



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

Re: H3-91
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: I44738396 thru I44738425

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

Missouri COA: Engineering 001193



February 10, 2021

Sevier, Scott ,Engineer

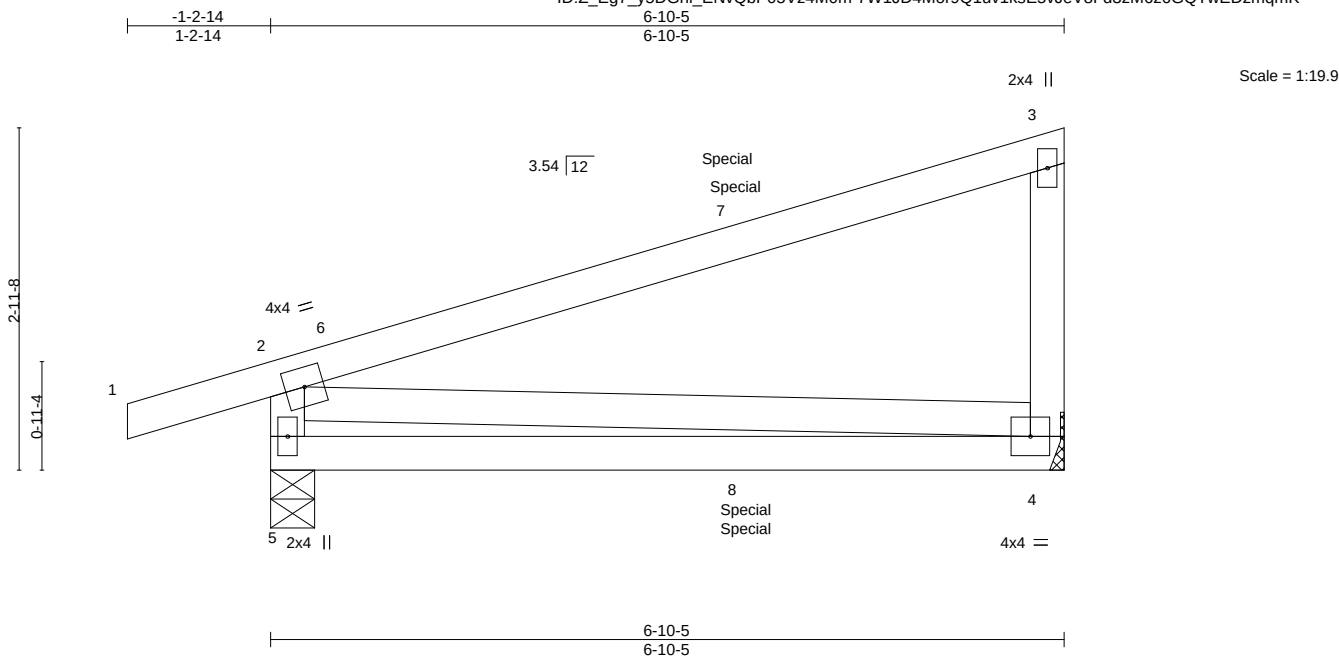
IMPORTANT NOTE: The seal on these truss component designs is a certification that the engineer named is licensed in the jurisdiction(s) identified and that the designs comply with ANSI/TPI 1. These designs are based upon parameters shown (e.g., loads, supports, dimensions, shapes and design codes), which 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	144738396
H3-91	CJ1	Diagonal Hip Girder	2	1	Job Reference (optional)	

Mid America Truss, Jefferson City, MO - 65101,

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ID:Z_Eg7_y5DGhi_ENvQbP05Vz4M0m-7W1JD4Mor9Q1uv1ksE5vJeV8Fd3zM6z6GQTWEDzmqmK



LOADING (psf)	SPACING-	CSI.	DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof) 20.0	2-0-0	TC 0.85	Vert(LL) 0.01	4-5	>999	360		MT20	244/190
Snow (Pf/Pg) 15.4/20.0	Plate Grip DOL 1.15	BC 0.43	Vert(CT) -0.12	4-5	>650	240			
TCDL 10.0	Lumber DOL 1.15	WB 0.01	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: 36 lb	FT = 3%

LUMBER-

TOP CHORD 2x4 SP No.1
BOT CHORD 2x4 SP No.2
WEBS 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) 5=0-4-9, 4=Mechanical
Max Horz 5=91(LC 8)
Max Uplift 5=-57(LC 7), 4=-22(LC 8)
Max Grav 5=374(LC 16), 4=301(LC 16)

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

TOP CHORD 2-5=-306/96

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 2 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) 5, 4.
- 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.
- Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 63 lb down and 36 lb up at 4-1-7, and 63 lb down and 36 lb up at 4-1-7 on top chord, and 13 lb down and 5 lb up at 4-1-7, and 13 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.
- In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

LOAD CASE(S) Standard

- Dead + Snow (balanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (plf)
Vert: 1-2=-51, 2-3=-51, 4-5=-20
Concentrated Loads (lb)
Vert: 7=-31(F=-16, B=-16) 8=-6(F=-3, B=-3)



February 10, 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



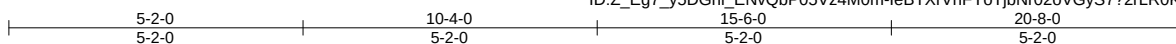
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	SUMMIT HOMES	144738397
H3-91	G1	Common Girder	1	2	Job Reference (optional)	

Mid America Truss, Jefferson City, MO - 65101,

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Scale = 1:40.5

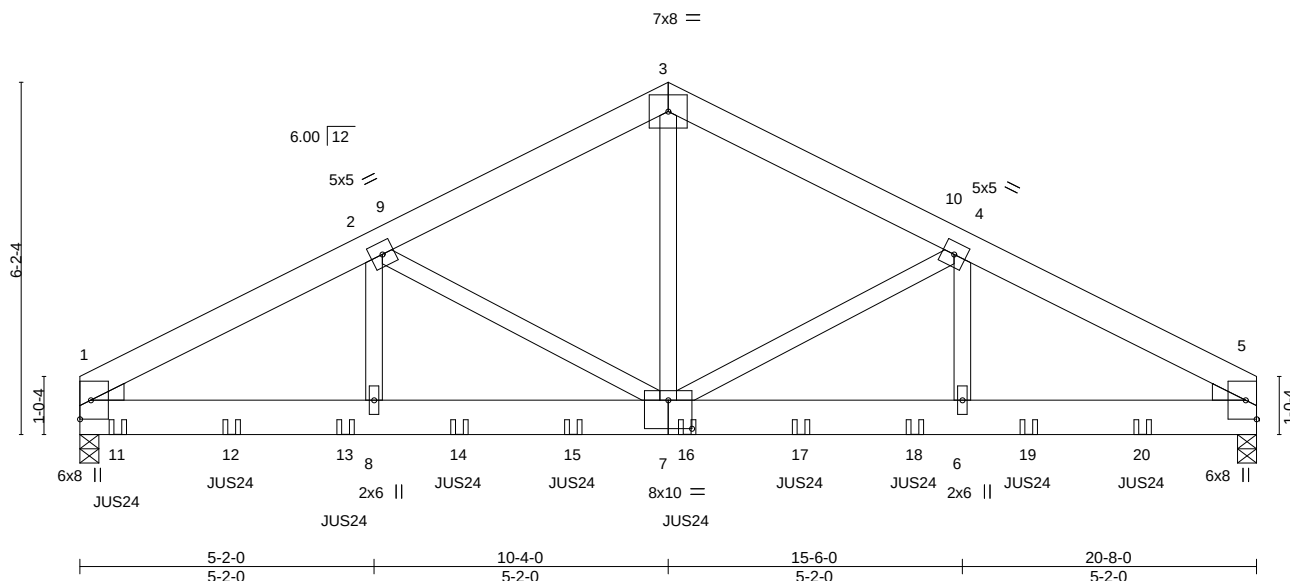


Plate Offsets (X,Y)-- [7:0-5-0,0-6-0]										
LOADING (psf)		SPACING-		CSI.		DEFL.		PLATES		GRIP
TCLL (roof)	20.0	2-0-0		TC	0.43	in (loc)	l/defl	L/d	MT20	244/190
Snow (Pf/Pg)	15.4/20.0	Plate Grip DOL	1.15	BC	0.31	Vert(LL)	-0.05 6-7	>999 360		
TCDL	10.0	Lumber DOL	1.15	WB	0.36	Vert(CT)	-0.08 6-7	>999 240		
BCLL	0.0	Rep Stress Incr	NO			Horz(CT)	0.02 5	n/a n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-SH					Weight: 304 lb	FT = 3%

LUMBER-

TOP CHORD 2x6 SP No.1
 BOT CHORD 2x8 SP 2400F 2.0E
 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) 1=0-4-0, 5=0-4-0
 Max Horz 1=64(LC 10)
 Max Uplift 1=400(LC 11), 5=334(LC 12)
 Max Grav 1=3334(LC 2), 5=3331(LC 2)

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

TOP CHORD 1-2=-4959/573, 2-3=-3697/438, 3-4=-3697/438, 4-5=-5215/566
 BOT CHORD 1-8=-494/4190, 7-8=-494/4190, 6-7=-428/4412, 5-6=-428/4412
 WEBS 3-7=-319/2912, 4-7=-1383/215, 4-6=-121/1434, 2-7=-1125/223, 2-8=-178/1176

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 2 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) 1=400, 5=334.
- 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 JUS24 (With 4-10d nails into Girder & 2-10d nails into Truss) or equivalent spaced at 2-0-0 oc max. starting at 0-8-0 from the left end to 18-8-0 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

Continued on page 2



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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
H3-91	G1	Common Girder	1	2	I44738397

Mid America Truss, Jefferson City, MO - 65101,

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LOAD CASE(S) Standard

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

Uniform Loads (plf)

Vert: 1-3=-51, 3-5=-51, 1-5=-20

Concentrated Loads (lb)

Vert: 11=-299(B) 12=-294(B) 13=-290(B) 14=-290(B) 15=-521(B) 16=-417(B) 17=-417(B) 18=-417(B) 19=-417(B) 20=-547(B)

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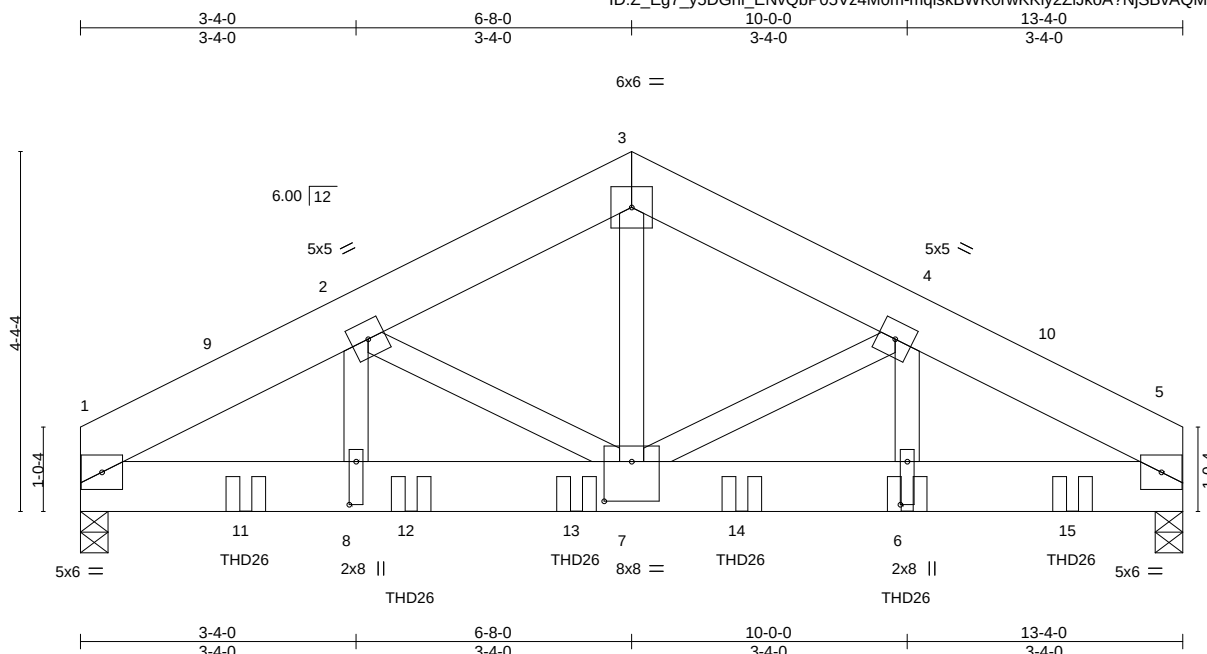


16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	SUMMIT HOMES	144738398
H3-91	G2	Roof Special Girder	1	2	Job Reference (optional)	

Mid America Truss, Jefferson City, MO - 65101,

8.430 s Nov 30 2020 MiTek Industries, Inc. Tue Feb 9 15:07:01 2021 Page 1
ID:Z_Eg7_y5DGhi_ENvQbP05Vz4M0m-mqlskBWK0rwKKly2ZIJkoA?NjSBvAQMt1INZfWzmqm8



Scale = 1:27.9

Plate Offsets (X,Y)-- [6:0-6-4,0-1-0], [7:0-4-0,0-5-12], [8:0-6-4,0-1-0]

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	0.11	Vert(LL)	-0.03	6-7	>999	360	MT20	244/190
Snow (Pl/Pg)	15.4/20.0	Lumber DOL	1.15	BC	0.29	Vert(CT)	-0.06	6-7	>999	240		
TCDL	10.0	Rep Stress Incr	NO	WB	0.56	Horz(CT)	0.02	5	n/a	n/a		
BCLL	0.0	Code IRC2018/TPI2014		Matrix-P							Weight: 216 lb	FT = 3%
BCDL	10.0											

LUMBER-

TOP CHORD 2x8 SP 2400F 2.0E
BOT CHORD 2x8 SP 2400F 2.0E
WEBS 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=0-4-0, 5=0-4-0
Max Horz 1=-42(LC 7)
Max Uplift 1=-42(LC 11), 5=-46(LC 12)
Max Grav 1=4984(LC 2), 5=5466(LC 2)

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

TOP CHORD 1-2=-7582/66, 2-3=-5745/75, 3-4=-5743/75, 4-5=-7685/69
BOT CHORD 1-8=-60/6242, 7-8=-60/6242, 6-7=-24/6327, 5-6=-24/6327
WEBS 3-7=-29/4595, 4-7=-1378/65, 4-6=0/2428, 2-7=-1279/62, 2-8=0/2313

NOTES-

- 2-ply truss to be connected together with 10d (0.131"x3") nails as follows:
Top chords connected as follows: 2x8 - 2 rows staggered at 0-9-0 oc.
Bottom chords connected as follows: 2x8 - 2 rows staggered at 0-6-0 oc.
Webs connected as follows: 2x4 - 1 row at 0-9-0 oc, Except member 4-6 2x4 - 1 row at 0-5-0 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 2 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 THD26 (With 18-16d nails into Girder & 12-10d x 1-1/2 nails into Truss) or equivalent spaced at 2-0-0 oc max. starting at 2-0-0 from the left end to 12-0-0 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



February 10, 2021

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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
H3-91	G2	Roof Special Girder	1	2	I44738398
					Job Reference (optional)

Mid America Truss, Jefferson City, MO - 65101,

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ID:Z_Eg7_y5DGhi_ENvQbP05Vz4M0m-mqlskBWK0rwKKly2ZIJkoA?NjSBvAQMt1INZfWzmqm8

