

Trenco  
818 Soundside Rd  
Edenton, NC 27932

Re: J0920-4399  
Wellco/Lot 91 Hidden Lakes/Harnett

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

Pages or sheets covered by this seal: E14912393 thru E14912411

My license renewal date for the state of North Carolina is December 31, 2020.

North Carolina COA: C-0844



September 28, 2020

Gilbert, Eric

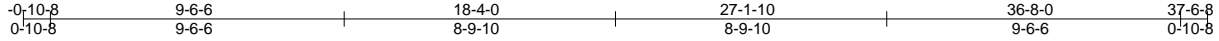
**IMPORTANT NOTE:** The seal on these truss component designs is a certification that the engineer named is licensed in the jurisdiction(s) identified and that the designs comply with ANSI/TPI 1. These designs are based upon parameters shown (e.g., loads, supports, dimensions, shapes and design codes),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



Job	Truss	Truss Type	Qty	Ply	Wellco/Lot 91 Hidden Lakes/Harnett	E14912394
J0920-4399	A2	ROOF SPECIAL	2	1		

Comtech, Inc. Fayetteville, NC - 28314,

8.330 s Jul 22 2020 MiTek Industries, Inc. Mon Sep 28 08:03:28 2020 Page 1  
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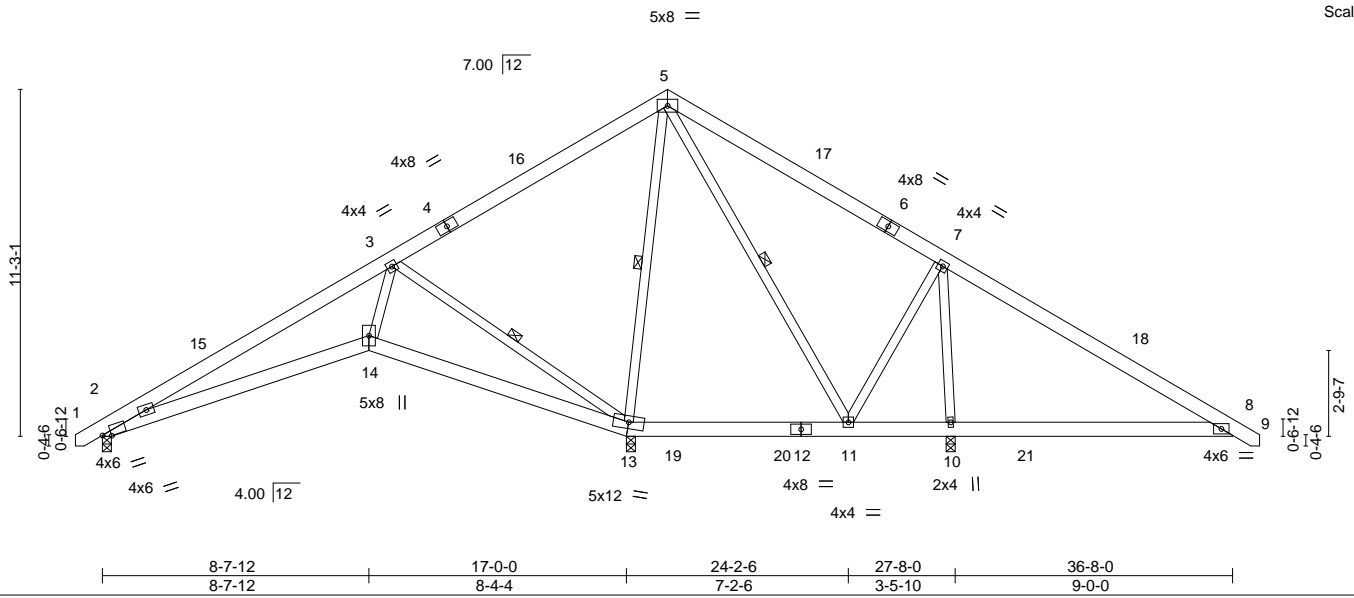


Plate Offsets (X,Y)-- [2:0-3,6,0-1-3]

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	2-14	>999	360	MT20	244/190
TCDL 10.0	Lumber DOL 1.15	BC 0.23	Vert(CT) -0.11	2-14	>999	240		
BCLL 0.0 *	Rep Stress Incr YES	WB 0.54	Horz(CT) 0.03	13	n/a	n/a		
BCDL 10.0	Code IRC2015/TPI2014	Matrix-S	Wind(LL) 0.03	2-14	>999	240	Weight: 259 lb	FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x6 SP No.1	TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins.
BOT CHORD 2x6 SP No.1	BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing, Except:
WEBS 2x4 SP No.2	WEBS 10-0-0 oc bracing: 2-14.
	WEBS 1 Row at midpt 5-11, 3-13, 5-13

**REACTIONS.** (size) 2=0-3-8, 13=0-3-8, 10=0-3-8  
 Max Horz 2=-267(LC 10)  
 Max Uplift 2=-46(LC 13), 13=-175(LC 12), 10=-226(LC 13)  
 Max Grav 2=437(LC 23), 13=1764(LC 19), 10=1242(LC 24)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-3=-513/60, 3-5=-122/808, 5-7=-177/654, 7-8=-532/824  
 BOT CHORD 2-14=-132/437, 13-14=-138/321, 11-13=-572/330, 10-11=-539/535, 8-10=-577/563  
 WEBS 5-11=-249/317, 7-11=-111/285, 3-14=0/437, 3-13=-973/268, 7-10=-1015/558,  
 5-13=-1056/136

- 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) -0-8-13 to 3-8-0, Interior(1) 3-8-0 to 18-4-0, Exterior(2) 18-4-0 to 22-8-13, Interior(1) 22-8-13 to 37-4-13 zone; cantilever right exposed ;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - \* This truss has been designed for a live load of 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.
  - 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.
  - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2 except (jt=lb) 13=175, 10=226.

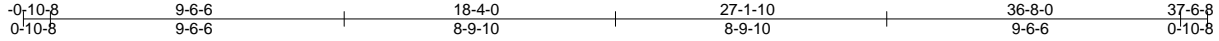


September 28, 2020

Job	Truss	Truss Type	Qty	Ply	Wellco/Lot 91 Hidden Lakes/Harnett	E14912395
J0920-4399	A3	ROOF SPECIAL	6	1		

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8.330 s Jul 22 2020 MiTek Industries, Inc. Mon Sep 28 08:03:30 2020 Page 1  
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5x8 =

Scale = 1:74.7

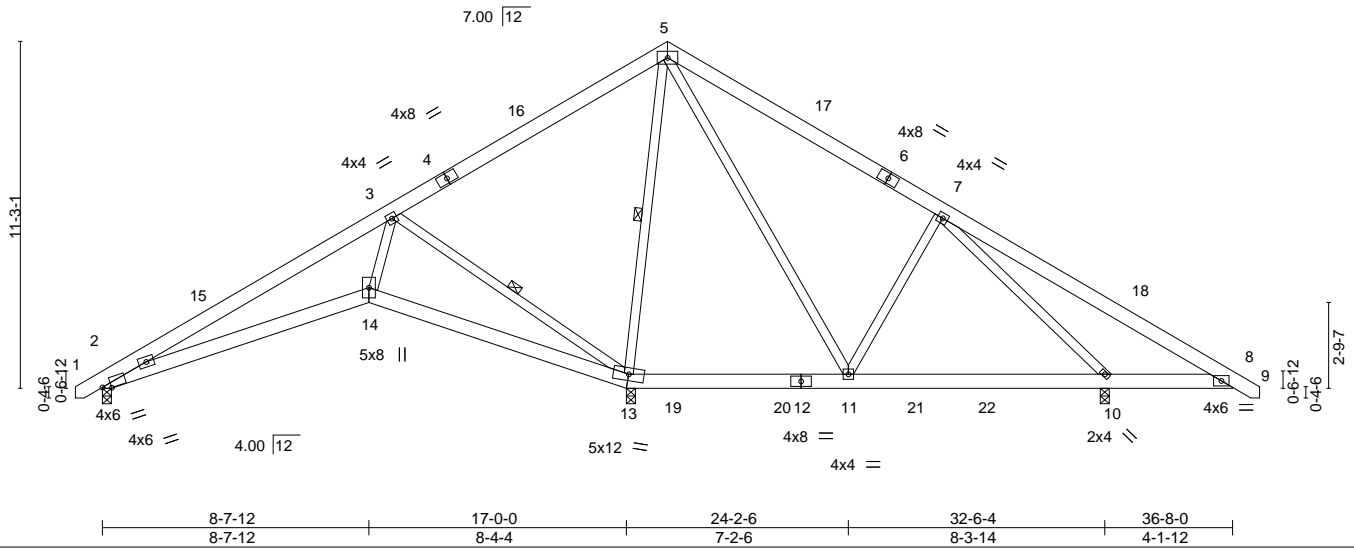


Plate Offsets (X,Y)-- [2:0-3-6,0-1-3]

LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL 1.15	TC 0.42	Vert(LL) -0.05	2-14	>999	360	MT20	244/190
TCDL 10.0	Lumber DOL 1.15	BC 0.24	Vert(CT) -0.11	2-14	>999	240		
BCLL 0.0 *	Rep Stress Incr YES	WB 0.87	Horz(CT) 0.03	13	n/a	n/a		
BCDL 10.0	Code IRC2015/TPI2014	Matrix-S	Wind(LL) 0.03	2-14	>999	240		
							Weight: 263 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 6-0-0 oc bracing.  
 WEBS 1 Row at midpt 3-13, 5-13

**REACTIONS.** (size) 2=0-3-8, 13=0-3-8, 10=0-3-8  
 Max Horz 2=-267(LC 10)  
 Max Uplift 2=-49(LC 13), 13=-163(LC 12), 10=-155(LC 13)  
 Max Grav 2=431(LC 23), 13=2021(LC 19), 10=865(LC 24)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-3=-487/50, 3-5=-127/797, 5-7=-267/298, 7-8=-377/600  
 BOT CHORD 2-14=-124/460, 13-14=-130/341, 11-13=-520/257, 8-10=-408/433  
 WEBS 5-11=-113/661, 7-11=-481/247, 3-14=0/471, 3-13=-983/253, 5-13=-1329/192,  
 7-10=-852/453

- NOTES-**
- 1) Unbalanced roof live loads have been considered for this design.
  - 2) 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) -0-8-13 to 3-8-0, Interior(1) 3-8-0 to 18-4-0, Exterior(2) 18-4-0 to 22-8-13, Interior(1) 22-8-13 to 37-4-13 zone; cantilever right exposed ;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - 3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - 4) \* This truss has been designed for a live load of 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.
  - 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) 2 except (jt=lb) 13=163, 10=155.



