MiTek®

MiTek, Inc.
16023 Swingley Ridge Rd.
Chesterfield, MO 63017
314.434.1200

RE: B240082 - Lot 184 HT

Site Information:

Project Customer: Summit Homes Project Name:
Lot/Block: 184 Subdivision: Hawthorn Ridge
Model: Charlotte - Craftsman
Address: 1609 SW Arborway Terr
City: Lee's Summit State: MO

General Truss Engineering Criteria & Design Loads (Individual Truss Design Drawings Show Special Loading Conditions):

Design Code: IRC2018/TPI2014
Design Program: MiTek 20/20 8.7
Wind Code: ASE 7-16 [Low Rise] Wind Speed: 115 mph
Design Method: MWFRS (Envelope) ASCE 7-16 [Low Rise]
Roof Load: 45.0 psf
Floor Load: N/A psf

Mean Roof Height (feet): 15
Exposure Category: C

No.	Seal#	Truss Name	Date	No.	Seal#	Truss Name	Date
1	I65090777	A1	4/24/24	35	I65090811	V9	4/24/24
2	I65090778	A2	4/24/24	36	I65090812	V10	4/24/24
3	I65090779	A3	4/24/24	37	I65090813	V11	4/24/24
4	I65090780	B1	4/24/24	38	I65090814	V12	4/24/24
5	I65090781	B2	4/24/24	39	I65090815	V13	4/24/24
6	I65090782	B3	4/24/24	40	I65090816	V14	4/24/24
7	I65090783	B4	4/24/24	41	I65090817	V15	4/24/24
8	I65090784	B5	4/24/24	42	I65090818	V16	4/24/24
9	I65090785	B6	4/24/24	43	I65090819	V17	4/24/24
10	I65090786	B7	4/24/24	44	I65090820	V18	4/24/24
11	I65090787	B8	4/24/24	45	I65090821	V19	4/24/24
12	I65090788	B9	4/24/24	46	I65090822	V20	4/24/24
13	I65090789	B10	4/24/24				
14	I65090790	B11	4/24/24				
15	I65090791	B12	4/24/24				
16	I65090792	B13	4/24/24				
17	I65090793	B14	4/24/24				
18	I65090794	B15	4/24/24				
19	I65090795	C1	4/24/24				
20	I65090796	C2	4/24/24				
21	I65090797	D1	4/24/24				
22	I65090798	D2	4/24/24				
23	I65090799	D3	4/24/24				
24	I65090800	E1	4/24/24				
25	I65090801	E2	4/24/24				
26	I65090802	E3	4/24/24				
27	I65090803	V1	4/24/24				
28	I65090804	V2	4/24/24				
29	I65090805	V3	4/24/24				
30	I65090806	V4	4/24/24				
31	I65090807	V5	4/24/24				
32	I65090808	V6	4/24/24				
33	I65090809	V7	4/24/24				
34	I65090810	V8	4/24/24				

The truss drawing(s) referenced above have been prepared by MiTek USA, Inc. under my direct supervision based on the parameters provided by Wheeler - Waverly.

Truss Design Engineer's Name: Sevier, Scott
My license renewal date for the state of Missouri is December 31, 2025.

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.

April 24,2024
Sevier, Scott

Job	Truss	Truss Type	Qty	Ply	Lot 184 HT	I65090777
B240082	A1	Common Supported Gable	1	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS - 66871,

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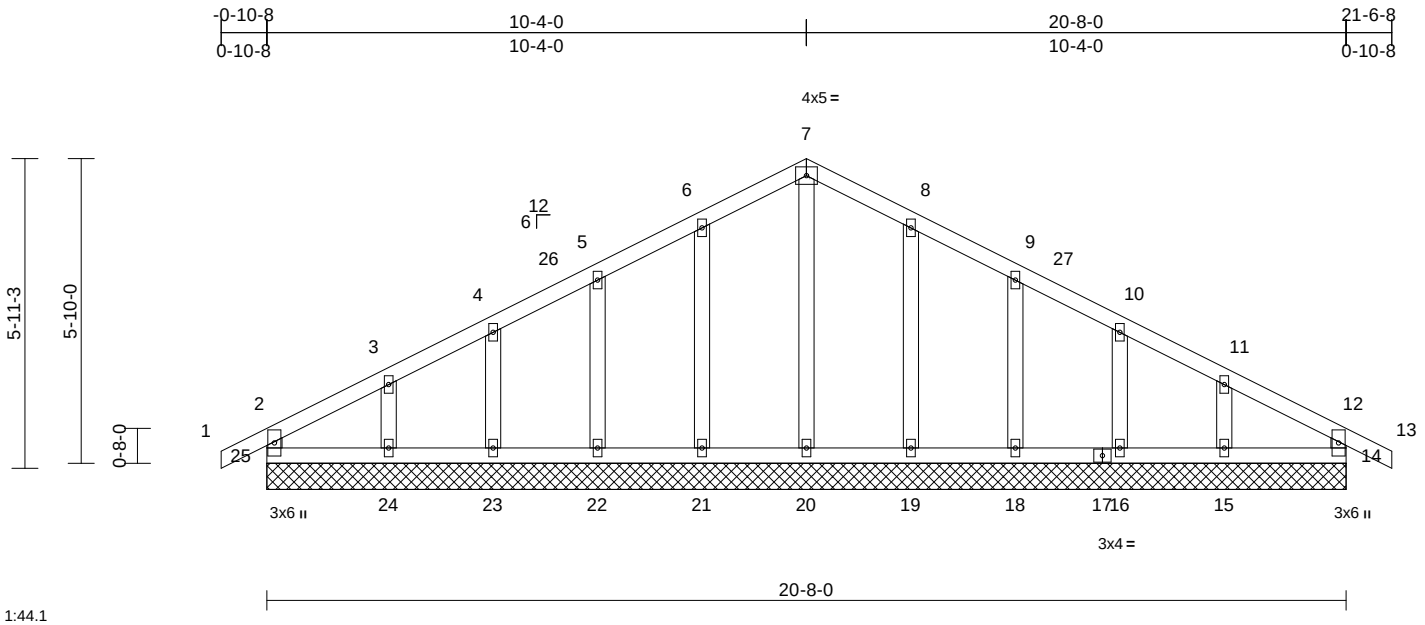

Scale = 1:44.1

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.07	Vert(LL)	n/a	-	n/a	999	MT20	197/144
Snow (Pf/Pg)	15.4/20.0	Lumber DOL	1.15	BC	0.03	Vert(CT)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.07	Horz(CT)	0.00	14	n/a	n/a		
BCLL	0.0*	Code	IRC2018/TPI2014	Matrix-R								
BCDL	10.0										Weight: 84 lb	FT = 20%

LUMBER
TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
WEBS 2x4 SPF No.2
OTHERS 2x4 SPF No.2

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

REACTIONS (size) 14=20-8-0, 15=20-8-0, 16=20-8-0, 18=20-8-0, 19=20-8-0, 20=20-8-0, 21=20-8-0, 22=20-8-0, 23=20-8-0, 24=20-8-0, 25=20-8-0
Max Horiz 25=80 (LC 11)
Max Uplift 14=-9 (LC 12), 15=-64 (LC 13), 16=-38 (LC 13), 18=-46 (LC 13), 19=-44 (LC 13), 21=-45 (LC 12), 22=-46 (LC 12), 23=-36 (LC 12), 24=-70 (LC 12), 25=-23 (LC 13)
Max Grav 14=176 (LC 2), 15=187 (LC 33), 16=179 (LC 2), 18=186 (LC 20), 19=213 (LC 20), 20=169 (LC 29), 21=213 (LC 19), 22=186 (LC 19), 23=179 (LC 2), 24=187 (LC 32), 25=176 (LC 2)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 2-25=-156/33, 1-2=0/32, 2-3=-83/54, 3-4=-55/69, 4-5=-45/93, 5-6=-42/117, 6-7=-48/138, 7-8=-48/131, 8-9=-42/96, 9-10=-39/72, 10-11=-39/49, 11-12=-66/37, 12-13=0/32, 12-14=-156/21
BOT CHORD 24-25=-17/67, 23-24=-17/67, 22-23=-17/67, 21-22=-17/67, 20-21=-17/67, 19-20=-17/67, 18-19=-17/67, 16-18=-17/67, 15-16=-17/67, 14-15=-17/67
WEBS 7-20=-129/0, 6-21=-173/69, 5-22=-145/69, 4-23=-140/62, 3-24=-143/86, 8-19=-173/68, 9-18=-145/69, 10-16=-140/63, 11-15=-143/83

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=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
4) TCLL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=15.4 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
5) Unbalanced snow loads have been considered for this design.
6) This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 15.4 psf on overhangs non-concurrent with other live loads.
7) All plates are 2x4 MT20 unless otherwise indicated.
8) Gable requires continuous bottom chord bearing.
9) Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
10) Gable studs spaced at 2-0-0 oc.
11) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
12) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
13) All bearings are assumed to be SPF No.2 .
14) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 23 lb uplift at joint 25, 9 lb uplift at joint 14, 45 lb uplift at joint 21, 46 lb uplift at joint 22, 36 lb uplift at joint 23, 70 lb uplift at joint 24, 44 lb uplift at joint 19, 46 lb uplift at joint 18, 38 lb uplift at joint 16 and 64 lb uplift at joint 15.
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.

LOAD CASE(S) Standard

April 24,2024

MiTek®
16023 Swingley Ridge Rd.
Chesterfield, MO 63017
314.434.1200 / MiTek-US.com

Job	Truss	Truss Type	Qty	Ply	Lot 184 HT	I65090778
B240082	A2	Common	4	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS - 66871,

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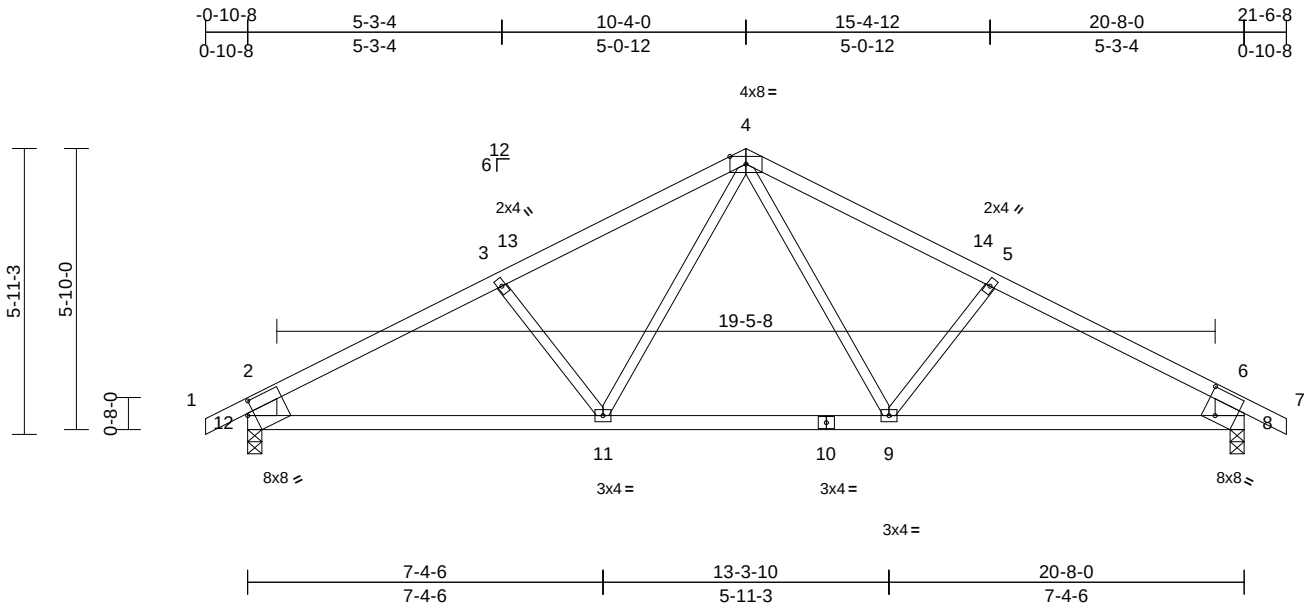

Scale = 1:47.8

Plate Offsets (X, Y): [8:0-3-2,0-6-8], [12:0-1-10,0-3-4]

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.80	Vert(LL)	-0.12	9-11	>999	360	MT20	197/144
Snow (Pf/Pg)	15.4/20.0	Lumber DOL	1.15	BC	0.56	Vert(CT)	-0.21	9-11	>999	240		
TCDL	10.0	Rep Stress Incr	YES	WB	0.13	Horz(CT)	0.03	8	n/a	n/a		
BCLL	0.0*	Code	IRC2018/TPI2014	Matrix-S		Wind(LL)	0.06	9-11	>999	240		
BCDL	10.0										Weight: 70 lb	FT = 20%

LUMBER
TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
WEBS 2x3 SPF No.2 *Except* 12-2,8-6:2x8 SP 2400F 2.0E

BRACING
TOP CHORD Structural wood sheathing directly applied or 3-7-0 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (size) 8=0-3-8, 12=0-3-8
Max Horiz 12=82 (LC 11)
Max Uplift 8=-99 (LC 13), 12=-99 (LC 12)
Max Grav 8=985 (LC 2), 12=985 (LC 2)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/37, 2-3=-1364/138, 3-4=-1171/138, 4-5=-1171/138, 5-6=-1364/139, 6-7=0/37, 2-12=-895/138, 6-8=-895/138
BOT CHORD 11-12=-129/1118, 9-11=-5/822, 8-9=-56/1118
WEBS 4-9=-57/368, 5-9=-264/164, 4-11=-57/368, 3-11=-264/164

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=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
3) TCLL: ASCE 7-16; Pr=25.0 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 1.00 times flat roof load of 15.4 psf on overhangs non-concurrent with other live loads.
6) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
7) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
8) All bearings are assumed to be SPF No.2 .
9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 99 lb uplift at joint 12 and 99 lb uplift at joint 8.
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.

LOAD CASE(S) Standard

April 24,2024

MiTek®
16023 Swingley Ridge Rd.
Chesterfield, MO 63017
314.434.1200 / MiTek-US.com

RELEASE FOR CONSTRUCTION
AS NOTED FOR PLAN REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
05/07/2024

Job	Truss	Truss Type	Qty	Ply	Lot 184 HT	I65090779
B240082	A3	Common Girder	1	2	Job Reference (optional)	

Wheeler Lumber, Waverly, KS - 66871,

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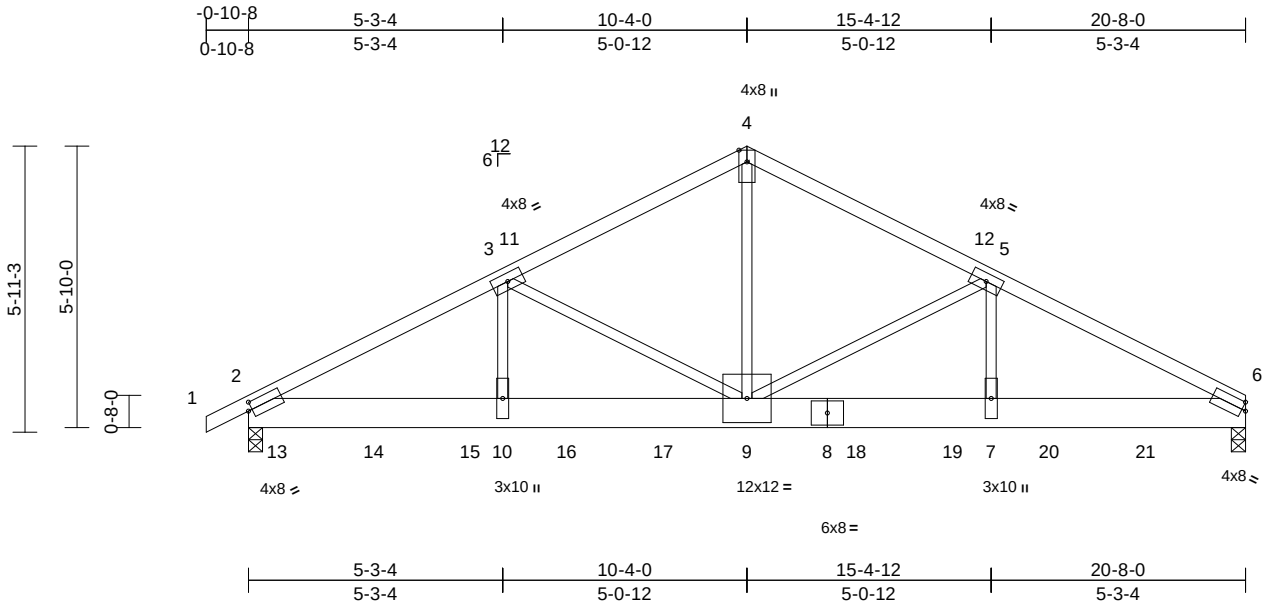

Scale = 1:47.8

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

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.69	Vert(LL)	-0.11	7-9	>999	360	MT20	197/144
Snow (Pf/Pg)	15.4/20.0	Lumber DOL	1.15	BC	0.38	Vert(CT)	-0.20	7-9	>999	240		
TCDL	10.0	Rep Stress Incr	NO	WB	0.78	Horz(CT)	0.04	6	n/a	n/a		
BCLL	0.0*	Code	IRC2018/TPI2014	Matrix-S		Wind(LL)	0.08	7-9	>999	240		
BCDL	10.0										Weight: 216 lb	FT = 20%

LUMBER
TOP CHORD 2x4 SPF No.2
BOT CHORD 2x8 SP 2400F 2.0E
WEBS 2x3 SPF No.2

BRACING
TOP CHORD Structural wood sheathing directly applied or 3-9-0 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (size) 2=0-3-8, 6=0-3-8
Max Horiz 2=92 (LC 38)
Max Uplift 2=-556 (LC 12), 6=-623 (LC 13)
Max Grav 2=5816 (LC 26), 6=5074 (LC 27)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/16, 2-3=-8367/950, 3-4=-5850/785, 4-5=-5849/785, 5-6=-8502/1051
BOT CHORD 2-10=-852/7323, 9-10=-852/7323, 7-9=-859/7395, 6-7=-859/7395
WEBS 5-9=-2554/388, 5-7=-216/2458, 4-9=-607/4897, 3-10=-123/2324, 3-9=-2419/284

NOTES
1) 2-ply truss to be connected together with 10d (0.131"x3") nails as follows:
Top chords connected as follows: 2x4 - 1 row at 0-6-0 oc.
Bottom chords connected as follows: 2x8 - 2 rows staggered at 0-6-0 oc.
Web connected as follows: 2x3 - 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=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
5) TCLL: ASCE 7-16; Pr=25.0 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
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 1.00 times flat roof load of 15.4 psf on overhangs non-concurrent with other live loads.
8) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
9) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
10) All bearings are assumed to be SP 2400F 2.0E .
11) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 623 lb uplift at joint 6 and 556 lb uplift at joint 2.
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.
13) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 1026 lb down and 36 lb up at 0-7-4, 1021 lb down and 40 lb up at 2-7-4, 1021 lb down and 40 lb up at 4-7-4, 784 lb down and 136 lb up at 6-7-4, 784 lb down and 136 lb up at 8-7-4, 702 lb down and 141 lb up at 10-7-4, 997 lb down and 119 lb up at 12-7-4, 997 lb down and 119 lb up at 14-7-4, and 997 lb down and 119 lb up at 16-7-4, and 997 lb down and 119 lb up at 18-7-4 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 (lb/ft)
Vert: 1-4=-51, 4-6=-51, 2-6=-20
Concentrated Loads (lb)
Vert: 9=-524 (F), 13=-705 (F), 14=-700 (F), 15=-700 (F), 16=-503 (F), 17=-503 (F), 18=-384 (F), 19=-384 (F), 20=-384 (F), 21=-384 (F)

April 24,2024

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314.434.1200 / MiTek-US.com

Job	Truss	Truss Type	Qty	Ply	Lot 184 HT	I65090780
B240082	B1	Common Supported Gable	1	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS - 66871,

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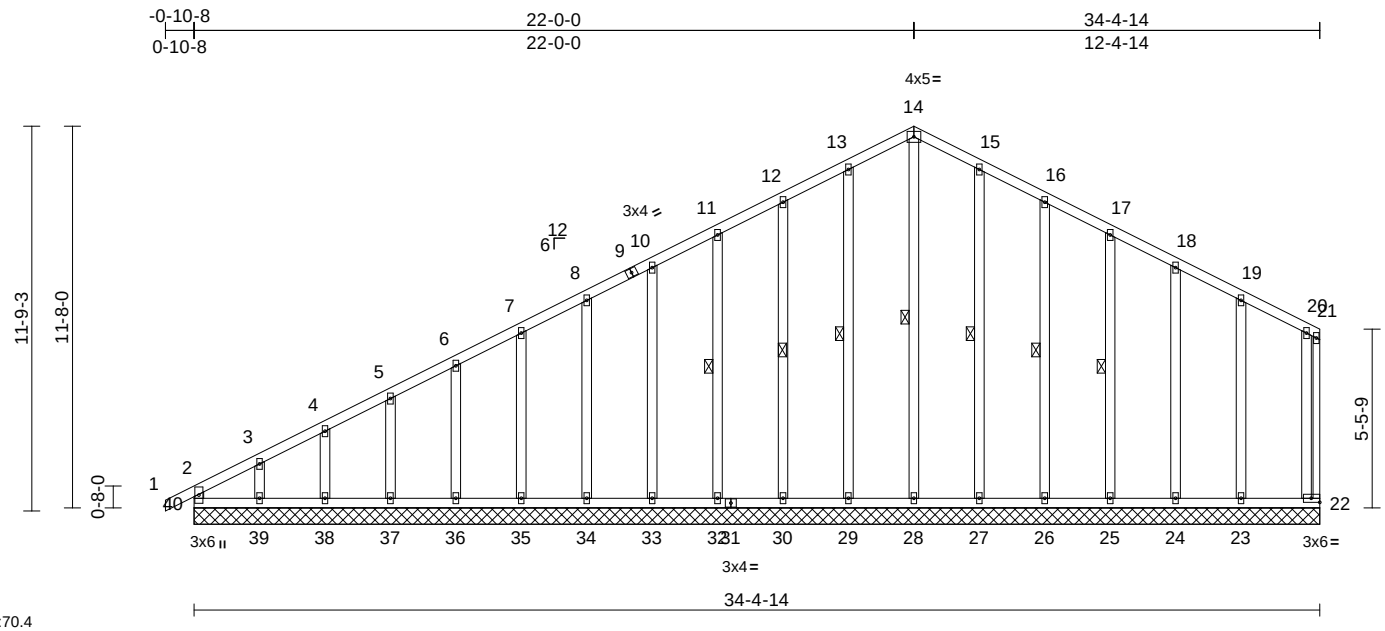

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Plate Offsets (X, Y): [22:Edge,0-1-8]

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.23	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.07	Vert(CT)	n/a	-	n/a	999		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.13	Horz(CT)	0.00	22	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-R							Weight: 218 lb	FT = 10%

LUMBER
TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
WEBS 2x4 SPF No.2 *Except* 21-22:2x3 SPF No.2
OTHERS 2x4 SPF No.2

BRACING
TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 1 Row at midpt 14-28, 13-29, 12-30, 11-32, 15-27, 16-26, 17-25

REACTIONS (size) 22=34-4-14, 23=34-4-14, 24=34-4-14, 25=34-4-14, 26=34-4-14, 27=34-4-14, 28=34-4-14, 29=34-4-14, 30=34-4-14, 32=34-4-14, 33=34-4-14, 34=34-4-14, 35=34-4-14, 36=34-4-14, 37=34-4-14, 38=34-4-14, 39=34-4-14, 40=34-4-14
Max Horiz 40=304 (LC 5)
Max Uplift 22=-27 (LC 8), 23=-56 (LC 9), 24=-55 (LC 9), 25=-53 (LC 9), 26=-59 (LC 9), 27=-47 (LC 9), 28=-9 (LC 20), 29=-48 (LC 8), 30=-58 (LC 8), 32=-53 (LC 8), 33=-54 (LC 8), 34=-54 (LC 8), 35=-54 (LC 8), 36=-53 (LC 8), 37=-59 (LC 8), 38=-34 (LC 8), 39=-140 (LC 8), 40=-70 (LC 4)
Max Grav 22=101 (LC 1), 23=198 (LC 22), 24=176 (LC 1), 25=181 (LC 1), 26=179 (LC 22), 27=189 (LC 22), 28=204 (LC 15), 29=189 (LC 21), 30=179 (LC 21), 32=180 (LC 1), 33=180 (LC 21), 34=180 (LC 1), 35=180 (LC 21), 36=180 (LC 1), 37=179 (LC 21), 38=184 (LC 1), 39=172 (LC 15), 40=235 (LC 16)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 2-40=-197/70, 14-15=-86/223, 15-16=-86/195, 16-17=-86/166, 17-18=-86/138, 18-19=-86/110, 19-20=-91/85, 20-21=-109/87, 21-22=-100/82, 1-2=0/32, 2-3=-285/129, 3-4=-228/120, 4-5=-211/122, 5-6=-196/134, 6-7=-181/148, 7-8=-166/161, 8-10=-151/175, 10-11=-137/189, 11-12=-122/202, 12-13=-108/217, 13-14=-91/231
BOT CHORD 39-40=-78/60, 38-39=-78/60, 37-38=-78/60, 36-37=-78/60, 35-36=-78/60, 34-35=-78/60, 33-34=-78/60, 32-33=-78/60, 30-32=-78/60, 29-30=-78/60, 28-29=-78/60, 27-28=-78/60, 26-27=-78/60, 25-26=-78/60, 24-25=-78/60, 23-24=-78/60, 22-23=-78/60
WEBS 14-28=-171/42, 13-29=-149/72, 12-30=-139/82, 11-32=-140/77, 10-33=-140/78, 8-34=-140/78, 7-35=-140/78, 6-36=-140/77, 5-37=-139/81, 4-38=-143/67, 3-39=-126/126, 15-27=-149/71, 16-26=-139/82, 17-25=-141/78, 18-24=-138/74, 19-23=-152/98, 20-22=-90/51

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) exterior zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
4) All plates are 2x4 MT20 unless otherwise indicated.
5) Gable requires continuous bottom chord bearing.
6) Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
7) Gable studs spaced at 2-0-0 oc.
8) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
9) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
10) All bearings are assumed to be SPF No.2 .

