

RE: J0224-1259  
 Lot 16 Williams Farms

Trenco  
 818 Soundside Rd  
 Edenton, NC 27932

**Site Information:**

Customer: Project Name: J0224-1259  
 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 23 individual, dated Truss Design Drawings and 0 Additional Drawings.

No.	Seal#	Truss Name	Date	No.	Seal#	Truss Name	Date
1	I63945387	A1-GE	3/4/2024	21	I63945407	PB6	3/4/2024
2	I63945388	A2	3/4/2024	22	I63945408	PB7	3/4/2024
3	I63945389	A3	3/4/2024	23	I63945409	PB8	3/4/2024
4	I63945390	B1-GE	3/4/2024				
5	I63945391	B2	3/4/2024				
6	I63945392	C1-GE	3/4/2024				
7	I63945393	C2	3/4/2024				
8	I63945394	C5	3/4/2024				
9	I63945395	C6	3/4/2024				
10	I63945396	D1-GE	3/4/2024				
11	I63945397	D2	3/4/2024				
12	I63945398	E1-GE	3/4/2024				
13	I63945399	E2	3/4/2024				
14	I63945400	E3	3/4/2024				
15	I63945401	E4	3/4/2024				
16	I63945402	PB1	3/4/2024				
17	I63945403	PB2	3/4/2024				
18	I63945404	PB3	3/4/2024				
19	I63945405	PB4	3/4/2024				
20	I63945406	PB5	3/4/2024				

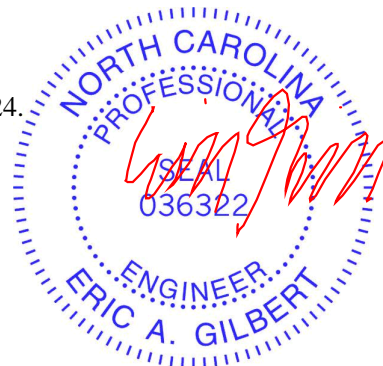
The truss drawing(s) referenced above have been prepared by Truss Engineering Co. under my direct supervision based on the parameters provided by Comtech, Inc - Fayetteville.

Truss Design Engineer's Name: Gilbert, Eric

My license renewal date for the state of North Carolina is December 31, 2024.

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.



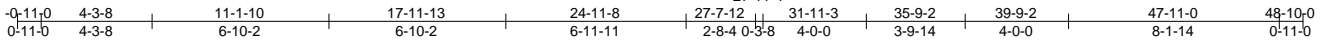
March 04, 2024

Job	Truss	Truss Type	Qty	Ply	Lot 16 Williams Farms	63945387
J0224-1259	A1-GE	GABLE	1	1		

Comtech, Inc. Fayetteville, NC - 28314,

8.430 s Jan 6 2022 MiTek Industries, Inc. Thu Feb 29 10:20:15 2024 Page 1

ID:2GNsYO62BI49KgBFP3SmayOXVO-RfC?PsB70Hq3NSgPqnL8w3ulTXbGKwrcDoi7J4zJC?#f



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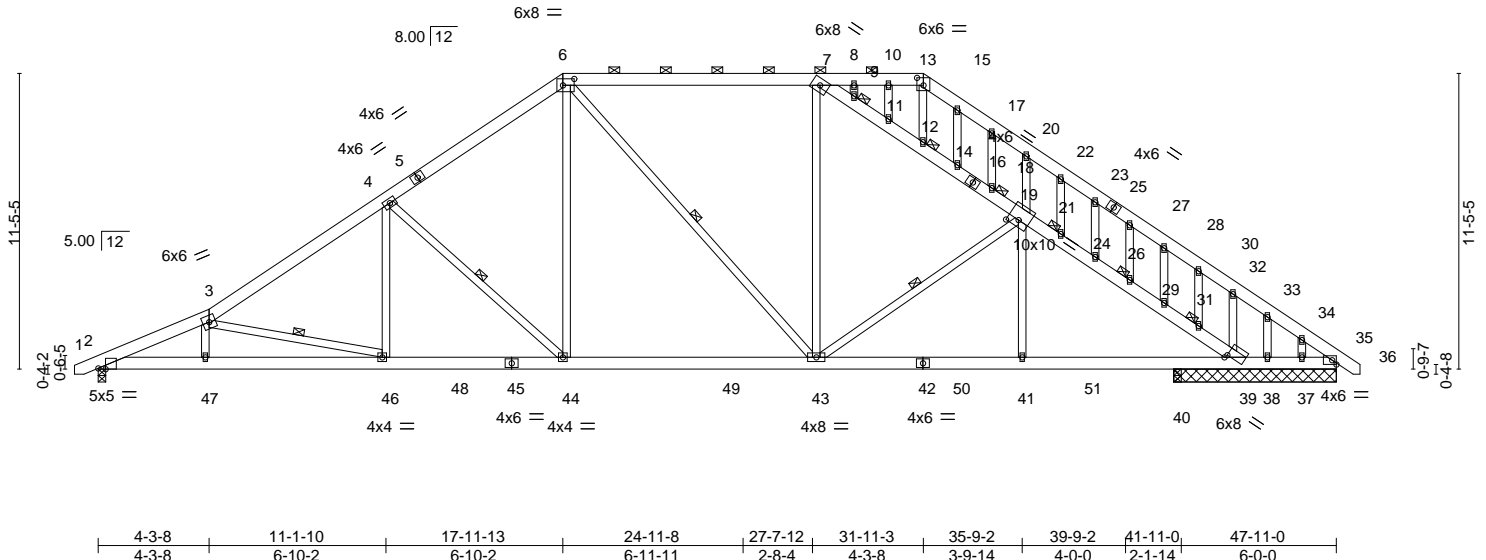


Plate Offsets (X,Y)--	[2:0-3-6,Edge], [6:0-5-4,0-3-0], [13:0-3-0,0-3-8], [19:0-5-0,0-3-0], [39:0-0-9,0-1-10]
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LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL	1.15	TC 0.43	Vert(LL)	-0.20	43-44	>999	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.56	Vert(CT)	-0.33	43-44	>999		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.37	Horz(CT)	0.10	35	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-S	Wind(LL)	0.12	46-47	>999		
								Weight: 440 lb	FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x6 SP No.1	TOP CHORD Structural wood sheathing directly applied or 3-9-10 oc purlins, except
BOT CHORD 2x6 SP No.1	2-0-0 oc purlins (5-1-2 max.): 6-13, 7-39.
WEBS 2x4 SP No.2	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing, Except:
OTHERS 2x4 SP No.2	8-4-14 oc bracing: 2-47,46-47.
	WEBS 1 Row at midpt 3-46, 4-44, 6-43, 19-43
	JOINTS 1 Brace at Jt(s): 31, 26, 21, 18, 12, 9

**REACTIONS.** All bearings 6-3-8 except (jt=length) 2=0-3-8, 40=0-3-8.  
 (lb) - Max Horz 2=345(LC 11)  
 Max Uplift All uplift 100 lb or less at joint(s) except 2=-330(LC 12), 37=-147(LC 13), 38=-289(LC 20), 39=-746(LC 13)  
 Max Grav All reactions 250 lb or less at joint(s) 37, 38 except 2=1854(LC 2), 35=370(LC 22), 39=1782(LC 20), 40=348(LC 2)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-3=-4065/1009, 3-4=-3064/795, 4-6=-2391/727, 6-7=-1885/667, 7-8=-320/158, 8-10=-306/142, 10-13=-307/141, 13-15=-348/137, 15-17=-350/102, 17-20=-375/86, 20-22=-326/0, 22-23=-350/0, 23-27=-373/0, 27-28=-397/0, 28-30=-419/0, 30-32=-480/0, 32-33=-426/258, 33-34=-441/153, 34-35=-509/214, 7-9=-1914/634, 9-11=-1893/616, 11-12=-1921/634, 12-14=-1877/617, 14-18=-1903/643, 18-19=-1914/649, 19-21=-2234/763, 21-24=-2242/765, 24-26=-2264/789, 26-29=-2281/808, 29-31=-2311/831, 31-39=-2283/827  
 BOT CHORD 2-47=-868/3708, 46-47=-875/3705, 44-46=-463/2557, 43-44=-295/1918, 41-43=-319/2144, 40-41=-319/2144, 39-40=-319/2144, 38-39=-188/422, 37-38=-188/422, 35-37=-188/422  
 WEBS 3-46=-1244/432, 4-46=-41/554, 4-44=-944/394, 6-44=-159/1047, 7-43=-34/668, 32-39=-643/379, 19-41=0/309, 19-43=-487/234, 19-20=-261/244

- 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; porch right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
  - Provide adequate drainage to prevent water ponding.
  - All plates are 2x4 MT20 unless otherwise indicated.
  - Gable studs spaced at 1-4-0 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.



March 4, 2024

Continued on page 2

<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/TPI 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>
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Job J0224-1259	Truss A1-GE	Truss Type GABLE	Qty 1	Ply 1	Lot 16 Williams Farms Job Reference (optional)	I63945387
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Comtech, Inc. Fayetteville, NC - 28314,

8.430 s Jan 6 2022 MiTek Industries, Inc. Thu Feb 29 10:20:15 2024 Page 2  
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**NOTES-**

- 9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 330 lb uplift at joint 2, 147 lb uplift at joint 37, 289 lb uplift at joint 38 and 746 lb uplift at joint 39.
- 10) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 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](http://www.tpinst.org)) and **BCSI Building Component Safety Information** available from the Structural Building Component Association ([www.sbcacomponents.com](http://www.sbcacomponents.com))



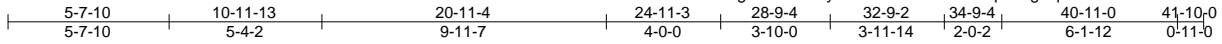
818 Soundside Road  
Edenton, NC 27932

Job J0224-1259	Truss A2	Truss Type Piggyback Base	Qty 6	Ply 1	Lot 16 Williams Farms 163945388
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8.430 s Jan 6 2022 MiTek Industries, Inc. Thu Feb 29 10:20:16 2024 Page 1

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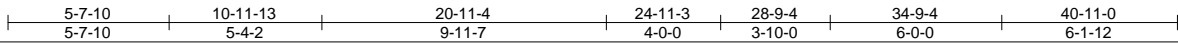
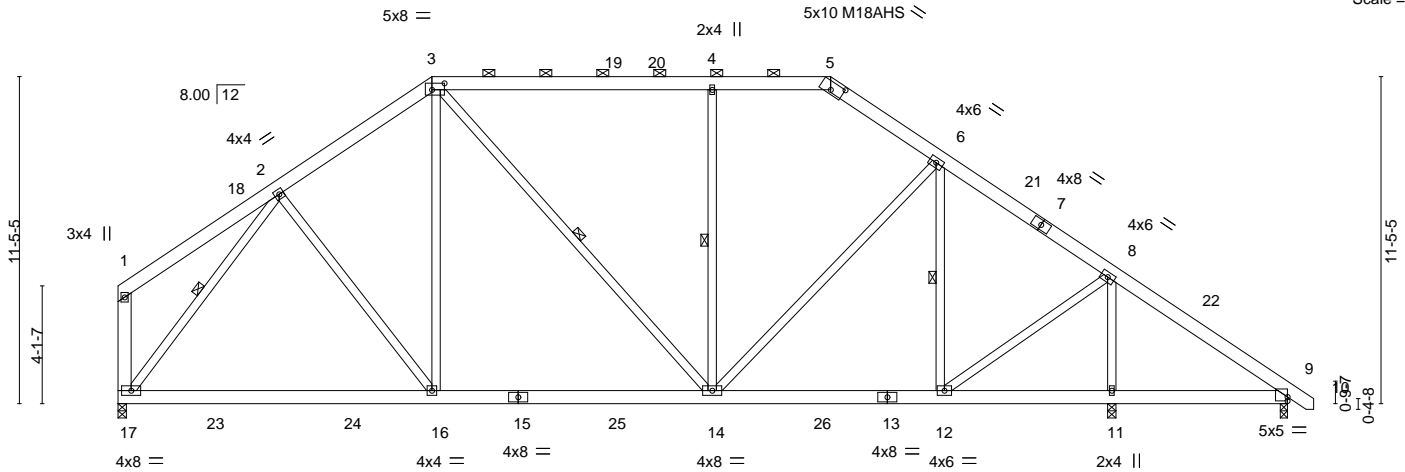


