RE: Lot 28 OS
Lot 28 OS

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

Site Information:

Customer: Project Name: Lot 28 OS
Lot/Block: Model:
Address: Subdivision:
City: State:

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

Design Code: IRC2018/TPI2014 Design Program: MiTek 20/20 8.4
Wind Code: ASCE 7 - 16[Low Rise] Wind Speed: 115 mph
Roof Load: 45.0 psf Floor Load: N/A psf

This package includes 48 individual, dated Truss Design Drawings and 0 Additional Drawings.

No.	Seal#	Truss Name	Date	No.	Seal#	Truss Name	Date
1	I45418600	A1	3/31/2021	21	I45418620	D3	3/31/2021
2	I45418601	A2	3/31/2021	22	I45418621	E1	3/31/2021
3	I45418602	A3	3/31/2021	23	I45418622	E2	3/31/2021
4	I45418603	A4	3/31/2021	24	I45418623	E3	3/31/2021
5	I45418604	A5	3/31/2021	25	I45418624	J1	3/31/2021
6	I45418605	B1	3/31/2021	26	I45418625	J2	3/31/2021
7	I45418606	B2	3/31/2021	27	I45418626	J3	3/31/2021
8	I45418607	B3	3/31/2021	28	I45418627	J4	3/31/2021
9	I45418608	B4	3/31/2021	29	I45418628	J5	3/31/2021
10	I45418609	B5	3/31/2021	30	I45418629	J6	3/31/2021
11	I45418610	B6	3/31/2021	31	I45418630	J7	3/31/2021
12	I45418611	B7	3/31/2021	32	I45418631	J8	3/31/2021
13	I45418612	B8	3/31/2021	33	I45418632	J9	3/31/2021
14	I45418613	C1	3/31/2021	34	I45418633	J10	3/31/2021
15	I45418614	C2	3/31/2021	35	I45418634	J11	3/31/2021
16	I45418615	C3	3/31/2021	36	I45418635	J12	3/31/2021
17	I45418616	C4	3/31/2021	37	I45418636	LAY1	3/31/2021
18	I45418617	C5	3/31/2021	38	I45418637	LAY2	3/31/2021
19	I45418618	D1	3/31/2021	39	I45418638	V1	3/31/2021
20	I45418619	D2	3/31/2021	40	I45418639	V2	3/31/2021

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, 2021.

Missouri COA: 001193

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. Any project specific information included is for MiTek customers file reference purpose only, and was not taken into account in the preparation of these designs. MiTek 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.

March 31, 2021

Sevier, Scott

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

RE: Lot 28 OS - Lot 28 OS

Site Information:

Project Customer: Project Name: Lot 28 OS
Lot/Block: Subdivision:
Address:
City, County: State:

No.	Seal#	Truss Name	Date
41	I45418640	V3	3/31/2021
42	I45418641	V4	3/31/2021
43	I45418642	V5	3/31/2021
44	I45418643	V6	3/31/2021
45	I45418644	V7	3/31/2021
46	I45418645	V8	3/31/2021
47	I45418646	V9	3/31/2021
48	I45418647	V10	3/31/2021

Job	Truss	Truss Type	Qty	Ply	Lot 28 OS	
Lot 28 OS	A1	Common Supported Gable	1	1	Job Reference (optional)	I45418600

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.43 S Mar 22 2021 Print: 8.430 S Mar 22 2021 MiTek Industries, Inc. Tue Mar 30 10:11:09 Page: 1
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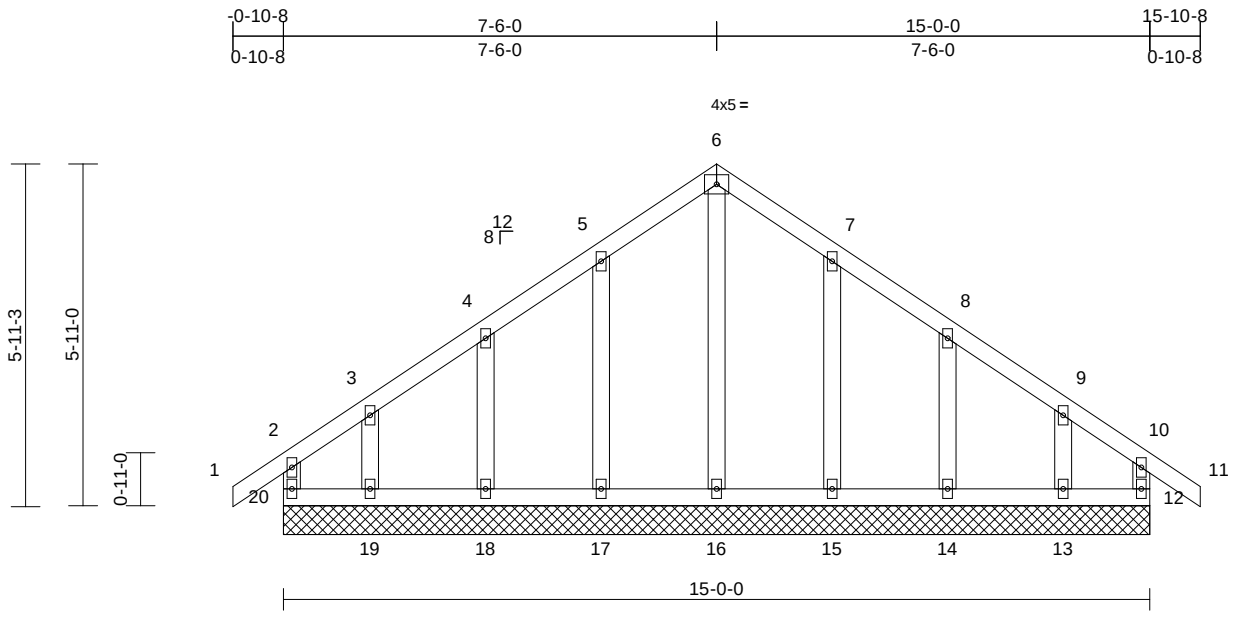

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Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.07	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.05	Vert(CT)	n/a	-	n/a	999		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.08	Horz(CT)	0.00	12	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-R							Weight: 66 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 6-0-0 oc bracing.

REACTIONS (size) 12=15-0-0, 13=15-0-0, 14=15-0-0, 15=15-0-0, 16=15-0-0, 17=15-0-0, 18=15-0-0, 19=15-0-0, 20=15-0-0
Max Horiz 20=172 (LC 7)
Max Uplift 12=-49 (LC 5), 13=-98 (LC 9), 14=-67 (LC 9), 15=-72 (LC 9), 17=-73 (LC 8), 18=-66 (LC 8), 19=-105 (LC 8), 20=-76 (LC 4)
Max Grav 12=146 (LC 15), 13=178 (LC 16), 14=187 (LC 16), 15=196 (LC 16), 16=197 (LC 18), 17=197 (LC 15), 18=186 (LC 1), 19=190 (LC 15), 20=168 (LC 16)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 2-20=-137/61, 1-2=0/40, 2-3=-107/105, 3-4=-78/85, 4-5=-65/123, 5-6=-53/158, 6-7=-40/146, 7-8=-45/111, 8-9=-56/76, 9-10=-76/74, 10-11=0/40, 10-12=-127/40
BOT CHORD 19-20=-79/85, 18-19=-79/85, 17-18=-79/85, 16-17=-79/85, 15-16=-79/85, 14-15=-79/85, 13-14=-79/85, 12-13=-79/85
WEBS 6-16=-157/0, 5-17=-157/96, 4-18=-147/94, 3-19=-135/103, 7-15=-156/95, 8-14=-149/95, 9-13=-129/99

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) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 76 lb uplift at joint 20, 49 lb uplift at joint 12, 73 lb uplift at joint 17, 66 lb uplift at joint 18, 105 lb uplift at joint 19, 72 lb uplift at joint 15, 67 lb uplift at joint 14 and 98 lb uplift at joint 13.
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

March 31,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 28 OS	
Lot 28 OS	A2	Common	1	1	Job Reference (optional)	I45418601

Wheeler Lumber, Waverly, KS - 66871,

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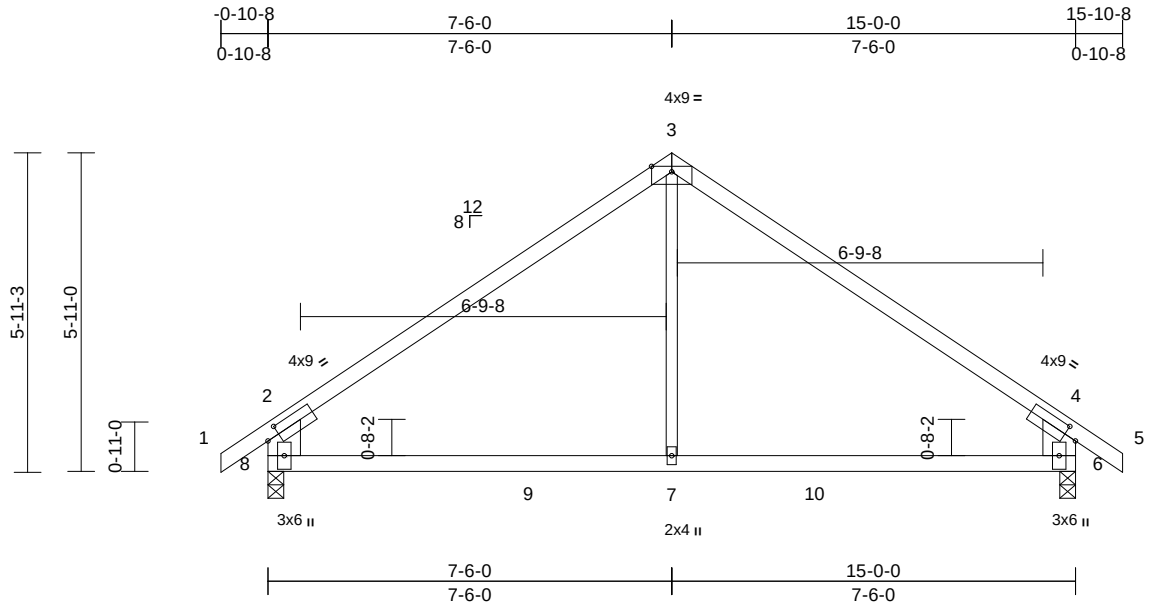

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Plate Offsets (X, Y): [2:0-2-13,0-2-0], [4:0-2-13,0-2-0]

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	0.66	Vert(LL)	-0.09	6-7	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.47	Vert(CT)	-0.15	6-7	>999	240		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.13	Horz(CT)	0.01	6	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-R		Wind(LL)	-0.06	7-8	>999	240	Weight: 49 lb	FT = 10%

LUMBER
TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
WEBS 2x8 SP DSS *Except* 7-3:2x3 SPF No.2

BRACING
TOP CHORD Structural wood sheathing directly applied or 5-9-11 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (size) 6=0-3-8, 8=0-3-8
Max Horiz 8=176 (LC 7)
Max Uplift 6=-99 (LC 9), 8=-99 (LC 8)
Max Grav 6=804 (LC 16), 8=804 (LC 15)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/46, 2-3=-792/123, 3-4=-792/123, 4-5=0/46, 2-8=-691/159, 4-6=-691/159
BOT CHORD 8-9=0/586, 7-9=0/586, 7-10=0/586, 6-10=0/586
WEBS 3-7=0/397

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) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 99 lb uplift at joint 8 and 99 lb uplift at joint 6.
6) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard

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

March 31,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 28 OS	I45418602
Lot 28 OS	A3	Roof Special	3	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS - 66871,

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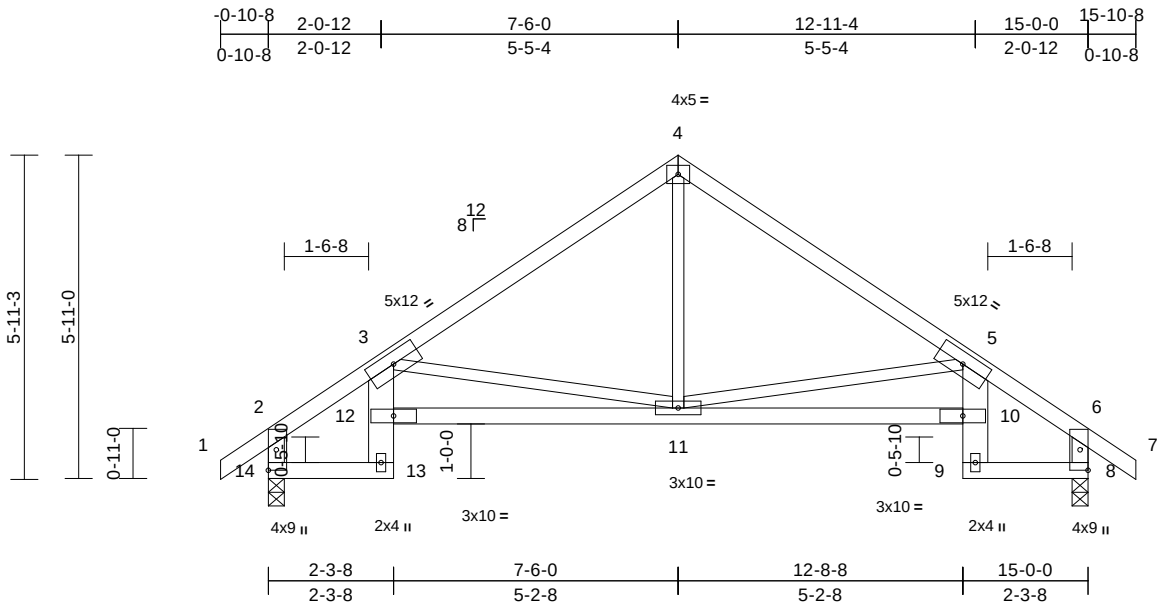

Scale = 1:42.2

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	0.43	Vert(LL)	-0.05	10-11	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.43	Vert(CT)	-0.11	10-11	>999	240		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.57	Horz(CT)	0.10	8	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S		Wind(LL)	0.04	11-12	>999	240	Weight: 60 lb	FT = 10%

LUMBER
TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2 *Except* 13-3,5-9:2x6 SPF No.2
WEBS 2x3 SPF No.2 *Except* 14-2,8-6:2x4 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) 8=0-3-8, 14=0-3-8
Max Horiz 14=-172 (LC 6)
Max Uplift 8=-97 (LC 9), 14=-97 (LC 8)
Max Grav 8=733 (LC 1), 14=733 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/40, 2-3=-679/91, 3-4=-786/100, 4-5=-786/121, 5-6=-679/90, 6-7=0/40, 2-14=-634/104, 6-8=-634/99
BOT CHORD 13-14=-101/504, 12-13=-61/22, 3-12=-25/77, 11-12=-302/1342, 10-11=-159/1236, 9-10=-61/21, 5-10=-25/77, 8-9=-28/442
WEBS 4-11=0/404, 5-11=-699/268, 3-11=-788/319

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) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 97 lb uplift at joint 14 and 97 lb uplift at joint 8.
6) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard

March 31,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 28 OS	
Lot 28 OS	A4	Roof Special	1	1	Job Reference (optional)	I45418603

Wheeler Lumber, Waverly, KS - 66871,

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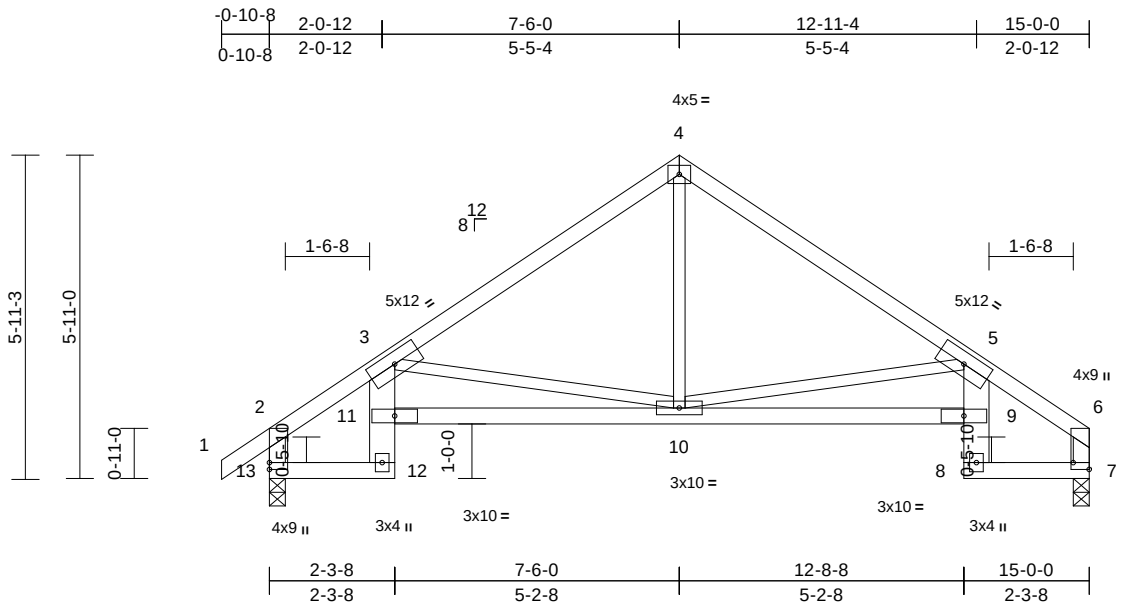

Scale = 1:42.2

Plate Offsets (X, Y): [6:Edge,0-3-8]

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	0.43	Vert(LL)	-0.06	9-10	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.45	Vert(CT)	-0.12	9-10	>999	240		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.56	Horz(CT)	0.10	7	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S		Wind(LL)	0.04	10-11	>999	240	Weight: 59 lb	FT = 10%

LUMBER

TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2 *Except* 12-3,5-8:2x6 SPF No.2
WEBS 2x3 SPF No.2 *Except* 13-2,7-6:2x4 SPF No.2

BRACING

TOP CHORD Structural wood sheathing directly applied or 5-11-14 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.

REACTIONS (size) 7=0-3-8, 13=0-3-8
Max Horiz 13=166 (LC 5)
Max Uplift 7=-73 (LC 9), 13=-97 (LC 8)
Max Grav 7=659 (LC 1), 13=736 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/40, 2-3=-682/91, 3-4=-791/107, 4-5=-791/124, 5-6=-674/88, 2-13=-636/105, 6-7=-537/72
BOT CHORD 12-13=-113/496, 11-12=-62/21, 3-11=-25/77, 10-11=-324/1329, 9-10=-208/1267, 8-9=-84/24, 5-9=-48/62, 7-8=-52/452
WEBS 4-10=-2/406, 5-10=-725/287, 3-10=-782/327

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) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 97 lb uplift at joint 13 and 73 lb uplift at joint 7.
6) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard

March 31,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 28 OS
Lot 28 OS	A5	Common Girder	1	2	I45418604 Job Reference (optional)

Wheeler Lumber, Waverly, KS - 66871,

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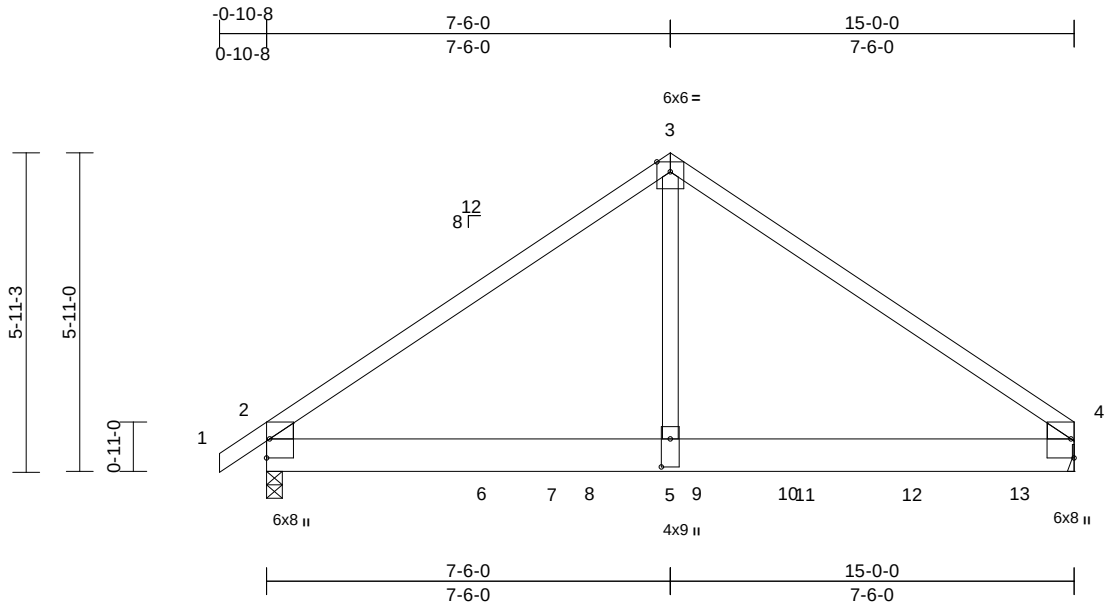

Scale = 1:42.8

Plate Offsets (X, Y): [2:Edge,0-0-11], [4:Edge,0-0-11], [5:0-6-4,0-2-0]

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	0.65	Vert(LL)	-0.10	4-5	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.53	Vert(CT)	-0.16	4-5	>999	240		
BCLL	0.0*	Rep Stress Incr	NO	WB	0.64	Horz(CT)	0.02	4	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S		Wind(LL)	0.06	2-5	>999	240	Weight: 150 lb	FT = 10%

LUMBER
TOP CHORD 2x4 SPF 2100F 1.8E
BOT CHORD 2x8 SP 2400F 2.0E
WEBS 2x4 SPF No.2
WEDGE Left: 2x4 SPF No.2
Right: 2x4 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) 2=0-3-8, 4= Mechanical
Max Horiz 2=116 (LC 5)
Max Uplift 2=-472 (LC 8), 4=-395 (LC 9)
Max Grav 2=3923 (LC 13), 4=5203 (LC 14)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/10, 2-3=-5266/480, 3-4=-5214/480
BOT CHORD 2-6=-319/4156, 6-7=-319/4156, 7-8=-319/4156, 5-8=-319/4156, 5-9=-319/4156, 9-10=-319/4156, 10-11=-319/4156, 11-12=-319/4156, 12-13=-319/4156, 4-13=-319/4156
WEBS 3-5=-442/5599

NOTES
1) 2-ply truss to be connected together with 10d (0.131"x3") nails as follows:
Top chords connected as follows: 2x4 - 1 row at 0-9-0 oc.
Bottom chords connected as follows: 2x8 - 2 rows staggered at 0-6-0 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) Unbalanced roof live loads have been considered for this design.
4) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope); cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
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) Refer to girder(s) for truss to truss connections.
8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 472 lb uplift at joint 2 and 395 lb uplift at joint 4.
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.
10) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 1585 lb down and 504 lb up at 4-0-0, 1134 lb down and 80 lb up at 6-0-0, 1237 lb down and 17 lb up at 8-0-0, 1236 lb down and 29 lb up at 10-0-0, and 1235 lb down and 38 lb up at 12-0-0, and 1249 lb down and 182 lb up at 14-0-0 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: 1-3=-70, 3-4=-70, 2-4=-20
Concentrated Loads (lb)
Vert: 6=-1545 (F), 8=-1134 (F), 9=-1134 (F), 11=-1132 (F), 12=-1132 (F), 13=-1134 (F)

March 31,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 28 OS
Lot 28 OS	B1	Flat Girder	1	1	I45418605
					Job Reference (optional)