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**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	Wellco/Lot 91 Hidden Lakes/Harnett	E14912396
J0920-4399	A4	ROOF SPECIAL	1	1		

Comtech, Inc., Fayetteville, NC - 28314, 8.330 s Jul 22 2020 MiTek Industries, Inc. Mon Sep 28 08:03:32 2020 Page 1  
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 0-10-8 9-6-6 18-4-0 27-1-10 36-8-0  
 0-10-8 9-6-6 8-9-10 8-9-10 9-6-6

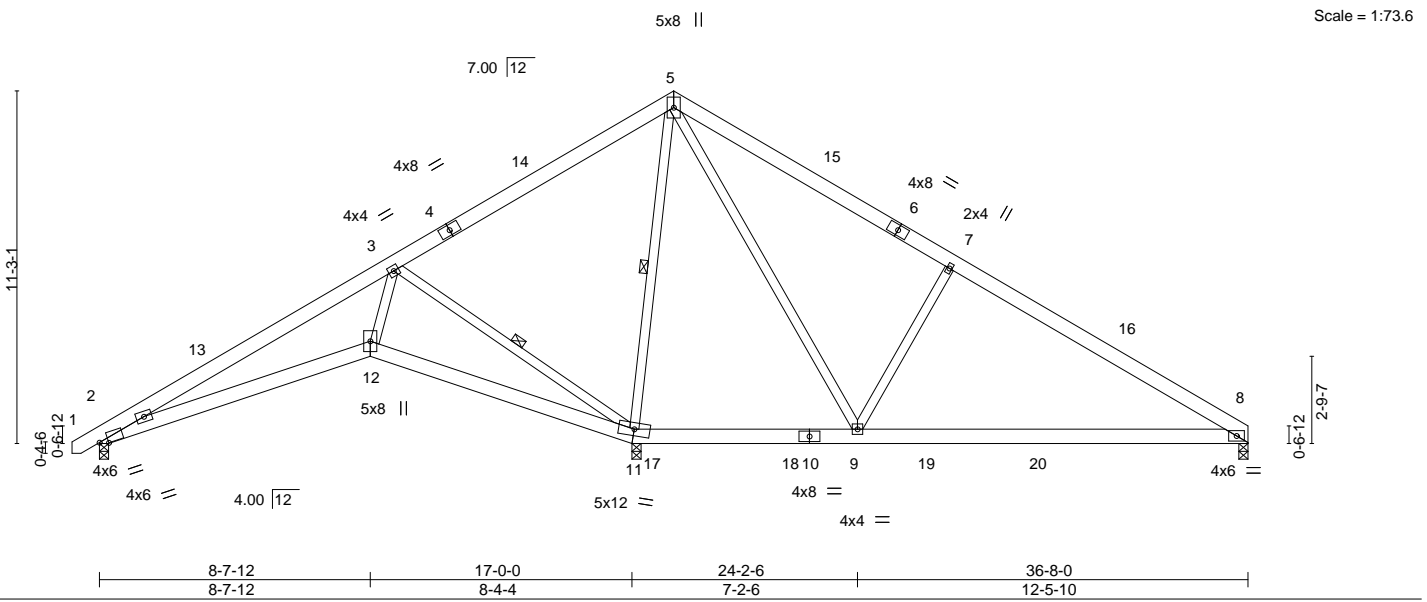


Plate Offsets (X,Y)-- [2:0-3-6,0-1-3]

LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	2-0-0	TC 0.42	Vert(LL)	-0.16	8-9	>999	MT20	244/190
TCDL 10.0	Plate Grip DOL 1.15	BC 0.42	Vert(CT)	-0.33	8-9	>701		
BCLL 0.0 *	Lumber DOL 1.15	WB 0.77	Horz(CT)	0.03	11	n/a		
BCDL 10.0	Rep Stress Incr YES	Matrix-S	Wind(LL)	0.04	8-9	>999		
	Code IRC2015/TPI2014						Weight: 250 lb	FT = 20%

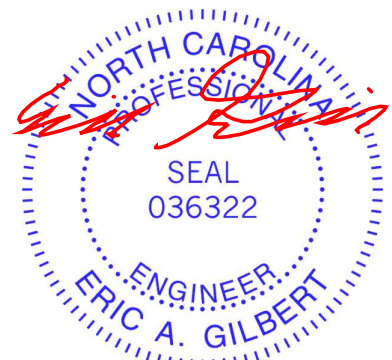
**LUMBER-**  
 TOP CHORD 2x6 SP No.1  
 BOT CHORD 2x6 SP No.1  
 WEBS 2x4 SP No.2

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

**REACTIONS.** (size) 2=0-3-8, 11=0-3-8, 8=0-3-8  
 Max Horz 2=264(LC 9)  
 Max Uplift 2=-45(LC 13), 11=-152(LC 12), 8=-109(LC 13)  
 Max Grav 2=425(LC 23), 11=2159(LC 19), 8=659(LC 20)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-3=-462/58, 3-5=-116/821, 5-7=-490/306, 7-8=-691/252  
 BOT CHORD 2-12=-154/414, 11-12=-155/302, 9-11=-517/233, 8-9=-132/521  
 WEBS 5-9=-190/1061, 7-9=-637/343, 3-12=0/454, 3-11=-967/268, 5-11=-1508/240

- NOTES-**
- 1) Unbalanced roof live loads have been considered for this design.
  - 2) 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) -0-8-13 to 3-8-0, Interior(1) 3-8-0 to 18-4-0, Exterior(2) 18-4-0 to 22-8-13, Interior(1) 22-8-13 to 36-6-4 zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - 3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - 4) \* This truss has been designed for a live load of 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.
  - 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) 2 except (jt=lb) 11=152, 8=109.



September 28, 2020

Job	Truss	Truss Type	Qty	Ply	Wellco/Lot 91 Hidden Lakes/Harnett	E14912397
J0920-4399	A5GDR	ROOF SPECIAL	1	2	Job Reference (optional)	

Comtech, Inc., Fayetteville, NC - 28314,

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5x8 =

Scale = 1:73.6

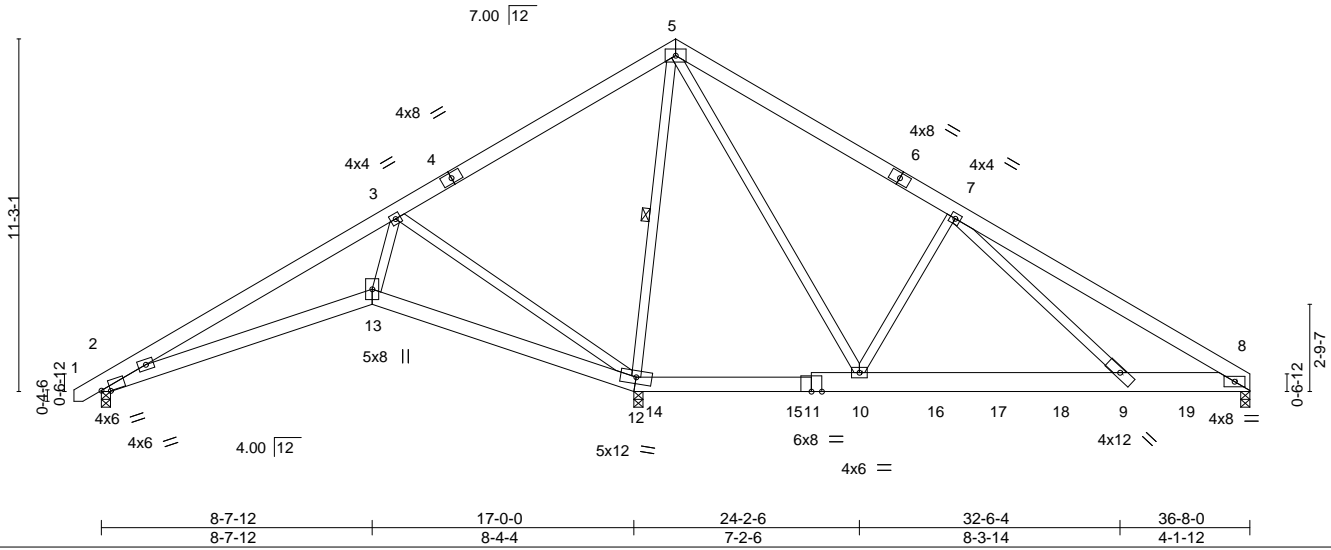


Plate Offsets (X,Y)-- [2:0-3-6,0-1-4]

LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL 1.15	TC 0.26	Vert(LL) -0.09	9-10	>999	360	MT20	244/190
TCDL 10.0	Lumber DOL 1.15	BC 0.55	Vert(CT) -0.19	9-10	>999	240		
BCLL 0.0 *	Rep Stress Incr NO	WB 0.50	Horz(CT) 0.01	12	n/a	n/a		
BCDL 10.0	Code IRC2015/TPI2014	Matrix-S	Wind(LL) 0.07	9-10	>999	240		
							Weight: 541 lb	FT = 20%

