



RE: 210486
Lot 104 H4

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

Site Information:

Customer: Project Name: 210486
Lot/Block:
Address:
City:

Model:
Subdivision:
State:

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

Design Code: IRC2018/TPI2014
Wind Code: N/A
Roof Load: 45.0 psf

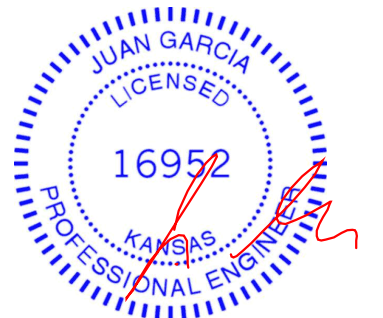
Design Program: MiTek 20/20 8.4
Wind Speed: 115 mph
Floor Load: N/A psf

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

No.	Seal#	Truss Name	Date	No.	Seal#	Truss Name	Date
1	I45348868	A1	6/29/2021	21	I45348888	E1	6/29/2021
2	I45348869	A2	6/29/2021	22	I45348889	E2	6/29/2021
3	I45348870	A3	6/29/2021	23	I45348890	E3	6/29/2021
4	I45348871	A4	6/29/2021	24	I45348891	E4	6/29/2021
5	I45348872	B1	6/29/2021	25	I45348892	G1	6/29/2021
6	I45348873	B2	6/29/2021	26	I45348893	G2	6/29/2021
7	I45348874	B3	6/29/2021	27	I45348894	H1	6/29/2021
8	I45348875	C1	6/29/2021	28	I45348895	H2	6/29/2021
9	I45348876	C2	6/29/2021	29	I45348896	H3	6/29/2021
10	I45348877	C3	6/29/2021	30	I45348897	J1	6/29/2021
11	I45348878	C4	6/29/2021	31	I45348898	J2	6/29/2021
12	I45348879	C5	6/29/2021	32	I45348899	J3	6/29/2021
13	I45348880	C6	6/29/2021	33	I45348900	J7	6/29/2021
14	I45348881	D1	6/29/2021	34	I45348901	J8	6/29/2021
15	I45348882	D2	6/29/2021	35	I45348902	J9	6/29/2021
16	I45348883	D3	6/29/2021	36	I45348903	J10	6/29/2021
17	I45348884	D4	6/29/2021	37	I45348904	J11	6/29/2021
18	I45348885	D5	6/29/2021	38	I45348905	J12	6/29/2021
19	I45348886	D6	6/29/2021	39	I45348906	J13	6/29/2021
20	I45348887	D7	6/29/2021	40	I45348907	J14	6/29/2021

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: Garcia, Juan
My license renewal date for the state of Kansas is April 30, 2022.
Kansas COA: E-943

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.



June 29, 2021



RE: 210486 - Lot 104 H4

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

Site Information:

Project Customer: Project Name: 210486

Lot/Block:

Subdivision:

Address:

City, County:

State:

No.	Seal#	Truss Name	Date
41	I45348908	J15	6/29/2021
42	I45348909	J16	6/29/2021
43	I45348910	J17	6/29/2021
44	I45348911	LAY1	6/29/2021
45	I45348912	LAY2	6/29/2021
46	I45348913	LAY3	6/29/2021
47	I45348914	LAY4	6/29/2021
48	I45348915	LAY5	6/29/2021



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Model:
Subdivision:
State:

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

Design Code: IRC2018/TPI2014
Wind Code: N/A
Roof Load: 45.0 psf

Design Program: MiTek 20/20 8.4
Wind Speed: 115 mph
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	I45348868	A1	6/29/2021	21	I45348888	E1	6/29/2021
2	I45348869	A2	6/29/2021	22	I45348889	E2	6/29/2021
3	I45348870	A3	6/29/2021	23	I45348890	E3	6/29/2021
4	I45348871	A4	6/29/2021	24	I45348891	E4	6/29/2021
5	I45348872	B1	6/29/2021	25	I45348892	G1	6/29/2021
6	I45348873	B2	6/29/2021	26	I45348893	G2	6/29/2021
7	I45348874	B3	6/29/2021	27	I45348894	H1	6/29/2021
8	I45348875	C1	6/29/2021	28	I45348895	H2	6/29/2021
9	I45348876	C2	6/29/2021	29	I45348896	H3	6/29/2021
10	I45348877	C3	6/29/2021	30	I45348897	J1	6/29/2021
11	I45348878	C4	6/29/2021	31	I45348898	J2	6/29/2021
12	I45348879	C5	6/29/2021	32	I45348899	J3	6/29/2021
13	I45348880	C6	6/29/2021	33	I45348900	J7	6/29/2021
14	I45348881	D1	6/29/2021	34	I45348901	J8	6/29/2021
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18	I45348885	D5	6/29/2021	38	I45348905	J12	6/29/2021
19	I45348886	D6	6/29/2021	39	I45348906	J13	6/29/2021
20	I45348887	D7	6/29/2021	40	I45348907	J14	6/29/2021

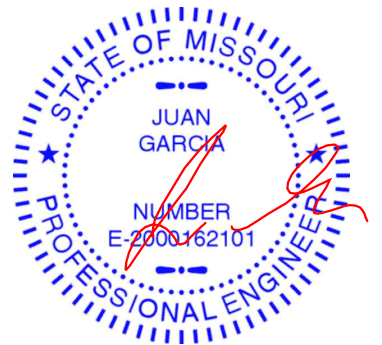
The truss drawing(s) referenced above have been prepared by
MiTek USA, Inc. under my direct supervision
based on the parameters provided by Wheeler - Waverly.

Truss Design Engineer's Name: Garcia, Juan

My license renewal date for the state of Missouri is December 31, 2022.

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.



June 29, 2021



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No.	Seal#	Truss Name	Date
41	I45348908	J15	6/29/2021
42	I45348909	J16	6/29/2021
43	I45348910	J17	6/29/2021
44	I45348911	LAY1	6/29/2021
45	I45348912	LAY2	6/29/2021
46	I45348913	LAY3	6/29/2021
47	I45348914	LAY4	6/29/2021
48	I45348915	LAY5	6/29/2021

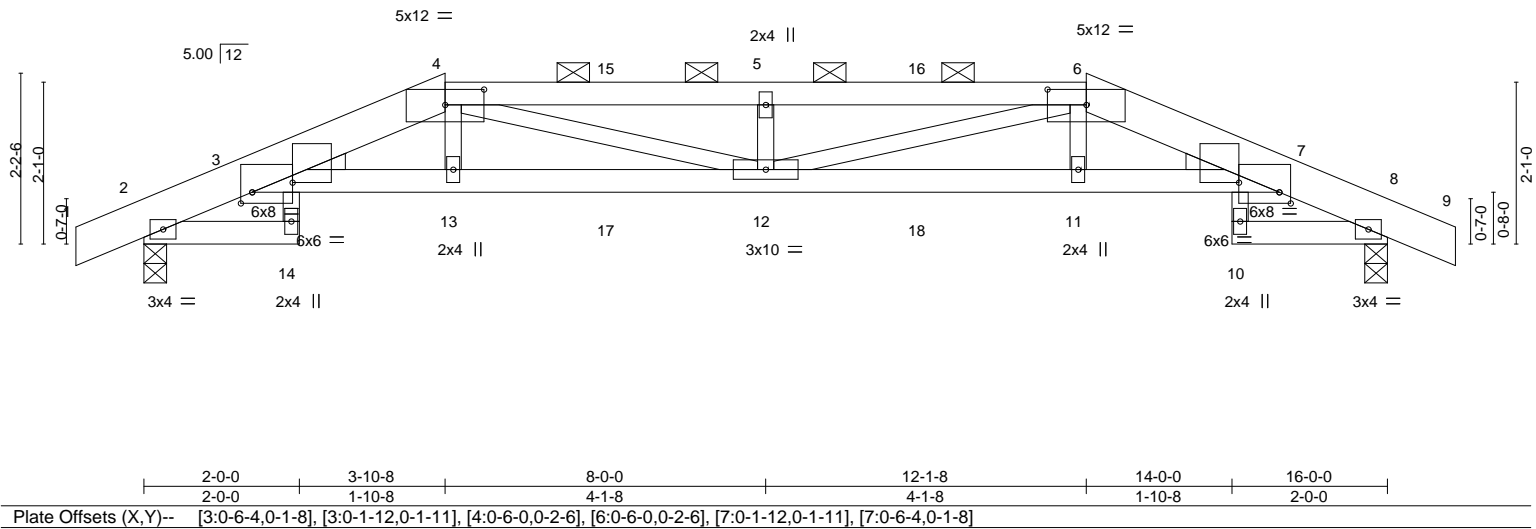
Job 210486	Truss A1	Truss Type Hip Girder	Qty 1	Ply 1	Lot 104 H4	I45348868
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Wheeler Lumber, Waverly, KS 66871

ID:Lek3CAANj_gYbKvtCQHtmQzKvNM-55EVuoFUrY5EkFZy4gkXK9EWTCQFmZYsrIsIzXQbs

-0-10-8	2-0-0	3-10-8	8-0-0	12-1-8	14-0-0	16-0-0	16-10-8
0-10-8	2-0-0	1-10-8	4-1-8	4-1-8	1-10-8	2-0-0	0-10-8

Scale = 1:29.6



LOADING (psf)	SPACING-	CSI.	DEFL.	PLATES	GRIP
TCLL 25.0	2-0-0	TC 0.79	in (loc) l/defl L/d	MT20	197/144
TCDL 10.0	Plate Grip DOL 1.15	BC 0.54	Vert(LL) -0.22 12 >862 360		
BCLL 0.0 *	Lumber DOL 1.15	WB 0.31	Vert(CT) -0.40 12 >472 240		
BCDL 10.0	Rep Stress Incr NO	Matrix-S	Horz(CT) 0.22 8 n/a n/a		
	Code IRC2018/TPI2014		Wind(LL) 0.17 12 >999 240		
				Weight: 64 lb	FT = 10%

LUMBER-
TOP CHORD 2x6 SP DSS *Except*
4-6: 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2 *Except*
3-7: 2x4 SPF 2100F 1.8E
WEBS 2x3 SPF No.2
WEDGE
Left: 2x3 SPF No.2, Right: 2x3 SPF No.2

BRACING-
TOP CHORD Structural wood sheathing directly applied or 4-1-4 oc purlins, except 2-0-0 oc purlins (2-5-4 max.): 4-6.
BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.

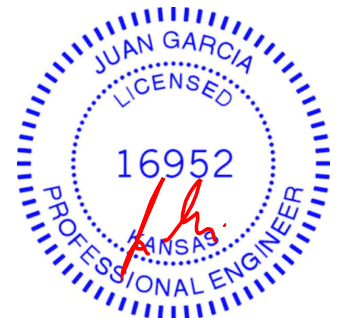
REACTIONS. (lb/size) 2=1155/0-3-8, 8=1155/0-3-8
Max Horz 2=35(LC 12)
Max Uplift 2=183(LC 4), 8=183(LC 5)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=554/107, 3-4=3201/498, 4-15=3908/612, 5-15=3908/612, 5-16=3908/612, 6-16=3908/612, 6-7=3201/497, 7-8=554/107
BOT CHORD 3-13=439/3075, 13-17=439/3107, 12-17=439/3107, 12-18=437/3107, 11-18=437/3107, 7-11=437/3075
WEBS 4-13=1/351, 4-12=127/893, 5-12=334/161, 6-12=127/893, 6-11=1/351

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
 - Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
 - Provide adequate drainage to prevent water ponding.
 - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
 - * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
 - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 183 lb uplift at joint 2 and 183 lb uplift at joint 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.
 - Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
 - Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 71 lb down and 52 lb up at 3-10-8, 76 lb down and 52 lb up at 6-0-0, 76 lb down and 52 lb up at 8-0-0, and 76 lb down and 52 lb up at 10-0-0, and 71 lb down and 52 lb up at 12-1-8 on top chord, and 230 lb down and 67 lb up at 3-10-8, 45 lb down at 6-0-0, 45 lb down at 8-0-0, and 45 lb down at 10-0-0, and 230 lb down and 67 lb up at 12-0-12 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
 - In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

LOAD CASE(S) Standard

Continued on page 2



March 25, 2021

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

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



16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 104 H4	I45348868
210486	A1	Hip Girder	1	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS 66871

8.430 s Nov 30 2020 MiTek Industries, Inc. Thu Mar 25 10:08:56 2021 Page 2
ID:Lek3CAANj_gYbKvtCQHtmQzKvNM-Zlot68G7c_gyruqmWnBz3YiPGtXf_Dpi5VLrOCzXQbr

LOAD CASE(S) Standard

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

Uniform Loads (plf)

Vert: 1-4=-70, 4-6=-70, 6-9=-70, 2-14=-20, 3-7=-20, 8-10=-20

Concentrated Loads (lb)

Vert: 4=-27(F) 6=-27(F) 13=-230(F) 12=-45(F) 5=-27(F) 11=-230(F) 15=-27(F) 16=-27(F) 17=-45(F) 18=-45(F)

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Safety Information available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601 **ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component**



16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job 210486	Truss A2	Truss Type Hip	Qty 1	Ply 1	Lot 104 H4	145348869
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Wheeler Lumber, Waverly, KS - 66871,

8.430 s Feb 12 2021 MiTek Industries, Inc. Wed Mar 24 16:09:03 2021 Page 1

ID:Lek3CAANj_gYbKvtCQHtmQzKvNM-rE1eqigTVWBONwQRywyWgqnQmTNQukzUXnnCzXgQE

Job Reference (optional)

-0-10-8	2-0-0	5-10-8	10-1-8	14-0-0	16-0-0	16-10-8
0-10-8	2-0-0	3-10-8	4-3-0	3-10-8	2-0-0	0-10-8

Scale = 1:29.9

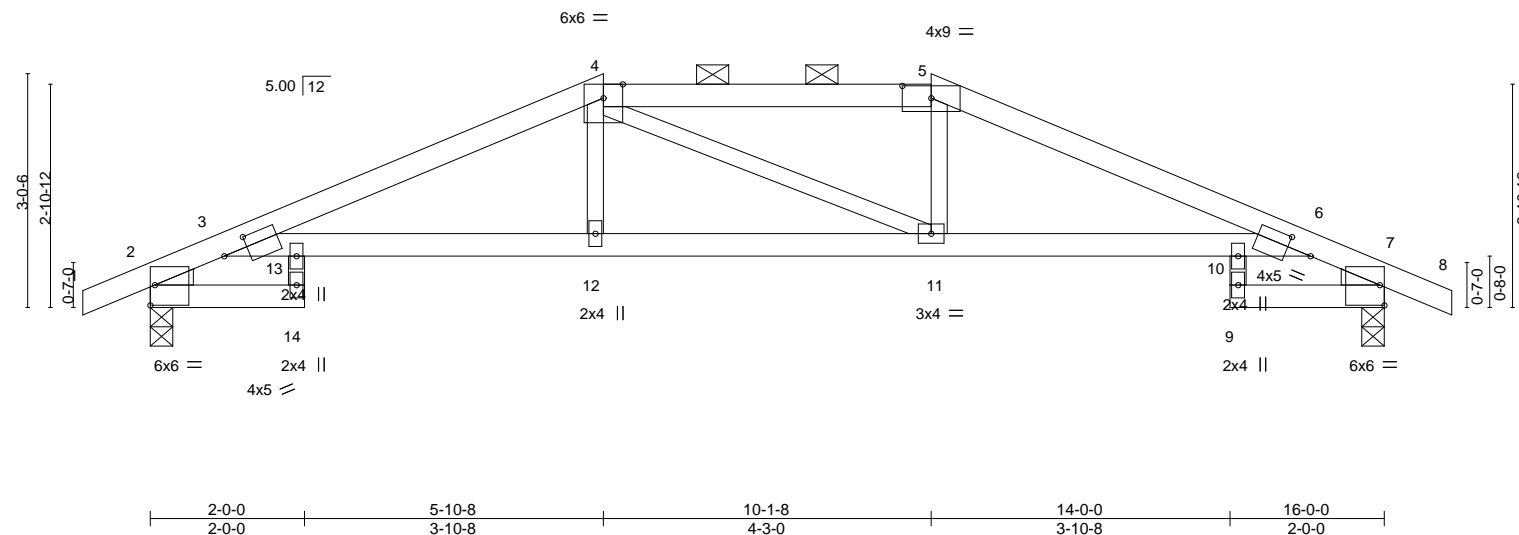


Plate Offsets (X,Y)--		[2:Edge,0-3-2], [3:0-3-13,0-1-10], [5:0-4-8,0-1-15], [6:0-3-13,0-1-10], [7:Edge,0-3-2]	
LOADING (psf)	SPACING-	CSI.	DEFL.
TCLL 25.0	Plate Grip DOL 1.15	TC 0.47	in (loc) l/defl L/d
TCDL 10.0	Lumber DOL 1.15	BC 0.58	Vert(LL) -0.13 10-11 >999 360
BCLL 0.0 *	Rep Stress Incr YES	WB 0.10	Vert(CT) -0.24 10-11 >798 240
BCDL 10.0	Code IRC2018/TPI2014	Matrix-S	Horz(CT) 0.21 7 n/a n/a
			Wind(LL) 0.09 12-13 >999 240
			PLATES MT20
			GRIP 197/144
			Weight: 50 lb FT = 10%

LUMBER-

TOP CHORD 2x4 SPF 2100F 1.8E *Except*
4-5: 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2 *Except*
3-6: 2x4 SPF 2100F 1.8E
WEBS 2x3 SPF No.2
WEDGE
Left: 2x3 SPF No.2, Right: 2x3 SPF No.2

BRACING-

TOP CHORD Structural wood sheathing directly applied or 5-6-0 oc purlins, except
2-0-0 oc purlins (4-11-1 max.): 4-5.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing. Except:
10-0-0 oc bracing: 10-11

REACTIONS.

(size) 2=0-3-8, 7=0-3-8
Max Horz 2=-48(LC 9)
Max Uplift 2=-96(LC 8), 7=-96(LC 9)
Max Grav 2=778(LC 1), 7=778(LC 1)

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

TOP CHORD 2-3=-486/61, 3-4=-1514/157, 4-5=-1364/164, 5-6=-1513/153, 6-7=-486/68
BOT CHORD 3-13=-91/1374, 12-13=-91/1374, 11-12=-94/1365, 10-11=-84/1373, 6-10=-84/1373

NOTES-

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- Provide adequate drainage to prevent water ponding.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 7.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



March 25, 2021

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 104 H4	I45348870
210486	A3	Hip	1	1		

Wheeler Lumber, Waverly, KS - 66871,

8.430 s Feb 12 2021 MiTek Industries, Inc. Wed Mar 24 16:09:05 2021 Page 1

ID:Lek3CAANj_gYbKvtCQHtmQzKvNM-oc9OENhj07S6dEaq4KyC1xI8SERarKc1Qo0ur4zXgQC

Job Reference (optional)

-0-10-8	2-0-0	7-10-8	8-1-8	14-0-0	15-8-0
0-10-8	2-0-0	5-10-8	0-3-0	5-10-8	1-8-0

Scale = 1:29.3

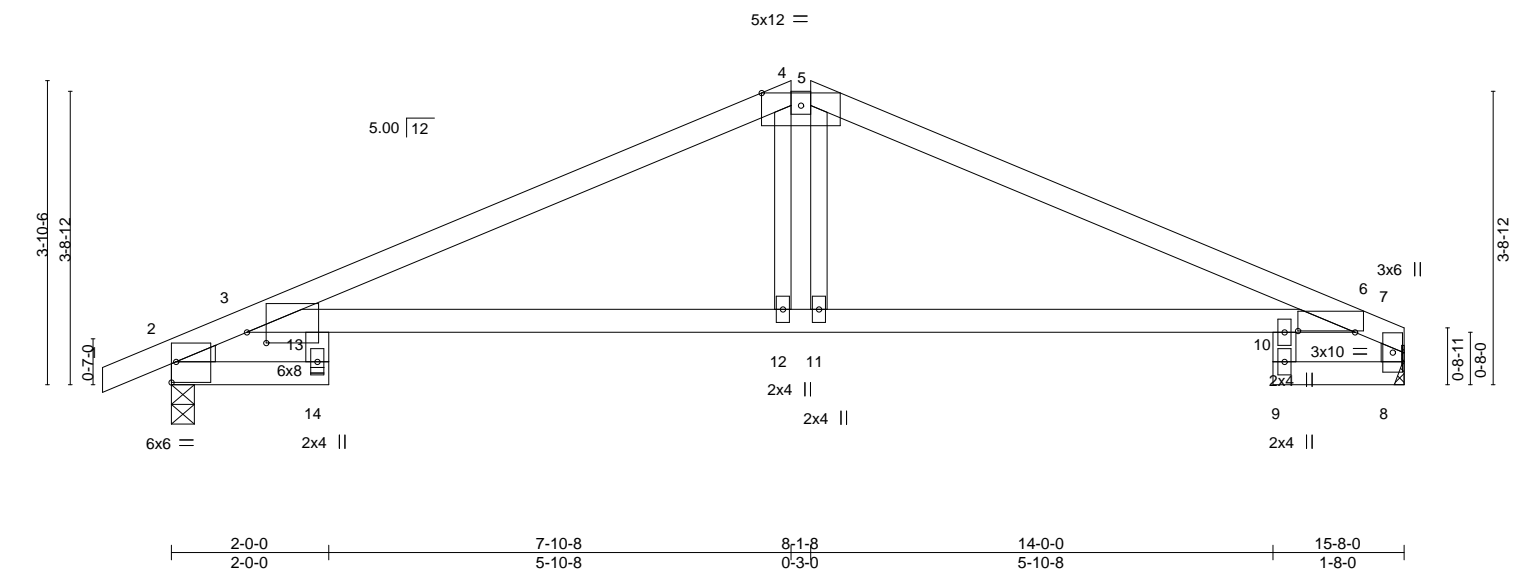


Plate Offsets (X,Y)--		[2:Edge,0-3-2], [4:0-6-0,0-1-15], [6:0-8-11,0-0-3], [13:0-2-15,0-1-10]	
LOADING (psf)	SPACING	CSI	DEFL.
TCLL 25.0	Plate Grip DOL 1.15	TC 0.58	in (loc) l/defl L/d
TCDL 10.0	Lumber DOL 1.15	BC 0.66	Vert(LL) -0.19 12-13 >973 360
BCLL 0.0 *	Rep Stress Incr YES	WB 0.08	Vert(CT) -0.36 12-13 >513 240
BCDL 10.0	Code IRC2018/TPI2014	Matrix-S	Horz(CT) 0.24 8 n/a n/a
			Wind(LL) 0.18 12-13 >999 240
			Weight: 47 lb FT = 10%

LUMBER-

TOP CHORD 2x4 SPF 2100F 1.8E *Except*
4-5: 2x4 SPF No.2, 5-7: 2x4 SPF 2400F 2.0E
BOT CHORD 2x4 SPF No.2 *Except*
3-6: 2x4 SPF 2100F 1.8E
WEBS 2x4 SPF 2100F 1.8E *Except*
4-12,5-11: 2x3 SPF No.2, 7-8: 2x4 SPF No.2
WEDGE
Left: 2x3 SPF No.2

REACTIONS.

(size) 2=0-3-8, 8=Mechanical
Max Horz 2=66(LC 8)
Max Uplift 2=-113(LC 8), 8=-86(LC 9)
Max Grav 2=766(LC 1), 8=690(LC 1)

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

TOP CHORD 2-3=-483/64, 3-4=-1256/123, 4-5=-1102/149, 5-6=-1255/140, 6-7=-264/37,
7-8=-726/112
BOT CHORD 3-13=-67/1110, 12-13=-67/1110, 11-12=-69/1102, 10-11=-69/1106, 6-10=-69/1106

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) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 3) Provide adequate drainage to prevent water ponding.
- 4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 5) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 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 100 lb uplift at joint(s) 8 except (jt=lb) 2=113.
- 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.



