



RE: J0424-2212  
 Lot 13 Overhills Creek

Trenco  
 818 Soundside Rd  
 Edenton, NC 27932

**Site Information:**

Customer: Wellco Constructors Project Name: J0424-2212  
 Lot/Block: 13 Model: Plan 14  
 Address: 69 Onslow Court Subdivision: Overhills Creek  
 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: 150 mph  
 Roof Load: 40.0 psf Floor Load: N/A psf

This package includes 18 individual, dated Truss Design Drawings and 0 Additional Drawings.

No.	Seal#	Truss Name	Date
1	I64946155	A1	4/17/2024
2	I64946156	A1GE	4/17/2024
3	I64946157	A2	4/17/2024
4	I64946158	A2GE	4/17/2024
5	I64946159	B1	4/17/2024
6	I64946160	B1SG	4/17/2024
7	I64946161	B2	4/17/2024
8	I64946162	B2-GR	4/17/2024
9	I64946163	C1	4/17/2024
10	I64946164	C1GE	4/17/2024
11	I64946165	M1	4/17/2024
12	I64946166	M1-GR	4/17/2024
13	I64946167	M2	4/17/2024
14	I64946168	M2GE	4/17/2024
15	I64946169	M3	4/17/2024
16	I64946170	V1	4/17/2024
17	I64946171	V2	4/17/2024
18	I64946172	V3	4/17/2024

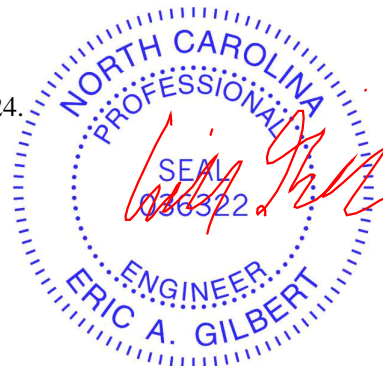
The truss drawing(s) referenced above have been prepared by Truss Engineering Co. under my direct supervision based on the parameters provided by Comtech, Inc - Fayetteville.

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.



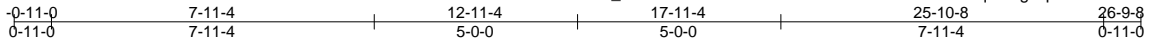
April 17, 2024

Job J0424-2212	Truss A1	Truss Type COMMON	Qty 3	Ply 1	Lot 13 Overhills Creek Job Reference (optional)	164946155
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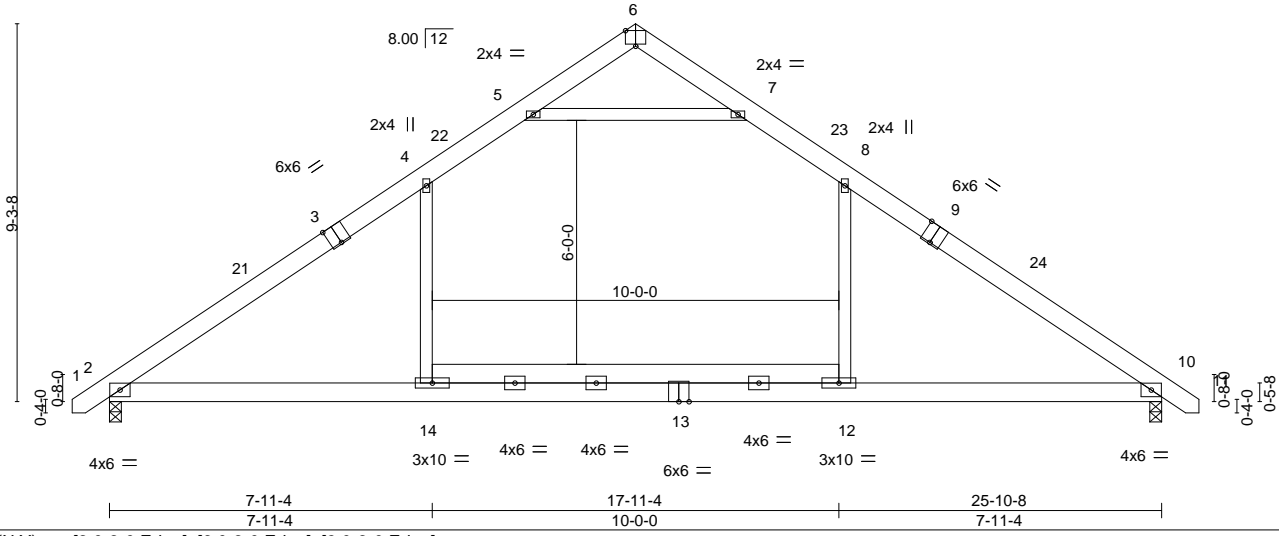
8.430 s Jan 6 2022 MiTek Industries, Inc. Tue Apr 16 13:30:21 2024 Page 1

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4x6 =

Scale = 1:56.7



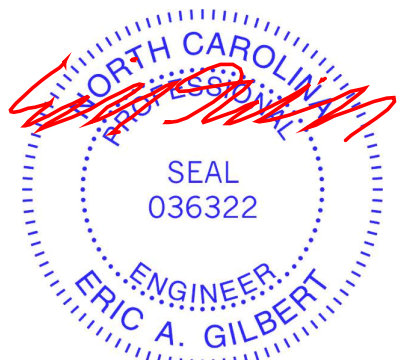
LOADING (psf)	SPACING-	CSI.	DEFL.	PLATES	GRIP
TCLL 20.0	2-0-0	TC 0.65	in (loc) l/defl L/d	MT20	244/190
TCDL 10.0	Plate Grip DOL 1.15	BC 0.52	Vert(LL) -0.20 12 >999 360		
BCLL 0.0 *	Lumber DOL 1.15	WB 0.90	Vert(CT) -0.30 12-14 >999 240		
BCDL 10.0	Rep Stress Incr YES	Matrix-AS	Horz(CT) 0.02 10 n/a n/a		
	Code IRC2015/TPI2014		Wind(LL) 0.24 14-17 >999 240	Weight: 185 lb	FT = 25%

LUMBER-	BRACING-
TOP CHORD 2x6 SP No.1	TOP CHORD Structural wood sheathing directly applied.
BOT CHORD 2x6 SP No.1	BOT CHORD Rigid ceiling directly applied.
WEBS 2x4 SP No.2	

**REACTIONS.** (size) 2=0-3-8, 10=0-3-8  
 Max Horz 2=-291(LC 10)  
 Max Uplift 2=-193(LC 12), 10=-193(LC 13)  
 Max Grav 2=1257(LC 19), 10=1257(LC 20)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-4=-1733/486, 4-5=-1244/543, 5-6=-96/423, 6-7=-96/424, 7-8=-1244/543, 8-10=-1735/486  
 BOT CHORD 2-14=-192/1344, 12-14=-195/1345, 10-12=-192/1344  
 WEBS 8-12=0/562, 4-14=0/559, 5-7=-1842/742

- NOTES-**
- 1) Unbalanced roof live loads have been considered for this design.
  - 2) Wind: ASCE 7-10; Vult=150mph Vasd=119mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2) -0-9-1 to 3-7-12, Interior(1) 3-7-12 to 12-11-4, Exterior(2) 12-11-4 to 17-4-1, Interior(1) 17-4-1 to 26-7-9 zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - 3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - 4) \* This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
  - 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 193 lb uplift at joint 2 and 193 lb uplift at joint 10.
  - 6) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.



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<p><b>WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 BEFORE USE.</b></p> <p>Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see <b>ANSI/TP1 Quality Criteria and DSB-22</b> available from Truss Plate Institute (www.tpinst.org) and <b>BCSI Building Component Safety Information</b> available from the Structural Building Component Association (www.sbcacomponents.com)</p>	<p>818 Soundside Road Edenton, NC 27932</p>
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Job J0424-2212	Truss A1GE	Truss Type GABLE	Qty 1	Ply 1	Lot 13 Overhills Creek Job Reference (optional)	164946156
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0-11-0 11-5-4 14-5-4 25-10-8 26-9-8  
 0-11-0 11-5-4 3-0-0 11-5-4 0-11-0

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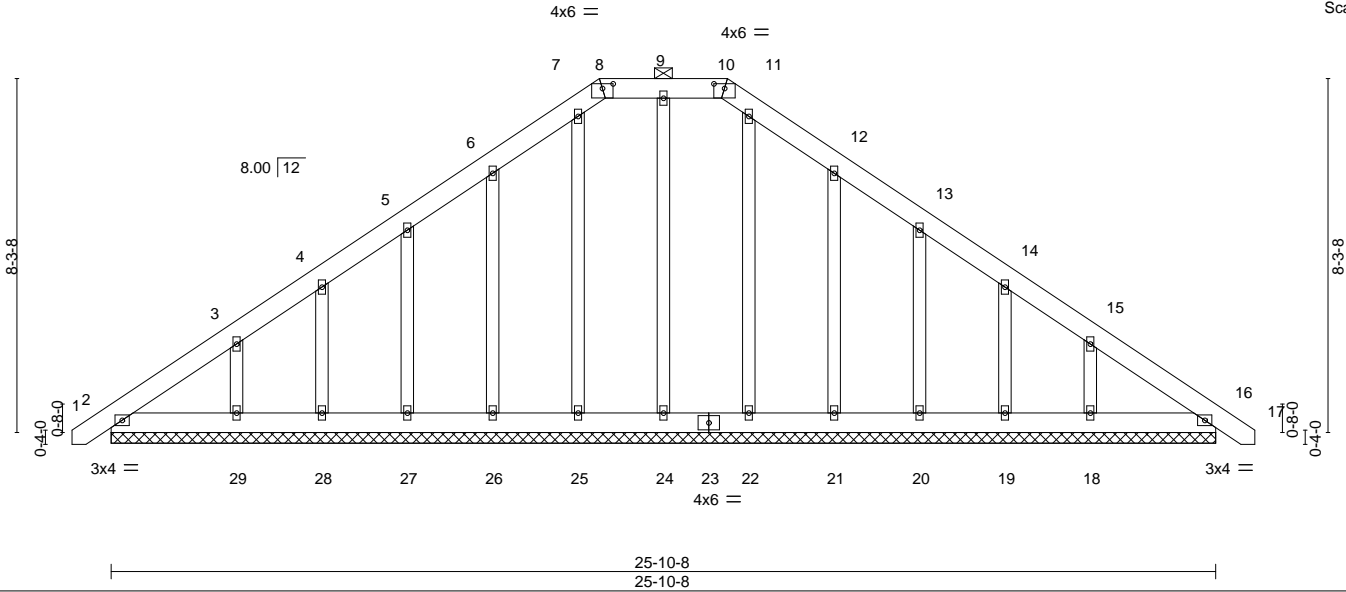


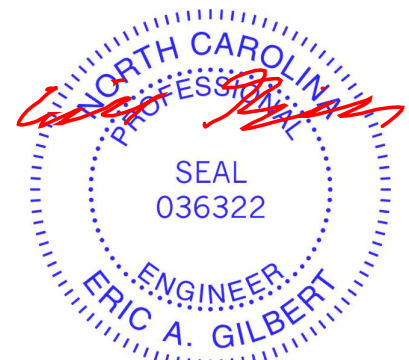
Plate Offsets (X,Y)--	[8:0-3-0,0-1-5], [10:0-3-0,0-1-5]				
<b>LOADING</b> (psf)	<b>SPACING-</b> 2-0-0	<b>CSI.</b>	<b>DEFL.</b> in (loc) l/defl L/d	<b>PLATES</b>	<b>GRIP</b>
TCLL 20.0	Plate Grip DOL 1.15	TC 0.05	Vert(LL) 0.00 16 n/r 120	MT20	244/190
TCDL 10.0	Lumber DOL 1.15	BC 0.03	Vert(CT) 0.00 16 n/r 120		
BCLL 0.0 *	Rep Stress Incr YES	WB 0.13	Horz(CT) 0.01 16 n/a n/a		
BCDL 10.0	Code IRC2015/TPI2014	Matrix-S		Weight: 214 lb	FT = 25%

<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
BOT CHORD 2x6 SP No.1	2-0-0 oc purlins (6-0-0 max.): 8-10.
OTHERS 2x4 SP No.2	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS.** All bearings 25-10-8.  
 (lb) - Max Horz 2=326(LC 10)  
 Max Uplift All uplift 100 lb or less at joint(s) 2, 24, 25, 22, 16 except 26=140(LC 12), 27=138(LC 12),  
 28=114(LC 12), 29=205(LC 12), 21=141(LC 13), 20=139(LC 13), 19=114(LC 13), 18=201(LC 13)  
 Max Grav All reactions 250 lb or less at joint(s) 2, 24, 25, 26, 27, 28, 22, 21, 20, 19, 16 except 29=280(LC  
 19), 18=276(LC 20)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-3=-282/260, 6-7=-255/295, 7-8=-251/298, 8-9=-249/298, 9-10=-249/298,  
 10-11=-251/298, 11-12=-255/295  
 WEBS 3-29=-264/223, 15-18=-264/220

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-10; Vult=150mph Vasd=119mph; TC DL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
  - 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 2-0-0 oc.
  - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - \* This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
  - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 24, 25, 22, 16 except (jt=lb) 26=140, 27=138, 28=114, 29=205, 21=141, 20=139, 19=114, 18=201.
  - Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



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<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>ENGINEERING BY  <b>TRENCO</b>          A MITEK Affiliate</p> <p>818 Soundside Road          Edenton, NC 27932</p>
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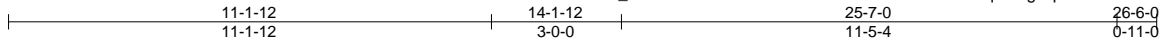


Job J0424-2212	Truss A2GE	Truss Type GABLE	Qty 1	Ply 1	Lot 13 Overhills Creek Job Reference (optional)	I64946158
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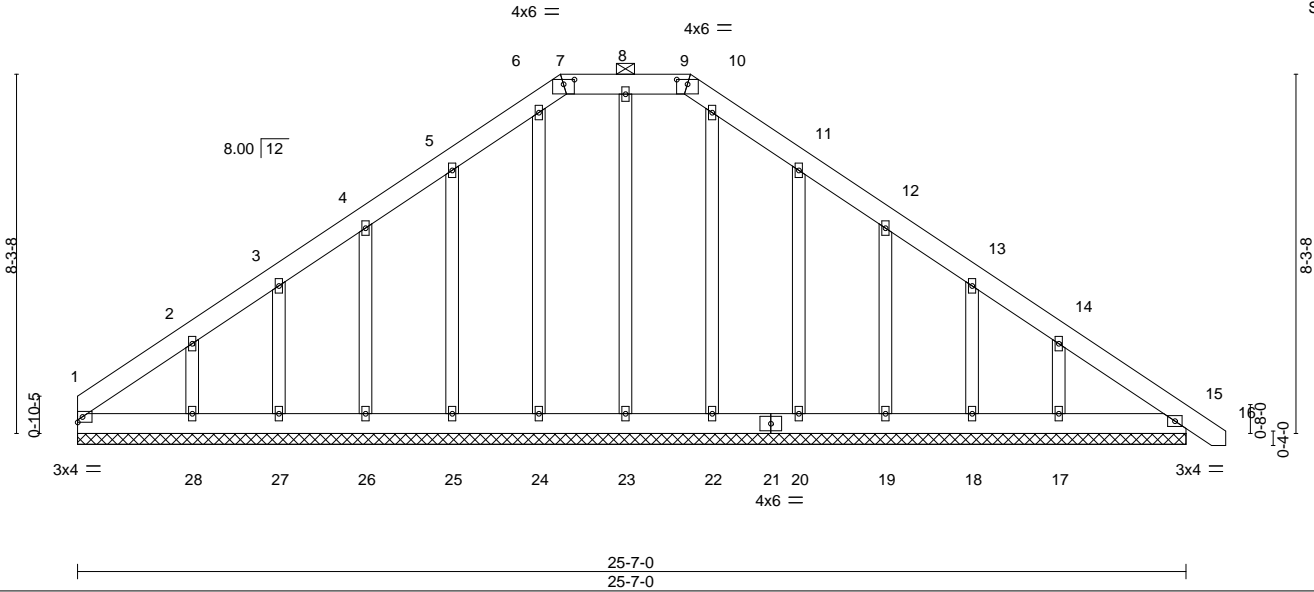


Plate Offsets (X, Y)--	[7:0-3-0,0-1-5], [9:0-3-0,0-1-5]
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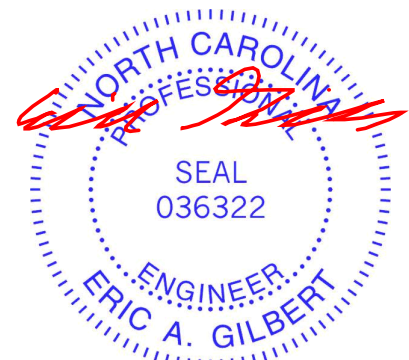
LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL	1.15	TC 0.05	Vert(LL)	0.00	15	n/r	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.03	Vert(CT)	0.00	15	n/r		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.13	Horz(CT)	0.01	15	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-S						
								Weight: 210 lb	FT = 25%

LUMBER-	BRACING-
TOP CHORD 2x6 SP No.1	TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except
BOT CHORD 2x6 SP No.1	2-0-0 oc purlins (6-0-0 max.): 7-9.
OTHERS 2x4 SP No.2	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS.** All bearings 25-7-0.  
 (lb) - Max Horz 1=322(LC 8)  
 Max Uplift All uplift 100 lb or less at joint(s) 23, 24, 22, 15 except 1=102(LC 8), 25=140(LC 12), 26=137(LC 12), 27=116(LC 12), 28=221(LC 12), 20=141(LC 13), 19=139(LC 13), 18=114(LC 13), 17=201(LC 13)  
 Max Grav All reactions 250 lb or less at joint(s) 1, 23, 24, 25, 26, 27, 22, 20, 19, 18, 15 except 28=279(LC 19), 17=276(LC 20)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 1-2=-295/270, 5-6=-256/295, 6-7=-252/298, 7-8=-249/298, 8-9=-249/298, 9-10=-252/298, 10-11=-256/295  
 WEBS 2-28=-256/239, 14-17=-264/220

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-10; Vult=150mph Vasd=119mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
  - 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 2-0-0 oc.
  - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - \* This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
  - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 23, 24, 22, 15 except (jt=lb) 1=102, 25=140, 26=137, 27=116, 28=221, 20=141, 19=139, 18=114, 17=201.
  - Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



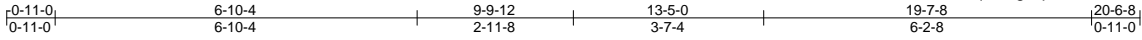
April 17, 2024

Job J0424-2212	Truss B1	Truss Type ROOF SPECIAL	Qty 6	Ply 1	Lot 13 Overhills Creek Job Reference (optional)	164946159
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5x5 =

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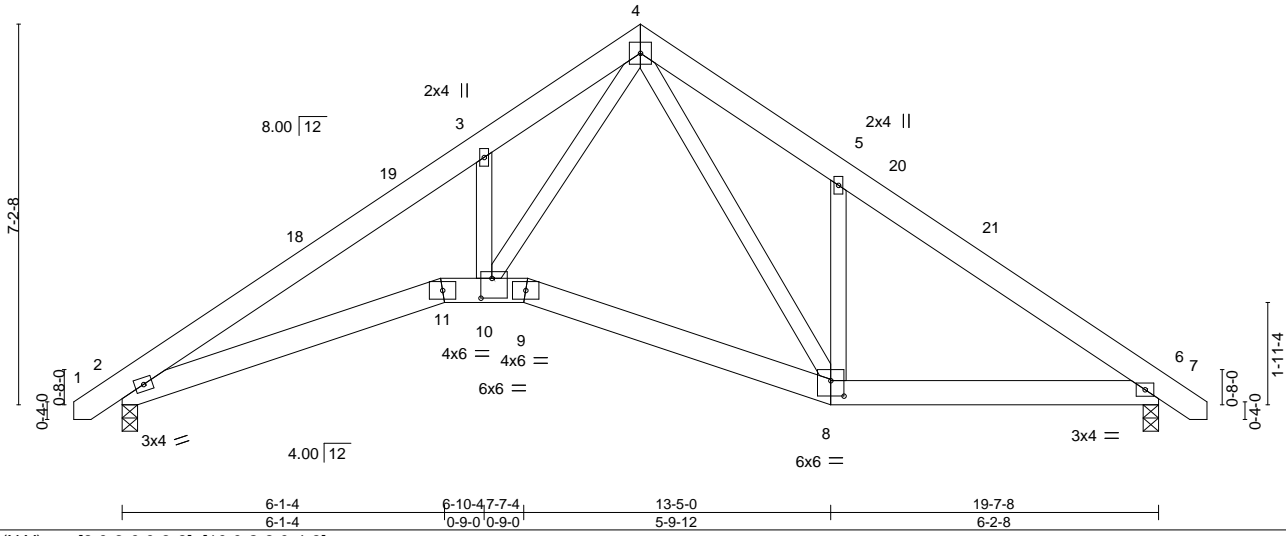


