



MiTek USA, Inc.  
16023 Swingley Ridge Rd  
Chesterfield, MO 63017  
314-434-1200

Re: H3-94  
SUMMIT HOMES

The truss drawing(s) referenced below have been prepared by MiTek USA, Inc. under my direct supervision based on the parameters provided by Mid America MO.

Pages or sheets covered by this seal: I44987034 thru I44987086

My license renewal date for the state of Missouri is December 31, 2021.

Missouri COA: Engineering 001193



March 1, 2021

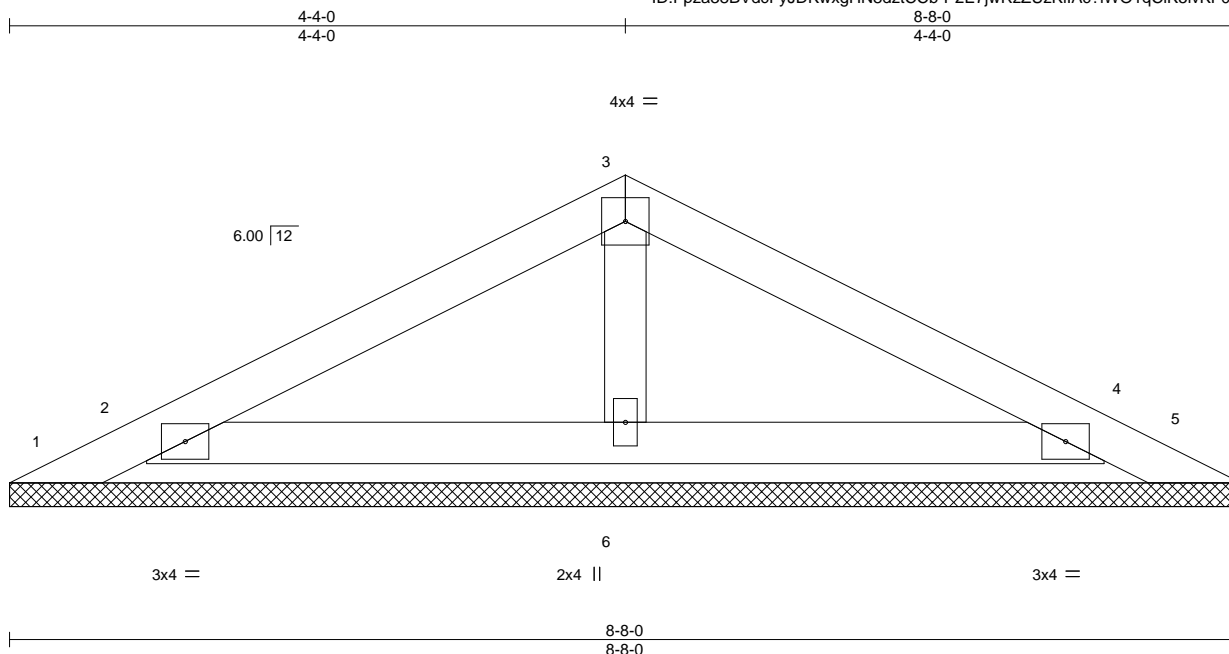
Sevier, Scott ,Engineer

**IMPORTANT NOTE:** The seal on these truss component designs is a certification that the engineer named is licensed in the jurisdiction(s) identified and that the designs comply with ANSI/TPI 1. These designs are based upon parameters shown (e.g., loads, supports, dimensions, shapes and design codes), which were given to MiTek or TRENCO. Any project specific information included is for MiTek's or TRENCO's customers file reference purpose only, and was not taken into account in the preparation of these designs. MiTek or TRENCO has not independently verified the applicability of the design parameters or the designs for any particular building. Before use, the building designer should verify applicability of design parameters and properly incorporate these designs into the overall building design per ANSI/TPI 1, Chapter 2.

Job	Truss	Truss Type	Qty	Ply	SUMMIT HOMES	144987034
H3-94	C1	GABLE	20	1	Job Reference (optional)	

Mid America Truss, Jefferson City, MO - 65101,

8.430 s Feb 12 2021 MiTek Industries, Inc. Fri Feb 26 15:29:44 2021 Page 1  
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LOADING (psf)		SPACING-		CSI.		DEFL.		PLATES		GRIP	
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.21	Vert(LL)	n/a	MT20	244/190		
Snow (Pf/Pg)	15.4/20.0	Lumber DOL	1.15	BC	0.08	Vert(CT)	n/a				
TCDL	10.0	Rep Stress Incr	YES	WB	0.02	Horz(CT)	0.00				
BCLL	0.0	Code IRC2018/TPI2014		Matrix-P							
BCDL	10.0										

#### LUMBER-

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

#### BRACING-

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

#### REACTIONS.

All bearings 8'-8"-0.  
(lb) - Max Horz 1=23(LC 8)  
Max Uplift All uplift 100 lb or less at joint(s) 2, 4 except 1=114(LC 16), 5=114(LC 17)  
Max Grav All reactions 250 lb or less at joint(s) 1, 5, 6 except 2=363(LC 16), 4=363(LC 17)

**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 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope); cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.33 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 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=15.4 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
- Unbalanced snow loads have been considered for this design.
- Plates checked for a plus or minus 3 degree rotation about its center.
- Gable requires continuous bottom chord bearing.
- Gable studs spaced at 2'-0" oc.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 4 except (jt=lb) 1=114, 5=114.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- See Standard Industry Piggyback Truss Connection Detail for Connection to base truss as applicable, or consult qualified building designer.



March 1, 2021

**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 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, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



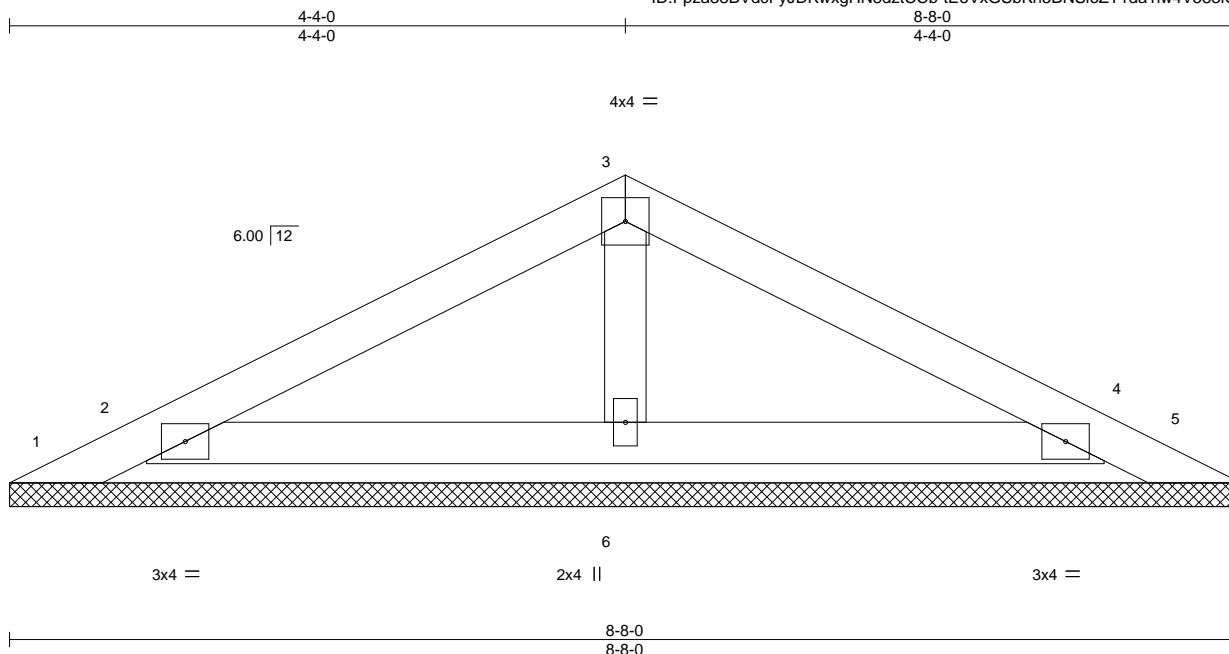
16023 Swingley Ridge Rd  
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	SUMMIT HOMES	144987035
H3-94	C1GE	GABLE	2	1	Job Reference (optional)	

Mid America Truss, Jefferson City, MO - 65101,

8.430 s Feb 12 2021 MiTek Industries, Inc. Fri Feb 26 15:29:45 2021 Page 1

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Scale = 1:16.2

LOADING (psf)		SPACING-		CSI.		DEFL.		PLATES		GRIP	
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.21	Vert(LL)	n/a	MT20		244/190	
Snow (Pf/Pg)	15.4/20.0	Lumber DOL	1.15	BC	0.08	Vert(CT)	n/a				
TCDL	10.0	Rep Stress Incr	YES	WB	0.02	Horz(CT)	0.00				
BCLL	0.0	Code IRC2018/TPI2014		Matrix-P							
BCDL	10.0										

#### LUMBER-

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

#### BRACING-

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

#### REACTIONS.

All bearings 8'-8"-0."  
(lb) - Max Horz 1=23(LC 8)  
Max Uplift All uplift 100 lb or less at joint(s) 2, 4 except 1=114(LC 16), 5=114(LC 17)  
Max Grav All reactions 250 lb or less at joint(s) 1, 5, 6 except 2=363(LC 16), 4=363(LC 17)

**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 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope); cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.33 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 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=15.4 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
- Unbalanced snow loads have been considered for this design.
- Plates checked for a plus or minus 3 degree rotation about its center.
- Gable requires continuous bottom chord bearing.
- Gable studs spaced at 2'-0" oc.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 4 except (jt=lb) 1=114, 5=114.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- See Standard Industry Piggyback Truss Connection Detail for Connection to base truss as applicable, or consult qualified building designer.



March 1, 2021

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**Safety Information** available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



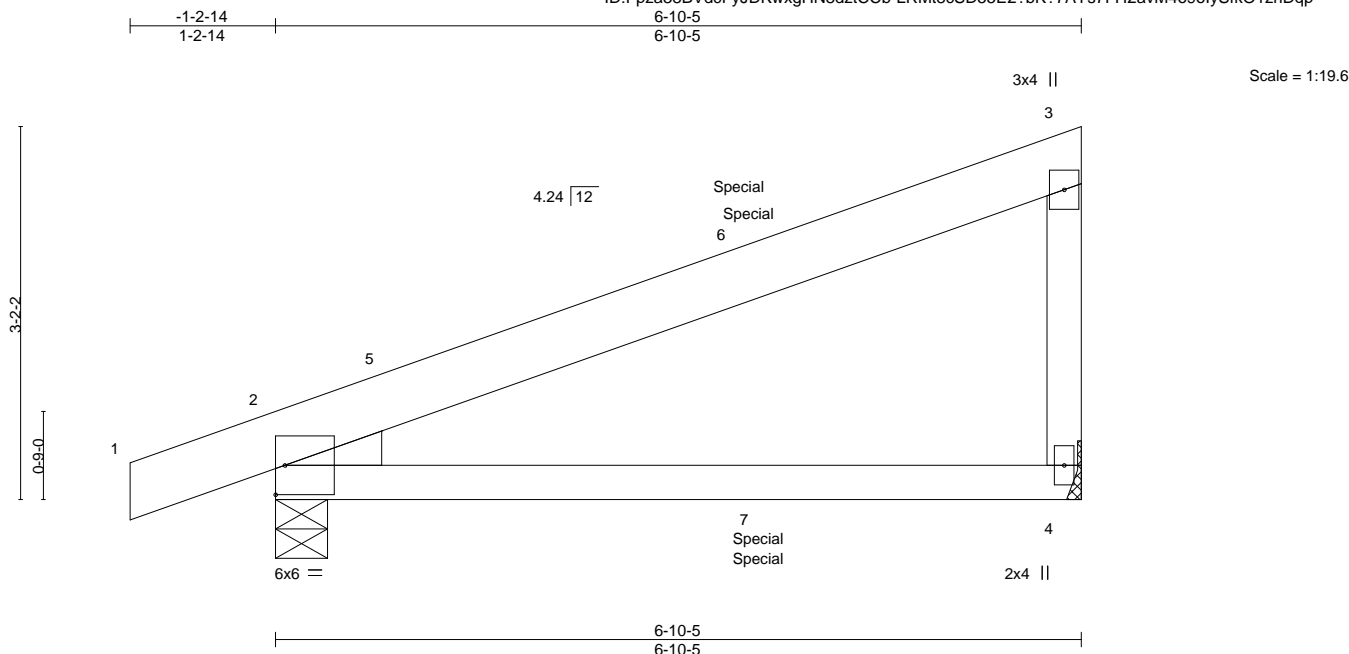
16023 Swingley Ridge Rd  
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	SUMMIT HOMES	I44987036
H3-94	CJ1	Diagonal Hip Girder	2	1	Job Reference (optional)	

Mid America Truss, Jefferson City, MO - 65101,

8.430 s Feb 12 2021 MiTek Industries, Inc. Fri Feb 26 15:29:46 2021 Page 1

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LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof) 20.0	2-0-0	TC 0.35	Vert(LL) 0.01	2-4	>999	360	MT20	244/190
Snow (Pf/Pg) 15.4/20.0	Plate Grip DOL 1.15	BC 0.42	Vert(CT) -0.12	2-4	>676	240		
TCDL 10.0	Lumber DOL 1.15	WB 0.00	Horz(CT) -0.00	4	n/a	n/a		
BCLL 0.0	Rep Stress Incr NO	Matrix-P						
BCDL 10.0	Code IRC2018/TPI2014						Weight: 35 lb	FT = 3%

#### LUMBER-

TOP CHORD 2x6 SP No.1  
BOT CHORD 2x4 SP No.2  
WEBS 2x4 SP No.2  
WEDGE  
Left: 2x4 SP No.2

#### BRACING-

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

#### REACTIONS.

(size) 4=Mechanical, 2=0-5-5  
Max Horz 2=94(LC 8)  
Max Uplift 4=27(LC 8), 2=60(LC 7)  
Max Grav 4=303(LC 16), 2=372(LC 16)

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

#### NOTES-

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope); cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.33 plate grip DOL=1.33
- 2) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=15.4 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
- 3) Unbalanced snow loads have been considered for this design.
- 4) This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 15.4 psf on overhangs non-concurrent with other live loads.
- 5) Plates checked for a plus or minus 3 degree rotation about its center.
- 6) Refer to girder(s) for truss to truss connections.
- 7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 4, 2.
- 8) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 9) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 64 lb down and 38 lb up at 4-1-7, and 64 lb down and 38 lb up at 4-1-7 on top chord, and 12 lb down and 5 lb up at 4-1-7, and 12 lb down and 5 lb up at 4-1-7 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
- 10) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

#### LOAD CASE(S) Standard

- 1) Dead + Snow (balanced): Lumber Increase=1.15, Plate Increase=1.15
- Uniform Loads (plf)  
Vert: 1-3=-51, 2-4=-20
- Concentrated Loads (lb)  
Vert: 6=-35(F=-18, B=-18) 7=-7(F=-3, B=-3)



March 1, 2021

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16023 Swingley Ridge Rd  
Chesterfield, MO 63017

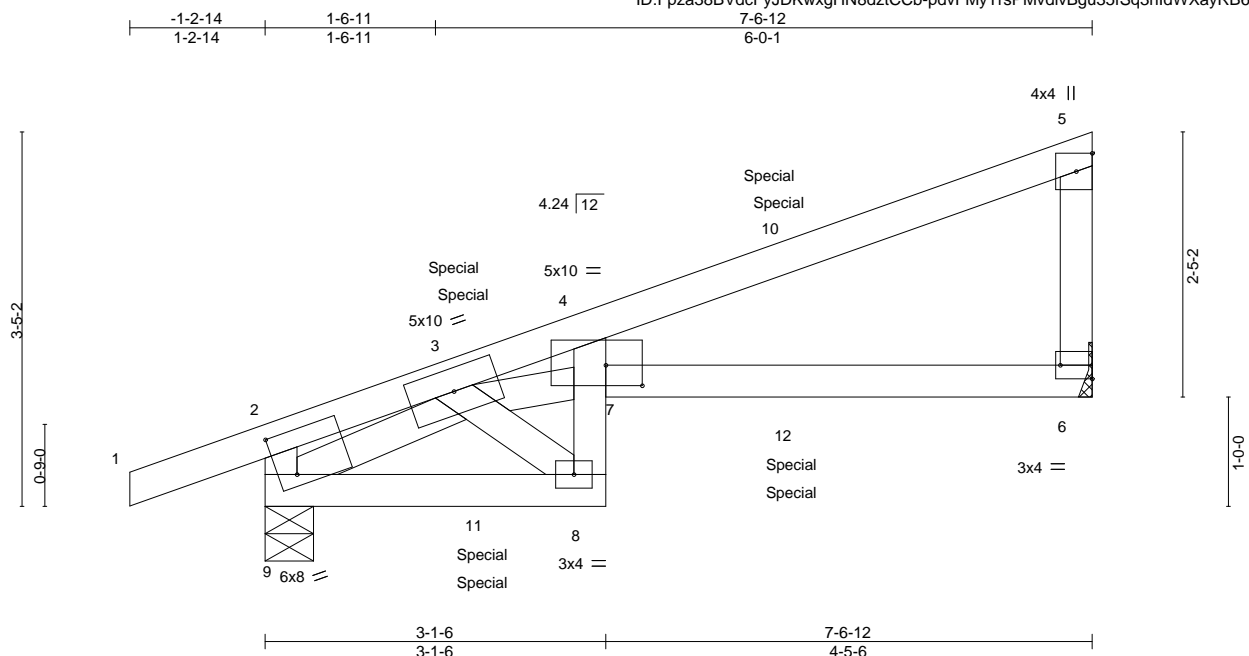


Plate Offsets (X,Y)-- [4:0-4-0,0-2-4], [6:Edge,0-1-8], [9:0-2-0,0-4-12]															
<b>LOADING</b> (psf)		<b>SPACING-</b>		<b>2-0-0</b>		<b>CSI.</b>		<b>DEFL.</b>		<b>in (loc)</b>		<b>l/defl</b>	<b>L/d</b>	<b>PLATES</b>	<b>GRIP</b>
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.96	Vert(LL)	-0.17	6-7	>512	360	MT20	244/190			
Snow (Pf/Pg)	15.4/20.0	Lumber DOL	1.15	BC	0.73	Vert(CT)	-0.28	6-7	>309	240					
TCDL	10.0	Rep Stress Incr	NO	WB	0.13	Horz(CT)	0.10	6	n/a	n/a					
BCLL	0.0	Code IRC2018/TPI2014		Matrix-SH											
BCDL	10.0														
												Weight: 36 lb	FT = 3%		

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

<b>BRACING- TOP CHORD</b>	Structural wood sheathing directly applied or 4-10-14 oc purlins, except end verticals.
<b>BOT CHORD</b>	Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS.** (size) 9=0-5-5, 6=Mechanical  
Max Horz 9=97(LC 30)  
Max Uplift 9=-68(LC 7), 6=-50(LC 11)  
Max Grav 9=408(LC 16), 6=373(LC 16)

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

TOP CHORD	3-4=-785/94
BOT CHORD	8-9=-76/383, 7-8=-39/252
WEBS	3-8=-327/80, 3-9=-452/49, 3-7=-99/549

**NOTES-**

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TC DL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope); cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.33 plate grip DOL=1.33
- 2) TLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=15.4 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
- 3) Unbalanced snow loads have been considered for this design.
- 4) This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 15.4 psf on overhangs non-concurrent with other live loads.
- 5) Plates checked for a plus or minus 3 degree rotation about its center.
- 6) Refer to girder(s) for truss to truss connections.
- 7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 9, 6.
- 8) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 9) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 49 lb down and 17 lb up at 1-11-15, 49 lb down and 17 lb up at 1-11-15, and 68 lb down and 32 lb up at 4-9-14, and 68 lb down and 32 lb up at 4-9-14 on top chord, and 4 lb down and 9 lb up at 1-11-15, 4 lb down and 9 lb up at 1-11-15, and 27 lb down and 23 lb up at 4-9-14, and 27 lb down and 23 lb up at 4-9-14 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
- 10) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

## LOAD CASE(S) Standard

- 1) Dead + Snow (balanced): Lumber Increase=1.15, Plate Increase=1.15  
Uniform Loads (plf)  
Vert: 1-2=-51, 2-5=-51, 8-9=-20, 6-7=-20  
Concentrated Loads (lb)  
Vert: 10=-32(F=-16, B=-16) 11=1(F=1, B=1) 12=-55(F=-27, B=-27)



March 1, 2021



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16023 Swingley Ridge Rd  
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	SUMMIT HOMES	I44987038
H3-94	GR1	PIGGYBACK BASE GIRDE	1	2	Job Reference (optional)	

Mid America Truss, Jefferson City, MO - 65101,

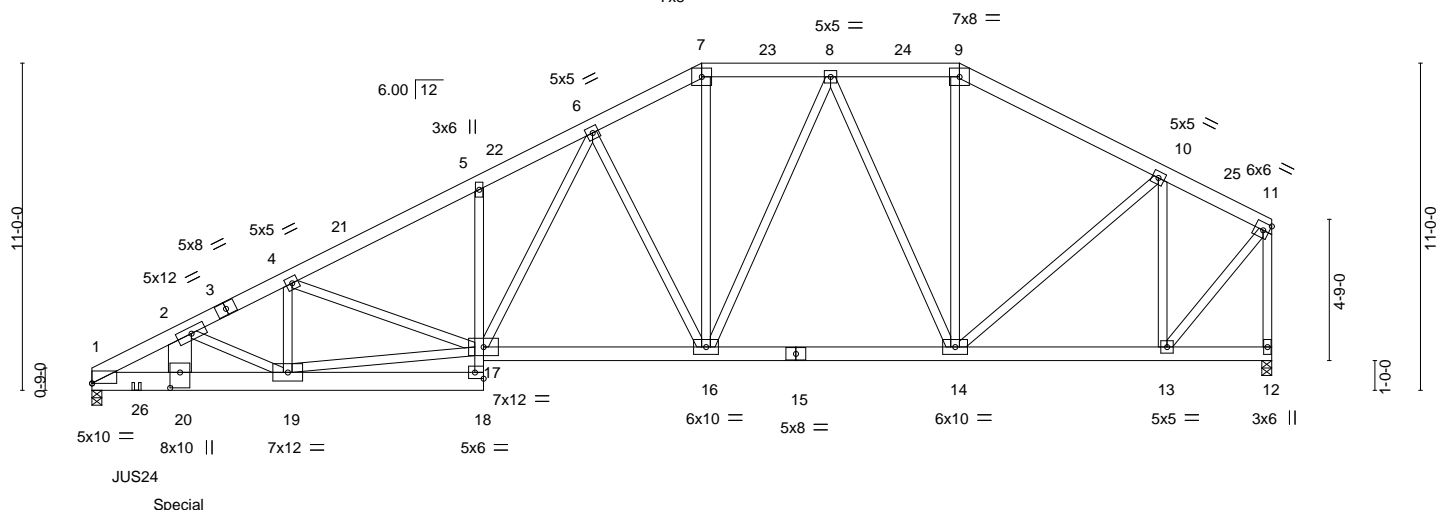
8.430 s Feb 12 2021 MiTek Industries, Inc. Fri Feb 26 15:29:51 2021 Page 1

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2-11-8	6-7-0	13-2-0	16-10-0	20-6-0	24-10-0	29-2-0	36-0-0	39-8-0
2-11-8	3-7-8	6-7-0	3-8-0	3-8-0	4-4-0	4-4-0	6-10-0	3-8-0

7x8 =

Scale = 1:77.5





Job	Truss	Truss Type	Qty	Ply	SUMMIT HOMES	I44987038
H3-94	GR1	PIGGYBACK BASE GIRDE	1	2	Job Reference (optional)	

Mid America Truss,
Jefferson City, MO - 65101,

8.430 s Feb 12 2021 MiTek Industries, Inc.
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Page 2
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**NOTES-**

13) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 7604 lb down at 2-11-8 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.

**LOAD CASE(S)** Standard

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

Uniform Loads (plf)

Vert: 1-5=-51, 5-7=-51, 7-9=-61, 9-11=-51, 1-18=-20, 12-17=-20

Concentrated Loads (lb)

Vert: 20=-7604(F) 26=-544(F)

Job	Truss	Truss Type	Qty	Ply	SUMMIT HOMES	144987039
H3-94	H1	Hip Girder	1	2	Job Reference (optional)	

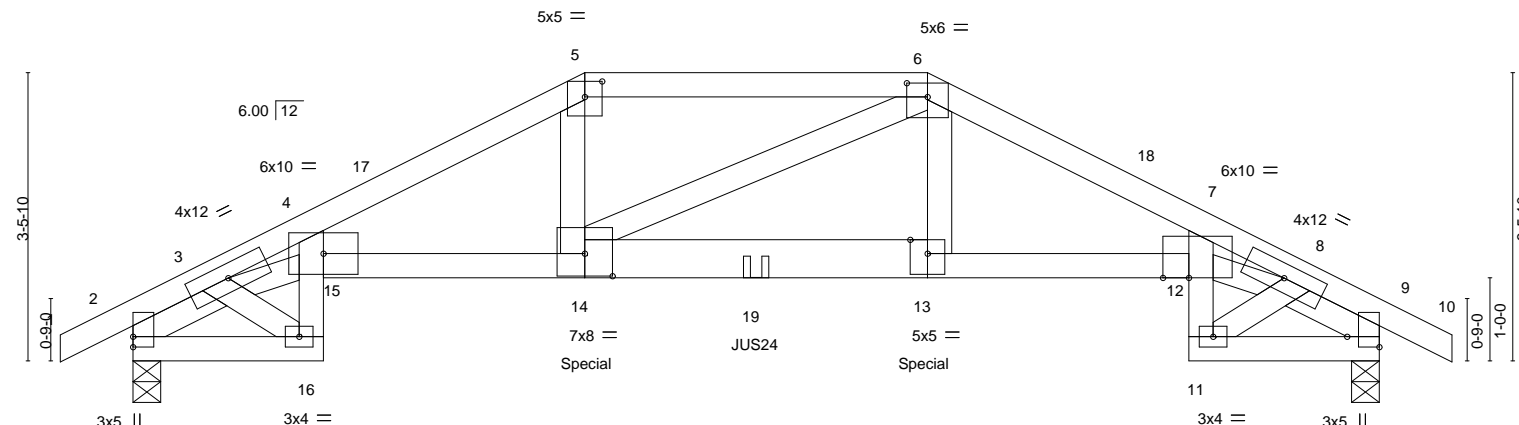
Mid America Truss, Jefferson City, MO - 65101,

8.430 s Feb 12 2021 MiTek Industries, Inc. Fri Feb 26 15:29:54 2021 Page 1

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0-10-8	1-1-12	2-3-8	5-5-4	9-6-12	12-8-8	13-10-4	15-0-0	15-10-8
0-10-8	1-1-12	1-1-12	3-1-12	4-1-8	3-1-12	1-1-12	1-1-12	0-10-8

Scale = 1:27.7



2-3-8	5-5-4	9-6-12	12-8-8	15-0-0
2-3-8	3-1-12	4-1-8	3-1-12	2-3-8

Plate Offsets (X,Y)-- [5:0-2-8,0-2-4], [6:0-3-0,0-2-0], [7:0-3-12,0-0-0], [9:Edge,0-4-10], [14:0-4-0,0-3-4]

LOADING (psf)	SPACING-	CSL	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof) 20.0	2-0-0	TC 0.92	Vert(LL) -0.14	14-15	>999	360	MT20	244/190
Snow (Pf/Pg) 20.4/20.0	Plate Grip DOL 1.15	BC 0.82	Vert(CT) -0.23	14-15	>768	240		
TCDL 10.0	Lumber DOL 1.15	WB 0.34	Horz(CT) 0.23	9	n/a	n/a		
BCLL 0.0	Rep Stress Incr NO	Matrix-SH						
BCDL 10.0	Code IRC2018/TPI2014						Weight: 159 lb	FT = 3%

**LUMBER-**  
TOP CHORD 2x4 SP No.2  
BOT CHORD 2x4 SP No.2 \*Except\*  
14-15,12-13: 2x4 SP No.1, 13-14: 2x6 SP No.1  
WEBS 2x4 SP No.2  
SLIDER Left 2x4 SP No.2 -t 1-2-2, Right 2x4 SP No.2 -t 1-2-2

**BRACING-**  
TOP CHORD Structural wood sheathing directly applied or 3-10-5 oc purlins.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS.** (size) 2=0-4-0, 9=0-4-0  
Max Horz 2=36(LC 8)  
Max Uplift 2=-128(LC 11), 9=-128(LC 12)  
Max Grav 2=1453(LC 34), 9=1453(LC 34)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
TOP CHORD 2-3=-1940/181, 3-4=-3972/385, 4-5=-3289/341, 5-6=-2967/329, 6-7=-3294/322,  
7-8=-3973/345, 8-9=-1939/180  
BOT CHORD 2-16=-140/1333, 15-16=-47/555, 4-15=-28/570, 14-15=-288/2971, 13-14=-242/2972,  
12-13=-242/2976, 11-12=-30/554, 7-12=-10/567, 9-11=-106/1332  
WEBS 3-16=-863/93, 5-14=-101/1072, 6-13=-107/1075, 8-11=-863/65, 3-15=-268/2791,  
8-12=-212/2792

- 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: 2x4 - 1 row at 0-9-0 oc, 2x6 - 2 rows staggered at 0-9-0 oc.  
Webs connected as follows: 2x4 - 1 row at 0-9-0 oc.
  - All loads are considered equally applied to all plies, except if noted as front (F) or back (B) face in the LOAD CASE(S) section. Ply to ply connections have been provided to distribute only loads noted as (F) or (B), unless otherwise indicated.
  - Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope); cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.33 plate grip DOL=1.33
  - TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10, Lu=50-0-0 Rain surcharge applied to all exposed surfaces with slopes less than 0.500/12 in accordance with IBC 1608.3.4.
  - 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 15.4 psf on overhangs non-concurrent with other live loads.
  - Provide adequate drainage to prevent water ponding.
  - Plates checked for a plus or minus 3 degree rotation about its center.
  - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=128, 9=128.
  - This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and conforms to standard ANSI/TPI 1.



