



MiTek USA, Inc.

16023 Swingley Ridge Rd
Chesterfield, MO 63017
314-434-1200

Re: W2-63
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: I44987087 thru I44987160

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

Missouri COA: Engineering 001193



March 1, 2021

Sevier, Scott ,Engineer

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

Job	Truss	Truss Type	Qty	Ply	SUMMIT HOMES	144987087
W2-63	CJ1	Diagonal Hip Girder	2	1	Job Reference (optional)	

Mid America Truss, Jefferson City, MO - 65101,

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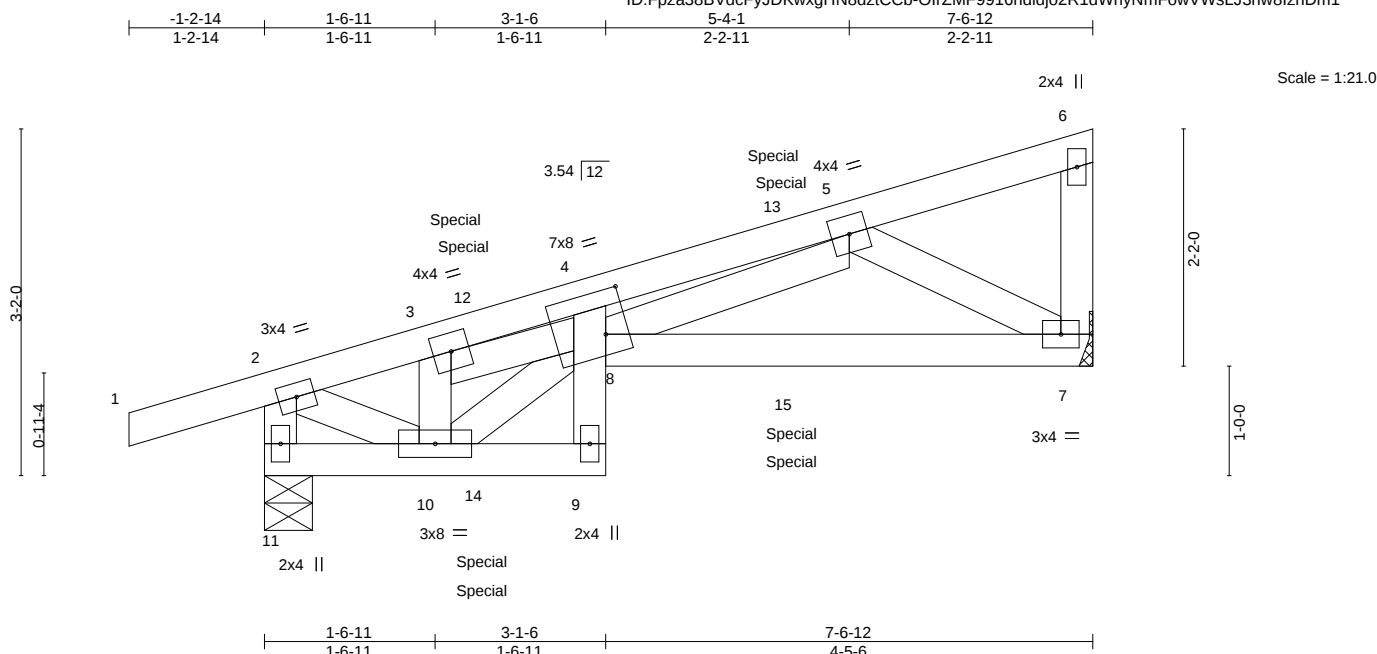


Plate Offsets (X, Y)-- [4:0-2-8, 0-4-12]

LOADING (psf)	SPACING-	CSI.	DEFL.	PLATES	GRIP
TCLL (roof) 20.0	2-0-0	TC 0.20	in (loc) l/defl L/d	MT20	244/190
Snow (Pl/Pg) 15.4/20.0	Plate Grip DOL 1.15	BC 0.40	Vert(LL) -0.03 7-8 >999 360		
TCDL 10.0	Lumber DOL 1.15	WB 0.17	Vert(CT) -0.07 7-8 >999 240		
BCLL 0.0	Rep Stress Incr NO	Matrix-P	Horz(CT) 0.02 7 n/a n/a		
BCDL 10.0	Code IRC2018/TPI2014			Weight: 44 lb	FT = 3%

LUMBER-

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

BRACING-

TOP CHORD Structural wood sheathing directly applied or 5-4-11 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS.

(size) 11=0-5-4, 7=Mechanical
Max Horz 11=85(LC 8)
Max Uplift 11=-68(LC 7), 7=-47(LC 11)
Max Grav 11=406(LC 16), 7=365(LC 16)

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

TOP CHORD 2-11=-390/75, 2-3=-360/27, 3-4=-975/123, 4-5=-1104/159
BOT CHORD 7-8=-78/427
WEBS 2-10=-11/363, 3-10=-314/54, 8-10=-62/311, 3-8=-81/584, 5-8=-95/702, 5-7=-497/91

NOTES-

- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope); cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.33 plate grip DOL=1.33
- TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=15.4 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
- Unbalanced snow loads have been considered for this design.
- This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 15.4 psf on overhangs non-concurrent with other live loads.
- Plates checked for a plus or minus 3 degree rotation about its center.
- Refer to girder(s) for truss to truss connections.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 11, 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.
- Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 49 lb down and 16 lb up at 1-11-15, 49 lb down and 16 lb up at 1-11-15, and 68 lb down and 30 lb up at 4-9-14, and 68 lb down and 30 lb up at 4-9-14 on top chord, and 4 lb down and 8 lb up at 1-11-15, 4 lb down and 8 lb up at 1-11-15, and 25 lb down and 22 lb up at 4-9-14, and 25 lb down and 22 lb up at 4-9-14 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, 2-6=-51, 9-11=-20, 7-8=-20
Concentrated Loads (lb)
Vert: 13=-30(F=-15, B=-15) 14=1(F=1, B=1) 15=-50(F=-25, B=-25)



March 1, 2021

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

Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see

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

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



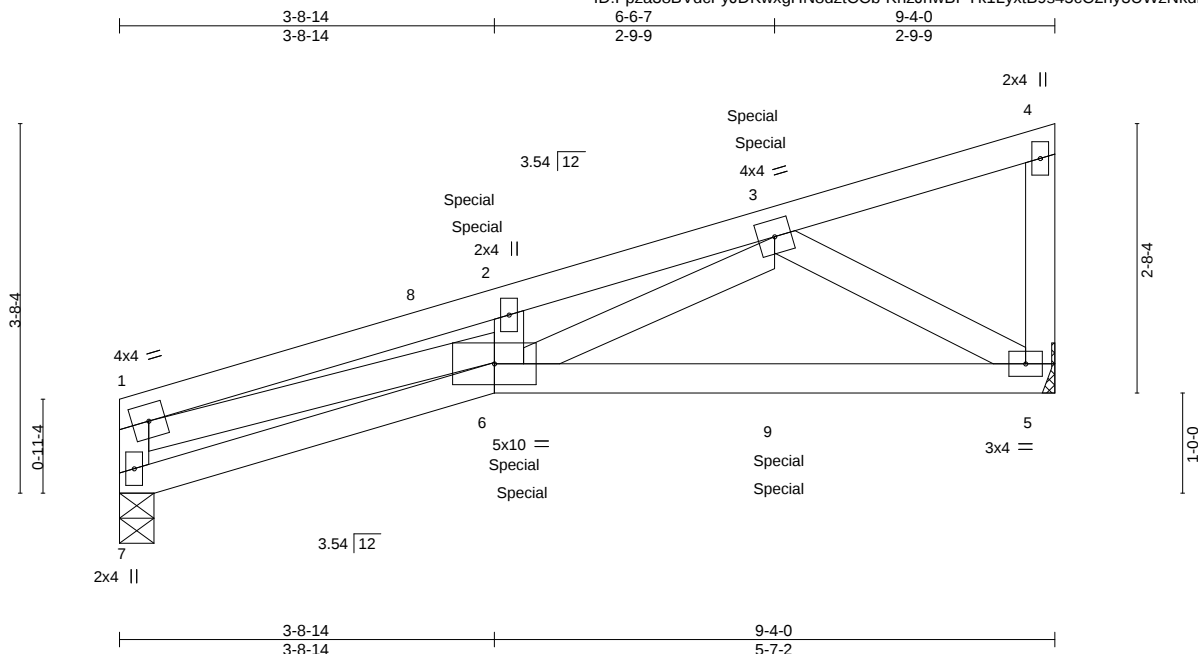
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	SUMMIT HOMES	144987088
W2-63	CJ2	DIAGONAL HIP GIRDER	1	1	Job Reference (optional)	

Mid America Truss, Jefferson City, MO - 65101,

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LOADING (psf)		SPACING-		CSI.		DEFL.		PLATES		GRIP	
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.34	Vert(LL)	-0.05 6 >999 360	MT20		244/190	
Snow (Pf/Pg)	15.4/20.0	Lumber DOL	1.15	BC	0.39	Vert(CT)	-0.11 5-6 >999 240				
TCDL	10.0	Rep Stress Incr	NO	WB	0.34	Horz(CT)	0.03 5 n/a n/a				
BCLL	0.0	Code IRC2018/TPI2014		Matrix-P							
BCDL	10.0										
								Weight: 47 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 4-5-14 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS.

(size) 7=0-4-2, 5=Mechanical
Max Horz 7=97(LC 8)
Max Uplift 7=-25(LC 7), 5=-54(LC 8)
Max Grav 7=421(LC 15), 5=538(LC 15)

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

TOP CHORD 1-7=-385/55, 1-2=-1463/145, 2-3=-1491/187
BOT CHORD 5-6=-134/689
WEBS 1-6=-121/1387, 3-6=-85/833, 3-5=-802/139

NOTES-

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope); cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.33 plate grip DOL=1.33
- 2) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=15.4 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
- 3) Unbalanced snow loads have been considered for this design.
- 4) Plates checked for a plus or minus 3 degree rotation about its center.
- 5) Refer to girder(s) for truss to truss connections.
- 6) Bearing at joint(s) 7 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- 7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 7, 5.
- 8) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 9) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 62 lb down and 36 lb up at 3-9-3, 59 lb down and 33 lb up at 3-9-3, and 153 lb down and 60 lb up at 6-7-2, and 149 lb down and 60 lb up at 6-7-2 on top chord, and 12 lb down at 3-8-14, 10 lb down at 3-8-14, and 2 lb down at 6-7-2, and 2 lb down at 6-7-2 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
- 10) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

LOAD CASE(S) Standard

- 1) Dead + Snow (balanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (plf)
Vert: 1-4=-51, 6-7=-20, 5-6=-20
Concentrated Loads (lb)
Vert: 6=-6(F=-1, B=-5) 2=-18(F=-7, B=-12) 3=-241(F=-119, B=-122)



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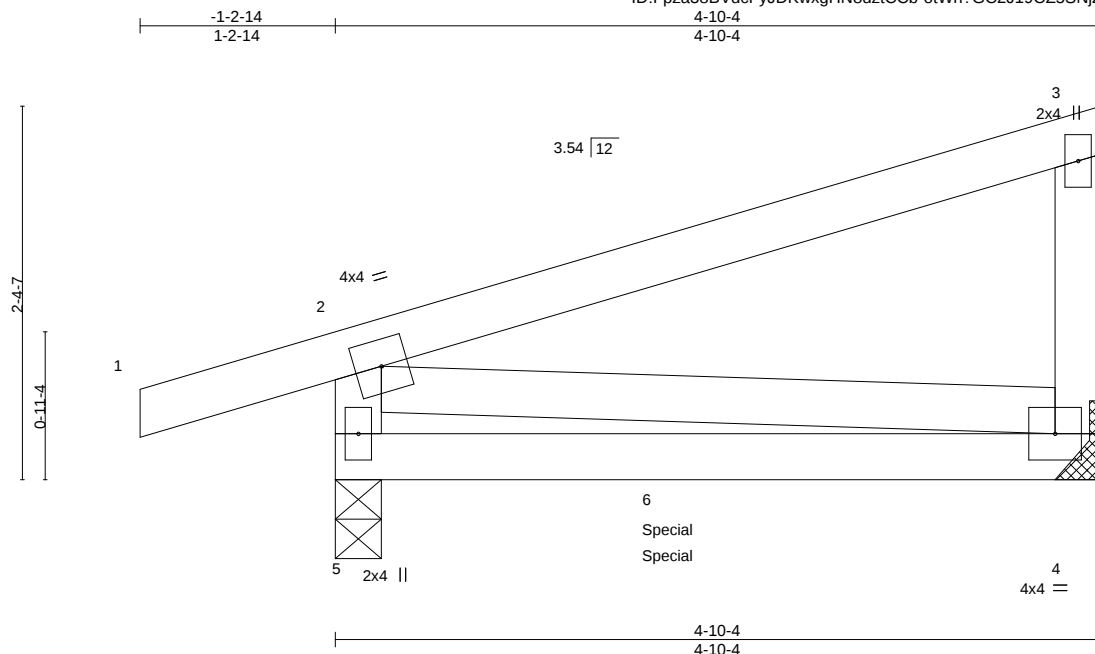
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	SUMMIT HOMES	144987089
W2-63	CJ3	MONO TRUSS	2	1	Job Reference (optional)	

Mid America Truss, Jefferson City, MO - 65101,

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Scale = 1:14.6

LOADING (psf)	SPACING-	CSI.	DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof) 20.0	2-0-0	TC 0.46	Vert(LL) 0.03	4-5	>999	360		MT20	244/190
Snow (Pf/Pg) 15.4/20.0	Plate Grip DOL 1.15	BC 0.27	Vert(CT) -0.04	4-5	>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 NO	Matrix-P							
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 4-10-4 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS.

(size) 4=Mechanical, 5=0-3-8
Max Horz 5=71(LC 8)
Max Uplift 4=42(LC 11), 5=-91(LC 7)
Max Grav 4=209(LC 16), 5=345(LC 16)

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

TOP CHORD 2-5=-283/81

NOTES-

- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope); cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.33 plate grip DOL=1.33
- TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=15.4 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
- Unbalanced snow loads have been considered for this design.
- This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 15.4 psf on overhangs non-concurrent with other live loads.
- Plates checked for a plus or minus 3 degree rotation about its center.
- Refer to girder(s) for truss to truss connections.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 4, 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.
- Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 18 lb down and 33 lb up at 2-1-6, and 18 lb down and 33 lb up at 2-1-6 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: 6=-29(F=-14, B=-14)



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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



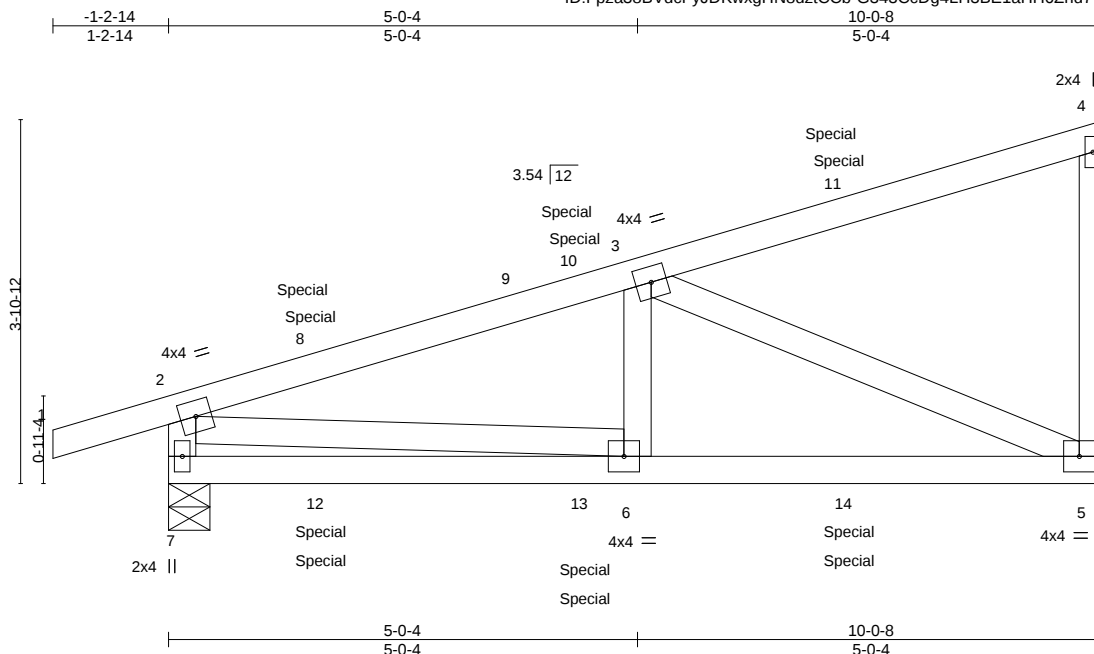
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	SUMMIT HOMES	144987090
W2-63	CJ4	Diagonal Hip Girder	4	1	Job Reference (optional)	

Mid America Truss, Jefferson City, MO - 65101,

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LOADING (psf)		SPACING-		CSI.		DEFL.				PLATES		GRIP	
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.88	Vert(LL)	-0.02	5-6	l/defl	L/d	MT20	244/190	
Snow (Pf/Pg)	15.4/20.0	Lumber DOL	1.15	BC	0.50	Vert(CT)	-0.06	5-6	>999	360			
TCDL	10.0	Rep Stress Incr	NO	WB	0.40	Horz(CT)	0.01	5	>999	240			
BCLL	0.0	Code IRC2018/TPI2014		Matrix-P					n/a	n/a			
BCDL	10.0										Weight: 55 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) 7=0-5-5, 5=Mechanical
Max Horz 7=122(LC 8)
Max Uplift 7=-83(LC 7), 5=-56(LC 8)
Max Grav 7=526(LC 1), 5=596(LC 16)

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

TOP CHORD 2-7=-493/95, 2-3=-822/65
BOT CHORD 5-6=-108/764
WEBS 2-6=-32/772, 3-5=-834/102

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; Pg=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=15.4 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
- 3) Unbalanced snow loads have been considered for this design.
- 4) This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 15.4 psf on overhangs non-concurrent with other live loads.
- 5) Plates checked for a plus or minus 3 degree rotation about its center.
- 6) Refer to girder(s) for truss to truss connections.
- 7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 7, 5.
- 8) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 9) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 49 lb down and 13 lb up at 1-7-11, 49 lb down and 13 lb up at 1-7-11, 69 lb down and 41 lb up at 4-5-10, 67 lb down and 39 lb up at 4-5-10, and 134 lb down and 67 lb up at 7-3-10, and 131 lb down and 67 lb up at 7-3-10 on top chord, and 5 lb down and 6 lb up at 1-7-11, 5 lb down and 6 lb up at 1-7-11, 17 lb down at 4-5-10, 15 lb down and 4 lb up at 4-5-10, and 38 lb down at 7-3-10, and 37 lb down at 7-3-10 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
- 10) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

LOAD CASE(S) Standard

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

Vert: 1-2=-51, 2-4=-51, 5-7=-20

Concentrated Loads (lb)

Vert: 10=-48(F=-20, B=-26) 11=-204(F=-101, B=-103) 12=2(F=1, B=1) 13=-13(F=-4, B=-9) 14=-72(F=-35, B=-37)



March 1, 2021

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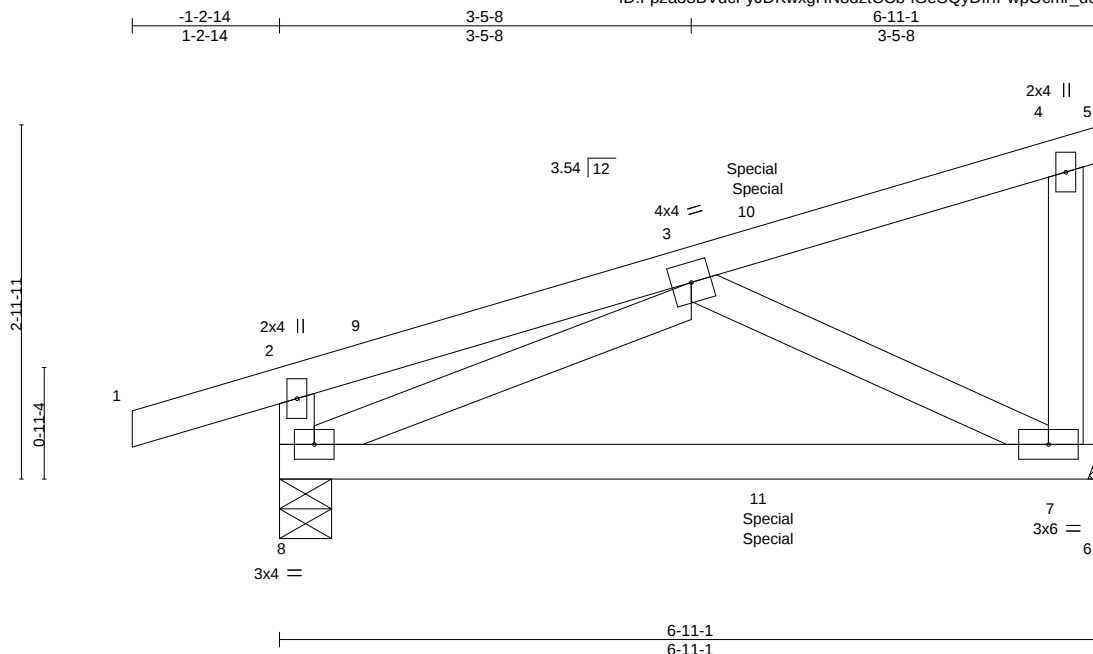
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	SUMMIT HOMES	144987091
W2-63	CJ5	Diagonal Hip Girder	2	1	Job Reference (optional)	

Mid America Truss, Jefferson City, MO - 65101,

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LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof) 20.0	2-0-0	TC 0.20	Vert(LL) 0.01	7-8	>999	360	MT20	244/190
Snow (Pf/Pg) 15.4/20.0	Plate Grip DOL 1.15	BC 0.43	Vert(CT) -0.11	7-8	>685	240		
TCDL 10.0	Lumber DOL 1.15	WB 0.07	Horz(CT) 0.00	7	n/a	n/a		
BCLL 0.0	Rep Stress Incr NO	Matrix-P						
BCDL 10.0	Code IRC2018/TPI2014						Weight: 37 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) 8=0-5-4, 7=Mechanical
Max Horz 8=93(LC 30)
Max Uplift 8=-56(LC 7), 7=-27(LC 8)
Max Grav 8=365(LC 16), 7=325(LC 16)

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

BOT CHORD 7-8=-92/256
WEBS 3-8=-286/41, 3-7=-290/91

NOTES-

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

LOAD CASE(S) Standard

- 1) Dead + Snow (balanced): Lumber Increase=1.15, Plate Increase=1.15
- Uniform Loads (plf)
Vert: 1-2=-51, 2-4=-51, 4-5=-51, 6-8=-20
- Concentrated Loads (lb)
Vert: 10=-31(F=-16, B=-16) 11=-6(F=-3, B=-3)



March 1, 2021

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

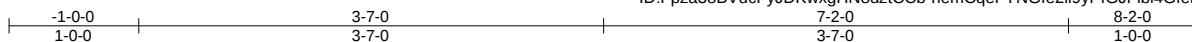
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	SUMMIT HOMES	144987093
W2-63	G1	KINGPOST	1	1	Job Reference (optional)	

Mid America Truss, Jefferson City, MO - 65101,

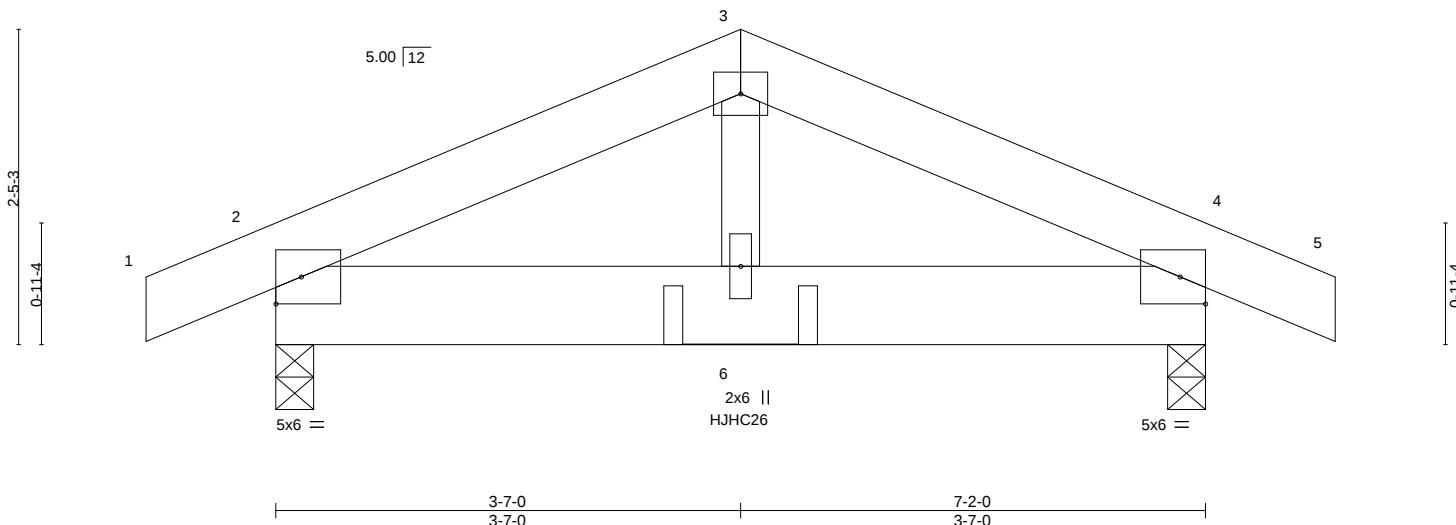
8.430 s Feb 12 2021 MiTek Industries, Inc. Fri Feb 26 15:34:59 2021 Page 1

ID:Fpza38BVdcFyJDKwXgHN8dztCCb-hemCqeFYNGfe2il9yPfGJFibi4GfeINMwfzotOzhDlw



4x5 =

Scale = 1:17.8



LOADING (psf)		SPACING-		CSI.		DEFL.		PLATES		GRIP	
TCLL (roof)	20.0	2-0-0		TC	0.15	in (loc)	l/defl	L/d	MT20	244/190	
Snow (Pf/Pg)	15.4/20.0	Plate Grip DOL	1.15	BC	0.08	Vert(LL)	-0.01 6 >999	360			
TCDL	10.0	Lumber DOL	1.15	WB	0.12	Vert(CT)	-0.01 6 >999	240			
BCLL	0.0	Rep Stress Incr	NO	Matrix-P		Horz(CT)	0.00 4 n/a	n/a			
BCDL	10.0	Code IRC2018/TPI2014							Weight: 48 lb	FT = 3%	

LUMBER-

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

BRACING-

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

REACTIONS.

(size) 2=0-3-8, 4=0-3-8
Max Horz 2=-20(LC 40)
Max Uplift 2=-90(LC 7), 4=-90(LC 8)
Max Grav 2=623(LC 16), 4=623(LC 17)

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

TOP CHORD 2-3=-756/138, 3-4=-756/137
BOT CHORD 2-6=-96/602, 4-6=-96/602
WEBS 3-6=-85/498

NOTES-

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope); cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.33 plate grip DOL=1.33
- TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=15.4 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
- Unbalanced snow loads have been considered for this design.
- This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 15.4 psf on overhangs non-concurrent with other live loads.
- Plates checked for a plus or minus 3 degree rotation about its center.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 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.
- Use USP HJHC26 (With 20-16d nails into Girder & 10d nails into Truss) or equivalent at 3-7-0 from the left end to connect truss(es) to front face of bottom chord, skewed 0.0 deg.to the left, sloping 0.0 deg. down.
- Fill all nail holes where hanger is in contact with lumber.
- 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: 2-4=-20, 1-3=-51, 3-5=-51
Concentrated Loads (lb)
Vert: 6=-483(F)



March 1, 2021

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

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



16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	SUMMIT HOMES	144987094
W2-63	H1	Hip Girder	1	2	Job Reference (optional)	

Mid America Truss, Jefferson City, MO - 65101,

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ID:Fpza38BVdcFyJDKWxgHN8dztCCb-5DSLTFHrgB2Cv9UjdYDzWuNz?HBD?0pddCSUjzhDit

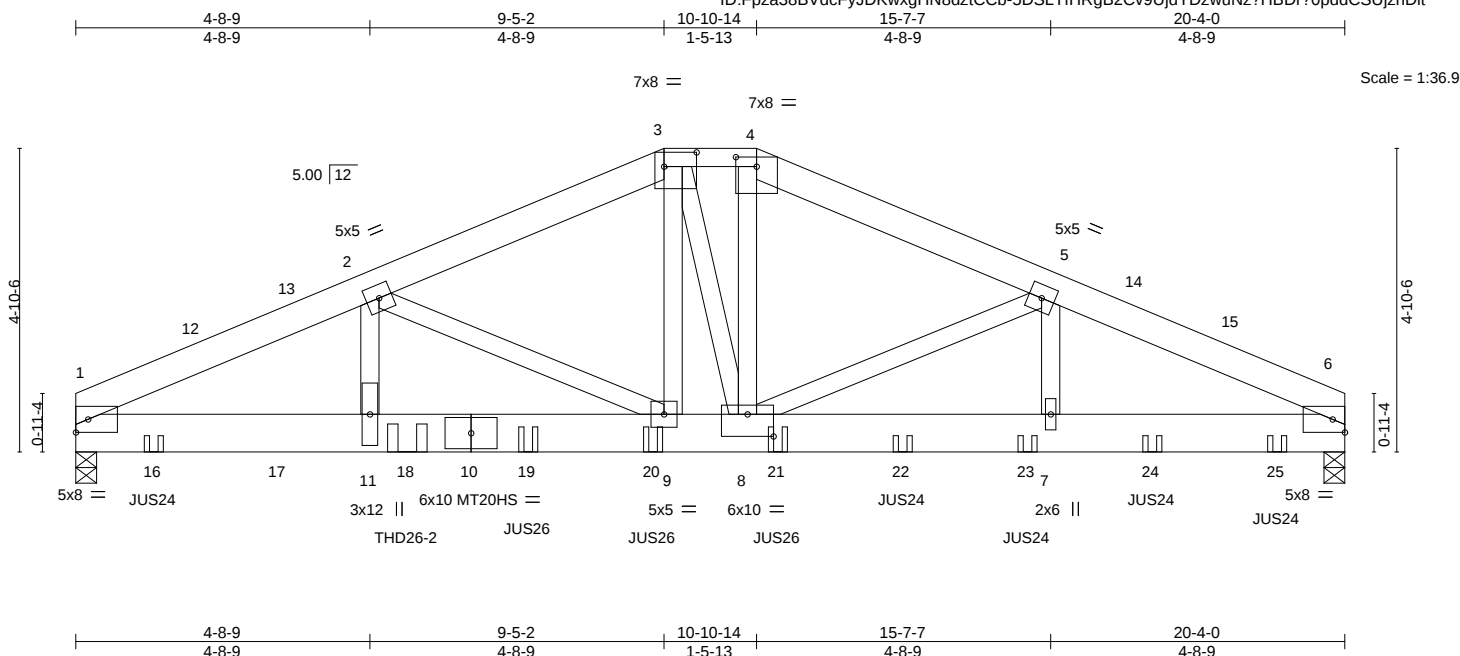


Plate Offsets (X,Y)-- [3:0-6-4,0-2-12], [4:0-4-0,0-1-13], [8:0-5-0,0-4-4]									
LOADING (psf)		SPACING-		CSI.		DEFL.		PLATES	
TCLL (roof)	20.0	2-0-0		TC 0.72		in (loc) l/defl L/d		MT20 244/190	
Snow (Pl/Pg)	20.4/20.0	Plate Grip DOL 1.15		BC 0.53		Vert(LL) -0.10 9-11 >999 360		MT20HS 187/143	
TCDL	10.0	Lumber DOL 1.15		WB 0.32		Vert(CT) -0.17 9-11 >999 240			
BCLL	0.0	Rep Stress Incr NO		Matrix-SH		Horz(CT) 0.04 6 n/a n/a			
BCDL	10.0	Code IRC2018/TPI2014						Weight: 303 lb FT = 3%	

LUMBER-

TOP CHORD 2x6 SP No.1 *Except*
3-4: 2x4 SP No.2
BOT CHORD 2x8 SP 2400F 2.0E
WEBS 2x4 SP No.2

BRACING-

TOP CHORD Structural wood sheathing directly applied or 4-9-11 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS.

(size) 1=0-4-0, 6=0-4-0
Max Horz 1=-46(LC 14)
Max Uplift 1=-142(LC 11), 6=-210(LC 12)
Max Grav 1=4922(LC 33), 6=4898(LC 33)

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

TOP CHORD 1-2=-9943/372, 2-3=-7011/265, 3-4=-6475/260, 4-5=-7006/264, 5-6=-8672/348
BOT CHORD 1-11=-330/8736, 9-11=-330/8736, 8-9=-186/6485, 7-8=-267/7646, 6-7=-267/7646
WEBS 2-11=-58/2609, 2-9=-2595/164, 3-9=-95/2558, 4-8=-86/2457, 5-8=-1393/147,
5-7=-34/1468

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, 2x4 - 1 row at 0-9-0 oc.
Bottom chords connected as follows: 2x8 - 2 rows staggered at 0-5-0 oc.
Webs connected as follows: 2x4 - 1 row at 0-9-0 oc.
- All loads are considered equally applied to all plies, except if noted as front (F) or back (B) face in the LOAD CASE(S) section. Ply to ply connections have been provided to distribute only loads noted as (F) or (B), unless otherwise indicated.
- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope); cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.33 plate grip DOL=1.33
- TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=20.4 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10, Lu=50-0-0 Rain surcharge applied to all exposed surfaces with slopes less than 0.500/12 in accordance with IBC 1608.3.4.
- Unbalanced snow loads have been considered for this design.
- Provide adequate drainage to prevent water ponding.
- All plates are MT20 plates unless otherwise indicated.
- Plates checked for a plus or minus 3 degree rotation about its center.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (it=lb) 1=142, 6=210.
- 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 at 1-3-0 from the left end to connect truss(es) to front face of bottom chord, skewed 0.0 deg. to the left, sloping 0.0 deg. down.
- Use USP THD26-2 (With 18-16d nails into Girder & 12-10d nails into Truss) or equivalent at 5-3-12 from the left end to connect truss(es) to front face of bottom chord, skewed 0.0 deg. to the left, sloping 0.0 deg. down.



March 1, 2021

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

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	SUMMIT HOMES
W2-63	H1	Hip Girder	1	2	I44987094

Mid America Truss, Jefferson City, MO - 65101,

8.430 s Feb 12 2021 MiTek Industries, Inc. Fri Feb 26 15:35:02 2021 Page 2
ID:Fpza38BVdcFyJDKwxgHN8dztCCb-5DSLTFHrgB2Cv9UjdYDzwnNz?HBDr?0pddCSUjzhDlt

NOTES-

- 14) Use USP JUS26 (With 4-10d nails into Girder & 4-10d nails into Truss) or equivalent spaced at 2-0-0 oc max. starting at 7-3-0 from the left end to 11-3-0 to connect truss(es) to front face of bottom chord.
- 15) 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 13-3-0 from the left end to 19-3-0 to connect truss(es) to front face of bottom chord.
- 16) Fill all nail holes where hanger is in contact with lumber.

LOAD CASE(S) Standard

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

Uniform Loads (plf)

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

Concentrated Loads (lb)

Vert: 16=-114(F) 17=-220 18=-2205(F) 19=-969(F) 20=-746(F) 21=-913(F) 22=-755(F) 23=-694(F) 24=-615(F) 25=-586(F)

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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	144987095
W2-63	H2	Hip Girder	1	2	Job Reference (optional)	

Mid America Truss, Jefferson City, MO - 65101,

8.430 s Feb 12 2021 MiTek Industries, Inc. Fri Feb 26 15:35:33 2021 Page 1

ID:Fpza38BVdcFyJDKwxgHN8dzCCb-hBp3zGftNiyp7wMhyYGEhQ9M8nmrc?6NlxCb4QzhDIO

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

Scale = 1:27.7

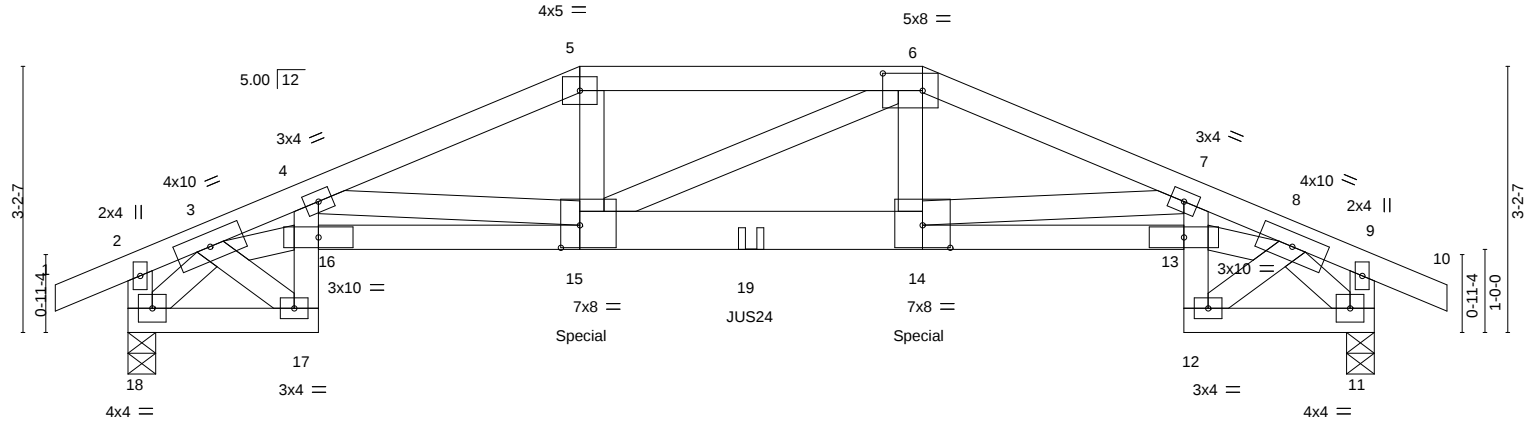


Plate Offsets (X,Y)--		[6:0-5-12,0-2-8], [14:0-4-0,0-3-4], [15:0-2-12,0-3-4]							
LOADING (psf)		SPACING-		CSI.		DEFL.		PLATES	
TCLL (roof)	20.0	2-0-0	Plate Grip DOL	1.15	TC	0.34	in (loc)	L/defl	L/d
Snow (Pl/Pg)	20.4/20.0	Lumber DOL	1.15	BC	0.57	Vert(LL)	-0.09 14-15	>999	360
TCDL	10.0	Rep Stress Incr	NO	WB	0.42	Vert(CT)	-0.15 14-15	>999	240
BCLL	0.0	Code IRC2018/TPI2014		Matrix-P		Horz(CT)	0.15 11	n/a	n/a
BCDL	10.0								
								Weight: 173 lb	
								FT = 3%	

LUMBER-

TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2 *Except*
14-15: 2x6 SP No.1
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) 18=0-4-0, 11=0-4-0
Max Horz 18=22(LC 56)
Max Uplift 18=-134(LC 7), 11=-133(LC 8)
Max Grav 18=1448(LC 34), 11=1448(LC 34)

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

TOP CHORD 3-4=-4137/401, 4-5=-3430/370, 5-6=-3148/351, 6-7=-3437/368, 7-8=-4137/384
BOT CHORD 17-18=-98/1001, 16-17=-51/657, 4-16=-7/376, 15-16=-421/4412, 14-15=-297/3155,
13-14=-390/4412, 12-13=-42/657, 7-13=0/372, 11-12=-86/1001
WEBS 3-17=-921/91, 3-16=-329/3446, 4-15=-1287/155, 5-15=-92/1069, 6-14=-98/1075,
7-14=-1280/142, 8-13=-304/3446, 8-12=-921/78, 3-18=-1562/133, 8-11=-1562/133

NOTES-

- 2-ply truss to be connected together with 10d (0.131"x3") nails as follows:
Top chords connected as follows: 2x4 - 1 row at 0-9-0 oc.
Bottom chords connected as follows: 2x4 - 1 row at 0-9-0 oc, 2x6 - 2 rows staggered at 0-9-0 oc.
Webs connected as follows: 2x4 - 1 row at 0-9-0 oc.
- All loads are considered equally applied to all plies, except if noted as front (F) or back (B) face in the LOAD CASE(S) section. Ply to ply connections have been provided to distribute only loads noted as (F) or (B), unless otherwise indicated.
- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope); cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.33 plate grip DOL=1.33
- TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; 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.
- Unbalanced snow loads have been considered for this design.
- This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 15.4 psf on overhangs non-concurrent with other live loads.
- Provide adequate drainage to prevent water ponding.
- Plates checked for a plus or minus 3 degree rotation about its center.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 18=134, 11=133.
- 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 at 7-6-0 from the left end to connect truss(es) to bottom chord, skewed 0.0 deg to the left, sloping 0.0 deg. down.



