

# Mark Morris, P.E.

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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 #: 26724

JOB: 21-5647-R01

JOB NAME: 49786-0197 WOODGROVE

Wind Code: 37

Wind Speed: Vult= 115mph

Exposure Category: B

Mean Roof Height (feet): 23

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

*9 Truss Design(s)*

Trusses:

J01, M01, M02, R01, R02, R03, R04, R05, R07



**9/21/2021**

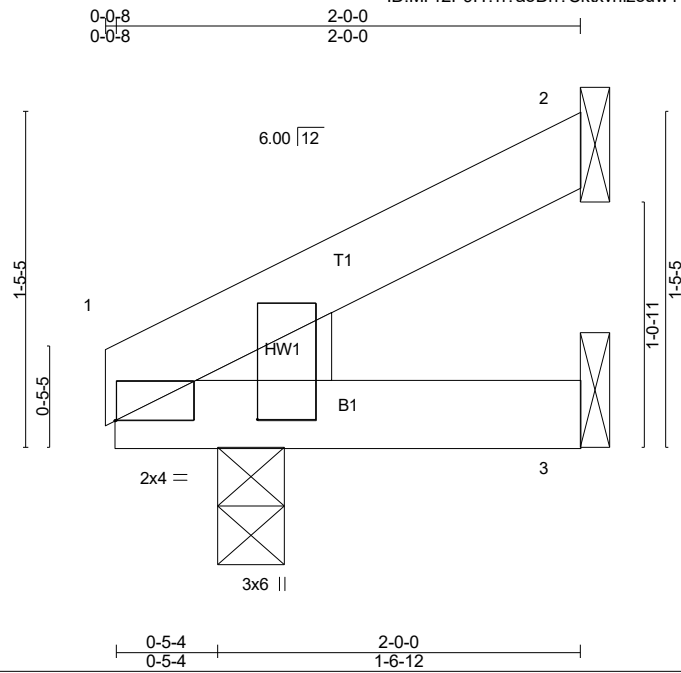
**Mark Morris**

***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

Job 21-5647-R01	Truss J01	Truss Type Jack-Open	Qty 1	Ply 1	49786-0197 WOODGROVE   FUQUAY VARINA, NC
					Job Reference (optional) <b># 26724</b>

ID:MPPr2P9H?n?aoDn?Cktxvnlzouw4-Jsa\_RvnB0nObGz4q9NBO0G8JBMaiXC2nOP1b6Fyb2su  
8.430 s Feb 12 2021 MiTek Industries, Inc. Wed Sep 22 15:13:09 2021 Page 1



Scale = 1:9.9

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

LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof) 20.0	Plate Grip DOL 1.15		TC 0.09	Vert(LL) -0.00	1	>999	240	MT20	244/190
Snow (Pf) 20.0	Lumber DOL 1.15		BC 0.04	Vert(CT) -0.00	1-3	>999	180		
TCDL 10.0	Rep Stress Incr YES		WB 0.00	Horz(CT) -0.00	2	n/a	n/a		
BCLL 0.0 *	Code IRC2018/TPI2014		Matrix-P						
BCDL 10.0								Weight: 7 lb	FT = 20%

**LUMBER-**  
TOP CHORD 2x4 SP No.2  
BOT CHORD 2x4 SP No.2  
WEDGE  
Left: 2x4 SP No.3

**BRACING-**  
TOP CHORD Structural wood sheathing directly applied or 2-0-0 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.

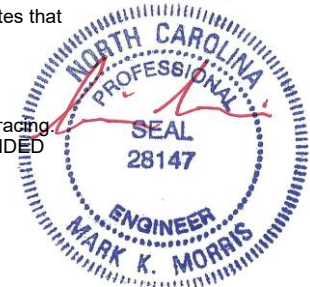
**REACTIONS.** (lb/size) 2=59/Mechanical, 3=20/Mechanical, 1=78/0-3-8 (min. 0-1-8)  
Max Horz 1=28(LC 14)  
Max Uplift2=-23(LC 14)  
Max Grav2=79(LC 20), 3=39(LC 7), 1=99(LC 20)

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

**NOTES-** (9-12)

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCCL=5.0psf; BCDL=5.0psf; h=9ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Corner(3) zone;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 2) 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
- 3) Unbalanced snow loads have been considered for this design.
- 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 1-0-0 wide will fit between the bottom chord and any other members.
- 6) Refer to girder(s) for truss to truss connections.
- 7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2.
- 8) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 9) Graphical bracing representation does not depict the size, type or the orientation of the brace on the member. Symbol only indicates that the member must be braced.
- 10) Bearing symbols are only graphical representations of a possible bearing condition. Bearing symbols are not considered in the structural design of the truss to support the loads indicated.
- 11) Web bracing shown is for lateral support of individual web members only. Refer to BCSI - Guide to Good Practice for Handling, Installing, Restraining & Bracing of Metal Plate Connected Wood Trusses for additional bracing guidelines, including diagonal bracing.
- 12) SEE BCSI-B3 SUMMARY SHEET- PERMANENT RESTRAINING/BRACING OF CHORDS & WEB MEMBERS FOR RECOMMENDED MINIMUM BRACING REQUIREMENTS OF TOP CHORD, BOTTOM CHORD, AND WEB PLANES. IN ADDITION TO THESE MINIMUM GUIDELINES, ALWAYS CONSULT THE PROJECT ARCHITECT OR ENGINEER FOR ADDITIONAL BRACING CONSIDERATIONS.

**LOAD CASE(S)** Standard



9/21/2021

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Job 21-5647-R01	Truss M01	Truss Type Monopitch	Qty 8	Ply 1	49786-0197 WOODGROVE   FUQUAY VARINA, NC	# 26724
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8.430 s Feb 12 2021 MiTek Industries, Inc. Wed Sep 22 15:13:10 2021 Page 1

