

RE: J1122-5623  
 Wellco/Lot 125 Hidden Lakes/Harnett

Trenco  
 818 Soundside Rd  
 Edenton, NC 27932

**Site Information:**

Customer: Project Name: J1122-5623  
 Lot/Block: Model:  
 Address: Subdivision:  
 City: State:

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

Design Code: IRC2015/TPI2014 Design Program: MiTek 20/20 8.4  
 Wind Code: ASCE 7-10 Wind Speed: 130 mph  
 Roof Load: 40.0 psf Floor Load: N/A psf

This package includes 12 individual, dated Truss Design Drawings and 0 Additional Drawings.

No.	Seal#	Truss Name	Date
1	I54214359	A1	9/15/2022
2	I54214360	A2	9/15/2022
3	I54214361	B1	9/15/2022
4	I54214362	B1GE	9/15/2022
5	I54214363	B2	9/15/2022
6	I54214364	B2GE	9/15/2022
7	I54214365	B3	9/15/2022
8	I54214366	C1	9/15/2022
9	I54214367	C1GE	9/15/2022
10	I54214368	C2	9/15/2022
11	I54214369	C3	9/15/2022
12	I54214370	M1GE	9/15/2022

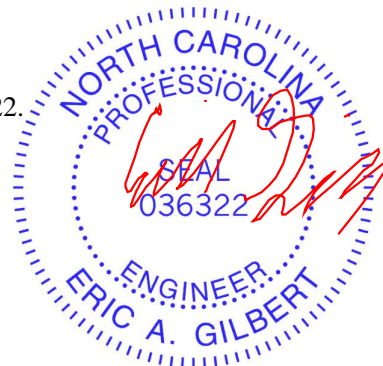
The truss drawing(s) referenced above have been prepared by Truss Engineering Co. under my direct supervision based on the parameters provided by Comtech, Inc - Fayetteville.

Truss Design Engineer's Name: Gilbert, Eric

My license renewal date for the state of North Carolina is December 31, 2022.

North Carolina COA: C-0844

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



September 15, 2022

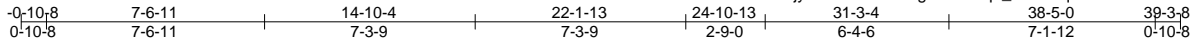


Job J1122-5623	Truss A2	Truss Type ROOF SPECIAL	Qty 5	Ply 1	Wellco/Lot 125 Hidden Lakes/Harnett Job Reference (optional)	154214360
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Comtech, Inc. Fayetteville, NC - 28314,

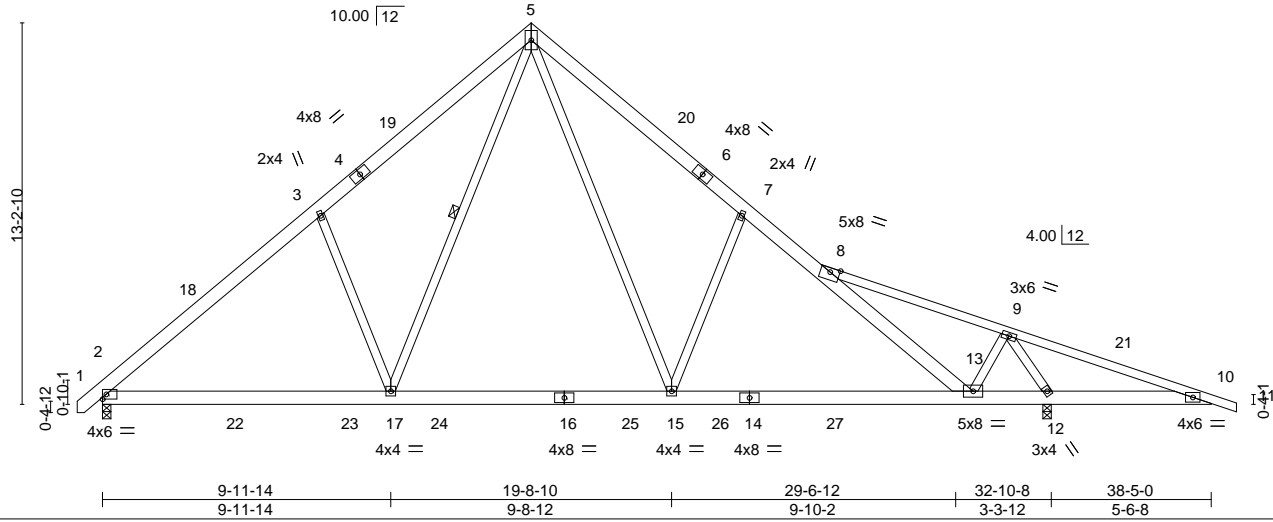
8.430 s Aug 16 2021 MiTek Industries, Inc. Thu Sep 15 07:07:41 2022 Page 1

ID:Yb7beGiAPPG119hcw?SQQjyfOh?-VVWF1HgL6BWKq9\_s35trDqsY1JQRdQY0in26U0ydSim



5x8 ||

Scale = 1:79.8



<b>LOADING</b> (psf)	<b>SPACING-</b>	2-0-0	<b>CSI.</b>	<b>DEFL.</b>	in (loc)	l/defl	L/d	<b>PLATES</b>	<b>GRIP</b>
TCLL 20.0	Plate Grip DOL	1.15	TC 0.93	Vert(LL)	-0.17 13-15	>999	360	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.54	Vert(CT)	-0.32 13-15	>999	240		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.66	Horz(CT)	0.04 12	n/a	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-S	Wind(LL)	0.08 13-15	>999	240	Weight: 273 lb	FT = 20%

<b>LUMBER-</b>	<b>BRACING-</b>
TOP CHORD 2x6 SP No.1 *Except* 8-11: 2x4 SP No.1	TOP CHORD Structural wood sheathing directly applied or 4-8-11 oc purlins.
BOT CHORD 2x6 SP No.1	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing, Except: 6-0-0 oc bracing: 10-12.
WEBS 2x4 SP No.2	WEBS 1 Row at midpt 5-17

**REACTIONS.** (size) 2=0-3-8, 12=0-3-8  
 Max Horz 2=319(LC 10)  
 Max Uplift 2=66(LC 12), 12=179(LC 9)  
 Max Grav 2=1568(LC 19), 12=1911(LC 2)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-3=-1916/318, 3-5=-1835/487, 5-7=-2016/449, 7-8=-1899/289, 8-13=-960/457,  
 8-9=-1199/67, 9-10=-712/841  
 BOT CHORD 2-17=-105/1582, 15-17=0/1086, 13-15=-60/1726, 12-13=-7/703, 10-12=-732/746  
 WEBS 9-13=-135/958, 3-17=-523/346, 5-17=-223/961, 5-15=-192/1341, 7-15=-805/322,  
 9-12=-2112/571

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-10; Vult=130mph Vasd=103mph; TCCL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2) -0-9-1 to 3-7-12, Interior(1) 3-7-12 to 14-10-4, Exterior(2) 14-10-4 to 19-3-1, Interior(1) 19-3-1 to 39-3-8 zone; cantilever right exposed ;C-C for reactions shown; 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 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
  - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 66 lb uplift at joint 2 and 179 lb uplift at joint 12.
  - This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
  - Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



