

RE: J0221-1262  
Lot 10 Forest Ridge

Trenco  
818 Soundside Rd  
Edenton, NC 27932

**Site Information:**

Customer: Project Name: J0221-1262  
Lot/Block: Model:  
Address: Subdivision:  
City: State:

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

Design Code: IRC2015/TPI2014 Design Program: MiTek 20/20 8.3  
Wind Code: ASCE 7-10 Wind Speed: 130 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	E15477532	A01	3/9/2021
2	E15477533	A02	3/9/2021
3	E15477534	A03	3/9/2021
4	E15477535	A04	3/9/2021
5	E15477536	A05	3/9/2021
6	E15477537	A06	3/9/2021
7	E15477538	B01	3/9/2021
8	E15477539	B02	3/9/2021
9	E15477540	B03	3/9/2021
10	E15477541	B04	3/9/2021
11	E15477542	G01	3/9/2021
12	E15477543	G02	3/9/2021
13	E15477544	M01	3/9/2021
14	E15477545	M02	3/9/2021
15	E15477546	M03	3/9/2021
16	E15477547	PL-12	3/9/2021
17	E15477548	PL-12G	3/9/2021
18	E15477549	V01	3/9/2021

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: Lassiter, Frank

My license renewal date for the state of North Carolina is December 31, 2021.

North Carolina COA: C-0844

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



March 09, 2021

Job	Truss	Truss Type	Qty	Ply	Lot 10 Forest Ridge	E15477532
J0221-1262	A01	GABLE	1	1		

Comtech, Inc., Fayetteville, NC - 28314,

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ID:WeU20\_wZYqITASMeuVrNlzoaVc-hFDbZeMYIWk9JcNW4yfieVrYbEhUorpVCueKuczcxw

0-10-8  
0-10-8

15-3-0  
15-3-0

30-6-0  
15-3-0

31-4-8  
0-10-8

Scale = 1:62.7

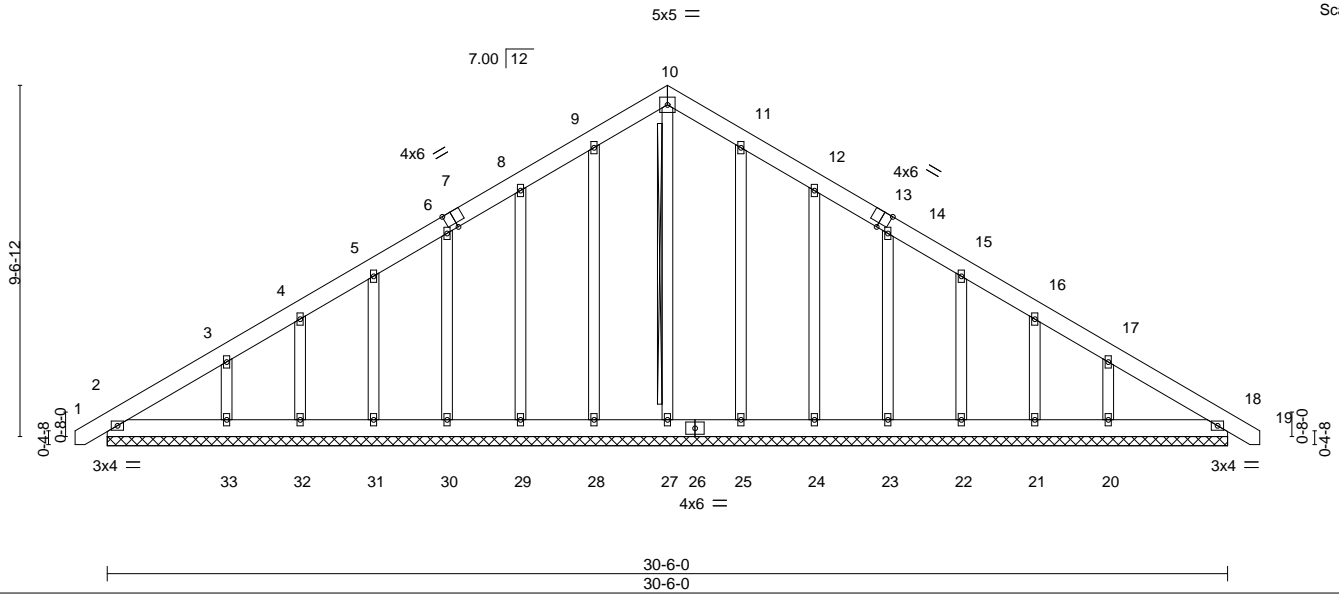


Plate Offsets (X,Y)-- [7:0-2-15,Edge], [13:0-2-15,Edge]

LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL	1.15	TC 0.04	Vert(LL)	0.00	18	n/r	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.03	Vert(CT)	0.00	19	n/r		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.15	Horz(CT)	0.01	18	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-S						
								Weight: 254 lb	FT = 20%

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

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

**REACTIONS.** All bearings 30-6-0.  
(lb) - Max Horz 2=-311(LC 8)  
Max Uplift All uplift 100 lb or less at joint(s) 28, 30, 31, 32, 25, 23, 22, 21, 2 except 29=-106(LC 10), 33=-166(LC 10), 24=-109(LC 11), 20=-163(LC 11)  
Max Grav All reactions 250 lb or less at joint(s) 18, 27, 28, 29, 30, 31, 32, 25, 24, 23, 22, 21, 2 except 33=289(LC 17), 20=286(LC 18)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
TOP CHORD 2-3=-278/235, 8-9=-204/253, 9-10=-242/282, 10-11=-242/282

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=5.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Corner(3) 0-8-14 to 3-7-14, Exterior(2) 3-7-14 to 10-10-3, Corner(3) 10-10-3 to 19-7-13, Exterior(2) 19-7-13 to 26-10-2, Corner(3) 26-10-2 to 31-2-14 zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
  - All plates are 2x4 MT20 unless otherwise indicated.
  - Gable requires continuous bottom chord bearing.
  - Gable studs spaced at 2-0-0 oc.
  - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - \* This truss has been designed for a live load of 40.0psf 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) 28, 30, 31, 32, 25, 23, 22, 21, 2 except (jt=lb) 29=106, 33=166, 24=109, 20=163.
  - Warning: Additional permanent and stability bracing for truss system (not part of this component design) is always required.



March 9, 2021

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

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

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

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

ENGINEERING BY  
**TRENCO**  
A MiTek Affiliate

818 Soundside Road  
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Lot 10 Forest Ridge	E15477533
J0221-1262	A02	COMMON	5	1		

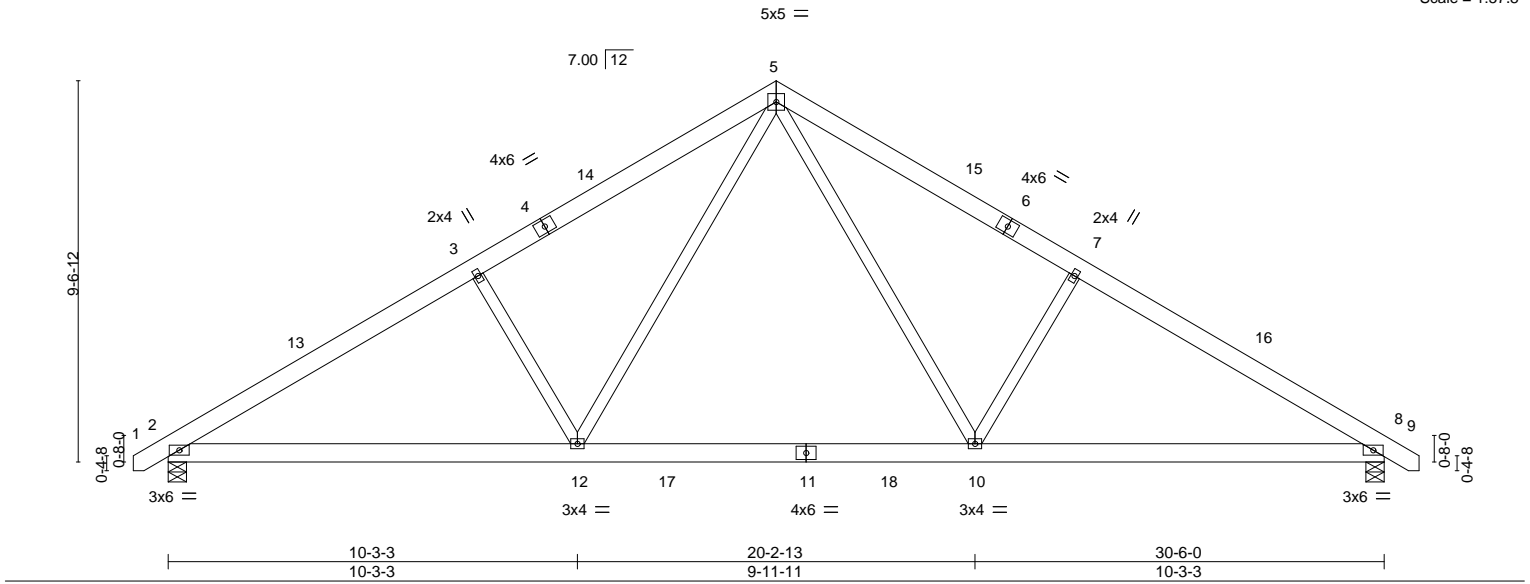
Comtech, Inc. Fayetteville, NC - 28314,

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0-10-8 7-9-4 15-3-0 22-8-12 30-6-0 31-4-8  
 0-10-8 7-9-4 7-5-12 7-5-12 7-9-4 0-10-8

Scale = 1:57.8



<b>LOADING</b> (psf)	<b>SPACING-</b>	<b>CSI.</b>	<b>DEFL.</b>	<b>PLATES</b>	<b>GRIP</b>
TCLL 20.0	2-0-0	TC 0.25	in (loc) l/defl L/d	MT20	244/190
TCDL 10.0	Plate Grip DOL 1.15	BC 0.37	Vert(LL) -0.12 10-12 >999 360		
BCLL 0.0 *	Lumber DOL 1.15	WB 0.37	Vert(CT) -0.18 10-12 >999 240		
BCDL 10.0	Rep Stress Incr YES	Matrix-S	Horz(CT) 0.04 8 n/a n/a		
	Code IRC2015/TPI2014		Wind(LL) 0.04 2-12 >999 240	Weight: 203 lb	FT = 20%

<b>LUMBER-</b>	<b>BRACING-</b>
TOP CHORD 2x6 SP No.1	TOP CHORD Structural wood sheathing directly applied or 5-6-2 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) 8=0-5-8, 2=0-5-8  
 Max Horz 2=-249(LC 8)  
 Max Uplift 8=-163(LC 11), 2=-163(LC 10)  
 Max Grav 8=1271(LC 18), 2=1271(LC 17)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-3=-1889/561, 3-5=-1771/616, 5-7=-1771/616, 7-8=-1889/561  
 BOT CHORD 2-12=-336/1694, 10-12=-84/1093, 8-10=-336/1508  
 WEBS 5-10=-201/800, 7-10=-508/317, 5-12=-201/800, 3-12=-508/317

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=5.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2) -0-8-14 to 3-7-14, Interior(1) 3-7-14 to 10-10-3, Exterior(2) 10-10-3 to 19-7-13, Interior(1) 19-7-13 to 26-10-2, Exterior(2) 26-10-2 to 31-2-14 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 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
  - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 8=163, 2=163.



