

RE: J0623-2940  
 Lot 20 Jones Creek

Trenco  
 818 Soundside Rd  
 Edenton, NC 27932

**Site Information:**

Customer: Project Name: J0623-2940  
 Lot/Block: Model:  
 Address: Subdivision:  
 City: State:

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

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

This package includes 15 individual, dated Truss Design Drawings and 0 Additional Drawings.

No.	Seal#	Truss Name	Date
1	I59244202	A1	6/28/2023
2	I59244203	A2	6/28/2023
3	I59244204	A3	6/28/2023
4	I59244205	A4	6/28/2023
5	I59244206	B1	6/28/2023
6	I59244207	B2	6/28/2023
7	I59244208	V1	6/28/2023
8	I59244209	V2	6/28/2023
9	I59244210	V3	6/28/2023
10	I59244211	V4	6/28/2023
11	I59244212	V5	6/28/2023
12	I59244213	V6	6/28/2023
13	I59244214	V7	6/28/2023
14	I59244215	V8	6/28/2023
15	I59244216	V9	6/28/2023

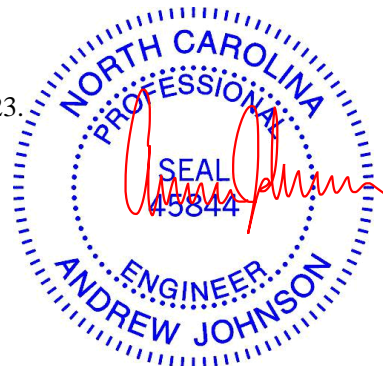
The truss drawing(s) referenced above have been prepared by Truss Engineering Co. under my direct supervision based on the parameters provided by Comtech, Inc - Fayetteville.

Truss Design Engineer's Name: Johnson, Andrew

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

North Carolina COA: C-0844

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



June 28, 2023

Job J0623-2940	Truss A1	Truss Type COMMON SUPPORTED GAB	Qty 1	Ply 1	Lot 20 Jones Creek Job Reference (optional)	I59244202
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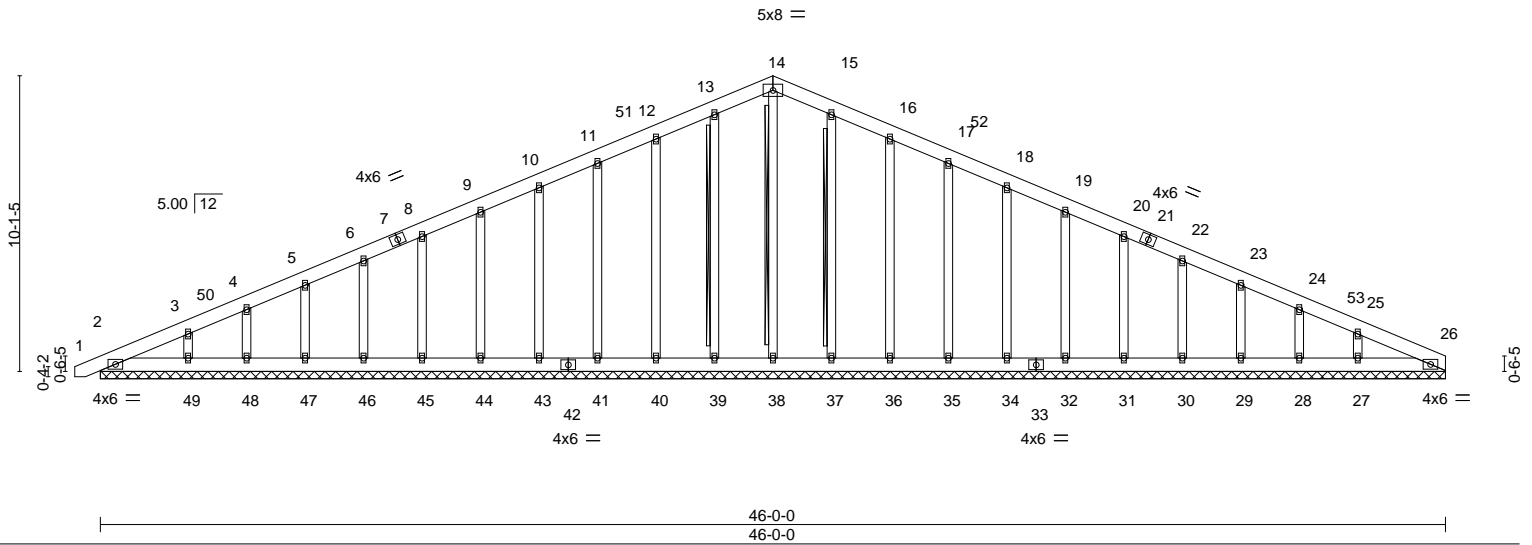
Comtech, Inc. Fayetteville, NC - 28314,

8.430 s Jan 6 2022 MiTek Industries, Inc. Wed Jun 28 14:53:35 2023 Page 1

ID:DdNRY8gEWXv7oZcqu\_L6luzDuwl-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

-0-10-8 0-10-8	23-0-0 23-0-0	46-0-0 23-0-0
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Scale = 1:78.8



<b>LOADING</b> (psf)	<b>SPACING-</b>	2-0-0	<b>CSI.</b>	<b>DEFL.</b>	in (loc)	l/defl	L/d	<b>PLATES</b>	<b>GRIP</b>
TCLL 20.0	Plate Grip DOL	1.15	TC 0.05	Vert(LL)	-0.00	1	n/r	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.03	Vert(CT)	0.00	1	n/r		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.13	Horz(CT)	0.01	26	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-S						
								Weight: 378 lb	FT = 20%

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

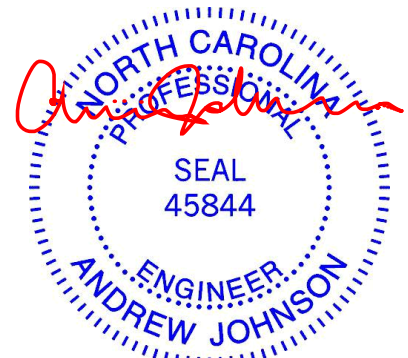
**BRACING-**  
 TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins.  
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.  
 WEBS T-Brace: 2x4 SPF No.2 - 14-38, 13-39, 15-37  
 Fasten (2X) T and I braces to narrow edge of web with 10d (0.131"x3") nails, 6in o.c., with 3in minimum end distance.  
 Brace must cover 90% of web length.

**REACTIONS.** All bearings 46-0-0.  
 (lb) - Max Horz 2=204(LC 16)  
 Max Uplift All uplift 100 lb or less at joint(s) 39, 40, 41, 43, 44, 45, 46, 47, 48, 49, 37, 36, 35, 34, 32, 31, 30, 29, 28, 27, 2  
 Max Grav All reactions 250 lb or less at joint(s) 26, 38, 39, 40, 41, 43, 44, 45, 46, 47, 48, 49, 37, 36, 35, 34, 32, 31, 30, 29, 28, 27, 2

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 10-11=-85/254, 11-12=-101/301, 12-13=-119/351, 13-14=-131/383, 14-15=-131/385, 15-16=-119/352, 16-17=-101/302, 17-18=-85/255

**NOTES-**

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-10; Vult=130mph Vasd=103mph; TCCL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Corner(3) -0-8-5 to 3-10-14, Exterior(2) 3-10-14 to 23-0-0, Corner(3) 23-0-0 to 27-7-3, Exterior(2) 27-7-3 to 46-0-0 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) 39, 40, 41, 43, 44, 45, 46, 47, 48, 49, 37, 36, 35, 34, 32, 31, 30, 29, 28, 27, 2.
- 10) Warning: Additional permanent and stability bracing for truss system (not part of this component design) is always required.



