

Trenco  
818 Soundside Rd  
Edenton, NC 27932

Re: B1019-4782  
Vision C

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

Pages or sheets covered by this seal: E13695846 thru E13695863

My license renewal date for the state of North Carolina is December 31, 2019.

North Carolina COA: C-0844



October 28, 2019

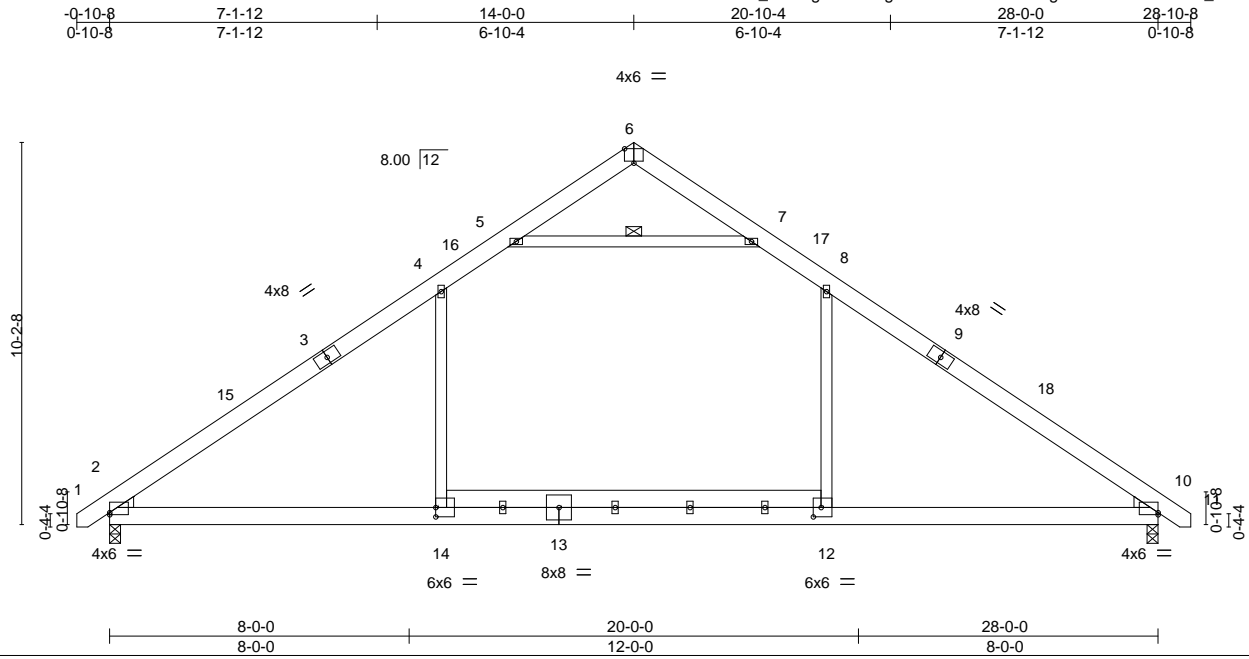
Gilbert, Eric

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

Job B1019-4782	Truss A01	Truss Type COMMON	Qty 3	Ply 1	Vision C Job Reference (optional)	E13695846
-------------------	--------------	----------------------	----------	----------	--------------------------------------	-----------

Comtech, Inc., Fayetteville, NC 28309

8.130 s Mar 11 2018 MiTek Industries, Inc. Mon Oct 28 12:34:49 2019 Page 1  
ID:500uZ\_4fAJagSYnK3Hg52cz8frK-Nvl8kruCXigvsPJXOO?HY4ZIIY\_3nllLjYBGpryOtr4



Scale = 1:61.5

LOADING (psf)	SPACING-	CSL	DEFL.	PLATES	GRIP
TCLL 20.0	2-0-0	TC 0.68	in (loc) l/defl L/d	MT20	244/190
TCDL 10.0	Plate Grip DOL 1.15	BC 0.78	Vert(LL) -0.30 2-14 >999 360		
BCLL 0.0 *	Lumber DOL 1.15	WB 0.43	Vert(CT) -0.38 12-14 >864 240		
BCDL 10.0	Rep Stress Incr NO	Matrix-S	Horz(CT) 0.03 10 n/a n/a		
	Code IRC2015/TPI2014		Wind(LL) 0.27 2-14 >999 240	Weight: 202 lb	FT = 20%

**LUMBER-**

TOP CHORD 2x6 SP No.1  
 BOT CHORD 2x6 SP No.1  
 WEBS 2x4 SP No.3 \*Except\*  
 12-14: 2x6 SP No.1

**WEDGE**

Left: 2x4 SP No.3, Right: 2x4 SP No.3

**REACTIONS.**

(lb/size) 2=1161/0-3-8, 10=1161/0-3-8  
 Max Horz 2=235(LC 11)  
 Max Uplift 2=-69(LC 12), 10=-69(LC 13)  
 Max Grav 2=1309(LC 19), 10=1309(LC 20)

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

TOP CHORD 2-4=-1819/293, 4-5=-1257/359, 7-8=-1257/359, 8-10=-1819/293  
 BOT CHORD 2-14=-67/1374, 12-14=-67/1374, 10-12=-67/1374  
 WEBS 8-12=0/571, 4-14=0/571, 5-7=-1566/457

**NOTES-**

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TC DL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; enclosed; MWFRS (envelope) and C-C Exterior(2) -0-8-12 to 3-8-1, Interior(1) 3-8-1 to 14-0-0, Exterior(2) 14-0-0 to 18-4-13 zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- All plates are 2x4 MT20 unless otherwise indicated.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- \* This truss has been designed for a live load of 30.0psf on the bottom chord in all areas with a clearance greater than 6-0-0 between the bottom chord and any other members, with BCDL = 10.0psf.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 10.
- See Standard Industry Piggyback Truss Connection Detail for Connection to base truss as applicable, or consult qualified building designer.



October 28, 2019

**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 10/03/2015 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, 218 N. Lee Street, Suite 312, Alexandria, VA 22314.

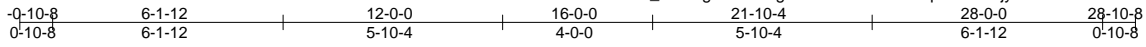


818 Soundside Road  
 Edenton, NC 27932

Job B1019-4782	Truss A03	Truss Type HIP	Qty 1	Ply 1	Vision C Job Reference (optional)	E13695847
-------------------	--------------	-------------------	----------	----------	--------------------------------------	-----------

Comtech, Inc., Fayetteville, NC 28309

8.130 s Mar 11 2018 MiTek Industries, Inc. Mon Oct 28 12:34:50 2019 Page 1  
ID:500uZ\_4fAJagSYnK3Hg52cz8frK-r5JWxBuqI?omTZujy5WW5H6TTxOPW3VyCqxMHyOtr3



Scale = 1:61.4

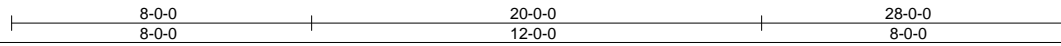
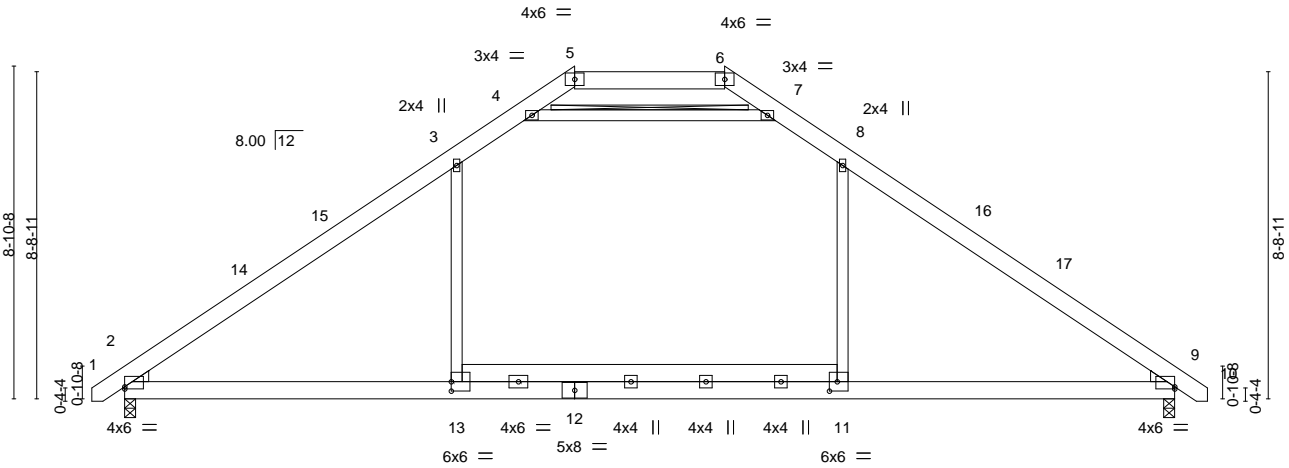


Plate Offsets (X,Y)-- [2:0-0-0,0-0-11], [9:0-0-0,0-0-11], [11:0-2-8,0-3-0], [13:0-0-0,0-3-0]

<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 0.66	Vert(LL)	-0.26	2-13	>999	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.52	Vert(CT)	-0.35	2-13	>960		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.62	Horz(CT)	0.03	9	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-S	Wind(LL)	0.24	2-13	>999		
								Weight: 200 lb	FT = 20%

**LUMBER-**

TOP CHORD 2x6 SP No.1  
BOT CHORD 2x6 SP No.1  
WEBS 2x4 SP No.3 \*Except\*  
11-13: 2x6 SP No.1

WEDGE  
Left: 2x4 SP No.3, Right: 2x4 SP No.3

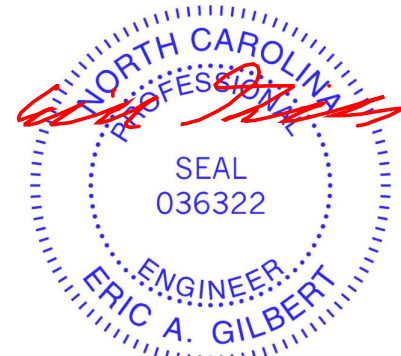
**REACTIONS.** (lb/size) 2=1161/0-3-8, 9=1161/0-3-8  
Max Horz 2=-202(LC 10)  
Max Uplift 2=-62(LC 12), 9=-62(LC 13)  
Max Grav 2=1284(LC 19), 9=1284(LC 20)

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

TOP CHORD 2-3=-1742/344, 3-4=-1195/407, 4-5=-109/631, 5-6=-156/776, 6-7=-109/631,  
7-8=-1196/407, 8-9=-1742/344  
BOT CHORD 2-13=-113/1317, 11-13=-118/1317, 9-11=-113/1317  
WEBS 3-13=0/552, 8-11=0/550, 4-7=-2033/600

**NOTES-**

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TC DL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; enclosed; MWFRS (envelope) and C-C Exterior(2) -0-8-12 to 3-8-1, Interior(1) 3-8-1 to 12-0-0, Exterior(2) 12-0-0 to 16-0-0, Interior(1) 22-2-11 to 28-8-12 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 with a clearance greater than 6-0-0 between the bottom chord and any other members, with BCDL = 10.0psf.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 9.
- 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.
- Warning: Additional permanent and stability bracing for truss system (not part of this component design) is always required.



October 28, 2019

**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 10/03/2015 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, 218 N. Lee Street, Suite 312, Alexandria, VA 22314.