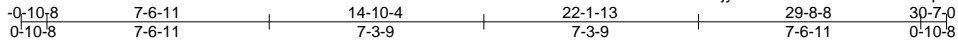
September 15, 2022

Job J1122-5623	Truss B1	Truss Type FINK	Qty 4	Ply 1	Wellco/Lot 125 Hidden Lakes/Harnett 154214361
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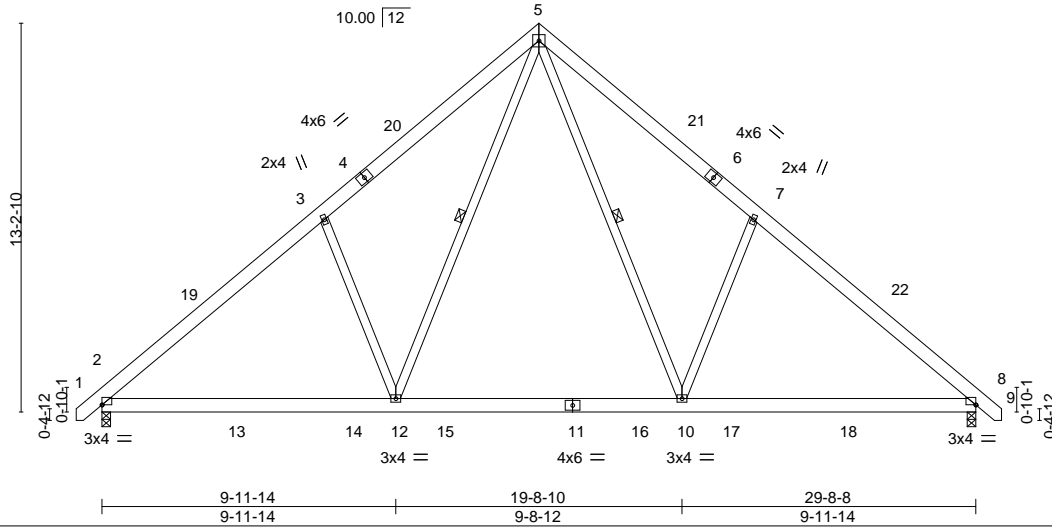
8.430 s Aug 16 2021 MiTek Industries, Inc. Thu Sep 15 07:07:42 2022 Page 1

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5x5 =

Scale = 1:78.3



<b>LOADING</b> (psf)	<b>SPACING-</b>	2-0-0	<b>CSI.</b>	<b>DEFL.</b>	in (loc)	l/defl	L/d	<b>PLATES</b>	<b>GRIP</b>
TCLL 20.0	Plate Grip DOL	1.15	TC 0.24	Vert(LL)	-0.11 10-12	>999	360	MT20	244/190
BCDL 10.0	Lumber DOL	1.15	BC 0.47	Vert(CT)	-0.16 8-10	>999	240		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.43	Horz(CT)	0.03 8	n/a	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-S	Wind(LL)	0.04 2-12	>999	240		
								Weight: 225 lb	FT = 20%

<b>LUMBER-</b>	<b>BRACING-</b>
TOP CHORD 2x6 SP No.1	TOP CHORD Structural wood sheathing directly applied or 5-8-8 oc purlins.
BOT CHORD 2x6 SP No.1	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 2x4 SP No.2	WEBS 1 Row at midpt 5-12, 5-10

**REACTIONS.** (size) 2=0-3-8, 8=0-3-8  
 Max Horz 2=312(LC 11)  
 Max Uplift 2=62(LC 12), 8=62(LC 13)  
 Max Grav 2=1454(LC 19), 8=1454(LC 20)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-3=-1764/326, 3-5=-1663/496, 5-7=-1664/496, 7-8=-1764/326  
 BOT CHORD 2-12=-101/1448, 10-12=0/951, 8-10=-87/1286  
 WEBS 3-12=-523/348, 5-12=-223/965, 5-10=-223/965, 7-10=-523/348

**NOTES-**

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-10; Vult=130mph Vasd=103mph; TC DL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2) -0-9-1 to 3-7-12, Interior(1) 3-7-12 to 14-10-4, Exterior(2) 14-10-4 to 19-3-1, Interior(1) 19-3-1 to 30-5-9 zone; C-C for members and forces & MWFRS for reactions shown; 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 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 62 lb uplift at joint 2 and 62 lb uplift at joint 8.
- 6) This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



September 15, 2022

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

Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see

**ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component**

**Safety Information** available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



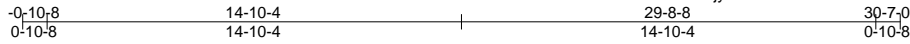
818 Soundside Road  
 Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Wellco/Lot 125 Hidden Lakes/Harnett	154214362
J1122-5623	B1GE	GABLE	1	1	Job Reference (optional)	

Comtech, Inc. Fayetteville, NC - 28314,

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5x5 =

Scale = 1:82.6

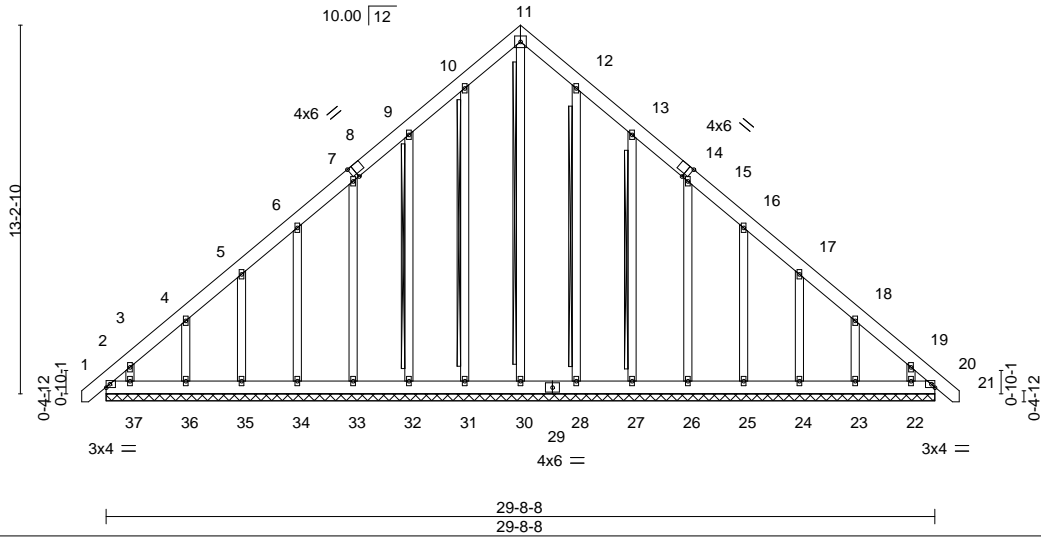


Plate Offsets (X,Y)--	[8:0-2-0,Edge], [14:0-2-0,Edge]
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<b>LOADING</b> (psf)	<b>SPACING-</b>	2-0-0	<b>CSI.</b>	<b>DEFL.</b>	in	(loc)	l/defl	L/d	<b>PLATES</b>	<b>GRIP</b>
TCLL 20.0	Plate Grip DOL	1.15	TC 0.06	Vert(LL)	0.00	20	n/r	120	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.04	Vert(CT)	0.00	20	n/r	120		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.22	Horz(CT)	0.01	20	n/a	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-S							
									Weight: 301 lb	FT = 20%

<b>LUMBER-</b>	<b>BRACING-</b>	
TOP CHORD 2x6 SP No.1	TOP CHORD	Structural wood sheathing directly applied or 6-0-0 oc purlins.
BOT CHORD 2x6 SP No.1	BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing.
OTHERS 2x4 SP No.2	WEBS	T-Brace: 2x4 SPF No.2 - 11-30, 10-31, 9-32, 12-28, 13-27
		Fasten (2X) T and I braces to narrow edge of web with 10d (0.131"x3") nails, 6in o.c., with 3in minimum end distance. Brace must cover 90% of web length.

