

# Mark Morris, P.E.

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

AST #: 56258

JOB: 25-0641-R01

JOB NAME: LOT 117 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.

*19 Truss Design(s)*

Trusses:

J01, J02, R01, R02, R03, R04, R05, R06, R07, R08, R09, R11, R12, SP01, SP02, V01, V02,



**1/23/2025**

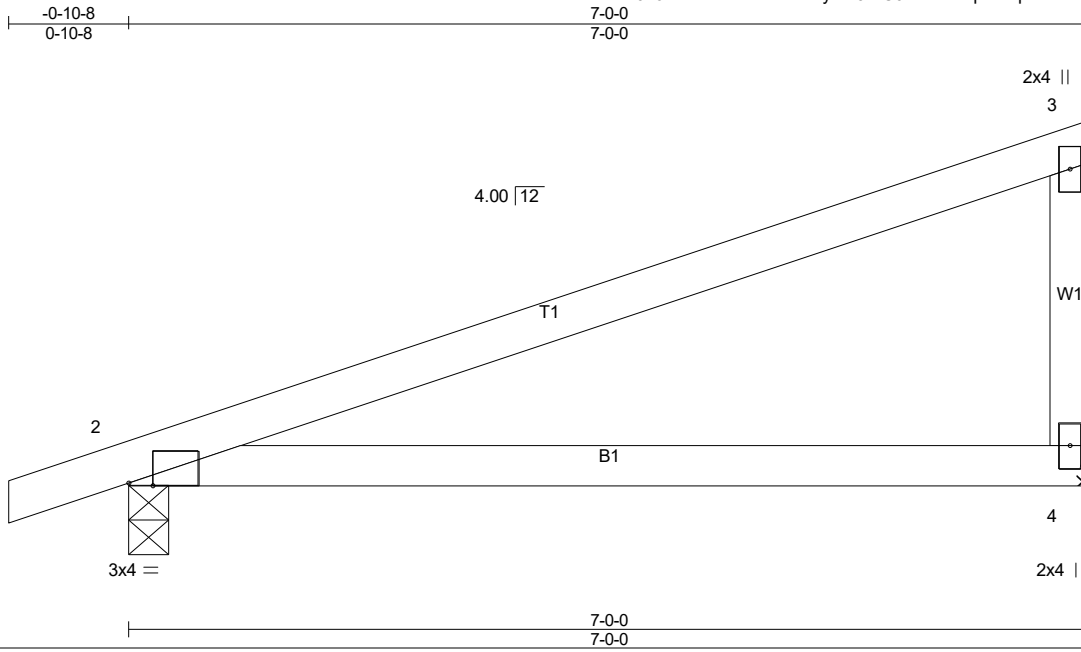
**Mark Morris**

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

Job 25-0641-R01	Truss J01	Truss Type Monopitch	Qty 4	Ply 1	LOT 117 PROVIDENCE CREEK   FUQUAY-VARINA, NC	# 56258
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Run: 8.430 s Feb 12 2021 Print: 8.630 s Jul 12 2024 MiTek Industries, Inc. Thu Jan 23 11:16:11 2025 Page 1  
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Scale = 1:16.8

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

LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof) 20.0	Plate Grip DOL 1.15	TC 0.91	Vert(LL) -0.15	4-7	>548	240	MT20	244/190
Snow (Pf) 20.0	Lumber DOL 1.15	BC 0.69	Vert(CT) -0.27	4-7	>306	180		
TCDL 10.0	Rep Stress Incr YES	WB 0.00	Horz(CT) 0.00	2	n/a	n/a		
BCLL 0.0 *	Code IRC2021/TPI2014	Matrix-AS						
BCDL 10.0							Weight: 26 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, except end verticals.  
BOT CHORD Rigid ceiling directly applied.

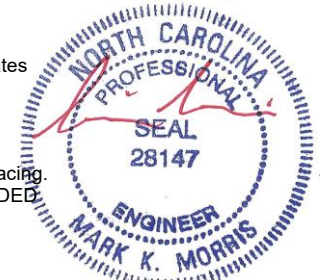
MiTek recommends that Stabilizers and required cross bracing be installed during truss erection, in accordance with Stabilizer Installation guide.

**REACTIONS.** (lb/size) 4=271/Mechanical, 2=330/0-3-8 (min. 0-1-8)  
Max Horz 2=92(LC 13)  
Max Uplift 4=-55(LC 14), 2=-77(LC 10)  
Max Grav 4=363(LC 21), 2=403(LC 21)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
TOP CHORD 3-4=-264/155

**NOTES-** (10-13)

- 1) Wind: ASCE 7-16; Vult=120mph (3-second gust) Vasd=95mph; TCDL=5.0psf; BCDL=5.0psf; h=35ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) zone; cantilever left and right exposed; 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
- 2) TCDL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
- 3) Unbalanced snow loads have been considered for this design.
- 4) This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 20.0 psf on overhangs non-concurrent with other live loads.
- 5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 6) \* This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 1-0-0 wide will fit between the bottom chord and any other members.
- 7) Refer to girder(s) for truss to truss connections.
- 8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 4, 2.
- 9) This truss 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.
- 10) Graphical bracing representation does not depict the size, type or the orientation of the brace on the member. Symbol only indicates that the member must be braced.
- 11) Bearing symbols are only graphical representations of a possible bearing condition. Bearing symbols are not considered in the structural design of the truss to support the loads indicated.
- 12) Web bracing shown is for lateral support of individual web members only. Refer to BCSI - Guide to Good Practice for Handling, Installing, Restraining & Bracing of Metal Plate Connected Wood Trusses for additional bracing guidelines, including diagonal bracing.
- 13) SEE BCSI-B3 SUMMARY SHEET- PERMANENT RESTRAING/BRACING OF CHORDS & WEB MEMBERS FOR RECOMMENDED MINIMUM BRACING REQUIREMENTS OF TOP CHORD, BOTTOM CHORD, AND WEB PLANES. IN ADDITION TO THESE MINIMUM GUIDELINES, ALWAYS CONSULT THE PROJECT ARCHITECT OR ENGINEER FOR ADDITIONAL BRACING CONSIDERATIONS.



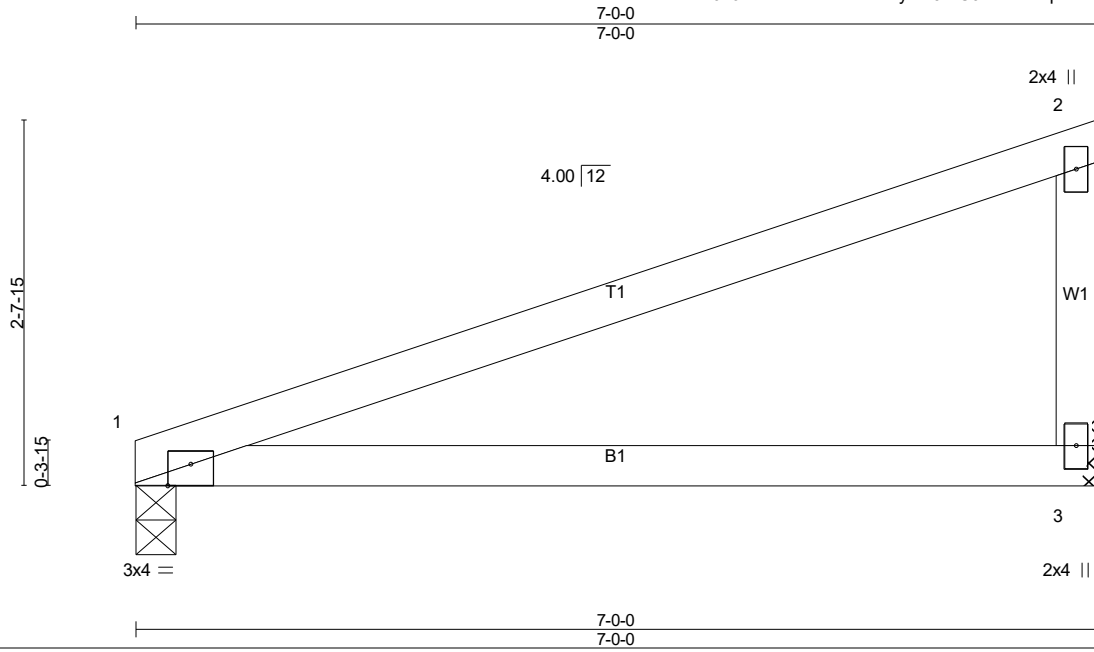
**LOAD CASE(S)** Standard

1/23/2025

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Job 25-0641-R01	Truss J02	Truss Type Monopitch	Qty 2	Ply 1	LOT 117 PROVIDENCE CREEK   FUQUAY-VARINA, NC	# 56258
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Scale = 1:16.8

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

<b>LOADING</b> (psf)	<b>SPACING-</b>	<b>CSI.</b>	<b>DEFL.</b>	<b>PLATES</b>	<b>GRIP</b>
TCLL (roof) 20.0	2-0-0	TC 0.92	in (loc) l/defl L/d	MT20	244/190
Snow (Pf) 20.0	Plate Grip DOL 1.15	BC 0.71	Vert(LL) -0.15 3-6 >532 240		
TCDL 10.0	Lumber DOL 1.15	WB 0.00	Vert(CT) -0.28 3-6 >299 180		
BCLL 0.0 *	Rep Stress Incr YES	Matrix-AS	Horz(CT) 0.00 1 n/a n/a		
BCDL 10.0	Code IRC2021/TPI2014			Weight: 25 lb	FT = 20%

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

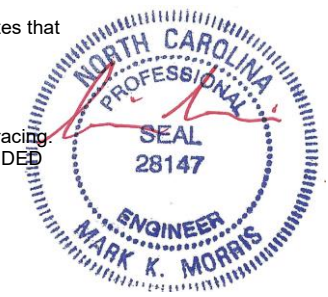
**BRACING-**  
TOP CHORD Structural wood sheathing directly applied, except end verticals.  
BOT CHORD Rigid ceiling directly applied.

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

**REACTIONS.** (lb/size) 1=274/0-3-8 (min. 0-1-8), 3=274/Mechanical  
Max Horz 1=86(LC 13)  
Max Uplift1=-43(LC 10), 3=-56(LC 14)  
Max Grav 1=347(LC 20), 3=366(LC 20)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
TOP CHORD 2-3=-266/157

- NOTES-** (9-12)
- 1) 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; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - 2) TCCL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
  - 3) Unbalanced snow loads have been considered for this design.
  - 4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - 5) \* This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 1-0-0 wide will fit between the bottom chord and any other members.
  - 6) Refer to girder(s) for truss to truss connections.
  - 7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 3.
  - 8) 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.
  - 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.



1/23/2025

**LOAD CASE(S)** Standard

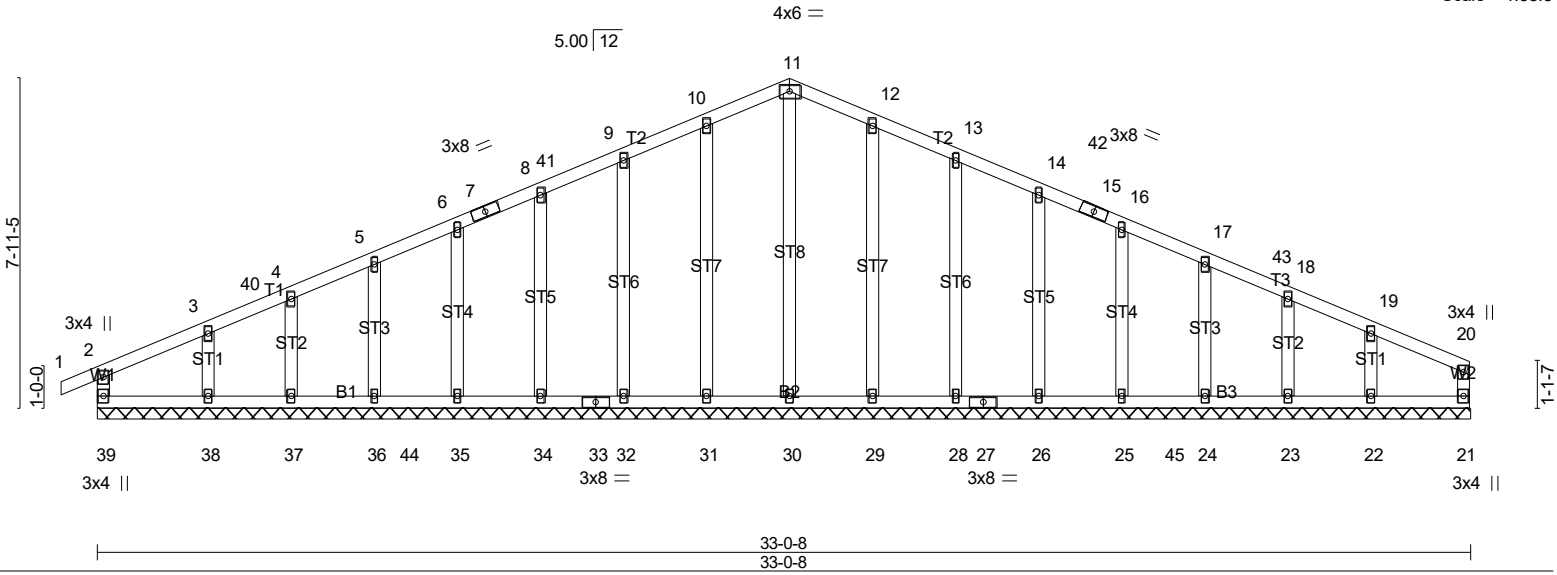
**Warning!**—Verify design parameters and read notes before use. This design is based only upon parameters shown, and is for an individual building component to be installed and loaded vertically. Applicability of design parameters and proper incorporation of component is responsibility of building designer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