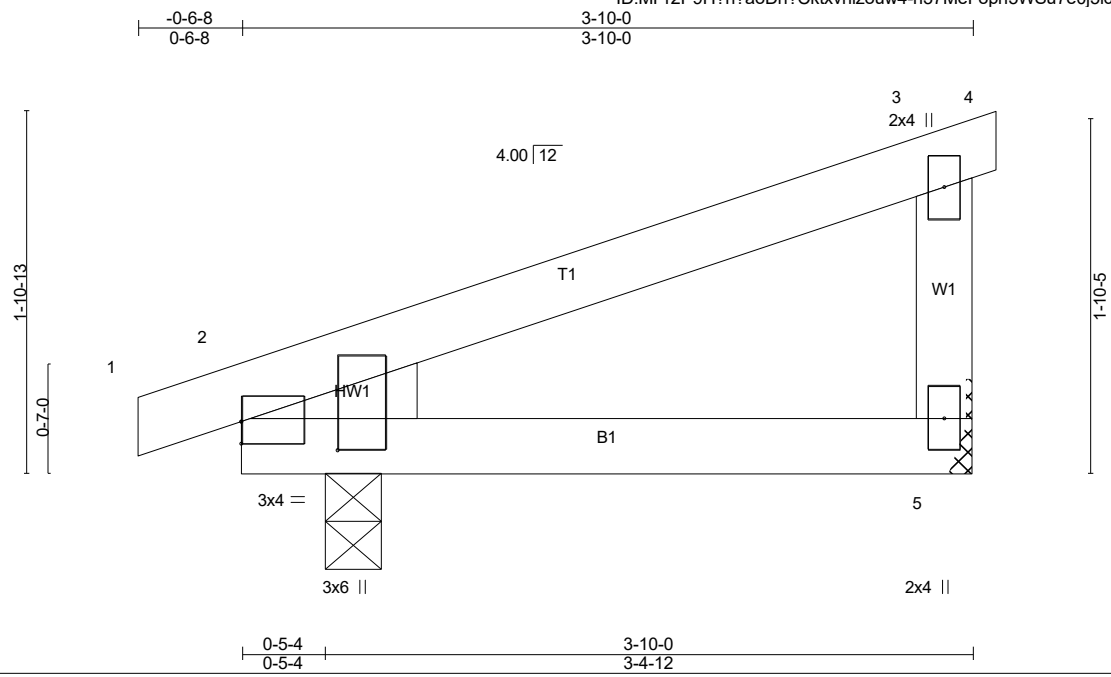


Plate Offsets (X,Y)-- [2:0-0-0,0-1-6], [2:0-1-13,0-6-1]		LOADING (psf)		SPACING-		CSI.		DEFL.				PLATES		GRIP	
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.33	Vert(LL)	-0.01	in (loc)	2-5	l/defl	>999	L/d	240	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.42	Vert(CT)	-0.02	2-5	>999	180					
TCDL	10.0	Rep Stress Incr	YES	WB	0.00	Horz(CT)	0.00	n/a	n/a						
BCLL	0.0 *	Code IRC2018/TPI2014		Matrix-P											
BCDL	10.0														
														Weight: 16 lb	FT = 20%

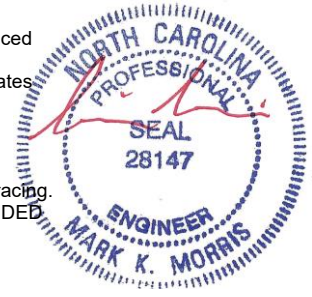
**LUMBER-**  
TOP CHORD 2x4 SP No.2  
BOT CHORD 2x4 SP No.2  
WEBS 2x4 SP No.3  
WEDGE  
Left: 2x4 SP No.3

**BRACING-**  
TOP CHORD Structural wood sheathing directly applied or 3-10-0 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) 5=155/Mechanical, 2=186/0-3-8 (min. 0-1-8)  
Max Horz 2=42(LC 14)  
Max Uplift 5=-27(LC 14), 2=-25(LC 10)  
Max Grav 5=206(LC 21), 2=252(LC 21)

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

- NOTES-** (10-13)
- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCCL=5.0psf; BCDL=5.0psf; h=23ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Corner(3E) zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - 2) 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
  - 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 100 lb uplift at joint(s) 5, 2.
  - 9) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
  - 10) Graphical bracing representation does not depict the size, type or the orientation of the brace on the member. Symbol only indicates that the member must be braced.
  - 11) Bearing symbols are only graphical representations of a possible bearing condition. Bearing symbols are not considered in the structural design of the truss to support the loads indicated.
  - 12) Web bracing shown is for lateral support of individual web members only. Refer to BCSI - Guide to Good Practice for Handling, Installing, Restraining & Bracing of Metal Plate Connected Wood Trusses for additional bracing guidelines, including diagonal bracing.
  - 13) SEE BCSI-B3 SUMMARY SHEET- PERMANENT RESTRAINING/BRACING OF CHORDS & WEB MEMBERS FOR RECOMMENDED MINIMUM BRACING REQUIREMENTS OF TOP CHORD, BOTTOM CHORD, AND WEB PLANES. IN ADDITION TO THESE MINIMUM GUIDELINES, ALWAYS CONSULT THE PROJECT ARCHITECT OR ENGINEER FOR ADDITIONAL BRACING CONSIDERATIONS.



**LOAD CASE(S)** Standard

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Job 21-5647-R01	Truss M02	Truss Type Half Hip Girder	Qty 1	Ply 1	49786-0197 WOODGROVE   FUQUAY VARINA, NC
					<b># 26724</b>

8.430 s Feb 12 2021 MiTek Industries, Inc. Wed Sep 22 15:13:11 2021 Page 1  
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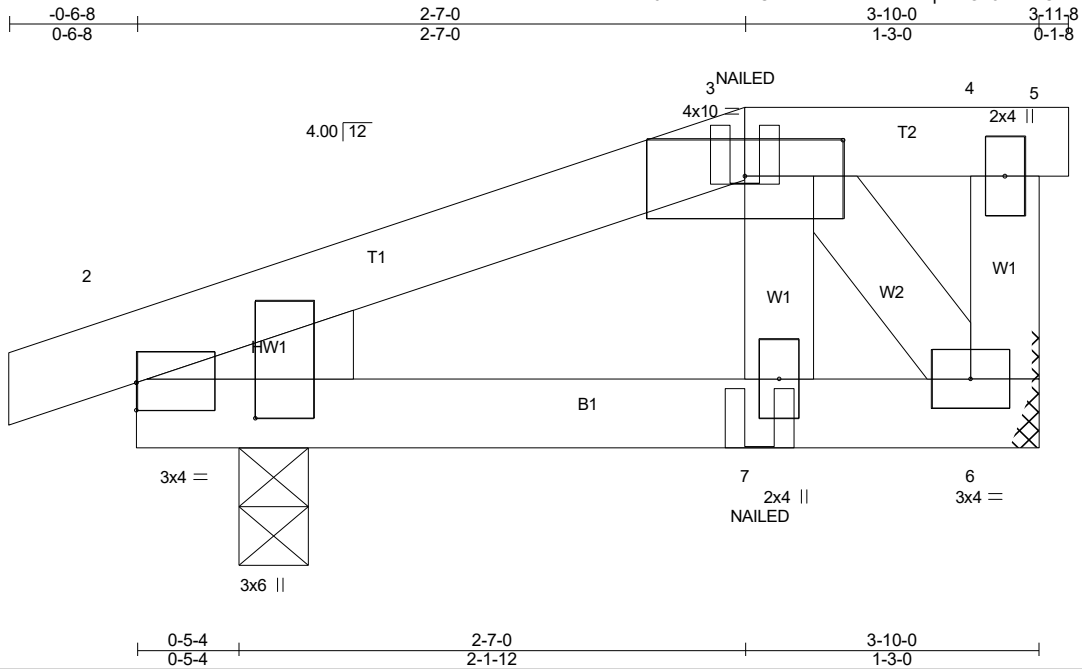


Plate Offsets (X,Y)-- [2:0-1-13,0-6-1], [2:0-0-0,0-1-6], [3:0-5-0,0-1-13]					
<b>LOADING</b> (psf)	<b>SPACING-</b>	<b>CSI.</b>	<b>DEFL.</b>	<b>PLATES</b>	<b>GRIP</b>
TCLL (roof) 20.0	2-0-0	TC 0.16	in (loc) l/defl L/d	MT20	244/190
Snow (Pf) 20.0	Plate Grip DOL 1.15	BC 0.11	Vert(LL) -0.00 2-7 >999 240		
TCDL 10.0	Lumber DOL 1.15	WB 0.04	Vert(CT) -0.00 2-7 >999 180		
BCLL 0.0 *	Rep Stress Incr NO	Matrix-P	Horz(CT) 0.00 6 n/a n/a		
BCDL 10.0	Code IRC2018/TPI2014			Weight: 18 lb	FT = 20%

**LUMBER-**  
 TOP CHORD 2x4 SP No.2  
 BOT CHORD 2x4 SP No.2  
 WEBS 2x4 SP No.3  
 WEDGE  
 Left: 2x4 SP No.3

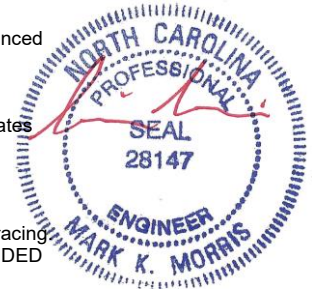
**BRACING-**  
 TOP CHORD Structural wood sheathing directly applied or 3-10-0 oc purlins, except end verticals.  
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

