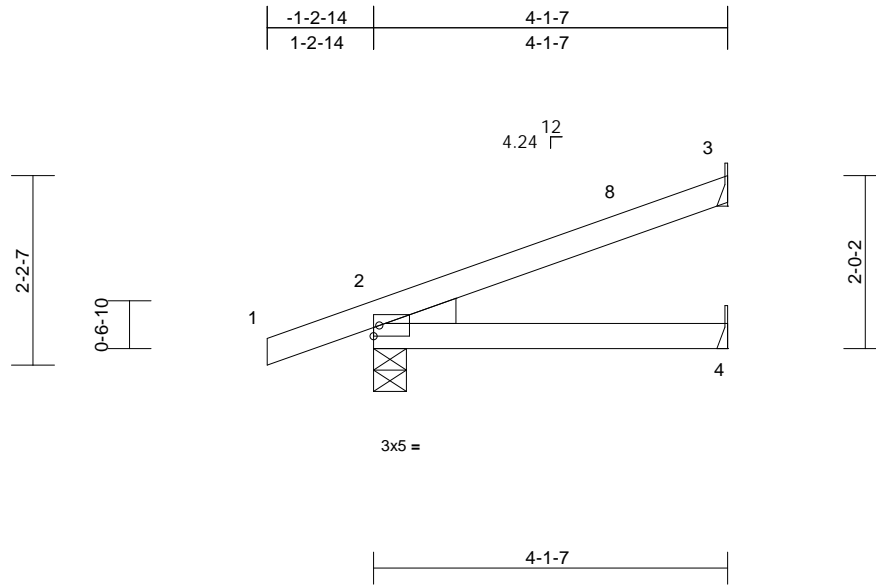


Job 20040129-A	Truss CJ1	Truss Type Jack-Open	Qty 4	Ply 1	Johnson-Roof Job Reference (optional)	E14374383
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Carter Components (Sanford), Sanford, NC - 27332,

Run: 8.33 S Mar 23 2020 Print: 8.330 S Mar 23 2020 MiTek Industries, Inc. Wed May 06 08:45:27  
ID:Lh2ZN6x7iRz5vcAR6?kLznzJWWi-o88QqLONPjMM8iP\_DT9JpBTI?CT?HACvWZdKu4zJG09

Page: 1



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	0.23	Vert(LL)	0.01	4-7	>999	240	MT20	244/190
Snow (Pf/Pg)	13.9/20.0	Lumber DOL	1.15	BC	0.14	Vert(CT)	-0.02	4-7	>999	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.00	Horz(CT)	0.00	2	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MP								
BCDL	10.0											
											Weight: 16 lb	FT = 20%

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

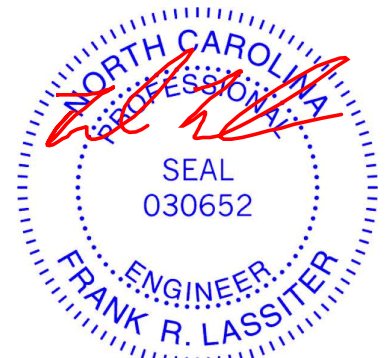
**BRACING**  
TOP CHORD Structural wood sheathing directly applied or 4-1-7 oc purlins.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS** (size) 2=0-4-9, 3= Mechanical, 4= Mechanical  
Max Horiz 2=56 (LC 11)  
Max Uplift 2=-36 (LC 11), 3=-29 (LC 15)  
Max Grav 2=248 (LC 2), 3=105 (LC 2), 4=46 (LC 2)

**FORCES** (lb) - Maximum Compression/Maximum Tension  
TOP CHORD 1-2=0/31, 2-8=-171/120, 3-8=-34/27  
BOT CHORD 2-4=-143/59

- 5) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- 6) Refer to girder(s) for truss to truss connections.
- 7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 29 lb uplift at joint 3.
- 8) One RT7A USP connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 2. This connection is for uplift only and does not consider lateral forces.
- 9) This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- LOAD CASE(S)** Standard

- NOTES**
- 1) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) and C-C Exterior (2) zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.33
  - 2) TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.15); Pg=20.0 psf (ground snow); Pf=13.9 psf (flat roof snow: Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Fully Exp.; 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 13.9 psf on overhangs non-concurrent with other live loads.



May 6, 2020

**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 10/03/2015 BEFORE USE.**

Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information** available from Truss Plate Institute, 218 N. Lee Street, Suite 312, Alexandria, VA 22314.



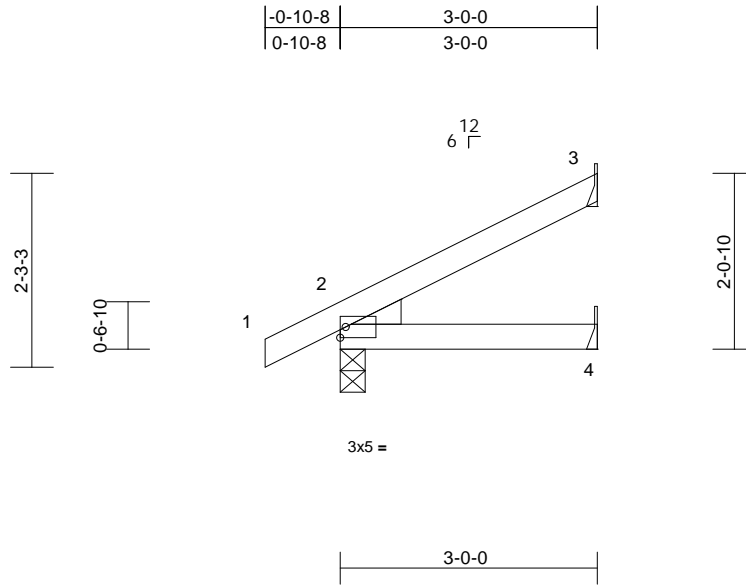
818 Soundside Road  
Edenton, NC 27932

Job 20040129-A	Truss J1	Truss Type Jack-Open	Qty 4	Ply 1	Johnson-Roof Job Reference (optional)	E14374384
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Carter Components (Sanford), Sanford, NC - 27332,

Run: 8.33 S Mar 23 2020 Print: 8.330 S Mar 23 2020 MiTek Industries, Inc. Wed May 06 08:45:30  
ID:Lh2ZN6x7IRz5vcAR6?k2LnzJWWi-clVh4OT7?Z7VsdS7akGk3SiMlcXShuhouV4e6jzJGo3

Page: 1



Scale = 1:26.9

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	0.11	Vert(LL)	0.00	4-7	>999	240	MT20	244/190
Snow (Pf/Pg)	13.9/20.0	Lumber DOL	1.15	BC	0.07	Vert(CT)	-0.01	4-7	>999	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.00	Horz(CT)	0.00	3	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MP								
BCDL	10.0											
											Weight: 12 lb	FT = 20%

**LUMBER**

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

**BRACING**

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

**REACTIONS**

(size) 2=0-3-8, 3= Mechanical, 4= Mechanical  
Max Horiz 2=49 (LC 15)  
Max Uplift 3=26 (LC 15)  
Max Grav 2=178 (LC 2), 3=76 (LC 2), 4=34 (LC 2)

**FORCES**

(lb) - Maximum Compression/Maximum Tension  
TOP CHORD 1-2=0/30, 2-3=-99/54  
BOT CHORD 2-4=-120/45

**NOTES**

- 1) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) and C-C Exterior (2) zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.33
- 2) TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.15); Pg=20.0 psf (ground snow); Pf=13.9 psf (flat roof snow: Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Fully Exp.; 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 13.9 psf on overhangs non-concurrent with other live loads.

- 5) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- 6) Refer to girder(s) for truss to truss connections.
- 7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 26 lb uplift at joint 3.
- 8) One RT7A USP connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 2. This connection is for uplift only and does not consider lateral forces.
- 9) This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

**LOAD CASE(S)** Standard



May 6, 2020

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Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information** available from Truss Plate Institute, 218 N. Lee Street, Suite 312, Alexandria, VA 22314.



818 Soundside Road  
Edenton, NC 27932

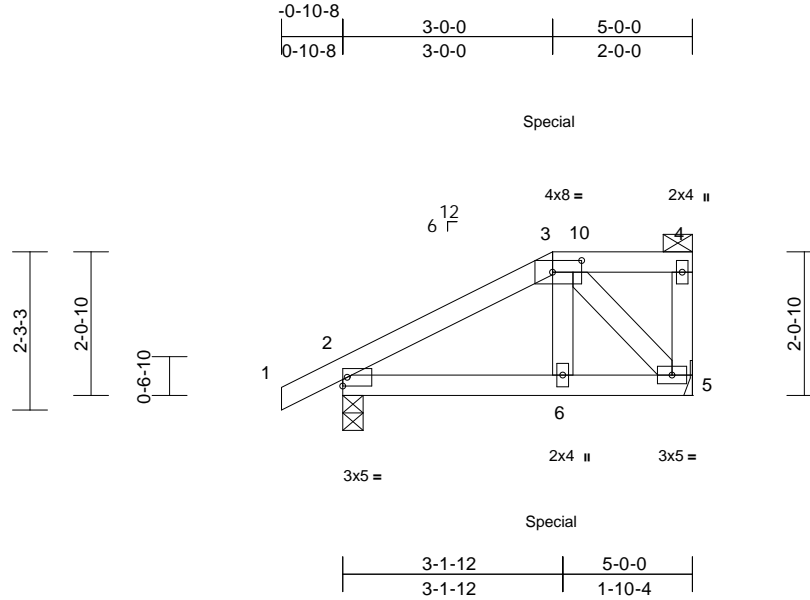
Job 20040129-A	Truss J2GR	Truss Type Half Hip Girder	Qty 4	Ply 1	Johnson-Roof Job Reference (optional)	E14374385
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Carter Components (Sanford), Sanford, NC - 27332,

Run: 8.33 S Mar 23 2020 Print: 8.330 S Mar 23 2020 MITek Industries, Inc. Wed May 06 08:45:31

Page: 1

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Scale = 1:32.9

Plate Offsets (X, Y): [3:0-5-0,0-2-0]

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	6-9	>999	240	MT20	244/190
Snow (Pf/Pg)	18.9/20.0	Lumber DOL	1.15	BC	0.10	Vert(CT)	-0.01	6-9	>999	180		
TCDL	10.0	Rep Stress Incr	NO	WB	0.05	Horz(CT)	0.00	2	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MP								
BCDL	10.0											
											Weight: 24 lb	FT = 20%

**LUMBER**

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

**BRACING**

TOP CHORD Structural wood sheathing directly applied or 5-0-0 oc purlins, except end verticals, and 2-0-0 oc purlins: 3-4.  
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS**

(size) 2=0-3-8, 5= Mechanical  
 Max Horiz 2=59 (LC 51)  
 Max Uplift 2=-17 (LC 11), 5=-20 (LC 8)  
 Max Grav 2=331 (LC 31), 5=232 (LC 2)

**FORCES**

(lb) - Maximum Compression/Maximum Tension  
 TOP CHORD 1-2=0/33, 2-3=-242/44, 3-10=-20/15, 4-10=-20/15, 4-5=-78/14  
 BOT CHORD 2-6=-62/167, 5-6=-24/175  
 WEBS 3-6=0/95, 3-5=-241/19

**NOTES**

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope); cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.33
- TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.15); Pg=20.0 psf (ground snow); Pf=18.9 psf (flat roof snow: Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Fully Exp.; Ct=1.10, Lu=50-0-0
- 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 13.9 psf on overhangs non-concurrent with other live loads.
- Provide adequate drainage to prevent water ponding.
- \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- Refer to girder(s) for truss to truss connections.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 20 lb uplift at joint 5.
- One RT7A USP connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 2. This connection is for uplift only and does not consider lateral forces.
- This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
- Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 82 lb down and 81 lb up at 3-0-0 on top chord, and 40 lb down at 3-0-0 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
- In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

**LOAD CASE(S)** Standard

- Dead + Snow (balanced): Lumber Increase=1.15, Plate Increase=1.15  
 Uniform Loads (lb/ft)  
 Vert: 1-3=-48, 3-4=-58, 5-7=-20  
 Concentrated Loads (lb)  
 Vert: 6=-28 (F), 3=-22 (F)



May 6, 2020

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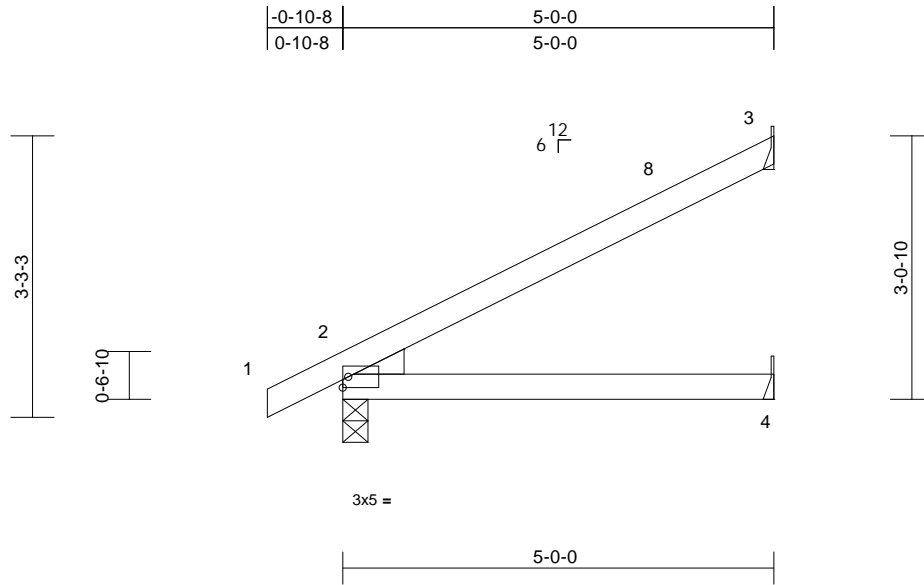
818 Soundside Road  
 Edenton, NC 27932

Job 20040129-A	Truss J3	Truss Type Jack-Open	Qty 26	Ply 1	Johnson-Roof Job Reference (optional)	E14374386
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Carter Components (Sanford), Sanford, NC - 27332,

Run: 8.33 S Mar 23 2020 Print: 8.330 S Mar 23 2020 MITek Industries, Inc. Wed May 06 08:45:31  
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Page: 1



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	0.38	Vert(LL)	0.03	4-7	>999	240	MT20	244/190
Snow (Pf/Pg)	13.9/20.0	Lumber DOL	1.15	BC	0.25	Vert(CT)	-0.06	4-7	>999	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.00	Horz(CT)	0.01	2	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MP								
BCDL	10.0											
											Weight: 18 lb	FT = 20%

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

**BRACING**  
TOP CHORD Structural wood sheathing directly applied or 5-0-0 oc purlins.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS** (size) 2=0-3-8, 3= Mechanical, 4= Mechanical  
Max Horiz 2=76 (LC 15)  
Max Uplift 3=44 (LC 15)  
Max Grav 2=255 (LC 2), 3=131 (LC 2), 4=61 (LC 2)

**FORCES** (lb) - Maximum Compression/Maximum Tension  
TOP CHORD 1-2=0/30, 2-8=-206/98, 3-8=-63/46  
BOT CHORD 2-4=-280/109

- \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
  - Refer to girder(s) for truss to truss connections.
  - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 44 lb uplift at joint 3.
  - This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- LOAD CASE(S)** Standard

- NOTES**
- Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) and C-C Exterior (2) zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.33
  - TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.15); Pg=20.0 psf (ground snow); Pf=13.9 psf (flat roof snow: Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Fully Exp.; 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 13.9 psf on overhangs non-concurrent with other live loads.



May 6, 2020

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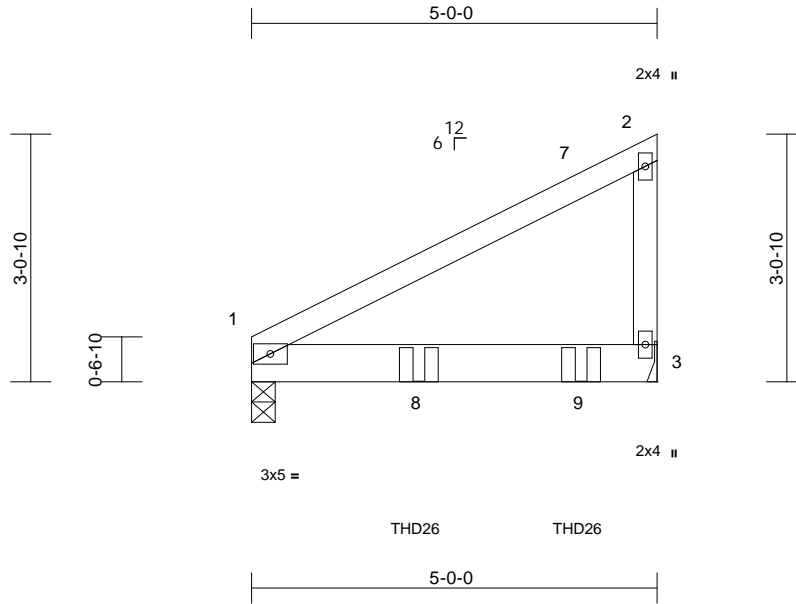
ENGINEERING BY  
**TRENCO**  
A MITek Affiliate  
818 Soundside Road  
Edenton, NC 27932

Job 20040129-A	Truss J3GR	Truss Type Monopitch Girder	Qty 1	Ply 2	Johnson-Roof Job Reference (optional)	E14374387
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Carter Components (Sanford), Sanford, NC - 27332,

Run: 8.33 S Mar 23 2020 Print: 8.330 S Mar 23 2020 MiTek Industries, Inc. Wed May 06 08:45:32  
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Page: 1



Scale = 1:28.4

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	0.29	Vert(LL)	-0.03	3-6	>999	240	244/190
Snow (Pf/Pg)	13.9/20.0	Lumber DOL	1.15	BC	0.60	Vert(CT)	-0.07	3-6	>867	180	
TCDL	10.0	Rep Stress Incr	NO	WB	0.00	Horz(CT)	0.01	1	n/a	n/a	
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MP							
BCDL	10.0										
										Weight: 47 lb	FT = 20%

**LUMBER**

TOP CHORD 2x4 SP No.2  
BOT CHORD 2x6 SP No.2  
WEBS 2x4 SP No.3

**BRACING**

TOP CHORD Structural wood sheathing directly applied or 5-0-0 oc purlins, except end verticals.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS**

(size) 1=0-3-8, 3= Mechanical  
Max Horiz 1=79 (LC 10)  
Max Uplift 1=-11 (LC 11), 3=-36 (LC 11)  
Max Grav 1=660 (LC 2), 3=992 (LC 2)

**FORCES**

(lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-7=-182/59, 2-7=-32/56, 2-3=-152/30  
BOT CHORD 1-8=-41/126, 8-9=-30/22, 3-9=-30/22

**NOTES**

- 2-ply truss to be connected together as follows:  
Top chords connected with 10d (0.131"x3") nails as follows: 2x4 - 1 row at 0-9-0 oc.  
Bottom chords connected with 10d (0.131"x3") nails as follows: 2x6 - 2 rows staggered 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.
- Wind: ASCE 7-10; Vult=130mph (3-second gust)  
Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope); cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.33
- TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.15); Pg=20.0 psf (ground snow); Pf=13.9 psf (flat roof snow: Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Fully Exp.; Ct=1.10

- Unbalanced snow loads have been considered for this design.
- \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- Refer to girder(s) for truss to truss connections.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 36 lb uplift at joint 3.
- One RT7A USP connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 1. This connection is for uplift only and does not consider lateral forces.
- This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- Use USP THD26 (With 18-16d nails into Girder & 12-10d x 1-1/2 nails into Truss) or equivalent spaced at 2-0-0 oc max. starting at 2-0-12 from the left end to 4-0-12 to connect truss(es) to front face of bottom chord.

- 12) Fill all nail holes where hanger is in contact with lumber.
- LOAD CASE(S)** Standard
- Dead + Snow (balanced): Lumber Increase=1.15, Plate Increase=1.15  
Uniform Loads (lb/ft)  
Vert: 1-2=-48, 3-4=-20  
Concentrated Loads (lb)  
Vert: 8=-531 (F), 9=-533 (F)



May 6, 2020

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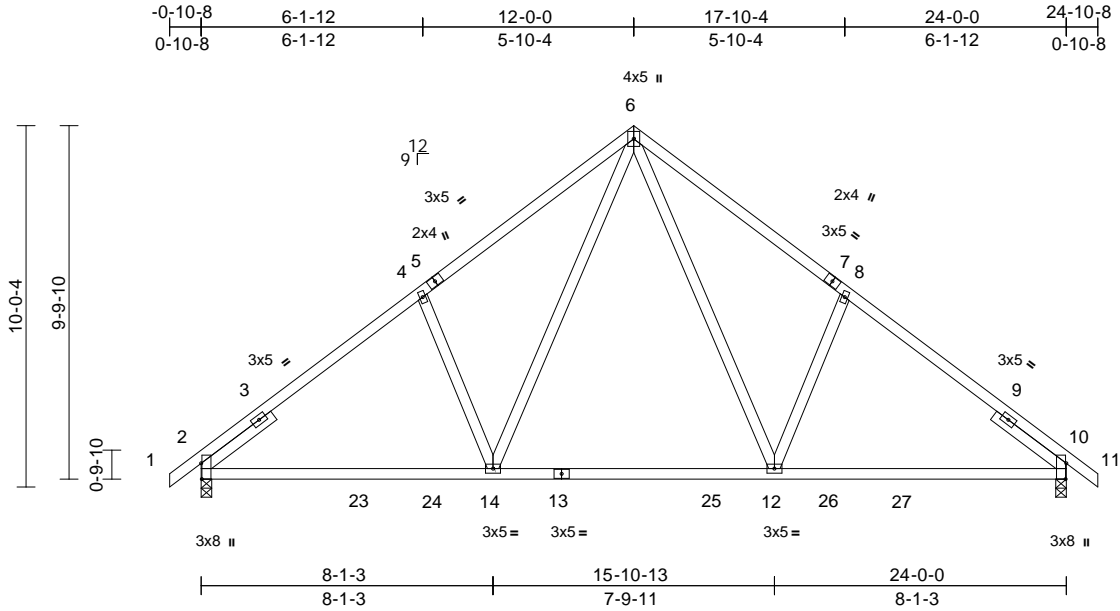
818 Soundside Road  
Edenton, NC 27932

Job 20040129-A	Truss T1	Truss Type Common	Qty 7	Ply 1	Johnson-Roof Job Reference (optional)	E14374388
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Carter Components (Sanford), Sanford, NC - 27332,

Run: 8.33 S Mar 23 2020 Print: 8.330 S Mar 23 2020 MiTek Industries, Inc. Wed May 06 08:45:32  
ID:ptcyasyle5xWmlegjFHu\_zjWWWh-ZhcRV4UOXBNd5x0Wh9lC8toc0Q5P9k94LpZlAczJGo1

Page: 1



Scale = 1:63.9

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

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	0.42	Vert(LL)	-0.14	12-14	>999	240	MT20	244/190
Snow (Pf/Pg)	13.9/20.0	Lumber DOL	1.15	BC	0.62	Vert(CT)	-0.22	12-14	>999	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.26	Horz(CT)	0.03	10	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MSH								
BCDL	10.0											
											Weight: 137 lb	FT = 20%

**LUMBER**

TOP CHORD 2x4 SP No.2  
 BOT CHORD 2x4 SP No.2  
 WEBS 2x4 SP No.2  
 SLIDER Left 2x4 SP No.3 -- 2-6-0, Right 2x4 SP No.3 -- 2-6-0

**BRACING**

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

**REACTIONS**

(size) 2=0-3-8, 10=0-3-8  
 Max Horiz 2=-191 (LC 11)  
 Max Grav 2=1049 (LC 25), 10=1050 (LC 26)

**FORCES**

(lb) - Maximum Compression/Maximum Tension  
 TOP CHORD 1-2=0/40, 2-3=-439/0, 3-4=-1224/237, 4-5=-1178/299, 5-6=-1166/341, 6-7=-1169/341, 7-8=-1181/299, 8-9=-1226/237, 9-10=-437/0, 10-11=0/40  
 BOT CHORD 2-23=-153/1059, 23-24=-68/1059, 14-24=-68/1059, 13-14=0/712, 13-25=0/712, 12-25=0/712, 12-26=-69/953, 26-27=-69/953, 10-27=-69/953  
 WEBS 6-12=-139/612, 8-12=-341/235, 6-14=-139/606, 4-14=-341/235

**NOTES**

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) and C-C Exterior (2) zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.33

- TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.15); Pg=20.0 psf (ground snow); Pf=13.9 psf (flat roof snow: Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Fully Exp.; 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 13.9 psf on overhangs non-concurrent with other live loads.
- \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

**LOAD CASE(S)** Standard



May 6, 2020

**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 10/03/2015 BEFORE USE.**

Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information** available from Truss Plate Institute, 218 N. Lee Street, Suite 312, Alexandria, VA 22314.



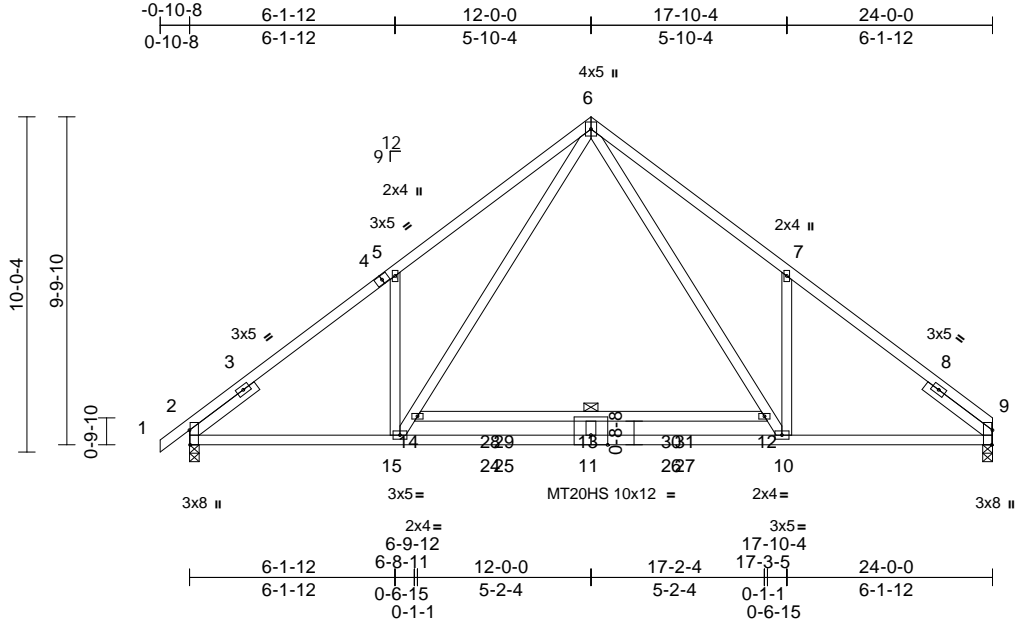
818 Soundside Road  
Edenton, NC 27932

Job 20040129-A	Truss T1A	Truss Type Common	Qty 4	Ply 1	Johnson-Roof Job Reference (optional)	E14374389
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Carter Components (Sanford), Sanford, NC - 27332,

Run: 8.33 S Mar 23 2020 Print: 8.330 S Mar 23 2020 MITek Industries, Inc. Wed May 06 08:45:32  
ID:mXF7ayAgAaUFIhiHHC5k9?zJWWO-ZhcRV4UOXBN5x0Wh9lC8toWzQ1b9kv4LpZlAczJG01

Page: 1



Scale = 1:68.9

Plate Offsets (X, Y): [2:0-5-4,Edge], [9:0-5-4,Edge]

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	0.81	Vert(LL)	-0.67	13	>431	240	MT20	244/190
Snow (Pf/Pg)	13.9/20.0	Lumber DOL	1.15	BC	0.86	Vert(CT)	-1.36	13	>212	180	MT20HS	187/143
TCDL	10.0	Rep Stress Incr	YES	WB	0.27	Horz(CT)	0.06	9	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MSH								
BCDL	10.0											
											Weight: 153 lb	FT = 20%

**LUMBER**  
TOP CHORD 2x4 SP No.2  
BOT CHORD 2x4 SP 2400F 2.0E  
WEBS 2x4 SP No.3 \*Except\* 10-6,15-6:2x4 SP No.2  
SLIDER Left 2x4 SP No.3 -- 2-6-0, Right 2x4 SP No.3 -- 2-6-0

**BRACING**  
TOP CHORD Structural wood sheathing directly applied or 2-2-1 oc purlins.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing. Except: 6-0-0 oc bracing: 12-14

**REACTIONS** (size) 2=0-3-8, 9=0-3-8  
Max Horiz 2=187 (LC 12)  
Max Grav 2=1307 (LC 25), 9=1257 (LC 26)

**FORCES** (lb) - Maximum Compression/Maximum Tension  
TOP CHORD 1-2=0/40, 2-3=-188/44, 3-4=-1780/0, 4-5=-1652/0, 5-6=-1827/153, 6-7=-1831/154, 7-8=-1782/0, 8-9=-220/51  
BOT CHORD 2-15=-38/1465, 15-24=0/926, 24-25=0/926, 11-25=0/926, 11-26=0/926, 26-27=0/926, 10-27=0/926, 9-10=0/1359, 14-28=-64/1, 28-29=-64/1, 13-29=-64/1, 13-30=-64/1, 30-31=-64/1, 12-31=-64/1  
WEBS 6-12=-26/1107, 10-12=-122/935, 7-10=-356/318, 14-15=-121/930, 6-14=-25/1101, 5-15=-356/318, 11-13=-39/30

- Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) and C-C Exterior (2) zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.33
- TCLL: ASCE 7-10; Pr=20.0 psf (roof live load; Lumber DOL=1.15 Plate DOL=1.15); Pg=20.0 psf (ground snow); Pf=13.9 psf (flat roof snow; Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Fully Exp.; 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 13.9 psf on overhangs non-concurrent with other live loads.
- 200.0lb AC unit load placed on the bottom chord, 12-0-0 from left end, supported at two points, 5-0-0 apart.
- All plates are MT20 plates unless otherwise indicated.
- \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard

**NOTES**  
1) Unbalanced roof live loads have been considered for this design.



May 6, 2020

**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 10/03/2015 BEFORE USE.**

Design valid for use only with MITek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information** available from Truss Plate Institute, 218 N. Lee Street, Suite 312, Alexandria, VA 22314.



