

RE: J0423-1893  
 Wellco/Lot 539 Overhills Creek/Harnett

Trenco  
 818 Soundside Rd  
 Edenton, NC 27932

**Site Information:**

Customer: Project Name: J0423-1893  
 Lot/Block: Model:  
 Address: Subdivision:  
 City: State:

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

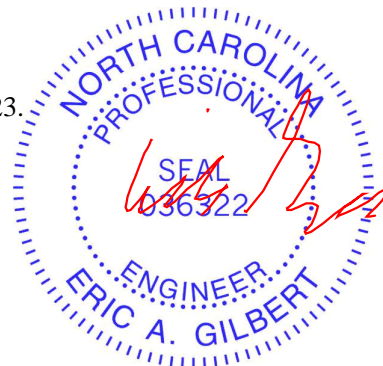
Design Code: IRC2015/TPI2014 Design Program: MiTek 20/20 8.4  
 Wind Code: ASCE 7-10 Wind Speed: 130 mph  
 Roof Load: 40.0 psf Floor Load: N/A psf

This package includes 16 individual, dated Truss Design Drawings and 0 Additional Drawings.

No.	Seal#	Truss Name	Date
1	I55623259	A1	12/8/2022
2	I55623260	B1	12/8/2022
3	I55623261	B1GE	12/8/2022
4	I55623262	C1	12/8/2022
5	I55623263	C1GE	12/8/2022
6	I55623264	C2	12/8/2022
7	I55623265	C3	12/8/2022
8	I55623266	C4	12/8/2022
9	I55623267	D1	12/8/2022
10	I55623268	D1GE	12/8/2022
11	I55623269	D2	12/8/2022
12	I55623270	D3	12/8/2022
13	I55623271	M1GE	12/8/2022
14	I55623272	PB1	12/8/2022
15	I55623273	PB1GE	12/8/2022
16	I55623274	PB2	12/8/2022

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, 2023.  
 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.



December 08, 2022

Job J0423-1893	Truss A1	Truss Type PIGGYBACK BASE	Qty 11	Ply 1	Wellco/Lot 539 Overhills Creek/Harnett Job Reference (optional)	155623259
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Comtech, Inc. Fayetteville, NC - 28314,

8.430 s Jan 6 2022 MiTek Industries, Inc. Wed Dec 7 12:44:51 2022 Page 1

ID:oiJeAM7jLnIAQMeF\_yajkeyxrR0-Z9?hQ9RepfWReJ4gBjD7E4PgMD?cL37bkCzIPyBLzQ

0-4-12	0-11-0	11-1-8	3-5-0	0-4-12	0-11-0	11-1-8	3-5-0	0-4-12	0-11-0	11-1-8	3-5-0							
0-10-8	6-3-0	12-3-0	20-3-0	26-3-0	29-6-0	32-4-4	38-6-0	39-4-8	0-10-8	6-3-0	12-3-0	20-3-0	26-3-0	29-6-0	32-4-4	38-6-0	39-4-8	0-10-8
0-10-8	6-3-0	6-0-0	8-0-0	6-0-0	3-3-0	2-10-4	6-1-12	0-10-8	6-3-0	6-0-0	8-0-0	6-0-0	3-3-0	2-10-4	6-1-12	0-10-8	6-3-0	6-0-0

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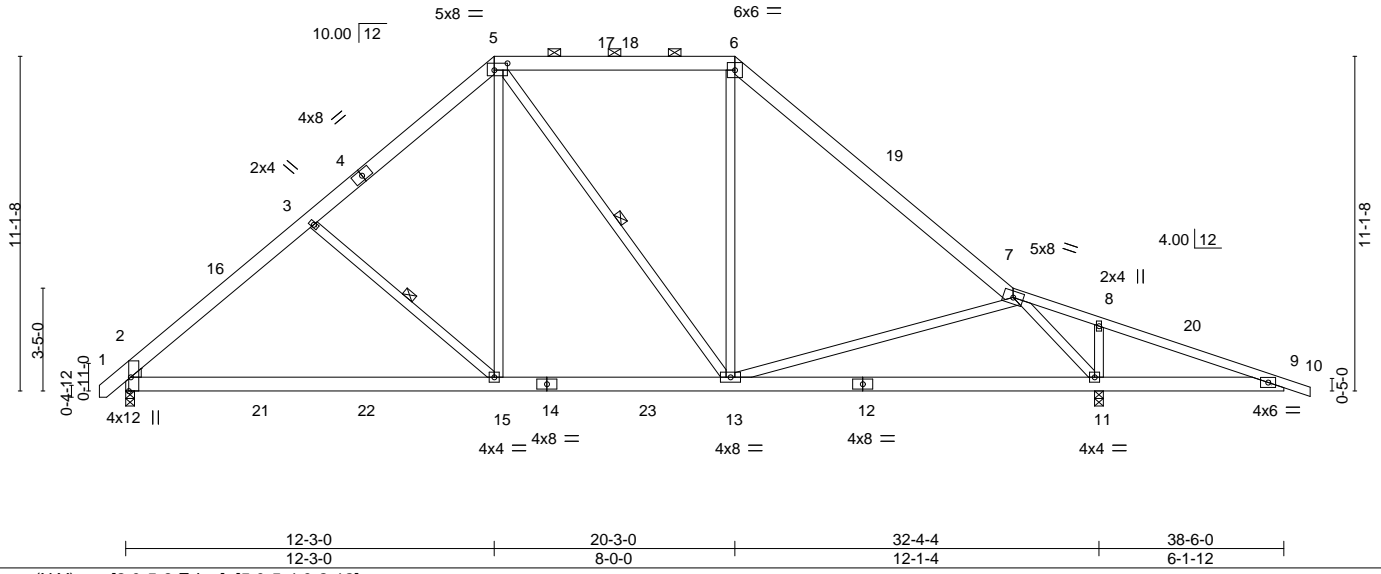


Plate Offsets (X,Y)--	[2:0-5-8,Edge], [5:0-5-4,0-2-12]
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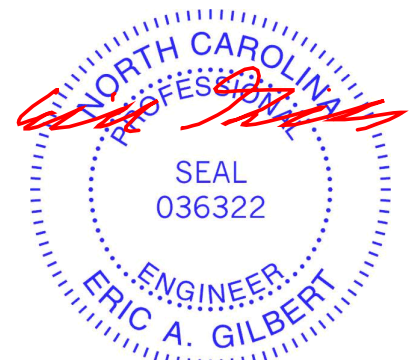
LOADING (psf)	SPACING-	CSI.	DEFL.	PLATES	GRIP
TCLL 20.0	2-0-0	TC 0.48	in (loc) l/defl L/d	MT20	244/190
TCDL 10.0	Plate Grip DOL 1.15	BC 0.57	Vert(LL) -0.18 2-15 >999 360		
BCLL 0.0 *	Lumber DOL 1.15	WB 0.49	Vert(CT) -0.34 2-15 >999 240		
BCDL 10.0	Rep Stress Incr YES	Matrix-S	Horz(CT) 0.03 11 n/a n/a		
	Code IRC2015/TPI2014		Wind(LL) -0.03 11-13 >999 240		
				Weight: 277 lb	FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x6 SP No.1 *Except* 7-10: 2x4 SP No.1	TOP CHORD Structural wood sheathing directly applied or 5-8-7 oc purlins, except 2-0-0 oc purlins (6-0-0 max.): 5-6.
BOT CHORD 2x6 SP No.1	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing, Except:
WEBS 2x4 SP No.2	6-0-0 oc bracing: 9-11.
WEDGE Left: 2x4 SP No.2	WEBS 1 Row at midpt 3-15, 5-13

REACTIONS.
(size) 2=0-3-8, 11=0-3-8
Max Horz 2=-266(LC 10)
Max Uplift 2=-56(LC 12), 11=-163(LC 9)
Max Grav 2=1385(LC 19), 11=1889(LC 1)

FORCES.
(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-1607/367, 3-5=-1395/379, 5-6=-947/351, 6-7=-1293/279, 7-8=-736/736, 8-9=-809/773
BOT CHORD 2-15=-130/1312, 13-15=0/1068, 11-13=-10/855, 9-11=-676/826
WEBS 3-15=-419/269, 5-15=-60/710, 5-13=-255/153, 6-13=0/354, 7-13=-213/277, 7-11=-1853/786, 8-11=-292/162

- 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) and C-C Exterior(2) -0-9-1 to 3-7-12, Interior(1) 3-7-12 to 12-3-0, Exterior(2) 12-3-0 to 16-7-13, Interior(1) 16-7-13 to 20-3-0, Exterior(2) 20-3-0 to 24-7-13, Interior(1) 24-7-13 to 39-4-8 zone; cantilever right exposed ;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - 3) Provide adequate drainage to prevent water ponding.
  - 4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - 5) \* This truss has been designed for a live load of 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.
  - 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 56 lb uplift at joint 2 and 163 lb uplift at joint 11.
  - 7) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 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

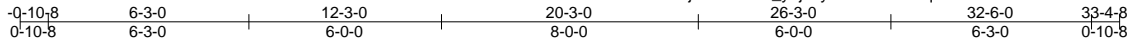
**ENGINEERING BY TRENCO**  
A MiTek Affiliate  
818 Soundside Road  
Edenton, NC 27932

Job J0423-1893	Truss B1	Truss Type PIGGYBACK BASE	Qty 4	Ply 1	Wellco/Lot 539 Overhills Creek/Harnett	I55623260
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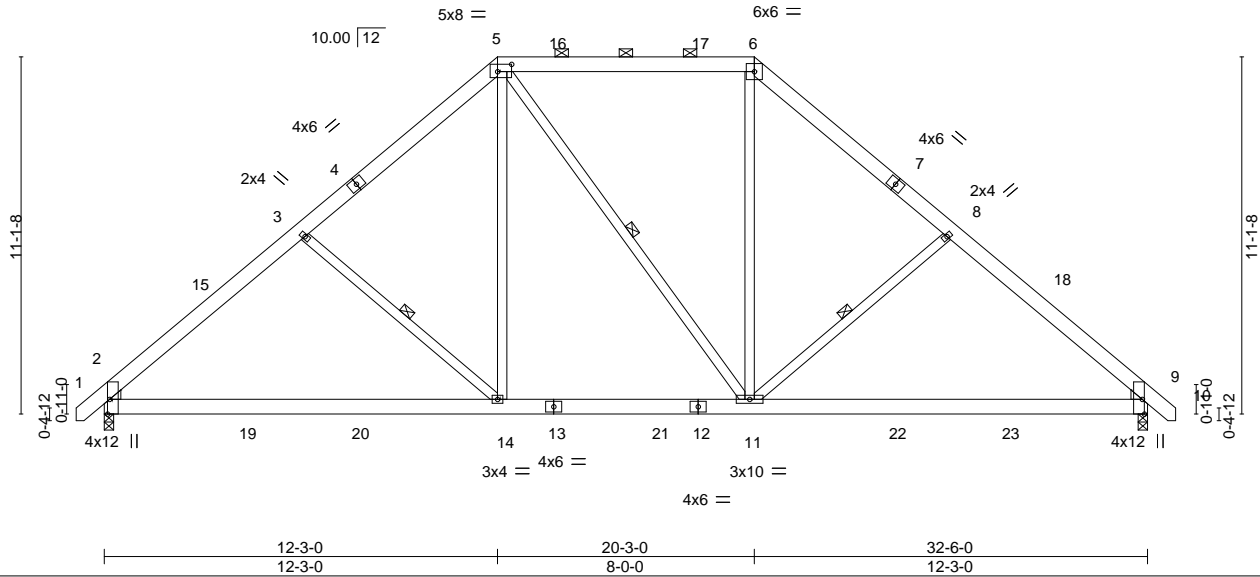