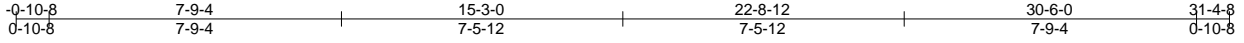
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Job	Truss	Truss Type	Qty	Ply	Lot 10 Forest Ridge	E15477534
J0221-1262	A03	COMMON	3	1		

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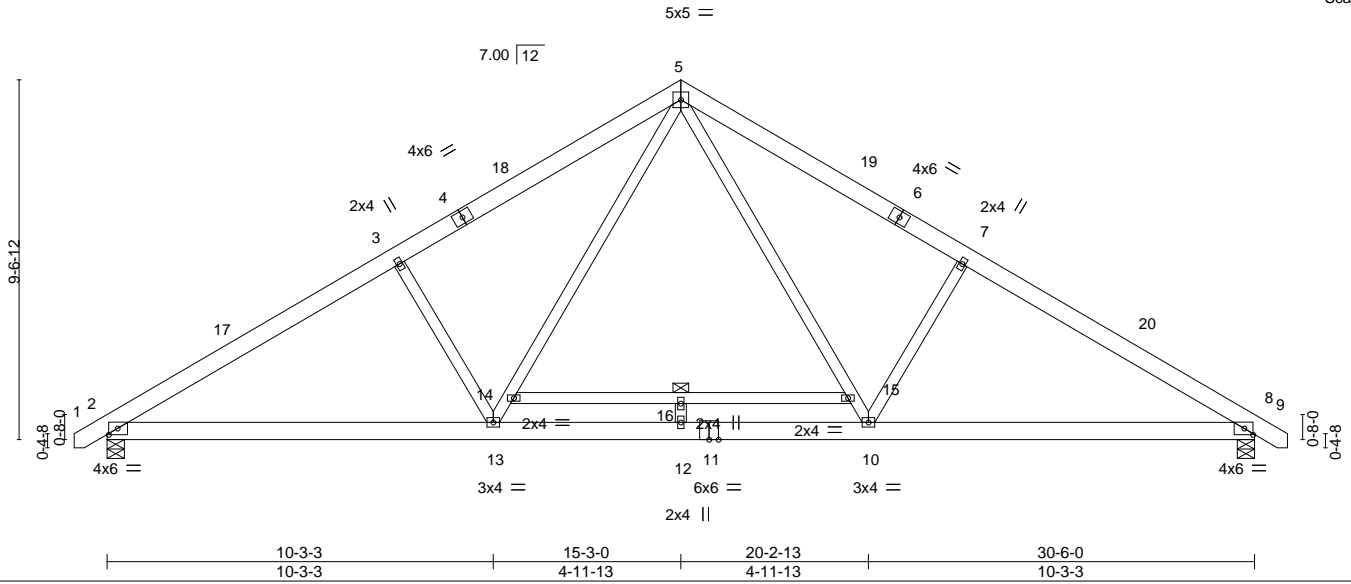


Plate Offsets (X,Y)-- [2:0-2-13,0-2-0], [8:0-2-13,0-2-0]

LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL 1.15	TC 0.28	Vert(LL) -0.15	12	>999	360	MT20	244/190
TCDL 10.0	Lumber DOL 1.15	BC 0.71	Vert(CT) -0.31	12	>999	240		
BCLL 0.0 *	Rep Stress Incr NO	WB 0.42	Horz(CT) 0.05	8	n/a	n/a		
BCDL 10.0	Code IRC2015/TPI2014	Matrix-S	Wind(LL) 0.16	12	>999	240		
							Weight: 218 lb	FT = 20%

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

**BRACING-**  
 TOP CHORD Structural wood sheathing directly applied or 4-9-11 oc purlins.  
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.  
 WEBS 1 Row at midpt 14-15

**REACTIONS.** (size) 2=0-5-8, 8=0-5-8  
 Max Horz 2=-249(LC 8)  
 Max Uplift 2=-212(LC 10), 8=-212(LC 11)  
 Max Grav 2=1537(LC 1), 8=1537(LC 1)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-3=-2427/750, 3-5=-2336/805, 5-7=-2336/805, 7-8=-2427/750  
 BOT CHORD 2-13=-496/2028, 12-13=-245/1476, 10-12=-245/1476, 8-10=-496/1972  
 WEBS 5-15=-310/1086, 10-15=-250/895, 7-10=-478/306, 13-14=-250/895, 5-14=-310/1086,  
 3-13=-478/306, 12-16=-304/104

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCCL=6.0psf; BCDL=5.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2) -0-10-8 to 3-6-5, Interior(1) 3-6-5 to 10-10-3, Exterior(2) 10-10-3 to 19-7-13, Interior(1) 19-7-13 to 26-11-11, Exterior(2) 26-11-11 to 31-4-8 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 40.0psf 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) except (jt=lb) 2=212, 8=212.

**LOAD CASE(S)** Standard  
 1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15  
 Uniform Loads (plf)  
 Vert: 1-5=-60, 5-9=-60, 2-8=-20, 14-15=-60



March 9, 2021

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

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



818 Soundside Road  
 Edenton, NC 27932





Job	Truss	Truss Type	Qty	Ply	Lot 10 Forest Ridge	E15477536
J0221-1262	A05	COMMON	10	1		

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5x8 =

Scale = 1:56.1

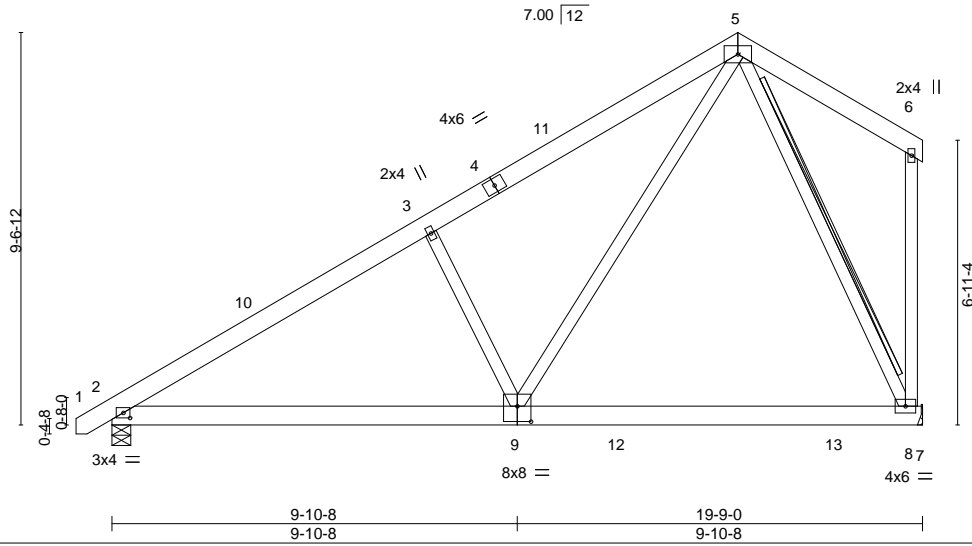


Plate Offsets (X,Y)-- [2:0-1-15,0-1-8], [9:0-4-0,0-4-8]

LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL 1.15	TC 0.25	Vert(LL) -0.12	8-9	>999	360	MT20	244/190
TCDL 10.0	Lumber DOL 1.15	BC 0.35	Vert(CT) -0.17	8-9	>999	240		
BCLL 0.0 *	Rep Stress Incr YES	WB 0.43	Horz(CT) 0.01	8	n/a	n/a		
BCDL 10.0	Code IRC2015/TPI2014	Matrix-S	Wind(LL) 0.03	2-9	>999	240		
							Weight: 148 lb	FT = 20%

**LUMBER-**

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

**BRACING-**

TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.  
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.  
 WEBS T-Brace: 2x4 SPF No.2 - 5-8  
 Fasten (2X) T and I braces to narrow edge of web with 10d (0.131"x3") nails, 6in o.c., with 3in minimum end distance.  
 Brace must cover 90% of web length.

**REACTIONS.**

(size) 8=Mechanical, 2=0-5-8  
 Max Horz 2=280(LC 10)  
 Max Uplift 8=139(LC 10), 2=94(LC 10)  
 Max Grav 8=875(LC 17), 2=842(LC 17)

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

TOP CHORD 2-3=-1097/233, 3-5=-947/312  
 BOT CHORD 2-9=-367/967, 8-9=-109/316  
 WEBS 3-9=-544/334, 5-9=-226/883, 5-8=-718/259

**NOTES-**

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=5.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2) 0-8-14 to 3-7-14, Interior(1) 3-7-14 to 10-10-3, Exterior(2) 10-10-3 to 19-5-12 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 20.0psf 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.
- Refer to girder(s) for truss to truss connections.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2 except (jt=lb) 8=139.
- Warning: Additional permanent and stability bracing for truss system (not part of this component design) is always required.



