

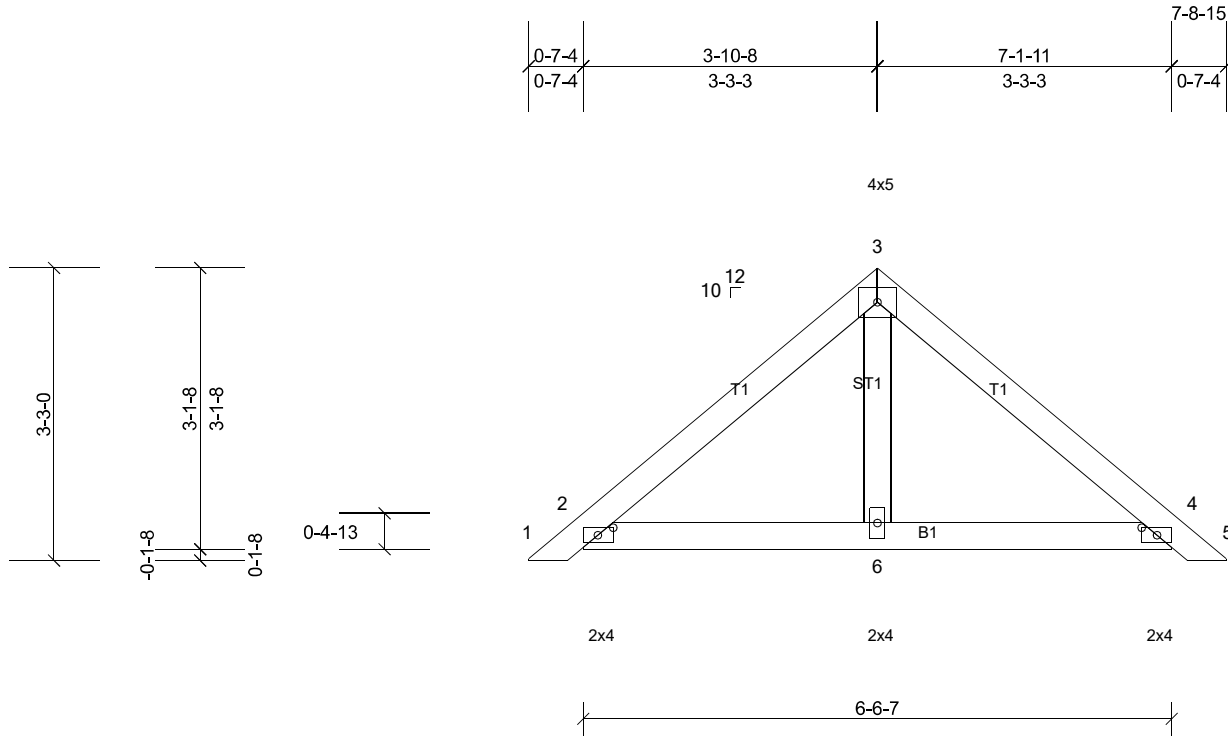
Job 20040140	Truss PB1	Truss Type Piggyback	Qty 8	Ply 1	Harper Job Reference (optional)
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Carter Components - Sanford, Sanford, NC, user

Run: 8.33 S Apr 7 2020 Print: 8.330 S Apr 7 2020 MiTek Industries, Inc. Thu May 07 09:28:36

Page: 1

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Scale = 1:25.6

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

Loading	(psf)	Spacing	2-0-0	CSI	0.13	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.13	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf/Pg)	13.9/20.0	Lumber DOL	1.15	BC	0.14	Vert(CT)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.02	Horz(CT)	0.00	2	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MP							Weight: 28 lb	FT = 20%
BCDL	10.0											

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

**BRACING**  
 TOP CHORD  
 BOT CHORD

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

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

**REACTIONS** All bearings 6-6-7.  
 (lb) - Max Horiz 2=-60 (LC 11), 7=-60 (LC 11)  
 Max Uplift All uplift 100 (lb) or less at joint(s) 2, 4, 7, 11  
 Max Grav All reactions 250 (lb) or less at joint(s) 2, 4, 6, 7, 11

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

- 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.
  - Gable requires continuous bottom chord bearing.
  - Gable studs spaced at 4-0-0 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 and 4. 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.
  - See Standard Industry Piggyback Truss Connection Detail for Connection to base truss as applicable, or consult qualified building designer.

**LOAD CASE(S)** Standard

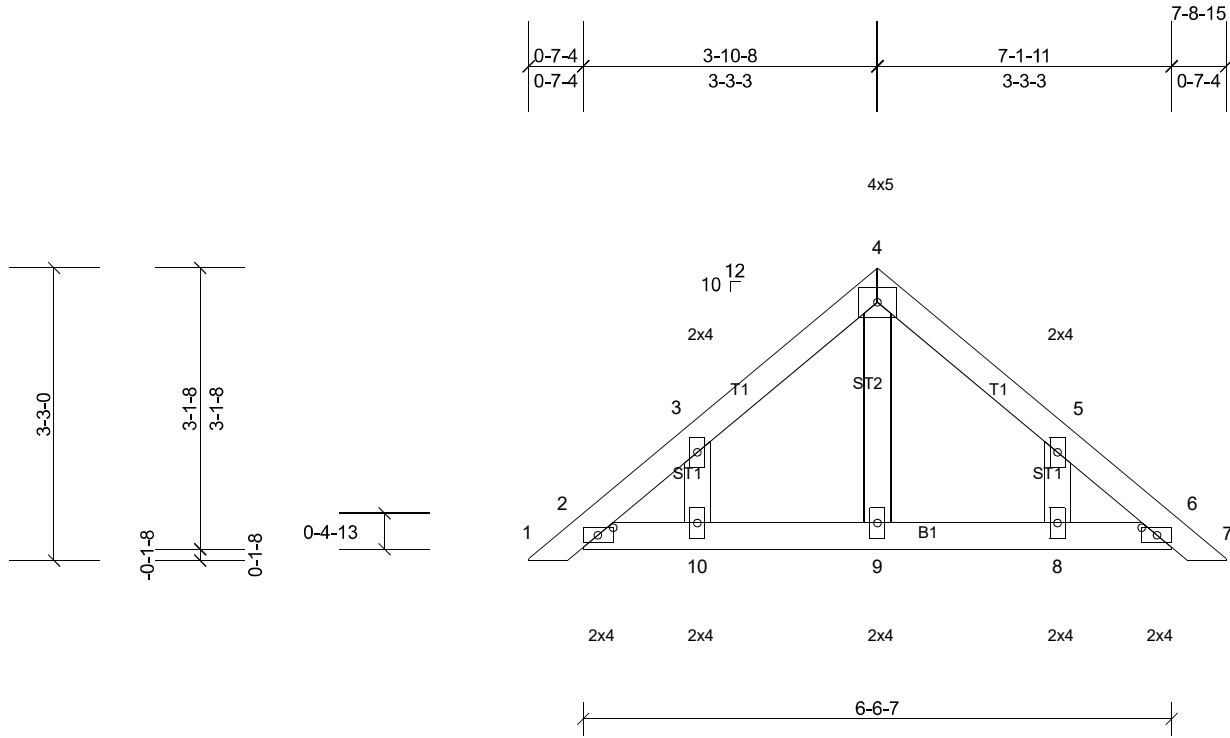
Job 20040140	Truss PB1GE	Truss Type Piggyback	Qty 1	Ply 1	Harper Job Reference (optional)
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Run: 8.33 S Apr 7 2020 Print: 8.330 S Apr 7 2020 MiTek Industries, Inc. Thu May 07 09:28:37

Page: 1

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Scale = 1:25.6

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

Loading	(psf)	Spacing	2-0-0	CSI	0.05	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(CT)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.04	Horz(CT)	0.00	15	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MP							Weight: 31 lb	FT = 20%
BCDL	10.0											

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

**BRACING**  
TOP CHORD  
BOT CHORD

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

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

**REACTIONS** All bearings 6-6-7.  
(lb) - Max Horiz 2=-60 (LC 11), 11=-60 (LC 11)  
Max Uplift All uplift 100 (lb) or less at joint(s) 2, 8, 10, 11  
Max Grav All reactions 250 (lb) or less at joint(s) 2, 6, 8, 9, 10, 11, 15

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

- 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.
  - 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, 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.
  - See Standard Industry Piggyback Truss Connection Detail for Connection to base truss as applicable, or consult qualified building designer.