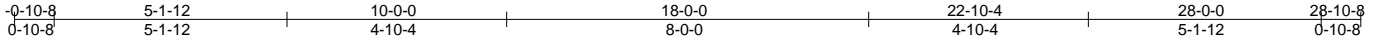


818 Soundside Road  
Edenton, NC 27932

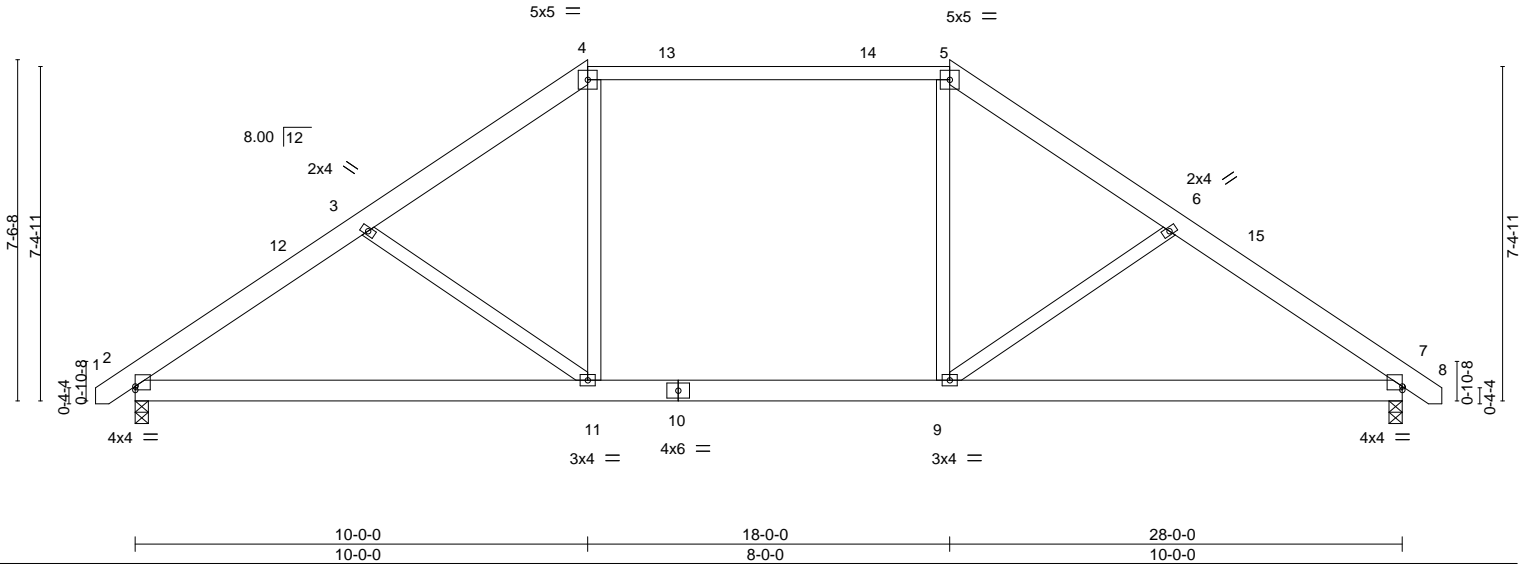
Job B1019-4782	Truss A04	Truss Type HIP	Qty 1	Ply 1	Vision C Job Reference (optional)	E13695848
-------------------	--------------	-------------------	----------	----------	--------------------------------------	-----------

Comtech, Inc., Fayetteville, NC 28309

8.130 s Mar 11 2018 MiTek Industries, Inc. Mon Oct 28 12:34:51 2019 Page 1  
ID:500uZ\_4fAJagSYnK3Hg52cz8frK-JHtu9WvS3Jwd5jTvWp1dVecyLm4FFmeBsgNuyjOtr2



Scale = 1:50.9



<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 0.80	Vert(LL)	-0.17 2-11	>999	360	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.43	Vert(CT)	-0.24 2-11	>999	240		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.21	Horz(CT)	0.03 7	n/a	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-S	Wind(LL)	0.16 2-11	>999	240	Weight: 177 lb	FT = 20%

<b>LUMBER-</b>	<b>BRACING-</b>
TOP CHORD 2x6 SP No.1 *Except* 4-5: 2x4 SP No.1	TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except 2-0-0 oc purlins (3-9-3 max.): 4-5.
BOT CHORD 2x6 SP No.1	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 2x4 SP No.3	

**REACTIONS.** (lb/size) 2=1161/0-3-8, 7=1161/0-3-8  
Max Horz 2=-171(LC 10)  
Max Uplift 2=-52(LC 12), 7=-52(LC 13)  
Max Grav 2=1195(LC 19), 7=1195(LC 20)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
TOP CHORD 2-3=-1637/417, 3-4=-1471/396, 4-5=-1183/382, 5-6=-1471/397, 6-7=-1637/416  
BOT CHORD 2-11=-257/1344, 9-11=-96/1183, 7-9=-249/1263  
WEBS 3-11=-286/197, 4-11=0/463, 5-9=0/462, 6-9=-286/196

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TC DL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; enclosed; MWFRS (envelope) and C-C Exterior(2) -0-8-12 to 3-8-1, Interior(1) 3-8-1 to 10-0-0, Exterior(2) 10-0-0 to 24-2-11, Interior(1) 24-2-11 to 28-8-12 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 with a clearance greater than 6-0-0 between the bottom chord and any other members, with BCDL = 10.0psf.
  - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 7.
  - 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.



October 28, 2019

**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 10/03/2015 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, 218 N. Lee Street, Suite 312, Alexandria, VA 22314.

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

Job B1019-4782	Truss A05	Truss Type ROOF SPECIAL	Qty 1	Ply 1	Vision C Job Reference (optional)	E13695849
-------------------	--------------	----------------------------	----------	----------	--------------------------------------	-----------

Comtech, Inc., Fayetteville, NC 28309

8.130 s Mar 11 2018 MiTek Industries, Inc. Mon Oct 28 12:34:52 2019 Page 1  
ID:500uZ\_4fAJagSYnK3Hg52cz8frK-nURHMsW4qd2Ujt264WY\_AiBp8l7f\_a1nQWQxQAYotr1

0-10-8 0-10-8	5-4-5 5-4-5	10-5-3 5-0-13	12-10-5 2-5-3	20-0-0 7-1-11	24-1-7 4-1-7	28-0-0 3-10-9	28-10-8 0-10-8
------------------	----------------	------------------	------------------	------------------	-----------------	------------------	-------------------

Scale = 1:56.9

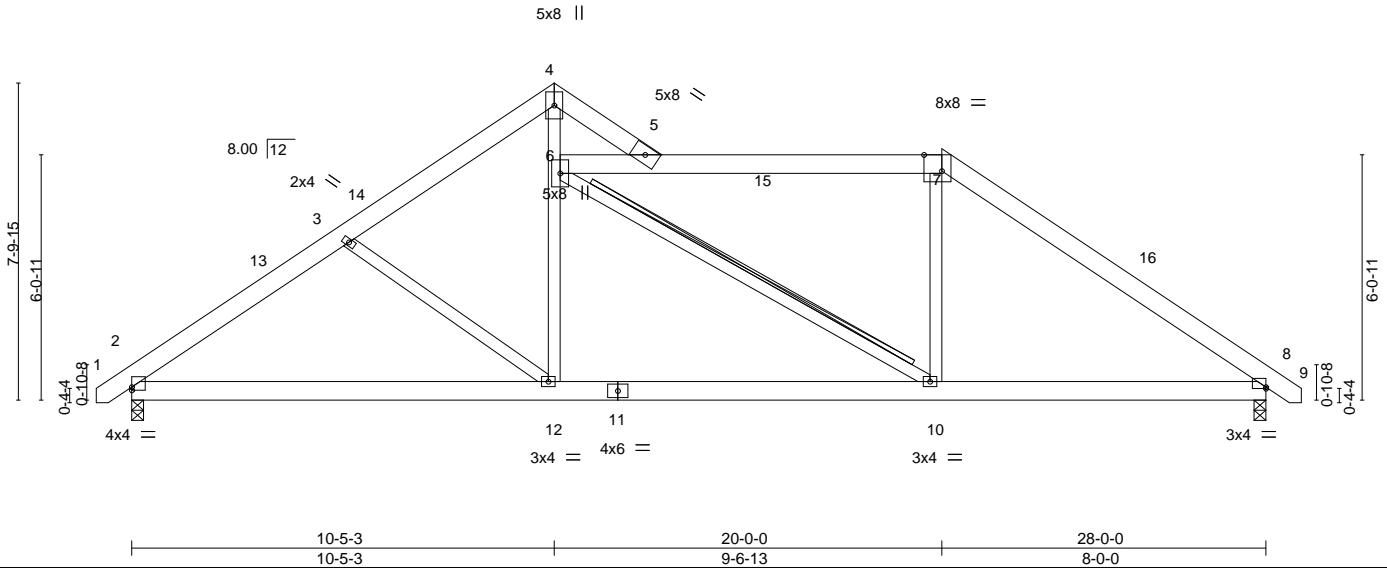


Plate Offsets (X,Y)-- [2:0-0-0,0-0-15], [7:0-5-5,Edge], [8:0-0-0,0-0-7]

LOADING (psf)	SPACING-	CSL	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL 1.15	TC 0.65	Vert(LL) -0.13	12	>999	360	MT20	244/190
TCDL 10.0	Lumber DOL 1.15	BC 0.34	Vert(CT) -0.25	2-12	>999	240		
BCLL 0.0 *	Rep Stress Incr YES	WB 0.72	Horz(CT) 0.03	8	n/a	n/a		
BCDL 10.0	Code IRC2015/TPI2014	Matrix-S	Wind(LL) 0.10	12	>999	240		
							Weight: 195 lb	FT = 20%

**LUMBER-**

TOP CHORD 2x6 SP No.1 \*Except\*  
6-7: 2x6 SP 2400F 2.0E  
BOT CHORD 2x6 SP No.1  
WEBS 2x4 SP No.3 \*Except\*  
4-12,6-10: 2x4 SP No.2

**BRACING-**

TOP CHORD Structural wood sheathing directly applied or 5-11-5 oc purlins, except  
2-0-0 oc purlins (6-0-0 max.): 6-7.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.  
WEBS T-Brace: 2x4 SPF No.2 - 6-10  
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.**

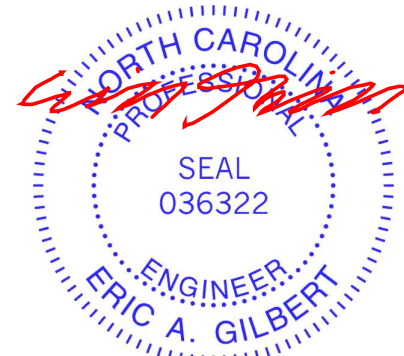
(lb/size) 2=1161/0-3-8, 8=1161/0-3-8  
Max Horz 2=180(LC 11)  
Max Uplift 2=-54(LC 12), 8=-97(LC 13)

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

TOP CHORD 2-3=-1512/370, 3-4=-1308/350, 4-5=-963/279, 5-6=-351/145, 5-7=-1209/382,  
7-8=-1595/366  
BOT CHORD 2-12=-208/1155, 10-12=-82/1088, 8-10=-153/1205  
WEBS 6-12=0/421, 4-6=-123/700, 7-10=0/322

**NOTES-**

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; enclosed; MWFRS (envelope) and C-C Exterior(2) -0-8-12 to 3-8-1, Interior(1) 3-8-1 to 10-5-3, Exterior(2) 10-5-3 to 24-4-13, Interior(1) 24-4-13 to 28-8-12 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 with a clearance greater than 6-0-0 between the bottom chord and any other members.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 8.
- 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.
- Warning: Additional permanent and stability bracing for truss system (not part of this component design) is always required.



October 28, 2019

**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 10/03/2015 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, 218 N. Lee Street, Suite 312, Alexandria, VA 22314.



818 Soundside Road  
Edenton, NC 27932

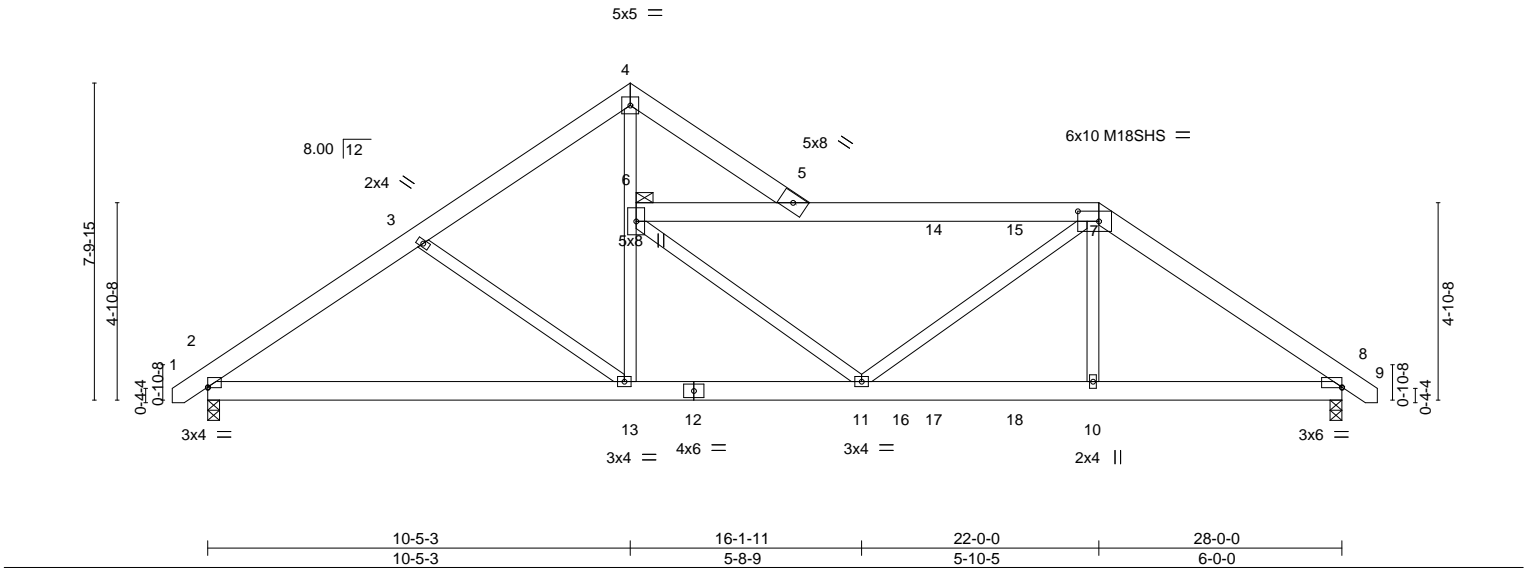
Job B1019-4782	Truss A06	Truss Type Roof Special Girder	Qty 1	Ply 2	Vision C	E13695850
-------------------	--------------	-----------------------------------	----------	----------	----------	-----------

Comtech, Inc., Fayetteville, NC 28309

8.130 s Mar 11 2018 MiTek Industries, Inc. Mon Oct 28 12:34:53 2019 Page 1  
 ID:500uZ\_4fAJagSYnK3Hg52cz8frK-Gg\_faCxbwALK1dlE3Djwix59STj?hxeA9UjycyOtr0