LOAD CASE(S) Standard
Concentrated Loads (lb)
Vert: 6=-1386(B) 11=-1386(B) 12=-1386(B) 13=-1386(B) 14=-1386(B) 15=-1386(B)

Mid America Truss, Jefferson City, MO - 65101, 8.430 s Nov 30 2020 MiTek Industries, Inc. Tue Feb 9 15:07:03 2021 Page 1

ID:Z_Eg7_y5DGhI_EnVQbP05Vz4M0m-jDtc9tXaYTB2a35QhALCub4aeGuxeRMAVcsfkPzmqm6

0-10-8 4-11-4 8-3-12 13-3-0 14-1-8
0-10-8 4-11-4 3-4-8 4-11-4 0-10-8

Scale = 1:24.4

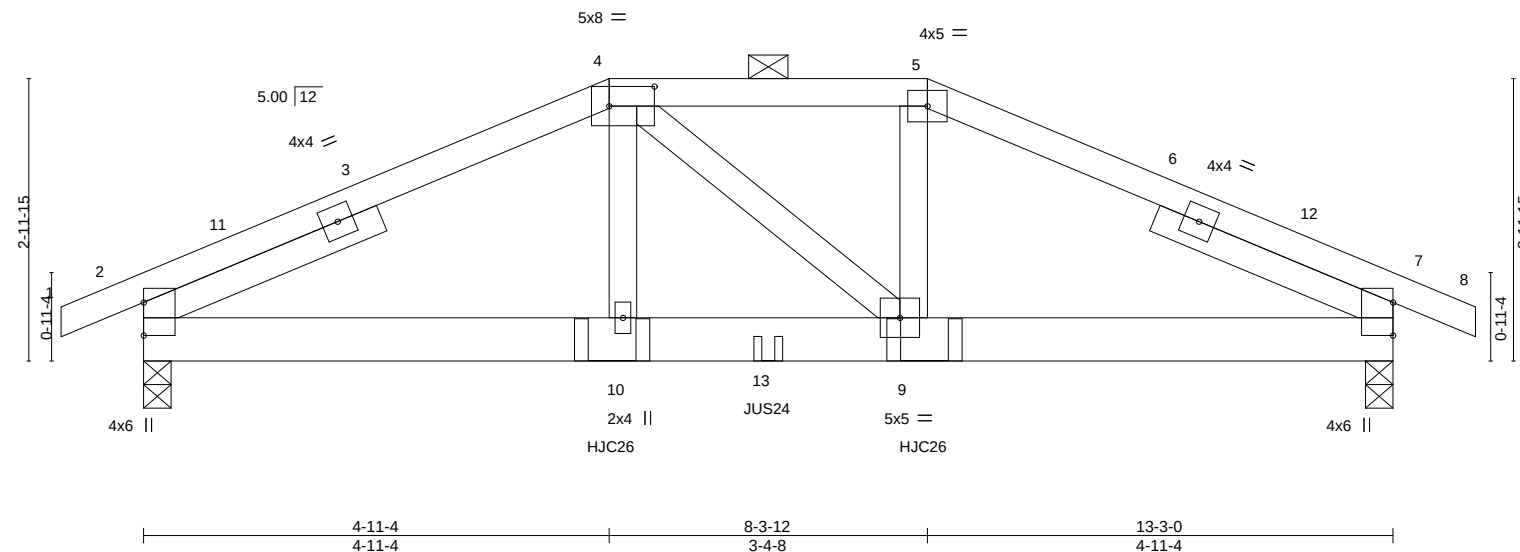


Plate Offsets (X,Y)-- [4:0-5-12,0-2-8]									
LOADING (psf)		SPACING- 2-0-0		CSI.		DEFL. in (loc) l/defl L/d		PLATES GRIP	
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.66	Vert(LL)	-0.03 9-10 >999 360	MT20	244/190
Snow (Pf/Pg)	20.4/20.0	Lumber DOL	1.15	BC	0.19	Vert(CT)	-0.06 9-10 >999 240		
TCDL	10.0	Rep Stress Incr	NO	WB	0.08	Horz(CT)	0.01 7 n/a n/a		
BCLL	0.0	Code IRC2018/TPI2014		Matrix-P				Weight: 150 lb	FT = 3%
BCDL	10.0								

LUMBER-		BRACING-	
TOP CHORD	2x4 SP No.2	TOP CHORD	Structural wood sheathing directly applied or 6-0-0 oc purlins, except 2-0-0 oc purlins (6-0-0 max.): 4-5. Rigid ceiling directly applied or 10-0-0 oc bracing.
BOT CHORD	2x6 SP No.1		
WEBS	2x4 SP No.2		
SLIDER	Left 2x4 SP No.2 -t 2-8-14, Right 2x4 SP No.2 -t 2-8-14	BOT CHORD	

REACTIONS. (size) 2=0-3-8, 7=0-3-8
 Max Horz 2=25(LC 13)
 Max Uplift 2=-97(LC 7), 7=-97(LC 8)
 Max Grav 2=1244(LC 34), 7=1244(LC 34)

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

TOP CHORD 2-4=-2013/185, 4-5=-1738/181, 5-7=-2013/185
BOT CHORD 2-10=-132/1701, 9-10=-133/1738, 7-9=-129/1702
WEBS 4-10=-36/658, 5-9=-43/684

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; TCDD=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) TCDL: 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 2 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) 2, 7.
- 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) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
- 13) Use USP HJC26 (With 16-16d nails into Girder & 10d nails into Truss) or equivalent spaced at 3-3-12 oc max. starting at 4-11-10 from the left end to 8-3-6 to connect truss(es) to back face of bottom chord.
- 14) Use USP JUS24 (With 4-10d nails into Girder & 2-10d nails into Truss) or equivalent at 6-7-8 from the left end to connect truss(es) to back face of bottom chord.



February 10, 2021



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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	SUMMIT HOMES
H3-91	H1	Hip Girder	1	2	I44738399
					Job Reference (optional)

Mid America Truss, Jefferson City, MO - 65101,

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ID:Z_Eg7_y5DGhi_ENvQbP05Vz4M0m-jDtc9tXaYTB2a35QhALCub4aeGuxeRMAVcsfkPzmqm6

NOTES-
15) Fill all nail holes where hanger is in contact with lumber.

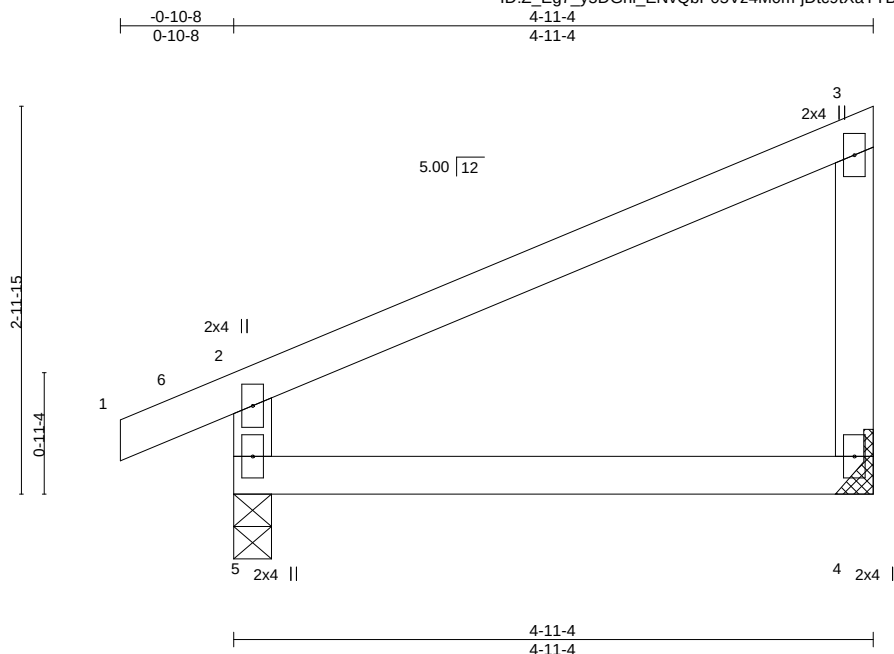
LOAD CASE(S) Standard
1) Dead + Snow (balanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (plf)
Vert: 1-4=-51, 4-5=-61, 5-8=-51, 2-7=-20
Concentrated Loads (lb)
Vert: 10=-472(B) 9=-472(B) 13=-200(B)

Job	Truss	Truss Type	Qty	Ply	SUMMIT HOMES	144738400
H3-91	J1	MONO TRUSS	3	1	Job Reference (optional)	

Mid America Truss, Jefferson City, MO - 65101,

8.430 s Nov 30 2020 MiTek Industries, Inc. Tue Feb 9 15:07:03 2021 Page 1

ID:Z_Eg7_y5DGhi_ENvQbP05Vz4M0m-jDtc9tXaYTB2a35QhALCub4fdGvkeSfAVcsfkPzmqm6



Scale = 1:17.8

LOADING (psf)	SPACING-	CSI.	DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof) 20.0	2-0-0	TC 0.34	Vert(LL)	-0.01	4-5	>999	360	MT20	244/190
Snow (Pf/Pg) 15.4/20.0	Plate Grip DOL 1.15	BC 0.14	Vert(CT)	-0.02	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: 21 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=0-3-8, 4=Mechanical
Max Horz 5=92(LC 8)
Max Uplift 5=-16(LC 7), 4=-18(LC 8)
Max Grav 5=296(LC 16), 4=220(LC 16)

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

TOP CHORD 2-5=-262/47

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 2 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) 5, 4.
- 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.



February 10, 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



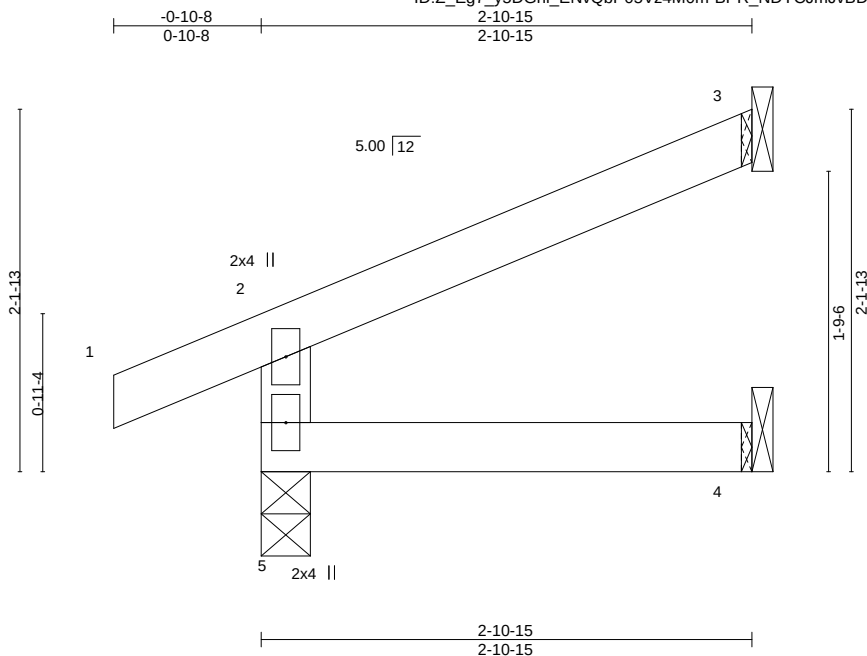
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	SUMMIT HOMES
H3-91	J2	Jack-Open	4	1	144738401

Mid America Truss, Jefferson City, MO - 65101,

8.430 s Nov 30 2020 MiTek Industries, Inc. Tue Feb 9 15:07:04 2021 Page 1

ID:Z_Eg7_y5DGhi_ENvQbP05Vz4M0m-BPR_NDYCJmJvBDgdFusRQoduxgHONvvJjGcDGrmqm5



Scale = 1:13.7

LOADING (psf)	SPACING-	CSI.	DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof) 20.0	2-0-0	TC 0.11	Vert(LL)	0.00	4-5	>999	360	MT20	244/190
Snow (Pf/Pg) 15.4/20.0	Plate Grip DOL 1.15	BC 0.05	Vert(CT)	-0.00	4-5	>999	240		
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-R							
BCDL 10.0	Code IRC2018/TPI2014							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=0-3-8, 3=Mechanical, 4=Mechanical
Max Horz 5=43(LC 8)
Max Uplift 5=-10(LC 7), 3=-28(LC 11)
Max Grav 5=216(LC 16), 3=84(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 2 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.



February 10, 2021

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	SUMMIT HOMES	144738403
H3-91	S1A	Roof Special	2	1		

Mid America Truss, Jefferson City, MO - 65101,

8.430 s Nov 30 2020 MiTek Industries, Inc. Tue Feb 9 15:07:07 2021 Page 1

ID: Z_Eg7_y5DGhi_EnvQbP05Vz4M0m-b_67?Ea4bhU2gPBw0Q82RFGTtAua4vPEqtAzmqm2

0-10-8 2-8-13 6-3-0 12-6-0 18-9-0 21-11-8 25-0-0 28-2-0 31-3-0 37-6-0 43-9-0 48-0-0
0-10-8 2-8-13 3-6-3 6-3-0 6-3-0 3-2-8 3-0-8 3-2-0 3-1-0 6-3-0 6-3-0 4-3-0

Scale = 1:83.2

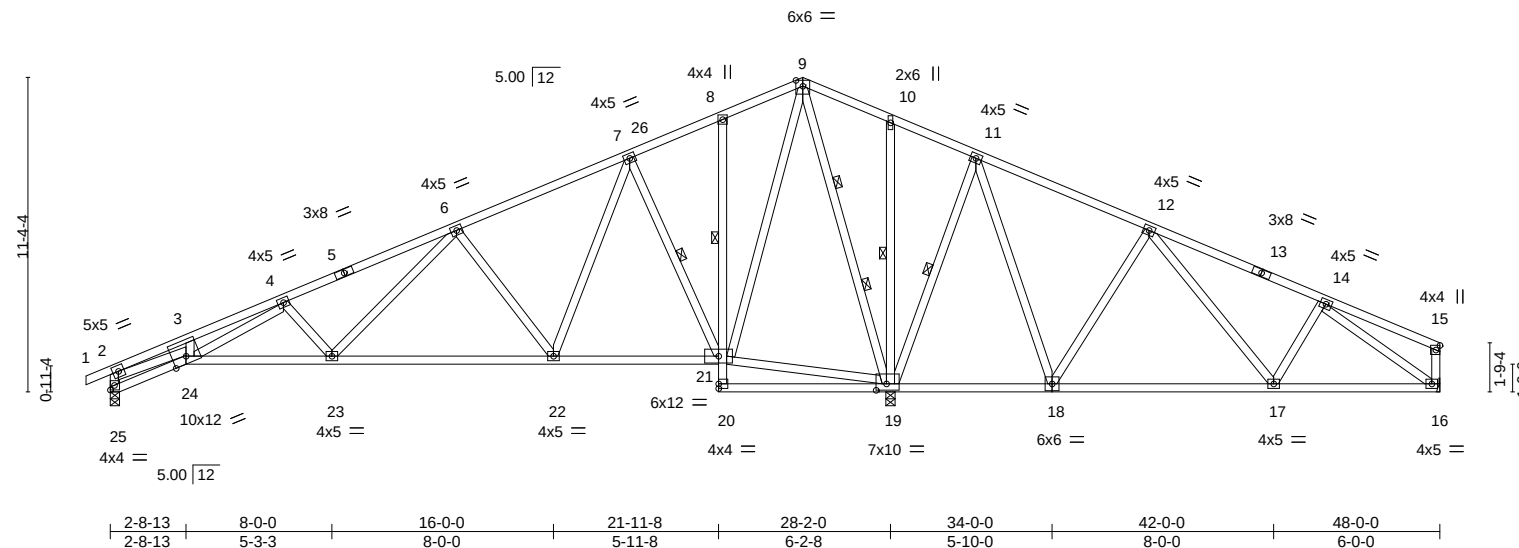


Plate Offsets (X,Y)-- [19:0-4-8,0-2-12]		2-8-13 8-0-0 16-0-0 21-11-8 28-2-0 34-0-0 42-0-0 48-0-0		2-8-13 8-0-0 8-0-0 5-11-8 6-2-8 5-10-0 8-0-0 6-0-0	
LOADING (psf)		SPACING-		CSI.	
TCLL (roof)	20.0	2-0-0		TC 0.61	
Snow (Pf/Pg)	15.4/20.0	Plate Grip DOL 1.15		BC 0.51	
TCDL	10.0	Lumber DOL 1.15		WB 0.82	
BCLL	0.0	Rep Stress Incr YES		Matrix-SH	
BCDL	10.0	Code IRC2018/TPI2014			
				DEFL.	
				in (loc) l/defl L/d	
				Vert(LL) -0.10 23-24 >999 360	
				Vert(CT) -0.24 22-23 >999 240	
				Horz(CT) 0.09 19 n/a n/a	
				PLATES	
				MT20	
				GRIP	
				244/190	
				Weight: 336 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 3-9-4 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing. Except:
WEBS 1 Row at midpt 8-21
1 Row at midpt 7-21, 10-19, 11-19
2 Rows at 1/3 pts 9-19