STATE OF MISSOURI
SCOTT M. SEVIER
NUMBER
PE-2001018807
PROFESSIONAL ENGINEER

April 24,2024

Continued on page 2

MiTek®
16023 Swingley Ridge Rd.
Chesterfield, MO 63017
314.434.1200 / MiTek-US.com

Job	Truss	Truss Type	Qty	Ply	Lot 184 HT	I65090780
B240082	B1	Common Supported Gable	1	1	Job Reference (optional)	

11) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 70 lb uplift at joint 40, 27 lb uplift at joint 22, 9 lb uplift at joint 28, 48 lb uplift at joint 29, 58 lb uplift at joint 30, 53 lb uplift at joint 32, 54 lb uplift at joint 33, 54 lb uplift at joint 34, 54 lb uplift at joint 35, 53 lb uplift at joint 36, 59 lb uplift at joint 37, 34 lb uplift at joint 38, 140 lb uplift at joint 39, 47 lb uplift at joint 27, 59 lb uplift at joint 26, 53 lb uplift at joint 25, 55 lb uplift at joint 24 and 56 lb uplift at joint 23.
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.

LOAD CASE(S) Standard

RELEASE FOR CONSTRUCTION
AS NOTED FOR PLAN REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
05/07/2024

Job	Truss	Truss Type	Qty	Ply	Lot 184 HT	I65090781
B240082	B2	Roof Special	2	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.73 S Apr 3 2024 Print: 8.730 S Apr 3 2024 MiTek Industries, Inc. Tue Apr 23 07:51:19 Page: 1
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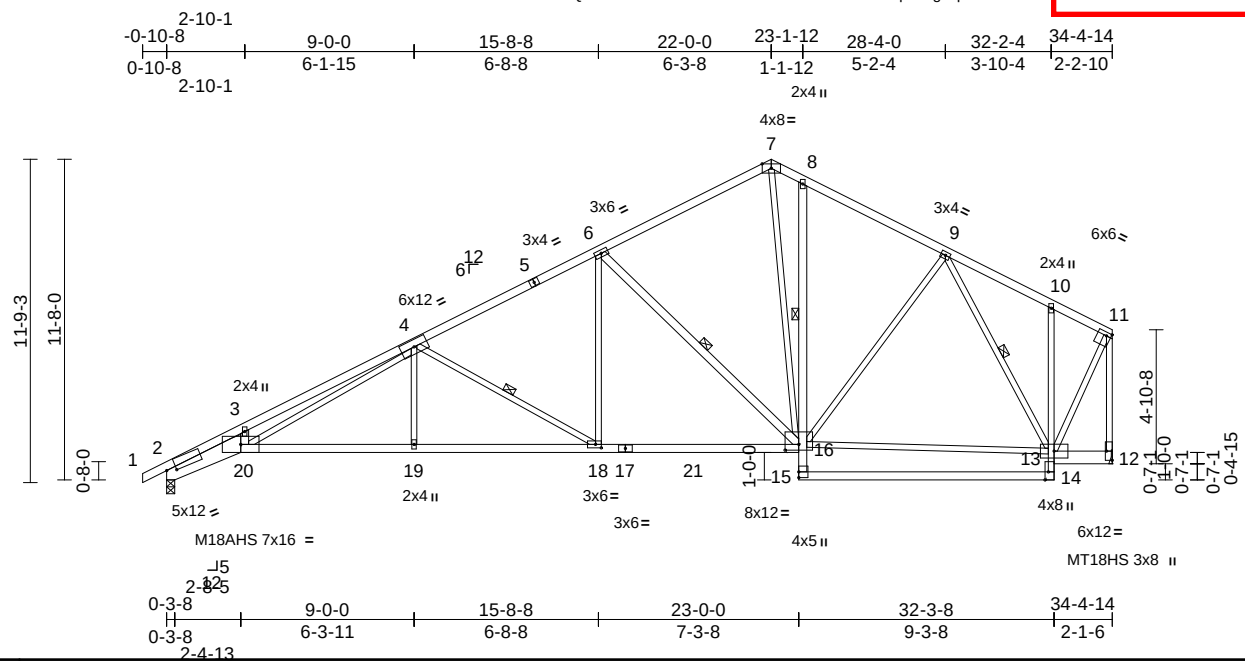

Scale = 1:83.8

Plate Offsets (X, Y): [2:0-4-3,0-1-5], [11:0-2-0,0-1-8], [12:Edge,0-2-8], [14:0-3-8,Edge], [16:0-6-0,0-2-8], [18:0-2-8,0-1-8]

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.95	Vert(LL)	-0.41	19-20	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.77	Vert(CT)	-0.72	19-20	>569	240	M18AHS	142/136
BCLL	0.0*	Rep Stress Incr	YES	WB	0.90	Horz(CT)	0.32	12	n/a	n/a	MT18HS	197/144
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S		Wind(LL)	0.31	19-20	>999	240	Weight: 178 lb	FT = 10%

LUMBER
TOP CHORD 2x4 SPF No.2 *Except* 1-5:2x4 SPF 2400F 2.0E
BOT CHORD 2x4 SPF No.2 *Except* 2-20:2x8 SP 2400F 2.0E, 20-17:2x4 SPF 2100F 1.8E, 14-10:2x3 SPF No.2, 13-12:2x6 SPF No.2
WEBS 2x3 SPF No.2 *Except* 16-6:2x4 SPF No.2, 20-3:2x4 SP No.3

BRACING
TOP CHORD Structural wood sheathing directly applied, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing. Except:
1 Row at midpt 8-16
WEBS 1 Row at midpt 4-18, 6-16, 9-13

REACTIONS (size) 2=0-3-8, 12= Mechanical
Max Horiz 2=285 (LC 5)
Max Uplift 2=-238 (LC 8), 12=-152 (LC 9)
Max Grav 2=1665 (LC 2), 12=1605 (LC 2)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/14, 2-3=-6324/1094, 3-4=-5737/1143, 4-6=-2288/347, 6-7=-1371/260, 7-8=-1384/302, 8-9=-1469/293, 9-10=-687/157, 10-11=-672/119, 11-12=-1558/158
BOT CHORD 2-20=-1181/5694, 19-20=-515/2896, 18-19=-515/2895, 16-18=-257/1976, 15-16=0/187, 8-16=-238/138, 14-15=0/165, 13-14=0/175, 10-13=-199/121, 12-13=-64/50
WEBS 4-20=-699/2657, 4-19=0/289, 4-18=-1060/298, 6-18=-51/831, 6-16=-1129/296, 13-16=-161/897, 9-16=-2/392, 9-13=-1026/134, 11-13=-124/1347, 7-16=-182/938, 3-20=0/735

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) exterior zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
3) All plates are MT20 plates unless otherwise indicated.
4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
5) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
6) All bearings are assumed to be SPF No.2 .
7) Refer to girder(s) for truss to truss connections.
8) Bearing at joint(s) 2 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 238 lb uplift at joint 2 and 152 lb uplift at joint 12.
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.

LOAD CASE(S) Standard

April 24,2024

MiTek®
16023 Swingley Ridge Rd.
Chesterfield, MO 63017
314.434.1200 / MiTek-US.com

Job	Truss	Truss Type	Qty	Ply	Lot 184 HT	I65090782
B240082	B3	Roof Special	2	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.73 S Apr 3 2024 Print: 8.730 S Apr 3 2024 MiTek Industries, Inc. Tue Apr 23 07:51:19 Page: 1
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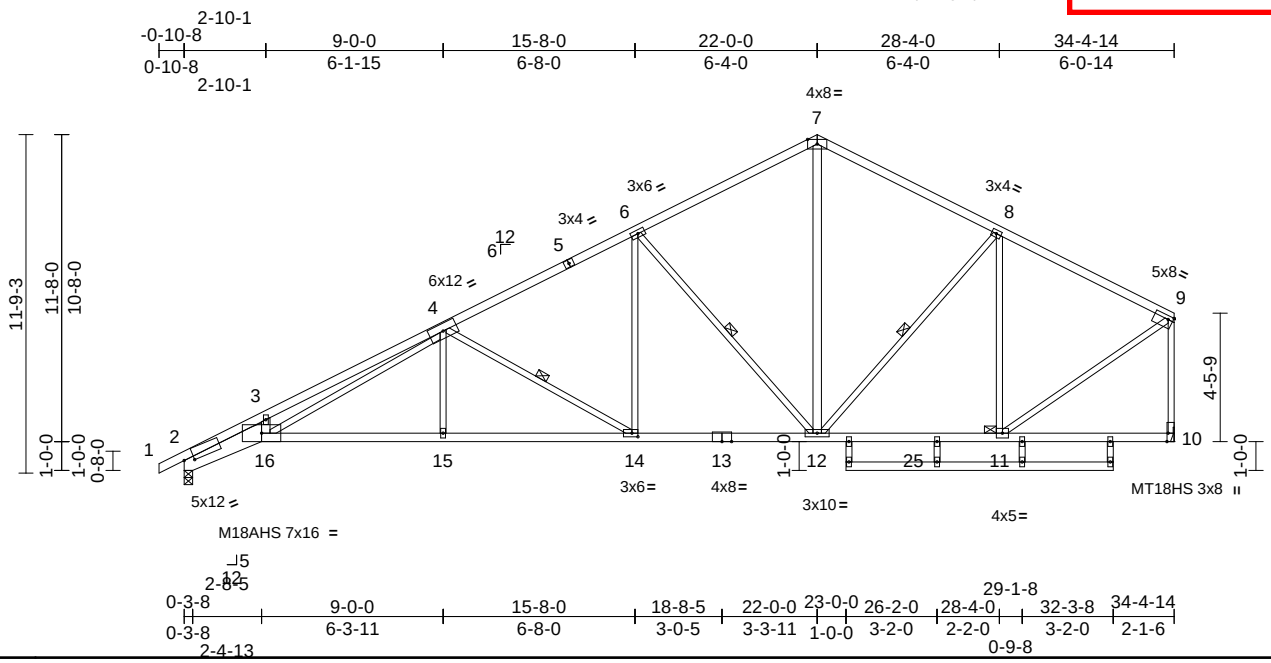

Scale = 1:80.1

Plate Offsets (X, Y): [2:0-4-3,0-1-5], [9:0-2-0,0-1-8], [10:0-3-8,Edge], [14:0-2-8,0-1-8]

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.95	Vert(LL)	-0.41	15-16	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.73	Vert(CT)	-0.71	15-16	>574	240	M18AHS	142/136
BCLL	0.0*	Rep Stress Incr	YES	WB	0.90	Horz(CT)	0.30	10	n/a	n/a	MT18HS	197/144
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S		Wind(LL)	0.22	15-16	>999	240	Weight: 166 lb	FT = 10%

LUMBER
TOP CHORD 2x4 SPF No.2 *Except* 1-5:2x4 SPF 2400F 2.0E
BOT CHORD 2x3 SPF No.2 *Except* 2-16:2x8 SP 2400F 2.0E, 16-13:2x4 SPF 2100F 1.8E, 18-19,13-10:2x4 SPF No.2
WEBS 2x3 SPF No.2 *Except* 16-3,12-7:2x4 SPF No.2

BRACING
TOP CHORD Structural wood sheathing directly applied, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 1 Row at midpt 4-14, 6-12, 8-12
JOINTS 1 Brace at Jt(s): 11

REACTIONS (size) 2=0-3-8, 10= Mechanical
Max Horiz 2=229 (LC 5)
Max Uplift 2=-42 (LC 8)
Max Grav 2=1672 (LC 2), 10=1636 (LC 2)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 7-8=-1511/123, 8-9=-1381/60, 9-10=-1550/24, 1-2=0/14, 2-3=-6457/291, 3-4=-5863/375, 4-6=-2296/98, 6-7=-1508/108
BOT CHORD 2-16=-387/5836, 15-16=-136/2977, 14-15=-135/2977, 12-14=-33/2019, 11-12=0/1179, 10-11=-44/38
WEBS 3-16=0/745, 4-16=-284/2716, 4-15=0/306, 4-14=-1106/118, 6-14=0/791, 6-12=-1085/130, 8-12=-69/262, 8-11=-635/70, 9-11=0/1423, 7-12=-25/937

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=1.60 plate grip DOL=1.60
3) All plates are MT20 plates unless otherwise indicated.
4) All plates are 2x4 MT20 unless otherwise indicated.
5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
6) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
7) All bearings are assumed to be SPF No.2 .
8) Refer to girder(s) for truss to truss connections.
9) Bearing at joint(s) 2 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 42 lb uplift at joint 2.
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.

LOAD CASE(S) Standard

STATE OF MISSOURI
SCOTT M. SEVIER
NUMBER
PE-2001018807
PROFESSIONAL ENGINEER

April 24,2024

MiTek®
16023 Swingley Ridge Rd.
Chesterfield, MO 63017
314.434.1200 / MiTek-US.com

Job	Truss	Truss Type	Qty	Ply	Lot 184 HT	I65090783
B240082	B4	Roof Special	1	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.73 S Apr 3 2024 Print: 8.730 S Apr 3 2024 MiTek Industries, Inc. Tue Apr 23 07:51:19 Page: 1
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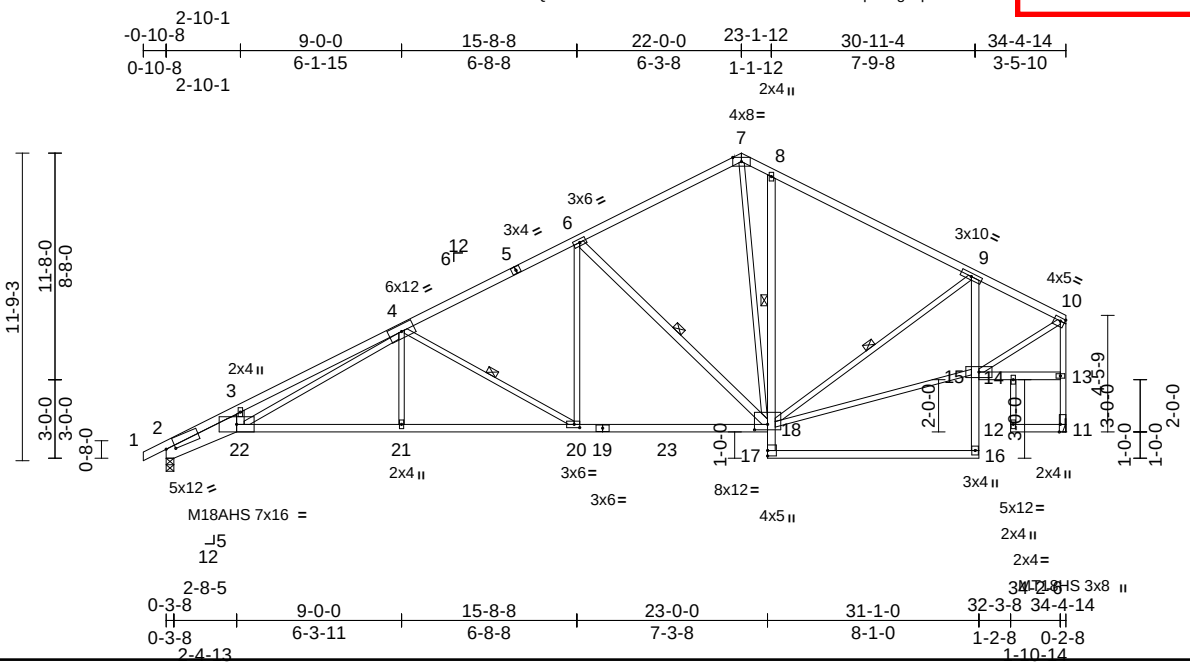

Plate Offsets (X, Y): [2:0-4-3,0-1-5], [10:0-2-0,0-1-8], [11:0-3-8,Edge], [18:0-6-0,0-2-8], [20:0-2-8,0-1-8]

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.95	Vert(LL)	-0.41	21-22	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.75	Vert(CT)	-0.72	21-22	>569	240	M18AHS	142/136
BCLL	0.0*	Rep Stress Incr	YES	WB	0.90	Horz(CT)	0.36	11	n/a	n/a	MT18HS	197/144
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S		Wind(LL)	0.22	21-22	>999	240	Weight: 175 lb	FT = 10%

LUMBER
TOP CHORD 2x4 SPF No.2 *Except* 1-5:2x4 SPF 2400F 2.0E
BOT CHORD 2x4 SPF No.2 *Except* 2-22:2x8 SP 2400F 2.0E, 22-19:2x4 SPF 2100F 1.8E, 14-12:2x3 SPF No.2
WEBS 2x3 SPF No.2 *Except* 22-3,18-6:2x4 SPF 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:
1 Row at midpt 8-18
WEBS 1 Row at midpt 4-20, 6-18, 9-18

REACTIONS (size) 2=0-3-8, 11= Mechanical
Max Horiz 2=229 (LC 5)
Max Uplift 2=-42 (LC 8)
Max Grav 2=1666 (LC 2), 11=1633 (LC 2)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/14, 2-3=-6438/289, 3-4=-5845/373, 4-6=-2289/95, 6-7=-1375/103, 7-8=-1465/136, 8-9=-1527/110, 9-10=-1473/24, 11-13=-1595/10, 10-13=-1533/18
BOT CHORD 2-22=-385/5819, 21-22=-137/2959, 20-21=-137/2958, 18-20=-30/2011, 17-18=0/159, 8-18=-486/168, 16-17=0/49, 15-16=0/153, 9-15=-400/78, 14-15=-75/64, 13-14=-67/57, 12-14=0/35, 11-12=-8/8
WEBS 3-22=0/744, 4-22=-280/2718, 4-21=0/290, 4-20=-1092/123, 6-20=0/841, 6-18=-1155/121, 15-18=-55/1313, 9-18=-193/106, 10-15=-6/1530, 7-18=-114/1081

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=1.60 plate grip DOL=1.60
3) All plates are MT20 plates unless otherwise indicated.
4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
5) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
6) All bearings are assumed to be SPF No.2 .
7) Refer to girder(s) for truss to truss connections.
8) Bearing at joint(s) 2 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 42 lb uplift at joint 2.
10) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard

STATE OF MISSOURI
SCOTT M. SEVIER
NUMBER PE-2001018807
PROFESSIONAL ENGINEER

April 24,2024

MiTek®
16023 Swingley Ridge Rd.
Chesterfield, MO 63017
314.434.1200 / MiTek-US.com

Job	Truss	Truss Type	Qty	Ply	Lot 184 HT	I65090784
B240082	B5	Roof Special	3	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS - 66871,

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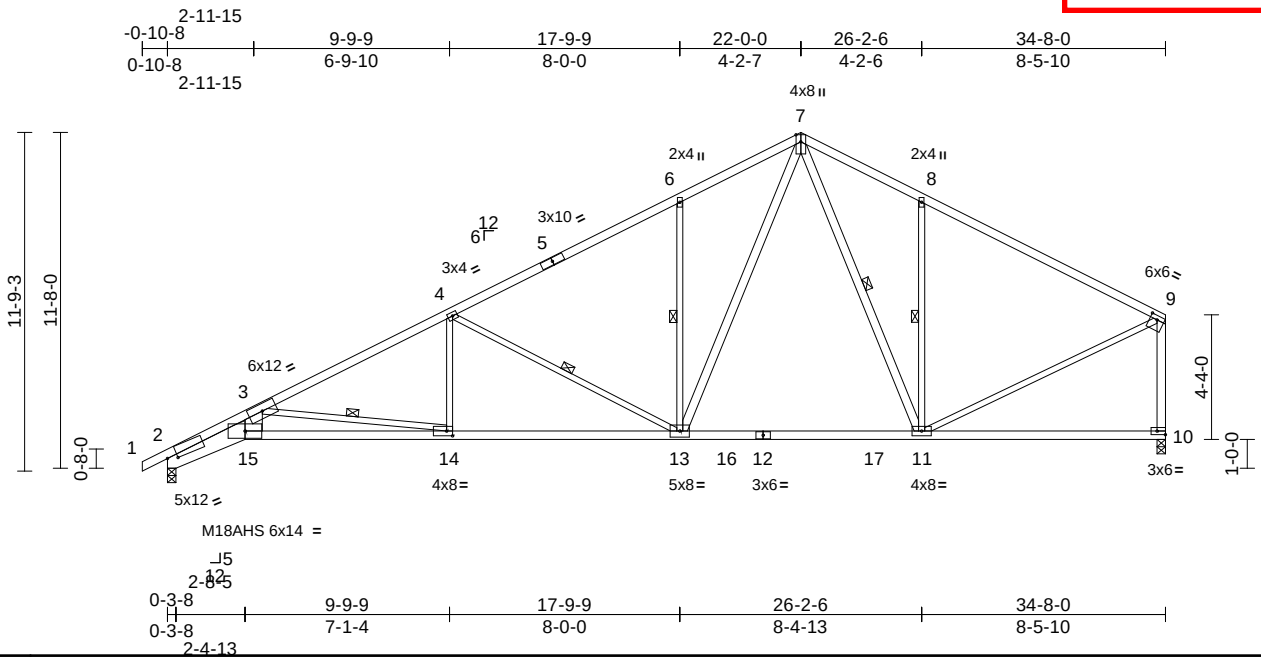

Scale = 1:80

Plate Offsets (X, Y): [2:0-4-3,0-1-5], [9:Edge,0-1-12], [10:Edge,0-1-8], [14:0-2-8,0-2-0]

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.72	Vert(LL)	-0.38	14-15	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.85	Vert(CT)	-0.68	14-15	>610	240	M18AHS	142/136
BCLL	0.0*	Rep Stress Incr	YES	WB	0.99	Horz(CT)	0.28	10	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S		Wind(LL)	0.28	14-15	>999	240	Weight: 159 lb	FT = 10%

LUMBER
TOP CHORD 2x4 SPF 2100F 1.8E *Except* 5-7:2x4 SPF No.2
BOT CHORD 2x8 SP 2400F 2.0E *Except* 15-12:2x4 SPF 2100F 1.8E, 12-10:2x4 SPF No.2
WEBS 2x3 SPF No.2 *Except* 15-3:2x8 SP 2400F 2.0E, 13-7,11-7,10-9:2x4 SPF No.2

BRACING
TOP CHORD Structural wood sheathing directly applied or 2-5-1 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing, Except:
7-6-1 oc bracing: 14-15.
WEBS 1 Row at midpt 3-14, 4-13, 6-13, 7-11, 8-11

REACTIONS (size) 2=0-3-8, 10=0-3-8
Max Horiz 2=277 (LC 5)
Max Uplift 2=-239 (LC 8), 10=-153 (LC 9)
Max Grav 2=1677 (LC 2), 10=1638 (LC 2)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/14, 2-3=-7072/1241, 3-4=-3154/457, 4-6=-2085/318, 6-7=-2047/456, 7-8=-1577/320, 8-9=-1589/234, 9-10=-1515/194
BOT CHORD 2-15=-1333/6439, 14-15=-1095/5068, 13-14=-496/2803, 11-13=-72/1273, 10-11=-50/62
WEBS 3-15=-429/2596, 3-14=-2282/603, 4-14=0/536, 4-13=-1163/333, 6-13=-463/264, 7-13=-346/1342, 7-11=-190/348, 8-11=-558/316, 9-11=-111/1426

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) exterior zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
3) All plates are MT20 plates unless otherwise indicated.
4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
5) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
6) All bearings are assumed to be SPF No.2 .
7) Bearing at joint(s) 2 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 239 lb uplift at joint 2 and 153 lb uplift at joint 10.
9) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard

April 24,2024

MiTek®
16023 Swingley Ridge Rd.
Chesterfield, MO 63017
314.434.1200 / MiTek-US.com

Job	Truss	Truss Type	Qty	Ply	Lot 184 HT	I65090785
B240082	B6	Roof Special	1	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS - 66871,

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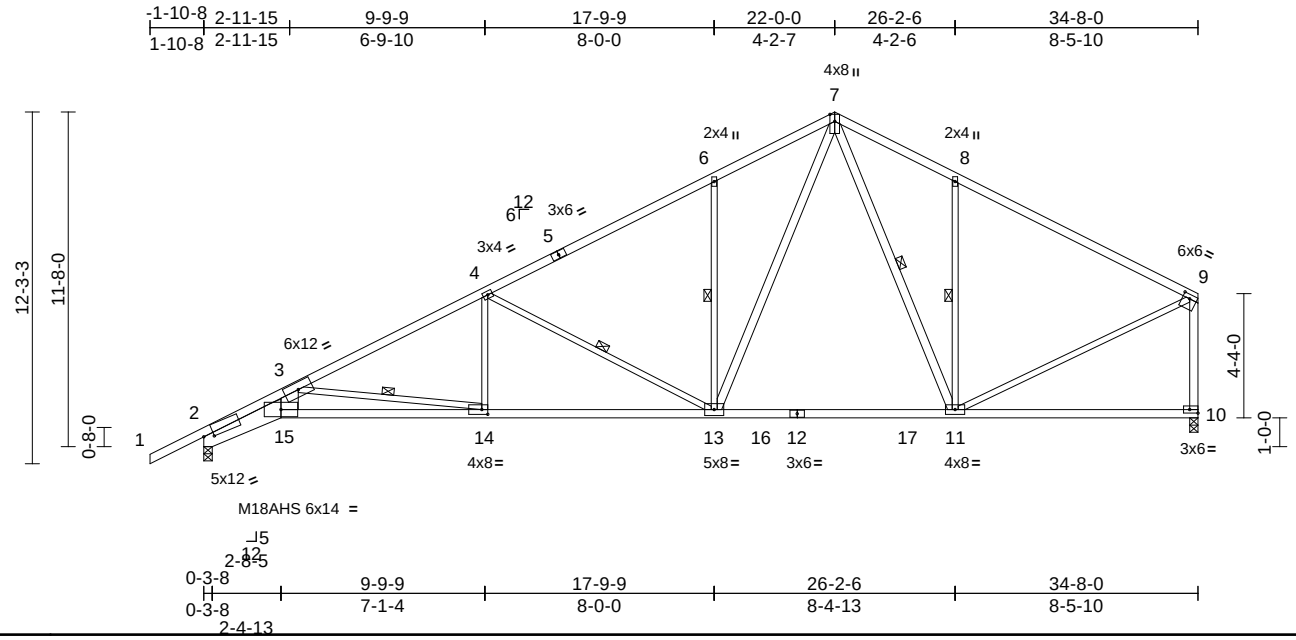