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.43 S Mar 22 2021 Print: 8.430 S Mar 22 2021 MiTek Industries, Inc. Tue Mar 30 10:11:17 Page: 1
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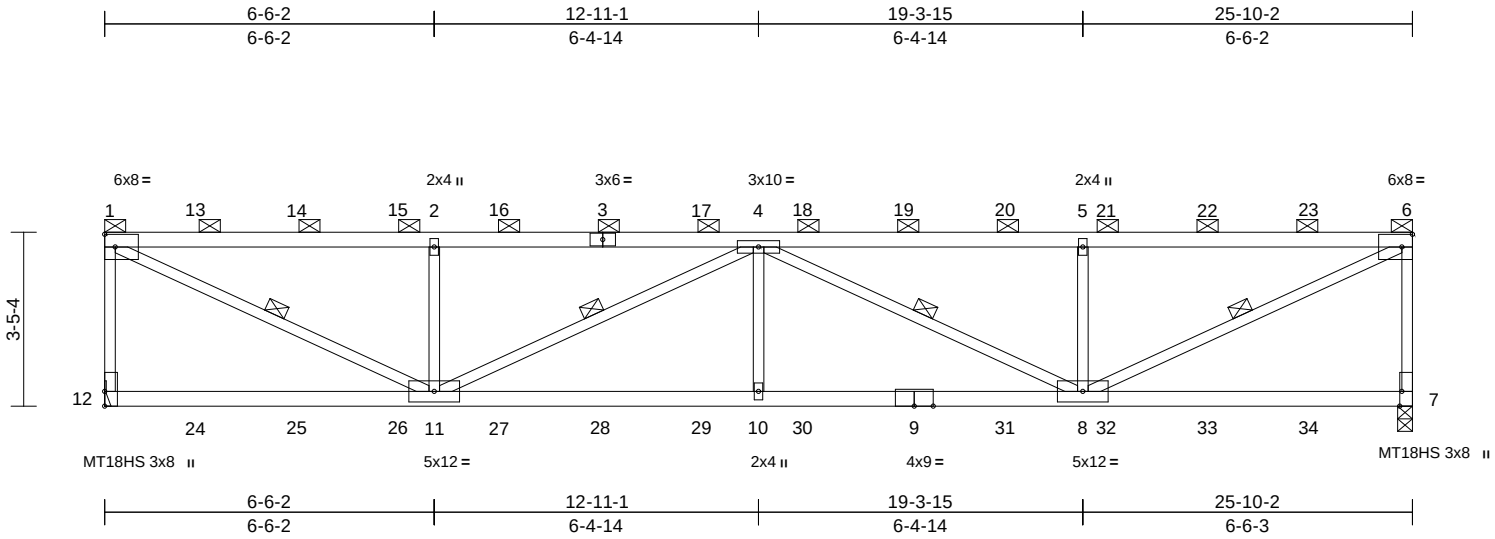

Scale = 1:45.5

Plate Offsets (X, Y): [7:0-3-8,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	0.63	Vert(LL)	-0.19	10	>999	360	MT18HS	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.49	Vert(CT)	-0.35	8-10	>871	240	MT20	197/144
BCLL	0.0*	Rep Stress Incr	NO	WB	0.97	Horz(CT)	0.06	7	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S		Wind(LL)	0.20	10	>999	240	Weight: 93 lb	FT = 10%

LUMBER
TOP CHORD 2x4 SPF 2100F 1.8E
BOT CHORD 2x4 SPF 2100F 1.8E
WEBS 2x3 SPF No.2

BRACING
TOP CHORD 2-0-0 oc purlins (4-2-2 max.): 1-6, except end verticals.
BOT CHORD Rigid ceiling directly applied or 7-5-6 oc bracing.
WEBS 1 Row at midpt 1-11, 4-11, 4-8, 6-8

REACTIONS (size) 7=0-3-8, 12= Mechanical
Max Horiz 12=120 (LC 22)
Max Uplift 7=-540 (LC 5), 12=-492 (LC 4)
Max Grav 7=1673 (LC 1), 12=1565 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-12=-1479/528, 1-13=-2570/827, 13-14=-2570/827, 14-15=-2570/827, 2-15=-2570/827, 2-16=-2570/827, 3-16=-2570/827, 3-17=-2570/827, 4-17=-2570/827, 4-18=-2570/826, 18-19=-2570/826, 19-20=-2570/826, 5-20=-2570/826, 5-21=-2570/826, 21-22=-2570/826, 22-23=-2570/826, 6-23=-2570/826, 6-7=-1555/592
BOT CHORD 12-24=-99/110, 24-25=-99/110, 25-26=-99/110, 11-26=-99/110, 11-27=-1109/3344, 27-28=-1109/3344, 28-29=-1109/3344, 10-29=-1109/3344, 10-30=-1109/3344, 9-30=-1109/3344, 9-31=-1109/3344, 8-31=-1109/3344, 8-32=-39/49, 32-33=-39/49, 33-34=-39/49, 7-34=-39/49
WEBS 1-11=-902/2818, 2-11=-646/398, 4-11=-863/291, 4-10=0/336, 4-8=-863/291, 5-8=-646/398, 6-8=-902/2818

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) Provide adequate drainage to prevent water ponding.
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) Refer to girder(s) for truss to truss connections.
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 492 lb uplift at joint 12 and 540 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.
9) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
10) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 104 lb down and 80 lb up at 1-9-10, 104 lb down and 80 lb up at 3-9-10, 104 lb down and 80 lb up at 5-9-10, 104 lb down and 80 lb up at 7-9-10, 104 lb down and 80 lb up at 9-9-10, 104 lb down and 80 lb up at 11-9-10, 104 lb down and 80 lb up at 13-9-10, 104 lb down and 80 lb up at 15-9-10, 104 lb down and 80 lb up at 17-9-10, 104 lb down and 80 lb up at 19-9-10, 104 lb down and 80 lb up at 21-9-10, and 104 lb down and 80 lb up at 23-9-10, and 107 lb down and 74 lb up at 25-8-14 on top chord, and 34 lb down at 1-9-10, 34 lb down at 3-9-10, 34 lb down at 5-9-10, 34 lb down at 7-9-10, 34 lb down at 9-9-10, 34 lb down at 11-9-10, 34 lb down at 13-9-10, 34 lb down at 15-9-10, 34 lb down at 17-9-10, 34 lb down at 19-9-10, 34 lb down at 21-9-10, and 34 lb down at 23-9-10, and 51 lb down at 25-8-14 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
11) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

LOAD CASE(S) Standard

March 31,2021

Continued on page 2

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

1) Dead + Roof Live (balanced): Lumber Increase=1.15,
Plate Increase=1.15
Uniform Loads (lb/ft)
Vert: 1-6=-70, 7-12=-20
Concentrated Loads (lb)
Vert: 3=-44 (F), 6=-81 (F), 7=-34 (F), 9=-24 (F),
13=-44 (F), 14=-44 (F), 15=-44 (F), 16=-44 (F),
17=-44 (F), 18=-44 (F), 19=-44 (F), 20=-44 (F),
21=-44 (F), 22=-44 (F), 23=-44 (F), 24=-24 (F),
25=-24 (F), 26=-24 (F), 27=-24 (F), 28=-24 (F),
29=-24 (F), 30=-24 (F), 31=-24 (F), 32=-24 (F),
33=-24 (F), 34=-24 (F)

Job	Truss	Truss Type	Qty	Ply	Lot 28 OS	
Lot 28 OS	B2	Flat	1	1	Job Reference (optional)	I45418606

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.43 S Mar 22 2021 Print: 8.430 S Mar 22 2021 MiTek Industries, Inc. Tue Mar 30 10:11:18 Page: 1
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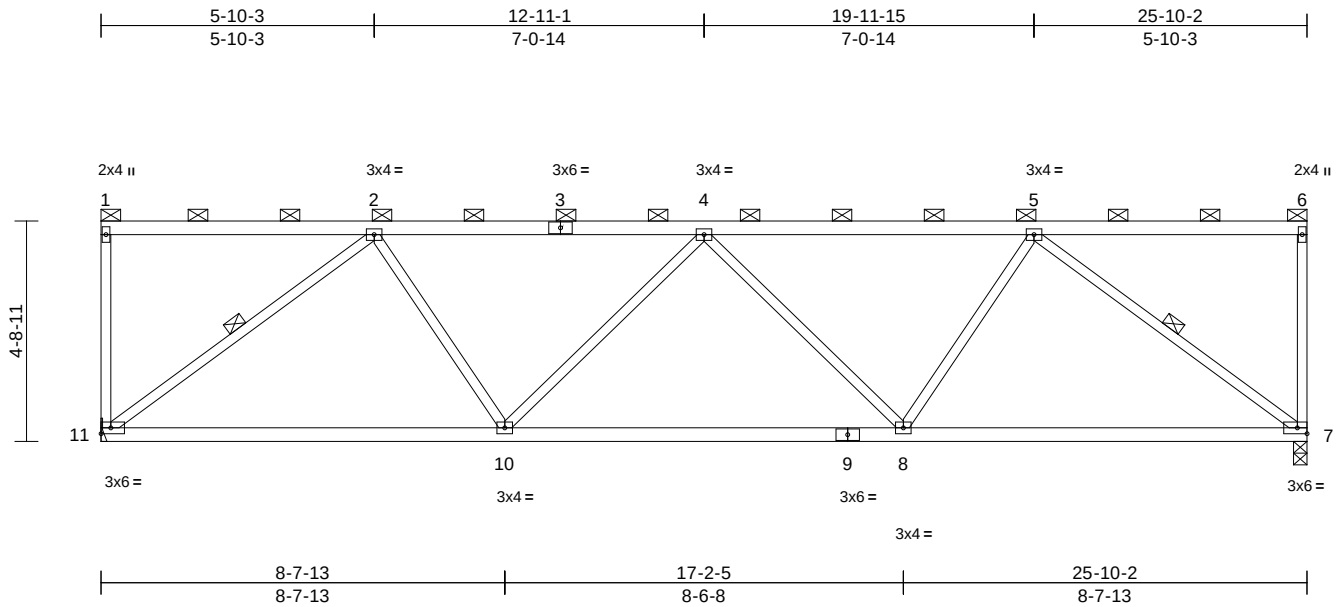

Scale = 1:49.4

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	0.56	Vert(LL)	-0.16	7-8	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.69	Vert(CT)	-0.33	7-8	>923	240		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.76	Horz(CT)	0.06	7	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S		Wind(LL)	0.05	8-10	>999	240	Weight: 95 lb	FT = 10%

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

BRACING
TOP CHORD 2-0-0 oc purlins (4-3-9 max.): 1-6, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 1 Row at midpt 2-11, 5-7

REACTIONS (size) 7=0-3-8, 11= Mechanical
Max Horiz 11=-135 (LC 4)
Max Uplift 7=-68 (LC 5), 11=-68 (LC 4)
Max Grav 7=1154 (LC 1), 11=1154 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-11=-161/39, 1-2=-62/38, 2-3=-1480/64, 3-4=-1480/64, 4-5=-1480/64, 5-6=-62/38, 6-7=-161/39
BOT CHORD 10-11=-158/1207, 9-10=-164/1721, 8-9=-164/1721, 7-8=-123/1207
WEBS 2-11=-1504/124, 2-10=0/519, 4-10=-347/98, 4-8=-347/98, 5-8=0/519, 5-7=-1504/124

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.
5) Refer to girder(s) for truss to truss connections.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 68 lb uplift at joint 11 and 68 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.
8) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

LOAD CASE(S) Standard

March 31,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 28 OS	
Lot 28 OS	B3	Half Hip	1	1	Job Reference (optional)	I45418607

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.43 S Mar 22 2021 Print: 8.430 S Mar 22 2021 MiTek Industries, Inc. Tue Mar 30 10:11:19
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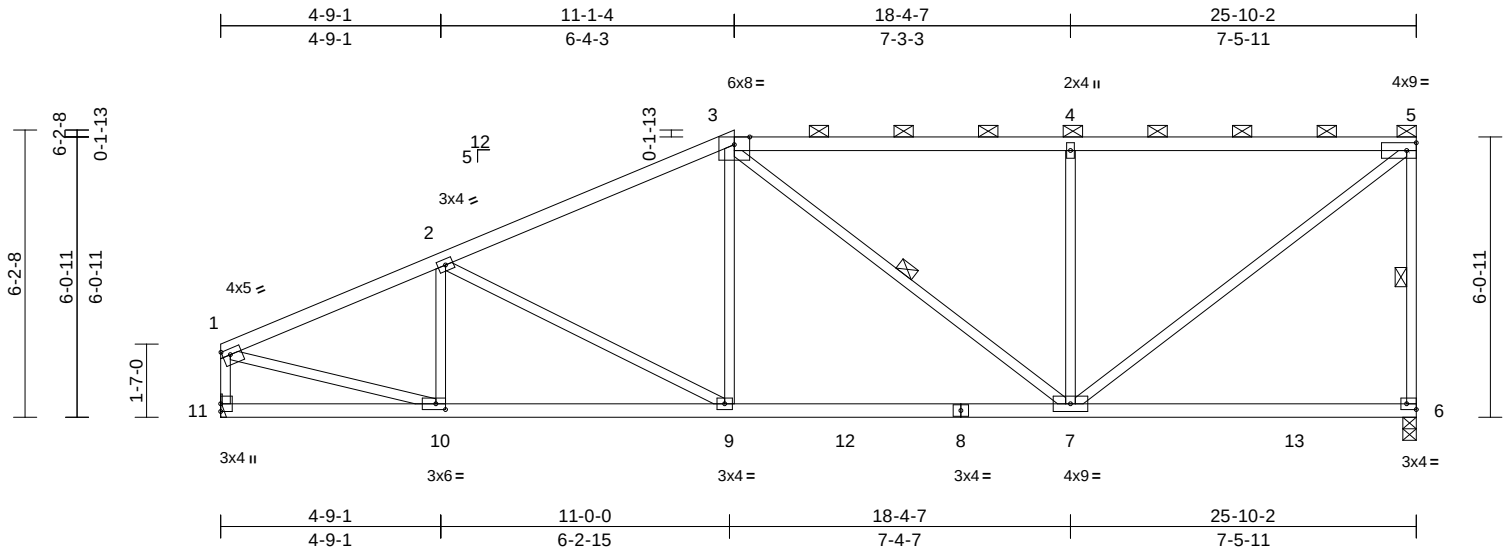
Page: 1



Scale = 1:49.8

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

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	0.79	Vert(LL)	-0.11	6-7	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.67	Vert(CT)	-0.21	6-7	>999	240		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.52	Horz(CT)	0.03	6	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S		Wind(LL)	0.04	7-9	>999	240	Weight: 101 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 4-0-3 oc purlins, except end verticals, and 2-0-0 oc purlins (3-11-11 max.): 3-5.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 1 Row at midpt 5-6, 3-7

REACTIONS (size) 6=0-3-8, 11= Mechanical
Max Horiz 11=189 (LC 5)
Max Uplift 6=-61 (LC 5), 11=-5 (LC 8)
Max Grav 6=1239 (LC 2), 11=1207 (LC 2)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-1655/21, 2-3=-1545/58, 3-4=-1203/87, 4-5=-1201/86, 5-6=-1100/93, 1-11=-1133/27
BOT CHORD 10-11=-174/60, 9-10=-130/1490, 9-12=-106/1359, 8-12=-106/1359, 7-8=-106/1359, 7-13=-66/51, 6-13=-66/51
WEBS 5-7=-78/1504, 1-10=0/1492, 4-7=-616/146, 3-9=0/349, 3-7=-203/38, 2-10=-287/67, 2-9=-161/87

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) 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) Refer to girder(s) for truss to truss connections.
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 61 lb uplift at joint 6 and 5 lb uplift at joint 11.
8) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
9) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

LOAD CASE(S) Standard

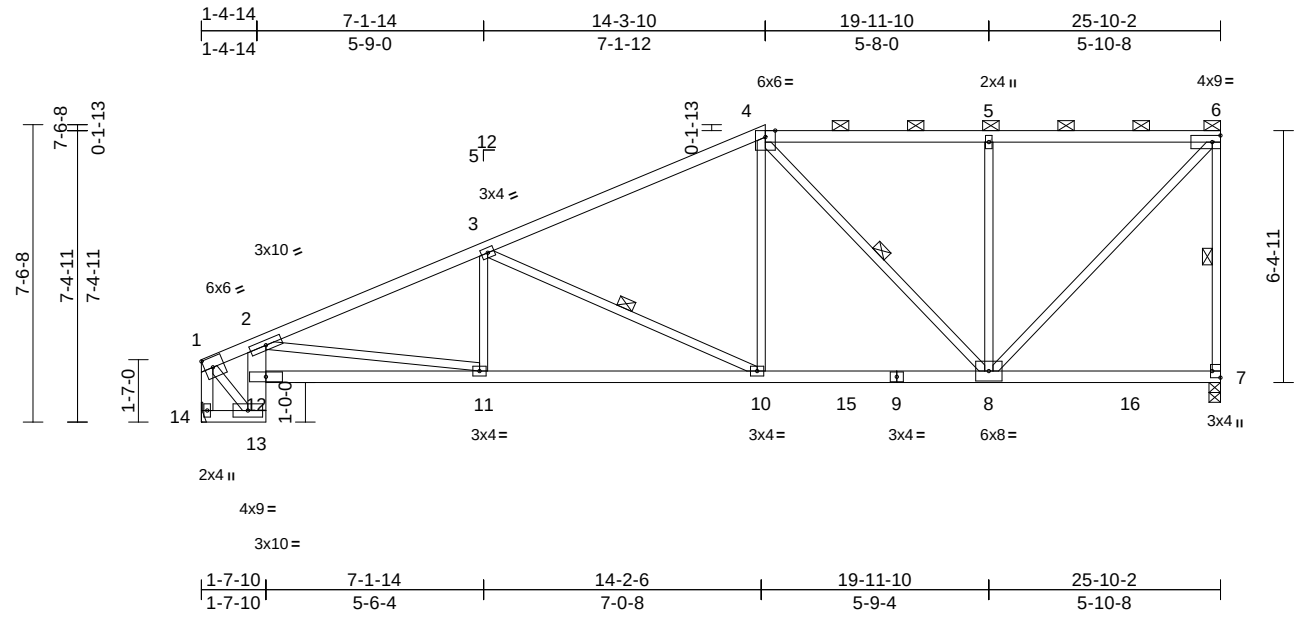
March 31,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 28 OS	
Lot 28 OS	B4	Half Hip	1	1	Job Reference (optional)	I45418608

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.43 S Mar 22 2021 Print: 8.430 S Mar 22 2021 MiTek Industries, Inc. Tue Mar 30 10:11:20 ID:VxWg?wA2R3MakUkj2l0tcxyD2rv-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f



Scale = 1:58.4

Plate Offsets (X, Y): [7: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	0.64	Vert(LL)	-0.12	10-11	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.69	Vert(CT)	-0.24	10-11	>999	240		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.47	Horz(CT)	0.10	7	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S		Wind(LL)	0.05	10-11	>999	240	Weight: 107 lb	FT = 10%

LUMBER

TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
WEBS 2x3 SPF No.2 *Except* 14-1:2x4 SPF No.2, 2-13:2x6 SP DSS

BRACING

TOP CHORD Structural wood sheathing directly applied or 3-5-7 oc purlins, except end verticals, and 2-0-0 oc purlins (5-6-9 max.): 4-6.
BOT CHORD Rigid ceiling directly applied or 9-7-10 oc bracing.
WEBS 1 Row at midpt 6-7, 4-8, 3-10

REACTIONS (size) 7=0-3-8, 14= Mechanical
Max Horiz 14=221 (LC 5)
Max Uplift 7=-60 (LC 5), 14=-17 (LC 8)
Max Grav 7=1234 (LC 2), 14=1198 (LC 2)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-864/22, 2-3=-2212/63, 3-4=-1482/48, 4-5=-942/74, 5-6=-940/72, 6-7=-1122/84, 1-14=-1157/25
BOT CHORD 13-14=-206/38, 11-12=-371/1706, 10-11=-150/1996, 10-15=-102/1284, 9-15=-102/1284, 8-9=-102/1284, 8-16=-71/54, 7-16=-71/54
WEBS 6-8=-69/1355, 1-13=-35/1110, 12-13=-806/33, 2-12=-751/58, 2-11=0/409, 4-10=0/578, 5-8=-481/115, 4-8=-509/41, 3-11=0/255, 3-10=-774/112

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); 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) Refer to girder(s) for truss to truss connections.
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 60 lb uplift at joint 7 and 17 lb uplift at joint 14.
8) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
9) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

LOAD CASE(S) Standard

March 31,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 28 OS	
Lot 28 OS	B5	Hip	1	1	Job Reference (optional)	I45418609

Wheeler Lumber, Waverly, KS - 66871,

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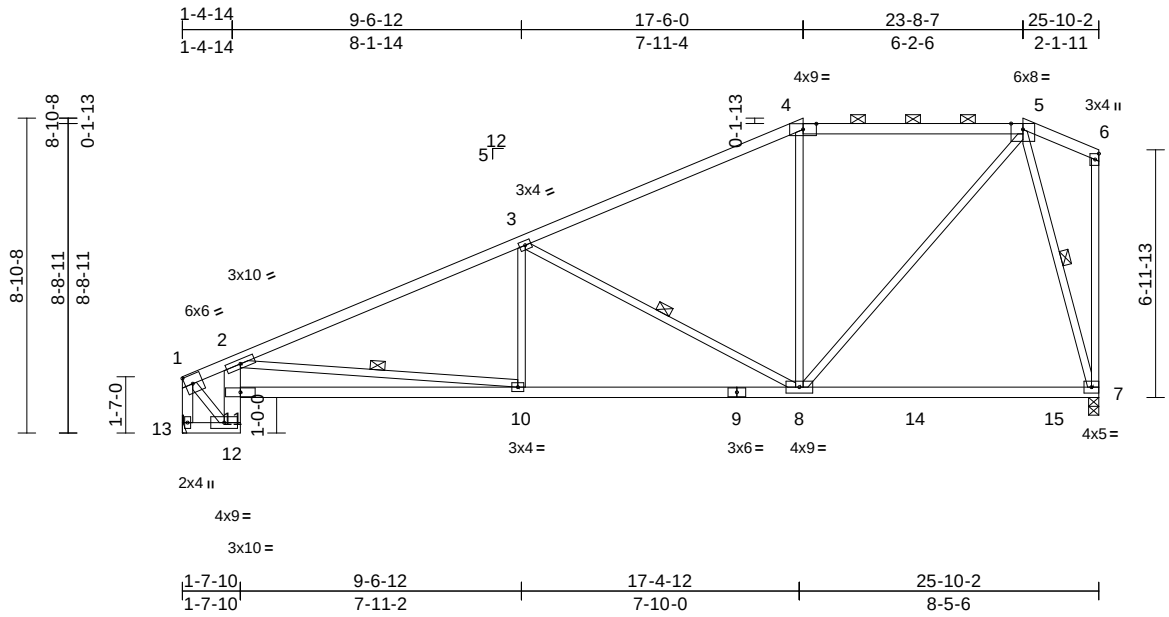


Scale = 1:65

Plate Offsets (X, Y): [4:0-4-8,0-1-15]

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	0.84	Vert(LL)	-0.27	7-8	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.90	Vert(CT)	-0.44	7-8	>703	240		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.71	Horz(CT)	0.12	7	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S		Wind(LL)	0.05	10-11	>999	240	Weight: 109 lb	FT = 10%

LUMBER
TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
WEBS 2x3 SPF No.2 *Except* 13-1:2x4 SPF No.2, 2-12:2x6 SP DSS

BRACING
TOP CHORD Structural wood sheathing directly applied or 2-9-14 oc purlins, except end verticals, and 2-0-0 oc purlins (4-11-2 max.): 4-5.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing, Except:
8-8-5 oc bracing: 10-11.
WEBS 1 Row at midpt 3-8, 5-7, 2-10

