



# ROOF & FLOOR TRUSSES & BEAMS

Reilly Road Industrial Park  
Fayetteville, N.C. 28309  
Phone: (910) 864-8787  
Fax: (910) 864-4444

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 (U) JLY HEADER	END REACTION (UP TO)	REQ'D STUDS FOR (D) JLY HEADER	END REACTION (UP TO)	REQ'D STUDS FOR (U) JLY 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				

All Truss Reactions are Less than 3,000 lbs. Unless Noted Otherwise.  
-- Denotes Reaction Greater than 3,000 lbs. Reaction / # of Studs

All Headers Are Considered 2X10 Beams Unless Otherwise Noted

All Walls Shown Are Considered Load Bearing

Roof Area = 4255.72 sq.ft.  
Ridge Line = 115.15 ft.  
Hip Line = 0.35 ft.  
Horiz. OH = 293.22 ft.  
Raked OH = 315.19 ft.  
Decking = 146 sheets

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

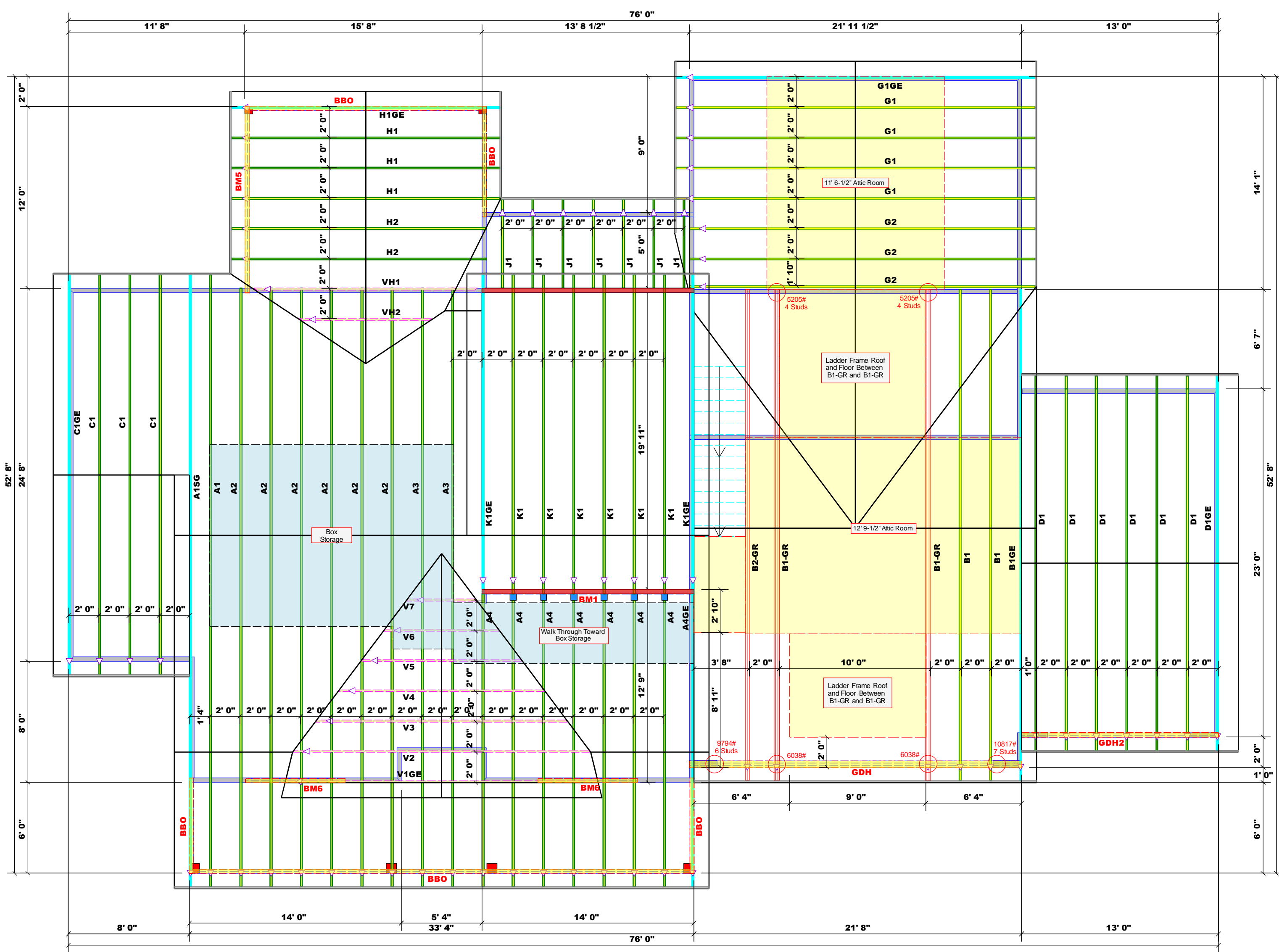
Hatch Legend

- Second Floor Walls
- Box Storage
- Drop Beam
- Flush Beam

Connector Information					Nail Information	
Sym	Product	Manuf	Qty	Supported Member	Header	Truss
■	HUS26	USP	6	NA	16d/3-1/2"	16d/3-1/2"

Products				
PlotID	Length	Product	Plies	Net Qty
BM1	14' 0"	1-3/4"x 14" LVL Kerto-S	2	2
BM2	16' 0"	1-3/4"x 14" LVL Kerto-S	2	2
BM3	14' 0"	1-3/4"x 14" LVL Kerto-S	2	2
BM4	4' 0"	1-3/4"x 9-1/4" LVL Kerto-S	2	2
BM5	13' 0"	1-3/4"x 9-1/4" LVL Kerto-S	2	2
BM6	8' 0"	2x12 SPF No.1	2	4
GDH	22' 0"	1-3/4"x 18" LVL Kerto-S	3	3
GDH2	13' 0"	1-3/4"x 11-7/8" LVL Kerto-S	2	2

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



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

BUILDER	JOB NAME	PLAN	SEAL DATE	QUOTE #	JOB #
Glover Design Build	Lot 44 Purfoy Place	Newport / 3GRF, CP	N/A		J0923-5485

CITY / CO.	ADDRESS	MODEL	DATE REV.	DRAWN BY	SALES REP.
Fuquay Varina / Harnett	169 Lambert Lane	Roof	11/02/23	Jonathan Landry	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: J0923-5485  
Lot 44 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: I61794713 thru I61794744

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

North Carolina COA: C-0844



November 3, 2023

Gilbert, Eric

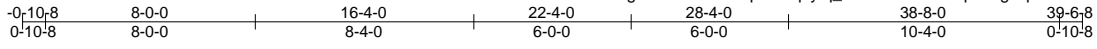
**IMPORTANT NOTE:** The seal on these truss component designs is a certification that the engineer named is licensed in the jurisdiction(s) identified and that the designs comply with ANSI/TPI 1. These designs are based upon parameters shown (e.g., loads, supports, dimensions, shapes and design codes), 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 J0923-5485	Truss A1	Truss Type ROOF SPECIAL	Qty 1	Ply 1	Lot 44 Purfoy Place Job Reference (optional)	161794713
-------------------	-------------	----------------------------	----------	----------	---	-----------

Comtech, Inc. Fayetteville, NC - 28314,

8.430 s Jan 6 2022 MiTek Industries, Inc. Thu Nov 2 10:18:39 2023 Page 1

ID:ha9gMW9aHiamlxqH30sqJytq\_X-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f



5x8 =

Scale = 1:87.9

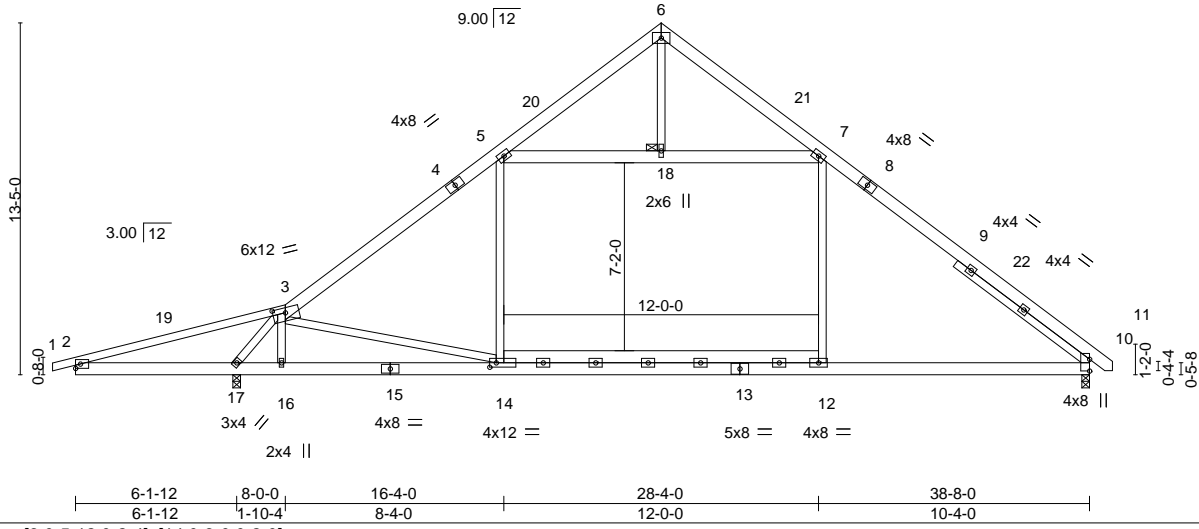


Plate Offsets (X,Y)--	[3:0-5-12,0-2-4], [14:0-3-0,0-2-0]
-----------------------	------------------------------------

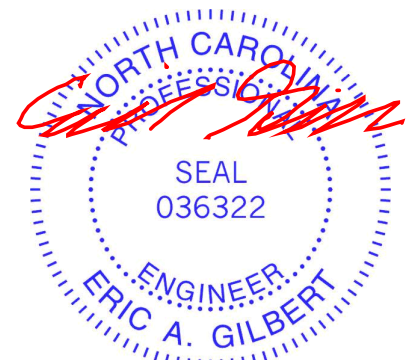
LOADING (psf)	SPACING-	CSI.	DEFL.	PLATES	GRIP
TCLL 20.0	2-0-0	TC 0.66	in (loc) l/defl L/d	MT20	244/190
TCDL 10.0	Plate Grip DOL 1.15	BC 0.73	Vert(LL) 0.63 10-12 >619 240		
BCLL 0.0 *	Lumber DOL 1.15	WB 0.97	Vert(CT) -0.49 10-12 >796 240		
BCDL 10.0	Rep Stress Incr YES	Matrix-S	Horz(CT) 0.04 10 n/a n/a		
	Code IRC2015/TP12014			Weight: 312 lb	FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x6 SP No.1 *Except* 1-3: 2x4 SP No.1	TOP CHORD Structural wood sheathing directly applied or 5-0-14 oc purlins.
BOT CHORD 2x6 SP No.1	BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.
WEBS 2x4 SP No.2 *Except* 5-7: 2x6 SP No.1	JOINTS 1 Brace at Jt(s): 18
SLIDER Right 2x4 SP No.2 6-4-5	

**REACTIONS.** (size) 17=0-3-8, 10=0-3-8  
 Max Horz 17=413(LC 9)  
 Max Uplift 17=-361(LC 12), 10=-225(LC 13)  
 Max Grav 17=1928(LC 2), 10=1506(LC 20)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-3=-1238/1054, 3-5=-1918/462, 5-6=-435/217, 6-7=-440/203, 7-10=-2053/483  
 BOT CHORD 2-17=-957/1246, 16-17=-361/1361, 14-16=-348/1355, 12-14=-132/1515, 10-12=-124/1514  
 WEBS 3-17=-2130/827, 3-16=-431/515, 3-14=-772/927, 5-14=0/534, 7-12=-16/656,  
 5-18=-1364/548, 7-18=-1364/548

- 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) -0-10-8 to 3-6-5, Interior(1) 3-6-5 to 22-4-0, Exterior(2) 22-4-0 to 26-8-13, Interior(1) 26-8-13 to 39-4-12 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 4x6 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, 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) 17=361, 10=225.



November 3, 2023

Job	Truss	Truss Type	Qty	Ply	Lot 44 Purfoy Place	161794714
J0923-5485	A1SG	GABLE	1	1	Job Reference (optional)	

Comtech, Inc. Fayetteville, NC - 28314,

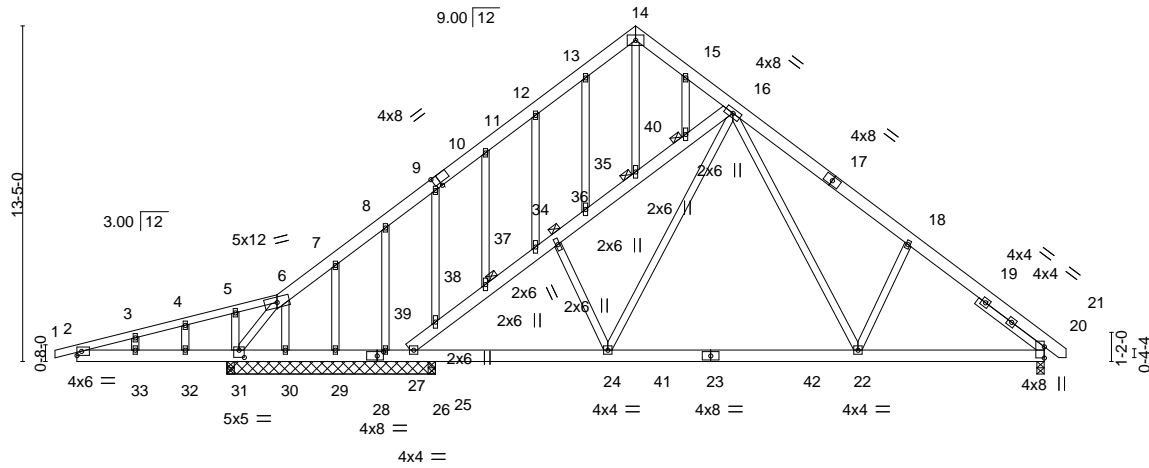
8.430 s Jan 6 2022 MiTek Industries, Inc. Thu Nov 2 10:18:41 2023 Page 1

ID:ha9gMW9aHiamlxcqH30sqJytq\_X-RfC?PsB70Hq3NSgPqnL8w3ulTXbGKWRCDoi7J4zJC?f

0-10-8	8-0-0	22-4-0	26-2-11	33-2-11	38-8-0	39-6-8
0-10-8	8-0-0	14-4-0	3-10-11	7-0-0	5-5-5	0-10-8

5x8 =

Scale = 1:92.1



6-0-0	8-0-0	14-4-0	21-2-11	31-2-11	38-8-0
6-0-0	2-0-0	6-4-0	6-10-11	10-0-0	7-5-5

Plate Offsets (X,Y)--	[10:0-2-13,Edge], [28:0-3-0,0-2-0], [31:0-2-8,0-3-8]
-----------------------	--

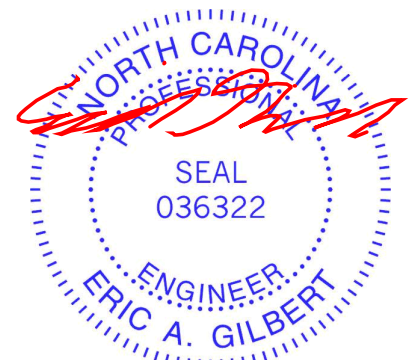
LOADING (psf)	SPACING-	CSI.	DEFL.	PLATES	GRIP
TCLL 20.0	2-0-0	TC 0.30	in (loc) l/defl L/d	MT20	244/190
TCDL 10.0	Plate Grip DOL 1.15	BC 0.45	Vert(LL) -0.17 22-24 >999 360		
BCLL 0.0 *	Lumber DOL 1.15	WB 0.73	Vert(CT) -0.24 22-24 >999 240		
BCDL 10.0	Rep Stress Incr YES	Matrix-S	Horz(CT) 0.02 20 n/a n/a		
	Code IRC2015/TPI2014		Wind(LL) 0.03 22-24 >999 240	Weight: 354 lb	FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x6 SP No.1 *Except* 1-6: 2x4 SP No.1	TOP CHORD Structural wood sheathing directly applied or 5-10-1 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: 2-33,32-33,31-32.
WEBS 2x4 SP No.2 *Except* 16-26: 2x6 SP No.1	JOINTS 1 Brace at Jt(s): 34, 35, 38, 40
OTHERS 2x4 SP No.2	
SLIDER Right 2x4 SP No.2 3-4-1	

**REACTIONS.** All bearings 0-3-8 except (jt=length) 26=8-4-0, 27=8-4-0, 29=8-4-0, 30=8-4-0.  
 (lb) - Max Horz 31=526(LC 9)  
 Max Uplift All uplift 100 lb or less at joint(s) 25 except 20=335(LC 13),  
 26=609(LC 12), 27=211(LC 12), 29=149(LC 12), 30=995(LC 1), 31=1461(LC 8)  
 Max Grav All reactions 250 lb or less at joint(s) 27, 29 except 20=1187(LC 20),  
 26=943(LC 19), 30=952(LC 8), 31=1780(LC 1), 31=1780(LC 1), 25=340(LC 3)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-3=-1124/825, 3-4=-1057/807, 4-5=-1032/816, 5-6=-961/787, 6-7=-605/365,  
 7-8=-512/293, 8-9=-349/173, 9-11=-277/51, 16-18=-1427/594, 18-20=-1522/452  
 BOT CHORD 2-33=-765/1085, 32-33=-765/1085, 31-32=-765/1085, 30-31=-448/657, 29-30=-437/663,  
 27-29=-437/663, 26-27=-437/663, 25-26=-173/1180, 24-25=-173/1180, 22-24=0/808,  
 20-22=-206/1063  
 WEBS 26-39=-1673/1018, 38-39=-1485/879, 37-38=-1442/847, 34-37=-1317/730,  
 34-36=-1375/789, 35-36=-1270/694, 35-40=-1304/715, 16-40=-1283/703, 16-22=-339/680,  
 18-22=-439/456, 16-24=-191/617, 24-34=-267/313, 9-39=-276/202, 6-30=-628/708,  
 5-31=-232/267, 6-31=-1297/1013

- 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; 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.
  - \* 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) 25 except (jt=lb) 20=335, 26=609, 27=211, 29=149, 30=995, 31=1461.



November 3, 2023

**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 BEFORE USE.**  
 Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI Quality Criteria and DSB-22** available from Truss Plate Institute (www.tpinst.org) and **BCSI Building Component Safety Information** available from the Structural Building Component Association (www.sbcacomponents.com)

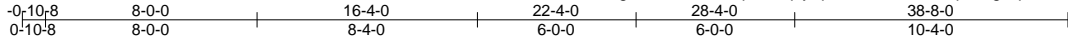
**TRENCO** ENGINEERING BY  
 A MiTek Affiliate  
 818 Soundside Road  
 Edenton, NC 27932

Job J0923-5485	Truss A2	Truss Type ROOF SPECIAL	Qty 6	Ply 1	Lot 44 Purfoy Place Job Reference (optional)	161794715
-------------------	-------------	----------------------------	----------	----------	---	-----------

Comtech, Inc. Fayetteville, NC - 28314,

8.430 s Jan 6 2022 MiTek Industries, Inc. Thu Nov 2 10:18:42 2023 Page 1

ID:ha9gMW9aHiamlxcqH30sqJytq\_X-RfC?PsB70Hq3NSgPqnL8w3ulTXbGKWRCDoi7J4zJC?f



5x8 =

Scale = 1:87.1

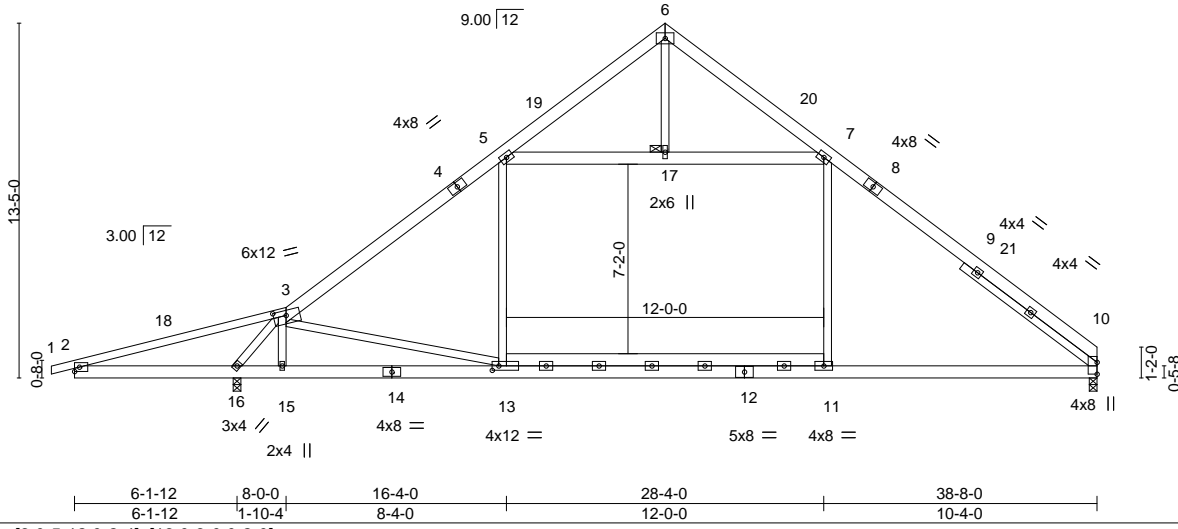


Plate Offsets (X,Y)--	[3:0-5-12,0-2-4], [13:0-3-0,0-2-0]
-----------------------	------------------------------------

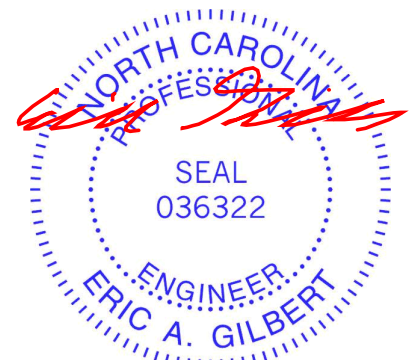
LOADING (psf)	SPACING-	CSI.	DEFL.	PLATES	GRIP
TCLL 20.0	2-0-0	TC 0.66	in (loc) l/defl L/d	MT20	244/190
TCDL 10.0	Plate Grip DOL 1.15	BC 0.73	Vert(LL) 0.59 10-11 >670 240		
BCLL 0.0 *	Lumber DOL 1.15	WB 0.62	Vert(CT) -0.50 10-11 >791 240		
BCDL 10.0	Rep Stress Incr YES	Matrix-S	Horz(CT) 0.04 10 n/a n/a		
	Code IRC2015/TP12014			Weight: 309 lb	FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x6 SP No.1 *Except* 1-3: 2x4 SP No.1	TOP CHORD Structural wood sheathing directly applied or 4-10-11 oc purlins.
BOT CHORD 2x6 SP No.1	BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.
WEBS 2x4 SP No.2 *Except* 5-7: 2x6 SP No.1	JOINTS 1 Brace at Jt(s): 17
SLIDER Right 2x4 SP No.2 6-4-5	

**REACTIONS.** (size) 16=0-3-8, 10=0-3-8  
 Max Horz 16=411(LC 9)  
 Max Uplift 16=361(LC 12), 10=208(LC 13)  
 Max Grav 16=1928(LC 2), 10=1463(LC 20)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-3=-762/1054, 3-5=-1920/543, 5-6=-435/215, 6-7=-436/212, 7-10=-2025/553  
 BOT CHORD 2-16=-957/788, 15-16=-359/1184, 13-15=-346/1182, 11-13=-176/1494, 10-11=-170/1494  
 WEBS 3-16=-2139/804, 3-15=-432/426, 3-13=-492/928, 5-13=-3/534, 7-11=-15/643,  
 5-17=-1357/608, 7-17=-1357/608

- 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) and C-C Exterior(2) -0-10-8 to 3-6-5, Interior(1) 3-6-5 to 22-4-0, Exterior(2) 22-4-0 to 26-8-13, Interior(1) 26-8-13 to 38-8-0 zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - All plates are 4x6 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, 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) 16=361, 10=208.