June 28, 2023

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

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

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

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



818 Soundside Road  
 Edenton, NC 27932

Job J0623-2940	Truss A2	Truss Type COMMON	Qty 10	Ply 1	Lot 20 Jones Creek I59244203
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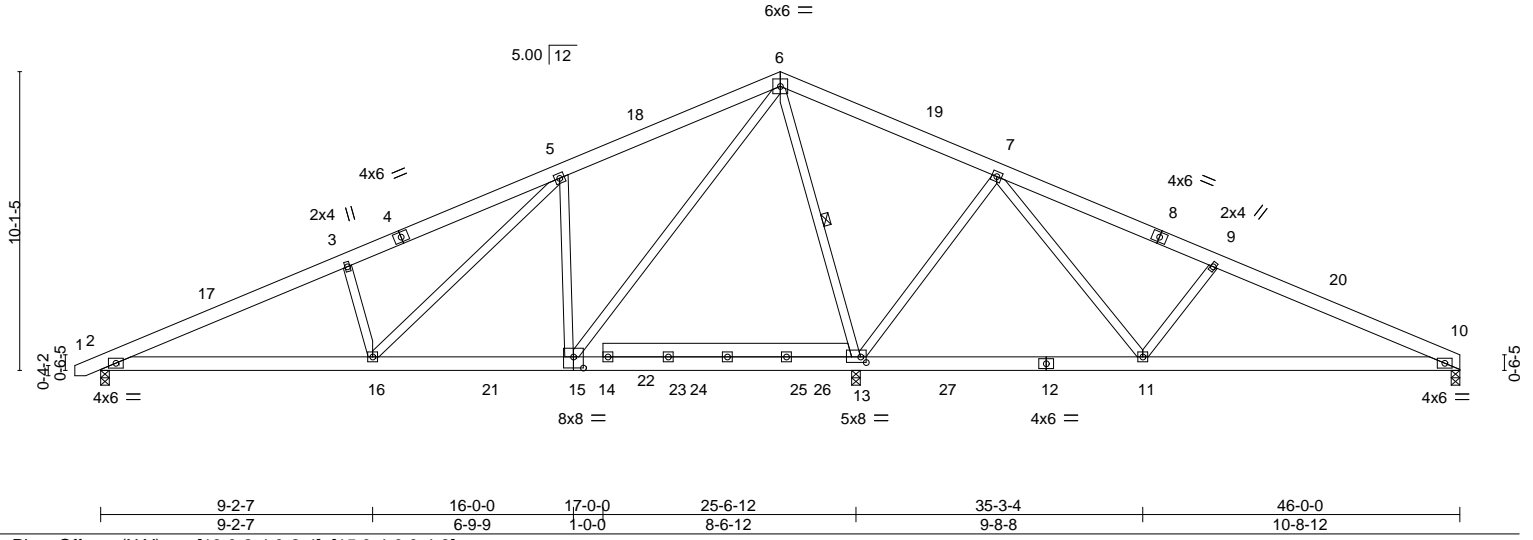
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Job Reference (optional)

0-10.8 0-10.8	8-4.3 8-4.3	15-8.2 7-3-14	23-0.0 7-3-14	30-3-14 7-3-14	37-7-13 7-3-14	46-0.0 8-4.3
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Scale = 1:78.0



9-2-7 9-2-7	16-0-0 6-9-9	17-0-0 1-0-0	25-6-12 8-6-12	35-3-4 9-8-8	46-0-0 10-8-12
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Plate Offsets (X,Y)-- [13:0-2-4,0-2-4], [15:0-4-0,0-4-8]

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 0.37	Vert(LL) -0.08 10-11 >999 360		
BCLL 0.0 *	Lumber DOL 1.15	WB 0.93	Vert(CT) -0.18 10-11 >999 240		
BCDL 10.0	Rep Stress Incr YES	Matrix-S	Horz(CT) 0.01 13 n/a n/a		
	Code IRC2015/TPI2014		Wind(LL) 0.04 2-16 >999 240	Weight: 334 lb	FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x6 SP No.1	TOP CHORD Structural wood sheathing directly applied or 5-11-9 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* 13-14: 2x6 SP No.1	WEBS 1 Row at midpt 6-13

**REACTIONS.** (size) 2=0-3-8, 13=0-3-8, 10=0-3-8  
 Max Horz 2=122(LC 16)  
 Max Uplift 2=60(LC 12), 10=81(LC 13)  
 Max Grav 2=881(LC 23), 13=2792(LC 2), 10=535(LC 24)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-3=-1462/194, 3-5=-1334/264, 5-6=-657/197, 6-7=-23/996, 7-9=-409/199,  
 9-10=-689/186  
 BOT CHORD 2-16=-123/1265, 15-16=0/571, 13-15=-397/248, 11-13=-423/165, 10-11=-100/578  
 WEBS 3-16=-457/251, 5-16=-225/874, 5-15=-806/341, 6-15=-175/1376, 6-13=-1710/297,  
 7-13=-835/300, 7-11=-127/760, 9-11=-484/273

- 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) -0-8-5 to 3-10-14, Interior(1) 3-10-14 to 23-0-0, Exterior(2) 23-0-0 to 27-7-3, Interior(1) 27-7-3 to 45-10-4 zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - 3) 200.0lb AC unit load placed on the bottom chord, 21-0-0 from left end, supported at two points, 5-0-0 apart.
  - 4) All plates are 4x4 MT20 unless otherwise stated.
  - 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) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 10.



Job	Truss	Truss Type	Qty	Ply	Lot 20 Jones Creek	159244204
J0623-2940	A3	COMMON	8	1		

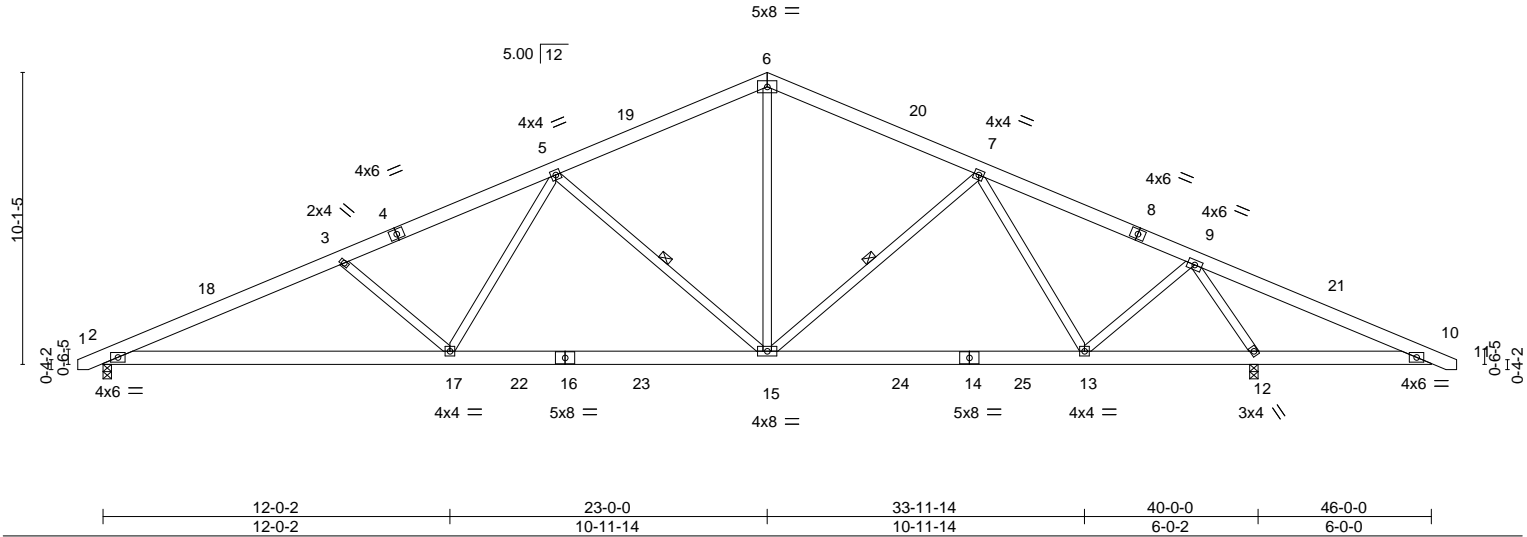
Comtech, Inc. Fayetteville, NC - 28314,

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Scale = 1:79.8



LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	2-0-0	TC 0.37	Vert(LL)	-0.20	15-17	>999	MT20	244/190
TCDL 10.0	Plate Grip DOL 1.15	BC 0.59	Vert(CT)	-0.33	2-17	>999		
BCLL 0.0 *	Lumber DOL 1.15	WB 0.65	Horz(CT)	0.07	12	n/a		
BCDL 10.0	Rep Stress Incr YES	Matrix-S	Wind(LL)	0.08	17	>999		
	Code IRC2015/TPI2014						Weight: 312 lb	FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x6 SP No.1	TOP CHORD Structural wood sheathing directly applied or 3-10-11 oc purlins.
BOT CHORD 2x6 SP No.1	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing, Except:
WEBS 2x4 SP No.2	6-0-0 oc bracing: 10-12.
	WEBS 1 Row at midpt 7-15, 5-15

**REACTIONS.** (size) 2=0-3-8, 12=0-3-8  
 Max Horz 2=118(LC 12)  
 Max Uplift 2=-127(LC 12), 12=-163(LC 9)  
 Max Grav 2=1603(LC 1), 12=2157(LC 1)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-3=-3237/634, 3-5=-2929/555, 5-6=-1853/445, 6-7=-1853/425, 7-9=-1658/222,  
 9-10=-623/803  
 BOT CHORD 2-17=-473/2924, 15-17=-255/2291, 13-15=-125/1683, 12-13=-15/707, 10-12=-642/652  
 WEBS 6-15=-106/1021, 7-13=-562/302, 9-13=-183/1051, 5-15=-923/291, 5-17=-40/711,  
 3-17=-481/266, 9-12=-2337/755

- 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) -0-8-5 to 3-10-14, Interior(1) 3-10-14 to 23-0-0, Exterior(2) 23-0-0 to 27-7-3, Interior(1) 27-7-3 to 46-8-5 zone; cantilever right exposed ;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - 3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - 4) \* This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
  - 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=127, 12=163.



