

# Mark Morris, P.E.

#126, 1317-M, Summerville, SC 29483

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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 #: 23870

JOB: 20-4532-R01

JOB NAME: LOT 1164 CARRIAGE CIRCLE

Wind Code: 37

Wind Speed: Vult= 120mph

Exposure Category: B

Mean Roof Height (feet): 23

## *27 Truss Design(s)*

### Trusses:

J01, J02, PB01, PB02, PB03, R01, R02, R02A, R03, R03A, R03B, R04, R05, R06, R07, R07A, R07B, R08, R09, R10, R11, VT01, VT02, VT03, VT04, VT05, VT06



**10/7/2020**

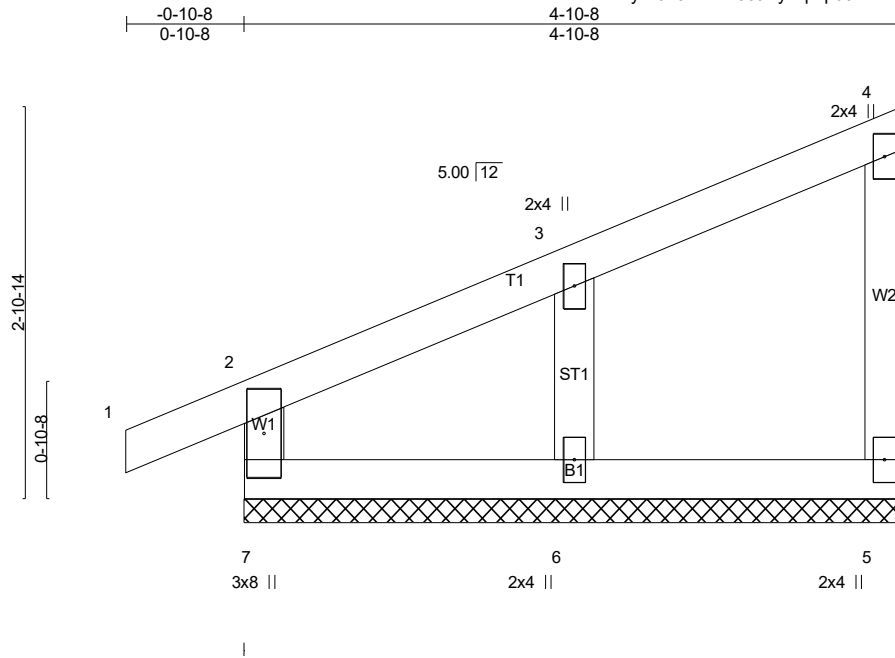
**Mark Morris**

***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*

Job 20-4532-R01	Truss J01	Truss Type Monopitch Supported Gable	Qty 1	Ply 1	LOT 1164 CARRIAGE CIRCLE   104 SPRUCE HOLLOW CIRCLE SPRING LAKE, N	# 23870
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ID:MsMZ7fuyNIJd5IEFbR85JwyPq?q-09NF7DmaAIVPGaqHlw3GvmLo4NfSCC0SnuISyVNu0  
8.330 s Mar 10 2020 MiTek Industries, Inc. Thu Oct 8 20:12:45 2020 Page 1



<b>LOADING</b> (psf)	<b>SPACING-</b>	<b>CSI.</b>	<b>DEFL.</b>	<b>PLATES</b>	<b>GRIP</b>
TCLL (roof) 20.0	2-0-0	TC 0.12	in (loc) l/defl L/d	MT20	244/190
Snow (Pf) 20.0	Plate Grip DOL 1.15	BC 0.08	Vert(LL) 0.00 1 n/r 180		
TCDL 10.0	Lumber DOL 1.15	WB 0.05	Vert(CT) -0.00 1 n/r 80		
BCLL 0.0 *	Rep Stress Incr YES	Matrix-R	Horz(CT) 0.00 5 n/a n/a		
BCDL 10.0	Code IRC2018/TPI2014			Weight: 23 lb	FT = 0%

**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 4-10-8 oc purlins, except end verticals.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.  
MiTek recommends that Stabilizers and required cross bracing be installed during truss erection, in accordance with Stabilizer Installation guide.

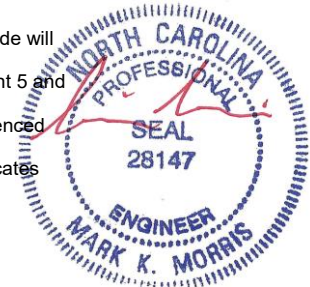
**REACTIONS.** (lb/size) 7=151/4-10-8 (min. 0-1-8), 5=76/4-10-8 (min. 0-1-8), 6=200/4-10-8 (min. 0-1-8)  
Max Horz 7=63(LC 14)  
Max Uplift 7=-2(LC 10), 5=-13(LC 14), 6=-60(LC 14)  
Max Grav 7=219(LC 21), 5=106(LC 21), 6=274(LC 21)

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

**NOTES-** (13-14)

- 1) Wind: ASCE 7-16; Vult=120mph (3-second gust) Vasd=95mph; TCDL=5.0psf; BCDL=5.0psf; h=23ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; end vertical left exposed; porch left exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 2) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- 3) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
- 4) Unbalanced snow loads have been considered for this design.
- 5) This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 20.0 psf on overhangs non-concurrent with other live loads.
- 6) Gable requires continuous bottom chord bearing.
- 7) Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
- 8) Gable studs spaced at 2-0-0 oc.
- 9) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 10) \* 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.
- 11) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 2 lb uplift at joint 7, 13 lb uplift at joint 5 and 60 lb uplift at joint 6.
- 12) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 13) Graphical web bracing representation does not depict the size, type or the orientation of the brace on the web. Symbol only indicates that the member must be braced.
- 14) Bearing symbols are only graphical representations of a possible bearing condition. Bearing symbols are not considered in the structural design of the truss to support the loads indicated.

**LOAD CASE(S)** Standard



10/7/2020

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Job 20-4532-R01	Truss J02	Truss Type Monopitch	Qty 4	Ply 1	LOT 1164 CARRIAGE CIRCLE   104 SPRUCE HOLLOW CIRCLE SPRING LAKE, N	# 23870
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ID:MsMZ7fuyNIJd5IEFbR85JwyPq?q-zXVPYunriNI7Wu\_fQKzK8h\_2iclB7LOVTmG?nLyVNu\_

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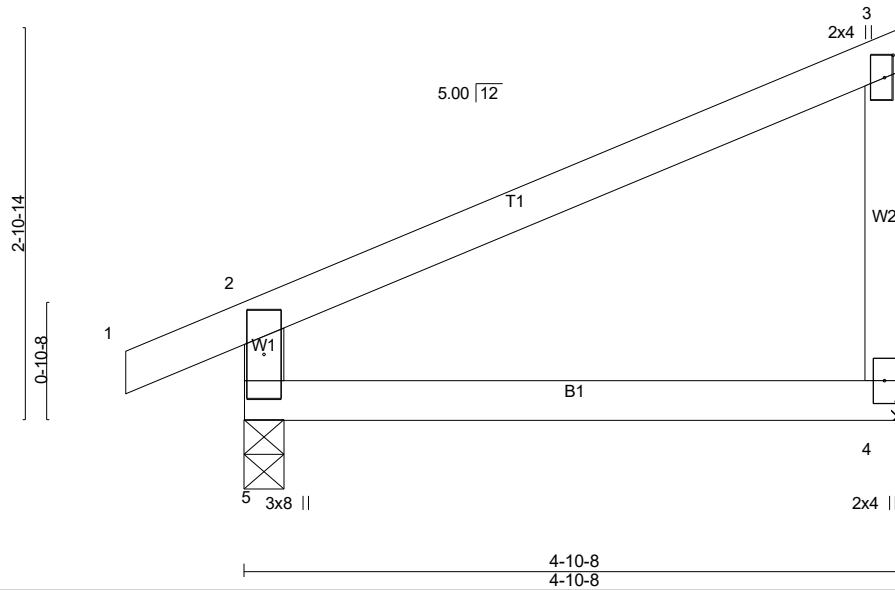


Plate Offsets (X,Y)-- [3:0-2-0,0-0-12]

LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof) 20.0	2-0-0	TC 0.38	Vert(LL) -0.02	4-5	>999	240	MT20	244/190
Snow (Pf) 20.0	Plate Grip DOL 1.15	BC 0.19	Vert(CT) -0.03	4-5	>999	180		
TCDL 10.0	Lumber DOL 1.15	WB 0.00	Horz(CT) 0.00	4	n/a	n/a		
BCLL 0.0 *	Rep Stress Incr YES	Matrix-R						
BCDL 10.0	Code IRC2018/TPI2014						Weight: 21 lb	FT = 0%

**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 4-10-8 oc purlins, except end verticals.  
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

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

**REACTIONS.** (lb/size) 4=177/Mechanical, 5=251/0-3-8 (min. 0-1-8)  
 Max Horz 5=63(LC 14)  
 Max Uplift 4=-51(LC 10), 5=-48(LC 10)  
 Max Grav 4=243(LC 21), 5=356(LC 21)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-5=-324/53

**NOTES-** (10-11)

- 1) Wind: ASCE 7-16; Vult=120mph (3-second gust) Vasd=95mph; TCCL=5.0psf; BCDL=5.0psf; h=23ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; end vertical left exposed; porch left exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 2) TCCL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
- 3) Unbalanced snow loads have been considered for this design.
- 4) This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 20.0 psf on overhangs non-concurrent with other live loads.
- 5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 6) \* This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 1-0-0 wide will fit between the bottom chord and any other members.
- 7) Refer to girder(s) for truss to truss connections.
- 8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 51 lb uplift at joint 4 and 48 lb uplift at joint 5
- 9) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 10) Graphical web bracing representation does not depict the size, type or the orientation of the brace on the web. 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.

**LOAD CASE(S)** Standard



10/7/2020

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Job 20-4532-R01	Truss PB01	Truss Type Piggyback	Qty 7	Ply 1	LOT 1164 CARRIAGE CIRCLE   104 SPRUCE HOLLOW CIRCLE SPRING LAKE, N.C. 27087 # 23870
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8.330 s Mar 10 2020 MiTek Industries, Inc. Thu Oct 8 20:12:48 2020 Page 1  
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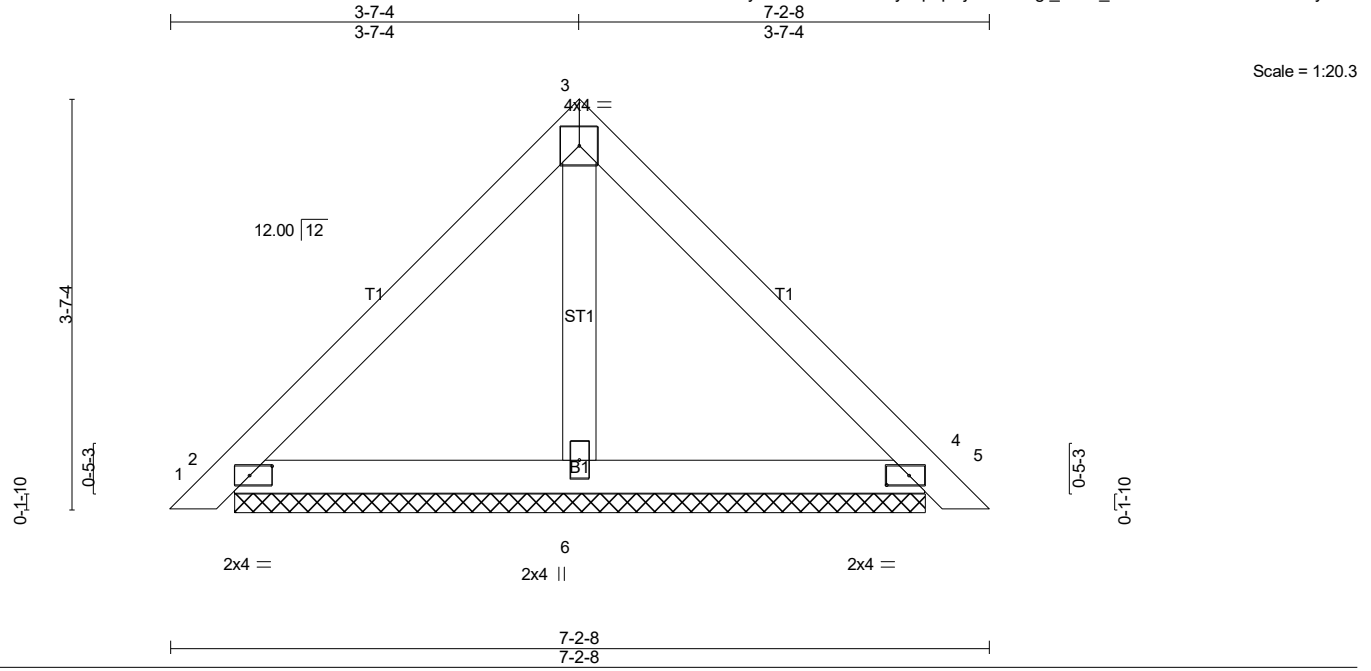


Plate Offsets (X,Y)-- [2:0-2-6,0-1-0], [4:0-2-6,0-1-0]					
<b>LOADING</b> (psf)	<b>SPACING-</b>	<b>CSI.</b>	<b>DEFL.</b>	<b>PLATES</b>	<b>GRIP</b>
TCLL (roof) 20.0	2-0-0	TC 0.17	in (loc) l/defl L/d	MT20	244/190
Snow (Pf) 20.0	Plate Grip DOL 1.15	BC 0.16	Vert(LL) 0.00 5 n/r 180		
TCDL 10.0	Lumber DOL 1.15	WB 0.03	Vert(CT) 0.01 5 n/r 80		
BCLL 0.0 *	Rep Stress Incr YES	Matrix-P	Horz(CT) 0.00 4 n/a n/a		
BCDL 10.0	Code IRC2018/TPI2014			Weight: 28 lb	FT = 0%

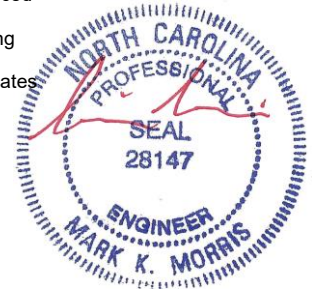
<b>LUMBER-</b>	<b>BRACING-</b>
TOP CHORD 2x4 SP No.2	TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins.
BOT CHORD 2x4 SP No.3	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
OTHERS 2x4 SP No.3	MiTek recommends that Stabilizers and required cross bracing be installed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

**REACTIONS.** (lb/size) 2=170/6-0-14 (min. 0-1-8), 4=170/6-0-14 (min. 0-1-8), 6=190/6-0-14 (min. 0-1-8)  
Max Horz 2=-66(LC 10)  
Max Uplift 2=-30(LC 13), 4=-35(LC 13)

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

- NOTES-** (11-12)
- 1) Unbalanced roof live loads have been considered for this design.
  - 2) Wind: ASCE 7-16; Vult=120mph (3-second gust) Vasd=95mph; TCCL=5.0psf; BCCL=5.0psf; h=23ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - 3) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
  - 4) 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) 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 30 lb uplift at joint 2 and 35 lb uplift at joint 4.
  - 9) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
  - 10) See Standard Industry Piggyback Truss Connection Detail for Connection to base truss as applicable, or consult qualified building designer.
  - 11) Graphical web bracing representation does not depict the size, type or the orientation of the brace on the web. 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.

**LOAD CASE(S)** Standard

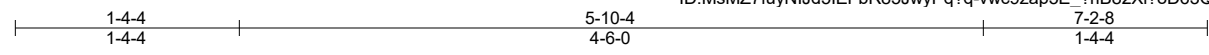


10/7/2020

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Job 20-4532-R01	Truss PB02	Truss Type Piggyback	Qty 1	Ply 1	LOT 1164 CARRIAGE CIRCLE   104 SPRUCE HOLLOW CIRCLE SPRING LAKE, NC	# 23870
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8.330 s Mar 10 2020 MiTek Industries, Inc. Thu Oct 8 20:12:49 2020 Page 1  
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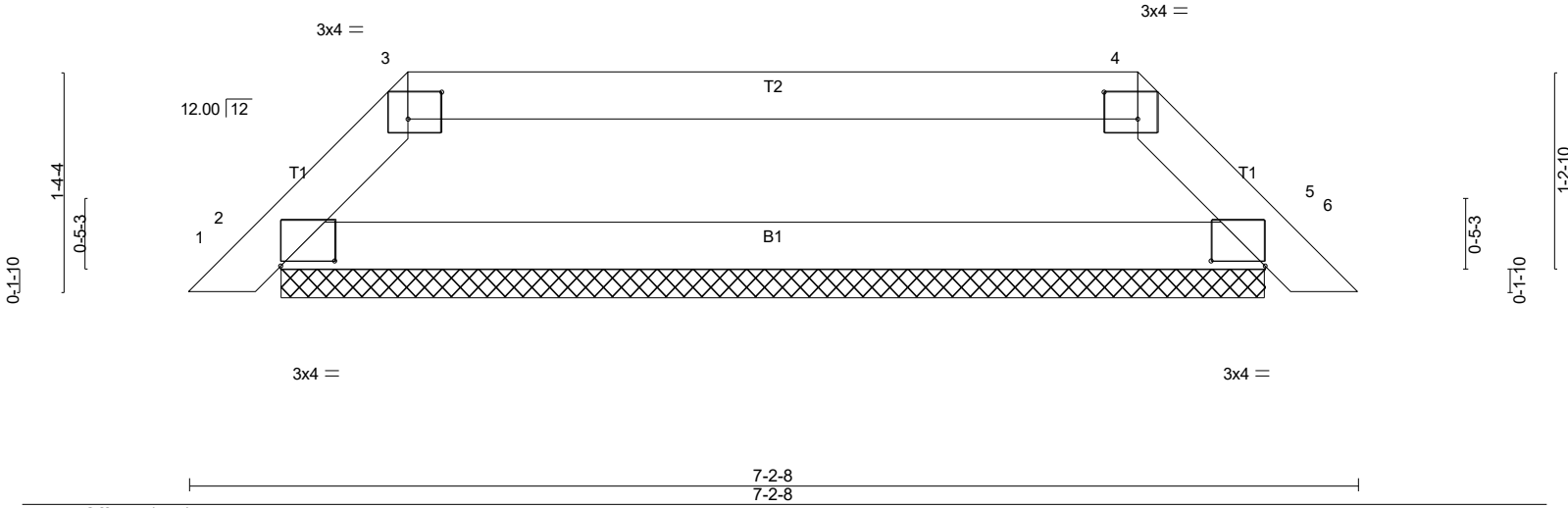


Plate Offsets (X,Y)--		[2:0-4-0,0-0-6], [3:0-2-8,0-2-0], [4:0-2-8,0-2-0], [5:0-4-0,0-0-6]	
<b>LOADING</b> (psf)		<b>SPACING-</b>	2-0-0
TCLL (roof)	20.0	Plate Grip DOL	1.15
Snow (Pf)	20.0	Lumber DOL	1.15
TCDL	10.0	Rep Stress Incr	YES
BCLL	0.0 *	Code IRC2018/TPI2014	
BCDL	10.0		
		<b>CSI.</b>	
		TC	0.25
		BC	0.44
		WB	0.00
		Matrix-R	
		<b>DEFL.</b>	
		Vert(LL)	0.00 5 n/r 180
		Vert(CT)	0.00 6 n/r 80
		Horz(CT)	0.00 5 n/a n/a
		<b>PLATES</b>	MT20
		<b>GRIP</b>	244/190
		Weight:	21 lb FT = 0%

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

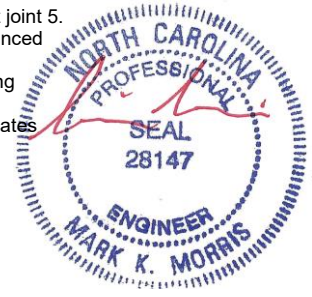
**BRACING-**  
 TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins.  
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

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

**REACTIONS.** (lb/size) 2=265/6-0-14 (min. 0-1-8), 5=265/6-0-14 (min. 0-1-8)  
 Max Horz 2=-24(LC 10)  
 Max Uplift 2=-20(LC 9), 5=-20(LC 8)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-3=-300/68, 4-5=-300/68

- NOTES-** (12-13)
- 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=23ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - 3) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
  - 4) This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 20.0 psf on overhangs non-concurrent with other live loads.
  - 5) Provide adequate drainage to prevent water ponding.
  - 6) Gable requires continuous bottom chord bearing.
  - 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 20 lb uplift at joint 2 and 20 lb uplift at joint 5.
  - 10) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
  - 11) See Standard Industry Piggyback Truss Connection Detail for Connection to base truss as applicable, or consult qualified building designer.
  - 12) Graphical web bracing representation does not depict the size, type or the orientation of the brace on the web. 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.