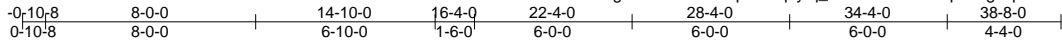
November 3, 2023

Job J0923-5485	Truss A3	Truss Type ROOF SPECIAL	Qty 2	Ply 1	Lot 44 Purfoy Place Job Reference (optional)	161794716
-------------------	-------------	----------------------------	----------	----------	---	-----------

Comtech, Inc. Fayetteville, NC - 28314,

8.430 s Jan 6 2022 MiTek Industries, Inc. Thu Nov 2 10:18:44 2023 Page 1

ID:ha9gMW9aHiamlxcqH30sqJytq\_X-RfC?PsB70Hq3NSgPqnL8w3ulTXbGKWrCDoi7J4zJC?f



5x8 =

Scale = 1:87.7

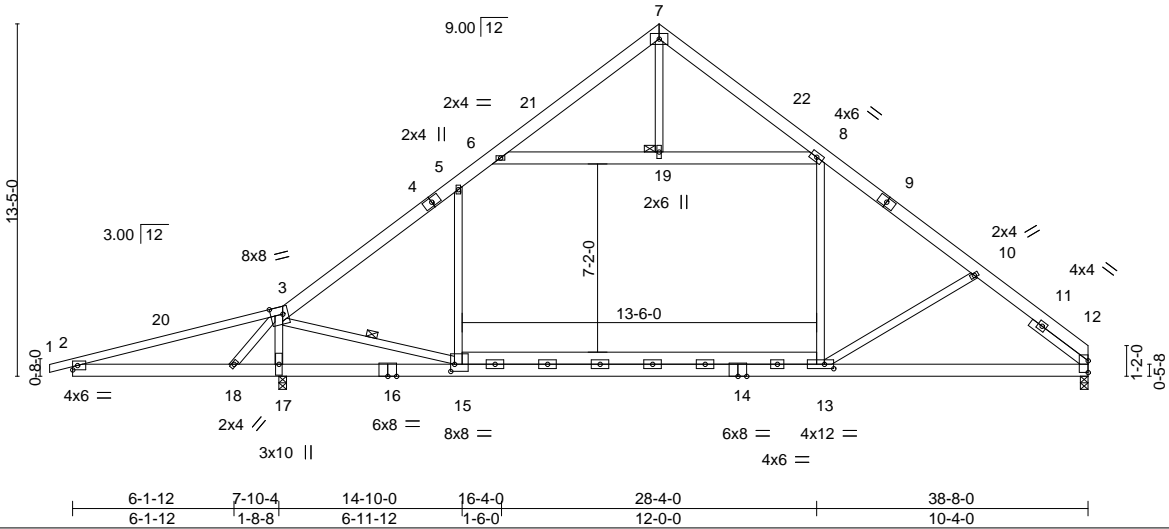


Plate Offsets (X,Y)--	[3:0-5-8,Edge], [13:0-4-4,0-2-0], [15:0-1-12,0-3-4]
-----------------------	---

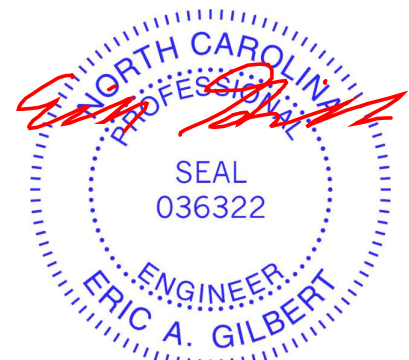
LOADING (psf)	SPACING-	CSI.	DEFL.	PLATES	GRIP
TCLL 20.0	2-0-0	TC 0.67	in (loc) l/defl L/d	MT20	244/190
TCDL 10.0	Plate Grip DOL 1.15	BC 0.61	Vert(LL) 0.41 12-13 >903 240		
BCLL 0.0 *	Lumber DOL 1.15	WB 0.56	Vert(CT) -0.59 12-13 >625 240		
BCDL 10.0	Rep Stress Incr YES	Matrix-S	Horz(CT) 0.02 12 n/a n/a		
	Code IRC2015/TPI2014		Wind(LL) 0.72 2 >130 120	Weight: 314 lb	FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x6 SP No.1 *Except* 1-3: 2x4 SP No.1	TOP CHORD Structural wood sheathing directly applied or 5-0-10 oc purlins.
BOT CHORD 2x6 SP No.1 *Except* 12-14,14-16: 2x6 SP 2400F 2.0E	BOT CHORD Rigid ceiling directly applied or 5-8-0 oc bracing.
WEBS 2x4 SP No.2 *Except* 6-8: 2x6 SP No.1	WEBS 1 Row at midpt 3-15
SLIDER Right 2x4 SP No.2 2-8-8	JOINTS 1 Brace at Jt(s): 19

REACTIONS.
(size) 17=0-3-8, 12=0-3-8
Max Horz 17=411(LC 11)
Max Uplift 17=-383(LC 12), 12=-196(LC 13)
Max Grav 17=2098(LC 2), 12=1365(LC 20)

FORCES.
(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-1285/1119, 3-5=-1633/290, 5-6=-1295/452, 6-7=-473/281, 7-8=-373/243, 8-10=-1673/391, 10-12=-1814/483
BOT CHORD 2-18=-1020/1291, 17-18=-1373/1766, 15-17=-1279/1675, 13-15=-52/1348, 12-13=-256/1311
WEBS 3-18=-700/654, 3-17=-2617/1698, 3-15=-1640/2379, 8-13=0/597, 6-19=-1075/317, 8-19=-1075/317, 10-13=-391/373, 5-15=-245/417

- 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) and C-C Exterior(2) -0-10-8 to 3-6-5, Interior(1) 3-6-5 to 22-4-0, Exterior(2) 22-4-0 to 26-8-13, Interior(1) 26-8-13 to 38-8-0 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 4x8 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, 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) 17=383, 12=196.

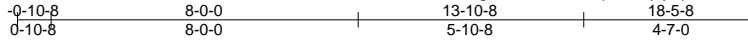


Job J0923-5485	Truss A4	Truss Type ROOF SPECIAL	Qty 7	Ply 1	Lot 44 Purfoy Place Job Reference (optional)	161794717
-------------------	-------------	----------------------------	----------	----------	---	-----------

Comtech, Inc. Fayetteville, NC - 28314,

8.430 s Jan 6 2022 MiTek Industries, Inc. Thu Nov 2 10:18:45 2023 Page 1

ID:ha9gMW9aHiamlxcqH30sqJytq\_X-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f



Scale = 1:60.0

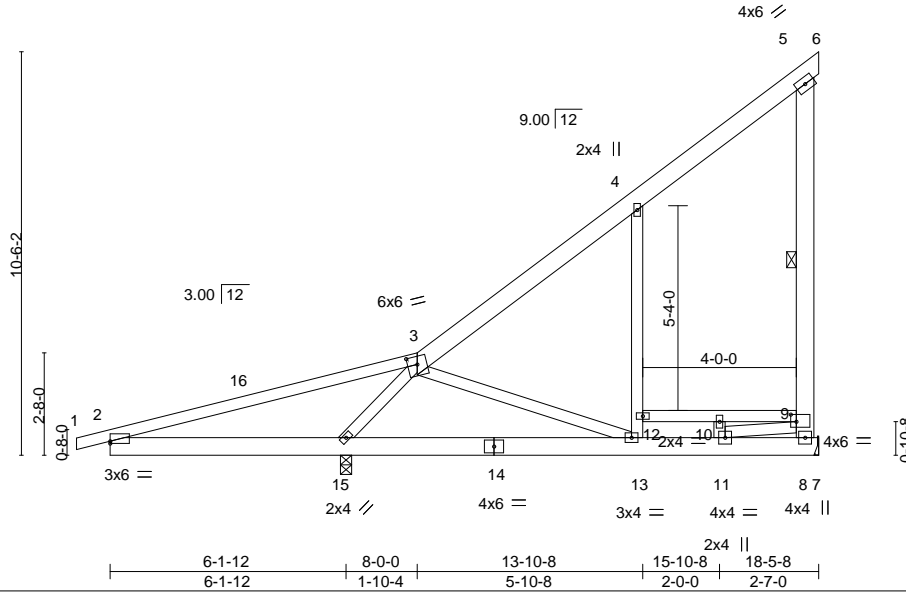


Plate Offsets (X, Y)--	[2:0-0-0,0-0-11], [3:0-3-0,0-2-8], [9:0-1-12,0-2-4]
------------------------	---

LOADING (psf)	SPACING-	CSI.	DEFL.	PLATES	GRIP
TCLL 20.0	2-0-0	TC 0.65	in (loc) l/defl L/d	MT20	244/190
TCDL 10.0	Plate Grip DOL 1.15	BC 0.40	Vert(LL) -0.16 13-15 >910 240		
BCLL 0.0 *	Lumber DOL 1.15	WB 0.54	Vert(CT) -0.25 13-15 >580 180		
BCDL 10.0	Rep Stress Incr YES	Matrix-S	Horz(CT) 0.00 8 n/a n/a		
	Code IRC2015/TP12014			Weight: 141 lb	FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x4 SP No.1 *Except* 3-6: 2x6 SP No.1	TOP CHORD Structural wood sheathing directly applied or 4-6-9 oc purlins, except end verticals.
BOT CHORD 2x6 SP No.1 *Except* 9-12: 2x4 SP No.1	BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.
WEBS 2x4 SP No.2 *Except* 5-8: 2x6 SP No.1	WEBS 1 Row at midpt 5-8

**REACTIONS.** (size) 8=Mechanical, 15=0-3-8  
 Max Horz 15=429(LC 12)  
 Max Uplift 8=-216(LC 12), 15=-350(LC 8)  
 Max Grav 8=930(LC 19), 15=1173(LC 1)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-3=-1532/1023, 3-4=-375/142, 8-9=-782/264, 5-9=-309/150  
 BOT CHORD 2-15=-924/1527, 13-15=-198/444, 11-13=-127/467, 8-11=-598/208, 10-12=-344/92,  
 9-10=-344/92  
 WEBS 3-15=-1150/859, 12-13=-262/349, 4-12=-231/355, 3-13=-478/251, 9-11=-356/1124

- NOTES-**
- 1) 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) -0-10-8 to 3-6-5, Interior(1) 3-6-5 to 18-5-8 zone; cantilever left exposed ;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - 2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - 3) \* This truss has been designed for a live load of 30.0psf on the bottom chord in all areas 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.
  - 4) Refer to girder(s) for truss to truss connections.
  - 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 8=216, 15=350.



November 3, 2023

Job	Truss	Truss Type	Qty	Ply	Lot 44 Purfoy Place	161794718
J0923-5485	A4GE	GABLE	1	1	Job Reference (optional)	

Comtech, Inc. Fayetteville, NC - 28314,

8.430 s Jan 6 2022 MiTek Industries, Inc. Thu Nov 2 10:18:46 2023 Page 1

ID:ha9gMW9aHiamlxcqH30sqJytq\_X-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f



Scale = 1:57.4

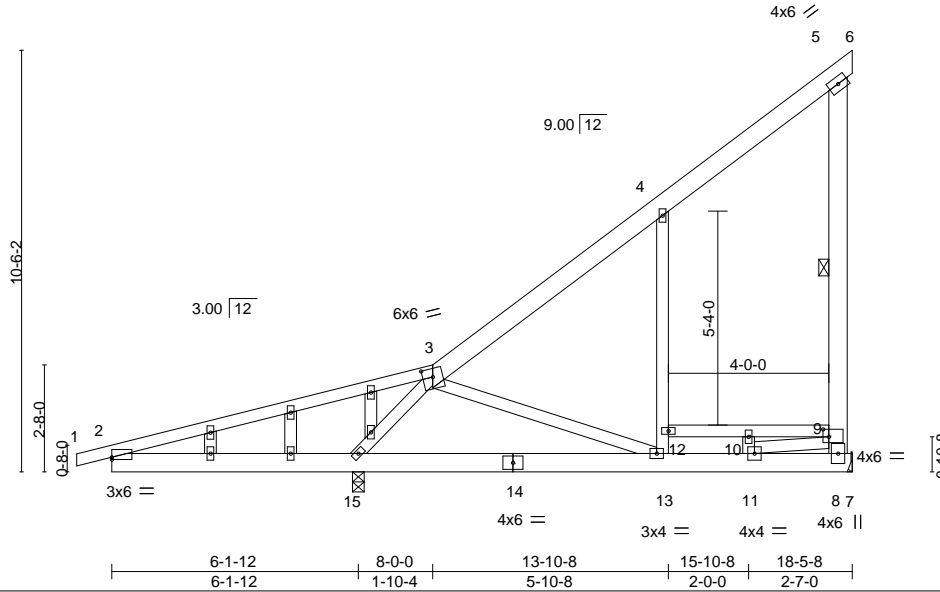


Plate Offsets (X,Y)--	[2:0-0-0,0-0-11], [3:0-3-0,0-2-8], [9:0-1-12,0-2-4]
-----------------------	---

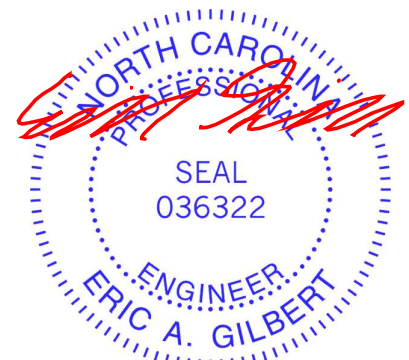
LOADING (psf)	SPACING-	CSI.	DEFL.	PLATES	GRIP
TCLL 20.0	2-0-0	TC 0.65	in (loc) l/defl L/d	MT20	244/190
TCDL 10.0	Plate Grip DOL 1.15	BC 0.42	Vert(LL) 0.21 13-15 >712 240		
BCLL 0.0 *	Lumber DOL 1.15	WB 0.58	Vert(CT) -0.29 13-15 >502 180		
BCDL 10.0	Rep Stress Incr YES	Matrix-S	Horz(CT) 0.00 8 n/a n/a		
	Code IRC2015/TPI2014			Weight: 145 lb	FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x4 SP No.1 *Except* 3-6: 2x6 SP No.1	TOP CHORD Structural wood sheathing directly applied or 4-2-8 oc purlins, except end verticals.
BOT CHORD 2x6 SP No.1 *Except* 9-12: 2x4 SP No.1	BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.
WEBS 2x4 SP No.2 *Except* 5-8: 2x6 SP No.1	WEBS 1 Row at midpt 5-8
OTHERS 2x4 SP No.2	

**REACTIONS.** (size) 8=Mechanical, 15=0-3-8  
 Max Horz 15=617(LC 12)  
 Max Uplift 8=-380(LC 12), 15=-545(LC 8)  
 Max Grav 8=974(LC 19), 15=1173(LC 1)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-3=-1567/1023, 3-4=-414/142, 8-9=-833/435, 5-9=-309/232  
 BOT CHORD 2-15=-924/1568, 13-15=-258/507, 11-13=-214/504, 8-11=-647/338, 10-12=-371/155,  
 9-10=-371/155  
 WEBS 3-15=-1150/937, 12-13=-262/386, 4-12=-231/391, 3-13=-449/251, 9-11=-586/1221

- NOTES-**
- 1) 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; cantilever left exposed ;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - 2) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
  - 3) All plates are 2x4 MT20 unless otherwise indicated.
  - 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, with BCDL = 10.0psf.
  - 7) Refer to girder(s) for truss to truss connections.
  - 8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 8=380, 15=545.



November 3, 2023

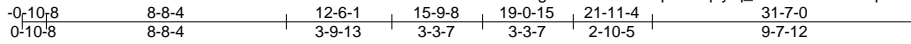


Job J0923-5485	Truss B1	Truss Type ATTIC	Qty 2	Ply 1	Lot 44 Purfoy Place Job Reference (optional)	161794719
-------------------	-------------	---------------------	----------	----------	---	-----------

Comtech, Inc. Fayetteville, NC - 28314,

8.430 s Jan 6 2022 MiTek Industries, Inc. Thu Nov 2 10:18:47 2023 Page 1

ID:ha9gMW9aHiamlxcqH30sqJytq\_X-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f



6x8 =

Scale = 1:83.4

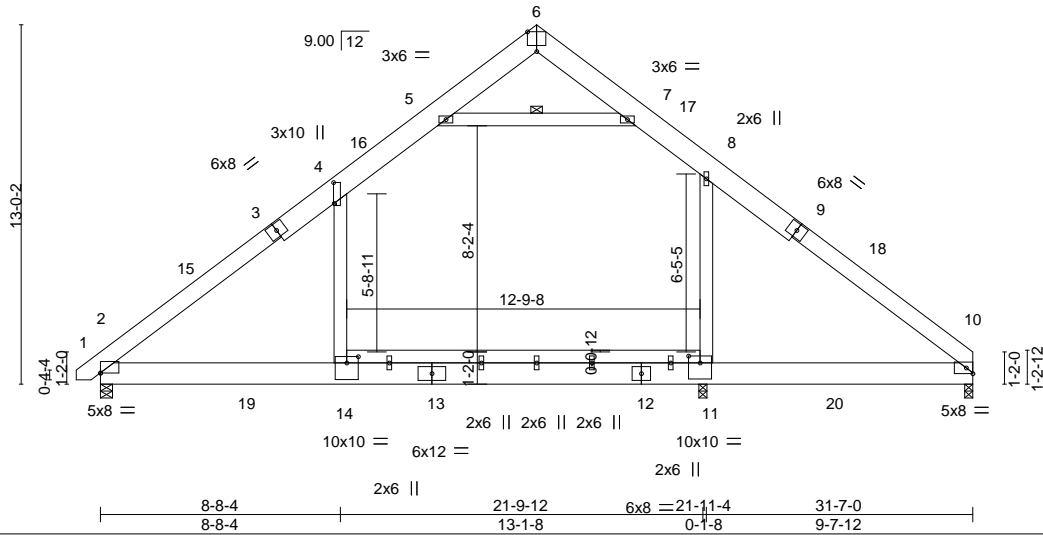


Plate Offsets (X,Y)--	[2:0-0,0,0-2], [4:0-9,1,0-4], [6:0-4,0,Edge], [11:0-5,0,0-3,0], [14:0-5,0,0-2-12]
-----------------------	---

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 0.74	Vert(LL)	-0.24 11-14	>999	360	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.87	Vert(CT)	-0.41 11-14	>637	240		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.35	Horz(CT)	0.03 10	n/a	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-S	Wind(LL)	0.09 14	>999	240	Weight: 348 lb	FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x10 SP No.1 *Except* 1-3,9-10: 2x8 SP No.1	TOP CHORD Structural wood sheathing directly applied or 4-6-10 oc purlins.
BOT CHORD 2x10 SP No.1 *Except* 11-14: 2x6 SP No.1	BOT CHORD Rigid ceiling directly applied or 9-4-10 oc bracing.
WEBS 2x6 SP No.1	WEBS 1 Row at midpt 5-7

**REACTIONS.** (size) 2=0-5-4, 11=0-3-8, 10=0-3-8  
 Max Horz 2=292(LC 9)  
 Max Uplift 11=227(LC 8)  
 Max Grav 2=2013(LC 20), 11=881(LC 21), 10=1735(LC 20)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-4=-2571/0, 4-5=-1747/121, 5-6=-17/513, 6-7=0/449, 7-8=-1785/148, 8-10=-2647/0  
 BOT CHORD 2-14=0/1945, 11-14=0/1945, 10-11=0/1945  
 WEBS 4-14=0/1116, 8-11=-175/982, 5-7=-2452/180

- NOTES-**
- 1) Unbalanced roof live loads have been considered for this design.
  - 2) Wind: ASCE 7-10; Vult=130mph Vasd=103mph; TC DL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2) -0-7-5 to 3-9-8, Interior(1) 3-9-8 to 15-9-8, Exterior(2) 15-9-8 to 20-2-5, Interior(1) 20-2-5 to 31-5-4 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, with BCDL = 10.0psf.
  - 5) Ceiling dead load (10.0 psf) on member(s), 4-5, 7-8, 5-7; Wall dead load (5.0psf) on member(s), 4-14, 8-11
  - 6) Bottom chord live load (40.0 psf) and additional bottom chord dead load (10.0 psf) applied only to room. 11-14
  - 7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 11=227.
  - 8) Attic room checked for L/360 deflection.