Scale = 1:80.3

Plate Offsets (X, Y): [2:0-4-3,0-1-5], [9:Edge,0-1-12], [10:Edge,0-1-8], [14:0-2-8,0-2-0]

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.75	Vert(LL)	-0.37	14-15	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.83	Vert(CT)	-0.67	14-15	>620	240	M18AHS	142/136
BCLL	0.0*	Rep Stress Incr	YES	WB	0.95	Horz(CT)	0.27	10	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S		Wind(LL)	0.27	14-15	>999	240	Weight: 160 lb	FT = 10%

LUMBER
TOP CHORD 2x4 SPF 2100F 1.8E *Except* 5-7:2x4 SPF No.2
BOT CHORD 2x8 SP 2400F 2.0E *Except* 15-12:2x4 SPF 2100F 1.8E, 12-10:2x4 SPF No.2
WEBS 2x3 SPF No.2 *Except* 15-3:2x8 SP 2400F 2.0E, 13-7,11-7,10-9:2x4 SPF No.2

BRACING
TOP CHORD Structural wood sheathing directly applied or 2-5-12 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing, Except:
7-8-0 oc bracing: 14-15.
WEBS 1 Row at midpt 3-14, 4-13, 6-13, 7-11, 8-11

REACTIONS (size) 2=0-3-8, 10=0-3-8
Max Horiz 2=286 (LC 5)
Max Uplift 2=-263 (LC 8), 10=-153 (LC 9)
Max Grav 2=1737 (LC 2), 10=1635 (LC 2)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/46, 2-3=-6929/1171, 3-4=-3138/449, 4-6=-2080/315, 6-7=-2042/453, 7-8=-1574/319, 8-9=-1586/233, 9-10=-1513/194
BOT CHORD 2-15=-1264/6310, 14-15=-1049/4984, 13-14=-489/2790, 11-13=-70/1270, 10-11=-50/62
WEBS 3-15=-389/2522, 3-14=-2210/564, 4-14=0/527, 4-13=-1153/328, 6-13=-463/264, 7-13=-344/1337, 7-11=-190/349, 8-11=-558/316, 9-11=-109/1423

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) exterior zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
3) All plates are MT20 plates unless otherwise indicated.
4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
5) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
6) All bearings are assumed to be SPF No.2 .
7) Bearing at joint(s) 2 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 263 lb uplift at joint 2 and 153 lb uplift at joint 10.
9) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard

April 24,2024

MiTek®
16023 Swingley Ridge Rd.
Chesterfield, MO 63017
314.434.1200 / MiTek-US.com

Job	Truss	Truss Type	Qty	Ply	Lot 184 HT	I65090786
B240082	B7	Roof Special	1	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.73 S Apr 3 2024 Print: 8.730 S Apr 3 2024 MiTek Industries, Inc. Tue Apr 23 07:51:20 Page: 1
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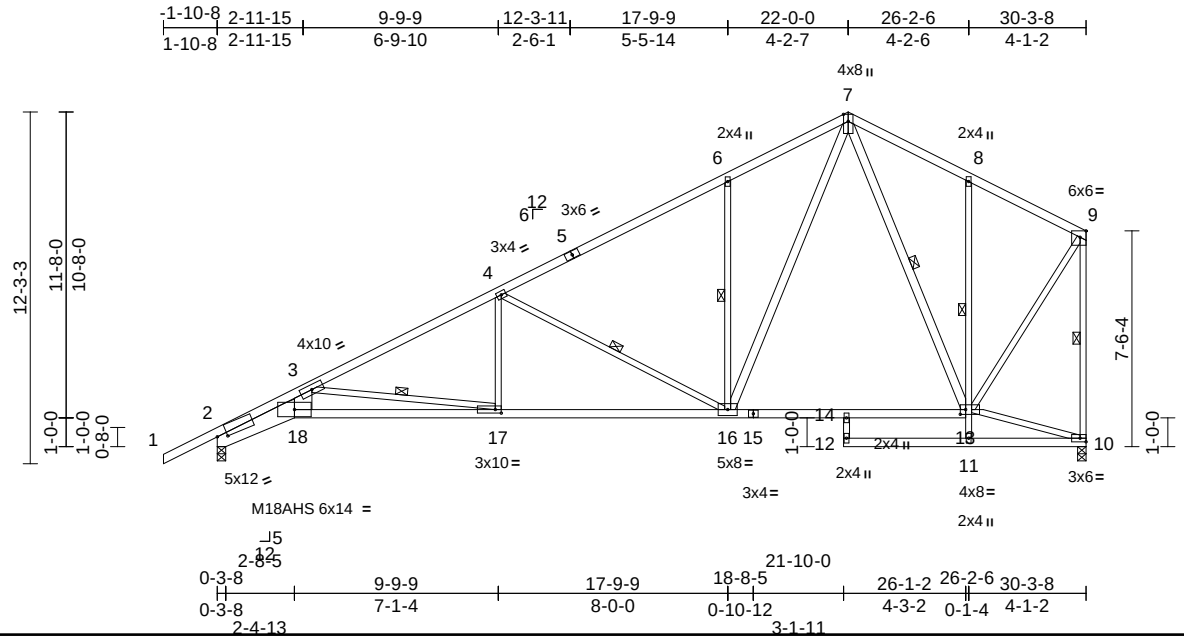

Scale = 1:80.3

Plate Offsets (X, Y): [2:0-4-3,0-1-5], [9:0-2-8,Edge], [13:0-2-4,0-2-0], [17:0-2-8,0-1-8]

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.97	Vert(LL)	-0.29	17-18	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.69	Vert(CT)	-0.56	17-18	>639	240	M18AHS	142/136
BCLL	0.0*	Rep Stress Incr	YES	WB	0.84	Horz(CT)	0.26	10	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S		Wind(LL)	0.26	17-18	>999	240	Weight: 159 lb	FT = 10%

LUMBER
TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2 *Except* 2-18:2x8 SP 2400F 2.0E, 18-15:2x4 SPF 2100F 1.8E, 14-12:2x3 SPF No.2
WEBS 2x3 SPF No.2 *Except* 18-3:2x8 SP 2400F 2.0E, 16-7,13-7:2x4 SPF No.2

BRACING
TOP CHORD Structural wood sheathing directly applied or 2-2-0 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing, Except:
8-0-1 oc bracing: 17-18
6-0-0 oc bracing: 11-12.
WEBS 1 Row at midpt 3-17, 7-13, 9-10, 4-16, 6-16, 8-11

REACTIONS (size) 2=0-3-8, 10=0-3-8
Max Horiz 2=367 (LC 7)
Max Uplift 2=-241 (LC 8), 10=-166 (LC 8)
Max Grav 2=1498 (LC 1), 10=1347 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/46, 2-3=-5696/1059, 3-4=-2502/391, 4-6=-1510/260, 6-7=-1467/401, 7-8=-736/225, 8-9=-702/175, 9-10=-1315/177
BOT CHORD 2-18=-1152/5117, 17-18=-962/4091, 16-17=-422/2188, 14-16=-102/768, 13-14=-91/750, 12-14=0/45, 11-12=-16/18, 10-11=-7/35
WEBS 3-18=-341/1960, 3-17=-1918/544, 7-16=-333/1231, 7-13=-516/101, 4-17=0/466, 4-16=-1083/321, 6-16=-469/265, 11-13=0/242, 8-13=-337/202, 10-13=-112/73, 9-13=-98/1083

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) exterior zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
3) All plates are MT20 plates unless otherwise indicated.
4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
5) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
6) All bearings are assumed to be SPF No.2 .
7) Bearing at joint(s) 2 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 241 lb uplift at joint 2 and 166 lb uplift at joint 10.
9) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard

April 24,2024

MiTek®
16023 Swingley Ridge Rd.
Chesterfield, MO 63017
314.434.1200 / MiTek-US.com

Job	Truss	Truss Type	Qty	Ply	Lot 184 HT	I65090787
B240082	B8	Roof Special	2	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.73 S Apr 3 2024 Print: 8.730 S Apr 3 2024 MiTek Industries, Inc. Tue Apr 23 07:51:20 Page: 1
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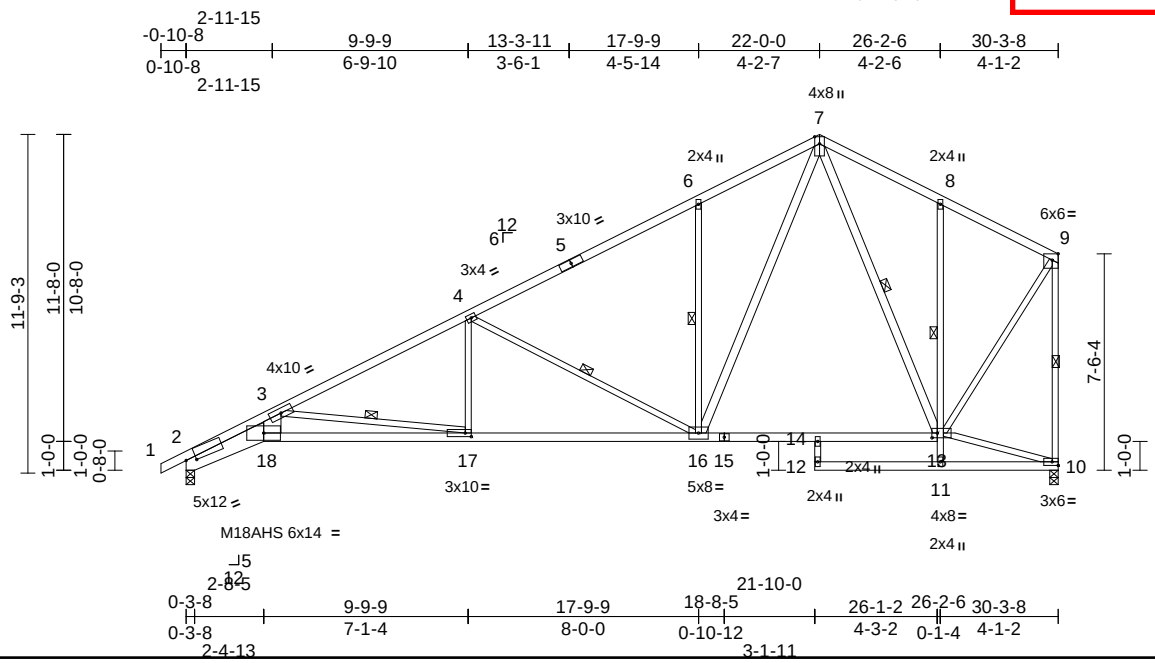

Scale = 1:80

Plate Offsets (X, Y): [2:0-4-3,0-1-5], [9:0-2-8,Edge], [13:0-2-4,0-2-0], [17:0-2-8,0-1-8]

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.97	Vert(LL)	-0.30	17-18	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.71	Vert(CT)	-0.58	17-18	>623	240	M18AHS	142/136
BCLL	0.0*	Rep Stress Incr	YES	WB	0.88	Horz(CT)	0.27	10	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S		Wind(LL)	0.26	17-18	>999	240	Weight: 158 lb	FT = 10%

LUMBER
TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2 *Except* 2-18:2x8 SP 2400F 2.0E, 18-15:2x4 SPF 2100F 1.8E, 14-12:2x3 SPF No.2
WEBS 2x3 SPF No.2 *Except* 18-3:2x8 SP 2400F 2.0E, 16-7,13-7:2x4 SPF No.2

BRACING
TOP CHORD Structural wood sheathing directly applied or 2-1-5 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing, Except:
7-9-13 oc bracing: 17-18
6-0-0 oc bracing: 11-12.
WEBS 1 Row at midpt 3-17, 4-16, 6-16, 7-13, 8-11, 9-10

REACTIONS (size) 2=0-3-8, 10=0-3-8
Max Horiz 2=357 (LC 7)
Max Uplift 2=-217 (LC 8), 10=-167 (LC 8)
Max Grav 2=1425 (LC 1), 10=1351 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/14, 2-3=-5867/1128, 3-4=-2521/398, 4-6=-1516/262, 6-7=-1472/403, 7-8=-738/226, 8-9=-704/176, 9-10=-1318/178
BOT CHORD 2-18=-1220/5287, 17-18=-1007/4202, 16-17=-429/2205, 14-16=-103/771, 13-14=-92/753, 12-14=0/45, 11-12=-16/18, 10-11=-7/35
WEBS 3-18=-381/2059, 3-17=-2012/582, 4-17=0/470, 4-16=-1098/327, 6-16=-469/265, 7-16=-336/1237, 7-13=-519/102, 11-13=0/242, 8-13=-337/202, 9-13=-98/1086, 10-13=-112/73

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) exterior zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
3) All plates are MT20 plates unless otherwise indicated.
4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
5) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
6) All bearings are assumed to be SPF No.2 .
7) Bearing at joint(s) 2 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 217 lb uplift at joint 2 and 167 lb uplift at joint 10.
9) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard

STATE OF MISSOURI
SCOTT M. SEVIER
NUMBER PE-2001018807
PROFESSIONAL ENGINEER

April 24,2024

MiTek®
16023 Swingley Ridge Rd.
Chesterfield, MO 63017
314.434.1200 / MiTek-US.com

Job	Truss	Truss Type	Qty	Ply	Lot 184 HT	I65090788
B240082	B9	Roof Special	1	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS - 66871,

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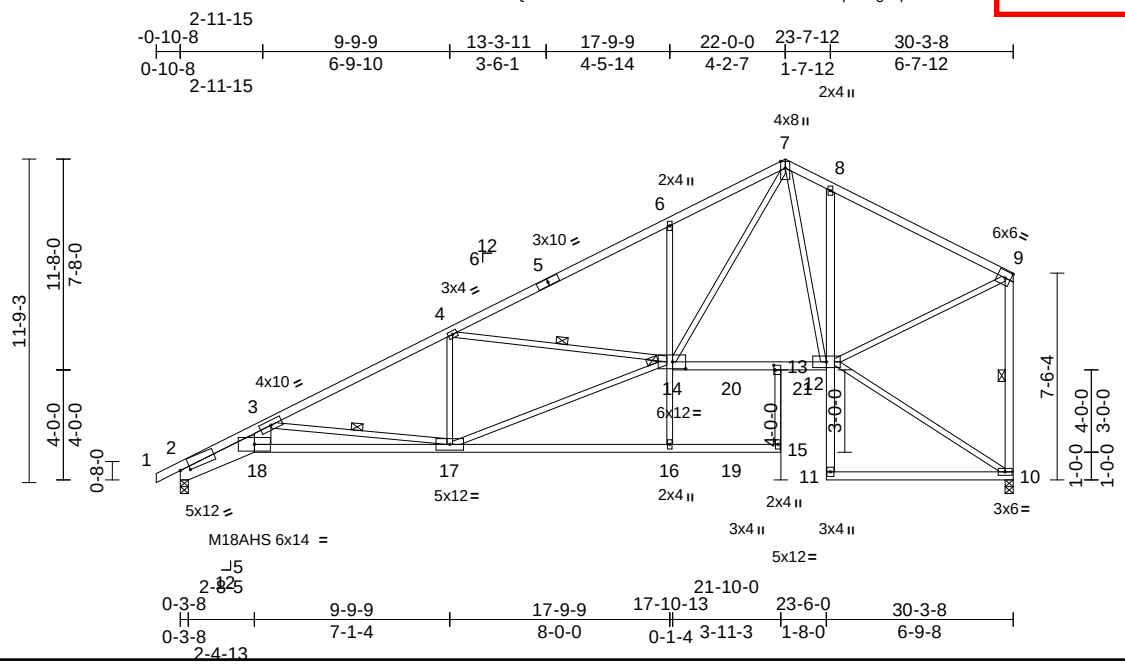

Scale = 1:83.8

Plate Offsets (X, Y): [2:0-4-3,0-1-5], [13:0-2-0,0-0-8], [14:0-5-12,0-3-0]

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.92	Vert(LL)	-0.38	17-18	>960	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.77	Vert(CT)	-0.66	17-18	>545	240	M18AHS	142/136
BCLL	0.0*	Rep Stress Incr	YES	WB	0.91	Horz(CT)	0.40	10	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S		Wind(LL)	0.27	17-18	>999	240	Weight: 162 lb	FT = 10%

LUMBER
TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2 *Except* 2-18:2x8 SP 2400F 2.0E, 18-15:2x4 SPF 2100F 1.8E, 15-13:2x3 SPF No.2
WEBS 2x3 SPF No.2 *Except* 18-3:2x8 SP 2400F 2.0E, 10-9:2x4 SPF No.2

BRACING
TOP CHORD Structural wood sheathing directly applied or 1-11-2 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing, Except:
7-9-12 oc bracing: 17-18.
WEBS 1 Row at midpt 3-17, 4-14, 9-10
JOINTS 1 Brace at Jt(s): 14

REACTIONS (size) 2=0-3-8, 10=0-3-8
Max Horiz 2=358 (LC 7)
Max Uplift 2=-216 (LC 8), 10=-167 (LC 8)
Max Grav 2=1486 (LC 2), 10=1469 (LC 2)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/14, 2-3=-6213/1130, 3-4=-2677/396, 4-6=-2421/349, 6-7=-2379/483, 7-8=-1416/274, 8-9=-1417/227, 9-10=-1364/192
BOT CHORD 2-18=-1223/5711, 17-18=-1008/4502, 16-17=-2/44, 15-16=-5/31, 13-15=0/66, 13-14=-140/1215, 12-13=-142/1246, 11-12=0/131, 8-12=-446/260, 10-11=0/13
WEBS 3-18=-383/2295, 3-17=-2122/585, 4-17=-393/184, 4-14=-382/212, 14-16=0/275, 6-14=-463/264, 7-14=-410/1793, 7-12=-188/234, 10-12=-123/88, 14-17=-453/2508, 9-12=-125/1340

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) exterior zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
3) All plates are MT20 plates unless otherwise indicated.
4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
5) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
6) All bearings are assumed to be SPF No.2 .
7) Bearing at joint(s) 2 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 216 lb uplift at joint 2 and 167 lb uplift at joint 10.
9) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard

STATE OF MISSOURI
SCOTT M. SEVIER
NUMBER PE-2001018807
PROFESSIONAL ENGINEER

April 24,2024

MiTek®
16023 Swingley Ridge Rd.
Chesterfield, MO 63017
314.434.1200 / MiTek-US.com

Job	Truss	Truss Type	Qty	Ply	Lot 184 HT	I65090789
B240082	B10	Common	1	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS - 66871,

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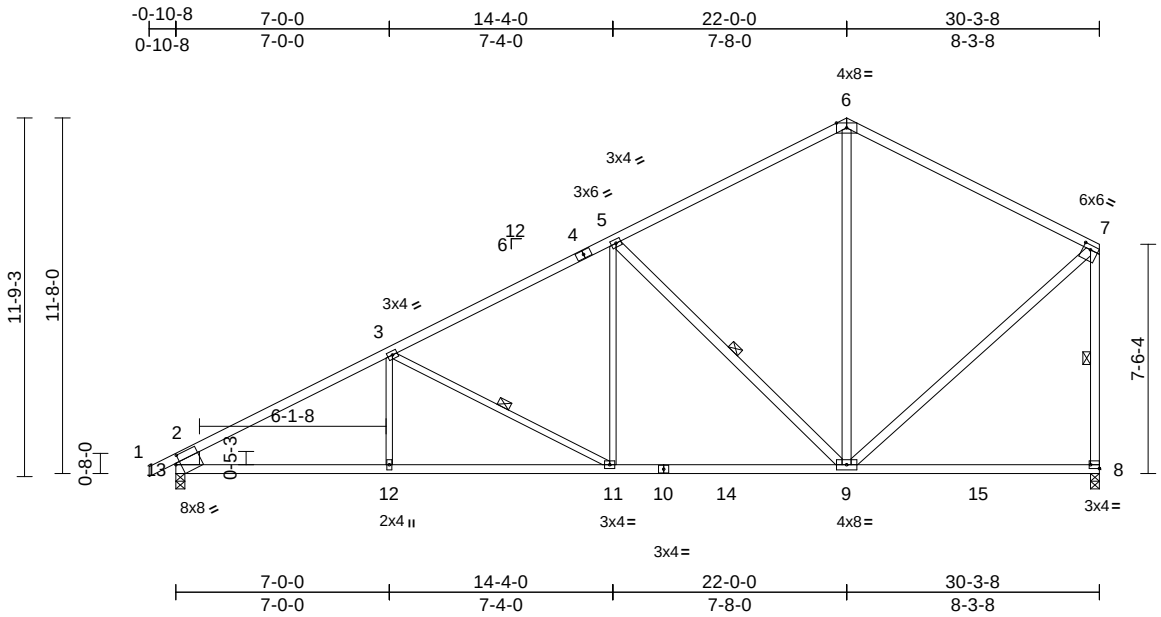

Scale = 1:75.6

Plate Offsets (X, Y): [7:Edge,0-1-12], [8:Edge,0-1-8], [13:0-1-13,0-3-4]

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.81	Vert(LL)	-0.19	11-12	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.78	Vert(CT)	-0.36	11-12	>999	240		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.53	Horz(CT)	0.05	8	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S		Wind(LL)	0.11	11-12	>999	240	Weight: 136 lb	FT = 10%

LUMBER

TOP CHORD 2x4 SPF 2100F 1.8E *Except* 4-6:2x4 SPF No.2

BOT CHORD 2x4 SPF 2100F 1.8E *Except* 10-8:2x4 SPF No.2

WEBS 2x4 SPF No.2 *Except* 3-12,11-3,5-11:2x3 SPF No.2, 13-2:2x10 SP 2400F 2.0E

BRACING

TOP CHORD Structural wood sheathing directly applied or 3-4-13 oc purlins, except end verticals.

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

WEBS 1 Row at midpt 3-11, 5-9, 7-8

REACTIONS (size) 8=0-3-8, 13=0-3-8
Max Horiz 13=366 (LC 5)
Max Uplift 8=-166 (LC 8), 13=-219 (LC 8)
Max Grav 8=1458 (LC 2), 13=1480 (LC 2)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=0/39, 2-3=-2248/307, 3-5=-1712/275, 5-6=-982/217, 6-7=-976/244, 7-8=-1291/213, 2-13=-1310/253

BOT CHORD 12-13=-393/1934, 11-12=-393/1934, 9-11=-223/1513, 8-9=-94/75

WEBS 3-12=0/238, 3-11=-476/191, 5-11=-1/546, 5-9=-990/302, 6-9=-42/416, 7-9=-105/1024

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) exterior zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
4) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
5) Bearings are assumed to be: Joint 13 SPF 2100F 1.8E , Joint 8 SPF No.2 .
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 219 lb uplift at joint 13 and 166 lb uplift at joint 8.
7) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard

April 24,2024

MiTek®
16023 Swingley Ridge Rd.
Chesterfield, MO 63017
314.434.1200 / MiTek-US.com

Job	Truss	Truss Type	Qty	Ply	Lot 184 HT	I65090790
B240082	B11	Roof Special	1	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS - 66871,

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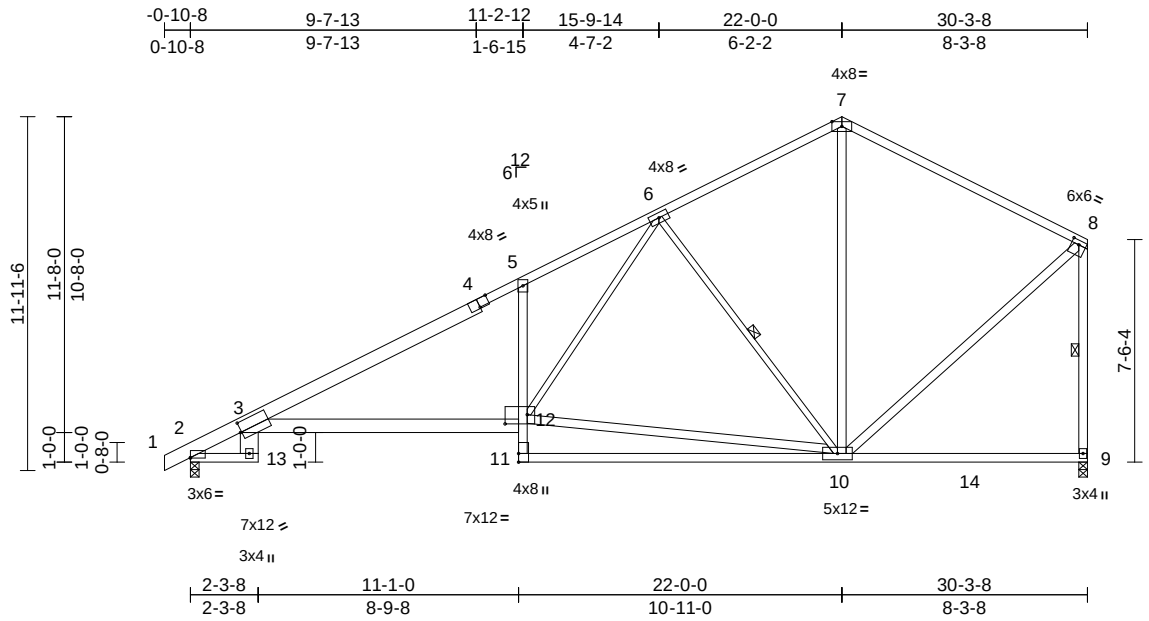

Scale = 1:77.8

Plate Offsets (X, Y): [2:Edge,0-0-3], [3:0-0-8,0-4-0], [4:0-4-0,Edge], [8:Edge,0-1-12], [12:0-9-0,0-3-12]

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.78	Vert(LL)	-0.41	3-12	>883	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.58	Vert(CT)	-0.73	3-12	>491	240		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.98	Horz(CT)	0.37	9	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S		Wind(LL)	0.34	3-12	>999	240	Weight: 169 lb	FT = 20%

LUMBER
TOP CHORD 2x4 SPF 2100F 1.8E *Except* 1-4:2x6 SP 2400F 2.0E
BOT CHORD 2x4 SPF No.2 *Except* 13-3:2x8 SP 2400F 2.0E, 3-12:2x6 SP 2400F 2.0E, 11-9:2x4 SPF 2100F 1.8E
WEBS 2x4 SPF No.2 *Except* 12-6,10-6:2x3 SPF No.2

BRACING
TOP CHORD Structural wood sheathing directly applied or 4-3-12 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing, Except:
6-0-0 oc bracing: 2-13.
WEBS 1 Row at midpt 6-10, 8-9

REACTIONS (size) 2=0-3-8, 9=0-3-8
Max Horiz 2=359 (LC 5)
Max Uplift 2=-212 (LC 8), 9=-168 (LC 8)
Max Grav 2=1462 (LC 2), 9=1441 (LC 2)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/12, 2-3=-988/24, 3-5=-2544/384, 5-6=-2491/526, 6-7=-953/221, 7-8=-977/241, 8-9=-1289/208
BOT CHORD 2-13=-6/0, 3-13=-4/95, 3-12=-413/2295, 11-12=0/193, 5-12=-626/304, 10-11=0/100, 9-10=-97/74
WEBS 10-12=-235/1309, 6-12=-321/1457, 6-10=-1003/350, 7-10=-58/437, 8-10=-99/1025

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) exterior zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
4) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
5) Bearings are assumed to be: Joint 2 SPF No.2 , Joint 9 SPF 2100F 1.8E .
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 212 lb uplift at joint 2 and 168 lb uplift at joint 9.
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.