Job	Truss	Truss Type	Qty	Ply	LOT 117 PROVIDENCE CREEK   FUQUAY-VARINA, NC
25-0641-R01	R01	GABLE	1	1	
Job Reference (optional)					# 56258

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-0-10-8 16-8-0 33-0-8  
 0-10-8 16-8-0 33-0-8 16-4-8

Scale = 1:55.5



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 0.09	Vert(LL) -0.00 1 n/r 180		
TCDL 10.0	Lumber DOL 1.15	WB 0.17	Vert(CT) -0.00 1 n/r 80		
BCLL 0.0 *	Rep Stress Incr YES	Matrix-R	Horz(CT) 0.00 21 n/a n/a		
BCDL 10.0	Code IRC2021/TPI2014			Weight: 201 lb	FT = 20%

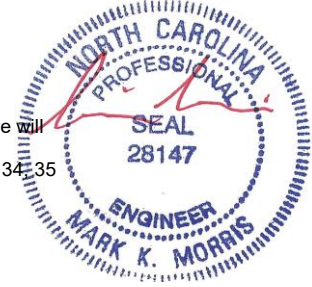
**LUMBER-**  
 TOP CHORD 2x4 SP No.2  
 BOT CHORD 2x4 SP No.3  
 WEBS 2x4 SP No.3  
 OTHERS 2x4 SP No.3

**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 33-0-8.  
 (lb) - Max Horz 39=94(LC 18)  
 Max Uplift All uplift 100 lb or less at joint(s) 39, 21, 31, 32, 34, 35, 36, 37, 38, 29, 28, 26, 25, 24, 23, 22  
 Max Grav All reactions 250 lb or less at joint(s) 39, 21, 34, 35, 36, 37, 38, 26, 25, 24, 23, 22 except 30=254(LC 27), 31=285(LC 5), 32=275(LC 5), 29=285(LC 6), 28=276(LC 6)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 9-10=-94/253, 10-11=-109/285, 11-12=-109/285, 12-13=-94/253

- NOTES-** (14-17)
- 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 Corner(3E) -0-10-8 to 3-11-2, Exterior(2N) 3-11-2 to 11-10-6, Corner(3R) 11-10-6 to 21-5-10, Exterior(2N) 21-5-10 to 28-1-2, Corner(3E) 28-1-2 to 32-10-12 zone; cantilever left and right exposed; 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) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
  - 4) 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
  - 5) Unbalanced snow loads have been considered for this design.
  - 6) This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 20.0 psf on overhangs non-concurrent with other live loads.
  - 7) All plates are 2x4 MT20 unless otherwise indicated.
  - 8) Gable requires continuous bottom chord bearing.
  - 9) Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
  - 10) Gable studs spaced at 2-0-0 oc.
  - 11) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - 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) 39, 21, 31, 32, 34, 35, 36, 37, 38, 29, 28, 26, 25, 24, 23, 22.



Continued on page 2

1/23/2025

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Job	Truss	Truss Type	Qty	Ply	LOT 117 PROVIDENCE CREEK   FUQUAY-VARINA, NC
25-0641-R01	R01	GABLE	1	1	Job Reference (optional) # 56258

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

**LOAD CASE(S)** Standard



1/23/2025

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Job 25-0641-R01	Truss R02	Truss Type Common	Qty 2	Ply 1	LOT 117 PROVIDENCE CREEK   FUQUAY-VARINA, NC	# 56258
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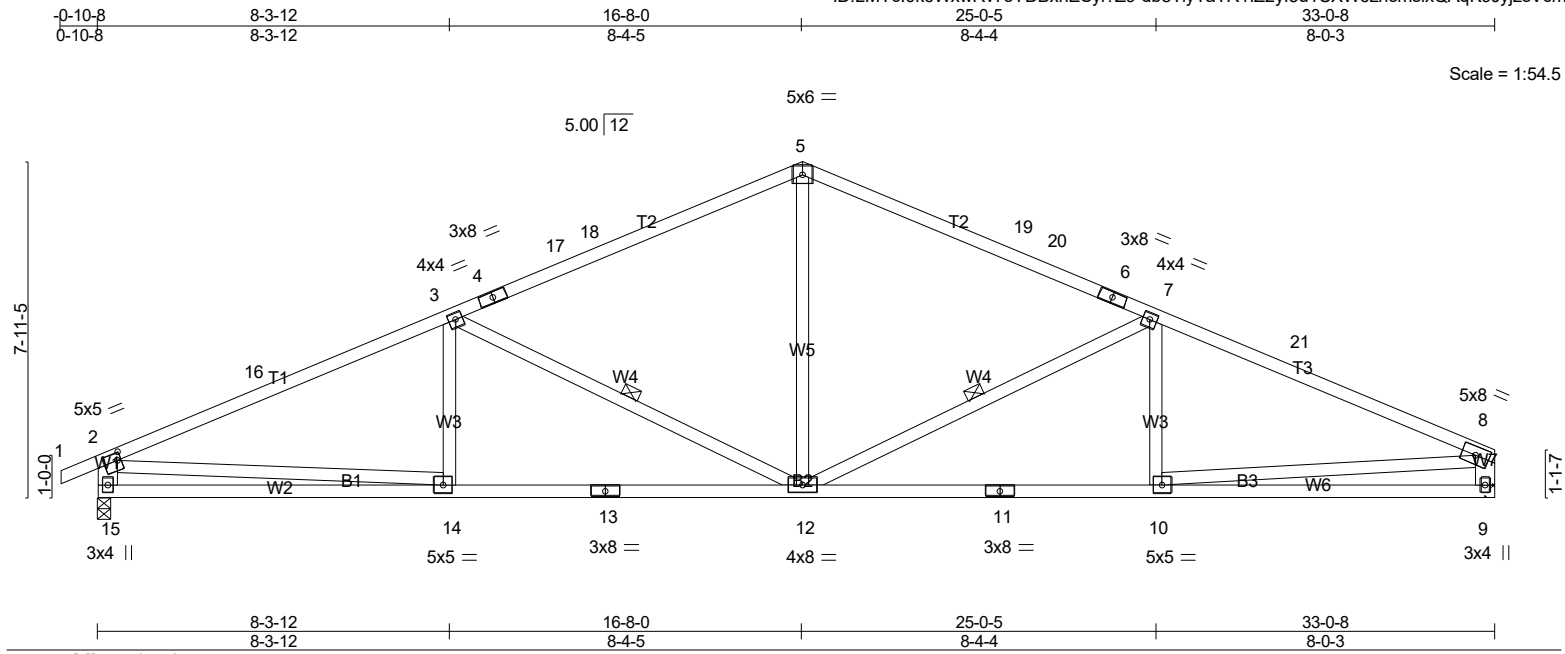


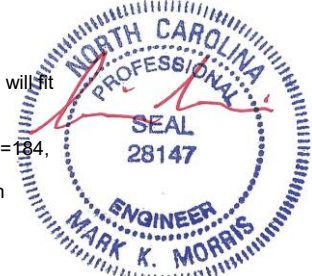
Plate Offsets (X,Y)-- [2:0-1-0,0-2-4]	
<b>LOADING</b> (psf)	<b>SPACING</b>
TCLL (roof) 20.0	2-0-0
Snow (Pf) 20.0	Plate Grip DOL 1.15
TCDL 10.0	Lumber DOL 1.15
BCLL 0.0 *	Rep Stress Incr YES
BCDL 10.0	Code IRC2021/TPI2014
<b>CSI</b>	<b>DEFL.</b>
TC 0.89	in (loc) l/defl L/d
BC 0.76	Vert(LL) -0.11 10-12 >999 240
WB 0.68	Vert(CT) -0.28 10-12 >999 180
Matrix-AS	Horz(CT) 0.07 9 n/a n/a
	<b>PLATES</b> MT20
	<b>GRIP</b> 244/190
	Weight: 179 lb FT = 20%

<b>LUMBER-</b>	<b>BRACING-</b>
TOP CHORD 2x4 SP No.1 *Except*	TOP CHORD Structural wood sheathing directly applied, except end verticals.
T1,T3: 2x4 SP No.2	BOT CHORD Rigid ceiling directly applied.
BOT CHORD 2x4 SP No.2	WEBS 1 Row at midpt 7-12, 3-12
WEBS 2x4 SP No.3 *Except*	
W1,W7: 2x6 SP No.2	

**REACTIONS.** (lb/size) 15=1371/0-3-8 (min. 0-1-10), 9=1302/Mechanical  
Max Horz 15=93(LC 18)  
Max Uplift 15=-184(LC 14), 9=-160(LC 15)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
TOP CHORD 2-16=-2259/330, 3-16=-2165/347, 3-4=-1656/307, 4-17=-1593/314, 17-18=-1574/317,  
5-18=-1556/335, 5-19=-1556/336, 19-20=-1575/317, 6-20=-1593/314, 6-7=-1657/307,  
7-21=-2044/349, 8-21=-2206/333, 2-15=-1288/275, 8-9=-1222/226  
BOT CHORD 14-15=-207/535, 13-14=-274/1998, 12-13=-274/1998, 11-12=-229/1958, 10-11=-229/1958,  
9-10=-72/360  
WEBS 5-12=-34/737, 7-12=-682/211, 3-12=-726/216, 2-14=-165/1521, 8-10=-186/1638

- NOTES-** (11-14)
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-16; Vult=120mph (3-second gust) Vasd=95mph; TCCL=5.0psf; BCCL=5.0psf; h=35ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) 0-10-8 to 3-11-2, Interior(1) 3-11-2 to 11-10-6, Exterior(2R) 11-10-6 to 21-5-10, Interior(1) 21-5-10 to 28-0-2, Exterior(2E) 28-0-2 to 32-9-12 zone; cantilever left and right exposed; 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.
  - 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) 15=184, 9=160.
  - 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.



Continued on page 2 1/23/2025

**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 117 PROVIDENCE CREEK   FUQUAY-VARINA, NC
25-0641-R01	R02	Common	2	1	Job Reference (optional) # 56258

Run: 8.430 s Feb 12 2021 Print: 8.630 s Jul 12 2024 MiTek Industries, Inc. Thu Jan 23 11:16:13 2025 Page 2  
 ID: LMYcl0k6WxwRv7sYDBxhESyl?Z9-db8TiyTaTR1IZ2yl5u1CXW6zhmslxQAqK9JyjsVcm

- 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



1/23/2025

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Scale = 1:57.3

5-11-12	11-8-0	16-8-0	21-8-0	27-4-4	33-0-8
5-11-12	5-8-4	5-0-0	5-0-0	5-8-4	5-8-4

Plate Offsets (X,Y)-- [2:0-2-4,0-1-12], [11:Edge,0-1-8], [13:0-4-0,Edge], [18:0-4-0,Edge]

<b>LOADING</b> (psf)	<b>SPACING-</b>	<b>CSI.</b>	<b>DEFL.</b>		<b>PLATES</b>	<b>GRIP</b>
TCLL (roof) 20.0	Plate Grip DOL 1.15	TC 0.71	in (loc) l/defl L/d		MT20	244/190
Snow (Pf) 20.0	Lumber DOL 1.15	BC 0.99	Vert(LL) -0.51 16 >764 240			
TCDL 10.0	Rep Stress Incr YES	WB 0.78	Vert(CT) -0.87 16 >451 180			
BCLL 0.0 *	Code IRC2021/TPI2014	Matrix-AS	Horz(CT) 0.06 11 n/a n/a			
BCDL 10.0					Weight: 205 lb	FT = 20%

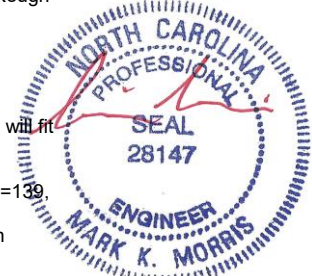
<b>LUMBER-</b> TOP CHORD 2x4 SP No.2 BOT CHORD 2x4 SP SS *Except* B3: 2x4 SP No.2 WEBS 2x4 SP No.3	<b>BRACING-</b> TOP CHORD Structural wood sheathing directly applied, except end verticals. BOT CHORD Rigid ceiling directly applied. Except: 5-8-0 oc bracing: 15-17
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MiTek recommends that Stabilizers and required cross bracing be installed during truss erection, in accordance with Stabilizer Installation guide.