Plate Offsets (X, Y)--	[3:0-5-4,0-2-12], [5:0-5-4,0-3-5], [9:Edge,0-1-11]
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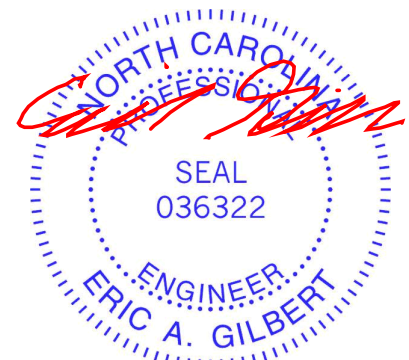
LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP	
TCLL 20.0	Plate Grip DOL	1.15	TC 0.57	Vert(LL)	-0.16	16-17	>999	360	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.52	Vert(CT)	-0.27	16-17	>999	240	M18AHS	186/179
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.76	Horz(CT)	0.02	11	n/a	n/a		
BCDL 10.0	Code IRC2015/TP12014		Matrix-S	Wind(LL)	0.08	14	>999	240		Weight: 338 lb FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x6 SP No.1	TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals, and 2-0-0 oc purlins (6-0-0 max.): 3-5.
BOT CHORD 2x6 SP No.1	BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.
WEBS 2x4 SP No.2 *Except* 1-17: 2x6 SP No.1	WEBS 1 Row at midpt 3-14, 4-14, 2-17, 6-12

REACTIONS.	(size)
Max Horz	17=-262(LC 8)
Max Uplift	11=-97(LC 13), 17=-28(LC 12), 9=-599(LC 25)
Max Grav	11=2575(LC 2), 17=1473(LC 2), 9=56(LC 12)

FORCES.	(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD	2-3=-1313/382, 3-4=-960/369, 4-5=-959/369, 5-6=-1058/361, 6-8=-726/166, 8-9=-394/1234
BOT CHORD	16-17=-151/1000, 14-16=-88/1105, 12-14=0/491, 11-12=-931/376, 9-11=-931/376
WEBS	2-16=-68/348, 3-16=-4/463, 4-14=-306/196, 6-14=-162/795, 8-12=-278/1680, 8-11=-2434/668, 2-17=-1352/275, 6-12=-717/270

- 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) 0-2-12 to 4-7-9, Interior(1) 4-7-9 to 10-11-13, Exterior(2) 10-11-13 to 17-2-7, Interior(1) 17-2-7 to 24-11-3, Exterior(2) 24-11-3 to 31-1-14, Interior(1) 31-1-14 to 41-8-7 zone; porch right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - Provide adequate drainage to prevent water ponding.
  - All plates are MT20 plates unless otherwise indicated.
  - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - \* This truss has been designed for a live load of 30.0psf on the bottom chord in all areas 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 97 lb uplift at joint 11, 28 lb uplift at joint 17 and 599 lb uplift at joint 9.
  - Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



March 4, 2024

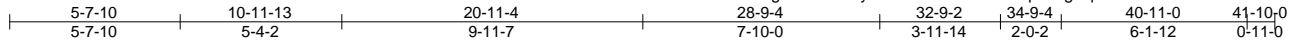
<p><b>WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 BEFORE USE.</b></p> <p>Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. 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>
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Job J0224-1259	Truss A3	Truss Type Piggyback Base	Qty 3	Ply 1	Lot 16 Williams Farms Job Reference (optional)	163945389
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Comtech, Inc. Fayetteville, NC - 28314,

8.430 s Jan 6 2022 MiTek Industries, Inc. Thu Feb 29 10:20:17 2024 Page 1

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5x8 =

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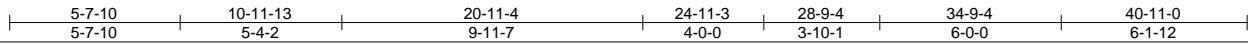
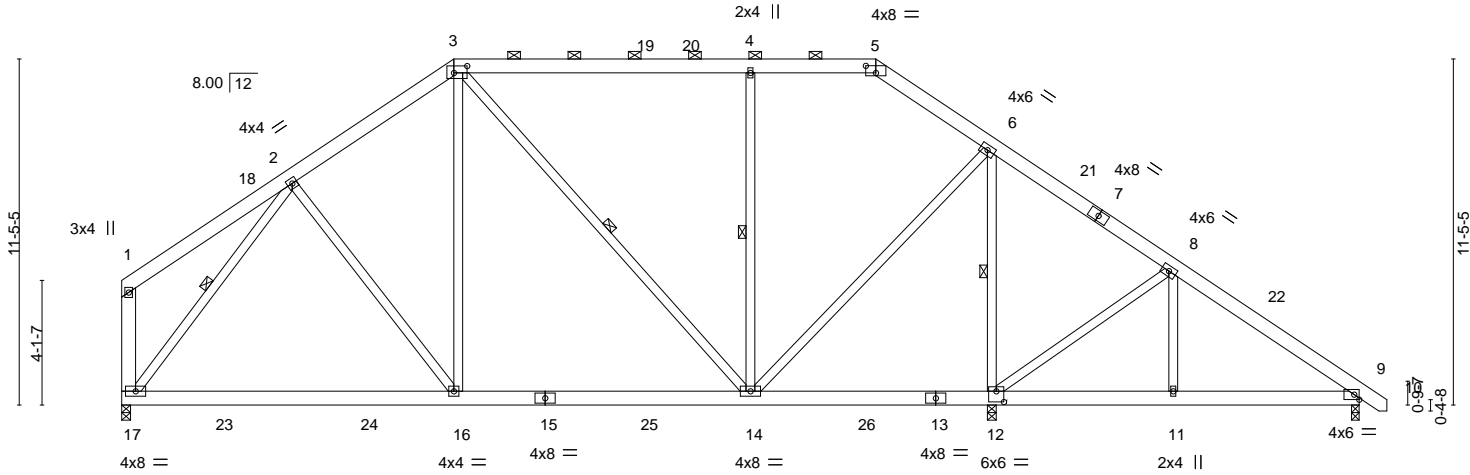


Plate Offsets (X,Y)-- [3:0-5-4,0-2-12], [5:0-4-0,0-2-13], [12:0-3-0,0-4-4]

<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 0.45	Vert(LL)	-0.16	16-17	>999	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.51	Vert(CT)	-0.25	16-17	>999		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.68	Horz(CT)	0.01	12	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-S	Wind(LL)	0.04	14-16	>999		
								Weight: 338 lb	FT = 20%

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

**BRACING-**  
 TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals, and 2-0-0 oc purlins (6-0-0 max.): 3-5.  
 BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.  
 WEBS 1 Row at midpt 3-14, 4-14, 6-12, 2-17

**REACTIONS.** (size) 12=0-3-8, 17=0-3-8, 9=0-3-0  
 Max Horz 17=-262(LC 8)  
 Max Uplift 12=-178(LC 8), 17=-21(LC 12), 9=-118(LC 25)  
 Max Grav 12=2275(LC 2), 17=1187(LC 19), 9=274(LC 24)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-3=-967/282, 3-4=-440/222, 4-5=-439/223, 5-6=-531/216, 6-8=-216/641, 8-9=-132/439  
 BOT CHORD 16-17=-148/809, 14-16=-84/843, 12-14=-588/419, 11-12=-313/113, 9-11=-313/113  
 WEBS 3-16=-7/544, 3-14=-541/110, 4-14=-464/250, 6-14=-294/1359, 6-12=-1704/542,  
 2-17=-1001/179, 8-12=-549/464

- 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) 0-2-12 to 4-7-9, Interior(1) 4-7-9 to 10-11-13, Exterior(2) 10-11-13 to 17-2-7, Interior(1) 17-2-7 to 24-11-3, Exterior(2) 24-11-3 to 31-1-14, Interior(1) 31-1-14 to 41-8-7 zone; porch right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - 3) Provide adequate drainage to prevent water ponding.
  - 4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - 5) \* This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
  - 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 178 lb uplift at joint 12, 21 lb uplift at joint 17 and 118 lb uplift at joint 9.
  - 7) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



March 4, 2024

Job	Truss	Truss Type	Qty	Ply	Lot 16 Williams Farms	63945390
J0224-1259	B1-GE	GABLE	1	1		

Comtech, Inc. Fayetteville, NC - 28314,

8.430 s Jan 6 2022 MiTek Industries, Inc. Thu Feb 29 10:20:21 2024 Page 1

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Job Reference (optional)

0-11-0	4-3-8	17-11-13	27-11-4	43-11-0	44-10-0
0-11-0	4-3-8	13-8-4	9-11-7	15-11-13	0-11-0

Scale = 1:81.1

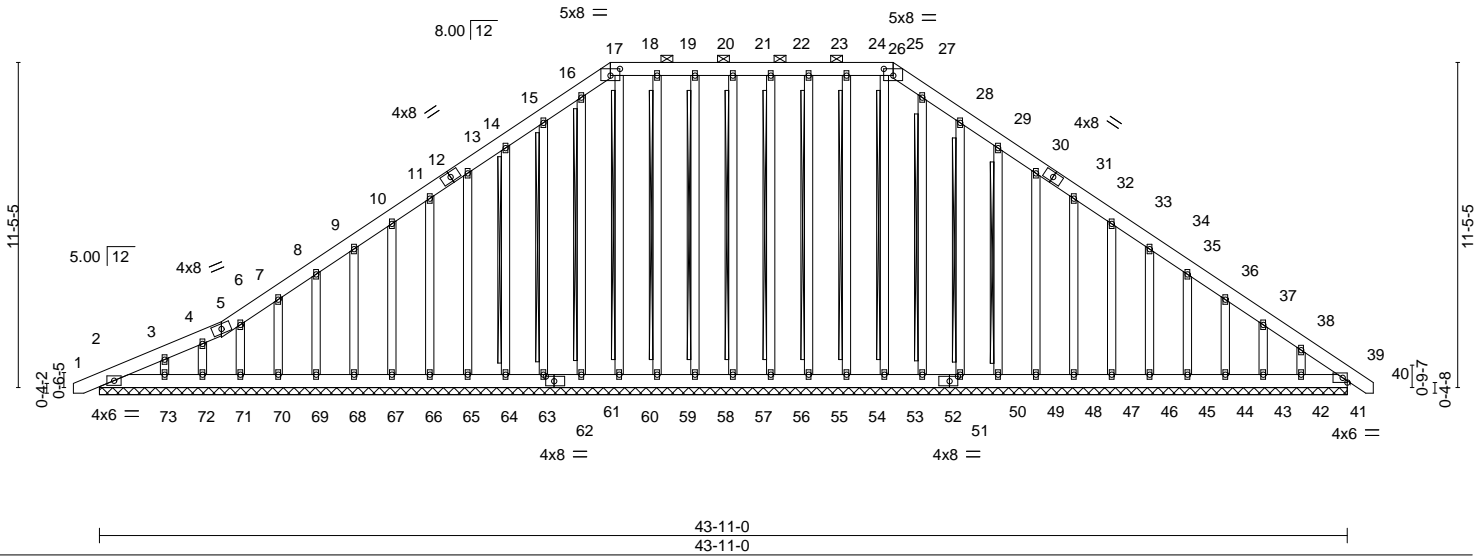


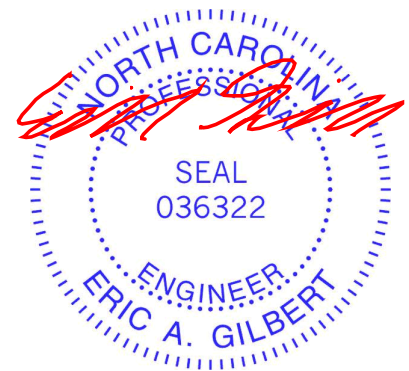
Plate Offsets (X,Y)--	[17:0-4-0,0-2-13], [26:0-4-0,0-2-13], [51:0-3-8,0-2-0], [62:0-3-8,0-2-0]				
<b>LOADING</b> (psf)	<b>SPACING-</b> 2-0-0	<b>CSI.</b>	<b>DEFL.</b> in (loc) l/defl L/d	<b>PLATES</b>	<b>GRIP</b>
TCLL 20.0	Plate Grip DOL 1.15	TC 0.05	Vert(LL) -0.00 39 n/r 120	MT20	244/190
TCDL 10.0	Lumber DOL 1.15	BC 0.02	Vert(CT) 0.00 39 n/r 120		
BCLL 0.0 *	Rep Stress Incr YES	WB 0.09	Horz(CT) 0.01 39 n/a n/a		
BCDL 10.0	Code IRC2015/TPI2014	Matrix-S			
				Weight: 530 lb	FT = 20%

<b>LUMBER-</b>	<b>BRACING-</b>
TOP CHORD 2x6 SP No.1	TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except 2-0-0 oc purlins (6-0-0 max.): 17-26.
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 - 25-53, 24-54, 23-55, 22-56, 21-57, 20-58, 19-59, 18-60, 16-61, 15-63, 14-64, 27-52, 28-50, 29-49
	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 43-11-0.  
 (lb) - Max Horz 2=346(LC 11)  
 Max Uplift All uplift 100 lb or less at joint(s) 2, 54, 55, 56, 57, 58, 59, 60, 61, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 39, 73, 50, 49, 48, 47, 46, 45, 44, 43, 42 except 41=101(LC 13)  
 Max Grav All reactions 250 lb or less at joint(s) 2, 53, 54, 55, 56, 57, 58, 59, 60, 61, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 39, 73, 52, 50, 49, 48, 47, 46, 45, 44, 43, 42, 41