March 9, 2021

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818 Soundside Road  
 Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Lot 10 Forest Ridge	E15477537
J0221-1262	A06	GABLE	1	1		

Comtech, Inc, Fayetteville, NC - 28314,

8.330 s Oct 7 2020 MiTek Industries, Inc. Mon Mar 8 16:15:55 2021 Page 1

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Scale = 1:56.6

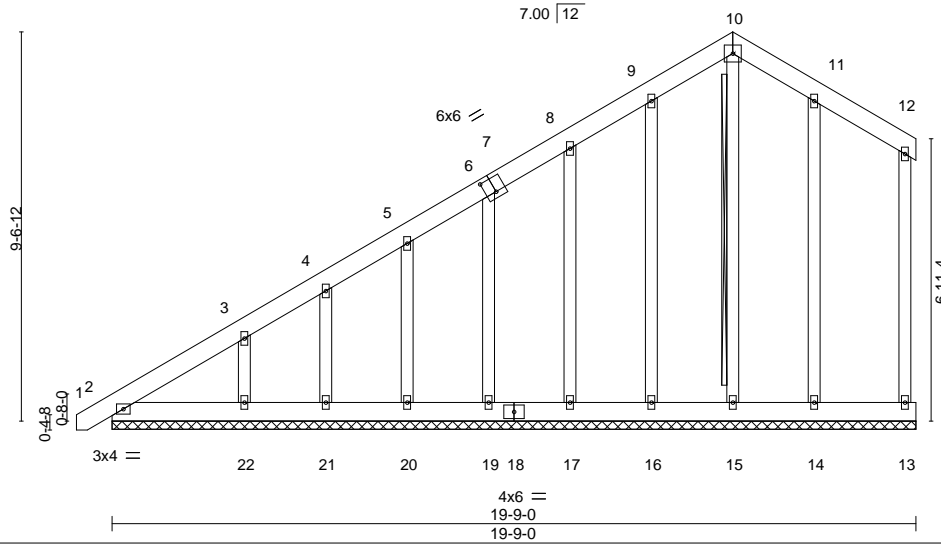


Plate Offsets (X,Y)-- [6:0-2-0,0-0-0], [7:0-3-0,0-4-4], [7:0-0-0,0-2-12]

LOADING (psf)	SPACING-		CSI.	DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL 1.15	2-0-0	TC 0.06	Vert(LL) -0.00		1	n/r	120	MT20	244/190
TCDL 10.0	Lumber DOL 1.15		BC 0.02	Vert(CT) 0.00		1	n/r	120		
BCLL 0.0 *	Rep Stress Incr YES		WB 0.17	Horz(CT) 0.00		13	n/a	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-S							
									Weight: 177 lb	FT = 20%

**LUMBER-**

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

**BRACING-**

TOP CHORD Structural wood sheathing directly applied or 6'-0-0 oc purlins, except end verticals.  
 BOT CHORD Rigid ceiling directly applied or 10'-0-0 oc bracing.  
 WEBS T-Brace: 2x4 SPF No.2 - 10-15  
 Fasten (2X) T and I braces to narrow edge of web with 10d (0.131"x3") nails, 6in o.c., with 3in minimum end distance.  
 Brace must cover 90% of web length.

**REACTIONS.**

All bearings 19-9-0.  
 (lb) - Max Horz 2=411(LC 10)  
 Max Uplift All uplift 100 lb or less at joint(s) 13, 2, 16, 19, 20, 21, 14 except 17=-101(LC 10), 22=-172(LC 10)  
 Max Grav All reactions 250 lb or less at joint(s) 13, 2, 15, 16, 17, 19, 20, 21, 14 except 22=290(LC 17)

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

TOP CHORD 2-3=-421/293, 3-4=-301/185

**NOTES-**

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TC DL=6.0psf; BCDL=5.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Corner(3) -0-8-14 to 3-7-14, Exterior(2) 3-7-14 to 10-10-3, Corner(3) 10-10-3 to 19-5-12 zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- All plates are 2x4 MT20 unless otherwise indicated.
- Gable requires continuous bottom chord bearing.
- Gable studs spaced at 2'-0-0 oc.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- \* This truss has been designed for a live load of 40.0psf 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) 13, 2, 16, 19, 20, 21, 14 except (jt=lb) 17=101, 22=172.
- Warning: Additional permanent and stability bracing for truss system (not part of this component design) is always required.



March 9, 2021

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



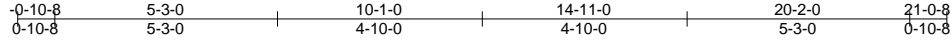
818 Soundside Road  
 Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Lot 10 Forest Ridge	E15477538
J0221-1262	B01	GABLE	1	1		

Comtech, Inc, Fayetteville, NC - 28314,

8.330 s Oct 7 2020 MiTek Industries, Inc. Mon Mar 8 16:15:56 2021 Page 1

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5x5 =

Scale = 1:54.3

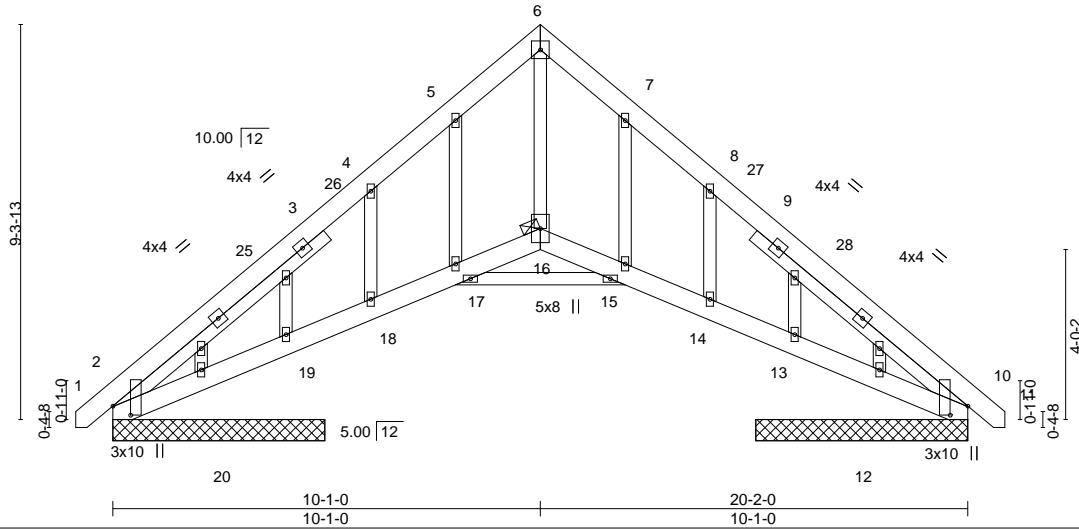


Plate Offsets (X,Y)-- [2:0-2-9,0-5-0], [10:0-2-9,0-5-0]

LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL 1.15	TC 0.09	Vert(LL) -0.02	17	>999	360	MT20	244/190
TCDL 10.0	Lumber DOL 1.15	BC 0.24	Vert(CT) -0.04	17	>999	240		
BCLL 0.0 *	Rep Stress Incr YES	WB 0.12	Horz(CT) 0.04	10	n/a	n/a		
BCDL 10.0	Code IRC2015/TPI2014	Matrix-S	Wind(LL) 0.03	17-18	>999	240		
							Weight: 176 lb	FT = 20%

**LUMBER-**

TOP CHORD 2x6 SP No.1  
 BOT CHORD 2x6 SP No.1  
 WEBS 2x4 SP No.2  
 OTHERS 2x4 SP No.2  
 SLIDER Left 2x4 SP No.3 - 6-5-12, Right 2x4 SP No.3 -x 6-5-12

**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 5-0-0.  
 (lb) - Max Horz 2=-301(LC 8)  
 Max Uplift All uplift 100 lb or less at joint(s) 10, 12 except 2=-109(LC 11), 19=-328(LC 10), 20=-102(LC 17), 13=-267(LC 11)  
 Max Grav All reactions 250 lb or less at joint(s) 20, 12 except 2=466(LC 1), 10=466(LC 1), 19=550(LC 17), 13=483(LC 18)

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

TOP CHORD 2-4=-765/0, 4-5=-695/218, 5-6=-590/266, 6-7=-613/298, 7-8=-712/253, 8-10=-839/145  
 BOT CHORD 2-20=-129/643, 19-20=-145/699, 18-19=-52/525, 17-18=-131/657, 16-17=-352/674, 15-16=-340/674, 14-15=-103/636, 13-14=-153/578, 12-13=-91/659, 10-12=-105/626  
 WEBS 6-16=-247/516, 15-17=-472/531, 4-18=-404/381, 8-14=-404/365

**NOTES-**

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCCL=6.0psf; BCDL=5.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) -0-8-14 to 3-7-14, Interior(1) 3-7-14 to 5-8-3, Exterior(2) 5-8-3 to 14-5-13, Interior(1) 14-5-13 to 16-6-2, Exterior(2) 16-6-2 to 20-10-14 zone:C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- All plates are 2x4 MT20 unless otherwise indicated.
- Gable 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 40.0psf 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, 10, 19, 20, 13, 12 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) 10, 12 except (jt=lb) 2=109, 19=328, 20=102, 13=267.



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

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



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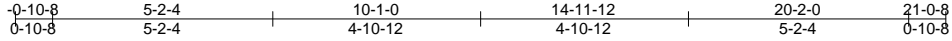


Job	Truss	Truss Type	Qty	Ply	Lot 10 Forest Ridge	E15477539
J0221-1262	B02	SCISSORS	1	1		

Comtech, Inc, Fayetteville, NC - 28314,

8.330 s Oct 7 2020 MiTek Industries, Inc. Mon Mar 8 16:15:58 2021 Page 1

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5x5 =

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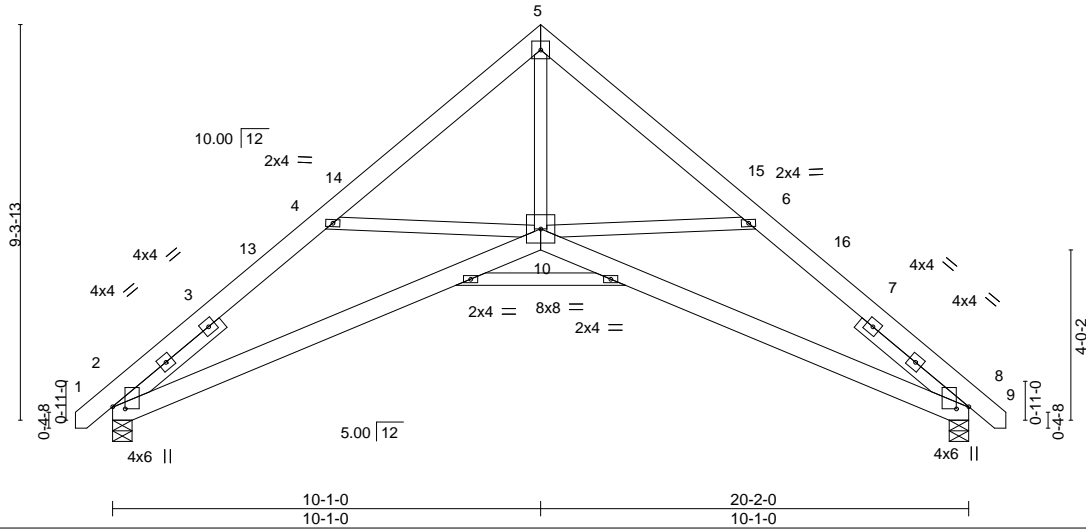


