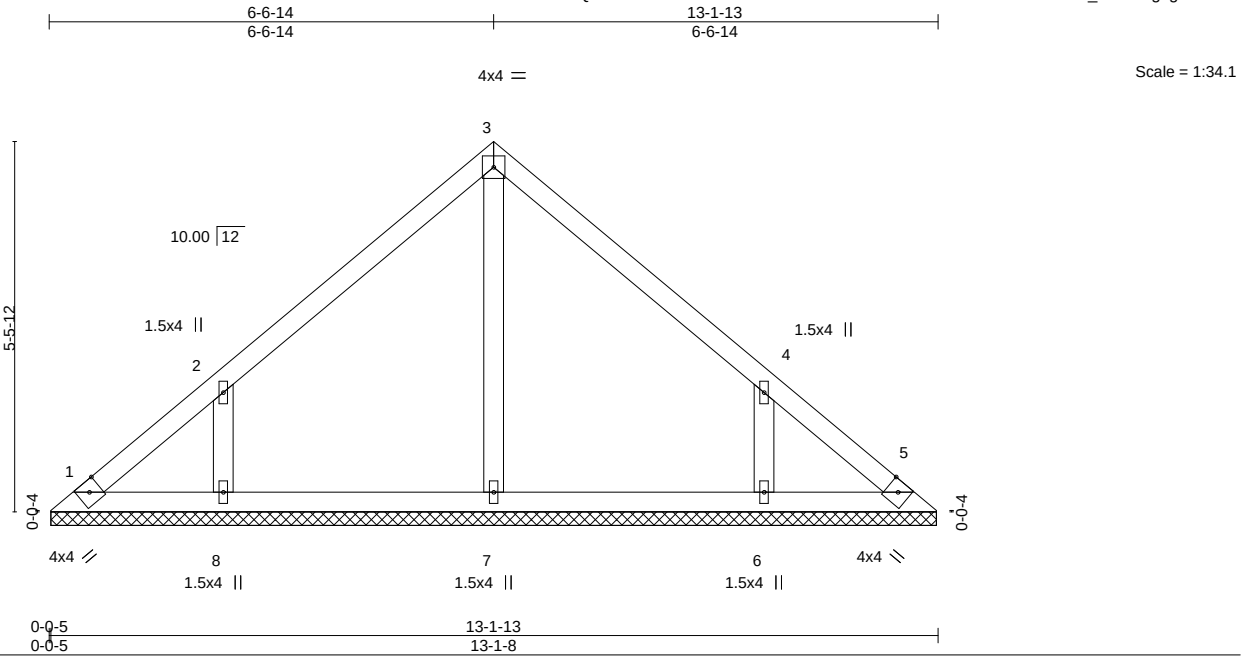
Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall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



818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Wellons Realty\2 Forest Hills
28530	V3	Valley	1	1	171728092
C&R Truss, Autryville, NC - 28318,					Job Reference (optional)

8.530 s Aug 2 2023 MiTek Industries, Inc. Fri Feb 28 10:53:02 2025 Page 1
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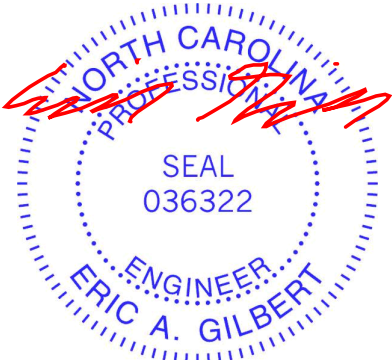
LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL	1.15	TC 0.08	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.12	Vert(CT)	n/a	-	n/a	999		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.08	Horz(CT)	0.00	5	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-S						Weight: 55 lb	FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x4 SP 2400F 2.0E	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 13-1-3.
(lb) - Max Horz 1=-123(LC 6)
Max Uplift All uplift 100 lb or less at joint(s) 1 except 8=-105(LC 8), 6=-105(LC 8)
Max Grav All reactions 250 lb or less at joint(s) 1, 5, 7 except 8=327(LC 13), 6=327(LC 14)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
WEBS 2-8=-259/146, 4-6=-259/146