**LUMBER-**

TOP CHORD 2x6 SP No.1  
 BOT CHORD 2x6 SP No.1 \*Except\*  
 8-11: 2x8 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 6-0-0 oc bracing.  
 WEBS 1 Row at midpt 5-12

**REACTIONS.**

(size) 2=0-3-8, 12=0-3-8, 8=0-3-8  
 Max Horz 2=264(LC 5)  
 Max Uplift 2=113(LC 28), 12=224(LC 8), 8=236(LC 9)  
 Max Grav 2=382(LC 16), 12=3070(LC 1), 8=2365(LC 20)

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

TOP CHORD 2-3=-323/472, 3-5=-130/1022, 5-7=-1227/382, 7-8=-4291/419  
 BOT CHORD 2-13=-413/389, 12-13=-381/282, 10-12=-467/155, 9-10=-213/1535, 8-9=-279/3588  
 WEBS 5-10=-259/2393, 7-10=-1254/313, 3-13=-137/392, 3-12=-952/364, 5-12=-2593/183,  
 7-9=-115/2917

**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, 2x8 - 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=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 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.
- 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.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=113, 12=224, 8=236.
- Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 527 lb down and 46 lb up at 26-7-4, 527 lb down and 46 lb up at 28-7-4, 527 lb down and 46 lb up at 30-7-4, and 527 lb down and 46 lb up at 32-7-4, and 527 lb down and 46 lb up at 34-7-4 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

**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	Wellco/Lot 91 Hidden Lakes/Harnett	E14912397
J0920-4399	A5GDR	ROOF SPECIAL	1	<b>2</b>	Job Reference (optional)	

Comtech, Inc, Fayetteville, NC - 28314,

8.330 s Jul 22 2020 MiTek Industries, Inc. Mon Sep 28 08:03:35 2020 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: 1-5=-60, 5-8=-60, 2-13=-20, 12-13=-20, 8-12=-20
- Concentrated Loads (lb)
  - Vert: 9=-527(F) 16=-527(F) 17=-527(F) 18=-527(F) 19=-527(F)

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

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818 Soundside Road  
 Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Wellco/Lot 91 Hidden Lakes/Harnett	E14912398
J0920-4399	A6	COMMON	6	1	Job Reference (optional)	

Comtech, Inc., Fayetteville, NC - 28314,

8.330 s Jul 22 2020 MiTek Industries, Inc. Mon Sep 28 08:03:36 2020 Page 1  
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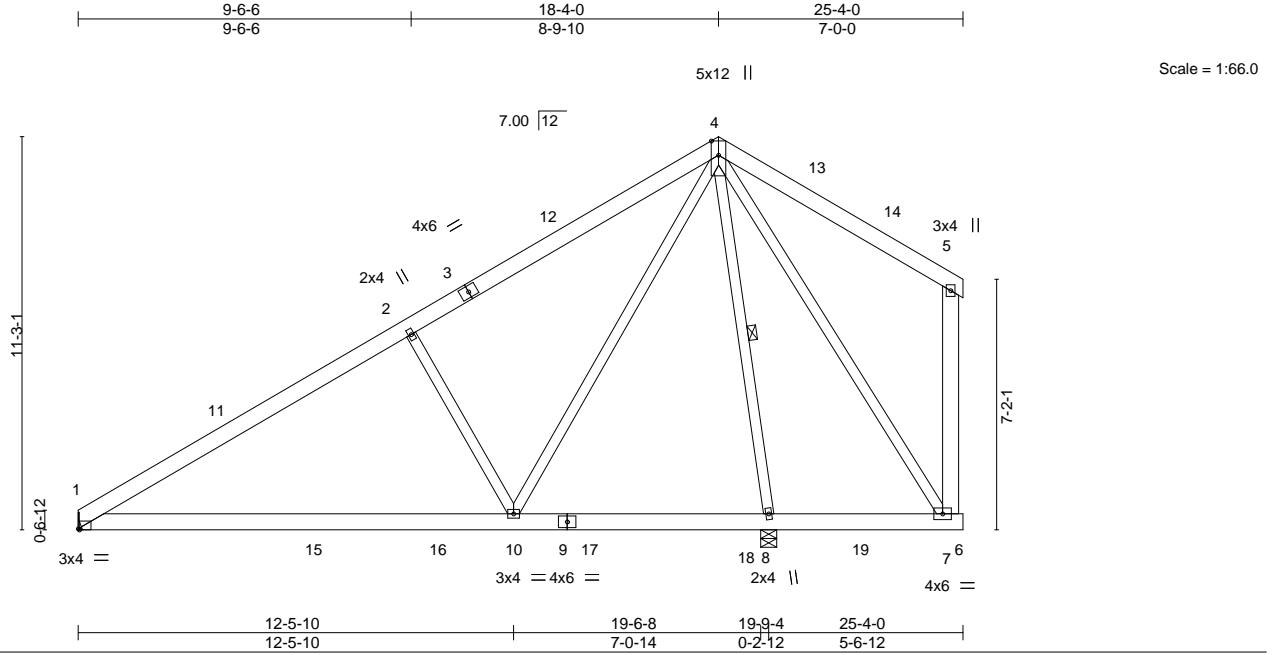


Plate Offsets (X,Y)-- [1:0-0-6,Edge]

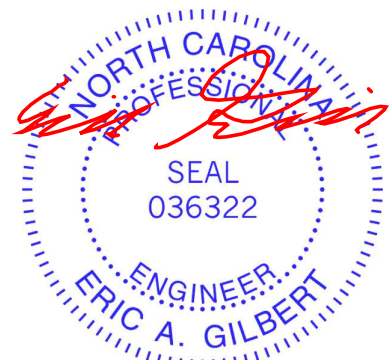
LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL	1.15	TC 0.40	Vert(LL)	-0.16 1-10	>999	360	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.46	Vert(CT)	-0.34 1-10	>688	240		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.59	Horz(CT)	0.01 8	n/a	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-S	Wind(LL)	0.05 1-10	>999	240	Weight: 204 lb	FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x6 SP No.1	TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.
BOT CHORD 2x6 SP No.1	BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.
WEBS 2x4 SP No.2 *Except* 5-7: 2x6 SP No.1	WEBS 1 Row at midpt 4-8

**REACTIONS.** (size) 1=Mechanical, 8=0-5-8  
 Max Horz 1=271(LC 12)  
 Max Uplift 1=-28(LC 12), 8=-102(LC 12)  
 Max Grav 1=785(LC 19), 8=1439(LC 19)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 1-2=-935/145, 2-4=-731/210  
 BOT CHORD 1-10=-247/858  
 WEBS 2-10=-639/344, 4-10=-187/1055, 4-7=-126/309, 4-8=-1195/362

- 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) 0-0-12 to 4-5-9, Interior(1) 4-5-9 to 18-4-0, Exterior(2) 18-4-0 to 22-8-13, Interior(1) 22-8-13 to 24-11-12 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) 1 except (jt=lb) 8=102.



September 28, 2020





Job	Truss	Truss Type	Qty	Ply	Wellco/Lot 91 Hidden Lakes/Harnett	E14912400
J0920-4399	B1	ATTIC	2	1		

Comtech, Inc., Fayetteville, NC - 28314,

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ID:l2dlSWmc?rsKcP8e01L4?Rzx8kL-F\_mDQVIZPGOyi8AfW09Vz16q4v04Gqxx??8umKyZ9jF

0-11-0 5-2-12 5-5-8 8-7-2 10-11-8 13-3-14 16-8-4 21-11-0 22-10-0  
 0-11-0 5-2-12 0-2-12 3-1-10 2-4-6 2-4-6 3-4-6 5-2-12 0-11-0

4x6 =

Scale = 1:70.5

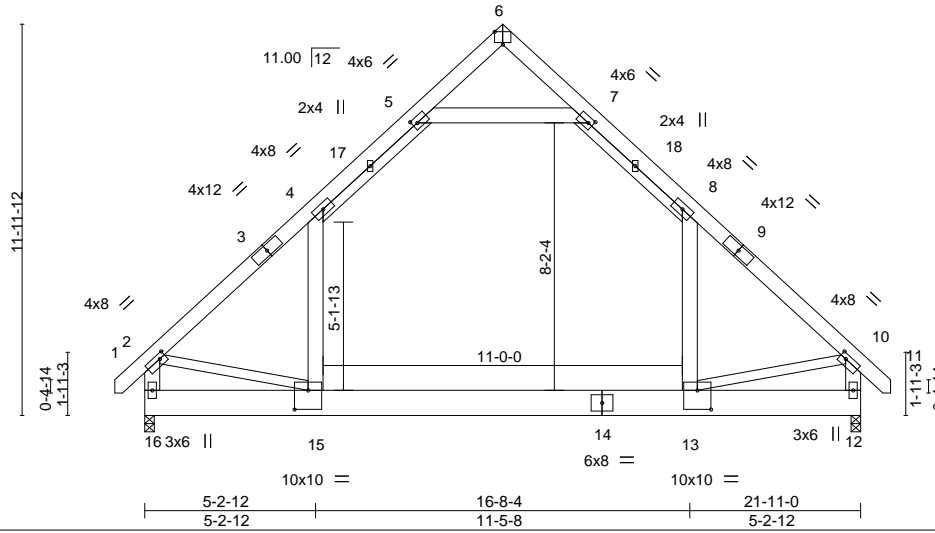


Plate Offsets (X,Y)-- [2:0-2-4,0-1-12], [5:0-1-12,0-2-0], [6:0-3-0,Edge], [7:0-1-12,0-2-0], [10:0-2-4,0-1-12], [13:0-5-0,0-7-0], [15:0-5-0,0-7-0]