**REACTIONS.** (lb/size) 20=1461/0-3-8 (min. 0-1-12), 11=1399/Mechanical  
 Max Horz 20=94(LC 14)  
 Max Uplift 20=-139(LC 14), 11=-116(LC 15)  
 Max Grav 20=1461(LC 1), 11=1408(LC 3)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-21=-2445/243, 3-21=-2372/254, 3-4=-2395/231, 4-22=-2331/249, 5-22=-2297/251,  
 5-6=-2399/328, 6-7=-2373/329, 7-23=-2275/252, 8-23=-2308/250, 8-9=-2373/233,  
 9-24=-2258/259, 10-24=-2354/248, 2-20=-1381/222, 10-11=-1323/176  
 BOT CHORD 19-20=-148/392, 18-19=-219/2200, 18-25=-23/1646, 14-25=-23/1646, 14-26=-23/1646,  
 26-27=-23/1646, 13-27=-23/1646, 12-13=-162/2124, 11-12=-41/269  
 WEBS 5-18=-441/169, 17-18=-168/937, 6-17=-126/1039, 6-15=-123/1000, 13-15=-164/899,  
 7-13=-439/169, 9-12=-297/65, 2-19=-131/1835, 10-12=-140/1879

- NOTES-** (11-14)
- 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; BCCL=5.0psf; h=35ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -0-10-8 to 3-11-2, Interior(1) 3-11-2 to 11-8-0, Exterior(2R) 11-8-0 to 3-11-2, Interior(1) 21-8-0 to 28-1-2, Exterior(2E) 28-1-2 to 32-10-12 zone; cantilever left and right exposed; 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) This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 20.0 psf on overhangs non-concurrent with other live loads.
  - 6) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - 7) \* This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 1-0-0 wide will fit between the bottom chord and any other members, with BCCL = 10.0psf.
  - 8) Refer to girder(s) for truss to truss connections.
  - 9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 20=139, 11=116.
  - 10) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.



Continued on page 2

1/23/2025

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Job	Truss	Truss Type	Qty	Ply	LOT 117 PROVIDENCE CREEK   FUQUAY-VARINA, NC
25-0641-R01	R03	Common	7	1	Job Reference (optional) # 56258

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

**LOAD CASE(S)** Standard



1/23/2025

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Job	Truss	Truss Type	Qty	Ply	LOT 117 PROVIDENCE CREEK   FUQUAYA-VARINA, NC
25-0641-R01	R04	Common	8	1	Job Reference (optional) # 56258

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0-10-8	8-3-12	16-8-0	25-0-5	33-4-0	34-2-8
0-10-8	8-3-12	8-4-5	8-4-4	8-3-11	0-10-8

Scale = 1:55.2

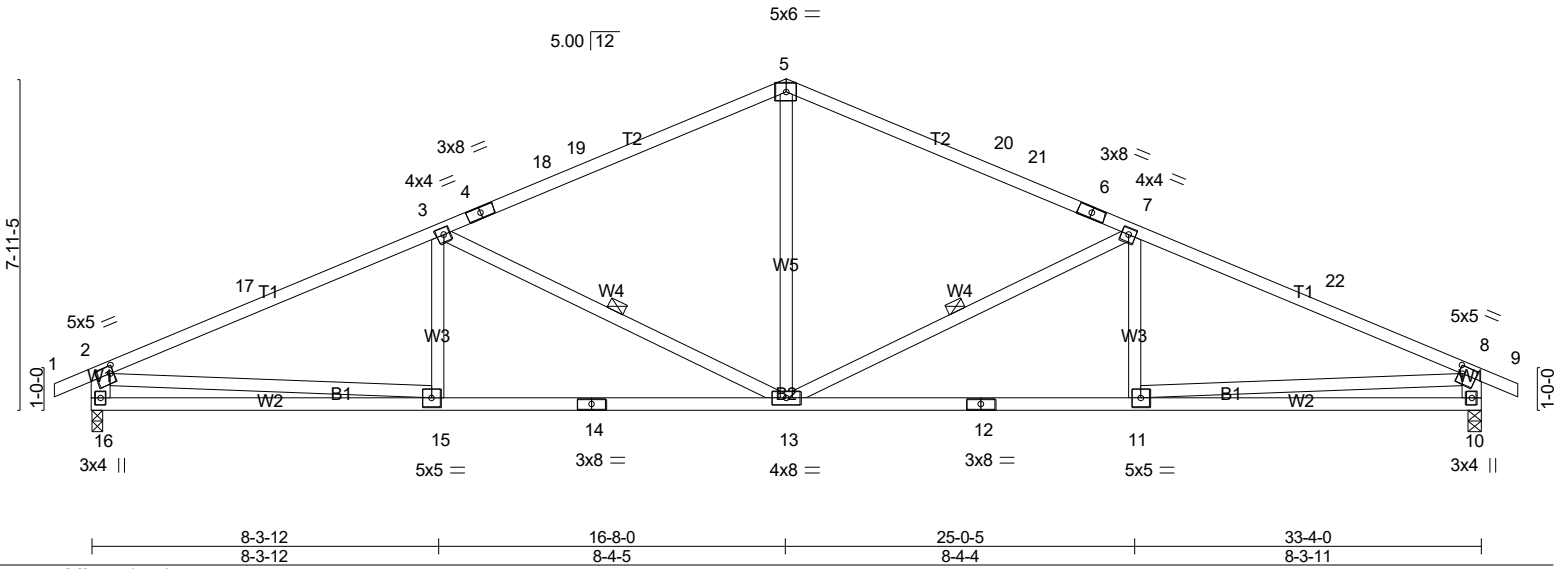


Plate Offsets (X,Y)-- [2:0-1-0,0-2-4], [8:0-1-0,0-2-4]

LOADING (psf)	SPACING	CSI	DEFL.	PLATES	GRIP
TCLL (roof) 20.0	2-0-0	TC 0.89	in (loc) l/defl L/d	MT20	244/190
Snow (Pf) 20.0	Plate Grip DOL 1.15	BC 0.76	Vert(LL) -0.11 13-15 >999 240		
BCDL 10.0	Lumber DOL 1.15	WB 0.64	Vert(CT) -0.29 13-15 >999 180		
TCDL 10.0	Rep Stress Incr YES	Matrix-AS	Horz(CT) 0.07 10 n/a n/a		
BCLL 0.0 *	Code IRC2021/TPI2014				
BCDL 10.0					

Weight: 181 lb FT = 20%

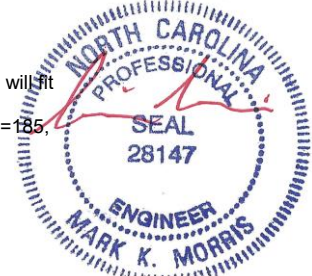
LUMBER-	BRACING-
TOP CHORD 2x4 SP No.1 *Except*	TOP CHORD Structural wood sheathing directly applied, except end verticals.
T1: 2x4 SP No.2	BOT CHORD BOT CHORD directly applied.
BOT CHORD 2x4 SP No.2	WEBS 1 Row at midpt 7-13, 3-13
WEBS 2x4 SP No.3 *Except*	
W1: 2x6 SP No.2	

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

**REACTIONS.** (lb/size) 16=1381/0-3-8 (min. 0-1-10), 10=1381/0-3-8 (min. 0-1-10)  
 Max Horz 16=-86(LC 15)  
 Max Uplift 16=-185(LC 14), 10=-185(LC 15)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-17=-2281/330, 3-17=-2187/347, 3-4=-1681/307, 4-18=-1617/314, 18-19=-1599/317,  
 5-19=-1581/336, 5-20=-1581/336, 20-21=-1599/317, 6-21=-1617/314, 6-7=-1681/307,  
 7-22=-2187/350, 8-22=-2281/332, 2-16=-1298/275, 8-10=-1298/274  
 BOT CHORD 15-16=-201/537, 14-15=-268/2018, 13-14=-268/2018, 12-13=-204/2018, 11-12=-204/2018,  
 10-11=-120/537  
 WEBS 5-13=-33/751, 7-13=-723/215, 3-13=-723/215, 2-15=-163/1536, 8-11=-146/1536

- NOTES-** (10-13)
- 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 and C-C Exterior(2E) 0-10-8 to 3-11-2, Interior(1) 3-11-2 to 11-10-6, Exterior(2R) 11-10-6 to 21-5-10, Interior(1) 21-5-10 to 29-4-14, Exterior(2E) 29-4-14 to 34-2-8 zone; cantilever left and right exposed ; 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) except (jt=lb) 16=185, 10=185.
  - 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.



Continued on page 2

1/23/2025

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Job	Truss	Truss Type	Qty	Ply	LOT 117 PROVIDENCE CREEK   FUQUAY-VARINA, NC
25-0641-R01	R04	Common	8	1	Job Reference (optional) # 56258

Run: 8.430 s Feb 12 2021 Print: 8.630 s Jul 12 2024 MiTek Industries, Inc. Thu Jan 23 11:16:14 2025 Page 2  
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- 10) Graphical bracing representation does not depict the size, type or the orientation of the brace on the member. Symbol only indicates that the member must be braced.
- 11) Bearing symbols are only graphical representations of a possible bearing condition. Bearing symbols are not considered in the structural design of the truss to support the loads indicated.
- 12) Web bracing shown is for lateral support of individual web members only. Refer to BCSI - Guide to Good Practice for Handling, Installing, Restraining & Bracing of Metal Plate Connected Wood Trusses for additional bracing guidelines, including diagonal bracing.
- 13) SEE BCSI-B3 SUMMARY SHEET- PERMANENT RESTRAING/BRACING OF CHORDS & WEB MEMBERS FOR RECOMMENDED MINIMUM BRACING REQUIREMENTS OF TOP CHORD, BOTTOM CHORD, AND WEB PLANES. IN ADDITION TO THESE MINIMUM GUIDELINES, ALWAYS CONSULT THE PROJECT ARCHITECT OR ENGINEER FOR ADDITIONAL BRACING CONSIDERATIONS.

**LOAD CASE(S)** Standard

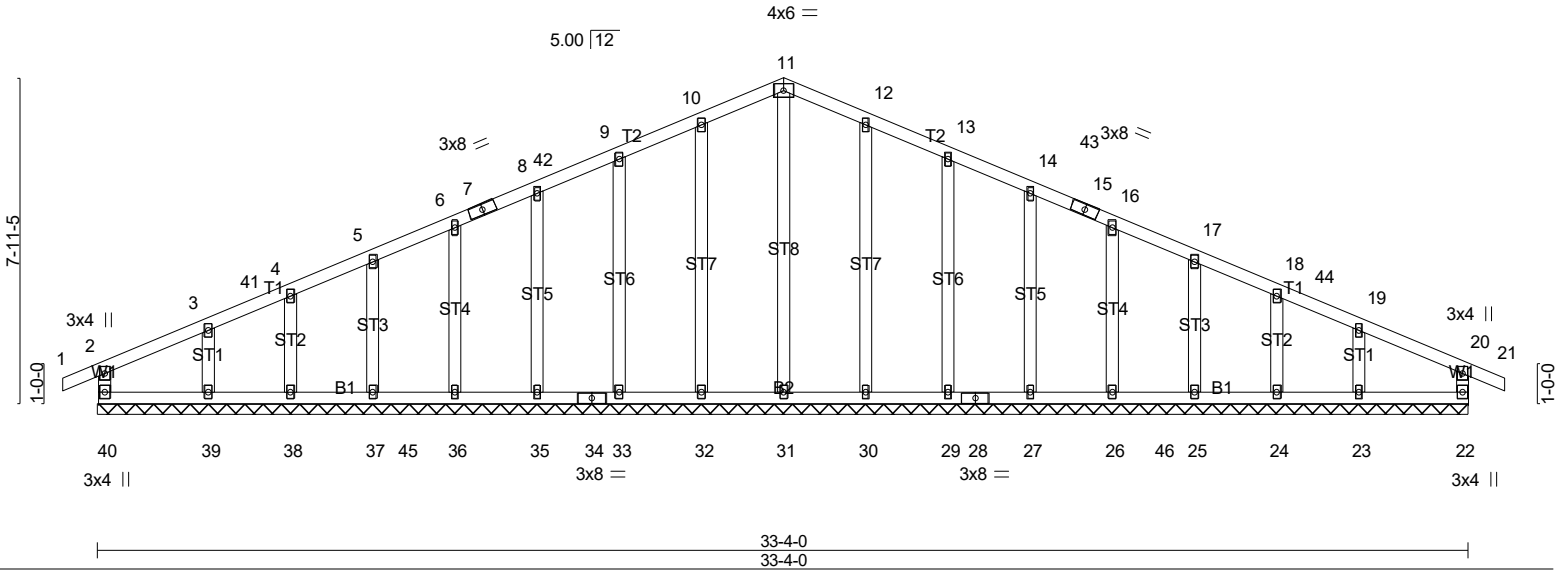


1/23/2025

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-0-10-8 0-10-8	16-8-0 16-8-0	33-4-0 16-8-0	34-2-8 0-10-8
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Scale = 1:56.1



<b>LOADING (psf)</b>	TCLL (roof) 20.0 Snow (PF) 20.0 TCDL 10.0 BCLL 0.0 * BCDL 10.0	<b>SPACING-</b>	2-0-0 Plate Grip DOL 1.15 Lumber DOL 1.15 Rep Stress Incr YES Code IRC2021/TPI2014	<b>CSI.</b>	TC 0.12 BC 0.09 WB 0.17 Matrix-R	<b>DEFL.</b>	in (loc) l/defl L/d Vert(LL) -0.00 20 n/r 180 Vert(CT) -0.00 21 n/r 80 Horz(CT) 0.00 22 n/a n/a	<b>PLATES</b>	<b>GRIP</b>
								MT20	244/190
								Weight: 203 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 33-4-0.  
 (lb) - Max Horz 40=-87(LC 15)  
 Max Uplift All uplift 100 lb or less at joint(s) 40, 22, 32, 33, 35, 36, 37, 38, 39, 30, 29, 27, 26, 25, 24, 23  
 Max Grav All reactions 250 lb or less at joint(s) 40, 22, 35, 36, 37, 38, 39, 27, 26, 25, 24, 23 except  
 31=254(LC 27), 32=285(LC 5), 33=275(LC 5), 30=285(LC 6), 29=275(LC 6)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 9-10=-96/251, 10-11=-110/283, 11-12=-110/283, 12-13=-96/251

- NOTES-** (14-17)
- 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; MWFRS (envelope) gable end zone and C-C Corner(3E) -0-10-8 to 3-11-2, Exterior(2N) 3-11-2 to 11-10-6, Corner(3R) 11-10-6 to 21-5-10, Exterior(2N) 21-5-10 to 29-4-14, Corner(3E) 29-4-14 to 34-2-8 zone; cantilever left and right exposed; 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) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
  - 4) 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
  - 5) Unbalanced snow loads have been considered for this design.
  - 6) This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 20.0 psf on overhangs non-concurrent with other live loads.
  - 7) All plates are 2x4 MT20 unless otherwise indicated.
  - 8) Gable requires continuous bottom chord bearing.
  - 9) Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
  - 10) Gable studs spaced at 2-0-0 oc.
  - 11) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - 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) 40, 22, 32, 33, 35, 36, 37, 38, 39, 30, 29, 27, 26, 25, 24, 23.



