

Bearing reactions less than or equal to 3000# are deemed to comply with the prescriptive Code requirements. The contractor shall refer to the attached Tables ( derived from the prescriptive Code requirements ) to determine the minimum foundation size and number of wood studs required to support reactions greater than 3000# but not greater than 15000#. A registered design professional shall be retained to design the support system for any reaction that exceeds those specified in the attached Tables. A registered design professional shall be retained to design the support system for all reactions that exceed 15000#.

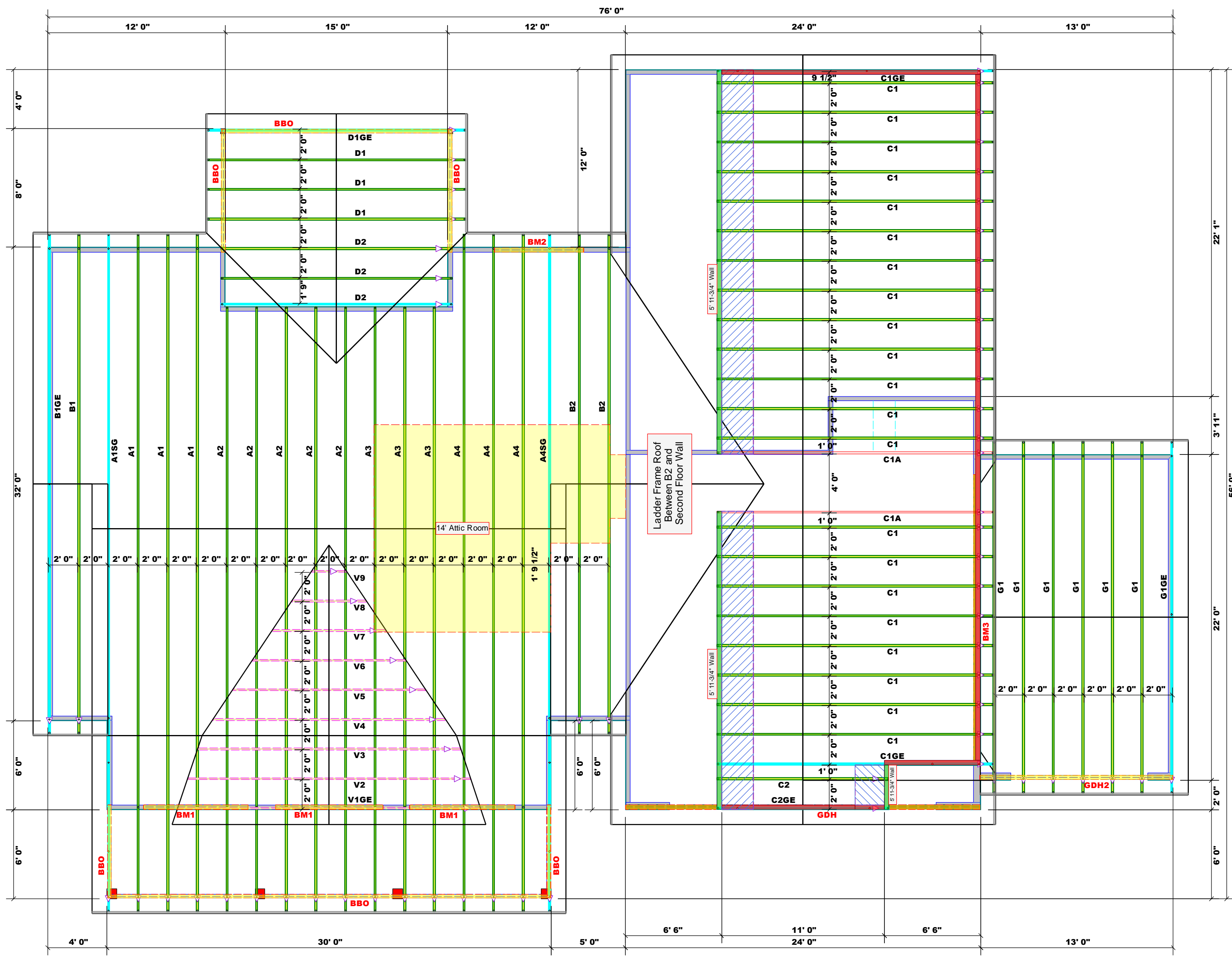
Signature Jonathan Landry  
**Jonathan Landry**

**LOAD CHART FOR JACK STUDS**

(BASED ON TABLES R502.5(1) & (b))

NUMBER OF JACK STUDS REQUIRED @ EA END OF HEADER/GIRDER

END REACTION (UP TO)	REQ'D STUDS FOR (D) TYP. HEADER	END REACTION (UP TO)	REQ'D STUDS FOR (D) TYP. HEADER	END REACTION (UP TO)	REQ'D STUDS FOR (D) TYP. HEADER
1700	1	2550	1	3400	1
3400	2	5100	2	6800	2
5100	3	7650	3	10200	3
6800	4	10200	4	13600	4
8500	5	12750	5	17000	5
10200	6	15300	6		
11900	7				
13600	8				
15300	9				



Products				
PlotID	Length	Product	Plies	Net Qty
BM1	8' 0"	1-3/4"x 9-1/4" LVL Kerto-S	2	6
BM2	6' 0"	1-3/4"x 9-1/4" LVL Kerto-S	2	2
BM3	20' 0"	1-3/4"x 23-7/8" LVL Kerto-S	3	3
GDH	24' 0"	1-3/4"x 16" LVL Kerto-S	2	2
GDH2	13' 0"	1-3/4"x 11-7/8" LVL Kerto-S	2	2

**1 Truss Placement Plan**  
Scale: 3/16"=1'

**Dimension Notes**

- All exterior wall to wall dimensions are to face of sheathing unless noted otherwise
- All interior wall dimensions are to face of frame wall unless noted otherwise
- All exterior wall to truss dimensions are to face of frame wall unless noted otherwise

Roof Area = 4664.19 sq.ft.  
Ridge Line = 134.33 ft.  
Hip Line = 0 ft.  
Horiz. OH = 248.24 ft.  
Raked OH = 263.34 ft.  
Decking = 160 sheets

Hatch Legend	
	5' 11-3/4" Walls
	Second Floor Walls
	Vaulted Ceiling
	Drop Beam

All Walls Shown Are Considered Load Bearing

▲ = Denotes Left End of Truss  
(Reference Engineered Truss Drawing)

BUILDER	Glover Design Build	CITY / CO.	Fuquay Varina / Harnett
JOB NAME	Lot 19 Purfoy Place	ADDRESS	438 Lambert Lane
PLAN	Paxton / 3GRF, CP	MODEL	Roof
SEAL DATE	N/A	DATE REV.	03/27/23
QUOTE #		DRAWN BY	Jonathan Landry
JOB #	J0922-4569	SALES REP.	Lenny Norris

**THIS IS A TRUSS PLACEMENT DIAGRAM ONLY.**  
These trusses are designed as individual building components to be incorporated into the building design at the specification of the building designer. See individual design sheets for each truss design identified on the placement drawing. The building designer is responsible for temporary and permanent bracing of the roof and floor system and for the overall structure. The design of the truss support structure including headers, beams, walls, and columns is the responsibility of the building designer. For general guidance regarding bracing, consult BCSI-B1 and BCSI-B3 provided with the truss delivery package or online @ sbcindustry.com

Trenco  
818 Soundside Rd  
Edenton, NC 27932

Re: J0922-4569  
Lot 19 Purfoy Place

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: I57394434 thru I57394461

My license renewal date for the state of North Carolina is December 31, 2023.

North Carolina COA: C-0844



March 27, 2023

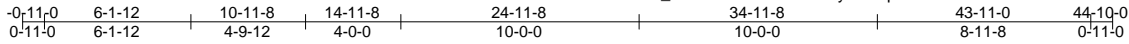
Gilbert, Eric

**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 J0922-4569	Truss A1	Truss Type ROOF SPECIAL	Qty 3	Ply 1	Lot 19 Purfoy Place I57394434
-------------------	-------------	----------------------------	----------	----------	----------------------------------

Comtech, Inc. Fayetteville, NC - 28314,

8.430 s Jan 6 2022 MiTek Industries, Inc. Mon Mar 27 08:45:57 2023 Page 1  
ID:X5az\_D23vLwLuiTNLuG6bHyGfxb-ptt1xlnzXl6eVhhv?BsJzrrvbXefDJ8UTai5hXzWnde



5x8 =

Scale: 1/8"=1'

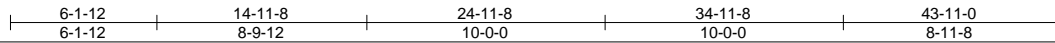
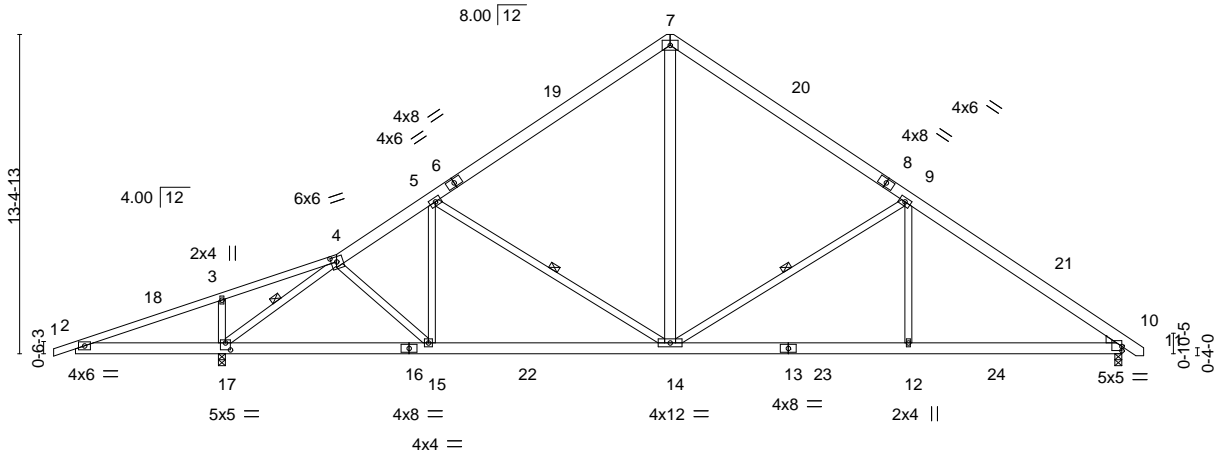


Plate Offsets (X,Y)--	[4:0-2-12,0-2-8], [10:0-0-0,0-2-2], [17:0-2-8,0-3-8]
-----------------------	--

LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL	1.15	TC 0.46	Vert(LL)	-0.11 14-15	>999	360	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.43	Vert(CT)	-0.20 14-15	>999	240		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.66	Horz(CT)	0.06 10	n/a	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-S	Wind(LL)	0.06 14-15	>999	240	Weight: 317 lb	FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x6 SP No.1 *Except* 1-4: 2x4 SP No.1	TOP CHORD Structural wood sheathing directly applied or 4-8-8 oc purlins.
BOT CHORD 2x6 SP No.1	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing. Except:
WEBS 2x4 SP No.2 *Except* 7-14: 2x6 SP No.1	WEBS 1 Row at midpt 4-17, 5-14, 9-14

WEDGE Right: 2x4 SP No.3

REACTIONS. (size) 17=0-3-8, 10=0-3-8  
 Max Horz 17=428(LC 11)  
 Max Uplift 17=-407(LC 12), 10=-272(LC 13)  
 Max Grav 17=2101(LC 1), 10=1741(LC 20)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-3=-1030/770, 3-4=-898/721, 4-5=-2076/500, 5-7=-1695/602, 7-9=-1704/634,  
 9-10=-2482/689  
 BOT CHORD 2-17=-663/1045, 15-17=-282/1769, 14-15=-288/1972, 12-14=-366/1898, 10-12=-366/1898  
 WEBS 3-17=-403/327, 4-17=-2428/1189, 4-15=-285/334, 5-15=-63/345, 5-14=-812/325,  
 7-14=-277/1180, 9-14=-1074/470, 9-12=0/587

- NOTES-
- 1) Unbalanced roof live loads have been considered for this design.
  - 2) Wind: ASCE 7-10; Vult=150mph Vasd=119mph; TC DL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2) -0-11-0 to 3-5-13, Interior(1) 3-5-13 to 24-11-8, Exterior(2) 24-11-8 to 29-4-5, Interior(1) 29-4-5 to 44-8-1 zone; cantilever left exposed ;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - 3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - 4) \* This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
  - 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 407 lb uplift at joint 17 and 272 lb uplift at joint 10.



March 27, 2023

<p><b>WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE.</b>          Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see <b>ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information</b> available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601</p>	 818 Soundside Road Edenton, NC 27932
--	---

Job	Truss	Truss Type	Qty	Ply	Lot 19 Purfoy Place	I57394435
J0922-4569	A1SG	GABLE	1	1	Job Reference (optional)	

Comtech, Inc. Fayetteville, NC - 28314,

8.430 s Jan 6 2022 MiTek Industries, Inc. Mon Mar 27 08:46:00 2023 Page 1

ID: X5az\_D23vLwLuiTNLuG6bHyGxb-ESYAZmprqgUDM9QUgJP0aUTS8lfhQkCw9YwmlszWndb



5x8 ||

Scale: 1/8"=1'

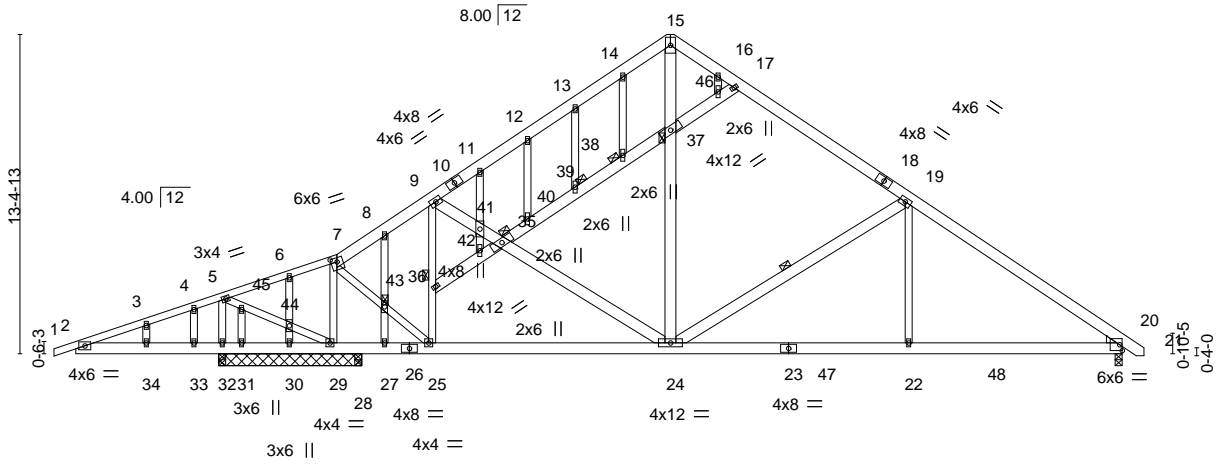


Plate Offsets (X,Y)-- [7:0-3-0,0-2-0]

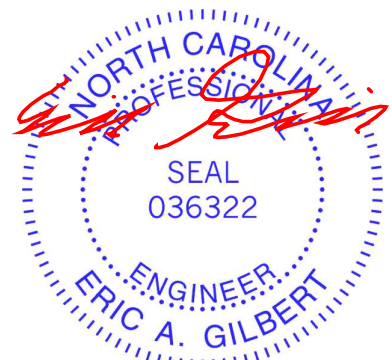
LOADING (psf)	SPACING-	CSI.	DEFL.	PLATES	GRIP
TCLL 20.0	2-0-0	TC 0.37	in (loc) l/defl L/d	MT20	244/190
TCDL 10.0	Plate Grip DOL 1.15	BC 0.41	Vert(LL) -0.06 22-24 >999 360		
BCLL 0.0 *	Lumber DOL 1.15	WB 0.38	Vert(CT) -0.12 22-24 >999 240		
BCDL 10.0	Rep Stress Incr YES	Matrix-S	Horz(CT) 0.03 20 n/a n/a		
	Code IRC2015/TPI2014		Wind(LL) 0.07 20-22 >999 240		
				Weight: 412 lb	FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x6 SP No.1 *Except* 1-7: 2x4 SP No.1	TOP CHORD Structural wood sheathing directly applied or 5-0-15 oc purlins. BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing, Except: 10-0-0 oc bracing: 24-25,22-24,20-22.
BOT CHORD 2x6 SP No.1	WEBS 1 Row at midpt 19-24
WEBS 2x6 SP No.1 *Except* 5-32,5-29,7-29,7-25,9-25,19-22: 2x4 SP No.2	JOINTS 1 Brace at Jt(s): 35, 36, 37, 38, 39, 43
OTHERS 2x4 SP No.2	
WEDGE	
Right: 2x4 SP No.3	

**REACTIONS.** All bearings 6-0-0 except (jt=length) 20=0-3-8, 28=0-3-8.  
 (lb) - Max Horz 32=553(LC 11)  
 Max Uplift All uplift 100 lb or less at joint(s) except 32=-1265(LC 8), 29=-345(LC 12), 20=-514(LC 13), 30=-176(LC 8), 31=-544(LC 23), 28=-185(LC 12)  
 Max Grav All reactions 250 lb or less at joint(s) except 32=1193(LC 23), 32=1137(LC 1), 29=1059(LC 19), 20=1516(LC 20), 30=313(LC 1), 31=571(LC 8), 28=464(LC 19)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-3=-962/724, 3-4=-902/722, 4-5=-861/715, 5-6=-386/467, 6-7=-328/445, 7-8=-784/348, 8-9=-883/352, 9-11=-1162/483, 11-12=-1143/486, 12-13=-1218/580, 13-14=-1265/646, 14-15=-1197/626, 15-16=-1159/597, 16-17=-1241/635, 17-19=-1323/633, 19-20=-2071/749  
 BOT CHORD 2-34=-660/960, 33-34=-660/960, 31-32=-780/932, 30-31=-780/932, 29-30=-780/932, 28-29=-571/492, 27-28=-571/492, 25-27=-571/492, 24-25=-253/853, 22-24=-404/1545, 20-22=-404/1545  
 WEBS 5-32=-390/502, 5-45=-489/331, 44-45=-488/332, 29-44=-501/340, 7-29=-1456/714, 7-43=-603/1314, 25-43=-577/1263, 25-36=-704/516, 9-36=-574/418, 9-41=-5/345, 35-41=-63/423, 24-35=-149/387, 24-37=-240/736, 15-37=-266/760, 19-24=-1050/585, 19-22=0/594, 8-43=-262/69

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-10; Vult=150mph Vasd=119mph; TC DL=6.0psf; BC DL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; cantilever left exposed ;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 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.



March 27, 2023

Continued on page 2

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

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

818 Soundside Road  
 Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Lot 19 Purfoy Place	I57394435
J0922-4569	A1SG	GABLE	1	1	Job Reference (optional)	

Comtech, Inc, Fayetteville, NC - 28314,

8.430 s Jan 6 2022 MiTek Industries, Inc. Mon Mar 27 08:46:00 2023 Page 2  
 ID:X5az\_D23vLwLuiTNLuG6bHyGfb-ESYAZmprqgUDM9QUgJP0aUTS8lfhQkCw9YwmszWndb

**NOTES-**

- 7) \* This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- 8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 1265 lb uplift at joint 32, 345 lb uplift at joint 29, 514 lb uplift at joint 20, 176 lb uplift at joint 30, 544 lb uplift at joint 31 and 185 lb uplift at joint 28.

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

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



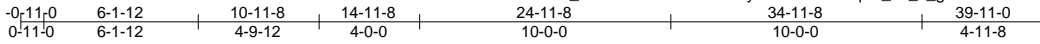
818 Soundside Road  
 Edenton, NC 27932

Job J0922-4569	Truss A2	Truss Type ROOF SPECIAL	Qty 5	Ply 1	Lot 19 Purfoy Place Job Reference (optional)	157394436
-------------------	-------------	----------------------------	----------	----------	---	-----------

Comtech, Inc. Fayetteville, NC - 28314,

8.430 s Jan 6 2022 MiTek Industries, Inc. Mon Mar 27 08:46:01 2023 Page 1

ID:X5az\_D23vLwLuiTNLuG6bHyGfxb-ie6Ym6qTb\_c4\_J\_gE1wF7h?cJ90S99W3OBgJqJzWnda



5x8 ||

Scale = 1:91.7

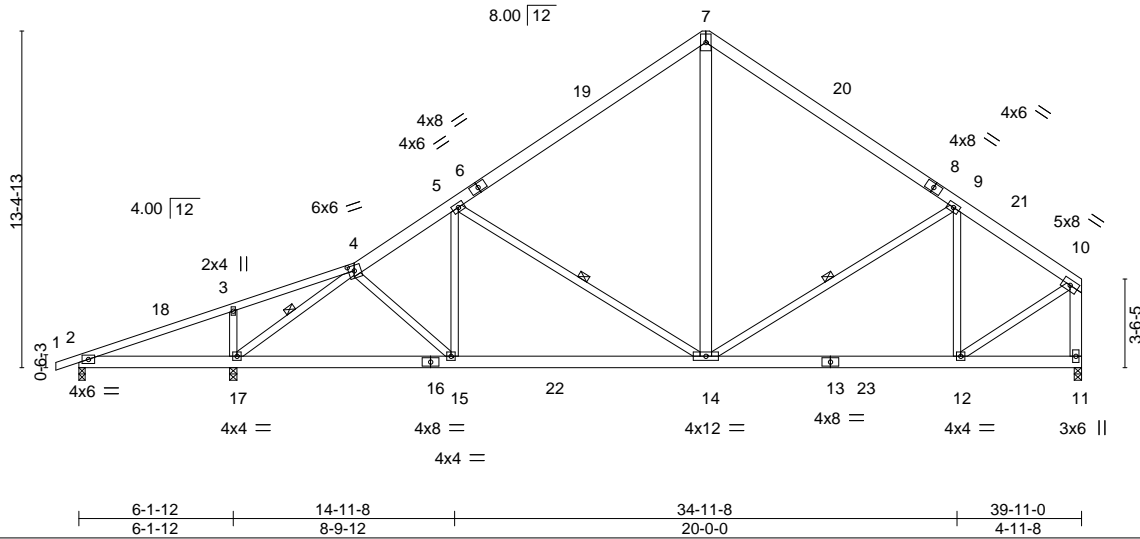


Plate Offsets (X,Y)--	[4:0-2-12,0-2-8]								
<b>LOADING</b> (psf)	<b>SPACING-</b>	2-0-0	<b>CSI.</b>	<b>DEFL.</b>	in (loc)	l/defl	L/d	<b>PLATES</b>	<b>GRIP</b>
TCLL 20.0	Plate Grip DOL	1.15	TC 0.41	Vert(LL)	-0.08 14-15	>999	360	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.37	Vert(CT)	-0.15 14-15	>999	240		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.51	Horz(CT)	0.03 11	n/a	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-S	Wind(LL)	0.05 14-15	>999	240	Weight: 308 lb	FT = 20%

<b>LUMBER-</b>		<b>BRACING-</b>	
TOP CHORD	2x6 SP No.1 *Except* 1-4: 2x4 SP No.1	TOP CHORD	Structural wood sheathing directly applied or 5-4-1 oc purlins, except end verticals.
BOT CHORD	2x6 SP No.1	BOT CHORD	Rigid ceiling directly applied or 6-0-0 oc bracing.
WEBS	2x4 SP No.2 *Except* 10-11,7-14: 2x6 SP No.1	WEBS	1 Row at midpt 4-17, 9-14, 5-14

**REACTIONS.** (size) 2=0-3-0, 17=0-3-8, 11=0-3-8  
 Max Horz 2=421(LC 9)  
 Max Uplift 2=-138(LC 8), 17=-377(LC 12), 11=-206(LC 13)  
 Max Grav 2=182(LC 23), 17=1739(LC 1), 11=1410(LC 20)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-3=-203/368, 3-4=-116/369, 4-5=-1783/601, 5-7=-1381/579, 7-9=-1381/588,  
 9-10=-1251/444, 10-11=-1423/487  
 BOT CHORD 2-17=-368/118, 15-17=-437/1454, 14-15=-448/1651, 12-14=-307/1013  
 WEBS 3-17=-384/287, 4-17=-2012/635, 4-15=-16/270, 10-12=-366/1223, 7-14=-219/812,  
 9-14=-282/259, 9-12=-525/312, 5-14=-825/401, 5-15=0/275

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-10; Vult=150mph Vasd=119mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2) -0-11-0 to 3-5-13, Interior(1) 3-5-13 to 24-11-8, Exterior(2) 24-11-8 to 29-4-5, Interior(1) 29-4-5 to 39-8-4 zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - \* This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
  - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 138 lb uplift at joint 2, 377 lb uplift at joint 17 and 206 lb uplift at joint 11.



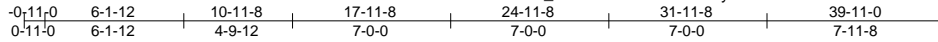
March 27, 2023

Job J0922-4569	Truss A3	Truss Type ROOF TRUSS	Qty 3	Ply 1	Lot 19 Purfoy Place Job Reference (optional)	157394437
-------------------	-------------	--------------------------	----------	----------	---	-----------

Comtech, Inc. Fayetteville, NC - 28314,

8.430 s Jan 6 2022 MiTek Industries, Inc. Mon Mar 27 08:46:03 2023 Page 1

ID:X5az\_D23vLwLuiTNLuG6bHyGfxb-e1ElBork7bsnDc83MSzjC65pTybZdysMrV9QuBzWndY



Scale = 1:102.0

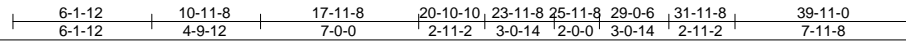
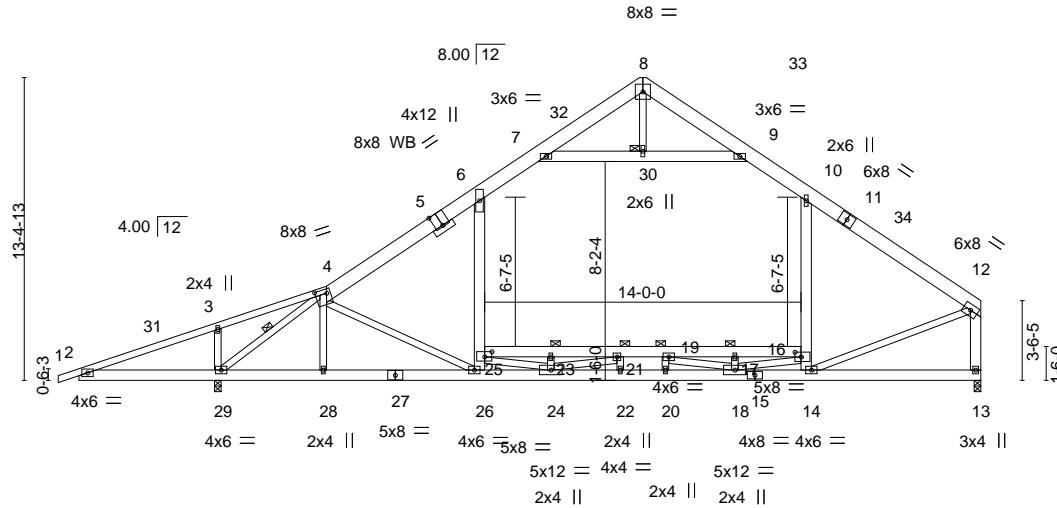


Plate Offsets (X, Y)-- [4:0-6-0,0-2-4], [5:0-4-0,Edge], [16:0-3-4,0-2-8], [25:0-3-12,0-2-12]

LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL	1.15	TC 0.94	Vert(LL)	-0.35	26	>999	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.78	Vert(CT)	-0.76	26	>531		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.90	Horz(CT)	0.06	13	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-S	Wind(LL)	0.30	26-28	>999		
								Weight: 381 lb	FT = 20%

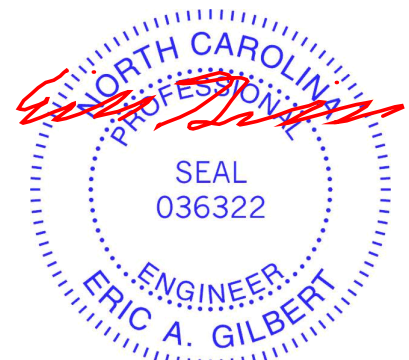
LUMBER-	BRACING-
TOP CHORD 2x8 SP No.1 *Except* 1-4: 2x4 SP No.1	TOP CHORD Structural wood sheathing directly applied or 1-11-14 oc purlins, except end verticals.
BOT CHORD 2x6 SP No.1	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing. Except:
WEBS 2x4 SP No.2 *Except* 6-26,10-14,12-13,7-9: 2x6 SP No.1	6-0-0 oc bracing: 2-29 9-6-15 oc bracing: 13-14.
OTHERS 2x4 SP No.2	WEBS 1 Row at midpt 4-29
	JOINTS 1 Brace at Jt(s): 30, 21, 19, 23, 17

**REACTIONS.** (size) 29=0-3-8, 13=0-3-8  
 Max Horz 29=419(LC 9)  
 Max Uplift 29=38(LC 12)  
 Max Grav 29=2604(LC 2), 13=2254(LC 21)

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

TOP CHORD	BOT CHORD	WEBS
2-3=-583/770, 3-4=-463/732, 4-6=-2702/36, 6-7=-1948/233, 9-10=-2046/258, 10-12=-2429/55, 12-13=-2257/115	2-29=-664/628, 28-29=0/2506, 26-28=0/2498, 24-26=0/2949, 22-24=0/4355, 20-22=0/4355, 18-20=0/4355, 14-18=-37/1376, 23-25=-2487/0, 21-23=-2487/0, 19-21=-2628/0, 17-19=-1186/180, 16-17=-1186/180	3-29=-393/300, 4-29=-3419/259, 4-26=-397/107, 6-25=0/1020, 10-16=0/714, 12-14=0/2069, 7-30=-2178/188, 9-30=-2178/188, 19-20=-14/263, 23-24=-399/0, 17-18=-429/0, 24-25=0/2032, 21-24=-424/513, 18-19=-1738/0, 16-18=0/2050

- NOTES-**
- 1) Unbalanced roof live loads have been considered for this design.
  - 2) Wind: ASCE 7-10; Vult=150mph Vasd=119mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2) -0-11-0 to 3-5-13, Interior(1) 3-5-13 to 24-11-8, Exterior(2) 24-11-8 to 29-4-5, Interior(1) 29-4-5 to 39-8-4 zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - 3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - 4) \* This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
  - 5) Ceiling dead load (10.0 psf) on member(s). 4-6, 6-7, 9-10, 7-30, 9-30; Wall dead load (5.0psf) on member(s).6-25, 10-16
  - 6) Bottom chord live load (40.0 psf) and additional bottom chord dead load (10.0 psf) applied only to room. 23-25, 21-23, 19-21, 17-19, 16-17
  - 7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 38 lb uplift at joint 29.
  - 8) Attic room checked for L/360 deflection.