REACTIONS. (size) 25=0-4-0, 19=0-4-0, 16=Mechanical
Max Horz 25=104(LC 11)
Max Uplift 25=29(LC 11), 19=-40(LC 11), 16=-134(LC 29)
Max Grav 25=802(LC 29), 19=2903(LC 2), 16=440(LC 30)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-25=-805/88, 2-3=-2147/167, 3-4=-2099/208, 4-6=-1290/86, 6-7=-359/62, 7-8=0/480, 8-9=0/490, 9-10=0/1296, 10-11=0/1291, 11-12=-49/860, 12-14=-403/404
BOT CHORD 23-24=-141/1411, 22-23=-43/654, 18-19=-911/141, 17-18=-602/135, 16-17=-252/397
WEBS 2-24=-117/1797, 4-24=-116/622, 4-23=-452/132, 6-23=-22/694, 6-22=-671/144, 7-22=-25/744, 7-21=-834/120, 19-21=-687/114, 9-21=-87/969, 9-19=-1794/71, 10-19=-264/52, 11-19=-807/114, 11-18=-18/711, 12-18=-628/119, 12-17=0/505, 14-17=-282/83, 14-16=-469/336

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 2 degree rotation about its center.
- 7) Refer to girder(s) for truss to truss connections.
- 8) Bearing at joint(s) 25 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) 25, 19 except (jt=lb) 16=134.
- 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.



February 10, 2021

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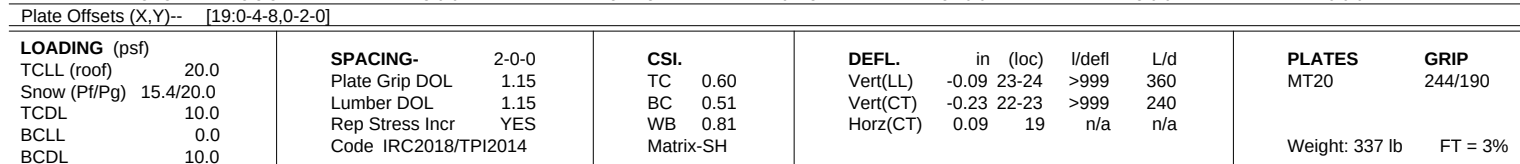
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Mid America Truss, Jefferson City, MO - 65101, 8.430 s Nov 30 2020 MiTek Industries, Inc. Tue Feb 9 15:07:08 2021 Page 1

ID:Z_Eg7_y5Dghi_ENvQbP05Vz4M0m-3AgVCabjM?pLgq_OUjxNboRHHXCJWFveuaQPczmqm1

1-10-8	2-8-13	6-3-0	12-6-0	18-9-0	21-11-8	25-0-0	28-2-0	31-3-0	37-6-0	43-9-0	48-0-0
1-10-8	2-8-13	3-6-3	6-3-0	6-3-0	3-2-8	3-0-8	3-2-0	3-1-0	6-3-0	6-3-0	4-3-0

Scale = 1:84.0



REACTIONS. (size) 25=0-4-0, 19=0-4-0, 16=Mechanical
Max Horz 25=113(LC 11)
Max Uplift 25=-41(LC 11), 19=-37(LC 11), 16=-125(LC 29)
Max Grav 25=871(LC 29), 19=2886(LC 2), 16=443(LC 30)

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

TOP CHORD 2-25=-842/95, 2-3=-2059/153, 3-4=-2003/192, 4-6=-1282/85, 6-7=-368/64, 7-8=0/467,
8-9=0/477, 9-10=0/1279, 10-11=0/1273, 11-12=-46/843, 12-14=-407/391

BOT CHORD 23-24=-138/1395, 22-23=-44/658, 18-19=-895/138, 17-18=-588/132, 16-17=-242/400

WEBS 2-24=-114/1796, 4-24=-102/537, 4-23=-438/130, 6-23=-19/678, 6-22=-664/143,
7-22=-24/738, 7-21=-830/120, 19-21=-675/112, 9-21=-87/967, 9-19=-1780/68,
10-19=-267/52, 11-19=-806/114, 11-18=-18/709, 12-18=-626/119, 12-17=0/501,
14-17=-279/83, 14-16=-474/323

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 2 degree rotation about its center.
- 7) Refer to girder(s) for truss to truss connections.
- 8) Bearing at joint(s) 25 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) 25, 19 except (jt=lb) 16=125.
- 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.



February 10, 2021

Job	Truss	Truss Type	Qty	Ply	SUMMIT HOMES	144738405
H3-91	S1C	Roof Special	1	1	Job Reference (optional)	

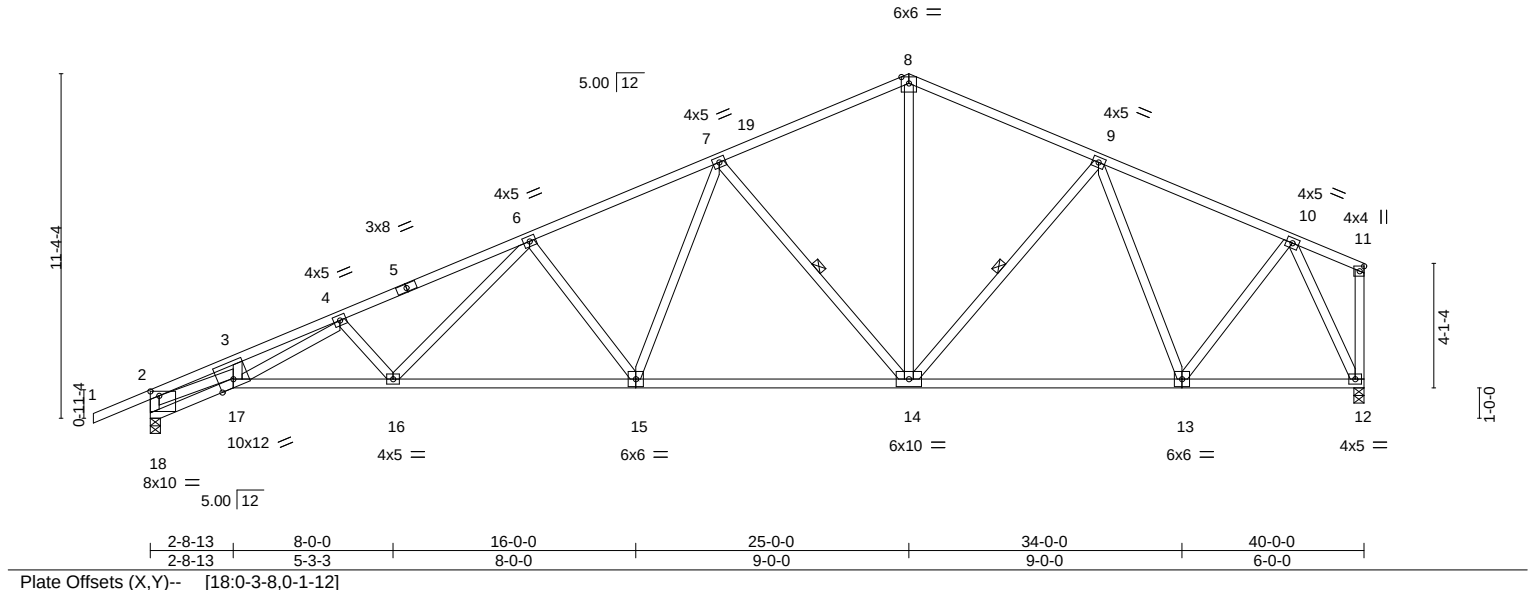
Mid America Truss, Jefferson City, MO - 65101,

8.430 s Nov 30 2020 MiTek Industries, Inc. Tue Feb 9 15:07:10 2021 Page 1

ID:Z_Eg7_y5DGhi_EnvQbP05Vz4M0m-?ZoFdGdzuc33v88mb8zrg3tjM48DnQhC6B3XUVzmqm?

1-10-8	2-8-13	6-3-0	12-6-0	18-9-0	25-0-0	31-3-0	37-6-0	40-0-0
1-10-8	2-8-13	3-6-3	6-3-0	6-3-0	6-3-0	6-3-0	6-3-0	2-6-0

Scale = 1:75.9



LOADING (psf)		SPACING-		CSI.	DEFL.				PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15		in (loc)	l/defl	L/d			
Snow (Pl/Pg)	15.4/20.0	Lumber DOL	1.15	TC	0.24	15-16	>999	360	MT20	244/190
TCDL	10.0	Rep Stress Incr	YES	BC	0.79	15-16	>880	240		
BCLL	0.0	Code IRC2018/TPI2014		WB	0.81		n/a	n/a		
BCDL	10.0			Matrix-SH						
								Weight: 247 lb		FT = 3%

LUMBER-		BRACING-	
TOP CHORD	2x4 SP No.2	TOP CHORD	Structural wood sheathing directly applied or 1-8-12 oc purlins, except end verticals.
BOT CHORD	2x4 SP No.2 *Except* 15-17: 2x4 SP No.1	BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing, Except:
WEBS	2x4 SP No.2 *Except* 2-17: 2x4 SP No.1	WEBS	6-0-0 oc bracing: 17-18. 1 Row at midpt 7-14, 9-14

REACTIONS.	
(size)	18=0-4-0, 12=0-4-0
Max Horz	18=165(LC 8)
Max Uplift	18=-63(LC 11), 12=-1(LC 12)
Max Grav	18=1713(LC 2), 12=1585(LC 2)

FORCES.	
(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.	
TOP CHORD	2-18=-1700/128, 2-3=-4882/259, 3-4=-4766/295, 4-6=-3695/161, 6-7=-2664/126, 7-8=-1692/103, 8-9=-1693/115, 9-10=-1427/50
BOT CHORD	16-17=-237/3686, 15-16=-127/2800, 14-15=-40/2122, 13-14=0/1457, 12-13=-27/726
WEBS	2-17=-207/4255, 4-17=-127/855, 4-16=-544/138, 6-16=-34/799, 6-15=-695/142, 7-15=-12/783, 7-14=-987/147, 8-14=-11/902, 9-13=-584/59, 10-13=0/883, 10-12=-1690/38

- 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 2 degree rotation about its center.
 - 7) Bearing at joint(s) 18 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) 18, 12.
 - 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.



February 10, 2021

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	SUMMIT HOMES	144738406
H3-91	T1	Common	1	1	Job Reference (optional)	

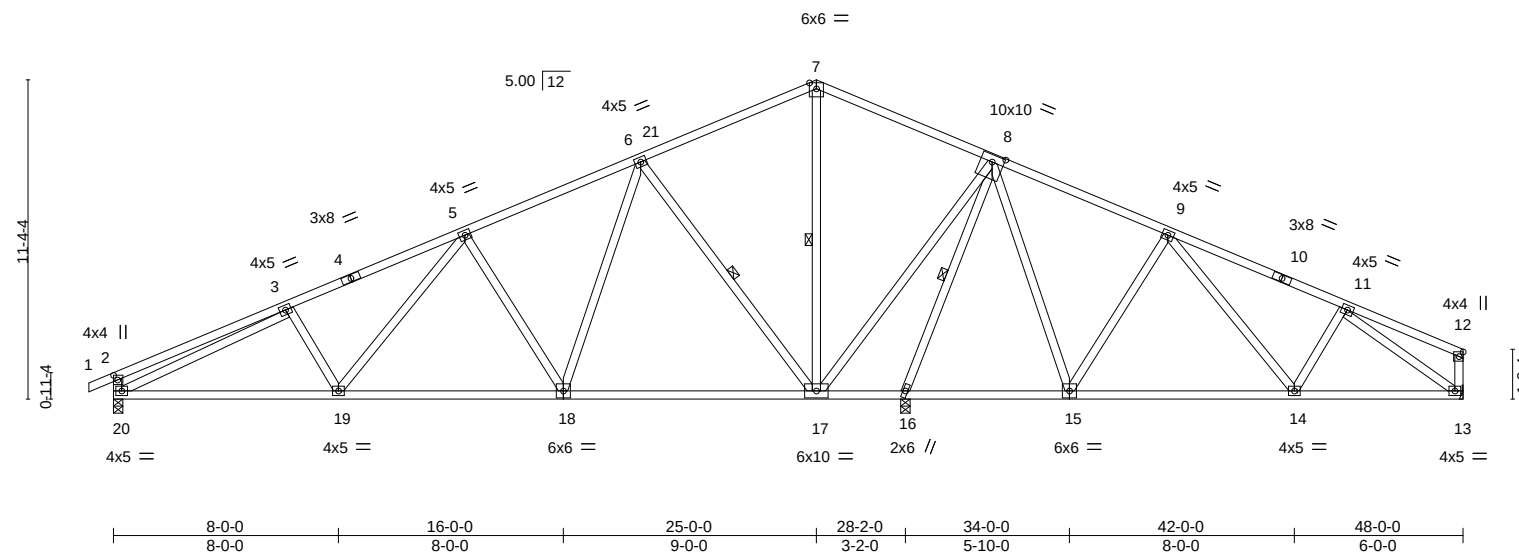
Mid America Truss, Jefferson City, MO - 65101,

8.430 s Nov 30 2020 MiTek Industries, Inc. Tue Feb 9 15:07:11 2021 Page 1

ID:Z_Eg7_y5DGhi_ENvQbP05Vz4M0m-UIMdrcdbfwBvXliz9sU4CHQxaUXQVq0LKro50xzmqm_

-0-10-8	6-3-0	12-6-0	18-9-0	25-0-0	31-3-0	37-6-0	43-9-0	48-0-0
0-10-8	6-3-0	6-3-0	6-3-0	6-3-0	6-3-0	6-3-0	6-3-0	4-3-0

Scale = 1:81.9



LOADING (psf)		SPACING-		CSI.		DEFL.		PLATES		GRIP	
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.66	Vert(LL)	-0.07 18-19 >999	L/d	360	MT20	244/190
Snow (Pf/Pg)	15.4/20.0	Lumber DOL	1.15	BC	0.54	Vert(CT)	-0.25 17-18 >999		240		
TCDL	10.0	Rep Stress Incr	YES	WB	1.00	Horz(CT)	0.04 13 n/a		n/a		
BCLL	0.0	Code IRC2018/TPI2014		Matrix-SH							
BCDL	10.0									Weight: 305 lb	FT = 3%

LUMBER-		BRACING-	
TOP CHORD	2x4 SP No.2	TOP CHORD	Structural wood sheathing directly applied or 4-5-14 oc purlins, except end verticals.
BOT CHORD	2x4 SP No.2	BOT CHORD	Rigid ceiling directly applied or 5-7-11 oc bracing.
WEBS	2x4 SP No.2	WEBS	1 Row at midpt 6-17, 7-17, 8-16

REACTIONS. (size) 13=Mechanical, 20=0-4-0, 16=0-4-0
Max Horz 20=104(LC 11)
Max Uplift 13=-39(LC 12), 20=-45(LC 11), 16=-2(LC 11)
Max Grav 13=650(LC 30), 20=1036(LC 29), 16=2285(LC 2)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-431/77, 3-5=-1488/103, 5-6=-876/102, 8-9=-269/174, 9-11=-740/99, 2-20=-383/81
BOT CHORD 19-20=-134/1418, 18-19=-64/1037, 17-18=0/537, 16-17=-1002/106, 14-15=-13/439, 13-14=-52/663
WEBS 5-19=-13/444, 5-18=-574/129, 6-18=-7/709, 6-17=-937/142, 7-17=-387/0, 8-17=-28/1569, 8-15=-11/609, 9-15=-516/119, 9-14=0/333, 11-13=-805/63, 3-20=-1229/12, 8-16=-2355/31

- 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 2 degree rotation about its center.
 - 7) Refer to girder(s) for truss to truss connections.
 - 8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 13, 20, 16.
 - 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.