**LOAD CASE(S)** Standard

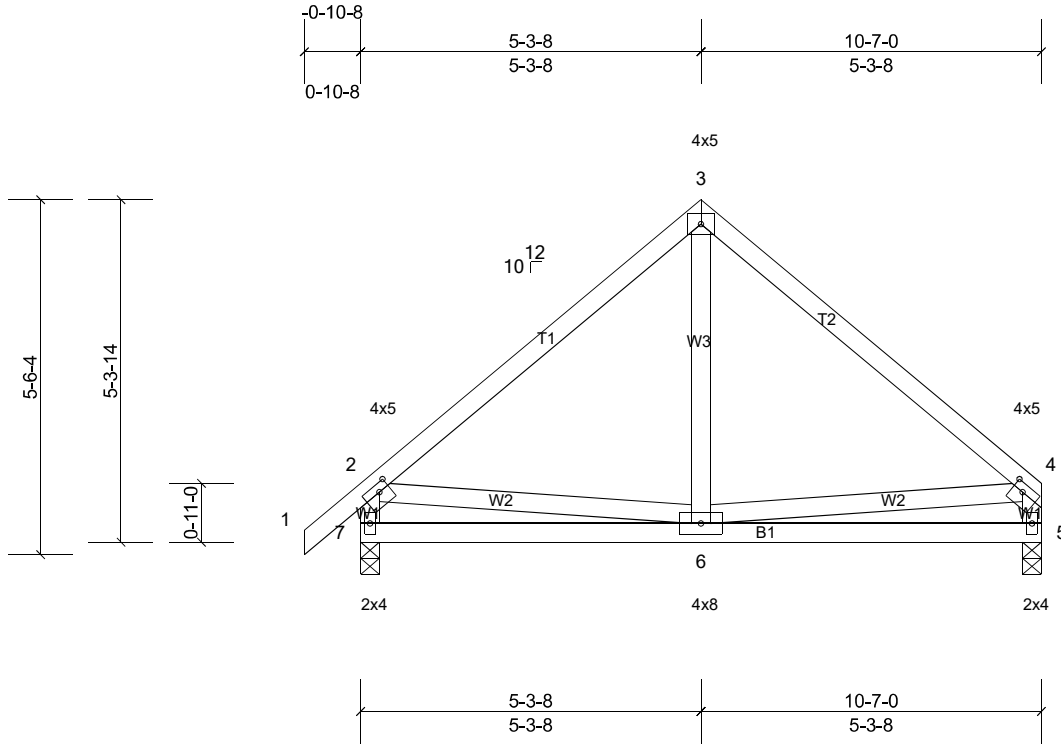
Job 20040140	Truss T1	Truss Type Common	Qty 1	Ply 1	Harper Job Reference (optional)
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Carter Components - Sanford, Sanford, NC, user

Run: 8.33 S Apr 7 2020 S Apr 7 2020 MiTek Industries, Inc. Thu May 07 09:28:37

Page: 1

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Scale = 1:35.8

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

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	0.44	Vert(LL)	0.00	6	>999	240	MT20	244/190
Snow (Pf/Pg)	13.9/20.0	Lumber DOL	1.15	BC	0.17	Vert(CT)	-0.02	6-7	>999	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.05	Horz(CT)	0.00	5	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MSH								
BCDL	10.0										Weight: 62 lb	FT = 20%

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

**BRACING**  
TOP CHORD  
BOT CHORD

Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.

Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS** (lb/size) 5=346/0-3-8, (min. 0-1-8), 7=400/0-3-8, (min. 0-1-8)  
Max Horiz 7=116 (LC 10)  
Max Grav 5=409 (LC 2), 7=476 (LC 2)

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

**FORCES** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
TOP CHORD 2-3=-413/103, 3-4=-406/98, 2-7=-430/154, 4-5=-363/106  
BOT CHORD 6-7=-167/276

**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.
- 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.

**LOAD CASE(S)** Standard



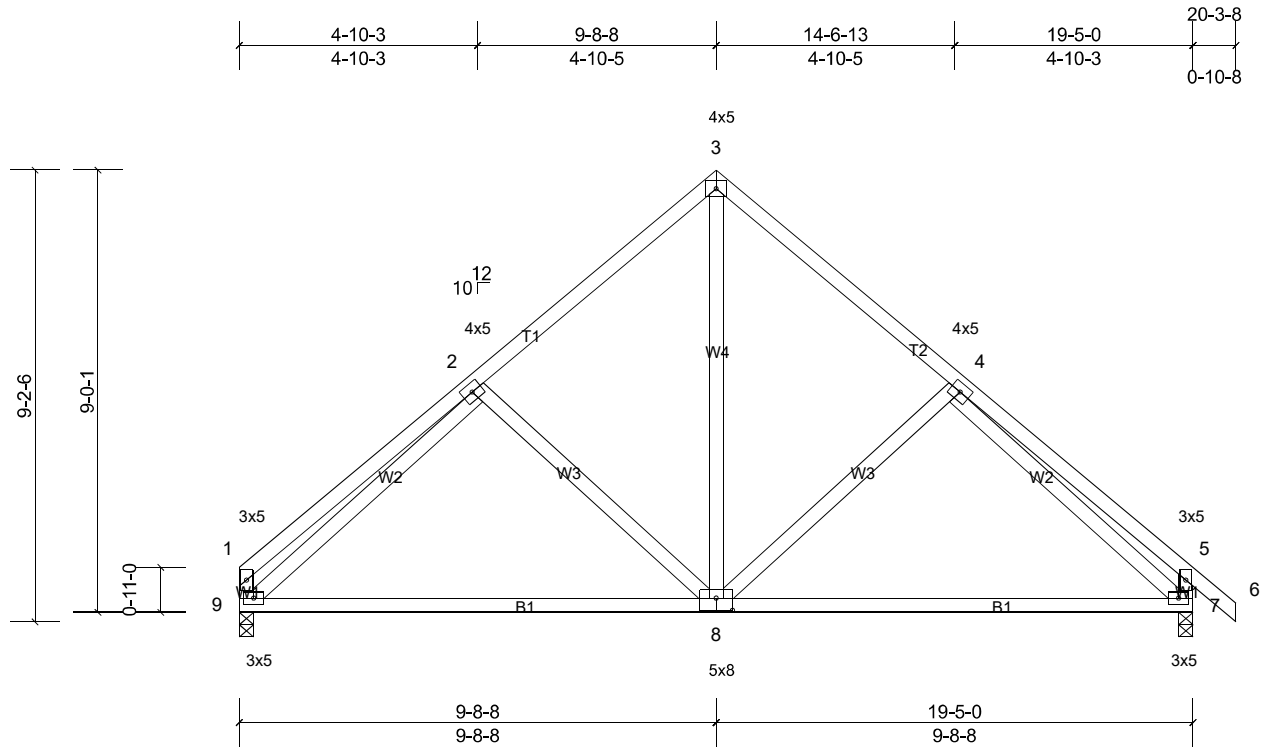
Job 20040140	Truss T2	Truss Type Common	Qty 1	Ply 1	Harper Job Reference (optional)
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Run: 8.33 S Apr 7 2020 Print: 8.330 S Apr 7 2020 MiTek Industries, Inc. Thu May 07 09:28:38

Page: 1

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Scale = 1:46.9

Plate Offsets (X, Y): [8:0-4-0,0-3-0]

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	0.30	Vert(LL)	-0.02	8	>999	240	MT20	244/190
Snow (Pf/Pg)	13.9/20.0	Lumber DOL	1.15	BC	0.63	Vert(CT)	-0.17	7-8	>999	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.41	Horz(CT)	0.02	7	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MSH								
BCDL	10.0											
											Weight: 120 lb	FT = 20%

**LUMBER**

TOP CHORD 2x4 SP No.2  
 BOT CHORD 2x4 SP No.2  
 WEBS 2x4 SP No.2 \*Except\* W1:2x4 SP No.1

**BRACING**

TOP CHORD  
 BOT CHORD

Structural wood sheathing directly applied or 6'-0" oc purlins, except end verticals.

Rigid ceiling directly applied or 10'-0" oc bracing.

**REACTIONS** (lb/size) 7=698/0-3-8, (min. 0-1-8), 9=646/0-3-8, (min. 0-1-8)

Max Horiz 9=-189 (LC 11)  
 Max Grav 7=828 (LC 2), 9=763 (LC 2)

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

TOP CHORD 1-2=-348/101, 2-3=-689/209, 3-4=-688/209, 4-5=-398/145, 1-9=-305/99, 5-7=-389/160  
 BOT CHORD 8-9=-40/644, 7-8=-35/590  
 WEBS 3-8=-135/561, 2-8=-261/200, 2-9=-569/119, 4-8=-256/198, 4-7=-540/78