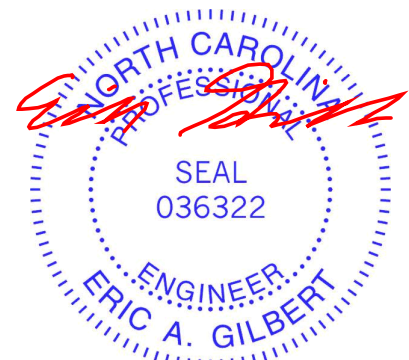
LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL 1.15	TC 0.85	Vert(LL) -0.24	13-15	>999	360	MT20	244/190
TCDL 10.0	Lumber DOL 1.15	BC 0.75	Vert(CT) -0.41	13-15	>621	240		
BCLL 0.0 *	Rep Stress Incr YES	WB 0.18	Horz(CT) 0.01	12	n/a	n/a		
BCDL 10.0	Code IRC2015/TPI2014	Matrix-S	Wind(LL) 0.08	13-15	>999	240	Weight: 232 lb	FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x6 SP No.1	TOP CHORD Structural wood sheathing directly applied or 3-5-6 oc purlins, except end verticals.
BOT CHORD 2x10 SP No.1	BOT CHORD Rigid ceiling directly applied or 9-9-4 oc bracing.
WEBS 2x6 SP No.1 *Except* 2-15,10-13,4-5,7-8: 2x4 SP No.2	

**REACTIONS.** (size) 16=0-3-8, 12=0-3-8  
 Max Horz 16=309(LC 10)  
 Max Grav 16=1457(LC 20), 12=1457(LC 21)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-4=-1611/0, 4-5=-1005/142, 5-6=0/319, 6-7=0/319, 7-8=-1005/142, 8-10=-1610/0,  
 2-16=-1519/33, 10-12=-1520/33  
 BOT CHORD 15-16=-263/594, 13-15=0/1041, 12-13=-77/383  
 WEBS 5-7=-1325/166, 4-15=0/672, 8-13=0/672, 2-15=0/756, 10-13=0/762

- 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) -0-9-1 to 3-7-11, Interior(1) 3-7-11 to 11-0-0, Exterior(2) 11-0-0 to 15-4-13, Interior(1) 15-4-13 to 22-9-1 zone; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - 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.
  - Ceiling dead load (10.0 psf) on member(s). 4-5, 7-8, 5-7; Wall dead load (5.0psf) on member(s). 4-15, 8-13
  - Bottom chord live load (40.0 psf) and additional bottom chord dead load (10.0 psf) applied only to room. 13-15
  - Attic room checked for L/360 deflection.



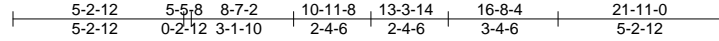
September 28, 2020

Job	Truss	Truss Type	Qty	Ply	Wellco/Lot 91 Hidden Lakes/Harnett	E14912401
J0920-4399	B2	ATTIC	10	1		

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4x6 =

Scale = 1:70.5

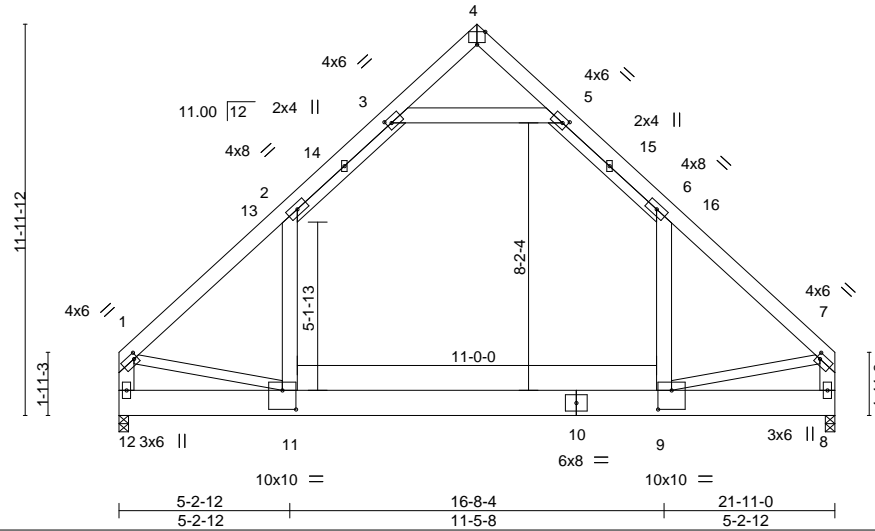


Plate Offsets (X,Y)-- [1:0-1-4,0-2-0], [3:0-1-12,0-2-0], [4:0-3-0,Edge], [5:0-1-12,0-2-0], [7:0-1-4,0-2-0], [9:0-5-0,0-7-0], [11:0-5-0,0-7-0]

LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	2-0-0	TC 0.84	Vert(LL)	-0.25	9-11	>999	MT20	244/190
TCDL 10.0	Plate Grip DOL 1.15	BC 0.75	Vert(CT)	-0.42	9-11	>606		
BCLL 0.0 *	Lumber DOL 1.15	WB 0.19	Horz(CT)	0.01	8	n/a		
BCDL 10.0	Rep Stress Incr YES	Matrix-S	Wind(LL)	0.08	9-11	>999	Weight: 227 lb	FT = 20%
	Code IRC2015/TPI2014							

**LUMBER-**

TOP CHORD 2x6 SP No.1  
 BOT CHORD 2x10 SP No.1  
 WEBS 2x6 SP No.1 \*Except\*  
 1-11,7-9,2-3,5-6: 2x4 SP No.2

**BRACING-**

TOP CHORD Structural wood sheathing directly applied or 3-8-11 oc purlins, except end verticals.  
 BOT CHORD Rigid ceiling directly applied or 9-7-6 oc bracing.

**REACTIONS.**

(size) 12=0-3-8, 8=0-3-8  
 Max Horz 12=236(LC 9)  
 Max Grav 12=1410(LC 21), 8=1410(LC 20)

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

TOP CHORD 1-2=-1593/0, 2-3=-1006/141, 3-4=0/327, 4-5=0/327, 5-6=-1006/141, 6-7=-1593/0,  
 1-12=-1475/0, 7-8=-1476/0  
 BOT CHORD 11-12=-237/453, 9-11=0/1024, 8-9=-66/280  
 WEBS 3-5=-1340/168, 2-11=0/643, 6-9=0/643, 1-11=0/844, 7-9=0/848

**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) 0-3-4 to 4-8-1, Interior(1) 4-8-1 to 11-0-0, Exterior(2) 11-0-0 to 15-4-13, Interior(1) 15-4-13 to 21-8-12 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.
- Ceiling dead load (10.0 psf) on member(s). 2-3, 5-6, 3-5; Wall dead load (5.0psf) on member(s).2-11, 6-9
- Bottom chord live load (40.0 psf) and additional bottom chord dead load (10.0 psf) applied only to room. 9-11
- Attic room checked for L/360 deflection.



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**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	Wellco/Lot 91 Hidden Lakes/Harnett	E14912402
J0920-4399	C1GE	GABLE	1	1		

Comtech, Inc., Fayetteville, NC - 28314,

8.330 s Jul 22 2020 MiTek Industries, Inc. Mon Sep 28 08:03:44 2020 Page 1  
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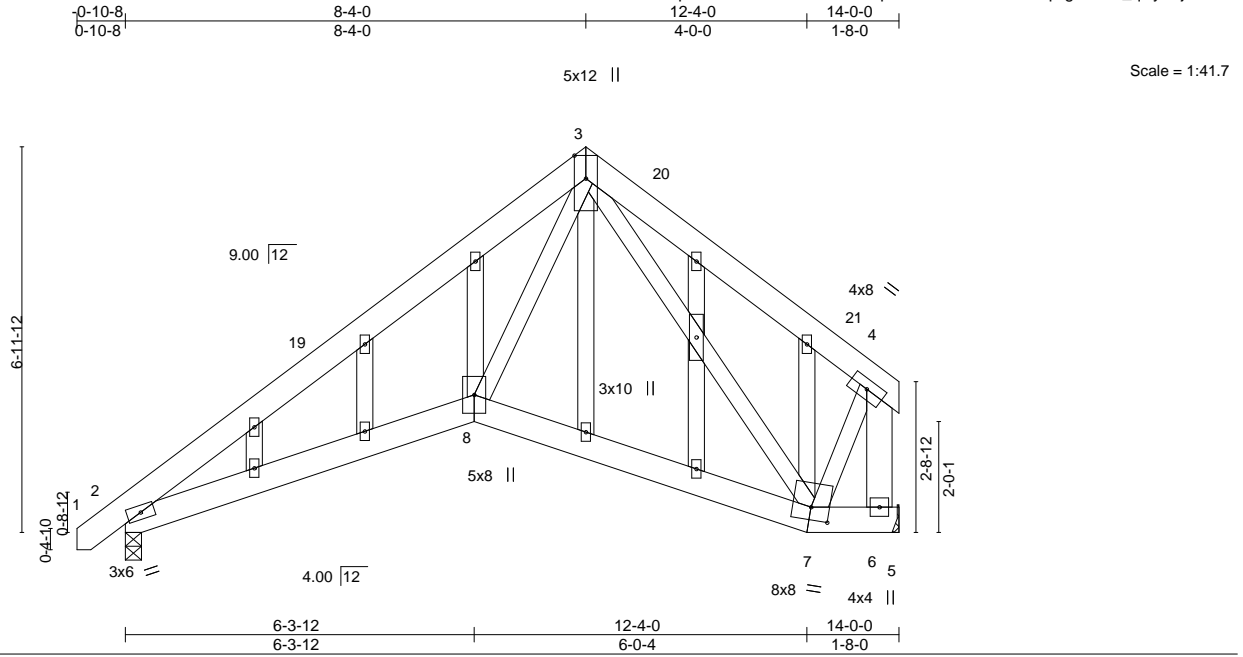