March 1, 2021

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	SUMMIT HOMES
W2-63	H2	Hip Girder	1	2	I44987095

Mid America Truss, Jefferson City, MO - 65101,

8.430 s Feb 12 2021 MiTek Industries, Inc. Fri Feb 26 15:35:33 2021 Page 2

ID:Fpza38BVdcFyJDKwxgHN8dzTCCb-hBp3zGftNiyp7wMhyYGEhQ9M8nmrc?6NlxCb4QzhDIO

NOTES-

13) Fill all nail holes where hanger is in contact with lumber.

14) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 584 lb down and 119 lb up at 5-5-4, and 584 lb down and 119 lb up at 9-6-0 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.

LOAD CASE(S) Standard

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

Uniform Loads (plf)

Vert: 1-2=-51, 2-5=-51, 5-6=-61, 6-9=-51, 9-10=-51, 17-18=-20, 13-16=-20, 11-12=-20

Concentrated Loads (lb)

Vert: 15=-584(B) 14=-584(B) 19=-248(B)

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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	144987096
W2-63	H3	Hip Girder	1	2	Job Reference (optional)	

Mid America Truss, Jefferson City, MO - 65101,

8.430 s Feb 12 2021 MiTek Industries, Inc. Fri Feb 26 15:35:44 2021 Page 1

ID:Fpza38BVdcFyJDKwxgHN8dztCCb-sl_DH1onn5KFydio5MzpdK6HwCd0h2G_H9NgzHzhDID

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

Scale = 1:22.4

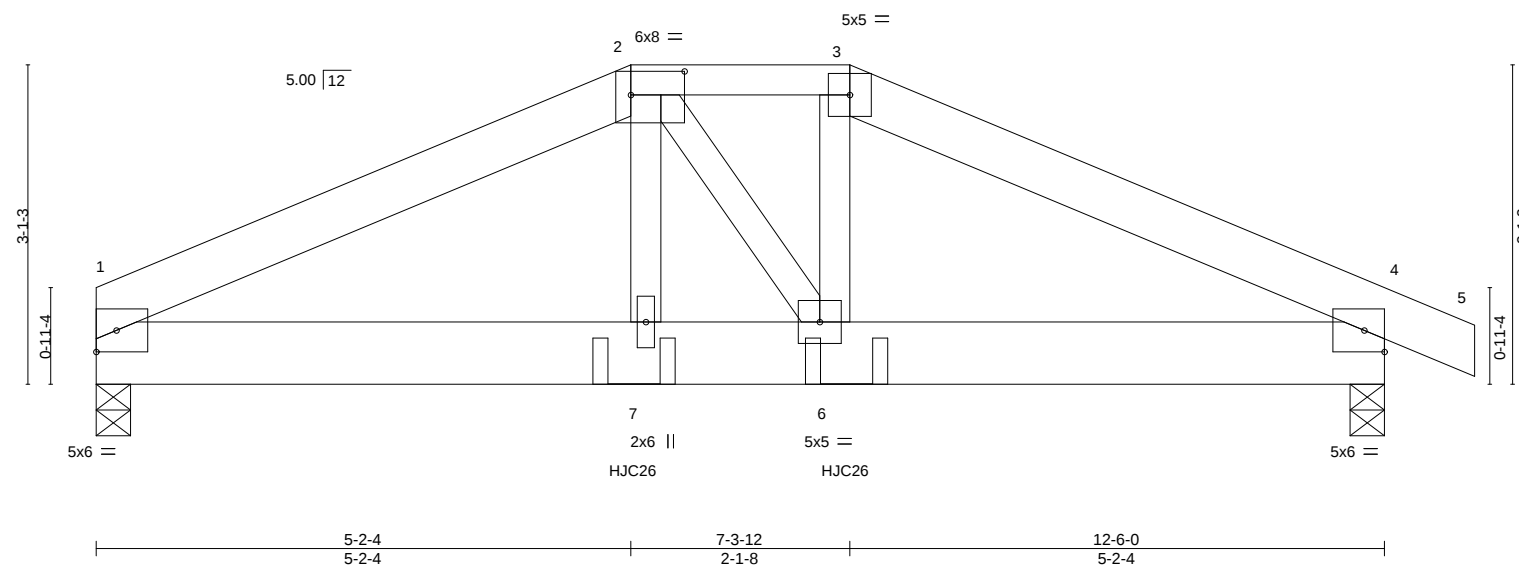


Plate Offsets (X,Y)-- [2:0-6-4,0-2-12]										
LOADING (psf)		SPACING-		CSI.		DEFL.		PLATES		GRIP
TCLL (roof)	20.0		2-0-0	TC	0.18	in (loc)	l/defl	L/d	MT20	244/190
Snow (Pf/Pg)	20.4/20.0	Plate Grip DOL	1.15	BC	0.09	Vert(LL)	-0.01 7	>999 360		
TCDL	10.0	Lumber DOL	1.15	WB	0.07	Vert(CT)	-0.02 7	>999 240		
BCLL	0.0	Rep Stress Incr	NO			Horz(CT)	0.01 4	n/a n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-P					Weight: 163 lb	FT = 3%

LUMBER-

TOP CHORD 2x6 SP No.1 *Except*
2-3: 2x4 SP No.2
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, 4=0-4-0
Max Horz 1=27(LC 13)
Max Uplift 1=-81(LC 11), 4=-92(LC 12)
Max Grav 1=1078(LC 34), 4=1173(LC 34)

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

TOP CHORD 1-2=-1801/161, 2-3=-1568/161, 3-4=-1812/160
BOT CHORD 1-7=-111/1530, 6-7=-113/1560, 4-6=-105/1537
WEBS 2-7=-31/547, 3-6=-43/606

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, 2x4 - 1 row 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; TC DL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope); cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.33 plate grip DOL=1.33
- TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=20.4 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10, Lu=50-0-0 Rain surcharge applied to all exposed surfaces with slopes less than 0.500/12 in accordance with IBC 1608.3.4.
- Unbalanced snow loads have been considered for this design.
- This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 15.4 psf on overhangs non-concurrent with other live loads.
- Provide adequate drainage to prevent water ponding.
- Plates checked for a plus or minus 3 degree rotation about its center.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 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.
- Use USP HJC26 (With 16-16d nails into Girder & 10d nails into Truss) or equivalent spaced at 2-0-12 oc max. starting at 5-2-10 from the left end to 7-3-6 to connect truss(es) to front face of bottom chord.
- Fill all nail holes where hanger is in contact with lumber.

LOAD CASE(S) Standard

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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



March 1, 2021



16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	SUMMIT HOMES
W2-63	H3	Hip Girder	1	2	I44987096

LOAD CASE(S) Standard

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

Uniform Loads (plf)

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

Concentrated Loads (lb)

Vert: 7=-506(F) 6=-506(F)

Job	Truss	Truss Type	Qty	Ply	SUMMIT HOMES	144987097
W2-63	H4	Half Hip	1	1	Job Reference (optional)	

Mid America Truss, Jefferson City, MO - 65101,

8.430 s Feb 12 2021 MiTek Industries, Inc. Fri Feb 26 15:35:45 2021 Page 1

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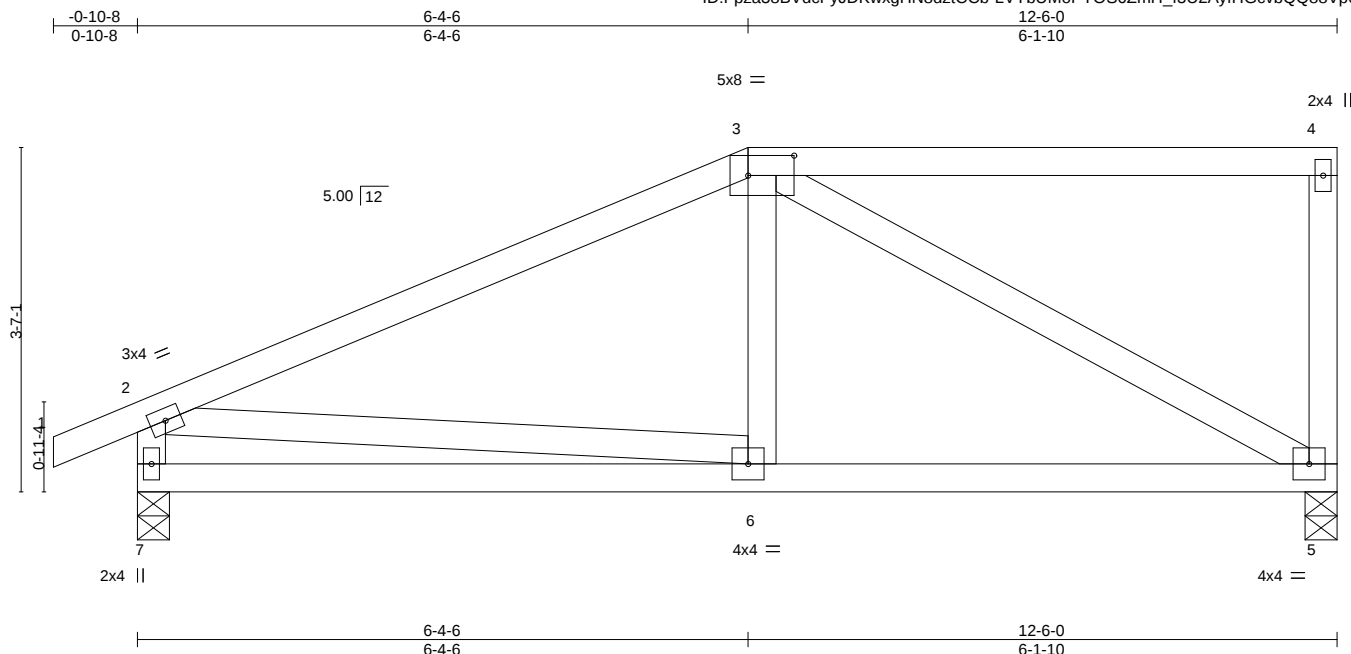


Plate Offsets (X,Y)-- [3:0-5-12,0-2-8]		6-4-6		12-6-0	
		6-4-6		6-1-10	
LOADING (psf)		SPACING-	2-0-0	CSI.	
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.84
Snow (Pf/Pg)	20.4/20.0	Lumber DOL	1.15	BC	0.32
TCDL	10.0	Rep Stress Incr	YES	WB	0.42
BCLL	0.0	Code	IRC2018/TPI2014	Matrix-P	
BCDL	10.0				
				DEFL.	
				in (loc)	l/defl L/d
				Vert(LL)	-0.01 6 >999 360
				Vert(CT)	-0.06 6-7 >999 240
				Horz(CT)	0.00 5 n/a n/a
				PLATES	GRIP
				MT20	244/190
				Weight: 68 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) 5=0-4-0, 7=0-4-0
Max Horz 7=115(LC 10)
Max Uplift 5=-30(LC 8), 7=-17(LC 11)
Max Grav 5=548(LC 30), 7=645(LC 31)

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

TOP CHORD 2-3=-577/2, 4-5=-252/49, 2-7=-595/47
BOT CHORD 5-6=-33/478
WEBS 3-5=-545/14, 2-6=0/476

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=20.4 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10, Lu=50-0-0; Min. flat roof snow load governs. Rain surcharge applied to all exposed surfaces with slopes less than 0.500/12 in accordance with IBC 1608.3.4.
- 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) Provide adequate drainage to prevent water ponding.
- 6) Plates checked for a plus or minus 3 degree rotation about its center.
- 7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 5, 7.
- 8) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



March 1, 2021

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

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



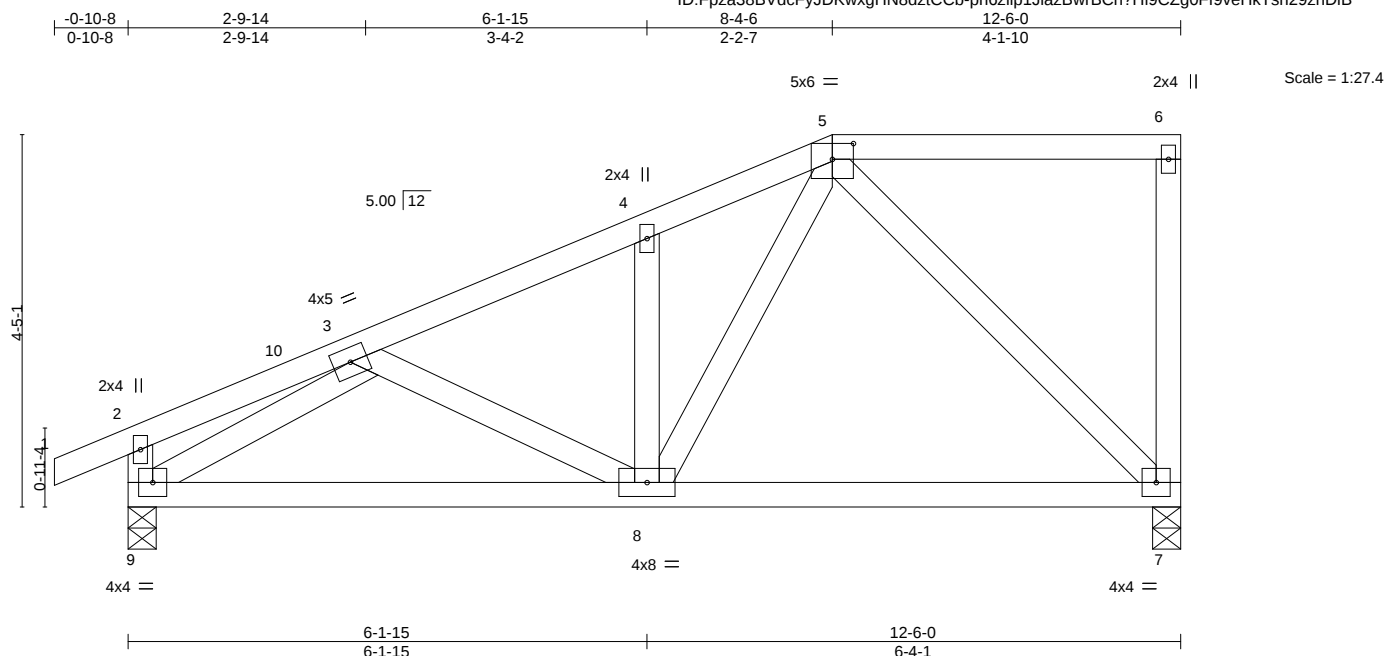
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	SUMMIT HOMES	144987098
W2-63	H5	Half Hip	1	1	Job Reference (optional)	

Mid America Truss, Jefferson City, MO - 65101,

8.430 s Feb 12 2021 MiTek Industries, Inc. Fri Feb 26 15:35:46 2021 Page 1

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Job	Truss	Truss Type	Qty	Ply	SUMMIT HOMES	144987099
W2-63	H6	Half Hip	1	1	Job Reference (optional)	

Mid America Truss, Jefferson City, MO - 65101,

8.430 s Feb 12 2021 MiTek Industries, Inc. Fri Feb 26 15:35:47 2021 Page 1

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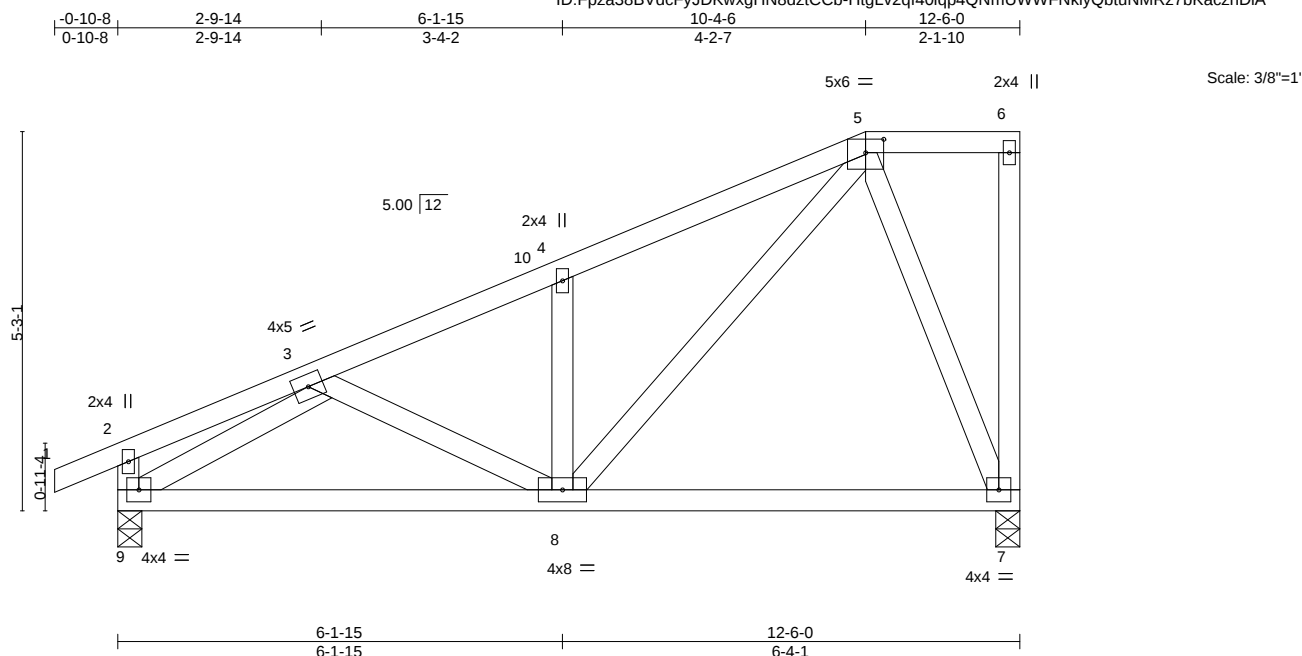


Plate Offsets (X,Y)--		[5:0-3-0,0-2-4]																			
LOADING (psf)		SPACING-		2-0-0		CSI.		DEFL.		in (loc)		I/defl		L/d		PLATES		GRIP			
TCLL (roof)		20.0		Plate Grip DOL		1.15		TC		0.32		Vert(LL)		-0.02		8		>999		360	
Snow (Pf/Pg)		20.4/20.0		Lumber DOL		1.15		BC		0.33		Vert(CT)		-0.06		7-8		>999		240	
TCDL		10.0		Rep Stress Incr		YES		WB		0.24		Horz(CT)		0.01		7		n/a		n/a	
BCLL		0.0		Code IRC2018/TPI2014				Matrix-P													
BCDL		10.0																Weight: 79 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) 7=0-4-0, 9=0-4-0
Max Horz 9=171(LC 8)
Max Uplift 7=-30(LC 8), 9=-24(LC 11)
Max Grav 7=532(LC 31), 9=717(LC 31)

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

TOP CHORD 3-4=-753/21, 4-5=-788/77
BOT CHORD 8-9=-103/688
WEBS 4-8=-387/98, 5-8=-47/726, 5-7=-490/46, 3-9=-838/21

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=20.4 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10, Lu=50-0-0; Min. flat roof snow load governs. Rain surcharge applied to all exposed surfaces with slopes less than 0.500/12 in accordance with IBC 1608.3.4.
- 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) Provide adequate drainage to prevent water ponding.
- 6) Plates checked for a plus or minus 3 degree rotation about its center.
- 7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 7, 9.
- 8) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



March 1, 2021

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



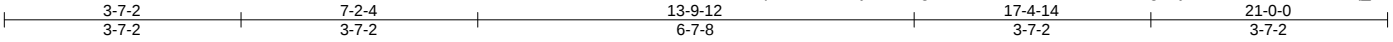
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	SUMMIT HOMES	144987100
W2-63	H7	Hip Girder	1	2	Job Reference (optional)	

Mid America Truss, Jefferson City, MO - 65101,

8.430 s Feb 12 2021 MiTek Industries, Inc. Fri Feb 26 15:35:50 2021 Page 1

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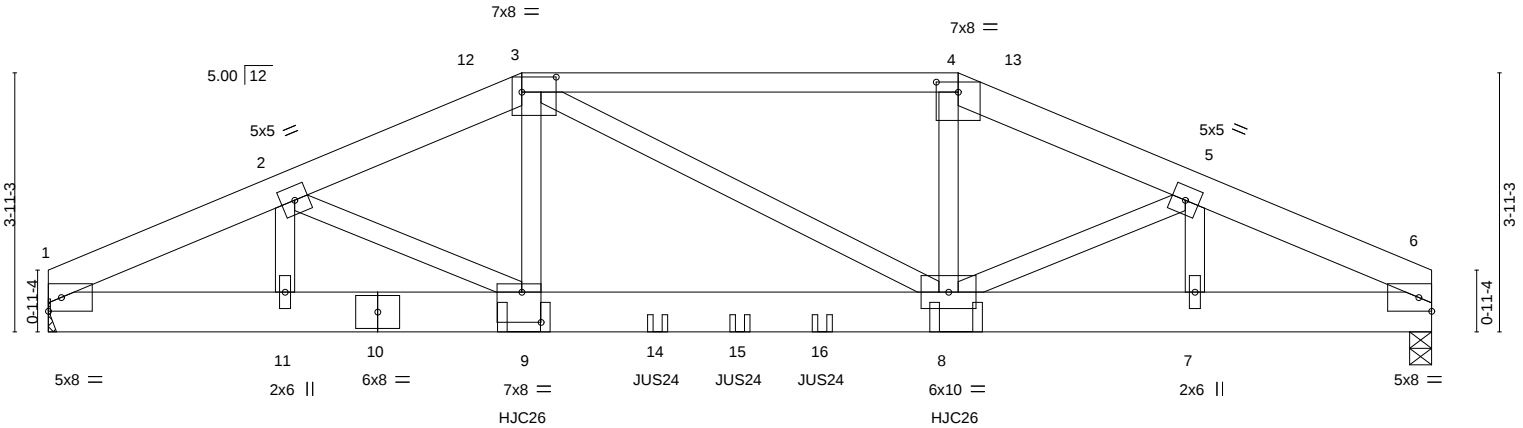


Plate Offsets (X,Y)--	[3:0-6-4,0-2-12], [4:0-4-0,0-1-13], [9:0-3-8,0-5-8]
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LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in	(loc)	I/defl	L/d	PLATES	GRIP
TCLL (roof) 20.0	Plate Grip DOL	1.15	TC 0.70	Vert(LL)	-0.06	8-9	>999	360	MT20	244/190
Snow (Pf/Pg) 20.4/20.0	Lumber DOL	1.15	BC 0.21	Vert(CT)	-0.10	8-9	>999	240		
TCDL 10.0	Rep Stress Incr	NO	WB 0.18	Horz(CT)	0.02	6	n/a	n/a		
BCLL 0.0	Code IRC2018/TPI2014		Matrix-SH							
BCDL 10.0									Weight: 292 lb	FT = 3%

LUMBER-	BRACING-
TOP CHORD 2x6 SP No.1 *Except* 3-4: 2x4 SP No.2	TOP CHORD Structural wood sheathing directly applied or 4-11-7 oc purlins.
BOT CHORD 2x8 SP 2400F 2.0E	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 2x4 SP No.2	

REACTIONS. (size) 1=Mechanical, 6=0-4-0
Max Horz 1=36(LC 58)
Max Uplift 1=-163(LC 11), 6=-164(LC 12)
Max Grav 1=2225(LC 33), 6=2236(LC 33)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-2=-4160/337, 2-3=-4388/431, 3-4=-4006/405, 4-5=-4325/424, 5-6=-4116/336
BOT CHORD 1-11=-285/3603, 9-11=-285/3603, 8-9=-340/4070, 7-8=-265/3541, 6-7=-265/3541
WEBS 2-11=-261/82, 2-9=-196/713, 3-9=-117/1484, 4-8=-104/1430, 5-8=-188/707

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, 2x4 - 1 row 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=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.
- Unbalanced snow loads have been considered for this design.
- Provide adequate drainage to prevent water ponding.
- Plates checked for a plus or minus 3 degree rotation about its center.
- Refer to girder(s) for truss to truss connections.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 1=163, 6=164.
- 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 HJC26 (With 16-16d nails into Girder & 10d nails into Truss) or equivalent spaced at 6-6-12 oc max. starting at 7-2-10 from the left end to 13-9-6 to connect truss(es) to front face of bottom chord.
- Use USP JUS24 (With 4-10d nails into Girder & 2-10d nails into Truss) or equivalent spaced at 1-3-0 oc max. starting at 9-3-0 from the left end to 11-9-0 to connect truss(es) to front face of bottom chord.

Continued on page 2 where hanger is in contact with lumber.



March 1, 2021

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

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	SUMMIT HOMES
W2-63	H7	Hip Girder	1	2	I44987100
					Job Reference (optional)

Mid America Truss, Jefferson City, MO - 65101,

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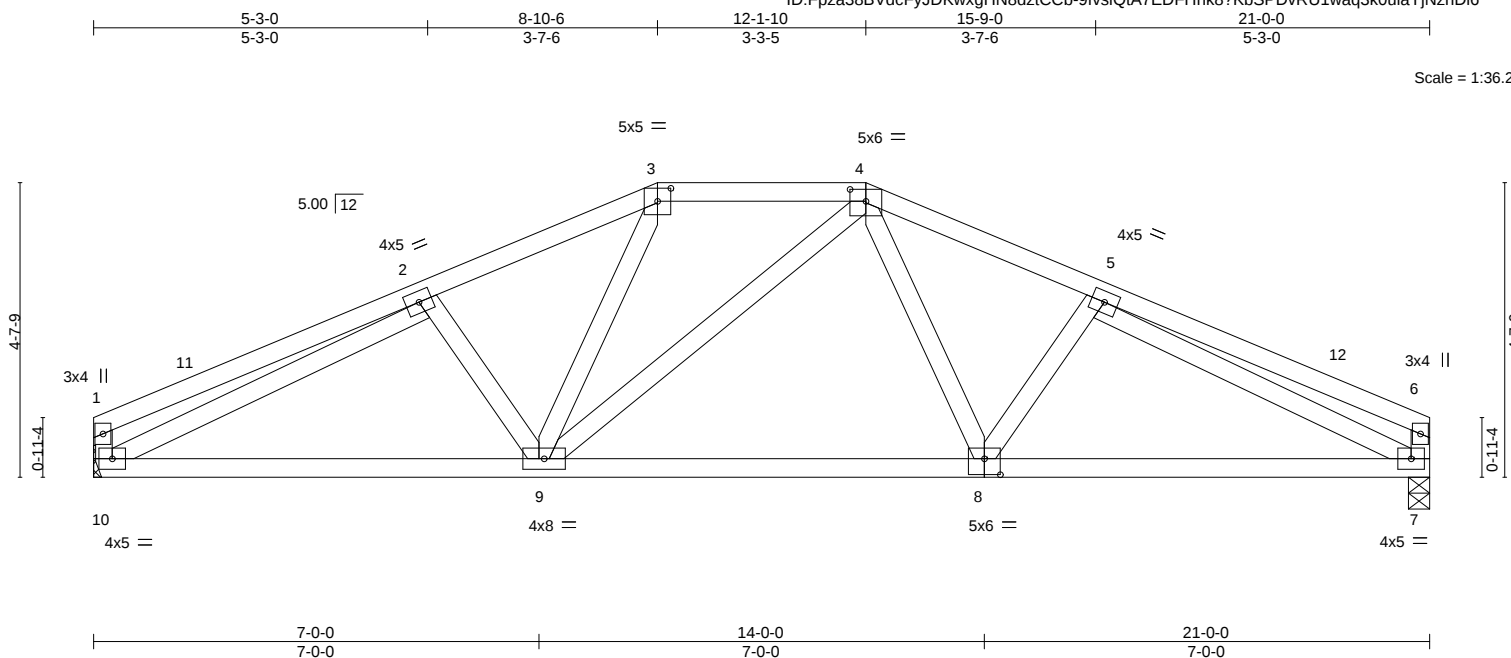
LOAD CASE(S) Standard
1) Dead + Snow (balanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (plf)
Vert: 1-3=-51, 3-4=-61, 4-6=-51, 1-6=-20
Concentrated Loads (lb)
Vert: 9=-872(F) 8=-872(F) 14=-305(F) 15=-305(F) 16=-305(F)

Job	Truss	Truss Type	Qty	Ply	SUMMIT HOMES	144987101
W2-63	H8	Hip	1	1	Job Reference (optional)	

Mid America Truss, Jefferson City, MO - 65101,

8.430 s Feb 12 2021 MiTek Industries, Inc. Fri Feb 26 15:35:51 2021 Page 1

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LOADING (psf)		SPACING-		CSI.		DEFL.		PLATES		GRIP	
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.35	Vert(LL)	-0.06	MT20	244/190		
Snow (Pf/Pg)	20.4/20.0	Lumber DOL	1.15	BC	0.48	Vert(CT)	-0.12				
TCDL	10.0	Rep Stress Incr	YES	WB	0.73	Horz(CT)	0.04				
BCLL	0.0	Code IRC2018/TPI2014		Matrix-SH							
BCDL	10.0										

LUMBER-		BRACING-	
TOP CHORD	2x4 SP No.2	TOP CHORD	Structural wood sheathing directly applied or 4-8-4 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) 10=Mechanical, 7=0-4-0
Max Horz 10=23(LC 27)
Max Uplift 10=-5(LC 11), 7=-5(LC 12)
Max Grav 10=989(LC 33), 7=989(LC 33)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-2=-349/34, 2-3=-1394/23, 3-4=-1080/42, 4-5=-1401/25, 5-6=-348/35, 1-10=-308/46,
6-7=-307/46
BOT CHORD 9-10=-15/1358, 8-9=0/1077, 7-8=0/1359
WEBS 3-9=0/367, 4-8=0/373, 2-10=-1266/0, 5-7=-1269/0

NOTES-

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope); cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.33 plate grip DOL=1.33
- 3) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=20.4 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10, Lu=50-0-0; Min. flat roof snow load governs. Rain surcharge applied to all exposed surfaces with slopes less than 0.500/12 in accordance with IBC 1608.3.4.
- 4) Unbalanced snow loads have been considered for this design.
- 5) Provide adequate drainage to prevent water ponding.
- 6) Plates checked for a plus or minus 3 degree rotation about its center.
- 7) 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) 10, 7.
- 9) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



March 1, 2021

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	SUMMIT HOMES	144987102
W2-63	H9	Half Hip	1	1	Job Reference (optional)	

Mid America Truss, Jefferson City, MO - 65101,

8.430 s Feb 12 2021 MiTek Industries, Inc. Fri Feb 26 15:35:52 2021 Page 1

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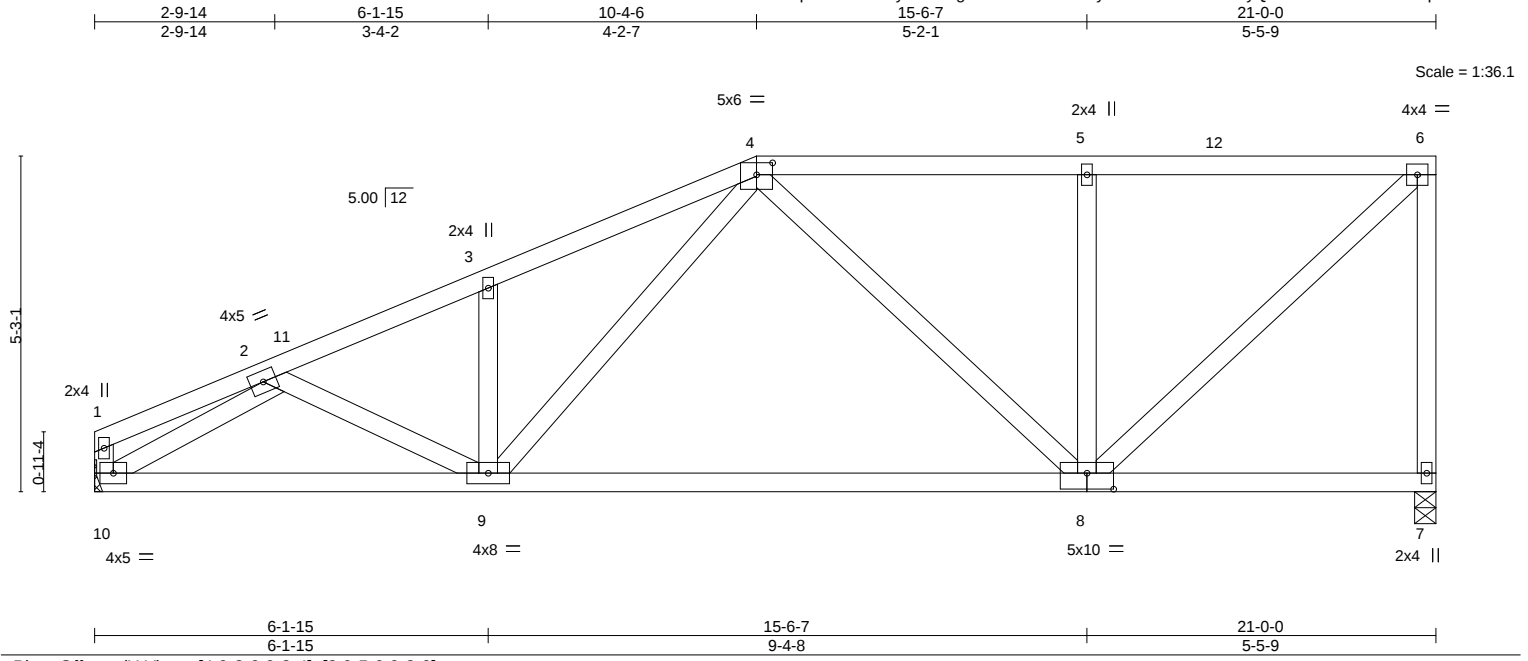


Plate Offsets (X,Y)-- [4:0-3-0,0-2-4], [8:0-5-0,0-3-0]									
LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in (loc)	I/defl	L/d
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.53	Vert(LL)	-0.04 8-9	>999	360
Snow (Pf/Pg)	20.4/20.0	Lumber DOL	1.15	BC	0.51	Vert(CT)	-0.22 8-9	>999	240
TCDL	10.0	Rep Stress Incr	YES	WB	0.28	Horz(CT)	0.02 7	n/a	n/a
BCLL	0.0	Code IRC2018/TPI2014		Matrix-SH					
BCDL	10.0								
								PLATES	GRIP
								MT20	244/190
								Weight: 122 lb	FT = 3%

LUMBER-		BRACING-	
TOP CHORD	2x4 SP No.2	TOP CHORD	Structural wood sheathing directly applied or 4-7-1 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) 7=0-4-0, 10=Mechanical
Max Horz 10=164(LC 10)
Max Uplift 7=-47(LC 8), 10=-10(LC 11)
Max Grav 7=941(LC 29), 10=933(LC 30)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-1389/9, 3-4=-1417/64, 4-5=-786/56, 5-6=-785/56, 6-7=-907/63
BOT CHORD 9-10=-123/1161, 8-9=-95/857
WEBS 3-9=-368/93, 4-9=-25/653, 4-8=-307/62, 5-8=-515/103, 6-8=-42/1055, 2-10=-1295/27

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=20.4 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.00; Cs=1.00; Ct=1.10, Lu=50-0-0; Min. flat roof snow load governs. Rain surcharge applied to all exposed surfaces with slopes less than 0.500/12 in accordance with IBC 1608.3.4.
- 3) Unbalanced snow loads have been considered for this design.
- 4) Provide adequate drainage to prevent water ponding.
- 5) Plates checked for a plus or minus 3 degree rotation about its center.
- 6) 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) 7, 10.
- 8) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