March 27, 2023

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

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

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

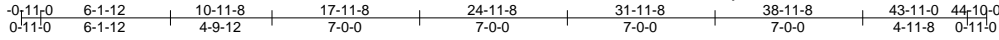
818 Soundside Road  
 Edenton, NC 27932

Job J0922-4569	Truss A4	Truss Type ROOF TRUSS	Qty 3	Ply 1	Lot 19 Purfoy Place Job Reference (optional) I57394438
-------------------	-------------	--------------------------	----------	----------	--

Comtech, Inc. Fayetteville, NC - 28314,

8.430 s Jan 6 2022 MiTek Industries, Inc. Mon Mar 27 08:46:05 2023 Page 1

ID: X5az\_D23vLwLuiTNLuG6bHyGfb-aPM3cUt\_fc6VTwSTI?BHXA9JmG25uEfJpeXz4zWndW



Scale = 1:109.2

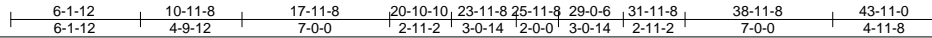
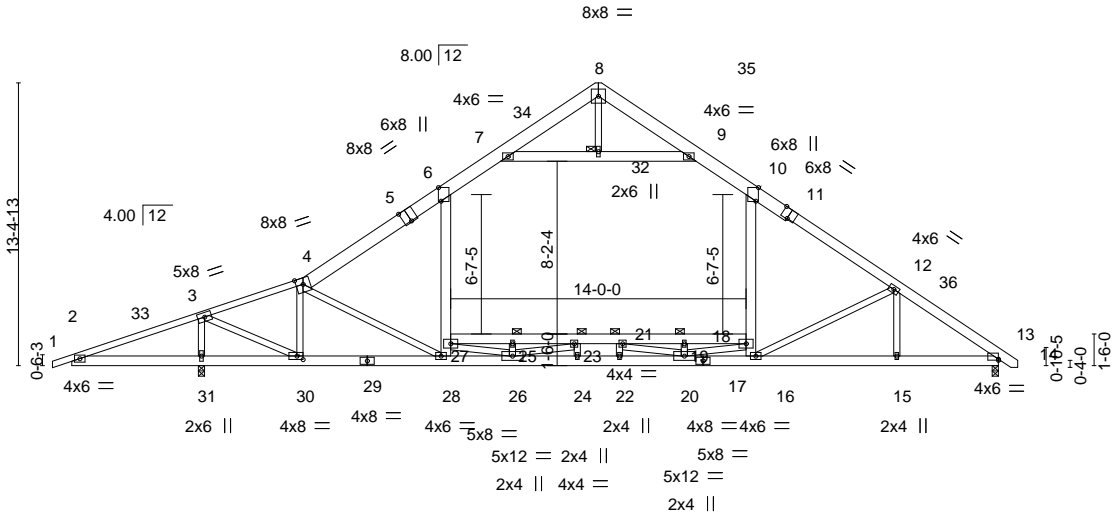


Plate Offsets (X, Y)-- [5:0-4-0,Edge], [6:0-7-11,Edge], [10:0-7-11,Edge], [11:0-4-0,Edge], [13:0-0-0,0-0-10], [30:0-3-8,0-2-0]

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 0.92	Vert(LL)	-0.29 16-20	>999	360	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.78	Vert(CT)	-0.57 22-24	>795	240		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.78	Horz(CT)	0.09 13	n/a	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-S	Wind(LL)	0.29 15-16	>999	240		
								Weight: 393 lb	FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x8 SP No.1 *Except* 1-4: 2x4 SP No.1, 11-14: 2x6 SP No.1	TOP CHORD Structural wood sheathing directly applied or 2-1-0 oc purlins.
BOT CHORD 2x6 SP No.1	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing. Except: 6-0-0 oc bracing: 2-31,30-31.
WEBS 2x4 SP No.2 *Except* 10-16,6-28,7-9: 2x6 SP No.1	JOINTS 1 Brace at Jt(s): 32, 21, 23, 25, 19

**REACTIONS.** (size) 31=0-3-8, 13=0-3-8  
 Max Horz 31=425(LC 11)  
 Max Uplift 31=20(LC 12)  
 Max Grav 31=2854(LC 2), 13=2387(LC 21)

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

TOP CHORD 2-3=-581/774, 3-4=-2620/0, 4-6=-3232/64, 6-7=-2475/258, 7-8=-63/326, 8-9=-57/321, 9-10=-2453/276, 10-12=-3251/128, 12-13=-3697/209

BOT CHORD 2-31=-668/626, 30-31=-733/618, 28-30=0/2782, 26-28=0/2761, 24-26=0/4799, 22-24=0/4799, 20-22=0/4799, 16-20=0/2562, 15-16=-52/2930, 13-15=-52/2930, 25-27=-1722/0, 23-25=-1722/0, 21-23=-2543/0, 19-21=-1827/68, 18-19=-1827/68

WEBS 3-31=-2614/470, 12-16=-670/340, 16-18=0/495, 10-18=0/1260, 27-28=-59/395, 6-27=0/1159, 7-32=-2956/217, 9-32=-2956/217, 4-30=-1384/215, 25-26=-421/0, 19-20=-420/0, 26-27=0/2034, 23-26=-1090/291, 20-21=-979/160, 18-20=0/2044, 3-30=-243/3176

- NOTES-**
- 1) Unbalanced roof live loads have been considered for this design.
  - 2) Wind: ASCE 7-10; Vult=150mph Vasd=119mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2) -0-11-0 to 3-5-13, Interior(1) 3-5-13 to 24-11-8, Exterior(2) 24-11-8 to 29-4-5, Interior(1) 29-4-5 to 44-8-1 zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - 3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - 4) \* This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
  - 5) Ceiling dead load (10.0 psf) on member(s). 4-6, 6-7, 9-10, 7-32, 9-32; Wall dead load (5.0psf) on member(s).10-18, 6-27
  - 6) Bottom chord live load (40.0 psf) and additional bottom chord dead load (10.0 psf) applied only to room. 25-27, 23-25, 21-23, 19-21, 18-19
  - 7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 20 lb uplift at joint 31.
  - 8) Attic room checked for L/360 deflection.



March 27, 2023

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

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

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



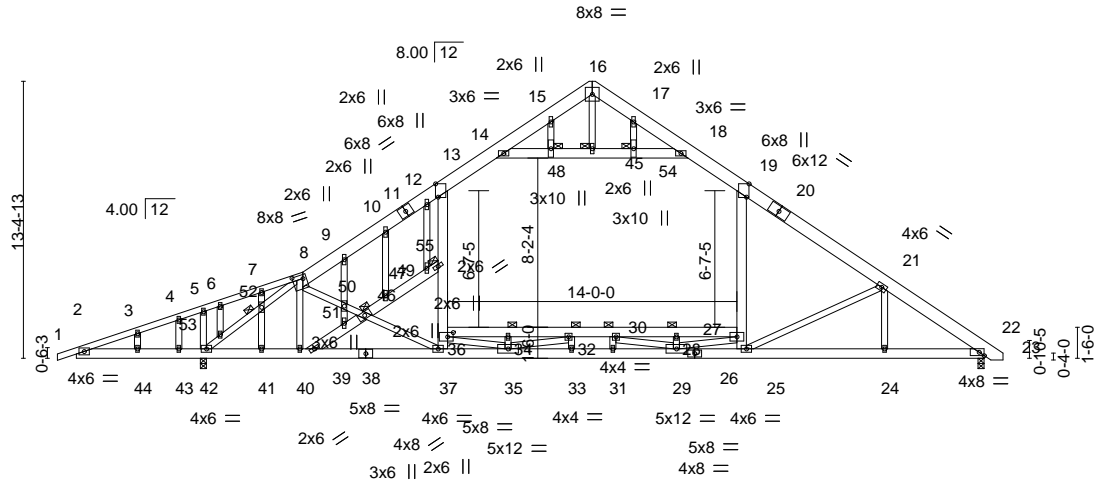
Job J0922-4569	Truss A4SG	Truss Type ROOF TRUSS	Qty 1	Ply 1	Lot 19 Purfoy Place 157394439
-------------------	---------------	--------------------------	----------	----------	----------------------------------

Comtech, Inc. Fayetteville, NC - 28314,

8.430 s Jan 6 2022 MiTek Industries, Inc. Mon Mar 27 08:46:07 2023 Page 1

ID: X5az\_D23vLwLuiTNLuG6bHyGfxb-XoTp19uEBqMDIEsqb1fMyFXfZz0Zowym77d1yzWndU  
 -0-11-0 | 6-1-12 | 10-11-8 | 17-11-8 | 24-11-8 | 31-11-8 | 38-11-8 | 43-11-0 | 44-10-0  
 0-11-0 | 6-1-12 | 4-9-12 | 7-0-0 | 7-0-0 | 7-0-0 | 7-0-0 | 4-11-8 | 0-11-0

Scale = 1:111.5



6-1-12 | 10-11-8 | 17-11-8 | 20-10-10 | 23-11-8 | 25-11-8 | 29-0-6 | 31-11-8 | 38-11-8 | 43-11-0  
 6-1-12 | 4-9-12 | 7-0-0 | 2-11-2 | 3-0-14 | 2-0-0 | 3-0-14 | 2-11-2 | 7-0-0 | 4-11-8

Plate Offsets (X,Y)-- [8:0-6-0,0-2-4], [13:0-7-11,Edge], [19:0-7-11,Edge], [36:0-3-4,0-2-8]

<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 0.80	Vert(LL) -0.24 25-29 >999 360	MT20	244/190
TCDL 10.0	Lumber DOL 1.15	BC 0.74	Vert(CT) -0.49 30 >915 240		
BCLL 0.0 *	Rep Stress Incr YES	WB 0.83	Horz(CT) 0.10 22 n/a n/a		
BCDL 10.0	Code IRC2015/TP12014	Matrix-S	Wind(LL) 0.30 24-25 >999 240	Weight: 450 lb	FT = 20%

**LUMBER-**

TOP CHORD 2x8 SP No.1 \*Except\*  
 1-8: 2x4 SP No.1  
 BOT CHORD 2x6 SP No.1  
 WEBS 2x4 SP No.2 \*Except\*  
 19-25,13-37,14-18,46-47,39-46: 2x6 SP No.1  
 OTHERS 2x4 SP No.2

**BRACING-**

TOP CHORD Structural wood sheathing directly applied or 3-1-0 oc purlins.  
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing. Except:  
 6-0-0 oc bracing: 2-44,43-44,42-43.  
 WEBS 1 Row at midpt 8-42  
 JOINTS 1 Brace at Jt(s): 45, 46, 47, 48, 54, 30, 32, 34, 28

**REACTIONS.**

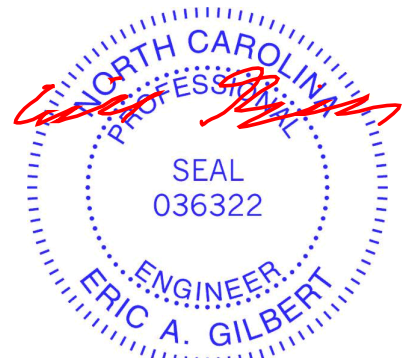
(size) 42=0-3-8, 22=0-3-8  
 Max Horz 42=549(LC 11)  
 Max Uplift 42=509(LC 12), 22=234(LC 13)  
 Max Grav 42=2751(LC 2), 22=2356(LC 21)

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

TOP CHORD 2-3=-1013/729, 3-4=-950/727, 4-5=-928/719, 5-6=-852/727, 6-7=-842/706,  
 7-8=-784/695, 8-9=-3196/165, 9-10=-3350/228, 10-12=-3467/267, 12-13=-3557/245,  
 13-14=-2441/421, 15-16=0/472, 16-17=0/464, 18-19=-2429/407, 19-21=-3226/265,  
 21-22=-3722/410  
 BOT CHORD 2-44=-665/1009, 43-44=-665/1009, 42-43=-665/1009, 41-42=-170/2818, 40-41=-170/2818,  
 39-40=-158/2803, 37-39=-522/3299, 35-37=-511/2598, 33-35=0/4653, 31-33=0/4653,  
 29-31=0/4653, 25-29=-6/2471, 24-25=-227/2978, 22-24=-227/2977, 34-36=-1517/331,  
 32-34=-1517/331, 30-32=-2301/0, 28-30=-1650/15, 27-28=-1650/15  
 WEBS 5-42=-24/256, 42-53=-3703/774, 52-53=-3559/760, 8-52=-3456/735, 8-40=-326/476,  
 8-50=-494/551, 46-50=-461/468, 37-46=-827/524, 16-45=-422/0, 21-25=-765/537,  
 25-27=-63/525, 19-27=0/1248, 36-37=-68/589, 36-47=0/1314, 13-47=0/1875,  
 14-48=-2890/366, 45-48=-2883/367, 45-54=-2883/367, 18-54=-2888/366, 46-49=-367/454,  
 49-55=-285/628, 47-55=-169/770, 39-51=-661/462, 46-51=-542/420, 15-48=-11/447,  
 10-49=-447/133, 9-50=-399/164, 50-51=-321/129, 17-54=0/464, 12-55=-429/35,  
 34-35=-425/0, 28-29=-426/0, 27-29=0/1944, 29-30=-924/326, 32-35=-1341/366,  
 35-36=0/2097

**NOTES-**

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-10; Vult=150mph Vasd=119mph; TC DL=6.0psf; BC DL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; cantilever left exposed ;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 where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- Ceiling dead load (10.0 psf) on member(s). 13-14, 18-19, 14-48, 45-48, 45-54, 18-54; Wall dead load (5.0psf) on member(s).19-27,



March 27, 2023

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



818 Soundside Road  
 Edenton, NC 27932

Job J0922-4569	Truss A4SG	Truss Type ROOF TRUSS	Qty 1	Ply 1	Lot 19 Purfoy Place I57394439 Job Reference (optional)
-------------------	---------------	--------------------------	----------	----------	--

Comtech, Inc. Fayetteville, NC - 28314,

8.430 s Jan 6 2022 MiTek Industries, Inc. Mon Mar 27 08:46:07 2023 Page 2  
ID:X5az\_D23vLwLuiTNLuG6bHyGfxb-XoTp19uEBqMDiESqb1fMyFXfZz0Zowym77d1yzWndU

**NOTES-**

- 7) Bottom chord live load (40.0 psf) and additional bottom chord dead load (10.0 psf) applied only to room. 34-36, 32-34, 30-32, 28-30, 27-28
- 8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 509 lb uplift at joint 42 and 234 lb uplift at joint 22.
- 9) Attic room checked for L/360 deflection.

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

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



818 Soundside Road  
Edenton, NC 27932

Job J0922-4569	Truss B1	Truss Type COMMON	Qty 1	Ply 1	Lot 19 Purfoy Place 157394440
-------------------	-------------	----------------------	----------	----------	----------------------------------

Comtech, Inc. Fayetteville, NC - 28314,

8.430 s Jan 6 2022 MiTek Industries, Inc. Mon Mar 27 08:46:09 2023 Page 1

ID:X5az\_D23vLwLuiTNLUg6bHyGfxb-TBbaSrWVJRdxxXcDii37SNL\_DNmN1jMFERck6rzWndS



5x5 =

Scale = 1:72.8

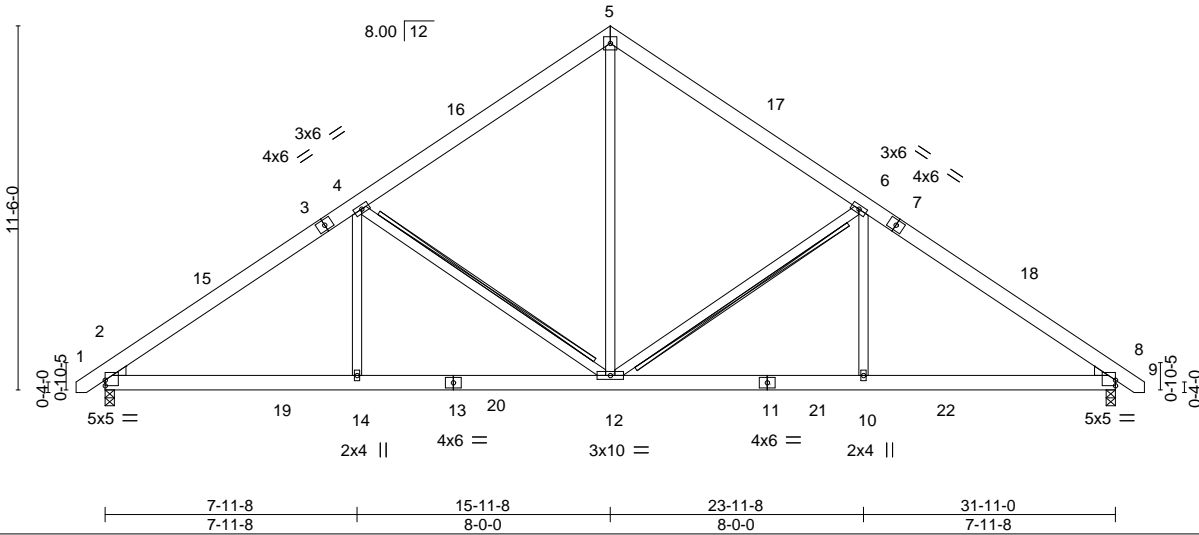


Plate Offsets (X,Y)--	[2:0-0-0,0-2-2], [8:0-0-0,0-2-2]
-----------------------	----------------------------------

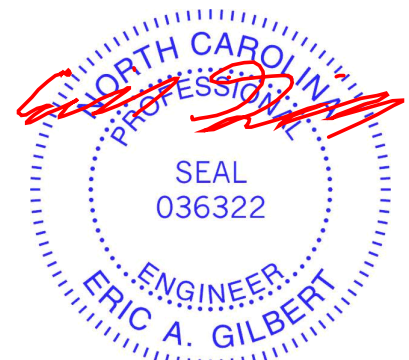
LOADING (psf)	SPACING-	CSI.	DEFL.	PLATES	GRIP
TCLL 20.0	2-0-0	TC 0.35	in (loc) l/defl L/d	MT20	244/190
TCDL 10.0	Plate Grip DOL 1.15	BC 0.30	Vert(LL) -0.05 12-14 >999 360		
BCLL 0.0 *	Lumber DOL 1.15	WB 0.71	Vert(CT) -0.10 12-14 >999 240		
BCDL 10.0	Rep Stress Incr YES	Matrix-S	Horz(CT) 0.04 8 n/a n/a		
	Code IRC2015/TPI2014		Wind(LL) 0.04 2-14 >999 240	Weight: 230 lb	FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x6 SP No.1	TOP CHORD Structural wood sheathing directly applied or 5-3-8 oc purlins.
BOT CHORD 2x6 SP No.1	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 2x4 SP No.2	WEBS T-Brace: 2x4 SPF No.2 - 6-12, 4-12
WEDGE	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.
Left: 2x4 SP No.3, Right: 2x4 SP No.3	Brace must cover 90% of web length.

**REACTIONS.** (size) 2=0-3-8, 8=0-3-8  
 Max Horz 2=356(LC 11)  
 Max Uplift 2=-233(LC 12), 8=-233(LC 13)  
 Max Grav 2=1472(LC 19), 8=1472(LC 20)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-4=-2046/647, 4-5=-1483/609, 5-6=-1483/609, 6-8=-2047/647  
 BOT CHORD 2-14=-345/1807, 12-14=-345/1807, 10-12=-348/1560, 8-10=-348/1560  
 WEBS 5-12=-342/1092, 6-12=-832/389, 6-10=0/444, 4-12=-831/389, 4-14=0/444

- NOTES-**
- 1) Unbalanced roof live loads have been considered for this design.
  - 2) Wind: ASCE 7-10; Vult=150mph Vasd=119mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2) -0-9-1 to 3-7-12, Interior(1) 3-7-12 to 15-11-8, Exterior(2) 15-11-8 to 20-4-5, Interior(1) 20-4-5 to 32-8-1 zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - 3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - 4) \* This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
  - 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 233 lb uplift at joint 2 and 233 lb uplift at joint 8.
  - 6) See Standard Industry Piggyback Truss Connection Detail for Connection to base truss as applicable, or consult qualified building designer.
  - 7) Warning: Additional permanent and stability bracing for truss system (not part of this component design) is always required.

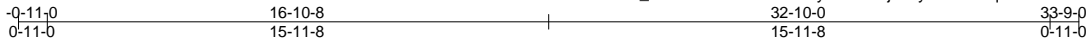


March 27, 2023

Job	Truss	Truss Type	Qty	Ply	Lot 19 Purfoy Place	157394441
J0922-4569	B1GE	GABLE	1	1	Job Reference (optional)	

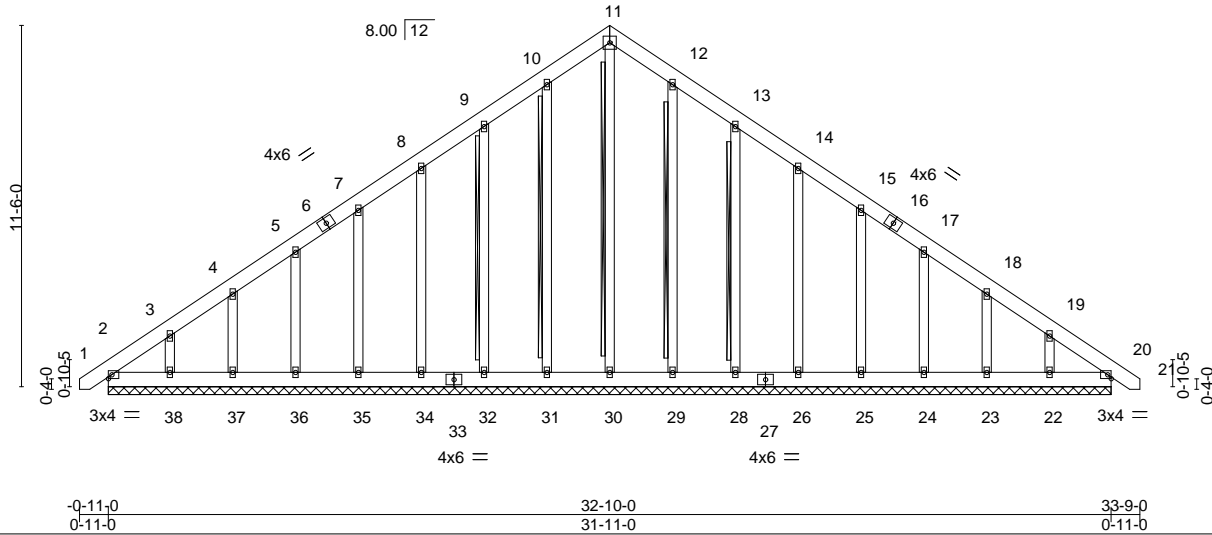
Comtech, Inc. Fayetteville, NC - 28314,

8.430 s Jan 6 2022 MiTek Industries, Inc. Mon Mar 27 08:46:11 2023 Page 1  
 ID:X5az\_D23vLwLuiTNLuG6bHyGfxb-PZjKtXyIE2ffBriBq76bXoQOABW1VmDYh5rBjzWndQ



5x5 =

Scale = 1:73.3



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	20	n/r	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.04	Vert(CT)	0.00	20	n/r		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.17	Horz(CT)	0.01	20	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-S						
								Weight: 295 lb	FT = 20%

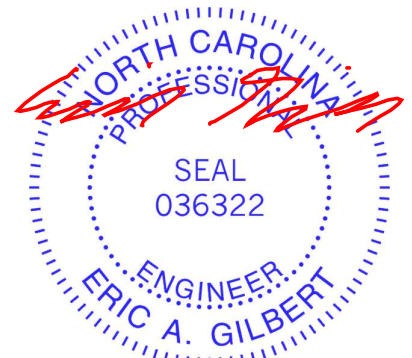
**LUMBER-**  
 TOP CHORD 2x6 SP No.1  
 BOT CHORD 2x6 SP No.1  
 OTHERS 2x4 SP No.2

**BRACING-**  
 TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins.  
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.  
 WEBS T-Brace: 2x4 SPF No.2 - 11-30, 10-31, 9-32, 12-29, 13-28  
 Fasten (2X) T and I braces to narrow edge of web with 10d (0.131"x3") nails, 6in o.c., with 3in minimum end distance.  
 Brace must cover 90% of web length.

**REACTIONS.** All bearings 31-11-0.  
 (lb) - Max Horz 2=445(LC 11)  
 Max Uplift All uplift 100 lb or less at joint(s) 20, 30, 31, 29 except 2=150(LC 8), 32=148(LC 12), 34=133(LC 12), 35=131(LC 12), 36=132(LC 12), 37=132(LC 12), 38=212(LC 12), 28=153(LC 13), 26=133(LC 13), 25=131(LC 13), 24=132(LC 13), 23=131(LC 13), 22=198(LC 13)  
 Max Grav All reactions 250 lb or less at joint(s) 20, 31, 32, 34, 35, 36, 37, 38, 29, 28, 26, 25, 24, 23, 22 except 2=257(LC 9), 30=285(LC 13)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-3=-489/359, 3-4=-339/289, 4-5=-278/252, 8-9=-200/281, 9-10=-288/346, 10-11=-334/381, 11-12=-334/381, 12-13=-288/321, 19-20=-383/255  
 BOT CHORD 2-38=-224/347, 37-38=-224/347, 36-37=-224/347, 35-36=-224/347, 34-35=-224/347, 32-34=-224/347, 31-32=-224/347, 30-31=-224/347, 29-30=-224/347, 28-29=-224/347, 26-28=-224/347, 25-26=-224/347, 24-25=-224/347, 23-24=-224/347, 22-23=-224/347, 20-22=-224/347  
 WEBS 11-30=-261/174

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-10; Vult=150mph Vasd=119mph; TC DL=6.0psf; BC DL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
  - All plates are 2x4 MT20 unless otherwise indicated.
  - Gable requires continuous bottom chord bearing.
  - Gable studs spaced at 2-0-0 oc.
  - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - \* This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
  - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 20, 30, 31, 29 except (jt=lb) 2=150, 32=148, 34=133, 35=131, 36=132, 37=132, 38=212, 28=153, 26=133, 25=131, 24=132, 23=131, 22=198.
  - See Standard Industry Piggyback Truss Connection Detail for Connection to base truss as applicable, or consult qualified building designer.



