

Mark Morris, P.E.

#126, 1317-M, Summerville, SC 29483

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

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

AST #: 56214

JOB: 25-0637-R01

JOB NAME: LOT 149 PROVIDENCE CREEK

Wind Code: ASCE7-16

Wind Speed: Vult= 120mph

Exposure Category: B

Mean Roof Height (feet): 35

These truss designs comply with IRC 2018 as well as IRC 2021.

30 Truss Design(s)

Trusses:

PB01, PB02, R01, R02, R03, R04, R05, R06, R07, R08, R09, R10, R11, R12, SP01, SP02, SPJ01, SPJ02, SPJ03, VS01, VS02, VS03, VT01, VT02, VT03, VT04, VT05, VT06, VT07, VT08



1/21/2025

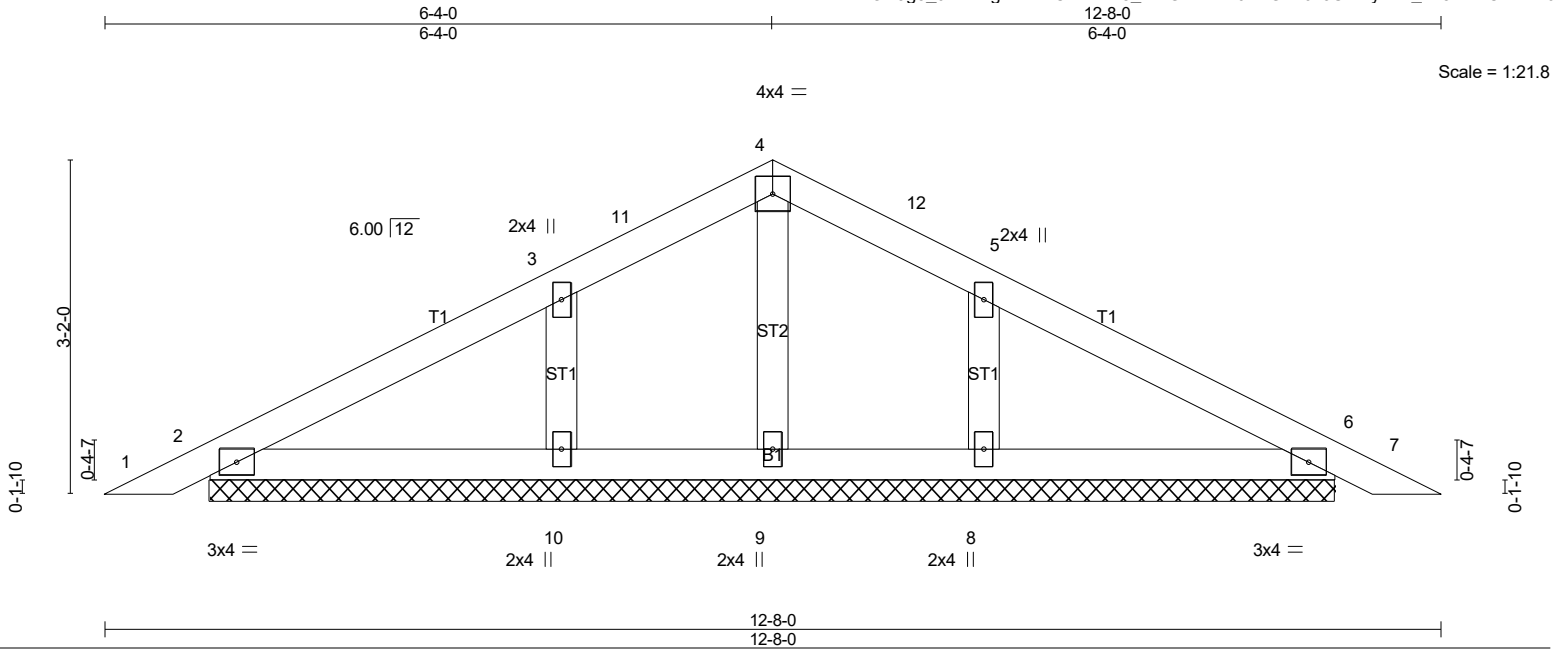
Mark Morris

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 ANSL/TPI 1 *National Design Standard for Metal Plate Connected Wood Truss Construction* and BCSI 1-03 *Guide to Good Practice for Handling, Installing & Bracing of Metal Plate Connected Wood Trusses* from Truss Plate Institute, 583 D'Onofrio Drive, Madison, WI

Job	Truss	Truss Type	Qty	Ply	LOT 149 PROVIDENCE CREEK FUQUAY-VARINA, NC
25-0637-R01	PB01	GABLE	2	1	
Job Reference (optional)					# 56214

Run: 8.430 s Feb 12 2021 Print: 8.630 s Jul 12 2024 MiTek Industries, Inc. Tue Jan 21 21:04:26 2025 Page 1
 ID:kHdPkON9g3_0lfrDBlgKRzexCS-HVw8_YMGYPbxD9LYGSaJz3UAmzW7_nL8SEYCKzt1BJ



Scale = 1:21.8

LOADING (psf)	SPACING-	CSI.	DEFL.	PLATES	GRIP
TCLL (roof) 20.0	2-0-0	TC 0.17	in (loc) l/defl L/d	MT20	244/190
Snow (Pf) 20.0	Plate Grip DOL 1.15	BC 0.16	Vert(LL) 0.00 7 n/r 180		
TCDL 10.0	Lumber DOL 1.15	WB 0.06	Vert(CT) 0.00 7 n/r 80		
BCLL 0.0 *	Rep Stress Incr YES	Matrix-SH	Horz(CT) 0.00 6 n/a n/a		
BCLL 10.0	Code IRC2021/TPI2014			Weight: 45 lb	FT = 20%

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

BRACING-
 TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins.
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
 MiTek recommends that Stabilizers and required cross bracing be installed during truss erection, in accordance with Stabilizer Installation guide.

REACTIONS. All bearings 10-7-14.
 (lb) - Max Horz 2=-45(LC 15)
 Max Uplift All uplift 100 lb or less at joint(s) 2, 6, 10, 8
 Max Grav All reactions 250 lb or less at joint(s) 2, 6, 9 except 10=390(LC 21), 8=390(LC 22)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
WEBS 3-10=-299/133, 5-8=-299/133

- NOTES-** (13-16)
- Unbalanced roof live loads have been considered for this design.
 - Wind: ASCE 7-16; Vult=120mph (3-second gust) Vasd=95mph; TCCL=5.0psf; BCDL=5.0psf; h=35ft; Cat. II; Exp B; Enclosed; Gable Roof; Common Truss; MWFRS (envelope) gable end zone and C-C Exterior(2E) 0-3-15 to 5-1-8, Exterior(2R) 5-1-8 to 7-6-8, Exterior(2E) 7-6-8 to 12-4-1 zone; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
 - Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
 - TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
 - Unbalanced snow loads have been considered for this design.
 - This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 20.0 psf on overhangs non-concurrent with other live loads.
 - Gable 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, 6, 10, 8.
 - See Standard Industry Piggyback Truss Connection Detail for Connection to base truss as applicable, or consult qualified building designer.



Continued on page 2

1/21/2025

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

Job	Truss	Truss Type	Qty	Ply	LOT 149 PROVIDENCE CREEK FUQUAY-VARINA, NC
25-0637-R01	PB01	GABLE	2	1	Job Reference (optional) # 56214

Run: 8.430 s Feb 12 2021 Print: 8.630 s Jul 12 2024 MiTek Industries, Inc. Tue Jan 21 21:04:26 2025 Page 2
ID:kHdPkON9g3_0lfrDBlgKRzexCS-HVw8_YMGYPbxD9LYGSaJz3UAmyzw7_nL8SEYCKz1BJ

- 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

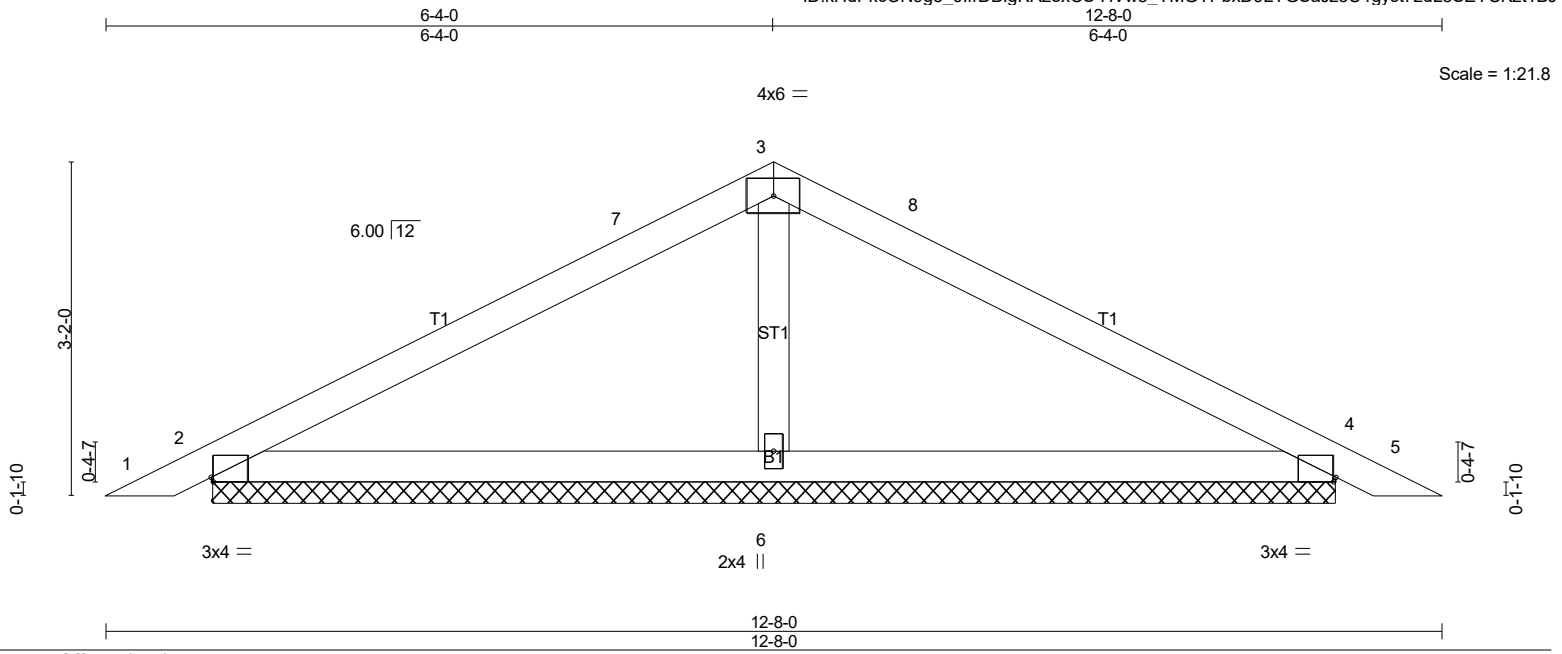


1/21/2025

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 25-0637-R01	Truss PB02	Truss Type Piggyback	Qty 24	Ply 1	LOT 149 PROVIDENCE CREEK FUQUAY-VARINA, NC	# 56214
--------------------	---------------	-------------------------	-----------	----------	--	---------

Run: 8.430 s Feb 12 2021 Print: 8.630 s Jul 12 2024 MiTek Industries, Inc. Tue Jan 21 21:04:26 2025 Page 1
ID:kHdPkON9g3_0lfrDBlgKRzexCS-HVw8_YMGYPbxD9LYGSaJz3U4gyst7zdl8SEYCKz1BJ



LOADING (psf)		SPACING-		CSI.		DEFL.				PLATES	GRIP	
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.56	Vert(LL)	0.01	5	n/r	180	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.61	Vert(CT)	0.02	5	n/r	80		
TCDL	10.0	Rep Stress Incr	YES	WB	0.07	Horz(CT)	0.00	4	n/a	n/a		
BCLL	0.0 *	Code IRC2021/TPI2014		Matrix-SH								
BCDL	10.0										Weight: 40 lb	FT = 20%

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

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

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

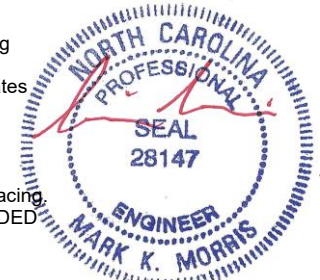
REACTIONS. (lb/size) 2=236/10-7-14 (min. 0-1-8), 4=236/10-7-14 (min. 0-1-8), 6=463/10-7-14 (min. 0-1-8)
Max Horz 2=-45(LC 15)
Max Uplift 2=-51(LC 14), 4=-60(LC 15), 6=-28(LC 14)
Max Grav 2=324(LC 21), 4=324(LC 22), 6=480(LC 21)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
WEBS 3-6=-305/144

NOTES- (11-14)

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=120mph (3-second gust) Vasd=95mph; TC DL=5.0psf; BC DL=5.0psf; h=35ft; Cat. II; Exp B; Enclosed; Gable Roof; Common Truss; MWFRS (envelope) gable end zone and C-C Exterior(2E) 0-3-15 to 5-1-8, Exterior(2R) 5-1-8 to 7-6-8, Exterior(2E) 7-6-8 to 12-4-1 zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
- Unbalanced snow loads have been considered for this design.
- This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 20.0 psf on overhangs non-concurrent with other live loads.
- Gable requires continuous bottom chord bearing.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 1-0-0 wide will fit between the bottom chord and any other members.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 4, 6.
- See Standard Industry Piggyback Truss Connection Detail for Connection to base truss as applicable, or consult qualified building designer.
- 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.
- 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.
- 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.
- 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.

Continued on page 2



1/21/2025

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

Job	Truss	Truss Type	Qty	Ply	LOT 149 PROVIDENCE CREEK FUQUAY-VARINA, NC
25-0637-R01	PB02	Piggyback	24	1	Job Reference (optional) # 56214

Run: 8.430 s Feb 12 2021 Print: 8.630 s Jul 12 2024 MiTek Industries, Inc. Tue Jan 21 21:04:26 2025 Page 2
ID:kHdPkcON9g3_0lfrDBlgKRzexCS-HVw8_YMGYPbxD9LYGSaJz3U4gyst7zdl8SEYCKzt1BJ

LOAD CASE(S) Standard

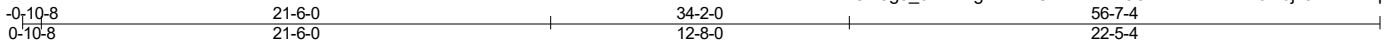


1/21/2025

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 25-0637-R01	Truss R01	Truss Type Piggyback Base Supported Gable	Qty 2	Ply 1	LOT 149 PROVIDENCE CREEK FUQUAY-VARINA, NC Job Reference (optional) # 56214
--------------------	--------------	--	----------	----------	--

Run: 8.430 s Feb 12 2021 Print: 8.630 s Jul 12 2024 MiTek Industries, Inc. Tue Jan 21 21:04:29 2025 Page 1
ID:kHdPkcON9g3_0lfrDBlgKRzcxCS-i4cHdaO8rKzW4d47xb70ai6js91ZKIFnqQTCpfz1fBG



Scale = 1:97.5

Plate Offsets (X,Y)-- [47:0-4-0,0-1-4], [55:0-4-0,0-1-4]

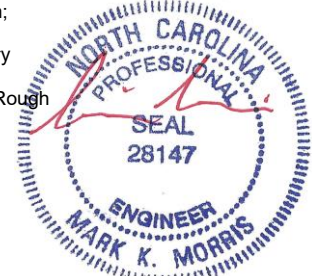
LOADING (psf)	SPACING-	CSI.	DEFL.	PLATES	GRIP
TCLL (roof) 20.0	Plate Grip DOL 1.15	TC 0.05	in (loc) l/defl L/d	MT20	244/190
Snow (Pf) 20.0	Lumber DOL 1.15	BC 0.04	Vert(LL) -0.00 1 n/r 180		
TCDL 10.0	Rep Stress Incr YES	WB 0.21	Vert(CT) -0.00 1 n/r 80		
BCLL 0.0 *	Code IRC2021/TPI2014	Matrix-SH	Horz(CT) 0.01 33 n/a n/a		
BCDL 10.0				Weight: 578 lb	FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x6 SP No.2	TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins.
BOT CHORD 2x6 SP No.2	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
OTHERS 2x4 SP No.3 *Except* ST11: 2x6 SP No.2	WEBS 1 Row at midpt 18-49, 17-50, 16-51, 15-52, 14-53, 13-54, 12-56, 19-48, 20-47, 21-45, 22-44, 23-43, 24-42
SLIDER Left 2x4 SP No.3 1-6-4	

REACTIONS. All bearings 56-7-4.
(lb) - Max Horz 2=-169(LC 15)
Max Uplift All uplift 100 lb or less at joint(s) 2, 49, 50, 51, 53, 54, 56, 57, 58, 59,
60, 61, 62, 48, 47, 44, 43, 42, 40, 39, 38, 37, 36, 35, 34 except 63=-115(LC
14)
Max Grav All reactions 250 lb or less at joint(s) 2, 60, 61, 62, 63, 37, 36, 35, 34, 33
except 49=291(LC 44), 50=293(LC 44), 51=311(LC 44), 52=282(LC 52), 53=269(LC
47), 54=299(LC 45), 56=285(LC 45), 57=293(LC 45), 58=292(LC 45), 59=286(LC 45),
48=293(LC 44), 47=304(LC 44), 45=270(LC 52), 44=267(LC 49), 43=299(LC 49),
42=292(LC 45), 40=292(LC 45), 39=292(LC 45), 38=286(LC 45)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-253/84, 13-14=-119/283, 14-15=-131/314, 15-16=-123/300, 16-17=-123/300,
17-65=-123/300, 18-65=-123/300, 18-66=-123/300, 19-66=-123/300, 19-20=-123/300,
20-21=-123/300, 21-22=-131/314, 22-23=-119/283

- NOTES-** (14-17)
- Unbalanced roof live loads have been considered for this design.
 - Wind: ASCE 7-16; Vult=120mph (3-second gust) Vasd=95mph; TCDL=5.0psf; BCDL=5.0psf; h=35ft; Cat. II; Exp B; Enclosed; Gable Roof; Common Truss; MWFRS (envelope) gable end zone and C-C Corner(3E) -0-10-8 to 3-10-0, Exterior(2N) 3-10-0 to 16-8-6, Corner(3R) 16-8-6 to 26-3-10, Exterior(2N) 26-3-10 to 29-4-6, Corner(3R) 29-4-6 to 38-11-10, Exterior(2N) 38-11-10 to 51-9-10, Corner(3E) 51-9-10 to 56-7-4 zone; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
 - Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
 - TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
 - Unbalanced snow loads have been considered for this design.
 - This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 20.0 psf on overhangs non-concurrent with other live loads.
 - Provide adequate drainage to prevent water ponding.
 - All plates are 2x4 MT20 unless otherwise indicated.
 - Gable requires continuous bottom chord bearing.
 - 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.



1/21/2025

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

Job	Truss	Truss Type	Qty	Ply	LOT 149 PROVIDENCE CREEK FUQUAY-VARINA, NC
25-0637-R01	R01	Piggyback Base Supported Gable	2	1	Job Reference (optional) # 56214

Run: 8.430 s Feb 12 2021 Print: 8.630 s Jul 12 2024 MiTek Industries, Inc. Tue Jan 21 21:04:30 2025 Page 2
ID:kHdPkC0N9g3_0lfrDBlgKRzexCS-AGAfvPmce5NhnfKVleF7vfucZMn3IVx34CIL5zt1BF

NOTES- (14-17)

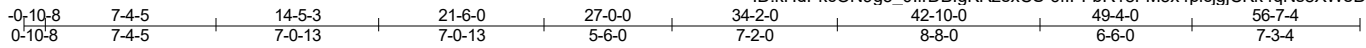
- 12) * This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 1-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- 13) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 49, 50, 51, 53, 54, 56, 57, 58, 59, 60, 61, 62, 48, 47, 44, 43, 42, 40, 39, 38, 37, 36, 35, 34 except (jt=lb) 63=115.
- 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



1/21/2025

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



Scale = 1:99.2

Plate Offsets (X,Y)-- [9:0-7-0,0-4-0], [13:0-1-4,Edge], [16:0-3-0,0-5-4]

LOADING (psf)	TCLL (roof) 20.0	SPACING-	2-0-0	CSI.		DEFL.				PLATES	GRIP
	Snow (Pf) 20.0	Plate Grip DOL	1.15	TC	0.64	Vert(LL)	-0.24 18-19	>999	240	MT20	244/190
	TCDL 10.0	Lumber DOL	1.15	BC	0.81	Vert(CT)	-0.35 18-19	>999	180		
	BCLL 0.0 *	Rep Stress Incr	YES	WB	0.81	Horz(CT)	0.04 16	n/a	n/a		
	BCDL 10.0	Code IRC2021/TPI2014		Matrix	AS						Weight: 454 lb FT = 20%

LUMBER-
 TOP CHORD 2x6 SP No.2
 BOT CHORD 2x6 SP No.2 *Except*
 B4: 2x4 SP No.2
 WEBS 2x4 SP No.3 *Except*
 W9: 2x6 SP No.2
 SLIDER Left 2x4 SP No.3 1-11-0

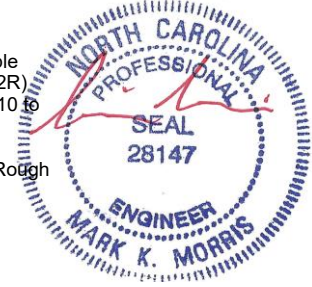
BRACING-
 TOP CHORD Structural wood sheathing directly applied.
 BOT CHORD Rigid ceiling directly applied. Except:
 6-0-0 oc bracing: 18-20
 WEBS 1 Row at midpt 6-23, 7-21, 8-21, 9-20, 10-16
 2 Rows at 1/3 pts 9-16

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

REACTIONS. (lb/size) 2=1319/0-3-8 (min. 0-1-13), 16=3024/0-3-8 (min. 0-1-12), 13=415/Mechanical
 Max Horz2=-170(LC 15)
 Max Uplift2=-184(LC 14), 16=-111(LC 15), 13=-116(LC 15)
 Max Grav2=1549(LC 92), 16=3965(LC 43), 13=529(LC 41)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
 TOP CHORD 2-3=-937/30, 3-4=-2473/282, 4-5=-2325/291, 5-33=-2245/302, 6-33=-2213/319,
 6-34=-1649/298, 7-34=-1509/320, 7-35=-855/239, 8-35=-855/239, 8-36=-855/239,
 9-36=-855/239, 9-37=0/1300, 10-37=-6/1082, 10-38=-180/283, 11-38=-217/253,
 11-12=-350/215, 12-13=-613/202
 BOT CHORD 2-25=-323/2123, 25-39=-179/1740, 24-39=-179/1740, 23-24=-179/1740, 23-40=-56/1108,
 40-41=-56/1108, 22-41=-56/1108, 21-22=-56/1108, 21-42=-420/250, 42-43=-420/250,
 43-44=-420/250, 17-44=-420/250, 17-45=-420/250, 45-46=-420/250, 46-47=-420/250,
 47-48=-420/250, 16-48=-420/250, 16-49=-403/102, 49-50=-403/102, 15-50=-403/102,
 14-15=-403/102, 13-14=-106/511
 WEBS 4-25=-326/199, 6-25=-108/532, 6-23=-990/281, 7-23=-179/1230, 7-21=-973/193,
 8-21=-704/172, 20-21=-171/1834, 9-20=-149/1908, 9-18=-2684/342, 16-18=-2755/316,
 10-16=-1143/294, 10-14=-46/604, 12-14=-410/188, 17-19=-289/0