10/7/2020

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Job 20-4532-R01	Truss PB03	Truss Type Piggyback	Qty 1	Ply 1	LOT 1164 CARRIAGE CIRCLE   104 SPRUCE HOLLOW CIRCLE SPRING LAKE, N.C. Job Reference (optional) # 23870
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8.330 s Mar 10 2020 MiTek Industries, Inc. Thu Oct 8 20:12:50 2020 Page 1  
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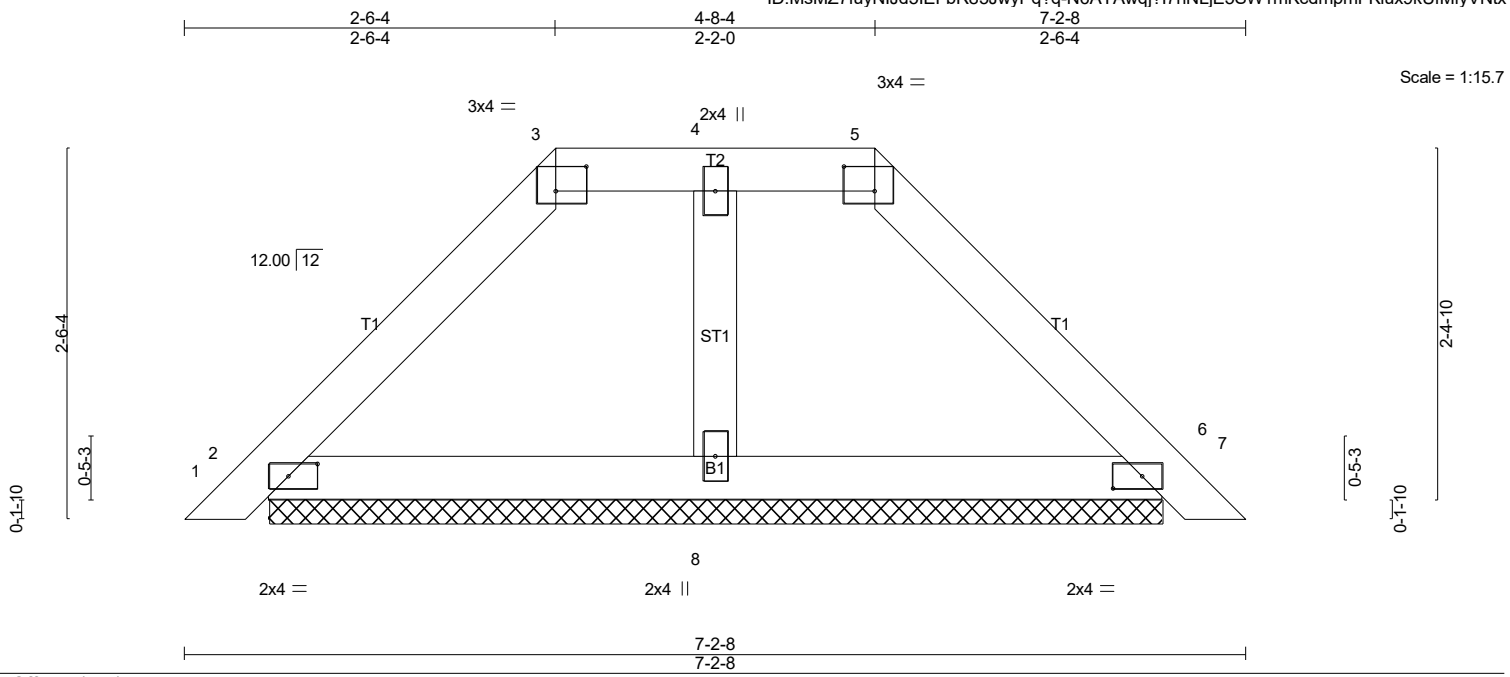


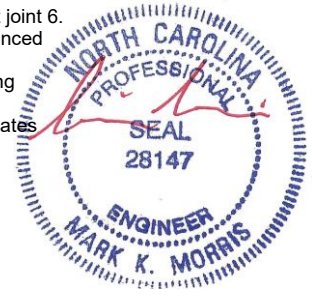
Plate Offsets (X,Y)-- [2:0-2-6,0-1-0], [3:0-2-8,0-2-0], [5:0-2-8,0-2-0], [6:0-2-6,0-1-0]					
<b>LOADING</b> (psf)	<b>SPACING-</b> 2-0-0	<b>CSI.</b>	<b>DEFL.</b> in (loc) l/defl L/d	<b>PLATES</b>	<b>GRIP</b>
TCLL (roof) 20.0	Plate Grip DOL 1.15	TC 0.07	Vert(LL) 0.00 7 n/r 180	MT20	244/190
Snow (Pf) 20.0	Lumber DOL 1.15	BC 0.16	Vert(CT) 0.00 7 n/r 80		
TCDL 10.0	Rep Stress Incr YES	WB 0.02	Horz(CT) 0.00 6 n/a n/a		
BCLL 0.0 *	Code IRC2018/TPI2014	Matrix-SH			
BCDL 10.0				Weight: 26 lb	FT = 0%

<b>LUMBER-</b>	<b>BRACING-</b>
TOP CHORD 2x4 SP No.2	TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins.
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) 2=188/6-0-14 (min. 0-1-8), 6=188/6-0-14 (min. 0-1-8), 8=154/6-0-14 (min. 0-1-8)  
 Max Horz 2=-46(LC 10)  
 Max Uplift 2=-35(LC 12), 6=-37(LC 13)  
 Max Grav 2=188(LC 1), 6=188(LC 1), 8=178(LC 5)

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

- NOTES-** (12-13)
- 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=23ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
  - This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 20.0 psf on overhangs non-concurrent with other live loads.
  - Provide adequate drainage to prevent water ponding.
  - 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 35 lb uplift at joint 2 and 37 lb uplift at joint 6.
  - This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
  - See Standard Industry Piggyback Truss Connection Detail for Connection to base truss as applicable, or consult qualified building designer.
  - Graphical web bracing representation does not depict the size, type or the orientation of the brace on the web. 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.



10/7/2020

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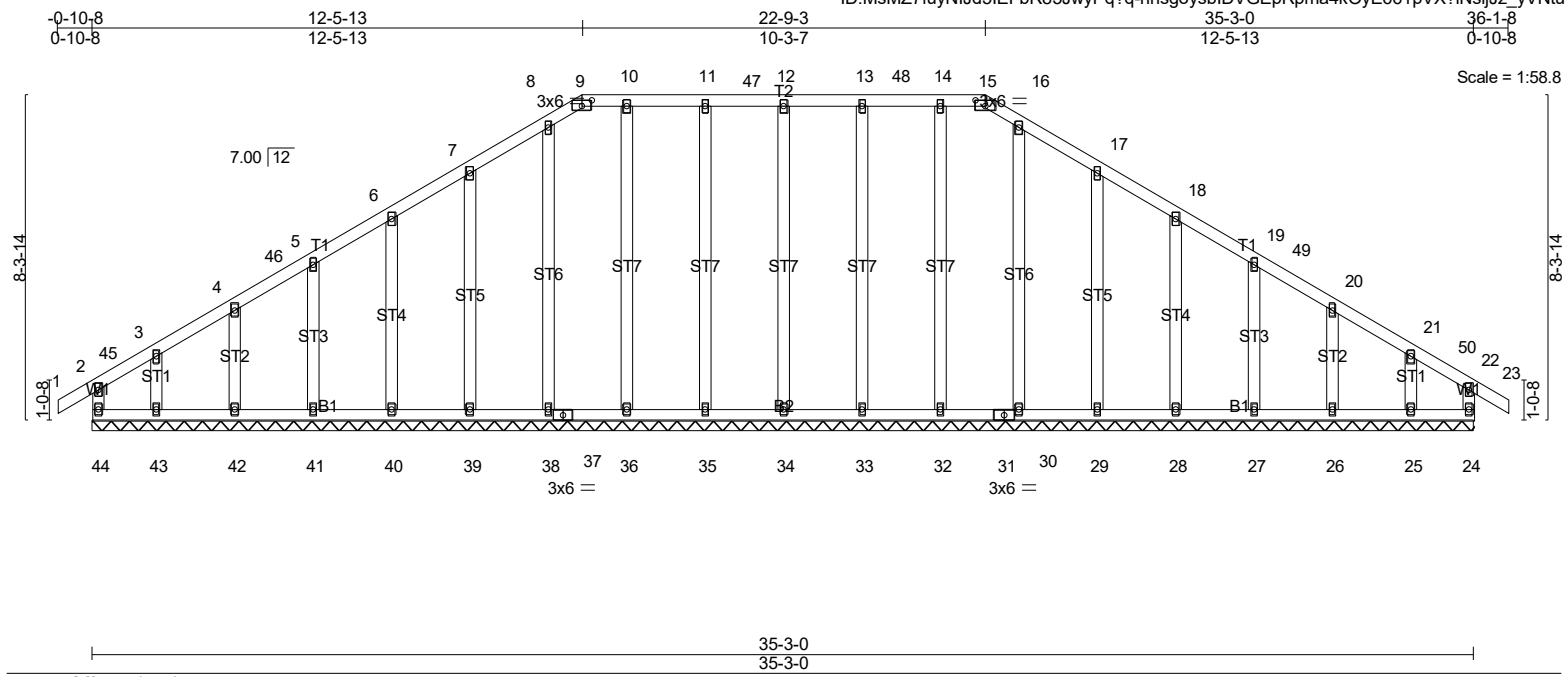


Plate Offsets (X,Y)-- [9:0-3-0,0-1-12], [15:0-3-0,0-1-12]					
<b>LOADING</b> (psf)	<b>SPACING-</b>	<b>CSI.</b>	<b>DEFL.</b>	<b>PLATES</b>	<b>GRIP</b>
TCLL (roof) 20.0	2-0-0	TC 0.13	in (loc) l/defl L/d	MT20	244/190
Snow (Pf) 20.0	Plate Grip DOL 1.15	BC 0.07	Vert(LL) -0.00 23 n/r 180		
TCDL 10.0	Lumber DOL 1.15	WB 0.27	Vert(CT) -0.00 23 n/r 80		
BCLL 0.0 *	Rep Stress Incr YES	Matrix-R	Horz(CT) 0.00 24 n/a n/a		
BCDL 10.0	Code IRC2018/TPI2014				Weight: 251 lb FT = 0%

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

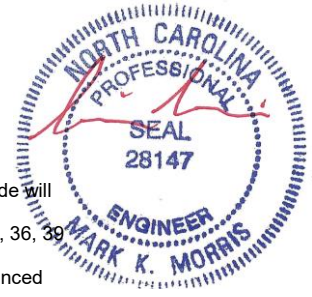
**BRACING-**  
 TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.  
 BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.

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

**REACTIONS.** All bearings 35-3-0.  
 (lb) - Max Horz 44=-176(LC 12)  
 Max Uplift All uplift 100 lb or less at joint(s) 44, 24, 34, 35, 36, 39, 40, 41, 42, 33, 32, 29, 28, 27, 26, 25 except 43=-106(LC 14)  
 Max Grav All reactions 250 lb or less at joint(s) 44, 24, 43, 25 except 34=296(LC 44), 35=299(LC 44), 36=298(LC 52), 38=297(LC 47), 39=322(LC 47), 40=324(LC 47), 41=275(LC 47), 42=259(LC 39), 33=299(LC 44), 32=296(LC 52), 30=288(LC 49), 29=324(LC 49), 28=324(LC 49), 27=274(LC 49), 26=259(LC 39)

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

- NOTES-** (16-17)
- 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=23ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - 3) 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) Provide adequate drainage to prevent water ponding.
  - 8) All plates are 2x4 MT20 unless otherwise indicated.
  - 9) Gable requires continuous bottom chord bearing.
  - 10) Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
  - 11) Gable studs spaced at 2-0-0 oc.
  - 12) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - 13) \* 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.
  - 14) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 44, 24, 34, 35, 36, 39, 40, 41, 42, 33, 32, 29, 28, 27, 26, 25 except (jt=lb) 43=106.
  - 15) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



10/7/2020

Job	Truss	Truss Type	Qty	Ply	LOT 1164 CARRIAGE CIRCLE   104 SPRUCE HOLLOW CIRCLE SPRING LAKE, N
20-4532-R01	R01	GABLE	1	1	Job Reference (optional) # 23870

8.330 s Mar 10 2020 MiTek Industries, Inc. Thu Oct 8 20:12:55 2020 Page 2  
 ID:MsMZ7fuyNIJd5IEFbR85JwyPq?q-k4\_RDetspqm\_T6bCu?6CTNJSocqVz?vEgJ?CQ2tyVNts

- 16) Graphical web bracing representation does not depict the size, type or the orientation of the brace on the web. Symbol only indicates that the member must be braced.
- 17) 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.

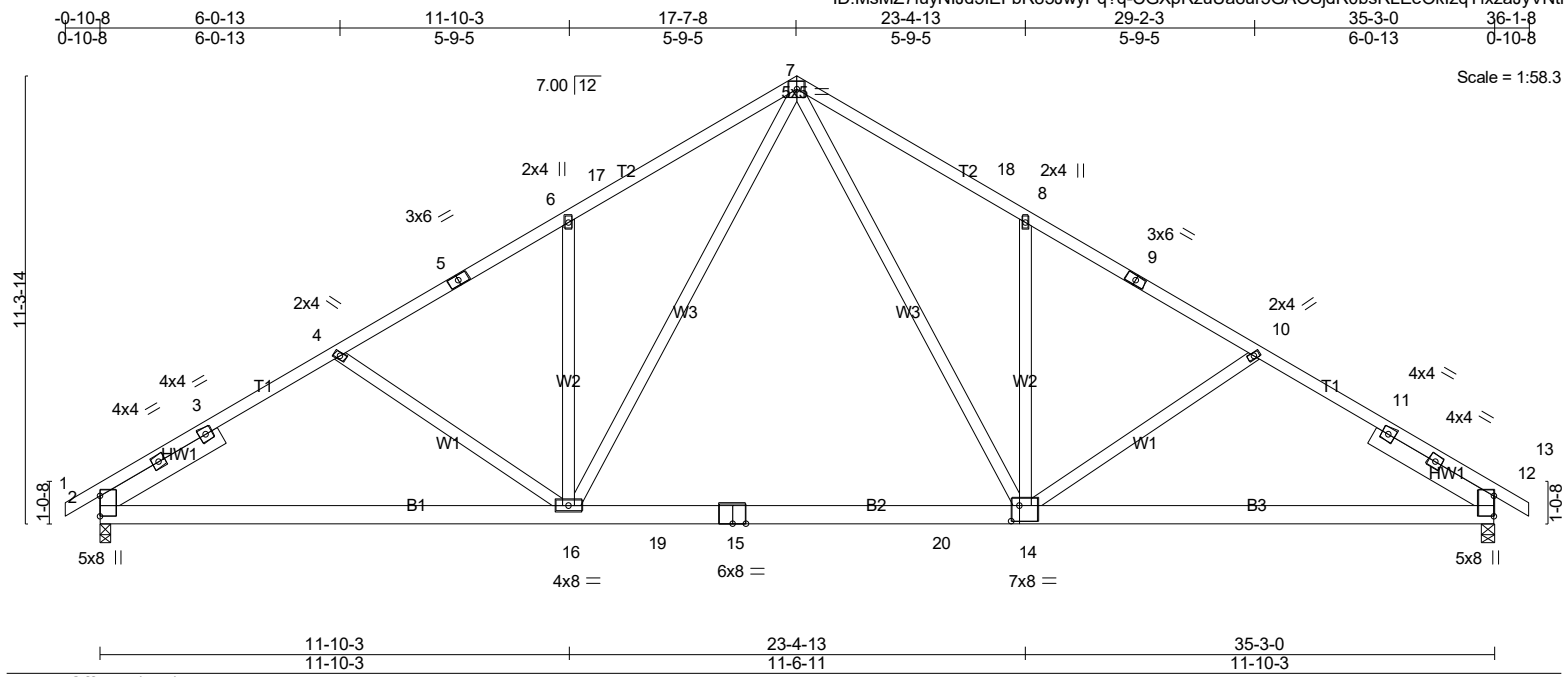
**LOAD CASE(S)** Standard



10/7/2020

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LOADING (psf)		SPACING-		CSI.		DEFL.		PLATES		GRIP	
TCLL (roof)	20.0	2-0-0	TC	0.90	in (loc)	l/defl	L/d	MT20	244/190	Weight: 241 lb FT = 0%	
Snow (Pf)	20.0	Plate Grip DOL	1.15	Vert(LL)	-0.41 14-16	>999	240				
TCDL	10.0	Lumber DOL	1.15	Vert(CT)	-0.56 14-16	>756	180				
BCLL	0.0 *	Rep Stress Incr	YES	Horz(CT)	0.06 12	n/a	n/a				
BCDL	10.0	Code IRC2018/TPI2014		Matrix-SH							