March 27, 2023

Continued on page 2

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



818 Soundside Road  
 Edenton, NC 27932

Job J0922-4569	Truss B1GE	Truss Type GABLE	Qty 1	Ply 1	Lot 19 Purfoy Place I57394441 Job Reference (optional)
-------------------	---------------	---------------------	----------	----------	--

Comtech, Inc. Fayetteville, NC - 28314,

8.430 s Jan 6 2022 MiTek Industries, Inc. Mon Mar 27 08:46:11 2023 Page 2  
ID:X5az\_D23vLwLuITNLuG6bHyGfxb-PZJKtXylE2ffBrlbq76bXoQOABW1VmDYh5rBjzWndQ

**NOTES-**

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

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

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



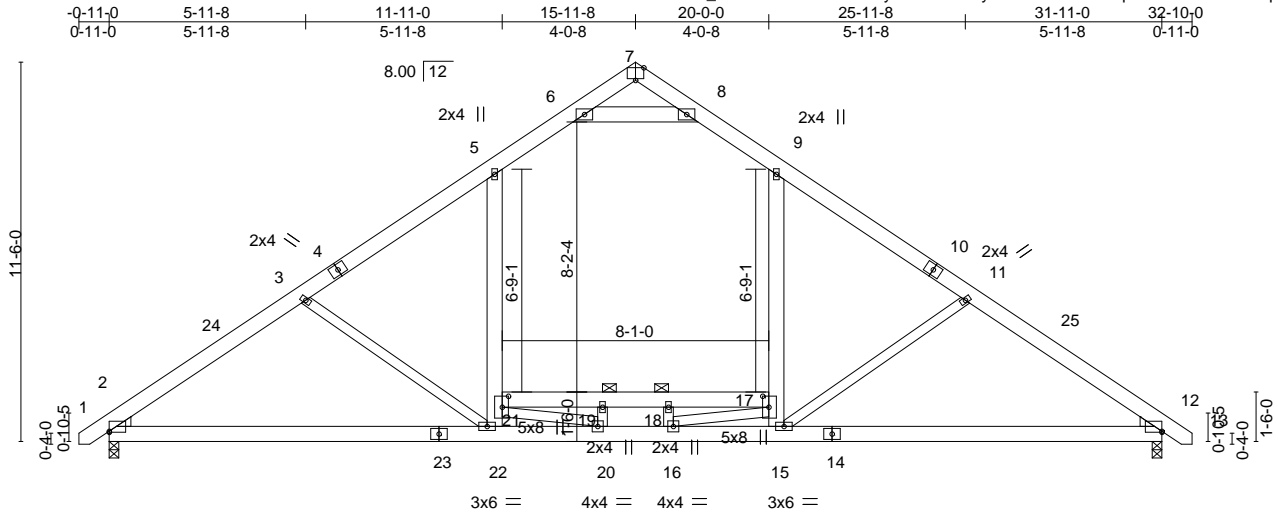
818 Soundside Road  
Edenton, NC 27932

Job J0922-4569	Truss B2	Truss Type ROOF TRUSS	Qty 2	Ply 1	Lot 19 Purfoy Place Job Reference (optional)	I57394442
-------------------	-------------	--------------------------	----------	----------	---	-----------

Comtech, Inc. Fayetteville, NC - 28314,

8.430 s Jan 6 2022 MiTek Industries, Inc. Mon Mar 27 08:46:12 2023 Page 1

ID:X5az\_D23vLwLuiTNLuG6bHyGfxb-tmHi4tyN?M?Wo?KoNrdq30zS?akZE7uhwPqOjAzWndP



Scale = 1:69.9

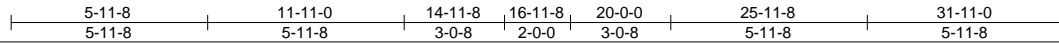


Plate Offsets (X,Y)--	[2:0-0-0,0-0-6], [7:0-3-0,Edge], [12:0-0-0,0-0-6], [17:0-4-0,0-2-4], [21:0-4-0,0-2-4]
-----------------------	---

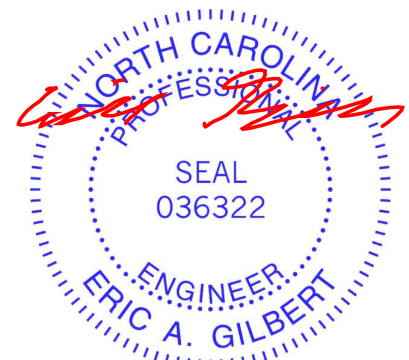
LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL	1.15	TC 0.57	Vert(LL)	-0.16	12-15	>999	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.46	Vert(CT)	-0.34	12-15	>999		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.53	Horz(CT)	0.06	12	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-S	Wind(LL)	0.17	2-22	>999		
								Weight: 266 lb	FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x6 SP 2400F 2.0E *Except* 1-4,10-13: 2x6 SP No.1	TOP CHORD Structural wood sheathing directly applied or 4-9-8 oc purlins.
BOT CHORD 2x6 SP No.1	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 2x4 SP No.2 *Except* 9-15,5-22,6-8: 2x6 SP No.1	JOINTS 1 Brace at Jt(s): 18, 19
WEDGE Left: 2x4 SP No.3 , Right: 2x4 SP No.3	

REACTIONS.	(size)
2=0-3-8, 12=0-3-8	
Max Horz 2=-356(LC 10)	
Max Uplift 2=-14(LC 12), 12=-14(LC 13)	
Max Grav 2=1810(LC 20), 12=1810(LC 21)	

FORCES.	(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD	2-3=-2606/327, 3-5=-2315/243, 5-6=-1746/318, 6-7=-96/1026, 7-8=-96/1025, 8-9=-1746/318, 9-11=-2314/243, 11-12=-2606/327
BOT CHORD	2-22=-125/2314, 20-22=0/2028, 16-20=0/2465, 15-16=0/1768, 12-15=-123/2048, 19-21=-713/0, 18-19=-713/0, 17-18=-713/0
WEBS	11-15=-619/356, 3-22=-619/356, 15-17=-60/585, 9-17=0/907, 21-22=-60/585, 5-21=0/907, 6-8=-3181/491, 16-18=-330/43, 19-20=-330/43, 20-21=-155/898, 16-17=-151/895

- NOTES-**
- 1) Unbalanced roof live loads have been considered for this design.
  - 2) Wind: ASCE 7-10; Vult=150mph Vasd=119mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2) -0-9-1 to 3-7-12, Interior(1) 3-7-12 to 15-11-8, Exterior(2) 15-11-8 to 20-2-12, Interior(1) 20-2-12 to 32-8-1 zone;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - 3) All plates are 4x6 MT20 unless otherwise indicated.
  - 4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - 5) \* This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
  - 6) Ceiling dead load (10.0 psf) on member(s). 5-6, 8-9, 6-8; Wall dead load (5.0psf) on member(s).9-17, 5-21
  - 7) Bottom chord live load (40.0 psf) and additional bottom chord dead load (10.0 psf) applied only to room. 19-21, 18-19, 17-18
  - 8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 12.
  - 9) See Standard Industry Piggyback Truss Connection Detail for Connection to base truss as applicable, or consult qualified building designer.
  - 10) Attic room checked for L/360 deflection.



March 27, 2023

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

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

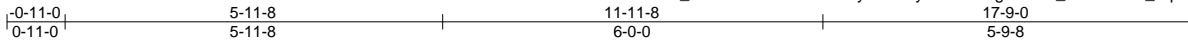
**ENGINEERING BY**  
**TRENCO**  
A MiTek Affiliate

818 Soundside Road  
Edenton, NC 27932

Job J0922-4569	Truss C1	Truss Type ROOF SPECIAL	Qty 21	Ply 1	Lot 19 Purfoy Place 157394443
Comtech, Inc. Fayetteville, NC - 28314,					Job Reference (optional)

8.430 s Jan 6 2022 MiTek Industries, Inc. Mon Mar 27 08:46:13 2023 Page 1

ID: X5az\_D23vLwLuiTNLUg6bHyGfbx-Lyr4HDz?mg7NQ9v\_xY83cDVfr\_7qzckq93ayFczWndO



8x8 =

Scale = 1:36.4

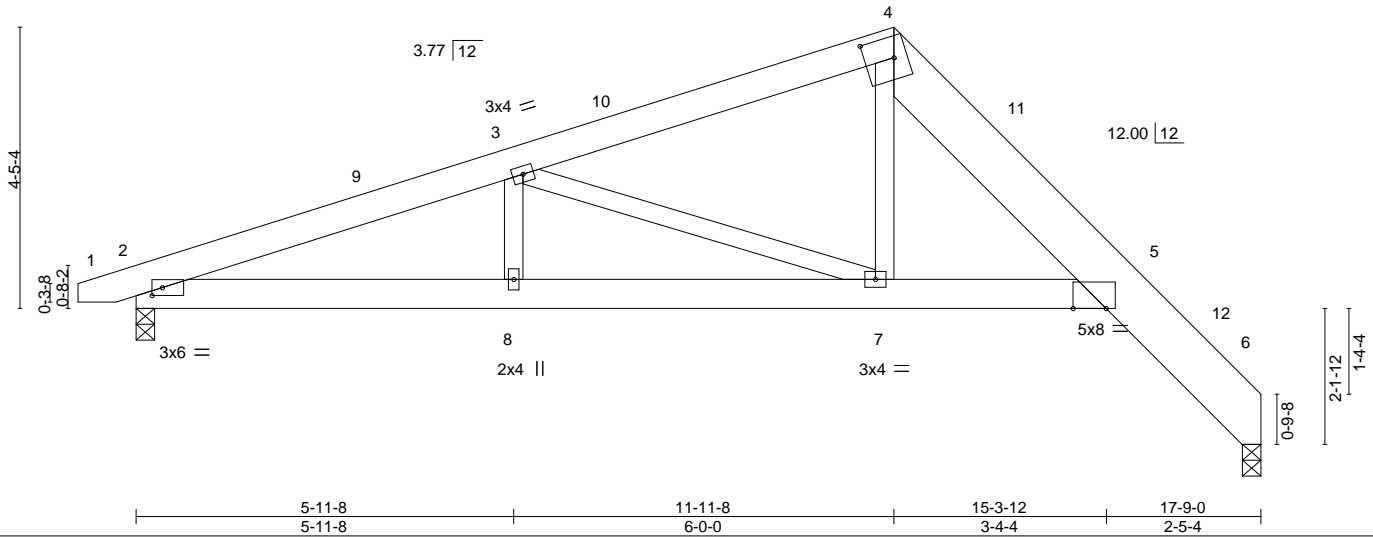


Plate Offsets (X,Y)--	[2:0-1-15,0-1-8], [4:0-5-8,0-4-0], [5:0-6-4,0-0-0]
-----------------------	--

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 0.44	Vert(LL)	-0.05	5-7	>999	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.27	Vert(CT)	-0.10	5-7	>999		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.43	Horz(CT)	0.09	6	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-S	Wind(LL)	0.05	5-7	>999	Weight: 118 lb	FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x6 SP No.1 *Except* 4-6: 2x10 SP No.1	TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins.
BOT CHORD 2x6 SP No.1	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 2x4 SP No.2	

**REACTIONS.** (size) 2=0-3-8, 6=0-3-8  
 Max Horz 2=166(LC 11)  
 Max Uplift 2=189(LC 8), 6=108(LC 8)  
 Max Grav 2=746(LC 1), 6=711(LC 1)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-3=-1503/605, 3-4=-857/407, 4-5=-926/397, 5-6=-451/249  
 BOT CHORD 2-8=-396/1365, 7-8=-396/1365, 5-7=-104/761  
 WEBS 3-7=-650/307, 4-7=-85/424

- NOTES-**
- 1) Unbalanced roof live loads have been considered for this design.
  - 2) Wind: ASCE 7-10; Vult=150mph Vasd=119mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2) -0-7-6 to 3-9-6, Interior(1) 3-9-6 to 11-11-8, Exterior(2) 11-11-8 to 16-4-5, Interior(1) 16-4-5 to 17-7-4 zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - 3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - 4) \* This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
  - 5) Bearing at joint(s) 6 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
  - 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=189, 6=108.



March 27, 2023

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

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

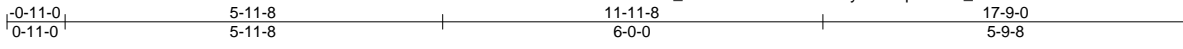
818 Soundside Road  
 Edenton, NC 27932

Job J0922-4569	Truss C1A	Truss Type ROOF SPECIAL	Qty 2	Ply 1	Lot 19 Purfoy Place Job Reference (optional)	157394444
-------------------	--------------	----------------------------	----------	----------	---	-----------

Comtech, Inc. Fayetteville, NC - 28314,

8.430 s Jan 6 2022 MiTek Industries, Inc. Mon Mar 27 08:46:14 2023 Page 1

ID:X5az\_D23vLwLuiTNLUg6bHyGfxb-q8OSVZ\_dXzFE2IUAVGf19R2ncOS7i1K\_NjJvNz2WndN



8x8 =

Scale = 1:36.4

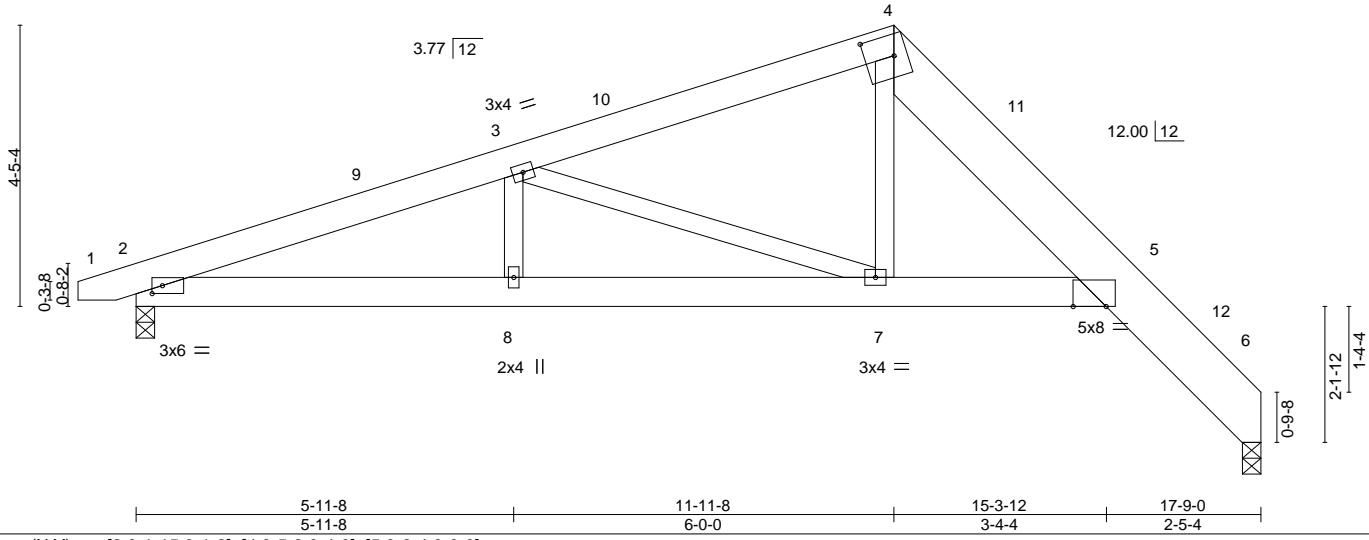


Plate Offsets (X,Y)--	[2:0-1-15,0-1-8], [4:0-5-8,0-4-0], [5:0-6-4,0-0-0]
-----------------------	--

LOADING (psf)	SPACING-	2-6-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL	1.15	TC 0.63	Vert(LL)	-0.06	5-7	>999	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.34	Vert(CT)	-0.12	5-7	>999		
BCLL 0.0 *	Rep Stress Incr	NO	WB 0.53	Horz(CT)	0.12	6	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-S	Wind(LL)	0.06	5-7	>999		
								Weight: 118 lb	FT = 20%

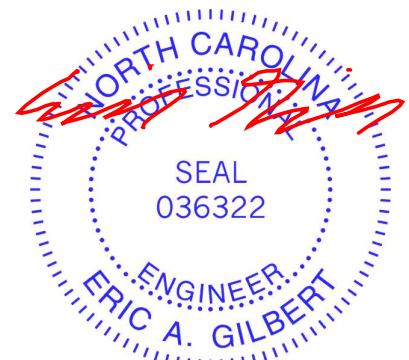
LUMBER-	BRACING-
TOP CHORD 2x6 SP No.1 *Except* 4-6: 2x10 SP No.1	TOP CHORD Structural wood sheathing directly applied or 5-5-10 oc purlins.
BOT CHORD 2x6 SP No.1	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 2x4 SP No.2	

**REACTIONS.** (size) 2=0-3-8, 6=0-3-8  
 Max Horz 2=207(LC 11)  
 Max Uplift 2=-236(LC 8), 6=-134(LC 8)  
 Max Grav 2=933(LC 1), 6=889(LC 1)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-3=-1879/756, 3-4=-1072/508, 4-5=-1157/496, 5-6=-564/311  
 BOT CHORD 2-8=-495/1707, 7-8=-495/1707, 5-7=-130/951  
 WEBS 3-8=0/295, 3-7=-813/383, 4-7=-106/530

**NOTES-**

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-10; Vult=150mph Vasd=119mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2) -0-7-6 to 3-9-6, Interior(1) 3-9-6 to 11-11-8, Exterior(2) 11-11-8 to 16-4-5, Interior(1) 16-4-5 to 17-7-4 zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 4) \* This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 5) Bearing at joint(s) 6 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=236, 6=134.



March 27, 2023

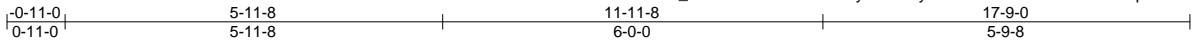
<p><b>WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE.</b>          Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see <b>ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information</b> available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601</p>	<p>ENGINEERING BY  <b>TRENCO</b>          A MiTek Affiliate</p> <p>818 Soundside Road          Edenton, NC 27932</p>
--	--



Job J0922-4569	Truss C1GE	Truss Type GABLE	Qty 2	Ply 1	Lot 19 Purfoy Place 157394445
-------------------	---------------	---------------------	----------	----------	----------------------------------

Comtech, Inc. Fayetteville, NC - 28314, 8.430 s Jan 6 2022 MiTek Industries, Inc. Mon Mar 27 08:46:15 2023 Page 1

ID:X5az\_D23vLwLuITNLuG6bHyGfb-ILyrv?FIHN4fS3N3zAXheb?LopGRbH7cN32KvzWndM



8x8 = Scale = 1:36.4

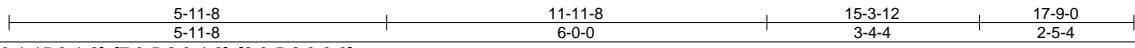
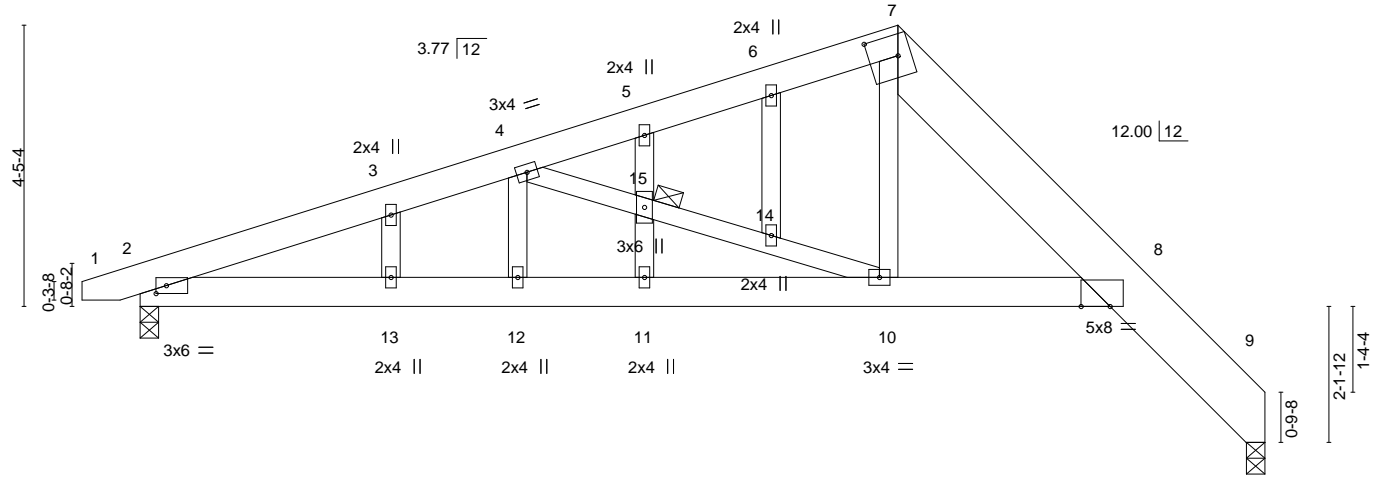


Plate Offsets (X,Y)-- [2:0-1-15,0-1-8], [7:0-5-8,0-4-0], [8:0-5-8,0-0-0]

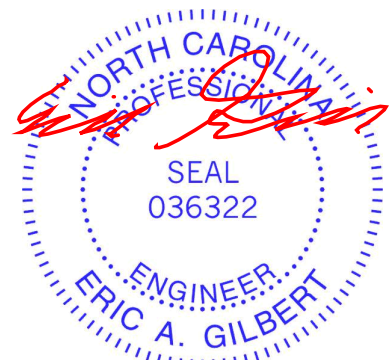
LOADING (psf)	SPACING-	CSI.	DEFL.	PLATES	GRIP
TCLL 20.0	2-0-0	TC 0.44	in (loc) l/defl L/d	MT20	244/190
TCDL 10.0	Plate Grip DOL 1.15	BC 0.27	Vert(LL) -0.05 11 >999 360		
BCLL 0.0 *	Lumber DOL 1.15	WB 0.10	Vert(CT) -0.10 8-10 >999 240		
BCDL 10.0	Rep Stress Incr YES	Matrix-S	Horz(CT) 0.09 9 n/a n/a		
	Code IRC2015/TPI2014		Wind(LL) 0.06 11 >999 240	Weight: 126 lb	FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x6 SP No.1 *Except* 7-9: 2x10 SP No.1	TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins.
BOT CHORD 2x6 SP No.1	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 2x4 SP No.2	JOINTS 1 Brace at Jt(s): 15
OTHERS 2x4 SP No.2	

**REACTIONS.** (size) 2=0-3-8, 9=0-3-8  
 Max Horz 2=-227(LC 13)  
 Max Uplift 2=-350(LC 8), 9=-214(LC 13)  
 Max Grav 2=746(LC 1), 9=711(LC 1)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-3=-1469/782, 3-4=-1392/828, 4-5=-855/460, 5-6=-820/493, 6-7=-797/512,  
 7-8=-931/488, 8-9=-451/278  
 BOT CHORD 2-13=-593/1328, 12-13=-593/1328, 11-12=-593/1328, 10-11=-593/1328, 8-10=-172/765  
 WEBS 4-15=-609/440, 14-15=-604/434, 10-14=-617/445, 7-10=-190/418

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-10; Vult=150mph Vasd=119mph; TC DL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
  - Gable studs spaced at 2-0-0 oc.
  - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - \* This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
  - Bearing at joint(s) 9 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
  - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=350, 9=214.



March 27, 2023

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

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



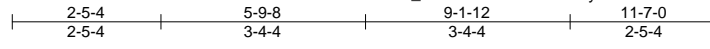
818 Soundside Road  
Edenton, NC 27932

Job J0922-4569	Truss C2	Truss Type ROOF SPECIAL	Qty 1	Ply 1	Lot 19 Purfoy Place 157394446
-------------------	-------------	----------------------------	----------	----------	----------------------------------

Comtech, Inc. Fayetteville, NC - 28314,

8.430 s Jan 6 2022 MiTek Industries, Inc. Mon Mar 27 08:46:16 2023 Page 1

ID:X5az\_D23vLwLuiTNLUg6bHyGfxb-mXWDwE?u3bVxHceZcghmEs7CpCBKA3Nhr1ocszxWndL



8x8 =

Scale = 1:37.8

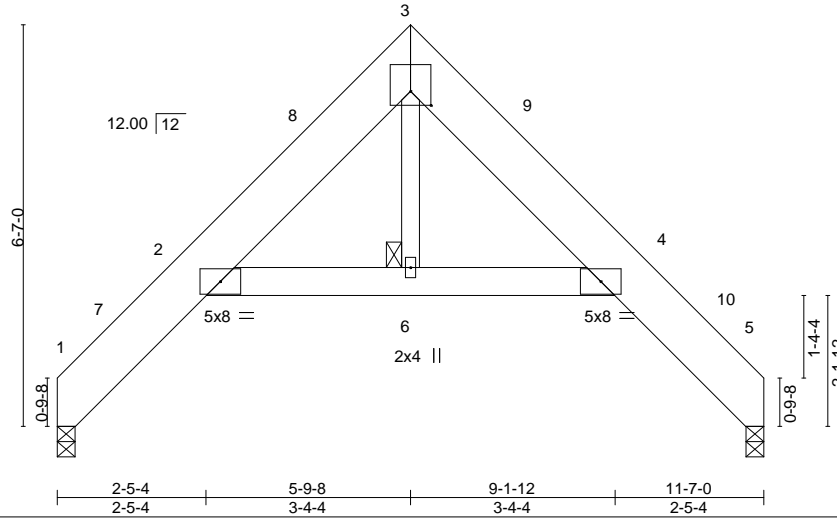


Plate Offsets (X,Y)-- [3:0-4-0,0-2-12]

LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL	1.15	TC 0.26	Vert(LL)	-0.03	6	>999	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.16	Vert(CT)	-0.06	2-6	>999		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.05	Horz(CT)	0.09	5	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-S	Wind(LL)	0.03	2-6	>999	Weight: 89 lb	FT = 20%

**LUMBER-**

TOP CHORD 2x10 SP No.1  
 BOT CHORD 2x6 SP No.1  
 WEBS 2x4 SP No.2

**BRACING-**

TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins.  
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.  
 JOINTS 1 Brace at Jt(s): 6

**REACTIONS.**

(size) 1=0-3-8, 5=0-3-8  
 Max Horz 1=-180(LC 8)  
 Max Uplift 1=-56(LC 12), 5=-56(LC 13)  
 Max Grav 1=466(LC 1), 5=466(LC 1)

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

TOP CHORD 1-2=-368/196, 2-3=-514/219, 3-4=-539/220, 4-5=-346/194  
 BOT CHORD 2-6=-36/499, 4-6=-36/499

**NOTES-**

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-10; Vult=150mph Vasd=119mph; TC DL=6.0psf; BC DL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2) 0-1-12 to 4-6-9, Interior(1) 4-6-9 to 5-9-8, Exterior(2) 5-9-8 to 10-2-5, Interior(1) 10-2-5 to 11-5-4 zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- \* This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- Bearing at joint(s) 1, 5 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 5.



March 27, 2023

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

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



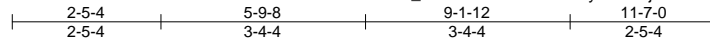
818 Soundside Road  
 Edenton, NC 27932

Job J0922-4569	Truss C2GE	Truss Type GABLE	Qty 1	Ply 1	Lot 19 Purfoy Place I57394447
-------------------	---------------	---------------------	----------	----------	----------------------------------

Comtech, Inc. Fayetteville, NC - 28314,

8.430 s Jan 6 2022 MiTek Industries, Inc. Mon Mar 27 08:46:17 2023 Page 1

ID: X5az\_D23vLwLuiTNLuG6bHyGfxb-Ej4b7a0WquodvmDIAOD?m3gNZbXXvVLQ3hY9ONzWndK



8x8 =

Scale = 1:37.8

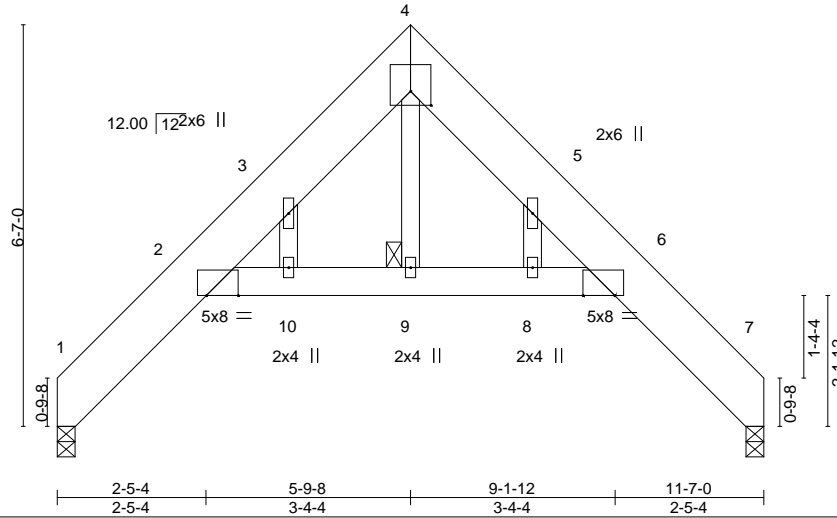


Plate Offsets (X,Y)--	[2:0-6-4,Edge], [4:0-4-0,0-2-12], [6:0-6-4,Edge]
-----------------------	--

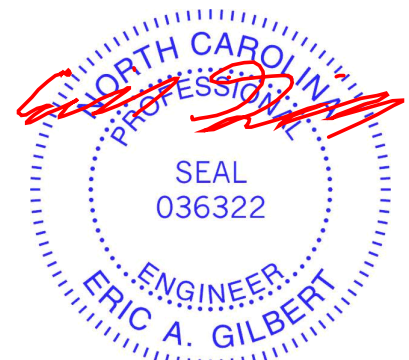
LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL	1.15	TC 0.26	Vert(LL)	-0.03	8	>999	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.16	Vert(CT)	-0.06	8	>999		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.07	Horz(CT)	0.09	7	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-S	Wind(LL)	0.04	10	>999	Weight: 92 lb	FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x10 SP No.1	TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins.
BOT CHORD 2x6 SP No.1	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 2x4 SP No.2	JOINTS 1 Brace at Jt(s): 9
OTHERS 2x4 SP No.2	

**REACTIONS.** (size) 1=0-3-8, 7=0-3-8  
 Max Horz 1=-225(LC 8)  
 Max Uplift 1=-132(LC 12), 7=-132(LC 13)  
 Max Grav 1=466(LC 1), 7=466(LC 1)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 1-2=-391/243, 2-3=-483/175, 3-4=-565/274, 4-5=-565/274, 5-6=-539/190, 6-7=-346/195  
 BOT CHORD 2-10=-84/548, 9-10=-78/539, 8-9=-78/539, 6-8=-78/544  
 WEBS 4-9=-109/318

- NOTES-**
- 1) Unbalanced roof live loads have been considered for this design.
  - 2) Wind: ASCE 7-10; Vult=150mph Vasd=119mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - 3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
  - 4) Gable studs spaced at 2-0-0 oc.
  - 5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - 6) \* This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
  - 7) Bearing at joint(s) 1, 7 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
  - 8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 1=132, 7=132.