- NOTES-** (17-20)
- 1) Unbalanced roof live loads have been considered for this design.
 - 2) Wind: ASCE 7-16; Vult=120mph (3-second gust) Vasd=95mph; TCDL=5.0psf; BCDL=5.0psf; h=35ft; Cat. II; Exp B; Enclosed; Gable Roof; Hip Truss; MWFRS (envelope) gable end zone and C-C Exterior(2E) -0-10-8 to 3-11-2, Interior(1) 3-11-2 to 16-8-6, Exterior(2R) 16-8-6 to 26-3-10, Interior(1) 26-3-10 to 29-4-6, Exterior(2R) 29-4-6 to 38-11-10, Interior(1) 38-11-10 to 51-9-10, Exterior(2E) 51-9-10 to 56-7-4 zone; end vertical left exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
 - 3) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
 - 4) Unbalanced snow loads have been considered for this design.
 - 5) This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 20.0 psf on overhangs non-concurrent with other live loads.
 - 6) Provide adequate drainage to prevent water ponding.
- Continued on page 2



1/21/2025

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 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	LOT 149 PROVIDENCE CREEK FUQUAY-VARINA, NC
25-0637-R01	R02	Piggyback Base	10	1	Job Reference (optional) # 56214

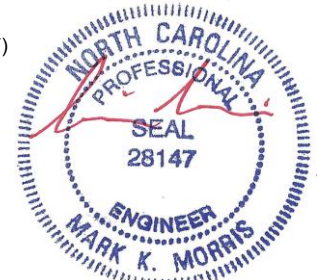
Run: 8.430 s Feb 12 2021 Print: 8.630 s Jul 12 2024 MiTek Industries, Inc. Tue Jan 21 21:04:32 2025 Page 2
ID:kHdPkCOn9g3_0lfrDBlgKRzexCS-6flPFbR18FM5x4picjgCKk4qNs8XWeDXNhsP_zt1BD

NOTES- (17-20)

- 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) Refer to girder(s) for truss to truss connections.
- 10) Bearing at joint(s) 16 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- 11) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=184, 16=111, 13=116.
- 12) Load case(s) 86, 87, 88, 89, 90, 91, 92, 93, 94, 95, 96, 97, 98, 99, 100, 101, 102, 103, 104, 105, 106, 107, 108, 109, 110, 111, 112, 113, 114, 115, 116, 117, 118, 119, 120, 121, 122, 123, 124, 125, 126, 127, 128, 129, 130, 131, 132 has/have been modified. Building designer must review loads to verify that they are correct for the intended use of this truss.
- 13) MULTIPLE LOADCASES – This design is the composite result of multiple load cases.
- 14) User moving load cases exist: Review the load cases for details.
- 15) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.
- 16) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).
- 17) 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.
- 18) 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.
- 19) 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.
- 20) 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 Except:

- 86) 1st User Defined Moving Load - Dead + Snow (balanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (plf)
Vert: 1-7=-60(F), 7-9=-60(F), 9-13=-60(F), 26-30=-20(F), 18-20=-20(F)
Concentrated Loads (lb)
Vert: 21=-150 42=-150
- 87) 2nd User Defined Moving Load - Dead + Snow (balanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (plf)
Vert: 1-7=-60(F), 7-9=-60(F), 9-13=-60(F), 26-30=-20(F), 18-20=-20(F)
Concentrated Loads (lb)
Vert: 42=-150 44=-150
- 88) 3rd User Defined Moving Load - Dead + Snow (balanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (plf)
Vert: 1-7=-60(F), 7-9=-60(F), 9-13=-60(F), 26-30=-20(F), 18-20=-20(F)
Concentrated Loads (lb)
Vert: 44=-150 45=-150
- 89) 4th User Defined Moving Load - Dead + Snow (balanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (plf)
Vert: 1-7=-60(F), 7-9=-60(F), 9-13=-60(F), 26-30=-20(F), 18-20=-20(F)
Concentrated Loads (lb)
Vert: 45=-150 47=-150
- 90) 5th User Defined Moving Load - Dead + Snow (balanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (plf)
Vert: 1-7=-60(F), 7-9=-60(F), 9-13=-60(F), 26-30=-20(F), 18-20=-20(F)
Concentrated Loads (lb)
Vert: 16=-150 46=-150
- 91) 7th Unbal.1st User Defined Moving Load - Dead + Snow (balanced)-Parallel: Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (plf)
Vert: 1-7=-32(F=-20), 7-9=-101(F=-20), 9-13=-32(F=-20), 26-30=-20(F), 18-20=-20(F)
Concentrated Loads (lb)
Vert: 21=-150 42=-150
- 92) 8th Unbal.1st User Defined Moving Load - Dead + Snow (balanced)-Parallel: Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (plf)
Vert: 1-5=-60(F=-20), 5-7=-101(F=-20), 7-9=-32(F=-20), 9-11=-101(F=-20), 11-13=-60(F=-20), 26-30=-20(F), 18-20=-20(F)
Concentrated Loads (lb)
Vert: 21=-150 42=-150
- 93) 7th Unbal.1st User Defined Moving Load - Dead + Snow (balanced)-Parallel: Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (plf)
Vert: 1-7=-32(F=-20), 7-9=-101(F=-20), 9-13=-32(F=-20), 26-30=-20(F), 18-20=-20(F)
Concentrated Loads (lb)
Vert: 21=-150 42=-150
- 94) 8th Unbal.1st User Defined Moving Load - Dead + Snow (balanced)-Parallel: Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (plf)
Vert: 1-5=-60(F=-20), 5-7=-101(F=-20), 7-9=-32(F=-20), 9-11=-101(F=-20), 11-13=-60(F=-20), 26-30=-20(F), 18-20=-20(F)
Concentrated Loads (lb)
Vert: 21=-150 42=-150
- 95) 7th Unbal.1st User Defined Moving Load - Dead + Snow (balanced)-Parallel: Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (plf)
Vert: 1-7=-32(F=-20), 7-9=-101(F=-20), 9-13=-32(F=-20), 26-30=-20(F), 18-20=-20(F)
Concentrated Loads (lb)
Vert: 21=-150 42=-150
- 96) 8th Unbal.1st User Defined Moving Load - Dead + Snow (balanced)-Parallel: Lumber Increase=1.15, Plate Increase=1.15



Continued on page 3

1/21/2025

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

Job	Truss	Truss Type	Qty	Ply	LOT 149 PROVIDENCE CREEK FUQUAY-VARINA, NC
25-0637-R01	R02	Piggyback Base	10	1	Job Reference (optional) # 56214

Run: 8.430 s Feb 12 2021 Print: 8.630 s Jul 12 2024 MiTek Industries, Inc. Tue Jan 21 21:04:32 2025 Page 3
 ID:kHdPkC0N9g3_0lfrDBlgKRzexCS-6f1PFbR18FM5x4picjgCKk4qNs8XWeDXNhsP_zt1B

LOAD CASE(S)

- Uniform Loads (plf)
 Vert: 1-5=-60(F=-20), 5-7=-101(F=-20), 7-9=-32(F=-20), 9-11=-101(F=-20), 11-13=-60(F=-20), 26-30=-20(F), 18-20=-20(F)
- Concentrated Loads (lb)
 Vert: 21=-150 42=-150
- 97) 7th Unbal.1st User Defined Moving Load - Dead + Snow (balanced)-Parallel: Lumber Increase=1.15, Plate Increase=1.15
 Uniform Loads (plf)
 Vert: 1-7=-32(F=-20), 7-9=-101(F=-20), 9-13=-32(F=-20), 26-30=-20(F), 18-20=-20(F)
 Concentrated Loads (lb)
 Vert: 21=-150 42=-150
- 98) 8th Unbal.1st User Defined Moving Load - Dead + Snow (balanced)-Parallel: Lumber Increase=1.15, Plate Increase=1.15
 Uniform Loads (plf)
 Vert: 1-5=-60(F=-20), 5-7=-101(F=-20), 7-9=-32(F=-20), 9-11=-101(F=-20), 11-13=-60(F=-20), 26-30=-20(F), 18-20=-20(F)
 Concentrated Loads (lb)
 Vert: 21=-150 42=-150
- 99) 7th Unbal.1st User Defined Moving Load - Dead + Snow (balanced)-Parallel: Lumber Increase=1.15, Plate Increase=1.15
 Uniform Loads (plf)
 Vert: 1-7=-32(F=-20), 7-9=-101(F=-20), 9-13=-32(F=-20), 26-30=-20(F), 18-20=-20(F)
 Concentrated Loads (lb)
 Vert: 21=-150 42=-150
- 100) 8th Unbal.1st User Defined Moving Load - Dead + Snow (balanced)-Parallel: Lumber Increase=1.15, Plate Increase=1.15
 Uniform Loads (plf)
 Vert: 1-5=-60(F=-20), 5-7=-101(F=-20), 7-9=-32(F=-20), 9-11=-101(F=-20), 11-13=-60(F=-20), 26-30=-20(F), 18-20=-20(F)
 Concentrated Loads (lb)
 Vert: 21=-150 42=-150
- 101) 7th Unbal.1st User Defined Moving Load - Dead + Snow (balanced)-Parallel: Lumber Increase=1.15, Plate Increase=1.15
 Uniform Loads (plf)
 Vert: 1-7=-32(F=-20), 7-9=-101(F=-20), 9-13=-32(F=-20), 26-30=-20(F), 18-20=-20(F)
 Concentrated Loads (lb)
 Vert: 21=-150 42=-150
- 102) 8th Unbal.1st User Defined Moving Load - Dead + Snow (balanced)-Parallel: Lumber Increase=1.15, Plate Increase=1.15
 Uniform Loads (plf)
 Vert: 1-5=-60(F=-20), 5-7=-101(F=-20), 7-9=-32(F=-20), 9-11=-101(F=-20), 11-13=-60(F=-20), 26-30=-20(F), 18-20=-20(F)
 Concentrated Loads (lb)
 Vert: 21=-150 42=-150
- 103) 7th Unbal.1st User Defined Moving Load - Dead + Snow (balanced)-Parallel: Lumber Increase=1.15, Plate Increase=1.15
 Uniform Loads (plf)
 Vert: 1-7=-32(F=-20), 7-9=-101(F=-20), 9-13=-32(F=-20), 26-30=-20(F), 18-20=-20(F)
 Concentrated Loads (lb)
 Vert: 21=-150 42=-150
- 104) 8th Unbal.1st User Defined Moving Load - Dead + Snow (balanced)-Parallel: Lumber Increase=1.15, Plate Increase=1.15
 Uniform Loads (plf)
 Vert: 1-5=-60(F=-20), 5-7=-101(F=-20), 7-9=-32(F=-20), 9-11=-101(F=-20), 11-13=-60(F=-20), 26-30=-20(F), 18-20=-20(F)
 Concentrated Loads (lb)
 Vert: 21=-150 42=-150
- 105) 7th Unbal.1st User Defined Moving Load - Dead + Snow (balanced)-Parallel: Lumber Increase=1.15, Plate Increase=1.15
 Uniform Loads (plf)
 Vert: 1-7=-32(F=-20), 7-9=-101(F=-20), 9-13=-32(F=-20), 26-30=-20(F), 18-20=-20(F)
 Concentrated Loads (lb)
 Vert: 21=-150 42=-150
- 106) 8th Unbal.1st User Defined Moving Load - Dead + Snow (balanced)-Parallel: Lumber Increase=1.15, Plate Increase=1.15
 Uniform Loads (plf)
 Vert: 1-5=-60(F=-20), 5-7=-101(F=-20), 7-9=-32(F=-20), 9-11=-101(F=-20), 11-13=-60(F=-20), 26-30=-20(F), 18-20=-20(F)
 Concentrated Loads (lb)
 Vert: 21=-150 42=-150
- 107) 7th Unbal.1st User Defined Moving Load - Dead + Snow (balanced)-Parallel: Lumber Increase=1.15, Plate Increase=1.15
 Uniform Loads (plf)
 Vert: 1-7=-32(F=-20), 7-9=-101(F=-20), 9-13=-32(F=-20), 26-30=-20(F), 18-20=-20(F)
 Concentrated Loads (lb)
 Vert: 21=-150 42=-150
- 108) 8th Unbal.1st User Defined Moving Load - Dead + Snow (balanced)-Parallel: Lumber Increase=1.15, Plate Increase=1.15
 Uniform Loads (plf)
 Vert: 1-5=-60(F=-20), 5-7=-101(F=-20), 7-9=-32(F=-20), 9-11=-101(F=-20), 11-13=-60(F=-20), 26-30=-20(F), 18-20=-20(F)
 Concentrated Loads (lb)
 Vert: 21=-150 42=-150
- 109) 7th Unbal.1st User Defined Moving Load - Dead + Snow (balanced)-Parallel: Lumber Increase=1.15, Plate Increase=1.15
 Uniform Loads (plf)
 Vert: 1-7=-32(F=-20), 7-9=-101(F=-20), 9-13=-32(F=-20), 26-30=-20(F), 18-20=-20(F)
 Concentrated Loads (lb)
 Vert: 21=-150 42=-150
- 110) 8th Unbal.1st User Defined Moving Load - Dead + Snow (balanced)-Parallel: Lumber Increase=1.15, Plate Increase=1.15
 Uniform Loads (plf)
 Vert: 1-5=-60(F=-20), 5-7=-101(F=-20), 7-9=-32(F=-20), 9-11=-101(F=-20), 11-13=-60(F=-20), 26-30=-20(F), 18-20=-20(F)
 Concentrated Loads (lb)
 Vert: 21=-150 42=-150



Continued on page 4

1/21/2025

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

Job	Truss	Truss Type	Qty	Ply	LOT 149 PROVIDENCE CREEK FUQUAY-VARINA, NC
25-0637-R01	R02	Piggyback Base	10	1	Job Reference (optional) # 56214

Run: 8.430 s Feb 12 2021 Print: 8.630 s Jul 12 2024 MiTek Industries, Inc. Tue Jan 21 21:04:32 2025 Page 4
 ID:kHdPkC0N9g3_0lfrDBlgKRzexCS-6flPFbR18FM5x4picjgCKk4qNs8XWeDXNhsP_zt1BD

LOAD CASE(S)

- 111) 7th Unbal.1st User Defined Moving Load - Dead + Snow (balanced)-Parallel: Lumber Increase=1.15, Plate Increase=1.15
 Uniform Loads (plf)
 Vert: 1-7=-32(F=-20), 7-9=-101(F=-20), 9-13=-32(F=-20), 26-30=-20(F), 18-20=-20(F)
 Concentrated Loads (lb)
 Vert: 21=-150 42=-150
- 112) 8th Unbal.1st User Defined Moving Load - Dead + Snow (balanced)-Parallel: Lumber Increase=1.15, Plate Increase=1.15
 Uniform Loads (plf)
 Vert: 1-5=-60(F=-20), 5-7=-101(F=-20), 7-9=-32(F=-20), 9-11=-101(F=-20), 11-13=-60(F=-20), 26-30=-20(F), 18-20=-20(F)
 Concentrated Loads (lb)
 Vert: 21=-150 42=-150
- 113) 7th Unbal.1st User Defined Moving Load - Dead + Snow (balanced)-Parallel: Lumber Increase=1.15, Plate Increase=1.15
 Uniform Loads (plf)
 Vert: 1-7=-32(F=-20), 7-9=-101(F=-20), 9-13=-32(F=-20), 26-30=-20(F), 18-20=-20(F)
 Concentrated Loads (lb)
 Vert: 21=-150 42=-150
- 114) 8th Unbal.1st User Defined Moving Load - Dead + Snow (balanced)-Parallel: Lumber Increase=1.15, Plate Increase=1.15
 Uniform Loads (plf)
 Vert: 1-5=-60(F=-20), 5-7=-101(F=-20), 7-9=-32(F=-20), 9-11=-101(F=-20), 11-13=-60(F=-20), 26-30=-20(F), 18-20=-20(F)
 Concentrated Loads (lb)
 Vert: 21=-150 42=-150
- 115) 7th Unbal.1st User Defined Moving Load - Dead + Snow (balanced)-Parallel: Lumber Increase=1.15, Plate Increase=1.15
 Uniform Loads (plf)
 Vert: 1-7=-32(F=-20), 7-9=-101(F=-20), 9-13=-32(F=-20), 26-30=-20(F), 18-20=-20(F)
 Concentrated Loads (lb)
 Vert: 21=-150 42=-150
- 116) 8th Unbal.1st User Defined Moving Load - Dead + Snow (balanced)-Parallel: Lumber Increase=1.15, Plate Increase=1.15
 Uniform Loads (plf)
 Vert: 1-5=-60(F=-20), 5-7=-101(F=-20), 7-9=-32(F=-20), 9-11=-101(F=-20), 11-13=-60(F=-20), 26-30=-20(F), 18-20=-20(F)
 Concentrated Loads (lb)
 Vert: 21=-150 42=-150
- 117) 7th Unbal.1st User Defined Moving Load - Dead + Snow (balanced)-Parallel: Lumber Increase=1.15, Plate Increase=1.15
 Uniform Loads (plf)
 Vert: 1-7=-32(F=-20), 7-9=-101(F=-20), 9-13=-32(F=-20), 26-30=-20(F), 18-20=-20(F)
 Concentrated Loads (lb)
 Vert: 21=-150 42=-150
- 118) 8th Unbal.1st User Defined Moving Load - Dead + Snow (balanced)-Parallel: Lumber Increase=1.15, Plate Increase=1.15
 Uniform Loads (plf)
 Vert: 1-5=-60(F=-20), 5-7=-101(F=-20), 7-9=-32(F=-20), 9-11=-101(F=-20), 11-13=-60(F=-20), 26-30=-20(F), 18-20=-20(F)
 Concentrated Loads (lb)
 Vert: 21=-150 42=-150
- 119) 7th Unbal.1st User Defined Moving Load - Dead + Snow (balanced)-Parallel: Lumber Increase=1.15, Plate Increase=1.15
 Uniform Loads (plf)
 Vert: 1-7=-32(F=-20), 7-9=-101(F=-20), 9-13=-32(F=-20), 26-30=-20(F), 18-20=-20(F)
 Concentrated Loads (lb)
 Vert: 21=-150 42=-150
- 120) 8th Unbal.1st User Defined Moving Load - Dead + Snow (balanced)-Parallel: Lumber Increase=1.15, Plate Increase=1.15
 Uniform Loads (plf)
 Vert: 1-5=-60(F=-20), 5-7=-101(F=-20), 7-9=-32(F=-20), 9-11=-101(F=-20), 11-13=-60(F=-20), 26-30=-20(F), 18-20=-20(F)
 Concentrated Loads (lb)
 Vert: 21=-150 42=-150
- 121) 7th Unbal.1st User Defined Moving Load - Dead + Snow (balanced)-Parallel: Lumber Increase=1.15, Plate Increase=1.15
 Uniform Loads (plf)
 Vert: 1-7=-32(F=-20), 7-9=-101(F=-20), 9-13=-32(F=-20), 26-30=-20(F), 18-20=-20(F)
 Concentrated Loads (lb)
 Vert: 21=-150 42=-150
- 122) 8th Unbal.1st User Defined Moving Load - Dead + Snow (balanced)-Parallel: Lumber Increase=1.15, Plate Increase=1.15
 Uniform Loads (plf)
 Vert: 1-5=-60(F=-20), 5-7=-101(F=-20), 7-9=-32(F=-20), 9-11=-101(F=-20), 11-13=-60(F=-20), 26-30=-20(F), 18-20=-20(F)
 Concentrated Loads (lb)
 Vert: 21=-150 42=-150
- 123) 7th Unbal.1st User Defined Moving Load - Dead + Snow (balanced)-Parallel: Lumber Increase=1.15, Plate Increase=1.15
 Uniform Loads (plf)
 Vert: 1-7=-32(F=-20), 7-9=-101(F=-20), 9-13=-32(F=-20), 26-30=-20(F), 18-20=-20(F)
 Concentrated Loads (lb)
 Vert: 21=-150 42=-150
- 124) 8th Unbal.1st User Defined Moving Load - Dead + Snow (balanced)-Parallel: Lumber Increase=1.15, Plate Increase=1.15
 Uniform Loads (plf)
 Vert: 1-5=-60(F=-20), 5-7=-101(F=-20), 7-9=-32(F=-20), 9-11=-101(F=-20), 11-13=-60(F=-20), 26-30=-20(F), 18-20=-20(F)
 Concentrated Loads (lb)
 Vert: 21=-150 42=-150
- 125) 7th Unbal.1st User Defined Moving Load - Dead + Snow (balanced)-Parallel: Lumber Increase=1.15, Plate Increase=1.15
 Uniform Loads (plf)
 Vert: 1-7=-32(F=-20), 7-9=-101(F=-20), 9-13=-32(F=-20), 26-30=-20(F), 18-20=-20(F)
 Concentrated Loads (lb)
 Vert: 21=-150 42=-150



Continued on page 5

1/21/2025

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

Job	Truss	Truss Type	Qty	Ply	LOT 149 PROVIDENCE CREEK FUQUAY-VARINA, NC
25-0637-R01	R02	Piggyback Base	10	1	Job Reference (optional) # 56214

Run: 8.430 s Feb 12 2021 Print: 8.630 s Jul 12 2024 MiTek Industries, Inc. Tue Jan 21 21:04:32 2025 Page 5
 ID:kHdPkCOn9g3_0lfrDBlgKRzexCS-6fIPFbR18FM5x4picjgJCKk4qNs8XWeDXNhsP_zt1BD

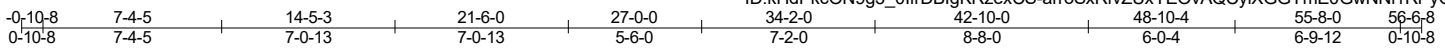
LOAD CASE(S)

- 126) 8th Unbal.1st User Defined Moving Load - Dead + Snow (balanced)-Parallel: Lumber Increase=1.15, Plate Increase=1.15
 Uniform Loads (plf)
 Vert: 1-5=-60(F=-20), 5-7=-101(F=-20), 7-9=-32(F=-20), 9-11=-101(F=-20), 11-13=-60(F=-20), 26-30=-20(F), 18-20=-20(F)
 Concentrated Loads (lb)
 Vert: 21=-150 42=-150
- 127) 7th Unbal.1st User Defined Moving Load - Dead + Snow (balanced)-Parallel: Lumber Increase=1.15, Plate Increase=1.15
 Uniform Loads (plf)
 Vert: 1-7=-32(F=-20), 7-9=-101(F=-20), 9-13=-32(F=-20), 26-30=-20(F), 18-20=-20(F)
 Concentrated Loads (lb)
 Vert: 21=-150 42=-150
- 128) 8th Unbal.1st User Defined Moving Load - Dead + Snow (balanced)-Parallel: Lumber Increase=1.15, Plate Increase=1.15
 Uniform Loads (plf)
 Vert: 1-5=-60(F=-20), 5-7=-101(F=-20), 7-9=-32(F=-20), 9-11=-101(F=-20), 11-13=-60(F=-20), 26-30=-20(F), 18-20=-20(F)
 Concentrated Loads (lb)
 Vert: 21=-150 42=-150
- 129) 7th Unbal.1st User Defined Moving Load - Dead + Snow (balanced)-Parallel: Lumber Increase=1.15, Plate Increase=1.15
 Uniform Loads (plf)
 Vert: 1-7=-32(F=-20), 7-9=-101(F=-20), 9-13=-32(F=-20), 26-30=-20(F), 18-20=-20(F)
 Concentrated Loads (lb)
 Vert: 21=-150 42=-150
- 130) 8th Unbal.1st User Defined Moving Load - Dead + Snow (balanced)-Parallel: Lumber Increase=1.15, Plate Increase=1.15
 Uniform Loads (plf)
 Vert: 1-5=-60(F=-20), 5-7=-101(F=-20), 7-9=-32(F=-20), 9-11=-101(F=-20), 11-13=-60(F=-20), 26-30=-20(F), 18-20=-20(F)
 Concentrated Loads (lb)
 Vert: 21=-150 42=-150
- 131) 7th Unbal.1st User Defined Moving Load - Dead + Snow (balanced)-Parallel: Lumber Increase=1.15, Plate Increase=1.15
 Uniform Loads (plf)
 Vert: 1-7=-32(F=-20), 7-9=-101(F=-20), 9-13=-32(F=-20), 26-30=-20(F), 18-20=-20(F)
 Concentrated Loads (lb)
 Vert: 21=-150 42=-150
- 132) 8th Unbal.1st User Defined Moving Load - Dead + Snow (balanced)-Parallel: Lumber Increase=1.15, Plate Increase=1.15
 Uniform Loads (plf)
 Vert: 1-5=-60(F=-20), 5-7=-101(F=-20), 7-9=-32(F=-20), 9-11=-101(F=-20), 11-13=-60(F=-20), 26-30=-20(F), 18-20=-20(F)
 Concentrated Loads (lb)
 Vert: 21=-150 42=-150