Job	Truss	Truss Type	Qty	Ply	Lot 20 Jones Creek	159244205
J0623-2940	A4	MODIFIED QUEENPOST	1	1		

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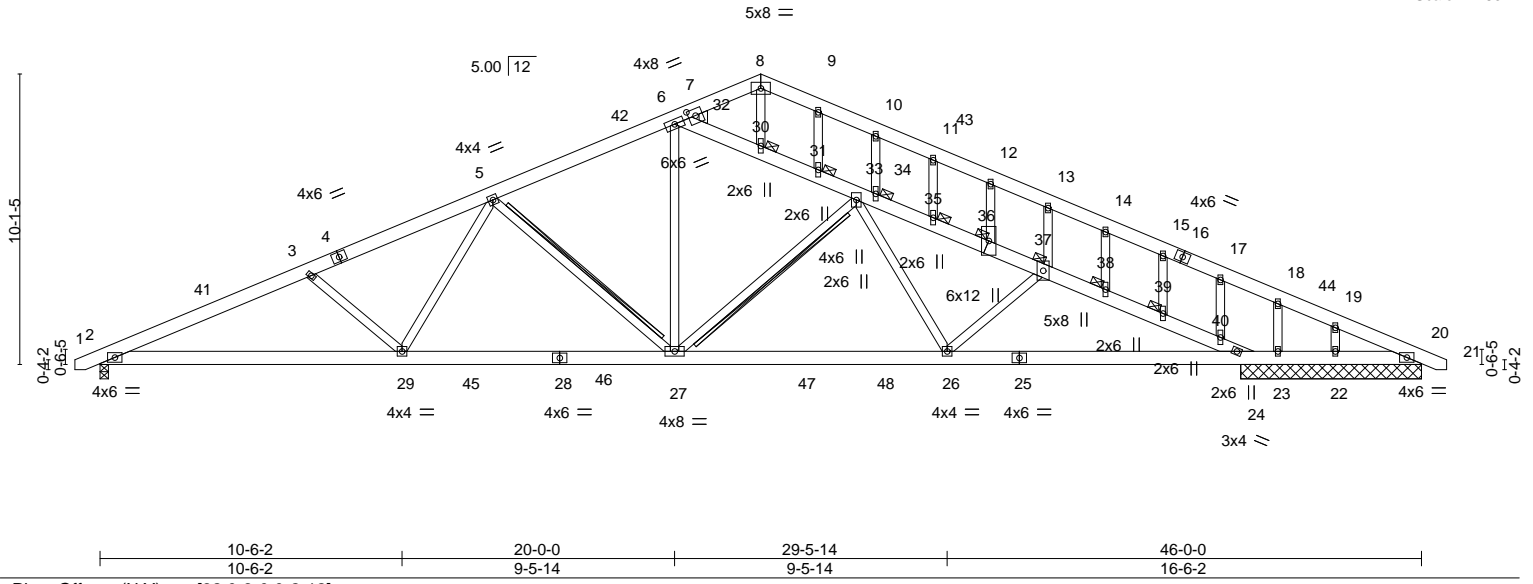
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Job Reference (optional)

0-10-8	7-4-3	13-8-2	20-0-0	23-0-0	26-3-14	32-7-13	46-0-0	46-10-8
0-10-8	7-4-3	6-3-14	6-3-14	3-0-0	3-3-14	6-3-14	13-4-3	0-10-8

Scale = 1:80.2



10-6-2	20-0-0	29-5-14	46-0-0						
10-6-2	9-5-14	9-5-14	16-6-2						
Plate Offsets (X,Y)--	[32:0-3-0,0-2-12]								
<b>LOADING</b> (psf)	<b>SPACING-</b>	2-0-0	<b>CSI.</b>	<b>DEFL.</b>	in (loc)	l/defl	L/d	<b>PLATES</b>	<b>GRIP</b>
TCLL 20.0	Plate Grip DOL	1.15	TC 0.30	Vert(LL)	-0.17 26-27	>999	360	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.57	Vert(CT)	-0.32 26-27	>999	240		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.32	Horz(CT)	0.10 20	n/a	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-S	Wind(LL)	0.13 27-29	>999	240	Weight: 379 lb	FT = 20%

<b>LUMBER-</b>	<b>BRACING-</b>
TOP CHORD 2x6 SP No.1	TOP CHORD Structural wood sheathing directly applied or 3-10-12 oc purlins.
BOT CHORD 2x6 SP No.1	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing. Except:
WEBS 2x4 SP No.2 *Except*	8-8-2 oc bracing: 2-29.
6-36,24-36: 2x6 SP No.1	WEBS T-Brace: 2x4 SPF No.2 - 5-27, 27-33
	Fasten (2X) T and I braces to narrow edge of web with 10d
	(0.131"x3") nails, 6in o.c., with 3in minimum end distance.
	Brace must cover 90% of web length.
	JOINTS 1 Brace at Jt(s): 30, 31, 34, 35, 36, 37, 38, 39

**REACTIONS.** All bearings 6-3-8 except (jt=length) 2=0-3-8.  
 (lb) - Max Horz 2=-200(LC 13)  
 Max Uplift All uplift 100 lb or less at joint(s) 22 except 2=-380(LC 12), 23=-460(LC 3), 24=-174(LC 13)  
 Max Grav All reactions 250 lb or less at joint(s) 22 except 2=1670(LC 1), 20=392(LC 1), 24=1709(LC 1)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-3=-3446/775, 3-5=-3132/680, 5-6=-2226/534, 6-7=-573/231, 7-8=-568/246, 8-9=-556/238, 9-10=-559/197, 10-11=-566/162, 11-12=-590/143, 12-13=-616/123, 13-14=-584/68, 14-15=-588/43, 15-17=-651/34, 17-18=-645/0, 18-19=-545/0, 19-20=-629/0  
 BOT CHORD 2-29=-818/3111, 27-29=-557/2561, 26-27=-324/2350, 24-26=-520/2949, 23-24=0/565, 22-23=0/565, 20-22=0/565  
 WEBS 6-32=-1605/445, 30-32=-1625/443, 30-31=-1541/424, 31-33=-1585/438, 33-34=-2223/479, 34-35=-2258/516, 35-36=-2280/525, 36-37=-2305/537, 37-38=-2576/690, 38-39=-2614/704, 39-40=-2602/705, 24-40=-2654/732, 3-29=-400/297, 5-29=-83/584, 5-27=-784/345, 6-27=-171/1119, 27-33=-541/232, 26-33=-121/584, 26-37=-464/351, 13-37=-255/205, 18-23=-378/196

- NOTES-**
- 1) Unbalanced roof live loads have been considered for this design.
  - 2) Wind: ASCE 7-10; Vult=130mph Vasd=103mph; TC DL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) -0-8-5 to 3-10-14, Interior(1) 3-10-14 to 23-0-0, Exterior(2) 23-0-0 to 27-7-3, Interior(1) 27-7-3 to 46-8-5 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 100 lb uplift at joint(s) 22 except (jt=lb) 2=380, 23=460, 24=174.
  - 7) Warning: Additional permanent and stability bracing for truss system (not part of this component design) is always required.



Job J0623-2940	Truss B1	Truss Type GABLE	Qty 1	Ply 1	Lot 20 Jones Creek I59244206
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-0-10-8	20-0-0	40-0-0	40-10-8
0-10-8	20-0-0	20-0-0	0-10-8