February 10, 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	144738407
H3-91	T1A	Roof Special	1	1		

Mid America Truss, Jefferson City, MO - 65101,

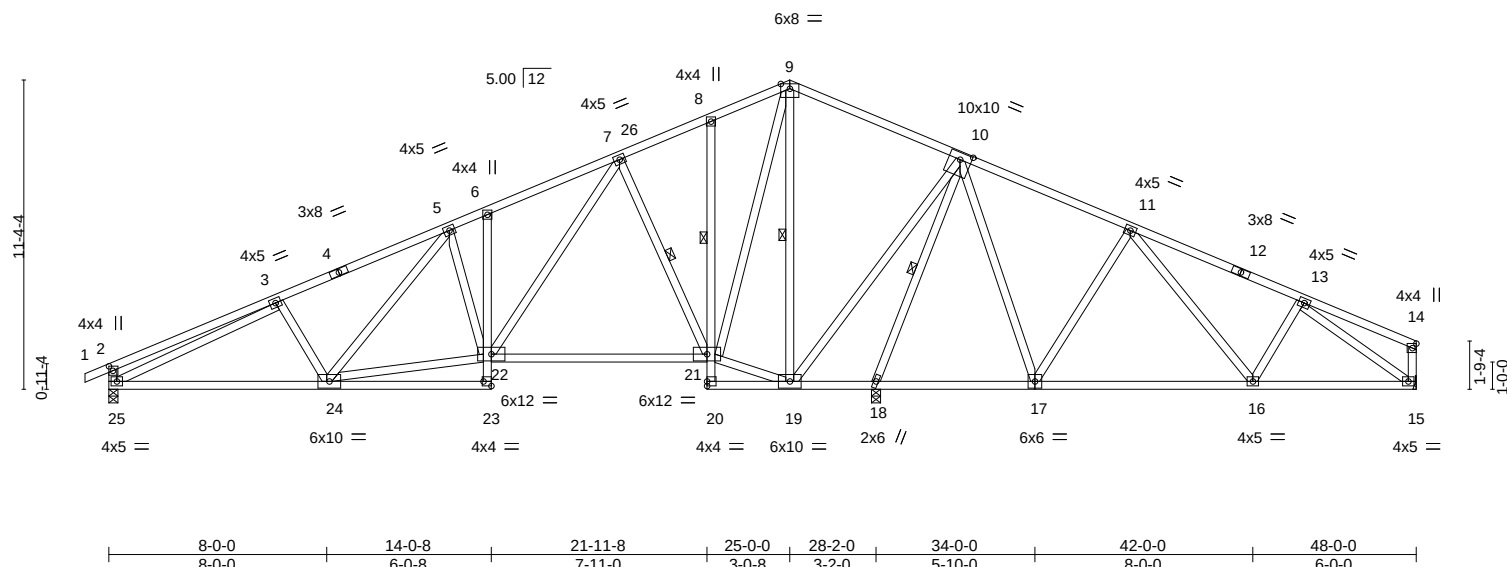
8.430 s Nov 30 2020 MiTek Industries, Inc. Tue Feb 9 15:07:12 2021 Page 1

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Job Reference (optional)

0-10-8 6-3-0 12-6-0 14-0-8 18-9-0 21-11-8 25-0-0 31-3-0 37-6-0 43-9-0 48-0-0
0-10-8 6-3-0 6-3-0 1-6-8 4-8-8 3-2-8 3-0-8 6-3-0 6-3-0 6-3-0 4-3-0

Scale = 1:84.6



Job	Truss	Truss Type	Qty	Ply	SUMMIT HOMES	144738408
H3-91	T1B	Roof Special	4	1		

Mid America Truss, Jefferson City, MO - 65101,

8.430 s Nov 30 2020 MiTek Industries, Inc. Tue Feb 9 15:07:14 2021 Page 1
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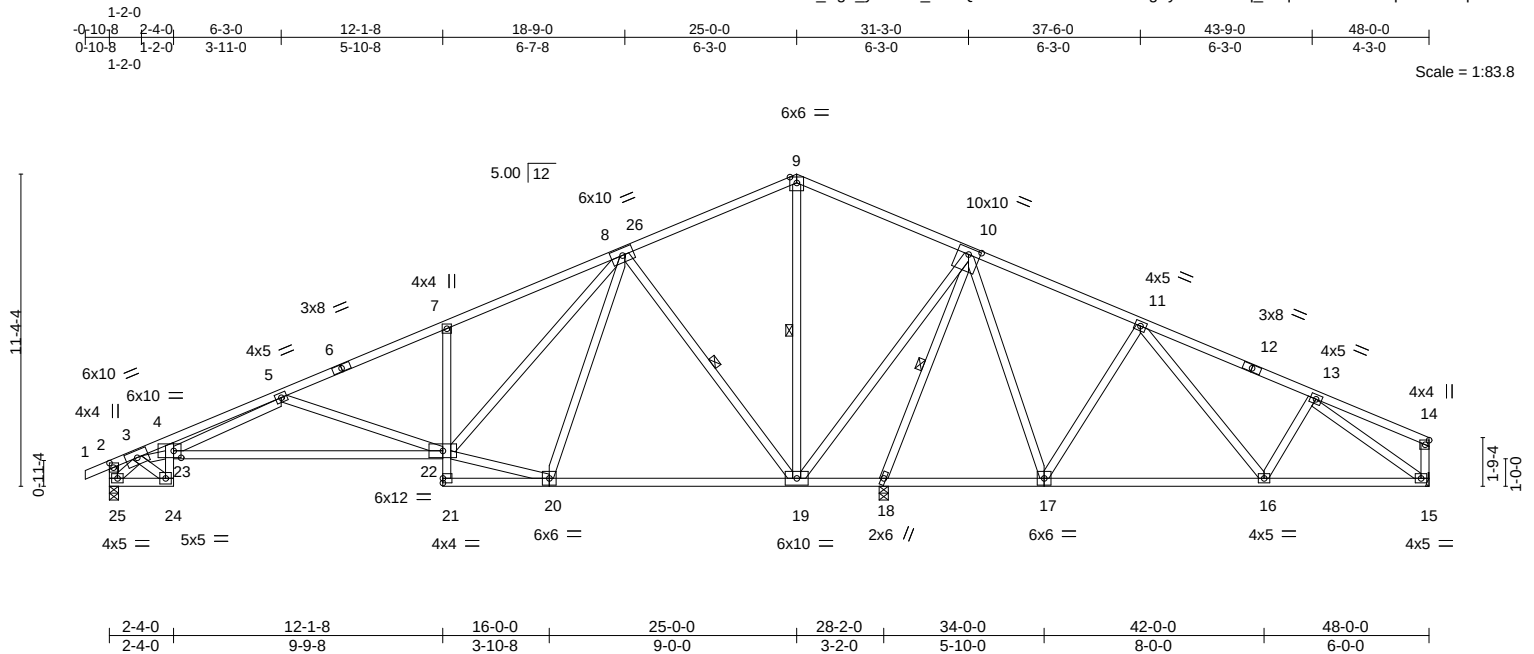


Plate Offsets (X,Y)-- [2:0-2-0,0-1-12], [4:0-3-4,0-3-0], [10:0-5-0,0-2-12]												
LOADING (psf)		SPACING- 2-0-0		CSI.		DEFL. in (loc) l/defl L/d				PLATES GRIP		
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.70	Vert(LL)	-0.13	22-23	>999	360	MT20	244/190
Snow (Pf/Pg)	15.4/20.0	Lumber DOL	1.15	BC	0.87	Vert(CT)	-0.56	22-23	>594	240		
TCDL	10.0	Rep Stress Incr	YES	WB	0.99	Horz(CT)	0.13	18	n/a	n/a		
BCLL	0.0	Code IRC2018/TPI2014		Matrix-SH							Weight: 320 lb	FT = 3%
BCDL	10.0											

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 2-11-13 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 4-6-4 oc bracing.
WEBS 1 Row at midpt 8-19, 9-19, 10-18

REACTIONS.

(size) 15=Mechanical, 25=0-4-0, 18=0-4-0
Max Horz 25=104(LC 13)
Max Uplift 15=-63(LC 12), 25=-31(LC 11), 18=-34(LC 11)
Max Grav 15=547(LC 30), 25=889(LC 29), 18=2635(LC 2)

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

TOP CHORD 3-4=-2346/172, 4-5=-2822/166, 5-7=-1078/52, 7-8=-1057/132, 8-9=0/481, 9-10=0/480, 10-11=-57/602, 11-13=-576/204
BOT CHORD 24-25=-112/637, 23-24=-53/443, 22-23=-180/1586, 7-22=-348/130, 19-20=0/265, 18-19=-1538/155, 17-18=-656/133, 16-17=-382/257, 15-16=-94/535
WEBS 3-24=-596/89, 3-23=-193/1906, 5-23=-24/1155, 5-22=-699/162, 20-22=0/369, 8-22=-122/1022, 8-19=-960/144, 9-19=-665/27, 10-19=-60/1916, 10-17=-6/651, 11-17=-566/113, 11-16=0/436, 13-15=-644/137, 3-25=-942/23, 10-18=-2724/64

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 2 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) 15, 25, 18.
- 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.



February 10, 2021

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Mid America Truss, Jefferson City, MO - 65101,

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ID:Z_Eg7_y5DGhi_ENvQbP05Vz4M0m-m5HHJ?_044wtMJ3q7?IC8fJzle8cNxR?y1zmqlt

0-10-8 6-3-0 12-6-0 18-9-0 25-0-0 31-3-0 37-6-0 43-9-0 48-0-0

0-10-8 6-3-0 6-3-0 6-3-0 6-3-0 6-3-0 6-3-0 6-3-0 4-3-0

6x6 =

Scale = 1:104.4

Plate Offsets (X,Y)--	[2:0-2-0,0-1-12], [32:0-2-14,0-1-0], [34:0-2-14,0-1-0], [43:0-2-9,0-1-0], [45:0-2-9,0-1-0], [52:0-2-14,0-1-0], [55:0-2-14,0-1-0]										
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	0.67	Vert(LL)	-0.03 14-15	>999	360	MT20	244/190
Snow (Pf/Pg)	15.4/20.0	Lumber DOL	1.15	BC	0.37	Vert(CT)	-0.12 14-15	>999	240		
TCDL	10.0	Rep Stress Incr	YES	WB	0.43	Horz(CT)	0.01 13	n/a	n/a		
BCLL	0.0	Code IRC2018/TPI2014		Matrix-SH						Weight: 451 lb	FT = 3%
BCDL	10.0										

LUMBER-		BRACING-	
TOP CHORD	2x4 SP No.2	TOP CHORD	Structural wood sheathing directly applied or 5-11-1 oc purlins, except end verticals.
BOT CHORD	2x4 SP No.2	BOT CHORD	Rigid ceiling directly applied or 6-0-0 oc bracing.
WEBS	2x4 SP No.2	WEBS	1 Row at midpt 6-22, 6-17, 7-17, 8-17
OTHERS	2x4 SP No.2		

REACTIONS. All bearings 28-4-0 except (jt=length) 13=0-3-8.
(lb) - Max Horz 31=104(LC 11)
Max Uplift All uplift 100 lb or less at joint(s) 31, 13 except 22=-157(LC 11), 27=-133(LC 11), 17=-174(LC 12)
Max Grav All reactions 250 lb or less at joint(s) 18, 19, 20, 21, 23, 24, 25, 26, 28, 29, 30, 16 except 22=410(LC 29), 27=440(LC 29), 17=1593(LC 2), 31=306(LC 29), 13=723(LC 30)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 5-6=0/274, 6-7=0/469, 7-8=0/469, 8-9=-422/98, 9-11=-855/83, 2-31=-301/91
BOT CHORD 14-15=0/571, 13-14=-39/753
WEBS 3-27=-362/137, 5-22=-306/110, 6-17=-342/81, 7-17=-649/4, 8-17=-851/145, 8-15=-12/599, 9-15=-483/123, 9-14=0/252, 11-13=-917/47

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) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
4) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); 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
5) Unbalanced snow loads have been considered for this design.
6) This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 15.4 psf on overhangs non-concurrent with other live loads.
7) Plates checked for a plus or minus 2 degree rotation about its center.
8) Gable studs spaced at 2-0-0 oc.
9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 31, 13 except (jt=lb) 22=157, 27=133, 17=174.
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.