1/21/2025

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



Scale = 1:94.4

LOADING (psf)		SPACING		CSI		DEFL.		PLATES		GRIP	
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.58	in (loc)	l/defl	L/d	MT20	244/190	
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.65	Vert(LL)	-0.19 22-24	>999	240		
TCDL	10.0	Rep Stress Incr	YES	WB	0.97	Vert(CT)	-0.29 22-24	>999	180		
BCLL	0.0 *	Code IRC2021/TPI2014		Matrix-AS		Horz(CT)	0.05 19	n/a	n/a		
BCDL	10.0								Weight: 437 lb FT = 20%		

LUMBER-
 TOP CHORD 2x6 SP No.2
 BOT CHORD 2x6 SP No.2 *Except*
 B2: 2x6 SP DSS
 WEBS 2x4 SP No.3 *Except*
 W8: 2x4 SP No.2
 SLIDER Left 2x4 SP No.3 1-11-0, Right 2x4 SP No.3 1-11-0

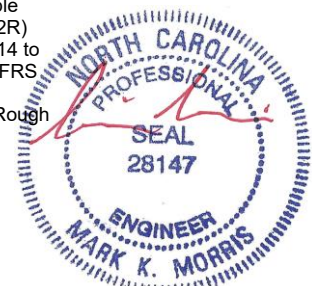
BRACING-
 TOP CHORD Structural wood sheathing directly applied.
 BOT CHORD Rigid ceiling directly applied.
 WEBS 1 Row at midpt 6-22, 7-21, 8-21, 9-21, 10-19
 2 Rows at 1/3 pts 9-19

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 except (jt=length) 14=0-3-0.
 (lb) - Max Horz 2=167(LC 14)
 Max Uplift All uplift 100 lb or less at joint(s) 16 except 2=-195(LC 14), 19=-163(LC 14), 14=-103(LC 15)
 Max Grav All reactions 250 lb or less at joint(s) except 2=1578(LC 39), 19=3185(LC 45), 14=416(LC 43), 16=491(LC 43)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
 TOP CHORD 2-3=-964/37, 3-4=-2571/337, 4-5=-2430/349, 5-35=-2362/355, 6-35=-2332/373, 6-36=-1790/357, 7-36=-1644/385, 7-37=-880/316, 8-37=-880/316, 8-38=-880/316, 9-38=-880/316, 9-39=0/862, 10-39=0/687, 11-12=-287/151
 BOT CHORD 2-24=-346/2214, 24-41=-200/1830, 23-41=-200/1830, 22-23=-200/1830, 22-42=-63/1146, 42-43=-63/1146, 21-43=-63/1146
 WEBS 4-24=-332/199, 6-24=-111/517, 6-22=-985/282, 7-22=-174/1270, 7-21=-950/173, 8-21=-710/172, 9-21=-167/1638, 9-19=-2173/325, 10-19=-871/238, 10-17=-20/390, 12-16=-373/100

- NOTES-** (12-15)
- 1) Unbalanced roof live loads have been considered for this design.
 - 2) Wind: ASCE 7-16; Vult=120mph (3-second gust) Vasd=95mph; TCDL=5.0psf; BCDL=5.0psf; h=35ft; Cat. II; Exp B; Enclosed; Gable Roof; Hip Truss; MWFRS (envelope) gable end zone and C-C Exterior(2E) -0-10-8 to 3-11-2, Interior(1) 3-11-2 to 16-8-6, Exterior(2R) 16-8-6 to 26-3-10, Interior(1) 26-3-10 to 29-4-6, Exterior(2R) 29-4-6 to 38-11-10, Interior(1) 38-11-10 to 51-8-14, Exterior(2E) 51-8-14 to 56-6-8 zone; cantilever right exposed ; end vertical left and right exposed; porch right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
 - 3) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
 - 4) Unbalanced snow loads have been considered for this design.
 - 5) This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 20.0 psf on overhangs non-concurrent with other live loads.
 - 6) Provide adequate drainage to prevent water ponding.
 - 7) All plates are 5x5 MT20 unless otherwise indicated.
 - 8) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.



Continued on page 2

1/21/2025

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

Job	Truss	Truss Type	Qty	Ply	LOT 149 PROVIDENCE CREEK FUQUAY-VARINA, NC
25-0637-R01	R03	Piggyback Base	5	1	Job Reference (optional) # 56214

Run: 8.430 s Feb 12 2021 Print: 8.630 s Jul 12 2024 MiTek Industries, Inc. Tue Jan 21 21:04:33 2025 Page 2
ID:kHdPkON9g3_0lfrDBlgKRzexCS-arroSxRfvZUxYEOvAQCyIXGGYmE0GwNNI1RPyQzt1BC

NOTES- (12-15)

- 9) * 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.
- 10) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 16 except (jt=lb) 2=195, 19=163, 14=103.
- 11) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.
- 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

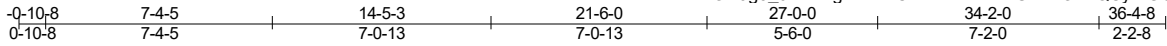


1/21/2025

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 25-0637-R01	Truss R04	Truss Type Piggyback Base	Qty 5	Ply 1	LOT 149 PROVIDENCE CREEK FUQUAY-VARINA, NC	# 56214
--------------------	--------------	------------------------------	----------	----------	--	----------------

Run: 8.430 s Feb 12 2021 Print: 8.630 s Jul 12 2024 MiTek Industries, Inc. Tue Jan 21 21:04:33 2025 Page 1
 ID:kHdPkCOn9g3_0lfrDBlgKRzcxCS-arroSxRfvZUxYEOvAQCyIXGCTm9aGycNl1RPyQzt1BC



Scale = 1:74.8

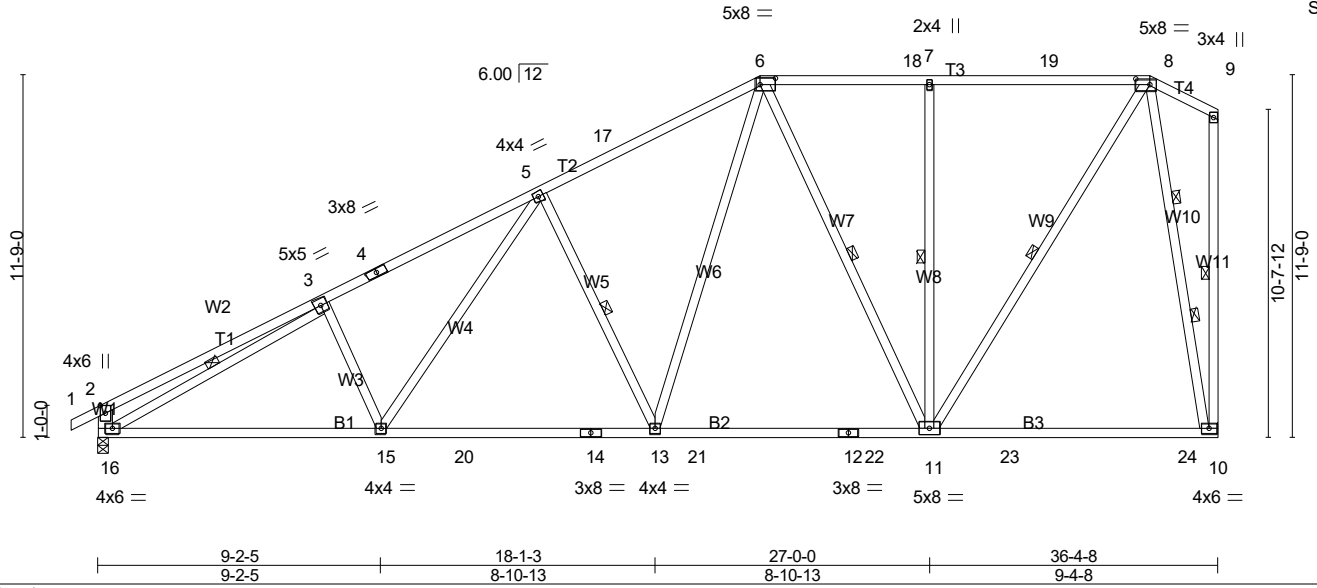


Plate Offsets (X,Y)-- [6:0-6-0,0-2-8], [8:0-5-8,0-2-4]

LOADING (psf)	SPACING-	CSI.	DEFL.	PLATES	GRIP
TCLL (roof) 20.0	2-0-0	TC 0.84	in (loc) l/defl L/d	MT20	244/190
Snow (Pf) 20.0	Plate Grip DOL 1.15	BC 0.99	Vert(LL) -0.45 10-11 >954 240		
TCDL 10.0	Lumber DOL 1.15	WB 0.89	Vert(CT) -0.65 10-11 >667 180		
BCDL 0.0 *	Rep Stress Incr YES	Matrix-SH	Horz(CT) 0.08 10 n/a n/a		
BCDL 10.0	Code IRC2021/TPI2014			Weight: 264 lb	FT = 20%

LUMBER-
 TOP CHORD 2x4 SP No.1 *Except*
 T4, T1: 2x4 SP No.2
 BOT CHORD 2x4 SP No.1 *Except*
 B1: 2x4 SP No.2
 WEBS 2x4 SP No.3 *Except*
 W1: 2x6 SP No.2

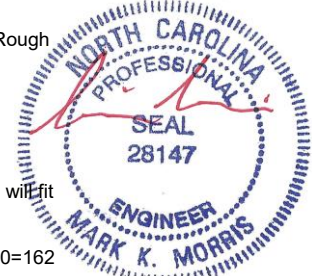
BRACING-
 TOP CHORD Structural wood sheathing directly applied or 2-2-0 oc purlins, except end verticals.
 BOT CHORD Rigid ceiling directly applied or 2-2-0 oc bracing.
 WEBS 1 Row at midpt 5-13, 6-11, 7-11, 8-11, 9-10, 3-16
 2 Rows at 1/3 pts 8-10

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

REACTIONS. (lb/size) 10=1439/Mechanical, 16=1507/0-3-8 (min. 0-2-1)
 Max Horz 16=353(LC 14)
 Max Uplift 10=-162(LC 11), 16=-180(LC 14)
 Max Grav 10=1849(LC 44), 16=1728(LC 45)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
 TOP CHORD 2-3=-622/208, 3-4=-2685/271, 4-5=-2479/300, 5-17=-2068/263, 6-17=-1920/284,
 6-18=-1140/207, 7-18=-1139/207, 7-19=-1139/207, 8-19=-1140/207, 2-16=-529/194
 BOT CHORD 15-16=-499/2372, 15-20=-362/2063, 14-20=-362/2063, 13-14=-362/2063, 13-21=-244/1373,
 12-21=-244/1373, 12-22=-244/1373, 11-22=-244/1373, 11-23=-56/311, 23-24=-56/311,
 10-24=-56/311
 WEBS 5-15=-104/476, 5-13=-951/281, 6-13=-177/1211, 6-11=-741/188, 7-11=-747/182,
 8-11=-232/1562, 3-16=-2308/96, 8-10=-1684/325

- NOTES-** (11-14)
- Unbalanced roof live loads have been considered for this design.
 - Wind: ASCE 7-16; Vu1=120mph (3-second gust) Vasd=95mph; TCDL=5.0psf; BCDL=5.0psf; h=35ft; Cat. II; Exp B; Enclosed; Gable Roof; Hip Truss; MWFRS (envelope) gable end zone and C-C Exterior(2E) -0-10-8 to 3-11-2, Interior(1) 3-11-2 to 16-8-6, Exterior(2R) 16-8-6 to 26-3-10, Interior(1) 26-3-10 to 29-4-6, Exterior(2R) 29-4-6 to 34-2-0, Exterior(2E) 34-2-0 to 36-2-12 zone; end vertical left exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
 - TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
 - Unbalanced snow loads have been considered for this design.
 - This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 20.0 psf on overhangs non-concurrent with other live loads.
 - 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.
 - Refer to girder(s) for truss to truss connections.
 - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 10=162, 16=180.



1/21/2025

Continued on page 2

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

Job	Truss	Truss Type	Qty	Ply	LOT 149 PROVIDENCE CREEK FUQUAY-VARINA, NC
25-0637-R01	R04	Piggyback Base	5	1	Job Reference (optional) # 56214

Run: 8.430 s Feb 12 2021 Print: 8.630 s Jul 12 2024 MiTek Industries, Inc. Tue Jan 21 21:04:33 2025 Page 2
ID:kHdPkcON9g3_0lfrDBlgKRzexCS-arroSxRfvZUxYEOvAQCyIXGCTm9aGycN11RPyQzt1BC

- 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

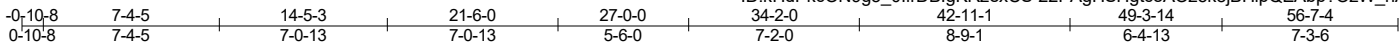


1/21/2025

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 25-0637-R01	Truss R05	Truss Type Piggyback Base	Qty 4	Ply 1	LOT 149 PROVIDENCE CREEK FUQUAY-VARINA, NC	# 56214
--------------------	--------------	------------------------------	----------	----------	--	---------

Run: 8.430 s Feb 12 2021 Print: 8.630 s Jul 12 2024 MiTek Industries, Inc. Tue Jan 21 21:04:34 2025 Page 1
 ID:kHdPkCOn9g3_0lfrDBlgKRzexCS-22PAgHSHgtcoAOz5k8jBHlpQEAbp?OzW_hAzUszt1BB



Scale: 1/8"=1'

9-2-5	18-1-3	27-0-0	36-6-4	46-1-8	56-7-4
9-2-5	8-10-13	8-10-13	9-6-4	9-7-4	10-5-12

Plate Offsets (X,Y)-- [9:0-7-0,0-4-0], [13:0-1-4,Edge], [16:0-2-12,0-4-8]

LOADING (psf)	SPACING-	CSI.	DEFL.	PLATES	GRIP
TCLL (roof) 20.0	2-0-0	TC 0.65	in (loc) l/defl L/d	MT20	244/190
Snow (Pf) 20.0	Plate Grip DOL 1.15	BC 0.61	Vert(LL) -0.18 19-21 >999 240		
TCDL 10.0	Lumber DOL 1.15	WB 0.94	Vert(CT) -0.28 19-21 >999 180		
BCLL 0.0 *	Rep Stress Incr YES	Matrix-AS	Horz(CT) 0.04 16 n/a n/a		
BCDL 10.0	Code IRC2021/TPI2014				
				Weight: 441 lb	FT = 20%

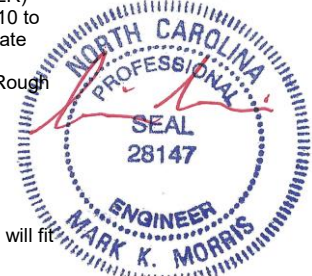
LUMBER-	BRACING-
TOP CHORD 2x6 SP No.2	TOP CHORD Structural wood sheathing directly applied.
BOT CHORD 2x6 SP No.2	BOT CHORD Rigid ceiling directly applied.
WEBS 2x4 SP No.3 *Except*	WEBS 1 Row at midpt 6-19, 7-17, 8-17, 9-17, 9-16, 10-16
SLIDER Left 2x4 SP No.3 1-11-0	

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

REACTIONS. (lb/size) 2=1301/0-3-8 (min. 0-1-12), 16=2858/0-3-8 (min. 0-1-10), 13=422/Mechanical
 Max Horz2=-170(LC 15)
 Max Uplift2=-193(LC 14), 16=-194(LC 15), 13=-113(LC 15)
 Max Grav2=1470(LC 39), 16=3590(LC 45), 13=536(LC 43)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
 TOP CHORD 2-3=-892/35, 3-4=-2378/301, 4-5=-2238/309, 5-29=-2171/321, 6-29=-2140/338,
 6-30=-1577/317, 7-30=-1437/339, 7-31=-712/264, 8-31=-712/264, 8-32=-712/264,
 9-32=-712/264, 9-33=0/1258, 10-33=-11/1055, 11-12=-380/171, 12-13=-633/192
 BOT CHORD 2-21=-339/2045, 21-35=-196/1674, 20-35=-196/1674, 19-20=-196/1674, 19-36=-75/1034,
 36-37=-75/1034, 18-37=-75/1034, 17-18=-75/1034, 17-38=-478/238, 38-39=-478/238,
 16-39=-478/238, 16-40=-372/107, 40-41=-372/107, 15-41=-372/107, 14-15=-372/107,
 13-14=-93/527
 WEBS 4-21=-337/197, 6-21=-108/531, 6-19=-991/281, 7-19=-173/1260, 7-17=-1067/178,
 8-17=-708/172, 9-17=-189/1744, 9-16=-2482/381, 10-16=-1156/292, 10-14=-42/632,
 12-14=-395/185

- NOTES-** (13-16)
- Unbalanced roof live loads have been considered for this design.
 - Wind: ASCE 7-16; Vult=120mph (3-second gust) Vasd=95mph; TCDL=5.0psf; BCDL=5.0psf; h=35ft; Cat. II; Exp B; Enclosed; Gable Roof; Hip Truss; MWFRS (envelope) gable end zone and C-C Exterior(2E) -0-10-8 to 3-11-2, Interior(1) 3-11-2 to 16-8-6, Exterior(2R) 16-8-6 to 26-3-10, Interior(1) 26-3-10 to 29-4-6, Exterior(2R) 29-4-6 to 38-11-10, Interior(1) 38-11-10 to 51-9-10 to 51-9-10 to 56-7-4 zone; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
 - TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
 - Unbalanced snow loads have been considered for this design.
 - This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 20.0 psf on overhangs non-concurrent with other live loads.
 - Provide adequate drainage to prevent water ponding.
 - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
 - * This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 1-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
 - Refer to girder(s) for truss to truss connections.
- Continued on page 2



1/21/2025

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 25-0637-R01	Truss R05	Truss Type Piggyback Base	Qty 4	Ply 1	LOT 149 PROVIDENCE CREEK FUQUAY-VARINA, NC Job Reference (optional) # 56214
--------------------	--------------	------------------------------	----------	----------	---

Run: 8.430 s Feb 12 2021 Print: 8.630 s Jul 12 2024 MiTek Industries, Inc. Tue Jan 21 21:04:34 2025 Page 2
ID:kHdPkcON9g3_0lfrDBlgKRzexCS-22PAgHSHgtcoAOz5k8jBHlpQEAbp?OzW_hAzUszt1B8

NOTES- (13-16)

- 10) Bearing at joint(s) 16 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- 11) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=193, 16=194, 13=113.
- 12) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.
- 13) 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



1/21/2025

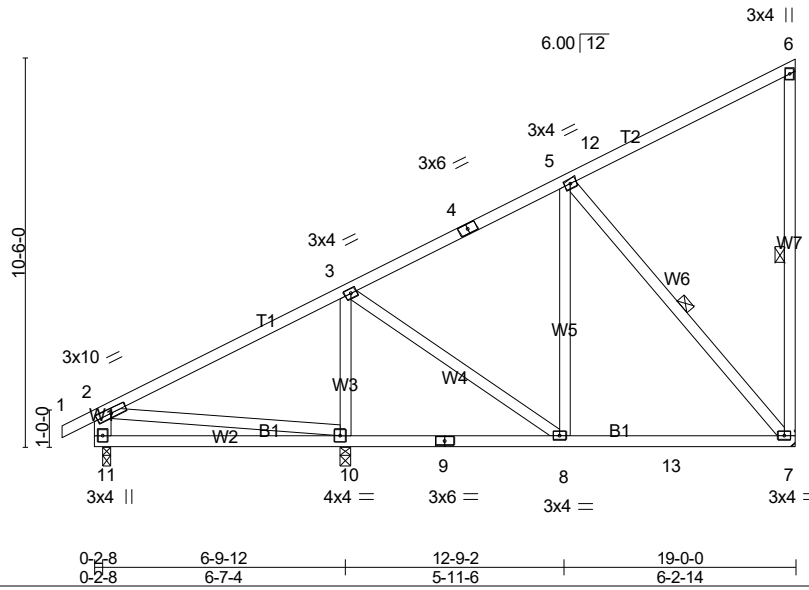
Warning !—Verify design parameters and read notes before use. This design is based only upon parameters shown, and is for an individual building component to be installed and loaded vertically. Applicability of design parameters and proper incorporation of component is responsibility of building designer – 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 25-0637-R01	Truss R06	Truss Type Monopitch	Qty 3	Ply 1	LOT 149 PROVIDENCE CREEK FUQUAY-VARINA, NC
					# 56214

Run: 8.430 s Feb 12 2021 Print: 8.630 s Jul 12 2024 MiTek Industries, Inc. Tue Jan 21 21:04:35 2025 Page 1
ID:kHdPkCOn9g3_0lfrDBIglKRzexCS-WEZytdTVRAkfoYXHHrEQqMbAa?hk0jgDLwW0Jzt1BA

-0-10-8	6-9-12	12-9-2	19-0-0
0-10-8	6-9-12	5-11-6	6-2-14

Scale = 1:62.5



LOADING (psf)	SPACING-	CSI.	DEFL.	PLATES	GRIP
TCLL (roof) 20.0	2-0-0	TC 0.70	in (loc) l/defl L/d	MT20	244/190
Snow (Pf) 20.0	Plate Grip DOL 1.15	BC 0.38	Vert(LL) 0.10 10-11 >784 240		
TCDL 10.0	Lumber DOL 1.15	WB 0.21	Vert(CT) 0.08 10-11 >998 180		
BCLL 0.0 *	Rep Stress Incr YES	Matrix-SH	Horz(CT) -0.01 7 n/a n/a		
BCDL 10.0	Code IRC2021/TPI2014			Weight: 126 lb FT = 20%	

LUMBER-
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2
WEBS 2x4 SP No.3 *Except*
W1: 2x6 SP No.2

BRACING-
TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 7-4-14 oc bracing.
WEBS 1 Row at midpt 6-7, 5-7

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

REACTIONS. (lb/size) 7=493/Mechanical, 11=356/0-3-0 (min. 0-1-8), 10=707/0-3-8 (min. 0-1-8)
Max Horz 11=327(LC 14)
Max Uplift 7=-198(LC 14), 11=-26(LC 11), 10=-84(LC 14)
Max Grav 7=631(LC 21), 11=362(LC 21), 10=734(LC 21)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 3-4=-404/0, 4-5=-277/0, 2-11=-303/64
BOT CHORD 10-11=-520/293, 8-13=-122/301, 7-13=-122/301
WEBS 3-10=-579/120, 3-8=0/266, 5-7=-447/183, 2-10=-179/308

- NOTES-** (9-12)
- Wind: ASCE 7-16; Vult=120mph (3-second gust) Vasd=95mph; TCDL=5.0psf; BCDL=5.0psf; h=35ft; Cat. II; Exp B; Enclosed; Gable Roof; Common Truss; MWFRS (envelope) gable end zone and C-C Exterior(2E) -0-10-8 to 3-11-2, Interior(1) 3-11-2 to 14-0-10, Exterior(2E) 14-0-10 to 18-10-4 zone; cantilever left exposed; end vertical left exposed; porch left exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
 - TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
 - Unbalanced snow loads have been considered for this design.
 - This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 20.0 psf on overhangs non-concurrent with other live loads.
 - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
 - * This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 1-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
 - Refer to girder(s) for truss to truss connections.
 - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 11, 10 except (jt=lb) 7=198.



