

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 #: 29077

JOB: 21-5966-R01

JOB NAME: 49786-0211 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.

20 Truss Design(s)

Trusses:

J01, R01, R02, R03, R04, R05, R06, R07, R08, R09, R10, R11, R12, R13, R13A, R14, R15, R16, R17, VT01



10/14/2021

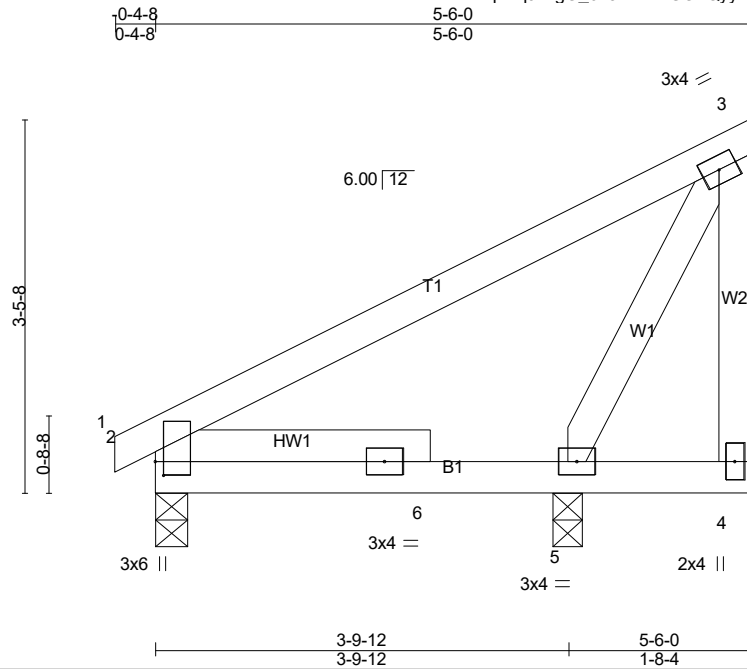
Mark Morris

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 21-5966-R01	Truss J01	Truss Type Jack-Closed	Qty 4	Ply 1	49786-0211 WOODGROVE FUQUAY VARINA, NC
Job Reference (optional)					# 29077

8.430 s Feb 12 2021 MiTek Industries, Inc. Sat Oct 16 13:17:25 2021 Page 1
ID:pMqJz?gO_6c5LW5fGO4QyyWlk-r?yb4UpIFhpYZaBoczryEVC49JUfB17osRCCLsySrDO



Scale = 1:21.3

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

LOADING (psf)	SPACING-	CSI.	DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof) 20.0	2-0-0	TC 0.90	Vert(LL) -0.00	2-5	>999	240		MT20	244/190
Snow (Pf) 20.0	Plate Grip DOL 1.15	BC 0.09	Vert(CT) -0.01	2-5	>999	180			
TCDL 10.0	Lumber DOL 1.15	WB 0.02	Horz(CT) -0.00	4	n/a	n/a			
BCLL 0.0 *	Rep Stress Incr YES	Matrix-P							
BCDL 10.0	Code IRC2018/TPI2014								
								Weight: 31 lb	FT = 20%

LUMBER-

TOP CHORD 2x4 SP No.2
 BOT CHORD 2x4 SP No.2
 WEBS 2x4 SP No.3
 SLIDER Left 2x4 SP No.3 - 2-6-8

BRACING-

TOP CHORD Structural wood sheathing directly applied or 2-2-0 oc purlins, except end verticals.
 BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.

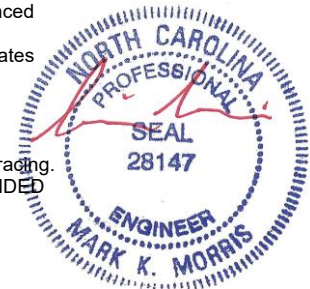
REACTIONS. (lb/size) 4=133/Mechanical, 2=205/0-3-8 (min. 0-1-8), 5=112/0-3-8 (min. 0-1-8)

Max Horz 2=81(LC 14)
 Max Uplift 4=-72(LC 14), 2=-13(LC 14)
 Max Grav 4=206(LC 21), 2=288(LC 21), 5=155(LC 7)

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 Exterior(2E) 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) 4, 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

10/14/2021

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Job 21-5966-R01	Truss R01	Truss Type Common Supported Gable	Qty 1	Ply 1	49786-0211 WOODGROVE FUQUAY VARINA, NC
					Job Reference (optional) # 29077

8.430 s Feb 12 2021 MiTek Industries, Inc. Sat Oct 16 13:17:26 2021 Page 1
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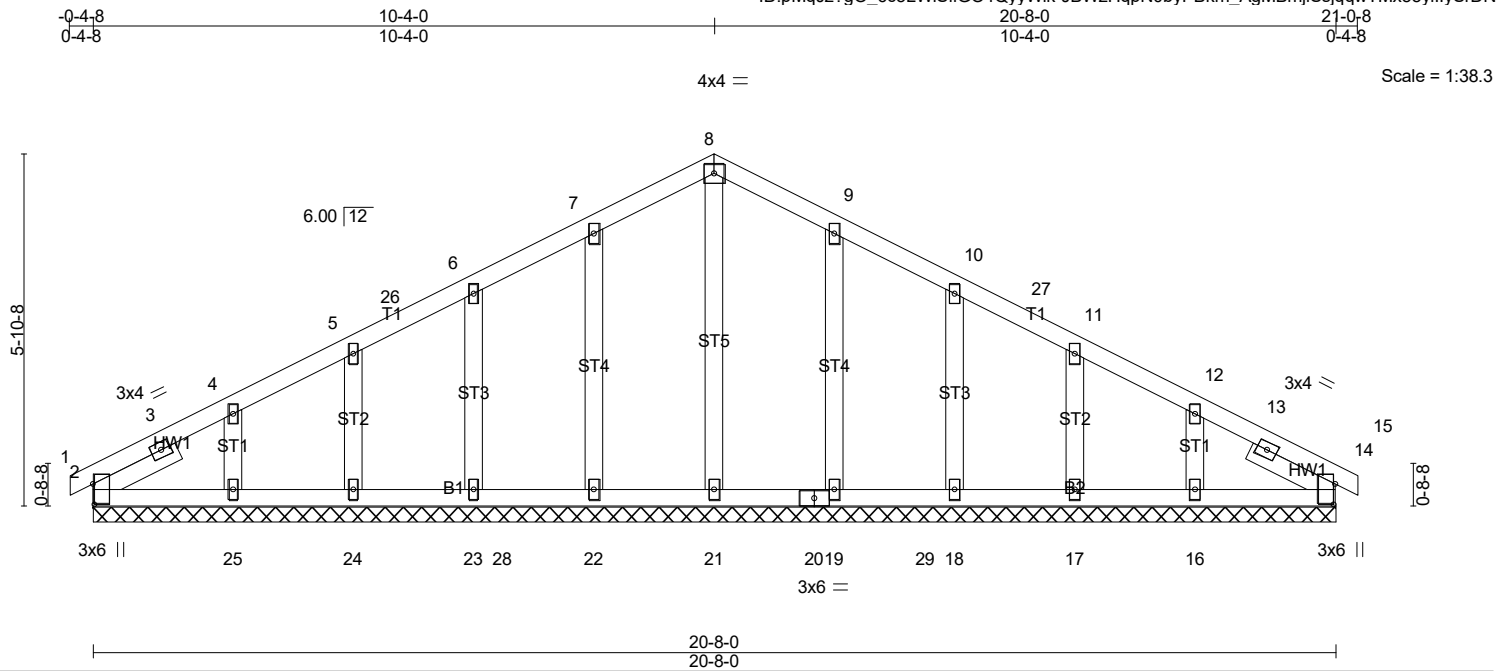


Plate Offsets (X,Y)-- [2:0-4-1,0-0-5], [14:0-4-1,0-0-5]					
LOADING (psf)	SPACING-	CSI.	DEFL.	PLATES	GRIP
TCLL (roof) 20.0	2-0-0	TC 0.07	in (loc) l/defl L/d	MT20	244/190
Snow (Pf) 20.0	Plate Grip DOL 1.15	BC 0.10	Vert(LL) 0.00 14 n/r 180		
TCDL 10.0	Lumber DOL 1.15	WB 0.09	Vert(CT) 0.00 14 n/r 80		
BCLL 0.0 *	Rep Stress Incr YES	Matrix-SH	Horz(CT) 0.00 14 n/a n/a		
BCDL 10.0	Code IRC2018/TPI2014			Weight: 113 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	
SLIDER Left 2x4 SP No.3 - 1-6-12, Right 2x4 SP No.3 - 1-6-12	

REACTIONS. All bearings 20-8-0.
 (lb) - Max Horz 2=-65(LC 15)
 Max Uplift All uplift 100 lb or less at joint(s) 22, 23, 24, 25, 19, 18, 17, 16, 2
 Max Grav All reactions 250 lb or less at joint(s) 14, 21, 23, 24, 25, 18, 17, 16, 2 except 22=294(LC 5), 19=294(LC 6)

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; TCDL=5.0psf; BCDL=5.0psf; h=23ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Corner(3E) -0-4-8 to 4-4-0, Exterior(2N) 4-4-0 to 5-6-6, Corner(3R) 5-6-6 to 15-1-10, Exterior(2N) 15-1-10 to 16-2-14, Corner(3E) 16-2-14 to 21-0-8 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 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) 22, 23, 24, 25, 19, 18, 17, 16, 2.
 - 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.



10/14/2021

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	49786-0211 WOODGROVE FUQUAY VARINA, NC
21-5966-R01	R01	Common Supported Gable	1	1	Job Reference (optional) # 29077

8.430 s Feb 12 2021 MiTek Industries, Inc. Sat Oct 16 13:17:27 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



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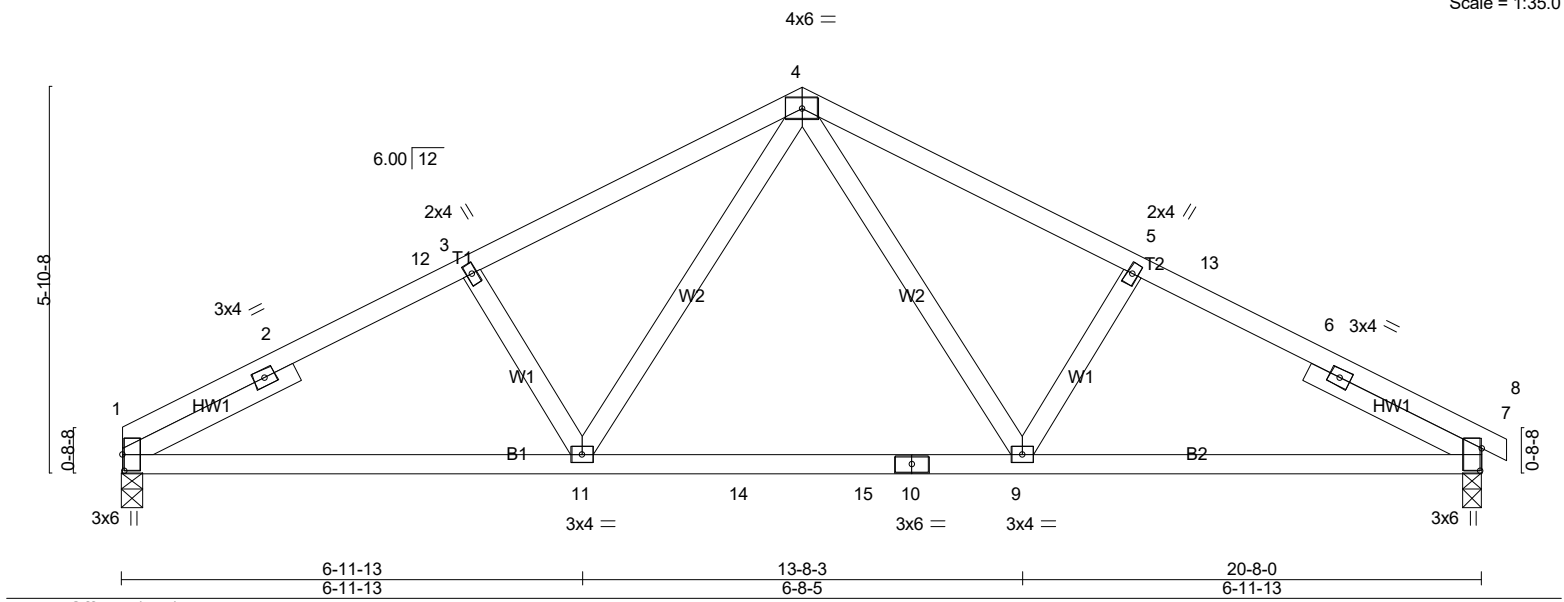
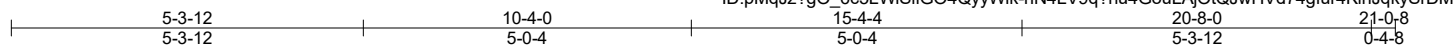


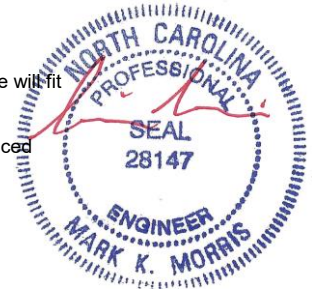
Plate Offsets (X,Y)-- [1:0-3-0,0-0-5], [7:0-4-1,0-0-5]					
LOADING (psf)	SPACING-	CSI.	DEFL.	PLATES	GRIP
TCLL (roof) 20.0	2-0-0	TC 0.58	in (loc) l/defl L/d	MT20	244/190
Snow (Pf) 20.0	Plate Grip DOL 1.15	BC 0.51	Vert(LL) -0.10 9-11 >999 240		
TCDL 10.0	Lumber DOL 1.15	WB 0.20	Vert(CT) -0.16 9-11 >999 180		
BCLL 0.0 *	Rep Stress Incr YES	Matrix-SH	Horz(CT) 0.03 7 n/a n/a		
BCDL 10.0	Code IRC2018/TPI2014				Weight: 103 lb FT = 20%

LUMBER- TOP CHORD 2x4 SP No.2 BOT CHORD 2x4 SP No.2 WEBS 2x4 SP No.3 SLIDER Left 2x4 SP No.3 - 2-11-4, Right 2x4 SP No.3 - 2-11-4	BRACING- TOP CHORD Structural wood sheathing directly applied or 3-11-15 oc purlins. BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing. <div style="border: 1px solid black; padding: 5px; margin-top: 5px;">MiTek recommends that Stabilizers and required cross bracing be installed during truss erection, in accordance with Stabilizer Installation guide.</div>
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REACTIONS. (lb/size) 1=826/0-3-8 (min. 0-1-8), 7=849/0-3-8 (min. 0-1-8)
Max Horz 1=70(LC 14)
Max Uplift 1=-43(LC 14), 7=-48(LC 15)
Max Grav 1=860(LC 21), 7=883(LC 22)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-2=-1401/186, 2-12=-1273/200, 3-12=-1258/202, 3-4=-1238/217, 4-5=-1237/215,
5-13=-1272/200, 6-13=-1279/197, 6-7=-1400/177
BOT CHORD 1-11=-128/1171, 11-14=-40/775, 14-15=-40/775, 10-15=-40/775, 9-10=-40/775,
7-9=-126/1170
WEBS 4-9=-47/479, 5-9=-323/124, 4-11=-48/480, 3-11=-323/126

- NOTES-** (10-13)
- 1) Unbalanced roof live loads have been considered for this design.
 - 2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TC DL=5.0psf; BCDL=5.0psf; h=23ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) 0-0-0 to 4-9-10, Interior(1) 4-9-10 to 5-2-13, Exterior(2R) 5-2-13 to 15-5-3, Interior(1) 15-5-3 to 16-2-14, Exterior(2E) 16-2-14 to 21-0-8 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) 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) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 7.
 - 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.