Plate Offsets (X,Y)--	[8:0-3-0,0-3-8], [10:0-2-8,0-4-8]				
<b>LOADING</b> (psf)	<b>SPACING-</b> 2-0-0	<b>CSI.</b>	<b>DEFL.</b> in (loc) l/defl L/d	<b>PLATES</b>	<b>GRIP</b>
TCLL 20.0	Plate Grip DOL 1.15	TC 0.17	Vert(LL) -0.04 11 >999 360	MT20	244/190
TCDL 10.0	Lumber DOL 1.15	BC 0.31	Vert(CT) -0.09 11-14 >999 240		
BCLL 0.0 *	Rep Stress Incr YES	WB 0.30	Horz(CT) 0.06 6 n/a n/a		
BCDL 10.0	Code IRC2015/TPI2014	Matrix-AS	Wind(LL) 0.05 11-14 >999 240	Weight: 137 lb	FT = 25%

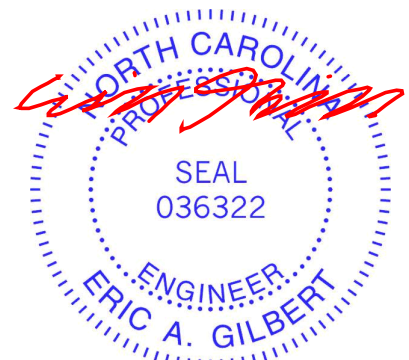
<b>LUMBER-</b>	<b>BRACING-</b>
TOP CHORD 2x6 SP No.1	TOP CHORD Structural wood sheathing directly applied.
BOT CHORD 2x6 SP No.1	BOT CHORD Rigid ceiling directly applied.
WEBS 2x4 SP No.2	

**REACTIONS.** (size) 2=0-3-8, 6=0-3-8  
 Max Horz 2=-225(LC 10)  
 Max Uplift 2=-150(LC 12), 6=-150(LC 13)  
 Max Grav 2=830(LC 1), 6=830(LC 1)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-3=-1818/525, 3-4=-1988/720, 4-5=-1325/591, 5-6=-1148/403  
 BOT CHORD 2-11=-284/1549, 10-11=-255/1464, 9-10=-35/734, 8-9=-51/791, 6-8=-184/851  
 WEBS 3-10=-434/348, 4-10=-430/1438, 4-8=-290/456, 5-8=-455/332

**NOTES-**

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-10; Vult=150mph Vasd=119mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2) -0-9-1 to 3-7-12, Interior(1) 3-7-12 to 9-9-12, Exterior(2) 9-9-12 to 14-2-9, Interior(1) 14-2-9 to 20-4-9 zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 4) \* This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 5) Bearing at joint(s) 2 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=150, 6=150.
- 7) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.



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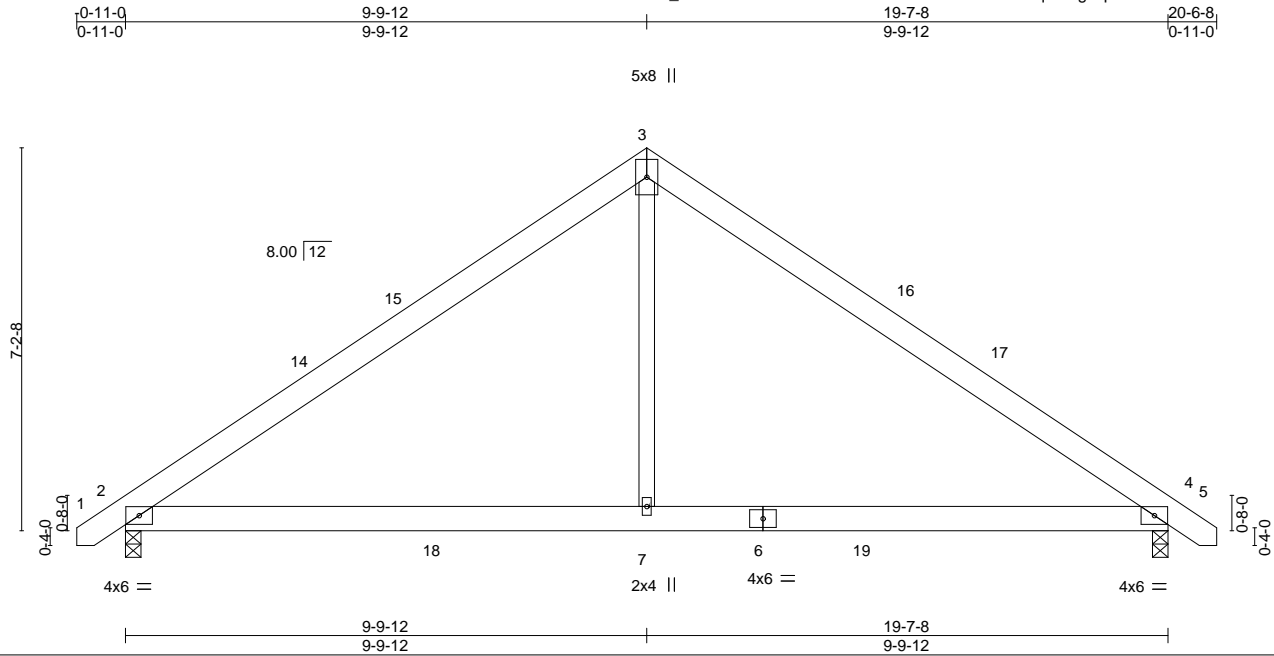


Job J0424-2212	Truss B2	Truss Type COMMON	Qty 2	Ply 1	Lot 13 Overhills Creek Job Reference (optional)	I64946161
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LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL	1.15	TC 0.34	Vert(LL)	-0.07 7-13	>999	360	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.43	Vert(CT)	-0.12 7-13	>999	240		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.15	Horz(CT)	0.01 4	n/a	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-AS	Wind(LL)	0.07 7-13	>999	240		
								Weight: 116 lb	FT = 25%

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

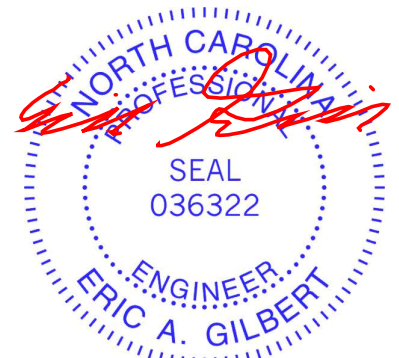
**BRACING-**  
 TOP CHORD Structural wood sheathing directly applied.  
 BOT CHORD Rigid ceiling directly applied.

**REACTIONS.** (size) 4=0-3-8, 2=0-3-8  
 Max Horz 2=225(LC 11)  
 Max Uplift 4=-150(LC 13), 2=-150(LC 12)  
 Max Grav 4=970(LC 20), 2=970(LC 19)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-3=-1164/377, 3-4=-1163/377  
 BOT CHORD 2-7=-82/939, 4-7=-82/939  
 WEBS 3-7=0/659

**NOTES-**

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-10; Vult=150mph Vasd=119mph; TC DL=6.0psf; BC DL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2) -0-9-1 to 3-7-12, Interior(1) 3-7-12 to 9-9-12, Exterior(2) 9-9-12 to 14-2-9, Interior(1) 14-2-9 to 20-4-9 zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 4) \* This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 4=150, 2=150.
- 6) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.



April 17, 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 J0424-2212	Truss B2-GR	Truss Type Common Girder	Qty 1	Ply 2	Lot 13 Overhills Creek Job Reference (optional)	I64946162
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Comtech, Inc. Fayetteville, NC - 28314,

8.430 s Jan 6 2022 MiTek Industries, Inc. Tue Apr 16 13:30:25 2024 Page 1

ID: P\_GcZcR0eXwhwdv4FzUEeJzQBs6-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrcDoi7J4zJC?f



6x6 ||

Scale = 1:42.4

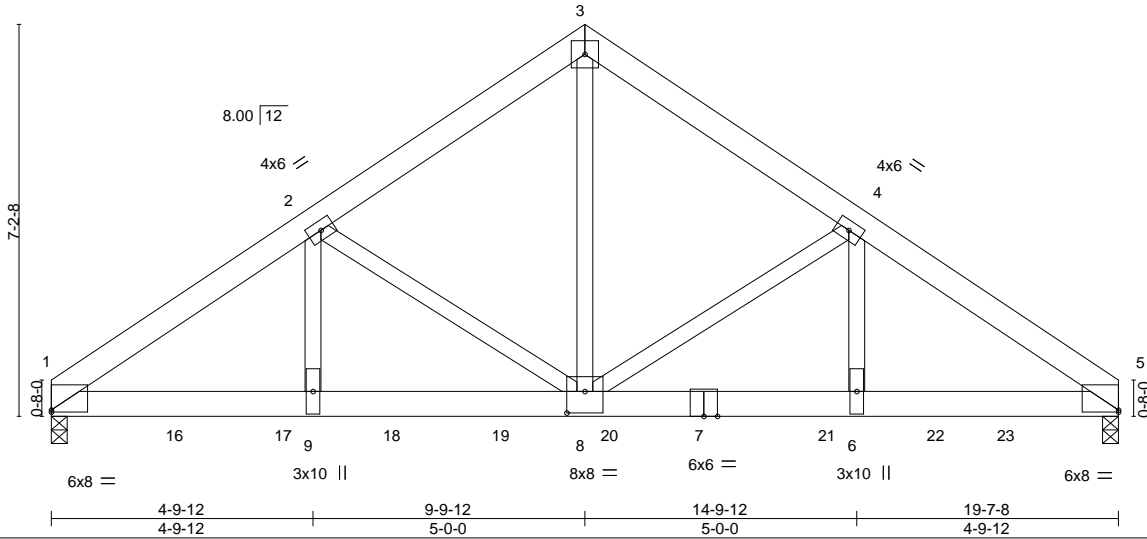


Plate Offsets (X,Y)-- [1:0-0-0,0-0-7], [5:Edge,0-0-7], [8:0-4-0,0-4-12]

LOADING (psf)	SPACING-	CSI.	DEFL.	PLATES	GRIP
TCLL 20.0	2-0-0	TC 0.23	in (loc) l/defl L/d	MT20	244/190
TCDL 10.0	Plate Grip DOL 1.15	BC 0.95	Vert(LL) -0.09 8-9 >999 360		
BCLL 0.0 *	Lumber DOL 1.15	WB 0.73	Vert(CT) -0.17 8-9 >999 240		
BCDL 10.0	Rep Stress Incr NO	Matrix-MS	Horz(CT) 0.05 5 n/a n/a		
	Code IRC2015/TPI2014		Wind(LL) 0.07 8-9 >999 240	Weight: 274 lb	FT = 25%

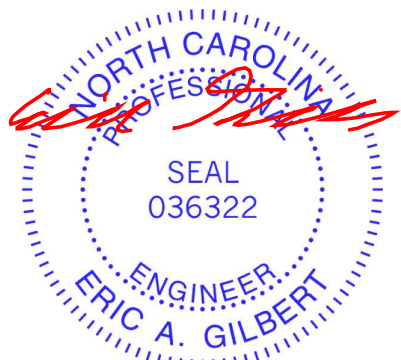
LUMBER-	BRACING-
TOP CHORD 2x6 SP No.1	TOP CHORD Structural wood sheathing directly applied or 5-7-9 oc purlins.
BOT CHORD 2x6 SP No.1	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 2x4 SP No.2	

**REACTIONS.** (size) 1=0-3-8 (req. 0-3-14), 5=0-3-8  
 Max Horz 1=-209(LC 4)  
 Max Uplift 1=-1110(LC 8), 5=-989(LC 9)  
 Max Grav 1=6616(LC 2), 5=5856(LC 2)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 1-2=-8234/1401, 2-3=-5747/1046, 3-4=-5752/1047, 4-5=-8431/1434  
 BOT CHORD 1-9=-1186/6790, 8-9=-1186/6790, 6-8=-1114/6979, 5-6=-1114/6979  
 WEBS 3-8=-1006/5974, 4-8=-2677/592, 4-6=-401/2790, 2-8=-2449/553, 2-9=-368/2599

- NOTES-**
- 2-ply truss to be connected together with 10d (0.131"x3") nails as follows:  
 Top chords connected as follows: 2x6 - 2 rows staggered at 0-9-0 oc.  
 Bottom chords connected as follows: 2x6 - 2 rows staggered at 0-7-0 oc.  
 Webs connected as follows: 2x4 - 1 row at 0-9-0 oc.
  - All loads are considered equally applied to all plies, except if noted as front (F) or back (B) face in the LOAD CASE(S) section. Ply to ply connections have been provided to distribute only loads noted as (F) or (B), unless otherwise indicated.
  - Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-10; Vult=150mph Vasd=119mph; TC DL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope); Lumber DOL=1.60 plate grip DOL=1.60
  - 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.
  - WARNING: Required bearing size at joint(s) 1 greater than input bearing size.
  - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 1=1110, 5=989.
  - Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 1116 lb down and 184 lb up at 0-0-0, 1109 lb down and 192 lb up at 2-3-4, 1109 lb down and 192 lb up at 4-3-4, 1109 lb down and 192 lb up at 6-3-4, 1109 lb down and 192 lb up at 8-3-4, 1109 lb down and 192 lb up at 10-3-4, 1109 lb down and 192 lb up at 12-3-4, 1109 lb down and 192 lb up at 14-3-4, and 1109 lb down and 192 lb up at 16-3-4, and 1109 lb down and 192 lb up at 17-6-12 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.

**LOAD CASE(S)** Standard  
 1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15



April 17, 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/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 J0424-2212	Truss B2-GR	Truss Type Common Girder	Qty 1	Ply <b>2</b>	Lot 13 Overhills Creek Job Reference (optional)	I64946162
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Comtech, Inc. Fayetteville, NC - 28314,

8.430 s Jan 6 2022 MiTek Industries, Inc. Tue Apr 16 13:30:26 2024 Page 2  
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**LOAD CASE(S)** Standard

Uniform Loads (plf)

Vert: 1-3=-60, 3-5=-60, 10-13=-20

Concentrated Loads (lb)

Vert: 7=-1003(B) 10=-1010(B) 16=-1003(B) 17=-1003(B) 18=-1003(B) 19=-1003(B) 20=-1003(B) 21=-1003(B) 22=-1003(B) 23=-1003(B)

**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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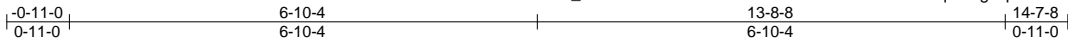
818 Soundside Road  
Edenton, NC 27932

Job J0424-2212	Truss C1	Truss Type ROOF SPECIAL	Qty 1	Ply 1	Lot 13 Overhills Creek Job Reference (optional)	I64946163
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Comtech, Inc. Fayetteville, NC - 28314,

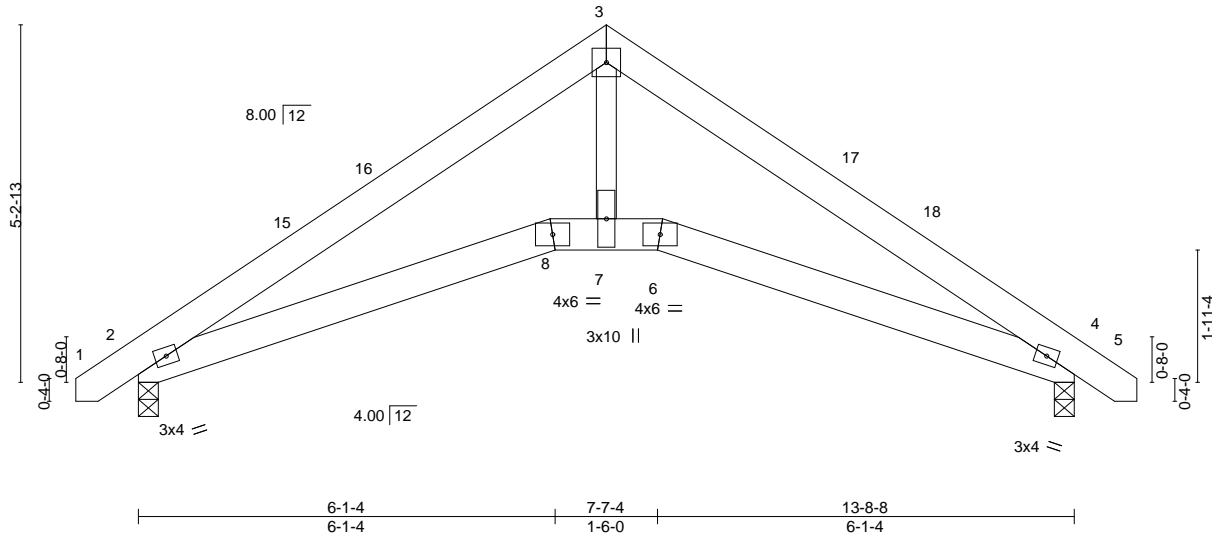
8.430 s Jan 6 2022 MiTek Industries, Inc. Tue Apr 16 13:30:26 2024 Page 1

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5x5 =

Scale = 1:33.7



LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL	1.15	TC 0.15	Vert(LL)	-0.02 8-11	>999	360	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.26	Vert(CT)	-0.05 8-11	>999	240		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.17	Horz(CT)	0.03 4	n/a	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-AS	Wind(LL)	0.03 8-11	>999	240	Weight: 82 lb	FT = 25%

**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.  
 BOT CHORD Rigid ceiling directly applied.

**REACTIONS.**

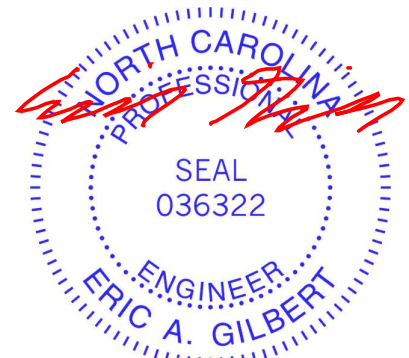
(size) 2=0-3-8, 4=0-3-8  
 Max Horz 2=-162(LC 10)  
 Max Uplift 2=-109(LC 12), 4=-109(LC 13)  
 Max Grav 2=594(LC 1), 4=594(LC 1)

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

TOP CHORD 2-3=-1114/353, 3-4=-1113/336  
 BOT CHORD 2-8=-137/909, 7-8=-110/846, 6-7=-110/846, 4-6=-137/902  
 WEBS 3-7=-63/731

**NOTES-**

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-10; Vult=150mph Vasd=119mph; TC DL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2) -0-9-1 to 3-7-12, Interior(1) 3-7-12 to 6-10-4, Exterior(2) 6-10-4 to 11-3-1, Interior(1) 11-3-1 to 14-5-9 zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- \* This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- Bearing at joint(s) 2, 4 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=109, 4=109.
- This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.