March 25, 2021

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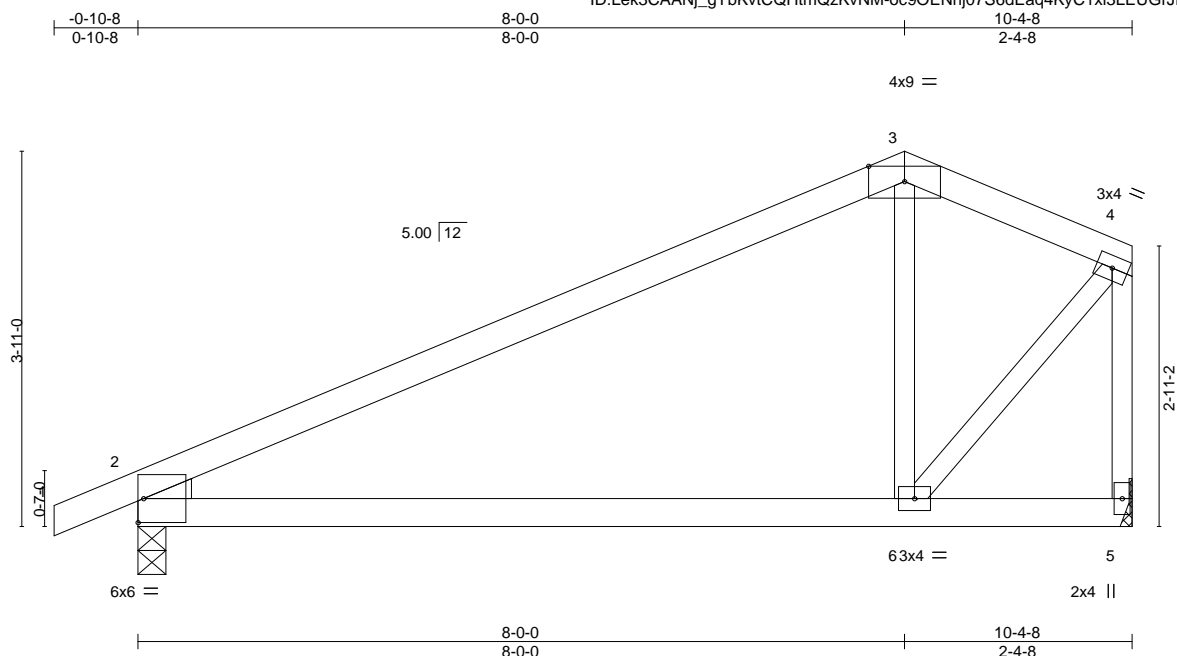
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 104 H4	I45348871
210486	A4	Common	1	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS - 66871,

8.430 s Feb 12 2021 MiTek Industries, Inc. Wed Mar 24 16:09:05 2021 Page 1

ID:Lek3CAANj_gYbKvtCQHtmQzKvNM-oc9OENhj07S6dEaq4KyC1xl3LEUGrJB1Qo0ur4zXgQC



LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in	(loc)	I/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.91	Vert(LL)	-0.10	2-6	>999	360	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.49	Vert(CT)	-0.24	2-6	>517	240		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.17	Horz(CT)	0.00	5	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-S	Wind(LL)	0.08	2-6	>999	240		
									Weight: 34 lb	FT = 10%

LUMBER-

TOP CHORD 2x4 SPF No.2
 BOT CHORD 2x4 SPF No.2
 WEBS 2x3 SPF No.2
 WEDGE
 Left: 2x3 SPF No.2

BRACING-

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

REACTIONS.

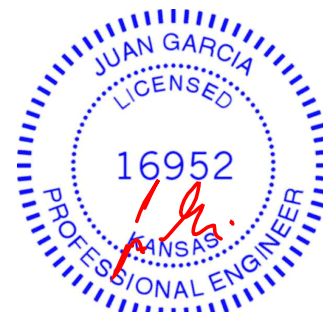
(size) 2=0-3-8, 5=Mechanical
 Max Horz 2=116(LC 5)
 Max Uplift 2=-93(LC 8), 5=-61(LC 8)
 Max Grav 2=531(LC 1), 5=452(LC 1)

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

TOP CHORD 2-3=-468/47, 3-4=-344/82, 4-5=-506/64
 BOT CHORD 2-6=-45/323
 WEBS 4-6=-78/508

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) gable end 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 3-6-0 tall by 2-0-0 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 100 lb uplift at joint(s) 2, 5.
- 7) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



March 25, 2021

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

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



16023 Swingley Ridge Rd
 Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 104 H4	I45348872
210486	B1	Common Supported Gable	1	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS - 66871,

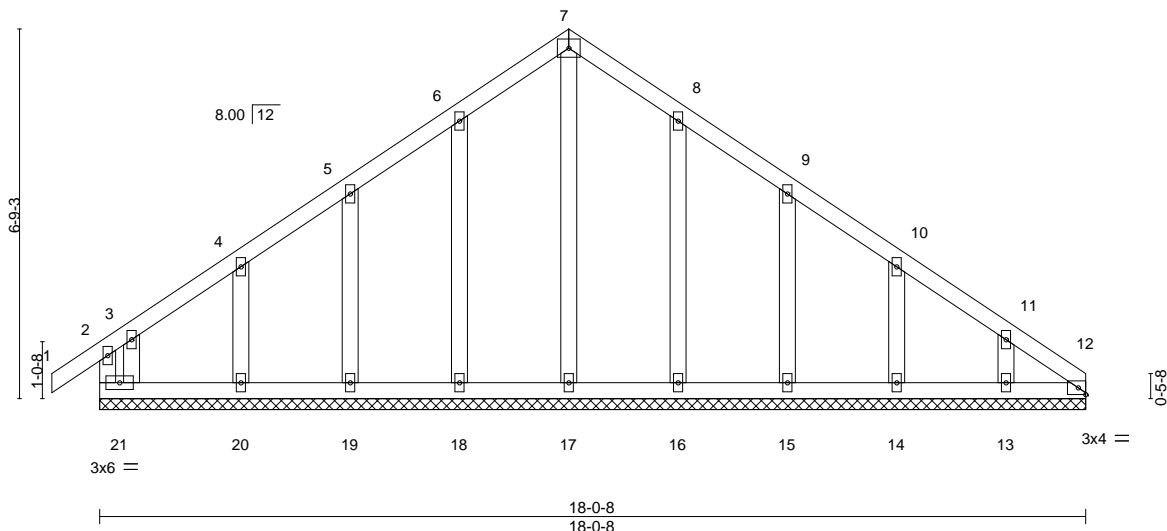
8.430 s Feb 12 2021 MiTek Industries, Inc. Wed Mar 24 16:09:06 2021 Page 1

ID:Lek3CAANj_gYbKvtCQHtmQzKvNM-GpjnSjilnRazEN80d1TRa8lRAdxXanDAfSISOXzXgQB

0-10-8 8-7-0 18-0-8
0-10-8 8-7-0 9-5-8

4x5 =

Scale = 1:42.2



LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.07	Vert(LL)	-0.00	1	n/r	120	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.04	Vert(CT)	-0.00	1	n/r	120		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.12	Horz(CT)	0.00	12	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-S						Weight: 81 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" oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 6'-0" oc bracing.

REACTIONS.

All bearings 18'-0-8.

(lb) - Max Horz 21=185(LC 6)

Max Uplift All uplift 100 lb or less at joint(s) 21, 12, 18, 19, 16, 15, 14, 13 except 20=115(LC 8)

Max Grav All reactions 250 lb or less at joint(s) 21, 12, 17, 18, 19, 20, 16, 15, 14, 13

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

NOTES-

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 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.
- All plates are 2x4 MT20 unless otherwise indicated.
- Gable requires continuous bottom chord bearing.
- Gable studs spaced at 2'-0" oc.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3'-6" tall by 2'-0" wide will fit between the bottom chord and any other members.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 21, 12, 18, 19, 16, 15, 14, 13 except (jt=lb) 20=115.
- Beveled plate or shim required to provide full bearing surface with truss chord at joint(s) 12.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



March 25, 2021

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



16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 104 H4	I45348873
210486	B2	Roof Special	1	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS - 66871,

8.430 s Feb 12 2021 MiTek Industries, Inc. Wed Mar 24 16:09:07 2021 Page 1

ID:Lek3CAANj_gYbKvtCQHtmQzKvNM-k?H9f3jzYkipsXjCBL_g7MrOa15BJ5UKt6V?wzzXgQA

0-10-8	2-11-3	8-7-0	16-0-2	18-0-8
0-10-8	2-11-3	5-7-13	7-5-2	2-0-6

6x6 =

Scale = 1:42.0

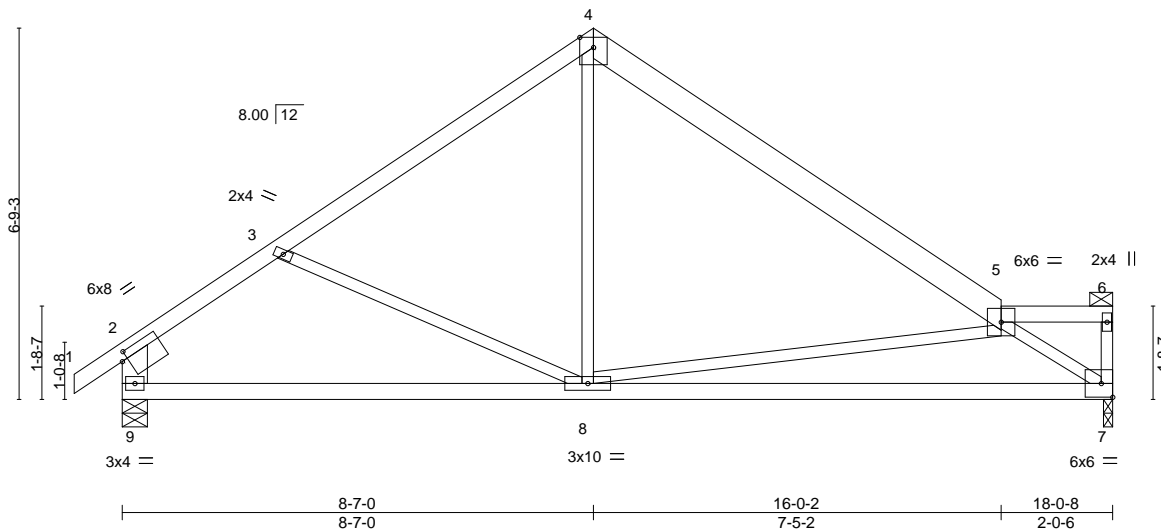


Plate Offsets (X,Y)-- [2:0-1-5,0-1-12]												
LOADING (psf)		SPACING- 2-0-0		CSI.		DEFL. in (loc) l/defl L/d				PLATES GRIP		
TCLL	25.0	Plate Grip DOL	1.15	TC	0.99	Vert(LL)	-0.20	7-8	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.72	Vert(CT)	-0.42	7-8	>507	240		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.63	Horz(CT)	0.02	7	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-S		Wind(LL)	0.05	7-8	>999	240	Weight: 73 lb	FT = 10%

LUMBER-

TOP CHORD 2x4 SPF No.2 *Except*
4-5: 2x6 SPF No.2
BOT CHORD 2x4 SPF No.2
WEBS 2x3 SPF No.2 *Except*
2-9: 2x6 SPF No.2

BRACING-

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

REACTIONS.

(size) 7=0-2-0, 9=0-5-8
Max Horz 9=198(LC 5)
Max Uplift 7=97(LC 9), 9=111(LC 8)
Max Grav 7=794(LC 1), 9=877(LC 1)

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

TOP CHORD 2-3=-952/161, 3-4=-791/132, 4-5=-853/125, 2-9=-794/148
BOT CHORD 8-9=-173/709, 7-8=-205/980
WEBS 4-8=0/413, 5-8=-424/250, 5-7=-1150/283

NOTES-

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- Provide adequate drainage to prevent water ponding.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- Provide mechanical connection (by others) of truss to bearing plate at joint(s) 7.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 7 except (jt=lb) 9=111.
- 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.
- Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



March 25, 2021

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 104 H4	I45348874
210486	B3	Roof Special	1	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS - 66871,

8.430 s Feb 12 2021 MiTek Industries, Inc. Wed Mar 24 16:09:08 2021 Page 1

ID:Lek3CAANj_gYbKvtCQHtmQzKvNM-CBrXtPjBJ2qgUhlPiSvvtZNBsRSsv2UUT6mEYSPzXgQ9

0-10-8	2-5-8	8-7-0	14-6-2	15-10-8	18-0-8
0-10-8	2-5-8	6-1-8	5-11-2	1-4-6	2-2-0

6x6 =

Scale = 1:42.3

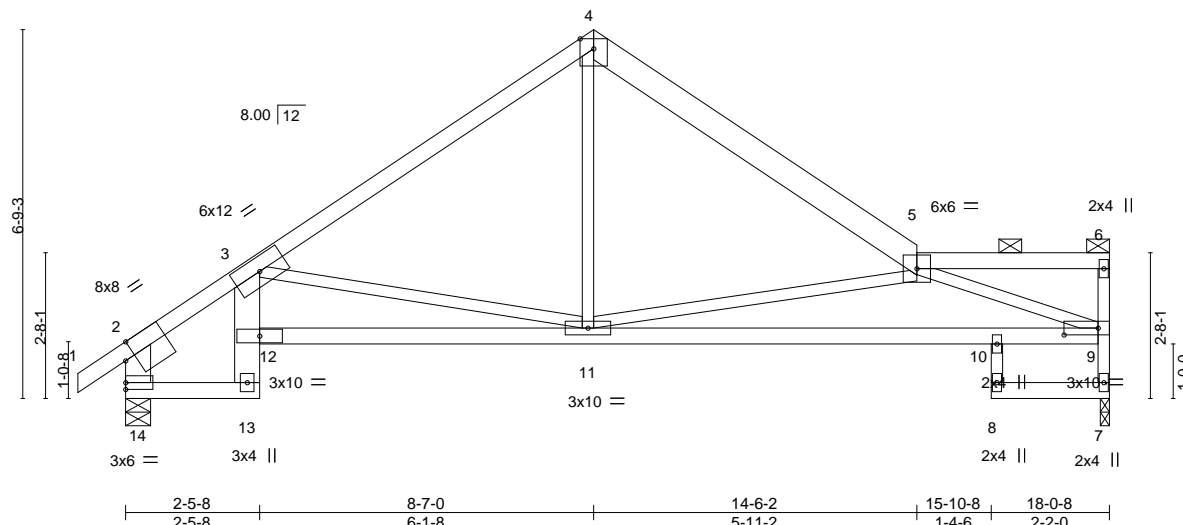


Plate Offsets (X,Y)--		[2:0-2-5,Edge], [9:0-7-8,0-1-8]									
LOADING (psf)		SPACING- 2-0-0		CSI.		DEFL. in (loc) l/defl L/d		PLATES		GRIP	
TCLL	25.0	Plate Grip DOL	1.15	TC	0.79	Vert(LL)	-0.18 10-11 >999 360	MT20	197/144		
TCDL	10.0	Lumber DOL	1.15	BC	0.69	Vert(CT)	-0.38 10-11 >559 240				
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.84	Horz(CT)	0.13 7 n/a n/a				
BCDL	10.0	Code IRC2018/TPI2014		Matrix-S		Wind(LL)	0.06 11-12 >999 240	Weight: 77 lb	FT = 10%		

LUMBER-

TOP CHORD 2x4 SPF No.2 *Except*
4-5: 2x6 SPF No.2
BOT CHORD 2x4 SPF No.2 *Except*
3-13: 2x6 SPF No.2
WEBS 2x3 SPF No.2 *Except*
2-14: 2x6 SPF No.2

BRACING-

TOP CHORD Structural wood sheathing directly applied or 5-1-15 oc purlins, except end verticals, and 2-0-0 oc purlins (6-0-0 max.): 5-6.
BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.

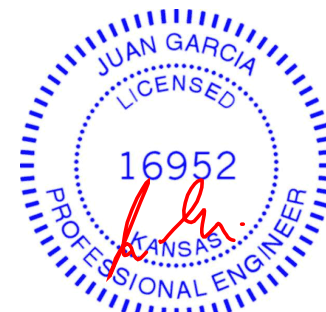
REACTIONS.

(size) 7=0-2-0, 14=0-5-8
Max Horz 14=211(LC 5)
Max Uplift 7=103(LC 9), 14=111(LC 8)
Max Grav 7=794(LC 1), 14=877(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-796/104, 3-4=-972/129, 4-5=-920/137, 7-9=-765/121, 2-14=-751/116
BOT CHORD 13-14=-133/567, 11-12=-361/1399, 10-11=-279/1536, 9-10=-279/1536
WEBS 3-11=-725/360, 4-11=0/525, 5-11=-863/279, 5-9=-1541/322

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) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 3) Provide adequate drainage to prevent water ponding.
- 4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 5) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 6) Provide mechanical connection (by others) of truss to bearing plate at joint(s) 7.
- 7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 7=103, 14=111.
- 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.



March 25, 2021

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 104 H4	I45348875
210486	C1	GABLE	1	1		

Wheeler Lumber, Waverly, KS - 66871,

8.430 s Feb 12 2021 MiTek Industries, Inc. Wed Mar 24 16:09:09 2021 Page 1

ID:Lek3CAANj_gYbKvtCQHtmQzKvNM-gOOv4lkD4MyX6rtbJA18Cnwn6prn_dLQ_6?rzXgQ8

0-10-8	18-8-13	20-3-8	26-8-7	31-6-0	33-8-8	35-10-8
0-10-8	18-8-13	1-6-11	6-4-15	4-9-9	2-2-8	2-2-0

Scale = 1:76.1

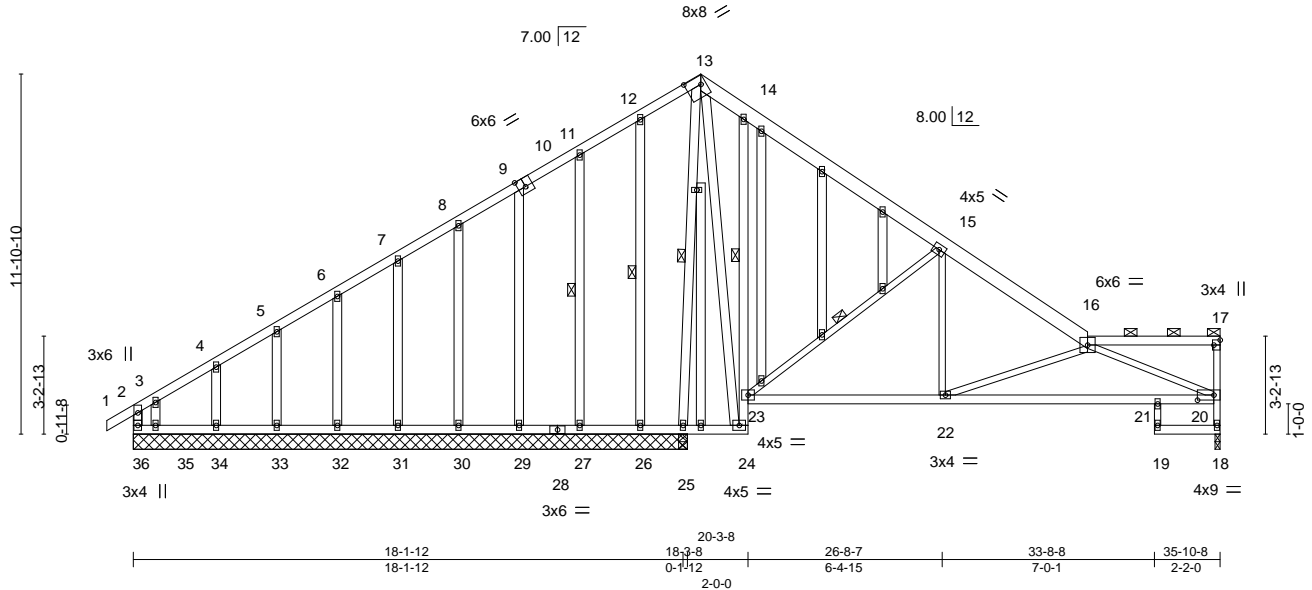


Plate Offsets (X,Y)-- [10:0-3-0,Edge], [13:0-6-0,0-3-4], [17:Edge,0-2-8], [20:0-6-8,0-2-0]

LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.73	Vert(LL)	-0.16	21-22	>999	360	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.58	Vert(CT)	-0.32	21-22	>662	240	
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.70	Horz(CT)	0.10	18	n/a	n/a	
BCDL 10.0	Code IRC2018/TPI2014		Matrix-S	Wind(LL)	0.04	22	>999	240	
								Weight: 246 lb	FT = 10%

LUMBER-

TOP CHORD 2x4 SPF No.2 *Except*
13-16: 2x6 SPF No.2
BOT CHORD 2x4 SPF No.2 *Except*
19-21: 2x3 SPF No.2
WEBS 2x3 SPF No.2 *Except*
13-25,13-24,2-36: 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.): 16-17.
BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing, Except: 10-0-0 oc bracing: 22-23,21-22,19-21.
WEBS 1 Row at midpt 14-23
1 Row at midpt 13-25, 15-23, 12-26, 11-27

REACTIONS.

All bearings 18-3-8 except (jt=length) 18=0-2-0.
(lb) - Max Horz 36=349(LC 5)
Max Uplift All uplift 100 lb or less at joint(s) 25, 26, 27, 29, 30, 31, 32, 33, 34 except 18=132(LC 9), 36=555(LC 15), 35=321(LC 8)
Max Grav All reactions 250 lb or less at joint(s) 26, 27, 29, 30, 31, 32, 33, 34 except 18=640(LC 1), 36=413(LC 5), 25=1191(LC 1), 25=1191(LC 1), 35=578(LC 15)

FORCES.

(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=314/505, 3-4=222/410, 4-5=191/394, 5-6=160/380, 6-7=129/365, 7-8=97/350, 8-9=66/335, 9-11=42/319, 11-12=23/312, 12-13=10/319, 13-14=117/298, 14-15=87/263, 15-16=646/161, 18-20=610/149, 2-36=261/323
BOT CHORD 35-36=284/110, 34-35=284/110, 33-34=284/110, 32-33=284/110, 31-32=284/110, 30-31=284/110, 29-30=284/110, 27-29=284/110, 26-27=284/110, 25-26=284/110, 23-24=847/355, 14-23=354/239, 22-23=110/481, 21-22=285/956, 20-21=272/973
WEBS 13-25=986/44, 13-24=309/776, 15-23=720/230, 15-22=0/444, 16-22=515/188, 16-20=965/303, 3-35=305/192

NOTES-

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 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.
- Provide adequate drainage to prevent water ponding.
- All plates are 2x4 MT20 unless otherwise indicated.
- Gable studs spaced at 2-0-0 oc.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- Provide mechanical connection (by others) of truss to bearing plate at joint(s) 18.

Continued on page 2



March 25, 2021

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

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



16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 104 H4	I45348875
210486	C1	GABLE	1	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS - 66871,

8.430 s Feb 12 2021 MiTek Industries, Inc. Wed Mar 24 16:09:09 2021 Page 2
ID:Lek3CAANj_gYbKvtCQHtmQzKvNM-gOOv4IkD4MyX6rtbJA18Cwn6rprn__dLQ_6?rzXgQ8

NOTES-

- 10) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 25, 26, 27, 29, 30, 31, 32, 33, 34 except (jt=lb) 18=132, 36=555, 35=321.
- 11) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 12) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 104 H4	I45348876
210486	C2	Roof Special	1	1		

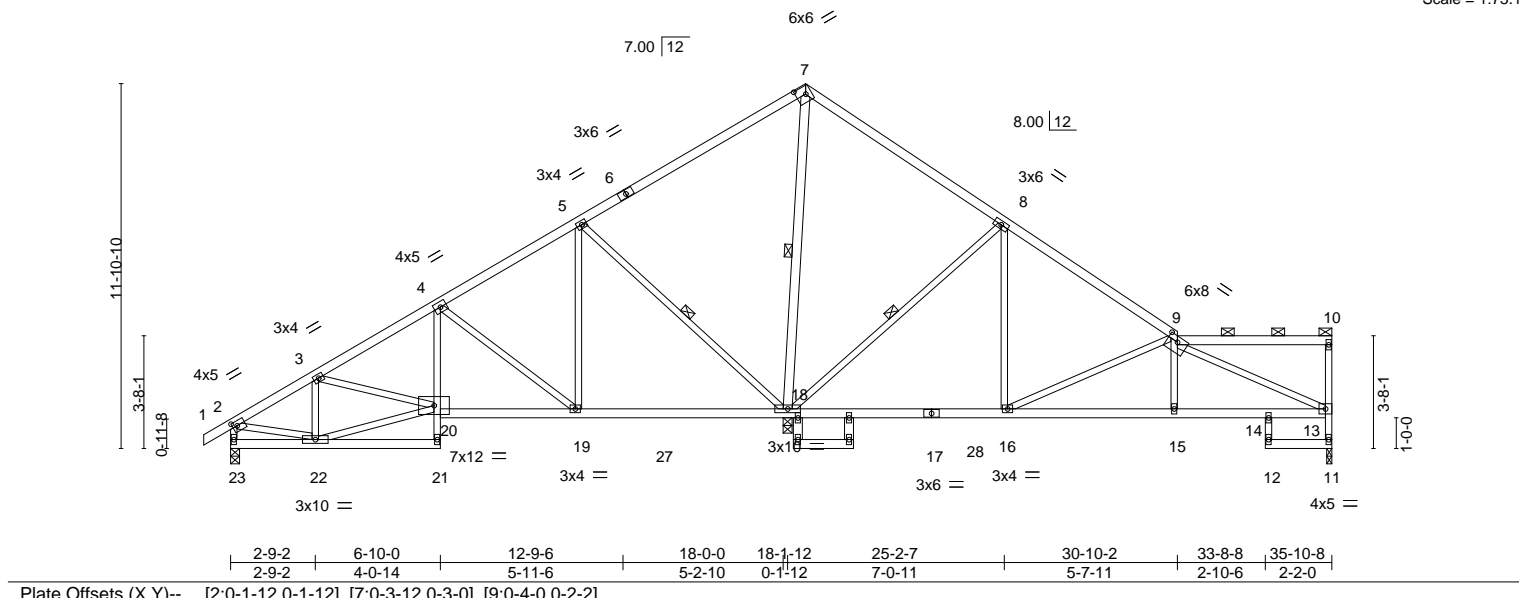
Wheeler Lumber, Waverly, KS - 66871,

8.430 s Feb 12 2021 MiTek Industries, Inc. Wed Mar 24 16:09:11 2021 Page 1

ID:Lek3CAANj_gYbKvtCQHtmQzKvNM-cmWgVRmUczCFL91zQa3cHC?7neZPFtWvokTD3kzXgQ6

0-10-8	2-9-2	6-10-0	11-4-0	18-8-13	25-2-7	30-10-2	35-10-8
0-10-8	2-9-2	4-0-14	4-6-0	7-4-13	6-5-11	5-7-11	5-0-6

Scale = 1:75.1



LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.72	Vert(LL)	-0.05 16-18	>999	360	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.38	Vert(CT)	-0.09 16-18	>999	240		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.76	Horz(CT)	0.04 11	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-S	Wind(LL)	0.02 15-16	>999	240	Weight: 164 lb	FT = 10%

LUMBER-

TOP CHORD 2x4 SPF No.2
 BOT CHORD 2x4 SPF No.2 *Except*
 4-21: 2x3 SPF No.2, 17-20: 2x4 SPF 2100F 1.8E
 WEBS 2x3 SPF No.2 *Except*
 7-18,18-24,25-26: 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.): 9-10.
 BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.
 WEBS 1 Row at midpt 5-18, 7-18, 8-18

REACTIONS.