March 1, 2021

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**Safety Information** available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



16023 Swingley Ridge Rd  
Chesterfield, MO 63017



Job	Truss	Truss Type	Qty	Ply	SUMMIT HOMES
H3-94	H1	Hip Girder	1	2	I44987039

Mid America Truss, Jefferson City, MO - 65101,

8.430 s Feb 12 2021 MiTek Industries, Inc. Fri Feb 26 15:29:55 2021 Page 2

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**NOTES-**

- 12) Use USP JUS24 (With 4-10d nails into Girder & 2-10d nails into Truss) or equivalent at 7-6-0 from the left end to connect truss(es) to front face of bottom chord, skewed 0.0 deg.to the right, sloping 0.0 deg. down.
- 13) Fill all nail holes where hanger is in contact with lumber.
- 14) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 576 lb down and 122 lb up at 5-5-4, and 576 lb down and 122 lb up at 9-6-0 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.

**LOAD CASE(S)** Standard

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

Uniform Loads (plf)

Vert: 1-5=-51, 5-6=-61, 6-10=-51, 2-16=-20, 12-15=-20, 9-11=-20

Concentrated Loads (lb)

Vert: 14=-576(F) 13=-576(F) 19=-231(F)

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**Safety Information** available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601

**ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component**



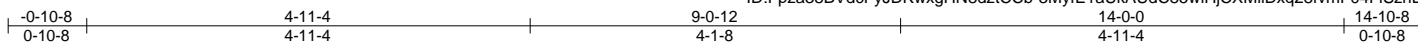
16023 Swingley Ridge Rd  
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	SUMMIT HOMES	144987040
H3-94	H2	Hip Girder	1	2	Job Reference (optional)	

Mid America Truss, Jefferson City, MO - 65101,

8.430 s Feb 12 2021 MiTek Industries, Inc. Fri Feb 26 15:29:56 2021 Page 1

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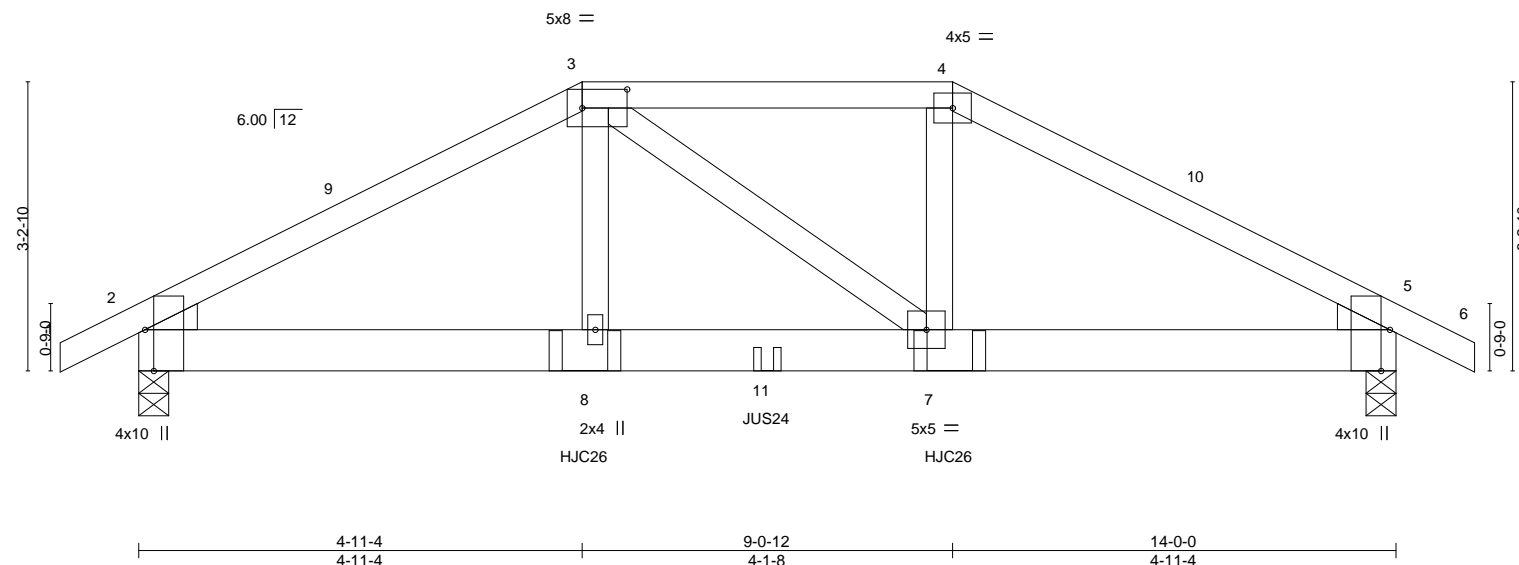


Plate Offsets (X,Y)-- [2:0-5-8,Edge], [3:0-6-0,0-2-8], [5:0-5-8,Edge]									
<b>LOADING</b> (psf)		<b>SPACING-</b>	2-0-0	<b>CSI.</b>		<b>DEFL.</b>	in (loc)	l/defl	L/d
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.40	Vert(LL)	-0.02	7-8	>999
Snow (Pf/Pg)	20.4/20.0	Lumber DOL	1.15	BC	0.25	Vert(CT)	-0.04	7-8	>999
TCDL	10.0	Rep Stress Incr	NO	WB	0.09	Horz(CT)	0.01	5	n/a
BCLL	0.0	Code IRC2018/TPI2014		Matrix-P					
BCDL	10.0								
								<b>PLATES</b>	<b>GRIP</b>
								MT20	244/190
								Weight: 148 lb	FT = 3%

#### LUMBER-

TOP CHORD 2x4 SP No.2  
BOT CHORD 2x6 SP No.1  
WEBS 2x4 SP No.2  
WEDGE

Left: 2x4 SP No.2 , Right: 2x4 SP No.2

#### 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=0-4-0, 5=0-4-0  
Max Horz 2=-33(LC 55)  
Max Uplift 2=-101(LC 11), 5=-101(LC 12)  
Max Grav 2=1288(LC 34), 5=1288(LC 34)

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

TOP CHORD 2-3=-1942/161, 3-4=-1623/167, 4-5=-1942/161  
BOT CHORD 2-8=-130/1590, 7-8=-132/1625, 5-7=-111/1590  
WEBS 3-8=-37/680, 4-7=-49/712

#### NOTES-

- 1) 2-ply truss to be connected together with 10d (0.131"x3") nails as follows:  
Top chords connected as follows: 2x4 - 1 row at 0-9-0 oc.  
Bottom chords connected as follows: 2x6 - 2 rows staggered at 0-9-0 oc.  
Webs connected as follows: 2x4 - 1 row at 0-9-0 oc.
- 2) 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.
- 3) Unbalanced roof live loads have been considered for this design.
- 4) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope); cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.33 plate grip DOL=1.33
- 5) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=20.4 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10, Lu=50-0-0 Rain surcharge applied to all exposed surfaces with slopes less than 0.500/12 in accordance with IBC 1608.3.4.
- 6) Unbalanced snow loads have been considered for this design.
- 7) This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 15.4 psf on overhangs non-concurrent with other live loads.
- 8) Provide adequate drainage to prevent water ponding.
- 9) Plates checked for a plus or minus 3 degree rotation about its center.
- 10) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=101, 5=101.
- 11) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 12) Use USP HJC26 (With 16-16d nails into Girder & 10d nails into Truss) or equivalent spaced at 4-0-12 oc max. starting at 4-11-10 from the left end to 9-0-6 to connect truss(es) to back face of bottom chord.

Continued on page 2



March 1, 2021

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**ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component**

**Safety Information** available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



16023 Swingley Ridge Rd  
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	SUMMIT HOMES
H3-94	H2	Hip Girder	1	2	I44987040
					Job Reference (optional)

- NOTES-**
- 13) Use USP JUS24 (With 4-10d nails into Girder & 2-10d nails into Truss) or equivalent at 7-0-0 from the left end to connect truss(es) to back face of bottom chord.
- 14) 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 (plf)

Vert: 1-3=-51, 3-4=-61, 4-6=-51, 2-5=-20

Concentrated Loads (lb)

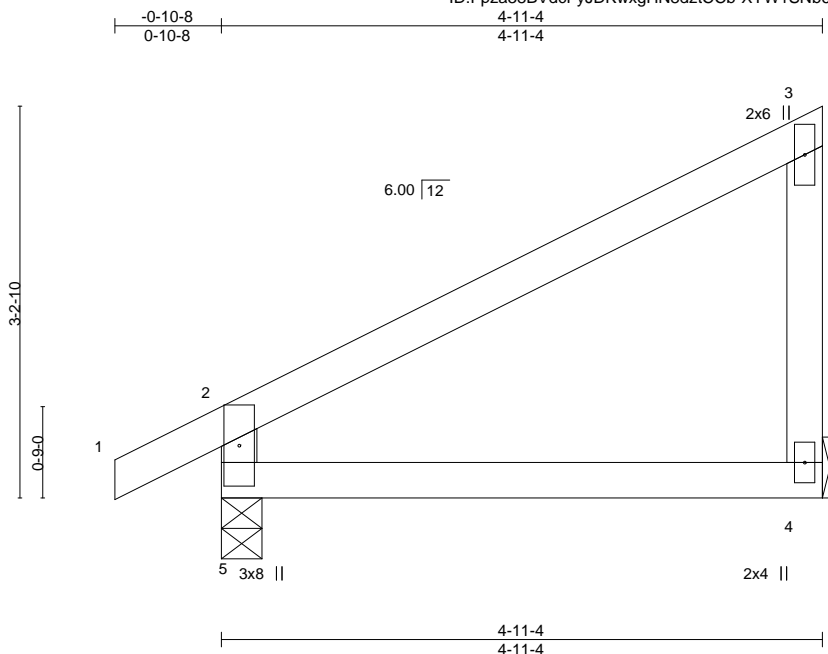
Vert: 8=-480(B) 7=-480(B) 11=-206(B)

Job	Truss	Truss Type	Qty	Ply	SUMMIT HOMES	144987041
H3-94	J1	Jack-Closed	3	1	Job Reference (optional)	

Mid America Truss, Jefferson City, MO - 65101,

8.430 s Feb 12 2021 MiTek Industries, Inc. Fri Feb 26 15:29:57 2021 Page 1

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Scale = 1:18.9

LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof) 20.0	2-0-0	TC 0.36	Vert(LL) -0.01	4-5	>999	360	MT20	244/190
Snow (Pf/Pg) 15.4/20.0	Plate Grip DOL 1.15	BC 0.16	Vert(CT) -0.03	4-5	>999	240		
TCDL 10.0	Lumber DOL 1.15	WB 0.00	Horz(CT) -0.00	4	n/a	n/a		
BCLL 0.0	Rep Stress Incr YES	Matrix-R						
BCDL 10.0	Code IRC2018/TPI2014						Weight: 22 lb	FT = 3%

#### LUMBER-

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

#### BRACING-

TOP CHORD Structural wood sheathing directly applied or 4-11-4 oc purlins, except end verticals.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

#### REACTIONS.

(size) 5=0-4-0, 4=Mechanical  
Max Horz 5=99(LC 10)  
Max Uplift 5=-11(LC 11), 4=-20(LC 8)  
Max Grav 5=289(LC 16), 4=226(LC 16)

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

TOP CHORD 2-5=-258/45

#### NOTES-

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope); cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.33 plate grip DOL=1.33
- 2) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=15.4 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
- 3) Unbalanced snow loads have been considered for this design.
- 4) This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 15.4 psf on overhangs non-concurrent with other live loads.
- 5) Plates checked for a plus or minus 3 degree rotation about its center.
- 6) Refer to girder(s) for truss to truss connections.
- 7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 5, 4.
- 8) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



March 1, 2021

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ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component

Safety Information available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



16023 Swingley Ridge Rd  
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	SUMMIT HOMES	144987042
H3-94	J2	Jack-Open	4	1	Job Reference (optional)	

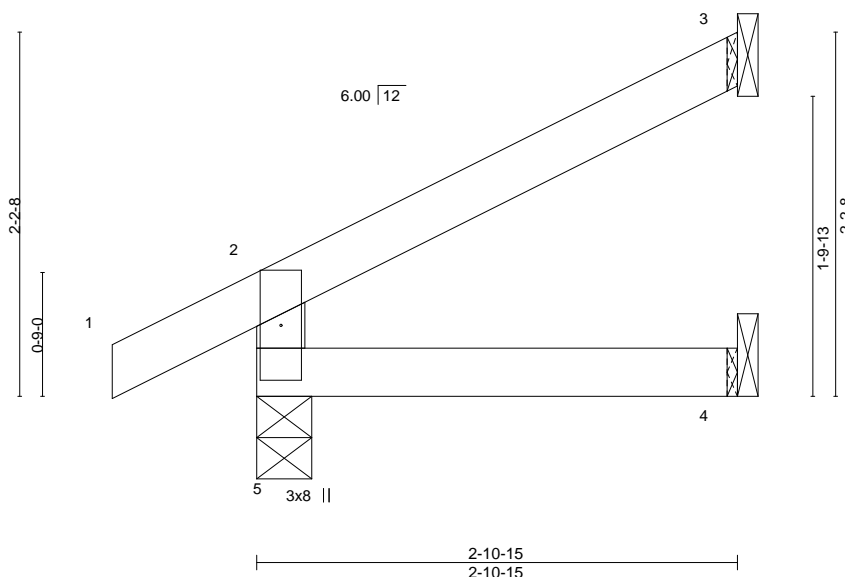
Mid America Truss, Jefferson City, MO - 65101,

8.430 s Feb 12 2021 MiTek Industries, Inc. Fri Feb 26 15:29:58 2021 Page 1

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-0-10-8  
0-10-8  
2-10-15  
2-10-15

Scale = 1:14.0



LOADING (psf)		SPACING-		CSI.		DEFL.		PLATES		GRIP	
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.12	Vert(LL)	0.00 4-5 >999 360	MT20		244/190	
Snow (Pf/Pg)	15.4/20.0	Lumber DOL	1.15	BC	0.05	Vert(CT)	-0.00 4-5 >999 240				
TCDL	10.0	Rep Stress Incr	YES	WB	0.00	Horz(CT)	-0.00 3 n/a n/a				
BCLL	0.0	Code IRC2018/TPI2014		Matrix-R							
BCDL	10.0										

Weight: 11 lb FT = 3%

#### LUMBER-

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

#### BRACING-

TOP CHORD Structural wood sheathing directly applied or 2-10-15 oc purlins, except end verticals.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

#### REACTIONS.

(size) 5=0-4-0, 3=Mechanical, 4=Mechanical  
Max Horz 5=46(LC 11)  
Max Uplift 5=-1(LC 11), 3=-30(LC 11)  
Max Grav 5=221(LC 16), 3=86(LC 16), 4=29(LC 16)

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

#### NOTES-

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope); cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.33 plate grip DOL=1.33
- 2) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=15.4 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
- 3) Unbalanced snow loads have been considered for this design.
- 4) This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 15.4 psf on overhangs non-concurrent with other live loads.
- 5) Plates checked for a plus or minus 3 degree rotation about its center.
- 6) Refer to girder(s) for truss to truss connections.
- 7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 5, 3.
- 8) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



March 1, 2021

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ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component

Safety Information available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



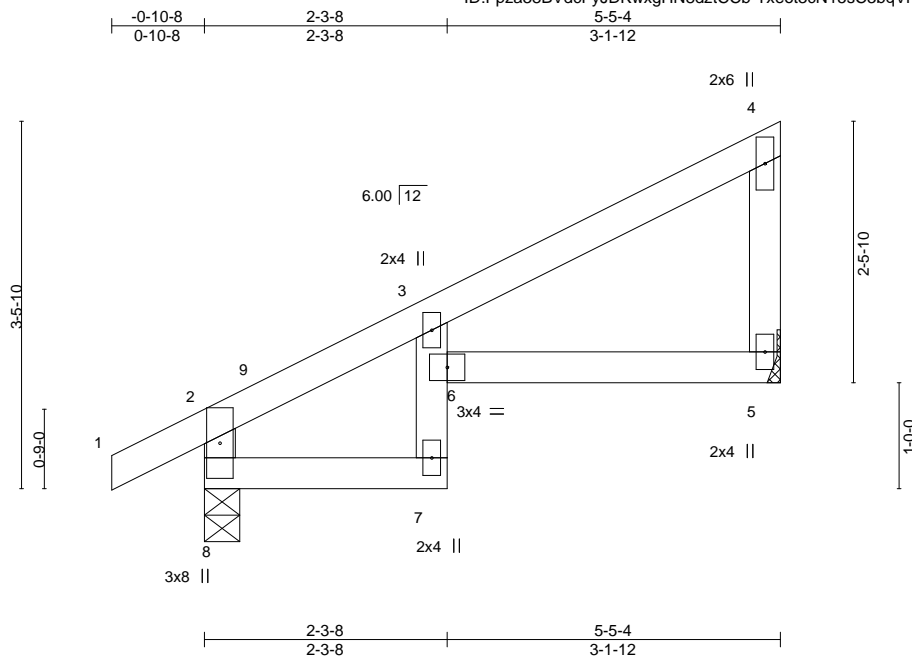
16023 Swingley Ridge Rd  
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	SUMMIT HOMES
H3-94	J3	Jack-Closed	3	1	144987043

Mid America Truss, Jefferson City, MO - 65101,

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Scale = 1:21.8

LOADING (psf)	SPACING-	CS.	DEFL.	PLATES	GRIP
TCLL (roof) 20.0	2-0-0	TC 0.37	in (loc) l/defl L/d	MT20	244/190
Snow (Pf/Pg) 15.4/20.0	Plate Grip DOL 1.15	BC 0.35	Vert(LL) -0.05 6 >999 360		
TCDL 10.0	Lumber DOL 1.15	WB 0.00	Vert(CT) -0.08 6 >787 240		
BCLL 0.0	Rep Stress Incr YES	Matrix-R	Horz(CT) 0.04 5 n/a n/a		
BCDL 10.0	Code IRC2018/TPI2014			Weight: 24 lb	FT = 3%

#### LUMBER-

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

#### BRACING-

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

#### REACTIONS.

(size) 8=0-4-0, 5=Mechanical  
Max Horz 8=95(LC 8)  
Max Uplift 8=-10(LC 11), 5=-23(LC 11)  
Max Grav 8=300(LC 16), 5=251(LC 16)

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

TOP CHORD 2-8=-278/28

#### NOTES-

- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope); cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.33 plate grip DOL=1.33
- TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=15.4 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
- Unbalanced snow loads have been considered for this design.
- This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 15.4 psf on overhangs non-concurrent with other live loads.
- Plates checked for a plus or minus 3 degree rotation about its center.
- Refer to girder(s) for truss to truss connections.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 8, 5.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



March 1, 2021

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16023 Swingley Ridge Rd  
Chesterfield, MO 63017

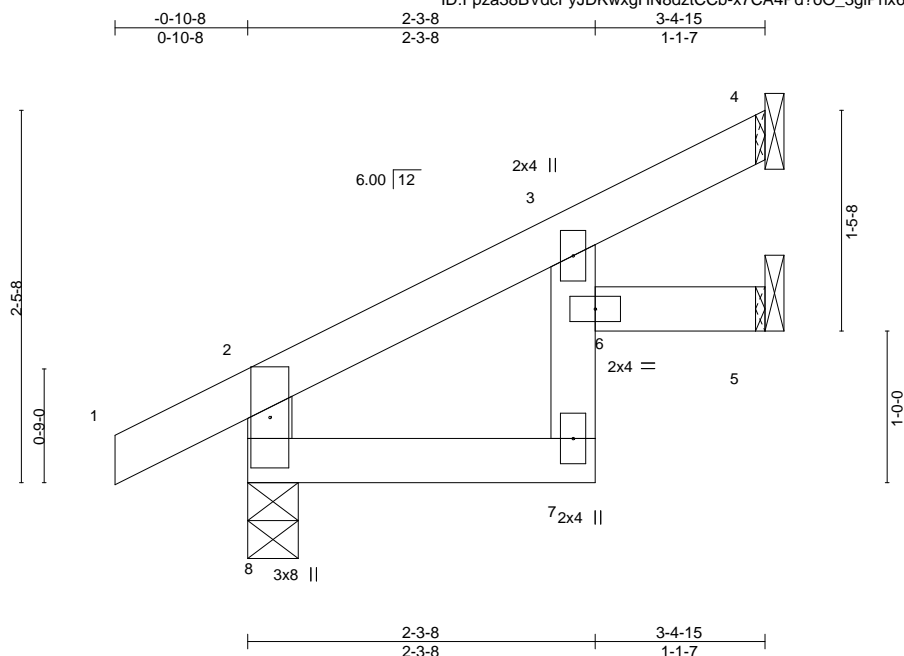


Job	Truss	Truss Type	Qty	Ply	SUMMIT HOMES
H3-94	J4	Jack-Open	4	1	144987044

Mid America Truss, Jefferson City, MO - 65101,

8.430 s Feb 12 2021 MiTek Industries, Inc. Fri Feb 26 15:30:00 2021 Page 1

ID:Fpza38BVdcFyJDKwxgHN8dzCCb-x7CA4Pd?oO\_3glPhx6o8hCsWeYD64UGMAe2TuDzhDqb



Scale = 1:15.2

LOADING (psf)		SPACING-		CSI.		DEFL.		PLATES		GRIP	
TCLL (roof)	20.0	2-0-0		TC	0.12	in (loc)	l/defl	L/d	MT20	244/190	
Snow (Pf/Pg)	15.4/20.0	Plate Grip DOL	1.15	BC	0.11	Vert(LL)	-0.01 6 >999	360			
TCDL	10.0	Lumber DOL	1.15	WB	0.00	Vert(CT)	-0.01 7 >999	240			
BCLL	0.0	Rep Stress Incr	YES	Matrix-R		Horz(CT)	0.00 5 n/a	n/a			
BCDL	10.0	Code IRC2018/TPI2014							Weight: 15 lb	FT = 3%	

#### LUMBER-

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

#### BRACING-

TOP CHORD Structural wood sheathing directly applied or 3-4-15 oc purlins, except end verticals.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

#### REACTIONS.

(size) 8=0-4-0, 4=Mechanical, 5=Mechanical  
Max Horz 8=53(LC 11)  
Max Uplift 4=-19(LC 11), 5=-5(LC 11)  
Max Grav 8=247(LC 16), 4=88(LC 16), 5=56(LC 16)

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

#### NOTES-

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope); cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.33 plate grip DOL=1.33
- 2) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=15.4 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
- 3) Unbalanced snow loads have been considered for this design.
- 4) This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 15.4 psf on overhangs non-concurrent with other live loads.
- 5) Plates checked for a plus or minus 3 degree rotation about its center.
- 6) Refer to girder(s) for truss to truss connections.
- 7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 4, 5.
- 8) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



March 1, 2021

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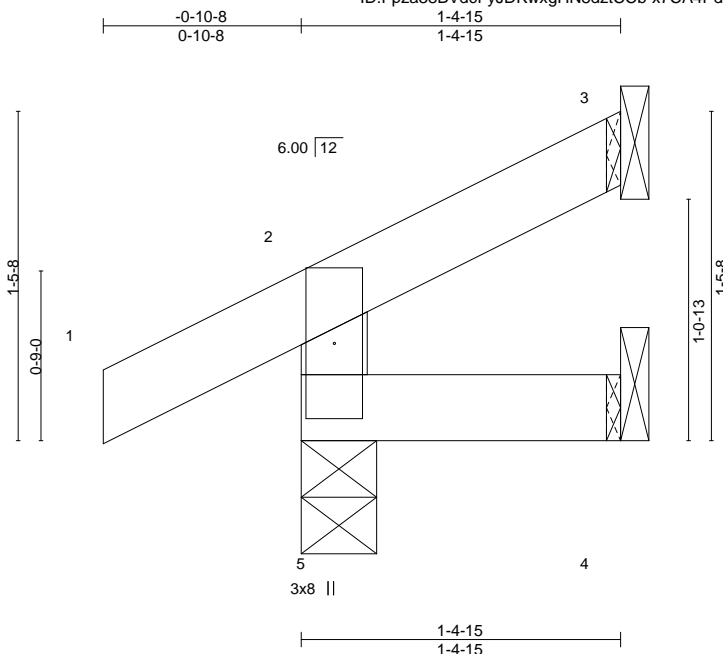
16023 Swingley Ridge Rd  
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	SUMMIT HOMES
H3-94	J5	Jack-Open	4	1	144987045
Job Reference (optional)					

Mid America Truss, Jefferson City, MO - 65101,

8.430 s Feb 12 2021 MiTek Industries, Inc. Fri Feb 26 15:30:00 2021 Page 1

ID:Fpza38BVdcFyJDKwxgHN8dztCCb-x7CA4Pd?oO\_3glPhx6o8hCsW0YEO4UGMAe2TuDzhDqb



Scale = 1:10.2

<b>LOADING</b> (psf)	<b>SPACING-</b>	<b>CSI.</b>	<b>DEFL.</b>	<b>PLATES</b>	<b>GRIP</b>
TCLL (roof) 20.0	2-0-0	TC 0.10	in (loc) l/defl L/d	MT20	244/190
Snow (Pf/Pg) 15.4/20.0	Plate Grip DOL 1.15	BC 0.03	Vert(LL) 0.00 5 >999 360		
TCDL 10.0	Lumber DOL 1.15	WB 0.00	Vert(CT) 0.00 5 >999 240		
BCLL 0.0	Rep Stress Incr YES	Matrix-R	Horz(CT) -0.00 3 n/a n/a		
BCDL 10.0	Code IRC2018/TPI2014			Weight: 7 lb	FT = 3%

#### LUMBER-

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

#### BRACING-

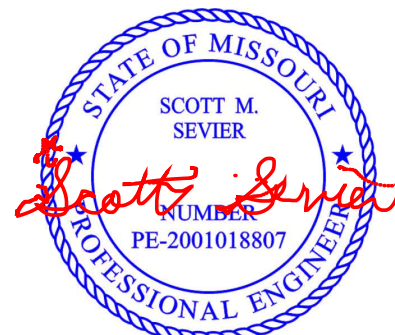
TOP CHORD Structural wood sheathing directly applied or 1-4-15 oc purlins, except end verticals.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS.** (size) 5=0-4-0, 3=Mechanical, 4=Mechanical  
Max Horz 5=30(LC 8)  
Max Uplift 5=-5(LC 11), 3=-14(LC 11)  
Max Grav 5=157(LC 16), 3=22(LC 16), 4=12(LC 9)

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

#### NOTES-

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope); cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.33 plate grip DOL=1.33
- 2) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=15.4 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
- 3) Unbalanced snow loads have been considered for this design.
- 4) This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 15.4 psf on overhangs non-concurrent with other live loads.
- 5) Plates checked for a plus or minus 3 degree rotation about its center.
- 6) Refer to girder(s) for truss to truss connections.
- 7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 5, 3.
- 8) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



March 1, 2021

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**ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component**

**Safety Information** available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



16023 Swingley Ridge Rd  
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	SUMMIT HOMES	144987046
H3-94	T1	Common	4	1	Job Reference (optional)	

Mid America Truss, Jefferson City, MO - 65101,

8.430 s Feb 12 2021 MiTek Industries, Inc. Fri Feb 26 15:30:01 2021 Page 1

ID:Fpza38BVdcFyJDKwxgHN8dztCCb-PJmYIkedZi6wlvztVqJNEPPaJyQwpu6VPIn0QfzhDqa

0-10-8	4-8-14	10-2-0	15-7-2	20-4-0	21-2-8
0-10-8	4-8-14	5-5-2	5-5-2	4-8-14	0-10-8