Plate Offsets (X,Y)-- [2:0-0-10,0-3-8], [8:0-0-10,0-3-8]

LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL 1.15	TC 0.14	Vert(LL) -0.08	2-10	>999	360	MT20	244/190
TCDL 10.0	Lumber DOL 1.15	BC 0.32	Vert(CT) -0.17	2-10	>999	240		
BCLL 0.0 *	Rep Stress Incr YES	WB 0.27	Horz(CT) 0.09	8	n/a	n/a		
BCDL 10.0	Code IRC2015/TPI2014	Matrix-S	Wind(LL) 0.03	10	>999	240		
							Weight: 156 lb	FT = 20%

**LUMBER-**

TOP CHORD 2x6 SP No.1  
 BOT CHORD 2x6 SP No.1  
 WEBS 2x4 SP No.2  
 SLIDER Left 2x4 SP No.3 -x 3-3-5, Right 2x4 SP No.3 -x 3-3-5

**BRACING-**

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

**REACTIONS.**

(size) 2=0-5-8, 8=0-5-8  
 Max Horz 2=-241(LC 8)  
 Max Uplift 2=-98(LC 10), 8=-98(LC 11)  
 Max Grav 2=848(LC 1), 8=848(LC 1)

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

TOP CHORD 2-4=-1524/464, 4-5=-1187/260, 5-6=-1188/260, 6-8=-1524/464  
 BOT CHORD 2-10=-246/1317, 8-10=-232/1156  
 WEBS 5-10=-120/1111, 6-10=-384/343, 4-10=-384/343

**NOTES-**

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCCL=6.0psf; BCDL=5.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2) -0-8-14 to 3-7-14, Interior(1) 3-7-14 to 5-8-3, Exterior(2) 5-8-3 to 14-5-13, Interior(1) 14-5-13 to 16-6-2, Exterior(2) 16-6-2 to 20-10-14 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 40.0psf 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, 8 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, 8.



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

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



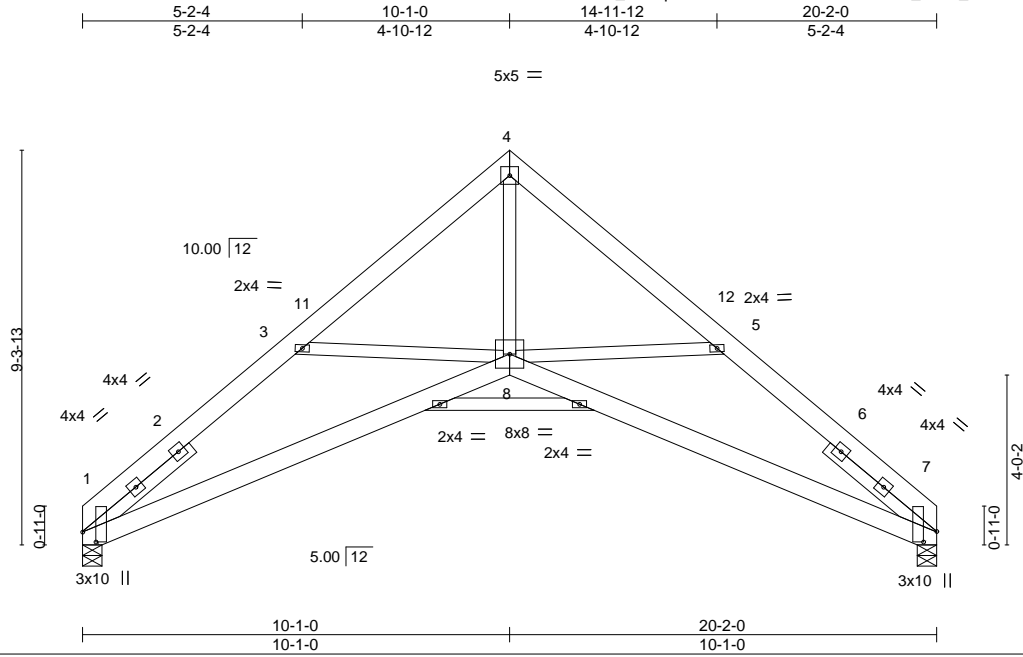
818 Soundside Road  
 Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Lot 10 Forest Ridge	E15477540
J0221-1262	B03	SCISSORS	6	1		

Comtech, Inc, Fayetteville, NC - 28314,

8.330 s Oct 7 2020 MiTek Industries, Inc. Mon Mar 8 16:15:59 2021 Page 1

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Scale = 1:54.4

Plate Offsets (X,Y)-- [1:0-2-13,0-3-12], [7:0-3-0,0-3-12]

LOADING (psf)	SPACING-	CSI.	DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL 1.15	TC 0.13	Vert(LL) -0.08	1-8	>999	360		MT20	244/190
TCDL 10.0	Lumber DOL 1.15	BC 0.33	Vert(CT) -0.17	1-8	>999	240			
BCLL 0.0 *	Rep Stress Incr YES	WB 0.27	Horz(CT) 0.09	7	n/a	n/a			
BCDL 10.0	Code IRC2015/TPI2014	Matrix-S	Wind(LL) 0.03	8	>999	240			
								Weight: 151 lb	FT = 20%

**LUMBER-**

TOP CHORD 2x6 SP No.1  
 BOT CHORD 2x6 SP No.1  
 WEBS 2x4 SP No.2  
 SLIDER Left 2x4 SP No.3 -x 3-3-5, Right 2x4 SP No.3 -x 3-3-5

**BRACING-**

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

**REACTIONS.**

(size) 1=0-5-8, 7=0-5-8  
 Max Horz 1=-237(LC 6)  
 Max Uplift 1=-82(LC 10), 7=-82(LC 11)  
 Max Grav 1=793(LC 1), 7=793(LC 1)

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

TOP CHORD 1-3=-1533/509, 3-4=-1195/289, 4-5=-1195/289, 5-7=-1533/509  
 BOT CHORD 1-8=-279/1322, 7-8=-279/1166  
 WEBS 4-8=-159/1117, 5-8=-381/363, 3-8=-381/363

**NOTES-**

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCCL=6.0psf; BCDL=5.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2) 0-2-2 to 4-10-8, Interior(1) 4-10-8 to 5-8-3, Exterior(2) 5-8-3 to 14-5-13, Interior(1) 14-5-13 to 15-3-8, Exterior(2) 15-3-8 to 19-11-14 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 40.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- Bearing at joint(s) 1, 7 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 7.



March 9,2021

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



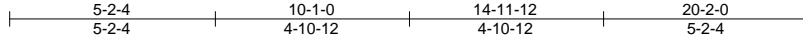
818 Soundside Road  
 Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Lot 10 Forest Ridge	E15477541
J0221-1262	B04	Common Girder	1	2	Job Reference (optional)	

Comtech, Inc, Fayetteville, NC - 28314,

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5x8 ||

Scale = 1:58.1

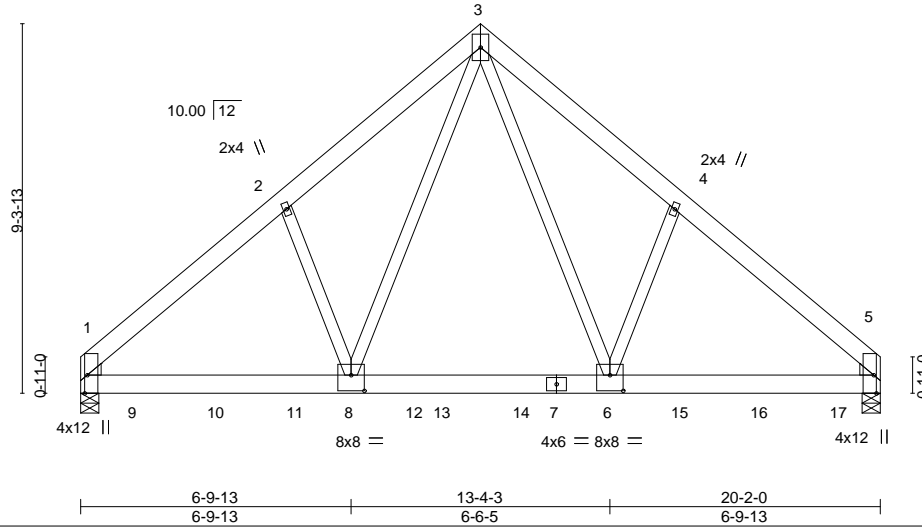


Plate Offsets (X,Y)-- [1:0-0-13,0-1-0], [1:0-1-11,0-4-13], [1:0-5-8,Edge], [5:0-5-8,Edge], [5:0-1-11,0-4-13], [5:0-0-13,0-1-0], [6:0-4-0,0-4-12], [8:0-4-0,0-4-12]

LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL 1.15	TC 0.62	Vert(LL) -0.09	1-8	>999	360	MT20	244/190
TCDL 10.0	Lumber DOL 1.15	BC 0.91	Vert(CT) -0.17	1-8	>999	240		
BCLL 0.0 *	Rep Stress Incr NO	WB 0.39	Horz(CT) 0.03	5	n/a	n/a		
BCDL 10.0	Code IRC2015/TPI2014	Matrix-S	Wind(LL) 0.08	1-8	>999	240		
							Weight: 302 lb	FT = 20%

**LUMBER-**

TOP CHORD 2x6 SP No.1  
 BOT CHORD 2x6 SP No.1  
 WEBS 2x4 SP No.2  
 WEDGE  
 Left: 2x4 SP No.3 , Right: 2x4 SP No.3

**BRACING-**

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

**REACTIONS.**

(size) 1=0-5-8, 5=0-5-8  
 Max Horz 1=235(LC 26)  
 Max Uplift 1=-819(LC 8), 5=-829(LC 9)  
 Max Grav 1=4614(LC 2), 5=4673(LC 2)

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

TOP CHORD 1-2=-5031/915, 2-3=-4853/1004, 3-4=-4804/994, 4-5=-4980/905  
 BOT CHORD 1-8=-686/3704, 6-8=-418/2588, 5-6=-599/3606  
 WEBS 3-6=-666/3067, 4-6=-276/372, 3-8=-689/3174, 2-8=-276/375

**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 0-9-0 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=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=5.0psf; h=25ft; 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 40.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 1=819, 5=829.
- Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 779 lb down and 159 lb up at 1-4-4, 779 lb down and 159 lb up at 3-4-4, 779 lb down and 159 lb up at 5-4-4, 779 lb down and 159 lb up at 7-0-12, 754 lb down and 159 lb up at 9-0-12, 754 lb down and 159 lb up at 11-0-12, 779 lb down and 159 lb up at 13-0-12, 779 lb down and 159 lb up at 15-0-12, and 779 lb down and 159 lb up at 17-0-12, and 780 lb down and 157 lb up at 19-0-12 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.