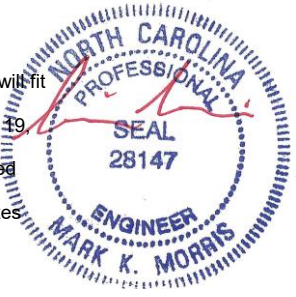
**LUMBER-**  
 TOP CHORD 2x4 SP No.2  
 BOT CHORD 2x6 SP No.2  
 WEBS 2x4 SP No.3  
 SLIDER Left 2x6 SP No.2 -, 3-6-11, Right 2x6 SP No.2 -, 3-6-11

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

**REACTIONS.** (lb/size) 2=1463/0-3-8 (min. 0-1-12), 12=1463/0-3-8 (min. 0-1-12)  
 Max Horz2=-213(LC 10)  
 Max Uplift2=-119(LC 14), 12=-119(LC 15)  
 Max Grav2=1500(LC 24), 12=1500(LC 25)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-3=-2207/164, 3-4=-2120/194, 4-5=-1956/144, 5-6=-1893/159, 6-17=-2030/262, 7-17=-1947/289, 7-18=-1947/289, 8-18=-2030/262, 8-9=-1893/160, 9-10=-1957/144, 10-11=-2120/194, 11-12=-2207/165  
 BOT CHORD 2-16=-220/1902, 16-19=-6/1273, 15-19=-6/1273, 15-20=-6/1273, 14-20=-6/1273, 12-14=-78/1744  
 WEBS 7-14=-191/1047, 8-14=-490/199, 7-16=-191/1047, 6-16=-490/199

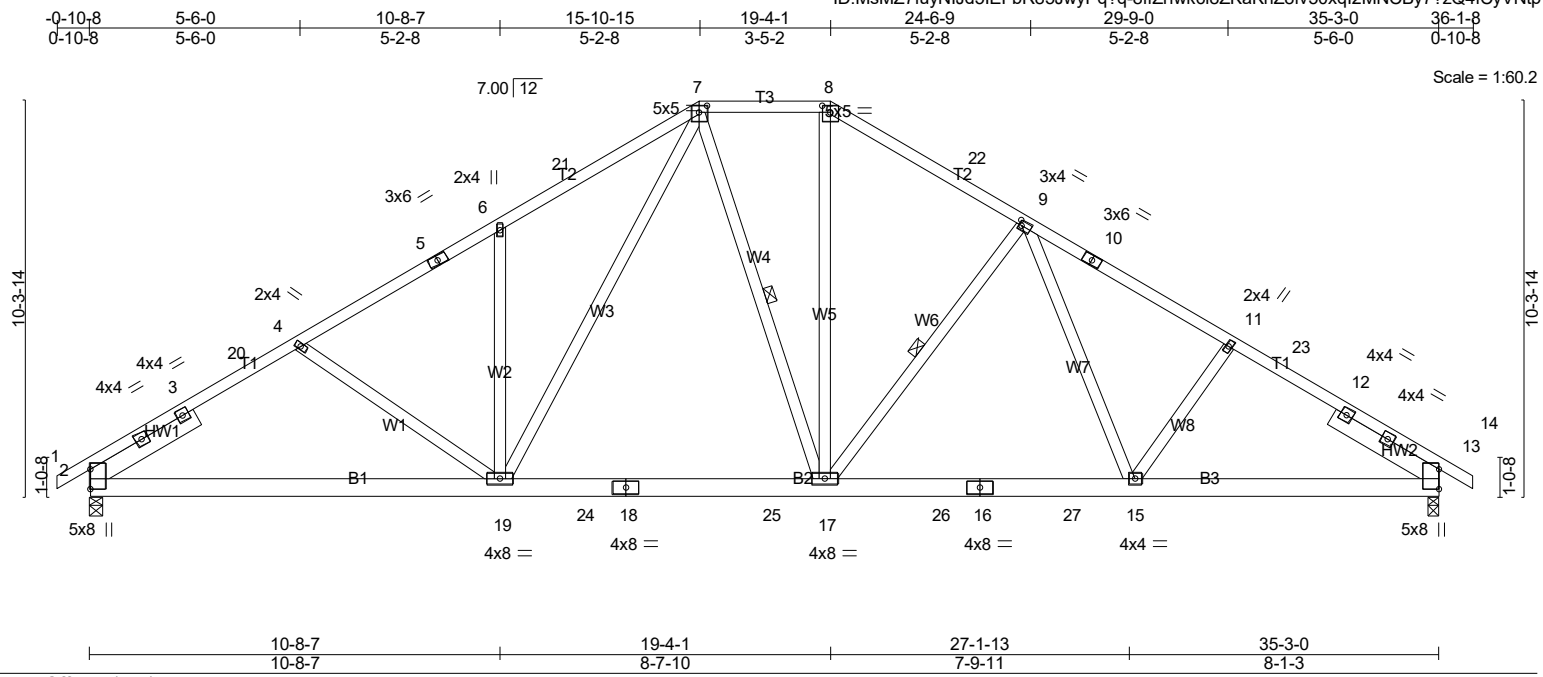
- NOTES-** (10-11)
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-16; Vult=120mph (3-second gust) Vasd=95mph; TC DL=5.0psf; BC DL=5.0psf; h=23ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
  - Unbalanced snow loads have been considered for this design.
  - This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 20.0 psf on overhangs non-concurrent with other live loads.
  - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - \* This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 1-0-0 wide will fit between the bottom chord and any other members, with BC DL = 10.0psf.
  - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=119, 12=119.
  - This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
  - Graphical web bracing representation does not depict the size, type or the orientation of the brace on the web. 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.



10/7/2020

**LOAD CASE(S)** Standard

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LOADING (psf)	SPACING-	CSI.	DEFL.	PLATES	GRIP
TCLL (roof) 20.0	2-0-0	TC 0.74	in (loc) l/defl L/d	MT20	244/190
Snow (Pf) 20.0	Plate Grip DOL 1.15	BC 0.72	Vert(LL) -0.21 17-19 >999 240		
TCDL 10.0	Lumber DOL 1.15	WB 0.59	Vert(CT) -0.29 17-19 >999 180		
BCLL 0.0 *	Rep Stress Incr YES	Matrix-SH	Horz(CT) 0.08 13 n/a n/a		
BCDL 10.0	Code IRC2018/TPI2014			Weight: 254 lb	FT = 0%

**LUMBER-**  
 TOP CHORD 2x4 SP No.2 \*Except\*  
 T1: 2x4 SP SS  
 BOT CHORD 2x6 SP No.2  
 WEBS 2x4 SP No.3  
 SLIDER Left 2x6 SP No.2 -, 3-2-11, Right 2x6 SP No.2 -, 3-2-13

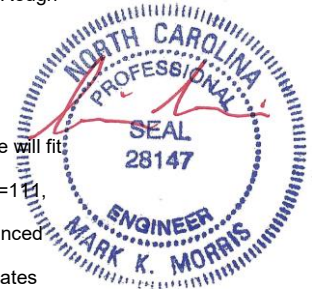
**BRACING-**  
 TOP CHORD Structural wood sheathing directly applied or 2-9-5 oc purlins.  
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.  
 WEBS 1 Row at midpt 7-17, 9-17

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

**REACTIONS.** (lb/size) 2=1463/0-3-8 (min. 0-2-5), 13=1463/0-3-8 (min. 0-2-5)  
 Max Horz 2=-193(LC 10)  
 Max Uplift 2=-111(LC 14), 13=-111(LC 15)  
 Max Grav 2=1939(LC 39), 13=1939(LC 39)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-3=-2923/152, 3-20=-2829/168, 4-20=-2782/178, 4-5=-2604/135, 5-6=-2379/149,  
 6-21=-2681/243, 7-21=-2521/266, 7-8=-1716/169, 8-22=-1975/161, 9-22=-2133/138,  
 9-10=-2460/182, 10-11=-2687/168, 11-23=-2794/164, 12-23=-2841/152, 12-13=-2936/137  
 BOT CHORD 2-19=-200/2358, 19-24=-7/1712, 18-24=-7/1712, 18-25=-7/1712, 17-25=-7/1712,  
 17-26=-1/2148, 16-26=-1/2148, 16-27=-1/2148, 15-27=-1/2148, 13-15=-62/2354  
 WEBS 6-19=-655/180, 7-19=-178/1071, 7-17=-125/292, 8-17=-48/803, 9-17=-736/175,  
 9-15=-33/334

- NOTES-** (11-12)
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-16; Vult=120mph (3-second gust) Vasd=95mph; TCCL=5.0psf; BCCL=5.0psf; h=23ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - TCCL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
  - Unbalanced snow loads have been considered for this design.
  - This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 20.0 psf on overhangs non-concurrent with other live loads.
  - Provide adequate drainage to prevent water ponding.
  - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - \* This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 1-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
  - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=111, 13=111.
  - This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
  - Graphical web bracing representation does not depict the size, type or the orientation of the brace on the web. 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.



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

Job	Truss	Truss Type	Qty	Ply	LOT 1164 CARRIAGE CIRCLE   104 SPRUCE HOLLOW CIRCLE SPRING LAKE, N
20-4532-R01	R02A	Hip	1	1	Job Reference (optional) # 23870

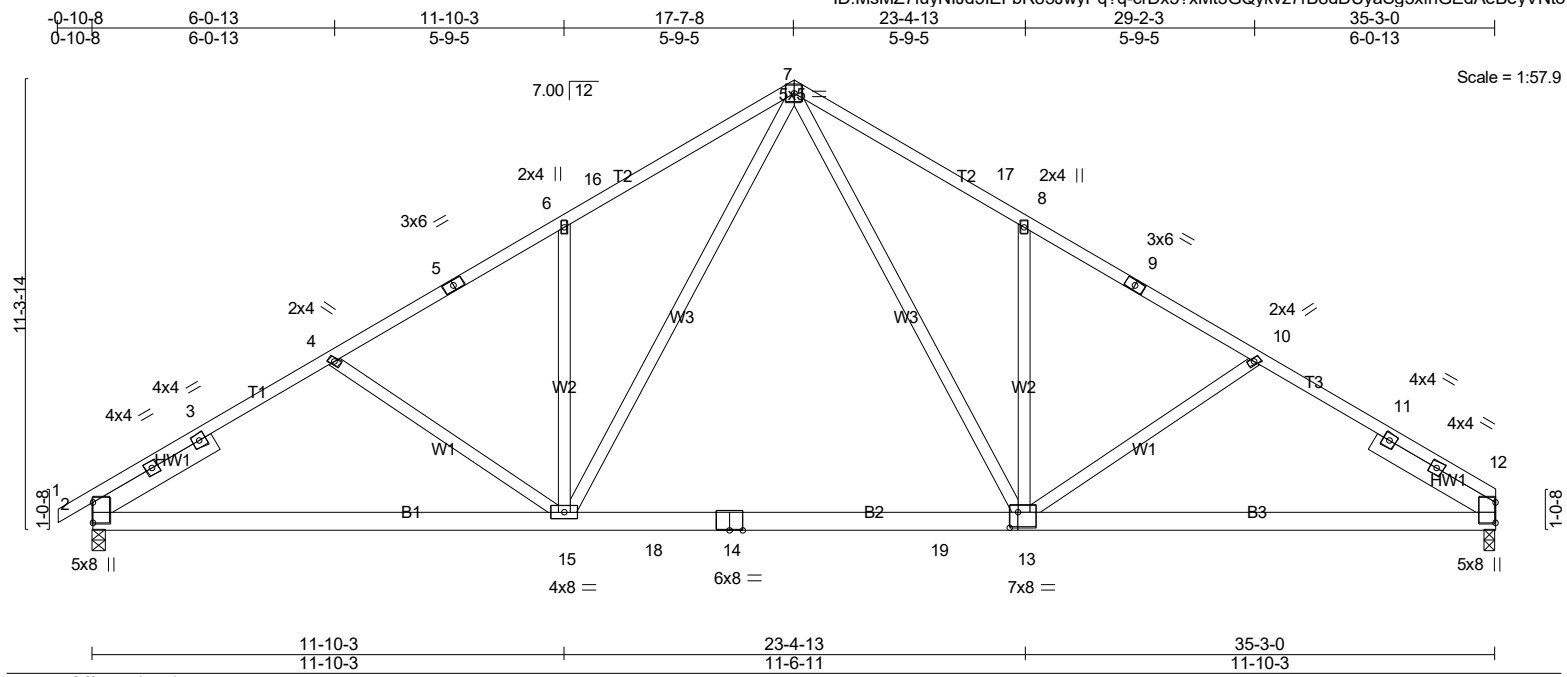
8.330 s Mar 10 2020 MiTek Industries, Inc. Thu Oct 8 20:12:59 2020 Page 2  
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**LOAD CASE(S)** Standard



10/7/2020

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LOADING (psf)		SPACING-		CSI.		DEFL.		PLATES		GRIP	
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.90	Vert(LL)	-0.41 13-15 >999 240	MT20		244/190	
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.89	Vert(CT)	-0.56 13-15 >756 180				
TCDL	10.0	Rep Stress Incr	YES	WB	0.56	Horz(CT)	0.06 12 n/a n/a				
BCLL	0.0 *	Code IRC2018/TPI2014		Matrix-SH							Weight: 239 lb FT = 0%
BCDL	10.0										

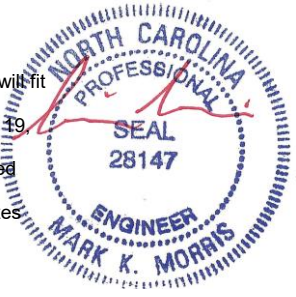
**LUMBER-**  
 TOP CHORD 2x4 SP No.2  
 BOT CHORD 2x6 SP No.2  
 WEBS 2x4 SP No.3  
 SLIDER Left 2x6 SP No.2 -, 3-6-11, Right 2x6 SP No.2 -, 3-6-11

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

**REACTIONS.** (lb/size) 2=1463/0-3-8 (min. 0-1-12), 12=1409/0-3-8 (min. 0-1-11)  
 Max Horz2=-214(LC 10)  
 Max Uplift2=-119(LC 14), 12=-105(LC 15)  
 Max Grav2=1500(LC 24), 12=1451(LC 25)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-3=-2208/164, 3-4=-2120/194, 4-5=-1957/144, 5-6=-1893/159, 6-16=-2031/263,  
 7-16=-1948/289, 7-17=-1949/289, 8-17=-2032/263, 8-9=-1895/160, 9-10=-1974/144,  
 10-11=-2124/195, 11-12=-2210/166  
 BOT CHORD 2-15=-218/1904, 15-18=-4/1275, 14-18=-4/1275, 14-19=-4/1275, 13-19=-4/1275,  
 12-13=-75/1748  
 WEBS 7-13=-191/1049, 8-13=-489/198, 7-15=-191/1047, 6-15=-490/199

- NOTES-** (10-11)
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-16; Vult=120mph (3-second gust) Vasd=95mph; TCDL=5.0psf; BCDL=5.0psf; h=23ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
  - Unbalanced snow loads have been considered for this design.
  - This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 20.0 psf on overhangs non-concurrent with other live loads.
  - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - \* This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 1-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
  - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=119, 12=105.
  - This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
  - Graphical web bracing representation does not depict the size, type or the orientation of the brace on the web. 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.