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-3=-312/200, 3-4=-265/211, 13-14=-184/257, 14-15=-227/288, 15-16=-266/317, 16-17=-272/320, 17-18=-255/305, 18-19=-255/305, 19-20=-255/305, 20-21=-255/305, 21-22=-255/305, 22-23=-255/305, 23-24=-255/305, 24-25=-255/305, 25-26=-255/305, 26-27=-272/320, 27-28=-266/313, 28-29=-227/265, 38-39=-255/179

- 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.
  - Provide adequate drainage to prevent water ponding.
  - All plates are 2x4 MT20 unless otherwise indicated.
  - Gable requires continuous bottom chord bearing.
  - Gable studs spaced at 1-4-0 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, 54, 55, 56, 57, 58, 59, 60, 61, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 39, 73, 50, 49, 48, 47, 46, 45, 44, 43, 42 except (jt=41) 41=101.
- On-Grid or purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



March 4, 2024

**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/TPI1 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.sbccomponents.com)

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

Job J0224-1259	Truss B1-GE	Truss Type GABLE	Qty 1	Ply 1	Lot 16 Williams Farms Job Reference (optional)	I63945390
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Comtech, Inc. Fayetteville, NC - 28314,

8.430 s Jan 6 2022 MiTek Industries, Inc. Thu Feb 29 10:20:22 2024 Page 2  
ID:2GNsYO62BI49KgBFP3SlmayOXVO-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

**NOTES-**

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

**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 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](http://www.tpinst.org)) and **BCSI Building Component Safety Information** available from the Structural Building Component Association ([www.sbcacomponents.com](http://www.sbcacomponents.com))



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Edenton, NC 27932



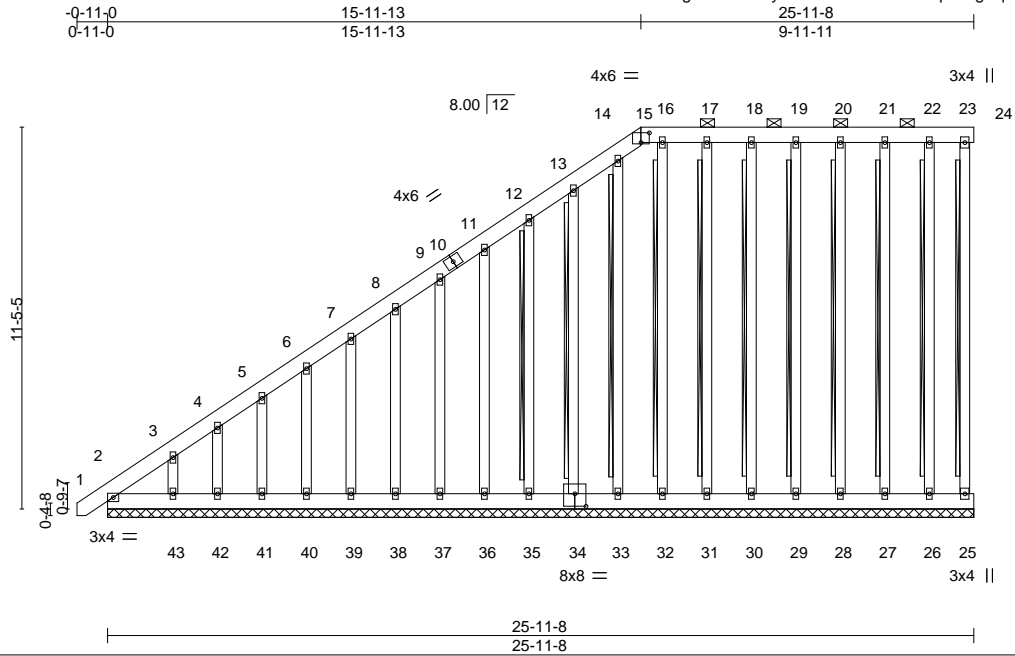


Job J0224-1259	Truss C1-GE	Truss Type GABLE	Qty 1	Ply 1	Lot 16 Williams Farms 163945392
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Comtech, Inc. Fayetteville, NC - 28314,

8.430 s Jan 6 2022 MiTek Industries, Inc. Thu Feb 29 10:20:25 2024 Page 1

ID:2GNsYO62BI49KgBFP3SImayOXVO-RfC?PsB70Hq3NSgPqnL8w3ulTXbGKwCDoi7J4zJC?f



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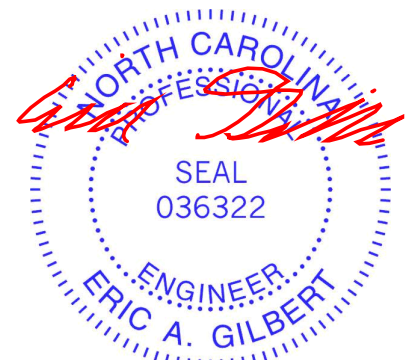
Plate Offsets (X,Y)--	[15:0-3-0,0-3-8], [34:0-4-0,0-4-8]				
<b>LOADING</b> (psf)	<b>SPACING-</b> 2-0-0	<b>CSI.</b>	<b>DEFL.</b> in (loc) l/defl L/d	<b>PLATES</b>	<b>GRIP</b>
TCLL 20.0	Plate Grip DOL 1.15	TC 0.05	Vert(LL) -0.00 1 n/r 120	MT20	244/190
TCDL 10.0	Lumber DOL 1.15	BC 0.01	Vert(CT) 0.00 1 n/r 120		
BCLL 0.0 *	Rep Stress Incr YES	WB 0.10	Horz(CT) -0.01 24 n/a n/a		
BCDL 10.0	Code IRC2015/TPI2014	Matrix-S			
				Weight: 349 lb	FT = 20%

<b>LUMBER-</b>	<b>BRACING-</b>
TOP CHORD 2x6 SP No.1	TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals, and 2-0-0 oc purlins (6-0-0 max.): 15-24.
BOT CHORD 2x6 SP No.1	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 2x4 SP No.2	WEBS T-Brace: 2x4 SPF No.2 - 23-25, 22-26, 21-27, 20-28, 19-29, 18-30, 17-31, 16-32, 14-33, 13-34, 12-35
OTHERS 2x4 SP No.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 25-11-8.  
 (lb) - Max Horz 2=524(LC 12)  
 Max Uplift All uplift 100 lb or less at joint(s) 24, 25, 2, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42 except 43=146(LC 12)  
 Max Grav All reactions 250 lb or less at joint(s) 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43 except 2=342(LC 12)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-3=-616/494, 3-4=-508/401, 4-5=-457/362, 5-6=-408/323, 6-7=-358/284, 7-8=-308/245, 8-9=-257/206

- NOTES-**
- 1) Unbalanced roof live loads have been considered for this design.
  - 2) Wind: ASCE 7-10; Vult=130mph Vasd=103mph; TC DL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - 3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
  - 4) Provide adequate drainage to prevent water ponding.
  - 5) All plates are 2x4 MT20 unless otherwise indicated.
  - 6) Gable requires continuous bottom chord bearing.
  - 7) Gable studs spaced at 1-4-0 oc.
  - 8) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - 9) \* 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.
  - 10) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 24, 25, 2, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42 except (jt=lb) 43=146.
  - 11) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
  - 12) Warning: Additional permanent and stability bracing for truss system (not part of this component design) is always required.



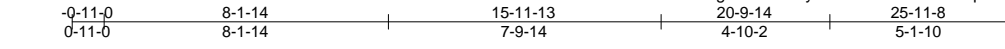
March 4, 2024

Job	Truss	Truss Type	Qty	Ply	Lot 16 Williams Farms	163945393
J0224-1259	C2	Piggyback Base	10	1		
					Job Reference (optional)	

Comtech, Inc. Fayetteville, NC - 28314,

8.430 s Jan 6 2022 MiTek Industries, Inc. Thu Feb 29 10:20:26 2024 Page 1

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Scale = 1:66.1

Plate Offsets (X,Y)--	[2:0-1-12,0-1-8], [13:0-3-4,0-3-0]							
<b>LOADING</b> (psf)	<b>SPACING-</b>	<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 0.45	Vert(LL) -0.18	10	>999	360	MT20	244/190
TCDL 10.0	Lumber DOL 1.15	BC 0.37	Vert(CT) -0.32	10-12	>958	240		
BCLL 0.0 *	Rep Stress Incr YES	WB 0.81	Horz(CT) 0.02	9	n/a	n/a		
BCDL 10.0	Code IRC2015/TPI2014	Matrix-S	Wind(LL) 0.12	10-12	>999	240		
							Weight: 251 lb	FT = 20%

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

**REACTIONS.** (size) 9=0-3-8, 2=0-3-8  
 Max Horz 2=364(LC 12)  
 Max Uplift 9=-124(LC 9), 2=-24(LC 12)  
 Max Grav 9=1337(LC 2), 2=1252(LC 19)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-3=-1708/145, 3-5=-2883/706, 5-6=-2391/678, 9-14=-952/344, 6-14=-952/344  
 BOT CHORD 2-12=431/1400, 10-12=-433/1386  
 WEBS 3-12=0/475, 3-10=-1600/514, 10-13=-134/1227, 5-13=-143/1189, 6-13=-659/2509,  
 3-13=-679/2320

**NOTES-**

- 1) Wind: ASCE 7-10; Vult=130mph Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2) -0-9-7 to 3-7-6, Interior(1) 3-7-6 to 15-11-13, Exterior(2) 15-11-13 to 22-2-7, Interior(1) 22-2-7 to 25-11-8 zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 2) Provide adequate drainage to prevent water ponding.
- 3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 4) \* This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2 except (jt=lb) 9=124.
- 6) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



March 4, 2024

<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>
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Job J0224-1259	Truss C5	Truss Type Piggyback Base	Qty 1	Ply 1	Lot 16 Williams Farms Job Reference (optional)	163945394
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Comtech, Inc. Fayetteville, NC - 28314,

8.430 s Jan 6 2022 MiTek Industries, Inc. Thu Feb 29 10:20:27 2024 Page 1

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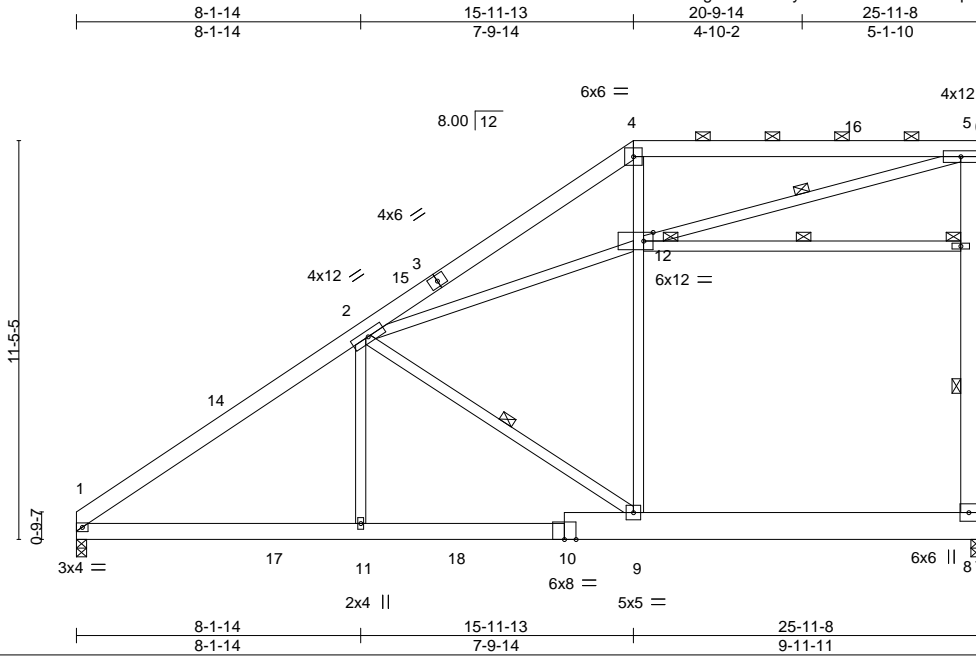


Plate Offsets (X,Y)--	[12:0-3-4,0-3-0]
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LOADING (psf)	SPACING-	CSI.	DEFL.	PLATES	GRIP
TCLL 20.0	2-0-0	TC 0.45	in (loc) l/defl L/d	MT20	244/190
TCDL 10.0	Plate Grip DOL 1.15	BC 0.37	Vert(LL) -0.18 9 >999 360		
BCLL 0.0 *	Lumber DOL 1.15	WB 0.82	Vert(CT) -0.32 9-11 >956 240		
BCDL 10.0	Rep Stress Incr YES	Matrix-S	Horz(CT) 0.02 8 n/a n/a		
	Code IRC2015/TPI2014		Wind(LL) 0.12 9-11 >999 240	Weight: 249 lb	FT = 20%

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

**REACTIONS.** (size) 8=0-3-8, 1=0-3-8  
 Max Horz 1=358(LC 12)  
 Max Uplift 8=-124(LC 9), 1=-10(LC 12)  
 Max Grav 8=1338(LC 2), 1=1199(LC 19)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 1-2=-1685/149, 2-4=-2888/709, 4-5=-2394/680, 8-13=-953/345, 5-13=-953/345  
 BOT CHORD 1-11=-432/1404, 9-11=-434/1390  
 WEBS 2-11=0/476, 2-9=-1605/516, 9-12=-137/1231, 4-12=-146/1193, 5-12=-661/2512, 2-12=-680/2323