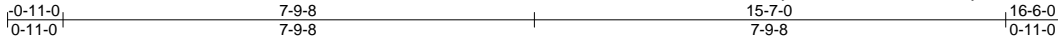
March 27, 2023

Job	Truss	Truss Type	Qty	Ply	Lot 19 Purfoy Place	157394448
J0922-4569	D1	COMMON	3	1		

Comtech, Inc. Fayetteville, NC - 28314,

8.430 s Jan 6 2022 MiTek Industries, Inc. Mon Mar 27 08:46:18 2023 Page 1

ID:X5az\_D23vLwLuITNLuG6bHyGfb-iwezLw18bCifWwoyk5kEJHDYX?oUeuRalLHjwpzWndJ



5x5 =

Scale = 1:38.1

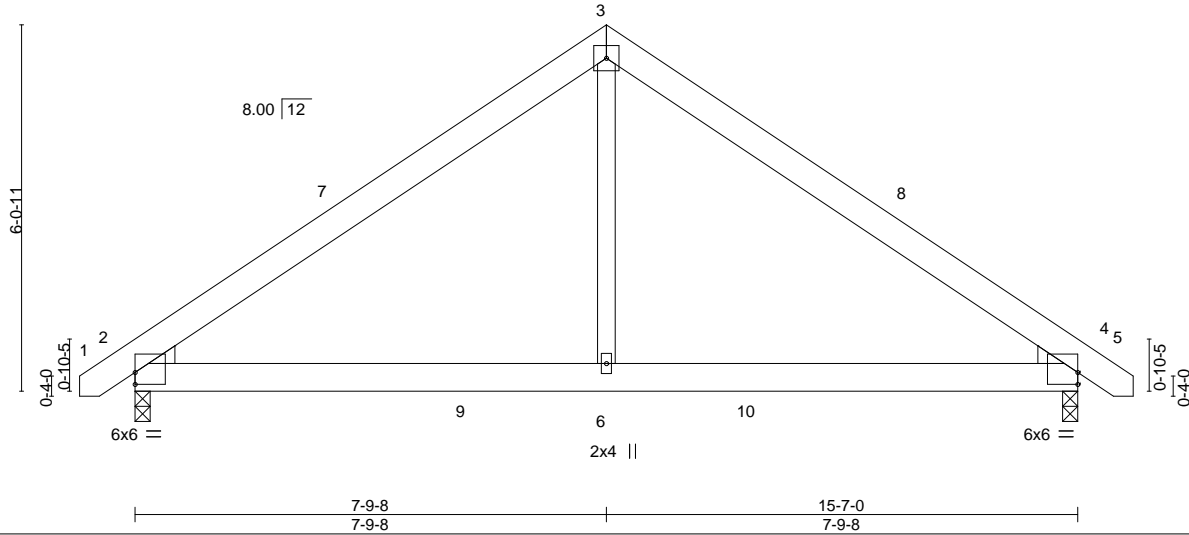


Plate Offsets (X, Y)--	[2:0-0-0,0-2-6], [4:Edge,0-2-6]
------------------------	---------------------------------

LOADING (psf)	SPACING-	CSI.	DEFL.	PLATES	GRIP
TCLL 20.0	2-0-0	TC 0.31	in (loc) l/defl L/d	MT20	244/190
TCDL 10.0	Plate Grip DOL 1.15	BC 0.43	Vert(LL) 0.07 4-6 >999 240		
BCLL 0.0 *	Lumber DOL 1.15	WB 0.33	Vert(CT) -0.05 2-6 >999 240		
BCDL 10.0	Rep Stress Incr YES	Matrix-S	Horz(CT) 0.01 4 n/a n/a		
	Code IRC2015/TPI2014			Weight: 95 lb	FT = 20%

**LUMBER-**  
 TOP CHORD 2x6 SP No.1  
 BOT CHORD 2x6 SP No.1  
 WEBS 2x4 SP No.2  
 WEDGE  
 Left: 2x4 SP No.3, Right: 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 9-7-8 oc bracing.

**REACTIONS.** (size) 2=0-3-0, 4=0-3-0  
 Max Horz 2=182(LC 11)  
 Max Uplift 2=-192(LC 9), 4=-192(LC 8)  
 Max Grav 2=685(LC 2), 4=685(LC 2)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-3=-807/920, 3-4=-807/917  
 BOT CHORD 2-6=-564/567, 4-6=-564/567  
 WEBS 3-6=-674/457

- NOTES-**
- 1) Unbalanced roof live loads have been considered for this design.
  - 2) Wind: ASCE 7-10; Vult=150mph Vasd=119mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2) -0-9-1 to 3-7-12, Interior(1) 3-7-12 to 7-9-8, Exterior(2) 7-9-8 to 12-2-5, Interior(1) 12-2-5 to 16-4-1 zone; porch left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - 3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - 4) \* This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
  - 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=192, 4=192.
  - 6) See Standard Industry Piggyback Truss Connection Detail for Connection to base truss as applicable, or consult qualified building designer.



March 27, 2023

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

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

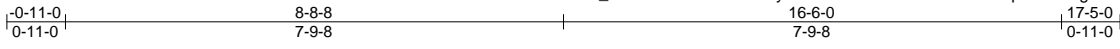
818 Soundside Road  
 Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Lot 19 Purfoy Place	I57394449
J0922-4569	D1GE	GABLE	1	1		
					Job Reference (optional)	

Comtech, Inc. Fayetteville, NC - 28314,

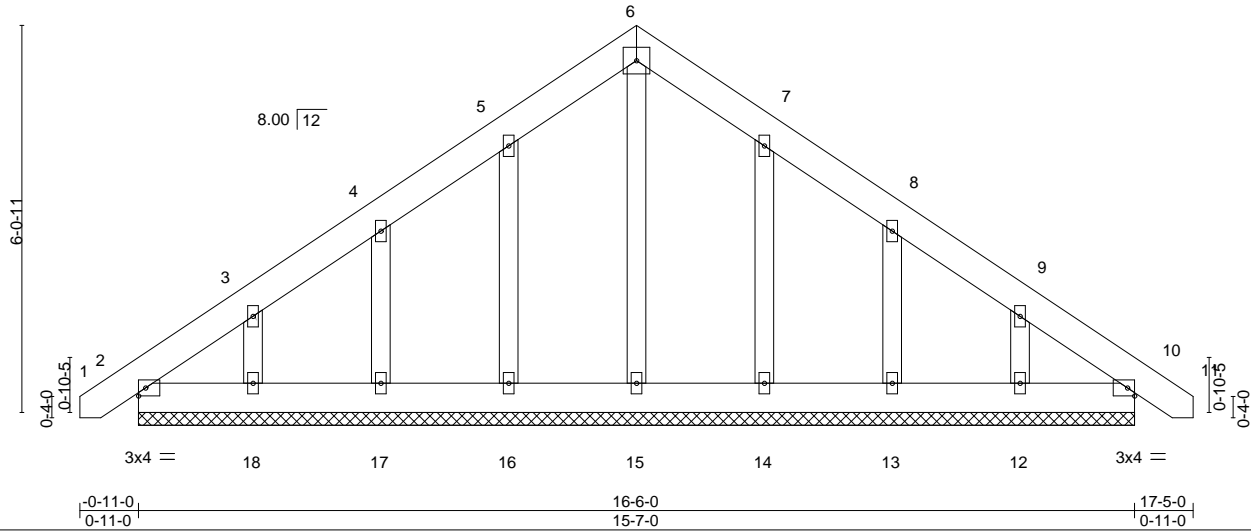
8.430 s Jan 6 2022 MiTek Industries, Inc. Mon Mar 27 08:46:19 2023 Page 1

ID:X5az\_D23vLwLuTNLuG6bHyGfb-A6CLYG2mMWtW84M8lpFTsUImgPE9NP?jX?1GTGzWndI



5x5 =

Scale = 1:36.0



<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 0.03	Vert(LL)	-0.00	10	n/r	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.02	Vert(CT)	0.00	10	n/r		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.06	Horz(CT)	0.00	10	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-S						
								Weight: 116 lb	FT = 20%

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

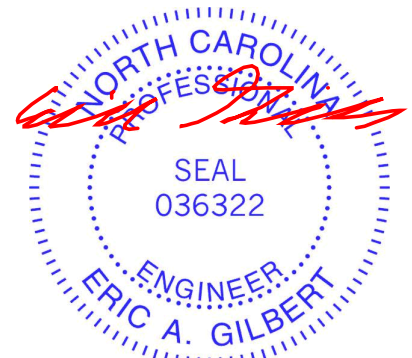
**BRACING-**  
 TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins.  
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS.** All bearings 15-7-0.  
 (lb) - Max Horz 2=227(LC 11)  
 Max Uplift All uplift 100 lb or less at joint(s) 2, 10 except 16=-121(LC 12), 17=-139(LC 12), 18=-168(LC 12), 14=-116(LC 13), 13=-141(LC 13), 12=-160(LC 13)  
 Max Grav All reactions 250 lb or less at joint(s) 2, 10, 15, 16, 17, 18, 14, 13, 12

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

**NOTES-**

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-10; Vult=150mph Vasd=119mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; porch left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- All plates are 2x4 MT20 unless otherwise indicated.
- Gable requires continuous bottom chord bearing.
- Gable studs spaced at 2-0-0 oc.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- \* This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 10 except (jt=lb) 16=121, 17=139, 18=168, 14=116, 13=141, 12=160.
- See Standard Industry Piggyback Truss Connection Detail for Connection to base truss as applicable, or consult qualified building designer.



March 27, 2023

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



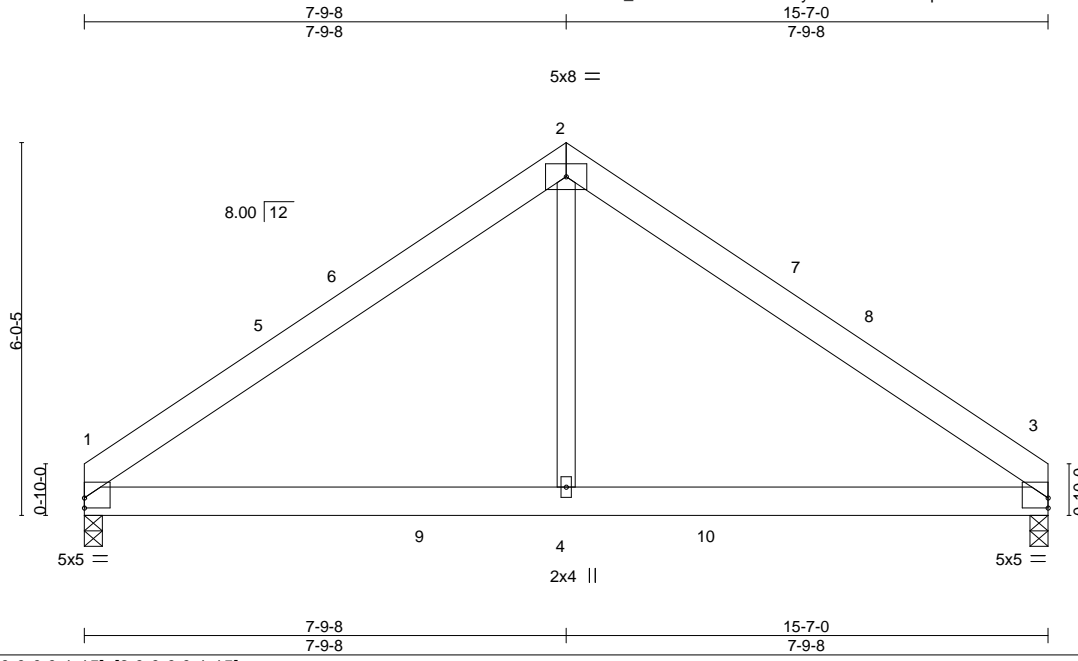
818 Soundside Road  
 Edenton, NC 27932

Job J0922-4569	Truss D2	Truss Type COMMON	Qty 3	Ply 1	Lot 19 Purfoy Place 157394450
-------------------	-------------	----------------------	----------	----------	----------------------------------

Comtech, Inc. Fayetteville, NC - 28314,

8.430 s Jan 6 2022 MiTek Industries, Inc. Mon Mar 27 08:46:20 2023 Page 1

ID:X5az\_D23vLwLuiTNLUg6bHyGfxb-eImkIc3O7p?NmDxKrWmiOilt5pWe6n0smfmp?izWndH



Scale = 1:37.3

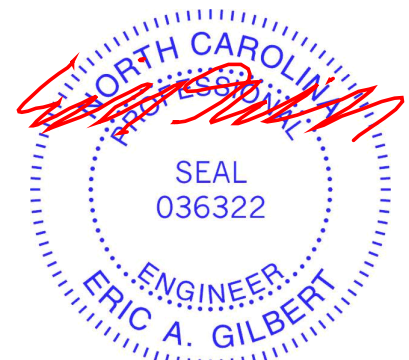
Plate Offsets (X,Y)--	[1:0-0-0,0-1-15], [3:0-0-0,0-1-15]				
<b>LOADING</b> (psf)	<b>SPACING-</b> 2-0-0	<b>CSI.</b>	<b>DEFL.</b> in (loc) l/defl L/d	<b>PLATES</b>	<b>GRIP</b>
TCLL 20.0	Plate Grip DOL 1.15	TC 0.31	Vert(LL) 0.07 1-4 >999 240	MT20	244/190
TCDL 10.0	Lumber DOL 1.15	BC 0.26	Vert(CT) -0.05 1-4 >999 240		
BCLL 0.0 *	Rep Stress Incr YES	WB 0.33	Horz(CT) 0.01 3 n/a n/a		
BCDL 10.0	Code IRC2015/TPI2014	Matrix-S		Weight: 89 lb	FT = 20%

<b>LUMBER-</b>	<b>BRACING-</b>
TOP CHORD 2x6 SP No.1	TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins.
BOT CHORD 2x6 SP No.1	BOT CHORD Rigid ceiling directly applied or 9-6-4 oc bracing.
WEBS 2x4 SP No.2	

**REACTIONS.** (size) 1=0-3-8, 3=0-3-8  
 Max Horz 1=-176(LC 8)  
 Max Uplift 1=-183(LC 9), 3=-183(LC 8)  
 Max Grav 1=638(LC 2), 3=638(LC 2)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 1-2=-804/923, 2-3=-804/923  
 BOT CHORD 1-4=-580/569, 3-4=-580/569  
 WEBS 2-4=-669/452

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-10; Vult=150mph Vasd=119mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2) 0-1-12 to 4-6-9, Interior(1) 4-6-9 to 7-9-8, Exterior(2) 7-9-8 to 12-2-5, Interior(1) 12-2-5 to 15-5-4 zone; porch left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - \* This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
  - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 1=183, 3=183.

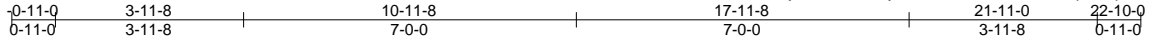


Job	Truss	Truss Type	Qty	Ply	Lot 19 Purfoy Place	I57394451
J0922-4569	G1	COMMON	6	1		

Comtech, Inc. Fayetteville, NC - 28314,

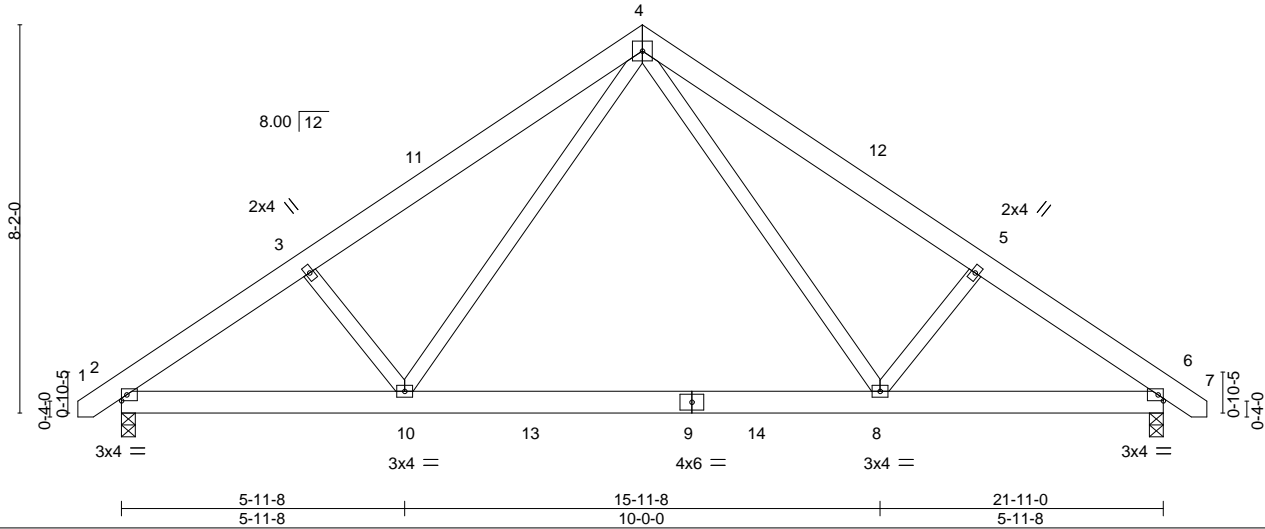
8.430 s Jan 6 2022 MiTek Industries, Inc. Mon Mar 27 08:46:21 2023 Page 1

ID:X5az\_D23vLwLuiTNLU6bHyGfxb-6UK6zy30u77EONWWPEHxxvq3JDqdrHIO\_JWNX8zWndG



5x5 =

Scale: 1/4"=1'



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 0.21	Vert(LL)	-0.13 8-10	>999	360	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.40	Vert(CT)	-0.20 8-10	>999	240		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.13	Horz(CT)	0.02 6	n/a	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-S	Wind(LL)	0.02 8-10	>999	240		
								Weight: 154 lb	FT = 20%

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

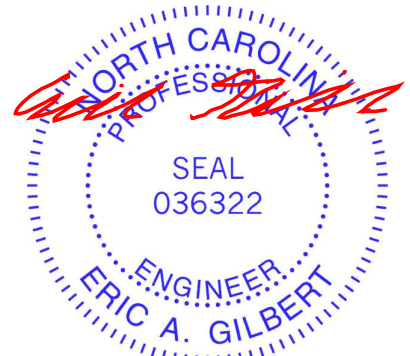
**BRACING-**  
 TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins.  
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS.** (size) 2=0-3-8, 6=0-3-8  
 Max Horz 2=187(LC 11)  
 Max Uplift 2=-57(LC 12), 6=-57(LC 13)  
 Max Grav 2=960(LC 19), 6=960(LC 20)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-3=-1386/278, 3-4=-1267/323, 4-5=-1268/323, 5-6=-1386/278  
 BOT CHORD 2-10=-158/1188, 8-10=0/718, 6-8=-163/1048  
 WEBS 4-8=-83/607, 5-8=-299/225, 4-10=-83/607, 3-10=-299/225

**NOTES-**

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-10; Vult=130mph Vasd=103mph; TCCL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2) -0-9-1 to 3-9-12, Interior(1) 3-9-12 to 10-11-8, Exterior(2) 10-11-8 to 15-4-5, Interior(1) 15-4-5 to 22-8-1 zone;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 4) \* This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 6.
- 6) See Standard Industry Piggyback Truss Connection Detail for Connection to base truss as applicable, or consult qualified building designer.



March 27, 2023

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

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

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

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



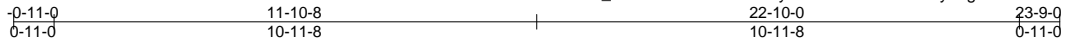
818 Soundside Road  
 Edenton, NC 27932

Job J0922-4569	Truss G1GE	Truss Type GABLE	Qty 1	Ply 1	Lot 19 Purfoy Place 157394452
-------------------	---------------	---------------------	----------	----------	----------------------------------

Comtech, Inc. Fayetteville, NC - 28314,

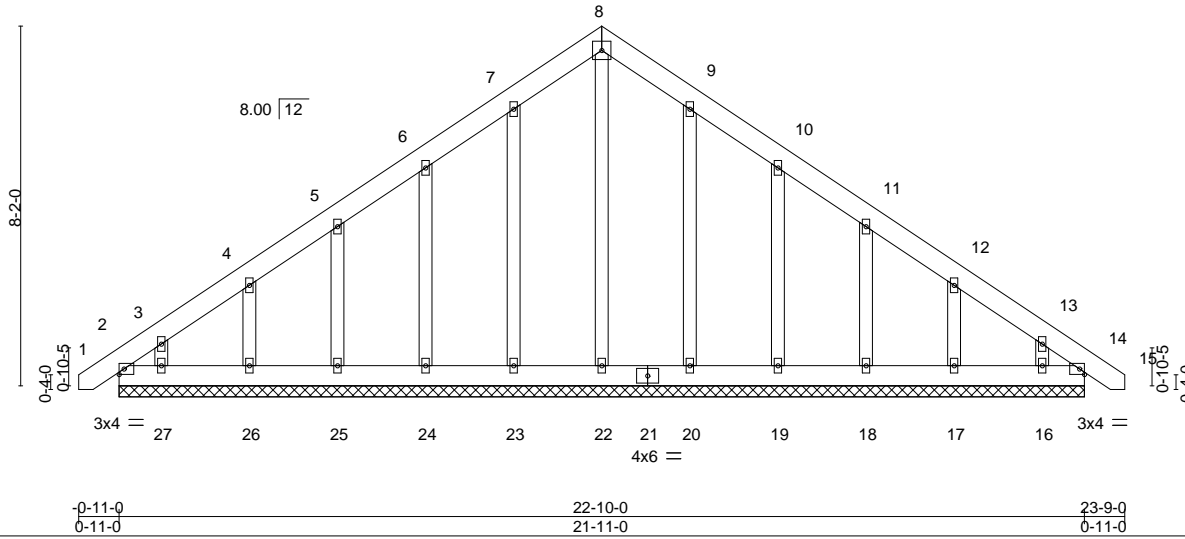
8.430 s Jan 6 2022 MiTek Industries, Inc. Mon Mar 27 08:46:23 2023 Page 1

ID:X5az\_D23vLwLuiTNLuG6bHyGfxb-3tRsOe5HQkNydhgvXfKP0KwSe0c7JctJSd?Uc1zWndE



5x5 =

Scale = 1:52.3



LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL	1.15	TC 0.03	Vert(LL)	-0.00	14	n/r	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.02	Vert(CT)	-0.00	14	n/r		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.13	Horz(CT)	0.00	14	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-S						
								Weight: 178 lb	FT = 20%

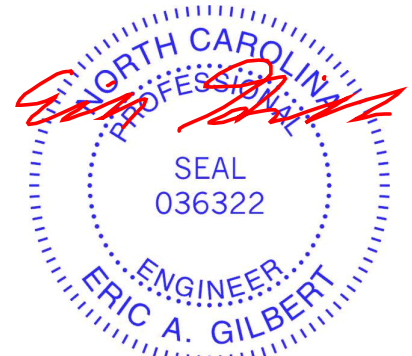
**LUMBER-**  
 TOP CHORD 2x6 SP No.1  
 BOT CHORD 2x6 SP No.1  
 OTHERS 2x4 SP No.2

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

**REACTIONS.** All bearings 21-11-0.  
 (lb) - Max Horz 2=234(LC 11)  
 Max Uplift All uplift 100 lb or less at joint(s) 2, 14, 23, 24, 25, 26, 20, 19, 18, 17 except 27=134(LC 12), 16=120(LC 13)  
 Max Grav All reactions 250 lb or less at joint(s) 2, 14, 22, 23, 24, 25, 26, 27, 20, 19, 18, 17, 16

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-3=-275/196

- NOTES-**
- 1) Unbalanced roof live loads have been considered for this design.
  - 2) Wind: ASCE 7-10; Vult=130mph Vasd=103mph; TC DL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - 3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
  - 4) All plates are 2x4 MT20 unless otherwise indicated.
  - 5) Gable requires continuous bottom chord bearing.
  - 6) Gable studs spaced at 2-0-0 oc.
  - 7) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - 8) \* This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
  - 9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 14, 23, 24, 25, 26, 20, 19, 18, 17 except (jt=lb) 27=134, 16=120.
  - 10) See Standard Industry Piggyback Truss Connection Detail for Connection to base truss as applicable, or consult qualified building designer.



March 27, 2023

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



818 Soundside Road  
 Edenton, NC 27932

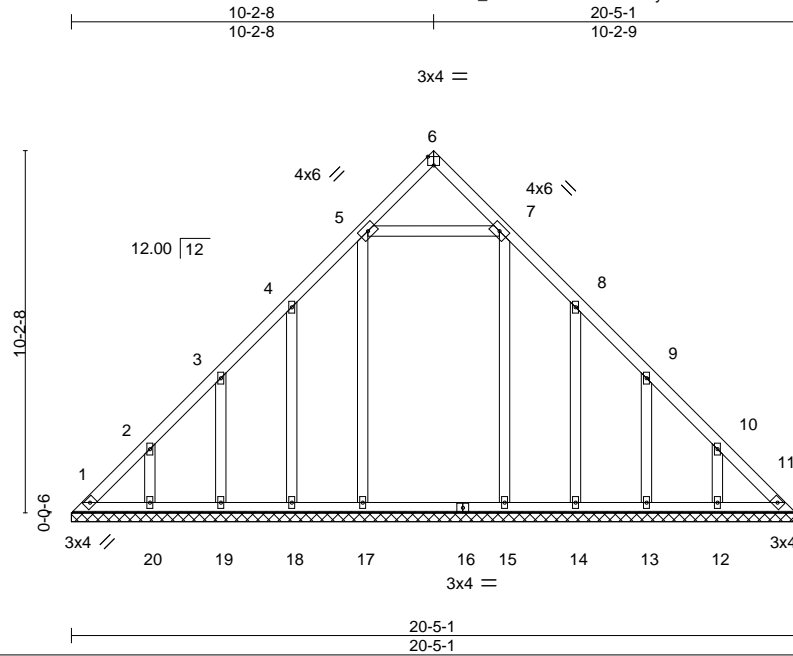


Job J0922-4569	Truss V1GE	Truss Type VALLEY	Qty 1	Ply 1	Lot 19 Purfoy Place 157394453
-------------------	---------------	----------------------	----------	----------	----------------------------------

Comtech, Inc. Fayetteville, NC - 28314,

8.430 s Jan 6 2022 MiTek Industries, Inc. Mon Mar 27 08:46:24 2023 Page 1

ID: X5az\_D23vLwLuiTNLuG6bHyGfxb-X3?Ebz6vA2WpFrF54MreZYsCeQwX2dYSgHk18TzWndD



Scale = 1:65.0

Plate Offsets (X, Y)--	[6:0-2-0,Edge], [7:0-0-0,0-0-0], [8:0-0-0,0-0-0], [9:0-0-0,0-0-0], [10:0-0-0,0-0-0]
------------------------	---

LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL	1.15	TC 0.08	Vert(LL)	n/a	-	n/a	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.13	Vert(CT)	n/a	-	n/a		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.23	Horz(CT)	0.01	11	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-S						

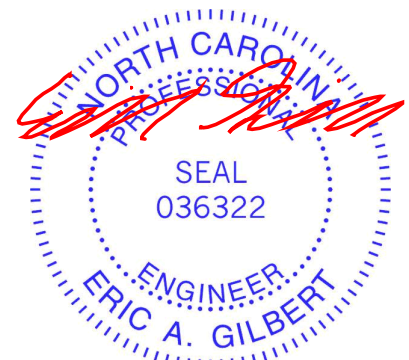
Weight: 133 lb FT = 20%

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

REACTIONS.	All bearings 20-5-1.
(lb) - Max Horz	1=393(LC 8)
Max Uplift	All uplift 100 lb or less at joint(s) 11, 17 except 1=174(LC 10), 18=200(LC 12), 19=200(LC 12), 20=217(LC 12), 14=197(LC 13), 13=201(LC 13), 12=217(LC 13)
Max Grav	All reactions 250 lb or less at joint(s) 11, 18, 19, 20, 14, 13, 12 except 1=265(LC 9), 17=404(LC 19), 15=340(LC 21)

FORCES.	(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD	1-2=-399/324, 2-3=-293/256, 3-4=-245/253, 4-5=-282/345, 7-8=-282/296, 10-11=-313/197
BOT CHORD	1-20=-146/267, 19-20=-146/267, 18-19=-146/267, 17-18=-146/267, 15-17=-146/267, 14-15=-146/267, 13-14=-146/267, 12-13=-146/267, 11-12=-146/267
WEBS	5-7=-236/292

- NOTES-**
- 1) Unbalanced roof live loads have been considered for this design.
  - 2) Wind: ASCE 7-10; Vult=150mph Vasd=119mph; TC DL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - 3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
  - 4) All plates are 2x4 MT20 unless otherwise indicated.
  - 5) Gable requires continuous bottom chord bearing.
  - 6) Gable studs spaced at 2-0-0 oc.
  - 7) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - 8) \* This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
  - 9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 11, 17 except (jt=lb) 1=174, 18=200, 19=200, 20=217, 14=197, 13=201, 12=217.