10/14/2021

Job	Truss	Truss Type	Qty	Ply	49786-0211 WOODGROVE FUQUAY VARINA, NC
21-5966-R01	R02	Common	3	1	Job Reference (optional) # 29077

8.430 s Feb 12 2021 MiTek Industries, Inc. Sat Oct 16 13:17:27 2021 Page 2
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- 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

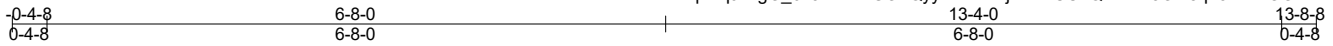


10/14/2021

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Job 21-5966-R01	Truss R03	Truss Type Common Supported Gable	Qty 1	Ply 1	49786-0211 WOODGROVE FUQUAY VARINA, NC
Job Reference (optional)					# 29077

8.430 s Feb 12 2021 MiTek Industries, Inc. Sat Oct 16 13:17:28 2021 Page 1
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4x4 =

Scale = 1:24.8

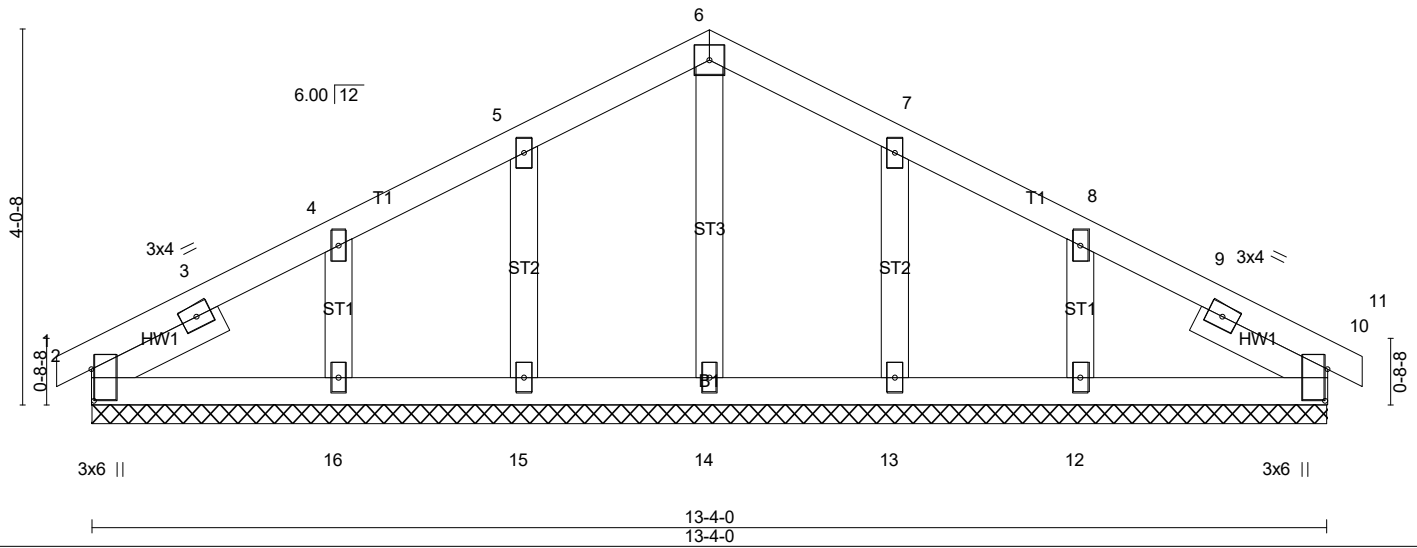


Plate Offsets (X,Y)-- [2:0-4-1,0-0-5], [10:0-4-1,0-0-5]

LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof) 20.0	2-0-0	TC 0.09	Vert(LL) 0.00	10	n/r	180	MT20	244/190
Snow (Pf) 20.0	Plate Grip DOL 1.15	BC 0.08	Vert(CT) 0.00	10	n/r	80		
TCDL 10.0	Lumber DOL 1.15	WB 0.04	Horz(CT) 0.00	10	n/a	n/a		
BCLL 0.0 *	Rep Stress Incr YES	Matrix-SH						
BCDL 10.0	Code IRC2018/TPI2014						Weight: 65 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 - 1-6-12, Right 2x4 SP No.3 - 1-6-12

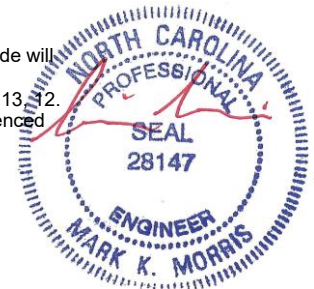
BRACING-
TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. All bearings 13-4-0.
(lb) - Max Horz 2=43(LC 18)
Max Uplift All uplift 100 lb or less at joint(s) 2, 10, 15, 16, 13, 12
Max Grav All reactions 250 lb or less at joint(s) 2, 10, 14, 15, 13 except 16=279(LC 21), 12=279(LC 22)

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; BCCL=5.0psf; h=23ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Corner(3E) 0-4-8 to 4-8-0, Corner(3R) 4-8-0 to 8-8-0, Corner(3E) 8-8-0 to 13-8-8 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 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) 2, 10, 15, 16, 13, 12.
- 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.



10/14/2021

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	49786-0211 WOODGROVE FUQUAY VARINA, NC
21-5966-R01	R03	Common Supported Gable	1	1	Job Reference (optional) # 29077

8.430 s Feb 12 2021 MiTek Industries, Inc. Sat Oct 16 13:17:28 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



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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.

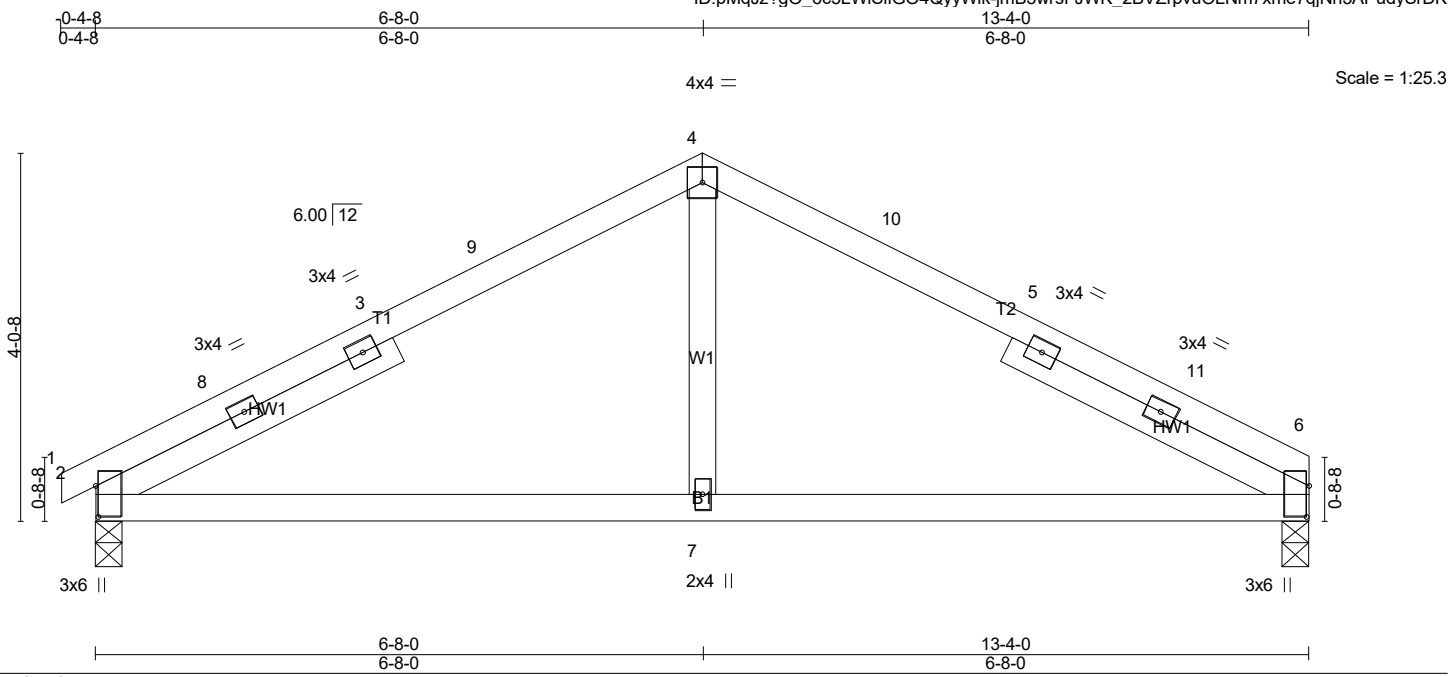


Plate Offsets (X,Y)-- [2:0-4-1,0-0-5], [6:0-4-1,0-0-5]						
LOADING (psf)	SPACING-	CSI.	DEFL.		PLATES	GRIP
TCLL (roof) 20.0	2-0-0	TC 0.90	in (loc) l/defl L/d		MT20	244/190
Snow (Pf) 20.0	Plate Grip DOL 1.15	BC 0.48	Vert(LL) -0.06 6-7 >999 240			
TCDL 10.0	Lumber DOL 1.15	WB 0.11	Vert(CT) -0.10 6-7 >999 180			
BCLL 0.0 *	Rep Stress Incr YES	Matrix-SH	Horz(CT) 0.01 6 n/a n/a			
BCDL 10.0	Code IRC2018/TPI2014				Weight: 59 lb	FT = 20%

LUMBER-
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2
WEBS 2x4 SP No.3
SLIDER Left 2x4 SP No.3 - 3-8-4, Right 2x4 SP No.3 - 3-8-4

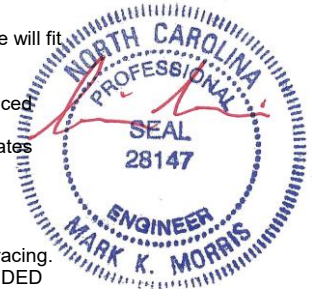
BRACING-
TOP CHORD Structural wood sheathing directly applied or 2-2-0 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

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

REACTIONS. (lb/size) 6=533/0-3-8 (min. 0-1-8), 2=556/0-3-8 (min. 0-1-8)
Max Horz 2=-48(LC 15)
Max Uplift 6=-27(LC 15), 2=-32(LC 14)
Max Grav 6=605(LC 22), 2=628(LC 21)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-8=-771/145, 3-8=-651/153, 3-9=-617/155, 4-9=-588/168, 4-10=-584/169, 5-10=-617/155,
5-11=-651/154, 6-11=-771/145
BOT CHORD 2-7=-61/552, 6-7=-61/552
WEBS 4-7=0/291

- NOTES-** (10-13)
- 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) -0-4-8 to 4-5-2, Exterior(2R) 4-5-2 to 8-6-6, Exterior(2E) 8-6-6 to 13-4-0 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.
 - 8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 6, 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



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CONSIDERATIONS.
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	49786-0211 WOODGROVE FUQUAY VARINA, NC
21-5966-R01	R04	Common	3	1	Job Reference (optional) # 29077

LOAD CASE(S) Standard

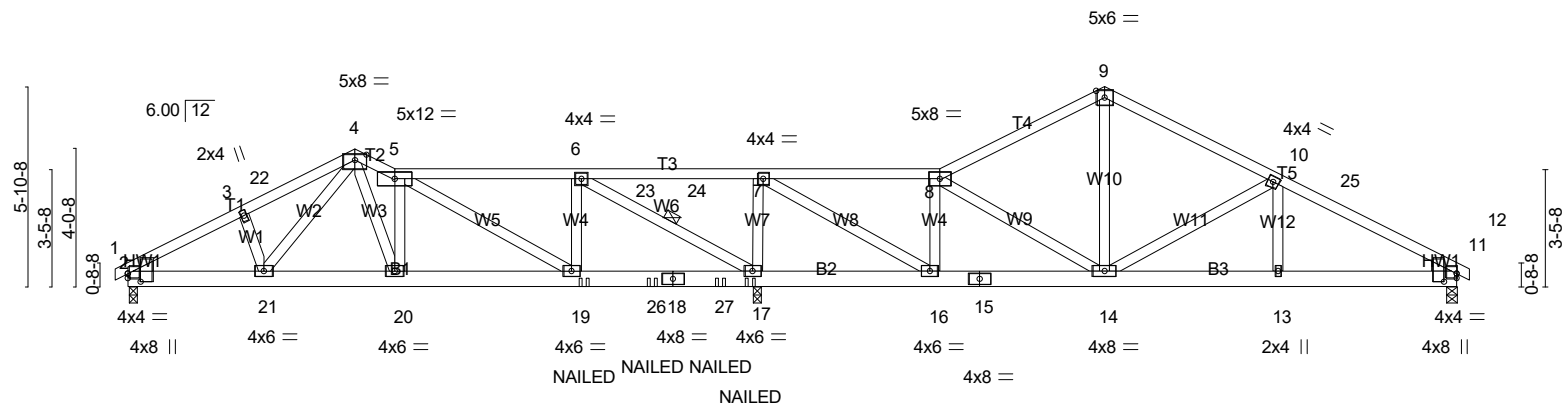


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Warning !—Verify design parameters and read notes before use. This design is based only upon parameters shown, and is for an individual building component to be installed and loaded vertically. Applicability of design parameters and proper incorporation 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.