LOAD CASE(S) Standard

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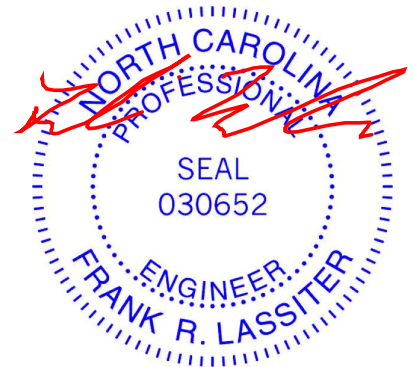
Continued on page 2

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818 Soundside Road  
 Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Lot 10 Forest Ridge	E15477541
J0221-1262	B04	Common Girder	1	<b>2</b>	Job Reference (optional)	

Comtech, Inc, Fayetteville, NC - 28314,

8.330 s Oct 7 2020 MiTek Industries, Inc. Mon Mar 8 16:16:00 2021 Page 2  
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**LOAD CASE(S)** Standard

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

Uniform Loads (plf)

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

Concentrated Loads (lb)

Vert: 6=-754(B) 8=-754(B) 9=-754(B) 10=-754(B) 11=-754(B) 13=-754(B) 14=-754(B) 15=-754(B) 16=-754(B) 17=-755(B)

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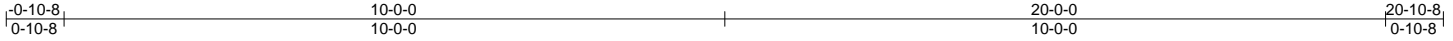
818 Soundside Road  
 Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Lot 10 Forest Ridge	E15477542
J0221-1262	G01	GABLE	1	1		

Comtech, Inc., Fayetteville, NC - 28314,

8.330 s Oct 7 2020 MiTek Industries, Inc. Mon Mar 8 16:16:01 2021 Page 1

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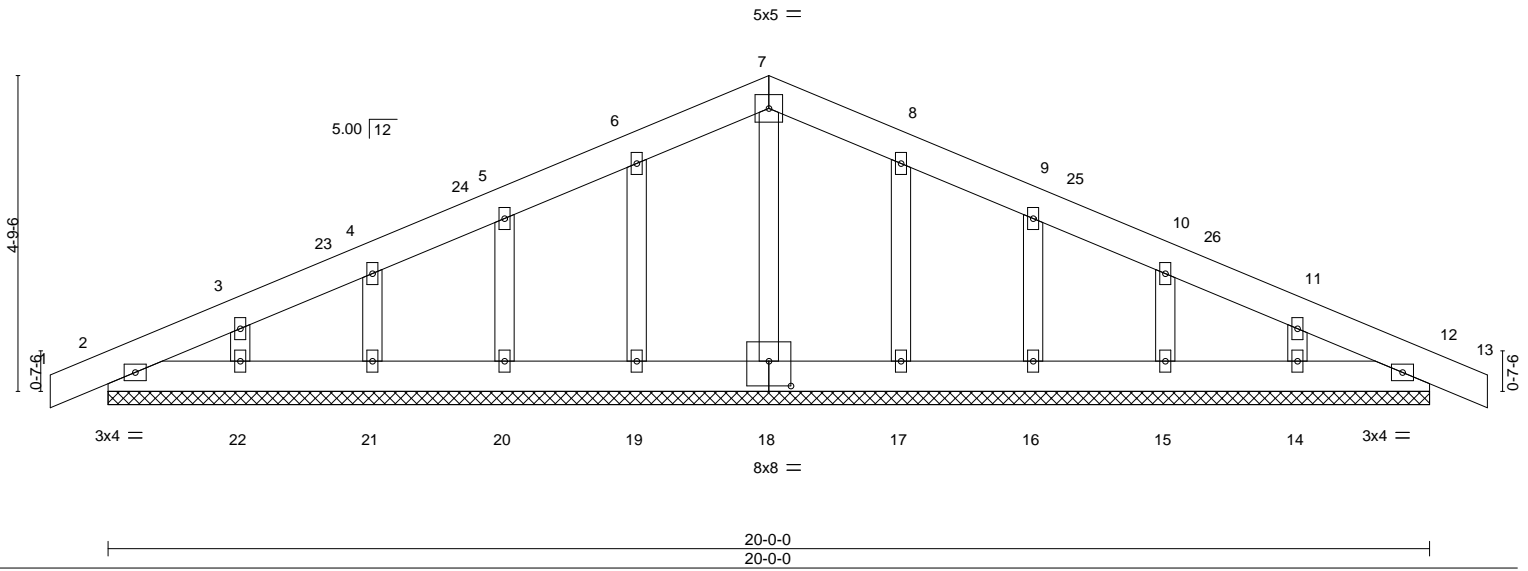


Plate Offsets (X,Y)-- [18:0-4-0,0-4-8]

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 0.03	Vert(LL)	-0.00	12	n/r	120	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.01	Vert(CT)	-0.00	12	n/r	120		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.03	Horz(CT)	0.00	12	n/a	n/a		
BCDL 10.0	Code	IRC2015/TPI2014	Matrix-S						Weight: 130 lb	FT = 20%

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

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

**REACTIONS.** All bearings 20-0-0.  
 (lb) - Max Horz 2=54(LC 12)  
 Max Uplift All uplift 100 lb or less at joint(s) 2, 12, 19, 20, 21, 22, 17, 16, 15, 14  
 Max Grav All reactions 250 lb or less at joint(s) 2, 12, 18, 19, 20, 21, 22, 17, 16, 15, 14

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

**NOTES-**

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TC DL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Corner(3) 0-10-8 to 3-6-5, Exterior(2) 3-6-5 to 10-0-0, Corner(3) 10-0-0 to 14-4-13, Exterior(2) 14-4-13 to 20-10-8 zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- All plates are 2x4 MT20 unless otherwise indicated.
- Gable requires continuous bottom chord bearing.
- Gable studs spaced at 2-0-0 oc.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- \* This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 12, 19, 20, 21, 22, 17, 16, 15, 14.



March 9, 2021

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

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



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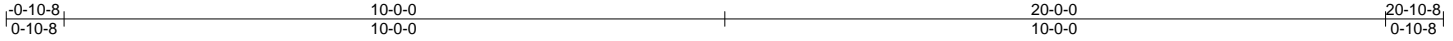


Job	Truss	Truss Type	Qty	Ply	Lot 10 Forest Ridge	E15477543
J0221-1262	G02	Common	5	1		

Comtech, Inc., Fayetteville, NC - 28314,

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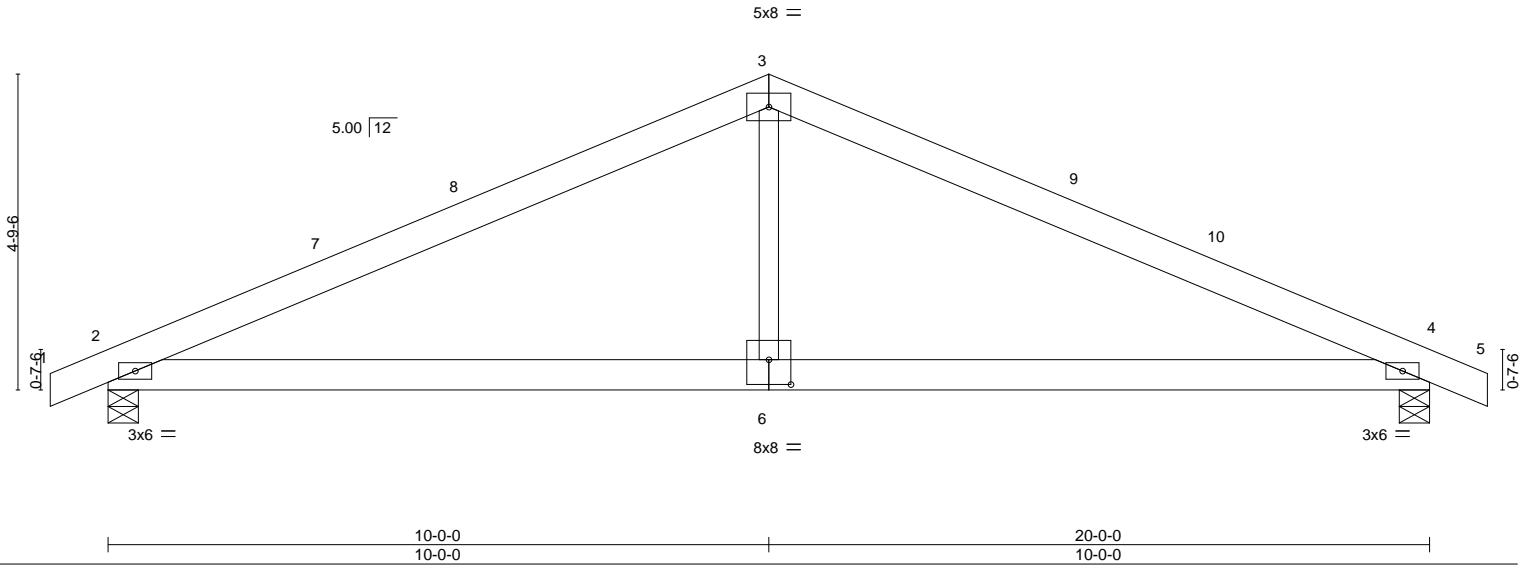


Plate Offsets (X,Y)-- [6:0-4-0-0-4-8]

LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL 1.15	TC 0.49	Vert(LL) -0.05	2-6	>999	360	MT20	244/190
TCDL 10.0	Lumber DOL 1.15	BC 0.37	Vert(CT) -0.12	2-6	>999	240		
BCLL 0.0 *	Rep Stress Incr YES	WB 0.11	Horz(CT) 0.02	4	n/a	n/a		
BCDL 10.0	Code IRC2015/TPI2014	Matrix-S	Wind(LL) 0.04	2-6	>999	240		
							Weight: 108 lb	FT = 20%

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

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

**REACTIONS.** (size) 2=0-5-8, 4=0-5-8  
 Max Horz 2=-54(LC 13)  
 Max Uplift 2=-65(LC 12), 4=-65(LC 13)  
 Max Grav 2=848(LC 1), 4=848(LC 1)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-3=-1232/289, 3-4=-1232/289  
 BOT CHORD 2-6=-132/1025, 4-6=-132/1025  
 WEBS 3-6=0/474

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TC DL=6.0psf; BC DL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2) -0-10-8 to 3-6-5, Interior(1) 3-6-5 to 10-0-0, Exterior(2) 10-0-0 to 14-4-13, Interior(1) 14-4-13 to 20-10-8 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) 2, 4.