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
 - Wind: ASCE 7-16; Vult=140mph (3-second gust) Vasd=111mph; TC DL=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
 - 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 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 except (jt=6) 8=105, 6=105.
 - This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

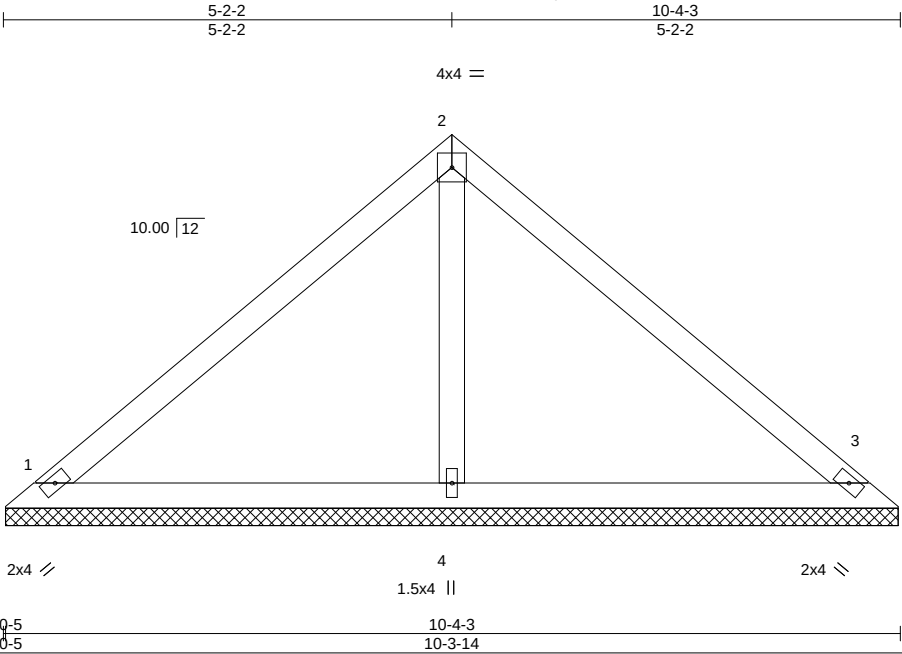


February 28, 2025

Job	Truss	Truss Type	Qty	Ply	Wellons Realty/2 Forest Hills
28530	V4	Valley	1	1	171728093
Job Reference (optional)					

C&R Truss,
Autryville, NC - 28318,

8.530 s Aug 2 2023
MiTek Industries, Inc.
Fri Feb 28 10:53:02 2025
Page 1
ID:?n1mQlYclOahEvtVIH0KlbztnWf-StJbrKZVi4HHMKSkdRahWaSuRStgoif_AMkPegzgdIF



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 0.15	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.23	Vert(CT)	n/a	-	n/a	999		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.07	Horz(CT)	0.00	3	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-S						Weight: 39 lb	FT = 20%

LUMBER-		BRACING-	
TOP CHORD	2x4 SP 2400F 2.0E	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=10-3-10, 3=10-3-10, 4=10-3-10
 Max Horz 1=-95(LC 6)
 Max Uplift 1=-37(LC 8), 3=-37(LC 8)
 Max Grav 1=211(LC 1), 3=211(LC 1), 4=342(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=140mph (3-second gust) Vasd=111mph; 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.