ID:pMqJz?gO_6c5LWiSfiGO4QyyWIk-f9JslXtW7aiHVeyyEyMTmS52kRwbdzgFNfWzVvSrDI
 23-10-0 | 28-8-0 | 33-9-1 | 39-0-0 | 39-4-8
 0-4-8 | 3-4-15 | 6-8-0 | 7-10-0 | 13-2-0 | 18-6-0 | 5-4-0 | 5-4-0 | 5-4-0 | 4-10-0 | 5-1-1 | 5-2-15 | 0-4-8

Scale = 1:67.6



3-11-15	7-10-0	13-2-0	18-5-12	23-10-0	28-8-0	33-9-1	39-0-0
3-11-15	3-10-1	5-4-0	5-3-12	5-4-4	4-10-0	5-1-1	5-2-15

Plate Offsets (X,Y)-- [2:0-0-0,0-1-9], [2:0-2-13,0-4-8], [11:0-0-0,0-1-9], [11:0-2-13,0-4-8]

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 0.49	Vert(LL) -0.05 17-19 >999 240		
TCDL 10.0	Lumber DOL 1.15	WB 0.57	Vert(CT) -0.08 19-20 >999 180		
BCLL 0.0 *	Rep Stress Incr NO	Matrix-SH	Horz(CT) 0.02 11 n/a n/a		
BCDL 10.0	Code IRC2018/TPI2014			Weight: 240 lb	FT = 20%

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

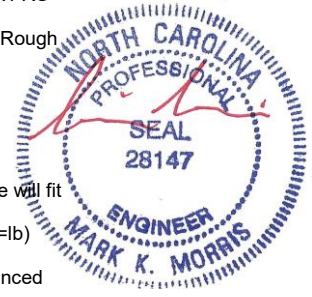
BRACING-
 TOP CHORD Structural wood sheathing directly applied or 4-11-5 oc purlins.
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing, Except:
 6-0-0 oc bracing: 16-17.
 WEBS 1 Row at midpt 6-17

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

REACTIONS. (lb/size) 2=679/0-3-8 (min. 0-1-8), 17=2542/0-3-8 (min. 0-3-6), 11=682/0-3-8 (min. 0-1-8)
 Max Horz2=-65(LC 76)
 Max Uplift2=-94(LC 12), 17=-456(LC 12), 11=-59(LC 72)
 Max Grav2=881(LC 46), 17=2861(LC 41), 11=819(LC 20)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
 TOP CHORD 2-3=-1291/157, 3-22=-1155/172, 4-22=-1071/185, 4-5=-1214/217, 5-6=-877/209,
 6-23=-100/958, 23-24=-100/958, 7-24=-100/958, 7-8=-437/84, 8-9=-663/95, 9-10=-761/82,
 10-25=-1151/92, 11-25=-1309/78
 BOT CHORD 2-21=-167/1024, 20-21=-125/760, 19-20=-156/1024, 19-26=-185/877, 18-26=-185/877,
 18-27=-185/877, 17-27=-185/877, 16-17=-951/118, 15-16=-12/471, 14-15=-12/471,
 13-14=-32/1077, 11-13=-32/1077
 WEBS 4-21=-42/365, 4-20=-123/883, 5-20=-755/175, 5-19=-476/84, 6-19=-76/590,
 6-17=-2092/352, 7-17=-1177/132, 7-16=-66/1386, 8-16=-702/99, 8-14=-33/365,
 9-14=-14/288, 10-14=-591/101

- NOTES-** (13-16)
- Unbalanced roof live loads have been considered for this design.
 - Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TC DL=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
 - 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.
 - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 11 except (jt=lb) 17=456.
 - 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.
 - "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).
 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	49786-0211 WOODGROVE FUQUAY VARINA, NC
21-5966-R01	R05	Roof Special Girder	1	1	Job Reference (optional) # 29077

8.430 s Feb 12 2021 MiTek Industries, Inc. Sat Oct 16 13:17:31 2021 Page 2
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- 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

- 1) Dead + Snow (balanced): Lumber Increase=1.15, Plate Increase=1.15
- Uniform Loads (plf)
 - Vert: 1-4=-60, 4-5=-60, 5-8=-60, 8-9=-60, 9-12=-60, 2-11=-20
- Concentrated Loads (lb)
 - Vert: 19=-186(F) 17=-186(F) 26=-186(F) 27=-186(F)



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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 21-5966-R01	Truss R06	Truss Type Roof Special	Qty 1	Ply 1	49786-0211 WOODGROVE FUQUAY VARINA, NC
					# 29077

8.430 s Feb 12 2021 MiTek Industries, Inc. Sat Oct 16 13:17:33 2021 Page 1
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-0-4-8	7-6-0	13-7-5	19-8-11	25-10-0	28-8-0	33-8-4	39-0-0	39-4-8
0-4-8	7-6-0	6-1-5	6-1-5	6-1-5	2-10-0	5-0-4	5-3-12	0-4-8

Scale = 1:67.7

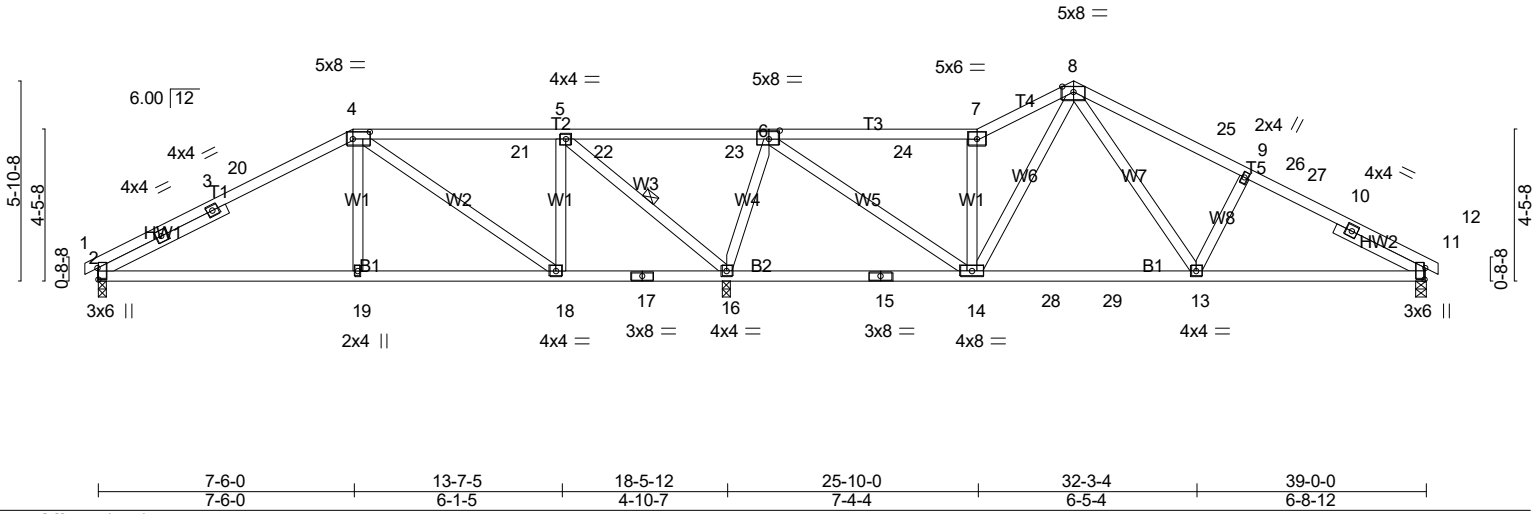


Plate Offsets (X,Y)-- [2:0-4-1,0-0-5], [4:0-6-0,0-2-8], [6:0-3-12,0-3-0], [11:0-4-1,0-0-5]

LOADING (psf)	SPACING	CSI	DEFL.	PLATES	GRIP
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 0.60	Vert(LL) -0.10 2-19 >999 240		
TCDL 10.0	Lumber DOL 1.15	WB 0.54	Vert(CT) -0.18 2-19 >999 180		
BCLL 0.0 *	Rep Stress Incr YES	Matrix-SH	Horz(CT) 0.03 11 n/a n/a		
BCDL 10.0	Code IRC2018/TPI2014			Weight: 208 lb	FT = 20%

LUMBER-
 TOP CHORD 2x4 SP No.2 *Except*
 T1: 2x4 SP SS
 BOT CHORD 2x4 SP No.2
 WEBS 2x4 SP No.3
 SLIDER Left 2x4 SP No.3 - 4-2-13, Right 2x4 SP No.3 - 2-11-4

BRACING-
 TOP CHORD Structural wood sheathing directly applied or 2-2-0 oc purlins.
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing, Except:
 6-0-0 oc bracing: 14-16.
 WEBS 1 Row at midpt 5-16

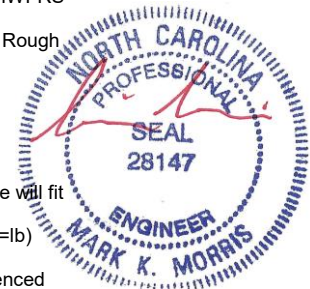
MiTek recommends that Stabilizers and required cross bracing be installed during truss erection, in accordance with Stabilizer Installation guide.

REACTIONS. (lb/size) 2=621/0-3-8 (min. 0-1-8), 16=1827/0-3-8 (min. 0-2-11), 11=717/0-3-8 (min. 0-1-8)
 Max Horz2=65(LC 18)
 Max Uplift2=-72(LC 14), 16=-131(LC 14), 11=-60(LC 15)
 Max Grav2=843(LC 42), 16=2303(LC 41), 11=836(LC 22)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
 TOP CHORD 2-3=-994/97, 3-20=-784/99, 4-20=-767/114, 4-21=-355/104, 5-21=-354/104, 5-22=0/747,
 22-23=0/747, 6-23=0/747, 6-24=-583/113, 7-24=-583/112, 7-8=-743/159, 8-25=-1014/170,
 9-25=-1138/150, 9-26=-1160/146, 26-27=-1173/143, 10-27=-1236/135, 10-11=-1300/123
 BOT CHORD 2-19=-83/701, 18-19=-81/707, 17-18=-57/355, 16-17=-57/355, 15-16=-407/47,
 14-15=-407/47, 14-28=-5/589, 28-29=-5/589, 13-29=-5/589, 11-13=-84/1086
 WEBS 4-19=0/299, 4-18=-538/46, 5-18=0/392, 5-16=-1450/114, 6-16=-1277/123, 6-14=-68/1072,
 7-14=-671/127, 8-13=-55/586, 9-13=-407/123

NOTES- (11-14)

- 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) -0-4-8 to 4-5-2, Exterior(2R) 4-5-2 to 12-3-10, Interior(1) 12-3-10 to 25-10-0, Exterior(2R) 25-10-0 to 33-9-1, Interior(1) 33-9-1 to 34-6-14, Exterior(2E) 34-6-14 to 39-4-8 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.
- 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.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 11 except (jt=lb) 16=131.
- 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	49786-0211 WOODGROVE FUQUAY VARINA, NC
21-5966-R01	R06	Roof Special	1	1	Job Reference (optional) # 29077

8.430 s Feb 12 2021 MiTek Industries, Inc. Sat Oct 16 13:17:33 2021 Page 2
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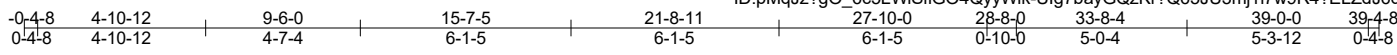
- 11) Graphical bracing representation does not depict the size, type or the orientation of the brace on the member. Symbol only indicates that the member must be braced.
- 12) Bearing symbols are only graphical representations of a possible bearing condition. Bearing symbols are not considered in the 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

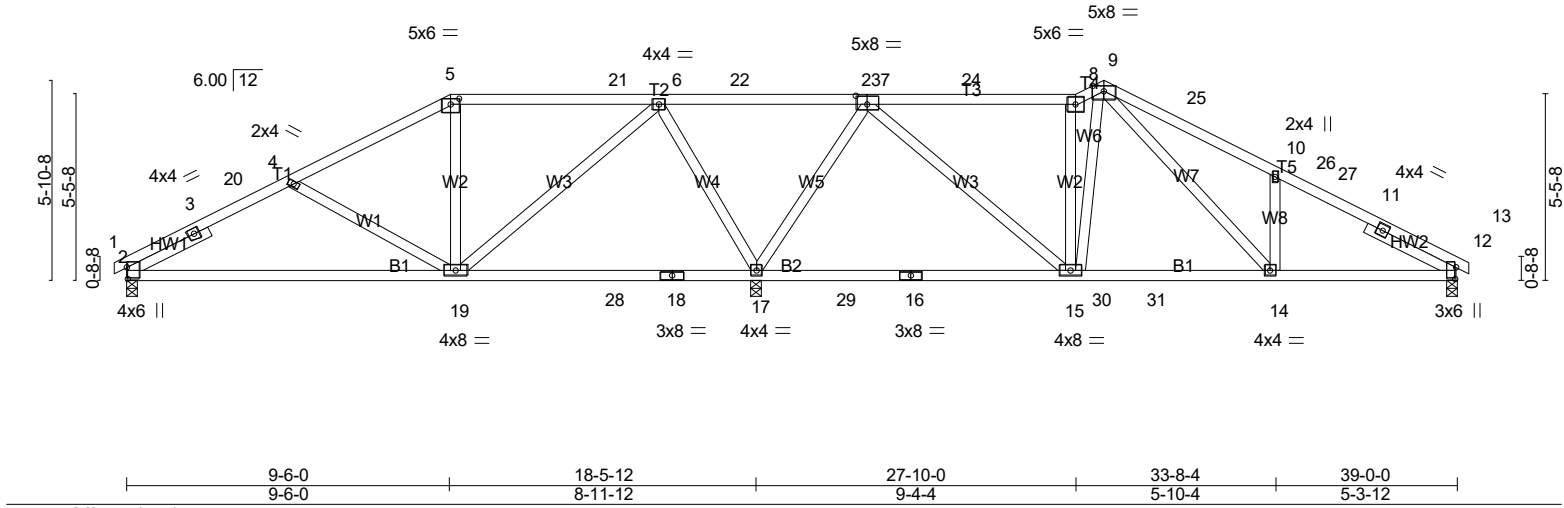


10/14/2021

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Scale = 1:67.6



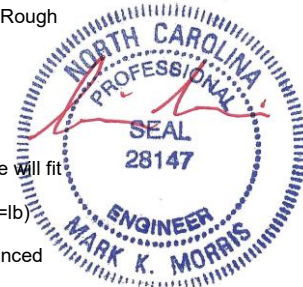
LOADING (psf)	SPACING-	CSI.	DEFL.	PLATES	GRIP
TCLL (roof) 20.0	2-0-0	TC 0.91	in (loc) l/defl L/d	MT20	244/190
Snow (Pf) 20.0	Plate Grip DOL 1.15	BC 0.69	Vert(LL) -0.14 2-19 >999 240		
TCDL 10.0	Lumber DOL 1.15	WB 0.97	Vert(CT) -0.29 2-19 >771 180		
BCLL 0.0 *	Rep Stress Incr YES	Matrix-SH	Horz(CT) 0.02 12 n/a n/a		
BCDL 10.0	Code IRC2018/TPI2014			Weight: 215 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.2	BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.
WEBS 2x4 SP No.3	
SLIDER Left 2x4 SP No.3 - 2-8-4, Right 2x4 SP No.3 - 2-11-2	MiTek recommends that Stabilizers and required cross bracing be installed during truss erection, in accordance with Stabilizer Installation guide.

REACTIONS. (lb/size) 2=571/0-3-8 (min. 0-1-8), 17=1922/0-3-8 (min. 0-2-13), 12=672/0-3-8 (min. 0-1-8)
 Max Horz 2=65(LC 14)
 Max Uplift 2=-58(LC 14), 17=-157(LC 14), 12=-60(LC 15)
 Max Grav 2=841(LC 42), 17=2377(LC 41), 12=805(LC 22)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
 TOP CHORD 2-3=-1130/120, 3-20=-944/139, 4-20=-922/140, 4-5=-621/94, 5-21=-446/109,
 6-21=-446/109, 6-22=-23/728, 22-23=-23/728, 7-23=-23/728, 7-24=-521/89, 8-24=-522/89,
 8-9=-603/103, 9-25=-1141/184, 10-25=-1275/173, 10-26=-1101/100, 26-27=-1117/96,
 11-27=-1180/88, 11-12=-1243/85
 BOT CHORD 2-19=-117/917, 19-28=-265/74, 18-28=-265/74, 17-18=-265/74, 15-30=0/551, 30-31=0/551,
 14-31=0/551, 12-14=-43/1034
 WEBS 4-19=-538/120, 6-19=-58/816, 6-17=-1245/164, 7-17=-1302/125, 7-15=-44/830,
 8-15=-626/92, 9-15=-129/343, 9-14=-123/721, 10-14=-445/138

- NOTES-** (11-14)
- Unbalanced roof live loads have been considered for this design.
 - Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TC DL=5.0psf; BC DL=5.0psf; h=23ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -0-4-8 to 4-5-2, Exterior(2R) 4-5-2 to 14-3-10, Interior(1) 14-3-10 to 27-10-0, Exterior(2E) 27-10-0 to 33-8-4, Interior(1) 33-8-4 to 34-6-14, Exterior(2E) 34-6-14 to 39-4-8 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 BC DL = 10.0psf.
 - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 12 except (jt=lb) 17=157.
 - 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.