Plate Offsets (X, Y)--	[2:0-5-8,Edge], [5:0-5-4,0-2-12], [9:0-5-8,Edge]
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LOADING (psf)	SPACING-	CSI.	DEFL.	PLATES	GRIP
TCLL 20.0	2-0-0	TC 0.32	in (loc) l/defl L/d	MT20	244/190
TCDL 10.0	Plate Grip DOL 1.15	BC 0.60	Vert(LL) -0.20 9-11 >999 360		
BCLL 0.0 *	Lumber DOL 1.15	WB 0.15	Vert(CT) -0.37 9-11 >999 240		
BCDL 10.0	Rep Stress Incr YES	Matrix-S	Horz(CT) 0.03 9 n/a n/a		
	Code IRC2015/TPI2014		Wind(LL) 0.03 2-14 >999 240	Weight: 249 lb	FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x6 SP No.1	TOP CHORD Structural wood sheathing directly applied or 5-7-7 oc purlins, except 2-0-0 oc purlins (6-0-0 max.): 5-6.
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 3-14, 5-11, 8-11
WEDGE	
Left: 2x4 SP No.2, Right: 2x4 SP No.2	

**REACTIONS.** (size) 2=0-3-8, 9=0-3-8  
 Max Horz 2=261(LC 11)  
 Max Uplift 2=-55(LC 12), 9=-55(LC 13)  
 Max Grav 2=1458(LC 19), 9=1438(LC 20)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-3=-1717/434, 3-5=-1507/447, 5-6=-1057/426, 6-8=-1477/447, 8-9=-1687/434  
 BOT CHORD 2-14=-206/1383, 11-14=-45/1142, 9-11=-200/1215  
 WEBS 3-14=-412/278, 5-14=-60/665, 6-11=-64/575, 8-11=-410/278

- 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) and C-C Exterior(2) -0-9-1 to 3-7-12, Interior(1) 3-7-12 to 12-3-0, Exterior(2) 12-3-0 to 18-5-11, Interior(1) 18-5-11 to 20-3-0, Exterior(2) 20-3-0 to 26-5-2, Interior(1) 26-5-2 to 33-3-1 zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - 3) Provide adequate drainage to prevent water ponding.
  - 4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - 5) \* This truss has been designed for a live load of 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.
  - 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 55 lb uplift at joint 2 and 55 lb uplift at joint 9.
  - 7) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



December 8, 2022

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 Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI1 Quality Criteria, 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

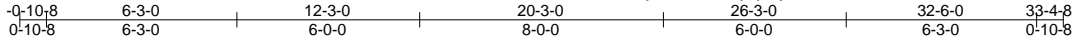
Job	Truss	Truss Type	Qty	Ply	Wellco/Lot 539 Overhills Creek/Harnett	155623261
J0423-1893	B1GE	GABLE	1	1		

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Job Reference (optional)



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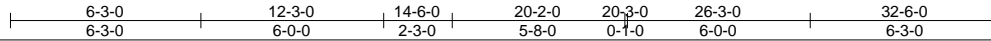
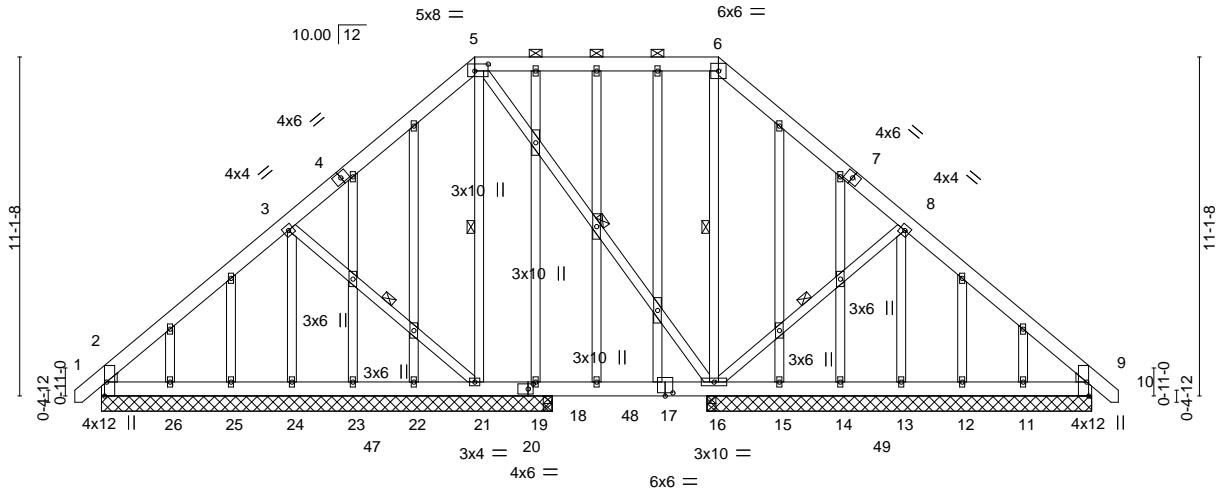


Plate Offsets (X, Y)-- [2:0-5-8,Edge], [5:0-5-4,0-2-12], [9:0-5-8,Edge], [17:0-3-0,0-1-4], [20:0-2-0,0-2-0]

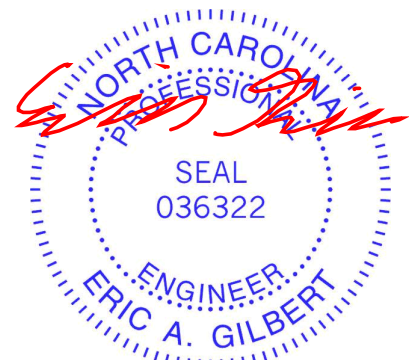
LOADING (psf)	SPACING-	CSI.	DEFL.	PLATES	GRIP
TCLL 20.0	2-0-0	TC 0.30	in (loc) l/defl L/d	MT20	244/190
TCDL 10.0	Plate Grip DOL 1.15	BC 0.11	Vert(LL) -0.00 16-18 >999 360		
BCLL 0.0 *	Lumber DOL 1.15	WB 0.23	Vert(CT) -0.01 16-18 >999 240		
BCDL 10.0	Rep Stress Incr YES	Matrix-S	Horz(CT) 0.01 9 n/a n/a		
	Code IRC2015/TPI2014		Wind(LL) 0.00 2-26 >999 240		
				Weight: 370 lb	FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x6 SP No.1	TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except 2-0-0 oc purlins (10-0-0 max.): 5-6.
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 3-21, 5-21, 5-16, 6-16, 8-16
OTHERS 2x4 SP No.2	
WEDGE	
Left: 2x4 SP No.2, Right: 2x4 SP No.2	

**REACTIONS.** All bearings 14-9-8 except (jt=length) 16=12-7-8, 16=12-7-8, 13=12-7-8, 9=12-7-8, 15=12-7-8, 14=12-7-8, 12=12-7-8, 11=12-7-8, 18=0-3-8.  
 (lb) - Max Horz 2=-261(LC 10)  
 Max Uplift All uplift 100 lb or less at joint(s) 2, 9, 26, 15, 11 except 21=-165(LC 12), 16=-150(LC 13), 19=-265(LC 18)  
 Max Grav All reactions 250 lb or less at joint(s) 24, 13, 22, 23, 25, 26, 15, 14, 12, 11 except 2=417(LC 23), 21=579(LC 19), 16=820(LC 1), 16=820(LC 1), 9=369(LC 24), 18=552(LC 18)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-3=-484/177, 8-9=-412/130  
 BOT CHORD 2-26=-167/339, 25-26=-167/339, 24-25=-167/339, 23-24=-167/339, 22-23=-167/339, 21-22=-167/339, 19-21=-236/265, 18-19=-236/265, 16-18=-236/265  
 WEBS 3-21=-430/328, 5-21=-294/88, 6-16=-442/165, 8-16=-434/331

- 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 Corner(3) 0-9-1 to 3-7-12, Exterior(2) 3-7-12 to 12-3-0, Corner(3) 12-3-0 to 16-7-13, Exterior(2) 16-7-13 to 20-3-0, Corner(3) 20-3-0 to 24-7-13, Exterior(2) 24-7-13 to 33-3-1 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.
  - Provide adequate drainage to prevent water ponding.
  - All plates are 2x4 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 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) 2, 9, 26, 15, 11 except (jt=lb) 21=165, 16=150, 19=265.
  - Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



December 8, 2022

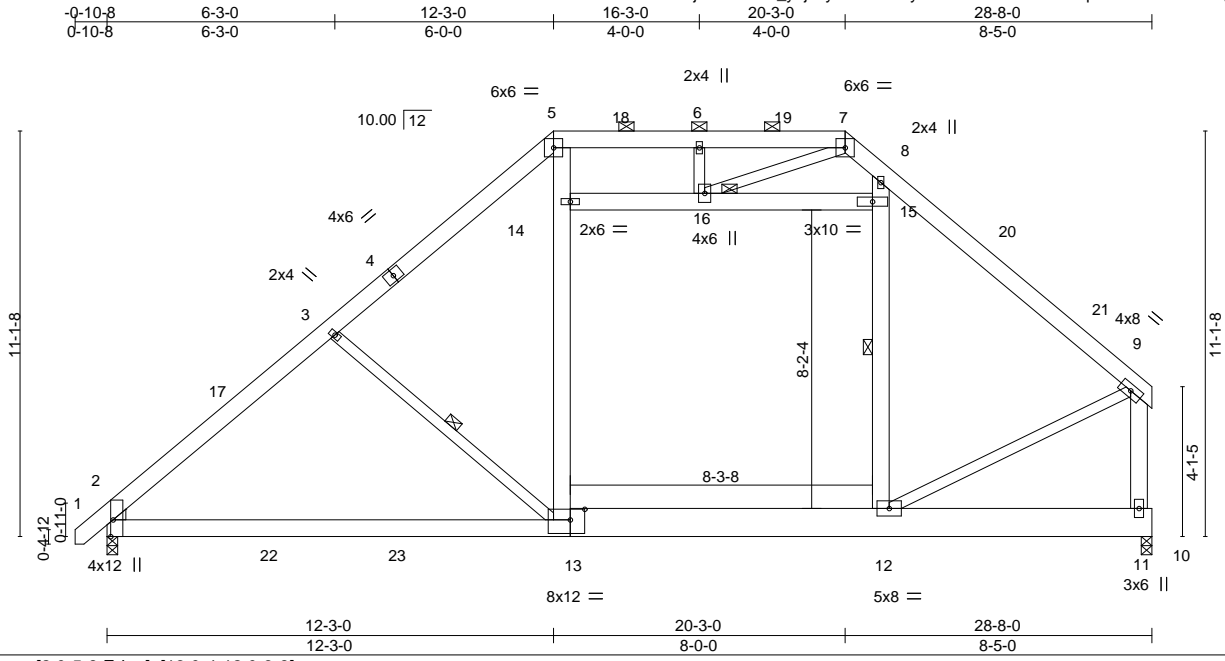
<p><b>WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE.</b></p> <p>Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss 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/TPI 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>	<p>818 Soundside Road Edenton, NC 27932</p>
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Job J0423-1893	Truss C1	Truss Type ROOF TRUSS	Qty 4	Ply 1	Wellco/Lot 539 Overhills Creek/Harnett I55623262
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Comtech, Inc. Fayetteville, NC - 28314,