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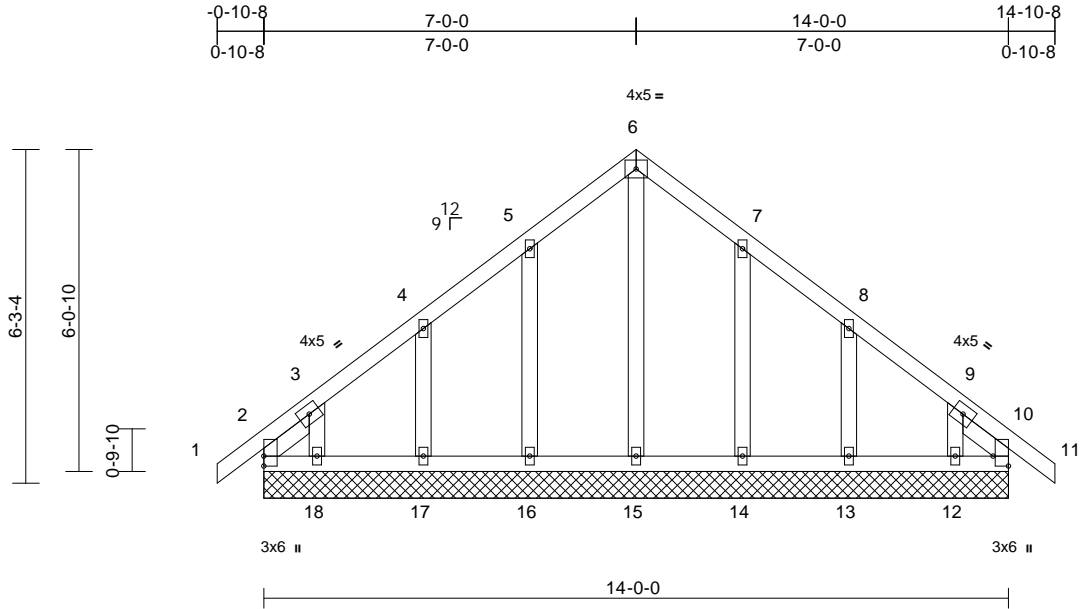
Job 20040129-A	Truss T1GE	Truss Type Common Supported Gable	Qty 1	Ply 1	Johnson-Roof Job Reference (optional)	E14374390
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Carter Components (Sanford), Sanford, NC - 27332,

Run: 8.33 S Mar 23 2020 Print: 8.330 S Mar 23 2020 MiTek Industries, Inc. Wed May 06 08:45:33

Page: 1

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Scale = 1:43.3

Plate Offsets (X, Y): [10:Edge,0-3-7]

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	0.07	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf/Pg)	13.9/20.0	Lumber DOL	1.15	BC	0.03	Vert(CT)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.06	Horz(CT)	0.00	10	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MSH								
BCDL	10.0											
											Weight: 85 lb	FT = 20%

**LUMBER**  
TOP CHORD 2x4 SP No.2  
BOT CHORD 2x4 SP No.2  
OTHERS 2x4 SP No.3 \*Except\* 15-6:2x4 SP No.2  
SLIDER Left 2x4 SP No.3 -- 1-1-14, Right 2x4 SP No.3 -- 1-1-14

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

**REACTIONS** (size)  
2=14-0-0, 10=14-0-0, 12=14-0-0, 13=14-0-0, 14=14-0-0, 15=14-0-0, 16=14-0-0, 17=14-0-0, 18=14-0-0, 19=14-0-0, 23=14-0-0  
Max Horiz 2=-117 (LC 11), 19=-117 (LC 11)  
Max Uplift 2=-50 (LC 9), 10=-18 (LC 10), 12=-61 (LC 14), 13=-37 (LC 14), 14=-37 (LC 14), 16=-38 (LC 13), 17=-36 (LC 13), 18=-69 (LC 13), 19=-50 (LC 9), 23=-18 (LC 10)  
Max Grav 2=141 (LC 26), 10=115 (LC 2), 12=131 (LC 26), 13=173 (LC 26), 14=174 (LC 26), 15=139 (LC 28), 16=175 (LC 25), 17=172 (LC 25), 18=143 (LC 25), 19=141 (LC 26), 23=115 (LC 2)

**FORCES** (lb) - Maximum Compression/Maximum Tension  
TOP CHORD 1-2=0/40, 2-3=-48/68, 3-4=-91/73, 4-5=-82/64, 5-6=-124/134, 6-7=-124/134, 7-8=-65/64, 8-9=-64/39, 9-10=-46/56, 10-11=0/40  
BOT CHORD 2-18=-67/106, 17-18=-67/106, 16-17=-67/106, 15-16=-67/106, 14-15=-67/106, 13-14=-67/106, 12-13=-67/106, 10-12=-67/106

**WEBS** 6-15=-101/36, 5-16=-139/93, 4-17=-141/98, 3-18=-132/99, 7-14=-139/93, 8-13=-141/98, 9-12=-135/101

**NOTES**

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) and C-C Exterior (2) zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.33
- 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 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.15); Pg=20.0 psf (ground snow); Pf=13.9 psf (flat roof snow: Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Fully Exp.; 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 13.9 psf on overhangs non-concurrent with other live loads.
- All plates are 2x4 MT20 unless otherwise indicated.
- Gable requires continuous bottom chord bearing.
- Gable studs spaced at 2-0-0 oc.
- \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- One RT7A USP connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 2, 10, 16, 17, 18, 14, 13, and 12. This connection is for uplift only and does not consider lateral forces.

11) This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

**LOAD CASE(S)** Standard



May 6, 2020

**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 10/03/2015 BEFORE USE.**

Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information** available from Truss Plate Institute, 218 N. Lee Street, Suite 312, Alexandria, VA 22314.



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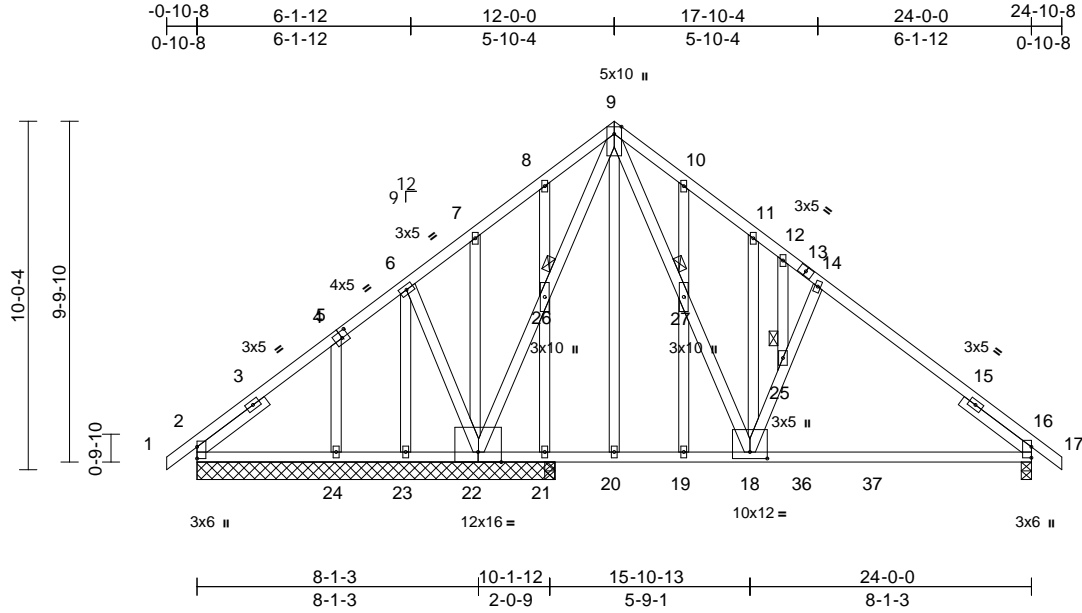


Job 20040129-A	Truss T1SE	Truss Type Common Structural Gable	Qty 1	Ply 1	Johnson-Roof Job Reference (optional)	E14374391
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Carter Components (Sanford), Sanford, NC - 27332,

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Page: 1



Scale = 1:66.3

Plate Offsets (X, Y): [5:0-2-4,0-2-4], [18:0-6-0,0-2-4]

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	0.32	Vert(LL)	-0.05	18-34	>999	240	MT20	244/190
Snow (Pf/Pg)	13.9/20.0	Lumber DOL	1.15	BC	0.47	Vert(CT)	-0.14	18-34	>999	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.16	Horz(CT)	-0.01	16	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MSH								
BCDL	10.0											
											Weight: 207 lb	FT = 20%

**LUMBER**  
TOP CHORD 2x4 SP No.2  
BOT CHORD 2x4 SP No.2  
WEBS 2x4 SP No.2  
OTHERS 2x4 SP No.3 \*Except\* 20-9,22-7,18-11:2x4 SP No.2  
SLIDER Left 2x4 SP No.3 -- 2-6-0, Right 2x4 SP No.3 -- 2-6-0

**BRACING**  
TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.  
JOINTS 1 Brace at Jt(s): 25, 26, 27

**REACTIONS** (size)  
2=10-3-8, 16=0-3-8, 21=10-3-8, 22=10-3-8, 23=10-3-8, 24=10-3-8, 28=10-3-8  
Max Horiz 2=-189 (LC 11), 28=-189 (LC 11)  
Max Uplift 2=-22 (LC 14), 16=-30 (LC 14), 23=-25 (LC 9), 24=-88 (LC 13), 28=-22 (LC 14)  
Max Grav 2=307 (LC 2), 16=721 (LC 26), 21=213 (LC 25), 22=479 (LC 2), 23=91 (LC 12), 24=318 (LC 25), 28=307 (LC 2)

**FORCES** (lb) - Maximum Compression/Maximum Tension  
TOP CHORD 1-2=0/40, 2-3=-152/26, 3-4=-214/84, 4-5=-285/164, 5-6=-284/179, 6-7=-277/195, 7-8=-337/267, 8-9=-387/324, 9-10=-683/337, 10-11=-662/295, 11-12=-654/257, 12-13=-673/257, 13-14=-678/251, 14-15=-670/195, 15-16=-383/0, 16-17=0/40

**BOT CHORD** 2-24=-53/191, 23-24=-53/191, 22-23=-51/190, 21-22=0/250, 20-21=0/250, 19-20=0/251, 18-19=0/251, 18-36=-30/522, 36-37=-30/522, 16-37=-30/522  
**WEBS** 9-27=-180/584, 18-27=-181/603, 18-25=-297/183, 14-25=-314/195, 22-26=-301/0, 9-26=-336/0, 6-22=-98/88, 12-25=-12/19, 9-20=-17/97, 8-26=-135/72, 21-26=-164/56, 7-22=-138/96, 6-23=-64/39, 4-24=-233/152, 10-27=-91/47, 19-27=-112/48, 11-18=-49/41

**NOTES**

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) and C-C Exterior (2) zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.33
- 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 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.15); Pg=20.0 psf (ground snow); Pf=13.9 psf (flat roof snow: Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Fully Exp.; 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 13.9 psf on overhangs non-concurrent with other live loads.
- All plates are 2x4 MT20 unless otherwise indicated.
- Gable studs spaced at 2-0-0 oc.

- \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- One RT7A USP connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 2, 16, 23, and 24. This connection is for uplift only and does not consider lateral forces.
- This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

**LOAD CASE(S)** Standard



May 6, 2020

**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 10/03/2015 BEFORE USE.**

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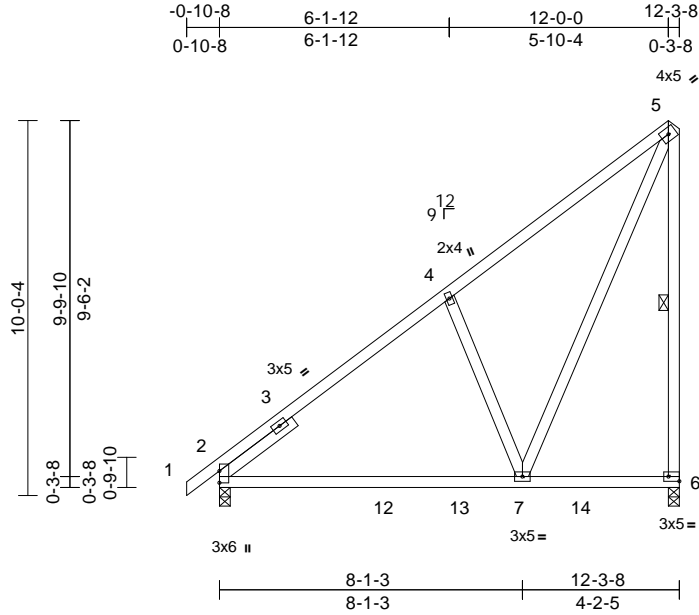
818 Soundside Road  
Edenton, NC 27932

Job 20040129-A	Truss T2	Truss Type Common	Qty 2	Ply 1	Johnson-Roof Job Reference (optional)	E14374392
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Carter Components (Sanford), Sanford, NC - 27332,

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Page: 1



Scale = 1:61.6

Plate Offsets (X, Y): [6:Edge,0-1-8]

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	0.74	Vert(LL)	0.06	7-10	>999	240	MT20	244/190
Snow (Pf/Pg)	13.9/20.0	Lumber DOL	1.15	BC	0.44	Vert(CT)	-0.15	7-10	>951	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.44	Horz(CT)	0.03	2	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MSH								
BCDL	10.0											
											Weight: 83 lb	FT = 20%

**LUMBER**

TOP CHORD 2x4 SP No.2  
 BOT CHORD 2x4 SP No.2  
 WEBS 2x4 SP No.3 \*Except\* 6-5:2x4 SP No.2  
 SLIDER Left 2x4 SP No.3 -- 2-6-0

**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 5-6

**REACTIONS**

(size) 2=0-3-8, 6=0-3-8  
 Max Horiz 2=298 (LC 12)  
 Max Uplift 6=84 (LC 10)  
 Max Grav 2=554 (LC 26), 6=621 (LC 25)

**FORCES**

(lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=0/40, 2-3=-393/0, 3-4=-446/127,  
 4-5=-456/234, 5-6=-600/304  
 BOT CHORD 2-12=-507/515, 12-13=-301/515,  
 7-13=-301/515, 7-14=-154/170,  
 6-14=-154/170  
 WEBS 5-7=-217/629, 4-7=-437/302

**NOTES**

- 1) Wind: ASCE 7-10; Vult=130mph (3-second gust)  
 Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft;  
 Cat. II; Exp B; Enclosed; MWFRS (envelope) and C-C  
 Exterior (2) zone; cantilever left and right exposed ; end  
 vertical left and right exposed;C-C for members and  
 forces & MWFRS for reactions shown; Lumber  
 DOL=1.60 plate grip DOL=1.33
- 2) TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber  
 DOL=1.15 Plate DOL=1.15); Pg=20.0 psf (ground  
 snow); Pf=13.9 psf (flat roof snow: Lumber DOL=1.15  
 Plate DOL=1.15); Category II; Exp B; Fully Exp.;  
 Ct=1.10

- 3) This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 13.9 psf on overhangs non-concurrent with other live loads.
- 4) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- 5) One RT7A USP connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 6. This connection is for uplift only and does not consider lateral forces.
- 6) This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

**LOAD CASE(S)** Standard



May 6, 2020

**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 10/03/2015 BEFORE USE.**

Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information** available from Truss Plate Institute, 218 N. Lee Street, Suite 312, Alexandria, VA 22314.



818 Soundside Road  
 Edenton, NC 27932

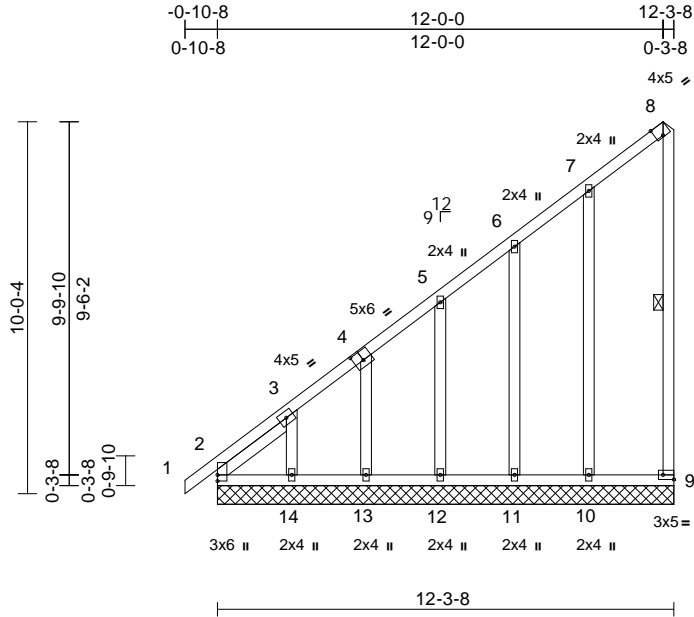
Job 20040129-A	Truss T2GE	Truss Type Common Supported Gable	Qty 1	Ply 1	Johnson-Roof Job Reference (optional)	E14374393
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Carter Components (Sanford), Sanford, NC - 27332,

Run: 8.33 S Mar 23 2020 Print: 8.330 S Mar 23 2020 MiTek Industries, Inc. Wed May 06 08:45:35

Page: 1

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Scale = 1:62.1

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

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	0.63	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf/Pg)	13.9/20.0	Lumber DOL	1.15	BC	0.30	Vert(CT)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.26	Horz(CT)	0.00	9	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MSH								
BCDL	10.0											
											Weight: 96 lb	FT = 20%

**LUMBER**

TOP CHORD	2x4 SP No.2
BOT CHORD	2x4 SP No.2
WEBS	2x4 SP No.2
OTHERS	2x4 SP No.3 *Except* 10-7,11-6:2x4 SP No.2
SLIDER	Left 2x4 SP No.3 -- 2-4-14

**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 8-9

**REACTIONS**

(size)	2=12-3-8, 9=12-3-8, 10=12-3-8, 11=12-3-8, 12=12-3-8, 13=12-3-8, 14=12-3-8, 15=12-3-8
Max Horiz	2=298 (LC 12), 15=298 (LC 12)
Max Uplift	2=-67 (LC 9), 9=-62 (LC 12), 10=-45 (LC 13), 11=-31 (LC 13), 12=-42 (LC 13), 13=-28 (LC 13), 14=-85 (LC 13), 15=-67 (LC 9)
Max Grav	2=235 (LC 26), 9=93 (LC 25), 10=191 (LC 25), 11=162 (LC 25), 12=177 (LC 25), 13=161 (LC 25), 14=192 (LC 25), 15=235 (LC 26)

**FORCES**

(lb) - Maximum Compression/Maximum Tension	
TOP CHORD	1-2=0/40, 2-3=-127/108, 3-4=-458/418, 4-5=-396/371, 5-6=-317/305, 6-7=-257/261, 7-8=-138/147, 8-9=-90/68
BOT CHORD	2-14=-150/167, 13-14=-150/167, 12-13=-157/172, 11-12=-157/172, 10-11=-157/172, 9-10=-157/172
WEBS	7-10=-232/175, 6-11=-156/118, 5-12=-149/105, 4-13=-133/93, 3-14=-215/184

**NOTES**

- 1) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) and C-C Exterior (2) zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.33
- 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 7-10; Pr=20.0 psf (roof live load; Lumber DOL=1.15 Plate DOL=1.15); Pg=20.0 psf (ground snow); Pf=13.9 psf (flat roof snow; Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Fully Exp.; 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 13.9 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) Gable studs spaced at 2-0-0 oc.
- 8) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- 9) One RT7A USP connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 9, 2, 10, 11, 12, 13, and 14. This connection is for uplift only and does not consider lateral forces.
- 10) This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

**LOAD CASE(S)** Standard



May 6, 2020

**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 10/03/2015 BEFORE USE.**

Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information** available from Truss Plate Institute, 218 N. Lee Street, Suite 312, Alexandria, VA 22314.



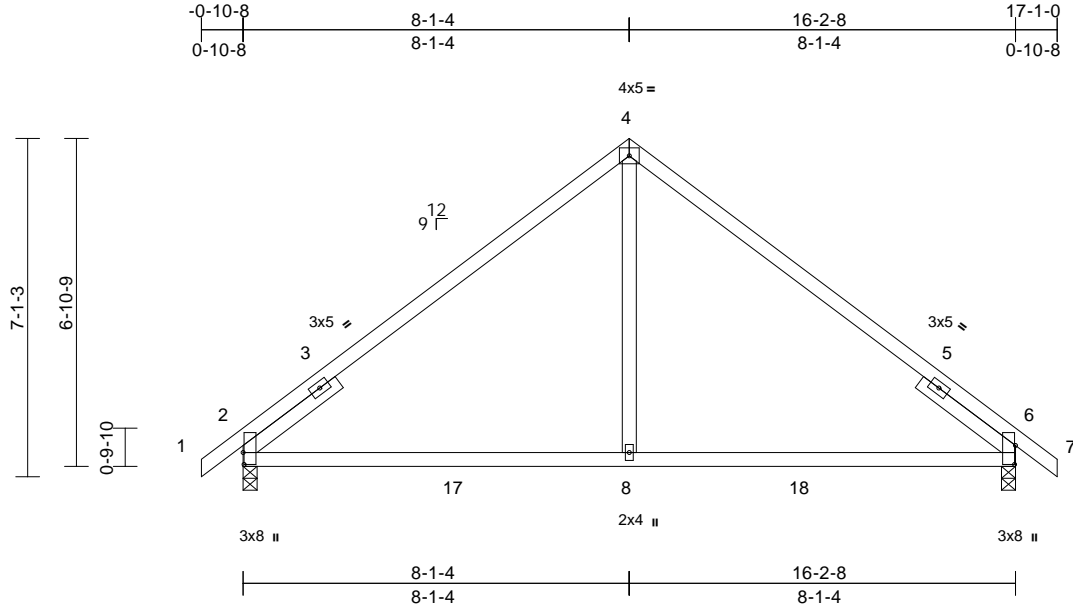
818 Soundside Road  
Edenton, NC 27932

Job 20040129-A	Truss T3	Truss Type Common	Qty 1	Ply 1	Johnson-Roof Job Reference (optional)	E14374394
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Carter Components (Sanford), Sanford, NC - 27332,

Run: 8.33 S Mar 23 2020 Print: 8.330 S Mar 23 2020 MiTek Industries, Inc. Wed May 06 08:45:35  
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Page: 1



Scale = 1:48.4

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

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	0.88	Vert(LL)	-0.13	8-15	>999	240	MT20	244/190
Snow (Pf/Pg)	13.9/20.0	Lumber DOL	1.15	BC	0.77	Vert(CT)	-0.21	8-15	>907	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.17	Horz(CT)	0.06	2	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MSH								
BCDL	10.0											
											Weight: 75 lb	FT = 20%

**LUMBER**

- TOP CHORD 2x4 SP No.2
- BOT CHORD 2x4 SP No.2
- WEBS 2x4 SP No.3
- SLIDER Left 2x4 SP No.3 -- 2-6-0, Right 2x4 SP No.3 -- 2-6-0

**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.

**REACTIONS**

- (size) 2=0-3-8, 6=0-3-8
- Max Horiz 2=133 (LC 12)
- Max Grav 2=748 (LC 25), 6=748 (LC 26)

**FORCES**

- (lb) - Maximum Compression/Maximum Tension
- TOP CHORD 1-2=0/40, 2-3=-564/358, 3-4=-693/161, 4-5=-693/161, 5-6=-355/120, 6-7=0/40
- BOT CHORD 2-17=-238/580, 8-17=0/580, 8-18=0/580, 6-18=0/580
- WEBS 4-8=0/435

**NOTES**

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) and C-C Exterior (2) zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.33
- 3) TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.15); Pg=20.0 psf (ground snow); Pf=13.9 psf (flat roof snow: Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Fully Exp.; 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 13.9 psf on overhangs non-concurrent with other live loads.
- 5) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- 6) This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

**LOAD CASE(S)** Standard



May 6, 2020

**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 10/03/2015 BEFORE USE.**

Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information** available from Truss Plate Institute, 218 N. Lee Street, Suite 312, Alexandria, VA 22314.



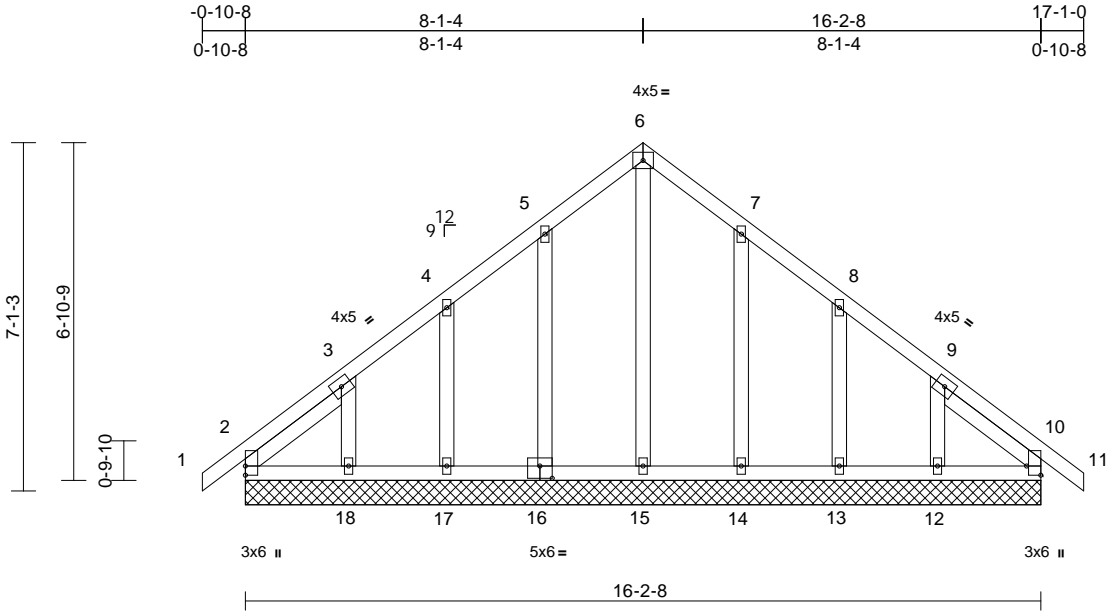
818 Soundside Road  
Edenton, NC 27932

Job 20040129-A	Truss T3GE	Truss Type Common Supported Gable	Qty 1	Ply 1	Johnson-Roof Job Reference (optional)	E14374395
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Carter Components (Sanford), Sanford, NC - 27332,

Run: 8.33 S Mar 23 2020 Print: 8.330 S Mar 23 2020 MITek Industries, Inc. Wed May 06 08:45:36  
ID:6V30dfEo\_77XPSaF4lhvs2zJWWJ-RSsyLRyuaPfaYKHw?N8IjyNU1bL5aigGRxZInzJGnz

Page: 1



Scale = 1:46.9

Plate Offsets (X, Y): [10:Edge,0-3-7], [16:0-3-0,0-3-0]

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.07	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf/Pg)	13.9/20.0	Lumber DOL	1.15	BC	0.04	Vert(CT)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.09	Horz(CT)	0.00	10	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MSH								
BCDL	10.0											
											Weight: 105 lb	FT = 20%

**LUMBER**  
TOP CHORD 2x4 SP No.2  
BOT CHORD 2x4 SP No.2  
OTHERS 2x4 SP No.3 \*Except\* 15-6:2x4 SP No.2  
SLIDER Left 2x4 SP No.3 -- 2-6-7, Right 2x4 SP No.3 -- 2-6-7

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

**REACTIONS** (size)  
2=16-2-8, 10=16-2-8, 12=16-2-8,  
13=16-2-8, 14=16-2-8, 15=16-2-8,  
16=16-2-8, 17=16-2-8, 18=16-2-8,  
19=16-2-8, 23=16-2-8  
Max Horiz 2=133 (LC 12), 19=133 (LC 12)  
Max Uplift 2=-31 (LC 9), 12=-60 (LC 14),  
13=-33 (LC 14), 14=-37 (LC 14),  
16=-38 (LC 13), 17=-34 (LC 13),  
18=-65 (LC 13), 19=-31 (LC 9)  
Max Grav 2=166 (LC 26), 10=155 (LC 2),  
12=185 (LC 26), 13=164 (LC 26),  
14=175 (LC 26), 15=141 (LC 28),  
16=179 (LC 25), 17=161 (LC 25),  
18=193 (LC 25), 19=166 (LC 26),  
23=155 (LC 2)

**FORCES** (lb) - Maximum Compression/Maximum Tension  
TOP CHORD 1-2=0/40, 2-3=-56/26, 3-4=-100/70,  
4-5=-90/86, 5-6=-150/156, 6-7=-150/156,  
7-8=-92/88, 8-9=-71/32, 9-10=-54/26,  
10-11=0/40  
BOT CHORD 2-18=-72/115, 17-18=-72/115, 16-17=-72/115,  
15-16=-69/114, 14-15=-69/114,  
13-14=-69/114, 12-13=-69/114,  
10-12=-69/114

**WEBS** 6-15=-128/67, 5-16=-139/90, 4-17=-135/92,  
3-18=-159/109, 7-14=-137/89, 8-13=-135/92,  
9-12=-160/109

- NOTES**
- 1) Unbalanced roof live loads have been considered for this design.
  - 2) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) and C-C Exterior (2) zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.33
  - 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 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.15); Pg=20.0 psf (ground snow); Pf=13.9 psf (flat roof snow: Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Fully Exp.; 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 13.9 psf on overhangs non-concurrent with other live loads.
  - 6) All plates are 2x4 MT20 unless otherwise indicated.
  - 7) Gable requires continuous bottom chord bearing.
  - 8) Gable studs spaced at 2-0-0 oc.
  - 9) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
  - 10) One RT7A USP connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 2, 16, 17, 18, 14, 13, and 12. This connection is for uplift only and does not consider lateral forces.