March 1, 2021

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

Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see

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

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



16023 Swingley Ridge Rd
Chesterfield, MO 63017

Mid America Truss, Jefferson City, MO - 65101, 8.430 s Feb 12 2021 MiTek Industries, Inc. Fri Feb 26 15:35:04 2021 Page 1
ID:Fpza38BVdcFyJDKwxgHN8dztCCb-1cZ5uLJhColw9Te6lyFR?JSF75u3Jp364xhZZzbhDlr
2-9-14 6-1-15 12-4-6 16-5-11 20-7-0 27-7-10 33-10-1 37-2-0 40-0-0 40-10-8
2-9-14 3-4-2 6-2-7 4-1-5 4-1-5 7-0-10 6-2-7 3-4-1 2-9-13 0-10-8
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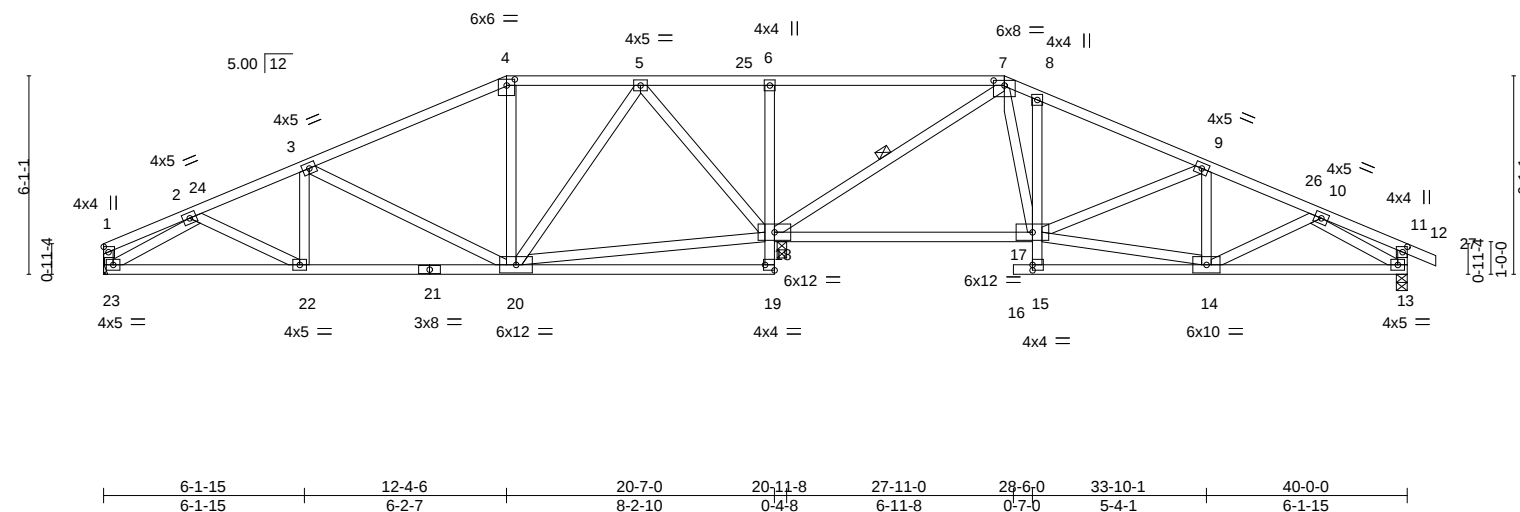


Plate Offsets (X,Y)-- [4:0-3:0,0-2:4], [7:0-4:0,0-1:13], [11:0-2:0,0-1:12], [15:0-0:0,0-2:0], [19:Edge,0-2:0]															
LOADING (psf)		SPACING-		2-0-0		CSI.		DEFL.		in (loc) l/defl L/d		PLATES		GRIP	
TCLL (roof)	20.0	Plate Grip DOL		1.15		TC	0.95	Vert(LL)	-0.03	20-22	>999	360	MT20	244/190	
Snow (Pf/Pg)	20.4/20.0	Lumber DOL		1.15		BC	0.44	Vert(CT)	-0.16	17-18	>999	240			
TCDL	10.0	Rep Stress Incr		YES		WB	0.67	Horz(CT)	0.03	13	n/a	n/a			
BCLL	0.0	Code IRC2018/TPI2014				Matrix-SH							Weight: 253 lb	FT = 3%	
BCDL	10.0														

LUMBER-		BRACING-	
TOP CHORD	2x4 SP No.2	TOP CHORD	Structural wood sheathing directly applied or 2-2-0 oc purlins, except end verticals.
BOT CHORD	2x4 SP No.2	BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing, Except: 6-0-0 oc bracing: 19-20,14-15. 10-0-0 oc bracing: 15-17
WEBS	2x4 SP No.2	WEBS	1 Row at midpt 7-18

REACTIONS. (size) 18=0-3-8, 23=Mechanical, 13=0-4-0
 Max Horz 23=-47(LC 12)
 Max Uplift 18=-23(LC 8), 23=-26(LC 11), 13=-41(LC 12)
 Max Grav 18=1962(LC 33), 23=775(LC 34), 13=818(LC 34)

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

TOP CHORD 2-3=-1060/61, 3-4=-512/56, 4-5=-397/71, 5-6=0/785, 6-7=0/775, 7-8=-564/92,
8-9=-608/61, 9-10=-977/62

BOT CHORD 22-23=-74/901, 20-22=-42/963, 6-18=-551/107, 17-18=0/374, 8-17=-320/86,
13-14=-41/849

WEBS 2-3=-724/86, 5-20=0/836, 5-18=-991/29, 7-18=-1257/0, 14-17=0/875, 9-17=-456/65,
2-23=-947/67, 10-13=-901/72, 7-17=-20/825

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=20.4 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10, Lu=50-0-0; Min. flat roof snow load governs. Rain surcharge applied to all exposed surfaces with slopes less than 0.500/12 in accordance with IBC 1608.3.4.
- 4) Unbalanced snow loads have been considered for this design.
- 5) This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 15.4 psf on overhangs non-concurrent with other live loads.
- 6) Provide adequate drainage to prevent water ponding.
- 7) Plates checked for a plus or minus 3 degree rotation about its center.
- 8) Refer to girder(s) for truss to truss connections.
- 9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 18, 23, 13.
- 10) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1



March 1.2021



WARNING: Velly design parameters are READ NOTES ON THIS AND INCLUDED WITH REFERENCE PAGE MM-1475 (Rev. 3/25/2020) 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	144987104
W2-63	H11	Hip	1	1	Job Reference (optional)	

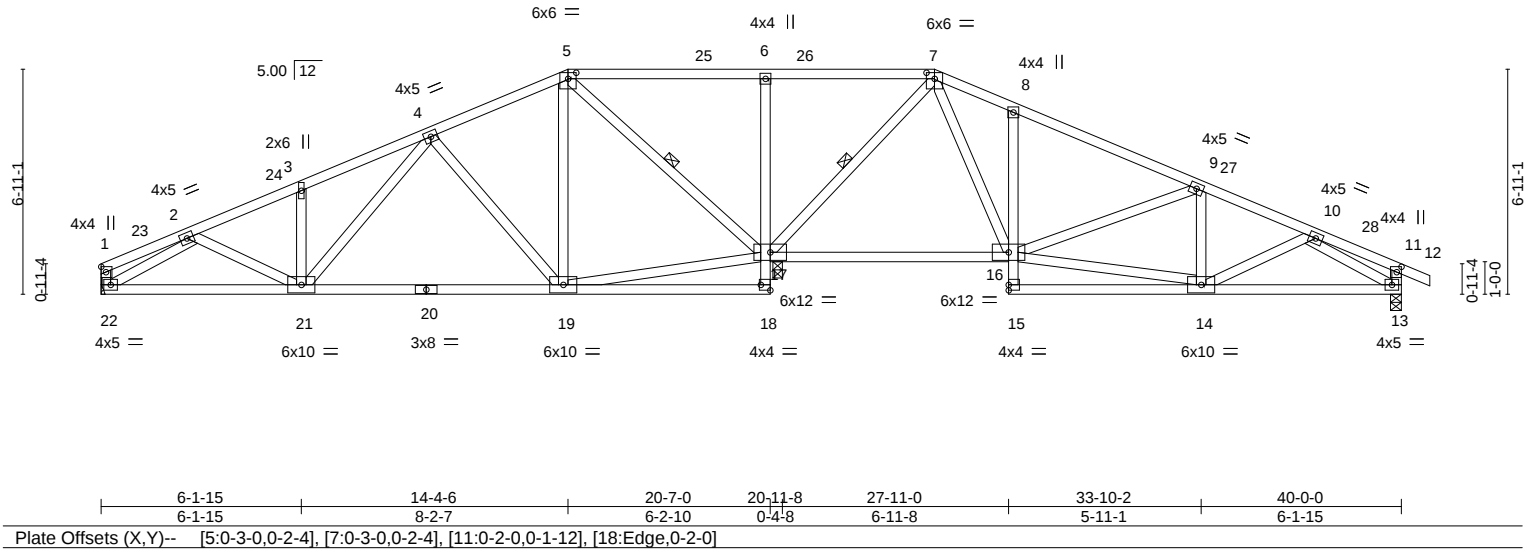
Mid America Truss, Jefferson City, MO - 65101,

8.430 s Feb 12 2021 MiTek Industries, Inc. Fri Feb 26 15:35:06 2021 Page 1

ID:Fpza38BVdcFyJDKwxgHN8dzTCb_?hrl1KxkQYeOnoVsNHv5kYdEuaSnmlOXFAfdUzhDlp

2-9-13	6-1-15	10-1-12	14-4-6	20-7-0	25-7-10	27-11-0	33-10-2	37-2-3	40-0-0	40-10-8
2-9-13	3-4-1	3-11-13	4-2-10	6-2-10	5-0-10	2-3-6	5-11-1	3-4-1	2-9-13	0-10-8

Scale = 1:70.9



LOADING (psf)		SPACING-		CSI.		DEFL.		PLATES		GRIP	
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.77	Vert(LL)	-0.04 19-21 >999 360	MT20		244/190	
Snow (Pf/Pg)	20.4/20.0	Lumber DOL	1.15	BC	0.39	Vert(CT)	-0.13 19-21 >999 240				
TCDL	10.0	Rep Stress Incr	YES	WB	0.47	Horz(CT)	0.02 13 n/a n/a				
BCLL	0.0	Code IRC2018/TPI2014		Matrix-SH							
BCDL	10.0										
								Weight: 256 lb		FT = 3%	

LUMBER-		BRACING-	
TOP CHORD	2x4 SP No.2	TOP CHORD	Structural wood sheathing directly applied or 5-7-7 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 5-17, 7-17

REACTIONS. (size) 17=0-3-8, 22=Mechanical, 13=0-4-0
Max Horz 22=-56(LC 14)
Max Uplift 17=-5(LC 8), 22=-29(LC 11), 13=-47(LC 12)
Max Grav 17=2047(LC 34), 22=714(LC 34), 13=722(LC 34)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-1007/52, 3-4=-1014/100, 4-5=-276/74, 5-6=0/872, 6-7=0/873, 7-8=-448/125, 8-9=-480/81, 9-10=-910/76
BOT CHORD 21-22=-92/894, 19-21=-25/540, 6-17=-562/107, 8-16=-401/100, 13-14=-48/791
WEBS 3-21=-315/79, 4-21=-18/607, 4-19=-665/102, 5-19=0/650, 5-17=-1262/23, 7-17=-1156/30, 7-16=-52/944, 14-16=0/830, 9-16=-560/64, 2-22=-986/73, 10-13=-840/76

NOTES-

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope); cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.33 plate grip DOL=1.33
- 3) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=20.4 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10, Lu=50-0-0; Min. flat roof snow load governs. Rain surcharge applied to all exposed surfaces with slopes less than 0.500/12 in accordance with IBC 1608.3.4.
- 4) Unbalanced snow loads have been considered for this design.
- 5) This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 15.4 psf on overhangs non-concurrent with other live loads.
- 6) Provide adequate drainage to prevent water ponding.
- 7) Plates checked for a plus or minus 3 degree rotation about its center.
- 8) Refer to girder(s) for truss to truss connections.
- 9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 17, 22, 13.
- 10) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



March 1, 2021

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

Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information** available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



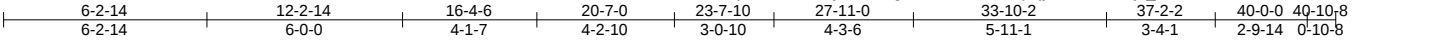
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	SUMMIT HOMES	144987105
W2-63	H12	Hip	1	1	Job Reference (optional)	

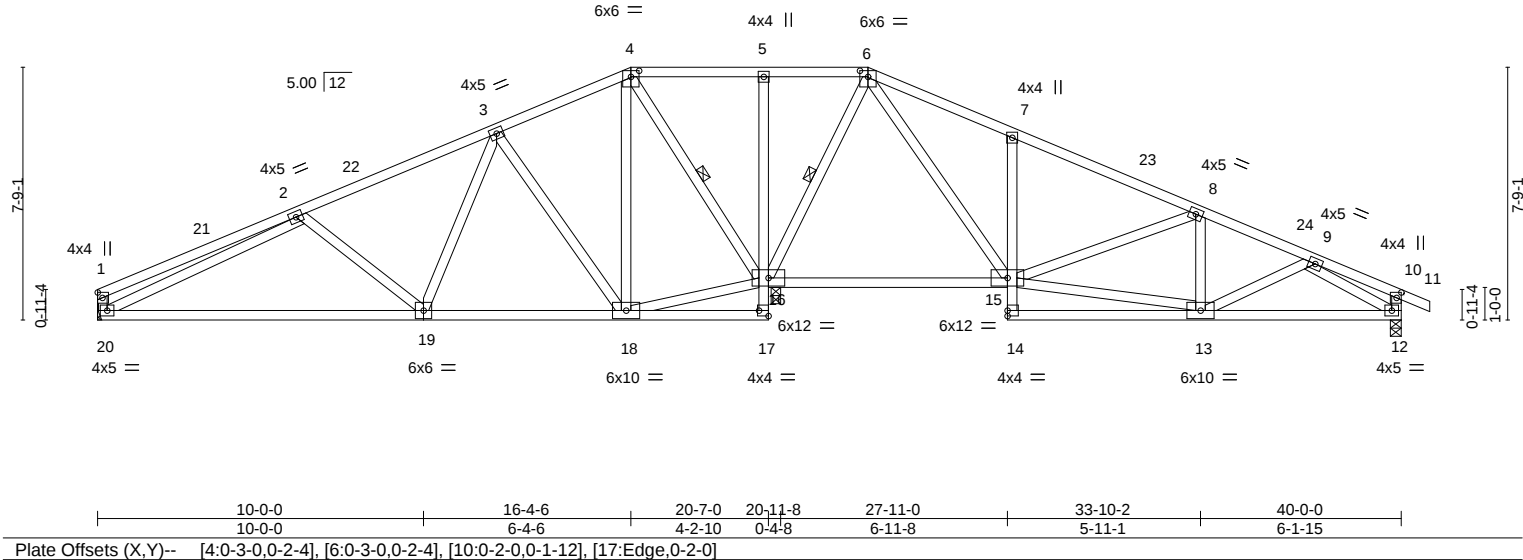
Mid America Truss, Jefferson City, MO - 65101,

8.430 s Feb 12 2021 MiTek Industries, Inc. Fri Feb 26 15:35:08 2021 Page 1

ID:Fpza38BVdcFyJDKwxgHN8dztCCb-wNpcijMBF1oMd4yt_oKNA9d1iDitFdZh?YfmiMzhDln



Scale = 1:70.7



LOADING (psf)	SPACING-	CSI.	DEFL.	PLATES	GRIP
TCLL (roof) 20.0	2-0-0	TC 0.54	in (loc) l/defl L/d	MT20	244/190
Snow (Pf/Pg) 20.4/20.0	Plate Grip DOL 1.15	BC 0.58	Vert(LL) -0.03 19 >999 360		
TCDL 10.0	Lumber DOL 1.15	WB 0.70	Vert(CT) -0.26 19-20 >952 240		
BCLL 0.0	Rep Stress Incr YES	Matrix-SH	Horz(CT) 0.02 12 n/a n/a		
BCDL 10.0	Code IRC2018/TPI2014			Weight: 260 lb	FT = 3%

LUMBER-	BRACING-
TOP CHORD 2x4 SP No.2	TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.
BOT CHORD 2x4 SP No.2	BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.
WEBS 2x4 SP No.2	WEBS 1 Row at midpt 4-16, 6-16

REACTIONS. (size) 16=0-3-8, 20=Mechanical, 12=0-4-0
Max Horz 20=-65(LC 14)
Max Uplift 20=-31(LC 11), 12=-50(LC 12)
Max Grav 16=2297(LC 34), 20=635(LC 34), 12=641(LC 50)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-2=-352/12, 2-3=-615/69, 3-4=-40/287, 4-5=0/916, 5-6=0/918, 6-7=-420/152, 7-8=-407/89, 8-9=-814/81, 1-20=-272/42
BOT CHORD 19-20=-103/807, 18-19=-9/343, 5-16=-367/67, 15-16=-412/88, 7-15=-475/119, 12-13=-53/681
WEBS 2-19=-472/137, 3-19=0/520, 3-18=-827/89, 4-18=-37/807, 4-16=-1276/50, 6-16=-1138/57, 6-15=-79/1116, 13-15=-2/739, 8-15=-548/59, 2-20=-620/93, 9-12=-723/82

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
 - Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope); cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.33 plate grip DOL=1.33
 - TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=20.4 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10, Lu=50-0-0; Min. flat roof snow load governs. Rain surcharge applied to all exposed surfaces with slopes less than 0.500/12 in accordance with IBC 1608.3.4.
 - Unbalanced snow loads have been considered for this design.
 - This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 15.4 psf on overhangs non-concurrent with other live loads.
 - Provide adequate drainage to prevent water ponding.
 - Plates checked for a plus or minus 3 degree rotation about its center.
 - Refer to girder(s) for truss to truss connections.
 - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 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.



March 1,2021

8.430 s Feb 12 2021 MiTek Industries, Inc. Fri Feb 26 15:35:11 2021 Page 1

ID:Enza38BVdcEv.1DKwxgHN8dztGCh-KvI JkMkO4YvAxI JYqSfwt4nqEVnyEDS1S8hWtOIhzhDlk

21-7-10 27-11-0 33-10-2 37-2-3 40-0-0 40-10-8

Scale = 1:71.8

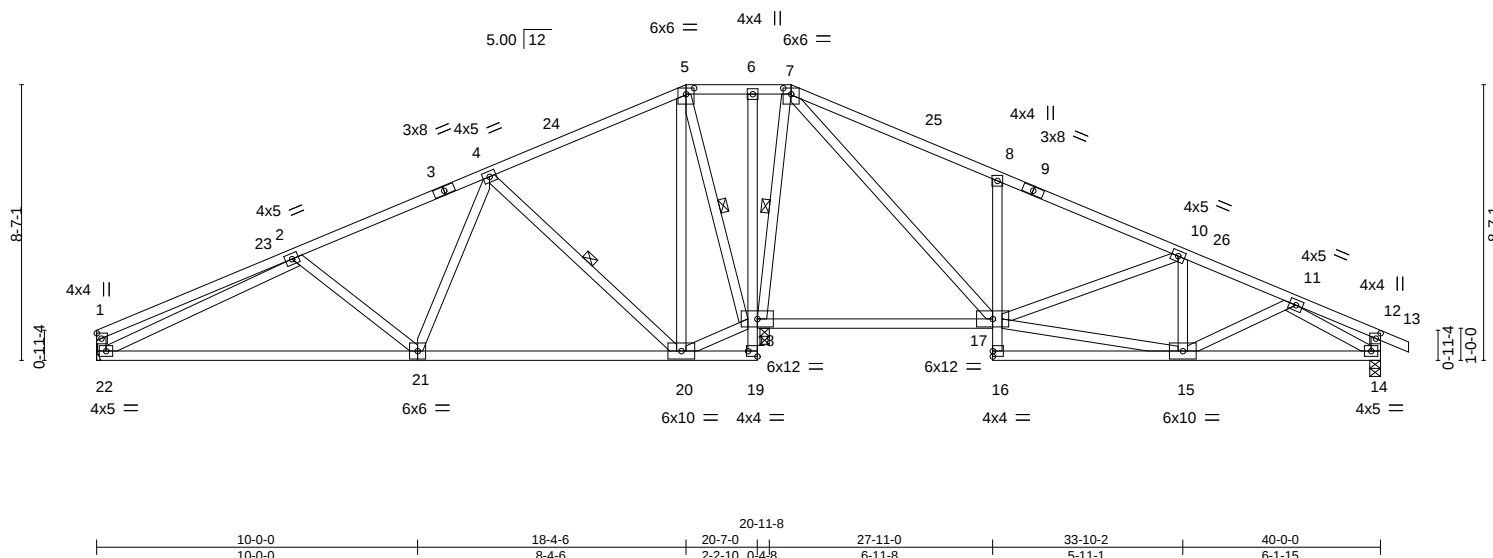


Plate Offsets (X,Y)--									
[5:0-3-0,0-2-4], [7:0-3-0,0-2-4], [12:0-2-0,0-1-12], [19:Edge,0-2-0]									
LOADING (psf)		SPACING-		2-0-0		CSI.		DEFL.	
TCLL (roof) 20.0		Plate Grip DOL 1.15		TC 0.72		in (loc) l/defl L/d		PLATES	
Snow (Pf/Pg) 20.4/20.0		Lumber DOL 1.15		BC 0.60		Vert(LL) -0.04 8 >999 360		MT20 244/190	
TCDL 10.0		Rep Stress Incr YES		WB 0.50		Vert(CT) -0.24 21-22 >999 240			
BCLL 0.0		Code IRC2018/TPI2014		Matrix-SH		Horz(CT) 0.01 14 n/a n/a			
BCDL 10.0								Weight: 266 lb FT = 3%	

LUMBER-		BRACING-	
TOP CHORD	2x4 SP No.2	TOP CHORD	Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.
BOT CHORD	2x4 SP No.2	BOT CHORD	Rigid ceiling directly applied or 6-0-0 oc bracing.
WEBS	2x4 SP No.2	WEBS	1 Row at midpt 4-20, 5-18, 7-18
REACTIONS.	(size) 18=0-3-8, 22=Mechanical, 14=0-4-0		
	Max Horz 22=-73(LC 14)		
	Max Uplift 22=-33(LC 11), 14=-52(LC 12)		
	Max Grav 18=2446(LC 34), 22=641(LC 49), 14=644(LC 50)		

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

TOP CHORD
1-2=-354/19, 2-4=-642/73, 4-5=0/510, 5-6=0/793, 6-7=0/795, 7-8=-448/181,
8-10=-412/97, 10-11=-776/84, 1-22=-275/45

BOT CHORD
21-22=-113/783, 20-21=-27/369, 17-18=-600/108, 8-17=-579/144, 14-15=-57/660

WEBS
1-21=-391/131, 4-21=0/481, 4-20=-950/108, 5-20=-38/15, 18-20=-317/179,
5-18=-1409/79, 7-18=-1202/106, 15-17=0/679, 10-17=-470/53, 2-22=-608/88,
11-14=-701/87, 7-17=-1117/1313

NOTES-

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDF=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope); cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.33 plate grip DOL=1.33
- 3) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=20.4 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10, Lu=50-0-0; Min. flat roof snow load governs. Rain surcharge applied to all exposed surfaces with slopes less than 0.500/12 in accordance with IBC 1608.3.4.
- 4) Unbalanced snow loads have been considered for this design.
- 5) This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 15.4 psf on overhangs non-concurrent with other live loads.
- 6) Provide adequate drainage to prevent water ponding.
- 7) Plates checked for a plus or minus 3 degree rotation about its center.
- 8) Refer to girder(s) for truss to truss connections.
- 9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 22, 14.
- 10) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



March 1.2021

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

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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	144987107
W2-63	H14	HIP GIRDER	1	3	Job Reference (optional)	

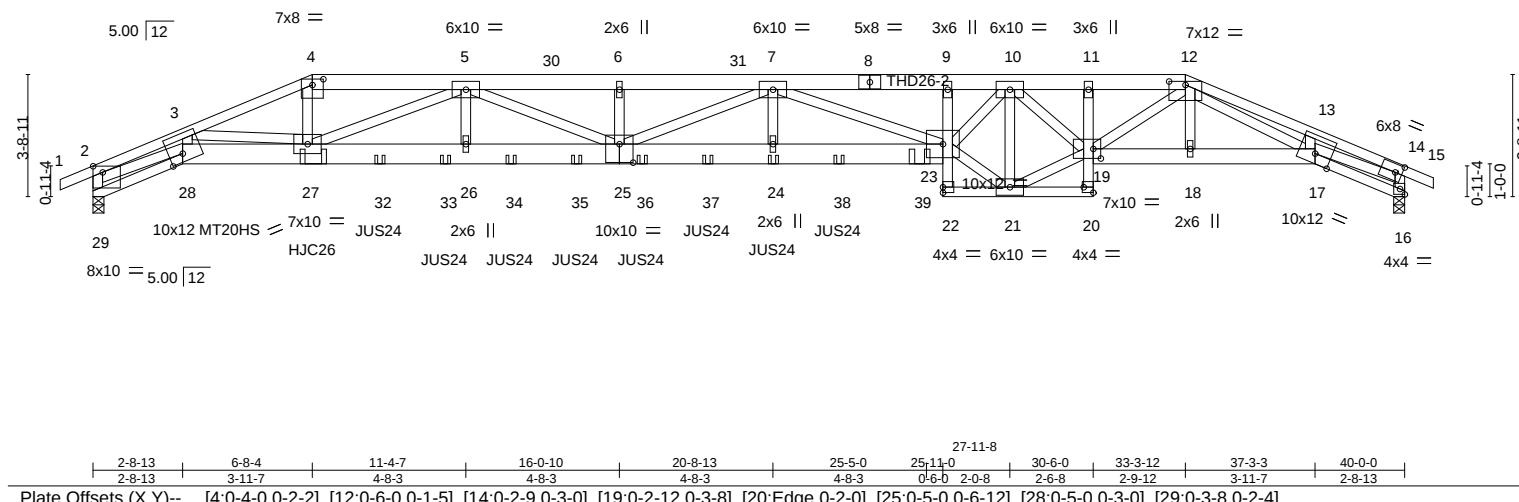
Mid America Truss, Jefferson City, MO - 65101,

8.430 s Feb 12 2021 MiTek Industries, Inc. Fri Feb 26 15:35:17 2021 Page 1

ID:Fpza38BVdcFyJDKwxgHN8dztCCb-96s?coTr8ow4CT8c0B_U12VWZKF9sdL03SKIWLzhDle

1-0-0	2-8-13	6-8-4	11-4-7	16-0-10	20-8-13	25-5-0	27-11-8	30-6-0	33-3-12	37-3-3	40-0-0	40-10-8
1-0-0	2-8-13	3-11-7	4-8-3	4-8-3	4-8-3	4-8-3	2-6-8	2-6-8	2-9-12	3-11-7	2-8-13	0-10-8

Scale = 1:70.3



LOADING (psf)										
TCLL (roof)	20.0	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
Snow (Pl/Pg)	20.4/20.0	Plate Grip DOL	1.15	TC	0.83	Vert(LL)	-0.65	24	>737	360
TCDL	10.0	Lumber DOL	1.15	BC	0.76	Vert(CT)	-1.10	24	>433	240
BCLL	0.0	Rep Stress Incr	NO	WB	0.99	Horz(CT)	0.47	16	n/a	n/a
BCDL	10.0	Code IRC2018/TPI2014		Matrix-SH						
Weight: 858 lb									FT = 3%	

LUMBER-	BRACING-
TOP CHORD	2x4 SP No.2 *Except*
	4-8,8-12: 2x6 SP No.1
BOT CHORD	2x4 SP No.2 *Except*
	25-28,23-25: 2x8 SP 2400F 2.0E, 17-19: 2x6 SP No.1
WEBS	2x4 SP No.2

REACTIONS.	(size) 29=0-4-0, 16=0-4-0
	Max Horz 29=25(LC 56)
	Max Uplift 29=-364(LC 7), 16=-247(LC 8)
	Max Grav 29=4149(LC 33), 16=3429(LC 33)

FORCES.	(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD	2-29=-4140/370, 2-3=-13943/1195, 3-4=-12474/1108, 4-5=-11302/1015, 5-6=-19757/1703, 6-7=-19757/1703, 7-9=-18160/1452, 9-10=-17894/1431, 10-11=-12553/965, 11-12=-12644/971, 12-13=-10789/771, 13-14=-11044/747, 14-16=-3405/258
BOT CHORD	28-29=-74/753, 27-28=-1069/12630, 26-27=-1447/17064, 25-26=-1447/17064, 24-25=-1690/20888, 23-24=-1690/20888, 21-22=-78/990, 20-21=-68/912, 18-19=-625/9237, 17-18=-626/9280, 16-17=-41/695
WEBS	2-28=-1010/12054, 3-28=-57/1139, 3-27=-1313/130, 4-27=-356/4361, 5-27=-6330/544, 5-26=-45/889, 5-25=-219/2974, 6-25=-296/89, 7-25=-1249/56, 7-24=-51/1146, 7-23=-2950/322, 21-23=-851/11508, 10-23=-866/10819, 10-21=-10571/818, 19-21=-809/10869, 10-19=-138/2389, 12-19=-362/4321, 12-18=0/720, 12-17=-96/1179, 13-17=-94/435, 14-17=-624/9402

NOTES-	
1) 3-ply truss to be connected together with 10d (0.131"x3") nails as follows:	
Top chords connected as follows: 2x4 - 1 row at 0-7-0 oc; 2x6 - 2 rows staggered at 0-9-0 oc.	
Bottom chords connected as follows: 2x4 - 1 row at 0-9-0 oc, 2x8 - 2 rows staggered at 0-6-0 oc, 2x6 - 2 rows staggered at 0-9-0 oc.	
Webs connected as follows: 2x4 - 1 row at 0-9-0 oc.	
2) All loads are considered equally applied to all plies, except if noted as front (F) or back (B) face in the LOAD CASE(S) section. Ply to ply connections have been provided to distribute only loads noted as (F) or (B), unless otherwise indicated.	
3) Unbalanced roof live loads have been considered for this design.	
4) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope); cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.33 plate grip DOL=1.33	
5) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=20.4 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10, Lu=50-0-0 Rain surcharge applied to all exposed surfaces with slopes less than 0.500/12 in accordance with IBC 1608.3.4.	
6) Unbalanced snow loads have been considered for this design.	
7) This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 15.4 psf on overhangs non-concurrent with other live loads.	
8) Provide adequate drainage to prevent water ponding.	



March 1,2021

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

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	SUMMIT HOMES	I44987107
W2-63	H14	HIP GIRDER	1	3	Job Reference (optional)	

Mid America Truss,
Jefferson City, MO - 65101,
8.430 s Feb 12 2021 MiTek Industries, Inc. Fri Feb 26 15:35:17 2021 Page 2
ID:Fpza38BVdcFyJDKwxgHN8dztCCb-96s?coTr8ow4CT8c0B_U12VWZKF9sdL03SKIWLzhDle

- NOTES-**
- 9) All plates are MT20 plates unless otherwise indicated.
 - 10) Plates checked for a plus or minus 3 degree rotation about its center.
 - 11) Bearing at joint(s) 29, 16 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
 - 12) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 29=364, 16=247.
 - 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.
 - 14) Use USP HJC26 (With 16-16d nails into Girder & 10d nails into Truss) or equivalent at 6-8-10 from the left end to connect truss(es) to back face of bottom chord, skewed 0.0 deg.to the left, sloping 0.0 deg. down.
 - 15) 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 8-9-0 from the left end to 22-9-0 to connect truss(es) to back face of bottom chord.
 - 16) Use USP THD26-2 (With 18-16d nails into Girder & 12-10d nails into Truss) or equivalent at 25-2-8 from the left end to connect truss(es) to back face of bottom chord, skewed 0.0 deg.to the right, sloping 0.0 deg. down.
 - 17) 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: 1-2=-51, 2-4=-51, 4-12=-61, 12-14=-51, 14-15=-51, 28-29=-20, 23-28=-20, 20-22=-20, 17-19=-20, 16-17=-20
 - Concentrated Loads (lb)
 - Vert: 27=-783(B) 24=-283(B) 32=-283(B) 33=-283(B) 34=-283(B) 35=-271(B) 36=-271(B) 37=-271(B) 38=-283(B) 39=-1119(B)

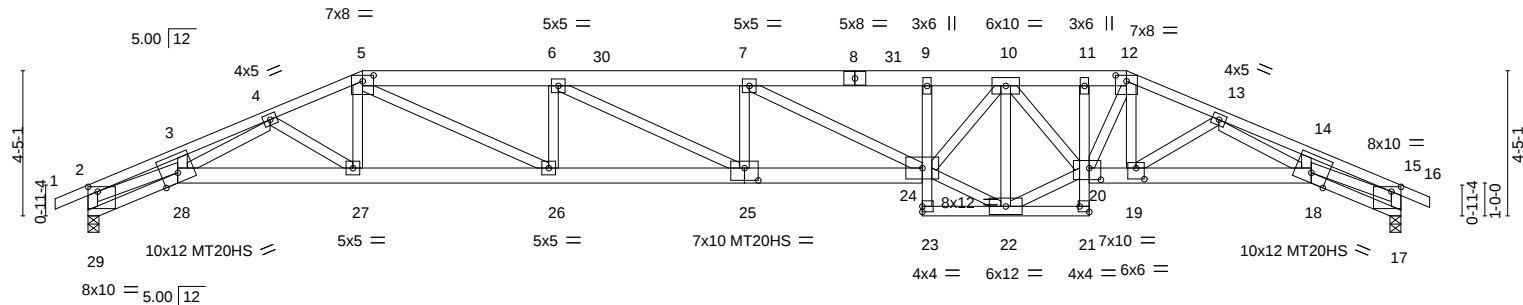
Job	Truss	Truss Type	Qty	Ply	SUMMIT HOMES	144987108
W2-63	H15	Hip	1	1	Job Reference (optional)	

Mid America Truss, Jefferson City, MO - 65101,

8.430 s Feb 12 2021 MiTek Industries, Inc. Fri Feb 26 15:35:20 2021 Page 1
ID:Fpza38BVdcFyJDKwxgHN8dztCCb-ZhX8EpVjRjJf3wsBhJXBfh7yXGu3?bSmQZP7gzhDlb

1-0-0	2-8-13	5-6-9	8-4-6	14-2-3	20-0-0	25-5-0	27-11-8	30-6-0	31-7-10	34-5-7	37-3-3	40-0-0	40-10-8
1-0-0	2-8-13	2-9-12	2-9-12	5-9-13	5-9-13	5-5-0	2-6-8	2-6-8	1-1-10	2-9-12	2-9-12	2-8-13	0-10-8

Scale = 1:70.2



2-8-13	8-4-6	14-2-3	20-0-0	25-5-0	27-11-8	30-6-0	31-7-10	37-3-3	40-0-0
2-8-13	5-7-9	5-9-13	5-9-13	5-5-0	2-6-8	2-6-8	1-1-10	5-7-9	2-8-13

Plate Offsets (X,Y)-- [5:0-4-0,0-2-2], [12:0-4-0,0-2-2], [15:0-3-8,0-1-12], [19:0-3-0,0-4-0], [20:0-4-4,0-4-4], [21:Edge,0-2-0], [25:0-5-0,0-4-8], [29:0-3-8,0-1-12]

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	0.88	Vert(LL)	-0.59	25	>813	MT20	244/190
Snow (Pl/Pg)	20.4/20.0	Lumber DOL	1.15	BC	0.82	Vert(CT)	-1.05	24-25	>455	MT20HS	187/143
TCDL	10.0	Rep Stress Incr	YES	WB	0.95	Horz(CT)	0.54	17	n/a		
BCLL	0.0	Code IRC2018/TPI2014		Matrix-SH							
BCDL	10.0									Weight: 278 lb	FT = 3%

LUMBER-		BRACING-	
TOP CHORD	2x4 SP No.2 *Except* 5-8,8-12: 2x6 SP No.1	TOP CHORD	Structural wood sheathing directly applied or 1-7-10 oc purlins, except end verticals.
BOT CHORD	2x4 SP No.2 *Except* 25-28,18-20,24-25: 2x6 SP No.1	BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS	2x4 SP No.2 *Except* 2-28,15-18: 2x4 SP No.1		

REACTIONS. (size) 29=0-4-0, 17=0-4-0
Max Horz 29=25(LC 10)
Max Uplift 29=-51(LC 7), 17=-48(LC 8)
Max Grav 29=1657(LC 2), 17=1649(LC 2)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-29=-1648/55, 2-3=-5218/105, 3-4=-5087/134, 4-5=-4257/131, 5-6=-5749/218,
6-7=-6343/237, 7-9=-5734/215, 9-10=-5669/214, 10-11=-4258/150, 11-12=-4269/151,
12-13=-4243/126, 13-14=-5088/111, 14-15=-5223/81, 15-17=-1644/59
BOT CHORD 28-29=-24/308, 27-28=-83/4198, 26-27=-56/3911, 25-26=-142/5747, 24-25=-162/6343,
9-24=-286/69, 22-23=-15/276, 21-22=-6/335, 19-20=-49/3883, 18-19=-75/4201,
17-18=-3/313
WEBS 2-28=-60/4470, 4-28=-27/822, 4-27=-565/73, 5-27=0/527, 5-26=-101/2066,
6-26=-857/117, 6-25=-26/669, 7-24=-691/25, 22-24=-74/3886, 10-24=-91/2944,
10-22=-3160/100, 20-22=-84/3822, 10-20=0/714, 12-20=-67/984, 12-19=0/632,
13-19=-575/68, 13-18=-7/837, 15-18=-52/4469

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
 - Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope); cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.33 plate grip DOL=1.33
 - TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=20.4 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10, Lu=50-0-0; Min. flat roof snow load governs. Rain surcharge applied to all exposed surfaces with slopes less than 0.500/12 in accordance with IBC 1608.3.4.
 - Unbalanced snow loads have been considered for this design.
 - This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 15.4 psf on overhangs non-concurrent with other live loads.
 - Provide adequate drainage to prevent water ponding.
 - All plates are MT20 plates unless otherwise indicated.
 - Plates checked for a plus or minus 3 degree rotation about its center.
 - Bearing at joint(s) 29, 17 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) 29, 17.



March 1,2021

Continued on page 2

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	SUMMIT HOMES
W2-63	H15	Hip	1	1	I44987108
Job Reference (optional)					

NOTES-

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.