- NOTES-**
- 1) Wind: ASCE 7-10; Vult=130mph Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2) 0-1-12 to 4-6-9, Interior(1) 4-6-9 to 15-11-12, Exterior(2) 15-11-12 to 22-2-7, Interior(1) 22-2-7 to 25-11-8 zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - 2) Provide adequate drainage to prevent water ponding.
  - 3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - 4) \* This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
  - 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1 except (jt=lb) 8=124.
  - 6) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

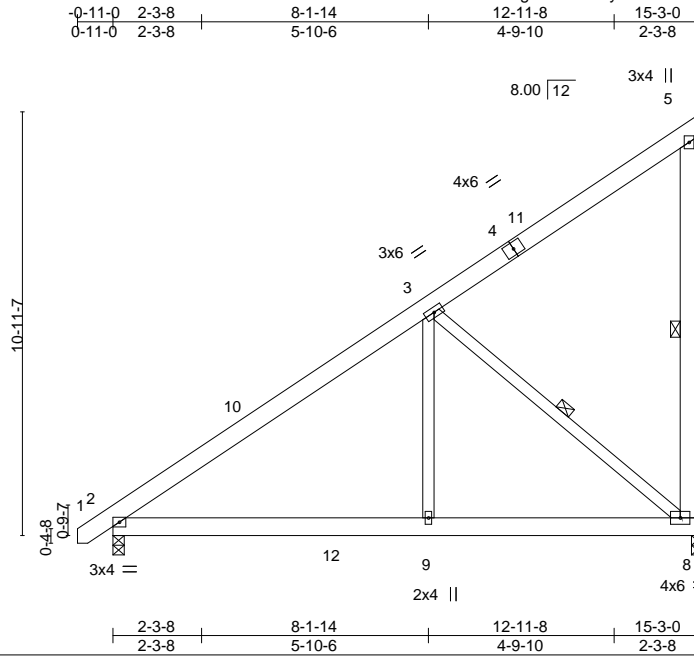


Job J0224-1259	Truss C6	Truss Type Monopitch	Qty 1	Ply 1	Lot 16 Williams Farms Job Reference (optional)	163945395
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8.430 s Jan 6 2022 MiTek Industries, Inc. Thu Feb 29 10:20:28 2024 Page 1

ID:2GNsYO62BI49KgBFP3SlmayOXVO-RfC?PsB70Hq3NSgPqnL8w3ulTXbGKWrCDoi7J4zJC?f



Scale = 1:59.6

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 0.26	Vert(LL)	-0.03	2-9	>999	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.20	Vert(CT)	-0.06	2-9	>999		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.25	Horz(CT)	0.01	8	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-S	Wind(LL)	0.02	2-9	>999		
								Weight: 125 lb	FT = 20%

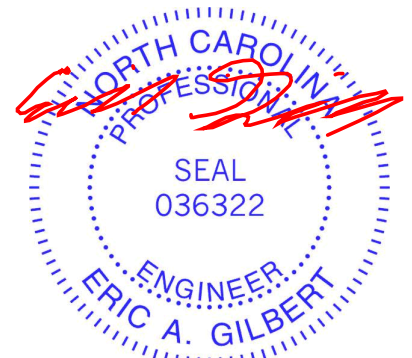
**LUMBER-**  
 TOP CHORD 2x6 SP No.1  
 BOT CHORD 2x6 SP No.1  
 WEBS 2x4 SP No.2 \*Except\*  
 5-8: 2x6 SP No.1

**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.  
 WEBS 1 Row at midpt 5-8, 3-8

**REACTIONS.** (size) 8=0-3-8, 2=0-3-8  
 Max Horz 2=345(LC 12)  
 Max Uplift 8=183(LC 12)  
 Max Grav 8=715(LC 19), 2=674(LC 19)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-3=-697/0  
 BOT CHORD 2-9=-201/572, 8-9=-201/572  
 WEBS 3-9=0/352, 3-8=-740/257

- NOTES-**
- 1) Wind: ASCE 7-10; Vult=130mph Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2) -0-9-7 to 3-7-6, Interior(1) 3-7-6 to 15-3-0 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, with BCDL = 10.0psf.
  - 4) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 8=183.



March 4, 2024

**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)



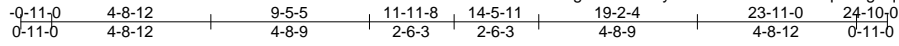
818 Soundside Road  
 Edenton, NC 27932

Job J0224-1259	Truss D1-GE	Truss Type GABLE	Qty 1	Ply 1	Lot 16 Williams Farms Job Reference (optional)	163945396
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Comtech, Inc. Fayetteville, NC - 28314,

8.430 s Jan 6 2022 MiTek Industries, Inc. Thu Feb 29 10:20:30 2024 Page 1

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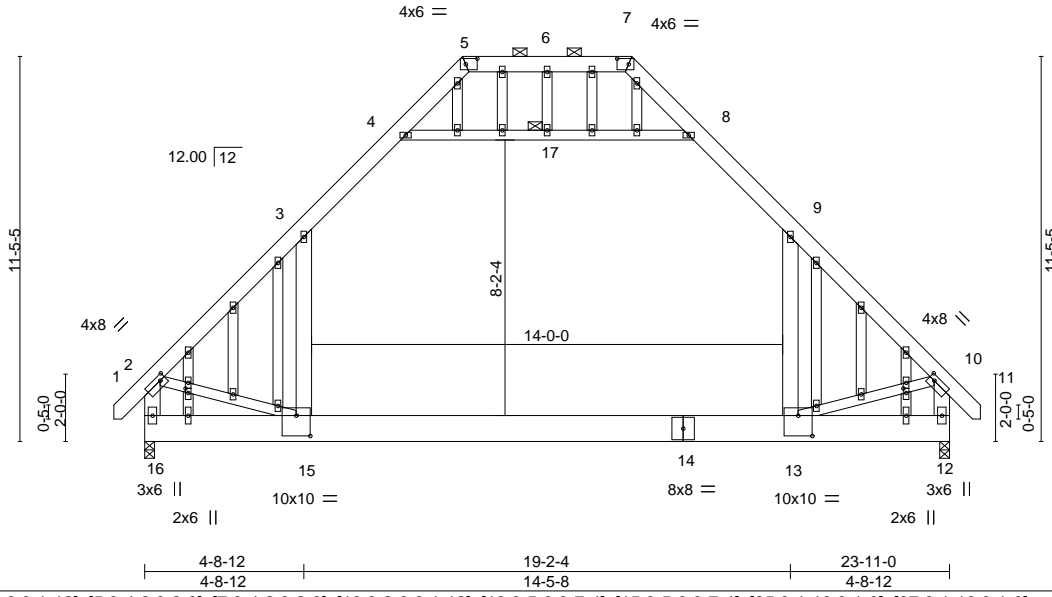


Plate Offsets (X,Y)--	[2:0-2-0,0-1-12], [5:0-4-2,0-2-0], [7:0-4-2,0-2-0], [10:0-2-0,0-1-12], [13:0-5-0,0-7-4], [15:0-5-0,0-7-4], [25:0-1-10,0-1-0], [37:0-1-10,0-1-0]
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LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL	1.15	TC 0.98	Vert(LL)	-0.34 13-15	>828	360	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.45	Vert(CT)	-0.55 13-15	>511	240		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.33	Horz(CT)	0.01 12	n/a	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-S	Wind(LL)	0.11 13-15	>999	240		
								Weight: 271 lb	FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x6 SP No.1	TOP CHORD Structural wood sheathing directly applied, except end verticals, and 2-0-0 oc purlins (6-0-0 max.): 5-7.
BOT CHORD 2x10 SP 2400F 2.0E	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 2x6 SP No.1 *Except*	JOINTS 1 Brace at Jt(s): 17
4-8: 2x4 SP No.1, 6-17,2-15,10-13: 2x4 SP No.2	
OTHERS 2x4 SP No.2	

**REACTIONS.** (size) 16=0-3-8, 12=0-3-8  
 Max Horz 16=376(LC 10)  
 Max Grav 16=1656(LC 2), 12=1656(LC 2)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-3=-1868/0, 3-4=-1120/197, 4-5=-271/189, 7-8=-271/189, 8-9=-1120/197, 9-10=-1867/0, 5-6=-62/378, 6-7=-62/378, 2-16=-1836/17, 10-12=-1837/17  
 BOT CHORD 15-16=-326/606, 13-15=0/1166, 12-13=-85/335  
 WEBS 3-15=0/916, 9-13=0/916, 4-17=-1370/152, 8-17=-1370/152, 2-15=-29/931, 10-13=-36/933

- 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; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
  - Provide adequate drainage to prevent water ponding.
  - All plates are 2x4 MT20 unless otherwise indicated.
  - Gable studs spaced at 1-4-0 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). 3-4, 8-9, 4-17, 8-17; Wall dead load (5.0psf) on member(s).3-15, 9-13
  - Bottom chord live load (40.0 psf) and additional bottom chord dead load (10.0 psf) applied only to room. 13-15
  - 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.



March 4, 2024

**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/TPI1 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.sbccomponents.com)

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

Job J0224-1259	Truss D2	Truss Type Piggyback Base	Qty 10	Ply 1	Lot 16 Williams Farms Job Reference (optional)	163945397
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Comtech, Inc. Fayetteville, NC - 28314,

8.430 s Jan 6 2022 MiTek Industries, Inc. Thu Feb 29 10:20:31 2024 Page 1

ID:2GNsYO62BI49KgBFP3SImayOXVO-RfC?PsB70Hq3NSgPqnL8w3ulTXbGKWrcDoi7J4zJC?f

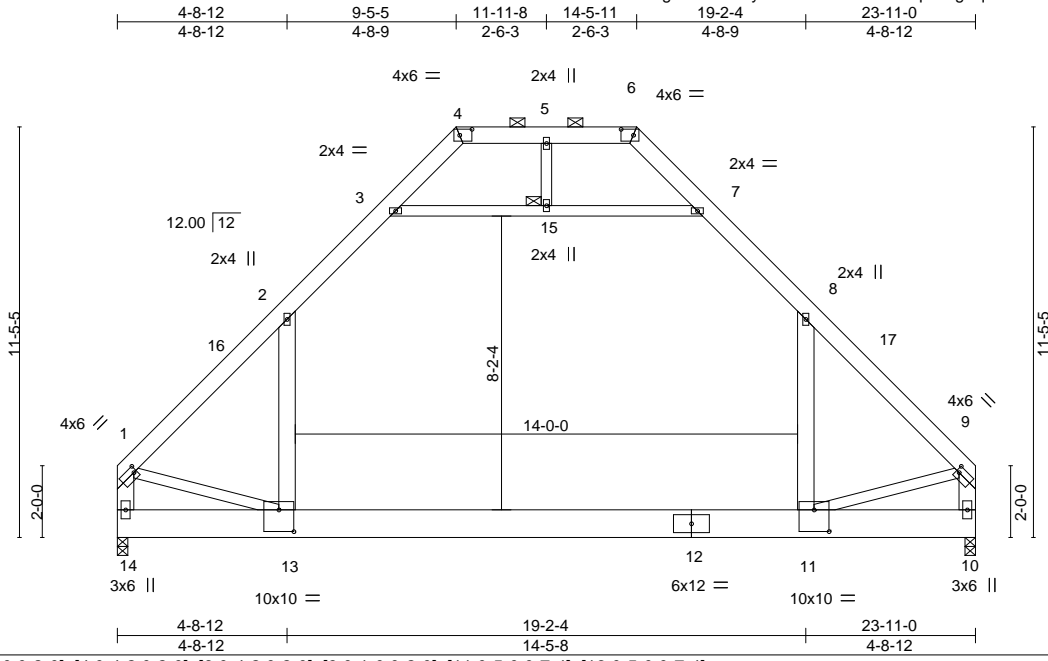


Plate Offsets (X,Y)--	[1:0-1-0,0-2-0], [4:0-4-2,0-2-0], [6:0-4-2,0-2-0], [9:0-1-0,0-2-0], [11:0-5-0,0-7-4], [13:0-5-0,0-7-4]
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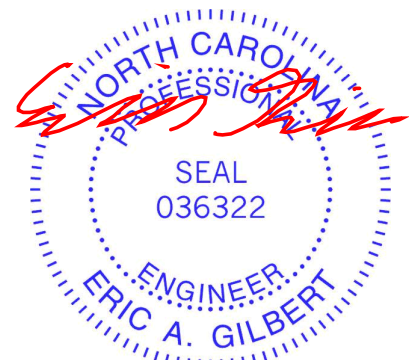
LOADING (psf)	SPACING-	CSI.	DEFL.	PLATES	GRIP
TCLL 20.0	2-0-0	TC 0.97	in (loc) l/defl L/d	MT20	244/190
TCDL 10.0	Plate Grip DOL 1.15	BC 0.45	Vert(LL) -0.35 11-13 >815 360		
BCLL 0.0 *	Lumber DOL 1.15	WB 0.33	Vert(CT) -0.56 11-13 >502 240		
BCDL 10.0	Rep Stress Incr YES	Matrix-S	Horz(CT) 0.01 10 n/a n/a		
	Code IRC2015/TPI2014		Wind(LL) 0.08 11-13 >999 240	Weight: 229 lb	FT = 20%