11) This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

**LOAD CASE(S)** Standard



May 6, 2020

**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 10/03/2015 BEFORE USE.**

Design valid for use only with MITek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information** available from Truss Plate Institute, 218 N. Lee Street, Suite 312, Alexandria, VA 22314.

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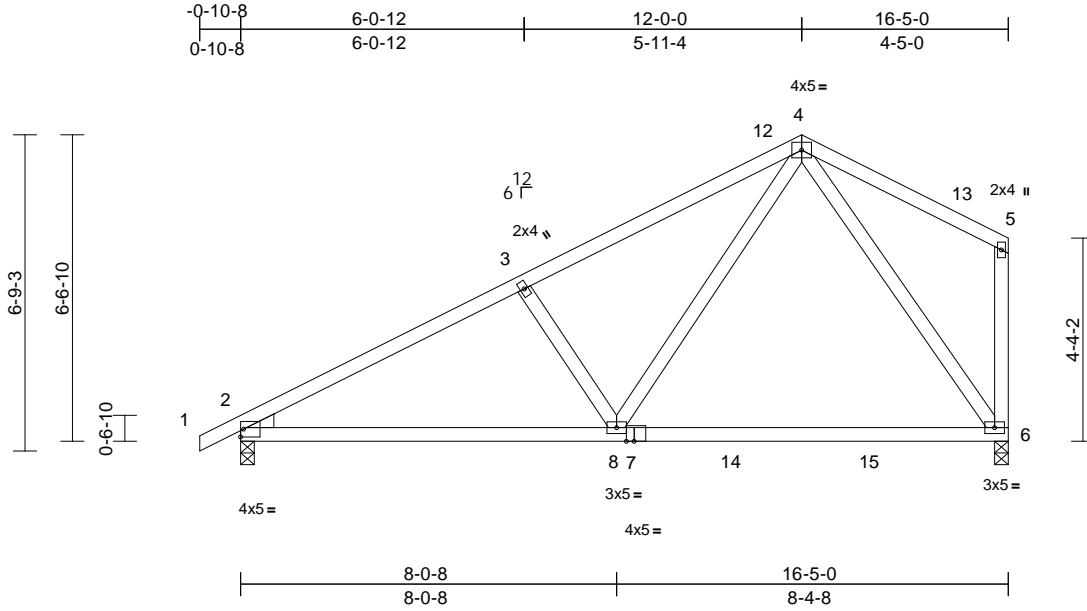
818 Soundside Road  
Edenton, NC 27932

Job 20040129-A	Truss T4	Truss Type Common	Qty 1	Ply 1	Johnson-Roof Job Reference (optional)	E14374396
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Carter Components (Sanford), Sanford, NC - 27332,

Run: 8.33 S Mar 23 2020 Print: 8.330 S Mar 23 2020 MiTek Industries, Inc. Wed May 06 08:45:36  
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Page: 1



Scale = 1:49.3

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

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	0.45	Vert(LL)	-0.18	6-8	>999	240	MT20	244/190
Snow (Pf/Pg)	13.9/20.0	Lumber DOL	1.15	BC	0.63	Vert(CT)	-0.29	6-8	>672	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.54	Horz(CT)	0.01	6	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MSH								
BCDL	10.0											
											Weight: 87 lb	FT = 20%

#### LUMBER

TOP CHORD 2x4 SP No.2  
 BOT CHORD 2x4 SP No.2  
 WEBS 2x4 SP No.2 \*Except\* 8-3,6-5:2x4 SP No.3  
 WEDGE Left: 2x4 SP No.3

#### BRACING

TOP CHORD Structural wood sheathing directly applied or 5-6-6 oc purlins, except end verticals.  
 BOT CHORD Rigid ceiling directly applied or 9-8-12 oc bracing.

#### REACTIONS

(size) 2=0-3-8, 6=0-3-8  
 Max Horiz 2=155 (LC 14)  
 Max Uplift 2=-13 (LC 15)  
 Max Grav 2=705 (LC 2), 6=649 (LC 2)

#### FORCES

(lb) - Maximum Compression/Maximum Tension  
 TOP CHORD 1-2=0/30, 2-3=-985/261, 3-12=-792/266,  
 4-12=-631/269, 4-13=-109/140,  
 5-13=-127/122, 5-6=-140/120  
 BOT CHORD 2-8=-365/816, 7-8=-160/328, 7-14=-160/328,  
 14-15=-160/328, 6-15=-160/328  
 WEBS 4-8=-119/583, 3-8=-356/246, 4-6=-546/212

#### NOTES

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) and C-C Exterior (2) zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.33

- TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.15); Pg=20.0 psf (ground snow); Pf=13.9 psf (flat roof snow: Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Fully Exp.; 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 13.9 psf on overhangs non-concurrent with other live loads.
- \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- One RT7A USP connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 2. This connection is for uplift only and does not consider lateral forces.
- This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard



May 6, 2020

**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 10/03/2015 BEFORE USE.**

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ENGINEERING BY  
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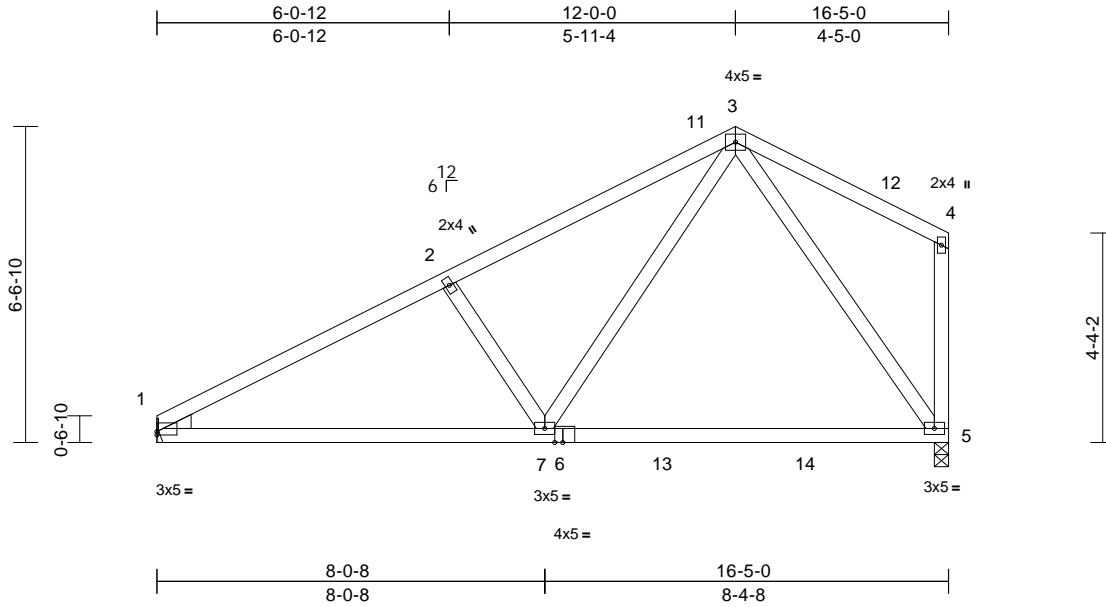
818 Soundside Road  
 Edenton, NC 27932

Job 20040129-A	Truss T4A	Truss Type Common	Qty 3	Ply 1	Johnson-Roof Job Reference (optional)	E14374397
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Carter Components (Sanford), Sanford, NC - 27332,

Run: 8.33 S Mar 23 2020 Print: 8.330 S Mar 23 2020 MiTek Industries, Inc. Wed May 06 08:45:36  
ID:bhcOq?FRIQFO0c9RdTC8PGzJWWI-RSsyLRyuaPtfaYKHw?N8llyHS1S95TegGRXzInzJGnz

Page: 1



Scale = 1:47.8

Plate Offsets (X, Y): [1:Edge,0-0-14], [6:0-2-0,Edge]

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	0.45	Vert(LL)	-0.18	5-7	>999	240	MT20	244/190
Snow (Pf/Pg)	13.9/20.0	Lumber DOL	1.15	BC	0.63	Vert(CT)	-0.29	5-7	>674	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.55	Horz(CT)	0.02	5	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MSH								
BCDL	10.0											
											Weight: 85 lb	FT = 20%

**LUMBER**

TOP CHORD 2x4 SP No.2  
 BOT CHORD 2x4 SP No.2  
 WEBS 2x4 SP No.2 \*Except\* 7-2,5-4:2x4 SP No.3  
 WEDGE Left: 2x4 SP No.3

**BRACING**

TOP CHORD Structural wood sheathing directly applied or 5-6-2 oc purlins, except end verticals.  
 BOT CHORD Rigid ceiling directly applied or 9-8-7 oc bracing.

**REACTIONS**

(size) 1= Mechanical, 5=0-3-8  
 Max Horiz 1=149 (LC 14)  
 Max Uplift 1=5 (LC 15)  
 Max Grav 1=651 (LC 2), 5=651 (LC 2)

**FORCES**

(lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=-990/266, 2-11=-797/270,  
 3-11=-635/273, 3-12=-109/140,  
 4-12=-127/124, 4-5=-140/120  
 BOT CHORD 1-7=-362/822, 6-7=-160/329, 6-13=-160/329,  
 13-14=-160/329, 5-14=-160/329  
 WEBS 3-7=-124/587, 2-7=-359/248, 3-5=-548/213

**NOTES**

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) and C-C Exterior (2) zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.33

- 3) TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.15); Pg=20.0 psf (ground snow); Pf=13.9 psf (flat roof snow: Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Fully Exp.; Ct=1.10
- 4) Unbalanced snow loads have been considered for this design.
- 5) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- 6) Refer to girder(s) for truss to truss connections.
- 7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 5 lb uplift at joint 1.
- 8) This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

**LOAD CASE(S)** Standard



May 6, 2020

**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 10/03/2015 BEFORE USE.**

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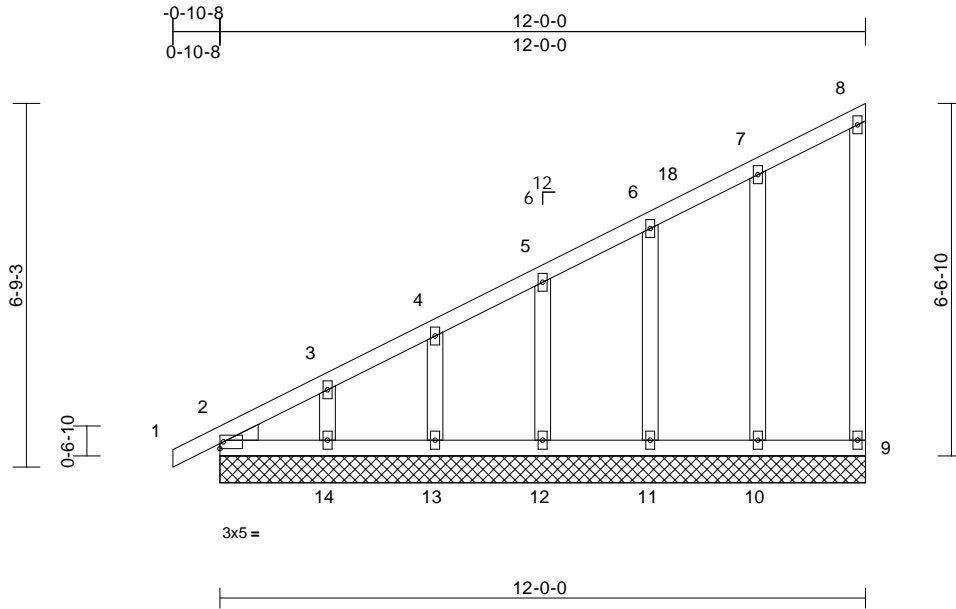
Job 20040129-A	Truss T4GE	Truss Type Monopitch Supported Gable	Qty 1	Ply 1	Johnson-Roof Job Reference (optional)	E14374398
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Carter Components (Sanford), Sanford, NC - 27332,

Run: 8.33 S Mar 23 2020 Print: 8.330 S Mar 23 2020 MITek Industries, Inc. Wed May 06 08:45:37

Page: 1

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Scale = 1:42.8

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	0.25	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf/Pg)	13.9/20.0	Lumber DOL	1.15	BC	0.12	Vert(CT)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.07	Horz(CT)	0.00	9	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MSH								
BCDL	10.0											
										Weight: 72 lb	FT = 20%	

**LUMBER**

TOP CHORD	2x4 SP No.2
BOT CHORD	2x4 SP No.2
WEBS	2x4 SP No.2
OTHERS	2x4 SP No.3 *Except* 10-7:2x4 SP No.2
WEDGE	Left: 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.

**REACTIONS**

(size)	2=12-0-0, 9=12-0-0, 10=12-0-0, 11=12-0-0, 12=12-0-0, 13=12-0-0, 14=12-0-0, 15=12-0-0
Max Horiz	2=196 (LC 14), 15=196 (LC 14)
Max Uplift	2=-1 (LC 11), 9=-20 (LC 12), 10=-21 (LC 15), 11=-18 (LC 15), 12=-21 (LC 15), 13=-13 (LC 15), 14=-41 (LC 15), 15=-1 (LC 11)
Max Grav	2=152 (LC 30), 9=67 (LC 22), 10=184 (LC 22), 11=159 (LC 2), 12=161 (LC 2), 13=159 (LC 2), 14=163 (LC 2), 15=152 (LC 30)

**FORCES**

(lb) - Maximum Compression/Maximum Tension	
TOP CHORD	1-2=0/30, 2-3=-377/202, 3-4=-312/175, 4-5=-262/158, 5-6=-207/138, 6-18=-157/107, 7-18=-148/123, 7-8=-99/90, 8-9=-52/46
BOT CHORD	2-14=-316/186, 13-14=-101/110, 12-13=-101/110, 11-12=-101/110, 10-11=-101/110, 9-10=-101/110
WEBS	7-10=-142/128, 6-11=-119/104, 5-12=-120/98, 4-13=-120/93, 3-14=-120/125

**NOTES**

- 1) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) and C-C Exterior (2) zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.33
- 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 7-10; Pr=20.0 psf (roof live load; Lumber DOL=1.15 Plate DOL=1.15); Pg=20.0 psf (ground snow); Pf=13.9 psf (flat roof snow; Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Fully Exp.; 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 13.9 psf on overhangs non-concurrent with other live loads.
- 6) All plates are 2x4 MT20 unless otherwise indicated.
- 7) Gable requires continuous bottom chord bearing.
- 8) Gable studs spaced at 2-0-0 oc.
- 9) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- 10) One RT7A USP connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 2, 9, 10, 11, 12, 13, and 14. This connection is for uplift only and does not consider lateral forces.
- 11) This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

**LOAD CASE(S)** Standard



May 6, 2020

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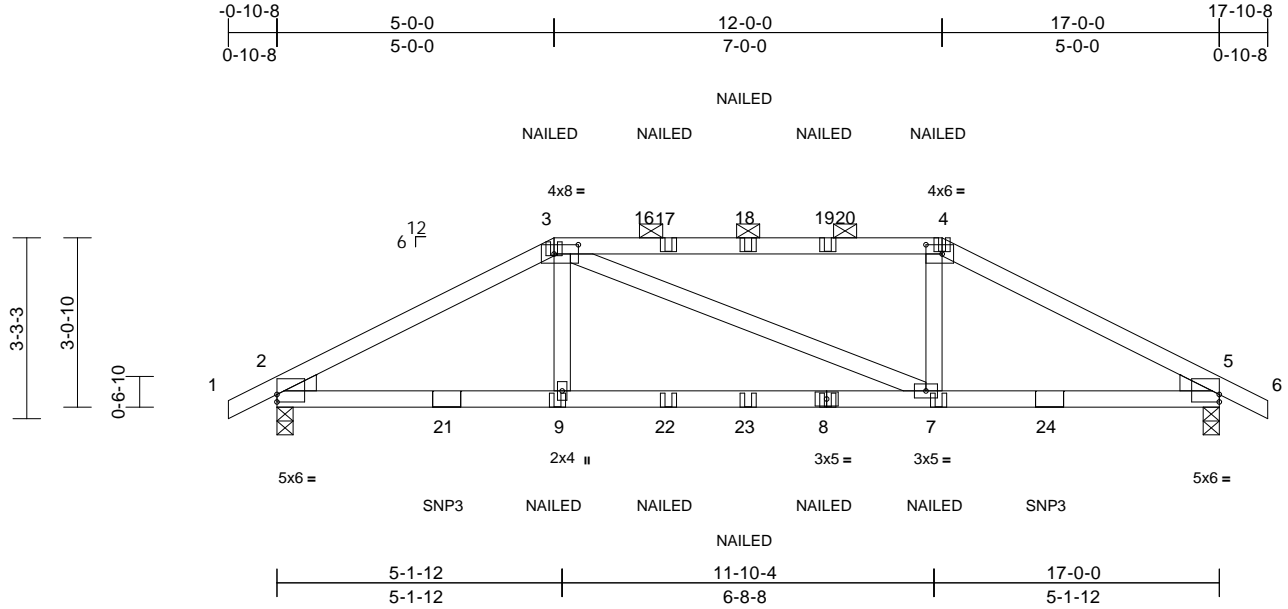


Job 20040129-A	Truss T5GR	Truss Type Hip Girder	Qty 1	Ply 1	Johnson-Roof Job Reference (optional)	E14374399
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Carter Components (Sanford), Sanford, NC - 27332,

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Page: 1



Scale = 1:41.6

Plate Offsets (X, Y): [2:Edge,0-1-10], [3:0-5-4,0-2-0], [4:0-3-8,0-2-0], [5:Edge,0-1-10]

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	0.92	Vert(LL)	-0.06	7-9	>999	240	MT20	244/190
Snow (Pf/Pg)	18.9/20.0	Lumber DOL	1.15	BC	0.77	Vert(CT)	-0.18	7-9	>999	180		
TCDL	10.0	Rep Stress Incr	NO	WB	0.14	Horz(CT)	0.04	5	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MSH								
BCDL	10.0											
											Weight: 75 lb	FT = 20%

**LUMBER**  
TOP CHORD 2x4 SP No.2 \*Except\* 3-4:2x4 SP 2400F 2.0E  
BOT CHORD 2x4 SP No.1  
WEBS 2x4 SP No.3 \*Except\* 7-3:2x4 SP No.2  
WEDGE Left: 2x4 SP No.3  
Right: 2x4 SP No.3

**BRACING**  
TOP CHORD Structural wood sheathing directly applied or 3-10-4 oc purlins, except 2-0-0 oc purlins (3-9-3 max.): 3-4.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS** (size) 2=0-3-8, 5=0-3-8  
Max Horiz 2=-32 (LC 9)  
Max Uplift 2=-70 (LC 11), 5=-70 (LC 12)  
Max Grav 2=1254 (LC 34), 5=1253 (LC 34)

**FORCES** (lb) - Maximum Compression/Maximum Tension  
TOP CHORD 1-2=0/33, 2-3=-1976/99, 3-16=-1725/107, 16-17=-1725/107, 17-18=-1725/107, 18-19=-1725/107, 19-20=-1725/107, 4-20=-1725/107, 4-5=-1977/99, 5-6=0/33  
BOT CHORD 2-21=-68/1707, 9-21=-68/1707, 9-22=-63/1724, 22-23=-63/1724, 8-23=-63/1724, 7-8=-63/1724, 7-24=-45/1708, 5-24=-45/1708  
WEBS 3-9=0/327, 3-7=-77/80, 4-7=0/340

**NOTES**  
1) Unbalanced roof live loads have been considered for this design.  
2) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope); cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.33

- TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.15); Pg=20.0 psf (ground snow); Pf=18.9 psf (flat roof snow: Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Fully Exp.; Ct=1.10, Lu=50-0-0
- 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 13.9 psf on overhangs non-concurrent with other live loads.
- Provide adequate drainage to prevent water ponding.
- \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- One RT7A USP connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 2 and 5. This connection is for uplift only and does not consider lateral forces.
- This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
- Use USP SNP3 (With 6-8d x 1-1/2 nails into Girder & 6-8d x 1-1/2 nails into Truss) or equivalent spaced at 10-10-8 oc max. starting at 3-0-12 from the left end to 13-11-4 to connect truss(es) to back face of bottom chord.
- Fill all nail holes where hanger is in contact with lumber.
- "NAILED" indicates 3-10d (0.148"x3") or 3-12d (0.148"x3.25") toe-nails per NDS guidelines.
- A minimum of (6) 8d x 1-1/2" nails are required into each member for SNP3 installation. All nailing is required in face of supported chords. For sloped applications, flanges may protrude above or below truss chords. Bending of extended flanges is permitted.

- In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).
- LOAD CASE(S)** Standard
- Dead + Snow (balanced): Lumber Increase=1.15, Plate Increase=1.15  
Uniform Loads (lb/ft)  
Vert: 1-3=-48, 3-4=-58, 4-6=-48, 10-13=-20  
Concentrated Loads (lb)  
Vert: 3=-60 (B), 4=-60 (B), 8=-38 (B), 9=-38 (B), 7=-38 (B), 17=-55 (B), 18=-55 (B), 19=-55 (B), 21=-208 (B), 22=-38 (B), 23=-38 (B), 24=-208 (B)



May 6, 2020

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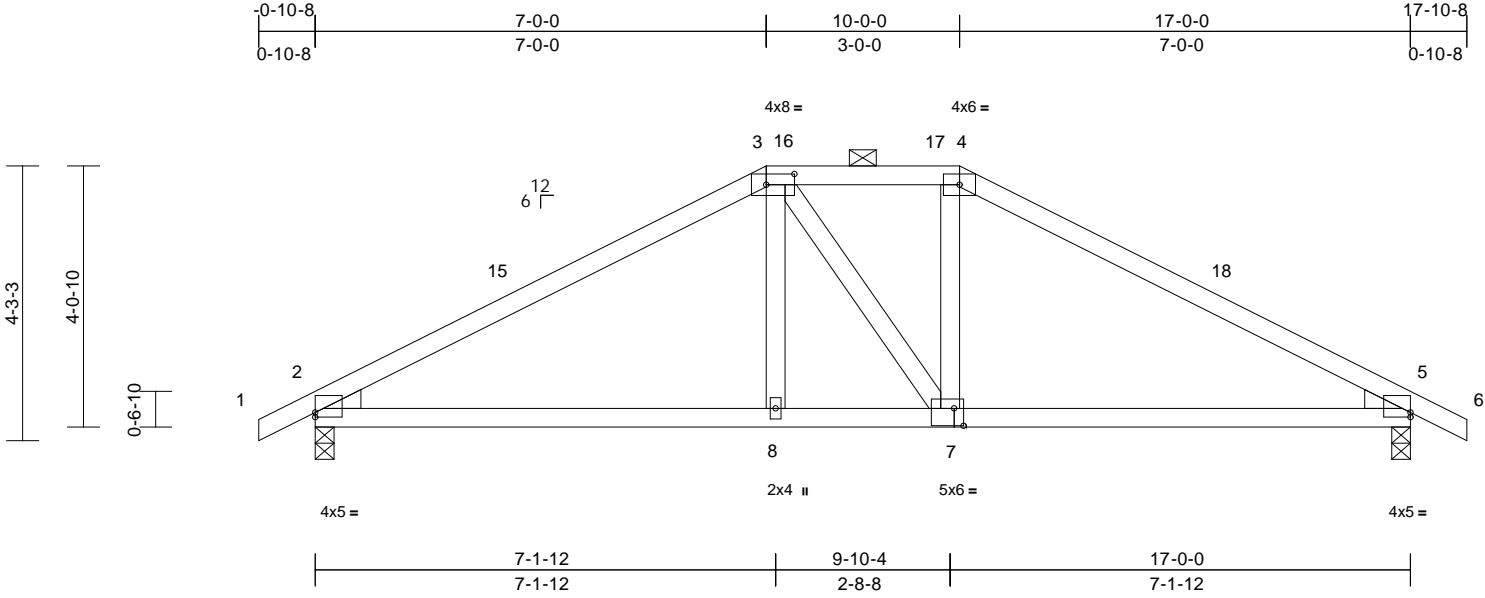
818 Soundside Road  
Edenton, NC 27932

Job 20040129-A	Truss T6	Truss Type Hip	Qty 1	Ply 1	Johnson-Roof Job Reference (optional)	E14374400
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Carter Components (Sanford), Sanford, NC - 27332,

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Page: 1



Scale = 1:35.8

Plate Offsets (X, Y): [2:Edge,0-0-14], [3:0-5-4,0-2-0], [5:Edge,0-0-14], [7:0-1-12,0-3-4]

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	0.97	Vert(LL)	-0.07	8-11	>999	240	MT20	244/190
Snow (Pf/Pg)	18.9/20.0	Lumber DOL	1.15	BC	0.56	Vert(CT)	-0.14	8-11	>999	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.07	Horz(CT)	0.02	2	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MSH								
BCDL	10.0											
											Weight: 75 lb	FT = 20%

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

**BRACING**  
TOP CHORD Structural wood sheathing directly applied, except  
2-0-0 oc purlins (5-7-9 max.): 3-4.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS** (size) 2=0-3-8, 5=0-3-8  
Max Horiz 2=-42 (LC 13)  
Max Grav 2=877 (LC 38), 5=877 (LC 38)

**FORCES** (lb) - Maximum Compression/Maximum Tension  
TOP CHORD 1-2=0/33, 2-15=-1111/213, 3-15=-971/234,  
3-16=-872/261, 16-17=-872/261,  
4-17=-872/261, 4-18=-973/234,  
5-18=-1112/213, 5-6=0/33  
BOT CHORD 2-8=-232/868, 7-8=-92/873, 5-7=-95/869  
WEBS 3-8=0/134, 3-7=-127/125, 4-7=0/179

- TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.15); Pg=20.0 psf (ground snow); Pf=18.9 psf (flat roof snow: Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Fully Exp.; Ct=1.10, Lu=50-0-0
- 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 13.9 psf on overhangs non-concurrent with other live loads.
- Provide adequate drainage to prevent water ponding.
- \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

**LOAD CASE(S)** Standard

- NOTES**
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) and C-C Exterior (2) zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.33



May 6, 2020

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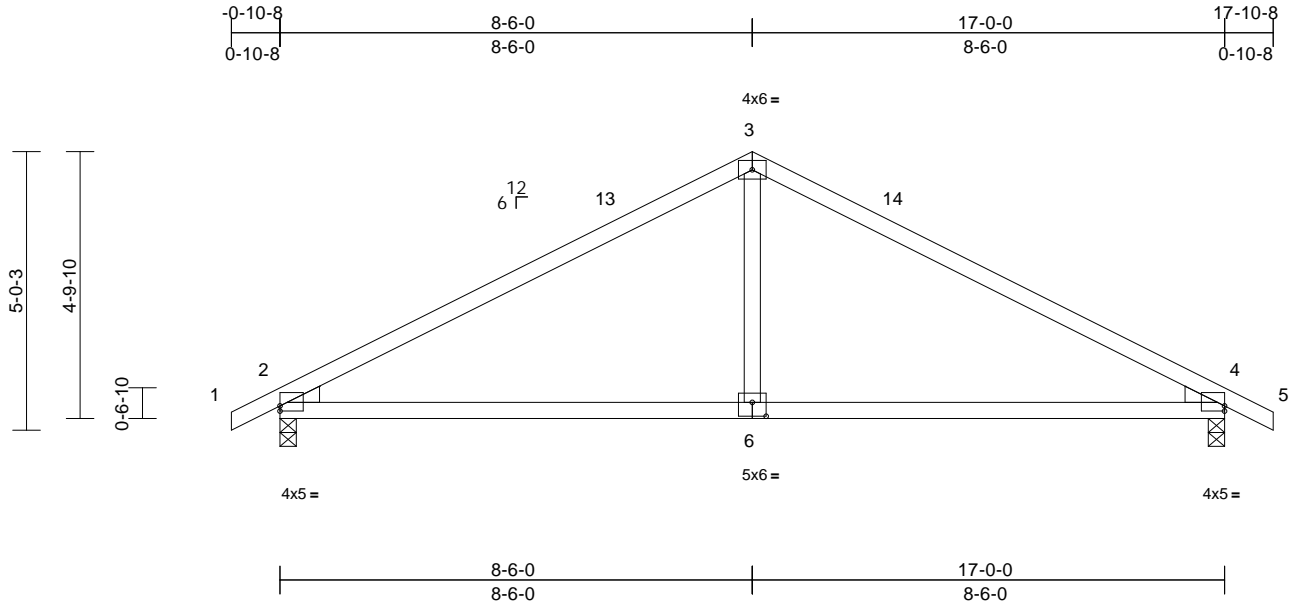
818 Soundside Road  
Edenton, NC 27932

Job 20040129-A	Truss T7	Truss Type Common	Qty 2	Ply 1	Johnson-Roof Job Reference (optional)	E14374401
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Page: 1



Scale = 1:41.5

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

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.81	Vert(LL)	-0.13	6-12	>999	240	MT20	244/190
Snow (Pf/Pg)	13.9/20.0	Lumber DOL	1.15	BC	0.66	Vert(CT)	-0.24	6-12	>853	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.11	Horz(CT)	0.03	2	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MSH								
BCDL	10.0											
											Weight: 65 lb	FT = 20%

**LUMBER**

TOP CHORD 2x4 SP No.1  
 BOT CHORD 2x4 SP No.2  
 WEBS 2x4 SP No.3  
 WEDGE Left: 2x4 SP No.3  
 Right: 2x4 SP No.3

**BRACING**

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

**REACTIONS** (size) 2=0-3-8, 4=0-3-8

Max Horiz 2=50 (LC 14)  
 Max Uplift 2=6 (LC 15), 4=6 (LC 16)  
 Max Grav 2=733 (LC 2), 4=733 (LC 2)

**FORCES** (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=0/30, 2-13=-939/212, 3-13=-777/234,  
 3-14=-777/234, 4-14=-939/212, 4-5=0/30  
 BOT CHORD 2-6=-312/738, 4-6=-78/738  
 WEBS 3-6=0/240

**NOTES**

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-10; Vult=130mph (3-second gust)  
 Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft;  
 Cat. II; Exp B; Enclosed; MWFRS (envelope) and C-C Exterior (2) zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.33
- 3) TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.15); Pg=20.0 psf (ground snow); Pf=13.9 psf (flat roof snow: Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Fully Exp.; 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 13.9 psf on overhangs non-concurrent with other live loads.
- 6) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- 7) One RT7A USP connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 4 and 2. This connection is for uplift only and does not consider lateral forces.
- 8) This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

**LOAD CASE(S)** Standard



May 6, 2020

**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 10/03/2015 BEFORE USE.**

Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information** available from Truss Plate Institute, 218 N. Lee Street, Suite 312, Alexandria, VA 22314.