Continued on page 2

1/23/2025

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Job	Truss	Truss Type	Qty	Ply	LOT 117 PROVIDENCE CREEK   FUQUAY-VARINA, NC
25-0641-R01	R05	Common Supported Gable	1	1	Job Reference (optional) # 56258

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 ID:LMYcl0k6WxwRv7sYDBxhESyl?Z9-5nirvIUCDI99BCXUebZR4jeKYGUWYJ3\_vtU9zsVcl

- 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

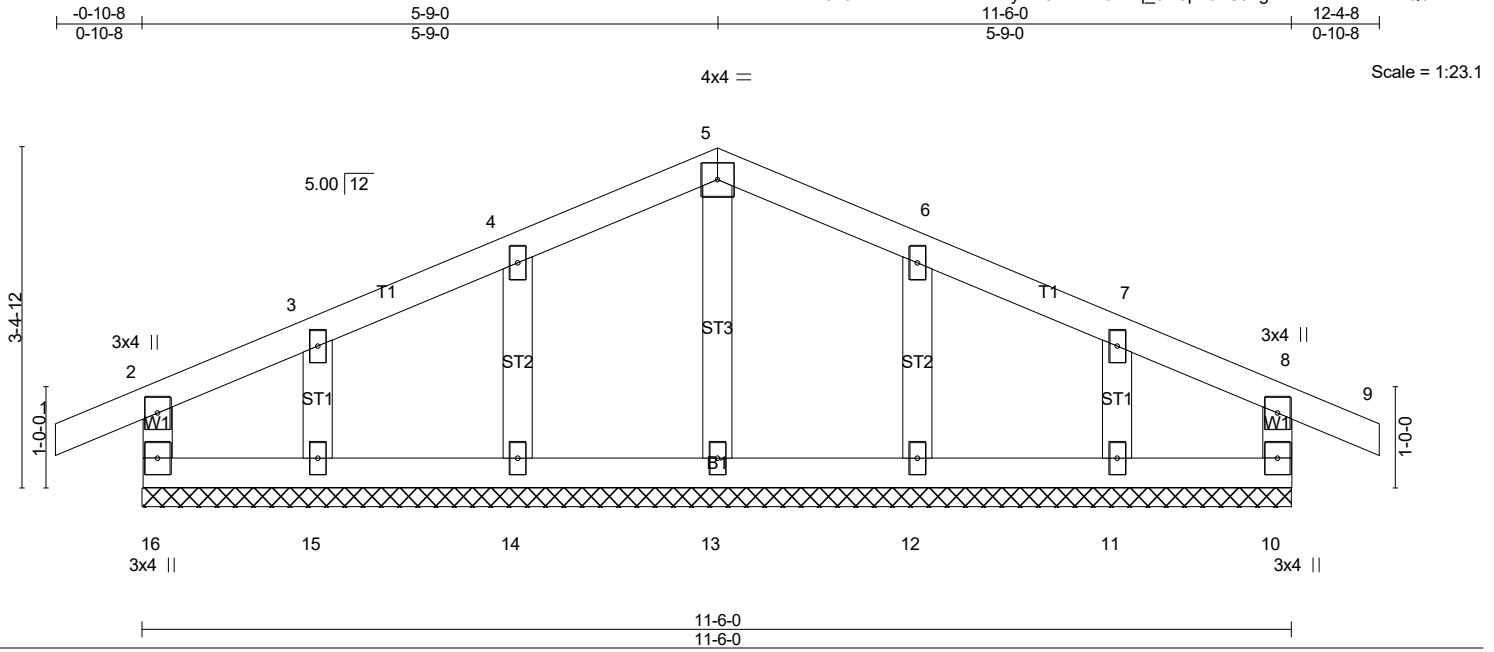


1/23/2025

**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 25-0641-R01	Truss R06	Truss Type Common Supported Gable	Qty 1	Ply 1	LOT 117 PROVIDENCE CREEK   FUQUAY-VARINA, NC	Job Reference (optional) <b># 56258</b>
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Run: 8.430 s Feb 12 2021 Print: 8.630 s Jul 12 2024 MiTek Industries, Inc. Thu Jan 23 11:16:15 2025 Page 1  
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LOADING (psf)		SPACING-		CSI.		DEFL.				PLATES	GRIP	
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.12	Vert(LL)	-0.00	9	n/r	180	MT20	244/190
Snow (PF)	20.0	Lumber DOL	1.15	BC	0.05	Vert(CT)	-0.00	9	n/r	80		
TCDL	10.0	Rep Stress Incr	YES	WB	0.04	Horz(CT)	0.00	10	n/a	n/a		
BCLL	0.0 *	Code IRC2021/TPI2014		Matrix-R							Weight: 54 lb	FT = 20%
BCDL	10.0											

LUMBER-		BRACING-	
TOP CHORD	2x4 SP No.2	TOP CHORD	Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.
BOT CHORD	2x4 SP No.3	BOT CHORD	Rigid ceiling directly applied or 6-0-0 oc bracing.
WEBS	2x4 SP No.3		
OTHERS	2x4 SP No.3		

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

**REACTIONS.** All bearings 11-6-0.  
(lb) - Max Horz 16=19(LC 18)  
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; BCCL=5.0psf; h=35ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Corner(3E) -0-10-8 to 3-9-0, Corner(3R) 3-9-0 to 7-9-0, Corner(3E) 7-9-0 to 12-4-8 zone; cantilever left and right exposed; 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.



Job	Truss	Truss Type	Qty	Ply	LOT 117 PROVIDENCE CREEK   FUQUAY-VARINA, NC
25-0641-R01	R06	Common Supported Gable	1	1	Job Reference (optional) # 56258

Run: 8.430 s Feb 12 2021 Print: 8.630 s Jul 12 2024 MiTek Industries, Inc. Thu Jan 23 11:16:15 2025 Page 2  
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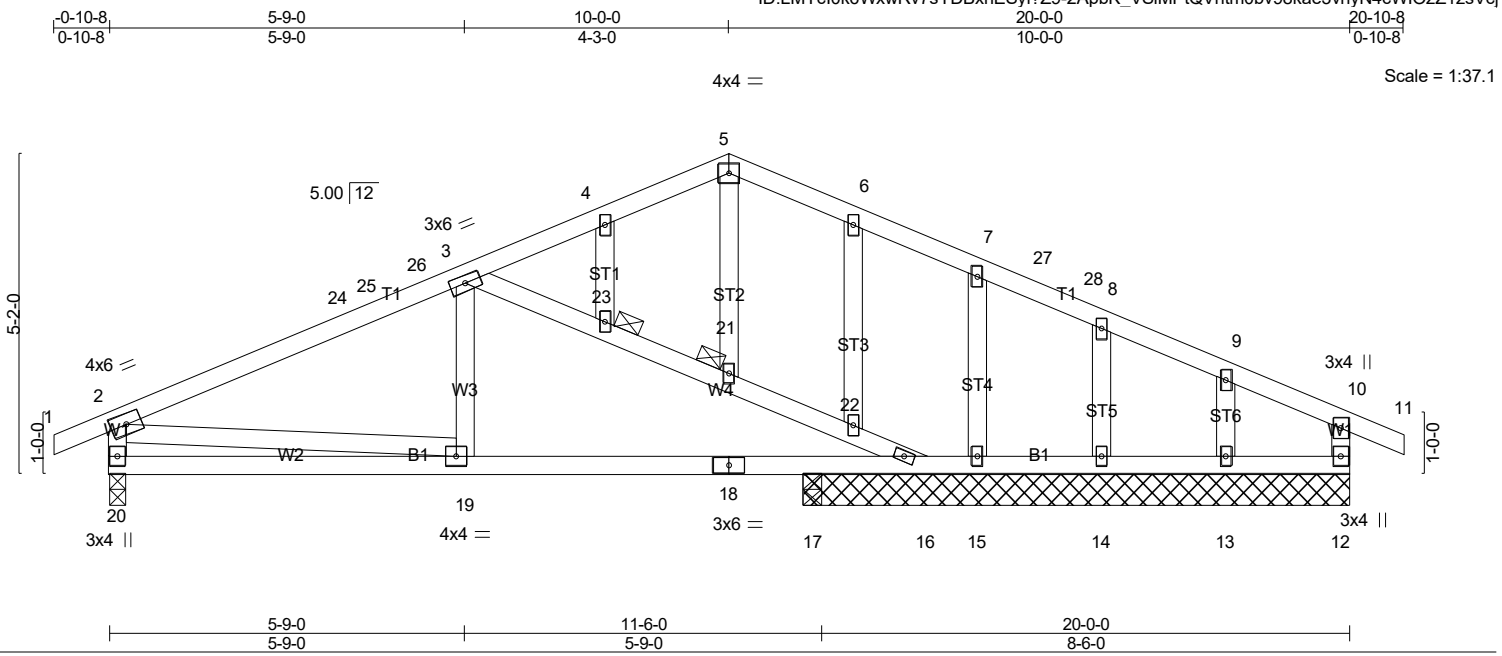
- 14) Graphical bracing representation does not depict the size, type or the orientation of the brace on the member. Symbol only indicates that the member must be braced.
- 15) Bearing symbols are only graphical representations of a possible bearing condition. Bearing symbols are not considered in the structural design of the truss to support the loads indicated.
- 16) Web bracing shown is for lateral support of individual web members only. Refer to BCSI - Guide to Good Practice for Handling, Installing, Restraining & Bracing of Metal Plate Connected Wood Trusses for additional bracing guidelines, including diagonal bracing.
- 17) SEE BCSI-B3 SUMMARY SHEET- PERMANENT RESTRAING/BRACING OF CHORDS & WEB MEMBERS FOR RECOMMENDED MINIMUM BRACING REQUIREMENTS OF TOP CHORD, BOTTOM CHORD, AND WEB PLANES. IN ADDITION TO THESE MINIMUM GUIDELINES, ALWAYS CONSULT THE PROJECT ARCHITECT OR ENGINEER FOR ADDITIONAL BRACING CONSIDERATIONS.