Scale = 1:56.9



<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 0.89	Vert(LL)	-0.23	13	>999	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.37	Vert(CT)	-0.43	2-13	>779	M18SHS	244/190
BCLL 0.0 *	Rep Stress Incr	NO	WB 0.88	Horz(CT)	0.03	8	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-S	Wind(LL)	0.22	13	>999		
								Weight: 404 lb	FT = 20%

<b>LUMBER-</b>	<b>BRACING-</b>
TOP CHORD 2x6 SP No.1 *Except*	TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except
6-7: 2x6 SP 2400F 2.0E	2-0-0 oc purlins (6-0-0 max.); 6-7.
BOT CHORD 2x6 SP No.1	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 2x4 SP No.3 *Except*	JOINTS 1 Brace at Jt(s): 6
4-13: 2x4 SP No.2	

<b>REACTIONS.</b>	(lb/size) 2=1704/0-3-8, 8=2284/0-3-8
	Max Horz 2=178(LC 6)
	Max Uplift 2=207(LC 8), 8=441(LC 9)

<b>FORCES.</b>	(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD	2-3=-2329/333, 3-4=-2151/361, 4-5=-1789/276, 5-6=-1542/332, 5-7=-3142/530, 7-8=-3639/738
BOT CHORD	2-13=-276/1807, 11-13=-200/1907, 10-11=-527/2945, 8-10=-526/2925
WEBS	3-13=-227/258, 6-13=-127/308, 4-6=-170/1444, 6-11=-322/1599, 7-11=0/298, 7-10=-29/705

- 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 (3-second gust) Vasd=103mph; TC DL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; enclosed; MWFRS (envelope); Lumber DOL=1.60 plate grip DOL=1.60
  - Provide adequate drainage to prevent water ponding.
  - All plates are MT20 plates unless otherwise indicated.
  - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - \* This truss has been designed for a live load of 30.0psf on the bottom chord in all areas with a clearance greater than 6-0-0 between the bottom chord and any other members.
  - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (it=lb) 2=207, 8=441.
  - 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.
  - Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 150 lb down and 124 lb up at 17-11-4, and 150 lb down and 124 lb up at 19-11-4, and 150 lb down and 128 lb up at 22-0-0 on top chord, and 891 lb down and 145 lb up at 17-1-8, 76 lb down at 17-11-4, and 76 lb down at 19-11-4, and 370 lb down and 142 lb up at 21-11-4 on bottom chord. Selection of such connection device(s) is the responsibility of others.



October 28, 2019

**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 10/03/2015 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, 218 N. Lee Street, Suite 312, Alexandria, VA 22314.

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

818 Soundside Road  
 Edenton, NC 27932



Job B1019-4782	Truss A06	Truss Type Roof Special Girder	Qty 1	Ply <b>2</b>	Vision C Job Reference (optional)	E13695850
-------------------	--------------	-----------------------------------	----------	-----------------	--------------------------------------	-----------

Comtech, Inc., Fayetteville, NC 28309

8.130 s Mar 11 2018 MiTek Industries, Inc. Mon Oct 28 12:34:53 2019 Page 2  
ID:500uZ\_4fAJagSYnK3Hg52cz8frK-Gg\_faCxiwALK1dldE3Djwix59STj?hxeA9UjcyOtr0

**LOAD CASE(S)** Standard

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

Uniform Loads (plf)

Vert: 1-4=-60, 4-5=-60, 5-7=-60, 7-9=-60, 2-8=-20

Concentrated Loads (lb)

Vert: 7=-110(F) 10=-370(F) 14=-110(F) 15=-110(F) 16=-891(F) 17=-38(F) 18=-38(F)

**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 10/03/2015 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, 218 N. Lee Street, Suite 312, Alexandria, VA 22314.

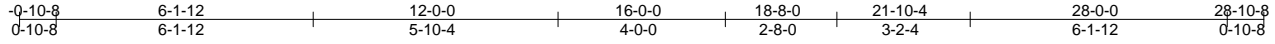


818 Soundside Road  
Edenton, NC 27932

Job B1019-4782	Truss A07	Truss Type HIP	Qty 1	Ply 1	Vision C Job Reference (optional)	E13695851
-------------------	--------------	-------------------	----------	----------	--------------------------------------	-----------

Comtech, Inc., Fayetteville, NC 28309

8.130 s Mar 11 2018 MiTek Industries, Inc. Mon Oct 28 12:34:54 2019 Page 1  
ID:500uZ\_4fAJagSYnK3Hg52cz8frK-ksY1nYxKLEICyACUBxaSF7GFzZqqSSk4tqv1V2yOtr?



Scale = 1:55.1

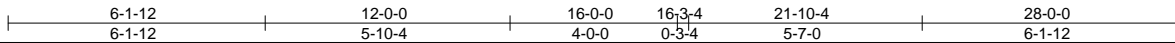
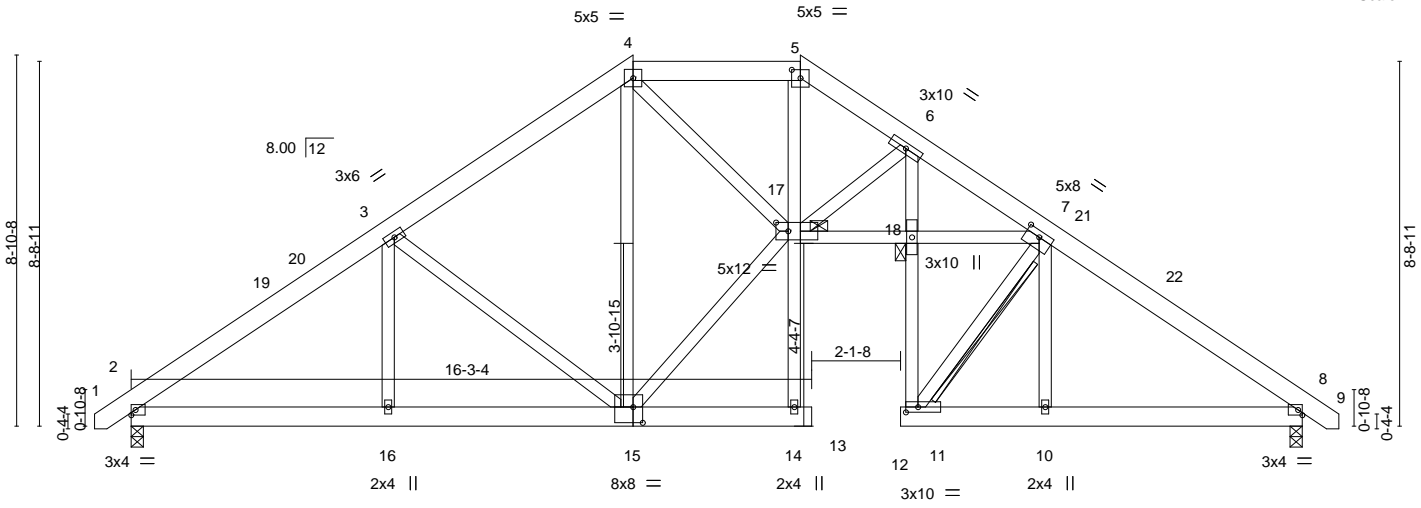


Plate Offsets (X,Y)-- [5:0-2-8,0-2-6], [7:0-4-0,0-1-12], [11:0-3-8,0-1-8], [15:0-2-12,0-4-8], [17:0-3-8,0-2-8]

<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 0.30	Vert(LL)	-0.15	12	>999	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.23	Vert(CT)	-0.29	12	>999		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.83	Horz(CT)	0.26	8	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-S	Wind(LL)	0.09	12	>999		
								Weight: 234 lb	FT = 20%

**LUMBER-**  
TOP CHORD 2x6 SP No.1  
BOT CHORD 2x6 SP No.1  
WEBS 2x4 SP No.3 \*Except\*  
7-17: 2x4 SP No.2

**BRACING-**  
TOP CHORD Structural wood sheathing directly applied or 4-1-5 oc purlins, except 2-0-0 oc purlins (5-9-2 max.): 4-5.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.  
WEBS T-Brace: 2x4 SPF No.2 - 7-11  
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.  
JOINTS 1 Brace at Jt(s): 17, 18

**REACTIONS.** (lb/size) 2=1145/0-3-8, 8=1134/0-3-8  
Max Horz 2=202(LC 10)  
Max Uplift 2=-72(LC 12), 8=-78(LC 13)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
TOP CHORD 2-3=-1585/376, 3-4=-1180/398, 4-5=-1854/452, 5-6=-2177/488, 6-7=-3400/688,  
7-8=-1540/382  
BOT CHORD 2-16=-214/1198, 15-16=-214/1198, 10-11=-205/1155, 8-10=-206/1153  
WEBS 3-16=0/254, 3-15=-487/198, 4-15=-660/24, 15-17=-85/1344, 4-17=-105/1370,  
17-18=-332/2747, 7-18=-332/2748, 5-17=-147/903, 11-18=-267/1608, 7-11=-1950/346,  
6-18=-235/1358, 6-17=-1165/285

- NOTES-**
- 1) Unbalanced roof live loads have been considered for this design.
  - 2) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TC DL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; enclosed; MWFRS (envelope) and C-C Exterior(2) -0-8-12 to 3-8-1, Interior(1) 3-8-1 to 12-0-0, Exterior(2) 12-0-0 to 16-0-0, Interior(1) 22-2-11 to 28-8-12 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 with a clearance greater than 6-0-0 between the bottom chord and any other members.
  - 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 8.
  - 7) See Standard Industry Piggyback Truss Connection Detail for Connection to base truss as applicable, or consult qualified building designer.
  - 8) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
  - 9) Warning: Additional permanent and stability bracing for truss system (not part of this component design) is always required.



October 28, 2019

**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 10/03/2015 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 ANSITPI Quality Criteria, DSB-89 and BCSI Building Component Safety Information available from Truss Plate Institute, 218 N. Lee Street, Suite 312, Alexandria, VA 22314.



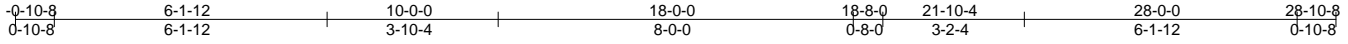
818 Soundside Road  
Edenton, NC 27932



Job B1019-4782	Truss A08	Truss Type HIP	Qty 1	Ply 1	Vision C	E13695852
-------------------	--------------	-------------------	----------	----------	----------	-----------

Comtech, Inc., Fayetteville, NC 28309

8.130 s Mar 11 2018 MiTek Industries, Inc. Mon Oct 28 12:34:55 2019 Page 1  
ID:500uZ\_4fAJagSYnk3Hg52cz8frK-C36P?uyz6YQ2aKnhlf6hoLpQuyAABwTE6Ueb1UyOtr\_



Scale = 1:51.9

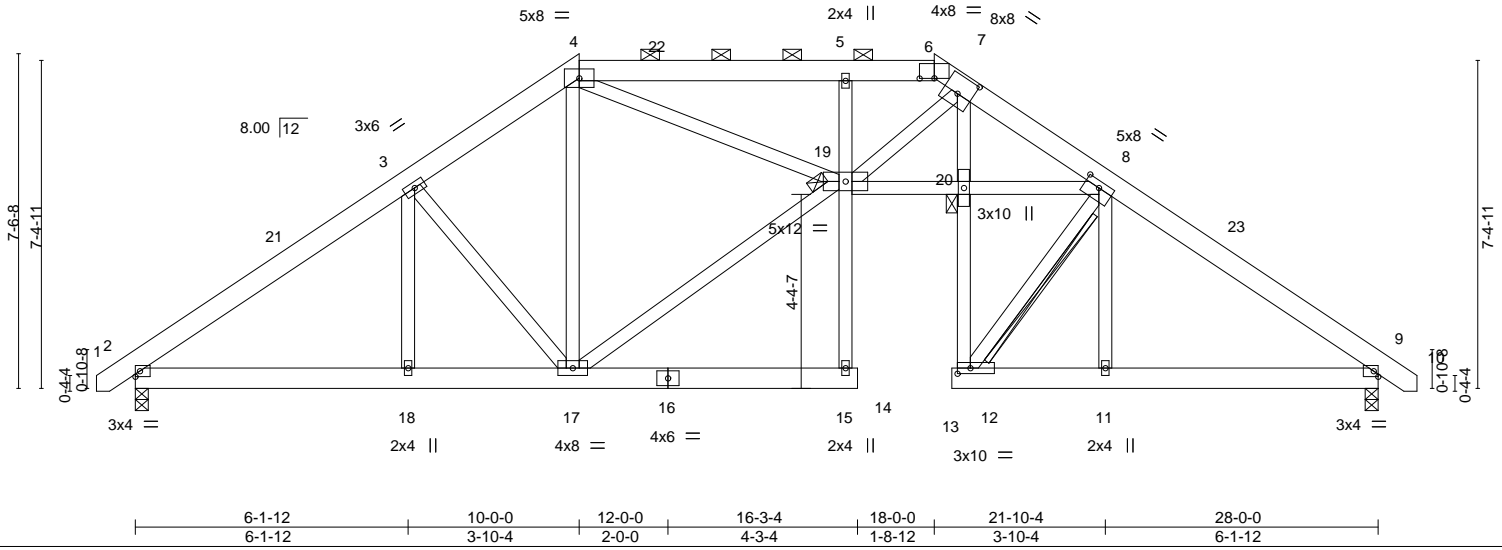


Plate Offsets (X,Y)--	[6:0-4-0,0-0-1], [7:0-4-0,0-4-12], [8:0-4-0,0-1-12], [12:0-3-8,0-1-8]
-----------------------	---

