

# Mark Morris, P.E.

#126, 1317-M, Summerville, SC 29483

843 209-5784, Fax (866)-213-4614

The truss drawing(s) listed below have been prepared by **Atlantic Building Components** under my direct supervision based on the parameters provided by the truss designers.

AST #: 49410

JOB: 24-5028-R01

JOB NAME: LOT 10 PROVIDENCE CREEK

Wind Code: ASCE7-16

Wind Speed: Vult= 120mph

Exposure Category: B

Mean Roof Height (feet): 35

These truss designs comply with IRC 2015 as well as IRC 2018.

*12 Truss Design(s)*

Trusses:

M01, M02, M03, P02, R01, R02, R03, R04, R05, R06, R07, R08



**6/5/2024**

**Mark Morris**

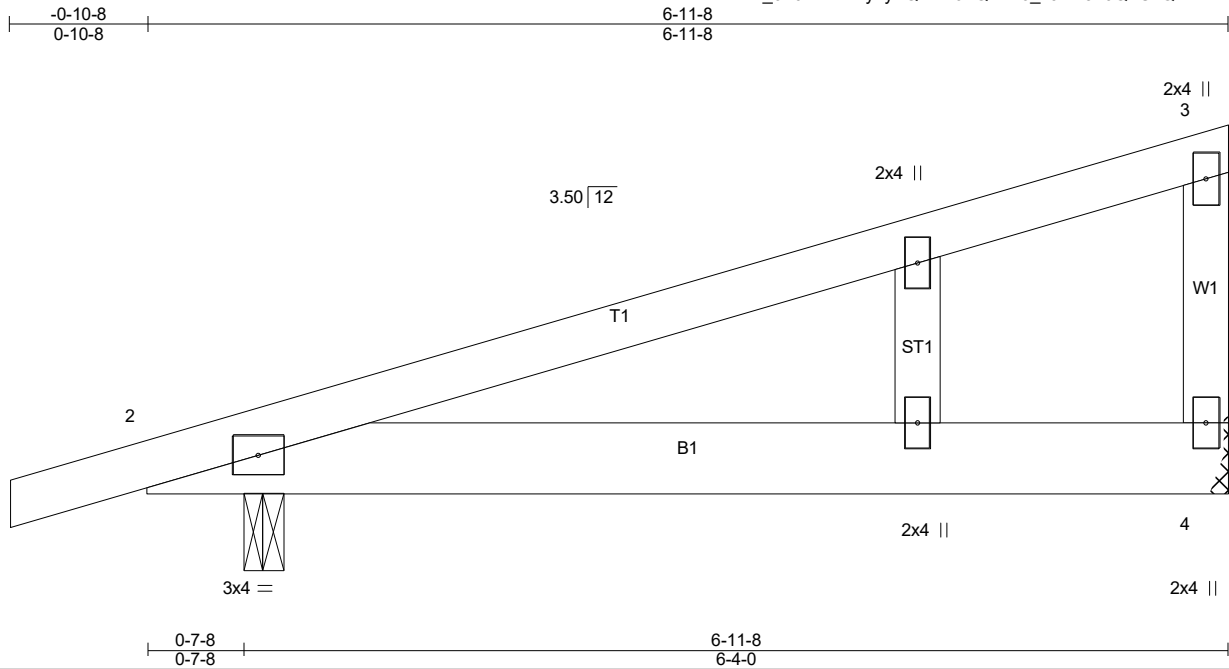
***Warning !—Verify design parameters and read notes before use.***

This design is based only upon parameters shown, and is for an individual building component to be installed and loaded vertically. Applicability of design parameters and proper incorporation of component is responsibility of building designer – not truss designer or truss engineer. Bracing shown is for lateral support of individual web members only. Additional temporary bracing to ensure stability during construction is the responsibility of the erector. Additional permanent bracing of the overall structure is the responsibility of the building designer. For general guidance regarding fabrication, quality control, storage, delivery, erection and bracing, consult ANSI/TPI 1 *National Design Standard for Metal Plate Connected Wood Truss Construction* and BCSI 1-03 Guide to *Good Practice for Handling, Installing & Bracing of Metal Plate Connected Wood Trusses* from Truss Plate Institute, 583 D'Onofrio Drive, Madison, WI

Job	Truss	Truss Type	Qty	Ply	LOT 10 PROVIDENCE CREEK   233 PROVIDENCE CREEK DRIVE FUQUAY-VAR
24-5028-R01	M01	STR-GABLE	1	1	

Job Reference (optional) # 49410

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Scale = 1:14.8

<b>LOADING</b> (psf)	<b>SPACING-</b>	<b>CSI.</b>	<b>DEFL.</b>	<b>PLATES</b>	<b>GRIP</b>
TCLL (roof) 20.0	2-0-0	TC 0.93	in (loc) l/defl L/d	MT20	244/190
Snow (Pf) 20.0	Plate Grip DOL 1.15	BC 0.84	Vert(LL) 0.08 2-4 >992 240		
TCDL 10.0	Lumber DOL 1.15	WB 0.00	Vert(CT) 0.07 2-4 >999 180		
BCLL 0.0 *	Rep Stress Incr YES	Matrix-P	Horz(CT) 0.00 n/a n/a		
BCDL 10.0	Code IRC2021/TPI2014			Weight: 33 lb	FT = 20%

**LUMBER-**  
 TOP CHORD 2x4 SP No.1  
 BOT CHORD 2x6 SP No.2  
 WEBS 2x4 SP No.3  
 OTHERS 2x4 SP No.3

**BRACING-**  
 TOP CHORD Structural wood sheathing directly applied or 2-2-0 oc purlins, except end verticals.  
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.  
 MiTek recommends that Stabilizers and required cross bracing be installed during truss erection, in accordance with Stabilizer Installation guide.

**REACTIONS.** (lb/size) 4=263/Mechanical, 2=332/0-3-0 (min. 0-1-8)  
 Max Horz 2=80(LC 10)  
 Max Uplift 4=-110(LC 10), 2=-132(LC 10)  
 Max Grav 4=348(LC 21), 2=417(LC 21)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 3-4=-281/192

**NOTES-** (11)

- 1) Wind: ASCE 7-16; Vult=120mph (3-second gust) Vasd=95mph; TCDL=5.0psf; BCDL=5.0psf; h=35ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) zone; cantilever left exposed; 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) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
- 4) Unbalanced snow loads have been considered for this design.
- 5) This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 20.0 psf on overhangs non-concurrent with other live loads.
- 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 1-0-0 wide will fit between the bottom chord and any other members.
- 9) Refer to girder(s) for truss to truss connections.
- 10) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 110 lb uplift at joint 4 and 132 lb uplift at joint 2.

**LOAD CASE(S)** Standard



6/5/2024

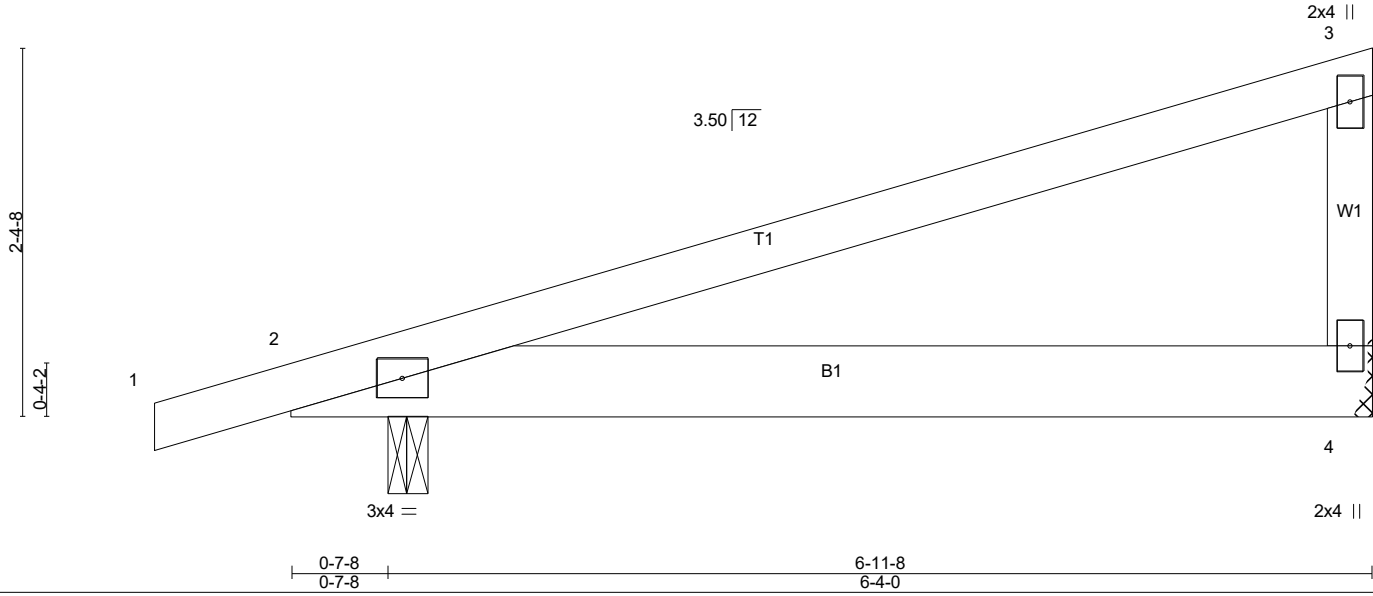
**Warning!**—Verify design parameters and read notes before use. This design is based only upon parameters shown, and is for an individual building component to be installed and loaded vertically. Applicability of design parameters and proper incorporation of component is responsibility of building designer – not truss designer or truss engineer. Bracing shown is for lateral support of individual web members only. Additional temporary bracing to ensure stability during construction is the responsibility of the erector. Additional permanent bracing of the overall structure is the responsibility of the building designer. For general guidance regarding fabrication, quality control, storage, delivery, erection and bracing, consult ANSI/TPI 1 *National Design Standard for Metal Plate Connected Wood Truss Construction* and BCSI 1-03 Guide to *Good Practice for Handling, Installing & Bracing of Metal Plate Connected Wood Trusses* from Truss Plate Institute, 583 D'Onofrio Drive, Madison, WI 53719.