Continued on page 2

1/21/2025

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

Job	Truss	Truss Type	Qty	Ply	LOT 149 PROVIDENCE CREEK FUQUAY-VARINA, NC
25-0637-R01	R06	Monopitch	3	1	Job Reference (optional) # 56214

Run: 8.430 s Feb 12 2021 Print: 8.630 s Jul 12 2024 MiTek Industries, Inc. Tue Jan 21 21:04:35 2025 Page 2
ID:kHdPkcON9g3_0lfrDBlgKRzexCS-WEzYtdTvRAkfoYXHHrEQqyMbAa?hk0jgDLwW0Jzt1BA

- 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 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



1/21/2025

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 25-0637-R01	Truss R07	Truss Type Jack-Closed	Qty 2	Ply 1	LOT 149 PROVIDENCE CREEK FUQUAY-VARINA, NC Job Reference (optional) # 56214
--------------------	--------------	---------------------------	----------	----------	--

Run: 8.430 s Feb 12 2021 Print: 8.630 s Jul 12 2024 MiTek Industries, Inc. Tue Jan 21 21:04:36 2025 Page 1
ID:kHdPkcON9g3_0lfrDBlgkRzexCS-?QXw5zUXCUsWPi6TrZifNAuk2_HyTQvPR?#3Y1zt1B9

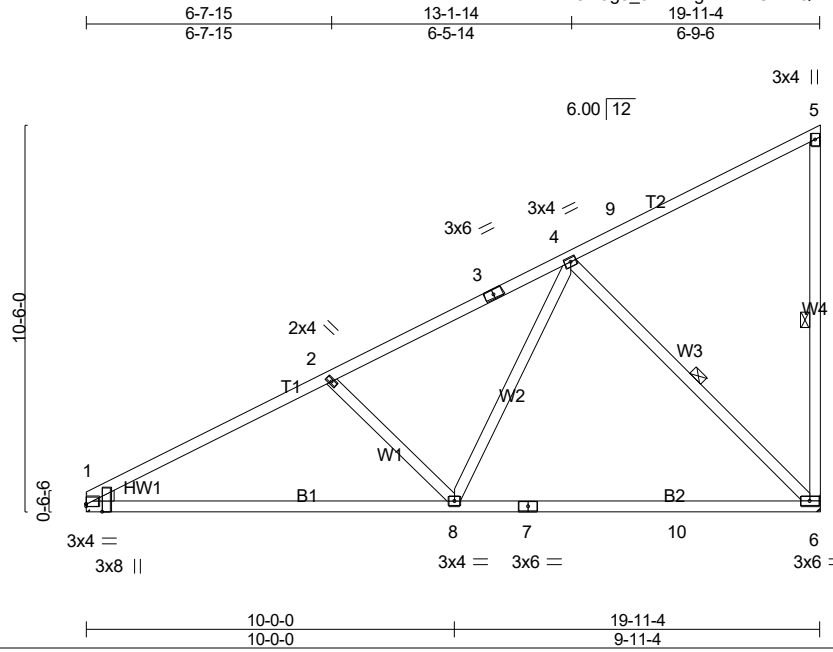


Plate Offsets (X,Y)-- [1:0-0-0,0-0-12], [1:0-2-7,Edge]

LOADING (psf)	SPACING-	CSI.	DEFL.	PLATES	GRIP
TCLL (roof) 20.0	2-0-0	TC 0.82	in (loc) l/defl L/d	MT20	244/190
Snow (Pf) 20.0	Plate Grip DOL 1.15	BC 0.57	Vert(LL) -0.45 6-8 >526 240		
TCDL 10.0	Lumber DOL 1.15	WB 0.40	Vert(CT) -0.62 6-8 >381 180		
BCLL 0.0 *	Rep Stress Incr YES	Matrix-SH	Horz(CT) 0.02 6 n/a n/a		
BCDL 10.0	Code IRC2021/TPI2014			Weight: 110 lb	FT = 20%

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

BRACING-
TOP CHORD Structural wood sheathing directly applied or 4-0-10 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 1 Row at midpt 5-6, 4-6

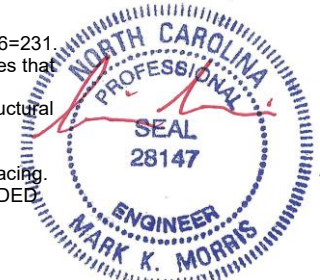
MiTek recommends that Stabilizers and required cross bracing be installed during truss erection, in accordance with Stabilizer Installation guide.

REACTIONS. (lb/size) 6=789/Mechanical, 1=789/Mechanical
Max Horz 1=348(LC 14)
Max Uplift6=-231(LC 14), 1=-53(LC 14)
Max Grav6=938(LC 20), 1=811(LC 20)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-2=-1267/70, 2-3=-1015/14, 3-4=-882/40, 5-6=-261/111
BOT CHORD 1-8=-337/1062, 7-8=-186/596, 7-10=-186/596, 6-10=-186/596
WEBS 2-8=-360/202, 4-8=-41/641, 4-6=-835/263

NOTES- (8-11)

- 1) Wind: ASCE 7-16; Vult=120mph (3-second gust) Vasd=95mph; TCDL=5.0psf; BCDL=5.0psf; h=35ft; Cat. II; Exp B; Enclosed; Gable Roof; End Jack Truss; MWFRS (envelope) gable end zone and C-C Exterior(2E) 0-0-12 to 4-10-6, Interior(1) 4-10-6 to 13-0-1, Exterior(2R) 13-0-1 to 19-9-8 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) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 5) * This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 1-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- 6) Refer to girder(s) for truss to truss connections.
- 7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1 except (jt=lb) 6=231
- 8) 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.
- 9) 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.
- 10) 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.
- 11) 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.



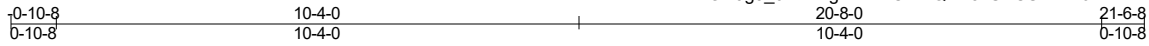
LOAD CASE(S) Standard

1/21/2025

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 25-0637-R01	Truss R08	Truss Type GABLE	Qty 1	Ply 1	LOT 149 PROVIDENCE CREEK FUQUAY-VARINA, NC	Job Reference (optional) # 56214
--------------------	--------------	---------------------	----------	----------	--	--

Run: 8.430 s Feb 12 2021 Print: 8.630 s Jul 12 2024 MiTek Industries, Inc. Tue Jan 21 21:04:36 2025 Page 1
ID:kHdPkcoN9g3_0lfrDBlgKRzexCS-?QXw5zUXcUsWPi6TrZlFNAuui_OxTU5pR?7f3Y1zt1B9



Scale = 1:45.6

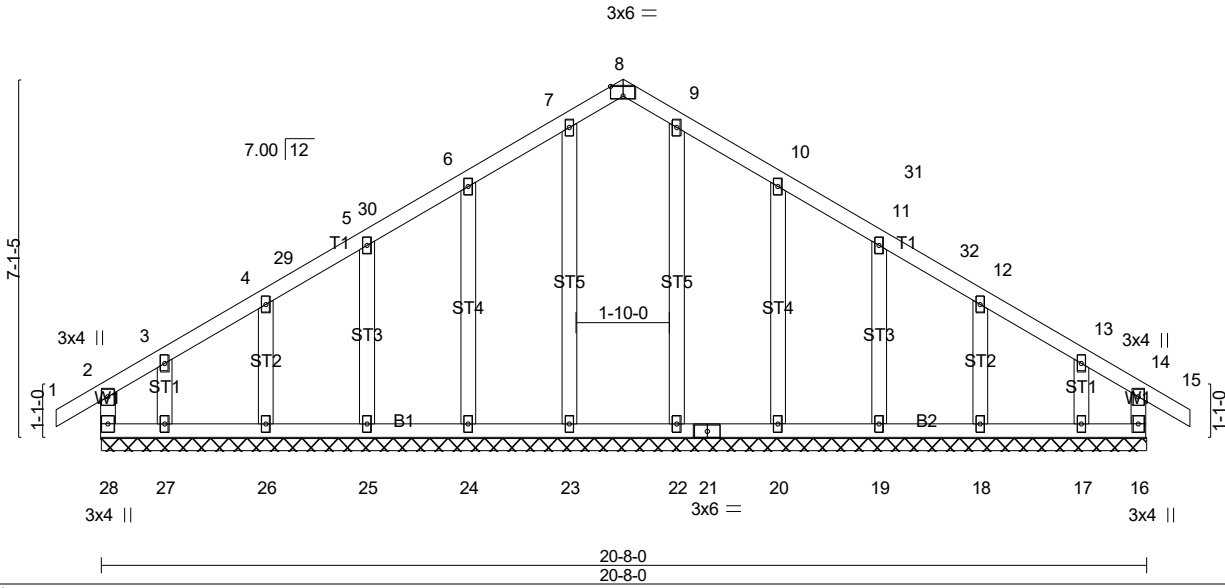


Plate Offsets (X,Y)-- [8:0-3-0,Edge]

LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof) 20.0	2-0-0	TC 0.14	Vert(LL)	-0.00	15	n/r	MT20	244/190
Snow (Pf) 20.0	Plate Grip DOL 1.15	BC 0.12	Vert(CT)	-0.00	15	n/r		
TCDL 10.0	Lumber DOL 1.15	WB 0.14	Horz(CT)	0.00	16	n/a		
BCLL 0.0 *	Rep Stress Incr YES	Matrix-R						
BCDL 10.0	Code IRC2021/TPI2014							
							Weight: 125 lb	FT = 20%

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

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

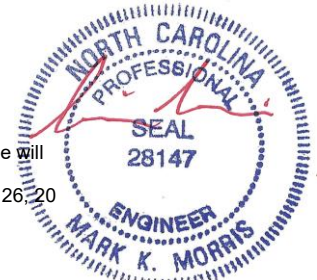
MiTek recommends that Stabilizers and required cross bracing be installed during truss erection, in accordance with Stabilizer Installation guide.

REACTIONS. All bearings 20-8-0.
(lb) - Max Horz 28=171(LC 13)
Max Uplift All uplift 100 lb or less at joint(s) 28, 16, 24, 25, 26, 20, 19, 18 except 27=-125(LC 14), 17=-117(LC 15)
Max Grav All reactions 250 lb or less at joint(s) 28, 16, 25, 26, 27, 19, 18, 17 except 23=281(LC 5), 24=292(LC 5), 22=281(LC 6), 20=292(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=120mph (3-second gust) Vasd=95mph; TCCL=5.0psf; BCCL=5.0psf; h=35ft; Cat. II; Exp B; Enclosed; Gable Roof; Common Truss; MWFRS (envelope) gable end zone and C-C Corner(3E) -0-10-8 to 3-11-2, Exterior(2N) 3-11-2 to 5-3-4, Corner(3R) 5-3-4 to 15-4-12, Exterior(2N) 15-4-12 to 16-8-14, Corner(3E) 16-8-14 to 21-6-8 zone; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 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.
- Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
- Gable studs spaced at 2-0-0 oc.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 1-0-0 wide will fit between the bottom chord and any other members, with BCCL = 10.0psf.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 28, 16, 24, 25, 26, 20, 19, 18 except (jt=lb) 27=125, 17=117.



Continued on page 2

1/21/2025

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

Job	Truss	Truss Type	Qty	Ply	LOT 149 PROVIDENCE CREEK FUQUAY-VARINA, NC
25-0637-R01	R08	GABLE	1	1	Job Reference (optional) # 56214

Run: 8.430 s Feb 12 2021 Print: 8.630 s Jul 12 2024 MiTek Industries, Inc. Tue Jan 21 21:04:36 2025 Page 2
 ID:kHdPkcoN9g3_0lfrDBlgKRzexCS-?QXw5zUXCUsWPI6TrZlfnAuui_OxTU5pR?7f3Ylzt1B9

- 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

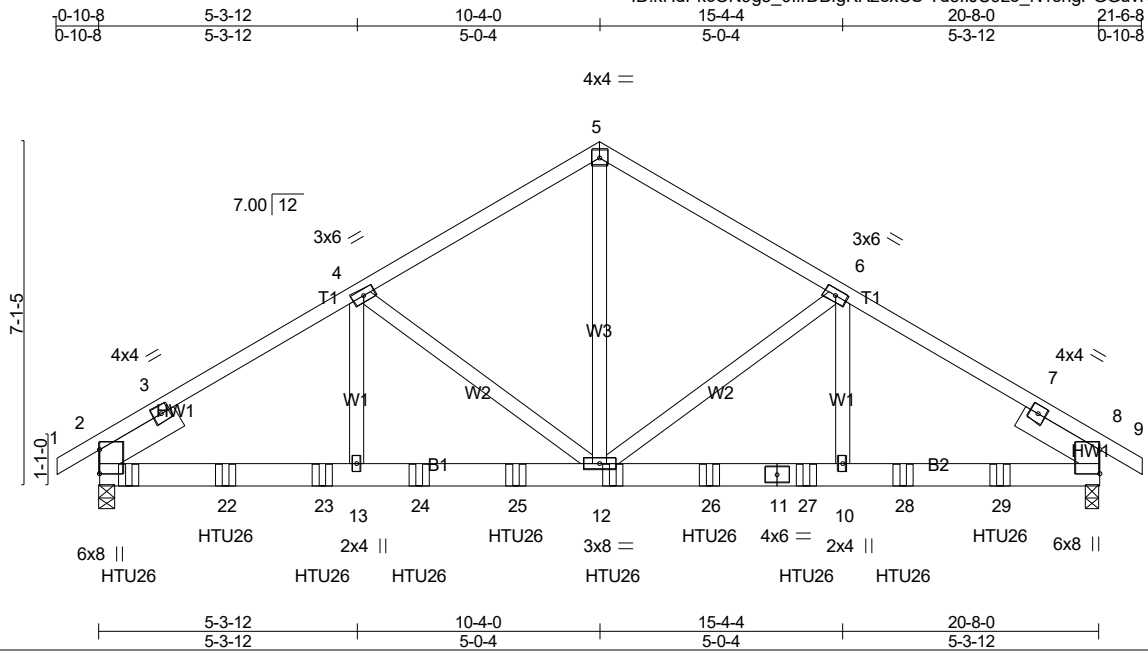


1/21/2025

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 25-0637-R01	Truss R09	Truss Type Common Girder	Qty 1	Ply 3	LOT 149 PROVIDENCE CREEK FUQUAY-VARINA, NC	# 56214
--------------------	--------------	-----------------------------	----------	----------	--	---------

Run: 8.430 s Feb 12 2021 Print: 8.630 s Jul 12 2024 MiTek Industries, Inc. Tue Jan 21 21:04:37 2025 Page 1
ID:kHdPkcON9g3_0lfrDBlgKRzcxCS-Td5lJU9zo_N1shgPGGuvNRzAOapCsGzgfPd5Bzt1B8



Scale: 1/4"=1'

LOADING (psf)	SPACING-	CSI.	DEFL.	PLATES	GRIP
TCLL (roof) 20.0	2-0-0	TC 0.48	in (loc) l/defl L/d	MT20	244/190
Snow (PF) 20.0	Plate Grip DOL 1.15	BC 0.72	Vert(LL) -0.07 12-13 >999 240		
TCDL 10.0	Lumber DOL 1.15	WB 0.40	Vert(CT) -0.12 12-13 >999 180		
BCLL 0.0 *	Rep Stress Incr NO	Matrix-MSH	Horz(CT) 0.04 8 n/a n/a		
BCLL 10.0	Code IRC2021/TPI2014			Weight: 400 lb	FT = 20%

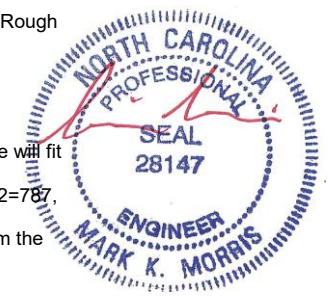
LUMBER-
TOP CHORD 2x4 SP No.2
BOT CHORD 2x6 SP No.2
WEBS 2x4 SP No.3
SLIDER Left 2x6 SP No.2 1-11-0, Right 2x6 SP No.2 1-11-0

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

REACTIONS. (lb/size) 2=3619/0-3-8 (min. 0-1-8), 8=3233/0-3-8 (min. 0-1-8)
Max Horz 2=-144(LC 10)
Max Uplift 2=-787(LC 12), 8=-694(LC 13)
Max Grav 2=3659(LC 19), 8=3274(LC 20)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-2197/429, 3-4=-4333/934, 4-5=-3301/752, 5-6=-3301/753, 6-7=-4296/925, 7-8=-2160/420
BOT CHORD 2-22=-811/3648, 22-23=-811/3648, 13-23=-811/3648, 13-24=-811/3648, 24-25=-811/3648, 12-25=-811/3648, 12-26=-708/3616, 11-26=-708/3616, 11-27=-708/3616, 10-27=-708/3616, 10-28=-708/3616, 28-29=-708/3616, 8-29=-708/3616
WEBS 5-12=-644/2869, 6-12=-1046/322, 6-10=-203/910, 4-12=-1086/331, 4-13=-213/952

- NOTES-** (13-16)
- 3-ply truss to be connected together with 10d (0.131"x3") nails as follows:
Top chords connected as follows: 2x4 - 1 row at 0-9-0 oc.
Bottom chords connected as follows: 2x6 - 2 rows staggered at 0-9-0 oc.
Webs connected as follows: 2x4 - 1 row at 0-9-0 oc.
 - All loads are considered equally applied to all plies, except if noted as front (F) or back (B) face in the LOAD CASE(S) section. Ply to ply connections have been provided to distribute only loads noted as (F) or (B), unless otherwise indicated.
 - Unbalanced roof live loads have been considered for this design.
 - Wind: ASCE 7-16; Vult=120mph (3-second gust) Vasd=95mph; TC DL=5.0psf; BCDL=5.0psf; h=35ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
 - TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
 - Unbalanced snow loads have been considered for this design.
 - This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 20.0 psf on overhangs non-concurrent with other live loads.
 - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
 - * This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 1-0-0 wide will fit between the bottom chord and any other members.
 - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=787, 8=694.
 - Use Simpson Strong-Tie HTU26 (10-16d Girder, 14-10dx1 1/2 Truss) or equivalent spaced at 2-0-0 oc max. starting at 0-7-4 from the left end to 18-7-4 to connect truss(es) R02 (1 ply 2x6 SP) to back face of bottom chord.
 - Fill all nail holes where hanger is in contact with lumber.



1/21/2025

Continued on page 2

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

Job	Truss	Truss Type	Qty	Ply	LOT 149 PROVIDENCE CREEK FUQUAY-VARINA, NC
25-0637-R01	R09	Common Girder	1	3	Job Reference (optional) # 56214

Run: 8.430 s Feb 12 2021 Print: 8.630 s Jul 12 2024 MiTek Industries, Inc. Tue Jan 21 21:04:37 2025 Page 2
ID:kHdPkcON9g3_0lfrDBlgKRzexCS-Td5lJU9zo_N1shgPGGuvNRzAOapCsGzgfPd5Bzt1B8

- 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: 1-5=-60, 5-9=-60, 14-18=-20

Concentrated Loads (lb)

Vert: 12=-509(B) 16=-513(B) 22=-509(B) 23=-509(B) 24=-509(B) 25=-509(B) 26=-509(B) 27=-509(B) 28=-509(B) 29=-509(B)

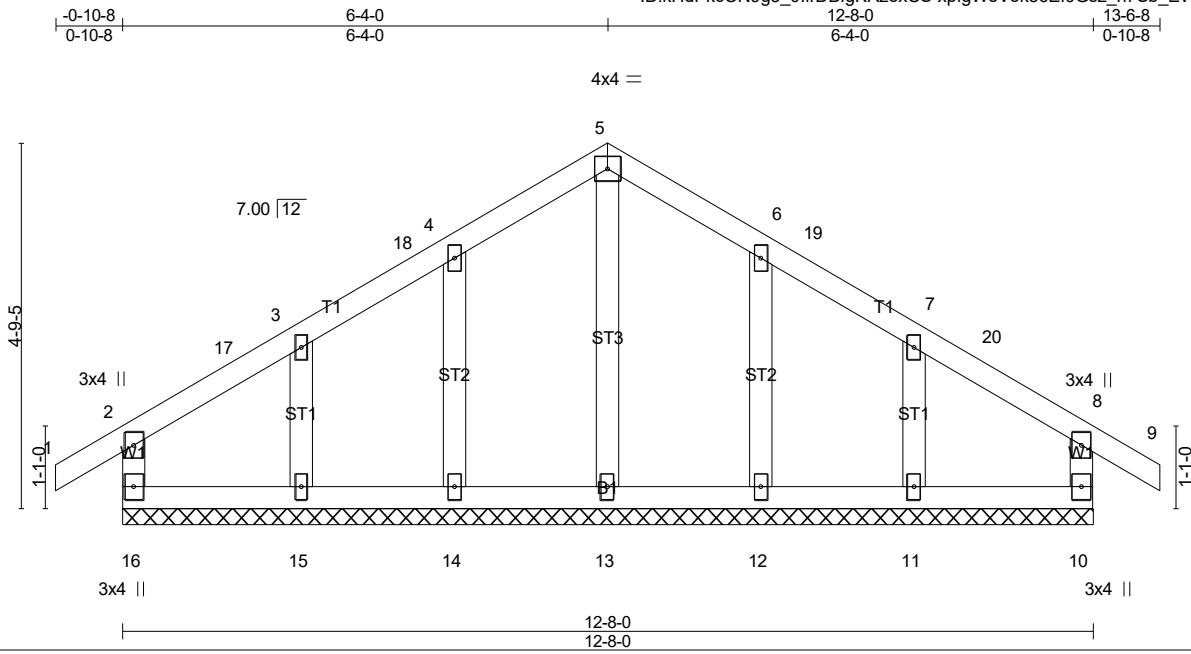


1/21/2025

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 25-0637-R01	Truss R10	Truss Type Common Supported Gable	Qty 1	Ply 1	LOT 149 PROVIDENCE CREEK FUQUAY-VARINA, NC	Job Reference (optional) # 56214
--------------------	--------------	--------------------------------------	----------	----------	--	--

Run: 8.430 s Feb 12 2021 Print: 8.630 s Jul 12 2024 MiTek Industries, Inc. Tue Jan 21 21:04:38 2025 Page 1
ID:kHdPkON9g3_0lfrDBlgKRzexCS-xpfgWeVok56Ef0Gsz_n7Sb_EWn4AxPq6vJ8Addzt1B7



Scale = 1:30.1

LOADING (psf)	SPACING-	CSI.	DEFL.	PLATES	GRIP
TCLL (roof) 20.0	2-0-0	TC 0.12	in (loc) l/defl L/d	MT20	244/190
Snow (Pf) 20.0	Plate Grip DOL 1.15	BC 0.07	Vert(LL) -0.00 9 n/r 180		
TCDL 10.0	Lumber DOL 1.15	WB 0.06	Vert(CT) -0.00 9 n/r 80		
BCLL 0.0 *	Rep Stress Incr YES	Matrix-R	Horz(CT) 0.00 10 n/a n/a		
BCDL 10.0	Code IRC2021/TPI2014			Weight: 67 lb	FT = 20%

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

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

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

REACTIONS. All bearings 12-8-0.
(lb) - Max Horz 16=120(LC 13)
Max Uplift All uplift 100 lb or less at joint(s) 16, 10, 14, 15, 12, 11
Max Grav All reactions 250 lb or less at joint(s) 16, 10, 13, 14, 15, 12, 11

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=120mph (3-second gust) Vasd=95mph; TCCL=5.0psf; BCDL=5.0psf; h=35ft; Cat. II; Exp B; Enclosed; Gable Roof; Common Truss; MWFRS (envelope) gable end zone and C-C Corner(3E) -0-10-8 to 3-11-2, Corner(3R) 3-11-2 to 8-8-14, Corner(3E) 8-8-14 to 13-6-8 zone; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
 - 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.
 - Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
 - Gable studs spaced at 2-0-0 oc.
 - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
 - * This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 1-0-0 wide will fit between the bottom chord and any other members.
 - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 16, 10, 14, 15, 12, 11.