<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)	-0.16	13	>999	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.22	Vert(CT)	-0.31	13	>999		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.80	Horz(CT)	0.28	9	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-S	Wind(LL)	0.10	13	>999		
								Weight: 229 lb	FT = 20%

<b>LUMBER-</b>	<b>BRACING-</b>
TOP CHORD 2x6 SP 2400F 2.0E *Except* 4-6: 2x6 SP No.1	TOP CHORD Structural wood sheathing directly applied or 5-4-7 oc purlins, except 2-0-0 oc purlins (4-4-7 max.): 4-6.
BOT CHORD 2x6 SP No.1	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 2x4 SP No.3 *Except* 8-19: 2x4 SP No.2	WEBS T-Brace: 2x4 SPF No.2 - 8-12 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.
	JOINTS 1 Brace at Jt(s): 19, 20

**REACTIONS.** (lb/size) 2=1145/0-3-8, 9=1134/0-3-8  
Max Horz 2=-170(LC 10)  
Max Uplift 2=-61(LC 12), 9=-68(LC 13)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
TOP CHORD 2-3=-1569/402, 3-4=-1279/440, 4-5=-2798/669, 5-6=-2811/675, 6-7=-2595/616,  
7-8=-3297/705, 8-9=-1545/408  
BOT CHORD 2-18=-229/1179, 17-18=-229/1179, 11-12=-228/1164, 9-11=-229/1163  
WEBS 3-17=-365/171, 4-17=-420/60, 17-19=-146/1253, 4-19=-302/1939, 19-20=-316/2606,  
8-20=-316/2606, 12-20=-299/1622, 8-12=-1966/385, 7-20=-270/1397, 7-19=-163/396

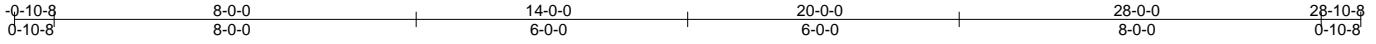
- NOTES-**
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCCL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; enclosed; MWFRS (envelope) and C-C Exterior(2) -0-8-12 to 3-8-1, Interior(1) 3-8-1 to 10-0-0, Exterior(2) 10-0-0 to 24-2-11, Interior(1) 24-2-11 to 28-8-12 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 with a clearance greater than 6-0-0 between the bottom chord and any other members.
  - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 9.
  - 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.
  - Warning: Additional permanent and stability bracing for truss system (not part of this component design) is always required.



Job B1019-4782	Truss A09	Truss Type HIP	Qty 1	Ply 1	Vision C Job Reference (optional)	E13695853
-------------------	--------------	-------------------	----------	----------	--------------------------------------	-----------

Comtech, Inc., Fayetteville, NC 28309

8.130 s Mar 11 2018 MiTek Industries, Inc. Mon Oct 28 12:34:56 2019 Page 1  
ID:500uZ\_4fAJagSYnK3Hg52cz8frK-gFgnCEzbrYvBUMtJMdwKYLasMTYwW8NK8O8YxyQtqz



Scale = 1:50.9

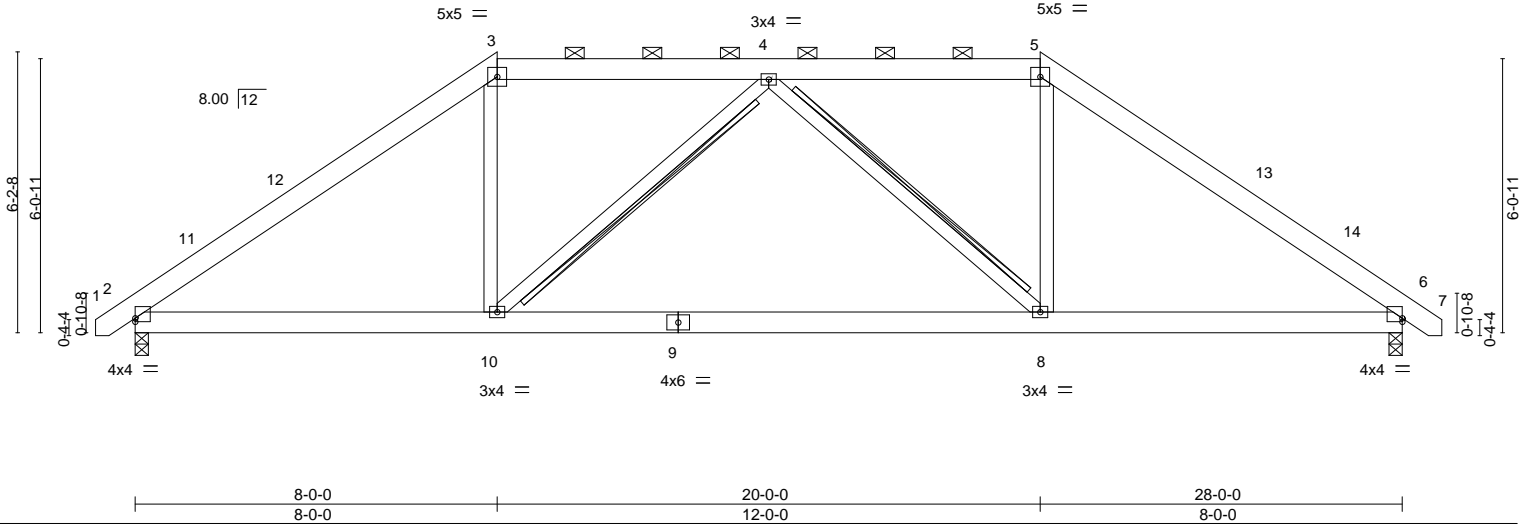


Plate Offsets (X,Y)--	[2:0-0-0,0-0-15], [6:0-0-0,0-0-15]
-----------------------	------------------------------------

<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 0.34	Vert(LL)	-0.11	8-10	>999	360	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.41	Vert(CT)	-0.24	8-10	>999	240		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.20	Horz(CT)	0.03	6	n/a	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-S	Wind(LL)	0.03	2-10	>999	240		
									Weight: 183 lb	FT = 20%

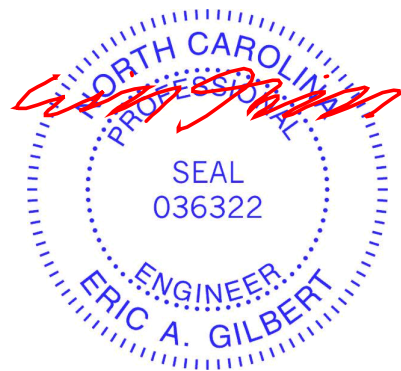
**LUMBER-**  
TOP CHORD 2x6 SP No.1  
BOT CHORD 2x6 SP No.1  
WEBS 2x4 SP No.3

**BRACING-**  
TOP CHORD Structural wood sheathing directly applied or 5-10-8 oc purlins, except 2-0-0 oc purlins (6-0-0 max.): 3-5.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.  
WEBS T-Brace: 2x4 SPF No.2 - 4-10, 4-8  
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.** (lb/size) 2=1161/0-3-8, 6=1161/0-3-8  
Max Horz 2=138(LC 11)  
Max Uplift 2=-39(LC 12), 6=-39(LC 13)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
TOP CHORD 2-3=-1582/355, 3-4=-1164/382, 4-5=-1164/382, 5-6=-1582/355  
BOT CHORD 2-10=-148/1173, 8-10=-242/1368, 6-8=-138/1173  
WEBS 3-10=0/523, 4-10=-371/179, 4-8=-371/178, 5-8=0/523

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TC DL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; enclosed; MWFRS (envelope) and C-C Exterior(2) -0-8-12 to 3-8-1, Interior(1) 3-8-1 to 8-0-0, Exterior(2) 8-0-0 to 26-2-11, Interior(1) 26-2-11 to 28-8-12 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 with a clearance greater than 6-0-0 between the bottom chord and any other members.
  - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 6.
  - 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.
  - Warning: Additional permanent and stability bracing for truss system (not part of this component design) is always required.



October 28, 2019

**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 10/03/2015 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, 218 N. Lee Street, Suite 312, Alexandria, VA 22314.

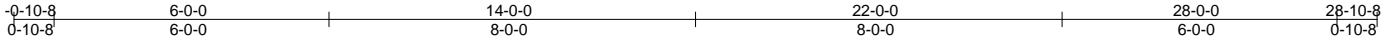
**ENGINEERING BY**  
**TRENCO**  
A MiTek Affiliate

818 Soundside Road  
Edenton, NC 27932

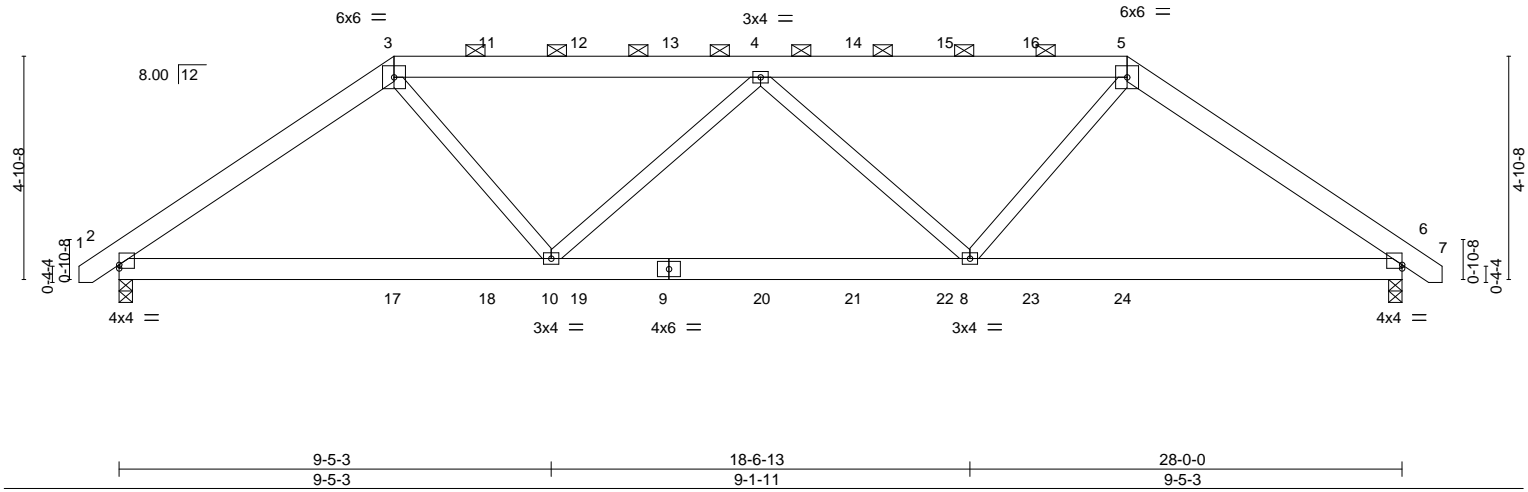
Job B1019-4782	Truss A10	Truss Type Hip Girder	Qty 1	Ply 2	Vision C	E13695854
-------------------	--------------	--------------------------	----------	----------	----------	-----------

Comtech, Inc., Fayetteville, NC 28309

8.130 s Mar 11 2018 MiTek Industries, Inc. Mon Oct 28 12:34:58 2019 Page 1  
ID:500uZ\_4fAJagSYnK3Hg52cz8frK-ceoYdw\_rPTodRoVGQnfOQzRvQA8lOODgoStFdpYotqx



Scale = 1:50.3



LOADING (psf)	SPACING-	CSL	DEFL.	PLATES	GRIP
TCLL 20.0	2-0-0	TC 0.34	in (loc) l/defl L/d	MT20	244/190
TCDL 10.0	Plate Grip DOL 1.15	BC 0.49	Vert(LL) -0.07 2-10 >999 360		
BCLL 0.0 *	Lumber DOL 1.15	WB 0.29	Vert(CT) -0.16 2-10 >999 240		
BCDL 10.0	Rep Stress Incr NO	Matrix-S	Horz(CT) 0.04 6 n/a n/a		
	Code IRC2015/TPI2014		Wind(LL) 0.09 2-10 >999 240	Weight: 352 lb	FT = 20%

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

**BRACING-**  
TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except 2-0-0 oc purlins (6-0-0 max.): 3-5.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS.** (lb/size) 2=2157/0-3-8, 6=2158/0-3-8  
Max Horz 2=-108(LC 25)  
Max Uplift 2=-525(LC 8), 6=-526(LC 9)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
TOP CHORD 2-3=-3027/824, 3-4=-3235/831, 4-5=-3239/833, 5-6=-3033/827  
BOT CHORD 2-10=-706/2387, 8-10=-1126/3764, 6-8=-627/2391  
WEBS 3-10=-258/1402, 4-10=-778/476, 4-8=-771/475, 5-8=-256/1402

- 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 (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; enclosed; MWFRS (envelope); 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 with a clearance greater than 6-0-0 between the bottom chord and any other members.
  - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=525, 6=526.
  - 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.
  - Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 140 lb down and 128 lb up at 6-0-0, 144 lb down and 124 lb up at 8-0-12, 144 lb down and 124 lb up at 10-0-12, 144 lb down and 124 lb up at 12-0-12, 144 lb down and 124 lb up at 14-0-12, 144 lb down and 124 lb up at 16-0-12, 144 lb down and 124 lb up at 18-0-12, and 144 lb down and 124 lb up at 19-11-4, and 140 lb down and 128 lb up at 22-0-0 on top chord, and 370 lb down and 142 lb up at 6-0-0, 76 lb down at 8-0-12, 76 lb down at 10-0-12, 76 lb down at 12-0-12, 76 lb down at 14-0-12, 76 lb down at 16-0-12, 76 lb down at 18-0-12, and 76 lb down at 19-11-4, and 370 lb down and 142 lb up at 21-11-4 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.