STATE OF MISSOURI

SCOTT M. SEVIER

PROFESSIONAL ENGINEER

PE-2001018807

February 10,2021

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MiTek

16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	SUMMIT HOMES	144738410
H3-91	T2	ROOF SPECIAL	6	1		

Mid America Truss, Jefferson City, MO - 65101,

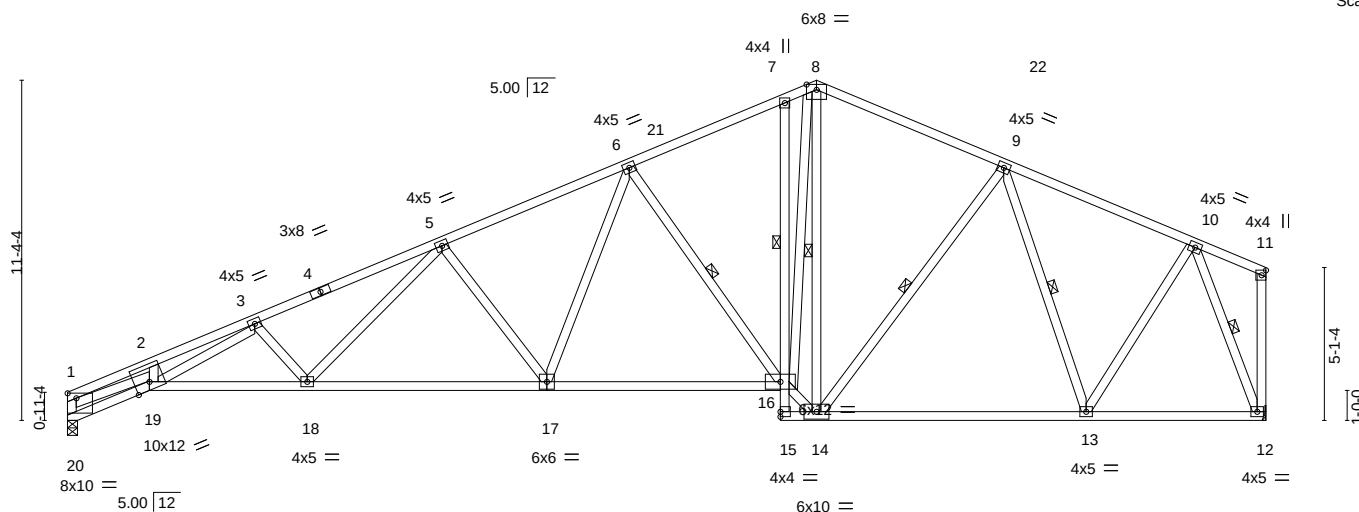
8.430 s Nov 30 2020 MiTek Industries, Inc. Tue Feb 9 15:07:20 2021 Page 1

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Job Reference (optional)

2-8-13	6-3-0	12-6-0	18-9-0	23-9-8	25-0-0	31-3-0	37-6-0	40-0-0
2-8-13	3-6-3	6-3-0	6-3-0	5-0-8	1-2-8	6-3-0	6-3-0	2-6-0

Scale = 1:76.9



2-8-13	8-0-0	16-0-0	23-9-8	25-0-0	34-0-0	40-0-0
2-8-13	5-3-3	8-0-0	7-9-8	1-2-8	9-0-0	6-0-0

Plate Offsets (X,Y)-- [20: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 0.88	Vert(LL) -0.26	17	>999	360	MT20	244/190
Snow (Pf/Pg) 15.4/20.0	Plate Grip DOL 1.15	BC 0.79	Vert(CT) -0.59	16-17	>806	240		
TCDL 10.0	Lumber DOL 1.15	WB 0.72	Horz(CT) 0.33	12	n/a	n/a		
BCLL 0.0	Rep Stress Incr YES	Matrix-SH						
BCDL 10.0	Code IRC2018/TPI2014						Weight: 284 lb	FT = 3%

LUMBER-

TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2 *Except*
17-19: 2x4 SP No.1
WEBS 2x4 SP No.2 *Except*
1-19: 2x4 SP No.1

BRACING-

TOP CHORD Structural wood sheathing directly applied or 1-8-14 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing, Except: 6-0-0 oc bracing: 15-16.
1 Row at midpt 7-16
WEBS 1 Row at midpt 6-16, 8-14, 9-14, 9-13, 10-12

REACTIONS.

(size) 20=0-4-0, 12=Mechanical
Max Horz 20=164(LC 8)
Max Uplift 20=42(LC 11), 12=-1(LC 12)
Max Grav 20=1588(LC 2), 12=1588(LC 2)

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

TOP CHORD 1-20=-1590/100, 1-2=-5032/258, 2-3=-4943/299, 3-5=-3729/159, 5-6=-2678/126, 6-7=-1784/112, 7-8=-1660/143, 8-9=-1557/122, 9-10=-1241/61
BOT CHORD 18-19=-220/3730, 17-18=-112/2821, 16-17=-22/2126, 13-14=0/1289, 12-13=-29/604
WEBS 1-19=-206/4368, 3-19=-132/994, 3-18=-563/137, 5-18=-32/816, 5-17=-709/145, 6-17=-14/805, 6-16=-955/130, 14-16=0/1751, 8-16=-108/1921, 8-14=-1014/36, 9-14=-50/260, 9-13=-663/56, 10-13=0/915, 10-12=-1641/38

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 2 degree rotation about its center.
- Refer to girder(s) for truss to truss connections.
- Bearing at joint(s) 20 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, 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.



February 10, 2021

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	SUMMIT HOMES	I44738411
H3-91	T2GE	COMMON SUPPORTED GAB	1	1	Job Reference (optional)	

Mid America Truss, Jefferson City, MO - 65101,

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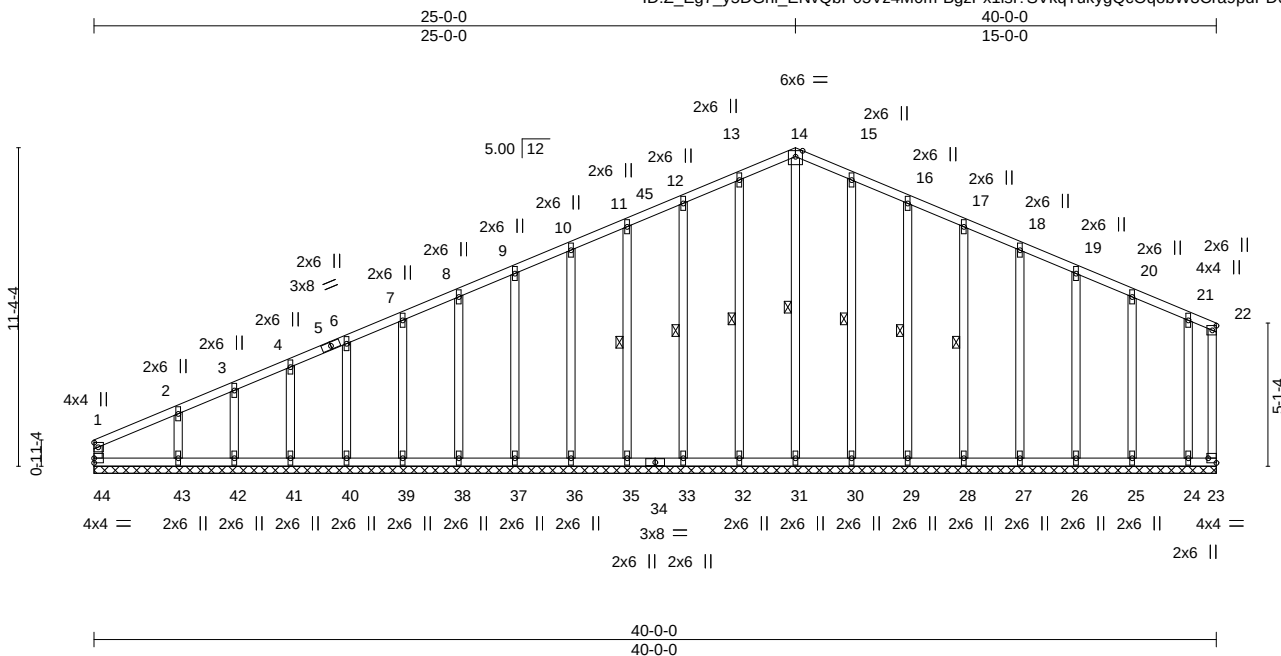


Plate Offsets (X,Y)-- [23:Edge,0-2-0]		40-0-0 40-0-0			
LOADING (psf)		SPACING-	2-0-0	CSI.	
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.12
Snow (Pf/Pg)	15.4/20.0	Lumber DOL	1.15	BC	0.13
TCDL	10.0	Rep Stress Incr	YES	WB	0.13
BCLL	0.0	Code IRC2018/TPI2014		Matrix-R	
BCDL	10.0				
				DEFL.	
				in (loc)	l/defl
				Vert(LL)	n/a
				Vert(CT)	n/a
				Horz(CT)	-0.00
					23
					n/a
					n/a
				PLATES	GRIP
				MT20	244/190
				Weight: 321 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 14-31, 13-32, 12-33, 11-35, 15-30, 16-29, 17-28

REACTIONS.

All bearings 40-0-0.
(lb) - Max Horz 44=163(LC 8)
Max Uplift All uplift 100 lb or less at joint(s) 23, 32, 33, 35, 36, 37, 38, 39, 40, 41, 43, 30, 29, 28, 27, 26, 25, 24
Max Grav All reactions 250 lb or less at joint(s) 44, 23, 31, 32, 33, 35, 36, 37, 38, 39, 40, 41, 42, 43, 30, 29, 28, 27, 26, 25, 24

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 2 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) 23, 32, 33, 35, 36, 37, 38, 39, 40, 41, 43, 30, 29, 28, 27, 26, 25, 24.
- 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.



February 10, 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

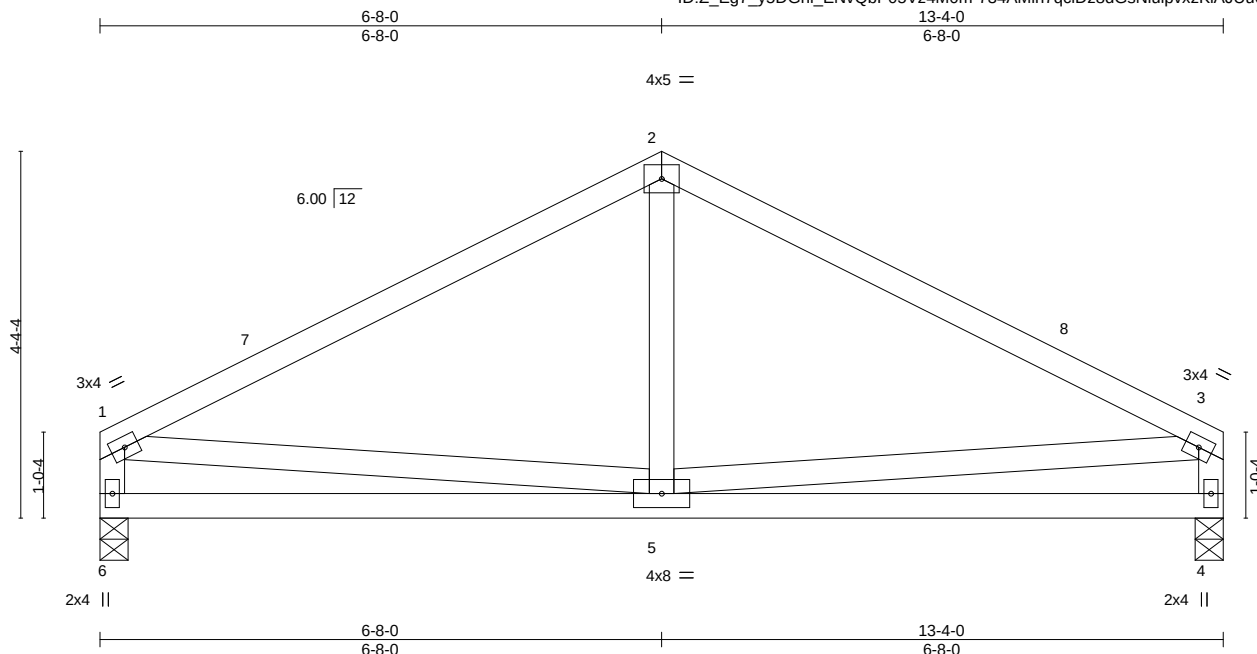


16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	SUMMIT HOMES	144738412
H3-91	T3	Common	4	1	Job Reference (optional)	

Mid America Truss, Jefferson City, MO - 65101,

8.430 s Nov 30 2020 MiTek Industries, Inc. Tue Feb 9 15:07:23 2021 Page 1
ID:Z_Eg7_y5Dghi_ENvQbP05Vz4M0m-734AMin7qciDz8dGsNiupvxzKiAJUu65jijQFzmql0



Scale = 1:27.3

LOADING (psf)		SPACING-		CSI.		DEFL.				PLATES		GRIP	
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.89	Vert(LL)	-0.01	5	>999	360	MT20	244/190	
Snow (Pf/Pg)	15.4/20.0	Lumber DOL	1.15	BC	0.29	Vert(CT)	-0.06	4-5	>999	240			
TCDL	10.0	Rep Stress Incr	YES	WB	0.11	Horz(CT)	-0.00	4	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.1
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.

REACTIONS.

(size) 6=0-4-0, 4=0-4-0
Max Horz 6=61(LC 8)
Max Uplift 6=-6(LC 11), 4=-6(LC 12)
Max Grav 6=522(LC 2), 4=522(LC 2)

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

TOP CHORD 1-2=-568/10, 2-3=-568/0, 1-6=-472/35, 3-4=-472/35
WEBS 1-5=0/449, 3-5=0/449

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 2 degree rotation about its center.
- 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 6, 4.
- 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.



February 10, 2021

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



16023 Swingley Ridge Rd
Chesterfield, MO 63017

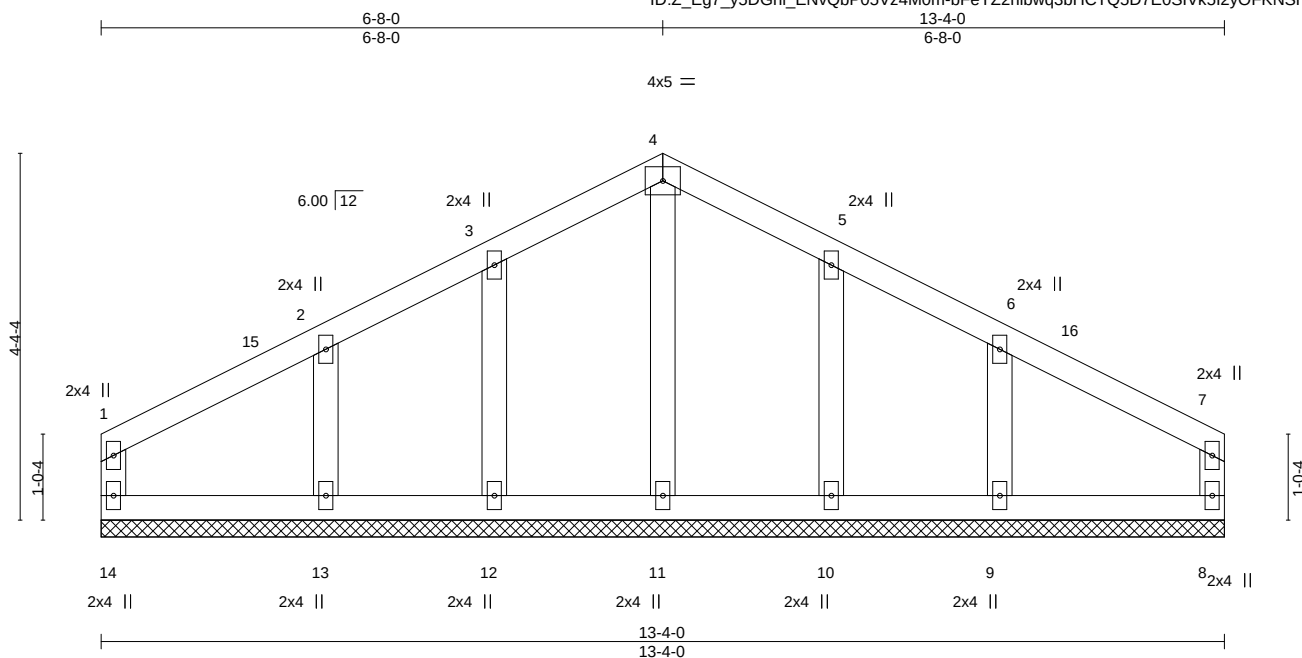
Job	Truss	Truss Type	Qty	Ply	SUMMIT HOMES
H3-91	T3GE	Common Supported Gable	1	1	144738413

Mid America Truss, Jefferson City, MO - 65101,

8.430 s Nov 30 2020 MiTek Industries, Inc. Tue Feb 9 15:07:24 2021 Page 1

ID:Z_Eg7_y5DGhi_ENvQbP05Vz4M0m-bFeYZ2nlbwq3bHCTQ5D7E0SIVk5l2yOFKNSHyhzmqln

Job Reference (optional)



Scale = 1:27.3

LOADING (psf)	SPACING-	CSI.	DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof) 20.0	2-0-0	TC 0.07	Vert(LL) n/a	-	n/a	999		MT20	244/190
Snow (Pf/Pg) 15.4/20.0	Plate Grip DOL 1.15	BC 0.04	Vert(CT) n/a	-	n/a	999			
TCDL 10.0	Lumber DOL 1.15	WB 0.03	Horz(CT) 0.00	8	n/a	n/a			
BCLL 0.0	Rep Stress Incr YES	Matrix-R							
BCDL 10.0	Code IRC2018/TPI2014								

Weight: 63 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 13-4-0.