<b>LUMBER-</b>	<b>BRACING-</b>
TOP CHORD 2x6 SP No.1	TOP CHORD Structural wood sheathing directly applied, except end verticals, and 2-0-0 oc purlins (6-0-0 max.): 4-6.
BOT CHORD 2x10 SP 2400F 2.0E	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 2x6 SP No.1 *Except*	JOINTS 1 Brace at Jt(s): 15
3-7: 2x4 SP No.1, 5-15,1-13,9-11: 2x4 SP No.2	

**REACTIONS.** (size) 14=0-3-8, 10=0-3-8  
 Max Horz 14=-223(LC 8)  
 Max Grav 14=1604(LC 2), 10=1604(LC 2)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 1-2=-1856/0, 2-3=-1123/174, 3-4=-264/196, 6-7=-264/196, 7-8=-1123/174, 8-9=-1856/0, 4-5=-54/389, 5-6=-54/389, 1-14=-1804/0, 9-10=-1805/0  
 BOT CHORD 13-14=-221/411, 11-13=0/1142  
 WEBS 2-13=0/882, 8-11=0/882, 3-15=-1382/107, 7-15=-1382/107, 1-13=0/1001, 9-11=0/1003

- 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) 0-2-12 to 4-8-12, Interior(1) 4-8-12 to 9-6-7, Exterior(2) 9-6-7 to 20-7-4, Interior(1) 20-7-4 to 23-8-4 zone;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - 3) Provide adequate drainage to prevent water ponding.
  - 4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - 5) \* This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
  - 6) Ceiling dead load (10.0 psf) on member(s), 2-3, 7-8, 3-15, 7-15; Wall dead load (5.0psf) on member(s) 2-13, 8-11
  - 7) Bottom chord live load (40.0 psf) and additional bottom chord dead load (10.0 psf) applied only to room. 11-13
  - 8) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
  - 9) Attic room checked for L/360 deflection.



March 4, 2024

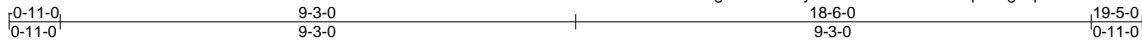
<p><b>WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 BEFORE USE.</b></p> <p>Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. 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>
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Job J0224-1259	Truss E1-GE	Truss Type GABLE	Qty 1	Ply 1	Lot 16 Williams Farms Job Reference (optional)	163945398
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8.430 s Jan 6 2022 MiTek Industries, Inc. Thu Feb 29 10:20:33 2024 Page 1

ID:2GNsYO62BI49KgBFP3SlmayOXVO-RfC?PsB70Hq3NSgPqnL8w3ulTXbGKWrCDoi7J4zJC?f



6x6 =

Scale = 1:41.3

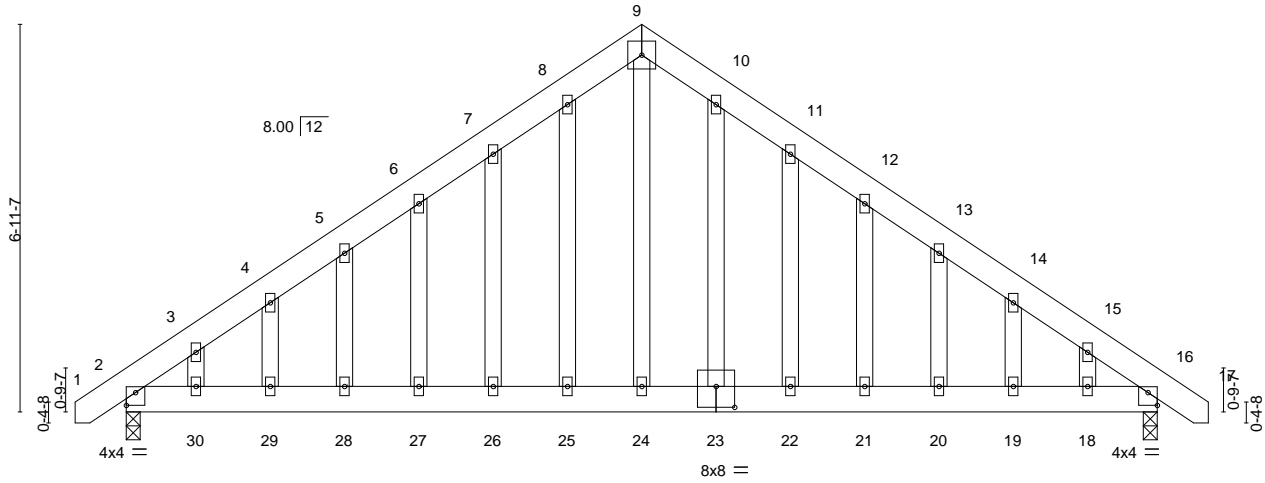


Plate Offsets (X,Y)--	[2:Edge,0-2-12], [16:Edge,0-2-12], [23:0-4-0,0-4-8]
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LOADING (psf)	SPACING-	CSI.	DEFL.	PLATES	GRIP
TCLL 20.0	2-0-0	TC 0.24	in (loc) l/defl L/d	MT20	244/190
TCDL 10.0	Plate Grip DOL 1.15	BC 0.35	Vert(LL) -0.07 27-28 >999 360		
BCLL 0.0 *	Lumber DOL 1.15	WB 0.38	Vert(CT) -0.11 27-28 >999 240		
BCDL 10.0	Rep Stress Incr YES	Matrix-S	Horz(CT) 0.01 16 n/a n/a		
	Code IRC2015/TPI2014		Wind(LL) 0.10 27-28 >999 240	Weight: 162 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 9-8-12 oc bracing.
WEBS 2x4 SP No.2	
OTHERS 2x4 SP No.2	

**REACTIONS.** (size) 16=0-3-0, 2=0-3-0  
 Max Horz 2=200(LC 11)  
 Max Uplift 16=165(LC 13), 2=165(LC 12)  
 Max Grav 16=785(LC 1), 2=785(LC 1)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-3=-894/778, 3-4=-808/743, 4-5=-774/749, 5-6=-749/764, 6-7=-726/778, 7-8=-711/808,  
 8-9=-709/810, 9-10=-709/810, 10-11=-711/808, 11-12=-726/778, 12-13=-749/764,  
 13-14=-774/749, 14-15=-808/743, 15-16=-894/778  
 BOT CHORD 2-30=-490/616, 29-30=-490/616, 28-29=-490/616, 27-28=-490/616, 26-27=-490/616,  
 25-26=-490/616, 24-25=-490/616, 23-24=-490/616, 22-23=-490/616, 21-22=-490/616,  
 20-21=-490/616, 19-20=-490/616, 18-19=-490/616, 16-18=-490/616  
 WEBS 9-24=-568/460

- NOTES-**
- 1) Unbalanced roof live loads have been considered for this design.
  - 2) Wind: ASCE 7-10; Vult=130mph Vasd=103mph; TC DL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; 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 1-4-0 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) 16=165, 2=165.



March 4, 2024

Job	Truss	Truss Type	Qty	Ply	Lot 16 Williams Farms	163945399
J0224-1259	E2	Common	2	1		

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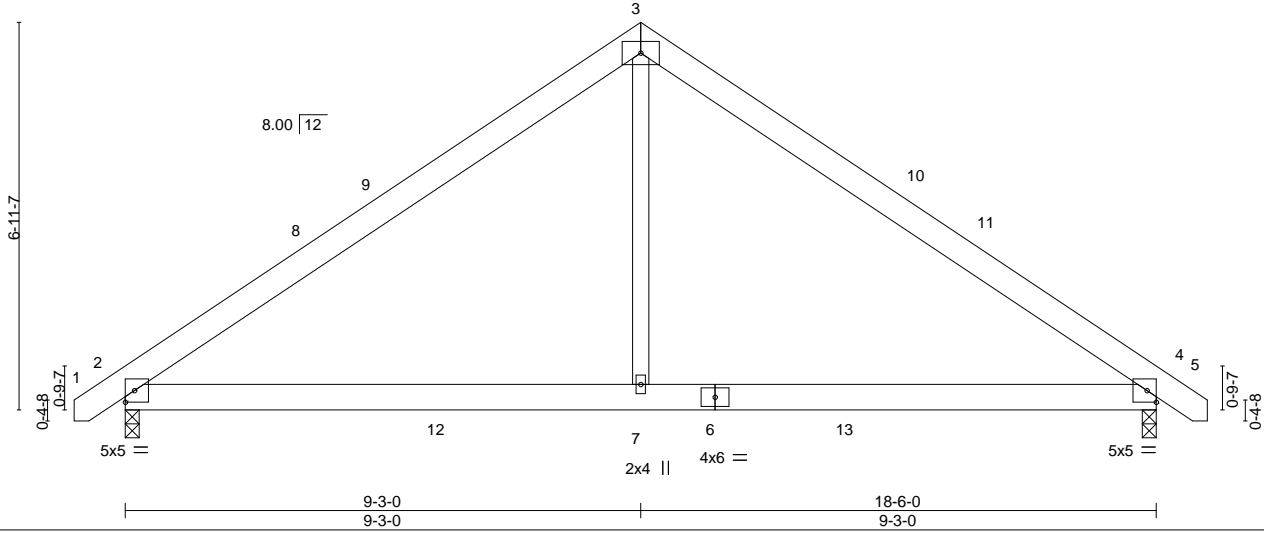
8.430 s Jan 6 2022 MiTek Industries, Inc. Thu Feb 29 10:20:33 2024 Page 1

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5x8 =

Scale = 1:41.3



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 0.41	Vert(LL)	-0.05	2-7	>999	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.39	Vert(CT)	-0.10	2-7	>999		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.37	Horz(CT)	0.01	4	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-S	Wind(LL)	0.10	4-7	>999		
								Weight: 110 lb	FT = 20%

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

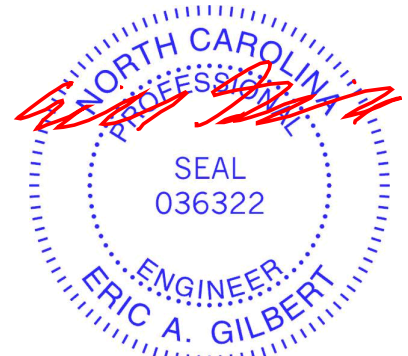
**BRACING-**  
 TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins.  
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS.** (size) 4=0-3-0, 2=0-3-0  
 Max Horz 2=160(LC 11)  
 Max Uplift 4=-115(LC 8), 2=-115(LC 9)  
 Max Grav 4=849(LC 2), 2=849(LC 2)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-3=-1032/758, 3-4=-1032/758  
 BOT CHORD 2-7=-457/742, 4-7=-457/742  
 WEBS 3-7=-547/632

**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) -0-9-7 to 3-7-6, Interior(1) 3-7-6 to 9-3-0, Exterior(2) 9-3-0 to 13-7-13, Interior(1) 13-7-13 to 19-3-7 zone; porch left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 4) \* This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 4=115, 2=115.