March 27, 2023

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

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

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

Job J0922-4569	Truss V2	Truss Type VALLEY	Qty 1	Ply 1	Lot 19 Purfoy Place 157394454
-------------------	-------------	----------------------	----------	----------	----------------------------------

Comtech, Inc. Fayetteville, NC - 28314,

8.430 s Jan 6 2022 MiTek Industries, Inc. Mon Mar 27 08:46:26 2023 Page 1

ID:X5az\_D23vLwLuiTNLUg6bHyGfb-TS7?0f79ifmXU8PUCnt6ezYw9EbBWxzI8aD8CMzWndB



4x4 =

Scale = 1:60.8

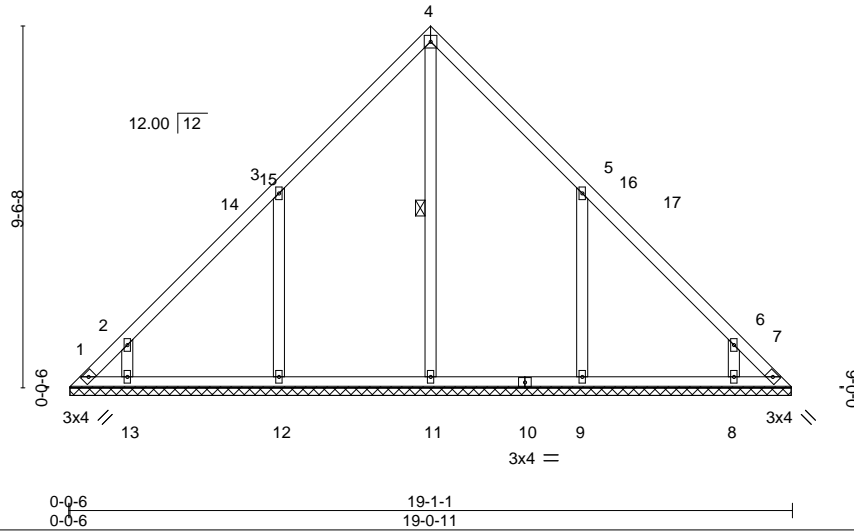


Plate Offsets (X,Y)-- [5:0-0-0,0-0-0], [6:0-0-0,0-0-0]

<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 0.21	Vert(LL)	n/a	-	n/a	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.19	Vert(CT)	n/a	-	n/a		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.23	Horz(CT)	0.01	7	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-S					Weight: 98 lb	FT = 20%

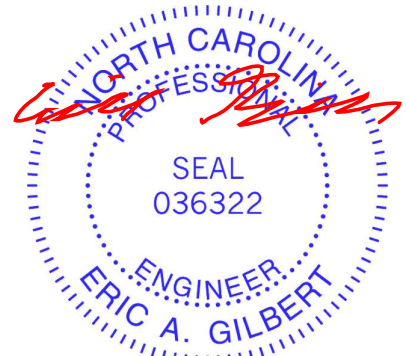
**LUMBER-**  
TOP CHORD 2x4 SP No.1  
BOT CHORD 2x4 SP No.1  
OTHERS 2x4 SP No.2

**BRACING-**  
TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.  
WEBS 1 Row at midpt 4-11

**REACTIONS.** All bearings 19-0-5.  
(lb) - Max Horz 1=293(LC 8)  
Max Uplift All uplift 100 lb or less at joint(s) except 1=189(LC 10), 7=140(LC 11), 12=280(LC 12),  
13=203(LC 12), 9=279(LC 13), 8=204(LC 13)  
Max Grav All reactions 250 lb or less at joint(s) 7 except 1=255(LC 12), 11=447(LC 22), 12=523(LC 19),  
13=304(LC 19), 9=523(LC 20), 8=304(LC 20)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
TOP CHORD 1-2=-357/311, 3-4=-273/261, 4-5=-273/261, 6-7=-355/311  
WEBS 3-12=-511/429, 2-13=-395/368, 5-9=-511/429, 6-8=-395/368

- NOTES-**
- 1) Unbalanced roof live loads have been considered for this design.
  - 2) Wind: ASCE 7-10; Vult=150mph Vasd=119mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2) 0-4-4 to 4-9-0, Interior(1) 4-9-0 to 9-6-8, Exterior(2) 9-6-8 to 13-11-5, Interior(1) 13-11-5 to 18-8-13 zone;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - 3) All plates are 2x4 MT20 unless otherwise indicated.
  - 4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - 5) \* This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
  - 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 189 lb uplift at joint 1, 140 lb uplift at joint 7, 280 lb uplift at joint 12, 203 lb uplift at joint 13, 279 lb uplift at joint 9 and 204 lb uplift at joint 8.
  - 7) N/A



March 27, 2023

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

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

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

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



818 Soundside Road  
Edenton, NC 27932

Job J0922-4569	Truss V3	Truss Type VALLEY	Qty 1	Ply 1	Lot 19 Purfoy Place I57394455
-------------------	-------------	----------------------	----------	----------	----------------------------------

Comtech, Inc. Fayetteville, NC - 28314,

8.430 s Jan 6 2022 MiTek Industries, Inc. Mon Mar 27 08:46:27 2023 Page 1

ID:X5az\_D23vLwLuiTNLUg6bHyGfb-xehNE?8nTzuN6l\_gmUOLAA44ndxWF\_juNEzhlozWndA



4x4 =

Scale = 1:59.6

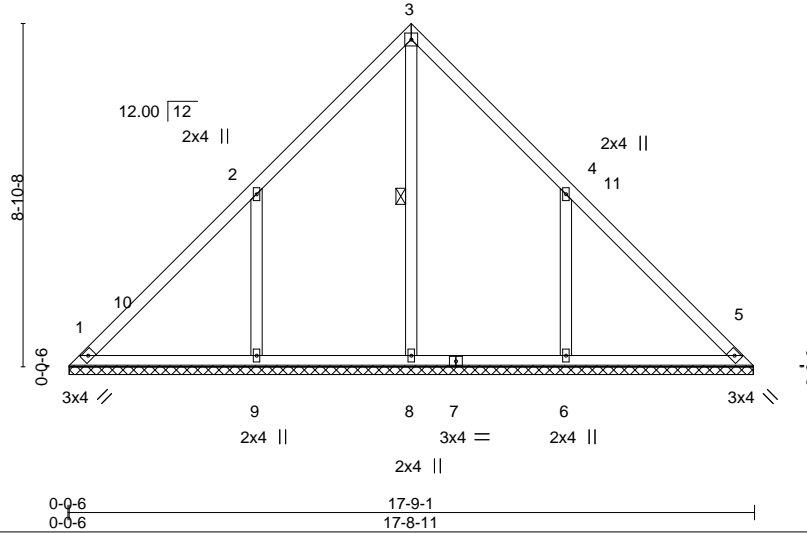


Plate Offsets (X,Y)--	[4:0-0-0,0-0-0]
-----------------------	-----------------

LOADING (psf)	SPACING-	CSI.	DEFL.	PLATES	GRIP
TCLL 20.0	2-0-0	TC 0.28	in (loc) l/defl L/d	MT20	244/190
TCDL 10.0	Plate Grip DOL 1.15	BC 0.18	Vert(LL) n/a - n/a 999		
BCLL 0.0 *	Lumber DOL 1.15	WB 0.20	Vert(CT) n/a - n/a 999		
BCDL 10.0	Rep Stress Incr YES	Matrix-S	Horz(CT) 0.00 5 n/a n/a		
	Code IRC2015/TPI2014			Weight: 87 lb	FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x4 SP No.1	TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins.
BOT CHORD 2x4 SP No.1	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
OTHERS 2x4 SP No.2	WEBS 1 Row at midpt 3-8

**REACTIONS.** All bearings 17-8-5.  
 (lb) - Max Horz 1=272(LC 8)  
 Max Uplift All uplift 100 lb or less at joint(s) 1, 5 except 9=328(LC 12), 6=327(LC 13)  
 Max Grav All reactions 250 lb or less at joint(s) 1, 5 except 8=427(LC 22), 9=594(LC 19), 6=594(LC 20)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-3=-255/243, 3-4=-255/244  
 WEBS 2-9=-583/475, 4-6=-583/475

- NOTES-**
- 1) Unbalanced roof live loads have been considered for this design.
  - 2) Wind: ASCE 7-10; Vult=150mph Vasd=119mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2) 0-4-4 to 4-10-8, Interior(1) 4-10-8 to 8-10-8, Exterior(2) 8-10-8 to 13-3-5, Interior(1) 13-3-5 to 17-4-13 zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - 3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - 4) \* This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
  - 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 5 except (jt=lb) 9=328, 6=327.
  - 6) N/A



March 27, 2023

<p><b>WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE.</b>          Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see <b>ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information</b> available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601</p>	<p>ENGINEERING BY  <b>TRENCO</b>          A MiTek Affiliate</p> <p>818 Soundside Road          Edenton, NC 27932</p>
--	--

Job J0922-4569	Truss V4	Truss Type VALLEY	Qty 1	Ply 1	Lot 19 Purfoy Place 157394456
-------------------	-------------	----------------------	----------	----------	----------------------------------

Comtech, Inc. Fayetteville, NC - 28314,

8.430 s Jan 6 2022 MiTek Industries, Inc. Mon Mar 27 08:46:28 2023 Page 1

ID:X5az\_D23vLwLuiTNLUg6bHyGfb-PrFIRL9PEG0EJSzTJCvajOdGd1Hh\_Sv2buiEHEzWnd9



4x4 =

Scale = 1:50.6

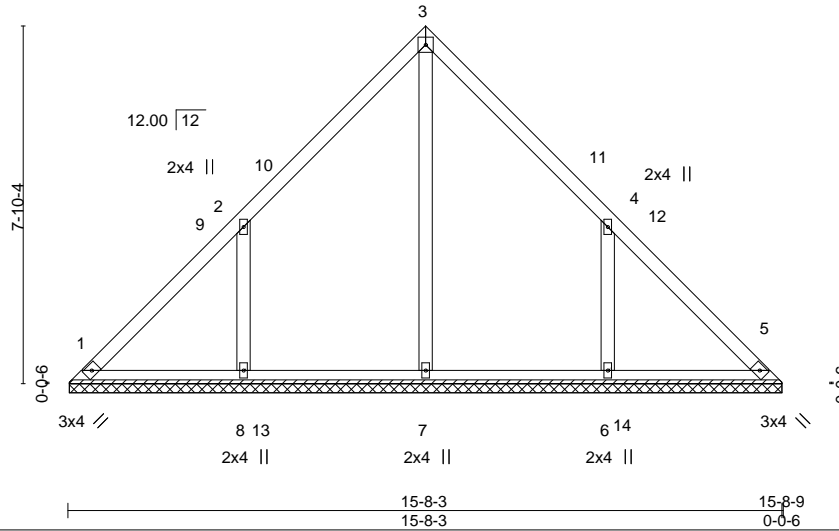


Plate Offsets (X,Y)--	[4:0-0-0,0-0-0]
-----------------------	-----------------

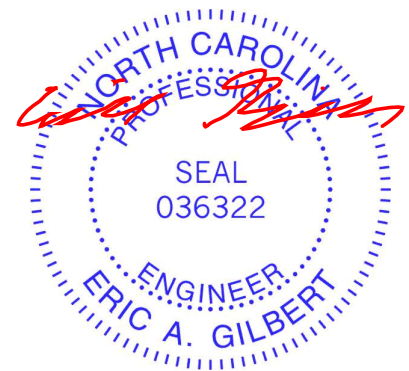
LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL	1.15	TC 0.21	Vert(LL)	n/a	-	n/a	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.18	Vert(CT)	n/a	-	n/a		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.14	Horz(CT)	0.00	5	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-S					Weight: 75 lb	FT = 20%

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

**REACTIONS.** All bearings 15-7-13.  
 (lb) - Max Horz 1=240(LC 9)  
 Max Uplift All uplift 100 lb or less at joint(s) 1, 5 except 8=284(LC 12), 6=284(LC 13)  
 Max Grav All reactions 250 lb or less at joint(s) 1, 5 except 7=425(LC 22), 8=512(LC 19), 6=512(LC 20)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 WEBS 2-8=-511/431, 4-6=-511/431

- NOTES-**
- 1) Unbalanced roof live loads have been considered for this design.
  - 2) Wind: ASCE 7-10; Vult=150mph Vasd=119mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2) 0-4-4 to 4-9-0, Interior(1) 4-9-0 to 7-10-5, Exterior(2) 7-10-5 to 12-3-1, Interior(1) 12-3-1 to 15-4-5 zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - 3) Gable requires continuous bottom chord bearing.
  - 4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - 5) \* This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
  - 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 5 except (jt=lb) 8=284, 6=284.



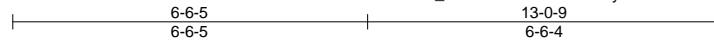
<p><b>WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE.</b></p> <p>Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see <b>ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information</b> available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601</p>	<p>ENGINEERING BY</p> <p><b>TRENCO</b></p> <p>A MiTek Affiliate</p> <p>818 Soundside Road Edenton, NC 27932</p>
--	---

Job J0922-4569	Truss V5	Truss Type VALLEY	Qty 1	Ply 1	Lot 19 Purfoy Place 157394457
-------------------	-------------	----------------------	----------	----------	----------------------------------

Comtech, Inc. Fayetteville, NC - 28314,

8.430 s Jan 6 2022 MiTek Industries, Inc. Mon Mar 27 08:46:29 2023 Page 1

ID:X5az\_D23vLwLuiTNLUg6bHyGfxb-t1o7ehA1?a85Lc73tvQpGbASvRdTjwxBqYSophzWnd8



4x4 =

Scale = 1:42.4

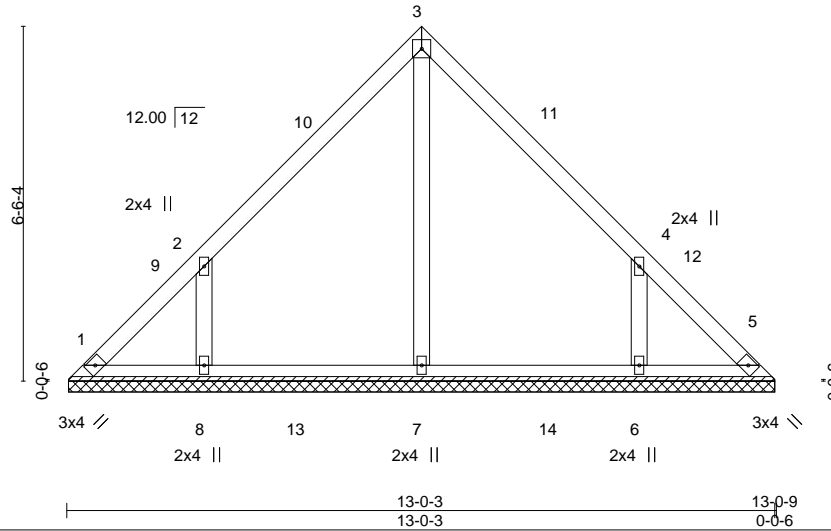


Plate Offsets (X,Y)--	[4:0-0-0,0-0-0]				
<b>LOADING</b> (psf)	<b>SPACING-</b> 2-0-0	<b>CSI.</b>	<b>DEFL.</b> in (loc) l/defl L/d	<b>PLATES</b>	<b>GRIP</b>
TCLL 20.0	Plate Grip DOL 1.15	TC 0.17	Vert(LL) n/a - n/a 999	MT20	244/190
TCDL 10.0	Lumber DOL 1.15	BC 0.15	Vert(CT) n/a - n/a 999		
BCLL 0.0 *	Rep Stress Incr YES	WB 0.09	Horz(CT) 0.00 5 n/a n/a		
BCDL 10.0	Code IRC2015/TPI2014	Matrix-S		Weight: 60 lb	FT = 20%

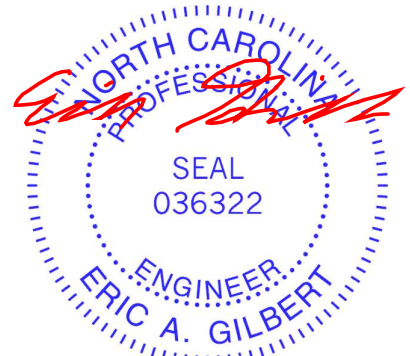
**LUMBER-**  
TOP CHORD 2x4 SP No.1  
BOT CHORD 2x4 SP No.1  
OTHERS 2x4 SP No.2

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

**REACTIONS.** All bearings 12-11-13.  
(lb) - Max Horz 1=197(LC 11)  
Max Uplift All uplift 100 lb or less at joint(s) 1, 5 except 8=245(LC 12), 6=245(LC 13)  
Max Grav All reactions 250 lb or less at joint(s) 1, 5 except 7=390(LC 19), 8=404(LC 19), 6=404(LC 20)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
**WEBS** 2-8=-451/401, 4-6=-451/402

- NOTES-**
- 1) Unbalanced roof live loads have been considered for this design.
  - 2) Wind: ASCE 7-10; Vult=150mph Vasd=119mph; TC DL=6.0psf; BC DL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2) 0-4-4 to 4-9-0, Interior(1) 4-9-0 to 6-6-5, Exterior(2) 6-6-5 to 10-11-1, Interior(1) 10-11-1 to 12-8-5 zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - 3) Gable requires continuous bottom chord bearing.
  - 4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - 5) \* This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
  - 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 5 except (jt=lb) 8=245, 6=245.



March 27, 2023

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

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

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

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

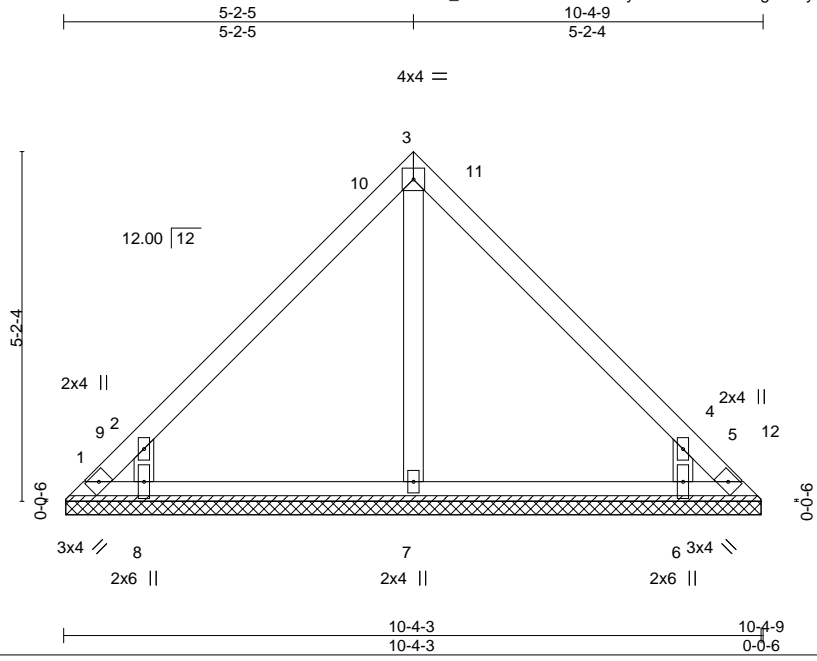


818 Soundside Road  
Edenton, NC 27932

Job J0922-4569	Truss V6	Truss Type VALLEY	Qty 1	Ply 1	Lot 19 Purfoy Place 157394458
-------------------	-------------	----------------------	----------	----------	----------------------------------

Comtech, Inc. Fayetteville, NC - 28314,

8.430 s Jan 6 2022 MiTek Industries, Inc. Mon Mar 27 08:46:30 2023 Page 1  
ID:X5az\_D23vLwLuiTNLuG6bHyGfxb-MDMWs1AgmuGyzmiFRdy2opicDr\_gSNEL3CBL7zWnd7



Scale = 1:34.2

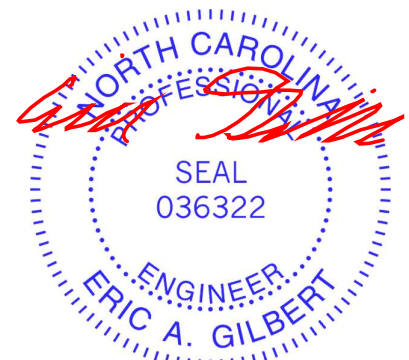
Plate Offsets (X,Y)--	[4:0-0-0,0-0-0]				
<b>LOADING</b> (psf)	<b>SPACING-</b> 2-0-0	<b>CSI.</b>	<b>DEFL.</b> in (loc) l/defl L/d	<b>PLATES</b>	<b>GRIP</b>
TCLL 20.0	Plate Grip DOL 1.15	TC 0.20	Vert(LL) n/a - n/a 999	MT20	244/190
TCDL 10.0	Lumber DOL 1.15	BC 0.09	Vert(CT) n/a - n/a 999		
BCLL 0.0 *	Rep Stress Incr YES	WB 0.09	Horz(CT) 0.00 5 n/a n/a		
BCDL 10.0	Code IRC2015/TPI2014	Matrix-S		Weight: 44 lb	FT = 20%

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

**REACTIONS.** All bearings 10-3-13.  
 (lb) - Max Horz 1=-154(LC 10)  
 Max Uplift All uplift 100 lb or less at joint(s) except 1=-178(LC 10), 5=-153(LC 11), 8=-276(LC 12), 6=-276(LC 13)  
 Max Grav All reactions 250 lb or less at joint(s) 1, 5, 7 except 8=416(LC 19), 6=416(LC 20)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 1-2=-257/213, 4-5=-258/213  
 WEBS 2-8=-529/498, 4-6=-530/498

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-10; Vult=150mph Vasd=119mph; TCCL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2) 0-4-4 to 4-9-0, Interior(1) 4-9-0 to 5-2-5, Exterior(2) 5-2-5 to 9-7-1, Interior(1) 9-7-1 to 10-0-5 zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - Gable requires continuous bottom chord bearing.
  - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - \* This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
  - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 178 lb uplift at joint 1, 153 lb uplift at joint 5, 276 lb uplift at joint 8 and 276 lb uplift at joint 6.



March 27, 2023

Job J0922-4569	Truss V7	Truss Type VALLEY	Qty 1	Ply 1	Lot 19 Purfoy Place 157394459
-------------------	-------------	----------------------	----------	----------	----------------------------------

Comtech, Inc. Fayetteville, NC - 28314,

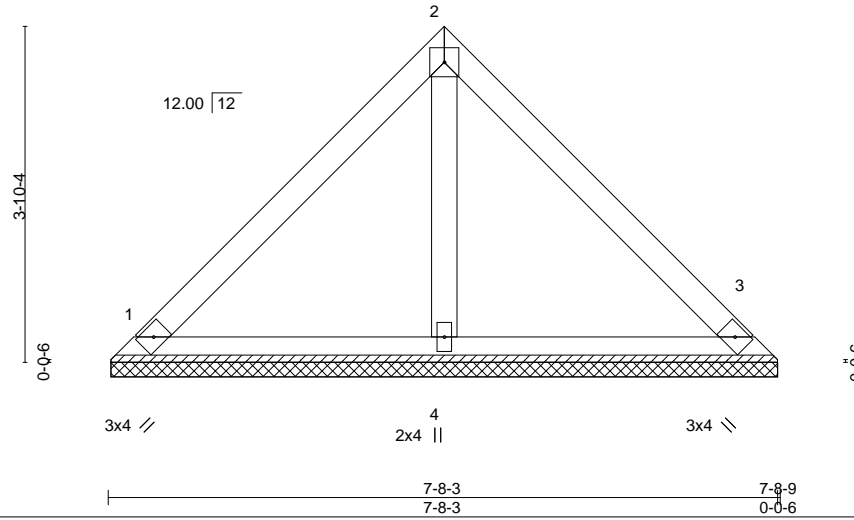
8.430 s Jan 6 2022 MiTek Industries, Inc. Mon Mar 27 08:46:31 2023 Page 1

ID:X5az\_D23vLwLuiTNLUg6bHyGfxb-qQwu3NBIXBOPawHR?KTHL0Fm2FrBrOUHsxvuzZWnd6



4x4 =

Scale = 1:26.4



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 0.26	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.09	Vert(CT)	n/a	-	n/a	999		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.03	Horz(CT)	0.00	3	n/a	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-P						Weight: 31 lb	FT = 20%

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

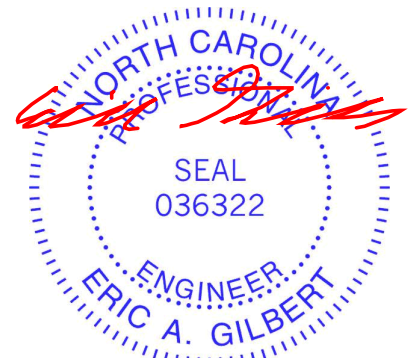
**BRACING-**  
 TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins.  
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS.** (size) 1=7-7-13, 3=7-7-13, 4=7-7-13  
 Max Horz 1=-112(LC 10)  
 Max Uplift 1=-55(LC 13), 3=-55(LC 13)  
 Max Grav 1=171(LC 1), 3=171(LC 1), 4=219(LC 1)

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

**NOTES-**

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-10; Vult=150mph Vasd=119mph; 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
- 3) Gable requires continuous bottom chord bearing.
- 4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 5) \* This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 55 lb uplift at joint 1 and 55 lb uplift at joint 3.



March 27, 2023

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

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

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

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



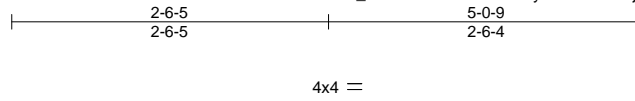
818 Soundside Road  
 Edenton, NC 27932

Job J0922-4569	Truss V8	Truss Type VALLEY	Qty 1	Ply 1	Lot 19 Purfoy Place I57394460
-------------------	-------------	----------------------	----------	----------	----------------------------------

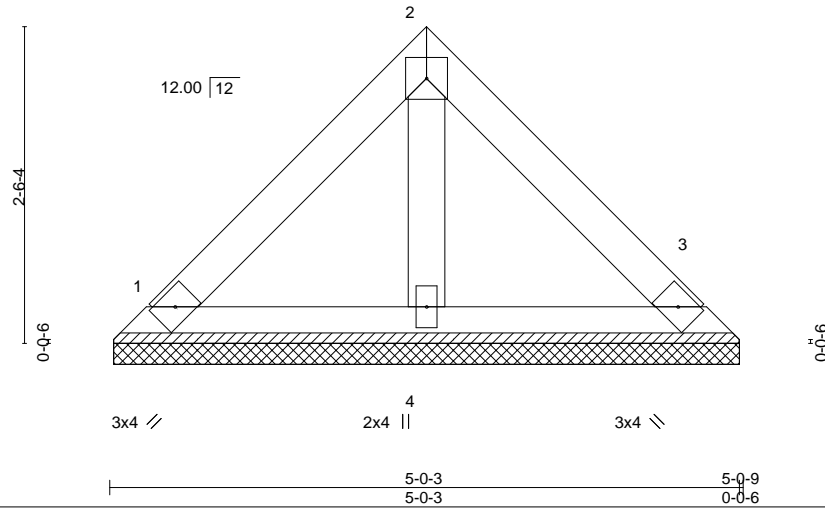
Comtech, Inc. Fayetteville, NC - 28314,

8.430 s Jan 6 2022 MiTek Industries, Inc. Mon Mar 27 08:46:32 2023 Page 1

ID:X5az\_D23vLwLuiTNLUg6bHyGfxb-IcUGHjCwIVWgC3seY2\_WtEo\_LegywIwdWWgSQ0zWnd5



Scale = 1:18.4



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 0.10	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.04	Vert(CT)	n/a	-	n/a	999		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.01	Horz(CT)	0.00	3	n/a	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-P						Weight: 19 lb	FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x4 SP No.1	TOP CHORD Structural wood sheathing directly applied or 5-0-9 oc purlins.
BOT CHORD 2x4 SP No.1	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
OTHERS 2x4 SP No.2	

**REACTIONS.** (size) 1=4-11-13, 3=4-11-13, 4=4-11-13  
 Max Horz 1=-69(LC 8)  
 Max Uplift 1=-34(LC 13), 3=-34(LC 13)  
 Max Grav 1=106(LC 1), 3=106(LC 1), 4=136(LC 1)

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

- NOTES-**
- 1) Unbalanced roof live loads have been considered for this design.
  - 2) Wind: ASCE 7-10; Vult=150mph Vasd=119mph; 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
  - 3) Gable requires continuous bottom chord bearing.
  - 4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - 5) \* This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
  - 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 34 lb uplift at joint 1 and 34 lb uplift at joint 3.