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

**REACTIONS.** (lb/size) 6=168/Mechanical, 2=192/0-3-8 (min. 0-1-8)  
 Max Horz 2=30(LC 12)  
 Max Uplift 6=-21(LC 8), 2=-31(LC 8)  
 Max Grav 6=184(LC 33), 2=267(LC 34)

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

- NOTES-** (13-16)
- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCCL=5.0psf; BCDL=5.0psf; h=23ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone; Lumber DOL=1.60 plate grip DOL=1.60
  - 2) 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
  - 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) Provide adequate drainage to prevent water ponding.
  - 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 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.
  - 8) Refer to girder(s) for truss to truss connections.
  - 9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 6, 2.
  - 10) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
  - 11) "NAILED" indicates 3-10d (0.148"x3") or 3-12d (0.148"x3.25") toe-nails per NDS guidelines.
  - 12) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).
  - 13) Graphical bracing representation does not depict the size, type or the orientation of the brace on the member. Symbol only indicates that the member must be braced.
  - 14) Bearing symbols are only graphical representations of a possible bearing condition. Bearing symbols are not considered in the structural design of the truss to support the loads indicated.
  - 15) Web bracing shown is for lateral support of individual web members only. Refer to BCSI - Guide to Good Practice for Handling, Installing, Restraining & Bracing of Metal Plate Connected Wood Trusses for additional bracing guidelines, including diagonal bracing.
  - 16) SEE BCSI-B3 SUMMARY SHEET- PERMANENT RESTRAING/BRACING OF CHORDS & WEB MEMBERS FOR RECOMMENDED MINIMUM BRACING REQUIREMENTS OF TOP CHORD, BOTTOM CHORD, AND WEB PLANES. IN ADDITION TO THESE MINIMUM GUIDELINES, ALWAYS CONSULT THE PROJECT ARCHITECT OR ENGINEER FOR ADDITIONAL BRACING CONSIDERATIONS.



**LOAD CASE(S)** Standard  
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Job	Truss	Truss Type	Qty	Ply	49786-0197 WOODGROVE   FUQUAY VARINA, NC
21-5647-R01	M02	Half Hip Girder	1	1	Job Reference (optional) # 26724

8.430 s Feb 12 2021 MiTek Industries, Inc. Wed Sep 22 15:13:12 2021 Page 2  
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**LOAD CASE(S)** Standard

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

Uniform Loads (plf)

Vert: 1-3=-60, 3-4=-60, 4-5=-60, 2-6=-20

Concentrated Loads (lb)

Vert: 3=-20(B)



9/21/2021

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Job 21-5647-R01	Truss R01	Truss Type GABLE	Qty 1	Ply 1	49786-0197 WOODGROVE   FUQUAY VARINA, NC
Job Reference (optional)					# 26724

8.430 s Feb 12 2021 MiTek Industries, Inc. Wed Sep 22 15:13:13 2021 Page 1  
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-0-6-8 0-6-8	19-0-0 19-0-0	38-0-0 38-0-0	38-0-0 38-0-0	0-6-8 0-6-8
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Scale = 1:66.3

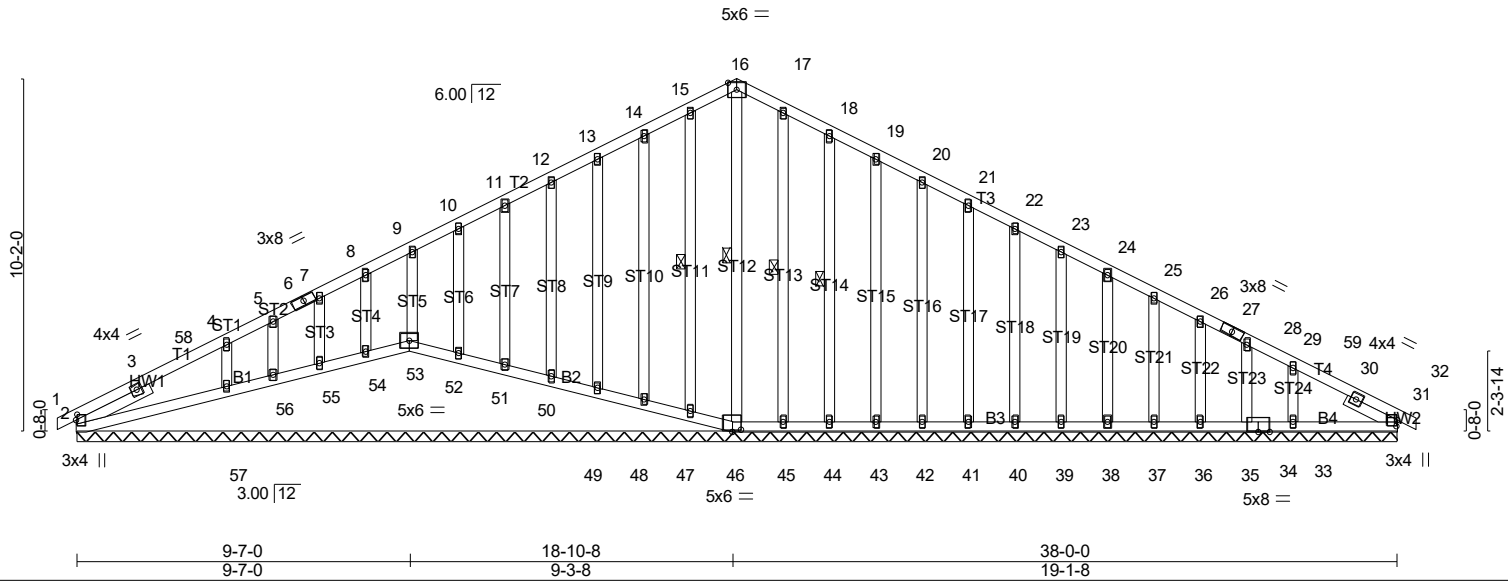


Plate Offsets (X,Y)-- [2:0-1-15,0-0-6], [31:0-2-1,0-0-5], [46:0-3-0,0-0-12]

LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof) 20.0	Plate Grip DOL 1.15		TC 0.21	Vert(LL) 0.00	31	n/r	180	MT20	244/190
Snow (Pf) 20.0	Lumber DOL 1.15		BC 0.21	Vert(CT) 0.00	32	n/r	80		
TCDL 10.0	Rep Stress Incr YES		WB 0.15	Horz(CT) 0.01	31	n/a	n/a		
BCLL 0.0 *	Code IRC2018/TPI2014		Matrix-SH						
BCDL 10.0								Weight: 307 lb	FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x4 SP No.2	TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins.
BOT CHORD 2x4 SP No.3	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
OTHERS 2x4 SP No.3	WEBS 1 Row at midpt 16-46, 15-47, 17-45, 18-44
SLIDER Left 2x4 SP No.3 - 2-4-11, Right 2x4 SP No.3 - 1-7-7	

**REACTIONS.** All bearings 38-0-0.  
(lb) - Max Horz 2=118(LC 14)  
Max Uplift All uplift 100 lb or less at joint(s) 2, 53, 47, 48, 49, 50, 51, 52, 54, 55, 56, 57, 44, 43, 42, 41, 40, 39, 38, 37, 36, 35, 33  
Max Grav All reactions 250 lb or less at joint(s) 2, 53, 46, 47, 48, 49, 50, 51, 52, 54, 55, 56, 45, 44, 43, 42, 41, 40, 39, 38, 37, 36, 35, 33, 31 except 57=348(LC 34)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
TOP CHORD 15-16=-139/252