April 17, 2024

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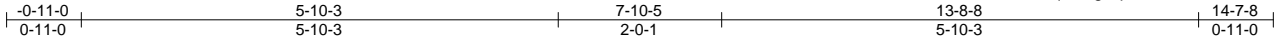
818 Soundside Road  
 Edenton, NC 27932

Job J0424-2212	Truss C1GE	Truss Type GABLE	Qty 1	Ply 1	Lot 13 Overhills Creek Job Reference (optional)	164946164
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Comtech, Inc. Fayetteville, NC - 28314,

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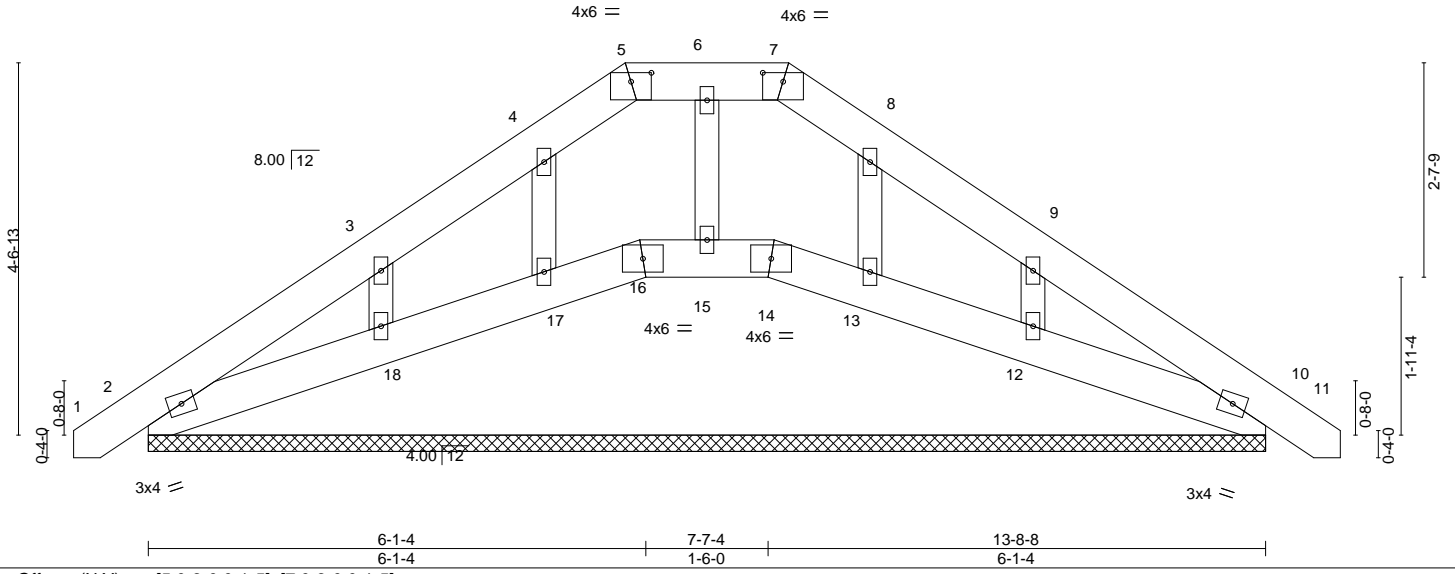


Plate Offsets (X, Y)--	[5:0-3-0,0-1-5], [7:0-3-0,0-1-5]
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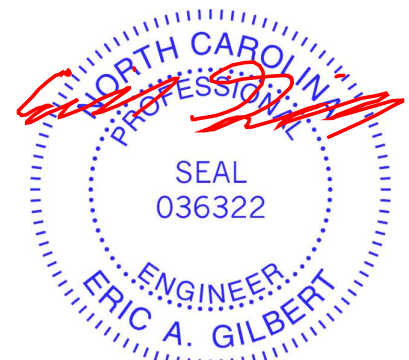
LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP	
TCLL 20.0	Plate Grip DOL	1.15	TC 0.04	Vert(LL)	0.00	10	n/r	120	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.02	Vert(CT)	0.00	10	n/r	120		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.04	Horz(CT)	0.00	10	n/a	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-S							
								Weight: 87 lb	FT = 25%	

LUMBER-	BRACING-
TOP CHORD 2x6 SP No.1	TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except
BOT CHORD 2x6 SP No.1	2-0-0 oc purlins (6-0-0 max.): 5-7.
OTHERS 2x4 SP No.2	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS.** All bearings 13-8-8.  
 (lb) - Max Horz 2=142(LC 11)  
 Max Uplift All uplift 100 lb or less at joint(s) 2, 10, 15, 17, 13 except 18=125(LC 12), 12=124(LC 13)  
 Max Grav All reactions 250 lb or less at joint(s) 2, 16, 14, 10, 15, 17, 13 except 18=266(LC 19), 12=265(LC 20)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
**WEBS** 3-18=275/219, 9-12=275/219

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-10; Vult=150mph Vasd=119mph; TCCL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Corner(3) -0-9-1 to 3-7-12, Exterior(2) 3-7-12 to 5-11-1, Corner(3) 5-11-1 to 12-2-4, Exterior(2) 12-2-4 to 14-5-9 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 2-0-0 oc.
  - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - \* This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
  - Bearing at joint(s) 16, 15 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) 2, 10, 15, 17, 13 except (jt=lb) 18=125, 12=124.
  - Beveled plate or shim required to provide full bearing surface with truss chord at joint(s) 16, 14, 15, 17, 18, 13, 12.
  - Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



April 17, 2024

Job J0424-2212	Truss M1	Truss Type MONOPICH	Qty 3	Ply 1	Lot 13 Overhills Creek Job Reference (optional)	I64946165
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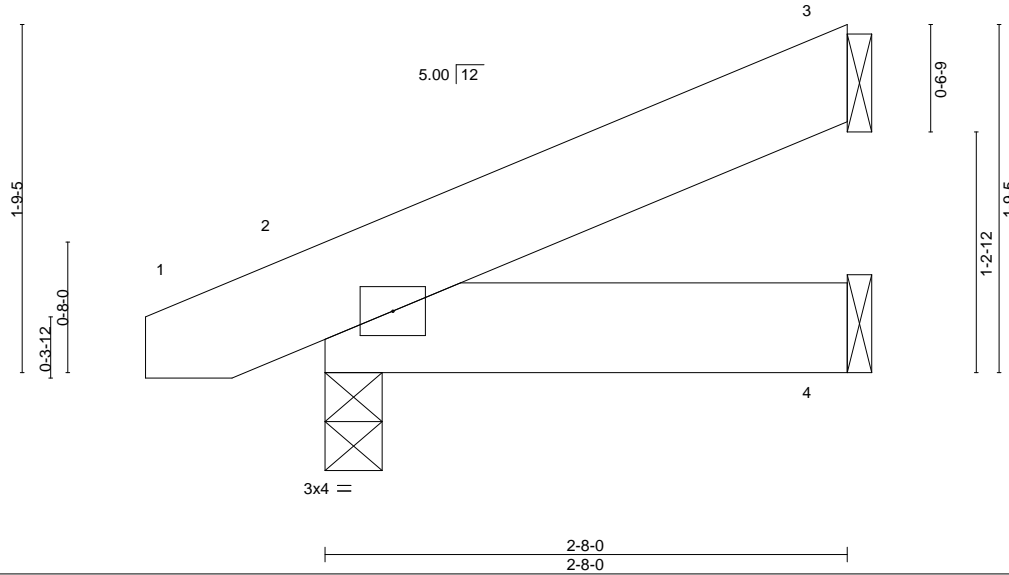
Comtech, Inc. Fayetteville, NC - 28314,

8.430 s Jan 6 2022 MiTek Industries, Inc. Tue Apr 16 13:30:27 2024 Page 1

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Scale = 1:11.8



LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP	
TCLL 20.0	Plate Grip DOL	1.15	TC 0.02	Vert(LL)	-0.00	7	>999	360	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.03	Vert(CT)	-0.00	7	>999	240		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.00	Horz(CT)	-0.00	3	n/a	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-MP	Wind(LL)	0.00	7	>999	240		
									Weight: 16 lb	FT = 25%

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

**BRACING-**  
TOP CHORD Structural wood sheathing directly applied or 2-8-0 oc purlins.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS.** (size) 3=Mechanical, 2=0-3-8, 4=Mechanical  
Max Horz 2=57(LC 12)  
Max Uplift 3=-38(LC 12), 2=-32(LC 8)  
Max Grav 3=64(LC 1), 2=151(LC 1), 4=47(LC 3)

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

**NOTES-**

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



April 17, 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 J0424-2212	Truss M1-GR	Truss Type MONOPIITCH	Qty 1	Ply 1	Lot 13 Overhills Creek Job Reference (optional)	I64946166
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Comtech, Inc. Fayetteville, NC - 28314,

8.430 s Jan 6 2022 MiTek Industries, Inc. Tue Apr 16 13:30:27 2024 Page 1

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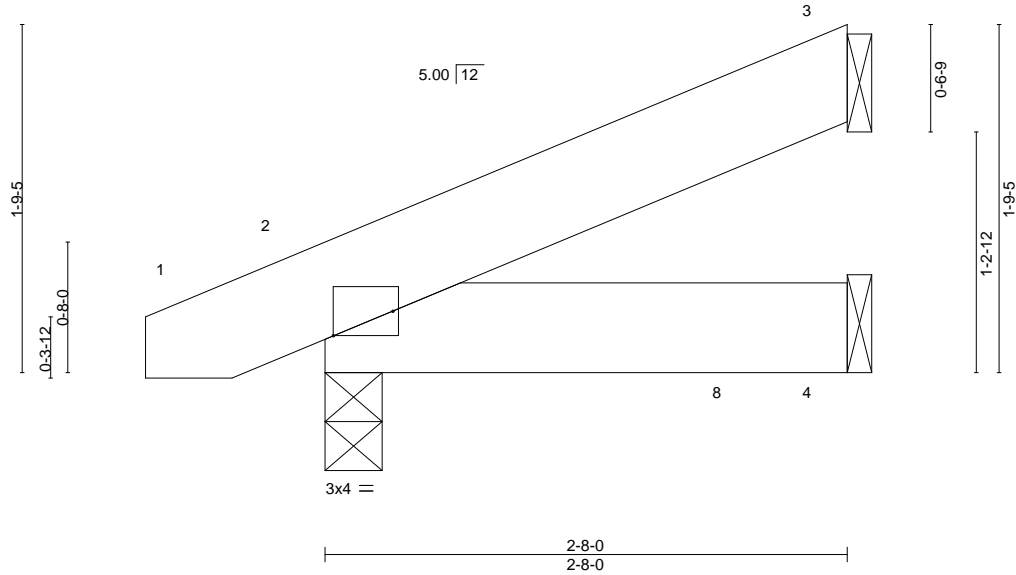


Plate Offsets (X,Y)-- [2:0-3-10,Edge]									
<b>LOADING</b> (psf)	<b>SPACING-</b>	2-0-0	<b>CSI.</b>	<b>DEFL.</b>	in (loc)	l/defl	L/d	<b>PLATES</b>	<b>GRIP</b>
TCLL 20.0	Plate Grip DOL	1.15	TC 0.11	Vert(LL)	-0.00	4-7	>999	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.26	Vert(CT)	-0.01	4-7	>999		
BCLL 0.0 *	Rep Stress Incr	NO	WB 0.00	Horz(CT)	0.00	2	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-MP	Wind(LL)	0.00	7	>999		
								Weight: 16 lb	FT = 25%

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

**BRACING-**  
TOP CHORD Structural wood sheathing directly applied or 2-8-0 oc purlins.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS.** (size) 3=Mechanical, 2=0-3-8, 4=Mechanical  
Max Horz 2=57(LC 8)  
Max Uplift 3=-38(LC 8), 2=-32(LC 4)  
Max Grav 3=96(LC 2), 2=235(LC 2), 4=572(LC 14)

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

**NOTES-**

- 1) Wind: ASCE 7-10; Vult=150mph Vasd=119mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope); Lumber DOL=1.60 plate grip DOL=1.60
- 2) N/A

- 3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 4) \* This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 5) Refer to girder(s) for truss to truss connections.
- 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 3, 2.
- 7) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 726 lb down at 2-1-12 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
- 8) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

**LOAD CASE(S)** Standard

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



April 17, 2024

Continued on page 2

**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 J0424-2212	Truss M1-GR	Truss Type MONOPITCH	Qty 1	Ply 1	Lot 13 Overhills Creek I64946166 Job Reference (optional)
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Comtech, Inc. Fayetteville, NC - 28314,

8.430 s Jan 6 2022 MiTek Industries, Inc. Tue Apr 16 13:30:27 2024 Page 2  
ID:P\_GcZcR0eXwhwdv4FzUEeJzQBs6-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

**LOAD CASE(S)** Standard

Uniform Loads (plf)  
Vert: 1-3=-60, 4-5=-20  
Concentrated Loads (lb)  
Vert: 8=-187(B)

**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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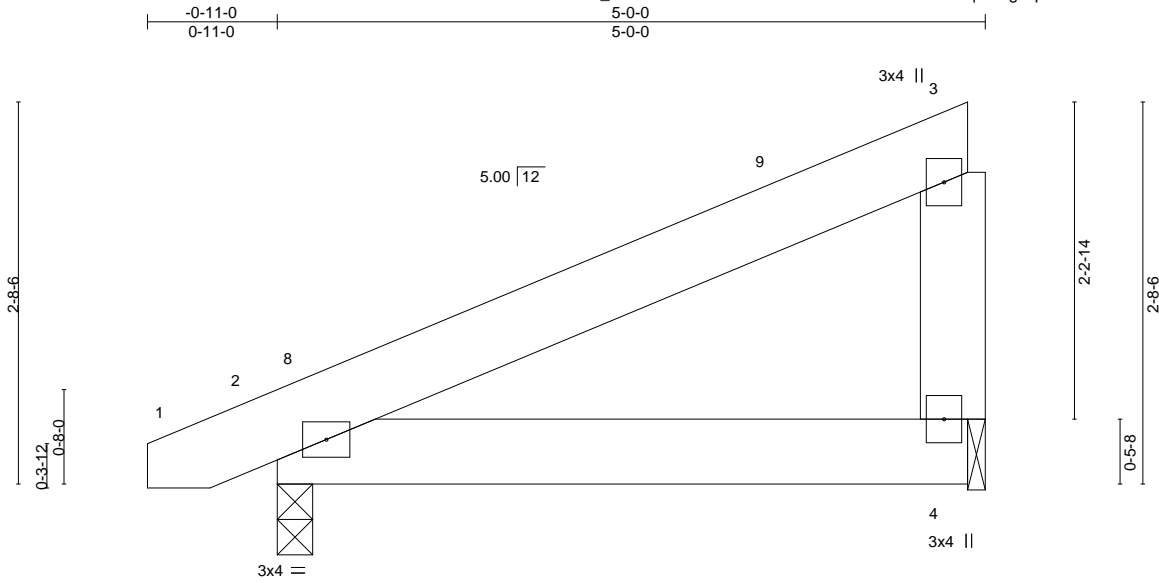


Job J0424-2212	Truss M2	Truss Type MONOPICH	Qty 3	Ply 1	Lot 13 Overhills Creek Job Reference (optional)	I64946167
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Comtech, Inc. Fayetteville, NC - 28314,

8.430 s Jan 6 2022 MiTek Industries, Inc. Tue Apr 16 13:30:28 2024 Page 1

ID:P\_GcZcR0eXwhwdv4FzUEeJzQBs6-RfC?PsB70Hq3NSgPqnL8w3uITXbGKwRCDoi7J4zJC?f



LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL	1.15	TC 0.14	Vert(LL)	0.02 4-7	>999	240	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.14	Vert(CT)	-0.01 4-7	>999	240		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.00	Horz(CT)	-0.00 2	n/a	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-AS					Weight: 30 lb	FT = 25%

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

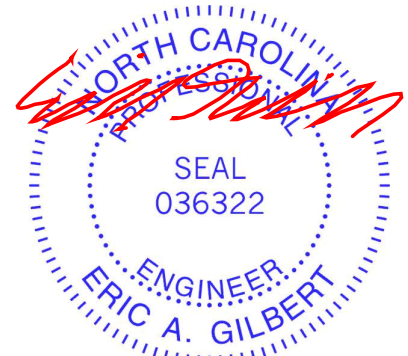
**BRACING-**  
 TOP CHORD Structural wood sheathing directly applied, except end verticals.  
 BOT CHORD Rigid ceiling directly applied.

**REACTIONS.** (size) 2=0-3-0, 4=0-1-8  
 Max Horz 2=96(LC 12)  
 Max Uplift 2=-103(LC 8), 4=-103(LC 8)  
 Max Grav 2=236(LC 1), 4=188(LC 1)

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

**NOTES-**

- 1) Wind: ASCE 7-10; Vult=150mph Vasd=119mph; TC DL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2) -0-8-6 to 3-8-7, Interior(1) 3-8-7 to 4-9-4 zone; porch left exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 3) \* This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 4) Bearing at joint(s) 4 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- 5) Provide mechanical connection (by others) of truss to bearing plate at joint(s) 4.
- 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=103, 4=103.
- 7) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.



April 17, 2024

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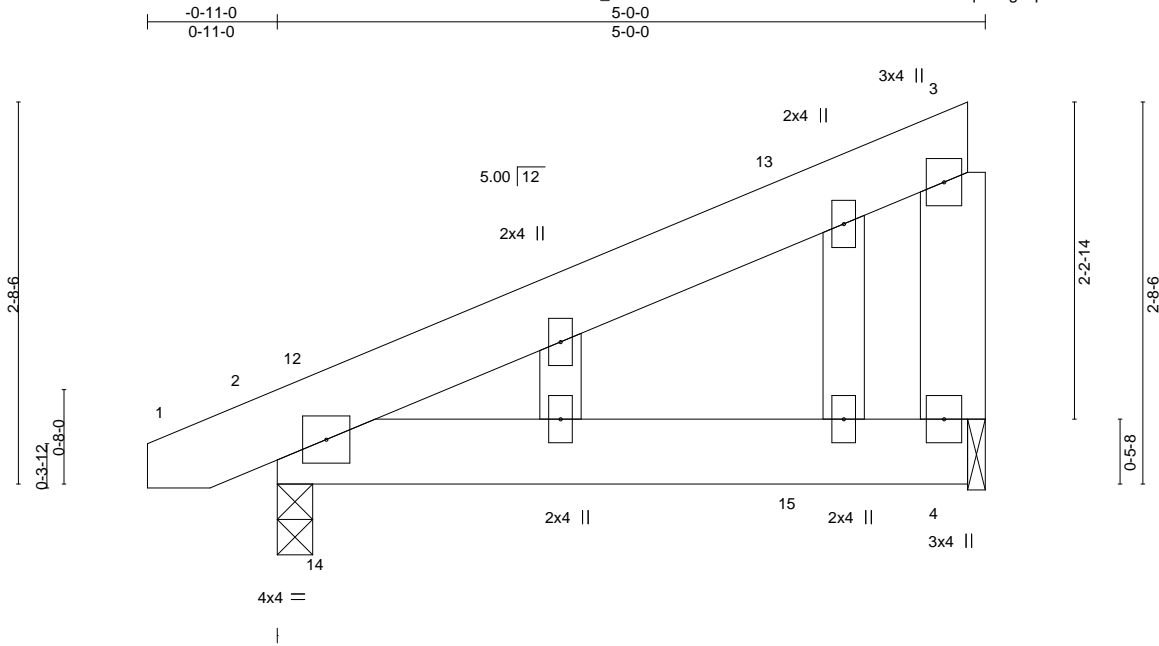
818 Soundside Road  
 Edenton, NC 27932

Job J0424-2212	Truss M2GE	Truss Type GABLE	Qty 1	Ply 1	Lot 13 Overhills Creek Job Reference (optional)	I64946168
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Comtech, Inc. Fayetteville, NC - 28314,

8.430 s Jan 6 2022 MiTek Industries, Inc. Tue Apr 16 13:30:28 2024 Page 1

ID:P\_GcZcR0eXwhwdv4FzUEeJzQBs6-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrcDoi7J4zJC?f



<b>LOADING</b> (psf)	<b>SPACING-</b>	2-0-0	<b>CSI.</b>	<b>DEFL.</b>	in (loc)	l/defl	L/d	<b>PLATES</b>	<b>GRIP</b>
TCLL 20.0	Plate Grip DOL	1.15	TC 0.22	Vert(LL)	0.04 4-11	>999	240	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.23	Vert(CT)	-0.01 4-11	>999	240		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.00	Horz(CT)	-0.00 2	n/a	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-AS					Weight: 33 lb	FT = 25%

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

**BRACING-**  
TOP CHORD Structural wood sheathing directly applied, except end verticals.  
BOT CHORD Rigid ceiling directly applied.