Job	Truss	Truss Type	Qty	Ply	LOT 10 PROVIDENCE CREEK   233 PROVIDENCE CREEK DRIVE FUQUAY-VAR
24-5028-R01	M02	MONOPITCH	8	1	
Job Reference (optional)					# 49410

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Scale = 1:14.8



<b>LOADING</b> (psf)	<b>SPACING-</b>	<b>CSI.</b>	<b>DEFL.</b>	<b>PLATES</b>	<b>GRIP</b>
TCLL (roof) 20.0	2-0-0	TC 0.93	in (loc) l/defl L/d	MT20	244/190
Snow (Pf) 20.0	Plate Grip DOL 1.15	BC 0.84	Vert(LL) 0.08 2-4 >992 240		
TCDL 10.0	Lumber DOL 1.15	WB 0.00	Vert(CT) 0.07 2-4 >999 180		
BCLL 0.0 *	Rep Stress Incr YES	Matrix-P	Horz(CT) 0.00 n/a n/a		
BCDL 10.0	Code IRC2021/TPI2014			Weight: 31 lb	FT = 20%

**LUMBER-**  
 TOP CHORD 2x4 SP No.1  
 BOT CHORD 2x6 SP No.2  
 WEBS 2x4 SP No.3

**BRACING-**  
 TOP CHORD Structural wood sheathing directly applied or 2-2-0 oc purlins, except end verticals.  
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.  
 MiTek recommends that Stabilizers and required cross bracing be installed during truss erection, in accordance with Stabilizer Installation guide.

**REACTIONS.** (lb/size) 4=263/Mechanical, 2=332/0-3-0 (min. 0-1-8)  
 Max Horz 2=80(LC 10)  
 Max Uplift 4=110(LC 10), 2=-132(LC 10)  
 Max Grav 4=348(LC 21), 2=417(LC 21)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 3-4=-281/192

- NOTES-** (9)
- 1) Wind: ASCE 7-16; Vult=120mph (3-second gust) Vasd=95mph; TC DL=5.0psf; BCDL=5.0psf; h=35ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) zone; cantilever left exposed; porch left exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - 2) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
  - 3) Unbalanced snow loads have been considered for this design.
  - 4) This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 20.0 psf on overhangs non-concurrent with other live loads.
  - 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 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 1-0-0 wide will fit between the bottom chord and any other members.
  - 7) Refer to girder(s) for truss to truss connections.
  - 8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 110 lb uplift at joint 4 and 132 lb uplift at joint 2.

**LOAD CASE(S)** Standard



6/5/2024

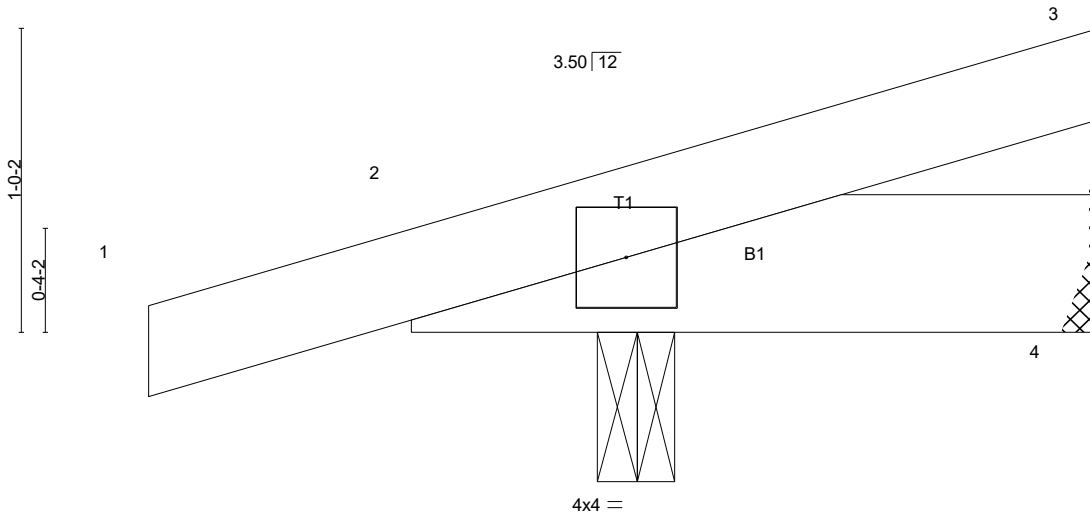
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Job	Truss	Truss Type	Qty	Ply	LOT 10 PROVIDENCE CREEK   233 PROVIDENCE CREEK DRIVE FUQUAY-VAR
24-5028-R01	M03	MONOPITCH STRUCTURAL	1	1	
					<b># 49410</b>

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Scale = 1:7.7



<b>LOADING</b> (psf)	<b>SPACING-</b>	<b>CSI.</b>	<b>DEFL.</b>	<b>PLATES</b>	<b>GRIP</b>
TCLL (roof) 20.0	2-0-0	TC 0.53	in (loc) l/defl L/d	MT20	244/190
Snow (Pf) 20.0	Plate Grip DOL 1.15	BC 0.27	Vert(LL) -0.00 2-4 >999 240		
TCDL 10.0	Lumber DOL 1.15	WB 0.00	Vert(CT) -0.00 2-4 >999 180		
BCLL 0.0 *	Rep Stress Incr YES	Matrix-P	Horz(CT) 0.00 n/a n/a		
BCDL 10.0	Code IRC2021/TPI2014			Weight: 10 lb	FT = 20%

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

**BRACING-**  
 TOP CHORD  
 BOT CHORD

Structural wood sheathing directly applied or 2-3-8 oc purlins.  
 Rigid ceiling directly applied or 10-0-0 oc bracing.

MiTek recommends that Stabilizers and required cross bracing be installed during truss erection, in accordance with Stabilizer Installation guide.

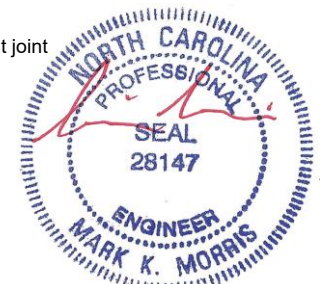
**REACTIONS.** (lb/size) 4=74/Mechanical, 2=158/0-3-0 (min. 0-1-8)  
 Max Horz 2=42(LC 10)  
 Max Uplift 4=-42(LC 10), 2=-85(LC 10)  
 Max Grav 4=109(LC 20), 2=250(LC 20)

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

**NOTES-** (11)

- 1) Wind: ASCE 7-16; Vult=120mph (3-second gust) Vasd=95mph; TC DL=5.0psf; BC DL=5.0psf; h=35ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) zone; cantilever left exposed; 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) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
- 4) Unbalanced snow loads have been considered for this design.
- 5) This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 20.0 psf on overhangs non-concurrent with other live loads.
- 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 1-0-0 wide will fit between the bottom chord and any other members.
- 9) Refer to girder(s) for truss to truss connections.
- 10) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 42 lb uplift at joint 4 and 85 lb uplift at joint 2.

**LOAD CASE(S)** Standard

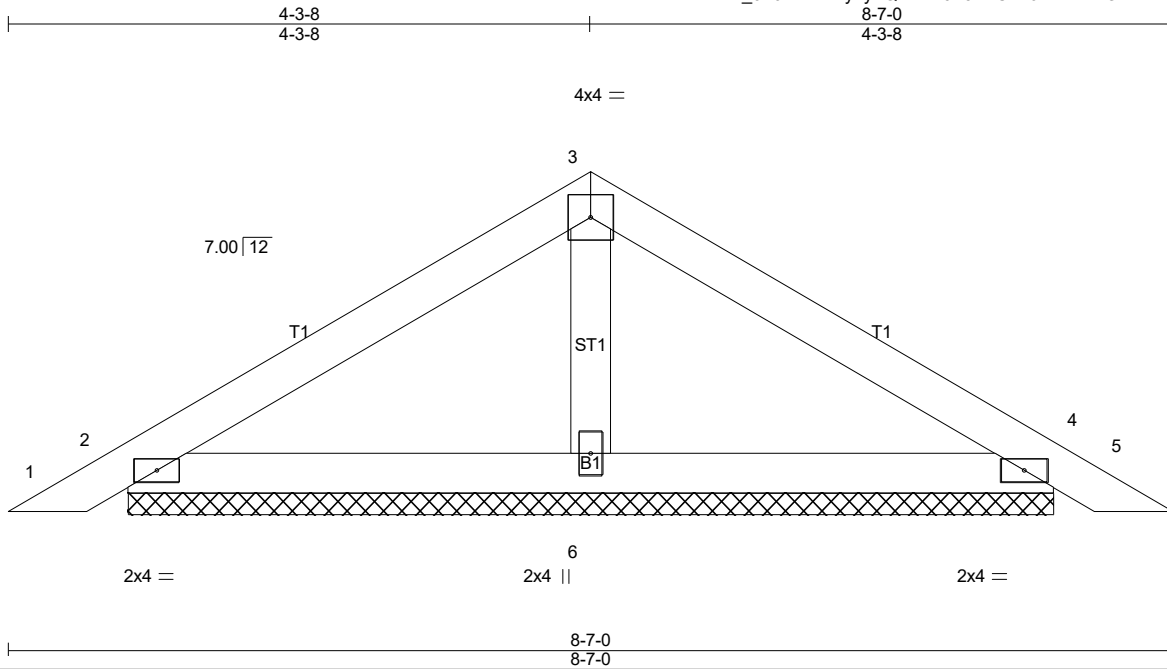


6/5/2024

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Job	Truss	Truss Type	Qty	Ply	LOT 10 PROVIDENCE CREEK   233 PROVIDENCE CREEK DRIVE FUQUAY-VAR
24-5028-R01	P02	Piggyback	24	1	
Job Reference (optional)					# 49410