Continued on page 2

1/21/2025

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

Job	Truss	Truss Type	Qty	Ply	LOT 149 PROVIDENCE CREEK FUQUAY-VARINA, NC
25-0637-R01	R10	Common Supported Gable	1	1	Job Reference (optional) # 56214

Run: 8.430 s Feb 12 2021 Print: 8.630 s Jul 12 2024 MiTek Industries, Inc. Tue Jan 21 21:04:38 2025 Page 2
 ID:kHdPkON9g3_0lfrDBlgKRzexCS-xpfgWeVok56Ef0Gsz_n7Sb_EWn4AxPq6vJ8Addzt1B7

- 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



1/21/2025

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 25-0637-R01	Truss R11	Truss Type Common	Qty 2	Ply 1	LOT 149 PROVIDENCE CREEK FUQUAY-VARINA, NC	Job Reference (optional) # 56214
--------------------	--------------	----------------------	----------	----------	--	--

Run: 8.430 s Feb 12 2021 Print: 8.630 s Jul 12 2024 MiTek Industries, Inc. Tue Jan 21 21:04:38 2025 Page 1
ID:kHdPkC0N9g3_0lfrDBlgKRzexCS-xpfgWeVok56E0GsZ_n7Sb_5Sn0vxOy6vJ8Addzt1B7



Scale = 1:30.5

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

LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof) 20.0	2-0-0	TC 0.70	Vert(LL)	-0.03	7-8	>999	MT20	244/190
Snow (Pf) 20.0	Plate Grip DOL 1.15	BC 0.34	Vert(CT)	-0.06	7-8	>999		
TCDL 10.0	Lumber DOL 1.15	WB 0.11	Horz(CT)	0.00	6	n/a		
BCLL 0.0 *	Rep Stress Incr YES	Matrix-SH						
BCDL 10.0	Code IRC2021/TPI2014						Weight: 70 lb	FT = 20%

LUMBER-
 TOP CHORD 2x4 SP No.2
 BOT CHORD 2x4 SP No.2
 WEBS 2x4 SP No.3 *Except*
 W1: 2x4 SP No.2

BRACING-
 TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
 MiTek recommends that Stabilizers and required cross bracing be installed during truss erection, in accordance with Stabilizer Installation guide.

REACTIONS. (lb/size) 8=556/0-3-8 (min. 0-1-8), 6=556/0-3-8 (min. 0-1-8)
 Max Horz 8=120(LC 13)
 Max Uplift 8=-76(LC 14), 6=-76(LC 15)
 Max Grav 8=632(LC 21), 6=632(LC 22)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
 TOP CHORD 2-9=-597/83, 3-9=-454/111, 3-10=-454/111, 4-10=-597/83, 2-8=-577/160, 4-6=-577/157
 BOT CHORD 7-8=-148/368, 6-7=-112/368
 WEBS 2-7=-47/272, 4-7=-51/272

- NOTES-** (9-12)
- Unbalanced roof live loads have been considered for this design.
 - Wind: ASCE 7-16; Vult=120mph (3-second gust) Vasd=95mph; TCDL=5.0psf; BCDL=5.0psf; h=35ft; Cat. II; Exp B; Enclosed; Gable Roof; Common Truss; MWFRS (envelope) gable end zone and C-C Exterior(2E) -0-10-8 to 3-11-2, Exterior(2R) 3-11-2 to 8-8-14, Exterior(2E) 8-8-14 to 13-6-8 zone; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
 - TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
 - Unbalanced snow loads have been considered for this design.
 - This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 20.0 psf on overhangs non-concurrent with other live loads.
 - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
 - * This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 1-0-0 wide will fit between the bottom chord and any other members.
 - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 8, 6.



Continued on page 2

1/21/2025

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

Job	Truss	Truss Type	Qty	Ply	LOT 149 PROVIDENCE CREEK FUQUAY-VARINA, NC
25-0637-R01	R11	Common	2	1	Job Reference (optional) # 56214

Run: 8.430 s Feb 12 2021 Print: 8.630 s Jul 12 2024 MiTek Industries, Inc. Tue Jan 21 21:04:38 2025 Page 2
ID:kHdPkON9g3_0lfrDBlgKRzexCS-xpfgWeVok56Ef0Gsz_n7Sb_5Sn0vxOy6vJ8Addzt1B7

- 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 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

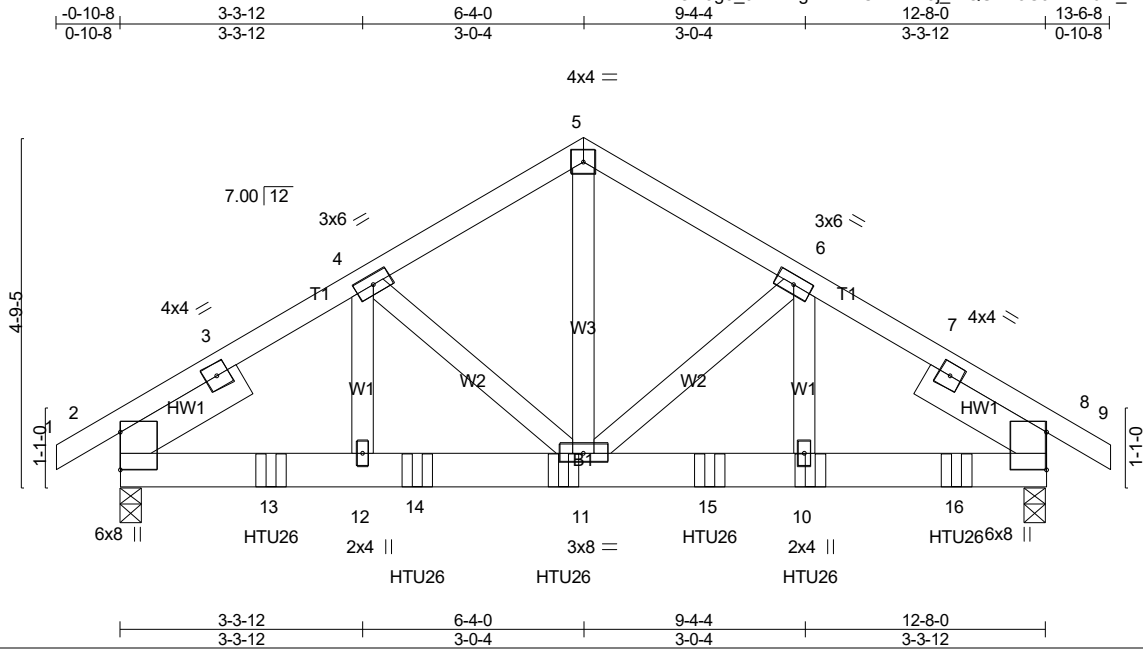


1/21/2025

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 25-0637-R01	Truss R12	Truss Type Common Girder	Qty 1	Ply 2	LOT 149 PROVIDENCE CREEK FUQUAY-VARINA, NC	# 56214
--------------------	--------------	-----------------------------	----------	----------	--	---------

Run: 8.430 s Feb 12 2021 Print: 8.630 s Jul 12 2024 MITEK Industries, Inc. Tue Jan 21 21:04:39 2025 Page 1
 ID:kHdPkcoN9g3_0lfrDBlgKRzexCS-P?D3j_WQUPE5G9r2WhJM_oWJdBHJgn0F8zuk94zt1B6



Scale = 1:31.5

LOADING (psf)	SPACING-	CSI.	DEFL.	PLATES	GRIP
TCLL (roof) 20.0	2-0-0	TC 0.48	in (loc) l/defl L/d	MT20	244/190
Snow (PF) 20.0	Plate Grip DOL 1.15	BC 0.65	Vert(LL) -0.03 10-11 >999 240		
TCDL 10.0	Lumber DOL 1.15	WB 0.38	Vert(CT) -0.05 10-11 >999 180		
BCLL 0.0 *	Rep Stress Incr NO	Matrix-SH	Horz(CT) 0.01 8 n/a n/a		
BCLL 10.0	Code IRC2021/TPI2014			Weight: 175 lb	FT = 20%

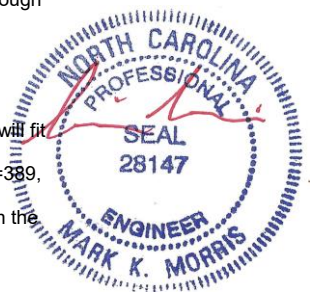
LUMBER-
 TOP CHORD 2x4 SP No.2
 BOT CHORD 2x6 SP No.2
 WEBS 2x4 SP No.3
 SLIDER Left 2x6 SP No.2 1-11-12, Right 2x6 SP No.2 1-11-12

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. (lb/size) 2=2072/0-3-8 (min. 0-1-8), 8=2695/0-3-8 (min. 0-1-10)
 Max Horz 2=95(LC 9)
 Max Uplift 2=-389(LC 12), 8=-376(LC 13)
 Max Grav 2=2149(LC 19), 8=2772(LC 20)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
 TOP CHORD 2-3=-2695/463, 3-4=-2652/486, 4-5=-2187/415, 5-6=-2185/415, 6-7=-3111/472, 7-8=-3141/450
 BOT CHORD 2-13=-402/2148, 12-13=-402/2148, 12-14=-402/2148, 11-14=-402/2148, 11-15=-336/2536, 10-15=-336/2536, 10-16=-336/2536, 8-16=-336/2536
 WEBS 5-11=-340/1837, 6-11=-887/130, 6-10=-95/1081, 4-11=-374/146, 4-12=-109/494

- NOTES-** (13-16)
- 2-ply truss to be connected together with 10d (0.131"x3") nails as follows:
 Top chords connected as follows: 2x4 - 1 row at 0-9-0 oc.
 Bottom chords connected as follows: 2x6 - 2 rows staggered at 0-9-0 oc.
 Webs connected as follows: 2x4 - 1 row at 0-9-0 oc.
 - All loads are considered equally applied to all plies, except if noted as front (F) or back (B) face in the LOAD CASE(S) section. Ply to ply connections have been provided to distribute only loads noted as (F) or (B), unless otherwise indicated.
 - Unbalanced roof live loads have been considered for this design.
 - Wind: ASCE 7-16; Vult=120mph (3-second gust) Vasd=95mph; TCCL=5.0psf; BCCL=5.0psf; h=35ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
 - TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
 - Unbalanced snow loads have been considered for this design.
 - This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 20.0 psf on overhangs non-concurrent with other live loads.
 - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
 - * This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 1-0-0 wide will fit between the bottom chord and any other members.
 - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=-389, 8=-376.
 - Use Simpson Strong-Tie HTU26 (10-16d Girder, 14-10dx1 1/2 Truss) or equivalent spaced at 2-0-0 oc max. starting at 2-0-12 from the left end to 11-5-4 to connect truss(es) R05 (1 ply 2x6 SP), R07 (1 ply 2x4 SP) to back face of bottom chord.
 - Fill all nail holes where hanger is in contact with lumber.



Continued on page 2

1/21/2025

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

Job	Truss	Truss Type	Qty	Ply	LOT 149 PROVIDENCE CREEK FUQUAY-VARINA, NC
25-0637-R01	R12	Common Girder	1	2	Job Reference (optional) # 56214

Run: 8.430 s Feb 12 2021 Print: 8.630 s Jul 12 2024 MiTek Industries, Inc. Tue Jan 21 21:04:39 2025 Page 2
ID:kHdPkC0N9g3_0lfrDBlgKRzexCS-P?D3j_WQUPE5G9r2WhJM_oWJdBHJgn0F8zuk94zt1B6

- 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: 1-5=-60, 5-9=-60, 2-8=-20
 - Concentrated Loads (lb)
 - Vert: 11=-516(B) 10=-791(B) 13=-516(B) 14=-516(B) 15=-516(B) 16=-791(B)



1/21/2025

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 25-0637-R01	Truss SP01	Truss Type Hip Girder	Qty 1	Ply 1	LOT 149 PROVIDENCE CREEK FUQUAY-VARINA, NC	Job Reference (optional) # 56214
--------------------	---------------	--------------------------	----------	----------	--	--

Run: 8.430 s Feb 12 2021 Print: 8.630 s Jul 12 2024 MiTek Industries, Inc. Tue Jan 21 21:04:40 2025 Page 1
ID:97bQtTowZ8dTuLxBq9ksq7zUUzD-tCnRwKX2FjMyuJQF4PqbX03SUbIUP1PMddHhWz1B5

Scale = 1:24.3

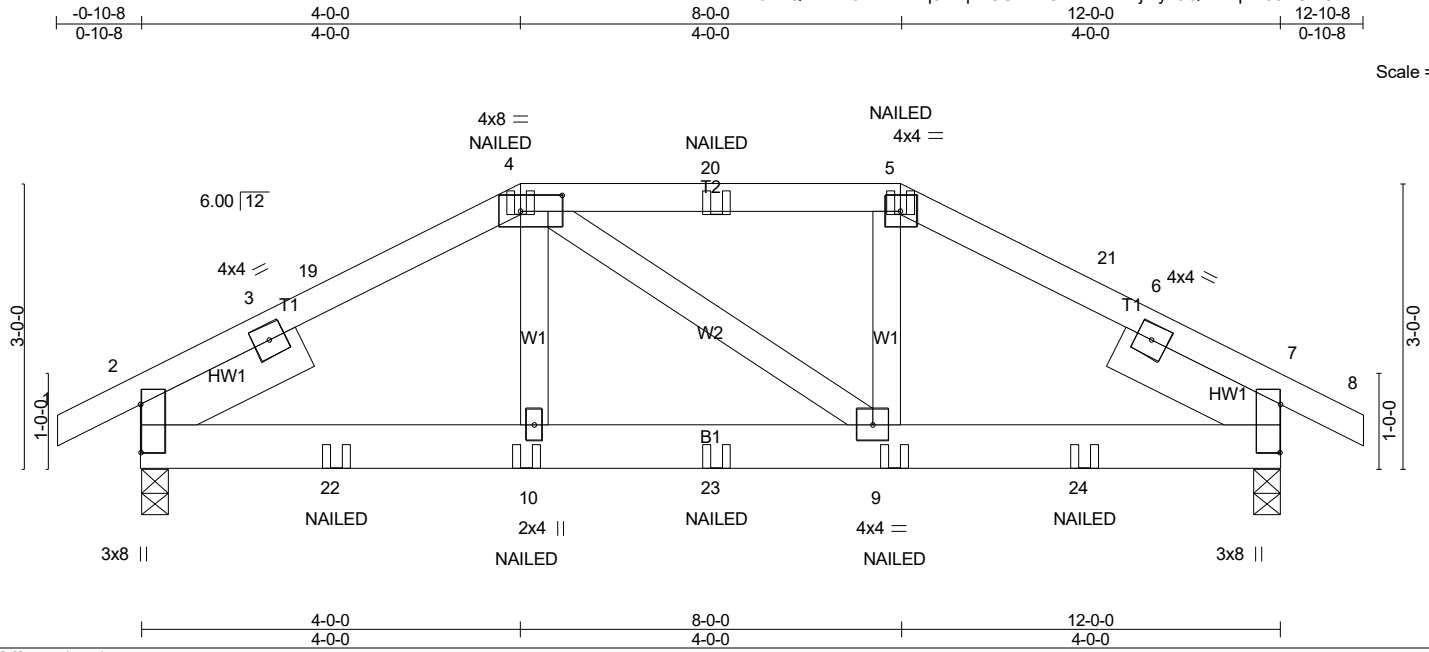


Plate Offsets (X,Y)-- [2:0-6-1,0-0-1], [4:0-5-4,0-2-0], [7:0-6-1,0-0-1]

LOADING (psf)	SPACING-	CSI.	DEFL.	PLATES	GRIP
TCLL (roof) 20.0	2-0-0	TC 0.60	in (loc) l/defl L/d	MT20	244/190
Snow (Pf) 20.0	Plate Grip DOL 1.15	BC 0.34	Vert(LL) -0.02 9-10 >999 240		
TCDL 10.0	Lumber DOL 1.15	WB 0.07	Vert(CT) -0.04 9-10 >999 180		
BCLL 0.0 *	Rep Stress Incr NO	Matrix-MSH	Horz(CT) 0.01 7 n/a n/a		
BCDL 10.0	Code IRC2021/TPI2014			Weight: 72 lb	FT = 20%

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

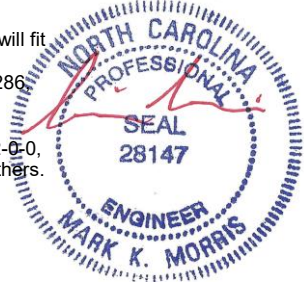
BRACING-
TOP CHORD Structural wood sheathing directly applied or 4-10-14 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

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

REACTIONS. (lb/size) 2=916/0-3-8 (min. 0-1-8), 7=918/0-3-8 (min. 0-1-8)
Max Horz 2=36(LC 16)
Max Uplift 2=-286(LC 9), 7=-287(LC 8)
Max Grav 2=1074(LC 37), 7=1075(LC 37)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-364/178, 3-19=-1213/389, 4-19=-1105/377, 4-20=-991/351, 5-20=-991/351, 5-21=-1105/377, 6-21=-1214/389, 6-7=-366/179
BOT CHORD 2-22=-319/986, 10-22=-319/986, 10-23=-322/992, 9-23=-322/992, 9-24=-301/985, 7-24=-301/985

- NOTES-** (13)
- Unbalanced roof live loads have been considered for this design.
 - Wind: ASCE 7-16; Vult=120mph (3-second gust) Vasd=95mph; TCDL=5.0psf; BCDL=5.0psf; h=35ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; porch left and right exposed; 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) except (jt=lb) 2=286, 7=287.
 - "NAILED" indicates 3-10d (0.148"x3") or 3-12d (0.148"x3.25") toe-nails per NDS guidelines.
 - Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 141 lb down and 53 lb up at 2-0-0, and 141 lb down and 53 lb up at 10-0-0 on top chord. The design/selection of such connection device(s) is the responsibility of others.
 - In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).



LOAD CASE(S) Standard

Continued on page 2

1/21/2025

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

Job	Truss	Truss Type	Qty	Ply	LOT 149 PROVIDENCE CREEK FUQUAY-VARINA, NC
25-0637-R01	SP01	Hip Girder	1	1	Job Reference (optional) # 56214

Run: 8.430 s Feb 12 2021 Print: 8.630 s Jul 12 2024 MiTek Industries, Inc. Tue Jan 21 21:04:40 2025 Page 2
ID:97bQtTowZ8dTuLxBq9ksq7zUUzD-tCnRwKX2FjMyuJQF4PqbX03SUbIUP11PMddHhWzt1B5

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, 11-15=-20

Concentrated Loads (lb)

Vert: 4=-94(B) 5=-94(B) 10=-27(B) 9=-27(B) 19=-139(F) 20=-94(B) 21=-139(F) 22=-64(B) 23=-27(B) 24=-64(B)

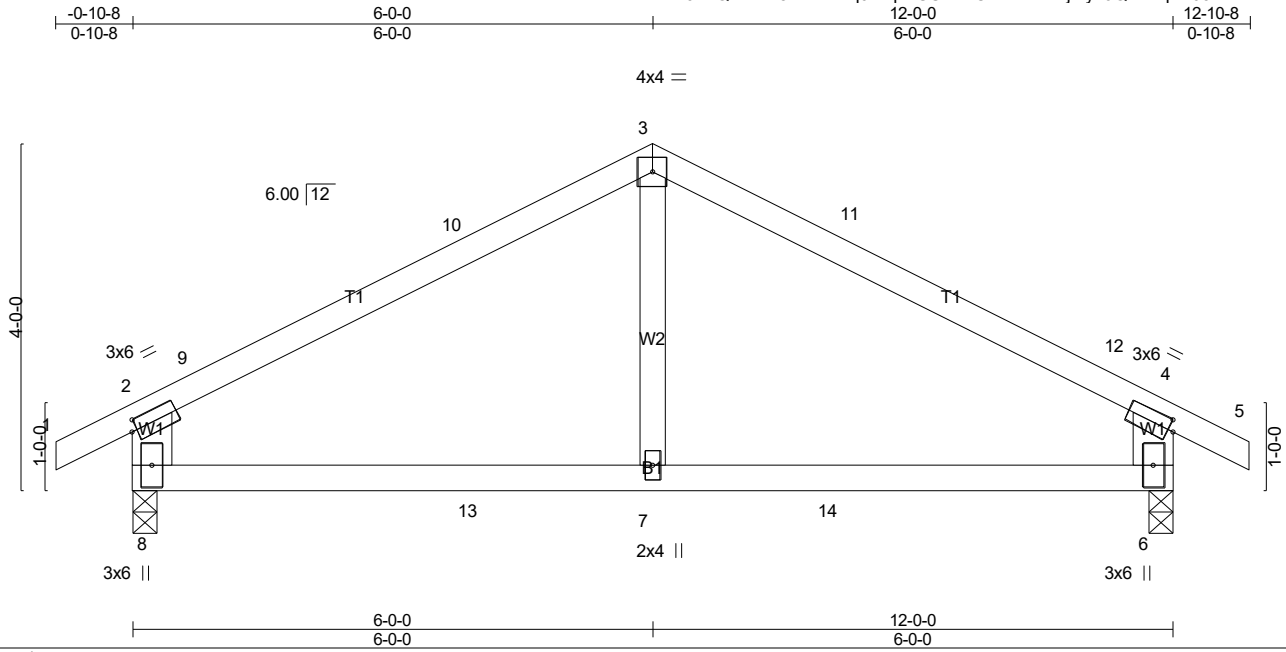


1/21/2025

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 25-0637-R01	Truss SP02	Truss Type Common	Qty 2	Ply 1	LOT 149 PROVIDENCE CREEK FUQUAY-VARINA, NC	Job Reference (optional) # 56214
--------------------	---------------	----------------------	----------	----------	--	--

Run: 8.430 s Feb 12 2021 Print: 8.630 s Jul 12 2024 MiTek Industries, Inc. Tue Jan 21 21:04:40 2025 Page 1
ID:97bQtTowZ8dTulxBq9ksq7zUUzD-tCnRwKX2FjMyuJQF4PqbX03TMbi1PlmPMddHhWzt1B5



LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof) 20.0	Plate Grip DOL 1.15	TC 0.54	Vert(LL) 0.06	6-7	>999	240	MT20	244/190
Snow (Pf) 20.0	Lumber DOL 1.15	BC 0.37	Vert(CT) -0.06	6-7	>999	180		
TCDL 10.0	Rep Stress Incr YES	WB 0.09	Horz(CT) 0.01	6	n/a	n/a		
BCLL 0.0 *	Code IRC2021/TPI2014	Matrix-AS						
BCDL 10.0							Weight: 49 lb	FT = 20%

LUMBER-
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2
WEBS 2x6 SP No.2 *Except*
W2: 2x4 SP No.3

BRACING-
TOP CHORD Structural wood sheathing directly applied, except end verticals.
BOT CHORD Rigid ceiling directly applied.