**REACTIONS.** (size) 2=0-3-0, 4=0-1-8  
Max Horz 2=96(LC 12)  
Max Uplift 2=-103(LC 8), 4=-103(LC 8)  
Max Grav 2=236(LC 1), 4=188(LC 1)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
TOP CHORD 3-4=-125/352

**NOTES-**

- 1) Wind: ASCE 7-10; Vult=150mph Vasd=119mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Corner(3) -0-8-6 to 3-8-7, Exterior(2) 3-8-7 to 4-9-4 zone; porch left exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 2) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- 3) Gable studs spaced at 2-0-0 oc.
- 4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 5) \* This truss has been designed for a live load of 30.0psf on the bottom chord in all areas 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) 4 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- 7) Provide mechanical connection (by others) of truss to bearing plate at joint(s) 4.
- 8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=103, 4=103.
- 9) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.



April 17, 2024

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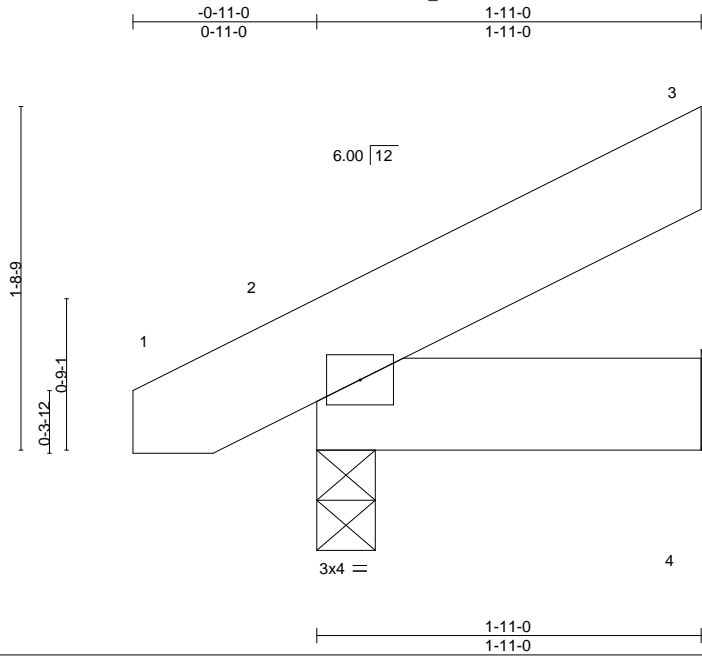
818 Soundside Road  
Edenton, NC 27932

Job J0424-2212	Truss M3	Truss Type MONOPITCH	Qty 7	Ply 1	Lot 13 Overhills Creek Job Reference (optional)	I64946169
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Comtech, Inc. Fayetteville, NC - 28314,

8.430 s Jan 6 2022 MiTek Industries, Inc. Tue Apr 16 13:30:29 2024 Page 1

ID:P\_GcZcR0eXwhwdv4FzUEeJzQBs6-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWwCDoi7J4zJC?f



Scale = 1:11.5

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 0.07	Vert(LL) -0.00	7	>999	360	MT20	244/190
TCDL 10.0	Lumber DOL 1.15	BC 0.09	Vert(CT) -0.00	7	>999	240		
BCLL 0.0 *	Rep Stress Incr YES	WB 0.00	Horz(CT) -0.00	2	n/a	n/a		
BCDL 10.0	Code IRC2015/TPI2014	Matrix-MP	Wind(LL) 0.00	7	>999	240		
							Weight: 12 lb	FT = 25%

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

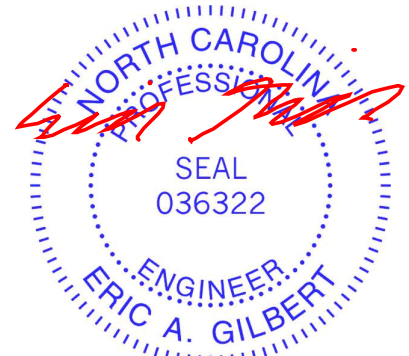
**BRACING-**  
TOP CHORD Structural wood sheathing directly applied or 1-11-0 oc purlins.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS.** (size) 2=0-3-8, 4=Mechanical  
Max Horz 2=53(LC 9)  
Max Uplift 2=-18(LC 12), 4=-44(LC 9)  
Max Grav 2=127(LC 1), 4=69(LC 1)

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

**NOTES-**

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



April 17, 2024

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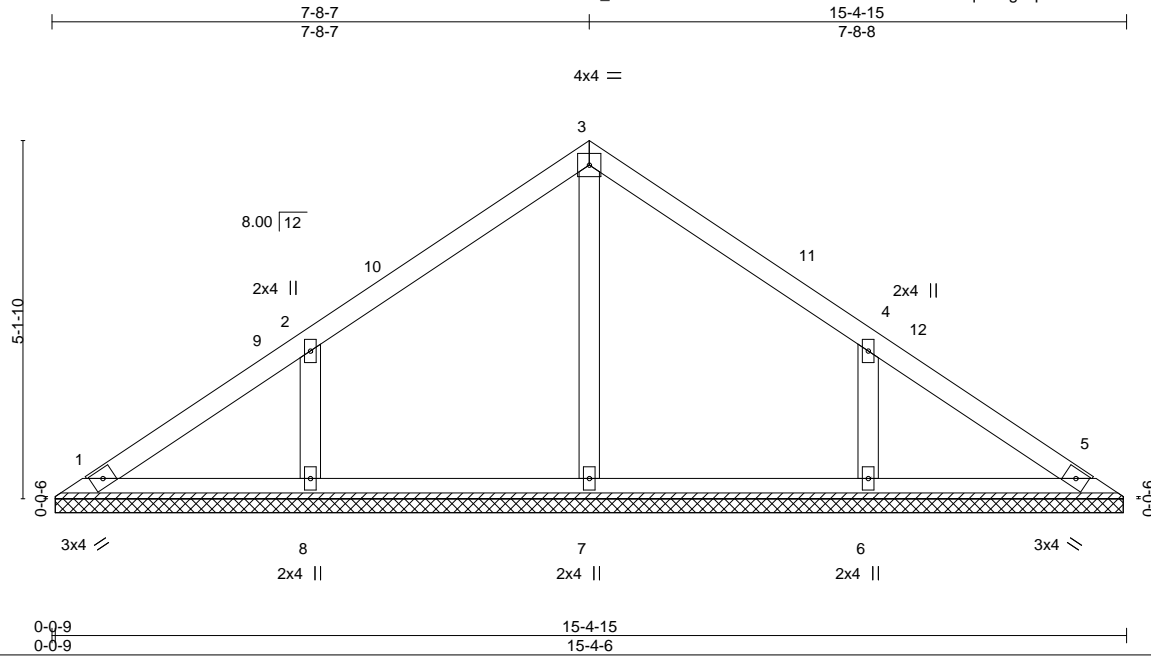
818 Soundside Road  
Edenton, NC 27932

Job J0424-2212	Truss V1	Truss Type VALLEY	Qty 1	Ply 1	Lot 13 Overhills Creek Job Reference (optional)	I64946170
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Comtech, Inc. Fayetteville, NC - 28314,

8.430 s Jan 6 2022 MiTek Industries, Inc. Tue Apr 16 13:30:29 2024 Page 1

ID: P\_GcZcR0eXwhwdv4FzUEeJzQB6-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f



Scale = 1:33.0

Plate Offsets (X,Y)--	[4:0-0-0,0-0-0]						
<b>LOADING</b> (psf)	<b>SPACING-</b>	2-0-0	<b>CSI.</b>	<b>DEFL.</b>	in (loc)	l/defl	L/d
TCLL 20.0	Plate Grip DOL	1.15	TC 0.15	Vert(LL)	n/a	-	n/a 999
TCDL 10.0	Lumber DOL	1.15	BC 0.08	Vert(CT)	n/a	-	n/a 999
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.07	Horz(CT)	0.00	5	n/a n/a
BCDL 10.0	Code IRC2015/TPI2014		Matrix-S				
							<b>PLATES</b>
							MT20
							<b>GRIP</b>
							244/190
							Weight: 61 lb
							FT = 25%

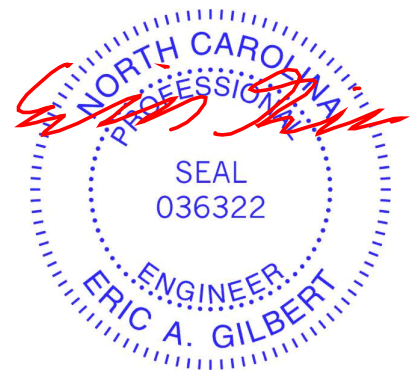
**LUMBER-**  
TOP CHORD 2x4 SP No.1  
BOT CHORD 2x4 SP No.1  
OTHERS 2x4 SP No.2

**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 15-3-13.  
(lb) - Max Horz 1=-154(LC 8)  
Max Uplift All uplift 100 lb or less at joint(s) 1 except 8=-171(LC 12), 6=-171(LC 13)  
Max Grav All reactions 250 lb or less at joint(s) 1, 5 except 7=252(LC 1), 8=388(LC 19), 6=388(LC 20)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
**WEBS** 2-8=-382/291, 4-6=-382/291

- NOTES-**
- 1) Unbalanced roof live loads have been considered for this design.
  - 2) Wind: ASCE 7-10; Vult=150mph Vasd=119mph; TC DL=6.0psf; BC DL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2) 0-5-15 to 4-10-12, Interior(1) 4-10-12 to 7-8-7, Exterior(2) 7-8-7 to 12-1-4, Interior(1) 12-1-4 to 14-11-0 zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - 3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - 4) \* This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
  - 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1 except (jt=lb) 8=171, 6=171.
  - 6) N/A



April 17, 2024

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

Job J0424-2212	Truss V2	Truss Type VALLEY	Qty 1	Ply 1	Lot 13 Overhills Creek Job Reference (optional)	I64946171
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Comtech, Inc. Fayetteville, NC - 28314,

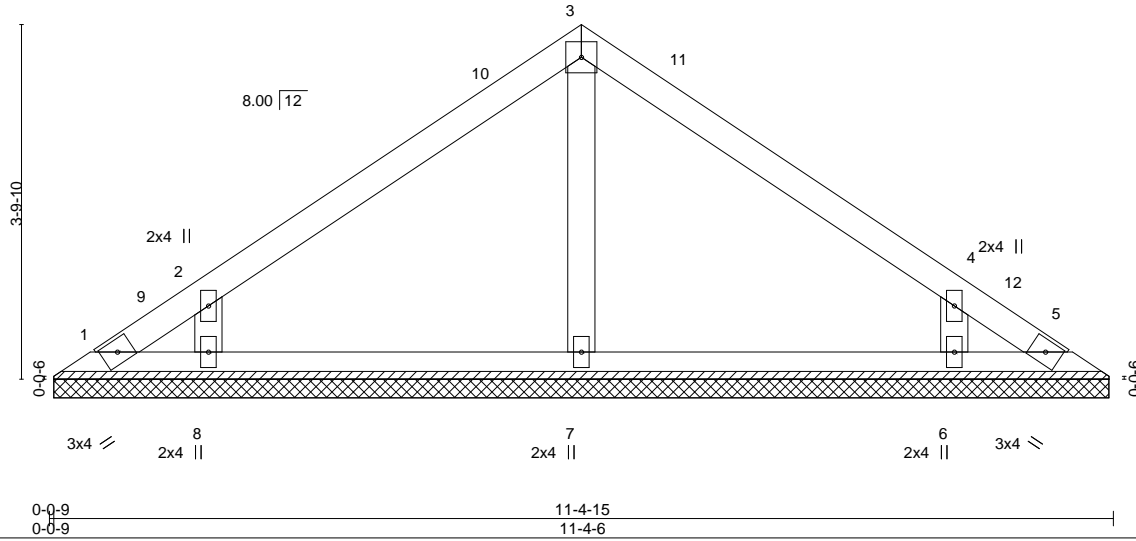
8.430 s Jan 6 2022 MiTek Industries, Inc. Tue Apr 16 13:30:30 2024 Page 1

ID: P\_GcZcR0eXwhwdv4FzUEeJzQB6-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f



4x4 =

Scale = 1:24.7



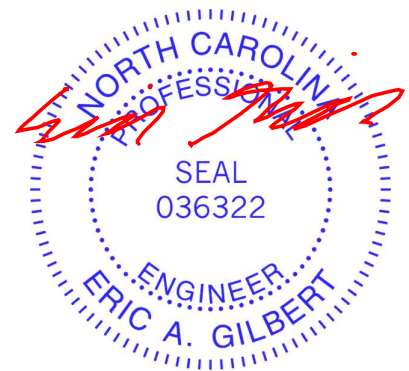
LOADING (psf)	SPACING-	CSI.	DEFL.	PLATES	GRIP
TCLL 20.0	2-0-0	TC 0.14	in (loc) l/defl L/d	MT20	244/190
TCDL 10.0	Plate Grip DOL 1.15	BC 0.09	Vert(LL) n/a - n/a 999		
BCLL 0.0 *	Lumber DOL 1.15	WB 0.05	Vert(CT) n/a - n/a 999		
BCDL 10.0	Rep Stress Incr YES	Matrix-S	Horz(CT) 0.00 5 n/a n/a		
	Code IRC2015/TPI2014			Weight: 42 lb	FT = 25%

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

**REACTIONS.** All bearings 11-3-13.  
 (lb) - Max Horz 1=11(LC 8)  
 Max Uplift All uplift 100 lb or less at joint(s) 1, 5 except 8=157(LC 12), 6=157(LC 13)  
 Max Grav All reactions 250 lb or less at joint(s) 1, 5 except 7=262(LC 1), 8=344(LC 19), 6=343(LC 20)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 WEBS 2-8=-362/303, 4-6=-362/303

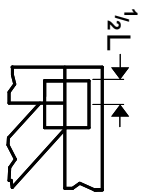
- NOTES-**
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-10; Vult=150mph Vasd=119mph; TC DL=6.0psf; BC DL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2) 0-5-15 to 4-10-12, Interior(1) 4-10-12 to 5-8-7, Exterior(2) 5-8-7 to 10-1-4, Interior(1) 10-1-4 to 10-11-0 zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - \* This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
  - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 5 except (jt=lb) 8=157, 6=157.
  - N/A



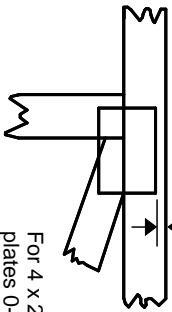


# Symbols

## 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

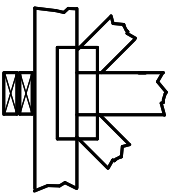
The first dimension is the plate width measured perpendicular to slots. Second dimension is the length parallel to slots.

## 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



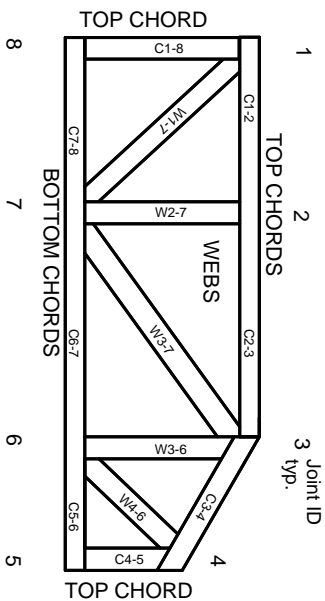
Indicates location where bearings (supports) occur. Icons vary but reaction section indicates joint number/letter where bearings occur. Min size shown is for crushing only.

## 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

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



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

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

# Product Code Approvals

ICC-ES Reports:

ESR-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.

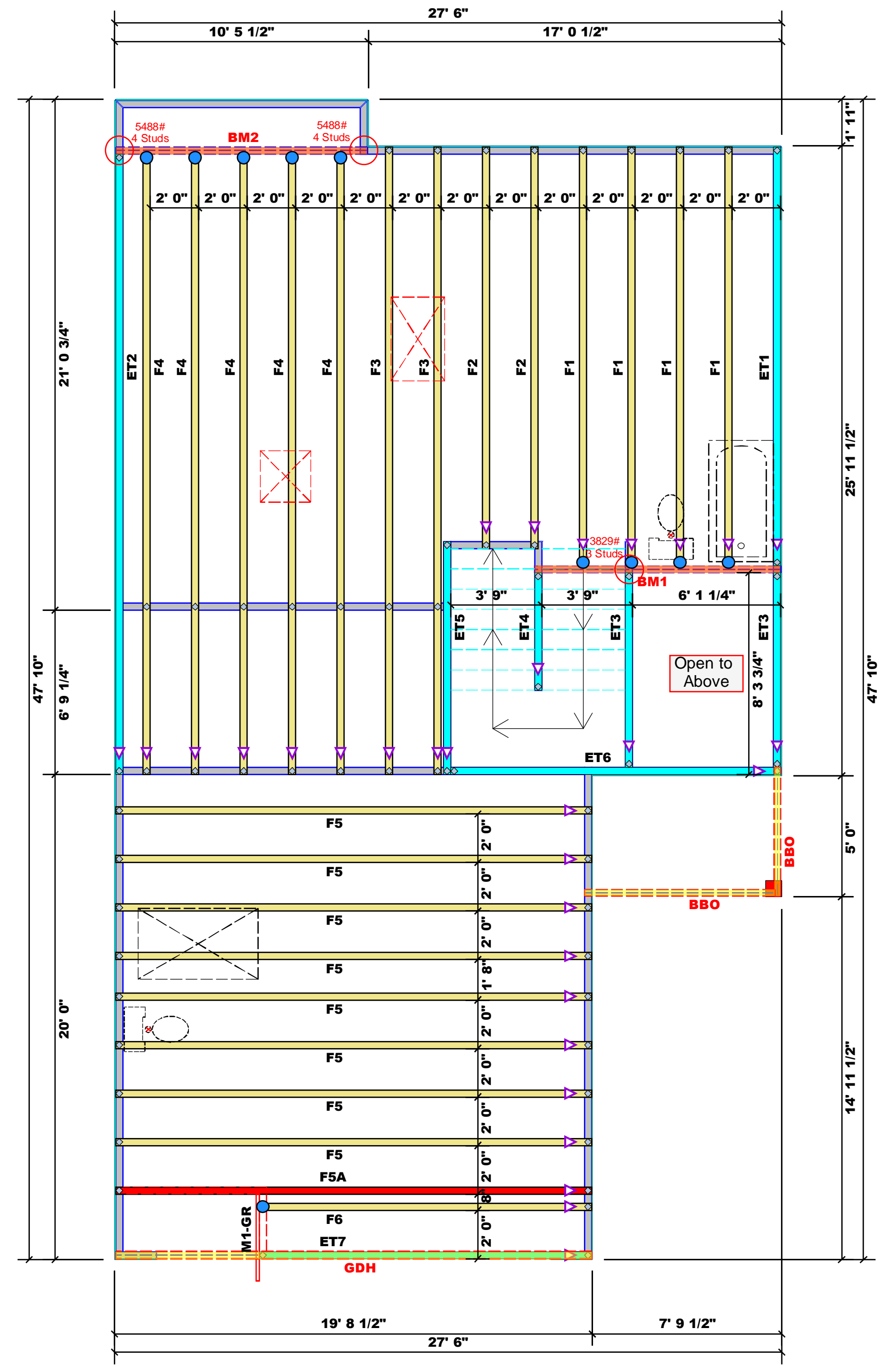


# ROOF & FLOOR TRUSSES & BEAMS

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

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

Signature Jonathan Landry  
**Jonathan Landry**



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

All Headers Are Considered 2X10 Beams Unless Otherwise Noted

All Walls Shown Are Considered Load Bearing

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

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

Hatch Legend

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

Connector Information					Nail Information	
Sym	Product	Manuf	Qty	Supported Member	Header	Truss
●	HUS410	USP	10	NA	16d/3-1/2"	16d/3-1/2"

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

1 Truss Placement Plan  
Scale: 1/4"=1'

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

LOAD CHART FOR JACK STUDS					
(BASED ON TABLES R502.5(1) & (b))					
NUMBER OF JACK STUDS REQUIRED @ EA END OF HEADER/GIRDER					
END REACTION (UP TO)	REQ'D STUDS FOR (1) 1/2" HEADER	END REACTION (UP TO)	REQ'D STUDS FOR (1) 1/2" HEADER	END REACTION (UP TO)	REQ'D STUDS FOR (1) 1/2" HEADER
1700	1	2550	1	3400	1
3400	2	5100	2	6800	2
5100	3	7650	3	10200	3
6800	4	10200	4	13600	4
8500	5	12750	5	17000	5
10200	6	15300	6		
11900	7				
13600	8				
15300	9				