March 9, 2021

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



818 Soundside Road  
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Job	Truss	Truss Type	Qty	Ply	Lot 10 Forest Ridge	E15477544
J0221-1262	M01	GABLE	1	1	Job Reference (optional)	

Comtech, Inc. Fayetteville, NC - 28314,

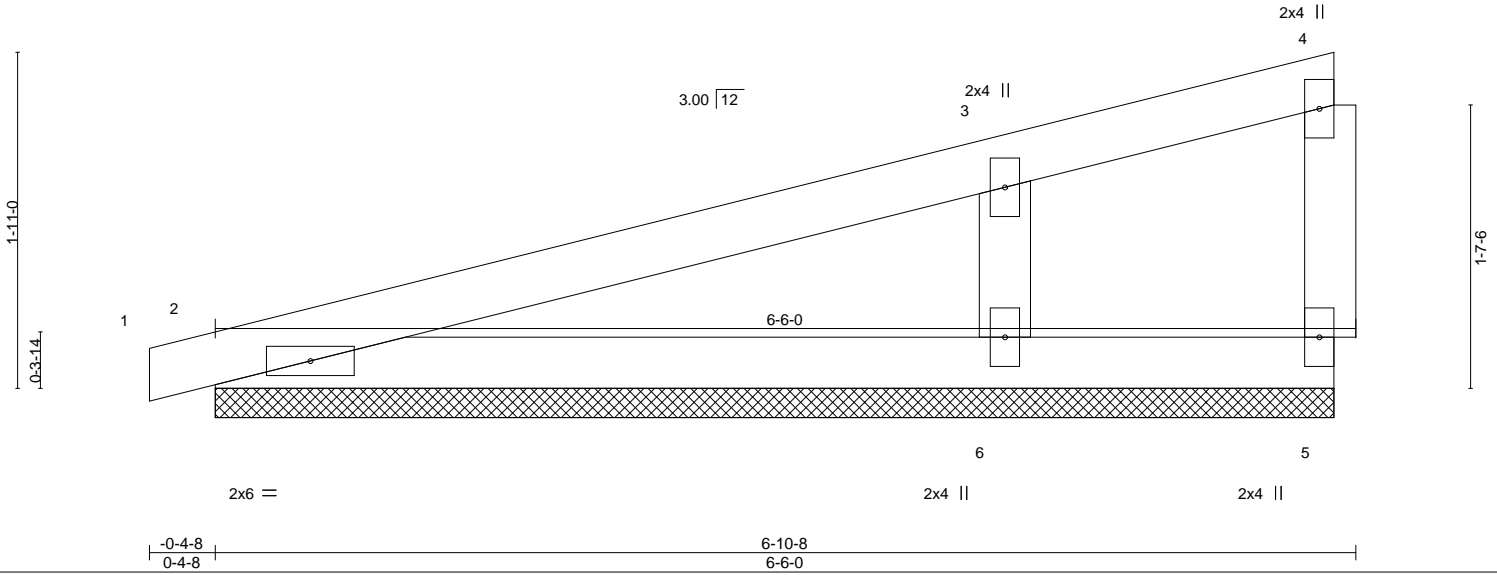
8.330 s Oct 7 2020 MiTek Industries, Inc. Mon Mar 8 16:16:02 2021 Page 1

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-0-4-8  
0-4-8

6-10-8  
6-6-0

Scale = 1:13.1



<b>LOADING</b> (psf)	<b>SPACING-</b>	<b>CSI.</b>	<b>DEFL.</b>	<b>PLATES</b>	<b>GRIP</b>
TCLL 20.0	2-0-0	TC 0.22	in (loc) l/defl L/d	MT20	244/190
TCDL 10.0	Plate Grip DOL 1.15	BC 0.41	Vert(LL) -0.00 1 n/r 120		
BCLL 0.0 *	Lumber DOL 1.15	WB 0.06	Vert(CT) 0.00 1 n/r 120		
BCDL 10.0	Rep Stress Incr NO	Matrix-P	Horz(CT) -0.00 5 n/a n/a		
	Code IRC2015/TPI2014			Weight: 23 lb	FT = 20%

**LUMBER-**

TOP CHORD 2x4 SP No.1  
 BOT CHORD 2x4 SP No.1  
 WEBS 2x4 SP No.2  
 OTHERS 2x4 SP No.2

**BRACING-**

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

**REACTIONS.**

(size) 5=6-4-8, 2=6-4-8, 6=6-4-8  
 Max Horz 2=89(LC 6)  
 Max Uplift 5=-18(LC 1), 2=-128(LC 6), 6=-320(LC 10)  
 Max Grav 5=7(LC 10), 2=343(LC 1), 6=809(LC 1)

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

WEBS 3-6=-276/313

**NOTES-**

- 1) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=5.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) 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 requires continuous bottom chord bearing.
- 4) Gable studs spaced at 2-0-0 oc.
- 5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 6) \* This truss has been designed for a live load of 40.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 5 except (jt=lb) 2=128, 6=320.
- 8) See Standard Industry Piggyback Truss Connection Detail for Connection to base truss as applicable, or consult qualified building designer.
- 9) 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  
 Uniform Loads (plf)  
 Vert: 1-4=-60, 2-5=-115(F=-95)



March 9, 2021

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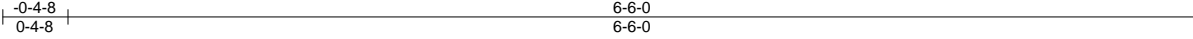
818 Soundside Road  
 Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Lot 10 Forest Ridge	E15477545
J0221-1262	M02	MONOPITCH	10	1		

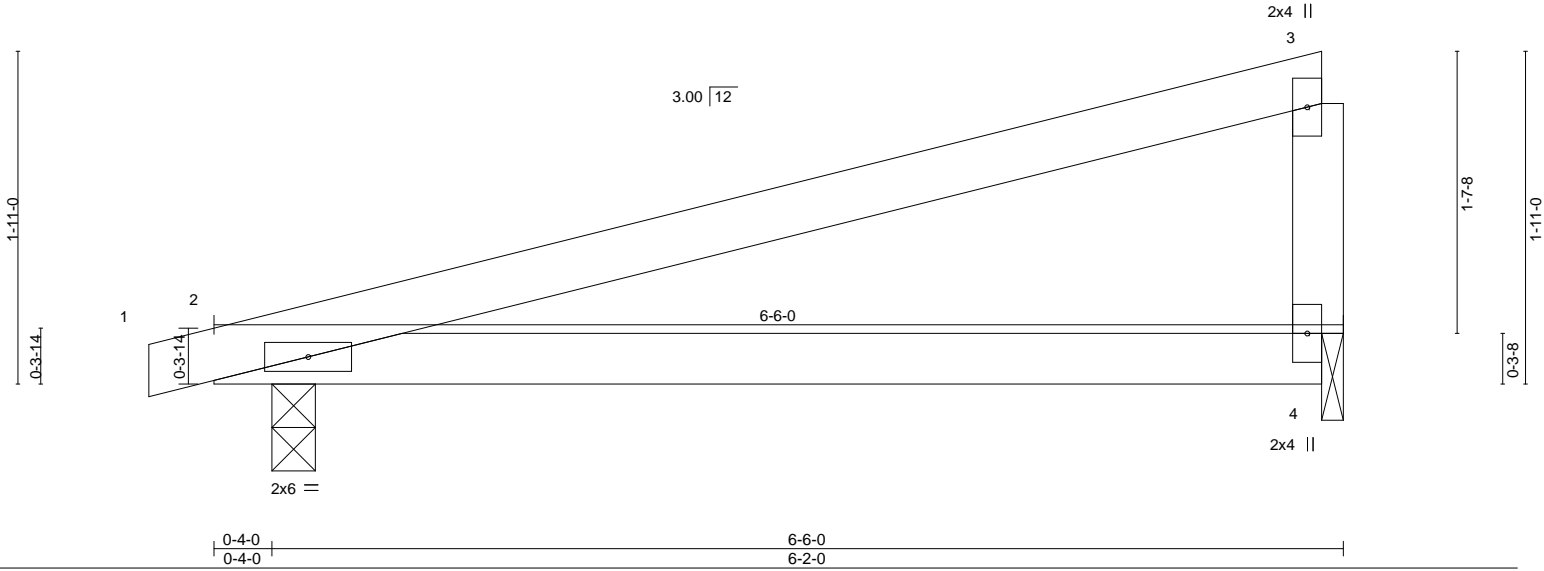
Comtech, Inc., Fayetteville, NC - 28314,

8.330 s Oct 7 2020 MiTek Industries, Inc. Mon Mar 8 16:16:03 2021 Page 1

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Scale = 1:13.3



LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL	1.15	TC 0.64	Vert(LL)	-0.08	2-4	>946	360	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.82	Vert(CT)	-0.16	2-4	>473	240		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.00	Horz(CT)	0.00	4	n/a	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-P	Wind(LL)	0.19	2-4	>385	240	Weight: 22 lb	FT = 20%

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

**REACTIONS.** (size) 4=0-1-8, 2=0-3-0  
 Max Horz 2=62(LC 6)  
 Max Uplift 4=128(LC 6), 2=-136(LC 6)  
 Max Grav 4=247(LC 1), 2=280(LC 1)

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

- NOTES-**
- 1) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=5.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2) 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 40.0psf 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) 4=128, 2=136.
  - 7) See Standard Industry Piggyback Truss Connection Detail for Connection to base truss as applicable, or consult qualified building designer.