- NOTES-** (15-18)
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCCL=5.0psf; BCDL=5.0psf; h=23ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Corner(3E) 0-6-8 to 3-4-11, Exterior(2N) 3-4-11 to 15-0-0, Corner(3R) 15-0-0 to 23-0-0, Exterior(2N) 23-0-0 to 34-7-5, Corner(3E) 34-7-5 to 38-6-8 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.
  - 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.
  - All plates are 2x4 MT20 unless otherwise indicated.
  - Gable requires continuous bottom chord bearing.
  - Gable studs spaced at 1-4-0 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) 2, 53, 47, 48, 49, 50, 51, 52, 54, 55, 56, 57, 44, 43, 42, 41, 40, 39, 38, 37, 36, 35, 33.
  - Beveled plate or shim required to provide full bearing surface with truss chord at joint(s) 53, 47, 48, 49, 50, 51, 52, 54, 55, 56, 57.
  - This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



9/21/2021

**Continued on Page 2** 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	49786-0197 WOODGROVE   FUQUAY VARINA, NC
21-5647-R01	R01	GABLE	1	1	Job Reference (optional) # 26724

8.430 s Feb 12 2021 MiTek Industries, Inc. Wed Sep 22 15:13:14 2021 Page 2  
 ID:MPPr2P9H?n?aoDn?Cktxvnlzouw4-fqNtUdrKqJ0uNlynywmZjKr84NEGCRuWYh0MoSyb2sp

- 15) Graphical bracing representation does not depict the size, type or the orientation of the brace on the member. Symbol only indicates that the member must be braced.
- 16) Bearing symbols are only graphical representations of a possible bearing condition. Bearing symbols are not considered in the structural design of the truss to support the loads indicated.
- 17) Web bracing shown is for lateral support of individual web members only. Refer to BCSI - Guide to Good Practice for Handling, Installing, Restraining & Bracing of Metal Plate Connected Wood Trusses for additional bracing guidelines, including diagonal bracing.
- 18) SEE BCSI-B3 SUMMARY SHEET- PERMANENT RESTRAING/BRACING OF CHORDS & WEB MEMBERS FOR RECOMMENDED MINIMUM BRACING REQUIREMENTS OF TOP CHORD, BOTTOM CHORD, AND WEB PLANES. IN ADDITION TO THESE MINIMUM GUIDELINES, ALWAYS CONSULT THE PROJECT ARCHITECT OR ENGINEER FOR ADDITIONAL BRACING CONSIDERATIONS.

**LOAD CASE(S)** Standard



9/21/2021

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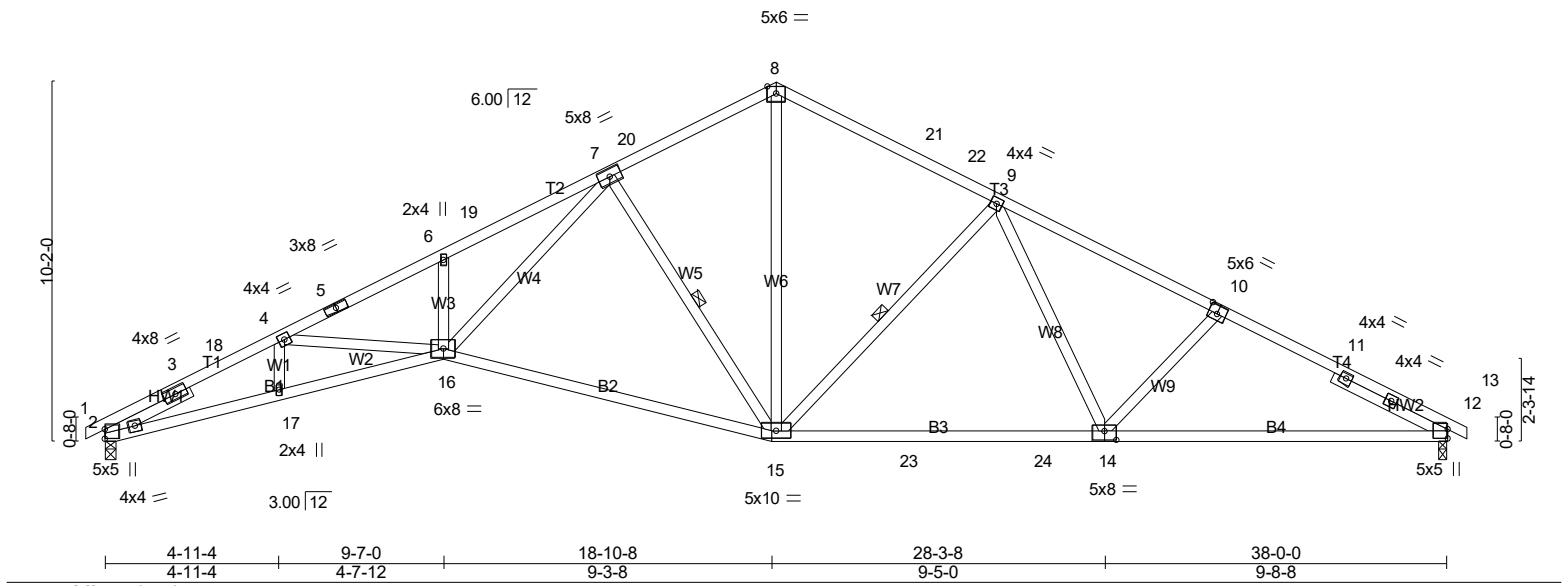
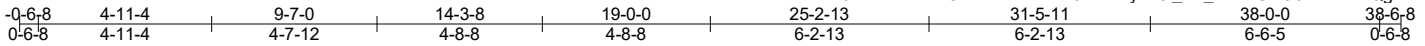


Plate Offsets (X,Y)-- [10:0-3-0,0-3-0], [14:0-4-0,0-3-0]						
<b>LOADING</b> (psf)	<b>SPACING-</b>	<b>CSI.</b>	<b>DEFL.</b>		<b>PLATES</b>	<b>GRIP</b>
TCLL (roof) 20.0	2-0-0	TC 0.86	in (loc) l/defl L/d		MT20	244/190
Snow (Pf) 20.0	Plate Grip DOL 1.15	BC 0.95	Vert(LL) -0.51 14-15 >901 240			
TCDL 10.0	Lumber DOL 1.15	WB 0.65	Vert(CT) -0.85 15-16 >534 180			
BCLL 0.0 *	Rep Stress Incr YES	Matrix-SH	Horz(CT) 0.31 12 n/a n/a			
BCDL 10.0	Code IRC2018/TPI2014					Weight: 212 lb FT = 20%

<p><b>LUMBER-</b></p> <p><b>TOP CHORD</b> 2x4 SP No.2 *Except* T2: 2x4 SP No.1, T1: 2x4 SP SS</p> <p><b>BOT CHORD</b> 2x4 SP No.1 *Except* B1: 2x4 SP SS</p> <p><b>WEBS</b> 2x4 SP No.3 *Except* W4: 2x4 SP No.2</p> <p><b>SLIDER</b> Left 2x4 SP No.3 - 2-8-12, Right 2x4 SP No.3 - 3-7-2</p>	<p><b>BRACING-</b></p> <p><b>TOP CHORD</b> Structural wood sheathing directly applied or 2-1-4 oc purlins.</p> <p><b>BOT CHORD</b> Rigid ceiling directly applied or 10-0-0 oc bracing, Except: 2-2-0 oc bracing: 14-15.</p> <p><b>WEBS</b> 1 Row at midpt 7-15, 9-15</p> <div style="border: 1px solid black; padding: 5px; margin-top: 10px;"> <p>MiTek recommends that Stabilizers and required cross bracing be installed during truss erection, in accordance with Stabilizer Installation guide.</p> </div>
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**REACTIONS.** (lb/size) 2=1554/0-3-8 (min. 0-1-12), 12=1550/0-3-8 (min. 0-1-13)  
Max Horz2=118(LC 14)  
Max Uplift2=-86(LC 14), 12=-85(LC 15)

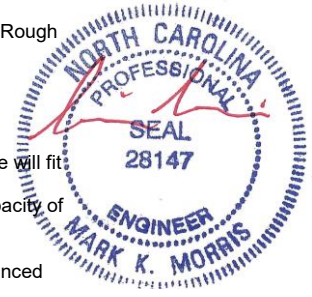
**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.