REACTIONS (size) 7=0-3-8, 13= Mechanical
Max Horiz 13=243 (LC 5)
Max Uplift 7=-37 (LC 5), 13=-26 (LC 8)
Max Grav 7=1235 (LC 2), 13=1191 (LC 2)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-892/40, 2-3=-2035/77, 3-4=-1133/64, 4-5=-960/85, 5-6=-109/80, 1-13=-1150/34, 6-7=-77/44
BOT CHORD 12-13=-224/38, 10-11=-432/1881, 9-10=-121/1802, 8-9=-121/1802, 8-14=-69/295, 14-15=-69/295, 7-15=-69/295
WEBS 3-10=0/346, 3-8=-960/128, 4-8=-107/129, 5-8=-29/1038, 1-12=-93/1262, 5-7=-1093/116, 11-12=-923/75, 2-11=-856/114, 2-10=-144/313

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) 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) Refer to girder(s) for truss to truss connections.
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 26 lb uplift at joint 13 and 37 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.
9) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

LOAD CASE(S) Standard

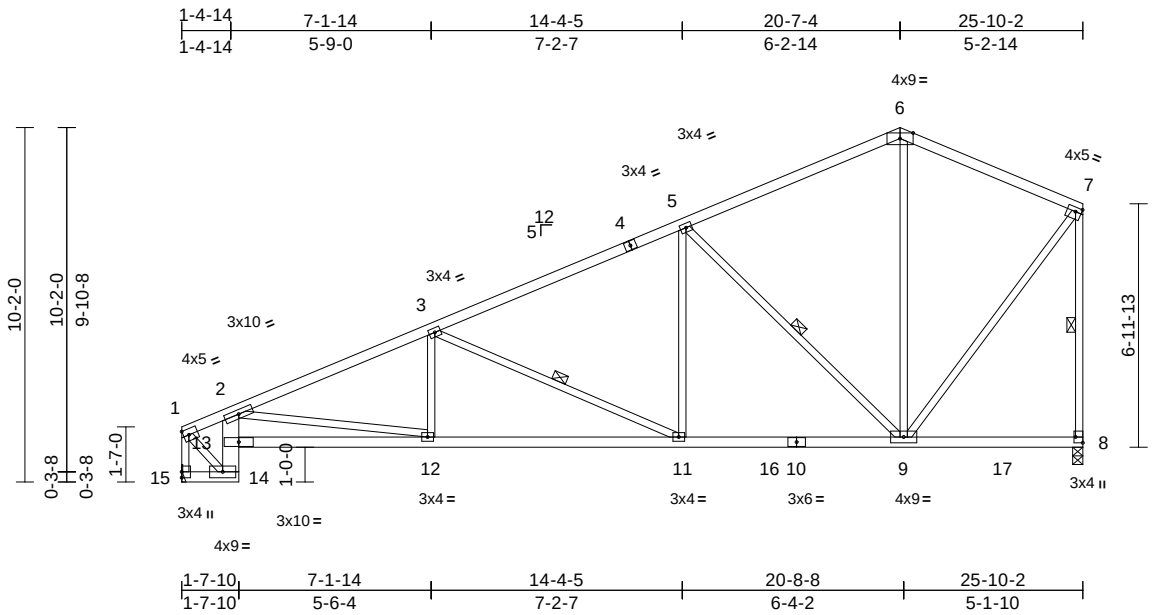
March 31,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 28 OS	
Lot 28 OS	B6	Roof Special	1	1	Job Reference (optional)	I45418610

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.43 S Mar 22 2021 Print: 8.430 S Mar 22 2021 MiTek Industries, Inc. Tue Mar 30 10:11:21 ID:VxWg?wA2R3MakUkj2l0tcxyD2rv-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f



Scale = 1:66.1

Plate Offsets (X, Y): [7:0-2-0,0-1-8], [8: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	0.73	Vert(LL)	-0.13	11-12	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.72	Vert(CT)	-0.24	11-12	>999	240		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.75	Horz(CT)	0.11	8	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S		Wind(LL)	0.08	11-12	>999	240	Weight: 111 lb	FT = 10%

LUMBER
TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2 *Except* 14-2:2x6 SP DSS
WEBS 2x3 SPF No.2

BRACING
TOP CHORD Structural wood sheathing directly applied or 3-7-8 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.
WEBS 1 Row at midpt 7-8, 5-9, 3-11

REACTIONS (size) 8=0-3-8, 15= Mechanical
Max Horiz 15=308 (LC 5)
Max Uplift 8=-170 (LC 8), 15=-171 (LC 8)
Max Grav 8=1240 (LC 2), 15=1202 (LC 2)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-868/128, 2-3=-2218/367, 3-4=-1484/240, 4-5=-1340/257, 5-6=-707/174, 6-7=-671/195, 7-8=-1146/203, 1-15=-1193/189
BOT CHORD 14-15=-293/45, 13-14=-694/102, 2-13=-635/133, 12-13=-610/1844, 11-12=-425/1996, 11-16=-207/1298, 10-16=-207/1298, 9-10=-207/1298, 9-17=-95/72, 8-17=-95/72
WEBS 7-9=-128/961, 1-14=-147/1025, 6-9=-31/233, 2-12=0/334, 5-9=-1016/278, 3-12=0/263, 3-11=-766/239, 5-11=-13/591

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) Refer to girder(s) for truss to truss connections.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 171 lb uplift at joint 15 and 170 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

March 31,2021

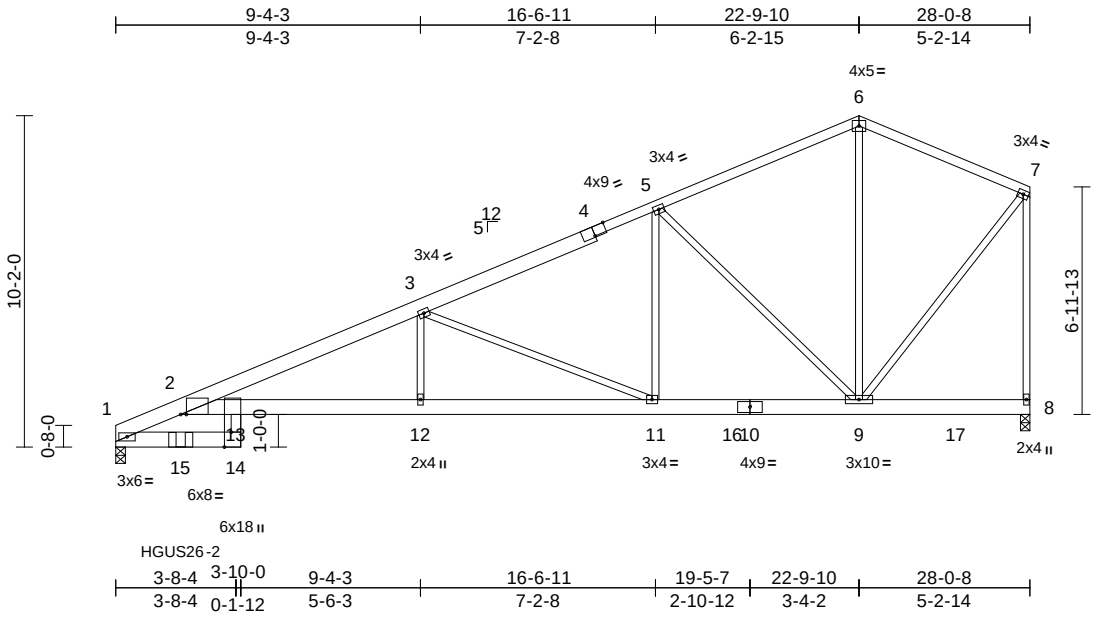
MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 28 OS
Lot 28 OS	B7	ROOF SPECIAL GIRDER	1	3	I45418611
					Job Reference (optional)

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.43 S Mar 22 2021 Print: 8.430 S Mar 22 2021 MiTek Industries, Inc. Tue Mar 30 10:11:22

ID:VxWg?wA2R3MakUkj2l0tcxyD2rv-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f



Scale = 1:70.7

Plate Offsets (X, Y): [2:0-2-2,Edge], [4:0-4-8,Edge], [14:0-5-8,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	0.89	Vert(LL)	-0.35	12-13	>948	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.90	Vert(CT)	-0.62	12-13	>540	240		
BCLL	0.0*	Rep Stress Incr	NO	WB	0.71	Horz(CT)	0.23	8	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S		Wind(LL)	0.24	12-13	>999	240	Weight: 489 lb	FT = 10%

LUMBER

TOP CHORD 2x4 SPF No.2 *Except* 1-4:2x6 SP 2400F 2.0E

BOT CHORD 2x6 SP 2400F 2.0E

WEBS 2x3 SPF No.2 *Except* 14-13:2x4 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=0-3-8, 8=0-3-8
Max Horiz 1=312 (LC 26)
Max Uplift 1=-571 (LC 8), 8=-212 (LC 8)
Max Grav 1=6062 (LC 18), 8=1662 (LC 2)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=-1914/72, 2-3=-5674/725, 3-4=-2322/311, 4-5=-2200/342, 5-6=-994/202, 6-7=-965/225, 7-8=-1584/249

BOT CHORD 1-15=0/0, 14-15=0/0, 2-13=-801/5427, 12-13=-801/5427, 11-12=-801/5427, 11-16=-277/2003, 10-16=-277/2003, 9-10=-277/2003, 9-17=-97/72, 8-17=-97/72

WEBS 13-14=-234/2883, 3-12=-59/1598, 3-11=-3725/570, 5-11=-105/1407, 5-9=-1618/333, 6-9=-45/426, 7-9=-176/1390

NOTES

1) N/A

2) 3-ply truss to be connected together with 10d (0.131"x3") nails as follows:
Top chords connected as follows: 2x6 - 2 rows staggered at 0-9-0 oc, 2x4 - 1 row at 0-9-0 oc, 2x3 - 1 row at 0-9-0 oc.
Bottom chords connected as follows: 2x6 - 3 rows staggered at 0-4-0 oc.
Web connected as follows: 2x4 - 1 row at 0-9-0 oc, 2x3 - 1 row at 0-9-0 oc.

3) 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.

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

5) 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

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, with BCDL = 10.0psf.

8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 571 lb uplift at joint 1 and 212 lb uplift at joint 8.

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.

10) Use Simpson Strong-Tie HGUS26-2 (20-16d Girder, 8-16d Truss) or equivalent at 1-11-14 from the left end to connect truss(es) to front face of bottom chord.

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

LOAD CASE(S) Standard

1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (lb/ft)
Vert: 1-6=-70, 6-7=-70, 1-14=-20, 8-13=-20
Concentrated Loads (lb)
Vert: 15=-4820 (F)

March 31,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 28 OS	I45418612
Lot 28 OS	B8	Roof Special	2	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.43 S Mar 22 2021 Print: 8.430 S Mar 22 2021 MiTek Industries, Inc. Tue Mar 30 10:11:22
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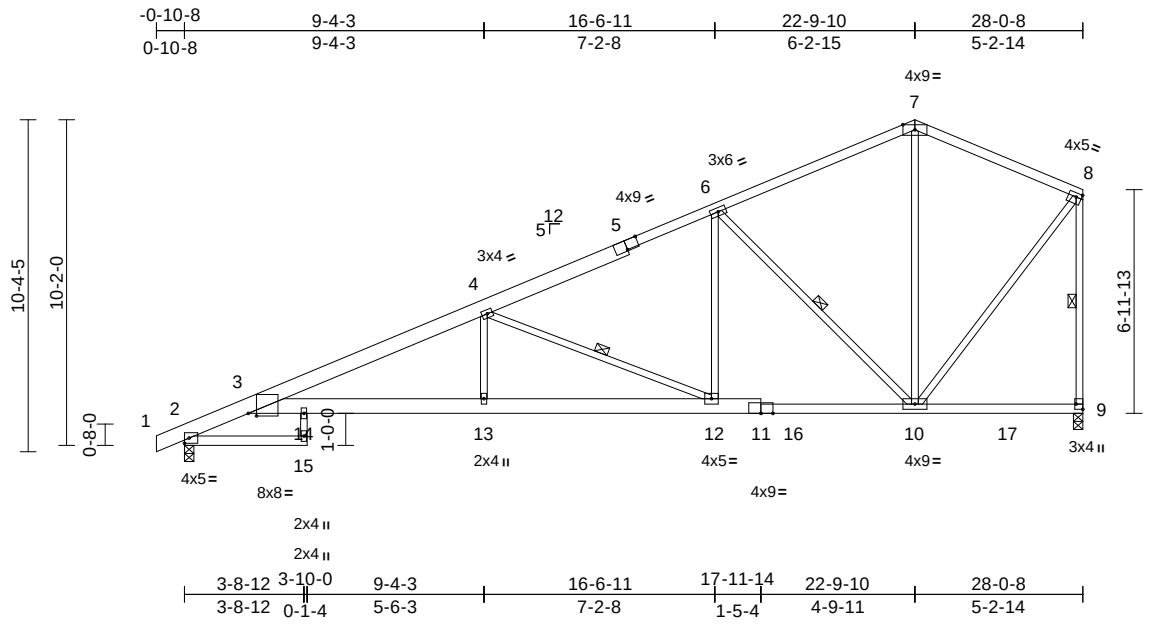

Scale = 1:71.9

Plate Offsets (X, Y): [3:0-3-2,0-0-15], [5:0-4-8,Edge], [8:0-2-0,0-1-8], [9: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	0.83	Vert(LL)	-0.38	13-14	>871	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.89	Vert(CT)	-0.66	13-14	>502	240		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.88	Horz(CT)	0.31	9	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S		Wind(LL)	0.31	13-14	>999	240	Weight: 139 lb	FT = 10%

LUMBER

TOP CHORD 2x4 SPF No.2 *Except* 1-5:2x6 SP 2400F 2.0E

BOT CHORD 2x4 SPF No.2 *Except* 3-11:2x6 SPF 1650F 1.4E

WEBS 2x3 SPF No.2

BRACING

TOP CHORD Structural wood sheathing directly applied or 3-11-13 oc purlins, except end verticals.

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

WEBS 1 Row at midpt 4-12, 6-10, 8-9

REACTIONS (size) 2=0-3-8, 9=0-3-8
Max Horiz 2=318 (LC 5)
Max Uplift 2=-214 (LC 8), 9=-186 (LC 8)
Max Grav 2=1384 (LC 2), 9=1343 (LC 2)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=0/6, 2-3=-787/0, 3-4=-3125/512, 4-5=-1708/259, 5-6=-1561/290, 6-7=-776/184, 7-8=-743/207, 8-9=-1244/220

BOT CHORD 2-15=0/0, 3-14=-591/2896, 13-14=-591/2896, 12-13=-591/2896, 11-12=-227/1482, 11-16=-230/1476, 10-16=-230/1476, 10-17=-95/72, 9-17=-95/72

WEBS 14-15=0/104, 4-13=0/471, 4-12=-1545/393, 6-12=-58/844, 6-10=-1174/294, 7-10=-34/271, 8-10=-146/1060

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) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 214 lb uplift at joint 2 and 186 lb uplift at joint 9.
6) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard

March 31,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 28 OS	
Lot 28 OS	C1	Roof Special	2	1	Job Reference (optional)	I45418613

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.43 S Mar 22 2021 Print: 8.430 S Mar 22 2021 MiTek Industries, Inc. Tue Mar 30 10:11:22 Page: 1
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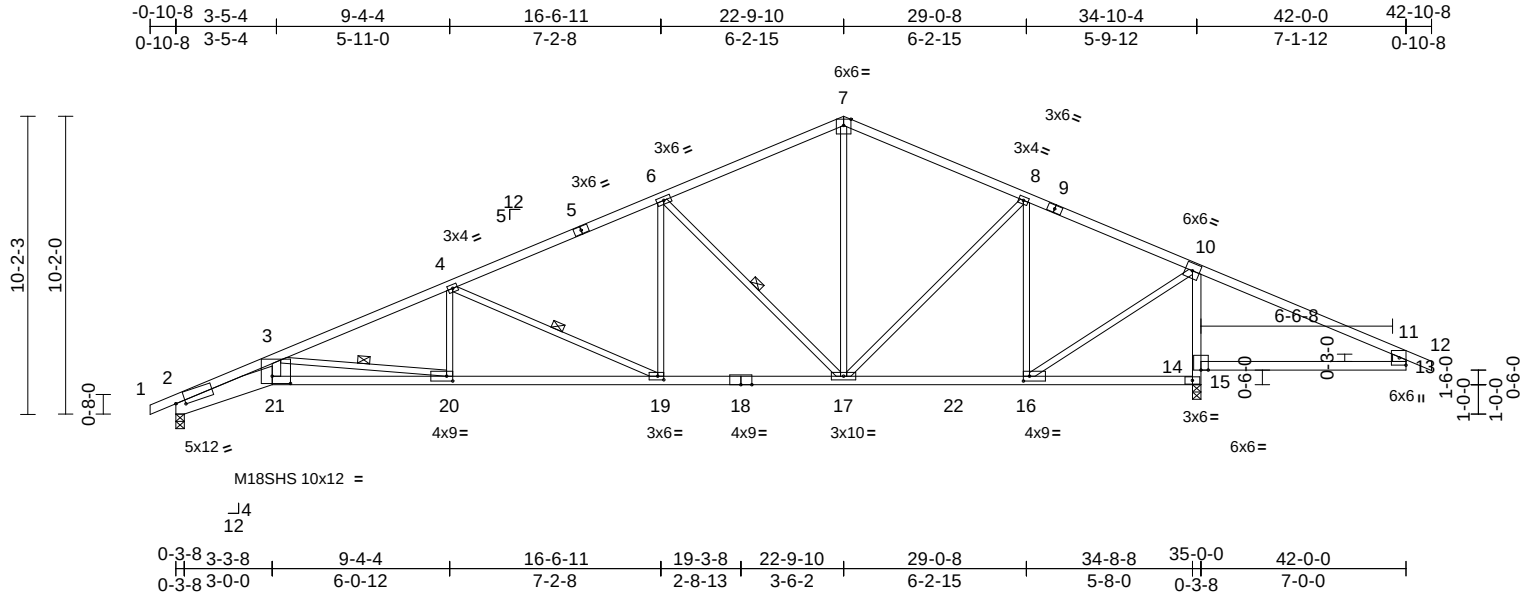


Scale = 1:78.7

Plate Offsets (X, Y): [2:0-3-15,0-1-6], [16:0-2-8,0-2-0], [19:0-2-8,0-1-8], [20:0-2-8,0-2-0], [21:0-7-8,0-3-0]

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	0.95	Vert(LL)	-0.43	20-21	>962	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.94	Vert(CT)	-0.76	20-21	>548	240	M18SHS	197/144
BCLL	0.0*	Rep Stress Incr	YES	WB	0.89	Horz(CT)	0.30	15	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S		Wind(LL)	0.33	20-21	>999	240	Weight: 164 lb	FT = 10%

LUMBER

TOP CHORD 2x4 SPF No.2 *Except* 1-5:2x4 SPF 2100F 1.8E

BOT CHORD 2x4 SPF 2100F 1.8E *Except* 2-21:2x8 SP DSS, 14-13,18-15:2x4 SPF No.2

WEBS 2x3 SPF No.2 *Except* 21-3:2x4 SPF No.2, 13-11:2x6 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 3-20, 4-19, 6-17

REACTIONS (size) 2=0-3-8, 15=0-3-8, (req. 0-3-13)
Max Horiz 2=201 (LC 8)
Max Uplift 2=-253 (LC 8), 15=-304 (LC 5)
Max Grav 2=1615 (LC 2), 15=2436 (LC 2)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=0/9, 2-3=-7038/1252, 3-4=-3629/575, 4-5=-2401/376, 5-6=-2301/392, 6-7=-1484/288, 7-8=-1480/306, 8-9=-1014/203, 9-10=-1129/179, 10-11=-225/810, 11-12=0/30, 11-13=-9/110

BOT CHORD 2-21=-1327/6477, 20-21=-1202/5780, 19-20=-606/3333, 18-19=-313/2138, 17-18=-313/2138, 17-22=-62/975, 16-22=-62/975, 15-16=-631/244, 14-15=-2355/337, 10-14=-2185/357, 13-14=-635/241

WEBS 3-21=-334/2058, 3-20=-2468/601, 4-20=0/561, 4-19=-1311/321, 6-19=-47/798, 6-17=-1191/303, 7-17=-107/762, 8-17=-52/461, 8-16=-864/148, 10-16=-135/1913

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) WARNING: Required bearing size at joint(s) 15 greater than input bearing size.
7) Bearing at joint(s) 2, 15 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 253 lb uplift at joint 2 and 304 lb uplift at joint 15.
9) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard

SUPPLEMENTARY BEARING PLATES, SPECIAL ANCHORAGE, OR OTHER MEANS TO ALLOW FOR THE MINIMUM REQUIRED SUPPORT WIDTH (SUCH AS COLUMN CAPS, BEARING BLOCKS, ETC.) ARE THE RESPONSIBILITY OF THE TRUSS MANUFACTURER OR THE BUILDING DESIGNER.

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

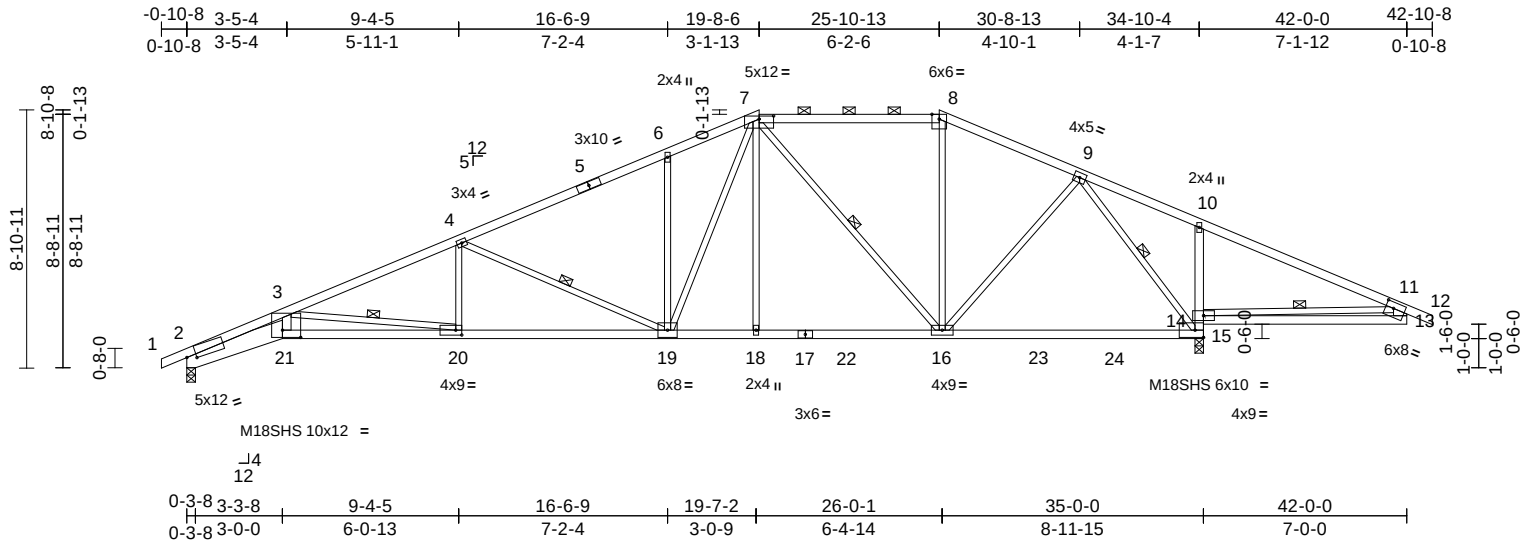
March 31,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 28 OS	
Lot 28 OS	C2	Hip	1	1	Job Reference (optional)	I45418614

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.43 S Mar 22 2021 Print: 8.430 S Mar 22 2021 MiTek Industries, Inc. Tue Mar 30 10:11:23 ID:VxWg?wA2R3MakUkj2l0tcxyD2rv-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f



Scale = 1:79.3

Plate Offsets (X, Y): [2:0-3-15,0-1-6], [7:0-6-0,0-1-5], [13:0-3-4,0-2-8], [20:0-2-8,0-2-0], [21:0-7-8,0-3-0]

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	0.78	Vert(LL)	-0.43	20-21	>980	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.93	Vert(CT)	-0.75	20-21	>557	240	M18SHS	197/144
BCLL	0.0*	Rep Stress Incr	YES	WB	0.96	Horz(CT)	0.30	15	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S		Wind(LL)	0.31	20-21	>999	240	Weight: 175 lb	FT = 10%

LUMBER

TOP CHORD 2x4 SPF No.2 *Except* 1-5:2x4 SPF 2100F 1.8E

BOT CHORD 2x4 SPF 2100F 1.8E *Except* 2-21:2x8 SP DSS, 14-13,17-15:2x4 SPF No.2

WEBS 2x3 SPF No.2 *Except* 21-3:2x4 SPF No.2, 13-11:2x6 SPF No.2

BRACING

TOP CHORD Structural wood sheathing directly applied or 2-2-12 oc purlins, except end verticals, and 2-0-0 oc purlins (4-0-12 max.): 7-8.