Job	Truss	Truss Type	Qty	Ply	SUMMIT HOMES	144987109
W2-63	H16	Hip	1	1	Job Reference (optional)	

Mid America Truss, Jefferson City, MO - 65101,

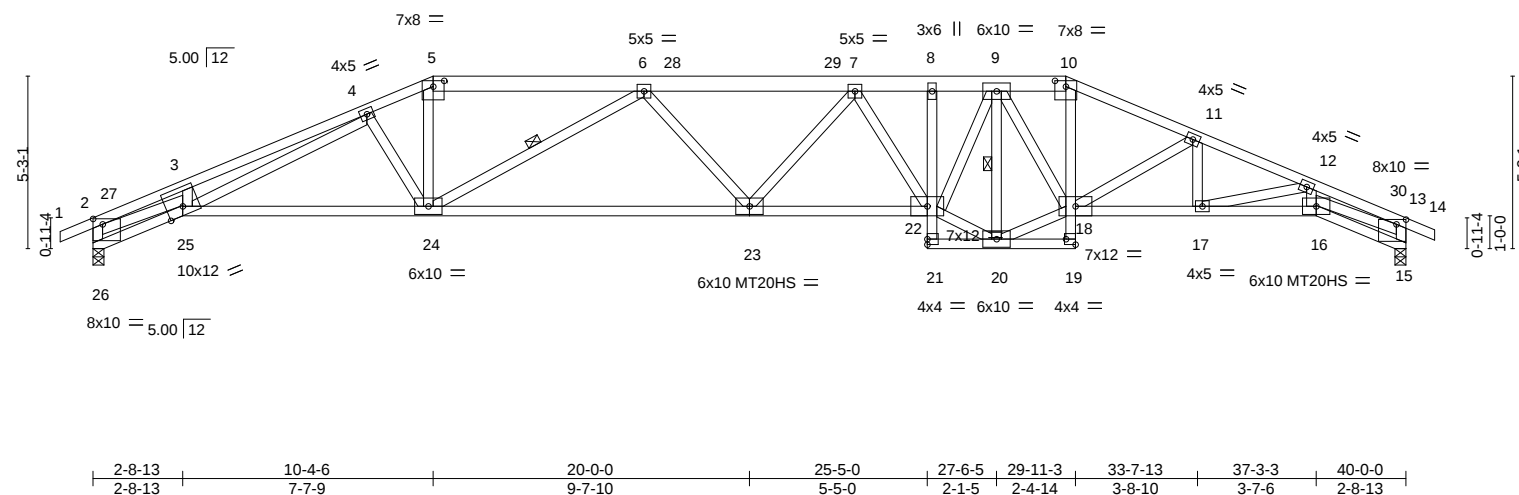
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ID:Fpza38BVdcFyJDKwxgHN8dzCCb- GDHtrXcjhEwObmMS5uHJVMFVGNzvSON3k?zhDIY

1-0-0	2-8-13	8-4-2	10-4-6	16-9-7	23-2-9	25-5-0	27-6-5	29-7-10	33-7-13	37-3-3	40-0-0	40-10-8
1-0-0	2-8-13	5-7-5	2-0-4	6-5-1	6-5-2	2-2-7	2-1-5	2-1-5	4-0-3	3-7-6	2-8-13	0-10-8

Scale = 1:70.2

FLAT TOP CHORD MUST BE BRACED WITH SHEATHING.



LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof) 20.0	Plate Grip DOL	1.15	TC 0.94	Vert(LL)	-0.46 22-23	>999	360	MT20	244/190
Snow (Pl/Pg) 20.4/20.0	Lumber DOL	1.15	BC 0.96	Vert(CT)	-0.93 23-24	>510	240	MT20HS	187/143
TCDL 10.0	Rep Stress Incr	YES	WB 0.78	Horz(CT)	0.55 15	n/a	n/a		
BCLL 0.0	Code IRC2018/TPI2014		Matrix-SH						
BCDL 10.0								Weight: 256 lb	FT = 3%

LUMBER-	BRACING-
TOP CHORD 2x4 SP No.2 *Except*	TOP CHORD Structural wood sheathing directly applied, except end verticals.
1-5: 2x4 SP No.1, 5-10: 2x6 SP No.1	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing, Except:
BOT CHORD 2x4 SP No.2 *Except*	2-2-0 oc bracing: 23-24.
23-25,16-18,22-23: 2x4 SP No.1	WEBS 1 Row at midpt 6-24, 9-20
WEBS 2x4 SP No.2 *Except*	
2-25,13-16: 2x4 SP No.1	

REACTIONS. (size) 26=0-4-0, 15=0-4-0
Max Horz 26=33(LC 11)
Max Uplift 26=36(LC 7), 15=33(LC 8)
Max Grav 26=1657(LC 2), 15=1649(LC 2)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-26=-1669/34, 2-3=-5079/61, 3-4=-5044/120, 4-5=-3624/96, 5-6=-3306/91,
6-7=-4521/133, 7-8=-4095/140, 8-9=-4059/140, 9-10=-3211/106, 10-11=-3565/106,
11-12=-4020/71, 12-13=-5055/39, 13-15=-1654/45
BOT CHORD 25-26=-27/259, 24-25=-26/3481, 23-24=-94/4459, 22-23=-76/4440, 10-18=-5/1256,
17-18=-13/3715, 16-17=-16/4499, 15-16=-1/257
WEBS 2-25=-30/4403, 4-25=-107/1623, 4-24=-612/110, 5-24=0/1118, 6-24=-1341/115,
7-22=-665/52, 20-22=-27/3198, 9-22=-44/2285, 9-20=-2669/53, 18-20=-26/3150,
9-18=0/589, 11-18=-836/49, 11-17=0/340, 12-17=-919/35, 12-16=0/576, 13-16=-16/4374

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
 - Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope); cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.33 plate grip DOL=1.33
 - TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=20.4 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10, Lu=50-0-0; Min. flat roof snow load governs. Rain surcharge applied to all exposed surfaces with slopes less than 0.500/12 in accordance with IBC 1608.3.4.
 - Unbalanced snow loads have been considered for this design.
 - This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 15.4 psf on overhangs non-concurrent with other live loads.
 - Provide adequate drainage to prevent water ponding.
 - All plates are MT20 plates unless otherwise indicated.
 - Plates checked for a plus or minus 3 degree rotation about its center.
 - Bearing at joint(s) 26, 15 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) 26, 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.



March 1, 2021

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	SUMMIT HOMES	144987110
W2-63	H17	Hip	1	1	Job Reference (optional)	

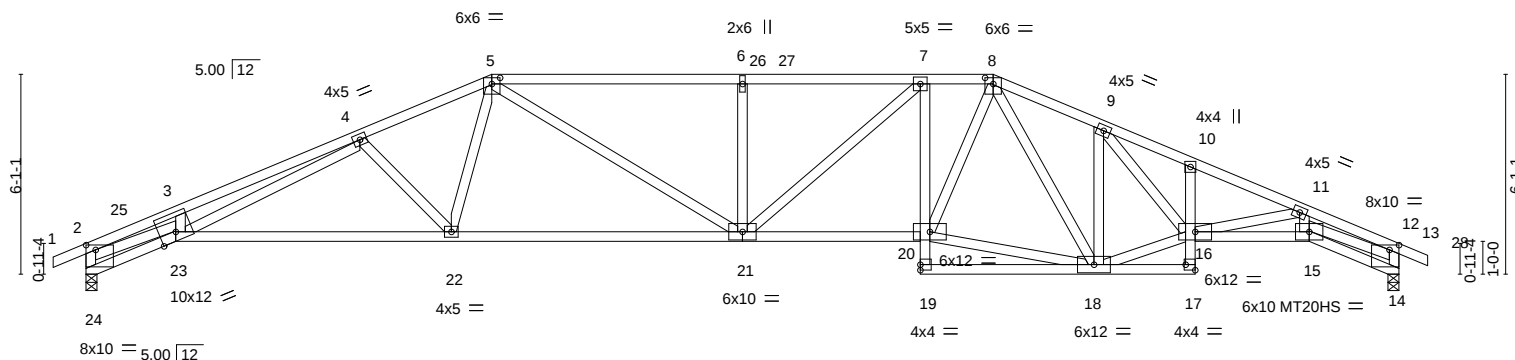
Mid America Truss, Jefferson City, MO - 65101,

8.430 s Feb 12 2021 MiTek Industries, Inc. Fri Feb 26 15:35:25 2021 Page 1

ID:Fpza38BVdcFyJDKwxgHN8dztCCb-wfL1IXZsFFxyAil8Ut7MMkqu6Yxmki?BviGAotzhDIW

1-0-0	2-8-13	8-4-2	12-4-6	20-0-0	25-5-0	27-7-10	30-10-4	33-9-8	37-3-3	40-0-0	40-10-8
1-0-0	2-8-13	5-7-5	4-0-4	7-7-10	5-5-0	2-2-10	3-2-10	2-11-4	3-5-11	2-8-13	0-10-8

Scale = 1:70.2



2-8-13	11-1-9	20-0-0	25-5-0	30-10-4	33-9-8	37-3-3	40-0-0
2-8-13	8-4-12	8-10-7	5-5-0	5-5-4	2-11-4	3-5-11	2-8-13

Plate Offsets (X,Y)-- [5:0-3-0,0-2-4], [8:0-3-0,0-2-4], [12:0-3-8,0-1-12], [17:Edge,0-2-0], [24:0-3-8,0-1-12]

LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0		TC	0.34	20-21	>999	360	MT20	244/190
Snow (Pl/Pg)	20.4/20.0		BC	0.71	21-22	>673	240	MT20HS	187/143
TCDL	10.0		WB	0.46	14	n/a	n/a		
BCLL	0.0		Matrix-SH						
BCDL	10.0								

Weight: 247 lb FT = 3%

LUMBER-

TOP CHORD 2x4 SP 2400F 2.0E *Except*
8-13: 2x4 SP No.2
BOT CHORD 2x4 SP No.2 *Except*
21-23,15-16: 2x4 SP No.1
WEBS 2x4 SP No.2 *Except*
2-23,12-15: 2x4 SP No.1

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) 24=0-4-0, 14=0-4-0
Max Horz 24=42(LC 11)
Max Uplift 24=-21(LC 7), 14=-18(LC 8)
Max Grav 24=1731(LC 34), 14=1724(LC 34)

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

TOP CHORD 2-24=-1764/15, 2-3=-5251/0, 3-4=-5237/62, 4-5=-3293/66, 5-6=-3528/118, 6-7=-3527/118, 7-8=-3092/100, 8-9=-2728/92, 9-10=-3872/57, 10-11=-3975/29, 11-12=-5192/0, 12-14=-1734/28
BOT CHORD 23-24=-40/276, 22-23=0/3355, 21-22=0/2836, 20-21=0/3116, 7-20=-615/72, 10-16=-272/65, 15-16=0/4610, 14-15=-2/271
WEBS 2-23=0/4534, 4-23=-94/1733, 4-22=-726/121, 5-22=0/768, 5-21=-38/816, 6-21=-647/126, 7-21=-23/543, 18-20=0/2479, 8-20=-19/1325, 8-18=-396/54, 9-18=-1137/67, 16-18=0/2442, 9-16=-2/1710, 11-16=-1000/43, 11-15=0/608, 12-15=0/4478

NOTES-

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope); cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.33 plate grip DOL=1.33
- TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=20.4 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10, Lu=50-0-0; Min. flat roof snow load governs. Rain surcharge applied to all exposed surfaces with slopes less than 0.500/12 in accordance with IBC 1608.3.4.
- Unbalanced snow loads have been considered for this design.
- This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 15.4 psf on overhangs non-concurrent with other live loads.
- Provide adequate drainage to prevent water ponding.
- All plates are MT20 plates unless otherwise indicated.
- Plates checked for a plus or minus 3 degree rotation about its center.
- Bearing at joint(s) 24, 14 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) 24, 14.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



March 1,2021

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	SUMMIT HOMES	144987111
W2-63	H18	Hip	1	1	Job Reference (optional)	

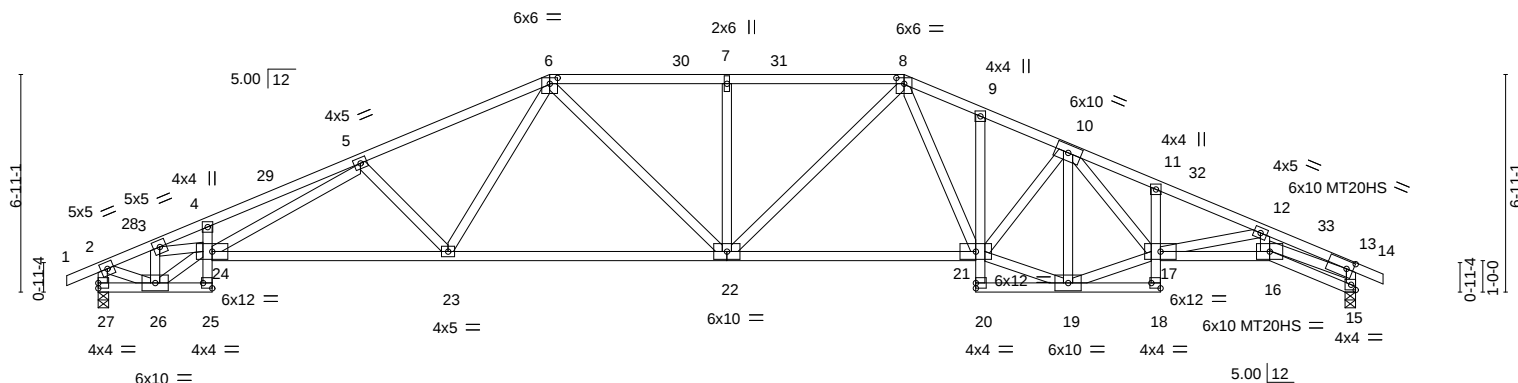
Mid America Truss, Jefferson City, MO - 65101,

8.430 s Feb 12 2021 MiTek Industries, Inc. Fri Feb 26 15:35:28 2021 Page 1

ID:Fpza38BVdcFyJDKwxgHN8dztCCb-KD0AwYbkYAJW19Tj9?h3_MSPwmyYxe4ebgVqPCzhDIT

1-0-0	1-9-12	3-7-8	8-4-2	14-4-6	20-0-0	25-7-10	27-11-0	30-10-4	33-9-8	37-3-3	40-0-0	49-10-8
1-0-0	1-9-12	1-9-12	4-8-10	6-0-4	5-7-10	5-7-10	2-3-6	2-11-4	2-11-4	3-5-11	2-8-13	0-10-8

Scale = 1:73.3



1-9-12	3-7-8	11-1-9	20-0-0	27-11-0	30-10-4	33-9-8	37-3-3	40-0-0
1-9-12	1-9-12	7-6-1	8-10-7	7-11-0	2-11-4	2-11-4	3-5-11	2-8-13

Plate Offsets (X,Y)-- [6:0-3-0,0-2-4], [8:0-3-0,0-2-4], [13:0-2-9,0-3-0], [18:Edge,0-2-0], [25:Edge,0-2-0]

LOADING (psf)	SPACING-	CSL	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof) 20.0	2-0-0	TC 0.76	Vert(LL)	-0.35 21-22	>999	360	MT20	244/190
Snow (Pl/Pg) 20.4/20.0	Plate Grip DOL 1.15	BC 0.96	Vert(CT)	-0.76 21-22	>629	240	MT20HS	187/143
TCDL 10.0	Lumber DOL 1.15	WB 0.79	Horz(CT)	0.43 15	n/a	n/a		
BCLL 0.0	Rep Stress Incr YES	Matrix-SH						
BCDL 10.0	Code IRC2018/TPI2014						Weight: 250 lb	FT = 3%

LUMBER-

TOP CHORD 2x4 SP No.2 *Except*
1-6: 2x4 SP No.1
BOT CHORD 2x4 SP No.2 *Except*
22-24,16-17: 2x4 SP No.1
WEBS 2x4 SP No.2 *Except*
13-16: 2x4 SP No.1

BRACING-

TOP CHORD Structural wood sheathing directly applied or 2-0-8 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing, Except: 2-2-0 oc bracing: 16-17.

REACTIONS.

(size) 15=0-4-0, 27=0-4-0
Max Horz 27=52(LC 13)
Max Uplift 15=-7(LC 12), 27=-8(LC 11)
Max Grav 15=1767(LC 34), 27=1774(LC 34)

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

TOP CHORD 2-3=-2114/0, 3-4=-4941/10, 4-5=-5170/51, 5-6=-3388/35, 6-7=-2850/73, 7-8=-2850/73, 8-9=-3209/56, 9-10=-3208/37, 10-11=-4157/16, 11-12=-4268/0, 12-13=-5520/0, 13-15=-1777/21, 2-27=-1702/17
BOT CHORD 25-26=-17271, 23-24=0/3573, 22-23=0/2577, 21-22=0/2570, 11-17=-270/68, 16-17=0/4917, 15-16=-4/279
WEBS 3-26=-1808/23, 24-26=-12/1916, 3-24=0/2679, 5-24=-45/1387, 5-23=-815/141, 6-23=0/908, 6-22=0/540, 7-22=-539/105, 8-22=0/541, 8-21=-37/931, 19-21=0/2709, 10-21=0/587, 10-19=-1725/0, 17-19=0/2525, 10-17=-11/1877, 12-17=-1019/46, 12-16=0/643, 13-16=0/4784, 2-26=0/1926

NOTES-

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope); cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.33 plate grip DOL=1.33
- 3) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=20.4 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10, Lu=50-0-0; Min. flat roof snow load governs. Rain surcharge applied to all exposed surfaces with slopes less than 0.500/12 in accordance with IBC 1608.3.4.
- 4) Unbalanced snow loads have been considered for this design.
- 5) This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 15.4 psf on overhangs non-concurrent with other live loads.
- 6) Provide adequate drainage to prevent water ponding.
- 7) All plates are MT20 plates unless otherwise indicated.
- 8) Plates checked for a plus or minus 3 degree rotation about its center.
- 9) Bearing at joint(s) 15 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- 10) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 15, 27.
- 11) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



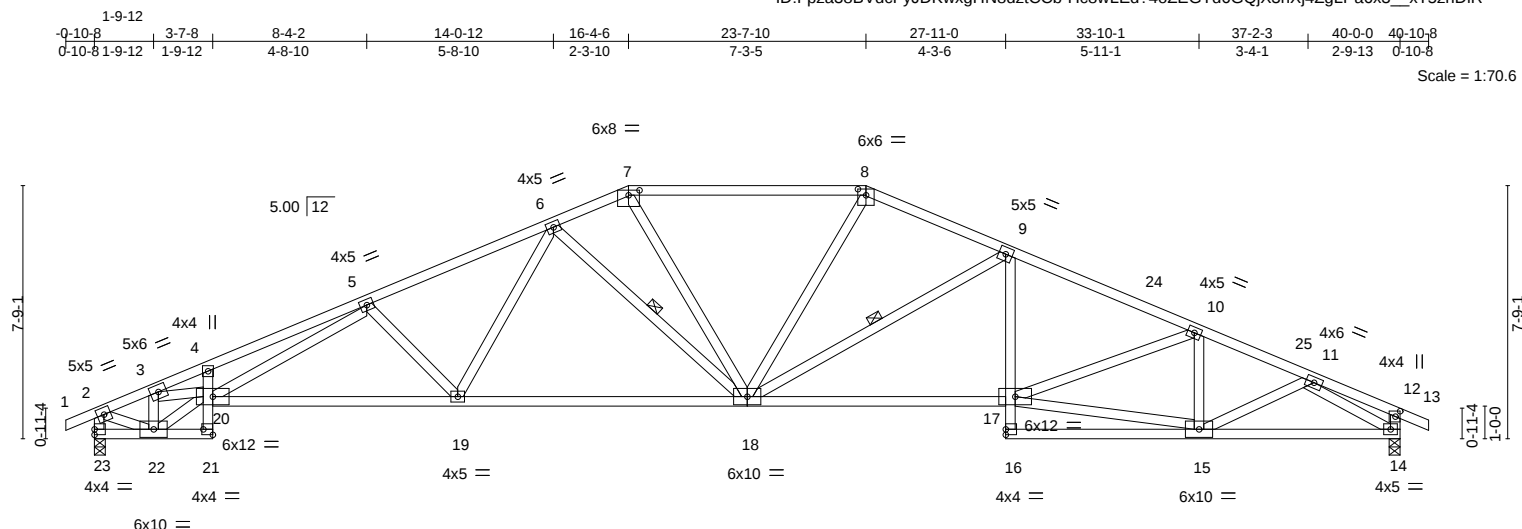
March 1,2021

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16023 Swingley Ridge Rd
Chesterfield, MO 63017



1-9-12	3-7-8	11-1-9	20-0-0	27-11-0	33-10-1	40-0-0
1-9-12	1-9-12	7-6-1	8-10-7	7-11-0	5-11-1	6-1-15
Plate Offsets (X, Y)-- [7:0-4-0-0-1-13], [8:0-3-0-0-2-4], [12:0-2-0-0-1-12], [21:Edge-0-2-0]						

[illegible]

LUMBER-		BRACING-	
TOP CHORD	2x4 SP No.2 *Except* 7-8: 2x4 SP 2400F 2.0E	TOP CHORD	Structural wood sheathing directly applied or 1-10-8 oc purlins, except end verticals.
BOT CHORD	2x4 SP No.2 *Except* 18-20,17-18: 2x4 SP No.1	BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS	2x4 SP No.2	WEBS	1 Row at midpt 6-18, 9-18

REACTIONS. (size) 23=0-4-0, 14=0-4-0
 Max Horz 23=-59(LC 14)
 Max Uplift 23=-18(LC 11), 14=-18(LC 12)
 Max Grav 23=1810(LC 34), 14=1810(LC 34)

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

TOP CHORD 2-3=-2169/11, 3-4=-5123/56, 4-5=-5399/104, 5-6=-3654/19, 6-7=-2408/53,
7-8=-2593/24, 8-9=-2490/54, 9-10=-3564/0, 10-11=-3188/17, 11-12=-273/8,
2-23=-1735/27, 12-14=-273/32

BOT CHORD 21-22=-21/300, 19-20=-18/3800, 18-19=0/2878, 17-18=0/3220, 9-17=0/520,
14-15=-8/2343

WEBS 3-22=-1850/40, 20-22=-35/1943, 3-20=-26/2807, 5-20=-67/1364, 5-19=-771/133,
6-19=0/853, 6-18=-959/94, 7-18=0/855, 8-18=0/755, 9-18=-1148/77, 15-17=0/2829,
10-17=0/348, 10-15=-669/48, 11-15=0/652, 2-22=0/1979, 11-14=-2601/31

NOTES-

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDF=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS envelope); cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.33 plate grip DOL=1.33
- 3) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=20.4 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10, Lu=50-0-0; Min. flat roof snow load governs. Rain surcharge applied to all exposed surfaces with slopes less than 0.500/12 in accordance with IBC 1608.3.4.
- 4) Unbalanced snow loads have been considered for this design.
- 5) This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 15.4 psf on overhangs non-concurrent with other live loads.
- 6) Provide adequate drainage to prevent water ponding.
- 7) Plates checked for a plus or minus 3 degree rotation about its center.
- 8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 23, 14.
- 9) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



March 1, 2021

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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
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Job	Truss	Truss Type	Qty	Ply	SUMMIT HOMES	144987113
W2-63	H20	HIP	1	1	Job Reference (optional)	

Mid America Truss, Jefferson City, MO - 65101,

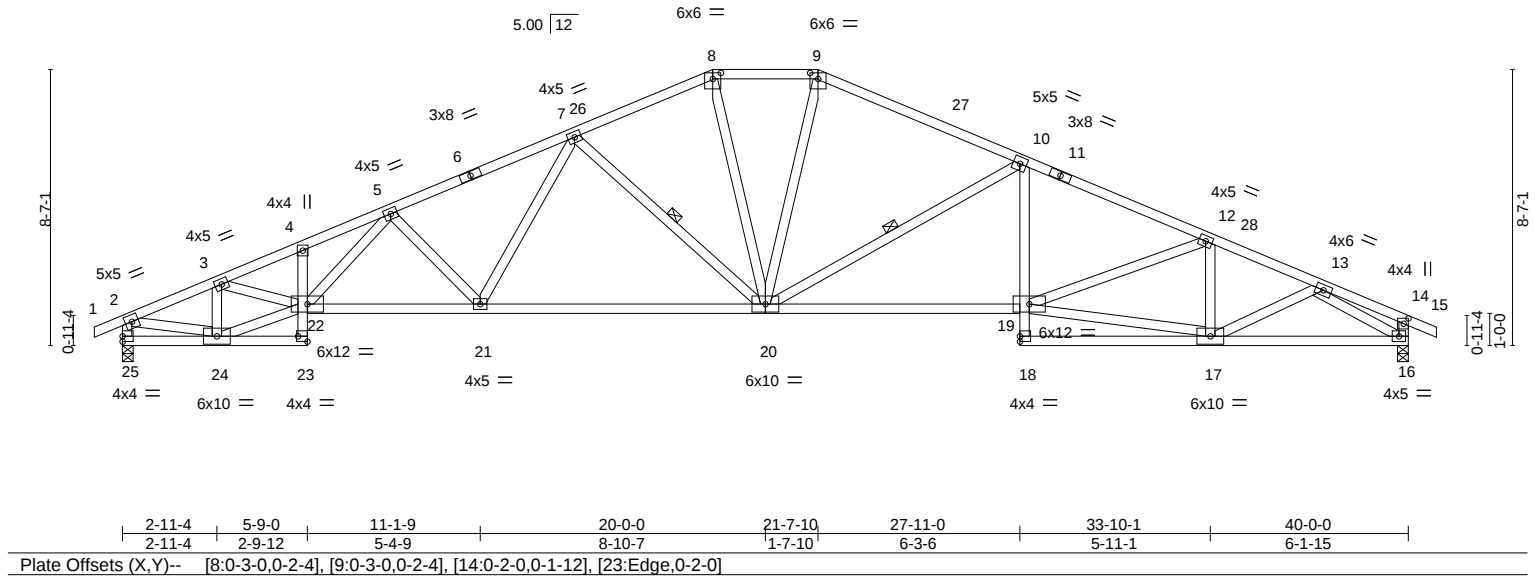
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0-10-8 2-11-4 5-9-0 8-4-2 14-0-12 18-4-6 21-7-10 27-11-0 33-10-1 37-2-2 40-0-0 40-10-8
0-10-8 2-11-4 2-9-12 2-7-2 5-8-10 4-3-10 3-3-5 6-3-6 5-11-1 3-4-1 2-9-14 0-10-8

FLAT TOP CHORD MUST BE BRACED WITH SHEATHING.

Scale = 1:71.7



LOADING (psf)	SPACING-	CSI.	DEFL.	PLATES	GRIP
TCLL (roof) 20.0	2-0-0	TC 0.93	in (loc) l/defl L/d	MT20	244/190
Snow (Pl/Pg) 20.4/20.0	Plate Grip DOL 1.15	BC 0.77	Vert(LL) -0.31 19-20 >999 360		
TCDL 10.0	Lumber DOL 1.15	WB 0.71	Vert(CT) -0.61 20-21 >781 240		
BCLL 0.0	Rep Stress Incr YES	Matrix-SH	Horz(CT) 0.27 16 n/a n/a		
BCDL 10.0	Code IRC2018/TPI2014			Weight: 251 lb	FT = 3%

LUMBER-	BRACING-
TOP CHORD 2x4 SP No.2	TOP CHORD Structural wood sheathing directly applied, except end verticals.
BOT CHORD 2x4 SP No.2 *Except*	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
20-22,19-20: 2x4 SP No.1	WEBS 1 Row at midpt 7-20, 10-20
WEBS 2x4 SP No.2	

REACTIONS. (size) 25=0-4-0, 16=0-4-0
Max Horz 25=-68(LC 14)
Max Uplift 25=-29(LC 11), 16=-29(LC 12)
Max Grav 25=1850(LC 34), 16=1853(LC 34)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-2763/33, 3-4=-4710/70, 4-5=-4754/93, 5-7=-3863/52, 7-8=-2636/28, 8-9=-2538/32,
9-10=-2700/30, 10-12=-3805/33, 12-13=-3290/36, 13-14=-286/8, 2-25=-1785/43,
14-16=-274/31
BOT CHORD 21-22=-48/3964, 20-21=0/3110, 19-20=0/3469, 10-19=0/484, 16-17=-23/2398
WEBS 3-24=-1457/64, 22-24=-71/2448, 3-22=-1/1900, 5-22=-32/638, 5-21=-721/118,
7-21=0/792, 7-20=-1030/117, 8-20=0/841, 9-20=0/704, 17-19=0/2901, 12-19=0/432,
12-17=-707/50, 13-17=0/705, 2-24=-3/2401, 13-16=-2656/50, 10-20=-1251/109

NOTES-

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope); cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.33 plate grip DOL=1.33
- TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=20.4 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10, Lu=50-0-0; Min. flat roof snow load governs. Rain surcharge applied to all exposed surfaces with slopes less than 0.500/12 in accordance with IBC 1608.3.4.
- Unbalanced snow loads have been considered for this design.
- This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 15.4 psf on overhangs non-concurrent with other live loads.
- Provide adequate drainage to prevent water ponding.
- Plates checked for a plus or minus 3 degree rotation about its center.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 25, 16.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



March 1,2021

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

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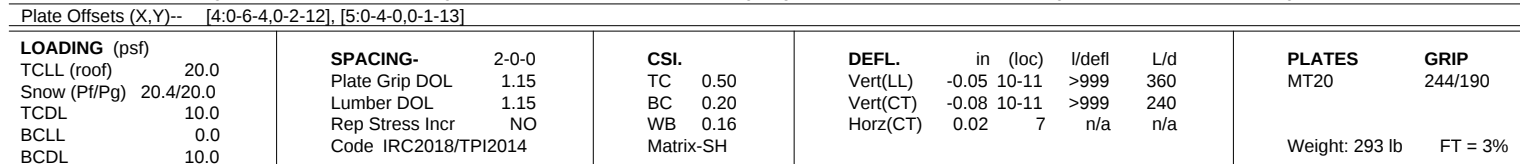
16023 Swingley Ridge Rd
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0-10-8	3-7-2	7-2-4	13-1-12	16-8-14	20-4-0	21-2-8
0-10-8	3-7-2	3-7-2	5-11-8	3-7-2	3-7-2	0-10-8

Scale = 1:36.0



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

REACTIONS. (size) 2=0-4-0, 7=0-4-0
 Max Horz 2=36(LC 13)
 Max Uplift 2=-163(LC 7), 7=-163(LC 8)
 Max Grav 2=2141(LC 34), 7=2146(LC 34)

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

TOP CHORD	2-3=-3739/294, 3-4=-3875/372, 4-5=-3556/353, 5-6=-3856/369, 6-7=-3760/297
BOT CHORD	2-13=-247/3210, 11-13=-247/3210, 10-11=-286/3577, 9-10=-230/3228, 7-9=-230/3228
WEBS	3-11=-170/590, 4-11=-98/1274, 5-10=-89/1258, 6-10=-180/547

NOTES-

- 1) 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, 2x4 - 1 row 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.
- 2) All loads are considered equally applied to all plies, except if noted as front (F) or back (B) face in the LOAD CASE(S) section. Ply to ply connections have been provided to distribute only loads noted as (F) or (B), unless otherwise indicated.
- 3) Unbalanced roof live loads have been considered for this design.
- 4) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope); cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.33 plate grip DOL=1.33
- 5) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=20.4 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10, Lu=50-0-0 Rain surcharge applied to all exposed surfaces with slopes less than 0.500/12 in accordance with IBC 1608.3.4.
- 6) Unbalanced snow loads have been considered for this design.
- 7) This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 15.4 psf on overhangs non-concurrent with other live loads.
- 8) Provide adequate drainage to prevent water ponding.
- 9) Plates checked for a plus or minus 3 degree rotation about its center.
- 10) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=163, 7=163.
- 11) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 12) Use USP HJC26 (With 16-16d nails into Girder & 10d nails into Truss) or equivalent spaced at 5-10-12 oc max. starting at 7-2-10 from the left end to 13-1-6 to connect truss(es) to back face of bottom chord.
- 13) 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 9-3-0 from the left end to 21-3-0 to connect truss(es) to back face of bottom chord.



March 1, 2021



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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	SUMMIT HOMES	I44987114
W2-63	H21	Hip Girder	1	2	Job Reference (optional)	

Mid America Truss, Jefferson City, MO - 65101,

8.430 s Feb 12 2021 MiTek Industries, Inc. Fri Feb 26 15:35:39 2021 Page 2
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NOTES-
14) Fill all nail holes where hanger is in contact with lumber.

LOAD CASE(S) Standard
1) Dead + Snow (balanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (plf)
Vert: 1-4=-51, 4-5=-61, 5-8=-51, 2-7=-20
Concentrated Loads (lb)
Vert: 11=-872(B) 10=-872(B) 16=-305(B) 17=-305(B)

Job	Truss	Truss Type	Qty	Ply	SUMMIT HOMES	144987115
W2-63	H22	Hip	1	1	Job Reference (optional)	

Mid America Truss, Jefferson City, MO - 65101,

8.430 s Feb 12 2021 MiTek Industries, Inc. Fri Feb 26 15:35:40 2021 Page 1

ID:Fpza38BVdcFyJDKwxgHN8dztCCb_XliRflGjsqpT?O1sWutTuyY9bAKI70PMXPTqWzhDIH

0-10-8	4-5-3	8-10-6	11-5-10	15-10-13	20-4-0	21-2-8
0-10-8	4-5-3	4-5-3	2-7-5	4-5-3	4-5-3	0-10-8

Scale = 1:36.0

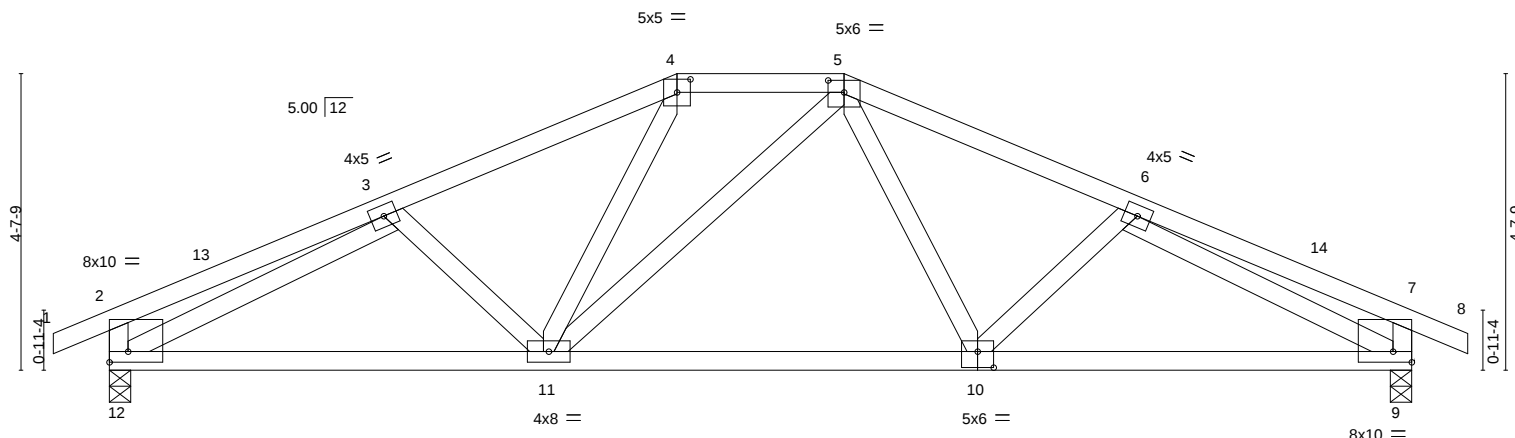


Plate Offsets (X,Y)--	[2:Edge,0-2-0], [4:0-2-8,0-2-7], [5:0-3-0,0-2-4], [9:Edge,0-2-0], [10:0-3-0,0-3-0]
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LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.36	Vert(LL)	-0.06 10-11	>999	360	MT20	244/190
Snow (Pl/Pg)	20.4/20.0	Lumber DOL	1.15	BC	0.45	Vert(CT)	-0.11 10-11	>999	240		
TCDL	10.0	Rep Stress Incr	YES	WB	0.54	Horz(CT)	0.04 9	n/a	n/a		
BCLL	0.0	Code IRC2018/TPI2014		Matrix-SH							
BCDL	10.0									Weight: 113 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 4-6-1 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS.

(size) 12=0-4-0, 9=0-4-0
Max Horz 12=-27(LC 14)
Max Uplift 12=-17(LC 11), 9=-17(LC 12)
Max Grav 12=1059(LC 34), 9=1059(LC 34)

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

TOP CHORD 2-3=-291/27, 3-4=-1347/18, 4-5=-1041/50, 5-6=-1352/20, 6-7=-290/28, 2-12=-347/47, 7-9=-347/47
BOT CHORD 11-12=-26/1316, 10-11=0/1039, 9-10=0/1317
WEBS 4-11=0/304, 5-10=0/308, 3-12=-1285/13, 6-9=-1287/11

NOTES-

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope); cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.33 plate grip DOL=1.33
- TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=20.4 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10, Lu=50-0-0; Min. flat roof snow load governs. Rain surcharge applied to all exposed surfaces with slopes less than 0.500/12 in accordance with IBC 1608.3.4.
- Unbalanced snow loads have been considered for this design.
- This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 15.4 psf on overhangs non-concurrent with other live loads.
- Provide adequate drainage to prevent water ponding.
- Plates checked for a plus or minus 3 degree rotation about its center.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 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.



March 1, 2021

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



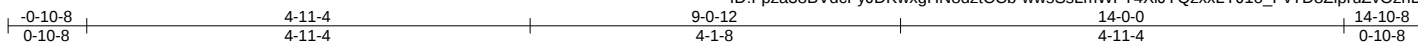
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	SUMMIT HOMES	144987116
W2-63	H23	Hip Girder	1	2	Job Reference (optional)	

Mid America Truss, Jefferson City, MO - 65101,

8.430 s Feb 12 2021 MiTek Industries, Inc. Fri Feb 26 15:35:42 2021 Page 1

ID:Fpza38BVdcFyJDKwxgHN8dztCCb-wwsSsLmWFT4XiJYQzxxLYJ1o_PvTD8ZipruZvOzhDIF



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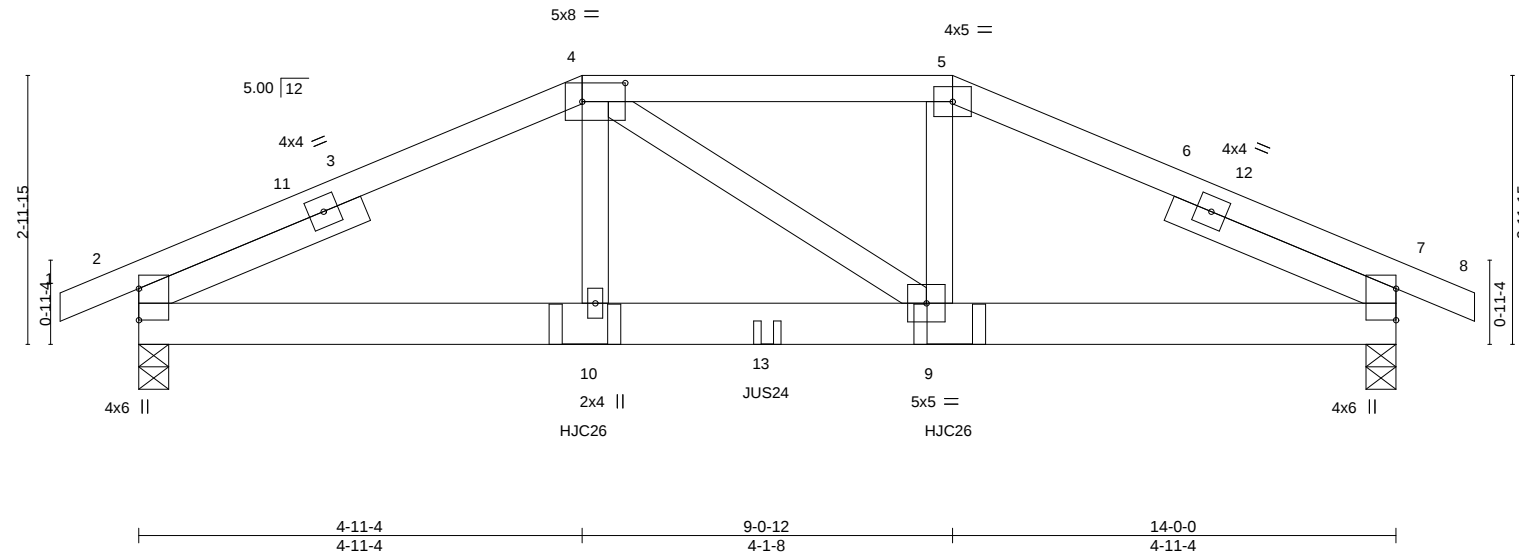


Plate Offsets (X, Y)-- [4:0-5-12,0-2-8]									
LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in (loc)	I/defl	L/d
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.72	Vert(LL)	-0.04 9-10	>999	360
Snow (Pl/Pg)	20.4/20.0	Lumber DOL	1.15	BC	0.22	Vert(CT)	-0.07 9-10	>999	240
TCDL	10.0	Rep Stress Incr	NO	WB	0.09	Horz(CT)	0.01 7	n/a	n/a
BCLL	0.0	Code IRC2018/TPI2014		Matrix-P					
BCDL	10.0								
								PLATES	GRIP
								MT20	244/190
								Weight: 158 lb	FT = 3%

LUMBER-

TOP CHORD 2x4 SP No.2
 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

BRACING-

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

REACTIONS.