10/7/2020

**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.

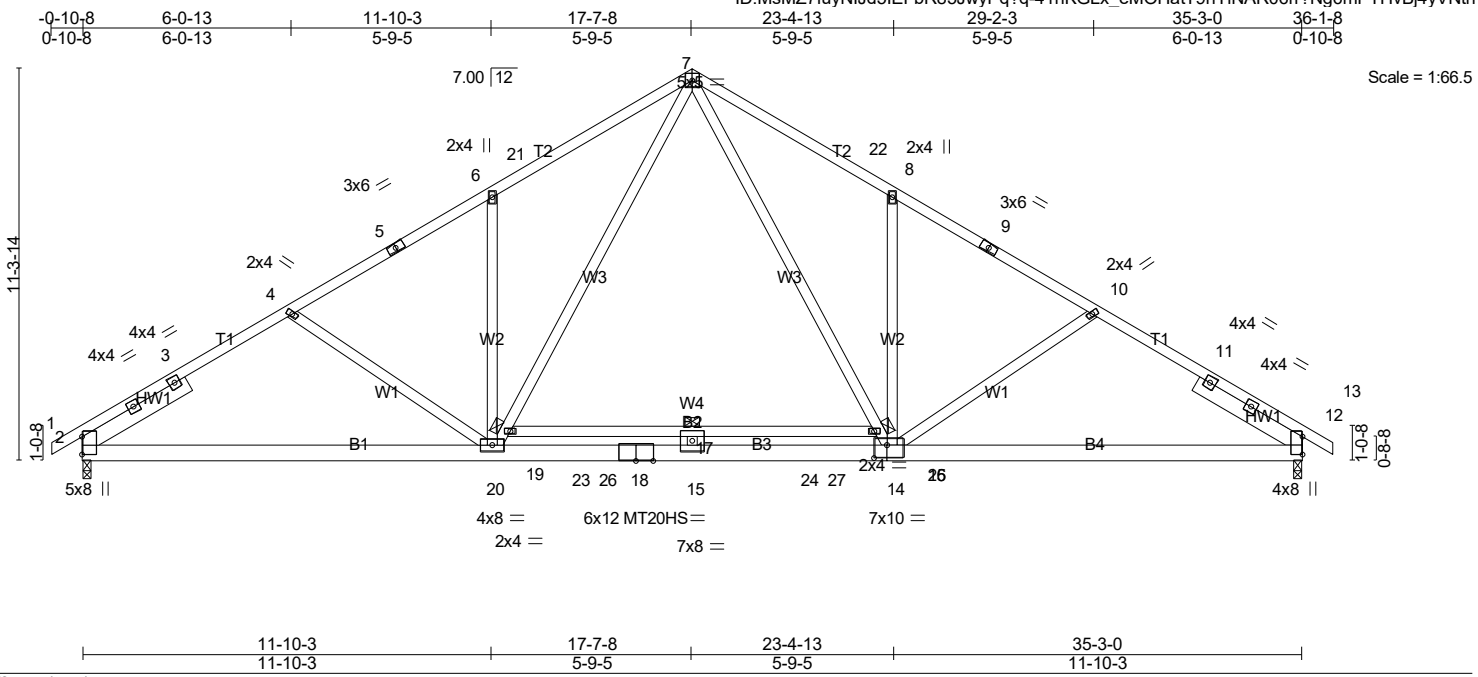


Plate Offsets (X,Y)-- [14:0-4-8,0-4-8]					
<b>LOADING</b> (psf)	<b>SPACING-</b>	<b>CSI.</b>	<b>DEFL.</b>	<b>PLATES</b>	<b>GRIP</b>
TCLL (roof) 20.0	2-0-0	TC 0.99	in (loc) l/defl L/d	MT20	244/190
Snow (Pf) 20.0	Plate Grip DOL 1.15	BC 0.95	Vert(LL) -0.58 17 >730 240	MT20HS	187/143
TCDL 10.0	Lumber DOL 1.15	WB 0.57	Vert(CT) -0.83 17 >512 180		
BCLL 0.0 *	Rep Stress Incr YES	Matrix-SH	Horz(CT) 0.06 12 n/a n/a		
BCDL 10.0	Code IRC2018/TPI2014			Weight: 257 lb	FT = 0%

<p><b>LUMBER-</b></p> <p>TOP CHORD 2x4 SP No.2 *Except* T1: 2x4 SP No.1</p> <p>BOT CHORD 2x4 SP No.2 *Except* B1: 2x6 SP No.1, B3: 2x6 SP DSS, B4: 2x6 SP No.2</p> <p>WEBS 2x4 SP No.3</p> <p>SLIDER Left 2x6 SP No.2 -, 3-6-11, Right 2x6 SP No.2 -, 3-6-11</p>	<p><b>BRACING-</b></p> <p>TOP CHORD Structural wood sheathing directly applied.</p> <p>BOT CHORD Rigid ceiling directly applied or 2-2-0 oc bracing. Except: 6-0-0 oc bracing: 16-19</p> <div style="border: 1px solid black; padding: 5px; margin-top: 10px;"> <p>MiTek recommends that Stabilizers and required cross bracing be installed during truss erection, in accordance with Stabilizer Installation guide.</p> </div>
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**REACTIONS.** (lb/size) 2=1571/0-3-8 (min. 0-2-1), 12=1571/0-3-8 (min. 0-2-1)  
 Max Horz 2=-213(LC 10)  
 Max Uplift 2=-65(LC 14), 12=-65(LC 15)  
 Max Grav 2=1744(LC 24), 12=1744(LC 25)

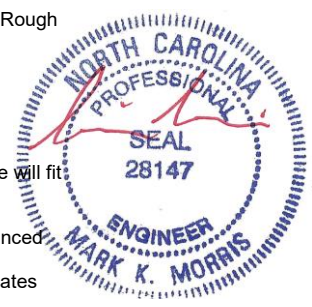
**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.

TOP CHORD 2-3=-2657/65, 3-4=-2568/95, 4-5=-2429/39, 5-6=-2365/55, 6-21=-2507/156,  
 7-21=-2424/183, 7-22=-2418/183, 8-22=-2501/157, 8-9=-2360/55, 9-10=-2424/40,  
 10-11=-2562/95, 11-12=-2651/65

BOT CHORD 2-20=-139/2266, 20-23=0/1552, 18-23=0/1552, 15-18=0/1552, 15-24=0/1552, 24-25=0/1552,  
 14-25=0/1552, 12-14=0/2103

WEBS 7-16=-130/1311, 14-16=-158/1220, 8-14=-493/196, 19-20=-159/1231, 7-19=-130/1321,  
 6-20=-493/196, 15-17=-365/0

- NOTES-** (11-12)
- 1) Unbalanced roof live loads have been considered for this design.
  - 2) Wind: ASCE 7-16; Vult=120mph (3-second gust) Vasd=95mph; TCCL=5.0psf; BCDL=5.0psf; h=23ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - 3) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
  - 4) Unbalanced snow loads have been considered for this design.
  - 5) This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 20.0 psf on overhangs non-concurrent with other live loads.
  - 6) All plates are MT20 plates unless otherwise indicated.
  - 7) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - 8) \* This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 1-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
  - 9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 12.
  - 10) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
  - 11) Graphical web bracing representation does not depict the size, type or the orientation of the brace on the web. 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.



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

Job	Truss	Truss Type	Qty	Ply	LOT 1164 CARRIAGE CIRCLE   104 SPRUCE HOLLOW CIRCLE SPRING LAKE, N
20-4532-R01	R03A	Common	1	1	Job Reference (optional) # 23870

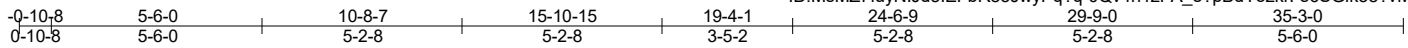
8.330 s Mar 10 2020 MiTek Industries, Inc. Thu Oct 8 20:13:01 2020 Page 2  
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**LOAD CASE(S)** Standard

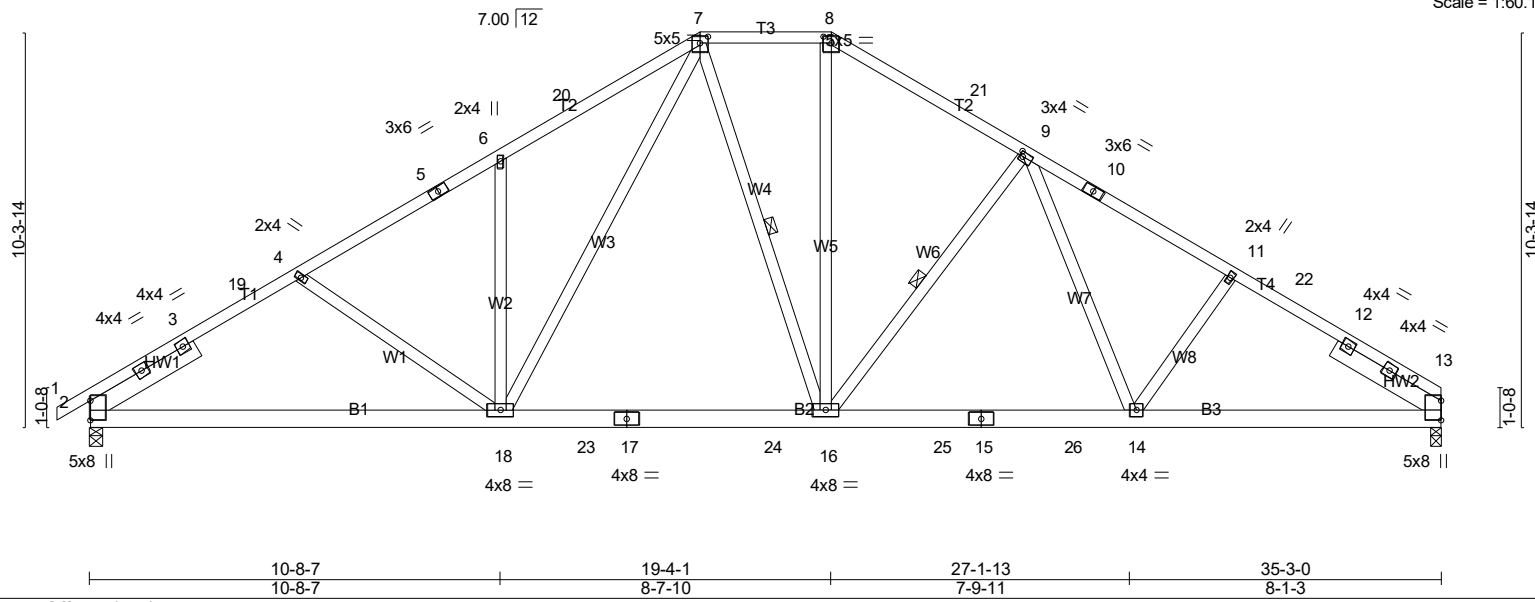


10/7/2020

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Scale = 1:60.1



LOADING (psf)		SPACING-		CSI.		DEFL.		PLATES		GRIP	
TCLL (roof)	20.0	Plate Grip DOL	2.0-0	TC	1.00	Vert(LL)	-0.21 16-18 >999 240	MT20		244/190	
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.74	Vert(CT)	-0.30 16-18 >999 180				
TCDL	10.0	Rep Stress Incr	YES	WB	0.59	Horz(CT)	0.08 13 n/a n/a				
BCLL	0.0 *	Code IRC2018/TPI2014		Matrix-SH							Weight: 253 lb FT = 0%
BCDL	10.0										

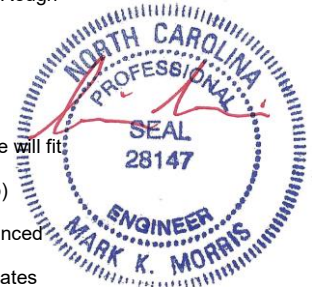
**LUMBER-**  
 TOP CHORD 2x4 SP No.2 \*Except\*  
 T1, T4: 2x4 SP No.1  
 BOT CHORD 2x6 SP No.2  
 WEBS 2x4 SP No.3  
 SLIDER Left 2x6 SP No.2 -, 3-2-11, Right 2x6 SP No.2 -, 3-2-13

**BRACING-**  
 TOP CHORD Structural wood sheathing directly applied.  
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.  
 WEBS 1 Row at midpt 7-16, 9-16  
 MiTek recommends that Stabilizers and required cross bracing be installed during truss erection, in accordance with Stabilizer Installation guide.

**REACTIONS.** (lb/size) 2=1463/0-3-8 (min. 0-2-5), 13=1409/0-3-8 (min. 0-2-4)  
 Max Horz 2=-195(LC 10)  
 Max Uplift 2=-111(LC 14), 13=-97(LC 15)  
 Max Grav 2=1940(LC 39), 13=1886(LC 39)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-3=-2924/152, 3-19=-2831/168, 4-19=-2784/178, 4-5=-2605/135, 5-6=-2380/149,  
 6-20=-2683/243, 7-20=-2522/267, 7-8=-1717/169, 8-21=-1977/161, 9-21=-2135/138,  
 9-10=-2463/183, 10-11=-2690/169, 11-22=-2798/166, 12-22=-2845/153, 12-13=-2938/148  
 BOT CHORD 2-18=-198/2361, 18-23=-5/1714, 17-23=-5/1714, 17-24=-5/1714, 16-24=-5/1714,  
 16-25=0/2151, 15-25=0/2151, 15-26=0/2151, 14-26=0/2151, 13-14=-59/2360  
 WEBS 6-18=-657/180, 7-18=-179/1071, 7-16=-123/293, 8-16=-49/805, 9-16=-738/176,  
 9-14=-34/335

- NOTES-** (11-12)
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-16; Vult=120mph (3-second gust) Vasd=95mph; TCCL=5.0psf; BCCL=5.0psf; h=23ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - TCCL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
  - Unbalanced snow loads have been considered for this design.
  - This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 20.0 psf on overhangs non-concurrent with other live loads.
  - Provide adequate drainage to prevent water ponding.
  - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - \* This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 1-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
  - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 13 except (jt=lb) 2=111.
  - This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
  - Graphical web bracing representation does not depict the size, type or the orientation of the brace on the web. 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.



10/7/2020

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

Job 20-4532-R01	Truss R03B	Truss Type HIP	Qty 1	Ply 1	LOT 1164 CARRIAGE CIRCLE   104 SPRUCE HOLLOW CIRCLE SPRING LAKE, N Job Reference (optional) <b># 23870</b>
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8.330 s Mar 10 2020 MiTek Industries, Inc. Thu Oct 8 20:13:02 2020 Page 2  
 ID:MsMZ7fuyNIJd5IEFbR85JwyPq?q-0Qv4h1zFA\_e?pBdYozkrFs6SGfk58?viwbOlozyVnt

**LOAD CASE(S)** Standard



10/7/2020

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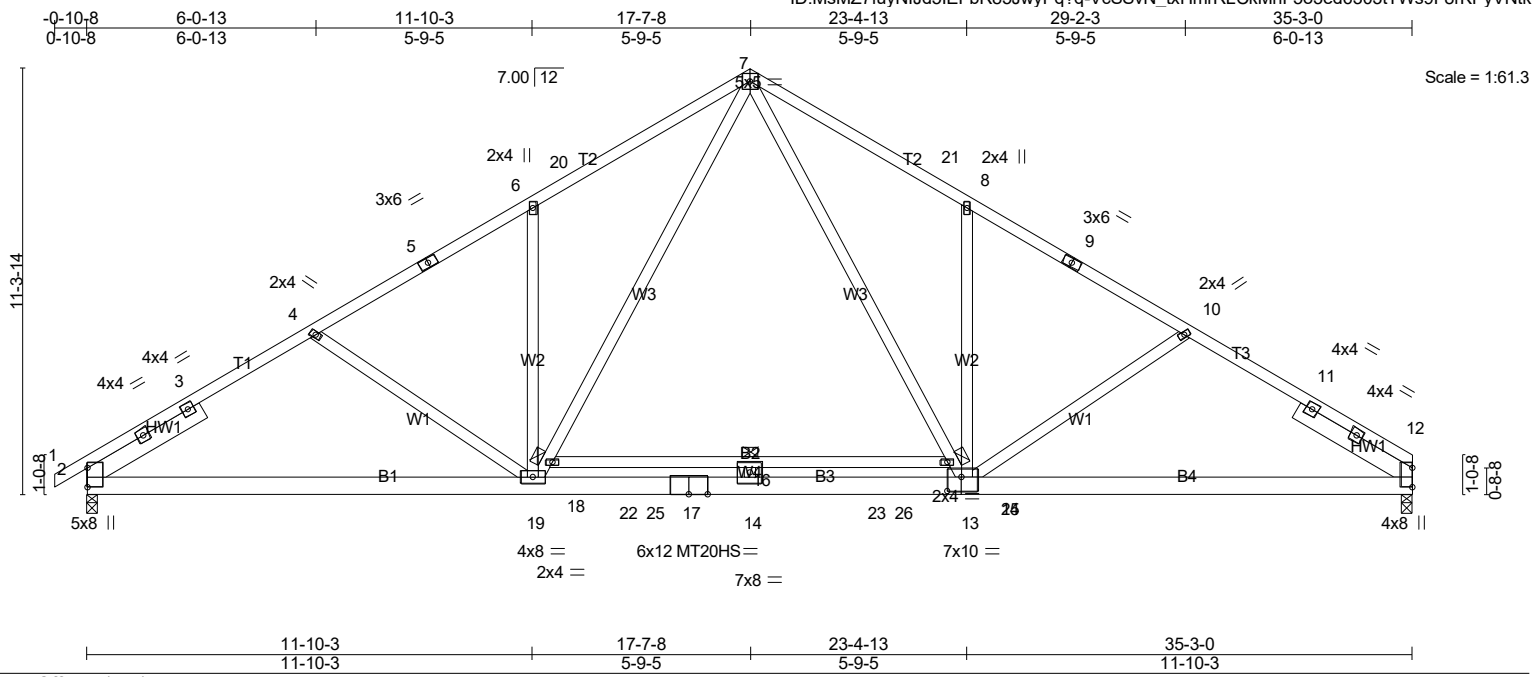


Plate Offsets (X,Y)-- [13:0-4-8,0-4-8]						
<b>LOADING</b> (psf)	<b>SPACING-</b>	<b>CSI.</b>	<b>DEFL.</b>		<b>PLATES</b>	<b>GRIP</b>
TCLL (roof) 20.0	2-0-0	TC 0.99	in (loc) l/defl L/d		MT20	244/190
Snow (Pf) 20.0	Plate Grip DOL 1.15	BC 0.95	Vert(LL) -0.58 16 >730 240		MT20HS	187/143
TCDL 10.0	Lumber DOL 1.15	WB 0.57	Vert(CT) -0.83 16 >512 180			
BCLL 0.0 *	Rep Stress Incr YES	Matrix-SH	Horz(CT) 0.06 12 n/a n/a			
BCDL 10.0	Code IRC2018/TPI2014					Weight: 255 lb FT = 0%

<p><b>LUMBER-</b></p> <p>TOP CHORD 2x4 SP No.2 *Except* T1,T3: 2x4 SP No.1</p> <p>BOT CHORD 2x4 SP No.2 *Except* B1: 2x6 SP No.1, B3: 2x6 SP DSS, B4: 2x6 SP No.2</p> <p>WEBS 2x4 SP No.3</p> <p>SLIDER Left 2x6 SP No.2 -, 3-6-11, Right 2x6 SP No.2 -, 3-6-11</p>	<p><b>BRACING-</b></p> <p>TOP CHORD Structural wood sheathing directly applied.</p> <p>BOT CHORD Rigid ceiling directly applied or 2-2-0 oc bracing. Except: 6-0-0 oc bracing: 15-18</p> <div style="border: 1px solid black; padding: 5px; margin-top: 10px;"> <p>MiTek recommends that Stabilizers and required cross bracing be installed during truss erection, in accordance with Stabilizer Installation guide.</p> </div>
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**REACTIONS.** (lb/size) 2=1572/0-3-8 (min. 0-2-1), 12=1518/0-3-8 (min. 0-2-0)  
 Max Horz 2=-214(LC 10)  
 Max Uplift 2=-65(LC 14), 12=-51(LC 15)  
 Max Grav 2=1744(LC 24), 12=1695(LC 25)

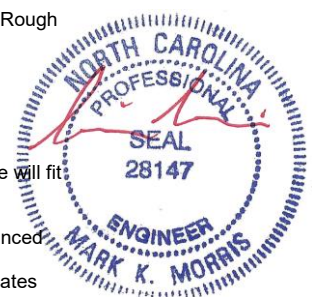
**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.