**TOP CHORD** 2-3=-4350/271, 3-18=-4274/280, 4-18=-4245/288, 4-5=-4371/237, 5-6=-4341/250, 6-19=-4415/322, 7-19=-4288/324, 7-20=-1724/200, 8-20=-1660/219, 8-21=-1643/212, 21-22=-1676/194, 9-22=-1738/187, 9-10=-2429/186, 10-11=-2586/182, 11-12=-2670/154

**BOT CHORD** 2-17=-331/3796, 16-17=-330/3823, 15-16=-98/2202, 15-23=-53/1931, 23-24=-53/1931, 14-24=-53/1931, 12-14=-99/2275

**WEBS** 4-16=0/276, 6-16=-348/117, 7-16=-208/2639, 7-15=-1288/189, 8-15=-771/1175, 9-15=-750/162, 9-14=-4/526, 10-14=-273/139

- NOTES-** (11-14)
- 1) Unbalanced roof live loads have been considered for this design.
  - 2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCCL=5.0psf; BCDL=5.0psf; h=23ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) 0-6-8 to 3-4-11, Interior(1) 3-4-11 to 15-0-13, Exterior(2R) 15-0-13 to 22-11-3, Interior(1) 22-11-3 to 34-7-5, Exterior(2E) 34-7-5 to 38-6-8 zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - 3) 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
  - 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) 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 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.
  - 8) 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.
  - 9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 12.
  - 10) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



9/21/2021



Job	Truss	Truss Type	Qty	Ply	49786-0197 WOODGROVE   FUQUAY VARINA, NC
21-5647-R01	R02	ROOF SPECIAL	8	1	Job Reference (optional) # 26724

8.430 s Feb 12 2021 MiTek Industries, Inc. Wed Sep 22 15:13:16 2021 Page 2  
 ID:MPPr2P9H?n?aoDn?Cktxvnlzouw4-bCVdvJtaMxGcc26A3Lp1olwKJBIAGDgp??VTsLyb2sn

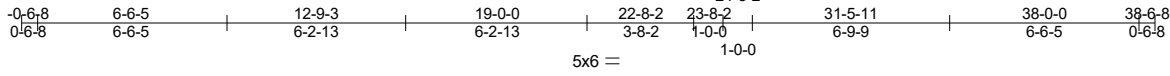
- 11) Graphical bracing representation does not depict the size, type or the orientation of the brace on the member. Symbol only indicates that the member must be braced.
- 12) Bearing symbols are only graphical representations of a possible bearing condition. Bearing symbols are not considered in the structural design of the truss to support the loads indicated.
- 13) Web bracing shown is for lateral support of individual web members only. Refer to BCSI - Guide to Good Practice for Handling, Installing, Restraining & Bracing of Metal Plate Connected Wood Trusses for additional bracing guidelines, including diagonal bracing.
- 14) SEE BCSI-B3 SUMMARY SHEET- PERMANENT RESTRAING/BRACING OF CHORDS & WEB MEMBERS FOR RECOMMENDED MINIMUM BRACING REQUIREMENTS OF TOP CHORD, BOTTOM CHORD, AND WEB PLANES. IN ADDITION TO THESE MINIMUM GUIDELINES, ALWAYS CONSULT THE PROJECT ARCHITECT OR ENGINEER FOR ADDITIONAL BRACING CONSIDERATIONS.

**LOAD CASE(S)** Standard



9/21/2021

**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 = 1:79.4

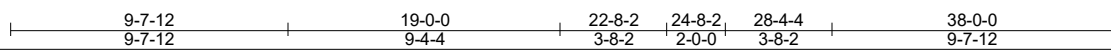
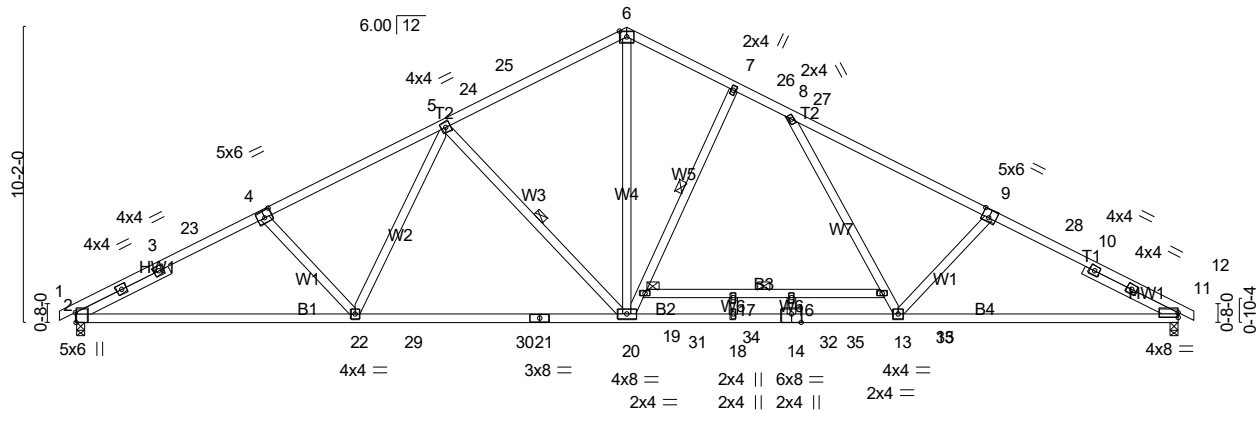


Plate Offsets (X,Y)-- [2:0-4-1,Edge], [4:0-3-0,0-3-0], [9:0-3-0,0-3-4], [11:0-0-0,0-2-1], [14:0-4-0,Edge]

LOADING (psf)	SPACING-	CSI.	DEFL.	PLATES	GRIP
TCLL (roof) 20.0	2-0-0	TC 0.94	in (loc) l/defl L/d	MT20	244/190
Snow (Pf) 20.0	Plate Grip DOL 1.15	BC 1.00	Vert(LL) -0.58 14-18 >785 240		
TCDL 10.0	Lumber DOL 1.15	WB 0.77	Vert(CT) -0.97 14-18 >470 180		
BCLL 0.0 *	Rep Stress Incr YES	Matrix-SH	Horz(CT) 0.13 11 n/a n/a		
BCDL 10.0	Code IRC2018/TPI2014			Weight: 223 lb	FT = 20%

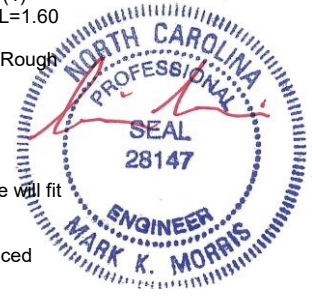
LUMBER-	BRACING-
TOP CHORD 2x4 SP SS *Except* T1: 2x4 SP No.1	TOP CHORD Structural wood sheathing directly applied.
BOT CHORD 2x4 SP SS *Except* B1: 2x4 SP No.1, B3: 2x4 SP No.2	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing. Except: 4-9-0 oc bracing: 15-19
WEBS 2x4 SP No.3	WEBS 1 Row at midpt 7-19, 5-20
SLIDER Left 2x4 SP No.3 - 3-7-2, Right 2x4 SP No.3 - 3-7-2	