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

**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.
- 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

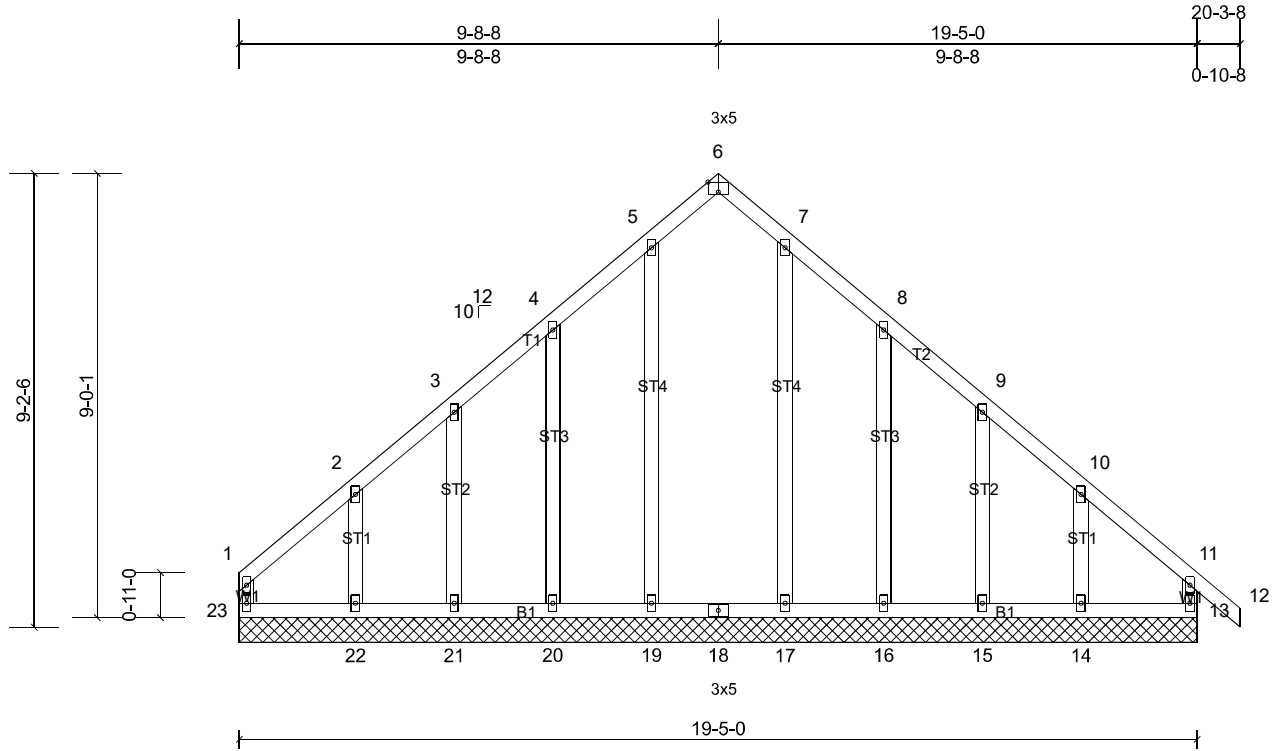
Job 20040140	Truss T2GE	Truss Type Common Supported Gable	Qty 1	Ply 1	Harper Job Reference (optional)
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Run: 8.33 S Apr 7 2020 S Apr 7 2020 MiTek Industries, Inc. Thu May 07 09:28:38

Page: 1

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Scale = 1:46.7

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

Loading	(psf)	Spacing	2-0-0	CSI	0.20	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.20	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf/Pg)	13.9/20.0	Lumber DOL	1.15	BC	0.14	Vert(CT)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.12	Horz(CT)	0.00	13	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MR								
BCDL	10.0											
											Weight: 128 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.2 \*Except\* ST2,ST1:2x4 SP No.3

**BRACING**  
TOP CHORD  
BOT CHORD

Structural wood sheathing directly applied or 6'-0-0 oc purlins, except end verticals.

Rigid ceiling directly applied or 10'-0-0 oc bracing.

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

**REACTIONS** All bearings 19-5-0.  
(lb) - Max Horiz 23=-189 (LC 9)  
Max Uplift All uplift 100 (lb) or less at joint(s) 13, 15, 16, 20, 21, 23 except 14=-118 (LC 14), 22=-119 (LC 13)  
Max Grav All reactions 250 (lb) or less at joint(s) 13, 14, 15, 16, 17, 19, 20, 21, 22, 23

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

**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.
- Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
- Gable studs spaced at 2'-0-0 oc.
- \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3'-0-0 tall by 2'-0-0 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) 23, 13, 20, 21, 22, 16, 15, and 14. 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

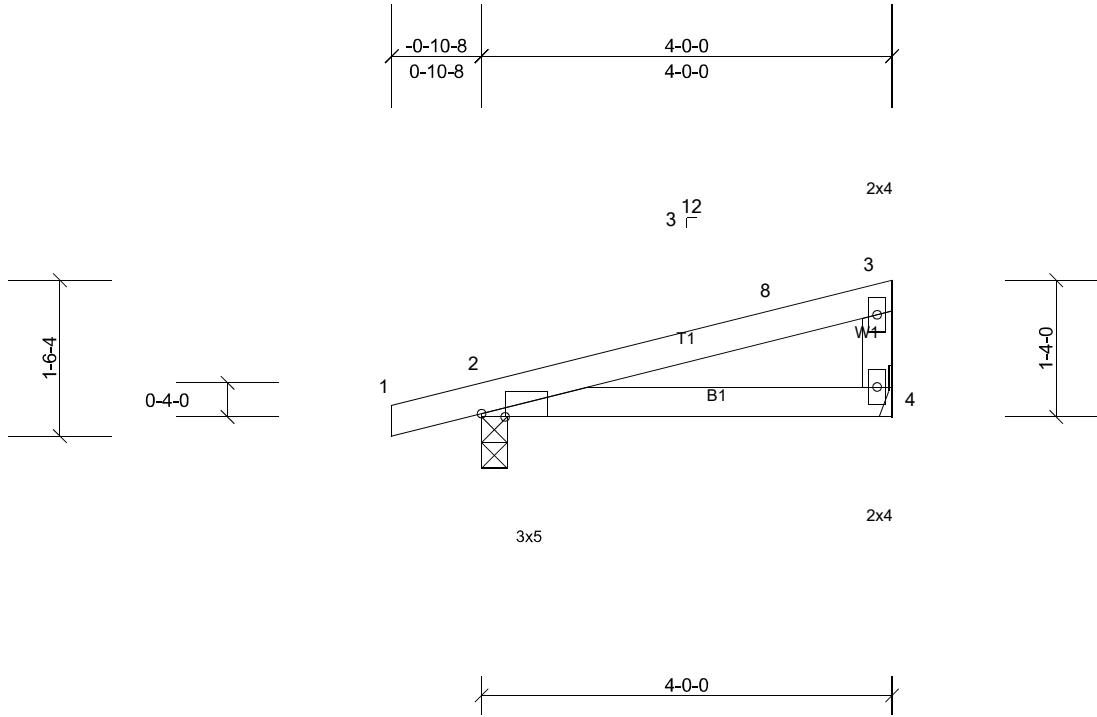
Job 20040140	Truss T3	Truss Type Monopitch	Qty 2	Ply 1	Harper Job Reference (optional)
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Run: 8.33 S Apr 7 2020 Print: 8.330 S Apr 7 2020 MiTek Industries, Inc. Thu May 07 09:28:38

Page: 1

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Scale = 1:22.5

Plate Offsets (X, Y): [2:0-2-12,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	0.18	Vert(LL)	0.01	4-7	>999	240	MT20	244/190
Snow (Pf/Pg)	13.9/20.0	Lumber DOL	1.15	BC	0.17	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: 15 lb	FT = 20%

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

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

**REACTIONS** (lb/size) 2=177/0-3-0, (min. 0-1-8), 4=126/ Mechanical, (min. 0-1-8)  
Max Horiz 2=33 (LC 14)  
Max Uplift 2=-31 (LC 11), 4=-6 (LC 15)  
Max Grav 2=213 (LC 2), 4=148 (LC 2)

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

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

- NOTES**
- 1) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TC DL=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; Min. flat roof snow load governs.
  - 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 6 lb uplift at jt(s) 2.
  - 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