LOAD CASE(S) Standard

STATE OF MISSOURI
SCOTT M. SEVIER
NUMBER PE-2001018807
PROFESSIONAL ENGINEER
April 24,2024

MiTek®
16023 Swingley Ridge Rd.
Chesterfield, MO 63017
314.434.1200 / MiTek-US.com

Job	Truss	Truss Type	Qty	Ply	Lot 184 HT	I65090791
B240082	B12	Roof Special	1	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.73 S Apr 3 2024 Print: 8.730 S Apr 3 2024 MiTek Industries, Inc. Tue Apr 23 07:51:21 2024 Page: 1
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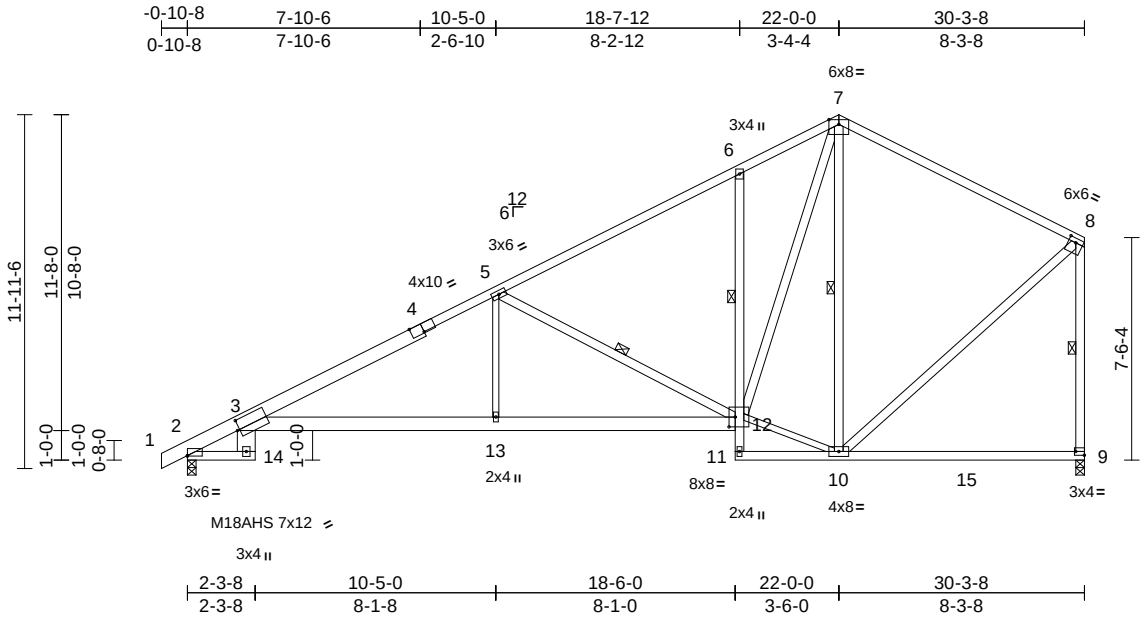

Scale = 1:77.8

Plate Offsets (X, Y): [2:Edge,0-0-3], [3:0-1-0,0-4-0], [4:0-5-0,Edge], [8:Edge,0-1-12], [9:Edge,0-1-8], [12:0-2-8,0-4-0]

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.87	Vert(LL)	-0.32	3-13	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.57	Vert(CT)	-0.57	3-13	>629	240	M18AHS	186/179
BCLL	0.0*	Rep Stress Incr	YES	WB	0.69	Horz(CT)	0.33	9	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S		Wind(LL)	0.28	3-13	>999	240	Weight: 181 lb	FT = 20%

LUMBER
TOP CHORD 2x4 SPF 2100F 1.8E *Except* 1-4:2x6 SP 2400F 2.0E
BOT CHORD 2x4 SPF No.2 *Except* 14-3:2x8 SP 2400F 2.0E, 3-12:2x6 SP 2400F 2.0E
WEBS 2x4 SPF No.2 *Except* 5-13,10-12:2x3 SPF 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 6-0-0 oc bracing. Except:
1 Row at midpt 6-12
WEBS 1 Row at midpt 5-12, 7-10, 8-9

REACTIONS (size) 2=0-3-8, 9=0-3-8
Max Horiz 2=359 (LC 5)
Max Uplift 2=-212 (LC 8), 9=-168 (LC 8)
Max Grav 2=1462 (LC 2), 9=1441 (LC 2)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/12, 2-3=-988/24, 3-5=-2603/386, 5-6=-1430/260, 6-7=-1333/379, 7-8=-960/245, 8-9=-1275/216
BOT CHORD 2-14=-6/0, 3-14=-4/95, 3-13=-429/2353, 12-13=-429/2353, 11-12=-21/2, 6-12=-407/235, 10-11=-55/89, 9-10=-93/76
WEBS 5-13=0/512, 5-12=-1304/351, 10-12=-38/789, 7-12=-353/1286, 7-10=-685/143, 8-10=-103/1000

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) exterior zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
3) All plates are MT20 plates unless otherwise indicated.
4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
5) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
6) All bearings are assumed to be SPF No.2 .
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 212 lb uplift at joint 2 and 168 lb uplift at joint 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.

LOAD CASE(S) Standard

STATE OF MISSOURI
SCOTT M. SEVIER
NUMBER
PE-2001018807
PROFESSIONAL ENGINEER

April 24,2024

MiTek®
16023 Swingley Ridge Rd.
Chesterfield, MO 63017
314.434.1200 / MiTek-US.com

Job	Truss	Truss Type	Qty	Ply	Lot 184 HT	I65090792
B240082	B13	Roof Special	2	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.73 S Apr 3 2024 Print: 8.730 S Apr 3 2024 MiTek Industries, Inc. Tue Apr 23 07:51:21 Page: 1
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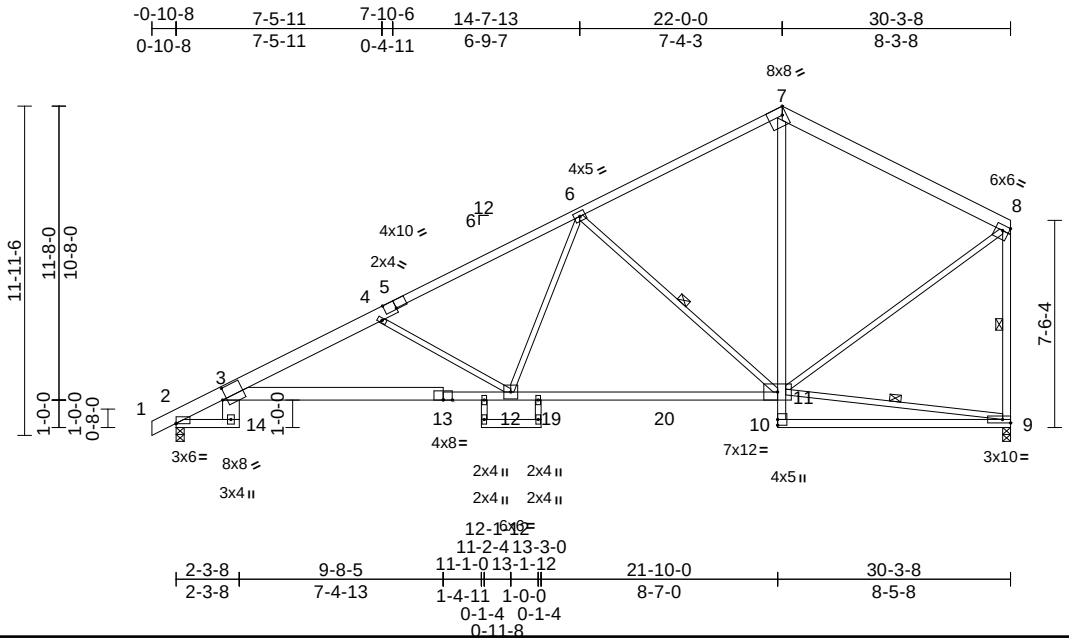

Scale = 1:83.6

Plate Offsets (X, Y): [2:Edge,0-0-3], [3:0-1-12,0-4-12], [5:0-5-0,Edge], [7:0-1-12,Edge], [8:Edge,0-2-4]

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.83	Vert(LL)	-0.36	11-12	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.97	Vert(CT)	-0.63	11-12	>576	240		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.97	Horz(CT)	0.31	9	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S		Wind(LL)	0.24	3-12	>999	240	Weight: 157 lb	FT = 20%

LUMBER
TOP CHORD 2x6 SP 2400F 2.0E *Except* 7-8:2x6 SPF No.2, 5-7:2x4 SPF No.2
BOT CHORD 2x4 SPF No.2 *Except* 14-3:2x8 SP 2400F 2.0E, 3-13:2x6 SPF No.2, 13-11:2x4 SPF 2100F 1.8E
WEBS 2x3 SPF No.2 *Except* 9-8:2x4 SPF 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 2-2-0 oc bracing.
WEBS 1 Row at midpt 8-9, 9-11, 6-11

REACTIONS (size) 2=0-3-8, 9=0-3-8
Max Horiz 2=356 (LC 5)
Max Uplift 2=-212 (LC 8), 9=-168 (LC 8)
Max Grav 2=1488 (LC 2), 9=1419 (LC 2)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/12, 2-3=-1002/24, 3-4=-2882/511, 4-6=-2297/353, 6-7=-1053/224, 7-8=-1037/250, 8-9=-1285/209
BOT CHORD 2-14=-6/0, 3-14=-4/96, 3-12=-601/2697, 11-12=-258/1680, 10-11=0/170, 7-11=-50/473, 9-10=-21/26
WEBS 9-11=-108/76, 6-11=-1065/331, 6-12=-66/935, 4-12=-864/372, 8-11=-105/1061

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) exterior zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
4) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
5) All bearings are assumed to be SPF No.2 .
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 212 lb uplift at joint 2 and 168 lb uplift at joint 9.
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.

LOAD CASE(S) Standard

April 24,2024

MiTek®
16023 Swingley Ridge Rd.
Chesterfield, MO 63017
314.434.1200 / MiTek-US.com

Job	Truss	Truss Type	Qty	Ply	Lot 184 HT
B240082	B14	Roof Special	1	1	Job Reference (optional)

RELEASE FOR CONSTRUCTION
AS NOTED FOR PLAN REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
I65090793
05/07/2024

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.73 S Apr 3 2024 Print: 8.730 S Apr 3 2024 MiTek Industries, Inc. Tue Apr 23 07:51:21 Page: 1
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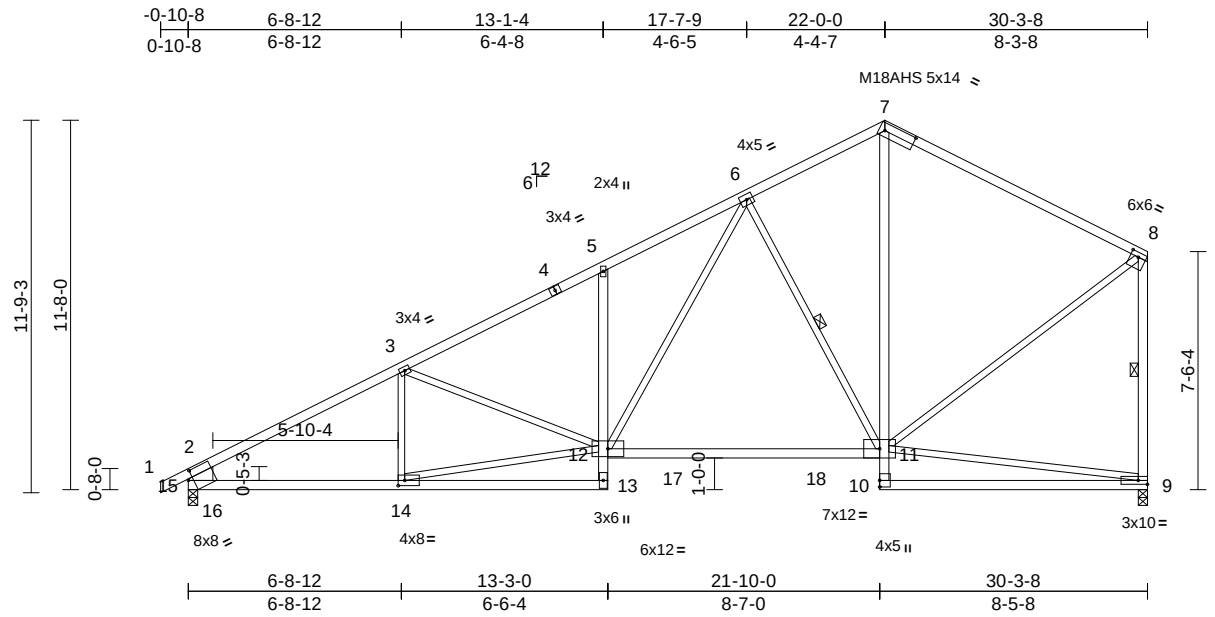

Scale = 1:72.8

Plate Offsets (X, Y): [7:0-11-12,0-2-12], [8:Edge,0-1-12], [14:0-2-8,0-2-0], [15:0-1-13,0-3-4]

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.80	Vert(LL)	-0.34	11-12	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.61	Vert(CT)	-0.59	11-12	>601	240	M18AHS	142/136
BCLL	0.0*	Rep Stress Incr	YES	WB	0.68	Horz(CT)	0.08	9	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S		Wind(LL)	0.12	13-14	>999	240	Weight: 147 lb	FT = 10%

LUMBER
TOP CHORD 2x4 SPF 2100F 1.8E *Except* 4-7:2x4 SPF No.2
BOT CHORD 2x4 SPF No.2 *Except* 15-13,12-11:2x4 SPF 2100F 1.8E
WEBS 2x3 SPF No.2 *Except* 15-2:2x10 SP 2400F 2.0E, 9-8:2x4 SPF No.2

BRACING
TOP CHORD Structural wood sheathing directly applied or 3-5-10 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.
WEBS 1 Row at midpt 6-11, 8-9

REACTIONS (size) 9=0-3-8, 15=0-3-8
Max Horiz 15=366 (LC 5)
Max Uplift 9=-166 (LC 8), 15=-219 (LC 8)
Max Grav 9=1414 (LC 2), 15=1473 (LC 2)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/39, 2-3=-2240/306, 3-5=-2062/325, 5-6=-2088/441, 6-7=-998/240, 7-8=-1053/247, 2-15=-1308/249, 8-9=-1285/209
BOT CHORD 14-15=-395/1927, 13-14=-47/103, 12-13=0/133, 5-12=-432/211, 11-12=-152/1286, 10-11=0/170, 7-11=-98/546, 9-10=-52/22
WEBS 3-14=-222/147, 12-14=-352/1899, 3-12=-150/124, 6-11=-862/302, 8-11=-101/1051, 9-11=-111/99, 6-12=-263/1155

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) exterior zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
3) All plates are MT20 plates unless otherwise indicated.
4) The Fabrication Tolerance at joint 7 = 0%
5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
6) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
7) All bearings are assumed to be SPF No.2 .
8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 219 lb uplift at joint 15 and 166 lb uplift at joint 9.
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.

LOAD CASE(S) Standard

STATE OF MISSOURI
SCOTT M. SEVIER
NUMBER
PE-2001018807
PROFESSIONAL ENGINEER

April 24,2024

MiTek®
16023 Swingley Ridge Rd.
Chesterfield, MO 63017
314.434.1200 / MiTek-US.com

Job	Truss	Truss Type	Qty	Ply	Lot 184 HT
B240082	B15	Common Supported Gable	1	1	Job Reference (optional) I65090794

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.73 S Apr 3 2024 Print: 8.730 S Apr 3 2024 MiTek Industries, Inc. Tue Apr 23 07:51:21 Page: 1
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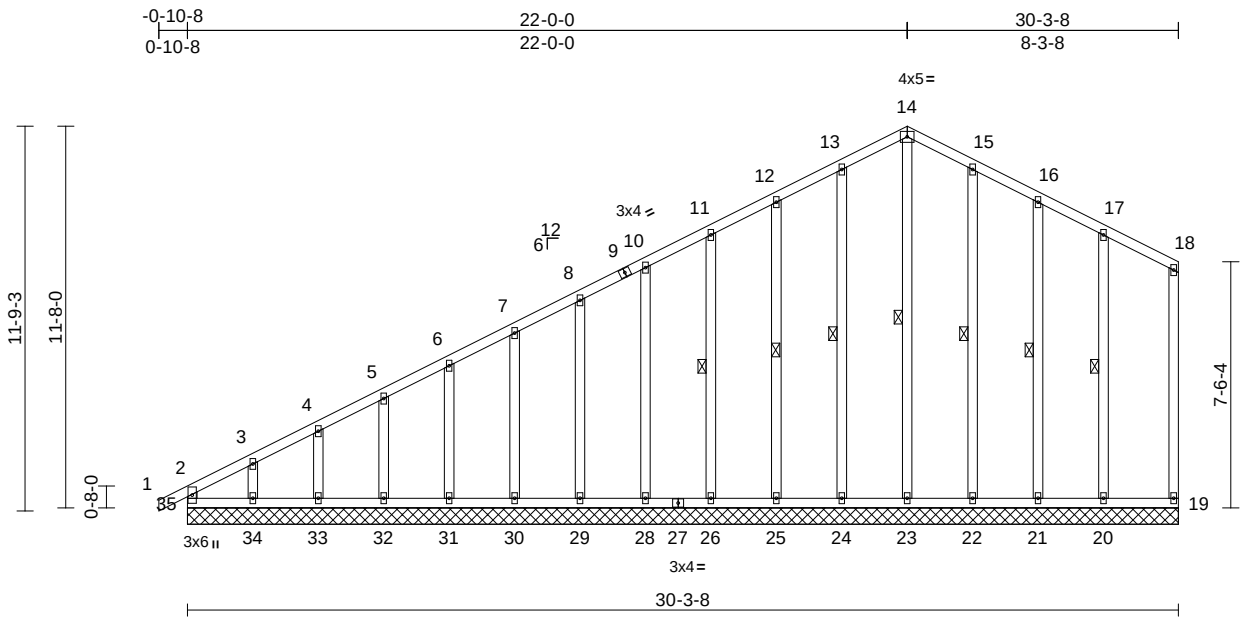

Scale = 1:70.4

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.27	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.10	Vert(CT)	n/a	-	n/a	999		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.13	Horz(CT)	-0.01	19	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-R							Weight: 191 lb	FT = 10%

LUMBER
TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
WEBS 2x4 SPF No.2
OTHERS 2x4 SPF No.2

BRACING
TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 1 Row at midpt 14-23, 13-24, 12-25, 11-26, 15-22, 16-21, 17-20

REACTIONS (size) 19=30-3-8, 20=30-3-8, 21=30-3-8, 22=30-3-8, 23=30-3-8, 24=30-3-8, 25=30-3-8, 26=30-3-8, 28=30-3-8, 29=30-3-8, 30=30-3-8, 31=30-3-8, 32=30-3-8, 33=30-3-8, 34=30-3-8, 35=30-3-8
Max Horiz 35=364 (LC 5)
Max Uplift 19=-42 (LC 4), 20=-57 (LC 9), 21=-58 (LC 9), 22=-51 (LC 9), 23=-34 (LC 7), 24=-50 (LC 8), 25=-57 (LC 8), 26=-53 (LC 8), 28=-54 (LC 8), 29=-54 (LC 8), 30=-54 (LC 8), 31=-53 (LC 8), 32=-60 (LC 8), 33=-31 (LC 8), 34=-150 (LC 8), 35=-49 (LC 4)
Max Grav 19=105 (LC 16), 20=206 (LC 22), 21=173 (LC 22), 22=190 (LC 22), 23=195 (LC 15), 24=189 (LC 21), 25=179 (LC 21), 26=180 (LC 1), 28=180 (LC 21), 29=180 (LC 1), 30=180 (LC 21), 31=180 (LC 1), 32=179 (LC 21), 33=184 (LC 1), 34=168 (LC 15), 35=254 (LC 16)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 2-35=-213/52, 1-2=0/32, 2-3=-331/110, 3-4=-278/103, 4-5=-256/105, 5-6=-233/105, 6-7=-218/118, 7-8=-204/132, 8-10=-189/145, 10-11=-174/159, 11-12=-159/172, 12-13=-145/187, 13-14=-128/196, 14-15=-122/190, 15-16=-124/165, 16-17=-118/134, 17-18=-139/119, 18-19=-118/84
BOT CHORD 34-35=-104/79, 33-34=-104/79, 32-33=-104/79, 31-32=-104/79, 30-31=-104/79, 29-30=-104/79, 28-29=-104/79, 26-28=-104/79, 25-26=-104/79, 24-25=-104/79, 23-24=-104/79, 22-23=-104/79, 21-22=-104/79, 20-21=-104/79, 19-20=-104/79
WEBS 14-23=-155/73, 13-24=-149/74, 12-25=-139/81, 11-26=-140/77, 10-28=-140/78, 8-29=-140/78, 7-30=-140/78, 6-31=-140/77, 5-32=-139/81, 4-33=-143/66, 3-34=-126/132, 15-22=-150/77, 16-21=-135/73, 17-20=-160/112

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) exterior zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
4) All plates are 2x4 MT20 unless otherwise indicated.
5) Gable requires continuous bottom chord bearing.
6) Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
7) Gable studs spaced at 2-0-0 oc.
8) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
9) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
10) All bearings are assumed to be SPF No.2 .
11) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 49 lb uplift at joint 35, 42 lb uplift at joint 19, 34 lb uplift at joint 23, 50 lb uplift at joint 24, 57 lb uplift at joint 25, 53 lb uplift at joint 26, 54 lb uplift at joint 28, 54 lb uplift at joint 29, 54 lb uplift at joint 30, 53 lb uplift at joint 31, 60 lb uplift at joint 32, 31 lb uplift at joint 33, 150 lb uplift at joint 34, 51 lb uplift at joint 22, 58 lb uplift at joint 21 and 57 lb uplift at joint 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.

LOAD CASE(S) Standard

April 24,2024

Job	Truss	Truss Type	Qty	Ply	Lot 184 HT	I65090795
B240082	C1	Common Supported Gable	1	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS - 66871,

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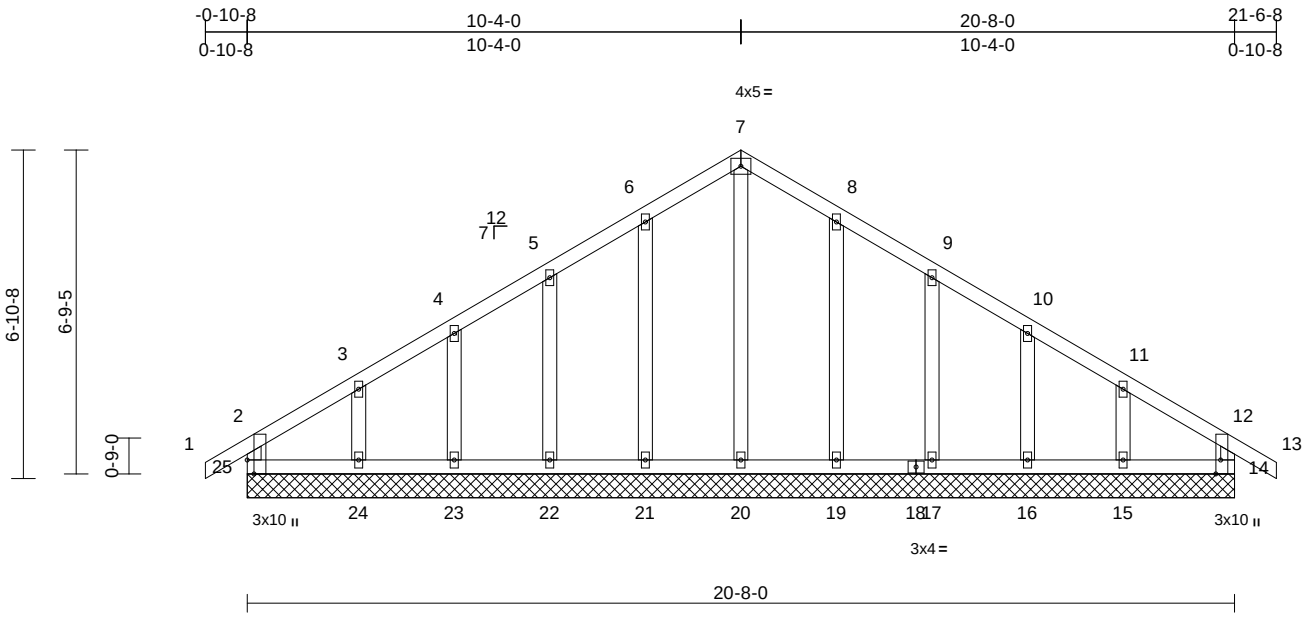

Scale = 1:48.2

Plate Offsets (X, Y): [14:0-3-8,Edge], [25:0-3-8,Edge]

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.07	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.04	Vert(CT)	n/a	-	n/a	999		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.11	Horz(CT)	0.00	14	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-R							Weight: 91 lb	FT = 10%

LUMBER
TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
WEBS 2x4 SPF No.2
OTHERS 2x4 SPF 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) 14=20-8-0, 15=20-8-0, 16=20-8-0, 17=20-8-0, 19=20-8-0, 20=20-8-0, 21=20-8-0, 22=20-8-0, 23=20-8-0, 24=20-8-0, 25=20-8-0
Max Horiz 25=191 (LC 7)
Max Uplift 14=-21 (LC 8), 15=-96 (LC 9), 16=-51 (LC 9), 17=-66 (LC 9), 19=-60 (LC 9), 21=-61 (LC 8), 22=-66 (LC 8), 23=-49 (LC 8), 24=-103 (LC 8), 25=-48 (LC 4)
Max Grav 14=178 (LC 1), 15=214 (LC 16), 16=179 (LC 1), 17=185 (LC 16), 19=193 (LC 16), 20=191 (LC 18), 21=194 (LC 15), 22=185 (LC 15), 23=179 (LC 1), 24=225 (LC 15), 25=188 (LC 16)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 2-25=-158/47, 1-2=0/36, 2-3=-128/115, 3-4=-100/93, 4-5=-91/123, 5-6=-79/155, 6-7=-69/184, 7-8=-58/174, 8-9=-46/133, 9-10=-59/101, 10-11=-69/70, 11-12=-91/69, 12-13=0/36, 12-14=-157/33
BOT CHORD 24-25=-74/93, 23-24=-74/93, 22-23=-74/93, 21-22=-74/93, 20-21=-74/93, 19-20=-74/93, 17-19=-74/93, 16-17=-74/93, 15-16=-74/93, 14-15=-74/93
WEBS 7-20=-151/0, 6-21=-154/85, 5-22=-144/89, 4-23=-140/78, 3-24=-166/113, 8-19=-153/84, 9-17=-144/89, 10-16=-141/79, 11-15=-160/108

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) exterior zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
4) All plates are 2x4 MT20 unless otherwise indicated.
5) Gable requires continuous bottom chord bearing.
6) Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
7) Gable studs spaced at 2-0-0 oc.
8) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
9) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
10) All bearings are assumed to be SPF No.2 .
11) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 48 lb uplift at joint 25, 21 lb uplift at joint 14, 61 lb uplift at joint 21, 66 lb uplift at joint 22, 49 lb uplift at joint 23, 103 lb uplift at joint 24, 60 lb uplift at joint 19, 66 lb uplift at joint 17, 51 lb uplift at joint 16 and 96 lb uplift at joint 15.
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.