**LOAD CASE(S)** Standard



1/23/2025

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<b>LOADING (psf)</b>	TCLL (roof) 20.0 Snow (PF) 20.0 TCDL 10.0 BCLL 0.0 * BCDL 10.0	<b>SPACING-</b>	2-0-0 Plate Grip DOL 1.15 Lumber DOL 1.15 Rep Stress Incr YES Code IRC2021/TPI2014	<b>CSI.</b>	TC 0.46 BC 0.30 WB 0.36 Matrix-AS	<b>DEFL.</b>	in (loc) l/defl L/d Vert(LL) -0.02 19-20 >999 240 Vert(CT) -0.05 19-20 >999 180 Horz(CT) 0.01 12 n/a n/a	<b>PLATES GRIP</b>	MT20 244/190  Weight: 112 lb FT = 20%
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**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, except end verticals.  
 BOT CHORD Rigid ceiling directly applied.  
 JOINTS 1 Brace at Jt(s): 21, 23

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

**REACTIONS.** All bearings 8-9-8 except (jt=length) 20=0-3-8, 17=0-3-8.  
 (lb) - Max Horz 20=46(LC 14)  
 Max Uplift All uplift 100 lb or less at joint(s) 16, 15, 14, 13, 12 except 20=-112(LC 14)  
 Max Grav All reactions 250 lb or less at joint(s) 16, 14, 13, 17 except 20=703(LC 21), 15=322(LC 22), 12=359(LC 22)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-24=-935/192, 24-25=-848/196, 25-26=-810/201, 3-26=-790/203, 3-4=-348/146,  
 4-5=-282/162, 5-6=-280/164, 6-7=-314/139, 7-27=-251/96, 27-28=-258/92, 8-28=-273/89,  
 8-9=-276/68, 9-10=-307/37, 2-20=-644/205, 10-12=-284/89  
 BOT CHORD 18-19=-114/803, 17-18=-114/803, 16-17=-114/803  
 WEBS 3-23=-590/126, 21-23=-611/134, 21-22=-595/124, 16-22=-608/137, 7-15=-276/96,  
 2-19=-67/574

- NOTES-** (11-14)
- 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; BCCL=5.0psf; h=35ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -0-10-8 to 3-11-2, Interior(1) 3-11-2 to 5-2-6, Exterior(2R) 5-2-6 to 14-9-10, Interior(1) 14-9-10 to 16-0-0, Exterior(2E) 16-0-0 to 20-10-8 zone; cantilever left and right exposed ; 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) This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 20.0 psf on overhangs non-concurrent with other live loads.
  - 6) All plates are 2x4 MT20 unless otherwise indicated.
  - 7) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - 8) \* This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 1-0-0 wide will fit between the bottom chord and any other members.
  - 9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 16, 15, 14, 13, 12 except (jt=lb) 20=112.
  - 10) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.



Continued on page 2

1/23/2025

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Job	Truss	Truss Type	Qty	Ply	LOT 117 PROVIDENCE CREEK   FUQUAY-VARINA, NC
25-0641-R01	R07	DUAL RIDGE GABLE	1	1	Job Reference (optional) # 56258

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

**LOAD CASE(S)** Standard

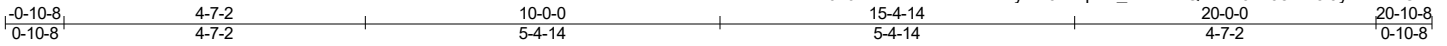


1/23/2025

**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 25-0641-R01	Truss R08	Truss Type Common	Qty 3	Ply 1	LOT 117 PROVIDENCE CREEK   FUQUAY-VARINA, NC	# 56258
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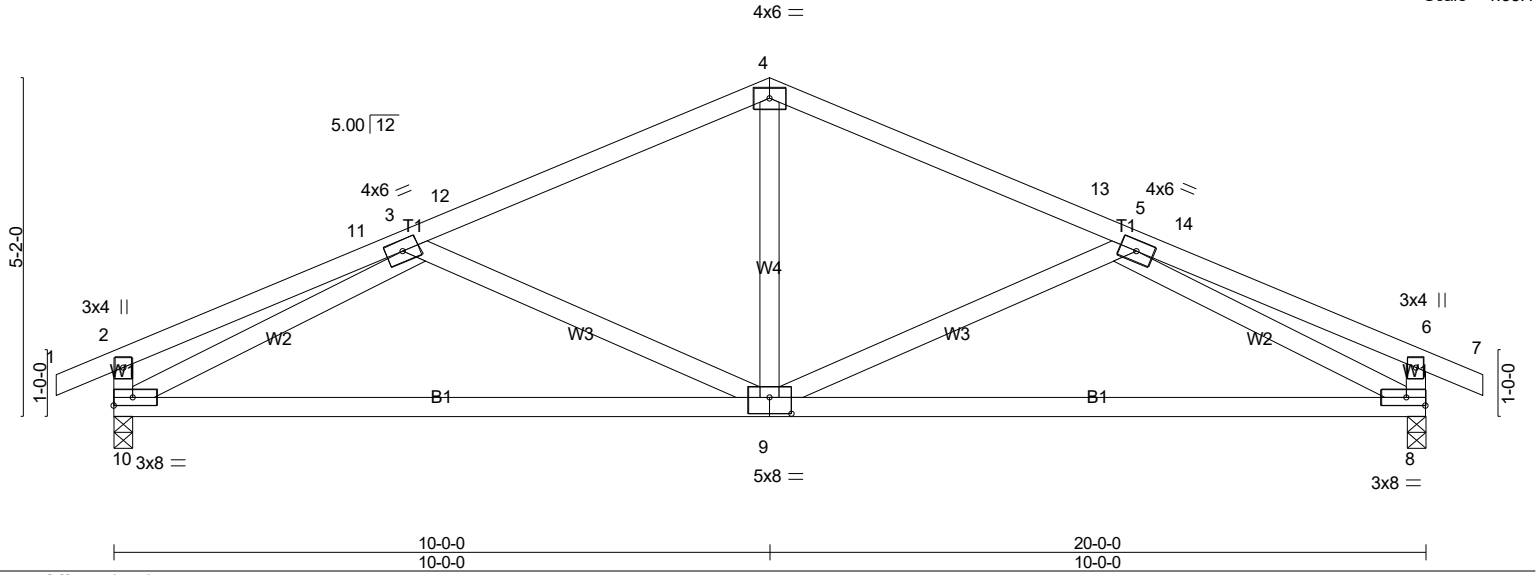


Plate Offsets (X,Y)-- [9:0-4-0,0-3-0]

LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof) 20.0	Plate Grip DOL 1.15	TC 0.70	Vert(LL) -0.17	8-9	>999	240	MT20	244/190
Snow (Pf) 20.0	Lumber DOL 1.15	BC 0.91	Vert(CT) -0.34	9-10	>695	180		
TCDL 10.0	Rep Stress Incr YES	WB 0.54	Horz(CT) 0.03	8	n/a	n/a		
BCLL 0.0 *	Code IRC2021/TPI2014	Matrix-AS						
BCDL 10.0								

Weight: 106 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, except end verticals.  
BOT CHORD Rigid ceiling directly applied.

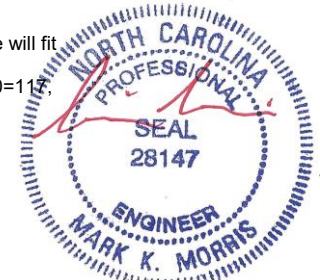
MiTek recommends that Stabilizers and required cross bracing be installed during truss erection, in accordance with Stabilizer Installation guide.

**REACTIONS.** (lb/size) 10=850/0-3-8 (min. 0-1-8), 8=850/0-3-8 (min. 0-1-8)  
Max Horz 10=46(LC 14)  
Max Uplift 10=-117(LC 14), 8=-117(LC 15)  
Max Grav 10=888(LC 21), 8=888(LC 22)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
TOP CHORD 2-11=-372/10, 3-11=-341/13, 3-12=-1008/230, 4-12=-926/249, 4-13=-926/249,  
5-13=-1008/230, 5-14=-341/34, 6-14=-372/32, 2-10=-295/101, 6-8=-295/109  
BOT CHORD 9-10=-199/1123, 8-9=-202/1123  
WEBS 4-9=-22/454, 5-9=-313/169, 3-9=-313/169, 3-10=-1044/321, 5-8=-1044/302

**NOTES-** (10-13)

- 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 and C-C Exterior(2E) -0-10-8 to 3-11-2, Interior(1) 3-11-2 to 5-2-6, Exterior(2R) 5-2-6 to 14-9-10, Interior(1) 14-9-10 to 16-0-14, Exterior(2E) 16-0-14 to 20-10-8 zone; cantilever left and right exposed; 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) except (jt=lb) 10=117, 8=117.
- 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.



Continued on page 2

1/23/2025

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Job	Truss	Truss Type	Qty	Ply	LOT 117 PROVIDENCE CREEK   FUQUAY-VARINA, NC
25-0641-R01	R08	Common	3	1	Job Reference (optional) # 56258

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

**LOAD CASE(S)** Standard



1/23/2025

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Job 25-0641-R01	Truss R09	Truss Type Common Girder	Qty 1	Ply 3	LOT 117 PROVIDENCE CREEK   FUQUAY-VARINA, NC	Job Reference (optional) # 56258
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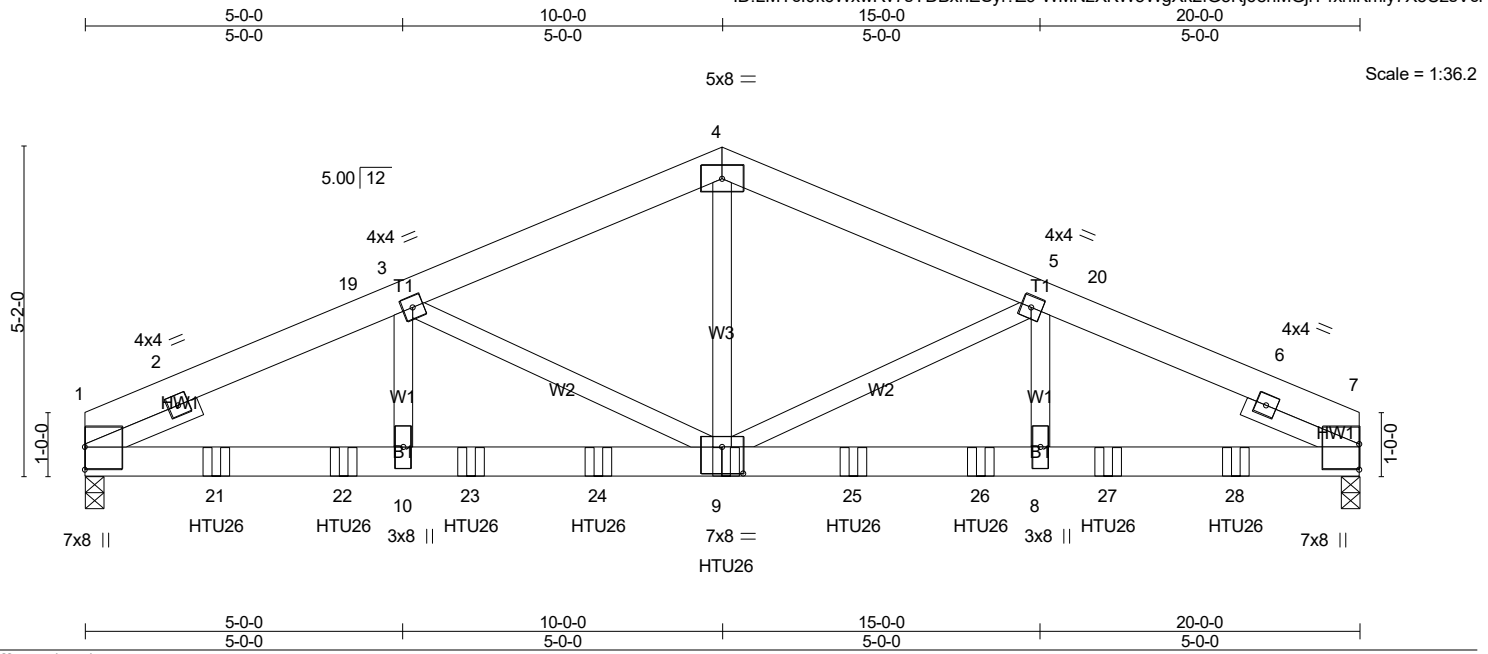


Plate Offsets (X,Y)-- [9:0-4-0,0-5-0]

LOADING (psf)	SPACING-	CSI.	DEFL.	PLATES	GRIP
TCLL (roof) 20.0	2-0-0	TC 0.63	in (loc) l/defl L/d	MT20	244/190
Snow (Pf) 20.0	Plate Grip DOL 1.15	BC 1.00	Vert(LL) -0.11 9-10 >999 240		
TCDL 10.0	Lumber DOL 1.15	WB 0.88	Vert(CT) -0.24 9-10 >999 180		
BCLL 0.0 *	Rep Stress Incr NO	Matrix-MSH	Horz(CT) 0.07 7 n/a n/a		
BCDL 10.0	Code IRC2021/TPI2014			Weight: 396 lb	FT = 20%

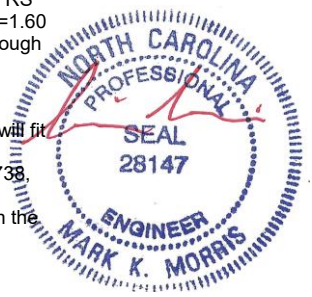
**LUMBER-**  
TOP CHORD 2x6 SP No.2  
BOT CHORD 2x6 SP No.1  
WEBS 2x4 SP No.3  
SLIDER Left 2x4 SP No.3 1-11-0, Right 2x4 SP No.3 1-11-0

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

**REACTIONS.** (lb/size) 1=6808/0-3-8 (min. 0-2-11), 7=7013/0-3-8 (min. 0-2-12)  
Max Horz 1=-62(LC 40)  
Max Uplift 1=-738(LC 12), 7=-683(LC 13)  
Max Grav 1=6848(LC 18), 7=7052(LC 19)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
TOP CHORD 1-2=-7079/748, 2-19=-11784/1212, 3-19=-11711/1224, 3-4=-9291/929, 4-5=-9292/929,  
5-20=-11848/1161, 6-20=-11922/1149, 6-7=-7250/691  
BOT CHORD 1-21=-1129/10624, 21-22=-1129/10624, 10-22=-1129/10624, 10-23=-1129/10624,  
23-24=-1129/10624, 9-24=-1129/10624, 9-25=-1007/10758, 25-26=-1007/10758,  
8-26=-1007/10758, 8-27=-1007/10758, 27-28=-1007/10758, 7-28=-1007/10758  
WEBS 4-9=-582/6342, 5-9=-2448/308, 5-8=-183/2594, 3-9=-2297/375, 3-10=-237/2466