(size) 11=0-2-0, 23=0-3-8, 18=0-3-8
 Max Horz 23=355(LC 5)
 Max Uplift 11=78(LC 9), 23=87(LC 8), 18=263(LC 8)
 Max Grav 11=557(LC 24), 23=666(LC 21), 18=2492(LC 15)

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

TOP CHORD 2-3=-718/82, 3-4=-752/141, 4-5=-306/239, 5-7=-26/838, 7-8=-8/747, 8-9=-286/173, 11-13=-519/90, 2-23=-638/96
 BOT CHORD 22-23=-330/307, 4-20=-41/366, 19-20=-266/656, 18-19=-241/286, 15-16=-114/688, 14-15=-117/684, 13-14=-117/684
 WEBS 20-22=-247/117, 4-19=-571/173, 5-19=-26/573, 5-18=-987/301, 7-18=-1118/106, 8-18=-855/260, 8-16=0/493, 9-16=-598/125, 9-13=-723/87, 2-22=-32/571

NOTES-

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- Provide adequate drainage to prevent water ponding.
- All plates are 2x4 MT20 unless otherwise indicated.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- Provide mechanical connection (by others) of truss to bearing plate at joint(s) 11.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 11, 23 except (jt=lb) 18=263.
- 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.
- Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



March 25, 2021

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16023 Swingley Ridge Rd
 Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 104 H4	I45348877
210486	C3	Roof Special	1	1		

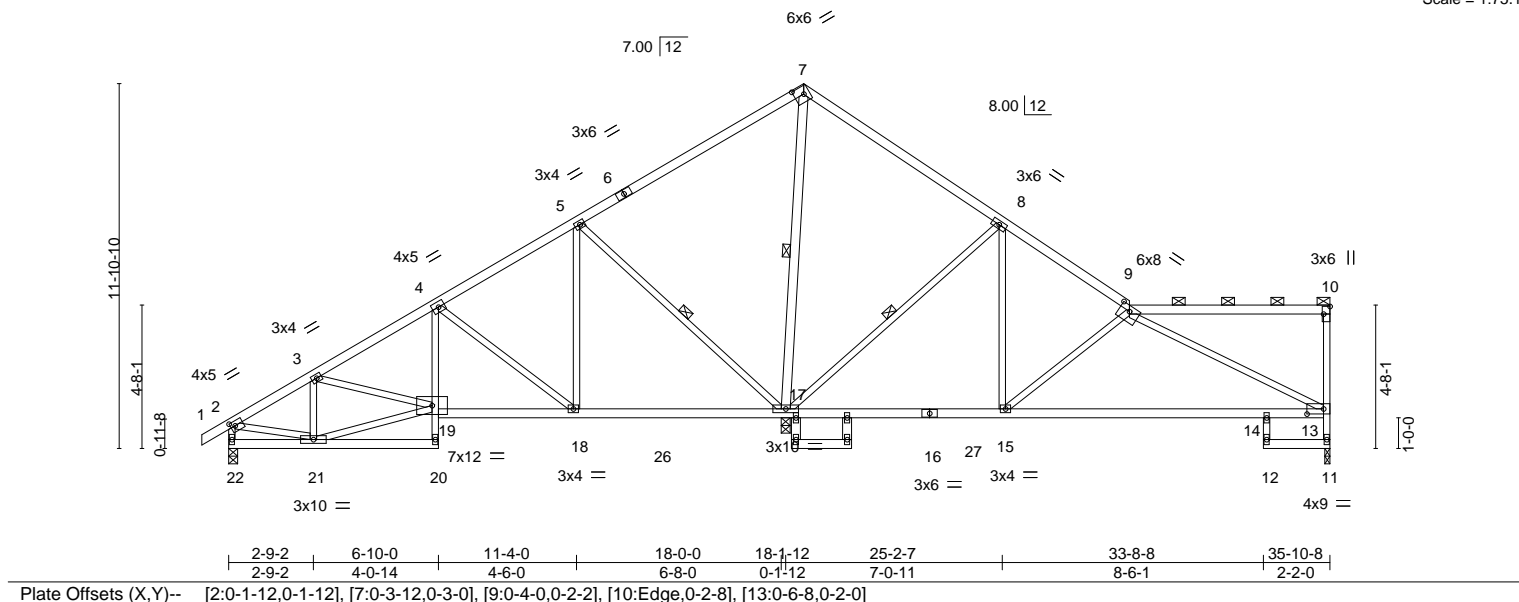
Wheeler Lumber, Waverly, KS - 66871,

8.430 s Feb 12 2021 MiTek Industries, Inc. Wed Mar 24 16:09:12 2021 Page 1

ID:Lek3CAANj_gYbKvTCQHtmQzKvNM-4z42nm6NHK6zlcA_larqPYEE2pu_Jd31OCmbAzXgQ5

-0-10-8	2-9-2	6-10-0	11-4-0	18-8-13	25-2-7	29-4-2	33-8-8	35-10-8
0-10-8	2-9-2	4-0-14	4-6-0	7-4-13	6-5-10	4-1-11	4-4-6	2-2-0

Scale = 1:75.1



LOADING (psf)		SPACING- 2-0-0	CSI.	DEFL. in (loc) l/defl L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL 1.15	TC 1.00	Vert(LL) -0.32 14-15 >658 360	MT20	197/144
TCDL	10.0	Lumber DOL 1.15	BC 0.75	Vert(CT) -0.63 14-15 >335 240		
BCLL	0.0 *	Rep Stress Incr YES	WB 0.77	Horz(CT) 0.16 11 n/a n/a		
BCDL	10.0	Code IRC2018/TPI2014	Matrix-S	Wind(LL) 0.02 18-19 >999 240	Weight: 164 lb	FT = 10%

LUMBER-

TOP CHORD 2x4 SPF No.2
 BOT CHORD 2x4 SPF No.2 *Except*
 4-20: 2x3 SPF No.2, 16-19: 2x4 SPF 2100F 1.8E
 WEBS 2x3 SPF No.2 *Except*
 7-17,17-23,24-25: 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.): 9-10.
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing, Except: 6-0-0 oc bracing: 17-18,15-17.
 WEBS 1 Row at midpt 5-17, 7-17, 8-17

REACTIONS.

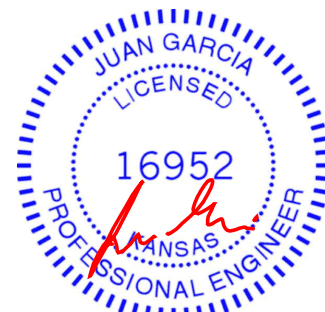
(size) 11=0-2-0, 22=0-3-8, 17=0-3-8
 Max Horz 22=368(LC 5)
 Max Uplift 11=78(LC 9), 22=82(LC 8), 17=273(LC 8)
 Max Grav 11=595(LC 24), 22=682(LC 21), 17=2425(LC 15)

FORCES.

(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
 TOP CHORD 2-3=-740/75, 3-4=-788/131, 4-5=-341/175, 5-7=-64/775, 7-8=-25/689, 8-9=-332/112, 11-13=-542/95, 2-22=-654/91
 BOT CHORD 21-22=-341/307, 4-19=-43/367, 18-19=-244/719, 17-18=-200/292, 14-15=-122/519, 13-14=-122/519
 WEBS 3-21=-258/122, 19-21=-238/752, 4-18=-572/174, 5-18=-22/587, 5-17=-998/297, 7-17=-1060/118, 8-17=-874/220, 8-15=0/595, 9-15=-387/142, 9-13=-516/103, 2-21=-26/589

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) gable end 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 2x4 MT20 unless otherwise indicated.
- 5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 6) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 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 at joint(s) 11.
- 8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 11, 22 except (jt=lb) 17=273.
- 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.



March 25,2021

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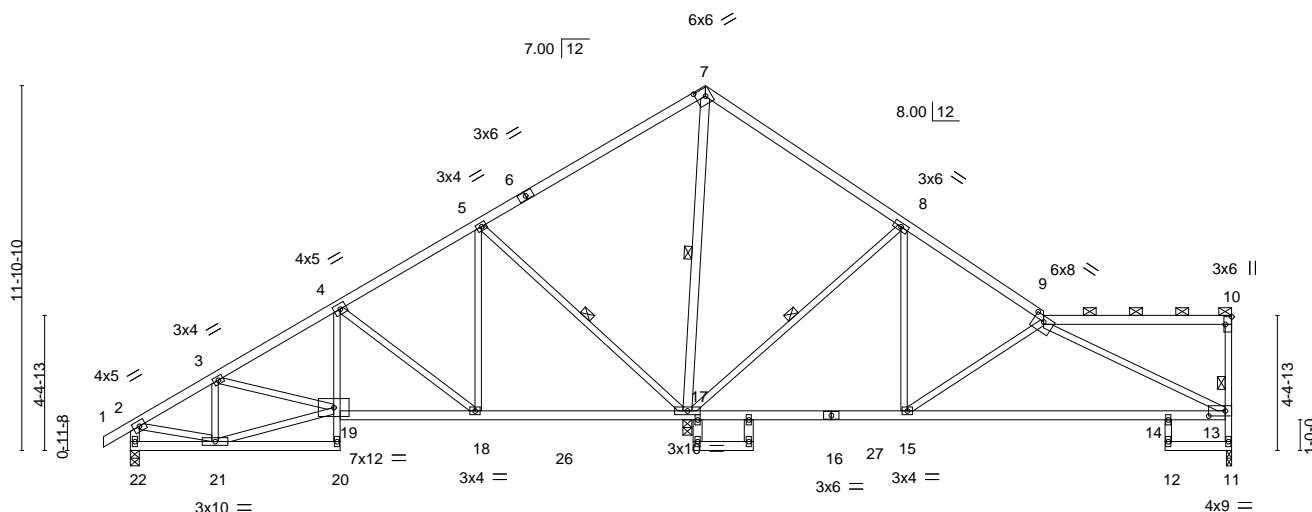


16023 Swingley Ridge Rd
 Chesterfield, MO 63017

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ID: lek3CAANI qYbKvtCOHtmQzKvNM-Z9eQw6nkaSzaSBMY?54Md5PvS85inuCG2vJ8dzXgQ4

0-10-8	2-9-2	6-10-0	11-4-0	18-8-13	25-2-7	29-9-0	33-8-8	35-10-8
0-10-8	2-9-2	4-0-14	4-6-0	7-4-13	6-5-11	4-6-9	3-11-8	2-2-0

Scale = 1:75.1



	2-9-2	6-10-0	11-4-0	18-1-12	25-2-7	33-8-8	35-10-8
	2-9-2	4-0-14	4-6-0	6-9-12	7-0-11	8-6-1	2-2-0
Plate Offsets (X,Y)--	[7:0-3-12,0-3-0]	[9:0-4-0,0-2-2]	[10:Edae,0-2-8]	[13:0-6-8,0-2-0]			

LOADING (psf)	SPACING- 2-0-0	CSI.	DEFL. in (loc)	L/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL 1.15	TC 1.00	Vert(LL) -0.32 14-15	>671	360	MT20	197/144
TCDL 10.0	Lumber DOL 1.15	BC 0.75	Vert(CT) -0.62 14-15	>340	240		
BCLL 0.0 *	Rep Stress Incr YES	WB 0.77	Horz(CT) 0.16 11	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014	Matrix-S	Wind(LL) 0.02 18-19	>999	240	Weight: 163 lb	FT = 10%

LUMBER-		BRACING-	
TOP CHORD	2x4 SPF No.2	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.): 9-10.
BOT CHORD	2x4 SPF No.2 *Except* 4-20: 2x3 SPF No.2	BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing, Except: 6-0-0 oc bracing: 17-18,15-17.
WEBS	2x3 SPF No.2 *Except* 7-17,2-22,17-23,24-25: 2x4 SPF No.2	WEBS	1 Row at midpt 10-11, 5-17, 7-17, 8-17

REACTIONS. (size) 11=0-2-0, 22=0-3-8, 17=0-3-8 (req. 0-3-13)
 Max Horiz 22=365(LC 5)
 Max Uprift 11=78(LC 9), 22=-82(LC 8), 17=-274(LC 8)
 Max Grav 11=-590(LC 24), 22=679(LC 21), 17=2438(LC 15)

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

TOP CHORD	2-3=-721/73, 3-4=-774/128, 4-5=-332/184, 5-7=-63/790, 7-8=-20/703, 8-9=-332/122, 11-13=-537/95, 2-22=-650/91
BOT CHORD	21-22=-333/305, 4-19=-42/363, 18-19=-242/701, 17-18=-199/285, 14-15=-130/548, 13-14=-130/548
WEBS	3-21=-259/122, 19-21=-237/736, 4-18=-568/173, 5-18=-22/584, 5-17=-996/297, 7-17=-1074/119, 8-17=-882/227, 8-15=0/581, 9-15=-405/152, 9-13=-543/119, 2-21=-28/574

NOTES-

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TC DL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end 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 2x4 MT20 unless otherwise indicated.
- 5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 6) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3'-6" tall by 2'-0" wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- 7) WARNING: Required bearing size at joint(s) 17 greater than input bearing size.
- 8) Provide mechanical connection (by others) of truss to bearing plate at joint(s) 11.
- 9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 11, 22 except (jt=lb) 17=274.
- 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.



March 25, 2021

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

WARNING – Velly design parameters are listed below and included with the key reference to AISC M14-15 16f, 17f, 18f, 19f, 20f, 21f, 22f, 23f, 24f, 25f, 26f, 27f, 28f, 29f, 30f, 31f, 32f, 33f, 34f, 35f, 36f, 37f, 38f, 39f, 40f, 41f, 42f, 43f, 44f, 45f, 46f, 47f, 48f, 49f, 50f, 51f, 52f, 53f, 54f, 55f, 56f, 57f, 58f, 59f, 60f, 61f, 62f, 63f, 64f, 65f, 66f, 67f, 68f, 69f, 70f, 71f, 72f, 73f, 74f, 75f, 76f, 77f, 78f, 79f, 80f, 81f, 82f, 83f, 84f, 85f, 86f, 87f, 88f, 89f, 90f, 91f, 92f, 93f, 94f, 95f, 96f, 97f, 98f, 99f, 100f, 101f, 102f, 103f, 104f, 105f, 106f, 107f, 108f, 109f, 110f, 111f, 112f, 113f, 114f, 115f, 116f, 117f, 118f, 119f, 120f, 121f, 122f, 123f, 124f, 125f, 126f, 127f, 128f, 129f, 130f, 131f, 132f, 133f, 134f, 135f, 136f, 137f, 138f, 139f, 140f, 141f, 142f, 143f, 144f, 145f, 146f, 147f, 148f, 149f, 150f, 151f, 152f, 153f, 154f, 155f, 156f, 157f, 158f, 159f, 160f, 161f, 162f, 163f, 164f, 165f, 166f, 167f, 168f, 169f, 170f, 171f, 172f, 173f, 174f, 175f, 176f, 177f, 178f, 179f, 180f, 181f, 182f, 183f, 184f, 185f, 186f, 187f, 188f, 189f, 190f, 191f, 192f, 193f, 194f, 195f, 196f, 197f, 198f, 199f, 200f, 201f, 202f, 203f, 204f, 205f, 206f, 207f, 208f, 209f, 210f, 211f, 212f, 213f, 214f, 215f, 216f, 217f, 218f, 219f, 220f, 221f, 222f, 223f, 224f, 225f, 226f, 227f, 228f, 229f, 230f, 231f, 232f, 233f, 234f, 235f, 236f, 237f, 238f, 239f, 240f, 241f, 242f, 243f, 244f, 245f, 246f, 247f, 248f, 249f, 250f, 251f, 252f, 253f, 254f, 255f, 256f, 257f, 258f, 259f, 260f, 261f, 262f, 263f, 264f, 265f, 266f, 267f, 268f, 269f, 270f, 271f, 272f, 273f, 274f, 275f, 276f, 277f, 278f, 279f, 280f, 281f, 282f, 283f, 284f, 285f, 286f, 287f, 288f, 289f, 290f, 291f, 292f, 293f, 294f, 295f, 296f, 297f, 298f, 299f, 300f, 301f, 302f, 303f, 304f, 305f, 306f, 307f, 308f, 309f, 310f, 311f, 312f, 313f, 314f, 315f, 316f, 317f, 318f, 319f, 320f, 321f, 322f, 323f, 324f, 325f, 326f, 327f, 328f, 329f, 330f, 331f, 332f, 333f, 334f, 335f, 336f, 337f, 338f, 339f, 340f, 341f, 342f, 343f, 344f, 345f, 346f, 347f, 348f, 349f, 350f, 351f, 352f, 353f, 354f, 355f, 356f, 357f, 358f, 359f, 360f, 361f, 362f, 363f, 364f, 365f, 366f, 367f, 368f, 369f, 370f, 371f, 372f, 373f, 374f, 375f, 376f, 377f, 378f, 379f, 380f, 381f, 382f, 383f, 384f, 385f, 386f, 387f, 388f, 389f, 390f, 391f, 392f, 393f, 394f, 395f, 396f, 397f, 398f, 399f, 400f, 401f, 402f, 403f, 404f, 405f, 406f, 407f, 408f, 409f, 410f, 411f, 412f, 413f, 414f, 415f, 416f, 417f, 418f, 419f, 420f, 421f, 422f, 423f, 424f, 425f, 426f, 427f, 428f, 429f, 430f, 431f, 432f, 433f, 434f, 435f, 436f, 437f, 438f, 439f, 440f, 441f, 442f, 443f, 444f, 445f, 446f, 447f, 448f, 449f, 450f, 451f, 452f, 453f, 454f, 455f, 456f, 457f, 458f, 459f, 460f, 461f, 462f, 463f, 464f, 465f, 466f, 467f, 468f, 469f, 470f, 471f, 472f, 473f, 474f, 475f, 476f, 477f, 478f, 479f, 480f, 481f, 482f, 483f, 484f, 485f, 486f, 487f, 488f, 489f, 490f, 491f, 492f, 493f, 494f, 495f, 496f, 497f, 498f, 499f, 500f, 501f, 502f, 503f, 504f, 505f, 506f, 507f, 508f, 509f, 510f, 511f, 512f, 513f, 514f, 515f, 516f, 517f, 518f, 519f, 520f, 521f, 522f, 523f, 524f, 525f, 526f, 527f, 528f, 529f, 530f, 531f, 532f, 533f, 534f, 535f, 536f, 537f, 538f, 539f, 540f, 541f, 542f, 543f, 544f, 545f, 546f, 547f, 548f, 549f, 550f, 551f, 552f, 553f, 554f, 555f, 556f, 557f, 558f, 559f, 560f, 561f, 562f, 563f, 564f, 565f, 566f, 567f, 568f, 569f, 570f, 571f, 572f, 573f, 574f, 575f, 576f, 577f, 578f, 579f, 580f, 581f, 582f, 583f, 584f, 585f, 586f, 587f, 588f, 589f, 590f, 591f, 592f, 593f, 594f, 595f, 596f, 597f, 598f, 599f, 600f, 601f, 602f, 603f, 604f, 605f, 606f, 607f, 608f, 609f, 610f, 611f, 612f, 613f, 614f, 615f, 616f, 617f, 618f, 619f, 620f, 621f, 622f, 623f, 624f, 625f, 626f, 627f, 628f, 629f, 630f, 631f, 632f, 633f, 634f, 635f, 636f, 637f, 638f, 639f, 640f, 641f, 642f, 643f, 644f, 645f, 646f, 647f, 648f, 649f, 650f, 651f, 652f, 653f, 654f, 655f, 656f, 657f, 658f, 659f, 660f, 661f, 662f, 663f, 664f, 665f, 666f, 667f, 668f, 669f, 670f, 671f, 672f, 673f, 674f, 675f, 676f, 677f, 678f, 679f, 680f, 681f, 682f, 683f, 684f, 685f, 686f, 687f, 688f, 689f, 690f, 691f, 692f, 693f, 694f, 695f, 696f, 697f, 698f, 699f, 700f, 701f, 702f, 703f, 704f, 705f, 706f, 707f,



16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 104 H4	I45348879
210486	C5	Roof Special	1	1		

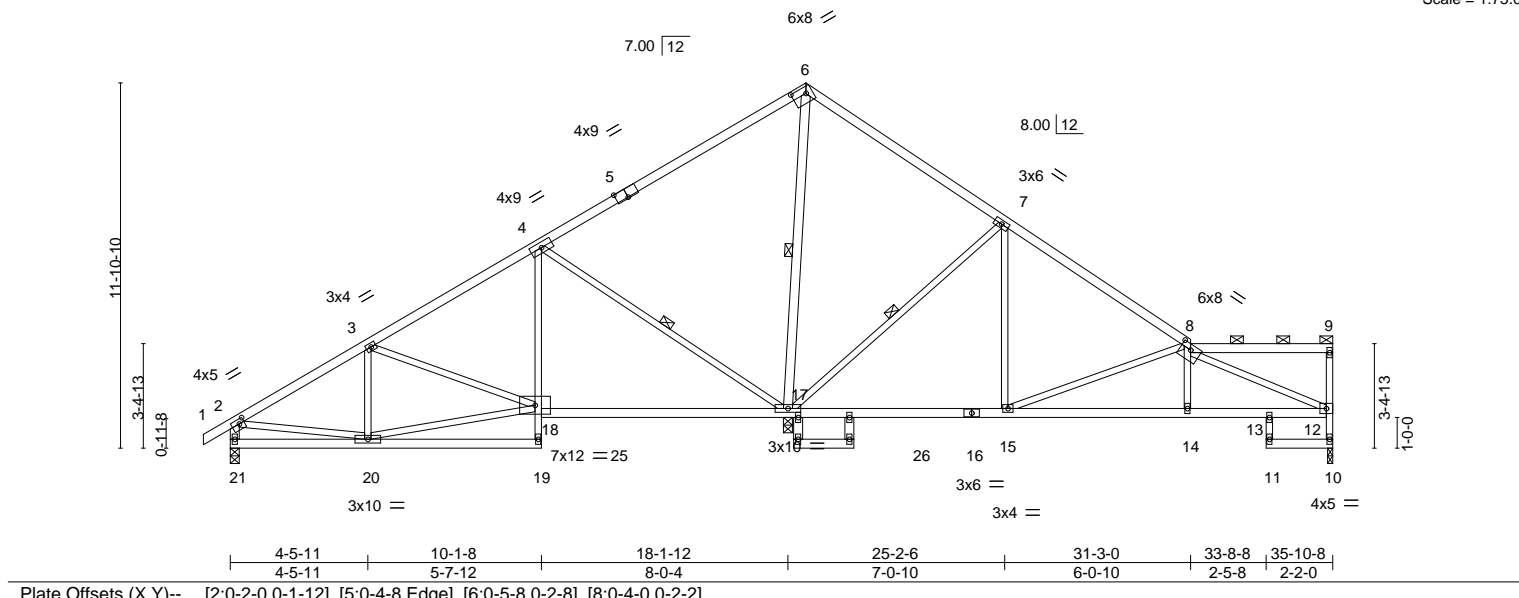
Wheeler Lumber, Waverly, KS - 66871,

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ID:Lek3CAANj_gYbKvtCQHtmQzKvNM-1LCo7SoMvuaqCcmY5jcJvqdadsXxSBSMUihgt3zXgQ3

0-10-8	4-5-11	10-1-8	18-8-13	25-2-6	31-3-0	33-8-8	35-10-8
0-10-8	4-5-11	5-7-12	8-7-5	6-5-10	6-0-10	2-5-8	2-2-0

Scale = 1:75.0



LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 1.00	Vert(LL)	-0.13 17-18	>999	360	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.52	Vert(CT)	-0.24 17-18	>912	240		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.94	Horz(CT)	0.04 10	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-S	Wind(LL)	0.03 14-15	>999	240	Weight: 161 lb	FT = 10%

LUMBER-

TOP CHORD 2x4 SPF No.2
 BOT CHORD 2x4 SPF No.2 *Except*
 4-19: 2x3 SPF No.2
 WEBS 2x3 SPF No.2 *Except*
 6-17,2-21,17-22,23-24: 2x4 SPF No.2

BRACING-

TOP CHORD Structural wood sheathing directly applied, except end verticals, and 2-0-0 oc purlins (6-0-0 max.): 8-9.
 BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.
 WEBS 1 Row at midpt 4-17, 6-17, 7-17

REACTIONS.