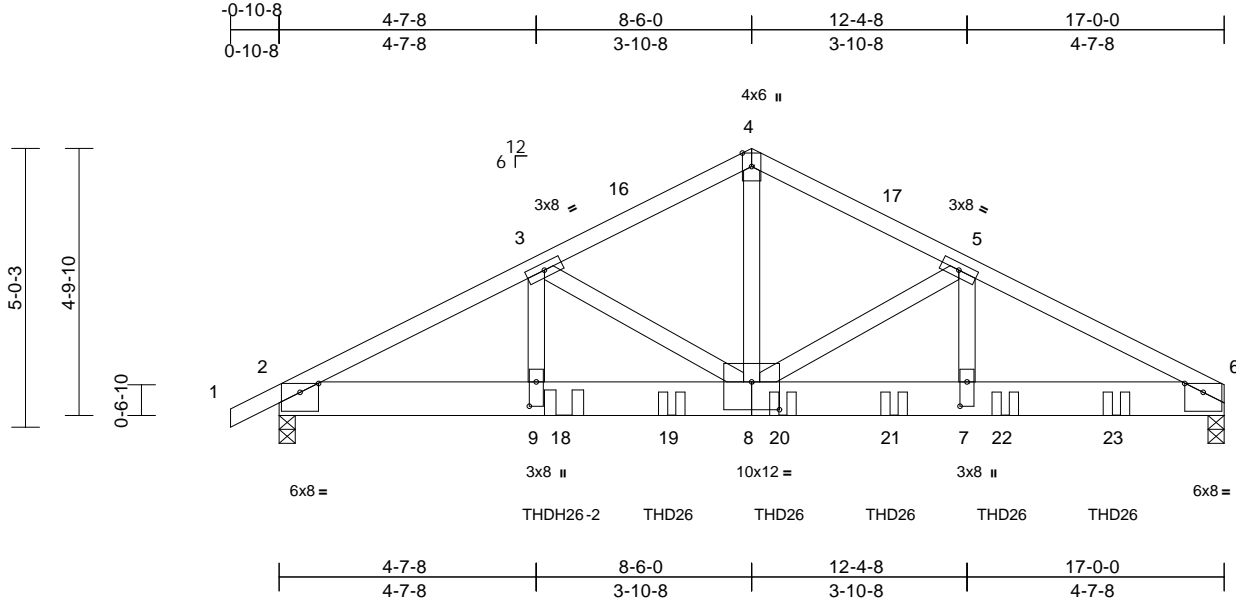
818 Soundside Road  
 Edenton, NC 27932

Job 20040129-A	Truss T7GR	Truss Type Common Girder	Qty 1	Ply 2	Johnson-Roof Job Reference (optional)	E14374402
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Carter Components (Sanford), Sanford, NC - 27332,

Run: 8.33 S Mar 23 2020 Print: 8.330 S Mar 23 2020 MiTek Industries, Inc. Wed May 06 08:45:39  
ID:ur7K?yqp5FYA\_Wbb1eIUzJWVO-s1Y5zTantKFER02sc7wrwMamzFXllmgYpIldvzJGnw

Page: 1



Scale = 1:41.4

Plate Offsets (X, Y): [2:0-4-0,0-1-15], [6:0-4-0,0-1-15], [7:0-5-4,0-1-8], [8:0-6-0,0-6-0], [9:0-5-4,0-1-8]

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	0.63	Vert(LL)	-0.10	8-9	>999	240	MT20	244/190
Snow (Pf/Pg)	13.9/20.0	Lumber DOL	1.15	BC	0.44	Vert(CT)	-0.20	8-9	>996	180		
TCDL	10.0	Rep Stress Incr	NO	WB	0.78	Horz(CT)	0.04	6	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MSH								
BCDL	10.0											
											Weight: 213 lb	FT = 20%

**LUMBER**  
TOP CHORD 2x4 SP No.2  
BOT CHORD 2x8 SP 2400F 2.0E  
WEBS 2x4 SP No.3 \*Except\* 8-4:2x4 SP No.2

**BRACING**  
TOP CHORD Structural wood sheathing directly applied or 3-3-14 oc purlins.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS** (size) 2=0-3-8, 6=0-3-8  
Max Horiz 2=52 (LC 36)  
Max Uplift 2=-4 (LC 11)  
Max Grav 2=4735 (LC 2), 6=6104 (LC 2)

**FORCES** (lb) - Maximum Compression/Maximum Tension  
TOP CHORD 1-2=0/30, 2-3=-9357/4, 3-16=-7492/0, 4-16=-7454/0, 4-17=-7463/0, 5-17=-7495/0, 5-6=-10404/0  
BOT CHORD 2-9=-2/8306, 9-18=-2/8306, 18-19=-2/8306, 8-19=-2/8306, 8-20=0/9267, 20-21=0/9267, 7-21=0/9267, 7-22=0/9267, 22-23=0/9267, 6-23=0/9267  
WEBS 3-9=-75/1677, 3-8=-1938/175, 4-8=0/6391, 5-8=-3136/0, 5-7=0/2806

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope); cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.33
- TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.15); Pg=20.0 psf (ground snow); Pf=13.9 psf (flat roof snow: Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Fully Exp.; 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 13.9 psf on overhangs non-concurrent with other live loads.
- \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- One RT7A USP connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 2. This connection is for uplift only and does not consider lateral forces.
- This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- Use USP THDH26-2 (With 20-16d nails into Girder & 8-16d nails into Truss) or equivalent at 5-1-8 from the left end to connect truss(es) to front face of bottom chord.
- Use USP THD26 (With 18-16d nails into Girder & 12-10d x 1-1/2 nails into Truss) or equivalent spaced at 2-0-0 oc max. starting at 7-0-12 from the left end to 15-0-12 to connect truss(es) to front face of bottom chord.
- Fill all nail holes where hanger is in contact with lumber.

**LOAD CASE(S)** Standard  
1) Dead + Snow (balanced): Lumber Increase=1.15, Plate Increase=1.15  
Uniform Loads (lb/ft)  
Vert: 1-4=-48, 4-6=-48, 10-13=-20  
Concentrated Loads (lb)  
Vert: 18=-2189 (F), 19=-1133 (F), 20=-1402 (F), 21=-1443 (F), 22=-1581 (F), 23=-1620 (F)

- NOTES**
- 2-ply truss to be connected together with 10d (0.131"x3") nails as follows:  
Top chords connected as follows: 2x4 - 1 row at 0-9-0 oc.  
Bottom chords connected as follows: 2x8 - 2 rows staggered at 0-5-0 oc.  
Web 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.



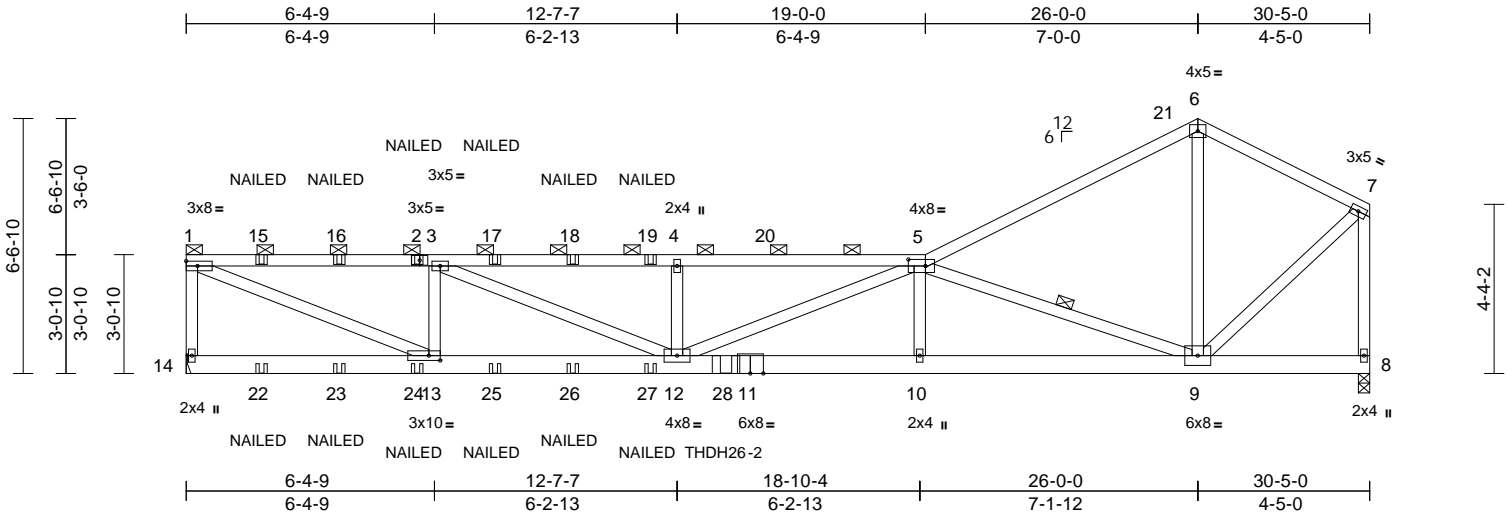
May 6, 2020

Job 20040129-A	Truss T8AGR	Truss Type Roof Special Girder	Qty 1	Ply 2	Johnson-Roof Job Reference (optional)	E14374403
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Carter Components (Sanford), Sanford, NC - 27332,

Run: 8.33 S Mar 23 2020 Print: 8.330 S Mar 23 2020 MITek Industries, Inc. Wed May 06 08:45:40  
ID: Af\_6LbdtSy9rEN1OyTFP9ozJWVp-s1Y5zTantKFER02sc7wrrwMafDfPiIpp6yPldvizJGnw

Page: 1



Scale = 1:59.2

Plate Offsets (X, Y): [5:0-5-4,0-2-0], [13:0-3-8,0-1-8]

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	0.87	Vert(LL)	-0.23	10-12	>999	240	MT20	244/190
Snow (Pf/Pg)	18.9/20.0	Lumber DOL	1.15	BC	0.96	Vert(CT)	-0.46	10-12	>793	180		
TCDL	10.0	Rep Stress Incr	NO	WB	0.58	Horz(CT)	0.05	8	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MSH								
BCDL	10.0											
											Weight: 388 lb	FT = 20%

LUMBER	TOP CHORD	BOT CHORD	WEBS	BRACING	TOP CHORD	BOT CHORD	WEBS	REACTIONS	FORCES	TOP CHORD	BOT CHORD	WEBS
TOP CHORD	2x4 SP No.2 *Except* 2-5:2x4 SP No.1	2x6 SP 2400F 2.0E *Except* 11-8:2x6 SP No.2	2x4 SP No.2 *Except* 14-1,10-5,8-7,13-3,12-4:2x4 SP No.3	Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals, and 2-0-0 oc purlins (4-3-8 max.): 1-5.	Rigid ceiling directly applied or 10-0-0 oc bracing.	1 Row at midpt 5-9	(size) 8=0-3-8, 14= Mechanical Max Horiz 14=142 (LC 8) Max Uplift 8=44 (LC 11), 14=-115 (LC 11) Max Grav 8=1801 (LC 2), 14=2258 (LC 2)	(lb) - Maximum Compression/Maximum Tension	1-14=-2114/157, 1-15=-4462/214, 15-16=-4462/214, 2-16=-4462/214, 2-3=-4462/214, 3-17=-6932/313, 17-18=-6932/313, 18-19=-6932/313, 4-19=-6932/313, 4-20=-6932/313, 5-20=-6932/313, 5-21=-1387/65, 6-21=-1200/67, 6-7=-1342/88, 7-8=-1764/63	14-22=-131/133, 22-23=-131/133, 23-24=-131/133, 13-24=-131/133, 13-25=-213/4462, 25-26=-213/4462, 26-27=-213/4462, 12-27=-213/4462, 12-28=-219/5783, 11-28=-219/5783, 10-11=-219/5783, 9-10=-222/5765, 8-9=-44/35	5-10=0/323, 7-9=-36/1579, 3-13=-1716/247, 1-13=-229/4755, 3-12=-107/2688, 4-12=-599/148, 5-12=-315/1350, 6-9=-2/833, 5-9=-4932/243	

**NOTES**

- 2-ply truss to be connected together with 10d (0.131"x3") nails as follows:  
Top chords connected as follows: 2x4 - 1 row at 0-9-0 oc.  
Bottom chords connected as follows: 2x6 - 2 rows staggered at 0-9-0 oc.  
Web 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 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope); cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.33
- TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.15); Pg=20.0 psf (ground snow); Pf=18.9 psf (flat roof snow: Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Fully Exp.; Ct=1.10, Lu=50-0-0
- Unbalanced snow loads have been considered for this design.
- Provide adequate drainage to prevent water ponding.
- \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- Refer to girder(s) for truss to truss connections.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 115 lb uplift at joint 14.

- One RT7A USP connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 8. This connection is for uplift only and does not consider lateral forces.
- This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
- Use USP THDH26-2 (With 20-16d nails into Girder & 8-16d nails into Truss) or equivalent at 13-10-8 from the left end to connect truss(es) to front face of bottom chord.
- Fill all nail holes where hanger is in contact with lumber.
- "NAILED" indicates 3-10d (0.148"x3") or 3-12d (0.148"x3.25") toe-nails per NDS guidelines.

**LOAD CASE(S)** Standard

- Dead + Snow (balanced): Lumber Increase=1.15, Plate Increase=1.15  
Uniform Loads (lb/ft)



May 6, 2020

Continued on page 2

**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 10/03/2015 BEFORE USE.**

Design valid for use only with MITek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information** available from Truss Plate Institute, 218 N. Lee Street, Suite 312, Alexandria, VA 22314.



818 Soundside Road  
Edenton, NC 27932

Job 20040129-A	Truss T8AGR	Truss Type Roof Special Girder	Qty 1	Ply <b>2</b>	Johnson-Roof Job Reference (optional)	E14374403
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Carter Components (Sanford), Sanford, NC - 27332,

Run: 8.33 S Mar 23 2020 Print: 8.330 S Mar 23 2020 MiTek Industries, Inc. Wed May 06 08:45:40  
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Page: 2

Vert: 1-5=-58, 5-6=-48, 6-7=-48, 8-14=-20

Concentrated Loads (lb)

Vert: 2=-55 (F), 15=-55 (F), 16=-55 (F), 17=-55 (F),  
18=-55 (F), 19=-55 (F), 22=-38 (F), 23=-38 (F),  
24=-38 (F), 25=-38 (F), 26=-38 (F), 27=-38 (F),  
28=-819 (F)

**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 10/03/2015 BEFORE USE.**

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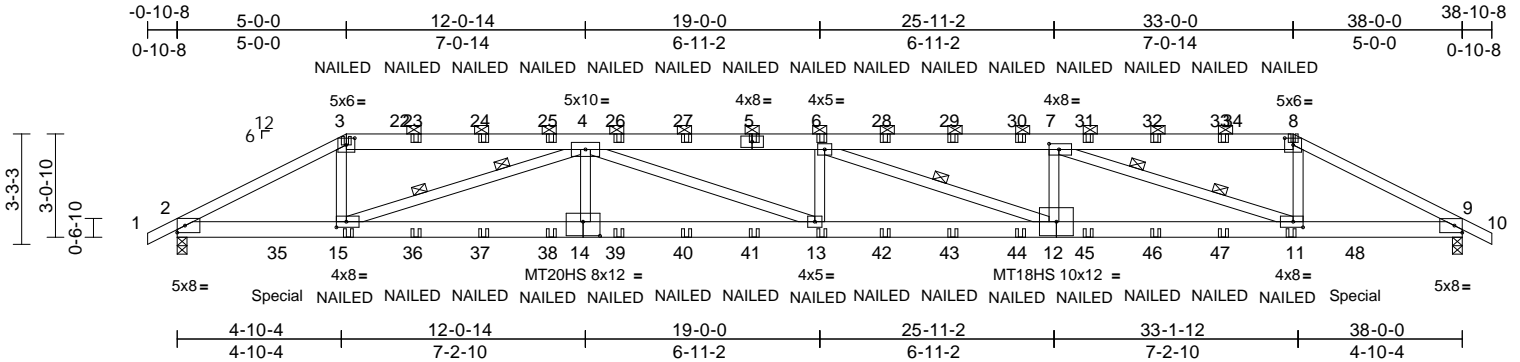
818 Soundside Road  
Edenton, NC 27932

Job 20040129-A	Truss T8GR	Truss Type Hip Girder	Qty 1	Ply 1	Johnson-Roof Job Reference (optional)	E14374404
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Carter Components (Sanford), Sanford, NC - 27332,

Run: 8.33 S Mar 23 2020 Print: 8.330 S Mar 23 2020 MiTek Industries, Inc. Wed May 06 08:45:45  
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Page: 1



Scale = 1:68.1

Plate Offsets (X, Y): [3:0-3-0,0-2-7], [7:0-3-8,0-2-0], [8:0-3-0,0-2-7], [11:0-3-8,0-2-0], [14:0-6-0,0-5-0], [15:0-3-8,0-2-0]

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	0.79	Vert(LL)	-0.57	13	>806	240	MT20	244/190
Snow (Pf/Pg)	18.9/20.0	Lumber DOL	1.15	BC	0.67	Vert(CT)	-1.14	13	>401	180	MT20HS	187/143
TCDL	10.0	Rep Stress Incr	NO	WB	0.97	Horz(CT)	0.20	9	n/a	n/a	MT18HS	244/190
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MSH								
BCDL	10.0											
											Weight: 233 lb	FT = 20%

**LUMBER**  
**TOP CHORD** 2x4 SP No.2 \*Except\* 3-5,5-8:2x6 SP 2400F 2.0E  
**BOT CHORD** 2x6 SP 2400F 2.0E  
**WEBS** 2x4 SP No.3 \*Except\* 4-15,7-11,13-4,12-6:2x4 SP No.2

**BRACING**  
**TOP CHORD** Structural wood sheathing directly applied or 2-1-9 oc purlins, except 2-0-0 oc purlins (2-11-2 max.): 3-8.  
**BOT CHORD** Rigid ceiling directly applied or 10-0-0 oc bracing.  
**WEBS** 1 Row at midpt 6-12  
**WEBS** 2 Rows at 1/3 pts 4-15, 7-11

**REACTIONS** (size) 2=0-3-8, 9=0-3-8  
 Max Horiz 2=32 (LC 10)  
 Max Uplift 2=134 (LC 8), 9=133 (LC 7)  
 Max Grav 2=2631 (LC 2), 9=2631 (LC 2)

**FORCES** (lb) - Maximum Compression/Maximum Tension  
**TOP CHORD** 1-2=0/33, 2-3=-4956/278, 3-22=-4275/260, 22-23=-4275/260, 23-24=-4276/260, 24-25=-4277/260, 4-25=-4280/260, 4-26=-9639/578, 26-27=-9639/578, 5-27=-9639/578, 5-6=-9639/578, 6-28=-8376/518, 28-29=-8376/518, 29-30=-8376/518, 7-30=-8376/518, 7-31=-4280/260, 31-32=-4278/260, 32-33=-4277/260, 33-34=-4275/260, 8-34=-4275/260, 8-9=-4956/278, 9-10=0/33

**BOT CHORD** 2-35=-229/4372, 15-35=-229/4372, 15-36=-486/8398, 36-37=-486/8398, 37-38=-486/8398, 14-38=-486/8398, 14-39=-490/8390, 39-40=-490/8390, 40-41=-490/8390, 13-41=-490/8390, 13-42=-548/9639, 42-43=-548/9639, 43-44=-548/9639, 12-44=-548/9639, 12-45=-465/8397, 45-46=-465/8397, 46-47=-465/8397, 11-47=-465/8397, 11-48=-206/4373, 9-48=-206/4373  
**WEBS** 3-15=0/1757, 8-11=0/1758, 4-15=-4429/304, 7-11=-4428/302, 4-14=0/271, 4-13=-82/1358, 6-13=-183/170, 6-12=-1371/85, 7-12=0/747

- NOTES**
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope); cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.33
  - TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.15); Pg=20.0 psf (ground snow); Pf=18.9 psf (flat roof snow: Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Fully Exp.; Ct=1.10, Lu=50-0-0
  - 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 13.9 psf on overhangs non-concurrent with other live loads.
  - Provide adequate drainage to prevent water ponding.
  - All plates are MT20 plates unless otherwise indicated.
  - \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.

- One RT7A USP connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 2 and 9. This connection is for uplift only and does not consider lateral forces.
- This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
- "NAILED" indicates 3-10d (0.148"x3") or 3-12d (0.148"x3.25") toe-nails per NDS guidelines.
- Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 212 lb down and 40 lb up at 3-0-12, and 212 lb down and 40 lb up at 34-11-4 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
- In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

**LOAD CASE(S)** Standard



May 6, 2020

Continued on page 2

**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 10/03/2015 BEFORE USE.**

Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information** available from Truss Plate Institute, 218 N. Lee Street, Suite 312, Alexandria, VA 22314.



818 Soundside Road  
Edenton, NC 27932

Job 20040129-A	Truss T8GR	Truss Type Hip Girder	Qty 1	Ply 1	Johnson-Roof Job Reference (optional)	E14374404
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Carter Components (Sanford), Sanford, NC - 27332,

Run: 8.33 S Mar 23 2020 Print: 8.330 S Mar 23 2020 MiTek Industries, Inc. Wed May 06 08:45:45  
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Page: 2

- 1) Dead + Snow (balanced): Lumber Increase=1.15, Plate Increase=1.15  
Uniform Loads (lb/ft)  
Vert: 1-3=-48, 3-8=-58, 8-10=-48, 16-19=-20  
Concentrated Loads (lb)  
Vert: 3=-60 (B), 5=-55 (B), 8=-60 (B), 15=-38 (B), 11=-38 (B), 13=-38 (B), 6=-55 (B), 23=-55 (B), 24=-55 (B), 25=-55 (B), 26=-55 (B), 27=-55 (B), 28=-55 (B), 29=-55 (B), 30=-55 (B), 31=-55 (B), 32=-55 (B), 33=-55 (B), 35=-208 (B), 36=-38 (B), 37=-38 (B), 38=-38 (B), 39=-38 (B), 40=-38 (B), 41=-38 (B), 42=-38 (B), 43=-38 (B), 44=-38 (B), 45=-38 (B), 46=-38 (B), 47=-38 (B), 48=-208 (B)

**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 10/03/2015 BEFORE USE.**

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818 Soundside Road  
Edenton, NC 27932

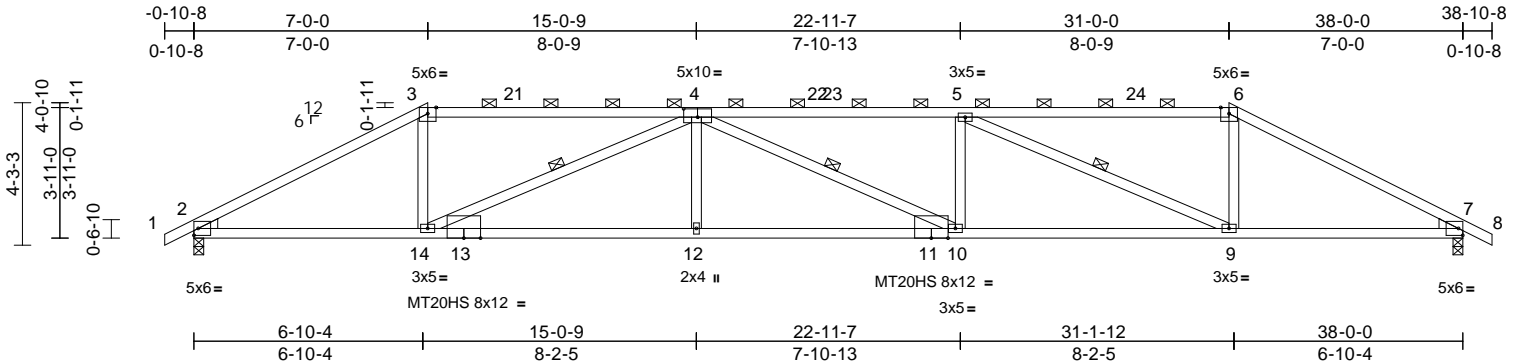


Job 20040129-A	Truss T9	Truss Type Hip	Qty 1	Ply 1	Johnson-Roof Job Reference (optional)	E14374405
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Carter Components (Sanford), Sanford, NC - 27332,

Run: 8.33 S Mar 23 2020 Print: 8.330 S Mar 23 2020 MiTek Industries, Inc. Wed May 06 08:45:46  
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Page: 1



Scale = 1:69

Plate Offsets (X, Y): [4:0-5-0,0-3-0]

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in (loc)	l/defl	L/d	PLATES	GRIP		
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.87	Vert(LL)	-0.43	10-12	>999	240	MT20	244/190
Snow (Pf/Pg)	18.9/20.0	Lumber DOL	1.15	BC	0.95	Vert(CT)	-0.77	10-12	>596	180	MT20HS	187/143
TCDL	10.0	Rep Stress Incr	YES	WB	0.83	Horz(CT)	0.22	7	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MSH								
BCDL	10.0											
										Weight: 179 lb	FT = 20%	

**LUMBER**  
 TOP CHORD 2x4 SP No.1 \*Except\* 3-4,4-6:2x4 SP 2400F 2.0E  
 BOT CHORD 2x4 SP No.1  
 WEBS 2x4 SP No.3 \*Except\* 14-4,10-4,9-5:2x4 SP No.2  
 WEDGE Left: 2x4 SP No.3  
 Right: 2x4 SP No.3

**BRACING**  
 TOP CHORD Structural wood sheathing directly applied or 2-7-15 oc purlins, except 2-0-0 oc purlins (2-2-0 max.): 3-6.  
 BOT CHORD Rigid ceiling directly applied or 2-2-0 oc bracing.  
 WEBS 1 Row at midpt 4-14, 4-10, 5-9

**REACTIONS** (size) 2=0-3-8, 7=0-3-8  
 Max Horiz 2=42 (LC 14)  
 Max Grav 2=1607 (LC 37), 7=1607 (LC 37)

**FORCES** (lb) - Maximum Compression/Maximum Tension  
 TOP CHORD 1-2=0/33, 2-3=-3082/574, 3-21=-2686/562, 4-21=-2689/562, 4-22=-4715/858, 22-23=-4715/858, 5-23=-4715/858, 5-24=-2688/561, 6-24=-2685/562, 6-7=-3082/574, 7-8=0/33  
 BOT CHORD 2-14=-399/2725, 13-14=-698/4718, 12-13=-698/4718, 11-12=-699/4717, 10-11=-699/4717, 9-10=-698/4715, 7-9=-402/2725  
 WEBS 3-14=-54/986, 4-14=-2220/329, 4-12=0/170, 4-10=-62/62, 5-10=0/194, 5-9=-2220/328, 6-9=-54/988

**NOTES**  
 1) Unbalanced roof live loads have been considered for this design.

- Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) and C-C Exterior (2) zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.33
- TCLL: ASCE 7-10; Pr=20.0 psf (roof live load; Lumber DOL=1.15 Plate DOL=1.15); Pg=20.0 psf (ground snow); Pf=18.9 psf (flat roof snow; Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Fully Exp.; Ct=1.10, Lu=50-0-0
- 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 13.9 psf on overhangs non-concurrent with other live loads.
- Provide adequate drainage to prevent water ponding.
- All plates are MT20 plates unless otherwise indicated.
- \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

**LOAD CASE(S)** Standard



May 6, 2020

**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 10/03/2015 BEFORE USE.**

Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information** available from Truss Plate Institute, 218 N. Lee Street, Suite 312, Alexandria, VA 22314.