(lb) - Max Horz 14=61(LC 8)

Max Uplift All uplift 100 lb or less at joint(s) 14, 8, 12, 13, 10, 9

Max Grav All reactions 250 lb or less at joint(s) 14, 8, 11, 12, 13, 10, 9

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 2 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) 14, 8, 12, 13, 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.



February 10, 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



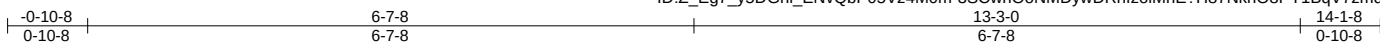
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	SUMMIT HOMES	144738414
H3-91	T4	COMMON	2	1	Job Reference (optional)	

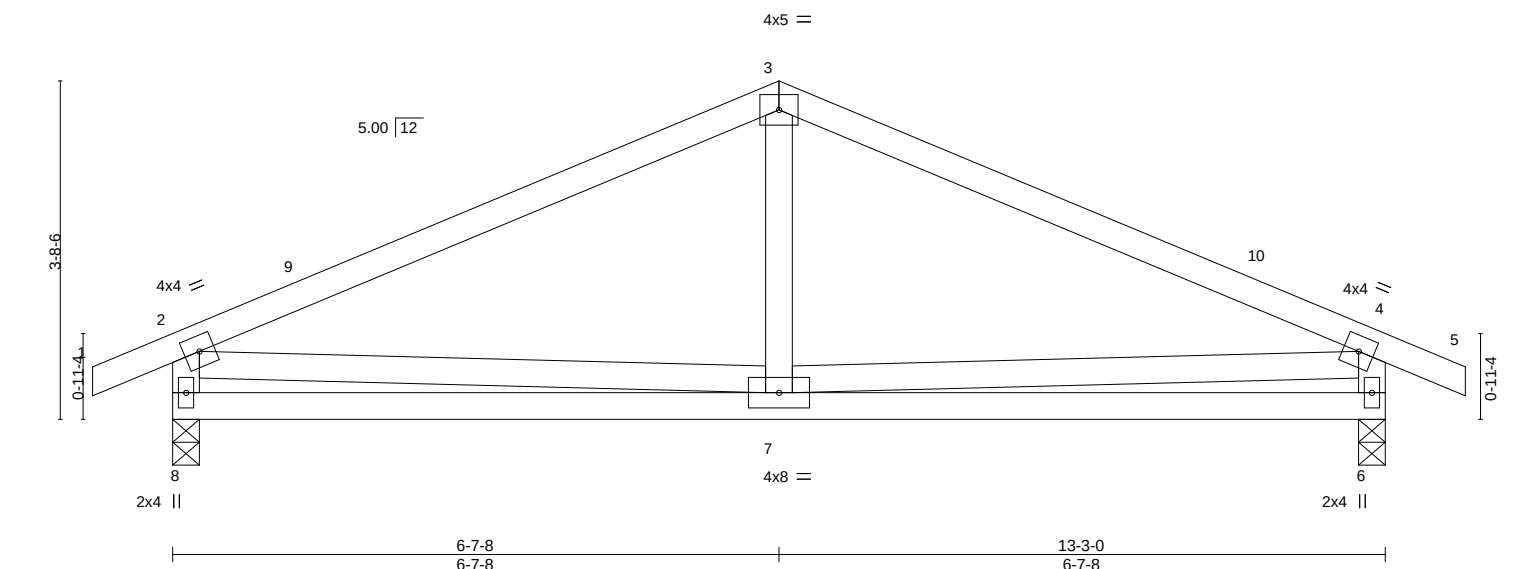
Mid America Truss, Jefferson City, MO - 65101,

8.430 s Nov 30 2020 MiTek Industries, Inc. Tue Feb 9 15:07:25 2021 Page 1

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Scale = 1:25.2



LOADING (psf)		SPACING-		CSI.		DEFL.				PLATES	GRIP
TCLL (roof)	20.0	2-0-0		TC	0.85	in	(loc)	l/defl	L/d	MT20	244/190
Snow (Pf/Pg)	15.4/20.0	Plate Grip DOL	1.15	BC	0.28	Vert(LL)	-0.01	7	>999		
TCDL	10.0	Lumber DOL	1.15	WB	0.13	Vert(CT)	-0.06	6-7	>999		
BCLL	0.0	Rep Stress Incr	YES	Matrix-P		Horz(CT)	-0.00	6	n/a		
BCDL	10.0	Code IRC2018/TPI2014								Weight: 69 lb	FT = 3%

LUMBER-

TOP CHORD 2x4 SP No.1
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.

REACTIONS.

(size) 8=0-3-8, 6=0-3-8
Max Horz 8=22(LC 10)
Max Uplift 8=-19(LC 11), 6=-19(LC 12)
Max Grav 8=580(LC 2), 6=580(LC 2)

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

TOP CHORD 2-3=-619/2, 3-4=-619/0, 2-8=-530/48, 4-6=-530/48
WEBS 2-7=0/517, 4-7=0/517

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 2 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) 8, 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.



February 10, 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
H3-91	T4GE	COMMON SUPPORTED GAB	1	1	144738415

Mid America Truss, Jefferson City, MO - 65101,

8.430 s Nov 30 2020 MiTek Industries, Inc. Tue Feb 9 15:07:26 2021 Page 1

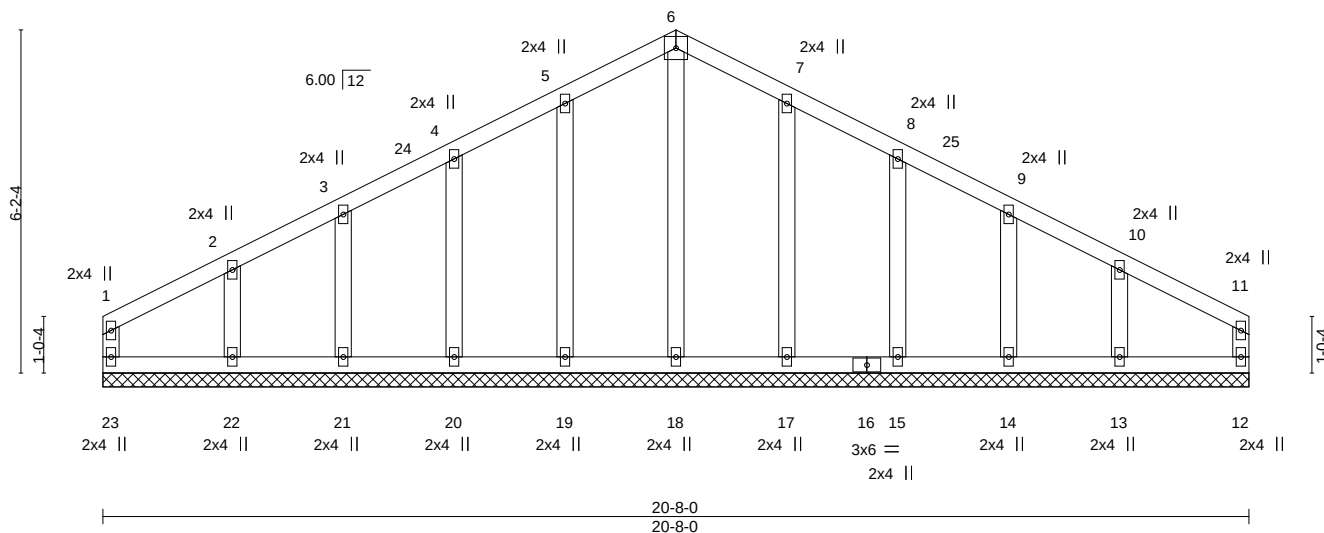
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Job Reference (optional)

10-4-0 20-8-0 10-4-0

5x5 =

Scale = 1:41.5



LOADING (psf)		SPACING-		CSI.		DEFL.		PLATES		GRIP	
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.06	Vert(LL)	n/a	MT20		244/190	
Snow (Pf/Pg)	15.4/20.0	Lumber DOL	1.15	BC	0.04	Vert(CT)	n/a				
TCDL	10.0	Rep Stress Incr	YES	WB	0.07	Horz(CT)	0.00				
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 10-0-0 oc bracing.

REACTIONS.

All bearings 20-8-0.

(lb) - Max Horz 23=-82(LC 7)

Max Uplift All uplift 100 lb or less at joint(s) 23, 12, 19, 20, 21, 22, 17, 15, 14, 13

Max Grav All reactions 250 lb or less at joint(s) 23, 12, 18, 19, 20, 21, 22, 17, 15, 14, 13

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 2 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) 23, 12, 19, 20, 21, 22, 17, 15, 14, 13.
- 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.



February 10, 2021

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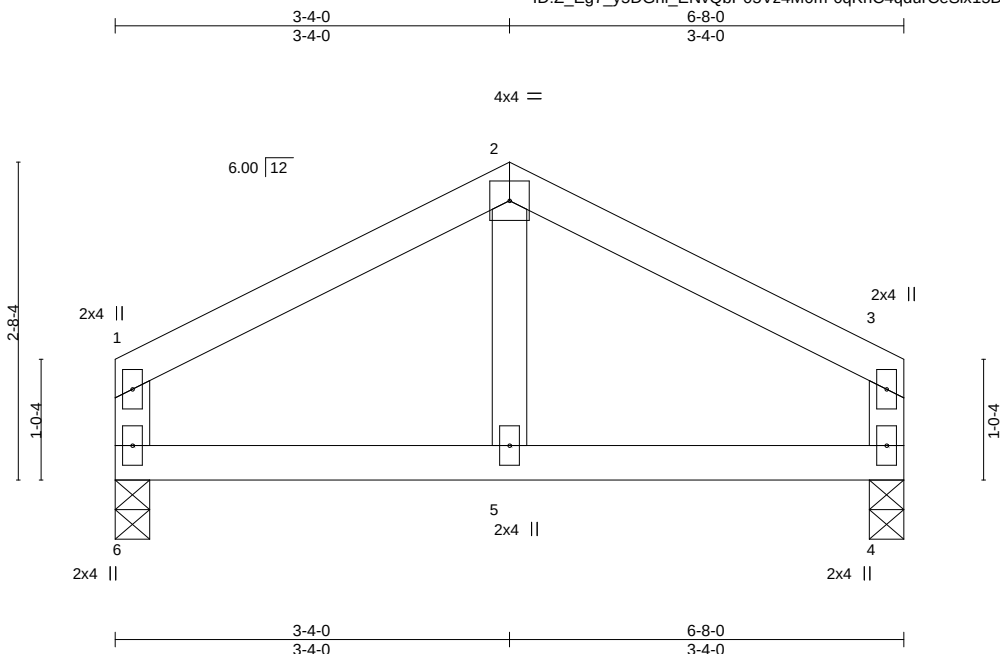


16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	SUMMIT HOMES	144738416
H3-91	T5	KINGPOST	5	1	Job Reference (optional)	

Mid America Truss, Jefferson City, MO - 65101,

8.430 s Nov 30 2020 MiTek Industries, Inc. Tue Feb 9 15:07:27 2021 Page 1
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Scale = 1:19.5

LOADING (psf)	SPACING-	CSI.	DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof) 20.0	2-0-0	TC 0.15	Vert(LL)	-0.01	5	>999	360	MT20	244/190
Snow (Pf/Pg) 15.4/20.0	Plate Grip DOL 1.15	BC 0.16	Vert(CT)	-0.02	5	>999	240		
TCDL 10.0	Lumber DOL 1.15	WB 0.01	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: 26 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 6-0-0 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS.

(size) 6=0-3-8, 4=0-3-8
Max Horz 6=42(LC 8)
Max Uplift 6=3(LC 11), 4=3(LC 12)
Max Grav 6=263(LC 15), 4=263(LC 16)

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 2 degree rotation about its center.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 6, 4.
- 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.



February 10, 2021

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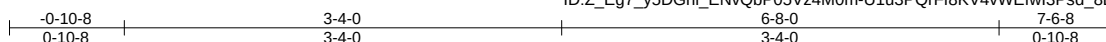
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	SUMMIT HOMES	144738417
H3-91	T5GE	GABLE	1	1	Job Reference (optional)	

Mid America Truss, Jefferson City, MO - 65101,

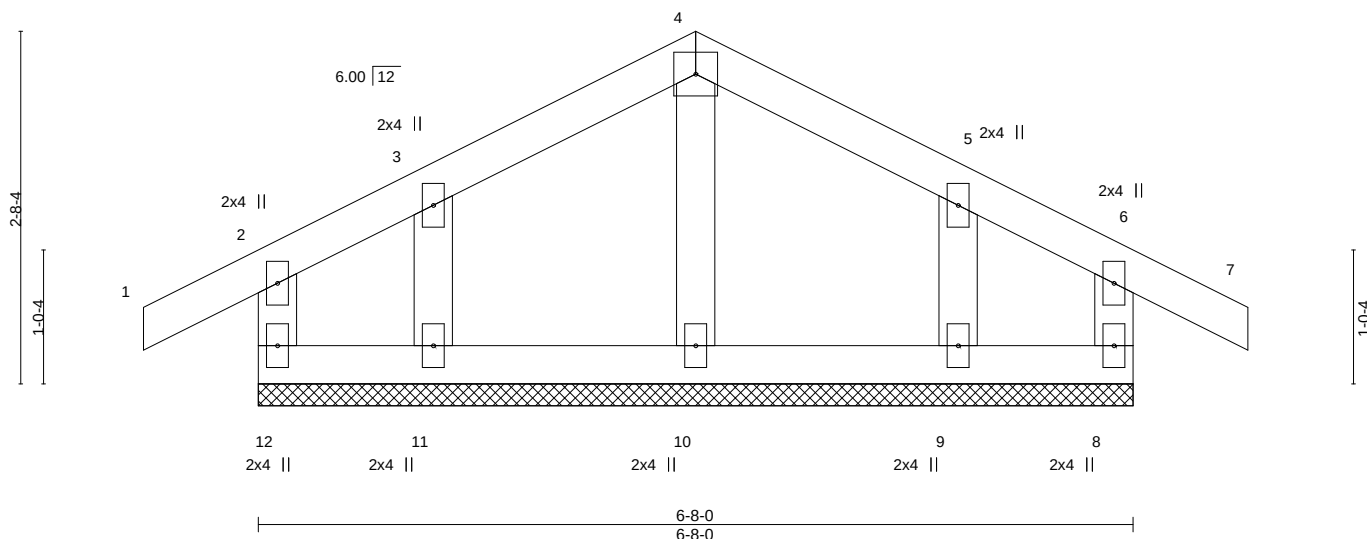
8.430 s Nov 30 2020 MiTek Industries, Inc. Tue Feb 9 15:07:28 2021 Page 1

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4x4 =

Scale = 1:17.6



LOADING (psf)		SPACING-		CSI.		DEFL.				PLATES	GRIP
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	0.02	Vert(LL)	-0.00	7	n/r		
TCDL	10.0	Lumber DOL	1.15	WB	0.02	Vert(CT)	-0.00	7	n/r		
BCLL	0.0	Rep Stress Incr	YES	Matrix-R		Horz(CT)	0.00	8	n/a		
BCDL	10.0	Code IRC2018/TPI2014								Weight: 32 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 6-8-0 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.