November 3, 2023

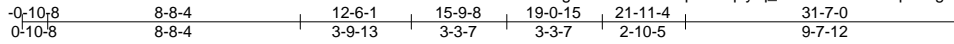


Job J0923-5485	Truss B1GE	Truss Type GABLE	Qty 1	Ply 1	Lot 44 Purfoy Place 161794721
-------------------	---------------	---------------------	----------	----------	----------------------------------

Comtech, Inc. Fayetteville, NC - 28314,

8.430 s Jan 6 2022 MiTek Industries, Inc. Thu Nov 2 10:18:49 2023 Page 1

ID:ha9gMW9aHiamlxcqH30sqJytq\_X-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f



8x8 =

Scale = 1:79.3

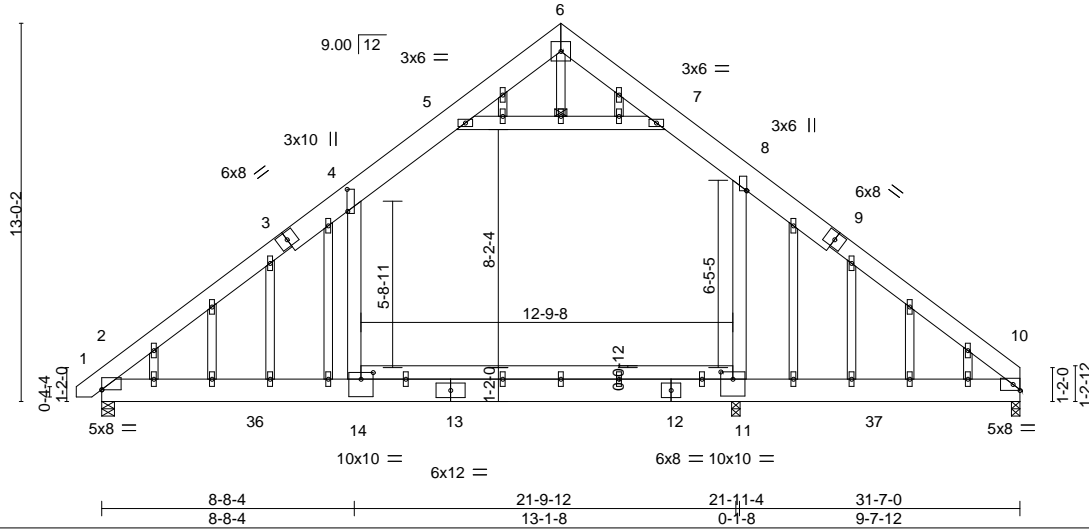


Plate Offsets (X,Y)--	[2:0-0,0,0-2], [4:0-9-1,0-0-4], [8:0-0-3,Edge], [11:0-5-0,0-3-0], [14:0-5-0,0-2-12]
-----------------------	---

LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL 1.15	TC 0.74	Vert(LL) -0.24	11-14	>999	360	MT20	244/190
TCDL 10.0	Lumber DOL 1.15	BC 0.87	Vert(CT) -0.41	11-14	>637	240		
BCLL 0.0 *	Rep Stress Incr YES	WB 0.35	Horz(CT) 0.03	10	n/a	n/a		
BCDL 10.0	Code IRC2015/TPI2014	Matrix-S	Wind(LL) 0.13	14	>999	240		
							Weight: 393 lb	FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x10 SP No.1 *Except* 1-3,9-10: 2x8 SP No.1	TOP CHORD Structural wood sheathing directly applied or 4-4-7 oc purlins.
BOT CHORD 2x10 SP No.1 *Except* 11-14: 2x6 SP No.1	BOT CHORD Rigid ceiling directly applied or 9-4-10 oc bracing.
WEBS 2x6 SP No.1	WEBS 1 Row at midpt 5-7
OTHERS 2x4 SP No.2	

**REACTIONS.** (size) 2=0-5-4, 11=0-3-8, 10=0-3-8  
 Max Horz 2=365(LC 9)  
 Max Uplift 2=-93(LC 12), 11=-315(LC 8), 10=-118(LC 12)  
 Max Grav 2=2032(LC 20), 11=941(LC 21), 10=1765(LC 20)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-4=-2586/0, 4-5=-1763/196, 5-6=-74/526, 6-7=-19/449, 7-8=-1809/251,  
 8-10=-2711/199  
 BOT CHORD 2-14=-25/2004, 11-14=-24/2004, 10-11=-24/2004  
 WEBS 4-14=0/1116, 8-11=-260/1001, 5-7=-2489/371

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-10; Vult=130mph Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
  - All plates are 2x6 MT20 unless otherwise indicated.
  - Gable studs spaced at 2-0-0 oc.
  - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - \* This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
  - Ceiling dead load (10.0 psf) on member(s). 4-5, 7-8, 5-7; Wall dead load (5.0psf) on member(s). 4-14, 8-11
  - Bottom chord live load (40.0 psf) and additional bottom chord dead load (10.0 psf) applied only to room. 11-14
  - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2 except (jt=lb) 11=315, 10=118.
  - Attic room checked for L/360 deflection.



November 3, 2023

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

Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPH Quality Criteria and DSB-22** available from Truss Plate Institute (www.tpinst.org) and **BCSI Building Component Safety Information** available from the Structural Building Component Association (www.sbcacomponents.com)

**ENGINEERING BY**  
**TRENCO**  
 A MITEK Affiliate

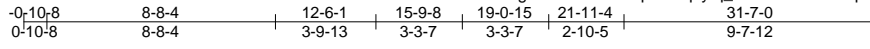
818 Soundside Road  
 Edenton, NC 27932

Job J0923-5485	Truss B2-GR	Truss Type ATTIC	Qty 1	Ply 2	Lot 44 Purfoy Place 161794722
-------------------	----------------	---------------------	----------	----------	----------------------------------

Comtech, Inc. Fayetteville, NC - 28314,

8.430 s Jan 6 2022 MiTek Industries, Inc. Thu Nov 2 10:18:51 2023 Page 1

ID:ha9gMW9aHiamlxcqH30sqJytq\_X-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWRCDoi7J4zJC?f



Scale = 1:87.6

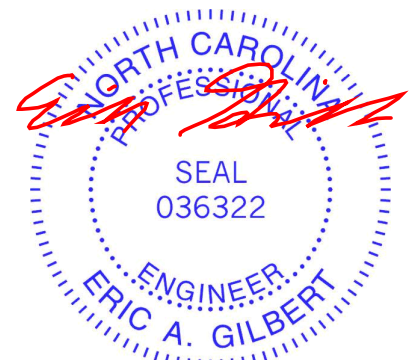
Plate Offsets (X, Y)--	[6:0-4-0,Edge]						
<b>LOADING</b> (psf)	<b>SPACING-</b>	3-0-0	<b>CSI.</b>	<b>DEFL.</b>	in (loc)	l/defl	L/d
TCLL 20.0	Plate Grip DOL	1.15	TC 0.64	Vert(LL)	-0.18 11-14	>999	360
TCDL 10.0	Lumber DOL	1.15	BC 0.72	Vert(CT)	-0.31 11-14	>849	240
BCLL 0.0 *	Rep Stress Incr	NO	WB 0.24	Horz(CT)	0.02 10	n/a	n/a
BCDL 10.0	Code IRC2015/TP12014		Matrix-S	Wind(LL)	0.07 14	>999	240
							Weight: 697 lb FT = 20%

<b>LUMBER-</b>	<b>BRACING-</b>
TOP CHORD 2x10 SP No.1 *Except* 1-3,9-10: 2x8 SP No.1	TOP CHORD 2-0-0 oc purlins (6-0-0 max.) (Switched from sheeted: Spacing > 2-8-0).
BOT CHORD 2x10 SP No.1 *Except* 11-14: 2x6 SP No.1	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 2x6 SP No.1	

**REACTIONS.** (size) 2=0-5-4, 11=0-3-8, 10=0-3-8  
 Max Horz 2=438(LC 9)  
 Max Uplift 11=340(LC 8)  
 Max Grav 2=3019(LC 20), 11=1321(LC 21), 10=2602(LC 20)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-4=-3857/0, 4-5=-2621/181, 5-6=-26/770, 6-7=0/674, 7-8=-2678/221, 8-10=-3971/0  
 BOT CHORD 2-14=0/2917, 11-14=0/2918, 10-11=0/2917  
 WEBS 4-14=0/1674, 8-11=-263/1473, 5-7=-3678/270

- NOTES-**
- 2-ply truss to be connected together with 10d (0.131"x3") nails as follows:  
 Top chords connected as follows: 2x8 - 2 rows staggered at 0-9-0 oc, 2x10 - 2 rows staggered at 0-9-0 oc.  
 Bottom chords connected as follows: 2x10 - 2 rows staggered at 0-9-0 oc.  
 Webs connected as follows: 2x6 - 2 rows staggered at 0-9-0 oc.
  - All loads are considered equally applied to all plies, except if noted as front (F) or back (B) face in the LOAD CASE(S) section. Ply to ply connections have been provided to distribute only loads noted as (F) or (B), unless otherwise indicated.
  - Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-10; Vult=130mph Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2) -0-7-5 to 3-9-8, Interior(1) 3-9-8 to 15-9-8, Exterior(2) 15-9-8 to 20-2-5, Interior(1) 20-2-5 to 31-5-4 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, with BCDL = 10.0psf.
  - Ceiling dead load (10.0 psf) on member(s). 4-5, 7-8, 5-7; Wall dead load (5.0psf) on member(s). 4-14, 8-11
  - Bottom chord live load (40.0 psf) and additional bottom chord dead load (10.0 psf) applied only to room. 11-14
  - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 11=340.
  - Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
  - Attic room checked for L/360 deflection.



November 3, 2023

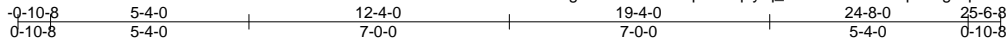
<p><b>WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 BEFORE USE.</b></p> <p>Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. 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/TP1 Quality Criteria and DSB-22</b> available from Truss Plate Institute (www.tpinst.org) and <b>BCSI Building Component Safety Information</b> available from the Structural Building Component Association (www.sbcacomponents.com)</p>	<p>ENGINEERING BY</p> <p><b>TRENCO</b></p> <p>A MITEK Affiliate</p> <p>818 Soundside Road Edenton, NC 27932</p>
--	---

Job J0923-5485	Truss C1	Truss Type COMMON	Qty 3	Ply 1	Lot 44 Purfoy Place Job Reference (optional)	161794723
-------------------	-------------	----------------------	----------	----------	---	-----------

Comtech, Inc. Fayetteville, NC - 28314,

8.430 s Jan 6 2022 MiTek Industries, Inc. Thu Nov 2 10:18:53 2023 Page 1

ID:ha9gMW9aHiamlxcqH30sqJytq\_X-RfC?PsB70Hq3NSgPqnL8w3ulTXbGKWrCDoi7J4zJC?f



5x5 =

Scale = 1:61.9

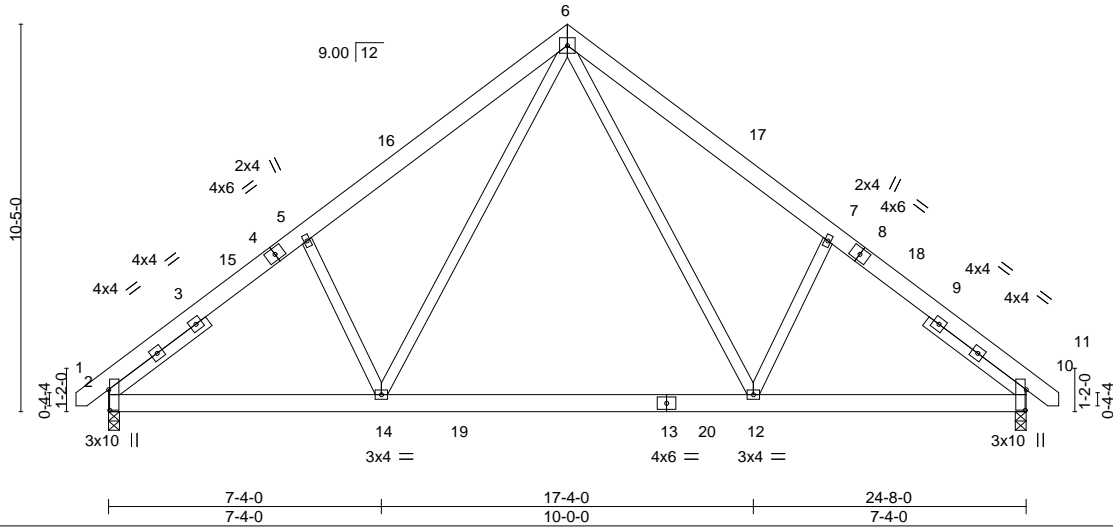


Plate Offsets (X,Y)--	[2:0-6-10,0-0-5], [10:0-6-10,0-0-5]				
<b>LOADING</b> (psf)	<b>SPACING-</b> 2-0-0	<b>CSI.</b>	<b>DEFL.</b> in (loc) l/defl L/d	<b>PLATES</b>	<b>GRIP</b>
TCLL 20.0	Plate Grip DOL 1.15	TC 0.24	Vert(LL) -0.17 12-14 >999 360	MT20	244/190
TCDL 10.0	Lumber DOL 1.15	BC 0.45	Vert(CT) -0.24 12-14 >999 240		
BCLL 0.0 *	Rep Stress Incr YES	WB 0.51	Horz(CT) 0.02 10 n/a n/a		
BCDL 10.0	Code IRC2015/TP12014	Matrix-S	Wind(LL) 0.03 12-14 >999 240	Weight: 191 lb	FT = 20%

**LUMBER-**  
TOP CHORD 2x6 SP No.1  
BOT CHORD 2x6 SP No.1  
WEBS 2x4 SP No.2  
SLIDER Left 2x4 SP No.2 3-4-1, Right 2x4 SP No.2 3-4-1

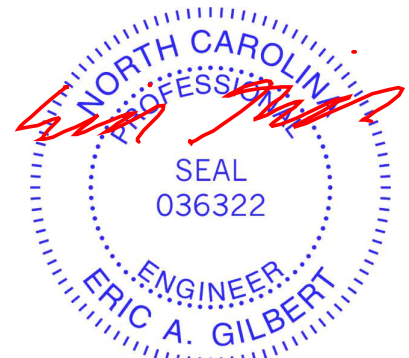
**BRACING-**  
TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS.** (size) 2=0-3-8, 10=0-3-8  
Max Horz 2=316(LC 9)  
Max Uplift 2=-175(LC 12), 10=-175(LC 13)  
Max Grav 2=1098(LC 19), 10=1098(LC 20)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
TOP CHORD 2-5=-1411/495, 5-6=-1426/621, 6-7=-1426/621, 7-10=-1411/495  
BOT CHORD 2-14=-248/1221, 12-14=-23/785, 10-12=-244/1014  
WEBS 6-12=-239/693, 7-12=-443/362, 6-14=-239/693, 5-14=-443/362

**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) -0-8-12 to 3-8-1, Interior(1) 3-8-1 to 12-4-0, Exterior(2) 12-4-0 to 16-8-13, Interior(1) 16-8-13 to 25-4-12 zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 4) \* This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=175, 10=175.



November 3, 2023

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

Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPH Quality Criteria and DSB-22** available from Truss Plate Institute (www.tpinst.org) and **BCSI Building Component Safety Information** available from the Structural Building Component Association (www.sbcacomponents.com)



818 Soundside Road  
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Lot 44 Purfoy Place	161794724
J0923-5485	C1GE	GABLE	1	1		
Comtech, Inc. Fayetteville, NC - 28314,						8.430 s Jan 6 2022 MiTek Industries, Inc. Thu Nov 2 10:18:55 2023 Page 1
						ID:ha9gMW9aHiamlxcqH30sqJytq_X-RfC?PsB70Hq3NSgPqnL8w3ulTXbGKWrCDoi7J4zJC?f
						Job Reference (optional)



5x5 =

Scale = 1:61.9

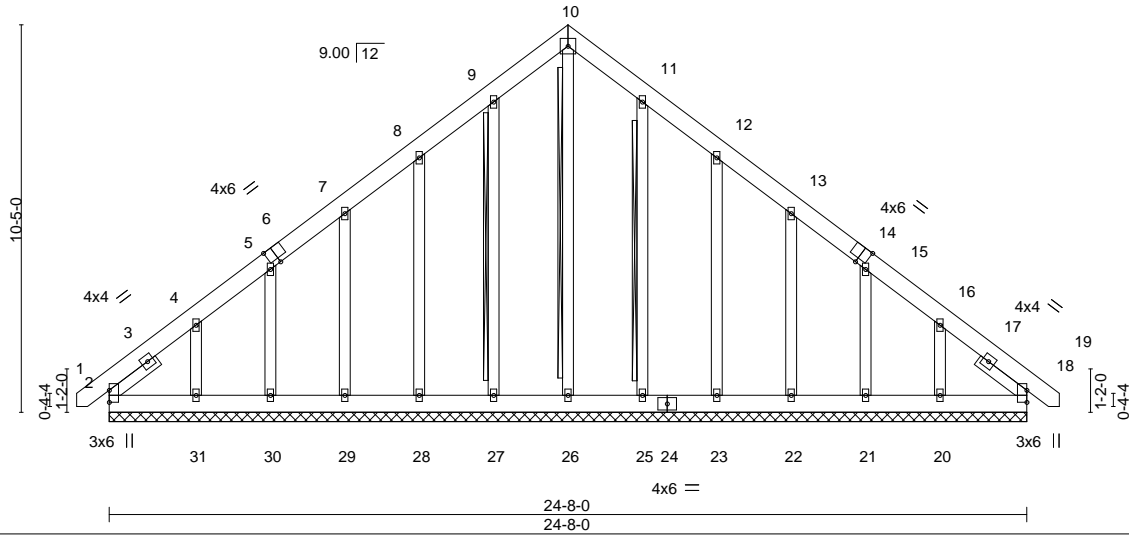


Plate Offsets (X, Y)--	[6:0-2-13,Edge], [14:0-2-13,Edge]
------------------------	-----------------------------------

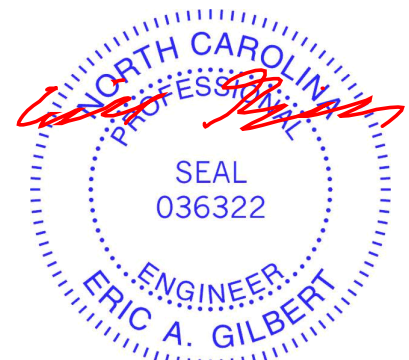
LOADING (psf)	SPACING-	CSI.	DEFL.	PLATES	GRIP
TCLL 20.0	2-0-0	TC 0.06	in (loc) l/defl L/d	MT20	244/190
TCDL 10.0	Plate Grip DOL 1.15	BC 0.05	Vert(LL) 0.00 18 n/r 120		
BCLL 0.0 *	Lumber DOL 1.15	WB 0.16	Vert(CT) 0.00 18 n/r 120		
BCDL 10.0	Rep Stress Incr YES	Matrix-S	Horz(CT) 0.01 18 n/a n/a		
	Code IRC2015/TPI2014			Weight: 229 lb	FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x6 SP No.1	TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins.
BOT CHORD 2x6 SP No.1	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
OTHERS 2x4 SP No.2	WEBS T-Brace: 2x4 SPF No.2 - 10-26, 9-27, 11-25
SLIDER Left 2x4 SP No.2 1-7-8, Right 2x4 SP No.2 1-7-8	Fasten (2X) T and I braces to narrow edge of web with 10d (0.131"x3") nails, 6in o.c., with 3in minimum end distance. Brace must cover 90% of web length.

**REACTIONS.** All bearings 24-8-0.  
 (lb) - Max Horz 2=394(LC 9)  
 Max Uplift All uplift 100 lb or less at joint(s) 18, 25 except 2=152(LC 8), 27=105(LC 12), 28=163(LC 12), 29=151(LC 12), 30=114(LC 12), 31=312(LC 12), 23=167(LC 13), 22=151(LC 13), 21=118(LC 13), 20=290(LC 13)  
 Max Grav All reactions 250 lb or less at joint(s) 18, 27, 28, 29, 30, 25, 23, 22, 21 except 2=281(LC 20), 26=273(LC 13), 31=288(LC 19), 20=263(LC 20)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-4=-423/309, 8-9=-252/291, 9-10=-311/338, 10-11=-311/338, 11-12=-252/262, 16-18=-342/195  
 BOT CHORD 2-31=-195/312, 30-31=-195/312, 29-30=-195/312, 28-29=-195/312, 27-28=-195/312, 26-27=-195/312, 25-26=-195/312, 23-25=-195/312, 22-23=-195/312, 21-22=-195/312, 20-21=-195/312, 18-20=-195/312  
 WEBS 10-26=-254/182, 4-31=-283/304, 16-20=-283/285

- 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) 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) 18, 25 except (jt=lb) 2=152, 27=105, 28=163, 29=151, 30=114, 31=312, 23=167, 22=151, 21=118, 20=290.
  - 10) Warning: Additional permanent and stability bracing for truss system (not part of this component design) is always required.