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Scale = 1:17.0

LOADING (psf)	SPACING-	CSI.	DEFL.	PLATES	GRIP
TCLL (roof) 20.0	2-0-0	TC 0.32	in (loc) l/defl L/d	MT20	244/190
Snow (Pf) 20.0	Plate Grip DOL 1.15	BC 0.20	Vert(LL) 0.01 5 n/r 180		
TCDL 10.0	Lumber DOL 1.15	WB 0.04	Vert(CT) 0.01 5 n/r 80		
BCLL 0.0 *	Rep Stress Incr YES	Matrix-P	Horz(CT) 0.00 4 n/a n/a		
BCDL 10.0	Code IRC2021/TPI2014			Weight: 27 lb	FT = 20%

**LUMBER-**  
 TOP CHORD 2x4 SP No.2  
 BOT CHORD 2x4 SP No.3  
 OTHERS 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.

MiTek recommends that Stabilizers and required cross bracing be installed during truss erection, in accordance with Stabilizer Installation guide.

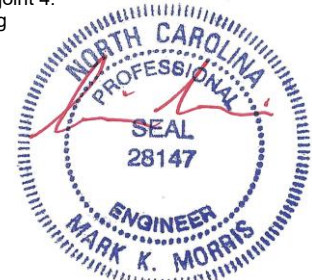
**REACTIONS.** (lb/size) 2=181/6-9-13 (min. 0-1-8), 4=181/6-9-13 (min. 0-1-8), 6=255/6-9-13 (min. 0-1-8)  
 Max Horz 2=-51(LC 12)  
 Max Uplift 2=-45(LC 14), 4=-52(LC 15)  
 Max Grav 2=258(LC 21), 4=258(LC 22), 6=261(LC 21)

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

**NOTES-** (11)

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=120mph (3-second gust) Vasd=95mph; TC DL=5.0psf; BC DL=5.0psf; h=35ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
- Unbalanced snow loads have been considered for this design.
- This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 20.0 psf on overhangs non-concurrent with other live loads.
- 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 1-0-0 wide will fit between the bottom chord and any other members.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 45 lb uplift at joint 2 and 52 lb uplift at joint 4.
- See Standard Industry Piggyback Truss Connection Detail for Connection to base truss as applicable, or consult qualified building designer.

**LOAD CASE(S)** Standard



6/5/2024

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Job	Truss	Truss Type	Qty	Ply	LOT 10 PROVIDENCE CREEK   233 PROVIDENCE CREEK DRIVE FUQUAY-VAR
24-5028-R01	R01	COMMON SUPPORTED GAB	1	1	
					<b># 49410</b>

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-0-10-8	11-6-0	23-0-0	23-10-8
0-10-8	11-6-0	11-6-0	0-10-8

4x4 =

Scale: 1/4"=1'

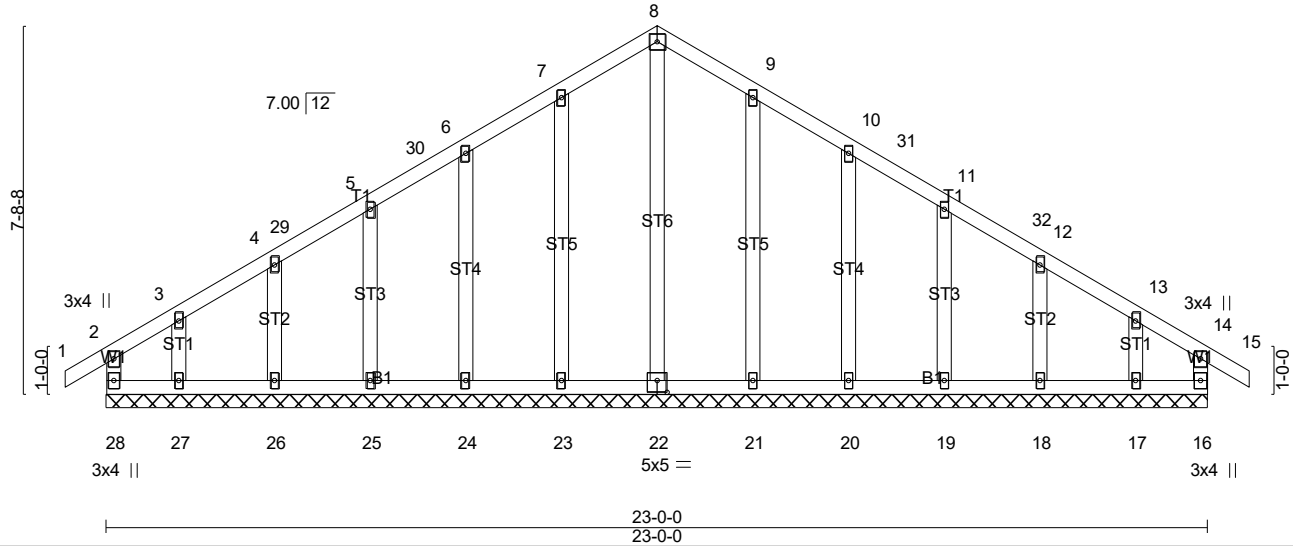


Plate Offsets (X,Y)-- [22:0-2-8,0-3-0]

LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof) 20.0	2-0-0	TC 0.12	Vert(LL) -0.00	15	n/r	180	MT20	244/190
Snow (Pf) 20.0	Plate Grip DOL 1.15	BC 0.06	Vert(CT) -0.00	15	n/r	80		
TCDL 10.0	Lumber DOL 1.15	WB 0.17	Horz(CT) 0.00	16	n/a	n/a		
BCLL 0.0 *	Rep Stress Incr YES	Matrix-R						
BCDL 10.0	Code IRC2021/TPI2014							
							Weight: 144 lb	FT = 20%

**LUMBER-**  
 TOP CHORD 2x4 SP No.2  
 BOT CHORD 2x4 SP No.2  
 WEBS 2x4 SP No.3  
 OTHERS 2x4 SP No.3

**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.

MiTek recommends that Stabilizers and required cross bracing be installed during truss erection, in accordance with Stabilizer Installation guide.

**REACTIONS.** All bearings 23-0-0.  
 (lb) - Max Horz 28=-159(LC 12)  
 Max Uplift All uplift 100 lb or less at joint(s) 28, 16, 23, 24, 25, 26, 21, 20, 19, 18, 17 except 27=-111(LC 14)  
 Max Grav All reactions 250 lb or less at joint(s) 28, 16, 25, 26, 27, 19, 18, 17 except 22=281(LC 27), 23=295(LC 5), 24=279(LC 5), 21=295(LC 6), 20=279(LC 6)

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

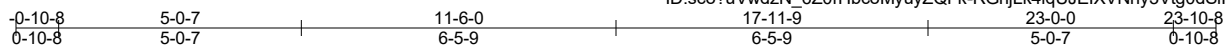
- NOTES-** (14)
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-16; Vult=120mph (3-second gust) Vasd=95mph; TCCL=5.0psf; BCCL=5.0psf; h=35ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Corner(3E) -0-10-8 to 3-11-2, Exterior(2N) 3-11-2 to 6-8-6, Corner(3R) 6-8-6 to 16-3-10, Exterior(2N) 16-3-10 to 19-0-14, Corner(3E) 19-0-14 to 23-10-8 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.
  - TCCL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
  - Unbalanced snow loads have been considered for this design.
  - This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 20.0 psf on overhangs non-concurrent with other live loads.
  - All plates are 2x4 MT20 unless otherwise indicated.
  - Gable requires continuous bottom chord bearing.
  - Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
  - Gable studs spaced at 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 1-0-0 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) 28, 16, 23, 24, 25, 26, 21, 20, 19, 18, 17 except (jt=lb) 27=111.