Plate Offsets (X,Y)-- [7:0-4-0,0-2-12]

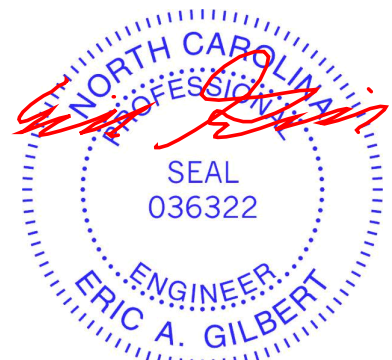
LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL 1.15	TC 0.32	Vert(LL) -0.02	2-8	>999	360	MT20	244/190
TCDL 10.0	Lumber DOL 1.15	BC 0.22	Vert(CT) -0.05	2-8	>999	240		
BCLL 0.0 *	Rep Stress Incr YES	WB 0.40	Horz(CT) 0.02	6	n/a	n/a		
BCDL 10.0	Code IRC2015/TPI2014	Matrix-S	Wind(LL) 0.04	2-8	>999	240	Weight: 130 lb	FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x6 SP No.1	TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.
BOT CHORD 2x6 SP No.1	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 2x4 SP No.2 *Except*	
OTHERS 4-6: 2x6 SP No.1	
2x4 SP No.2	

**REACTIONS.** (size) 2=0-3-8, 6=Mechanical  
 Max Horz 2=211(LC 12)  
 Max Uplift 2=-121(LC 12), 6=-100(LC 12)  
 Max Grav 2=595(LC 1), 6=545(LC 1)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-3=-895/163, 3-4=-294/137, 4-6=-525/120  
 BOT CHORD 2-8=-149/686, 7-8=-119/431  
 WEBS 3-8=-44/555, 4-7=-23/334, 3-7=-421/154

- 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 Exterior(2) -0-9-0 to 3-7-13, Interior(1) 3-7-13 to 8-4-0, Exterior(2) 8-4-0 to 12-8-13, Interior(1) 12-8-13 to 13-7-12 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 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 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.
  - Refer to girder(s) for truss to truss connections.
  - 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.
  - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=121, 6=100.

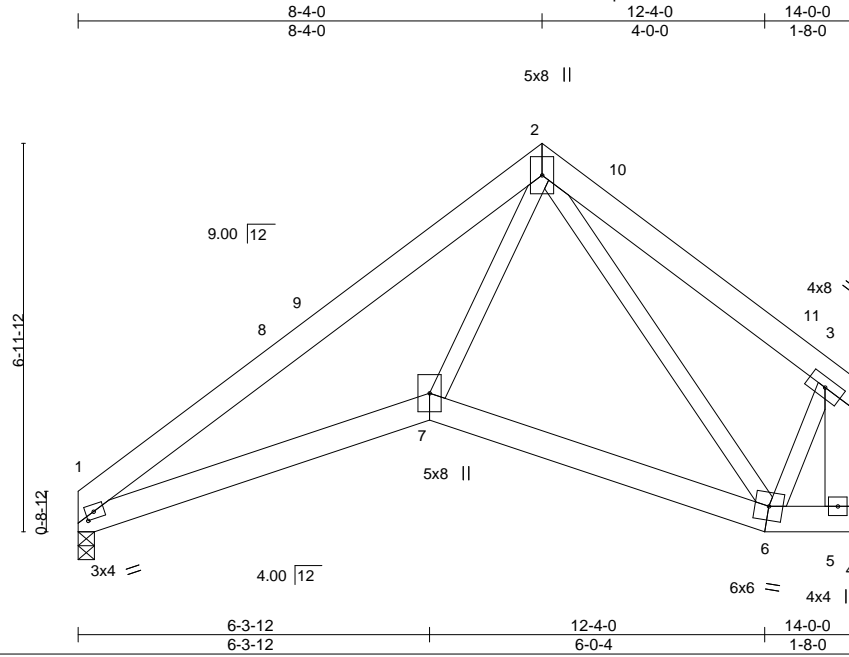


September 28,2020

Job	Truss	Truss Type	Qty	Ply	Wellco/Lot 91 Hidden Lakes/Harnett	E14912403
J0920-4399	C2	SCISSORS	5	1	Job Reference (optional)	

Comtech, Inc., Fayetteville, NC - 28314,

8.330 s Jul 22 2020 MiTek Industries, Inc. Mon Sep 28 08:03:45 2020 Page 1  
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Scale = 1:41.4

Plate Offsets (X,Y)-- [1:0-1-12,0-1-8]

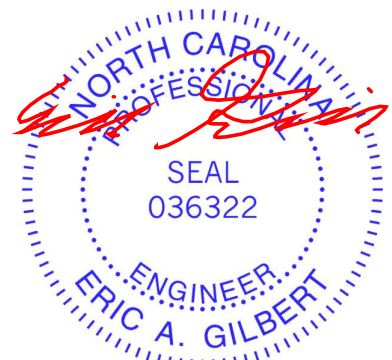
LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL 1.15	TC 0.34	Vert(LL) -0.02	1-7	>999	360	MT20	244/190
TCDL 10.0	Lumber DOL 1.15	BC 0.20	Vert(CT) -0.04	1-7	>999	240		
BCLL 0.0 *	Rep Stress Incr YES	WB 0.39	Horz(CT) 0.02	5	n/a	n/a		
BCDL 10.0	Code IRC2015/TPI2014	Matrix-S	Wind(LL) 0.02	1-7	>999	240	Weight: 103 lb	FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x6 SP No.1	TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.
BOT CHORD 2x6 SP No.1	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 2x4 SP No.2 *Except* 3-5: 2x6 SP No.1	

**REACTIONS.** (size) 1=0-3-8, 5=Mechanical  
 Max Horz 1=153(LC 9)  
 Max Uplift 1=-22(LC 12), 5=-26(LC 12)  
 Max Grav 1=540(LC 1), 5=547(LC 1)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 1-2=-890/152, 2-3=-293/137, 3-5=-528/121  
 BOT CHORD 1-7=-86/664, 6-7=-83/422  
 WEBS 2-7=0/555, 3-6=0/327, 2-6=-408/95

- 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) 0-1-12 to 4-6-9, Interior(1) 4-6-9 to 8-4-0, Exterior(2) 8-4-0 to 12-8-13, Interior(1) 12-8-13 to 13-7-12 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.
  - Refer to girder(s) for truss to truss connections.
  - Bearing at joint(s) 1 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, 5.



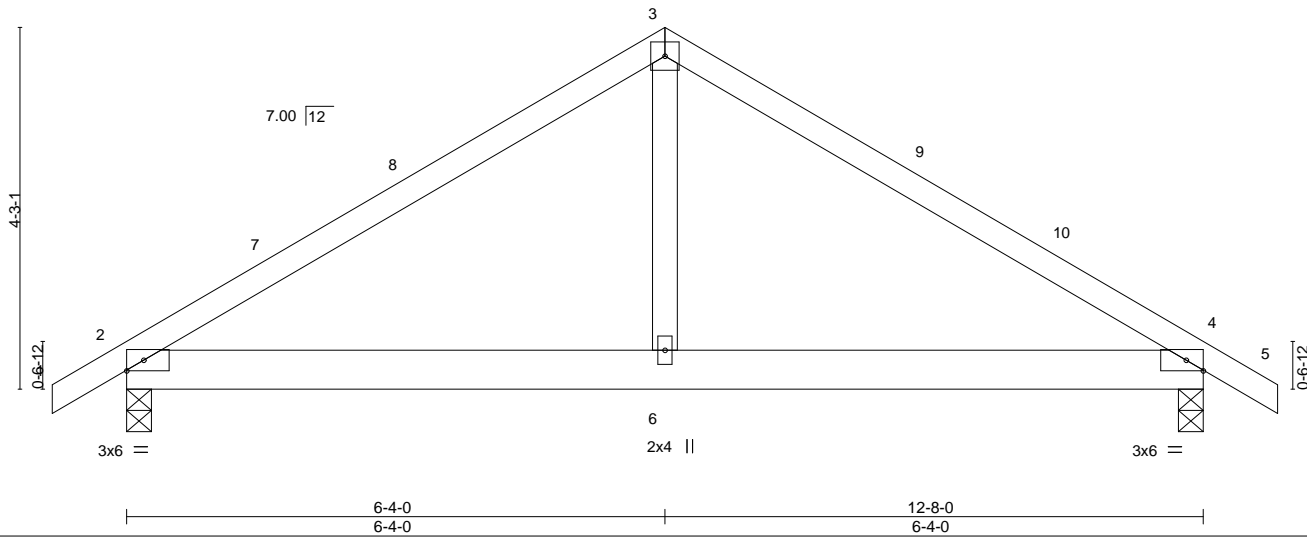
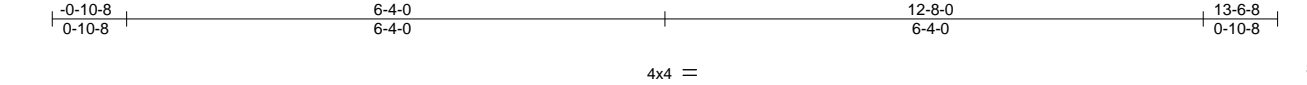
September 28, 2020

Job	Truss	Truss Type	Qty	Ply	Wellco/Lot 91 Hidden Lakes/Harnett	E14912404
J0920-4399	D1	COMMON	1	1		