BOT CHORD Rigid ceiling directly applied or 2-2-0 oc bracing.

WEBS 1 Row at midpt 3-20, 4-19, 7-16, 9-15, 11-14

REACTIONS (size) 2=0-3-8, 15=0-3-8, (req. 0-3-13)
Max Horiz 2=177 (LC 8)
Max Uplift 2=-238 (LC 8), 15=-355 (LC 5)
Max Grav 2=1611 (LC 2), 15=2448 (LC 2)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=0/9, 2-3=-7003/1140, 3-4=-3625/524, 4-5=-2373/327, 5-6=-2274/342, 6-7=-2305/430, 7-8=-1247/214, 8-9=-1394/211, 9-10=-151/727, 10-11=-244/850, 11-12=0/30, 11-13=-20/126

BOT CHORD 2-21=-1199/6444, 20-21=-1085/5750, 19-20=-535/3331, 18-19=-133/1704, 17-18=-133/1702, 17-22=-133/1702, 16-22=-133/1702, 16-23=-27/656, 23-24=-27/656, 15-24=-27/656, 14-15=-626/198, 10-14=-469/212, 13-14=-119/316

WEBS 3-21=-297/2045, 3-20=-2440/554, 4-20=0/568, 4-19=-1343/324, 6-19=-313/196, 7-19=-278/1043, 7-18=0/187, 7-16=-725/158, 8-16=-74/243, 9-16=-60/948, 9-15=-2089/260, 11-14=-1013/354

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) All plates are MT20 plates 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) WARNING: Required bearing size at joint(s) 15 greater than input bearing size.
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 355 lb uplift at joint 15.
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.
11) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

LOAD CASE(S) Standard

March 31,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 28 OS	
Lot 28 OS	C3	Hip	1	1	Job Reference (optional)	I45418615

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.43 S Mar 22 2021 Print: 8.430 S Mar 22 2021 MiTek Industries, Inc. Tue Mar 30 10:11:24
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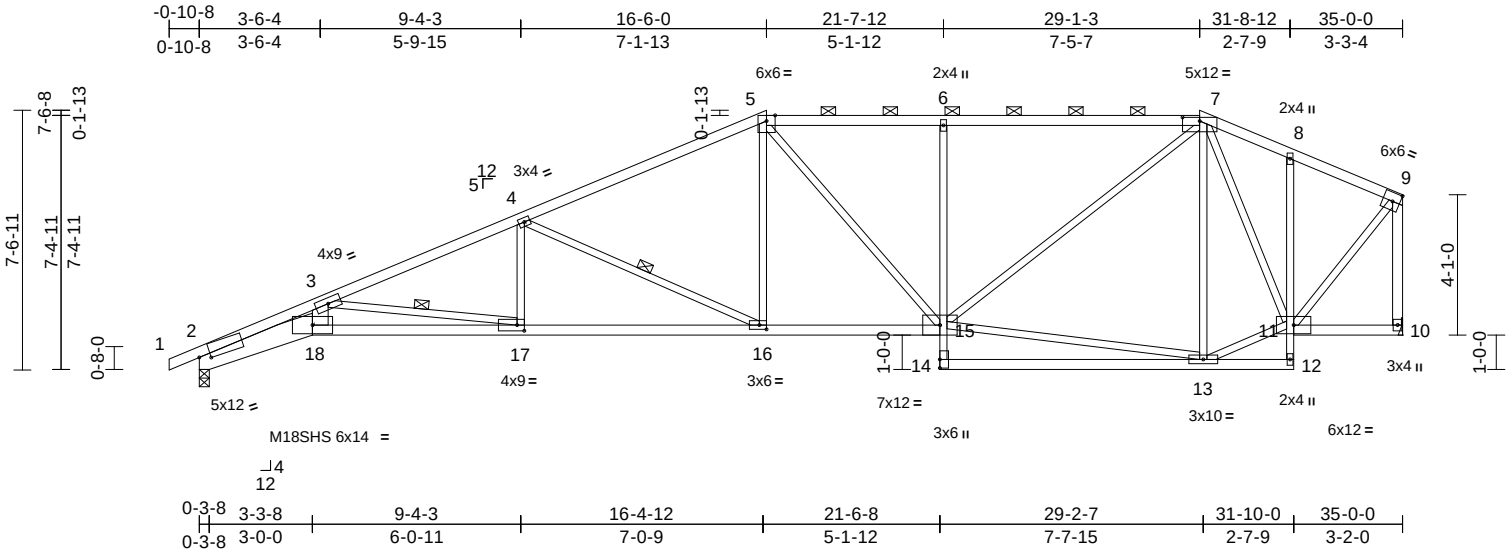

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Plate Offsets (X, Y): [2:0-3-15,0-1-6], [7:0-6-0,0-1-5], [16:0-2-8,0-1-8], [17:0-2-8,0-2-0]

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	0.80	Vert(LL)	-0.39	17-18	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.92	Vert(CT)	-0.73	17-18	>572	240	M18SHS	197/144
BCLL	0.0*	Rep Stress Incr	YES	WB	0.81	Horz(CT)	0.31	10	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S		Wind(LL)	0.21	17-18	>999	240	Weight: 161 lb	FT = 10%

LUMBER

TOP CHORD 2x4 SPF 2100F 1.8E *Except* 7-9:2x4 SPF No.2

BOT CHORD 2x3 SPF No.2 *Except* 2-18:2x8 SP DSS, 18-15:2x4 SPF 2100F 1.8E, 14-12,11-10:2x4 SPF No.2

WEBS 2x3 SPF No.2 *Except* 18-3:2x6 SPF No.2, 10-9:2x4 SPF No.2

BRACING

TOP CHORD Structural wood sheathing directly applied or 2-2-8 oc purlins, except end verticals, and 2-0-0 oc purlins (4-5-4 max.): 5-7.

BOT CHORD Rigid ceiling directly applied or 2-2-0 oc bracing.

WEBS 1 Row at midpt 3-17, 4-16

REACTIONS (size) 2=0-3-8, 10= Mechanical
Max Horiz 2=150 (LC 5)
Max Uplift 2=-28 (LC 8), 10=-19 (LC 5)
Max Grav 2=1634 (LC 1), 10=1561 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=0/9, 2-3=-7179/167, 3-4=-3693/53, 4-5=-2510/60, 5-6=-2140/100, 6-7=-2140/101, 7-8=-945/75, 8-9=-979/56, 9-10=-1516/33

BOT CHORD 2-18=-230/6602, 17-18=-213/5707, 16-17=-91/3387, 15-16=-66/2213, 14-15=0/138, 6-15=-558/121, 13-14=0/106, 12-13=-16/29, 11-12=-28/0, 8-11=-141/67, 10-11=-43/34

WEBS 3-18=-13/2083, 3-17=-2342/156, 4-17=0/488, 4-16=-1281/123, 5-16=0/669, 5-15=-151/144, 13-15=-58/994, 7-15=-62/1393, 7-13=-403/107, 11-13=-24/1122, 7-11=-592/0, 9-11=-26/1349

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) Provide adequate drainage to prevent water ponding.
4) All plates are MT20 plates 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.
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 28 lb uplift at joint 2 and 19 lb uplift at joint 10.
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.
11) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

LOAD CASE(S) Standard

March 31,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 28 OS	
Lot 28 OS	C4	Hip	1	1	Job Reference (optional)	I45418616

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.43 S Mar 22 2021 Print: 8.430 S Mar 22 2021 MiTek Industries, Inc. Tue Mar 30 10:11:24
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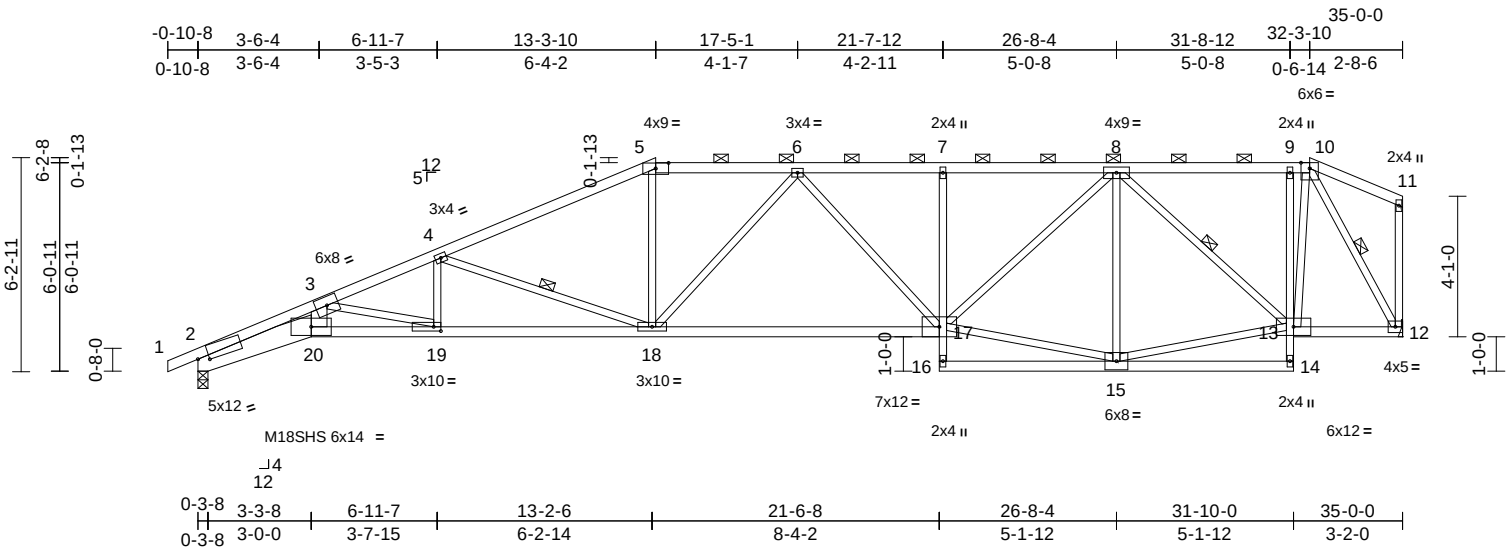

Scale = 1:66.9

Plate Offsets (X, Y): [2:0-3-15,0-1-6], [5:0-4-8,0-1-15], [19:0-2-8,0-1-8]

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	0.80	Vert(LL)	-0.33	19-20	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.94	Vert(CT)	-0.65	17-18	>639	240	M18SHS	197/144
BCLL	0.0*	Rep Stress Incr	YES	WB	0.59	Horz(CT)	0.29	12	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S		Wind(LL)	0.18	19-20	>999	240	Weight: 157 lb	FT = 10%

LUMBER

TOP CHORD 2x4 SPF No.2 *Except* 1-5:2x4 SPF 2100F 1.8E

BOT CHORD 2x3 SPF No.2 *Except* 2-20:2x8 SP DSS, 20-17:2x4 SPF 2100F 1.8E, 16-14,13-12:2x4 SPF No.2

WEBS 2x3 SPF No.2 *Except* 20-3:2x6 SPF No.2

BRACING

TOP CHORD Structural wood sheathing directly applied or 2-2-0 oc purlins, except end verticals, and 2-0-0 oc purlins (3-4-1 max.): 5-10.

BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing, Except:
2-2-0 oc bracing: 19-20
6-0-0 oc bracing: 15-16.

WEBS 1 Row at midpt 4-18, 8-13, 10-12

REACTIONS (size) 2=0-3-8, 12= Mechanical
Max Horiz 2=148 (LC 5)
Max Uplift 2=-16 (LC 4), 12=-50 (LC 5)
Max Grav 2=1636 (LC 1), 12=1563 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=0/9, 2-3=-6997/145, 3-4=-4212/71, 4-5=-3001/75, 5-6=-2681/82, 6-7=-2714/121, 7-8=-2704/123, 8-9=-946/79, 9-10=-943/78, 10-11=-63/53, 11-12=-75/30

BOT CHORD 2-20=-265/6418, 19-20=-236/5553, 18-19=-158/3899, 17-18=-151/2841, 16-17=0/88, 7-17=-315/75, 15-16=-25/52, 14-15=-2/89, 13-14=0/89, 9-13=-167/68, 12-13=-58/790

WEBS 3-20=-44/2012, 4-18=-1280/123, 5-18=0/790, 6-18=-422/79, 6-17=-198/52, 15-17=-68/1717, 8-17=-58/1333, 8-15=-559/104, 13-15=-91/1679, 8-13=-1100/39, 10-13=-59/1318, 10-12=-1636/72, 4-19=0/452, 3-19=-1702/79

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) Provide adequate drainage to prevent water ponding.
4) All plates are MT20 plates 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.
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 16 lb uplift at joint 2 and 50 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.
11) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

LOAD CASE(S) Standard

March 31,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 28 OS
Lot 28 OS	C5	Half Hip Girder	1	**2**	I45418617 Job Reference (optional)

Wheeler Lumber, Waverly, KS - 66871,

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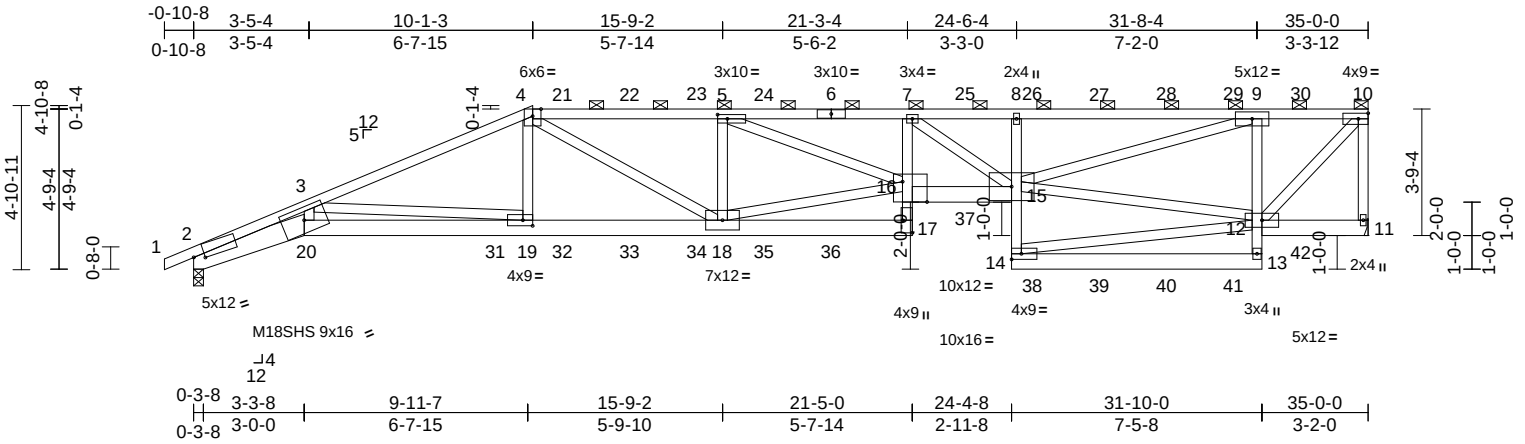

Scale = 1:68.7

Plate Offsets (X, Y): [2:0-3-15,0-1-6], [5:0-3-8,0-1-8], [16:0-8-12,Edge], [17:Edge,0-3-8], [19:0-3-8,0-2-0]

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	0.84	Vert(LL)	-0.50	17	>825	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.97	Vert(CT)	-0.91	17	>458	240	M18SHS	197/144
BCLL	0.0*	Rep Stress Incr	NO	WB	0.88	Horz(CT)	0.39	11	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S		Wind(LL)	0.37	17	>999	240	Weight: 421 lb	FT = 10%

LUMBER

TOP CHORD 2x4 SPF 2100F 1.8E
BOT CHORD 2x6 SP 2400F 2.0E *Except* 2-20:2x8 SP DSS, 17-7,8-14,13-9:2x4 SPF No.2
WEBS 2x4 SPF No.2

BRACING

TOP CHORD Structural wood sheathing directly applied or 4-0-8 oc purlins, except end verticals, and 2-0-0 oc purlins (4-3-6 max.): 4-10.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (size) 2=0-3-8, 11= Mechanical
Max Horiz 2=136 (LC 5)
Max Uplift 2=-383 (LC 8), 11=-397 (LC 5)
Max Grav 2=2950 (LC 1), 11=3008 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=0/9, 2-3=-13063/1871, 3-4=-7753/1170, 4-21=-8055/1150, 21-22=-8058/1150, 22-23=-8059/1151, 5-23=-8061/1151, 5-24=-11693/1606, 6-24=-11693/1606, 6-7=-11693/1606, 7-25=-9457/1278, 8-25=-9457/1278, 8-26=-9400/1296, 26-27=-9400/1296, 27-28=-9400/1296, 28-29=-9400/1296, 9-29=-9400/1296, 9-30=-2689/405, 10-30=-2689/405, 10-11=-2907/414

BOT CHORD 2-20=-1845/12009, 20-31=-1675/10871, 19-31=-1674/10865, 19-32=-1132/7060, 32-33=-1132/7060, 33-34=-1132/7060, 18-34=-1132/7060, 18-35=-145/1062, 35-36=-145/1062, 17-36=-145/1062, 16-17=0/295, 7-16=-88/1312, 16-37=-1648/11827, 15-37=-1654/11816, 14-15=0/274, 8-15=-677/251, 14-38=0/117, 38-39=0/117, 39-40=0/117, 40-41=0/117, 13-41=0/117, 12-13=0/273, 9-12=-2999/591, 12-42=-31/41, 11-42=-31/41

WEBS 3-20=-452/3246, 3-19=-3760/599, 4-19=-259/1743, 4-18=-88/1360, 5-18=-2255/480, 16-18=-1071/7174, 5-16=-493/3900, 7-15=-2905/407, 12-15=-416/2508, 9-15=-959/6978, 10-12=-558/3913, 12-14=-69/254

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 0-4-0 oc.
Bottom chords connected as follows: 2x8 - 2 rows staggered at 0-9-0 oc, 2x6 - 2 rows staggered at 0-9-0 oc, 2x4 - 1 row at 0-9-0 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) Unbalanced roof live loads have been considered for this design.
4) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope); cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
5) Provide adequate drainage to prevent water ponding.
6) All plates are MT20 plates unless otherwise indicated.
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) Refer to girder(s) for truss to truss connections.
10) 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.
11) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 397 lb uplift at joint 11 and 383 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) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

March 31,2021

Continued on page 2

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

14) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 141 lb down and 71 lb up at 11-0-0, 142 lb down and 71 lb up at 13-0-0, 142 lb down and 71 lb up at 15-0-0, 142 lb down and 71 lb up at 17-0-0, 142 lb down and 71 lb up at 19-0-0, 142 lb down and 71 lb up at 21-0-0, 122 lb down and 52 lb up at 23-0-0, 141 lb down and 70 lb up at 25-0-0, 141 lb down and 70 lb up at 27-0-0, 141 lb down and 70 lb up at 29-0-0, and 141 lb down and 70 lb up at 31-0-0, and 142 lb down and 71 lb up at 33-0-0 on top chord, and 787 lb down and 259 lb up at 9-0-0, 69 lb down at 11-0-0, 69 lb down at 13-0-0, 69 lb down at 15-0-0, 69 lb down at 17-0-0, 69 lb down at 19-0-0, 69 lb down at 21-3-4, 136 lb down at 23-0-0, 69 lb down at 25-0-0, 69 lb down at 27-0-0, 69 lb down at 29-0-0, and 69 lb down at 31-0-0, and 69 lb down at 33-0-0 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, 4-10=-70, 2-20=-20, 17-20=-20, 15-16=-20, 13-14=-20, 11-12=-20
   Concentrated Loads (lb)
   Vert: 6=-110 (B), 17=-52 (B), 7=-110 (B), 21=-110 (B), 22=-110 (B), 23=-110 (B), 24=-110 (B), 25=-91 (B), 26=-109 (B), 27=-109 (B), 28=-109 (B), 29=-109 (B), 30=-110 (B), 31=-787 (B), 32=-52 (B), 33=-52 (B), 34=-52 (B), 35=-52 (B), 36=-52 (B), 37=-108 (B), 38=-52 (B), 39=-52 (B), 40=-52 (B), 41=-52 (B), 42=-51 (B)

Job	Truss	Truss Type	Qty	Ply	Lot 28 OS	
Lot 28 OS	D1	GABLE	1	1	Job Reference (optional)	I45418618

Wheeler Lumber, Waverly, KS - 66871,

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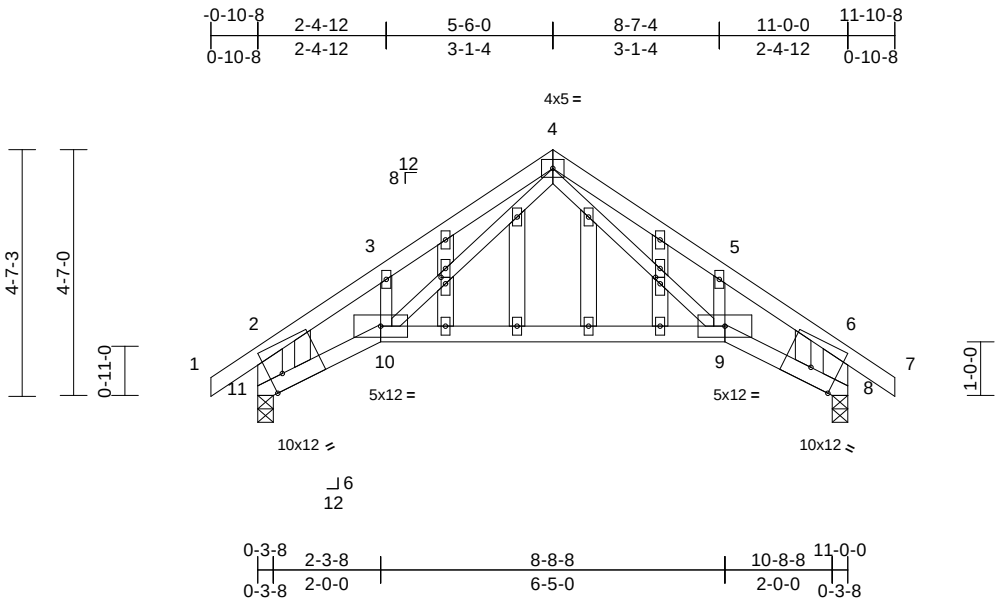

Scale = 1:42.9

Plate Offsets (X, Y): [11:0-2-14,Edge], [14:0-1-7,0-1-0], [23:0-1-7,0-1-0]

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	0.61	Vert(LL)	-0.10	9-10	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.46	Vert(CT)	-0.23	9-10	>561	240		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.11	Horz(CT)	0.11	8	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S		Wind(LL)	0.05	9-10	>999	240	Weight: 53 lb	FT = 10%

LUMBER

TOP CHORD	2x4 SPF No.2
BOT CHORD	2x4 SPF No.2
WEBS	2x3 SPF No.2 *Except* 11-2,8-6:2x6 SPF No.2
OTHERS	2x4 SPF No.2