8.430 s Jan 6 2022 MiTek Industries, Inc. Wed Dec 7 12:44:57 2022 Page 1

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Plate Offsets (X, Y)--	[2:0-5-8,Edge], [13:0-4-12,0-3-8]
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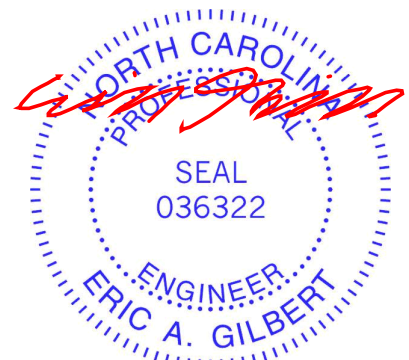
LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL 1.15	TC 0.26	Vert(LL) -0.25	2-13	>999	360	MT20	244/190
TCDL 10.0	Lumber DOL 1.15	BC 0.77	Vert(CT) -0.46	2-13	>728	240		
BCLL 0.0 *	Rep Stress Incr YES	WB 0.46	Horz(CT) 0.02	11	n/a	n/a		
BCDL 10.0	Code IRC2015/TPI2014	Matrix-S	Wind(LL) 0.12	2-13	>999	240		
							Weight: 281 lb	FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x6 SP No.1	TOP CHORD Structural wood sheathing directly applied or 5-4-9 oc purlins, except end verticals, and 2-0-0 oc purlins (6-0-0 max.): 5-7.
BOT CHORD 2x6 SP No.1 *Except* 10-13: 2x10 SP No.1	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing, Except: 6-0-0 oc bracing: 11-12.
WEBS 2x6 SP No.1 *Except* 3-13,9-12,6-16,7-16: 2x4 SP No.2	WEBS 1 Row at midpt 3-13, 12-15
WEDGE Left: 2x4 SP No.2	JOINTS 1 Brace at Jt(s): 16

REACTIONS.
(size) 2=0-3-8, 11=0-3-8
Max Horz 2=254(LC 9)
Max Grav 2=1592(LC 20), 11=1642(LC 2)

FORCES.
(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-1914/145, 3-5=-1691/144, 5-6=-1424/173, 6-7=-1425/173, 7-8=-818/158, 8-9=-1594/73, 9-11=-1706/68
BOT CHORD 2-13=-152/1515, 12-13=0/1224
WEBS 3-13=-436/299, 13-14=-4/864, 5-14=0/870, 12-15=-129/371, 8-15=0/382, 9-12=0/1310, 14-16=-23/255, 15-16=-618/96, 7-16=-79/942

- 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) and C-C Exterior(2) -0-9-1 to 3-7-12, Interior(1) 3-7-12 to 12-3-0, Exterior(2) 12-3-0 to 18-5-11, Interior(1) 18-5-11 to 20-3-0, Exterior(2) 20-3-0 to 26-5-11, Interior(1) 26-5-11 to 28-3-12 zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - 3) Provide adequate drainage to prevent water ponding.
  - 4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - 5) \* This truss has been designed for a live load of 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.
  - 6) Ceiling dead load (10.0 psf) on member(s). 14-16, 15-16; Wall dead load (5.0psf) on member(s).13-14, 12-15
  - 7) Bottom chord live load (40.0 psf) and additional bottom chord dead load (10.0 psf) applied only to room. 12-13
  - 8) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
  - 9) Attic room checked for L/360 deflection.



December 8, 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**  
  
 A MiTek Affiliate

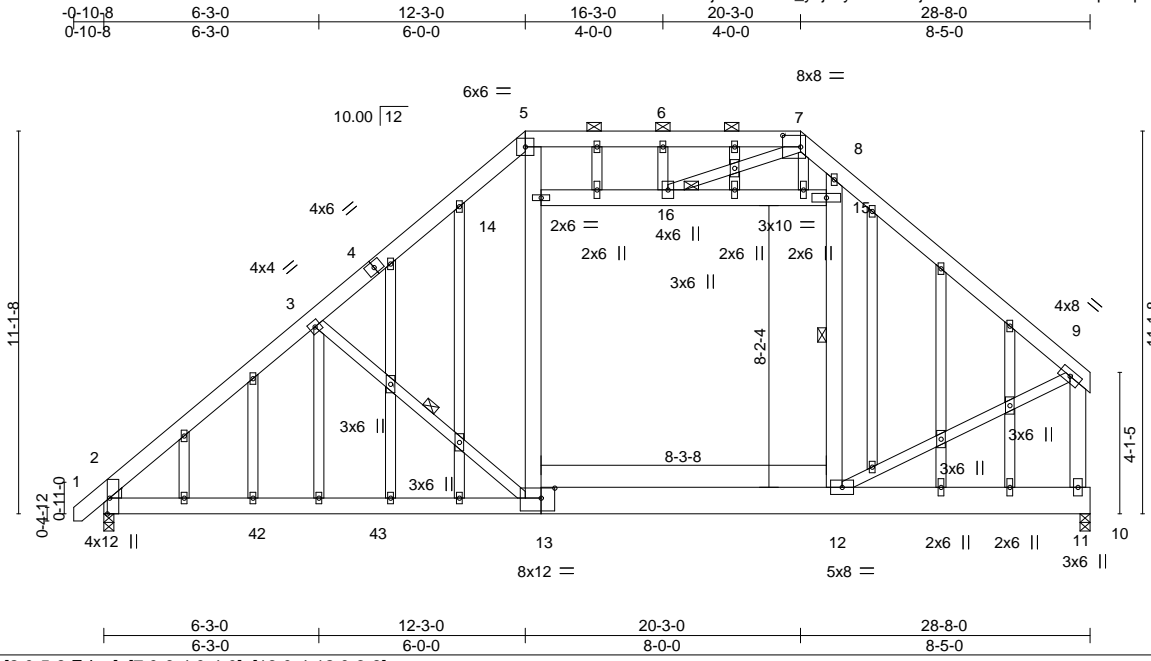
818 Soundside Road  
 Edenton, NC 27932

Job J0423-1893	Truss C1GE	Truss Type GABLE	Qty 1	Ply 1	Wellco/Lot 539 Overhills Creek/Harnett I55623263
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Comtech, Inc. Fayetteville, NC - 28314,

8.430 s Jan 6 2022 MiTek Industries, Inc. Wed Dec 7 12:44:59 2022 Page 1

ID:oiJeAM7JLnIAQMeF\_yajkeyxrR0-KiUj6uXfx6XlcXwc8ts5SwpPp2avpUzWJR\_8O1xyBLZl



Scale = 1:67.0

Plate Offsets (X, Y)--	[2:0-5-8,Edge], [7:0-6-4,0-4-0], [13:0-4-12,0-3-8]
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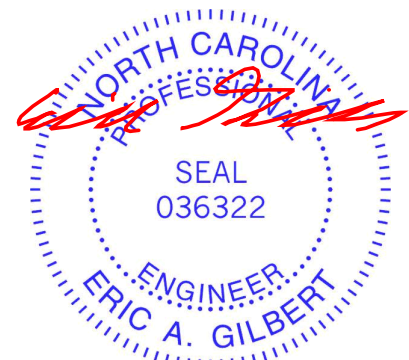
LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL	1.15	TC 0.26	Vert(LL)	-0.25	2-13	>999	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.77	Vert(CT)	-0.46	2-13	>728		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.46	Horz(CT)	0.02	11	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-S	Wind(LL)	0.14	2-13	>999		
								Weight: 352 lb	FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x6 SP No.1	TOP CHORD Structural wood sheathing directly applied or 5-4-9 oc purlins, except end verticals, and 2-0-0 oc purlins (6-0-0 max.): 5-7.
BOT CHORD 2x6 SP No.1 *Except* 10-13: 2x10 SP No.1	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing, Except: 6-0-0 oc bracing: 11-12.
WEBS 2x4 SP No.2 *Except* 5-13,8-12,9-11,14-15: 2x6 SP No.1	WEBS 1 Row at midpt 3-13, 12-15
OTHERS 2x4 SP No.2	JOINTS 1 Brace at Jt(s): 16
WEDGE Left: 2x4 SP No.2	

**REACTIONS.** (size) 2=0-3-8, 11=0-3-8  
 Max Horz 2=328(LC 12)  
 Max Uplift 2=-51(LC 12)  
 Max Grav 2=1574(LC 2), 11=1642(LC 2)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-3=-1914/200, 3-5=-1691/191, 5-6=-1413/209, 6-7=-1414/209, 7-8=-818/184,  
 8-9=-1594/96, 9-11=-1706/92  
 BOT CHORD 2-13=-211/1509, 12-13=0/1200  
 WEBS 3-13=-436/382, 13-14=-28/864, 5-14=0/870, 12-15=-129/371, 8-15=0/382, 9-12=0/1288,  
 14-16=-55/255, 15-16=-616/110, 7-16=-125/941

- 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 12-3-0, Corner(3) 12-3-0 to 16-7-13, Exterior(2) 16-7-13 to 20-3-0, Corner(3) 20-3-0 to 24-7-13, Exterior(2) 24-7-13 to 28-3-12 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.
  - Provide adequate drainage to prevent water ponding.
  - All plates are 2x4 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 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.
  - Ceiling dead load (10.0 psf) on member(s). 14-16, 15-16; Wall dead load (5.0psf) on member(s). 13-14, 12-15
  - Bottom chord live load (40.0 psf) and additional bottom chord dead load (10.0 psf) applied only to room. 12-13
  - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2.
  - 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.