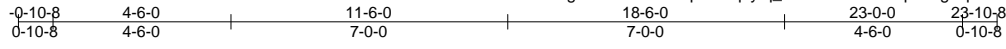


Job J0923-5485	Truss D1	Truss Type COMMON	Qty 6	Ply 1	Lot 44 Purfoy Place 161794725
-------------------	-------------	----------------------	----------	----------	----------------------------------

Comtech, Inc. Fayetteville, NC - 28314,

8.430 s Jan 6 2022 MiTek Industries, Inc. Thu Nov 2 10:18:56 2023 Page 1

ID:ha9gMW9aHiamlxcqH30sqJytq\_X-RfC?PsB70Hq3NSgPqnL8w3ulTXbGKWrCDoi7J4zJC?f



5x5 =

Scale = 1:58.3

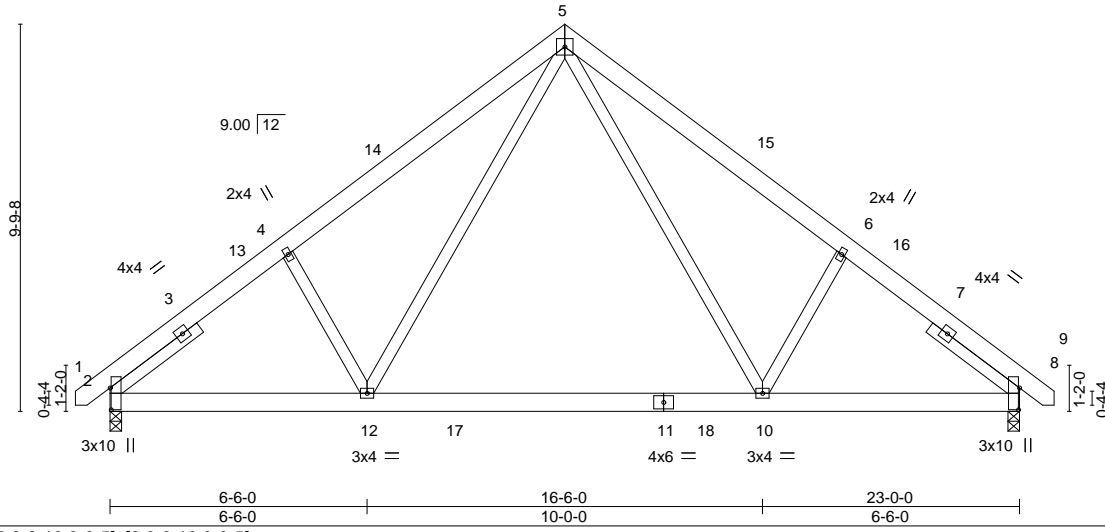


Plate Offsets (X,Y)--	[2:0-6-10,0-0-5], [8:0-6-10,0-0-5]
-----------------------	------------------------------------

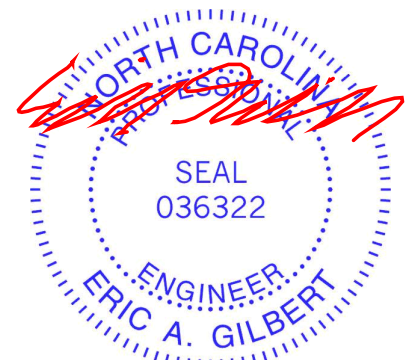
LOADING (psf)	SPACING-	CSI.	DEFL.	PLATES	GRIP
TCLL 20.0	2-0-0	TC 0.24	in (loc) l/defl L/d	MT20	244/190
TCDL 10.0	Plate Grip DOL 1.15	BC 0.43	Vert(LL) -0.16 10-12 >999 360		
BCLL 0.0 *	Lumber DOL 1.15	WB 0.40	Vert(CT) -0.22 10-12 >999 240		
BCDL 10.0	Rep Stress Incr YES	Matrix-S	Horz(CT) 0.02 8 n/a n/a		
	Code IRC2015/TP12014		Wind(LL) 0.03 10-12 >999 240	Weight: 177 lb	FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x6 SP No.1	TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins.
BOT CHORD 2x6 SP No.1	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 2x4 SP No.2	
SLIDER Left 2x4 SP No.2 2-9-13, Right 2x4 SP No.2 2-9-13	

**REACTIONS.** (size) 2=0-3-8, 8=0-3-8  
 Max Horz 2=296(LC 9)  
 Max Uplift 2=-164(LC 12), 8=-164(LC 13)  
 Max Grav 2=1029(LC 19), 8=1029(LC 20)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-4=-1332/473, 4-5=-1328/573, 5-6=-1328/573, 6-8=-1332/473  
 BOT CHORD 2-12=-251/1157, 10-12=-24/730, 8-10=-247/946  
 WEBS 5-10=-208/643, 6-10=-399/338, 5-12=-208/643, 4-12=-399/338

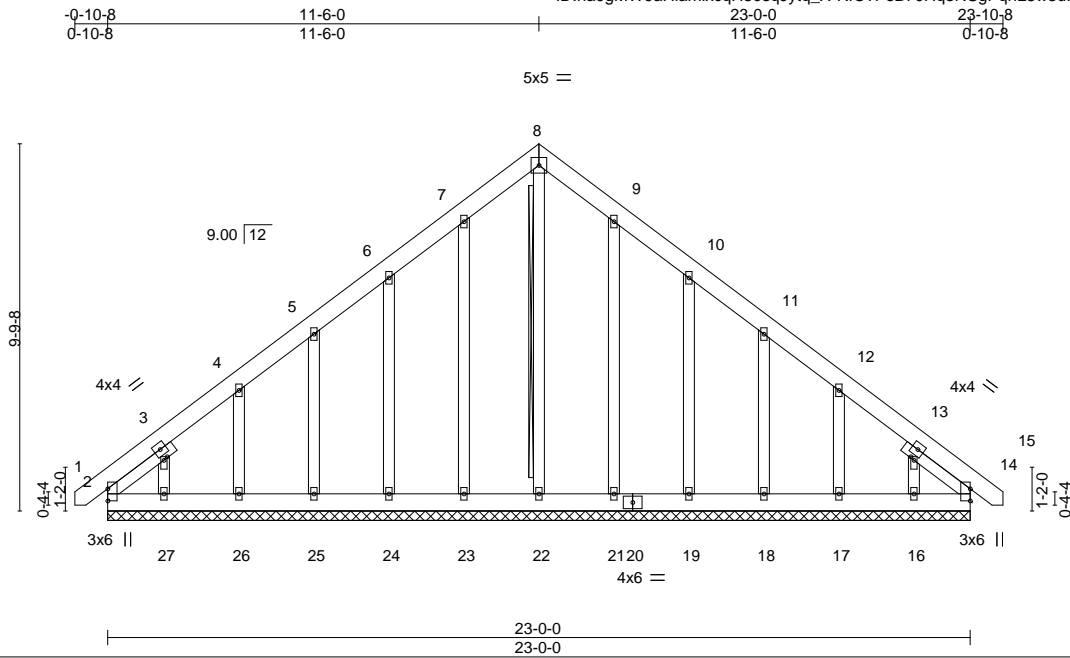
- NOTES-**
- 1) Unbalanced roof live loads have been considered for this design.
  - 2) Wind: ASCE 7-10; Vult=150mph Vasd=119mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2) -0-8-12 to 3-8-1, Interior(1) 3-8-1 to 11-6-0, Exterior(2) 11-6-0 to 15-10-13, Interior(1) 15-10-13 to 23-8-12 zone;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - 3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - 4) \* This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
  - 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=164, 8=164.



November 3, 2023

<p><b>WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 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/TPH Quality Criteria and DSB-22</b> available from Truss Plate Institute (www.tpinst.org) and <b>BCSI Building Component Safety Information</b> available from the Structural Building Component Association (www.sbcacomponents.com)</p>	<p>ENGINEERING BY</p> <p><b>TRENCO</b></p> <p>A MiTek Affiliate</p> <p>818 Soundside Road Edenton, NC 27932</p>
--	---

Job	Truss	Truss Type	Qty	Ply	Lot 44 Purfoy Place	161794726
J0923-5485	D1GE	COMMON SUPPORTED GAB	1	1		
Comtech, Inc. Fayetteville, NC - 28314,						8.430 s Jan 6 2022 MiTek Industries, Inc. Thu Nov 2 10:18:58 2023 Page 1
						ID:ha9gMW9aHiamlxcqH30sqJytq_X-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f
						Job Reference (optional)



Scale = 1:61.4

Plate Offsets (X, Y)--	[28:0-1-2,0-1-0], [29:0-1-2,0-1-0]				
<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 0.08	Vert(LL) 0.00 14 n/r 120	MT20	244/190
TCDL 10.0	Lumber DOL 1.15	BC 0.07	Vert(CT) 0.00 14 n/r 120		
BCLL 0.0 *	Rep Stress Incr YES	WB 0.15	Horz(CT) 0.01 14 n/a n/a		
BCDL 10.0	Code IRC2015/TPI2014	Matrix-S			
				Weight: 210 lb	FT = 20%

<b>LUMBER-</b>	<b>BRACING-</b>
TOP CHORD 2x6 SP No.1	TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins.
BOT CHORD 2x6 SP No.1	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
OTHERS 2x4 SP No.2	WEBS T-Brace: 2x4 SPF No.2 - 8-22
SLIDER Left 2x4 SP No.2 2-2-2, Right 2x4 SP No.2 2-2-2	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 23-0-0.  
 (lb) - Max Horz 2=369(LC 9)  
 Max Uplift All uplift 100 lb or less at joint(s) 22, 27, 21, 16, 14 except 2=141(LC 8), 23=106(LC 12), 24=166(LC 12), 25=110(LC 12), 26=278(LC 12), 19=169(LC 13), 18=113(LC 13), 17=268(LC 13)  
 Max Grav All reactions 250 lb or less at joint(s) 23, 24, 25, 27, 21, 19, 18, 16, 14 except 2=276(LC 20), 22=278(LC 13), 26=283(LC 19), 17=271(LC 20)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-4=-315/257, 6-7=-265/293, 7-8=-325/345, 8-9=-325/345, 9-10=-265/268  
 BOT CHORD 2-27=-153/271, 26-27=-153/271, 25-26=-153/271, 24-25=-153/271, 23-24=-153/271, 22-23=-153/271, 21-22=-153/271, 19-21=-153/271, 18-19=-153/271, 17-18=-153/271, 16-17=-153/271, 14-16=-153/271  
 WEBS 8-22=-264/199, 4-26=-322/323, 12-17=-321/311

- 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; 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) 22, 27, 21, 16, 14 except (jt=lb) 2=141, 23=106, 24=166, 25=110, 26=278, 19=169, 18=113, 17=268.
  - Warning: Additional permanent and stability bracing for truss system (not part of this component design) is always required.



November 3, 2023

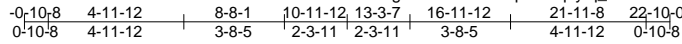


Job J0923-5485	Truss G1	Truss Type ATTIC	Qty 4	Ply 1	Lot 44 Purfoy Place 161794727
-------------------	-------------	---------------------	----------	----------	----------------------------------

Comtech, Inc. Fayetteville, NC - 28314,

8.430 s Jan 6 2022 MiTek Industries, Inc. Thu Nov 2 10:18:59 2023 Page 1

ID:ha9gMW9aHiamlxcqH30sqJytq\_X-RfC?PsB70Hq3NSgPqnL8w3uITXBGKWRCDoi7J4zJC?f



6x8 =

Scale = 1:84.6

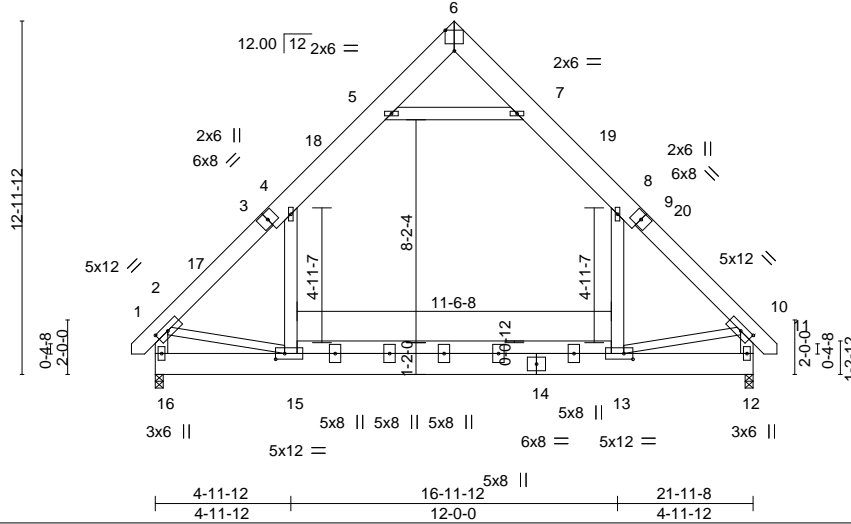


Plate Offsets (X,Y)--	[2:0-5-4,0-2-8], [6:0-4-0,Edge], [10:0-5-4,0-2-8], [13:0-4-0,0-2-8], [15:0-4-0,0-2-8]
-----------------------	---

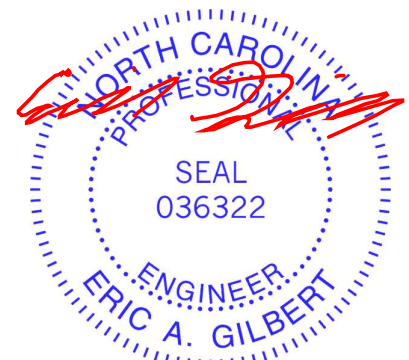
LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL	1.15	TC 0.42	Vert(LL)	-0.11	13-15	>999	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.44	Vert(CT)	-0.18	13-15	>999		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.18	Horz(CT)	0.00	12	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-S	Wind(LL)	0.03	15	>999	Weight: 289 lb	FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x10 SP No.1 *Except* 1-3,9-11: 2x8 SP No.1	TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.
BOT CHORD 2x10 SP No.1 *Except* 13-15: 2x6 SP No.1	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 2x6 SP No.1 *Except* 2-15,10-13: 2x4 SP No.2	This truss requires both edges of the bottom chord be sheathed in the room area.

**REACTIONS.** (size) 16=0-3-8, 12=0-3-8  
Max Horz 16=276(LC 10)  
Max Grav 16=1479(LC 21), 12=1479(LC 20)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
TOP CHORD 2-4=-1619/0, 4-5=-997/157, 5-6=-12/311, 6-7=-12/311, 7-8=-997/157, 8-10=-1619/0,  
2-16=-1558/14, 10-12=-1559/14  
BOT CHORD 15-16=-255/504, 13-15=0/1011, 12-13=-41/304  
WEBS 8-13=0/750, 4-15=0/750, 5-7=-1303/212, 2-15=0/808, 10-13=0/814

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-10; Vult=130mph Vasd=103mph; TC DL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2) -0-7-10 to 3-9-3, Interior(1) 3-9-3 to 10-11-12, Exterior(2) 10-11-12 to 15-4-9, Interior(1) 15-4-9 to 22-7-2 zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - \* This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
  - Ceiling dead load (10.0 psf) on member(s). 4-5, 7-8, 5-7; Wall dead load (5.0psf) on member(s).8-13, 4-15
  - Bottom chord live load (40.0 psf) and additional bottom chord dead load (10.0 psf) applied only to room. 13-15
  - Attic room checked for L/360 deflection.



November 3, 2023

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

Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPH Quality Criteria and DSB-22** available from Truss Plate Institute (www.tpinst.org) and **BCSI Building Component Safety Information** available from the Structural Building Component Association (www.sbcacomponents.com)

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

818 Soundside Road  
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Lot 44 Purfoy Place	161794728
J0923-5485	G1GE	GABLE	1	1		
Comtech, Inc. Fayetteville, NC - 28314,						8.430 s Jan 6 2022 MiTek Industries, Inc. Thu Nov 2 10:19:00 2023 Page 1
ID:ha9gMW9aHiamlxcqH30sqJytq_X-RfC?PsB70Hq3NSgPqnL8w3ulTXbGKWrCDoi7J4zJC?F						

0-10-8 4-11-12 8-8-1 10-11-12 13-3-7 16-11-12 21-11-8 22-10-0  
0-10-8 4-11-12 3-8-5 2-3-11 2-3-11 3-8-5 4-11-12 0-10-8

8x8 =

Scale = 1:84.6

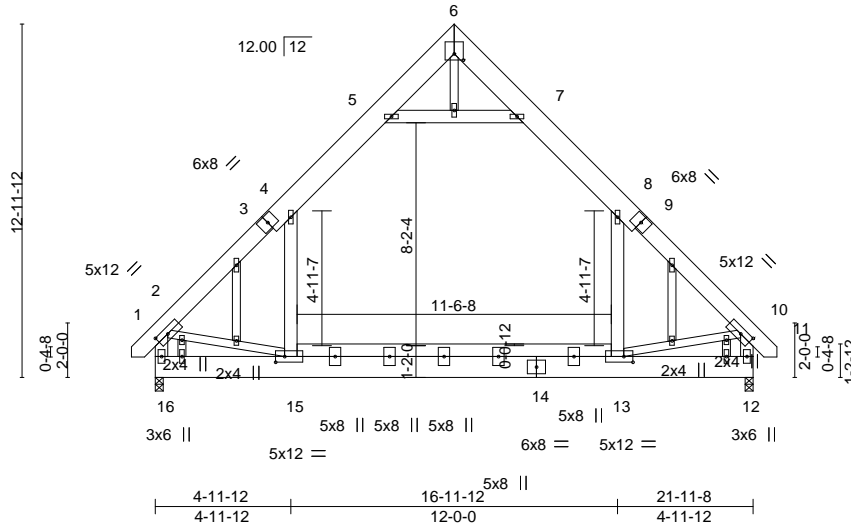


Plate Offsets (X,Y)-- [2:0-5-4,0-2-8], [6:0-4-0,0-2-12], [10:0-5-4,0-2-8], [13:0-4-0,0-2-8], [15:0-4-0,0-2-8]

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 0.42	Vert(LL)	-0.11 13-15	>999	360	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.44	Vert(CT)	-0.18 13-15	>999	240		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.18	Horz(CT)	0.00 12	n/a	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-S	Wind(LL)	0.05 13-15	>999	240	Weight: 303 lb	FT = 20%

**LUMBER-**  
TOP CHORD 2x10 SP No.1 \*Except\*  
1-3,9-11: 2x8 SP No.1  
BOT CHORD 2x10 SP No.1 \*Except\*  
13-15: 2x6 SP No.1  
WEBS 2x6 SP No.1 \*Except\*  
2-15,10-13: 2x4 SP No.2  
OTHERS 2x4 SP No.2

**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.  
This truss requires both edges of the bottom chord be sheathed in the room area.

**REACTIONS.** (size) 16=0-3-8, 12=0-3-8  
Max Horz 16=-345(LC 10)  
Max Grav 16=1474(LC 21), 12=1474(LC 20)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
TOP CHORD 2-4=-1637/24, 4-5=-1003/190, 5-6=-32/321, 6-7=-32/321, 7-8=-1002/190,  
8-10=-1636/23, 2-16=-1569/39, 10-12=-1570/39  
BOT CHORD 15-16=-337/562, 13-15=0/1035, 12-13=-83/312  
WEBS 8-13=0/750, 4-15=0/750, 5-7=-1294/295, 2-15=-10/844, 10-13=-20/852

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-10; Vult=130mph Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
  - All plates are 2x6 MT20 unless otherwise indicated.
  - Gable studs spaced at 2-0-0 oc.
  - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - \* This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
  - Ceiling dead load (10.0 psf) on member(s). 4-5, 7-8, 5-7; Wall dead load (5.0psf) on member(s).8-13, 4-15
  - Bottom chord live load (40.0 psf) and additional bottom chord dead load (10.0 psf) applied only to room. 13-15
  - Attic room checked for L/360 deflection.



November 3, 2023

**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 BEFORE USE.**  
Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI Quality Criteria and DSB-22** available from Truss Plate Institute (www.tpinst.org) and **BCSI Building Component Safety Information** available from the Structural Building Component Association (www.sbcacomponents.com)



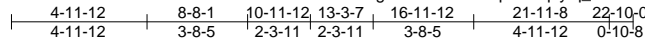
818 Soundside Road  
Edenton, NC 27932

Job J0923-5485	Truss G2	Truss Type ATTIC	Qty 3	Ply 1	Lot 44 Purfoy Place 161794729
-------------------	-------------	---------------------	----------	----------	----------------------------------

Comtech, Inc. Fayetteville, NC - 28314,

8.430 s Jan 6 2022 MiTek Industries, Inc. Thu Nov 2 10:19:02 2023 Page 1

ID:ha9gMW9aHiamlxcqH30sqJytq\_X-RfC?PsB70Hq3NSgPqnL8w3ulTXbGKWrCDoi7J4zJC?f



6x8 =

Scale = 1:84.6

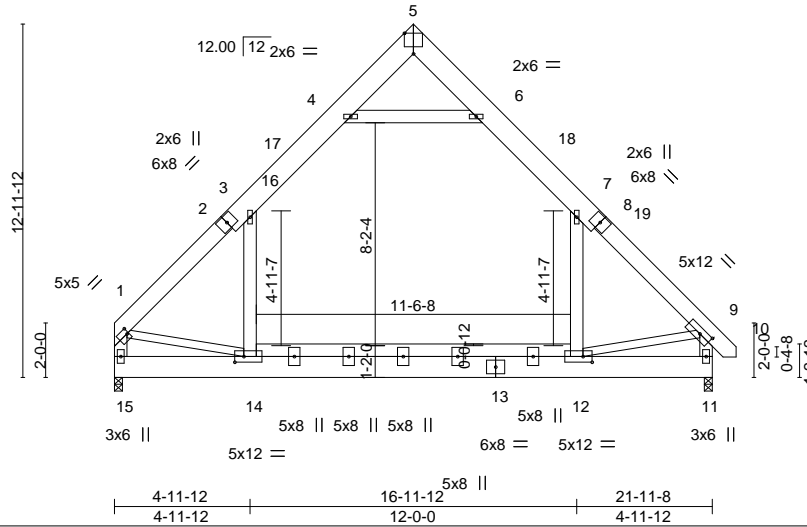


Plate Offsets (X, Y)-- [1:0-0-12,0-2-8], [5:0-4-0,Edge], [9:0-5-4,0-2-8], [12:0-4-0,0-2-8], [14:0-4-0,0-2-8]

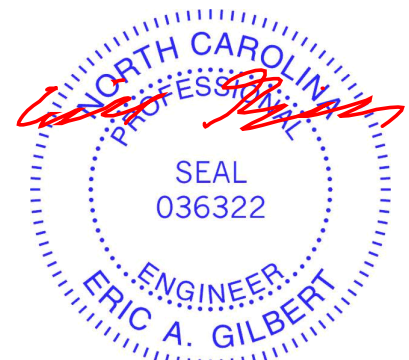
LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL	1.15	TC 0.42	Vert(LL)	-0.11 12-14	>999	360	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.44	Vert(CT)	-0.18 12-14	>999	240		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.19	Horz(CT)	0.00 11	n/a	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-S	Wind(LL)	0.03 12-14	>999	240	Weight: 286 lb	FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x10 SP No.1 *Except* 1-2,8-10: 2x8 SP No.1	TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.
BOT CHORD 2x10 SP No.1 *Except* 12-14: 2x6 SP No.1	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 2x6 SP No.1 *Except* 1-14,9-12: 2x4 SP No.2	This truss requires both edges of the bottom chord be sheathed in the room area.

**REACTIONS.** (size) 15=0-3-8, 11=0-3-8  
Max Horz 15=269(LC 10)  
Max Grav 15=1445(LC 21), 11=1480(LC 20)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
TOP CHORD 1-3=-1608/0, 3-4=-1000/158, 4-5=-11/314, 5-6=-10/316, 6-7=-997/155, 7-9=-1622/0,  
1-15=-1521/0, 9-11=-1562/13  
BOT CHORD 14-15=-246/437, 12-14=0/1012, 11-12=-42/304  
WEBS 7-12=0/754, 3-14=0/729, 4-6=-1311/217, 1-14=0/858, 9-12=0/816

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-10; Vult=130mph Vasd=103mph; TC DL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2) 0-2-12 to 4-7-9, Interior(1) 4-7-9 to 10-11-12, Exterior(2) 10-11-12 to 15-4-9, Interior(1) 15-4-9 to 22-7-2 zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - \* This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
  - Ceiling dead load (10.0 psf) on member(s). 3-4, 6-7, 4-6; Wall dead load (5.0psf) on member(s). 7-12, 3-14
  - Bottom chord live load (40.0 psf) and additional bottom chord dead load (10.0 psf) applied only to room. 12-14
  - Attic room checked for L/360 deflection.