- NOTES-** (12-15)
- 3-ply truss to be connected together with 10d (0.131"x3") nails as follows:  
Top chords connected as follows: 2x6 - 2 rows staggered at 0-9-0 oc.  
Bottom chords connected as follows: 2x6 - 2 rows staggered at 0-5-0 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; 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; 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 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) 1=738, 7=683.
  - 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 18-0-12 to connect truss(es) R02 (1 ply 2x4 SP), R03 (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

1/23/2025

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Job 25-0641-R01	Truss R09	Truss Type Common Girder	Qty 1	Ply 3	LOT 117 PROVIDENCE CREEK   FUQUAY-VARINA, NC Job Reference (optional) <b># 56258</b>
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Run: 8.430 s Feb 12 2021 Print: 8.630 s Jul 12 2024 MiTek Industries, Inc. Thu Jan 23 11:16:17 2025 Page 2  
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- 12) Graphical bracing representation does not depict the size, type or the orientation of the brace on the member. Symbol only indicates that the member must be braced.
- 13) Bearing symbols are only graphical representations of a possible bearing condition. Bearing symbols are not considered in the structural design of the truss to support the loads indicated.
- 14) Web bracing shown is for lateral support of individual web members only. Refer to BCSI - Guide to Good Practice for Handling, Installing, Restraining & Bracing of Metal Plate Connected Wood Trusses for additional bracing guidelines, including diagonal bracing.
- 15) SEE BCSI-B3 SUMMARY SHEET- PERMANENT RESTRAING/BRACING OF CHORDS & WEB MEMBERS FOR RECOMMENDED MINIMUM BRACING REQUIREMENTS OF TOP CHORD, BOTTOM CHORD, AND WEB PLANES. IN ADDITION TO THESE MINIMUM GUIDELINES, ALWAYS CONSULT THE PROJECT ARCHITECT OR ENGINEER FOR ADDITIONAL BRACING CONSIDERATIONS.

**LOAD CASE(S)** Standard

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

Uniform Loads (plf)

Vert: 1-4=-60, 4-7=-60, 11-15=-20

Concentrated Loads (lb)

Vert: 9=-1379(B) 21=-1282(B) 22=-1282(B) 23=-1379(B) 24=-1379(B) 25=-1379(B) 26=-1379(B) 27=-1379(B) 28=-1379(B)

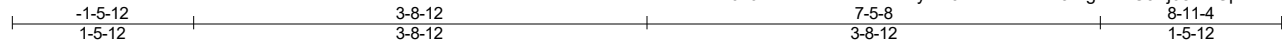


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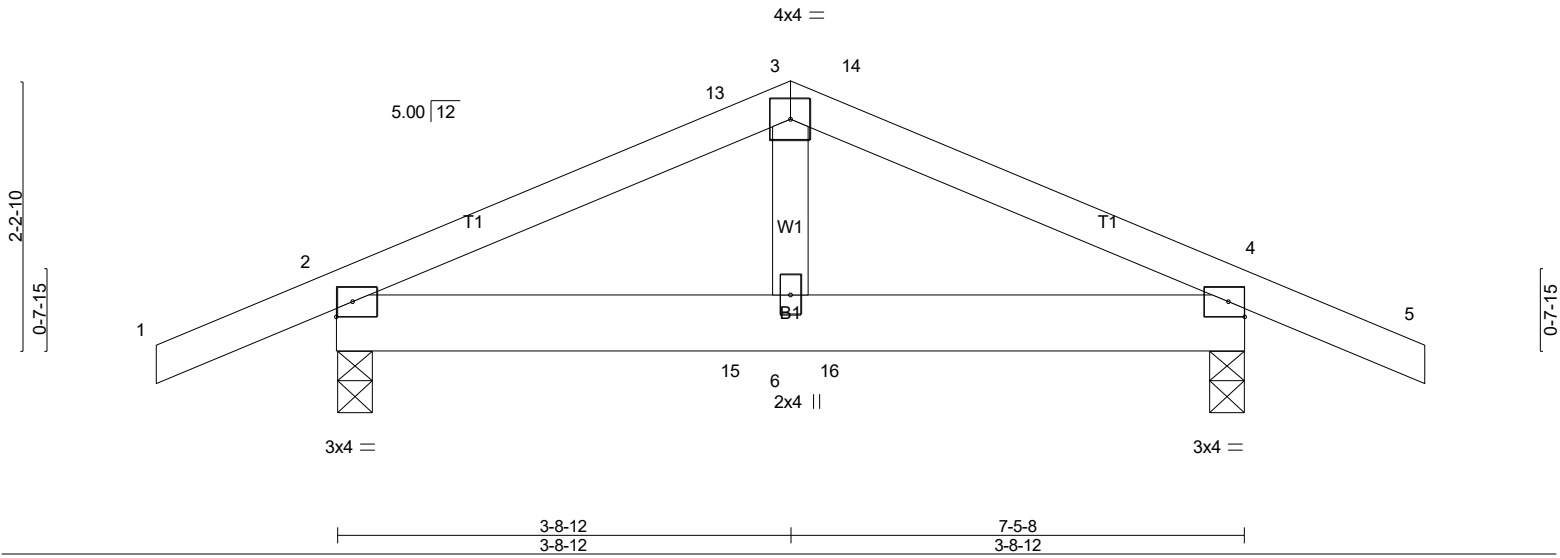
**Warning !—Verify design parameters and read notes before use.** This design is based only upon parameters shown, and is for an individual building component to be installed and loaded vertically. Applicability of design parameters and proper incorporation of component is responsibility of building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

Job 25-0641-R01	Truss R11	Truss Type Common	Qty 3	Ply 1	LOT 117 PROVIDENCE CREEK   FUQUAY-VARINA, NC	# 56258
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Scale = 1:18.9



LOADING (psf)	SPACING-	CSI.	DEFL.	PLATES	GRIP
TCLL (roof) 20.0	2-0-0	TC 0.24	in (loc) l/defl L/d	MT20	244/190
Snow (Pf) 20.0	Plate Grip DOL 1.15	BC 0.07	Vert(LL) 0.01 6 >999 240		
TCDL 10.0	Lumber DOL 1.15	WB 0.05	Vert(CT) -0.01 6 >999 180		
BCLL 0.0 *	Rep Stress Incr YES	Matrix-AS	Horz(CT) 0.00 4 n/a n/a		
BCDL 10.0	Code IRC2021/TPI2014			Weight: 37 lb	FT = 20%

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

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

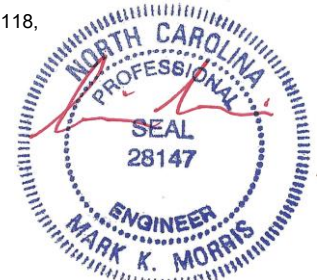
MiTek recommends that Stabilizers and required cross bracing be installed during truss erection, in accordance with Stabilizer Installation guide.

**REACTIONS.** (lb/size) 2=387/0-3-8 (min. 0-1-8), 4=387/0-3-8 (min. 0-1-8)  
Max Horz 2=-32(LC 19)  
Max Uplift 2=-118(LC 10), 4=-118(LC 11)  
Max Grav 2=500(LC 21), 4=500(LC 22)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
TOP CHORD 2-13=-370/439, 3-13=-285/443, 3-14=-285/443, 4-14=-370/439  
BOT CHORD 2-15=-310/273, 6-15=-310/273, 6-16=-310/273, 4-16=-310/273

**NOTES-** (10-13)

- 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 and C-C Exterior(2E) -1-5-12 to 3-3-14, Exterior(2R) 3-3-14 to 4-1-10, Exterior(2E) 4-1-10 to 8-11-4 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) except (jt=lb) 2=118, 4=118.
- 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.



Continued on page 2

1/23/2025

**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 117 PROVIDENCE CREEK   FUQUAY-VARINA, NC
25-0641-R01	R11	Common	3	1	Job Reference (optional) # 56258

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

**LOAD CASE(S)** Standard

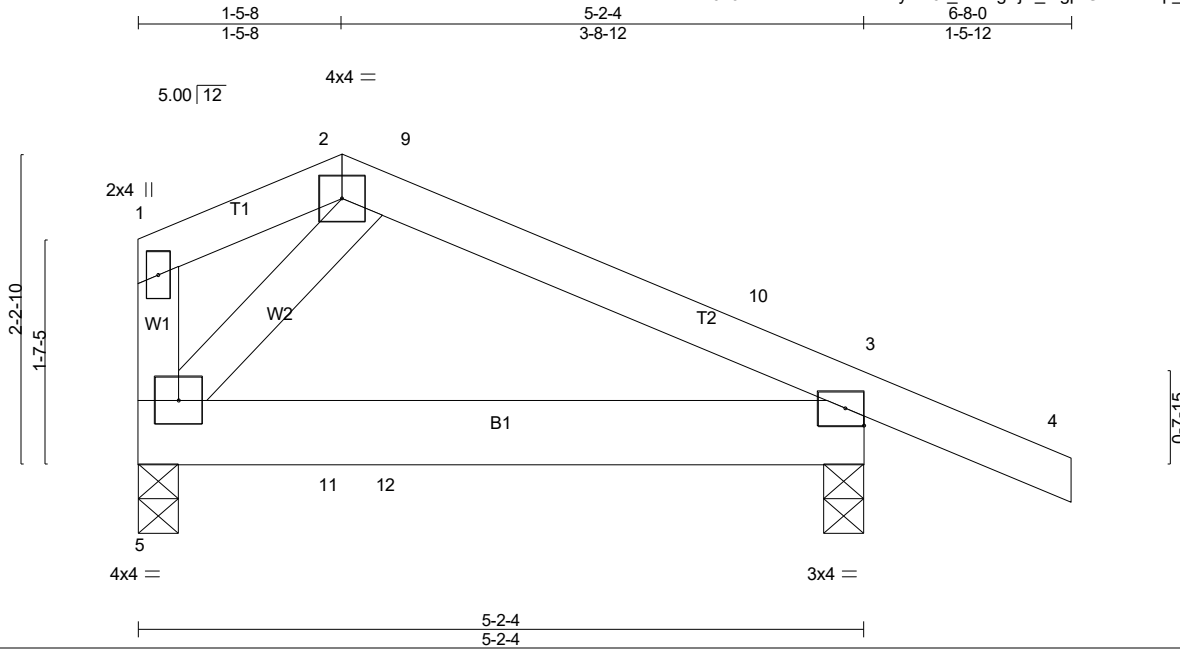


1/23/2025

**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 25-0641-R01	Truss R12	Truss Type Common	Qty 4	Ply 1	LOT 117 PROVIDENCE CREEK   FUQUAY-VARINA, NC Job Reference (optional) <b># 56258</b>
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Scale = 1:16.5

<b>LOADING (psf)</b>	<b>SPACING-</b>	<b>CSI.</b>	<b>DEFL.</b>	<b>PLATES</b>	<b>GRIP</b>
TCLL (roof) 20.0	2-0-0	TC 0.24	in (loc) l/defl L/d	MT20	244/190
Snow (Pf) 20.0	Plate Grip DOL 1.15	BC 0.15	Vert(LL) 0.02 5-8 >999 240		
TCDL 10.0	Lumber DOL 1.15	WB 0.04	Vert(CT) -0.02 5-8 >999 180		
BCLL 0.0 *	Rep Stress Incr YES	Matrix-AS	Horz(CT) 0.00 3 n/a n/a		
BCDL 10.0	Code IRC2021/TPI2014			Weight: 28 lb	FT = 20%

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

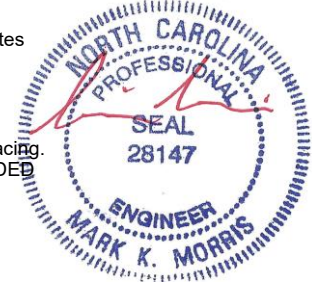
**BRACING-**  
TOP CHORD Structural wood sheathing directly applied, except end verticals.  
BOT CHORD Rigid ceiling directly applied.

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

**REACTIONS.** (lb/size) 3=303/0-3-8 (min. 0-1-8), 5=189/0-3-8 (min. 0-1-8)  
Max Horz 5=-54(LC 12)  
Max Uplift 3=-96(LC 11), 5=-46(LC 11)  
Max Grav 3=324(LC 22), 5=191(LC 21)

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

- NOTES-** (10-13)
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-16; Vult=120mph (3-second gust) Vasd=95mph; TCCL=5.0psf; BCCL=5.0psf; h=35ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) 0-1-12 to 1-5-8, Exterior(2R) 1-5-8 to 1-10-6, Exterior(2E) 1-10-6 to 6-8-0 zone; cantilever left and 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
  - 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) 3, 5.
  - 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.
  - 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.