**LOAD CASE(S)** Standard

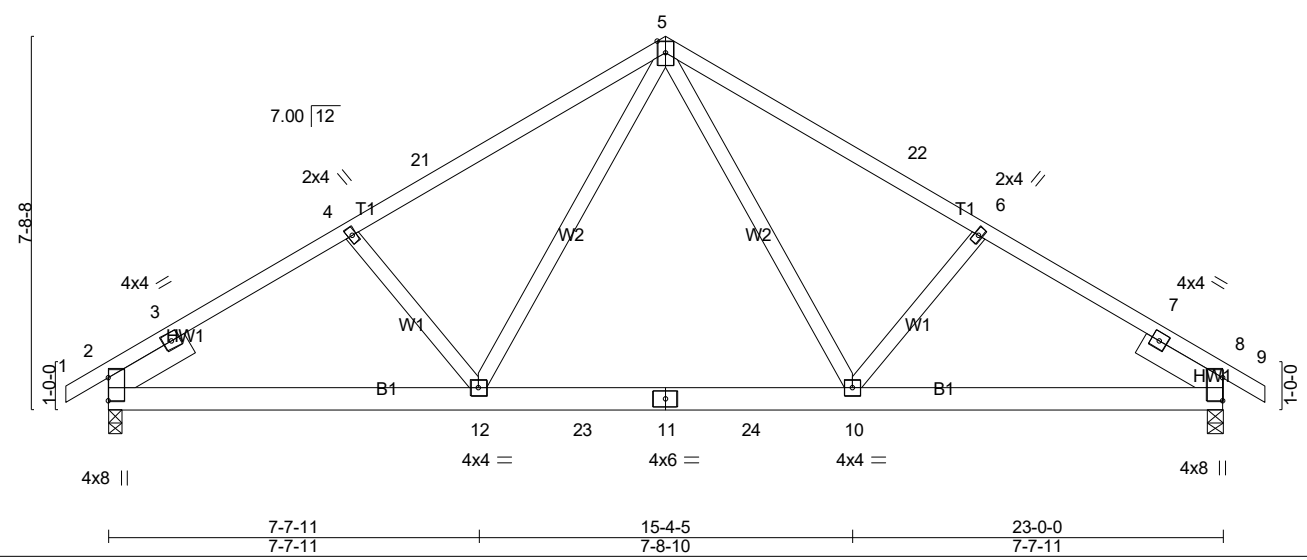


6/5/2024

**Warning!**—Verify design parameters and read notes before use. This design is based only upon parameters shown, and is for an individual building component to be installed and loaded vertically. Applicability of design parameters and proper incorporation of component is responsibility of building designer – not truss designer or truss engineer. Bracing shown is for lateral support of individual web members only. Additional temporary bracing to ensure stability during construction is the responsibility of the erector. Additional permanent bracing of the overall structure is the responsibility of the building designer. For general guidance regarding fabrication, quality control, storage, delivery, erection and bracing, consult ANSI/TPI 1 *National Design Standard for Metal Plate Connected Wood Truss Construction* and BCSI 1-03 *Guide to Good Practice for Handling, Installing & Bracing of Metal Plate Connected Wood Trusses* from Truss Plate Institute, 583 D'Onofrio Drive, Madison, WI 53719.



Scale: 1/4"=1'



<b>LOADING</b> (psf)	<b>SPACING-</b>	<b>CSI.</b>	<b>DEFL.</b>	<b>PLATES</b>	<b>GRIP</b>
TCLL (roof) 20.0	2-0-0	TC 0.77	in (loc) l/defl L/d	MT20	244/190
Snow (Pf) 20.0	Plate Grip DOL 1.15	BC 0.46	Vert(LL) -0.11 10-12 >999 240		
TCDL 10.0	Lumber DOL 1.15	WB 0.19	Vert(CT) -0.17 10-12 >999 180		
BCDL 0.0 *	Rep Stress Incr YES	Matrix-AS	Horz(CT) 0.03 8 n/a n/a		
BCDL 10.0	Code IRC2021/TPI2014			Weight: 142 lb	FT = 20%

**LUMBER-**  
 TOP CHORD 2x4 SP No.2  
 BOT CHORD 2x6 SP No.2  
 WEBS 2x4 SP No.3  
 SLIDER Left 2x6 SP No.2 -° 1-11-0, Right 2x6 SP No.2 -° 1-11-0

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

MiTek recommends that Stabilizers and required cross bracing be installed during truss erection, in accordance with Stabilizer Installation guide.

**REACTIONS.** (lb/size) 2=973/0-3-8 (min. 0-1-8), 8=973/0-3-8 (min. 0-1-8)  
 Max Horz 2=-159(LC 12)  
 Max Uplift 2=-123(LC 14), 8=-123(LC 15)  
 Max Grav 2=996(LC 21), 8=996(LC 22)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-3=-478/8, 3-4=-1300/200, 4-21=-1176/191, 5-21=-1095/215, 5-22=-1095/215, 6-22=-1176/191, 6-7=-1300/200, 7-8=-478/9  
 BOT CHORD 2-12=-188/1181, 12-23=-35/798, 11-23=-35/798, 11-24=-35/798, 10-24=-35/798, 8-10=-100/1109  
 WEBS 5-10=-79/473, 6-10=-336/189, 5-12=-79/472, 4-12=-336/189

- NOTES-** (10)
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-16; Vult=120mph (3-second gust) Vasd=95mph; TCCL=5.0psf; BCCL=5.0psf; h=35ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -0-10-8 to 3-11-2, Interior(1) 3-11-2 to 6-8-6, Exterior(2R) 6-8-6 to 16-3-10, Interior(1) 16-3-10 to 19-0-14, Exterior(2E) 19-0-14 to 23-10-8 zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
  - Unbalanced snow loads have been considered for this design.
  - This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 20.0 psf on overhangs non-concurrent with other live loads.
  - 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 1-0-0 wide will fit between the bottom chord and any other members, with BCCL = 10.0psf.
  - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=123, 8=123.
  - This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.

**LOAD CASE(S)** Standard

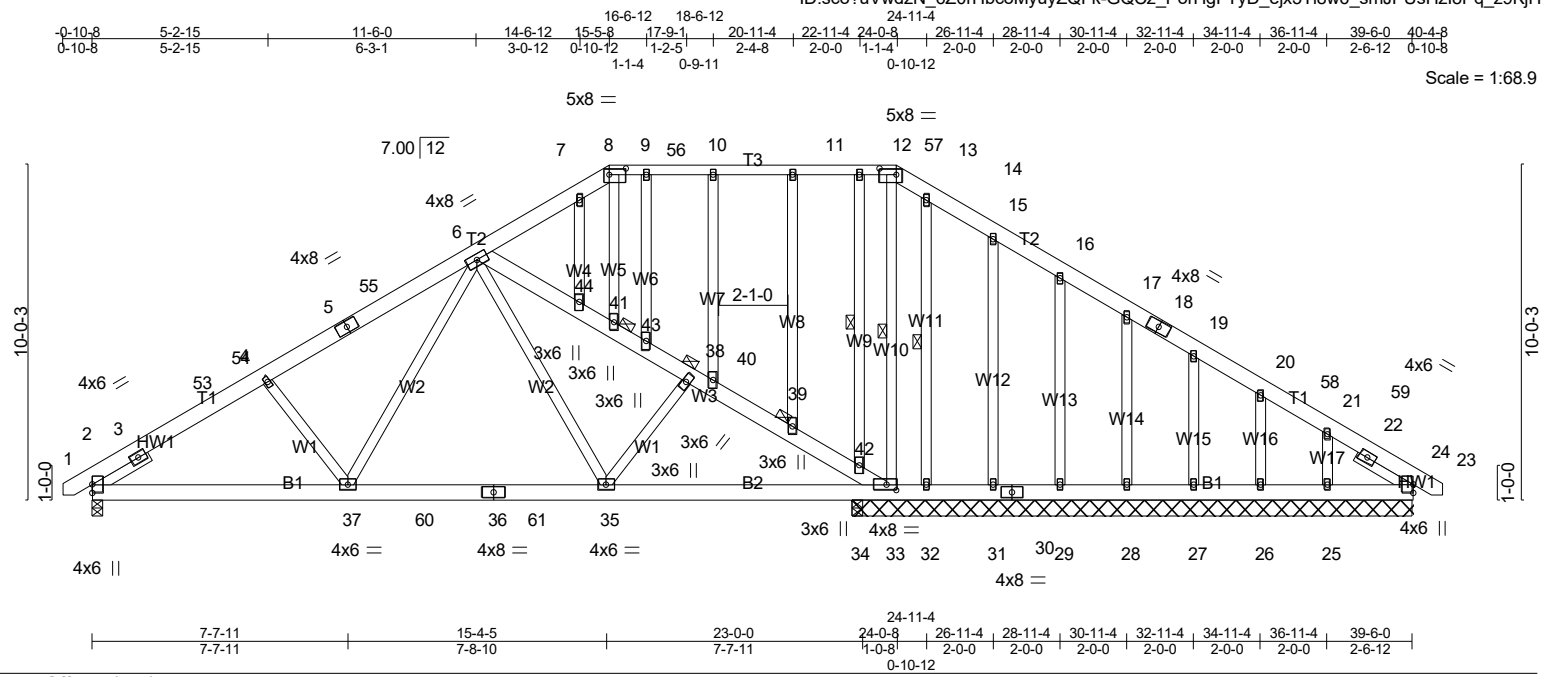


6/5/2024

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Job	Truss	Truss Type	Qty	Ply	LOT 10 PROVIDENCE CREEK   233 PROVIDENCE CREEK DRIVE FUQUAY-VAR
24-5028-R01	R03	STR-GABLE II	1	1	# 49410

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LOADING (psf)	SPACING-	CSI.	DEFL.	PLATES	GRIP
TCLL (roof) 20.0	Plate Grip DOL 1.15	TC 0.39	in (loc) l/defl L/d	MT20	244/190
Snow (Pf) 20.0	Lumber DOL 1.15	BC 0.42	Vert(LL) -0.10 35-37 >999 240		
TCDL 10.0	Rep Stress Incr YES	WB 0.34	Vert(CT) -0.14 35-37 >999 180		
BCLL 0.0 *	Code IRC2021/TPI2014	Matrix-AS	Horz(CT) 0.03 33 n/a n/a		
BCDL 10.0				Weight: 387 lb	FT = 20%

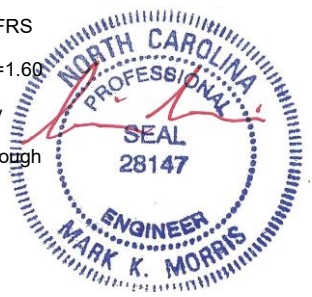
LUMBER-	BRACING-
TOP CHORD 2x6 SP No.2 *Except* T3: 2x4 SP No.2	TOP CHORD Structural wood sheathing directly applied.
BOT CHORD 2x6 SP No.2	BOT CHORD Rigid ceiling directly applied.
WEBS 2x4 SP No.3 *Except* W3: 2x6 SP No.2	WEBS 1 Row at midpt 13-33, 12-42, 14-32
SLIDER Left 2x4 SP No.3 -° 1-11-0, Right 2x4 SP No.3 -° 1-11-0	JOINTS 1 Brace at Jt(s): 38, 39, 41

MiTek recommends that Stabilizers and required cross bracing be installed during truss erection, in accordance with Stabilizer Installation guide.