(size) 10=0-2-0, 21=0-3-8, 17=0-3-8 (req. 0-3-14)
 Max Horz 21=351(LC 5)
 Max Uplift 10=-79(LC 9), 21=-96(LC 8), 17=-246(LC 8)
 Max Grav 10=551(LC 24), 21=675(LC 21), 17=2476(LC 15)

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

TOP CHORD 2-3=-739/86, 3-4=-490/205, 4-6=-24/840, 6-7=-3/731, 7-8=-286/159, 10-12=-513/92, 2-21=-636/116
 BOT CHORD 20-21=-342/370, 4-18=0/508, 17-18=-242/392, 14-15=-126/744, 13-14=-130/739, 12-13=-130/739
 WEBS 18-20=-205/691, 3-18=-324/84, 4-17=-1083/345, 6-17=-1144/115, 7-17=-854/267, 7-15=0/476, 8-15=-652/141, 8-12=-781/103, 2-20=0/429

NOTES-

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- Provide adequate drainage to prevent water ponding.
- All plates are 2x4 MT20 unless otherwise indicated.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- WARNING: Required bearing size at joint(s) 17 greater than input bearing size.
- Provide mechanical connection (by others) of truss to bearing plate at joint(s) 10.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 10, 21 except (jt=lb) 17=246.
- 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.
- Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



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

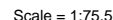
Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall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



16023 Swingley Ridge Rd
 Chesterfield, MO 63017

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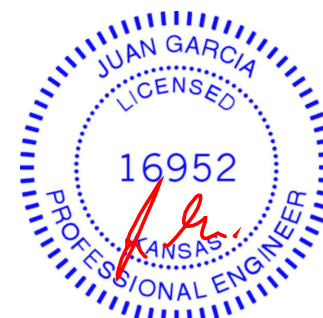


LOADING (psf)	SPACING- 2-0-0	CSI.	DEFL. in (loc) l/defl L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL 1.15	TC 0.74	Vert(LL) -0.13 15-16 >999 360	MT20	197/144
TCDL 10.0	Lumber DOL 1.15	BC 0.82	Vert(CT) -0.25 15-16 >850 240		
BCLL 0.0 *	Rep Stress Incr YES	WB 0.79	Horz(CT) -0.09 17 n/a n/a		
BCDL 10.0	Code IRC2018/TPI2014	Matrix-S	Wind(LL) 0.09 15-16 >999 240	Weight: 172 lb	FT = 10%

REACTIONS. (size) 11=0-2-0, 24=Mechanical, 17=0-3-8
 Max Horz 24=327(LC 5)
 Max Uplift 11=-195(LC 9), 24=-140(LC 8), 17=-111(LC 8)
 Max Grav 11=844(LC 16), 24=811(LC 16), 17=1946(LC 15)

NOTES-

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- Professional Engineer Seal for Juan Garcia, State of Missouri, Number E-2000162101.



March 25, 2021



WARNING – Velly design parameters are listed below and included with the key reference to AISC M14-15 16f, 17f, 18f, 19f, 20f, 21f, 22f, 23f, 24f, 25f, 26f, 27f, 28f, 29f, 30f, 31f, 32f, 33f, 34f, 35f, 36f, 37f, 38f, 39f, 40f, 41f, 42f, 43f, 44f, 45f, 46f, 47f, 48f, 49f, 50f, 51f, 52f, 53f, 54f, 55f, 56f, 57f, 58f, 59f, 60f, 61f, 62f, 63f, 64f, 65f, 66f, 67f, 68f, 69f, 70f, 71f, 72f, 73f, 74f, 75f, 76f, 77f, 78f, 79f, 80f, 81f, 82f, 83f, 84f, 85f, 86f, 87f, 88f, 89f, 90f, 91f, 92f, 93f, 94f, 95f, 96f, 97f, 98f, 99f, 100f, 101f, 102f, 103f, 104f, 105f, 106f, 107f, 108f, 109f, 110f, 111f, 112f, 113f, 114f, 115f, 116f, 117f, 118f, 119f, 120f, 121f, 122f, 123f, 124f, 125f, 126f, 127f, 128f, 129f, 130f, 131f, 132f, 133f, 134f, 135f, 136f, 137f, 138f, 139f, 140f, 141f, 142f, 143f, 144f, 145f, 146f, 147f, 148f, 149f, 150f, 151f, 152f, 153f, 154f, 155f, 156f, 157f, 158f, 159f, 160f, 161f, 162f, 163f, 164f, 165f, 166f, 167f, 168f, 169f, 170f, 171f, 172f, 173f, 174f, 175f, 176f, 177f, 178f, 179f, 180f, 181f, 182f, 183f, 184f, 185f, 186f, 187f, 188f, 189f, 190f, 191f, 192f, 193f, 194f, 195f, 196f, 197f, 198f, 199f, 200f, 201f, 202f, 203f, 204f, 205f, 206f, 207f, 208f, 209f, 210f, 211f, 212f, 213f, 214f, 215f, 216f, 217f, 218f, 219f, 220f, 221f, 222f, 223f, 224f, 225f, 226f, 227f, 228f, 229f, 230f, 231f, 232f, 233f, 234f, 235f, 236f, 237f, 238f, 239f, 240f, 241f, 242f, 243f, 244f, 245f, 246f, 247f, 248f, 249f, 250f, 251f, 252f, 253f, 254f, 255f, 256f, 257f, 258f, 259f, 260f, 261f, 262f, 263f, 264f, 265f, 266f, 267f, 268f, 269f, 270f, 271f, 272f, 273f, 274f, 275f, 276f, 277f, 278f, 279f, 280f, 281f, 282f, 283f, 284f, 285f, 286f, 287f, 288f, 289f, 290f, 291f, 292f, 293f, 294f, 295f, 296f, 297f, 298f, 299f, 300f, 301f, 302f, 303f, 304f, 305f, 306f, 307f, 308f, 309f, 310f, 311f, 312f, 313f, 314f, 315f, 316f, 317f, 318f, 319f, 320f, 321f, 322f, 323f, 324f, 325f, 326f, 327f, 328f, 329f, 330f, 331f, 332f, 333f, 334f, 335f, 336f, 337f, 338f, 339f, 340f, 341f, 342f, 343f, 344f, 345f, 346f, 347f, 348f, 349f, 350f, 351f, 352f, 353f, 354f, 355f, 356f, 357f, 358f, 359f, 360f, 361f, 362f, 363f, 364f, 365f, 366f, 367f, 368f, 369f, 370f, 371f, 372f, 373f, 374f, 375f, 376f, 377f, 378f, 379f, 380f, 381f, 382f, 383f, 384f, 385f, 386f, 387f, 388f, 389f, 390f, 391f, 392f, 393f, 394f, 395f, 396f, 397f, 398f, 399f, 400f, 401f, 402f, 403f, 404f, 405f, 406f, 407f, 408f, 409f, 410f, 411f, 412f, 413f, 414f, 415f, 416f, 417f, 418f, 419f, 420f, 421f, 422f, 423f, 424f, 425f, 426f, 427f, 428f, 429f, 430f, 431f, 432f, 433f, 434f, 435f, 436f, 437f, 438f, 439f, 440f, 441f, 442f, 443f, 444f, 445f, 446f, 447f, 448f, 449f, 450f, 451f, 452f, 453f, 454f, 455f, 456f, 457f, 458f, 459f, 460f, 461f, 462f, 463f, 464f, 465f, 466f, 467f, 468f, 469f, 470f, 471f, 472f, 473f, 474f, 475f, 476f, 477f, 478f, 479f, 480f, 481f, 482f, 483f, 484f, 485f, 486f, 487f, 488f, 489f, 490f, 491f, 492f, 493f, 494f, 495f, 496f, 497f, 498f, 499f, 500f, 501f, 502f, 503f, 504f, 505f, 506f, 507f, 508f, 509f, 510f, 511f, 512f, 513f, 514f, 515f, 516f, 517f, 518f, 519f, 520f, 521f, 522f, 523f, 524f, 525f, 526f, 527f, 528f, 529f, 530f, 531f, 532f, 533f, 534f, 535f, 536f, 537f, 538f, 539f, 540f, 541f, 542f, 543f, 544f, 545f, 546f, 547f, 548f, 549f, 550f, 551f, 552f, 553f, 554f, 555f, 556f, 557f, 558f, 559f, 560f, 561f, 562f, 563f, 564f, 565f, 566f, 567f, 568f, 569f, 570f, 571f, 572f, 573f, 574f, 575f, 576f, 577f, 578f, 579f, 580f, 581f, 582f, 583f, 584f, 585f, 586f, 587f, 588f, 589f, 590f, 591f, 592f, 593f, 594f, 595f, 596f, 597f, 598f, 599f, 600f, 601f, 602f, 603f, 604f, 605f, 606f, 607f, 608f, 609f, 610f, 611f, 612f, 613f, 614f, 615f, 616f, 617f, 618f, 619f, 620f, 621f, 622f, 623f, 624f, 625f, 626f, 627f, 628f, 629f, 630f, 631f, 632f, 633f, 634f, 635f, 636f, 637f, 638f, 639f, 640f, 641f, 642f, 643f, 644f, 645f, 646f, 647f, 648f, 649f, 650f, 651f, 652f, 653f, 654f, 655f, 656f, 657f, 658f, 659f, 660f, 661f, 662f, 663f, 664f, 665f, 666f, 667f, 668f, 669f, 670f, 671f, 672f, 673f, 674f, 675f, 676f, 677f, 678f, 679f, 680f, 681f, 682f, 683f, 684f, 685f, 686f, 687f, 688f, 689f, 690f, 691f, 692f, 693f, 694f, 695f, 696f, 697f, 698f, 699f, 700f, 701f, 702f, 703f, 704f, 705f, 706f, 707f,



16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 104 H4	I45348881
210486	D1	ROOF SPECIAL GIRDER	1	1		

Wheeler Lumber, Waverly, KS - 66871,

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ID:Lek3CAANj_gYbKvtCQHtmQzKvNM-RwtmUqFCpyP34U7nrA0XTF6s3U_fYzoBgwXHOzXgQ0

Job Reference (optional)

0-10-8 2-7-8 4-7-8 13-4-0 20-8-13 28-8-7 36-3-0 37-10-8
0-10-8 2-7-8 2-0-0 8-8-8 7-4-13 7-11-10 7-6-9 1-7-8

Scale = 1:83.0

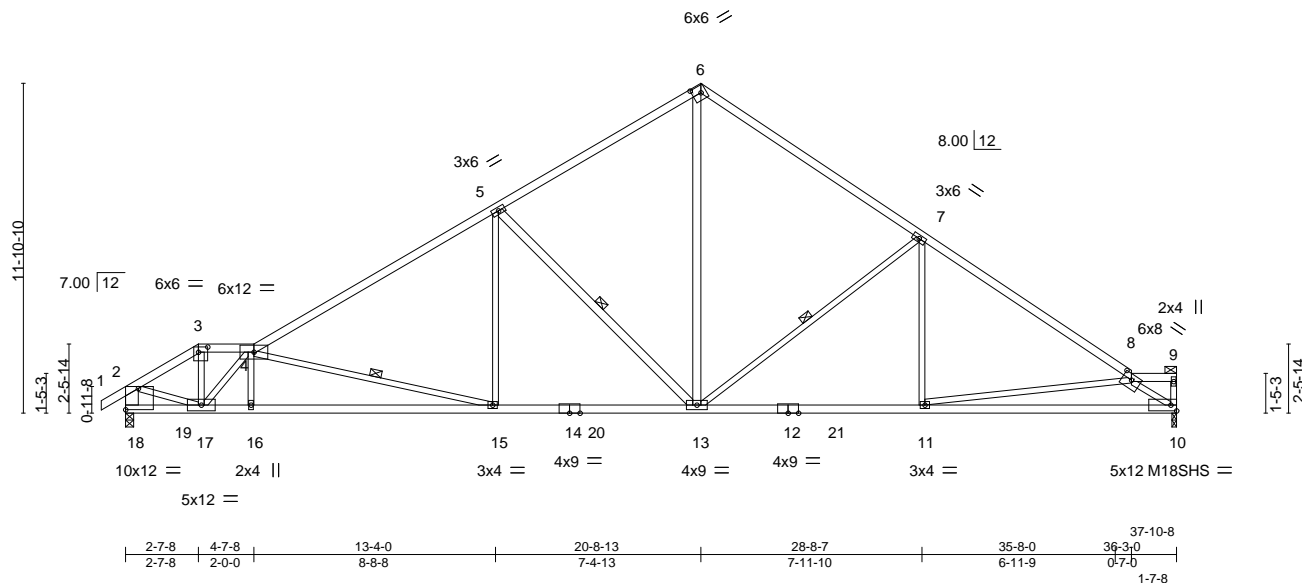


Plate Offsets (X,Y)-- [3:0-4-0,0-2-4], [6:0-3-11,0-3-0], [8:0-4-0,0-2-7], [18:Edge,0-9-3]

LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.94	Vert(LL)	-0.23 15-16	>999	360	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.88	Vert(CT)	-0.44 15-16	>999	240	M18SHS	197/144
BCLL 0.0 *	Rep Stress Incr	NO	WB 0.95	Horz(CT)	0.12 10	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-S	Wind(LL)	0.13 15-16	>999	240		
								Weight: 161 lb	FT = 10%

LUMBER-

TOP CHORD 2x4 SPF No.2 *Except*
4-6: 2x4 SPF 2400F 2.0E, 6-8: 2x4 SPF 2100F 1.8E
BOT CHORD 2x4 SPF No.2 *Except*
14-18: 2x4 SPF 2100F 1.8E, 10-12: 2x4 SPF 2400F 2.0E
WEBS 2x3 SPF No.2 *Except*
5-13,6-13: 2x4 SPF No.2, 2-18: 2x6 SPF No.2

BRACING-

TOP CHORD Structural wood sheathing directly applied, except end verticals, and 2-0-0 oc purlins (3-10-1 max.): 3-4, 8-9.
BOT CHORD Rigid ceiling directly applied or 9-11-10 oc bracing.
WEBS 1 Row at midpt 4-15, 5-13, 7-13

REACTIONS.

(size) 10=0-2-0, 18=0-3-8
Max Horz 18=326(LC 5)
Max Uplift 10=192(LC 9), 18=360(LC 8)
Max Grav 10=1814(LC 36), 18=2096(LC 35)

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

TOP CHORD 2-3=-2403/390, 3-4=-2087/362, 4-5=-2758/345, 5-6=-1896/324, 6-7=-1978/345,
7-8=-2675/274, 2-18=-1946/342
BOT CHORD 17-18=-317/433, 16-17=-607/3701, 15-16=-613/3691, 13-15=-301/2466, 11-13=-132/2141,
10-11=-328/2261
WEBS 3-17=-200/1199, 4-17=-2228/258, 4-16=0/308, 4-15=-1263/322, 5-15=0/653,
5-13=-1188/339, 7-13=-922/297, 7-11=0/436, 8-10=-2761/451, 2-17=-254/1890,
6-13=-201/1520

NOTES-

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- Provide adequate drainage to prevent water ponding.
- All plates are MT20 plates unless otherwise indicated.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- Provide mechanical connection (by others) of truss to bearing plate at joint(s) 10.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 10=192, 18=360.
- 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.
- Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
- Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 271 lb down and 132 lb up at 1-11-4 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
- In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

Continued on page 2

LOAD CASE(S) Standard

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March 25, 2021



16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 104 H4	I45348881
210486	D1	ROOF SPECIAL GIRDER	1	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS - 66871,

8.430 s Feb 12 2021 MiTek Industries, Inc. Wed Mar 24 16:09:17 2021 Page 2
ID:Lek3CAANj_gYbKvtCQHtmQzKvNM-RwtxmUqFCpyP34U7nrA0XTF6s3U_fYzoBgwXHOzXgQ0

LOAD CASE(S) Standard

- 1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (plf)
Vert: 1-2=-70, 2-3=-70, 3-4=-70, 4-6=-70, 6-8=-70, 8-9=-70, 10-18=-20
Concentrated Loads (lb)
Vert: 19=-271(F)

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



16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job 210486	Truss D2	Truss Type Roof Special	Qty 1	Ply 1	Lot 104 H4 Job Reference (optional)	I45348882
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Wheeler Lumber, Waverly, KS - 66871,

8.430 s Feb 12 2021 MiTek Industries, Inc. Wed Mar 24 16:09:18 2021 Page 1

ID:Lek3CAANj_gYbKvtCQHtmQzKvNM-v6RjZqrty74GhD3KKZhF3goJ9TtiO_TxPKf4pqzXgQ?

0-10-8 4-7-8 6-7-8 15-0-9 20-8-13 25-8-7 31-8-8 37-0-0 37-10-8
0-10-8 4-7-8 2-0-0 8-5-1 5-8-4 4-11-10 6-0-1 5-3-8 0-10-8

Scale = 1:80.5

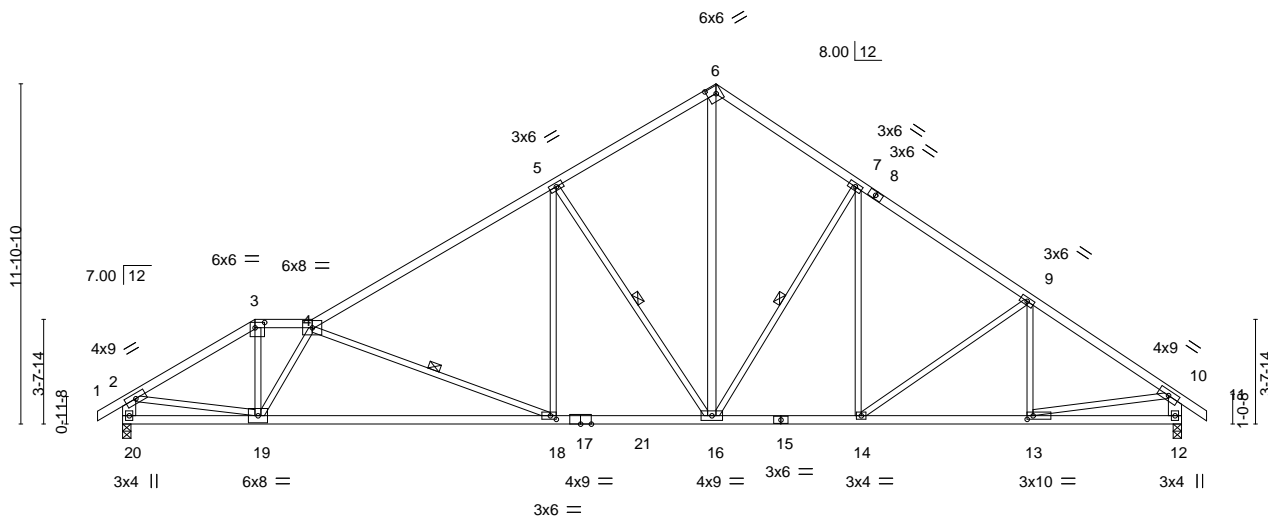


Plate Offsets (X,Y)--	[3:0-4-0,0-2-4], [6:0-3-11,0-3-0], [13:0-2-8,0-1-8], [18:0-2-8,0-1-8]
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LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.78	Vert(LL)	-0.28 18-19	>999	360	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.66	Vert(CT)	-0.57 18-19	>764	240		
BCLL 0.0 *	Rep Stress Incr	YES	WB 1.00	Horz(CT)	0.09 12	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-S	Wind(LL)	0.11 18-19	>999	240	Weight: 167 lb	FT = 10%

LUMBER-

TOP CHORD 2x4 SPF No.2 *Except*
4-6: 2x4 SPF 2100F 1.8E
BOT CHORD 2x4 SPF No.2 *Except*
17-20: 2x4 SPF 2100F 1.8E
WEBS 2x3 SPF No.2 *Except*
2-20,10-12: 2x6 SPF No.2, 6-16: 2x4 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 (3-9-5 max.): 3-4.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 1 Row at midpt 4-18, 5-16, 7-16

REACTIONS.

(size) 20=0-3-8, 12=0-3-8
Max Horz 20=330(LC 7)
Max Uplift 20=239(LC 8), 12=199(LC 9)
Max Grav 20=1840(LC 15), 12=1861(LC 16)

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

TOP CHORD 2-3=-2511/276, 3-4=-2144/276, 4-5=-2388/301, 5-6=-1736/319, 6-7=-1774/344,
7-9=-2123/280, 9-10=-2335/241, 2-20=-1803/243, 10-12=-1772/224
BOT CHORD 19-20=-324/488, 18-19=-457/3005, 16-18=-203/2143, 14-16=-62/1751, 13-14=-108/1855
WEBS 3-19=-97/1157, 4-19=-1347/252, 4-18=-928/274, 5-18=0/692, 5-16=-1125/305,
7-16=-698/255, 7-14=-25/398, 9-14=-277/166, 2-19=-58/1866, 10-13=-74/1670,
6-16=-259/1510

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) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 3) Provide adequate drainage to prevent water ponding.
- 4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 5) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 20=239, 12=199.
- 7) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 8) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



March 25, 2021

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 104 H4	I45348883
210486	D3	Roof Special	1	1		

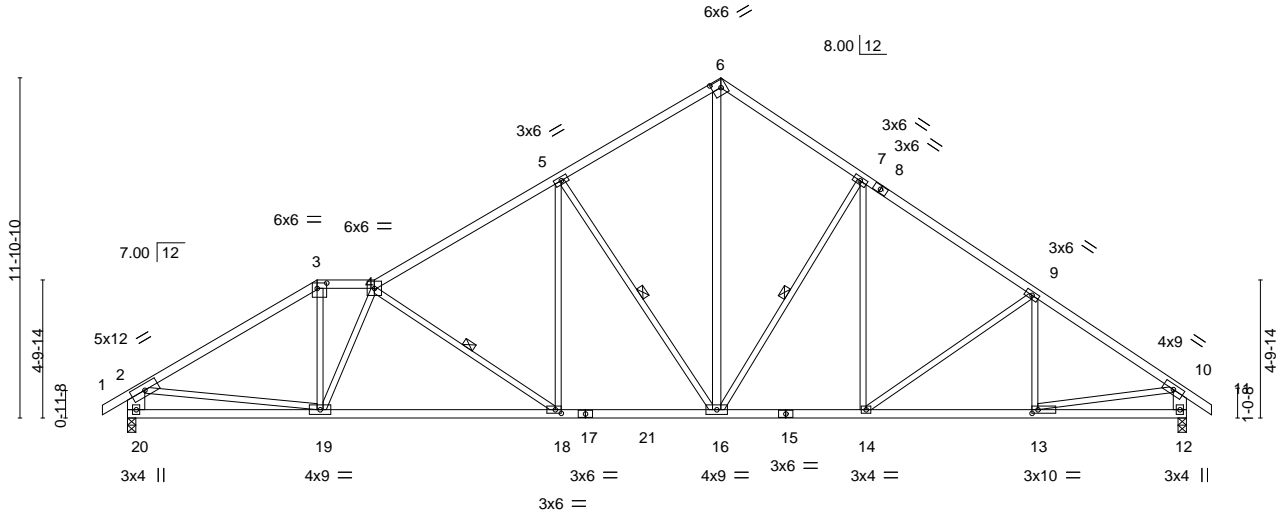
Wheeler Lumber, Waverly, KS - 66871,

8.430 s Feb 12 2021 MiTek Industries, Inc. Wed Mar 24 16:09:19 2021 Page 1

ID:Lek3CAANj_gYbKvtCQHtmQzKvNM-NJ?hAAsVjQC6lNeWuGCUcuLWWt8A7Sj5ezPeLGzXgQ_

-0-10-8 6-7-8 8-7-8 15-0-10 20-8-13 25-8-7 31-8-8 37-0-0 37-10-8
0-10-8 6-7-8 2-0-0 6-5-2 5-8-3 4-11-10 6-0-1 5-3-8 0-10-8

Scale = 1:80.5



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Plate Offsets (X,Y)-- [3:0-4-0,0-2-4], [6:0-3-11,0-3-0], [13:0-2-8,0-1-8], [18:0-2-8,0-1-8]												
LOADING (psf)		SPACING- 2-0-0		CSI.		DEFL. in (loc) l/defl L/d				PLATES GRIP		
TCLL	25.0	Plate Grip DOL 1.15		TC	0.67	Vert(LL)	-0.22	18-19	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL 1.15		BC	0.90	Vert(CT)	-0.42	18-19	>999	240		
BCLL	0.0 *	Rep Stress Incr YES		WB	0.94	Horz(CT)	0.09	12	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-S		Wind(LL)	0.11	18-19	>999	240	Weight: 170 lb	FT = 10%

LUMBER-

TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
WEBS 2x3 SPF No.2 *Except*
6-16: 2x4 SPF No.2, 2-20: 2x8 SP DSS, 10-12: 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 (3-11-10 max.): 3-4.
BOT CHORD Rigid ceiling directly applied or 9-6-6 oc bracing.
WEBS 1 Row at midpt 4-18, 5-16, 7-16

REACTIONS.