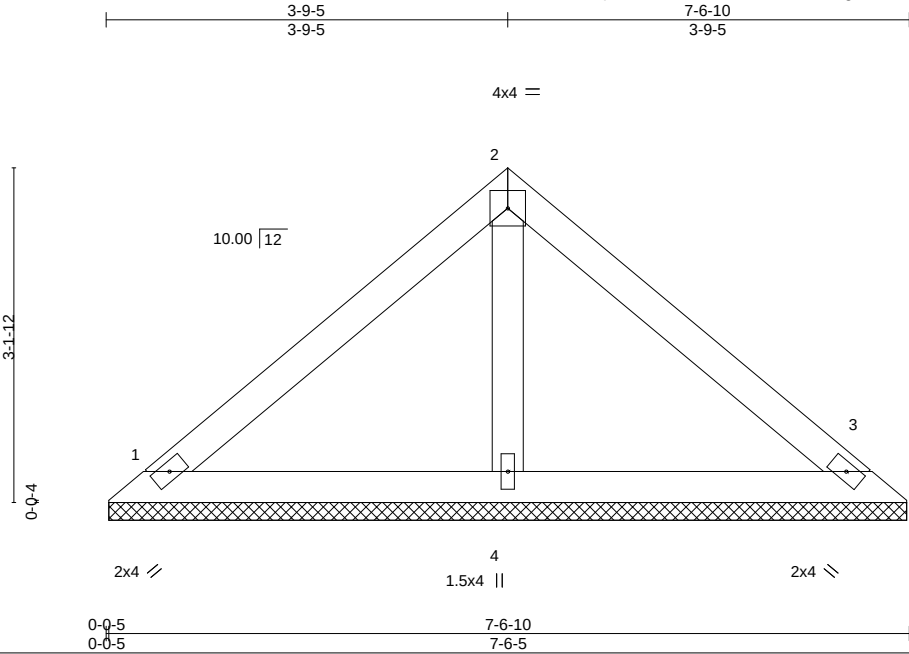


February 28,2025

Job	Truss	Truss Type	Qty	Ply	Wellons Realty\2 Forest Hills
28530	V5	Valley	1	1	171728094
					Job Reference (optional)

C&R Truss, Autryville, NC - 28318,

8.530 s Aug 2 2023 MiTek Industries, Inc. Fri Feb 28 10:53:03 2025 Page 1
ID:?n1mQlYclOahEvVtVIH0KlbznWf-w4tz2gZ7SNP8_U1XB85w3n?42sFcXAU7P0TyB6zgdIE



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 0.10	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.12	Vert(CT)	n/a	-	n/a	999		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.03	Horz(CT)	0.00	3	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-P						Weight: 28 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=7-6-0, 3=7-6-0, 4=7-6-0
Max Horz 1=-67(LC 6)
Max Uplift 1=-35(LC 8), 3=-35(LC 8)
Max Grav 1=160(LC 1), 3=160(LC 1), 4=220(LC 1)

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=140mph (3-second gust) Vasd=111mph; TC DL=6.0psf; BC DL=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
- 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 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, 3.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



February 28, 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)

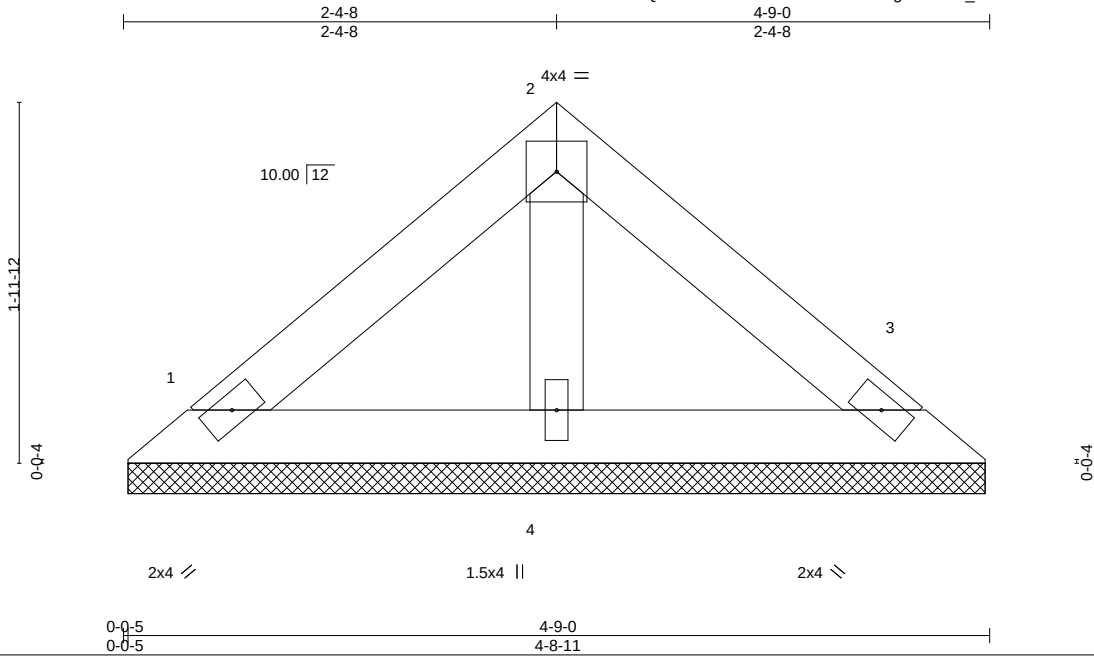
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TRENCO
A MiTek Affiliate