Scale = 1:69.9

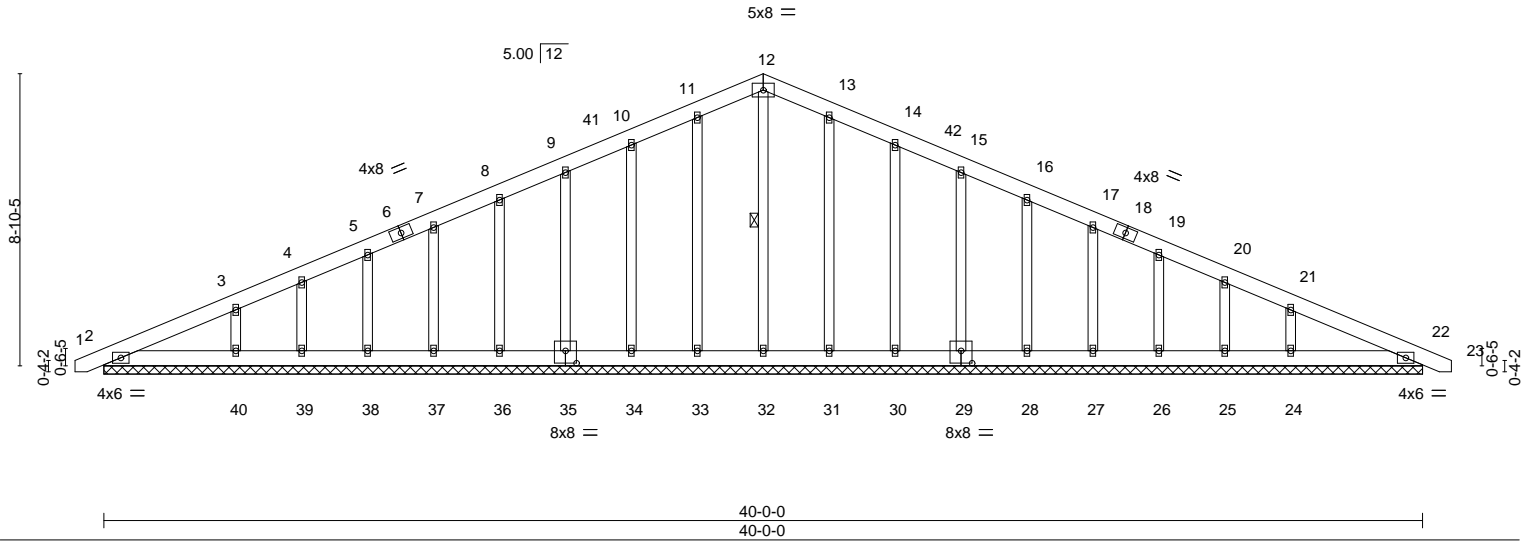


Plate Offsets (X,Y)--	[29:0-4-0,0-4-8], [35:0-4-0,0-4-8]
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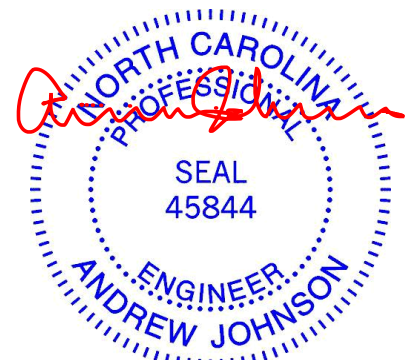
LOADING (psf)	SPACING-	CSI.	DEFL.	PLATES	GRIP
TCLL 20.0	2-0-0	TC 0.05	in (loc) l/defl L/d	MT20	244/190
TCDL 10.0	Plate Grip DOL 1.15	BC 0.04	Vert(LL) 0.00 23 n/r 120		
BCLL 0.0 *	Lumber DOL 1.15	WB 0.12	Vert(CT) 0.00 23 n/r 120		
BCDL 10.0	Rep Stress Incr YES	Matrix-S	Horz(CT) 0.01 22 n/a n/a		
	Code IRC2015/TPI2014			Weight: 312 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 1 Row at midpt 12-32

**REACTIONS.** All bearings 40-0-0.  
 (lb) - Max Horz 2=-174(LC 13)  
 Max Uplift All uplift 100 lb or less at joint(s) 2, 22, 33, 34, 35, 36, 37, 38, 39, 31, 30, 29, 28, 27, 26, 25 except 40=-122(LC 12), 24=-121(LC 13)  
 Max Grav All reactions 250 lb or less at joint(s) 2, 22, 32, 33, 34, 35, 36, 37, 38, 39, 31, 30, 29, 28, 27, 26, 25 except 40=315(LC 23), 24=315(LC 24)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 9-10=-86/257, 10-11=-104/306, 11-12=-117/342, 12-13=-117/345, 13-14=-104/310, 14-15=-86/260  
 WEBS 3-40=-222/269, 21-24=-222/269

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-10; Vult=130mph Vasd=103mph; TC DL=6.0psf; BC DL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Corner(3) -0-8-5 to 4-0-0, Exterior(2) 4-0-0 to 20-0-0, Corner(3) 20-0-0 to 24-4-13, Exterior(2) 24-4-13 to 40-8-5 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) 2, 22, 33, 34, 35, 36, 37, 38, 39, 31, 30, 29, 28, 27, 26, 25 except (jt=lb) 40=122, 24=121.



June 28, 2023

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

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

Job J0623-2940	Truss B2	Truss Type Common	Qty 5	Ply 1	Lot 20 Jones Creek I59244207
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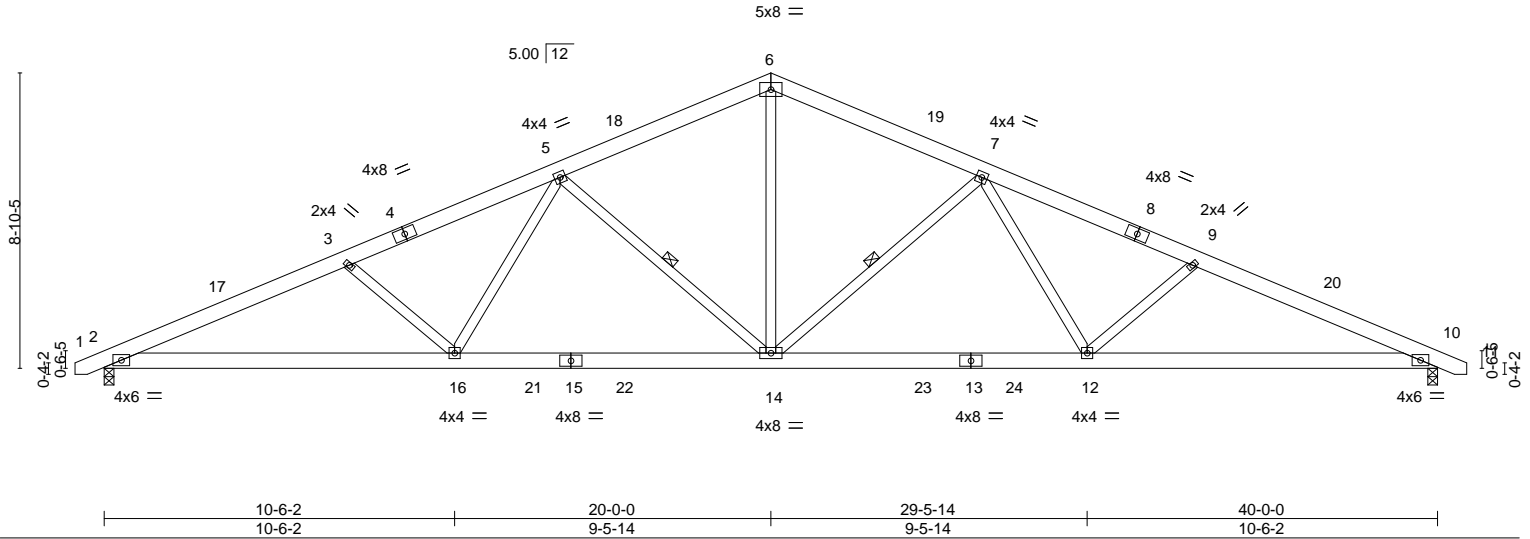
Comtech, Inc. Fayetteville, NC - 28314,

8.430 s Jan 6 2022 MiTek Industries, Inc. Wed Jun 28 14:53:40 2023 Page 1

ID:DdNRY8gEWXv7oZcqu\_L6luzDuwl-RfC?PsB70Hq3NSgPqnL8w3ulTXbGKWrCDoi7J4zJC?f

-0-10-8	7-4-3	13-8-2	20-0-0	26-3-14	32-7-13	40-0-0	40-10-8
0-10-8	7-4-3	6-3-14	6-3-14	6-3-14	6-3-14	7-4-3	0-10-8

Scale = 1:69.1



LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL	1.15	TC 0.29	Vert(LL)	-0.17 12-14	>999	360	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.52	Vert(CT)	-0.32 12-14	>999	240		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.31	Horz(CT)	0.10 10	n/a	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-S	Wind(LL)	0.09 14-16	>999	240	Weight: 266 lb	FT = 20%

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

**BRACING-**  
 TOP CHORD Structural wood sheathing directly applied or 3-11-6 oc purlins.  
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.  
 WEBS 1 Row at midpt 7-14, 5-14

**REACTIONS.** (size) 2=0-3-8, 10=0-3-8  
 Max Horz 2=-103(LC 13)  
 Max Uplift 2=-112(LC 12), 10=-112(LC 13)  
 Max Grav 2=1639(LC 1), 10=1639(LC 1)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-3=-3370/704, 3-5=-3053/638, 5-6=-2145/548, 6-7=-2145/548, 7-9=-3053/638,  
 9-10=-3370/704  
 BOT CHORD 2-16=-547/3041, 14-16=-375/2484, 12-14=-383/2484, 10-12=-540/3041  
 WEBS 6-14=-215/1277, 7-14=-791/252, 7-12=-32/591, 9-12=-403/229, 5-14=-791/252,  
 5-16=-31/591, 3-16=-403/229

- NOTES-**
- 1) Unbalanced roof live loads have been considered for this design.
  - 2) Wind: ASCE 7-10; Vult=130mph Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2) -0-8-5 to 3-8-8, Interior(1) 3-8-8 to 20-0-0, Exterior(2) 20-0-0 to 24-4-13, Interior(1) 24-4-13 to 40-8-5 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=112, 10=112.