LOAD CASE(S) Standard

April 24,2024

MiTek®
16023 Swingley Ridge Rd.
Chesterfield, MO 63017
314.434.1200 / MiTek-US.com

Job	Truss	Truss Type	Qty	Ply	Lot 184 HT	I65090796
B240082	C2	Common	5	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.73 S Apr 3 2024 Print: 8.730 S Apr 3 2024 MiTek Industries, Inc. Tue Apr 23 07:51:21 Page: 1
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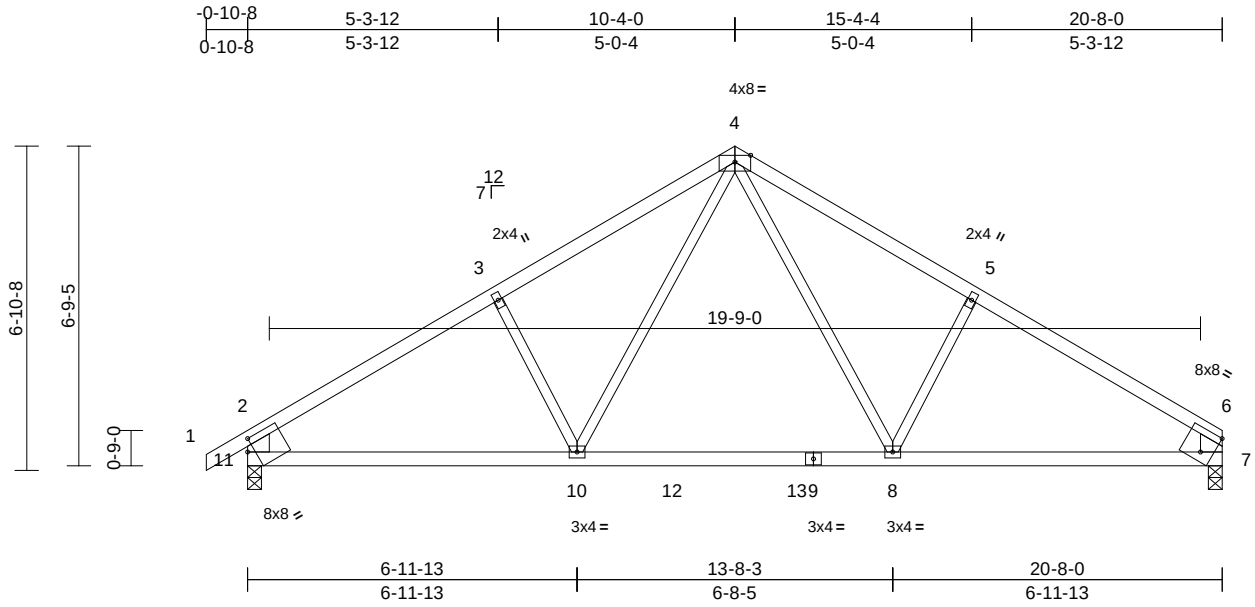

Scale = 1:48.9

Plate Offsets (X, Y): [6:Edge,0-5-11], [11:0-1-11,0-2-15]

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.78	Vert(LL)	-0.19	8-10	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.73	Vert(CT)	-0.31	8-10	>777	240		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.16	Horz(CT)	0.03	7	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S		Wind(LL)	0.08	8-10	>999	240	Weight: 72 lb	FT = 10%

LUMBER
TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
WEBS 2x3 SPF No.2 *Except* 11-2,7-6:2x6 SP 2400F 2.0E

BRACING
TOP CHORD Structural wood sheathing directly applied or 3-8-15 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (size) 7=0-3-8, 11=0-3-8
Max Horiz 11=187 (LC 5)
Max Uplift 7=-107 (LC 9), 11=-133 (LC 8)
Max Grav 7=995 (LC 16), 11=1069 (LC 15)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/39, 2-3=-1346/167, 3-4=-1217/211, 4-5=-1216/212, 5-6=-1344/168, 2-11=-940/170, 6-7=-850/142
BOT CHORD 10-11=-166/1171, 8-10=-25/819, 7-8=-84/1050
WEBS 4-8=-110/523, 5-8=-282/207, 4-10=-111/528, 3-10=-261/203

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) exterior zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
4) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
5) All bearings are assumed to be SPF No.2 .
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 133 lb uplift at joint 11 and 107 lb uplift at joint 7.
7) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard

April 24,2024

MiTek®
16023 Swingley Ridge Rd.
Chesterfield, MO 63017
314.434.1200 / MiTek-US.com

Job	Truss	Truss Type	Qty	Ply	Lot 184 HT
B240082	D1	Roof Special Structural Gable	1	1	Job Reference (optional) I65090797

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.73 S Apr 3 2024 Print: 8.730 S Apr 3 2024 MiTek Industries, Inc. Tue Apr 23 07:51:22 Page: 1
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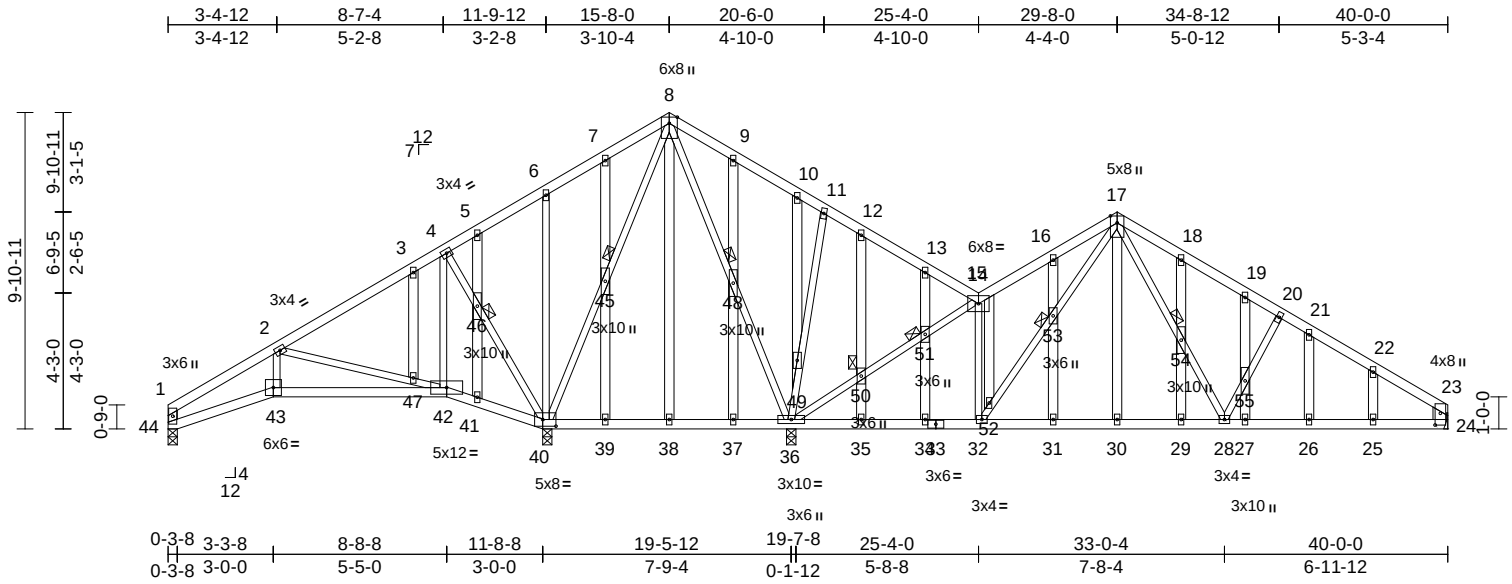

Scale = 1:72

Plate Offsets (X, Y): [23:0-4-6,0-2-0], [40:0-5-0,0-2-8]

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.38	Vert(LL)	-0.05	26-27	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.58	Vert(CT)	-0.08	26-27	>999	240		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.32	Horz(CT)	0.03	24	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S		Wind(LL)	0.03	25-26	>999	240	Weight: 255 lb	FT = 10%

LUMBER
TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
WEBS 2x3 SPF No.2 *Except* 44-1:2x4 SPF No.2, 24-23:2x6 SPF No.2
OTHERS 2x4 SPF No.2

BRACING
TOP CHORD Structural wood sheathing directly applied or 5-6-9 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.
JOINTS 1 Brace at Jt(s): 45, 46, 48, 50, 51, 53, 54

REACTIONS (size) 24= Mechanical, 36=0-3-8, 40=0-3-8, 44=0-3-8
Max Horiz 44=256 (LC 7)
Max Uplift 24=-129 (LC 11), 36=-331 (LC 11), 40=-283 (LC 10), 44=-36 (LC 11)
Max Grav 24=722 (LC 25), 36=1630 (LC 25), 40=1243 (LC 24), 44=221 (LC 24)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-338/60, 2-3=-111/488, 3-4=-69/494, 4-5=-67/623, 5-6=-60/696, 6-7=-6/629, 7-8=0/669, 8-9=0/712, 9-10=0/703, 10-11=0/671, 11-12=-4/722, 12-13=-33/678, 13-14=-74/644, 14-15=-436/166, 15-16=-400/178, 16-17=-362/227, 17-18=-733/288, 18-19=-769/245, 19-20=-765/213, 20-21=-792/203, 21-22=-869/192, 22-23=-911/144, 1-44=-251/58, 23-24=-582/113
BOT CHORD 43-44=-269/387, 42-43=-249/347, 41-42=-390/183, 40-41=-400/181, 39-40=-388/215, 38-39=-388/215, 37-38=-386/215, 36-37=-386/215, 35-36=-21/305, 34-35=-21/305, 32-34=-21/305, 31-32=0/434, 30-31=0/434, 29-30=0/437, 28-29=0/437, 27-28=-96/715, 26-27=-96/715, 25-26=-96/715, 24-25=-96/715
WEBS 2-43=-27/208, 2-47=-606/239, 42-47=-624/248, 4-42=-27/206, 4-46=-416/148, 40-46=-423/150, 6-40=-238/110, 40-45=-520/47, 8-45=-565/51, 8-48=-645/43, 36-48=-672/47, 36-49=-296/132, 11-49=-229/97, 36-50=-943/246, 50-51=-936/245, 14-51=-936/244, 14-32=-4/411, 32-52=-298/0, 52-53=-347/0, 17-53=-352/0, 17-54=-148/421, 28-54=-154/441, 28-55=-227/118, 20-55=-194/106, 8-38=-1/154, 7-45=-30/54, 39-45=-73/55, 5-46=0/17, 41-46=-3/22, 3-47=-66/31, 9-48=-139/72, 37-48=-112/69, 10-49=-70/36, 12-50=-8/50, 35-50=0/60, 13-51=-62/58, 34-51=-62/56, 15-52=0/60, 16-53=-80/72, 31-53=-82/68, 17-30=-21/167, 18-54=-87/64, 29-54=-110/72, 19-55=-88/39, 27-55=-53/26, 21-26=0/72, 22-25=-83/71

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) exterior zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
4) Provide adequate drainage to prevent water ponding.
5) All plates are 2x4 MT20 unless otherwise indicated.
6) Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
7) Gable studs spaced at 2-0-0 oc.
8) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
9) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
10) All bearings are assumed to be SPF No.2 .
11) Refer to girder(s) for truss to truss connections.
12) Bearing at joint(s) 44 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.

STATE OF MISSOURI
SCOTT M. SEVIER
NUMBER PE-2001018807
PROFESSIONAL ENGINEER

April 24,2024

Continued on page 2

MiTek®
16023 Swingley Ridge Rd.
Chesterfield, MO 63017
314.434.1200 / MiTek-US.com

Job	Truss	Truss Type	Qty	Ply	Lot 184 HT
B240082	D1	Roof Special Structural Gable	1	1	Job Reference (optional)

I65090797

13) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 283 lb uplift at joint 40, 331 lb uplift at joint 36, 129 lb uplift at joint 24 and 36 lb uplift at joint 44.
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.

LOAD CASE(S) Standard

Job	Truss	Truss Type	Qty	Ply	Lot 184 HT	I65090798
B240082	D2	Roof Special	2	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS - 66871,

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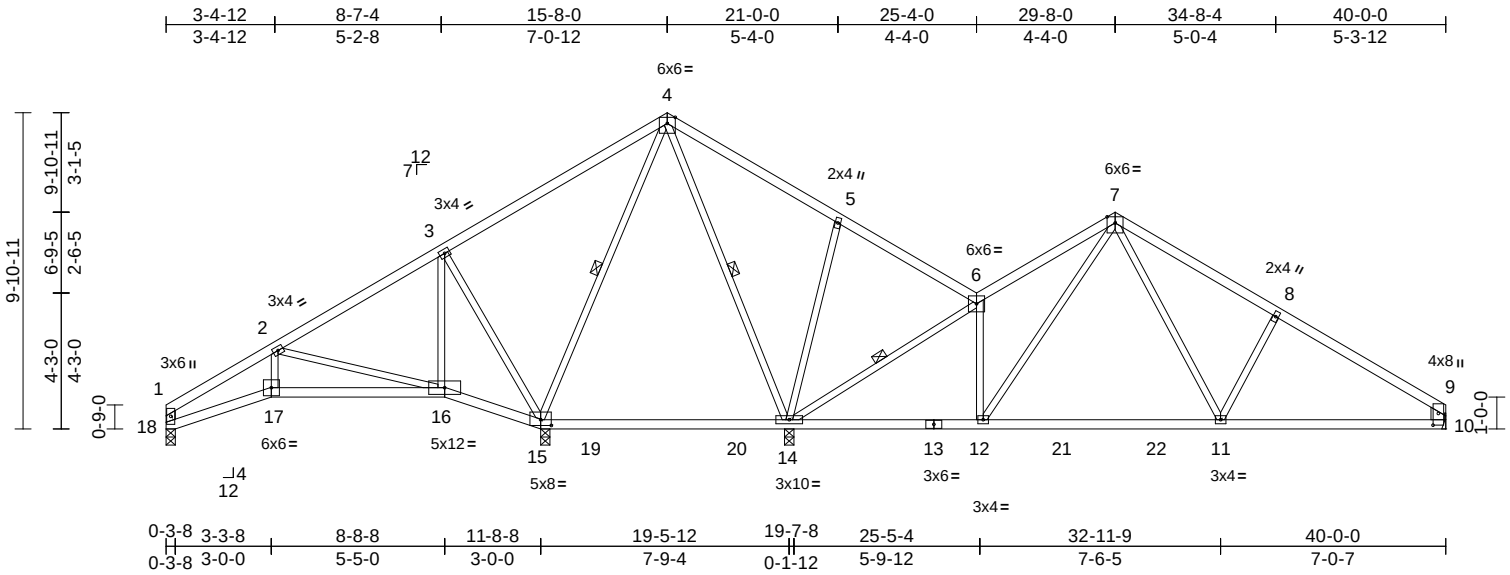

Scale = 1:72

Plate Offsets (X, Y): [9:0-4-6,0-2-0], [15:0-4-0,0-2-3]

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.69	Vert(LL)	-0.19	14-15	>488	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.55	Vert(CT)	-0.28	14-15	>328	240		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.82	Horz(CT)	0.02	10	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S		Wind(LL)	0.05	11-12	>999	240	Weight: 159 lb	FT = 10%

LUMBER
TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
WEBS 2x3 SPF No.2 *Except* 18-1:2x4 SPF No.2, 10-9:2x6 SPF No.2

BRACING
TOP CHORD Structural wood sheathing directly applied or 5-6-9 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing, Except:
10-0-0 oc bracing: 11-12,10-11.
WEBS 1 Row at midpt 4-15, 4-14, 6-14

REACTIONS (size) 10= Mechanical, 14=0-3-8, 15=0-3-8, 18=0-3-8
Max Horiz 18=258 (LC 7)
Max Uplift 10=-124 (LC 11), 14=-348 (LC 11), 15=-264 (LC 10), 18=-37 (LC 11)
Max Grav 10=784 (LC 19), 14=2008 (LC 19), 15=1346 (LC 18), 18=226 (LC 24)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-327/67, 2-3=-70/579, 3-4=-34/872, 4-5=0/914, 5-6=-59/859, 6-7=-295/169, 7-8=-872/234, 8-9=-1001/192, 1-18=-255/68, 9-10=-659/155
BOT CHORD 17-18=-281/384, 16-17=-262/335, 15-16=-488/171, 14-15=-510/216, 12-14=-49/181, 11-12=0/372, 10-11=-104/763
WEBS 2-17=-29/263, 2-16=-620/197, 3-16=-34/196, 3-15=-622/260, 4-15=-580/107, 4-14=-854/128, 5-14=-357/211, 6-12=0/593, 7-12=-420/28, 7-11=-91/599, 8-11=-297/203, 6-14=-1022/203

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) exterior zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
3) Provide adequate drainage to prevent water ponding.
4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
5) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
6) All bearings are assumed to be SPF No.2 .
7) Refer to girder(s) for truss to truss connections.
8) Bearing at joint(s) 18 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 264 lb uplift at joint 15, 348 lb uplift at joint 14, 124 lb uplift at joint 10 and 37 lb uplift at joint 18.
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.

LOAD CASE(S) Standard

STATE OF MISSOURI
SCOTT M. SEVIER
NUMBER
PE-2001018807
PROFESSIONAL ENGINEER

April 24,2024

MiTek®
16023 Swingley Ridge Rd.
Chesterfield, MO 63017
314.434.1200 / MiTek-US.com

Job	Truss	Truss Type	Qty	Ply	Lot 184 HT	I65090799
B240082	D3	Roof Special	3	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS - 66871,

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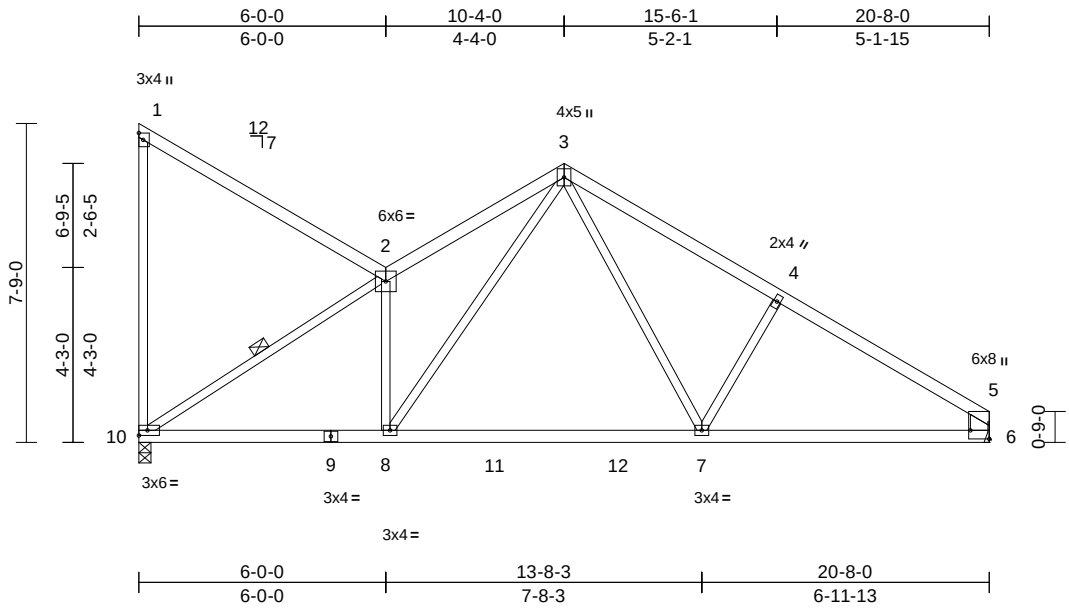

Scale = 1:56

Plate Offsets (X, Y): [5:Edge,0-5-8]

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.60	Vert(LL)	-0.21	7-8	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.73	Vert(CT)	-0.34	7-8	>709	240		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.67	Horz(CT)	0.03	6	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S		Wind(LL)	0.06	7-8	>999	240	Weight: 81 lb	FT = 10%

LUMBER
TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
WEBS 2x3 SPF No.2 *Except* 6-5:2x6 SP 2400F 2.0E

BRACING
TOP CHORD Structural wood sheathing directly applied or 4-1-9 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 1 Row at midpt 2-10

REACTIONS (size) 6= Mechanical, 10=0-3-8
Max Horiz 10=-237 (LC 6)
Max Uplift 6=-28 (LC 11), 10=-62 (LC 11)
Max Grav 6=1041 (LC 17), 10=1079 (LC 17)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-10=-199/60, 1-2=-181/91, 2-3=-1426/99, 3-4=-1301/105, 4-5=-1437/71, 5-6=-897/62
BOT CHORD 8-10=0/1167, 7-8=0/779, 6-7=-16/1130
WEBS 2-10=-1450/92, 2-8=-297/82, 3-8=-1/696, 3-7=-18/516, 4-7=-256/128

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=1.60 plate grip DOL=1.60
2) Provide adequate drainage to prevent water ponding.
3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
4) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
5) All bearings are assumed to be SPF No.2 .
6) Refer to girder(s) for truss to truss connections.
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 62 lb uplift at joint 10 and 28 lb uplift at joint 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.

LOAD CASE(S) Standard

April 24,2024

MiTek®
16023 Swingley Ridge Rd.
Chesterfield, MO 63017
314.434.1200 / MiTek-US.com

Job	Truss	Truss Type	Qty	Ply	Lot 184 HT	I65090800
B240082	E1	Common Supported Gable	1	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS - 66871,

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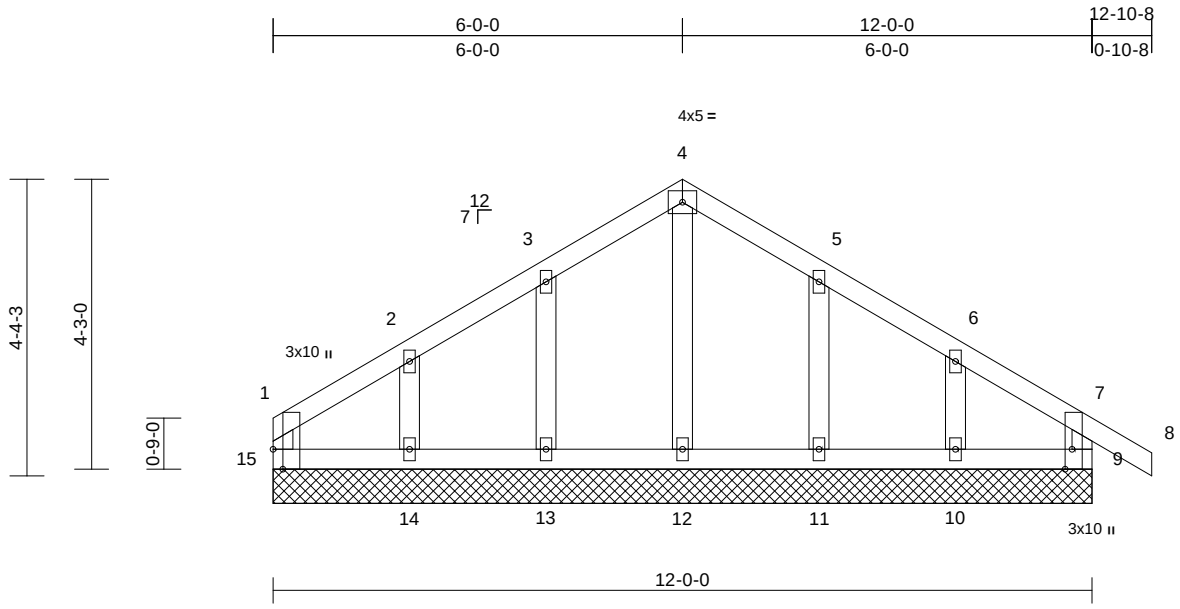

Scale = 1:33.8

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

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.07	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.03	Vert(CT)	n/a	-	n/a	999		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.03	Horz(CT)	0.00	9	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-R							Weight: 45 lb	FT = 10%

LUMBER
TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
WEBS 2x4 SPF No.2
OTHERS 2x4 SPF 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) 9=12-0-0, 10=12-0-0, 11=12-0-0, 12=12-0-0, 13=12-0-0, 14=12-0-0, 15=12-0-0
Max Horiz 15=-119 (LC 4)
Max Uplift 9=-26 (LC 8), 10=-75 (LC 9), 11=-62 (LC 9), 13=-60 (LC 8), 14=-82 (LC 8), 15=-23 (LC 9)
Max Grav 9=170 (LC 1), 10=182 (LC 16), 11=195 (LC 22), 12=156 (LC 1), 13=189 (LC 21), 14=212 (LC 15), 15=92 (LC 16)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-75/61, 2-3=-65/76, 3-4=-56/106, 4-5=-50/103, 5-6=-56/72, 6-7=-73/49, 7-8=0/36, 1-15=-69/30, 7-9=-150/35
BOT CHORD 14-15=-54/66, 13-14=-54/66, 12-13=-54/66, 11-12=-54/66, 10-11=-54/66, 9-10=-54/66
WEBS 4-12=-116/0, 3-13=-151/87, 2-14=-157/97, 5-11=-156/88, 6-10=-137/91

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) exterior zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
4) All plates are 2x4 MT20 unless otherwise indicated.
5) Gable requires continuous bottom chord bearing.
6) Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
7) Gable studs spaced at 2-0-0 oc.
8) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
9) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
10) All bearings are assumed to be SPF No.2 .
11) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 23 lb uplift at joint 15, 26 lb uplift at joint 9, 60 lb uplift at joint 13, 82 lb uplift at joint 14, 62 lb uplift at joint 11 and 75 lb uplift at joint 10.
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.