**REACTIONS.** All bearings 16-9-8 except (jt=length) 2=0-3-8, 34=0-3-8.  
 (lb) - Max Horz 2=210(LC 13)  
 Max Uplift All uplift 100 lb or less at joint(s) 23, 32, 31, 29, 28, 27, 26 except  
 2=-131(LC 14), 33=-217(LC 11), 25=-129(LC 15)  
 Max Grav All reactions 250 lb or less at joint(s) 23, 32, 26, 23 except 2=1240(LC 39),  
 33=924(LC 38), 31=320(LC 49), 29=323(LC 49), 28=327(LC 49), 27=283(LC 49),  
 25=252(LC 49), 34=430(LC 7)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-3=-739/48, 3-53=-1777/181, 53-54=-1685/189, 4-54=-1656/194, 4-5=-1595/189,  
 5-55=-1450/192, 6-55=-1407/208  
 BOT CHORD 2-37=-234/1526, 37-60=-130/1075, 36-60=-130/1075, 36-61=-130/1075, 35-61=-130/1075,  
 34-35=-218/1342, 33-34=-218/1342  
 WEBS 6-44=-1439/204, 41-44=-1415/210, 41-43=-1496/209, 38-43=-1514/215, 38-40=-1537/220,  
 39-40=-1589/233, 39-42=-1611/241, 33-42=-1610/238, 6-35=-25/639, 6-37=-73/547,  
 4-37=-364/175, 35-38=-511/127, 10-40=-289/69, 13-33=-295/46

- NOTES-** (14)
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-16; Vult=120mph (3-second gust) Vasd=95mph; TCCL=5.0psf; BCCL=5.0psf; h=35ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -0-8-8 to 4-1-1, Interior(1) 4-1-1 to 8-8-1, Exterior(2R) 8-8-1 to 30-11-4, Interior(1) 30-11-4 to 35-4-15, Exterior(2E) 35-4-15 to 40-2-8 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.
  - TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
  - Unbalanced snow loads have been considered for this design.
  - This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 20.0 psf on overhangs non-concurrent with other live loads.
  - Provide adequate drainage to prevent water ponding.
  - 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.



6/5/2024

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Job	Truss	Truss Type	Qty	Ply	LOT 10 PROVIDENCE CREEK   233 PROVIDENCE CREEK DRIVE FUQUAY-VAR
24-5028-R01	R03	STR-GABLE I I	1	1	Job Reference (optional) # <b>49410</b>

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**NOTES-** (14)

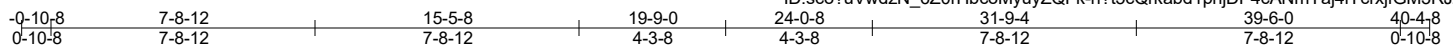
- 11) \* This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 1-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- 12) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 23, 32, 31, 29, 28, 27, 26, 23 except (jt=lb) 2=131, 33=217, 25=129.
- 13) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.

**LOAD CASE(S)** Standard



6/5/2024

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Scale = 1:67.5

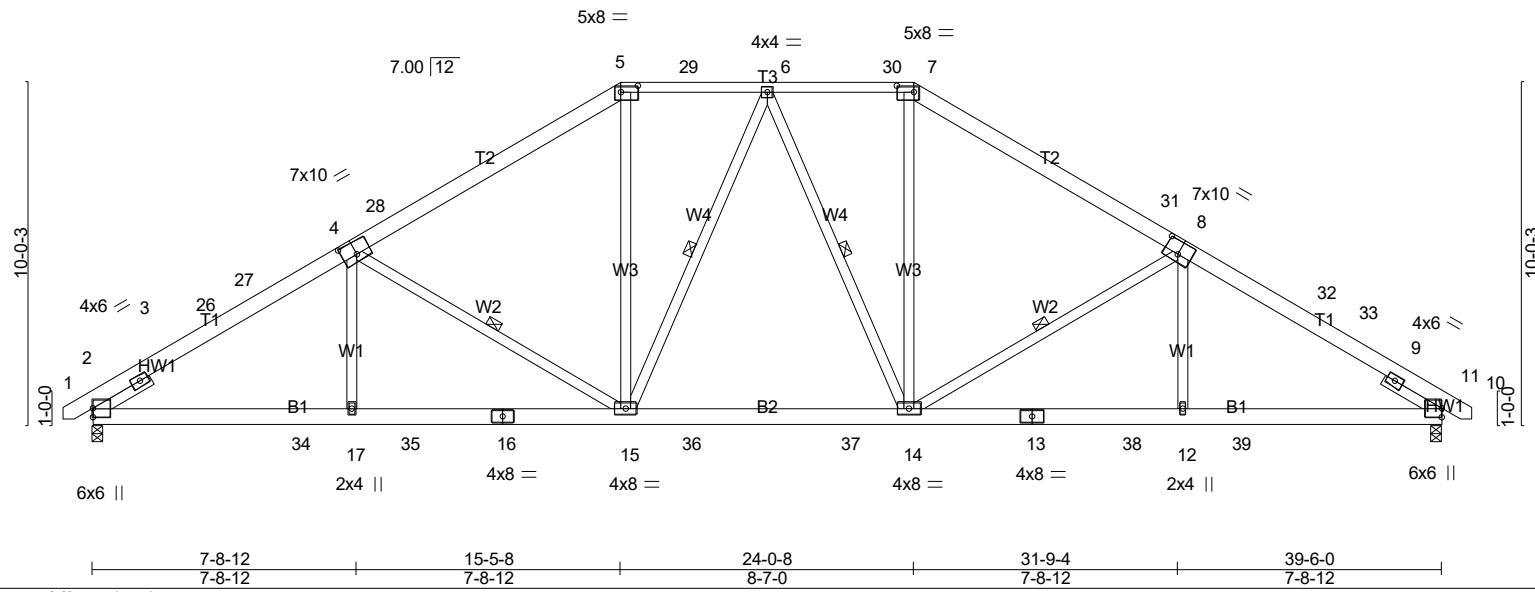


Plate Offsets (X,Y)-- [4:0-5-0,0-4-8], [5:0-6-0,0-2-4], [7:0-6-0,0-2-4], [8:0-5-0,0-4-8]					
<b>LOADING</b> (psf)	<b>SPACING-</b>	<b>CSI.</b>	<b>DEFL.</b>	<b>PLATES</b>	<b>GRIP</b>
TCLL (roof) 20.0	2-0-0	TC 0.61	in (loc) l/defl L/d	MT20	244/190
Snow (Pf) 20.0	Plate Grip DOL 1.15	BC 0.77	Vert(LL) -0.19 14-15 >999 240		
TCDL 10.0	Lumber DOL 1.15	WB 0.38	Vert(CT) -0.29 14-15 >999 180		
BCLL 0.0 *	Rep Stress Incr YES	Matrix-AS	Horz(CT) 0.10 10 n/a n/a		
BCDL 10.0	Code IRC2021/TPI2014				Weight: 298 lb FT = 20%

**LUMBER-**  
 TOP CHORD 2x6 SP No.2 \*Except\*  
 T3: 2x4 SP No.2  
 BOT CHORD 2x6 SP No.2  
 WEBS 2x4 SP No.3  
 SLIDER Left 2x4 SP No.3 -° 1-11-0, Right 2x4 SP No.3 -° 1-11-0

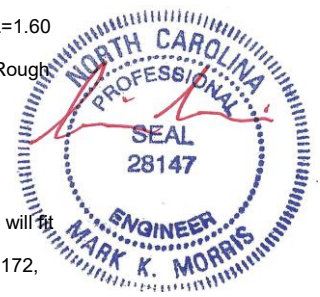
**BRACING-**  
 TOP CHORD Structural wood sheathing directly applied.  
 BOT CHORD Rigid ceiling directly applied.  
 WEBS 1 Row at midpt 4-15, 6-15, 6-14, 8-14

MiTek recommends that Stabilizers and required cross bracing be installed during truss erection, in accordance with Stabilizer Installation guide.