Comtech, Inc., Fayetteville, NC - 28314,

8.330 s Jul 22 2020 MiTek Industries, Inc. Mon Sep 28 08:03:46 2020 Page 1

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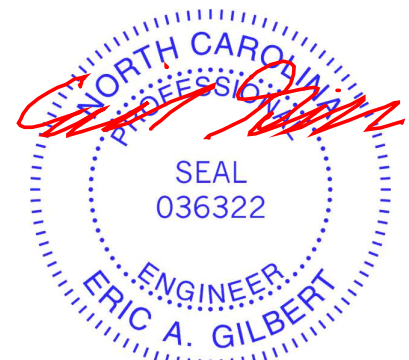
LOADING (psf)	SPACING-	CSI.	DEFL.	PLATES	GRIP
TCLL 20.0	2-0-0	TC 0.33	in (loc) l/defl L/d	MT20	244/190
TCDL 10.0	Plate Grip DOL 1.15	BC 0.18	Vert(LL) -0.01 2-6 >999 360		
BCLL 0.0 *	Lumber DOL 1.15	WB 0.07	Vert(CT) -0.03 2-6 >999 240		
BCDL 10.0	Rep Stress Incr YES	Matrix-S	Horz(CT) 0.01 4 n/a n/a	Weight: 60 lb	FT = 20%
	Code IRC2015/TPI2014		Wind(LL) 0.01 2-6 >999 240		

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

**REACTIONS.** (size) 2=0-3-8, 4=0-3-8  
 Max Horz 2=-101(LC 10)  
 Max Uplift 2=-42(LC 12), 4=-42(LC 13)  
 Max Grav 2=556(LC 1), 4=556(LC 1)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-3=-639/164, 3-4=-639/165  
 BOT CHORD 2-6=-16/455, 4-6=-16/455  
 WEBS 3-6=0/317

- 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=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 6-4-0, Exterior(2) 6-4-0 to 10-8-13, Interior(1) 10-8-13 to 13-6-8 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 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.
  - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 4.



September 28, 2020

Job	Truss	Truss Type	Qty	Ply	Wellco/Lot 91 Hidden Lakes/Harnett	E14912405
J0920-4399	D1GE	GABLE	1	1	Job Reference (optional)	

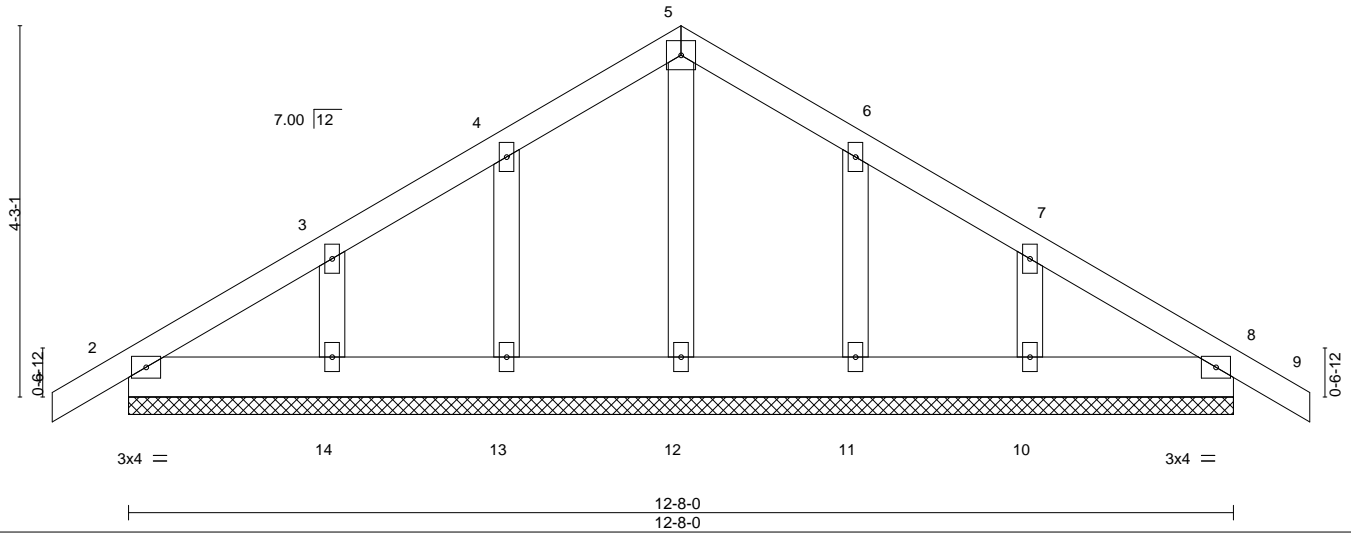
Comtech, Inc., Fayetteville, NC - 28314,

8.330 s Jul 22 2020 MiTek Industries, Inc. Mon Sep 28 08:03:48 2020 Page 1  
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4x4 =

Scale = 1:26.4



<b>LOADING</b> (psf)	<b>SPACING-</b>	2-0-0	<b>CSI.</b>	<b>DEFL.</b>	in	(loc)	l/defl	L/d	<b>PLATES</b>	<b>GRIP</b>
TCLL 20.0	Plate Grip DOL	1.15	TC 0.04	Vert(LL)	-0.00	8	n/r	120	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.02	Vert(CT)	-0.00	8	n/r	120		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.02	Horz(CT)	0.00	8	n/a	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-S						Weight: 71 lb	FT = 20%

**LUMBER-**

TOP CHORD 2x4 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 12-8-0.  
 (lb) - Max Horz 2=126(LC 10)  
 Max Uplift All uplift 100 lb or less at joint(s) 2, 8, 13, 14, 11, 10  
 Max Grav All reactions 250 lb or less at joint(s) 2, 8, 12, 13, 14, 11, 10

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

**NOTES-**

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-10; Vult=130mph (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) -0-10-8 to 3-6-5, Exterior(2) 3-6-5 to 6-4-0, Corner(3) 6-4-0 to 10-8-13, Exterior(2) 10-8-13 to 13-6-8 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 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.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 8, 13, 14, 11, 10.



September 28, 2020

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818 Soundside Road  
 Edenton, NC 27932





Job	Truss	Truss Type	Qty	Ply	Wellco/Lot 91 Hidden Lakes/Harnett	E14912406
J0920-4399	D2GDR	COMMON	1	<b>2</b>	Job Reference (optional)	

Comtech, Inc., Fayetteville, NC - 28314,

8.330 s Jul 22 2020 MiTek Industries, Inc. Mon Sep 28 08:03:50 2020 Page 2  
 ID:l2dlSWmc?rsKCp8e01L4?Rzx8kL-0XFE6EOaXjPpfNnB\_iNHjRJR7r68Qr7rF4J2syZ9j7

**LOAD CASE(S)** Standard  
 Concentrated Loads (lb)  
 Vert: 5=-738(F) 6=-738(F) 7=-738(F) 8=-738(F) 9=-738(F) 10=-744(F)

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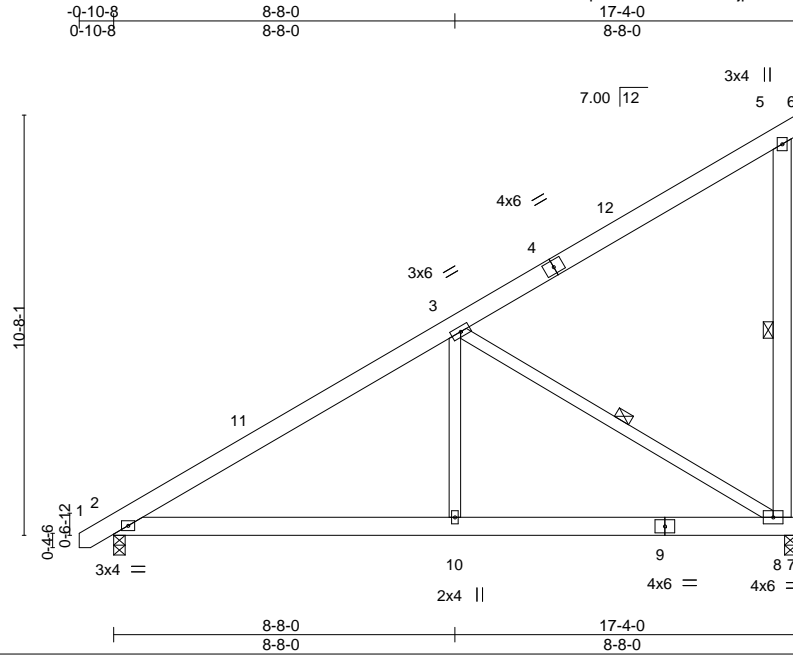


818 Soundside Road  
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Job	Truss	Truss Type	Qty	Ply	Wellco/Lot 91 Hidden Lakes/Harnett	E14912407
J0920-4399	M1	MONOPITCH	4	1		

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8.330 s Jul 22 2020 MiTek Industries, Inc. Mon Sep 28 08:03:51 2020 Page 1  
 ID:l2dlSWmc?rsKcP8e01L4?Rzx8kL-UjpdJaPC11XgHXMNYPpcqw\_V8XDutrFG3vqsaJyZ9j6



Scale = 1:58.5

<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 0.32	in (loc) l/defl L/d	MT20	244/190
TCDL 10.0	Plate Grip DOL 1.15	BC 0.25	Vert(LL) -0.03 2-10 >999 360		
BCLL 0.0 *	Lumber DOL 1.15	WB 0.36	Vert(CT) -0.07 2-10 >999 240		
BCDL 10.0	Rep Stress Incr YES	Matrix-S	Horz(CT) 0.01 8 n/a n/a		
	Code IRC2015/TPI2014		Wind(LL) 0.03 2-10 >999 240	Weight: 133 lb	FT = 20%

**LUMBER-**

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

**BRACING-**

TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.  
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.  
 WEBS 1 Row at midpt 5-8, 3-8

**REACTIONS.**

(size) 8=0-3-8, 2=0-3-8  
 Max Horz 2=340(LC 12)  
 Max Uplift 8=172(LC 12)  
 Max Grav 8=740(LC 19), 2=727(LC 1)

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

TOP CHORD 2-3=-893/0  
 BOT CHORD 2-10=-229/760, 8-10=-229/760  
 WEBS 3-10=0/396, 3-8=-871/261

**NOTES-**

- 1) 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) -0-8-13 to 3-8-0, Interior(1) 3-8-0 to 17-4-0 zone;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 3) \* This truss has been designed for a live load of 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.
- 4) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 8=172.