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

**REACTIONS.** (lb/size) 2=1616/0-3-8 (min. 0-2-0), 11=1659/0-3-8 (min. 0-2-2)  
 Max Horz2=118(LC 14)  
 Max Uplift2=-55(LC 15), 11=-34(LC 15)  
 Max Grav2=1687(LC 3), 11=1775(LC 3)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-3=-3015/117, 3-23=-2935/131, 4-23=-2910/144, 4-5=-2805/148, 5-24=-2181/134,  
 24-25=-2156/137, 6-25=-2095/159, 6-7=-2226/175, 7-26=-2202/154, 26-27=-2229/150,  
 8-27=-2238/148, 8-9=-3019/98, 9-28=-3146/103, 10-28=-3171/88, 10-11=-3249/86  
 BOT CHORD 2-22=-138/2576, 22-29=-36/2297, 29-30=-36/2297, 21-30=-36/2297, 20-21=-36/2297,  
 20-31=0/2361, 18-31=0/2361, 14-18=0/2361, 14-32=0/2361, 32-33=0/2361, 13-33=0/2361,  
 11-13=-32/2796  
 WEBS 6-20=-50/1859, 19-20=-1107/143, 7-19=-941/168, 8-15=0/776, 13-15=-15/600,  
 9-13=-414/184, 5-20=-737/170, 5-22=-18/438, 4-22=-264/142

- NOTES-** (10-13)
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCCL=5.0psf; BCDL=5.0psf; h=23ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -0-6-8 to 4-3-2, Interior(1) 4-3-2 to 14-2-6, Exterior(2R) 14-2-6 to 23-9-10, Interior(1) 23-9-10 to 33-8-14, Exterior(2E) 33-8-14 to 38-6-8 zone;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - 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.
  - 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) 2, 11.
  - This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



9/21/2021

Continued on Page 2 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	49786-0197 WOODGROVE   FUQUAY VARINA, NC
21-5647-R01	R03	COMMON	5	1	Job Reference (optional) # 26724

8.430 s Feb 12 2021 MiTek Industries, Inc. Wed Sep 22 15:13:17 2021 Page 2  
 ID:MPR2P9H?n?aoDn?Cktxvnlzouw4-4P3?6etC7EOTEChMd3KGlyTUwb4bPd0zEfe0Pnyb2sm

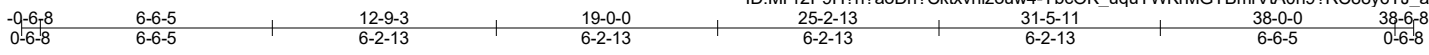
- 10) Graphical bracing representation does not depict the size, type or the orientation of the brace on the member. Symbol only indicates that the member must be braced.
- 11) Bearing symbols are only graphical representations of a possible bearing condition. Bearing symbols are not considered in the structural design of the truss to support the loads indicated.
- 12) Web bracing shown is for lateral support of individual web members only. Refer to BCSI - Guide to Good Practice for Handling, Installing, Restraining & Bracing of Metal Plate Connected Wood Trusses for additional bracing guidelines, including diagonal bracing.
- 13) SEE BCSI-B3 SUMMARY SHEET- PERMANENT RESTRAING/BRACING OF CHORDS & WEB MEMBERS FOR RECOMMENDED MINIMUM BRACING REQUIREMENTS OF TOP CHORD, BOTTOM CHORD, AND WEB PLANES. IN ADDITION TO THESE MINIMUM GUIDELINES, ALWAYS CONSULT THE PROJECT ARCHITECT OR ENGINEER FOR ADDITIONAL BRACING CONSIDERATIONS.

**LOAD CASE(S)** Standard



9/21/2021

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Scale = 1:64.7

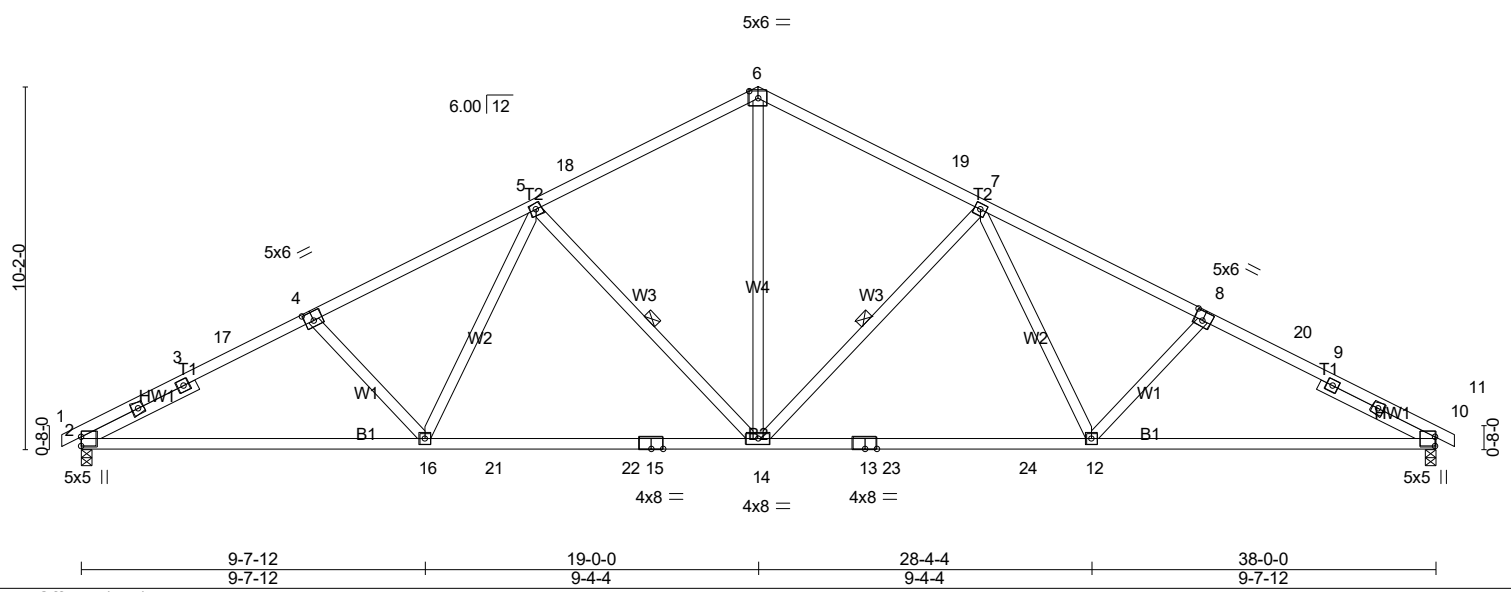


Plate Offsets (X,Y)-- [4:0-3-0,0-3-0], [8:0-3-0,0-3-0]

LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof) 20.0	Plate Grip DOL 1.15		TC 0.78	Vert(LL) -0.34	14-16	>999	240	MT20	244/190
Snow (Pf) 20.0	Lumber DOL 1.15		BC 0.91	Vert(CT) -0.55	14-16	>827	180		
TCDL 10.0	Rep Stress Incr YES		WB 0.53	Horz(CT) 0.12	10	n/a	n/a		
BCLL 0.0 *	Code IRC2018/TPI2014		Matrix-SH						
BCDL 10.0								Weight: 208 lb	FT = 20%