REACTIONS.

All bearings 6-8-0.

(lb) - Max Horz 12=48(LC 10)

Max Uplift All uplift 100 lb or less at joint(s) 12, 8, 11, 9

Max Grav All reactions 250 lb or less at joint(s) 12, 8, 10, 11, 9

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 2 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) 12, 8, 11, 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.



February 10, 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	144738418
H3-91	T6	Common	4	1	Job Reference (optional)	

Mid America Truss, Jefferson City, MO - 65101,

8.430 s Nov 30 2020 MiTek Industries, Inc. Tue Feb 9 15:07:29 2021 Page 1

ID:Z_Eg7_y5DGhi_ENvQbP05Vz4M0m-yDRRcmruQSSMh35QCeplx4926lmj10?Tf92evzmqli

0-10-8	5-6-0	11-0-0	16-6-0	22-0-0	22-10-8
0-10-8	5-6-0	5-6-0	5-6-0	5-6-0	0-10-8

Scale = 1:38.1

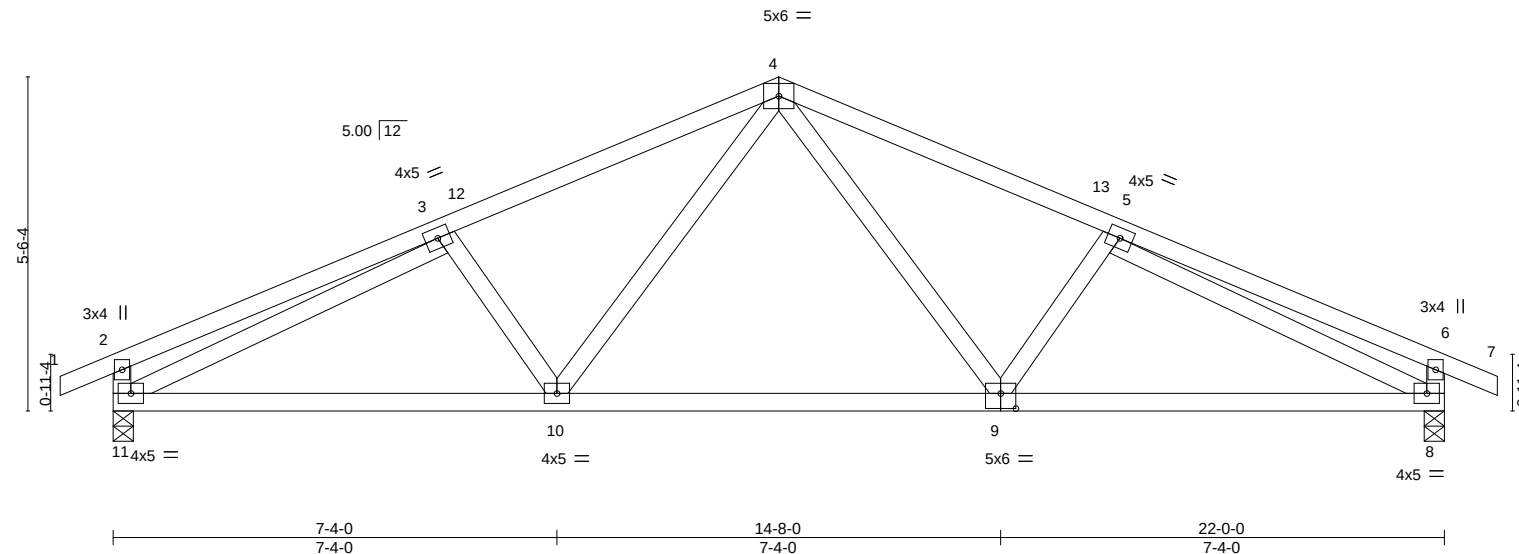


Plate Offsets (X,Y)-- [9:0-3-0,0-3-0]									
LOADING (psf)		SPACING-		CSI.		DEFL.		PLATES	
TCLL (roof)	20.0	2-0-0		TC	0.53	in (loc)	l/defl	MT20	GRIP
Snow (Pf/Pg)	15.4/20.0	Plate Grip DOL	1.15	BC	0.47	Vert(LL)	-0.05 9-10 >999		244/190
TCDL	10.0	Lumber DOL	1.15	WB	0.71	Vert(CT)	-0.13 9-10 >999		
BCLL	0.0	Rep Stress Incr	YES	Matrix-SH		Horz(CT)	0.04 8 n/a n/a		
BCDL	10.0	Code IRC2018/TPI2014						Weight: 118 lb	FT = 3%

LUMBER-		BRACING-	
TOP CHORD	2x4 SP No.2	TOP CHORD	Structural wood sheathing directly applied or 4-3-8 oc purlins, except end verticals.
BOT CHORD	2x4 SP No.2	BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS	2x4 SP No.2		

REACTIONS. (size) 11=0-4-0, 8=0-4-0
 Max Horz 11=36(LC 11)
 Max Uplift 11=-24(LC 11), 8=-24(LC 12)
 Max Grav 11=930(LC 2), 8=930(LC 2)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
 TOP CHORD 2-3=-329/52, 3-4=-1286/51, 4-5=-1286/51, 5-6=-329/52, 2-11=-322/64, 6-8=-322/64
 BOT CHORD 10-11=-36/1231, 9-10=0/905, 8-9=-0/1231
 WEBS 4-9=-12/413, 4-10=-12/413, 3-11=-1121/0, 5-8=-1121/0

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=1.00; 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 2 degree rotation about its center.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 11, 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.



February 10, 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
H3-91	T6GE	Common Supported Gable	1	1	144738419
Job Reference (optional)					

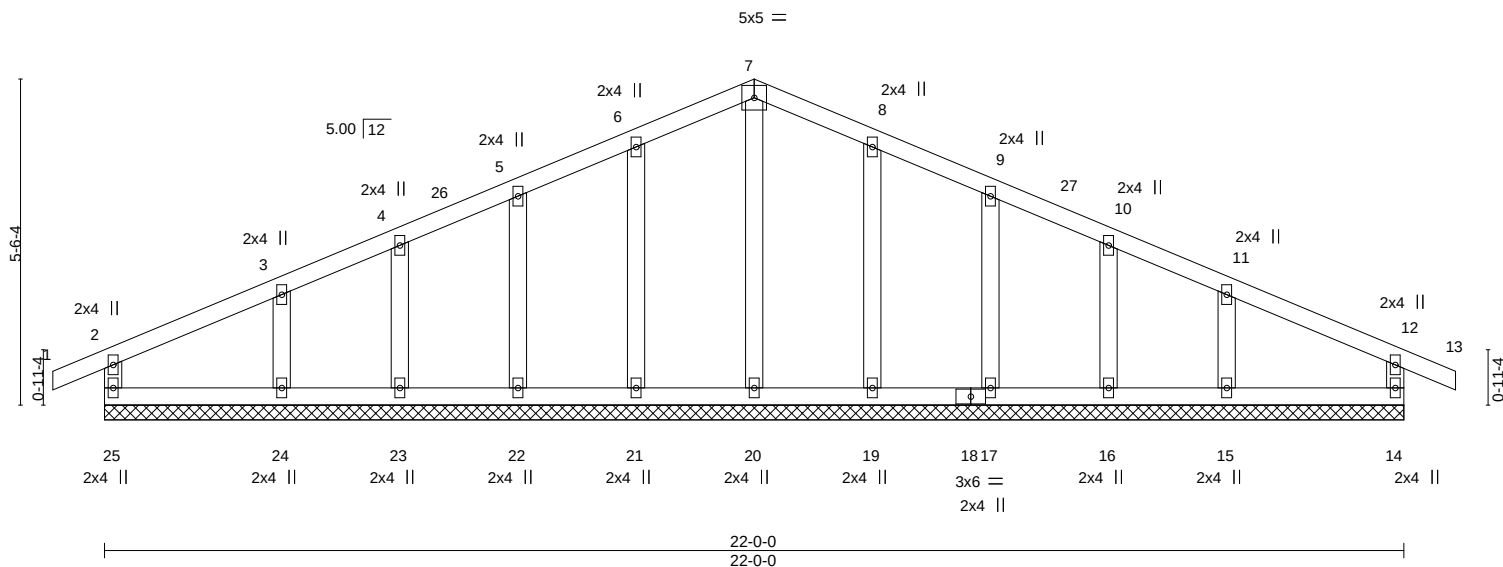
Mid America Truss, Jefferson City, MO - 65101,

8.430 s Nov 30 2020 MiTek Industries, Inc. Tue Feb 9 15:07:30 2021 Page 1

ID:Z_Eg7_y5DGhi_ENvQbP05Vz4M0m-QP?pq6sWBmaDJCfcmLKXUHiKe89eSFT8iJvbALzmqlh

0-10-8 11-0-0 22-0-0 22-10-8
0-10-8 11-0-0 11-0-0 0-10-8

Scale = 1:39.0



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	0.04	Vert(CT)	-0.00 12 n/r 90				
TCDL	10.0	Rep Stress Incr	YES	WB	0.06	Horz(CT)	0.00 14 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 22-0-0.

(lb) - Max Horz 25=36(LC 11)

Max Uplift All uplift 100 lb or less at joint(s) 25, 14, 21, 22, 23, 24, 19, 17, 16, 15

Max Grav All reactions 250 lb or less at joint(s) 25, 14, 20, 21, 22, 23, 24, 19, 17, 16, 15

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

NOTES-

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; 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 2 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) 25, 14, 21, 22, 23, 24, 19, 17, 16, 15.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



February 10, 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

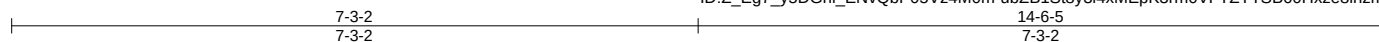
Job	Truss	Truss Type	Qty	Ply	SUMMIT HOMES
H3-91	V1	Valley	1	1	144738420

Mid America Truss, Jefferson City, MO - 65101,

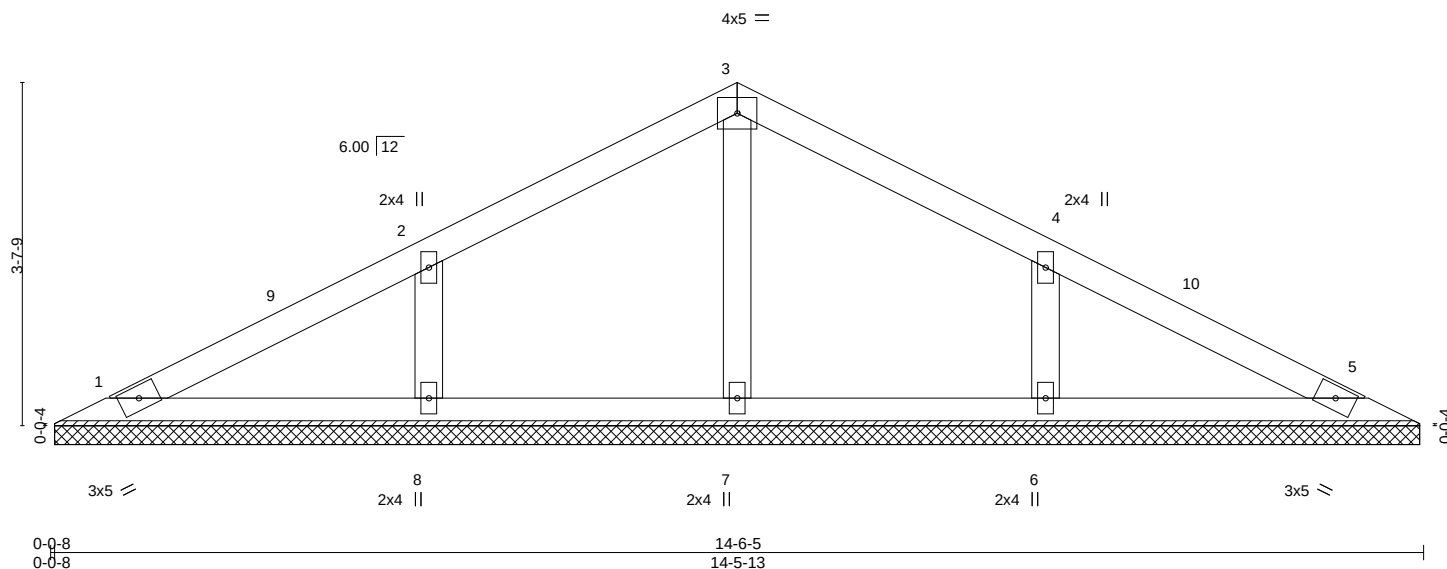
8.430 s Nov 30 2020 MiTek Industries, Inc. Tue Feb 9 15:07:31 2021 Page 1

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Job Reference (optional)



Scale = 1:24.4



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	0.07	Vert(CT)	n/a				
TCDL	10.0	Rep Stress Incr	YES	WB	0.04	Horz(CT)	0.00				
BCLL	0.0	Code IRC2018/TPI2014		Matrix-P							
BCDL	10.0										

Weight: 52 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.

All bearings 14-5-5.
(lb) - Max Horz 1=-38(LC 7)
Max Uplift All uplift 100 lb or less at joint(s) 6, 8
Max Grav All reactions 250 lb or less at joint(s) 1, 5, 7 except 6=382(LC 16), 8=382(LC 15)

FORCES.

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

WEBS

4-6=-306/97, 2-8=-306/97

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 2 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) 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.