December 8, 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

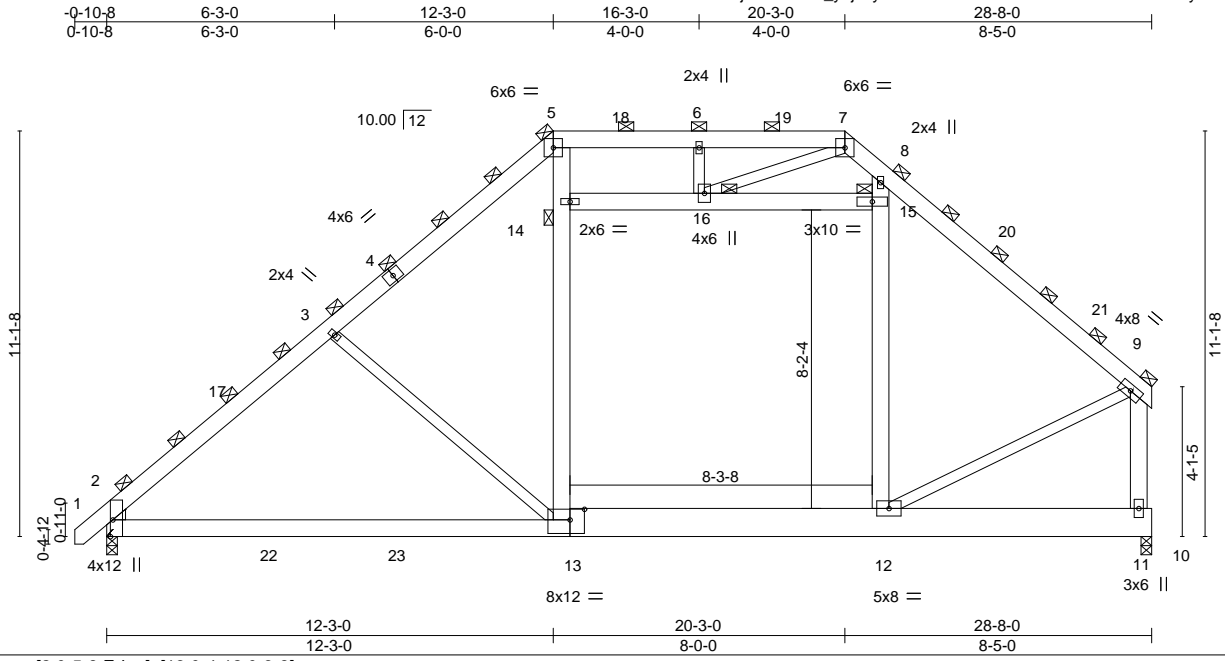
818 Soundside Road  
 Edenton, NC 27932

Job J0423-1893	Truss C2	Truss Type ROOF TRUSS	Qty 1	Ply 2	Wellco/Lot 539 Overhills Creek/Harnett Job Reference (optional)	I55623264
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Comtech, Inc. Fayetteville, NC - 28314,

8.430 s Jan 6 2022 MiTek Industries, Inc. Wed Dec 7 12:45:01 2022 Page 1

ID:oiJeAM7jLnIAQMeF\_yajkeyxrR0-H5cTXaZwTkn0rr4?FluZXLV9uOZ4yt?cvldV5qyBLzG



Scale = 1:63.2

Plate Offsets (X, Y)--	[2:0-5-8,Edge], [13:0-4-12,0-3-8]
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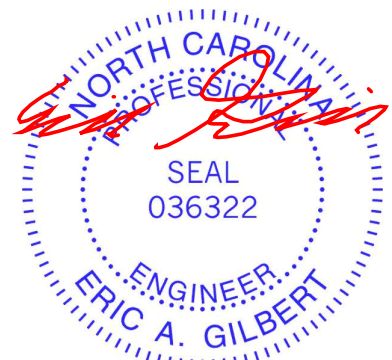
LOADING (psf)	SPACING-	CSI.	DEFL.	PLATES	GRIP
TCLL 20.0	4-0-0	TC 0.30	in (loc) l/defl L/d	MT20	244/190
TCDL 10.0	Plate Grip DOL 1.15	BC 0.84	Vert(LL) -0.25 2-13 >999 360		
BCLL 0.0 *	Lumber DOL 1.15	WB 0.46	Vert(CT) -0.46 2-13 >728 240		
BCDL 10.0	Rep Stress Incr NO	Matrix-S	Horz(CT) 0.02 11 n/a n/a		
	Code IRC2015/TP12014		Wind(LL) 0.12 2-13 >999 240	Weight: 563 lb	FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x6 SP No.1	TOP CHORD 2-0-0 oc purlins (6-0-0 max.), except end verticals
BOT CHORD 2x6 SP No.1 *Except* 10-13: 2x10 SP No.1	(Switched from sheeted: Spacing > 2-8-0).
WEBS 2x6 SP No.1 *Except* 3-13,9-12,6-16,7-16: 2x4 SP No.2	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing, Except: 6-0-0 oc bracing: 11-12.
WEDGE Left: 2x4 SP No.2	JOINTS 1 Brace at Jt(s): 5, 7, 9, 14, 15, 16

REACTIONS.
(size) 2=0-3-8, 11=0-3-8
Max Horz 2=509(LC 9)
Max Grav 2=3183(LC 20), 11=3353(LC 2)

FORCES.
(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-3828/289, 3-5=-3381/287, 5-6=-2847/346, 6-7=-2849/346, 7-8=-1633/316, 8-9=-3188/145, 9-11=-3410/136
BOT CHORD 2-13=-304/3030, 12-13=0/2448
WEBS 3-13=871/599, 13-14=-9/1727, 5-14=0/1740, 12-15=-258/742, 8-15=0/764, 9-12=0/2621, 14-16=-46/511, 15-16=-1238/192, 6-16=-403/204, 7-16=-158/1888

- NOTES-**
- 2-ply truss to be connected together with 10d (0.131"x3") nails as follows:  
Top chords connected as follows: 2x6 - 2 rows staggered at 0-9-0 oc.  
Bottom chords connected as follows: 2x6 - 2 rows staggered at 0-9-0 oc, 2x10 - 2 rows staggered at 0-9-0 oc.  
Webs connected as follows: 2x4 - 1 row at 0-9-0 oc, 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; 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 12-3-0, Exterior(2) 12-3-0 to 18-5-11, Interior(1) 18-5-11 to 20-3-0, Exterior(2) 20-3-0 to 26-5-11, Interior(1) 26-5-11 to 28-3-12 zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - Provide adequate drainage to prevent water ponding.
  - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - \* This truss has been designed for a live load of 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.
  - Ceiling dead load (10.0 psf) on member(s). 14-16, 15-16; Wall dead load (5.0psf) on member(s). 13-14, 12-15
  - Bottom chord live load (40.0 psf) and additional bottom chord dead load (10.0 psf) applied only to room. 12-13
  - 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.



December 8, 2022

**LOAD CASE(S)** Standard

**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/TPI 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 J0423-1893	Truss C2	Truss Type ROOF TRUSS	Qty 1	Ply <b>2</b>	Wellco/Lot 539 Overhills Creek/Harnett I55623264 Job Reference (optional)
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Comtech, Inc. Fayetteville, NC - 28314,

8.430 s Jan 6 2022 MiTek Industries, Inc. Wed Dec 7 12:45:01 2022 Page 2  
ID:oiJeAM7jLnIAQMeF\_yajkeyxrR0-H5cTXaZwTkn0rr4?FluZXLV9uOZ4yt?cvldV5qyBLzG

**LOAD CASE(S)** Standard

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

Uniform Loads (plf)

Vert: 1-5=-120, 5-7=-120, 7-9=-120, 2-13=-40, 12-13=-80, 11-12=-40, 10-11=-160(F=-120), 14-15=-40

Drag: 13-14=-20, 12-15=-20

**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 J0423-1893	Truss C3	Truss Type PIGGYBACK BASE	Qty 2	Ply 2	Wellco/Lot 539 Overhills Creek/Harnett Job Reference (optional)	I55623265
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Comtech, Inc. Fayetteville, NC - 28314,

8.430 s Jan 6 2022 MiTek Industries, Inc. Wed Dec 7 12:45:03 2022 Page 1

ID:oiJeAM7jLnAQMeF\_yajkeyrR0-DTjDyFaA\_L1k58DONjw1cmaUVBIEQrxuMc6cAiyBLzE

-0-10-8	6-3-0	12-3-0	20-3-0	28-1-0	28-8-0
0-10-8	6-3-0	6-0-0	8-0-0	7-10-0	0-7-0

Scale: 3/16"=1'

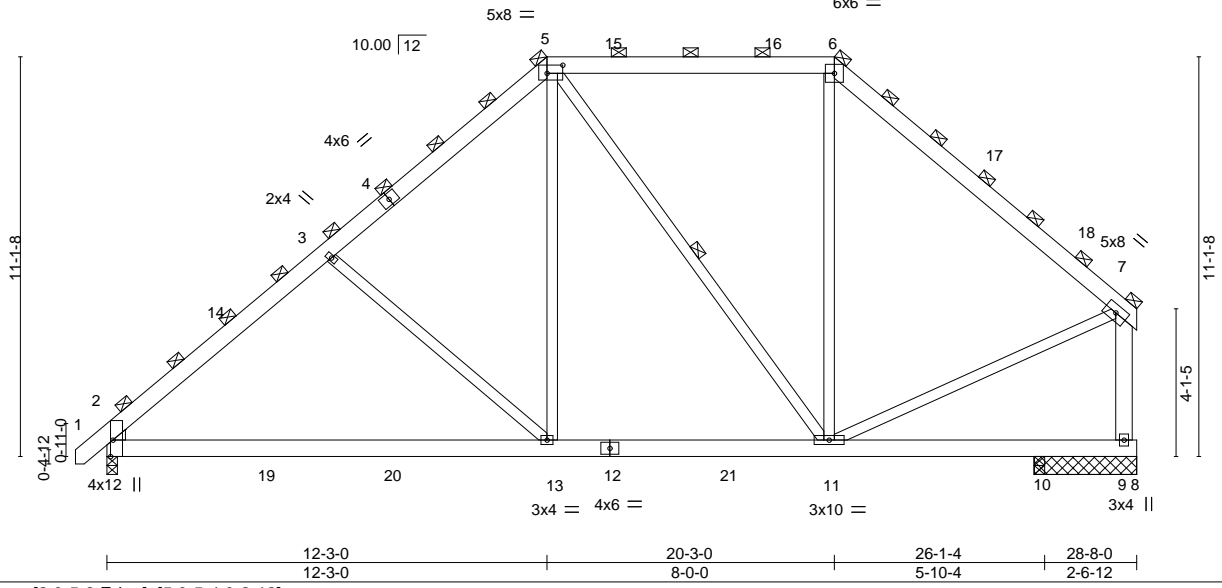


Plate Offsets (X, Y)--	[2:0-5-8,Edge], [5:0-5-4,0-2-12]
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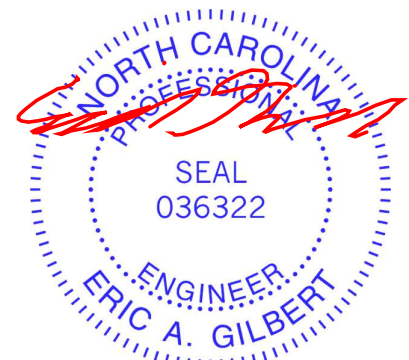
LOADING (psf)	SPACING-	CSI.	DEFL.	PLATES	GRIP
TCLL 20.0	4-0-0	TC 0.36	in (loc) l/defl L/d	MT20	244/190
TCDL 10.0	Plate Grip DOL 1.15	BC 0.61	Vert(LL) -0.18 2-13 >999 360		
BCLL 0.0 *	Lumber DOL 1.15	WB 0.24	Vert(CT) -0.33 2-13 >936 240		
BCDL 10.0	Rep Stress Incr NO	Matrix-S	Horz(CT) 0.02 9 n/a n/a		
	Code IRC2015/TPI2014		Wind(LL) 0.03 2-13 >999 240	Weight: 470 lb	FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x6 SP No.1	TOP CHORD 2-0-0 oc purlins (6-0-0 max.), except end verticals
BOT CHORD 2x6 SP No.1	(Switched from sheeted: Spacing > 2-8-0).
WEBS 2x4 SP No.2 *Except*	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
7-9: 2x6 SP No.1	WEBS 1 Row at midpt 5-11
WEDGE	
Left: 2x4 SP No.2	