10/14/2021

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 I-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	49786-0211 WOODGROVE FUQUAY VARINA, NC
21-5966-R01	R07	Roof Special	1	1	Job Reference (optional) # 29077

8.430 s Feb 12 2021 MiTek Industries, Inc. Sat Oct 16 13:17:37 2021 Page 2
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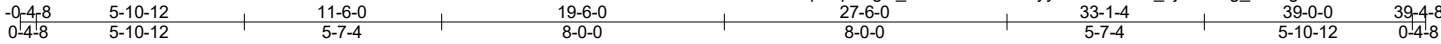
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- 12) Bearing symbols are only graphical representations of a possible bearing condition. Bearing symbols are not considered in the structural design of the truss to support the loads indicated.
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- 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



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Scale = 1:65.2

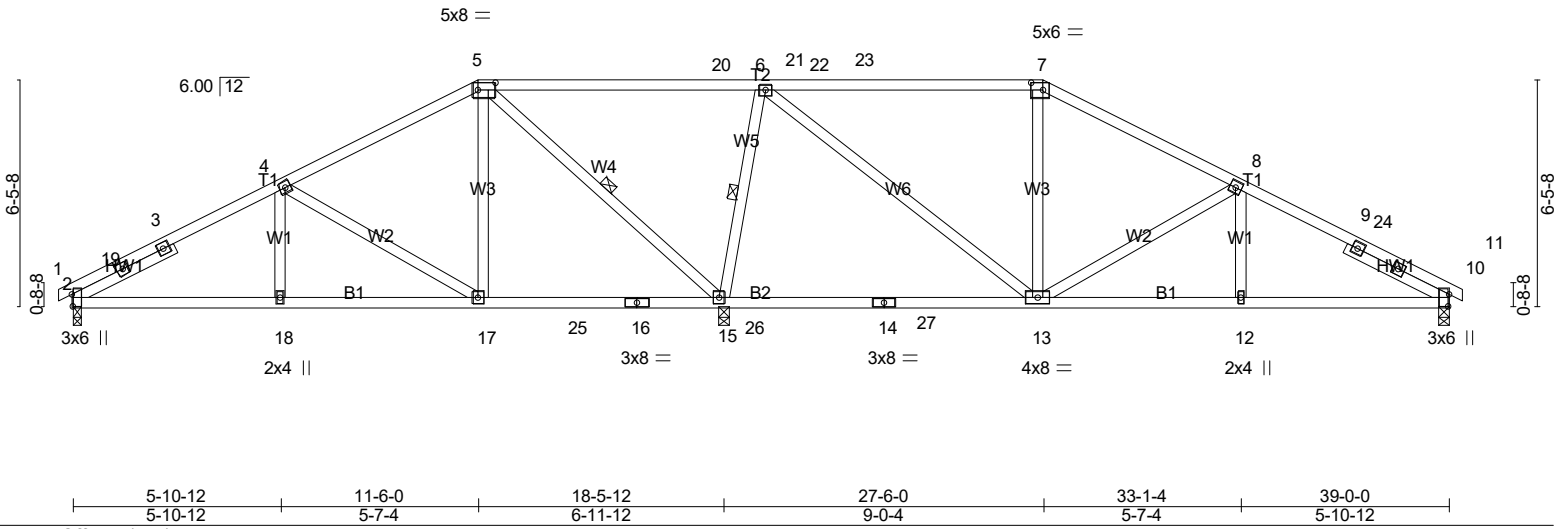


Plate Offsets (X,Y)-- [2:0-4-1,0-0-5], [5:0-6-0,0-2-8], [7:0-4-0,0-2-8], [10:0-4-1,0-0-5]

LOADING (psf)	SPACING-	CSI.	DEFL.	PLATES	GRIP
TCLL (roof) 20.0	2-0-0	TC 0.76	in (loc) l/defl L/d	MT20	244/190
Snow (Pf) 20.0	Plate Grip DOL 1.15	BC 0.64	Vert(LL) -0.18 13-15 >999 240		
TCDL 10.0	Lumber DOL 1.15	WB 0.66	Vert(CT) -0.30 13-15 >819 180		
BCLL 0.0 *	Rep Stress Incr YES	Matrix-SH	Horz(CT) 0.03 10 n/a n/a		
BCDL 10.0	Code IRC2018/TPI2014			Weight: 213 lb	FT = 20%

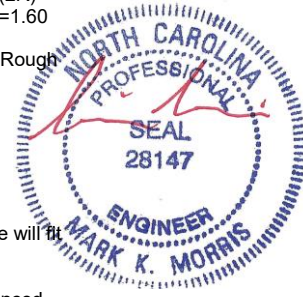
LUMBER-	BRACING-
TOP CHORD 2x4 SP No.2 *Except* T2: 2x4 SP SS	TOP CHORD Structural wood sheathing directly applied or 5-0-7 oc purlins.
BOT CHORD 2x4 SP No.2	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing, Except: 6-0-0 oc bracing: 13-15.
WEBS 2x4 SP No.3	WEBS 1 Row at midpt 5-15, 6-15
SLIDER Left 2x4 SP No.3 - 3-3-1, Right 2x4 SP No.3 - 3-3-1	

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

REACTIONS. (lb/size) 2=588/0-3-8 (min. 0-1-8), 15=1887/0-3-8 (min. 0-2-10), 10=690/0-3-8 (min. 0-1-8)
 Max Horz2=72(LC 14)
 Max Uplift2=-60(LC 14), 15=-41(LC 11), 10=-73(LC 15)
 Max Grav2=855(LC 39), 15=2199(LC 38), 10=956(LC 39)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
 TOP CHORD 2-19=-1152/89, 3-19=-1048/89, 3-4=-920/105, 4-5=-440/105, 5-20=0/601, 20-21=0/601,
 6-21=0/601, 6-22=-462/125, 22-23=-462/125, 7-23=-462/125, 7-8=-642/114, 8-9=-1115/125,
 9-24=-1242/109, 10-24=-1346/108
 BOT CHORD 2-18=-101/912, 17-18=-101/912, 17-25=-18/300, 16-25=-18/300, 15-16=-18/300,
 15-26=-434/57, 26-27=-434/57, 14-27=-434/57, 13-14=-434/57, 12-13=-56/1082,
 10-12=-56/1082
 WEBS 4-17=-781/110, 5-17=0/518, 5-15=-1136/66, 6-15=-1468/164, 6-13=-36/1102,
 8-13=-749/115

- NOTES-** (12-15)
- 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) -0-4-8 to 4-5-2, Exterior(2R) 4-5-2 to 18-3-7, Interior(1) 18-3-7 to 20-8-9, Exterior(2R) 20-8-9 to 34-6-14, Exterior(2E) 34-6-14 to 39-4-8 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.
 - Provide adequate drainage to prevent water ponding.
 - All plates are 4x4 MT20 unless otherwise indicated.
 - 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, 15, 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.



10/14/2021

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	49786-0211 WOODGROVE FUQUAY VARINA, NC
21-5966-R01	R08	Hip	1	1	Job Reference (optional) # 29077

8.430 s Feb 12 2021 MiTek Industries, Inc. Sat Oct 16 13:17:41 2021 Page 2
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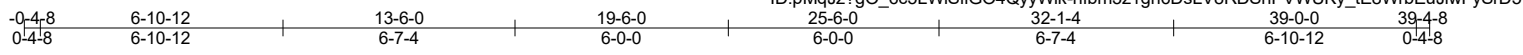
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LOAD CASE(S) Standard

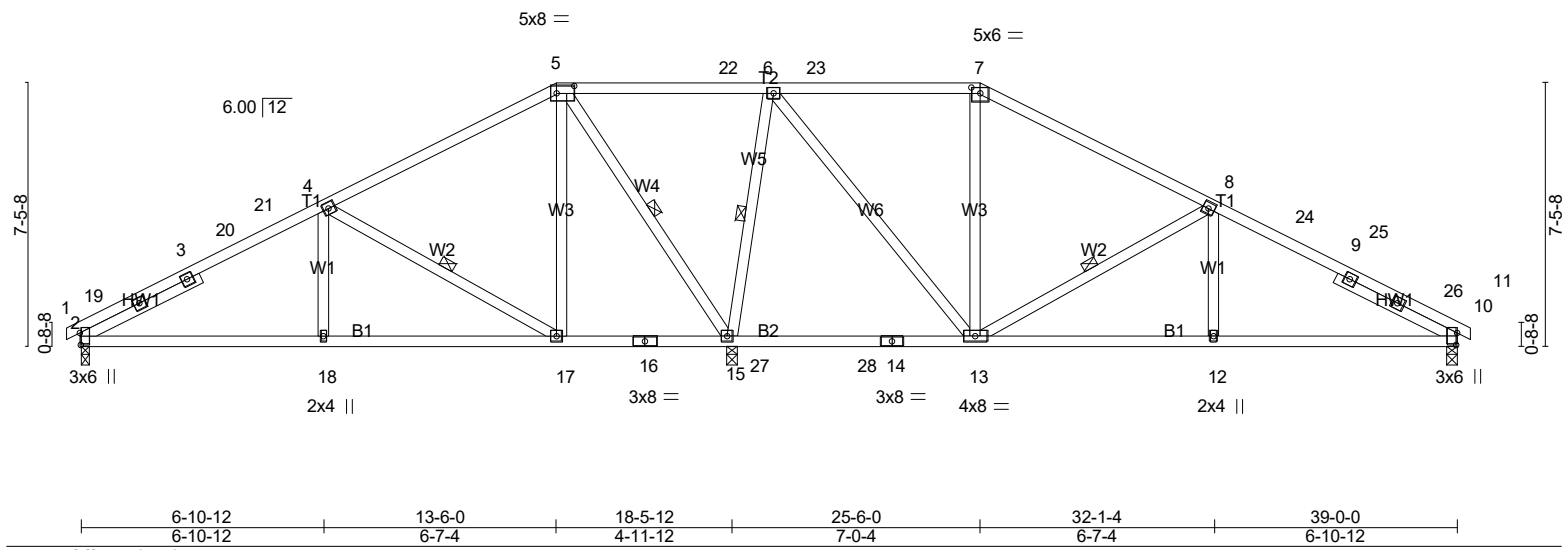


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Scale = 1:65.2



LOADING (psf)		SPACING-		CSI.		DEFL.		PLATES		GRIP	
TCLL (roof)	20.0	2-0-0	Plate Grip DOL	1.15	TC	0.93	in (loc)	l/defl	L/d	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.47	Vert(LL)	-0.09 13-15	>999	240		
TCDL	10.0	Rep Stress Incr	YES	WB	0.47	Vert(CT)	-0.14 13-15	>999	180		
BCLL	0.0 *	Code IRC2018/TPI2014		Matrix-SH		Horz(CT)	0.04 10	n/a	n/a		
BCDL	10.0									Weight: 223 lb	FT = 20%

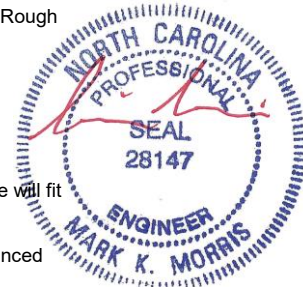
LUMBER-	BRACING-
TOP CHORD 2x4 SP No.2	TOP CHORD Structural wood sheathing directly applied or 2-2-0 oc purlins.
BOT CHORD 2x4 SP No.2	BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.
WEBS 2x4 SP No.3	WEBS 1 Row at midpt 4-17, 5-15, 6-15, 8-13
SLIDER Left 2x4 SP No.3 - 3-9-12, Right 2x4 SP No.3 - 3-9-12	

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

REACTIONS. (lb/size) 2=584/0-3-8 (min. 0-1-8), 15=1896/0-3-8 (min. 0-2-8), 10=685/0-3-8 (min. 0-1-8)
 Max Horz 2=-84(LC 19)
 Max Uplift 2=-67(LC 14), 10=-83(LC 15)
 Max Grav 2=827(LC 39), 15=2112(LC 39), 10=940(LC 39)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
 TOP CHORD 2-19=-1129/78, 3-19=-1043/89, 3-20=-991/92, 20-21=-944/97, 4-21=-864/108,
 4-5=-255/136, 5-22=0/597, 6-22=0/598, 6-23=-300/142, 7-23=-301/142, 7-8=-469/127,
 8-24=-1088/142, 24-25=-1168/131, 9-25=-1210/126, 9-26=-1274/123, 10-26=-1353/112
 BOT CHORD 2-18=-115/886, 17-18=-115/886, 15-27=-443/65, 27-28=-443/65, 14-28=-443/65,
 13-14=-443/65, 12-13=-60/1082, 10-12=-60/1082
 WEBS 4-18=0/293, 4-17=-967/130, 5-17=-8/577, 5-15=-1151/54, 6-15=-1263/132, 6-13=-33/1111,
 7-13=-263/48, 8-13=-942/131, 8-12=0/277

- NOTES-** (12-15)
- Unbalanced roof live loads have been considered for this design.
 - Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCCL=5.0psf; BCCL=5.0psf; h=23ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -0-4-8 to 4-5-2, Interior(1) 4-5-2 to 6-8-9, Exterior(2R) 6-8-9 to 32-1-4, Interior(1) 32-1-4 to 34-6-14, Exterior(2E) 34-6-14 to 39-4-8 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.
 - Provide adequate drainage to prevent water ponding.
 - All plates are 4x4 MT20 unless otherwise indicated.
 - 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) 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.



10/14/2021

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	49786-0211 WOODGROVE FUQUAY VARINA, NC
21-5966-R01	R09	Hip	1	1	Job Reference (optional) # 29077

8.430 s Feb 12 2021 MiTek Industries, Inc. Sat Oct 16 13:17:45 2021 Page 2
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LOAD CASE(S) Standard

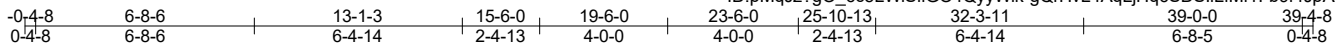


10/14/2021

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.