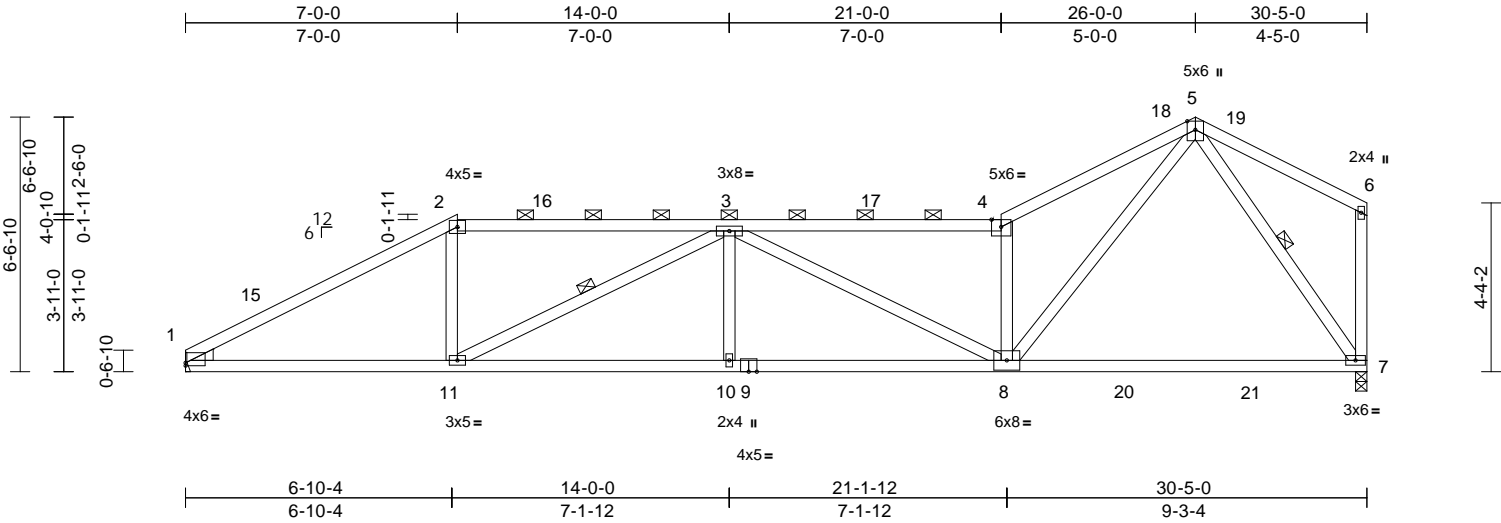
818 Soundside Road  
 Edenton, NC 27932

Job 20040129-A	Truss T9A	Truss Type Roof Special	Qty 1	Ply 1	Johnson-Roof Job Reference (optional)	E14374406
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Carter Components (Sanford), Sanford, NC - 27332,

Run: 8.33 S Mar 23 2020 Print: 8.330 S Mar 23 2020 MITek Industries, Inc. Wed May 06 08:45:47  
ID:?pMObfie2ov8yIUYIkMpP3zJVVj-dZ06fCgo?oG5PFfP4o3JF2w2VT9ZANoloh2BEzJGno

Page: 1



Scale = 1:59.3

Plate Offsets (X, Y): [1:Edge,0-0-14]

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	0.91	Vert(LL)	-0.24	7-8	>999	240	MT20	244/190
Snow (Pf/Pg)	18.9/20.0	Lumber DOL	1.15	BC	0.89	Vert(CT)	-0.47	7-8	>768	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.84	Horz(CT)	0.09	7	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MSH								
BCDL	10.0											
											Weight: 161 lb	FT = 20%

**LUMBER**

TOP CHORD 2x4 SP No.2 \*Except\* 2-4:2x4 SP No.1  
 BOT CHORD 2x4 SP No.2 \*Except\* 9-7:2x4 SP No.1  
 WEBS 2x4 SP No.3 \*Except\* 11-3,8-3,8-5,7-5:2x4 SP No.2  
 WEDGE Left: 2x4 SP No.3

**BRACING**

TOP CHORD Structural wood sheathing directly applied, except end verticals, and 2-0-0 oc purlins (2-10-4 max.): 2-4.  
 BOT CHORD Rigid ceiling directly applied or 7-3-10 oc bracing.  
 WEBS 1 Row at midpt 3-11, 5-7

**REACTIONS**

(size) 1= Mechanical, 7=0-3-8  
 Max Horiz 1=149 (LC 14)  
 Max Uplift 1=34 (LC 15), 7=-12 (LC 15)  
 Max Grav 1=1211 (LC 2), 7=1211 (LC 2)

**FORCES**

(lb) - Maximum Compression/Maximum Tension  
 TOP CHORD 1-15=-2175/413, 2-15=-2151/445, 2-16=-1881/450, 3-16=-1884/450, 3-17=-2238/494, 4-17=-2235/495, 4-18=-2487/599, 5-18=-2428/613, 5-19=-92/131, 6-19=-131/119, 6-7=-189/115  
 BOT CHORD 1-11=-515/1907, 10-11=-644/2912, 9-10=-644/2912, 8-9=-644/2912, 8-20=-216/705, 20-21=-216/705, 7-21=-216/705  
 WEBS 2-11=-6/629, 3-11=-1155/176, 3-10=0/140, 3-8=-759/156, 4-8=-1430/433, 5-8=-483/2468, 5-7=-1203/325

**NOTES**

1) Unbalanced roof live loads have been considered for this design.

- Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) and C-C Exterior (2) zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.33
- TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.15); Pg=20.0 psf (ground snow); Pf=18.9 psf (flat roof snow: Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Fully Exp.; Ct=1.10, Lu=50-0-0
- Unbalanced snow loads have been considered for this design.
- Provide adequate drainage to prevent water ponding.
- \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- Refer to girder(s) for truss to truss connections.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 34 lb uplift at joint 1.
- One RT7A USP connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 7. This connection is for uplift only and does not consider lateral forces.
- This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

**LOAD CASE(S)** Standard



May 6, 2020

**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 10/03/2015 BEFORE USE.**

Design valid for use only with MITek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information** available from Truss Plate Institute, 218 N. Lee Street, Suite 312, Alexandria, VA 22314.



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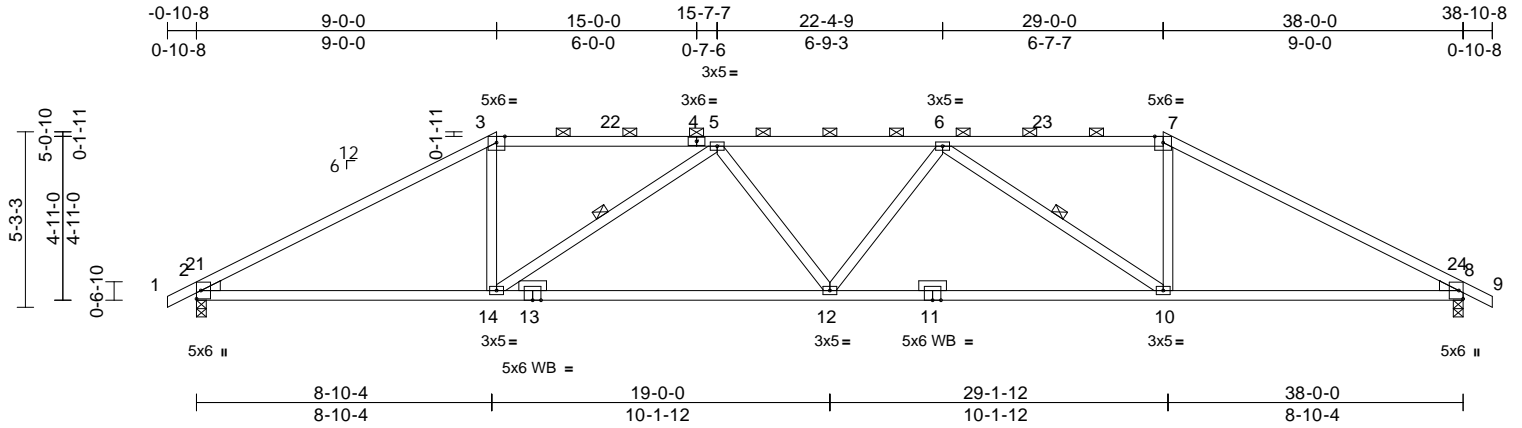
Job 20040129-A	Truss T10	Truss Type Hip	Qty 1	Ply 1	Johnson-Roof Job Reference (optional)	E14374407
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Carter Components (Sanford), Sanford, NC - 27332,

Run: 8.33 S Mar 23 2020 Print: 8.330 S Mar 23 2020 MiTek Industries, Inc. Wed May 06 08:45:47

Page: 1

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Scale = 1:69.1

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	0.89	Vert(LL)	-0.28	12-14	>999	240	MT20	244/190
Snow (Pf/Pg)	18.9/20.0	Lumber DOL	1.15	BC	0.85	Vert(CT)	-0.58	12-14	>785	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.42	Horz(CT)	0.16	8	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MSH								
BCDL	10.0											
											Weight: 177 lb	FT = 20%

**LUMBER**  
TOP CHORD 2x4 SP 2400F 2.0E \*Except\* 3-4,4-7:2x4 SP No.1  
BOT CHORD 2x4 SP No.1  
WEBS 2x4 SP No.2 \*Except\* 14-3,10-7:2x4 SP No.3  
OTHERS 2x4 SP No.3  
WEDGE Left: 2x4 SP No.3  
Right: 2x4 SP No.3

**BRACING**  
TOP CHORD Structural wood sheathing directly applied, except  
2-0-0 oc purlins (2-8-10 max.): 3-7.  
BOT CHORD Rigid ceiling directly applied or 8-4-14 oc bracing.  
WEBS 1 Row at midpt 5-14, 6-10

**REACTIONS** (size) 2=0-3-8, 8=0-3-8  
Max Horiz 2=52 (LC 14)  
Max Grav 2=1573 (LC 2), 8=1573 (LC 2)

**FORCES** (lb) - Maximum Compression/Maximum Tension  
TOP CHORD 1-2=0/33, 2-21=-1152/106, 2-21=-1145/108, 2-3=-2814/563, 3-22=-2444/567, 4-22=-2446/567, 4-5=-2443/566, 5-6=-3591/690, 6-23=-2446/567, 7-23=-2443/567, 7-8=-2814/563, 8-24=-1145/109, 8-24=-1152/107, 8-9=0/33  
BOT CHORD 2-14=-362/2471, 13-14=-536/3512, 12-13=-536/3512, 11-12=-537/3510, 10-11=-537/3510, 8-10=-364/2471  
WEBS 3-14=-30/894, 7-10=-30/893, 5-12=0/180, 5-14=-1294/212, 6-12=0/182, 6-10=-1292/212

**NOTES**  
1) Unbalanced roof live loads have been considered for this design.

- Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) and C-C Exterior (2) zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.33
- TCLL: ASCE 7-10; Pr=20.0 psf (roof live load; Lumber DOL=1.15 Plate DOL=1.15); Pg=20.0 psf (ground snow); Pf=18.9 psf (flat roof snow; Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Fully Exp.; Ct=1.10, Lu=50-0-0
- 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 13.9 psf on overhangs non-concurrent with other live loads.
- Provide adequate drainage to prevent water ponding.
- \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

**LOAD CASE(S)** Standard



May 6, 2020

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ENGINEERING BY  
**TRENCO**  
A MiTek Affiliate

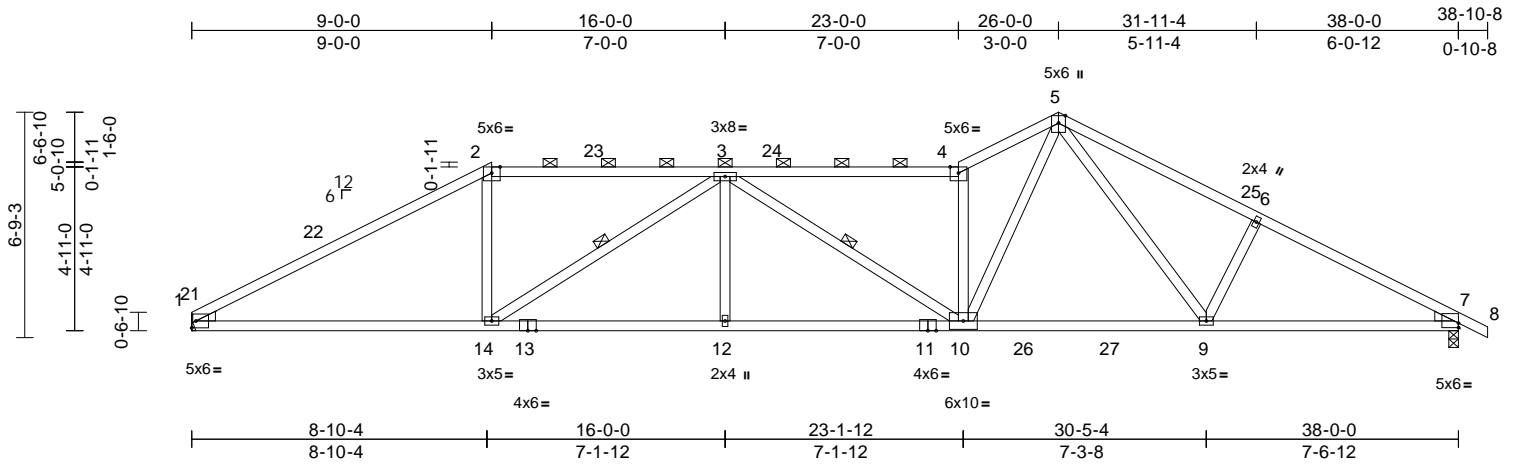
818 Soundside Road  
Edenton, NC 27932

Job 20040129-A	Truss T10A	Truss Type Roof Special	Qty 1	Ply 1	Johnson-Roof Job Reference (optional)	E14374408
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Carter Components (Sanford), Sanford, NC - 27332,

Run: 8.33 S Mar 23 2020 Print: 8.330 S Mar 23 2020 MiTek Industries, Inc. Wed May 06 08:45:48  
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Page: 1



Scale = 1:69.1

Plate Offsets (X, Y): [7:Edge,0-1-10]

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	0.97	Vert(LL)	-0.24	9-10	>999	240	MT20	244/190
Snow (Pf/Pg)	18.9/20.0	Lumber DOL	1.15	BC	0.98	Vert(CT)	-0.49	10-12	>924	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.82	Horz(CT)	0.15	7	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MSH								
BCDL	10.0											
											Weight: 191 lb	FT = 20%

**LUMBER**

TOP CHORD 2x4 SP 2400F 2.0E \*Except\* 4-5-5-8:2x4 SP No.2  
 BOT CHORD 2x4 SP No.2 \*Except\* 11-7:2x4 SP No.1  
 WEBS 2x4 SP No.3 \*Except\* 14-3,10-3,10-5,9-5:2x4 SP No.2  
 WEDGE Left: 2x4 SP No.3  
 Right: 2x4 SP No.3

**BRACING**

TOP CHORD Structural wood sheathing directly applied, except  
 2-0-0 oc purlins (4-2-15 max.): 2-4.  
 BOT CHORD Rigid ceiling directly applied or 2-2-0 oc bracing.  
 WEBS 1 Row at midpt 3-14, 3-10

**REACTIONS**

(size) 1= Mechanical, 7=0-3-8  
 Max Horiz 1=-71 (LC 13)  
 Max Uplift 1=-31 (LC 15)  
 Max Grav 1=1519 (LC 2), 7=1573 (LC 2)

**FORCES**

(lb) - Maximum Compression/Maximum Tension  
 TOP CHORD 1-21=-1110/163, 1-21=-1095/165, 1-22=-2678/559, 2-22=-2561/585, 2-23=-2276/587, 3-23=-2277/587, 3-24=-2977/724, 4-24=-2975/725, 4-5=-3330/843, 5-25=-2605/678, 6-25=-2616/646, 6-7=-2770/643, 7-8=0/30  
 BOT CHORD 1-14=-384/2298, 13-14=-549/3224, 12-13=-549/3224, 11-12=-549/3224, 10-11=-549/3224, 10-26=-303/2002, 26-27=-303/2002, 9-27=-303/2002, 7-9=-478/2394  
 WEBS 2-14=-38/781, 3-14=-1174/198, 3-12=0/139, 3-10=-426/78, 4-10=-1758/505, 5-10=-485/2341, 5-9=-132/505, 6-9=-332/228

**NOTES**

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) and C-C Exterior (2) zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.33
- TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.15); Pg=20.0 psf (ground snow); Pf=18.9 psf (flat roof snow: Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Fully Exp.; Ct=1.10, Lu=50-0-0
- 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 13.9 psf on overhangs non-concurrent with other live loads.
- Provide adequate drainage to prevent water ponding.
- \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- Refer to girder(s) for truss to truss connections.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 31 lb uplift at joint 1.
- This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

**LOAD CASE(S)** Standard



May 6, 2020

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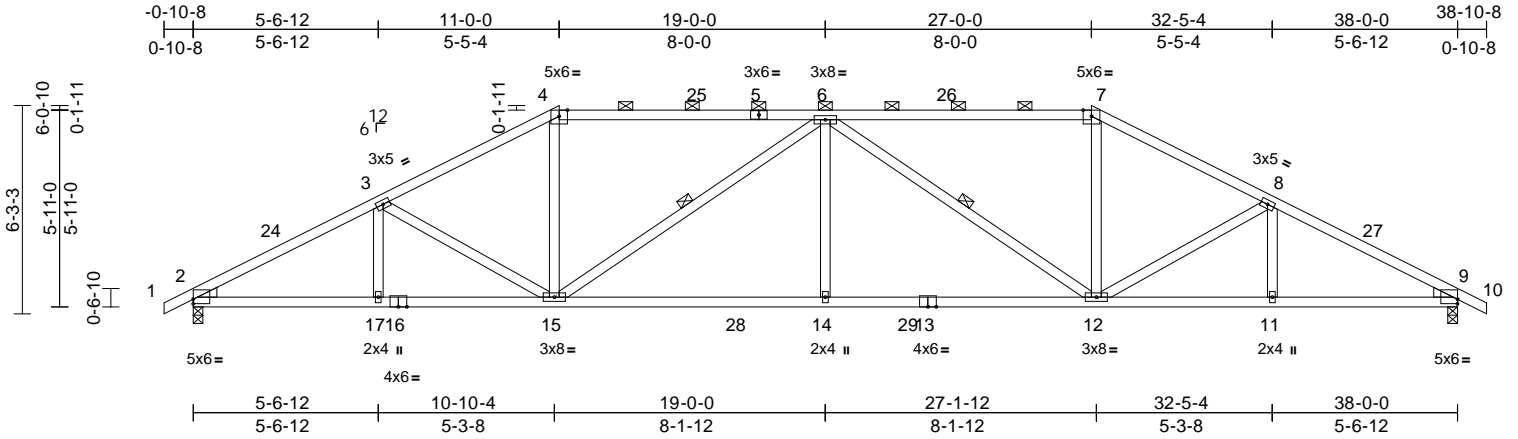
818 Soundside Road  
Edenton, NC 27932

Job 20040129-A	Truss T11	Truss Type Hip	Qty 1	Ply 1	Johnson-Roof Job Reference (optional)	E14374409
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Carter Components (Sanford), Sanford, NC - 27332,

Run: 8.33 S Mar 23 2020 Print: 8.330 S Mar 23 2020 MITek Industries, Inc. Wed May 06 08:45:49  
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Page: 1



Scale = 1:69.3

Plate Offsets (X, Y): [2:Edge,0-1-10], [9:Edge,0-1-10]

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	0.75	Vert(LL)	-0.19	14	>999	240	MT20	244/190
Snow (Pf/Pg)	18.9/20.0	Lumber DOL	1.15	BC	0.90	Vert(CT)	-0.41	14-15	>999	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.39	Horz(CT)	0.14	9	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MSH								
BCDL	10.0											
											Weight: 200 lb	FT = 20%

**LUMBER**

TOP CHORD 2x4 SP No.2 \*Except\* 4-5,5-7:2x4 SP 2400F 2.0E  
 BOT CHORD 2x4 SP No.1  
 WEBS 2x4 SP No.2 \*Except\* 3-17,8-11:2x4 SP No.3  
 WEDGE Left: 2x4 SP No.3  
 Right: 2x4 SP No.3

**BRACING**

TOP CHORD Structural wood sheathing directly applied or 2-6-11 oc purlins, except 2-0-0 oc purlins (4-7-14 max.): 4-7.  
 BOT CHORD Rigid ceiling directly applied or 9-3-4 oc bracing.  
 WEBS 1 Row at midpt 6-15, 6-12

**REACTIONS**

(size) 2=0-3-8, 9=0-3-8  
 Max Horiz 2=63 (LC 14)  
 Max Grav 2=1608 (LC 38), 9=1608 (LC 38)

**FORCES**

(lb) - Maximum Compression/Maximum Tension  
 TOP CHORD 1-2=0/33, 2-24=-2756/586, 3-24=-2665/613, 3-4=-2444/581, 4-25=-2160/561, 5-25=-2161/560, 5-6=-2160/559, 6-26=-2162/560, 7-26=-2159/561, 7-8=-2444/581, 8-27=-2665/613, 9-27=-2756/586, 9-10=0/33  
 BOT CHORD 2-17=-453/2383, 16-17=-453/2383, 15-16=-453/2383, 15-28=-424/2868, 14-28=-424/2868, 14-29=-424/2868, 13-29=-424/2868, 12-13=-424/2868, 11-12=-457/2384, 9-11=-457/2384  
 WEBS 3-17=0/71, 3-15=-479/163, 4-15=-79/689, 6-15=-860/135, 6-14=0/358, 6-12=-861/136, 7-12=-79/690, 8-12=-480/163, 8-11=0/71

**NOTES**

1) Unbalanced roof live loads have been considered for this design.

- Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) and C-C Exterior (2) zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.33
- TCLL: ASCE 7-10; Pr=20.0 psf (roof live load; Lumber DOL=1.15 Plate DOL=1.15); Pg=20.0 psf (ground snow); Pf=18.9 psf (flat roof snow; Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Fully Exp.; Ct=1.10, Lu=50-0-0
- 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 13.9 psf on overhangs non-concurrent with other live loads.
- Provide adequate drainage to prevent water ponding.
- \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

LOAD CASE(S) Standard



May 6, 2020

**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 10/03/2015 BEFORE USE.**

Design valid for use only with MITek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information** available from Truss Plate Institute, 218 N. Lee Street, Suite 312, Alexandria, VA 22314.



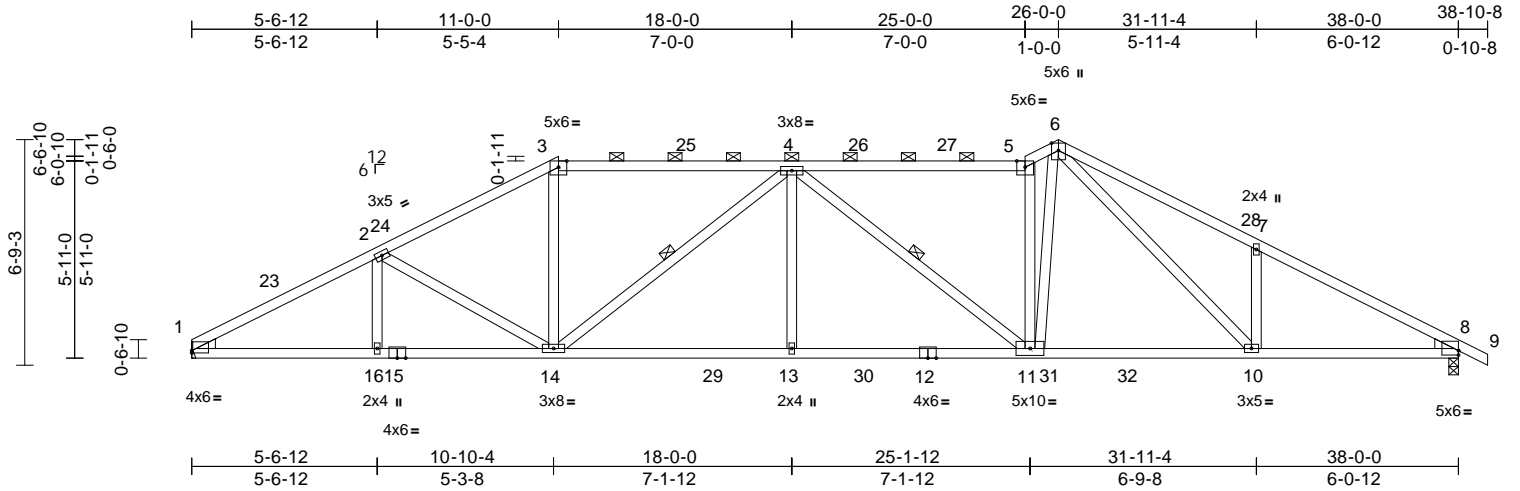
818 Soundside Road  
Edenton, NC 27932

Job 20040129-A	Truss T11A	Truss Type Roof Special	Qty 1	Ply 1	Johnson-Roof Job Reference (optional)	E14374410
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Carter Components (Sanford), Sanford, NC - 27332,

Run: 8.33 S Mar 23 2020 Print: 8.330 S Mar 23 2020 MiTek Industries, Inc. Wed May 06 08:45:49  
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Page: 1



Scale = 1:69.1

Plate Offsets (X, Y): [1:Edge,0-0-14], [8:Edge,0-1-10]

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	0.89	Vert(LL)	-0.21	10-11	>999	240	MT20	244/190
Snow (Pf/Pg)	18.9/20.0	Lumber DOL	1.15	BC	0.87	Vert(CT)	-0.42	11-13	>999	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.89	Horz(CT)	0.13	8	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MSH								
BCDL	10.0											
											Weight: 210 lb	FT = 20%

**LUMBER**

TOP CHORD 2x4 SP No.2 \*Except\* 3-5:2x4 SP No.1  
 BOT CHORD 2x4 SP No.1  
 WEBS 2x4 SP No.2 \*Except\* 2-16,7-10:2x4 SP No.3  
 WEDGE Left: 2x4 SP No.3  
 Right: 2x4 SP No.3

**BRACING**

TOP CHORD Structural wood sheathing directly applied, except  
 2-0-0 oc purlins (3-0-1 max.): 3-5.  
 BOT CHORD Rigid ceiling directly applied or 9-2-11 oc bracing.  
 WEBS 1 Row at midpt 4-14, 4-11

**REACTIONS**

(size) 1= Mechanical, 8=0-3-8  
 Max Horiz 1=-71 (LC 13)  
 Max Uplift 1=-31 (LC 15)  
 Max Grav 1=1519 (LC 2), 8=1573 (LC 2)

**FORCES**

(lb) - Maximum Compression/Maximum Tension  
 TOP CHORD 1-23=-2767/594, 2-23=-2677/620,  
 2-24=-2442/559, 3-24=-2429/588,  
 3-25=-2115/566, 4-25=-2117/565,  
 4-26=-2308/603, 26-27=-2306/604,  
 5-27=-2306/604, 5-6=-2585/684,  
 6-28=-2738/765, 7-28=-2748/733,  
 7-8=-2764/619, 8-9=0/30  
 BOT CHORD 1-16=-464/2395, 15-16=-464/2395,  
 14-15=-464/2395, 14-29=-427/2716,  
 13-29=-427/2716, 13-30=-427/2716,  
 12-30=-427/2716, 11-12=-427/2716,  
 11-31=-294/2022, 31-32=-294/2022,  
 10-32=-294/2022, 8-10=-457/2387  
 WEBS 2-16=0/74, 2-14=-510/165, 3-14=-96/721,  
 4-14=-821/138, 4-13=0/298, 4-11=-586/90,  
 5-11=-1505/404, 6-11=-382/2046,  
 6-10=-236/599, 7-10=-359/255

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) and C-C Exterior (2) zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.33
- TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.15); Pg=20.0 psf (ground snow); Pf=18.9 psf (flat roof snow: Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Fully Exp.; Ct=1.10, Lu=50-0-0
- 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 13.9 psf on overhangs non-concurrent with other live loads.
- Provide adequate drainage to prevent water ponding.
- \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- Refer to girder(s) for truss to truss connections.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 31 lb uplift at joint 1.
- This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

LOAD CASE(S) Standard



May 6, 2020

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Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information** available from Truss Plate Institute, 218 N. Lee Street, Suite 312, Alexandria, VA 22314.



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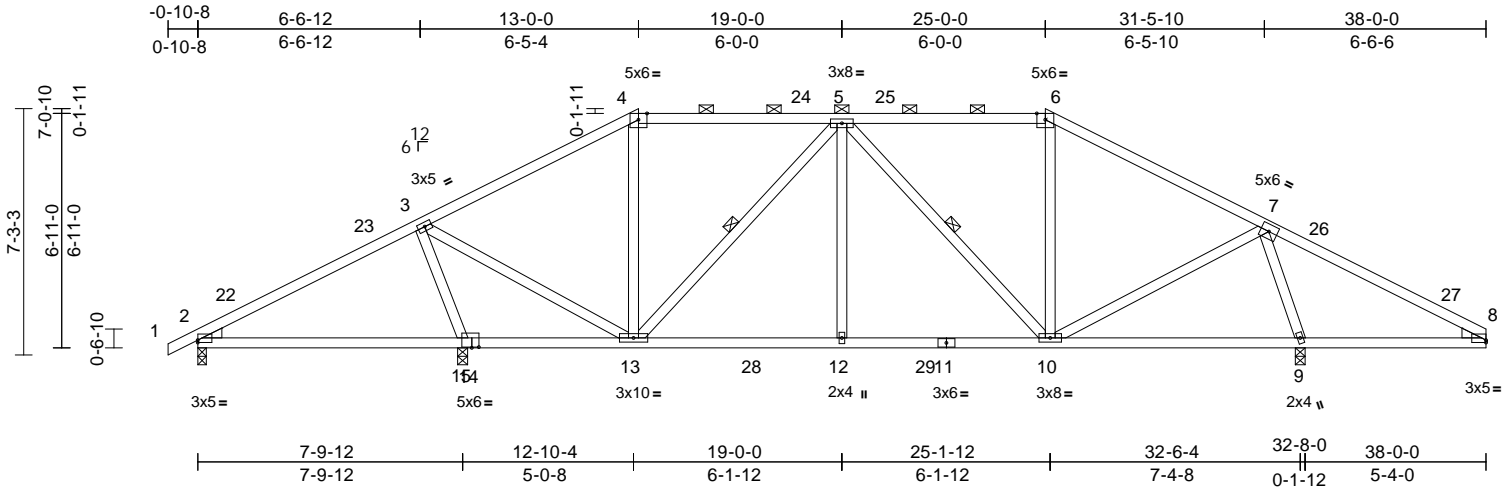
Job 20040129-A	Truss T12	Truss Type Hip Structural Gable	Qty 1	Ply 1	Johnson-Roof Job Reference (optional)	E14374411
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Carter Components (Sanford), Sanford, NC - 27332,

Run: 8.33 S Mar 23 2020 Print: 8.330 S Mar 23 2020 MiTek Industries, Inc. Wed May 06 08:45:50

Page: 1

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Scale = 1:68

Plate Offsets (X, Y): [2:Edge,0-0-14], [8:Edge,0-0-14], [14:0-2-8,0-0-4]

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	0.94	Vert(LL)	-0.05	10-12	>999	240	MT20	244/190
Snow (Pf/Pg)	18.9/20.0	Lumber DOL	1.15	BC	0.50	Vert(CT)	-0.13	15-21	>713	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.43	Horz(CT)	0.02	9	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MSH								
BCDL	10.0										Weight: 206 lb	FT = 20%

**LUMBER**

TOP CHORD 2x4 SP No.2  
 BOT CHORD 2x4 SP No.2  
 WEBS 2x4 SP No.2 \*Except\* 15-3-9,7:2x4 SP No.3  
 WEDGE Left: 2x4 SP No.3  
 Right: 2x4 SP No.3

**BRACING**

TOP CHORD Structural wood sheathing directly applied or 2-2-0 oc purlins, except 2-0-0 oc purlins (5-8-7 max.): 4-6.  
 BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.  
 WEBS 1 Row at midpt 5-13, 5-10

**REACTIONS**

(size) 2=0-3-0, 9=0-3-8, 15=0-3-8  
 Max Horiz 2=75 (LC 12)  
 Max Uplift 2=7 (LC 15)  
 Max Grav 2=488 (LC 38), 9=1585 (LC 38), 15=1174 (LC 2)

**FORCES**

(lb) - Maximum Compression/Maximum Tension  
 TOP CHORD 1-2=0/30, 2-22=-511/95, 22-23=-427/107, 3-23=-313/126, 3-4=-800/234, 4-24=-667/256, 5-24=-670/255, 5-25=-770/222, 6-25=-767/223, 6-7=-900/199, 7-26=-242/541, 26-27=-260/401, 8-27=-270/344  
 BOT CHORD 2-15=-167/382, 14-15=-203/114, 13-14=-203/114, 13-28=-20/1055, 12-28=-20/1055, 12-29=-20/1055, 11-29=-20/1055, 10-11=-20/1055, 9-10=0/141, 8-9=-358/286  
 WEBS 3-15=-1086/332, 3-13=-85/977, 4-13=-56/97, 5-13=-584/57, 5-12=0/308, 5-10=-440/104, 6-10=-31/134, 7-10=-101/742, 7-9=-1444/506

**NOTES**

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) and C-C Exterior (2) zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.33
- TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.15); Pg=20.0 psf (ground snow); Pf=18.9 psf (flat roof snow: Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Fully Exp.; Ct=1.10, Lu=50-0-0
- 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 13.9 psf on overhangs non-concurrent with other live loads.
- Provide adequate drainage to prevent water ponding.
- \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- One RT7A USP connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 2. This connection is for uplift only and does not consider lateral forces.
- This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

**LOAD CASE(S)** Standard



May 6, 2020

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Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information** available from Truss Plate Institute, 218 N. Lee Street, Suite 312, Alexandria, VA 22314.