REACTIONS.
(size) 2=0-3-8, 9=2-10-4, 10=0-3-8
Max Horz 2=509(LC 9)
Max Uplift 2=110(LC 12), 9=167(LC 13)
Max Grav 2=2540(LC 19), 9=2092(LC 2), 10=452(LC 3)

FORCES.
(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-2868/762, 3-5=-2444/778, 5-6=-1387/739, 6-7=-1963/678, 7-9=-2071/681
BOT CHORD 2-13=-650/2308, 11-13=-223/1811
WEBS 3-13=-848/565, 5-13=-96/1469, 5-11=-855/167, 6-11=-105/429, 7-11=-94/1367

- NOTES-**
- 2-ply truss to be connected together with 10d (0.131"x3") nails as follows:  
Top chords connected as follows: 2x6 - 2 rows staggered at 0-9-0 oc.  
Bottom chords connected as follows: 2x6 - 2 rows staggered at 0-9-0 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 7-10; 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 12-3-0, Exterior(2) 12-3-0 to 18-5-11, Interior(1) 18-5-11 to 20-3-0, Exterior(2) 20-3-0 to 26-5-11, Interior(1) 26-5-11 to 28-3-12 zone;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - Provide adequate drainage to prevent water ponding.
  - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - \* This truss has been designed for a live load of 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) except (jt=lb) 2=110, 9=167.
  - Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



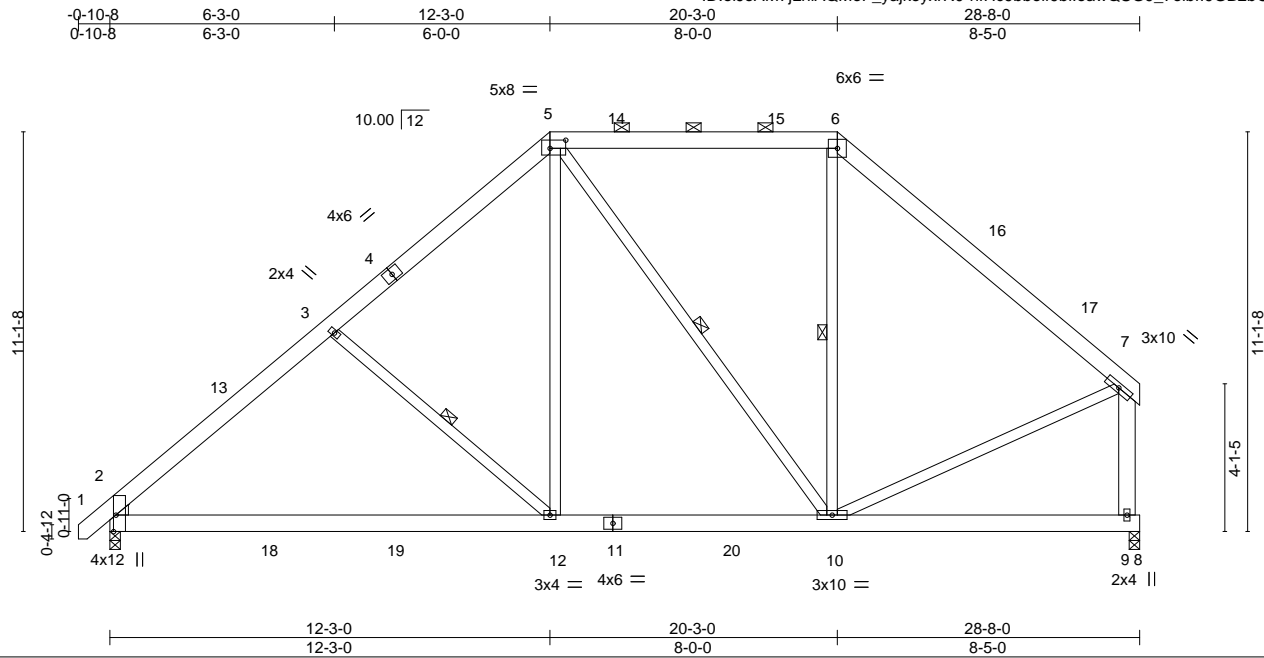
December 8, 2022

<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></p> <p>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>	<p>818 Soundside Road Edenton, NC 27932</p>
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Job J0423-1893	Truss C4	Truss Type PIGGYBACK BASE	Qty 3	Ply 1	Wellco/Lot 539 Overhills Creek/Harnett Job Reference (optional)	I55623266
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Comtech, Inc. Fayetteville, NC - 28314,

8.430 s Jan 6 2022 MiTek Industries, Inc. Wed Dec 7 12:45:04 2022 Page 1  
ID:oiJeAM7jLnIAQMeF\_yajkeyxrR0-hfHc9bbolf9biloawQSG9\_7eibfI9GB2bGr9I9yBLzD



Scale: 3/16"=1'

Plate Offsets (X, Y)--	[2:0-5-8,Edge], [5:0-5-4,0-2-12]				
<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 0.39	Vert(LL) -0.18 2-12 >999 360	MT20	244/190
TCDL 10.0	Lumber DOL 1.15	BC 0.55	Vert(CT) -0.34 2-12 >999 240		
BCLL 0.0 *	Rep Stress Incr YES	WB 0.30	Horz(CT) 0.02 9 n/a n/a		
BCDL 10.0	Code IRC2015/TPI2014	Matrix-S	Wind(LL) 0.03 2-12 >999 240	Weight: 235 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, except 2-0-0 oc purlins (6-0-0 max.): 5-6.
BOT CHORD 2x6 SP No.1	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 2x4 SP No.2 *Except* 7-9: 2x6 SP No.1	WEBS 1 Row at midpt 3-12, 5-10, 6-10
WEDGE Left: 2x4 SP No.2	

<b>REACTIONS.</b>	(size) 2=0-3-8, 9=0-3-8
	Max Horz 2=254(LC 9)
	Max Uplift 2=-49(LC 12), 9=-15(LC 13)
	Max Grav 2=1279(LC 19), 9=1139(LC 2)

<b>FORCES.</b>	(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD	2-3=-1445/373, 3-5=-1233/381, 5-6=-721/358, 6-7=-974/309
BOT CHORD	2-12=-319/1163, 10-12=-105/914
WEBS	3-12=-425/283, 5-12=-54/724, 5-10=-401/98, 7-9=-1067/326, 7-10=-90/753

- 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 12-3-0, Exterior(2) 12-3-0 to 18-5-11, Interior(1) 18-5-11 to 20-3-0, Exterior(2) 20-3-0 to 26-5-11, Interior(1) 26-5-11 to 28-3-12 zone;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - Provide adequate drainage to prevent water ponding.
  - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - \* This truss has been designed for a live load of 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) 2, 9.
  - Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



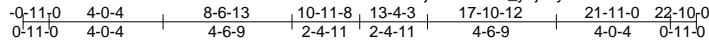
December 8, 2022

Job J0423-1893	Truss D1	Truss Type ATTIC	Qty 5	Ply 1	Wellco/Lot 539 Overhills Creek/Harnett Job Reference (optional)	155623267
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Comtech, Inc. Fayetteville, NC - 28314,

8.430 s Jan 6 2022 MiTek Industries, Inc. Wed Dec 7 12:45:06 2022 Page 1

ID:oiJeAM7jLnIAQMeF\_yajkeyxrR0-d2PMaHd2HGPlycy2rUKEPCxsPHxdBtL2aKGN1yBLzB



6x8 =

Scale = 1:81.3

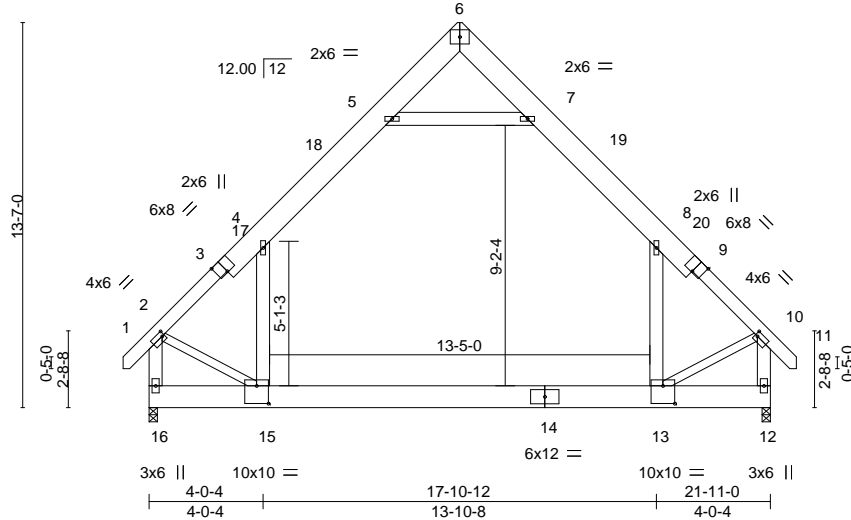


Plate Offsets (X,Y)-- [2:0-1-0,0-2-0], [3:0-4-0,Edge], [9:0-4-0,Edge], [10:0-1-0,0-2-0], [13:0-5-0,0-7-8], [15:0-5-0,0-7-8]

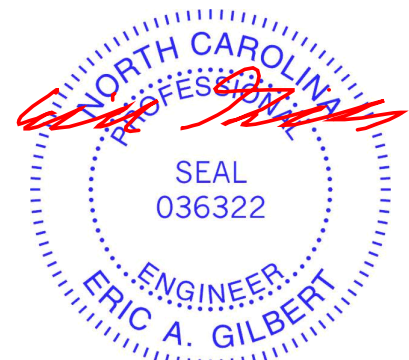
LOADING (psf)	SPACING-	CSI.	DEFL.	PLATES	GRIP
TCLL 20.0	2-0-0	TC 0.61	in (loc) l/defl L/d	MT20	244/190
TCDL 10.0	Plate Grip DOL 1.15	BC 0.80	Vert(LL) -0.24 13-15 >999 360		
BCLL 0.0 *	Lumber DOL 1.15	WB 0.23	Vert(CT) -0.37 13-15 >693 240		
BCDL 10.0	Rep Stress Incr YES	Matrix-S	Horz(CT) 0.01 12 n/a n/a		
	Code IRC2015/TPI2014		Wind(LL) 0.05 13-15 >999 240	Weight: 259 lb	FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x10 SP No.1 *Except* 1-3,9-11: 2x6 SP No.1	TOP CHORD Structural wood sheathing directly applied or 4-9-10 oc purlins, except end verticals.
BOT CHORD 2x10 SP No.1	BOT CHORD Rigid ceiling directly applied or 8-6-15 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=353(LC 11)  
 Max Grav 16=1585(LC 21), 12=1585(LC 20)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-4=-1649/0, 4-5=-1052/166, 5-6=-20/368, 6-7=-20/368, 7-8=-1052/166, 8-10=-1649/0,  
 2-16=-1914/0, 10-12=-1914/0  
 BOT CHORD 15-16=-318/414, 13-15=0/1022  
 WEBS 5-7=-1342/207, 4-15=0/869, 8-13=0/869, 2-15=0/1057, 10-13=0/1059

- 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) and C-C Exterior(2) -0-9-2 to 3-7-11, Interior(1) 3-7-11 to 11-0-0, Exterior(2) 11-0-0 to 15-4-13, Interior(1) 15-4-13 to 22-9-2 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). 4-15, 8-13
  - 6) Bottom chord live load (40.0 psf) and additional bottom chord dead load (10.0 psf) applied only to room. 13-15
  - 7) Attic room checked for L/360 deflection.