Scale = 1:37.9

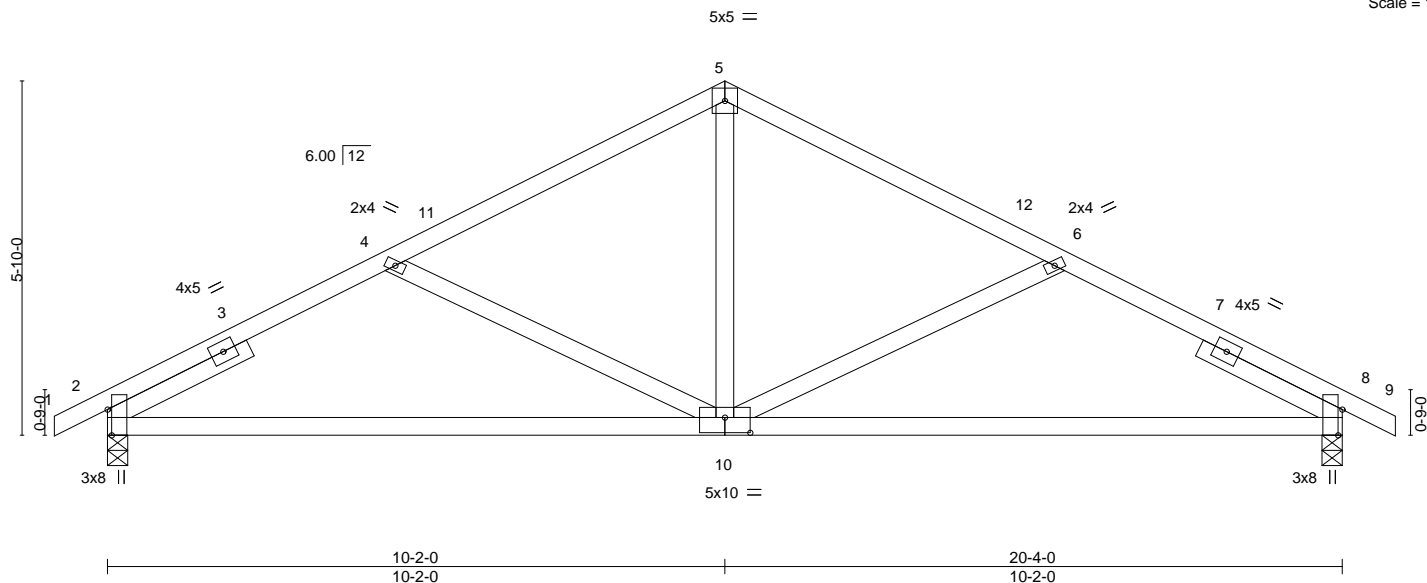


Plate Offsets (X, Y)-- [2:0-5-1,Edge], [8:0-5-1,Edge], [10:0-5-0,0-3-0]		10-2-0 10-2-0		20-4-0 10-2-0	
<b>LOADING</b> (psf)		<b>SPACING-</b>	2-0-0	<b>CSI.</b>	
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.57
Snow (Pf/Pg)	15.4/20.0	Lumber DOL	1.15	BC	0.65
TCDL	10.0	Rep Stress Incr	YES	WB	0.22
BCLL	0.0	Code IRC2018/TPI2014		Matrix-SH	
BCDL	10.0				
				<b>DEFL.</b>	
				in (loc)	I/defl L/d
				Vert(LL)	-0.04 10 >999 360
				Vert(CT)	-0.18 2-10 >999 240
				Horz(CT)	0.04 8 n/a n/a
				<b>PLATES</b>	<b>GRIP</b>
				MT20	244/190
				Weight: 101 lb	FT = 3%

#### LUMBER-

TOP CHORD 2x4 SP No.2  
BOT CHORD 2x4 SP No.2  
WEBS 2x4 SP No.2  
SLIDER Left 2x4 SP No.2 -t 2-7-6, Right 2x4 SP No.2 -t 2-7-6

#### BRACING-

TOP CHORD Structural wood sheathing directly applied or 5-0-15 oc purlins.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

#### REACTIONS.

(size) 2=0-4-0, 8=0-4-0  
Max Horz 2=63(LC 8)  
Max Uplift 2=-20(LC 11), 8=-20(LC 12)  
Max Grav 2=866(LC 2), 8=866(LC 2)

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

TOP CHORD 2-4=-1272/66, 4-5=-962/32, 5-6=-962/32, 6-8=-1272/66  
BOT CHORD 2-10=-56/1055, 8-10=0/1055  
WEBS 5-10=0/458, 6-10=-328/127, 4-10=-328/127

#### NOTES-

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope); cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.33 plate grip DOL=1.33
- 3) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=15.4 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
- 4) Unbalanced snow loads have been considered for this design.
- 5) This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 15.4 psf on overhangs non-concurrent with other live loads.
- 6) Plates checked for a plus or minus 3 degree rotation about its center.
- 7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 8.
- 8) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



March 1, 2021

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16023 Swingley Ridge Rd  
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	SUMMIT HOMES	144987047
H3-94	T1G	Roof Special Girder	1	2	Job Reference (optional)	

Mid America Truss, Jefferson City, MO - 65101,

8.430 s Feb 12 2021 MiTek Industries, Inc. Fri Feb 26 15:30:15 2021 Page 1

ID:Fpza38BVdcFyJDKwxgHN8dztCCb-70crEXpPG?tx\_32ZJmZgoM\_2Zblr58VZdTAmwrzhDqM

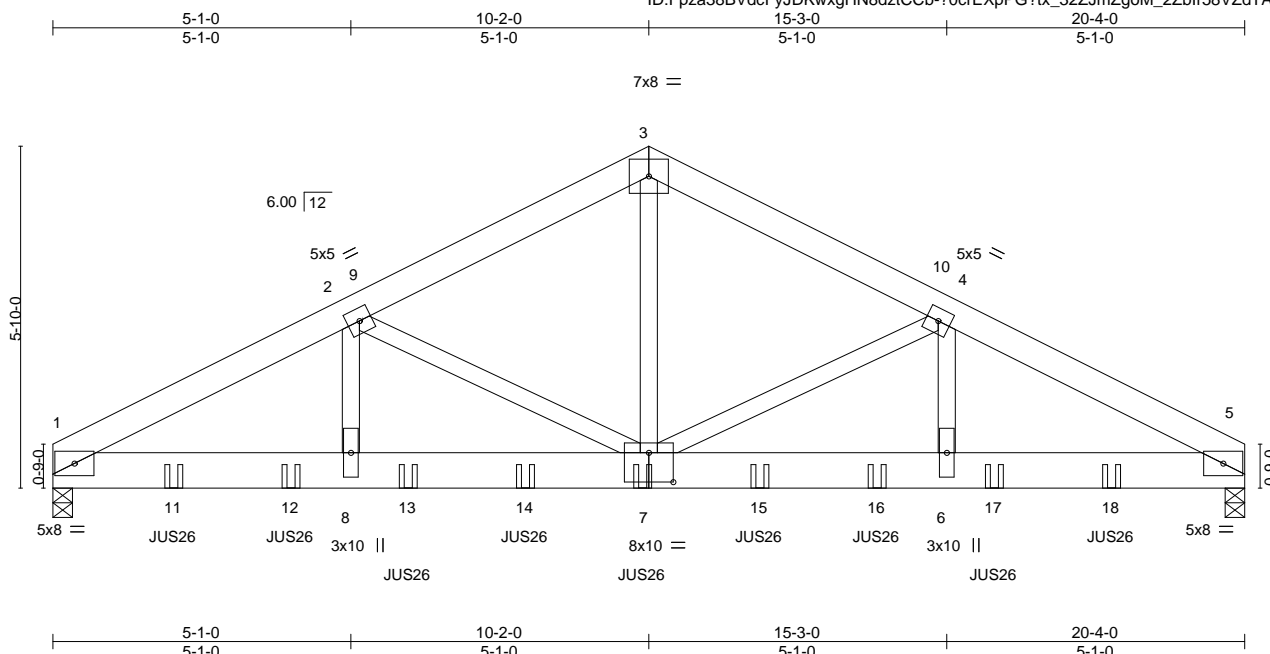


Plate Offsets (X,Y)-- [7:0-5-0,0-6-0]

LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in	(loc)	I/defl	L/d	PLATES	GRIP
TCLL (roof) 20.0	Plate Grip DOL	1.15	TC 0.20	Vert(LL)	-0.06	6-7	>999	360	MT20	244/190
Snow (Pf/Pg) 15.4/20.0	Lumber DOL	1.15	BC 0.29	Vert(CT)	-0.13	6-7	>999	240		
TCDL 10.0	Rep Stress Incr	NO	WB 0.54	Horz(CT)	0.04	5	n/a	n/a		
BCLL 0.0	Code IRC2018/TPI2014		Matrix-SH							
BCDL 10.0									Weight: 292 lb	FT = 3%

#### LUMBER-

TOP CHORD 2x6 SP No.1  
BOT CHORD 2x8 SP 2400F 2.0E  
WEBS 2x4 SP No.2

#### BRACING-

TOP CHORD Structural wood sheathing directly applied or 5-11-8 oc purlins.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

#### REACTIONS.

(size) 1=0-4-0, 5=0-4-0  
Max Horz 1=60(LC 33)  
Max Uplift 1=100(LC 11), 5=98(LC 12)  
Max Grav 1=4471(LC 2), 5=4404(LC 2)

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

TOP CHORD 1-2=-7614/179, 2-3=-5408/155, 3-4=-5408/155, 4-5=-7616/180  
BOT CHORD 1-8=-162/6612, 7-8=-162/6612, 6-7=-108/6612, 5-6=-108/6612  
WEBS 3-7=-70/4421, 4-7=-2083/123, 4-6=0/1978, 2-7=-2083/122, 2-8=0/1973

#### NOTES-

- 2-ply truss to be connected together with 10d (0.131"x3") nails as follows:  
Top chords connected as follows: 2x6 - 2 rows staggered at 0-9-0 oc.  
Bottom chords connected as follows: 2x8 - 2 rows staggered at 0-9-0 oc.  
Webs connected as follows: 2x4 - 1 row at 0-9-0 oc.
- All loads are considered equally applied to all plies, except if noted as front (F) or back (B) face in the LOAD CASE(S) section. Ply to ply connections have been provided to distribute only loads noted as (F) or (B), unless otherwise indicated.
- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope); cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.33 plate grip DOL=1.33
- TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=15.4 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
- Unbalanced snow loads have been considered for this design.
- Plates checked for a plus or minus 3 degree rotation about its center.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 5.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- Use USP JUS26 (With 4-10d nails into Girder & 4-10d nails into Truss) or equivalent spaced at 2-0-0 oc max. starting at 2-0-12 from the left end to 18-0-12 to connect truss(es) to back face of bottom chord.
- 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 (plf)  
Vert: 1-3=-51, 3-5=-51, 1-5=-20

Continued on page 2



March 1, 2021

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16023 Swingley Ridge Rd  
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	SUMMIT HOMES
H3-94	T1G	Roof Special Girder	1	<b>2</b>	I44987047
					Job Reference (optional)

Mid America Truss, Jefferson City, MO - 65101,

8.430 s Feb 12 2021 MiTek Industries, Inc. Fri Feb 26 15:30:15 2021 Page 2  
ID:Fpza38BVdcFyJDKwxgHN8dztCCb-?0crEXpPG?tx\_32ZJmZgoM\_2Zblr58VZdTAmwrzhDqM

**LOAD CASE(S)** Standard  
Concentrated Loads (lb)  
Vert: 7=-738(B) 11=-738(B) 12=-738(B) 13=-738(B) 14=-738(B) 15=-738(B) 16=-738(B) 17=-738(B) 18=-738(B)



Job	Truss	Truss Type	Qty	Ply	SUMMIT HOMES	I44987048
H3-94	T1GE	Common Supported Gable	1	1	Job Reference (optional)	

Mid America Truss, Jefferson City, MO - 65101,

8.430 s Feb 12 2021 MiTek Industries, Inc. Fri Feb 26 15:30:16 2021 Page 1

ID:Fpza38BVdcFyJDKwxgHN8dztCCb-TCADRtq11J?obDdmT4vKaXFU\_hCqjFjs7wJSlzhDqL

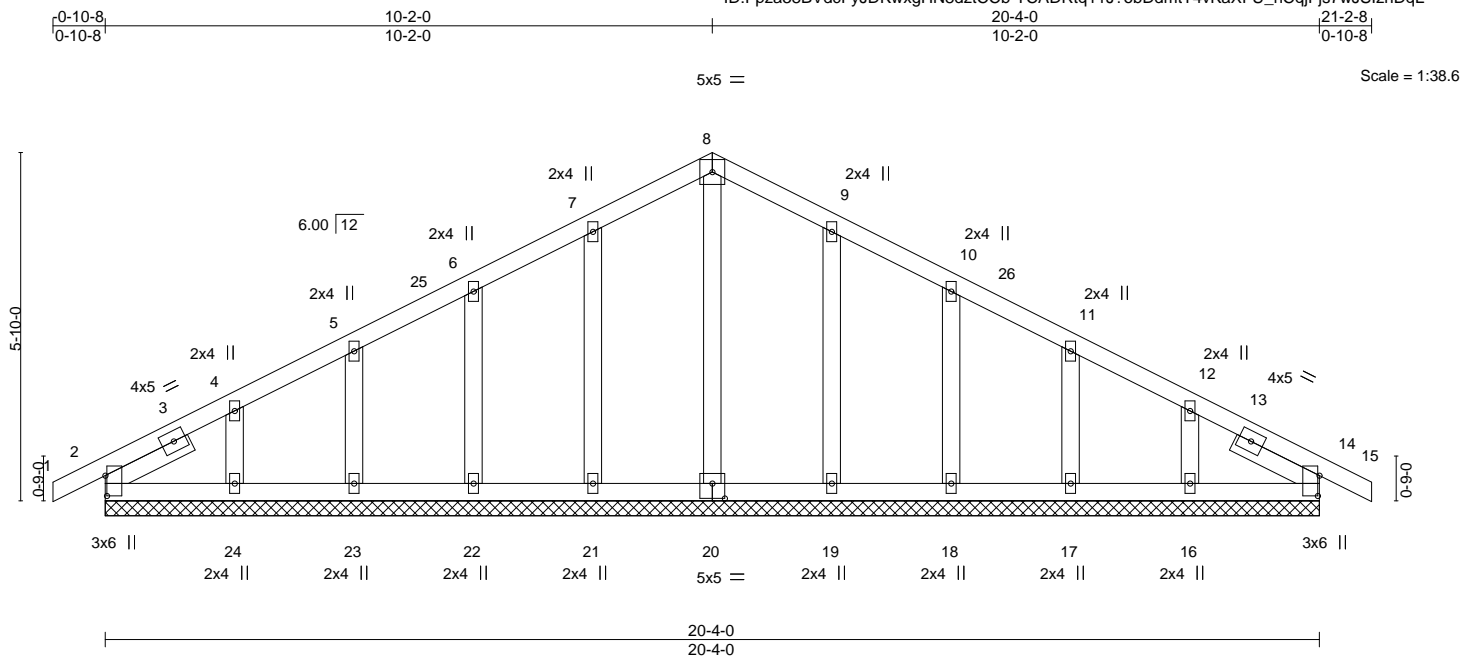


Plate Offsets (X,Y)-- [2:0-4-1,0-0-5], [14:0-4-1,0-0-5], [20:0-2-8,0-3-0]

LOADING (psf)	SPACING-	CSI.	DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof) 20.0	2-0-0	TC 0.06	Vert(LL)	-0.00	14	n/r	120	MT20	244/190
Snow (Pf/Pg) 15.4/20.0	Plate Grip DOL 1.15	BC 0.03	Vert(CT)	-0.00	14	n/r	90		
TCDL 10.0	Lumber DOL 1.15	WB 0.06	Horz(CT)	0.00	14	n/a	n/a		
BCLL 0.0	Rep Stress Incr YES	Matrix-SH							
BCDL 10.0	Code IRC2018/TPI2014							Weight: 113 lb	FT = 3%

#### LUMBER-

TOP CHORD 2x4 SP No.2  
 BOT CHORD 2x4 SP No.2  
 OTHERS 2x4 SP No.2  
 SLIDER Left 2x4 SP No.2 -t 1-7-3, Right 2x4 SP No.2 -t 1-7-3

#### BRACING-

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

#### REACTIONS.

All bearings 20'-4-0.  
 (lb) - Max Horz 2--63(LC 7)  
 Max Uplift All uplift 100 lb or less at joint(s) 2, 21, 22, 23, 24, 19, 18, 17, 16  
 Max Grav All reactions 250 lb or less at joint(s) 2, 20, 21, 22, 23, 24, 19, 18, 17, 16, 14

**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 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope); cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.33 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 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=15.4 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
- Unbalanced snow loads have been considered for this design.
- This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 15.4 psf on overhangs non-concurrent with other live loads.
- Plates checked for a plus or minus 3 degree rotation about its center.
- Gable requires continuous bottom chord bearing.
- Gable studs spaced at 2'-0" oc.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 21, 22, 23, 24, 19, 18, 17, 16.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



March 1, 2021

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16023 Swingley Ridge Rd  
 Chesterfield, MO 63017



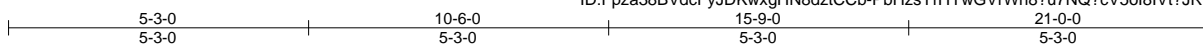
Job	Truss	Truss Type	Qty	Ply	SUMMIT HOMES	I44987049
H3-94	T2	Roof Special	10	1		

Mid America Truss, Jefferson City, MO - 65101,

8.430 s Feb 12 2021 MiTek Industries, Inc. Fri Feb 26 15:30:18 2021 Page 1

ID:Fpza38BVdcFyJDKwxgHN8dztCCb-PbHzsYrHYwGvRWN8?u7NQ?cV5ol8IVt?JRPQXAZhDqJ

Job Reference (optional)



5x6 =

Scale = 1:40.3

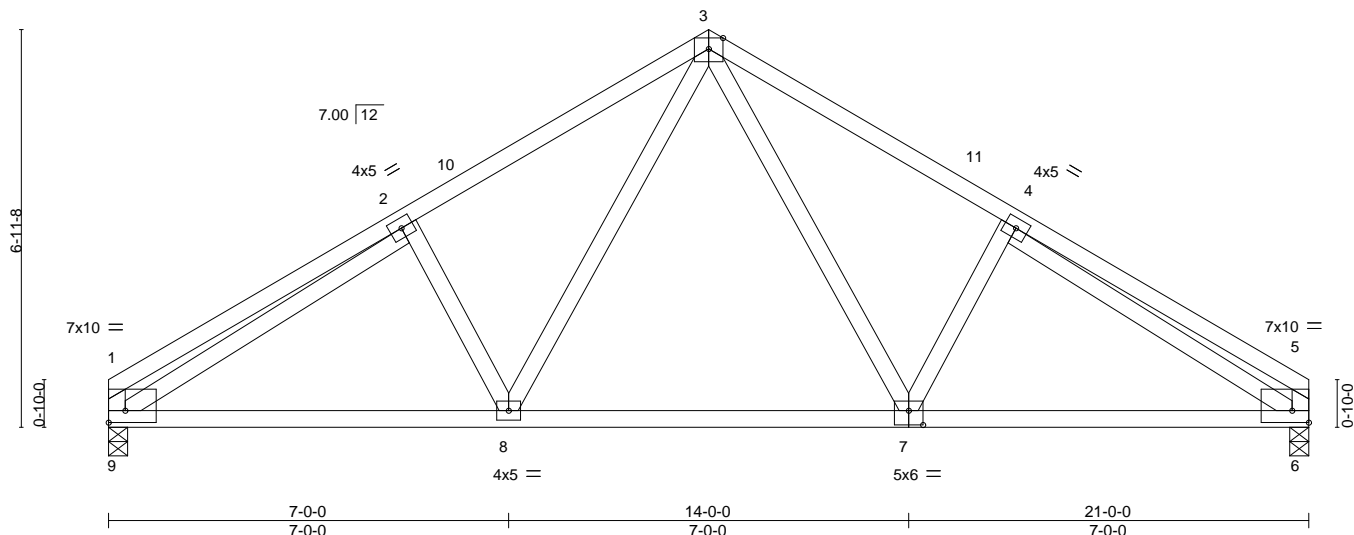


Plate Offsets (X,Y)-- [1:Edge,0-2-8], [5:Edge,0-2-8], [7:0-3-0,0-3-0]

<b>LOADING</b> (psf)		<b>SPACING-</b>	2-0-0	<b>CSI.</b>		<b>DEFL.</b>	in	(loc)	l/defl	L/d	<b>PLATES</b>	<b>GRIP</b>
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.44	Vert(LL)	-0.03	7-8	>999	360	MT20	244/190
Snow (Pf/Pg)	15.4/20.0	Lumber DOL	1.15	BC	0.38	Vert(CT)	-0.09	7-8	>999	240		
TCDL	10.0	Rep Stress Incr	YES	WB	0.57	Horz(CT)	0.03	6	n/a	n/a		
BCLL	0.0	Code IRC2018/TPI2014		Matrix-SH								
BCDL	10.0										Weight: 119 lb	FT = 3%

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

**BRACING-**  
TOP CHORD Structural wood sheathing directly applied or 5-3-11 oc purlins, except end verticals.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS.** (size) 9=0-4-0, 6=0-4-0  
Max Horz 9=145(LC 8)  
Max Uplift 9=-8(LC 11), 6=-8(LC 12)  
Max Grav 9=828(LC 2), 6=828(LC 2)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
TOP CHORD 1-2=-317/51, 2-3=-1047/79, 3-4=-1047/79, 4-5=-317/51, 1-9=-264/51, 5-6=-264/51  
BOT CHORD 8-9=-38/933, 7-8=0/651, 6-7=0/929  
WEBS 3-7=-37/411, 3-8=-37/410, 2-9=-874/0, 4-6=-874/0

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope); cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.33 plate grip DOL=1.33
  - TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=15.4 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.0; Ct=1.10
  - Unbalanced snow loads have been considered for this design.
  - Plates checked for a plus or minus 3 degree rotation about its center.
  - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 9, 6.
  - This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



March 1, 2021

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**ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component**

**Safety Information** available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601

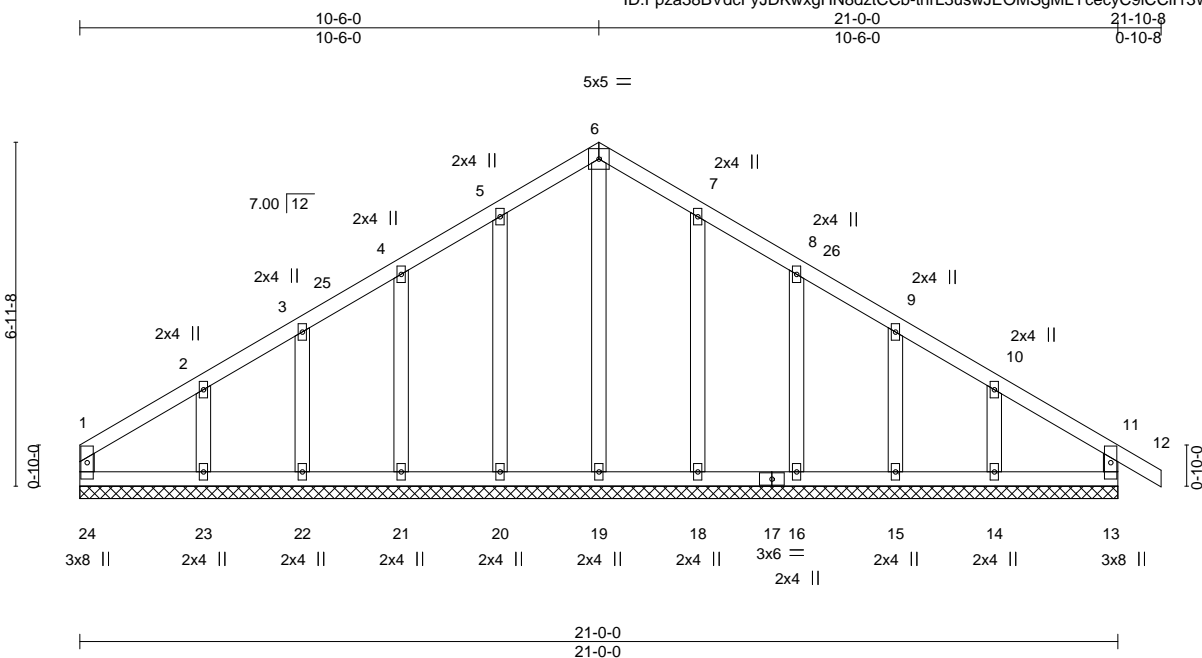


16023 Swingley Ridge Rd  
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	SUMMIT HOMES	144987050
H3-94	T2GE	Roof Special Supported Gable	1	1	Job Reference (optional)	

Mid America Truss, Jefferson City, MO - 65101,

8.430 s Feb 12 2021 MiTek Industries, Inc. Fri Feb 26 15:30:19 2021 Page 1  
ID:Fpza38BVdcFyJDKwxgHN8dztCCb-tnrL3uswJEOMSgMLYcecyC9ICCI13W9Y58z3czhDqI



Scale = 1:46.6

LOADING (psf)		SPACING-		CSI.		DEFL.		PLATES		GRIP	
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.10	Vert(LL)	-0.00 12 n/r 120	MT20		244/190	
Snow (Pf/Pg)	15.4/20.0	Lumber DOL	1.15	BC	0.07	Vert(CT)	-0.00 12 n/r 90				
TCDL	10.0	Rep Stress Incr	YES	WB	0.09	Horz(CT)	0.00 13 n/a n/a				
BCLL	0.0	Code IRC2018/TPI2014		Matrix-R							
BCDL	10.0										

#### LUMBER-

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

#### BRACING-

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

#### REACTIONS.

All bearings 21-0-0.  
(lb) - Max Horz 24=-153(LC 7)  
Max Uplift All uplift 100 lb or less at joint(s) 24, 13, 20, 21, 22, 23, 18, 16, 15, 14  
Max Grav All reactions 250 lb or less at joint(s) 24, 13, 19, 20, 21, 22, 23, 18, 16, 15, 14

**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 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope); cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.33 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 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=15.4 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
- Unbalanced snow loads have been considered for this design.
- This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 15.4 psf on overhangs non-concurrent with other live loads.
- Plates checked for a plus or minus 3 degree rotation about its center.
- 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.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 24, 13, 20, 21, 22, 23, 18, 16, 15, 14.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



March 1, 2021

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**Safety Information** available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601

ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component



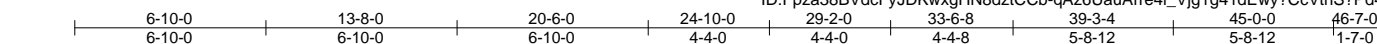
16023 Swingley Ridge Rd  
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	SUMMIT HOMES	144987051
H3-94	T3	Piggyback Base	3	1	Job Reference (optional)	

Mid America Truss, Jefferson City, MO - 65101,

8.430 s Feb 12 2021 MiTek Industries, Inc. Fri Feb 26 15:30:21 2021 Page 1

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Scale = 1:82.4

FLAT TOP CHORD MUST BE BRACED WITH SHEATHING.