**REACTIONS.** All bearings 29-8-8.  
 (lb) - Max Horz 2=390(LC 11)  
 Max Uplift All uplift 100 lb or less at joint(s) 31, 28 except 2=222(LC 10), 20=130(LC 11), 32=126(LC 12), 33=112(LC 12), 34=110(LC 12), 35=109(LC 12), 36=121(LC 12), 37=204(LC 12), 27=130(LC 13), 26=112(LC 13), 25=110(LC 13), 24=109(LC 13), 23=120(LC 13), 22=187(LC 13)  
 Max Grav All reactions 250 lb or less at joint(s) 31, 32, 33, 34, 35, 36, 37, 28, 27, 26, 25, 24, 23, 22 except 2=402(LC 12), 20=340(LC 13), 30=270(LC 13)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-3=-554/341, 3-4=-409/278, 4-5=-301/236, 9-10=-224/264, 10-11=-267/296, 11-12=-267/296, 18-19=-341/221, 19-20=-476/326  
 BOT CHORD 2-37=-230/351, 36-37=-230/351, 35-36=-230/351, 34-35=-230/351, 32-33=-230/351, 31-32=-230/351, 30-31=-230/351, 28-30=-230/351, 27-28=-230/351, 26-27=-230/351, 25-26=-230/351, 24-25=-230/351, 23-24=-230/351, 22-23=-230/351, 20-22=-230/351  
 WEBS 11-30=-253/172

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-10; Vult=130mph Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Corner(3) 0-9-1 to 3-7-12, Exterior(2) 3-7-12 to 14-10-4, Corner(3) 14-10-4 to 19-3-1, Exterior(2) 19-3-1 to 30-5-9 zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
  - All plates are 2x4 MT20 unless otherwise indicated.
  - Gable requires continuous bottom chord bearing.
  - Gable studs spaced at 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 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
  - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 31, 28 except (jt=lb) 2=222, 20=130, 32=126, 33=112, 34=110, 35=109, 36=121, 37=204, 27=130, 26=112, 25=110, 24=109, 23=120, 22=187.

Continued on page 2



September 15, 2022

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

**ENGINEERING BY**  
**TRENCO**  
 A MiTek Affiliate

818 Soundside Road  
 Edenton, NC 27932

Job J1122-5623	Truss B1GE	Truss Type GABLE	Qty 1	Ply 1	Wellco/Lot 125 Hidden Lakes/Harnett I54214362 Job Reference (optional)
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Comtech, Inc. Fayetteville, NC - 28314,

8.430 s Aug 16 2021 MiTek Industries, Inc. Thu Sep 15 07:07:44 2022 Page 2  
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**NOTES-**

- 10) This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 11) Warning: Additional permanent and stability bracing for truss system (not part of this component design) is always required.

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

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818 Soundside Road  
Edenton, NC 27932



Job J1122-5623	Truss B2	Truss Type FINK	Qty 8	Ply 1	Wellco/Lot 125 Hidden Lakes/Harnett Job Reference (optional)	154214363
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Comtech, Inc. Fayetteville, NC - 28314,

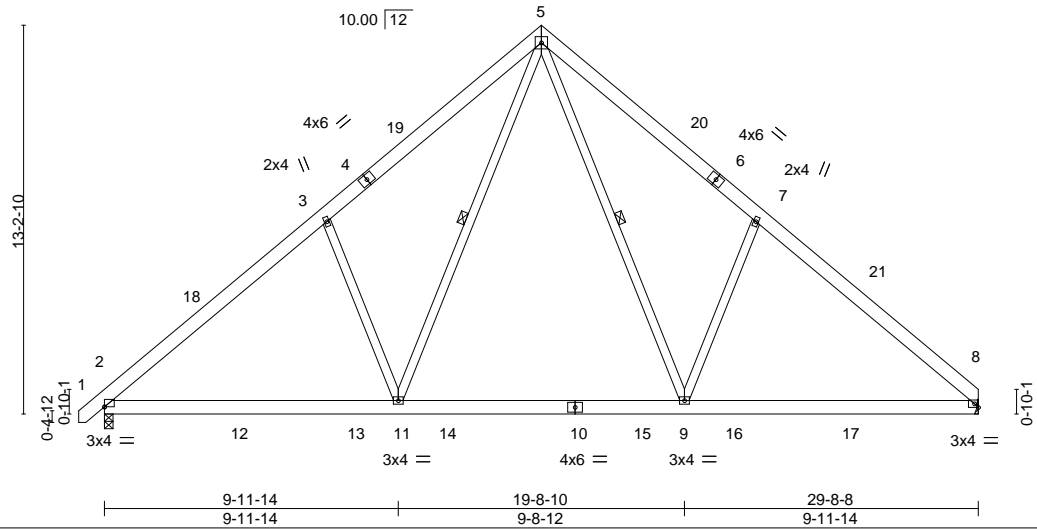
8.430 s Aug 16 2021 MiTek Industries, Inc. Thu Sep 15 07:07:44 2022 Page 1

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5x5 =

Scale = 1:78.3



<b>LOADING</b> (psf)	<b>SPACING-</b>	2-0-0	<b>CSI.</b>	<b>DEFL.</b>	in (loc)	l/defl	L/d	<b>PLATES</b>	<b>GRIP</b>
TCLL 20.0	Plate Grip DOL	1.15	TC 0.25	Vert(LL)	-0.11 9-11	>999	360	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.48	Vert(CT)	-0.17 8-9	>999	240		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.44	Horz(CT)	0.03 8	n/a	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-S	Wind(LL)	0.04 2-11	>999	240	Weight: 222 lb	FT = 20%

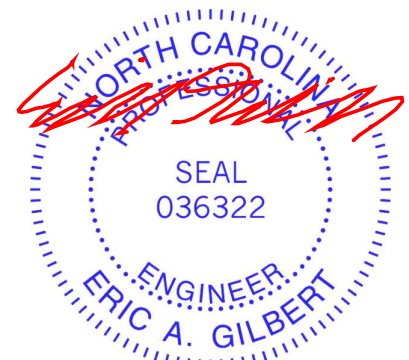
<b>LUMBER-</b>	<b>BRACING-</b>
TOP CHORD 2x6 SP No.1	TOP CHORD Structural wood sheathing directly applied or 5-7-11 oc purlins.
BOT CHORD 2x6 SP No.1	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 2x4 SP No.2	WEBS 1 Row at midpt 5-11, 5-9