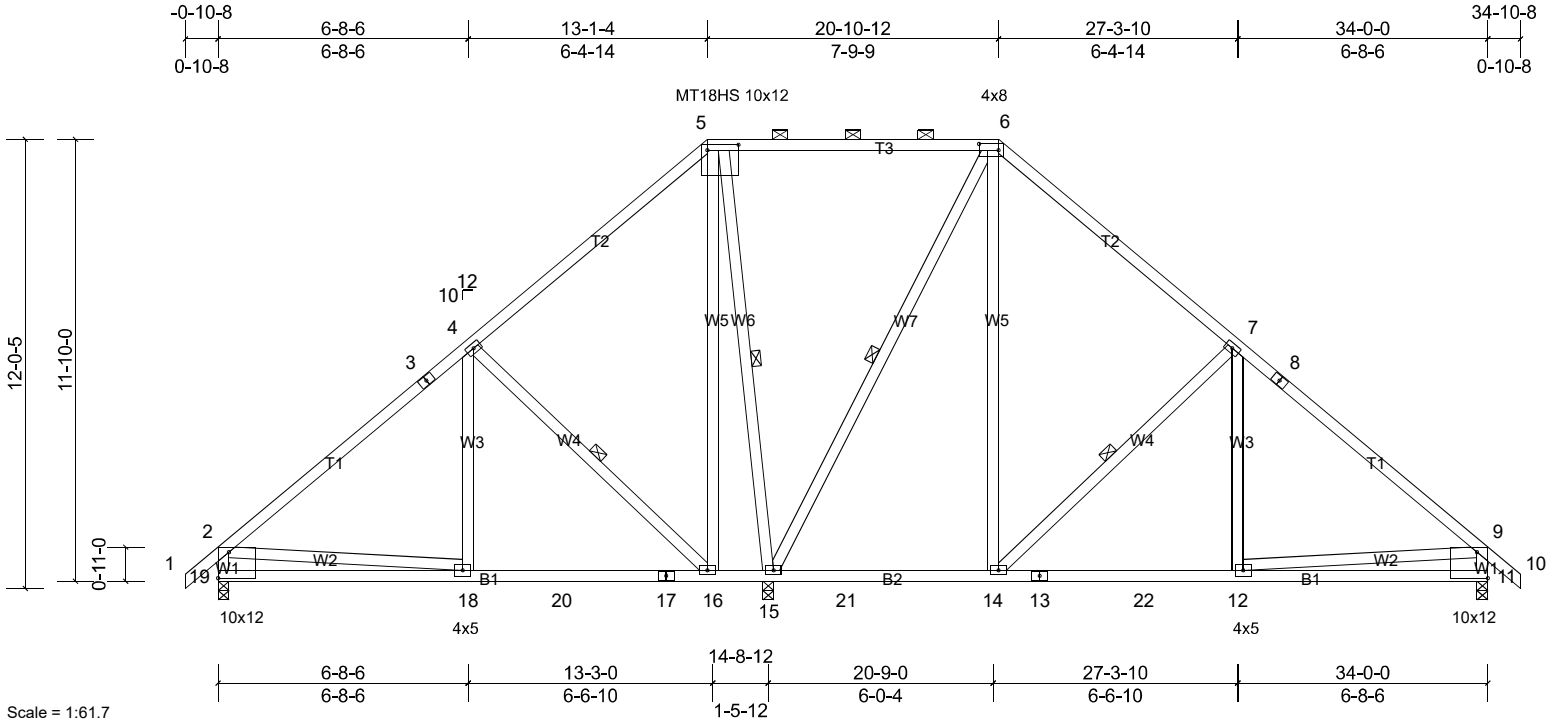
Job 20040140	Truss T4	Truss Type Piggyback Base	Qty 8	Ply 1	Harper Job Reference (optional)
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Carter Components - Sanford, Sanford, NC, user

Run: 8.33 S Apr 7 2020 Print: 8.330 S Apr 7 2020 MiTek Industries, Inc. Thu May 07 09:28:38

Page: 1

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Scale = 1:61.7

Plate Offsets (X, Y): [5:0-10-0,0-1-12], [6:0-6-4,0-2-0], [11:Edge,0-8-6], [19:Edge,0-8-6]

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	0.93	Vert(LL)	-0.05	14-15	>999	240	MT20	244/190
Snow (Pf/Pg)	18.9/20.0	Lumber DOL	1.15	BC	0.36	Vert(CT)	-0.08	16-18	>999	180	MT18HS	244/190
TCDL	10.0	Rep Stress Incr	YES	WB	0.60	Horz(CT)	0.02	11	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MSH								
BCDL	10.0											
											Weight: 250 lb	FT = 20%

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

**REACTIONS** (lb/size) 11=641/0-3-8, (min. 0-1-8), 15=1357/0-3-8, (min. 0-1-13),  
 19=460/0-3-8, (min. 0-1-8)  
 Max Horiz 19=-251 (LC 11)  
 Max Uplift 11=-13 (LC 14), 19=-4 (LC 13)  
 Max Grav 11=767 (LC 30), 15=1541 (LC 3), 19=581 (LC 29)

**FORCES** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-3=-538/86, 3-4=-311/113, 6-7=-420/229, 7-8=-585/163, 8-9=-793/136, 2-19=-524/156, 9-11=-707/189  
 BOT CHORD 18-19=-257/434, 18-20=-123/412, 17-20=-123/412, 16-17=-123/412, 15-21=-45/265, 14-21=-45/265, 13-14=0/515,  
 13-22=0/515, 12-22=0/515, 11-12=-127/354  
 WEBS 4-16=-523/223, 5-16=-93/391, 5-15=-775/173, 6-15=-791/133, 6-14=-72/555, 7-14=-500/221, 9-12=0/295

- 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; Min. flat roof snow load governs. Rain surcharge applied to all exposed surfaces with slopes less than 0.500/12 in accordance with IBC 1608.3.4.
  - 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.
  - Provide adequate drainage to prevent water ponding.
  - All plates are MT20 plates unless otherwise indicated.
  - All plates are 3x5 MT20 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.
  - One RT7A USP connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 19 and 11. 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

**BRACING**  
 TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals, and 2-0-0 oc purlins (2-2-0 max.): 5-6.  
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing, Except: 6-0-0 oc bracing: 15-16.  
 WEBS 1 Row at midpt 4-16, 5-15, 6-15, 7-14

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



Job 20040140	Truss T4GE	Truss Type Piggyback Base Girder	Qty 1	Ply 1	Harper Job Reference (optional)
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Carter Components - Sanford, Sanford, NC, user

Run: 8.33 S Apr 7 2020 Print: 8.330 S Apr 7 2020 MiTek Industries, Inc. Thu May 07 09:28:38

Page: 1

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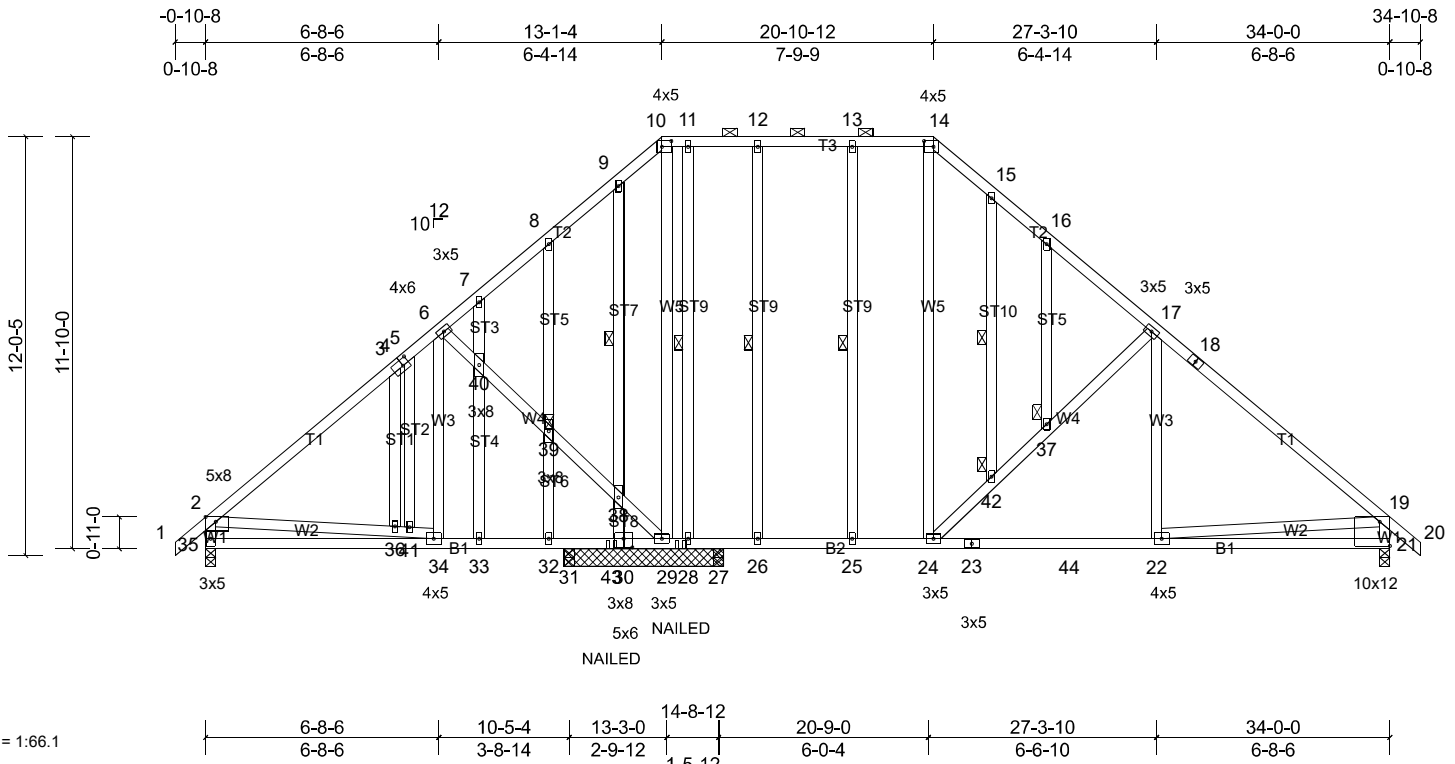