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

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



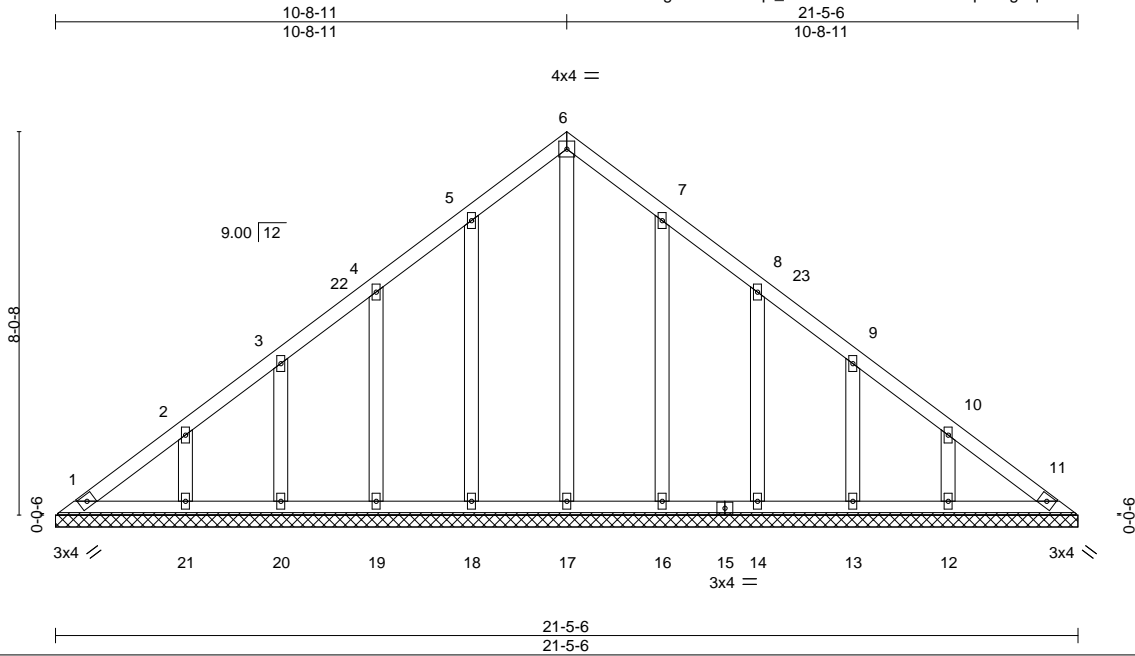
818 Soundside Road  
 Edenton, NC 27932

Job J0623-2940	Truss V1	Truss Type GABLE	Qty 1	Ply 1	Lot 20 Jones Creek 159244208
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8.430 s Jan 6 2022 MiTek Industries, Inc. Wed Jun 28 14:53:41 2023 Page 1

ID:DdNRY8gEWXv7oZcqu\_L6IuzDuwl-RfC?PsB70Hq3NSgPqnL8w3ulTXbGKWrCDoi7J4zJC?f



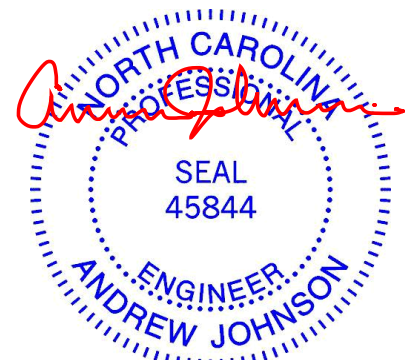
<b>LOADING</b> (psf)	<b>SPACING-</b>	2-0-0	<b>CSI.</b>	<b>DEFL.</b>	in (loc)	l/defl	L/d	<b>PLATES</b>	<b>GRIP</b>	
TCLL 20.0	Plate Grip DOL	1.15	TC 0.05	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.03	Vert(CT)	n/a	-	n/a	999		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.18	Horz(CT)	0.01	11	n/a	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-S						Weight: 126 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 21-5-6.  
 (lb) - Max Horz 1=231(LC 9)  
 Max Uplift All uplift 100 lb or less at joint(s) 1, 11, 18, 20, 16, 13 except 19=102(LC 12), 21=122(LC 12), 14=103(LC 13), 12=122(LC 13)  
 Max Grav All reactions 250 lb or less at joint(s) 1, 11, 17, 18, 19, 20, 21, 16, 14, 13, 12

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

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-10; Vult=130mph Vasd=103mph; TCCL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) 0-5-5 to 4-8-11, Interior(1) 4-8-11 to 10-8-11, Exterior(2) 10-8-11 to 15-1-8, Interior(1) 15-1-8 to 21-0-2 zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - All plates are 2x4 MT20 unless otherwise indicated.
  - 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, 11, 18, 20, 16, 13 except (jt=lb) 19=102, 21=122, 14=103, 12=122.



June 28, 2023

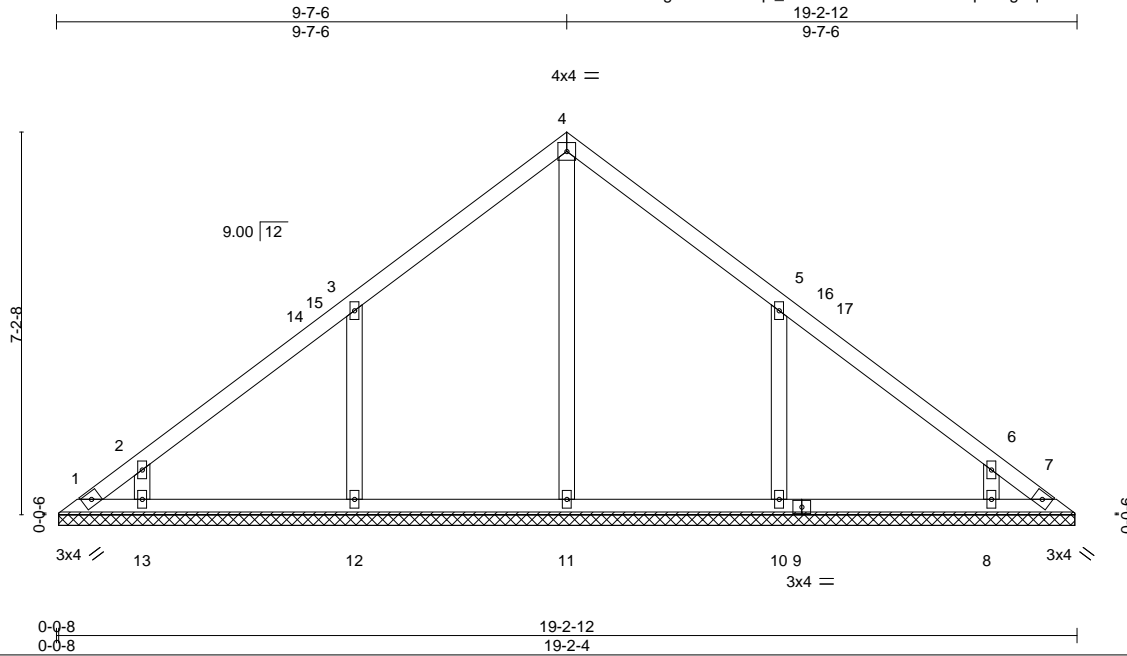


Job J0623-2940	Truss V2	Truss Type Valley	Qty 1	Ply 1	Lot 20 Jones Creek 159244209
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8.430 s Jan 6 2022 MiTek Industries, Inc. Wed Jun 28 14:53:42 2023 Page 1

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LOADING (psf)	SPACING-	CSI.	DEFL.	PLATES	GRIP
TCLL 20.0	2-0-0	TC 0.16	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 0.13	Vert(CT) n/a - n/a 999		
BCDL 10.0	Rep Stress Incr YES	Matrix-S	Horz(CT) 0.00 7 n/a n/a	Weight: 85 lb	FT = 20%
	Code IRC2015/TPI2014				

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 19-1-12.  
 (lb) - Max Horz 1=-165(LC 8)  
 Max Uplift All uplift 100 lb or less at joint(s) 1, 7, 13, 8 except 12=-122(LC 12), 10=-122(LC 13)  
 Max Grav All reactions 250 lb or less at joint(s) 1, 7 except 11=437(LC 22), 12=468(LC 19), 13=266(LC 19), 10=468(LC 20), 8=266(LC 20)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 WEBS 3-12=-337/230, 2-13=-259/200, 5-10=-337/230, 6-8=-259/200

- 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) 0-5-5 to 4-10-1, Interior(1) 4-10-1 to 9-7-6, Exterior(2) 9-7-6 to 14-0-3, Interior(1) 14-0-3 to 18-9-7 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) Gable requires continuous bottom chord bearing.
  - 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) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 7, 13, 8 except (jt=lb) 12=122, 10=122.

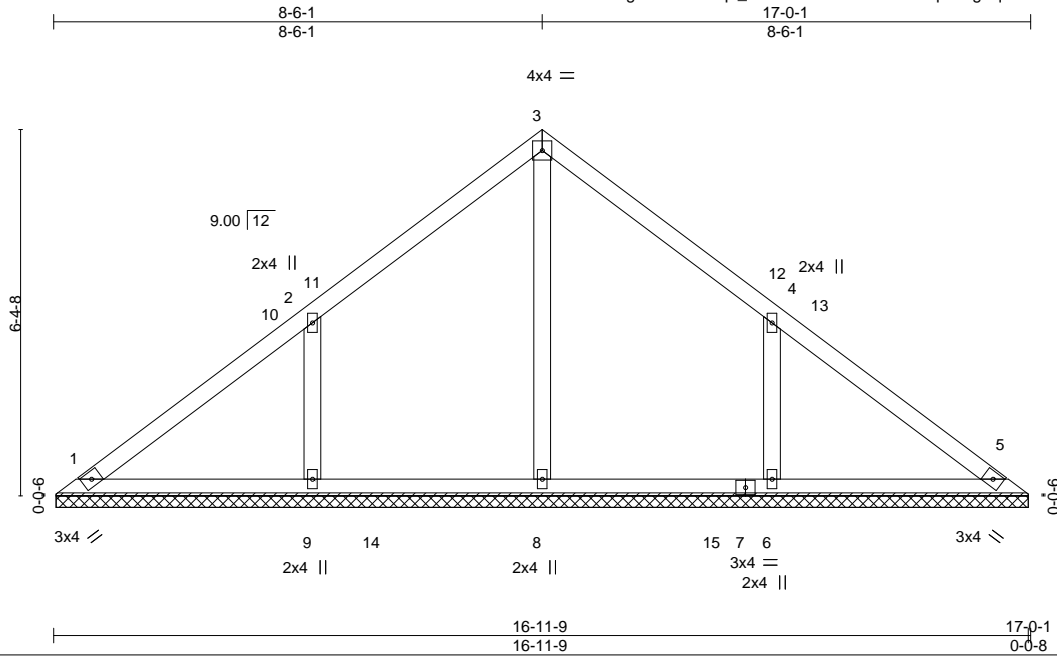


Job J0623-2940	Truss V3	Truss Type Valley	Qty 1	Ply 1	Lot 20 Jones Creek I59244210
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8.430 s Jan 6 2022 MiTek Industries, Inc. Wed Jun 28 14:53:43 2023 Page 1