(size) 2=0-4-0, 7=0-4-0
 Max Horz 2=25(LC 13)
 Max Uplift 2=-103(LC 7), 7=-103(LC 8)
 Max Grav 2=1286(LC 34), 7=1286(LC 34)

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

TOP CHORD 2-4=-2112/200, 4-5=-1840/193, 5-7=-2109/199
 BOT CHORD 2-10=-144/1806, 9-10=-146/1844, 7-9=-142/1804
 WEBS 4-10=-36/693, 5-9=-43/717

NOTES-

- 2-ply truss to be connected together with 10d (0.131"x3") nails as follows:
 Top chords connected as follows: 2x4 - 1 row at 0-9-0 oc.
 Bottom chords connected as follows: 2x6 - 2 rows staggered at 0-9-0 oc.
 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=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.
- Unbalanced snow loads have been considered for this design.
- This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 15.4 psf on overhangs non-concurrent with other live loads.
- Provide adequate drainage to prevent water ponding.
- Plates checked for a plus or minus 3 degree rotation about its center.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (it=lb) 2=103, 7=103.
- 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 HJC26 (With 16-16d nails into Girder & 10d nails into Truss) or equivalent spaced at 4-0-12 oc max. starting at 4-11-10 from the left end to 9-0-6 to connect truss(es) to back face of bottom chord.
- Use USP JUS24 (With 4-10d nails into Girder & 2-10d nails into Truss) or equivalent at 7-0-0 from the left end to connect truss(es) to back face of bottom chord.

Continue on back of page 2



March 1, 2021

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

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



16023 Swingley Ridge Rd
 Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	SUMMIT HOMES	I44987116
W2-63	H23	Hip Girder	1	2	Job Reference (optional)	

Mid America Truss,
Jefferson City, MO - 65101,

8.430 s Feb 12 2021 MiTek Industries, Inc.
Fri Feb 26 15:35:42 2021
Page 2
ID:Fpza38BVdcFyJDKwxgHN8dztCCb-wwsSsLmWFT4XiJYQzxxLYJ1o_PvTD8ZipruZvOzhDIF

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

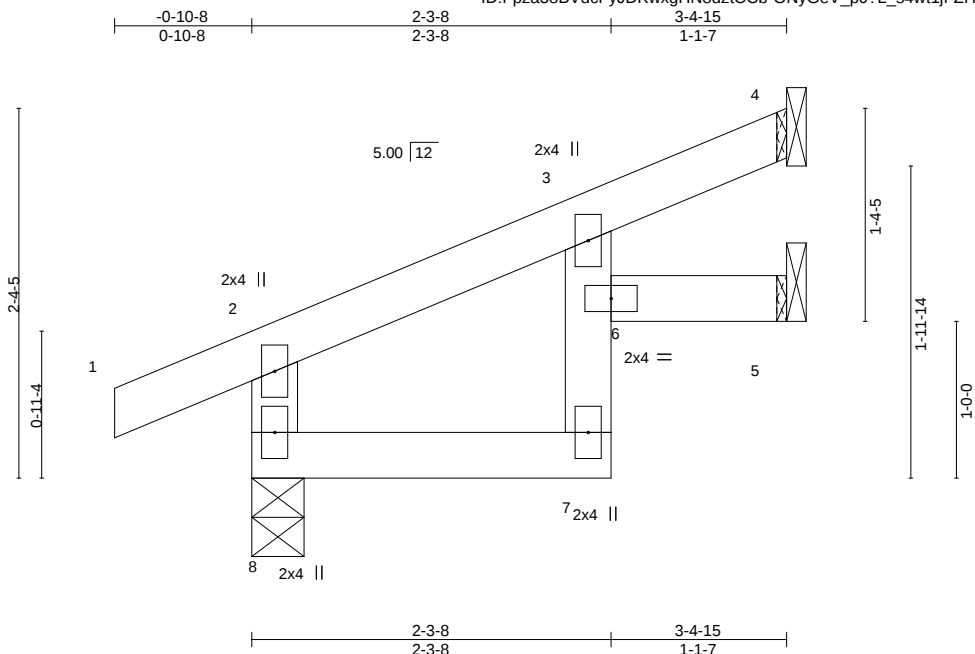
LOAD CASE(S) Standard
 1) Dead + Snow (balanced): Lumber Increase=1.15, Plate Increase=1.15
 Uniform Loads (plf)
 Vert: 1-4=-51, 4-5=-61, 5-8=-51, 2-7=-20
 Concentrated Loads (lb)
 Vert: 10=-497(B) 9=-497(B) 13=-200(B)

Job	Truss	Truss Type	Qty	Ply	SUMMIT HOMES	144987118
W2-63	J2	Jack-Open	4	1	Job Reference (optional)	

Mid America Truss, Jefferson City, MO - 65101,

8.430 s Feb 12 2021 MiTek Industries, Inc. Fri Feb 26 15:36:00 2021 Page 1

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Scale = 1:14.7

LOADING (psf)		SPACING-		CSI.		DEFL.		PLATES		GRIP	
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.12	Vert(LL)	-0.01 6 >999 360	MT20		244/190	
Snow (Pf/Pg)	15.4/20.0	Lumber DOL	1.15	BC	0.11	Vert(CT)	-0.01 7 >999 240				
TCDL	10.0	Rep Stress Incr	YES	WB	0.00	Horz(CT)	0.00 5 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

BRACING-

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

REACTIONS.

(size) 8=0-4-0, 4=Mechanical, 5=Mechanical
Max Horz 8=47(LC 8)
Max Uplift 8=-8(LC 7), 4=-18(LC 11), 5=-5(LC 11)
Max Grav 8=241(LC 16), 4=87(LC 16), 5=53(LC 16)

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

NOTES-

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



March 1, 2021

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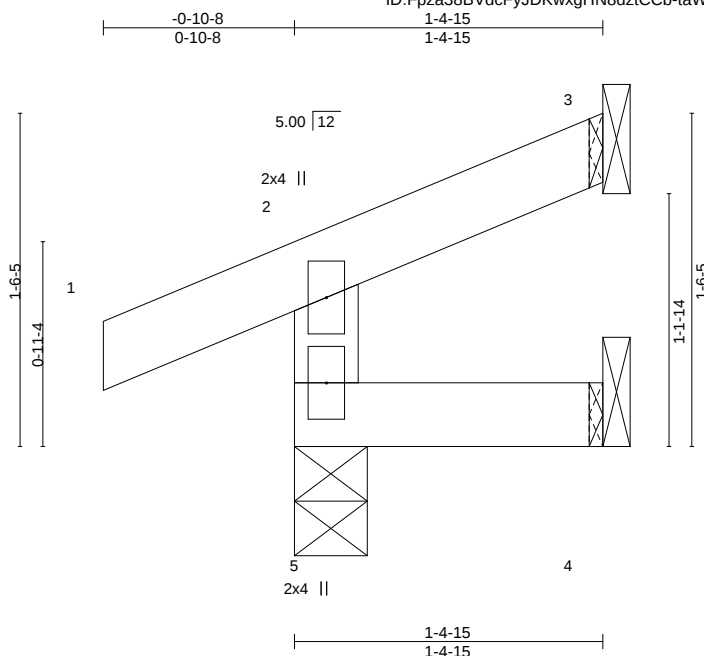
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16023 Swingley Ridge Rd
Chesterfield, MO 63017



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	0.10	Vert(LL)	0.00	5	>999	360								MT20	244/190				
Snow (Pl/Pg)	15.4/20.0	Lumber DOL	1.15	BC	0.03	Vert(CT)	0.00	5	>999	240													
TCDL	10.0	Rep Stress Incr	YES	WB	0.00	Horz(CT)	-0.00	3	n/a	n/a													
BCLL	0.0	Code IRC2018/TPI2014		Matrix-R																			
BCDL	10.0																						
																				Weight: 7 lb		FT = 3%	

LUMBER-		BRACING-	
TOP CHORD	2x4 SP No.2	TOP CHORD	Structural wood sheathing directly applied or 1-4-15 oc purlins, except end verticals.
BOT CHORD	2x4 SP No.2		
WEBS	2x4 SP No.2	BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) 5=0-4-0, 3=Mechanical, 4=Mechanical
 Max Horz 5=30(LC 8)
 Max Uplift 5=18(LC 7), 3=14(LC 11)
 Max Grav 5=154(LC 16), 3=21(LC 16), 4=11(LC 9)

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

NOTES-

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



March 1, 2021

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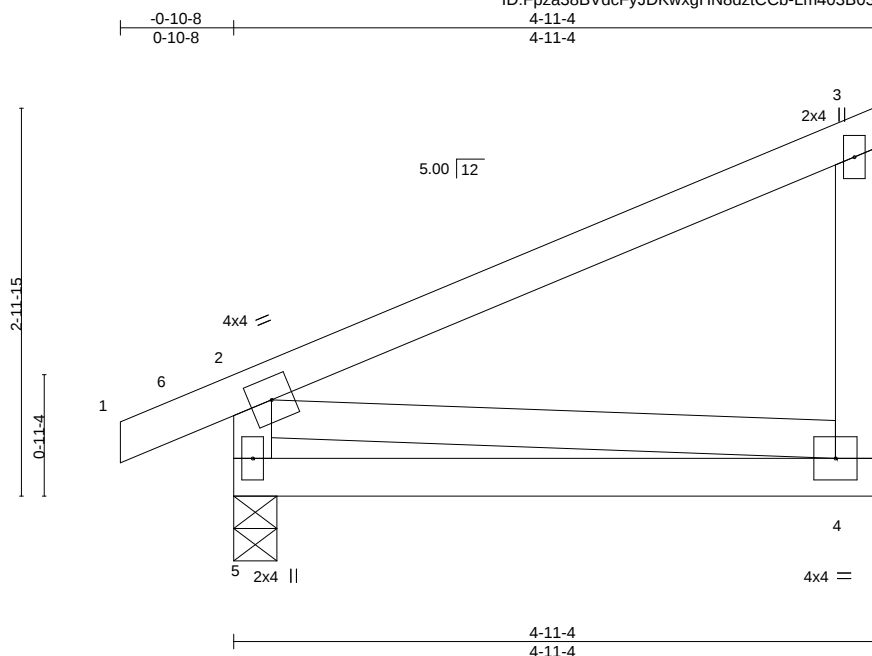
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	SUMMIT HOMES	144987120
W2-63	J4	Jack-Closed	3	1	Job Reference (optional)	

Mid America Truss, Jefferson City, MO - 65101,

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ID:Fpza38BVdcFyJDKwXgHN8dzCCb-Lm403B03Ydbi6O4G88I1MXsHKTlhvCfeQykdbEzhDkx



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 0.50	Vert(LL) 0.00	5	****	360		MT20	244/190
Snow (Pf/Pg) 15.4/20.0	Plate Grip DOL 1.15	BC 0.18	Vert(CT) -0.03	4-5	>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-P							
BCDL 10.0	Code IRC2018/TPI2014								
								Weight: 28 lb	FT = 3%

LUMBER-

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

BRACING-

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

REACTIONS.

(size) 5=0-4-0, 4=Mechanical
Max Horz 5=92(LC 10)
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.

NOTES-

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



March 1, 2021

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

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

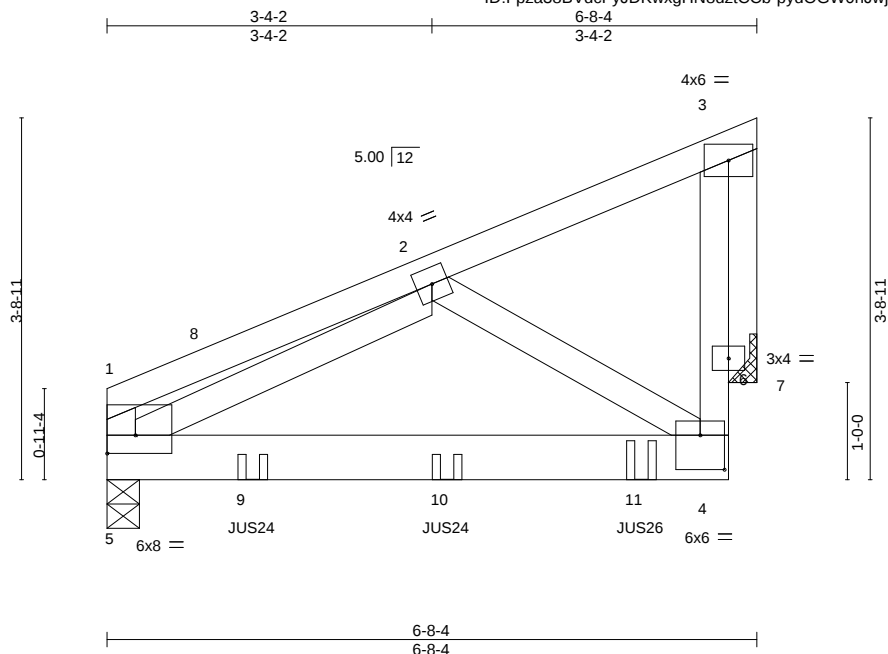


16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	SUMMIT HOMES	144987121
W2-63	J5	Jack-Closed Girder	1	2	Job Reference (optional)	

Mid America Truss, Jefferson City, MO - 65101,

8.430 s Feb 12 2021 MiTek Industries, Inc. Fri Feb 26 15:36:03 2021 Page 1
ID:Fpza38BVdcFyJDKwxgHN8dztCCb-pydOGW0hJwjZkXfSirpGvIPVjtwrefWnecUA7gzhDkw



Scale = 1:23.7

Plate Offsets (X,Y)-- [4:0-3-0,0-4-4], [5:Edge,0-2-4]													
LOADING (psf)		SPACING-		2-0-0		CSI.		DEFL.		PLATES		GRIP	
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.27	Vert(LL)	-0.07	4-5	>999	360	MT20	244/190	
Snow (Pf/Pg)	15.4/20.0	Lumber DOL	1.15	BC	0.89	Vert(CT)	-0.15	4-5	>525	240			
TCDL	10.0	Rep Stress Incr	NO	WB	0.04	Horz(CT)	0.01	7	n/a	n/a			
BCLL	0.0	Code IRC2018/TPI2014		Matrix-P							Weight: 88 lb	FT = 3%	
BCDL	10.0												

LUMBER-

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

BRACING-

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

REACTIONS.

(size) 5=0-4-0, 7=Mechanical
Max Horz 5=74(LC 8)
Max Uplift 5=-25(LC 11), 7=-73(LC 11)
Max Grav 5=1062(LC 16), 7=1139(LC 16)

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

TOP CHORD 4-6=-50/1093, 3-6=-50/1093
BOT CHORD 4-5=-68/310
WEBS 2-5=-363/12, 3-7=-1149/73

NOTES-

- 2-ply truss to be connected together with 10d (0.131"x3") nails as follows:
Top chords connected as follows: 2x4 - 1 row at 0-9-0 oc.
Bottom chords connected as follows: 2x6 - 2 rows staggered at 0-9-0 oc.
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.
- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope); cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.33 plate grip DOL=1.33
- TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=15.4 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
- Unbalanced snow loads have been considered for this design.
- Plates checked for a plus or minus 3 degree rotation about its center.
- 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, 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.
- Use USP JUS24 (With 4-10d nails into Girder & 2-10d nails into Truss) or equivalent at 1-6-0 from the left end to connect truss(es) to back face of bottom chord, skewed 0.0 deg.to the left, sloping 0.0 deg. down.
- Use USP JUS24 (With 4-10d nails into Girder & 2-10d nails into Truss) or equivalent at 3-6-0 from the left end to connect truss(es) to back face of bottom chord, skewed 0.0 deg.to the left, sloping 0.0 deg. down.
- Use USP JUS26 (With 4-10d nails into Girder & 4-10d nails into Truss) or equivalent at 5-6-0 from the left end to connect truss(es) to back face of bottom chord, skewed 0.0 deg.to the left, sloping 0.0 deg. down.
- Fill all nail holes where hanger is in contact with lumber.

LOAD CASE(S) Standard

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March 1, 2021



16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	SUMMIT HOMES	I44987121
W2-63	J5	Jack-Closed Girder	1	2	Job Reference (optional)	

Mid America Truss, Jefferson City, MO - 65101,

8.430 s Feb 12 2021 MiTek Industries, Inc. Fri Feb 26 15:36:03 2021 Page 2
ID:Fpza38BVdcFyJDKwxgHN8dztCCb-pydOGW0hJwjZkXfSirpGvIPVjtwrefWnecUA7gzhDkw

LOAD CASE(S) Standard
1) Dead + Snow (balanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (plf)
Vert: 1-3=-51, 4-5=-20
Concentrated Loads (lb)
Vert: 9=-546(B) 10=-540(B) 11=-549(B)

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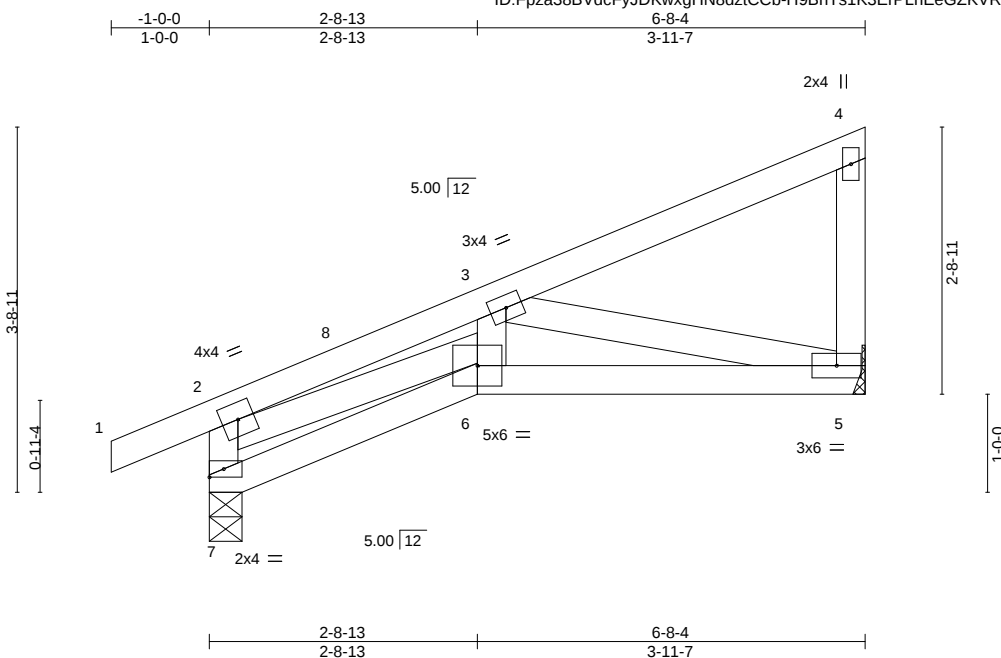
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	SUMMIT HOMES	144987122
W2-63	J6	Jack-Closed	2	1	Job Reference (optional)	

Mid America Truss, Jefferson City, MO - 65101,

8.430 s Feb 12 2021 MiTek Industries, Inc. Fri Feb 26 15:36:04 2021 Page 1

ID:Fpza38BVdcFyJDKwxgHN8dztCCb-H9BnTs1K3ErPLhEeGZKVryxhmGQRN4uxtGDkf7zhDkv



Scale = 1:23.5

LOADING (psf)		SPACING-		CSI.		DEFL.		PLATES		GRIP	
TCLL (roof)	20.0	2-0-0		TC	0.25	in (loc)	l/defl	L/d	MT20	244/190	
Snow (Pf/Pg)	15.4/20.0	Plate Grip DOL	1.15	BC	0.23	Vert(LL)	-0.02 6	>999 360			
TCDL	10.0	Lumber DOL	1.15	WB	0.16	Vert(CT)	-0.03 5-6	>999 240			
BCLL	0.0	Rep Stress Incr	YES	Matrix-P		Horz(CT)	0.01 5	n/a n/a			
BCDL	10.0	Code IRC2018/TPI2014							Weight: 37 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) 7=0-4-0, 5=Mechanical
Max Horz 7=106(LC 8)
Max Uplift 7=-15(LC 11), 5=-26(LC 11)
Max Grav 7=343(LC 16), 5=302(LC 16)

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

TOP CHORD 2-7=-317/50, 2-3=-718/68
BOT CHORD 5-6=-93/614
WEBS 2-6=-34/643, 3-5=-630/105

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) 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
- 3) Unbalanced snow loads have been considered for this design.
- 4) This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 15.4 psf on overhangs non-concurrent with other live loads.
- 5) Plates checked for a plus or minus 3 degree rotation about its center.
- 6) Refer to girder(s) for truss to truss connections.
- 7) Bearing at joint(s) 7 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) 7, 5.
- 9) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



March 1, 2021

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

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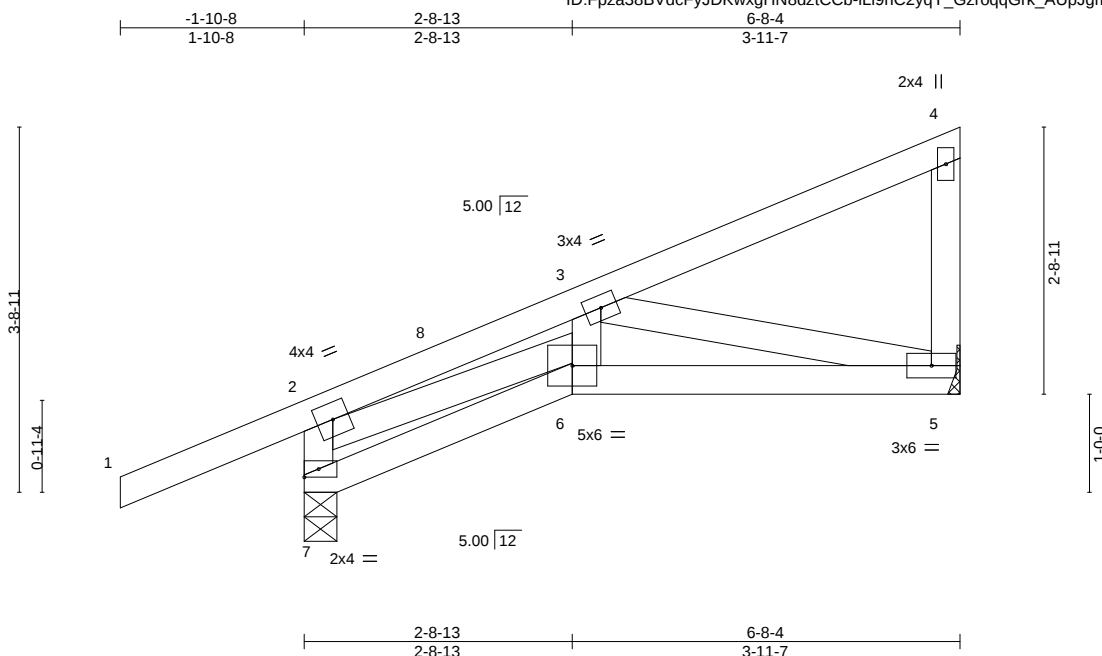
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	SUMMIT HOMES	144987123
W2-63	J6A	Jack-Closed	3	1	Job Reference (optional)	

Mid America Truss, Jefferson City, MO - 65101,

8.430 s Feb 12 2021 MiTek Industries, Inc. Fri Feb 26 15:36:05 2021 Page 1

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Scale = 1:23.5

LOADING (psf)		SPACING-		CSI.		DEFL.		PLATES		GRIP	
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.39	Vert(LL)	-0.01 6 >999 360	MT20		244/190	
Snow (Pf/Pg)	15.4/20.0	Lumber DOL	1.15	BC	0.22	Vert(CT)	-0.03 5-6 >999 240				
TCDL	10.0	Rep Stress Incr	YES	WB	0.14	Horz(CT)	0.01 5 n/a n/a				
BCLL	0.0	Code IRC2018/TPI2014		Matrix-P							
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 6-0-0 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS.

(size) 7=0-4-0, 5=Mechanical
Max Horz 7=112(LC 8)
Max Uplift 7=38(LC 7), 5=23(LC 11)
Max Grav 7=399(LC 16), 5=291(LC 16)

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

TOP CHORD 2-7=-373/68, 2-3=-660/56
BOT CHORD 5-6=-88/551
WEBS 2-6=-13/578, 3-5=-565/91

NOTES-

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope); cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.33 plate grip DOL=1.33
- 2) 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
- 3) Unbalanced snow loads have been considered for this design.
- 4) This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 15.4 psf on overhangs non-concurrent with other live loads.
- 5) Plates checked for a plus or minus 3 degree rotation about its center.
- 6) Refer to girder(s) for truss to truss connections.
- 7) Bearing at joint(s) 7 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) 7, 5.
- 9) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



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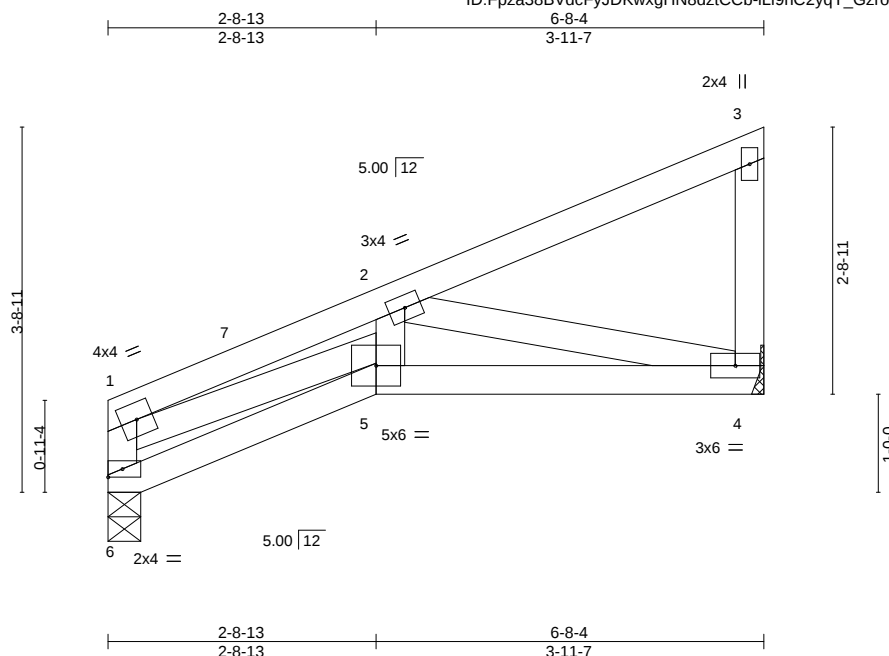
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	SUMMIT HOMES	144987124
W2-63	J6B	Jack-Closed	4	1	Job Reference (optional)	

Mid America Truss, Jefferson City, MO - 65101,

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Scale = 1:23.5

LOADING (psf)		SPACING-		CSI.		DEFL.		PLATES		GRIP	
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.24	Vert(LL)	-0.02 5 >999 360	MT20		244/190	
Snow (Pf/Pg)	15.4/20.0	Lumber DOL	1.15	BC	0.24	Vert(CT)	-0.03 4-5 >999 240				
TCDL	10.0	Rep Stress Incr	YES	WB	0.17	Horz(CT)	0.02 4 n/a n/a				
BCLL	0.0	Code IRC2018/TPI2014		Matrix-P							
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 6-0-0 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS.

(size) 6=0-4-0, 4=Mechanical
Max Horz 6=99(LC 8)
Max Uplift 6=-2(LC 11), 4=-26(LC 11)
Max Grav 6=280(LC 15), 4=307(LC 15)

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

TOP CHORD 1-6=-254/33, 1-2=-740/69
BOT CHORD 4-5=-92/644
WEBS 1-5=-48/673, 2-4=-660/108

NOTES-

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope); cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.33 plate grip DOL=1.33
- 2) 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
- 3) Unbalanced snow loads have been considered for this design.
- 4) Plates checked for a plus or minus 3 degree rotation about its center.
- 5) Refer to girder(s) for truss to truss connections.
- 6) Bearing at joint(s) 6 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- 7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 6, 4.
- 8) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



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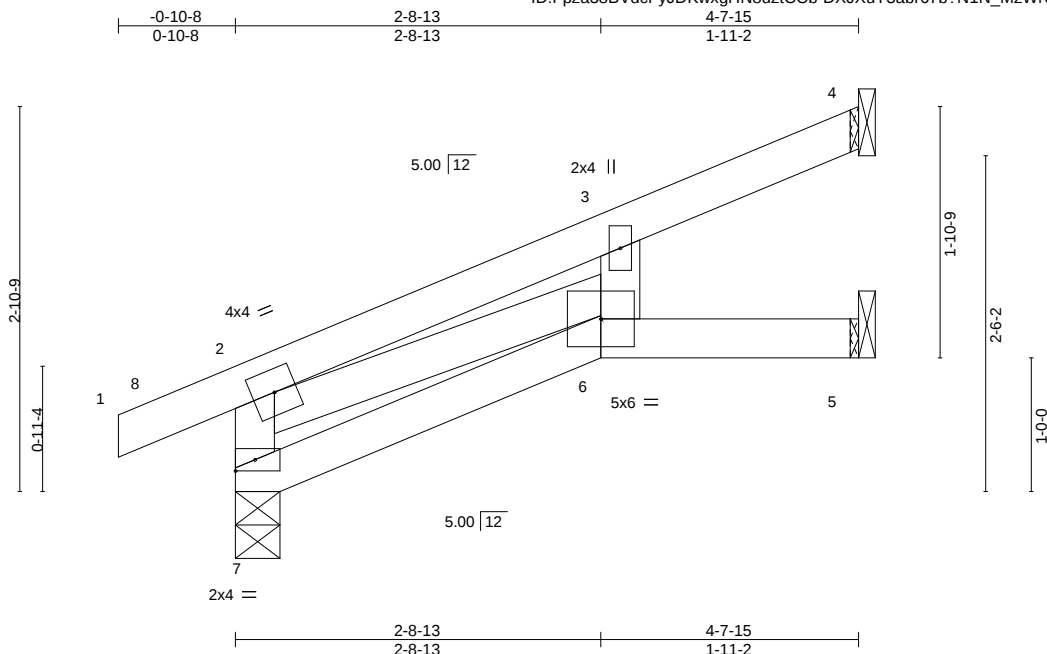
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	SUMMIT HOMES	144987125
W2-63	J7	Jack-Open	1	1	Job Reference (optional)	

Mid America Truss, Jefferson City, MO - 65101,

8.430 s Feb 12 2021 MiTek Industries, Inc. Fri Feb 26 15:36:06 2021 Page 1

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Scale = 1:17.2

LOADING (psf)	SPACING-	CSI.	DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof) 20.0	2-0-0	TC 0.51	Vert(LL)	-0.06	6	>897	360	MT20	244/190
Snow (Pf/Pg) 15.4/20.0	Plate Grip DOL 1.15	BC 0.05	Vert(CT)	-0.10	6	>555	240		
TCDL 10.0	Lumber DOL 1.15	WB 0.01	Horz(CT)	0.04	5	n/a	n/a		
BCLL 0.0	Rep Stress Incr YES	Matrix-P							
BCDL 10.0	Code IRC2018/TPI2014							Weight: 22 lb	FT = 3%

LUMBER-

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

BRACING-

TOP CHORD Structural wood sheathing directly applied or 4-7-15 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) 7=0-4-0, 4=Mechanical, 5=Mechanical
Max Horz 7=59(LC 8)
Max Uplift 7=-3(LC 7), 4=-40(LC 11)
Max Grav 7=292(LC 16), 4=191(LC 16), 5=19(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-7=-266/41

NOTES-

- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope); cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.33 plate grip DOL=1.33
- TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=15.4 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
- Unbalanced snow loads have been considered for this design.
- This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 15.4 psf on overhangs non-concurrent with other live loads.
- Plates checked for a plus or minus 3 degree rotation about its center.
- Refer to girder(s) for truss to truss connections.
- Bearing at joint(s) 7 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) 7, 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.



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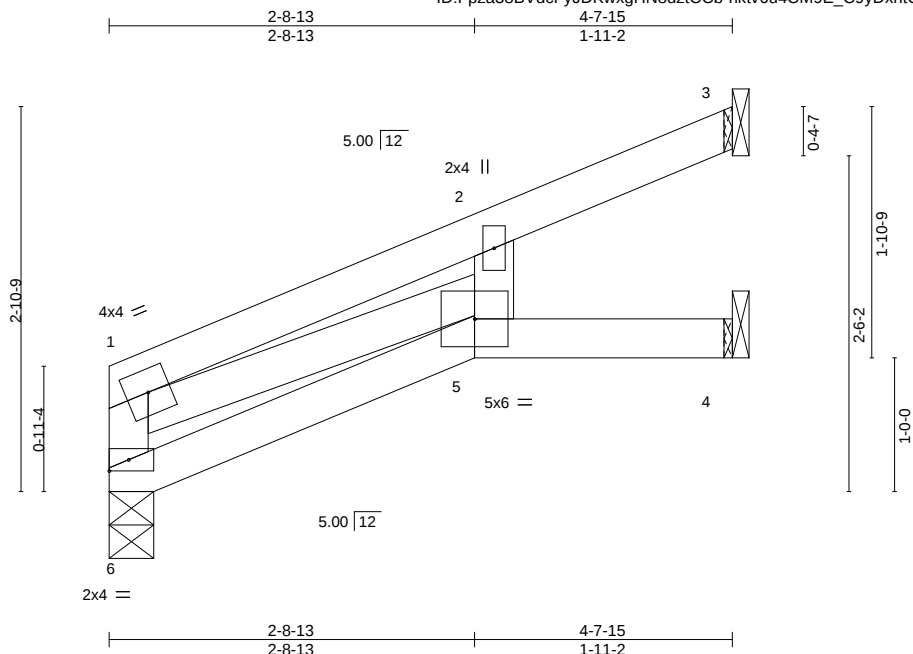
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	SUMMIT HOMES	144987126
W2-63	J7A	Jack-Open	1	1	Job Reference (optional)	

Mid America Truss, Jefferson City, MO - 65101,

8.430 s Feb 12 2021 MiTek Industries, Inc. Fri Feb 26 15:36:07 2021 Page 1

ID:Fpza38BVdcFyJDKwxgHN8dztCCb-hktv6u4CM9E_C9yDxhtC3bZ7YUuWaTuNZESOGSzhDks



Scale = 1:17.2

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 0.54	Vert(LL)	-0.06	5	>845	360	MT20	244/190
Snow (Pf/Pg) 15.4/20.0	Lumber DOL	1.15	BC 0.05	Vert(CT)	-0.10	5	>521	240		
TCDL 10.0	Rep Stress Incr	YES	WB 0.01	Horz(CT)	0.04	4	n/a	n/a		
BCLL 0.0	Code IRC2018/TPI2014		Matrix-P						Weight: 21 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 4-7-15 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) 6=0-4-0, 3=Mechanical, 4=Mechanical
Max Horz 6=53(LC 8)
Max Uplift 3=40(LC 11)
Max Grav 6=213(LC 15), 3=194(LC 15), 4=19(LC 1)

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

NOTES-

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



March 1, 2021

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



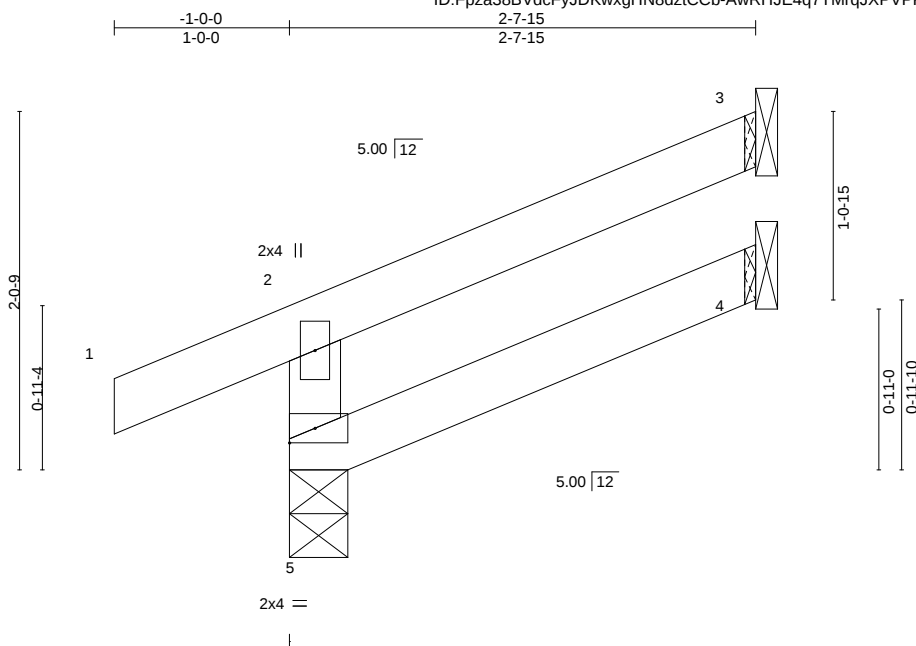
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	SUMMIT HOMES	144987127
W2-63	J8	Jack-Open	1	1	Job Reference (optional)	

Mid America Truss, Jefferson City, MO - 65101,

8.430 s Feb 12 2021 MiTek Industries, Inc. Fri Feb 26 15:36:08 2021 Page 1

ID:Fpza38BVdcFyJDKwxgHN8dztCCb-AwRHJE4q7TMrqJXPVPPRbo6OouqLJwMWouBxouzhDkr



Scale = 1:13.2

LOADING (psf)	SPACING-	CSI.	DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof) 20.0	2-0-0	TC 0.12	Vert(LL)	0.00	4-5	>999	360	MT20	244/190
Snow (Pf/Pg) 15.4/20.0	Plate Grip DOL 1.15	BC 0.04	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 2-7-15 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.