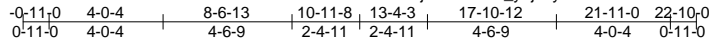
December 8, 2022

Job J0423-1893	Truss D1GE	Truss Type ATTIC	Qty 1	Ply 1	Wellco/Lot 539 Overhills Creek/Harnett Job Reference (optional)	155623268
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Comtech, Inc. Fayetteville, NC - 28314,

8.430 s Jan 6 2022 MiTek Industries, Inc. Wed Dec 7 12:45:07 2022 Page 1

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6x8 =

Scale = 1:81.3

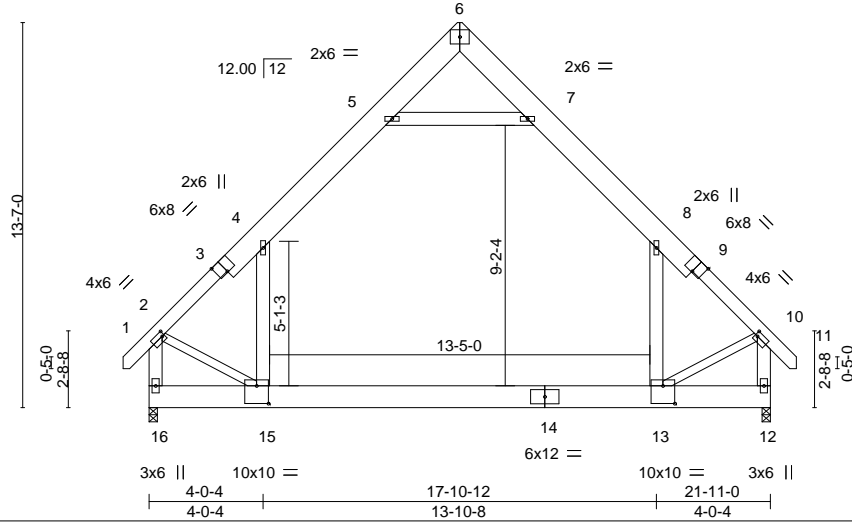


Plate Offsets (X, Y)-- [2:0-1-0,0-2-0], [3:0-4-0,Edge], [9:0-4-0,Edge], [10:0-1-0,0-2-0], [13:0-5-0,0-7-8], [15:0-5-0,0-7-8]

LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL 1.15	TC 0.61	Vert(LL) -0.24	13-15	>999	360	MT20	244/190
TCDL 10.0	Lumber DOL 1.15	BC 0.80	Vert(CT) -0.37	13-15	>693	240		
BCLL 0.0 *	Rep Stress Incr YES	WB 0.23	Horz(CT) 0.01	12	n/a	n/a		
BCDL 10.0	Code IRC2015/TPI2014	Matrix-S	Wind(LL) 0.06	13-15	>999	240		
							Weight: 259 lb	FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x10 SP No.1 *Except* 1-3,9-11: 2x6 SP No.1	TOP CHORD Structural wood sheathing directly applied or 4-9-10 oc purlins, except end verticals.
BOT CHORD 2x10 SP No.1	BOT CHORD Rigid ceiling directly applied or 8-6-15 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=442(LC 11)  
Max Grav 16=1581(LC 21), 12=1581(LC 20)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
TOP CHORD 2-4=-1664/0, 4-5=-1060/199, 5-6=-38/368, 6-7=-39/368, 7-8=-1060/199, 8-10=-1664/0,  
2-16=-1931/0, 10-12=-1931/0  
BOT CHORD 15-16=-410/503, 13-15=0/1053  
WEBS 5-7=-1342/289, 4-15=0/869, 8-13=0/869, 2-15=0/1096, 10-13=0/1099

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-10; Vult=130mph Vasd=103mph; TC DL=6.0psf; BC DL=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 11-0-0, Corner(3) 11-0-0 to 15-4-13, Exterior(2) 15-4-13 to 22-9-2 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). 4-15, 8-13
  - Bottom chord live load (40.0 psf) and additional bottom chord dead load (10.0 psf) applied only to room. 13-15
  - Attic room checked for L/360 deflection.



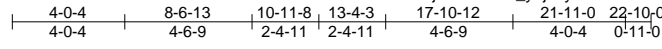
December 8, 2022

Job J0423-1893	Truss D2	Truss Type ATTIC	Qty 2	Ply 1	Wellco/Lot 539 Overhills Creek/Harnett 155623269
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Comtech, Inc. Fayetteville, NC - 28314,

8.430 s Jan 6 2022 MiTek Industries, Inc. Wed Dec 7 12:45:09 2022 Page 1

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6x8 =

Scale = 1:82.4

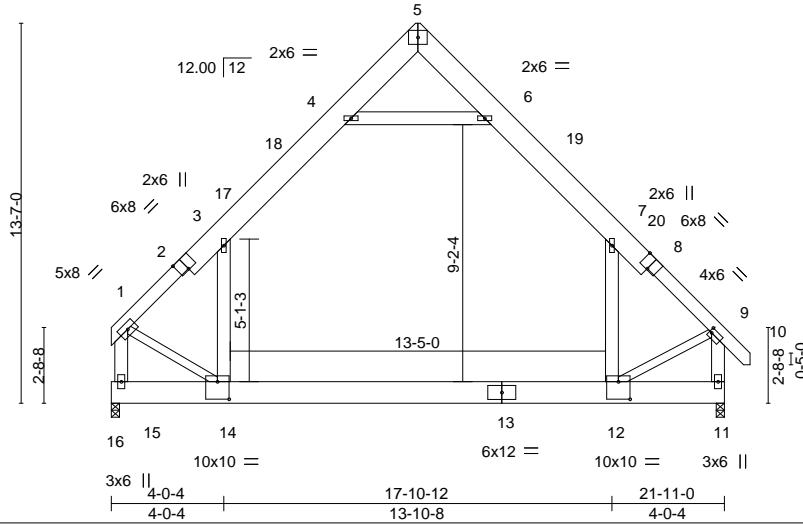


Plate Offsets (X, Y)-- [2:0-4-0,Edge], [8:0-4-0,Edge], [9:0-1-0,0-2-0], [12:0-5-0,0-7-8], [14:0-5-0,0-7-8]

LOADING (psf)	SPACING-	CSI.	DEFL.	PLATES	GRIP
TCLL 20.0	2-0-0	TC 0.61	in (loc) l/defl L/d	MT20	244/190
TCDL 10.0	Plate Grip DOL 1.15	BC 0.80	Vert(LL) -0.23 12-14 >999 360		
BCLL 0.0 *	Lumber DOL 1.15	WB 0.25	Vert(CT) -0.37 12-14 >696 240		
BCDL 10.0	Rep Stress Incr YES	Matrix-S	Horz(CT) 0.01 11 n/a n/a		
	Code IRC2015/TPI2014		Wind(LL) 0.05 12-14 >999 240	Weight: 257 lb	FT = 20%

**LUMBER-**  
TOP CHORD 2x10 SP No.1 \*Except\*  
1-2,8-10: 2x6 SP No.1  
BOT CHORD 2x10 SP No.1  
WEBS 2x6 SP No.1 \*Except\*  
1-14,9-12: 2x4 SP No.2

**BRACING-**  
TOP CHORD Structural wood sheathing directly applied or 4-9-15 oc purlins, except end verticals.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing, Except: 8-7-7 oc bracing: 12-14.

**REACTIONS.** (size) 11=0-3-8, 15=0-3-8  
Max Horz 15=320(LC 11)  
Max Grav 11=1574(LC 20), 15=1551(LC 21)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
TOP CHORD 1-3=-1619/0, 3-4=-1049/168, 4-5=-18/362, 5-6=-21/366, 6-7=-1040/158, 7-9=-1631/0, 1-15=-1900/0, 9-11=-1894/0  
BOT CHORD 14-15=-305/349, 12-14=0/1009  
WEBS 4-6=-1329/213, 3-14=0/833, 7-12=0/863, 1-14=0/1102, 9-12=0/1042

- 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) 0-4-12 to 4-9-9, Interior(1) 4-9-9 to 11-0-0, Exterior(2) 11-0-0 to 15-4-13, Interior(1) 15-4-13 to 22-9-2 zone; end vertical 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), 3-4, 6-7, 4-6; Wall dead load (5.0psf) on member(s), 3-14, 7-12
  - Bottom chord live load (40.0 psf) and additional bottom chord dead load (10.0 psf) applied only to room. 12-14
  - Attic room checked for L/360 deflection.



December 8, 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

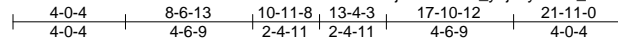
**ENGINEERING BY**  
**TRENCO**  
A MiTek Affiliate  
818 Soundside Road  
Edenton, NC 27932

Job J0423-1893	Truss D3	Truss Type ATTIC	Qty 3	Ply 1	Wellco/Lot 539 Overhills Creek/Harnett I55623270
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Comtech, Inc. Fayetteville, NC - 28314,

8.430 s Jan 6 2022 MiTek Industries, Inc. Wed Dec 7 12:45:11 2022 Page 1

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6x8 =

Scale = 1:82.4

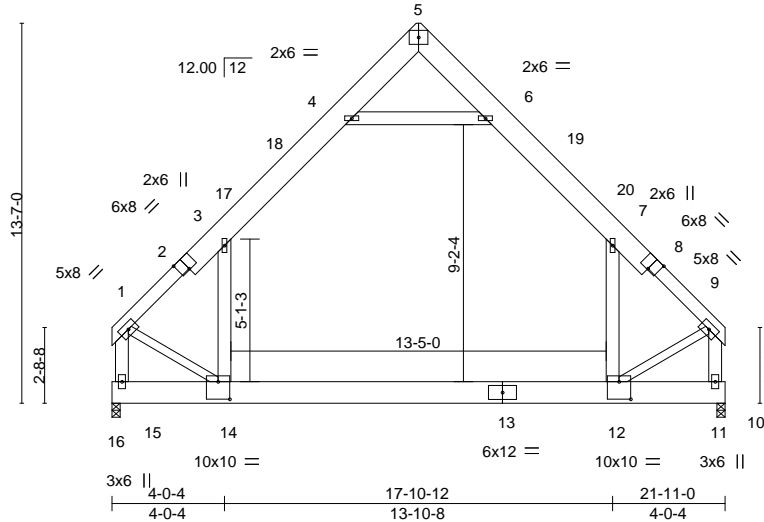


Plate Offsets (X, Y)-- [2:0-4-0,Edge], [8:0-4-0,Edge], [12:0-5-0,0-7-8], [14:0-5-0,0-7-8]

<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 0.60	Vert(LL)	-0.23	12-14	>999	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.79	Vert(CT)	-0.36	12-14	>700		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.25	Horz(CT)	0.01	11	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-S	Wind(LL)	0.05	12-14	>999	Weight: 254 lb	FT = 20%

**LUMBER-**  
 TOP CHORD 2x10 SP No.1 \*Except\*  
 1-2,8-9: 2x6 SP No.1  
 BOT CHORD 2x10 SP No.1  
 WEBS 2x6 SP No.1 \*Except\*  
 1-14,9-12: 2x4 SP No.2

**BRACING-**  
 TOP CHORD Structural wood sheathing directly applied or 4-10-12 oc purlins, except end verticals.  
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing. Except: 8-8-5 oc bracing: 12-14.