Job 21-5966-R01	Truss R10	Truss Type Hip	Qty 1	Ply 1	49786-0211 WOODGROVE FUQUAY VARINA, NC	# 29077
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8.430 s Feb 12 2021 MiTek Industries, Inc. Sat Oct 16 13:17:48 2021 Page 1
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Scale = 1:71.1

Plate Offsets (X,Y)-- [2:0-4-9,Edge], [7:0-3-0,0-2-0], [9:0-3-0,0-2-0], [14:0-4-1,0-0-5]
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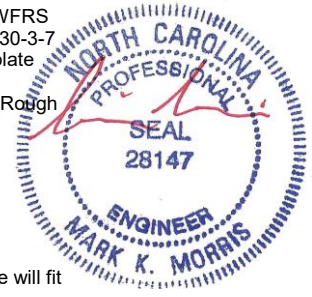
LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof) 20.0	2-0-0	TC 0.78	Vert(LL)	-0.33 25-27	>674	240	MT20	244/190
Snow (Pf) 20.0	Plate Grip DOL 1.15	BC 0.89	Vert(CT)	-0.53 17-21	>467	180		
TCDL 10.0	Lumber DOL 1.15	WB 0.53	Horz(CT)	0.03 14	n/a	n/a		
BCLL 0.0 *	Rep Stress Incr YES	Matrix-SH						
BCDL 10.0	Code IRC2018/TPI2014							
							Weight: 257 lb	FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x4 SP No.2	TOP CHORD Structural wood sheathing directly applied or 4-11-7 oc purlins.
BOT CHORD 2x4 SP No.2	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing, Except:
WEBS 2x4 SP No.3	6-0-0 oc bracing: 25-27
SLIDER Left 2x4 SP No.3 - 3-8-8, Right 2x4 SP No.3 - 3-8-8	4-10-5 oc bracing: 24-25.
	6-0-0 oc bracing: 18-23
	WEBS 1 Row at midpt 6-25, 7-25, 8-25, 9-24, 10-23
	MiTek recommends that Stabilizers and required cross bracing be installed during truss erection, in accordance with Stabilizer Installation guide.

REACTIONS. (lb/size) 2=539/0-3-8 (min. 0-1-8), 25=2100/0-3-8 (min. 0-3-2), 14=690/0-3-8 (min. 0-1-8)
 Max Horz 2=96(LC 18)
 Max Uplift 2=-62(LC 14), 14=-58(LC 15)
 Max Grav 2=682(LC 39), 25=2633(LC 45), 14=860(LC 39)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
 TOP CHORD 2-28=-887/96, 3-28=-818/97, 3-29=-795/99, 4-29=-677/114, 4-30=-547/89, 5-30=-528/90,
 5-31=-474/96, 6-31=-427/116, 6-7=0/691, 7-32=0/756, 8-32=0/756, 8-33=0/459,
 9-33=0/459, 9-10=0/422, 10-34=-761/104, 11-34=-808/85, 11-35=-871/79, 12-35=-904/78,
 12-36=-1041/103, 13-36=-1149/88, 13-37=-1183/86, 14-37=-1252/85
 BOT CHORD 2-27=-132/711, 24-25=-594/106, 22-24=0/456, 22-40=0/456, 21-40=0/456, 17-21=0/456,
 17-41=0/456, 16-41=0/456, 14-16=-27/1028
 WEBS 4-27=-616/152, 6-27=-30/788, 6-25=-959/142, 7-25=-393/0, 8-25=-1397/29, 8-24=0/1247,
 23-24=-1148/80, 10-23=-1012/114, 10-18=0/915, 16-18=-12/767, 12-16=-590/154

- NOTES-** (12-15)
- Unbalanced roof live loads have been considered for this design.
 - Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCCL=5.0psf; BCCL=5.0psf; h=23ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -0-4-8 to 4-5-2, Interior(1) 4-5-2 to 8-8-9, Exterior(2R) 8-8-9 to 30-3-7, Interior(1) 30-3-7 to 34-6-14, Exterior(2E) 34-6-14 to 39-4-8 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.
 - All plates are 4x4 MT20 unless otherwise indicated.
 - 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) 2, 14.



10/14/2021

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	49786-0211 WOODGROVE FUQUAY VARINA, NC
21-5966-R01	R10	Hip	1	1	Job Reference (optional) # 29077

8.430 s Feb 12 2021 MiTek Industries, Inc. Sat Oct 16 13:17:48 2021 Page 2
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NOTES- (12-15)

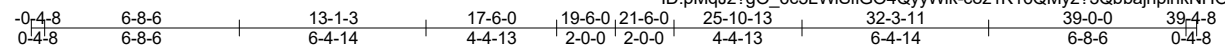
- 11) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 12) Graphical bracing representation does not depict the size, type or the orientation of the brace on the member. Symbol only indicates that the member must be braced.
- 13) 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.
- 14) 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.
- 15) 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

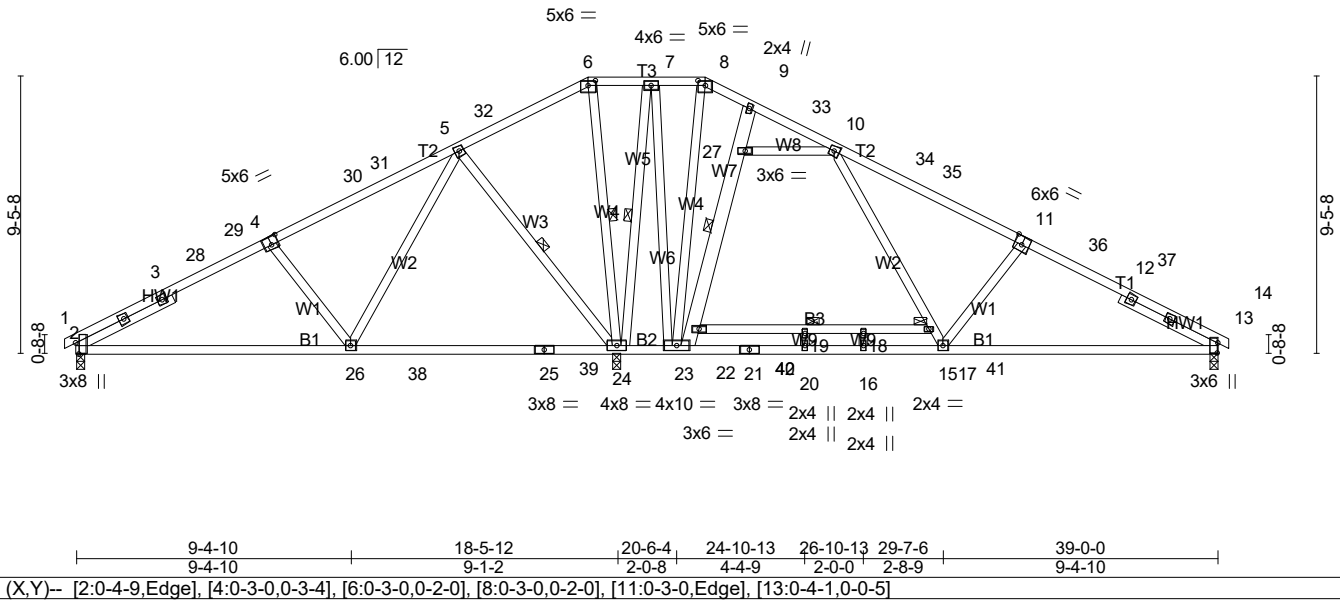


10/14/2021

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Scale = 1:78.7



LOADING (psf)	SPACING	CSI	DEFL.	PLATES	GRIP
TCLL (roof) 20.0	Plate Grip DOL 1.15	TC 0.81	Vert(LL) -0.46 16-20 >539 240	MT20	244/190
Snow (Pf) 20.0	Lumber DOL 1.15	BC 0.88	Vert(CT) -0.69 16-20 >359 180		
TCDL 10.0	Rep Stress Incr YES	WB 0.89	Horz(CT) 0.03 13 n/a n/a		
BCLL 0.0 *	Code IRC2018/TPI2014	Matrix-SH			
BCDL 10.0					

Weight: 274 lb FT = 20%

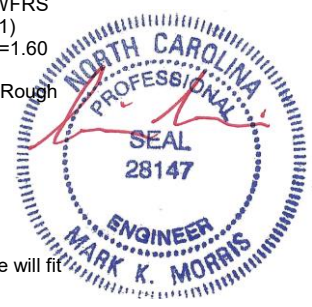
LUMBER-	BRACING-
TOP CHORD 2x4 SP No.2 *Except* T2: 2x4 SP SS	TOP CHORD Structural wood sheathing directly applied or 4-5-7 oc purlins.
BOT CHORD 2x4 SP No.1	BOT CHORD Rigid ceiling directly applied or 4-6-8 oc bracing. Except: 6-0-0 oc bracing: 17-22
WEBS 2x4 SP No.3 *Except* W7: 2x6 SP DSS	WEBS 1 Row at midpt 5-24, 6-24, 7-24, 9-23
SLIDER Left 2x4 SP No.3 - 3-8-8, Right 2x4 SP No.3 - 3-8-8	

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

REACTIONS. (lb/size) 2=583/0-3-8 (min. 0-1-8), 24=2013/0-3-8 (min. 0-3-6), 13=735/0-3-8 (min. 0-1-8)
Max Horz2=108(LC 14)
Max Uplift2=-61(LC 14), 13=-67(LC 15)
Max Grav2=664(LC 39), 24=2872(LC 45), 13=854(LC 39)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-887/96, 3-28=-809/98, 28-29=-776/103, 4-29=-715/113, 4-30=-588/108,
30-31=-492/109, 5-31=-468/122, 5-32=0/557, 6-32=0/701, 6-7=0/626, 7-8=-34/297,
9-33=0/1232, 10-33=0/1155, 10-34=-898/121, 34-35=-904/109, 11-35=-1022/106,
11-36=-1132/120, 36-37=-1173/110, 12-37=-1205/105, 12-13=-1282/102
BOT CHORD 2-26=-141/723, 23-24=-423/112, 23-40=0/423, 21-40=0/423, 20-21=0/423, 16-20=0/423,
16-41=0/423, 15-41=0/423, 13-15=-42/1077
WEBS 4-26=-551/150, 5-26=-30/744, 5-24=-984/153, 6-24=-478/8, 7-24=-1633/0, 7-23=0/1501,
8-23=-88/324, 22-23=-1538/138, 22-27=-1452/177, 9-27=-1078/133, 10-17=0/950,
15-17=-20/837, 11-15=-620/163, 10-27=-1254/146

- NOTES-** (12-15)
- 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) -0-4-8 to 4-5-2, Interior(1) 4-5-2 to 10-8-9, Exterior(2R) 10-8-9 to 28-3-7, Interior(1) 28-3-7 to 34-6-14, Exterior(2E) 34-6-14 to 39-4-8 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.
 - Provide adequate drainage to prevent water ponding.
 - All plates are 4x4 MT20 unless otherwise indicated.
 - 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, 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.



10/14/2021

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	49786-0211 WOODGROVE FUQUAY VARINA, NC
21-5966-R01	R11	Hip	1	1	Job Reference (optional) # 29077

8.430 s Feb 12 2021 MiTek Industries, Inc. Sat Oct 16 13:17:50 2021 Page 2
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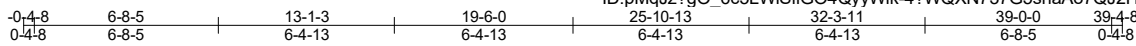
- 12) Graphical bracing representation does not depict the size, type or the orientation of the brace on the member. Symbol only indicates that the member must be braced.
- 13) Bearing symbols are only graphical representations of a possible bearing condition. Bearing symbols are not considered in the structural design of the truss to support the loads indicated.
- 14) 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.
- 15) 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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Scale = 1:83.4

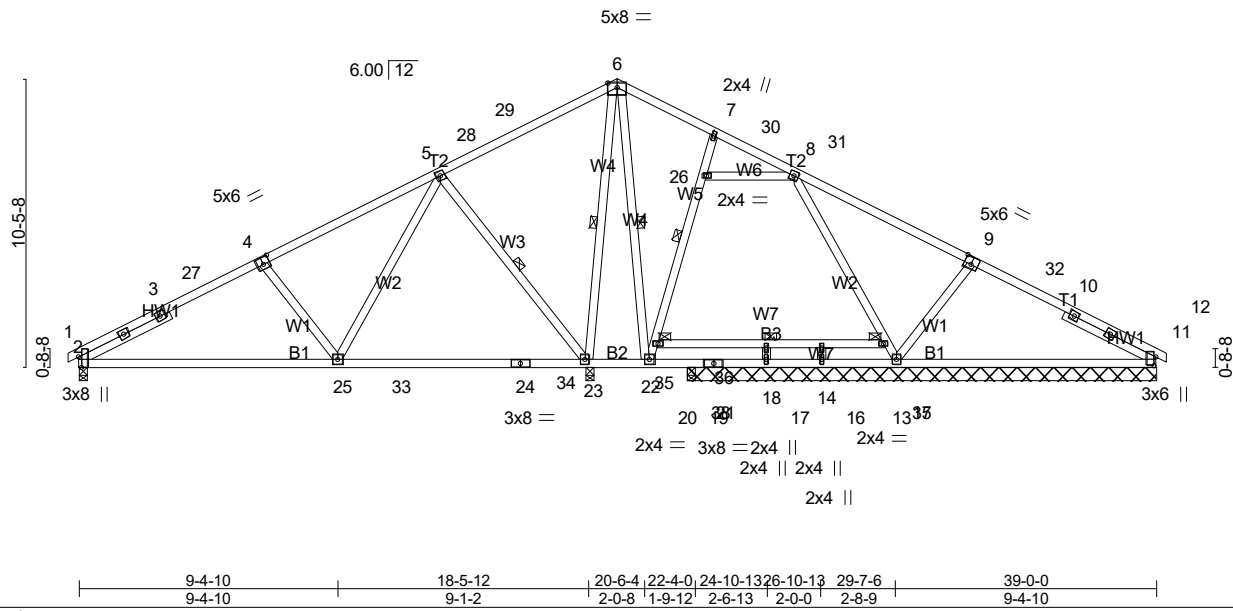


Plate Offsets (X,Y)-- [2:0-4-9,Edge], [4:0-3-0,0-3-0], [9:0-3-0,0-3-4], [11:0-3-13,0-0-13]					
LOADING (psf)	SPACING-	CSI.	DEFL.	PLATES	GRIP
TCLL (roof) 20.0	2-0-0	TC 0.72	in (loc) l/defl L/d	MT20	244/190
Snow (Pf) 20.0	Plate Grip DOL 1.15	BC 0.86	Vert(LL) -0.31 23-25 >712 240		
TCDL 10.0	Lumber DOL 1.15	WB 0.32	Vert(CT) -0.41 23-25 >541 180		
BCLL 0.0 *	Rep Stress Incr YES	Matrix-SH	Horz(CT) 0.02 11 n/a n/a		
BCDL 10.0	Code IRC2018/TPI2014			Weight: 244 lb	FT = 20%

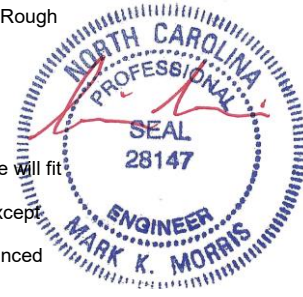
LUMBER-	BRACING-
TOP CHORD 2x4 SP No.2	TOP CHORD Structural wood sheathing directly applied or 5-5-3 oc purlins.
BOT CHORD 2x4 SP No.2	BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing, Except:
WEBS 2x4 SP No.3	10-0-0 oc bracing: 2-25,23-25.
SLIDER Left 2x4 SP No.3 - 3-8-8, Right 2x4 SP No.3 - 3-8-8	6-0-0 oc bracing: 15-20
	WEBS 1 Row at midpt 6-22, 7-20, 6-23, 5-23

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

REACTIONS. All bearings 16-11-8 except (jt=length) 2=0-3-8, 23=0-3-8, 21=0-3-8.
 (lb) - Max Horz 2=-120(LC 15)
 Max Uplift All uplift 100 lb or less at joint(s) 2, 23, 11, 14 except 13=-199(LC 15)
 Max Grav All reactions 250 lb or less at joint(s) 14, 21 except 2=712(LC 21), 13=930(LC 22), 23=1319(LC 5), 11=337(LC 22), 18=542(LC 23)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
 TOP CHORD 2-3=-970/108, 3-27=-885/111, 4-27=-859/124, 4-5=-742/136, 6-29=-44/293, 8-9=-28/294
 BOT CHORD 2-25=-140/791, 25-33=-41/348, 33-34=-41/348, 24-34=-41/348, 23-24=-41/348
 WEBS 20-22=-288/48, 20-26=-262/68, 7-26=-254/66, 8-15=-430/183, 13-15=-448/168,
 9-13=-424/159, 6-23=-454/31, 5-23=-768/175, 5-25=-27/595, 4-25=-348/145, 17-18=-313/0

- 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) -0-4-8 to 4-5-2, Interior(1) 4-5-2 to 14-8-6, Exterior(2R) 14-8-6 to 24-3-10, Interior(1) 24-3-10 to 34-6-14, Exterior(2E) 34-6-14 to 39-4-8 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, 23, 11, 14 except (jt=lb) 13=199.
 - 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.