REACTIONS. (size) 5=0-4-0, 3=Mechanical, 4=Mechanical
Max Horz 5=43(LC 8)
Max Uplift 5=14(LC 7), 3=26(LC 11)
Max Grav 5=218(LC 16), 3=71(LC 16), 4=23(LC 16)

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

NOTES-

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



March 1, 2021

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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



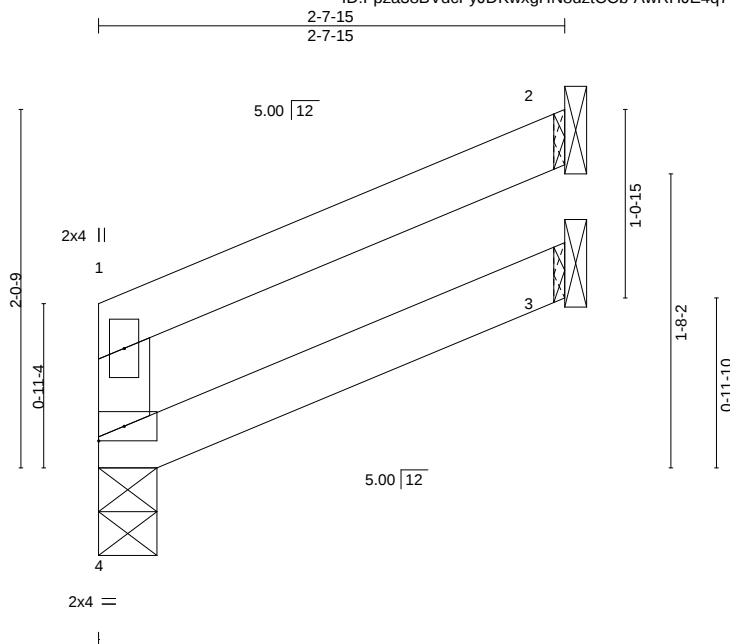
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	SUMMIT HOMES
W2-63	J8A	Jack-Open	1	1	144987128
Job Reference (optional)					

Mid America Truss, Jefferson City, MO - 65101,

8.430 s Feb 12 2021 MiTek Industries, Inc. Fri Feb 26 15:36:08 2021 Page 1

ID:Fpza38BVdcFyJDKwXgHN8dztCCb-AwRHJE4q7TMrqJXPVPPRbo6O?uq7JwMWouBxouzhDkr



Scale = 1:13.2

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	3-4	>999	360	MT20	244/190
Snow (Pf/Pg) 15.4/20.0	Plate Grip DOL 1.15	BC 0.05	Vert(CT) -0.00	3-4	>999	240		
TCDL 10.0	Lumber DOL 1.15	WB 0.00	Horz(CT) 0.01	2	n/a	n/a		
BCLL 0.0	Rep Stress Incr YES	Matrix-R						
BCDL 10.0	Code IRC2018/TPI2014						Weight: 10 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 2-7-15 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) 4=0-4-0, 2=Mechanical, 3=Mechanical
Max Horz 4=35(LC 8)
Max Uplift 2=27(LC 11)
Max Grav 4=109(LC 15), 2=80(LC 15), 3=30(LC 15)

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

NOTES-

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



March 1,2021

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



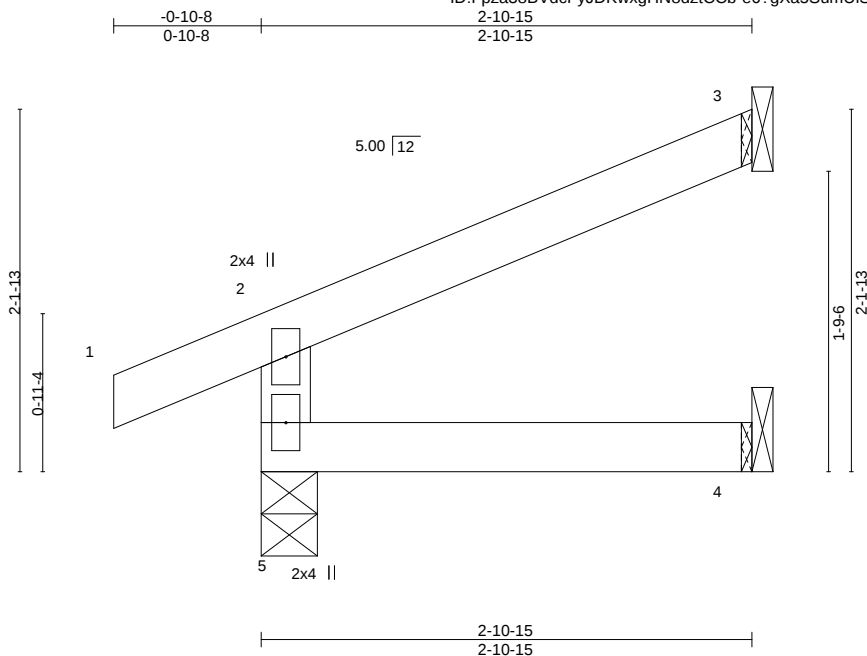
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	SUMMIT HOMES
W2-63	J9	Jack-Open	4	1	144987129

Mid America Truss, Jefferson City, MO - 65101,

8.430 s Feb 12 2021 MiTek Industries, Inc. Fri Feb 26 15:36:09 2021 Page 1

ID:Fpza38BVdcFyJDKwxgHN8dztCCb-e6?gXa5SumUiSS6c36wg80fZeHAP2Ncg1YxVLKzhDkq



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=0-4-0, 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 3 degree rotation about its center.
- 6) Refer to girder(s) for truss to truss connections.
- 7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 5, 3.
- 8) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



March 1, 2021

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

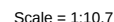
Safety Information available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



16023 Swingley Ridge Rd
Chesterfield, MO 63017

Mid America Truss, Jefferson City, MO 65101, Mike

8.430 s Jan 20 2021 MiTek Industries, Inc. Mon Mar 1 08:00:12 2021 Page 1
ID:F0za38BVdcFvIDKwxpHN8dztCCb-XmBhrNOS7VXs2sMrspT_pJfkSiRzllPvBeipnEzfl_sH



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

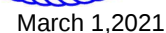
BRACING- TOP CHORD	Structural wood sheathing directly applied or 1-5-15 oc purlins, except end verticals.
BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) 5=0-3-8, 3=Mechanical, 4=Mechanical
 Max Horz 5=31(LC 8)
 Max Uplift 5=-18(LC 7), 3=-14(LC 11)
 Max Grav 5=156(LC 16), 3=24(LC 16), 4=12(LC 9)

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

NOTES-

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope); cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.33 plate grip DOL=1.33
- 2) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=15.4 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
- 3) Unbalanced snow loads have been considered for this design.
- 4) This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 15.4 psf on overhangs non-concurrent with other live loads.
- 5) Plates checked for a plus or minus 3 degree rotation about its center.
- 6) Bearings are assumed to be: Joint 5 SYP No.2 crushing capacity of 565 psi.
- 7) Refer to girder(s) for truss to truss connections.
- 8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 18 lb uplift at joint 5 and 14 lb uplift at joint 3.
- 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.



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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	144987131
W2-63	J13	Jack-Closed	1	1	Job Reference (optional)	

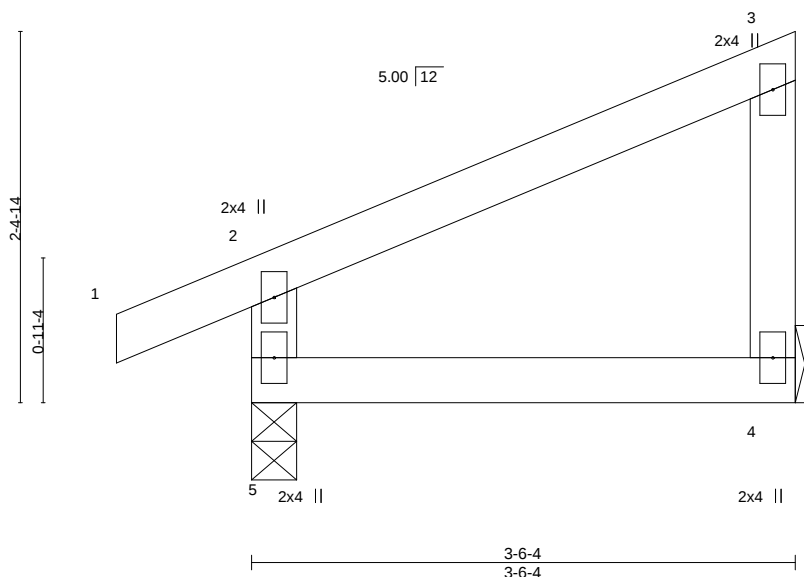
Mid America Truss, Jefferson City, MO - 65101,

8.430 s Feb 12 2021 MiTek Industries, Inc. Fri Feb 26 15:35:55 2021 Page 1

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

Scale = 1:14.9



LOADING (psf)	SPACING-	CSI.	DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof) 20.0	2-0-0	TC 0.14	Vert(LL)	0.00	5	>999	360	MT20	244/190
Snow (Pf/Pg) 15.4/20.0	Plate Grip DOL 1.15	BC 0.06	Vert(CT)	-0.00	4-5	>999	240		
TCDL 10.0	Lumber DOL 1.15	WB 0.00	Horz(CT)	-0.00	5	n/a	n/a		
BCLL 0.0	Rep Stress Incr YES	Matrix-R							
BCDL 10.0	Code IRC2018/TPI2014							Weight: 16 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 3-6-4 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 4=73(LC 8)
Max Uplift 5=20(LC 7), 4=17(LC 8)
Max Grav 5=242(LC 16), 4=141(LC 16)

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

NOTES-

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



March 1, 2021

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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	144987132
W2-63	J14	Jack-Closed	9	1	Job Reference (optional)	

Mid America Truss, Jefferson City, MO - 65101,

8.430 s Feb 12 2021 MiTek Industries, Inc. Fri Feb 26 15:35:55 2021 Page 1

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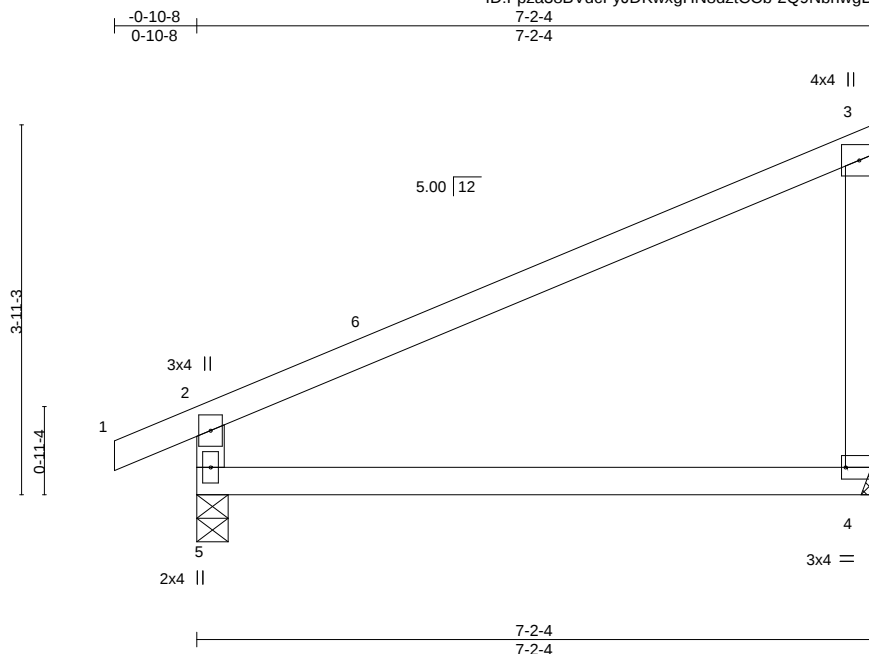


Plate Offsets (X,Y)--		[4:Edge,0-1-8]									
LOADING (psf)		SPACING-		CSI.		DEFL.				PLATES	
TCLL (roof)	20.0	2-0-0		TC	0.80	in (loc)	l/defl	L/d		MT20	GRIP
Snow (Pf/Pg)	15.4/20.0	Plate Grip DOL	1.15	BC	0.35	Vert(LL)	-0.03 4-5	>999	360		244/190
TCDL	10.0	Lumber DOL	1.15	WB	0.00	Vert(CT)	-0.12 4-5	>686	240		
BCLL	0.0	Rep Stress Incr	YES			Horz(CT)	0.00 4	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-R						Weight: 29 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) 5=0-4-0, 4=Mechanical
Max Horz 5=124(LC 10)
Max Uplift 5=-15(LC 11), 4=-26(LC 11)
Max Grav 5=349(LC 16), 4=325(LC 16)

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

TOP CHORD 2-5=-302/65

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



March 1, 2021

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

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



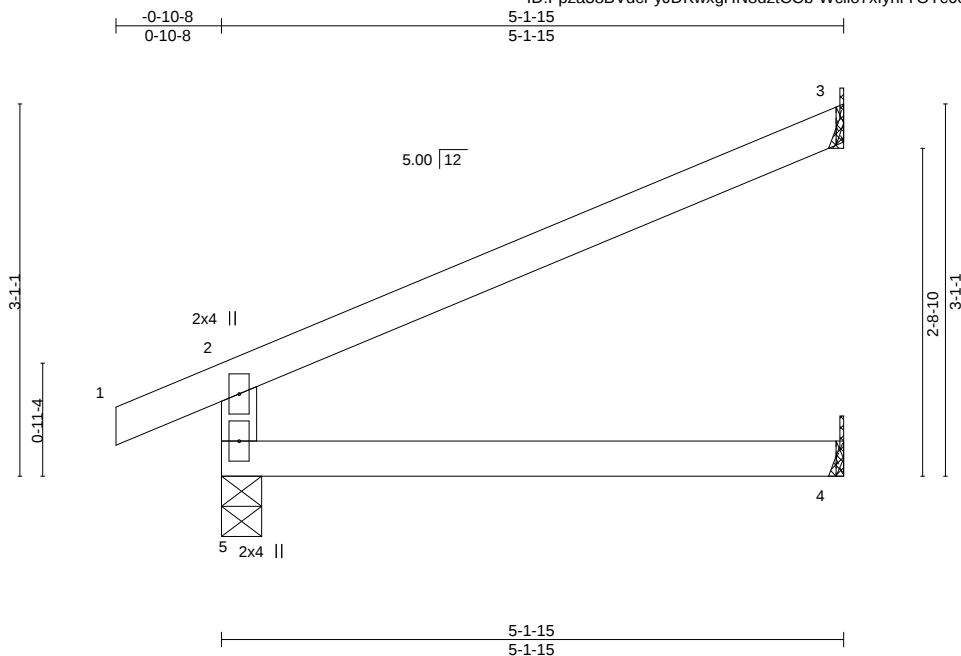
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	SUMMIT HOMES
W2-63	J15	Jack-Open	6	1	144987133
Job Reference (optional)					

Mid America Truss, Jefferson City, MO - 65101,

8.430 s Feb 12 2021 MiTek Industries, Inc. Fri Feb 26 15:35:56 2021 Page 1

ID:Fpza38BVdcFyJDKwxgHN8dztCCb-Wcilo7xlynrYOTc6otBd6GcFo2g?VVOI10HJOazhDI1



Scale = 1:19.1

LOADING (psf)	SPACING-	CSI.	DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof) 20.0	2-0-0	TC 0.50	Vert(LL)	-0.02	4-5	>999	360	MT20	244/190
Snow (Pf/Pg) 15.4/20.0	Plate Grip DOL 1.15	BC 0.27	Vert(CT)	-0.06	4-5	>994	240		
TCDL 10.0	Lumber DOL 1.15	WB 0.00	Horz(CT)	0.04	3	n/a	n/a		
BCLL 0.0	Rep Stress Incr YES	Matrix-R							
BCDL 10.0	Code IRC2018/TPI2014							Weight: 18 lb	FT = 3%

LUMBER-

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

BRACING-

TOP CHORD Structural wood sheathing directly applied or 5-1-15 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) 5=0-4-0, 3=Mechanical, 4=Mechanical
Max Horz 5=63(LC 11)
Max Uplift 5=2(LC 11), 3=48(LC 11)
Max Grav 5=298(LC 16), 3=172(LC 16), 4=63(LC 16)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-5=-262/44

NOTES-

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



March 1, 2021

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

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



16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	SUMMIT HOMES	144987134
W2-63	J16	Jack-Open	9	1		

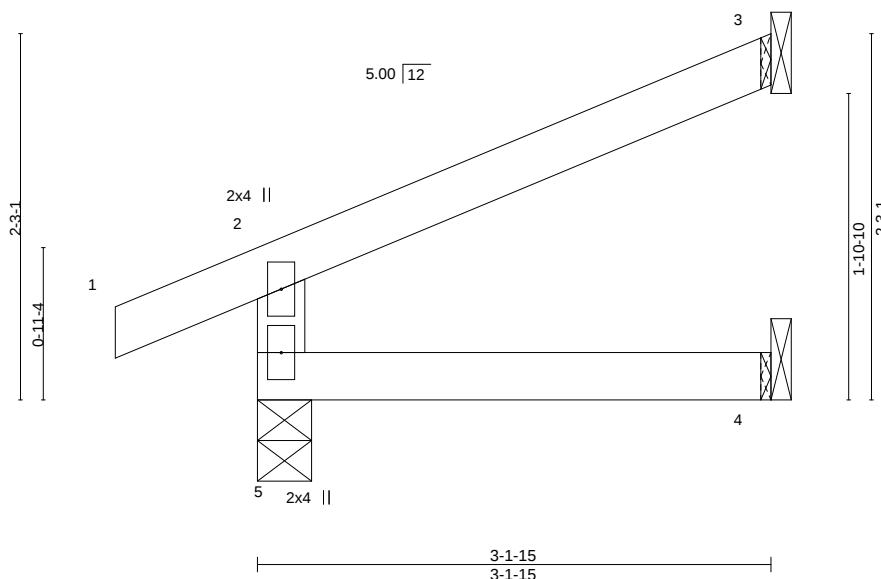
Mid America Truss, Jefferson City, MO - 65101,

8.430 s Feb 12 2021 MiTek Industries, Inc. Fri Feb 26 15:35:57 2021 Page 1

ID:Fpza38BVdcFyJDKwxgHN8dztCCb_pG7?Tyxj4zP?cBIMbisfU9VCS3OEyevGg1sx1zhDI0

-0-10-8 0-10-8 3-1-15 3-1-15

Scale = 1:14.2



LOADING (psf)		SPACING-		CSI.		DEFL.		PLATES		GRIP	
TCLL (roof)	20.0	2-0-0		TC	0.14	in (loc)	l/defl	L/d	MT20	244/190	
Snow (Pf/Pg)	15.4/20.0	Plate Grip DOL	1.15	BC	0.07	Vert(LL)	0.00 4-5 >999	360			
TCDL	10.0	Lumber DOL	1.15	WB	0.00	Vert(CT)	-0.01 4-5 >999	240			
BCLL	0.0	Rep Stress Incr	YES	Matrix-R		Horz(CT)	0.01 3 n/a	n/a			
BCDL	10.0	Code IRC2018/TPI2014									
								Weight: 12 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 3-1-15 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) 5=0-4-0, 3=Mechanical, 4=Mechanical
Max Horz 5=45(LC 8)
Max Uplift 5=-9(LC 7), 3=-30(LC 11)
Max Grav 5=228(LC 16), 3=94(LC 16), 4=32(LC 16)

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

NOTES-

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



March 1, 2021

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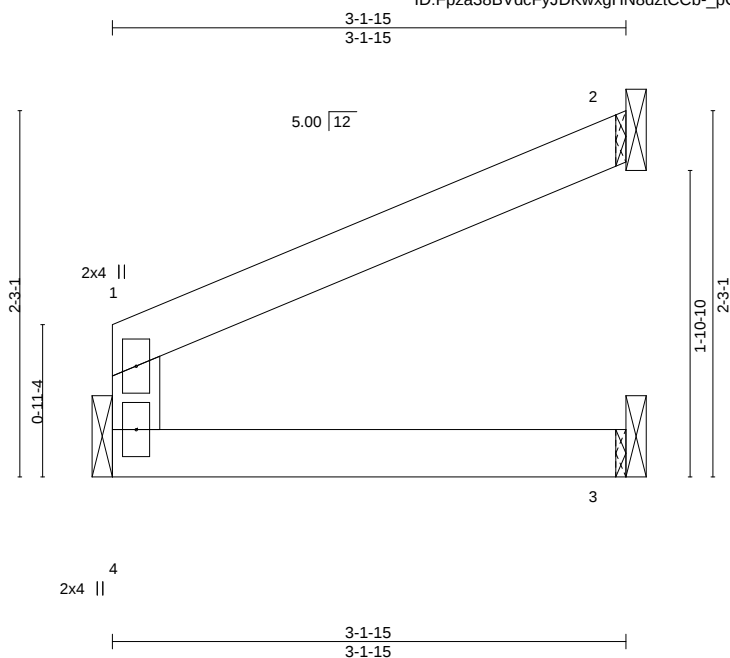
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	SUMMIT HOMES
W2-63	J16A	Jack-Open	3	1	144987135
Job Reference (optional)					

Mid America Truss, Jefferson City, MO - 65101,

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ID:Fpza38BVdcFyJDKwxgHN8dztCCb-_pG7?Tyxj4zP?cBIMbisfU9VwS34EyevGg1sx1zhDIO



Scale = 1:14.2

LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof) 20.0	2-0-0	TC 0.16	Vert(LL) -0.00	3-4	>999	360	MT20	244/190
Snow (Pf/Pg) 15.4/20.0	Plate Grip DOL 1.15	BC 0.09	Vert(CT) -0.01	3-4	>999	240		
TCDL 10.0	Lumber DOL 1.15	WB 0.00	Horz(CT) 0.01	2	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 3-1-15 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) 4=Mechanical, 2=Mechanical, 3=Mechanical
Max Horz 4=38(LC 8)
Max Uplift 2=31(LC 11)
Max Grav 4=134(LC 15), 2=97(LC 15), 3=37(LC 15)

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

NOTES-

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



March 1,2021

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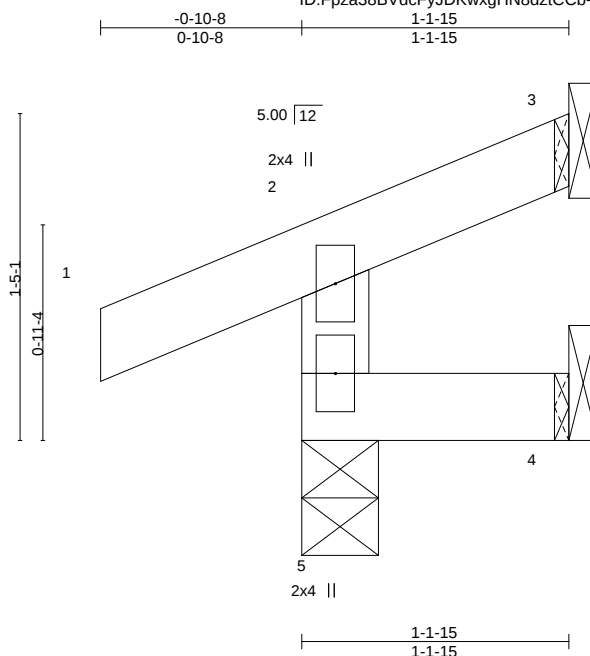
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ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component



16023 Swingley Ridge Rd
Chesterfield, MO 63017



Scale = 1:10.0

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	0.10	Vert(LL)	0.00	5	>999	360							MT20		244/190		
Snow (Pl/Pg)	15.4/20.0	Lumber DOL	1.15	BC	0.02	Vert(CT)	0.00	5	>999	240											
TCDL	10.0	Rep Stress Incr	YES	WB	0.00	Horz(CT)	-0.00	3	n/a	n/a											
BCLL	0.0	Code IRC2018/TPI2014		Matrix-R																	
BCDL	10.0																Weight: 6 lb		FT = 3%		

LUMBER-		BRACING-	
TOP CHORD	2x4 SP No.2	TOP CHORD	Structural wood sheathing directly applied or 1-1-15 oc purlins, except end verticals.
BOT CHORD	2x4 SP No.2		
WEBS	2x4 SP No.2	BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) 5=0-4-0, 3=Mechanical, 4=Mechanical
 Max Horz 5=28(LC 8)
 Max Uplift 5=-21(LC 7), 3=-21(LC 15), 4=-2(LC 8)
 Max Grav 5=148(LC 16), 3=7(LC 16), 4=9(LC 9)

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

NOTES-

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



March 1, 2021

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



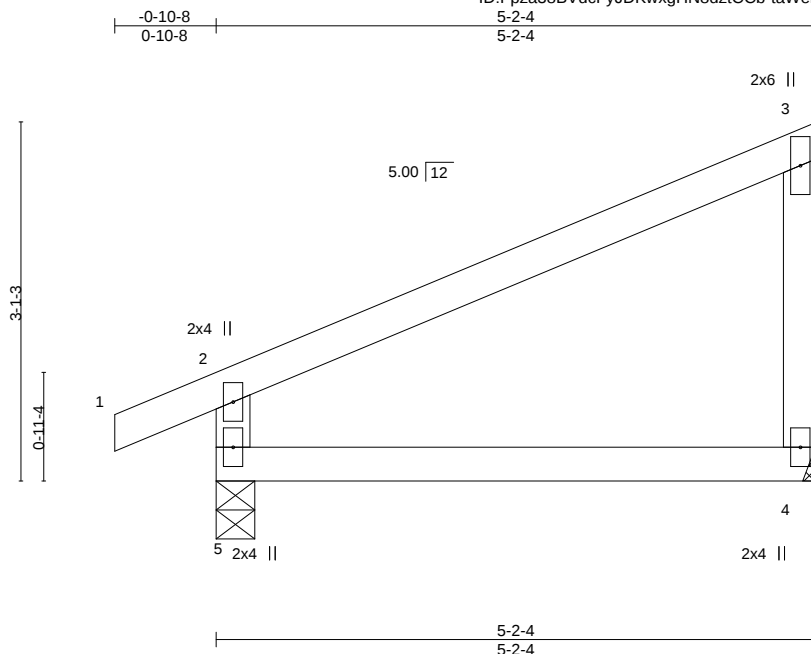
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	SUMMIT HOMES
W2-63	J20	Jack-Closed	2	1	144987138

Mid America Truss, Jefferson City, MO - 65101,

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ID:Fpza38BVdcFyJDKwxgHN8dztCCb-taWerr?RnJTrUEV3bRnopKJ7P3PoAldVBI?43ozhDky



Scale = 1:19.9

LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof) 20.0	2-0-0	TC 0.39	Vert(LL) -0.01	4-5	>999	360	MT20	244/190
Snow (Pf/Pg) 15.4/20.0	Plate Grip DOL 1.15	BC 0.16	Vert(CT) -0.03	4-5	>999	240		
TCDL 10.0	Lumber DOL 1.15	WB 0.00	Horz(CT) 0.00	4	n/a	n/a		
BCLL 0.0	Rep Stress Incr YES	Matrix-R						
BCDL 10.0	Code IRC2018/TPI2014						Weight: 22 lb	FT = 3%

LUMBER-

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

BRACING-

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

REACTIONS.

(size) 5=0-4-0, 4=Mechanical
Max Horz 5=96(LC 10)
Max Uplift 5=-15(LC 7), 4=-19(LC 11)
Max Grav 5=295(LC 16), 4=233(LC 16)

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

TOP CHORD 2-5=-261/49

NOTES-

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



March 1, 2021

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	SUMMIT HOMES	144987140
W2-63	T2	Roof Special	1	1	Job Reference (optional)	

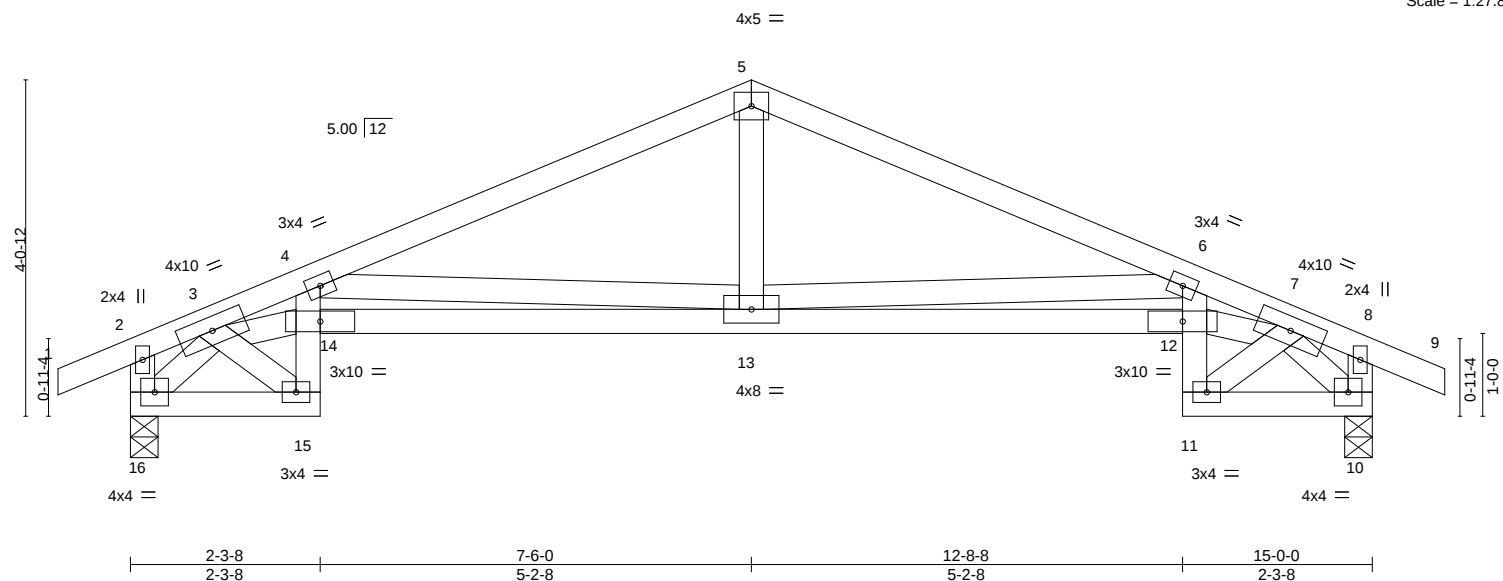
Mid America Truss, Jefferson City, MO - 65101,

8.430 s Feb 12 2021 MiTek Industries, Inc. Fri Feb 26 15:36:16 2021 Page 1

ID:Fpza38BVdcFyJDKwxgHN8dztCCb-xSwJ?zArFwMinX8yz4YKwURdT6QBBNgie87M4QzhDkj

0-10-8	1-1-12	2-3-8	7-6-0	12-8-8	13-10-4	15-0-0	15-10-8
0-10-8	1-1-12	1-1-12	5-2-8	5-2-8	1-1-12	1-1-12	0-10-8

Scale = 1:27.8



LOADING (psf)		SPACING-		CSI.		DEFL.		PLATES		GRIP	
TCLL (roof)	20.0	2-0-0		TC	0.65	in (loc)	l/defl	L/d	MT20	244/190	
Snow (Pf/Pg)	15.4/20.0	Plate Grip DOL	1.15	BC	0.62	Vert(LL)	-0.07 15	>999			
TCDL	10.0	Lumber DOL	1.15	WB	0.68	Vert(CT)	-0.15 13-14	>999			
BCLL	0.0	Rep Stress Incr	YES	Matrix-P		Horz(CT)	0.18 10	n/a			
BCDL	10.0	Code IRC2018/TPI2014									
								Weight: 83 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 4-0-13 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS.

(size) 16=0-4-0, 10=0-4-0
Max Horz 16=22(LC 10)
Max Uplift 16=-20(LC 11), 10=-20(LC 12)
Max Grav 16=650(LC 2), 10=650(LC 2)

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

TOP CHORD 3-4=-1889/115, 4-5=-932/0, 5-6=-932/0, 6-7=-1889/86
BOT CHORD 15-16=-11/375, 13-14=-141/2073, 12-13=-86/2073, 10-11=0/375
WEBS 3-15=-317/3, 3-14=-116/1639, 5-13=0/368, 4-13=-1353/204, 6-13=-1353/177, 7-11=-317/0, 7-12=-72/1639, 3-16=-586/0, 7-10=-586/0

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 3 degree rotation about its center.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 16, 10.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



March 1, 2021

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

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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



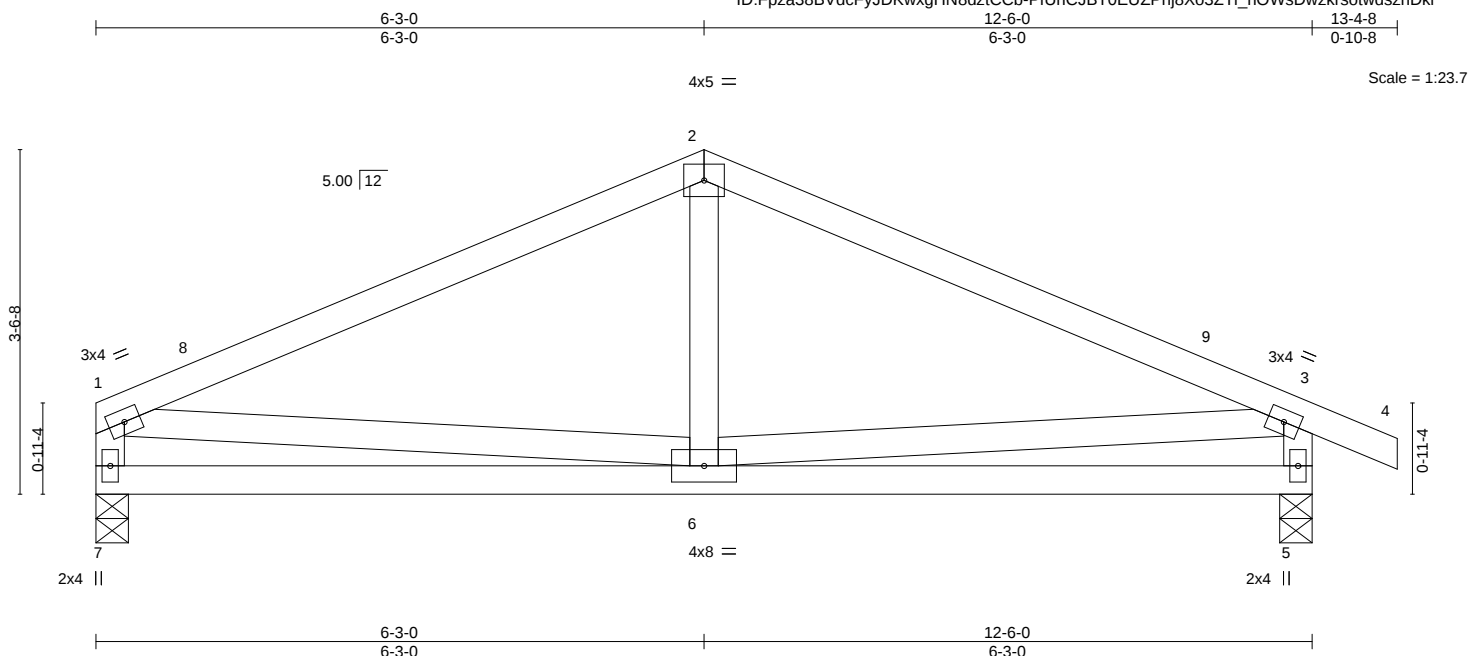
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	SUMMIT HOMES	144987141
W2-63	T3	Common	1	1	Job Reference (optional)	

Mid America Truss, Jefferson City, MO - 65101,

8.430 s Feb 12 2021 MiTek Industries, Inc. Fri Feb 26 15:36:17 2021 Page 1

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LOADING (psf)		SPACING-		CSI.		DEFL.				PLATES	GRIP
TCLL (roof)	20.0		2-0-0	TC	0.77	in	(loc)	l/defl	L/d	MT20	244/190
Snow (Pf/Pg)	15.4/20.0	Plate Grip DOL	1.15	BC	0.25	Vert(LL)	-0.01	6	>999		
TCDL	10.0	Lumber DOL	1.15	WB	0.12	Vert(CT)	-0.05	5-6	>999		
BCLL	0.0	Rep Stress Incr	YES	Matrix-P		Horz(CT)	0.00	5	n/a		
BCDL	10.0	Code IRC2018/TPI2014								Weight: 64 lb	FT = 3%

LUMBER-

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

BRACING-

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

REACTIONS.