March 4, 2024

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

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818 Soundside Road  
 Edenton, NC 27932



Job J0224-1259	Truss E3	Truss Type Common	Qty 1	Ply 1	Lot 16 Williams Farms Job Reference (optional)	163945400
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8.430 s Jan 6 2022 MiTek Industries, Inc. Thu Feb 29 10:20:34 2024 Page 1

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5x8 =

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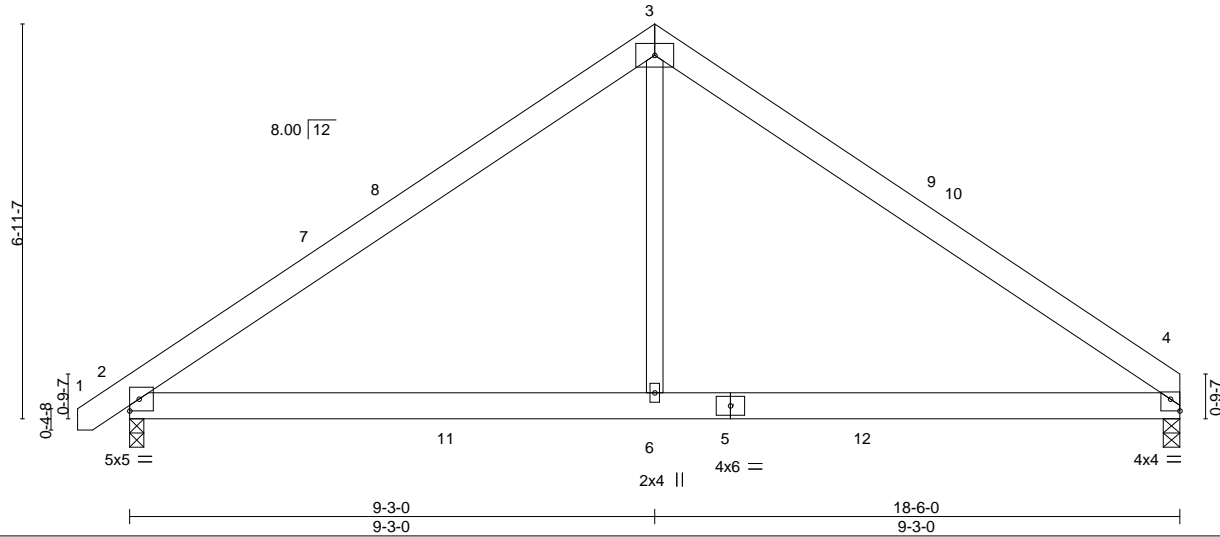


Plate Offsets (X,Y)-- [4:Edge,0-2-8]

LOADING (psf)	SPACING-	CSI.	DEFL.	PLATES	GRIP
TCLL 20.0	2-0-0	TC 0.43	in (loc) l/defl L/d	MT20	244/190
TCDL 10.0	Plate Grip DOL 1.15	BC 0.39	Vert(LL) -0.05 2-6 >999 360		
BCLL 0.0 *	Lumber DOL 1.15	WB 0.37	Vert(CT) -0.10 2-6 >999 240		
BCDL 10.0	Rep Stress Incr YES	Matrix-S	Horz(CT) 0.01 4 n/a n/a		
	Code IRC2015/TPI2014		Wind(LL) 0.10 2-6 >999 240	Weight: 108 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	

**REACTIONS.** (size) 4=0-3-8, 2=0-3-0  
 Max Horz 2=159(LC 9)  
 Max Uplift 4=110(LC 8), 2=115(LC 9)  
 Max Grav 4=802(LC 2), 2=850(LC 2)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-3=-1032/757, 3-4=-1030/760  
 BOT CHORD 2-6=-469/742, 4-6=-469/742  
 WEBS 3-6=-546/632

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-10; Vult=130mph Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2) -0-9-7 to 3-7-6, Interior(1) 3-7-6 to 9-3-0, Exterior(2) 9-3-0 to 13-7-13, Interior(1) 13-7-13 to 18-4-4 zone; porch left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - \* This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
  - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 4=110, 2=115.



March 4, 2024

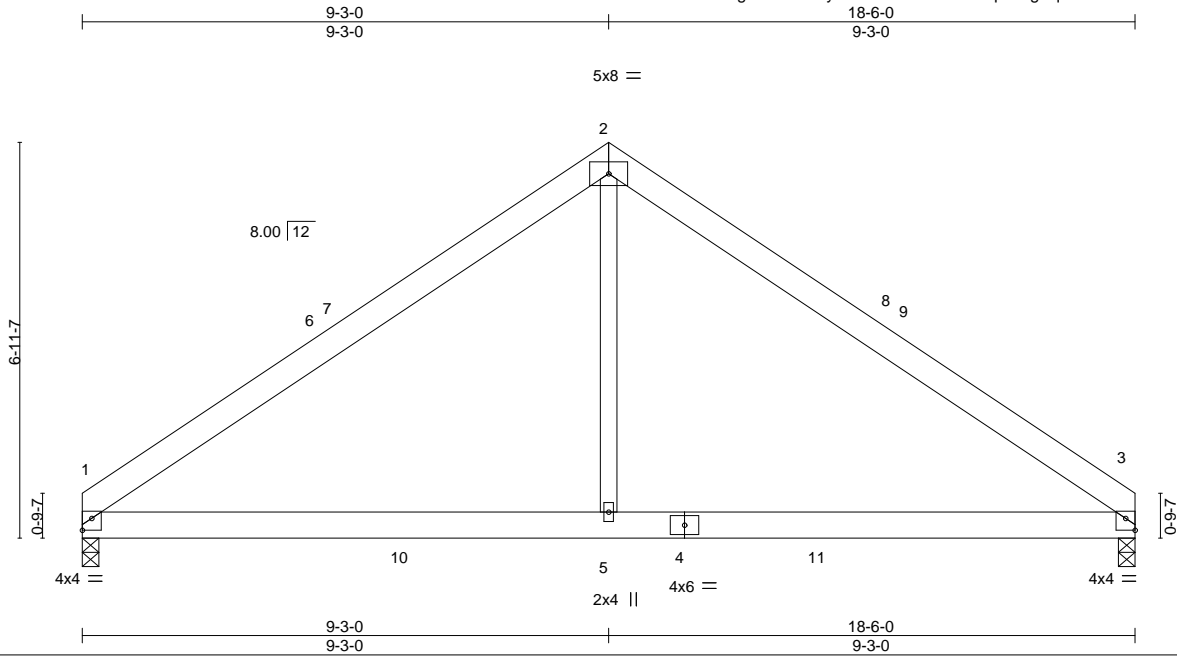
<p><b>WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 BEFORE USE.</b></p> <p>Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. 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>
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Job J0224-1259	Truss E4	Truss Type Common	Qty 2	Ply 1	Lot 16 Williams Farms 163945401
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8.430 s Jan 6 2022 MiTek Industries, Inc. Thu Feb 29 10:20:35 2024 Page 1

ID:2GNsYO62BI49KgBFP3SlmayOXVO-RfC?PsB70Hq3NSgPqnL8w3ulTXbGKWrCDoi7J4zJC?f



Scale = 1:40.5

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

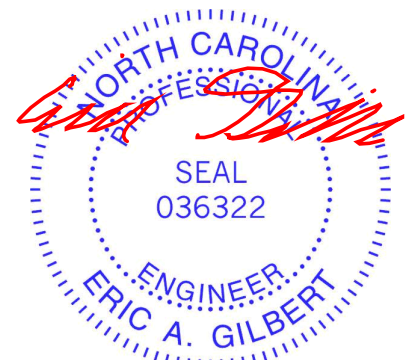
LOADING (psf)	SPACING-	CSI.	DEFL.	PLATES	GRIP
TCLL 20.0	2-0-0	TC 0.43	in (loc) l/defl L/d	MT20	244/190
TCDL 10.0	Plate Grip DOL 1.15	BC 0.38	Vert(LL) -0.05 1-5 >999 360		
BCLL 0.0 *	Lumber DOL 1.15	WB 0.37	Vert(CT) -0.10 1-5 >999 240		
BCDL 10.0	Rep Stress Incr YES	Matrix-S	Horz(CT) 0.01 3 n/a n/a		
	Code IRC2015/TPI2014		Wind(LL) 0.10 1-5 >999 240	Weight: 105 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	


**REACTIONS.** (size) 1=0-3-8, 3=0-3-8  
 Max Horz 1=-155(LC 8)  
 Max Uplift 1=-111(LC 9), 3=-111(LC 8)  
 Max Grav 1=802(LC 2), 3=802(LC 2)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 1-2=-1030/758, 2-3=-1030/758  
 BOT CHORD 1-5=-468/742, 3-5=-468/742  
 WEBS 2-5=-543/632

- 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) 0-1-12 to 4-6-9, Interior(1) 4-6-9 to 9-3-0, Exterior(2) 9-3-0 to 13-7-13, Interior(1) 13-7-13 to 18-4-4 zone; porch left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - \* This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
  - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 1=111, 3=111.



March 4, 2024

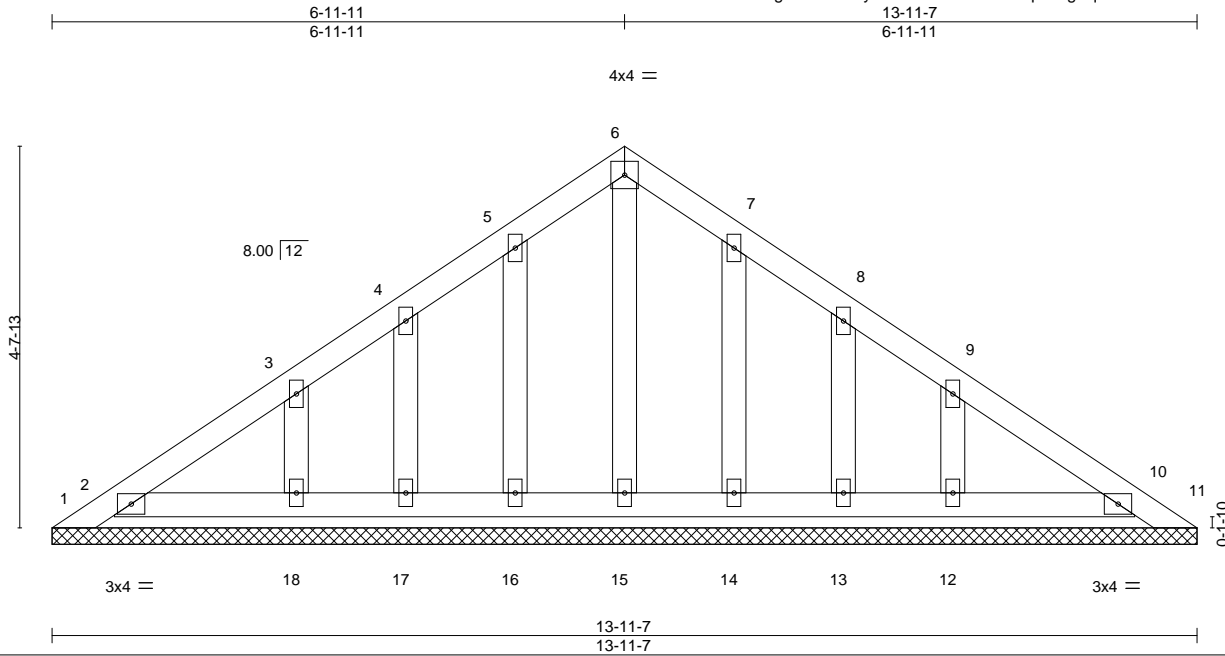
<p><b>WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 BEFORE USE.</b></p> <p>Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. 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>A MiTek Affiliate</p> <p>818 Soundside Road Edenton, NC 27932</p>
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Job J0224-1259	Truss PB1	Truss Type GABLE	Qty 1	Ply 1	Lot 16 Williams Farms Job Reference (optional)	163945402
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Comtech, Inc. Fayetteville, NC - 28314,

8.430 s Jan 6 2022 MiTek Industries, Inc. Thu Feb 29 10:20:37 2024 Page 1

ID:2GNsYO62BI49KgBFP3SlmayOXVO-RfC?PsB70Hq3NSgPqnL8w3ulTXbGKwRCDoi7J4zJC?f



Scale = 1:28.1

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 0.05	Vert(LL)	n/a	-	n/a	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.02	Vert(CT)	n/a	-	n/a		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.03	Horz(CT)	0.00	10	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-S					Weight: 69 lb	FT = 20%

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

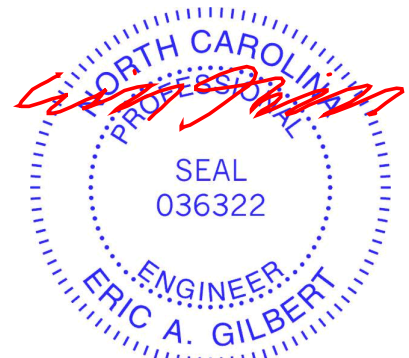
**BRACING-**  
 TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins.  
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS.** All bearings 13-11-7.  
 (lb) - Max Horz 1=134(LC 8)  
 Max Uplift All uplift 100 lb or less at joint(s) 1, 11, 2, 10, 16, 17, 18, 14, 13, 12  
 Max Grav All reactions 250 lb or less at joint(s) 1, 11, 2, 10, 15, 16, 17, 18, 14, 13, 12

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

**NOTES-**

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-10; Vult=130mph Vasd=103mph; TC DL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- 4) All plates are 2x4 MT20 unless otherwise indicated.
- 5) Gable requires continuous bottom chord bearing.
- 6) Gable studs spaced at 1-4-0 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) 1, 11, 2, 10, 16, 17, 18, 14, 13, 12.
- 10) See Standard Industry Piggyback Truss Connection Detail for Connection to base truss as applicable, or consult qualified building designer.