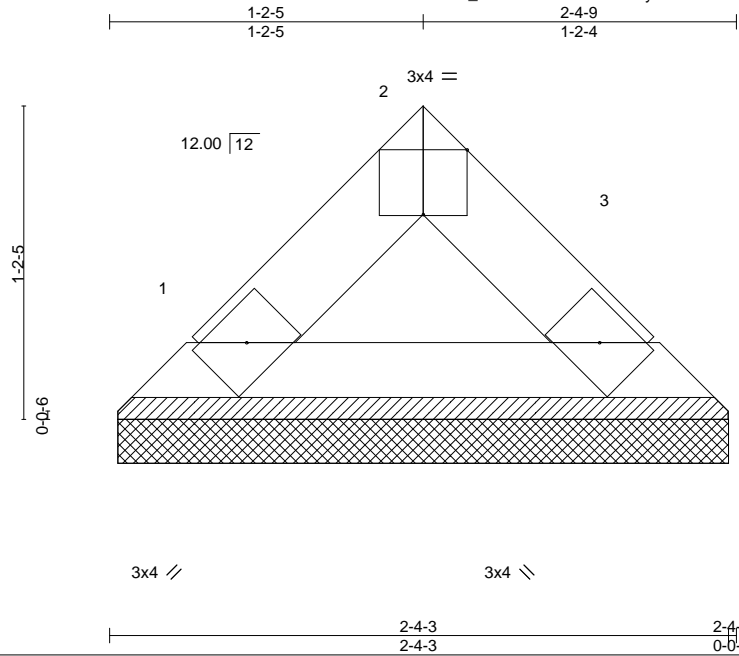


Job J0922-4569	Truss V9	Truss Type VALLEY	Qty 1	Ply 1	Lot 19 Purfoy Place 157394461
					Job Reference (optional)

Comtech, Inc. Fayetteville, NC - 28314,

8.430 s Jan 6 2022 MiTek Industries, Inc. Mon Mar 27 08:46:33 2023 Page 1

ID:X5az\_D23vLwLuiTNLuG6bHyGfb-mo2eU2DY3peXqDRq6iVIQRKAO20OfIKnIAQ?ySzWnd4



Scale = 1:8.7

Plate Offsets (X,Y)-- [2:0-2-0,Edge]					
<b>LOADING</b> (psf)	<b>SPACING-</b>	2-0-0	<b>CSI.</b>	<b>DEFL.</b>	in (loc) l/defl L/d
TCLL 20.0	Plate Grip DOL	1.15	TC 0.02	Vert(LL)	n/a - n/a 999
TCDL 10.0	Lumber DOL	1.15	BC 0.02	Vert(CT)	n/a - n/a 999
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		
				<b>PLATES</b>	<b>GRIP</b>
				MT20	244/190
				Weight: 7 lb	FT = 20%

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

**BRACING-**  
TOP CHORD Structural wood sheathing directly applied or 2-4-9 oc purlins.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS.** (size) 1=2-3-13, 3=2-3-13  
Max Horz 1=-27(LC 8)  
Max Uplift 1=-10(LC 12), 3=-10(LC 12)  
Max Grav 1=67(LC 1), 3=67(LC 1)

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

- NOTES-**
- 1) Unbalanced roof live loads have been considered for this design.
  - 2) Wind: ASCE 7-10; Vult=150mph Vasd=119mph; TC DL=6.0psf; BC DL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2) zone;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - 3) Gable requires continuous bottom chord bearing.
  - 4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - 5) \* This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
  - 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 10 lb uplift at joint 1 and 10 lb uplift at joint 3.



March 27, 2023

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



# Symbols

## PLATE LOCATION AND ORIENTATION



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



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



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

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

## PLATE SIZE

**4 X 4**

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

## LATERAL BRACING LOCATION



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

## BEARING



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

### Industry Standards:

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

# Numbering System

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



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

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

## PRODUCT CODE APPROVALS

ICC-ES Reports:

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

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

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

© 2012 MITteK® All Rights Reserved



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



# General Safety Notes

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

1. Additional stability bracing for truss system, e.g. diagonal or X-bracing, is always required. See BCSI.
2. Truss bracing must be designed by an engineer. For wide truss spacing, individual lateral braces themselves may require bracing, or alternative Tor I bracing should be considered.
3. Never exceed the design loading shown and never stack materials on inadequately braced trusses.
4. Provide copies of this truss design to the building designer, erection supervisor, property owner and all other interested parties.
5. Cut members to bear tightly against each other.
6. Place plates on each face of truss at each joint and embed fully. Knots and wane at joint locations are regulated by ANSI/TP1 1.
7. Design assumes trusses will be suitably protected from the environment in accord with ANSI/TP1 1.
8. Unless otherwise noted, moisture content of lumber shall not exceed 19% at time of fabrication.
9. Unless expressly noted, this design is not applicable for use with fire retardant, preservative treated, or green lumber.
10. Camber is a non-structural consideration and is the responsibility of truss fabricator. General practice is to camber for dead load deflection.
11. Plate type, size, orientation and location dimensions indicated are minimum plating requirements.
12. Lumber used shall be of the species and size, and in all respects, equal to or better than that specified.
13. Top chords must be sheathed or purlins provided at spacing indicated on design.
14. Bottom chords require lateral bracing at 10 ft. spacing, or less, if no ceiling is installed, unless otherwise noted.
15. Connections not shown are the responsibility of others.
16. Do not cut or alter truss member or plate without prior approval of an engineer.
17. Install and load vertically unless indicated otherwise.
18. Use of green or treated lumber may pose unacceptable environmental, health or performance risks. Consult with project engineer before use.
19. Review all portions of this design (front, back, words and pictures) before use. Rewriting pictures alone is not sufficient.
20. Design assumes manufacture in accordance with ANSI/TP1 1 Quality Criteria.
21. The design does not take into account any dynamic or other loads other than those expressly stated.

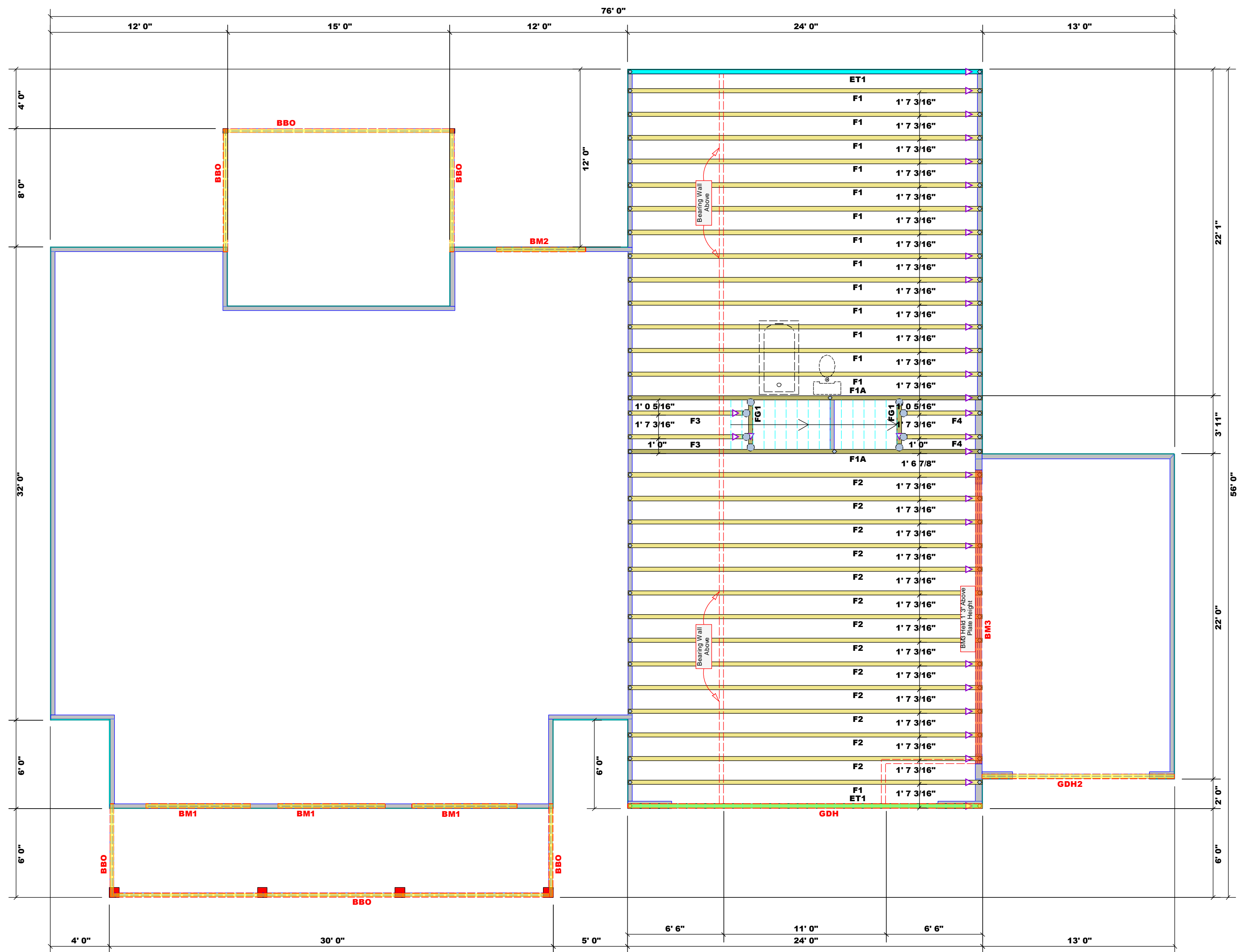
Bearing reactions less than or equal to 3000# are deemed to comply with the prescriptive Code requirements. The contractor shall refer to the attached Tables ( derived from the prescriptive Code requirements ) to determine the minimum foundation size and number of wood studs required to support reactions greater than 3000# but not greater than 15000#. A registered design professional shall be retained to design the support system for any reaction that exceeds those specified in the attached Tables. A registered design professional shall be retained to design the support system for all reactions that exceed 15000#.

Signature Jonathan Landry  
**Jonathan Landry**

**LOAD CHART FOR JACK STUDS**

(BASED ON TABLES R502.5(1) & (b))  
NUMBER OF JACK STUDS REQUIRED @ EA END OF HEADER/GIRDER

END REACTION (UP TO)	REQ'D STUDS FOR (1) 1/2" HEADER	END REACTION (UP TO)	REQ'D STUDS FOR (1) 1/2" HEADER	END REACTION (UP TO)	REQ'D STUDS FOR (1) 1/2" HEADER
1700	1	2550	1	3400	1
3400	2	5100	2	6800	2
5100	3	7650	3	10200	3
6800	4	10200	4	13600	4
8500	5	12750	5	17000	5
10200	6	15300	6		
11900	7				
13600	8				
15300	9				



Products				
PlotID	Length	Product	Plies	Net Qty
BM1	8' 0"	1-3/4"x 9-1/4" LVL Kerto-S	2	6
BM2	6' 0"	1-3/4"x 9-1/4" LVL Kerto-S	2	2
BM3	20' 0"	1-3/4"x 18" LVL Kerto-S	3	3
GDH	24' 0"	1-3/4"x 16" LVL Kerto-S	2	2
GDH2	13' 0"	1-3/4"x 11-7/8" LVL Kerto-S	2	2

Connector Information				Nail Information		
Sym	Product	Manuf	Qty	Supported Member	Header	Truss
●	MSH422	USP	8	Varies	10d/3"	10d/3"

**1 Truss Placement Plan**  
Scale: 3/16"=1'

**Dimension Notes**  
1. All exterior wall to wall dimensions are to face of sheathing unless noted otherwise.  
2. All interior wall dimensions are to face of frame wall unless noted otherwise.  
3. All exterior wall to truss dimensions are to face of frame wall unless noted otherwise.

**Plumbing Drop Notes**  
1. Plumbing drop locations shown are NOT exact.  
2. Contractor to verify ALL plumbing drop locations prior to setting Floor Trusses.  
3. Adjust spacing as needed not to exceed 24"oc.

Hatch Legend	
	Second Floor Walls
	5' 11-3/4" Walls
	Vaulted Ceiling
	Drop Beam
	Flush Beam

All Walls Shown Are Considered Load Bearing

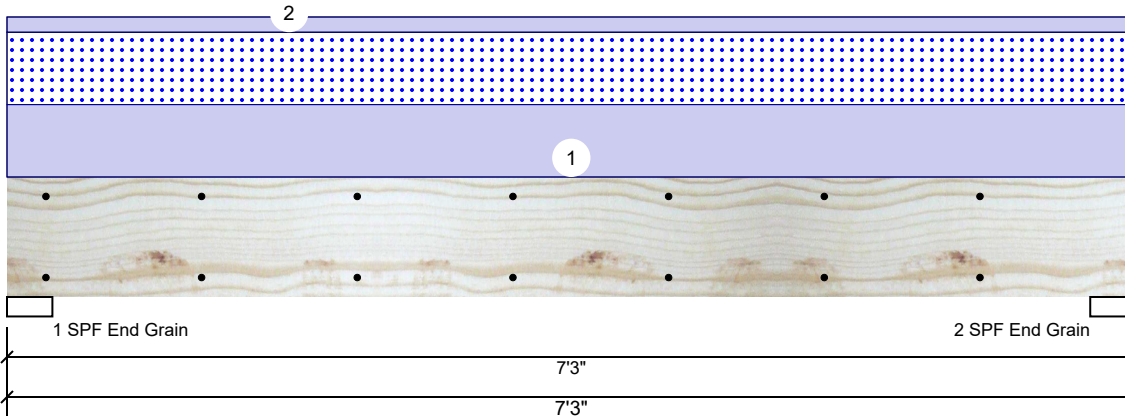
▲ = Denotes Left End of Truss  
(Reference Engineered Truss Drawing)

BUILDER	CITY / CO.	ADDRESS	MODEL	DATE REV.	DRAWN BY	SALES REP.
Glover Design Build	Fuquay Varina / Harnett	438 Lambert Lane	Floor	03/29/23	Jonathan Landry	Lenny Norris
JOB NAME	Lot 19 Purfoy Place					
PLAN	Paxton / 3GRF, CP					
SEAL DATE	N/A					
QUOTE #						
JOB #						J0922-4570

**THIS IS A TRUSS PLACEMENT DIAGRAM ONLY.**  
These trusses are designed as individual building components to be incorporated into the building design at the specification of the building designer. See individual design sheets for each truss design identified on the placement drawing. The building designer is responsible for temporary and permanent bracing of the roof and floor system and for the overall structure. The design of the truss support structure including headers, beams, walls, and columns is the responsibility of the building designer. For general guidance regarding bracing, consult BCSI-B1 and BCSI-B3 provided with the truss delivery package or online @ sbcindustry.com

# BM1 Kerto-S LVL 1.750" X 9.250" 2-Ply - PASSED

Level: Level



## Member Information

Type:	Girder	Application:	Floor
Plies:	2	Design Method:	ASD
Moisture Condition:	Dry	Building Code:	IBC/IRC 2015
Deflection LL:	480	Load Sharing:	No
Deflection TL:	240	Deck:	Not Checked
Importance:	Normal - II		
Temperature:	Temp <= 100°F		

## Reactions UNPATTERNED lb (Uplift)

Brg	Direction	Live	Dead	Snow	Wind	Const
1	Vertical	0	3158	2588	0	0
2	Vertical	0	3158	2588	0	0

## Bearings

Bearing	Length	Dir.	Cap.	React D/L lb	Total	Ld. Case	Ld. Comb.
1 - SPF End Grain	3.500"	Vert	56%	3158 / 2588	5746	L	D+S
2 - SPF End Grain	3.500"	Vert	56%	3158 / 2588	5746	L	D+S

## Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	9140 ft-lb	3'7 1/2"	14423 ft-lb	0.634 (63%)	D+S	L
Unbraced	9140 ft-lb	3'7 1/2"	9819 ft-lb	0.931 (93%)	D+S	L
Shear	4068 lb	1' 3/4"	7943 lb	0.512 (51%)	D+S	L
LL Defl inch	0.089 (L/919)	3'7 9/16"	0.170 (L/480)	0.522 (52%)	S	L
TL Defl inch	0.197 (L/414)	3'7 9/16"	0.340 (L/240)	0.580 (58%)	D+S	L

## Design Notes

- Provide support to prevent lateral movement and rotation at the end bearings. Lateral support may also be required at the interior bearings by the building code.
- Fasten all plies using 2 rows of 10d Box nails (.128x3") at 12" o.c. Maximum end distance not to exceed 6".
- Refer to last page of calculations for fasteners required for specified loads.
- Girders are designed to be supported on the bottom edge only.
- Top loads must be supported equally by all plies.
- Top must be laterally braced at end bearings.
- Bottom must be laterally braced at end bearings.
- Lateral slenderness ratio based on single ply width.

ID	Load Type	Location	Trib Width	Side	Dead 0.9	Live 1	Snow 1.15	Wind 1.6	Const. 1.25	Comments
1	Uniform			Top	714 PLF	0 PLF	714 PLF	0 PLF	0 PLF	A3
2	Uniform			Top	150 PLF	0 PLF	0 PLF	0 PLF	0 PLF	V1GE
	Self Weight				7 PLF					

## Notes

Calculated Structured Designs is responsible only of the structural adequacy of this component based on the design criteria and loadings shown. It is the responsibility of the customer and/or the contractor to ensure the component suitability of the intended application, and to verify the dimensions and loads.

## Lumber

- Dry service conditions, unless noted otherwise
- LVL not to be treated with fire retardant or corrosive chemicals

## Handling & Installation

- LVL beams must not be cut or drilled
- Refer to manufacturer's product information regarding installation requirements, multi-ply fastening details, beam strength values, and code approvals
- Damaged Beams must not be used
- Design assumes top edge is laterally restrained
- Provide lateral support at bearing points to avoid lateral displacement and rotation

6. For flat roofs provide proper drainage to prevent ponding

This design is valid until 11/3/2024

## Manufacturer Info

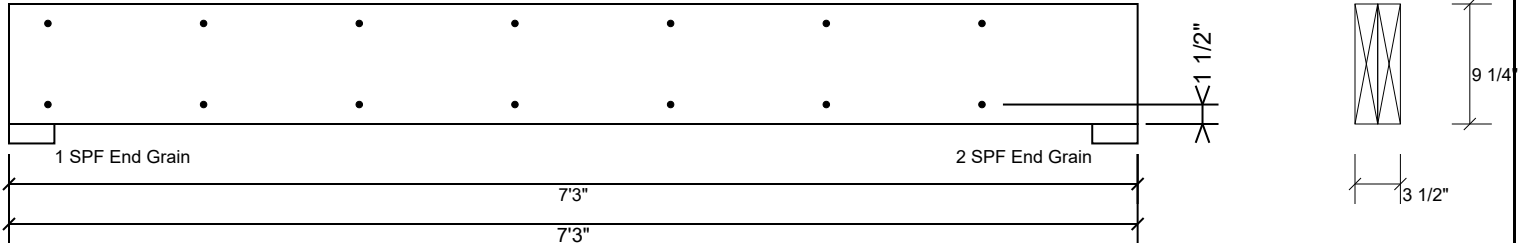
Metsä Wood  
 301 Merritt 7 Building, 2nd Floor  
 Norwalk, CT 06851  
 (800) 622-5850  
[www.metsawood.com/us](http://www.metsawood.com/us)

Comtech, Inc.  
 1001 S. Reilly Road, Suite #639  
 Fayetteville, NC  
 USA  
 28314  
 910-864-TRUS



**BM1 Kerto-S LVL 1.750" X 9.250" 2-Ply - PASSED**

Level: Level



**Multi-Ply Analysis**

Fasten all plies using 2 rows of 10d Box nails (.128x3") at 12" o.c.. Maximum end distance not to exceed 6".

Capacity	0.0 %
Load	0.0 PLF
Yield Limit per Foot	163.7 PLF
Yield Limit per Fastener	81.9 lb.
Yield Mode	IV
Edge Distance	1 1/2"
Min. End Distance	3"
Load Combination	
Duration Factor	1.00

**Notes**

Calculated Structured Designs is responsible only of the structural adequacy of this component based on the design criteria and loadings shown. It is the responsibility of the customer and/or the contractor to ensure the component suitability of the intended application, and to verify the dimensions and loads.

**Lumber**

1. Dry service conditions, unless noted otherwise
2. LVL not to be treated with fire retardant or corrosive

**Handling & Installation**

1. LVL beams must not be cut or drilled
2. Refer to manufacturer's product information regarding installation requirements, multi-ply fastening details, beam strength values, and code approvals
3. Damaged Beams must not be used
4. Design assumes top edge is laterally restrained
5. Provide lateral support at bearing points to avoid lateral displacement and rotation

6. For flat roofs provide proper drainage to prevent ponding

This design is valid until 11/3/2024

**Manufacturer Info**

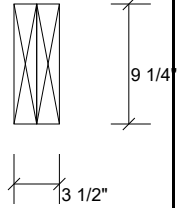
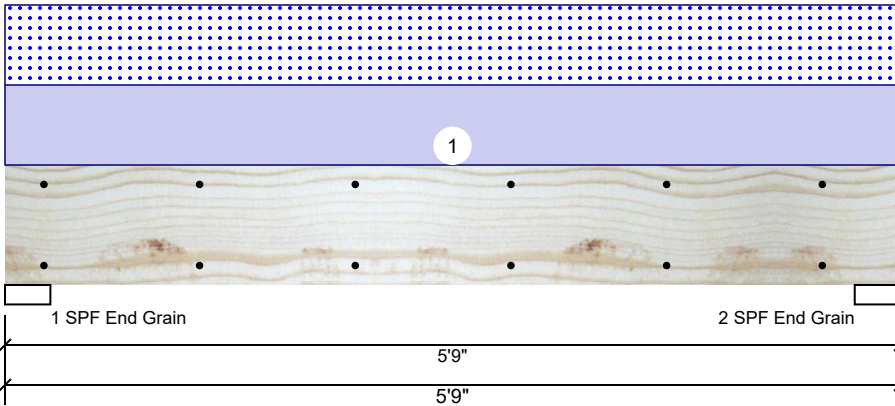
Metsä Wood  
 301 Merritt 7 Building, 2nd Floor  
 Norwalk, CT 06851  
 (800) 622-5850  
[www.metsawood.com/us](http://www.metsawood.com/us)

Comtech, Inc.  
 1001 S. Reilly Road, Suite #639  
 Fayetteville, NC  
 USA  
 28314  
 910-864-TRUS



**BM2 Kerto-S LVL 1.750" X 9.250" 2-Ply - PASSED**

Level: Level



**Member Information**

Type:	Girder	Application:	Floor
Plies:	2	Design Method:	ASD
Moisture Condition:	Dry	Building Code:	IBC/IRC 2015
Deflection LL:	480	Load Sharing:	No
Deflection TL:	240	Deck:	Not Checked
Importance:	Normal - II		
Temperature:	Temp <= 100°F		

**Reactions UNPATTERNED lb (Uplift)**

Brg	Direction	Live	Dead	Snow	Wind	Const
1	Vertical	0	1737	1716	0	0
2	Vertical	0	1737	1716	0	0

**Bearings**

Bearing	Length	Dir.	Cap.	React D/L lb	Total	Ld. Case	Ld. Comb.
1 - SPF End Grain	3.500"	Vert	34%	1737 / 1716	3453	L	D+S
2 - SPF End Grain	3.500"	Vert	34%	1737 / 1716	3453	L	D+S

**Analysis Results**

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	4204 ft-lb	2'10 1/2"	14423 ft-lb	0.292 (29%)	D+S	L
Unbraced	4204 ft-lb	2'10 1/2"	11298 ft-lb	0.372 (37%)	D+S	L
Shear	2183 lb	1' 3/4"	7943 lb	0.275 (27%)	D+S	L
LL Defl inch	0.030 (L/2099)	2'10 1/2"	0.132 (L/480)	0.229 (23%)	S	L
TL Defl inch	0.061 (L/1043)	2'10 1/2"	0.265 (L/240)	0.230 (23%)	D+S	L

**Design Notes**

- 1 Provide support to prevent lateral movement and rotation at the end bearings. Lateral support may also be required at the interior bearings by the building code.
- 2 Fasten all plies using 2 rows of 10d Box nails (.128x3") at 12" o.c. Maximum end distance not to exceed 6".
- 3 Refer to last page of calculations for fasteners required for specified loads.
- 4 Girders are designed to be supported on the bottom edge only.
- 5 Top loads must be supported equally by all plies.
- 6 Top must be laterally braced at end bearings.
- 7 Bottom must be laterally braced at end bearings.
- 8 Lateral slenderness ratio based on single ply width.

ID	Load Type	Location	Trib Width	Side	Dead 0.9	Live 1	Snow 1.15	Wind 1.6	Const. 1.25	Comments
1	Uniform			Top	597 PLF	0 PLF	597 PLF	0 PLF	0 PLF	A3
	Self Weight				7 PLF					

**Notes**

Calculated Structural Designs is responsible only of the structural adequacy of this component based on the design criteria and loadings shown. It is the responsibility of the customer and/or the contractor to ensure the component suitability of the intended application, and to verify the dimensions and loads.

**Lumber**

1. Dry service conditions, unless noted otherwise
2. LVL not to be treated with fire retardant or corrosive chemicals

chemicals

**Handling & Installation**

1. LVL beams must not be cut or drilled
2. Refer to manufacturer's product information regarding installation requirements, multi-ply fastening details, beam strength values, and code approvals
3. Damaged Beams must not be used
4. Design assumes top edge is laterally restrained
5. Provide lateral support at bearing points to avoid lateral displacement and rotation

6. For flat roofs provide proper drainage to prevent ponding

This design is valid until 11/3/2024

**Manufacturer Info**

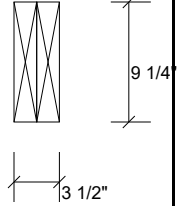
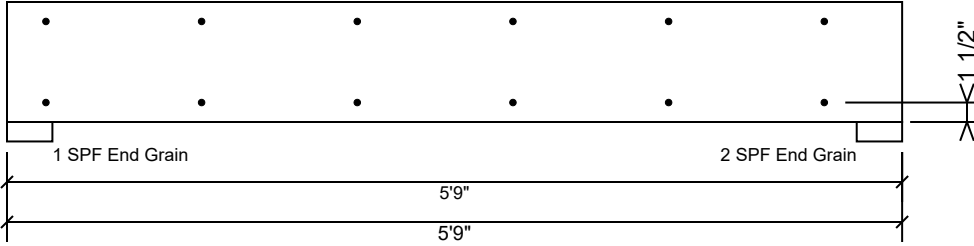
Metsä Wood  
 301 Merritt 7 Building, 2nd Floor  
 Norwalk, CT 06851  
 (800) 622-5850  
[www.metsawood.com/us](http://www.metsawood.com/us)

Comtech, Inc.  
 1001 S. Reilly Road, Suite #639  
 Fayetteville, NC  
 USA  
 28314  
 910-864-TRUS



**BM2 Kerto-S LVL 1.750" X 9.250" 2-Ply - PASSED**

Level: Level



**Multi-Ply Analysis**

Fasten all plies using 2 rows of 10d Box nails (.128x3") at 12" o.c.. Maximum end distance not to exceed 6".

Capacity	0.0 %
Load	0.0 PLF
Yield Limit per Foot	163.7 PLF
Yield Limit per Fastener	81.9 lb.
Yield Mode	IV
Edge Distance	1 1/2"
Min. End Distance	3"
Load Combination	
Duration Factor	1.00

**Notes**

Calculated Structured Designs is responsible only of the structural adequacy of this component based on the design criteria and loadings shown. It is the responsibility of the customer and/or the contractor to ensure the component suitability of the intended application, and to verify the dimensions and loads.