October 28, 2019

**LOAD CASE(S)** Standard

**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 10/03/2015 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, 218 N. Lee Street, Suite 312, Alexandria, VA 22314.



818 Soundside Road  
Edenton, NC 27932

Job B1019-4782	Truss A10	Truss Type Hip Girder	Qty 1	Ply <b>2</b>	Vision C Job Reference (optional)	E13695854
-------------------	--------------	--------------------------	----------	-----------------	--------------------------------------	-----------

Comtech, Inc., Fayetteville, NC 28309

8.130 s Mar 11 2018 MiTek Industries, Inc. Mon Oct 28 12:34:58 2019 Page 2  
ID:500uZ\_4fAJagSYnK3Hg52cz8frK-ceoYdw\_rPTodRoVGQnfOQzRvQA8lOODgoStFdpYQtqx

**LOAD CASE(S)** Standard

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

Uniform Loads (plf)

Vert: 1-3=-60, 3-5=-60, 5-7=-60, 2-6=-20

Concentrated Loads (lb)

Vert: 3=-110(B) 5=-110(B) 9=-38(B) 4=-110(B) 11=-110(B) 12=-110(B) 13=-110(B) 14=-110(B) 15=-110(B) 16=-110(B) 17=-370(B) 18=-38(B) 19=-38(B) 20=-38(B)  
21=-38(B) 22=-38(B) 23=-38(B) 24=-370(B)

**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 10/03/2015 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, 218 N. Lee Street, Suite 312, Alexandria, VA 22314.

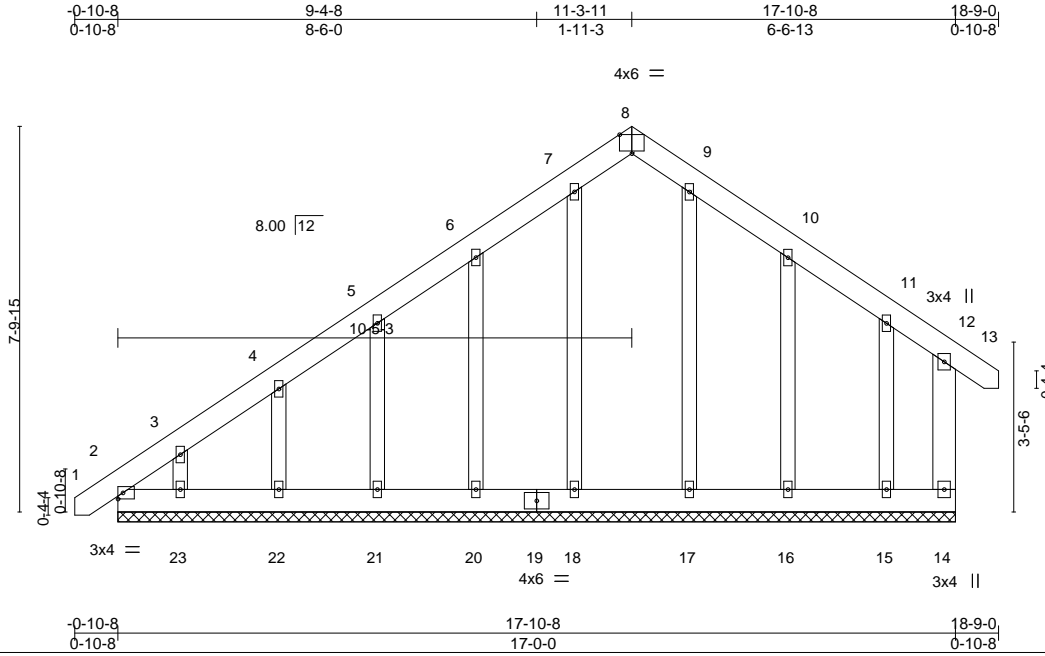


818 Soundside Road  
Edenton, NC 27932

Job B1019-4782	Truss B1	Truss Type GABLE	Qty 1	Ply 1	Vision C Job Reference (optional)	E13695855
-------------------	-------------	---------------------	----------	----------	--------------------------------------	-----------

Comtech, Inc., Fayetteville, NC 28309

8.130 s Mar 11 2018 MiTek Industries, Inc. Mon Oct 28 12:34:59 2019 Page 1  
ID:500uZ\_4fAJagSYnK3Hg52cz8frK-4qMwqF?TAmwU3y4S\_UAAdyBz9XabK7typ16co9GyOtqw



Scale = 1:46.8

Plate Offsets (X,Y)-- [8:0-3-0,Edge]

LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL	1.15	TC 0.06	Vert(LL)	-0.00	12	n/r	120	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.02	Vert(CT)	0.00	12	n/r	120		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.13	Horz(CT)	0.00	14	n/a	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-S							
									Weight: 147 lb	FT = 20%

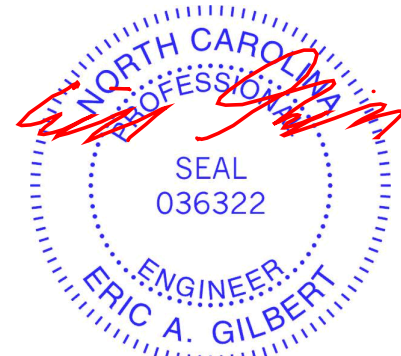
**LUMBER-**  
TOP CHORD 2x6 SP No.1  
BOT CHORD 2x6 SP No.1  
WEBS 2x6 SP No.1  
OTHERS 2x4 SP No.3

**BRACING-**  
TOP CHORD Structural wood sheathing directly applied or 6'-0-0 oc purlins, except end verticals.  
BOT CHORD Rigid ceiling directly applied or 10'-0-0 oc bracing.

**REACTIONS.** All bearings 17'-0-0.  
(lb) - Max Horz 2=222(LC 12)  
Max Uplift All uplift 100 lb or less at joint(s) 14, 18, 21, 22 except 2=116(LC 8), 20=104(LC 12), 23=130(LC 12), 16=114(LC 13), 15=115(LC 13)  
Max Grav All reactions 250 lb or less at joint(s) 14, 2, 20, 21, 22, 23, 17, 16, 15 except 18=277(LC 19)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
TOP CHORD 2-3=-271/240

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-10; Vult=130mph (3-second gust) 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) -0-8-12 to 3-8-1, Exterior(2) 3-8-1 to 10-5-3, Corner(3) 10-5-3 to 14-10-0 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 with a clearance greater than 6'-0-0 between the bottom chord and any other members, with BCDL = 10.0psf.
  - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 14, 18, 21, 22 except (jt=lb) 2=116, 20=104, 23=130, 16=114, 15=115.
  - See Standard Industry Piggyback Truss Connection Detail for Connection to base truss as applicable, or consult qualified building designer.



October 28, 2019

**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 10/03/2015 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, 218 N. Lee Street, Suite 312, Alexandria, VA 22314.



818 Soundside Road  
Edenton, NC 27932

Job B1019-4782	Truss B2	Truss Type COMMON	Qty 2	Ply 1	Vision C	E13695856
-------------------	-------------	----------------------	----------	----------	----------	-----------

Comtech, Inc., Fayetteville, NC 28309

8.130 s Mar 11 2018 MiTek Industries, Inc. Mon Oct 28 12:34:59 2019 Page 1

ID:500uZ\_4fAJagSYnK3Hg52cz8frK-4qMwqF?TAmwU3y4S\_UAAdyBz65aX37qsp16co9GyOtqw



Scale = 1:45.9

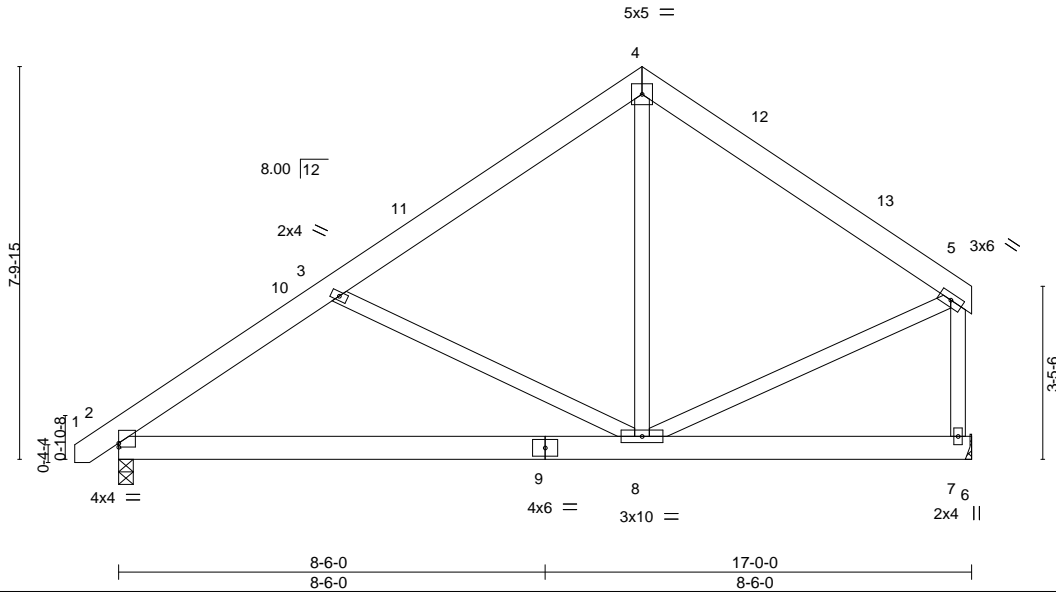


Plate Offsets (X,Y)-- [2:0-0-0,0-0-15]

LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	2-0-0	TC 0.22	Vert(LL) -0.07	2-8	>999	360	MT20	244/190
TCDL 10.0	Plate Grip DOL 1.15	BC 0.29	Vert(CT) -0.14	2-8	>999	240		
BCLL 0.0 *	Lumber DOL 1.15	WB 0.33	Horz(CT) 0.01	7	n/a	n/a		
BCDL 10.0	Rep Stress Incr YES	Matrix-S	Wind(LL) 0.01	2-8	>999	240		
	Code IRC2015/TPI2014						Weight: 125 lb	FT = 20%

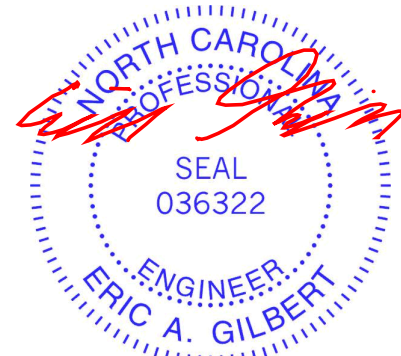
**LUMBER-**  
 TOP CHORD 2x6 SP No.1  
 BOT CHORD 2x6 SP No.1  
 WEBS 2x4 SP No.3

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

**REACTIONS.** (lb/size) 2=717/0-3-8, 7=667/Mechanical  
 Max Horz 2=174(LC 9)  
 Max Uplift 2=-44(LC 12), 7=-32(LC 12)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-3=-846/229, 3-4=-581/172, 4-5=-546/165  
 BOT CHORD 2-8=-234/694  
 WEBS 4-8=0/296, 5-7=-625/184, 3-8=-370/220, 5-8=-41/444

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCCL=6.0psf; BCCL=6.0psf; h=15ft; Cat. II; Exp C; enclosed; MWFRS (envelope) and C-C Exterior(2) -0-8-12 to 3-8-1, Interior(1) 3-8-1 to 10-5-3, Exterior(2) 10-5-3 to 14-10-0 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 with a clearance greater than 6-0-0 between the bottom chord and any other members.
  - Refer to girder(s) for truss to truss connections.
  - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 7.
  - See Standard Industry Piggyback Truss Connection Detail for Connection to base truss as applicable, or consult qualified building designer.



October 28, 2019

**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 10/03/2015 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, 218 N. Lee Street, Suite 312, Alexandria, VA 22314.