ID:DdNRY8gEWXv7oZcqu\_L6luzDuwl-RfC?PsB70Hq3NSgPqnL8w3ulTXbGKWrCDoi7J4zJC?f



Scale = 1:40.1

LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	2-0-0	TC 0.18	Vert(LL)	n/a	-	n/a	MT20	244/190
TCDL 10.0	Plate Grip DOL 1.15	BC 0.17	Vert(CT)	n/a	-	n/a		
BCLL 0.0 *	Lumber DOL 1.15	WB 0.10	Horz(CT)	0.00	5	n/a		
BCDL 10.0	Rep Stress Incr YES	Matrix-S					Weight: 72 lb	FT = 20%
	Code IRC2015/TPI2014							

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

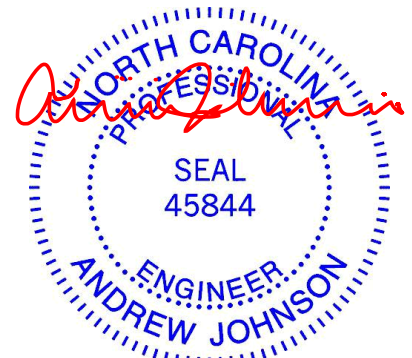
**BRACING-**  
 TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins.  
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS.** All bearings 16-11-1.  
 (lb) - Max Horz 1=145(LC 9)  
 Max Uplift All uplift 100 lb or less at joint(s) 1 except 9=134(LC 12), 6=134(LC 13)  
 Max Grav All reactions 250 lb or less at joint(s) 1, 5 except 8=411(LC 19), 9=460(LC 19), 6=460(LC 20)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
**WEBS** 2-9=-362/243, 4-6=-362/243

**NOTES-**

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-10; Vult=130mph Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2) 0-5-5 to 4-10-1, Interior(1) 4-10-1 to 8-6-1, Exterior(2) 8-6-1 to 12-10-13, Interior(1) 12-10-13 to 16-6-12 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, with BCDL = 10.0psf.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1 except (jt=lb) 9=134, 6=134.



June 28, 2023

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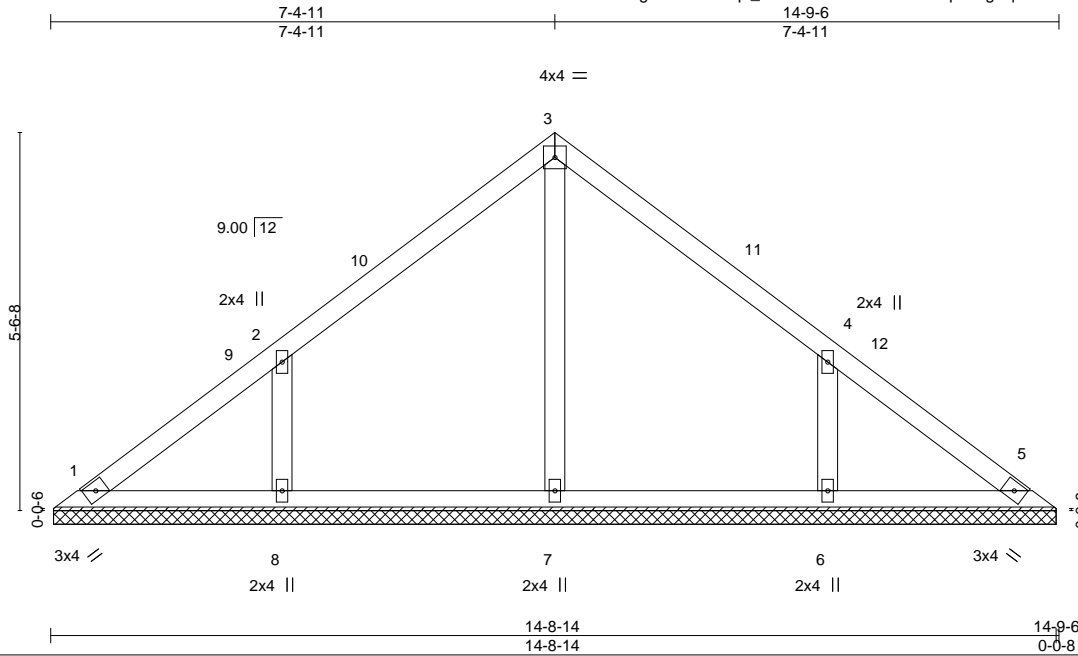
818 Soundside Road  
 Edenton, NC 27932

Job J0623-2940	Truss V4	Truss Type Valley	Qty 1	Ply 1	Lot 20 Jones Creek I59244211
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8.430 s Jan 6 2022 MiTek Industries, Inc. Wed Jun 28 14:53:44 2023 Page 1

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Scale = 1:33.8

<b>LOADING</b> (psf)	<b>SPACING-</b>	2-0-0	<b>CSI.</b>	<b>DEFL.</b>	in (loc)	l/defl	L/d	<b>PLATES</b>	<b>GRIP</b>	
TCLL 20.0	Plate Grip DOL	1.15	TC 0.14	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.08	Vert(CT)	n/a	-	n/a	999		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.08	Horz(CT)	0.00	5	n/a	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-S						Weight: 61 lb	FT = 20%

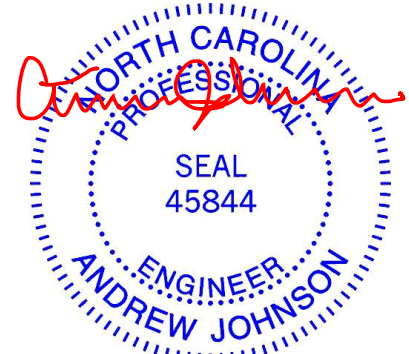
**LUMBER-**  
 TOP CHORD 2x4 SP No.1  
 BOT CHORD 2x4 SP No.1  
 OTHERS 2x4 SP No.2

**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 14-8-6.  
 (lb) - Max Horz 1=125(LC 11)  
 Max Uplift All uplift 100 lb or less at joint(s) 1 except 8=116(LC 12), 6=116(LC 13)  
 Max Grav All reactions 250 lb or less at joint(s) 1, 5, 7 except 8=357(LC 19), 6=357(LC 20)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
**WEBS** 2-8=-316/223, 4-6=-316/223

- 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) 0-5-5 to 4-10-1, Interior(1) 4-10-1 to 7-4-11, Exterior(2) 7-4-11 to 11-9-8, Interior(1) 11-9-8 to 14-4-2 zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - Gable requires continuous bottom chord bearing.
  - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - \* This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
  - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1 except (jt=lb) 8=116, 6=116.



June 28, 2023

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Job J0623-2940	Truss V5	Truss Type Valley	Qty 1	Ply 1	Lot 20 Jones Creek I59244212
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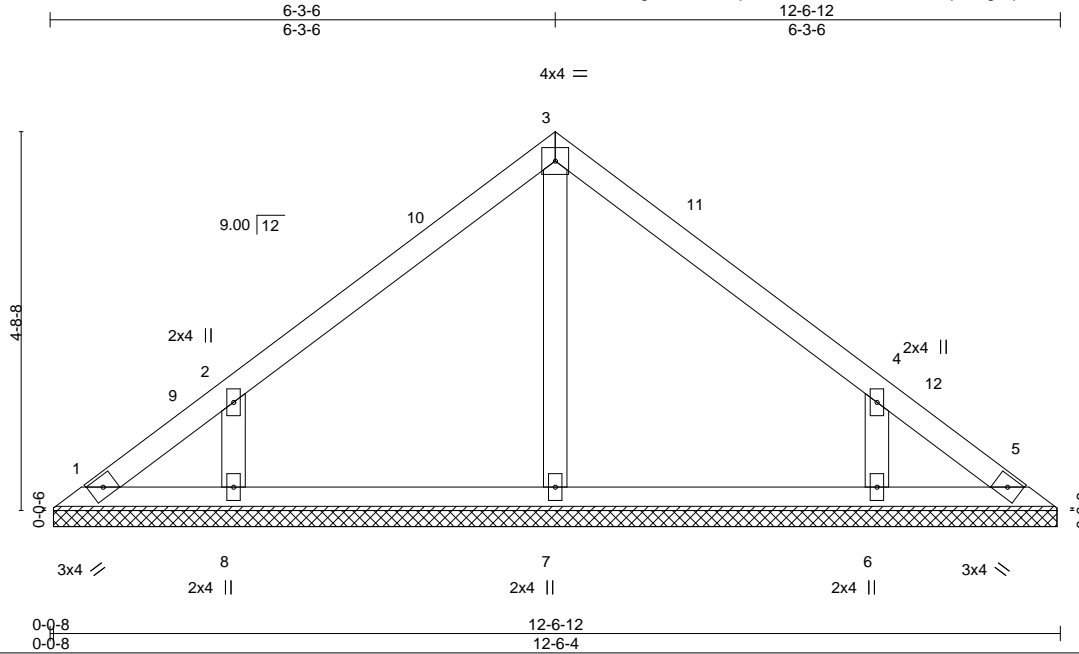
Comtech, Inc. Fayetteville, NC - 28314,