10/14/2021

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	49786-0211 WOODGROVE FUQUAY VARINA, NC
21-5966-R01	R12	Common	1	1	Job Reference (optional) # 29077

8.430 s Feb 12 2021 MiTek Industries, Inc. Sat Oct 16 13:17:51 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



10/14/2021

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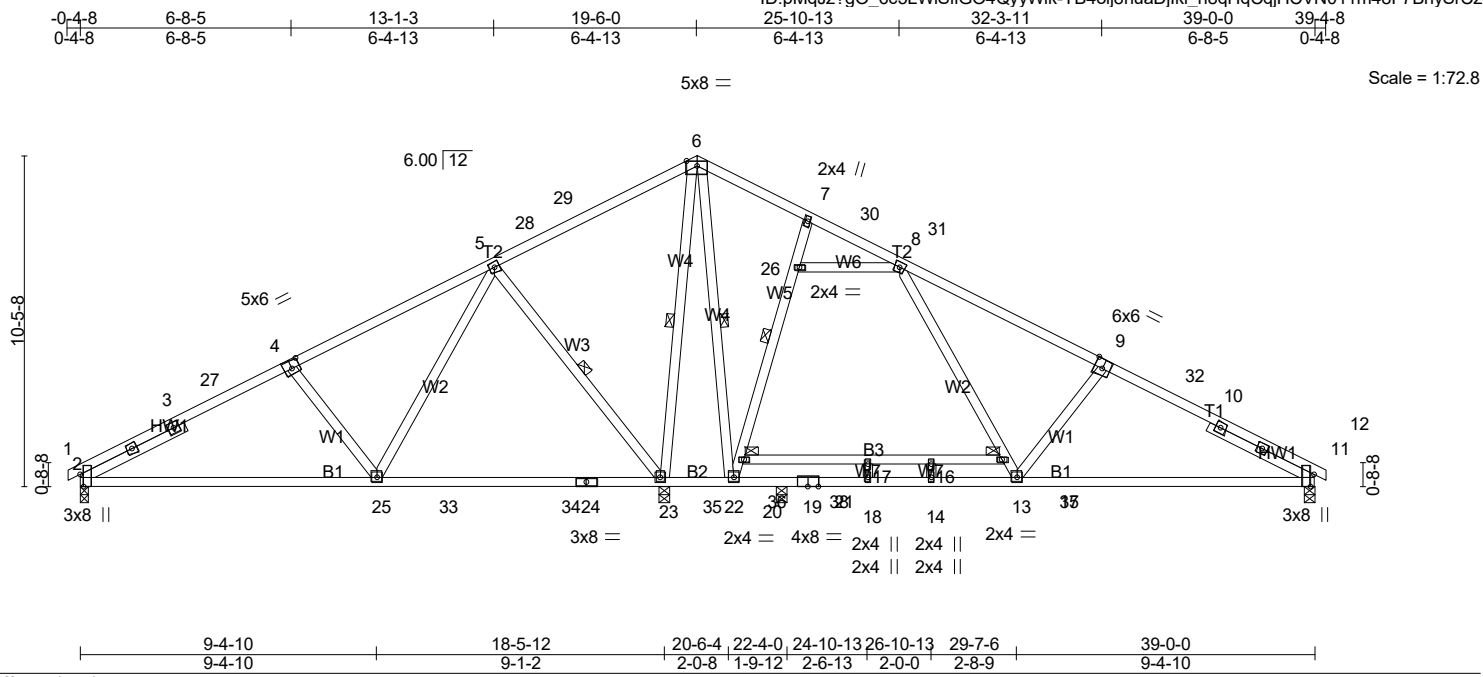


Plate Offsets (X,Y)-- [2:0-4-9,Edge], [4:0-3-0,0-3-0], [9:0-3-0,Edge], [11:0-4-9,Edge]
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LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof) 20.0	Plate Grip DOL 1.15		TC 0.78	Vert(LL) -0.29 23-25	>765	240		MT20	244/190
Snow (Pf) 20.0	Lumber DOL 1.15		BC 0.90	Vert(CT) -0.51 11-13	>393	180			
TCDL 10.0	Rep Stress Incr YES		WB 0.90	Horz(CT) 0.02 11	n/a	n/a			
BCLL 0.0 *	Code IRC2018/TPI2014		Matrix-SH						
BCDL 10.0								Weight: 244 lb	FT = 20%

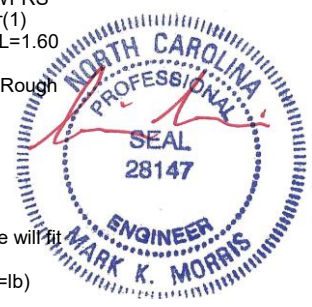
LUMBER-	TOP CHORD	BOT CHORD	WEBS	SLIDER	BRACING-	TOP CHORD	BOT CHORD	WEBS
	2x4 SP SS *Except* T1: 2x4 SP No.2	2x4 SP No.2 *Except* B2: 2x4 SP SS	2x4 SP No.3 *Except* W5: 2x4 SP SS	Left 2x4 SP No.3 - 3-8-8, Right 2x4 SP No.3 - 3-8-8		Structural wood sheathing directly applied or 5-2-9 oc purlins.	Rigid ceiling directly applied or 2-4-4 oc bracing.	1 Row at midpt 6-22, 7-20, 6-23, 5-23

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

REACTIONS. All bearings 0-3-8.
 (lb) - Max Horz 2=120(LC 14)
 Max Uplift All uplift 100 lb or less at joint(s) 2, 11 except 23=-103(LC 14)
 Max Grav All reactions 250 lb or less at joint(s) except 2=658(LC 21), 23=1464(LC 1), 11=727(LC 22), 21=1118(LC 23)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
 TOP CHORD 2-3=-861/105, 3-27=-779/107, 4-27=-750/121, 4-5=-632/132, 5-28=0/314, 28-29=0/336,
 6-29=0/429, 6-7=-63/330, 7-30=0/609, 30-31=0/581, 8-31=0/551, 8-9=-759/161,
 9-32=-861/165, 10-32=-934/149, 10-11=-1010/146
 BOT CHORD 2-25=-147/696, 23-35=-259/107, 35-36=-259/107, 22-36=-259/107, 11-13=-82/844
 WEBS 6-22=-214/417, 20-22=-965/152, 20-26=-961/188, 7-26=-818/161, 8-15=-1/720,
 13-15=-36/661, 9-13=-487/170, 6-23=-627/92, 5-23=-776/175, 5-25=-27/594,
 4-25=-353/144, 17-18=-342/0, 8-26=-442/84

- NOTES-** (11-14)
- 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) 0-4-8 to 4-5-2, Interior(1) 4-5-2 to 14-8-6, Exterior(2R) 14-8-6 to 24-3-10, Interior(1) 24-3-10 to 34-6-14, Exterior(2E) 34-6-14 to 39-4-8 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.
 - All plates are 4x4 MT20 unless otherwise indicated.
 - 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 except (jt=lb) 23=103.
 - 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	49786-0211 WOODGROVE FUQUAY VARINA, NC
21-5966-R01	R13	Common	1	1	Job Reference (optional) # 29077

8.430 s Feb 12 2021 MiTek Industries, Inc. Sat Oct 16 13:17:52 2021 Page 2
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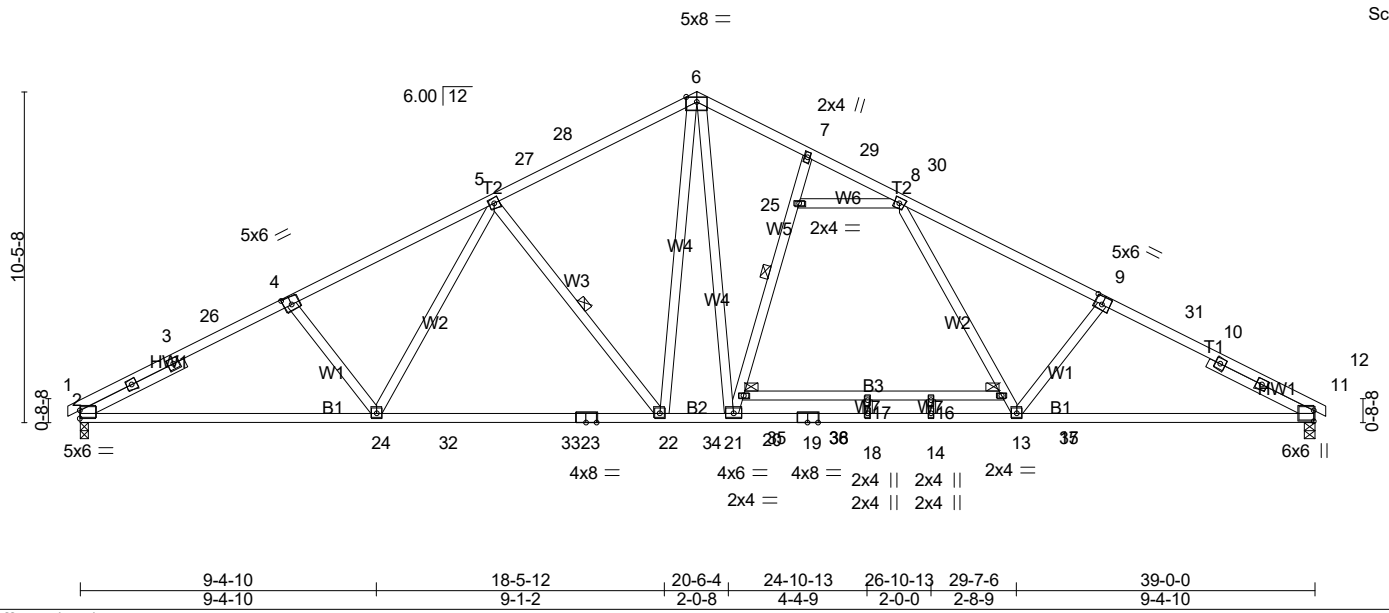
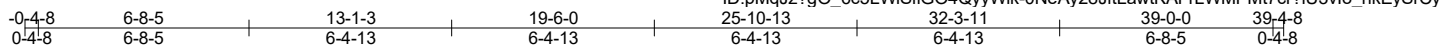
- 11) Graphical bracing representation does not depict the size, type or the orientation of the brace on the member. Symbol only indicates that the member must be braced.
- 12) Bearing symbols are only graphical representations of a possible bearing condition. Bearing symbols are not considered in the 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



10/14/2021

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LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof) 20.0	Plate Grip DOL 1.15	TC 0.83	Vert(LL) -0.60	14-18	>781	240	MT20	244/190
Snow (Pf) 20.0	Lumber DOL 1.15	BC 0.94	Vert(CT) -1.01	14-18	>463	180		
TCDL 10.0	Rep Stress Incr YES	WB 0.92	Horz(CT) 0.13	11	n/a	n/a		
BCLL 0.0 *	Code IRC2018/TPI2014	Matrix-SH						
BCDL 10.0							Weight: 244 lb	FT = 20%

LUMBER-
 TOP CHORD 2x4 SP SS
 BOT CHORD 2x4 SP SS *Except*
 B3: 2x4 SP No.2
 WEBS 2x4 SP No.3 *Except*
 W5: 2x4 SP SS, W2: 2x4 SP No.2
 SLIDER Left 2x4 SP No.3 - 3-8-8, Right 2x4 SP No.3 - 3-8-8

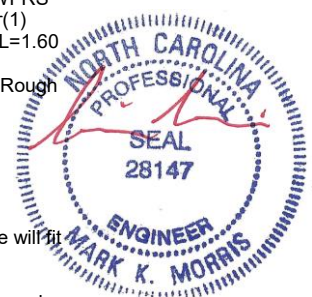
BRACING-
 TOP CHORD Structural wood sheathing directly applied or 2-2-0 oc purlins.
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
 WEBS 1 Row at midpt 7-20, 5-22

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

REACTIONS. (lb/size) 2=1643/0-3-8 (min. 0-2-1), 11=1691/0-3-8 (min. 0-2-3)
 Max Horz 2=120(LC 18)
 Max Uplift 2=-57(LC 14), 11=-32(LC 15)
 Max Grav 2=1747(LC 3), 11=1853(LC 3)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
 TOP CHORD 2-3=-3146/130, 3-26=-3062/133, 4-26=-3035/147, 4-5=-2947/158, 5-27=-2323/152, 27-28=-2295/156, 6-28=-2236/178, 6-7=-2455/189, 7-29=-1988/127, 29-30=-2009/121, 8-30=-2045/120, 8-9=-3179/102, 9-31=-3274/98, 10-31=-3301/82, 10-11=-3382/80
 BOT CHORD 2-24=-143/2680, 24-32=-45/2383, 32-33=-45/2383, 23-33=-45/2383, 22-23=-45/2383, 22-34=0/1944, 34-35=0/1944, 21-35=0/1944, 21-36=0/2294, 19-36=0/2294, 18-19=0/2294, 14-18=0/2294, 14-37=0/2294, 13-37=0/2294, 11-13=-30/2901
 WEBS 6-21=-72/1549, 20-21=-1021/143, 20-25=-946/182, 7-25=-794/157, 8-15=0/715, 13-15=-30/662, 9-13=-384/179, 6-22=-98/615, 5-22=-731/174, 5-24=-26/477, 4-24=-252/145, 8-25=-499/77

- 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) 0-4-8 to 4-5-2, Interior(1) 4-5-2 to 14-8-6, Exterior(2R) 14-8-6 to 24-3-10, Interior(1) 24-3-10 to 34-6-14, Exterior(2E) 34-6-14 to 39-4-8 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, 11.
 - 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.