**REACTIONS.** (size) 2=0-3-8, 8=Mechanical  
 Max Horz 2=309(LC 9)  
 Max Uplift 2=-62(LC 12), 8=-50(LC 13)  
 Max Grav 2=1458(LC 19), 8=1405(LC 20)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-3=-1771/328, 3-5=-1670/498, 5-7=-1680/508, 7-8=-1777/333  
 BOT CHORD 2-11=-106/1449, 9-11=0/952, 8-9=-101/1298  
 WEBS 3-11=-523/348, 5-11=-224/964, 5-9=-227/983, 7-9=-535/356

**NOTES-**

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-10; Vult=130mph Vasd=103mph; TCCL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2) -0-9-1 to 3-7-12, Interior(1) 3-7-12 to 14-10-4, Exterior(2) 14-10-4 to 19-3-1, Interior(1) 19-3-1 to 29-7-12 zone; C-C for members and forces & MWFRS for reactions shown; 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 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- 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) 2, 8.
- 7) This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



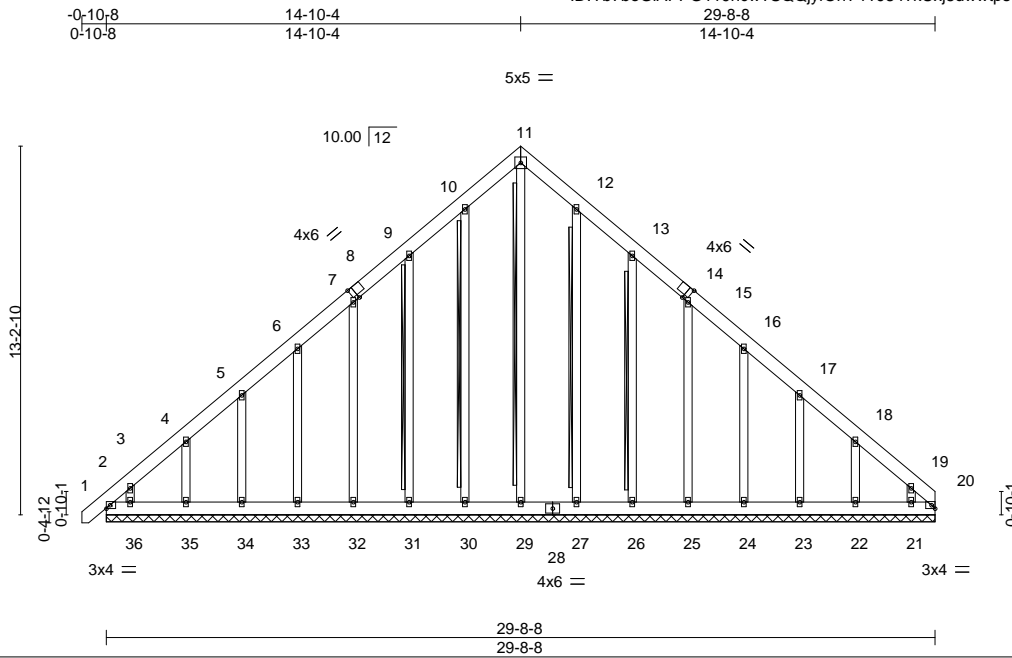
September 15, 2022

<p><b>WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE.</b>          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 <b>ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information</b> available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601</p>	 818 Soundside Road Edenton, NC 27932
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Job J1122-5623	Truss B2GE	Truss Type GABLE	Qty 1	Ply 1	Wellco/Lot 125 Hidden Lakes/Harnett Job Reference (optional)	154214364
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Comtech, Inc. Fayetteville, NC - 28314,

8.430 s Aug 16 2021 MiTek Industries, Inc. Thu Sep 15 07:07:46 2022 Page 1  
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Scale = 1:82.6

Plate Offsets (X, Y)--	[8:0-2-0,Edge], [14:0-2-0,Edge]				
<b>LOADING</b> (psf)	<b>SPACING-</b> 2-0-0	<b>CSI.</b>	<b>DEFL.</b> in (loc) l/defl L/d	<b>PLATES</b>	<b>GRIP</b>
TCLL 20.0	Plate Grip DOL 1.15	TC 0.06	Vert(LL) -0.00 1 n/r 120	MT20	244/190
TCDL 10.0	Lumber DOL 1.15	BC 0.04	Vert(CT) -0.00 1 n/r 120		
BCLL 0.0 *	Rep Stress Incr YES	WB 0.22	Horz(CT) 0.01 20 n/a n/a		
BCDL 10.0	Code IRC2015/TPI2014	Matrix-S		Weight: 299 lb	FT = 20%

**LUMBER-**  
TOP CHORD 2x6 SP No.1  
BOT CHORD 2x6 SP No.1  
OTHERS 2x4 SP No.2

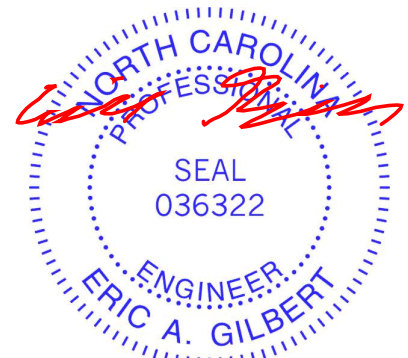
**BRACING-**  
TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.  
WEBS T-Brace: 2x4 SPF No.2 - 11-29, 10-30, 9-31, 12-27, 13-26  
Fasten (2X) T and I braces to narrow edge of web with 10d (0.131"x3") nails, 6in o.c., with 3in minimum end distance.  
Brace must cover 90% of web length.

**REACTIONS.** All bearings 29-8-8.  
(lb) - Max Horz 2=387(LC 9)  
Max Uplift All uplift 100 lb or less at joint(s) 30, 27 except 2=221(LC 10), 20=166(LC 11), 31=126(LC 12), 32=112(LC 12), 33=110(LC 12), 34=109(LC 12), 35=121(LC 12), 36=204(LC 12), 26=130(LC 13), 25=112(LC 13), 24=110(LC 13), 23=109(LC 13), 22=119(LC 13), 21=201(LC 13)  
Max Grav All reactions 250 lb or less at joint(s) 30, 31, 32, 33, 34, 35, 36, 27, 26, 25, 24, 23, 22, 21 except 2=403(LC 12), 20=377(LC 13), 29=266(LC 13)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
TOP CHORD 2-3=-556/339, 3-4=-411/277, 4-5=-302/234, 9-10=-222/260, 10-11=-265/291, 11-12=-265/291, 18-19=-344/219, 19-20=-489/325  
BOT CHORD 2-36=-222/341, 35-36=-222/341, 34-35=-222/341, 33-34=-222/341, 32-33=-222/341, 31-32=-222/341, 30-31=-222/341, 29-30=-222/341, 27-29=-222/341, 26-27=-222/341, 25-26=-222/341, 24-25=-222/341, 23-24=-222/341, 22-23=-222/341, 21-22=-222/341, 20-21=-222/340

**NOTES-**

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-10; Vult=130mph Vasd=103mph; TC DL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Corner(3) 0-9-1 to 3-7-12, Exterior(2) 3-7-12 to 14-10-4, Corner(3) 14-10-4 to 19-3-1, Exterior(2) 19-3-1 to 29-8-8 zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- All plates are 2x4 MT20 unless otherwise indicated.
- Gable requires continuous bottom chord bearing.
- Gable studs spaced at 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 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 30, 27 except (jt=lb) 2=221, 20=166, 31=126, 32=112, 33=110, 34=109, 35=121, 36=204, 26=130, 25=112, 24=110, 23=109, 22=119, 21=201.
- This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and conform to standard ANSI/TPI 1.