8.430 s Jan 6 2022 MiTek Industries, Inc. Wed Jun 28 14:53:45 2023 Page 1

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12-6-12  
6-3-6

Scale = 1:28.6



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 0.13	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 0.06	Horz(CT)	0.00	5	n/a	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-S						Weight: 50 lb	FT = 20%

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

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

**REACTIONS.** All bearings 12-5-12.  
 (lb) - Max Horz 1=105(LC 9)  
 Max Uplift All uplift 100 lb or less at joint(s) 1, 5 except 8=107(LC 12), 6=107(LC 13)  
 Max Grav All reactions 250 lb or less at joint(s) 1, 5 except 7=253(LC 1), 8=320(LC 19), 6=320(LC 20)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
**WEBS** 2-8=-294/219, 4-6=-294/219

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-10; Vult=130mph Vasd=103mph; TCCL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2) 0-5-5 to 4-10-1, Interior(1) 4-10-1 to 6-3-6, Exterior(2) 6-3-6 to 10-8-3, Interior(1) 10-8-3 to 12-1-7 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=107, 6=107.



June 28, 2023

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

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

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

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

ENGINEERING BY  
**TRENCO**  
 A MiTek Affiliate

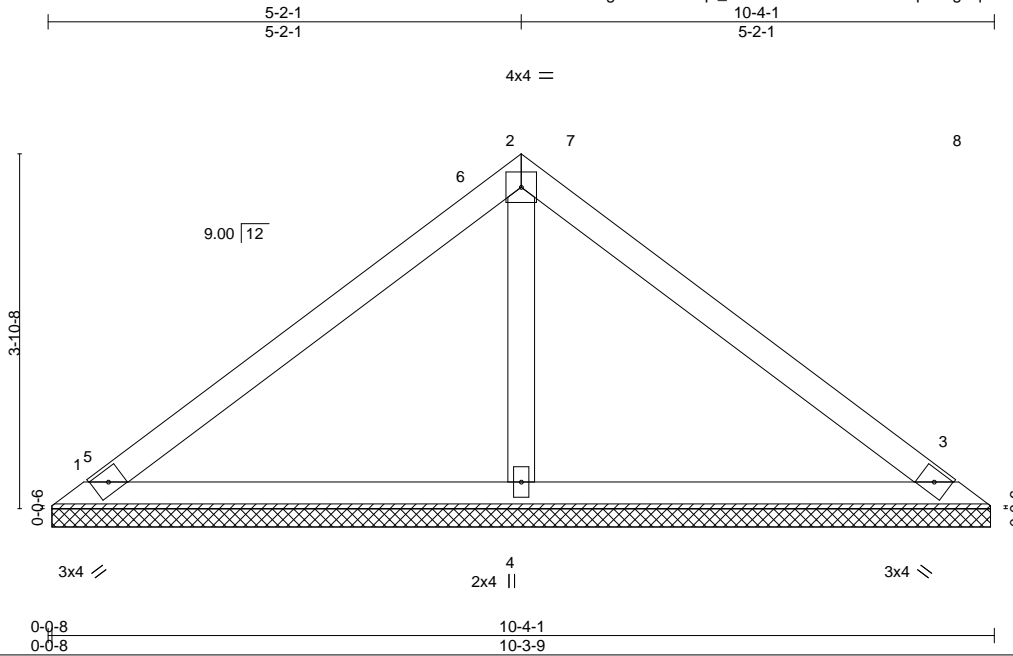
818 Soundside Road  
 Edenton, NC 27932

Job J0623-2940	Truss V6	Truss Type Valley	Qty 1	Ply 1	Lot 20 Jones Creek I59244213
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Comtech, Inc. Fayetteville, NC - 28314,

8.430 s Jan 6 2022 MiTek Industries, Inc. Wed Jun 28 14:53:45 2023 Page 1

ID:DdNRY8gEWXv7oZcqu\_L6luzDuwl-RfC?PsB70Hq3NSgPqnL8w3ulTXbGKWrCDoi7J4zJC?f



LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	2-0-0	TC 0.23	Vert(LL)	n/a	-	n/a	MT20	244/190
TCDL 10.0	Plate Grip DOL 1.15	BC 0.16	Vert(CT)	n/a	-	n/a		
BCLL 0.0 *	Lumber DOL 1.15	WB 0.05	Horz(CT)	0.00	3	n/a		
BCDL 10.0	Rep Stress Incr YES	Matrix-S					Weight: 38 lb	FT = 20%
	Code IRC2015/TPI2014							

**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=10-3-1, 3=10-3-1, 4=10-3-1  
 Max Horz 1=85(LC 11)  
 Max Uplift 1=23(LC 12), 3=31(LC 13)  
 Max Grav 1=195(LC 1), 3=195(LC 1), 4=366(LC 1)

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

- NOTES-**
- 1) Unbalanced roof live loads have been considered for this design.
  - 2) Wind: ASCE 7-10; Vult=130mph Vasd=103mph; TCCL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2) 0-5-5 to 4-10-1, Interior(1) 4-10-1 to 5-2-1, Exterior(2) 5-2-1 to 9-6-13, Interior(1) 9-6-13 to 9-10-12 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.

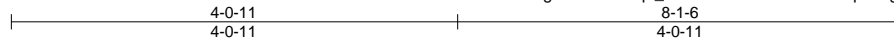


Job J0623-2940	Truss V7	Truss Type Valley	Qty 1	Ply 1	Lot 20 Jones Creek I59244214
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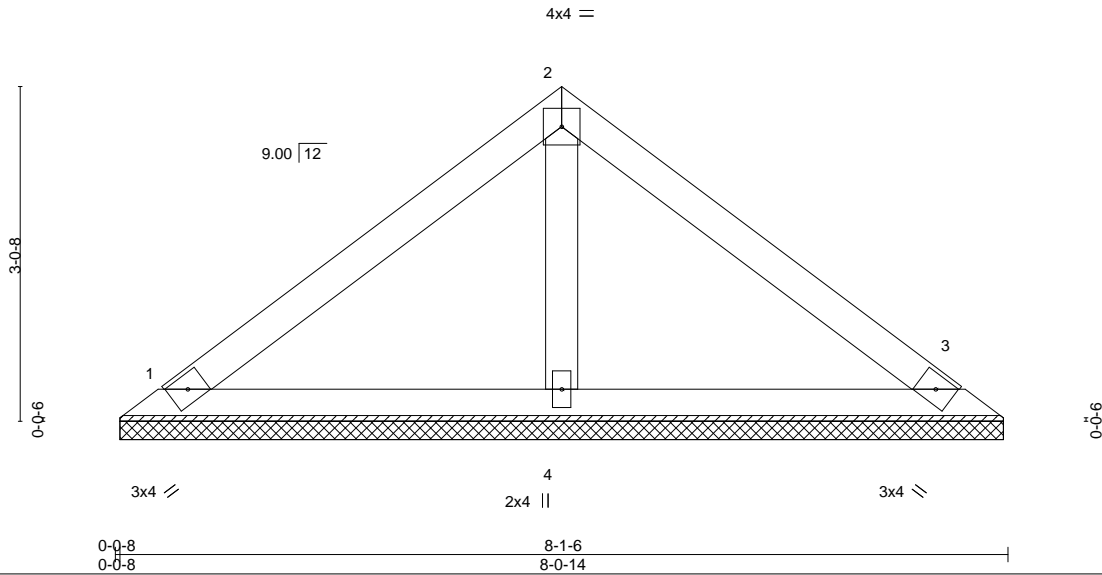
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8.430 s Jan 6 2022 MiTek Industries, Inc. Wed Jun 28 14:53:46 2023 Page 1

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Scale = 1:21.0



LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	2-0-0	TC 0.18	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 0.03	Horz(CT)	0.00	3	n/a		
BCDL 10.0	Rep Stress Incr YES	Matrix-P					Weight: 29 lb	FT = 20%
	Code IRC2015/TPI2014							

**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=8-0-6, 3=8-0-6, 4=8-0-6  
 Max Horz 1=-65(LC 10)  
 Max Uplift 1=-25(LC 12), 3=-31(LC 13)  
 Max Grav 1=162(LC 1), 3=162(LC 1), 4=254(LC 1)

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

**NOTES-**

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-10; Vult=130mph Vasd=103mph; 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.