(size) 7=0-4-0, 5=0-4-0
Max Horz 7=-29(LC 9)
Max Uplift 7=-7(LC 11), 5=-18(LC 12)
Max Grav 7=493(LC 16), 5=552(LC 2)

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

TOP CHORD 1-2=-579/2, 2-3=-581/0, 1-7=-446/35, 3-5=-505/45
WEBS 1-6=0/485, 3-6=0/485

NOTES-

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



March 1, 2021

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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	144987142
W2-63	T4	Roof Special	1	1	Job Reference (optional)	

Mid America Truss, Jefferson City, MO - 65101,

8.430 s Feb 12 2021 MiTek Industries, Inc. Fri Feb 26 15:36:19 2021 Page 1

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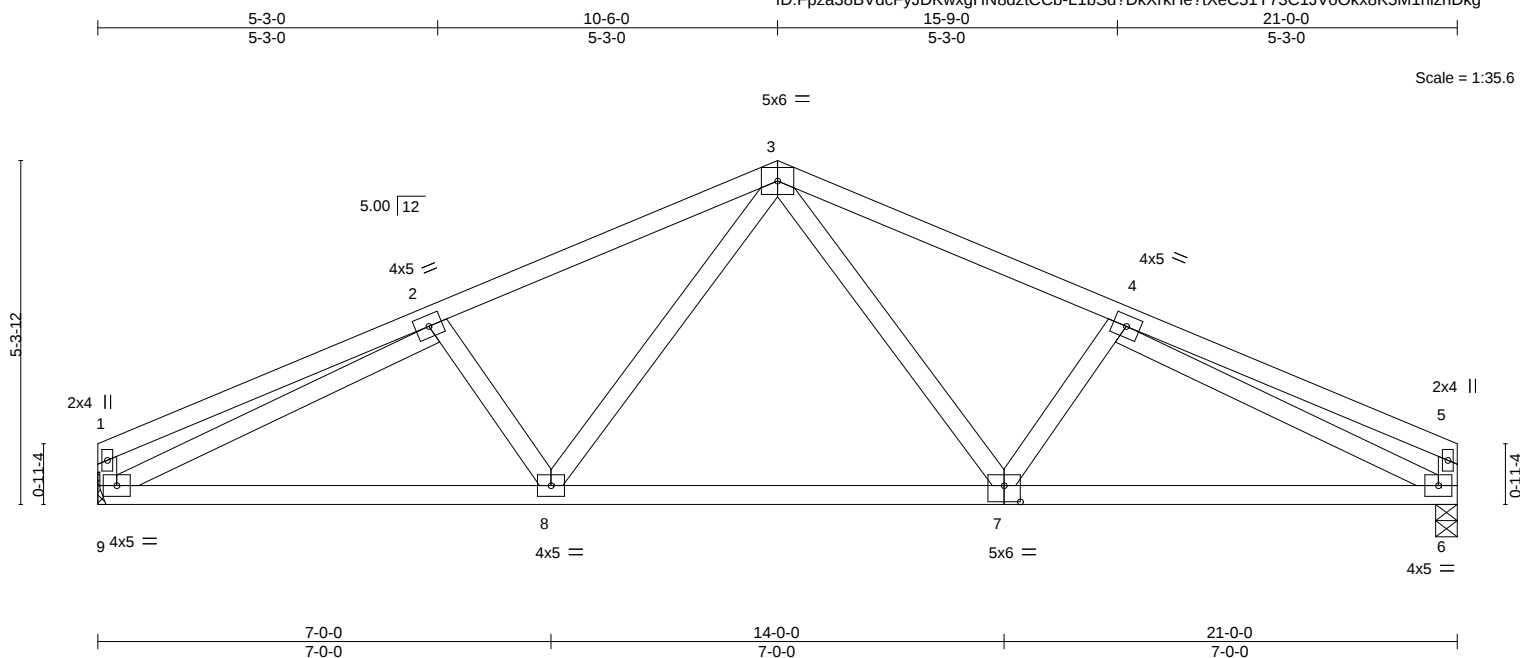


Plate Offsets (X,Y)-- [7:0-3-0,0-3-0]

LOADING (psf)	SPACING-	CSI.	DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof) 20.0	2-0-0	TC 0.44	Vert(LL)	-0.05	7-8	>999	360	MT20	244/190
Snow (Pf/Pg) 15.4/20.0	Plate Grip DOL 1.15	BC 0.43	Vert(CT)	-0.11	7-8	>999	240		
TCDL 10.0	Lumber DOL 1.15	WB 0.65	Horz(CT)	0.04	6	n/a	n/a		
BCLL 0.0	Rep Stress Incr YES	Matrix-SH							
BCDL 10.0	Code IRC2018/TPI2014								
								Weight: 110 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 4-7-10 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS.

(size) 9=Mechanical, 6=0-4-0
Max Horz 9=29(LC 11)
Max Uplift 9=-13(LC 11), 6=-13(LC 12)
Max Grav 9=828(LC 2), 6=828(LC 2)

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

TOP CHORD 1-2=-259/30, 2-3=-1228/50, 3-4=-1228/50, 4-5=-259/30
BOT CHORD 8-9=-40/1176, 7-8=0/863, 6-7=-11/1176
WEBS 3-7=-13/404, 3-8=-13/404, 2-9=-1126/17, 4-6=-1126/17

NOTES-

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



March 1, 2021

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

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



16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	SUMMIT HOMES	144987143
W2-63	T5	Roof Special	4	1	Job Reference (optional)	

Mid America Truss, Jefferson City, MO - 65101,

8.430 s Feb 12 2021 MiTek Industries, Inc. Fri Feb 26 15:36:20 2021 Page 1

ID:Fpza38BVdcFyJDKwxgHN8dztCCb-pE9qqKEMI9s8G9SjCwcG5KcHTjhV7CwIZI5aEBzhDkf

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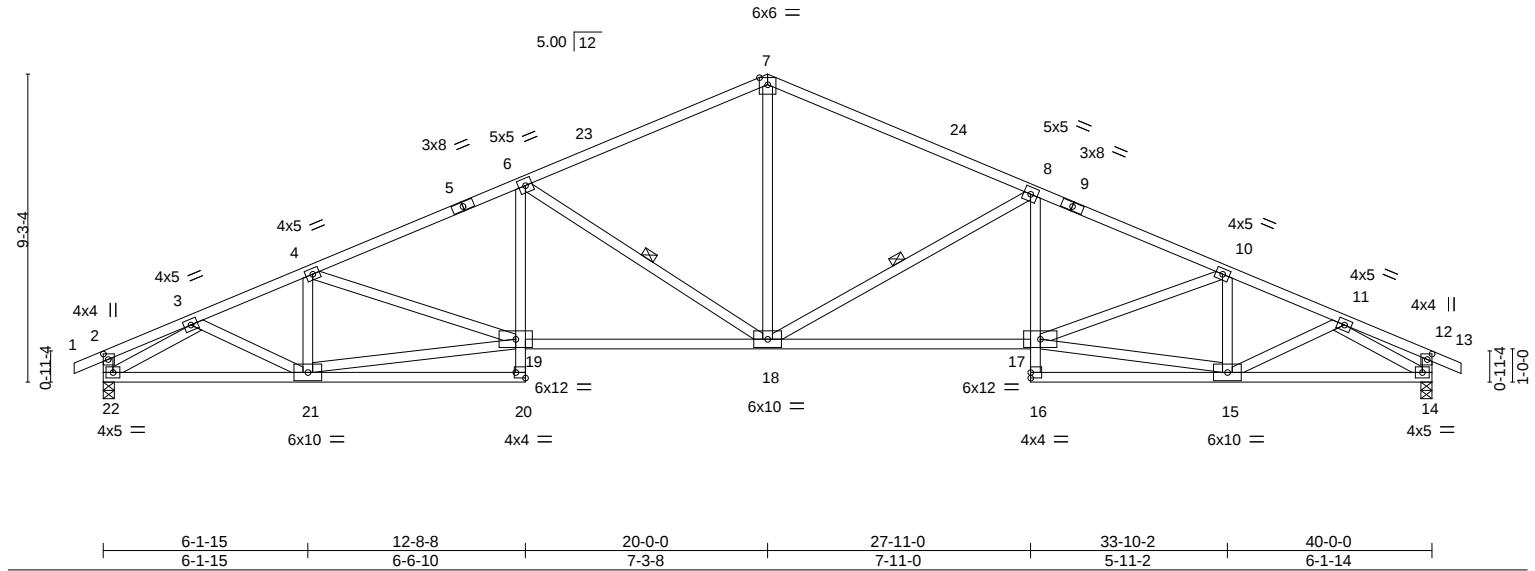


Plate Offsets (X,Y)-- [2:0-2-0,0-1-12], [12:0-2-0,0-1-12], [20:Edge,0-2-0]		LOADING (psf)		SPACING-		CSI.		DEFL.		PLATES		GRIP	
TCLL (roof) 20.0		Plate Grip DOL 1.15		TC 0.78		Vert(LL) -0.21 18-19 >999 360		MT20		244/190			
Snow (Pf/Pg) 15.4/20.0		Lumber DOL 1.15		BC 0.98		Vert(CT) -0.50 17-18 >951 240							
TCDL 10.0		Rep Stress Incr YES		WB 0.60		Horz(CT) 0.21 14 n/a n/a							
BCLL 0.0		Code IRC2018/TPI2014		Matrix-SH									
BCDL 10.0													

LUMBER-		BRACING-	
TOP CHORD 2x4 SP No.2 *Except*		TOP CHORD Structural wood sheathing directly applied or 2-2-0 oc purlins, except end verticals.	
5-7: 2x4 SP No.1, 7-9: 2x4 SP 2400F 2.0E		BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing, Except:	
BOT CHORD 2x4 SP No.2		2-2-0 oc bracing: 18-19,17-18.	
WEBS 2x4 SP No.2		WEBS 1 Row at midpt 6-18, 8-18	

REACTIONS.	
(size) 22=0-4-0, 14=0-4-0	
Max Horz 22=-75(LC 12)	
Max Uplift 22=-36(LC 11), 14=-36(LC 12)	
Max Grav 22=1650(LC 2), 14=1650(LC 2)	

FORCES.	
(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.	
TOP CHORD 2-3=-254/12, 3-4=-2810/51, 4-6=-3121/72, 6-7=-2275/54, 7-8=-2283/63, 8-10=-3196/56, 10-11=-2799/49, 2-22=-271/34, 12-14=-264/30	
BOT CHORD 21-22=-107/2084, 6-19=0/430, 18-19=-20/2847, 17-18=0/2936, 8-17=0/432, 14-15=-35/2090	
WEBS 3-21=0/553, 4-21=-507/73, 19-21=-56/2450, 4-19=0/260, 6-18=-995/135, 7-18=0/1249, 8-18=-1061/134, 15-17=0/2454, 10-17=0/357, 10-15=-547/51, 11-15=0/529, 3-22=-2310/55, 11-14=-2320/65	

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



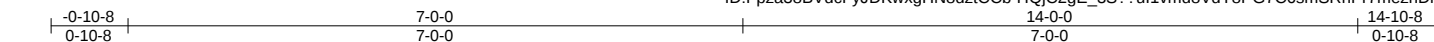
March 1,2021

Job	Truss	Truss Type	Qty	Ply	SUMMIT HOMES	144987144
W2-63	T6	Common	2	1	Job Reference (optional)	

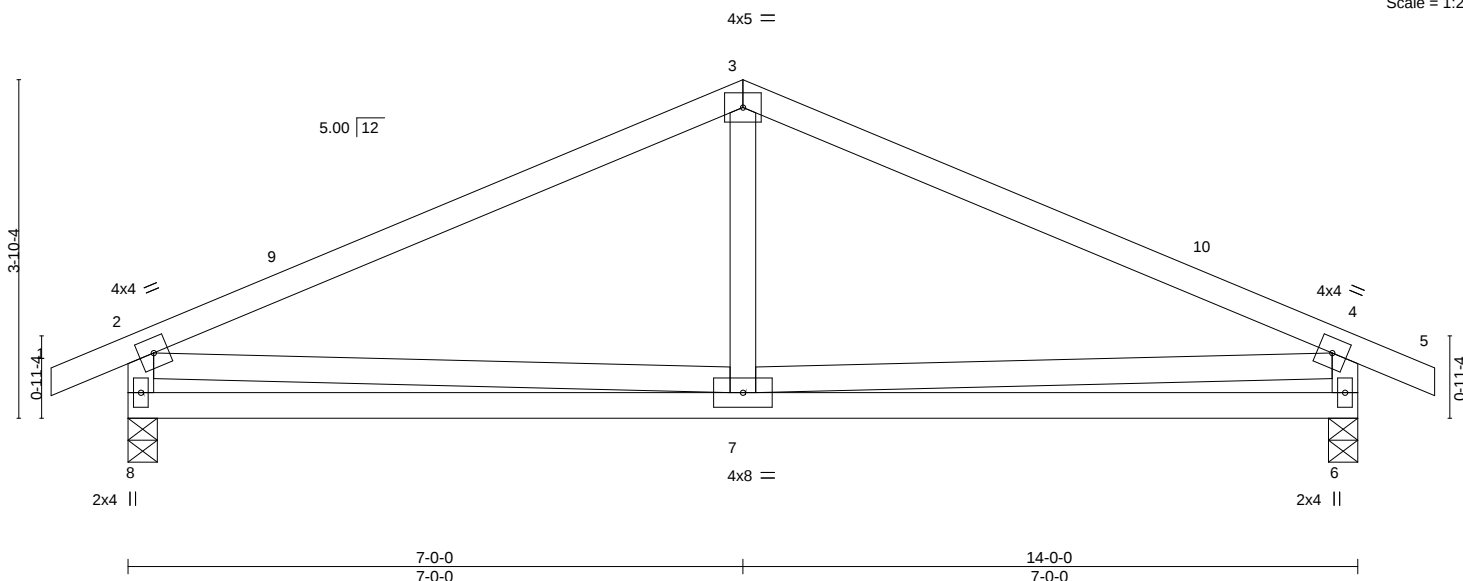
Mid America Truss, Jefferson City, MO - 65101,

8.430 s Feb 12 2021 MiTek Industries, Inc. Fri Feb 26 15:36:21 2021 Page 1

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Scale = 1:26.2



LOADING (psf)		SPACING-		CSI.		DEFL.		PLATES		GRIP	
TCLL (roof)	20.0	2-0-0		TC	0.97	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)	-0.01 7	>999 360			
TCDL	10.0	Lumber DOL	1.15	WB	0.14	Vert(CT)	-0.07 6-7	>999 240			
BCLL	0.0	Rep Stress Incr	YES	Matrix-P		Horz(CT)	-0.00 6	n/a n/a			
BCDL	10.0	Code IRC2018/TPI2014									
								Weight: 72 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, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS.

(size) 8=0-4-0, 6=0-4-0
Max Horz 8=22(LC 10)
Max Uplift 8=-19(LC 11), 6=-19(LC 12)
Max Grav 8=610(LC 2), 6=610(LC 2)

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

TOP CHORD 2-3=-662/1, 3-4=-662/0, 2-8=-557/50, 4-6=-557/50
WEBS 2-7=0/554, 4-7=0/554

NOTES-

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



March 1, 2021

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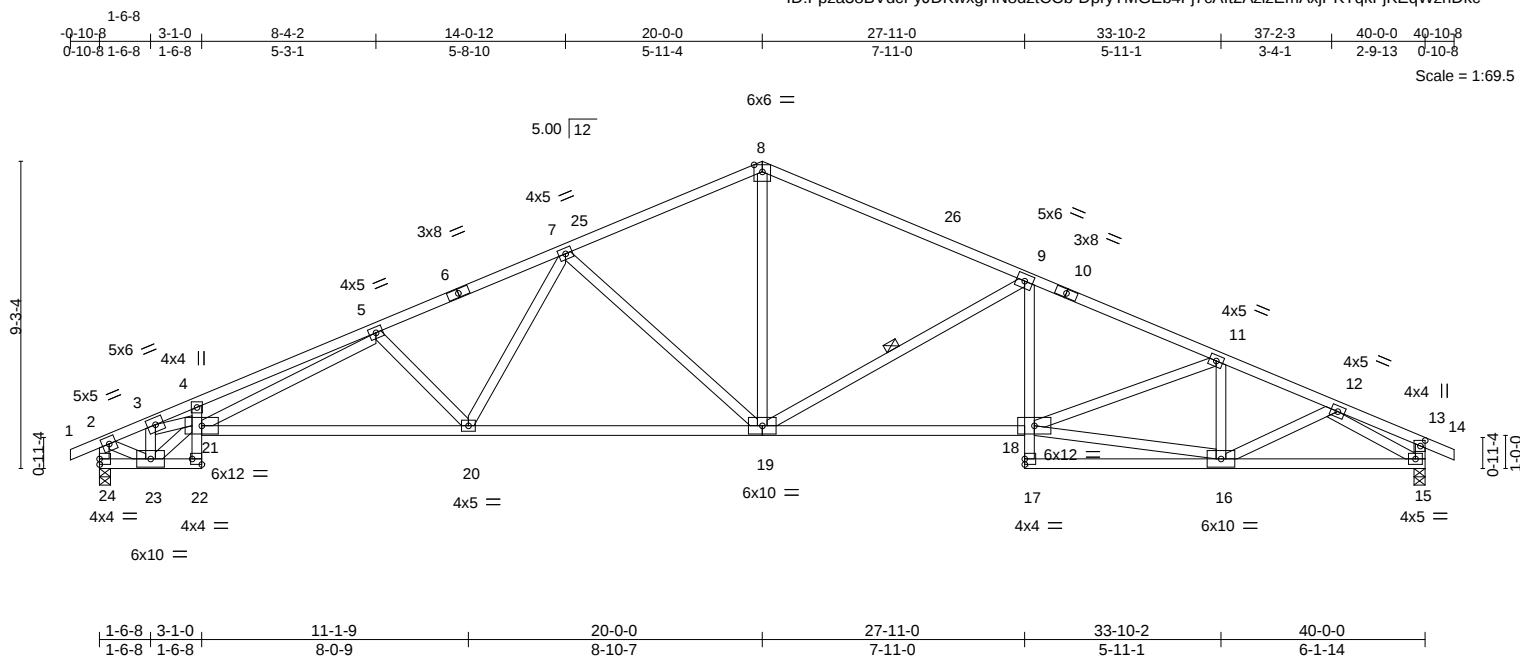
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	SUMMIT HOMES	144987145
W2-63	T8	ROOF SPECIAL	2	1	Job Reference (optional)	

Mid America Truss, Jefferson City, MO - 65101,

8.430 s Feb 12 2021 MiTek Industries, Inc. Fri Feb 26 15:36:23 2021 Page 1

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LOADING (psf)	SPACING-	CSI.	DEFL.	PLATES	GRIP
TCLL (roof) 20.0	2-0-0	TC 0.94	in (loc) l/defl L/d	MT20	244/190
Snow (Pl/Pg) 15.4/20.0	Plate Grip DOL 1.15	BC 0.97	Vert(LL) -0.26 20-21 >999 360		
TCDL 10.0	Lumber DOL 1.15	WB 0.98	Vert(CT) -0.60 20-21 >799 240		
BCLL 0.0	Rep Stress Incr YES	Matrix-SH	Horz(CT) 0.32 15 n/a n/a		
BCDL 10.0	Code IRC2018/TPI2014			Weight: 237 lb	FT = 3%

LUMBER-

TOP CHORD 2x4 SP No.2 *Except*
8-10: 2x4 SP 2400F 2.0E
BOT CHORD 2x4 SP No.2 *Except*
19-21: 2x4 SP No.1
WEBS 2x4 SP No.2

BRACING-

TOP CHORD Structural wood sheathing directly applied, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing, Except:
2-2-0 oc bracing: 18-19.
WEBS 1 Row at midpt 9-19

REACTIONS.

(size) 24=0-4-0, 15=0-4-0
Max Horz 24=-75(LC 12)
Max Uplift 24=-36(LC 11), 15=-36(LC 12)
Max Grav 24=1650(LC 2), 15=1650(LC 2)

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

TOP CHORD 2-3=-1774/29, 3-4=-4716/141, 4-5=-5054/206, 5-7=-3279/72, 7-8=-2247/55,
8-9=-2280/62, 9-11=-3197/56, 11-12=-2799/49, 2-24=-1572/42, 13-15=-263/30
BOT CHORD 22-23=-32/311, 20-21=-85/3357, 19-20=0/2630, 18-19=0/2938, 9-18=0/433,
15-16=-35/2090
WEBS 3-23=-1769/67, 21-23=-65/1585, 3-21=-96/2764, 5-21=-116/1478, 5-20=-583/134,
7-20=0/707, 7-19=-849/129, 8-19=0/1281, 9-19=-1069/135, 16-18=0/2455, 11-18=0/359,
11-16=-547/51, 12-16=0/528, 2-23=-12/1657, 12-15=-2321/65

NOTES-

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



March 1, 2021

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	SUMMIT HOMES	144987146
W2-63	T9	Roof Special	1	1	Job Reference (optional)	

Mid America Truss, Jefferson City, MO - 65101,

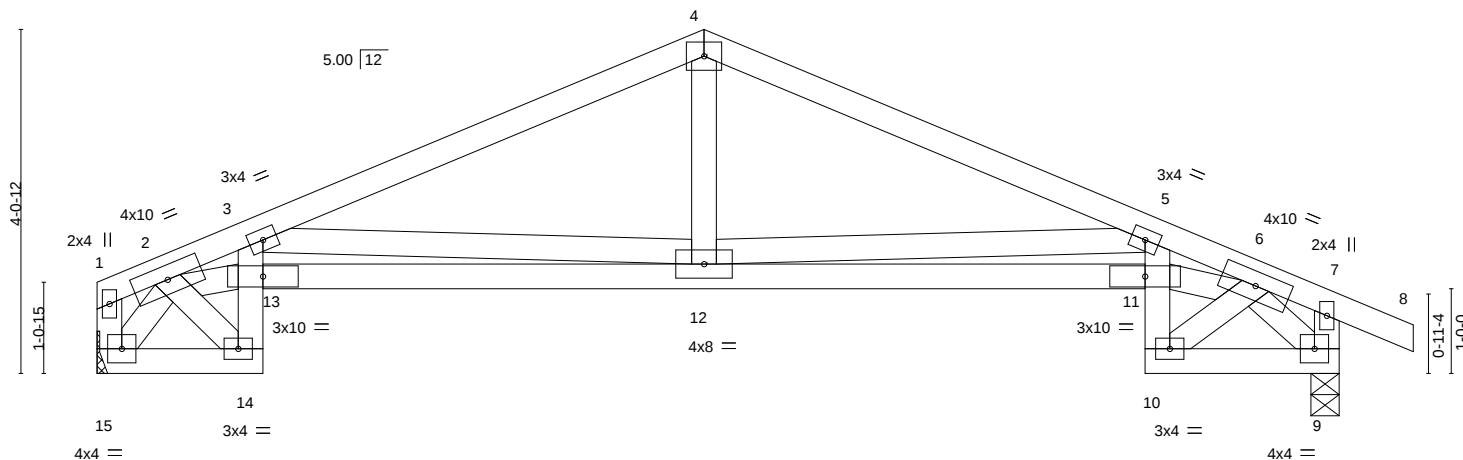
8.430 s Feb 12 2021 MiTek Industries, Inc. Fri Feb 26 15:36:24 2021 Page 1

ID:Fpza38BVdcFyJDKwxgHN8dzCCb-i?PKgiHsMNNalmlURmhCFam_WK9A3?jtTN3oNyzhDkb

0-11-12	1-11-8	7-2-0	12-4-8	13-6-4	14-8-0	15-6-8
0-11-12	0-11-12	5-2-8	5-2-8	1-1-12	1-1-12	0-10-8

4x5 =

Scale = 1:27.2



LOADING (psf)		SPACING-		CSI.		DEFL.		PLATES		GRIP	
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.65	Vert(LL)	-0.07 10 >999 360	MT20	244/190		
Snow (Pf/Pg)	15.4/20.0	Lumber DOL	1.15	BC	0.61	Vert(CT)	-0.14 11-12 >999 240				
TCDL	10.0	Rep Stress Incr	YES	WB	0.68	Horz(CT)	0.16 9 n/a n/a				
BCLL	0.0	Code IRC2018/TPI2014		Matrix-P							
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 4-1-3 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS.

(size) 15=Mechanical, 9=0-4-0
Max Horz 15=-33(LC 9)
Max Uplift 15=-8(LC 11), 9=-20(LC 12)
Max Grav 15=573(LC 2), 9=638(LC 2)

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

TOP CHORD 2-3=-1680/108, 3-4=-901/0, 4-5=-900/0, 5-6=-1859/86
BOT CHORD 14-15=-5/287, 12-13=-134/1841, 11-12=-87/2042, 9-10=0/366
WEBS 2-14=-262/0, 2-13=-115/1505, 3-12=-1150/198, 4-12=0/347, 5-12=-1346/177, 6-11=-73/1614, 6-10=-309/0, 2-15=-542/0, 6-9=-572/0

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 3 degree rotation about its center.
- Refer to girder(s) for truss to truss connections.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 15, 9.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



March 1, 2021

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

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



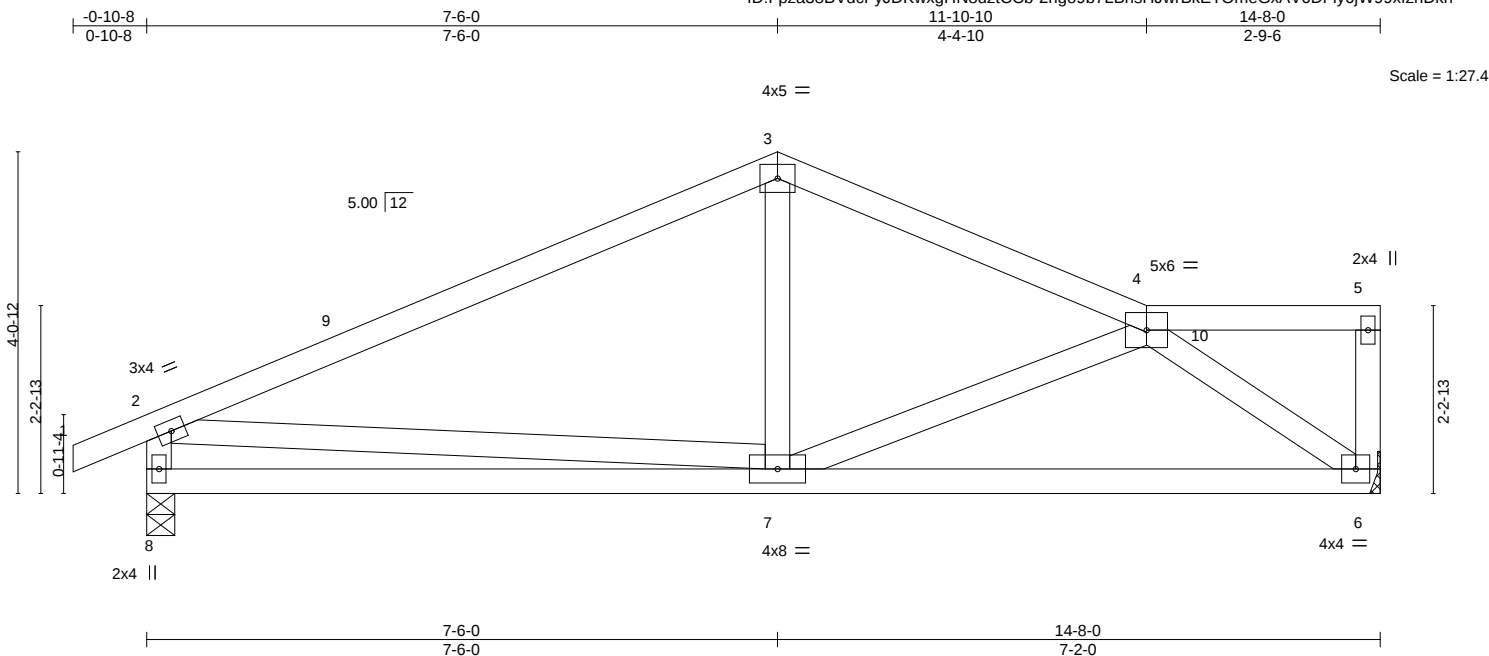
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	SUMMIT HOMES	144987147
W2-63	T10	Roof Special	1	1	Job Reference (optional)	

Mid America Truss, Jefferson City, MO - 65101,

8.430 s Feb 12 2021 MiTek Industries, Inc. Fri Feb 26 15:36:12 2021 Page 1

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LOADING (psf)		SPACING-		CSI.		DEFL.		PLATES		GRIP	
TCLL (roof)	20.0	2-0-0		TC	0.67	in (loc)	l/defl	L/d	MT20	244/190	
Snow (Pf/Pg)	20.4/20.0	Plate Grip DOL	1.15	BC	0.43	Vert(LL)	-0.01 7 >999	360			
TCDL	10.0	Lumber DOL	1.15	WB	0.15	Vert(CT)	-0.09 7-8 >999	240			
BCLL	0.0	Rep Stress Incr	YES	Matrix-P		Horz(CT)	0.01 6 n/a	n/a			
BCDL	10.0	Code IRC2018/TPI2014									
								Weight: 77 lb		FT = 3%	

LUMBER-

TOP CHORD 2x4 SP No.2 *Except*
1-3: 2x4 SP 2400F 2.0E
BOT CHORD 2x4 SP No.2
WEBS 2x4 SP No.2

BRACING-

TOP CHORD Structural wood sheathing directly applied or 5-8-12 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS.

(size) 6=Mechanical, 8=0-4-0
Max Horz 8=70(LC 10)
Max Uplift 6=-12(LC 12), 8=-20(LC 11)
Max Grav 6=573(LC 2), 8=638(LC 2)

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

TOP CHORD 2-3=-696/0, 3-4=-666/8, 2-8=-582/53
BOT CHORD 6-7=-36/600
WEBS 4-6=-744/36, 2-7=0/581

NOTES-

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope); cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.33 plate grip DOL=1.33
- TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=20.4 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10, Lu=50-0-0; Min. flat roof snow load governs. Rain surcharge applied to all exposed surfaces with slopes less than 0.500/12 in accordance with IBC 1608.3.4.
- Unbalanced snow loads have been considered for this design.
- This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 15.4 psf on overhangs non-concurrent with other live loads.
- Provide adequate drainage to prevent water ponding.
- Plates checked for a plus or minus 3 degree rotation about its center.
- Refer to girder(s) for truss to truss connections.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 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.



March 1, 2021

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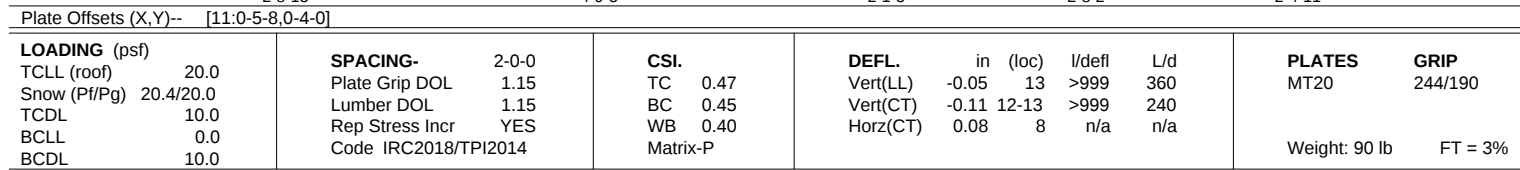
ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component

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



16023 Swingley Ridge Rd
Chesterfield, MO 63017

Mid America Truss, Jefferson City, MO - 65101, 8.430 s Feb 12 2021 MiTek Industries, Inc. Fri Feb 26 15:36:13 2021 Page 1
ID:Fpza38BVdcFyJDKwxgHN8dztCCb-WuEAMx8zy?_8w4QNlY_dlsip9_vQ3_5LGyAviU5zhDkm
-0-10-8 2-8-13 7-6-0 9-10-10 12-3-5 14-8-0
0-10-8 2-8-13 4-9-3 2-4-10 2-4-11 2-4-11
Scale = 1:27.5



REACTIONS. (size) 14=0-4-0, 8=Mechanical
 Max Horz 14=99(LC 8)
 Max Uplift 14=-19(LC 11), 8=-17(LC 12)
 Max Grav 14=638(LC 2), 8=573(LC 2)

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

TOP CHORD	2-14=-613/49, 2-3=-1776/87, 3-4=-878/7, 4-5=-842/15, 5-6=-1152/18
BOT CHORD	12-13=-131/1576, 11-12=-52/1167, 8-9=-27/408
WEBS	2-13=-56/1632, 3-13=-4/260, 3-12=-902/136, 4-12=0/430, 5-12=-550/38, 9-11=-29/418, 6-11=-26/874, 6-8=-649/17

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCdL=6.0psf; BCdL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope); cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.33 plate grip DOL=1.33
- 3) TcLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=20.4 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat.; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10, Lu=50-0-0; Min. flat roof snow load governs. Rain surcharge applied to all exposed surfaces with slopes less than 0.500/12 in accordance with IBC 1608.3.4.
- 4) Unbalanced snow loads have been considered for this design.
- 5) This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 15.4 psf on overhangs non-concurrent with other live loads.
- 6) Provide adequate drainage to prevent water ponding.
- 7) Plates checked for a plus or minus 3 degree rotation about its center.
- 8) Refer to girder(s) for truss to truss connections.
- 9) Bearing at joint(s) 14 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- 10) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 14, 48.
- 11) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



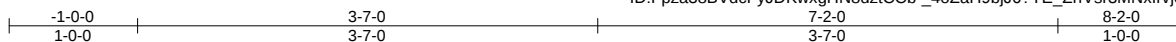
March 1, 2021

Job	Truss	Truss Type	Qty	Ply	SUMMIT HOMES	I44987149
W2-63	T14	KINGPOST	4	1	Job Reference (optional)	

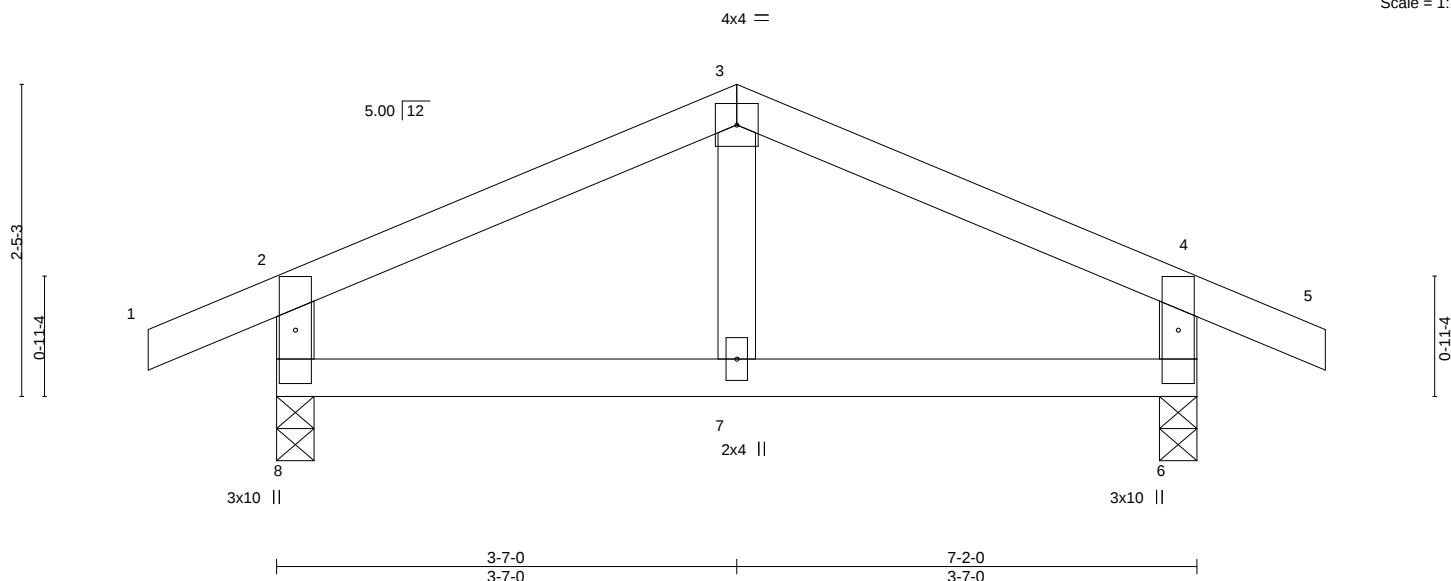
Mid America Truss, Jefferson City, MO - 65101,

8.430 s Feb 12 2021 MiTek Industries, Inc. Fri Feb 26 15:36:14 2021 Page 1

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Scale = 1:17.9



LOADING (psf)		SPACING-		CSI.		DEFL.		PLATES		GRIP	
TCLL (roof)	20.0	2-0-0		TC	0.27	in (loc)	l/defl	L/d	MT20	244/190	
Snow (Pf/Pg)	15.4/20.0	Plate Grip DOL	1.15	BC	0.16	Vert(LL)	-0.01 7 >999	360			
TCDL	10.0	Lumber DOL	1.15	WB	0.02	Vert(CT)	-0.02 7 >999	240			
BCLL	0.0	Rep Stress Incr	YES	Matrix-R		Horz(CT)	0.00 6 n/a	n/a			
BCDL	10.0	Code IRC2018/TPI2014							Weight: 30 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) 8=0-3-8, 6=0-3-8
Max Horz 8=-22(LC 9)
Max Uplift 8=-17(LC 7), 6=-17(LC 8)
Max Grav 8=381(LC 16), 6=381(LC 17)

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

TOP CHORD 2-3=-264/18, 3-4=-264/18, 2-8=-329/40, 4-6=-329/40

NOTES-

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



March 1, 2021

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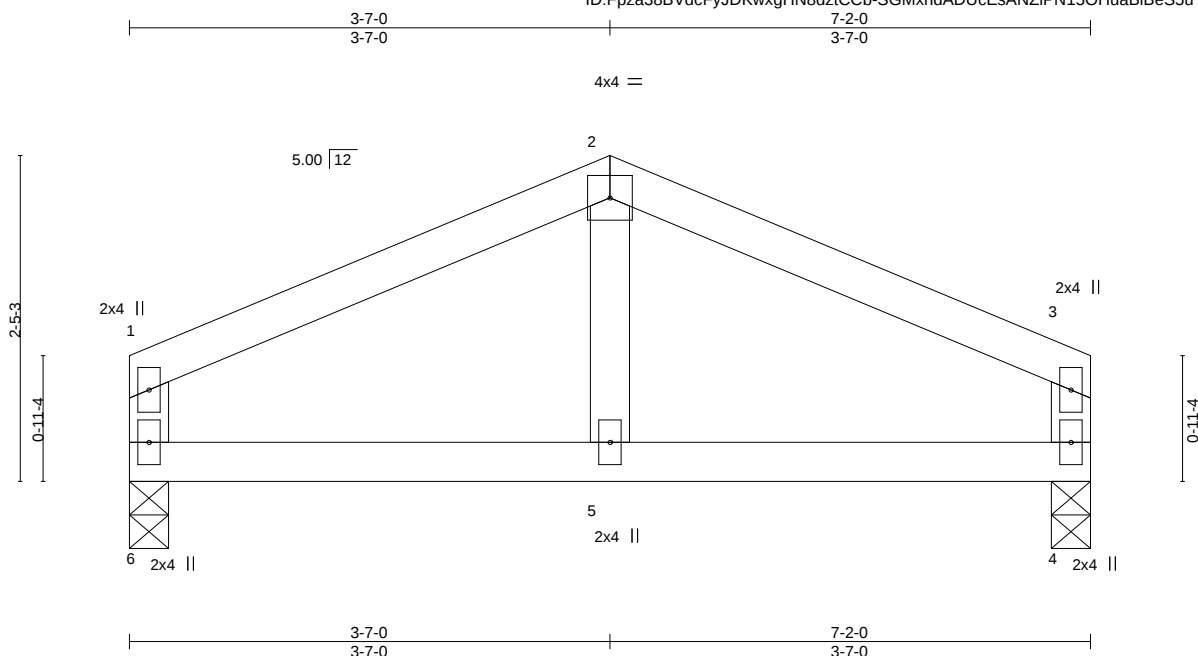
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	SUMMIT HOMES	144987150
W2-63	T14A	KINGPOST	1	1	Job Reference (optional)	

Mid America Truss, Jefferson City, MO - 65101,

8.430 s Feb 12 2021 MiTek Industries, Inc. Fri Feb 26 15:36:15 2021 Page 1

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Scale = 1:17.2

Plate Offsets (X,Y)-- [3:0-0-0,0-0-0]									
LOADING (psf)		SPACING-		CSI.		DEFL.		PLATES	
TCLL (roof)	20.0	Plate Grip DOL	2-0-0	TC	0.17	in (loc)	l/defl	MT20	GRIP
Snow (Pl/Pg)	15.4/20.0	Lumber DOL	1.15	BC	0.19	Vert(LL)	>999		244/190
TCDL	10.0	Rep Stress Incr	YES	WB	0.01	Vert(CT)	>999		
BCLL	0.0	Code IRC2018/TPI2014		Matrix-R		Horz(CT)	n/a		
BCDL	10.0							Weight: 27 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=22(LC 7)
Max Uplift 6=4(LC 11), 4=4(LC 12)
Max Grav 6=281(LC 15), 4=281(LC 16)

FORCES.