September 15, 2022

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



818 Soundside Road  
Edenton, NC 27932



Job	Truss	Truss Type	Qty	Ply	Wellco/Lot 125 Hidden Lakes/Harnett	I54214364
J1122-5623	B2GE	GABLE	1	1	Job Reference (optional)	

Comtech, Inc. Fayetteville, NC - 28314,

8.430 s Aug 16 2021 MiTek Industries, Inc. Thu Sep 15 07:07:46 2022 Page 2  
 ID:Yb7beGiAPPG119hcw?SQQjyfOh?-rTJ84?kUxj8dwwtpseS0wuZcPKFZloflr3lt9DydSlh

**NOTES-**

11) Warning: Additional permanent and stability bracing for truss system (not part of this component design) is always required.

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

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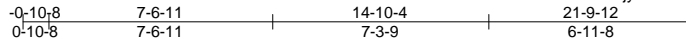
818 Soundside Road  
 Edenton, NC 27932

Job J1122-5623	Truss B3	Truss Type COMMON	Qty 2	Ply 1	Wellco/Lot 125 Hidden Lakes/Harnett Job Reference (optional)	154214365
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Comtech, Inc. Fayetteville, NC - 28314,

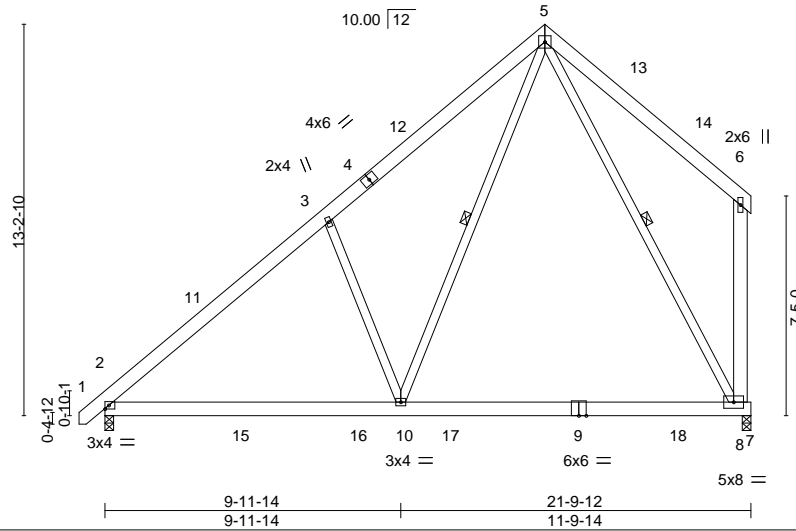
8.430 s Aug 16 2021 MiTek Industries, Inc. Thu Sep 15 07:07:47 2022 Page 1

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5x5 =

Scale = 1:77.8



<b>LOADING</b> (psf)	<b>SPACING-</b>	2-0-0	<b>CSI.</b>	<b>DEFL.</b>	in (loc)	l/defl	L/d	<b>PLATES</b>	<b>GRIP</b>
TCLL 20.0	Plate Grip DOL	1.15	TC 0.38	Vert(LL)	-0.27 8-10	>963	360	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.60	Vert(CT)	-0.36 8-10	>714	240		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.71	Horz(CT)	0.01 8	n/a	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-S	Wind(LL)	0.03 2-10	>999	240		
								Weight: 187 lb	FT = 20%

**LUMBER-**

TOP CHORD 2x6 SP No.1  
 BOT CHORD 2x6 SP No.1  
 WEBS 2x4 SP No.2 \*Except\*  
 6-8: 2x6 SP No.1

**BRACING-**

TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.  
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.  
 WEBS 1 Row at midpt 5-10, 5-8

**REACTIONS.**

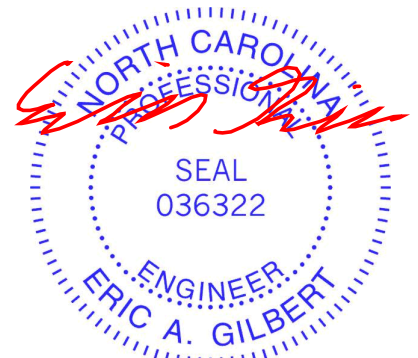
(size) 8=0-3-8, 2=0-3-8  
 Max Horz 2=308(LC 12)  
 Max Uplift 8=-90(LC 12), 2=-22(LC 12)  
 Max Grav 8=1128(LC 19), 2=1061(LC 19)

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

TOP CHORD 2-3=-1193/169, 3-5=-1108/341, 6-8=-290/193  
 BOT CHORD 2-10=-252/973, 8-10=-54/424  
 WEBS 3-10=-539/351, 5-10=-200/1092, 5-8=-792/110

**NOTES-**

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-10; Vult=130mph Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2) -0-9-1 to 3-7-12, Interior(1) 3-7-12 to 14-10-4, Exterior(2) 14-10-4 to 19-3-1, Interior(1) 19-3-1 to 21-5-8 zone;C-C for members and forces & MWFRS for reactions shown; 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 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 8, 2.
- This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



September 15, 2022

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

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**ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component**

**Safety Information** available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



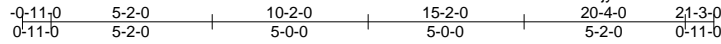
818 Soundside Road  
 Edenton, NC 27932

Job J1122-5623	Truss C1	Truss Type ROOF TRUSS	Qty 6	Ply 1	Wellco/Lot 125 Hidden Lakes/Harnett Job Reference (optional)	I54214366
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Comtech, Inc. Fayetteville, NC - 28314,