**REACTIONS.** (size) 15=0-3-8, 11=0-3-8  
 Max Horz 15=330(LC 8)  
 Max Grav 15=1544(LC 21), 11=1544(LC 20)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 1-3=-1604/0, 3-4=-1039/164, 4-5=-21/359, 5-6=-21/359, 6-7=-1039/164, 7-9=-1603/0, 1-15=-1885/0, 9-11=-1886/0  
 BOT CHORD 14-15=-317/359, 12-14=0/991  
 WEBS 4-6=-1312/202, 3-14=0/827, 7-12=0/827, 1-14=0/1096, 9-12=0/1097

- 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; BC DL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2) 0-4-12 to 4-9-9, Interior(1) 4-9-9 to 11-0-0, Exterior(2) 11-0-0 to 15-4-13, Interior(1) 15-4-13 to 21-7-4 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). 3-4, 6-7, 4-6; Wall dead load (5.0psf) on member(s). 3-14, 7-12
  - 6) Bottom chord live load (40.0 psf) and additional bottom chord dead load (10.0 psf) applied only to room. 12-14
  - 7) Attic room checked for L/360 deflection.



December 8, 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 J0423-1893	Truss M1GE	Truss Type MONOPITCH STRUCTURAL	Qty 1	Ply 1	Wellco/Lot 539 Overhills Creek/Harnett	155623271
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Comtech, Inc. Fayetteville, NC - 28314,

8.430 s Jan 6 2022 MiTek Industries, Inc. Wed Dec 7 12:45:12 2022 Page 1

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Job Reference (optional)

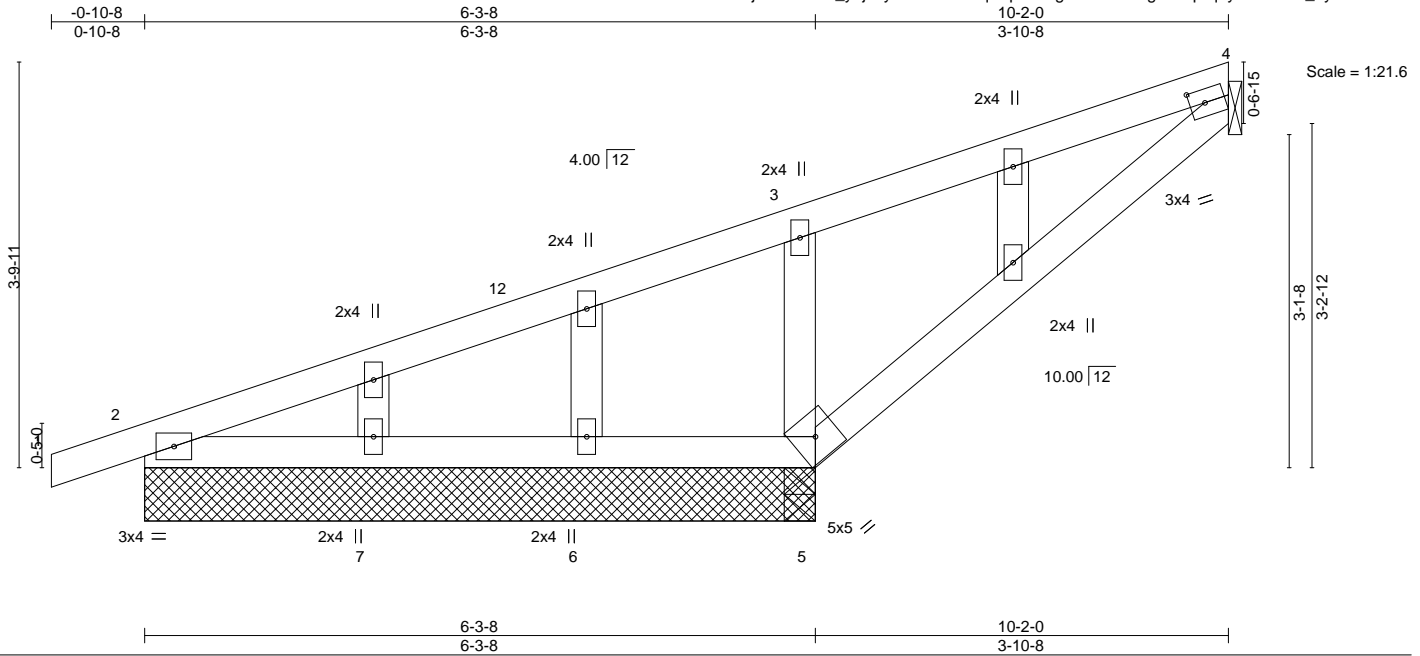


Plate Offsets (X,Y)--	[4:0-1-11,0-1-8]				
<b>LOADING</b> (psf)	<b>SPACING-</b> 2-0-0	<b>CSI.</b>	<b>DEFL.</b> in (loc) l/defl L/d	<b>PLATES</b>	<b>GRIP</b>
TCLL 20.0	Plate Grip DOL 1.15	TC 0.29	Vert(LL) -0.01 4-5 >999 360	MT20	244/190
TCDL 10.0	Lumber DOL 1.15	BC 0.19	Vert(CT) -0.02 4-5 >999 240		
BCLL 0.0 *	Rep Stress Incr YES	WB 0.05	Horz(CT) -0.00 4 n/a n/a		
BCDL 10.0	Code IRC2015/TPI2014	Matrix-S	Wind(LL) 0.00 2-7 >999 240	Weight: 42 lb	FT = 20%

<b>LUMBER-</b>	<b>BRACING-</b>
TOP CHORD 2x4 SP No.1	TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins.
BOT CHORD 2x4 SP No.1	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing. Except:
WEBS 2x4 SP No.2	6-0-0 oc bracing: 4-5.
OTHERS 2x4 SP No.2	

**REACTIONS.** All bearings 6-3-8 except (jt=length) 4=Mechanical.  
 (lb) - Max Horz 2=177(LC 8)  
 Max Uplift All uplift 100 lb or less at joint(s) 4, 2, 7 except 5=174(LC 12)  
 Max Grav All reactions 250 lb or less at joint(s) 4, 2, 6, 7 except 5=440(LC 1), 5=440(LC 1)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 WEBS 3-5=-353/236

- NOTES-**
- 1) 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 Exterior(2) -0-10-8 to 3-6-5, Interior(1) 3-6-5 to 10-3-12 zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - 2) 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.
  - 3) Gable studs spaced at 2-0-0 oc.
  - 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 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.
  - 6) Refer to girder(s) for truss to truss connections.
  - 7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 4, 2, 7 except (jt=lb) 5=174.



December 8, 2022

Job J0423-1893	Truss PB1	Truss Type PIGGYBACK	Qty 22	Ply 1	Wellco/Lot 539 Overhills Creek/Harnett I55623272
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Comtech, Inc. Fayetteville, NC - 28314,

8.430 s Jan 6 2022 MiTek Industries, Inc. Wed Dec 7 12:45:13 2022 Page 1  
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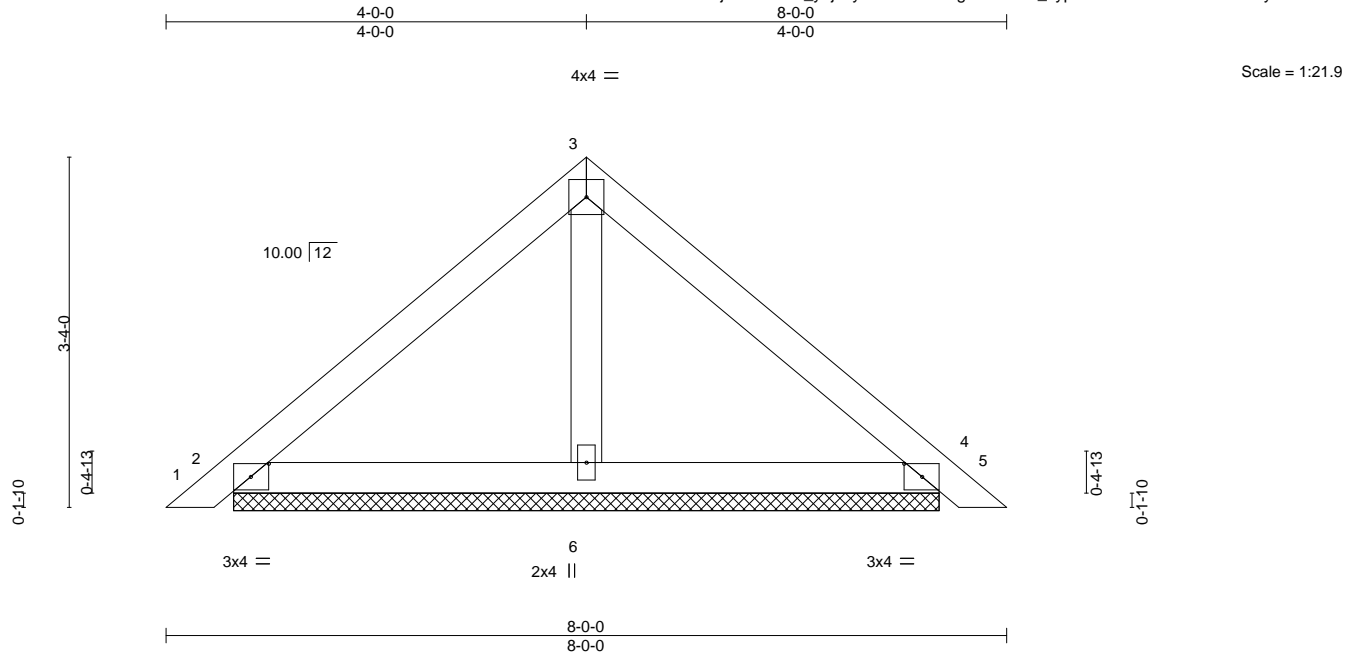


Plate Offsets (X,Y)--	[2:0-2-1,0-1-8], [4:0-2-1,0-1-8]				
<b>LOADING</b> (psf)	<b>SPACING-</b> 2-0-0	<b>CSI.</b>	<b>DEFL.</b> in (loc) l/defl L/d	<b>PLATES</b>	<b>GRIP</b>
TCLL 20.0	Plate Grip DOL 1.15	TC 0.17	Vert(LL) 0.00 5 n/r 120	MT20	244/190
TCDL 10.0	Lumber DOL 1.15	BC 0.08	Vert(CT) 0.01 5 n/r 120		
BCLL 0.0 *	Rep Stress Incr YES	WB 0.02	Horz(CT) 0.00 4 n/a n/a		
BCDL 10.0	Code IRC2015/TPI2014	Matrix-P		Weight: 29 lb	FT = 20%

<b>LUMBER-</b>	<b>BRACING-</b>
TOP CHORD 2x4 SP No.1	TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins.
BOT CHORD 2x4 SP No.1	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
OTHERS 2x4 SP No.2	

**REACTIONS.** (size) 2=6-8-9, 4=6-8-9, 6=6-8-9  
 Max Horz 2=-75(LC 10)  
 Max Uplift 2=-30(LC 12), 4=-37(LC 13)  
 Max Grav 2=182(LC 1), 4=182(LC 1), 6=223(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 7-10; Vult=130mph Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2) zone; C-C for members and forces & MWFRS for reactions shown; 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 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.
  - 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 4.
  - 7) See Standard Industry Piggyback Truss Connection Detail for Connection to base truss as applicable, or consult qualified building designer.