Plate Offsets (X, Y): [2:0-3-8,Edge], [4:0-2-4,0-2-4], [10:0-3-4,0-2-0], [14:0-3-4,0-2-0], [21:Edge,0-8-6], [30:0-3-0,0-3-0]

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	0.93	Vert(LL)	-0.10	22-24	>999	240	MT20	244/190
Snow (Pf/Pg)	18.9/20.0	Lumber DOL	1.15	BC	0.99	Vert(CT)	-0.22	22-24	>999	180		
TCDL	10.0	Rep Stress Incr	NO	WB	0.51	Horz(CT)	0.04	21	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MSH								
BCDL	10.0											
										Weight: 336 lb	FT = 20%	

**LUMBER**  
TOP CHORD 2x4 SP No.2  
BOT CHORD 2x4 SP No.2  
WEBS 2x4 SP No.2 \*Except\* W1:2x4 SP No.3  
OTHERS 2x4 SP No.2 \*Except\* ST1,ST8,ST6,ST3,ST4:2x4 SP No.3

**BRACING**  
TOP CHORD Structural wood sheathing directly applied or 4-2-12 oc purlins, except end verticals, and 2-0-0 oc purlins (6-0-0 max.): 10-14.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.  
WEBS 1 Row at midpt 12-26, 13-25, 11-28, 9-38, 15-42  
JOINTS 1 Brace at Jt(s): 37, 39, 42

**REACTIONS** All bearings 0-3-8. except 30=4-7-0, 29=4-7-0, 28=4-7-0  
(lb) - Max Horiz 35=-251 (LC 31)  
Max Uplift All uplift 100 (lb) or less at joint(s) 21, 27, 30, 31 except 28=-668 (LC 22), 29=-274 (LC 26)  
Max Grav All reactions 250 (lb) or less at joint(s) 28, 29, 30 except 21=1334 (LC 44), 27=821 (LC 3), 31=256 (LC 2), 35=1259 (LC 2)

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

**FORCES** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
TOP CHORD 2-3=-1504/48, 3-4=-1375/83, 4-5=-1372/86, 5-6=-1246/73, 6-7=-1273/116, 7-8=-1196/122, 8-9=-1210/166, 9-10=-1140/188, 10-11=-888/154, 11-12=-888/154, 12-13=-888/154, 13-14=-888/154, 14-15=-1109/151, 15-16=-1142/127, 16-17=-1217/105, 17-18=-1396/62, 18-19=-1585/36, 2-35=-1186/33, 19-21=-1279/63  
BOT CHORD 34-35=-217/587, 33-34=0/1022, 32-33=0/1022, 31-32=0/1022, 31-43=0/1022, 30-43=0/1022, 29-30=0/1017, 28-29=0/828, 27-28=0/828, 26-27=0/828, 25-26=0/828, 24-25=0/828, 23-24=0/1097, 23-44=0/1097, 22-44=0/1097, 21-22=-92/315  
WEBS 6-40=-323/100, 39-40=-318/107, 38-39=-327/108, 29-38=-309/94, 10-29=-80/597, 14-24=-32/475, 24-42=-479/144, 37-42=-464/134, 17-37=-432/122, 2-36=-75/723, 36-41=-78/720, 34-41=-78/738, 19-22=0/807

- 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
  - 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=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; Min. flat roof snow load governs. Rain surcharge applied to all exposed surfaces with slopes less than 0.500/12 in accordance with IBC 1608.3.4.
  - 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.
  - Provide adequate drainage to prevent water ponding.
  - All plates are 2x4 MT20 unless otherwise indicated.
  - Gable studs spaced at 2-0-0 oc.
  - \* This truss has been designed for a 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.

Job	Truss	Truss Type	Qty	Ply	Harper
20040140	T4GE	Piggyback Base Girder	1	1	Job Reference (optional)

- 10) One RT7A USP connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 30, 29, and 21. This connection is for uplift only and does not consider lateral forces.
- 11) One RT8A USP connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 28. This connection is for uplift only and does not consider lateral forces.
- 12) One RT16A USP connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 31 and 27. This connection is for uplift only and does not consider lateral forces.
- 13) 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.
- 14) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
- 15) "NAILED" indicates 3-10d (0.148"x3") or 3-12d (0.148"x3.25") toe-nails per NDS guidelines.
- 16) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

**LOAD CASE(S)** Standard

- 1) Dead + Snow (balanced): Lumber Increase=1.15, Plate Increase=1.15  
 Uniform Loads (lb/ft)  
 Vert: 1-2=-48, 2-10=-48, 10-14=-58, 14-19=-48, 19-20=-48, 21-35=-20  
 Concentrated Loads (lb)  
 Vert: 28=-128 (F), 43=-128 (F)

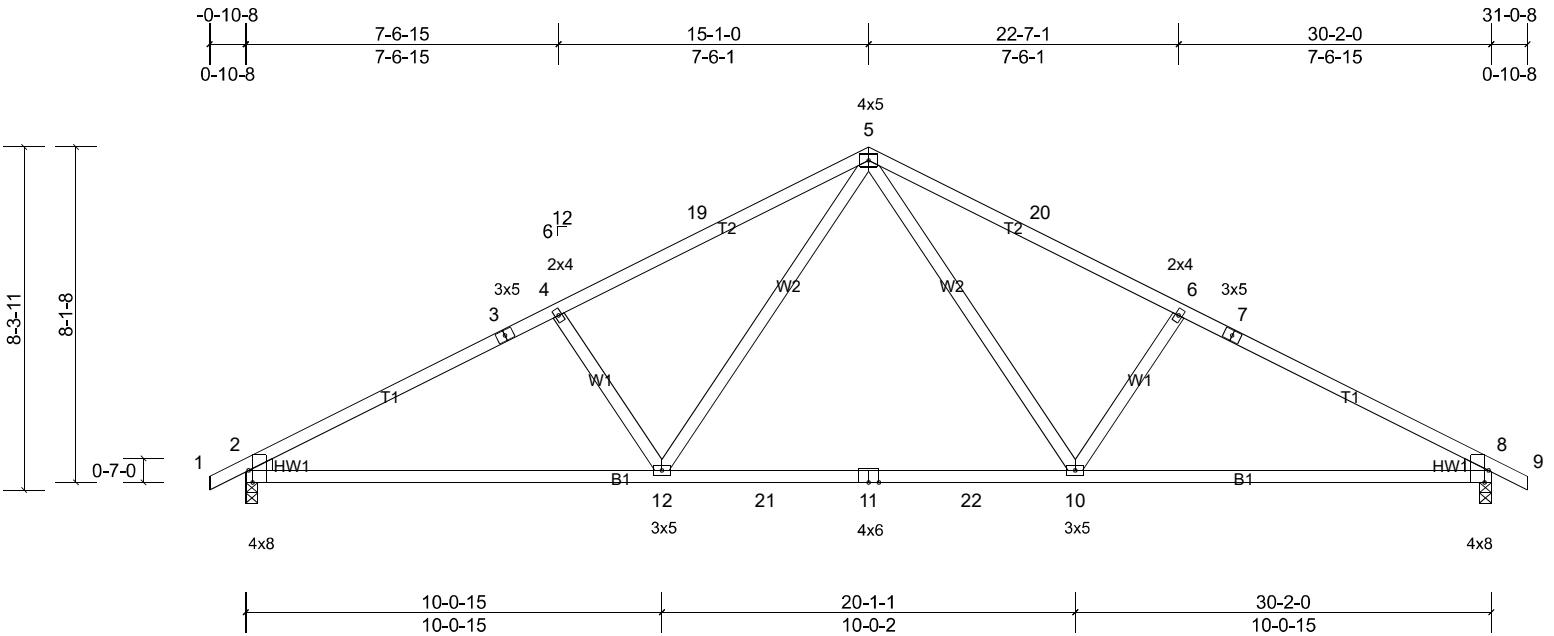
Job	Truss	Truss Type	Qty	Ply	Harper
20040140	T5	Common	10	1	Job Reference (optional)

Carter Components - Sanford, Sanford, NC, user

Run: 8.33 S Apr 7 2020 S Apr 7 2020 MiTek Industries, Inc. Thu May 07 09:28:39

Page: 1

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Scale = 1:55.8

Plate Offsets (X, Y): [2:0-3-8,Edge], [8:0-3-8,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	0.97	Vert(LL)	-0.44	10-12	>832	240	MT20	244/190
Snow (Pf/Pg)	13.9/20.0	Lumber DOL	1.15	BC	0.77	Vert(CT)	-0.63	10-12	>578	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.23	Horz(CT)	0.06	8	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MSH								
BCDL	10.0											
											Weight: 140 lb	FT = 20%

**LUMBER**  
TOP CHORD 2x4 SP No.2  
BOT CHORD 2x4 SP No.1  
WEBS 2x4 SP No.2 \*Except\* W1:2x4 SP No.3  
WEDGE Left: 2x4 SP No.3  
Right: 2x4 SP No.3