1/23/2025

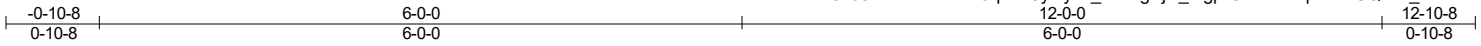
**LOAD CASE(S)** Standard

**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.

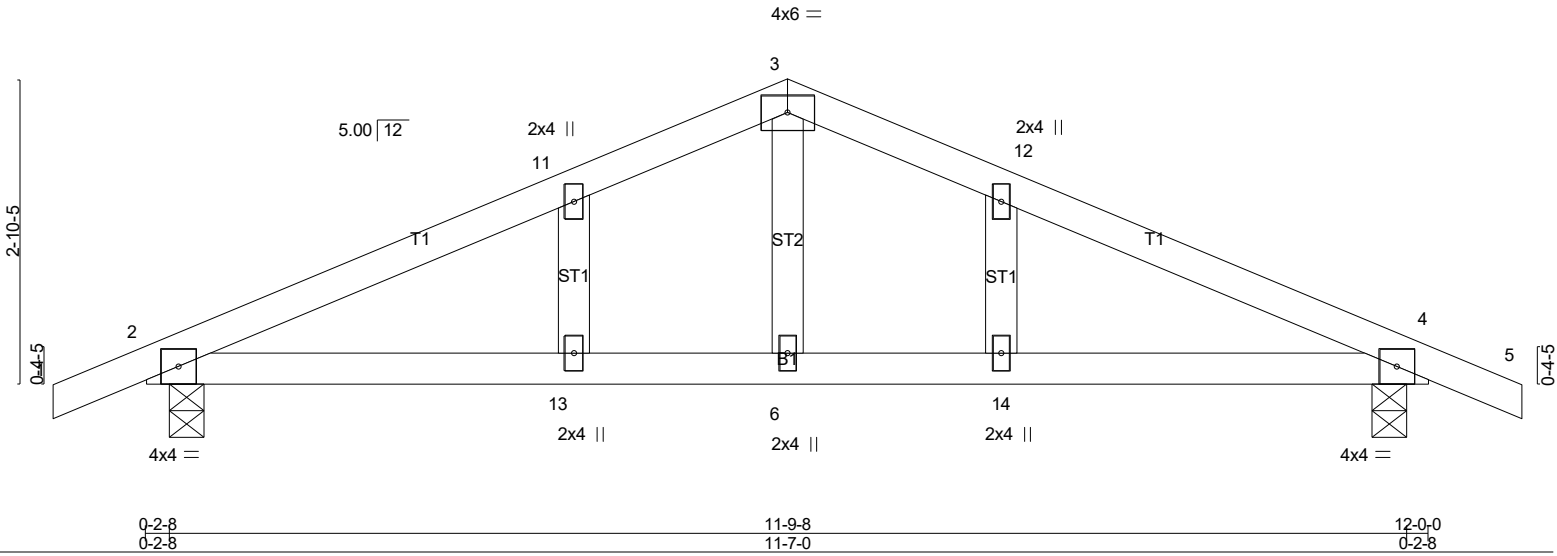


Job 25-0641-R01	Truss SP01	Truss Type COMMON SUPPORTED GAB	Qty 1	Ply 1	LOT 117 PROVIDENCE CREEK   FUQUAY-VARINA, NC	# 56258
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Scale = 1:21.6



<b>LOADING (psf)</b>	<b>SPACING-</b>	<b>CSI.</b>	<b>DEFL.</b>	<b>PLATES</b>	<b>GRIP</b>
TCLL (roof) 20.0	2-0-0	TC 0.72	in (loc) l/defl L/d	MT20	244/190
Snow (Pf) 20.0	Plate Grip DOL 1.15	BC 0.87	Vert(LL) 0.09 2-6 >999 240		
TCDL 10.0	Lumber DOL 1.15	WB 0.11	Vert(CT) -0.10 4-6 >999 180		
BCLL 0.0 *	Rep Stress Incr YES	Matrix-SH	Horz(CT) 0.01 4 n/a n/a		
BCDL 10.0	Code IRC2021/TPI2014			Weight: 48 lb	FT = 20%

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

**BRACING-**  
TOP CHORD Structural wood sheathing directly applied or 4-1-5 oc purlins.  
BOT CHORD Rigid ceiling directly applied or 6-6-12 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=529/0-4-0 (min. 0-1-8), 4=529/0-4-0 (min. 0-1-8)  
Max Horz 2=43(LC 18)  
Max Uplift 2=-148(LC 10), 4=-148(LC 11)  
Max Grav 2=623(LC 21), 4=623(LC 22)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
TOP CHORD 2-11=-786/862, 3-11=-650/874, 3-12=-650/874, 4-12=-786/862  
BOT CHORD 2-13=-704/619, 6-13=-704/619, 6-14=-704/619, 4-14=-704/619  
WEBS 3-6=-418/278

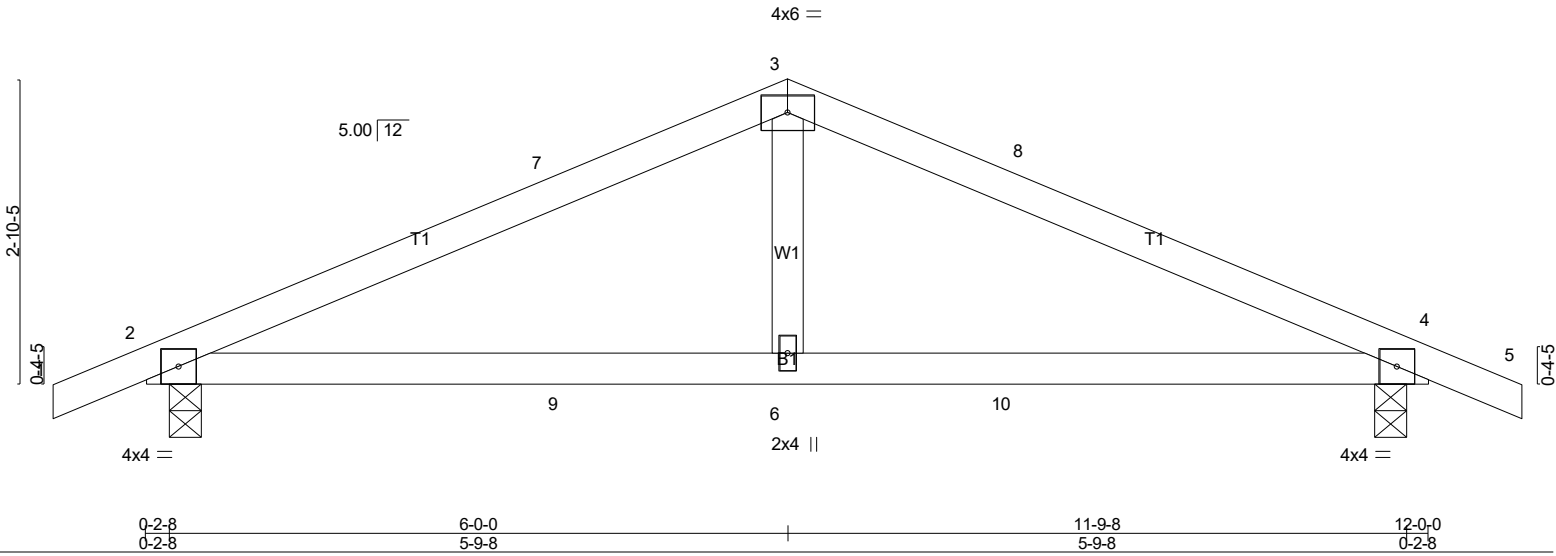
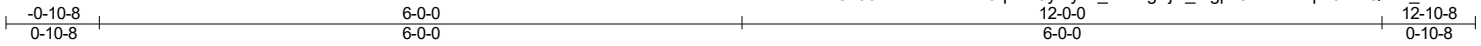
- NOTES-** (11)
- 1) Unbalanced roof live loads have been considered for this design.
  - 2) Wind: ASCE 7-16; Vult=120mph (3-second gust) Vasd=95mph; TCDL=5.0psf; BCDL=5.0psf; h=35ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Corner(3E) -0-10-8 to 3-11-2, Corner(3R) 3-11-2 to 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
  - 3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
  - 4) 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
  - 5) Unbalanced snow loads have been considered for this design.
  - 6) This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 20.0 psf on overhangs non-concurrent with other live loads.
  - 7) Gable studs spaced at 2-0-0 oc.
  - 8) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - 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.
  - 10) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=148, 4=148.

**LOAD CASE(S)** Standard



1/23/2025

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<b>LOADING</b> (psf)	TCLL (roof) 20.0	Snow (PF) 20.0	TCDL 10.0	BCLL 0.0 *	BCDL 10.0
<b>SPACING-</b>	2-0-0	Plate Grip DOL 1.15	Lumber DOL 1.15	Rep Stress Incr YES	Code IRC2021/TPI2014
<b>CSI.</b>	TC 0.72	BC 0.77	WB 0.11	Matrix-SH	
<b>DEFL.</b>	in (loc) l/defl L/d				
Vert(LL)	0.09	4-6	>999	240	
Vert(CT)	-0.10	4-6	>999	180	
Horz(CT)	0.01	4	n/a	n/a	
<b>PLATES</b>	MT20		<b>GRIP</b> 244/190		
Weight: 44 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 4-0-8 oc purlins.  
 BOT CHORD Rigid ceiling directly applied or 6-8-9 oc bracing.

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

**REACTIONS.** (lb/size) 2=530/0-3-8 (min. 0-1-8), 4=530/0-3-8 (min. 0-1-8)  
 Max Horz 2=43(LC 14)  
 Max Uplift 2=-148(LC 10), 4=-148(LC 11)  
 Max Grav 2=624(LC 21), 4=624(LC 22)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-7=-791/824, 3-7=-655/836, 3-8=-655/836, 4-8=-791/824  
 BOT CHORD 2-9=-681/625, 6-9=-681/625, 6-10=-681/625, 4-10=-681/625  
 WEBS 3-6=-407/280

- NOTES-** (9)
- 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; MWFRS (envelope) gable end zone and C-C Exterior(2E) -0-10-8 to 3-11-2, Exterior(2R) 3-11-2 to 8-0-14, Exterior(2E) 8-0-14 to 12-10-8 zone; 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) This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 20.0 psf on overhangs non-concurrent with other live loads.
  - 6) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - 7) \* This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 1-0-0 wide will fit between the bottom chord and any other members.
  - 8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=148, 4=148.