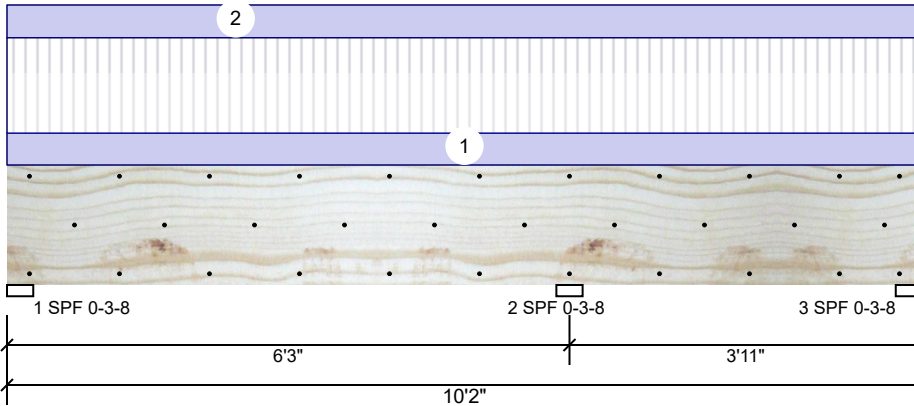
BUILDER	CITY / CO.	JOHNSTON CO. / JOHNSTON
Wellco Contractors	Johnston Co. / Johnston	Johnston Co. / Johnston
JOB NAME	ADDRESS	69 Onslow Court
PLAN	MODEL	Floor
SEAL DATE	DATE REV.	04/16/24
QUOTE #	DRAWN BY	Jonathan Landry
JOB #	SALES REP.	Lenny Norris
		J0424-2213

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



**BM1 Kerto-S LVL 1.750" X 16.000" 2-Ply - PASSED**

Level: Level



**Member Information**

Type:	Girder	Application:	Floor
Plies:	2	Design Method:	ASD
Moisture Condition:	Dry	Building Code:	IBC/IRC 2015
Deflection LL:	480	Load Sharing:	No
Deflection TL:	360	Deck:	Not Checked
Importance:	Normal - II	Ceiling:	Gypsum 1/2"
Temperature:	Temp <= 100°F		

**Reactions UNPATTERNED lb (Uplift)**

Brg	Direction	Live	Dead	Snow	Wind	Const
1	Vertical	989	703	0	0	0
2	Vertical	2092	1486	0	0	0
3	Vertical	488	347	0	0	0

**Bearings**

Bearing	Length	Dir.	Cap.	React D/L lb	Total	Ld. Case	Ld. Comb.
1 - SPF	3.500"	Vert	31%	663 / 971	1635	L_	D+L
2 - SPF	3.500"	Vert	74%	1591 / 2239	3829	LL	D+L
3 - SPF	3.500"	Vert	18%	282 / 664	946	_L	D+L

**Analysis Results**

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Neg Moment	-2083 ft-lb	6'3"	34565 ft-lb	0.060 (6%)	D+L	LL
Pos Moment	1882 ft-lb	2'8 11/16"	34565 ft-lb	0.054 (5%)	D+L	L_
Unbraced	1882 ft-lb	2'8 11/16"	12345 ft-lb	0.152 (15%)	D+L	L_
Shear	1284 lb	4'9 1/4"	11947 lb	0.108 (11%)	D+L	LL
LL Defl inch (L/11160)	0.006	3'1 7/8"	0.151 (L/480)	0.043 (4%)	L	L_
TL Defl inch (L/6638)	0.011	3'1 3/4"	0.201 (L/360)	0.054 (5%)	D+L	L_

**Design Notes**

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

ID	Load Type	Location	Trib Width	Side	Dead 0.9	Live 1	Snow 1.15	Wind 1.6	Const. 1.25	Comments
1	Uniform			Top	117 PLF	351 PLF	0 PLF	0 PLF	0 PLF	F1
2	Uniform			Top	120 PLF	0 PLF	0 PLF	0 PLF	0 PLF	Wall
	Self Weight				12 PLF					

**Notes**

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

**Lumber**

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

**Handling & Installation**

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

6. For flat roofs provide proper drainage to prevent ponding

This design is valid until 6/28/2026

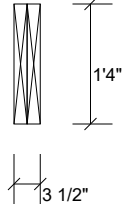
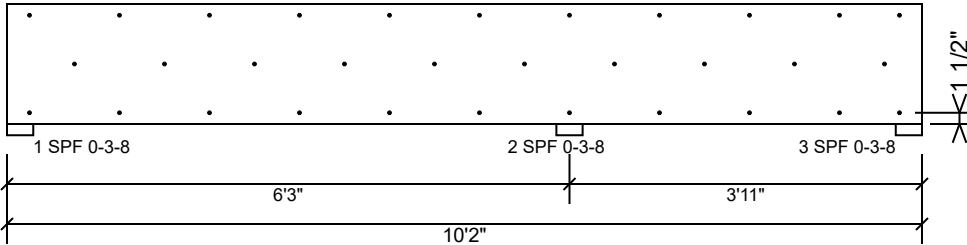
**Manufacturer Info**

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

Comtech, Inc.  
 1001 S Reilly Road  
 Fayetteville  
 Cumberland  
 28314

**BM1 Kerto-S LVL 1.750" X 16.000" 2-Ply - PASSED**

Level: Level



**Multi-Ply Analysis**

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

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

**Notes**

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

**Lumber**

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

chemicals

**Handling & Installation**

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

6. For flat roofs provide proper drainage to prevent ponding

This design is valid until 6/28/2026

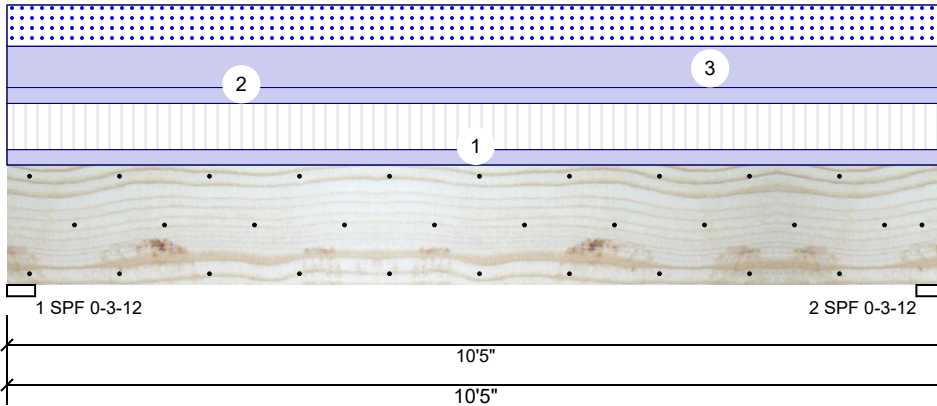
**Manufacturer Info**

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 28314

**BM2 Kerto-S LVL 1.750" X 16.000" 2-Ply - PASSED**

Level: Level



**Member Information**

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

Application:	Floor
Design Method:	ASD
Building Code:	IBC/IRC 2015
Load Sharing:	No
Deck:	Not Checked
Ceiling:	Gypsum 1/2"

**Reactions UNPATTERNED lb (Uplift)**

Brg	Direction	Live	Dead	Snow	Wind	Const
1	Vertical	1813	2914	1620	0	0
2	Vertical	1813	2914	1620	0	0

**Bearings**

Bearing	Length	Dir.	Cap.	React D/L lb	Total	Ld. Case	Ld. Comb.
1 - SPF	3.750"	Vert	98%	2914 / 2574	5488	L	D+0.75(L+S)
2 - SPF	3.750"	Vert	98%	2914 / 2574	5488	L	D+0.75(L+S)

**Analysis Results**

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	13007 ft-lb	5'2 1/2"	39750 ft-lb	0.327 (33%)	D+0.75(L+S)	L
Unbraced	13007 ft-lb	5'2 1/2"	13030 ft-lb	0.998 (100%)	D+0.75(L+S)	L
Shear	3770 lb	1'7 3/4"	13739 lb	0.274 (27%)	D+0.75(L+S)	L
LL Defl inch	0.058 (L/2058)	5'2 1/2"	0.248 (L/480)	0.233 (23%)	0.75(L+S)	L
TL Defl inch	0.124 (L/965)	5'2 1/2"	0.331 (L/360)	0.373 (37%)	D+0.75(L+S)	L

**Design Notes**

- Provide support to prevent lateral movement and rotation at the end bearings. Lateral support may also be required at the interior bearings by the building code.
- Fasten all plies using 3 rows of 10d Box nails (.128x3") at 12" o.c. Maximum end distance not to exceed 6".
- Refer to last page of calculations for fasteners required for specified loads.
- Girders are designed to be supported on the bottom edge only.
- Top loads must be supported equally by all plies.
- Top must be laterally braced at a maximum of 9'1 15/16" o.c.
- Lateral slenderness ratio based on single ply width.

ID	Load Type	Location	Trib Width	Side	Dead 0.9	Live 1	Snow 1.15	Wind 1.6	Const. 1.25	Comments
1	Uniform			Top	116 PLF	348 PLF	0 PLF	0 PLF	0 PLF	F4
2	Uniform			Top	120 PLF	0 PLF	0 PLF	0 PLF	0 PLF	Wall
3	Uniform			Top	311 PLF	0 PLF	311 PLF	0 PLF	0 PLF	A2
	Self Weight				12 PLF					

**Notes**

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

**Lumber**

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

chemicals

**Handling & Installation**

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

6. For flat roofs provide proper drainage to prevent ponding

This design is valid until 6/28/2026

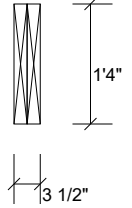
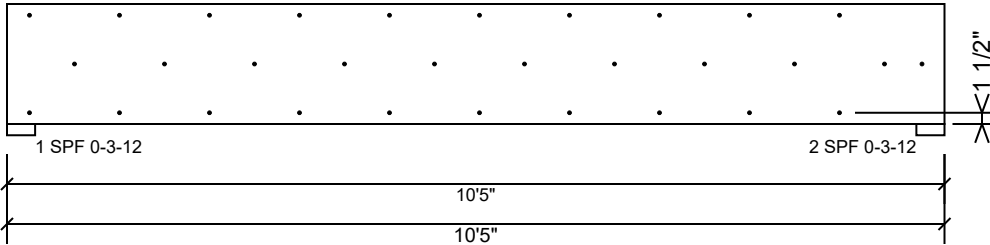
**Manufacturer Info**

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Comtech, Inc.  
 1001 S Reilly Road  
 Fayetteville  
 Cumberland  
 28314

**BM2 Kerto-S LVL 1.750" X 16.000" 2-Ply - PASSED**

Level: Level



**Multi-Ply Analysis**

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

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

**Notes**

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

**Lumber**

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

chemicals

**Handling & Installation**

1. LVL beams must not be cut or drilled
2. Refer to manufacturer's product information regarding installation requirements, multi-ply fastening details, beam strength values, and code approvals
3. Damaged Beams must not be used
4. Design assumes top edge is laterally restrained
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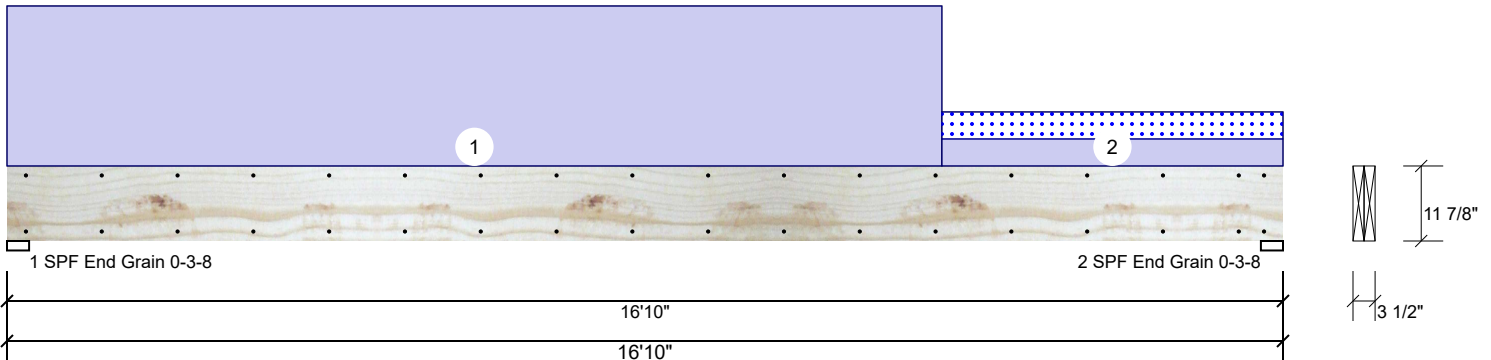
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 28314

# GDH Kerto-S LVL 1.750" X 11.875" 2-Ply - PASSED

Level: Level



## Member Information

Type:	Girder	Application:	Floor
Plies:	2	Design Method:	ASD
Moisture Condition:	Dry	Building Code:	IBC/IRC 2015
Deflection LL:	480	Load Sharing:	No
Deflection TL:	360	Deck:	Not Checked
Importance:	Normal - II	Ceiling:	Gypsum 1/2"
Temperature:	Temp <= 100°F		

## Reactions UNPATTERNED Ib (Uplift)

Brg	Direction	Live	Dead	Snow	Wind	Const
1	Vertical	0	1867	21	0	0
2	Vertical	0	1234	150	0	0

## Bearings

Bearing	Length	Dir.	Cap.	React D/L lb	Total	Ld. Case	Ld. Comb.
1 - SPF End Grain	3.500"	Vert	18%	1867 / 21	1889	L	D+S
2 - SPF End Grain	3.500"	Vert	13%	1234 / 150	1384	L	D+S

## Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	7021 ft-lb	7'11 11/16"	17919 ft-lb	0.392 (39%)	D	Uniform
Unbraced	7186 ft-lb	8' 3/4"	7190 ft-lb	1.000 (100%)	D+S	L
Shear	1576 lb	1'3 3/8"	7980 lb	0.198 (20%)	D	Uniform
LL Defl inch	0.011 (L/18604)	9'8 1/4"	0.409 (L/480)	0.026 (3%)	S	L
TL Defl inch	0.369 (L/532)	8'3 1/2"	0.546 (L/360)	0.677 (68%)	D+S	L

## Design Notes

- 1 Provide support to prevent lateral movement and rotation at the end bearings. Lateral support may also be required at the interior bearings by the building code.
- 2 Fasten all plies using 2 rows of 10d Box nails (.128x3") at 12" o.c. Maximum end distance not to exceed 6".
- 3 Refer to last page of calculations for fasteners required for specified loads.
- 4 Girders are designed to be supported on the bottom edge only.
- 5 Top loads must be supported equally by all plies.
- 6 Top must be laterally braced at a maximum of 13'9" o.c.
- 7 Lateral slenderness ratio based on single ply width.

ID	Load Type	Location	Trib Width	Side	Dead 0.9	Live 1	Snow 1.15	Wind 1.6	Const. 1.25	Comments
1	Part. Uniform	0-0-0 to 12-4-0		Top	225 PLF	0 PLF	0 PLF	0 PLF	0 PLF	Wall
2	Part. Uniform	12-4-0 to 16-10-0		Top	38 PLF	0 PLF	38 PLF	0 PLF	0 PLF	M1
	Self Weight				9 PLF					

## Notes

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

## Lumber

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

## Handling & Installation

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

6. For flat roofs provide proper drainage to prevent ponding

This design is valid until 6/28/2026

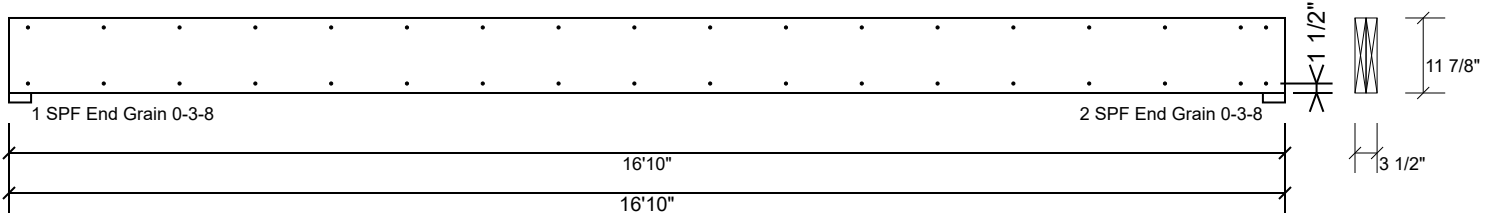
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Level: Level



**Multi-Ply Analysis**

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

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

**Notes**

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 1001 S Reilly Road  
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 Cumberland  
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RE: J0424-2213  
 Lot 13 Overhills Creek

Trenco  
 818 Soundside Rd  
 Edenton, NC 27932

**Site Information:**

Customer: Wellco Constructors Project Name: J0424-2213  
 Lot/Block: 13 Model: Plan 14  
 Address: 69 Onslow Court Subdivision: Overhills Creek  
 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: N/A Wind Speed: N/A mph  
 Roof Load: N/A psf Floor Load: 55.0 psf

This package includes 14 individual, dated Truss Design Drawings and 0 Additional Drawings.

No.	Seal#	Truss Name	Date
1	I64946400	ET1	4/17/2024
2	I64946401	ET2	4/17/2024
3	I64946402	ET3	4/17/2024
4	I64946403	ET4	4/17/2024
5	I64946404	ET5	4/17/2024
6	I64946405	ET6	4/17/2024
7	I64946406	ET7	4/17/2024
8	I64946407	F1	4/17/2024
9	I64946408	F2	4/17/2024
10	I64946409	F3	4/17/2024
11	I64946410	F4	4/17/2024
12	I64946411	F5	4/17/2024
13	I64946412	F5A	4/17/2024
14	I64946413	F6	4/17/2024

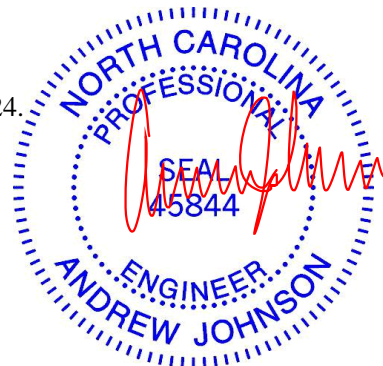
The truss drawing(s) referenced above have been prepared by Truss Engineering Co. under my direct supervision based on the parameters provided by Comtech, Inc - Fayetteville.

Truss Design Engineer's Name: Johnson, Andrew

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.