8.430 s Aug 16 2021 MiTek Industries, Inc. Thu Sep 15 07:07:48 2022 Page 1

ID:Yb7beGiAPPg119hcw?SQQiyfOh?-orRuVhmKTKOKAD1Cz3VU?Jft58plmj2JNE\_D6ydsIf



6x8 =

Scale = 1:73.9

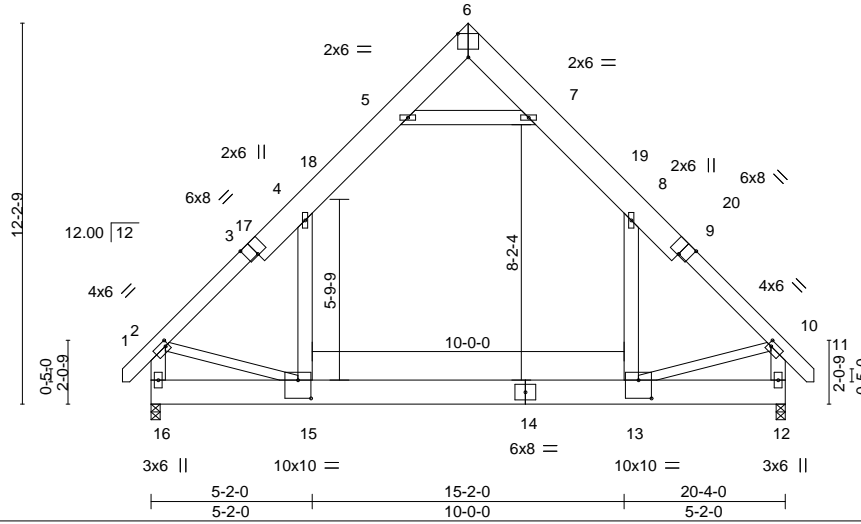


Plate Offsets (X,Y)-- [2:0-1-4,0-2-0], [3:0-4-0,Edge], [6:0-4-0,Edge], [9:0-4-0,Edge], [10:0-1-4,0-2-0], [13:0-5-0,0-7-0], [15:0-5-0,0-7-0]

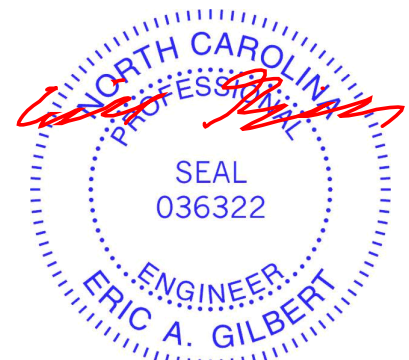
<b>LOADING</b> (psf)	<b>SPACING-</b>	2-0-0	<b>CSI.</b>	<b>DEFL.</b>	in (loc)	l/defl	L/d	<b>PLATES</b>	<b>GRIP</b>
TCLL 20.0	Plate Grip DOL	1.15	TC 0.36	Vert(LL)	-0.10 13-15	>999	360	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.50	Vert(CT)	-0.16 13-15	>999	240		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.18	Horz(CT)	0.01 12	n/a	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-S	Wind(LL)	0.03 15	>999	240	Weight: 240 lb	FT = 20%

<b>LUMBER-</b>	<b>BRACING-</b>
TOP CHORD 2x6 SP No.1 *Except* 3-6,6-9: 2x10 SP No.1	TOP CHORD Structural wood sheathing directly applied or 5-11-14 oc purlins, except end verticals.
BOT CHORD 2x10 SP No.1	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 2x6 SP No.1 *Except* 2-15,10-13: 2x4 SP No.2	

**REACTIONS.** (size) 16=0-3-8, 12=0-3-8  
 Max Horz 16=312(LC 10)  
 Max Grav 16=1352(LC 21), 12=1352(LC 20)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-4=-1476/0, 4-5=-916/151, 5-6=-22/326, 6-7=-22/326, 7-8=-916/151, 8-10=-1475/0,  
 2-16=-1461/38, 10-12=-1462/38  
 BOT CHORD 15-16=-296/437, 13-15=0/956  
 WEBS 8-13=0/667, 4-15=0/667, 2-15=0/844, 10-13=0/849, 5-7=-1269/232

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-10; Vult=130mph Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2) -0-9-2 to 3-7-11, Interior(1) 3-7-11 to 10-2-8, Exterior(2) 10-2-8 to 14-7-5, Interior(1) 14-7-5 to 21-2-2 zone; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - 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 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
  - Ceiling dead load (10.0 psf) on member(s). 4-5, 7-8, 5-7; Wall dead load (5.0psf) on member(s). 8-13, 4-15
  - Bottom chord live load (40.0 psf) and additional bottom chord dead load (10.0 psf) applied only to room. 13-15
  - This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
  - Attic room checked for L/360 deflection.



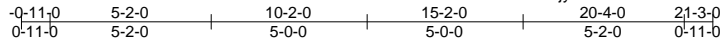
September 15, 2022

Job J1122-5623	Truss C1GE	Truss Type ROOF TRUSS	Qty 1	Ply 1	Wellco/Lot 125 Hidden Lakes/Harnett	154214367
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Comtech, Inc. Fayetteville, NC - 28314,

8.430 s Aug 16 2021 MiTek Industries, Inc. Thu Sep 15 07:07:49 2022 Page 1

ID:Yb7beGiAPPG119hcw?SQqjyfOh?-G?Gi1mMEeXBnNcOXn0jYWB2qY9\_VaZCX1\_YmYydSle



6x8 =

Scale = 1:73.9

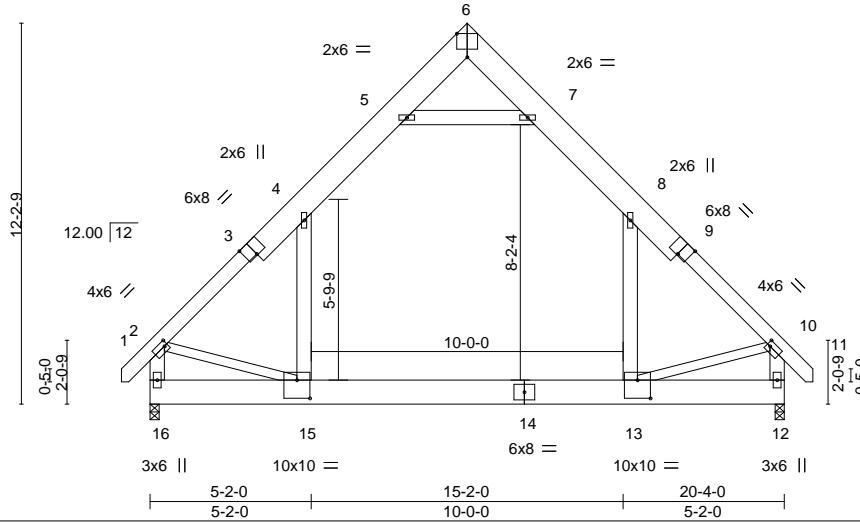


Plate Offsets (X,Y)--	[2:0-1-4,0-2-0], [3:0-4-0,Edge], [6:0-4-0,Edge], [9:0-4-0,Edge], [10:0-1-4,0-2-0], [13:0-5-0,0-7-0], [15:0-5-0,0-7-0]
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LOADING (psf)	SPACING-	CSI.	DEFL.	PLATES	GRIP
TCLL 20.0	2-0-0	TC 0.36	in (loc) l/defl L/d	MT20	244/190
TCDL 10.0	Plate Grip DOL 1.15	BC 0.50	Vert(LL) -0.10 13-15 >999 360		
BCLL 0.0 *	Lumber DOL 1.15	WB 0.18	Vert(CT) -0.16 13-15 >999 240		
BCDL 10.0	Rep Stress Incr YES	Matrix-S	Horz(CT) 0.01 12 n/a n/a		
	Code IRC2015/TPI2014		Wind(LL) 0.05 13-15 >999 240	Weight: 240 lb	FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x6 SP No.1 *Except* 3-6,6-9: 2x10 SP No.1	TOP CHORD Structural wood sheathing directly applied or 5-11-14 oc purlins, except end verticals.
BOT CHORD 2x10 SP No.1	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 2x6 SP No.1 *Except* 2-15,10-13: 2x4 SP No.2	