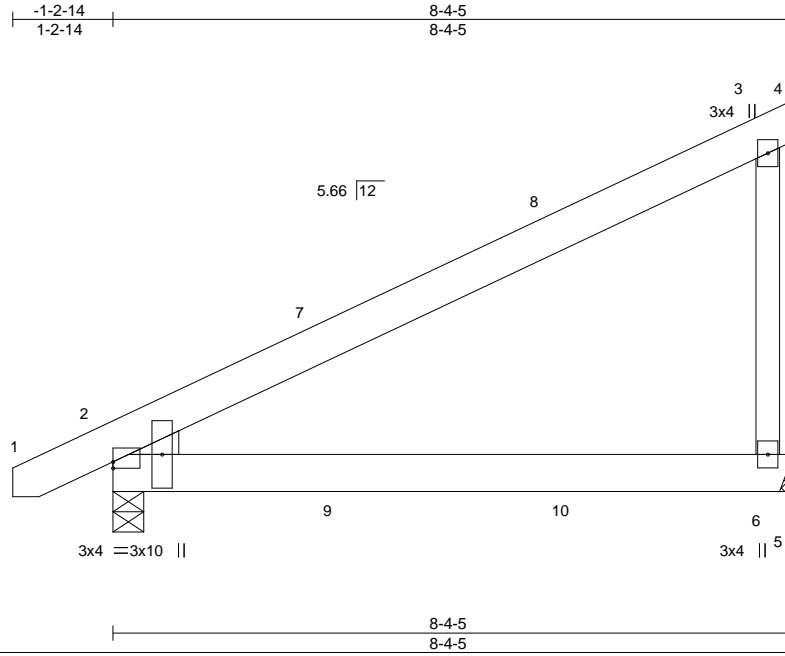
818 Soundside Road  
 Edenton, NC 27932



Job B1019-4782	Truss CJ08	Truss Type Diagonal Hip Girder	Qty 3	Ply 1	Vision C Job Reference (optional)	E13695857
-------------------	---------------	-----------------------------------	----------	----------	--------------------------------------	-----------

Comtech, Inc., Fayetteville, NC 28309

8,130 s Mar 11 2018 MiTek Industries, Inc. Mon Oct 28 12:35:00 2019 Page 1  
ID:500uZ\_4fAJagSYnK3Hg52cz8frk-Y0wI2b05x42Lg5feYChsVOWDQzrpsMEzFmMMhyyQtv



Scale = 1:28.5

Plate Offsets (X,Y)--		[2:0-0-0,0-0-15]							
<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 0.50	Vert(LL)	-0.06	2-6	>999	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.32	Vert(CT)	-0.12	2-6	>788		
BCLL 0.0 *	Rep Stress Incr	NO	WB 0.00	Horz(CT)	0.00		n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-P	Wind(LL)	0.00	2	****	Weight: 51 lb	FT = 20%

**LUMBER-**  
TOP CHORD 2x6 SP No.1  
BOT CHORD 2x6 SP No.1  
WEBS 2x4 SP No.3  
WEDGE  
Left: 2x4 SP No.3

**BRACING-**  
TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS.** (lb/size) 6=361/Mechanical, 2=416/0-4-9  
Max Horz 2=143(LC 8)  
Max Uplift 6=-129(LC 8), 2=-51(LC 4)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
TOP CHORD 3-6=-264/187

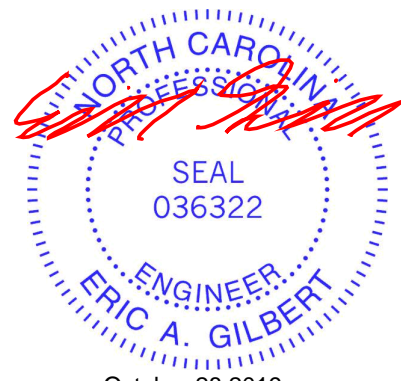
- NOTES-**
- 1) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; enclosed; MWFRS (envelope); Lumber DOL=1.60 plate grip DOL=1.60
  - 2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - 3) \* This truss has been designed for a live load of 30.0psf on the bottom chord in all areas with a clearance greater than 6-0-0 between the bottom chord and any other members.
  - 4) Refer to girder(s) for truss to truss connections.
  - 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2 except (jt=lb) 6=129.
  - 6) See Standard Industry Piggyback Truss Connection Detail for Connection to base truss as applicable, or consult qualified building designer.
  - 7) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 72 lb down and 48 lb up at 2-9-8, 72 lb down and 48 lb up at 2-9-8, and 110 lb down and 93 lb up at 5-7-7, and 110 lb down and 93 lb up at 5-7-7 on top chord, and 2 lb down at 2-9-8, 2 lb down at 2-9-8, and 20 lb down at 5-7-7, and 20 lb down at 5-7-7 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
  - 8) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

**LOAD CASE(S)** Standard

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

Uniform Loads (plf)  
Vert: 1-3=-60, 3-4=-20, 2-5=-20

Concentrated Loads (lb)  
Vert: 8=-40(F=-20, B=-20) 10=-17(F=-9, B=-9)

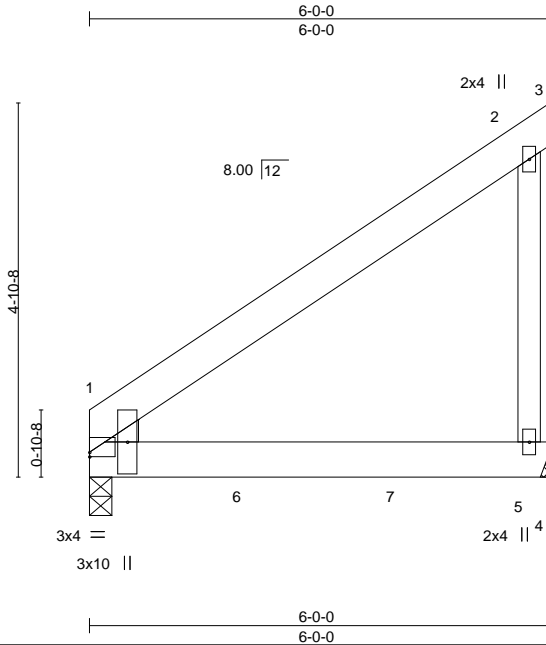


October 28, 2019

Job	Truss	Truss Type	Qty	Ply	Vision C	E13695858
B1019-4782	J1	MONOPITCH GIRDER	1	2	Job Reference (optional)	

Comtech, Inc., Fayetteville, NC 28309, .

8.130 s Oct 26 2017 MiTek Industries, Inc. Mon Oct 28 13:46:35 2019 Page 1  
 ID:500uZ\_4fAJagSYnK3Hg52cz8frK-4xab3V0yGhcGGH5zQPPUqyo538\_LCh\_G3ODebwyOtg2



Scale = 1:30.0

Plate Offsets (X,Y)-- [1:Edge,0-0-11]

LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	2-0-0	TC 0.11	Vert(LL) -0.05	1-5	>999	360	MT20	244/190
TCDL 10.0	Plate Grip DOL 1.15	BC 0.58	Vert(CT) -0.11	1-5	>623	240		
BCLL 0.0 *	Lumber DOL 1.15	WB 0.02	Horz(CT) 0.00	n/a	n/a			
BCDL 10.0	Rep Stress Incr NO	Matrix-P	Wind(LL) 0.04	1-5	>999	240		
	Code IRC2015/TPI2014						Weight: 76 lb	FT = 20%

**LUMBER-**

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

**BRACING-**

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

**REACTIONS.** (lb/size) 5=911/Mechanical, 1=841/0-3-8  
 Max Horz 1=141(LC 8)  
 Max Uplift 5=-125(LC 8), 1=-11(LC 8)

**FORCES.** (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=-109/97, 2-3=-3/0  
 BOT CHORD 1-6=0/0, 6-7=0/0, 5-7=0/0, 4-5=0/0  
 WEBS 2-5=-195/116

**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.
- Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TC DL=6.0psf; BC DL=6.0psf; h=15ft; Cat. II; Exp C; enclosed; MWFRS (envelope); 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 with a clearance greater than 6'-0-0 between the bottom chord and any other members.
- Refer to girder(s) for truss to truss connections.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 125 lb uplift at joint 5 and 11 lb uplift at joint 1.
- 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.
- Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 647 lb down and 52 lb up at 2-0-12, and 647 lb down and 52 lb up at 4-0-12 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.

**LOAD CASE(S)**

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



October 28, 2019

Continued on page 2

**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 10/03/2015 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, 218 N. Lee Street, Suite 312, Alexandria, VA 22314.



818 Soundside Road  
 Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Vision C	E13695858
B1019-4782	J1	MONOPITCH GIRDER	1	2	Job Reference (optional)	

Comtech, Inc., Fayetteville, NC 28309, .

8.130 s Oct 26 2017 MiTek Industries, Inc. Mon Oct 28 13:46:36 2019 Page 2  
ID:500uZ\_4fAJagSYnK3Hg52cz8frK-Y88\_Hr1a1?k7tRf9\_7wjN9LGpXKax8EPI2yB8MyOtg1

#### LOAD CASE(S)

- Uniform Loads (plf)  
Vert: 1-2=-60, 2-3=-20, 1-4=-20
- Concentrated Loads (lb)  
Vert: 6=-647(B) 7=-647(B)
- 2) Dead + 0.75 Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
- Uniform Loads (plf)  
Vert: 1-2=-50, 2-3=-20, 1-4=-20
- Concentrated Loads (lb)  
Vert: 6=-565(B) 7=-565(B)
- 3) Dead + Uninhabitable Attic Without Storage: Lumber Increase=1.25, Plate Increase=1.25
- Uniform Loads (plf)  
Vert: 1-3=-20, 1-4=-40
- Concentrated Loads (lb)  
Vert: 6=-468(B) 7=-468(B)
- 4) Dead + 0.6 MWFRS Wind (Pos. Internal) Left: Lumber Increase=1.60, Plate Increase=1.60
- Uniform Loads (plf)  
Vert: 1-2=-13, 2-3=-20, 1-4=-12  
Horz: 1-2=1, 2-3=8
- Concentrated Loads (lb)  
Vert: 6=44(B) 7=44(B)
- 5) Dead + 0.6 MWFRS Wind (Pos. Internal) Right: Lumber Increase=1.60, Plate Increase=1.60
- Uniform Loads (plf)  
Vert: 1-2=11, 2-3=4, 1-4=-12  
Horz: 1-2=-23, 2-3=-16
- Concentrated Loads (lb)  
Vert: 6=44(B) 7=44(B)
- 6) Dead + 0.6 MWFRS Wind (Neg. Internal) Left: Lumber Increase=1.60, Plate Increase=1.60
- Uniform Loads (plf)  
Vert: 1-2=-35, 2-3=-28, 1-4=-20  
Horz: 1-2=15, 2-3=8
- Concentrated Loads (lb)  
Vert: 6=52(B) 7=52(B)
- 7) Dead + 0.6 MWFRS Wind (Neg. Internal) Right: Lumber Increase=1.60, Plate Increase=1.60
- Uniform Loads (plf)  
Vert: 1-2=-11, 2-3=-4, 1-4=-20  
Horz: 1-2=-9, 2-3=-16
- Concentrated Loads (lb)  
Vert: 6=52(B) 7=52(B)
- 8) Dead + 0.6 MWFRS Wind (Pos. Internal) 1st Parallel: Lumber Increase=1.60, Plate Increase=1.60
- Uniform Loads (plf)  
Vert: 1-2=21, 2-3=14, 1-4=-12  
Horz: 1-2=-33, 2-3=-26
- Concentrated Loads (lb)  
Vert: 6=44(B) 7=44(B)
- 9) Dead + 0.6 MWFRS Wind (Pos. Internal) 2nd Parallel: Lumber Increase=1.60, Plate Increase=1.60
- Uniform Loads (plf)  
Vert: 1-2=9, 2-3=2, 1-4=-12  
Horz: 1-2=-21, 2-3=-14
- Concentrated Loads (lb)  
Vert: 6=44(B) 7=44(B)
- 10) Dead + 0.6 MWFRS Wind (Pos. Internal) 3rd Parallel: Lumber Increase=1.60, Plate Increase=1.60
- Uniform Loads (plf)  
Vert: 1-2=21, 2-3=14, 1-4=-12  
Horz: 1-2=-33, 2-3=-26
- Concentrated Loads (lb)  
Vert: 6=44(B) 7=44(B)
- 11) Dead + 0.6 MWFRS Wind (Pos. Internal) 4th Parallel: Lumber Increase=1.60, Plate Increase=1.60
- Uniform Loads (plf)  
Vert: 1-2=9, 2-3=2, 1-4=-12  
Horz: 1-2=-21, 2-3=-14
- Concentrated Loads (lb)  
Vert: 6=44(B) 7=44(B)
- 12) Dead + 0.6 MWFRS Wind (Neg. Internal) 1st Parallel: Lumber Increase=1.60, Plate Increase=1.60
- Uniform Loads (plf)  
Vert: 1-2=-1, 2-3=6, 1-4=-20  
Horz: 1-2=-19, 2-3=-26
- Concentrated Loads (lb)  
Vert: 6=52(B) 7=52(B)
- 13) Dead + 0.6 MWFRS Wind (Neg. Internal) 2nd Parallel: Lumber Increase=1.60, Plate Increase=1.60
- Uniform Loads (plf)  
Vert: 1-2=-13, 2-3=-6, 1-4=-20  
Horz: 1-2=-7, 2-3=-14
- Concentrated Loads (lb)  
Vert: 6=52(B) 7=52(B)

Continued on page 3

**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 10/03/2015 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, 218 N. Lee Street, Suite 312, Alexandria, VA 22314.



818 Soundside Road  
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Vision C	E13695858
B1019-4782	J1	MONOPITCH GIRDER	1	2	Job Reference (optional)	

Comtech, Inc., Fayetteville, NC 28309, .