BRACING

TOP CHORD	Structural wood sheathing directly applied or 5-2-3 oc purlins, except end verticals.
BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (size) 8=0-3-8, 11=0-3-8
Max Horiz 11=140 (LC 7)
Max Uplift 8=-77 (LC 9), 11=-77 (LC 8)
Max Grav 8=552 (LC 1), 11=552 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD	1-2=0/43, 2-3=-833/97, 3-4=-705/197, 4-5=-685/160, 5-6=-833/48, 6-7=0/43, 2-11=-728/109, 6-8=-728/73
BOT CHORD	10-11=-83/691, 9-10=-2/380, 8-9=0/605
WEBS	4-9=-108/316, 5-9=-8/156, 4-10=-133/369, 3-10=0/156

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) Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
6) Gable studs spaced at 1-4-0 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) Bearing at joint(s) 11, 8 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 77 lb uplift at joint 11 and 77 lb uplift at joint 8.
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

March 31,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 28 OS	
Lot 28 OS	D2	Roof Special	3	1	Job Reference (optional)	I45418619

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.43 S Mar 22 2021 Print: 8.430 S Mar 22 2021 MiTek Industries, Inc. Tue Mar 30 10:11:27 Page: 1
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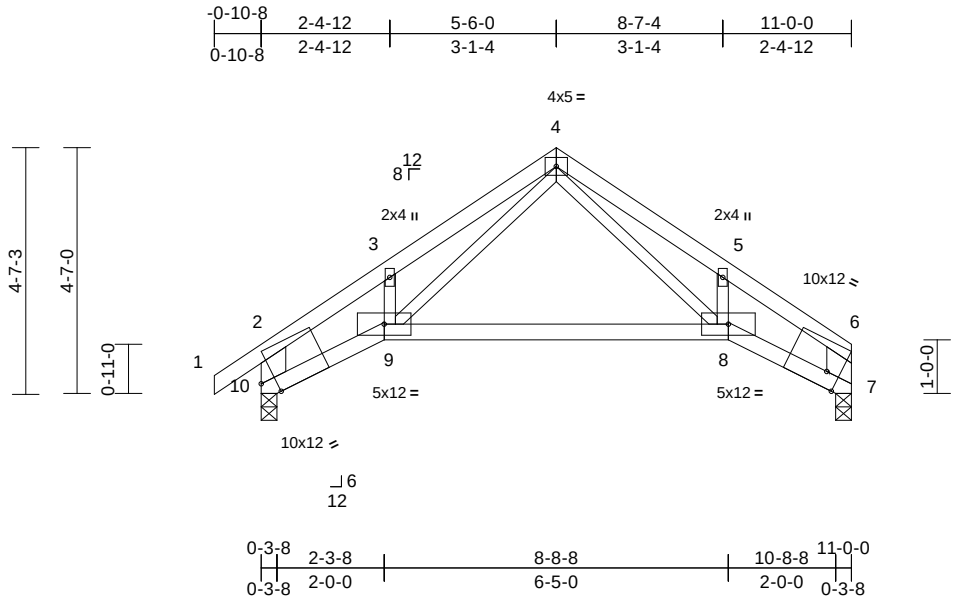

Scale = 1:42.9

Plate Offsets (X, Y): [6:0-2-14,Edge], [10:0-3-4,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	0.62	Vert(LL)	-0.10	8-9	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.56	Vert(CT)	-0.24	8-9	>531	240		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.11	Horz(CT)	0.12	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* 10-2,7-6:2x6 SPF No.2

BRACING
TOP CHORD Structural wood sheathing directly applied or 5-1-8 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=134 (LC 5)
Max Uplift 7=-52 (LC 9), 10=-77 (LC 8)
Max Grav 7=470 (LC 1), 10=556 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/43, 2-3=-843/109, 3-4=-704/207, 4-5=-701/182, 5-6=-826/74, 2-10=-736/118, 6-7=-622/64
BOT CHORD 9-10=-106/678, 8-9=-12/370, 7-8=-40/604
WEBS 4-8=-123/330, 5-8=-16/140, 4-9=-140/366, 3-9=0/158

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) 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.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 77 lb uplift at joint 10 and 52 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

March 31,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 28 OS
Lot 28 OS	D3	Half Hip Girder	1	**2**	I45418620 Job Reference (optional)

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.43 S Mar 22 2021 Print: 8.430 S Mar 22 2021 MiTek Industries, Inc. Tue Mar 30 10:11:27 Page: 1
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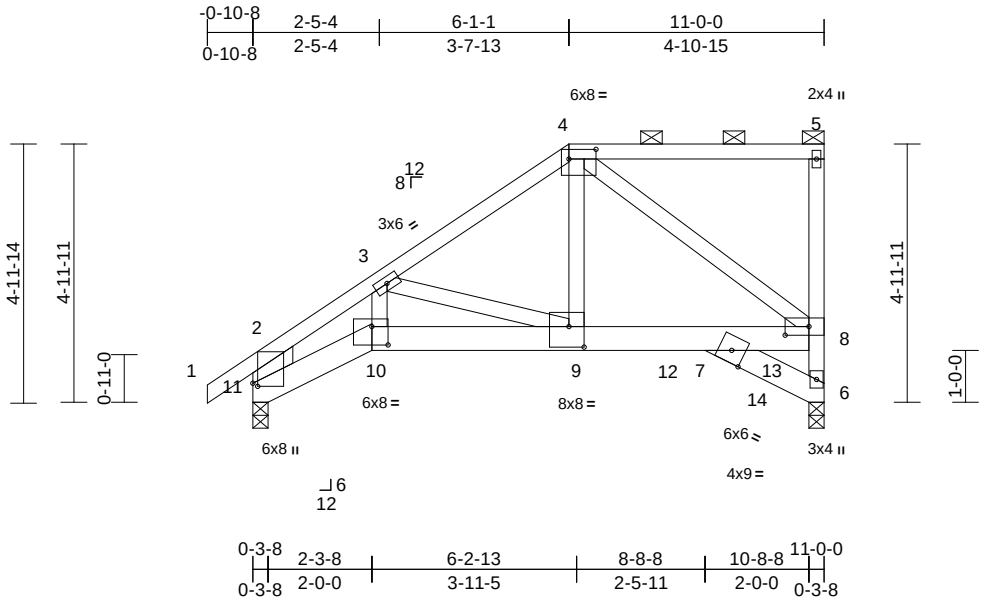

Scale = 1:44.4

Plate Offsets (X, Y): [4:0-6-4,0-2-4], [8:0-5-8,0-2-0], [9:0-3-8,0-4-12], [10:0-3-12,0-4-4], [11:0-0-12,0-1-2]

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	0.62	Vert(LL)	-0.06	7-9	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.47	Vert(CT)	-0.11	7-9	>999	240		
BCLL	0.0*	Rep Stress Incr	NO	WB	0.60	Horz(CT)	0.10	6	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S		Wind(LL)	0.04	7-9	>999	240	Weight: 140 lb	FT = 10%

LUMBER
TOP CHORD 2x4 SPF No.2
BOT CHORD 2x6 SP 2400F 2.0E
WEBS 2x4 SPF No.2 *Except* 11-2:2x10 SP DSS

BRACING
TOP CHORD Structural wood sheathing directly applied or 5-3-8 oc purlins, except end verticals, and 2-0-0 oc purlins (6-0-0 max.): 4-5.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (size) 6=0-3-8, 11=0-3-8
Max Horiz 11=197 (LC 7)
Max Uplift 6=-400 (LC 5), 11=-280 (LC 8)
Max Grav 6=4673 (LC 1), 11=2430 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/49, 2-3=-3988/484, 3-4=-4272/448, 4-5=-139/46, 6-8=-4404/406, 5-8=-171/72, 2-11=-2585/337
BOT CHORD 10-11=-523/2902, 9-10=-517/3151, 9-12=-469/3727, 7-12=-469/3727, 7-13=-470/3491, 8-13=-470/3491, 7-14=0/110, 6-14=-7/99
WEBS 3-10=-217/78, 3-9=-171/502, 4-9=-457/4720, 4-8=-4510/504

NOTES
1) 2-ply truss to be connected together with 10d (0.131"x3") nails as follows:
Top chords connected as follows: 2x4 - 1 row at 0-9-0 oc, 2x10 - 2 rows staggered at 0-9-0 oc.
Bottom chords connected as follows: 2x6 - 3 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) Provide adequate drainage to prevent water ponding.
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) Bearing at joint(s) 6, 11 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 400 lb uplift at joint 6 and 280 lb uplift at joint 11.
9) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
10) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
11) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 2993 lb down and 409 lb up at 6-0-13, and 1543 lb down and 62 lb up at 8-0-0, and 1542 lb down and 30 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: 1-2=-70, 2-4=-70, 4-5=-70, 10-11=-20, 7-10=-20, 6-7=-20
Concentrated Loads (lb)
Vert: 9=-2988 (F), 12=-1543 (F), 13=-1542 (F)

March 31,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 28 OS
Lot 28 OS	E1	GABLE	1	1	I45418621
					Job Reference (optional)

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.43 S Mar 22 2021 Print: 8.430 S Mar 22 2021 MiTek Industries, Inc. Tue Mar 30 10:11:28 Page: 1
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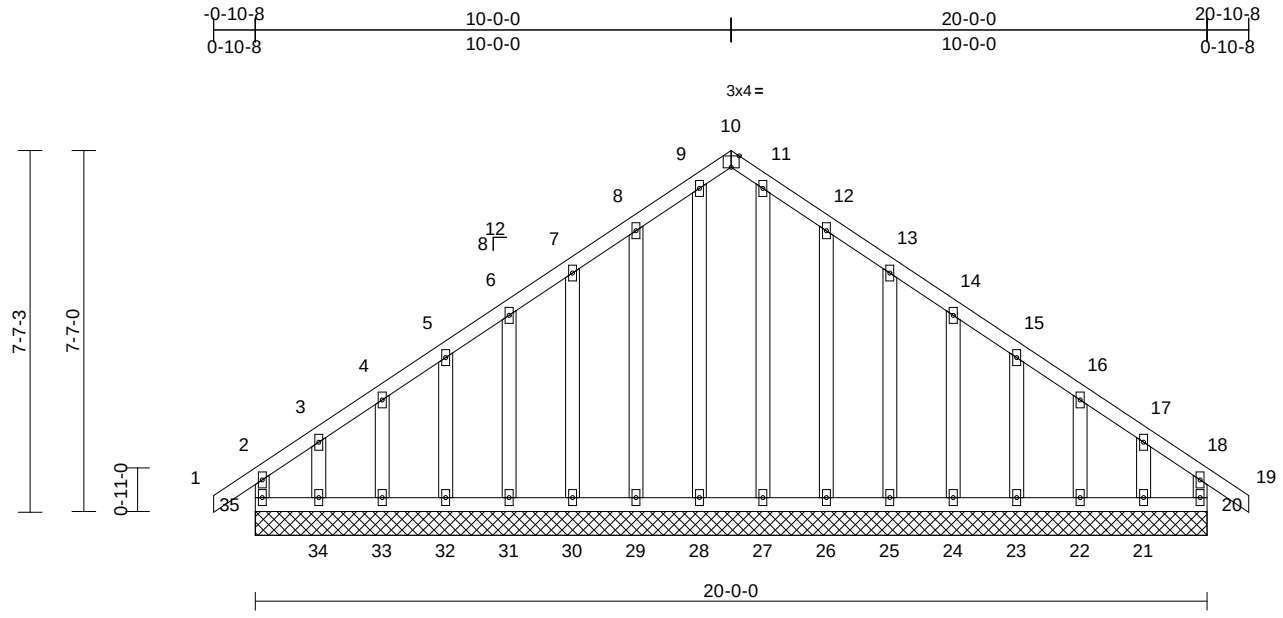


Scale = 1:48.4

Plate Offsets (X, Y): [10:0-2-0,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	0.08	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.06	Vert(CT)	n/a	-	n/a	999		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.10	Horz(CT)	0.00	20	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-R							Weight: 117 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 6-0-0 oc bracing.

REACTIONS (size) 20=20-0-0, 21=20-0-0, 22=20-0-0, 23=20-0-0, 24=20-0-0, 25=20-0-0, 26=20-0-0, 27=20-0-0, 28=20-0-0, 29=20-0-0, 30=20-0-0, 31=20-0-0, 32=20-0-0, 33=20-0-0, 34=20-0-0, 35=20-0-0
Max Horiz 35=-216 (LC 6)
Max Uplift 20=-64 (LC 5), 21=-126 (LC 9), 22=-30 (LC 9), 23=-51 (LC 9), 24=-45 (LC 9), 25=-47 (LC 9), 26=-67 (LC 9), 29=-65 (LC 8), 30=-47 (LC 8), 31=-45 (LC 8), 32=-51 (LC 8), 33=-27 (LC 8), 34=-140 (LC 8), 35=-106 (LC 4)
Max Grav 20=173 (LC 15), 21=146 (LC 16), 22=127 (LC 22), 23=126 (LC 16), 24=124 (LC 16), 25=125 (LC 16), 26=128 (LC 16), 27=139 (LC 17), 28=148 (LC 18), 29=125 (LC 15), 30=125 (LC 15), 31=124 (LC 15), 32=127 (LC 15), 33=127 (LC 21), 34=168 (LC 6), 35=206 (LC 16)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 2-35=-165/82, 1-2=0/40, 2-3=-158/143, 3-4=-107/106, 4-5=-100/101, 5-6=-87/108, 6-7=-75/133, 7-8=-63/158, 8-9=-52/192, 9-10=-38/142, 10-11=-34/138, 11-12=-32/174, 12-13=-32/139, 13-14=-41/114, 14-15=-50/90, 15-16=-61/65, 16-17=-70/71, 17-18=-123/98, 18-19=0/40, 18-20=-140/51
BOT CHORD 34-35=-97/113, 33-34=-97/113, 32-33=-97/113, 31-32=-97/113, 30-31=-97/113, 29-30=-97/113, 28-29=-97/113, 27-28=-97/113, 26-27=-97/113, 25-26=-97/113, 24-25=-97/113, 23-24=-97/113, 22-23=-97/113, 21-22=-97/113, 20-21=-97/113
WEBS 3-34=-109/105, 4-33=-99/55, 5-32=-98/64, 6-31=-98/62, 7-30=-98/63, 8-29=-98/81, 9-28=-122/8, 11-27=-113/0, 12-26=-101/83, 13-25=-98/63, 14-24=-98/62, 15-23=-98/64, 16-22=-99/56, 17-21=-98/98

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 1-4-0 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) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 106 lb uplift at joint 35, 64 lb uplift at joint 20, 140 lb uplift at joint 34, 27 lb uplift at joint 33, 51 lb uplift at joint 32, 45 lb uplift at joint 31, 47 lb uplift at joint 30, 65 lb uplift at joint 29, 67 lb uplift at joint 26, 47 lb uplift at joint 25, 45 lb uplift at joint 24, 51 lb uplift at joint 23, 30 lb uplift at joint 22 and 126 lb uplift at joint 21.
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

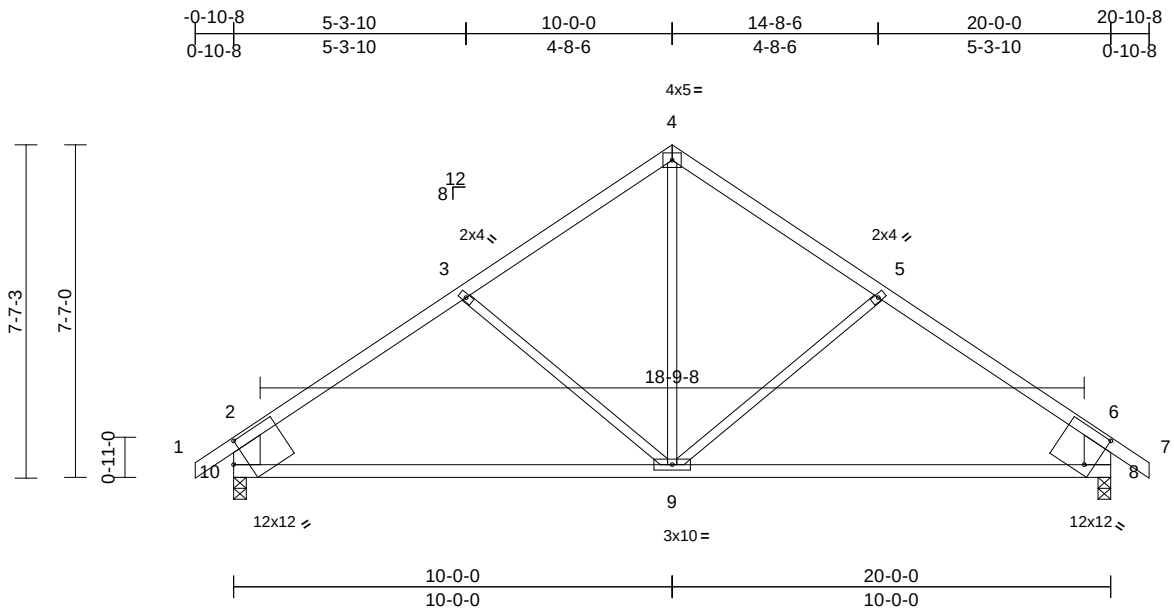
March 31,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 28 OS
Lot 28 OS	E2	Common	3	1	I45418622
					Job Reference (optional)

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.43 S Mar 22 2021 Print: 8.430 S Mar 22 2021 MiTek Industries, Inc. Tue Mar 30 10:11:28 ID:VxWg?wA2R3MakUkj2l0tcxyD2rv-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f



Scale = 1:52.5

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

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)	-0.17	8-9	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.72	Vert(CT)	-0.35	8-9	>672	240		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.23	Horz(CT)	0.02	8	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S		Wind(LL)	0.05	9-10	>999	240	Weight: 73 lb	FT = 10%

LUMBER
TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
WEBS 2x3 SPF No.2 *Except* 10-2,8-6:2x8 SP DSS

BRACING
TOP CHORD Structural wood sheathing directly applied or 3-11-6 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (size) 8=0-3-8, 10=0-3-8
Max Horiz 10=-220 (LC 6)
Max Uplift 8=-124 (LC 9), 10=-124 (LC 8)
Max Grav 8=955 (LC 1), 10=955 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/46, 2-3=-1059/157, 3-4=-795/156, 4-5=-795/156, 5-6=-1059/157, 6-7=0/46, 2-10=-851/174, 6-8=-851/174
BOT CHORD 9-10=-136/798, 8-9=-36/760
WEBS 4-9=-53/469, 5-9=-244/210, 3-9=-244/210

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) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 124 lb uplift at joint 10 and 124 lb uplift at joint 8.
6) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard

March 31,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 28 OS
Lot 28 OS	E3	Common	7	1	I45418623
					Job Reference (optional)

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.43 S Mar 22 2021 Print: 8.430 S Mar 22 2021 MiTek Industries, Inc. Tue Mar 30 10:11:29 Page: 1
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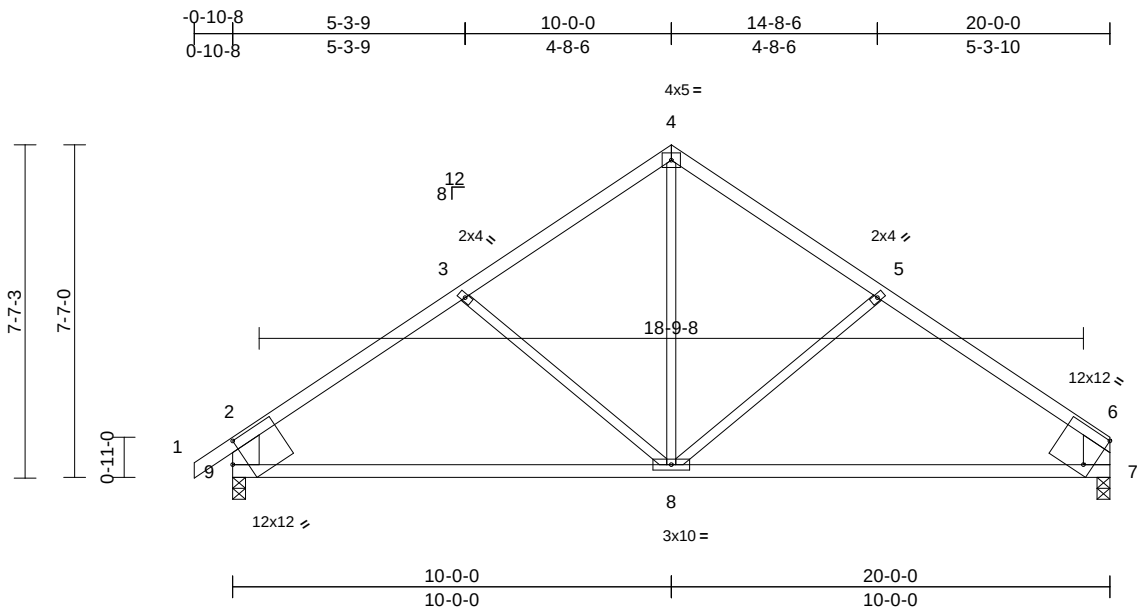

Scale = 1:52.5

Plate Offsets (X, Y): [6:Edge,0-9-7], [9:0-3-10,0-5-6]

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	0.82	Vert(LL)	-0.17	8-9	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.71	Vert(CT)	-0.36	8-9	>640	240		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.25	Horz(CT)	0.02	7	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S		Wind(LL)	0.07	8-9	>999	240	Weight: 71 lb	FT = 10%

LUMBER
TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
WEBS 2x3 SPF No.2 *Except* 9-2,7-6:2x8 SP DSS

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

REACTIONS (size) 7=0-3-8, 9=0-3-8
Max Horiz 9=213 (LC 5)
Max Uplift 7=-97 (LC 9), 9=-124 (LC 8)
Max Grav 7=870 (LC 1), 9=958 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/46, 2-3=-1060/156, 3-4=-796/156, 4-5=-796/155, 5-6=-1066/158, 2-9=-851/174, 6-7=-758/145
BOT CHORD 8-9=-149/789, 7-8=-65/776
WEBS 4-8=-53/469, 5-8=-261/213, 3-8=-245/210

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) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 124 lb uplift at joint 9 and 97 lb uplift at joint 7.
6) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard

March 31,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 28 OS
Lot 28 OS	J1	Diagonal Hip Girder	1	1	I45418624
					Job Reference (optional)

Wheeler Lumber, Waverly, KS - 66871,

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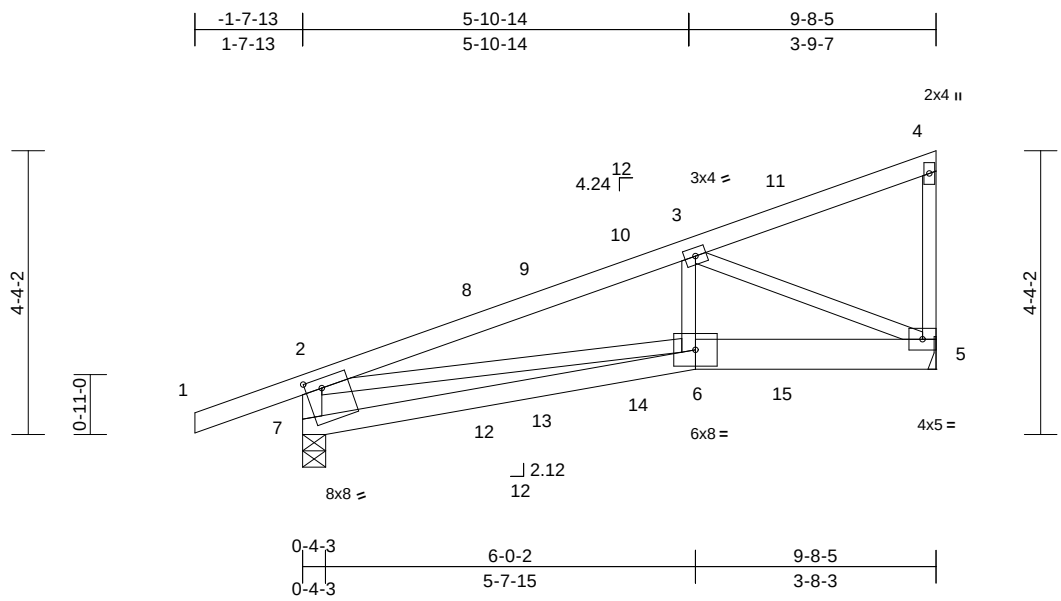