**Lumber**

1. Dry service conditions, unless noted otherwise
2. LVL not to be treated with fire retardant or corrosive chemicals

**Handling & Installation**

1. LVL beams must not be cut or drilled
2. Refer to manufacturer's product information regarding installation requirements, multi-ply fastening details, beam strength values, and code approvals
3. Damaged Beams must not be used
4. Design assumes top edge is laterally restrained
5. Provide lateral support at bearing points to avoid lateral displacement and rotation

6. For flat roofs provide proper drainage to prevent ponding

This design is valid until 11/3/2024

**Manufacturer Info**

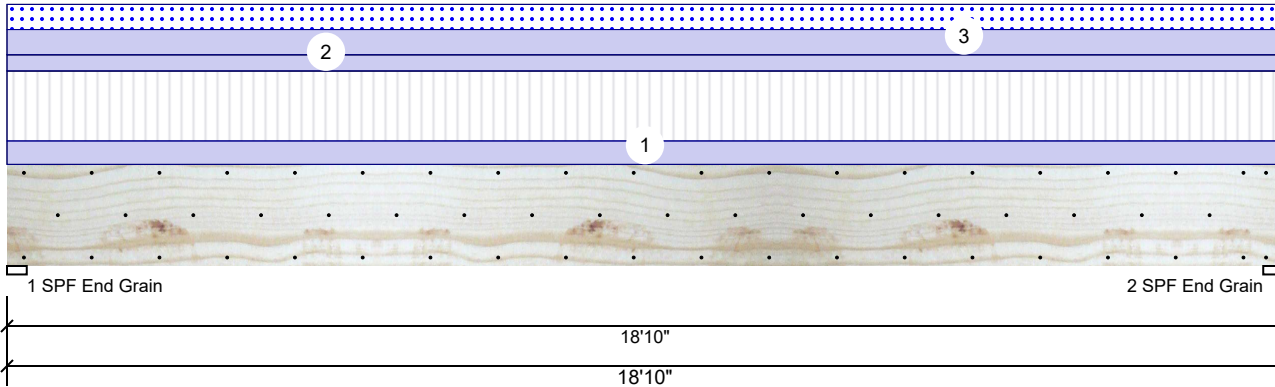
Metsä Wood  
 301 Merritt 7 Building, 2nd Floor  
 Norwalk, CT 06851  
 (800) 622-5850  
[www.metsawood.com/us](http://www.metsawood.com/us)

Comtech, Inc.  
 1001 S. Reilly Road, Suite #639  
 Fayetteville, NC  
 USA  
 28314  
 910-864-TRUS



**BM3 Kerto-S LVL 1.750" X 18.000" 3-Ply - PASSED**

Level: Level



**Member Information**

Type:	Girder	Application:	Floor
Plies:	3	Design Method:	ASD
Moisture Condition:	Dry	Building Code:	IBC/IRC 2015
Deflection LL:	480	Load Sharing:	Yes
Deflection TL:	360	Deck:	Not Checked
Importance:	Normal - II	Ceiling:	Gypsum 1/2"
Temperature:	Temp <= 100°F		

**Reactions UNPATTERNED lb (Uplift)**

Brg	Direction	Live	Dead	Snow	Wind	Const
1	Vertical	4897	4727	1761	0	0
2	Vertical	4897	4727	1761	0	0

**Bearings**

Bearing	Length	Dir.	Cap.	React D/L lb	Total	Ld. Case	Ld. Comb.
1 - SPF End Grain	3.500"	Vert	63%	4727 / 4993	9720	L	D+0.75(L+S)
2 - SPF End Grain	3.500"	Vert	63%	4727 / 4993	9720	L	D+0.75(L+S)

**Analysis Results**

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	43231 ft-lb	9'5"	67051 ft-lb	0.645 (64%)	D+L	L
Unbraced	43231 ft-lb	9'5"	43277 ft-lb	0.999 (100%)	D+L	L
Shear	7824 lb	17' 1/2"	20160 lb	0.388 (39%)	D+L	L
LL Defl inch	0.295 (L/748)	9'5 1/16"	0.460 (L/480)	0.642 (64%)	0.75(L+S)	L
TL Defl inch	0.574 (L/384)	9'5 1/16"	0.613 (L/360)	0.937 (94%)	D+0.75(L+S)	L

**Design Notes**

- Provide support to prevent lateral movement and rotation at the end bearings. Lateral support may also be required at the interior bearings by the building code.
- Fasten all plies using 3 rows of 10d Box nails (.128x3") at 12" o.c. Maximum end distance not to exceed 6".
- Refer to last page of calculations for fasteners required for specified loads.
- Girders are designed to be supported on the bottom edge only.
- Top loads must be supported equally by all plies.
- Top must be laterally braced at a maximum of 4'5 1/16" o.c.
- Lateral slenderness ratio based on single ply width.

ID	Load Type	Location	Trib Width	Side	Dead 0.9	Live 1	Snow 1.15	Wind 1.6	Const. 1.25	Comments
1	Uniform			Top	174 PLF	520 PLF	0 PLF	0 PLF	0 PLF	F1
2	Uniform			Top	120 PLF	0 PLF	0 PLF	0 PLF	0 PLF	Wall
3	Uniform			Top	187 PLF	0 PLF	187 PLF	0 PLF	0 PLF	C1
	Self Weight				21 PLF					

**Notes**

Calculated Structured Designs is responsible only of the structural adequacy of this component based on the design criteria and loadings shown. It is the responsibility of the customer and/or the contractor to ensure the component suitability of the intended application, and to verify the dimensions and loads.

**Lumber**

- Dry service conditions, unless noted otherwise
- LVL not to be treated with fire retardant or corrosive chemicals

chemicals

**Handling & Installation**

- LVL beams must not be cut or drilled
- Refer to manufacturer's product information regarding installation requirements, multi-ply fastening details, beam strength values, and code approvals
- Damaged Beams must not be used
- Design assumes top edge is laterally restrained
- Provide lateral support at bearing points to avoid lateral displacement and rotation

6. For flat roofs provide proper drainage to prevent ponding

This design is valid until 11/3/2024

**Manufacturer Info**

Metsä Wood  
 301 Merritt 7 Building, 2nd Floor  
 Norwalk, CT 06851  
 (800) 622-5850  
[www.metsawood.com/us](http://www.metsawood.com/us)

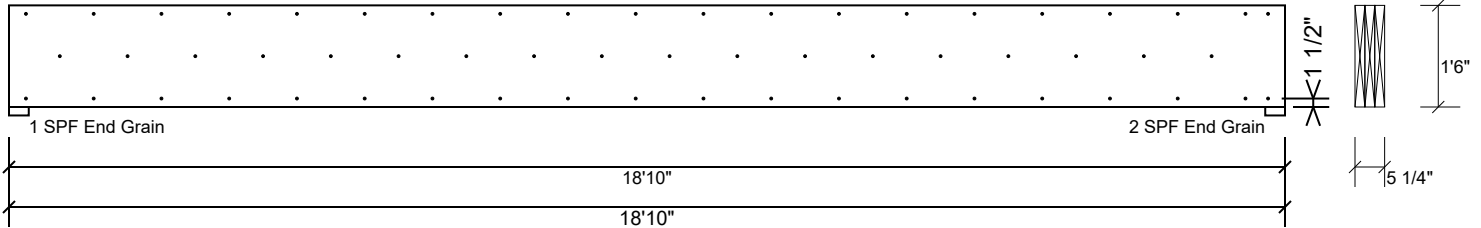
Comtech, Inc.  
 1001 S. Reilly Road, Suite #639  
 Fayetteville, NC  
 USA  
 28314  
 910-864-TRUS





**BM3 Kerto-S LVL 1.750" X 18.000" 3-Ply - PASSED**

Level: Level



**Multi-Ply Analysis**

Fasten all plies using 3 rows of 10d Box nails (.128x3") at 12" o.c.. Nail from both sides. Maximum end distance not to exceed 6".

Capacity	0.0 %
Load	0.0 PLF
Yield Limit per Foot	245.6 PLF
Yield Limit per Fastener	81.9 lb.
Yield Mode	IV
Edge Distance	1 1/2"
Min. End Distance	3"
Load Combination	
Duration Factor	1.00

**Notes**

Calculated Structured Designs is responsible only of the structural adequacy of this component based on the design criteria and loadings shown. It is the responsibility of the customer and/or the contractor to ensure the component suitability of the intended application, and to verify the dimensions and loads.

**Lumber**

1. Dry service conditions, unless noted otherwise
2. LVL not to be treated with fire retardant or corrosive chemicals

**Handling & Installation**

1. LVL beams must not be cut or drilled
2. Refer to manufacturer's product information regarding installation requirements, multi-ply fastening details, beam strength values, and code approvals
3. Damaged Beams must not be used
4. Design assumes top edge is laterally restrained
5. Provide lateral support at bearing points to avoid lateral displacement and rotation

6. For flat roofs provide proper drainage to prevent ponding

This design is valid until 11/3/2024

**Manufacturer Info**

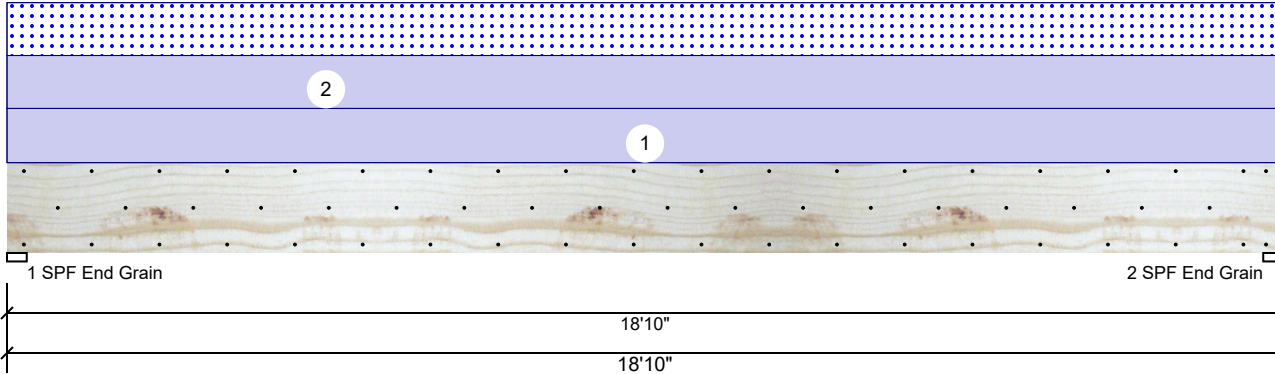
Metsä Wood  
 301 Merritt 7 Building, 2nd Floor  
 Norwalk, CT 06851  
 (800) 622-5850  
[www.metsawood.com/us](http://www.metsawood.com/us)

Comtech, Inc.  
 1001 S. Reilly Road, Suite #639  
 Fayetteville, NC  
 USA  
 28314  
 910-864-TRUS



**GDH Kerto-S LVL 1.750" X 16.000" 2-Ply - PASSED**

Level: Level



**Member Information**

Type:	Girder	Application:	Floor
Plies:	2	Design Method:	ASD
Moisture Condition:	Dry	Building Code:	IBC/IRC 2015
Deflection LL:	480	Load Sharing:	No
Deflection TL:	240	Deck:	Not Checked
Importance:	Normal - II		
Temperature:	Temp <= 100°F		

**Reactions UNPATTERNED lb (Uplift)**

Brg	Direction	Live	Dead	Snow	Wind	Const
1	Vertical	0	2349	1102	0	0
2	Vertical	0	2349	1102	0	0

**Bearings**

Bearing	Length	Dir.	Cap.	React D/L lb	Total	Ld. Case	Ld. Comb.
1 - SPF End Grain	3.500"	Vert	34%	2349 / 1102	3451	L	D+S
2 - SPF End Grain	3.500"	Vert	34%	2349 / 1102	3451	L	D+S

**Analysis Results**

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	15501 ft-lb	9'5"	39750 ft-lb	0.390 (39%)	D+S	L
Unbraced	15501 ft-lb	9'5"	15563 ft-lb	0.996 (100%)	D+S	L
Shear	2872 lb	1'7 1/2"	13739 lb	0.209 (21%)	D+S	L
LL Defl inch	0.136 (L/1619)	9'5 1/16"	0.460 (L/480)	0.296 (30%)	S	L
TL Defl inch	0.427 (L/517)	9'5 1/16"	0.920 (L/240)	0.464 (46%)	D+S	L

**Design Notes**

- Provide support to prevent lateral movement and rotation at the end bearings. Lateral support may also be required at the interior bearings by the building code.
- Fasten all plies using 3 rows of 10d Box nails (.128x3") at 12" o.c. Maximum end distance not to exceed 6".
- Refer to last page of calculations for fasteners required for specified loads.
- Girders are designed to be supported on the bottom edge only.
- Top loads must be supported equally by all plies.
- Top must be laterally braced at a maximum of 7'7 3/8" o.c.
- Bottom must be laterally braced at end bearings.
- Lateral slenderness ratio based on single ply width.

ID	Load Type	Location	Trib Width	Side	Dead 0.9	Live 1	Snow 1.15	Wind 1.6	Const. 1.25	Comments
1	Uniform			Top	120 PLF	0 PLF	0 PLF	0 PLF	0 PLF	Wall
2	Uniform			Top	117 PLF	0 PLF	117 PLF	0 PLF	0 PLF	C2GE
	Self Weight				12 PLF					

**Notes**

Calculated Structural Designs is responsible only of the structural adequacy of this component based on the design criteria and loadings shown. It is the responsibility of the customer and/or the contractor to ensure the component suitability of the intended application, and to verify the dimensions and loads.

**Lumber**

- Dry service conditions, unless noted otherwise
- LVL not to be treated with fire retardant or corrosive chemicals

chemicals

**Handling & Installation**

- LVL beams must not be cut or drilled
- Refer to manufacturer's product information regarding installation requirements, multi-ply fastening details, beam strength values, and code approvals
- Damaged Beams must not be used
- Design assumes top edge is laterally restrained
- Provide lateral support at bearing points to avoid lateral displacement and rotation

6. For flat roofs provide proper drainage to prevent ponding

This design is valid until 11/3/2024

**Manufacturer Info**

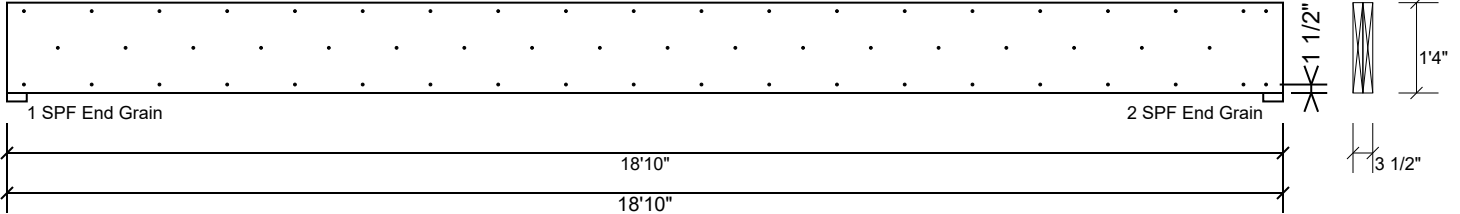
Metsä Wood  
 301 Merritt 7 Building, 2nd Floor  
 Norwalk, CT 06851  
 (800) 622-5850  
[www.metsawood.com/us](http://www.metsawood.com/us)

Comtech, Inc.  
 1001 S. Reilly Road, Suite #639  
 Fayetteville, NC  
 USA  
 28314  
 910-864-TRUS



**GDH Kerto-S LVL 1.750" X 16.000" 2-Ply - PASSED**

Level: Level



**Multi-Ply Analysis**

Fasten all plies using 3 rows of 10d Box nails (.128x3") at 12" o.c.. Maximum end distance not to exceed 6".

Capacity	0.0 %
Load	0.0 PLF
Yield Limit per Foot	245.6 PLF
Yield Limit per Fastener	81.9 lb.
Yield Mode	IV
Edge Distance	1 1/2"
Min. End Distance	3"
Load Combination	
Duration Factor	1.00

**Notes**

Calculated Structured Designs is responsible only of the structural adequacy of this component based on the design criteria and loadings shown. It is the responsibility of the customer and/or the contractor to ensure the component suitability of the intended application, and to verify the dimensions and loads.

**Lumber**

1. Dry service conditions, unless noted otherwise
2. LVL not to be treated with fire retardant or corrosive chemicals

**Handling & Installation**

1. LVL beams must not be cut or drilled
2. Refer to manufacturer's product information regarding installation requirements, multi-ply fastening details, beam strength values, and code approvals
3. Damaged Beams must not be used
4. Design assumes top edge is laterally restrained
5. Provide lateral support at bearing points to avoid lateral displacement and rotation

6. For flat roofs provide proper drainage to prevent ponding

This design is valid until 11/3/2024

**Manufacturer Info**

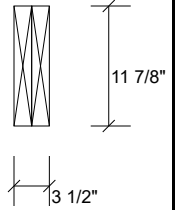
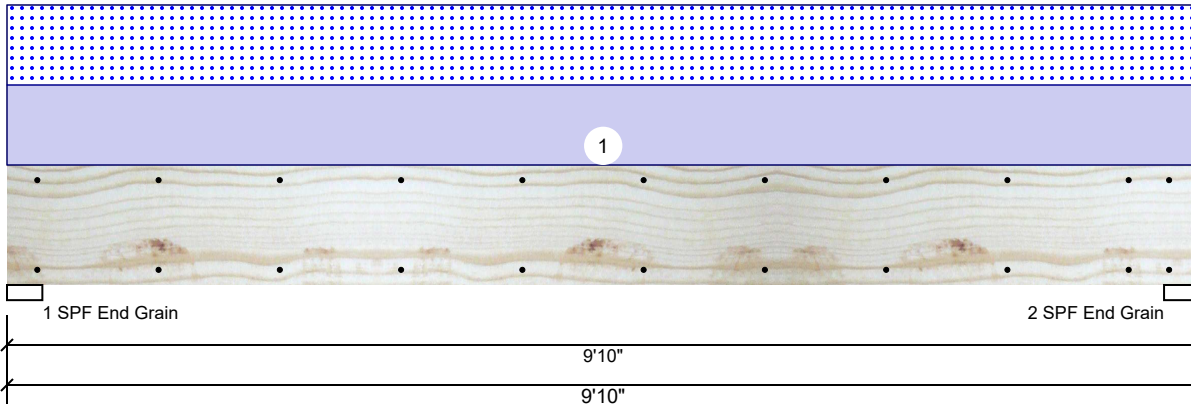
Metsä Wood  
 301 Merritt 7 Building, 2nd Floor  
 Norwalk, CT 06851  
 (800) 622-5850  
[www.metsawood.com/us](http://www.metsawood.com/us)

Comtech, Inc.  
 1001 S. Reilly Road, Suite #639  
 Fayetteville, NC  
 USA  
 28314  
 910-864-TRUS



**GDH2 Kerto-S LVL 1.750" X 11.875" 2-Ply - PASSED**

Level: Level



**Member Information**

Type:	Girder	Application:	Floor
Plies:	2	Design Method:	ASD
Moisture Condition:	Dry	Building Code:	IBC/IRC 2015
Deflection LL:	480	Load Sharing:	No
Deflection TL:	240	Deck:	Not Checked
Importance:	Normal - II		
Temperature:	Temp <= 100°F		

**Reactions UNPATTERNED lb (Uplift)**

Brg	Direction	Live	Dead	Snow	Wind	Const
1	Vertical	0	1225	1180	0	0
2	Vertical	0	1225	1180	0	0

**Bearings**

Bearing	Length	Dir.	Cap.	React D/L lb	Total	Ld. Case	Ld. Comb.
1 - SPF End Grain	3.500"	Vert	23%	1225 / 1180	2405	L	D+S
2 - SPF End Grain	3.500"	Vert	23%	1225 / 1180	2405	L	D+S

**Analysis Results**

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	5375 ft-lb	4'11"	22897 ft-lb	0.235 (23%)	D+S	L
Unbraced	5375 ft-lb	4'11"	9857 ft-lb	0.545 (55%)	D+S	L
Shear	1788 lb	1'3 3/8"	10197 lb	0.175 (18%)	D+S	L
LL Defl inch	0.050 (L/2249)	4'11"	0.234 (L/480)	0.213 (21%)	S	L
TL Defl inch	0.102 (L/1104)	4'11"	0.469 (L/240)	0.217 (22%)	D+S	L

**Design Notes**

- 1 Provide support to prevent lateral movement and rotation at the end bearings. Lateral support may also be required at the interior bearings by the building code.
- 2 Fasten all plies using 2 rows of 10d Box nails (.128x3") at 12" o.c. Maximum end distance not to exceed 6".
- 3 Refer to last page of calculations for fasteners required for specified loads.
- 4 Girders are designed to be supported on the bottom edge only.
- 5 Top loads must be supported equally by all plies.
- 6 Top must be laterally braced at end bearings.
- 7 Bottom must be laterally braced at end bearings.
- 8 Lateral slenderness ratio based on single ply width.

ID	Load Type	Location	Trib Width	Side	Dead 0.9	Live 1	Snow 1.15	Wind 1.6	Const. 1.25	Comments
1	Uniform			Top	240 PLF	0 PLF	240 PLF	0 PLF	0 PLF	G1
	Self Weight				9 PLF					

**Notes**

Calculated Structured Designs is responsible only of the structural adequacy of this component based on the design criteria and loadings shown. It is the responsibility of the customer and/or the contractor to ensure the component suitability of the intended application, and to verify the dimensions and loads.

**Lumber**

1. Dry service conditions, unless noted otherwise
2. LVL not to be treated with fire retardant or corrosive chemicals

chemicals

**Handling & Installation**

1. LVL beams must not be cut or drilled
2. Refer to manufacturer's product information regarding installation requirements, multi-ply fastening details, beam strength values, and code approvals
3. Damaged Beams must not be used
4. Design assumes top edge is laterally restrained
5. Provide lateral support at bearing points to avoid lateral displacement and rotation

6. For flat roofs provide proper drainage to prevent ponding

This design is valid until 11/3/2024

**Manufacturer Info**

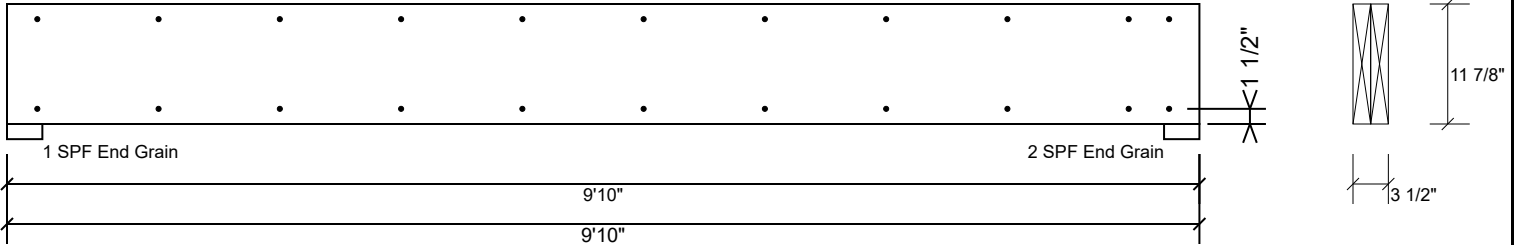
Metsä Wood  
 301 Merritt 7 Building, 2nd Floor  
 Norwalk, CT 06851  
 (800) 622-5850  
[www.metsawood.com/us](http://www.metsawood.com/us)

Comtech, Inc.  
 1001 S. Reilly Road, Suite #639  
 Fayetteville, NC  
 USA  
 28314  
 910-864-TRUS



**GDH2 Kerto-S LVL 1.750" X 11.875" 2-Ply - PASSED**

Level: Level



**Multi-Ply Analysis**

Fasten all plies using 2 rows of 10d Box nails (.128x3") at 12" o.c.. Maximum end distance not to exceed 6".

Capacity	0.0 %
Load	0.0 PLF
Yield Limit per Foot	163.7 PLF
Yield Limit per Fastener	81.9 lb.
Yield Mode	IV
Edge Distance	1 1/2"
Min. End Distance	3"
Load Combination	
Duration Factor	1.00

**Notes**

Calculated Structured Designs is responsible only of the structural adequacy of this component based on the design criteria and loadings shown. It is the responsibility of the customer and/or the contractor to ensure the component suitability of the intended application, and to verify the dimensions and loads.

**Lumber**

1. Dry service conditions, unless noted otherwise
2. LVL not to be treated with fire retardant or corrosive

chemicals

**Handling & Installation**

1. LVL beams must not be cut or drilled
2. Refer to manufacturer's product information regarding installation requirements, multi-ply fastening details, beam strength values, and code approvals
3. Damaged Beams must not be used
4. Design assumes top edge is laterally restrained
5. Provide lateral support at bearing points to avoid lateral displacement and rotation

6. For flat roofs provide proper drainage to prevent ponding

This design is valid until 11/3/2024

**Manufacturer Info**

Metsä Wood  
 301 Merritt 7 Building, 2nd Floor  
 Norwalk, CT 06851  
 (800) 622-5850  
[www.metsawood.com/us](http://www.metsawood.com/us)

Comtech, Inc.  
 1001 S. Reilly Road, Suite #639  
 Fayetteville, NC  
 USA  
 28314  
 910-864-TRUS



Trenco  
818 Soundside Rd  
Edenton, NC 27932

Re: J0922-4570  
Lot 19 Purfoy Place

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: I57456101 thru I57456107

My license renewal date for the state of North Carolina is December 31, 2023.

North Carolina COA: C-0844



March 29, 2023

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 J0922-4570	Truss ET1	Truss Type GABLE	Qty 2	Ply 1	Lot 19 Purfoy Place I57456101
-------------------	--------------	---------------------	----------	----------	----------------------------------

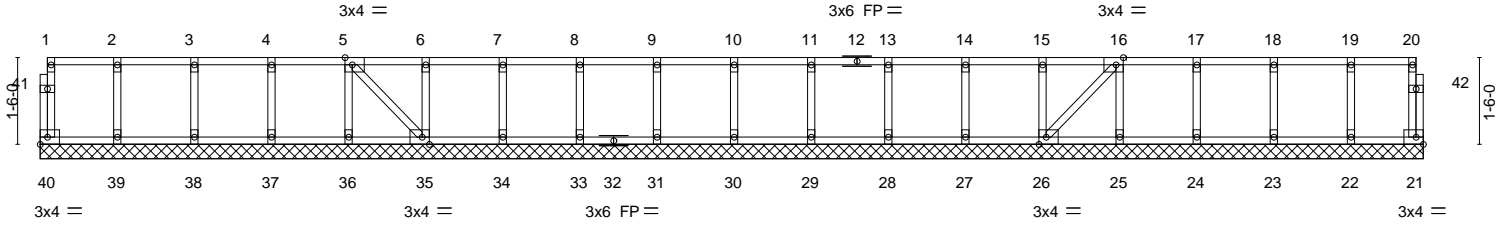
Comtech, Inc. Fayetteville, NC - 28314,

8.430 s Jan 6 2022 MiTek Industries, Inc. Wed Mar 29 09:16:12 2023 Page 1  
ID:X5az\_D23vLwLuiTNLuG6bHyGfb-LfEVb3WtSdtMvTfRCl\_5xtMTJva\_JMiH7jaSt5zW7?H

0-1-8

0-1-8

Scale = 1:39.8



1-4-0	2-8-0	4-0-0	5-4-0	6-8-0	8-0-0	9-4-0	10-8-0	12-0-0	13-4-0	14-8-0	16-0-0	17-4-0	18-8-0	20-0-0	21-4-0	22-8-0	23-11-0
1-4-0	1-4-0	1-4-0	1-4-0	1-4-0	1-4-0	1-4-0	1-4-0	1-4-0	1-4-0	1-4-0	1-4-0	1-4-0	1-4-0	1-4-0	1-4-0	1-4-0	1-3-0

Plate Offsets (X,Y)-- [5:0-1-8,Edge], [16:0-1-8,Edge], [26:0-1-8,Edge], [35:0-1-8,Edge]

<b>LOADING</b> (psf)	<b>SPACING-</b>	2-0-0	<b>CSI.</b>	<b>DEFL.</b>	in (loc)	l/defl	L/d	<b>PLATES</b>	<b>GRIP</b>
TCLL 40.0	Plate Grip DOL	1.00	TC 0.06	Vert(LL)	n/a	-	n/a	MT20	244/190
TCDL 10.0	Lumber DOL	1.00	BC 0.01	Vert(CT)	n/a	-	n/a		
BCLL 0.0	Rep Stress Incr	YES	WB 0.03	Horz(CT)	-0.00	26	n/a		
BCDL 5.0	Code IRC2015/TPI2014		Matrix-S						
								Weight: 114 lb	FT = 20%F, 11%E

<b>LUMBER-</b>	<b>BRACING-</b>
TOP CHORD 2x4 SP No.1(flat)	TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.
BOT CHORD 2x4 SP No.1(flat)	BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.
WEBS 2x4 SP No.3(flat)	
OTHERS 2x4 SP No.3(flat)	

**REACTIONS.** All bearings 23-11-0.  
(lb) - Max Grav All reactions 250 lb or less at joint(s) 40, 21, 39, 38, 37, 36, 35, 34, 33, 31, 30, 29, 28, 27, 26, 25, 24, 23, 22

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

- NOTES-**
- 1) All plates are 1.5x3 MT20 unless otherwise indicated.
  - 2) Plates checked for a plus or minus 1 degree rotation about its center.
  - 3) Gable requires continuous bottom chord bearing.
  - 4) Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
  - 5) Gable studs spaced at 1-4-0 oc.
  - 6) Recommend 2x6 strongbacks, on edge, spaced at 10-0-0 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.