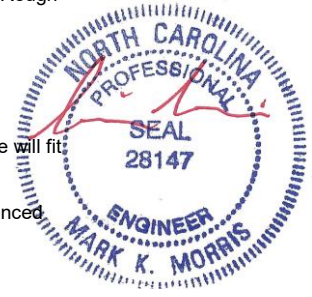
LUMBER-	BRACING-
TOP CHORD 2x4 SP No.2	TOP CHORD Structural wood sheathing directly applied or 2-2-0 oc purlins.
BOT CHORD 2x4 SP No.1	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 2x4 SP No.3	WEBS 1 Row at midpt 7-14, 5-14
SLIDER Left 2x4 SP No.3 - 3-7-2, Right 2x4 SP No.3 - 3-7-2	

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

**REACTIONS.** (lb/size) 2=1553/0-3-8 (min. 0-1-13), 10=1553/0-3-8 (min. 0-1-13)  
 Max Horz 2=118(LC 14)  
 Max Uplift 2=-87(LC 14), 10=-87(LC 15)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-3=-2709/433, 3-17=-2629/438, 4-17=-2603/451, 4-5=-2508/435, 5-18=-1823/348,  
 6-18=-1745/374, 6-19=-1745/374, 7-19=-1823/348, 7-8=-2508/435, 8-20=-2603/451,  
 9-20=-2629/438, 9-10=-2709/433  
 BOT CHORD 2-16=-303/2308, 16-21=-170/1992, 21-22=-170/1992, 15-22=-170/1992, 14-15=-170/1992,  
 13-14=-170/1992, 13-23=-170/1992, 23-24=-170/1992, 12-24=-170/1992, 10-12=-303/2308  
 WEBS 6-14=-204/1286, 7-14=-741/203, 7-12=-41/483, 8-12=-273/174, 5-14=-741/203,  
 5-16=-41/483, 4-16=-273/174

- NOTES-** (11-14)
- 1) Unbalanced roof live loads have been considered for this design.
  - 2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCCL=5.0psf; BCDL=5.0psf; h=23ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Corner(3E) -0-6-8 to 4-3-2, Exterior(2N) 4-3-2 to 14-2-6, Corner(3R) 14-2-6 to 23-9-10, Exterior(2N) 23-9-10 to 33-8-14, Corner(3E) 33-8-14 to 38-6-8 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) All plates are 4x4 MT20 unless otherwise indicated.
  - 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) 2, 10.
  - 10) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



9/21/2021

Continued on page 2 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	49786-0197 WOODGROVE   FUQUAY VARINA, NC
21-5647-R01	R04	Common	7	1	Job Reference (optional) # 26724

8.430 s Feb 12 2021 MiTek Industries, Inc. Wed Sep 22 15:13:19 2021 Page 2  
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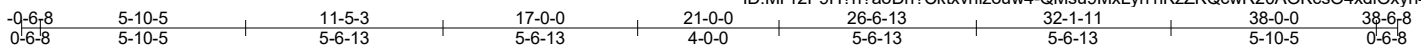
- 11) Graphical bracing representation does not depict the size, type or the orientation of the brace on the member. Symbol only indicates that the member must be braced.
- 12) Bearing symbols are only graphical representations of a possible bearing condition. Bearing symbols are not considered in the structural design of the truss to support the loads indicated.
- 13) Web bracing shown is for lateral support of individual web members only. Refer to BCSI - Guide to Good Practice for Handling, Installing, Restraining & Bracing of Metal Plate Connected Wood Trusses for additional bracing guidelines, including diagonal bracing.
- 14) SEE BCSI-B3 SUMMARY SHEET- PERMANENT RESTRAING/BRACING OF CHORDS & WEB MEMBERS FOR RECOMMENDED MINIMUM BRACING REQUIREMENTS OF TOP CHORD, BOTTOM CHORD, AND WEB PLANES. IN ADDITION TO THESE MINIMUM GUIDELINES, ALWAYS CONSULT THE PROJECT ARCHITECT OR ENGINEER FOR ADDITIONAL BRACING CONSIDERATIONS.

**LOAD CASE(S)** Standard



9/21/2021

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Scale = 1:65.5

Plate Offsets (X,Y)--	[2:0-2-1,0-0-5], [4:0-3-0,0-3-0], [6:0-3-0,0-2-0], [7:0-6-0,0-2-8], [9:0-3-0,0-3-0], [11:0-3-13,0-1-13], [57:0-2-0,0-1-12]
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LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof) 20.0	Plate Grip DOL 1.15		TC 0.77	Vert(LL) -0.21	13-15	>999	240	MT20	244/190
Snow (Pf) 20.0	Lumber DOL 1.15		BC 0.70	Vert(CT) -0.31	13-15	>758	180		
TCDL 10.0	Rep Stress Incr YES		WB 0.62	Horz(CT) 0.02	11	n/a	n/a		
BCLL 0.0 *	Code IRC2018/TPI2014		Matrix-SH						
BCDL 10.0								Weight: 410 lb	FT = 20%

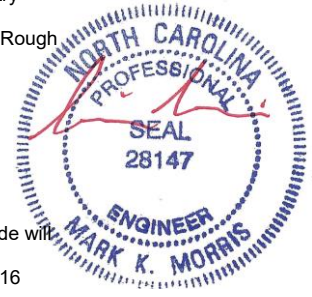
LUMBER-	TOP CHORD	2x4 SP No.2	BOT CHORD	2x4 SP No.2 *Except*	B1: 2x4 SP No.3	WEBS	2x4 SP No.3	OTHERS	2x4 SP No.3	SLIDER	Left 2x4 SP No.3 - 3-2-11, Right 2x4 SP No.3 - 3-2-11
<b>BRACING-</b>	<b>TOP CHORD</b>	Structural wood sheathing directly applied or 5-1-12 oc purlins.									
	<b>BOT CHORD</b>	Rigid ceiling directly applied or 6-0-0 oc bracing, Except: 10-0-0 oc bracing: 13-15,11-13.									
	<b>WEBS</b>	1 Row at midpt 5-17, 6-17, 7-17, 8-15									

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

**REACTIONS.** All bearings 18-3-8 except (jt=length) 11=0-3-8, 16=0-3-8.  
 (lb) - Max Horz 2=106(LC 19)  
 Max Uplift All uplift 100 lb or less at joint(s) 2, 17, 11, 26, 16 except 24=-139(LC 14)  
 Max Grav All reactions 250 lb or less at joint(s) 19, 20, 21, 22, 23, 25, 26, 27, 16 except 2=314(LC 54), 24=412(LC 39), 17=2121(LC 39), 11=868(LC 39)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-3=-296/67, 5-76=0/331, 5-77=0/577, 6-77=0/724, 6-7=0/560, 8-79=-800/119, 9-79=-1030/106, 9-80=-1166/126, 10-80=-1232/113, 10-11=-1315/111  
 BOT CHORD 14-15=0/584, 14-83=0/584, 83-84=0/584, 13-84=0/584, 11-13=-50/1102  
 WEBS 4-24=-482/135, 5-17=-564/119, 6-17=-582/43, 7-17=-1266/56, 7-15=-31/895, 8-15=-959/148, 8-13=-8/578, 9-13=-432/125

- NOTES-** (14-17)
- 1) Unbalanced roof live loads have been considered for this design.
  - 2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCCL=5.0psf; BCDL=5.0psf; h=23ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Corner(3) -0-6-8 to 4-3-2, Exterior(2E) 4-3-2 to 33-8-14, Corner(3) 33-8-14 to 38-6-8 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) 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
  - 5) Unbalanced snow loads have been considered for this design.
  - 6) 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.
  - 7) Provide adequate drainage to prevent water ponding.
  - 8) All plates are 2x4 MT20 unless otherwise indicated.
  - 9) Gable studs spaced at 1-4-0 oc.
  - 10) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - 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) 2, 17, 11, 26, 16 except (jt=lb) 24=139.
  - 13) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