10/14/2021

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Job	Truss	Truss Type	Qty	Ply	49786-0211 WOODGROVE FUQUAY VARINA, NC
21-5966-R01	R13A	Common	2	1	Job Reference (optional) # 29077

8.430 s Feb 12 2021 MiTek Industries, Inc. Sat Oct 16 13:17:53 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.
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LOAD CASE(S) Standard

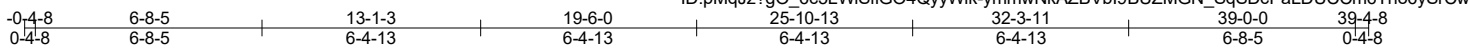


10/14/2021

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Job 21-5966-R01	Truss R14	Truss Type Common	Qty 9	Ply 1	49786-0211 WOODGROVE FUQUAY VARINA, NC	# 29077
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8.430 s Feb 12 2021 MiTek Industries, Inc. Sat Oct 16 13:17:55 2021 Page 1
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5x6 = Scale = 1:68.1

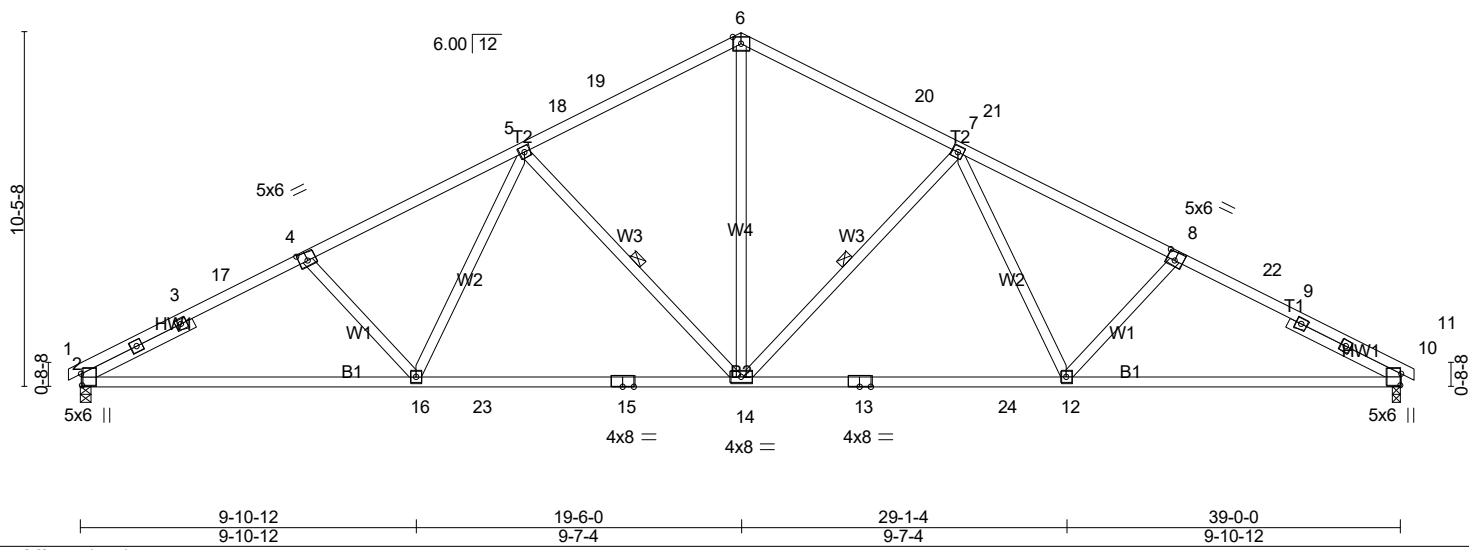


Plate Offsets (X,Y)-- [2:0-4-1,0-0-5], [4:0-3-0,0-3-0], [8:0-3-0,0-3-0], [10:0-4-1,0-0-5]																																				
<table border="1"> <thead> <tr> <th>LOADING (psf)</th> <th>SPACING-</th> <th>CSI.</th> <th>DEFL.</th> <th>PLATES</th> <th>GRIP</th> </tr> </thead> <tbody> <tr> <td>TCLL (roof) 20.0</td> <td>2-0-0</td> <td>TC 0.83</td> <td>in (loc) l/defl L/d</td> <td>MT20</td> <td>244/190</td> </tr> <tr> <td>Snow (Pf) 20.0</td> <td>Plate Grip DOL 1.15</td> <td>BC 0.76</td> <td>Vert(LL) -0.38 12-14 >999 240</td> <td></td> <td></td> </tr> <tr> <td>TCDL 10.0</td> <td>Lumber DOL 1.15</td> <td>WB 0.56</td> <td>Vert(CT) -0.60 12-14 >776 180</td> <td></td> <td></td> </tr> <tr> <td>BCLL 0.0 *</td> <td>Rep Stress Incr YES</td> <td>Matrix-SH</td> <td>Horz(CT) 0.12 10 n/a n/a</td> <td></td> <td></td> </tr> <tr> <td>BCDL 10.0</td> <td>Code IRC2018/TPI2014</td> <td></td> <td></td> <td>Weight: 213 lb</td> <td>FT = 20%</td> </tr> </tbody> </table>	LOADING (psf)	SPACING-	CSI.	DEFL.	PLATES	GRIP	TCLL (roof) 20.0	2-0-0	TC 0.83	in (loc) l/defl L/d	MT20	244/190	Snow (Pf) 20.0	Plate Grip DOL 1.15	BC 0.76	Vert(LL) -0.38 12-14 >999 240			TCDL 10.0	Lumber DOL 1.15	WB 0.56	Vert(CT) -0.60 12-14 >776 180			BCLL 0.0 *	Rep Stress Incr YES	Matrix-SH	Horz(CT) 0.12 10 n/a n/a			BCDL 10.0	Code IRC2018/TPI2014			Weight: 213 lb	FT = 20%
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LUMBER- TOP CHORD 2x4 SP No.2 BOT CHORD 2x4 SP No.1 *Except* B2: 2x4 SP SS WEBS 2x4 SP No.3 SLIDER Left 2x4 SP No.3 - 3-8-8, Right 2x4 SP No.3 - 3-8-8	BRACING- TOP CHORD Structural wood sheathing directly applied or 2-2-0 oc purlins. BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing. WEBS 1 Row at midpt 7-14, 5-14
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MiTek recommends that Stabilizers and required cross bracing be installed during truss erection, in accordance with Stabilizer Installation guide.

REACTIONS. (lb/size) 2=1583/0-3-8 (min. 0-1-14), 10=1582/0-3-8 (min. 0-1-14)
 Max Horz 2=120(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=-2791/183, 3-17=-2708/199, 4-17=-2681/212, 4-5=-2588/216, 5-18=-1894/208,
 18-19=-1865/213, 6-19=-1814/234, 6-20=-1814/234, 20-21=-1865/213, 7-21=-1894/208,
 7-8=-2588/216, 8-22=-2681/212, 9-22=-2708/199, 9-10=-2791/183
 BOT CHORD 2-16=-199/2373, 16-23=-101/2062, 15-23=-101/2062, 14-15=-101/2062, 13-14=-75/2062,
 13-24=-75/2062, 12-24=-75/2062, 10-12=-127/2373
 WEBS 6-14=-74/1341, 7-14=-753/171, 7-12=-11/489, 8-12=-271/142, 5-14=-753/171,
 5-16=-11/489, 4-16=-271/142

- 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) 0-4-8 to 4-5-2, Interior(1) 4-5-2 to 14-8-6, Exterior(2R) 14-8-6 to 24-3-10, Interior(1) 24-3-10 to 34-6-14, Exterior(2E) 34-6-14 to 39-4-8 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) 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.



10/14/2021

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	49786-0211 WOODGROVE FUQUAY VARINA, NC
21-5966-R01	R14	Common	9	1	Job Reference (optional) # 29077

8.430 s Feb 12 2021 MiTek Industries, Inc. Sat Oct 16 13:17:55 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



10/14/2021

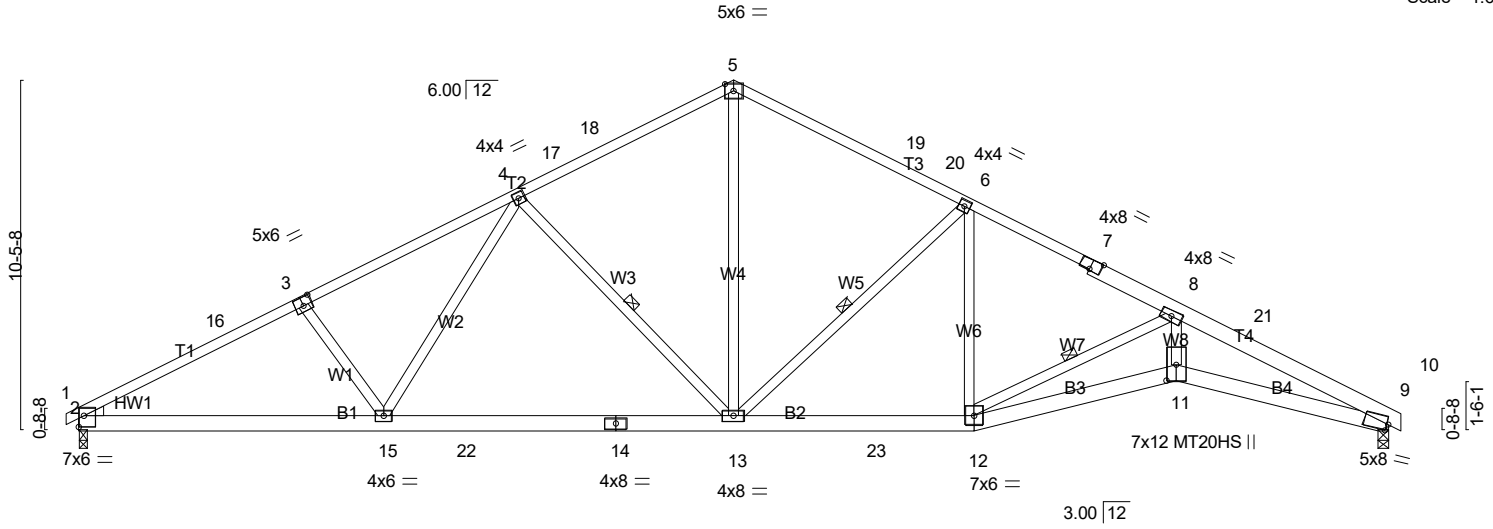
Warning !—Verify design parameters and read notes before use. This design is based only upon parameters shown, and is for an individual building component to be installed and loaded vertically. Applicability of design parameters and proper incorporation of component is responsibility of building designer – 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.

Job 21-5966-R01	Truss R15	Truss Type Roof Special	Qty 3	Ply 1	49786-0211 WOODGROVE FUQUAY VARINA, NC	# 29077
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8.430 s Feb 12 2021 MiTek Industries, Inc. Sat Oct 16 13:17:57 2021 Page 1
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0-4-8 0-4-8	6-8-5 6-8-5	13-1-3 6-4-13	19-6-0 6-4-13	26-8-0 7-2-0	32-8-4 6-0-4	39-0-0 6-3-12	39-4-8 0-4-8
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Scale = 1:68.6



9-1-0 9-1-0	19-6-0 10-5-0	26-8-0 7-2-0	32-8-4 6-0-4	39-0-0 6-3-12
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Plate Offsets (X,Y)-- [2:Edge,0-4-0], [3:0-3-0,0-3-0], [7:0-4-0,Edge], [9:0-0-11,0-2-5], [11:0-5-11,0-3-8]

LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof) 20.0	2-0-0	TC 0.89	Vert(LL) -0.30	13-15	>999	240	MT20	244/190
Snow (Pf) 20.0	Plate Grip DOL 1.15	BC 0.92	Vert(CT) -0.52	13-15	>890	180	MT20HS	187/143
TCDL 10.0	Lumber DOL 1.15	WB 0.90	Horz(CT) 0.23	9	n/a	n/a		
BCLL 0.0 *	Rep Stress Incr YES	Matrix-SH						
BCDL 10.0	Code IRC2018/TPI2014							
							Weight: 249 lb	FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x4 SP No.2 *Except* T3: 2x4 SP No.1, T4: 2x6 SP No.2	TOP CHORD Structural wood sheathing directly applied.
BOT CHORD 2x6 SP No.2	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing, Except: 2-2-0 oc bracing: 9-11.
WEBS 2x4 SP No.3	WEBS 1 Row at midpt 4-13, 6-13, 8-12
WEDGE Left: 2x4 SP No.3	MiTek recommends that Stabilizers and required cross bracing be installed during truss erection, in accordance with Stabilizer Installation guide.

REACTIONS. (lb/size) 2=1580/0-3-8 (min. 0-1-14), 9=1580/0-3-8 (min. 0-1-13)
 Max Horz 2=-123(LC 15)
 Max Uplift 2=-88(LC 14), 9=-88(LC 15)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
 TOP CHORD 2-16=-2819/186, 3-16=-2714/201, 3-4=-2643/220, 4-17=-1841/206, 17-18=-1805/210,
 5-18=-1764/232, 5-19=-1764/229, 19-20=-1800/208, 6-20=-1850/201, 6-7=-2266/220,
 7-8=-2378/195, 8-21=-4764/292, 9-21=-4888/278
 BOT CHORD 2-15=-192/2392, 15-22=-102/2013, 14-22=-102/2013, 13-14=-102/2013, 13-23=-69/2077,
 12-23=-69/2077, 11-12=-212/4324, 9-11=-214/4328
 WEBS 4-15=-23/582, 4-13=-736/174, 5-13=-63/1270, 6-13=-785/165, 6-12=0/372, 8-12=-2467/166,
 8-11=-44/2183

- NOTES-** (12-15)
- Unbalanced roof live loads have been considered for this design.
 - Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCCL=5.0psf; BCCL=5.0psf; h=23ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) 0-4-8 to 4-5-2, Interior(1) 4-5-2 to 14-8-6, Exterior(2R) 14-8-6 to 24-3-10, Interior(1) 24-3-10 to 34-6-14, Exterior(2E) 34-6-14 to 39-4-8 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.
 - All plates are MT20 plates unless otherwise indicated.
 - 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.
 - Bearing at joint(s) 9 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
 - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 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.