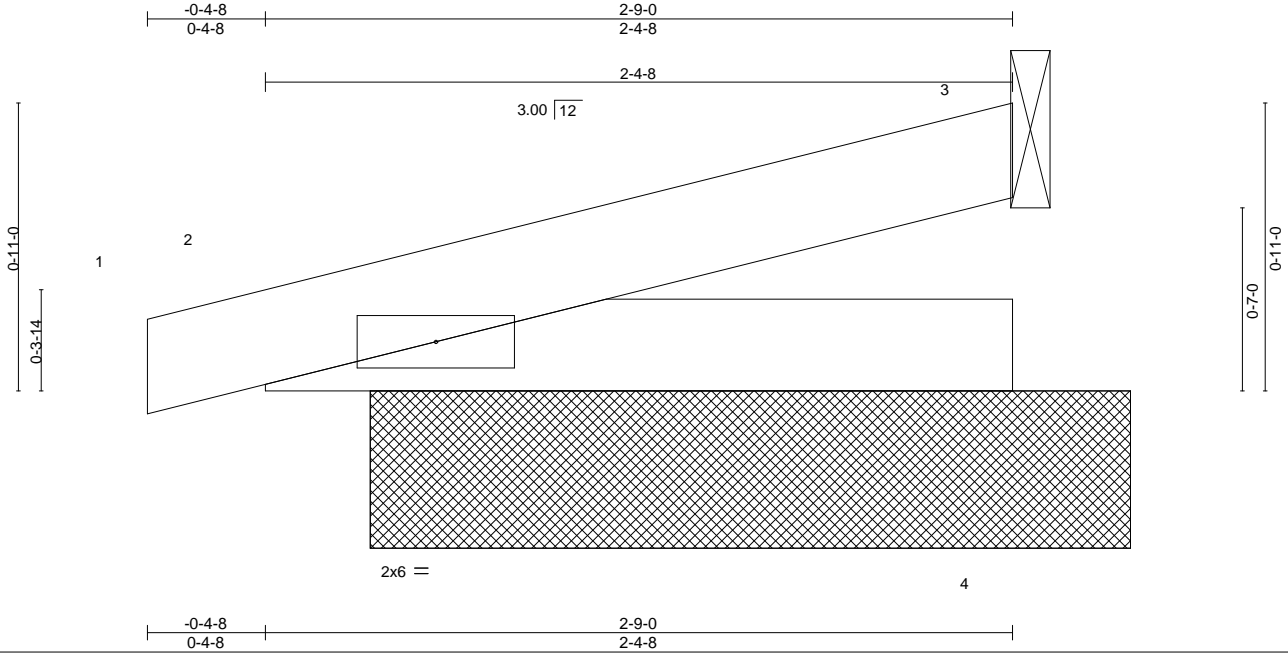
March 9, 2021

Job	Truss	Truss Type	Qty	Ply	Lot 10 Forest Ridge	E15477546
J0221-1262	M03	MONOPITCH SUPPORTED	1	1		

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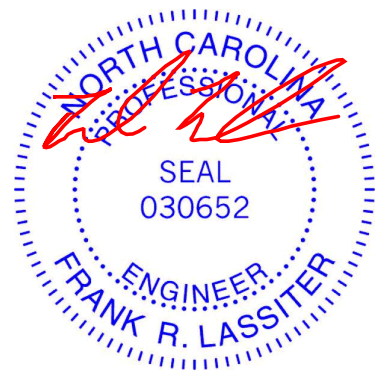
<b>LOADING</b> (psf)	<b>SPACING-</b>	<b>CSI.</b>	<b>DEFL.</b>	<b>PLATES</b>	<b>GRIP</b>
TCLL 20.0	2-0-0	TC 0.22	in (loc) l/defl L/d	MT20	244/190
TCDL 10.0	Plate Grip DOL 1.15	BC 0.05	Vert(LL) -0.00 2-4 >999 360		
BCLL 0.0 *	Lumber DOL 1.15	WB 0.00	Vert(CT) -0.00 2-4 >999 240		
BCDL 10.0	Rep Stress Incr YES	Matrix-P	Horz(CT) -0.00 3 n/a n/a	Weight: 8 lb	FT = 20%
	Code IRC2015/TPI2014		Wind(LL) 0.00 2 **** 240		

<b>LUMBER-</b>	<b>BRACING-</b>
TOP CHORD 2x4 SP No.1	TOP CHORD Structural wood sheathing directly applied or 2-4-8 oc purlins.
BOT CHORD 2x4 SP No.1	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS.** All bearings 2-5-0.  
 (lb) - Max Horz 2=36(LC 6)  
 Max Uplift All uplift 100 lb or less at joint(s) 3, 2  
 Max Grav All reactions 250 lb or less at joint(s) 3, 3, 2, 4

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

- NOTES-**
- 1) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=5.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Corner(3) zone; 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 40.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
  - 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 3, 2.
  - 7) See Standard Industry Piggyback Truss Connection Detail for Connection to base truss as applicable, or consult qualified building designer.



March 9, 2021

Job	Truss	Truss Type	Qty	Ply	Lot 10 Forest Ridge	E15477547
J0221-1262	PL-12	Common	5	1		

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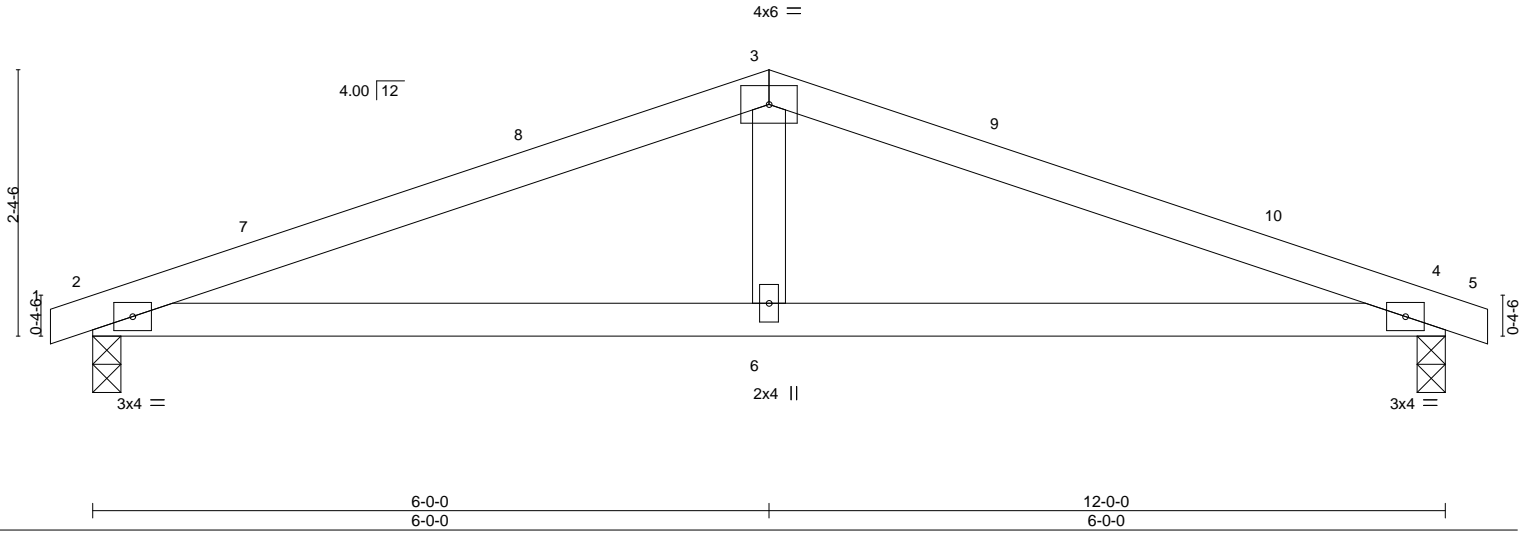
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Job Reference (optional)



Scale = 1:20.4



LOADING (psf)	SPACING-	CSI.	DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	2-0-0	TC 0.39	Vert(LL)	-0.03	4-6	>999	360	MT20	244/190
TCDL 10.0	Plate Grip DOL 1.15	BC 0.31	Vert(CT)	-0.07	4-6	>999	240		
BCLL 0.0 *	Lumber DOL 1.15	WB 0.06	Horz(CT)	0.01	4	n/a	n/a		
BCDL 10.0	Rep Stress Incr YES	Matrix-S	Wind(LL)	0.02	2-6	>999	240		
	Code IRC2015/TPI2014							Weight: 41 lb	FT = 20%

**LUMBER-**

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

**BRACING-**

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

**REACTIONS.**

(size) 2=0-3-0, 4=0-3-0  
 Max Horz 2=-25(LC 17)  
 Max Uplift 2=-55(LC 8), 4=-55(LC 9)  
 Max Grav 2=500(LC 1), 4=500(LC 1)

**FORCES.**

(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-3=-873/295, 3-4=-873/295  
 BOT CHORD 2-6=-205/771, 4-6=-205/771  
 WEBS 3-6=0/283

**NOTES-**

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2) -0-4-8 to 4-0-5, Interior(1) 4-0-5 to 6-0-0, Exterior(2) 6-0-0 to 10-4-13, Interior(1) 10-4-13 to 12-4-8 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) 2, 4.