LOAD CASE(S) Standard

STATE OF MISSOURI
SCOTT M. SEVIER
NUMBER PE-2001018807
PROFESSIONAL ENGINEER

April 24,2024

MiTek®
16023 Swingley Ridge Rd.
Chesterfield, MO 63017
314.434.1200 / MiTek-US.com

Job	Truss	Truss Type	Qty	Ply	Lot 184 HT
B240082	E2	Roof Special	1	1	Job Reference (optional)

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.73 S Apr 3 2024 Print: 8.730 S Apr 3 2024 MiTek Industries, Inc. Tue Apr 23 07:51:22 Page: 1
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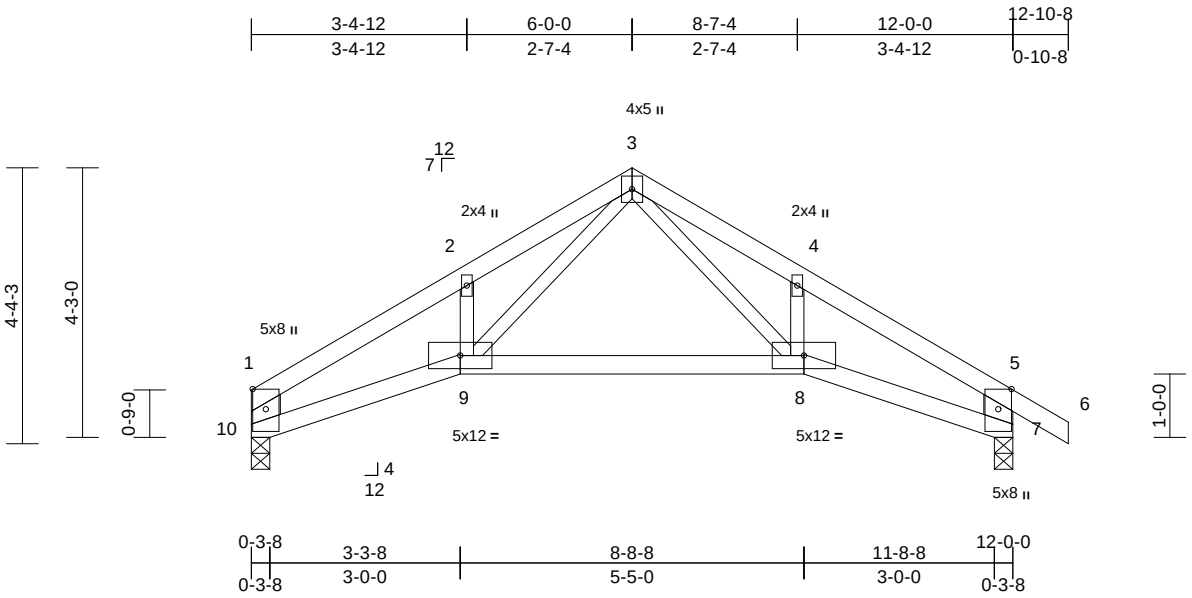

Scale = 1:36.3

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.69	Vert(LL)	-0.10	8-9	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.61	Vert(CT)	-0.21	8-9	>662	240		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.14	Horz(CT)	0.10	7	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S		Wind(LL)	0.06	8-9	>999	240	Weight: 41 lb	FT = 10%

LUMBER
TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
WEBS 2x3 SPF No.2 *Except* 10-1,7-5:2x6 SPF No.2

BRACING
TOP CHORD Structural wood sheathing directly applied or 4-6-6 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (size) 7=0-3-8, 10=0-3-8
Max Horiz 10=-121 (LC 4)
Max Uplift 7=-86 (LC 9), 10=-60 (LC 8)
Max Grav 7=600 (LC 1), 10=516 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-986/117, 2-3=-883/209, 3-4=-873/170, 4-5=-997/76, 5-6=0/39, 1-10=-659/101, 5-7=-765/104
BOT CHORD 9-10=-98/819, 8-9=-6/495, 7-8=-11/786
WEBS 3-8=-117/400, 4-8=-44/139, 3-9=-141/445, 2-9=-75/134

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) exterior zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
4) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
5) All bearings are assumed to be SPF No.2 .
6) Bearing at joint(s) 10, 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 60 lb uplift at joint 10 and 86 lb uplift at joint 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.

LOAD CASE(S) Standard

STATE OF MISSOURI
SCOTT M. SEVIER
NUMBER
PE-2001018807
PROFESSIONAL ENGINEER

April 24,2024

MiTek®
16023 Swingley Ridge Rd.
Chesterfield, MO 63017
314.434.1200 / MiTek-US.com

RELEASE FOR CONSTRUCTION
AS NOTED FOR PLAN REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
05/07/2024

Job	Truss	Truss Type	Qty	Ply	Lot 184 HT	I65090802
B240082	E3	Monopitch Girder	1	2	Job Reference (optional)	

Wheeler Lumber, Waverly, KS - 66871,

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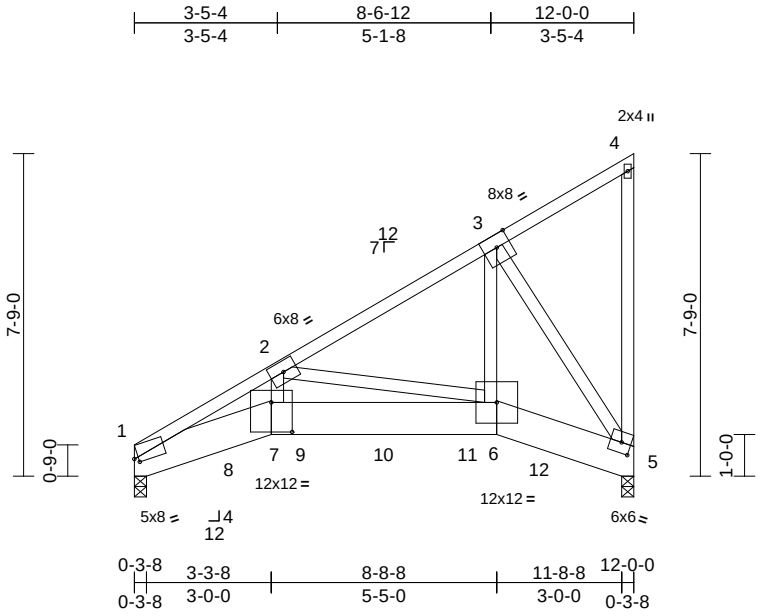

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Plate Offsets (X, Y): [1:0-1-4,0-1-5], [5:0-2-11,0-3-0], [7:0-6-0,0-8-8]

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.96	Vert(LL)	-0.13	6-7	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.48	Vert(CT)	-0.22	6-7	>646	240		
BCLL	0.0*	Rep Stress Incr	NO	WB	0.83	Horz(CT)	0.12	5	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S		Wind(LL)	0.03	6-7	>999	240	Weight: 182 lb	FT = 10%

LUMBER
TOP CHORD 2x4 SPF No.2
BOT CHORD 2x10 SP 2400F 2.0E
WEBS 2x4 SPF No.2

BRACING
TOP CHORD Structural wood sheathing directly applied or 3-3-1 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (size) 1=0-3-8, 5=0-3-8
Max Horiz 1=284 (LC 7)
Max Grav 1=4736 (LC 15), 5=4814 (LC 15)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-11140/0, 2-3=-3623/0, 3-4=-158/84, 4-5=-79/45
BOT CHORD 1-7=0/9881, 6-7=0/8633, 5-6=0/3926
WEBS 2-7=0/5503, 2-6=-5626/0, 3-6=0/6712, 3-5=-6260/0

NOTES
1) 2-ply truss to be connected together with 10d (0.131"x3") nails as follows:
Top chords connected as follows: 2x4 - 2 rows staggered at 0-9-0 oc.
Bottom chords connected as follows: 2x10 - 2 rows staggered at 0-5-0 oc.
Web 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) 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) exterior zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
5) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
6) All bearings are assumed to be SPF 2100F 1.8E .
7) Bearing at joint(s) 1, 5 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
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) 1685 lb down and 164 lb up at 2-0-0, 1716 lb down at 4-0-0, 1716 lb down at 6-0-0, and 1712 lb down at 8-0-0, and 1685 lb down and 164 lb up at 10-0-0 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.

LOAD CASE(S) Standard
1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (lb/ft)
Vert: 1-4=-70, 1-7=-20, 6-7=-20, 5-6=-20
Concentrated Loads (lb)
Vert: 8=-1516 (B), 9=-1516 (B), 10=-1516 (B), 11=-1516 (B), 12=-1516 (B)

April 24,2024

MiTek®
16023 Swingley Ridge Rd.
Chesterfield, MO 63017
314.434.1200 / MiTek-US.com

Job	Truss	Truss Type	Qty	Ply	Lot 184 HT	I65090803
B240082	V1	Valley	1	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS - 66871,

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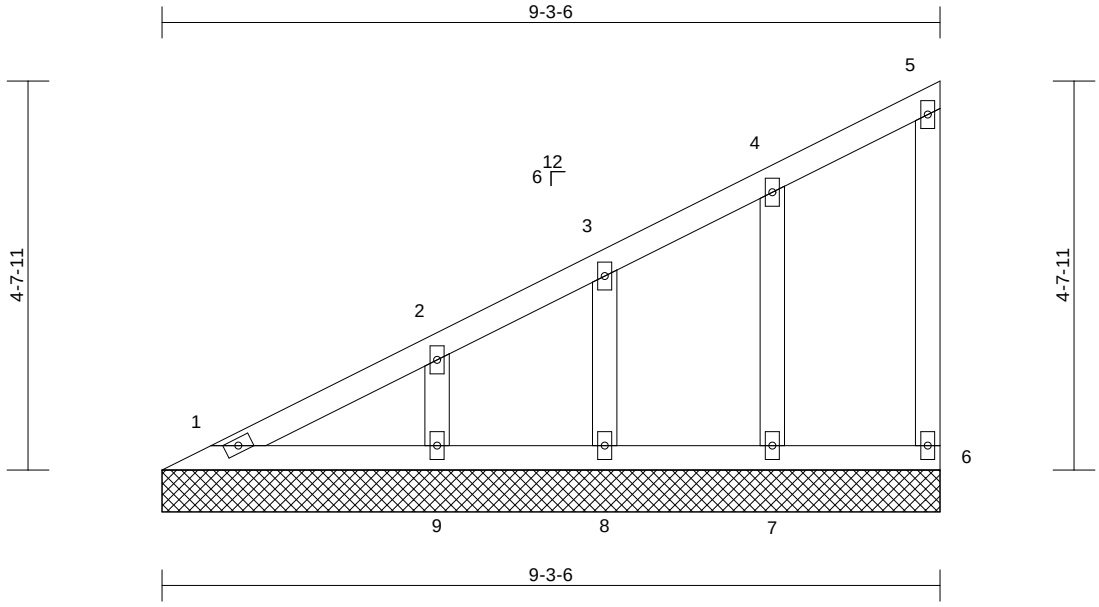

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Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.09	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.04	Vert(TL)	n/a	-	n/a	999		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.03	Horiz(TL)	0.00	6	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S							Weight: 33 lb	FT = 10%

LUMBER
TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
WEBS 2x4 SPF No.2
OTHERS 2x4 SPF 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=9-3-6, 6=9-3-6, 7=9-3-6, 8=9-3-6, 9=9-3-6
Max Horiz 1=177 (LC 5)
Max Uplift 6=-24 (LC 5), 7=-57 (LC 8), 8=-47 (LC 8), 9=-75 (LC 8)
Max Grav 1=115 (LC 16), 6=68 (LC 1), 7=194 (LC 1), 8=155 (LC 1), 9=251 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-147/54, 2-3=-113/36, 3-4=-99/43, 4-5=-79/45, 5-6=-52/24
BOT CHORD 1-9=-61/46, 8-9=-61/46, 7-8=-61/46, 6-7=-61/46
WEBS 4-7=-150/71, 3-8=-124/73, 2-9=-188/102

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) exterior zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
2) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
3) All plates are 2x4 MT20 unless otherwise indicated.
4) Gable requires continuous bottom chord bearing.
5) Gable studs spaced at 2-0-0 oc.
6) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
7) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
8) All bearings are assumed to be SPF No.2 .
9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 24 lb uplift at joint 6, 57 lb uplift at joint 7, 47 lb uplift at joint 8 and 75 lb uplift at joint 9.
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.

LOAD CASE(S) Standard

STATE OF MISSOURI
SCOTT M. SEVIER
NUMBER
PE-2001018807
PROFESSIONAL ENGINEER

April 24,2024

MiTek®
16023 Swingley Ridge Rd.
Chesterfield, MO 63017
314.434.1200 / MiTek-US.com

Job	Truss	Truss Type	Qty	Ply	Lot 184 HT	I65090804
B240082	V2	Valley	1	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS - 66871,

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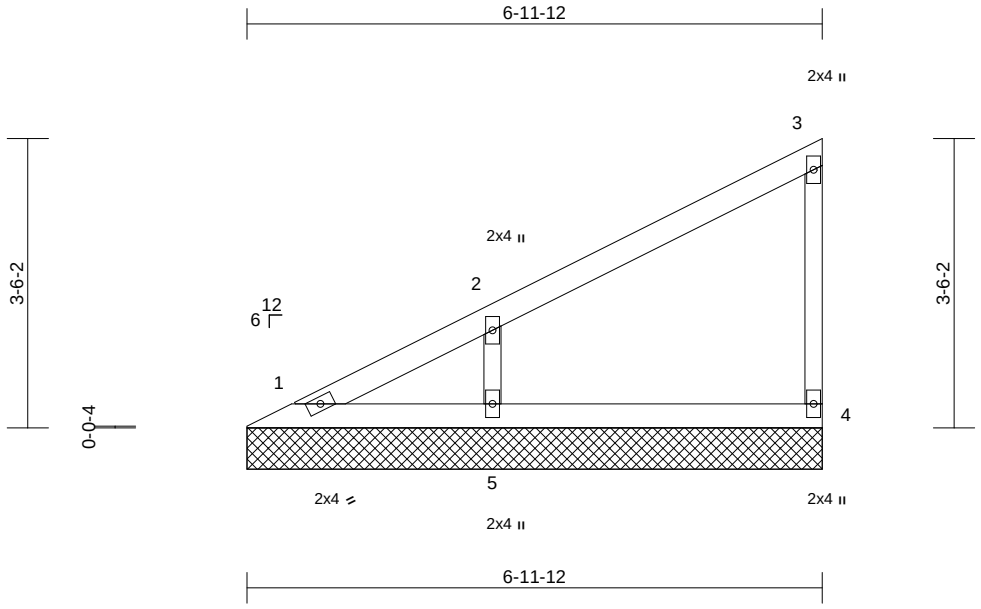

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Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.19	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.10	Vert(TL)	n/a	-	n/a	999		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.05	Horiz(TL)	0.00	4	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-P							Weight: 19 lb	FT = 10%

LUMBER
TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
WEBS 2x3 SPF No.2
OTHERS 2x3 SPF No.2

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

REACTIONS (size) 1=6-11-12, 4=6-11-12, 5=6-11-12
Max Horiz 1=131 (LC 5)
Max Uplift 4=-27 (LC 8), 5=-111 (LC 8)
Max Grav 1=71 (LC 16), 4=142 (LC 1), 5=370 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-111/58, 2-3=-106/43, 3-4=-111/46
BOT CHORD 1-5=-45/34, 4-5=-45/34
WEBS 2-5=-288/161

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) exterior zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
2) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
3) Gable requires continuous bottom chord bearing.
4) Gable studs spaced at 4-0-0 oc.
5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
6) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
7) All bearings are assumed to be SPF No.2 .
8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 27 lb uplift at joint 4 and 111 lb uplift at joint 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.

LOAD CASE(S) Standard

April 24,2024

MiTek®
16023 Swingley Ridge Rd.
Chesterfield, MO 63017
314.434.1200 / MiTek-US.com

Job	Truss	Truss Type	Qty	Ply	Lot 184 HT	I65090805
B240082	V3	Valley	1	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS - 66871,

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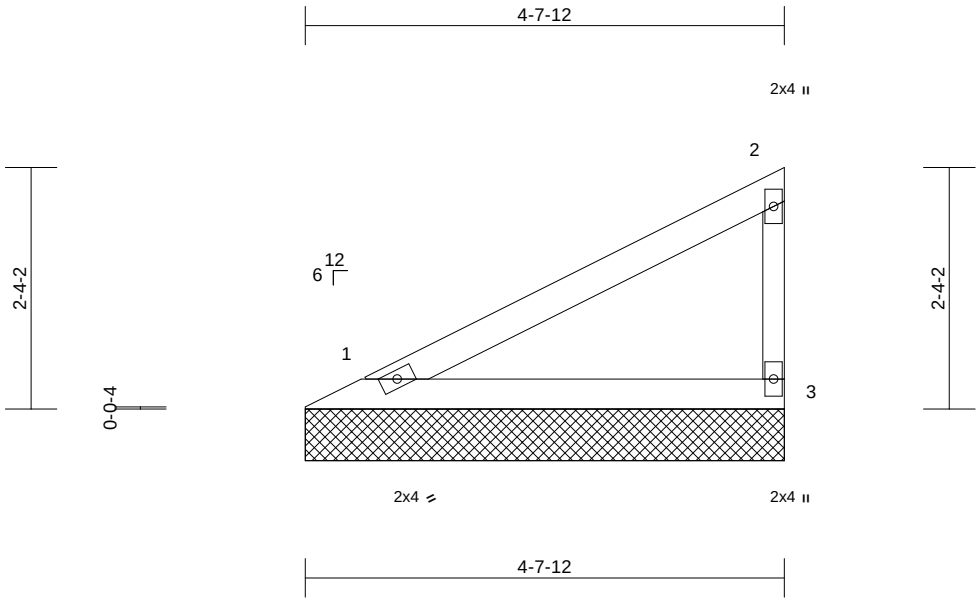

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Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.29	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.16	Vert(TL)	n/a	-	n/a	999		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.00	Horiz(TL)	0.00	3	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-P							Weight: 12 lb	FT = 10%

LUMBER
TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
WEBS 2x3 SPF No.2

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

REACTIONS (size) 1=4-7-12, 3=4-7-12
Max Horiz 1=83 (LC 5)
Max Uplift 1=-23 (LC 8), 3=-44 (LC 8)
Max Grav 1=178 (LC 1), 3=178 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-75/50, 2-3=-138/67
BOT CHORD 1-3=-28/21

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) exterior zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
2) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
3) Gable requires continuous bottom chord bearing.
4) Gable studs spaced at 4-0-0 oc.
5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
6) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
7) All bearings are assumed to be SPF No.2 .
8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 23 lb uplift at joint 1 and 44 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.

LOAD CASE(S) Standard

STATE OF MISSOURI
SCOTT M. SEVIER
NUMBER
PE-2001018807
PROFESSIONAL ENGINEER

April 24,2024

MiTek®
16023 Swingley Ridge Rd.
Chesterfield, MO 63017
314.434.1200 / MiTek-US.com

Job	Truss	Truss Type	Qty	Ply	Lot 184 HT	I65090806
B240082	V4	Valley	1	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS - 66871,

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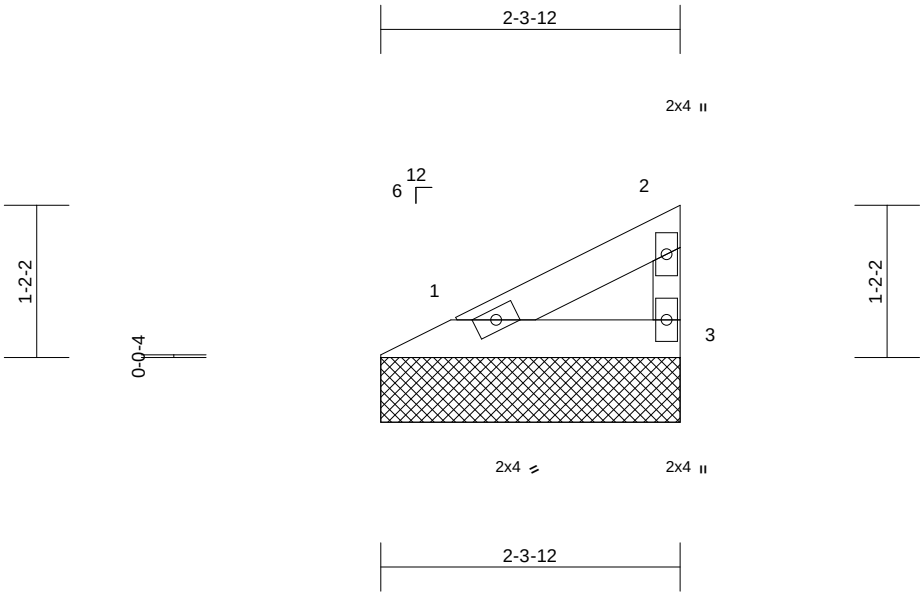

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Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.04	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.02	Vert(TL)	n/a	-	n/a	999		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.00	Horiz(TL)	0.00	3	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-P							Weight: 5 lb	FT = 10%

LUMBER
TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
WEBS 2x3 SPF No.2

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

REACTIONS (size) 1=2-3-12, 3=2-3-12
Max Horiz 1=34 (LC 5)
Max Uplift 1=-9 (LC 8), 3=-18 (LC 8)
Max Grav 1=73 (LC 1), 3=73 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-31/20, 2-3=-57/28
BOT CHORD 1-3=-12/9

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) exterior zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
2) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
3) Gable requires continuous bottom chord bearing.
4) Gable studs spaced at 2-0-0 oc.
5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
6) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
7) All bearings are assumed to be SPF No.2 .
8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 9 lb uplift at joint 1 and 18 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.

LOAD CASE(S) Standard

STATE OF MISSOURI
SCOTT M. SEVIER
NUMBER
PE-2001018807
PROFESSIONAL ENGINEER

April 24,2024

MiTek®
16023 Swingley Ridge Rd.
Chesterfield, MO 63017
314.434.1200 / MiTek-US.com

Job	Truss	Truss Type	Qty	Ply	Lot 184 HT	I65090807
B240082	V5	Valley	1	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.73 S Apr 3 2024 Print: 8.730 S Apr 3 2024 MiTek Industries, Inc. Tue Apr 23 07:51:23 2024 Page: 1
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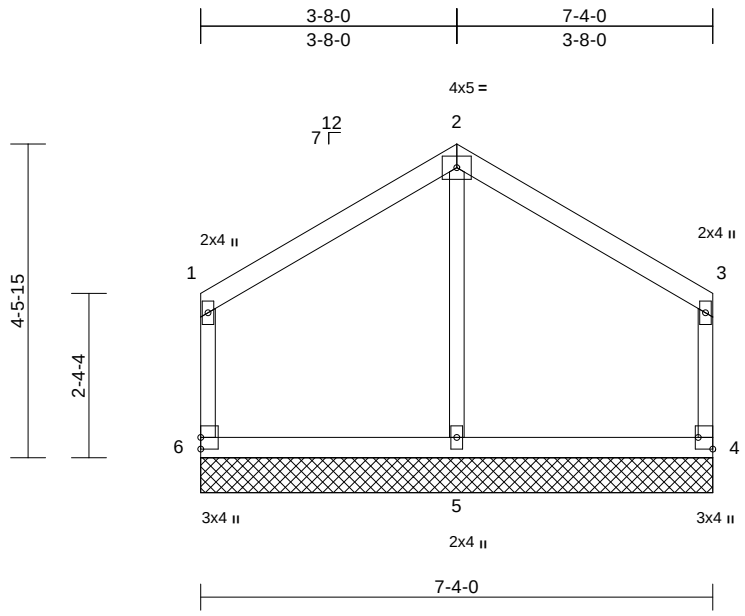

Scale = 1:33

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

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.20	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.10	Vert(TL)	n/a	-	n/a	999		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.11	Horiz(TL)	0.00	4	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-R							Weight: 25 lb	FT = 10%

LUMBER
TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
WEBS 2x3 SPF No.2
OTHERS 2x3 SPF No.2

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

REACTIONS (size) 4=7-4-0, 5=7-4-0, 6=7-4-0
Max Horiz 6=134 (LC 5)
Max Uplift 4=-48 (LC 9), 6=-48 (LC 8)
Max Grav 4=154 (LC 22), 5=334 (LC 1), 6=154 (LC 21)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-6=-125/64, 1-2=-88/65, 2-3=-88/65, 3-4=-125/64
BOT CHORD 5-6=-71/71, 4-5=-71/71
WEBS 2-5=-252/34

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) exterior zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
4) Gable requires continuous bottom chord bearing.
5) Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
6) Gable studs spaced at 0-0-0 oc.
7) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
8) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
9) All bearings are assumed to be SPF No.2 .
10) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 48 lb uplift at joint 6 and 48 lb uplift at joint 4.
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.