April 17, 2024

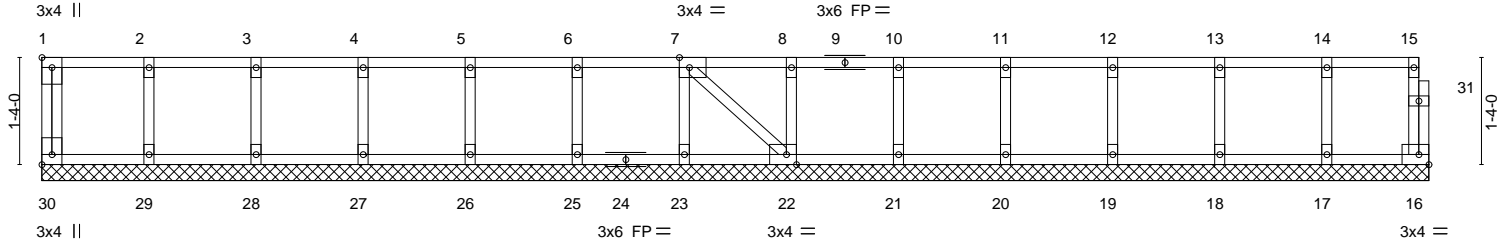
Job J0424-2213	Truss ET1	Truss Type GABLE	Qty 1	Ply 1	Lot 13 Overhills Creek Job Reference (optional)	164946400
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Comtech, Inc. Fayetteville, NC - 28314,

8.430 s Jan 6 2022 MiTek Industries, Inc. Tue Apr 16 13:38:41 2024 Page 1  
ID:P\_GcZcR0eXwhwdv4FzUEEjzQBs6-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWwCDoi7J4zJC?f

0-1-8

Scale = 1:28.7



1-4-0	2-8-0	4-0-0	5-4-0	6-8-0	8-0-0	9-4-0	10-8-0	12-0-0	13-4-0	14-8-0	16-0-0	17-3-4
1-4-0	1-4-0	1-4-0	1-4-0	1-4-0	1-4-0	1-4-0	1-4-0	1-4-0	1-4-0	1-4-0	1-4-0	1-3-4
Plate Offsets (X, Y)-- [1:Edge,0-1-8], [7:0-1-8,Edge], [22:0-1-8,Edge], [30:Edge,0-1-8]												

LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 40.0	Plate Grip DOL	1.00	TC 0.06	Vert(LL)	n/a	-	n/a	MT20	244/190
TCDL 10.0	Lumber DOL	1.00	BC 0.01	Vert(CT)	n/a	-	n/a		
BCLL 0.0	Rep Stress Incr	YES	WB 0.03	Horz(CT)	0.00	16	n/a		
BCDL 5.0	Code IRC2015/TPI2014		Matrix-S					Weight: 79 lb	FT = 20%F, 11%E

LUMBER-	BRACING-
TOP CHORD 2x4 SP No.1(flat)	TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.
BOT CHORD 2x4 SP No.1(flat)	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 2x4 SP No.3(flat)	
OTHERS 2x4 SP No.3(flat)	

**REACTIONS.** All bearings 17-3-4.  
(lb) - Max Grav All reactions 250 lb or less at joint(s) 30, 16, 29, 28, 27, 26, 25, 23, 22, 21, 20, 19, 18, 17

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

- NOTES-**
- 1) All plates are 1.5x3 MT20 unless otherwise indicated.
  - 2) Plates checked for a plus or minus 1 degree rotation about its center.
  - 3) Gable requires continuous bottom chord bearing.
  - 4) Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
  - 5) Gable studs spaced at 1-4-0 oc.
  - 6) Recommend 2x6 strongbacks, on edge, spaced at 10-0-0 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.
  - 7) CAUTION, Do not erect truss backwards.



April 17, 2024



Job J0424-2213	Truss ET2	Truss Type GABLE	Qty 1	Ply 1	Lot 13 Overhills Creek Job Reference (optional)	164946401
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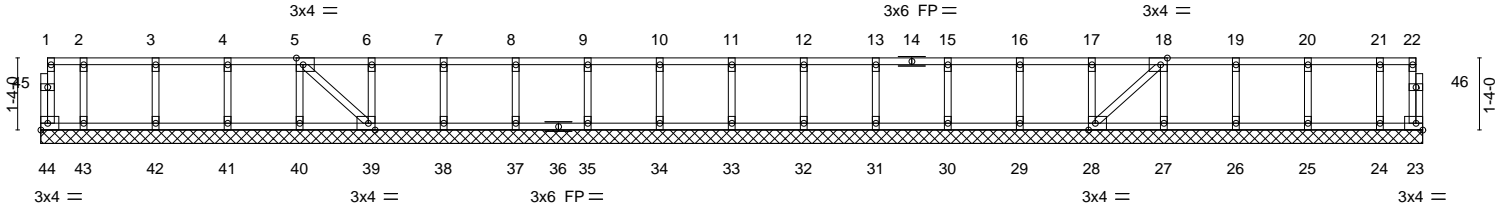
Comtech, Inc. Fayetteville, NC - 28314,

8.430 s Jan 6 2022 MiTek Industries, Inc. Tue Apr 16 13:38:41 2024 Page 1  
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0-1-8

0-1-8

Scale = 1:42.7



0-9-8	2-1-8	3-5-8	4-9-8	6-1-8	7-5-8	8-9-8	10-1-8	11-5-8	12-9-8	14-1-8	15-5-8	16-9-8	18-1-8	19-5-8	20-9-8	22-1-8	23-5-8	24-9-8	25-7-0
0-9-8	1-4-0	1-4-0	1-4-0	1-4-0	1-4-0	1-4-0	1-4-0	1-4-0	1-4-0	1-4-0	1-4-0	1-4-0	1-4-0	1-4-0	1-4-0	1-4-0	1-4-0	1-4-0	0-9-8
Plate Offsets (X,Y)--	[5:0-1-8,Edge], [18:0-1-8,Edge], [28:0-1-8,Edge], [39:0-1-8,Edge]																		

<b>LOADING</b> (psf)	<b>SPACING-</b>	2-0-0	<b>CSI.</b>	<b>DEFL.</b>	in (loc)	l/defl	L/d	<b>PLATES</b>	<b>GRIP</b>
TCLL 40.0	Plate Grip DOL	1.00	TC 0.06	Vert(LL)	n/a	-	n/a	MT20	244/190
TCDL 10.0	Lumber DOL	1.00	BC 0.01	Vert(CT)	n/a	-	n/a		
BCLL 0.0	Rep Stress Incr	YES	WB 0.03	Horz(CT)	-0.00	28	n/a		
BCDL 5.0	Code IRC2015/TPI2014		Matrix-S						
								Weight: 117 lb	FT = 20%F, 11%E

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

**REACTIONS.** All bearings 25-7-0.  
(lb) - Max Grav All reactions 250 lb or less at joint(s) 44, 23, 43, 42, 41, 40, 39, 38, 37, 35, 34, 33, 32, 31, 30, 29, 28, 27, 26, 25, 24

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

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



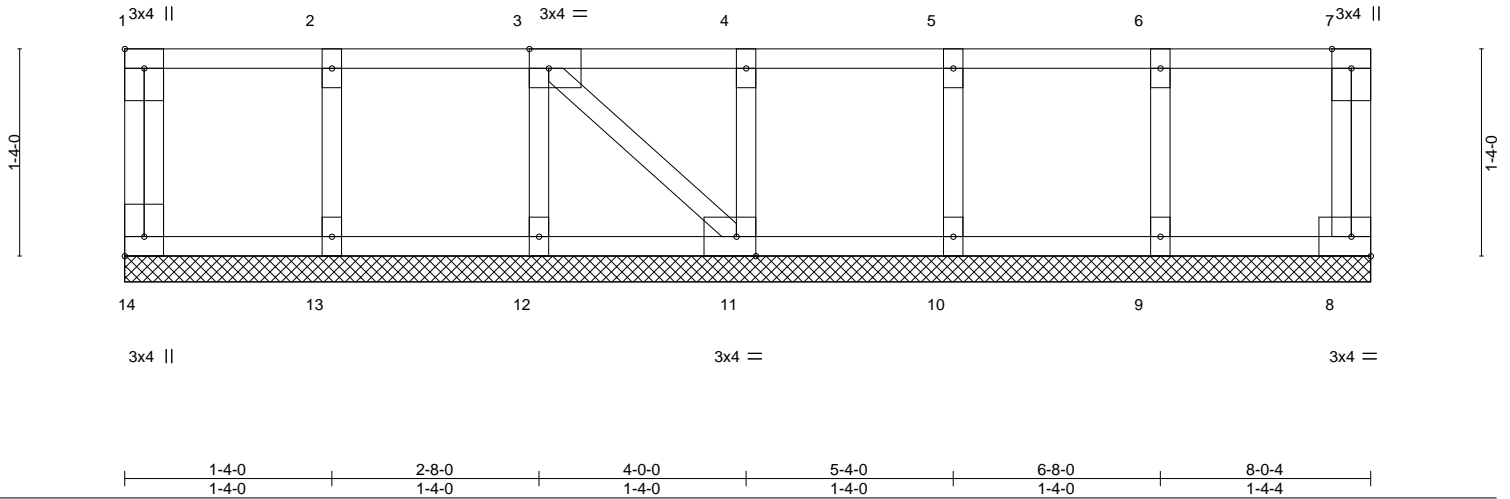
Job J0424-2213	Truss ET3	Truss Type GABLE	Qty 2	Ply 1	Lot 13 Overhills Creek Job Reference (optional)	I64946402
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Comtech, Inc. Fayetteville, NC - 28314,

8.430 s Jan 6 2022 MiTek Industries, Inc. Tue Apr 16 13:38:42 2024 Page 1  
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0-1-8

Scale = 1:14.8



LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 40.0	Plate Grip DOL	1.00	TC 0.06	Vert(LL)	n/a	-	n/a	MT20	244/190
TCDL 10.0	Lumber DOL	1.00	BC 0.01	Vert(CT)	n/a	-	n/a		
BCLL 0.0	Rep Stress Incr	YES	WB 0.03	Horz(CT)	-0.00	11	n/a		
BCDL 5.0	Code IRC2015/TPI2014		Matrix-P						
								Weight: 41 lb	FT = 20%F, 11%E

LUMBER-	BRACING-
TOP CHORD 2x4 SP No.1(flat)	TOP CHORD Structural wood sheathing directly applied or 8-0-4 oc purlins, except end verticals.
BOT CHORD 2x4 SP No.1(flat)	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 2x4 SP No.3(flat)	
OTHERS 2x4 SP No.3(flat)	

**REACTIONS.** All bearings 8-0-4.  
(lb) - Max Grav All reactions 250 lb or less at joint(s) 14, 8, 13, 12, 11, 10, 9

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

- NOTES-**
- All plates are 1.5x3 MT20 unless otherwise indicated.
  - Plates checked for a plus or minus 1 degree rotation about its center.
  - Gable requires continuous bottom chord bearing.
  - Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
  - Gable studs spaced at 1-4-0 oc.
  - Recommend 2x6 strongbacks, on edge, spaced at 10-0-0 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.
  - CAUTION, Do not erect truss backwards.

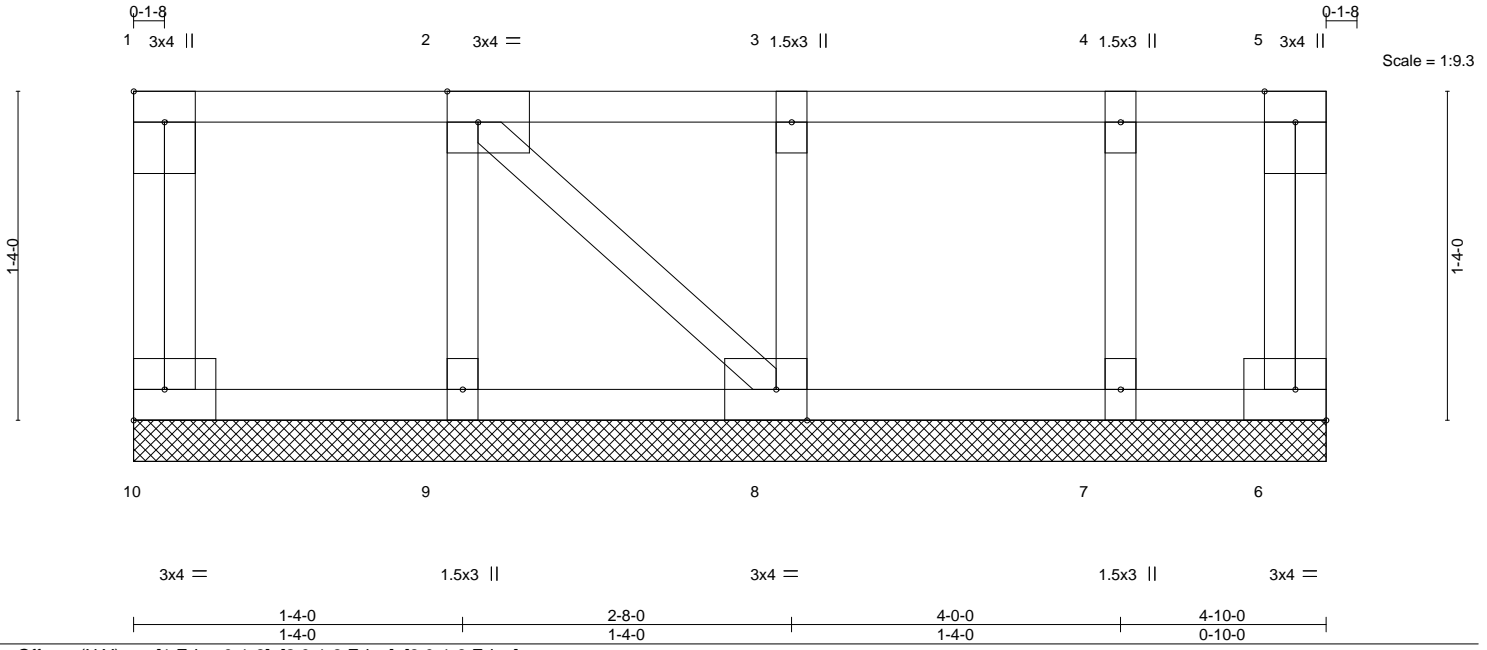


April 17, 2024

Job J0424-2213	Truss ET4	Truss Type GABLE	Qty 1	Ply 1	Lot 13 Overhills Creek Job Reference (optional)	I64946403
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8.430 s Jan 6 2022 MiTek Industries, Inc. Tue Apr 16 13:38:42 2024 Page 1  
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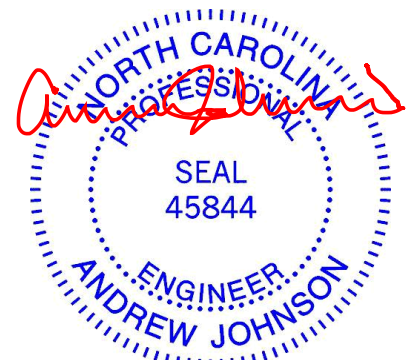
LOADING (psf)	SPACING-	CSI.	DEFL.	PLATES	GRIP
TCLL 40.0	2-0-0	TC 0.06	in (loc) l/defl L/d	MT20	244/190
TCDL 10.0	Plate Grip DOL 1.00	BC 0.01	Vert(LL) n/a - n/a 999		
BCLL 0.0	Lumber DOL 1.00	WB 0.03	Vert(CT) n/a - n/a 999		
BCDL 5.0	Rep Stress Incr YES	Matrix-P	Horz(CT) -0.00 8 n/a n/a		
	Code IRC2015/TPI2014			Weight: 28 lb	FT = 20%F, 11%E

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

**REACTIONS.** All bearings 4-10-0.  
(lb) - Max Grav All reactions 250 lb or less at joint(s) 10, 6, 9, 8, 7

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

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



April 17, 2024

Job J0424-2213	Truss ET5	Truss Type GABLE	Qty 1	Ply 1	Lot 13 Overhills Creek Job Reference (optional)	I64946404
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Comtech, Inc. Fayetteville, NC - 28314,

8.430 s Jan 6 2022 MiTek Industries, Inc. Tue Apr 16 13:38:42 2024 Page 1  
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0<sub>1</sub>-8

0<sub>1</sub>-8

Scale = 1:17.6

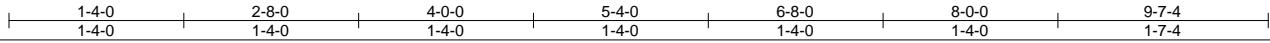
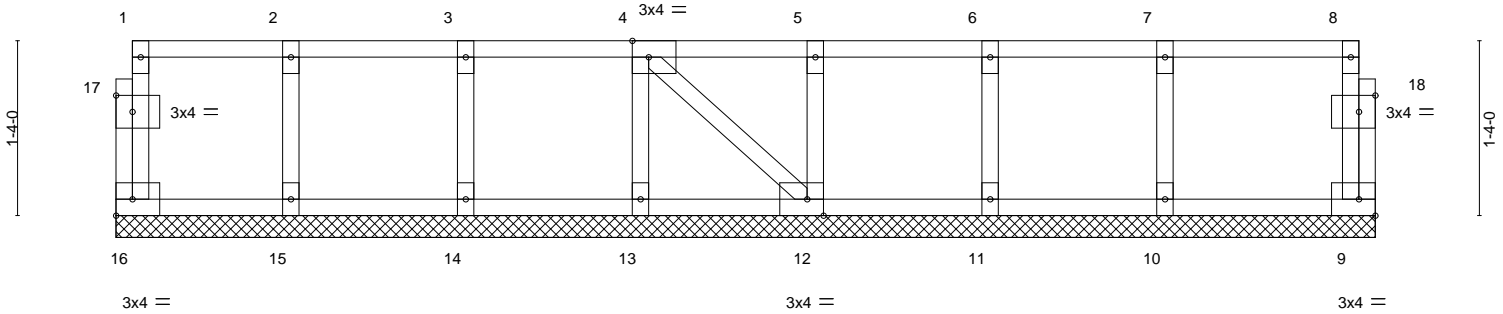


Plate Offsets (X,Y)--	[4:0-1-8,Edge], [12:0-1-8,Edge], [17:0-1-8,0-1-8], [18:0-1-8,0-1-8]				
<b>LOADING</b> (psf)	<b>SPACING-</b> 2-0-0	<b>CSI.</b>	<b>DEFL.</b> in (loc) l/defl L/d	<b>PLATES</b>	<b>GRIP</b>
TCLL 40.0	Plate Grip DOL 1.00	TC 0.07	Vert(LL) n/a - n/a 999	MT20	244/190
TCDL 10.0	Lumber DOL 1.00	BC 0.01	Vert(CT) n/a - n/a 999		
BCLL 0.0	Rep Stress Incr YES	WB 0.04	Horz(CT) 0.00 9 n/a n/a		
BCDL 5.0	Code IRC2015/TPI2014	Matrix-S		Weight: 46 lb	FT = 20%F, 11%E

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

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

**REACTIONS.** All bearings 9-7-4.  
(lb) - Max Grav All reactions 250 lb or less at joint(s) 16, 9, 15, 14, 13, 12, 11, 10

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

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



April 17, 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 J0424-2213	Truss ET6	Truss Type GABLE	Qty 1	Ply 1	Lot 13 Overhills Creek Job Reference (optional)	I64946405
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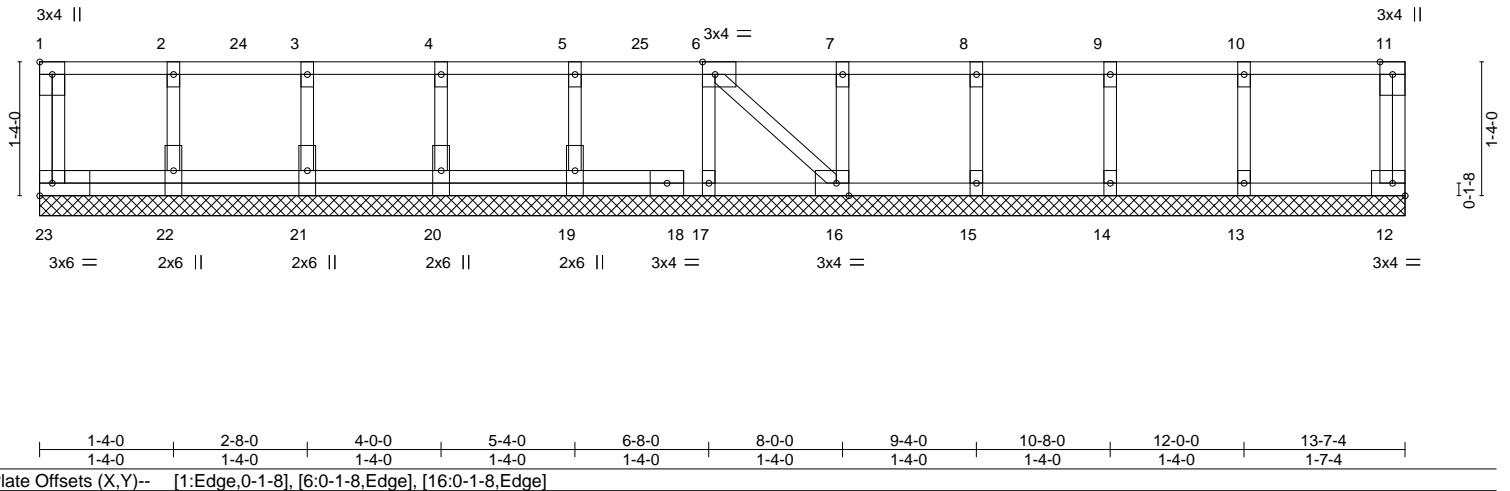
Comtech, Inc. Fayetteville, NC - 28314,