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Continued on page 2. 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	49786-0197 WOODGROVE   FUQUAY VARINA, NC
21-5647-R01	R05	GABLE	1	1	Job Reference (optional) # 26724

8.430 s Feb 12 2021 MiTek Industries, Inc. Wed Sep 22 15:13:23 2021 Page 2  
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- 14) Graphical bracing representation does not depict the size, type or the orientation of the brace on the member. Symbol only indicates that the member must be braced.
- 15) Bearing symbols are only graphical representations of a possible bearing condition. Bearing symbols are not considered in the structural design of the truss to support the loads indicated.
- 16) Web bracing shown is for lateral support of individual web members only. Refer to BCSI - Guide to Good Practice for Handling, Installing, Restraining & Bracing of Metal Plate Connected Wood Trusses for additional bracing guidelines, including diagonal bracing.
- 17) SEE BCSI-B3 SUMMARY SHEET- PERMANENT RESTRAING/BRACING OF CHORDS & WEB MEMBERS FOR RECOMMENDED MINIMUM BRACING REQUIREMENTS OF TOP CHORD, BOTTOM CHORD, AND WEB PLANES. IN ADDITION TO THESE MINIMUM GUIDELINES, ALWAYS CONSULT THE PROJECT ARCHITECT OR ENGINEER FOR ADDITIONAL BRACING CONSIDERATIONS.

**LOAD CASE(S)** Standard

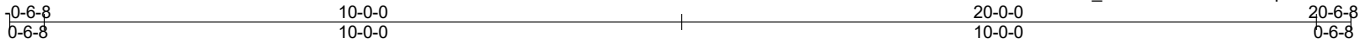


9/21/2021

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Job 21-5647-R01	Truss R07	Truss Type GABLE	Qty 1	Ply 1	49786-0197 WOODGROVE   FUQUAY VARINA, NC
Job Reference (optional)					# 26724

8.430 s Feb 12 2021 MiTek Industries, Inc. Wed Sep 22 15:13:25 2021 Page 1  
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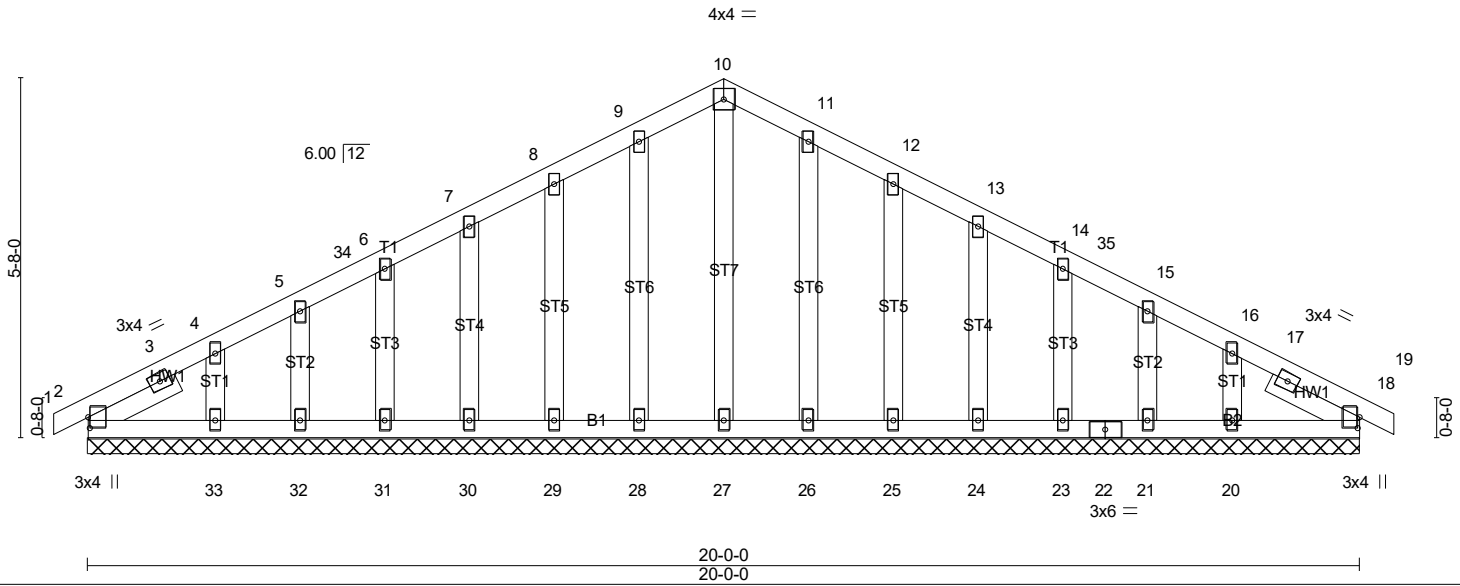


Plate Offsets (X,Y)-- [2:0-2-1,0-0-5], [18:0-2-1,0-0-5]

LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof) 20.0	2-0-0	TC 0.04	Vert(LL) 0.00	18	n/r	180	MT20	244/190
Snow (Pf) 20.0	Plate Grip DOL 1.15	BC 0.05	Vert(CT) 0.00	18	n/r	80		
TCDL 10.0	Lumber DOL 1.15	WB 0.06	Horz(CT) 0.00	18	n/a	n/a		
BCLL 0.0 *	Rep Stress Incr YES	Matrix-SH						
BCDL 10.0	Code IRC2018/TPI2014						Weight: 127 lb	FT = 20%

**LUMBER-**  
 TOP CHORD 2x4 SP No.2  
 BOT CHORD 2x4 SP No.3  
 OTHERS 2x4 SP No.3  
 SLIDER Left 2x4 SP No.3 - 1-6-7, Right 2x4 SP No.3 - 1-6-7

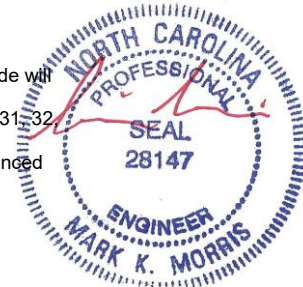
**BRACING-**  
 TOP CHORD Structural wood sheathing directly applied or 6'-0" oc purlins.  
 BOT CHORD Rigid ceiling directly applied or 10'-0" oc bracing.

**REACTIONS.** All bearings 20-0-0.  
 (lb) - Max Horz 2=-64(LC 15)  
 Max Uplift All uplift 100 lb or less at joint(s) 2, 28, 29, 30, 31, 32, 33, 26, 25, 24, 23, 21, 20  
 Max Grav All reactions 250 lb or less at joint(s) 2, 27, 28, 29, 30, 31, 32, 33, 26, 25, 24, 23, 21, 20, 18

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

**NOTES-** (14-17)

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCCL=5.0psf; BCDL=5.0psf; h=23ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Corner(3E) -0-6-8 to 4-3-2, Exterior(2N) 4-3-2 to 5-2-6, Corner(3R) 5-2-6 to 14-9-10, Exterior(2N) 14-9-10 to 15-8-14, Corner(3E) 15-8-14 to 20-6-8 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.
- 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.
- Gable studs spaced at 1'-4" 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" tall by 1'-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) 2, 28, 29, 30, 31, 32, 33, 26, 25, 24, 23, 21, 20.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



9/21/2021

Continued on page 2  
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Job	Truss	Truss Type	Qty	Ply	49786-0197 WOODGROVE   FUQUAY VARINA, NC
21-5647-R01	R07	GABLE	1	1	Job Reference (optional) # 26724

8.430 s Feb 12 2021 MiTek Industries, Inc. Wed Sep 22 15:13:26 2021 Page 2  
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- 14) Graphical bracing representation does not depict the size, type or the orientation of the brace on the member. Symbol only indicates that the member must be braced.
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**LOAD CASE(S)** Standard



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