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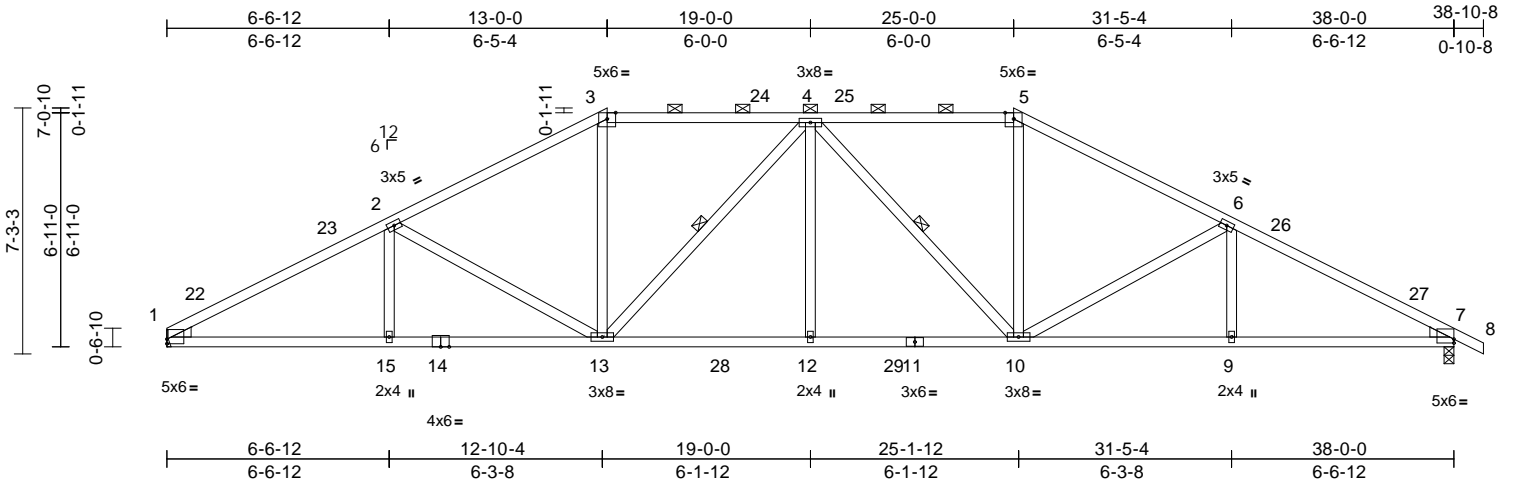
Job 20040129-A	Truss T12A	Truss Type Hip	Qty 1	Ply 1	Johnson-Roof Job Reference (optional)	E14374412
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Carter Components (Sanford), Sanford, NC - 27332,

Run: 8.33 S Mar 23 2020 Print: 8.330 S Mar 23 2020 MiTek Industries, Inc. Wed May 06 08:45:51

Page: 1

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Scale = 1:68

Plate Offsets (X, Y): [1:Edge,0-1-10], [7:Edge,0-1-6]

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	0.75	Vert(LL)	-0.16	12	>999	240	MT20	244/190
Snow (Pf/Pg)	18.9/20.0	Lumber DOL	1.15	BC	0.75	Vert(CT)	-0.33	12-13	>999	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.60	Horz(CT)	0.14	7	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MSH								
BCDL	10.0											
											Weight: 206 lb	FT = 20%

**LUMBER**

TOP CHORD 2x4 SP No.1 \*Except\* 3-5:2x4 SP No.2  
 BOT CHORD 2x4 SP No.1 \*Except\* 14-11:2x4 SP No.2  
 WEBS 2x4 SP No.2 \*Except\* 2-15,6-9:2x4 SP No.3  
 WEDGE Left: 2x4 SP No.3  
 Right: 2x4 SP No.3

**BRACING**

TOP CHORD Structural wood sheathing directly applied or 2-2-0 oc purlins, except 2-0-0 oc purlins (3-5-8 max.): 3-5.  
 BOT CHORD Rigid ceiling directly applied or 8-8-7 oc bracing.  
 WEBS 1 Row at midpt 4-13, 4-10

**REACTIONS**

(size) 1= Mechanical, 7=0-3-8  
 Max Horiz 1=-75 (LC 13)  
 Max Grav 1=1601 (LC 38), 7=1644 (LC 38)

**FORCES**

(lb) - Maximum Compression/Maximum Tension  
 TOP CHORD 1-22=-2903/597, 22-23=-2879/610,  
 2-23=-2702/628, 2-3=-2295/578,  
 3-24=-1968/562, 4-24=-1970/562,  
 4-25=-1969/561, 5-25=-1967/562,  
 5-6=-2294/577, 6-26=-2697/626,  
 26-27=-2874/608, 7-27=-2897/595, 7-8=0/30  
 BOT CHORD 1-15=-460/2497, 14-15=-460/2497,  
 13-14=-460/2497, 13-28=-324/2216,  
 12-28=-324/2216, 12-29=-324/2216,  
 11-29=-324/2216, 10-11=-324/2216,  
 9-10=-458/2492, 7-9=-458/2492  
 WEBS 2-15=0/111, 2-13=-664/213, 3-13=-88/646,  
 4-13=-517/76, 4-12=0/297, 4-10=-517/77,  
 5-10=-87/646, 6-10=-659/211, 6-9=0/110

**NOTES**

1) Unbalanced roof live loads have been considered for this design.

- Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) and C-C Exterior (2) zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.33
- TCLL: ASCE 7-10; Pr=20.0 psf (roof live load; Lumber DOL=1.15 Plate DOL=1.15); Pg=20.0 psf (ground snow); Pf=18.9 psf (flat roof snow; Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Fully Exp.; Ct=1.10, Lu=50-0-0
- 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 13.9 psf on overhangs non-concurrent with other live loads.
- Provide adequate drainage to prevent water ponding.
- \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- Refer to girder(s) for truss to truss connections.
- This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

**LOAD CASE(S)** Standard



May 6, 2020

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Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI Quality Criteria, DSB-89 and BCSI Building Component Safety Information** available from Truss Plate Institute, 218 N. Lee Street, Suite 312, Alexandria, VA 22314.



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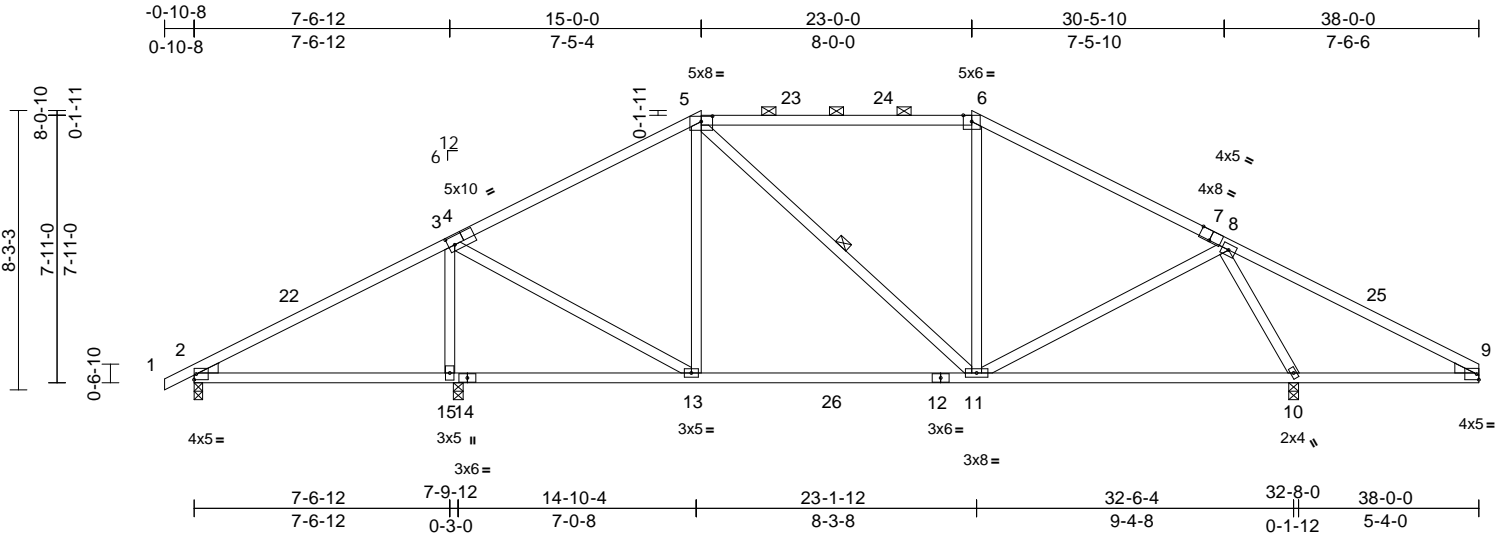


Job 20040129-A	Truss T13	Truss Type Hip	Qty 1	Ply 1	Johnson-Roof Job Reference (optional)	E14374413
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Carter Components (Sanford), Sanford, NC - 27332,

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Page: 1



Scale = 1:68.1

Plate Offsets (X, Y): [4:0-2-4,0-3-0], [5:0-4-0,0-1-15], [7:0-4-0,Edge]

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	0.83	Vert(LL)	-0.14	11-13	>999	240	MT20	244/190
Snow (Pf/Pg)	18.9/20.0	Lumber DOL	1.15	BC	0.60	Vert(CT)	-0.22	11-13	>999	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.64	Horz(CT)	0.02	10	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MSH								
BCDL	10.0											
											Weight: 196 lb	FT = 20%

**LUMBER**  
TOP CHORD 2x4 SP No.2 \*Except\* 5-6:2x4 SP 2400F 2.0E, 1-4,7-9:2x4 SP No.1  
BOT CHORD 2x4 SP No.2  
WEBS 2x4 SP No.2 \*Except\* 3-15,10-8:2x4 SP No.3  
WEDGE Left: 2x4 SP No.3  
Right: 2x4 SP No.3

**BRACING**  
TOP CHORD Structural wood sheathing directly applied or 2-2-0 oc purlins, except 2-0-0 oc purlins (6-0-0 max.): 5-6.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing, Except: 6-0-0 oc bracing: 9-10.  
WEBS 1 Row at midpt 5-11

**REACTIONS** (size) 2=0-3-0, 10=0-3-8, 15=0-3-8  
Max Horiz 2=86 (LC 12)  
Max Uplift 2=-24 (LC 15), 10=-1 (LC 16)  
Max Grav 2=458 (LC 53), 10=1613 (LC 38), 15=1287 (LC 38)

**FORCES** (lb) - Maximum Compression/Maximum Tension  
TOP CHORD 1-2=0/30, 2-22=-428/150, 3-22=-342/174, 3-4=-933/257, 4-5=-918/295, 5-23=-752/284, 23-24=-752/284, 6-24=-752/284, 6-7=-957/256, 7-8=-976/218, 8-25=-289/507, 9-25=-302/393  
BOT CHORD 2-15=-203/306, 14-15=-62/306, 13-14=-62/306, 13-26=-2/734, 12-26=-2/734, 11-12=-2/734, 10-11=0/410, 9-10=-352/324  
WEBS 3-15=-1109/280, 3-13=0/605, 5-13=-137/105, 5-11=-70/131, 6-11=-118/104, 8-11=-22/511, 8-10=-1571/582

**NOTES**  
1) Unbalanced roof live loads have been considered for this design.

- Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) and C-C Exterior (2) zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.33
- TCLL: ASCE 7-10; Pr=20.0 psf (roof live load; Lumber DOL=1.15 Plate DOL=1.15); Pg=20.0 psf (ground snow); Pf=18.9 psf (flat roof snow; Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Fully Exp.; Ct=1.10, Lu=50-0-0
- 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 13.9 psf on overhangs non-concurrent with other live loads.
- Provide adequate drainage to prevent water ponding.
- \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 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 1 lb uplift at joint 10.
- One RT7A USP connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 2. This connection is for uplift only and does not consider lateral forces.
- This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

**LOAD CASE(S)** Standard



May 6, 2020

**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 10/03/2015 BEFORE USE.**

Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information** available from Truss Plate Institute, 218 N. Lee Street, Suite 312, Alexandria, VA 22314.

ENGINEERING BY  
**TRENCO**  
A MiTek Affiliate

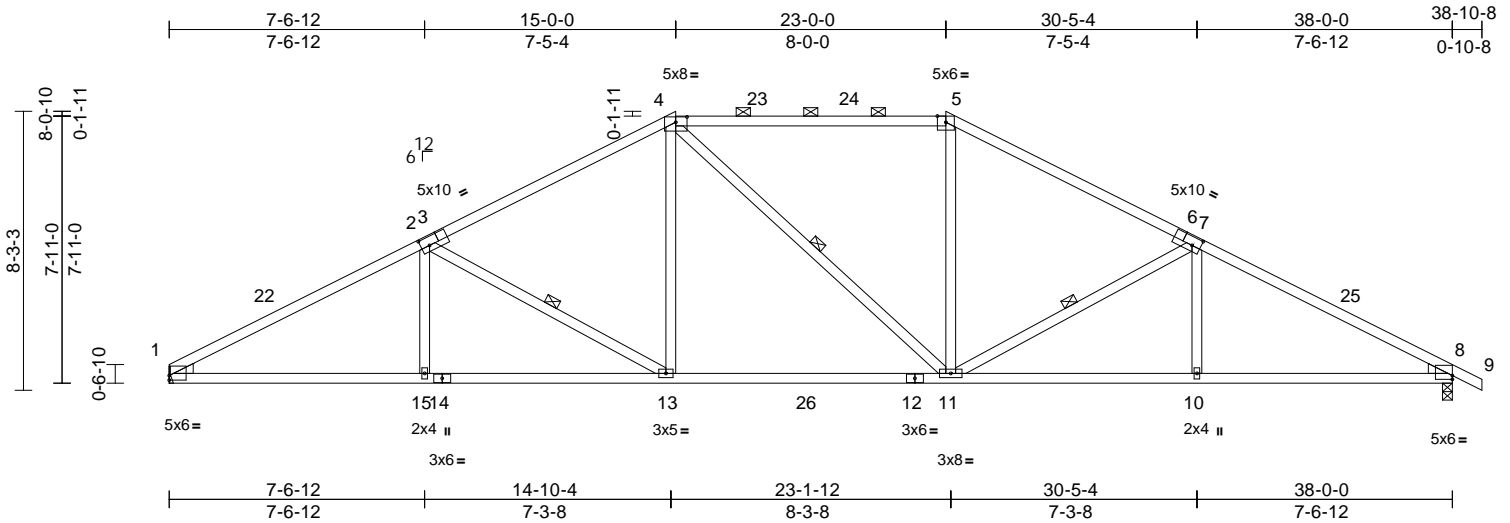
818 Soundside Road  
Edenton, NC 27932

Job 20040129-A	Truss T13A	Truss Type Hip	Qty 1	Ply 1	Johnson-Roof Job Reference (optional)	E14374414
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Carter Components (Sanford), Sanford, NC - 27332,

Run: 8.33 S Mar 23 2020 Print: 8.330 S Mar 23 2020 MITek Industries, Inc. Wed May 06 08:45:53  
ID:??m6uC4f27UOLS4lpXysqJzJWWW-RjOOvFIZae0F7A7YQ3A7UJ930uBcaEPAAa9MPuzJGni

Page: 1



Scale = 1:68.2

Plate Offsets (X, Y): [1:Edge,0-1-10], [3:0-3-0,0-3-0], [4:0-4-0,0-1-15], [6:0-3-0,0-3-0], [8:Edge,0-1-6]

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	0.98	Vert(LL)	-0.23	11-13	>999	240	MT20	244/190
Snow (Pf/Pg)	18.9/20.0	Lumber DOL	1.15	BC	0.92	Vert(CT)	-0.44	11-13	>999	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.25	Horz(CT)	0.14	8	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MSH								
BCDL	10.0											
											Weight: 195 lb	FT = 20%

**LUMBER**  
TOP CHORD 2x4 SP 2400F 2.0E \*Except\* 1-3,6-9:2x4 SP No.2  
BOT CHORD 2x4 SP No.1 \*Except\* 14-12:2x4 SP No.2  
WEBS 2x4 SP No.2 \*Except\* 2-15,7-10:2x4 SP No.3  
WEDGE Left: 2x4 SP No.3  
Right: 2x4 SP No.3

**BRACING**  
TOP CHORD Structural wood sheathing directly applied, except  
2-0-0 oc purlins (3-8-2 max.): 4-5.  
BOT CHORD Rigid ceiling directly applied or 2-2-0 oc bracing.  
WEBS 1 Row at midpt 2-13, 4-11, 7-11

**REACTIONS** (size) 1= Mechanical, 8=0-3-8  
Max Horiz 1=-86 (LC 13)  
Max Grav 1=1640 (LC 38), 8=1683 (LC 38)

**FORCES** (lb) - Maximum Compression/Maximum Tension  
TOP CHORD 1-22=-3016/613, 2-22=-2814/637,  
2-3=-2297/530, 3-4=-2282/568,  
4-23=-1916/564, 23-24=-1916/564,  
5-24=-1916/564, 5-6=-2282/567,  
6-7=-2297/529, 7-25=-2809/635,  
8-25=-3011/612, 8-9=0/30  
BOT CHORD 1-15=-455/2607, 14-15=-455/2607,  
13-14=-455/2607, 13-26=-231/1915,  
12-26=-231/1915, 11-12=-231/1915,  
10-11=-453/2602, 8-10=-453/2602  
WEBS 2-15=0/136, 2-13=-779/256, 4-13=-29/595,  
4-11=-181/183, 5-11=-28/544, 7-11=-772/254,  
7-10=0/134

**NOTES**  
1) Unbalanced roof live loads have been considered for this design.

- 2) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) and C-C Exterior (2) zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.33
- 3) TCLL: ASCE 7-10; Pr=20.0 psf (roof live load; Lumber DOL=1.15 Plate DOL=1.15); Pg=20.0 psf (ground snow); Pf=18.9 psf (flat roof snow; Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Fully Exp.; Ct=1.10, Lu=50-0-0
- 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 13.9 psf on overhangs non-concurrent with other live loads.
- 6) Provide adequate drainage to prevent water ponding.
- 7) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- 8) Refer to girder(s) for truss to truss connections.
- 9) This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 10) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

**LOAD CASE(S)** Standard



May 6, 2020

**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 10/03/2015 BEFORE USE.**

Design valid for use only with MITek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information** available from Truss Plate Institute, 218 N. Lee Street, Suite 312, Alexandria, VA 22314.



818 Soundside Road  
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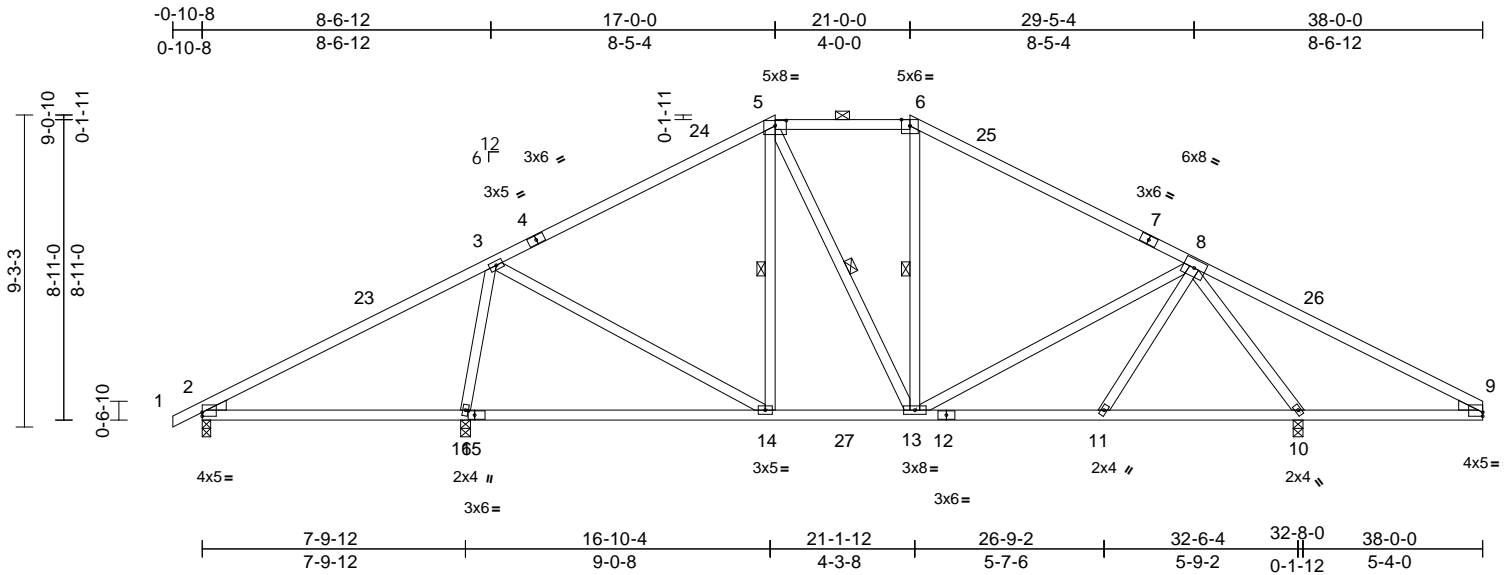
Job 20040129-A	Truss T14	Truss Type Hip	Qty 1	Ply 1	Johnson-Roof Job Reference (optional)	E14374415
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Carter Components (Sanford), Sanford, NC - 27332,

Run: 8.33 S Mar 23 2020 Print: 8.330 S Mar 23 2020 MITek Industries, Inc. Wed May 06 08:45:53

Page: 1

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Scale = 1:68.4

Plate Offsets (X, Y): [2:Edge,0-1-6], [5:0-4-0,0-1-15], [9:Edge,0-1-6], [15:0-2-5,0-1-8]

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	0.98	Vert(LL)	0.06	16-19	>999	240	MT20	244/190
Snow (Pf/Pg)	18.9/20.0	Lumber DOL	1.15	BC	0.73	Vert(CT)	-0.15	16-19	>632	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.88	Horz(CT)	0.03	10	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MSH								
BCDL	10.0											
											Weight: 210 lb	FT = 20%

LUMBER	
TOP CHORD	2x4 SP No.1 *Except* 5-6:2x4 SP No.2
BOT CHORD	2x4 SP No.2
WEBS	2x4 SP No.2 *Except* 16-3:2x4 SP No.3
WEDGE	Left: 2x4 SP No.3 Right: 2x4 SP No.3
BRACING	
TOP CHORD	Structural wood sheathing directly applied, except 2-0-0 oc purlins (5-9-5 max.): 5-6.
BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing, Except: 6-0-0 oc bracing: 9-10.
WEBS	1 Row at midpt 5-14, 5-13, 6-13
REACTIONS	(size)
	2=0-3-0, 10=0-3-8, 16=0-3-8
	Max Horiz 2=97 (LC 12)
	Max Uplift 2=43 (LC 15), 10=13 (LC 16)
	Max Grav 2=498 (LC 53), 10=1628 (LC 38), 16=1369 (LC 38)
FORCES	(lb) - Maximum Compression/Maximum Tension
TOP CHORD	1-2=0/30, 2-23=-488/202, 3-23=-284/227, 3-4=-1035/283, 4-24=-854/303, 5-24=-787/322, 5-6=-786/338, 6-25=-817/313, 7-25=-875/295, 7-8=-1057/274, 8-26=-254/571, 9-26=-295/441
BOT CHORD	2-16=-250/349, 15-16=-142/490, 14-15=-142/490, 14-27=0/767, 13-27=0/767, 12-13=0/743, 11-12=0/743, 10-11=-8/685, 9-10=-394/324
WEBS	3-16=-1180/261, 3-14=0/375, 5-14=-24/110, 5-13=-122/127, 6-13=-67/128, 8-13=-62/178, 8-11=0/138, 8-10=-1754/575

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) and C-C Exterior (2) zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.33
- TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.15); Pg=20.0 psf (ground snow); Pf=18.9 psf (flat roof snow: Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Fully Exp.; Ct=1.10, Lu=50-0-0
- 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 13.9 psf on overhangs non-concurrent with other live loads.
- Provide adequate drainage to prevent water ponding.
- \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 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 13 lb uplift at joint 10.
- One RT7A USP connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 2. This connection is for uplift only and does not consider lateral forces.
- This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

LOAD CASE(S) Standard



May 6, 2020

**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 10/03/2015 BEFORE USE.**

Design valid for use only with MITek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information** available from Truss Plate Institute, 218 N. Lee Street, Suite 312, Alexandria, VA 22314.



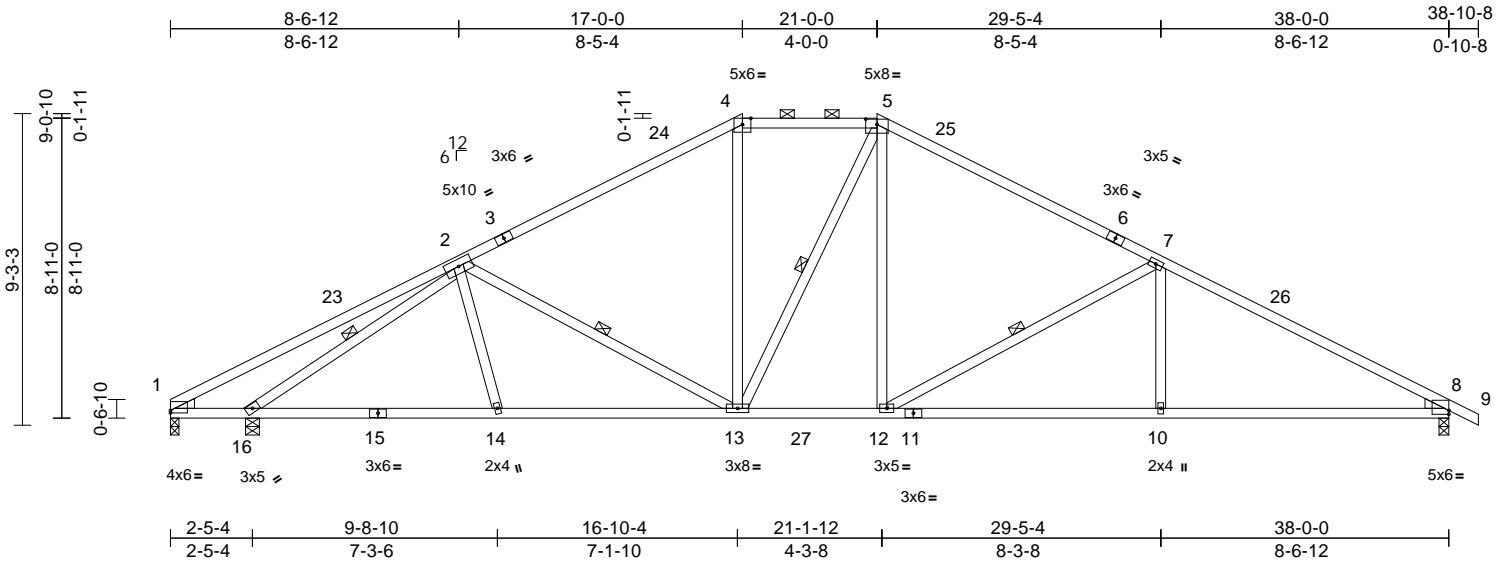
818 Soundside Road  
Edenton, NC 27932

Job 20040129-A	Truss T14A	Truss Type Hip	Qty 1	Ply 1	Johnson-Roof Job Reference (optional)	E14374416
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Carter Components (Sanford), Sanford, NC - 27332,

Run: 8.33 S Mar 23 2020 Print: 8.330 S Mar 23 2020 MiTek Industries, Inc. Wed May 06 08:45:54  
ID:q98N9G9PezEX3NYv9n3G4azJWWQ-vvym7blLx86kJil\_nhM1WiFLIZ?JbwKPEuwKzJGnh

Page: 1



Scale = 1:68.5

Plate Offsets (X, Y): [1:Edge,0-0-14], [5:0-4-0,0-1-15], [8:Edge,0-1-6]

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	0.94	Vert(LL)	-0.17	10-12	>999	240	MT20	244/190
Snow (Pf/Pg)	18.9/20.0	Lumber DOL	1.15	BC	0.78	Vert(CT)	-0.35	10-12	>999	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.62	Horz(CT)	0.12	8	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MSH								
BCDL	10.0											
											Weight: 213 lb	FT = 20%

**LUMBER**

TOP CHORD 2x4 SP 2400F 2.0E \*Except\* 4-5:2x4 SP No.2, 1-3,6-9:2x4 SP No.1  
 BOT CHORD 2x4 SP No.1 \*Except\* 1-15:2x4 SP No.2  
 WEBS 2x4 SP No.2 \*Except\* 14-2,7-10:2x4 SP No.3  
 WEDGE Left: 2x4 SP No.3  
 Right: 2x4 SP No.3

**BRACING**

TOP CHORD Structural wood sheathing directly applied, except  
 2-0-0 oc purlins (3-10-4 max.): 4-5.  
 BOT CHORD Rigid ceiling directly applied or 9-3-13 oc bracing.  
 WEBS 1 Row at midpt 2-16, 2-13, 5-13, 7-12

**REACTIONS**

(size) 1=0-3-0, 8=0-3-8, 16=0-4-15  
 Max Horiz 1=97 (LC 13)  
 Max Uplift 1=75 (LC 15), 8=5 (LC 16)  
 Max Grav 1=264 (LC 53), 8=1630 (LC 38),  
 16=1568 (LC 38)

**FORCES**

(lb) - Maximum Compression/Maximum Tension  
 TOP CHORD 1-23=-484/556, 2-23=-280/305,  
 2-3=-2048/494, 3-24=-1870/514,  
 4-24=-1808/533, 4-5=-1672/536,  
 5-25=-1852/535, 6-25=-1926/516,  
 6-7=-2101/496, 7-26=-2714/619,  
 8-26=-2916/595, 8-9=0/30  
 BOT CHORD 1-16=-293/502, 15-16=-389/2098,  
 14-15=-389/2098, 13-14=-362/2134,  
 13-27=-162/1719, 12-27=-162/1719,  
 11-12=-428/2523, 10-11=-428/2523,  
 8-10=-428/2523  
 WEBS 2-16=-2234/300, 2-14=0/159, 2-13=-518/231,  
 4-13=-61/455, 5-13=-262/109, 5-12=-66/570,  
 7-12=-904/301, 7-10=0/174

**NOTES**

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) and C-C Exterior (2) zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.33
- TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.15); Pg=20.0 psf (ground snow); Pf=18.9 psf (flat roof snow: Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Fully Exp.; Ct=1.10, Lu=50-0-0
- 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 13.9 psf on overhangs non-concurrent with other live loads.
- Provide adequate drainage to prevent water ponding.
- \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- One RT7A USP connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 1 and 8. This connection is for uplift only and does not consider lateral forces.
- This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

**LOAD CASE(S)** Standard



May 6, 2020

**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 10/03/2015 BEFORE USE.**

Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI Quality Criteria, DSB-89 and BCSI Building Component Safety Information** available from Truss Plate Institute, 218 N. Lee Street, Suite 312, Alexandria, VA 22314.