Job J0423-1893	Truss PB1GE	Truss Type GABLE	Qty 2	Ply 1	Wellco/Lot 539 Overhills Creek/Harnett I55623273
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Comtech, Inc. Fayetteville, NC - 28314,

8.430 s Jan 6 2022 MiTek Industries, Inc. Wed Dec 7 12:45:14 2022 Page 1

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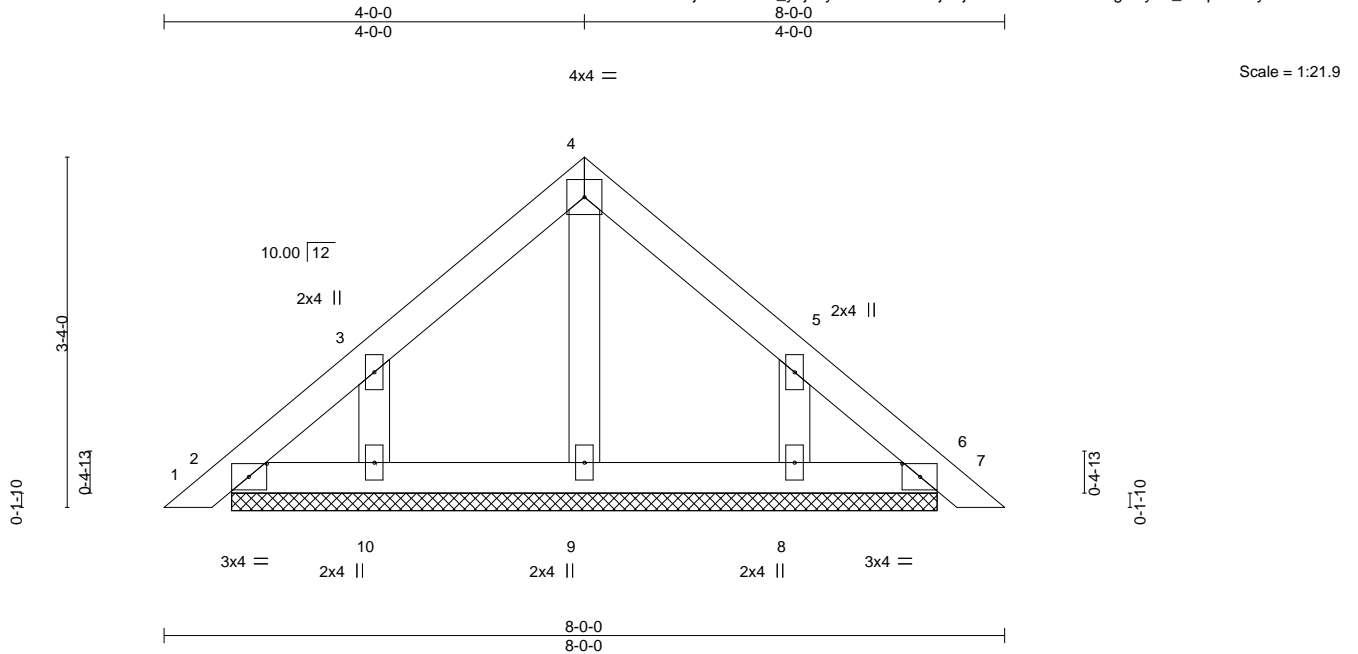


Plate Offsets (X, Y)--		[2:0-2-1,0-1-8], [6:0-2-1,0-1-8]							
<b>LOADING</b> (psf)	<b>SPACING-</b>	2-0-0	<b>CSI.</b>	<b>DEFL.</b>	in (loc)	l/defl	L/d	<b>PLATES</b>	<b>GRIP</b>
TCLL 20.0	Plate Grip DOL 1.15		TC 0.04	Vert(LL) -0.00	6	n/r	120	MT20	244/190
TCDL 10.0	Lumber DOL 1.15		BC 0.02	Vert(CT) 0.00	6	n/r	120		
BCLL 0.0 *	Rep Stress Incr YES		WB 0.03	Horz(CT) 0.00	6	n/a	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-P					Weight: 32 lb	FT = 20%

<b>LUMBER-</b>		<b>BRACING-</b>	
TOP CHORD	2x4 SP No.1	TOP CHORD	Structural wood sheathing directly applied or 6-0-0 oc purlins.
BOT CHORD	2x4 SP No.1	BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing.
OTHERS	2x4 SP No.2		

**REACTIONS.** All bearings 6-8-9.  
 (lb) - Max Horz 2=94(LC 11)  
 Max Uplift All uplift 100 lb or less at joint(s) 2, 6 except 10=121(LC 12), 8=120(LC 13)  
 Max Grav All reactions 250 lb or less at joint(s) 2, 6, 9, 10, 8

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

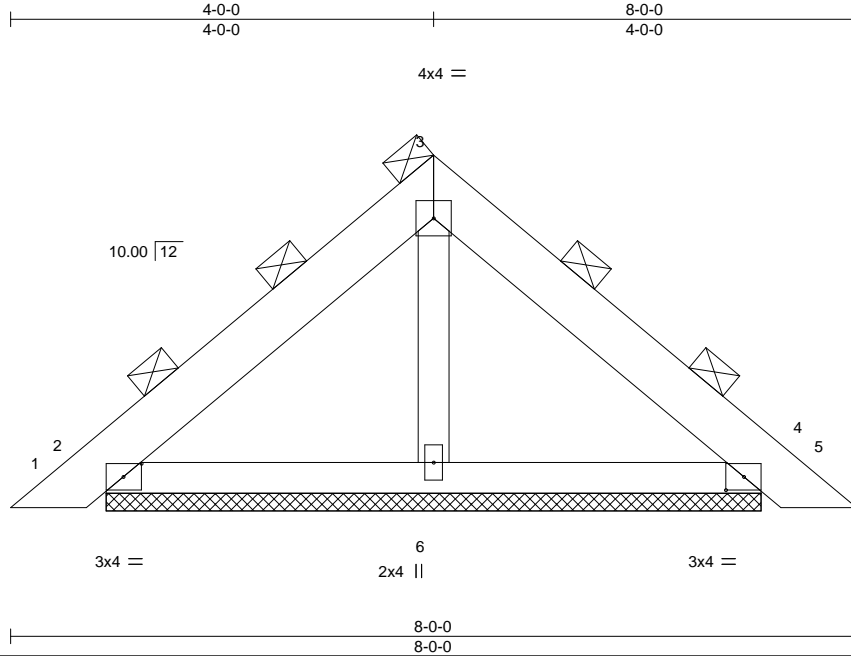
- NOTES-**
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-10; Vult=130mph Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; C-C for members and forces & MWFRS for reactions shown; Lumber 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.
  - 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) 2, 6 except (jt=lb) 10=121, 8=120.
  - See Standard Industry Piggyback Truss Connection Detail for Connection to base truss as applicable, or consult qualified building designer.



Job J0423-1893	Truss PB2	Truss Type PIGGYBACK	Qty 3	Ply 2	Wellco/Lot 539 Overhills Creek/Harnett	155623274
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Comtech, Inc., Fayetteville, NC 28309

8.430 s Jan 6 2022 MiTek Industries, Inc. Wed Dec 7 16:41:06 2022 Page 1  
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Scale = 1:21.8

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

LOADING (psf)	SPACING-	CSI.	DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	4-0-0	TC 0.07	Vert(LL)	0.00	5	n/r	120	MT20	244/190
TCDL 10.0	Plate Grip DOL 1.15	BC 0.08	Vert(CT)	0.00	5	n/r	120		
BCLL 0.0 *	Lumber DOL 1.15	WB 0.01	Horz(CT)	0.00	4	n/a	n/a		
BCDL 10.0	Rep Stress Incr NO	Matrix-P							
	Code IRC2015/TPI2014							Weight: 74 lb	FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x6 SP No.1	TOP CHORD 2-0-0 oc purlins (6-0-0 max.)
BOT CHORD 2x4 SP No.1	(Switched from sheeted: Spacing > 2-0-0).
WEBS 2x4 SP No.2	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS.** (lb/size) 2=373/6-2-5 (min. 0-1-8), 4=373/6-2-5 (min. 0-1-8), 6=377/6-2-5 (min. 0-1-8)  
 Max Horz 2=-146(LC 10)  
 Max Uplift 2=-66(LC 12), 4=-81(LC 13)  
 Max Grav 2=373(LC 1), 4=373(LC 1), 6=384(LC 3)

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

**NOTES-**

- 2-ply truss to be connected together with 10d (0.131"x3") nails as follows:  
 Top chords connected as follows: 2x6 - 2 rows staggered at 0-9-0 oc.  
 Bottom chords connected as follows: 2x4 - 1 row 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 7-10; Vult=130mph Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2) zone; C-C for members and forces & MWFRS for reactions shown; 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 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 66 lb uplift at joint 2 and 81 lb uplift at joint 4.
- 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.
- See Standard Industry Piggyback Truss Connection Detail for Connection to base truss as applicable, or consult qualified building designer.
- Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

**LOAD CASE(S)** Standard



December 8, 2022

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

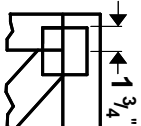
Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall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



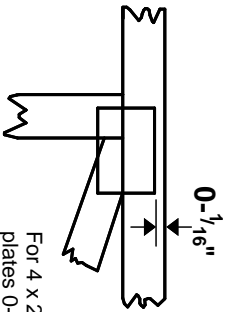
818 Soundside Road  
 Edenton, NC 27932

# 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



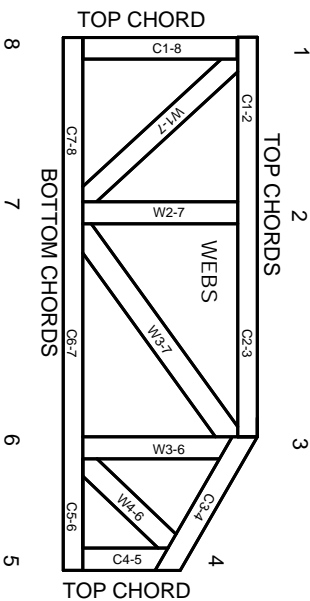
Indicates location where bearings (supports) occur. Icons vary but reaction section indicates joint number where bearings occur. Min size shown is for crushing only.

### 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  
BCSI: 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: Mill-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.