**REACTIONS.** (lb/size) 2=1623/0-3-8 (min. 0-2-6), 10=1623/0-3-8 (min. 0-2-6)  
 Max Horz 2=210(LC 13)  
 Max Uplift 2=-172(LC 14), 10=-172(LC 15)  
 Max Grav 2=2027(LC 39), 10=2027(LC 39)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-3=-1295/80, 3-26=-3113/265, 26-27=-3041/276, 4-27=-2872/296, 4-28=-2432/289,  
 5-28=-2230/325, 5-29=-1924/333, 6-29=-1924/333, 6-30=-1924/333, 7-30=-1924/333,  
 7-31=-2230/325, 8-31=-2432/289, 8-32=-2872/296, 32-33=-3041/276, 9-33=-3113/265,  
 9-10=-1295/80  
 BOT CHORD 2-34=-255/2639, 17-34=-255/2639, 17-35=-255/2638, 16-35=-255/2638, 15-16=-255/2638,  
 15-36=-83/1930, 36-37=-83/1930, 14-37=-83/1930, 13-14=-167/2578, 13-38=-167/2578,  
 12-38=-167/2578, 12-39=-166/2578, 10-39=-166/2578  
 WEBS 4-17=0/258, 4-15=-862/236, 5-15=-25/720, 6-15=-265/169, 6-14=-265/169, 7-14=-24/720,  
 8-14=-863/237, 8-12=0/258

- NOTES-** (11)
- 1) Unbalanced roof live loads have been considered for this design.
  - 2) Wind: ASCE 7-16; Vult=120mph (3-second gust) Vasd=95mph; TCCL=5.0psf; BCDL=5.0psf; h=35ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -0-8-8 to 4-1-1, Interior(1) 4-1-1 to 8-8-1, Exterior(2R) 8-8-1 to 30-9-15, Interior(1) 30-9-15 to 35-4-15, Exterior(2E) 35-4-15 to 40-2-8 zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - 3) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
  - 4) Unbalanced snow loads have been considered for this design.
  - 5) This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 20.0 psf on overhangs non-concurrent with other live loads.
  - 6) Provide adequate drainage to prevent water ponding.
  - 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 1-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
  - 9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=172, 10=172.
  - 10) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.



6/5/2024

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Job 24-5028-R01	Truss R05	Truss Type STORAGE	Qty 7	Ply 1	LOT 10 PROVIDENCE CREEK   233 PROVIDENCE CREEK DRIVE FUQUAY-VAR	# 49410
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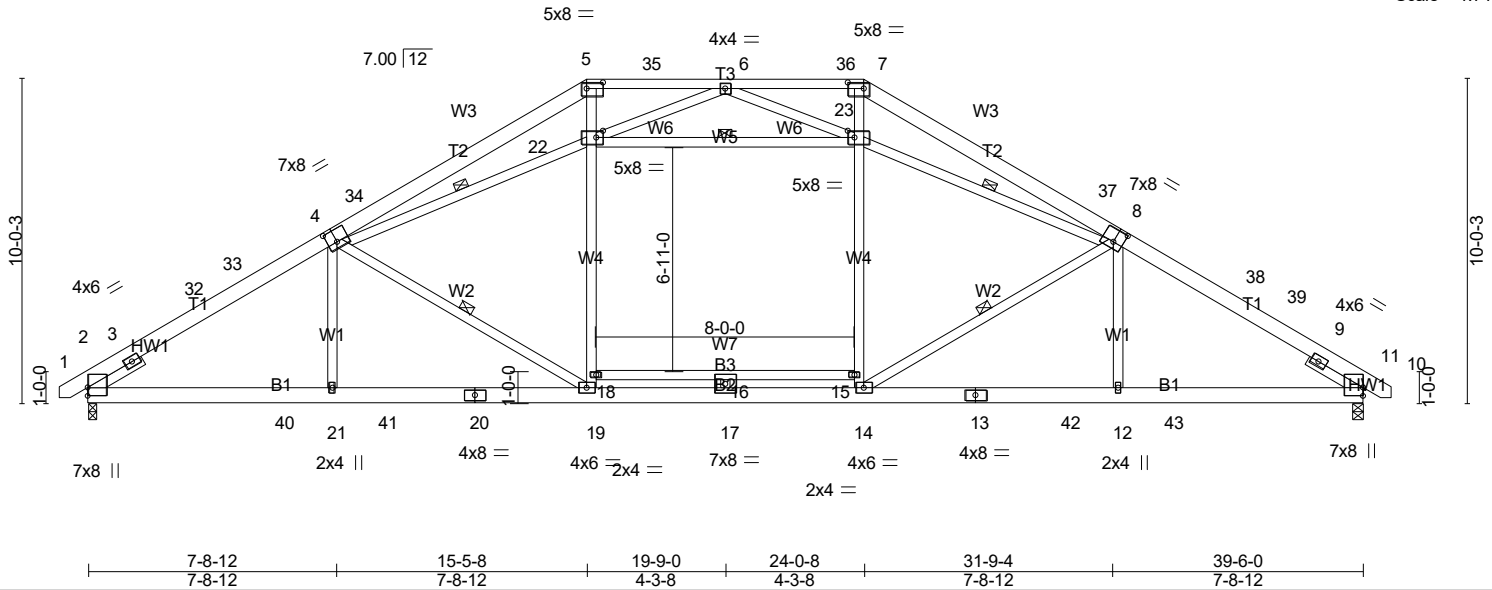


Plate Offsets (X,Y)--	[4:0-3-8,0-4-8], [5:0-6-0,0-2-4], [7:0-6-0,0-2-4], [8:0-3-8,0-4-8], [22:0-2-8,0-2-8], [23:0-2-8,0-2-8]
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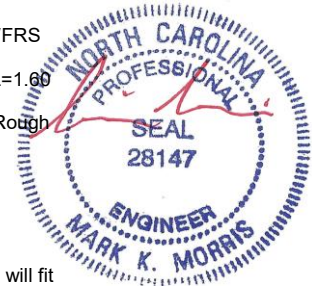
LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof) 20.0	2-0-0	TC 0.67	Vert(LL) -0.22	16-18	>999	240	MT20	244/190
Snow (Pf) 20.0	Plate Grip DOL 1.15	BC 0.98	Vert(CT) -0.39	16-18	>999	180		
TCDL 10.0	Lumber DOL 1.15	WB 0.65	Horz(CT) 0.13	10	n/a	n/a		
BCLL 0.0 *	Rep Stress Incr YES	Matrix-AS	Attic -0.12	15-18	839	360		
BCDL 10.0	Code IRC2021/TPI2014						Weight: 329 lb	FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x6 SP No.2 *Except* T3: 2x4 SP No.2	TOP CHORD Structural wood sheathing directly applied.
BOT CHORD 2x6 SP No.2 *Except* B3: 2x4 SP No.2, B2: 2x6 SP No.1	BOT CHORD Rigid ceiling directly applied.
WEBS 2x4 SP No.3 *Except* W5: 2x4 SP No.2	WEBS 1 Row at midpt 4-19, 8-14, 22-23, 4-22, 8-23
SLIDER Left 2x4 SP No.3 -° 1-11-0, Right 2x4 SP No.3 -° 1-11-0	MiTek recommends that Stabilizers and required cross bracing be installed during truss erection, in accordance with Stabilizer Installation guide.

**REACTIONS.** (lb/size) 2=1830/0-3-8 (min. 0-2-12), 10=1830/0-3-8 (min. 0-2-12)  
 Max Horz2=210(LC 13)  
 Max Uplift2=-56(LC 14), 10=-56(LC 15)  
 Max Grav2=2322(LC 46), 10=2322(LC 46)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-3=-1563/0, 3-32=-3667/74, 32-33=-3607/77, 4-33=-3472/96, 4-34=-2064/69,  
 5-34=-1886/105, 5-35=-1679/140, 6-35=-1679/140, 6-36=-1677/138, 7-36=-1677/138,  
 7-37=-1883/102, 8-37=-2061/66, 8-38=-3472/96, 38-39=-3607/77, 9-39=-3667/74,  
 9-10=-1563/0  
 BOT CHORD 2-40=-86/3156, 21-40=-86/3156, 21-41=-86/3155, 20-41=-86/3155, 19-20=-86/3155,  
 17-19=0/2677, 14-17=0/2677, 13-14=0/3059, 13-42=0/3059, 12-42=0/3059, 12-43=0/3059,  
 10-43=0/3059  
 WEBS 4-19=-569/296, 18-19=-3/767, 18-22=0/950, 5-22=0/562, 6-22=-601/364, 6-23=-601/364,  
 14-15=-3/767, 15-23=0/950, 7-23=0/562, 8-14=-570/296, 22-23=-1121/0, 16-17=-555/0,  
 4-22=-1334/148, 8-23=-1330/145

- NOTES-** (14)
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-16; Vult=120mph (3-second gust) Vasd=95mph; TCCL=5.0psf; BCDL=5.0psf; h=35ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -0-8-8 to 4-1-1, Interior(1) 4-1-1 to 8-8-1, Exterior(2R) 8-8-1 to 30-9-15, Interior(1) 30-9-15 to 35-4-15, Exterior(2E) 35-4-15 to 40-2-8 zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
  - Unbalanced snow loads have been considered for this design.
  - This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 20.0 psf on overhangs non-concurrent with other live loads.
  - Provide adequate drainage to prevent water ponding.
  - 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 1-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
  - Ceiling dead load (5.0 psf) on member(s). 22-23
  - Bottom overhang live load (5.0 psf) and add live load from this design. Dead load only applied only to top and bottom chord and floor.



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Continued on page 2  
 Applicability of design parameters and proper incorporation of component is responsibility of building designer – not truss designer or truss engineer. Bracing shown is for lateral support of individual web members only. Additional temporary bracing to ensure stability during construction is the responsibility of the erector. Additional permanent bracing of the overall structure is the responsibility of the building designer. For general guidance regarding fabrication, quality control, storage, delivery, erection and bracing, consult ANSI/TPI 1 National Design Standard for Metal Plate Connected Wood Truss Construction and BCSI 1-03 Guide to Good Practice for Handling, Installing & Bracing of Metal Plate Connected Wood Trusses from Truss Plate Institute, 583 D'Onofrio Drive, Madison, WI 53719.