**BRACING**  
TOP CHORD  
BOT CHORD

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

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

**REACTIONS** (lb/size) 2=1063/0-3-8, (min. 0-1-8), 8=1063/0-3-8, (min. 0-1-8)  
Max Horiz 2=-86 (LC 13)  
Max Uplift 2=-5 (LC 15), 8=-5 (LC 16)  
Max Grav 2=1259 (LC 2), 8=1259 (LC 2)

**FORCES** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
TOP CHORD 2-3=-2041/506, 3-4=-1875/526, 4-19=-1812/515, 5-19=-1703/535, 5-20=-1703/535, 6-20=-1812/515, 6-7=-1875/526, 7-8=-2041/506  
BOT CHORD 2-12=-353/1750, 12-21=-119/1170, 11-21=-119/1170, 11-22=-119/1170, 10-22=-119/1170, 8-10=-355/1750  
WEBS 5-12=-148/701, 4-12=-438/289, 5-10=-148/701, 6-10=-438/289

- 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 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

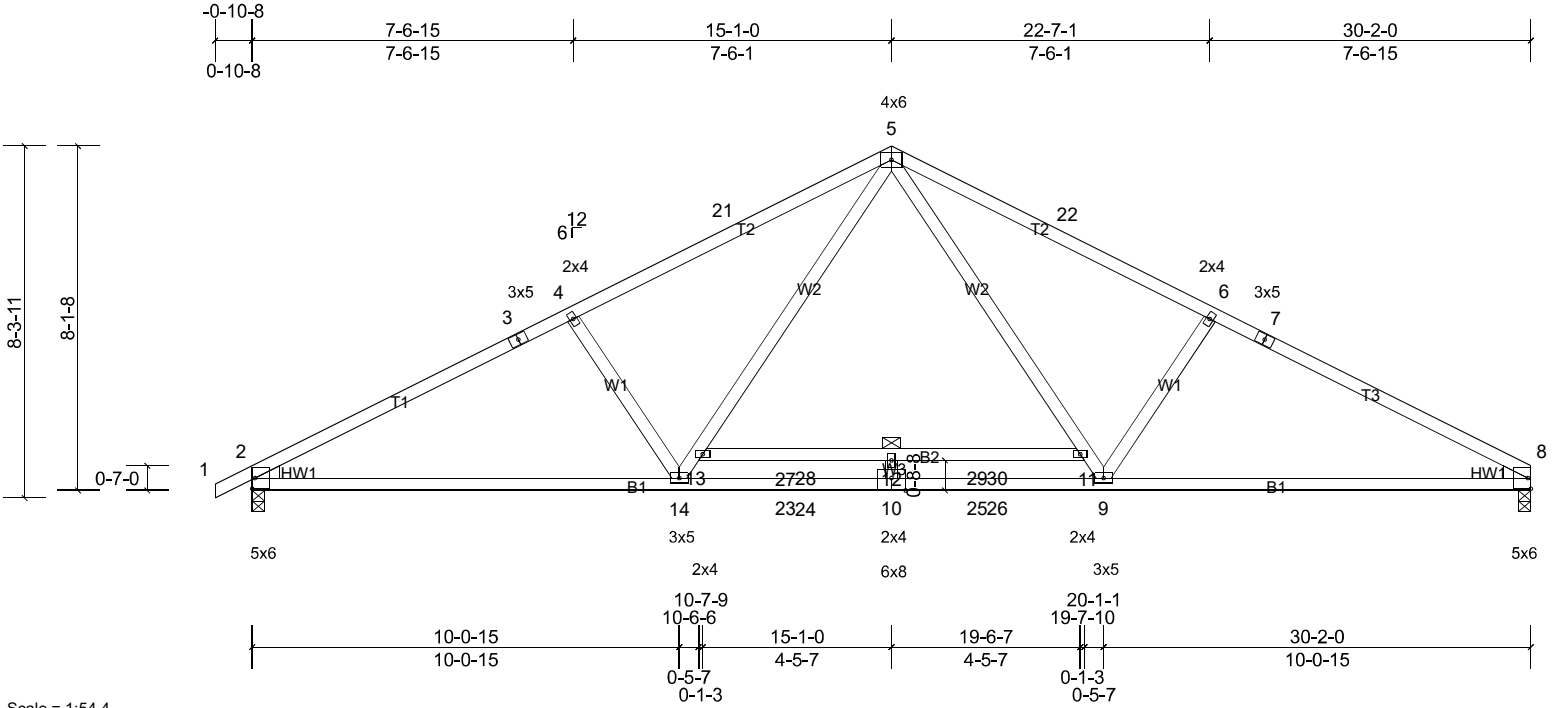
Job 20040140	Truss T5A	Truss Type Common	Qty 6	Ply 1	Harper Job Reference (optional)
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Carter Components - Sanford, Sanford, NC, user

Run: 8.33 S Apr 7 2020 Print: 8.330 S Apr 7 2020 MiTek Industries, Inc. Thu May 07 09:28:39

Page: 1

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Scale = 1:54.4

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

Loading	(psf)	Spacing	2-0-0	CSI	0.95	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.95	Vert(LL)	-0.41	12	>891	240	MT20	244/190
Snow (Pf/Pg)	13.9/20.0	Lumber DOL	1.15	BC	0.87	Vert(CT)	-0.89	12	>408	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.32	Horz(CT)	0.07	8	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 \*Except\* T2:2x4 SP No.1  
 BOT CHORD 2x4 SP 2400F 2.0E \*Except\* B2:2x4 SP No.1  
 WEBS 2x4 SP No.3 \*Except\* W2:2x4 SP No.2  
 WEDGE Left: 2x4 SP No.3  
 Right: 2x4 SP No.3

**BRACING**

TOP CHORD Structural wood sheathing directly applied.  
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing. Except:  
 6-0-0 oc bracing: 11-13

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

**REACTIONS** (lb/size) 2=1256/0-3-8, (min. 0-1-8), 8=1213/0-3-8, (min. 0-1-8)  
 Max Horiz 2=87 (LC 12)  
 Max Grav 2=1453 (LC 2), 8=1399 (LC 2)

**FORCES** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-3=-2477/162, 3-4=-2339/184, 4-21=-2290/172, 5-21=-2203/192, 5-22=-2205/193, 6-22=-2292/172, 6-7=-2342/185,  
 7-8=-2480/163  
 BOT CHORD 2-14=-71/2171, 14-23=0/1593, 23-24=0/1593, 10-24=0/1593, 10-25=0/1593, 25-26=0/1593, 9-26=0/1593, 8-9=-72/2144  
 WEBS 13-14=-39/791, 5-13=0/976, 4-14=-418/306, 5-11=0/980, 9-11=-41/794, 6-9=-420/306

**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.
- 200.0lb AC unit load placed on the bottom chord, 15-1-0 from left end, supported at two points, 5-0-0 apart.
- \* 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

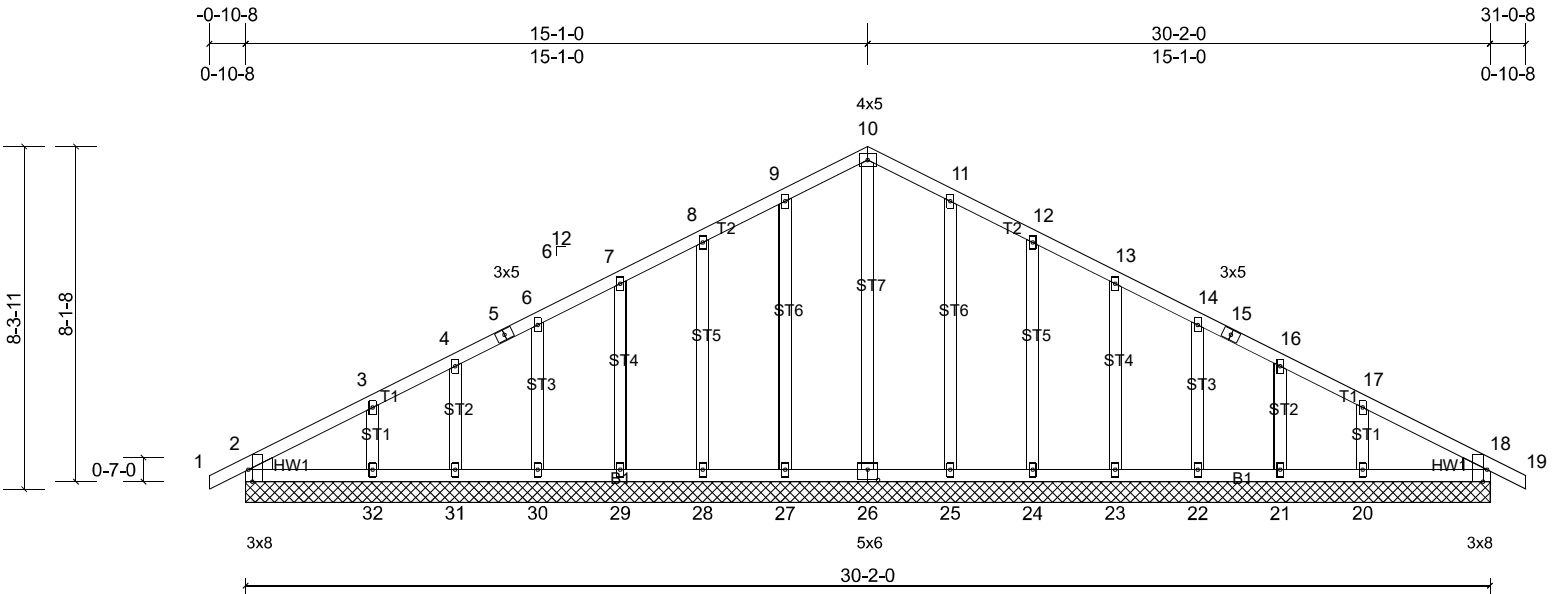
Job 20040140	Truss T5GE	Truss Type Common Supported Gable	Qty 2	Ply 1	Harper Job Reference (optional)
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Carter Components - Sanford, Sanford, NC, user