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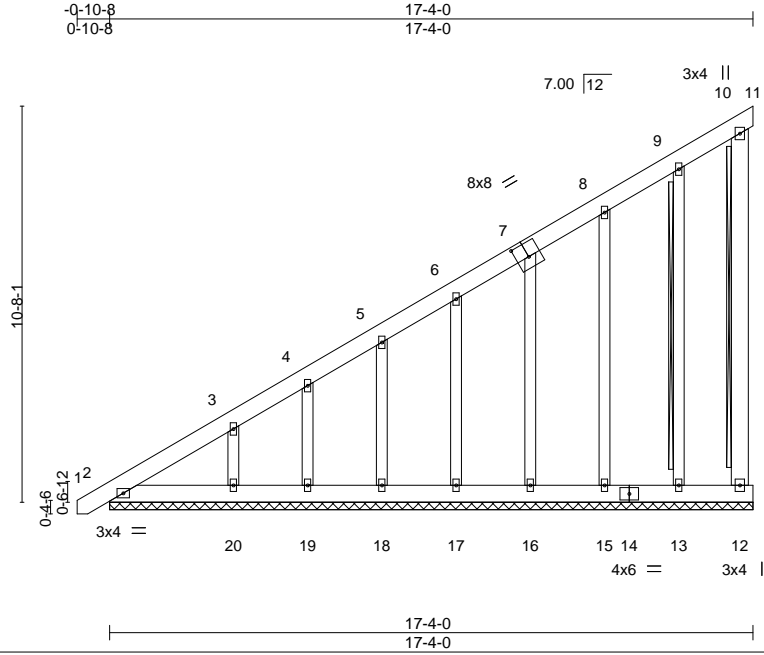
818 Soundside Road  
 Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Wellco/Lot 91 Hidden Lakes/Harnett	E14912408
J0920-4399	M1GE	GABLE	1	1	Job Reference (optional)	

Comtech, Inc., Fayetteville, NC - 28314,

8.330 s Jul 22 2020 MiTek Industries, Inc. Mon Sep 28 08:03:51 2020 Page 1

ID:l2dlSWmc?rsKCp8e01L4?Rzx8kL-UjpdJaPC1XgHXMNYPpcqw\_Z4XGRtuWG3vqsaJyZ9j6



Scale = 1:62.1

Plate Offsets (X,Y)-- [7:0-4-0,0-4-8]

LOADING (psf)	SPACING-	CSL.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL 1.15	TC 0.06	Vert(LL) -0.00	1	n/r	120	MT20	244/190
TCDL 10.0	Lumber DOL 1.15	BC 0.03	Vert(CT) 0.00	1	n/r	120		
BCLL 0.0 *	Rep Stress Incr YES	WB 0.15	Horz(CT) -0.01	11	n/a	n/a		
BCDL 10.0	Code IRC2015/TPI2014	Matrix-S						
							Weight: 166 lb	FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x6 SP No.1	TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.
BOT CHORD 2x6 SP No.1	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 2x6 SP No.1	WEBS T-Brace: 2x4 SPF No.2 - 10-12, 9-13
OTHERS 2x4 SP No.2	Fasten (2X) T and I braces to narrow edge of web with 10d (0.131"x3") nails, 6in o.c., with 3in minimum end distance.
	Brace must cover 90% of web length.

**REACTIONS.** All bearings 17-4-0.  
 (lb) - Max Horz 2=491(LC 12)  
 Max Uplift All uplift 100 lb or less at joint(s) 11, 12, 13, 15, 16, 17, 18, 19 except 20=133(LC 12)  
 Max Grav All reactions 250 lb or less at joint(s) 11, 12, 2, 13, 15, 16, 17, 18, 19 except 20=285(LC 19)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-3=-509/411, 3-4=-407/317, 4-5=-351/279, 5-6=-286/227

**NOTES-**

- 1) 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) 0-8-13 to 3-8-0, Exterior(2) 3-8-0 to 17-4-0 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) All plates are 2x4 MT20 unless otherwise indicated.
- 4) Gable requires continuous bottom chord bearing.
- 5) Gable studs spaced at 2-0-0 oc.
- 6) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 7) \* This truss has been designed for a live load of 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.
- 8) Bearing at joint(s) 11 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- 9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 11, 12, 13, 15, 16, 17, 18, 19 except (jt=lb) 20=133.
- 10) Warning: Additional permanent and stability bracing for truss system (not part of this component design) is always required.



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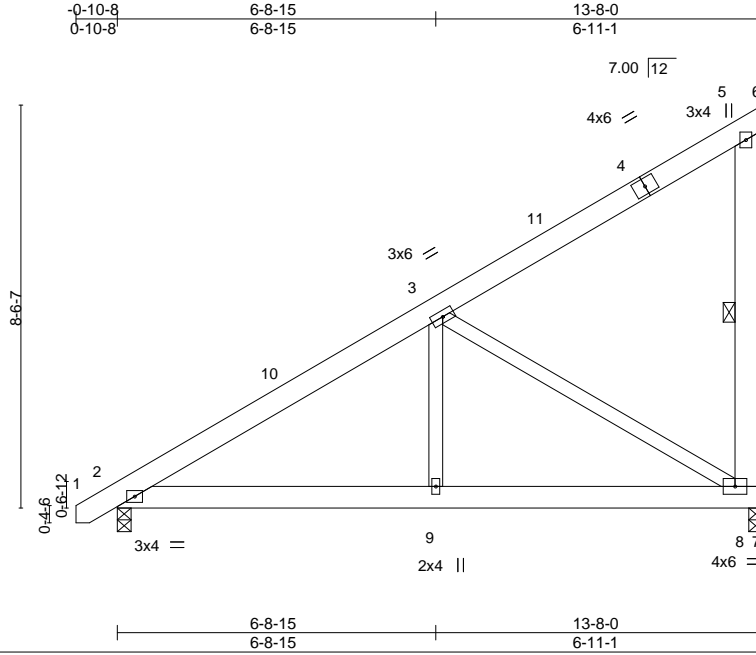


818 Soundside Road  
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Job	Truss	Truss Type	Qty	Ply	Wellco/Lot 91 Hidden Lakes/Harnett	E14912409
J0920-4399	M2	MONOPITCH	7	1		

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8.330 s Jul 22 2020 MiTek Industries, Inc. Mon Sep 28 08:03:52 2020 Page 1  
 ID:l2dlSWmc?rsKcP8e01L4?Rzx8kL-ywN?WwQq3KfXuhxa57KrN8WivxadcDoQlZZP7lyZ9j5



Scale = 1:48.8

<b>LOADING</b> (psf)	<b>SPACING-</b>	<b>CSI.</b>	<b>DEFL.</b>	in	(loc)	l/defl	L/d	<b>PLATES</b>	<b>GRIP</b>
TCLL 20.0	2-0-0	TC 0.19	Vert(LL) -0.01	2-9	>999	360		MT20	244/190
TCDL 10.0	Plate Grip DOL 1.15	BC 0.16	Vert(CT) -0.03	2-9	>999	240			
BCLL 0.0 *	Lumber DOL 1.15	WB 0.66	Horz(CT) 0.01	8	n/a	n/a			
BCDL 10.0	Rep Stress Incr YES	Matrix-S	Wind(LL) 0.01	2-9	>999	240			
	Code IRC2015/TPI2014							Weight: 105 lb	FT = 20%

**LUMBER-**

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

**BRACING-**

TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.  
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.  
 WEBS 1 Row at midpt 5-8

**REACTIONS.**

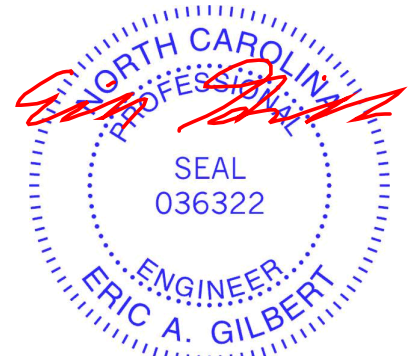
(size) 8=0-3-8, 2=0-3-8  
 Max Horz 2=270(LC 12)  
 Max Uplift 8=-136(LC 12)  
 Max Grav 8=585(LC 19), 2=581(LC 1)

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

TOP CHORD 2-3=-694/0  
 BOT CHORD 2-9=-198/599, 8-9=-198/599  
 WEBS 3-9=0/306, 3-8=-683/224

**NOTES-**

- 1) 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) -0-8-13 to 3-8-0, Interior(1) 3-8-0 to 13-8-0 zone;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 3) \* This truss has been designed for a live load of 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.
- 4) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 8=136.