LOAD CASE(S) Standard

April 24,2024

MiTek®
16023 Swingley Ridge Rd.
Chesterfield, MO 63017
314.434.1200 / MiTek-US.com

Job	Truss	Truss Type	Qty	Ply	Lot 184 HT	I65090808
B240082	V6	Valley	1	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS - 66871,

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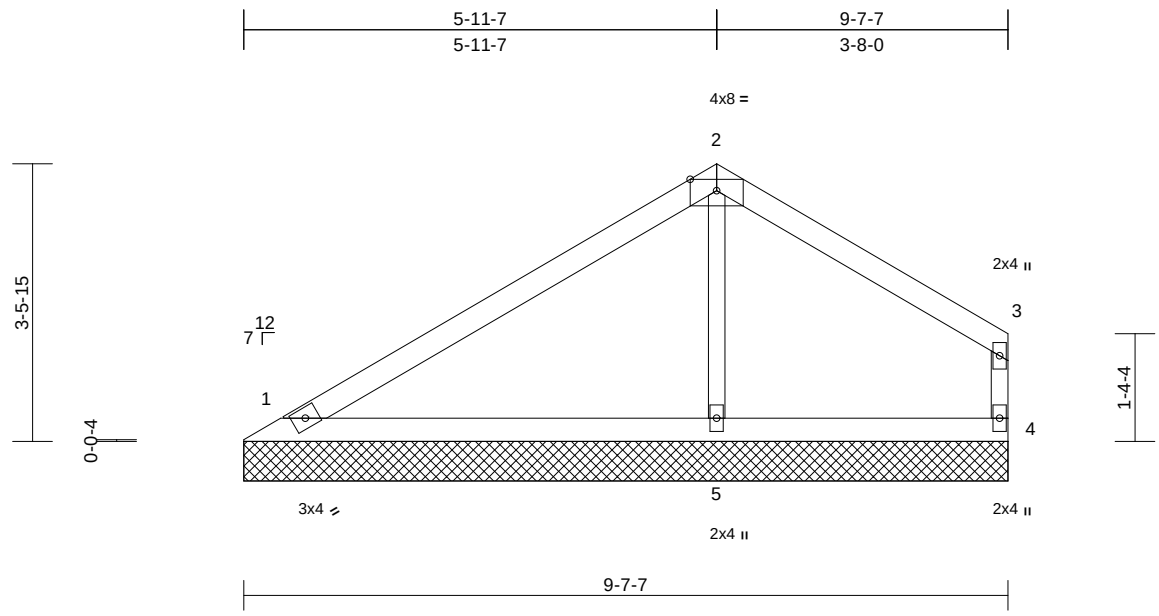

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Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.42	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.20	Vert(TL)	n/a	-	n/a	999		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.09	Horiz(TL)	0.00	4	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S							Weight: 26 lb	FT = 10%

LUMBER
TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
WEBS 2x3 SPF No.2
OTHERS 2x3 SPF No.2

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

REACTIONS (size) 1=9-7-7, 4=9-7-7, 5=9-7-7
Max Horiz 1=98 (LC 5)
Max Uplift 1=-36 (LC 8), 4=-60 (LC 9), 5=-43 (LC 8)
Max Grav 1=227 (LC 1), 4=159 (LC 22), 5=454 (LC 15)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-161/113, 2-3=-102/63, 3-4=-138/74
BOT CHORD 1-5=-21/31, 4-5=-21/31
WEBS 2-5=-320/96

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) exterior zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
4) Gable requires continuous bottom chord bearing.
5) Gable studs spaced at 4-0-0 oc.
6) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
7) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
8) All bearings are assumed to be SPF No.2 .
9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 36 lb uplift at joint 1, 60 lb uplift at joint 4 and 43 lb uplift at joint 5.
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.

LOAD CASE(S) Standard

April 24,2024

MiTek®
16023 Swingley Ridge Rd.
Chesterfield, MO 63017
314.434.1200 / MiTek-US.com

Job	Truss	Truss Type	Qty	Ply	Lot 184 HT	I65090809
B240082	V7	Valley	1	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS - 66871,

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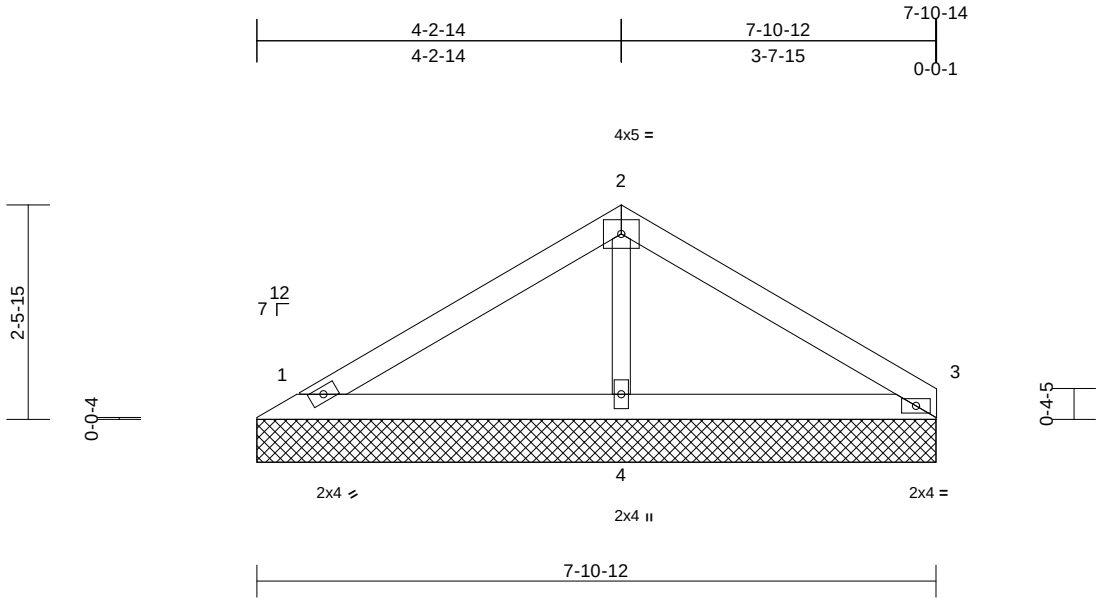

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Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.26	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.12	Vert(TL)	n/a	-	n/a	999		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.04	Horiz(TL)	0.00	3	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-P							Weight: 20 lb	FT = 10%

LUMBER
TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
OTHERS 2x3 SPF 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=7-10-12, 3=7-10-12, 4=7-10-12
Max Horiz 1=57 (LC 5)
Max Uplift 1=-41 (LC 8), 3=-48 (LC 9)
Max Grav 1=182 (LC 1), 3=179 (LC 1), 4=304 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-103/53, 2-3=-99/39
BOT CHORD 1-4=-11/47, 3-4=-11/47
WEBS 2-4=-211/55

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) exterior zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
4) Gable requires continuous bottom chord bearing.
5) Gable studs spaced at 4-0-0 oc.
6) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
7) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
8) All bearings are assumed to be SPF No.2 .
9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 41 lb uplift at joint 1 and 48 lb uplift at joint 3.
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.

LOAD CASE(S) Standard

April 24,2024

MiTek®
16023 Swingley Ridge Rd.
Chesterfield, MO 63017
314.434.1200 / MiTek-US.com

Job	Truss	Truss Type	Qty	Ply	Lot 184 HT	I65090810
B240082	V8	Valley	1	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS - 66871,

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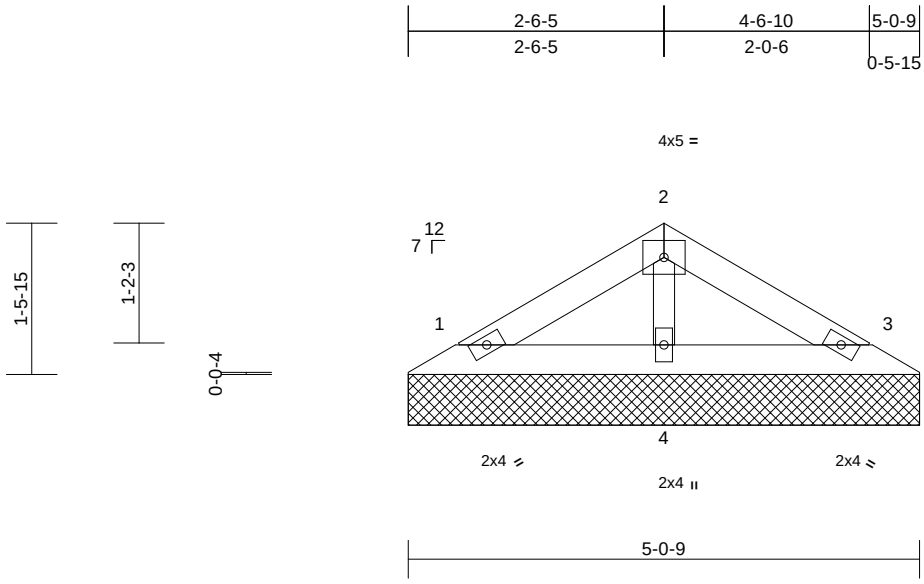

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Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.07	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.04	Vert(TL)	n/a	-	n/a	999		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.02	Horiz(TL)	0.00	3	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-P							Weight: 12 lb	FT = 10%

LUMBER
TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
OTHERS 2x3 SPF No.2

BRACING
TOP CHORD Structural wood sheathing directly applied or 5-1-7 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (size) 1=5-0-9, 3=5-0-9, 4=5-0-9
Max Horiz 1=-31 (LC 4)
Max Uplift 1=-22 (LC 8), 3=-26 (LC 9)
Max Grav 1=98 (LC 1), 3=98 (LC 1), 4=166 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-56/29, 2-3=-54/21
BOT CHORD 1-4=-6/26, 3-4=-6/26
WEBS 2-4=-116/30

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) exterior zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
4) Gable requires continuous bottom chord bearing.
5) Gable studs spaced at 2-0-0 oc.
6) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
7) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
8) All bearings are assumed to be SPF No.2 .
9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 22 lb uplift at joint 1 and 26 lb uplift at joint 3.
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.

LOAD CASE(S) Standard

April 24,2024

MiTek®
16023 Swingley Ridge Rd.
Chesterfield, MO 63017
314.434.1200 / MiTek-US.com

Job	Truss	Truss Type	Qty	Ply	Lot 184 HT	I65090811
B240082	V9	Valley	1	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS - 66871,

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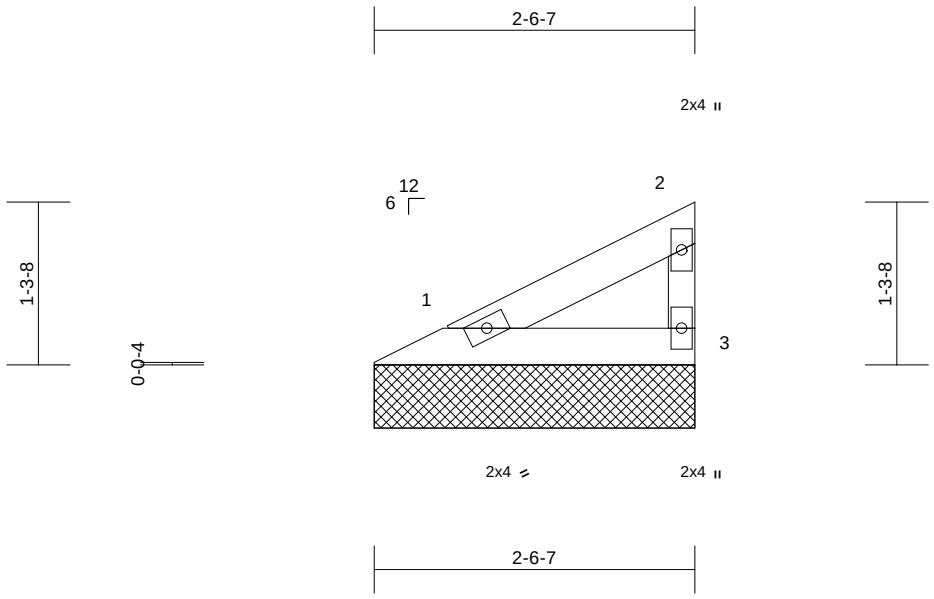

Scale = 1:18.2

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.06	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.03	Vert(TL)	n/a	-	n/a	999		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.00	Horiz(TL)	0.00	3	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-P							Weight: 6 lb	FT = 10%

LUMBER
TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
WEBS 2x3 SPF No.2

BRACING
TOP CHORD Structural wood sheathing directly applied or 2-6-15 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (size) 1=2-6-7, 3=2-6-7
Max Horiz 1=39 (LC 5)
Max Uplift 1=-11 (LC 8), 3=-20 (LC 8)
Max Grav 1=83 (LC 1), 3=83 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-35/23, 2-3=-65/31
BOT CHORD 1-3=-13/10

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) exterior zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
2) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
3) Gable requires continuous bottom chord bearing.
4) Gable studs spaced at 2-0-0 oc.
5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
6) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
7) All bearings are assumed to be SPF No.2 .
8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 11 lb uplift at joint 1 and 20 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.

LOAD CASE(S) Standard

April 24,2024

MiTek®
16023 Swingley Ridge Rd.
Chesterfield, MO 63017
314.434.1200 / MiTek-US.com

Job	Truss	Truss Type	Qty	Ply	Lot 184 HT	I65090812
B240082	V10	Valley	1	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS - 66871,

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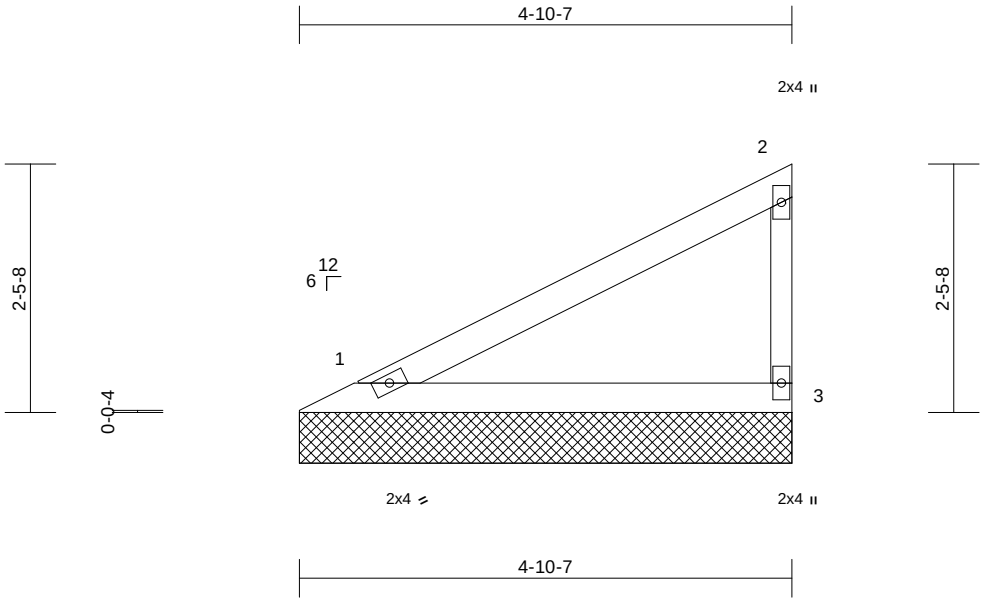

Scale = 1:22.8

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.33	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.18	Vert(TL)	n/a	-	n/a	999		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.00	Horiz(TL)	0.00	3	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-P							Weight: 13 lb	FT = 10%

LUMBER
TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
WEBS 2x3 SPF No.2

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

REACTIONS (size) 1=4-10-7, 3=4-10-7
Max Horiz 1=87 (LC 5)
Max Uplift 1=-24 (LC 8), 3=-46 (LC 8)
Max Grav 1=188 (LC 1), 3=188 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-80/52, 2-3=-146/71
BOT CHORD 1-3=-30/23

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) exterior zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
2) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
3) Gable requires continuous bottom chord bearing.
4) Gable studs spaced at 4-0-0 oc.
5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
6) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
7) All bearings are assumed to be SPF No.2 .
8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 24 lb uplift at joint 1 and 46 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.

LOAD CASE(S) Standard

STATE OF MISSOURI
SCOTT M. SEVIER
NUMBER PE-2001018807
PROFESSIONAL ENGINEER

April 24,2024

MiTek®
16023 Swingley Ridge Rd.
Chesterfield, MO 63017
314.434.1200 / MiTek-US.com

Job	Truss	Truss Type	Qty	Ply	Lot 184 HT	I65090813
B240082	V11	Valley	1	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.73 S Apr 3 2024 Print: 8.730 S Apr 3 2024 MiTek Industries, Inc. Tue Apr 23 07:51:23 2024 Page: 1
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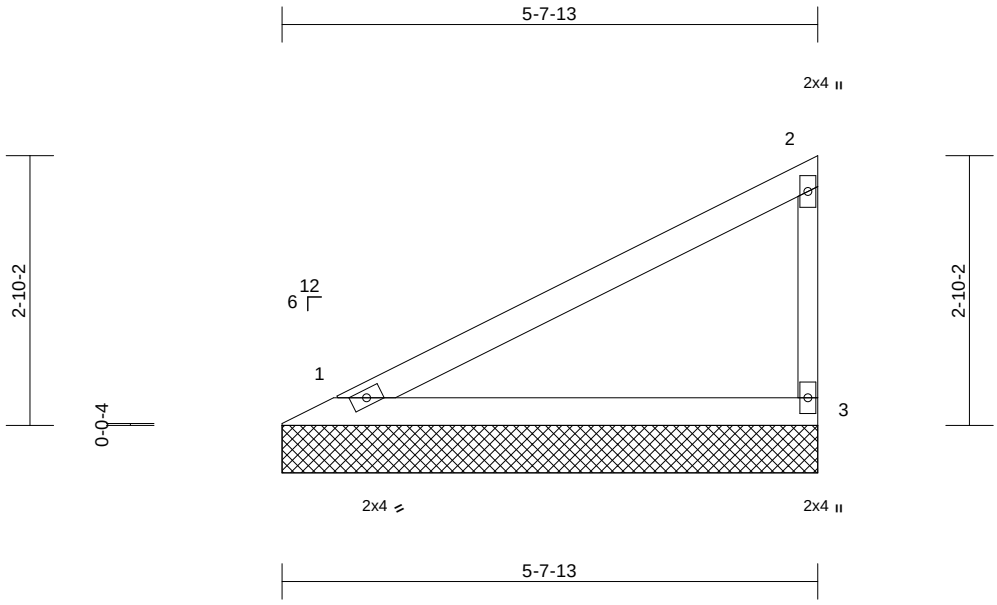

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Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.47	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.26	Vert(TL)	n/a	-	n/a	999		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.00	Horiz(TL)	0.00	3	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-P							Weight: 15 lb	FT = 10%

LUMBER
TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
WEBS 2x3 SPF No.2

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

REACTIONS (size) 1=5-7-13, 3=5-7-13
Max Horiz 1=103 (LC 5)
Max Uplift 1=-29 (LC 8), 3=-55 (LC 8)
Max Grav 1=223 (LC 1), 3=223 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-94/62, 2-3=-173/84
BOT CHORD 1-3=-35/27

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) exterior zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
2) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
3) Gable requires continuous bottom chord bearing.
4) Gable studs spaced at 4-0-0 oc.
5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
6) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
7) All bearings are assumed to be SPF No.2 .
8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 29 lb uplift at joint 1 and 55 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.

LOAD CASE(S) Standard

STATE OF MISSOURI
SCOTT M. SEVIER
NUMBER
PE-2001018807
PROFESSIONAL ENGINEER

April 24,2024

MiTek®
16023 Swingley Ridge Rd.
Chesterfield, MO 63017
314.434.1200 / MiTek-US.com

Job	Truss	Truss Type	Qty	Ply	Lot 184 HT	I65090814
B240082	V12	Valley	1	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS - 66871,

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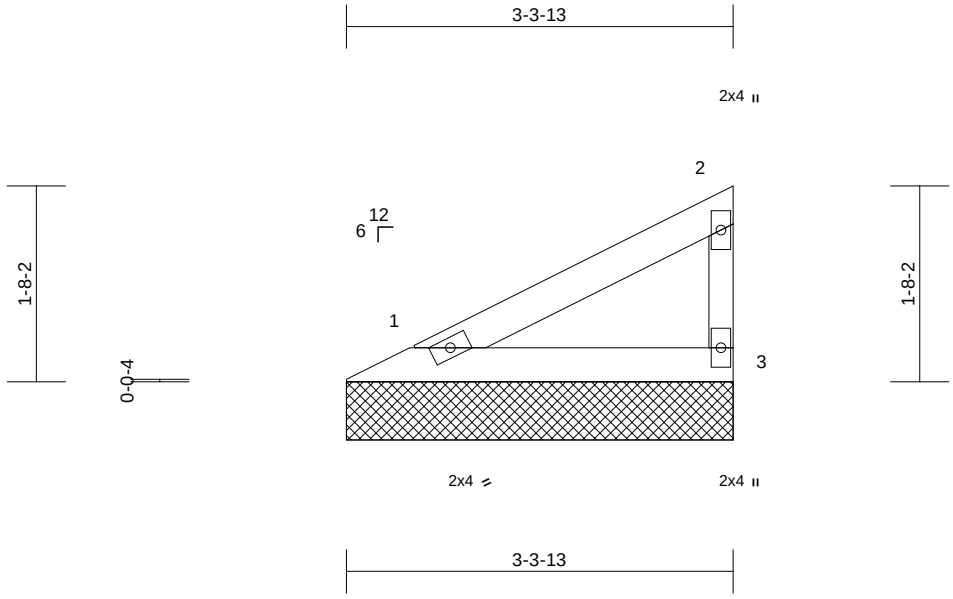

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Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.12	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.06	Vert(TL)	n/a	-	n/a	999		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.00	Horiz(TL)	0.00	3	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-P							Weight: 8 lb	FT = 10%

LUMBER
TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
WEBS 2x3 SPF No.2

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

REACTIONS (size) 1=3-3-13, 3=3-3-13
Max Horiz 1=55 (LC 5)
Max Uplift 1=-15 (LC 8), 3=-29 (LC 8)
Max Grav 1=118 (LC 1), 3=118 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-50/33, 2-3=-92/45
BOT CHORD 1-3=-19/14

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) exterior zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
2) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
3) Gable requires continuous bottom chord bearing.
4) Gable studs spaced at 2-0-0 oc.
5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
6) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
7) All bearings are assumed to be SPF No.2 .
8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 15 lb uplift at joint 1 and 29 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.

LOAD CASE(S) Standard

STATE OF MISSOURI
SCOTT M. SEVIER
NUMBER
PE-2001018807
PROFESSIONAL ENGINEER

April 24,2024

MiTek®
16023 Swingley Ridge Rd.
Chesterfield, MO 63017
314.434.1200 / MiTek-US.com

Job	Truss	Truss Type	Qty	Ply	Lot 184 HT	I65090815
B240082	V13	Valley	1	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS - 66871,

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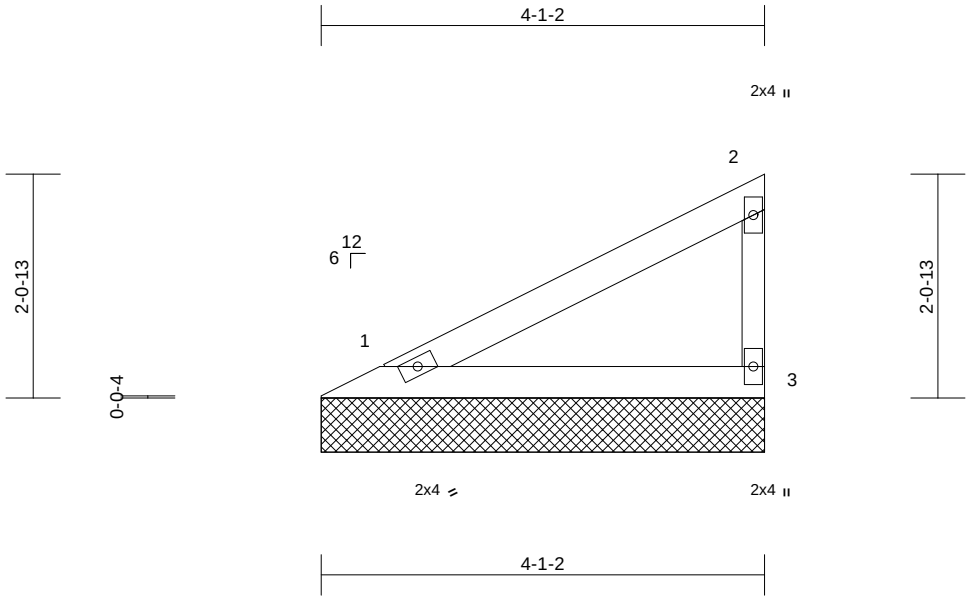

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Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.21	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.11	Vert(TL)	n/a	-	n/a	999		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.00	Horiz(TL)	0.00	3	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-P							Weight: 10 lb	FT = 10%

LUMBER
TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
WEBS 2x3 SPF No.2

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

REACTIONS (size) 1=4-1-2, 3=4-1-2
Max Horiz 1=71 (LC 5)
Max Uplift 1=-20 (LC 8), 3=-38 (LC 8)
Max Grav 1=153 (LC 1), 3=153 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-65/43, 2-3=-119/58
BOT CHORD 1-3=-24/18

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) exterior zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
2) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
3) Gable requires continuous bottom chord bearing.
4) Gable studs spaced at 2-0-0 oc.
5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
6) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
7) All bearings are assumed to be SPF No.2 .
8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 20 lb uplift at joint 1 and 38 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.