(size) 20=0-3-8, 12=0-3-8
Max Horz 20=331(LC 7)
Max Uplift 20=240(LC 8), 12=199(LC 9)
Max Grav 20=1845(LC 15), 12=1857(LC 16)

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

TOP CHORD 2-3=-2510/299, 3-4=-2113/310, 4-5=-2310/313, 5-6=-1725/312, 6-7=-1764/342, 7-9=-2117/280, 9-10=-2331/240, 2-20=-1745/271, 10-12=-1769/224
BOT CHORD 19-20=-341/701, 18-19=-374/2688, 16-18=-195/2095, 14-16=-61/1740, 13-14=-107/1847
WEBS 3-19=-36/1004, 4-19=-1026/141, 4-18=-724/219, 5-18=-36/707, 5-16=-1052/291, 6-16=-239/1468, 7-16=-691/256, 7-14=-27/393, 9-14=-279/166, 2-19=0/1672, 10-13=-74/1664

NOTES-

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- Provide adequate drainage to prevent water ponding.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 20=240, 12=199.
- 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.
- Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



March 25, 2021

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 104 H4	I45348884
210486	D4	Roof Special	1	1		

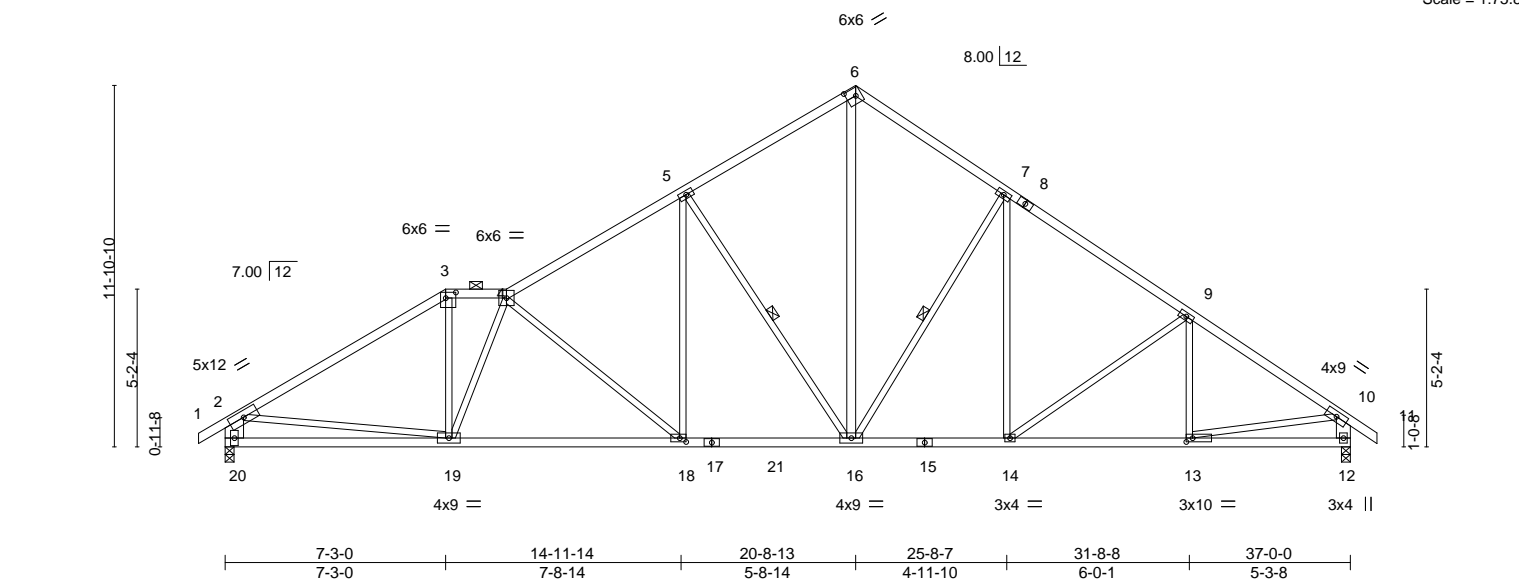
Wheeler Lumber, Waverly, KS - 66871,

8.430 s Feb 12 2021 MiTek Industries, Inc. Wed Mar 24 16:09:20 2021 Page 1

ID:Lek3CAANj_gYbKvtCQHtmQzKvNM-rVZ3OWt7UkKzwXDiSzj85tf6GVMSuQEtd8BsjsXgPz

0-10-8 7-3-0 9-3-0 15-0-10 20-8-13 25-8-7 31-8-8 37-0-0 37-10-8
0-10-8 7-3-0 2-0-0 5-9-10 5-8-3 4-11-10 6-0-1 5-3-8 0-10-8

Scale = 1:75.8



LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.81	Vert(LL)	-0.19 18-19	>999	360	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.84	Vert(CT)	-0.36 18-19	>999	240		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.97	Horz(CT)	0.09 12	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-S	Wind(LL)	0.11 18	>999	240		
								Weight: 171 lb	FT = 10%

LUMBER-

TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
WEBS 2x3 SPF No.2 *Except*
6-16: 2x4 SPF No.2, 2-20: 2x8 SP DSS, 10-12: 2x6 SPF No.2

BRACING-

TOP CHORD Structural wood sheathing directly applied, except end verticals, and 2-0-0 oc purlins (3-11-7 max.): 3-4.
BOT CHORD Rigid ceiling directly applied or 9-7-10 oc bracing.
WEBS 1 Row at midpt 5-16, 7-16

REACTIONS.

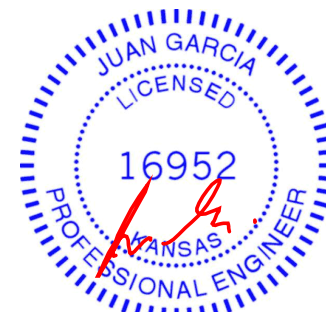
(size) 20=0-3-8, 12=0-3-8
Max Horz 20=331(LC 7)
Max Uplift 20=240(LC 8), 12=199(LC 9)
Max Grav 20=1845(LC 15), 12=1857(LC 16)

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

TOP CHORD 2-3=-2507/302, 3-4=-2101/317, 4-5=-2289/317, 5-6=-1723/311, 6-7=-1762/342, 7-9=-2116/280, 9-10=-2331/240, 2-20=-1731/277, 10-12=-1769/224
BOT CHORD 19-20=-368/793, 18-19=-351/2610, 16-18=-194/2084, 14-16=-61/1737, 13-14=-107/1845
WEBS 3-19=-25/968, 4-19=-949/126, 4-18=-688/205, 5-18=-49/712, 5-16=-1035/289, 6-16=-235/1463, 7-16=-689/256, 7-14=-27/391, 9-14=-280/166, 2-19=0/1597, 10-13=-74/1663

NOTES-

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- Provide adequate drainage to prevent water ponding.
- All plates are 3x6 MT20 unless otherwise indicated.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 20=240, 12=199.
- 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.
- Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



March 25, 2021

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 104 H4	I45348885
210486	D5	Roof Special	1	1		

Wheeler Lumber, Waverly, KS - 66871,

8.430 s Feb 12 2021 MiTek Industries, Inc. Wed Mar 24 16:09:21 2021 Page 1

ID:Lek3CAANj_gYbKvtCQHtmQzKvNM-Kh7SbrtlF2TqYhou0hEyhJQttgq2bPgO5HukP9zXgPy

0-10-8 5-3-0 7-3-0 15-0-9 20-8-13 24-0-8 28-4-14 36-1-2 36-8-14
0-10-8 5-3-0 2-0-0 7-9-9 5-8-4 3-3-11 4-4-6 7-8-4 0-7-12

Scale = 1:81.7

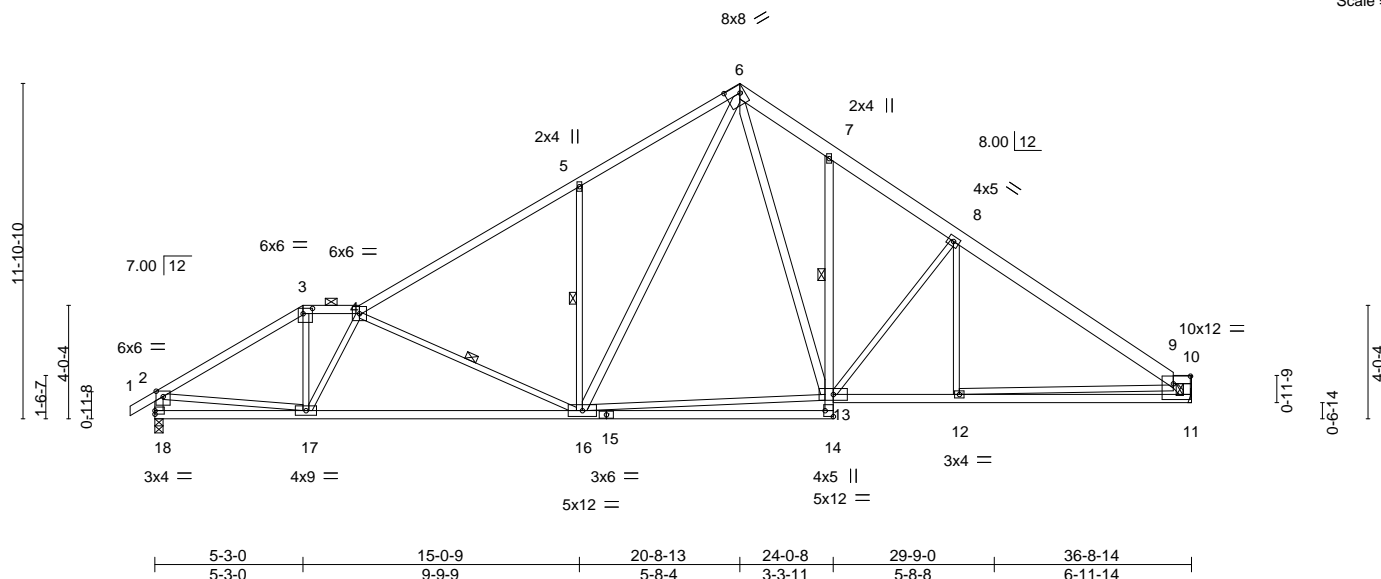


Plate Offsets (X,Y)-- [3:0-4-0,0-2-4], [6:0-6-0,0-3-4], [9:0-7-4,0-3-4], [14:Edge,0-3-8]									
LOADING (psf)		SPACING- 2-0-0		CSI.		DEFL. in (loc) l/defl L/d		PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.62	Vert(LL)	-0.19 16-17 >999 360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.94	Vert(CT)	-0.44 16-17 >988 240		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.72	Horz(CT)	0.09 11 n/a n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-S		Wind(LL)	0.08 16-17 >999 240	Weight: 190 lb	FT = 10%

LUMBER-

TOP CHORD 2x4 SPF No.2 *Except*
4-6: 2x4 SPF 2100F 1.8E, 6-9: 2x6 SPF No.2
BOT CHORD 2x4 SPF No.2
WEBS 2x3 SPF No.2 *Except*
10-11,6-16,6-13,2-18: 2x4 SPF No.2

BRACING-

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

REACTIONS.

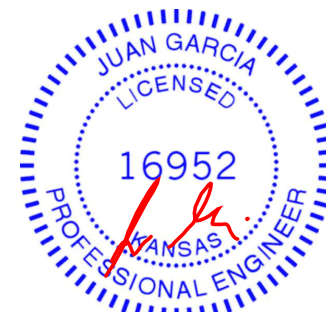
(size) 11=Mechanical, 18=0-3-8
Max Horz 18=255(LC 5)
Max Uplift 11=-1(LC 9), 18=-36(LC 8)
Max Grav 11=1639(LC 1), 18=1713(LC 1)

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

TOP CHORD 2-3=-2390/36, 3-4=-1997/56, 4-5=-2218/67, 5-6=-2211/203, 6-7=-1885/152,
7-8=-1977/96, 8-9=-2386/21, 2-18=-1669/54
BOT CHORD 17-18=-253/469, 16-17=-114/2541, 14-16=0/312, 12-13=0/1877, 11-12=-54/1387
WEBS 3-17=0/984, 4-17=-1196/67, 4-16=-809/121, 5-16=-540/204, 6-16=-149/1153,
13-16=0/997, 6-13=-112/812, 8-13=-565/113, 8-12=0/286, 9-12=0/491, 9-11=-2035/197,
2-17=0/1675

NOTES-

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope); cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- Provide adequate drainage to prevent water ponding.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- Refer to girder(s) for truss to truss connections.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 11, 18.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



March 25, 2021

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

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 104 H4	145348886
210486	D6	Roof Special	1	1		

Wheeler Lumber, Waverly, KS - 66871,

8.430 s Feb 12 2021 MiTek Industries, Inc. Wed Mar 24 16:09:22 2021 Page 1

ID:Lek3CAANj_gYbKvtCQHtmQzKvNM-ouhqpBuN0Lb9rN5ZOmBEWy304CDKsvXKxdIxbzXgPx

0-10-8 3-3-0 5-3-0 8-2-5 15-0-9 20-8-13 24-0-8 28-4-14 34-7-2 36-8-14

0-10-8 3-3-0 2-0-0 2-11-5 6-10-5 5-8-3 3-3-11 4-4-6 6-2-4 2-1-12

Scale = 1:81.1

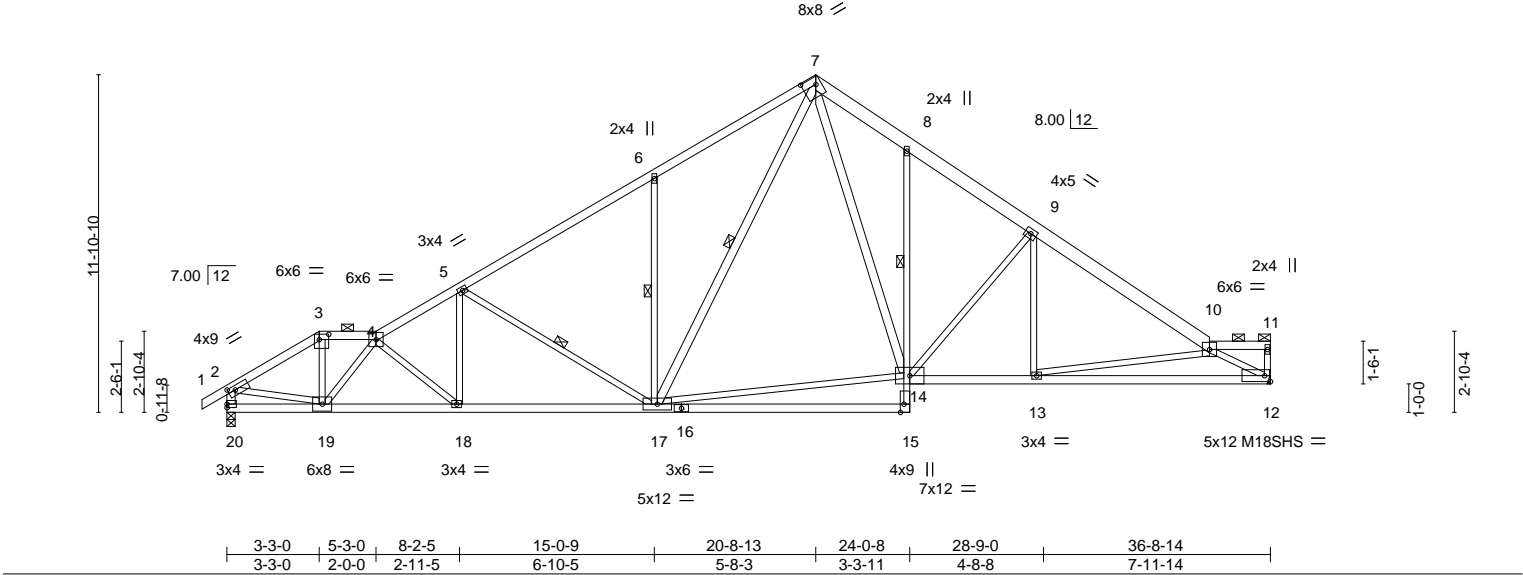
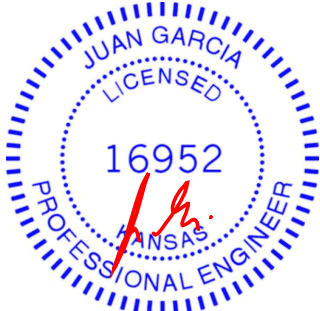


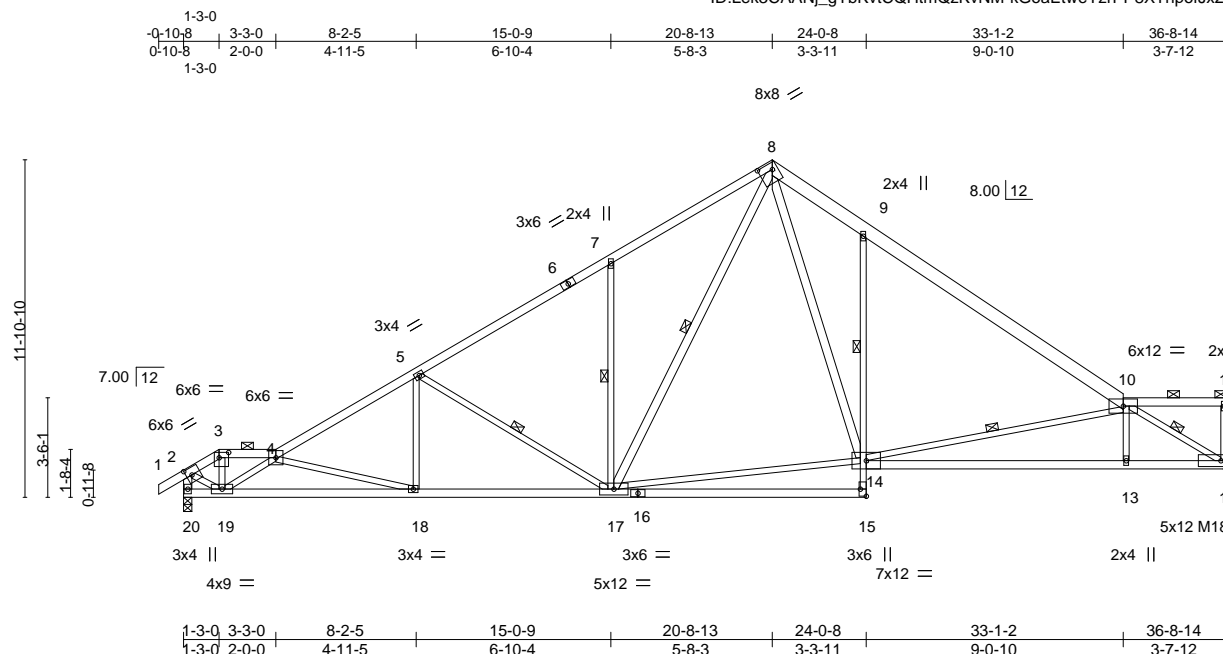
Plate Offsets (X,Y)--		[2:0-3-0,0-1-12], [3:0-4-0,0-2-4], [7:0-5-12,0-3-0], [15:0-3-8,Edge]	
LOADING (psf)	SPACING-	2-0-0	CSI.
TCLL 25.0	Plate Grip DOL	1.15	TC 0.53
TCDL 10.0	Lumber DOL	1.15	BC 0.81
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.72
BCDL 10.0	Code IRC2018/TPI2014		Matrix-S
			DEFL.
			in (loc) l/defl L/d
			Vert(LL) -0.21 15-17 >999 360
			Vert(CT) -0.48 15-17 >917 240
			Horz(CT) 0.12 12 n/a n/a
			Wind(LL) 0.13 17-18 >999 240
			PLATES GRIP
			MT20 197/144
			M18SHS 197/144
			Weight: 187 lb FT = 10%

LUMBER-		BRACING-	
TOP CHORD	2x4 SPF No.2 *Except* 7-10: 2x6 SPF No.2	TOP CHORD	Structural wood sheathing directly applied or 3-0-5 oc purlins, except end verticals, and 2-0-0 oc purlins (4-2-5 max.): 3-4, 10-11.
BOT CHORD	2x4 SPF No.2 *Except* 8-15: 2x3 SPF No.2	BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing, Except:
WEBS	2x3 SPF No.2 *Except* 7-17,7-14,2-20: 2x4 SPF No.2	WEBS	8-3-3 oc bracing: 18-19 8-9-4 oc bracing: 17-18. 1 Row at midpt 8-14 1 Row at midpt 5-17, 6-17, 7-17
REACTIONS.			
(size) 12=Mechanical, 20=0-3-8 Max Horz 20=324(LC 5) Max Uplift 12=176(LC 9), 20=237(LC 8) Max Grav 12=1641(LC 1), 20=1714(LC 1)			
FORCES.			
(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.			
TOP CHORD	2-3=-2198/287, 3-4=-1873/276, 4-5=-2856/386, 5-6=-2197/312, 6-7=-2182/489, 7-8=-1997/395, 8-9=-2072/324, 9-10=-2501/260, 2-20=-1666/250		
BOT CHORD	19-20=-297/366, 18-19=-511/2781, 17-18=-439/2471, 13-14=-132/2022, 12-13=-329/2518		
WEBS	3-19=-58/897, 4-19=-1521/184, 5-17=-794/247, 6-17=-475/287, 7-17=-330/1053, 14-17=-116/1223, 7-14=-259/951, 9-14=-624/204, 9-13=0/371, 10-13=-507/200, 10-12=-2857/403, 2-19=-164/1718, 5-18=0/395, 4-18=-409/97		

- 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) gable end 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 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
 - 7) Refer to girder(s) for truss to truss connections.
 - 8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 12=176, 20=237.
 - 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.