8.130 s Oct 26 2017 MiTek Industries, Inc. Mon Oct 28 13:46:36 2019 Page 3  
 ID:500uZ\_4fAJagSYnK3Hg52cz8frK-Y88\_Hr1a1?k7tRf9\_7wjN9LGpXKax8EPI2yB8MyOtg1

**LOAD CASE(S)**

- 14) Dead: Lumber Increase=0.90, Plate Increase=0.90 Plt. metal=0.90  
 Uniform Loads (plf)  
   Vert: 1-3=-20, 1-4=-20  
 Concentrated Loads (lb)  
   Vert: 6=-317(B) 7=-317(B)
- 15) Dead + 0.75 Roof Live (bal.) + 0.75(0.6 MWFRS Wind (Neg. Int) Left): Lumber Increase=1.60, Plate Increase=1.60  
 Uniform Loads (plf)  
   Vert: 1-2=-61, 2-3=-26, 1-4=-20  
   Horz: 1-2=11, 2-3=6  
 Concentrated Loads (lb)  
   Vert: 6=-7(B) 7=-7(B)
- 16) Dead + 0.75 Roof Live (bal.) + 0.75(0.6 MWFRS Wind (Neg. Int) Right): Lumber Increase=1.60, Plate Increase=1.60  
 Uniform Loads (plf)  
   Vert: 1-2=-43, 2-3=-8, 1-4=-20  
   Horz: 1-2=-7, 2-3=-12  
 Concentrated Loads (lb)  
   Vert: 6=-7(B) 7=-7(B)
- 17) Dead + 0.75 Roof Live (bal.) + 0.75(0.6 MWFRS Wind (Neg. Int) 1st Parallel): Lumber Increase=1.60, Plate Increase=1.60  
 Uniform Loads (plf)  
   Vert: 1-2=-36, 2-3=-1, 1-4=-20  
   Horz: 1-2=-14, 2-3=-19  
 Concentrated Loads (lb)  
   Vert: 6=-7(B) 7=-7(B)
- 18) Dead + 0.75 Roof Live (bal.) + 0.75(0.6 MWFRS Wind (Neg. Int) 2nd Parallel): Lumber Increase=1.60, Plate Increase=1.60  
 Uniform Loads (plf)  
   Vert: 1-2=-45, 2-3=-10, 1-4=-20  
   Horz: 1-2=-5, 2-3=-10  
 Concentrated Loads (lb)  
   Vert: 6=-7(B) 7=-7(B)

**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 10/03/2015 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, 218 N. Lee Street, Suite 312, Alexandria, VA 22314.



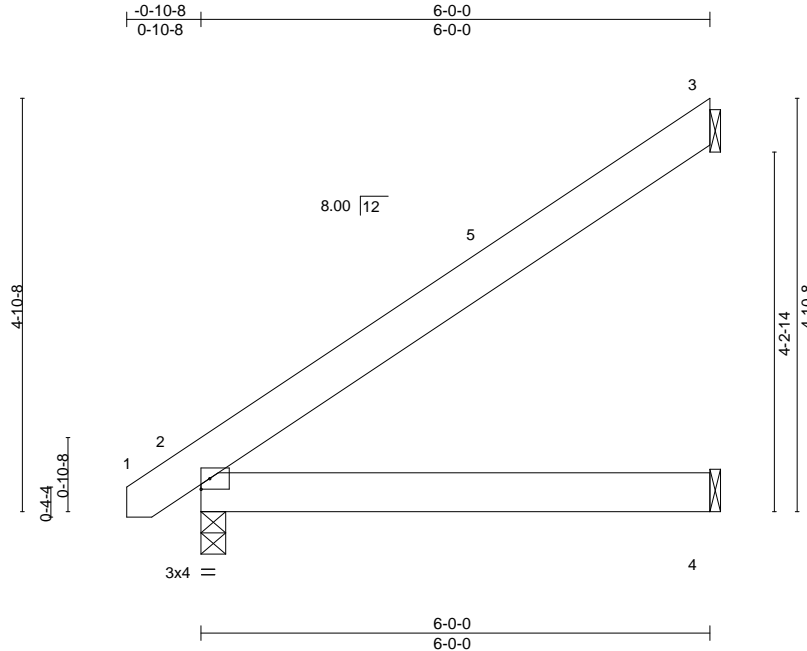
818 Soundside Road  
 Edenton, NC 27932

Job B1019-4782	Truss J2	Truss Type JACK-OPEN	Qty 12	Ply 1	Vision C Job Reference (optional)	E13695859
-------------------	-------------	-------------------------	-----------	----------	--------------------------------------	-----------

Comtech, Inc., Fayetteville, NC 28309

8.130 s Mar 11 2018 MiTek Industries, Inc. Mon Oct 28 12:35:01 2019 Page 1

ID:500uZ\_4fAJagSYnK3Hg52cz8frK-1CTgFx1jiOACIFEq5vC51c3SXNE1bpU6UQ5vE8yOtqu



Scale = 1:27.2

LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL 1.15	TC 0.22	Vert(LL) -0.02	2-4	>999	360	MT20	244/190
TCDL 10.0	Lumber DOL 1.15	BC 0.13	Vert(CT) -0.03	2-4	>999	240		
BCLL 0.0 *	Rep Stress Incr YES	WB 0.00	Horz(CT) -0.00	3	n/a	n/a		
BCDL 10.0	Code IRC2015/TPI2014	Matrix-P	Wind(LL) 0.00	2	****	240	Weight: 34 lb	FT = 20%

**LUMBER-**

TOP CHORD 2x6 SP No.1  
BOT CHORD 2x6 SP No.1

**BRACING-**

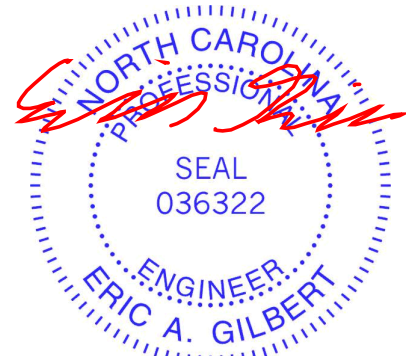
TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS.** (lb/size) 3=170/Mechanical, 2=288/0-3-8, 4=58/Mechanical  
Max Horz 2=144(LC 12)  
Max Uplift 3=111(LC 12)  
Max Grav 3=191(LC 19), 2=288(LC 1), 4=116(LC 3)

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

**NOTES-**

- 1) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; enclosed; MWFRS (envelope) and C-C Exterior(2) -0-8-12 to 3-8-1, Interior(1) 3-8-1 to 5-11-4 zone;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 3) \* This truss has been designed for a live load of 30.0psf on the bottom chord in all areas with a clearance greater than 6-0-0 between the bottom chord and any other members.
- 4) Refer to girder(s) for truss to truss connections.
- 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 3=111.
- 6) See Standard Industry Piggyback Truss Connection Detail for Connection to base truss as applicable, or consult qualified building designer.



October 28, 2019

**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 10/03/2015 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, 218 N. Lee Street, Suite 312, Alexandria, VA 22314.

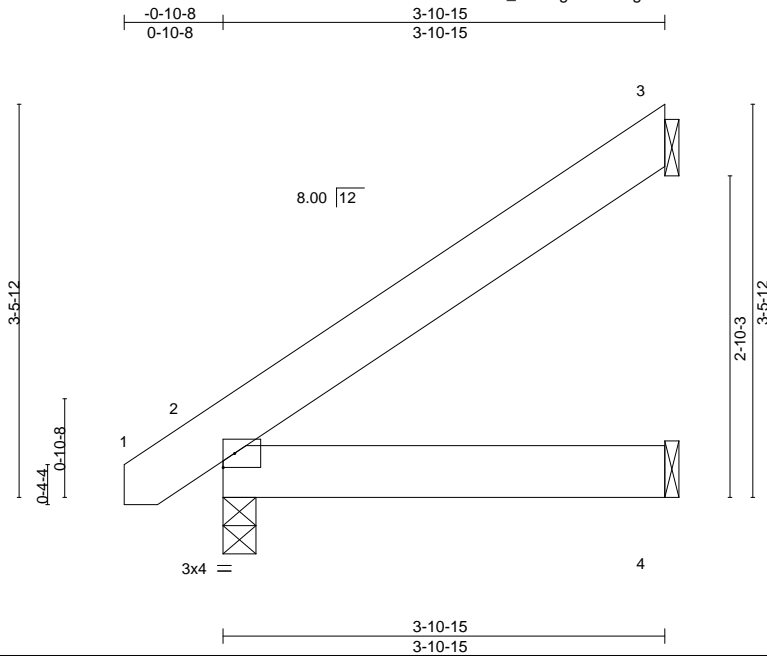


818 Soundside Road  
Edenton, NC 27932

Job B1019-4782	Truss J3	Truss Type JACK-OPEN	Qty 6	Ply 1	Vision C Job Reference (optional)	E13695860
-------------------	-------------	-------------------------	----------	----------	--------------------------------------	-----------

Comtech, Inc., Fayetteville, NC 28309

8.130 s Mar 11 2018 MiTek Industries, Inc. Mon Oct 28 12:35:02 2019 Page 1  
ID:500uZ\_4fAJagSYnK3Hg52cz8frK-VP13TH2MTh3wPp1fdkKapbflncYKGkGj4rSmbYQtq



Scale = 1:20.4

LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL	1.15	TC 0.09	Vert(LL)	-0.00	2-4	>999	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.05	Vert(CT)	-0.01	2-4	>999		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.00	Horz(CT)	-0.00	3	n/a		
BCDL 10.0	Code	IRC2015/TPI2014	Matrix-P	Wind(LL)	0.00	2	****	Weight: 23 lb	FT = 20%

**LUMBER-**

TOP CHORD 2x6 SP No.1  
BOT CHORD 2x6 SP No.1

**BRACING-**

TOP CHORD Structural wood sheathing directly applied or 3-10-15 oc purlins.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS.** (lb/size) 3=105/Mechanical, 2=207/0-3-8, 4=37/Mechanical  
Max Horz 2=99(LC 12)  
Max Uplift 3=75(LC 12)  
Max Grav 3=120(LC 19), 2=207(LC 1), 4=74(LC 3)

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

**NOTES-**

- 1) Wind: ASCE 7-10; Vult=130mph (3-second gust) 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
- 2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 3) \* This truss has been designed for a live load of 30.0psf on the bottom chord in all areas with a clearance greater than 6-0-0 between the bottom chord and any other members.
- 4) Refer to girder(s) for truss to truss connections.
- 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 3.
- 6) See Standard Industry Piggyback Truss Connection Detail for Connection to base truss as applicable, or consult qualified building designer.



October 28, 2019

**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 10/03/2015 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, 218 N. Lee Street, Suite 312, Alexandria, VA 22314.



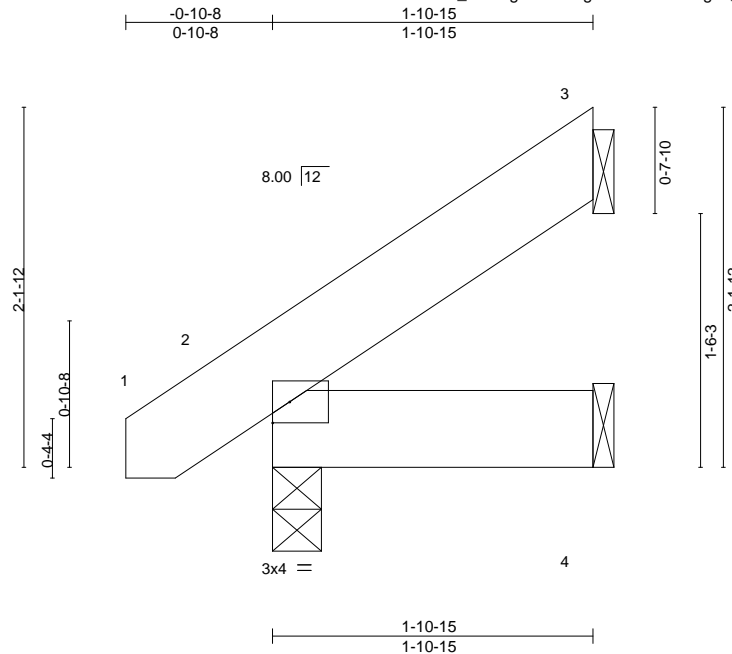
818 Soundside Road  
Edenton, NC 27932



Job B1019-4782	Truss J4	Truss Type JACK-OPEN	Qty 6	Ply 1	Vision C Job Reference (optional)	E13695861
-------------------	-------------	-------------------------	----------	----------	--------------------------------------	-----------

Comtech, Inc., Fayetteville, NC 28309

8,130 s Mar 11 2018 MiTek Industries, Inc. Mon Oct 28 12:35:03 2019 Page 1  
ID:500uZ\_4fAJagSYnK3Hg52cz8frK-zbbRgd2\_E?QwXZODDKFZ618r4ByN3j\_Pxka01yOtqs



Scale = 1:13.7

LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL	1.15	TC 0.02	Vert(LL)	-0.00	2	>999	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.01	Vert(CT)	-0.00	2	>999		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.00	Horz(CT)	-0.00	3	n/a		
BCDL 10.0	Code	IRC2015/TPI2014	Matrix-P	Wind(LL)	0.00	2	****	Weight: 13 lb	FT = 20%

**LUMBER-**

TOP CHORD 2x6 SP No.1  
BOT CHORD 2x6 SP No.1

**BRACING-**

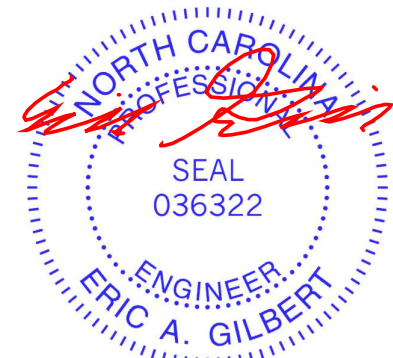
TOP CHORD Structural wood sheathing directly applied or 1-10-15 oc purlins.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS.** (lb/size) 3=47/Mechanical, 2=129/0-3-8, 4=19/Mechanical  
Max Horz 2=56(LC 12)  
Max Uplift 3=40(LC 12)  
Max Grav 3=56(LC 19), 2=129(LC 1), 4=37(LC 3)

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

**NOTES-**

- 1) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCCL=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
- 2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 3) \* This truss has been designed for a live load of 30.0psf on the bottom chord in all areas with a clearance greater than 6-0-0 between the bottom chord and any other members.
- 4) Refer to girder(s) for truss to truss connections.
- 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 3.
- 6) See Standard Industry Piggyback Truss Connection Detail for Connection to base truss as applicable, or consult qualified building designer.