10/14/2021

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	49786-0211 WOODGROVE FUQUAY VARINA, NC
21-5966-R01	R15	Roof Special	3	1	Job Reference (optional) # 29077

8.430 s Feb 12 2021 MiTek Industries, Inc. Sat Oct 16 13:17:57 2021 Page 2
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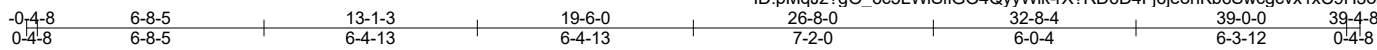
- 12) Graphical bracing representation does not depict the size, type or the orientation of the brace on the member. Symbol only indicates that the member must be braced.
- 13) Bearing symbols are only graphical representations of a possible bearing condition. Bearing symbols are not considered in the structural design of the truss to support the loads indicated.
- 14) 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.
- 15) 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



10/14/2021

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Scale = 1:68.6

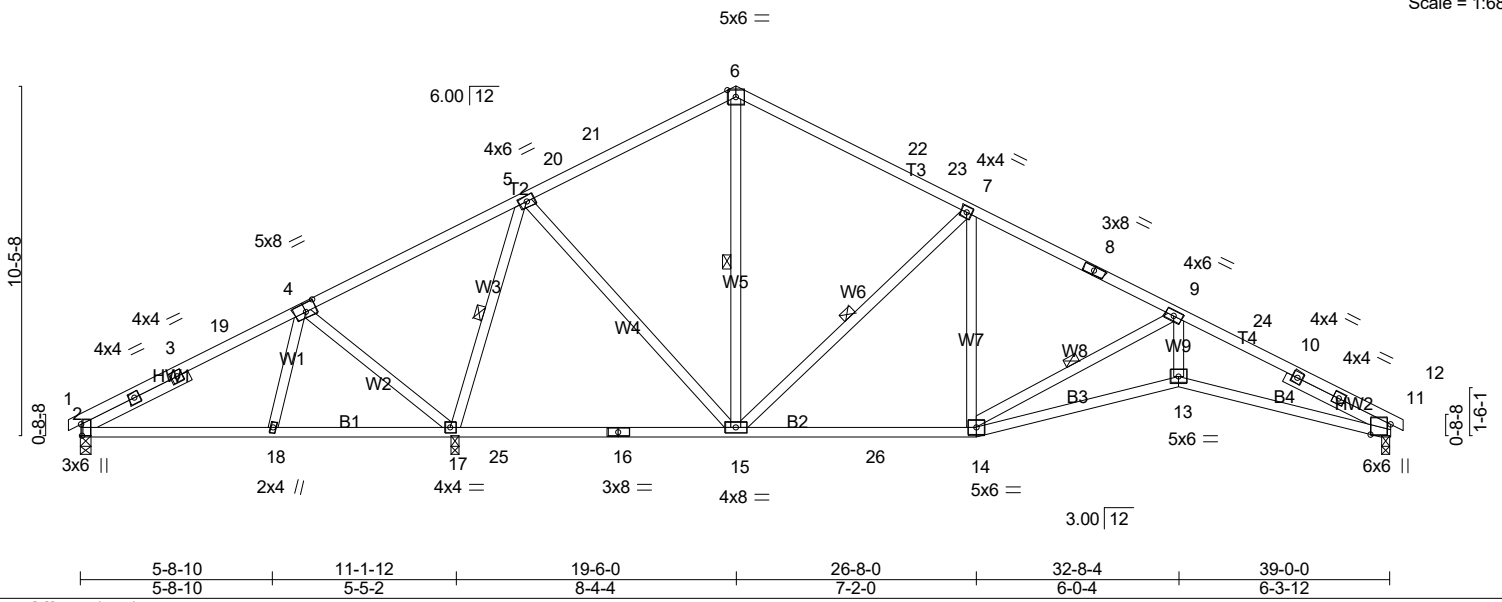


Plate Offsets (X,Y)-- [2:0-4-1,0-0-5], [4:0-4-0,0-3-0], [11:0-3-11,Edge]						
LOADING (psf)	SPACING-	CSI.	DEFL.		PLATES	GRIP
TCLL (roof) 20.0	2-0-0	TC 0.88	in (loc) l/defl L/d		MT20	244/190
Snow (Pf) 20.0	Plate Grip DOL 1.15	BC 0.76	Vert(LL) -0.21 15-17 >999 240			
TCDL 10.0	Lumber DOL 1.15	WB 0.56	Vert(CT) -0.32 15-17 >999 180			
BCLL 0.0 *	Rep Stress Incr YES	Matrix-SH	Horz(CT) 0.12 11 n/a n/a			
BCDL 10.0	Code IRC2018/TPI2014					Weight: 224 lb FT = 20%

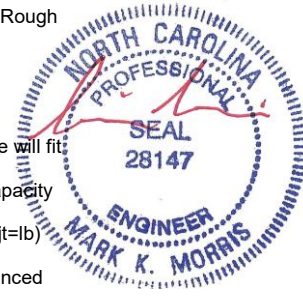
LUMBER-		BRACING-	
TOP CHORD 2x4 SP No.2		TOP CHORD	Structural wood sheathing directly applied or 2-2-0 oc purlins.
BOT CHORD 2x4 SP No.2		BOT CHORD	Rigid ceiling directly applied or 6-0-0 oc bracing.
WEBS 2x4 SP No.3		WEBS	1 Row at midpt 5-17, 6-15, 7-15, 9-14
SLIDER Left 2x4 SP No.3 - 3-7-2, Right 2x4 SP No.3 - 3-6-3			

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

REACTIONS. (lb/size) 2=10/0-3-8 (min. 0-1-8), 11=958/0-3-8 (min. 0-1-8), 17=2195/0-3-8 (min. 0-2-10)
 Max Horz 2=-121(LC 15)
 Max Uplift 2=-211(LC 37), 11=-88(LC 15), 17=-48(LC 14)
 Max Grav 2=203(LC 34), 11=983(LC 22), 17=2218(LC 3)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
 TOP CHORD 2-3=0/656, 3-19=0/655, 4-19=0/700, 4-5=0/1026, 5-20=-488/152, 20-21=-449/156,
 6-21=-383/177, 6-22=-385/175, 22-23=-445/153, 7-23=-500/146, 7-8=-961/163,
 8-9=-1075/138, 9-24=-2396/206, 10-24=-2467/193, 10-11=-2564/188
 BOT CHORD 2-18=-566/130, 17-18=-589/118, 17-25=-408/122, 16-25=-408/122, 15-16=-408/122,
 15-26=-24/924, 14-26=-24/924, 13-14=-129/2218, 11-13=-130/2215
 WEBS 4-17=-559/129, 5-17=-1772/121, 5-15=0/1084, 7-15=-822/163, 7-14=0/397, 9-14=-1409/153,
 9-13=-4/1167

- 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; BCCL=5.0psf; h=23ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) 0-4-8 to 4-5-2, Interior(1) 4-5-2 to 14-8-6, Exterior(2R) 14-8-6 to 24-3-10, Interior(1) 24-3-10 to 34-6-14, Exterior(2E) 34-6-14 to 39-4-8 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) 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) 11 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
 - 9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 11, 17 except (it=lb) 2=211.
 - 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.



10/14/2021

Job	Truss	Truss Type	Qty	Ply	49786-0211 WOODGROVE FUQUAY VARINA, NC
21-5966-R01	R16	Roof Special	4	1	Job Reference (optional) # 29077

8.430 s Feb 12 2021 MiTek Industries, Inc. Sat Oct 16 13:18:00 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



10/14/2021

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0-4-8
0-4-8
19-6-0
19-6-0
39-0-0
19-6-0
39-4-8
0-4-8

5x6 =

Scale = 1:69.8

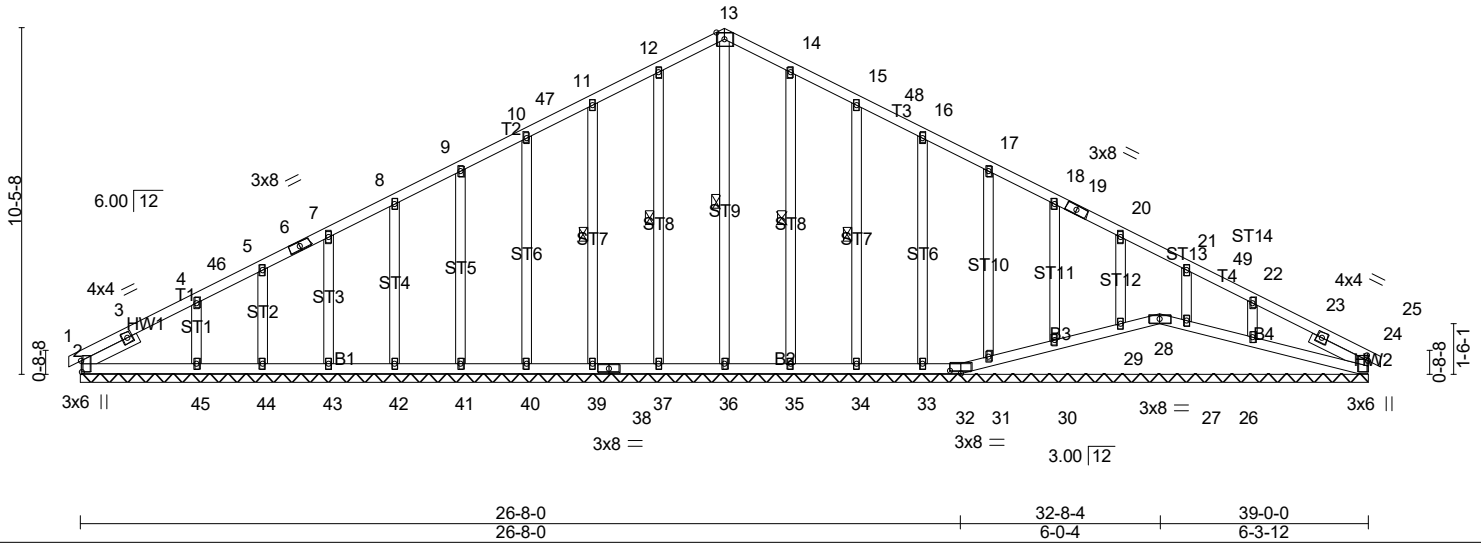


Plate Offsets (X,Y)-- [2:0-4-1,0-0-5], [24:0-1-15,0-0-6], [32:0-4-0,0-1-0]

LOADING (psf)	SPACING-	CSI.	DEFL.	PLATES	GRIP
TCLL (roof) 20.0	2-0-0	TC 0.14	in (loc) l/defl L/d	MT20	244/190
Snow (Pf) 20.0	Plate Grip DOL 1.15	BC 0.13	Vert(LL) 0.00 25 n/r 180		
TCDL 10.0	Lumber DOL 1.15	WB 0.13	Vert(CT) 0.00 25 n/r 80		
BCLL 0.0 *	Rep Stress Incr YES	Matrix-SH	Horz(CT) 0.01 24 n/a n/a		
BCDL 10.0	Code IRC2018/TPI2014			Weight: 268 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 - 1-11-0, Right 2x4 SP No.3 - 1-11-5

BRACING-
 TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins.
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
 WEBS 1 Row at midpt 13-36, 12-37, 11-39, 14-35, 15-34

REACTIONS. All bearings 39-0-0.
 (lb) - Max Horz 2=121(LC 15)
 Max Uplift All uplift 100 lb or less at joint(s) 32, 37, 39, 40, 41, 42, 43, 44, 45, 35, 34, 33, 31, 30, 29, 27, 26, 2
 Max Grav All reactions 250 lb or less at joint(s) 32, 28, 24, 40, 41, 42, 43, 44, 33, 31, 30, 29, 27, 2 except
 36=254(LC 27), 37=289(LC 5), 39=276(LC 5), 45=270(LC 34), 35=288(LC 6), 34=280(LC 6), 26=265(LC 35)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
 TOP CHORD 12-13=-144/258, 13-14=-144/258

- 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) 0-4-8 to 4-5-2, Exterior(2N) 4-5-2 to 14-8-6, Corner(3R) 14-8-6 to 24-3-10, Exterior(2N) 24-3-10 to 34-6-14, Corner(3E) 34-6-14 to 39-4-8 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.
 - All plates are 2x4 MT20 unless otherwise indicated.
 - Gable requires continuous bottom chord bearing.
 - Gable studs spaced at 2-0-0 oc.
 - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
 - * This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 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) 32, 37, 39, 40, 41, 42, 43, 44, 45, 35, 34, 33, 31, 30, 29, 27, 26, 2.
 - Beveled plate or shim required to provide full bearing surface with truss chord at joint(s) 28, 31, 30, 29, 27, 26, 2.
 - 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.



10/14/2021

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	49786-0211 WOODGROVE FUQUAY VARINA, NC
21-5966-R01	R17	Roof Special Supported Gable	1	1	Job Reference (optional) # 29077

8.430 s Feb 12 2021 MiTek Industries, Inc. Sat Oct 16 13:18:05 2021 Page 2
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- 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

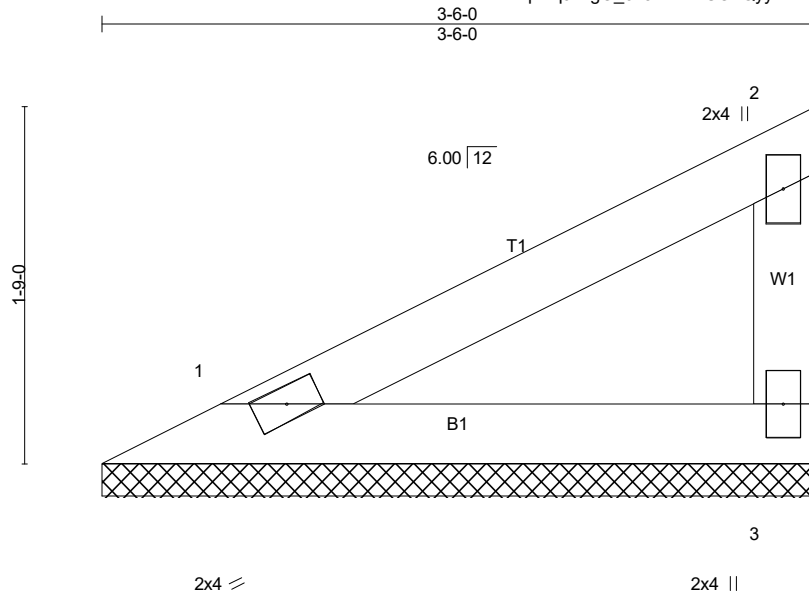


10/14/2021

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.

Job 21-5966-R01	Truss VT01	Truss Type Valley	Qty 2	Ply 1	49786-0211 WOODGROVE FUQUAY VARINA, NC
					Job Reference (optional) # 29077

8.430 s Feb 12 2021 MiTek Industries, Inc. Sat Oct 16 13:18:06 2021 Page 1
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Scale = 1:11.3

LOADING (psf)	SPACING-	CSI.	DEFL.	PLATES	GRIP
TCLL (roof) 20.0	2-0-0	TC 0.19	in (loc) l/defl L/d	MT20	244/190
Snow (Pf) 20.0	Plate Grip DOL 1.15	BC 0.14	Vert(LL) n/a - n/a 999		
TCDL 10.0	Lumber DOL 1.15	WB 0.00	Vert(CT) n/a - n/a 999		
BCLL 0.0 *	Rep Stress Incr YES	Matrix-P	Horz(CT) 0.00 n/a n/a		
BCDL 10.0	Code IRC2018/TPI2014			Weight: 12 lb	FT = 20%

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

BRACING-
TOP CHORD Structural wood sheathing directly applied or 3-6-0 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.

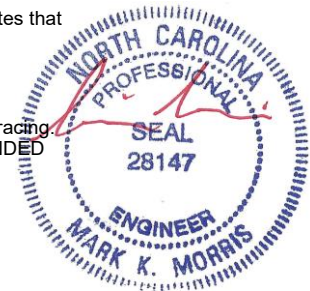
REACTIONS. (lb/size) 1=109/3-6-0 (min. 0-1-8), 3=109/3-6-0 (min. 0-1-8)
Max Horz 1=38(LC 14)
Max Uplift 1=-1(LC 14), 3=-21(LC 14)
Max Grav 1=143(LC 20), 3=143(LC 20)

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=23ft; 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
- 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) Gable requires continuous bottom chord bearing.
- 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) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 3.
- 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



10/14/2021

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.