TOP CHORD 2-3=-2657/65, 3-4=-2568/95, 4-5=-2430/39, 5-6=-2366/55, 6-20=-2508/156,  
 7-20=-2424/183, 7-21=-2421/183, 8-21=-2504/157, 8-9=-2362/56, 9-10=-2426/40,  
 10-11=-2566/96, 11-12=-2655/66

BOT CHORD 2-19=-138/2268, 19-22=0/1554, 17-22=0/1554, 14-17=0/1554, 14-23=0/1554, 23-24=0/1554,  
 13-24=0/1554, 12-13=0/2107

WEBS 7-15=-130/1313, 13-15=-159/1222, 8-13=-492/196, 18-19=-159/1231, 7-18=-130/1321,  
 6-19=-493/196, 14-16=-365/0

- NOTES-** (11-12)
- 1) Unbalanced roof live loads have been considered for this design.
  - 2) Wind: ASCE 7-16; Vult=120mph (3-second gust) Vasd=95mph; TCCL=5.0psf; BCDL=5.0psf; h=23ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - 3) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
  - 4) Unbalanced snow loads have been considered for this design.
  - 5) This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 20.0 psf on overhangs non-concurrent with other live loads.
  - 6) All plates are MT20 plates unless otherwise indicated.
  - 7) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - 8) \* This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 1-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
  - 9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 12.
  - 10) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
  - 11) Graphical web bracing representation does not depict the size, type or the orientation of the brace on the web. 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.



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

Job 20-4532-R01	Truss R04	Truss Type COMMON	Qty 5	Ply 1	LOT 1164 CARRIAGE CIRCLE   104 SPRUCE HOLLOW CIRCLE SPRING LAKE, N Job Reference (optional) <b># 23870</b>
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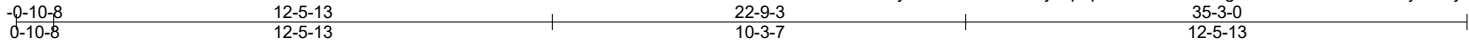
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**LOAD CASE(S)** Standard



10/7/2020

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Scale = 1:57.4

<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	Plate Grip DOL	1.15	TC	0.13	in (loc)	l/defl	L/d	MT20	244/190
Snow (Pf)	20.0	1.15	Lumber DOL	1.15	BC	0.06	Vert(LL)	0.00 1 n/r	180		
TCDL	10.0	YES	Rep Stress Incr	YES	WB	0.27	Vert(CT)	-0.00 1 n/r	80		
BCLL	0.0 *	Code IRC2018/TPI2014	Matrix-R				Horz(CT)	0.00 23 n/a	n/a		
BCDL	10.0									Weight: 250 lb	FT = 0%

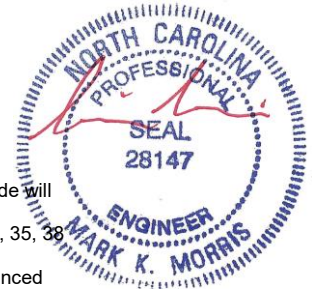
<b>LUMBER-</b>		<b>BRACING-</b>	
TOP CHORD	2x4 SP No.2	TOP CHORD	Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.
BOT CHORD	2x4 SP No.2	BOT CHORD	Rigid ceiling directly applied or 6-0-0 oc bracing.
WEBS	2x4 SP No.3		
OTHERS	2x4 SP No.3		

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

**REACTIONS.** All bearings 35-3-0.  
 (lb) - Max Horz 43=172(LC 11)  
 Max Uplift All uplift 100 lb or less at joint(s) 43, 23, 33, 34, 35, 38, 39, 40, 41, 32, 31, 28, 27, 26, 25, 24 except 42=107(LC 14)  
 Max Grav All reactions 250 lb or less at joint(s) 43, 23, 42, 24 except 33=296(LC 44), 34=299(LC 44), 35=297(LC 52), 37=296(LC 47), 38=323(LC 47), 39=324(LC 47), 40=275(LC 47), 41=259(LC 39), 32=299(LC 44), 31=295(LC 52), 29=286(LC 49), 28=325(LC 49), 27=324(LC 49), 26=275(LC 49), 25=254(LC 39)

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

- NOTES-** (16-17)
- 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=23ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - 3) 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) Provide adequate drainage to prevent water ponding.
  - 8) All plates are 2x4 MT20 unless otherwise indicated.
  - 9) Gable requires continuous bottom chord bearing.
  - 10) Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
  - 11) Gable studs spaced at 2-0-0 oc.
  - 12) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - 13) \* 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.
  - 14) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 43, 23, 33, 34, 35, 38, 39, 40, 41, 32, 31, 28, 27, 26, 25, 24 except (jt=lb) 42=107.
  - 15) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



10/7/2020

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

Job	Truss	Truss Type	Qty	Ply	LOT 1164 CARRIAGE CIRCLE   104 SPRUCE HOLLOW CIRCLE SPRING LAKE, N
20-4532-R01	R05	GABLE	1	1	Job Reference (optional) # 23870

8.330 s Mar 10 2020 MiTek Industries, Inc. Thu Oct 8 20:13:07 2020 Page 2  
 ID:MsMZ7fuyNIJd5IEFbR85JwyPq?q-NNizkk1N?WGHvyWVbWK1yvpVZgbopKCR4t63TAyVNTg

- 16) Graphical web bracing representation does not depict the size, type or the orientation of the brace on the web. Symbol only indicates that the member must be braced.
- 17) 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.

**LOAD CASE(S)** Standard

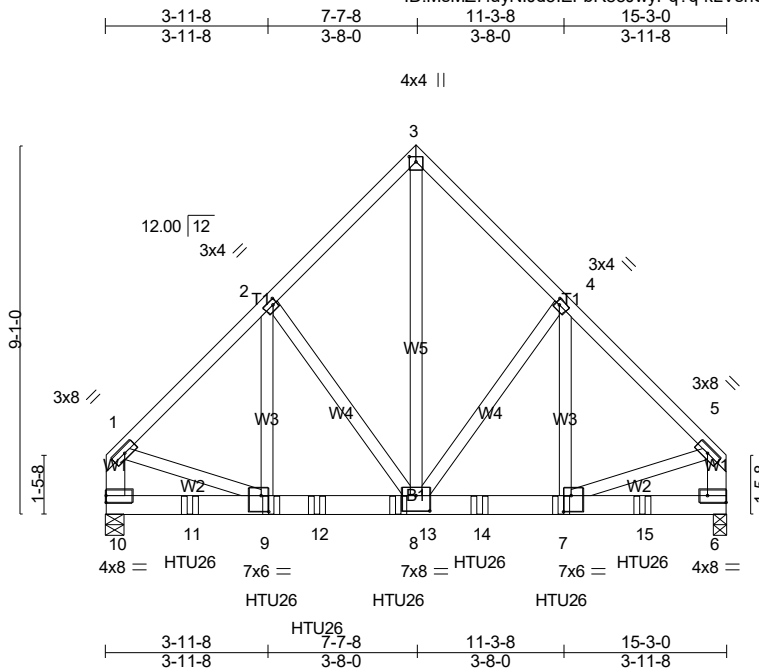


10/7/2020

**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 20-4532-R01	Truss R06	Truss Type Common Girder	Qty 1	Ply 2	LOT 1164 CARRIAGE CIRCLE   104 SPRUCE HOLLOW CIRCLE SPRING LAKE, N.C. Job Reference (optional) # 23870
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8.330 s Mar 10 2020 MiTek Industries, Inc. Thu Oct 8 20:13:12 2020 Page 1



Scale = 1:56.7

Plate Offsets (X,Y)-- [2:0-1-4,0-1-8], [3:0-1-8,0-2-0], [4:0-1-4,0-1-8], [6:Edge,0-2-0], [7:0-2-4,0-4-12], [8:0-4-0,0-4-8], [9:0-2-4,0-4-12]

LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof) 20.0	2-0-0	TC 0.34	Vert(LL) -0.06	8-9	>999	240	MT20	244/190
Snow (Pf) 20.0	Plate Grip DOL 1.15	BC 0.84	Vert(CT) -0.11	8-9	>999	180		
TCDL 10.0	Lumber DOL 1.15	WB 0.79	Horz(CT) 0.02	6	n/a	n/a		
BCLL 0.0 *	Rep Stress Incr NO	Matrix-SH						
BCDL 10.0	Code IRC2018/TPI2014						Weight: 255 lb	FT = 0%

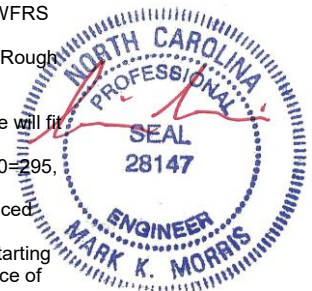
LUMBER-	BRACING-
TOP CHORD 2x4 SP No.2	TOP CHORD Structural wood sheathing directly applied or 5-0-12 oc purlins, except end verticals.
BOT CHORD 2x6 SP No.2	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 2x4 SP No.3 *Except*	
W5: 2x4 SP No.2, W1: 2x6 SP No.2	

**REACTIONS.** (lb/size) 10=5942/0-5-8 (min. 0-3-10), 6=5877/0-3-8 (min. 0-3-7)  
Max Horz 10=-180(LC 8)  
Max Uplift 10=-295(LC 11), 6=-357(LC 10)  
Max Grav 10=6189(LC 4), 6=5877(LC 1)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
TOP CHORD 1-2=-5817/320, 2-3=-4158/333, 3-4=-4158/333, 4-5=-5314/366, 1-10=-5383/280, 5-6=-4889/321  
BOT CHORD 10-11=-187/535, 9-11=-187/535, 9-12=-243/4057, 12-13=-243/4057, 8-13=-243/4057, 8-14=-200/3702, 7-14=-200/3702, 7-15=-51/518, 6-15=-51/518  
WEBS 3-8=-389/5602, 4-8=-1435/243, 4-7=-160/1818, 2-8=-1943/188, 2-9=-87/2583, 1-9=-159/3812, 5-7=-185/3379

**NOTES-** (12-13)

- 2-ply truss to be connected together with 10d (0.131"x3") nails as follows:  
Top chords connected as follows: 2x4 - 1 row at 0-9-0 oc, 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; TCCL=5.0psf; BCCL=5.0psf; h=23ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 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
- 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=295, 6=357.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- Use Simpson Strong-Tie HTU26 (20-10d Girder, 11-10dx1 1/2 Truss, Single Ply Girder) or equivalent spaced at 2-0-0 oc max. starting at 2-0-12 from the left end to 13-2-4 to connect truss(es) R04 (1 ply 2x6 SP), R03 (1 ply 2x6 SP), R03B (1 ply 2x6 SP) to back face of bottom chord.
- Fill all nail holes where hanger is in contact with lumber.



10/7/2020

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

Job 20-4532-R01	Truss R06	Truss Type Common Girder	Qty 1	Ply 2	LOT 1164 CARRIAGE CIRCLE   104 SPRUCE HOLLOW CIRCLE SPRING LAKE, N Job Reference (optional) # 23870
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8.330 s Mar 10 2020 MiTek Industries, Inc. Thu Oct 8 20:13:13 2020 Page 2  
ID:MsMZ7fuyNIJd5IEFbR85JwyPq?q-CX3E?n58aM1RdtzfxnRCA3Um5S2DwVKSpZnhqyVNta

- 12) Graphical web bracing representation does not depict the size, type or the orientation of the brace on the web. 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.

**LOAD CASE(S)** Standard

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

Uniform Loads (plf)

Vert: 1-3=-60, 3-5=-60, 6-10=-20

Concentrated Loads (lb)

Vert: 7=-1389(B) 9=-1498(B) 11=-1498(B) 12=-1498(B) 13=-1498(B) 14=-1389(B) 15=-1866(B)



10/7/2020

**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 20-4532-R01	Truss R07	Truss Type Common	Qty 5	Ply 1	LOT 1164 CARRIAGE CIRCLE   104 SPRUCE HOLLOW CIRCLE SPRING LAKE, N	# 23870
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8.330 s Mar 10 2020 MiTek Industries, Inc. Thu Oct 8 20:13:14 2020 Page 1

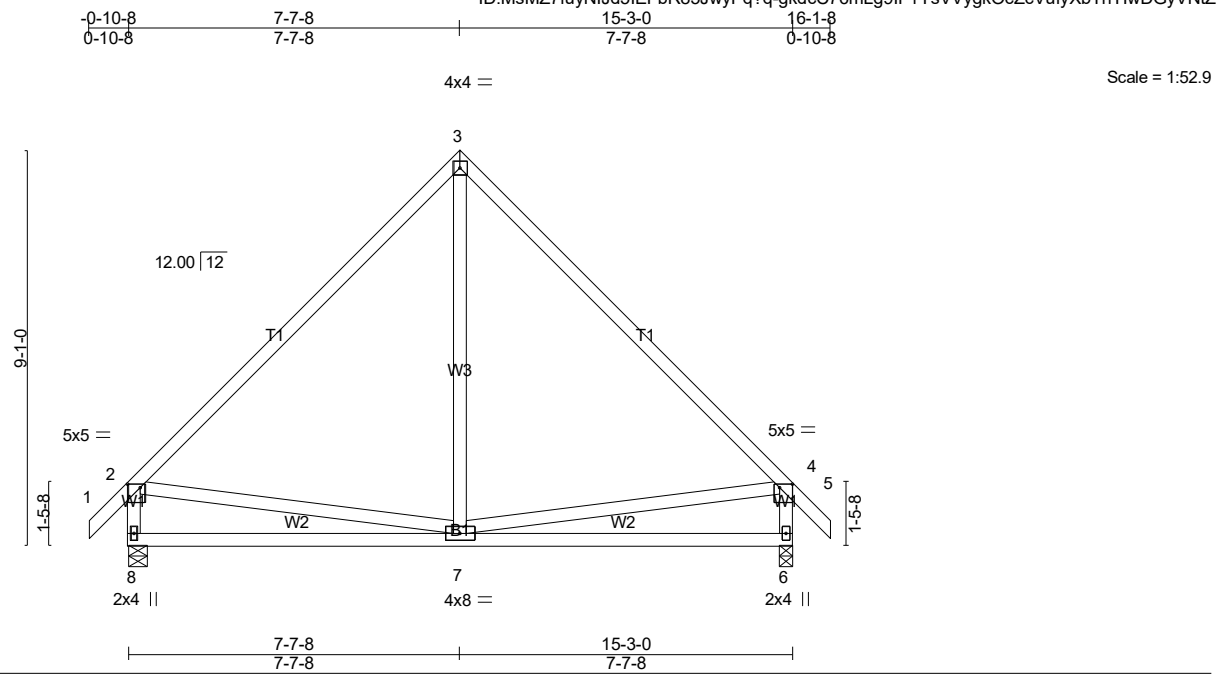


Plate Offsets (X,Y)-- [2:0-3-8,0-1-0], [4:0-3-8,0-1-0]					
<b>LOADING</b> (psf)	<b>SPACING-</b>	<b>CSI.</b>	<b>DEFL.</b>	<b>PLATES</b>	<b>GRIP</b>
TCLL (roof) 20.0	2-0-0	TC 0.72	in (loc) l/defl L/d	MT20	244/190
Snow (Pf) 20.0	Plate Grip DOL 1.15	BC 0.50	Vert(LL) -0.06 7-8 >999 240		
TCDL 10.0	Lumber DOL 1.15	WB 0.16	Vert(CT) -0.13 7-8 >999 180		
BCLL 0.0 *	Rep Stress Incr YES	Matrix-SH	Horz(CT) 0.01 6 n/a n/a		
BCDL 10.0	Code IRC2018/TPI2014			Weight: 96 lb	FT = 0%

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

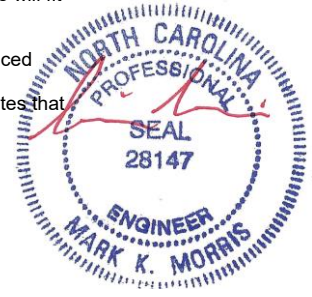
**BRACING-**  
TOP CHORD Structural wood sheathing directly applied or 5-9-2 oc purlins, except end verticals.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.  
MiTek recommends that Stabilizers and required cross bracing be installed during truss erection, in accordance with Stabilizer Installation guide.

**REACTIONS.** (lb/size) 8=660/0-5-8 (min. 0-1-8), 6=660/0-3-8 (min. 0-1-8)  
Max Horz 8=-202(LC 10)  
Max Uplift 8=40(LC 13), 6=-40(LC 12)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
TOP CHORD 2-3=-572/105, 3-4=-572/105, 2-8=-593/71, 4-6=-593/71  
BOT CHORD 7-8=-261/419, 6-7=-179/270  
WEBS 3-7=0/311, 2-7=-142/303, 4-7=-146/304

- NOTES-** (9-10)
- 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=23ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - 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
  - This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 20.0 psf on overhangs non-concurrent with other live loads.
  - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - \* This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 1-0-0 wide will fit between the bottom chord and any other members.
  - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 8, 6.
  - This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
  - Graphical web bracing representation does not depict the size, type or the orientation of the brace on the web. 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.