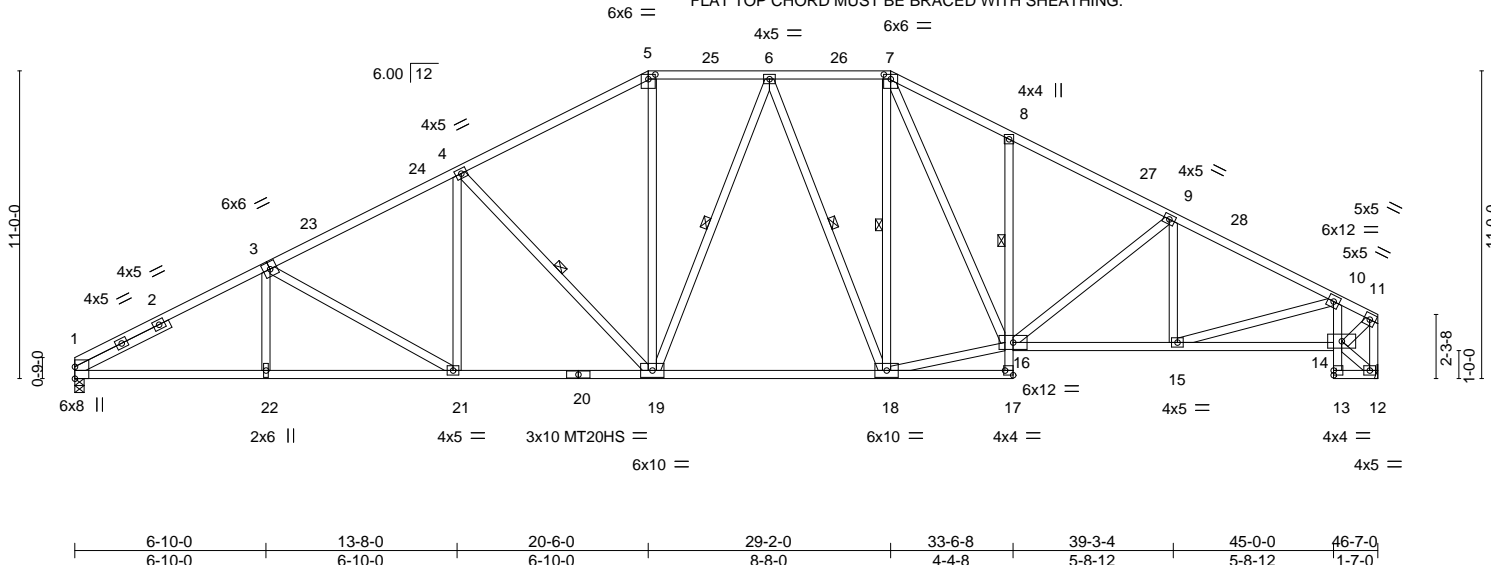


Plate Offsets (X,Y)-- [5:0-3-0,0-2-0], [7:0-3-0,0-2-0], [17:Edge,0-2-0]

LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof) 20.0	2-0-0	TC 0.79	Vert(LL)	-0.21	19	>999	MT20	244/190
Snow (Pf/Pg) 20.4/20.0	Plate Grip DOL 1.15	BC 0.84	Vert(CT)	-0.46	18-19	>999	MT20HS	187/143
TCDL 10.0	Lumber DOL 1.15	WB 0.49	Horz(CT)	0.22	12	n/a		
BCLL 0.0	Rep Stress Incr YES	Matrix-SH						
BCDL 10.0	Code IRC2018/TPI2014						Weight: 327 lb	FT = 3%

#### LUMBER-

TOP CHORD 2x4 SP No.2 \*Except\*  
3-5: 2x4 SP No.1, 1-3: 2x4 SP 2400F 2.0E  
BOT CHORD 2x4 SP No.2 \*Except\*  
1-20: 2x4 SP No.1  
WEBS 2x4 SP No.2  
SLIDER Left 2x4 SP No.2 -t 3-9-9

#### BRACING-

TOP CHORD Structural wood sheathing directly applied, except end verticals.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing. Except:  
1 Row at midpt 8-16  
WEBS 1 Row at midpt 4-19, 6-19, 6-18, 7-18

#### REACTIONS.

(size) 1=0-4-0, 12=Mechanical  
Max Horz 1=166(LC 8)  
Max Uplift 1=13(LC 11)  
Max Grav 1=1958(LC 33), 12=2005(LC 33)

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

TOP CHORD 1-3=-3583/33, 3-4=-3173/53, 4-5=-2543/67, 5-6=-2145/87, 6-7=-2030/70,  
7-8=-2936/109, 8-9=-2964/30, 9-10=-3143/9, 10-11=-1655/4, 11-12=-1945/0  
BOT CHORD 1-22=-71/3060, 21-22=-72/3057, 19-21=0/2779, 18-19=0/2105, 8-16=-473/126,  
15-16=0/2755, 14-15=-29/1564, 10-14=-1183/58  
WEBS 3-21=-385/94, 4-21=0/330, 4-19=-930/130, 5-19=0/727, 6-18=-429/95, 16-18=0/2002,  
7-16=-105/1263, 9-16=-263/85, 10-15=0/1240, 11-14=-19/1896

#### NOTES-

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope); cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.33 plate grip DOL=1.33
- TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=20.4 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; 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.
- Unbalanced snow loads have been considered for this design.
- Provide adequate drainage to prevent water ponding.
- All plates are MT20 plates unless otherwise indicated.
- Plates checked for a plus or minus 3 degree rotation about its center.
- Refer to girder(s) for truss to truss connections.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



March 1, 2021

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16023 Swingley Ridge Rd  
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	SUMMIT HOMES	144987052
H3-94	T3A	Piggyback Base	1	1	Job Reference (optional)	

Mid America Truss, Jefferson City, MO - 65101,

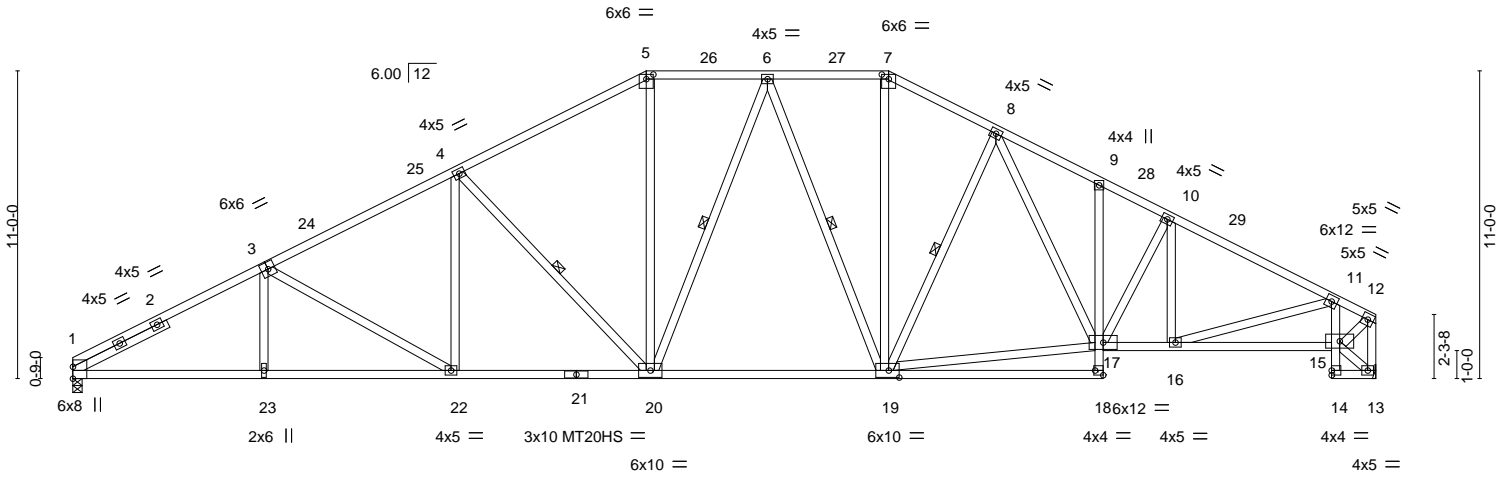
8.430 s Feb 12 2021 MiTek Industries, Inc. Fri Feb 26 15:30:24 2021 Page 1

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6-10-0	13-8-0	20-6-0	24-10-0	29-2-0	33-0-0	36-10-0	39-3-4	45-0-0	46-7-0
6-10-0	6-10-0	6-10-0	4-4-0	4-4-0	3-10-0	3-10-0	2-5-4	5-8-12	1-7-0

FLAT TOP CHORD MUST BE BRACED WITH SHEATHING.

Scale = 1:82.4



6-10-0	13-8-0	20-6-0	29-2-0	36-10-0	39-3-4	45-0-0	46-7-0
6-10-0	6-10-0	6-10-0	8-8-0	7-8-0	2-5-4	5-8-12	1-7-0

Plate Offsets (X,Y)-- [5:0-3-0,0-2-0], [7:0-3-0,0-2-0], [18:Edge,0-2-0], [19:0-4-8,0-3-0]

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	0.78				MT20	244/190
Snow (Pf/Pg)	20.4/20.0	Lumber DOL	1.15	BC	0.84				MT20HS	187/143
TCDL	10.0	Rep Stress Incr	YES	WB	0.53					
BCLL	0.0	Code IRC2018/TPI2014		Matrix-SH						
BCDL	10.0								Weight: 337 lb	FT = 3%

LUMBER-	BRACING-
TOP CHORD	2x4 SP No.2 *Except*
	3-5: 2x4 SP No.1, 1-3: 2x4 SP 2400F 2.0E
BOT CHORD	2x4 SP No.2 *Except*
	1-21: 2x4 SP No.1
WEBS	2x4 SP No.2
SLIDER	Left 2x4 SP No.2 -t 3-9-9

**REACTIONS.** (size) 1=0-4-0, 13=Mechanical  
Max Horz 1=166(LC 10)  
Max Uplift 1=13(LC 11)  
Max Grav 1=1958(LC 33), 13=2005(LC 33)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
TOP CHORD 1-3=-3583/33, 3-4=-3173/53, 4-5=-2542/67, 5-6=-2145/88, 6-7=-2031/69, 7-8=-2350/60,  
8-9=-3028/82, 9-10=-3046/40, 10-11=-3127/9, 11-12=-1657/4, 12-13=-1942/0  
BOT CHORD 1-23=-71/3059, 22-23=-73/3057, 20-22=0/2779, 19-20=0/2105, 16-17=0/2733,  
15-16=-32/1590, 11-15=-1196/64  
WEBS 3-22=-385/94, 4-22=0/332, 4-20=-931/129, 5-20=0/725, 6-19=-425/98, 7-19=0/791,  
8-19=-784/130, 17-19=0/2146, 8-17=-62/723, 11-16=0/1190, 12-15=-22/1917

#### NOTES-

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope); cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.33 plate grip DOL=1.33
- TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=20.4 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; 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.
- Unbalanced snow loads have been considered for this design.
- Provide adequate drainage to prevent water ponding.
- All plates are MT20 plates unless otherwise indicated.
- Plates checked for a plus or minus 3 degree rotation about its center.
- Refer to girder(s) for truss to truss connections.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



March 1, 2021

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16023 Swingley Ridge Rd  
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	SUMMIT HOMES	144987053
H3-94	T3B	Piggyback Base	2	1	Job Reference (optional)	

Mid America Truss, Jefferson City, MO - 65101,

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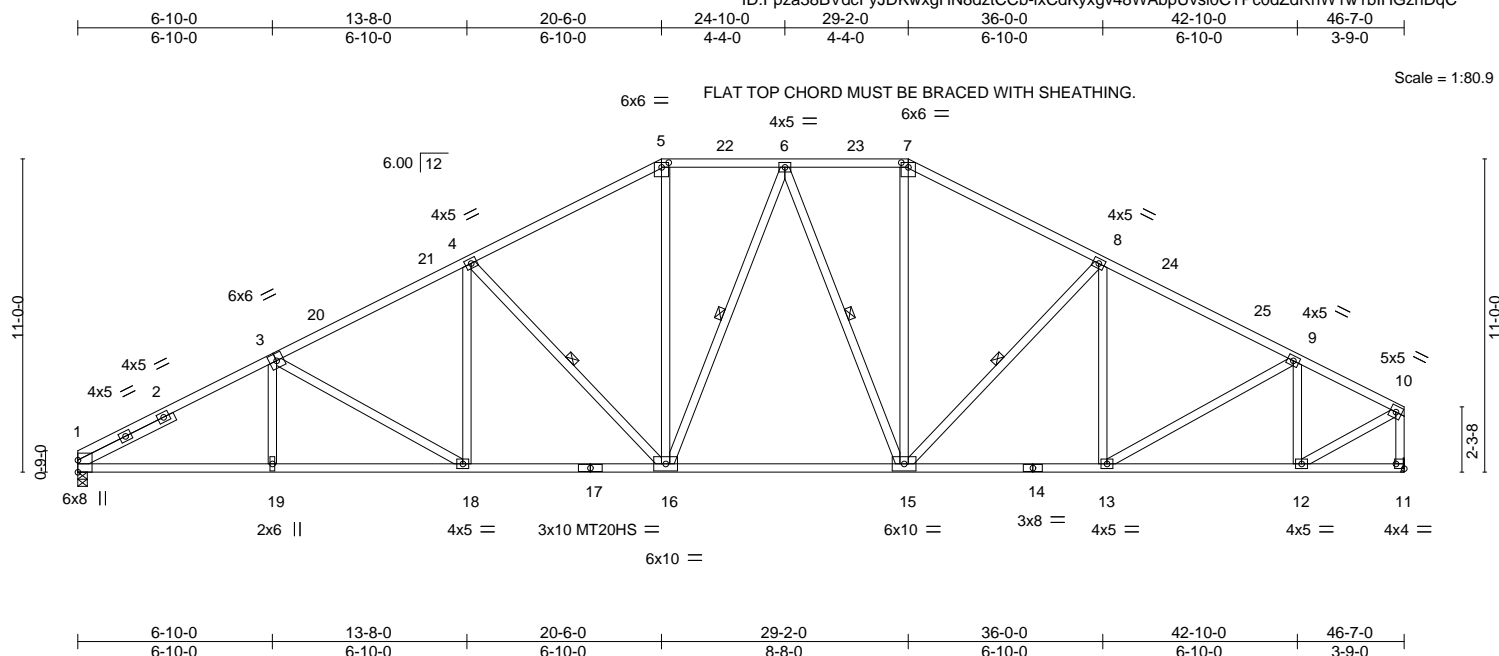


Plate Offsets (X,Y)-- [5:0-3-0,0-2-0], [7:0-3-0,0-2-0], [11:Edge,0-2-0]

LOADING (psf)	SPACING-	CSI.	DEFL.	PLATES	GRIP
TCLL (roof) 20.0	2-0-0	TC 0.78	in (loc) l/defl L/d	MT20	244/190
Snow (Pf/Pg) 20.4/20.0	Plate Grip DOL 1.15	BC 0.84	Vert(LL) -0.19 18 >999 360	MT20HS	187/143
TCDL 10.0	Lumber DOL 1.15	WB 0.51	Vert(CT) -0.42 15-16 >999 240		
BCLL 0.0	Rep Stress Incr YES	Matrix-SH	Horz(CT) 0.16 11 n/a n/a		
BCDL 10.0	Code IRC2018/TPI2014			Weight: 307 lb	FT = 3%

**LUMBER-**  
TOP CHORD 2x4 SP No.1 \*Except\*  
5-7: 2x4 SP No.2, 1-3: 2x4 SP 2400F 2.0E  
BOT CHORD 2x4 SP No.2 \*Except\*  
1-17: 2x4 SP No.1  
WEBS 2x4 SP No.2  
SLIDER Left 2x4 SP No.2 -t 3-9-9

**BRACING-**  
TOP CHORD Structural wood sheathing directly applied, except end verticals.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.  
WEBS 1 Row at midpt 4-16, 6-16, 6-15, 8-15

**REACTIONS.** (size) 1=0-4-0, 11=Mechanical  
Max Horz 1=166(LC 10)  
Max Uplift 1=13(LC 11)  
Max Grav 1=1958(LC 33), 11=2005(LC 33)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
TOP CHORD 1-3=-3583/33, 3-4=-3173/53, 4-5=-2543/67, 5-6=-2145/87, 6-7=-2038/72, 7-8=-2421/50,  
8-9=-2721/31, 9-10=-2048/7, 10-11=-1978/6  
BOT CHORD 1-19=-71/3060, 18-19=-72/3057, 16-18=0/2779, 15-16=0/2103, 13-15=0/2351,  
12-13=0/1814  
WEBS 3-18=-385/94, 4-18=0/331, 4-16=-930/130, 5-16=0/721, 6-15=-423/97, 7-15=0/662,  
8-15=-466/126, 9-13=0/617, 9-12=-917/64, 10-12=0/2074

- NOTES-**
- 1) Unbalanced roof live loads have been considered for this design.
  - 2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope); cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.33 plate grip DOL=1.33
  - 3) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=20.4 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; 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.
  - 4) Unbalanced snow loads have been considered for this design.
  - 5) Provide adequate drainage to prevent water ponding.
  - 6) All plates are MT20 plates unless otherwise indicated.
  - 7) Plates checked for a plus or minus 3 degree rotation about its center.
  - 8) Refer to girder(s) for truss to truss connections.
  - 9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1.
  - 10) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



March 1, 2021

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**Safety Information** available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



16023 Swingley Ridge Rd  
Chesterfield, MO 63017

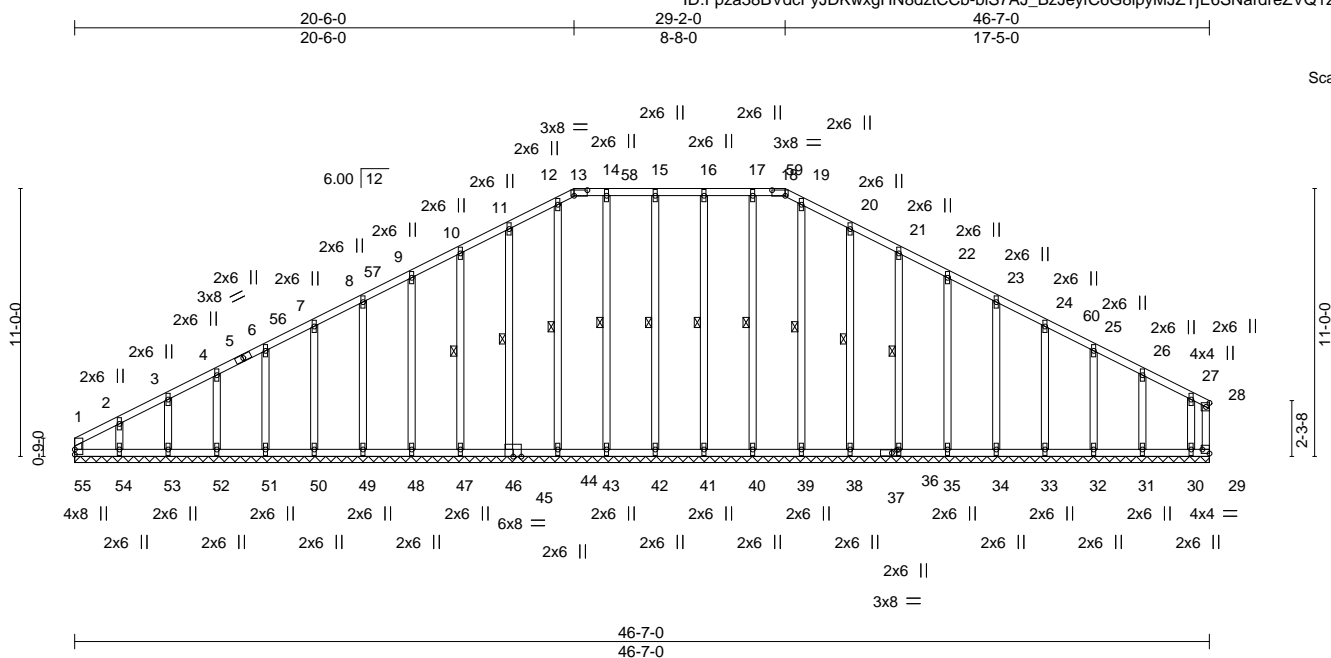


Job	Truss	Truss Type	Qty	Ply	SUMMIT HOMES	144987054
H3-94	T3GE	GABLE	1	1	Job Reference (optional)	

Mid America Truss, Jefferson City, MO - 65101,

8.430 s Feb 12 2021 MiTek Industries, Inc. Fri Feb 26 15:30:29 2021 Page 1

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Scale = 1:94.6

Plate Offsets (X,Y)-- [13:0-6-8,0-2-12], [18:0-6-8,0-2-12], [29:Edge,0-2-0], [37:0-2-8,0-1-8]									
<b>LOADING</b> (psf)		<b>SPACING-</b>		<b>CSI.</b>		<b>DEFL.</b>		<b>PLATES</b>	
TCLL (roof)	20.0	Plate Grip DOL	2-0-0	TC	0.10	in (loc)	l/defl	MT20	GRIP
Snow (Pf/Pg)	20.4/20.0	Lumber DOL	1.15	BC	0.08	n/a	n/a		244/190
TCDL	10.0	Rep Stress Incr	YES	WB	0.17	-	n/a		
BCLL	0.0	Code IRC2018/TPI2014		Matrix-R		0.00	29		
BCDL	10.0							Weight: 376 lb	FT = 3%

#### LUMBER-

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

#### BRACING-

TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.  
WEBS 1 Row at midpt 10-47, 11-46, 12-44, 14-43, 15-42, 16-41, 17-40, 19-39, 20-38, 21-36

#### REACTIONS.

- All bearings 46-7-0.  
(lb) - Max Horz 55=164(LC 8)  
Max Uplift All uplift 100 lb or less at joint(s) 55, 29, 54, 53, 52, 51, 50, 49, 48, 47, 46, 42, 41, 38, 36, 35, 34, 33, 32, 31 except 30=109(LC 12)  
Max Grav All reactions 250 lb or less at joint(s) 55, 29, 54, 53, 52, 51, 50, 49, 48, 47, 46, 44, 43, 42, 41, 40, 39, 38, 36, 35, 34, 33, 32, 31, 30

**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 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope); cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.33 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 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=20.4 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; 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.
- Unbalanced snow loads have been considered for this design.
- Provide adequate drainage to prevent water ponding.
- Plates checked for a plus or minus 3 degree rotation about its center.
- 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.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 55, 29, 54, 53, 52, 51, 50, 49, 48, 47, 46, 42, 41, 38, 36, 35, 34, 33, 32, 31 except (jt=lb) 30=109.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



March 1, 2021

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**ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component**

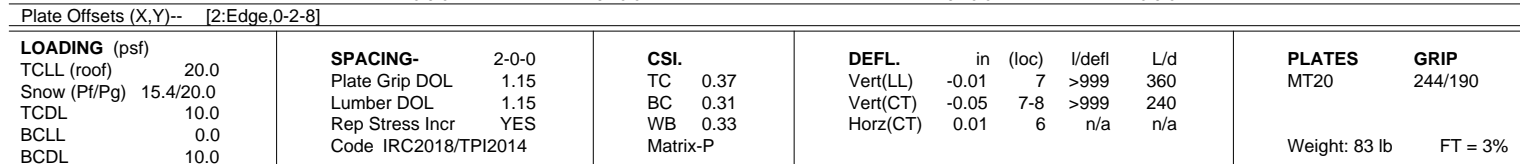
**Safety Information** available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



16023 Swingley Ridge Rd  
Chesterfield, MO 63017




Mid America Truss, Jefferson City, MO - 65101, 8.430 s Feb 12 2021 MiTek Industries, Inc. Fri Feb 26 15:30:31 2021 Page 1  
ID:Fpza38BVdcFyJDKwxgHN8dztCCb-X5aub??RUwufuWGEF7sQRkflv1lFRQswly2cUwzhDq6  
-1-0-0 4-11-8 9-11-0 12-6-0  
1-0-0 4-11-8 4-11-8 2-7-0  
5x6 = Scale = 1:38.3

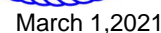


**REACTIONS.** (size) 6=0-4-0, 8=0-4-0  
 Max Horz 8=196(LC 8)  
 Max Uplift 6=-23(LC 11), 8=-18(LC 11)  
 Max Grav 6=485(LC 2), 8=560(LC 2)

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

TOP CHORD	3-4=-517/76
BOT CHORD	7-8=-73/499
WEBS	3-7=-277/139, 4-7=-44/472, 4-6=-409/38, 3-8=-566/0

- NOTES-**
- 1) Unbalanced roof live loads have been considered for this design.
  - 2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope); cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.33 plate grip DOL=1.33
  - 3) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=15.4 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
  - 4) Unbalanced snow loads have been considered for this design.
  - 5) This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 15.4 psf on overhangs non-concurrent with other live loads.
  - 6) Plates checked for a plus or minus 3 degree rotation about its center.
  - 7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 6, 8.
  - 8) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 

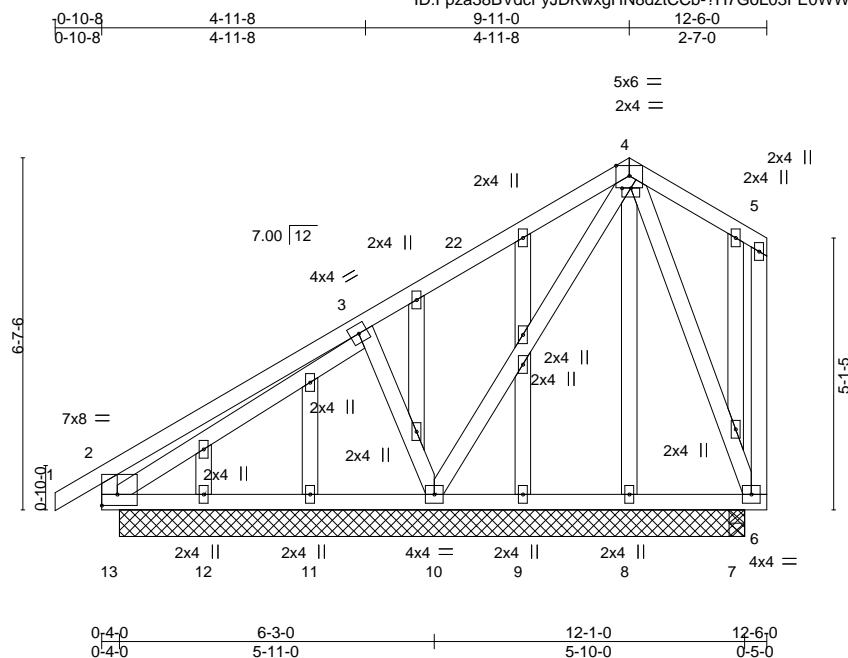


Job	Truss	Truss Type	Qty	Ply	SUMMIT HOMES	144987056
H3-94	T4GE	Common Structural Gable	1	1	Job Reference (optional)	

Mid America Truss, Jefferson City, MO - 65101,

8.430 s Feb 12 2021 MiTek Industries, Inc. Fri Feb 26 15:30:32 2021 Page 1

ID:Fpza38BVdcFyJDKwxgHN8dztCCb-7H7GoL03FE0WWgrqpqNf\_yBwcR9maxD3Xco90MzhDq5



Scale = 1:43.3

Plate Offsets (X,Y)-- [2:Edge,0-2-8], [4:0-2-0,0-0-0]							
<b>LOADING</b> (psf)		<b>SPACING-</b>	2-0-0	<b>CSI.</b>		<b>DEFL.</b>	in (loc) l/defl L/d
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.37	Vert(LL)	-0.00 8 >999 360
Snow (Pf/Pg)	15.4/20.0	Lumber DOL	1.15	BC	0.04	Vert(CT)	-0.00 11 >999 240
TCDL	10.0	Rep Stress Incr	YES	WB	0.13	Horz(CT)	-0.00 6 n/a n/a
BCLL	0.0	Code IRC2018/TPI2014		Matrix-P			
BCDL	10.0						
						<b>PLATES</b>	<b>GRIP</b>
						MT20	244/190
						Weight: 113 lb	FT = 3%

#### LUMBER-

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

#### BRACING-

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

#### REACTIONS.

All bearings 11-9-0 except (jt=length) 7=0-3-8.  
(lb) - Max Horz 13=195(LC 10)  
Max Uplift All uplift 100 lb or less at joint(s) 10, 13, 6  
Max Grav All reactions 250 lb or less at joint(s) 13, 6, 8, 9, 11, 12, 7 except 10=438(LC 2)

#### FORCES.

(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
WEBS 3-10=324/142

#### NOTES-

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope); cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.33 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 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=15.4 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
- Unbalanced snow loads have been considered for this design.
- This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 15.4 psf on overhangs non-concurrent with other live loads.
- Plates checked for a plus or minus 3 degree rotation about its center.
- Gable studs spaced at 2-0-0 oc.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 10, 13, 6.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



March 1, 2021

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**ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component**

**Safety Information** available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



16023 Swingley Ridge Rd  
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	SUMMIT HOMES	144987057
H3-94	T5	Roof Special	2	1	Job Reference (optional)	

Mid America Truss, Jefferson City, MO - 65101,

8.430 s Feb 12 2021 MiTek Industries, Inc. Fri Feb 26 15:30:33 2021 Page 1

ID:Fpza38BVdcFyJDKwxgHN8dztCCb-TThe?h1i0X9N8qQ1NYuuX9k5PrP3JKBDmGXjZpzhDq4

0-10-8	1-1-12	2-3-8	4-10-12	7-6-0	10-1-4	12-8-8	13-10-4	15-0-0	15-10-8
0-10-8	1-1-12	1-1-12	2-7-4	2-7-4	2-7-4	2-7-4	1-1-12	1-1-12	0-10-8