November 3, 2023

<p><b>WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 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/TPH Quality Criteria and DSB-22</b> available from Truss Plate Institute (www.tpinst.org) and <b>BCSI Building Component Safety Information</b> available from the Structural Building Component Association (www.sbcacomponents.com)</p>	<p>ENGINEERING BY</p> <p><b>TRENCO</b></p> <p>A MiTek Affiliate</p> <p>818 Soundside Road Edenton, NC 27932</p>
--	---

Job J0923-5485	Truss H1	Truss Type COMMON	Qty 3	Ply 1	Lot 44 Purfoy Place 161794730
-------------------	-------------	----------------------	----------	----------	----------------------------------

Comtech, Inc. Fayetteville, NC - 28314,

8.430 s Jan 6 2022 MiTek Industries, Inc. Thu Nov 2 10:19:03 2023 Page 1

ID:ha9gMW9aHiamlxqH30sqJytq\_X-RfC?PsB70Hq3NSgPqnL8w3ulTXbGKWrCDoi7J4zJC?f



5x8 =

Scale: 3/8"=1'

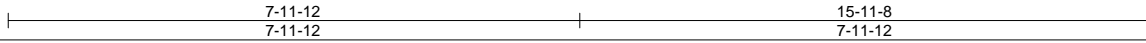
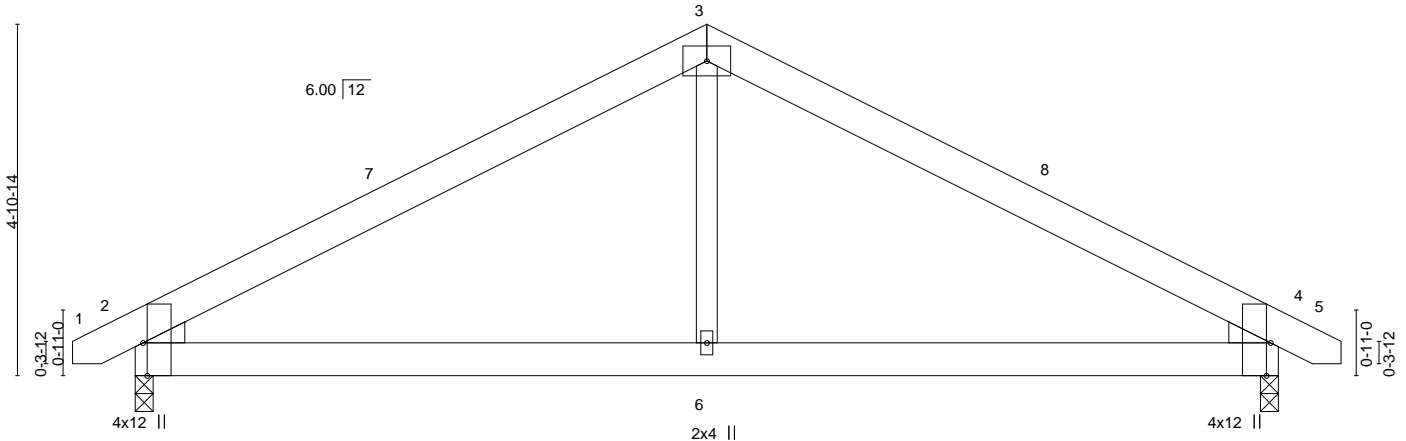


Plate Offsets (X, Y)--	[2:0-5-8,Edge], [4:0-5-8,Edge]				
<b>LOADING</b> (psf)	<b>SPACING-</b> 2-0-0	<b>CSI.</b>	<b>DEFL.</b> in (loc) l/defl L/d	<b>PLATES</b>	<b>GRIP</b>
TCLL 20.0	Plate Grip DOL 1.15	TC 0.50	Vert(LL) 0.08 4-6 >999 240	MT20	244/190
TCDL 10.0	Lumber DOL 1.15	BC 0.66	Vert(CT) -0.05 4-6 >999 240		
BCLL 0.0 *	Rep Stress Incr YES	WB 0.21	Horz(CT) -0.01 4 n/a n/a		
BCDL 10.0	Code IRC2015/TPI2014	Matrix-S		Weight: 92 lb	FT = 20%

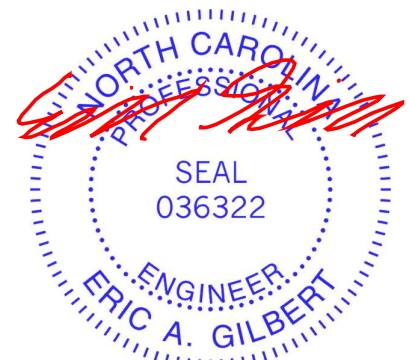
**LUMBER-**  
 TOP CHORD 2x6 SP No.1  
 BOT CHORD 2x6 SP No.1  
 WEBS 2x4 SP No.2  
 WEDGE  
 Left: 2x4 SP No.2 , Right: 2x4 SP No.2

**BRACING-**  
 TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins.  
 BOT CHORD Rigid ceiling directly applied or 7-10-12 oc bracing.

**REACTIONS.** (size) 2=0-3-0, 4=0-3-0  
 Max Horz 2=78(LC 9)  
 Max Uplift 2=-253(LC 9), 4=-253(LC 8)  
 Max Grav 2=676(LC 1), 4=676(LC 1)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-3=-851/1156, 3-4=-851/1152  
 BOT CHORD 2-6=-863/646, 4-6=-863/646  
 WEBS 3-6=-680/382

- 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) -0-8-2 to 3-8-11, Interior(1) 3-8-11 to 7-11-12, Exterior(2) 7-11-12 to 12-4-9, Interior(1) 12-4-9 to 16-7-10 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.
  - 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=253, 4=253.



November 3, 2023

**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 BEFORE USE.**  
 Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPH Quality Criteria and DSB-22** available from Truss Plate Institute (www.tpinst.org) and **BCSI Building Component Safety Information** available from the Structural Building Component Association (www.sbcacomponents.com)

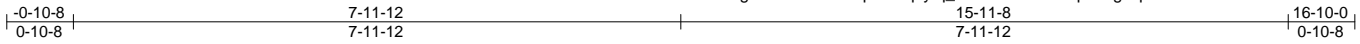


Job J0923-5485	Truss H1GE	Truss Type GABLE	Qty 1	Ply 1	Lot 44 Purfoy Place Job Reference (optional)	161794731
-------------------	---------------	---------------------	----------	----------	---	-----------

Comtech, Inc. Fayetteville, NC - 28314,

8.430 s Jan 6 2022 MiTek Industries, Inc. Thu Nov 2 10:19:04 2023 Page 1

ID:ha9gMW9aHiamlxcqH30sqJytq\_X-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJc?f



Scale = 1:30.3

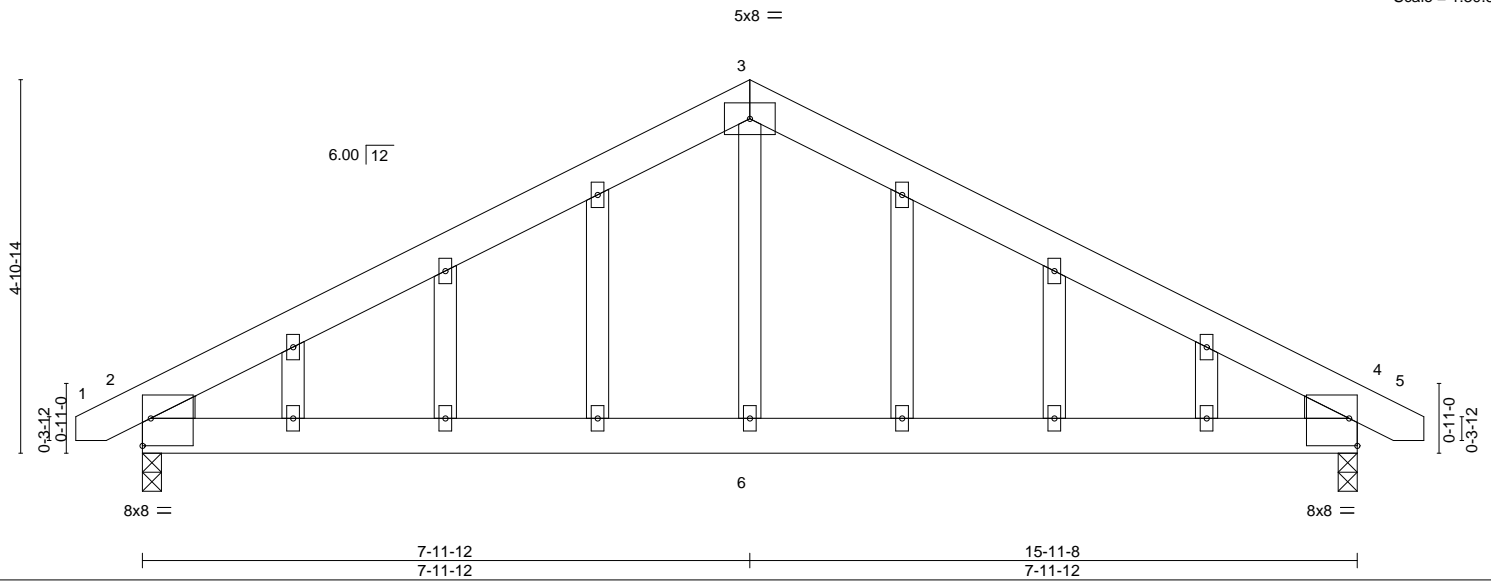


Plate Offsets (X, Y)--	[2:Edge,0-4-5], [4:Edge,0-4-5]				
<b>LOADING</b> (psf)	<b>SPACING-</b> 2-0-0	<b>CSI.</b>	<b>DEFL.</b> in (loc) l/defl L/d	<b>PLATES</b>	<b>GRIP</b>
TCLL 20.0	Plate Grip DOL 1.15	TC 0.51	Vert(LL) 0.09 2-6 >999 240	MT20	244/190
TCDL 10.0	Lumber DOL 1.15	BC 0.68	Vert(CT) -0.05 4-6 >999 240		
BCLL 0.0 *	Rep Stress Incr YES	WB 0.21	Horz(CT) -0.01 4 n/a n/a		
BCDL 10.0	Code IRC2015/TPI2014	Matrix-S		Weight: 110 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 7-7-7 oc bracing.
WEBS 2x4 SP No.2	
OTHERS 2x4 SP No.2	
WEDGE	
Left: 2x4 SP No.2 , Right: 2x4 SP No.2	

**REACTIONS.** (size) 2=0-3-0, 4=0-3-0  
 Max Horz 2=117(LC 12)  
 Max Uplift 2=-307(LC 9), 4=-307(LC 8)  
 Max Grav 2=676(LC 1), 4=676(LC 1)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-3=-851/1239, 3-4=-851/1239  
 BOT CHORD 2-6=-924/646, 4-6=-924/646  
 WEBS 3-6=-692/382

- 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; 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) 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 studs spaced at 2-0-0 oc.
  - 6) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - 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.
  - 8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=307, 4=307.



Job	Truss	Truss Type	Qty	Ply	Lot 44 Purfoy Place	161794732
J0923-5485	H2	COMMON	2	1		

Comtech, Inc. Fayetteville, NC - 28314,

8.430 s Jan 6 2022 MiTek Industries, Inc. Thu Nov 2 10:19:05 2023 Page 1

ID:ha9gMW9aHiamlxcqH30sqJytq\_X-RfC?PsB70Hq3NSgPqnL8w3ulTXbGKWrCDoi7J4zJC?f



5x8 =

Scale = 1:30.2

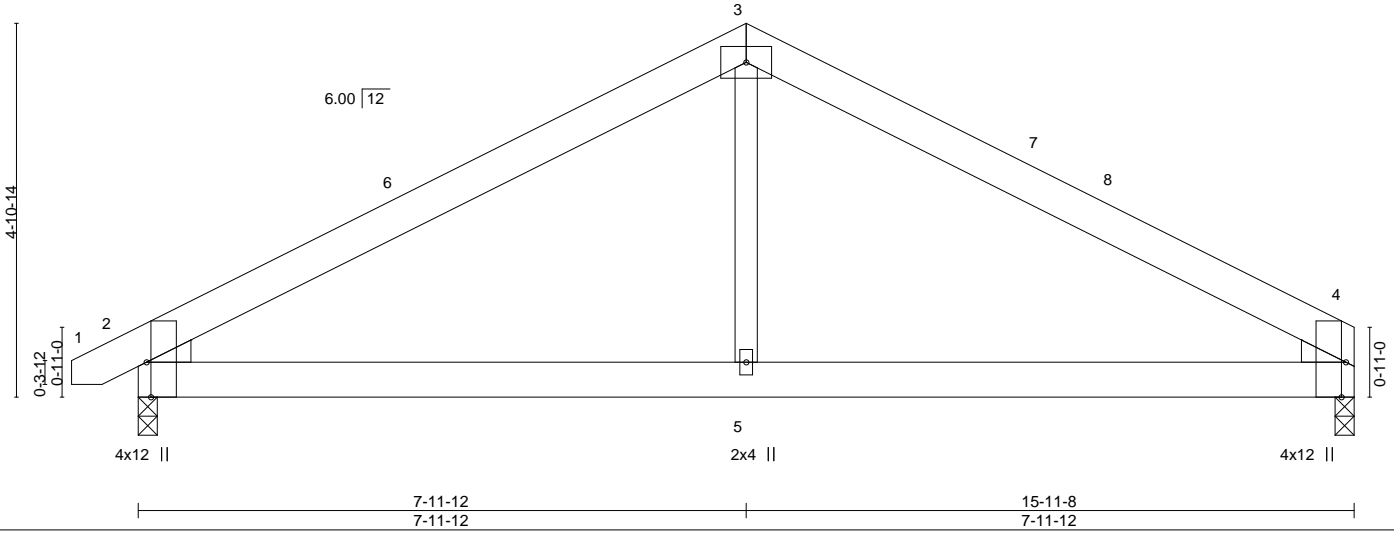


Plate Offsets (X, Y)--	[2:0-5-8,Edge], [4:0-5-8,Edge]				
<b>LOADING</b> (psf)	<b>SPACING-</b> 2-0-0	<b>CSI.</b>	<b>DEFL.</b> in (loc) l/defl L/d	<b>PLATES</b>	<b>GRIP</b>
TCLL 20.0	Plate Grip DOL 1.15	TC 0.50	Vert(LL) 0.08 4-5 >999 240	MT20	244/190
TCDL 10.0	Lumber DOL 1.15	BC 0.66	Vert(CT) -0.05 4-5 >999 240		
BCLL 0.0 *	Rep Stress Incr YES	WB 0.21	Horz(CT) -0.01 4 n/a n/a		
BCDL 10.0	Code IRC2015/TPI2014	Matrix-S		Weight: 90 lb	FT = 20%

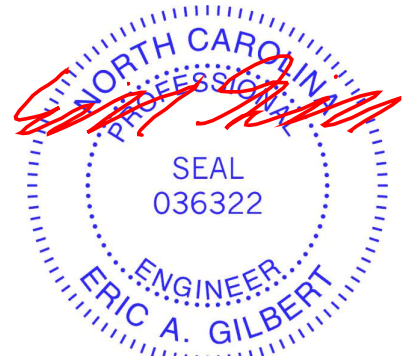
**LUMBER-**  
 TOP CHORD 2x6 SP No.1  
 BOT CHORD 2x6 SP No.1  
 WEBS 2x4 SP No.2  
 WEDGE  
 Left: 2x4 SP No.2 , Right: 2x4 SP No.2

**BRACING-**  
 TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins.  
 BOT CHORD Rigid ceiling directly applied or 7-11-0 oc bracing.

**REACTIONS.** (size) 2=0-3-0, 4=0-3-0  
 Max Horz 2=-80(LC 8)  
 Max Uplift 2=-254(LC 9), 4=-245(LC 8)  
 Max Grav 2=678(LC 1), 4=627(LC 1)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-3=-853/1157, 3-4=-851/1165  
 BOT CHORD 2-5=-861/648, 4-5=-861/648  
 WEBS 3-5=-681/383

- 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) -0-8-2 to 3-8-11, Interior(1) 3-8-11 to 7-11-12, Exterior(2) 7-11-12 to 12-4-9, Interior(1) 12-4-9 to 15-10-0 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.
  - 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=254, 4=245.



November 3, 2023

**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 BEFORE USE.**  
 Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPH Quality Criteria and DSB-22** available from Truss Plate Institute (www.tpinst.org) and **BCSI Building Component Safety Information** available from the Structural Building Component Association (www.sbcacomponents.com)



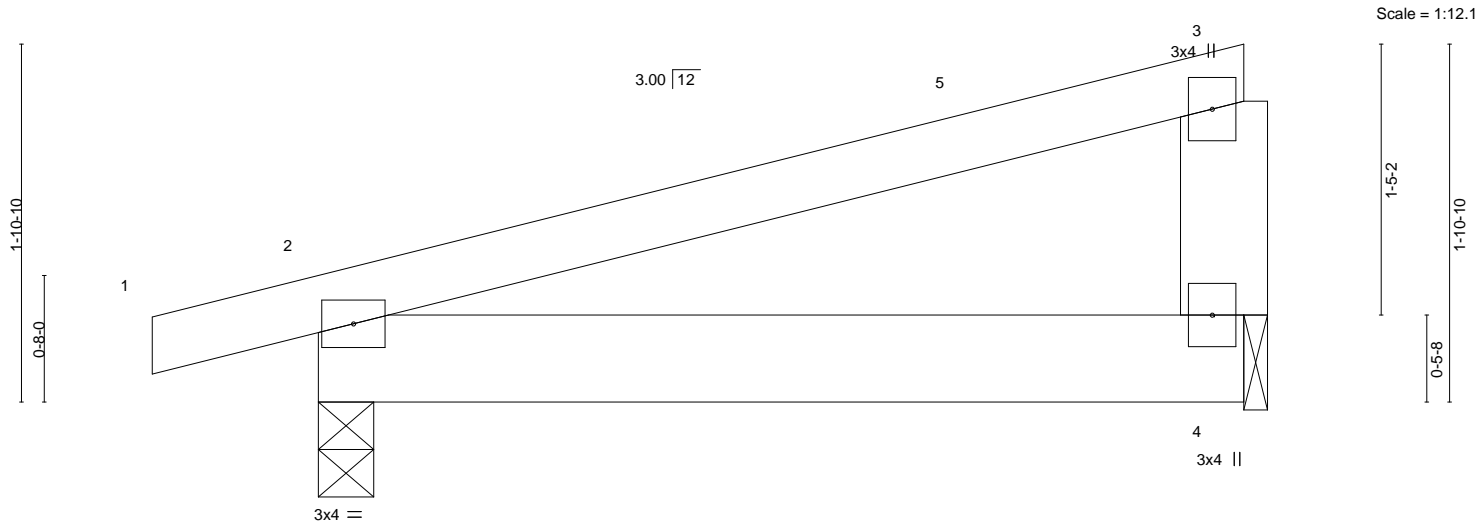
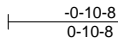
818 Soundside Road  
 Edenton, NC 27932

Job J0923-5485	Truss J1	Truss Type MONOPITCH	Qty 7	Ply 1	Lot 44 Purfoy Place Job Reference (optional)	161794733
-------------------	-------------	-------------------------	----------	----------	---	-----------

Comtech, Inc. Fayetteville, NC - 28314,

8.430 s Jan 6 2022 MiTek Industries, Inc. Thu Nov 2 10:19:06 2023 Page 1

ID:ha9gMW9aHiamlxcqH30sqJytq\_X-RfC?PsB70Hq3NSgPqnL8w3ulTXbGKWrCDoi7J4zJC?f



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 0.32	Vert(LL)	-0.01 2-4	>999	360	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.39	Vert(CT)	-0.01 2-4	>999	240		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.00	Horz(CT)	0.00	n/a	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-P	Wind(LL)	0.00 2	****	240	Weight: 23 lb	FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x4 SP No.1	TOP CHORD Structural wood sheathing directly applied or 5-0-0 oc purlins, except end verticals.
BOT CHORD 2x6 SP No.1	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 2x6 SP No.1	

**REACTIONS.** (size) 2=0-3-8, 4=0-1-8  
 Max Horz 2=62(LC 12)  
 Max Uplift 2=94(LC 8), 4=53(LC 12)  
 Max Grav 2=253(LC 1), 4=178(LC 1)

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

- NOTES-**
- 1) 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) -0-10-8 to 3-6-5, Interior(1) 3-6-5 to 4-9-4 zone;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - 2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - 3) \* This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
  - 4) Bearing at joint(s) 4 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
  - 5) Provide mechanical connection (by others) of truss to bearing plate at joint(s) 4.
  - 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 4.