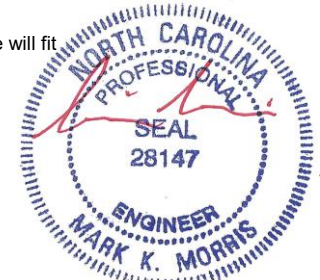
MiTek recommends that Stabilizers and required cross bracing be installed during truss erection, in accordance with Stabilizer Installation guide.

REACTIONS. (lb/size) 8=528/0-3-8 (min. 0-1-8), 6=528/0-3-8 (min. 0-1-8)
Max Horz 8=63(LC 13)
Max Uplift 8=-85(LC 11), 6=-85(LC 10)
Max Grav 8=612(LC 21), 6=612(LC 22)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-9=-568/596, 9-10=-496/596, 3-10=-424/619, 3-11=-424/618, 11-12=-496/595,
4-12=-568/595, 2-8=-551/483, 4-6=-551/481
BOT CHORD 8-13=-381/393, 7-13=-381/393, 7-14=-381/393, 6-14=-381/393
WEBS 3-7=-330/220

- NOTES-** (10)
- Unbalanced roof live loads have been considered for this design.
 - Wind: ASCE 7-16; Vult=120mph (3-second gust) Vasd=95mph; TCCL=5.0psf; BCCL=5.0psf; h=35ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Corner(3E) -0-10-8 to 3-11-2, Corner(3R) 3-11-2 to 8-0-14, Corner(3E) 8-0-14 to 12-10-8 zone; cantilever left and right exposed ; end vertical left and right exposed; porch left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
 - TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
 - Unbalanced snow loads have been considered for this design.
 - This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 20.0 psf on overhangs non-concurrent with other live loads.
 - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
 - * This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 1-0-0 wide will fit between the bottom chord and any other members.
 - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 8, 6.
 - This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.

LOAD CASE(S) Standard



1/21/2025

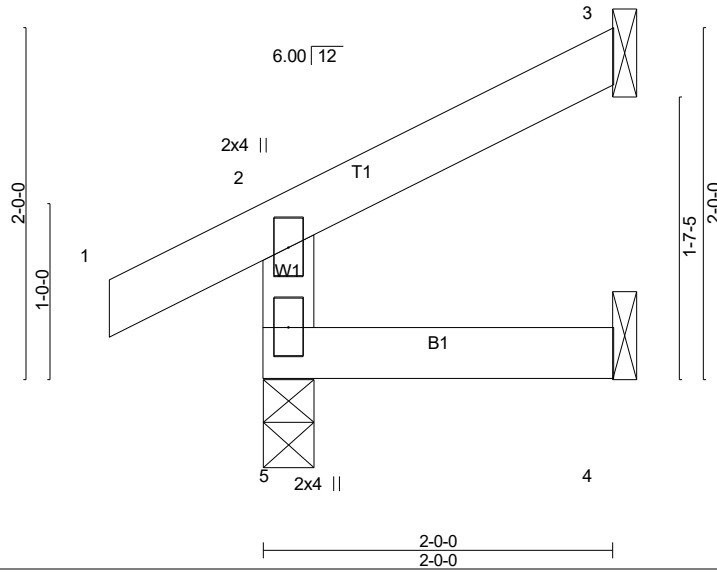
Warning!—Verify design parameters and read notes before use. This design is based only upon parameters shown, and is for an individual building component to be installed and loaded vertically. Applicability of design parameters and proper incorporation of component is responsibility of building designer – 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 25-0637-R01	Truss SPJ01	Truss Type Jack-Open	Qty 2	Ply 1	LOT 149 PROVIDENCE CREEK FUQUAY-VARINA, NC Job Reference (optional) # 56214
--------------------	----------------	-------------------------	----------	----------	--

Run: 8.430 s Feb 12 2021 Print: 8.630 s Jul 12 2024 MiTek Industries, Inc. Tue Jan 21 21:04:41 2025 Page 1
ID:97bQtTowZ8dTuLxBq9ksq7zUUzD-LOKp8gYg00UpWT?Re6Lq4Dck4?6v8mRYbHNqEyzt1B4



Scale = 1:13.1



LOADING (psf)	SPACING-	CSI.	DEFL.	PLATES	GRIP
TCLL (roof) 20.0	2-0-0	TC 0.16	in (loc) l/defl L/d	MT20	244/190
Snow (Pf) 20.0	Plate Grip DOL 1.15	BC 0.07	Vert(LL) 0.00 5 >999 240		
TCDL 10.0	Lumber DOL 1.15	WB 0.00	Vert(CT) -0.00 4-5 >999 180		
BCLL 0.0 *	Rep Stress Incr YES	Matrix-MR	Horz(CT) -0.00 3 n/a n/a		
BCDL 10.0	Code IRC2021/TPI2014			Weight: 9 lb	FT = 20%

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

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

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

REACTIONS. (lb/size) 5=152/0-3-8 (min. 0-1-8), 3=41/Mechanical, 4=16/Mechanical
Max Horz 5=41(LC 11)
Max Uplift 5=-15(LC 14), 3=-31(LC 14), 4=-13(LC 11)
Max Grav 5=208(LC 21), 3=57(LC 21), 4=34(LC 7)

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

NOTES- (9)

- Wind: ASCE 7-16; Vult=120mph (3-second gust) Vasd=95mph; TC DL=5.0psf; BC DL=5.0psf; h=35ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Corner(3) zone; cantilever left and right exposed ; end vertical left and right exposed; porch left exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
- Unbalanced snow loads have been considered for this design.
- This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 20.0 psf on overhangs non-concurrent with other live loads.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 1-0-0 wide will fit between the bottom chord and any other members.
- Refer to girder(s) for truss to truss connections.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 5, 3, 4.

LOAD CASE(S) Standard

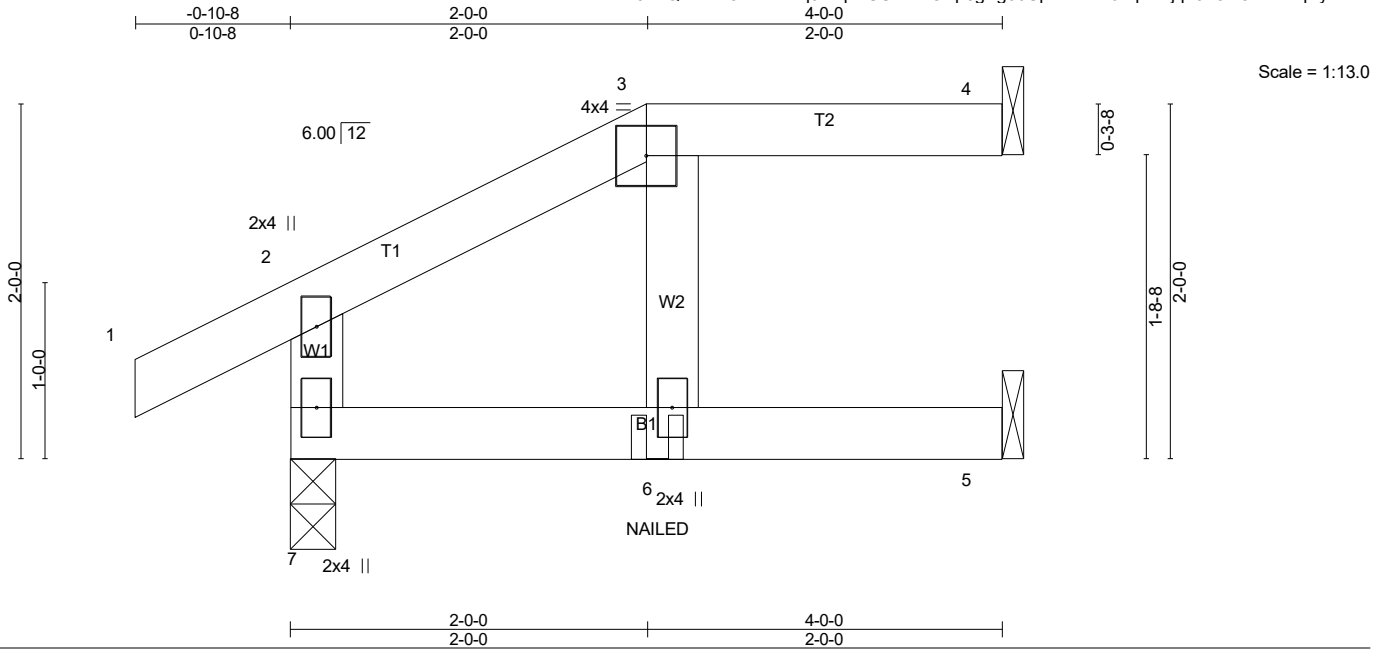


1/21/2025

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 25-0637-R01	Truss SPJ02	Truss Type Half Hip Girder	Qty 2	Ply 1	LOT 149 PROVIDENCE CREEK FUQUAY-VARINA, NC	# 56214
--------------------	----------------	-------------------------------	----------	----------	--	---------

Run: 8.430 s Feb 12 2021 Print: 8.630 s Jul 12 2024 MiTek Industries, Inc. Tue Jan 21 21:04:41 2025 Page 1
ID:97bQtTowZ8dTULxLbQ9ksq7zUUzD-LOKp8gYg00UpWT?Re6Lq4Dcjq?3F8m8YbHNqEyzt1B4



LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof) 20.0	2-0-0	TC 0.24	Vert(LL) -0.02	6	>999	240	MT20	244/190
Snow (Pf) 20.0	Plate Grip DOL 1.15	BC 0.30	Vert(CT) -0.03	6	>999	180		
TCDL 10.0	Lumber DOL 1.15	WB 0.02	Horz(CT) 0.03	4	n/a	n/a		
BCLL 0.0 *	Rep Stress Incr NO	Matrix-MP						
BCLL 10.0	Code IRC2021/TPI2014						Weight: 17 lb	FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x4 SP No.2	TOP CHORD Structural wood sheathing directly applied or 4-0-0 oc purlins, except end verticals.
BOT CHORD 2x4 SP No.2	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 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) 4=96/Mechanical, 7=250/0-3-0 (min. 0-1-8), 5=75/Mechanical
 Max Horz 7=42(LC 9)
 Max Uplift 4=-41(LC 9), 7=-51(LC 9), 5=-33(LC 9)
 Max Grav 4=139(LC 33), 7=343(LC 34), 5=84(LC 33)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
 TOP CHORD 2-7=-265/45

- NOTES-** (14)
- Unbalanced roof live loads have been considered for this design.
 - Wind: ASCE 7-16; Vult=120mph (3-second gust) Vasd=95mph; TC DL=5.0psf; BCDL=5.0psf; h=35ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; porch left exposed; 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.
 - Refer to girder(s) for truss to truss connections.
 - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 4, 7, 5.
 - "NAILED" indicates 3-10d (0.148"x3") or 3-12d (0.148"x3.25") toe-nails per NDS guidelines.
 - Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 63 lb down and 22 lb up at 2-0-0 on top chord. The design/selection of such connection device(s) is the responsibility of others.
 - In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

LOAD CASE(S) Standard
 1) Dead + Snow (balanced): Lumber Increase=1.15, Plate Increase=1.15
 Uniform Loads (plf)
 Vert: 1-2=-60, 2-3=-60, 3-4=-60, 5-7=-20



Job	Truss	Truss Type	Qty	Ply	LOT 149 PROVIDENCE CREEK FUQUAY-VARINA, NC
25-0637-R01	SPJ02	Half Hip Girder	2	1	Job Reference (optional) # 56214

Run: 8.430 s Feb 12 2021 Print: 8.630 s Jul 12 2024 MiTek Industries, Inc. Tue Jan 21 21:04:41 2025 Page 2
ID:97bQtTowZ8dTuLxBq9ksq7zUUzD-LOKp8gYg00UpWT?Re6Lq4Dcjq?3F8m8YbHNqEyzt1B4

LOAD CASE(S) Standard
Concentrated Loads (lb)
Vert: 3=-57(F) 6=0(F)

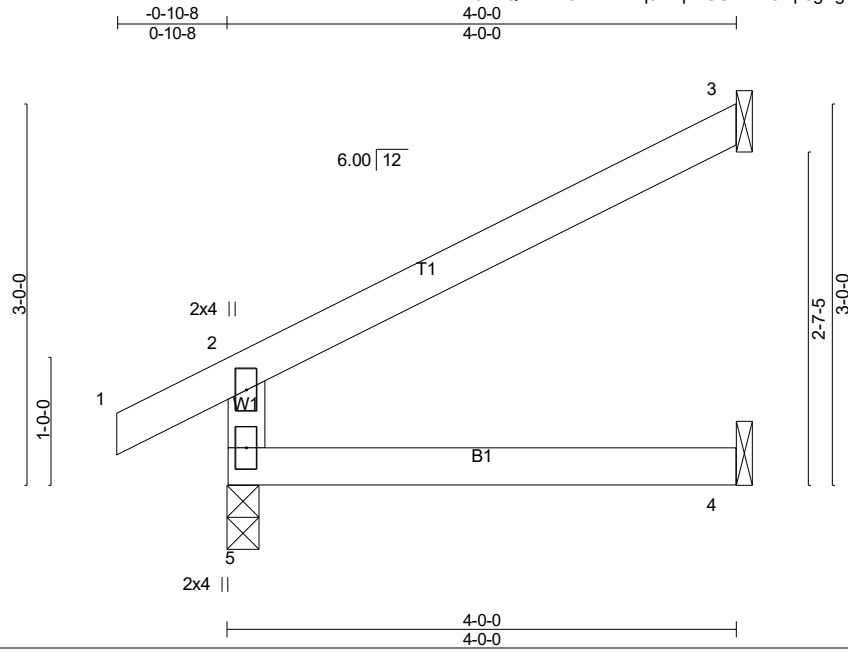


1/21/2025

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 25-0637-R01	Truss SPJ03	Truss Type Jack-Open	Qty 3	Ply 1	LOT 149 PROVIDENCE CREEK FUQUAY-VARINA, NC Job Reference (optional) # 56214
--------------------	----------------	-------------------------	----------	----------	--

Run: 8.430 s Feb 12 2021 Print: 8.630 s Jul 12 2024 MiTek Industries, Inc. Tue Jan 21 21:04:41 2025 Page 1
ID:97bQtTowZ8dTuLxBq9ksq7zUUzD-LOKp8gYg00UpWT?Re6Lq4Dcha?498mRYbHNqEyzt1B4



Scale = 1:18.1

LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof) 20.0	2-0-0	TC 0.32	Vert(LL)	0.04	4-5	>999	MT20	244/190
Snow (PF) 20.0	Plate Grip DOL 1.15	BC 0.24	Vert(CT)	0.03	4-5	>999		
TCDL 10.0	Lumber DOL 1.15	WB 0.00	Horz(CT)	-0.03	3	n/a		
BCLL 0.0 *	Rep Stress Incr YES	Matrix-MR						
BCDL 10.0	Code IRC2021/TPI2014						Weight: 15 lb	FT = 20%

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

BRACING-
TOP CHORD Structural wood sheathing directly applied or 4-0-0 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

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

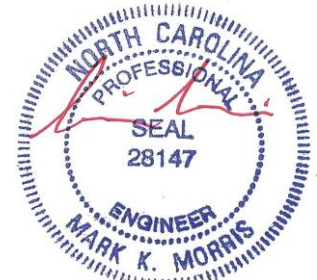
REACTIONS. (lb/size) 5=221/0-3-0 (min. 0-1-8), 3=101/Mechanical, 4=43/Mechanical
Max Horz 5=71(LC 14)
Max Uplift 5=-20(LC 11), 3=-60(LC 14), 4=-19(LC 11)
Max Grav 5=322(LC 21), 3=154(LC 21), 4=72(LC 7)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-5=-293/121

NOTES- (9)

- 1) Wind: ASCE 7-16; Vult=120mph (3-second gust) Vasd=95mph; TCCL=5.0psf; BCDL=5.0psf; h=35ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) zone; cantilever left and right exposed; end vertical left and right exposed; porch left exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 2) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
- 3) Unbalanced snow loads have been considered for this design.
- 4) This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 20.0 psf on overhangs non-concurrent with other live loads.
- 5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 6) * This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 1-0-0 wide will fit between the bottom chord and any other members.
- 7) Refer to girder(s) for truss to truss connections.
- 8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 5, 3, 4.

LOAD CASE(S) Standard

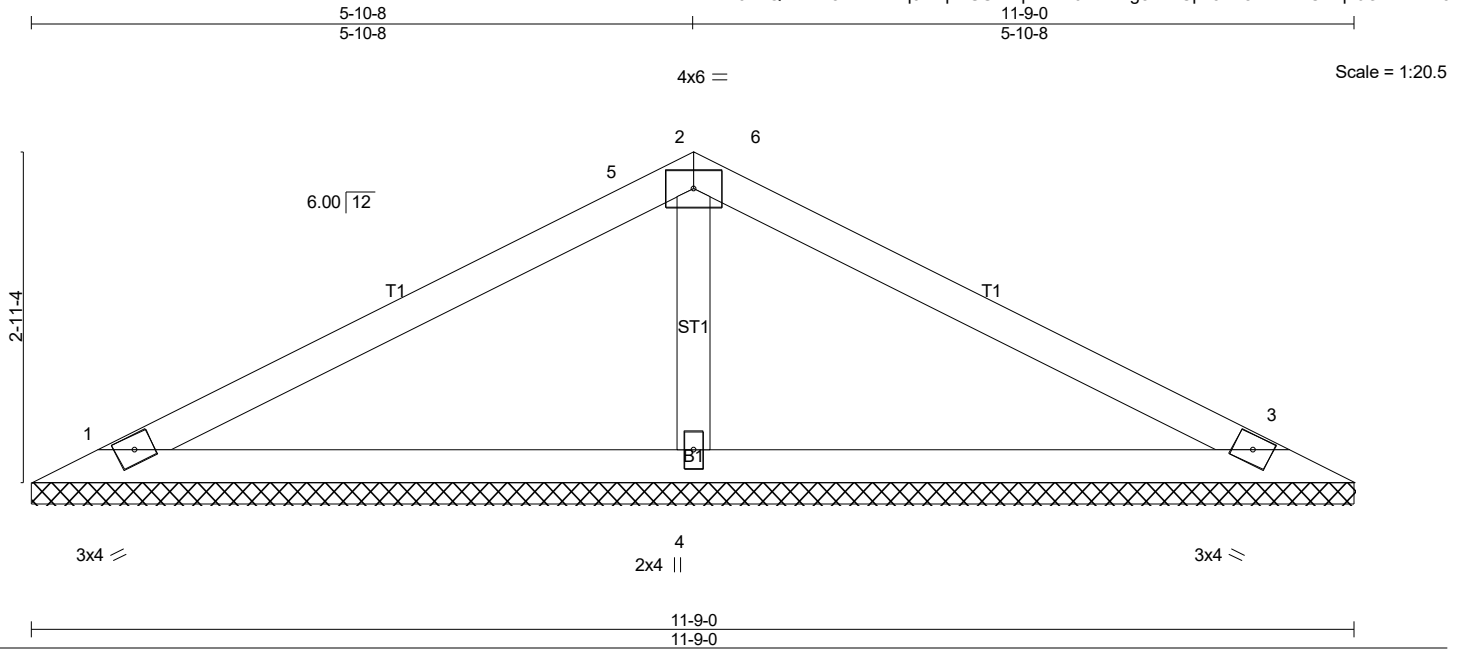


1/21/2025

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 25-0637-R01	Truss VS01	Truss Type Valley	Qty 1	Ply 1	LOT 149 PROVIDENCE CREEK FUQUAY-VARINA, NC
					# 56214

Run: 8.430 s Feb 12 2021 Print: 8.630 s Jul 12 2024 MiTek Industries, Inc. Tue Jan 21 21:04:42 2025 Page 1
ID:97bQfTowZ8dTuLxBq9ksq7zUUzD-pauBL0YInKcg8dadCps3cR8okPL?iCYiqx6OmPzt1B3



LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof) 20.0	2-0-0	TC 0.62	Vert(LL)	n/a	-	n/a	MT20	244/190
Snow (Pf) 20.0	Plate Grip DOL 1.15	BC 0.46	Vert(CT)	n/a	-	n/a		
TCDL 10.0	Lumber DOL 1.15	WB 0.07	Horz(CT)	0.00	3	n/a		
BCLL 0.0 *	Rep Stress Incr YES	Matrix-S						
BCDL 10.0	Code IRC2021/TPI2014						Weight: 39 lb	FT = 20%

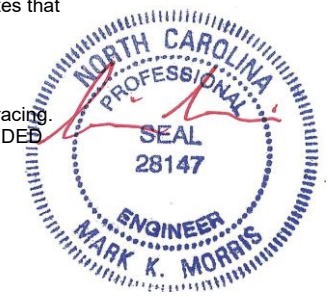
LUMBER-	BRACING-
TOP CHORD 2x4 SP No.2	TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins.
BOT CHORD 2x4 SP No.3	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
OTHERS 2x4 SP No.3	MiTek recommends that Stabilizers and required cross bracing be installed during truss erection, in accordance with Stabilizer Installation guide.