Run: 8.33 S Apr 7 2020 Print: 8.330 S Apr 7 2020 MiTek Industries, Inc. Thu May 07 09:28:40

Page: 1

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Scale = 1:55.9

Plate Offsets (X, Y): [2:0-3-8,Edge], [18:0-3-8,Edge], [26:0-3-0,0-3-0]

Loading	(psf)	Spacing	2-0-0	CSI	0.08	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(CT)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.16	Horz(CT)	0.00	18	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MSH								
BCDL	10.0											
											Weight: 184 lb	FT = 20%

**LUMBER**  
TOP CHORD 2x4 SP No.2  
BOT CHORD 2x4 SP No.2  
OTHERS 2x4 SP No.3 \*Except\* ST7,ST6,ST5:2x4 SP No.2  
WEDGE Left: 2x4 SP No.3  
Right: 2x4 SP No.3

**BRACING**  
TOP CHORD  
BOT CHORD

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

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

**REACTIONS** All bearings 30-2-0.  
(lb) - Max Horiz 2=86 (LC 14), 33=86 (LC 14)  
Max Uplift All uplift 100 (lb) or less at joint(s) 2, 20, 21, 22, 23, 24, 25, 27, 28, 29, 30, 31, 32, 33  
Max Grav All reactions 250 (lb) or less at joint(s) 2, 18, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 37

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

- NOTES**
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCCL=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.
  - 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, 27, 28, 29, 30, 31, 32, 25, 24, 23, 22, 21, and 20. This connection is for uplift only and does not consider lateral forces.
  - Beveled plate or shim required to provide full bearing surface with truss chord at joint(s) 18.
  - 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

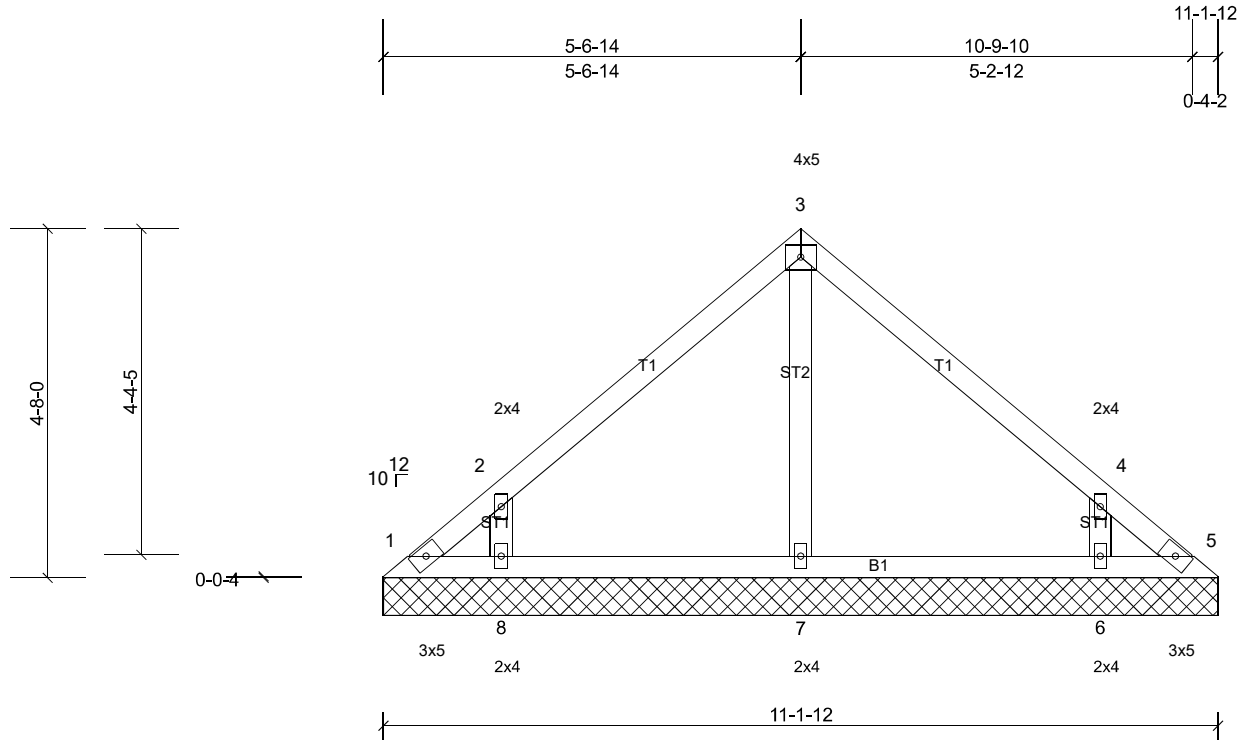
Job 20040140	Truss V1	Truss Type Valley	Qty 1	Ply 1	Harper Job Reference (optional)
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Carter Components - Sanford, Sanford, NC, user

Run: 8.33 S Apr 7 2020 Print: 8.330 S Apr 7 2020 MiTek Industries, Inc. Thu May 07 09:28:40

Page: 1

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Scale = 1:30.8

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	0.19	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf/Pg)	13.9/20.0	Lumber DOL	1.15	BC	0.09	Vert(TL)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.06	Horiz(TL)	0.00	5	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-SH								
BCDL	10.0										Weight: 45 lb	FT = 20%

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

**BRACING**  
TOP CHORD  
BOT CHORD

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

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

**REACTIONS** All bearings 11-1-12.  
(lb) - Max Horiz 1=86 (LC 10)  
Max Uplift All uplift 100 (lb) or less at joint(s) 1, 5, 6, 8  
Max Grav All reactions 250 (lb) or less at joint(s) 1, 5, 7 except 6=320 (LC 25), 8=320 (LC 24)

**FORCES** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
WEBS 2-8=-291/217, 4-6=-291/217

- 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 4'-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, 5, 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

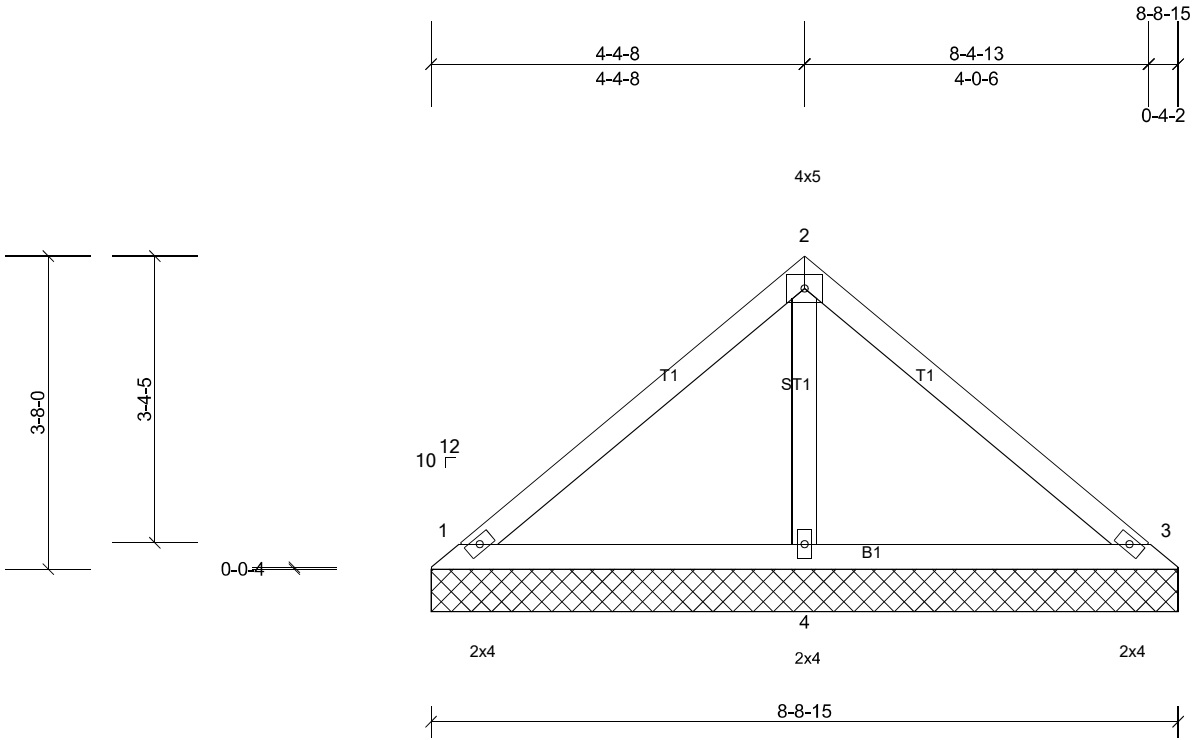
Job 20040140	Truss V2	Truss Type Valley	Qty 1	Ply 1	Harper Job Reference (optional)
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Run: 8.33 S Apr 7 2020 Print: 8.330 S Apr 7 2020 MiTek Industries, Inc. Thu May 07 09:28:40