**REACTIONS.** (size) 16=0-3-8, 12=0-3-8  
 Max Horz 16=391(LC 10)  
 Max Grav 16=1347(LC 21), 12=1347(LC 20)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-4=-1489/26, 4-5=-922/180, 5-6=-52/335, 6-7=-52/335, 7-8=-922/179, 8-10=-1489/26,  
 2-16=-1469/62, 10-12=-1470/62  
 BOT CHORD 15-16=-385/521, 13-15=0/984  
 WEBS 8-13=0/667, 4-15=0/667, 2-15=-14/882, 10-13=-21/888, 5-7=-1260/312

- NOTES-**
- 1) Unbalanced roof live loads have been considered for this design.
  - 2) Wind: ASCE 7-10; Vult=130mph Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Corner(3) 0-9-2 to 3-7-11, Exterior(2) 3-7-11 to 10-2-8, Corner(3) 10-2-8 to 14-7-5, Exterior(2) 14-7-5 to 21-2-2 zone; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - 3) 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 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
  - 5) Ceiling dead load (10.0 psf) on member(s). 4-5, 7-8, 5-7; Wall dead load (5.0psf) on member(s). 8-13, 4-15
  - 6) Bottom chord live load (40.0 psf) and additional bottom chord dead load (10.0 psf) applied only to room. 13-15
  - 7) This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
  - 8) Attic room checked for L/360 deflection.



September 15, 2022

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

818 Soundside Road  
 Edenton, NC 27932

Job J1122-5623	Truss C2	Truss Type ROOF TRUSS	Qty 3	Ply 1	Wellco/Lot 125 Hidden Lakes/Harnett Job Reference (optional)	I54214368
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8.430 s Aug 16 2021 MiTek Industries, Inc. Thu Sep 15 07:07:49 2022 Page 1

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6x8 =

Scale = 1:73.4

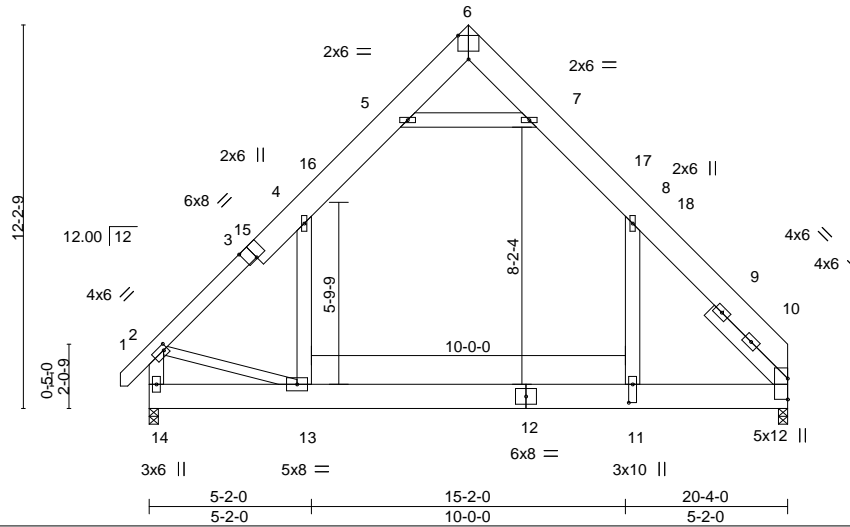


Plate Offsets (X, Y)-- [2:0-1-8,0-2-0], [3:0-4-0,Edge], [6:0-4-0,Edge], [11:0-7-0,0-1-8]

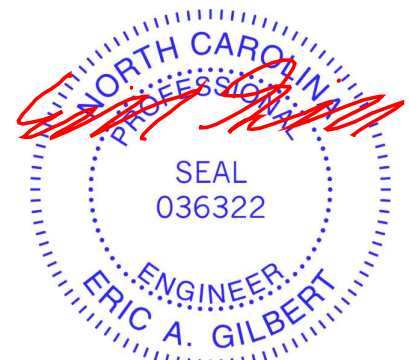
LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL	1.15	TC 0.40	Vert(LL)	-0.09	11-13	>999	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.49	Vert(CT)	-0.15	11-13	>999		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.18	Horz(CT)	0.01	10	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-S	Wind(LL)	0.03	13	>999	Weight: 245 lb	FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x10 SP No.1 *Except* 1-3: 2x6 SP No.1	TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.
BOT CHORD 2x10 SP No.1	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 2x6 SP No.1 *Except* 2-13: 2x4 SP No.2	
SLIDER Right 2x6 SP No.1 3-5-3	

**REACTIONS.** (size) 10=0-3-8, 14=0-3-8  
 Max Horz 14=299(LC 10)  
 Max Grav 10=1311(LC 20), 14=1367(LC 21)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-4=-1489/0, 4-5=-944/151, 5-6=-21/292, 6-7=-19/320, 7-8=-911/152, 8-10=-1717/0, 2-14=-1472/34  
 BOT CHORD 13-14=-291/423, 11-13=0/962, 10-11=0/956  
 WEBS 8-11=0/919, 4-13=0/650, 2-13=0/863, 5-7=-1257/240

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-10; Vult=130mph Vasd=103mph; TC DL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2) -0-9-2 to 3-7-11, Interior(1) 3-7-11 to 10-2-8, Exterior(2) 10-2-8 to 14-7-5, Interior(1) 14-7-5 to 20-4-8 zone; end vertical left exposed; C-C for members and forces & MWFRS for reactions shown; 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 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
  - Ceiling dead load (10.0 psf) on member(s). 4-5, 7-8, 5-7; Wall dead load (5.0psf) on member(s). 8-11, 4-13
  - Bottom chord live load (40.0 psf) and additional bottom chord dead load (10.0 psf) applied only to room. 11-13
  - This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
  - Attic room checked for L/360 deflection.



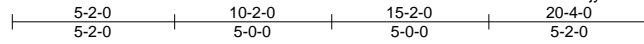
September 15, 2022

Job J1122-5623	Truss C3	Truss Type ROOF TRUSS	Qty 1	Ply 2	Wellco/Lot 125 Hidden Lakes/Harnett Job Reference (optional)	154214369
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Comtech, Inc. Fayetteville, NC - 28314,

