

Trenco 818 Soundside Rd Edenton, NC 27932

Re: J0723-3608 Lot 6 Micro Tower

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: I59594291 thru I59594307

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

North Carolina COA: C-0844



July 19,2023

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.



LOADING (psf) TCLL 20.0 TCDL 10.0 BCLL 0.0 * BCDL 10.0	SPACING-2-0-0Plate Grip DOL1.15Lumber DOL1.15Rep Stress IncrYESCode IRC2015/TPI2014	CSI. TC 0.03 BC 0.02 WB 0.13 Matrix-S	DEFL. in Vert(LL) -0.00 Vert(CT) 0.00 Horz(CT) 0.00	(loc) 1 1 15	l/defl n/r n/r n/a	L/d 120 120 n/a	PLATES GRIP MT20 244/190 Weight: 200 lb FT = 20%
I UMBER-			BRACING-				

TOP CHORD

BOT CHORD

LUMBER-

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

REACTIONS. All bearings 25-11-0.

Max Horz 2=236(LC 9) (lb) -

Max Uplift All uplift 100 lb or less at joint(s) 2, 23, 24, 25, 26, 20, 19, 18, 17 except 27=-114(LC 12), 16=-120(LC 13)

All reactions 250 lb or less at joint(s) 15, 2, 22, 23, 24, 25, 26, 20, 19, 18, 17 except 27=254(LC Max Grav 19), 16=263(LC 20)

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

NOTES-

1) Unbalanced roof live loads have been considered for this design.

2) Wind: ASCE 7-10; Vult=130mph Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60

3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.

4) All plates are 2x4 MT20 unless otherwise indicated.

5) Gable requires continuous bottom chord bearing. 6) Gable studs spaced at 2-0-0 oc.

7) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.

8) * This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.

9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 23, 24, 25, 26, 20, 19, 18, 17 except (jt=lb) 27=114, 16=120.



Structural wood sheathing directly applied or 6-0-0 oc purlins.

Rigid ceiling directly applied or 10-0-0 oc bracing.











BOT CHORD

2-12=-173/1466, 10-12=-11/956, 8-10=-183/1322

WEBS 5-10=-123/701, 7-10=-416/240, 5-12=-123/701, 3-12=-416/240

NOTES-

1) Unbalanced roof live loads have been considered for this design.

2) Wind: ASCE 7-10; Vult=130mph Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2) -0-9-5 to 3-7-8, Interior(1) 3-7-8 to 12-11-8, Exterior(2) 12-11-8 to 17-4-5, Interior(1) 17-4-5 to 26-8-5 zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60

3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.

4) * This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.

5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 8.







9) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 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

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		10-11-8			16-11-0		
		10-11-0			3-11-0		
LOADING (psf)	SPACING- 2-0-0	CSI.	DEFL. in	(loc) l/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL 1.15	TC 0.25	Vert(LL) -0.05	12 >999	360	MT20	244/190
TCDL 10.0	Lumber DOL 1.15	BC 0.24	Vert(CT) -0.10 1	0-12 >999	240		
BCLL 0.0 *	Rep Stress Incr YES	WB 0.34	Horz(CT) -0.01	2 n/a	n/a		
BCDL 10.0	Code IRC2015/TPI2014	Matrix-S	Wind(LL) 0.06	13 >999	240	Weight: 124 lb	FT = 20%

LUMBER-

TOP CHORD	2x6 SP No.1
BOT CHORD	2x6 SP No.1
WEBS	2x4 SP No.2 *Except
	7-12: 2x6 SP No.1

REACTIONS. (size) 2=0-3-8, 8=0-3-8 Max Horz 8=-161(LC 10) Max Uplift 2=-159(LC 12), 8=-159(LC 13) Max Grav 2=720(LC 1), 8=720(LC 1)

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

TOP CHORD 6-7=-753/297, 7-8=-945/236, 2-3=-819/149, 3-4=-826/210, 4-5=-674/227, 5-6=-762/292

BOT CHORD 2-14=-58/640, 13-14=-58/640, 12-13=-58/640, 10-12=-133/745, 8-10=-133/745

WEBS 7-15=-259/139, 6-15=-160/412, 7-10=0/304, 4-13=-16/258

NOTES-

1) Unbalanced roof live loads have been considered for this design.

2) Wind: ASCE 7-10; Vult=130mph Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60

3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.

4) * This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.

5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=159, 8=159.



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BRACING-TOP CHORD BOT CHORD JOINTS

Structural wood sheathing directly applied or 6-0-0 oc purlins. Rigid ceiling directly applied or 10-0-0 oc bracing. 1 Brace at Jt(s): 15









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Job	Truss	Truss Type	Qty	Ply	Lot 6 Micro Tower	
						159594297
J0723-3608	B3-GR	COMMON	1	2		
				-	Job Reference (optional)	
Comtech, Inc, Fayette	ville, NC - 28314,			8.430 s Ja	in 6 2022 MiTek Industries, Inc. Tue Jul 18 10:25:31 2023	Page 2

ID:jLOY8p0mDeACOkwS76gWG8zLvcz-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

LOAD CASE(S) Standard

Concentrated Loads (lb) Vert: 7=-1007(B) 8=-1007(B) 9=-1007(B) 10=-1007(B) 11=-1007(B) 12=-1007(B)





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

NOTES-

1) Unbalanced roof live loads have been considered for this design.