Job	Truss	Truss Type	Qty	Ply	LOT 10 PROVIDENCE CREEK   233 PROVIDENCE CREEK DRIVE FUQUAY-VAR
24-5028-R01	R05	STORAGE	7	1	Job Reference (optional) # <b>49410</b>

Run: 8.430 s Feb 12 2021 Print: 8.430 s Feb 12 2021 MiTek Industries, Inc. Wed Jun 5 13:28:19 2024 Page 2  
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**NOTES-** (14)

- 11) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 10.
- 12) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.
- 13) ATTIC SPACE SHOWN IS DESIGNED AS UNINHABITABLE.

**LOAD CASE(S)** Standard



6/5/2024

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Job	Truss	Truss Type	Qty	Ply	LOT 10 PROVIDENCE CREEK   233 PROVIDENCE CREEK DRIVE FUQUAY, VA
24-5028-R01	R06	PIGGBACK BASE SUPPO	1	1	
					<b># 49410</b>

Run: 8.430 s Feb 12 2021 Print: 8.430 s Feb 12 2021 MiTek Industries, Inc. Wed Jun 5 13:28:23 2024 Page 1  
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-Q-10-8 15-5-8 24-0-8 39-6-0 40-4-8  
0-10-8 15-5-8 8-7-0 15-5-8 0-10-8

Scale = 1:69.3

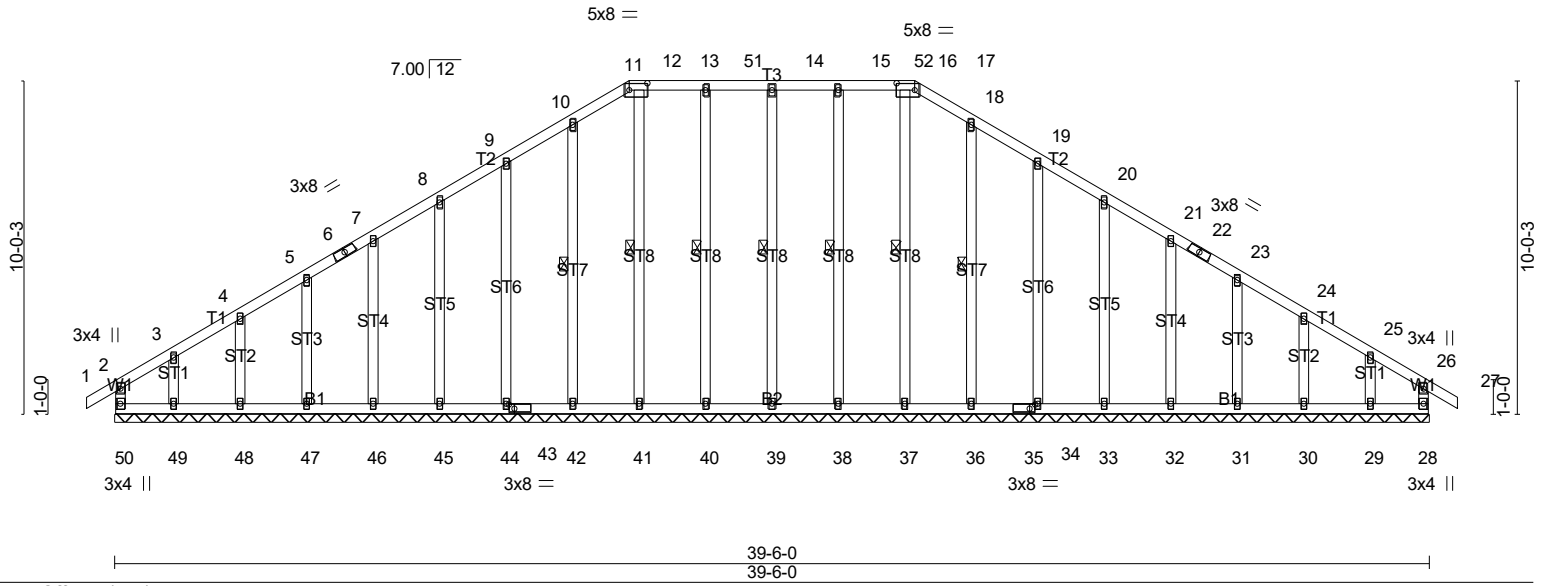


Plate Offsets (X,Y)-- [11:0-6-8,0-2-8], [17:0-6-8,0-2-8], [35:0-2-0,0-1-8], [43:0-2-0,0-1-8]					
<b>LOADING</b> (psf)		<b>SPACING-</b>		<b>CSL</b>	
TCLL (roof)	20.0	2-0-0		TC	0.16
Snow (Pf)	20.0	Plate Grip DOL	1.15	BC	0.08
TCDL	10.0	Lumber DOL	1.15	WB	0.23
BCLL	0.0 *	Rep Stress Incr	YES	Matrix-R	
BCDL	10.0	Code IRC2021/TPI2014			
				<b>DEFL.</b>	
				in (loc)	l/defl L/d
				Vert(LL)	-0.00 27 n/r 180
				Vert(CT)	-0.00 27 n/r 80
				Horz(CT)	0.01 28 n/a n/a
				<b>PLATES</b>	<b>GRIP</b>
				MT20	244/190
				Weight: 304 lb	FT = 20%

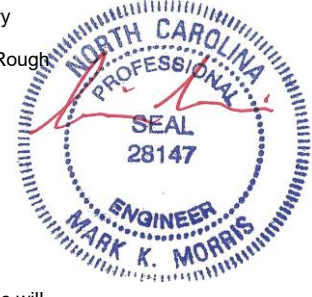
<b>LUMBER-</b>		<b>BRACING-</b>	
TOP CHORD	2x4 SP No.2	TOP CHORD	Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.
BOT CHORD	2x4 SP No.2	BOT CHORD	Rigid ceiling directly applied or 6-0-0 oc bracing.
WEBS	2x4 SP No.3	WEBS	1 Row at midpt 14-39, 13-40, 12-41, 10-42, 15-38, 16-37, 18-36
OTHERS	2x4 SP No.3		

MiTek recommends that Stabilizers and required cross bracing be installed during truss erection, in accordance with Stabilizer Installation guide.

**REACTIONS.** All bearings 39-6-0.  
(lb) - Max Horz 50=-210(LC 12)  
Max Uplift All uplift 100 lb or less at joint(s) 28, 39, 40, 42, 44, 45, 46, 47, 48, 38, 36, 34, 33, 32, 31, 30 except 50=-108(LC 10), 49=-138(LC 14), 29=-118(LC 15)  
Max Grav All reactions 250 lb or less at joint(s) 50, 28, 48, 49, 30, 29 except 39=296(LC 44), 40=304(LC 44), 41=294(LC 52), 42=326(LC 47), 44=311(LC 47), 45=321(LC 47), 46=327(LC 47), 47=283(LC 47), 38=304(LC 44), 37=283(LC 52), 36=323(LC 49), 34=312(LC 49), 33=321(LC 49), 32=327(LC 49), 31=282(LC 49)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
TOP CHORD 10-11=-153/260, 17-18=-153/260

- NOTES-** (15)
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-16; Vult=120mph (3-second gust) Vasd=95mph; TC DL=5.0psf; BC DL=5.0psf; h=35ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Corner(3E) -0-10-8 to 3-9-0, Exterior(2N) 3-9-0 to 10-7-14, Corner(3R) 10-7-14 to 28-10-2, Exterior(2N) 28-10-2 to 35-6-14, Corner(3E) 35-6-14 to 40-4-8 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.
  - TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
  - Unbalanced snow loads have been considered for this design.
  - This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 20.0 psf on overhangs non-concurrent with other live loads.
  - Provide adequate drainage to prevent water ponding.
  - All plates are 2x4 MT20 unless otherwise indicated.
  - Gable requires continuous bottom chord bearing.
  - Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
  - Gable studs spaced at 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 1-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.



6/5/2024

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Job	Truss	Truss Type	Qty	Ply	LOT 10 PROVIDENCE CREEK   233 PROVIDENCE CREEK DRIVE FUQUAY-VAR
24-5028-R01	R06	PIGGYBACK BASE SUPPO	1	1	Job Reference (optional) # <b>49410</b>

Run: 8.430 s Feb 12 2021 Print: 8.430 s Feb 12 2021 MiTek Industries, Inc. Wed Jun 5 13:28:25 2024 Page 2  
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**NOTES-** (15)

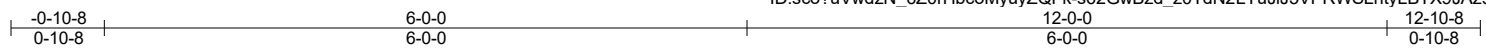
14) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 28, 39, 40, 42, 44, 45, 46, 47, 48, 38, 36, 34, 33, 32, 31, 30 except (jt=lb) 50=108, 49=138, 29=118.