**LOAD CASE(S)** Standard



10/7/2020

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

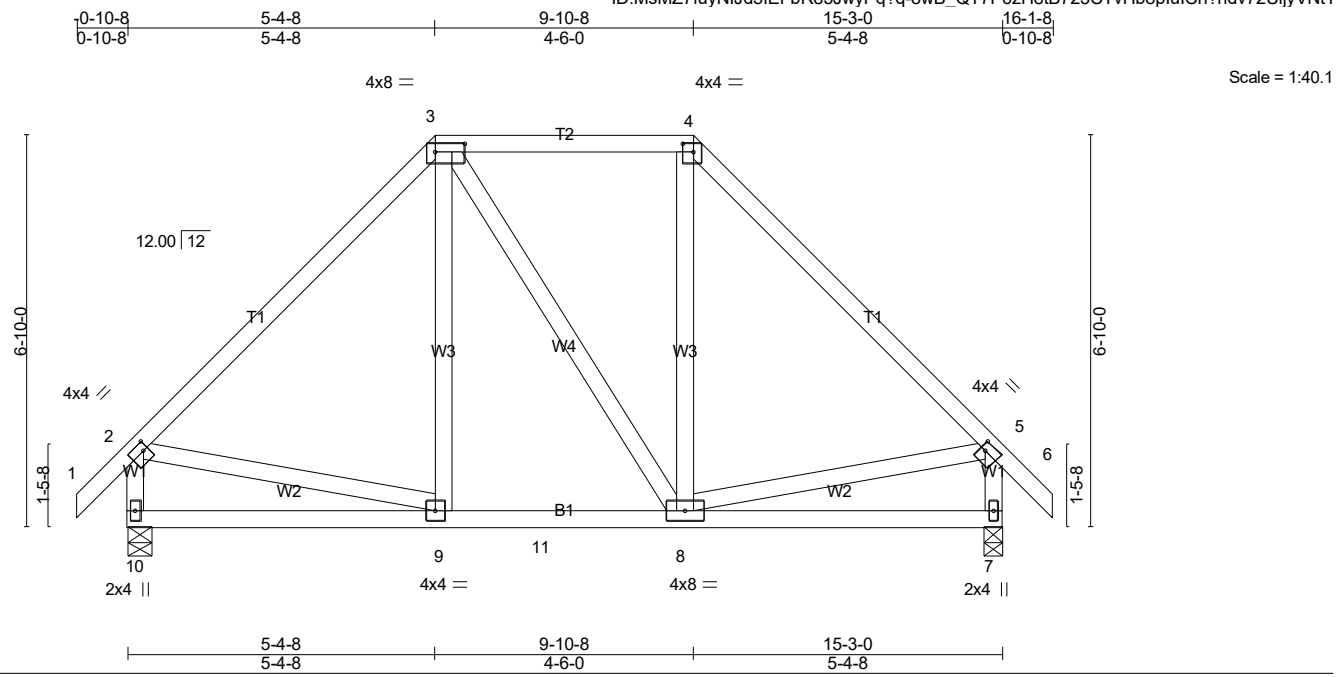


Plate Offsets (X,Y)-- [2:0-1-0,0-1-12], [3:0-6-4,0-1-12], [4:0-2-4,0-1-12], [5:0-1-0,0-1-12]						
<b>LOADING</b> (psf)	<b>SPACING-</b>	<b>CSI.</b>	<b>DEFL.</b>		<b>PLATES</b>	<b>GRIP</b>
TCLL (roof) 20.0	2-0-0	TC 0.40	in (loc) l/defl L/d		MT20	244/190
Snow (Pf) 20.0	Plate Grip DOL 1.15	BC 0.22	Vert(LL) -0.02 9-10 >999 240			
TCDL 10.0	Lumber DOL 1.15	WB 0.10	Vert(CT) -0.05 9-10 >999 180			
BCLL 0.0 *	Rep Stress Incr YES	Matrix-SH	Horz(CT) 0.00 7 n/a n/a			
BCDL 10.0	Code IRC2018/TPI2014				Weight: 105 lb	FT = 0%

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

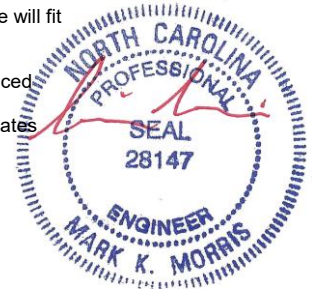
**BRACING-**  
 TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.  
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

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

**REACTIONS.** (lb/size) 10=660/0-5-8 (min. 0-1-8), 7=660/0-3-8 (min. 0-1-8)  
 Max Horz 10=-158(LC 10)  
 Max Uplift10=-37(LC 12), 7=-37(LC 13)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-3=-581/59, 3-4=-326/92, 4-5=-581/58, 2-10=-607/61, 5-7=-607/60  
 BOT CHORD 9-11=-54/365, 8-11=-54/365  
 WEBS 2-9=-51/300, 5-8=-53/288

- NOTES-** (10-11)
- 1) Unbalanced roof live loads have been considered for this design.
  - 2) Wind: ASCE 7-16; Vult=120mph (3-second gust) Vasd=95mph; TCCL=5.0psf; BCDL=5.0psf; h=23ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - 3) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
  - 4) This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 20.0 psf on overhangs non-concurrent with other live loads.
  - 5) Provide adequate drainage to prevent water ponding.
  - 6) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - 7) \* This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 1-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
  - 8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 10, 7.
  - 9) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
  - 10) Graphical web bracing representation does not depict the size, type or the orientation of the brace on the web. 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.



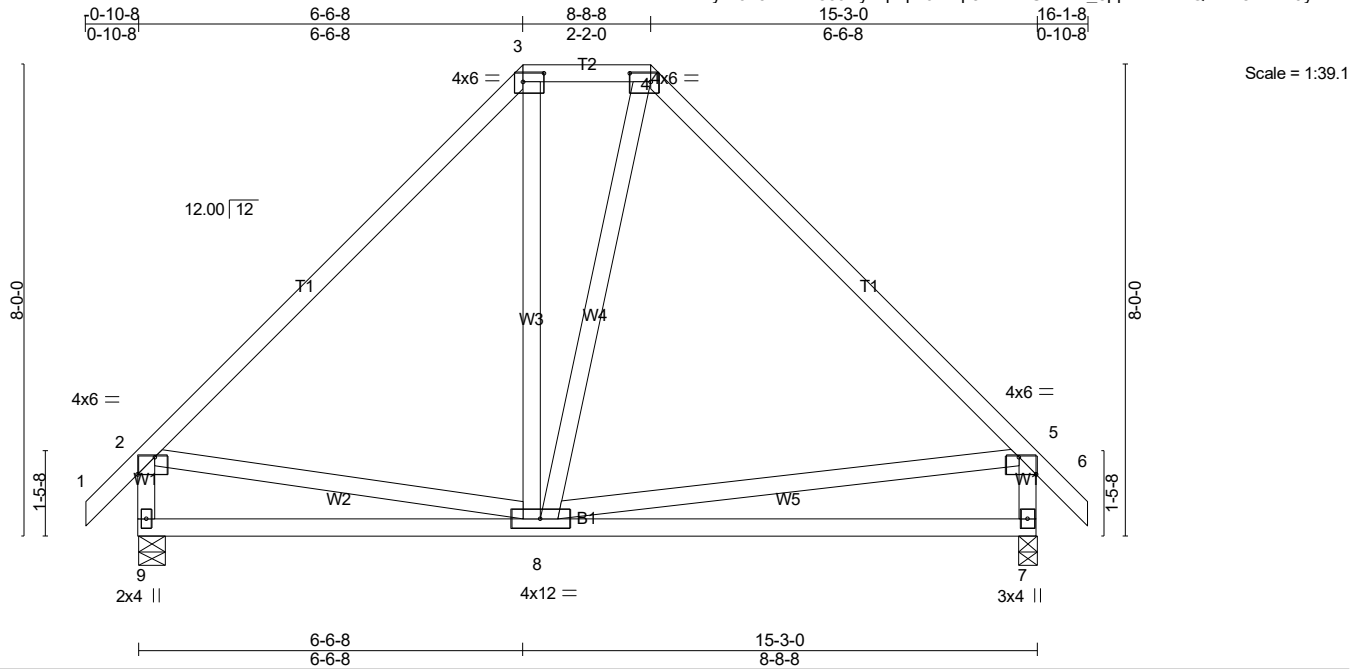
10/7/2020

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Job 20-4532-R01	Truss R07B	Truss Type Hip	Qty 1	Ply 1	LOT 1164 CARRIAGE CIRCLE   104 SPRUCE HOLLOW CIRCLE SPRING LAKE, N.C. Job Reference (optional) # 23870
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8.330 s Mar 10 2020 MiTek Industries, Inc. Thu Oct 8 20:13:16 2020 Page 1  
ID:MsMZ7fuyNIJd5IEFbR85JwyPq?q-c6lNdp81tHP?ULiEdv\_8pphwYIYNQSBm8nn1H9yVNX



Scale = 1:39.1

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

LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof) 20.0	2-0-0	TC 0.69	Vert(LL) -0.11	7-8	>999	240	MT20	244/190
Snow (Pf) 20.0	Plate Grip DOL 1.15	BC 0.55	Vert(CT) -0.21	7-8	>840	180		
TCDL 10.0	Lumber DOL 1.15	WB 0.13	Horz(CT) 0.00	7	n/a	n/a		
BCLL 0.0 *	Rep Stress Incr YES	Matrix-SH						
BCDL 10.0	Code IRC2018/TPI2014							
							Weight: 105 lb	FT = 0%

**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 6'-0-0 oc purlins, except end verticals.  
BOT CHORD Rigid ceiling directly applied or 10'-0-0 oc bracing.

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

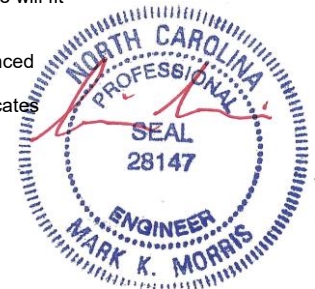
**REACTIONS.** (lb/size) 9=660/0-5-8 (min. 0-1-8), 7=660/0-3-8 (min. 0-1-8)  
Max Horz 9=-181(LC 10)  
Max Uplift 9=-39(LC 12), 7=-39(LC 13)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
TOP CHORD 2-3=-584/77, 3-4=-309/104, 4-5=-568/84, 2-9=-605/64, 5-7=-584/75  
BOT CHORD 8-9=-205/315

**NOTES-** (10-11)

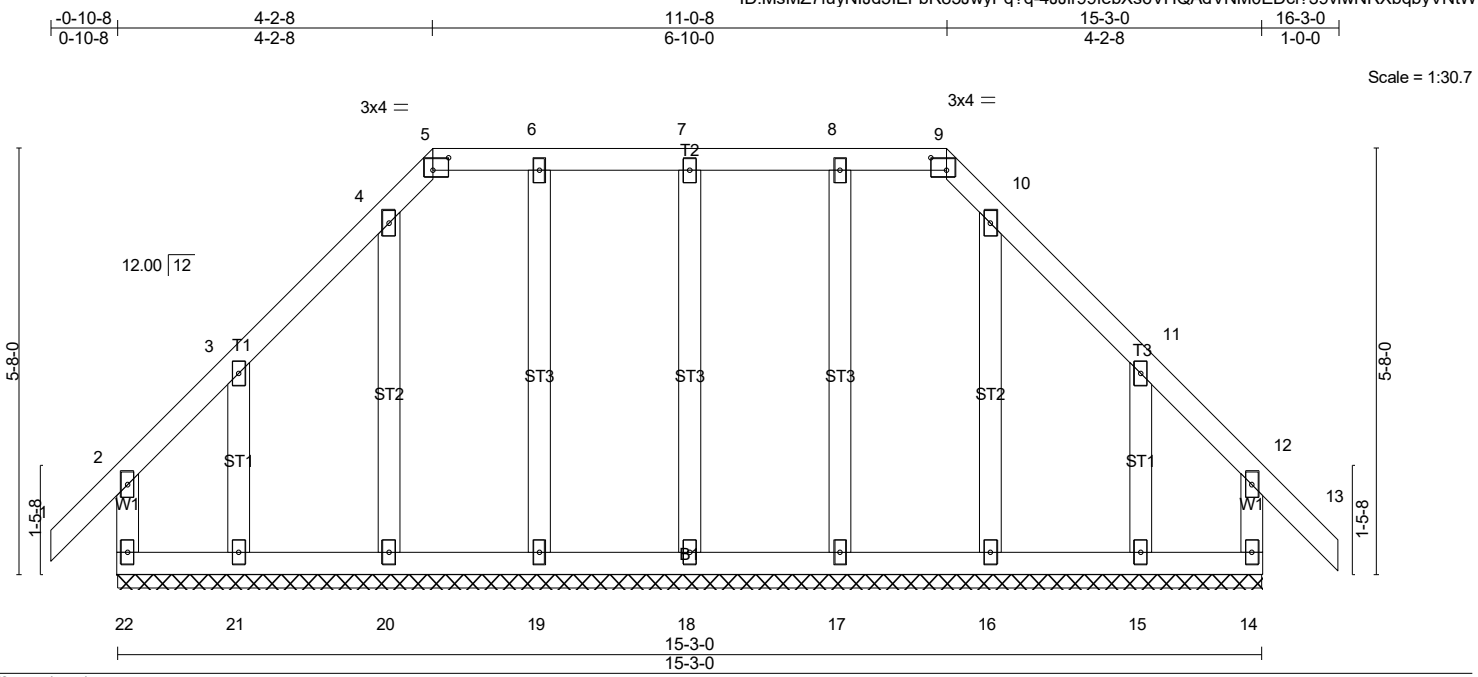
- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=120mph (3-second gust) Vasd=95mph; TCCL=5.0psf; BCCL=5.0psf; h=23ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- TCCL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
- This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 20.0 psf on overhangs non-concurrent with other live loads.
- Provide adequate drainage to prevent water ponding.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- \* This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 1-0-0 wide will fit between the bottom chord and any other members.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 9, 7.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- Graphical web bracing representation does not depict the size, type or the orientation of the brace on the web. 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.

**LOAD CASE(S)** Standard



10/7/2020

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



Scale = 1:30.7

Plate Offsets (X,Y)-- [5:0-2-8,0-2-0], [9:0-2-8,0-2-0]

LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof) 20.0	Plate Grip DOL 1.15		TC 0.16	Vert(LL) -0.00	13	n/r	180	MT20	244/190
Snow (Pf) 20.0	Lumber DOL 1.15		BC 0.07	Vert(CT) -0.01	13	n/r	80		
TCDL 10.0	Rep Stress Incr YES		WB 0.07	Horz(CT) -0.00	14	n/a	n/a		
BCLL 0.0 *	Code IRC2018/TPI2014		Matrix-R						
BCDL 10.0								Weight: 102 lb	FT = 0%

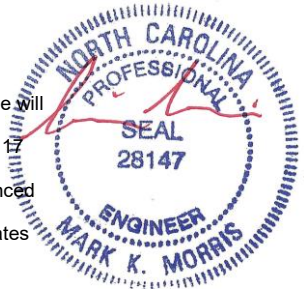
**LUMBER-**  
 TOP CHORD 2x4 SP No.2  
 BOT CHORD 2x4 SP No.2  
 WEBS 2x4 SP No.3  
 OTHERS 2x4 SP No.3

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

**REACTIONS.** All bearings 15-3-0.  
 (lb) - Max Horz 22=-138(LC 10)  
 Max Uplift All uplift 100 lb or less at joint(s) 22, 14, 18, 19, 17 except 21=-136(LC 12), 15=-133(LC 13)  
 Max Grav All reactions 250 lb or less at joint(s) 22, 14, 18, 19, 20, 21, 17, 16, 15

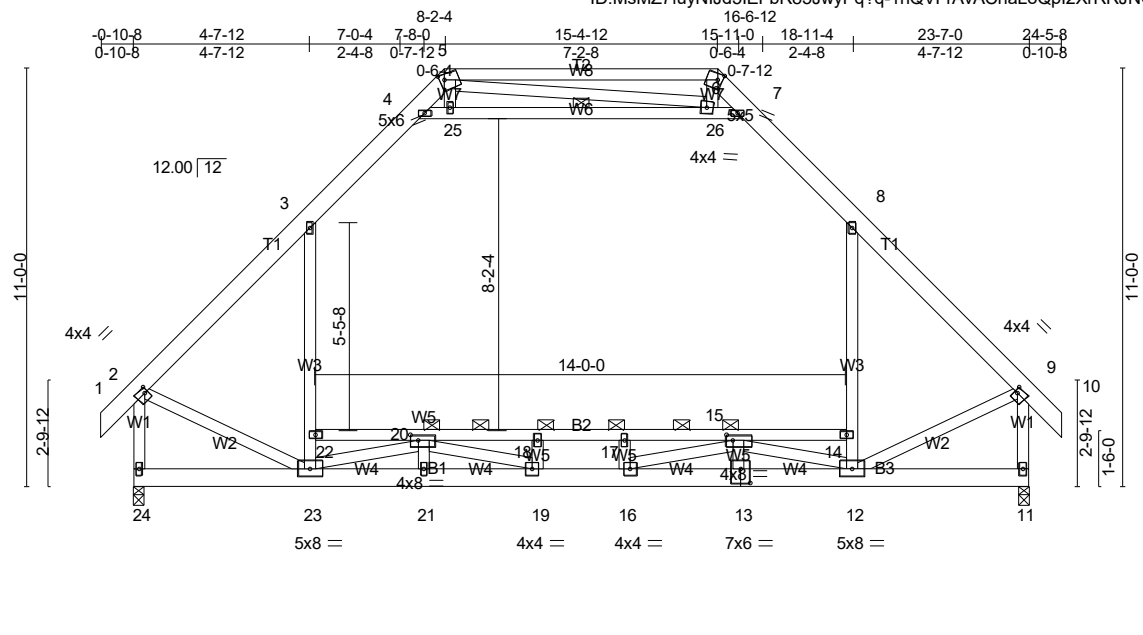
**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.

- NOTES-** (15-16)
- 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=23ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - 3) 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) This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 20.0 psf on overhangs non-concurrent with other live loads.
  - 6) Provide adequate drainage to prevent water ponding.
  - 7) All plates are 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) 22, 14, 18, 19, 17 except (jt=lb) 21=136, 15=133.
  - 14) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
  - 15) Graphical web bracing representation does not depict the size, type or the orientation of the brace on the web. Symbol only indicates that the member must be braced.
  - 16) Bearing symbols are only graphical representations of a possible bearing condition. Bearing symbols are not considered in the structural design of the truss to support the loads indicated.