March 29, 2023

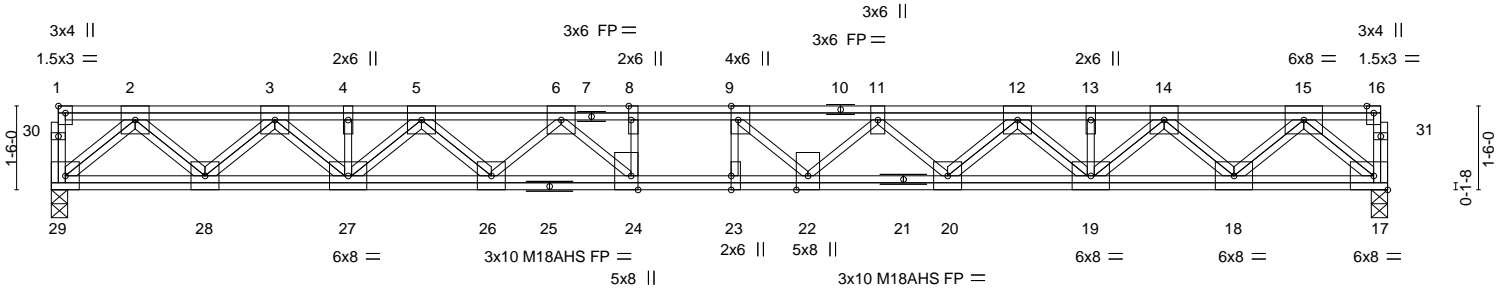
<p><b>WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE.</b></p> <p>Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see <b>ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information</b> available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601</p>	<p>ENGINEERING BY <b>TRENCO</b> A MiTek Affiliate</p> <p>818 Soundside Road Edenton, NC 27932</p>
--	---

Job	Truss	Truss Type	Qty	Ply	Lot 19 Purfoy Place	157456102
J0922-4570	F1	FLOOR	14	1	Job Reference (optional)	

Comtech, Inc. Fayetteville, NC - 28314,

8.430 s Jan 6 2022 MiTek Industries, Inc. Wed Mar 29 09:16:13 2023 Page 1

ID:X5az\_D23vLwLuiTNLuG6bHyGfxb-prnuoPXVDw?DXdp1mTVKT4vYwJm12fgQMNJ?PXzW7?G



23-11-0  
23-11-0

Plate Offsets (X, Y)-- [1:Edge,0-1-8], [8:0-3-0,Edge], [9:0-3-0,Edge], [23:0-3-0,0-0-0], [24:0-3-0,Edge]

LOADING (psf)	SPACING-	1-7-3	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 40.0	Plate Grip DOL	1.00	TC 0.39	Vert(LL)	-0.38 22-23	>756	480	MT20	244/190
TCDL 10.0	Lumber DOL	1.00	BC 0.66	Vert(CT)	-0.52 22-23	>550	360	M18AHS	186/179
BCLL 0.0	Rep Stress Incr	NO	WB 0.69	Horz(CT)	0.08 17	n/a	n/a		
BCDL 5.0	Code IRC2015/TP12014		Matrix-S						
								Weight: 222 lb	FT = 20%F, 11%E

**LUMBER-**

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

**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.**

(size) 29=0-3-8, 17=0-3-8  
 Max Grav 29=1393(LC 1), 17=1979(LC 1)

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

TOP CHORD 2-3=-2650/0, 3-4=-4820/0, 4-5=-4820/0, 5-6=-6418/0, 6-8=-8034/0, 8-9=-8034/0, 9-11=-8559/0, 11-12=-8790/0, 12-13=-7231/0, 13-14=-7231/0, 14-15=-3872/0  
 BOT CHORD 28-29=0/1480, 27-28=0/3803, 26-27=0/5761, 24-26=0/7207, 23-24=0/8034, 22-23=0/8034, 20-22=0/8839, 19-20=0/8751, 18-19=0/5601, 17-18=0/2120  
 WEBS 2-29=-1997/0, 2-28=0/1655, 3-28=-1631/0, 3-27=0/1404, 15-17=-2862/0, 15-18=0/2478, 14-18=-2445/0, 14-19=0/2251, 12-19=-2099/0, 12-20=-133/289, 5-27=-1300/0, 5-26=0/948, 6-26=-1098/0, 11-20=-269/119, 11-22=-629/217, 6-24=0/1446, 8-24=-593/0, 9-22=-214/1061, 9-23=-521/33

**NOTES-**

- Unbalanced floor live loads have been considered for this design.
- All plates are MT20 plates unless otherwise indicated.
- All plates are 6x6 MT20 unless otherwise indicated.
- Plates checked for a plus or minus 1 degree rotation about its center.
- Recommend 2x6 strongbacks, on edge, spaced at 10-0-0 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.
- Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 1300 lb down at 17-4-12 on top chord. The design/selection of such connection device(s) is the responsibility of others.
- 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

- Dead + Floor Live (balanced): Lumber Increase=1.00, Plate Increase=1.00  
 Uniform Loads (plf)  
 Vert: 17-29=-8, 1-16=-80  
 Concentrated Loads (lb)  
 Vert: 12=-1300(F)



March 29, 2023

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

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



818 Soundside Road  
 Edenton, NC 27932





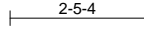
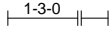
Job J0922-4570	Truss F2	Truss Type FLOOR	Qty 13	Ply 1	Lot 19 Purfoy Place 157456104
-------------------	-------------	---------------------	-----------	----------	----------------------------------

Comtech, Inc. Fayetteville, NC - 28314,

8.430 s Jan 6 2022 MiTek Industries, Inc. Wed Mar 29 09:16:18 2023 Page 1

ID:X5az\_D23vLwLuiTNLU66bHyGfxb-9pbmr6be2TeWdOi?Z05VA8cNEKRxtj9Vf1m5kzW7?B

0-5-12



0-1-8

Scale = 1:41.2

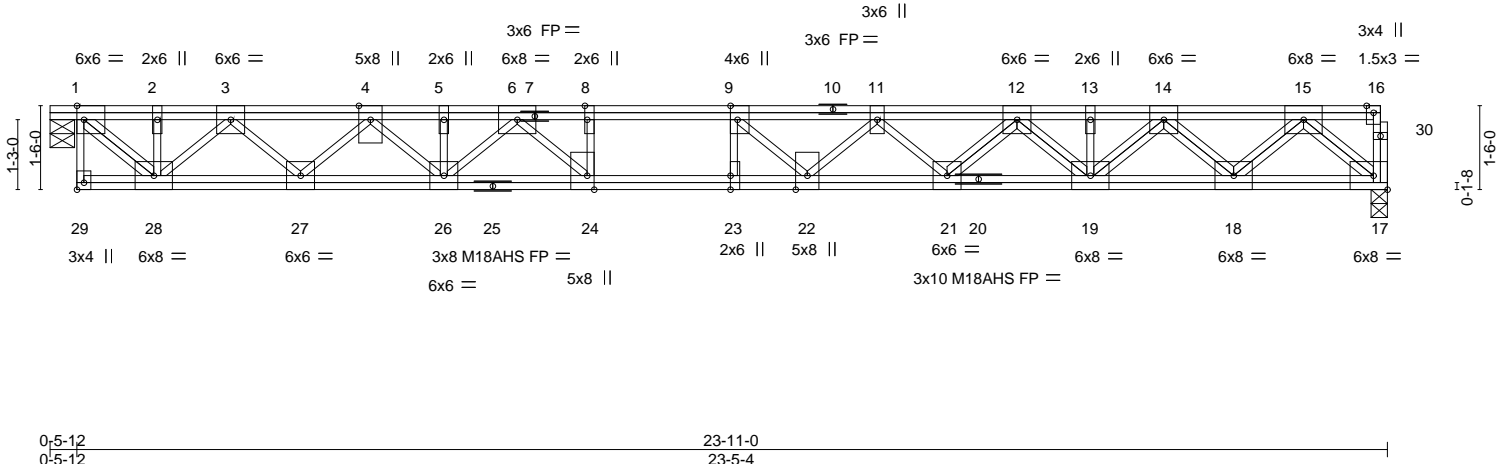


Plate Offsets (X, Y)-- [1:0-1-8,Edge], [8:0-3-0,Edge], [9:0-3-0,Edge], [23:0-3-0,0-0-0], [24:0-3-0,Edge], [29:Edge,0-1-8]

LOADING (psf)	SPACING-	1-7-3	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 40.0	Plate Grip DOL	1.00	TC 0.54	Vert(LL)	-0.40 22-23	>706	480	MT20	244/190
TCDL 10.0	Lumber DOL	1.00	BC 0.80	Vert(CT)	-0.54 22-23	>514	360	M18AHS	186/179
BCLL 0.0	Rep Stress Incr	NO	WB 0.88	Horz(CT)	0.02 17	n/a	n/a		
BCDL 5.0	Code IRC2015/TP12014		Matrix-S						
								Weight: 207 lb	FT = 20%F, 11%E

**LUMBER-**  
TOP CHORD 2x4 SP 2400F 2.0E(flat)  
BOT CHORD 2x4 SP 2400F 2.0E(flat)  
WEBS 2x4 SP No.3(flat)

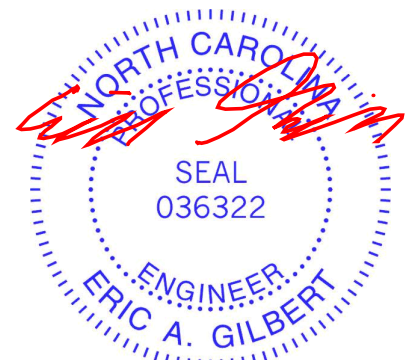
**BRACING-**  
TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS.** (size) 1=0-5-4, 17=0-3-8  
Max Grav 1=1386(LC 1), 17=1954(LC 1)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
TOP CHORD 1-2=-1423/0, 2-3=-1428/0, 3-4=-3776/0, 4-5=-5637/0, 5-6=-5637/0, 6-8=-7637/0,  
8-9=-7637/0, 9-11=-8344/0, 11-12=-8642/0, 12-13=-7131/0, 13-14=-7131/0,  
14-15=-3820/0  
BOT CHORD 27-28=0/2729, 26-27=0/4768, 24-26=0/6493, 23-24=0/7637, 22-23=0/7637, 21-22=0/8688,  
19-21=0/8616, 18-19=0/5525, 17-18=0/2093  
WEBS 1-28=0/1956, 3-28=-1767/0, 3-27=0/1481, 15-17=-2826/0, 15-18=0/2443, 14-18=-2411/0,  
14-19=0/2219, 12-19=-2049/0, 12-21=-111/267, 11-22=-683/190, 9-22=-152/1289,  
9-23=-636/0, 4-27=-1402/0, 4-26=0/1201, 6-26=-1181/0, 6-24=0/1847, 8-24=-799/0

- NOTES-**
- 1) Unbalanced floor live loads have been considered for this design.
  - 2) All plates are MT20 plates unless otherwise indicated.
  - 3) Plates checked for a plus or minus 1 degree rotation about its center.
  - 4) Recommend 2x6 strongbacks, on edge, spaced at 10-0-0 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.
  - 5) Gap between inside of top chord bearing and first diagonal or vertical web shall not exceed 0.500in.
  - 6) CAUTION, Do not erect truss backwards.
  - 7) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 1300 lb down at 17-4-12 on top 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 + Floor Live (balanced): Lumber Increase=1.00, Plate Increase=1.00  
Uniform Loads (plf)  
Vert: 17-29=-8, 1-16=-80  
Concentrated Loads (lb)  
Vert: 12=-1300(F)



March 29, 2023

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

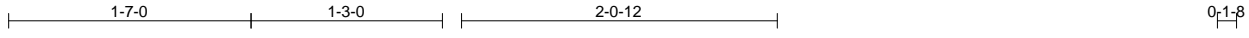
**ENGINEERING BY**  
**TRENCO**  
A MiTek Affiliate  
818 Soundside Road  
Edenton, NC 27932

Job J0922-4570	Truss F3	Truss Type FLOOR	Qty 2	Ply 1	Lot 19 Purfoy Place Job Reference (optional)	I57456105
-------------------	-------------	---------------------	----------	----------	---	-----------

Comtech, Inc. Fayetteville, NC - 28314,

8.430 s Jan 6 2022 MiTek Industries, Inc. Wed Mar 29 09:16:19 2023 Page 1

ID:X5az\_D23vLwLuITNLuG6bHyGfxb-e?993SbGpmmNFYHB7jckjL9TUjIQSQ1JkJmKdBzW7?A



Scale = 1:15.1

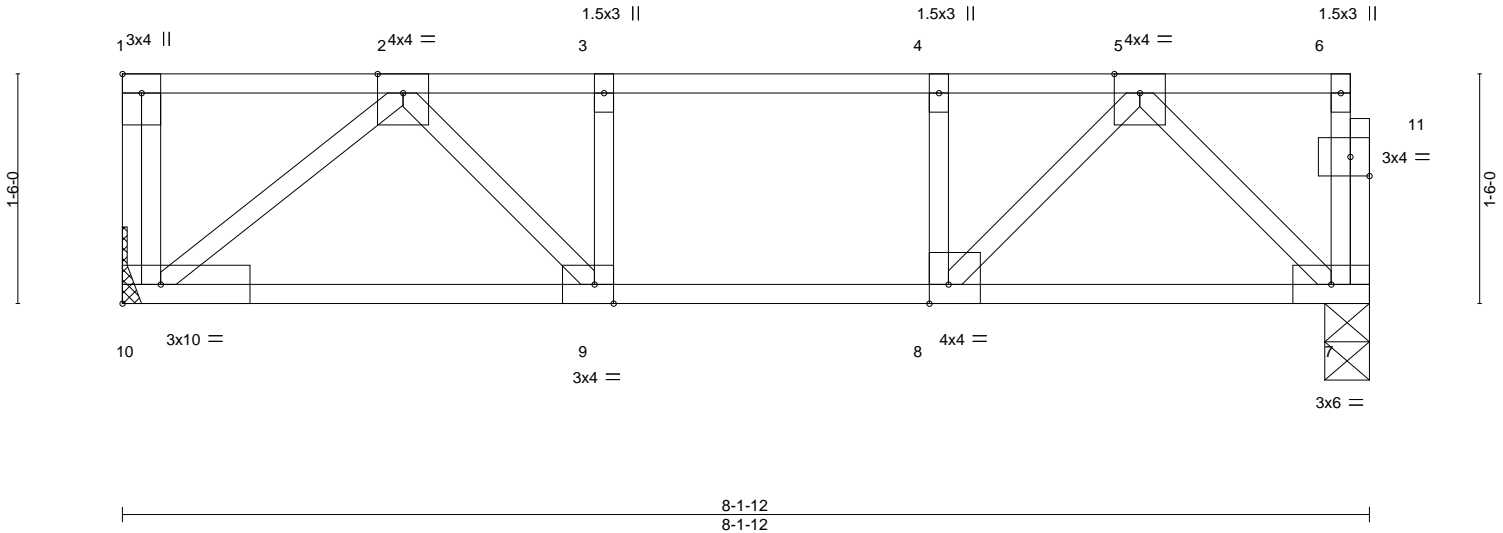


Plate Offsets (X, Y)--	[1:Edge,0-1-8], [8:0-1-8,Edge], [9:0-1-8,Edge], [11:0-1-8,0-1-8]				
<b>LOADING</b> (psf)	<b>SPACING-</b> 1-7-3	<b>CSI.</b>	<b>DEFL.</b> in (loc) l/defl L/d	<b>PLATES</b>	<b>GRIP</b>
TCLL 40.0	Plate Grip DOL 1.00	TC 0.89	Vert(LL) -0.14 9-10 >679 480	MT20	244/190
TCDL 10.0	Lumber DOL 1.00	BC 0.92	Vert(CT) -0.19 9-10 >498 360		
BCLL 0.0	Rep Stress Incr NO	WB 0.50	Horz(CT) 0.01 7 n/a n/a		
BCDL 5.0	Code IRC2015/TPI2014	Matrix-S		Weight: 46 lb	FT = 20%F, 11%E

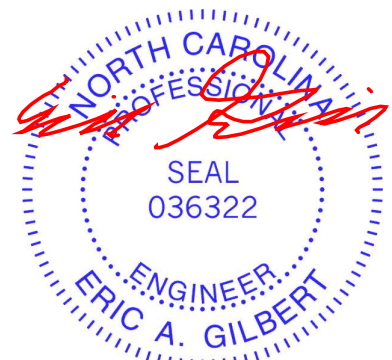
<b>LUMBER-</b>	<b>BRACING-</b>
TOP CHORD 2x4 SP 2400F 2.0E(flat)	TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.
BOT CHORD 2x4 SP No.1(flat)	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 2x4 SP No.3(flat)	

**REACTIONS.** (size) 10=Mechanical, 7=0-3-8  
Max Grav 10=1366(LC 1), 7=623(LC 1)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
TOP CHORD 2-3=-1253/0, 3-4=-1253/0, 4-5=-1253/0  
BOT CHORD 9-10=0/1593, 8-9=0/1253, 7-8=0/571  
WEBS 2-10=-2045/0, 2-9=-565/59, 5-7=-802/0, 5-8=0/1016, 4-8=-566/0, 3-9=-43/289

- NOTES-**
- 1) Unbalanced floor live loads have been considered for this design.
  - 2) Plates checked for a plus or minus 1 degree rotation about its center.
  - 3) Refer to girder(s) for truss to truss connections.
  - 4) Recommend 2x6 strongbacks, on edge, spaced at 10-0-0 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.
  - 5) CAUTION, Do not erect truss backwards.
  - 6) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 1300 lb down at 1-10-0 on top chord. The design/selection of such connection device(s) is the responsibility of others.
  - 7) 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 + Floor Live (balanced): Lumber Increase=1.00, Plate Increase=1.00  
Uniform Loads (plf)  
Vert: 7-10=-8, 1-6=-80  
Concentrated Loads (lb)  
Vert: 2=-1300(F)



March 29, 2023

<p><b>WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE.</b></p> <p>Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see <b>ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information</b> available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601</p>	<p>818 Soundside Road Edenton, NC 27932</p>
--	---

Job J0922-4570	Truss F4	Truss Type FLOOR	Qty 2	Ply 1	Lot 19 Purfoy Place Job Reference (optional)	I57456106
-------------------	-------------	---------------------	----------	----------	---	-----------

Comtech, Inc. Fayetteville, NC - 28314,

8.430 s Jan 6 2022 MiTek Industries, Inc. Wed Mar 29 09:16:20 2023 Page 1  
ID:X5az\_D23vLwLuITNLuG6bHyGfxb-6BiXGocua4uEtisNGR7zFZipO7ILBzuSzzWt9dzW7?9

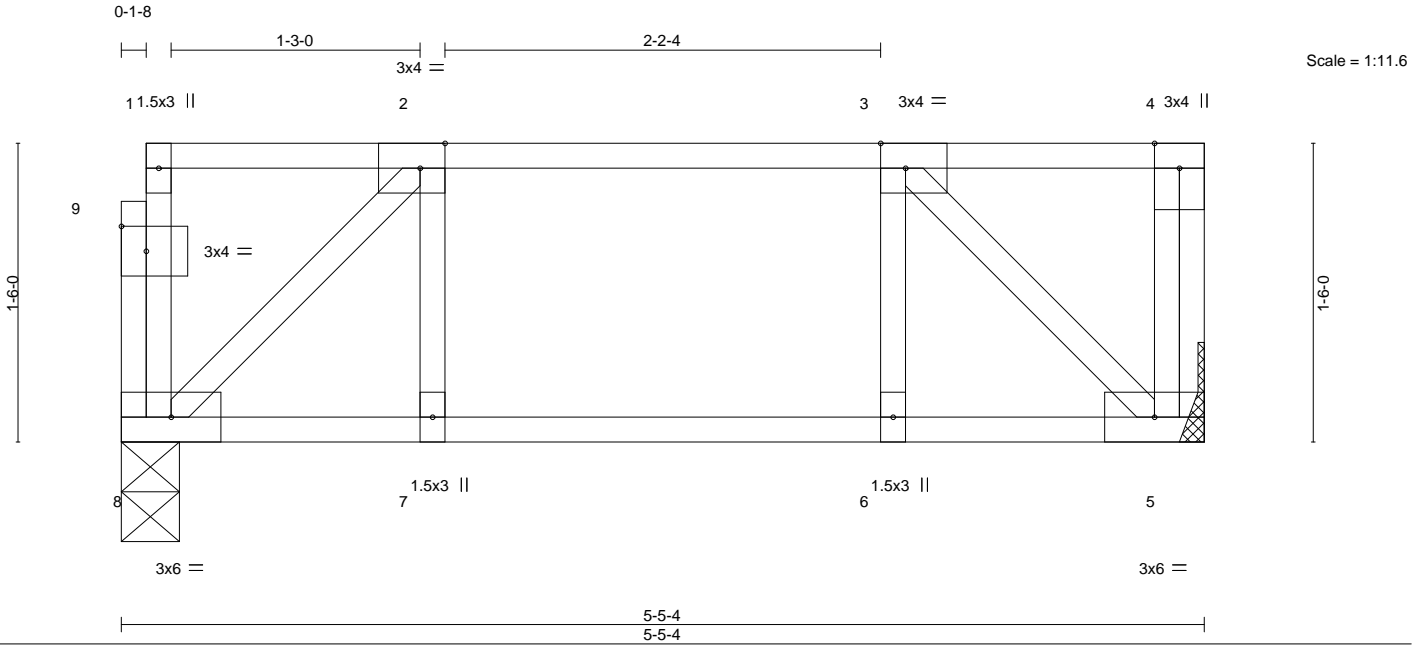


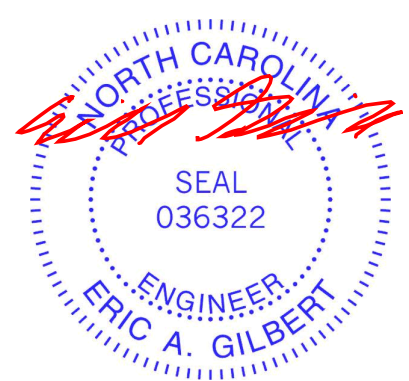
Plate Offsets (X,Y)--	[2:0-1-8,Edge], [3:0-1-8,Edge], [9:0-1-8,0-1-8]				
<b>LOADING</b> (psf)	<b>SPACING-</b> 2-0-0	<b>CSI.</b>	<b>DEFL.</b> in (loc) l/defl L/d	<b>PLATES</b>	<b>GRIP</b>
TCLL 40.0	Plate Grip DOL 1.00	TC 0.18	Vert(LL) -0.01 6 >999 480	MT20	244/190
TCDL 10.0	Lumber DOL 1.00	BC 0.10	Vert(CT) -0.01 6 >999 360		
BCLL 0.0	Rep Stress Incr YES	WB 0.08	Horz(CT) 0.00 5 n/a n/a		
BCDL 5.0	Code IRC2015/TPI2014	Matrix-S		Weight: 32 lb	FT = 20%F, 11%E

<b>LUMBER-</b>	<b>BRACING-</b>
TOP CHORD 2x4 SP No.1(flat)	TOP CHORD Structural wood sheathing directly applied or 5-5-4 oc purlins, except end verticals.
BOT CHORD 2x4 SP No.1(flat)	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 2x4 SP No.3(flat)	


**REACTIONS.** (size) 8=0-3-8, 5=Mechanical  
Max Grav 8=279(LC 1), 5=285(LC 1)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
WEBS 2-8=-336/0, 3-5=-339/0

- NOTES-**
- 1) Unbalanced floor live loads have been considered for this design.
  - 2) Plates checked for a plus or minus 1 degree rotation about its center.
  - 3) Refer to girder(s) for truss to truss connections.
  - 4) Recommend 2x6 strongbacks, on edge, spaced at 10-0-0 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.
  - 5) CAUTION, Do not erect truss backwards.



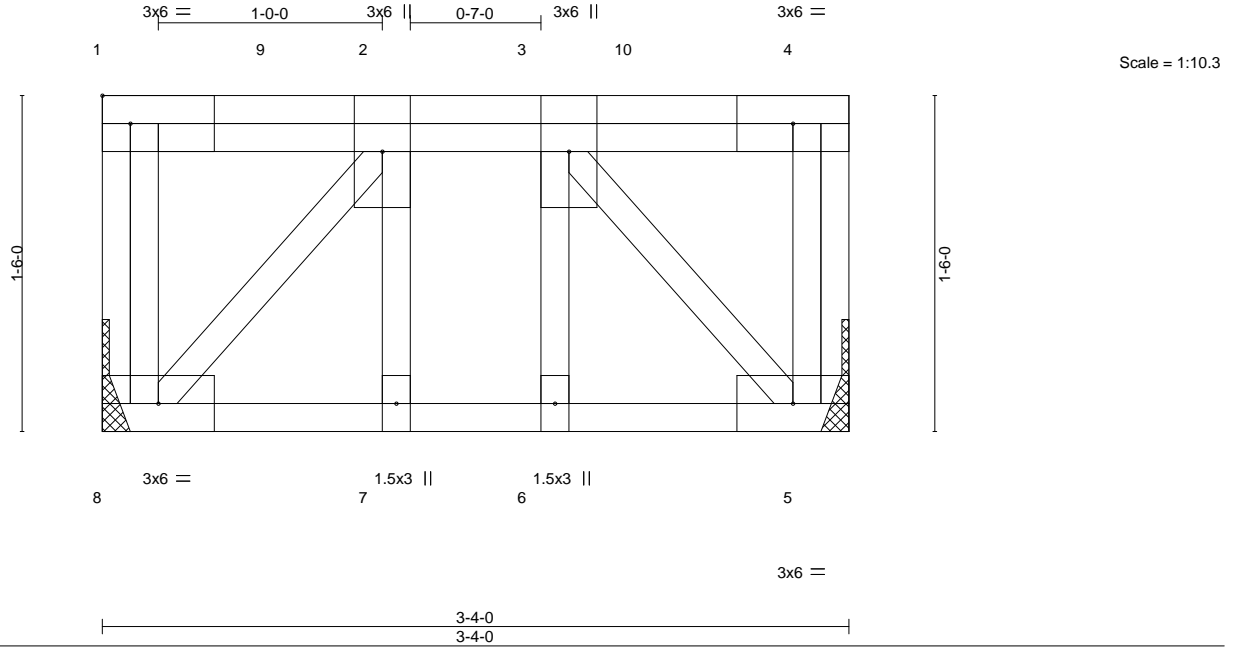
March 29, 2023

<p><b>WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE.</b></p> <p>Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see <b>ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information</b> available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601</p>	<p>ENGINEERING BY</p>  <p>A MiTek Affiliate</p> <p>818 Soundside Road Edenton, NC 27932</p>
--	--

Job J0922-4570	Truss FG1	Truss Type FLOOR GIRDER	Qty 2	Ply 1	Lot 19 Purfoy Place 157456107
-------------------	--------------	----------------------------	----------	----------	----------------------------------

Comtech, Inc. Fayetteville, NC - 28314,

8.430 s Jan 6 2022 MiTek Industries, Inc. Wed Mar 29 09:16:20 2023 Page 1  
ID:X5az\_D23vLwLuiTNLUg6bHyGfxb-6BiXGocua4uEtiSNGR7zFZik?7GeBv9SzzWt9dzW7?9



LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 40.0	2-0-0	TC 0.46	Vert(LL)	-0.01	7	>999	MT20	244/190
TCDL 10.0	Plate Grip DOL 1.00	BC 0.21	Vert(CT)	-0.01	7	>999		
BCLL 0.0	Lumber DOL 1.00	WB 0.32	Horz(CT)	0.00	5	n/a		
BCDL 5.0	Rep Stress Incr NO	Matrix-S						
	Code IRC2015/TPI2014						Weight: 29 lb	FT = 20%F, 11%E

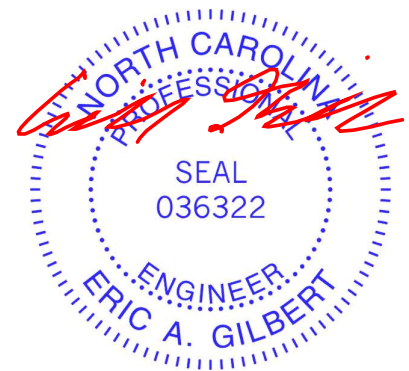
LUMBER-	BRACING-
TOP CHORD 2x4 SP No.1(flat)	TOP CHORD Structural wood sheathing directly applied or 3-4-0 oc purlins, except end verticals.
BOT CHORD 2x4 SP No.1(flat)	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 2x4 SP No.3(flat)	

**REACTIONS.** (size) 8=Mechanical, 5=Mechanical  
Max Grav 8=1470(LC 1), 5=1447(LC 1)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
TOP CHORD 1-8=-448/0, 4-5=-424/0, 2-3=-916/0  
BOT CHORD 7-8=0/916, 6-7=0/916, 5-6=0/916  
WEBS 2-8=-1366/0, 3-5=-1366/0

- NOTES-**
- 1) Unbalanced floor live loads have been considered for this design.
  - 2) Plates checked for a plus or minus 1 degree rotation about its center.
  - 3) Refer to girder(s) for truss to truss connections.
  - 4) Recommend 2x6 strongbacks, on edge, spaced at 10-0-0 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.
  - 5) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 1337 lb down at 0-10-4, and 1336 lb down at 2-5-7 on top chord. The design/selection of such connection device(s) is the responsibility of others.
  - 6) 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 + Floor Live (balanced): Lumber Increase=1.00, Plate Increase=1.00  
Uniform Loads (plf)  
Vert: 5-8=-10, 1-4=-100  
Concentrated Loads (lb)  
Vert: 9=-1289(F) 10=-1288(F)



March 29, 2023

# Symbols

## PLATE LOCATION AND ORIENTATION



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



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



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

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

## PLATE SIZE

**4 X 4**

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

## LATERAL BRACING LOCATION



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

## BEARING



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

### Industry Standards:

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

# Numbering System

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



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

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

## PRODUCT CODE APPROVALS

ICC-ES Reports:

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

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

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

© 2012 MITteK® All Rights Reserved



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



# General Safety Notes

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

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