REACTIONS. (lb/size) 1=191/11-9-0 (min. 0-1-8), 3=191/11-9-0 (min. 0-1-8), 4=459/11-9-0 (min. 0-1-8)
 Max Horz 1=39(LC 14)
 Max Uplift 1=-38(LC 14), 3=-45(LC 15), 4=-27(LC 14)
 Max Grav 1=279(LC 20), 3=279(LC 21), 4=473(LC 20)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
WEBS 2-4=-319/164

- NOTES-** (9-12)
- Unbalanced roof live loads have been considered for this design.
 - Wind: ASCE 7-16; Vult=120mph (3-second gust) Vasd=95mph; TC DL=5.0psf; BC DL=5.0psf; h=35ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) 0-7-7 to 5-5-0, Exterior(2R) 5-5-0 to 6-4-0, Exterior(2E) 6-4-0 to 11-1-9 zone; cantilever left and right exposed; end vertical left and right exposed; porch left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
 - TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
 - Unbalanced snow loads have been considered for this design.
 - Gable requires continuous bottom chord bearing.
 - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
 - * This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 1-0-0 wide will fit between the bottom chord and any other members.
 - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 3, 4.
 - 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.
 - 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.
 - 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.
 - 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

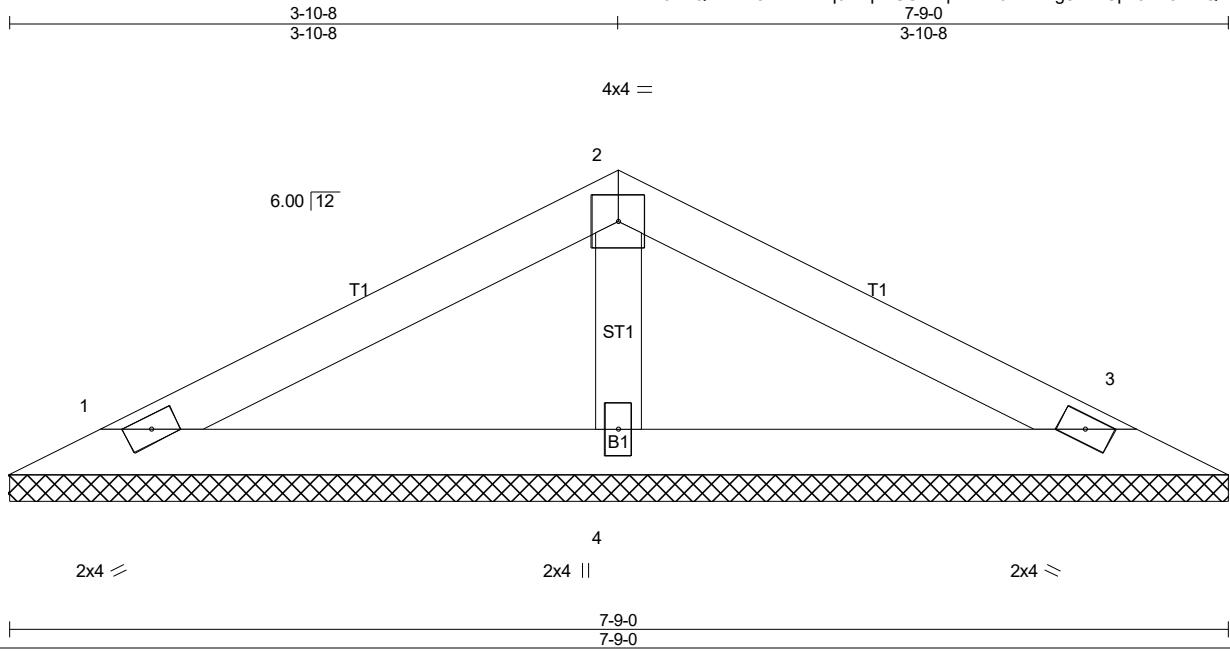


1/21/2025

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 25-0637-R01	Truss VS02	Truss Type Valley	Qty 1	Ply 1	LOT 149 PROVIDENCE CREEK FUQUAY-VARINA, NC	# 56214
--------------------	---------------	----------------------	----------	----------	--	---------

Run: 8.430 s Feb 12 2021 Print: 8.630 s Jul 12 2024 MiTek Industries, Inc. Tue Jan 21 21:04:42 2025 Page 1
ID:97bQtTowZ8dTuLxBq9ksq7zUUzD-pauBL0YInKcg8dadCps3cR8txPQNTd8iqx6OmPzt1B3



Scale = 1:14.6

LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof) 20.0	2-0-0	TC 0.28	Vert(LL)	n/a	-	n/a	MT20	244/190
Snow (PF) 20.0	Plate Grip DOL 1.15	BC 0.18	Vert(CT)	n/a	-	n/a		
TCDL 10.0	Lumber DOL 1.15	WB 0.04	Horz(CT)	0.00	3	n/a		
BCLL 0.0 *	Rep Stress Incr YES	Matrix-P						
BCLL 10.0	Code IRC2021/TPI2014						Weight: 24 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	MiTek recommends that Stabilizers and required cross bracing be installed during truss erection, in accordance with Stabilizer Installation guide.

REACTIONS. (lb/size) 1=132/7-9-0 (min. 0-1-8), 3=132/7-9-0 (min. 0-1-8), 4=258/7-9-0 (min. 0-1-8)
Max Horz 1=24(LC 18)
Max Uplift 1=-29(LC 14), 3=-34(LC 15), 4=-5(LC 14)
Max Grav 1=176(LC 20), 3=176(LC 21), 4=258(LC 1)

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

- NOTES-** (9-12)
- 1) Unbalanced roof live loads have been considered for this design.
 - 2) Wind: ASCE 7-16; Vult=120mph (3-second gust) Vasd=95mph; TCCL=5.0psf; BCDL=5.0psf; h=35ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) zone; cantilever left and right exposed; end vertical left and right exposed; porch left and right exposed; 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) Gable requires continuous bottom chord bearing.
 - 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) 1, 3, 4.
 - 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

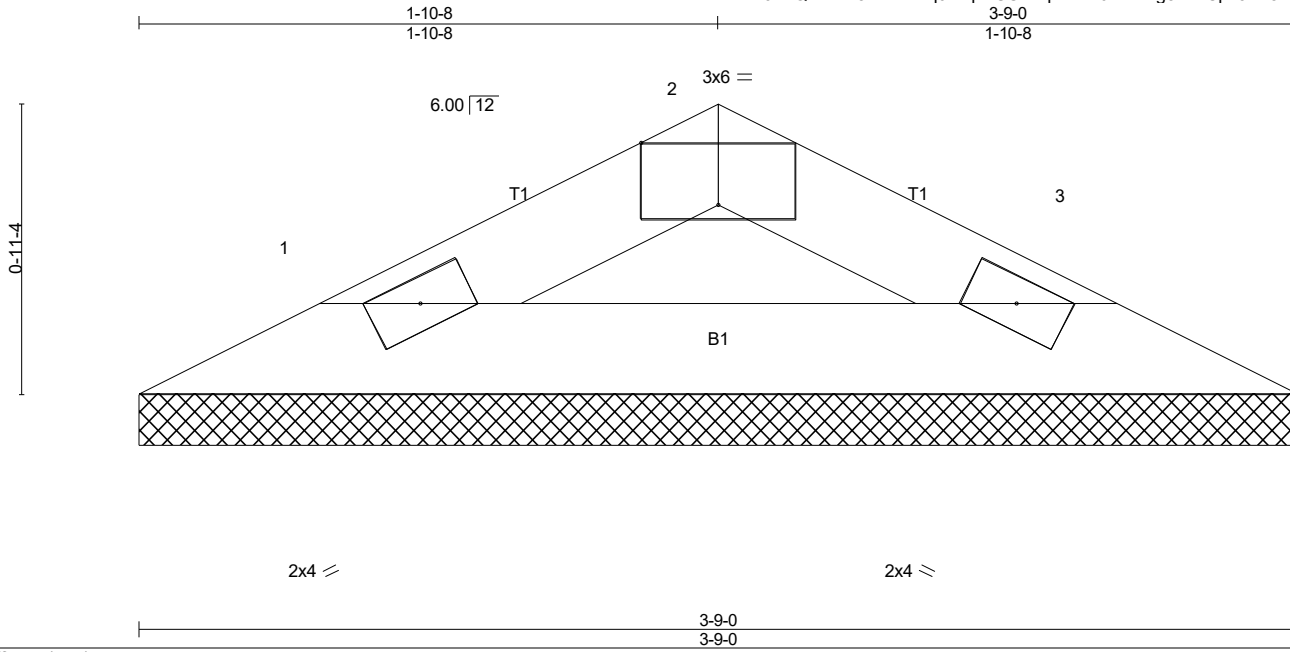


1/21/2025

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 25-0637-R01	Truss VS03	Truss Type Valley	Qty 1	Ply 1	LOT 149 PROVIDENCE CREEK FUQUAY-VARINA, NC	# 56214
--------------------	---------------	----------------------	----------	----------	--	---------

Run: 8.430 s Feb 12 2021 Print: 8.630 s Jul 12 2024 MiTek Industries, Inc. Tue Jan 21 21:04:42 2025 Page 1
ID:97bQtTowZ8dTuLxBq9ksq7zUUzD-pauBL0YInKcg8dadCps3cR8xtPRDtDhiqx6OmPzt1B3



Scale = 1:7.5

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

LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof) 20.0	Plate Grip DOL 1.15	TC 0.03	Vert(LL) n/a	-	n/a	999	MT20	244/190
Snow (Pf) 20.0	Lumber DOL 1.15	BC 0.13	Vert(CT) n/a	-	n/a	999		
TCDL 10.0	Rep Stress Incr YES	WB 0.00	Horz(CT) 0.00	3	n/a	n/a		
BCLL 0.0 *	Code IRC2021/TPI2014	Matrix-P						
BCDL 10.0							Weight: 10 lb	FT = 20%

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

BRACING-
TOP CHORD
BOT CHORD

Structural wood sheathing directly applied or 3-9-0 oc purlins.
Rigid ceiling directly applied or 10-0-0 oc bracing.

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

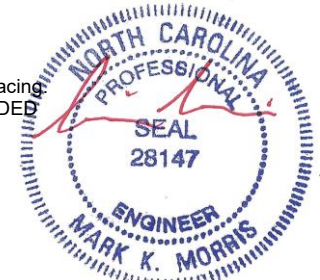
REACTIONS. (lb/size) 1=101/3-9-0 (min. 0-1-8), 3=101/3-9-0 (min. 0-1-8)
Max Horz 1=9(LC 14)
Max Uplift1=-12(LC 14), 3=-12(LC 15)
Max Grav 1=108(LC 20), 3=108(LC 21)

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

NOTES- (9-12)

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=120mph (3-second gust) Vasd=95mph; TCCL=5.0psf; BCCL=5.0psf; h=35ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) zone; cantilever left and right exposed; end vertical left and right exposed; porch left and right exposed; 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.
- Gable requires continuous bottom chord bearing.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 1-0-0 wide will fit between the bottom chord and any other members.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 3.
- 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.
- 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.
- 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.
- 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



1/21/2025

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.

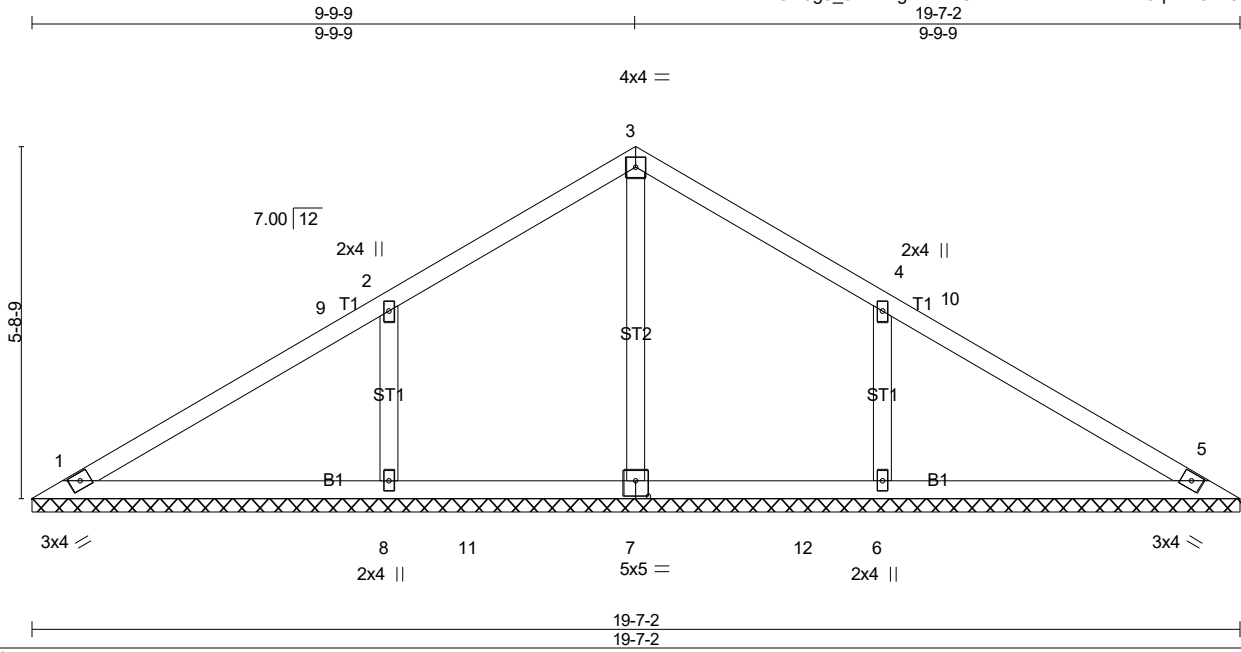


Plate Offsets (X,Y)-- [7:0-2-8,0-3-0]

LOADING (psf)	SPACING-	CSI.	DEFL.		PLATES	GRIP
TCLL (roof) 20.0	2-0-0	TC 0.40	in (loc) l/defl L/d		MT20	244/190
Snow (Pf) 20.0	Plate Grip DOL 1.15	BC 0.36	Vert(LL) n/a - n/a 999			
TCDL 10.0	Lumber DOL 1.15	WB 0.11	Vert(CT) n/a - n/a 999			
BCLL 0.0 *	Rep Stress Incr YES	Matrix-SH	Horz(CT) 0.00 5 n/a n/a			
BCDL 10.0	Code IRC2021/TPI2014				Weight: 77 lb	FT = 20%

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

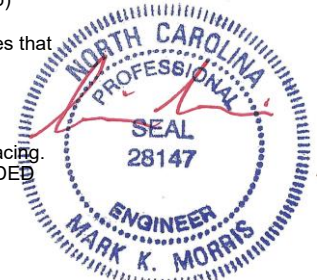
BRACING-
TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

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

REACTIONS. All bearings 19-7-2.
(lb) - Max Horz 1=-119(LC 10)
Max Uplift All uplift 100 lb or less at joint(s) 1, 5 except 8=-153(LC 14), 6=-153(LC 15)
Max Grav All reactions 250 lb or less at joint(s) 1, 5 except 7=388(LC 6), 8=567(LC 20), 6=567(LC 21)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
WEBS 2-8=-438/189, 4-6=-438/189

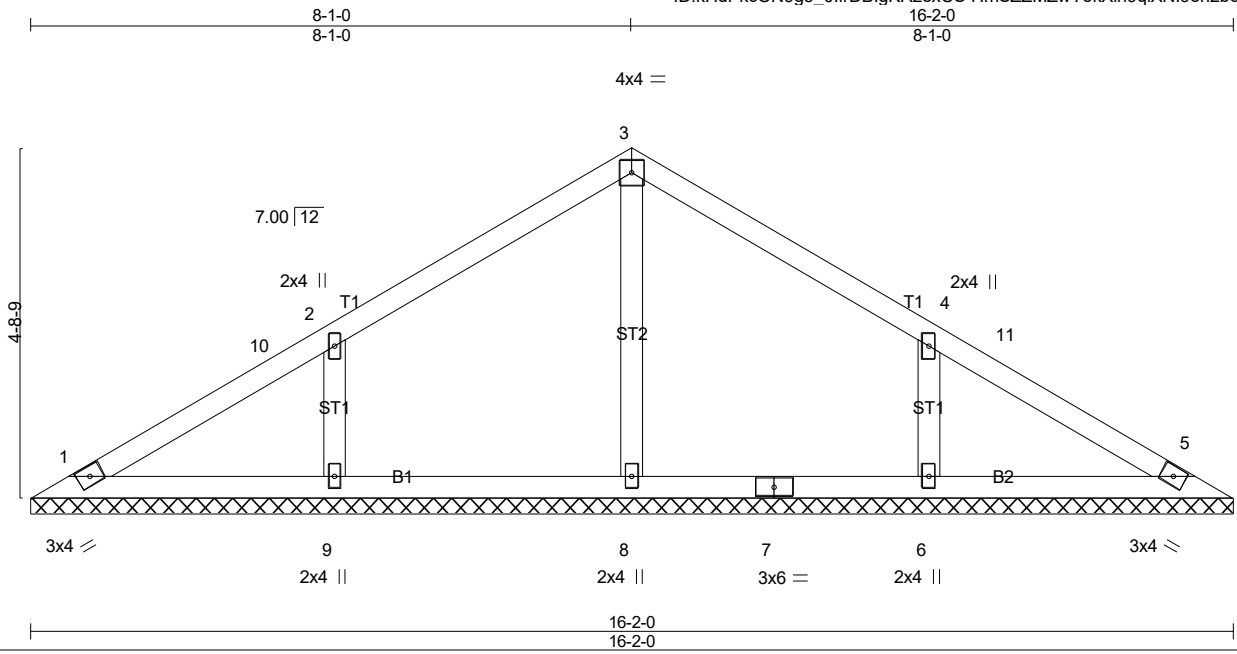
- NOTES-** (9-12)
- 1) Unbalanced roof live loads have been considered for this design.
 - 2) Wind: ASCE 7-16; Vult=120mph (3-second gust) Vasd=95mph; TCCL=5.0psf; BCDL=5.0psf; h=35ft; Cat. II; Exp B; Enclosed; Gable Roof; Common Truss; MWFRS (envelope) gable end zone and C-C Exterior(2E) 0-6-8 to 5-4-1, Exterior(2R) 5-4-1 to 14-3-1, Exterior(2E) 14-3-1 to 19-0-11 zone; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
 - 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) Gable requires continuous bottom chord bearing.
 - 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, 5 except (jt=lb) 8=153, 6=153.
 - 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

1/21/2025

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



Scale = 1:31.0

LOADING (psf)	SPACING-	CSI.	DEFL.		PLATES	GRIP
TCLL (roof) 20.0	2-0-0	TC 0.29	in (loc) l/defl L/d		MT20	244/190
Snow (Pf) 20.0	Plate Grip DOL 1.15	BC 0.19	Vert(LL) n/a - n/a 999			
TCDL 10.0	Lumber DOL 1.15	WB 0.08	Vert(CT) n/a - n/a 999			
BCLL 0.0 *	Rep Stress Incr YES	Matrix-SH	Horz(CT) 0.00 5 n/a n/a			
BDDL 10.0	Code IRC2021/TPI2014				Weight: 62 lb	FT = 20%

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

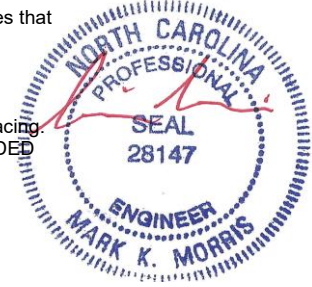
BRACING-
 TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins.
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

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

REACTIONS. All bearings 16-2-0.
 (lb) - Max Horz 1=-97(LC 12)
 Max Uplift All uplift 100 lb or less at joint(s) 1, 5 except 9=-122(LC 14), 6=-121(LC 15)
 Max Grav All reactions 250 lb or less at joint(s) 1, 5 except 8=278(LC 20), 9=468(LC 20), 6=468(LC 21)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
WEBS 2-9=-379/154, 4-6=-379/154

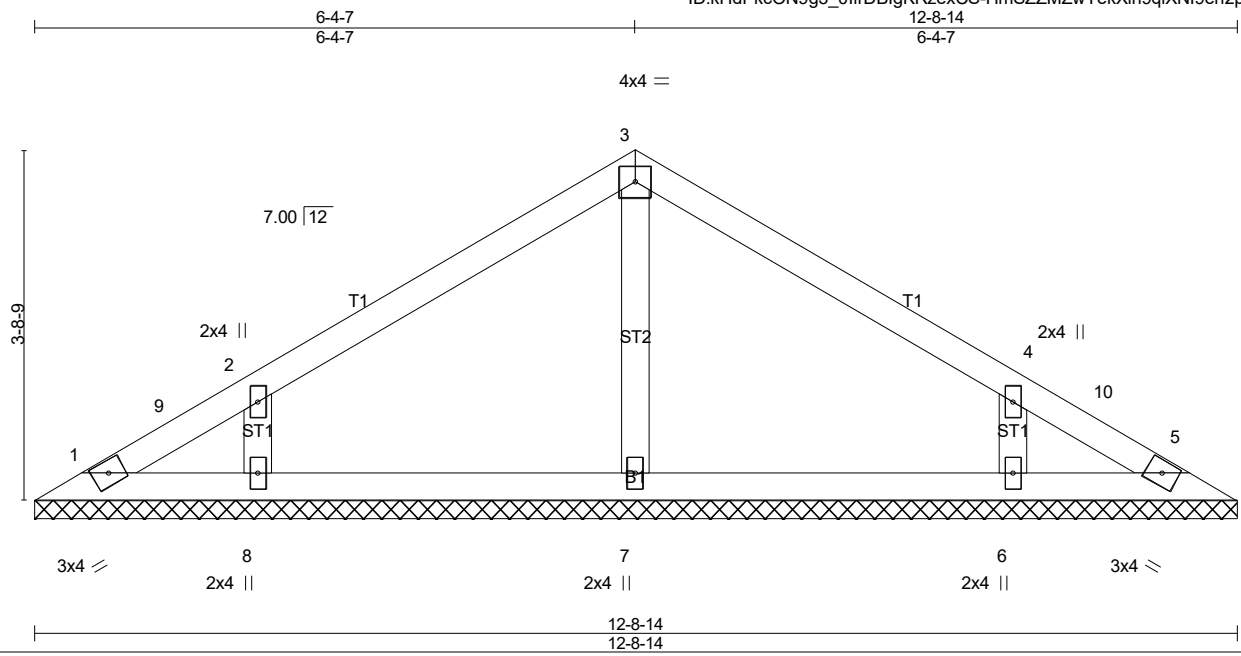
- NOTES-** (9-12)
- 1) Unbalanced roof live loads have been considered for this design.
 - 2) Wind: ASCE 7-16; Vult=120mph (3-second gust) Vasd=95mph; TC DL=5.0psf; BCDL=5.0psf; h=35ft; Cat. II; Exp B; Enclosed; Gable Roof; Common Truss; MWFRS (envelope) gable end zone and C-C Exterior(2E) 0-6-8 to 5-4-1, Exterior(2R) 5-4-1 to 10-9-15, Exterior(2E) 10-9-15 to 15-7-8 zone; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
 - 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) Gable requires continuous bottom chord bearing.
 - 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) 1, 5 except (jt=lb) 9=122, 6=121.
 - 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.



1/21/2025

LOAD CASE(S) Standard

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.



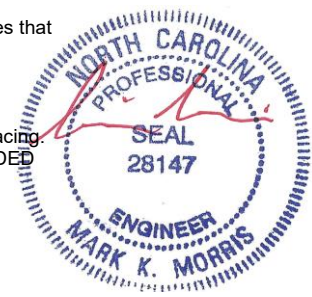
LOADING (psf)		SPACING-		CSI.		DEFL.				PLATES	GRIP	
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.28	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.21	Vert(CT)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.07	Horz(CT)	0.00	5	n/a	n/a		
BCLL	0.0 *	Code IRC2021/TPI2014		Matrix-SH								
BCDL	10.0										Weight: 46 lb	FT = 20%

LUMBER- TOP CHORD 2x4 SP No.2 BOT CHORD 2x4 SP No.3 OTHERS 2x4 SP No.3	BRACING- TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins. BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing. <div style="border: 1px solid black; padding: 5px; font-size: x-small; margin-top: 5px;"> MiTek recommends that Stabilizers and required cross bracing be installed during truss erection, in accordance with Stabilizer Installation guide. </div>
--	---

REACTIONS. All bearings 12-8-14.
 (lb) - Max Horz 1=75(LC 13)
 Max Uplift All uplift 100 lb or less at joint(s) 1, 5 except 8=-104(LC 14), 6=-104(LC 15)
 Max Grav All reactions 250 lb or less at joint(s) 1, 5 except 7=292(LC 20), 8=420(LC 20), 6=420(LC 21)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
WEBS 2-8=-365/140, 4-6=-365/140

- NOTES-** (9-12)
- 1) Unbalanced roof live loads have been considered for this design.
 - 2) Wind: ASCE 7-16; Vult=120mph (3-second gust) Vasd=95mph; TC DL=5.0psf; BCDL=5.0psf; h=35ft; Cat. II; Exp B; Enclosed; Gable Roof; Common Truss; MWFRS (envelope) gable end zone and C-C Exterior(2E) 0-6-8 to 5-4-1, Exterior(2R) 5-4-1 to 7-4-13, Exterior(2E) 7-4-13 to 12-2-6 zone; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
 - 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) Gable requires continuous bottom chord bearing.
 - 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) 1, 5 except (jt=lb) 8=104, 6=104.
 - 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.