LOAD CASE(S) Standard

STATE OF MISSOURI
SCOTT M. SEVIER
NUMBER
PE-2001018807
PROFESSIONAL ENGINEER

April 24,2024

MiTek®
16023 Swingley Ridge Rd.
Chesterfield, MO 63017
314.434.1200 / MiTek-US.com

Job	Truss	Truss Type	Qty	Ply	Lot 184 HT	I65090816
B240082	V14	Valley	1	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS - 66871,

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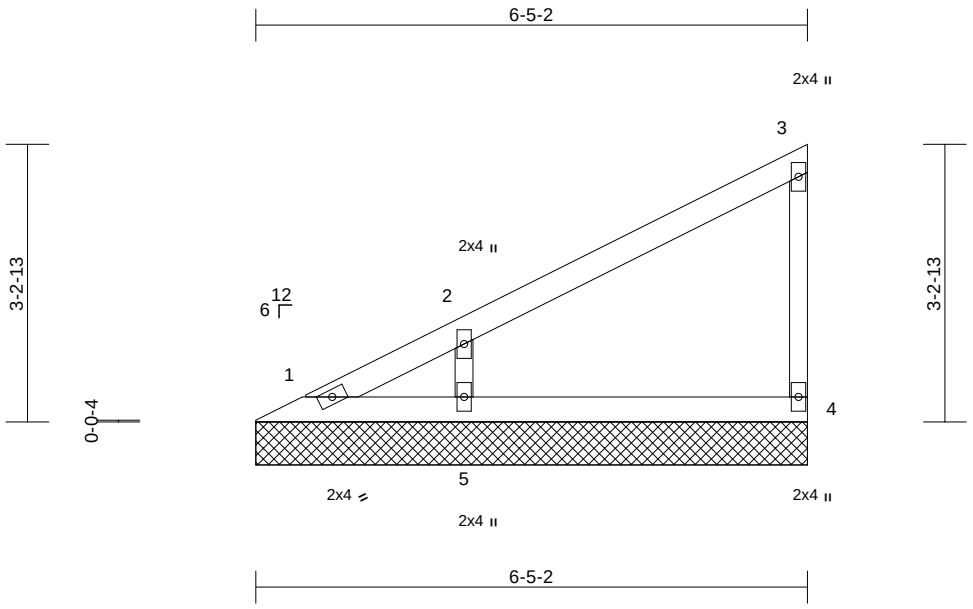

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Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.19	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.10	Vert(TL)	n/a	-	n/a	999		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.05	Horiz(TL)	0.00	4	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-P							Weight: 17 lb	FT = 10%

LUMBER
TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
WEBS 2x3 SPF No.2
OTHERS 2x3 SPF 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=6-5-2, 4=6-5-2, 5=6-5-2
Max Horiz 1=120 (LC 5)
Max Uplift 1=-1 (LC 19), 4=-29 (LC 8), 5=-108 (LC 8)
Max Grav 1=47 (LC 5), 4=143 (LC 1), 5=360 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-105/55, 2-3=-102/42, 3-4=-111/48
BOT CHORD 1-5=-41/31, 4-5=-41/31
WEBS 2-5=-280/156

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) exterior zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
2) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
3) Gable requires continuous bottom chord bearing.
4) Gable studs spaced at 4-0-0 oc.
5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
6) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
7) All bearings are assumed to be SPF No.2 .
8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 1 lb uplift at joint 1, 29 lb uplift at joint 4 and 108 lb uplift at joint 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.

LOAD CASE(S) Standard

April 24,2024

MiTek®
16023 Swingley Ridge Rd.
Chesterfield, MO 63017
314.434.1200 / MiTek-US.com

Job	Truss	Truss Type	Qty	Ply	Lot 184 HT	I65090817
B240082	V15	Valley	1	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS - 66871,

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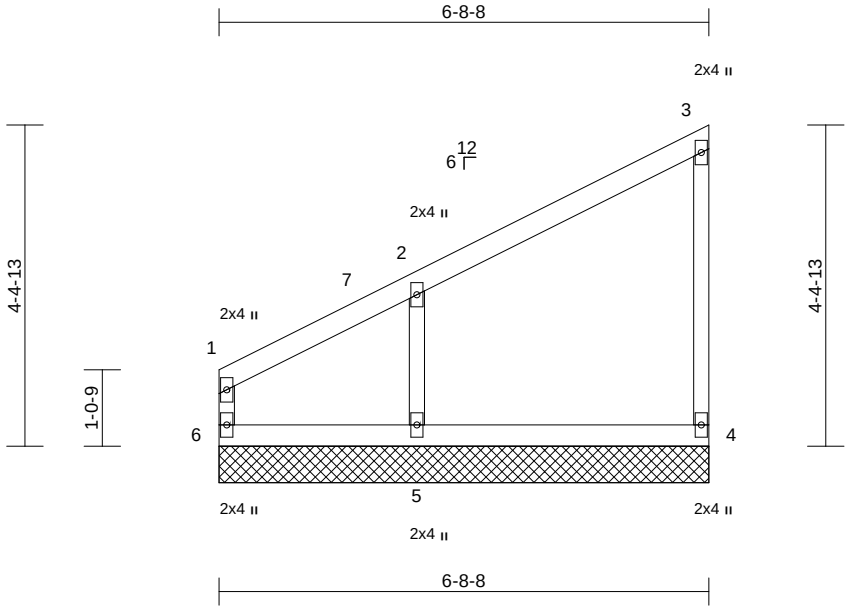

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Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.20	Vert(LL)	n/a	-	n/a	999	MT20	197/144
Snow (Pf/Pg)	15.4/20.0	Lumber DOL	1.15	BC	0.10	Vert(TL)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.06	Horiz(TL)	0.00	4	n/a	n/a		
BCLL	0.0*	Code	IRC2018/TPI2014	Matrix-R								
BCDL	10.0										Weight: 21 lb	FT = 20%

LUMBER

TOP CHORD	2x4 SPF No.2
BOT CHORD	2x4 SPF No.2
WEBS	2x3 SPF No.2
OTHERS	2x3 SPF No.2

BRACING

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

REACTIONS (size) 4=6-8-8, 5=6-8-8, 6=6-8-8
Max Horiz 6=149 (LC 9)
Max Uplift 4=-18 (LC 9), 5=-118 (LC 12)
Max Grav 4=164 (LC 18), 5=380 (LC 18), 6=113 (LC 26)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD	1-6=-86/6, 1-2=-117/57, 2-3=-110/41, 3-4=-130/40
BOT CHORD	5-6=-51/40, 4-5=-51/40
WEBS	2-5=-301/146

NOTES

1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
2) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
3) TCLL: ASCE 7-16; Pr=25.0 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) Gable requires continuous bottom chord bearing.
6) Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
7) Gable studs spaced at 4-0-0 oc.
8) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
9) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
10) All bearings are assumed to be SPF No.2 .
11) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 18 lb uplift at joint 4 and 118 lb uplift at joint 5.
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.

LOAD CASE(S) Standard

April 24,2024

MiTek®
16023 Swingley Ridge Rd.
Chesterfield, MO 63017
314.434.1200 / MiTek-US.com

Job	Truss	Truss Type	Qty	Ply	Lot 184 HT	I65090818
B240082	V16	Valley	1	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS - 66871,

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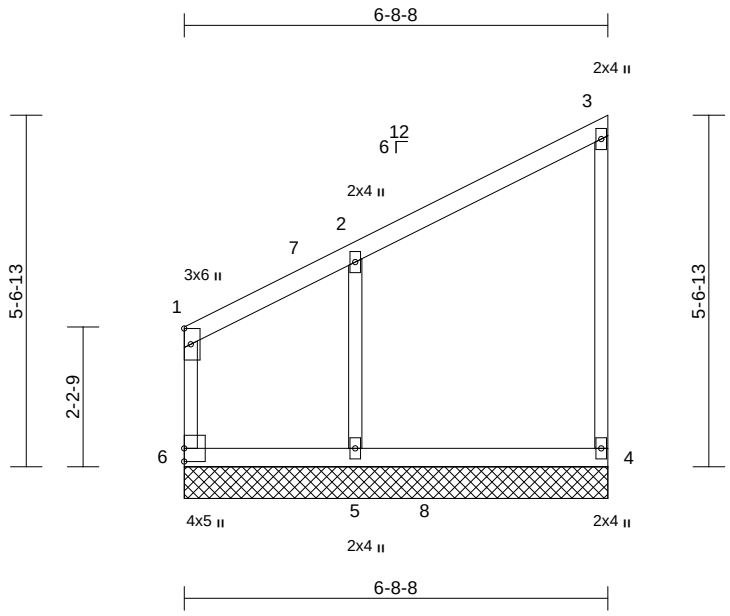

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Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.37	Vert(LL)	n/a	-	n/a	999	MT20	197/144
Snow (Pf/Pg)	15.4/20.0	Lumber DOL	1.15	BC	0.18	Vert(TL)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.09	Horiz(TL)	0.00	4	n/a	n/a		
BCLL	0.0*	Code	IRC2018/TPI2014	Matrix-R								
BCDL	10.0										Weight: 24 lb	FT = 20%

LUMBER

TOP CHORD	2x4 SPF No.2
BOT CHORD	2x4 SPF No.2
WEBS	2x3 SPF No.2
OTHERS	2x3 SPF No.2

BRACING

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

REACTIONS (size) 4=6-8-8, 5=6-8-8, 6=6-8-8
Max Horiz 6=189 (LC 9)
Max Uplift 4=-23 (LC 9), 5=-137 (LC 12), 6=-22 (LC 8)
Max Grav 4=188 (LC 5), 5=425 (LC 25), 6=168 (LC 26)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD	1-6=-113/21, 1-2=-135/64, 2-3=-117/49, 3-4=-130/37
BOT CHORD	5-6=-72/53, 4-5=-72/53
WEBS	2-5=-301/153

NOTES

1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
2) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
3) TCLL: ASCE 7-16; Pr=25.0 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) Gable requires continuous bottom chord bearing.
6) Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
7) Gable studs spaced at 4-0-0 oc.
8) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
9) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
10) All bearings are assumed to be SPF No.2 .
11) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 22 lb uplift at joint 6, 23 lb uplift at joint 4 and 137 lb uplift at joint 5.
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.

LOAD CASE(S) Standard

April 24,2024

MiTek®
16023 Swingley Ridge Rd.
Chesterfield, MO 63017
314.434.1200 / MiTek-US.com

Job	Truss	Truss Type	Qty	Ply	Lot 184 HT	I65090819
B240082	V17	Valley	1	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS - 66871,

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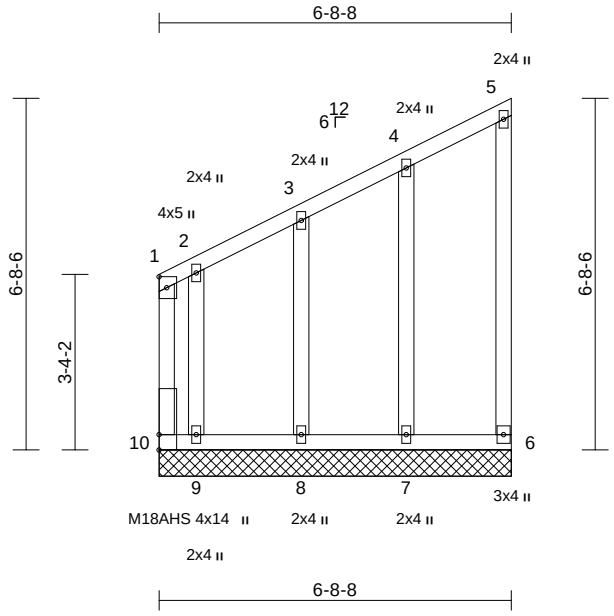

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Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.43	Vert(LL)	n/a	-	n/a	999	M18AHS	142/136
TCDL	10.0	Lumber DOL	1.15	BC	0.33	Vert(TL)	n/a	-	n/a	999	MT20	197/144
BCLL	0.0*	Rep Stress Incr	YES	WB	0.07	Horiz(TL)	0.00	6	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-R							Weight: 41 lb	FT = 10%

LUMBER
TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
WEBS 2x4 SPF No.2
OTHERS 2x4 SPF 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=6-8-8, 7=6-8-8, 8=6-8-8, 9=6-8-8, 10=6-8-8
Max Horiz 10=252 (LC 5)
Max Uplift 6=-95 (LC 5), 7=-33 (LC 8), 8=-60 (LC 8), 9=-859 (LC 5), 10=-395 (LC 6)
Max Grav 6=91 (LC 15), 7=195 (LC 16), 8=187 (LC 1), 9=447 (LC 6), 10=903 (LC 5)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-10=-410/155, 1-2=-287/93, 2-3=-133/47, 3-4=-111/55, 4-5=-98/62, 5-6=-55/48
BOT CHORD 9-10=-105/74, 8-9=-105/74, 7-8=-105/74, 6-7=-105/74
WEBS 4-7=-145/39, 3-8=-146/95, 2-9=-191/369

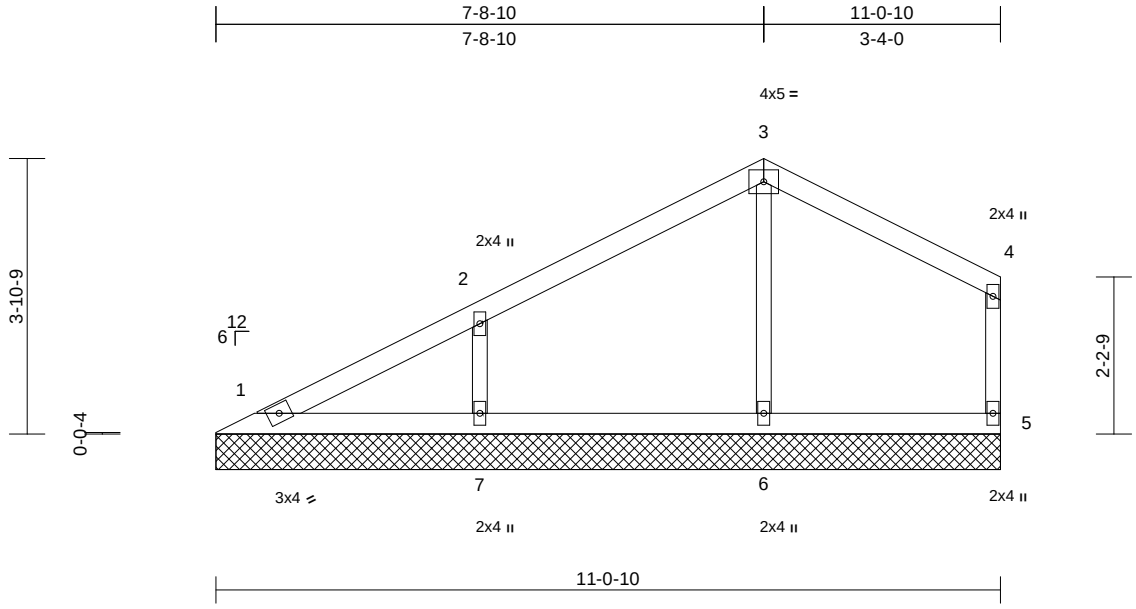
NOTES
1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
2) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
3) All plates are MT20 plates unless otherwise indicated.
4) Gable requires continuous bottom chord bearing.
5) Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
6) Gable studs spaced at 2-0-0 oc.
7) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
8) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
9) All bearings are assumed to be SPF No.2 .
10) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 395 lb uplift at joint 10, 95 lb uplift at joint 6, 33 lb uplift at joint 7, 60 lb uplift at joint 8 and 859 lb uplift at joint 9.
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.

LOAD CASE(S) Standard

April 24,2024

MiTek®
16023 Swingley Ridge Rd.
Chesterfield, MO 63017
314.434.1200 / MiTek-US.com

Job	Truss	Truss Type	Qty	Ply	Lot 184 HT
B240082	V18	Valley	1	1	Job Reference (optional)



Scale = 1:32.5

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.19	Vert(LL)	n/a	-	n/a	999	MT20	197/144
Snow (Pf/Pg)	15.4/20.0	Lumber DOL	1.15	BC	0.09	Vert(TL)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.08	Horiz(TL)	0.00	5	n/a	n/a		
BCLL	0.0*	Code	IRC2018/TPI2014	Matrix-S								
BCDL	10.0										Weight: 31 lb	FT = 20%

LUMBER

TOP CHORD	2x4 SPF No.2
BOT CHORD	2x4 SPF No.2
WEBS	2x3 SPF No.2
OTHERS	2x3 SPF 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=11-0-10, 5=11-0-10, 6=11-0-10, 7=11-0-10
Max Horiz 1=92 (LC 9)
Max Uplift 5=-33 (LC 13), 7=-97 (LC 12)
Max Grav 1=106 (LC 2), 5=158 (LC 19), 6=315 (LC 2), 7=382 (LC 31)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD	1-2=-83/64, 2-3=-97/61, 3-4=-72/51, 4-5=-132/47
BOT CHORD	1-7=-23/18, 6-7=-23/18, 5-6=-23/18
WEBS	3-6=-238/35, 2-7=-298/142

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=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
4) TCLL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=15.4 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
5) Unbalanced snow loads have been considered for this design.
6) Gable requires continuous bottom chord bearing.
7) Gable studs spaced at 4-0-0 oc.
8) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
9) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
10) All bearings are assumed to be SPF No.2 .
11) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 33 lb uplift at joint 5 and 97 lb uplift at joint 7.
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.

LOAD CASE(S) Standard

April 24,2024

RELEASE FOR CONSTRUCTION
AS NOTED FOR PLAN REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
05/07/2024

Job	Truss	Truss Type	Qty	Ply	Lot 184 HT
B240082	V19	Valley	1	1	I65090821 Job Reference (optional)

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.73 S Apr 3 2024 Print: 8.730 S Apr 3 2024 MiTek Industries, Inc. Tue Apr 23 07:51:24 Page: 1
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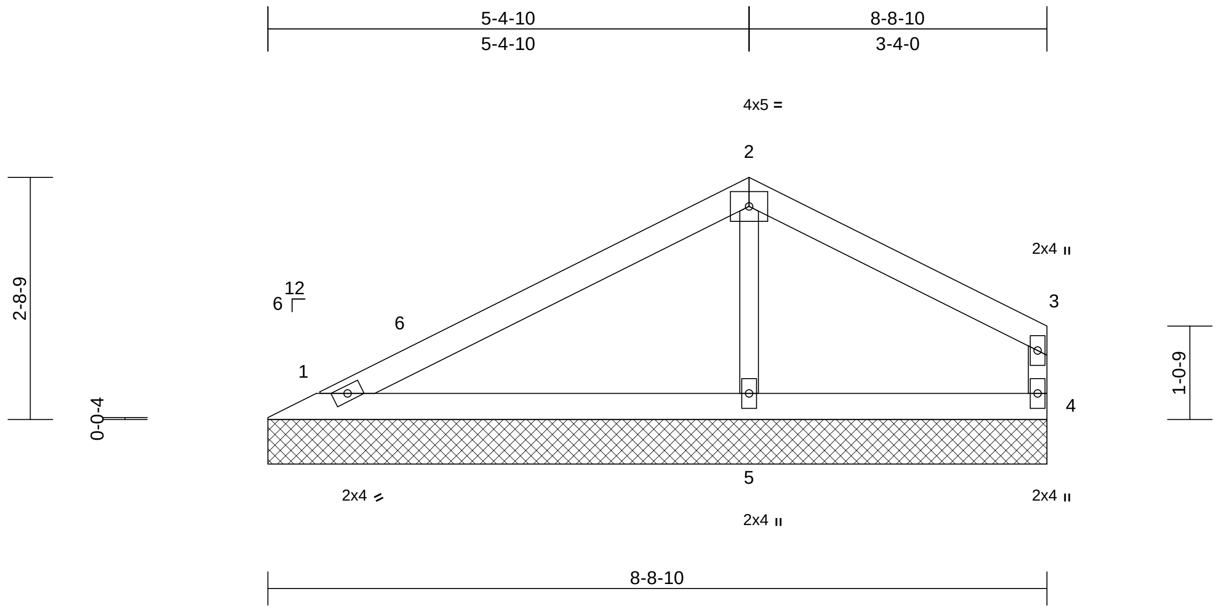

Scale = 1:25.8

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.45	Vert(LL)	n/a	-	n/a	999	MT20	197/144
Snow (Pf/Pg)	15.4/20.0	Lumber DOL	1.15	BC	0.16	Vert(TL)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.06	Horiz(TL)	0.00	4	n/a	n/a		
BCLL	0.0*	Code	IRC2018/TPI2014	Matrix-P								
BCDL	10.0										Weight: 23 lb	FT = 20%

LUMBER
TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
WEBS 2x3 SPF No.2
OTHERS 2x3 SPF 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=8-8-10, 4=8-8-10, 5=8-8-10
Max Horiz 1=48 (LC 9)
Max Uplift 1=-34 (LC 12), 4=-41 (LC 13), 5=-1 (LC 12)
Max Grav 1=207 (LC 2), 4=146 (LC 19), 5=384 (LC 2)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-69/68, 2-3=-46/46, 3-4=-128/52
BOT CHORD 1-5=-10/8, 4-5=-10/8
WEBS 2-5=-281/63

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=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
4) TCLL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=15.4 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
5) Unbalanced snow loads have been considered for this design.
6) Gable requires continuous bottom chord bearing.
7) Gable studs spaced at 4-0-0 oc.
8) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
9) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
10) All bearings are assumed to be SPF No.2 .
11) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 34 lb uplift at joint 1, 41 lb uplift at joint 4 and 1 lb uplift at joint 5.
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.

LOAD CASE(S) Standard

STATE OF MISSOURI
SCOTT M. SEVIER
NUMBER PE-2001018807
PROFESSIONAL ENGINEER

April 24,2024

MiTek®
16023 Swingley Ridge Rd.
Chesterfield, MO 63017
314.434.1200 / MiTek-US.com

Job	Truss	Truss Type	Qty	Ply	Lot 184 HT	I65090822
B240082	V20	Valley	1	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS - 66871,

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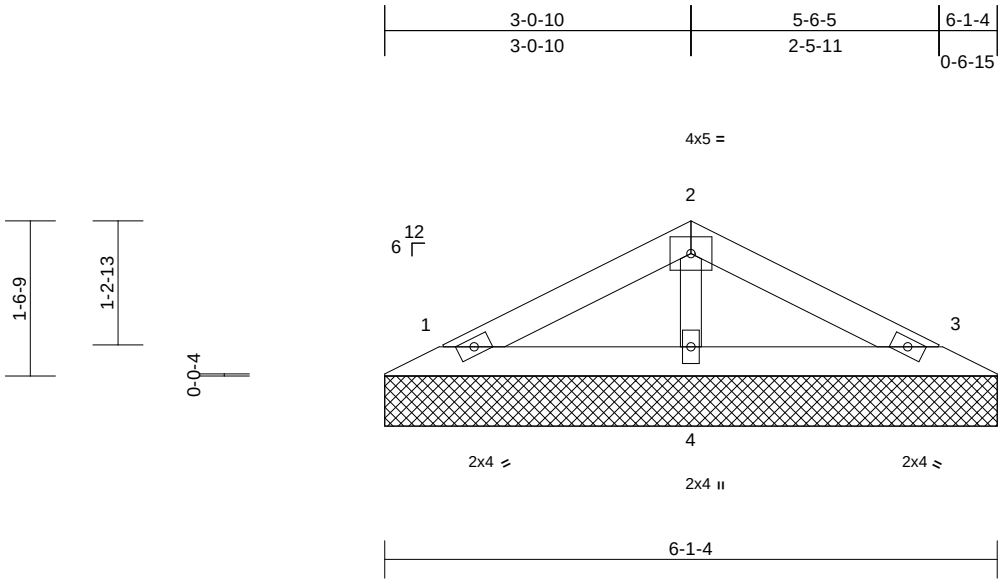


Scale = 1:23

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.11	Vert(LL)	n/a	-	n/a	999	MT20	197/144
Snow (Pf/Pg)	15.4/20.0	Lumber DOL	1.15	BC	0.05	Vert(TL)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.03	Horiz(TL)	0.00	3	n/a	n/a		
BCLL	0.0*	Code	IRC2018/TPI2014	Matrix-P								
BCDL	10.0										Weight: 14 lb	FT = 20%

LUMBER
TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
OTHERS 2x3 SPF 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=6-1-4, 3=6-1-4, 4=6-1-4
Max Horiz 1=20 (LC 16)
Max Uplift 1=-21 (LC 12), 3=-24 (LC 13)
Max Grav 1=116 (LC 2), 3=116 (LC 2), 4=212 (LC 2)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-56/28, 2-3=-56/20
BOT CHORD 1-4=0/24, 3-4=0/24
WEBS 2-4=-150/33

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=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
4) TCLL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=15.4 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
5) Unbalanced snow loads have been considered for this design.
6) Gable requires continuous bottom chord bearing.
7) Gable studs spaced at 2-0-0 oc.
8) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
9) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
10) All bearings are assumed to be SPF No.2 .
11) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 21 lb uplift at joint 1 and 24 lb uplift at joint 3.
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.

LOAD CASE(S) Standard

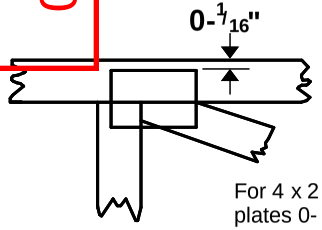
April 24,2024

MiTek®
16023 Swingley Ridge Rd.
Chesterfield, MO 63017
314.434.1200 / MiTek-US.com

Symbols

PLATE LOCATION AND ORIENTATION

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



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

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

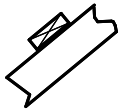
* Plate location details available in MiTek software or upon request.

PLATE SIZE

4 x 4

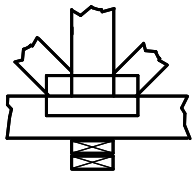
The first dimension is the plate width measured perpendicular to slots. Second dimension is the length parallel to slots.

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

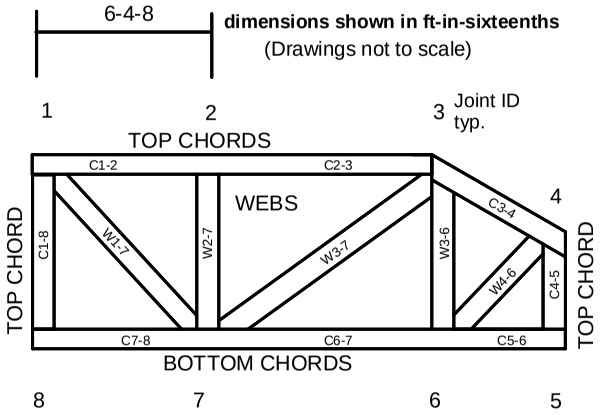


Indicates location where bearings (supports) occur. Icons vary but reaction section indicates joint number/letter where bearings occur. Min size shown is for crushing only.

Industry Standards:

ANSI/TPI1: National Design Specification for Metal Plate Connected Wood Truss Construction.
DSB-22: Design Standard for Bracing.
BCSI: Building Component Safety Information, Guide to Good Practice for Handling, Installing, Restraining & Bracing of Metal Plate Connected Wood Trusses.

Numbering System



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

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

Product Code Approvals

ICC-ES Reports:

ESR-1988, ESR-2362, ESR-2685, ESR-3282
ESR-4722, ESL-1388

Design General Notes

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

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

MiTek®

General Safety Notes

Failure to Follow Could Cause Property Damage or Personal Injury

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