March 9, 2021

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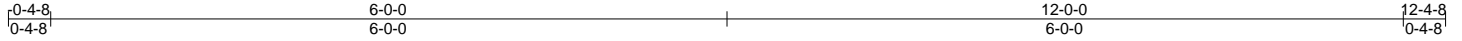
Job	Truss	Truss Type	Qty	Ply	Lot 10 Forest Ridge	E15477548
J0221-1262	PL-12G	COMMON SUPPORTED GAB	1	1		

Comtech, Inc., Fayetteville, NC - 28314,

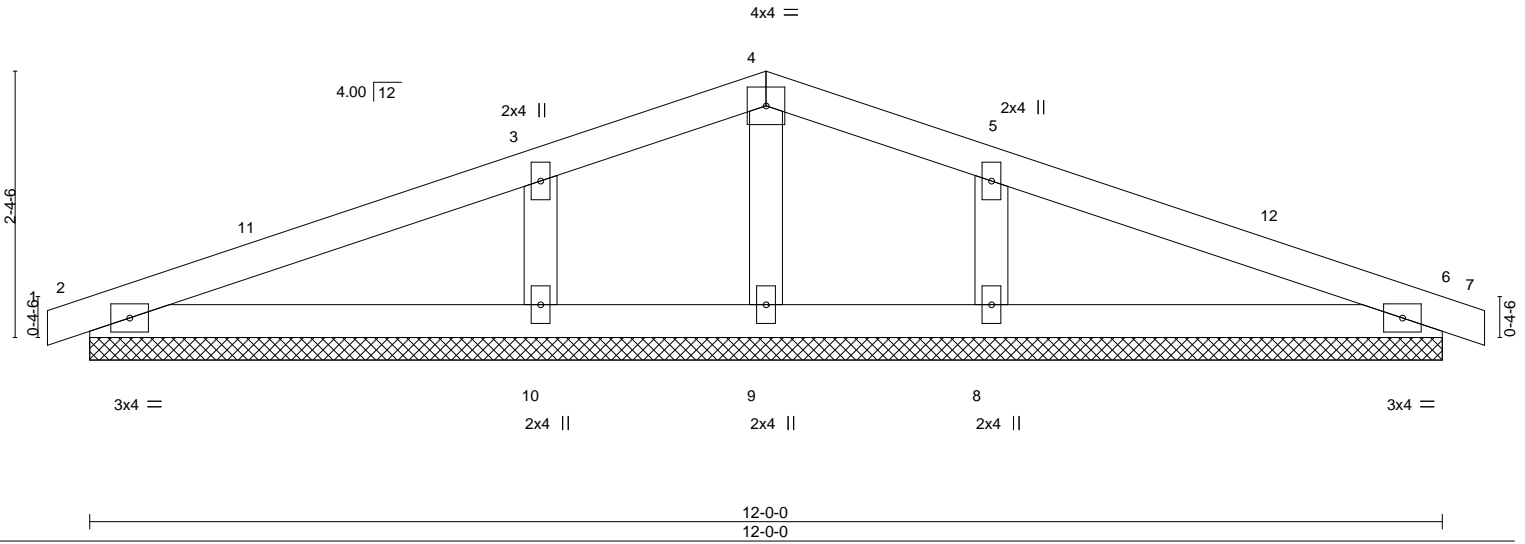
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Job Reference (optional)



Scale = 1:20.4



<b>LOADING</b> (psf)	<b>SPACING-</b>	<b>CSI.</b>	<b>DEFL.</b>	<b>PLATES</b>	<b>GRIP</b>
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) 0.00 7 n/r 120		
BCLL 0.0 *	Lumber DOL 1.15	WB 0.06	Vert(CT) 0.00 7 n/r 120		
BCDL 10.0	Rep Stress Incr YES	Matrix-S	Horz(CT) 0.00 6 n/a n/a		
	Code IRC2015/TPI2014			Weight: 44 lb	FT = 20%

**LUMBER-**

TOP CHORD 2x4 SP No.1  
 BOT CHORD 2x4 SP No.1  
 OTHERS 2x4 SP No.2

**BRACING-**

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

**REACTIONS.**

All bearings 12-0-0.  
 (lb) - Max Horz 2=43(LC 16)  
 Max Uplift All uplift 100 lb or less at joint(s) 2, 6 except 10=-117(LC 12), 8=-116(LC 13)  
 Max Grav All reactions 250 lb or less at joint(s) 2, 6, 9 except 10=336(LC 1), 8=336(LC 1)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 WEBS 3-10=-238/319, 5-8=-238/319

**NOTES-**

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Corner(3) -0-4-8 to 4-0-0, Exterior(2) 4-0-0 to 6-0-0, Corner(3) 6-0-0 to 10-4-13, Exterior(2) 10-4-13 to 12-4-8 zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- Gable 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, 6 except (jt=) 10=117, 8=116.



March 9, 2021

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

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

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

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



818 Soundside Road  
 Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Lot 10 Forest Ridge	E15477549
J0221-1262	V01	GABLE	1	1		

Comtech, Inc. Fayetteville, NC - 28314,

8.330 s Oct 7 2020 MiTek Industries, Inc. Mon Mar 8 16:16:06 2021 Page 1  
 ID:WeU20\_wZYqtTA5MeuIVrNlzoaVc-I7dGinXyD7D1cw1PScQDlGz6wHp9pfMifjnddWzcwXN

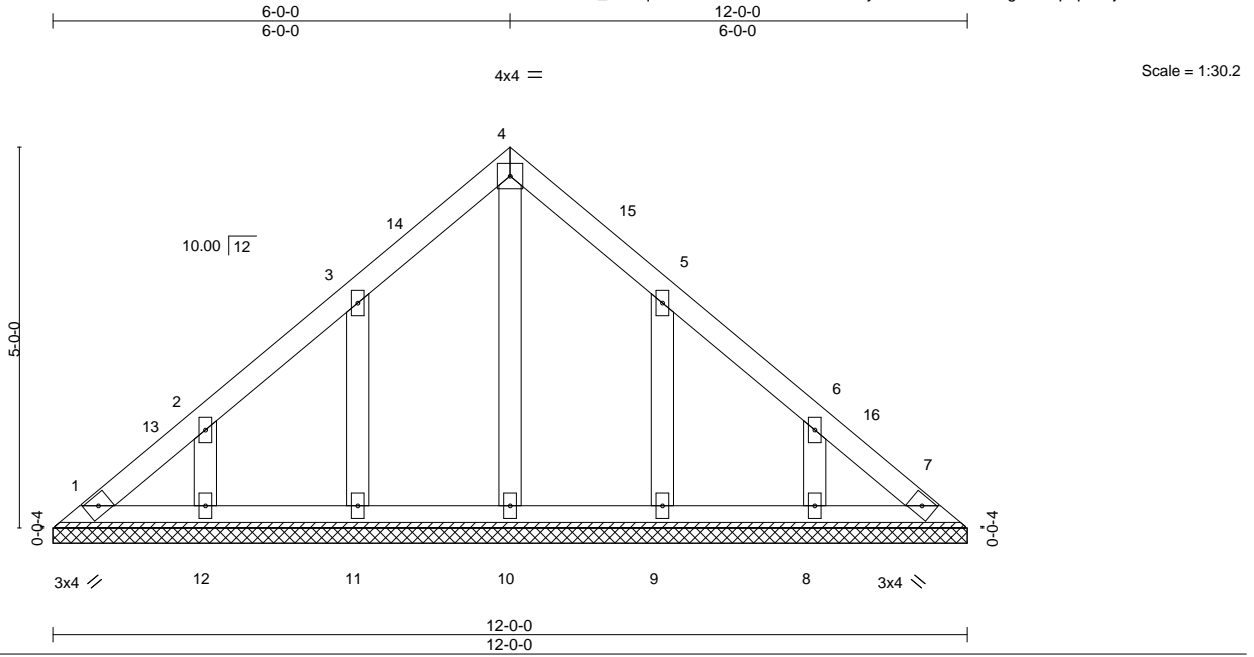


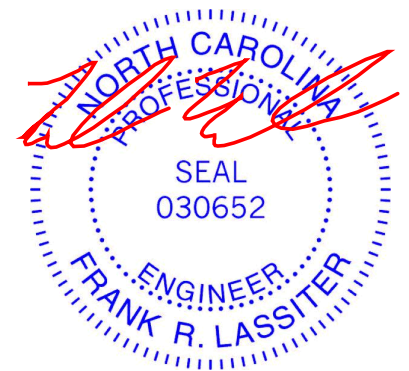
Plate Offsets (X,Y)--	[5:0-0-0,0-0-0]; [6:0-0-0,0-0-0]							
<b>LOADING</b> (psf)	<b>SPACING-</b> 2-0-0	<b>CSI.</b>	<b>DEFL.</b>	in (loc)	l/defl	L/d	<b>PLATES</b>	<b>GRIP</b>
TCLL 20.0	Plate Grip DOL 1.15	TC 0.04	Vert(LL) n/a	-	n/a	999	MT20	244/190
TCDL 10.0	Lumber DOL 1.15	BC 0.02	Vert(CT) n/a	-	n/a	999		
BCLL 0.0 *	Rep Stress Incr YES	WB 0.03	Horz(CT) 0.00	7	n/a	n/a		
BCDL 10.0	Code IRC2015/TPI2014	Matrix-S					Weight: 58 lb	FT = 20%

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

**REACTIONS.** All bearings 12-0-0.  
 (lb) - Max Horz 1=112(LC 8)  
 Max Uplift All uplift 100 lb or less at joint(s) 1, 11, 12, 9, 8  
 Max Grav All reactions 250 lb or less at joint(s) 1, 7, 10, 11, 12, 9, 8

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

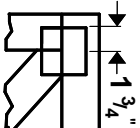
- NOTES-**
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2) 0-4-13 to 4-9-10, Interior(1) 4-9-10 to 6-0-0, Exterior(2) 6-0-0 to 10-4-13, Interior(1) 10-4-13 to 11-7-3 zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - All plates are 2x4 MT20 unless otherwise indicated.
  - Gable requires continuous bottom chord bearing.
  - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - \* This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
  - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 11, 12, 9, 8.



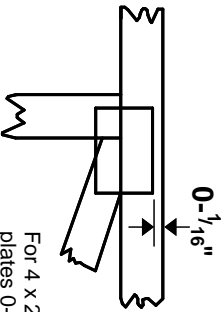
March 9, 2021

# Symbols

## PLATE LOCATION AND ORIENTATION



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



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



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

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

## PLATE SIZE

4 X 4

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

## LATERAL BRACING LOCATION



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

## BEARING



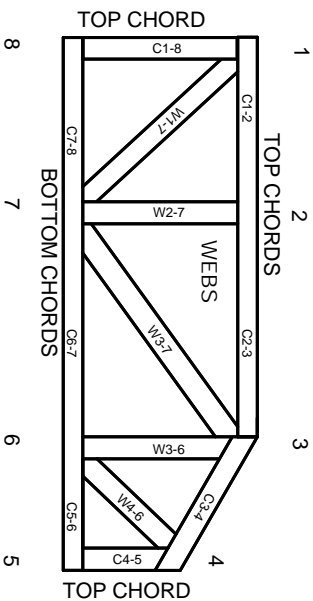
Indicates location where bearings (supports) occur. Icons vary but reaction section indicates joint number where bearings occur. Min size shown is for crushing only.

### Industry Standards:

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

# Numbering System

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



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

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

## PRODUCT CODE APPROVALS

ICC-ES Reports:

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

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

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

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



# General Safety Notes

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

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