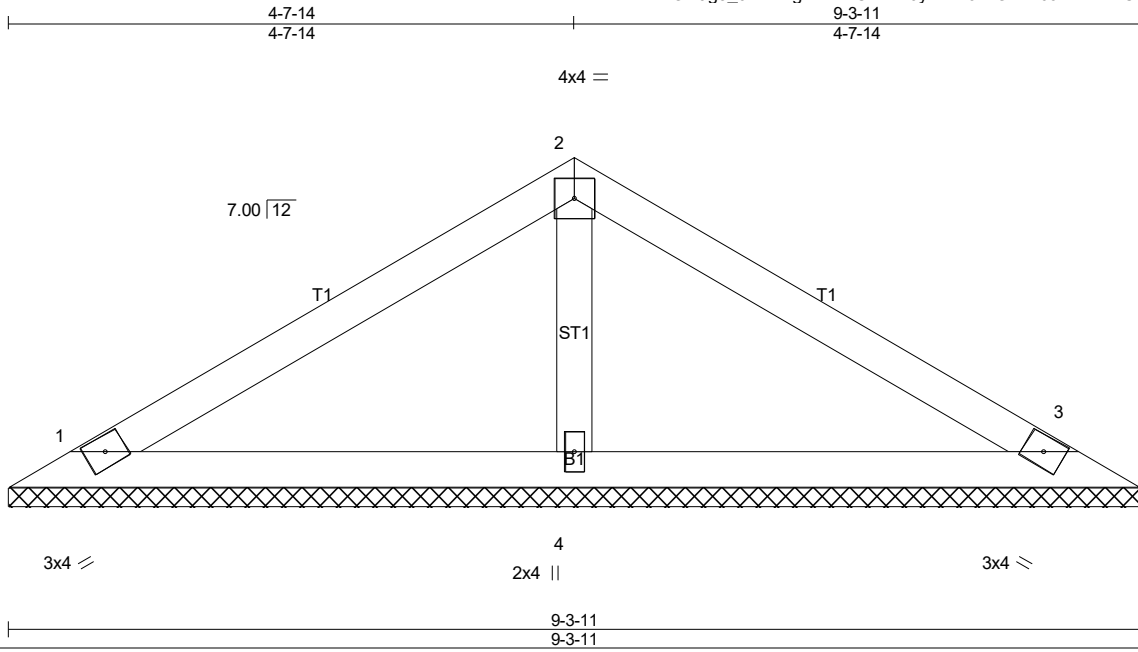


1/21/2025

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 25-0637-R01	Truss VT04	Truss Type Valley	Qty 1	Ply 1	LOT 149 PROVIDENCE CREEK FUQUAY-VARINA, NC	# 56214
--------------------	---------------	----------------------	----------	----------	--	----------------

Run: 8.430 s Feb 12 2021 Print: 8.630 s Jul 12 2024 MiTek Industries, Inc. Tue Jan 21 21:04:44 2025 Page 1
ID:kHdPkcON9g3_0lfrDBlgKRzexCS-mz0ymiaYJxsONxk0JEuXhsECrC3mL7Q?HFbVrHzt1B1



Scale = 1:19.0

LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof) 20.0	2-0-0	TC 0.32	Vert(LL)	n/a	-	n/a	MT20	244/190
Snow (Pf) 20.0	Plate Grip DOL 1.15	BC 0.38	Vert(CT)	n/a	-	n/a		
TCDL 10.0	Lumber DOL 1.15	WB 0.05	Horz(CT)	0.00	3	n/a		
BCLL 0.0 *	Rep Stress Incr YES	Matrix-SH						
BCDL 10.0	Code IRC2021/TPI2014						Weight: 31 lb	FT = 20%

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

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

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

REACTIONS. (lb/size) 1=152/9-3-11 (min. 0-1-8), 3=152/9-3-11 (min. 0-1-8), 4=353/9-3-11 (min. 0-1-8)
Max Horz 1=-53(LC 12)
Max Uplift 1=-28(LC 14), 3=-35(LC 15), 4=-23(LC 14)
Max Grav 1=220(LC 20), 3=220(LC 21), 4=364(LC 21)

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

NOTES- (9-12)

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=120mph (3-second gust) Vasd=95mph; TCCL=5.0psf; BCDL=5.0psf; h=35ft; Cat. II; Exp B; Enclosed; Gable Roof; Common Truss; MWFRS (envelope) gable end zone and C-C Exterior(2E) zone; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 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.
- Gable requires continuous bottom chord bearing.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 1-0-0 wide will fit between the bottom chord and any other members.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 3, 4.
- 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.
- 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.
- 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.
- 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

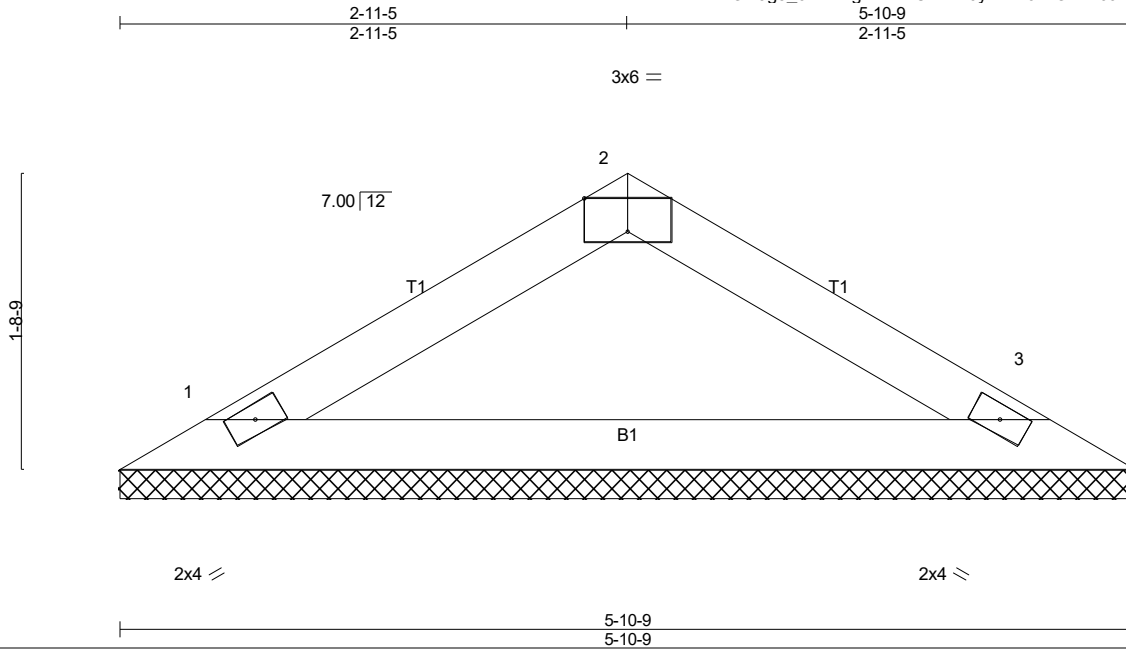


1/21/2025

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 25-0637-R01	Truss VT05	Truss Type Valley	Qty 1	Ply 1	LOT 149 PROVIDENCE CREEK FUQUAY-VARINA, NC	Job Reference (optional) # 56214
--------------------	---------------	----------------------	----------	----------	--	--

Run: 8.430 s Feb 12 2021 Print: 8.630 s Jul 12 2024 MiTek Industries, Inc. Tue Jan 21 21:04:44 2025 Page 1
ID:kHdPkcON9g3_0lfrDBlgKRzexCS-mz0ymiaYJxsONxk0JEUxhsEFcC1vL7B?HfBvVrHzt1B1



LOADING (psf)		SPACING-		CSI.		DEFL.				PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.14	in	(loc)	l/defl	L/d	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.50	Vert(LL)	n/a	-	n/a		
TCDL	10.0	Rep Stress Incr	YES	WB	0.00	Vert(CT)	n/a	-	n/a		
BCLL	0.0 *	Code IRC2021/TPI2014		Matrix-P		Horz(CT)	0.00	3	n/a		
BCDL	10.0									Weight: 17 lb	FT = 20%

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

BRACING-
TOP CHORD Structural wood sheathing directly applied or 5-10-9 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) 1=192/5-10-9 (min. 0-1-8), 3=192/5-10-9 (min. 0-1-8)
Max Horz 1=31(LC 11)
Max Uplift1=-23(LC 14), 3=-23(LC 15)
Max Grav 1=221(LC 20), 3=221(LC 21)

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

- NOTES-** (9-12)
- Unbalanced roof live loads have been considered for this design.
 - Wind: ASCE 7-16; Vult=120mph (3-second gust) Vasd=95mph; TCCL=5.0psf; BCCL=5.0psf; h=35ft; Cat. II; Exp B; Enclosed; Gable Roof; Common Truss; MWFRS (envelope) gable end zone and C-C Exterior(2E) zone; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
 - 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.
 - Gable requires continuous bottom chord bearing.
 - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
 - * This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 1-0-0 wide will fit between the bottom chord and any other members.
 - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 3.
 - 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.
 - 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.
 - 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.
 - 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

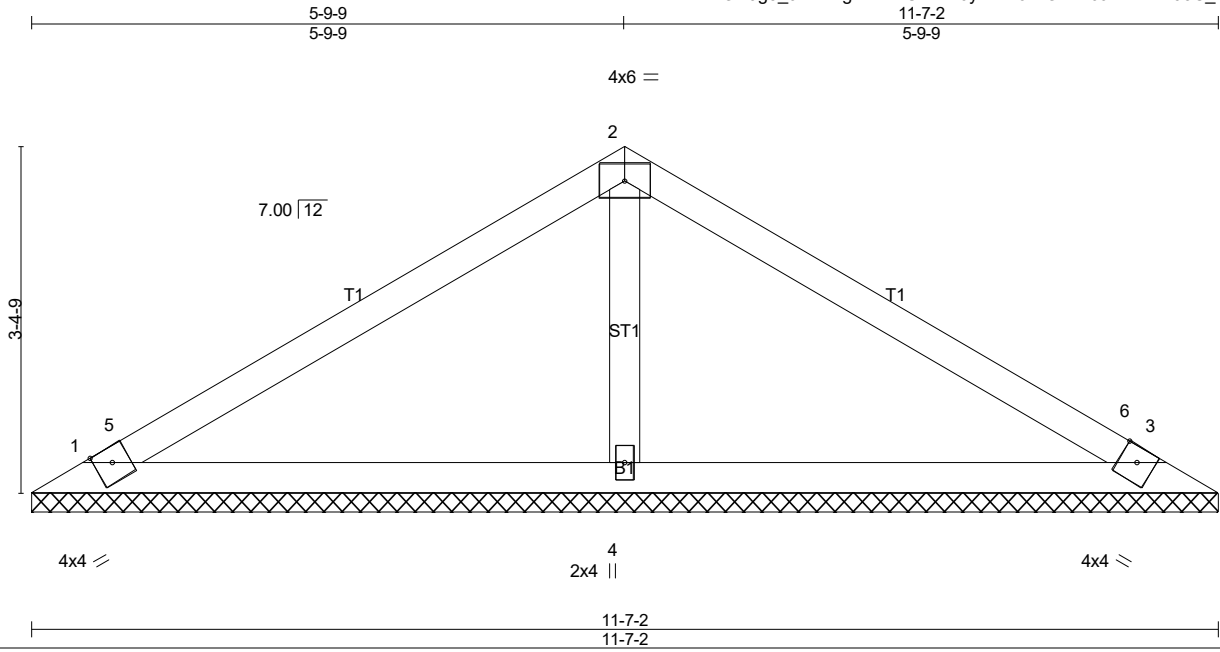


1/21/2025

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 25-0637-R01	Truss VT06	Truss Type Valley	Qty 1	Ply 1	LOT 149 PROVIDENCE CREEK FUQUAY-VARINA, NC	Job Reference (optional) # 56214
--------------------	---------------	----------------------	----------	----------	--	--

Run: 8.430 s Feb 12 2021 Print: 8.630 s Jul 12 2024 MiTek Industries, Inc. Tue Jan 21 21:04:44 2025 Page 1
ID:kHdPkcON9g3_0lfrDBlgKRzexCS-mz0ymiaYJxsONxk0JEuXhsE93C_WL61?HFbVrHzt1B1



Scale = 1:22.5

LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof) 20.0	2-0-0	TC 0.56	Vert(LL)	n/a	-	n/a	MT20	244/190
Snow (Pf) 20.0	Plate Grip DOL 1.15	BC 0.65	Vert(CT)	n/a	-	n/a		
TCDL 10.0	Lumber DOL 1.15	WB 0.07	Horz(CT)	0.00	3	n/a		
BCLL 0.0 *	Rep Stress Incr YES	Matrix-SH						
BCDL 10.0	Code IRC2021/TPI2014						Weight: 40 lb	FT = 20%

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

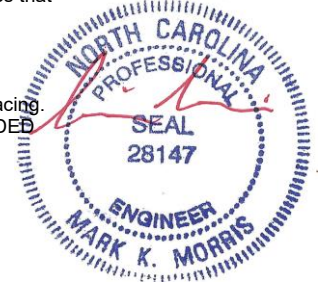
BRACING-
TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

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

REACTIONS. (lb/size) 1=195/11-7-2 (min. 0-1-8), 3=195/11-7-2 (min. 0-1-8), 4=452/11-7-2 (min. 0-1-8)
Max Horz 1=-68(LC 10)
Max Uplift 1=-35(LC 14), 3=-45(LC 15), 4=-29(LC 14)
Max Grav 1=272(LC 20), 3=272(LC 21), 4=472(LC 20)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
WEBS 2-4=-295/93

- NOTES-** (9-12)
- Unbalanced roof live loads have been considered for this design.
 - Wind: ASCE 7-16; Vult=120mph (3-second gust) Vasd=95mph; TC DL=5.0psf; BCDL=5.0psf; h=35ft; Cat. II; Exp B; Enclosed; Gable Roof; Common Truss; MWFRS (envelope) gable end zone and C-C Exterior(2E) 0-6-8 to 5-4-1, Exterior(2R) 5-4-1 to 6-3-1, Exterior(2E) 6-3-1 to 11-0-11 zone; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
 - 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.
 - Gable requires continuous bottom chord bearing.
 - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
 - * This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 1-0-0 wide will fit between the bottom chord and any other members.
 - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 3, 4.
 - 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.
 - 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.
 - 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.
 - 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.

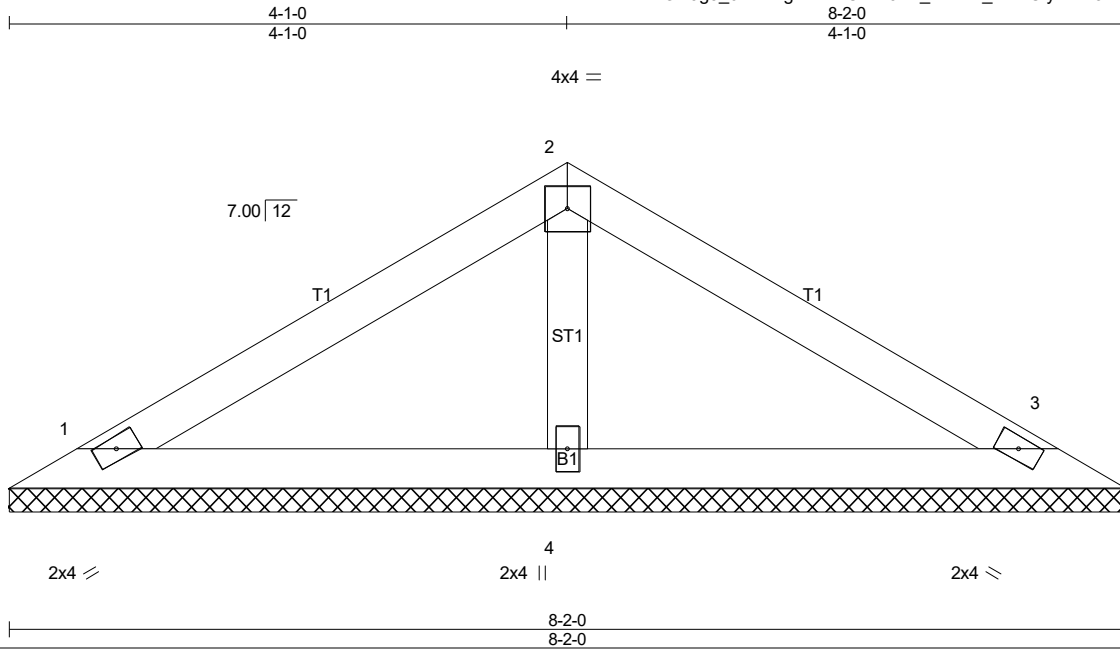


1/21/2025

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 25-0637-R01	Truss VT07	Truss Type Valley	Qty 1	Ply 1	LOT 149 PROVIDENCE CREEK FUQUAY-VARINA, NC
					# 56214

Run: 8.430 s Feb 12 2021 Print: 8.630 s Jul 12 2024 MiTek Industries, Inc. Tue Jan 21 21:04:45 2025 Page 1
 ID:kHdPkcON9g3_0lfrDBlgKRzexCS-E9aK_2bB4F_E?4lCtyPmE3mN2cRZ4aq8WvL2Njzt1B0



Scale = 1:16.8

LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof) 20.0	2-0-0	TC 0.36	Vert(LL)	n/a	-	n/a	MT20	244/190
Snow (Pf) 20.0	Plate Grip DOL 1.15	BC 0.21	Vert(CT)	n/a	-	n/a		
TCDL 10.0	Lumber DOL 1.15	WB 0.04	Horz(CT)	0.00	3	n/a		
BCLL 0.0 *	Rep Stress Incr YES	Matrix-P						
BCDL 10.0	Code IRC2021/TPI2014						Weight: 27 lb	FT = 20%

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

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

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

REACTIONS. (lb/size) 1=148/8-2-0 (min. 0-1-8), 3=148/8-2-0 (min. 0-1-8), 4=271/8-2-0 (min. 0-1-8)
 Max Horz 1=-46(LC 12)
 Max Uplift1=-32(LC 14), 3=-39(LC 15), 4=-2(LC 14)
 Max Grav 1=202(LC 20), 3=202(LC 21), 4=275(LC 21)

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

- NOTES-** (9-12)
- Unbalanced roof live loads have been considered for this design.
 - Wind: ASCE 7-16; Vult=120mph (3-second gust) Vasd=95mph; TCCL=5.0psf; BCDL=5.0psf; h=35ft; Cat. II; Exp B; Enclosed; Gable Roof; Common Truss; MWFRS (envelope) gable end zone and C-C Exterior(2E) zone; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
 - 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.
 - Gable requires continuous bottom chord bearing.
 - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
 - * This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 1-0-0 wide will fit between the bottom chord and any other members.
 - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 3, 4.
 - 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.
 - 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.
 - 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.
 - 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

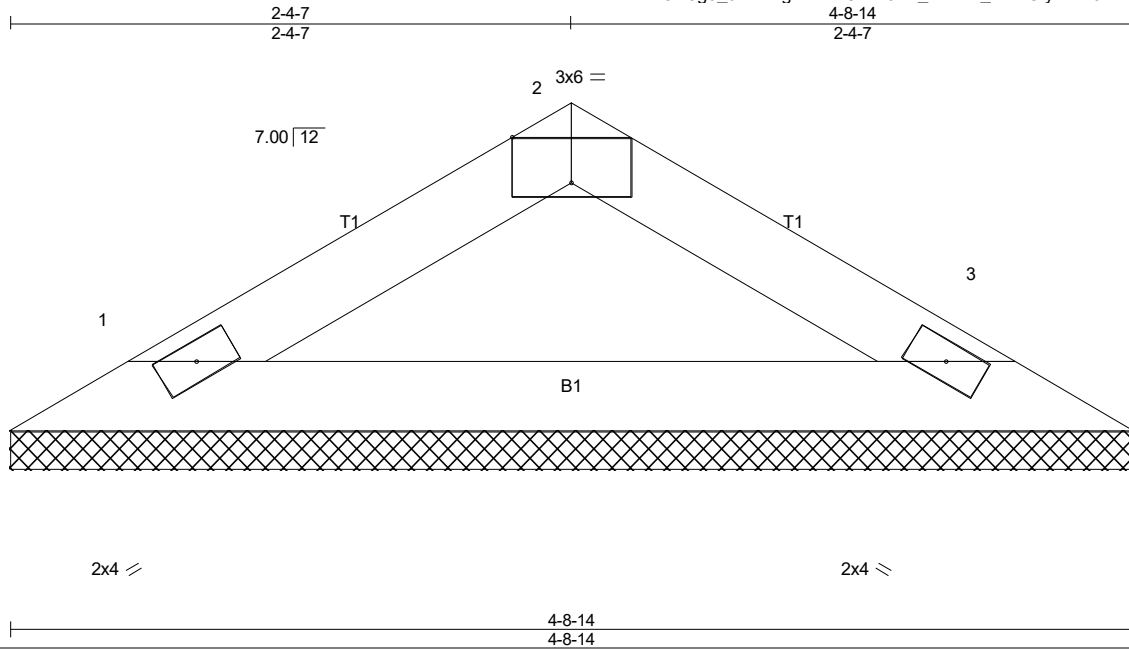


1/21/2025

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 25-0637-R01	Truss VT08	Truss Type Valley	Qty 1	Ply 1	LOT 149 PROVIDENCE CREEK FUQUAY-VARINA, NC	# 56214
--------------------	---------------	----------------------	----------	----------	--	---------

Run: 8.430 s Feb 12 2021 Print: 8.630 s Jul 12 2024 MiTek Industries, Inc. Tue Jan 21 21:04:45 2025 Page 1
ID:kHdPkC0N9g3_0lfrDBlgKRzcxCS-E9aK_2bB4F_E?4lCtyPmE3mRPcQZ4aR8WwL2Njzt1B0



Scale = 1:9.7

LOADING (psf)		SPACING-		CSI.		DEFL.				PLATES	GRIP	
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.08	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.28	Vert(CT)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.00	Horz(CT)	0.00	3	n/a	n/a		
BCLL	0.0 *	Code IRC2021/TPI2014		Matrix-P								
BCDL	10.0										Weight: 13 lb	FT = 20%

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

BRACING-
TOP CHORD
BOT CHORD

Structural wood sheathing directly applied or 4-8-14 oc purlins.
Rigid ceiling directly applied or 10-0-0 oc bracing.

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

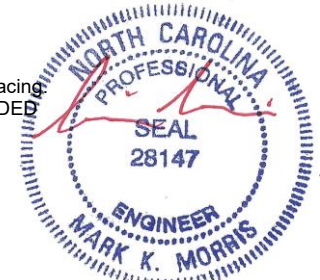
REACTIONS. (lb/size) 1=146/4-8-14 (min. 0-1-8), 3=146/4-8-14 (min. 0-1-8)
Max Horz 1=-24(LC 12)
Max Uplift 1=-17(LC 14), 3=-17(LC 15)
Max Grav 1=164(LC 20), 3=164(LC 21)

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

NOTES- (9-12)

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=120mph (3-second gust) Vasd=95mph; TCCL=5.0psf; BCCL=5.0psf; h=35ft; Cat. II; Exp B; Enclosed; Gable Roof; Common Truss; MWFRS (envelope) gable end zone and C-C Exterior(2E) zone; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 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.
- Gable requires continuous bottom chord bearing.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 1-0-0 wide will fit between the bottom chord and any other members.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 3.
- 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.
- 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.
- 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.
- 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



1/21/2025

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.