March 25,2021



Scale = 1:81.1

Plate Offsets (X,Y)-- [2:0-2-5,0-3-0], [3:0-4-0,0-2-4], [8:0-5-12,0-2-12], [15:Edge,0-2-8]									
LOADING (psf)		SPACING- 2-0-0		CSI.		DEFL. in (loc) l/defl L/d		PLATES GRIP	
TCLL	25.0	Plate Grip DOL	1.15	TC	0.82	Vert(LL)	-0.25 13-14 >999 360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.99	Vert(CT)	-0.57 13-14 >763 240	M18SHS	197/144
BCLL	0.0 *	Rep Stress Incr	NO	WB	0.76	Horz(CT)	0.12 12 n/a n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-S		Wind(LL)	0.13 17-18 >999 240	Weight: 180 lb	FT = 10%

LUMBER-		BRACING-	
TOP CHORD	2x4 SPF No.2 *Except* 8-10: 2x6 SPF No.2	TOP CHORD	Structural wood sheathing directly applied or 2-10-8 oc purlins, except end verticals, and 2-0-0 oc purlins (4-11-14 max.): 3-4, 10-11.
BOT CHORD	2x4 SPF No.2 *Except* 16-20: 2x4 SPF 2100F 1.8E, 9-15: 2x3 SPF No.2	BOT CHORD	Rigid ceiling directly applied or 9-10-4 oc bracing. Except:
WEBS	2x3 SPF No.2 *Except* 8-17,8-14,2-20: 2x4 SPF No.2	WEBS	1 Row at midpt 9-14 1 Row at midpt 5-17, 7-17, 8-17, 10-14, 10-12

REACTIONS. (size) 12=Mechanical, 20=0-3-8
 Max Horz 20=337(LC 26)
 Max Uplift 12=-180(LC 9), 20=-247(LC 8)
 Max Grav 12=1641(LC 1), 20=1712(LC 1)

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

TOP CHORD 2-3=-1573/178, 3-4=-1377/165, 4-5=-2915/380, 5-7=-2199/313, 7-8=-2182/488,
8-9=-2169/478, 9-10=-2157/298, 2-20=-1678/203

BOT CHORD 19-20=-315/317, 18-19=-638/3293, 17-18=-445/2481, 9-14=-648/414, 13-14=-259/2450,
12-13=-254/2457

WEBS 3-19=-106/697, 4-19=-2373/373, 4-18=-843/200, 5-18=0/397, 5-17=-806/252,
7-17=-470/284, 8-17=-334/1042, 14-17=-74/1308, 8-14=-372/1157, 10-14=-777/183,
10-13=0/339, 10-12=-2878/276, 2-19=-133/1463

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) gable end 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 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 7) Refer to girder(s) for truss to truss connections.
- 8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 12=180, 20=247.
- 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) 123 lb down and 49 lb up at 1'-3"-0 on top chord, and 12 lb down and 11 lb up at 1'-3"-0 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.

Continued on page CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).



March 25, 2021

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 104 H4
210486	D7	Roof Special Girder	1	1	I45348887
Job Reference (optional)					

Wheeler Lumber, Waverly, KS - 66871,

8.430 s Feb 12 2021 MiTek Industries, Inc. Wed Mar 24 16:09:24 2021 Page 2
ID:Lek3CAANj_gYbKvtCQHtmQzKvNM-kGoaEtweYzrPP8XThpofJx2KzurxommqoF6P?UzXgPv

LOAD CASE(S) Standard

- 1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
- Uniform Loads (plf)
 - Vert: 1-2=-70, 2-3=-70, 3-4=-70, 4-8=-70, 8-10=-70, 10-11=-70, 15-20=-20, 12-14=-20
- Concentrated Loads (lb)
 - Vert: 19=3(B)

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



16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 104 H4	I45348888
210486	E1	Roof Special	1	1		
Job Reference (optional)						

Wheeler Lumber, Waverly, KS - 66871,

8.430 s Feb 12 2021 MiTek Industries, Inc. Wed Mar 24 16:09:25 2021 Page 1

ID:Lek3CAANj_gYbKvtCQHtmQzKvNM-CTMyRDxGJGzG0l5gFXJur9aaXHFJXBaz0vsvYwzXgPu

0-10-8	6-2-4	13-0-9	18-8-13	22-0-8	26-8-8	31-10-2	34-8-14
0-10-8	6-2-4	6-10-5	5-8-4	3-3-11	4-8-0	5-1-10	2-10-12

Scale = 1:78.6

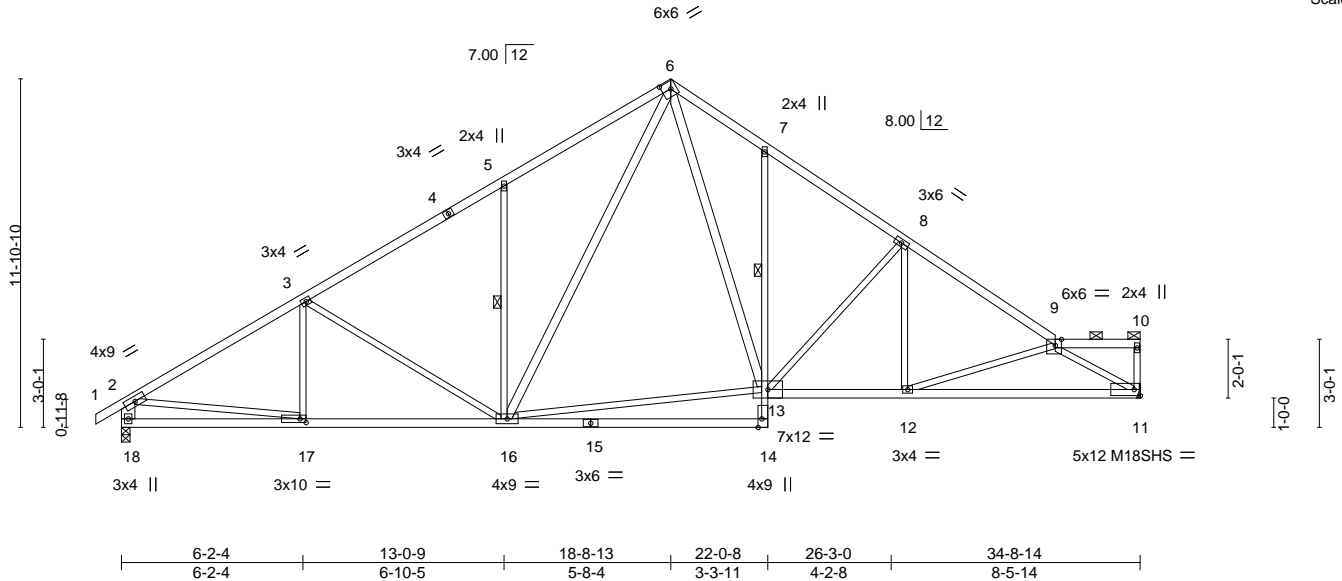


Plate Offsets (X,Y)-- [6:0-3-11,0-3-0], [9:0-2-8,Edge], [14:0-3-8,Edge], [17:0-2-8,0-1-8]												
LOADING (psf)		SPACING- 2-0-0		CSI.		DEFL. in (loc) l/defl L/d				PLATES GRIP		
TCLL	25.0	Plate Grip DOL 1.15		TC	0.51	Vert(LL)	-0.20	14-16	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL 1.15		BC	0.72	Vert(CT)	-0.45	14-16	>925	240	M18SHS	197/144
BCLL	0.0 *	Rep Stress Incr YES		WB	0.79	Horz(CT)	0.09	11	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-S		Wind(LL)	0.06	16	>999	240	Weight: 167 lb	FT = 10%

LUMBER-

TOP CHORD 2x4 SPF No.2
 BOT CHORD 2x4 SPF No.2 *Except*
 7-14: 2x3 SPF No.2
 WEBS 2x3 SPF No.2 *Except*
 6-16,6-13: 2x4 SPF No.2, 2-18: 2x6 SPF No.2

BRACING-

TOP CHORD Structural wood sheathing directly applied or 3-4-6 oc purlins, except end verticals, and 2-0-0 oc purlins (6-0-0 max.): 9-10.
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing. Except:
 1 Row at midpt 7-13
 WEBS 1 Row at midpt 5-16

REACTIONS.

(size) 11=Mechanical, 18=0-3-8
 Max Horz 18=266(LC 5)
 Max Uplift 11=-7(LC 9), 18=-28(LC 8)
 Max Grav 11=1547(LC 1), 18=1627(LC 1)

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

TOP CHORD 2-3=-2244/47, 3-5=-1914/71, 5-6=-1910/193, 6-7=-1830/156, 7-8=-1878/89,
 8-9=-2319/14, 2-18=-1562/62
 BOT CHORD 17-18=-243/486, 16-17=-99/1847, 7-13=-271/114, 12-13=0/1849, 11-12=-50/2214
 WEBS 3-16=-381/106, 5-16=-478/176, 6-16=-142/852, 13-16=0/1088, 6-13=-107/931,
 8-13=-556/80, 8-12=0/370, 9-12=-386/92, 9-11=-2573/70, 2-17=0/1531

NOTES-

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope); cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- Provide adequate drainage to prevent water ponding.
- All plates are MT20 plates unless otherwise indicated.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- Refer to girder(s) for truss to truss connections.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 11, 18.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



March 25, 2021

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16023 Swingley Ridge Rd
 Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 104 H4	145348889
210486	E2	Roof Special	1	1		

Wheeler Lumber, Waverly, KS - 66871,

8.430 s Feb 12 2021 MiTek Industries, Inc. Wed Mar 24 16:09:26 2021 Page 1

ID:Lek3CAANj_gYbKvtCQHtmQzKvNM-gfwLeZxu4a57eSgsoEq7OM7euhatGf17FZbV4MzXgPt

0-10-8 6-2-4 13-0-9 18-8-13 22-0-8 26-8-10 33-4-2 34-8-14
0-10-8 6-2-4 6-10-5 5-8-4 3-3-11 4-8-2 6-7-8 1-4-12

Scale = 1:78.6

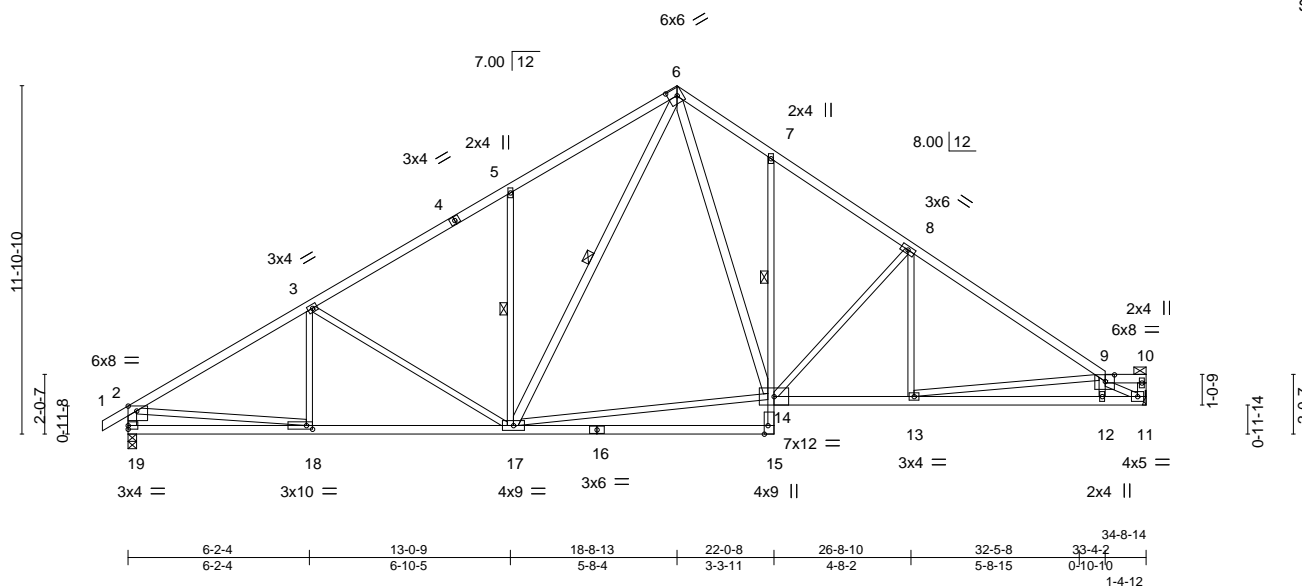


Plate Offsets (X,Y)-- [2:0-3-8,Edge], [6:0-3-11,0-3-0], [9:0-3-12,0-2-12], [15:0-3-8,Edge], [18:0-2-8,0-1-8]

LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.92	Vert(LL)	-0.20 15-17	>999	360	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.77	Vert(CT)	-0.45 15-17	>921	240		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.73	Horz(CT)	0.09 11	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-S	Wind(LL)	0.09 17	>999	240	Weight: 167 lb	FT = 10%

LUMBER-

TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2 *Except*
7-15: 2x3 SPF No.2
WEBS 2x3 SPF No.2 *Except*
10-11,6-17,6-14,2-19: 2x4 SPF No.2

BRACING-

TOP CHORD Structural wood sheathing directly applied, except end verticals, and 2-0-0 oc purlins (6-0-0 max.): 9-10.
BOT CHORD Rigid ceiling directly applied or 9-7-3 oc bracing. Except:
1 Row at midpt 7-14
WEBS 1 Row at midpt 5-17, 6-17

REACTIONS.

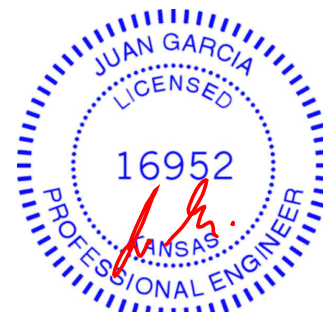
(size) 11=Mechanical, 19=0-3-8
Max Horz 19=317(LC 5)
Max Uplift 11=169(LC 9), 19=214(LC 8)
Max Grav 11=1549(LC 1), 19=1623(LC 1)

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

TOP CHORD 2-3=-2273/288, 3-5=-1923/279, 5-6=-1918/457, 6-7=-1821/389, 7-8=-1886/303,
8-9=-2355/248, 2-19=-1557/247
BOT CHORD 18-19=-300/547, 17-18=-365/1886, 13-14=-117/1861, 12-13=-278/2371, 11-12=-291/2375
WEBS 3-17=-411/198, 5-17=-489/288, 6-17=-307/862, 14-17=-89/1088, 6-14=-258/918,
8-14=-594/217, 8-13=0/324, 9-13=-526/168, 9-11=-2644/324, 2-18=-69/1540

NOTES-

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- Provide adequate drainage to prevent water ponding.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- Refer to girder(s) for truss to truss connections.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 11=169, 19=214.
- 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.
- Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



March 25, 2021

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 104 H4	I45348890
210486	E3	Roof Special	1	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS - 66871,

8.430 s Feb 12 2021 MiTek Industries, Inc. Wed Mar 24 16:09:27 2021 Page 1

ID:Lek3CAANj_gYbKvTCQHtmQzKvNM-8rUjsvyWruD_GcF2MyLMxaguJ5?e?7HGUDL3cpzXgPs

0-10-8 6-2-4 13-0-9 18-8-13 22-0-8 27-10-8 34-8-14

0-10-8 6-2-4 6-10-5 5-8-4 3-3-11 5-10-0 6-10-6

Scale = 1:74.3

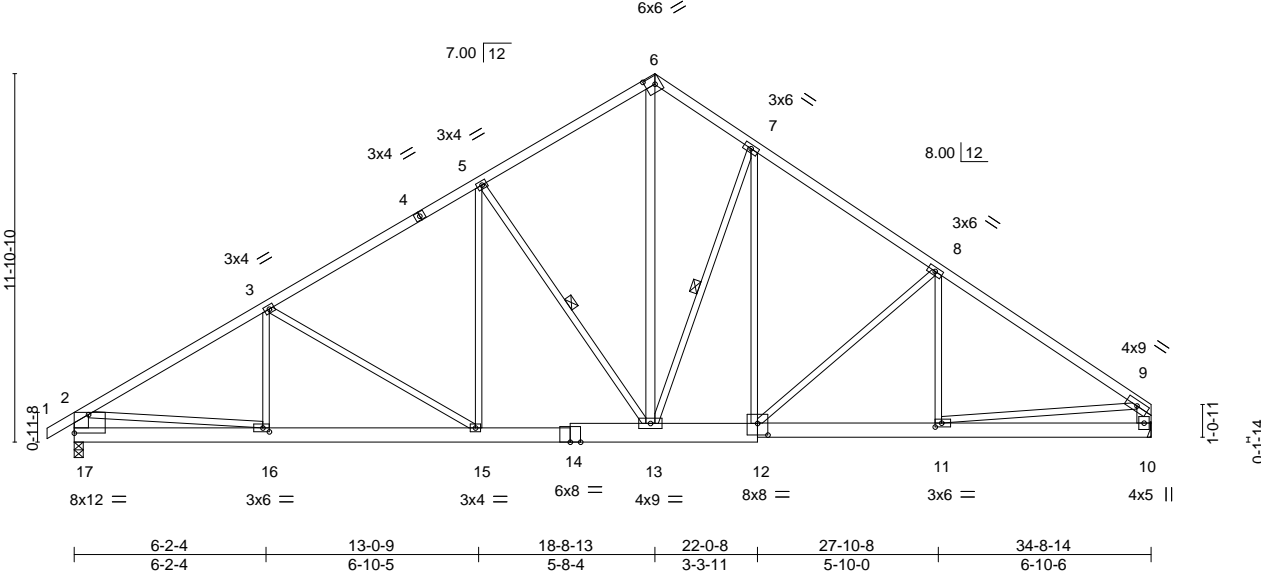


Plate Offsets (X,Y)-- [6:0-3-11,0-3-0], [11:0-2-8,0-1-8], [12:0-4-0,0-4-8], [16:0-2-8,0-1-8], [17:Edge,0-7-3]											
LOADING (psf)		SPACING- 2-0-0		CSI.		DEFL. in (loc) l/defl L/d		PLATES GRIP			
TCLL	25.0	Plate Grip DOL	1.15	TC	0.62	Vert(LL)	-0.10 15-16	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.41	Vert(CT)	-0.19 15-16	>999	240		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.64	Horz(CT)	0.04 10	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-S		Wind(LL)	0.07 15-16	>999	240	Weight: 191 lb	FT = 10%

LUMBER-

TOP CHORD 2x4 SPF No.2

BOT CHORD 2x6 SPF No.2 *Except*

12-14: 2x8 SP DSS

WEBS 2x3 SPF No.2 *Except*

6-13: 2x4 SPF No.2, 2-17,9-10: 2x6 SPF No.2

BRACING-

TOP CHORD Structural wood sheathing directly applied or 3-0-7 oc purlins, except end verticals.

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

WEBS 1 Row at midpt 5-13, 7-13

REACTIONS. (size) 17=0-3-8, 10=Mechanical

Max Horz 17=320(LC 5)

Max Uplift 17=216(LC 8), 10=167(LC 9)

Max Grav 17=1621(LC 1), 10=1541(LC 1)

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

TOP CHORD 2-3=2265/285, 3-5=1911/283, 5-6=1471/302, 6-7=1459/330, 7-8=1747/283, 8-9=2078/231, 2-17=1535/245, 9-10=1454/202

BOT CHORD 16-17=295/681, 15-16=343/1886, 13-15=184/1551, 12-13=51/1343, 11-12=102/1629, 10-11=93/373

WEBS 3-15=413/186, 5-15=16/368, 5-13=706/266, 6-13=249/1191, 2-16=49/1381, 9-11=63/1265, 7-12=74/359, 8-12=427/211, 7-13=594/251

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
 - Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
 - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
 - * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
 - Refer to girder(s) for truss to truss connections.
 - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 17=216, 10=167.
 - This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



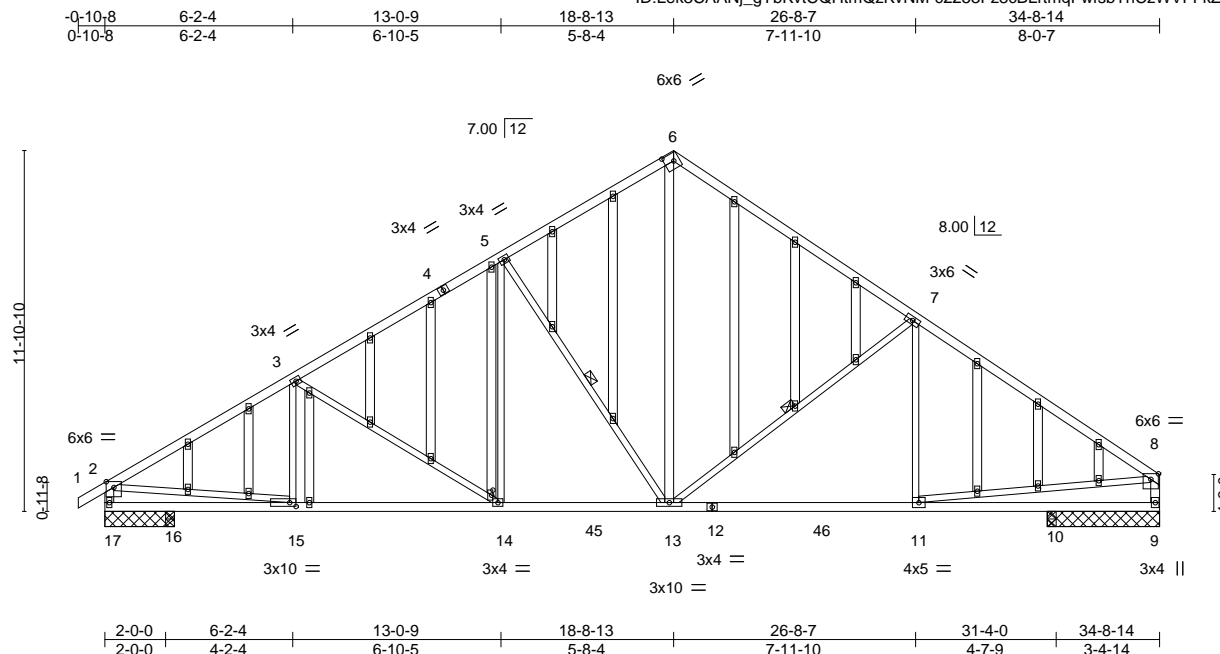
March 25,2021

Job 210486	Truss E4	Truss Type GABLE	Qty 1	Ply 1	Lot 104 H4 Job Reference (optional)	I45348891
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Wheeler Lumber, Waverly, KS - 66871,

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Scale = 1:75.9

LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.98	Vert(LL)	-0.21 11-13	>999	360	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.77	Vert(CT)	-0.38 11-13	>910	240		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.73	Horz(CT)	0.06 9	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-S	Wind(LL)	0.09 14-15	>999	240	Weight: 219 lb	FT = 10%

LUMBER-

TOP CHORD 2x4 SPF No.2
 BOT CHORD 2x4 SPF No.2
 WEBS 2x3 SPF No.2 *Except*
 6-13,2-17,8-9: 2x4 SPF No.2
 OTHERS 2x4 SPF No.2

BRACING-

TOP CHORD Structural wood sheathing directly applied, except end verticals.
 BOT CHORD Rigid ceiling directly applied or 9-11-5 oc bracing.
 WEBS 1 Row at midpt 5-13, 7-13

REACTIONS.

All bearings 0-3-8 except (jt=length) 17=2-3-8, 9=3-8-6.
 (lb) - Max Horz 17=325(LC 5)
 Max Uplift All uplift 100 lb or less at joint(s) except 17=224(LC 8), 9=198(LC 9)
 Max Grav All reactions 250 lb or less at joint(s) 16, 10 except 17=1584(LC 15), 9=1558(LC 16)

FORCES.