**LOAD CASE(S)** Standard

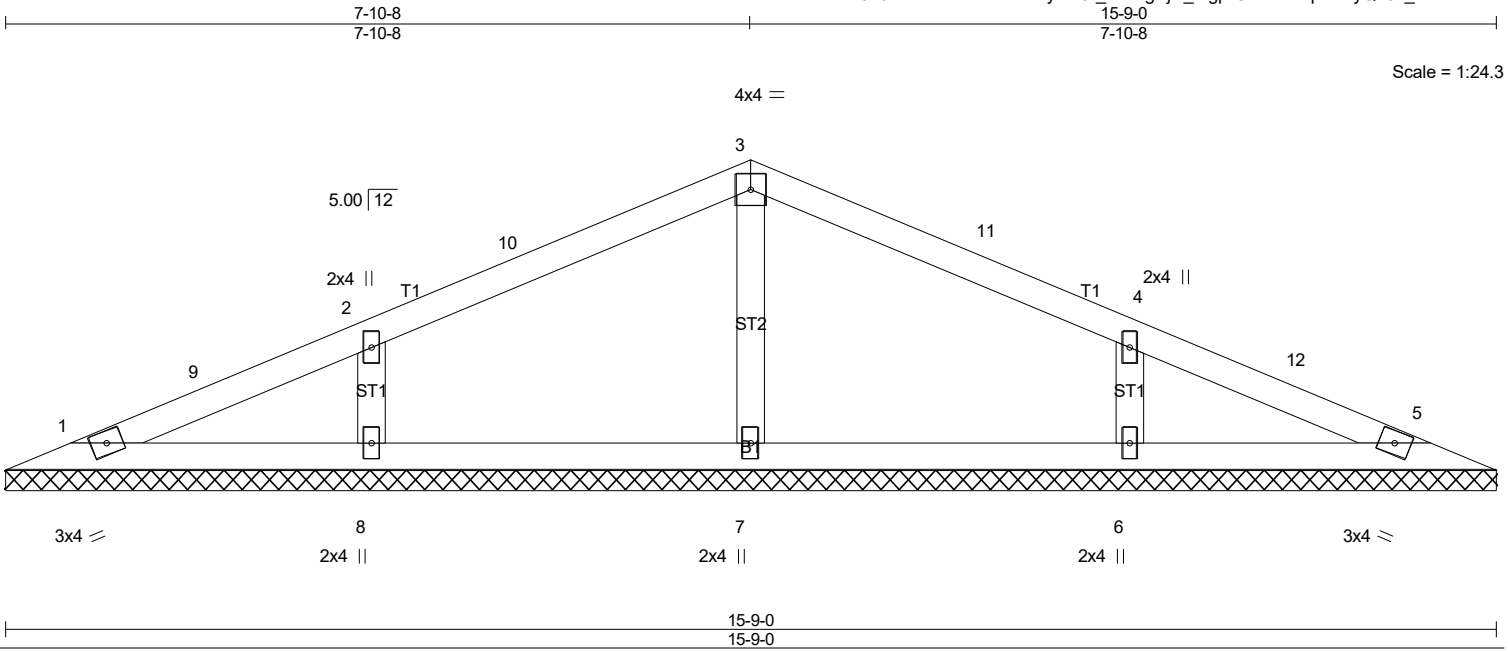


1/23/2025

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Job 25-0641-R01	Truss V01	Truss Type Valley	Qty 1	Ply 1	LOT 117 PROVIDENCE CREEK   FUQUAY-VARINA, NC Job Reference (optional) <b># 56258</b>
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Run: 8.430 s Feb 12 2021 Print: 8.630 s Jul 12 2024 MiTek Industries, Inc. Thu Jan 23 11:16:18 2025 Page 1  
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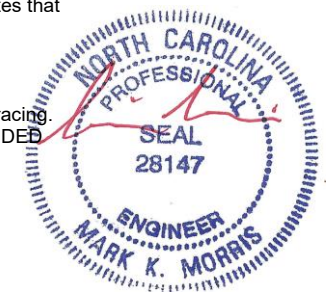
LOADING (psf)	SPACING-	CSI.	DEFL.	PLATES	GRIP
TCLL (roof) 20.0	2-0-0	TC 0.28	in (loc) l/defl L/d	MT20	244/190
Snow (Pf) 20.0	Plate Grip DOL 1.15	BC 0.19	Vert(LL) n/a - n/a 999		
TCDL 10.0	Lumber DOL 1.15	WB 0.07	Vert(CT) n/a - n/a 999		
BCLL 0.0 *	Rep Stress Incr YES	Matrix-S	Horz(CT) 0.00 5 n/a n/a		
BCDL 10.0	Code IRC2021/TPI2014			Weight: 54 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.** All bearings 15-9-0.  
 (lb) - Max Horz 1=44(LC 14)  
 Max Uplift All uplift 100 lb or less at joint(s) 1, 5, 8, 6  
 Max Grav All reactions 250 lb or less at joint(s) 1, 5 except 7=290(LC 20), 8=454(LC 20), 6=454(LC 21)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
**WEBS** 2-8=-372/160, 4-6=-372/160

- 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; BCCL=5.0psf; h=35ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) 0-8-12 to 5-6-6, Exterior(2R) 5-6-6 to 10-2-10, Exterior(2E) 10-2-10 to 15-0-4 zone; cantilever left and right exposed; 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, 5, 8, 6.
  - 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.

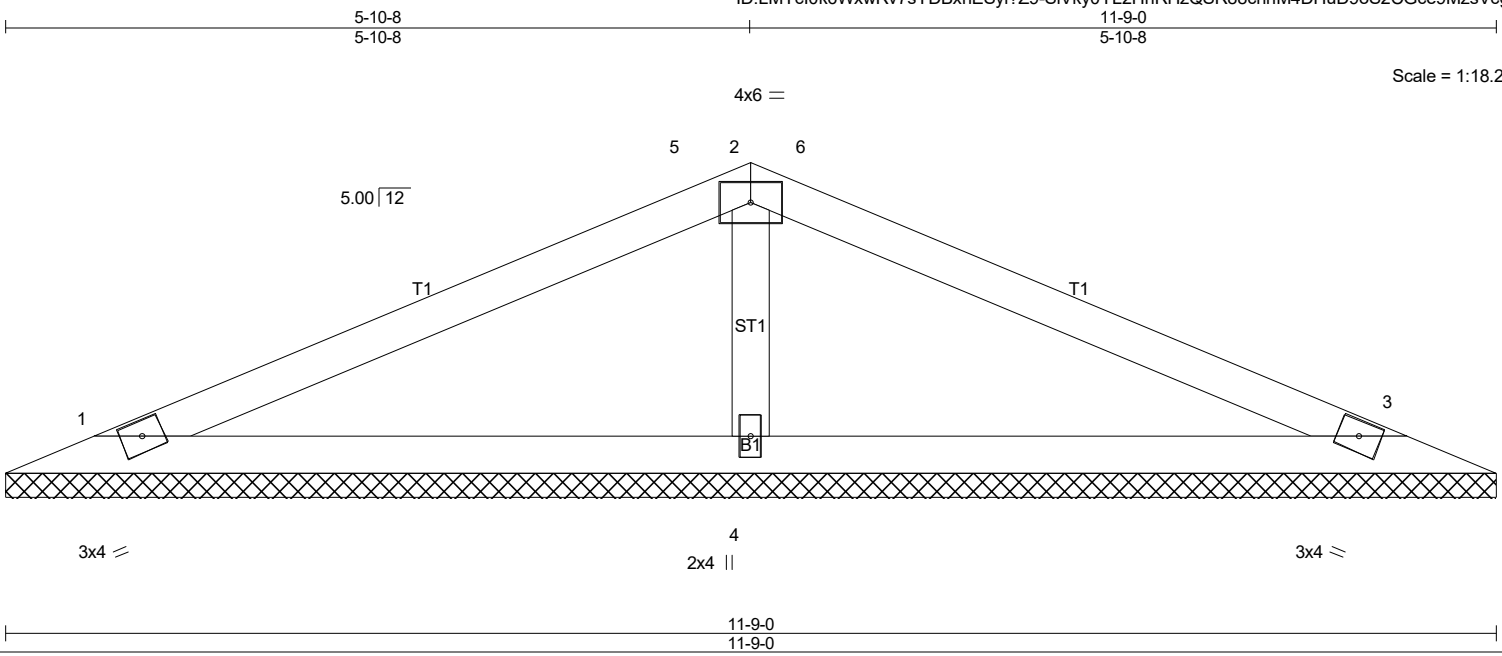


1/23/2025

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Job 25-0641-R01	Truss V02	Truss Type Valley	Qty 1	Ply 1	LOT 117 PROVIDENCE CREEK   FUQUAY-VARINA, NC Job Reference (optional) <b># 56258</b>
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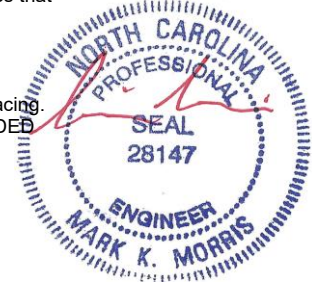
LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof) 20.0	2-0-0	TC 0.57	Vert(LL)	n/a	-	n/a	MT20	244/190
Snow (Pf) 20.0	Plate Grip DOL 1.15	BC 0.44	Vert(CT)	n/a	-	n/a		
TCDL 10.0	Lumber DOL 1.15	WB 0.07	Horz(CT)	0.00	3	n/a		
BCLL 0.0 *	Rep Stress Incr YES	Matrix-S						
BCDL 10.0	Code IRC2021/TPI2014						Weight: 37 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=181/11-9-0 (min. 0-1-8), 3=181/11-9-0 (min. 0-1-8), 4=462/11-9-0 (min. 0-1-8)  
 Max Horz 1=32(LC 14)  
 Max Uplift 1=-37(LC 14), 3=-42(LC 15), 4=-30(LC 14)  
 Max Grav 1=259(LC 20), 3=259(LC 21), 4=468(LC 20)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
**WEBS** 2-4=-319/172

- 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; MWFRS (envelope) gable end zone and C-C Exterior(2E) 0-8-12 to 5-6-6, Exterior(2R) 5-6-6 to 6-2-10, Exterior(2E) 6-2-10 to 11-0-4 zone; cantilever left and right exposed; 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.

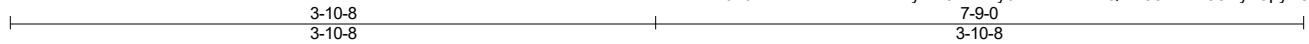


1/23/2025

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Job 25-0641-R01	Truss V03	Truss Type GABLE	Qty 1	Ply 1	LOT 117 PROVIDENCE CREEK   FUQUAY-VARINA, NC
					<b># 56258</b>

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Scale = 1:13.8

LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof) 20.0	2-0-0	TC 0.25	Vert(LL)	n/a	-	n/a	MT20	244/190
Snow (Pf) 20.0	Plate Grip DOL 1.15	BC 0.17	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: 23 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=124/7-9-0 (min. 0-1-8), 3=124/7-9-0 (min. 0-1-8), 4=256/7-9-0 (min. 0-1-8)  
Max Horz 1=-19(LC 15)  
Max Uplift 1=-28(LC 14), 3=-31(LC 15), 4=-8(LC 14)  
Max Grav 1=162(LC 20), 3=162(LC 21), 4=256(LC 1)

**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; TCDL=5.0psf; BCDL=5.0psf; h=35ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) zone; cantilever left and right exposed ; 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

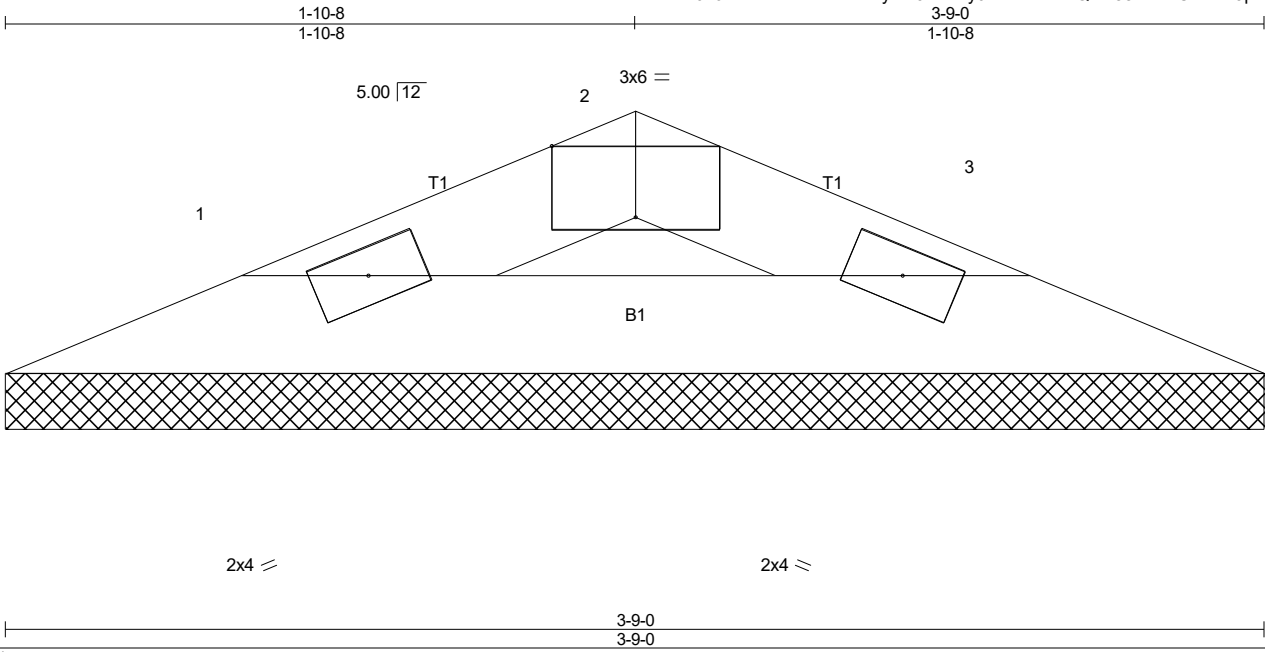


1/23/2025

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Job	Truss	Truss Type	Qty	Ply	LOT 117 PROVIDENCE CREEK   FUQUAY-VARINA, NC
25-0641-R01	V04	Valley	1	1	
					<b># 56258</b>

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Scale = 1:6.9

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	2-0-0	TC 0.03	Vert(LL)	n/a	-	n/a	MT20	244/190
Snow (Pf) 20.0	Plate Grip DOL 1.15	BC 0.11	Vert(CT)	n/a	-	n/a		
TCDL 10.0	Lumber DOL 1.15	WB 0.00	Horz(CT)	0.00	3	n/a		
BCLL 0.0 *	Rep Stress Incr YES	Matrix-P						
BCDL 10.0	Code IRC2021/TPI2014						Weight: 9 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.

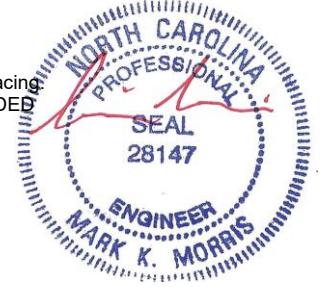
**REACTIONS.** (lb/size) 1=92/3-9-0 (min. 0-1-8), 3=92/3-9-0 (min. 0-1-8)  
 Max Horz 1=7(LC 18)  
 Max Uplift 1=-12(LC 14), 3=-12(LC 15)  
 Max Grav 1=96(LC 20), 3=96(LC 21)

**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; TC DL=5.0psf; BCDL=5.0psf; h=35ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) zone; cantilever left and right exposed; 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) TC LL: 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.
- 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



1/23/2025

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