Scale = 1:35.3

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

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	0.46	Vert(LL)	-0.04	6-7	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.40	Vert(CT)	-0.09	6-7	>999	240		
BCLL	0.0*	Rep Stress Incr	NO	WB	0.39	Horz(CT)	0.01	5	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S		Wind(LL)	0.03	6-7	>999	240	Weight: 39 lb	FT = 10%

LUMBER
TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2 *Except* 6-5:2x6 SPF No.2
WEBS 2x3 SPF No.2 *Except* 7-2:2x4 SPF No.2

BRACING
TOP CHORD Structural wood sheathing directly applied or 5-6-13 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (size) 5= Mechanical, 7=0-4-3
Max Horiz 7=172 (LC 5)
Max Uplift 5=-221 (LC 8), 7=-204 (LC 4)
Max Grav 5=644 (LC 1), 7=636 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 2-7=-612/250, 1-2=0/42, 2-8=-1001/293, 8-9=-929/295, 9-10=-916/297, 3-10=-873/299, 3-11=-111/20, 4-11=-56/23, 4-5=-104/50
BOT CHORD 7-12=-219/229, 12-13=-214/232, 13-14=-214/233, 6-14=-212/242, 6-15=-339/888, 5-15=-341/895
WEBS 2-6=-179/643, 3-6=-45/331, 3-5=-961/372

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) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
3) * 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.
4) Refer to girder(s) for truss to truss connections.
5) Bearing at joint(s) 7 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 204 lb uplift at joint 7 and 221 lb uplift at joint 5.
7) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
8) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 69 lb down and 30 lb up at 2-8-5, 103 lb down and 67 lb up at 3-6-14, and 84 lb down and 63 lb up at 5-0-10, and 108 lb down and 85 lb up at 7-4-15 on top chord, and 9 lb down and 12 lb up at 2-8-5, 13 lb down at 3-6-14, 17 lb down and 16 lb up at 5-0-10, and 251 lb down and 93 lb up at 7-4-3, and 31 lb down at 7-4-15 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
9) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

LOAD CASE(S) Standard
1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (lb/ft)
Vert: 1-2=-70, 2-4=-70, 6-7=-20, 5-6=-20
Concentrated Loads (lb)
Vert: 11=-30 (B), 12=3 (B), 13=-6 (F), 14=-2 (B), 15=-270 (F=-251, B=-19)

March 31,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 28 OS	
Lot 28 OS	J2	Jack-Closed	1	1	Job Reference (optional)	I45418625

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.43 S Mar 22 2021 Print: 8.430 S Mar 22 2021 MiTek Industries, Inc. Tue Mar 30 10:11:29 Page: 1
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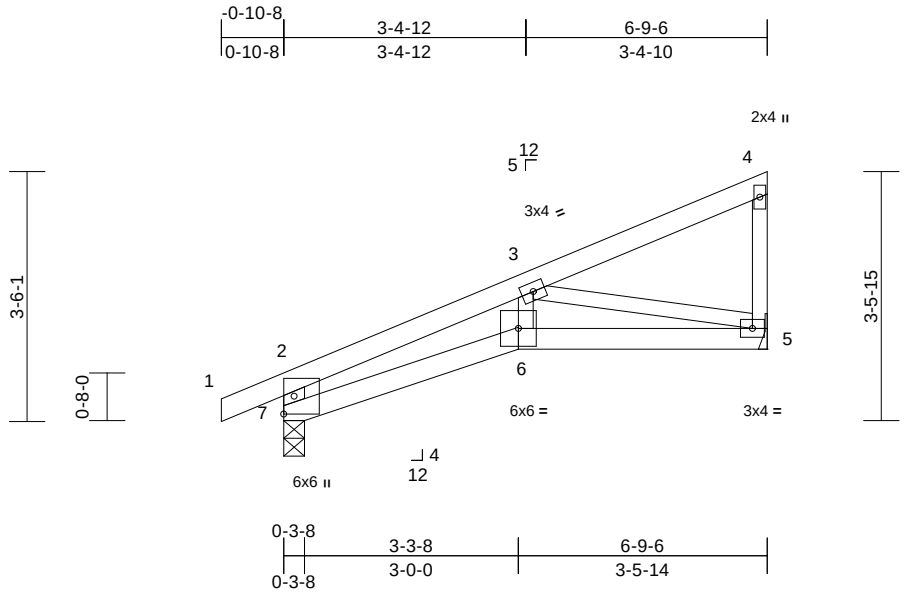

Scale = 1:32.3

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	0.33	Vert(LL)	-0.04	6	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.31	Vert(CT)	-0.06	6	>999	240		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.16	Horz(CT)	0.03	5	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S		Wind(LL)	0.03	6	>999	240	Weight: 22 lb	FT = 10%

LUMBER
TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
WEBS 2x3 SPF No.2 *Except* 7-2:2x4 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) 5= Mechanical, 7=0-3-8
Max Horiz 7=128 (LC 5)
Max Uplift 5=-71 (LC 8), 7=-63 (LC 8)
Max Grav 5=288 (LC 1), 7=371 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 2-7=-471/125, 1-2=0/27, 2-3=-640/134, 3-4=-72/28, 4-5=-123/46
BOT CHORD 6-7=-166/551, 5-6=-155/502
WEBS 3-6=0/217, 3-5=-495/177

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) The Fabrication Tolerance at joint 2 = 6%
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) Refer to girder(s) for truss to truss connections.
6) Bearing at joint(s) 7 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 63 lb uplift at joint 7 and 71 lb uplift at joint 5.
8) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard

March 31,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 28 OS
Lot 28 OS	J3	Jack-Open	1	1	I45418626
					Job Reference (optional)

Wheeler Lumber, Waverly, KS - 66871,

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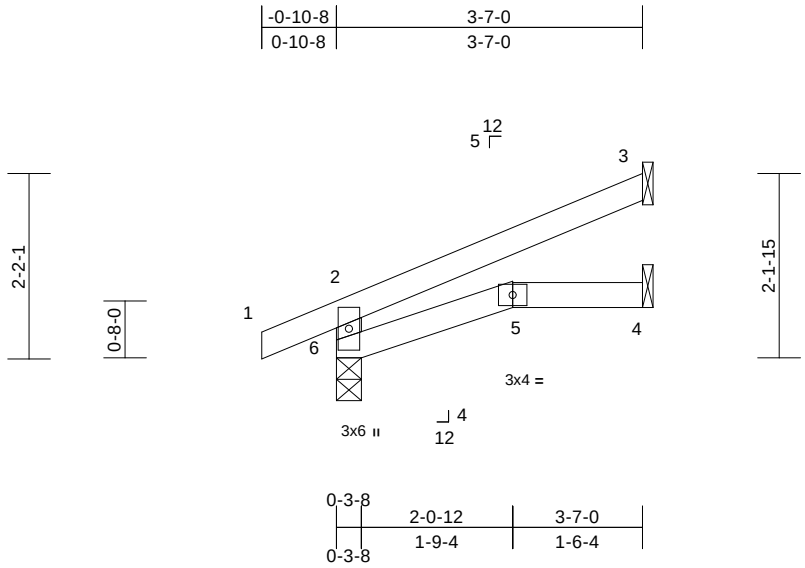

Scale = 1:27

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.16	Vert(LL)	-0.01	5	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.09	Vert(CT)	-0.01	5-6	>999	240		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.00	Horz(CT)	0.01	3	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-R		Wind(LL)	0.01	5-6	>999	240	Weight: 10 lb	FT = 10%

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

BRACING
TOP CHORD Structural wood sheathing directly applied or 3-7-0 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.

REACTIONS (size) 3= Mechanical, 4= Mechanical, 6=0-3-8
Max Horiz 6=66 (LC 8)
Max Uplift 3=-54 (LC 8), 6=-35 (LC 8)
Max Grav 3=103 (LC 1), 4=63 (LC 3), 6=234 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 2-6=-205/66, 1-2=0/27, 2-3=-57/30
BOT CHORD 5-6=-23/2, 4-5=0/0

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) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
3) * 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.
4) Refer to girder(s) for truss to truss connections.
5) Bearing at joint(s) 6 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 35 lb uplift at joint 6 and 54 lb uplift at joint 3.
7) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard

March 31,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 28 OS	
Lot 28 OS	J4	Jack-Open	1	1	Job Reference (optional)	I45418627

Wheeler Lumber, Waverly, KS - 66871,

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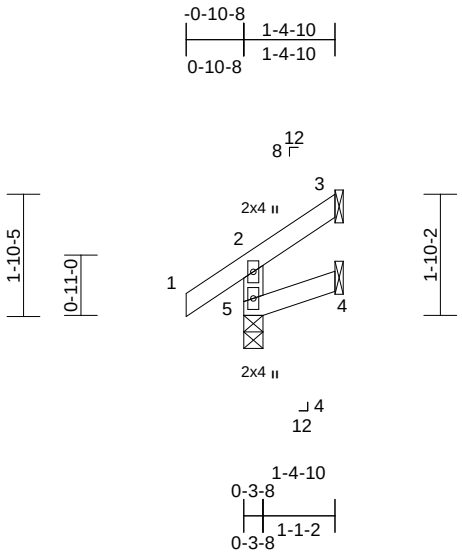

Scale = 1:35

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)	0.00	4-5	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.02	Vert(CT)	0.00	4-5	>999	180		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.00	Horz(CT)	0.00	3	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-R							Weight: 6 lb	FT = 10%

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

BRACING
TOP CHORD Structural wood sheathing directly applied or 1-4-10 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.

REACTIONS (size) 3= Mechanical, 4= Mechanical, 5=0-3-8
Max Horiz 5=47 (LC 8)
Max Uplift 3=-30 (LC 8), 4=-6 (LC 8), 5=-8 (LC 8)
Max Grav 3=29 (LC 15), 4=21 (LC 3), 5=156 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 2-5=-137/29, 1-2=0/40, 2-3=-38/12
BOT CHORD 4-5=-9/5

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) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
3) * 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.
4) Refer to girder(s) for truss to truss connections.
5) Bearing at joint(s) 5 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 6 lb uplift at joint 4, 30 lb uplift at joint 3 and 8 lb uplift at joint 5.
7) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard

March 31,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 28 OS
Lot 28 OS	J5	Jack-Open	1	1	I45418628

Job Reference (optional)

Wheeler Lumber, Waverly, KS - 66871,

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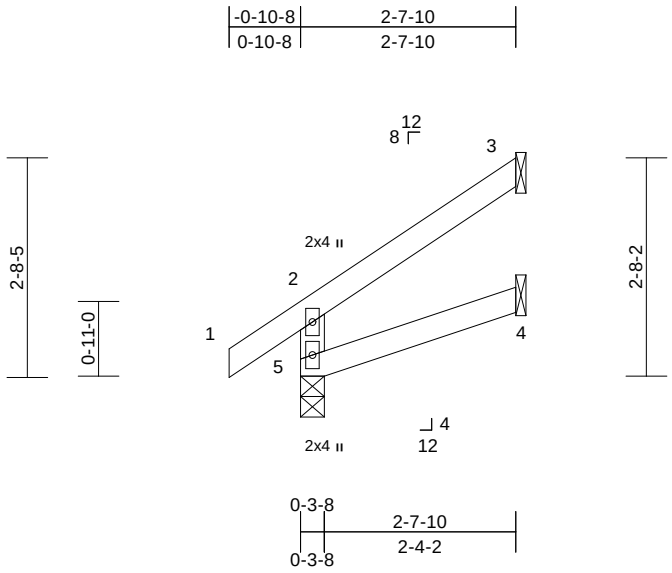

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Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.07	Vert(LL)	0.00	4-5	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.06	Vert(CT)	0.00	4-5	>999	240		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.00	Horz(CT)	-0.01	3	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-R		Wind(LL)	0.00	4-5	>999	240	Weight: 9 lb	FT = 10%

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

BRACING
TOP CHORD Structural wood sheathing directly applied or 2-7-10 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.

REACTIONS (size) 3= Mechanical, 4= Mechanical, 5=0-3-8
Max Horiz 5=80 (LC 8)
Max Uplift 3=-58 (LC 8), 4=-2 (LC 8), 5=-4 (LC 8)
Max Grav 3=78 (LC 15), 4=45 (LC 3), 5=196 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 2-5=-172/36, 1-2=0/40, 2-3=-66/36
BOT CHORD 4-5=-16/11

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) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
3) * 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.
4) Refer to girder(s) for truss to truss connections.
5) Bearing at joint(s) 5 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 4 lb uplift at joint 5, 58 lb uplift at joint 3 and 2 lb uplift at joint 4.
7) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard

March 31,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 28 OS
Lot 28 OS	J6	Jack-Open	1	1	I45418629
					Job Reference (optional)

Wheeler Lumber, Waverly, KS - 66871,

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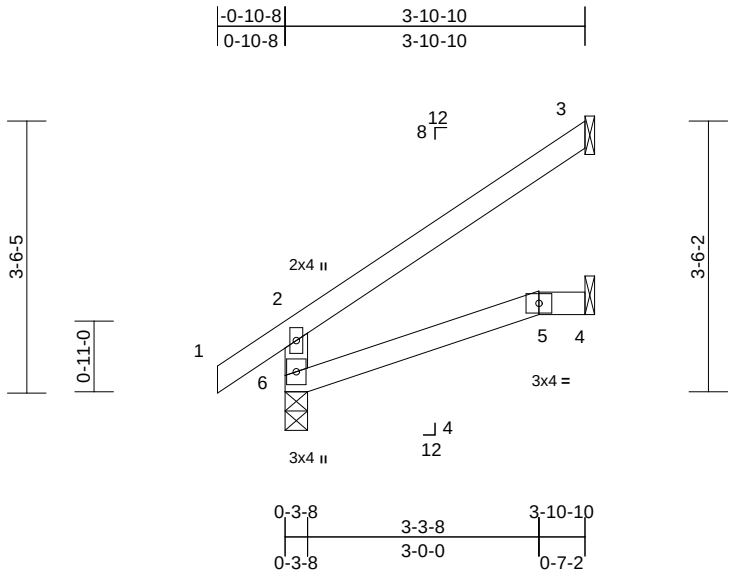

Scale = 1:29.9

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)	-0.01	5-6	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.12	Vert(CT)	-0.02	5-6	>999	240		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.00	Horz(CT)	-0.02	3	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-R		Wind(LL)	0.02	5-6	>999	240	Weight: 12 lb	FT = 10%

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

BRACING
TOP CHORD Structural wood sheathing directly applied or 3-10-10 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.

REACTIONS (size) 3= Mechanical, 4= Mechanical, 6=0-3-8
Max Horiz 6=114 (LC 8)
Max Uplift 3=-83 (LC 8), 6=-3 (LC 8)
Max Grav 3=122 (LC 15), 4=69 (LC 3), 6=247 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 2-6=-216/46, 1-2=0/40, 2-3=-96/56
BOT CHORD 5-6=-24/11, 4-5=0/0

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) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
3) * 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.
4) Refer to girder(s) for truss to truss connections.
5) Bearing at joint(s) 6 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 3 lb uplift at joint 6 and 83 lb uplift at joint 3.
7) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard

March 31,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 28 OS
Lot 28 OS	J7	Jack-Closed Girder	1	1	I45418630
					Job Reference (optional)

Wheeler Lumber, Waverly, KS - 66871,

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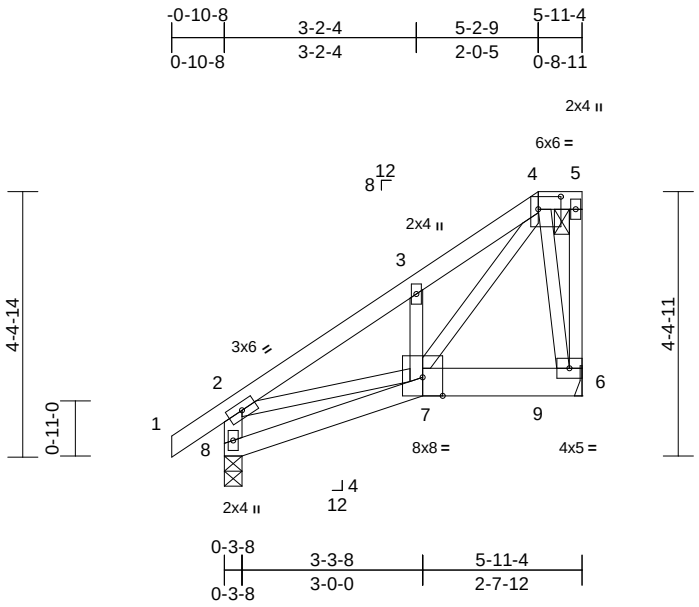

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Plate Offsets (X, Y): [4:0-4-8,0-2-8]

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	0.11	Vert(LL)	-0.01	6-7	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.31	Vert(CT)	-0.02	7-8	>999	240		
BCLL	0.0*	Rep Stress Incr	NO	WB	0.17	Horz(CT)	0.00	6	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-P		Wind(LL)	0.01	6-7	>999	240	Weight: 29 lb	FT = 10%

LUMBER
TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2 *Except* 7-6:2x6 SPF No.2
WEBS 2x3 SPF No.2 *Except* 8-2:2x4 SPF No.2

BRACING
TOP CHORD Structural wood sheathing directly applied or 5-11-4 oc purlins, except end verticals, and 2-0-0 oc purlins: 4-5.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (size) 6= Mechanical, 8=0-3-8
Max Horiz 8=128 (LC 5)
Max Uplift 6=-247 (LC 5), 8=-28 (LC 8)
Max Grav 6=807 (LC 1), 8=402 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 2-8=-371/68, 1-2=0/40, 2-3=-467/75, 3-4=-442/128, 4-5=-36/27, 5-6=-22/5
BOT CHORD 7-8=-133/88, 7-9=-34/64, 6-9=-40/81
WEBS 2-7=-14/341, 3-7=-194/86, 4-7=-151/531, 4-6=-301/84

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) 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.
6) Refer to girder(s) for truss to truss connections.
7) Bearing at joint(s) 8 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 28 lb uplift at joint 8 and 247 lb uplift at joint 6.
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.
10) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
11) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 626 lb down and 232 lb up at 5-2-9 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
12) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

LOAD CASE(S) Standard
1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (lb/ft)
Vert: 1-2=-70, 2-4=-70, 4-5=-70, 7-8=-20, 6-7=-20
Concentrated Loads (lb)
Vert: 9=-626 (F)

March 31,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 28 OS
Lot 28 OS	J8	Jack-Open	6	1	I45418631
					Job Reference (optional)

Wheeler Lumber, Waverly, KS - 66871,

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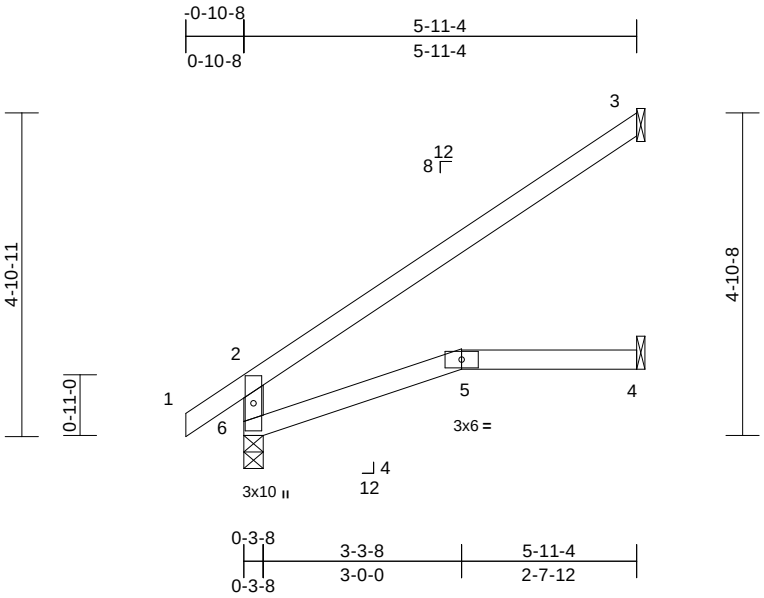

Scale = 1:34.8

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	0.53	Vert(LL)	-0.05	5-6	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.30	Vert(CT)	-0.12	5-6	>584	240		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.00	Horz(CT)	0.06	3	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-R		Wind(LL)	0.06	5-6	>999	240	Weight: 17 lb	FT = 10%

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

BRACING
TOP CHORD Structural wood sheathing directly applied or 5-11-4 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.