February 10, 2021

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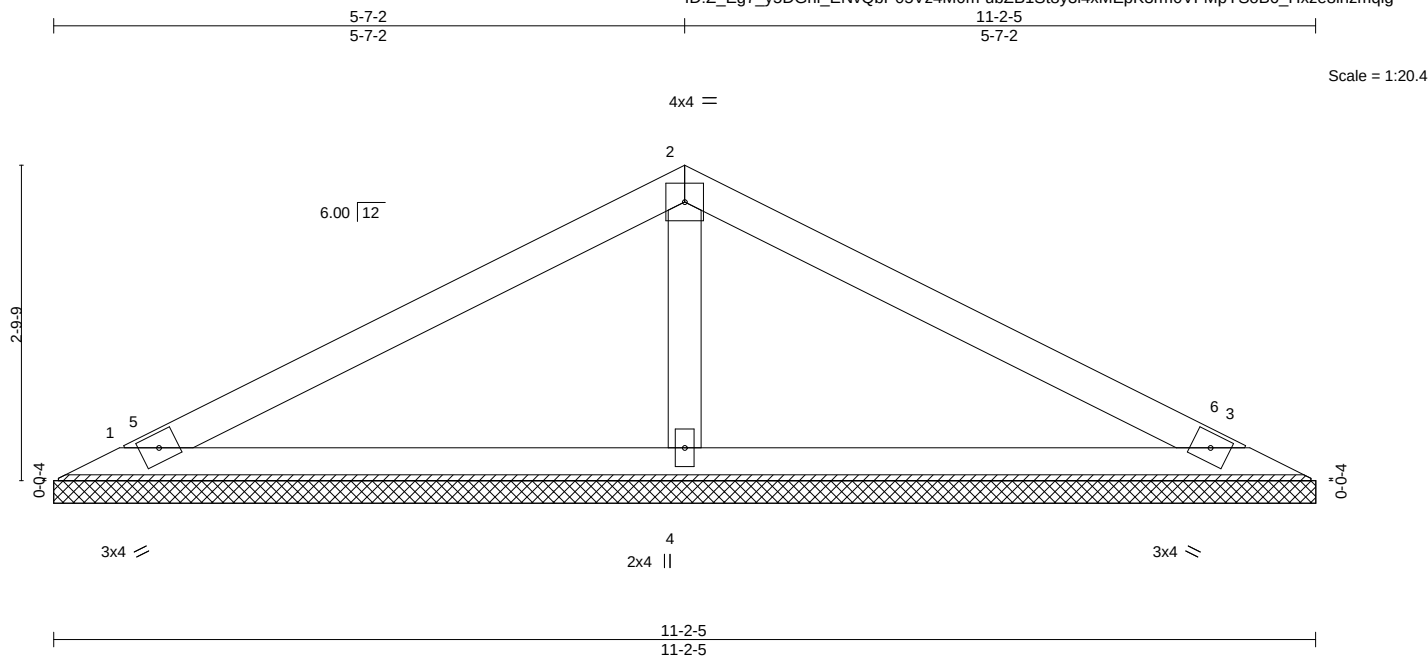


16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	SUMMIT HOMES	144738421
H3-91	V2	GABLE	1	1	Job Reference (optional)	

Mid America Truss, Jefferson City, MO - 65101,

8.430 s Nov 30 2020 MiTek Industries, Inc. Tue Feb 9 15:07:31 2021 Page 1
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LOADING (psf)		SPACING-		CSI.		DEFL.		PLATES		GRIP	
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.64	Vert(LL)	n/a	MT20	244/190		
Snow (Pf/Pg)	15.4/20.0	Lumber DOL	1.15	BC	0.17	Vert(CT)	n/a				
TCDL	10.0	Rep Stress Incr	YES	WB	0.04	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.

(size) 1=11'-2.5, 3=11'-2.5, 4=11'-2.5
Max Horz 1=28(LC 8)
Max Uplift 1=-21(LC 11), 3=-26(LC 12)
Max Grav 1=238(LC 15), 3=238(LC 16), 4=394(LC 2)

FORCES.

(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
WEBS 2-4=-270/44

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 2 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.



February 10, 2021

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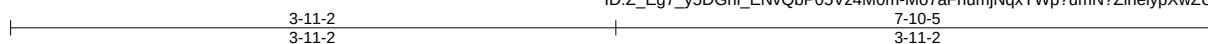
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	SUMMIT HOMES
H3-91	V3	Valley	1	1	144738422

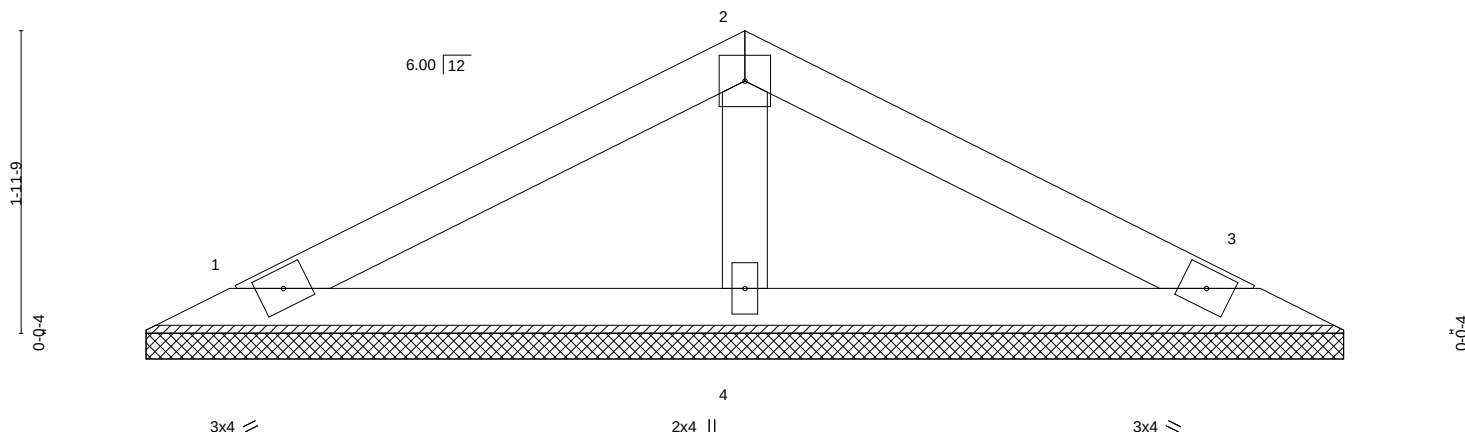
Mid America Truss, Jefferson City, MO - 65101,

8.430 s Nov 30 2020 MiTek Industries, Inc. Tue Feb 9 15:07:32 2021 Page 1

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Scale = 1:15.0



0-0-8 0-0-8		7-10-5 7-9-13							
LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in (loc)	l/defl	L/d
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.25	Vert(LL)	n/a	-	n/a
Snow (Pf/Pg)	15.4/20.0	Lumber DOL	1.15	BC	0.08	Vert(CT)	n/a	-	n/a
TCDL	10.0	Rep Stress Incr	YES	WB	0.02	Horz(CT)	0.00	3	n/a
BCLL	0.0	Code	IRC2018/TPI2014	Matrix-P					
BCDL	10.0								
								PLATES	GRIP
								MT20	244/190
								Weight: 25 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=7-9-5, 3=7-9-5, 4=7-9-5
Max Horz 1=19(LC 8)
Max Uplift 1=14(LC 11), 3=17(LC 12)
Max Grav 1=155(LC 15), 3=155(LC 16), 4=262(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 2 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.



February 10, 2021

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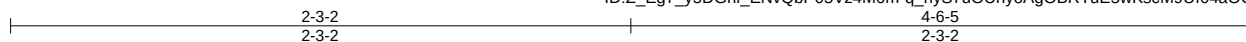
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	SUMMIT HOMES	144738423
H3-91	V4	Valley	1	1	Job Reference (optional)	

Mid America Truss, Jefferson City, MO - 65101,

8.430 s Nov 30 2020 MiTek Industries, Inc. Tue Feb 9 15:07:33 2021 Page 1

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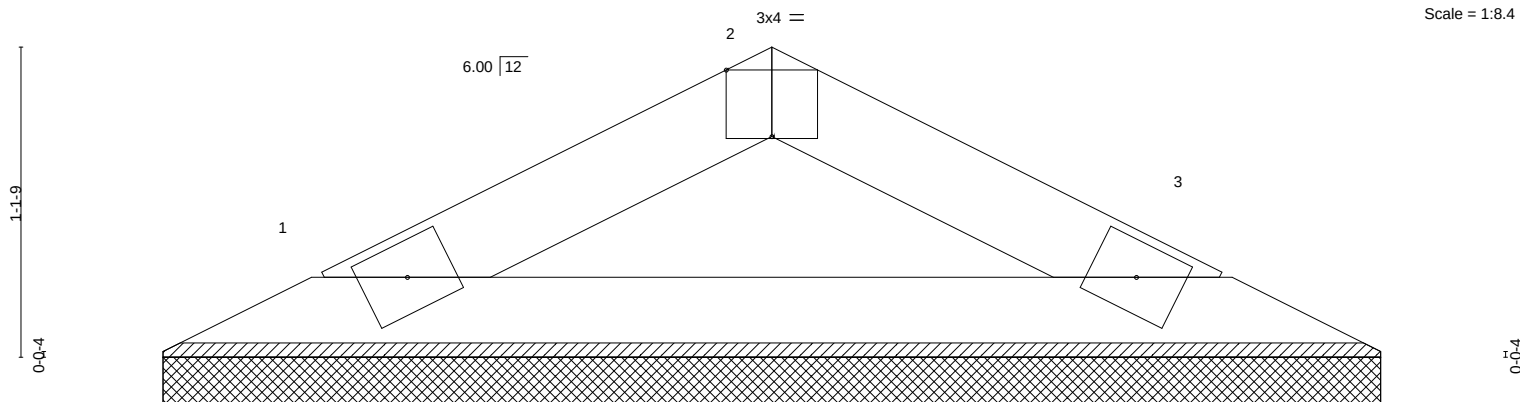


Plate Offsets (X,Y)-- [2:0-2-0,Edge]									
LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in (loc)	l/defl	L/d
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.05	Vert(LL)	n/a	-	n/a
Snow (Pf/Pg)	15.4/20.0	Lumber DOL	1.15	BC	0.10	Vert(CT)	n/a	-	n/a
TCDL	10.0	Rep Stress Incr	YES	WB	0.00	Horz(CT)	0.00	3	n/a
BCLL	0.0	Code	IRC2018/TPI2014	Matrix-P					
BCDL	10.0								
								Weight: 12 lb	
								FT = 3%	

LUMBER-

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

BRACING-

TOP CHORD Structural wood sheathing directly applied or 4-6-5 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS.

(size) 1=4-5-5, 3=4-5-5
Max Horz 1=-9(LC 7)
Max Uplift 1=-2(LC 11), 3=-2(LC 12)
Max Grav 1=131(LC 2), 3=131(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 2 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.



February 10, 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

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

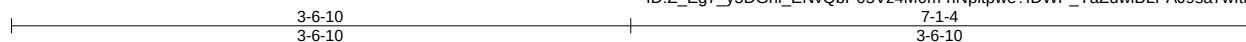


16023 Swingley Ridge Rd
Chesterfield, MO 63017

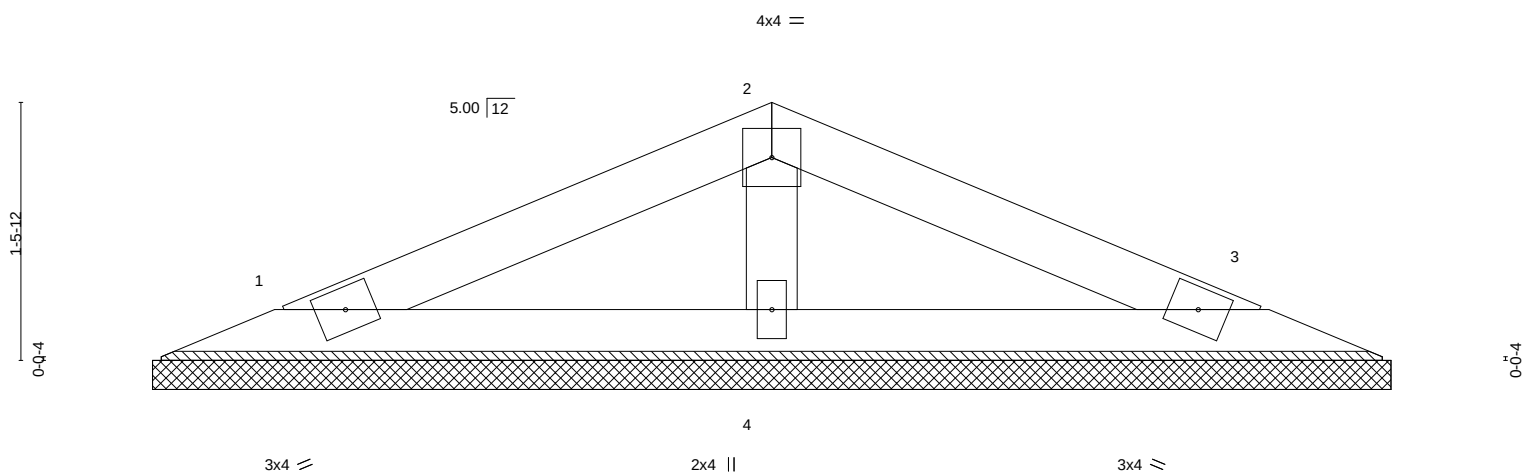
Job	Truss	Truss Type	Qty	Ply	SUMMIT HOMES	144738425
H3-91	V6	GABLE	1	1	Job Reference (optional)	

Mid America Truss, Jefferson City, MO - 65101,

8.430 s Nov 30 2020 MiTek Industries, Inc. Tue Feb 9 15:07:35 2021 Page 1
ID:Z_Eg7_y5Dghi_ENVQbP05Vz4M0m-nNptpwe?IDWP_YaZuwiBLPAJ9sa7wltracMrYzmqIc



Scale = 1:13.2



LOADING (psf)		SPACING-		CSI.		DEFL.		PLATES		GRIP	
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.16	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	0.02	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=7-1-4, 3=7-1-4, 4=7-1-4
Max Horz 1=12(LC 13)
Max Uplift 1=-11(LC 11), 3=-13(LC 12)
Max Grav 1=124(LC 15), 3=124(LC 16), 4=228(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 2 degree rotation about its center.
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February 10, 2021

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

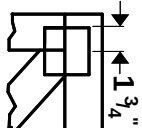
Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall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



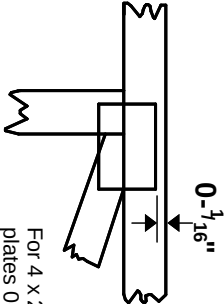
16023 Swingley Ridge Rd
Chesterfield, MO 63017

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- $\frac{3}{16}$ " from outside edge of truss.

— This symbol indicates the required direction of slots in connector plates.

* Plate location details available in **MiTek 20120** software or upon request.

PLATE SIZE

4 X 4

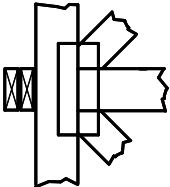
The first dimension is the plate width measured perpendicular to slots. Second dimension is the length parallel to slots.

LATERAL BRACING LOCATION



Indicated by symbol shown and/or by text in the bracing section of the output. Use T or I bracing if indicated.

BEARING



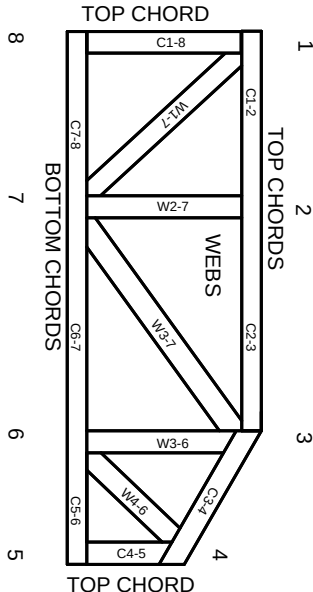
Indicates location where bearings (supports) occur. Icons vary but reaction section indicates joint number where bearings occur. Min size shown is for crushing only.

Industry Standards:

ANSI/TP1.1: National Design Specification for Metal Plate Connected Wood Truss Construction.
DSB-89: Building Component Safety Information, Guide to Good Practice for Handling, Installing & Bracing of Metal Plate Connected Wood Trusses.

Numbering System

6-4-8 dimensions shown in ft-in-sixteenths (Drawings not to scale)



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/TP1 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 T or 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/TP1 1.
7. Design assumes trusses will be suitably protected from the environment in accord with ANSI/TP1 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/TP1 1 Quality Criteria.
21. The design does not take into account any dynamic or other loads other than those expressly stated.