818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Wellons Realty\2 Forest Hills
28530	V6	Valley	1	1	171728095
					Job Reference (optional)

C&R Truss, Autryville, NC - 28318,

8.530 s Aug 2 2023 MiTek Industries, Inc. Fri Feb 28 10:53:03 2025 Page 1
ID:?n1mQlYclOahEvtVIH0KlbztWf-w4tz2gZ7SNP8_U1XB85w3n?57sGoXAk7P0TyB6zgdIE



Scale = 1:12.6

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 0.03	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.04	Vert(CT)	n/a	-	n/a	999		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.02	Horz(CT)	0.00	3	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-P						Weight: 17 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 4-9-0 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS.

(size) 1=4-8-6, 3=4-8-6, 4=4-8-6
Max Horz 1=-39(LC 6)
Max Uplift 1=-20(LC 8), 3=-20(LC 8)
Max Grav 1=93(LC 1), 3=93(LC 1), 4=129(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=140mph (3-second gust) Vasd=111mph; 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.



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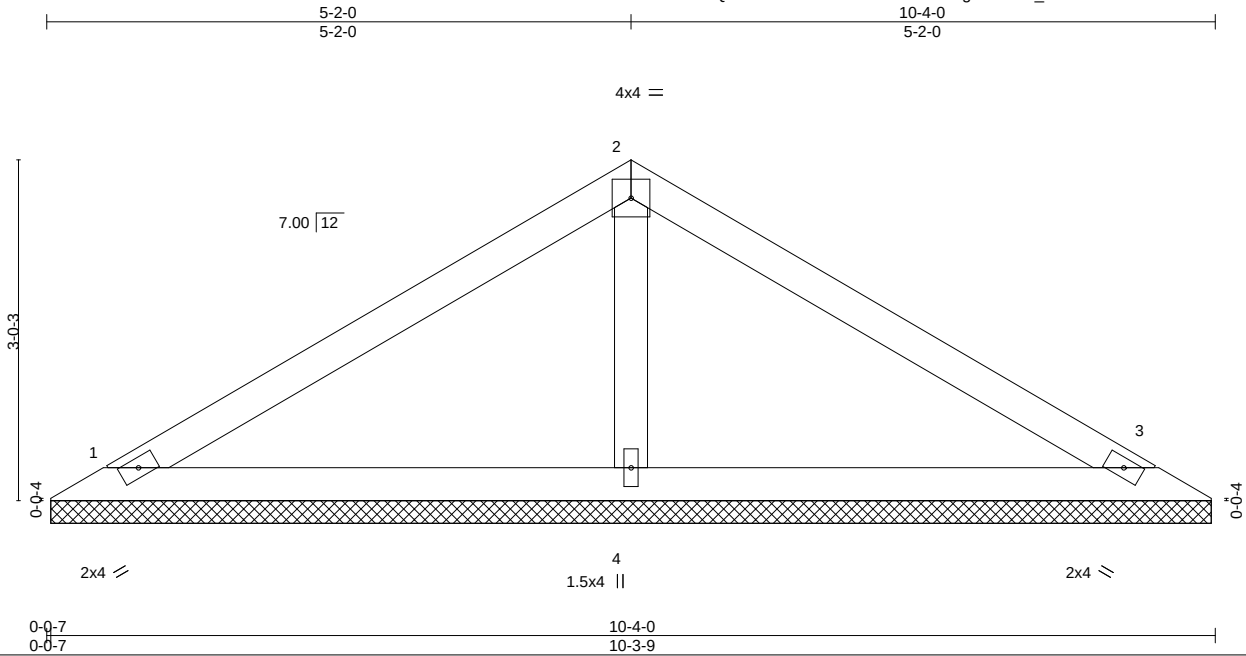
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818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Wellons Realty/2 Forest Hills
28530	V7	Valley	1	1	171728096
					Job Reference (optional)