November 3, 2023

Job J0923-5485	Truss K1	Truss Type ROOF SPECIAL	Qty 6	Ply 1	Lot 44 Purfoy Place 161794734
-------------------	-------------	----------------------------	----------	----------	----------------------------------

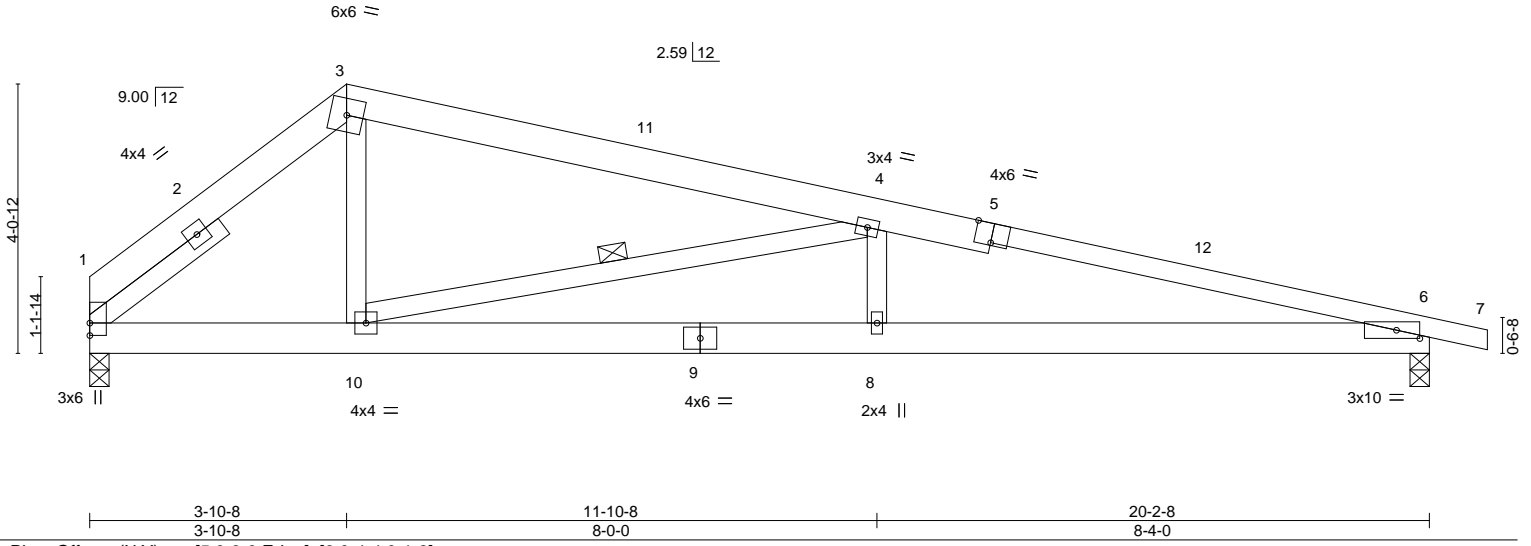
Comtech, Inc. Fayetteville, NC - 28314,

8.430 s Jan 6 2022 MiTek Industries, Inc. Thu Nov 2 10:19:08 2023 Page 1

ID:ha9gMW9aHiamlxcqH30sqJytq\_X-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f



Scale = 1:34.8



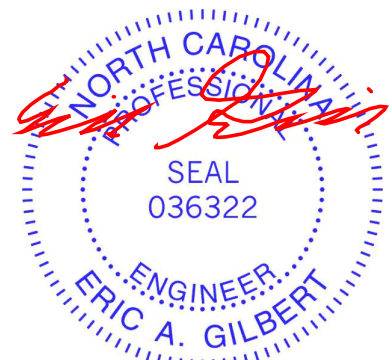
LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL	1.15	TC 0.42	Vert(LL)	-0.10	8	>999	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.44	Vert(CT)	-0.20	6-8	>999		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.46	Horz(CT)	0.04	6	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-S	Wind(LL)	0.10	6-8	>999		
								Weight: 116 lb	FT = 20%

<b>LUMBER-</b>	<b>BRACING-</b>
TOP CHORD 2x6 SP No.1 *Except* 5-7: 2x4 SP No.1	TOP CHORD Structural wood sheathing directly applied or 3-7-1 oc purlins.
BOT CHORD 2x6 SP No.1	BOT CHORD Rigid ceiling directly applied or 8-8-13 oc bracing.
WEBS 2x4 SP No.2	WEBS 1 Row at midpt 4-10
SLIDER Left 2x4 SP No.2 2-5-15	

**REACTIONS.** (size) 1=0-3-8, 6=0-3-8  
 Max Horz 1=-113(LC 10)  
 Max Uplift 1=-152(LC 9), 6=-240(LC 9)  
 Max Grav 1=801(LC 1), 6=865(LC 1)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 1-3=-1084/456, 3-4=-851/403, 4-6=-2331/886  
 BOT CHORD 1-10=-239/760, 8-10=-801/2219, 6-8=-801/2219  
 WEBS 3-10=-69/516, 4-10=-1492/575, 4-8=0/341

- 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) 0-0-0 to 8-3-5, Interior(1) 8-3-5 to 21-1-0 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) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 1=152, 6=240.



November 3, 2023



Job J0923-5485	Truss K1GE	Truss Type GABLE	Qty 2	Ply 1	Lot 44 Purfoy Place Job Reference (optional)	161794735
-------------------	---------------	---------------------	----------	----------	---	-----------

Comtech, Inc. Fayetteville, NC - 28314,

8.430 s Jan 6 2022 MiTek Industries, Inc. Thu Nov 2 10:19:09 2023 Page 1

ID:ha9gMW9aHiamlxcqH30sqJytq\_X-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f



Scale = 1:34.8

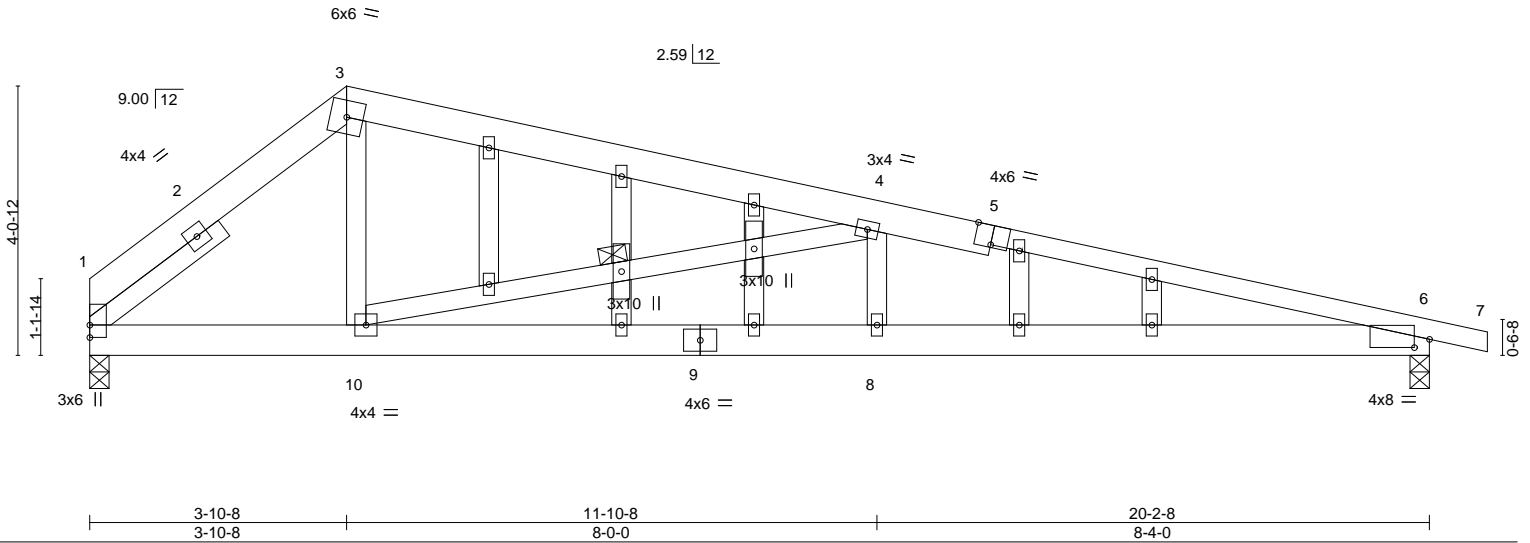


Plate Offsets (X, Y)--	[5:0-3-0,Edge], [6:0-2-12,0-1-8]
------------------------	----------------------------------

LOADING (psf)	SPACING-	CSI.	DEFL.	PLATES	GRIP
TCLL 20.0	2-0-0	TC 0.42	in (loc) l/defl L/d	MT20	244/190
TCDL 10.0	Plate Grip DOL 1.15	BC 0.44	Vert(LL) -0.10 8 >999 360		
BCLL 0.0 *	Lumber DOL 1.15	WB 0.46	Vert(CT) -0.20 6-8 >999 240		
BCDL 10.0	Rep Stress Incr YES	Matrix-S	Horz(CT) 0.04 6 n/a n/a		
	Code IRC2015/TPI2014		Wind(LL) 0.15 6-8 >999 240	Weight: 127 lb	FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x6 SP No.1 *Except* 5-7: 2x4 SP No.1	TOP CHORD Structural wood sheathing directly applied or 3-7-1 oc purlins.
BOT CHORD 2x6 SP No.1	BOT CHORD Rigid ceiling directly applied or 7-1-11 oc bracing.
WEBS 2x4 SP No.2	WEBS 1 Row at midpt 4-10
OTHERS 2x4 SP No.2	
SLIDER Left 2x4 SP No.2 2-5-15	

**REACTIONS.** (size) 1=0-3-8, 6=0-3-8  
 Max Horz 1=-157(LC 8)  
 Max Uplift 1=-298(LC 13), 6=-440(LC 9)  
 Max Grav 1=801(LC 1), 6=865(LC 1)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 1-3=-1084/563, 3-4=-851/488, 4-6=-2331/1302  
 BOT CHORD 1-10=-267/760, 8-10=-1184/2219, 6-8=-1184/2219  
 WEBS 3-10=-156/516, 4-10=-1492/937, 4-8=0/341

- 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) All plates are 2x4 MT20 unless otherwise indicated.
  - 5) Gable studs spaced at 2-0-0 oc.
  - 6) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - 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.
  - 8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 1=298, 6=440.



November 3, 2023

<p><b>WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 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 and DSB-22</b> available from Truss Plate Institute (www.tpinst.org) and <b>BCSI Building Component Safety Information</b> available from the Structural Building Component Association (www.sbcacomponents.com)</p>	<p>ENGINEERING BY  <b>TRENCO</b>  <small>A MITEK Affiliate</small></p> <p>818 Soundside Road        Edenton, NC 27932</p>
---	---



Job J0923-5485	Truss V2	Truss Type VALLEY	Qty 1	Ply 1	Lot 44 Purfoy Place Job Reference (optional)	161794737
-------------------	-------------	----------------------	----------	----------	---	-----------

Comtech, Inc. Fayetteville, NC - 28314,

8.430 s Jan 6 2022 MiTek Industries, Inc. Thu Nov 2 10:19:12 2023 Page 1

ID:ha9gMW9aHiamlxcqH30sqJytq\_X-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f



4x4 =

Scale = 1:59.4

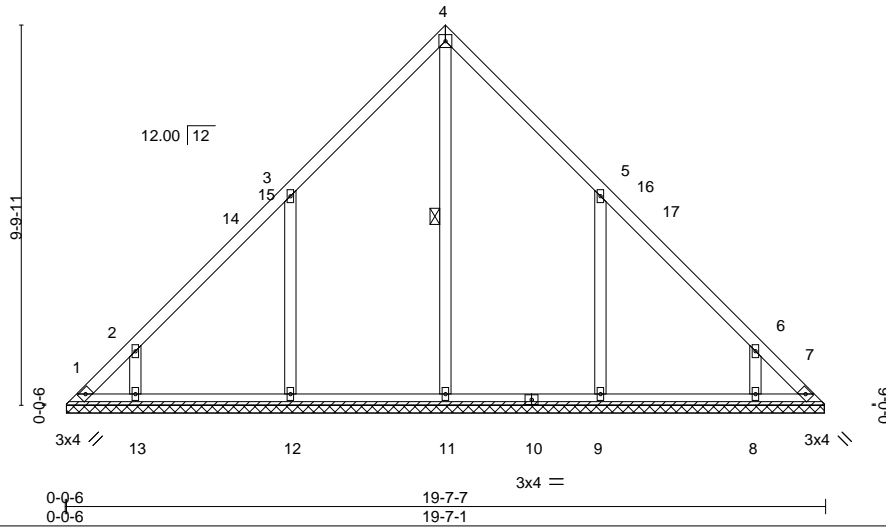


Plate Offsets (X,Y)--	[5:0-0-1,0-0-0], [6:0-0-1,0-0-0]
-----------------------	----------------------------------

LOADING (psf)	SPACING-	CSI.	DEFL.	PLATES	GRIP
TCLL 20.0	2-0-0	TC 0.21	in (loc) l/defl L/d	MT20	244/190
TCDL 10.0	Plate Grip DOL 1.15	BC 0.19	Vert(LL) n/a - n/a 999		
BCLL 0.0 *	Lumber DOL 1.15	WB 0.26	Vert(CT) n/a - n/a 999		
BCDL 10.0	Rep Stress Incr YES	Matrix-S	Horz(CT) 0.01 7 n/a n/a		
	Code IRC2015/TPI2014			Weight: 102 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 4-11

**REACTIONS.** All bearings 19-6-11.  
 (lb) - Max Horz 1=302(LC 11)  
 Max Uplift All uplift 100 lb or less at joint(s) except 1=-171(LC 10), 7=-122(LC 11), 12=-280(LC 12), 13=-202(LC 12), 9=-279(LC 13), 8=-202(LC 13)  
 Max Grav All reactions 250 lb or less at joint(s) 1, 7 except 11=450(LC 22), 12=524(LC 19), 13=303(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=-351/299, 3-4=-280/267, 4-5=-280/267, 6-7=-340/299  
 WEBS 3-12=-512/429, 2-13=-387/357, 5-9=-512/429, 6-8=-387/357

- 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 9-9-11, Exterior(2) 9-9-11 to 14-2-8, Interior(1) 14-2-8 to 19-3-3 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 171 lb uplift at joint 1, 122 lb uplift at joint 7, 280 lb uplift at joint 12, 202 lb uplift at joint 13, 279 lb uplift at joint 9 and 202 lb uplift at joint 8.
  - 7) N/A



Job J0923-5485	Truss V3	Truss Type VALLEY	Qty 1	Ply 1	Lot 44 Purfoy Place 161794738
-------------------	-------------	----------------------	----------	----------	----------------------------------

Comtech, Inc. Fayetteville, NC - 28314,

8.430 s Jan 6 2022 MiTek Industries, Inc. Thu Nov 2 10:19:13 2023 Page 1

ID:ha9gMW9aHiamlxcqH30sqJytq\_X-RIC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f



4x4 =

Scale = 1:51.2

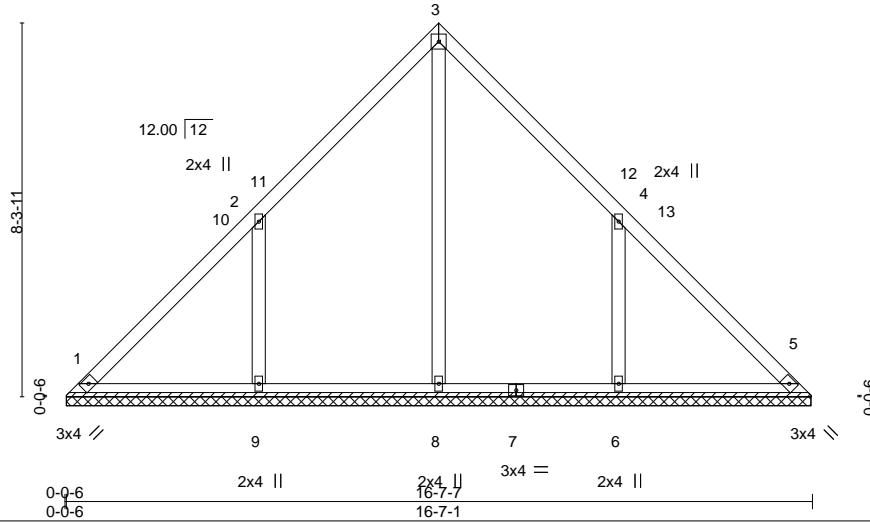


Plate Offsets (X, Y)--	[4:0-0-1, 0-0-0]						
<b>LOADING</b> (psf)	<b>SPACING-</b>	2-0-0	<b>CSI.</b>	<b>DEFL.</b>	in (loc)	l/defl	L/d
TCLL 20.0	Plate Grip DOL	1.15	TC 0.23	Vert(LL)	n/a	-	n/a 999
TCDL 10.0	Lumber DOL	1.15	BC 0.18	Vert(CT)	n/a	-	n/a 999
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.16	Horz(CT)	0.00	5	n/a n/a
BCDL 10.0	Code IRC2015/TPI2014		Matrix-S				
							<b>PLATES</b>
							MT20
							<b>GRIP</b>
							244/190
							Weight: 81 lb
							FT = 20%

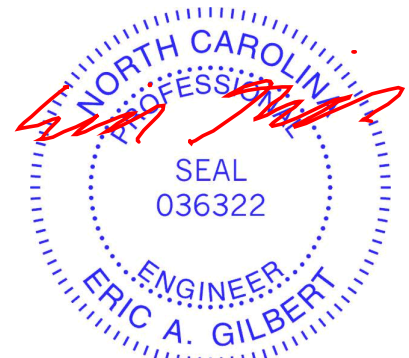
**LUMBER-**  
 TOP CHORD 2x4 SP No.1  
 BOT CHORD 2x4 SP No.1  
 OTHERS 2x4 SP No.2

**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 16-6-10.  
 (lb) - Max Horz 1=254(LC 8)  
 Max Uplift All uplift 100 lb or less at joint(s) 1, 5 except 9=302(LC 12), 6=302(LC 13)  
 Max Grav All reactions 250 lb or less at joint(s) 1, 5 except 8=427(LC 22), 9=555(LC 19), 6=555(LC 20)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 WEBS 2-9=-541/449, 4-6=-541/448

- 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 8-3-11, Exterior(2) 8-3-11 to 12-8-8, Interior(1) 12-8-8 to 16-3-3 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 BC DL = 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=302, 6=302.
  - 6) N/A



November 3, 2023

**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 BEFORE USE.**  
 Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPH Quality Criteria and DSB-22** available from Truss Plate Institute (www.tpinst.org) and **BCSI Building Component Safety Information** available from the Structural Building Component Association (www.sbcacomponents.com)



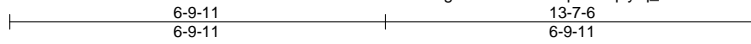
818 Soundside Road  
 Edenton, NC 27932

Job J0923-5485	Truss V4	Truss Type VALLEY	Qty 1	Ply 1	Lot 44 Purfoy Place 161794739
-------------------	-------------	----------------------	----------	----------	----------------------------------

Comtech, Inc. Fayetteville, NC - 28314,

8.430 s Jan 6 2022 MiTek Industries, Inc. Thu Nov 2 10:19:14 2023 Page 1

ID:ha9gMW9aHiamlxcqH30sqJytq\_X-RIC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f



Scale = 1:41.8

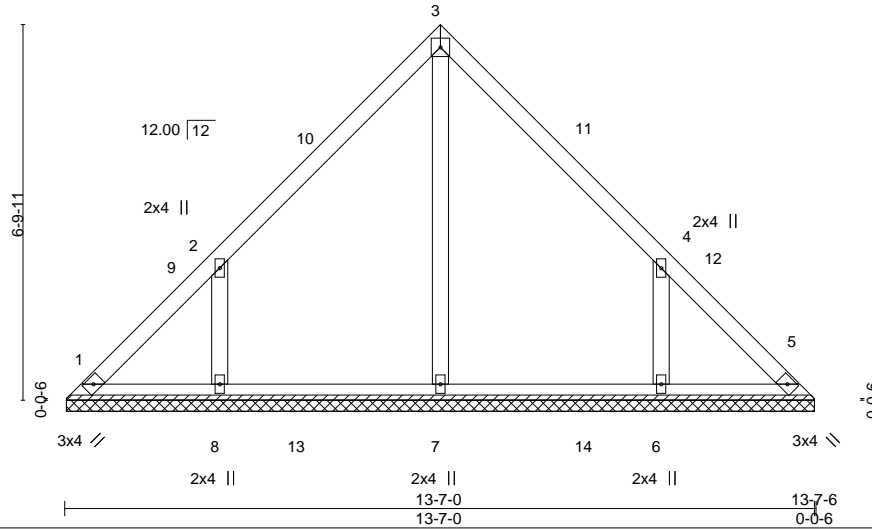


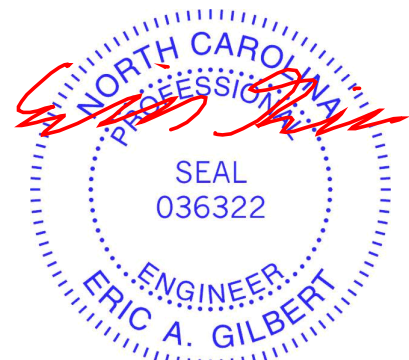
Plate Offsets (X,Y)--	[4:0-0-0,0-0-0]							
<b>LOADING</b> (psf)	<b>SPACING-</b>	2-0-0	<b>CSI.</b>	<b>DEFL.</b>	in (loc)	l/defl	L/d	<b>PLATES</b>
TCLL 20.0	Plate Grip DOL	1.15	TC 0.18	Vert(LL)	n/a	-	n/a	999
TCDL 10.0	Lumber DOL	1.15	BC 0.16	Vert(CT)	n/a	-	n/a	999
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.10	Horz(CT)	0.00	5	n/a	n/a
BCDL 10.0	Code IRC2015/TPI2014		Matrix-S					
								Weight: 63 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 13-6-10.  
 (lb) - Max Horz 1=206(LC 8)  
 Max Uplift All uplift 100 lb or less at joint(s) 1, 5 except 8=251(LC 12), 6=251(LC 13)  
 Max Grav All reactions 250 lb or less at joint(s) 1, 5 except 7=401(LC 19), 8=422(LC 19), 6=421(LC 20)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 WEBS 2-8=-459/404, 4-6=-459/404

- 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 6-9-11, Exterior(2) 6-9-11 to 11-2-8, Interior(1) 11-2-8 to 13-3-2 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, 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=251, 6=251.