Scale = 1:29.3

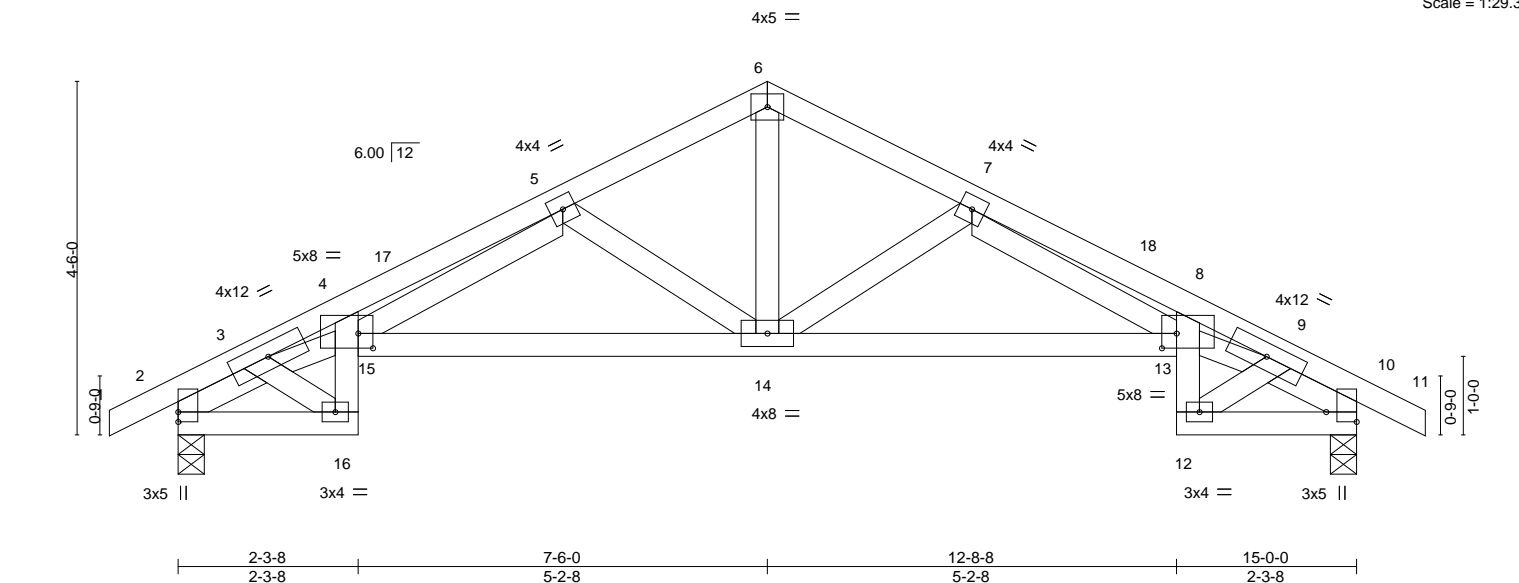


Plate Offsets (X,Y)-- [4:0-2-4,0-2-4], [10:Edge,0-4-10], [13:0-2-4,0-2-4]									
<b>LOADING</b> (psf)		<b>SPACING-</b> 2-0-0		<b>CSI.</b>		<b>DEFL.</b> in (loc) l/defl L/d		<b>PLATES</b>	<b>GRIP</b>
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.37	Vert(LL)	-0.07 14 >999 360	MT20	244/190
Snow (Pf/Pg)	15.4/20.0	Lumber DOL	1.15	BC	0.42	Vert(CT)	-0.15 14-15 >999 240		
TCDL	10.0	Rep Stress Incr	YES	WB	0.34	Horz(CT)	0.14 10 n/a n/a		
BCLL	0.0	Code IRC2018/TPI2014		Matrix-P				Weight: 86 lb	FT = 3%
BCDL	10.0								

**LUMBER-**  
TOP CHORD 2x4 SP No.2  
BOT CHORD 2x4 SP No.2  
WEBS 2x4 SP No.2  
SLIDER Left 2x4 SP No.2 -t 1-2-2, Right 2x4 SP No.2 -t 1-2-2

**BRACING-**  
TOP CHORD Structural wood sheathing directly applied or 3-7-13 oc purlins.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS.** (size) 2=0-4-0, 10=0-4-0  
Max Horz 2=48(LC 8)  
Max Uplift 2=17(LC 11), 10=17(LC 12)  
Max Grav 2=653(LC 2), 10=652(LC 2)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
TOP CHORD 2-3=-790/20, 3-4=-1773/60, 4-5=-2064/106, 5-6=-852/9, 6-7=-852/15, 7-8=-2064/28,  
8-9=-1773/0, 9-10=-790/20  
BOT CHORD 2-16=-41/538, 15-16=-10/269, 14-15=-17/1066, 13-14=0/1066, 12-13=0/269,  
10-12=0/538  
WEBS 6-14=0/618, 7-14=-482/77, 7-13=-10/948, 9-12=-447/0, 5-14=-482/90, 5-15=-67/948,  
3-16=-447/42, 3-15=-54/1366, 9-13=0/1366

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope); cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.33 plate grip DOL=1.33
  - TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=15.4 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
  - Unbalanced snow loads have been considered for this design.
  - This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 15.4 psf on overhangs non-concurrent with other live loads.
  - Plates checked for a plus or minus 3 degree rotation about its center.
  - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 10.
  - This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



March 1, 2021

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16023 Swingley Ridge Rd  
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	SUMMIT HOMES	144987058
H3-94	T5A	Roof Special	1	1	Job Reference (optional)	

Mid America Truss, Jefferson City, MO - 65101,

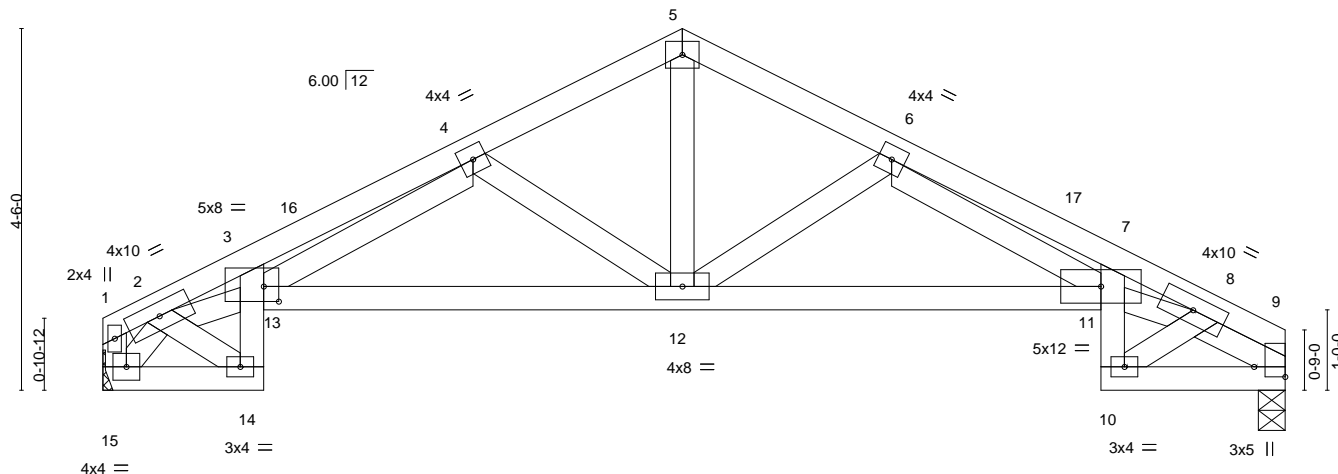
8.430 s Feb 12 2021 MiTek Industries, Inc. Fri Feb 26 15:30:35 2021 Page 1

ID:Fpza38BVdcFyJDKwxgHN8dztCCb-QspPQM2yY9P5N7aPUzwMcapQzf4ZnEnWda0qdhzhDq2

0-10-5	4-7-4	7-2-8	9-9-12	13-6-12	14-8-8
0-10-5	3-9-0	2-7-4	2-7-4	3-9-0	1-1-12

4x5 =

Scale = 1:28.7



2-0-0	7-2-8	12-5-0	14-8-8
2-0-0	5-2-8	5-2-8	2-3-8

Plate Offsets (X,Y)-- [3:0-2-4,0-2-4], [9:Edge,0-4-10]

LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof) 20.0	2-0-0	TC 0.37	Vert(LL)	-0.06 11	>999	360	MT20	244/190
Snow (Pf/Pg) 15.4/20.0	Plate Grip DOL 1.15	BC 0.42	Vert(CT)	-0.13 11-12	>999	240		
TCDL 10.0	Lumber DOL 1.15	WB 0.33	Horz(CT)	0.12 9	n/a	n/a		
BCLL 0.0	Rep Stress Incr YES	Matrix-P						
BCDL 10.0	Code IRC2018/TPI2014						Weight: 82 lb	FT = 3%

**LUMBER-**  
TOP CHORD 2x4 SP No.2  
BOT CHORD 2x4 SP No.2  
WEBS 2x4 SP No.2  
SLIDER Right 2x4 SP No.2 -t 1-2-2

**BRACING-**  
TOP CHORD Structural wood sheathing directly applied or 3-8-3 oc purlins, except end verticals.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS.** (size) 9=0-4-0, 15=Mechanical  
Max Horz 15=-62(LC 7)  
Max Uplift 9=-8(LC 12), 15=-6(LC 11)  
Max Grav 9=582(LC 2), 15=582(LC 2)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
TOP CHORD 2-3=-1489/52, 3-4=-1701/95, 4-5=-813/8, 5-6=-814/13, 6-7=-2035/36, 7-8=-1748/4, 8-9=-781/24  
BOT CHORD 14-15=-29/338, 12-13=-15/978, 11-12=0/1033, 10-11=0/277, 9-10=-3/548  
WEBS 2-14=-288/32, 4-13=-59/659, 4-12=-417/88, 6-12=-484/78, 6-11=-16/956, 8-10=-462/6, 5-12=0/581, 2-15=-644/13, 8-11=0/1345, 2-13=-49/1167

**NOTES-**  
1) Unbalanced roof live loads have been considered for this design.  
2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope); cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.33 plate grip DOL=1.33  
3) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=15.4 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10  
4) Unbalanced snow loads have been considered for this design.  
5) Plates checked for a plus or minus 3 degree rotation about its center.  
6) Refer to girder(s) for truss to truss connections.  
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 9, 15.  
8) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



March 1, 2021

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16023 Swingley Ridge Rd  
Chesterfield, MO 63017



Job	Truss	Truss Type	Qty	Ply	SUMMIT HOMES
H3-94	T5G	Roof Special Girder	1	2	I44987059
					Job Reference (optional)

Mid America Truss, Jefferson City, MO - 65101,

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**LOAD CASE(S)** Standard  
Concentrated Loads (lb)  
Vert: 6=-1985(B) 11=-1543(B) 12=-1985(B) 13=-1985(B) 14=-1985(B) 15=-1985(B) 16=-1985(B)

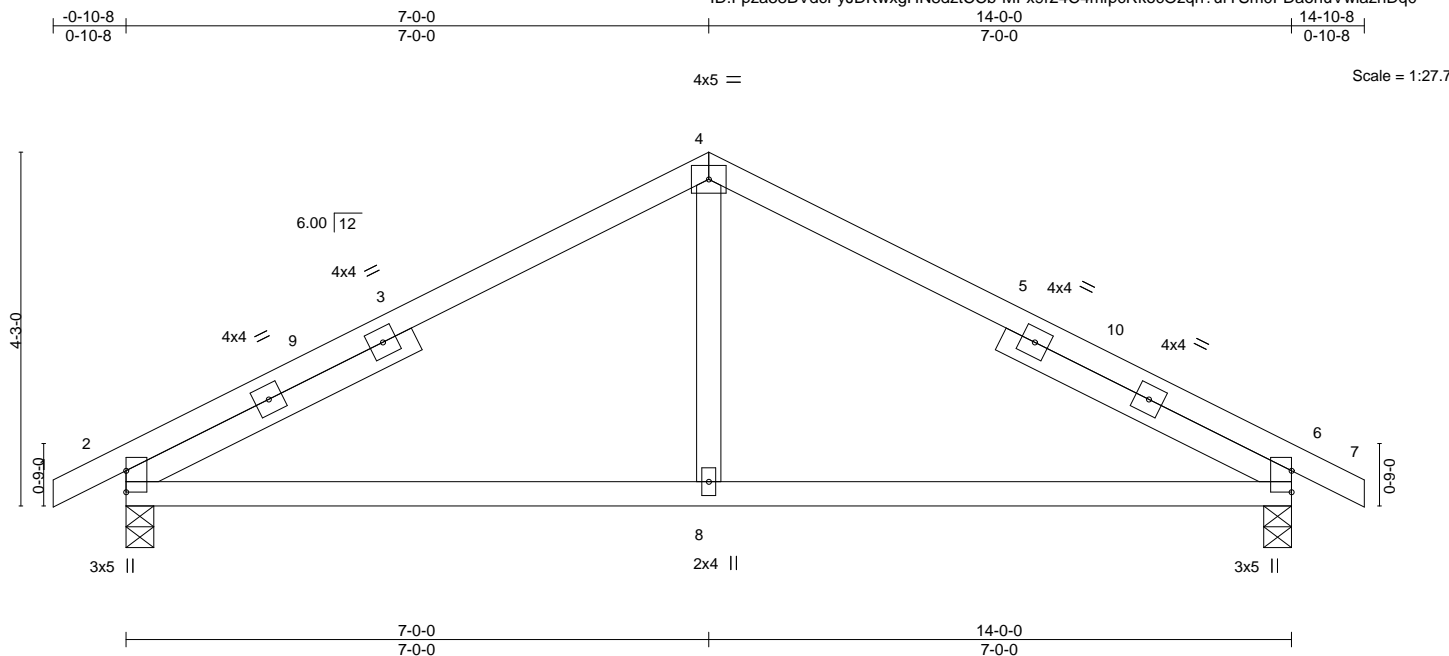


Job	Truss	Truss Type	Qty	Ply	SUMMIT HOMES	144987060
H3-94	T6	Common	1	1	Job Reference (optional)	

Mid America Truss, Jefferson City, MO - 65101,

8.430 s Feb 12 2021 MiTek Industries, Inc. Fri Feb 26 15:30:37 2021 Page 1

ID:Fpza38BVdcFyJDKwxgHN8dz(CCb-MFxr24C4mfpcRkocOzqh?ufYSm0FDaohuVwiazhdQ0



LOADING (psf)		SPACING-		CSI.		DEFL.				PLATES	GRIP
TCLL (roof)	20.0	2-0-0		TC	0.81	in	(loc)	l/defl	L/d	MT20	244/190
Snow (Pf/Pg)	15.4/20.0	Plate Grip DOL	1.15	BC	0.42	0.02	8	>999	360		
TCDL	10.0	Lumber DOL	1.15	WB	0.05	-0.07	6-8	>999	240		
BCLL	0.0	Rep Stress Incr	YES	Matrix-P		0.01	6	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014								Weight: 64 lb	FT = 3%

#### LUMBER-

TOP CHORD 2x4 SP No.1  
 BOT CHORD 2x4 SP No.2  
 WEBS 2x4 SP No.2  
 SLIDER Left 2x4 SP No.2 -t 3-10-11, Right 2x4 SP No.2 -t 3-10-11

#### BRACING-

TOP CHORD Structural wood sheathing directly applied or 3-6-8 oc purlins.  
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

#### REACTIONS.

(size) 2=0-4-0, 6=0-4-0  
 Max Horz 2=45(LC 8)  
 Max Uplift 2=-16(LC 11), 6=-16(LC 12)  
 Max Grav 2=612(LC 2), 6=612(LC 2)

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

TOP CHORD 2-4=-693/4, 4-6=-692/0  
 BOT CHORD 2-8=0/524, 6-8=0/524

#### NOTES-

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope); cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.33 plate grip DOL=1.33
- TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=15.4 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
- Unbalanced snow loads have been considered for this design.
- This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 15.4 psf on overhangs non-concurrent with other live loads.
- Plates checked for a plus or minus 3 degree rotation about its center.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 6.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



March 1, 2021

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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, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



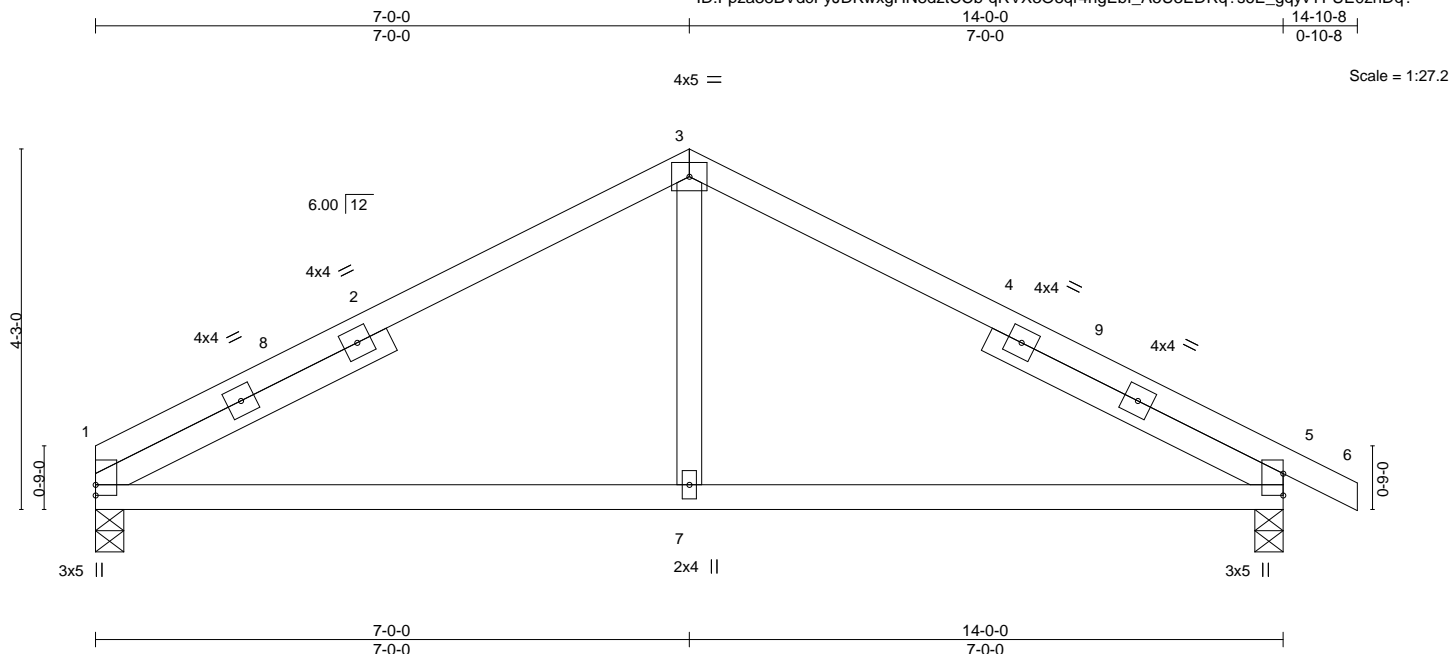
16023 Swingley Ridge Rd  
 Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	SUMMIT HOMES	144987061
H3-94	T6A	Common	1	1	Job Reference (optional)	

Mid America Truss, Jefferson City, MO - 65101,

8.430 s Feb 12 2021 MiTek Industries, Inc. Fri Feb 26 15:30:38 2021 Page 1

ID:Fpza38BVdcFyJDKwxgHN8dzCCb-qRVX3O5qr4ngEbl\_A5U3EDRq?s6E\_gqyvYFUE0zhDq?



LOADING (psf)		SPACING-		CSI.		DEFL.				PLATES	GRIP
TCLL (roof)	20.0	2-0-0		TC	0.83	in	(loc)	l/defl	L/d	MT20	244/190
Snow (Pf/Pg)	15.4/20.0	Plate Grip DOL	1.15	BC	0.42	0.02	7	>999	360		
TCDL	10.0	Lumber DOL	1.15	WB	0.05	-0.07	5-7	>999	240		
BCLL	0.0	Rep Stress Incr	YES	Matrix-P		0.01	5	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014								Weight: 63 lb	FT = 3%

#### LUMBER-

TOP CHORD 2x4 SP No.1  
 BOT CHORD 2x4 SP No.2  
 WEBS 2x4 SP No.2  
 SLIDER Left 2x4 SP No.2 -1 3-10-11, Right 2x4 SP No.2 -1 3-10-11

#### BRACING-

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

#### REACTIONS.

(size) 1=0-4-0, 5=0-4-0  
 Max Horz 1=45(LC 8)  
 Max Uplift 1=-7(LC 11), 5=-16(LC 12)  
 Max Grav 1=558(LC 2), 5=614(LC 2)

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

TOP CHORD 1-3=-694/4, 3-5=-696/0  
 BOT CHORD 1-7=0/527, 5-7=0/527

#### NOTES-

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope); cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.33 plate grip DOL=1.33
- TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=15.4 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
- Unbalanced snow loads have been considered for this design.
- This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 15.4 psf on overhangs non-concurrent with other live loads.
- Plates checked for a plus or minus 3 degree rotation about its center.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 5.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



March 1, 2021

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**ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component**

**Safety Information** available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



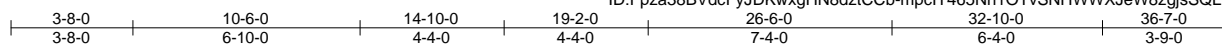
16023 Swingley Ridge Rd  
 Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	SUMMIT HOMES	144987062
H3-94	T7	Piggyback Base	1	1	Job Reference (optional)	

Mid America Truss, Jefferson City, MO - 65101,

8.430 s Feb 12 2021 MiTek Industries, Inc. Fri Feb 26 15:30:40 2021 Page 1

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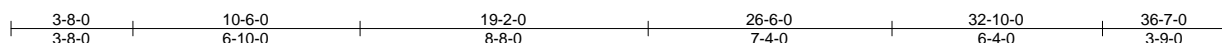
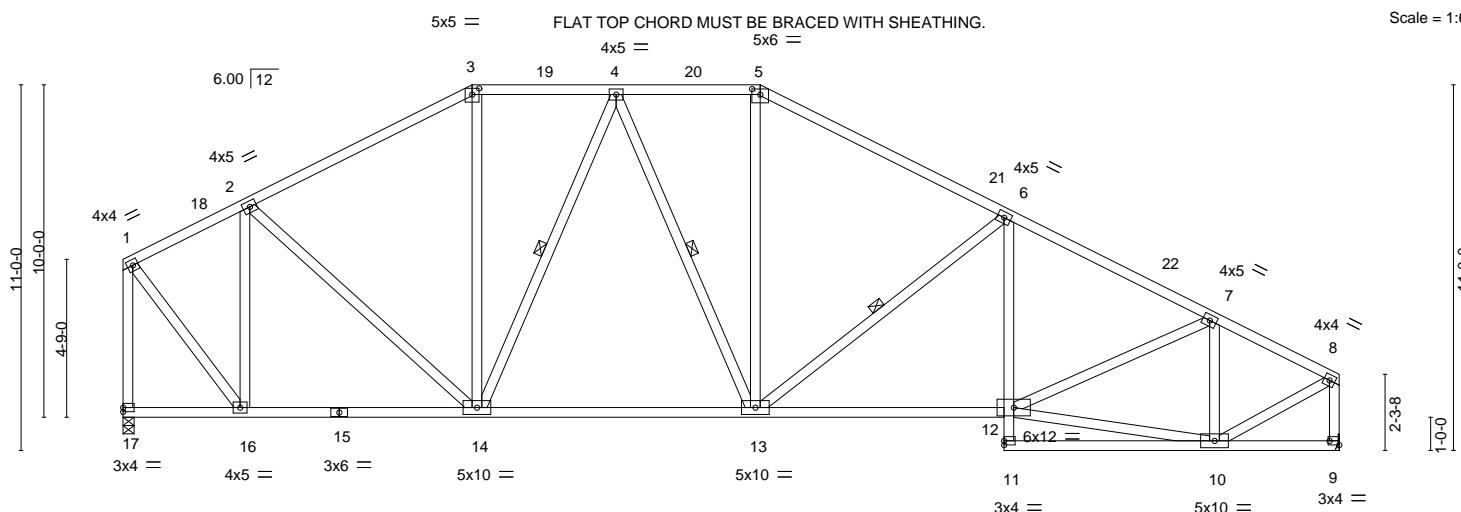


Plate Offsets (X,Y)-- [3:0-2-8,0-2-4], [5:0-3-0,0-2-0], [9:Edge,0-1-8]

<b>LOADING</b> (psf)		<b>SPACING-</b>	2-0-0	<b>CSI.</b>		<b>DEFL.</b>	in (loc)	l/defl	L/d	<b>PLATES</b>	<b>GRIP</b>
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.93	Vert(LL)	-0.09 12-13	>999	360	MT20	244/190
Snow (Pf/Pg)	20.4/20.0	Lumber DOL	1.15	BC	0.73	Vert(CT)	-0.23 12-13	>999	240		
TCDL	10.0	Rep Stress Incr	YES	WB	0.69	Horz(CT)	0.08 9	n/a	n/a		
BCLL	0.0	Code IRC2018/TPI2014		Matrix-SH						Weight: 265 lb	FT = 3%
BCDL	10.0										

#### LUMBER-

TOP CHORD 2x4 SP No.2 \*Except\*  
5-8: 2x4 SP No.1  
BOT CHORD 2x4 SP No.2  
WEBS 2x4 SP No.2

#### BRACING-

TOP CHORD Structural wood sheathing directly applied, except end verticals.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing, Except:  
6-0-0 oc bracing: 16-17.  
WEBS 1 Row at midpt 4-14, 4-13, 6-13

#### REACTIONS.

(size) 17=0-4-0, 9=Mechanical  
Max Horz 17=-223(LC 7)  
Max Uplift 9=-14(LC 12)  
Max Grav 17=1634(LC 33), 9=1559(LC 33)

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

TOP CHORD 1-2=-987/21, 2-3=-1465/49, 3-4=-1182/57, 4-5=-1452/89, 5-6=-1783/66, 6-7=-2315/56,  
7-8=-1572/24, 1-17=-1610/0, 8-9=-1531/25  
BOT CHORD 14-16=-36/871, 13-14=0/1327, 12-13=0/2026  
WEBS 2-16=-1005/59, 2-14=-17/509, 3-14=0/297, 4-14=-518/78, 4-13=-34/318, 5-13=0/348,  
6-13=-735/131, 10-12=0/1304, 7-12=0/684, 7-10=-886/71, 1-16=0/1413, 8-10=0/1573

#### NOTES-

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope); cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.33 plate grip DOL=1.33
- TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=20.4 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; 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.
- Unbalanced snow loads have been considered for this design.
- Provide adequate drainage to prevent water ponding.
- Plates checked for a plus or minus 3 degree rotation about its center.
- Refer to girder(s) for truss to truss connections.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 9.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



March 1, 2021

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ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component

Safety Information available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



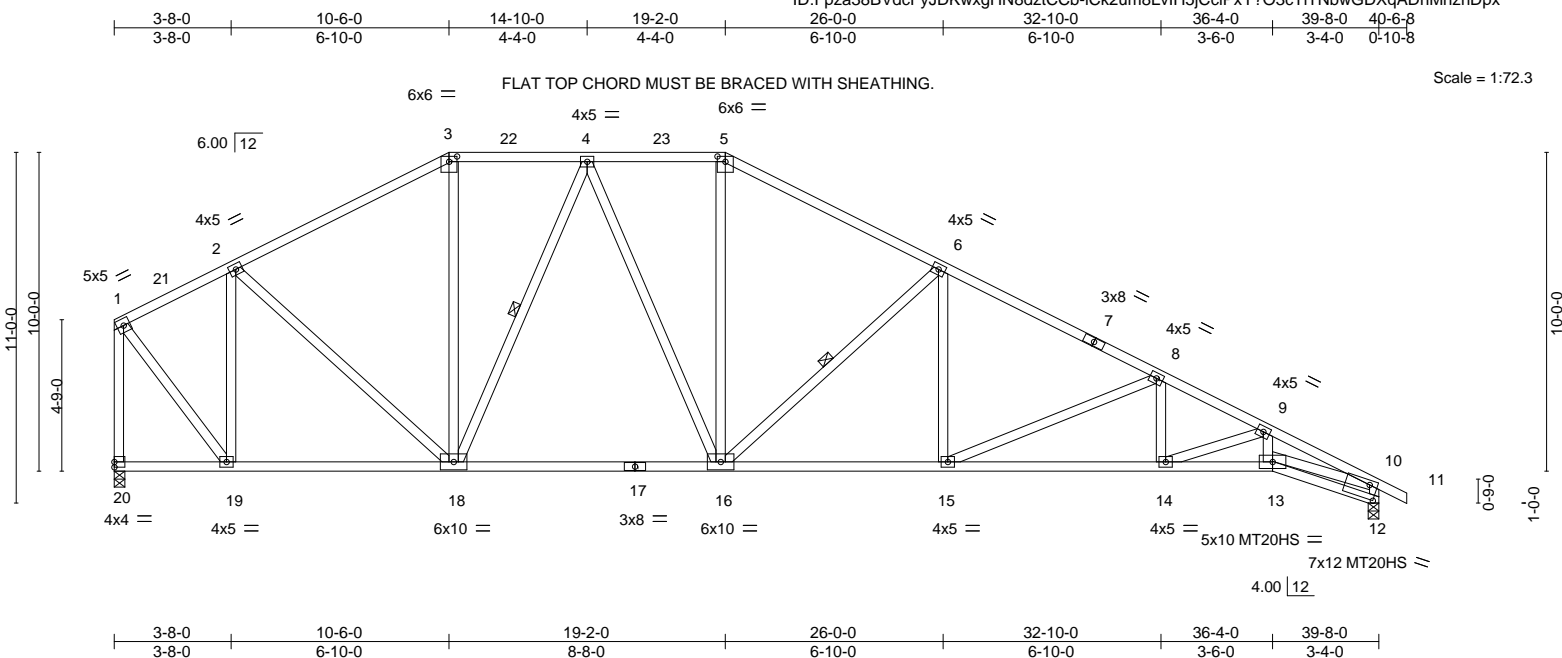
16023 Swingley Ridge Rd  
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	SUMMIT HOMES	144987063
H3-94	T8	Piggyback Base	2	1	Job Reference (optional)	