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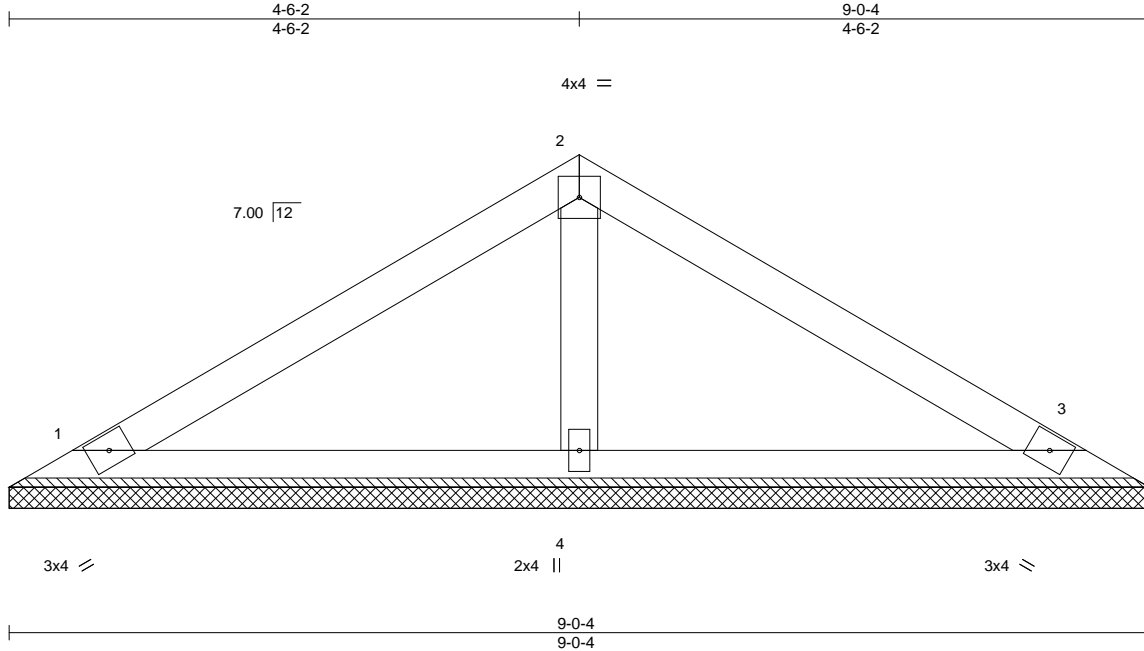


818 Soundside Road  
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Job	Truss	Truss Type	Qty	Ply	Wellco/Lot 91 Hidden Lakes/Harnett	E14912410
J0920-4399	VD1	VALLEY	1	1		

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8.330 s Jul 22 2020 MiTek Industries, Inc. Mon Sep 28 08:03:53 2020 Page 1  
ID:I2dlSWmc?rsKcP8e01L4?Rzx8kL-Q6wNkGQsqenOWrVmfqr4vL3t4LxVLqxZXDJzfByZ9j4



LOADING (psf)	SPACING-	CSI.	DEFL.	PLATES	GRIP
TCLL 20.0	2-0-0	TC 0.16	in (loc) l/defl L/d	MT20	244/190
TCDL 10.0	Plate Grip DOL 1.15	BC 0.12	Vert(LL) n/a - n/a 999		
BCLL 0.0 *	Lumber DOL 1.15	WB 0.03	Vert(CT) n/a - n/a 999		
BCDL 10.0	Rep Stress Incr YES	Matrix-S	Horz(CT) 0.00 3 n/a n/a		
	Code IRC2015/TPI2014			Weight: 30 lb	FT = 20%

**LUMBER-**

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

**BRACING-**

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

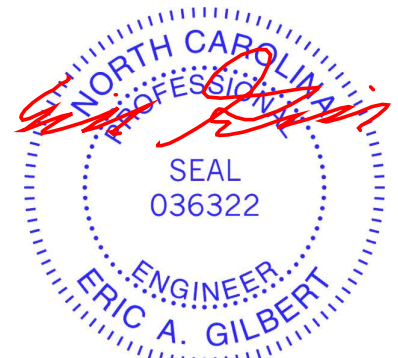
**REACTIONS.**

(size) 1=9-0-4, 3=9-0-4, 4=9-0-4  
Max Horz 1=-56(LC 8)  
Max Uplift 1=-20(LC 12), 3=-25(LC 13)  
Max Grav 1=151(LC 1), 3=151(LC 1), 4=333(LC 1)

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

**NOTES-**

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-10; Vult=130mph (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) zone;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 3) Gable requires continuous bottom chord bearing.
- 4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 5) \* This truss has been designed for a live load of 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.
- 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 3.



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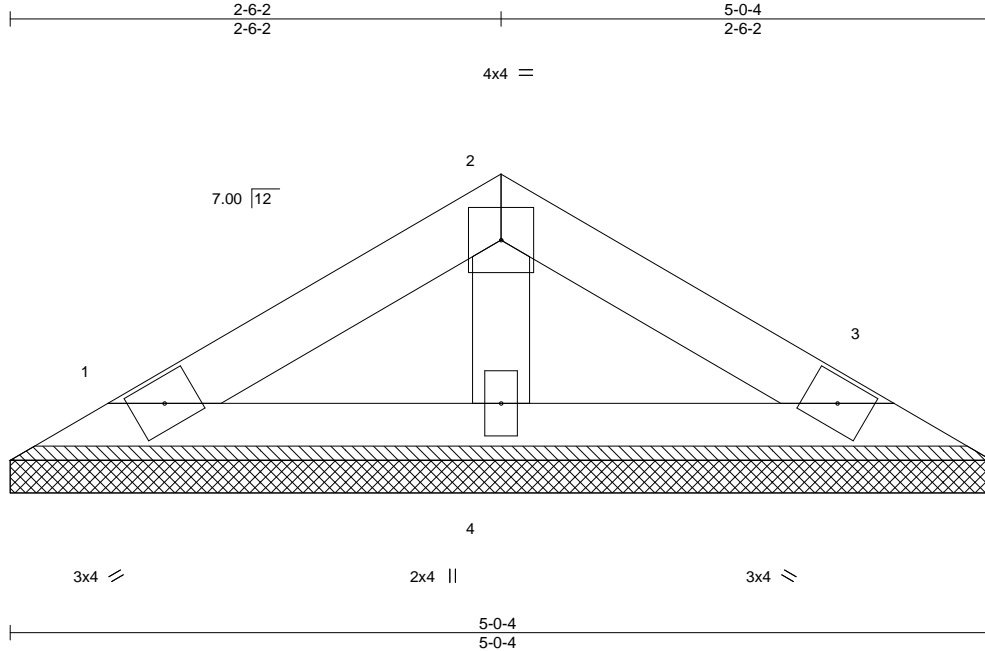
ENGINEERING BY  
**TRENCO**  
A MiTek Affiliate

818 Soundside Road  
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Wellco/Lot 91 Hidden Lakes/Harnett	E14912411
J0920-4399	VD2	VALLEY	1	1	Job Reference (optional)	

Comtech, Inc., Fayetteville, NC - 28314,

8.330 s Jul 22 2020 MiTek Industries, Inc. Mon Sep 28 08:03:54 2020 Page 1  
ID:l2dlSWmc?rsKCP8e01L4?Rzx8kL-ulUxcR5ayvF8\_4yDXMJSZc4ZkH44HUimt2WBdyZ9j3



Scale = 1:11.8

LOADING (psf)	SPACING-	CSI.	DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	2-0-0	TC 0.05	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL 10.0	Plate Grip DOL 1.15	BC 0.03	Vert(CT)	n/a	-	n/a	999		
BCLL 0.0 *	Lumber DOL 1.15	WB 0.01	Horz(CT)	0.00	3	n/a	n/a		
BCDL 10.0	Rep Stress Incr YES	Matrix-P						Weight: 16 lb	FT = 20%
	Code IRC2015/TPI2014								

**LUMBER-**

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

**BRACING-**

TOP CHORD Structural wood sheathing directly applied or 5-0-4 oc purlins.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

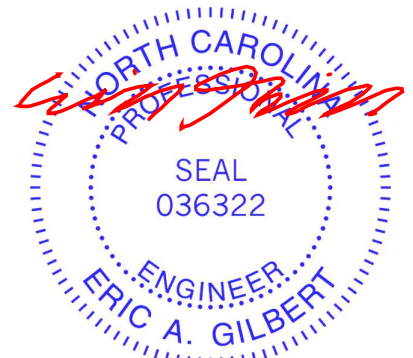
**REACTIONS.**

(size) 1=5-0-4, 3=5-0-4, 4=5-0-4  
Max Horz 1=-28(LC 8)  
Max Uplift 1=-13(LC 12), 3=-16(LC 13)  
Max Grav 1=83(LC 1), 3=83(LC 1), 4=150(LC 1)

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

**NOTES-**

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-10; Vult=130mph (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) zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- Gable requires continuous bottom chord bearing.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- \* This truss has been designed for a live load of 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.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 3.



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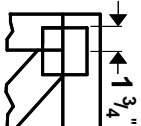
Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall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



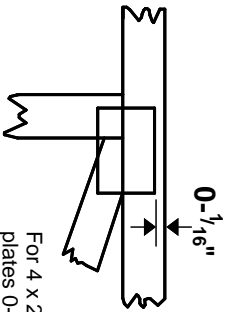
818 Soundside Road  
Edenton, NC 27932

# 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



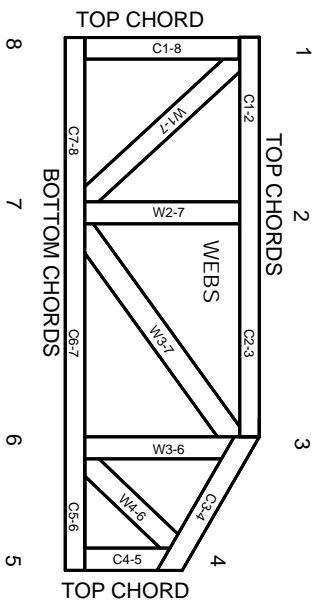
Indicates location where bearings (supports) occur. Icons vary but reaction section indicates joint number where bearings occur. Min size shown is for crushing only.

## 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  
BCSI: 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: Mill-7473 rev. 5/19/2020



# General Safety Notes

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

1. Additional stability bracing for truss system, e.g. diagonal or X-bracing, is always required. See BCSI.
2. Truss bracing must be designed by an engineer. For wide truss spacing, individual lateral braces themselves may require bracing, or alternative T or 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.