November 3, 2023

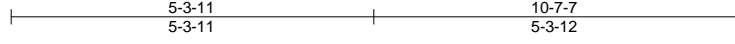
<p><b>WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 BEFORE USE.</b></p> <p>Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. 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/TPH Quality Criteria and DSB-22</b> available from Truss Plate Institute (www.tpinst.org) and <b>BCSI Building Component Safety Information</b> available from the Structural Building Component Association (www.sbcacomponents.com)</p>	<p>ENGINEERING BY</p> <p><b>TRENCO</b></p> <p>A MITEK Affiliate</p> <p>818 Soundside Road Edenton, NC 27932</p>
--	---

Job J0923-5485	Truss V5	Truss Type VALLEY	Qty 1	Ply 1	Lot 44 Purfoy Place Job Reference (optional)	I61794740
-------------------	-------------	----------------------	----------	----------	---	-----------

Comtech, Inc. Fayetteville, NC - 28314,

8.430 s Jan 6 2022 MiTek Industries, Inc. Thu Nov 2 10:19:15 2023 Page 1

ID:ha9gMW9aHiamlxcqH30sqJytq\_X-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f



4x4 =

Scale = 1:33.7

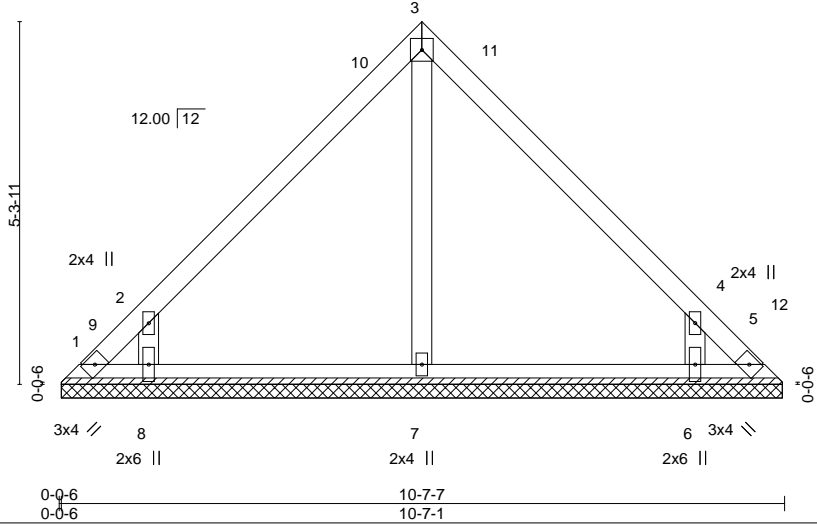


Plate Offsets (X,Y)--	[4:0-0-1,0-0-0]
-----------------------	-----------------

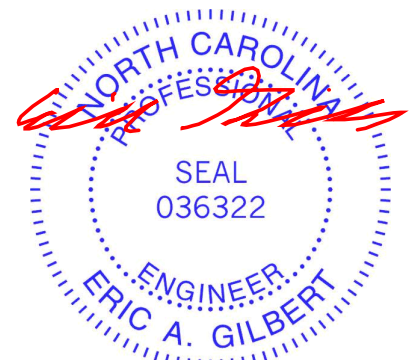
LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL	1.15	TC 0.20	Vert(LL)	n/a	-	n/a	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.09	Vert(CT)	n/a	-	n/a		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.08	Horz(CT)	0.00	5	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-S					Weight: 46 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 10-6-11.  
 (lb) - Max Horz 1=-158(LC 8)  
 Max Uplift All uplift 100 lb or less at joint(s) except 1=-157(LC 10), 5=-131(LC 11), 8=-264(LC 12), 6=-264(LC 13)  
 Max Grav All reactions 250 lb or less at joint(s) 1, 5, 7 except 8=399(LC 19), 6=398(LC 20)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 WEBS 2-8=-504/473, 4-6=-504/472

- 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) 0-4-4 to 4-9-0, Interior(1) 4-9-0 to 5-3-11, Exterior(2) 5-3-11 to 9-8-8, Interior(1) 9-8-8 to 10-3-3 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.
  - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 157 lb uplift at joint 1, 131 lb uplift at joint 5, 264 lb uplift at joint 8 and 264 lb uplift at joint 6.
  - N/A



November 3, 2023

<p><b>WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 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/TPH Quality Criteria and DSB-22</b> available from Truss Plate Institute (www.tpinst.org) and <b>BCSI Building Component Safety Information</b> available from the Structural Building Component Association (www.sbcacomponents.com)</p>	<p>818 Soundside Road Edenton, NC 27932</p>
--	---

Job J0923-5485	Truss V6	Truss Type VALLEY	Qty 1	Ply 1	Lot 44 Purfoy Place 161794741
-------------------	-------------	----------------------	----------	----------	----------------------------------

Comtech, Inc. Fayetteville, NC - 28314,

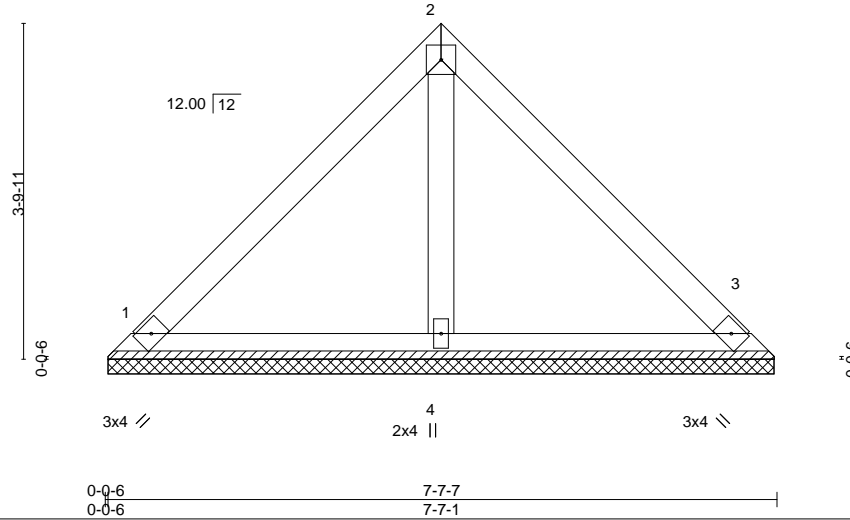
8.430 s Jan 6 2022 MiTek Industries, Inc. Thu Nov 2 10:19:16 2023 Page 1

ID:ha9gMW9aHiamlxcqH30sqJytq\_X-RfC?PsB70Hq3NSgPqnL8w3ulTXbGKWrCDoi7J4zJC?f



4x4 =

Scale = 1:26.1



LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	2-0-0	TC 0.25	Vert(LL)	n/a	-	n/a	MT20	244/190
TCDL 10.0	Plate Grip DOL 1.15	BC 0.09	Vert(CT)	n/a	-	n/a		
BCLL 0.0 *	Lumber DOL 1.15	WB 0.03	Horz(CT)	0.00	3	n/a		
BCDL 10.0	Rep Stress Incr YES	Matrix-P						
	Code IRC2015/TPI2014						Weight: 31 lb	FT = 20%

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

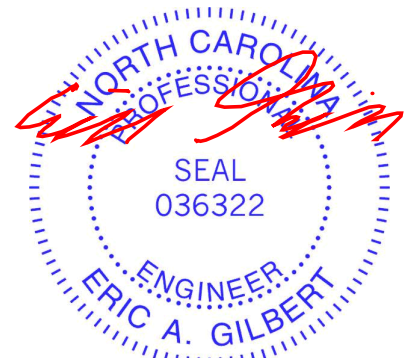
**BRACING-**  
 TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins.  
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS.** (size) 1=7-6-11, 3=7-6-11, 4=7-6-11  
 Max Horz 1=-110(LC 10)  
 Max Uplift 1=-55(LC 13), 3=-55(LC 13)  
 Max Grav 1=168(LC 1), 3=168(LC 1), 4=216(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) 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) 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.
- 6) N/A



November 3, 2023

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

Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TP1 Quality Criteria and DSB-22** available from Truss Plate Institute (www.tpinst.org) and **BCSI Building Component Safety Information** available from the Structural Building Component Association (www.sbcacomponents.com)



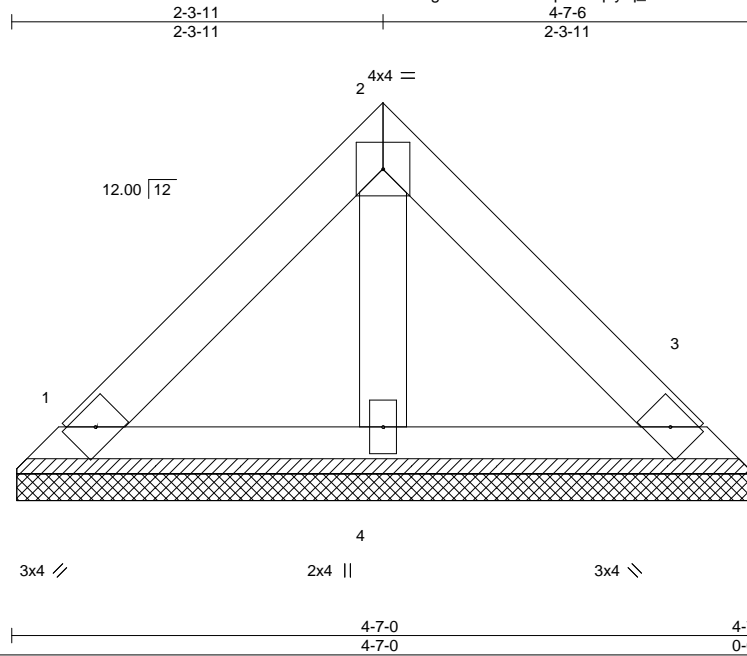
818 Soundside Road  
 Edenton, NC 27932

Job J0923-5485	Truss V7	Truss Type VALLEY	Qty 1	Ply 1	Lot 44 Purfoy Place 161794742
-------------------	-------------	----------------------	----------	----------	----------------------------------

Comtech, Inc. Fayetteville, NC - 28314,

8.430 s Jan 6 2022 MiTek Industries, Inc. Thu Nov 2 10:19:17 2023 Page 1

ID:ha9gMW9aHiamlxcqH30sqJytq\_X-RIC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f



Scale = 1:14.3

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 0.08	Vert(LL)	n/a	-	n/a	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.03	Vert(CT)	n/a	-	n/a		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.01	Horz(CT)	0.00	3	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-P					Weight: 18 lb	FT = 20%

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

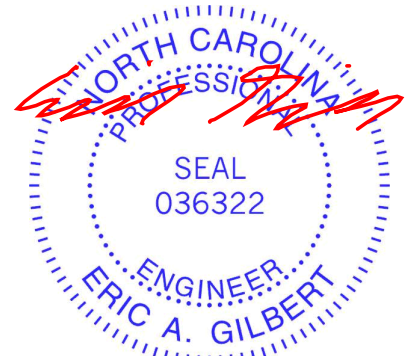
**BRACING-**  
TOP CHORD Structural wood sheathing directly applied or 4-7-6 oc purlins.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS.** (size) 1=4-6-10, 3=4-6-10, 4=4-6-10  
Max Horz 1=62(LC 8)  
Max Uplift 1=31(LC 13), 3=31(LC 13)  
Max Grav 1=95(LC 1), 3=95(LC 1), 4=122(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 31 lb uplift at joint 1 and 31 lb uplift at joint 3.



November 3, 2023

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

Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPH Quality Criteria and DSB-22** available from Truss Plate Institute (www.tpinst.org) and **BCSI Building Component Safety Information** available from the Structural Building Component Association (www.sbcacomponents.com)

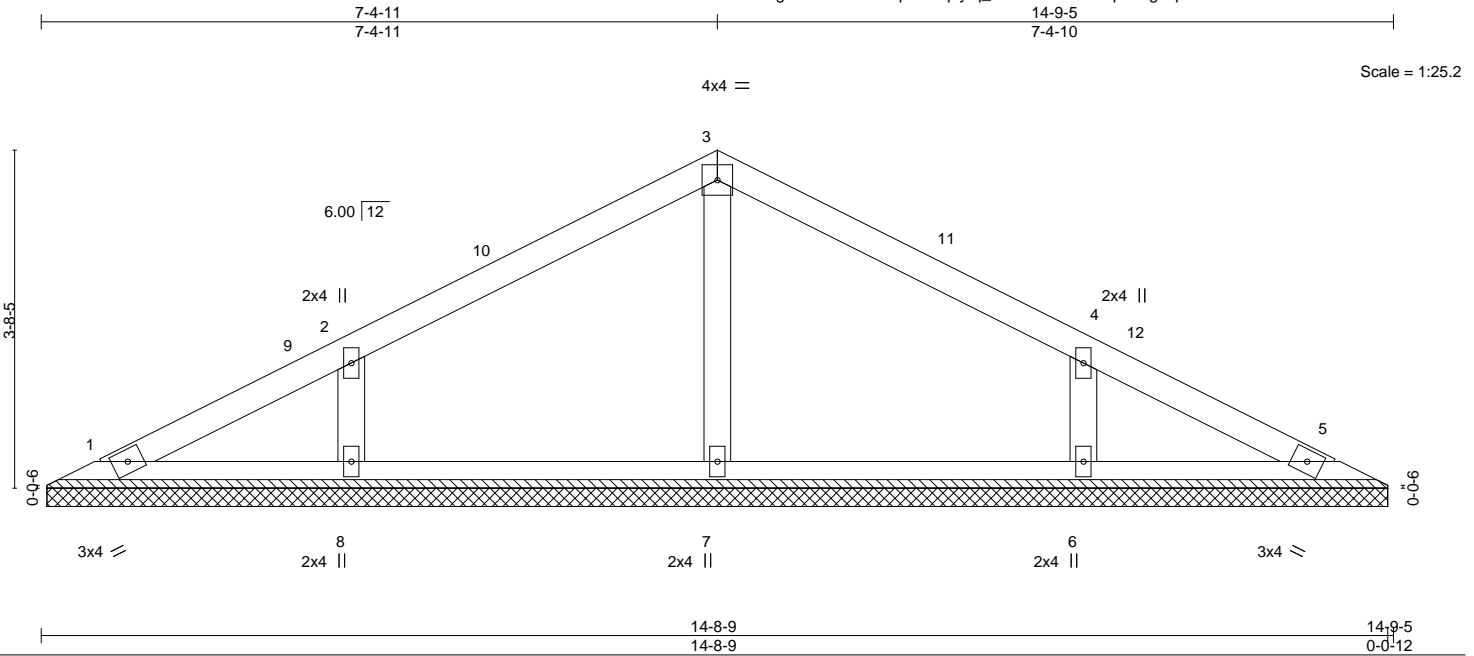


818 Soundside Road  
Edenton, NC 27932



Job J0923-5485	Truss VH1	Truss Type VALLEY	Qty 1	Ply 1	Lot 44 Purfoy Place 161794743
Comtech, Inc. Fayetteville, NC - 28314,					Job Reference (optional)

8.430 s Jan 6 2022 MiTek Industries, Inc. Thu Nov 2 10:19:19 2023 Page 1  
ID:ha9gMW9aHiamlxcqH30sqJytq\_X-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f



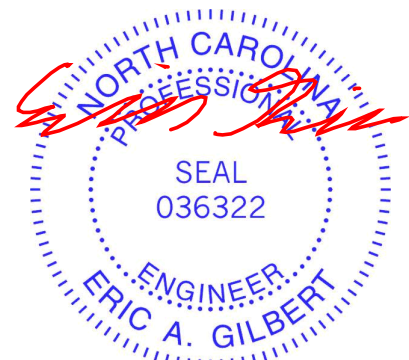
<b>LOADING</b> (psf)	<b>SPACING-</b>	2-0-0	<b>CSI.</b>	<b>DEFL.</b>	in (loc)	l/defl	L/d	<b>PLATES</b>	<b>GRIP</b>	
TCLL 20.0	Plate Grip DOL	1.15	TC 0.13	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.09	Vert(CT)	n/a	-	n/a	999		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.05	Horz(CT)	0.00	5	n/a	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-S						Weight: 52 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 14-7-13.  
 (lb) - Max Horz 1=59(LC 10)  
 Max Uplift All uplift 100 lb or less at joint(s) 1, 5 except 8=128(LC 12), 6=128(LC 13)  
 Max Grav All reactions 250 lb or less at joint(s) 1, 5 except 7=280(LC 1), 8=321(LC 23), 6=321(LC 24)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
**WEBS** 2-8=-245/282, 4-6=-245/282

- 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) and C-C Exterior(2) 0-7-13 to 5-0-10, Interior(1) 5-0-10 to 7-4-11, Exterior(2) 7-4-11 to 11-9-7, Interior(1) 11-9-7 to 14-1-8 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 100 lb uplift at joint(s) 1, 5 except (jt=lb) 8=128, 6=128.

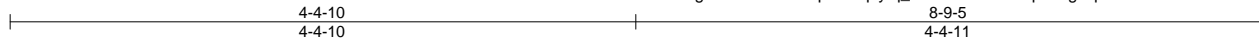


Job J0923-5485	Truss VH2	Truss Type VALLEY	Qty 1	Ply 1	Lot 44 Purfoy Place Job Reference (optional)	161794744
-------------------	--------------	----------------------	----------	----------	---	-----------

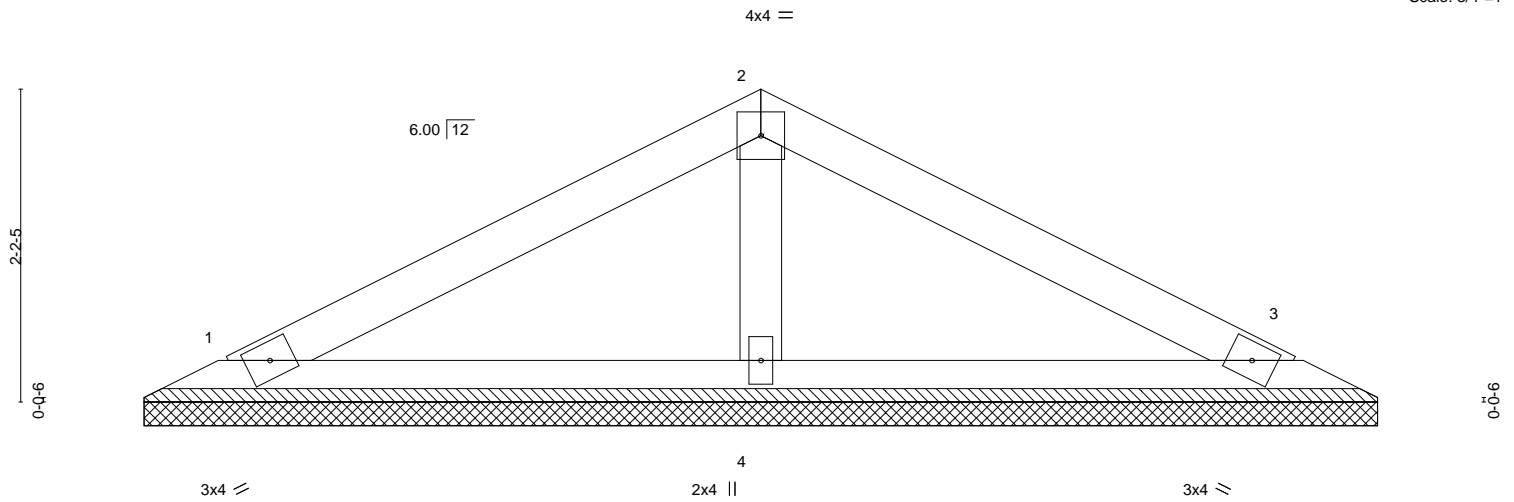
Comtech, Inc. Fayetteville, NC - 28314,

8.430 s Jan 6 2022 MiTek Industries, Inc. Thu Nov 2 10:19:20 2023 Page 1

ID:ha9gMW9aHiamlxcqH30sqJytq\_X-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f



Scale: 3/4"=1'



LOADING (psf)	SPACING-	CSL.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	2-0-0	TC 0.22	Vert(LL)	n/a	-	n/a	MT20	244/190
TCDL 10.0	Plate Grip DOL 1.15	BC 0.10	Vert(CT)	n/a	-	n/a		
BCLL 0.0 *	Lumber DOL 1.15	WB 0.04	Horz(CT)	0.00	3	n/a		
BCDL 10.0	Rep Stress Incr YES	Matrix-P						
	Code IRC2015/TPI2014						Weight: 28 lb	FT = 20%

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

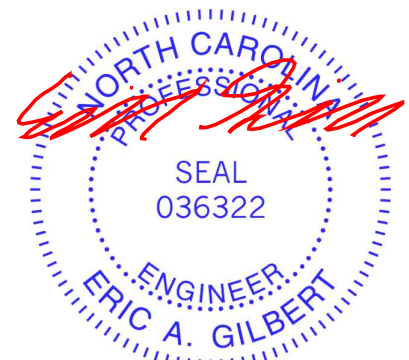
**BRACING-**  
 TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins.  
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS.** (size) 1=8-7-13, 3=8-7-13, 4=8-7-13  
 Max Horz 1=33(LC 10)  
 Max Uplift 1=46(LC 12), 3=52(LC 13), 4=15(LC 12)  
 Max Grav 1=152(LC 1), 3=152(LC 1), 4=293(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 100 lb uplift at joint(s) 1, 3, 4.



November 3, 2023

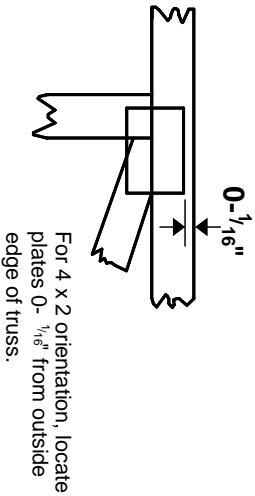
<p><b>WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 BEFORE USE.</b></p> <p>Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. 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/TPH Quality Criteria and DSB-22</b> available from Truss Plate Institute (www.tpinst.org) and <b>BCSI Building Component Safety Information</b> available from the Structural Building Component Association (www.sbcacomponents.com)</p>	<p>ENGINEERING BY</p> <p><b>TRENCO</b></p> <p>A MiTek Affiliate</p> <p>818 Soundside Road Edenton, NC 27932</p>
--	---

# 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.



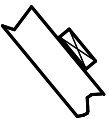
This symbol indicates the required direction of slots in connector plates.

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

## PLATE SIZE

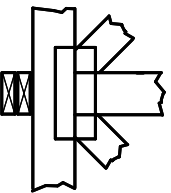
**4 X 4**  
The first dimension is the plate width measured perpendicular to slots. Second dimension is the length parallel to slots.

## LATERAL BRACING LOCATION



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

## BEARING

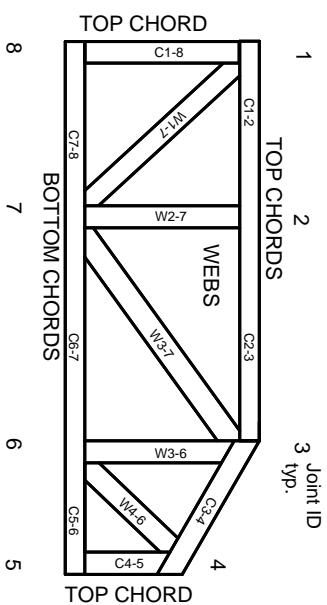


Indicates location where bearings (supports) occur. Icons vary but reaction section indicates joint number/letter where bearings occur. Min size shown is for crushing only.

## Industry Standards:

ANSI/TP1: National Design Specification for Metal Plate Connected Wood Truss Construction.  
DSB-22: Design Standard for Bracing.  
BCSI: Building Component Safety Information, Guide to Good Practice for Handling, Installing, Restraining & Bracing of Metal Plate Connected Wood Trusses.