**LOAD CASE(S)** Standard

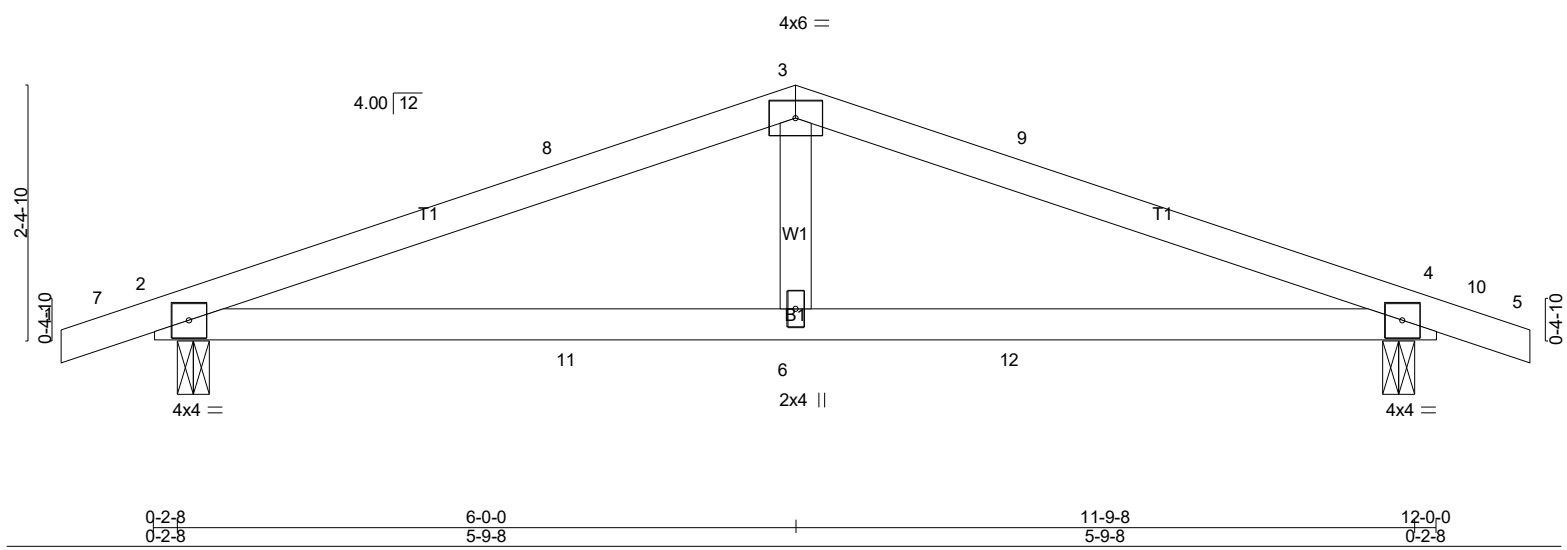


6/5/2024

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Scale = 1:21.6



LOADING (psf)	SPACING-	CSI.	DEFL.	PLATES	GRIP
TCLL (roof) 20.0	2-0-0	TC 0.77	in (loc) l/defl L/d	MT20	244/190
Snow (Pf) 20.0	Plate Grip DOL 1.15	BC 0.82	Vert(LL) 0.10 4-6 >999 240		
TCDL 10.0	Lumber DOL 1.15	WB 0.11	Vert(CT) -0.10 4-6 >999 180		
BCLL 0.0 *	Rep Stress Incr YES	Matrix-SH	Horz(CT) -0.01 4 n/a n/a		
BCDL 10.0	Code IRC2021/TPI2014			Weight: 42 lb	FT = 20%

**LUMBER-**  
 TOP CHORD 2x4 SP No.2  
 BOT CHORD 2x4 SP No.1  
 WEBS 2x4 SP No.3

**BRACING-**  
 TOP CHORD Structural wood sheathing directly applied or 4-1-0 oc purlins.  
 BOT CHORD Rigid ceiling directly applied or 5-11-13 oc bracing.

MiTek recommends that Stabilizers and required cross bracing be installed during truss erection, in accordance with Stabilizer Installation guide.

**REACTIONS.** (lb/size) 2=530/0-3-8 (min. 0-1-8), 4=530/0-3-8 (min. 0-1-8)  
 Max Horz 2=34(LC 14)  
 Max Uplift 2=-200(LC 10), 4=-200(LC 11)  
 Max Grav 2=621(LC 21), 4=621(LC 22)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-8=-881/1128, 3-8=-774/1139, 3-9=-774/1139, 4-9=-881/1128  
 BOT CHORD 2-11=-996/746, 6-11=-996/746, 6-12=-996/746, 4-12=-996/746  
 WEBS 3-6=-459/280

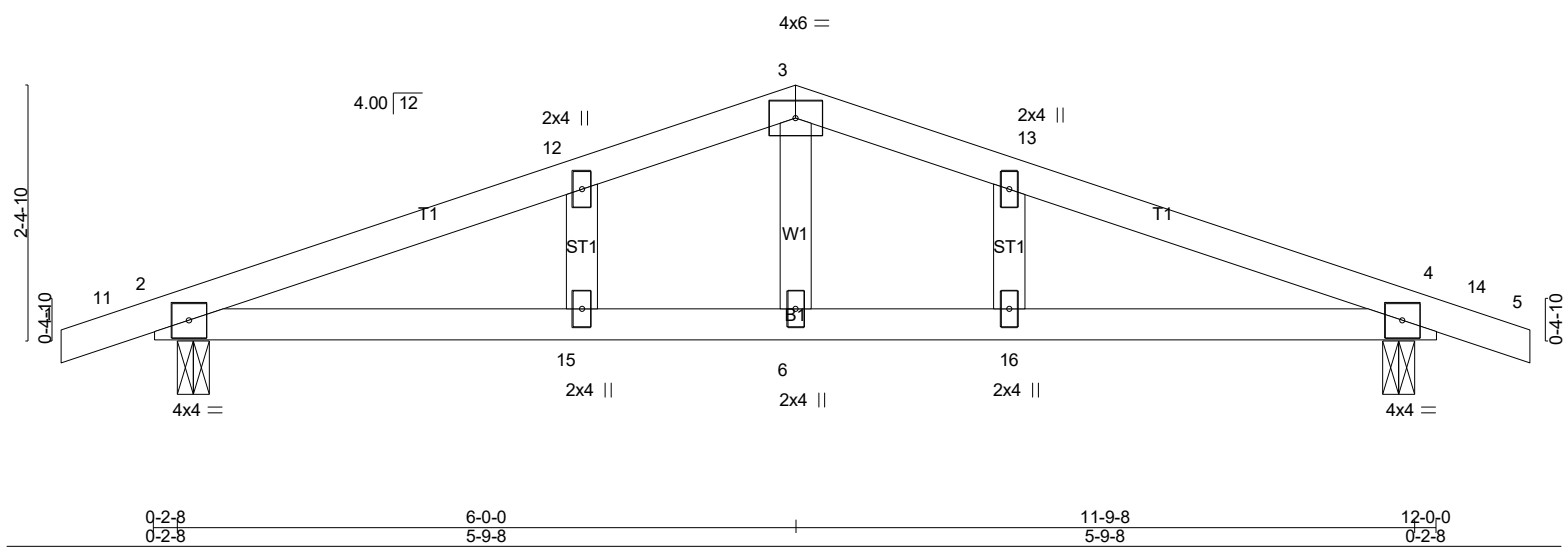
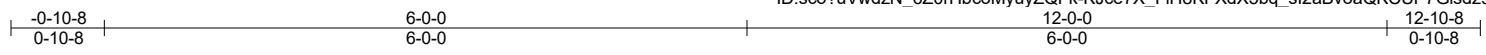
- NOTES-** (9)
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-16; Vult=120mph (3-second gust) Vasd=95mph; TCDL=5.0psf; BCDL=5.0psf; h=35ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -0-10-8 to 3-11-2, Exterior(2R) 3-11-2 to 8-0-14, Exterior(2E) 8-0-14 to 12-10-8 zone; porch left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
  - Unbalanced snow loads have been considered for this design.
  - This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 20.0 psf on overhangs non-concurrent with other live loads.
  - 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 1-0-0 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=200, 4=200.

**LOAD CASE(S)** Standard



6/5/2024

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0-2-8 0-2-8	6-0-0 5-9-8	11-9-8 5-9-8	12-0-0 0-2-8
<b>LOADING</b> (psf)	<b>SPACING-</b>	<b>CSI.</b>	<b>DEFL.</b>
TCLL (roof) 20.0	Plate Grip DOL 1.15	TC 0.77	in (loc) l/defl L/d
Snow (Pf) 20.0	Lumber DOL 1.15	BC 0.82	Vert(LL) 0.10 4-6 >999 240
TCDL 10.0	Rep Stress Incr YES	WB 0.11	Vert(CT) -0.10 4-6 >999 180
BCLL 0.0 *	Code IRC2021/TPI2014	Matrix-SH	Horz(CT) -0.01 4 n/a n/a
BCDL 10.0			
			<b>PLATES</b> MT20
			<b>GRIP</b> 244/190
			Weight: 46 lb FT = 20%

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

**BRACING-**  
 TOP CHORD Structural wood sheathing directly applied or 4-1-0 oc purlins.  
 BOT CHORD Rigid ceiling directly applied or 5-11-13 oc bracing.

MiTek recommends that Stabilizers and required cross bracing be installed during truss erection, in accordance with Stabilizer Installation guide.

**REACTIONS.** (lb/size) 2=530/0-3-8 (min. 0-1-8), 4=530/0-3-8 (min. 0-1-8)  
 Max Horz 2=34(LC 14)  
 Max Uplift 2=-200(LC 10), 4=-200(LC 11)  
 Max Grav 2=621(LC 21), 4=621(LC 22)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-12=-881/1128, 3-12=-774/1139, 3-13=-774/1139, 4-13=-881/1128  
 BOT CHORD 2-15=-996/746, 6-15=-996/746, 6-16=-996/746, 4-16=-996/746  
 WEBS 3-6=-459/280

- NOTES-** (11)
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-16; Vult=120mph (3-second gust) Vasd=95mph; TCDL=5.0psf; BCDL=5.0psf; h=35ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -0-10-8 to 3-11-2, Exterior(2R) 3-11-2 to 8-0-14, Exterior(2E) 8-0-14 to 12-10-8 zone; porch left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - 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.
  - TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
  - Unbalanced snow loads have been considered for this design.
  - This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 20.0 psf on overhangs non-concurrent with other live loads.
  - 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 1-0-0 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=200, 4=200.

**LOAD CASE(S)** Standard



6/5/2024

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