Mid America Truss, Jefferson City, MO - 65101,

8.430 s Feb 12 2021 MiTek Industries, Inc. Fri Feb 26 15:30:42 2021 Page 1

ID:Fpza38BVdcFyJDKwxgHN8dztCCb-iCk2um8LvIH5jCclPxY?O3cTiTNbwGDXqADhMnzhDpx



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) -0.22	14-15	>999	360	MT20	244/190
Snow (Pf/Pg) 20.4/20.0	Lumber DOL 1.15		BC 0.78	Vert(CT) -0.46	14-15	>999	240	MT20HS	187/143
TCDL 10.0	Rep Stress Incr YES		WB 0.92	Horz(CT) 0.21	12	n/a	n/a		
BCLL 0.0	Code IRC2018/TPI2014		Matrix-SH						
BCDL 10.0								Weight: 269 lb	FT = 3%

#### LUMBER-

TOP CHORD 2x4 SP No.2  
BOT CHORD 2x4 SP No.2 \*Except\*  
13-17: 2x4 SP No.1  
WEBS 2x4 SP No.2

#### BRACING-

TOP CHORD Structural wood sheathing directly applied, except end verticals.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.  
WEBS 1 Row at midpt 4-18, 6-16

#### REACTIONS.

(size) 20=0-4-0, 12=0-4-0  
Max Horz 20=-235(LC 7)  
Max Uplift 12=-37(LC 12)  
Max Grav 20=1762(LC 34), 12=1693(LC 34)

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

TOP CHORD 1-2=-1067/22, 2-3=-1619/51, 3-4=-1322/58, 4-5=-1697/92, 5-6=-2041/73, 6-8=-2898/60,  
8-9=-3751/55, 9-10=-4750/52, 1-20=-1737/0, 10-12=-1754/61  
BOT CHORD 18-19=0/942, 16-18=0/1521, 15-16=0/2511, 14-15=0/3360, 13-14=-9/4090,  
12-13=-22/468  
WEBS 2-19=-1099/53, 2-18=-12/587, 3-18=0/361, 4-18=-644/74, 4-16=-35/444, 5-16=0/490,  
6-16=-1105/126, 6-15=0/491, 8-15=-920/85, 8-14=0/403, 9-14=-803/43, 9-13=0/695,  
1-19=0/1528, 10-13=0/3766

#### NOTES-

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope); cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.33 plate grip DOL=1.33
- TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=20.4 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; 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.
- 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 15.4 psf on overhangs non-concurrent with other live loads.
- Provide adequate drainage to prevent water ponding.
- All plates are MT20 plates unless otherwise indicated.
- Plates checked for a plus or minus 3 degree rotation about its center.
- Bearing at joint(s) 12 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 12.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



March 1, 2021

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16023 Swingley Ridge Rd  
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	SUMMIT HOMES	144987064
H3-94	T9	Piggyback Base	1	1	Job Reference (optional)	

Mid America Truss, Jefferson City, MO - 65101,

8.430 s Feb 12 2021 MiTek Industries, Inc. Fri Feb 26 15:30:44 2021 Page 1

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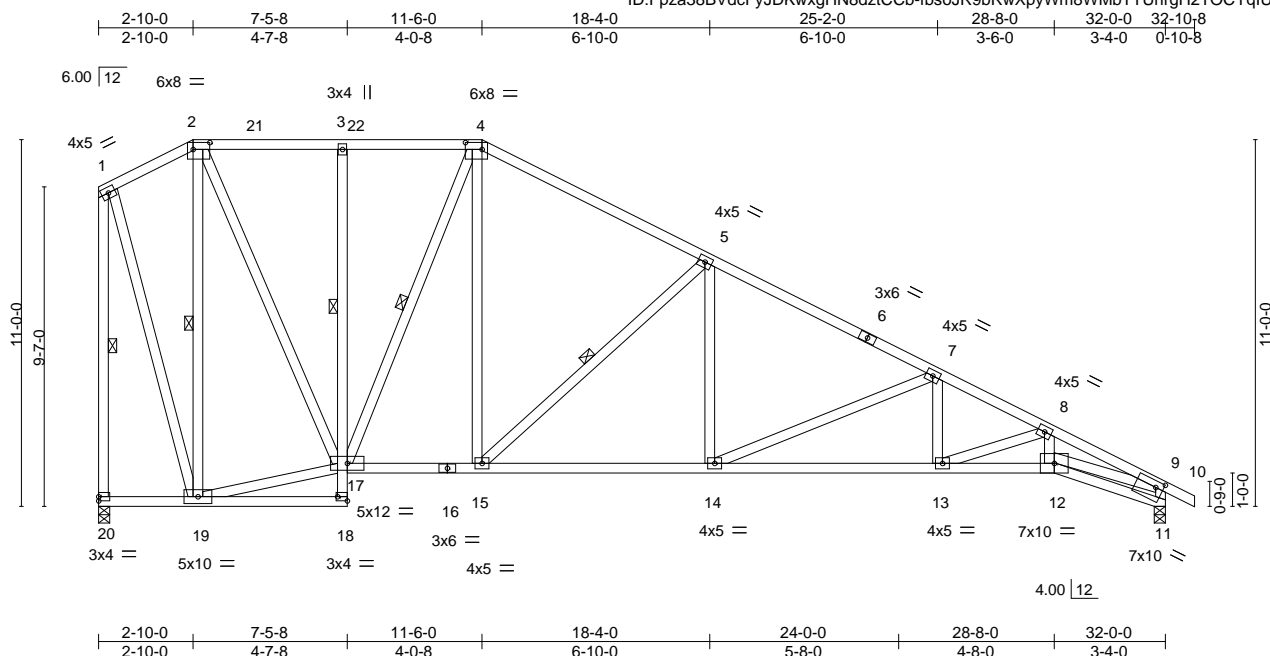


Plate Offsets (X,Y)-- [2:0-6-0,0-2-8], [4:0-6-0,0-2-8], [11:0-2-12,0-2-4], [18:Edge,0-1-8]

LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof) 20.0	2-0-0	TC 0.88	Vert(LL) -0.17	13-14	>999	360	MT20	244/190
Snow (Pf/Pg) 20.4/20.0	Plate Grip DOL 1.15	BC 0.88	Vert(CT) -0.35	13-14	>999	240		
TCDL 10.0	Lumber DOL 1.15	WB 0.81	Horz(CT) 0.18	11	n/a	n/a		
BCLL 0.0	Rep Stress Incr YES	Matrix-SH						
BCDL 10.0	Code IRC2018/TPI2014						Weight: 259 lb	FT = 3%

#### LUMBER-

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

#### BRACING-

TOP CHORD Structural wood sheathing directly applied or 2-2-0 oc purlins, except end verticals.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing. Except:  
WEBS 1 Row at midpt 3-17  
1 Row at midpt 2-19, 4-17, 5-15, 1-20

#### REACTIONS.

(size) 20=0-4-0, 11=0-4-0  
Max Horz 20=-330(LC 7)  
Max Uplift 20=-19(LC 7), 11=-37(LC 12)  
Max Grav 20=1267(LC 2), 11=1367(LC 34)

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

TOP CHORD 1-2=-386/97, 2-3=-733/77, 3-4=-734/76, 4-5=-1270/77, 5-7=-2115/60, 7-8=-2900/57,  
8-9=-3741/53, 1-20=-1242/31, 9-11=-1413/62  
BOT CHORD 19-20=-78/272, 3-17=-430/86, 15-17=0/1012, 14-15=0/1811, 13-14=0/2595,  
12-13=-11/3211, 11-12=-22/386  
WEBS 2-19=-999/72, 17-19=0/348, 2-17=-1/1044, 4-17=-755/51, 4-15=-7/851, 5-15=-1091/121,  
5-14=0/476, 7-14=-850/87, 7-13=0/356, 8-13=-689/43, 8-12=0/562, 1-19=-55/1059,  
9-12=0/2943

#### NOTES-

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope); cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.33 plate grip DOL=1.33
- TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=20.4 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.0; 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.
- 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 15.4 psf on overhangs non-concurrent with other live loads.
- Provide adequate drainage to prevent water ponding.
- Plates checked for a plus or minus 3 degree rotation about its center.
- Bearing at joint(s) 11 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 20, 11.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



March 1, 2021

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ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component

Safety Information available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



16023 Swingley Ridge Rd  
Chesterfield, MO 63017



Job	Truss	Truss Type	Qty	Ply	SUMMIT HOMES	144987065
H3-94	T10	Piggyback Base	2	1	Job Reference (optional)	

Mid America Truss, Jefferson City, MO - 65101,

8.430 s Feb 12 2021 MiTek Industries, Inc. Fri Feb 26 15:30:03 2021 Page 1  
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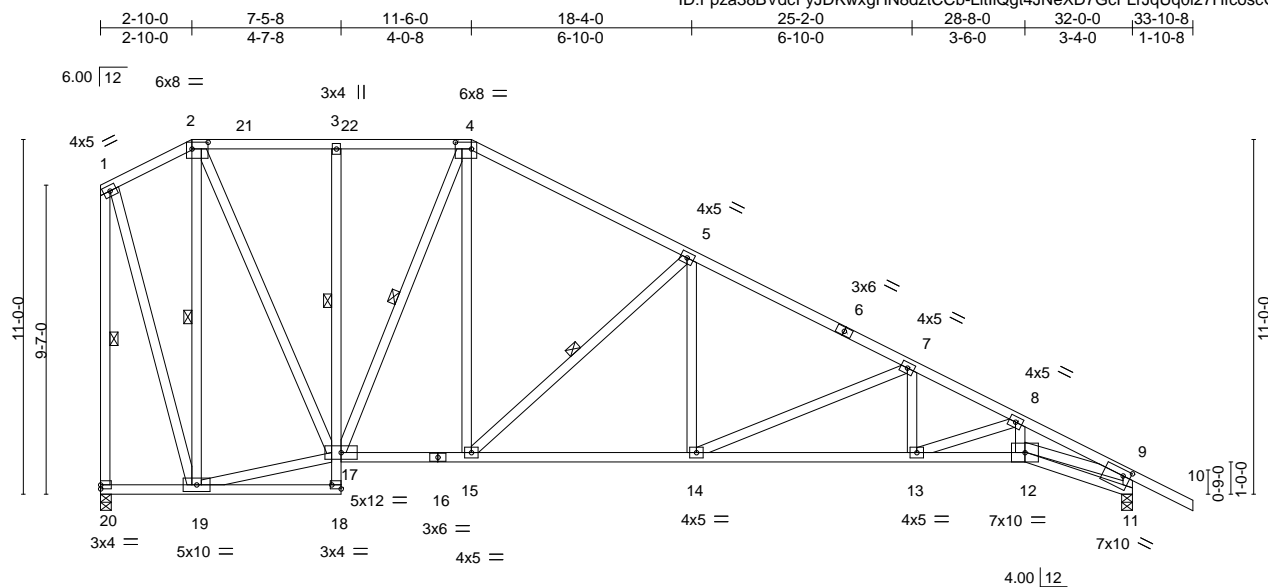


Plate Offsets (X,Y)--	[2:0-6-0,0-2-8], [4:0-6-0,0-2-8], [11:0-2-12,0-2-4], [18:Edge,0-1-8]
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<b>LOADING</b> (psf)	<b>SPACING-</b>	<b>CSI.</b>	<b>DEFL.</b>	<b>PLATES</b>	<b>GRIP</b>
TCLL (roof) 20.0	2-0-0	TC 0.88	in (loc) l/defl L/d	MT20	244/190
Snow (Pf/Pg) 20.4/20.0	Plate Grip DOL 1.15	BC 0.86	Vert(LL) -0.17 13-14 >999 360		
TCDL 10.0	Lumber DOL 1.15	WB 0.79	Vert(CT) -0.35 13-14 >999 240		
BCLL 0.0	Rep Stress Incr YES	Matrix-SH	Horz(CT) 0.18 11 n/a n/a		
BCDL 10.0	Code IRC2018/TPI2014			Weight: 261 lb	FT = 3%

<b>LUMBER-</b>	<b>BRACING-</b>
TOP CHORD 2x4 SP No.2	TOP CHORD Structural wood sheathing directly applied or 2-2-0 oc purlins, except end verticals.
BOT CHORD 2x4 SP No.2	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing, Except: 6-0-0 oc bracing: 11-12.
WEBS 2x4 SP No.2	WEBS 1 Row at midpt 3-17 2-19, 4-17, 5-15, 1-20

**REACTIONS.** (size) 20=0-4-0, 11=0-4-0  
Max Horz 20=337(LC 7)  
Max Uplift 20=18(LC 7), 11=48(LC 12)  
Max Grav 20=1264(LC 2), 11=1420(LC 34)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
TOP CHORD 1-2=-385/97, 2-3=-731/75, 3-4=-732/75, 4-5=-1267/75, 5-7=-2107/56, 7-8=-2876/46, 8-9=-3672/26, 1-20=-1239/31, 9-11=-1435/62  
BOT CHORD 19-20=-77/279, 3-17=-430/86, 15-17=0/1009, 14-15=0/1804, 13-14=0/2574, 12-13=0/3149, 11-12=-36/283  
WEBS 2-19=-996/70, 17-19=0/353, 2-17=0/1040, 4-17=-752/50, 4-15=-6/847, 5-15=-1086/119, 5-14=0/470, 7-14=-835/81, 7-13=0/339, 8-13=-638/27, 8-12=0/535, 1-19=-55/1057, 9-12=0/2976

- NOTES-**
- 1) Unbalanced roof live loads have been considered for this design.
  - 2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope); cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.33 plate grip DOL=1.33
  - 3) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=20.4 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; 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.
  - 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 15.4 psf on overhangs non-concurrent with other live loads.
  - 6) Provide adequate drainage to prevent water ponding.
  - 7) Plates checked for a plus or minus 3 degree rotation about its center.
  - 8) Bearing at joint(s) 11 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
  - 9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 20, 11.
  - 10) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



March 1, 2021



Job	Truss	Truss Type	Qty	Ply	SUMMIT HOMES	144987066
H3-94	T10A	Piggyback Base	1	1	Job Reference (optional)	

Mid America Truss, Jefferson City, MO - 65101,

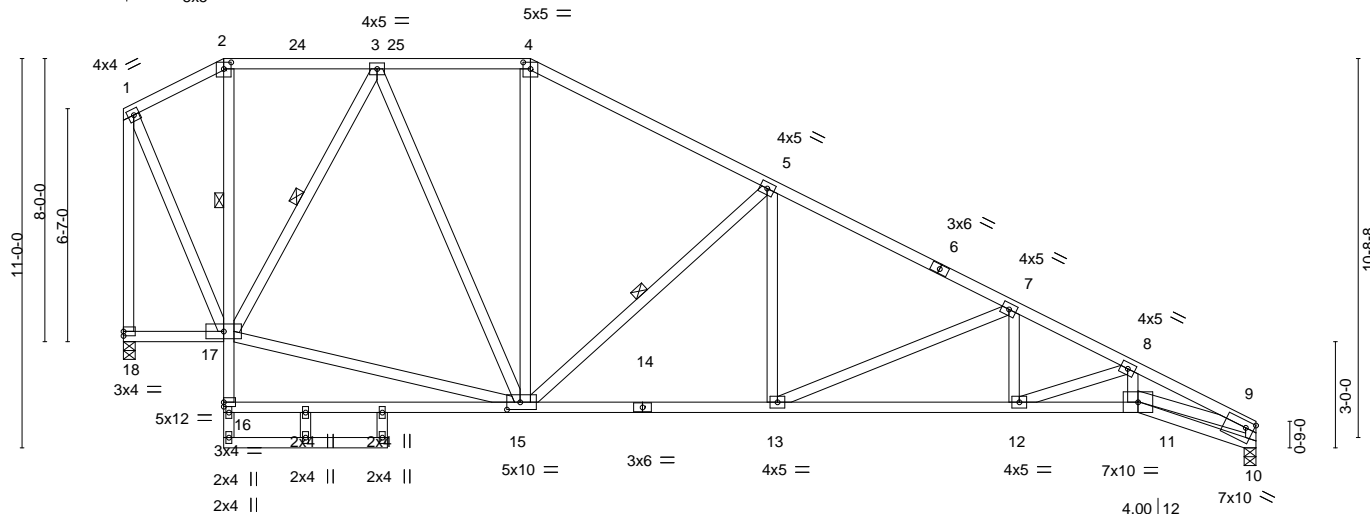
8.430 s Feb 12 2021 MiTek Industries, Inc. Fri Feb 26 15:30:05 2021 Page 1

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2-10-0	7-2-0	11-6-0	18-4-0	25-2-0	28-8-0	32-0-0
2-10-0	4-4-0	4-4-0	6-10-0	6-10-0	3-6-0	3-4-0

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Scale = 1:65.1



2-10-0	7-5-8	11-6-0	18-4-0	25-2-0	28-8-0	32-0-0
2-10-0	4-7-8	4-0-8	6-10-0	6-10-0	3-6-0	3-4-0

Plate Offsets (X,Y)-- [2:0-2-8,0-2-4], [4:0-2-8,0-2-4], [10:Edge,0-2-4], [15:0-4-8,0-2-8]

LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof) 20.0	2-0-0	TC 0.96	Vert(LL)	-0.16 12-13	>999	360	MT20	244/190
Snow (Pf/Pg) 20.4/20.0	Plate Grip DOL 1.15	BC 0.89	Vert(CT)	-0.34 12-13	>999	240		
TCDL 10.0	Lumber DOL 1.15	WB 0.81	Horz(CT)	0.13 10	n/a	n/a		
BCLL 0.0	Rep Stress Incr YES	Matrix-SH						
BCDL 10.0	Code IRC2018/TPI2014						Weight: 245 lb	FT = 3%

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

**BRACING-**  
TOP CHORD Structural wood sheathing directly applied or 2-2-0 oc purlins, except end verticals.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing. Except:  
WEBS 1 Row at midpt 2-17  
1 Row at midpt 3-17, 5-15

**REACTIONS.** (size) 18=0-4-0, 10=0-4-0  
Max Horz 18=-285(LC 7)  
Max Uplift 10=-39(LC 12)  
Max Grav 18=1268(LC 2), 10=1314(LC 33)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
TOP CHORD 1-2=-509/64, 2-3=-425/61, 3-4=-989/120, 4-5=-1251/105, 5-7=-2116/95, 7-8=-2910/96,  
8-9=-3764/108, 1-18=-1226/11, 9-10=-1339/64  
BOT CHORD 13-15=0/1812, 12-13=-17/2603, 11-12=-71/3242, 10-11=-24/320  
WEBS 15-17=0/774, 3-17=-778/98, 3-15=-55/599, 5-15=-1096/128, 5-13=0/470, 7-13=-857/91,  
7-12=0/369, 8-12=-717/57, 8-11=0/553, 1-17=-27/1030, 9-11=-52/3037

#### NOTES-

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope); cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.33 plate grip DOL=1.33
- TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=20.4 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; 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.
- Unbalanced snow loads have been considered for this design.
- Provide adequate drainage to prevent water ponding.
- Plates checked for a plus or minus 3 degree rotation about its center.
- Bearing at joint(s) 10 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 10.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



March 1, 2021

**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 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, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



16023 Swingley Ridge Rd  
Chesterfield, MO 63017

Mid America Truss, Jefferson City, MO - 65101,

8.430 s Feb 12 2021 MiTek Industries, Inc. Fri Feb 26 15:30:07 2021 Page 1

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2-10-0 7-5-8 11-6-0 18-4-0 25-2-0 28-8-0 32-0-0

2-10-0 4-7-8 4-0-8 6-10-0 6-10-0 3-6-0 3-4-0

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0-9-0 1-0-0

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4.00 | 12

2-10-0 7-5-8 11-6-0 18-4-0 25-2-0 28-8-0 32-0-0

2-10-0 4-7-8 4-0-8 6-10-0 6-10-0 3-6-0 3-4-0

Plate Offsets (X,Y)-- [2:0-6-0,0-2-8], [4:0-6-0,0-2-8], [10:Edge,0-2-4], [17:Edge,0-1-8]

LOADING (psf)

TCLL (roof) 20.0

Snow (Pf/Pg) 20.4/20.0

TCDL 10.0

BCLL 0.0

BCDL 10.0

SPACING-

2-0-0

Plate Grip DOL 1.15

Lumber DOL 1.15

Rep Stress Incr YES

Code IRC2018/TPI2014

CSI.

TC 0.88

BC 0.89

WB 0.81

Matrix-SH

DEFL.

in (loc)

l/defl

L/d

Vert(LL) -0.17 12-13 >999 360

Vert(CT) -0.36 12-13 >999 240

Horz(CT) 0.18 10 n/a n/a

PLATES

MT20

Weight: 258 lb

GRIP

244/190

FT = 3%

LUMBER-

TOP CHORD 2x4 SP No.2

BOT CHORD 2x4 SP No.2

WEBS 2x4 SP No.2

BRACING-

TOP CHORD Structural wood sheathing directly applied or 2-2-0 oc purlins, except end verticals.

BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing. Except:

WEBS 1 Row at midpt 3-16 2-18, 4-16, 5-14, 1-19

REACTIONS.

(size) 19=0-4-0, 10=0-4-0

Max Horz 19=-322(LC 7)

Max Uplift 19=-19(LC 7), 10=-26(LC 12)

Max Grav 19=1268(LC 2), 10=1314(LC 33)

FORCES.

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

TOP CHORD 1-2=-386/97, 2-3=-734/78, 3-4=-735/78, 4-5=-1271/78, 5-7=-2117/63, 7-8=-2909/62, 8-9=-3765/66, 1-19=-1243/31, 9-10=-1339/50

BOT CHORD 18-19=-80/264, 3-16=-430/86, 14-16=0/1013, 13-14=0/1813, 12-13=0/2602, 11-12=-35/3242, 10-11=-21/320

WEBS 2-18=-1000/73, 16-18=-2/343, 2-16=-3/1045, 4-16=-756/51, 4-14=-8/852, 5-14=-1094/122, 5-13=0/477, 7-13=-855/90, 7-12=0/367, 8-12=-718/51, 8-11=0/555, 1-18=-55/1060, 9-11=-18/3037

NOTES-

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

2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCCL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope); cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.33 plate grip DOL=1.33

3) TCCL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=20.4 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; 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.

4) Unbalanced snow loads have been considered for this design.

5) Provide adequate drainage to prevent water ponding.

6) Plates checked for a plus or minus 3 degree rotation about its center.

7) Bearing at joint(s) 10 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.

8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 19, 10.

9) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

STATE OF MISSOURI

SCOTT M. SEVIER

Professional Engineer

PE-2001018807

March 1,2021

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE.

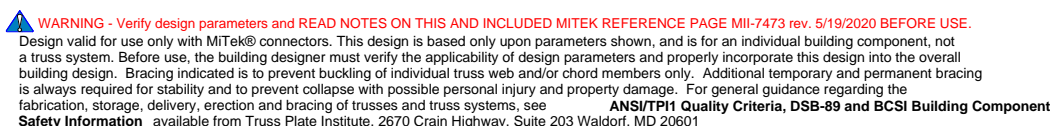
Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall 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, 2670 Crain Highway, Suite 203 Waldorf, MD 20601

MiTek

16023 Swingley Ridge Rd Chesterfield, MO 63017



March 1, 2021





Job	Truss	Truss Type	Qty	Ply	SUMMIT HOMES
H3-94	T11GE	GABLE	1	1	144987069

Mid America Truss, Jefferson City, MO - 65101,

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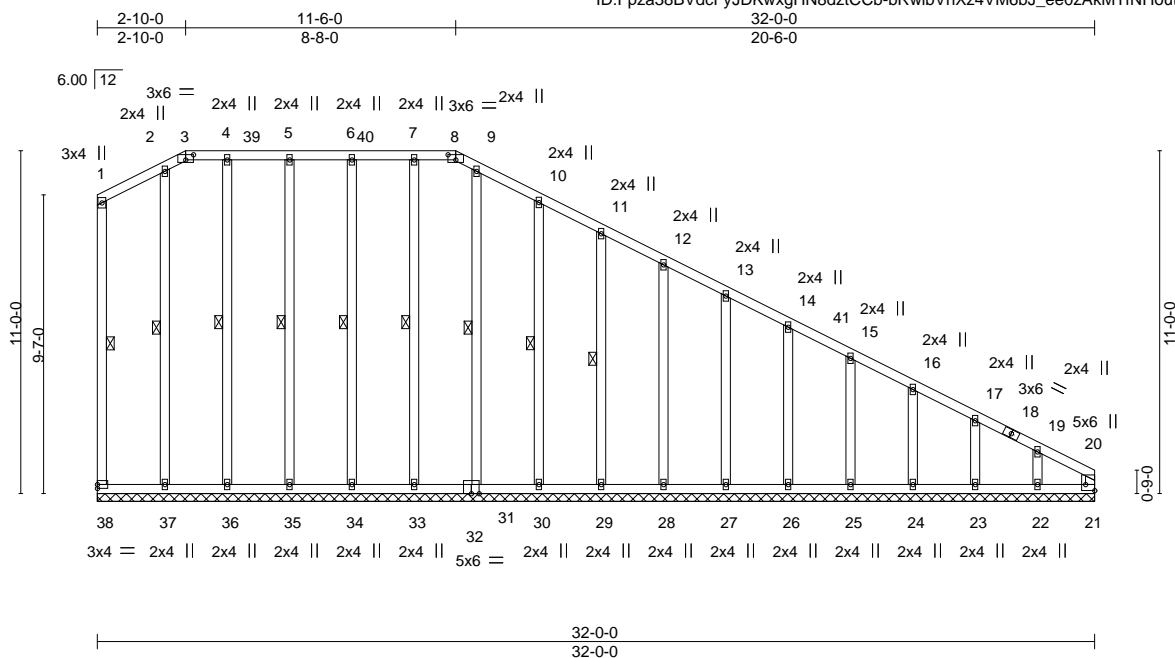


Plate Offsets (X,Y)-- [3:0-3-0,0-2-0], [8:0-3-0,0-2-0], [20:Edge,0-3-8]

LOADING (psf)	SPACING-	CSI.	DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof) 20.0	2-0-0	TC 0.50	Vert(LL) n/a	-	n/a	999		MT20	244/190
Snow (Pf/Pg) 20.4/20.0	Plate Grip DOL 1.15	BC 0.25	Vert(CT) n/a	-	n/a	999			
TCDL 10.0	Lumber DOL 1.15	WB 0.17	Horz(CT) 0.01	21	n/a	n/a			
BCLL 0.0	Rep Stress Incr YES	Matrix-R							
BCDL 10.0	Code IRC2018/TPI2014							Weight: 274 lb	FT = 3%

#### LUMBER-

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

#### BRACING-

TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.  
WEBS 1 Row at midpt 1-38, 2-37, 4-36, 5-35, 6-34, 7-33, 9-31, 10-30, 11-29

#### REACTIONS.

All bearings 32-0-0.  
(lb) - Max Horz 38=321(LC 9)  
Max Uplift All uplift 100 lb or less at joint(s) 38, 21, 37, 36, 35, 34, 33, 31, 30, 29, 28, 27, 26, 25, 24, 23 except 22=121(LC 7)  
Max Grav All reactions 250 lb or less at joint(s) 38, 21, 37, 36, 35, 34, 33, 31, 30, 29, 28, 27, 26, 25, 24, 23, 22

#### FORCES.

(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
TOP CHORD 17-19=-254/79, 19-20=-300/89  
BOT CHORD 37-38=-80/263, 36-37=-80/263, 35-36=-80/263, 34-35=-80/263, 33-34=-80/263, 31-33=-80/263, 30-31=-80/263, 29-30=-80/263, 28-29=-80/263, 27-28=-80/263, 26-27=-80/263, 25-26=-80/263, 24-25=-80/263, 23-24=-80/263, 22-23=-80/263, 21-22=-80/263

#### NOTES-

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope); cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.33 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 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=20.4 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; 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.
- Unbalanced snow loads have been considered for this design.
- Provide adequate drainage to prevent water ponding.
- Plates checked for a plus or minus 3 degree rotation about its center.
- 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.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 38, 21, 37, 36, 35, 34, 33, 31, 30, 29, 28, 27, 26, 25, 24, 23 except (jt=lb) 22=121.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