June 28, 2023

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

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

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818 Soundside Road  
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Job J0623-2940	Truss V8	Truss Type Valley	Qty 1	Ply 1	Lot 20 Jones Creek I59244215
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Comtech, Inc. Fayetteville, NC - 28314,

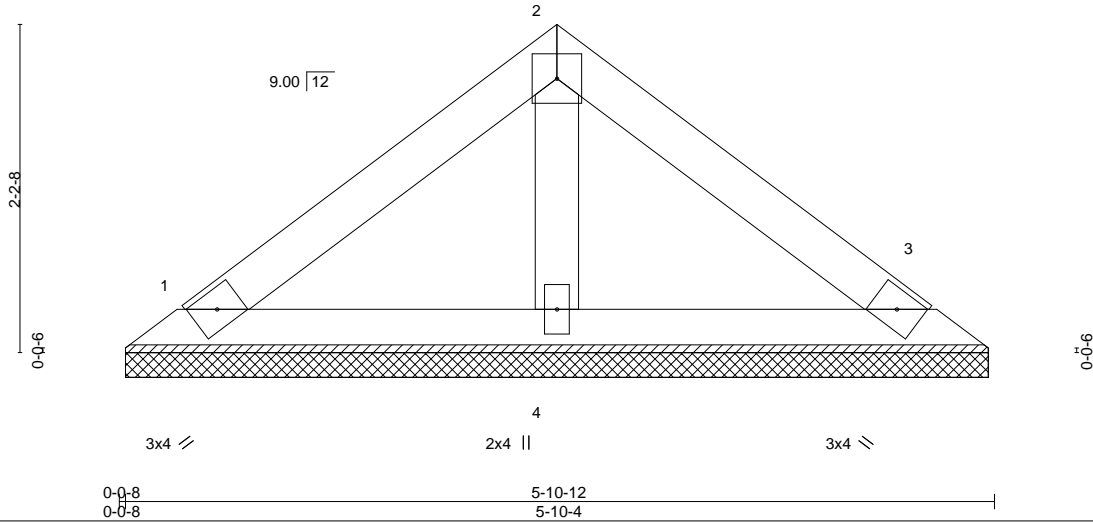
8,430 s Jan 6 2022 MiTek Industries, Inc. Wed Jun 28 14:53:47 2023 Page 1

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4x4 =

Scale = 1:15.5



LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	2-0-0	TC 0.08	Vert(LL)	n/a	-	n/a	MT20	244/190
TCDL 10.0	Plate Grip DOL 1.15	BC 0.05	Vert(CT)	n/a	-	n/a		
BCLL 0.0 *	Lumber DOL 1.15	WB 0.01	Horz(CT)	0.00	3	n/a		
BCDL 10.0	Rep Stress Incr YES	Matrix-P					Weight: 20 lb	FT = 20%
	Code IRC2015/TPI2014							

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

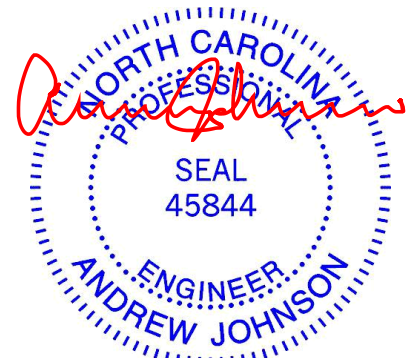
**BRACING-**  
 TOP CHORD Structural wood sheathing directly applied or 5-10-12 oc purlins.  
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS.** (size) 1=5-9-12, 3=5-9-12, 4=5-9-12  
 Max Horz 1=-45(LC 8)  
 Max Uplift 1=-17(LC 12), 3=-22(LC 13)  
 Max Grav 1=113(LC 1), 3=113(LC 1), 4=176(LC 1)

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

**NOTES-**

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



June 28, 2023

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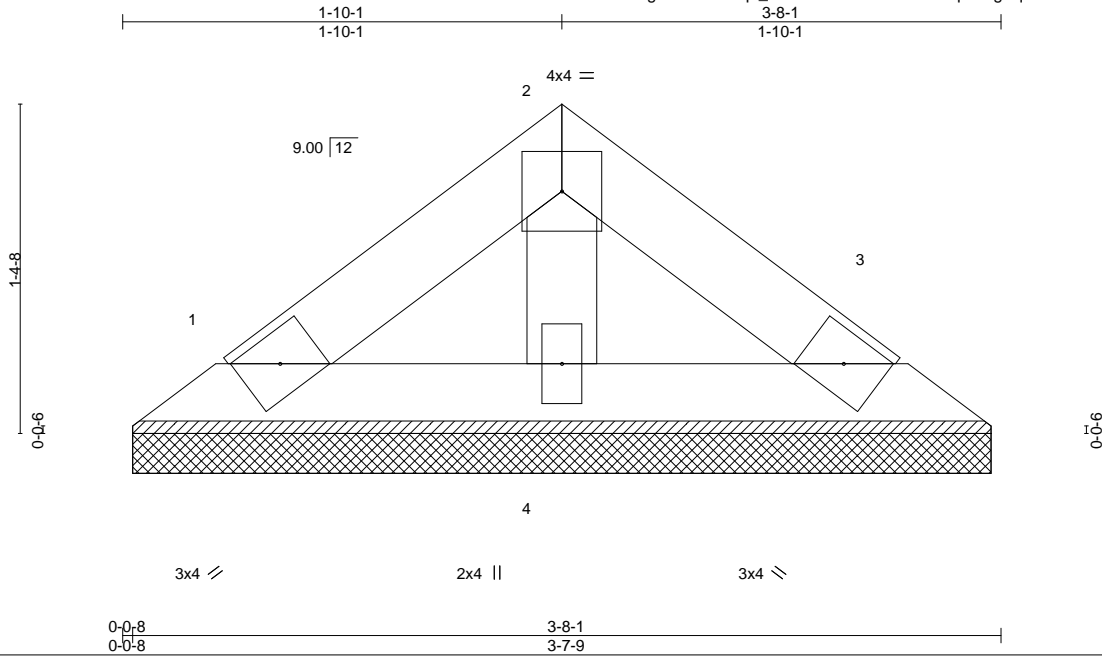
818 Soundside Road  
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Job J0623-2940	Truss V9	Truss Type Valley	Qty 1	Ply 1	Lot 20 Jones Creek I59244216
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8.430 s Jan 6 2022 MiTek Industries, Inc. Wed Jun 28 14:53:47 2023 Page 1

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Scale = 1:9.6

LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	2-0-0	TC 0.02	Vert(LL)	n/a	-	n/a	MT20	244/190
TCDL 10.0	Plate Grip DOL 1.15	BC 0.01	Vert(CT)	n/a	-	n/a		
BCLL 0.0 *	Lumber DOL 1.15	WB 0.01	Horz(CT)	0.00	3	n/a		
BCDL 10.0	Rep Stress Incr YES	Matrix-P					Weight: 12 lb	FT = 20%
	Code IRC2015/TPI2014							

**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 3-8-1 oc purlins.  
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS.** (size) 1=3-7-1, 3=3-7-1, 4=3-7-1  
 Max Horz 1=-25(LC 10)  
 Max Uplift 1=-10(LC 12), 3=-12(LC 13)  
 Max Grav 1=63(LC 1), 3=63(LC 1), 4=98(LC 1)

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

**NOTES-**

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-10; Vult=130mph Vasd=103mph; 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.



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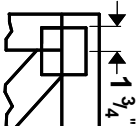


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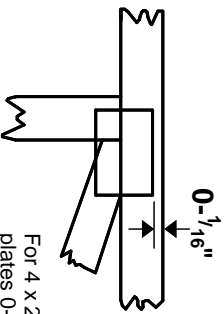


# Symbols

## PLATE LOCATION AND ORIENTATION



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



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



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

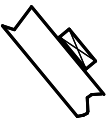
\* Plate location details available in **MITek 20/20 software** or upon request.

## PLATE SIZE

4 X 4

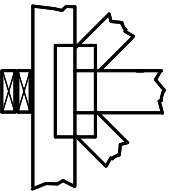
The first dimension is the plate width measured perpendicular to slots. Second dimension is the length parallel to slots.

## LATERAL BRACING LOCATION



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

## BEARING



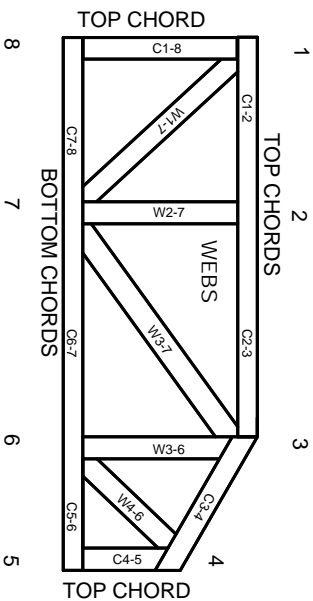
Indicates location where bearings (supports) occur. Icons vary but reaction section indicates joint number where bearings occur. Min size shown is for crushing only.

### Industry Standards:

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

# Numbering System

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



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

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

## PRODUCT CODE APPROVALS

ICC-ES Reports:

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

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

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

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



# General Safety Notes

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

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