2) Wind: ASCE 7-10; Vult=130mph Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60

3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.

- 4) All plates are 2x4 MT20 unless otherwise indicated.
- 5) Gable requires continuous bottom chord bearing.
- 6) Gable studs spaced at 2-0-0 oc.
- 7) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.

8) * This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.

9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 8, 13, 14, 11, 10.

10) Beveled plate or shim required to provide full bearing surface with truss chord at joint(s) 2.







members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60

3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.

4) * This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.

5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 4.







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BRACING-TOP CHORD

BOT CHORD

LL	JM	BE	ER-
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TOP CHORD2x6 SP No.1BOT CHORD2x6 SP No.1OTHERS2x4 SP No.2

REACTIONS. All bearings 21-11-0.

(lb) - Max Horz 2=-205(LC 10)

Max Uplift All uplift 100 lb or less at joint(s) 2, 20, 21, 22, 17, 16, 15 except 23=-113(LC 12), 14=-112(LC 13) Max Grav All reactions 250 lb or less at joint(s) 2, 19, 20, 21, 22, 17, 16, 15, 12 except 23=253(LC 19), 14=252(LC 20)

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

NOTES-

1) Unbalanced roof live loads have been considered for this design.

2) Wind: ASCE 7-10; Vult=130mph Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Corner(3) -0-9-5 to 3-7-8, Exterior(2) 3-7-8 to 10-11-8, Corner(3) 10-11-8 to 15-4-5, Exterior(2) 15-4-5 to 22-8-5 zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60

- 3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- All plates are 2x4 MT20 unless otherwise indicated.
- 5) Gable requires continuous bottom chord bearing.
- 6) Gable studs spaced at 2-0-0 oc.

7) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.

8) * This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.

 Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 20, 21, 22, 17, 16, 15 except (jt=lb) 23=113, 14=112.



Structural wood sheathing directly applied or 6-0-0 oc purlins.

Rigid ceiling directly applied or 10-0-0 oc bracing.











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July 19,2023



REACTIONS. (size) 1=8-11-0, 3=8-11-0, 4=8-11-0 Max Horz 1=-56(LC 8) Max Uplift 1=-27(LC 12), 3=-32(LC 13) Max Grav 1=166(LC 1), 3=166(LC 1), 4=299(LC 1)

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

NOTES-

1) Unbalanced roof live loads have been considered for this design.

2) Wind: ASCE 7-10; Vult=130mph Vasd=103mph; 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 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.

6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 3.





Horz(CT)

BRACING-

TOP CHORD

BOT CHORD

0.00

3

n/a

n/a

Structural wood sheathing directly applied or 5-0-4 oc purlins.

Rigid ceiling directly applied or 10-0-0 oc bracing.

Weight: 15 lb

FT = 20%

N	0	тΕ	C.
1.1	•••		

BCLL

BCDL

LUMBER-TOP CHORD

OTHERS

BOT CHORD

REACTIONS.

0.0

10.0

2x4 SP No.1

2x4 SP No.1

2x4 SP No.2

(size) 1=4-11-0, 3= Max Horz 1=-28(LC 8)

1) Unbalanced roof live loads have been considered for this design.

Max Uplift 1=-13(LC 12), 3=-16(LC 13) Max Grav 1=82(LC 1), 3=82(LC 1), 4=148(LC 1) FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.

Rep Stress Incr

Code IRC2015/TPI2014

1=4-11-0, 3=4-11-0, 4=4-11-0

2) Wind: ASCE 7-10; Vult=130mph Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope)

WB

Matrix-P

0.01

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.

YES

5) * This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.

6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 3.







LUMBER-

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

TOP CHORD BOT CHORD

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

REACTIONS. 1=7-11-0, 3=7-11-0, 4=7-11-0 (size) Max Horz 1=49(LC 9) Max Uplift 1=-23(LC 12), 3=-28(LC 13) Max Grav 1=145(LC 1), 3=145(LC 1), 4=261(LC 1)

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

NOTES-

1) Unbalanced roof live loads have been considered for this design.

2) Wind: ASCE 7-10; Vult=130mph Vasd=103mph; 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 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.

6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 3.







2x4 💋

2x4 📎

Structural wood sheathing directly applied or 4-0-4 oc purlins.

Rigid ceiling directly applied or 10-0-0 oc bracing.

		<u> </u>						<u> </u>			
Plate Offsets (X,Y)	[2:0-2-0,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	0.03	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC	0.07	Vert(CT)	n/a	-	n/a	999		
BCLL 0.0 *	Rep Stress Incr	YES	WB	0.00	Horz(CT)	0.00	3	n/a	n/a		
BCDL 10.0	Code IRC2015/T	PI2014	Matri	x-P						Weight: 11 lb	FT = 20%

TOP CHORD

BOT CHORD

LUMBER-

TOP CHORD2x4 SP No.1BOT CHORD2x4 SP No.1

REACTIONS. (size) 1=3-11-0, 3=3-11-0 Max Horz 1=-21(LC 8) Max Uplift 1=-7(LC 12), 3=-7(LC 13) Max Grav 1=116(LC 1), 3=116(LC 1)

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

NOTES-

1) Unbalanced roof live loads have been considered for this design.

2) Wind: ASCE 7-10; Vult=130mph Vasd=103mph; 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 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.

6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 3.