10/7/2020

**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.



Scale = 1:60.7

Plate Offsets (X,Y)-- [2:0-1-0,0-1-12], [5:0-1-8,0-1-12], [6:0-1-8,0-2-0], [9:0-1-0,0-1-12], [13:0-3-0,0-4-8], [15:0-2-0,0-1-12], [20:0-2-8,0-1-12]						
<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 0.78	Vert(LL) -0.23 17-18 >999 240			
TCDL 10.0	Lumber DOL 1.15	WB 0.72	Vert(CT) -0.36 17-18 >777 180			
BCLL 0.0 *	Rep Stress Incr YES	Matrix-SH	Horz(CT) 0.04 11 n/a n/a			
BCDL 10.0	Code IRC2018/TPI2014		Attic -0.13 14-22 1280 360			
					Weight: 234 lb	FT = 0%

**LUMBER-**  
 TOP CHORD 2x6 SP No.2 \*Except\*  
 T2: 2x4 SP No.1  
 BOT CHORD 2x6 SP No.2 \*Except\*  
 B2: 2x4 SP No.3  
 WEBS 2x4 SP No.3 \*Except\*  
 W3,W6: 2x4 SP No.2

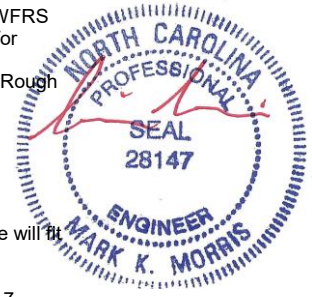
**BRACING-**  
 TOP CHORD Structural wood sheathing directly applied or 2-2-0 oc purlins, except end verticals.  
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing. Except:  
 2-9-0 oc bracing: 18-20, 15-17  
 3-0-0 oc bracing: 17-18  
 6-0-0 oc bracing: 20-22, 14-15  
 WEBS 1 Row at midpt 4-7  
 JOINTS 1 Brace at Jt(s): 17, 18, 20, 15

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

**REACTIONS.** (lb/size) 24=1207/0-3-8 (min. 0-1-12), 11=1207/0-3-8 (min. 0-1-12)  
 Max Horz 24=-250(LC 10)  
 Max Grav 24=1510(LC 3), 11=1510(LC 3)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-3=-1287/0, 3-4=-858/68, 4-5=-387/197, 5-6=-216/602, 6-7=-369/281, 7-8=-859/69,  
 8-9=-1286/0, 2-24=-1476/0, 9-11=-1474/0  
 BOT CHORD 23-24=-232/271, 21-23=0/2378, 19-21=0/2378, 16-19=0/3127, 13-16=0/2349, 12-13=0/2349,  
 18-20=-2444/0, 17-18=-2444/0, 15-17=-2444/0  
 WEBS 22-23=-30/458, 3-22=-1/584, 12-14=-32/456, 8-14=-4/582, 4-25=-1228/170,  
 25-26=-1210/175, 7-26=-1308/183, 2-23=-10/875, 9-12=-11/880, 20-23=-1785/0,  
 19-20=-79/864, 15-16=-85/872, 12-15=-1784/0

- NOTES-** (13-14)
- 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=23ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - 3) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
  - 4) This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 20.0 psf on overhangs non-concurrent with other live loads.
  - 5) Provide adequate drainage to prevent water ponding.
  - 6) 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) Ceiling dead load (5.0 psf) on member(s). 3-4, 7-8, 4-25, 25-26, 7-26
  - 10) Bottom chord live load (40.0 psf) and additional bottom chord dead load (0.0 psf) applied only to room. 20-22, 18-20, 17-18, 15-17, 14-15



10/7/2020

Job 20-4532-R01	Truss R09	Truss Type Attic	Qty 9	Ply 1	LOT 1164 CARRIAGE CIRCLE   104 SPRUCE HOLLOW CIRCLE SPRING LAKE, N Job Reference (optional) # 23870
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8.330 s Mar 10 2020 MiTek Industries, Inc. Thu Oct 8 20:13:19 2020 Page 2  
ID:MsMZ7fuyNIJd5IEFbR85JwyPq?q-1hQVFrAvACnaLoQpl2XrRRJNGWWUdf?Cqk0huUyVNtU

**NOTES-** (13-14)

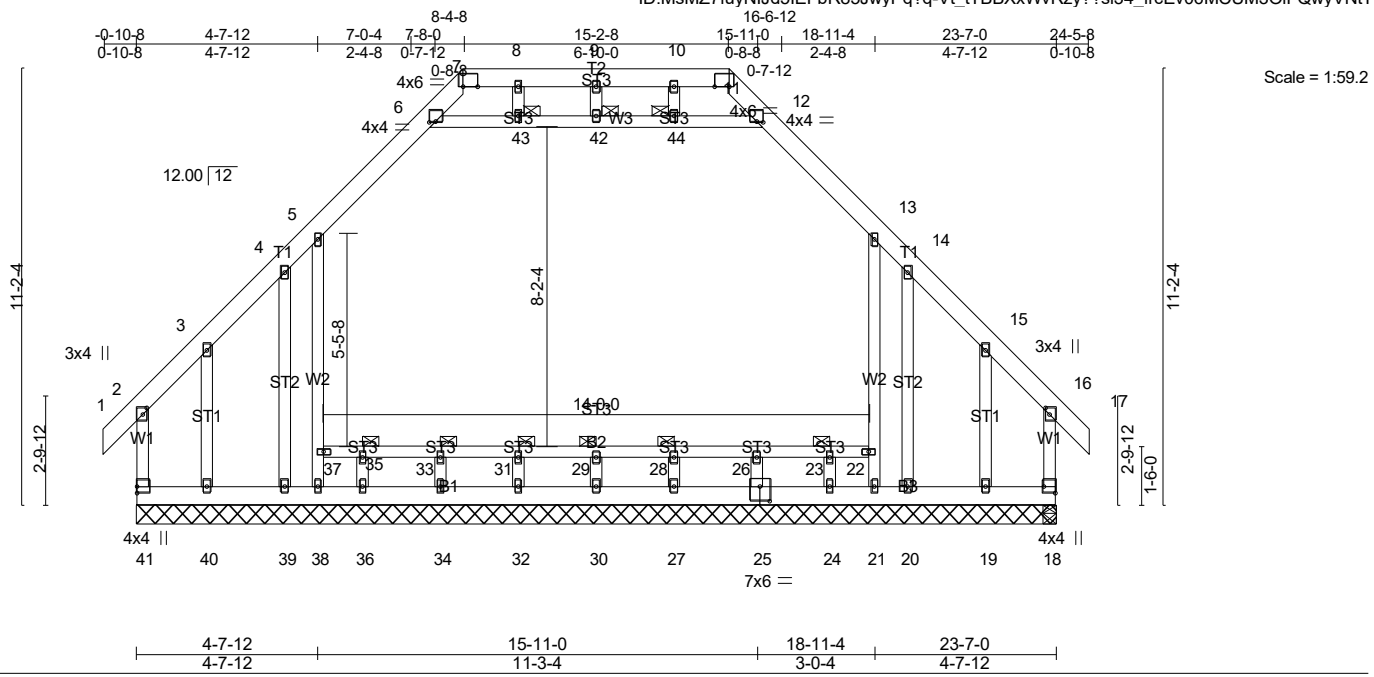
- 11) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 12) Attic room checked for L/360 deflection.
- 13) Graphical web bracing representation does not depict the size, type or the orientation of the brace on the web. Symbol only indicates that the member must be braced.
- 14) Bearing symbols are only graphical representations of a possible bearing condition. Bearing symbols are not considered in the structural design of the truss to support the loads indicated.

**LOAD CASE(S)** Standard



10/7/2020

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



LOADING (psf)		SPACING-		CSI.		DEFL.		PLATES		GRIP	
TCLL (roof)	20.0	Plate Grip DOL	2.0-0	TC	0.65	Vert(LL)	-0.00 13 >999 240	MT20		244/190	
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.17	Vert(CT)	-0.01 13 >999 180				
TCDL	10.0	Rep Stress Incr	YES	WB	0.33	Horz(CT)	-0.00 18 n/a n/a				
BCLL	0.0 *	Code IRC2018/TPI2014		Matrix-SH							Weight: 232 lb FT = 0%
BCDL	10.0										

**LUMBER-**  
 TOP CHORD 2x6 SP No.2  
 BOT CHORD 2x6 SP No.2 \*Except\*  
 B2: 2x4 SP No.3  
 WEBS 2x4 SP No.2 \*Except\*  
 W1: 2x4 SP No.3  
 OTHERS 2x4 SP No.3

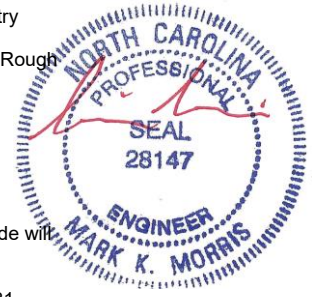
**BRACING-**  
 TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.  
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.  
 JOINTS 1 Brace at Jt(s): 42, 29, 43, 31, 35, 44, 28, 23, 33

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

**REACTIONS.** All bearings 23-7-0.  
 (lb) - Max Horz 41=-251(LC 10)  
 Max Uplift All uplift 100 lb or less at joint(s) 38, 21 except 41=-227(LC 8), 18=-222(LC 9), 39=-119(LC 13), 40=-262(LC 12), 20=-119(LC 12), 19=-260(LC 13)  
 Max Grav All reactions 250 lb or less at joint(s) 30, 32, 36, 39, 40, 24, 20, 19, 25, 34 except 41=526(LC 26), 38=733(LC 31), 21=736(LC 32), 18=516(LC 21), 18=469(LC 1), 27=253(LC 19)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-3=-335/176, 5-6=-439/122, 6-7=-725/85, 7-8=-750/58, 8-9=-750/58, 9-10=-750/58, 10-11=-750/58, 11-12=-725/87, 12-13=-439/122, 15-16=-328/172, 2-41=-367/145, 16-18=-360/141  
 WEBS 37-38=-743/75, 5-37=-740/79, 21-22=-744/67, 13-22=-740/75, 6-43=0/630, 42-43=0/630, 42-44=0/630, 12-44=0/630

- NOTES-** (16-17)
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-16; Vult=120mph (3-second gust) Vasd=95mph; TCDL=5.0psf; BCDL=5.0psf; h=23ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
  - TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15); Is=1.0; Rough Cat B; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
  - This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 20.0 psf on overhangs non-concurrent with other live loads.
  - Provide adequate drainage to prevent water ponding.
  - All plates are 2x4 MT20 unless otherwise indicated.
  - Gable studs spaced at 2-0-0 oc.
  - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - \* This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 1-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
  - Ceiling dead load (5.0 psf) on member(s). 5-6, 12-13, 6-43, 42-43, 42-44, 12-44
  - Bottom chord live load (40.0 psf) and additional bottom chord dead load (0.0 psf) applied only to room. 35-37, 33-35, 31-33, 29-31, 28-29, 26-28, 23-26, 22-23



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

Job 20-4532-R01	Truss R10	Truss Type GABLE	Qty 1	Ply 1	LOT 1164 CARRIAGE CIRCLE   104 SPRUCE HOLLOW CIRCLE SPRING LAKE, N Job Reference (optional) # 23870
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8.330 s Mar 10 2020 MiTek Industries, Inc. Thu Oct 8 20:13:21 2020 Page 2  
ID:MsMZ7fuyNIJd5IEFbR85JwyPq?q-z4YGgXC9ip1Ib6aCPTaJWsOn\_JML5fkVI2VozMyVNtS

**NOTES-** (16-17)

- 13) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 38, 21 except (jt=lb) 41=227, 18=222, 39=119, 40=262, 20=119, 19=260.
- 14) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 15) Attic room checked for L/360 deflection.
- 16) Graphical web bracing representation does not depict the size, type or the orientation of the brace on the web. Symbol only indicates that the member must be braced.
- 17) 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.

**LOAD CASE(S)** Standard



10/7/2020

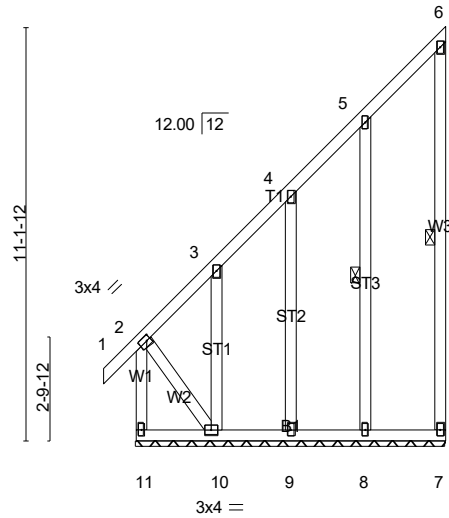
**Warning !—Verify design parameters and read notes before use.** This design is based only upon parameters shown, and is for an individual building component to be installed and loaded vertically. Applicability of design parameters and proper incorporation of component is responsibility of building 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 20-4532-R01	Truss R11	Truss Type Monopitch Supported Gable	Qty 1	Ply 1	LOT 1164 CARRIAGE CIRCLE   104 SPRUCE HOLLOW CIRCLE SPRING LAKE, NC Job Reference (optional) # 23870
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8.330 s Mar 10 2020 MiTek Industries, Inc. Thu Oct 8 20:13:22 2020 Page 1

ID:MsMZ7fuyNIJd5IEFbR85JwyPq?q-RG6eusCoS799CG9OzA5Y34x4sjiXqA6WiELVpyVNTF  
 -0-10-8 8-4-0  
 0-10-8 8-4-0

Scale = 1:62.0



LOADING (psf)		SPACING-		CSI.		DEFL.				PLATES	GRIP
TCLL (roof)	20.0	2-0-0		TC	0.19	in	(loc)	l/defl	L/d	MT20	244/190
Snow (Pf)	20.0	Plate Grip DOL	1.15	BC	0.11	Vert(LL)	0.00	1	n/r		
TCDL	10.0	Lumber DOL	1.15	WB	0.13	Vert(CT)	0.00	1	n/r		
BCLL	0.0 *	Rep Stress Incr	YES	Matrix-P		Horz(CT)	-0.00	7	n/a		
BCDL	10.0	Code IRC2018/TPI2014								Weight: 84 lb	FT = 0%

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

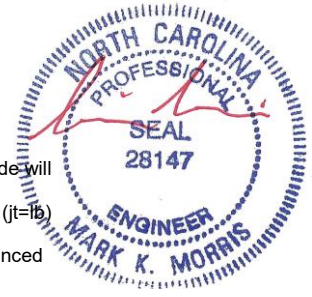
**BRACING-**  
 TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.  
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.  
 WEBS 1 Row at midpt 6-7, 5-8

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

**REACTIONS.** All bearings 8-4-0.  
 (lb) - Max Horz 11=245(LC 12)  
 Max Uplift All uplift 100 lb or less at joint(s) 7, 9, 8 except 11=159(LC 10), 10=406(LC 12)  
 Max Grav All reactions 250 lb or less at joint(s) 7 except 11=514(LC 12), 9=262(LC 24), 10=335(LC 20), 8=295(LC 20)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-11=-506/391, 2-3=-307/254  
 BOT CHORD 10-11=-258/200  
 WEBS 2-10=-327/422

- NOTES-** (13-14)
- 1) Wind: ASCE 7-16; Vult=120mph (3-second gust) Vasd=95mph; TCCL=5.0psf; BCDL=5.0psf; h=23ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; end vertical left exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - 2) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
  - 3) TCCL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
  - 4) 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) All plates are 2x4 MT20 unless otherwise indicated.
  - 6) Gable requires continuous bottom chord bearing.
  - 7) Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
  - 8) Gable studs spaced at 2-0-0 oc.
  - 9) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - 10) \* 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.
  - 11) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 7, 9, 8 except (jt=11) 11=159, 10=406.
  - 12) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



10/7/2020

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

Job	Truss	Truss Type	Qty	Ply	LOT 1164 CARRIAGE CIRCLE   104 SPRUCE HOLLOW CIRCLE SPRING LAKE, N
20-4532-R01	R11	Monopitch Supported Gable	1	1	Job Reference (optional) # 23870

8.330 s Mar 10 2020 MiTek Industries, Inc. Thu Oct 8 20:13:22 2020 Page 2  
 ID:MsMZ7fuyNIJd5IEFbR85JwyPq?q-RG6eusCoS799CG9OzA5Y34x4sjXqA6fWiELVpVNTfR

- 13) Graphical web bracing representation does not depict the size, type or the orientation of the brace on the web. Symbol only indicates that the member must be braced.
- 14) Bearing symbols are only graphical representations of a possible bearing condition. Bearing symbols are not considered in the structural design of the truss to support the loads indicated.

**LOAD CASE(S)** Standard



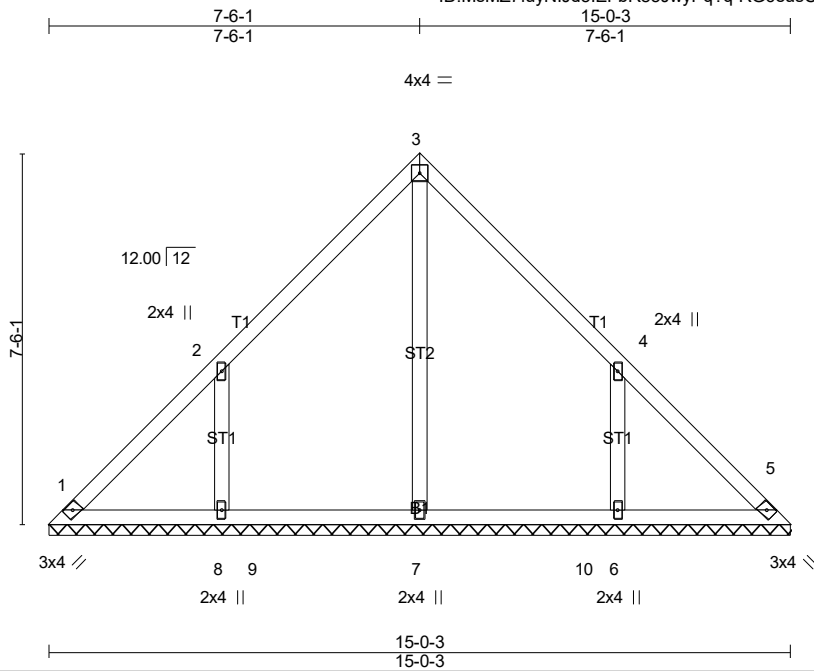
10/7/2020

**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 20-4532-R01	Truss VT01	Truss Type Valley	Qty 1	Ply 1	LOT 1164 CARRIAGE CIRCLE   104 SPRUCE HOLLOW CIRCLE SPRING LAKE, N.C. Job Reference (optional) <b># 23870</b>
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8:330 s Mar 10 2020 MiTek Industries, Inc. Thu Oct 8 20:13:22 2020 Page 1  
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Scale = 1:46.5

<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 0.19	in (loc) l/defl L/d	MT20	244/190
Snow (Pf) 20.0	Plate Grip DOL 1.15	BC 0.42	Vert(LL) n/a - n/a 999		
TCDL 10.0	Lumber DOL 1.15	WB 0.14	Vert(CT) n/a - n/a 999		
BCLL 0.0 *	Rep Stress Incr YES	Matrix-SH	Horz(CT) 0.00 5 n/a n/a		
BCDL 10.0	Code IRC2018/TPI2014			Weight: 72 lb	FT = 0%

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

**BRACING-**  
TOP CHORD  
BOT CHORD

Structural wood sheathing directly applied or 6'-0" oc purlins.  
Rigid ceiling directly applied or 10'-0" oc bracing.