March 1, 2021

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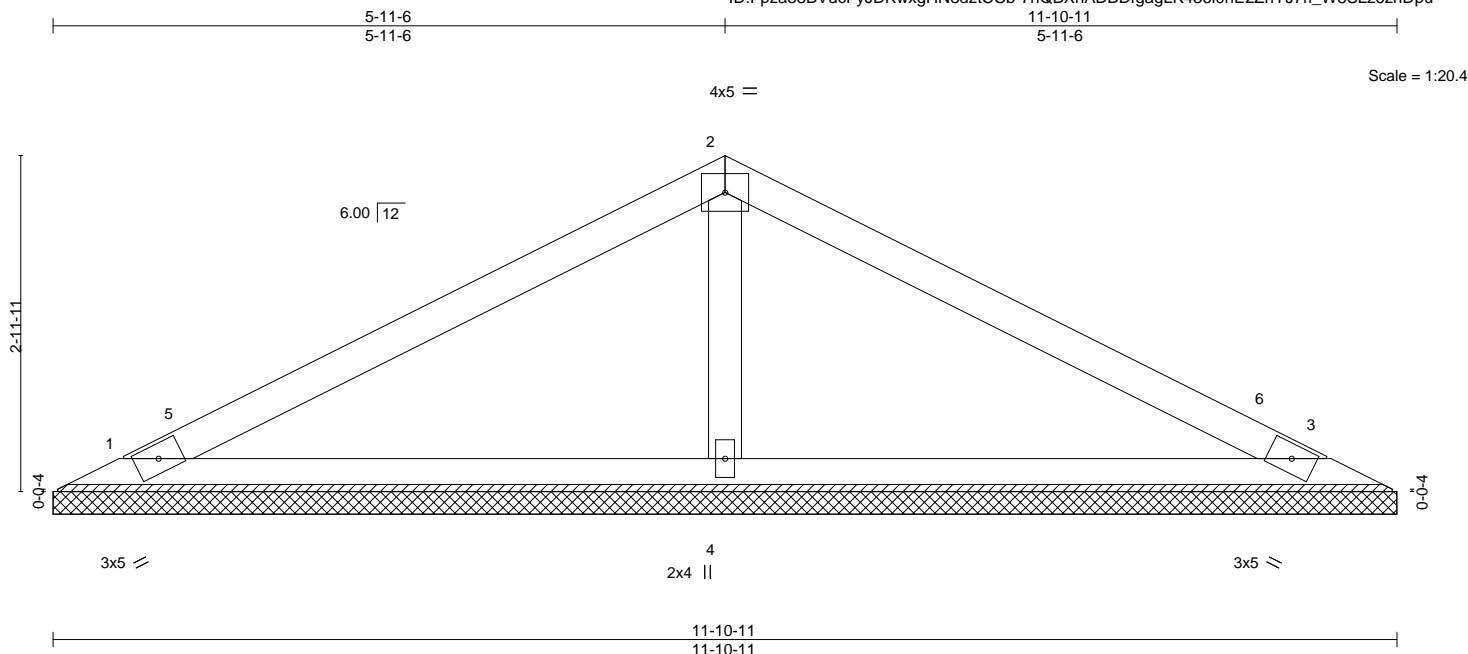
16023 Swingley Ridge Rd  
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	SUMMIT HOMES	144987070
H3-94	V1	GABLE	1	1	Job Reference (optional)	

Mid America Truss, Jefferson City, MO - 65101,

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LOADING (psf)	SPACING-	CSI.	DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof) 20.0	2-0-0	TC 0.74	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf/Pg) 15.4/20.0	Plate Grip DOL 1.15	BC 0.20	Vert(CT)	n/a	-	n/a	999		
TCDL 10.0	Lumber DOL 1.15	WB 0.05	Horz(CT)	0.00	3	n/a	n/a		
BCLL 0.0	Rep Stress Incr YES	Matrix-P							
BCDL 10.0	Code IRC2018/TPI2014							Weight: 39 lb	FT = 3%

#### LUMBER-

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

#### 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=11-10-11, 3=11-10-11, 4=11-10-11  
Max Horz 1=30(LC 8)  
Max Uplift 1=22(LC 11), 3=27(LC 12)  
Max Grav 1=247(LC 15), 3=247(LC 16), 4=422(LC 2)

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

WEBS 2-4=-289/47

#### NOTES-

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope); cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.33 plate grip DOL=1.33
- TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=15.4 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
- Unbalanced snow loads have been considered for this design.
- Plates checked for a plus or minus 3 degree rotation about its center.
- Gable requires continuous bottom chord bearing.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 3.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



March 1, 2021

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ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component

Safety Information available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



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Chesterfield, MO 63017

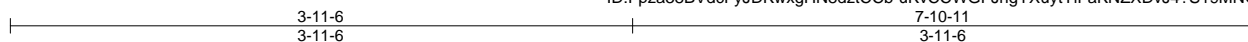


Job	Truss	Truss Type	Qty	Ply	SUMMIT HOMES	144987071
H3-94	V2	Valley	1	1	Job Reference (optional)	

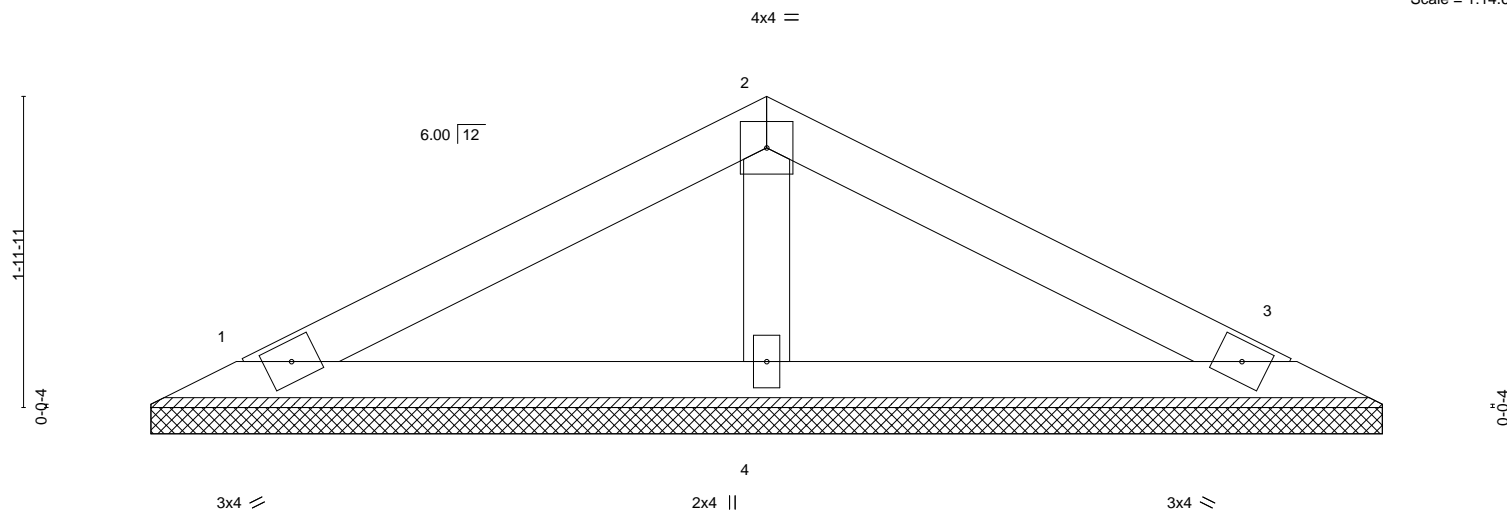
Mid America Truss, Jefferson City, MO - 65101,

8.430 s Feb 12 2021 MiTek Industries, Inc. Fri Feb 26 15:30:53 2021 Page 1

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Scale = 1:14.6



LOADING (psf)		SPACING-		CSI.		DEFL.		PLATES		GRIP	
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.25	Vert(LL)	n/a	MT20	244/190		
Snow (Pf/Pg)	15.4/20.0	Lumber DOL	1.15	BC	0.08	Vert(CT)	n/a				
TCDL	10.0	Rep Stress Incr	YES	WB	0.02	Horz(CT)	0.00				
BCLL	0.0	Code IRC2018/TPI2014		Matrix-P							
BCDL	10.0										

#### LUMBER-

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

#### 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=7-9-11, 3=7-9-11, 4=7-9-11  
Max Horz 1=19(LC 8)  
Max Uplift 1=14(LC 11), 3=17(LC 12)  
Max Grav 1=156(LC 15), 3=156(LC 16), 4=263(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 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope); cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.33 plate grip DOL=1.33
- TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=15.4 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
- Unbalanced snow loads have been considered for this design.
- Plates checked for a plus or minus 3 degree rotation about its center.
- Gable requires continuous bottom chord bearing.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 3.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



March 1, 2021

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ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component

Safety Information available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



16023 Swingley Ridge Rd  
Chesterfield, MO 63017



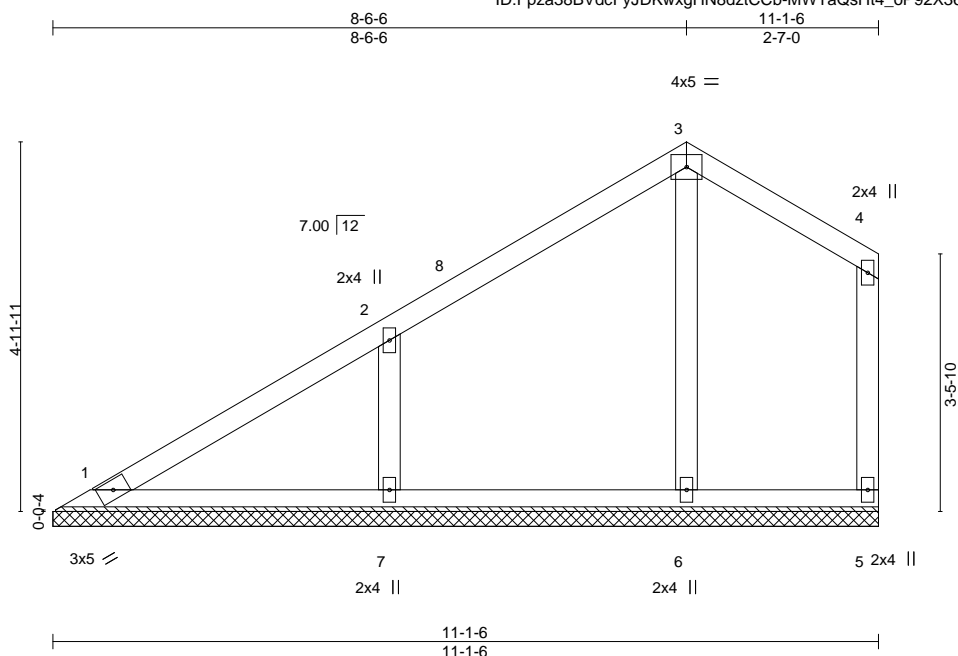


Job	Truss	Truss Type	Qty	Ply	SUMMIT HOMES	144987073
H3-94	V4	GABLE	1	1	Job Reference (optional)	

Mid America Truss, Jefferson City, MO - 65101,

8.430 s Feb 12 2021 MiTek Industries, Inc. Fri Feb 26 15:30:54 2021 Page 1

ID:Fpza38BVdcFyJDKwxgHN8dztCCb-MWTaQsHt4\_oP92X36Smpta6hnJe0kvfJb17Kn5zhDpl



LOADING (psf)	SPACING-	CSI.	DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof) 20.0	2-0-0	TC 0.26	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf/Pg) 15.4/20.0	Plate Grip DOL 1.15	BC 0.10	Vert(CT)	n/a	-	n/a	999		
TCDL 10.0	Lumber DOL 1.15	WB 0.06	Horz(CT)	-0.00	5	n/a	n/a		
BCLL 0.0	Rep Stress Incr YES	Matrix-P						Weight: 49 lb	FT = 3%
BCDL 10.0	Code IRC2018/TPI2014								

#### LUMBER-

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

#### BRACING-

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

#### REACTIONS.

All bearings 11-1-6.  
(lb) - Max Horz 1=134(LC 8)  
Max Uplift All uplift 100 lb or less at joint(s) 5, 7  
Max Grav All reactions 250 lb or less at joint(s) 1, 5, 6 except 7=406(LC 22)

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

WEBS 2-7=-313/130

#### NOTES-

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope); cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.33 plate grip DOL=1.33
- TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=15.4 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
- Unbalanced snow loads have been considered for this design.
- Plates checked for a plus or minus 3 degree rotation about its center.
- Gable requires continuous bottom chord bearing.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 5, 7.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



March 1, 2021

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ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component

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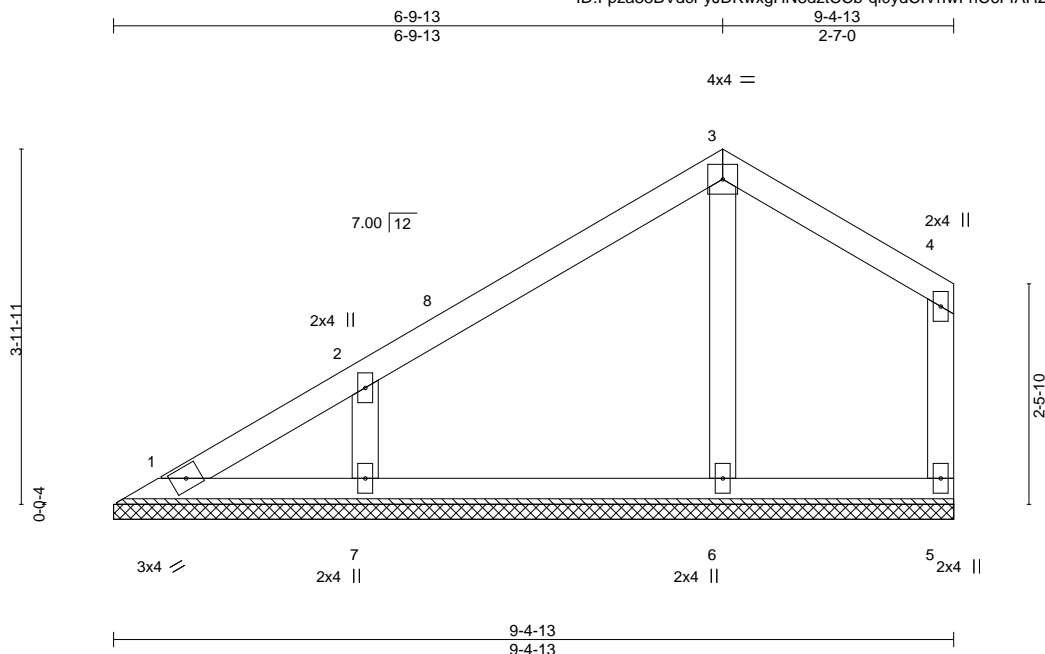


16023 Swingley Ridge Rd  
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	SUMMIT HOMES	144987074
H3-94	V5	GABLE	1	1	Job Reference (optional)	

Mid America Truss, Jefferson City, MO - 65101,

8.430 s Feb 12 2021 MiTek Industries, Inc. Fri Feb 26 15:30:55 2021 Page 1  
ID:Fpza38BVdcFyJDKwxgHN8dztCCb-qj0ydCIVrlwFnC6FIAH2Qoettj\_ITMESqhtJXzhDpk



LOADING (psf)	SPACING-	CSI.	DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof) 20.0	2-0-0	TC 0.24	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf/Pg) 15.4/20.0	Plate Grip DOL 1.15	BC 0.06	Vert(CT)	n/a	-	n/a	999		
TCDL 10.0	Lumber DOL 1.15	WB 0.04	Horz(CT)	-0.00	5	n/a	n/a		
BCLL 0.0	Rep Stress Incr YES	Matrix-P						Weight: 39 lb	FT = 3%
BCDL 10.0	Code IRC2018/TPI2014								

#### LUMBER-

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

#### BRACING-

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

#### REACTIONS.

All bearings 9-4-13.

(lb) - Max Horz 1=102(LC 8)

Max Uplift All uplift 100 lb or less at joint(s) 1, 5, 7

Max Grav All reactions 250 lb or less at joint(s) 1, 5, 6 except 7=335(LC 22)

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

WEBS 2-7=-262/109

#### NOTES-

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope); cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.33 plate grip DOL=1.33
- 3) TCDL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=15.4 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
- 4) Unbalanced snow loads have been considered for this design.
- 5) Plates checked for a plus or minus 3 degree rotation about its center.
- 6) Gable requires continuous bottom chord bearing.
- 7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 5, 7.
- 8) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



March 1, 2021

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ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component

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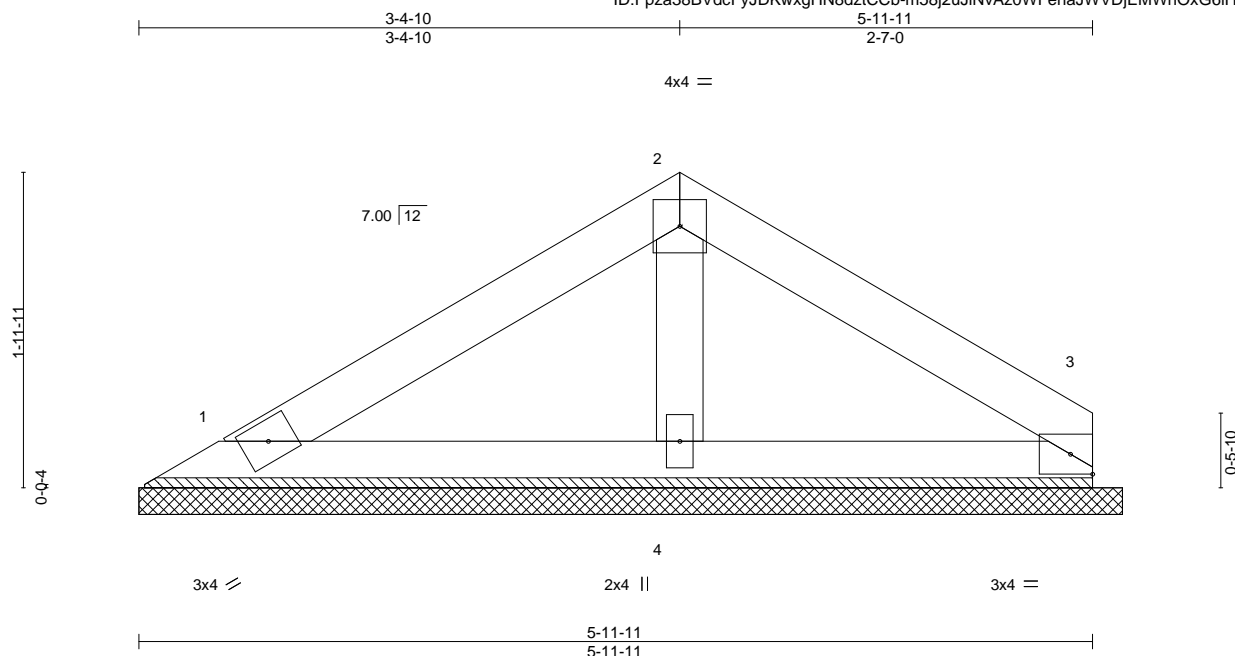


Job	Truss	Truss Type	Qty	Ply	SUMMIT HOMES	144987076
H3-94	V7	GABLE	1	1	Job Reference (optional)	

Mid America Truss, Jefferson City, MO - 65101,

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ID:Fpza38BVdcFyJDKwxgHN8dztCCb-m58j2uJINvAz0WFenaJWVDjEMWWhOxG6IH?M\_OPzhDpi



Scale = 1:14.4

LOADING (psf)		SPACING-		CSI.		DEFL.		PLATES		GRIP	
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.18	Vert(LL)	n/a	MT20		244/190	
Snow (Pf/Pg)	15.4/20.0	Lumber DOL	1.15	BC	0.05	Vert(CT)	n/a				
TCDL	10.0	Rep Stress Incr	YES	WB	0.02	Horz(CT)	0.00				
BCLL	0.0	Code IRC2018/TPI2014		Matrix-P							
BCDL	10.0										

Weight: 20 lb FT = 3%

#### LUMBER-

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

#### BRACING-

TOP CHORD Structural wood sheathing directly applied or 5-11-11 oc purlins.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

#### REACTIONS.

(size) 1=6-1-15, 3=6-1-15, 4=6-1-15  
Max Horz 1=35(LC 7)  
Max Uplift 1=12(LC 11), 3=15(LC 12)  
Max Grav 1=136(LC 15), 3=125(LC 16), 4=207(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 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope); cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.33 plate grip DOL=1.33
- TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=15.4 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
- Unbalanced snow loads have been considered for this design.
- Plates checked for a plus or minus 3 degree rotation about its center.
- Gable requires continuous bottom chord bearing.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 3.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



March 1, 2021

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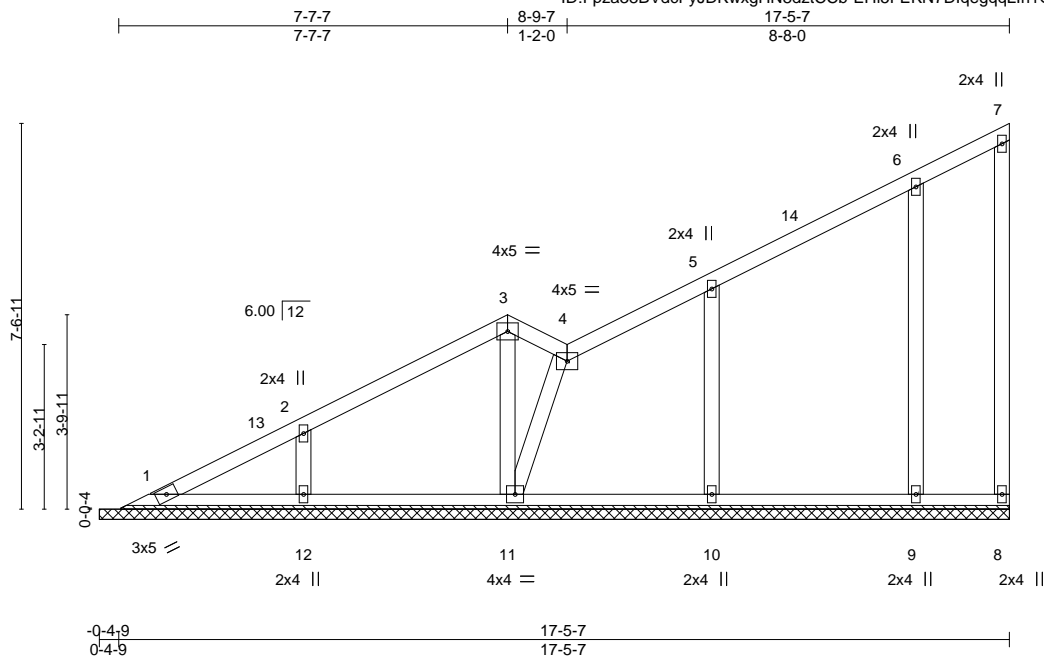
16023 Swingley Ridge Rd  
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	SUMMIT HOMES
H3-94	V8	GABLE	1	1	144987077
Job Reference (optional)					

Mid America Truss, Jefferson City, MO - 65101,

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Scale = 1:45.1

LOADING (psf)		SPACING-		CSI.		DEFL.				PLATES	GRIP
TCLL (roof)	20.0	2-0-0	Plate Grip DOL	1.15	TC 0.43	in	(loc)	l/defl	L/d	MT20	244/190
Snow (Pf/Pg)	15.4/20.0	1.15	Lumber DOL	1.15	BC 0.08	n/a	-	n/a	999		
TCDL	10.0	1.15	Rep Stress Incr	YES	WB 0.14	n/a	-	n/a	999		
BCLL	0.0	YES	Code IRC2018/TPI2014		Matrix-P	-0.00	8	n/a	n/a	Weight: 91 lb	FT = 3%
BCDL	10.0										

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

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

**REACTIONS.** All bearings 17-10-0.  
(lb) - Max Horz 1=236(LC 10)  
Max Uplift All uplift 100 lb or less at joint(s) 8, 12, 11, 10, 9  
Max Grav All reactions 250 lb or less at joint(s) 1, 8 except 12=398(LC 33), 11=319(LC 2), 10=378(LC 35), 9=270(LC 2)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
WEBS 2-12=-320/105, 5-10=-296/93

**NOTES-**  
1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope); cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.33 plate grip DOL=1.33  
2) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=15.4 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10  
3) Unbalanced snow loads have been considered for this design.  
4) Provide adequate drainage to prevent water ponding.  
5) Plates checked for a plus or minus 3 degree rotation about its center.  
6) Gable requires continuous bottom chord bearing.  
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 8, 12, 11, 10, 9.  
8) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



March 1, 2021

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**Safety Information** available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601

**MiTek**  
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Chesterfield, MO 63017

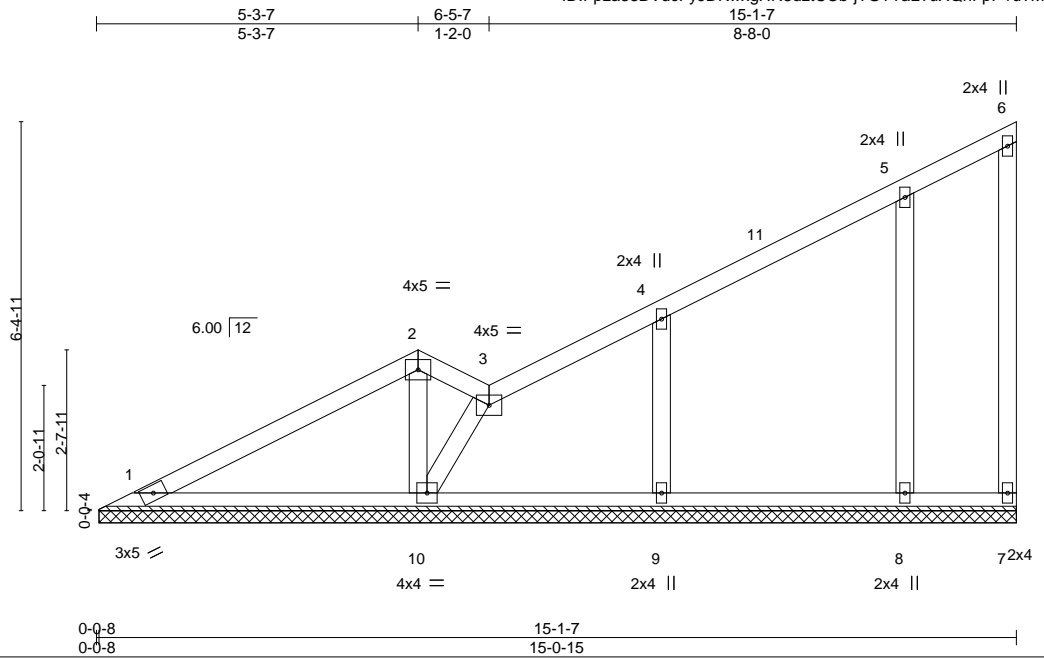


Job	Truss	Truss Type	Qty	Ply	SUMMIT HOMES	144987078
H3-94	V9	GABLE	1	1	Job Reference (optional)	

Mid America Truss, Jefferson City, MO - 65101,

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Scale = 1:37.9

LOADING (psf)		SPACING-		CSI.		DEFL.		PLATES		GRIP	
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.57	Vert(LL)	n/a	MT20		244/190	
Snow (Pf/Pg)	15.4/20.0	Lumber DOL	1.15	BC	0.12	Vert(CT)	n/a				
TCDL	10.0	Rep Stress Incr	YES	WB	0.09	Horz(CT)	-0.00				
BCLL	0.0	Code IRC2018/TPI2014		Matrix-P			7				
BCDL	10.0										
								Weight: 73 lb		FT = 3%	

#### LUMBER-

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

#### BRACING-

TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing, Except: 6-0-0 oc bracing: 1-10.