Page: 1

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Scale = 1:27

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	0.31	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf/Pg)	13.9/20.0	Lumber DOL	1.15	BC	0.11	Vert(TL)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.05	Horiz(TL)	0.00	3	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-P							Weight: 33 lb	FT = 20%
BCDL	10.0											

**LUMBER**

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

**BRACING**

TOP CHORD  
 BOT CHORD

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

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

**REACTIONS** (lb/size) 1=152/8-8-15, (min. 0-1-8), 3=152/8-8-15, (min. 0-1-8),  
 4=237/8-8-15, (min. 0-1-8)  
 Max Horiz 1=66 (LC 10)  
 Max Uplift 1=-14 (LC 14), 3=-20 (LC 14)  
 Max Grav 1=183 (LC 2), 3=183 (LC 2), 4=272 (LC 2)

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

**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 4-0-0 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 and 3. 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

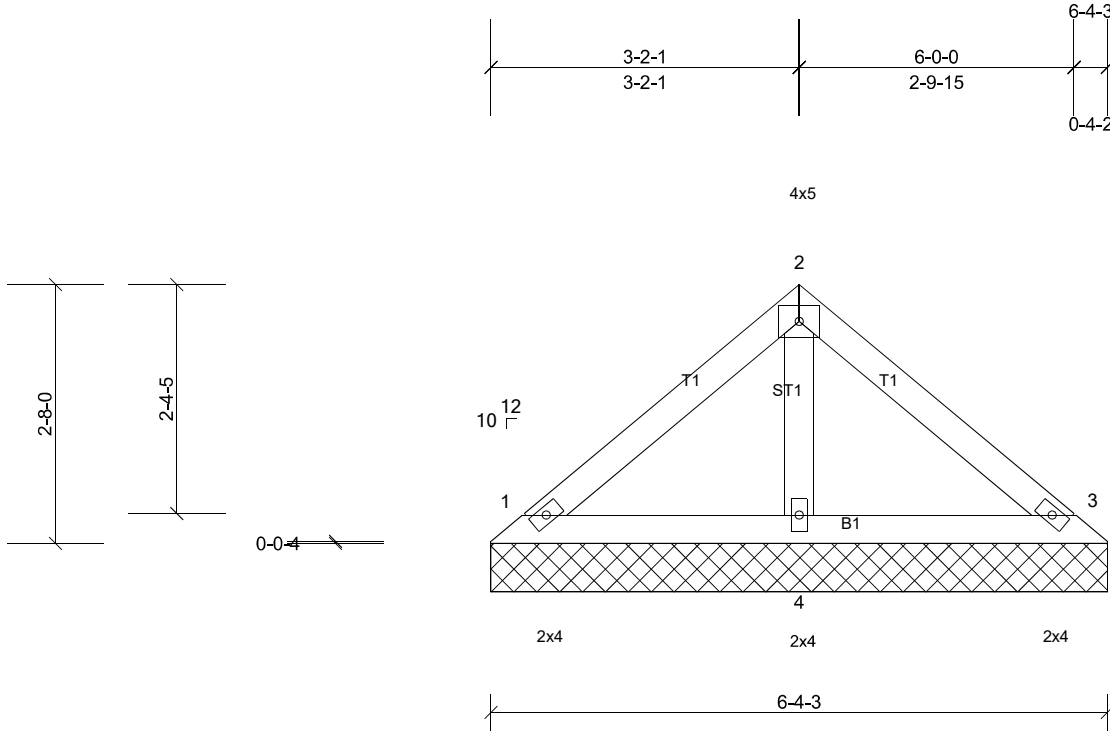
Job 20040140	Truss V3	Truss Type Valley	Qty 1	Ply 1	Harper Job Reference (optional)
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Run: 8.33 S Apr 7 2020 Print: 8.330 S Apr 7 2020 MiTek Industries, Inc. Thu May 07 09:28:40

Page: 1

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Scale = 1:23.7

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	0.14	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: 23 lb	FT = 20%

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

**BRACING**  
 TOP CHORD  
 BOT CHORD

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

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

**REACTIONS** (lb/size) 1=106/6-4-3, (min. 0-1-8), 3=106/6-4-3, (min. 0-1-8),  
 4=166/6-4-3, (min. 0-1-8)  
 Max Horiz 1=46 (LC 10)  
 Max Uplift 1=-10 (LC 14), 3=-14 (LC 14)  
 Max Grav 1=128 (LC 2), 3=128 (LC 2), 4=191 (LC 2)

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

**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 4-0-0 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 and 3. 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



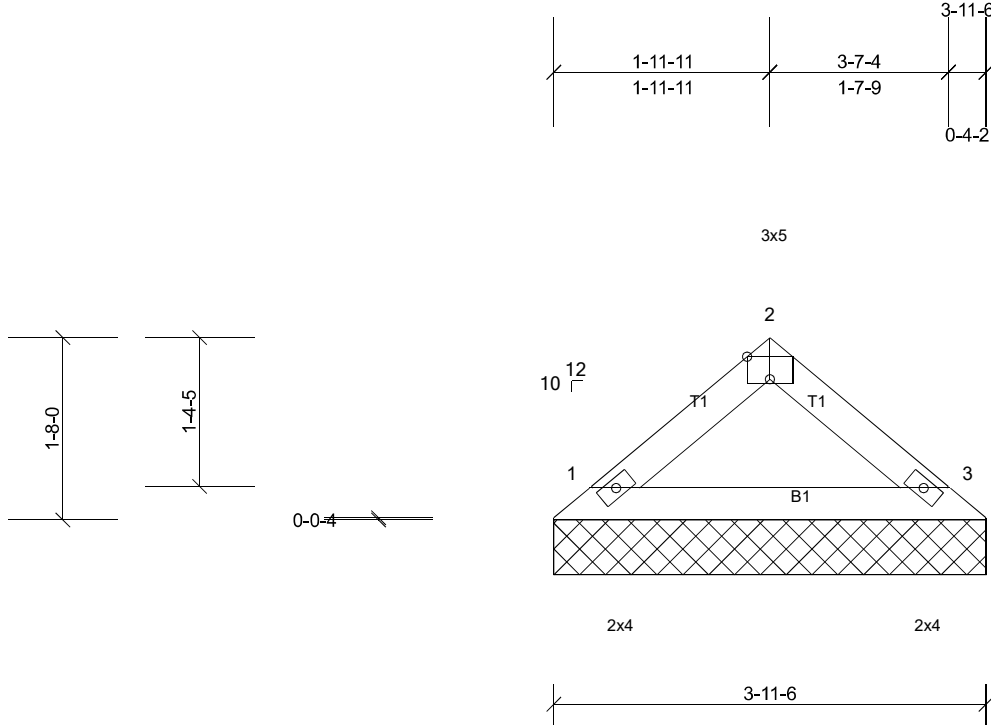
Job 20040140	Truss V4	Truss Type Valley	Qty 1	Ply 1	Harper Job Reference (optional)
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Run: 8.33 S Apr 7 2020 Print: 8.330 S Apr 7 2020 MiTek Industries, Inc. Thu May 07 09:28:40

Page: 1

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Scale = 1:21

Plate Offsets (X, Y): [2:0-2-8,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	0.04	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf/Pg)	13.9/20.0	Lumber DOL	1.15	BC	0.09	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: 12 lb	FT = 20%

**LUMBER**

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

**BRACING**

TOP CHORD  
BOT CHORD

Structural wood sheathing directly applied or 3-11-6 oc purlins.  
Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS** (lb/size) 1=108/3-11-6, (min. 0-1-8), 3=108/3-11-6, (min. 0-1-8)  
Max Horiz 1=26 (LC 12)  
Max Grav 1=128 (LC 2), 3=128 (LC 2)

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

**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 4-0-0 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.
- 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

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