(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-2=-275/17, 2-3=-275/17

NOTES-

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope); cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.33 plate grip DOL=1.33
- 3) TCDL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=15.4 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
- 4) Unbalanced snow loads have been considered for this design.
- 5) Plates checked for a plus or minus 3 degree rotation about its center.
- 6) 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.



March 1, 2021

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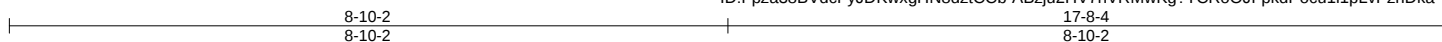
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	SUMMIT HOMES	144987151
W2-63	V1	GABLE	1	1	Job Reference (optional)	

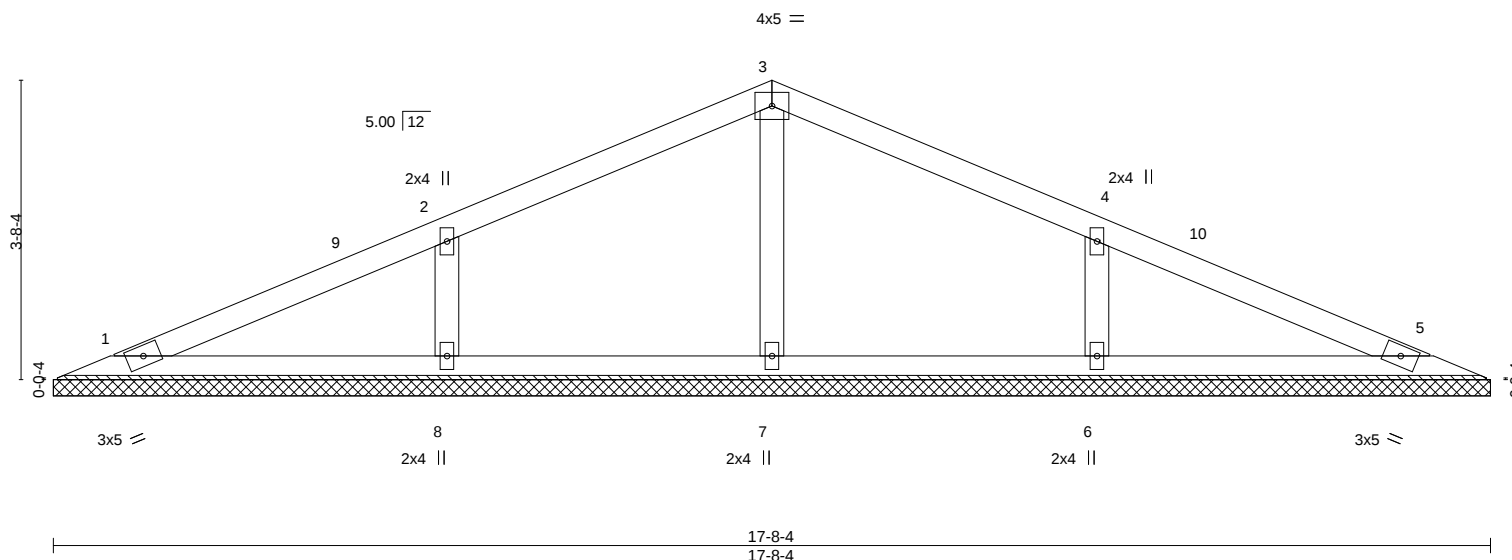
Mid America Truss, Jefferson City, MO - 65101,

8.430 s Feb 12 2021 MiTek Industries, Inc. Fri Feb 26 15:36:25 2021 Page 1

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Scale = 1:28.4



LOADING (psf)		SPACING-		CSI.		DEFL.		PLATES		GRIP	
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.29	Vert(LL)	n/a	MT20		244/190	
Snow (Pf/Pg)	15.4/20.0	Lumber DOL	1.15	BC	0.10	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'-0-0 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10'-0-0 oc bracing.

REACTIONS.

All bearings 17-8-4.
(lb) - Max Horz 1=35(LC 11)
Max Uplift All uplift 100 lb or less at joint(s) 8, 6
Max Grav All reactions 250 lb or less at joint(s) 1, 5, 7 except 8=443(LC 15), 6=443(LC 16)

FORCES.

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

WEBS

2-8=-350/108, 4-6=-350/108

NOTES-

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



March 1, 2021

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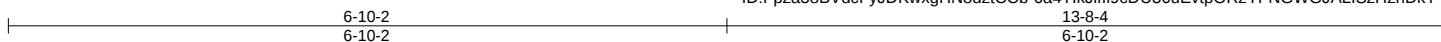
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	SUMMIT HOMES	144987152
W2-63	V2	GABLE	1	1	Job Reference (optional)	

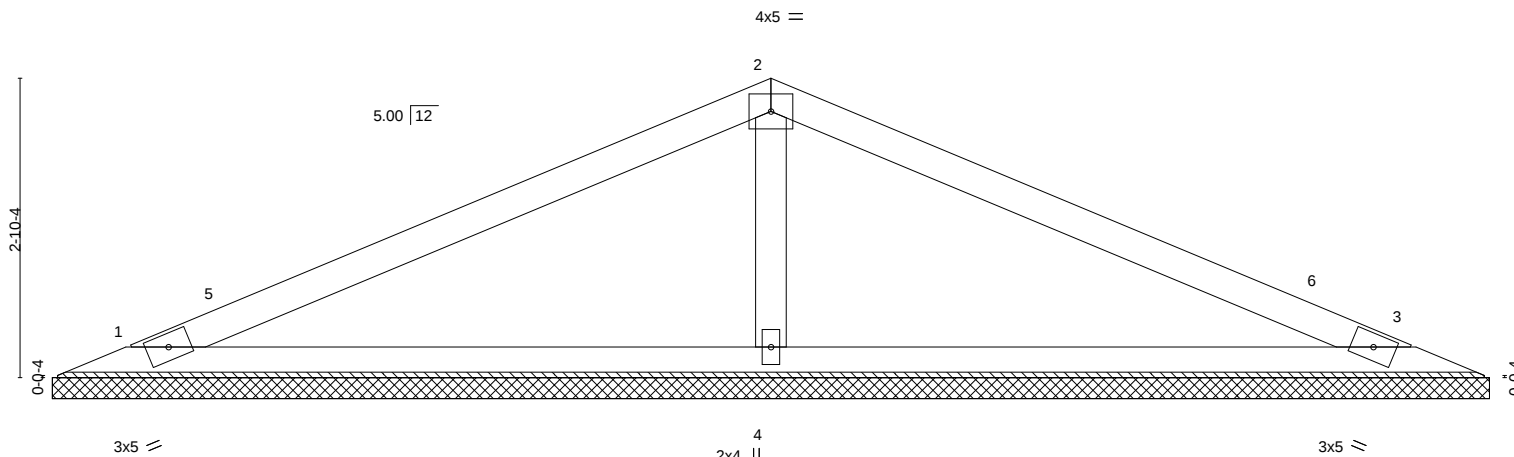
Mid America Truss, Jefferson City, MO - 65101,

8.430 s Feb 12 2021 MiTek Industries, Inc. Fri Feb 26 15:36:27 2021 Page 1

ID:Fpza38BVdcFyJDKwxgHN8dztCCb-6a4TikJlfl9cDU36uEvpORzYFNGWJALISzHzhDkY



Scale = 1:21.9



LOADING (psf)		SPACING-		CSI.		DEFL.		PLATES		GRIP	
TCLL (roof)	20.0	2-0-0		TC	0.95	in (loc)	l/defl	L/d	MT20	244/190	
Snow (Pf/Pg)	15.4/20.0	Plate Grip DOL	1.15	BC	0.26	n/a	-	n/a			
TCDL	10.0	Lumber DOL	1.15	WB	0.05	n/a	-	n/a			
BCLL	0.0	Rep Stress Incr	YES	Matrix-P		0.00	3	n/a			
BCDL	10.0	Code IRC2018/TPI2014									
								Weight: 43 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.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS.

(size) 1=13-8-4, 3=13-8-4, 4=13-8-4
Max Horz 1=-27(LC 12)
Max Uplift 1=-25(LC 11), 3=-29(LC 12)
Max Grav 1=266(LC 15), 3=266(LC 16), 4=496(LC 2)

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

WEBS 2-4=-343/58

NOTES-

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



March 1, 2021

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

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



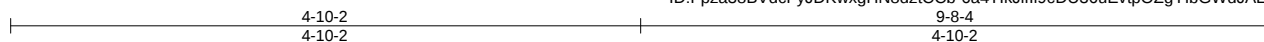
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	SUMMIT HOMES	144987153
W2-63	V3	GABLE	1	1	Job Reference (optional)	

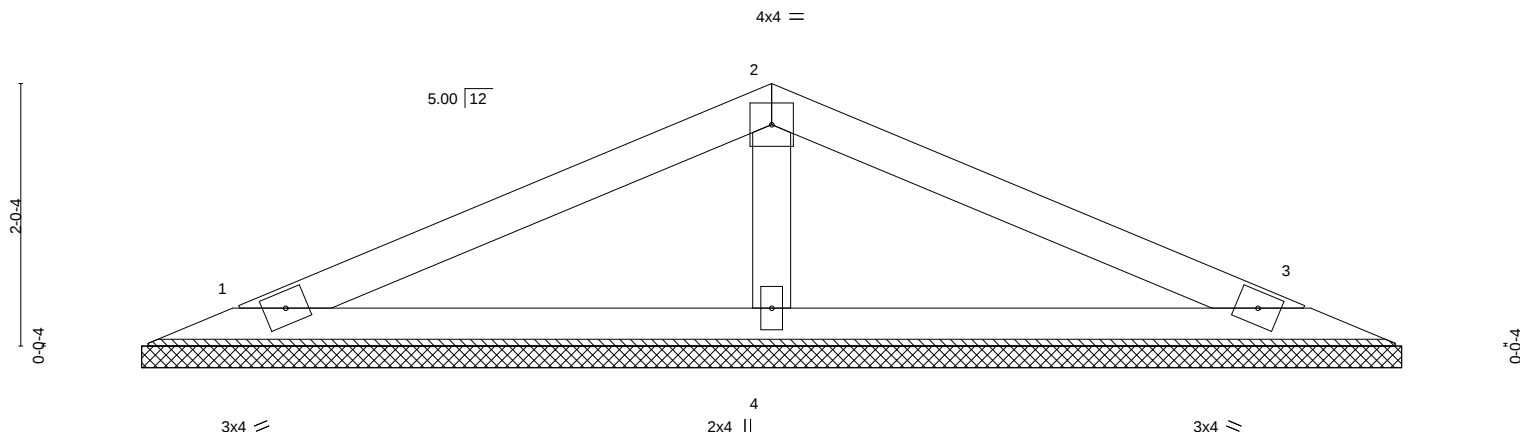
Mid America Truss, Jefferson City, MO - 65101,

8.430 s Feb 12 2021 MiTek Industries, Inc. Fri Feb 26 15:36:27 2021 Page 1

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Scale = 1:17.7



LOADING (psf)		SPACING-		CSI.		DEFL.		PLATES		GRIP	
TCLL (roof)	20.0	2-0-0		TC	0.40	in (loc)	l/defl	L/d	MT20	244/190	
Snow (Pf/Pg)	15.4/20.0	Plate Grip DOL	1.15	BC	0.12	n/a	-	n/a			
TCDL	10.0	Lumber DOL	1.15	WB	0.03	n/a	-	n/a			
BCLL	0.0	Rep Stress Incr	YES	Matrix-P		0.00	3	n/a			
BCDL	10.0	Code IRC2018/TPI2014									
								Weight: 30 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=9-8-4, 3=9-8-4, 4=9-8-4
Max Horz 1=-18(LC 12)
Max Uplift 1=-17(LC 11), 3=-20(LC 12)
Max Grav 1=190(LC 15), 3=190(LC 16), 4=333(LC 2)

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

NOTES-

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



March 1, 2021

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



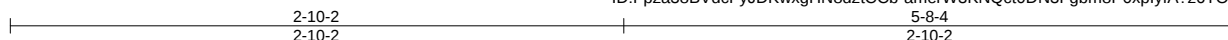
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	SUMMIT HOMES	144987154
W2-63	V4	GABLE	1	1	Job Reference (optional)	

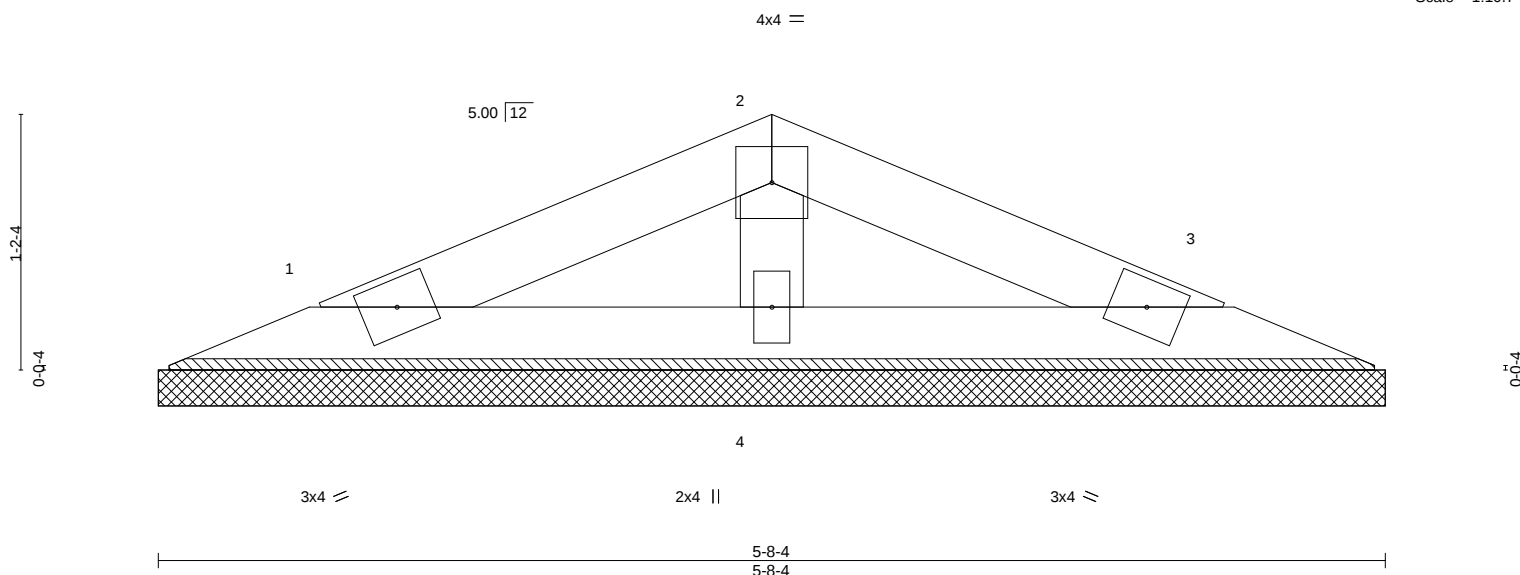
Mid America Truss, Jefferson City, MO - 65101,

8.430 s Feb 12 2021 MiTek Industries, Inc. Fri Feb 26 15:36:28 2021 Page 1

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Scale = 1:10.7



LOADING (psf)		SPACING-		CSI.		DEFL.		PLATES		GRIP	
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.08	Vert(LL)	n/a	MT20	244/190		
Snow (Pf/Pg)	15.4/20.0	Lumber DOL	1.15	BC	0.03	Vert(CT)	n/a				
TCDL	10.0	Rep Stress Incr	YES	WB	0.01	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 5-8-4 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS.

(size) 1=5-8-4, 3=5-8-4, 4=5-8-4
Max Horz 1=9(LC 11)
Max Uplift 1=8(LC 11), 3=10(LC 12)
Max Grav 1=90(LC 15), 3=90(LC 16), 4=170(LC 2)

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

NOTES-

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



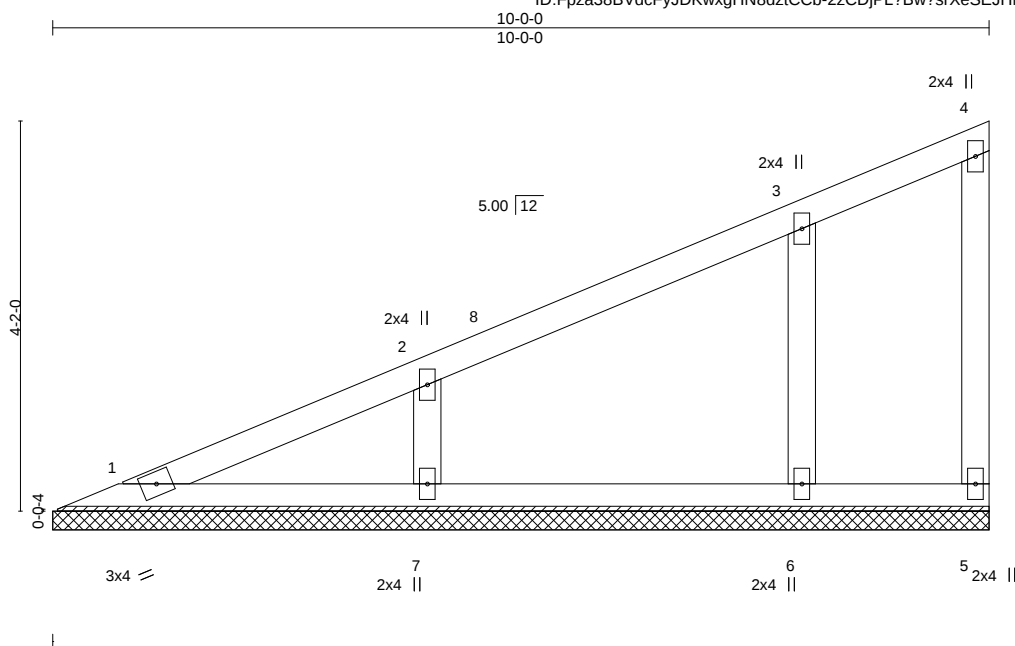
March 1, 2021

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



16023 Swingley Ridge Rd
Chesterfield, MO 63017

[illegible]

LUMBER-		BRACING-	
TOP CHORD	2x4 SP No.2	TOP CHORD	Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.
BOT CHORD	2x4 SP No.2		
WEBS	2x4 SP No.2	BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing.
OTHERS	2x4 SP No.2		

REACTIONS. All bearings 10-0-0.
(lb) - Max Horz 1=127(LC 10)
Max Uplift All uplift 100 lb or less at joint(s) 5, 7, 6
Max Grav All reactions 250 lb or less at joint(s) 1, 5 except 7=333(LC 2), 6=333(LC 15)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
WEBS 3-6=-266/72

NOTES-

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



March 1, 2021

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

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



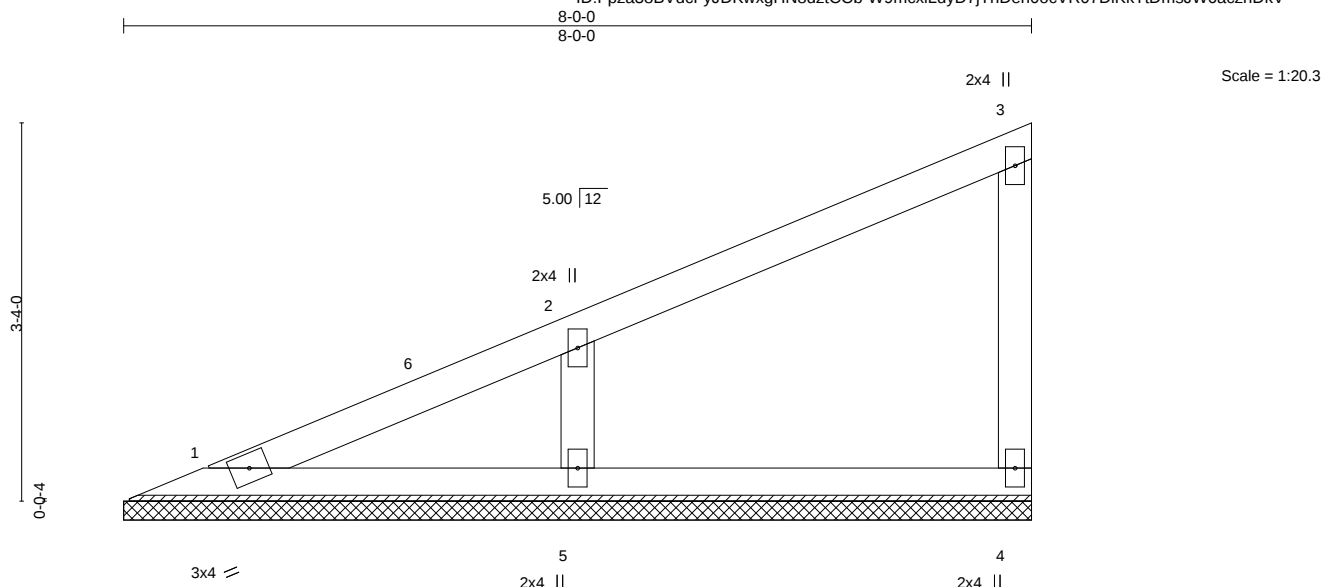
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	SUMMIT HOMES
W2-63	V6	GABLE	1	1	144987156
Job Reference (optional)					

Mid America Truss, Jefferson City, MO - 65101,

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ID:Fpza38BVdcFyJDKwxgHN8dztCCb-W9mcxLLdyD7jThDen0ocVR07DIKkTtDmsJW6aczhdKv



LOADING (psf)	SPACING-	CSI.	DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof) 20.0	2-0-0	TC 0.25	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf/Pg) 15.4/20.0	Plate Grip DOL 1.15	BC 0.09	Vert(CT)	n/a	-	n/a	999		
TCDL 10.0	Lumber DOL 1.15	WB 0.04	Horz(CT)	-0.00	4	n/a	n/a		
BCLL 0.0	Rep Stress Incr YES	Matrix-P						Weight: 29 lb	FT = 3%
BCDL 10.0	Code IRC2018/TPI2014								

LUMBER-

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

BRACING-

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

REACTIONS.

(size) 1=8-0-0, 4=8-0-0, 5=8-0-0
Max Horz 1=100(LC 8)
Max Uplift 4=-9(LC 8), 5=-42(LC 11)
Max Grav 1=90(LC 2), 4=149(LC 15), 5=412(LC 15)

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

WEBS 2-5=-322/95

NOTES-

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



March 1, 2021

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

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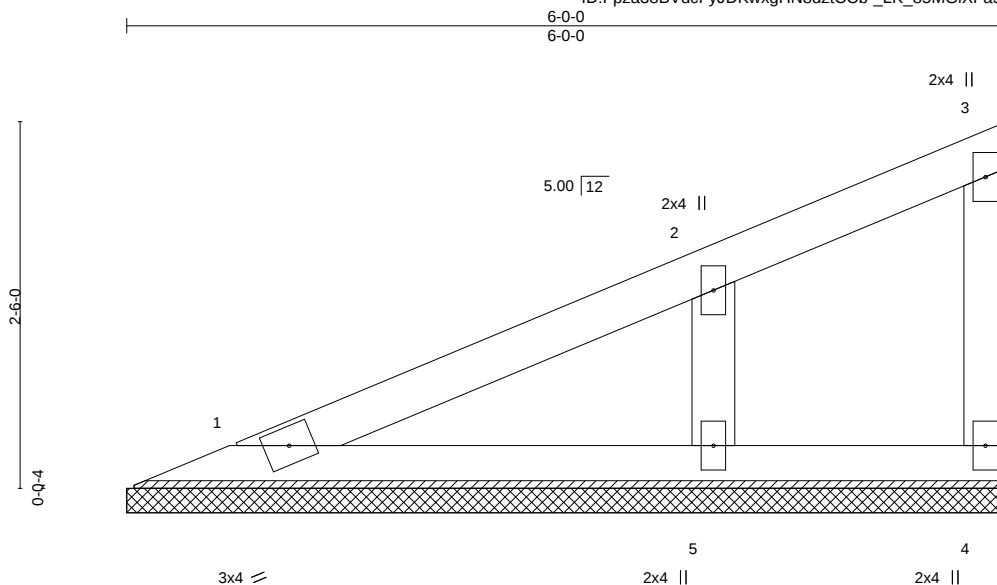
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	SUMMIT HOMES	144987157
W2-63	V7	GABLE	1	1	Job Reference (optional)	

Mid America Truss, Jefferson City, MO - 65101,

8.430 s Feb 12 2021 MiTek Industries, Inc. Fri Feb 26 15:36:31 2021 Page 1

ID:Fpza38BVdcFyJDKwxgHN8dztCCb-_LK_85MGiXFa5roqLk Jr1fZJ49hUCkav4zGf62zhDkU



Scale = 1:15.7

LOADING (psf)	SPACING-	CSI.	DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof) 20.0	2-0-0	TC 0.18	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf/Pg) 15.4/20.0	Plate Grip DOL 1.15	BC 0.06	Vert(CT)	n/a	-	n/a	999		
TCDL 10.0	Lumber DOL 1.15	WB 0.03	Horz(CT)	-0.00	4	n/a	n/a		
BCLL 0.0	Rep Stress Incr YES	Matrix-P							
BCDL 10.0	Code IRC2018/TPI2014							Weight: 22 lb	FT = 3%

LUMBER-

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

BRACING-

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

REACTIONS.

(size) 1=6-0-0, 4=6-0-0, 5=6-0-0
Max Horz 1=72(LC 10)
Max Uplift 4=-6(LC 8), 5=-32(LC 11)
Max Grav 1=128(LC 15), 4=39(LC 15), 5=329(LC 15)

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

WEBS 2-5=-261/72

NOTES-

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



March 1, 2021

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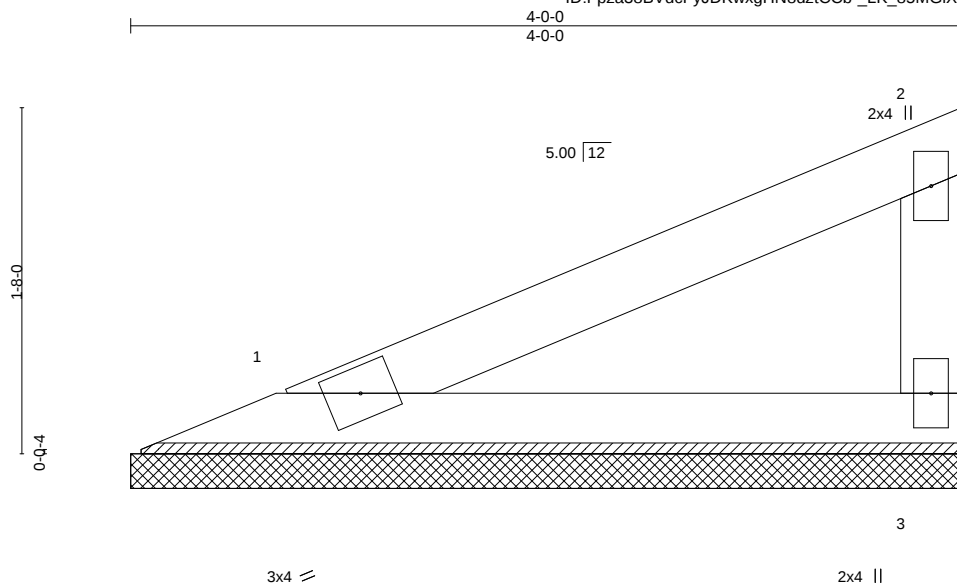
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	SUMMIT HOMES	144987158
W2-63	V8	GABLE	1	1	Job Reference (optional)	

Mid America Truss, Jefferson City, MO - 65101,

8.430 s Feb 12 2021 MiTek Industries, Inc. Fri Feb 26 15:36:31 2021 Page 1

ID:Fpza38BVdcFyJDKwxgHN8dztCCb-_LK_85MGiXFa5roqLkJr1fZlb9gACK3v4zGf62zhDkU



Scale = 1:11.1

LOADING (psf)	SPACING-	CSI.	DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof) 20.0	2-0-0	TC 0.21	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf/Pg) 15.4/20.0	Plate Grip DOL 1.15	BC 0.08	Vert(CT)	n/a	-	n/a	999		
TCDL 10.0	Lumber DOL 1.15	WB 0.00	Horz(CT)	-0.00	3	n/a	n/a		
BCLL 0.0	Rep Stress Incr YES	Matrix-P						Weight: 13 lb	FT = 3%
BCDL 10.0	Code IRC2018/TPI2014								

LUMBER-

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

BRACING-

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

REACTIONS.

(size) 1=4-0-0, 3=4-0-0
Max Horz 1=44(LC 10)
Max Uplift 1=-3(LC 11), 3=-10(LC 11)
Max Grav 1=142(LC 15), 3=142(LC 15)

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

NOTES-

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



March 1, 2021

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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



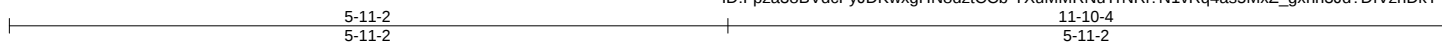
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	SUMMIT HOMES	144987159
W2-63	V9	GABLE	1	1	Job Reference (optional)	

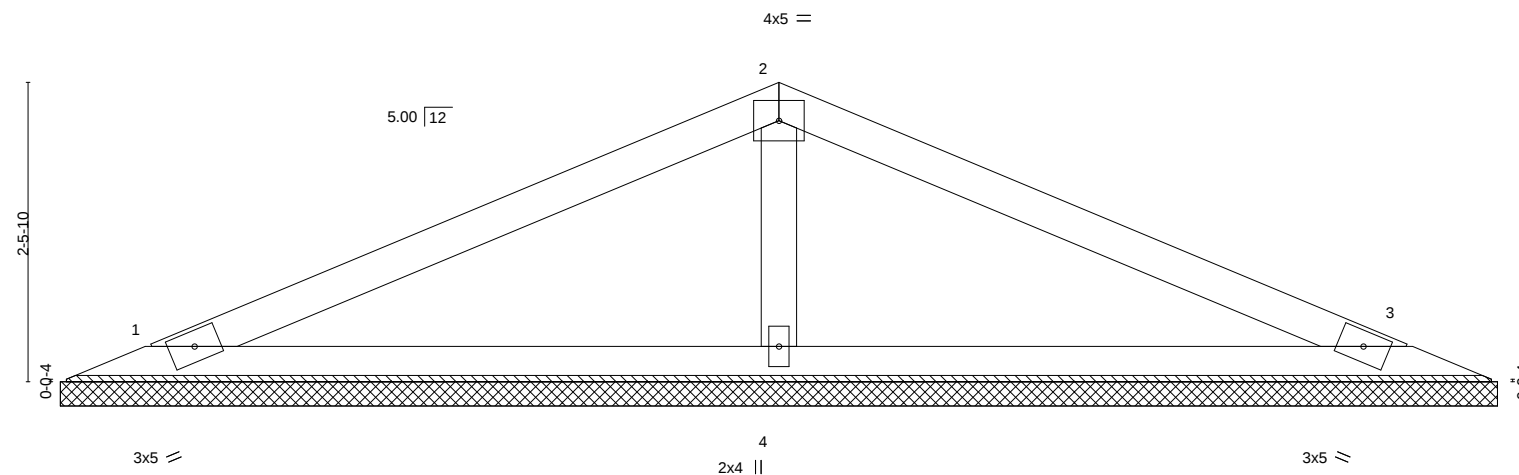
Mid America Truss, Jefferson City, MO - 65101,

8.430 s Feb 12 2021 MiTek Industries, Inc. Fri Feb 26 15:36:32 2021 Page 1

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Scale = 1:19.0



LOADING (psf)		SPACING-		CSI.		DEFL.		PLATES		GRIP	
TCLL (roof)	20.0	2-0-0		TC	0.68	in (loc)	l/defl	L/d	MT20	244/190	
Snow (Pf/Pg)	15.4/20.0	Plate Grip DOL	1.15	BC	0.19	n/a	-	n/a			
TCDL	10.0	Lumber DOL	1.15	WB	0.04	n/a	-	n/a			
BCLL	0.0	Rep Stress Incr	YES	Matrix-P		0.00	3	n/a			
BCDL	10.0	Code IRC2018/TPI2014									
								Weight: 37 lb		FT = 3%	

LUMBER-

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

BRACING-

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

REACTIONS.

(size) 1=11-10-4, 3=11-10-4, 4=11-10-4
Max Horz 1=23(LC 13)
Max Uplift 1=-21(LC 11), 3=-25(LC 12)
Max Grav 1=247(LC 15), 3=247(LC 16), 4=421(LC 2)

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

WEBS 2-4=-292/50

NOTES-

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



March 1, 2021

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



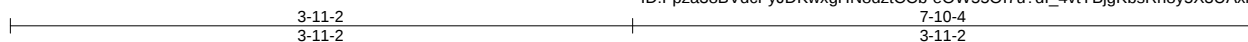
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	SUMMIT HOMES	144987160
W2-63	V10	GABLE	1	1	Job Reference (optional)	

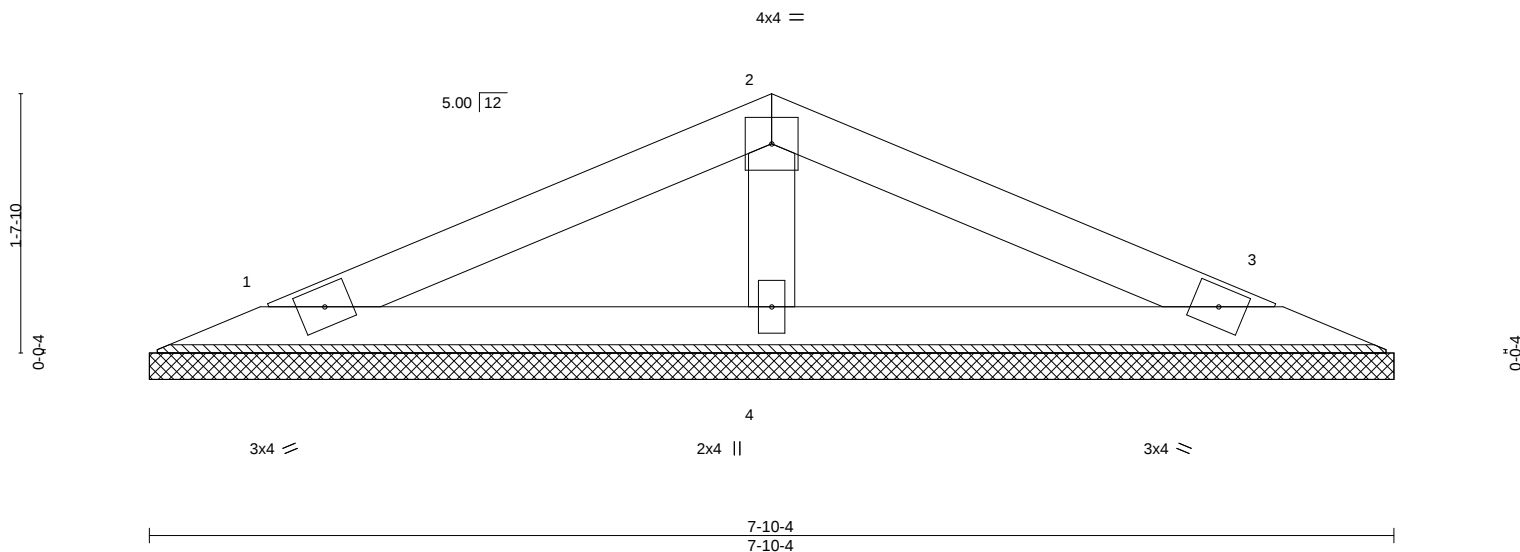
Mid America Truss, Jefferson City, MO - 65101,

8.430 s Feb 12 2021 MiTek Industries, Inc. Fri Feb 26 15:36:26 2021 Page 1

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Scale = 1:14.5



LOADING (psf)		SPACING-		CSI.		DEFL.		PLATES		GRIP	
TCLL (roof)	20.0	2-0-0		TC	0.22	in (loc)	l/defl	L/d	MT20	244/190	
Snow (Pf/Pg)	15.4/20.0	Plate Grip DOL	1.15	BC	0.07	n/a	-	n/a			
TCDL	10.0	Lumber DOL	1.15	WB	0.02	n/a	-	n/a			
BCLL	0.0	Rep Stress Incr	YES	Matrix-P		0.00	3	n/a			
BCDL	10.0	Code IRC2018/TPI2014									
								Weight: 23 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=7-10-4, 3=7-10-4, 4=7-10-4
Max Horz 1=-14(LC 14)
Max Uplift 1=-13(LC 11), 3=-15(LC 12)
Max Grav 1=143(LC 15), 3=143(LC 16), 4=258(LC 2)

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

NOTES-

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope); cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.33 plate grip DOL=1.33
- TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=15.4 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
- Unbalanced snow loads have been considered for this design.
- Plates checked for a plus or minus 3 degree rotation about its center.
- Gable requires continuous bottom chord bearing.
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- 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.



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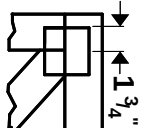
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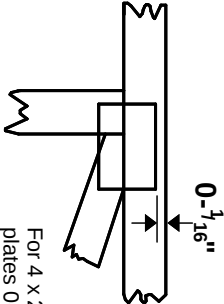
16023 Swingley Ridge Rd
Chesterfield, MO 63017

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

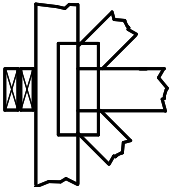
The first dimension is the plate width measured perpendicular to slots. Second dimension is the length parallel to slots.

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



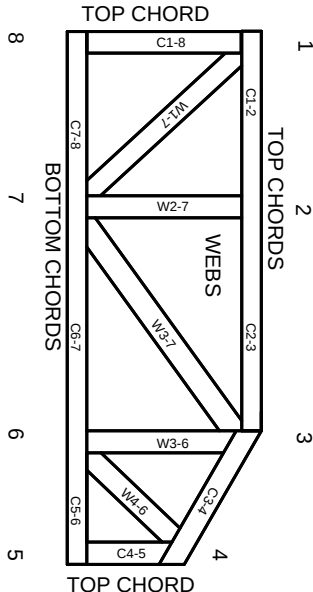
Indicates location where bearings (supports) occur. Icons vary but reaction section indicates joint number where bearings occur. Min size shown is for crushing only.

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 Tor I bracing should be considered.
3. Never exceed the design loading shown and never stack materials on inadequately braced trusses.
4. Provide copies of this truss design to the building designer, erection supervisor, property owner and all other interested parties.
5. Cut members to bear tightly against each other.
6. Place plates on each face of truss at each joint and embed fully. Knots and wane at joint locations are regulated by ANSI/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.