C&R Truss, Autryville, NC - 28318,

8.530 s Aug 2 2023 MiTek Industries, Inc. Fri Feb 28 10:53:03 2025 Page 1
ID:~n1mQlYclOahEvtVIH0KlbztnWf-w4tz2gZ7SNP8_U1XB85w3n?3NsDAXA57P0TyB6zgdIE



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 0.14	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.21	Vert(CT)	n/a	-	n/a	999		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.06	Horz(CT)	0.00	3	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-S						Weight: 35 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=10-3-2, 3=10-3-2, 4=10-3-2
Max Horz 1=-59(LC 6)
Max Uplift 1=-28(LC 8), 3=-28(LC 8)
Max Grav 1=180(LC 1), 3=180(LC 1), 4=380(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=140mph (3-second gust) Vasd=111mph; 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.



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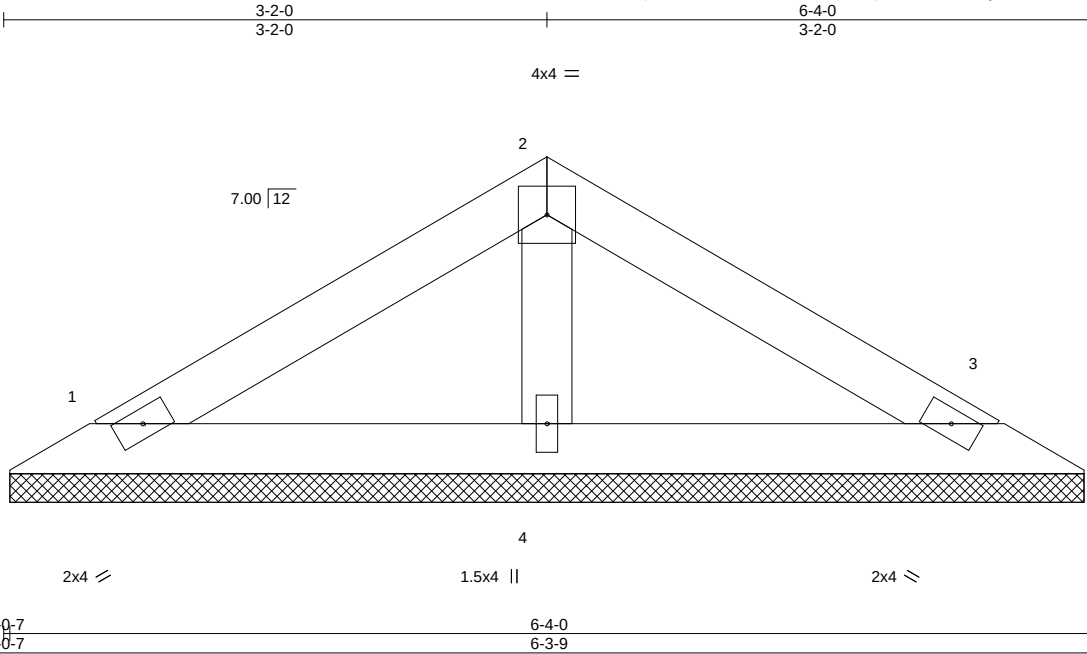
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Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Wellons Realty\2 Forest Hills
28530	V8	Valley	1	1	171728097
Job Reference (optional)					