8.430 s Jan 6 2022 MiTek Industries, Inc. Tue Apr 16 13:38:43 2024 Page 1  
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0-1-8

0-1-8

Scale = 1:23.0



LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 40.0	Plate Grip DOL	1.00	TC 0.10	Vert(LL)	n/a	-	n/a	MT20	244/190
TCDL 10.0	Lumber DOL	1.00	BC 0.01	Vert(CT)	n/a	-	n/a		
BCLL 0.0	Rep Stress Incr	YES	WB 0.04	Horz(CT)	-0.00	12	n/a		
BCDL 5.0	Code IRC2015/TPI2014		Matrix-S					Weight: 72 lb	FT = 20%F, 11%E

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

**REACTIONS.** All bearings 13-7-4.  
(lb) - Max Grav All reactions 250 lb or less at joint(s) 23, 12, 22, 21, 20, 19, 17, 16, 15, 14, 13

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

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

**LOAD CASE(S)** Standard

- Dead + Floor Live (balanced): Lumber Increase=1.00, Plate Increase=1.00  
Uniform Loads (plf)  
Vert: 12-23=-10, 1-11=-100  
Concentrated Loads (lb)  
Vert: 4=-74 24=-74 25=-74



April 17, 2024

Job J0424-2213	Truss ET7	Truss Type GABLE	Qty 1	Ply 1	Lot 13 Overhills Creek Job Reference (optional)	I64946406
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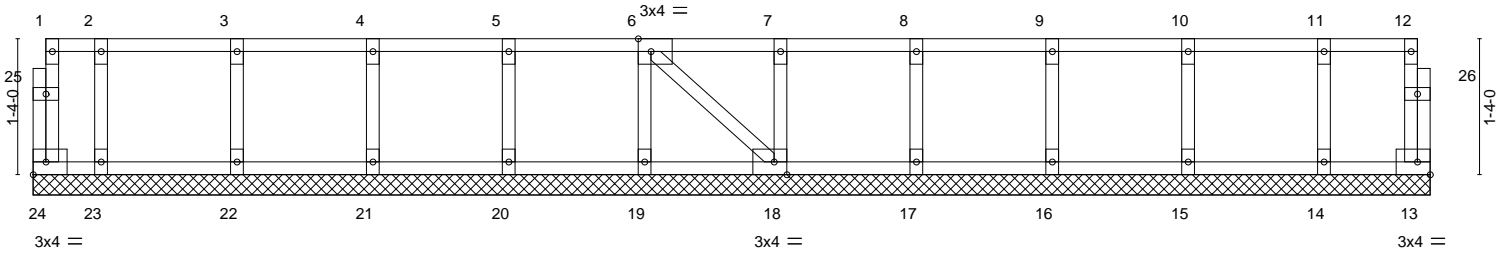
Comtech, Inc. Fayetteville, NC - 28314,

8.430 s Jan 6 2022 MiTek Industries, Inc. Tue Apr 16 13:38:43 2024 Page 1  
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0<sub>1</sub>1<sub>8</sub>

0<sub>1</sub>1<sub>8</sub>

Scale = 1:22.6



0-8-0	2-0-0	3-4-0	4-8-0	6-0-0	7-4-0	8-8-0	10-0-0	11-4-0	12-8-0	13-8-8
0-8-0	1-4-0	1-4-0	1-4-0	1-4-0	1-4-0	1-4-0	1-4-0	1-4-0	1-4-0	1-0-8

Plate Offsets (X,Y)-- [6:0-1-8,Edge], [18:0-1-8,Edge]									
<b>LOADING</b> (psf)	<b>SPACING-</b>	2-0-0	<b>CSI.</b>	<b>DEFL.</b>	in (loc)	l/defl	L/d	<b>PLATES</b>	<b>GRIP</b>
TCLL 40.0	Plate Grip DOL	1.00	TC 0.06	Vert(LL)	n/a	-	n/a	MT20	244/190
TCDL 10.0	Lumber DOL	1.00	BC 0.01	Vert(CT)	n/a	-	n/a		
BCLL 0.0	Rep Stress Incr	YES	WB 0.03	Horz(CT)	0.00	13	n/a		
BCDL 5.0	Code IRC2015/TPI2014		Matrix-S						
								Weight: 65 lb	FT = 20%F, 11%E

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


**REACTIONS.** All bearings 13-8-8.  
(lb) - Max Grav All reactions 250 lb or less at joint(s) 24, 13, 23, 22, 21, 20, 19, 18, 17, 16, 15, 14

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

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



April 17, 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 J0424-2213	Truss F1	Truss Type Floor	Qty 4	Ply 1	Lot 13 Overhills Creek I64946407
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Comtech, Inc. Fayetteville, NC - 28314,

8.430 s Jan 6 2022 MiTek Industries, Inc. Tue Apr 16 13:38:43 2024 Page 1

ID:P\_GcZcR0eXwhwdv4FzUEeJzQBs6-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrcD0i7J4zJC?f

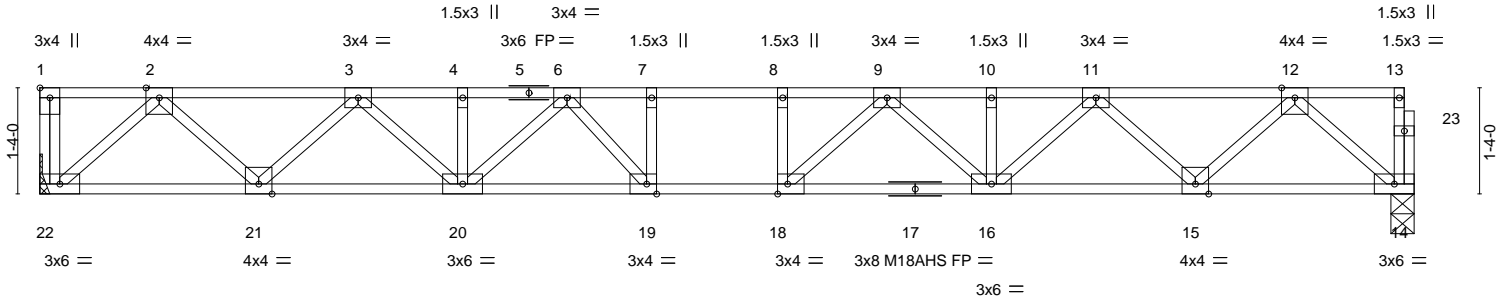
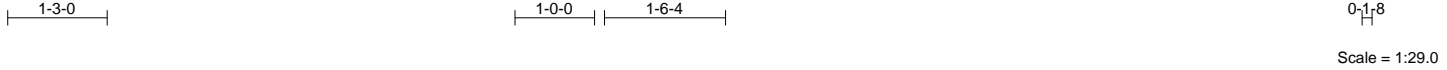


Plate Offsets (X,Y)--	[1:Edge,0-1-8], [18:0-1-8,Edge], [19:0-1-8,Edge]
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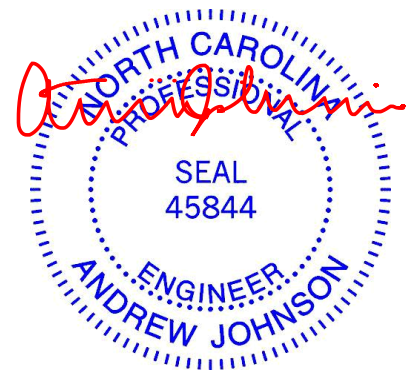
<b>LOADING</b> (psf)	<b>SPACING-</b> 2-0-0	<b>CSI.</b>	<b>DEFL.</b> in (loc) l/defl L/d	<b>PLATES</b>	<b>GRIP</b>
TCLL 40.0	Plate Grip DOL 1.00	TC 0.45	Vert(LL) -0.19 18 >999 480	MT20	244/190
TCDL 10.0	Lumber DOL 1.00	BC 0.66	Vert(CT) -0.26 18 >787 360	M18AHS	186/179
BCLL 0.0	Rep Stress Incr YES	WB 0.45	Horz(CT) 0.05 14 n/a n/a		
BCDL 5.0	Code IRC2015/TPI2014	Matrix-S		Weight: 93 lb	FT = 20%F, 11%E

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

**REACTIONS.** (size) 22=Mechanical, 14=0-3-8  
Max Grav 22=936(LC 1), 14=930(LC 1)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
**TOP CHORD** 2-3=-1691/0, 3-4=-2793/0, 4-6=-2793/0, 6-7=-3271/0, 7-8=-3271/0, 8-9=-3271/0, 9-10=-2794/0, 10-11=-2794/0, 11-12=-1690/0  
**BOT CHORD** 21-22=0/1008, 20-21=0/2343, 19-20=0/3109, 18-19=0/3271, 16-18=0/3110, 15-16=0/2344, 14-15=0/1007  
**WEBS** 2-22=-1342/0, 2-21=0/949, 3-21=-907/0, 3-20=0/612, 6-20=-430/0, 12-14=-1338/0, 12-15=0/950, 11-15=-910/0, 11-16=0/612, 9-16=-430/0, 9-18=-102/497, 6-19=-93/519, 7-19=-287/15

- NOTES-**
- 1) Unbalanced floor live loads have been considered for this design.
  - 2) All plates are MT20 plates unless otherwise indicated.
  - 3) Plates checked for a plus or minus 1 degree rotation about its center.
  - 4) Refer to girder(s) for truss to truss connections.
  - 5) Recommend 2x6 strongbacks, on edge, spaced at 10-0-0 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.
  - 6) CAUTION, Do not erect truss backwards.



<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 <b>TRENCO</b> A MiTek Affiliate</p> <p>818 Soundside Road Edenton, NC 27932</p>
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Job J0424-2213	Truss F2	Truss Type Floor	Qty 2	Ply 1	Lot 13 Overhills Creek Job Reference (optional)	164946408
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Comtech, Inc. Fayetteville, NC - 28314,

8.430 s Jan 6 2022 MiTek Industries, Inc. Tue Apr 16 13:38:44 2024 Page 1  
ID:P\_GcZcR0eXwhwdv4FzUEeJzQBs6-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrcDoi7J4zJC?f

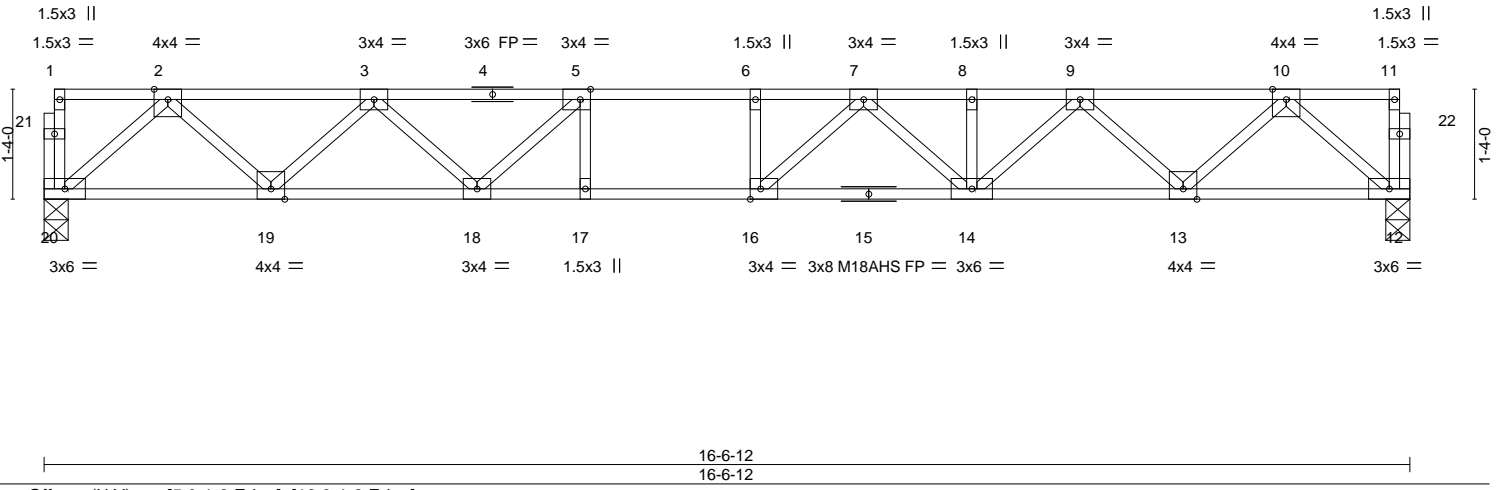


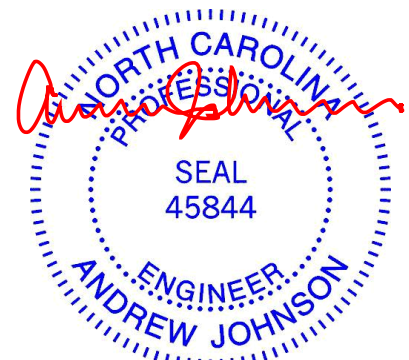
Plate Offsets (X,Y)--	[5:0-1-8,Edge], [16:0-1-8,Edge]				
<b>LOADING</b> (psf)	<b>SPACING-</b> 2-0-0	<b>CSI.</b>	<b>DEFL.</b> in (loc) l/defl L/d	<b>PLATES</b>	<b>GRIP</b>
TCLL 40.0	Plate Grip DOL 1.00	TC 0.49	Vert(LL) -0.21 14-16 >952 480	MT20	244/190
TCDL 10.0	Lumber DOL 1.00	BC 0.87	Vert(CT) -0.28 14-16 >705 360	M18AHS	186/179
BCLL 0.0	Rep Stress Incr YES	WB 0.43	Horz(CT) 0.05 12 n/a n/a		
BCDL 5.0	Code IRC2015/TPI2014	Matrix-S		Weight: 87 lb	FT = 20%F, 11%E

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

**REACTIONS.** (size) 20=0-3-8, 12=0-3-8  
Max Grav 20=891(LC 1), 12=891(LC 1)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
TOP CHORD 2-3=-1609/0, 3-5=-2582/0, 5-6=-2978/0, 6-7=-2978/0, 7-8=-2631/0, 8-9=-2631/0, 9-10=-1604/0  
BOT CHORD 19-20=0/962, 18-19=0/2222, 17-18=0/2978, 16-17=0/2978, 14-16=0/2900, 13-14=0/2222, 12-13=0/962  
WEBS 2-20=-1278/0, 2-19=0/900, 3-19=-853/0, 3-18=0/543, 10-12=-1278/0, 10-13=0/893, 9-13=-859/0, 9-14=0/556, 7-14=-366/0, 7-16=-165/434, 5-18=-680/0

- NOTES-**
- 1) Unbalanced floor live loads have been considered for this design.
  - 2) All plates are MT20 plates unless otherwise indicated.
  - 3) Plates checked for a plus or minus 1 degree rotation about its center.
  - 4) Recommend 2x6 strongbacks, on edge, spaced at 10-0-0 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.



April 17, 2024

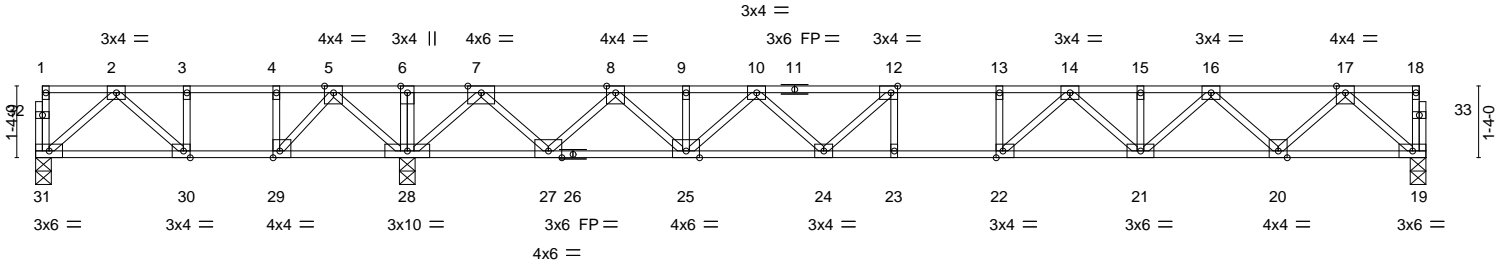
<p><b>WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 BEFORE USE.</b></p> <p>Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. 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 (<a href="http://www.tpinst.org">www.tpinst.org</a>) and <b>BCSI Building Component Safety Information</b> available from the Structural Building Component Association (<a href="http://www.sbcacomponents.com">www.sbcacomponents.com</a>)</p>	<p>818 Soundside Road Edenton, NC 27932</p>
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Job J0424-2213	Truss F3	Truss Type Floor	Qty 2	Ply 1	Lot 13 Overhills Creek Job Reference (optional)	I64946409
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Comtech, Inc. Fayetteville, NC - 28314,

8.430 s Jan 6 2022 MiTek Industries, Inc. Tue Apr 16 13:38:44 2024 Page 1  
ID:P\_GcZcR0eXwhwdv4FzUEeJzQBs6-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWwCDoi7J4zJC?f



	6-11-0	25-10-8
	6-11-0	18-11-8
Plate Offsets (X, Y)--	[12:0-1-8,Edge], [22:0-1-8,Edge], [29:0-1-8,Edge], [30:0-1-8,Edge]	

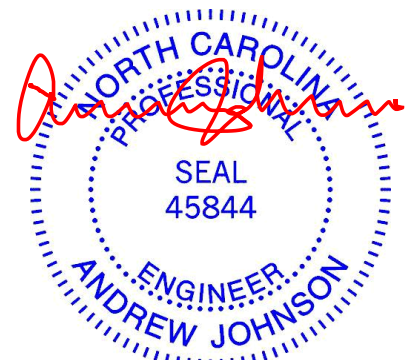
<b>LOADING</b> (psf)	<b>SPACING-</b>	2-0-0	<b>CSI.</b>	<b>DEFL.</b>	in (loc)	l/defl	L/d	<b>PLATES</b>	<b>GRIP</b>
TCLL 40.0	Plate Grip DOL	1.00	TC 0.90	Vert(LL)	-0.22 22-23	>999	480	MT20	244/190
TCDL 10.0	Lumber DOL	1.00	BC 0.80	Vert(CT)	-0.30 22-23	>748	360		
BCLL 0.0	Rep Stress Incr	YES	WB 0.60	Horz(CT)	0.05 19	n/a	n/a		
BCDL 5.0	Code IRC2015/TP12014		Matrix-S						
								Weight: 137 lb	FT = 20%F, 11%E

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

**REACTIONS.** (size) 31=0-3-8, 28=0-3-8, 19=0-3-8  
 Max Uplift 31=178(LC 4)  
 Max Grav 31=287(LC 3), 28=1794(LC 1), 19=934(LC 7)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-3=-278/660, 3-4=-278/660, 4-5=-278/660, 5-6=0/1654, 6-7=0/1654, 7-8=-630/0, 8-9=-2136/0, 9-10=-2136/0, 10-12=-2997/0, 12-13=-3297/0, 13-14=-3297/0, 14-15=-2811/0, 15-16=-2811/0, 16-17=-1698/0  
 BOT CHORD 30-31=-232/252, 29-30=-660/278, 28-29=-1146/0, 27-28=-435/0, 25-27=0/1485, 24-25=0/2694, 23-24=0/3297, 22-23=0/3297, 21-22=0/3132, 20-21=0/2357, 19-20=0/1011  
 WEBS 2-31=-333/307, 2-30=-582/34, 5-28=-875/0, 5-29=0/921, 4-29=-517/0, 3-30=-44/285, 7-28=-1624/0, 7-27=0/1259, 8-27=-1209/0, 8-25=0/903, 17-19=-1344/0, 17-20=0/955, 16-20=-916/0, 16-21=0/617, 14-21=-437/0, 14-22=-113/504, 10-25=-772/0, 10-24=0/505, 12-24=-611/0

- NOTES-**
- 1) Unbalanced floor live loads have been considered for this design.
  - 2) All plates are 1.5x3 MT20 unless otherwise indicated.
  - 3) Plates checked for a plus or minus 1 degree rotation about its center.
  - 4) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 178 lb uplift at joint 31.
  - 5) Recommend 2x6 strongbacks, on edge, spaced at 10-0-0 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.
  - 6) CAUTION, Do not erect truss backwards.