#### REACTIONS.

All bearings 15-0-15.  
(lb) - Max Horz 1=198(LC 8)  
Max Uplift All uplift 100 lb or less at joint(s) 7, 10, 9, 8  
Max Grav All reactions 250 lb or less at joint(s) 1, 7 except 10=391(LC 2), 9=372(LC 35), 8=272(LC 2)

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

WEBS 4-9=-296/93

#### NOTES-

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope); cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.33 plate grip DOL=1.33
- 2) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=15.4 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
- 3) Unbalanced snow loads have been considered for this design.
- 4) Provide adequate drainage to prevent water ponding.
- 5) Plates checked for a plus or minus 3 degree rotation about its center.
- 6) Gable requires continuous bottom chord bearing.
- 7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 7, 10, 9, 8.
- 8) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



March 1, 2021

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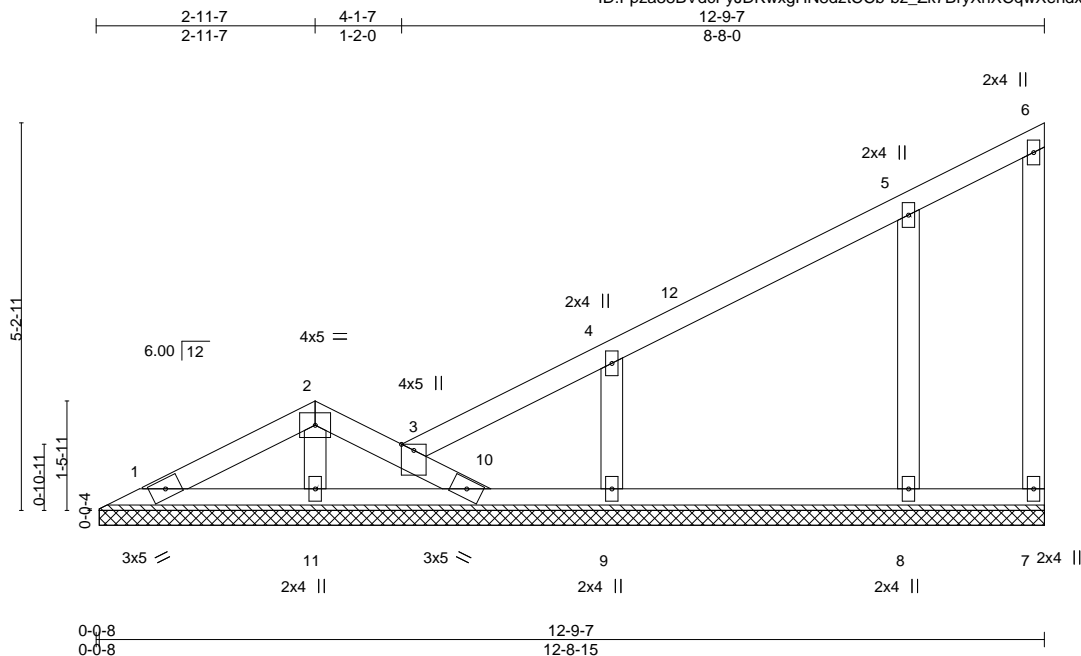


16023 Swingley Ridge Rd  
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	SUMMIT HOMES	144987079
H3-94	V10	GABLE	1	1	Job Reference (optional)	

Mid America Truss, Jefferson City, MO - 65101,

8.430 s Feb 12 2021 MiTek Industries, Inc. Fri Feb 26 15:30:46 2021 Page 1  
ID:Fpza38BVdcFyJDKwXgHN8dzCCb-bz\_Zk7BryXnXCqwXendxYvmMx4xgsl7loBvVYzhDpt



Scale = 1:31.1

<b>LOADING</b> (psf)		<b>SPACING-</b>		<b>CSI.</b>		<b>DEFL.</b>		<b>PLATES</b>		<b>GRIP</b>	
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.19	Vert(LL)	n/a	MT20	244/190		
Snow (Pf/Pg)	15.4/20.0	Lumber DOL	1.15	BC	0.06	Vert(CT)	n/a				
TCDL	10.0	Rep Stress Incr	YES	WB	0.06	Horz(CT)	-0.00				
BCLL	0.0	Code IRC2018/TPI2014		Matrix-P			7				
BCDL	10.0										
								Weight: 58 lb		FT = 3%	

#### LUMBER-

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

#### BRACING-

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

#### REACTIONS.

All bearings 12-8-15.

(lb) - Max Horz 1=159(LC 10)

Max Uplift All uplift 100 lb or less at joint(s) 7, 11, 9, 8

Max Grav All reactions 250 lb or less at joint(s) 1, 10, 7, 11 except 9=337(LC 35), 8=271(LC 2)

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

WEBS 4-9=-268/91

#### NOTES-

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope); cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.33 plate grip DOL=1.33
- 2) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=15.4 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
- 3) Unbalanced snow loads have been considered for this design.
- 4) Plates checked for a plus or minus 3 degree rotation about its center.
- 5) Gable requires continuous bottom chord bearing.
- 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 7, 11, 9, 8.
- 7) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 8) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



March 1, 2021

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**ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component**

**Safety Information** available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



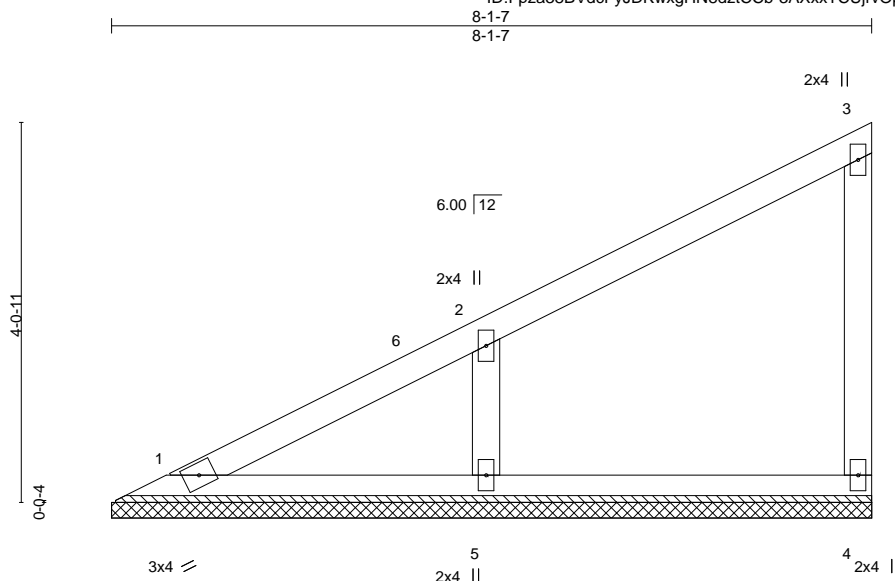
16023 Swingley Ridge Rd  
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	SUMMIT HOMES	144987080
H3-94	V11	GABLE	1	1	Job Reference (optional)	

Mid America Truss, Jefferson City, MO - 65101,

8.430 s Feb 12 2021 MiTek Industries, Inc. Fri Feb 26 15:30:47 2021 Page 1

ID:Fpza38BVdcFyJDKwxgHN8dztCCb-3AXxxTCUjrvOpzVjBU8A56JVXUGObIGH\_SxS1?zhDps



Scale = 1:24.6

LOADING (psf)	SPACING-	CSI.	DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof) 20.0	2-0-0	TC 0.26	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf/Pg) 15.4/20.0	Plate Grip DOL 1.15	BC 0.10	Vert(CT)	n/a	-	n/a	999		
TCDL 10.0	Lumber DOL 1.15	WB 0.04	Horz(CT)	-0.00	4	n/a	n/a		
BCLL 0.0	Rep Stress Incr YES	Matrix-P						Weight: 32 lb	FT = 3%
BCDL 10.0	Code IRC2018/TPI2014								

#### LUMBER-

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

#### BRACING-

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

#### REACTIONS.

(size) 1=8-1-7, 4=8-1-7, 5=8-1-7  
Max Horz 1=121(LC 8)  
Max Uplift 4=14(LC 8), 5=53(LC 11)  
Max Grav 1=102(LC 23), 4=159(LC 15), 5=420(LC 15)

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

WEBS 2-5=-327/108

#### NOTES-

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope); cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.33 plate grip DOL=1.33
- 2) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=15.4 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.0; Ct=1.10
- 3) Unbalanced snow loads have been considered for this design.
- 4) Plates checked for a plus or minus 3 degree rotation about its center.
- 5) Gable requires continuous bottom chord bearing.
- 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 4, 5.
- 7) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



March 1, 2021

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ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component

Safety Information available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



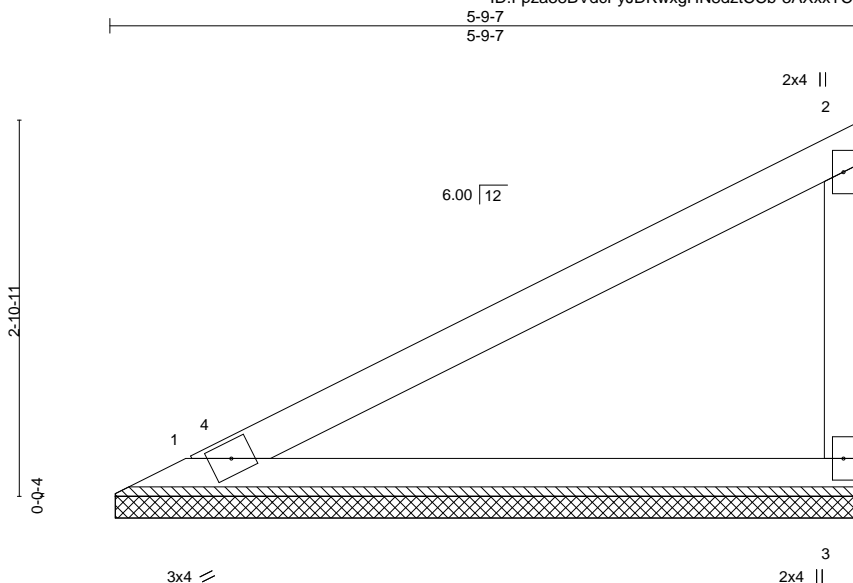
16023 Swingley Ridge Rd  
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	SUMMIT HOMES	144987081
H3-94	V12	Valley	1	1	Job Reference (optional)	

Mid America Truss, Jefferson City, MO - 65101,

8.430 s Feb 12 2021 MiTek Industries, Inc. Fri Feb 26 15:30:47 2021 Page 1

ID:Fpza38BVdcFyJDKwXgHN8dzCCb-3AXxxTCUjrvOpzVjBU8A56JPPUEUbluH\_SxS1?zhDps



Scale = 1:17.7

LOADING (psf)	SPACING-	CSI.	DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof) 20.0	2-0-0	TC 0.66	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf/Pg) 15.4/20.0	Plate Grip DOL 1.15	BC 0.22	Vert(CT)	n/a	-	n/a	999		
TCDL 10.0	Lumber DOL 1.15	WB 0.00	Horz(CT)	-0.00	3	n/a	n/a		
BCLL 0.0	Rep Stress Incr YES	Matrix-P						Weight: 21 lb	FT = 3%
BCDL 10.0	Code IRC2018/TPI2014								

#### LUMBER-

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

#### BRACING-

TOP CHORD Structural wood sheathing directly applied or 5-9-7 oc purlins, except end verticals.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

#### REACTIONS.

(size) 1=5-8-15, 3=5-8-15  
Max Horz 1=83(LC 8)  
Max Uplift 1=-3(LC 11), 3=-19(LC 11)  
Max Grav 1=239(LC 15), 3=249(LC 15)

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

#### NOTES-

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope); cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.33 plate grip DOL=1.33
- 2) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=15.4 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
- 3) Unbalanced snow loads have been considered for this design.
- 4) Plates checked for a plus or minus 3 degree rotation about its center.
- 5) Gable requires continuous bottom chord bearing.
- 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 3.
- 7) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



March 1, 2021

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ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component

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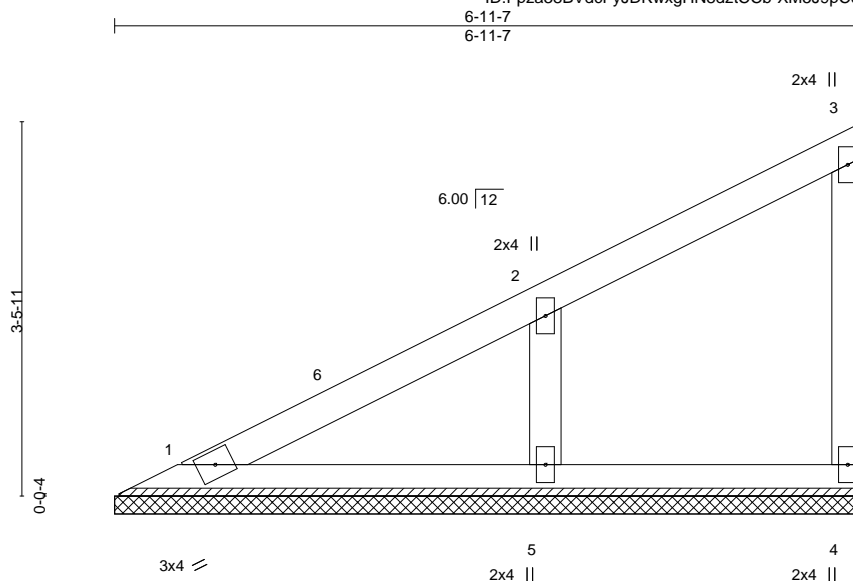
16023 Swingley Ridge Rd  
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	SUMMIT HOMES	144987082
H3-94	V13	GABLE	1	1	Job Reference (optional)	

Mid America Truss, Jefferson City, MO - 65101,

8.430 s Feb 12 2021 MiTek Industries, Inc. Fri Feb 26 15:30:48 2021 Page 1

ID:Fpza38BVdcFyJDKwxgHN8dztCCb-XM5J9pC6U81FR73vBfPdKshJub3KBaQD6g0aRzhDpr



Scale = 1:21.4

LOADING (psf)	SPACING-	CSI.	DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof) 20.0	2-0-0	TC 0.20	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf/Pg) 15.4/20.0	Plate Grip DOL 1.15	BC 0.07	Vert(CT)	n/a	-	n/a	999		
TCDL 10.0	Lumber DOL 1.15	WB 0.04	Horz(CT)	-0.00	4	n/a	n/a		
BCLL 0.0	Rep Stress Incr YES	Matrix-P						Weight: 27 lb	FT = 3%
BCDL 10.0	Code IRC2018/TPI2014								

#### LUMBER-

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

#### BRACING-

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

#### REACTIONS.

(size) 1=6-11-7, 4=6-11-7, 5=6-11-7  
Max Horz 1=102(LC 8)  
Max Uplift 4=11(LC 8), 5=45(LC 11)  
Max Grav 1=106(LC 23), 4=100(LC 15), 5=372(LC 15)

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

WEBS 2-5=-294/91

#### NOTES-

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope); cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.33 plate grip DOL=1.33
- 2) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=15.4 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
- 3) Unbalanced snow loads have been considered for this design.
- 4) Plates checked for a plus or minus 3 degree rotation about its center.
- 5) Gable requires continuous bottom chord bearing.
- 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 4, 5.
- 7) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



March 1, 2021

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16023 Swingley Ridge Rd  
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	SUMMIT HOMES	144987083
H3-94	V14	GABLE	1	1	Job Reference (optional)	

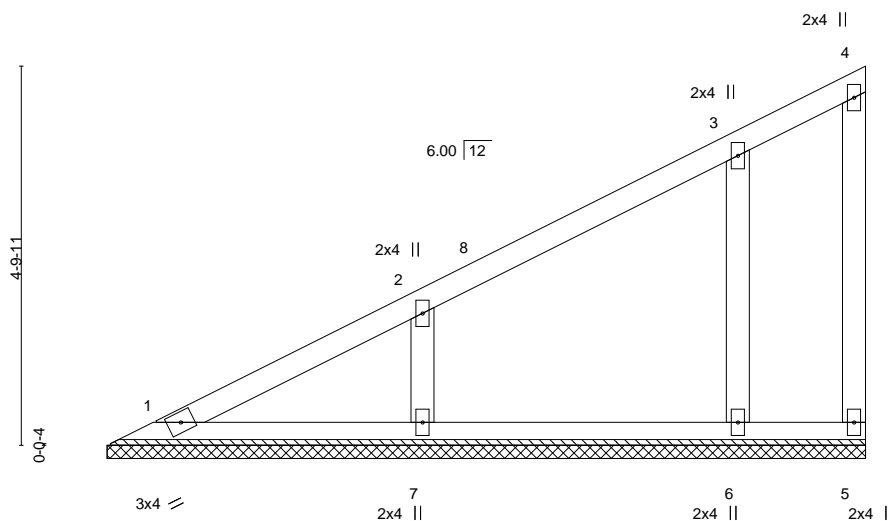
Mid America Truss, Jefferson City, MO - 65101,

8.430 s Feb 12 2021 MiTek Industries, Inc. Fri Feb 26 15:30:49 2021 Page 1

ID:Fpza38BVdcFyJDKwxgHN8dzrCCb-?YfhM9DkFSA63He6JvAeAXOs\_lx43dMZRMQZ6tzhDpq

9-7-7  
9-7-7

Scale = 1:29.2



LOADING (psf)	SPACING-	CSI.	DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof) 20.0	2-0-0	TC 0.20	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf/Pg) 15.4/20.0	Plate Grip DOL 1.15	BC 0.08	Vert(CT)	n/a	-	n/a	999		
TCDL 10.0	Lumber DOL 1.15	WB 0.07	Horz(CT)	-0.00	5	n/a	n/a		
BCLL 0.0	Rep Stress Incr YES	Matrix-P						Weight: 43 lb	FT = 3%
BCDL 10.0	Code IRC2018/TPI2014								

#### LUMBER-

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

#### BRACING-

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

#### REACTIONS.

All bearings 9-7-7.

(lb) - Max Horz 1=146(LC 8)

Max Uplift All uplift 100 lb or less at joint(s) 5, 7, 6

Max Grav All reactions 250 lb or less at joint(s) 1, 5 except 7=340(LC 2), 6=335(LC 15)

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

WEBS 2-7=-255/100, 3-6=-269/76

#### NOTES-

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope); cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.33 plate grip DOL=1.33
- 2) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=15.4 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
- 3) Unbalanced snow loads have been considered for this design.
- 4) Plates checked for a plus or minus 3 degree rotation about its center.
- 5) Gable requires continuous bottom chord bearing.
- 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 5, 7, 6.
- 7) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



March 1, 2021

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Safety Information available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



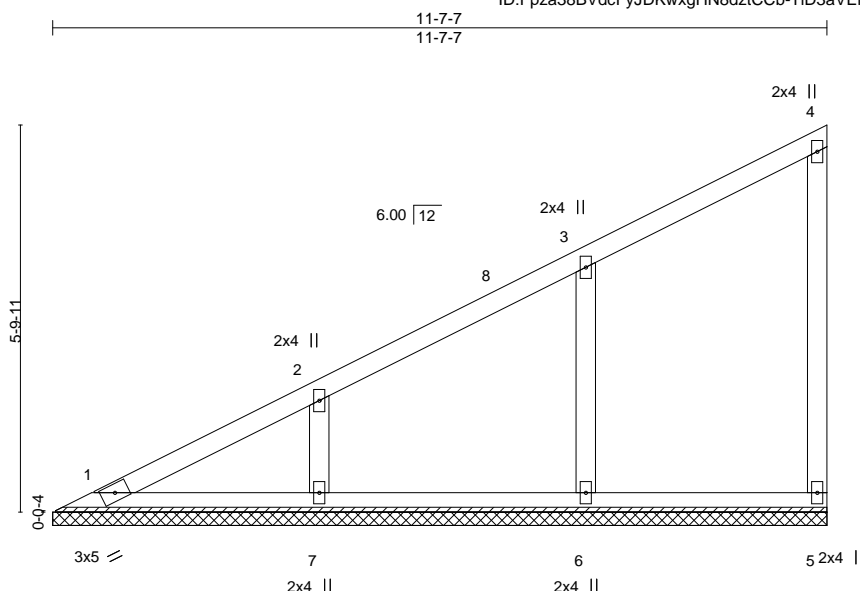
16023 Swingley Ridge Rd  
Chesterfield, MO 63017



Job	Truss	Truss Type	Qty	Ply	SUMMIT HOMES	144987084
H3-94	V15	GABLE	1	1	Job Reference (optional)	

Mid America Truss, Jefferson City, MO - 65101,

8.430 s Feb 12 2021 MiTek Industries, Inc. Fri Feb 26 15:30:50 2021 Page 1  
ID:Fpza38BVdcFyJDKwxgHN8dztCCb-TID3aVEM0mlzgRDltchtjlx0FiHMo4SjgQ96eJzhDpp



Scale = 1:34.6

LOADING (psf)	SPACING-	CSI.	DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof) 20.0	2-0-0	TC 0.23	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf/Pg) 15.4/20.0	Plate Grip DOL 1.15	BC 0.08	Vert(CT)	n/a	-	n/a	999		
TCDL 10.0	Lumber DOL 1.15	WB 0.08	Horz(CT)	-0.00	5	n/a	n/a		
BCLL 0.0	Rep Stress Incr YES	Matrix-P						Weight: 51 lb	FT = 3%
BCDL 10.0	Code IRC2018/TPI2014								

#### LUMBER-

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

#### BRACING-

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

#### REACTIONS.

All bearings 11-7-7.

(lb) - Max Horz 1=178(LC 10)

Max Uplift All uplift 100 lb or less at joint(s) 5, 7, 6

Max Grav All reactions 250 lb or less at joint(s) 1, 5 except 7=326(LC 2), 6=389(LC 15)

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

WEBS 3-6=-306/97

#### NOTES-

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope); cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.33 plate grip DOL=1.33
- 2) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=15.4 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
- 3) Unbalanced snow loads have been considered for this design.
- 4) Plates checked for a plus or minus 3 degree rotation about its center.
- 5) Gable requires continuous bottom chord bearing.
- 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 5, 7, 6.
- 7) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



March 1, 2021

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ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component

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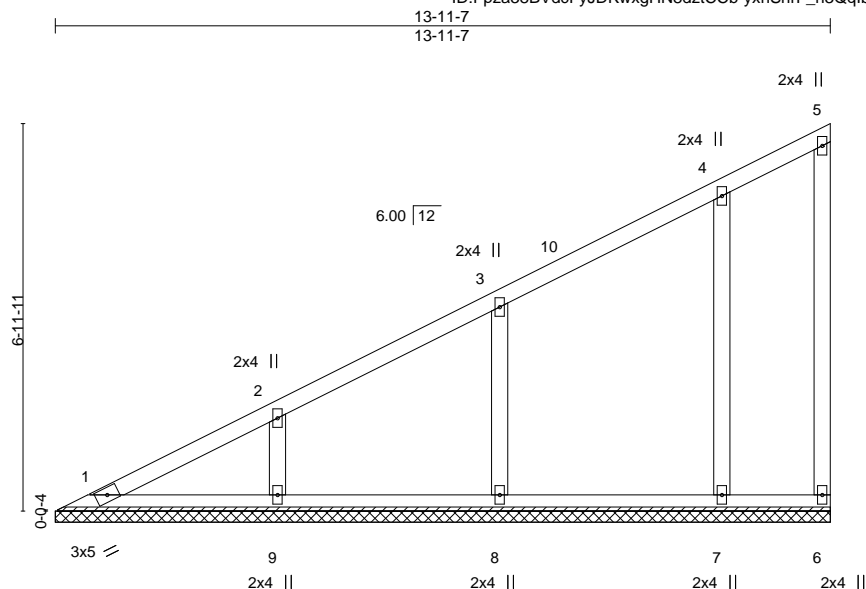
16023 Swingley Ridge Rd  
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	SUMMIT HOMES
H3-94	V16	GABLE	1	1	144987085

Mid America Truss, Jefferson City, MO - 65101,

8.430 s Feb 12 2021 MiTek Industries, Inc. Fri Feb 26 15:30:51 2021 Page 1

ID:Fpza38BVdcFyJDKwxgHN8dztCCb-yxnSnrF\_n3QqlboUQKD6FyU935dcXWWsv3vgAmzhDpo



Scale = 1:41.5

<b>LOADING</b> (psf)		<b>SPACING-</b>	2-0-0	<b>CSI.</b>		<b>DEFL.</b>	in	(loc)	l/defl	L/d	<b>PLATES</b>	<b>GRIP</b>
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.36	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf/Pg)	15.4/20.0	Lumber DOL	1.15	BC	0.08	Vert(CT)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.15	Horz(CT)	-0.00	6	n/a	n/a		
BCLL	0.0	Code IRC2018/TPI2014		Matrix-P							Weight: 68 lb	FT = 3%
BCDL	10.0											

#### LUMBER-

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

#### BRACING-

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

#### REACTIONS.

All bearings 13-11-7.

(lb) - Max Horz 1=217(LC 10)

Max Uplift All uplift 100 lb or less at joint(s) 6, 9, 8, 7

Max Grav All reactions 250 lb or less at joint(s) 1, 6 except 9=326(LC 2), 8=330(LC 2), 7=337(LC 15)

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

WEBS 4-7=-269/78

#### NOTES-

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope); cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.33 plate grip DOL=1.33
- 2) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=15.4 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
- 3) Unbalanced snow loads have been considered for this design.
- 4) Plates checked for a plus or minus 3 degree rotation about its center.
- 5) Gable requires continuous bottom chord bearing.
- 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 6, 9, 8, 7.
- 7) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



March 1, 2021

**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 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, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



16023 Swingley Ridge Rd  
Chesterfield, MO 63017

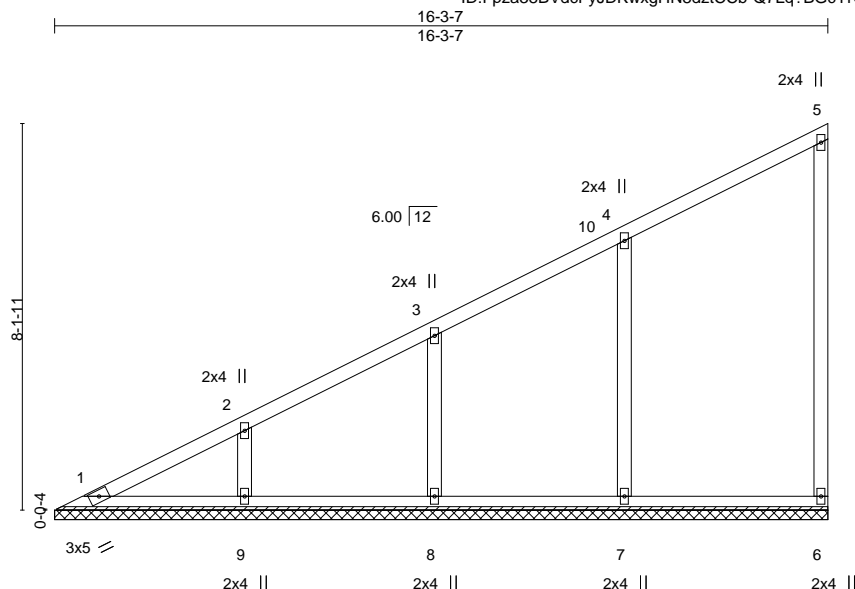
Job	Truss	Truss Type	Qty	Ply	SUMMIT HOMES
H3-94	V17	GABLE	1	1	144987086
Job Reference (optional)					

Mid America Truss,

Jefferson City, MO - 65101,

8.430 s Feb 12 2021 MiTek Industries, Inc. Fri Feb 26 15:30:52 2021 Page 1

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Scale = 1:48.5

LOADING (psf)		SPACING-		CSI.		DEFL.				PLATES	GRIP
TCLL (roof)	20.0	2-0-0		TC	0.52	in	(loc)	l/defl	L/d	MT20	244/190
Snow (Pf/Pg)	15.4/20.0	Plate Grip DOL	1.15	BC	0.10	n/a	-	n/a	999		
TCDL	10.0	Lumber DOL	1.15	WB	0.19	n/a	-	n/a	999		
BCLL	0.0	Rep Stress Incr	YES	Matrix-P		Horz(CT)	-0.00	6	n/a		
BCDL	10.0	Code IRC2018/TPI2014								Weight: 77 lb	FT = 3%

#### LUMBER-

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

#### BRACING-

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

#### REACTIONS.

All bearings 16-3-7.

(lb) - Max Horz 1=255(LC 10)

Max Uplift All uplift 100 lb or less at joint(s) 6, 9, 8, 7

Max Grav All reactions 250 lb or less at joint(s) 1, 6 except 9=332(LC 2), 8=305(LC 2), 7=421(LC 15)

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

WEBS 4-7=-328/109

#### NOTES-

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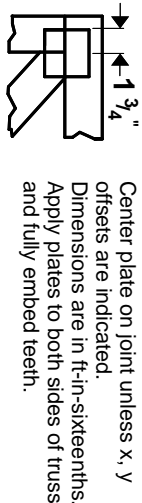
Safety Information available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



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 Chesterfield, MO 63017

# Symbols

## PLATE LOCATION AND ORIENTATION



Center plate on joint unless x, y offsets are indicated. Dimensions are in ft-in-sixteenths. Apply plates to both sides of truss and fully embed teeth.

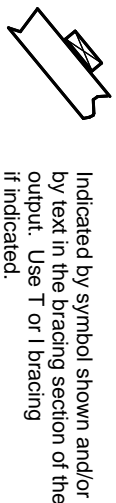
For 4 x 2 orientation, locate plates 0- 1/16" from outside edge of truss.

## PLATE SIZE

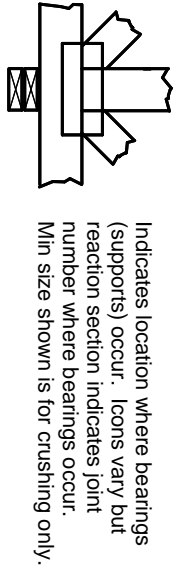
4 X 4

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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Mitek Engineering Reference Sheet: MII-7473 rev. 5/19/2020

# 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.
21. The design does not take into account any dynamic or other loads other than those expressly stated.