REACTIONS (size) 3= Mechanical, 4= Mechanical, 6=0-3-8
Max Horiz 6=119 (LC 8)
Max Uplift 3=-77 (LC 8)
Max Grav 3=186 (LC 13), 4=109 (LC 3), 6=336 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 2-6=-293/28, 1-2=0/40, 2-3=-127/85
BOT CHORD 5-6=-38/5, 4-5=0/0

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) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
3) * 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.
4) Refer to girder(s) for truss to truss connections.
5) Bearing at joint(s) 6 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 77 lb uplift at joint 3.
7) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard

March 31,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 28 OS
Lot 28 OS	J9	Jack-Open	1	1	I45418632
					Job Reference (optional)

Wheeler Lumber, Waverly, KS - 66871,

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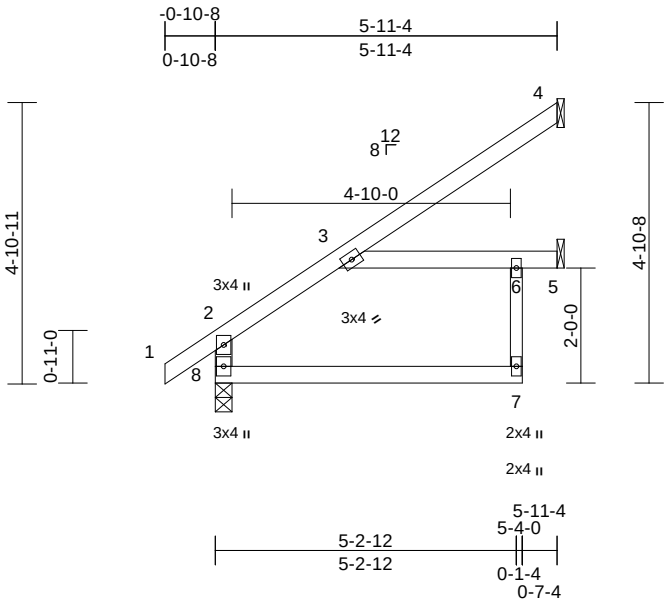

Scale = 1:40

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	0.50	Vert(LL)	-0.09	3-6	>758	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.37	Vert(CT)	-0.17	3-6	>410	240		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.03	Horz(CT)	0.17	5	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S		Wind(LL)	0.10	3	>706	240	Weight: 22 lb	FT = 10%

LUMBER
TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
WEBS 2x4 SPF No.2 *Except* 6-7:2x3 SPF No.2

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

REACTIONS (size) 4= Mechanical, 5= Mechanical, 8=0-3-8
Max Horiz 8=119 (LC 8)
Max Uplift 4=-58 (LC 8)
Max Grav 4=167 (LC 13), 5=176 (LC 3), 8=359 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 2-8=-321/4, 1-2=0/40, 2-3=-143/1, 3-4=-55/81
BOT CHORD 7-8=0/0, 3-6=0/0, 5-6=0/0
WEBS 6-7=0/104

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) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
3) * 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.
4) Refer to girder(s) for truss to truss connections.
5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 58 lb uplift at joint 4.
6) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard

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

March 31,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 28 OS
Lot 28 OS	J10	Jack-Open	4	1	I45418633
					Job Reference (optional)

Wheeler Lumber, Waverly, KS - 66871,

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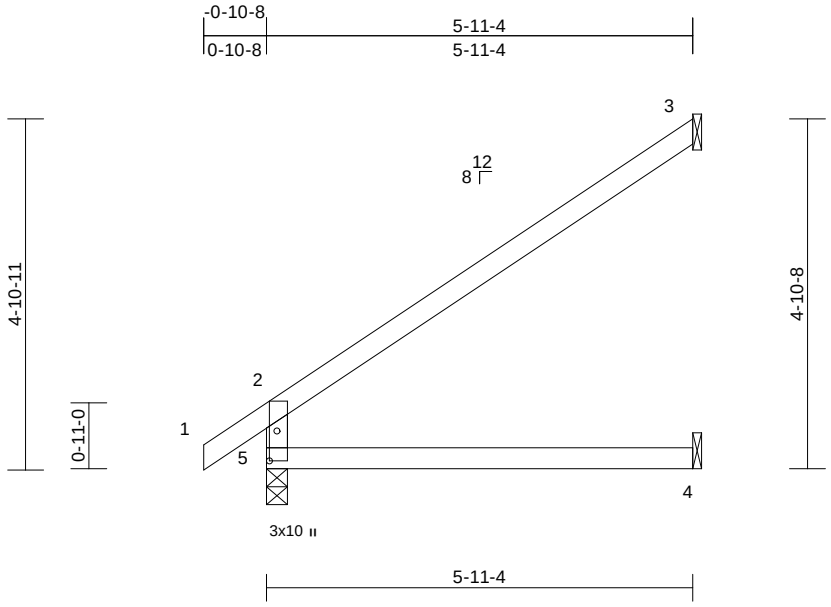

Scale = 1:32.1

Plate Offsets (X, Y): [5:0-5-0,0-1-4]

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	0.53	Vert(LL)	-0.05	4-5	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.32	Vert(CT)	-0.11	4-5	>598	240		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.00	Horz(CT)	0.06	3	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-R		Wind(LL)	0.06	4-5	>999	240	Weight: 17 lb	FT = 10%

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

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

REACTIONS (size) 3= Mechanical, 4= Mechanical, 5=0-3-8
Max Horiz 5=119 (LC 8)
Max Uplift 3=-76 (LC 8)
Max Grav 3=185 (LC 13), 4=109 (LC 3), 5=336 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 2-5=-293/29, 1-2=0/40, 2-3=-127/85
BOT CHORD 4-5=0/0

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) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
3) * 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.
4) Refer to girder(s) for truss to truss connections.
5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 76 lb uplift at joint 3.
6) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard

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

March 31,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 28 OS
Lot 28 OS	J11	Jack-Open	1	1	I45418634
					Job Reference (optional)

Wheeler Lumber, Waverly, KS - 66871,

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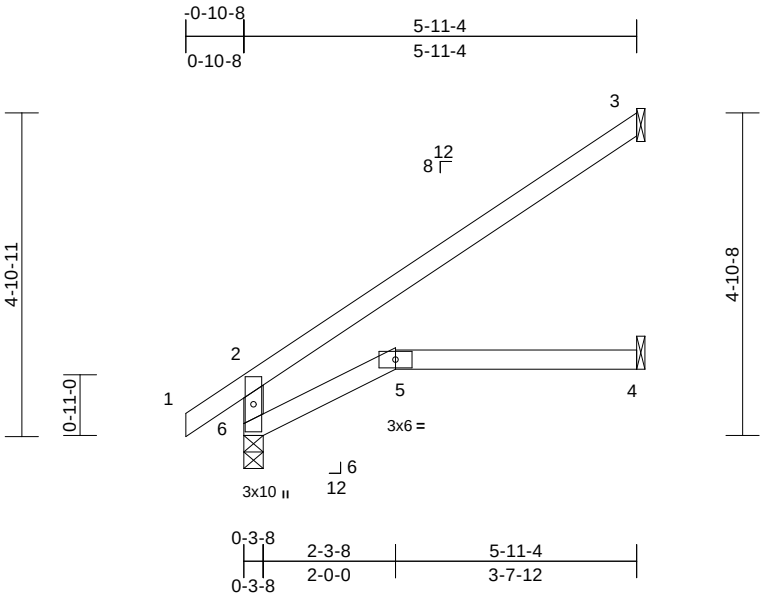

Scale = 1:34.8

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	0.53	Vert(LL)	-0.05	4-5	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.29	Vert(CT)	-0.12	4-5	>589	240		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.00	Horz(CT)	0.06	3	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-R		Wind(LL)	0.06	4-5	>999	240	Weight: 17 lb	FT = 10%

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

BRACING
TOP CHORD Structural wood sheathing directly applied or 5-11-4 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.

REACTIONS (size) 3= Mechanical, 4= Mechanical, 6=0-3-8
Max Horiz 6=118 (LC 8)
Max Uplift 3=-77 (LC 8)
Max Grav 3=187 (LC 13), 4=109 (LC 3), 6=336 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 2-6=-292/28, 1-2=0/40, 2-3=-127/85
BOT CHORD 5-6=-53/0, 4-5=0/0

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) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
3) * 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.
4) Refer to girder(s) for truss to truss connections.
5) Bearing at joint(s) 6 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 77 lb uplift at joint 3.
7) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard

March 31,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 28 OS	
Lot 28 OS	J12	Jack-Open	13	1	Job Reference (optional)	I45418635

Wheeler Lumber, Waverly, KS - 66871,

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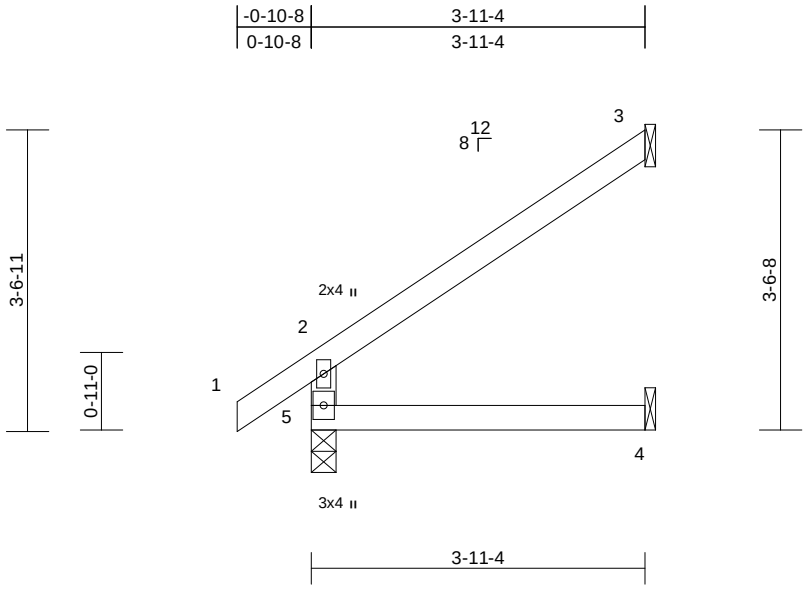

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Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.20	Vert(LL)	-0.01	4-5	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.12	Vert(CT)	-0.02	4-5	>999	240		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.00	Horz(CT)	-0.02	3	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-R		Wind(LL)	0.02	4-5	>999	240	Weight: 12 lb	FT = 10%

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

BRACING
TOP CHORD Structural wood sheathing directly applied or 3-11-4 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (size) 3= Mechanical, 4= Mechanical, 5=0-3-8
Max Horiz 5=115 (LC 8)
Max Uplift 3=-83 (LC 8), 5=-4 (LC 8)
Max Grav 3=123 (LC 15), 4=71 (LC 3), 5=249 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 2-5=-218/48, 1-2=0/40, 2-3=-97/57
BOT CHORD 4-5=0/0

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) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
3) * 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.
4) Refer to girder(s) for truss to truss connections.
5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 4 lb uplift at joint 5 and 83 lb uplift at joint 3.
6) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard

March 31,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 28 OS	
Lot 28 OS	LAY1	Lay-In Gable	1	1	Job Reference (optional)	I45418636

Wheeler Lumber, Waverly, KS - 66871,

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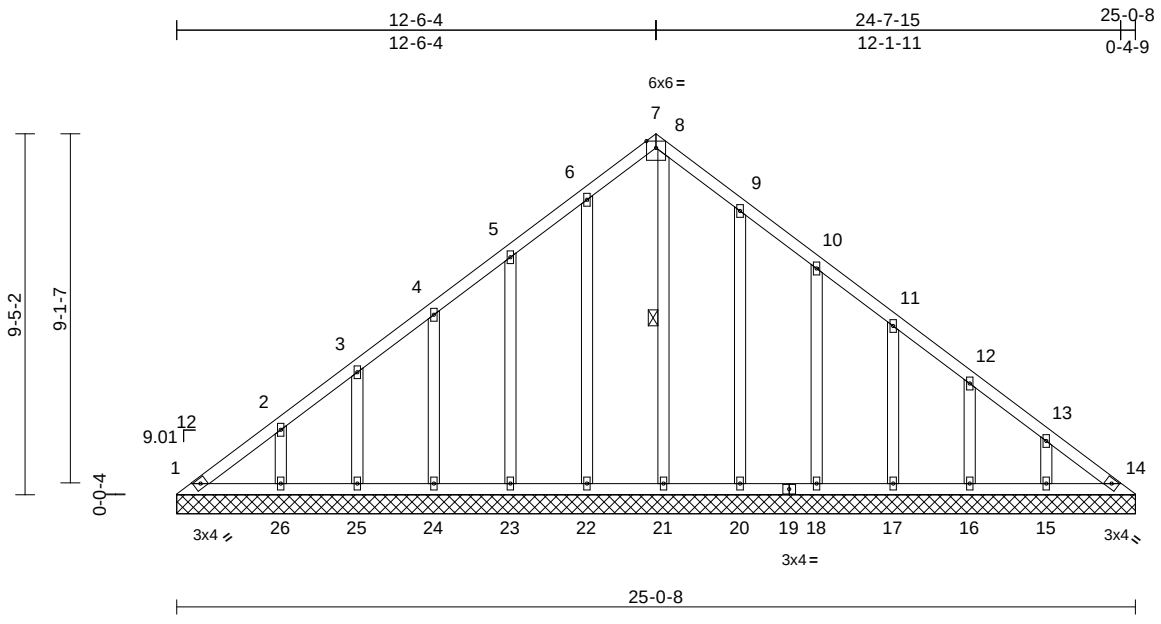

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Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.07	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.04	Vert(TL)	n/a	-	n/a	999		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.16	Horiz(TL)	0.01	14	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S							Weight: 123 lb	FT = 10%

LUMBER
TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
OTHERS 2x4 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.
WEBS 1 Row at midpt 8-21

REACTIONS (size) 1=25-0-8, 14=25-0-8, 15=25-0-8, 16=25-0-8, 17=25-0-8, 18=25-0-8, 20=25-0-8, 21=25-0-8, 22=25-0-8, 23=25-0-8, 24=25-0-8, 25=25-0-8, 26=25-0-8
Max Horiz 1=-238 (LC 4)
Max Uplift 1=-53 (LC 6), 14=-22 (LC 7), 15=-88 (LC 9), 16=-78 (LC 9), 17=-80 (LC 9), 18=-79 (LC 9), 20=-93 (LC 9), 22=-58 (LC 8), 23=-87 (LC 8), 24=-80 (LC 8), 25=-74 (LC 8), 26=-99 (LC 8)
Max Grav 1=155 (LC 17), 14=126 (LC 18), 15=209 (LC 16), 16=185 (LC 16), 17=191 (LC 16), 18=188 (LC 16), 20=197 (LC 16), 21=207 (LC 18), 22=194 (LC 15), 23=188 (LC 15), 24=193 (LC 15), 25=176 (LC 15), 26=236 (LC 15)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-261/187, 2-3=-174/149, 3-4=-142/125, 4-5=-127/120, 5-6=-112/167, 6-7=-91/192, 7-8=-49/87, 8-9=-80/186, 9-10=-66/109, 10-11=-77/65, 11-12=-93/60, 12-13=-141/86, 13-14=-220/118
BOT CHORD 1-26=-92/197, 25-26=-92/197, 24-25=-92/197, 23-24=-92/197, 22-23=-92/197, 21-22=-92/197, 20-21=-92/197, 19-20=-92/197, 18-19=-92/197, 17-18=-92/197, 16-17=-92/197, 15-16=-92/197, 14-15=-92/197
WEBS 2-26=-180/122, 3-25=-141/99, 4-24=-152/103, 5-23=-149/111, 6-22=-154/82, 8-21=-169/9, 9-20=-157/117, 10-18=-148/103, 11-17=-150/104, 12-16=-147/102, 13-15=-160/109

NOTES
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) 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) 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) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 53 lb uplift at joint 1, 22 lb uplift at joint 14, 99 lb uplift at joint 26, 74 lb uplift at joint 25, 80 lb uplift at joint 24, 87 lb uplift at joint 23, 58 lb uplift at joint 22, 93 lb uplift at joint 20, 79 lb uplift at joint 18, 80 lb uplift at joint 17, 78 lb uplift at joint 16 and 88 lb uplift at joint 15.
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

March 31,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 28 OS	
Lot 28 OS	LAY2	Lay-In Gable	1	1	Job Reference (optional)	I45418637

Wheeler Lumber, Waverly, KS - 66871,

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Page: 1

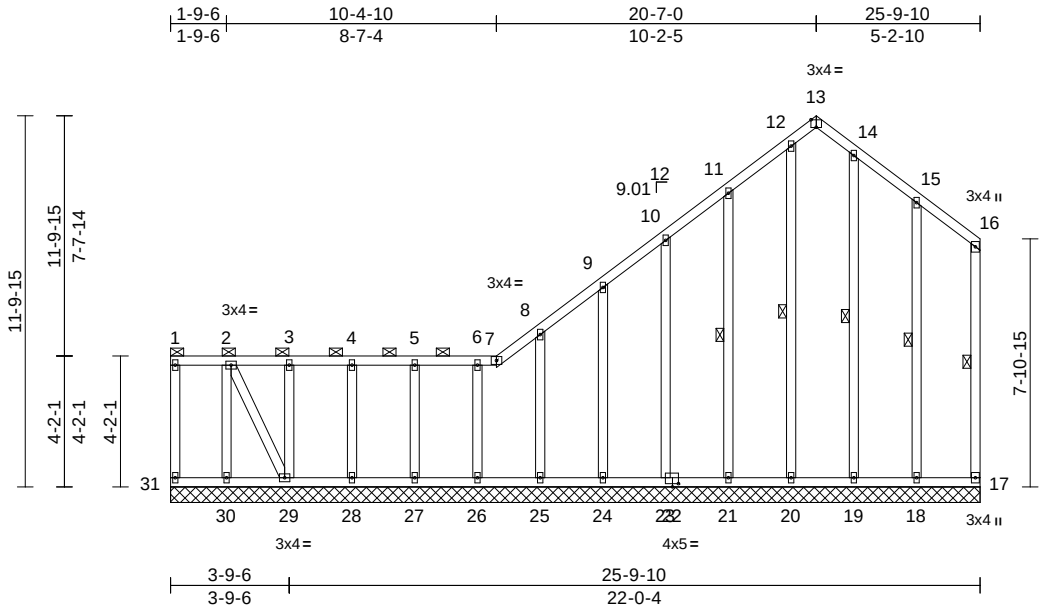

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Plate Offsets (X, Y): [13:0-2-0,Edge], [22:0-2-4,0-1-4]

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	0.12	Vert(TL)	n/a	-	n/a	999		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.17	Horiz(TL)	-0.01	17	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S							Weight: 167 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, and 2-0-0 oc purlins (6-0-0 max.): 1-7.
BOT CHORD Rigid ceiling directly applied or 9-7-15 oc bracing.
WEBS 1 Row at midpt 16-17, 11-21, 12-20, 14-19, 15-18

REACTIONS (size) 17=25-9-10, 18=25-9-10, 19=25-9-10, 20=25-9-10, 21=25-9-10, 23=25-9-10, 24=25-9-10, 25=25-9-10, 26=25-9-10, 27=25-9-10, 28=25-9-10, 29=25-9-10, 30=25-9-10, 31=25-9-10
Max Horiz 31=399 (LC 5)
Max Uplift 17=-57 (LC 8), 18=-94 (LC 9), 19=-8 (LC 9), 20=-116 (LC 7), 21=-112 (LC 8), 23=-74 (LC 8), 24=-89 (LC 8), 25=-42 (LC 8), 26=-136 (LC 4), 27=-47 (LC 8), 28=-34 (LC 8), 29=-533 (LC 5), 30=-425 (LC 4), 31=-32 (LC 4)
Max Grav 17=121 (LC 16), 18=237 (LC 16), 19=179 (LC 1), 20=244 (LC 15), 21=183 (LC 21), 23=189 (LC 15), 24=197 (LC 15), 25=179 (LC 1), 26=259 (LC 16), 27=178 (LC 21), 28=180 (LC 21), 29=473 (LC 6), 30=530 (LC 7), 31=64 (LC 16)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-31=-46/26, 1-2=-52/36, 2-3=-250/192, 3-4=-250/192, 4-5=-250/192, 5-6=-250/192, 6-7=-250/192, 7-8=-284/223, 8-9=-307/246, 9-10=-276/234, 10-11=-253/226, 11-12=-250/239, 12-13=-129/122, 13-14=-156/149, 14-15=-196/182, 15-16=-178/141, 16-17=-153/108
BOT CHORD 30-31=-375/304, 29-30=-375/304, 28-29=-111/85, 27-28=-111/85, 26-27=-111/85, 25-26=-111/85, 24-25=-111/85, 23-24=-111/85, 22-23=-111/85, 21-22=-111/85, 20-21=-111/85, 19-20=-111/85, 18-19=-111/85, 17-18=-111/85
WEBS 2-30=-513/475, 3-29=-141/71, 4-28=-140/58, 5-27=-138/71, 6-26=-219/160, 8-25=-139/66, 9-24=-157/113, 10-23=-149/97, 11-21=-143/137, 12-20=-205/161, 14-19=-139/31, 15-18=-149/153, 2-29=-528/626

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) Gable requires continuous bottom chord bearing.
7) Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
8) Gable studs spaced at 2-0-0 oc.
9) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
10) * 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.
11) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 32 lb uplift at joint 31, 57 lb uplift at joint 17, 425 lb uplift at joint 30, 533 lb uplift at joint 29, 34 lb uplift at joint 28, 47 lb uplift at joint 27, 136 lb uplift at joint 26, 42 lb uplift at joint 25, 89 lb uplift at joint 24, 74 lb uplift at joint 23, 112 lb uplift at joint 21, 116 lb uplift at joint 20, 8 lb uplift at joint 19 and 94 lb uplift at joint 18.
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) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

LOAD CASE(S) Standard

March 31,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 28 OS	
Lot 28 OS	V1	Valley	1	1	Job Reference (optional)	I45418638

Wheeler Lumber, Waverly, KS - 66871,

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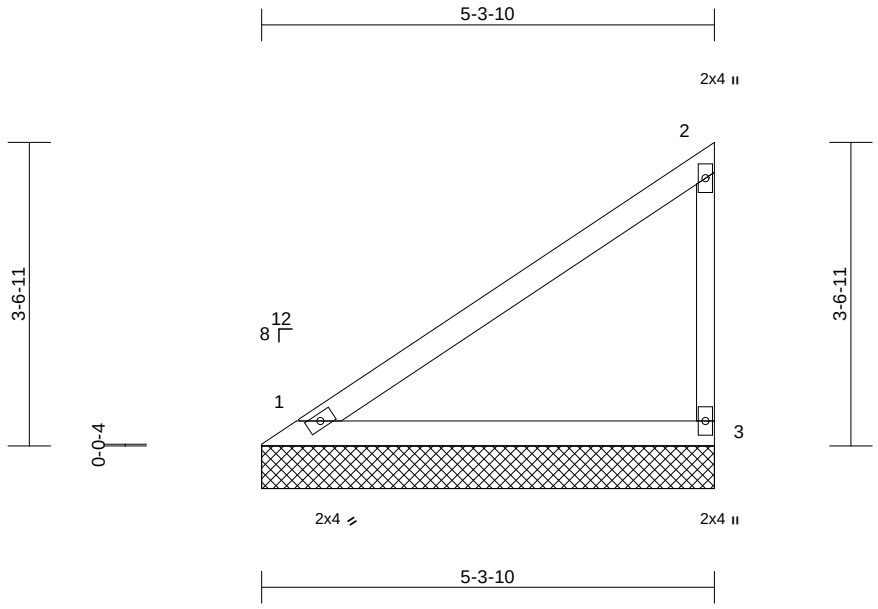

Scale = 1:27

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.44	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.23	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 5-4-0 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (size) 1=5-3-10, 3=5-3-10
Max Horiz 1=126 (LC 5)
Max Uplift 1=-18 (LC 8), 3=-62 (LC 8)
Max Grav 1=214 (LC 1), 3=230 (LC 15)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-117/96, 2-3=-182/90
BOT CHORD 1-3=-45/34

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) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 18 lb uplift at joint 1 and 62 lb uplift at joint 3.
8) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard

March 31,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 28 OS
Lot 28 OS	V2	Valley	1	1	I45418639
					Job Reference (optional)

Wheeler Lumber, Waverly, KS - 66871,

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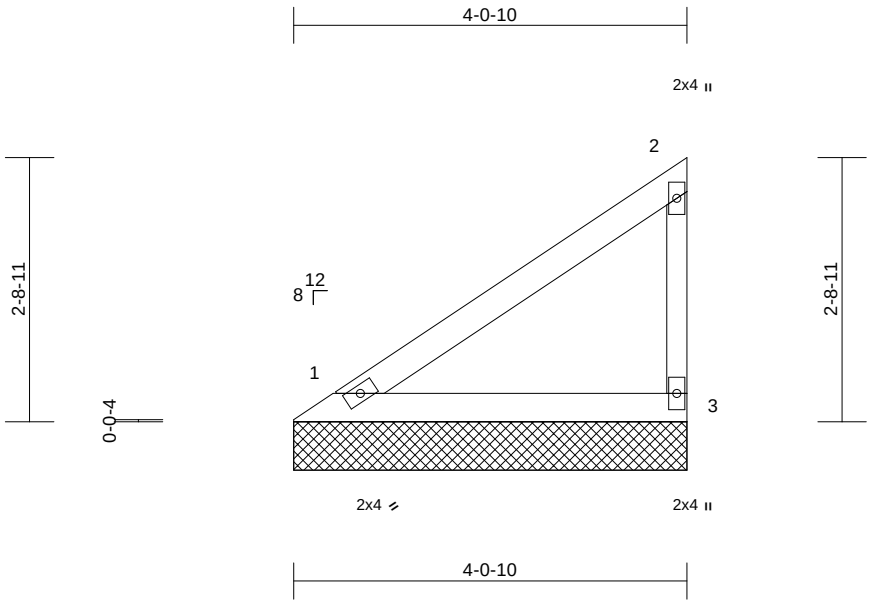

Scale = 1:23.8

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	0.12	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: 11 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 4-1-0 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (size) 1=4-0-10, 3=4-0-10
Max Horiz 1=93 (LC 7)
Max Uplift 1=-13 (LC 8), 3=-46 (LC 8)
Max Grav 1=158 (LC 1), 3=169 (LC 15)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-87/70, 2-3=-134/67
BOT CHORD 1-3=-33/25

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) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 13 lb uplift at joint 1 and 46 lb uplift at joint 3.
8) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard

March 31,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 28 OS	
Lot 28 OS	V3	Valley	1	1	Job Reference (optional)	I45418640