March 4, 2024

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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 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)



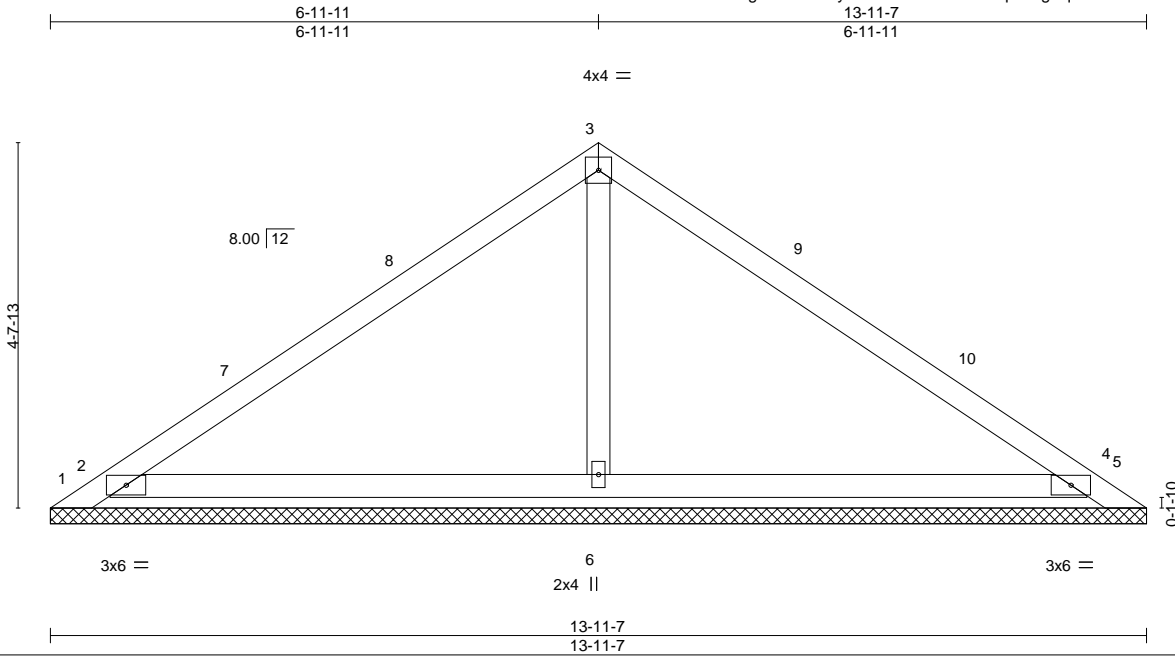
818 Soundside Road  
 Edenton, NC 27932

Job J0224-1259	Truss PB2	Truss Type Piggyback	Qty 9	Ply 1	Lot 16 Williams Farms Job Reference (optional)	63945403
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Comtech, Inc. Fayetteville, NC - 28314,

8.430 s Jan 6 2022 MiTek Industries, Inc. Thu Feb 29 10:20:38 2024 Page 1

ID:2GNsYO62BI49KgBFP3SlmayOXVO-RfC?PsB70Hq3NSgPqnL8w3ulTXbGKwRCDoi7J4zJC?f



Scale = 1:29.3

LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	2-0-0 Plate Grip DOL 1.15	TC 0.42	Vert(LL)	n/a	-	n/a	MT20	244/190
TCDL 10.0	Lumber DOL 1.15	BC 0.24	Vert(CT)	n/a	-	n/a		
BCLL 0.0 *	Rep Stress Incr YES	WB 0.09	Horz(CT)	0.00	5	n/a		
BCDL 10.0	Code IRC2015/TPI2014	Matrix-S					Weight: 49 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 13-11-7.  
 (lb) - Max Horz 1=107(LC 9)  
 Max Uplift All uplift 100 lb or less at joint(s) except 1=-565(LC 19), 5=-519(LC 20), 2=-308(LC 12), 4=-288(LC 13)  
 Max Grav All reactions 250 lb or less at joint(s) 5 except 1=255(LC 12), 2=880(LC 19), 4=850(LC 20), 6=420(LC 1)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 1-2=-192/366, 4-5=-162/287  
 WEBS 3-6=-273/94

- 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) 0-3-2 to 4-7-15, Interior(1) 4-7-15 to 6-11-11, Exterior(2) 6-11-11 to 11-4-8, Interior(1) 11-4-8 to 13-8-5 zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - Gable requires continuous bottom chord bearing.
  - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - \* This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
  - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 565 lb uplift at joint 1, 519 lb uplift at joint 5, 308 lb uplift at joint 2 and 288 lb uplift at joint 4.
  - See Standard Industry Piggyback Truss Connection Detail for Connection to base truss as applicable, or consult qualified building designer.



March 4, 2024

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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/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)



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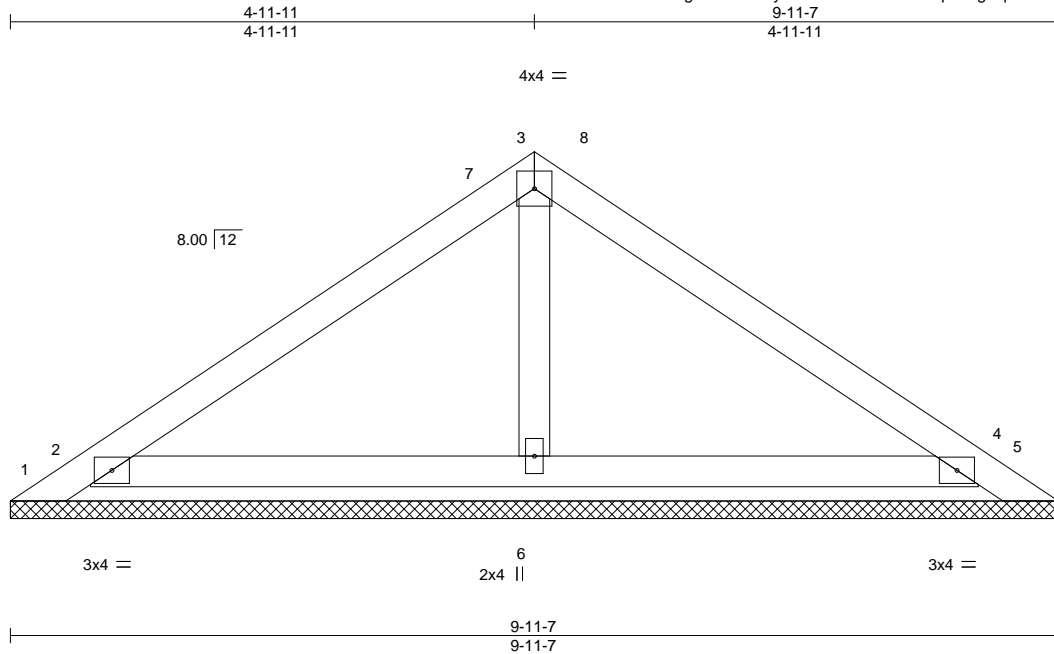


Job J0224-1259	Truss PB4	Truss Type Piggyback	Qty 6	Ply 1	Lot 16 Williams Farms 163945405
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Comtech, Inc. Fayetteville, NC - 28314,

8.430 s Jan 6 2022 MiTek Industries, Inc. Thu Feb 29 10:20:41 2024 Page 1

ID:2GNsYO62BI49KgBFP3SlmayOXVO-RfC?PsB70Hq3NSgPqnL8w3ulTXbGKWrcDoi7J4zJC?f



Scale = 1:21.9

LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	2-0-0	TC 0.20	Vert(LL)	n/a	-	n/a	MT20	244/190
TCDL 10.0	Plate Grip DOL 1.15	BC 0.13	Vert(CT)	n/a	-	n/a		
BCLL 0.0 *	Lumber DOL 1.15	WB 0.03	Horz(CT)	0.00	4	n/a		
BCDL 10.0	Rep Stress Incr YES	Matrix-P						
	Code IRC2015/TPI2014						Weight: 34 lb	FT = 20%

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

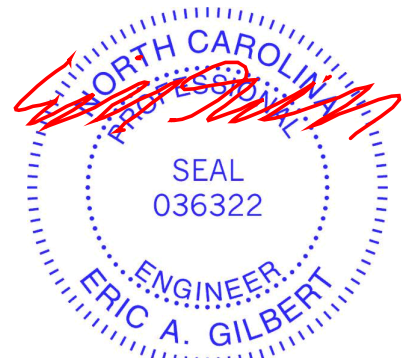
**BRACING-**  
 TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins.  
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS.** All bearings 9-11-7.  
 (lb) - Max Horz 1=-75(LC 8)  
 Max Uplift All uplift 100 lb or less at joint(s) except 1=-276(LC 19), 5=-244(LC 20), 2=-206(LC 12), 4=-192(LC 13)  
 Max Grav All reactions 250 lb or less at joint(s) 1, 5 except 2=509(LC 19), 4=488(LC 20), 6=270(LC 1)

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

**NOTES-**

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-10; Vult=130mph Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2) 0-3-2 to 4-7-15, Interior(1) 4-7-15 to 4-11-11, Exterior(2) 4-11-11 to 9-2-5, Interior(1) 9-2-5 to 9-8-5 zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- Gable requires continuous bottom chord bearing.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- \* This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 276 lb uplift at joint 1, 244 lb uplift at joint 5, 206 lb uplift at joint 2 and 192 lb uplift at joint 4.
- See Standard Industry Piggyback Truss Connection Detail for Connection to base truss as applicable, or consult qualified building designer.



March 4, 2024

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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/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)

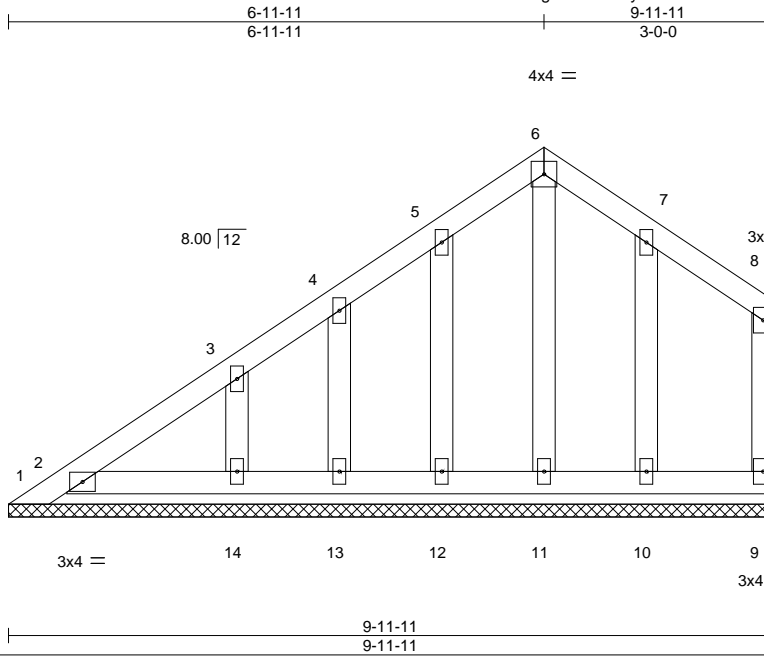


818 Soundside Road  
 Edenton, NC 27932

Job J0224-1259	Truss PB5	Truss Type GABLE	Qty 1	Ply 1	Lot 16 Williams Farms Job Reference (optional)	163945406
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Comtech, Inc. Fayetteville, NC - 28314,

8.430 s Jan 6 2022 MiTek Industries, Inc. Thu Feb 29 10:20:42 2024 Page 1  
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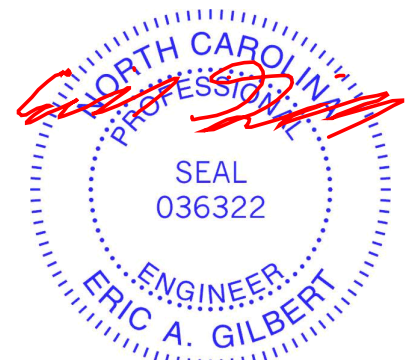
LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	2-0-0	TC 0.05	Vert(LL)	n/a	-	n/a	MT20	244/190
TCDL 10.0	Plate Grip DOL 1.15	BC 0.02	Vert(CT)	n/a	-	n/a		
BCLL 0.0 *	Lumber DOL 1.15	WB 0.03	Horz(CT)	-0.00	9	n/a		
BCDL 10.0	Rep Stress Incr YES	Matrix-S					Weight: 55 lb	FT = 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, except end verticals.
BOT CHORD 2x4 SP No.1	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 2x4 SP No.2	
OTHERS 2x4 SP No.2	

**REACTIONS.** All bearings 9-11-11.  
 (lb) - Max Horz 1=159(LC 12)  
 Max Uplift All uplift 100 lb or less at joint(s) 1, 9, 2, 12, 13, 14, 10  
 Max Grav All reactions 250 lb or less at joint(s) 1, 9, 2, 11, 12, 13, 14, 10

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

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-10; Vult=130mph Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
  - All plates are 2x4 MT20 unless otherwise indicated.
  - Gable requires continuous bottom chord bearing.
  - Gable studs spaced at 1-4-0 oc.
  - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - \* This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
  - Bearing at joint(s) 1, 2 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
  - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 9, 2, 12, 13, 14, 10.
  - See Standard Industry Piggyback Truss Connection Detail for Connection to base truss as applicable, or consult qualified building designer.