(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
 TOP CHORD 2-3=2356/294, 3-5=2007/293, 5-6=1537/307, 6-7=1651/315, 7-8=2101/252,
 2-17=1617/250, 8-9=1518/220
 BOT CHORD 16-17=321/472, 15-16=321/472, 14-15=348/2159, 13-14=187/1805, 11-13=107/1662
 WEBS 3-14=416/190, 5-14=31/466, 5-13=820/273, 6-13=194/1215, 7-13=658/298,
 2-15=70/1699, 8-11=64/1522

NOTES-

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 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.
- All plates are 2x4 MT20 unless otherwise indicated.
- Gable studs spaced at 2-0-0 oc.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 224 lb uplift at joint 17 and 198 lb uplift at joint 9.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



March 25, 2021

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

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

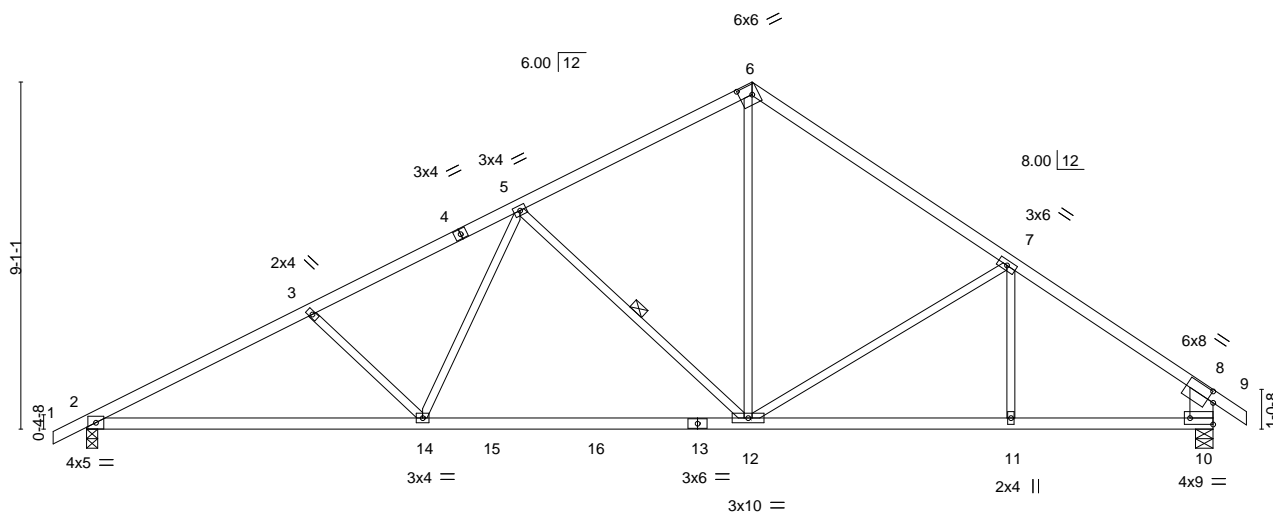


16023 Swingley Ridge Rd
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-0-10-8	5-10-15	11-4-3	17-5-2	24-2-8	29-6-0	30-4-8
0-10-8	5-10-15	5-5-4	6-0-15	6-9-5	5-3-8	0-10-8

Scale = 1:60.3



	8-9-10	17-5-2	24-2-8	29-6-0
	8-9-10	8-7-9	6-9-5	5-3-8
Plate Offsets (X,Y)--	[6:0-3-15.0-3-0]. [8:0-2-0.0-3-0]. [10:Edge.0-2-0]			

LOADING (psf)	SPACING- 2-0-0	CSI.	DEFL. in (loc) l/defl L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL 1.15	TC 0.97	Vert(LL) -0.23 12-14 >999 360	MT20	197/144
TCDL 10.0	Lumber DOL 1.15	BC 0.99	Vert(CT) -0.39 12-14 >898 240		
BCLL 0.0 *	Rep Stress Incr YES	WB 0.49	Horz(CT) 0.07 10 n/a n/a		
BCDL 10.0	Code IRC2018/TPI2014	Matrix-S	Wind(LL) 0.12 11-12 >999 240	Weight: 109 lb	FT = 10%

LUMBER-

TOP CHORD	2x4 SPF No.2 *Except* 6-9: 2x4 SPF 2400F 2.0E
BOT CHORD	2x4 SPF No.2 *Except* 10-13: 2x4 SPF 2100F 1.8E
WEBS	2x3 SPF No.2 *Except* 8-10: 2x8 SP DSS

BRACING-

TOP CHORD	Structural wood sheathing directly applied, except end verticals.	
BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing, Except: 2-2-0 oc bracing: 2-14.	
WEBS	1 Row at midpt	5-12

REACTIONS.

(size) 2=0-3-8, 10=0-5-8
 Max Horz 2=272(LC 7)
 Max Uplift 2=-203(LC 8), 10=-158(LC 9)
 Max Grav 2=1426(LC 2), 10=1461(LC 16)

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

TOP CHORD 2-3=-2436/341, 3-5=-2211/307, 5-6=-1363/226, 6-7=-1435/254, 7-8=-1742/184,
8-10=-1268/178

BOT CHORD 2-14=-374/2135, 12-14=-215/1686, 11-12=-67/1297, 10-11=-67/1297

WEBS 3-14=-351/203, 5-14=-37/611, 5-12=-740/253, 6-12=-105/934, 7-12=-304/215

NOTES-

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-16; $V_{ult}=115\text{mph}$ (3-second gust) $V_{asd}=91\text{mph}$; $TCDL=6.0\text{psf}$; $BCDL=6.0\text{psf}$; $h=25\text{ft}$; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end 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 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with $BCDL = 10.0\text{psf}$.
- 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 203 lb uplift at joint 2 and 158 lb uplift at joint 10.
- 6) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



March 25, 2021



WARNING – Velly design parameters are listed below and included with the key reference to AISC M14-15 16f, 17f, 18f, 19f, 20f, 21f, 22f, 23f, 24f, 25f, 26f, 27f, 28f, 29f, 30f, 31f, 32f, 33f, 34f, 35f, 36f, 37f, 38f, 39f, 40f, 41f, 42f, 43f, 44f, 45f, 46f, 47f, 48f, 49f, 50f, 51f, 52f, 53f, 54f, 55f, 56f, 57f, 58f, 59f, 60f, 61f, 62f, 63f, 64f, 65f, 66f, 67f, 68f, 69f, 70f, 71f, 72f, 73f, 74f, 75f, 76f, 77f, 78f, 79f, 80f, 81f, 82f, 83f, 84f, 85f, 86f, 87f, 88f, 89f, 90f, 91f, 92f, 93f, 94f, 95f, 96f, 97f, 98f, 99f, 100f, 101f, 102f, 103f, 104f, 105f, 106f, 107f, 108f, 109f, 110f, 111f, 112f, 113f, 114f, 115f, 116f, 117f, 118f, 119f, 120f, 121f, 122f, 123f, 124f, 125f, 126f, 127f, 128f, 129f, 130f, 131f, 132f, 133f, 134f, 135f, 136f, 137f, 138f, 139f, 140f, 141f, 142f, 143f, 144f, 145f, 146f, 147f, 148f, 149f, 150f, 151f, 152f, 153f, 154f, 155f, 156f, 157f, 158f, 159f, 160f, 161f, 162f, 163f, 164f, 165f, 166f, 167f, 168f, 169f, 170f, 171f, 172f, 173f, 174f, 175f, 176f, 177f, 178f, 179f, 180f, 181f, 182f, 183f, 184f, 185f, 186f, 187f, 188f, 189f, 190f, 191f, 192f, 193f, 194f, 195f, 196f, 197f, 198f, 199f, 200f, 201f, 202f, 203f, 204f, 205f, 206f, 207f, 208f, 209f, 210f, 211f, 212f, 213f, 214f, 215f, 216f, 217f, 218f, 219f, 220f, 221f, 222f, 223f, 224f, 225f, 226f, 227f, 228f, 229f, 230f, 231f, 232f, 233f, 234f, 235f, 236f, 237f, 238f, 239f, 240f, 241f, 242f, 243f, 244f, 245f, 246f, 247f, 248f, 249f, 250f, 251f, 252f, 253f, 254f, 255f, 256f, 257f, 258f, 259f, 260f, 261f, 262f, 263f, 264f, 265f, 266f, 267f, 268f, 269f, 270f, 271f, 272f, 273f, 274f, 275f, 276f, 277f, 278f, 279f, 280f, 281f, 282f, 283f, 284f, 285f, 286f, 287f, 288f, 289f, 290f, 291f, 292f, 293f, 294f, 295f, 296f, 297f, 298f, 299f, 300f, 301f, 302f, 303f, 304f, 305f, 306f, 307f, 308f, 309f, 310f, 311f, 312f, 313f, 314f, 315f, 316f, 317f, 318f, 319f, 320f, 321f, 322f, 323f, 324f, 325f, 326f, 327f, 328f, 329f, 330f, 331f, 332f, 333f, 334f, 335f, 336f, 337f, 338f, 339f, 340f, 341f, 342f, 343f, 344f, 345f, 346f, 347f, 348f, 349f, 350f, 351f, 352f, 353f, 354f, 355f, 356f, 357f, 358f, 359f, 360f, 361f, 362f, 363f, 364f, 365f, 366f, 367f, 368f, 369f, 370f, 371f, 372f, 373f, 374f, 375f, 376f, 377f, 378f, 379f, 380f, 381f, 382f, 383f, 384f, 385f, 386f, 387f, 388f, 389f, 390f, 391f, 392f, 393f, 394f, 395f, 396f, 397f, 398f, 399f, 400f, 401f, 402f, 403f, 404f, 405f, 406f, 407f, 408f, 409f, 410f, 411f, 412f, 413f, 414f, 415f, 416f, 417f, 418f, 419f, 420f, 421f, 422f, 423f, 424f, 425f, 426f, 427f, 428f, 429f, 430f, 431f, 432f, 433f, 434f, 435f, 436f, 437f, 438f, 439f, 440f, 441f, 442f, 443f, 444f, 445f, 446f, 447f, 448f, 449f, 450f, 451f, 452f, 453f, 454f, 455f, 456f, 457f, 458f, 459f, 460f, 461f, 462f, 463f, 464f, 465f, 466f, 467f, 468f, 469f, 470f, 471f, 472f, 473f, 474f, 475f, 476f, 477f, 478f, 479f, 480f, 481f, 482f, 483f, 484f, 485f, 486f, 487f, 488f, 489f, 490f, 491f, 492f, 493f, 494f, 495f, 496f, 497f, 498f, 499f, 500f, 501f, 502f, 503f, 504f, 505f, 506f, 507f, 508f, 509f, 510f, 511f, 512f, 513f, 514f, 515f, 516f, 517f, 518f, 519f, 520f, 521f, 522f, 523f, 524f, 525f, 526f, 527f, 528f, 529f, 530f, 531f, 532f, 533f, 534f, 535f, 536f, 537f, 538f, 539f, 540f, 541f, 542f, 543f, 544f, 545f, 546f, 547f, 548f, 549f, 550f, 551f, 552f, 553f, 554f, 555f, 556f, 557f, 558f, 559f, 560f, 561f, 562f, 563f, 564f, 565f, 566f, 567f, 568f, 569f, 570f, 571f, 572f, 573f, 574f, 575f, 576f, 577f, 578f, 579f, 580f, 581f, 582f, 583f, 584f, 585f, 586f, 587f, 588f, 589f, 590f, 591f, 592f, 593f, 594f, 595f, 596f, 597f, 598f, 599f, 600f, 601f, 602f, 603f, 604f, 605f, 606f, 607f, 608f, 609f, 610f, 611f, 612f, 613f, 614f, 615f, 616f, 617f, 618f, 619f, 620f, 621f, 622f, 623f, 624f, 625f, 626f, 627f, 628f, 629f, 630f, 631f, 632f, 633f, 634f, 635f, 636f, 637f, 638f, 639f, 640f, 641f, 642f, 643f, 644f, 645f, 646f, 647f, 648f, 649f, 650f, 651f, 652f, 653f, 654f, 655f, 656f, 657f, 658f, 659f, 660f, 661f, 662f, 663f, 664f, 665f, 666f, 667f, 668f, 669f, 670f, 671f, 672f, 673f, 674f, 675f, 676f, 677f, 678f, 679f, 680f, 681f, 682f, 683f, 684f, 685f, 686f, 687f, 688f, 689f, 690f, 691f, 692f, 693f, 694f, 695f, 696f, 697f, 698f, 699f, 700f, 701f, 702f, 703f, 704f, 705f, 706f, 707f,



16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job 210486	Truss G2	Truss Type Roof Special Supported Gable	Qty 1	Ply 1	Lot 104 H4 Job Reference (optional)	I45348893
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Wheeler Lumber, Waverly, KS - 66871,

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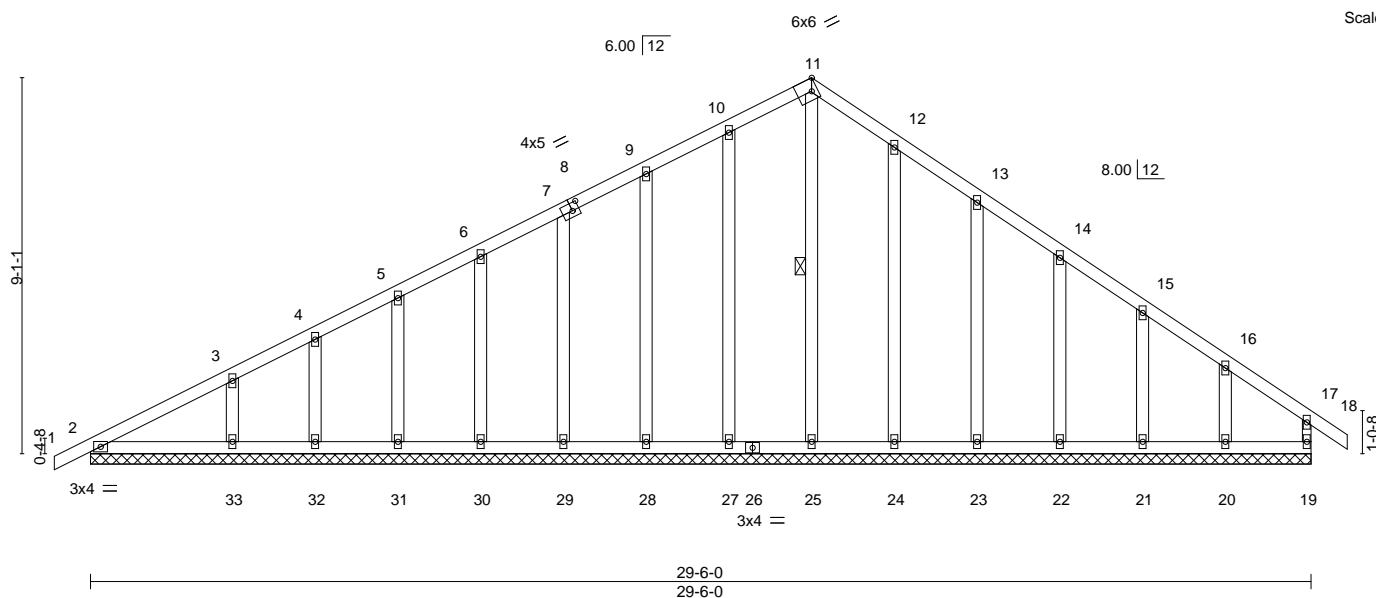


Plate Offsets (X,Y)--		[8:0-2-0,0-2-4], [11:0-1-12,Edge]	
LOADING (psf)	SPACING-	CSI.	DEFL.
TCLL 25.0	2-0-0	TC 0.11	in (loc) l/defl L/d
TCDL 10.0	Plate Grip DOL 1.15	BC 0.07	Vert(LL) -0.00 18 n/r 120
BCLL 0.0 *	Lumber DOL 1.15	WB 0.16	Vert(CT) -0.00 18 n/r 120
BCDL 10.0	Rep Stress Incr YES	Matrix-S	Horz(CT) 0.00 19 n/a n/a
	Code IRC2018/TPI2014		
		PLATES	GRIP
		MT20	197/144
		Weight: 147 lb	FT = 10%

LUMBER-

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

BRACING-

TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 1 Row at midpt 11-25

REACTIONS.

- All bearings 29-6-0.
(lb) - Max Horz 2=269(LC 7)
Max Uplift All uplift 100 lb or less at joint(s) 2, 25, 27, 28, 29, 30, 31, 32, 33, 24, 23, 22, 21 except 20=114(LC 9)
Max Grav All reactions 250 lb or less at joint(s) 19, 2, 27, 28, 29, 30, 31, 32, 24, 23, 22, 21, 20 except 25=254(LC 9), 33=299(LC 21)

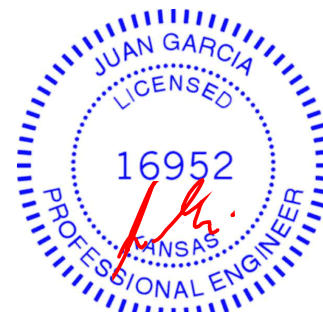
FORCES.

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

TOP CHORD 9-10=-135/261, 10-11=-117/281, 11-12=-113/287

NOTES-

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 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.
- All plates are 2x4 MT20 unless otherwise indicated.
- Gable requires continuous bottom chord bearing.
- Gable studs spaced at 2-0-0 oc.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 25, 27, 28, 29, 30, 31, 32, 33, 24, 23, 22, 21 except (jt=lb) 20=114.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



March 25, 2021

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

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

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

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



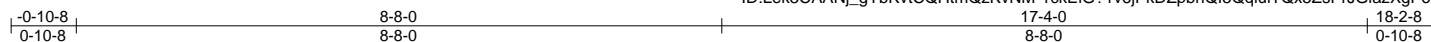
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 104 H4	I45348894
210486	H1	Common Supported Gable	1	1	Job Reference (optional)	

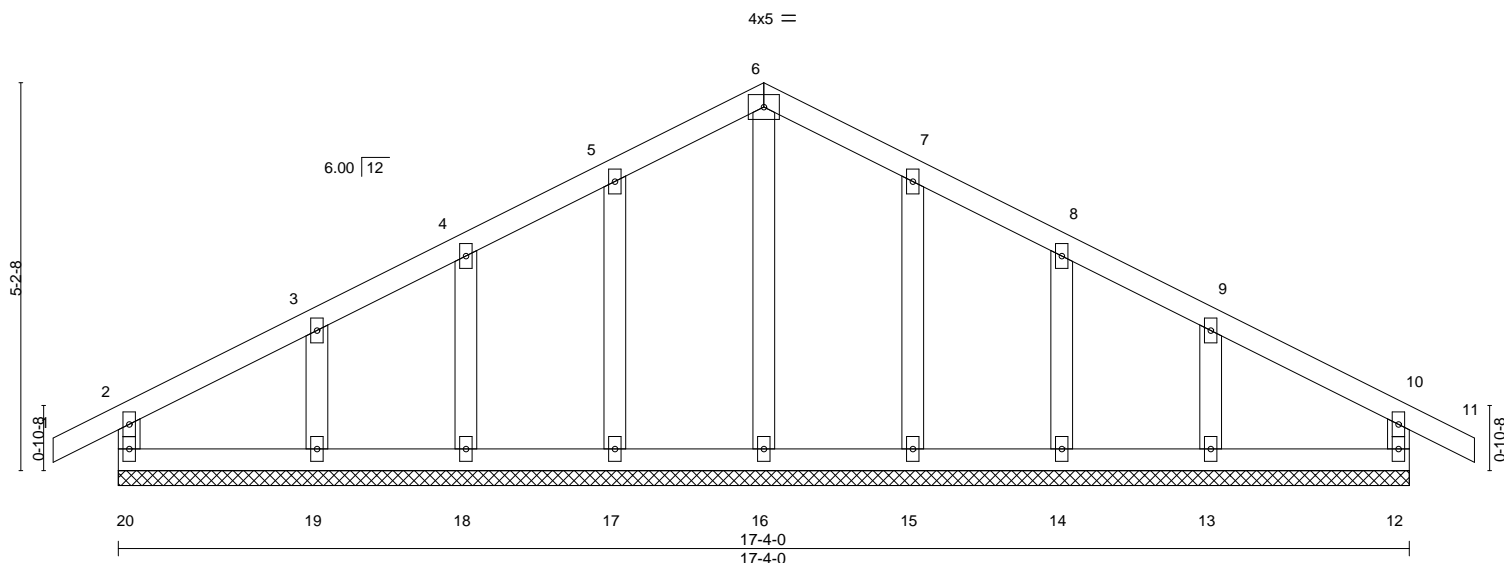
Wheeler Lumber, Waverly, KS - 66871,

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Scale = 1:30.9



LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.07	Vert(LL)	-0.00	11	n/r	120	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.04	Vert(CT)	-0.00	11	n/r	120		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.05	Horz(CT)	0.00	12	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-R						Weight: 69 lb	FT = 10%

LUMBER-

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

BRACING-

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

REACTIONS.

All bearings 17-4-0.

(lb) - Max Horz 20=86(LC 6)

Max Uplift All uplift 100 lb or less at joint(s) 20, 12, 17, 18, 19, 15, 14, 13

Max Grav All reactions 250 lb or less at joint(s) 20, 12, 16, 17, 18, 19, 15, 14, 13

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

NOTES-

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 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.
- All plates are 2x4 MT20 unless otherwise indicated.
- Gable requires continuous bottom chord bearing.
- Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
- Gable studs spaced at 2-0-0 oc.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 20, 12, 17, 18, 19, 15, 14, 13.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



March 25, 2021

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

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

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

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



16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 104 H4	I45348895
210486	H2	Roof Special Supported Gable	1	1		

Wheeler Lumber, Waverly, KS - 66871,

8.430 s Feb 12 2021 MiTek Industries, Inc. Wed Mar 24 16:09:32 2021 Page 1

ID:Lek3CAANj_gYbKvtCQHtmQzKvNM-VpHcvc0ffQrGMN809VxXedNh36fQgWU?dV2ql0zXgPn

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

Scale = 1:28.6

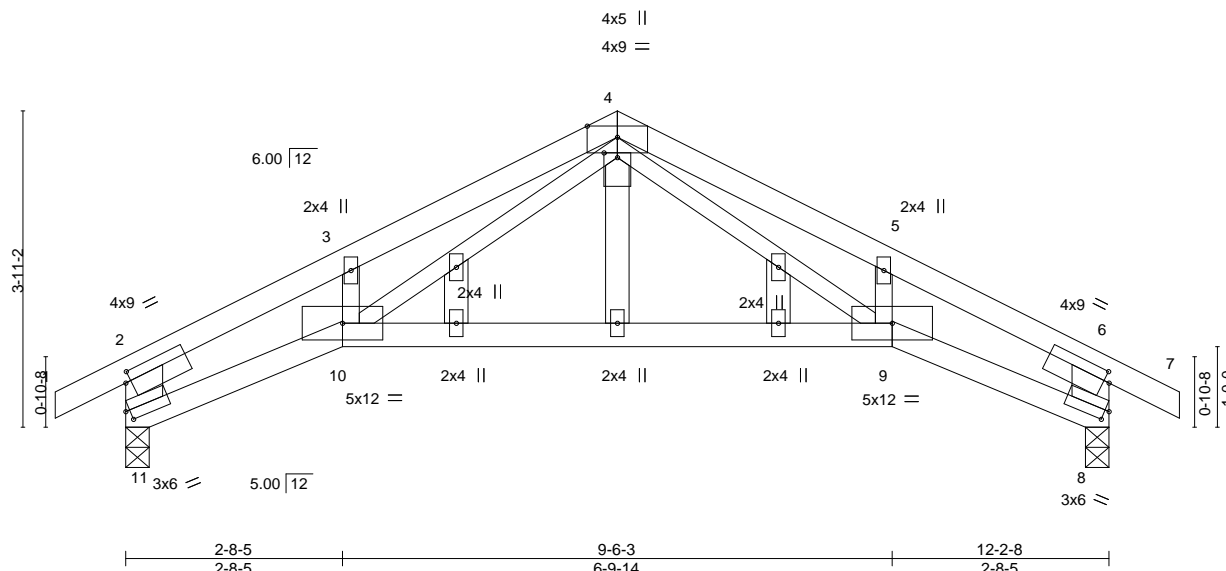


Plate Offsets (X,Y)-- [2:0-0-13,0-1-8], [4:0-0-11,0-2-0], [6:0-0-13,0-1-8], [8:0-0-10,0-1-8], [11:0-0-10,0-1-8]												
LOADING (psf)		SPACING- 2-0-0		CSI.		DEFL. in (loc) l/defl L/d			PLATES GRIP			
TCLL	25.0	Plate Grip DOL	1.15	TC	0.88	Vert(LL)	-0.15	9-10	>955	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.63	Vert(CT)	-0.35	9-10	>403	240		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.14	Horz(CT)	0.17	8	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-S		Wind(LL)	0.09	9-10	>999	240	Weight: 47 lb	FT = 10%

LUMBER-

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

BRACING-

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

REACTIONS.