C&R Truss, Autryville, NC - 28318,

8.530 s Aug 2 2023 MiTek Industries, Inc. Fri Feb 28 10:53:04 2025 Page 1
ID:?n1mQIYclOahEvtVIH0KlbztWf-OGQLF0alDhX?cecjlsc9b?XGSGbZGdqHdgDWjZzgdiD



Scale = 1:13.4

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 0.06	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.07	Vert(CT)	n/a	-	n/a	999		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.03	Horz(CT)	0.00	3	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-P						Weight: 20 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=6-3-2, 3=6-3-2, 4=6-3-2
Max Horz 1=33(LC 7)
Max Uplift 1=-21(LC 8), 3=-21(LC 8)
Max Grav 1=112(LC 1), 3=112(LC 1), 4=196(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=140mph (3-second gust) Vasd=111mph; TCCL=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.



February 28, 2025

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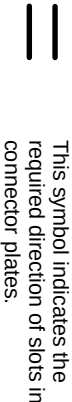
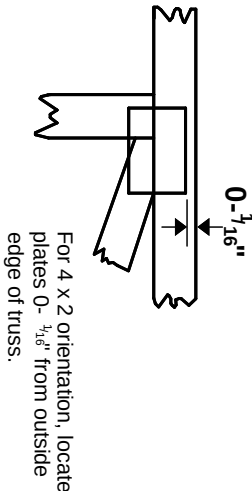
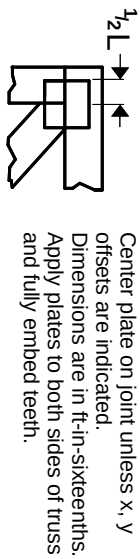
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Symbols

PLATE LOCATION AND ORIENTATION



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

PLATE SIZE

4 X 4

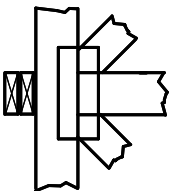
The first dimension is the plate width measured perpendicular to slots. Second dimension is the length parallel to slots.

LATERAL BRACING LOCATION



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

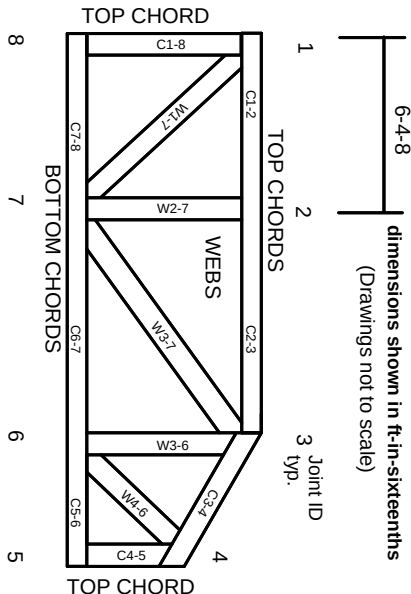
BEARING



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

Industry Standards:
ANSI/TPI 1: National Design Specification for Metal Plate Connected Wood Truss Construction.
DSB-22: Design Standard for Bracing.
BCSI: Building Component Safety Information, Guide to Good Practice for Handling, Installing, Restraining & Bracing of Metal Plate Connected Wood Trusses.

Numbering System



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

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

Product Code Approvals

ICC-ES Reports:
ESR-1988, ESR-2362, ESR-2685, ESR-3282
ESR-4722, ESL-1388

Design General Notes

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

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

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General Safety Notes

Failure to Follow Could Cause Property Damage or Personal Injury

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

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