March 4, 2024

Job J0224-1259	Truss PB6	Truss Type Piggyback	Qty 9	Ply 1	Lot 16 Williams Farms 163945407
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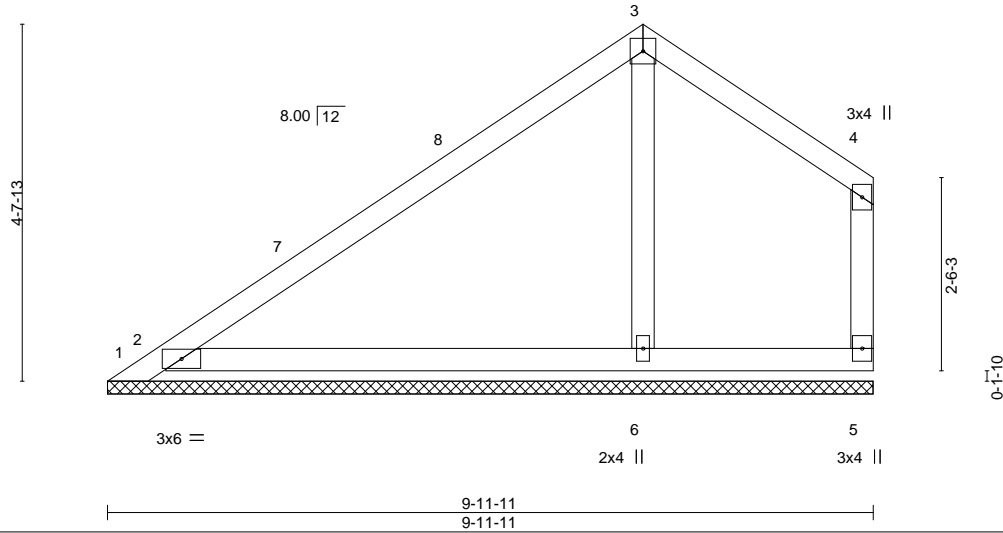
Comtech, Inc. Fayetteville, NC - 28314,

8.430 s Jan 6 2022 MiTek Industries, Inc. Thu Feb 29 10:20:44 2024 Page 1  
ID:2GNsYO62BI49KgBFP3SlmayOXVO-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrcDoi7J4zJC?f



4x4 =

Scale = 1:30.0



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 0.43	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.19	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: 41 lb	FT = 20%

**LUMBER-**  
 TOP CHORD 2x4 SP No.1  
 BOT CHORD 2x4 SP No.1  
 WEBS 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 6-0-0 oc bracing.

**REACTIONS.** All bearings 9-11-11.  
 (lb) - Max Horz 1=107(LC 12)  
 Max Uplift All uplift 100 lb or less at joint(s) 5, 6 except 1=574(LC 19), 2=308(LC 12)  
 Max Grav All reactions 250 lb or less at joint(s) 5 except 1=281(LC 12), 2=865(LC 19), 6=399(LC 19)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 1-2=-307/425  
 WEBS 3-6=-278/131

- 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) 0-3-2 to 4-7-15, Interior(1) 4-7-15 to 6-11-11, Exterior(2) 6-11-11 to 9-9-15 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.
  - Bearing at joint(s) 1, 2 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
  - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 5, 6 except (jt=lb) 1=574, 2=308.
  - See Standard Industry Piggyback Truss Connection Detail for Connection to base truss as applicable, or consult qualified building designer.



March 4, 2024

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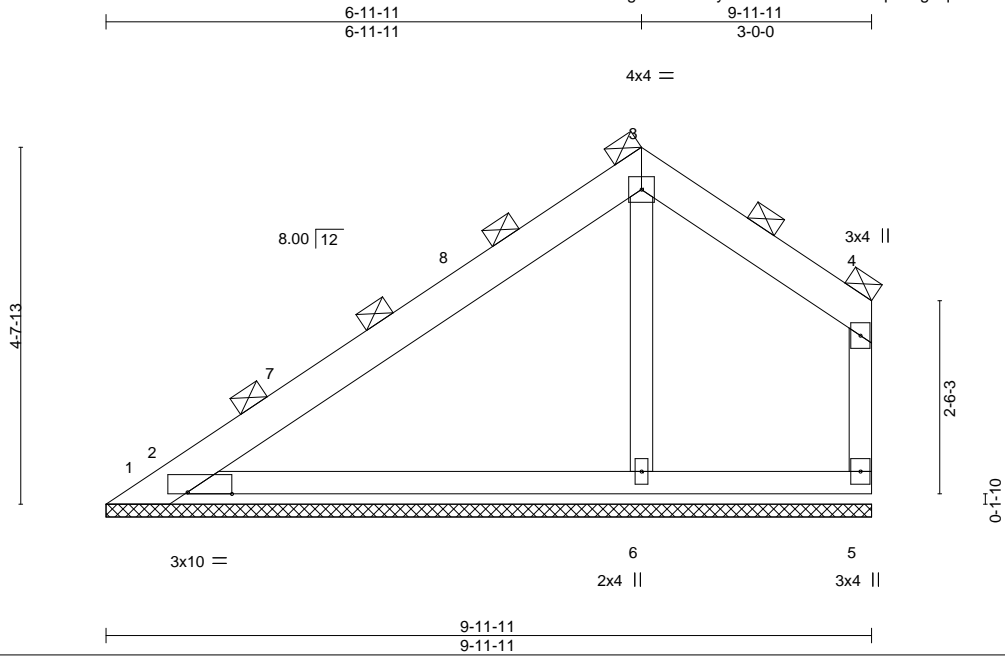
818 Soundside Road  
 Edenton, NC 27932



Job J0224-1259	Truss PB7	Truss Type PIGGYBACK	Qty 2	Ply 1	Lot 16 Williams Farms Job Reference (optional)	163945408
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Comtech, Inc. Fayetteville, NC - 28314,

8.430 s Jan 6 2022 MiTek Industries, Inc. Thu Feb 29 10:20:45 2024 Page 1  
ID:2GNsYO62BI49KgBFP3SlmayOXVO-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrcDoi7J4zJC?f



Scale = 1:30.0

Plate Offsets (X,Y)--	[2:0-6-15,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 0.31	Vert(LL)	n/a	-	n/a 999
TCDL 10.0	Lumber DOL	1.15	BC 0.36	Vert(CT)	n/a	-	n/a 999
BCLL 0.0 *	Rep Stress Incr	NO	WB 0.09	Horz(CT)	-0.00	5	n/a n/a
BCDL 10.0	Code IRC2015/TPI2014		Matrix-P				
							<b>PLATES</b>
							MT20
							<b>GRIP</b>
							244/190
							Weight: 50 lb
							FT = 20%

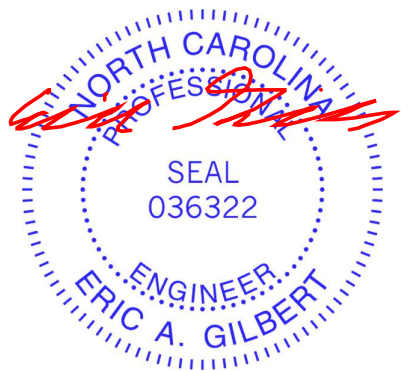
**LUMBER-**  
TOP CHORD 2x6 SP No.1  
BOT CHORD 2x4 SP No.1  
WEBS 2x4 SP No.2  
OTHERS 2x4 SP No.2

**BRACING-**  
TOP CHORD 2-0-0 oc purlins (6-0-0 max.), except end verticals (Switched from sheeted: Spacing > 2-8-0).  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS.** All bearings 9-11-11.  
(lb) - Max Horz 1=155(LC 12)  
Max Uplift All uplift 100 lb or less at joint(s) 5 except 1=614(LC 19), 2=458(LC 12)  
Max Grav All reactions 250 lb or less at joint(s) 5 except 1=395(LC 12), 2=1067(LC 19), 6=522(LC 19)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
TOP CHORD 1-2=-386/442  
WEBS 3-6=-339/140

- 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) 0-4-15 to 4-9-12, Interior(1) 4-9-12 to 6-11-11, Exterior(2) 6-11-11 to 9-9-15 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.
  - Bearing at joint(s) 1, 2 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
  - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 5 except (jt=lb) 1=614, 2=458.
  - See Standard Industry Piggyback Truss Connection Detail for Connection to base truss as applicable, or consult qualified building designer.
  - Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



March 4, 2024

**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)

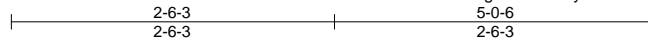


Job J0224-1259	Truss PB8	Truss Type Piggyback	Qty 11	Ply 1	Lot 16 Williams Farms Job Reference (optional)	163945409
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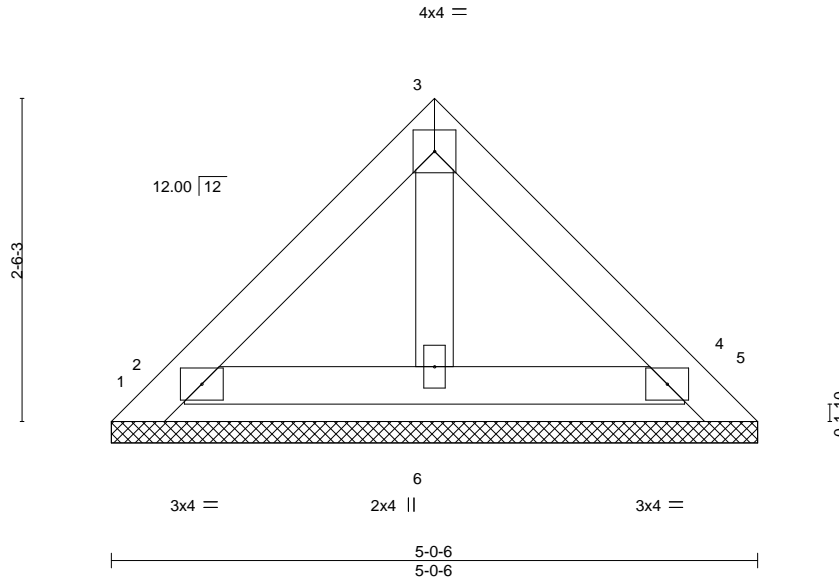
Comtech, Inc. Fayetteville, NC - 28314,

8.430 s Jan 6 2022 MiTek Industries, Inc. Thu Feb 29 10:20:46 2024 Page 1

ID:2GNsYO62BI49KgBFP3SlmayOXVO-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrcDoi7J4zJC?f



Scale = 1:17.9



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 0.05	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 0.01	Horz(CT)	0.00	4	n/a	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-P						Weight: 19 lb	FT = 20%

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

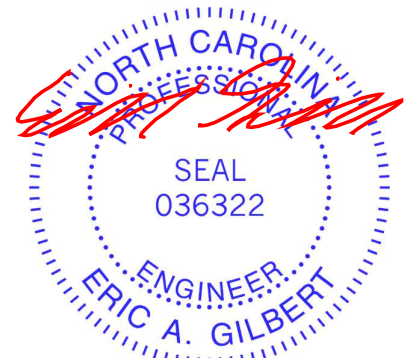
**BRACING-**  
 TOP CHORD Structural wood sheathing directly applied or 5-0-6 oc purlins.  
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS.** All bearings 5-0-6.  
 (lb) - Max Horz 1=-69(LC 10)  
 Max Uplift All uplift 100 lb or less at joint(s) 5 except 1=-109(LC 19), 2=-167(LC 12), 4=-138(LC 13)  
 Max Grav All reactions 250 lb or less at joint(s) 1, 5, 2, 4, 6

**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) 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) 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) Bearing at joint(s) 1, 5, 2, 4 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- 7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 5 except (jt=lb) 1=109, 2=167, 4=138.
- 8) See Standard Industry Piggyback Truss Connection Detail for Connection to base truss as applicable, or consult qualified building designer.



March 4, 2024

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

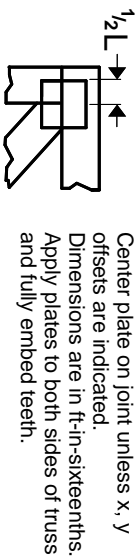
Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall 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/TPI1 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)



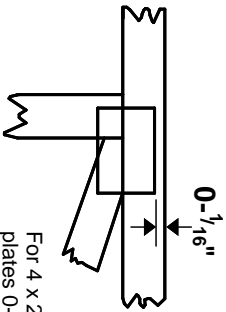
818 Soundside Road  
 Edenton, NC 27932

# 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

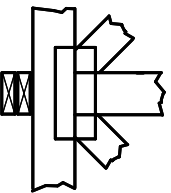
The first dimension is the plate width measured perpendicular to slots. Second dimension is the length parallel to slots.

## 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

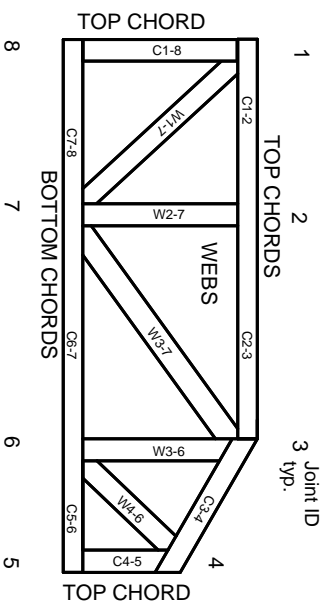


Indicates location where bearings (supports) occur. Icons vary but reaction section indicates joint number/letter where bearings occur. Min size shown is for crushing only.

## 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.

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**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.