April 17, 2024

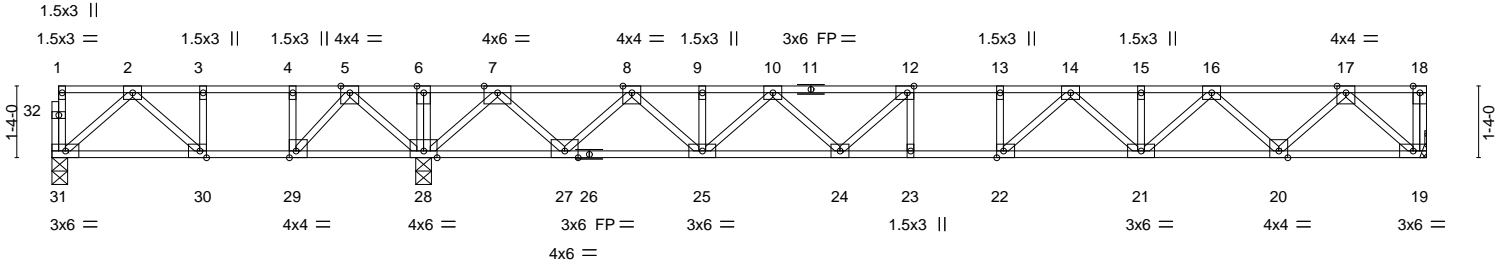
<p><b>WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 BEFORE USE.</b></p> <p>Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. 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/TP1 Quality Criteria and DSB-22</b> available from Truss Plate Institute (www.tpinst.org) and <b>BCSI Building Component Safety Information</b> available from the Structural Building Component Association (www.sbcacomponents.com)</p>	<p>ENGINEERING BY</p> <p>A MiTek Affiliate</p> <p>818 Soundside Road Edenton, NC 27932</p>
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Job J0424-2213	Truss F4	Truss Type Floor	Qty 5	Ply 1	Lot 13 Overhills Creek 164946410
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	6-11-0	25-7-0
	6-11-0	18-8-0
Plate Offsets (X,Y)--	[12:0-1-8,Edge], [22:0-1-8,Edge], [29:0-1-8,Edge], [30:0-1-8,Edge]	

<b>LOADING</b> (psf)	<b>SPACING-</b>	2-0-0	<b>CSI.</b>	<b>DEFL.</b>	in (loc)	l/defl	L/d	<b>PLATES</b>	<b>GRIP</b>
TCLL 40.0	Plate Grip DOL	1.00	TC 0.87	Vert(LL)	-0.21 23	>999	480	MT20	244/190
TCDL 10.0	Lumber DOL	1.00	BC 0.72	Vert(CT)	-0.28 22-23	>782	360		
BCLL 0.0	Rep Stress Incr	YES	WB 0.59	Horz(CT)	0.05 19	n/a	n/a		
BCDL 5.0	Code IRC2015/TP12014		Matrix-S						
								Weight: 137 lb	FT = 20%F, 11%E

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

**REACTIONS.** (size) 31=0-3-8, 28=0-3-8, 19=Mechanical  
 Max Uplift 31=168(LC 4)  
 Max Grav 31=289(LC 3), 28=1767(LC 1), 19=926(LC 7)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
**TOP CHORD** 2-3=-284/634, 3-4=-284/634, 4-5=-284/634, 5-6=0/1607, 6-7=0/1607, 7-8=-643/0, 8-9=-2111/0, 9-10=-2111/0, 10-12=-2933/0, 12-13=-3206/0, 13-14=-3206/0, 14-15=-2750/0, 15-16=-2750/0, 16-17=-1668/0  
**BOT CHORD** 30-31=-221/255, 29-30=-634/284, 28-29=-1106/0, 27-28=-407/0, 25-27=0/1481, 24-25=0/2653, 23-24=0/3206, 22-23=0/3206, 21-22=0/3058, 20-21=0/2311, 19-20=0/996  
**WEBS** 2-31=-336/293, 2-30=-561/40, 3-30=-47/275, 5-28=-861/0, 5-29=0/900, 4-29=-506/0, 17-19=-1326/0, 17-20=0/935, 16-20=-894/0, 16-21=0/596, 7-28=-1598/0, 7-27=0/1234, 8-27=-1184/0, 8-25=0/877, 10-25=-751/0, 10-24=0/478, 12-24=-567/0, 14-21=-419/0, 14-22=-132/472

- NOTES-**
- 1) Unbalanced floor live loads have been considered for this design.
  - 2) All plates are 3x4 MT20 unless otherwise indicated.
  - 3) Plates checked for a plus or minus 1 degree rotation about its center.
  - 4) Refer to girder(s) for truss connections.
  - 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 168 lb uplift at joint 31.
  - 6) Recommend 2x6 strongbacks, on edge, spaced at 10-0-0 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.
  - 7) CAUTION, Do not erect truss backwards.



April 17, 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 J0424-2213	Truss F5	Truss Type Floor	Qty 8	Ply 1	Lot 13 Overhills Creek Job Reference (optional)	I64946411
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8.430 s Jan 6 2022 MiTek Industries, Inc. Tue Apr 16 13:38:45 2024 Page 1  
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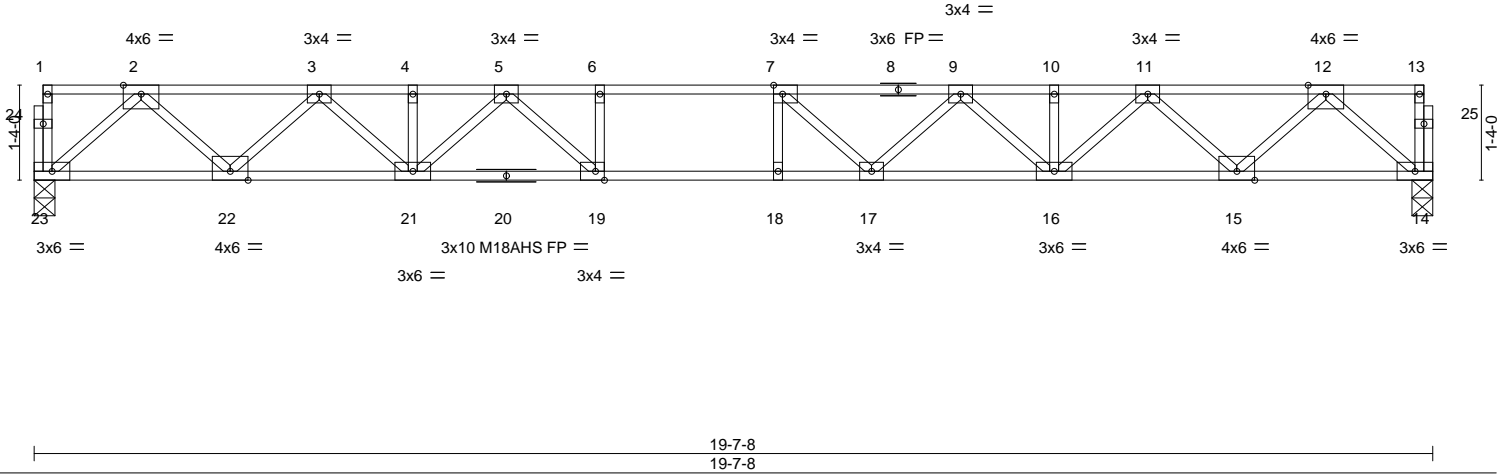
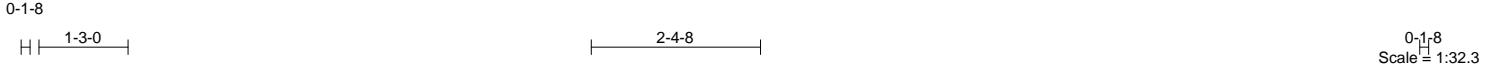


Plate Offsets (X,Y)--	[7:0-1-8,Edge], [19:0-1-8,Edge]
<b>LOADING</b> (psf)	<b>SPACING-</b> 2-0-0
TCLL 40.0	Plate Grip DOL 1.00
TCDL 10.0	Lumber DOL 1.00
BCLL 0.0	Rep Stress Incr YES
BCDL 5.0	Code IRC2015/TPI2014
	<b>CSI.</b>
	TC 0.97
	BC 0.78
	WB 0.54
	Matrix-S
	<b>DEFL.</b> in (loc) l/defl L/d
	Vert(LL) -0.32 18 >731 480
	Vert(CT) -0.44 18 >533 360
	Horz(CT) 0.06 14 n/a n/a
	<b>PLATES GRIP</b>
	MT20 244/190
	M18AHS 186/179
	Weight: 102 lb FT = 20%F, 11%E

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

**REACTIONS.** (size) 23=0-3-8, 14=0-3-8  
Max Grav 23=1059(LC 1), 14=1059(LC 1)

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

TOP CHORD 2-3=-1973/0, 3-4=-3338/0, 4-5=-3338/0, 5-6=-4209/0, 6-7=-4209/0, 7-9=-4060/0, 9-10=-3335/0, 10-11=-3335/0, 11-12=-1971/0

BOT CHORD 22-23=0/1155, 21-22=0/2753, 19-21=0/3807, 18-19=0/4209, 17-18=0/4209, 16-17=0/3840, 15-16=0/2758, 14-15=0/1153

WEBS 2-23=-1535/0, 2-22=0/1137, 3-22=-1085/0, 3-21=0/795, 12-14=-1533/0, 12-15=0/1137, 11-15=-1095/0, 11-16=0/784, 9-16=-687/0, 9-17=0/465, 7-17=-563/159, 5-21=-637/0, 5-19=0/835, 6-19=-366/0

- NOTES-**
- 1) Unbalanced floor live loads have been considered for this design.
  - 2) All plates are MT20 plates unless otherwise indicated.
  - 3) All plates are 1.5x3 MT20 unless otherwise indicated.
  - 4) Plates checked for a plus or minus 1 degree rotation about its center.
  - 5) Recommend 2x6 strongbacks, on edge, spaced at 10-0-0 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.



April 17, 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 J0424-2213	Truss F5A	Truss Type Floor	Qty 1	Ply 1	Lot 13 Overhills Creek Job Reference (optional)	164946412
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Comtech, Inc. Fayetteville, NC - 28314,

8.430 s Jan 6 2022 MiTek Industries, Inc. Tue Apr 16 13:38:46 2024 Page 1  
ID:P\_GcZcR0eXwhwdv4FzUEeJzQBs6-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f



Plate Offsets (X,Y)-- [1:Edge,0-1-8], [7:0-3-0,Edge], [15:Edge,0-1-8], [20:0-1-8,Edge]					
<b>LOADING</b> (psf)	<b>SPACING-</b> 2-0-0	<b>CSI.</b>	<b>DEFL.</b> in (loc) l/defl L/d	<b>PLATES</b>	<b>GRIP</b>
TCLL 40.0	Plate Grip DOL 1.00	TC 0.82	Vert(LL) -0.37 18-19 >634 480	MT20	244/190
TCDL 10.0	Lumber DOL 1.00	BC 0.89	Vert(CT) -0.51 18-19 >456 360	M18AHS	186/179
BCLL 0.0	Rep Stress Incr NO	WB 0.91	Horz(CT) 0.10 15 n/a n/a	Weight: 129 lb FT = 20%F, 11%E	
BCDL 5.0	Code IRC2015/TPI2014	Matrix-S			

**LUMBER-**  
TOP CHORD 2x4 SP No.1(flat)  
BOT CHORD 2x4 SP 2400F 2.0E(flat)  
WEBS 2x4 SP No.3(flat)

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

**REACTIONS.** (size) 24=0-3-8, 15=0-3-8  
Max Grav 24=1252(LC 1), 15=2068(LC 1)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
TOP CHORD 2-3=-2506/0, 3-4=-4389/0, 4-5=-4389/0, 5-7=-5948/0, 7-8=-5948/0, 8-10=-6153/0, 10-11=-5805/0, 11-12=-5805/0, 12-13=-3735/0  
BOT CHORD 23-24=0/1440, 21-23=0/3530, 20-21=0/5031, 19-20=0/5948, 18-19=0/5948, 17-18=0/6241, 16-17=0/5107, 15-16=0/2331  
WEBS 2-24=-1871/0, 2-23=0/1446, 3-23=-1390/0, 3-21=0/1141, 13-15=-3027/0, 13-16=0/1904, 12-16=-1861/0, 12-17=0/927, 10-17=-580/0, 10-18=-389/367, 8-18=-359/600, 5-21=-852/0, 5-20=0/1548, 7-20=-866/0

- NOTES-**
- Unbalanced floor live loads have been considered for this design.
  - All plates are MT20 plates unless otherwise indicated.
  - Plates checked for a plus or minus 1 degree rotation about its center.
  - Recommend 2x6 strongbacks, on edge, spaced at 10-0-0 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.
  - Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 57 lb down at 13-9-4, and 5 lb down at 15-6-12, and 5 lb down at 17-6-12 on top chord. The design/selection of such connection device(s) is the responsibility of others.
  - In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

**LOAD CASE(S)** Standard  
1) Dead + Floor Live (balanced): Lumber Increase=1.00, Plate Increase=1.00  
Uniform Loads (plf)  
Vert: 15-24=-10, 1-27=-100, 14-27=-295(F=-195)  
Concentrated Loads (lb)  
Vert: 12=-5(F) 28=-18(F) 29=-5(F)



April 17, 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 J0424-2213	Truss F6	Truss Type Floor	Qty 1	Ply 1	Lot 13 Overhills Creek I64946413 Job Reference (optional)
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Comtech, Inc. Fayetteville, NC - 28314,

8.430 s Jan 6 2022 MiTek Industries, Inc. Tue Apr 16 13:38:46 2024 Page 1  
ID:P\_GcZcR0eXwhwdv4FzUEeJzQBs6-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWwCDoi7J4zJC?f



Scale = 1:22.7

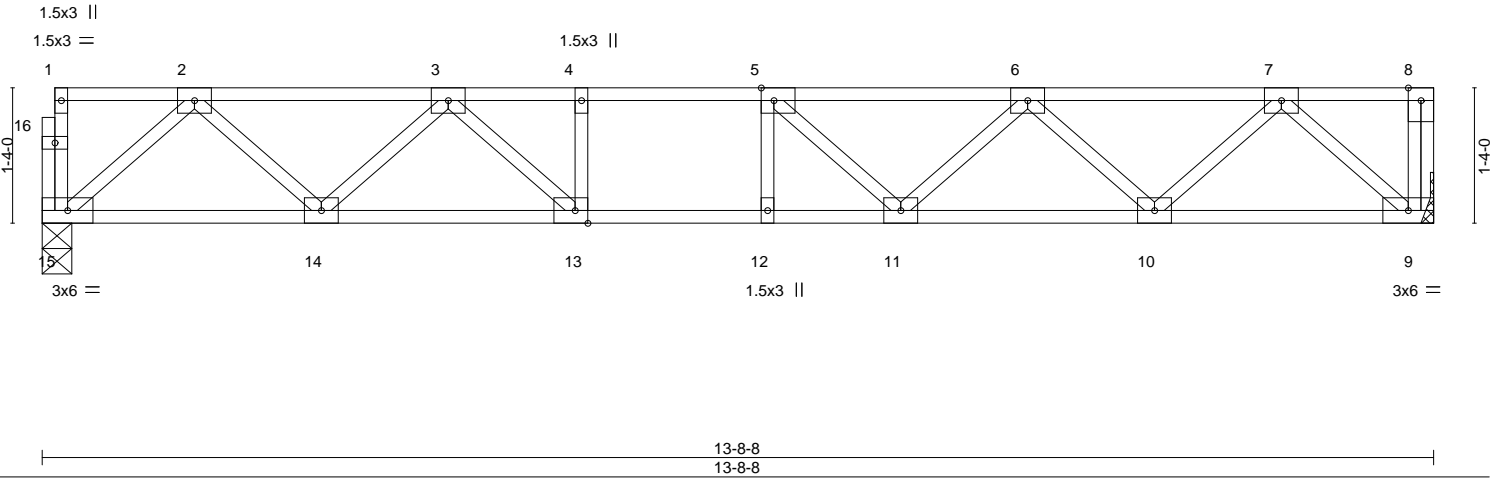


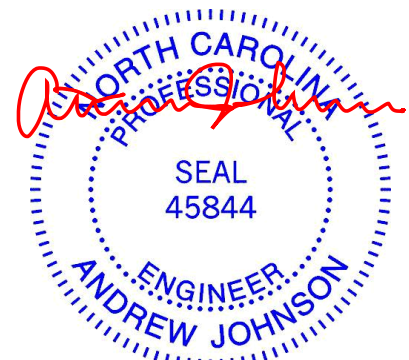
Plate Offsets (X,Y)--	[5:0-1-8,Edge], [13:0-1-8,Edge]				
<b>LOADING</b> (psf)	<b>SPACING-</b> 2-0-0	<b>CSI.</b>	<b>DEFL.</b> in (loc) l/defl L/d	<b>PLATES</b>	<b>GRIP</b>
TCLL 40.0	Plate Grip DOL 1.00	TC 0.42	Vert(LL) -0.11 11-12 >999 480	MT20	244/190
TCDL 10.0	Lumber DOL 1.00	BC 0.68	Vert(CT) -0.15 11-12 >999 360		
BCLL 0.0	Rep Stress Incr YES	WB 0.33	Horz(CT) 0.03 9 n/a n/a		
BCDL 5.0	Code IRC2015/TPI2014	Matrix-S			
				Weight: 72 lb	FT = 20%F, 11%E

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

**REACTIONS.** (size) 15=0-3-8, 9=Mechanical  
Max Grav 15=734(LC 1), 9=740(LC 1)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
TOP CHORD 2-3=-1257/0, 3-4=-2023/0, 4-5=-2023/0, 5-6=-1911/0, 6-7=-1272/0  
BOT CHORD 14-15=0/784, 13-14=0/1720, 12-13=0/2023, 11-12=0/2023, 10-11=0/1740, 9-10=0/778  
WEBS 7-9=-1036/0, 2-15=-1041/0, 7-10=0/686, 2-14=0/657, 6-10=-651/0, 3-14=-644/0, 6-11=0/313, 3-13=0/568, 5-11=-333/44

- NOTES-**
- 1) Unbalanced floor live loads have been considered for this design.
  - 2) All plates are 3x4 MT20 unless otherwise indicated.
  - 3) Plates checked for a plus or minus 1 degree rotation about its center.
  - 4) Refer to girder(s) for truss to truss connections.
  - 5) Recommend 2x6 strongbacks, on edge, spaced at 10-0-0 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.
  - 6) CAUTION, Do not erect truss backwards.

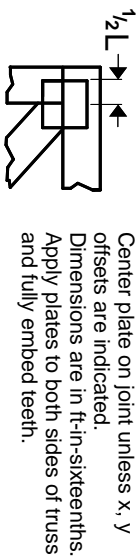


April 17, 2024

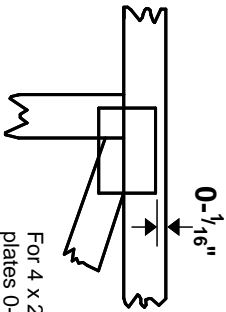
<p><b>WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 BEFORE USE.</b></p> <p>Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system.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

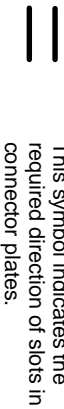
## PLATE LOCATION AND ORIENTATION



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



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

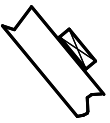


\* Plate location details available in MITek software or upon request.

## PLATE SIZE

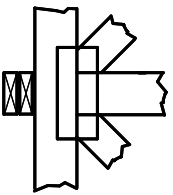
**4 X 4**  
The first dimension is the plate width measured perpendicular to slots. Second dimension is the length parallel to slots.

## 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.

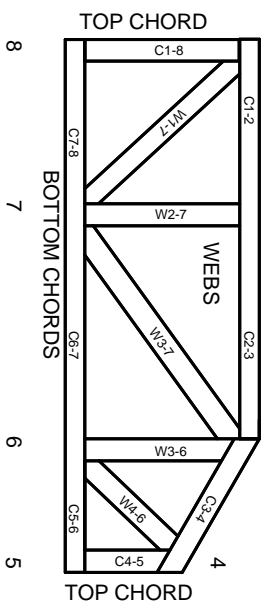
## Industry Standards:

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



1 TOP CHORDS  
2 Joint ID typ.



**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.