8.430 s Aug 16 2021 MiTek Industries, Inc. Thu Sep 15 07:07:50 2022 Page 1

ID:Yb7beGiAPPG119hcw?SQQjyfOh?kEYewMn\_yf2PXAAb5UXy5kkBDyUIEe3Lmhj5L\_ydSld



6x8 =

Scale = 1:73.3

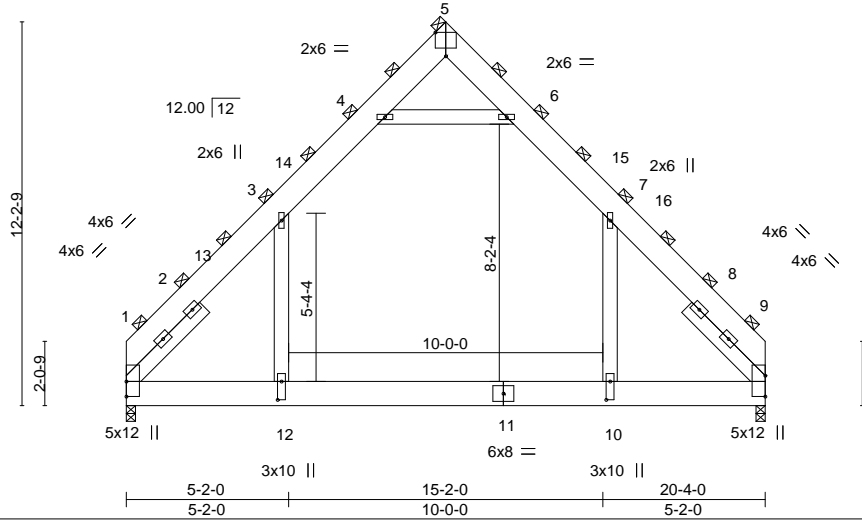


Plate Offsets (X,Y)--	[5:0-4-0,Edge], [10:0-7-0,0-1-8], [12:0-7-0,0-1-8]
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<b>LOADING</b> (psf)	<b>SPACING-</b>	4-0-0	<b>CSI.</b>	<b>DEFL.</b>	in (loc)	l/defl	L/d	<b>PLATES</b>	<b>GRIP</b>
TCLL 20.0	Plate Grip DOL	1.15	TC 0.45	Vert(LL)	-0.09	10-12	>999	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.53	Vert(CT)	-0.15	10-12	>999		
BCLL 0.0 *	Rep Stress Incr	NO	WB 0.13	Horz(CT)	0.01	9	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-S	Wind(LL)	0.03	12	>999	Weight: 500 lb	FT = 20%

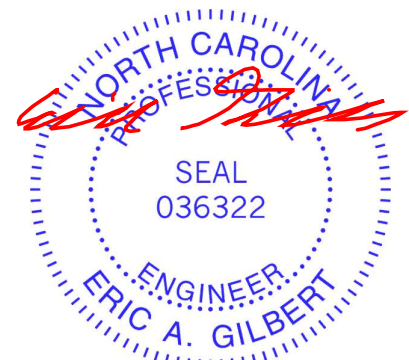
**LUMBER-**  
TOP CHORD 2x10 SP No.1  
BOT CHORD 2x10 SP No.1  
WEBS 2x6 SP No.1  
SLIDER Left 2x6 SP No.1 3-5-3, Right 2x6 SP No.1 3-5-3

**BRACING-**  
TOP CHORD 2-0-0 oc purlins (6-0-0 max.)  
(Switched from sheeted: Spacing > 2-8-0).  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS.** (size) 1=0-3-8, 9=0-3-8  
Max Horz 1=-541(LC 8)  
Max Grav 1=2652(LC 21), 9=2652(LC 20)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
TOP CHORD 1-3=-3466/0, 3-4=-1879/304, 4-5=-38/575, 5-6=-41/576, 6-7=-1879/304, 7-9=-3463/0  
BOT CHORD 1-12=0/1942, 10-12=0/1952, 9-10=0/1940  
WEBS 7-10=0/1810, 3-12=0/1810, 4-6=-2484/465

- NOTES-**
- 2-ply truss to be connected together with 10d (0.131"x3") nails as follows:  
Top chords connected as follows: 2x10 - 2 rows staggered at 0-9-0 oc.  
Bottom chords connected as follows: 2x10 - 2 rows staggered at 0-9-0 oc.  
Webs connected as follows: 2x6 - 2 rows staggered 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 7-10; Vult=130mph Vasd=103mph; TC DL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2) 0-0-8 to 4-5-5, Interior(1) 4-5-5 to 10-2-8, Exterior(2) 10-2-8 to 14-7-5, Interior(1) 14-7-5 to 20-4-8 zone; C-C for members and forces & MWFRS for reactions shown; 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 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
  - Ceiling dead load (10.0 psf) on member(s). 3-4, 6-7, 4-6; Wall dead load (5.0psf) on member(s). 7-10, 3-12
  - Bottom chord live load (40.0 psf) and additional bottom chord dead load (10.0 psf) applied only to room. 10-12
  - This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
  - 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.



September 15, 2022

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

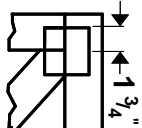
**ENGINEERING BY**  
**TRENCO**  
A MiTek Affiliate  
818 Soundside Road  
Edenton, NC 27932



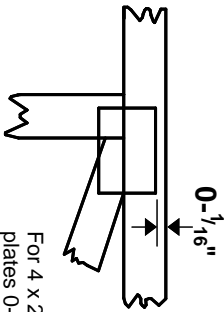


# Symbols

## PLATE LOCATION AND ORIENTATION



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



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



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

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

## PLATE SIZE

4 X 4

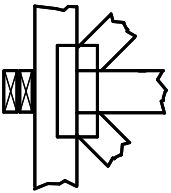
The first dimension is the plate width measured perpendicular to slots. Second dimension is the length parallel to slots.

## LATERAL BRACING LOCATION



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

## BEARING



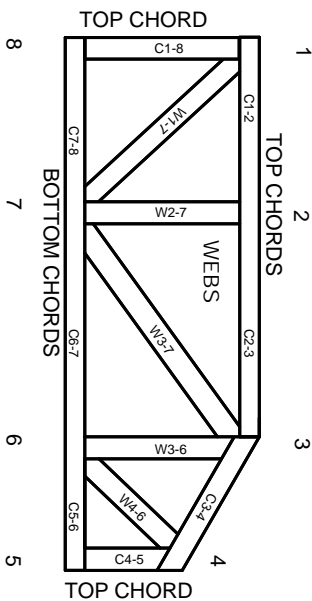
Indicates location where bearings (supports) occur. Icons vary but reaction section indicates joint number where bearings occur. Min size shown is for crushing only.

### Industry Standards:

ANSI/TP1: National Design Specification for Metal Plate Connected Wood Truss Construction.  
DSB-89: Design Standard for Bracing, Building Component Safety Information, Guide to Good Practice for Handling, Installing & Bracing of Metal Plate Connected Wood Trusses.

# Numbering System

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



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

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

## PRODUCT CODE APPROVALS

ICC-ES Reports:

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

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

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

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



# General Safety Notes

## Failure to Follow Could Cause Property Damage or Personal Injury

1. Additional stability bracing for truss system, e.g. diagonal or X-bracing, is always required. See BCSI.
2. Truss bracing must be designed by an engineer. For wide truss spacing, individual lateral braces themselves may require bracing, or alternative Tor I bracing should be considered.
3. Never exceed the design loading shown and never stack materials on inadequately braced trusses.
4. Provide copies of this truss design to the building designer, erection supervisor, property owner and all other interested parties.
5. Cut members to bear tightly against each other.
6. Place plates on each face of truss at each joint and embed fully. Knots and wane at joint locations are regulated by ANSI/TP1 1.
7. Design assumes trusses will be suitably protected from the environment in accord with ANSI/TP1 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. Rewriting pictures alone is not sufficient.
20. Design assumes manufacture in accordance with ANSI/TP1 1 Quality Criteria.
21. The design does not take into account any dynamic or other loads other than those expressly stated.