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

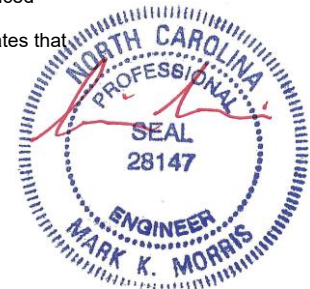
**REACTIONS.** All bearings 15-0-3.  
(lb) - Max Horz 1=-140(LC 8)  
Max Uplift All uplift 100 lb or less at joint(s) 1, 5 except 8=-179(LC 12), 6=-179(LC 13)  
Max Grav All reactions 250 lb or less at joint(s) 1, 5 except 7=420(LC 22), 8=422(LC 19), 6=422(LC 20)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
WEBS 2-8=-274/209, 4-6=-274/209

**NOTES-** (9-10)

- 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=23ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
- 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" tall by 1'-0" wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 5 except (t=lb) 8=179, 6=179.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- Graphical web bracing representation does not depict the size, type or the orientation of the brace on the web. 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.

**LOAD CASE(S)** Standard

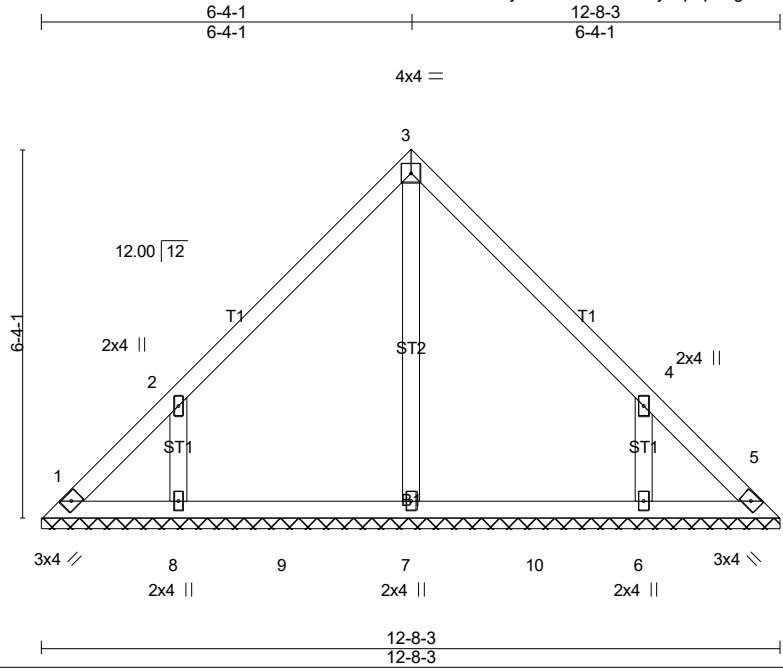


10/7/2020

**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 20-4532-R01	Truss VT02	Truss Type Valley	Qty 1	Ply 1	LOT 1164 CARRIAGE CIRCLE   104 SPRUCE HOLLOW CIRCLE SPRING LAKE, N.C. Job Reference (optional) <b># 23870</b>
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8.330 s Mar 10 2020 MiTek Industries, Inc. Thu Oct 8 20:13:23 2020 Page 1



Scale = 1:39.6

<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 0.18	in (loc) l/defl L/d	MT20	244/190
Snow (Pf) 20.0	Plate Grip DOL 1.15	BC 0.32	Vert(LL) n/a - n/a 999		
TCDL 10.0	Lumber DOL 1.15	WB 0.10	Vert(CT) n/a - n/a 999		
BCLL 0.0 *	Rep Stress Incr YES	Matrix-SH	Horz(CT) 0.00 5 n/a n/a		
BCDL 10.0	Code IRC2018/TPI2014			Weight: 58 lb	FT = 0%

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

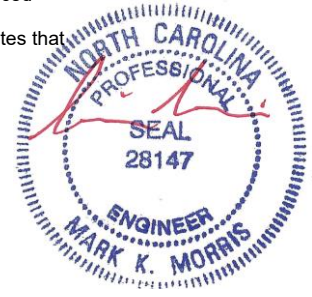
**BRACING-**  
TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.  
MiTek recommends that Stabilizers and required cross bracing be installed during truss erection, in accordance with Stabilizer Installation guide.

**REACTIONS.** All bearings 12-8-3.  
(lb) - Max Horz 1=-117(LC 8)  
Max Uplift All uplift 100 lb or less at joint(s) 1, 5 except 8=-160(LC 12), 6=-160(LC 13)  
Max Grav All reactions 250 lb or less at joint(s) 1, 5 except 7=378(LC 19), 8=344(LC 19), 6=344(LC 20)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
**WEBS** 2-8=-254/196, 4-6=-254/196

- NOTES-** (9-10)
- 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=23ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
  - 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, with BCDL = 10.0psf.
  - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 5 except (t=lb) 8=160, 6=160.
  - This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
  - Graphical web bracing representation does not depict the size, type or the orientation of the brace on the web. 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.

**LOAD CASE(S)** Standard

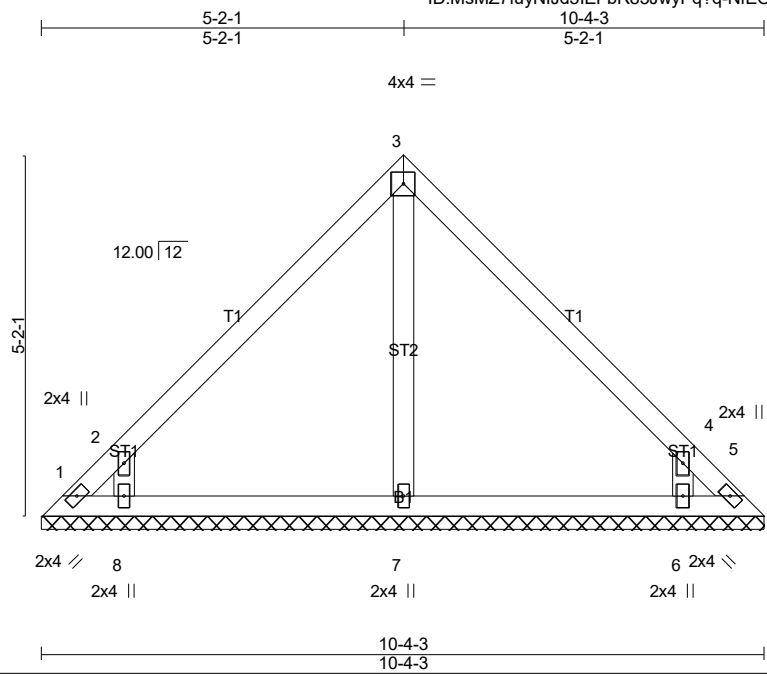


10/7/2020

**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 20-4532-R01	Truss VT03	Truss Type Valley	Qty 1	Ply 1	LOT 1164 CARRIAGE CIRCLE   104 SPRUCE HOLLOW CIRCLE SPRING LAKE, N.C. Job Reference (optional) <b># 23870</b>
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8.330 s Mar 10 2020 MiTek Industries, Inc. Thu Oct 8 20:13:24 2020 Page 1  
ID:MsMZ7fuyNIJd5IEfbR85JwyPq?q-NfEOJYE2\_kPtSaJn5b708V0OEXMcl3Ry\_ojSZhyVNtP



<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 0.20	in (loc) l/defl L/d	MT20	244/190
Snow (Pf) 20.0	Plate Grip DOL 1.15	BC 0.20	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-SH	Horz(CT) 0.00 5 n/a n/a		
BCDL 10.0	Code IRC2018/TPI2014			Weight: 44 lb	FT = 0%

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

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

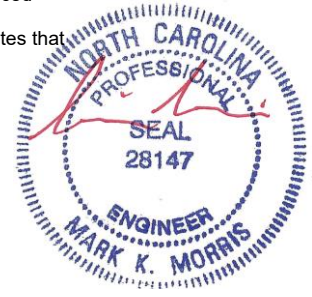
MiTek recommends that Stabilizers and required cross bracing be installed during truss erection, in accordance with Stabilizer Installation guide.

**REACTIONS.** All bearings 10-4-3.  
(lb) - Max Horz 1=94(LC 11)  
Max Uplift All uplift 100 lb or less at joint(s) except 1=-120(LC 10), 5=-103(LC 11), 8=-185(LC 12), 6=-185(LC 13)  
Max Grav All reactions 250 lb or less at joint(s) 1, 5, 7 except 8=360(LC 19), 6=360(LC 24)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
WEBS 2-8=-310/243, 4-6=-310/243

- NOTES-** (9-10)
- 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=23ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
  - 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 120 lb uplift at joint 1, 103 lb uplift at joint 5, 185 lb uplift at joint 8 and 185 lb uplift at joint 6.
  - This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
  - Graphical web bracing representation does not depict the size, type or the orientation of the brace on the web. 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.

**LOAD CASE(S)** Standard

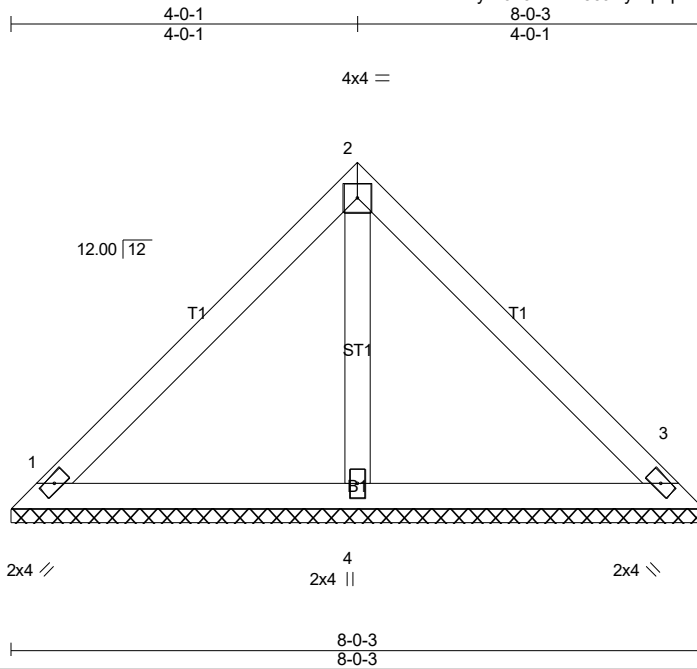


10/7/2020

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Job 20-4532-R01	Truss VT04	Truss Type Valley	Qty 1	Ply 1	LOT 1164 CARRIAGE CIRCLE   104 SPRUCE HOLLOW CIRCLE SPRING LAKE, N	Job Reference (optional) <b># 23870</b>
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8.330 s Mar 10 2020 MiTek Industries, Inc. Thu Oct 8 20:13:24 2020 Page 1



Scale = 1:26.7

<b>LOADING</b> (psf)	<b>SPACING-</b>	<b>CSI.</b>	<b>DEFL.</b>	<b>PLATES</b>	<b>GRIP</b>
TCLL (roof) 20.0	2-0-0	TC 0.26	in (loc) l/defl L/d	MT20	244/190
Snow (Pf) 20.0	Plate Grip DOL 1.15	BC 0.23	Vert(LL) n/a - n/a 999		
TCDL 10.0	Lumber DOL 1.15	WB 0.04	Vert(CT) n/a - n/a 999		
BCLL 0.0 *	Rep Stress Incr YES	Matrix-P	Horz(CT) 0.00 3 n/a n/a		
BCDL 10.0	Code IRC2018/TPI2014			Weight: 32 lb	FT = 0%

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

**BRACING-**  
TOP CHORD  
BOT CHORD

Structural wood sheathing directly applied or 6'-0-0 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=176/8-0-3 (min. 0-1-8), 3=176/8-0-3 (min. 0-1-8), 4=233/8-0-3 (min. 0-1-8)  
Max Horz 1=-71(LC 8)  
Max Uplift 1=33(LC 13), 3=33(LC 13)

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

**NOTES-** (9-10)

- 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=23ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 3) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
- 4) Gable requires continuous bottom chord bearing.
- 5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 6) \* This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3'-6-0 tall by 1'-0-0 wide will fit between the bottom chord and any other members.
- 7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 33 lb uplift at joint 1 and 33 lb uplift at joint 3.
- 8) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 9) Graphical web bracing representation does not depict the size, type or the orientation of the brace on the web. 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.

**LOAD CASE(S)** Standard

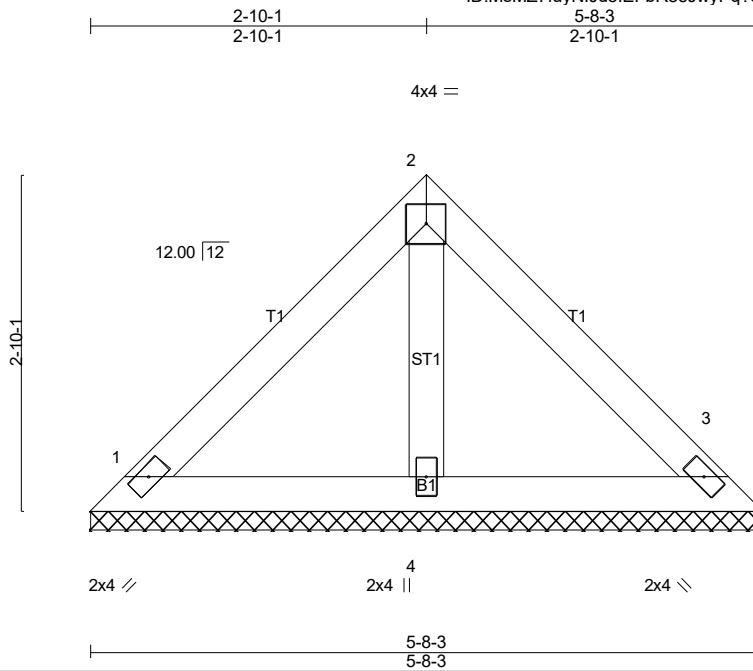


10/7/2020

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Job 20-4532-R01	Truss VT05	Truss Type Valley	Qty 1	Ply 1	LOT 1164 CARRIAGE CIRCLE   104 SPRUCE HOLLOW CIRCLE SPRING LAKE, N	# 23870
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8.330 s Mar 10 2020 MiTek Industries, Inc. Thu Oct 8 20:13:25 2020 Page 1  
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Scale = 1:19.4

<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 0.11	in (loc) l/defl L/d	MT20	244/190
Snow (Pf) 20.0	Plate Grip DOL 1.15	BC 0.11	Vert(LL) n/a - n/a 999		
TCDL 10.0	Lumber DOL 1.15	WB 0.02	Vert(CT) n/a - n/a 999		
BCLL 0.0 *	Rep Stress Incr YES	Matrix-P	Horz(CT) 0.00 3 n/a n/a		
BCDL 10.0	Code IRC2018/TPI2014			Weight: 22 lb	FT = 0%

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

**BRACING-**  
 TOP CHORD  
 BOT CHORD

Structural wood sheathing directly applied or 5-8-3 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=120/5-8-3 (min. 0-1-8), 3=120/5-8-3 (min. 0-1-8), 4=158/5-8-3 (min. 0-1-8)  
 Max Horz 1=-49(LC 8)  
 Max Uplift1=-22(LC 13), 3=-22(LC 13)

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

**NOTES-** (9-10)

- 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=23ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
- 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 22 lb uplift at joint 1 and 22 lb uplift at joint 3.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- Graphical web bracing representation does not depict the size, type or the orientation of the brace on the web. 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.

**LOAD CASE(S)** Standard

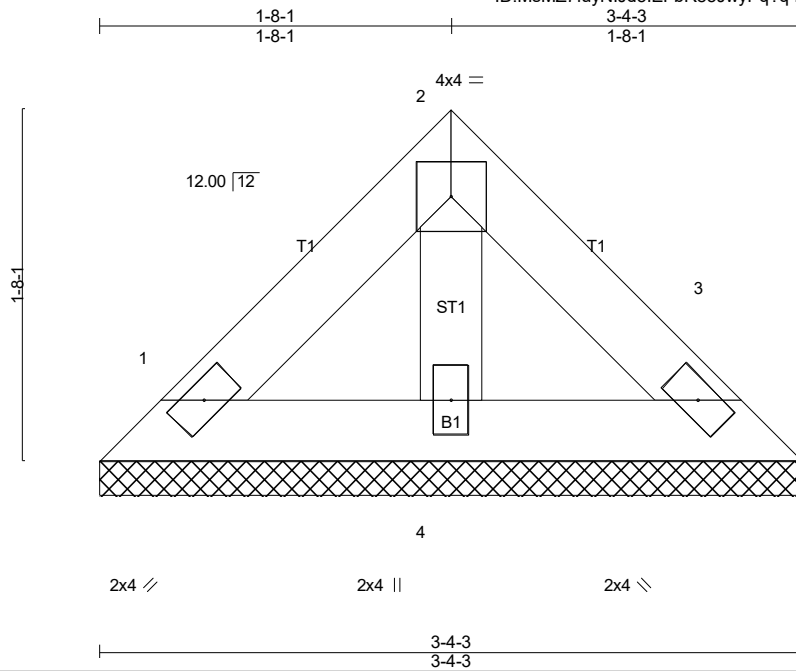


10/7/2020

**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 20-4532-R01	Truss VT06	Truss Type Valley	Qty 1	Ply 1	LOT 1164 CARRIAGE CIRCLE   104 SPRUCE HOLLOW CIRCLE SPRING LAKE, N	Job Reference (optional) <b># 23870</b>
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8.330 s Mar 10 2020 MiTek Industries, Inc. Thu Oct 8 20:13:25 2020 Page 1  
 ID:MsMZ7fuyNIJd5IEFbR85JwyPq?q-romWuFgl2Xk3juzelePhiZcdwW1Xf5CgT068yVNT0



<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 0.03	in (loc) l/defl L/d	MT20	244/190
Snow (Pf) 20.0	Plate Grip DOL 1.15	BC 0.03	Vert(LL) n/a - n/a 999		
TCDL 10.0	Lumber DOL 1.15	WB 0.01	Vert(CT) n/a - n/a 999		
BCLL 0.0 *	Rep Stress Incr YES	Matrix-P	Horz(CT) 0.00 3 n/a n/a		
BCDL 10.0	Code IRC2018/TPI2014			Weight: 12 lb	FT = 0%

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

**BRACING-**  
 TOP CHORD  
 BOT CHORD

Structural wood sheathing directly applied or 3-4-3 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=64/3-4-3 (min. 0-1-8), 3=64/3-4-3 (min. 0-1-8), 4=84/3-4-3 (min. 0-1-8)  
 Max Horz 1=-26(LC 8)  
 Max Uplift1=-12(LC 13), 3=-12(LC 13)

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

**NOTES-** (9-10)

- 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=23ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
- 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 12 lb uplift at joint 1 and 12 lb uplift at joint 3.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- Graphical web bracing representation does not depict the size, type or the orientation of the brace on the web. 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.

**LOAD CASE(S)** Standard



10/7/2020

**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.