Wheeler Lumber, Waverly, KS - 66871,

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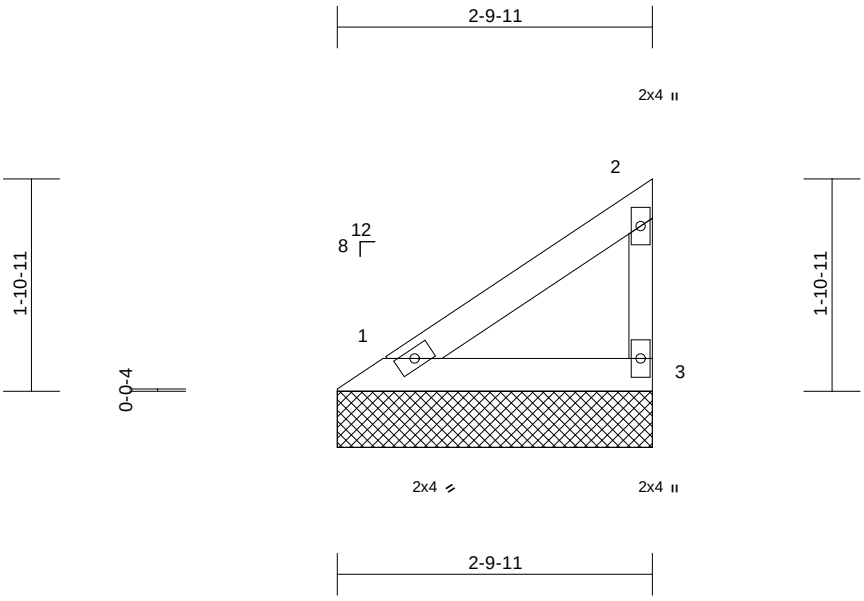

Scale = 1:20.5

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	0.09	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.05	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: 7 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 2-10-1 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (size) 1=2-9-11, 3=2-9-11
Max Horiz 1=60 (LC 5)
Max Uplift 1=-8 (LC 8), 3=-29 (LC 8)
Max Grav 1=101 (LC 1), 3=109 (LC 15)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-56/45, 2-3=-86/43
BOT CHORD 1-3=-21/16

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) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 8 lb uplift at joint 1 and 29 lb uplift at joint 3.
8) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard

March 31,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 28 OS	
Lot 28 OS	V4	Valley	1	1	Job Reference (optional)	I45418641

Wheeler Lumber, Waverly, KS - 66871,

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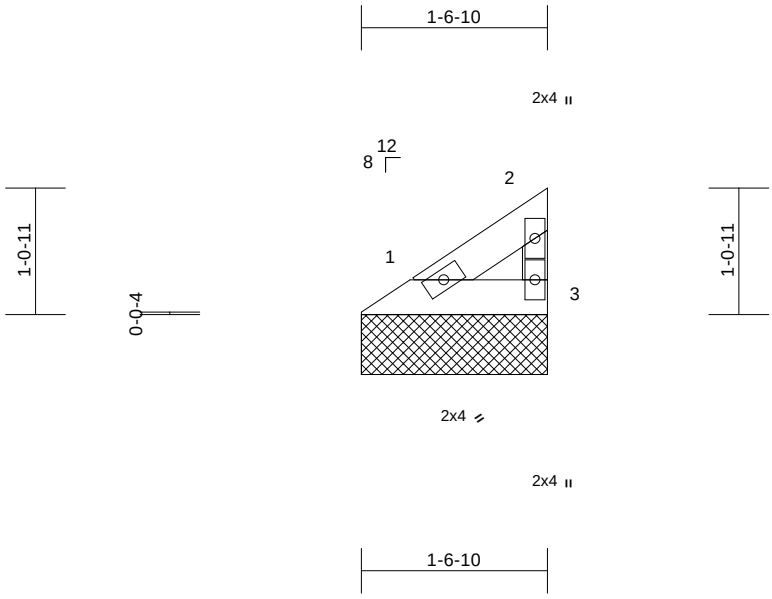

Scale = 1:19.3

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	0.02	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.01	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: 4 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 1-7-0 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (size) 1=1-6-10, 3=1-6-10
Max Horiz 1=27 (LC 5)
Max Uplift 1=-4 (LC 8), 3=-13 (LC 8)
Max Grav 1=45 (LC 1), 3=48 (LC 15)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-25/20, 2-3=-38/19
BOT CHORD 1-3=-9/7

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) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 4 lb uplift at joint 1 and 13 lb uplift at joint 3.
8) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard

March 31,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 28 OS
Lot 28 OS	V5	Valley	1	1	I45418642
					Job Reference (optional)

Wheeler Lumber, Waverly, KS - 66871,

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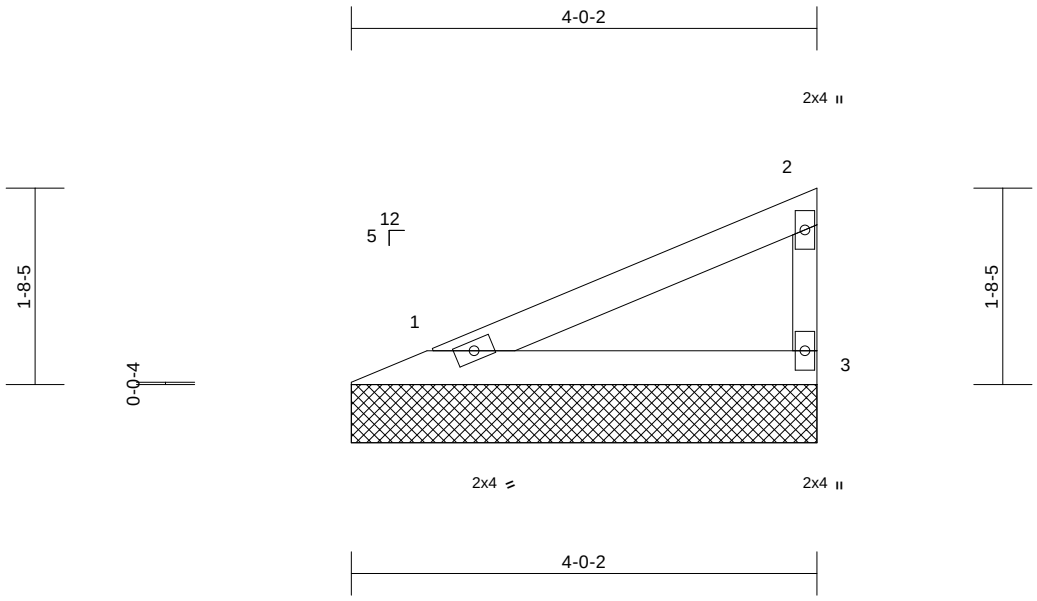

Scale = 1:19.8

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	0.18	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	0.00	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 4-0-11 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (size) 1=4-0-2, 3=4-0-2
Max Horiz 1=59 (LC 5)
Max Uplift 1=-21 (LC 8), 3=-33 (LC 8)
Max Grav 1=144 (LC 1), 3=144 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-52/35, 2-3=-112/52
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 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) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 21 lb uplift at joint 1 and 33 lb uplift at joint 3.
8) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard

March 31,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 28 OS
Lot 28 OS	V6	Valley	1	1	I45418643
					Job Reference (optional)

Wheeler Lumber, Waverly, KS - 66871,

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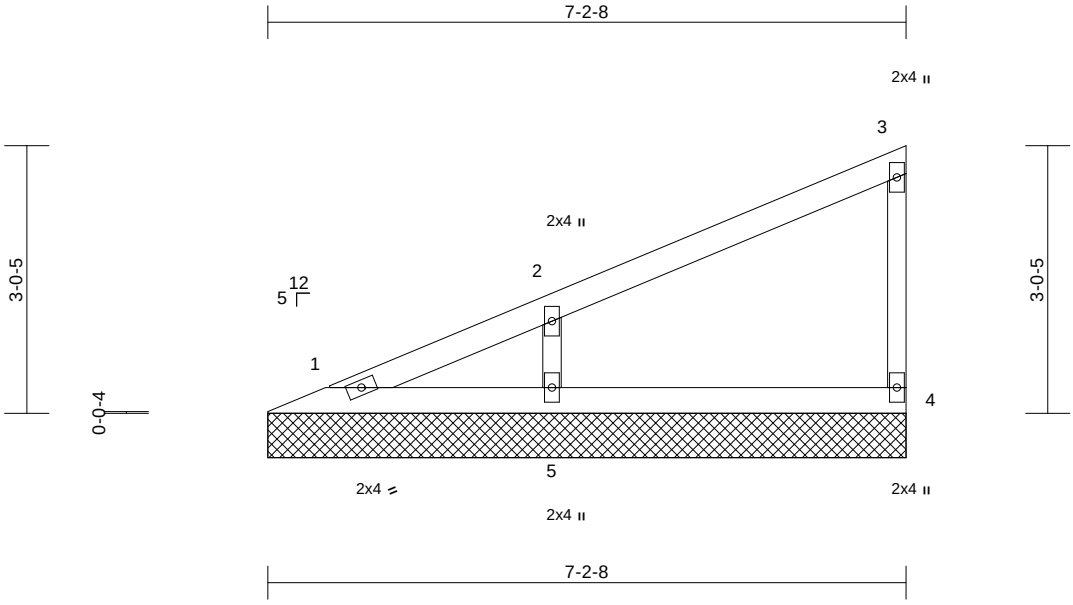


Scale = 1:26

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=7-2-8, 4=7-2-8, 5=7-2-8
Max Horiz 1=117 (LC 5)
Max Uplift 4=-27 (LC 8), 5=-99 (LC 8)
Max Grav 1=68 (LC 16), 4=142 (LC 1), 5=374 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-96/50, 2-3=-90/32, 3-4=-110/45
BOT CHORD 1-5=-38/29, 4-5=-38/29
WEBS 2-5=-291/149

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) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 27 lb uplift at joint 4 and 99 lb uplift at joint 5.
8) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard

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

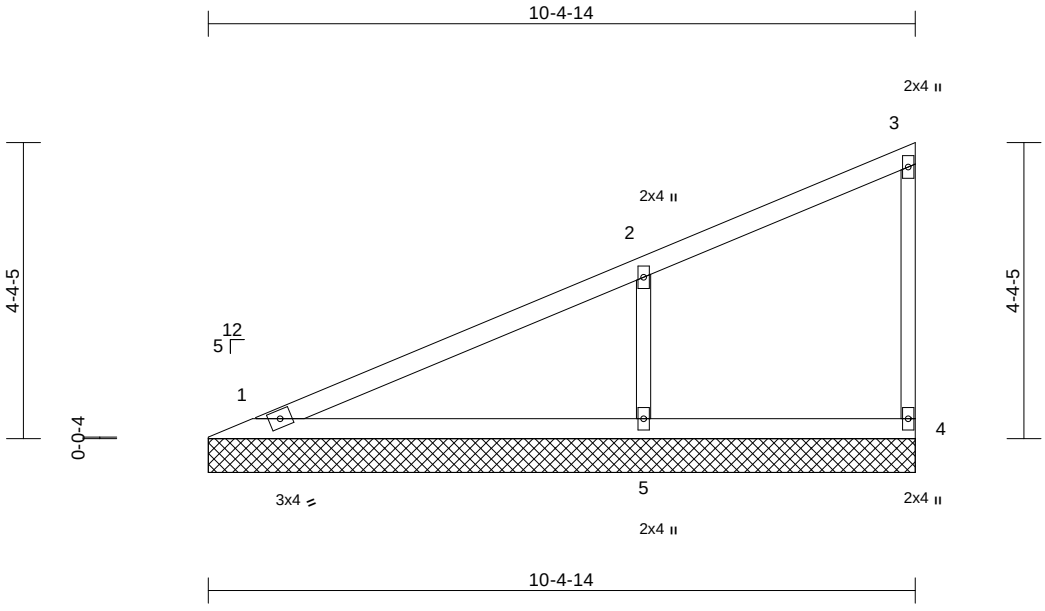
March 31,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 28 OS	
Lot 28 OS	V7	Valley	1	1	Job Reference (optional)	I45418644

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.43 S Mar 22 2021 Print: 8.430 S Mar 22 2021 MiTek Industries, Inc. Tue Mar 30 10:11:35 ID:VxWg?wA2R3MakUkj2l0tcxyD2rv-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f



Scale = 1:33.9

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	0.41	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.22	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: 29 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=10-4-14, 4=10-4-14, 5=10-4-14
Max Horiz 1=175 (LC 7)
Max Uplift 1=-4 (LC 8), 4=-23 (LC 5), 5=-147 (LC 8)
Max Grav 1=207 (LC 1), 4=103 (LC 1), 5=553 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD	1-2=-134/87, 2-3=-111/34, 3-4=-83/35
BOT CHORD	1-5=-57/43, 4-5=-57/43
WEBS	2-5=-417/204

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) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 4 lb uplift at joint 1, 23 lb uplift at joint 4 and 147 lb uplift at joint 5.
8) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard

March 31,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 28 OS
Lot 28 OS	V8	Valley	1	1	I45418645
					Job Reference (optional)

Wheeler Lumber, Waverly, KS - 66871,

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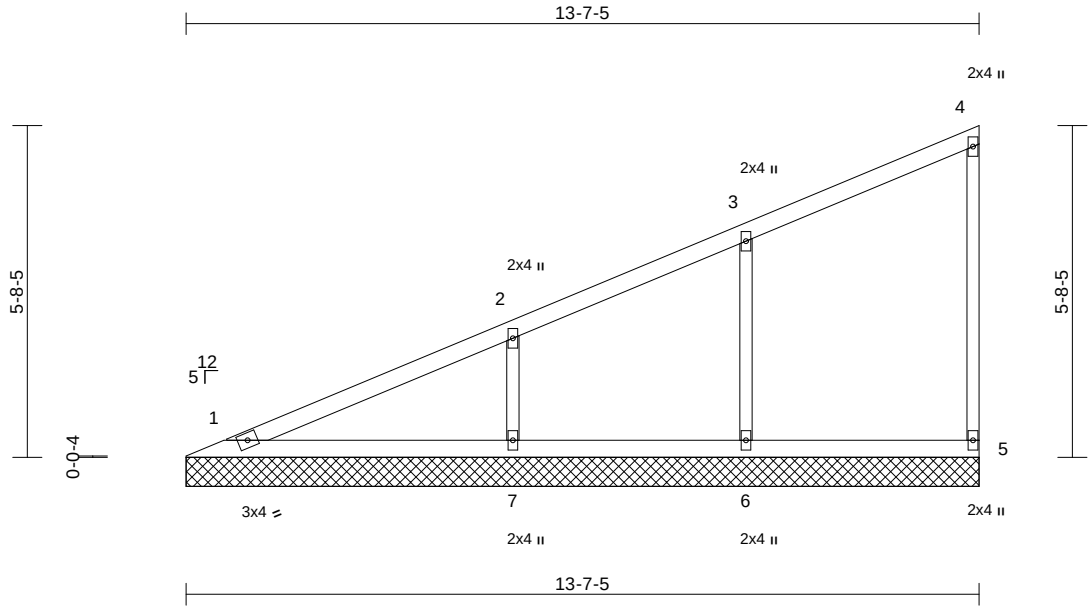

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Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.29	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.18	Vert(TL)	n/a	-	n/a	999		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.10	Horiz(TL)	0.00	5	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S							Weight: 40 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=13-7-5, 5=13-7-5, 6=13-7-5, 7=13-7-5
Max Horiz 1=233 (LC 5)
Max Uplift 5=-32 (LC 5), 6=-95 (LC 8), 7=-123 (LC 8)
Max Grav 1=209 (LC 16), 5=178 (LC 2), 6=407 (LC 2), 7=471 (LC 2)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD	1-2=-187/72, 2-3=-145/45, 3-4=-120/45, 4-5=-114/45
BOT CHORD	1-7=-75/57, 6-7=-75/57, 5-6=-75/57
WEBS	3-6=-284/137, 2-7=-349/177

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, with BCDL = 10.0psf.
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 32 lb uplift at joint 5, 95 lb uplift at joint 6 and 123 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

March 31,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 28 OS
Lot 28 OS	V9	Valley	1	1	I45418646
					Job Reference (optional)

Wheeler Lumber, Waverly, KS - 66871,

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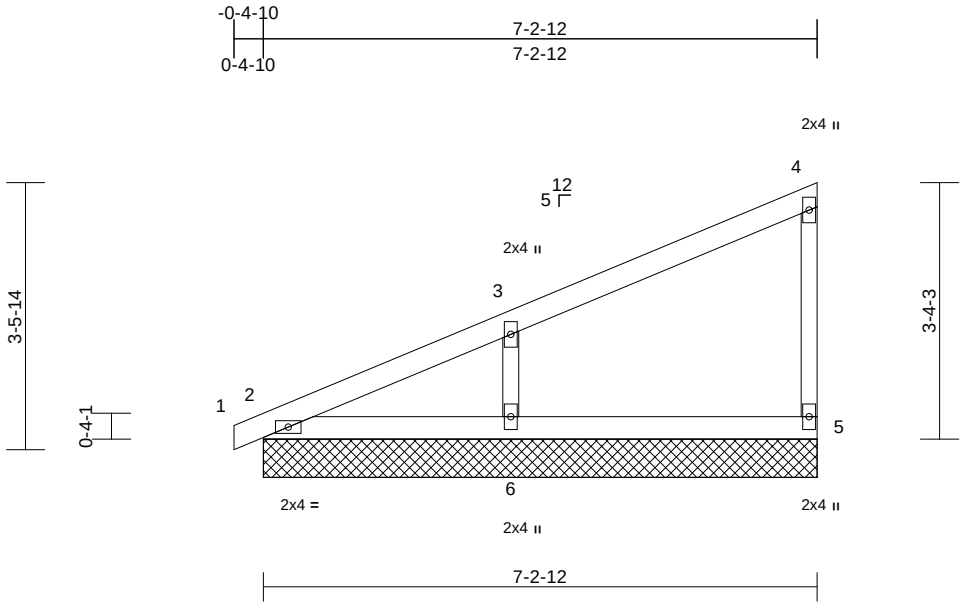

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Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.21	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.11	Vert(CT)	n/a	-	n/a	999		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.06	Horz(CT)	0.00	5	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-P							Weight: 21 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) 2=7-2-12, 5=7-2-12, 6=7-2-12
Max Horiz 2=134 (LC 5)
Max Uplift 2=-1 (LC 4), 5=-24 (LC 8), 6=-107 (LC 8)
Max Grav 2=129 (LC 1), 5=138 (LC 1), 6=401 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/8, 2-3=-105/57, 3-4=-95/31, 4-5=-108/43
BOT CHORD 2-6=-43/32, 5-6=-43/32
WEBS 3-6=-311/161

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) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 24 lb uplift at joint 5, 1 lb uplift at joint 2 and 107 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

March 31,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 28 OS
Lot 28 OS	V10	Valley	1	1	I45418647
					Job Reference (optional)

Wheeler Lumber, Waverly, KS - 66871,

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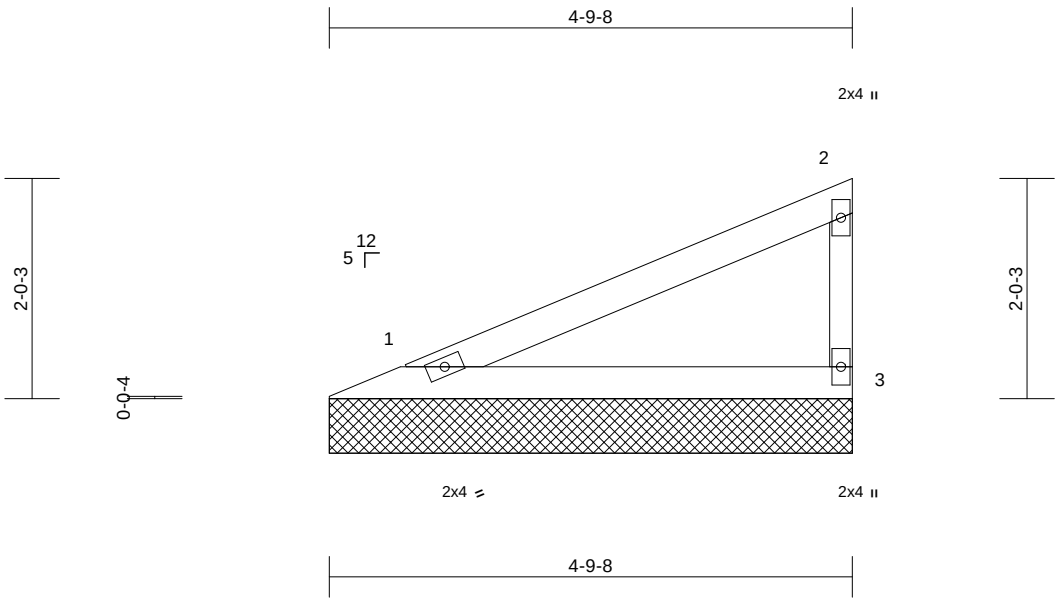

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Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.29	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.16	Vert(TL)	n/a	-	n/a	999		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.00	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 4-10-1 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (size) 1=4-9-8, 3=4-9-8
Max Horiz 1=73 (LC 5)
Max Uplift 1=-26 (LC 8), 3=-41 (LC 8)
Max Grav 1=179 (LC 1), 3=179 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-65/43, 2-3=-139/65
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 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) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 26 lb uplift at joint 1 and 41 lb uplift at joint 3.
8) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

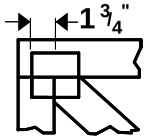
LOAD CASE(S) Standard

March 31,2021

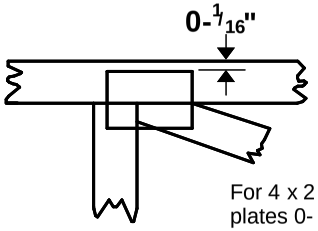
MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Symbols

PLATE LOCATION AND ORIENTATION



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



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

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

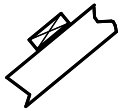
*** Plate location details available in MiTek 20/20 software or upon request.**

PLATE SIZE

4 x 4

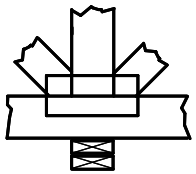
The first dimension is the plate width measured perpendicular to slots. Second dimension is the length parallel to slots.

LATERAL BRACING LOCATION



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

BEARING

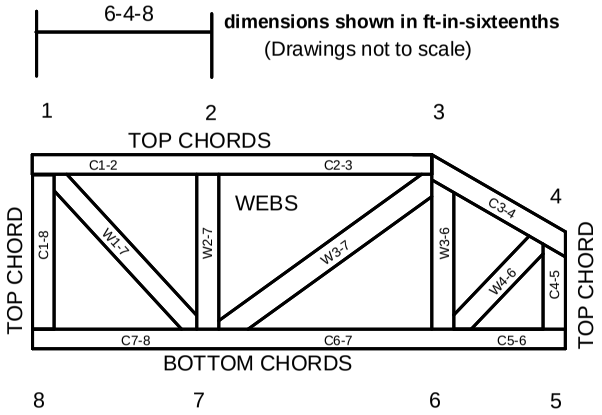


Indicates location where bearings (supports) occur. Icons vary but reaction section indicates joint number where bearings occur. Min size shown is for crushing only.

Industry Standards:

ANSI/TPI1: National Design Specification for Metal Plate Connected Wood Truss Construction.
DSB-89: Design Standard for Bracing.
BCSI: Building Component Safety Information, Guide to Good Practice for Handling, Installing & Bracing of Metal Plate Connected Wood Trusses.

Numbering System



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

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

PRODUCT CODE APPROVALS

ICC-ES Reports:

ESR-1311, ESR-1352, ESR1988
ER-3907, ESR-2362, ESR-1397, ESR-3282

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

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

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

General Safety Notes

Failure to Follow Could Cause Property Damage or Personal Injury

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

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