October 28, 2019

**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 10/03/2015 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, 218 N. Lee Street, Suite 312, Alexandria, VA 22314.



818 Soundside Road  
Edenton, NC 27932

Job B1019-4782	Truss M1	Truss Type GABLE	Qty 2	Ply 1	Vision C Job Reference (optional)	E13695862
-------------------	-------------	---------------------	----------	----------	--------------------------------------	-----------

Comtech, Inc., Fayetteville, NC 28309

8.130 s Mar 11 2018 MiTek Industries, Inc. Mon Oct 28 12:35:03 2019 Page 1  
ID:500uZ\_4fAJagSYnK3Hg52cz8frK-zbbRgd2\_E?QwXZODDKFZ618ouBxh3j\_Pxka011yOtqs

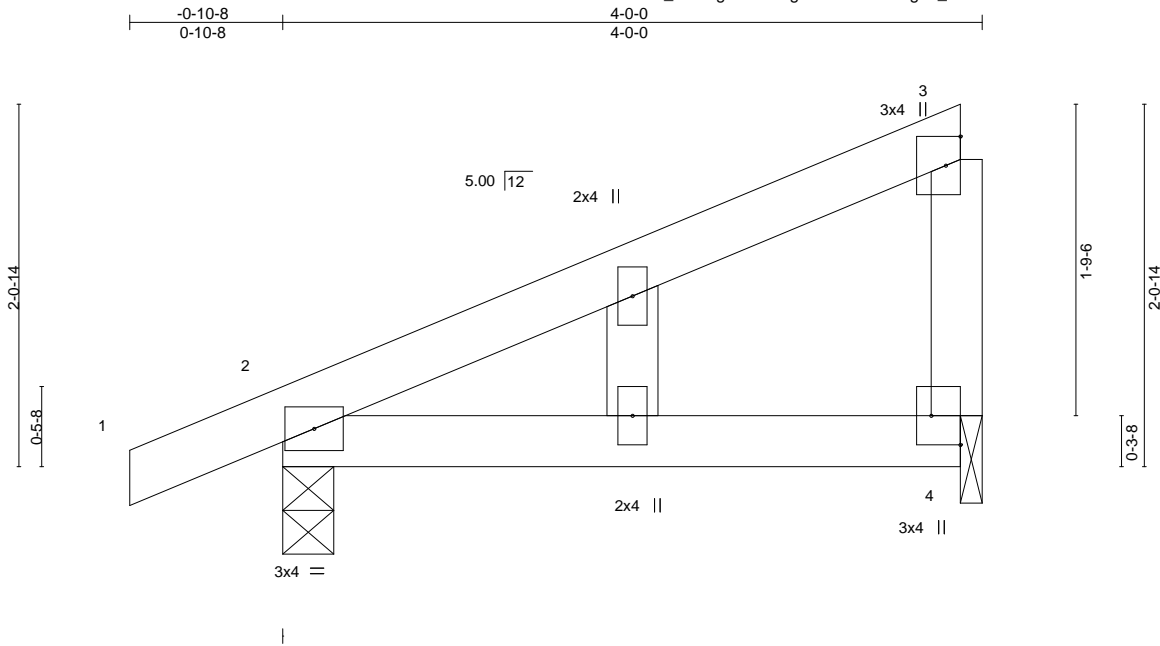


Plate Offsets (X,Y)-- [4:Edge,0-2-0]

LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL 1.15	TC 0.23	Vert(LL) -0.01	2-4	>999	360	MT20	244/190
TCDL 10.0	Lumber DOL 1.15	BC 0.12	Vert(CT) -0.02	2-4	>999	240		
BCLL 0.0 *	Rep Stress Incr YES	WB 0.00	Horz(CT) -0.00	4	n/a	n/a		
BCDL 10.0	Code IRC2015/TPI2014	Matrix-P	Wind(LL) 0.00	2	****	240		
							Weight: 17 lb	FT = 20%

**LUMBER-**  
 TOP CHORD 2x4 SP No.1  
 BOT CHORD 2x4 SP No.1  
 WEBS 2x4 SP No.3  
 OTHERS 2x4 SP No.3

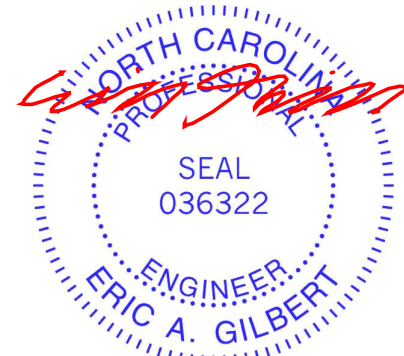
**BRACING-**  
 TOP CHORD Structural wood sheathing directly applied or 4-0-0 oc purlins, except end verticals.  
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS.** (lb/size) 2=218/0-3-8, 4=138/0-1-8  
 Max Horz 2=62(LC 12)  
 Max Uplift 2=-22(LC 8), 4=-26(LC 12)

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

**NOTES-**

- 1) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TC DL=6.0psf; BC DL=6.0psf; h=15ft; Cat. II; Exp C; enclosed; MWFRS (envelope) and C-C Corner(3) 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 with a clearance greater than 6'-0-0 between the bottom chord and any other members.
- 6) Bearing at joint(s) 4 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- 7) Provide mechanical connection (by others) of truss to bearing plate at joint(s) 4.
- 8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 4.



October 28, 2019

**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 10/03/2015 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, 218 N. Lee Street, Suite 312, Alexandria, VA 22314.



818 Soundside Road  
 Edenton, NC 27932

Job B1019-4782	Truss M2	Truss Type MONOPITCH	Qty 5	Ply 1	Vision C	E13695863
-------------------	-------------	-------------------------	----------	----------	----------	-----------

Comtech, Inc., Fayetteville, NC 28309

8.130 s Mar 11 2018 MiTek Industries, Inc. Mon Oct 28 12:35:04 2019 Page 1  
ID:500uZ\_4fAJagSYnK3Hg52cz8frK-Rn9ptz3c?JYn9jzPn2mofEh\_kbHwoAEZAOKZqTyOtrq

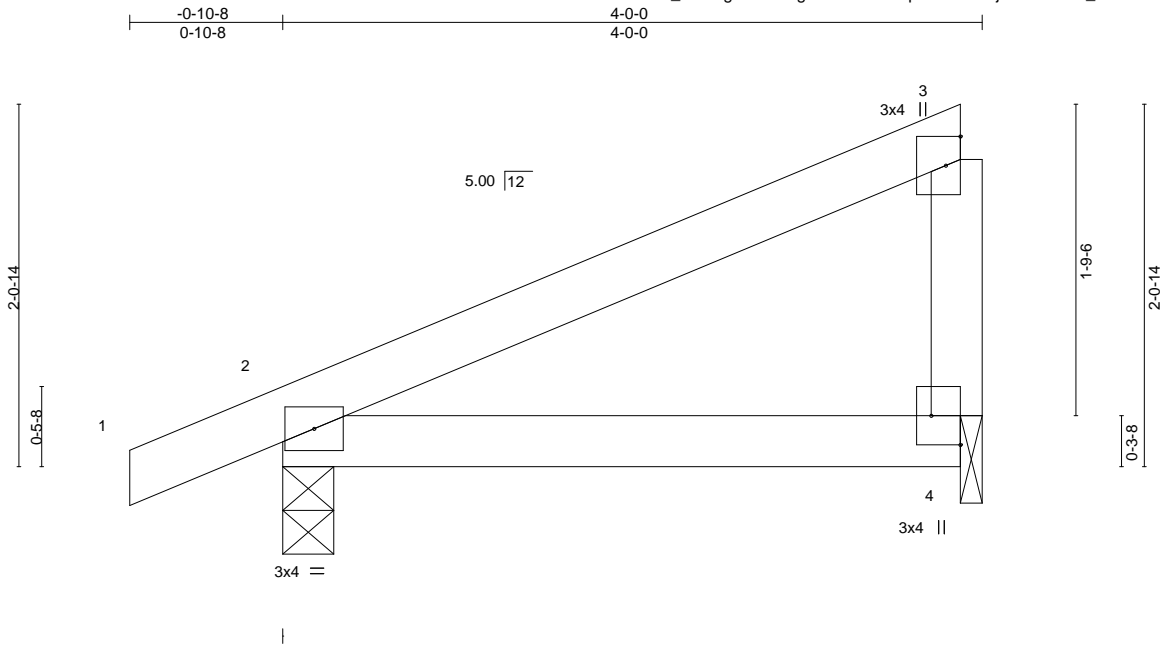


Plate Offsets (X,Y)-- [4:Edge,0-2-0]

LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	2-0-0	TC 0.16	Vert(LL)	-0.01	2-4	>999	MT20	244/190
TCDL 10.0	Plate Grip DOL 1.15	BC 0.12	Vert(CT)	-0.02	2-4	>999		
BCLL 0.0 *	Lumber DOL 1.15	WB 0.00	Horz(CT)	-0.00	4	n/a		
BCDL 10.0	Rep Stress Incr YES	Matrix-P	Wind(LL)	0.00	2	****	Weight: 16 lb	FT = 20%
	Code IRC2015/TPI2014							

**LUMBER-**  
TOP CHORD 2x4 SP No.1  
BOT CHORD 2x4 SP No.1  
WEBS 2x4 SP No.3

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

**REACTIONS.** (lb/size) 2=218/0-3-8, 4=138/0-1-8  
Max Horz 2=62(LC 12)  
Max Uplift 2=-22(LC 8), 4=-26(LC 12)

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

**NOTES-**

- 1) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TC DL=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
- 2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 3) \* This truss has been designed for a live load of 30.0psf on the bottom chord in all areas with a clearance greater than 6'-0" between the bottom chord and any other members.
- 4) Bearing at joint(s) 4 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- 5) Provide mechanical connection (by others) of truss to bearing plate at joint(s) 4.
- 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 4.



October 28, 2019

**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 10/03/2015 BEFORE USE.**

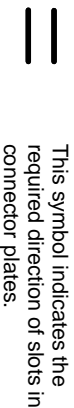
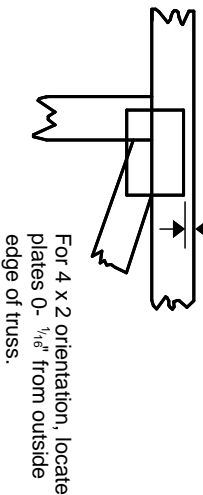
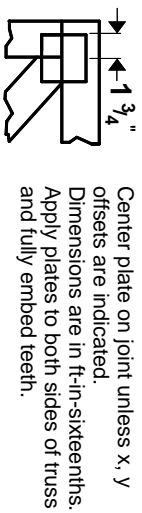
Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall 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, 218 N. Lee Street, Suite 312, Alexandria, VA 22314.



818 Soundside Road  
Edenton, NC 27932

# Symbols

## PLATE LOCATION AND ORIENTATION



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

## PLATE SIZE

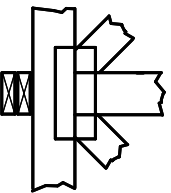
4 X 4

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

## LATERAL BRACING LOCATION



## BEARING

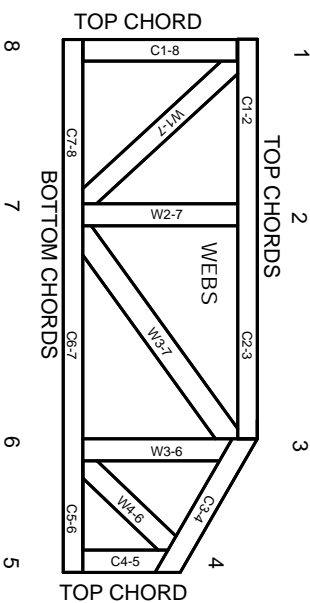


Indicates location where bearings (supports) occur. Icons vary but reaction section indicates joint number where bearings occur. Min size shown is for crushing only.

## Industry Standards:

ANSI/TPI 1: National Design Specification for Metal Plate Connected Wood Truss Construction.  
DSB-89: Design Standard for Bracing.  
BCSI: Building Component Safety Information, Guide to Good Practice for Handling, Installing & Bracing of Metal Plate Connected Wood Trusses.

# Numbering System



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

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

## PRODUCT CODE APPROVALS

ICC-ES Reports:

ESR-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/TPI 1 section 6.3 These truss designs rely on Lumber values established by others.

© 2012 MITteK® All Rights Reserved



MITteK Engineering Reference Sheet: MII-7473 rev. 10/03/2015



# General Safety Notes

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

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