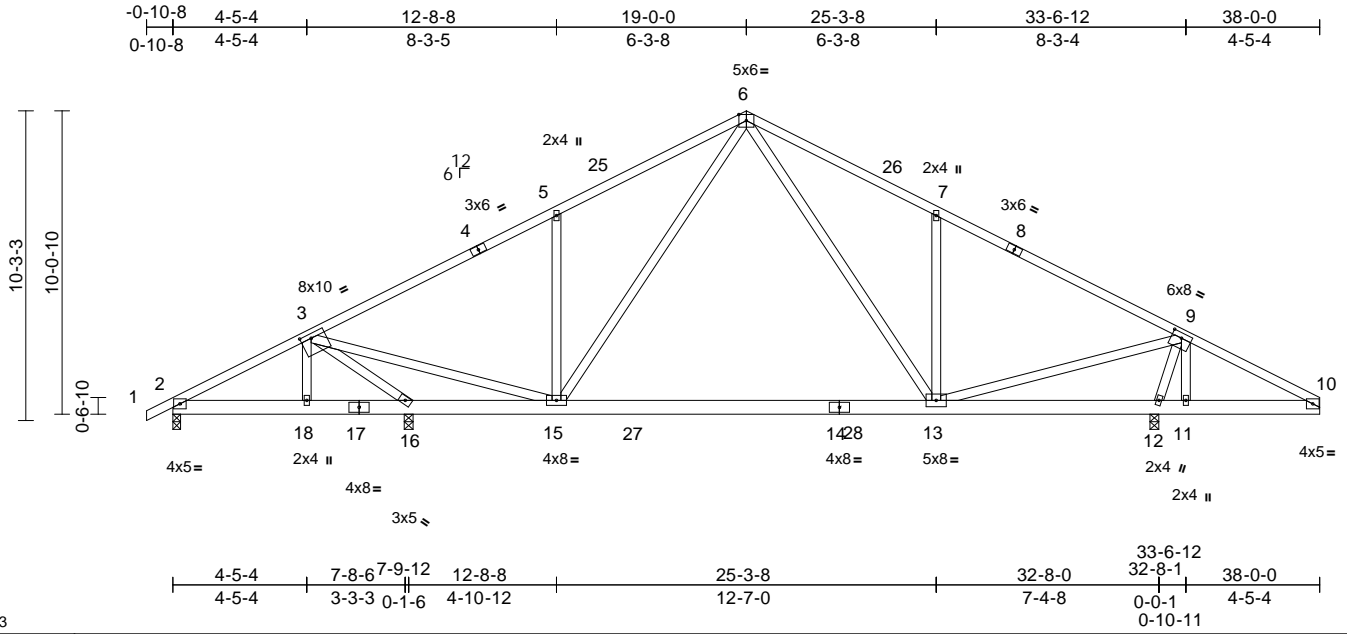
818 Soundside Road  
Edenton, NC 27932

Job 20040129-A	Truss T15	Truss Type Common	Qty 4	Ply 1	Johnson-Roof Job Reference (optional)	E14374417
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Carter Components (Sanford), Sanford, NC - 27332,

Run: 8.33 S Mar 23 2020 Print: 8.330 S Mar 23 2020 MiTek Industries, Inc. Wed May 06 08:45:55  
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Page: 1



Scale = 1:76.3

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

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	0.70	Vert(LL)	-0.27	13-15	>999	240	MT20	244/190
Snow (Pf/Pg)	13.9/20.0	Lumber DOL	1.15	BC	0.72	Vert(CT)	-0.46	13-15	>640	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.48	Horz(CT)	0.01	12	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MSH								
BCDL	10.0											
											Weight: 245 lb	FT = 20%

**LUMBER**  
TOP CHORD 2x4 SP No.2  
BOT CHORD 2x6 SP No.2  
WEBS 2x4 SP No.2 \*Except\*  
3-18,11-9,16-3,12-9:2x4 SP No.3

**BRACING**  
TOP CHORD Structural wood sheathing directly applied or 4-6-6 oc purlins.  
BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.

**REACTIONS** (size) 2=0-3-0, 12=0-3-8, 16=0-3-8  
Max Horiz 2=108 (LC 12)  
Max Uplift 12=8 (LC 16), 16=-39 (LC 15)  
Max Grav 2=558 (LC 2), 12=1525 (LC 2), 16=1010 (LC 2)

**FORCES** (lb) - Maximum Compression/Maximum Tension  
TOP CHORD 1-2=0/30, 2-3=-756/129, 3-4=-1063/200,  
4-5=-942/221, 5-25=-1057/369,  
6-25=-975/400, 6-26=-974/381,  
7-26=-1058/351, 7-8=-932/202,  
8-9=-1058/179, 9-10=-166/331  
BOT CHORD 2-18=-67/718, 17-18=-76/718,  
16-17=-76/718, 15-16=-488/237,  
15-27=0/695, 14-27=0/695, 14-28=0/695,  
13-28=0/695, 12-13=-691/378,  
11-12=-212/172, 10-11=-214/171  
WEBS 5-15=-473/323, 6-15=-123/438,  
6-13=-92/401, 7-13=-478/326, 3-18=-25/91,  
3-15=-242/1424, 9-11=-116/68,  
9-13=-371/1614, 3-16=-1468/394,  
9-12=-1423/585

- Wind: ASCE 7-10; Vult=130mph (3-second gust)  
Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft;  
Cat. II; Exp B; Enclosed; MWFRS (envelope) and C-C  
Exterior (2) zone; cantilever left and right exposed ; end  
vertical left and right exposed;C-C for members and  
forces & MWFRS for reactions shown; Lumber  
DOL=1.60 plate grip DOL=1.33
- TCLL: ASCE 7-10; Pr=20.0 psf (roof live load; Lumber  
DOL=1.15 Plate DOL=1.15); Pg=20.0 psf (ground  
snow); Pf=13.9 psf (flat roof snow; Lumber DOL=1.15  
Plate DOL=1.15); Category II; Exp B; Fully Exp.;  
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 13.9 psf on  
overhangs non-concurrent with other live loads.
- \* This truss has been designed for a live load of 20.0psf  
on the bottom chord in all areas where a rectangle  
3-06-00 tall by 2-00-00 wide will fit between the bottom  
chord and any other members, with BCDL = 10.0psf.
- One RT7A USP connectors recommended to connect  
truss to bearing walls due to UPLIFT at jt(s) 16 and 12.  
This connection is for uplift only and does not consider  
lateral forces.
- This truss is designed in accordance with the 2015  
International Residential Code sections R502.11.1 and  
R802.10.2 and referenced standard ANSI/TPI 1.

**LOAD CASE(S)** Standard

**NOTES**  
1) Unbalanced roof live loads have been considered for  
this design.



May 6, 2020

**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 10/03/2015 BEFORE USE.**

Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information** available from Truss Plate Institute, 218 N. Lee Street, Suite 312, Alexandria, VA 22314.



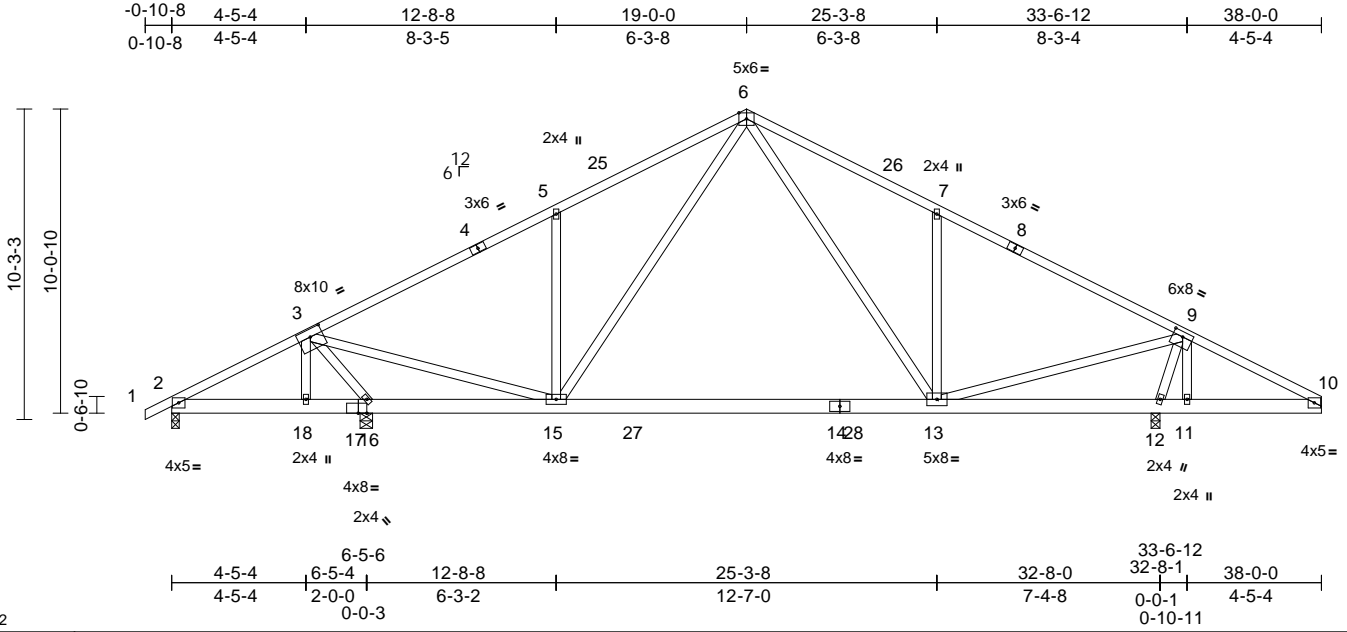
818 Soundside Road  
Edenton, NC 27932

Job 20040129-A	Truss T15A	Truss Type Common	Qty 1	Ply 1	Johnson-Roof Job Reference (optional)	E14374418
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Carter Components (Sanford), Sanford, NC - 27332,

Run: 8.33 S Mar 23 2020 Print: 8.330 S Mar 23 2020 MiTek Industries, Inc. Wed May 06 08:45:56  
ID:7JelK5so\_oY10Hz2Zz5sQozJVVW-sl3WYHnRtZOp\_dr75Bkq6xnte5FRnXbdtYN0?DzJGnF

Page: 1



Scale = 1:76.2

Plate Offsets (X, Y): [3:0-5-0,0-3-0], [9:0-4-0,0-2-0], [17:0-3-6,Edge]

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	0.70	Vert(LL)	-0.27	13-15	>999	240	MT20	244/190
Snow (Pf/Pg)	13.9/20.0	Lumber DOL	1.15	BC	0.72	Vert(CT)	-0.46	13-15	>673	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.48	Horz(CT)	0.00	12	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MSH								
BCDL	10.0											
											Weight: 243 lb	FT = 20%

**LUMBER**  
TOP CHORD 2x4 SP No.2  
BOT CHORD 2x6 SP No.2  
WEBS 2x4 SP No.2 \*Except\*  
3-18,11-9,16-3,12-9:2x4 SP No.3

**BRACING**  
TOP CHORD Structural wood sheathing directly applied or 4-4-14 oc purlins.  
BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.

**REACTIONS** (size) 2=0-3-0, 12=0-3-8, 16=0-4-15  
Max Horiz 2=108 (LC 12)  
Max Uplift 12=-8 (LC 16), 16=-46 (LC 15)  
Max Grav 2=417 (LC 2), 12=1540 (LC 2), 16=1136 (LC 2)

**FORCES** (lb) - Maximum Compression/Maximum Tension  
TOP CHORD 1-2=0/30, 2-3=-496/65, 3-4=-1108/214, 4-5=-984/236, 5-25=-1101/386, 6-25=-1018/416, 6-26=-988/386, 7-26=-1072/356, 7-8=-946/207, 8-9=-1072/184, 9-10=-166/332  
BOT CHORD 2-18=-41/475, 17-18=-32/475, 16-17=-32/475, 15-16=-436/221, 15-27=0/712, 14-27=0/712, 14-28=0/712, 13-28=0/712, 12-13=-695/379, 11-12=-212/172, 10-11=-215/171  
WEBS 6-15=-138/472, 6-13=-90/395, 7-13=-478/327, 3-18=-47/87, 3-15=-239/1403, 5-15=-477/326, 9-11=-121/68, 9-13=-376/1632, 3-16=-1342/368, 9-12=-1433/588

- Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) and C-C Exterior (2) zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.33
- TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.15); Pg=20.0 psf (ground snow); Pf=13.9 psf (flat roof snow: Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Fully Exp.; 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 13.9 psf on overhangs non-concurrent with other live loads.
- \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- One RT7A USP connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 16 and 12. This connection is for uplift only and does not consider lateral forces.
- This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

**LOAD CASE(S)** Standard

**NOTES**  
1) Unbalanced roof live loads have been considered for this design.



May 6, 2020

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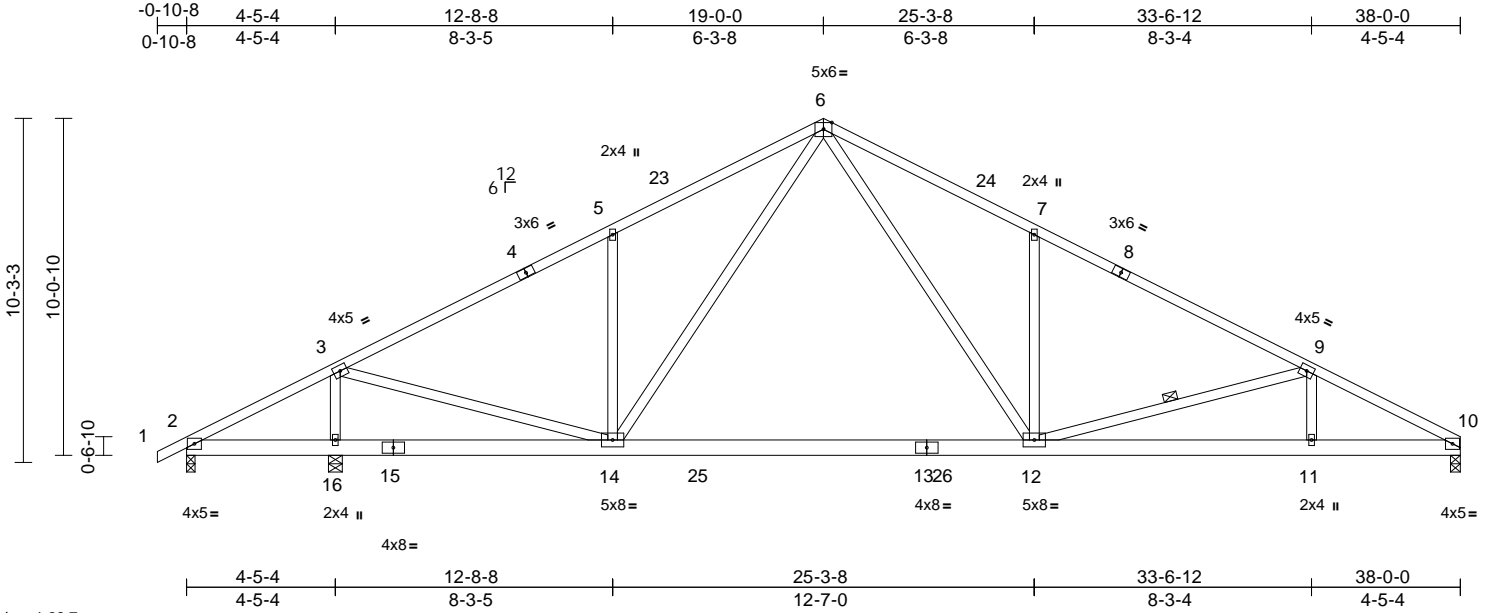
818 Soundside Road  
Edenton, NC 27932

Job 20040129-A	Truss T15B	Truss Type Common	Qty 1	Ply 1	Johnson-Roof Job Reference (optional)	E14374419
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Carter Components (Sanford), Sanford, NC - 27332,

Run: 8.33 S Mar 23 2020 Print: 8.330 S Mar 23 2020 MiTek Industries, Inc. Wed May 06 08:45:56  
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Page: 1



Scale = 1:68.7

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

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	0.83	Vert(LL)	-0.30	12-14	>999	240	MT20	244/190
Snow (Pf/Pg)	13.9/20.0	Lumber DOL	1.15	BC	0.77	Vert(CT)	-0.51	12-14	>797	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.75	Horz(CT)	0.03	10	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MSH								
BCDL	10.0											
											Weight: 236 lb	FT = 20%

**LUMBER**  
 TOP CHORD 2x4 SP No.2  
 BOT CHORD 2x6 SP No.2  
 WEBS 2x4 SP No.2 \*Except\* 3-16,11-9:2x4 SP No.3

**BRACING**  
 TOP CHORD Structural wood sheathing directly applied or 1-7-8 oc purlins.  
 BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.  
 WEBS 1 Row at midpt 9-12

**REACTIONS** (size) 2=0-3-0, 10=0-3-8, 16=0-4-15  
 Max Horiz 2=108 (LC 12)  
 Max Uplift 2=-99 (LC 34), 10=-5 (LC 16), 16=-36 (LC 15)  
 Max Grav 2=35 (LC 33), 10=1307 (LC 2), 16=1823 (LC 2)

**FORCES** (lb) - Maximum Compression/Maximum Tension  
 TOP CHORD 1-2=0/30, 2-3=-165/453, 3-4=-1500/339, 4-5=-1373/362, 5-23=-1491/513, 6-23=-1408/543, 6-24=-1855/667, 7-24=-1939/637, 7-8=-1817/485, 8-9=-1945/462, 9-10=-2453/590  
 BOT CHORD 2-16=-343/172, 15-16=-343/172, 14-15=-343/172, 14-25=-55/1076, 13-25=-55/1076, 13-26=-55/1076, 12-26=-55/1076, 11-12=-484/2169, 10-11=-484/2169  
 WEBS 6-14=-122/454, 6-12=-325/1116, 7-12=-489/332, 3-16=-1664/533, 3-14=-305/1637, 5-14=-481/329, 9-11=-47/97, 9-12=-564/262

**NOTES**  
 1) Unbalanced roof live loads have been considered for this design.

- Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) and C-C Exterior (2) zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.33
- TCLL: ASCE 7-10; Pr=20.0 psf (roof live load; Lumber DOL=1.15 Plate DOL=1.15); Pg=20.0 psf (ground snow); Pf=13.9 psf (flat roof snow; Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Fully Exp.; 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 13.9 psf on overhangs non-concurrent with other live loads.
- \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- One RT7A USP connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 2, 10, and 16. This connection is for uplift only and does not consider lateral forces.
- This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

**LOAD CASE(S)** Standard



May 6, 2020

**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 10/03/2015 BEFORE USE.**

Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information** available from Truss Plate Institute, 218 N. Lee Street, Suite 312, Alexandria, VA 22314.



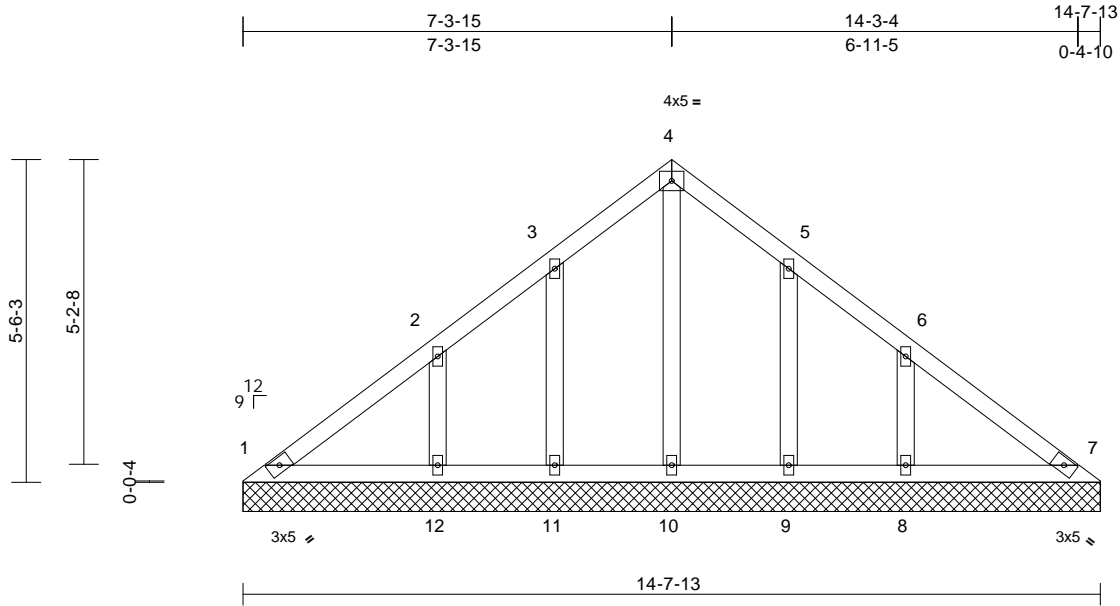
818 Soundside Road  
 Edenton, NC 27932

Job 20040129-A	Truss V1	Truss Type Valley	Qty 1	Ply 1	Johnson-Roof Job Reference (optional)	E14374420
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Carter Components (Sanford), Sanford, NC - 27332,

Run: 8.33 S Mar 23 2020 Print: 8.330 S Mar 23 2020 MiTek Industries, Inc. Wed May 06 08:45:57  
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Page: 1



Scale = 1:39.4

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	0.08	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf/Pg)	13.9/20.0	Lumber DOL	1.15	BC	0.07	Vert(TL)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.05	Horiz(TL)	0.00	7	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-SH								
BCDL	10.0											
											Weight: 71 lb	FT = 20%

#### LUMBER

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

#### BRACING

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

#### REACTIONS

(size) 1=14-7-13, 7=14-7-13, 8=14-7-13, 9=14-7-13, 10=14-7-13, 11=14-7-13, 12=14-7-13  
Max Horiz 1=-103 (LC 9)  
Max Uplift 1=-2 (LC 9), 8=-54 (LC 14), 9=-31 (LC 14), 11=-32 (LC 13), 12=-54 (LC 13)  
Max Grav 1=118 (LC 25), 7=109 (LC 2), 8=252 (LC 25), 9=146 (LC 25), 10=139 (LC 27), 11=147 (LC 24), 12=252 (LC 24)

#### FORCES

(lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=-107/83, 2-3=-89/56, 3-4=-112/114, 4-5=-112/114, 5-6=-65/49, 6-7=-82/57  
BOT CHORD 1-12=-57/80, 11-12=-57/80, 10-11=-57/80, 9-10=-57/80, 8-9=-57/80, 7-8=-57/80  
WEBS 4-10=-94/19, 3-11=-122/84, 2-12=-189/124, 5-9=-122/84, 6-8=-189/124

#### NOTES

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) and C-C Exterior (2) zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.33

- 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 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.15); Pg=20.0 psf (ground snow); Pf=13.9 psf (flat roof snow: Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Fully Exp.; Ct=1.10
- 5) All plates are 2x4 MT20 unless otherwise indicated.
- 6) Gable requires continuous bottom chord bearing.
- 7) Gable studs spaced at 2-0-0 oc.
- 8) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- 9) One RT7A USP connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 1, 11, 12, 9, and 8. This connection is for uplift only and does not consider lateral forces.
- 10) This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard



May 6, 2020

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ENGINEERING BY  
**TRENCO**  
A MiTek Affiliate

818 Soundside Road  
Edenton, NC 27932

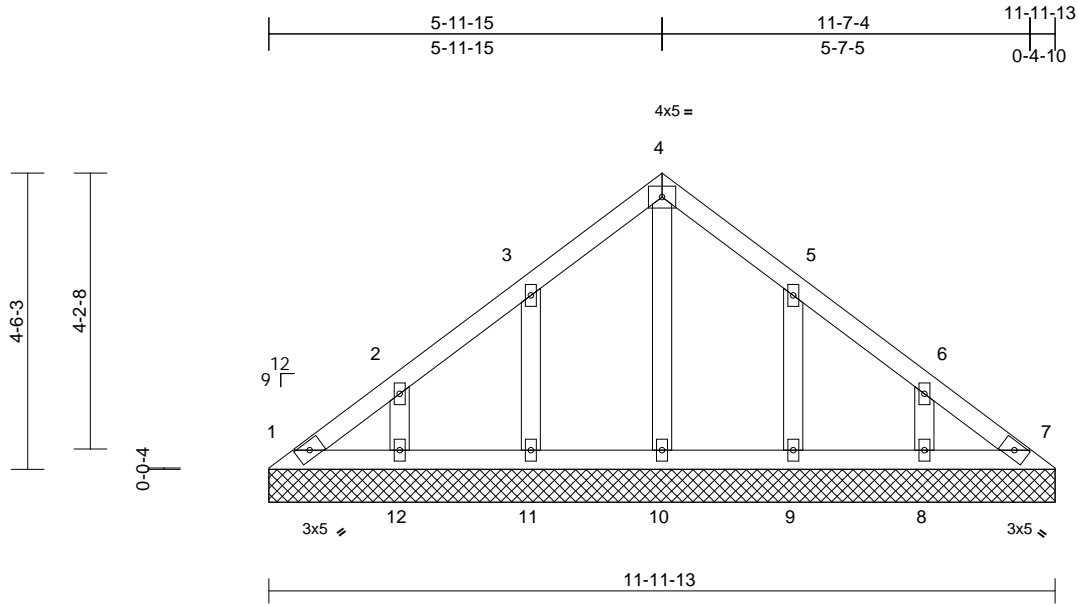


Job 20040129-A	Truss V2	Truss Type Valley	Qty 1	Ply 1	Johnson-Roof Job Reference (optional)	E14374421
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Carter Components (Sanford), Sanford, NC - 27332,

Run: 8.33 S Mar 23 2020 Print: 8.330 S Mar 23 2020 MiTek Industries, Inc. Wed May 06 08:45:57  
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Page: 1



Scale = 1:35.1

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	0.05	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf/Pg)	13.9/20.0	Lumber DOL	1.15	BC	0.02	Vert(TL)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.03	Horiz(TL)	0.00	7	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-SH								
BCDL	10.0											
											Weight: 55 lb	FT = 20%

**LUMBER**

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

**BRACING**

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

**REACTIONS**

(size) 1=11-11-13, 7=11-11-13,  
8=11-11-13, 9=11-11-13,  
10=11-11-13, 11=11-11-13,  
12=11-11-13  
Max Horiz 1=-83 (LC 9)  
Max Uplift 1=-11 (LC 9), 8=-36 (LC 14), 9=-38 (LC 14), 11=-39 (LC 13), 12=-36 (LC 13)  
Max Grav 1=74 (LC 25), 7=62 (LC 24), 8=166 (LC 25), 9=177 (LC 25), 10=123 (LC 2), 11=178 (LC 24), 12=166 (LC 24)

**FORCES**

(lb) - Maximum Compression/Maximum Tension  
TOP CHORD 1-2=-80/66, 2-3=-79/49, 3-4=-95/94, 4-5=-95/94, 5-6=-59/23, 6-7=-60/46  
BOT CHORD 1-12=-44/64, 11-12=-44/64, 10-11=-44/64, 9-10=-44/64, 8-9=-44/64, 7-8=-44/64  
WEBS 4-10=-83/3, 3-11=-145/100, 2-12=-131/90, 5-9=-145/100, 6-8=-131/90

**NOTES**

1) Unbalanced roof live loads have been considered for this design.

- Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) and C-C Exterior (2) zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.33
- 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 7-10; Pr=20.0 psf (roof live load; Lumber DOL=1.15 Plate DOL=1.15); Pg=20.0 psf (ground snow); Pf=13.9 psf (flat roof snow; Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Fully Exp.; Ct=1.10
- All plates are 2x4 MT20 unless otherwise indicated.
- Gable requires continuous bottom chord bearing.
- Gable studs spaced at 2-0-0 oc.
- \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- One RT7A USP connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 1, 11, 12, 9, and 8. This connection is for uplift only and does not consider lateral forces.
- This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

**LOAD CASE(S)** Standard



May 6, 2020

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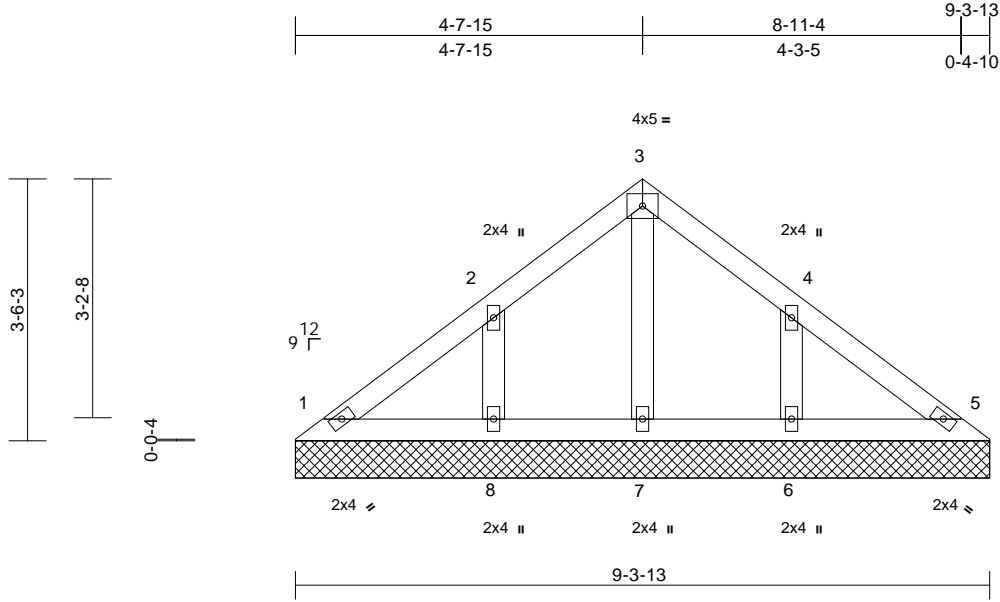
818 Soundside Road  
Edenton, NC 27932

Job 20040129-A	Truss V3	Truss Type Valley	Qty 1	Ply 1	Johnson-Roof Job Reference (optional)	E14374422
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Carter Components (Sanford), Sanford, NC - 27332,

Run: 8.33 S Mar 23 2020 Print: 8.330 S Mar 23 2020 MiTek Industries, Inc. Wed May 06 08:45:57  
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Page: 1



Scale = 1:30.9

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	0.06	n/a	-	n/a	999	MT20	244/190
Snow (Pf/Pg)	13.9/20.0	Lumber DOL	1.15	BC	0.04	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.03	Horiz(TL)	0.00	5	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-SH							
BCDL	10.0									Weight: 38 lb	FT = 20%

**LUMBER**

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

**BRACING**

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

**REACTIONS**

(size) 1=9-3-13, 5=9-3-13, 6=9-3-13, 7=9-3-13, 8=9-3-13  
Max Horiz 1=-63 (LC 11)  
Max Uplift 6=-47 (LC 14), 8=-47 (LC 13)  
Max Grav 1=85 (LC 25), 5=83 (LC 2), 6=215 (LC 25), 7=107 (LC 2), 8=215 (LC 24)

**FORCES**

(lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=-75/53, 2-3=-77/72, 3-4=-77/72, 4-5=-60/37  
BOT CHORD 1-8=-31/48, 7-8=-31/48, 6-7=-31/48, 5-6=-31/48  
WEBS 3-7=-77/0, 2-8=-167/115, 4-6=-167/115

**NOTES**

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) and C-C Exterior (2) zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.33
- 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 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.15); Pg=20.0 psf (ground snow); Pf=13.9 psf (flat roof snow: Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Fully Exp.; Ct=1.10
- Gable requires continuous bottom chord bearing.
- Gable studs spaced at 2-0-0 oc.
- \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- One RT7A USP connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 8 and 6. This connection is for uplift only and does not consider lateral forces.
- This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

**LOAD CASE(S)** Standard



May 6, 2020

**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 10/03/2015 BEFORE USE.**

Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information** available from Truss Plate Institute, 218 N. Lee Street, Suite 312, Alexandria, VA 22314.



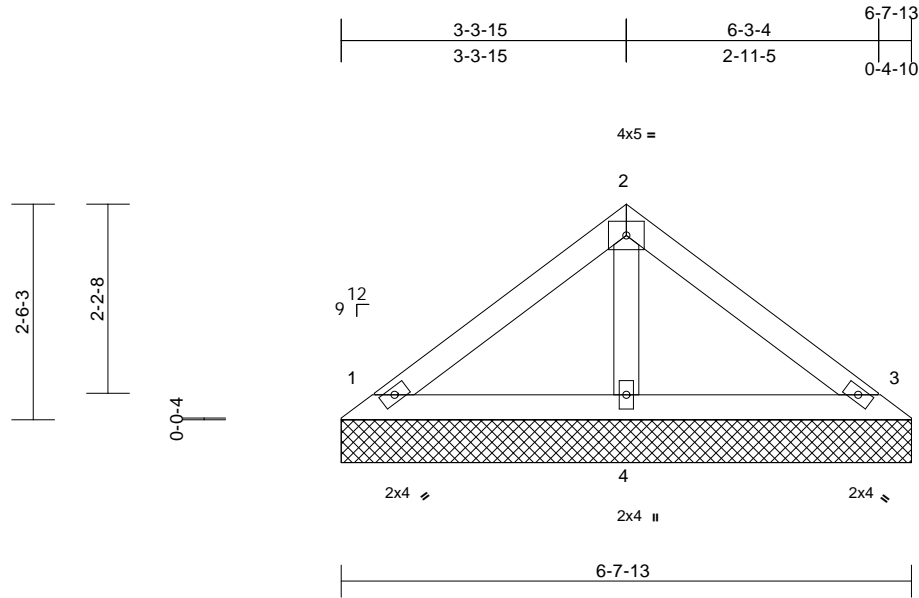
818 Soundside Road  
Edenton, NC 27932

Job 20040129-A	Truss V4	Truss Type Valley	Qty 1	Ply 1	Johnson-Roof Job Reference (optional)	E14374423
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Carter Components (Sanford), Sanford, NC - 27332,

Run: 8.33 S Mar 23 2020 Print: 8.330 S Mar 23 2020 MiTek Industries, Inc. Wed May 06 08:45:58  
ID:11Y2lOKq6a7PMhBnYRqnBkzJWWB-ohBHyphPAeXDx?WDcmIBMt7Zv69FYBvKss745zJGnd

Page: 1



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)	n/a	-	n/a	999	MT20	244/190
Snow (Pf/Pg)	13.9/20.0	Lumber DOL	1.15	BC	0.06	Vert(TL)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.03	Horiz(TL)	0.00	3	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-P								
BCDL	10.0											
											Weight: 24 lb	FT = 20%

**LUMBER**

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

**BRACING**

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

**REACTIONS**

(size) 1=6-7-13, 3=6-7-13, 4=6-7-13  
Max Horiz 1=43 (LC 10)  
Max Uplift 1=-11 (LC 13), 3=-15 (LC 14)  
Max Grav 1=130 (LC 2), 3=130 (LC 2), 4=207 (LC 2)

**FORCES**

(lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=-80/40, 2-3=-76/40  
BOT CHORD 1-4=-8/34, 3-4=-8/34  
WEBS 2-4=-134/48

**NOTES**

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) and C-C Exterior (2) zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.33
- 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 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.15); Pg=20.0 psf (ground snow); Pf=13.9 psf (flat roof snow: Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Fully Exp.; Ct=1.10

- 5) Gable requires continuous bottom chord bearing.
  - 6) Gable studs spaced at 2-0-0 oc.
  - 7) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
  - 8) One RT7A USP connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 1 and 3. This connection is for uplift only and does not consider lateral forces.
  - 9) This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- LOAD CASE(S)** Standard



May 6, 2020

**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 10/03/2015 BEFORE USE.**

Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information** available from Truss Plate Institute, 218 N. Lee Street, Suite 312, Alexandria, VA 22314.



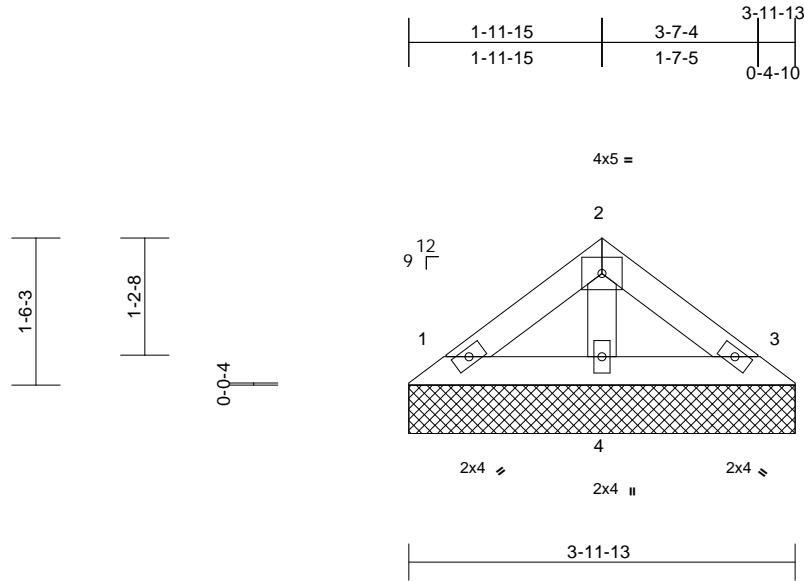
818 Soundside Road  
Edenton, NC 27932

Job 20040129-A	Truss V5	Truss Type Valley	Qty 1	Ply 1	Johnson-Roof Job Reference (optional)	E14374424
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Carter Components (Sanford), Sanford, NC - 27332,

Run: 8.33 S Mar 23 2020 Print: 8.330 S Mar 23 2020 MiTek Industries, Inc. Wed May 06 08:45:58  
ID:11Y2IOkq6a7PMhBnYRqnBkzJWWB-ohBHzphPAeXDx?WDcmIBMt9Mv6qFYVpKss745zJGnd

Page: 1



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	0.04	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf/Pg)	13.9/20.0	Lumber DOL	1.15	BC	0.02	Vert(TL)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.01	Horiz(TL)	0.00	3	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-P								
BCDL	10.0											
										Weight: 13 lb	FT = 20%	

**LUMBER**

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

**BRACING**

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

**REACTIONS**

(size) 1=3-11-13, 3=3-11-13, 4=3-11-13  
Max Horiz 1=-23 (LC 9)  
Max Uplift 1=6 (LC 13), 3=-8 (LC 14)  
Max Grav 1=71 (LC 2), 3=71 (LC 2), 4=112 (LC 2)

**FORCES**

(lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=-44/22, 2-3=-41/22  
BOT CHORD 1-4=-4/19, 3-4=-4/19  
WEBS 2-4=-73/27

**NOTES**

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) and C-C Exterior (2) zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.33
- 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 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.15); Pg=20.0 psf (ground snow); Pf=13.9 psf (flat roof snow: Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Fully Exp.; Ct=1.10

- 5) Gable requires continuous bottom chord bearing.
  - 6) Gable studs spaced at 2-0-0 oc.
  - 7) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
  - 8) One RT7A USP connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 1 and 3. This connection is for uplift only and does not consider lateral forces.
  - 9) This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- LOAD CASE(S)** Standard



May 6, 2020

**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 10/03/2015 BEFORE USE.**

Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information** available from Truss Plate Institute, 218 N. Lee Street, Suite 312, Alexandria, VA 22314.



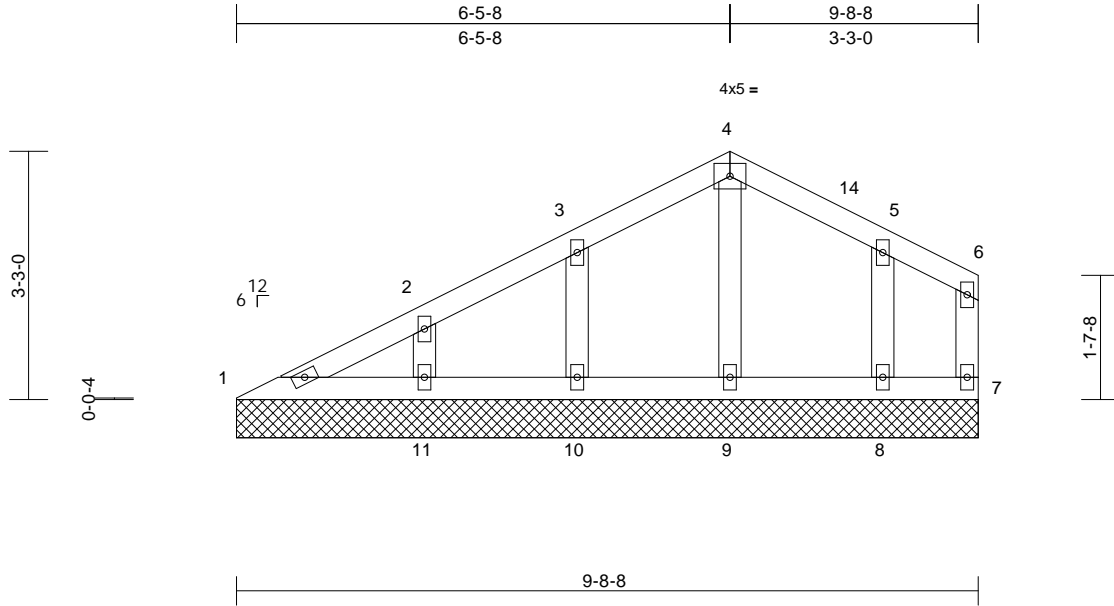
818 Soundside Road  
Edenton, NC 27932

Job 20040129-A	Truss V6	Truss Type Valley	Qty 1	Ply 1	Johnson-Roof Job Reference (optional)	E14374425
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Carter Components (Sanford), Sanford, NC - 27332,

Run: 8.33 S Mar 23 2020 Print: 8.330 S Mar 23 2020 MiTek Industries, Inc. Wed May 06 08:45:58  
ID:11Y2iOKq6a7PMhBnYRqnBkzJWWB-ohBHyphPAeXDx?WDcmIBM195v6JFY8vKss745zJGnd

Page: 1



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	0.06	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf/Pg)	13.9/20.0	Lumber DOL	1.15	BC	0.05	Vert(TL)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.03	Horiz(TL)	0.00	7	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MSH								
BCDL	10.0											
										Weight: 42 lb	FT = 20%	

**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.

**REACTIONS** (size)  
1=9-8-8, 7=9-8-8, 8=9-8-8, 9=9-8-8, 10=9-8-8, 11=9-8-8  
Max Horiz 1=63 (LC 12)  
Max Uplift 7=-4 (LC 15), 8=-21 (LC 16), 10=-22 (LC 15), 11=-19 (LC 15)  
Max Grav 1=81 (LC 2), 7=25 (LC 29), 8=149 (LC 33), 9=155 (LC 2), 10=157 (LC 32), 11=204 (LC 2)

**FORCES** (lb) - Maximum Compression/Maximum Tension  
TOP CHORD 1-2=-110/52, 2-3=-49/38, 3-4=-55/92, 4-14=-46/92, 5-14=-55/84, 5-6=-30/40, 6-7=-25/29  
BOT CHORD 1-11=-66/88, 10-11=-25/28, 9-10=-25/28, 8-9=-25/28, 7-8=-25/28  
WEBS 4-9=-112/34, 3-10=-125/107, 2-11=-132/99, 5-8=-115/96

**NOTES**  
1) Unbalanced roof live loads have been considered for this design.  
2) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) and C-C Exterior (2) zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.33

- 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 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.15); Pg=20.0 psf (ground snow); Pf=13.9 psf (flat roof snow: Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Fully Exp.; Ct=1.10
- Unbalanced snow loads have been considered for this design.
- All plates are 2x4 MT20 unless otherwise indicated.
- Gable requires continuous bottom chord bearing.
- Gable studs spaced at 2-0-0 oc.
- \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- One RT7A USP connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 7, 10, 11, and 8. This connection is for uplift only and does not consider lateral forces.
- This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

**LOAD CASE(S)** Standard



May 6, 2020

**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 10/03/2015 BEFORE USE.**

Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information** available from Truss Plate Institute, 218 N. Lee Street, Suite 312, Alexandria, VA 22314.



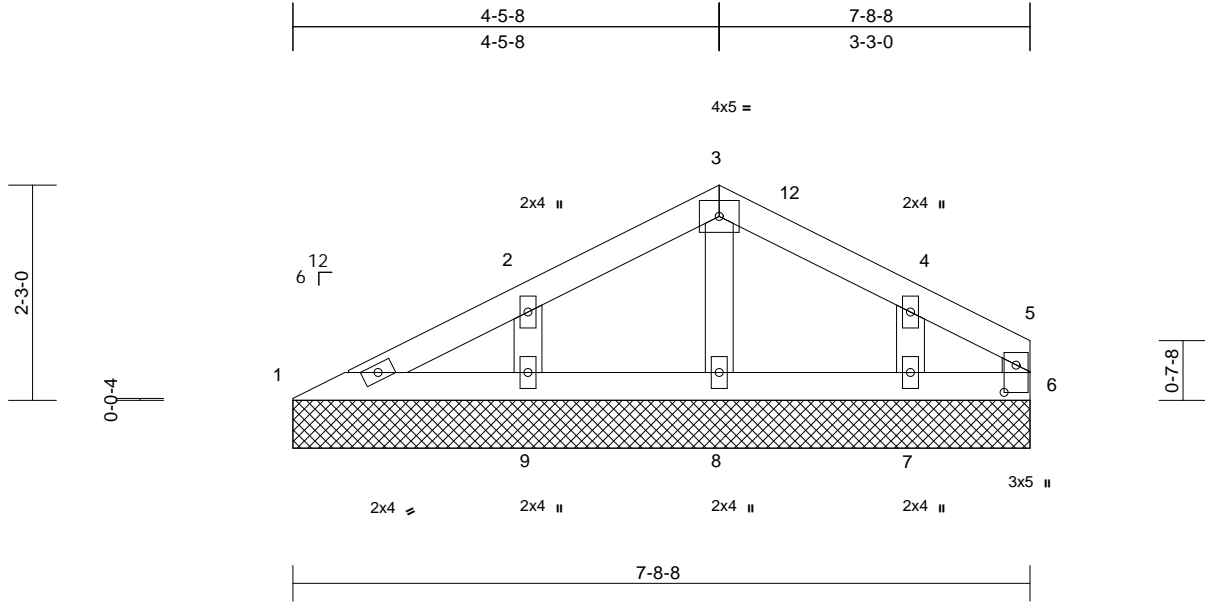
818 Soundside Road  
Edenton, NC 27932

Job 20040129-A	Truss V7	Truss Type Valley	Qty 1	Ply 1	Johnson-Roof Job Reference (optional)	E14374426
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Carter Components (Sanford), Sanford, NC - 27332,

Run: 8.33 S Mar 23 2020 Print: 8.330 S Mar 23 2020 MITek Industries, Inc. Wed May 06 08:45:58  
 ID:ME5QWkLStuFG\_qm\_58L0jyzJWWA-ohBHyZpPAeXDx?WDcmIBMt8vv6OFY2vKss745zJGnd

Page: 1



Scale = 1:24.1

Plate Offsets (X, Y): [6:0-3-7,0-1-8]

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	0.07	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf/Pg)	13.9/20.0	Lumber DOL	1.15	BC	0.05	Vert(TL)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.04	Horiz(TL)	0.00	6	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MP								
BCDL	10.0											
										Weight: 28 lb	FT = 20%	

**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 10-0-0 oc bracing.

**REACTIONS**

(size)	1=7-8-8, 6=7-8-8, 7=7-8-8, 8=7-8-8, 9=7-8-8
Max Horiz	1=32 (LC 12)
Max Uplift	6=-1 (LC 11), 7=-23 (LC 16), 9=-27 (LC 15)
Max Grav	1=79 (LC 32), 6=19 (LC 33), 7=162 (LC 2), 8=127 (LC 2), 9=219 (LC 2)

**FORCES**

(lb) - Maximum Compression/Maximum Tension	
TOP CHORD	1-2=-98/43, 2-3=-44/81, 3-12=-30/80, 4-12=-43/77, 4-5=-11/24, 5-6=-13/16
BOT CHORD	1-9=-48/82, 8-9=-7/7, 7-8=-7/7, 6-7=-7/7
WEBS	3-8=-94/10, 2-9=-150/124, 4-7=-124/113

**NOTES**

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) and C-C Exterior (2) zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.33

- 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 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.15); Pg=20.0 psf (ground snow); Pf=13.9 psf (flat roof snow: Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Fully Exp.; Ct=1.10
- Unbalanced snow loads have been considered for this design.
- Gable requires continuous bottom chord bearing.
- Gable studs spaced at 2-0-0 oc.
- \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- One RT7A USP connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 6, 9, and 7. This connection is for uplift only and does not consider lateral forces.
- This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

**LOAD CASE(S)** Standard



May 6, 2020

**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 10/03/2015 BEFORE USE.**

Design valid for use only with MITek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information** available from Truss Plate Institute, 218 N. Lee Street, Suite 312, Alexandria, VA 22314.



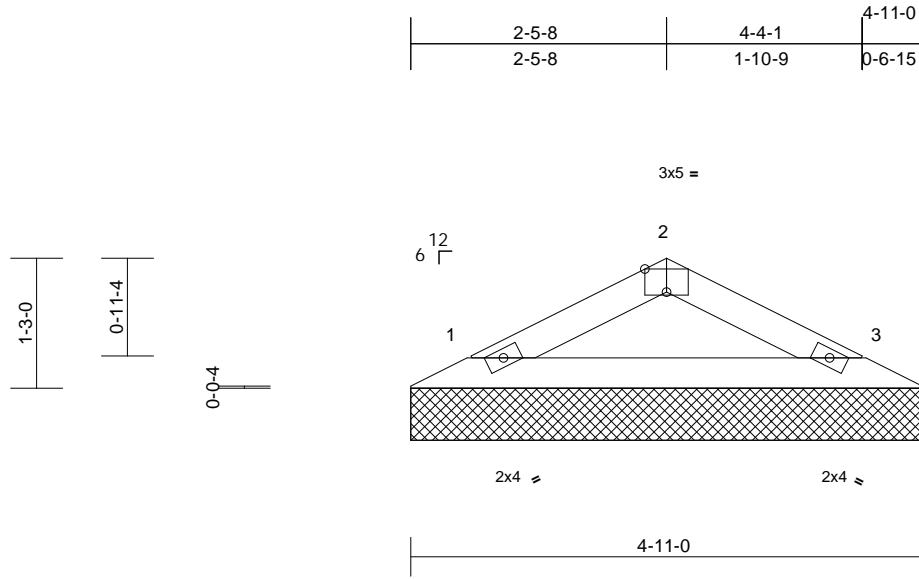
818 Soundside Road  
Edenton, NC 27932

Job 20040129-A	Truss V8	Truss Type Valley	Qty 1	Ply 1	Johnson-Roof Job Reference (optional)	E14374427
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Carter Components (Sanford), Sanford, NC - 27332,

Run: 8.33 S Mar 23 2020 Print: 8.330 S Mar 23 2020 MiTek Industries, Inc. Wed May 06 08:45:59  
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Page: 1



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	0.06	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf/Pg)	13.9/20.0	Lumber DOL	1.15	BC	0.13	Vert(TL)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.00	Horiz(TL)	0.00	3	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-P								
BCDL	10.0										Weight: 14 lb	FT = 20%

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

**BRACING**  
TOP CHORD Structural wood sheathing directly applied or 5-0-0 oc purlins.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS** (size) 1=4-11-0, 3=4-11-0  
Max Horiz 1=-10 (LC 1)  
Max Grav 1=150 (LC 2), 3=150 (LC 2)

**FORCES** (lb) - Maximum Compression/Maximum Tension  
TOP CHORD 1-2=-145/100, 2-3=-145/100  
BOT CHORD 1-3=-58/111

- 7) Gable studs spaced at 2-0-0 oc.  
8) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.  
9) This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- LOAD CASE(S)** Standard

**NOTES**

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) and C-C Exterior (2) zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.33
- 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 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.15); Pg=20.0 psf (ground snow); Pf=13.9 psf (flat roof snow: Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Fully Exp.; Ct=1.10
- Unbalanced snow loads have been considered for this design.
- Gable requires continuous bottom chord bearing.



May 6, 2020

**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 10/03/2015 BEFORE USE.**

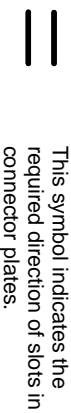
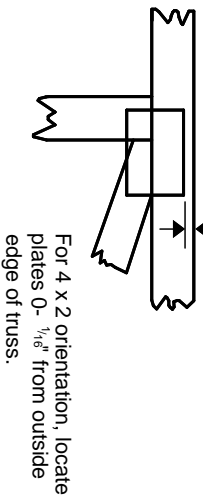
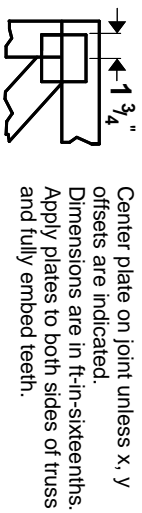
Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information** available from Truss Plate Institute, 218 N. Lee Street, Suite 312, Alexandria, VA 22314.



818 Soundside Road  
Edenton, NC 27932

# Symbols

## PLATE LOCATION AND ORIENTATION



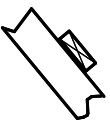
\* Plate location details available in **MITrak 20/20 software or upon request.**

## PLATE SIZE

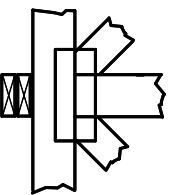
**4 X 4**

The first dimension is the plate width measured perpendicular to slots. Second dimension is the length parallel to slots.

## LATERAL BRACING LOCATION



## BEARING

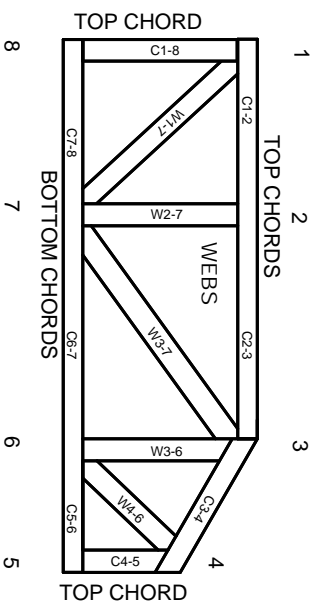


Indicates location where bearings (supports) occur. Icons vary but reaction section indicates joint number where bearings occur. Min size shown is for crushing only.

## Industry Standards:

ANSI/TPI 1: National Design Specification for Metal Plate Connected Wood Truss Construction.  
DSB-89: Design Standard for Bracing.  
BCSI: Building Component Safety Information, Guide to Good Practice for Handling, Installing & Bracing of Metal Plate Connected Wood Trusses.

# Numbering System



**JOINTS ARE GENERALLY NUMBERED/LETTERED CLOCKWISE AROUND THE TRUSS STARTING AT THE JOINT FARTHEST TO THE LEFT.**

**CHORDS AND WEBS ARE IDENTIFIED BY END JOINT NUMBERS/LETTERS.**

## PRODUCT CODE APPROVALS

ICC-ES Reports:

ESR-1311, ESR-1352, ESR1988  
ER-3907, ESR-2362, ESR-1397, ESR-3282

Trusses are designed for wind loads in the plane of the truss unless otherwise shown.

Lumber design values are in accordance with ANSI/TPI 1 section 6.3 These truss designs rely on lumber values established by others.

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MITteK Engineering Reference Sheet: MII-7473 rev. 10/03/2015



# General Safety Notes

**Failure to Follow Could Cause Property Damage or Personal Injury**

1. Additional stability bracing for truss system, e.g. diagonal or X-bracing, is always required. See BCSI.
2. Truss bracing must be designed by an engineer. For wide truss spacing, individual lateral braces themselves may require bracing, or alternative Tor I bracing should be considered.
3. Never exceed the design loading shown and never stack materials on inadequately braced trusses.
4. Provide copies of this truss design to the building designer, erection supervisor, property owner and all other interested parties.
5. Cut members to bear tightly against each other.
6. Place plates on each face of truss at each joint and embed fully. Knots and wane at joint locations are regulated by ANSI/TPI 1.
7. Design assumes trusses will be suitably protected from the environment in accord with ANSI/TPI 1.
8. Unless otherwise noted, moisture content of lumber shall not exceed 19% at time of fabrication.
9. Unless expressly noted, this design is not applicable for use with fire retardant, preservative treated, or green lumber.
10. Camber is a non-structural consideration and is the responsibility of truss fabricator. General practice is to camber for dead load deflection.
11. Plate type, size, orientation and location dimensions indicated are minimum plating requirements.
12. Lumber used shall be of the species and size, and in all respects, equal to or better than that specified.
13. Top chords must be sheathed or purlins provided at spacing indicated on design.
14. Bottom chords require lateral bracing at 10 ft. spacing, or less, if no ceiling is installed, unless otherwise noted.
15. Connections not shown are the responsibility of others.
16. Do not cut or alter truss member or plate without prior approval of an engineer.
17. Install and load vertically unless indicated otherwise.
18. Use of green or treated lumber may pose unacceptable environmental, health or performance risks. Consult with project engineer before use.
19. Review all portions of this design (front, back, words and pictures) before use. Reviewing pictures alone is not sufficient.
20. Design assumes manufacture in accordance with ANSI/TPI 1 Quality Criteria.