# Numbering System



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

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

# Product Code Approvals

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

# Design General Notes

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

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

© 2023 MITek® All Rights Reserved

**MITek**

ENGINEERING BY  
**TRENGO**  
A MITek Affiliate

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

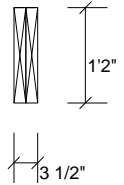
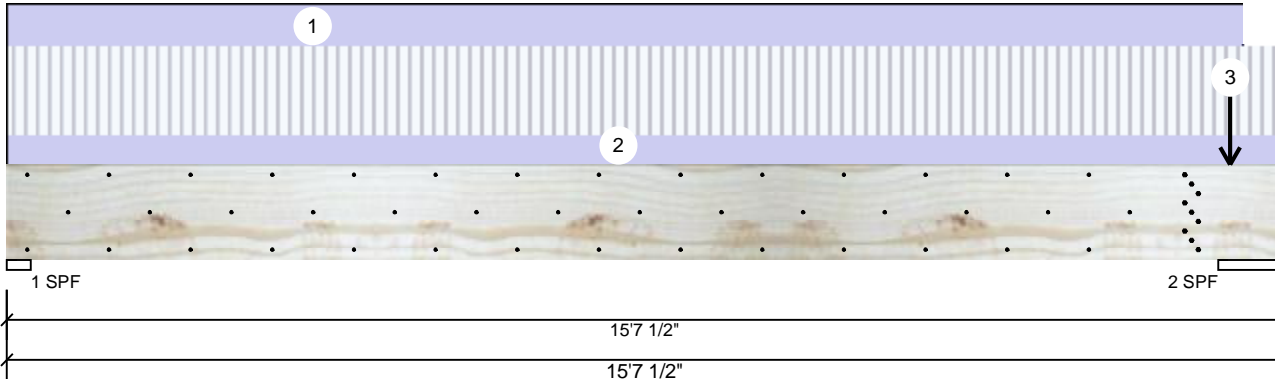
# General Safety Notes

## 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. Reviewing 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.

**BM1 Kerto-S LVL 1.750" X 14.000" 2-Ply - PASSED**

Level: Level



**Member Information**

Type:	Girder
Plies:	2
Moisture Condition:	Dry
Deflection LL:	480
Deflection TL:	360
Importance:	Normal - II
Temperature:	Temp <= 100°F

Application:	Floor
Design Method:	ASD
Building Code:	IBC/IRC 2015
Load Sharing:	No
Deck:	Not Checked

**Reactions UNPATTERNED Ib (Uplift)**

Brg	Direction	Live	Dead	Snow	Wind	Const
1	Vertical	2087	1723	0	0	0
2	Vertical	5663	2921	0	0	0

**Bearings**

Bearing	Length	Dir.	Cap.	React D/L lb	Total	Ld. Case	Ld. Comb.
1 - SPF	3.500"	Vert	73%	1723 / 2087	3811	L	D+L
2 - SPF	9.500"	Vert	61%	2921 / 5663	8584	L	D+L

**Analysis Results**

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	13549 ft-lb	7'6 3/4"	26999 ft-lb	0.502 (50%)	D+L	L
Unbraced	13549 ft-lb	7'6 3/4"	13579 ft-lb	0.998 (100%)	D+L	L
Shear	3518 lb	13'8"	10453 lb	0.337 (34%)	D+L	L
LL Defl inch	0.197 (L/894)	7'6 13/16"	0.367 (L/480)	0.537 (54%)	L	L
TL Defl inch	0.360 (L/489)	7'6 13/16"	0.489 (L/360)	0.736 (74%)	D+L	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.
- Concentrated load fastener specification is in addition to hanger fasteners if a hanger is present.
- Simpson fasteners applied from a single side of the member use tip values where published.
- 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 7'6 1/16" o.c.
- Bottom must be laterally braced at end bearings.
- Lateral slenderness ratio based on single ply width.

**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

- For flat roofs provide proper drainage to prevent ponding

**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)

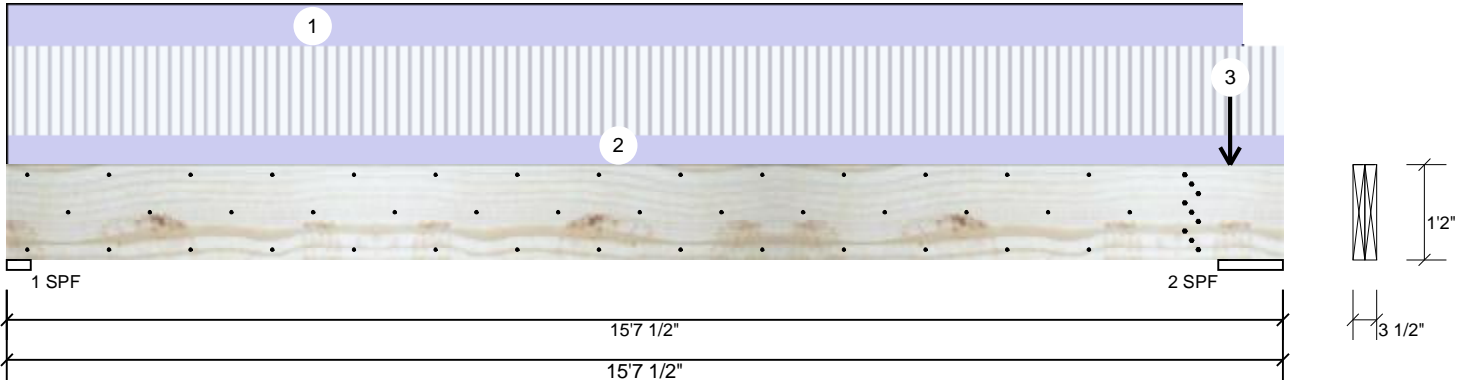
Comtech, Inc.  
 1001 S. Reilly Road, Suite #639  
 Fayetteville, NC  
 USA  
 28314  
 910-864-TRUS



This design is valid until 11/3/2024

**BM1 Kerto-S LVL 1.750" X 14.000" 2-Ply - PASSED**

Level: Level



ID	Load Type	Location	Trib Width	Side	Dead 0.9	Live 1	Snow 1.15	Wind 1.6	Const. 1.25	Comments
1	Part. Uniform	0-0-0 to 15-1-8		Top	125 PLF	0 PLF	0 PLF	0 PLF	0 PLF	Exterior Wall
2	Uniform			Near Face	92 PLF	276 PLF	0 PLF	0 PLF	0 PLF	F2
3	Point	14-11-12		Near Face	1146 lb	3438 lb	0 lb	0 lb	0 lb	BM3
	Self Weight				11 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

**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

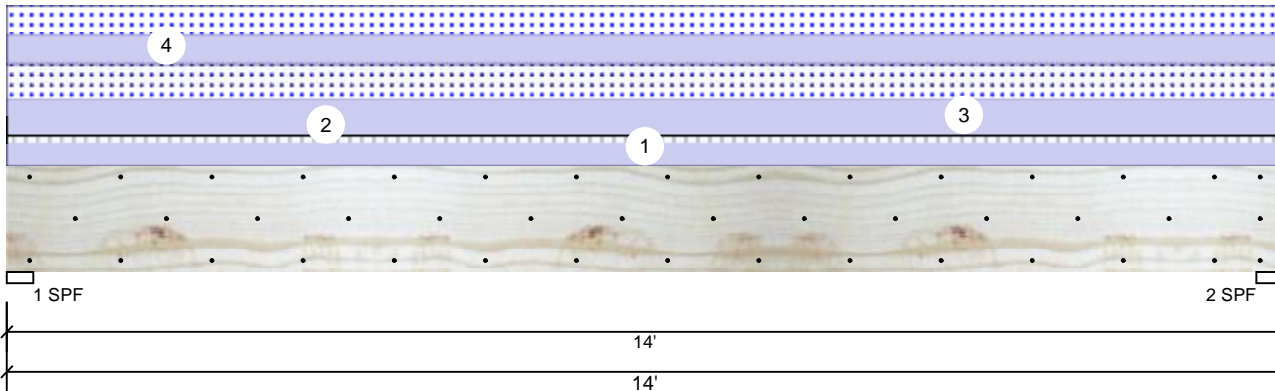
**Manufacturer Info**  
 Metsä Wood  
 301 Merritt 7 Building, 2nd Floor  
 Norwalk, CT 06851  
 (800) 622-5850  
[www.metsawood.com/us](http://www.metsawood.com/us)

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



**BM2 Kerto-S LVL 1.750" X 14.000" 3-Ply - PASSED**

Level: Level



**Member Information**

Type:	Girder
Plies:	3
Moisture Condition:	Dry
Deflection LL:	480
Deflection TL:	360
Importance:	Normal - II
Temperature:	Temp <= 100°F

Application:	Floor
Design Method:	ASD
Building Code:	IBC/IRC 2015
Load Sharing:	Yes
Deck:	Not Checked

**Reactions UNPATTERNED Ib (Uplift)**

Brg	Direction	Live	Dead	Snow	Wind	Const
1	Vertical	280	3670	2576	0	0
2	Vertical	280	3670	2576	0	0

**Bearings**

Bearing	Length	Dir.	Cap.	React D/L lb	Total	Ld. Case	Ld. Comb.
1 - SPF	3.500"	Vert	80%	3670 / 2576	6246	L	D+S
2 - SPF	3.500"	Vert	80%	3670 / 2576	6246	L	D+S

**Analysis Results**

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	20454 ft-lb	7'	48437 ft-lb	0.422 (42%)	D+S	L
Unbraced	20454 ft-lb	7'	20467 ft-lb	0.999 (100%)	D+S	L
Shear	5376 lb	12'6 1/2"	18032 lb	0.298 (30%)	D+S	L
LL Defl inch	0.129 (L/1258)	7' 1/16"	0.339 (L/480)	0.382 (38%)	S	L
TL Defl inch	0.313 (L/519)	7' 1/16"	0.451 (L/360)	0.694 (69%)	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 3 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 a maximum of 7'6 3/4" o.c.
- 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	125 PLF	0 PLF	0 PLF	0 PLF	0 PLF	Wall Load
2	Uniform			Far Face	15 PLF	40 PLF	0 PLF	0 PLF	0 PLF	Floor Load
3	Uniform			Top	199 PLF	0 PLF	199 PLF	0 PLF	0 PLF	E1
4	Uniform			Near Face	169 PLF	0 PLF	169 PLF	0 PLF	0 PLF	A4
	Self Weight				16 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

**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

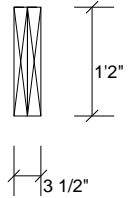
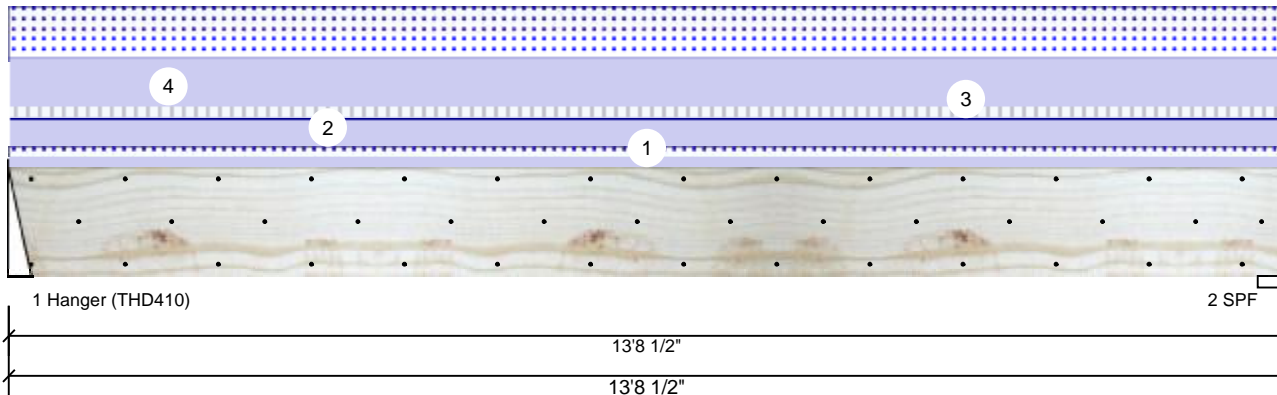
This design is valid until 11/3/2024

**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 14.000" 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:	360	Deck:	Not Checked
Importance:	Normal - II		
Temperature:	Temp <= 100°F		

**Reactions UNPATTERNED Ib (Uplift)**

Brg	Direction	Live	Dead	Snow	Wind	Const
1	Vertical	273	2808	1777	0	0
2	Vertical	275	2825	1788	0	0

**Bearings**

Bearing	Length	Dir.	Cap.	React D/L lb	Total	Ld. Case	Ld. Comb.
1 - Hanger	3.000"	Vert	52%	2808 / 1777	4584	L	D+S
2 - SPF	3.500"	Vert	89%	2825 / 1788	4612	L	D+S

**Analysis Results**

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	14816 ft-lb	6'10"	31049 ft-lb	0.477 (48%)	D+S	L
Unbraced	14816 ft-lb	6'10"	14824 ft-lb	0.999 (100%)	D+S	L
Shear	3769 lb	1'5"	12021 lb	0.314 (31%)	D+S	L
LL Defl inch	0.128 (L/1250)	6'10"	0.332 (L/480)	0.384 (38%)	S	L
TL Defl inch	0.329 (L/485)	6'10"	0.443 (L/360)	0.743 (74%)	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.
- Fill all hanger nailing holes.
- 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 6'10 7/8" 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			Far Face	45 PLF	0 PLF	45 PLF	0 PLF	0 PLF	M1
2	Uniform			Top	125 PLF	0 PLF	0 PLF	0 PLF	0 PLF	Exterior Wall
3	Uniform			Far Face	15 PLF	40 PLF	0 PLF	0 PLF	0 PLF	Floor Load
4	Uniform			Top	215 PLF	0 PLF	215 PLF	0 PLF	0 PLF	E1
	Self Weight				11 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**

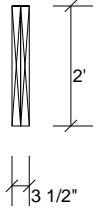
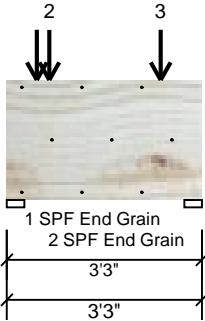
Metsä Wood  
 301 Merritt 7 Building, 2nd Floor  
 Norwalk, CT 06851  
 (800) 622-5850  
[www.metsawood.com/us](http://www.metsawood.com/us)

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



**BM4 Kerto-S LVL 1.750" X 24.000" 2-Ply - PASSED**

Level: Level



**Member Information**

Type:	Girder
Plies:	2
Moisture Condition:	Dry
Deflection LL:	480
Deflection TL:	360
Importance:	Normal - II
Temperature:	Temp <= 100°F

Application:	Floor
Design Method:	ASD
Building Code:	IBC/IRC 2015
Load Sharing:	No
Deck:	Not Checked

**Reactions UNPATTERNED lb (Uplift)**

Brg	Direction	Live	Dead	Snow	Wind	Const
1	Vertical	3963	1464	0	0	0
2	Vertical	1285	471	0	0	0

**Bearings**

Bearing	Length	Dir.	Cap.	React D/L lb	Total	Ld. Case	Ld. Comb.
1 - SPF End Grain	3.500"	Vert	53%	1464 / 3963	5428	L	D+L
2 - SPF End Grain	3.500"	Vert	17%	471 / 1285	1756	L	D+L

**Analysis Results**

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	2627 ft-lb	8 1/2"	73185 ft-lb	0.036 (4%)	D+L	L
Unbraced	2627 ft-lb	8 1/2"	57918 ft-lb	0.045 (5%)	D+L	L
Shear	1148 lb	11 1/2"	17920 lb	0.064 (6%)	D+L	L
LL Defl inch	0.003 (L/11939)	8 1/2"	0.070 (L/480)	0.040 (4%)	L	L
TL Defl inch	0.004 (L/8816)	8 1/2"	0.094 (L/360)	0.041 (4%)	D+L	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 3 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	Point	0-6-0		Top	125 lb	0 lb	0 lb	0 lb	0 lb	Wall Load
	Bearing Length	0-3-8								
2	Point	0-8-8		Top	1562 lb	4685 lb	0 lb	0 lb	0 lb	BM2
	Bearing Length	0-3-8								

Continued on page 2...

**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)

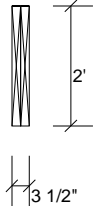
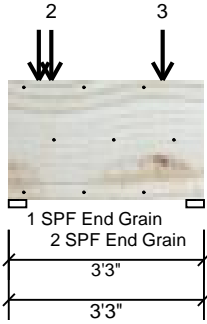
Comtech, Inc.  
 1001 S. Reilly Road, Suite #639  
 Fayetteville, NC  
 USA  
 28314  
 910-864-TRUS





**BM4 Kerto-S LVL 1.750" X 24.000" 2-Ply - PASSED**

Level: Level



...Continued from page 1

ID	Load Type	Location	Trib Width	Side	Dead 0.9	Live 1	Snow 1.15	Wind 1.6	Const. 1.25	Comments
3	Point	2-6-12		Top	188 lb	563 lb	0 lb	0 lb	0 lb	F1
	Bearing Length	0-3-8								
	Self Weight				19 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

**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**

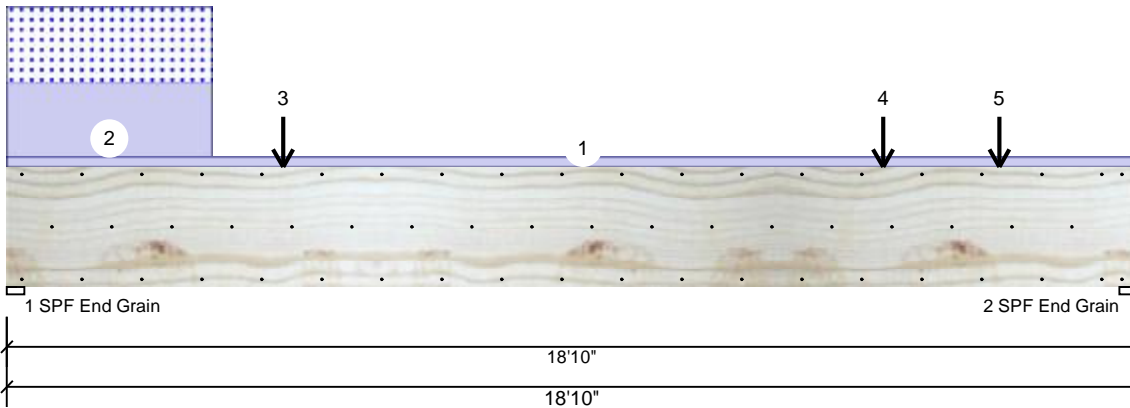
Metsä Wood  
 301 Merritt 7 Building, 2nd Floor  
 Norwalk, CT 06851  
 (800) 622-5850  
[www.metsawood.com/us](http://www.metsawood.com/us)

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



**GDH Kerto-S LVL 1.750" X 24.000" 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		
Temperature:	Temp <= 100°F		

**Reactions UNPATTERNED Ib (Uplift)**

Brg	Direction	Live	Dead	Snow	Wind	Const
1	Vertical	0	7106	6277	0	0
2	Vertical	0	7033	6204	0	0

**Bearings**

Bearing	Length	Dir.	Cap.	React D/L Ib	Total	Ld. Case	Ld. Comb.
1 - SPF End Grain	3.500"	Vert	87%	7106 / 6277	13383	L	D+S
2 - SPF End Grain	3.500"	Vert	86%	7033 / 6204	13236	L	D+S

**Analysis Results**

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	48572 ft-lb	7'11 1/16"	131295 ft-lb	0.370 (37%)	D+S	L
Unbraced	48572 ft-lb	7'11 1/16"	48751 ft-lb	0.996 (100%)	D+S	L
Shear	13091 lb	16'6 1/2"	30912 lb	0.423 (42%)	D+S	L
LL Defl inch	0.147 (L/1501)	9'4 11/16"	0.460 (L/480)	0.320 (32%)	S	L
TL Defl inch	0.316 (L/698)	9'4 13/16"	0.613 (L/360)	0.516 (52%)	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 3 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 a maximum of 5'5 15/16" o.c.
- 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	60 PLF	0 PLF	0 PLF	0 PLF	0 PLF	Exterior Load
2	Part. Uniform	0-0-0 to 3-5-0		Top	490 PLF	0 PLF	490 PLF	0 PLF	0 PLF	B1
3	Point	4-7-4		Top	4669 lb	0 lb	4669 lb	0 lb	0 lb	B2
	Bearing Length	0-3-8								

Continued on page 2...

**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**

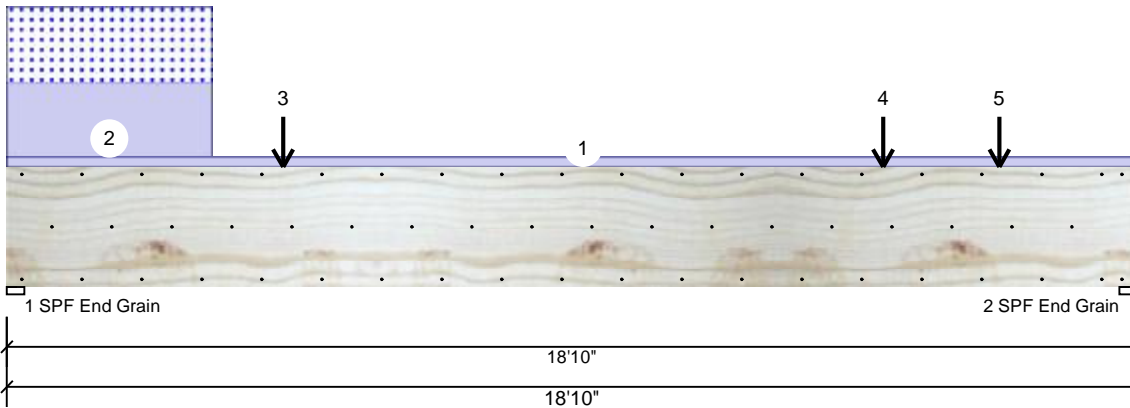
Metsä Wood  
 301 Merritt 7 Building, 2nd Floor  
 Norwalk, CT 06851  
 (800) 622-5850  
[www.metsawood.com/us](http://www.metsawood.com/us)

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



**GDH Kerto-S LVL 1.750" X 24.000" 3-Ply - PASSED**

Level: Level



...Continued from page 1

ID	Load Type	Location	Trib Width	Side	Dead 0.9	Live 1	Snow 1.15	Wind 1.6	Const. 1.25	Comments
4	Point	14-7-4		Top	4669 lb	0 lb	4669 lb	0 lb	0 lb	B2
	Bearing Length	0-3-8								
5	Point	16-6-8		Top	1469 lb	0 lb	1469 lb	0 lb	0 lb	B3
	Bearing Length	0-3-8								
	Self Weight				28 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

**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

**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



This design is valid until 11/3/2024