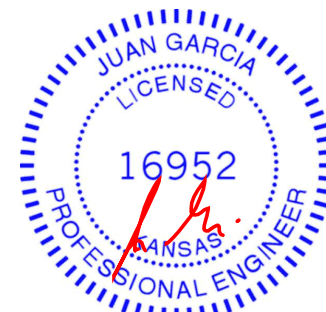
(size) 11=0-3-8, 8=0-3-8
 Max Horz 11=71(LC 7)
 Max Uplift 11=90(LC 8), 8=90(LC 9)
 Max Grav 11=606(LC 1), 8=606(LC 1)

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

TOP CHORD 2-3=-1119/131, 3-4=-952/206, 4-5=-952/175, 5-6=-1119/93, 2-11=-846/128, 6-8=-846/104
 BOT CHORD 10-11=-114/911, 9-10=-26/568, 8-9=-42/911
 WEBS 4-9=-99/395, 4-10=-117/395

NOTES-

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 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.
- Gable studs spaced at 2-0-0 oc.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 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.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 11, 8.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



March 25, 2021

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



16023 Swingley Ridge Rd
 Chesterfield, MO 63017

Job 210486	Truss H3	Truss Type ROOF SPECIAL GIRDER	Qty 1	Ply 3	Lot 104 H4	I45348896
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Wheeler Lumber, Waverly, KS 66871

ID:Lek3CAANj_gYbKvtCQHtmQzKvNM-PLs8LtmXAOQDL5tnLXxHevNqlGDnmiI5qS6yHSzXQZu

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

6x6 =

Scale: 1/2"=1'

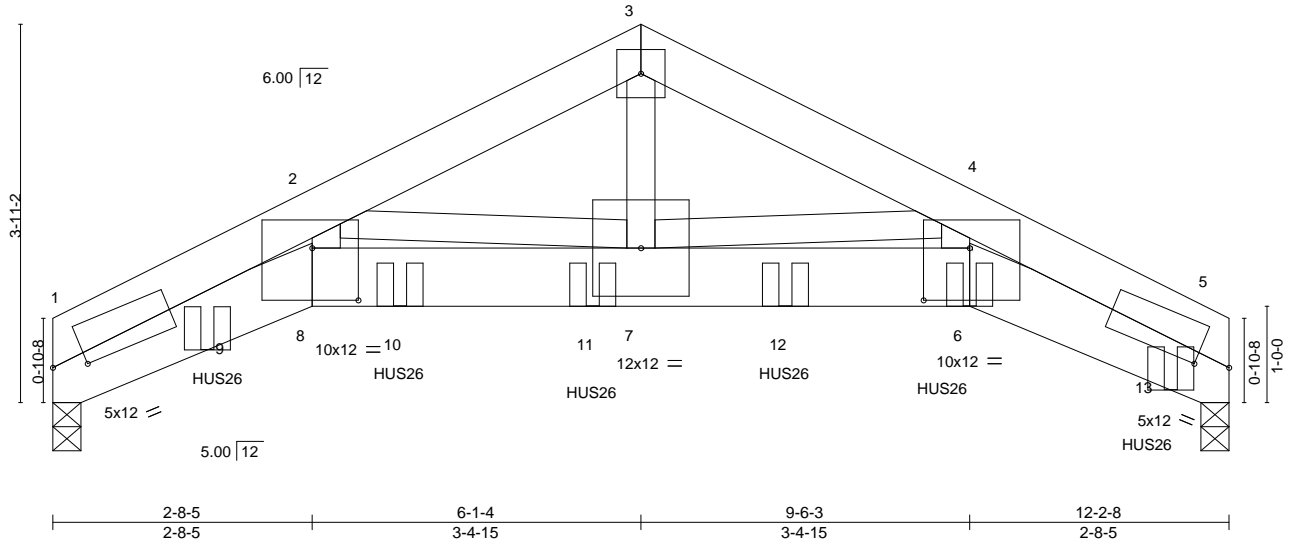


Plate Offsets (X,Y)-- [1:0-4-3,0-1-3], [5:0-4-3,0-1-3], [6:0-5-12,0-6-8], [8:0-5-12,0-6-8]

LOADING (psf)	SPACING-	CSI.	DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	2-0-0	TC 0.54	Vert(LL)	-0.09	7-8	>999	360	MT20	197/144
TCDL 10.0	Plate Grip DOL 1.15	BC 0.48	Vert(CT)	-0.15	7-8	>944	240		
BCLL 0.0 *	Lumber DOL 1.15	WB 0.50	Horz(CT)	0.14	5	n/a	n/a		
BCDL 10.0	Rep Stress Incr NO	Matrix-S	Wind(LL)	0.05	7-8	>999	240		
	Code IRC2018/TPI2014							Weight: 248 lb	FT = 10%

LUMBER-
TOP CHORD 2x6 SP 2400F 2.0E
BOT CHORD 2x8 SP DSS
WEBS 2x4 SPF No.2

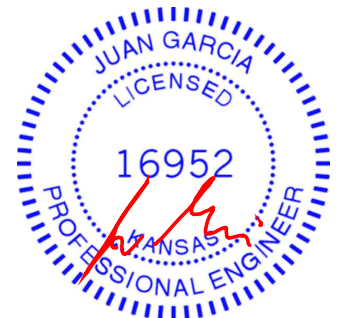
BRACING-
TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins. [PSA]
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (lb/size) 1=4943/0-3-8, 5=5573/0-3-8
Max Horz 1=60(LC 33)
Max Uplift 1=-367(LC 8), 5=-533(LC 9)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-2=-13931/1187, 2-3=-8265/705, 3-4=-8266/720, 4-5=-13857/1155
BOT CHORD 1-9=-1047/11712, 8-9=-1043/12335, 8-10=-909/10286, 10-11=-909/10280,
7-11=-908/10274, 7-12=-828/10226, 6-12=-828/10232, 6-13=-956/11989, 5-13=-899/11392
WEBS 3-7=-481/6089, 4-7=-2715/330, 4-6=-392/5313, 2-7=-2767/320, 2-8=-402/5368

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.
Bottom chords connected as follows: 2x8 - 4 rows staggered at 0-4-0 oc.
Webs connected as follows: 2x4 - 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) gable end 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 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 8) Bearing at joint(s) 1, 5 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- 9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 367 lb uplift at joint 1 and 533 lb uplift at joint 5.
- 10) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 11) Use Simpson Strong-Tie HUS26 (14-10d Girder, 4-10d Truss) or equivalent spaced at 2-1-1 oc max. starting at 1-7-4 from the left end to 11-7-4 to connect truss(es) to back face of bottom chord.



March 25, 2021

Continued on page 2

LOAD CASE(S) Standard

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

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

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



16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 104 H4	I45348896
210486	H3	ROOF SPECIAL GIRDER	1	3	Job Reference (optional)	

Wheeler Lumber, Waverly, KS 66871

8.430 e Nov 30 2020 MiTek Industries, Inc. Thu Mar 25 10:11:02 2021 Page 2
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LOAD CASE(S) Standard

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

Uniform Loads (plf)

Vert: 1-3=-70, 3-5=-70, 1-8=-20, 6-8=-20, 5-6=-20

Concentrated Loads (lb)

Vert: 6=-1529(B) 9=-1619(B) 10=-1621(B) 11=-1621(B) 12=-1527(B) 13=-1527(B)

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Safety Information available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601
ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component



16023 Swingley Ridge Rd
Chesterfield, MO 63017

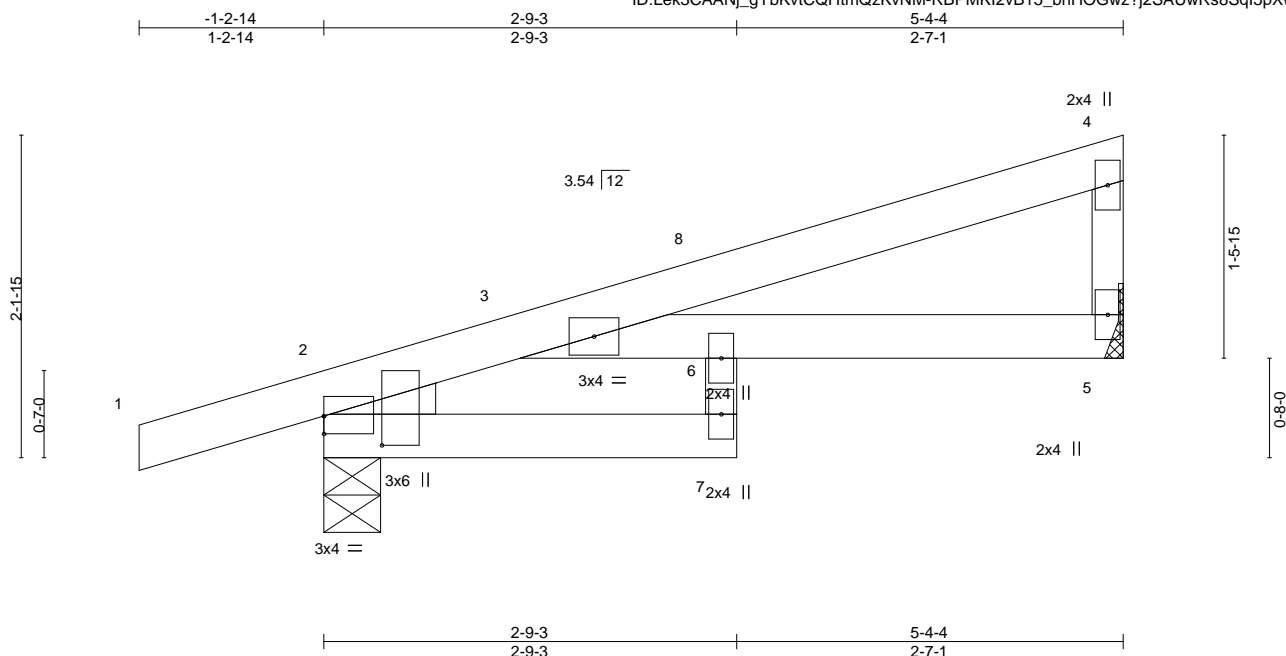


Plate Offsets (X,Y)-- [2-0-0-0,0-1-7], [2-0-2-6,0-4-11]													
LOADING (psf)		SPACING- 2-0-0		CSI.		DEFL. in (loc) l/defl L/d				PLATES		GRIP	
TCLL	25.0	Plate Grip DOL	1.15	TC	0.30	Vert(LL)	-0.03	6	>999	360	MT20	197/144	
TCDL	10.0	Lumber DOL	1.15	BC	0.25	Vert(CT)	-0.06	6	>999	240			
BCLL	0.0 *	Rep Stress Incr	NO	WB	0.02	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: 17 lb	FT = 10%	

LUMBER-
 TOP CHORD 2x4 SPF No.2
 BOT CHORD 2x4 SPF No.2
 WEBS 2x3 SPF No.2
 WEDGE
 Left: 2x3 SPF No.2

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

REACTIONS. (size) 5=Mechanical, 2=0-4-9
Max Horz 2=71(LC 5)
Max Uplift 5=46(LC 8), 2=-104(LC 4)
Max Grav 5=214(LC 1), 2=342(LC 1)

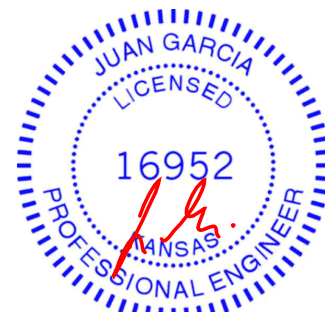
FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.

NOTES-

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCdL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end 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 3-6-0 tall by 2-0-0 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 100 lb uplift at joint(s) 5 except (jt=lb) 2=104.
- 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.
- 7) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 68 lb down and 36 lb up at 2-7-6, and 68 lb down and 36 lb up at 2-7-6 on top chord, and 0 lb down at 2-7-15, and 0 lb down at 2-7-15 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
- 8) 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 (plf)
Vert: 1-4=-70, 2-7=-20, 5-6=-20



March 25, 2021

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

WARNING – Velly design parameters are RED LINES ON THIS AND INCLUDED WITHIN KEY EXCERPT ADE MH-1419 (Rev. 3/19/2020) BY ONE USE.
Design valid for use only with MITEK® connectors. This design is based only upon parameters shown, and is for the building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information** available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



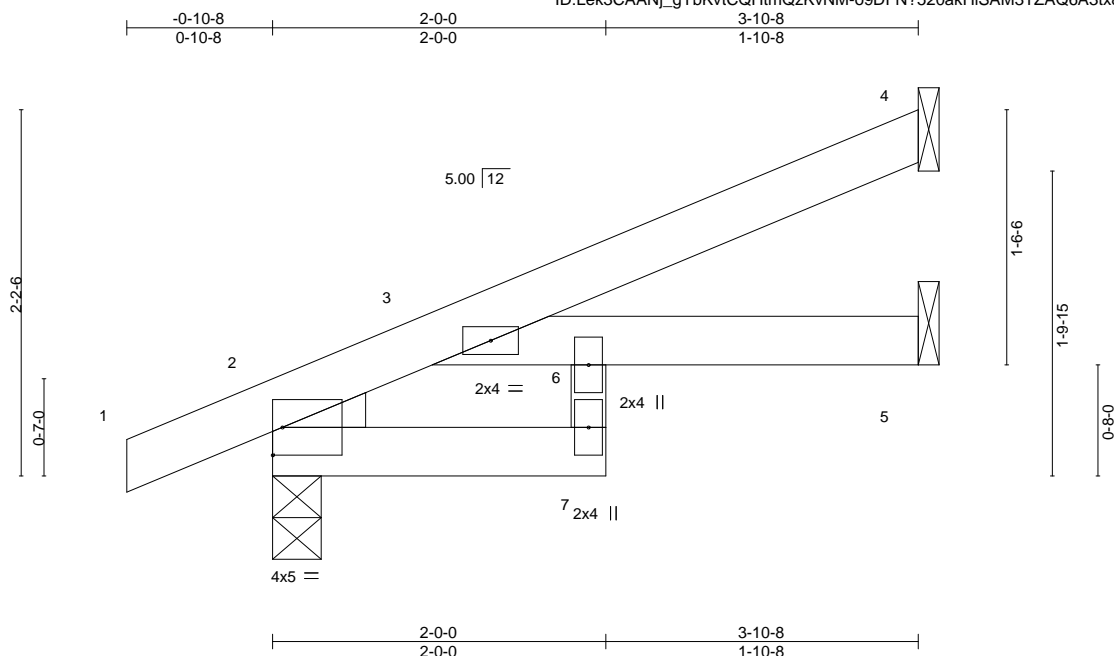
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job 210486	Truss J2	Truss Type Jack-Open	Qty 5	Ply 1	Lot 104 H4 Job Reference (optional)	I45348898
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Wheeler Lumber, Waverly, KS - 66871,

8.430 s Feb 12 2021 MiTek Industries, Inc. Wed Mar 24 16:09:39 2021 Page 1

ID:Lek3CAANj_gYbKvtCQHtmQzKvNM-o9DFN7520akHiSAM3TZAQ6A3tx8tpj1E5Fh16zXgPg



Scale = 1:13.8

LOADING (psf)	SPACING- 2-0-0	CSI.	DEFL. in (loc)	L/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL 1.15	TC 0.13	Vert(LL) -0.01 6	>999	360	MT20	197/144
TCDL 10.0	Lumber DOL 1.15	BC 0.19	Vert(CT) -0.02 6	>999	240		
BCLL 0.0 *	Rep Stress Incr YES	WB 0.00	Horz(CT) 0.01 5	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014	Matrix-R	Wind(LL) 0.01 6	>999	240		
						Weight: 12 lb	FT = 10%

LUMBER-

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

BRACING-

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

WEDGE

Left: 2x3 SPF No.2

REACTIONS. (size) 4=Mechanical, 2=0-3-8, 5=Mechanical
Max Horz 2=79(LC 8)
Max Uplift 4=44(LC 8), 2=31(LC 8)
Max Grav 4=97(LC 1), 2=259(LC 1), 5=80(LC 3)

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

NOTES-

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end 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 3-6-0 tall by 2-0-0 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 100 lb uplift at joint(s) 4, 2.
- 6) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



March 25, 2021

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

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



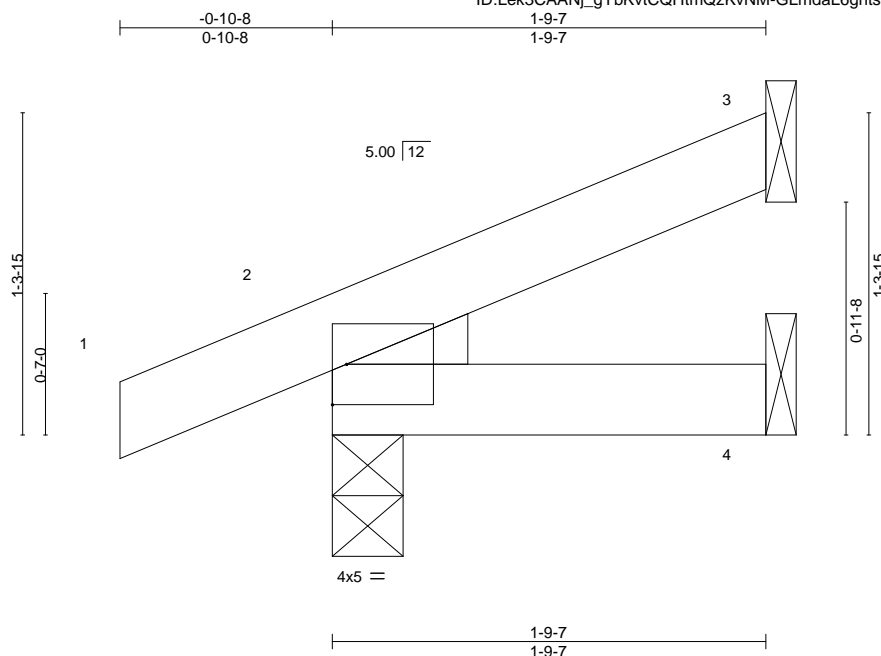
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 104 H4	I45348899
210486	J3	Jack-Open	4	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS - 66871,

8.430 s Feb 12 2021 MiTek Industries, Inc. Wed Mar 24 16:09:40 2021 Page 1

ID:Lek3CAANj_gYbKvtCQHtmQzKvNM-GLmdaL6gnts8KclYdA4PyJiFwKXjYAZBTl_FaYzXgPf



Scale = 1:9.5

LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	L/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.05	Vert(LL)	-0.00	2	>999	360	MT20
TCDL 10.0	Lumber DOL	1.15	BC 0.03	Vert(CT)	-0.00	2-4	>999	240	197/144
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-P	Wind(LL)	0.00	2	****	240	
								Weight: 6 lb	FT = 10%

LUMBER-

TOP CHORD 2x4 SPF No.2

BOT CHORD 2x4 SPF No.2

WEDGE

Left: 2x3 SPF No.2

BRACING-

TOP CHORD

Structural wood sheathing directly applied or 1-9-7 oc purlins.

BOT CHORD

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

REACTIONS.

(size) 3=Mechanical, 2=0-3-8, 4=Mechanical

Max Horz 2=45(LC 8)

Max Uplift 3=-32(LC 8), 2=-31(LC 4)

Max Grav 3=45(LC 1), 2=158(LC 1), 4=35(LC 3)

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

NOTES-

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end 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 3-6-0 tall by 2-0-0 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 100 lb uplift at joint(s) 3, 2.
- 6) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



March 25, 2021

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

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



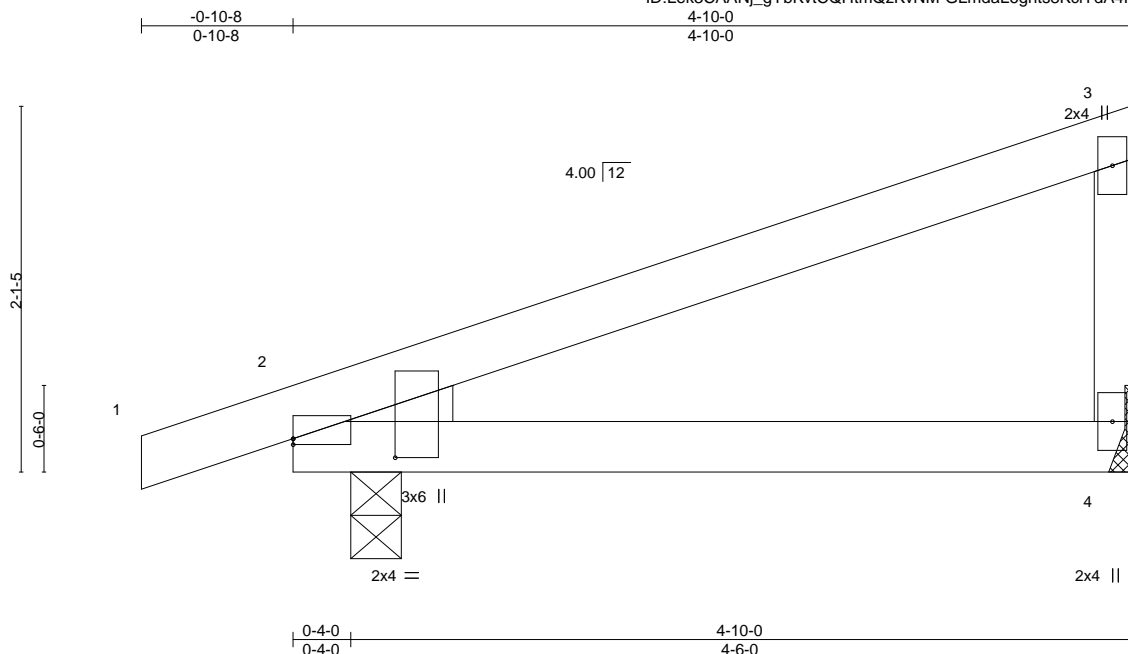
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job 210486	Truss J7	Truss Type Jack-Closed	Qty 7	Ply 1	Lot 104 H4 Job Reference (optional)	I45348900
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Wheeler Lumber, Waverly, KS - 66871,

8.430 s Feb 12 2021 MiTek Industries, Inc. Wed Mar 24 16:09:40 2021 Page 1

ID:Lek3CAANj_gYbKvtCQHtmQzKvNM-GLmdaL6gnts8KclYdA4PyJiA6KUIYAZBTI_FaYzXgPf



Scale = 1:13.3

Plate Offsets (X,Y)-- [2:0-0-0,0-0-6], [2:0-1-5,0-7-1]												
LOADING (psf)		SPACING- 2-0-0		CSI.		DEFL. in (loc) l/defl L/d				PLATES GRIP		
TCLL	25.0	Plate Grip DOL	1.15	TC	0.36	Vert(LL)	-0.03	2-4	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.25	Vert(CT)	-0.05	2-4	>999	240		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.00	Horz(CT)	-0.00	4	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-P		Wind(LL)	0.00	2	****	240	Weight: 14 lb	FT = 10%

LUMBER-

TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
WEBS 2x3 SPF No.2
WEDGE
Left: 2x3 SPF No.2

BRACING-

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

REACTIONS. (size) 4=Mechanical, 2=0-3-8
Max Horz 2=81(LC 5)
Max Uplift 4=43(LC 8), 2=80(LC 4)
Max Grav 4=198(LC 1), 2=286(LC 1)

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

NOTES-

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end 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 3-6-0 tall by 2-0-0 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 100 lb uplift at joint(s) 4, 2.
- 6) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



March 25, 2021

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

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



16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job 210486	Truss J8	Truss Type Jack-Closed Supported Gable	Qty 1	Ply 1	Lot 104 H4 Job Reference (optional)	I45348901
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Wheeler Lumber, Waverly, KS - 66871,

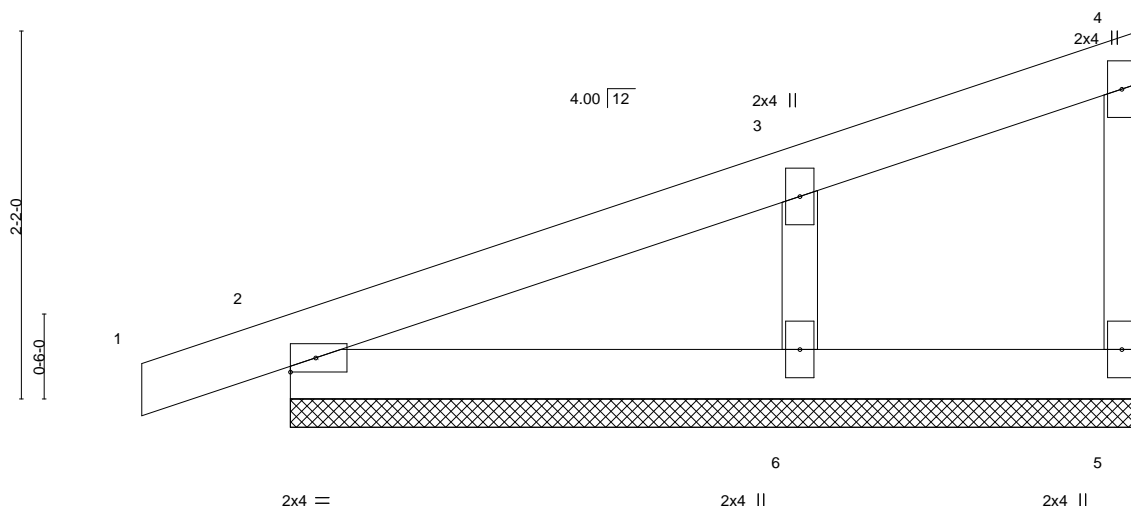
8.430 s Feb 12 2021 MiTek Industries, Inc. Wed Mar 24 16:09:41 2021 Page 1

ID:Lek3CAANj_gYbKvtCQHtmQzKvNM-kYK?oh7IYB_?xmKkBubeVXFpxtTHdEKiPko6?zXgPe

-0-10-8
0-10-8

5-0-0
5-0-0

Scale = 1:13.6



LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in	(loc)	L/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.10	Vert(LL)	-0.00	1	n/r	120	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.06	Vert(CT)	0.00	1	n/r	120		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.04	Horz(CT)	-0.00	5	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
OTHERS 2x3 SPF No.2

BRACING-

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

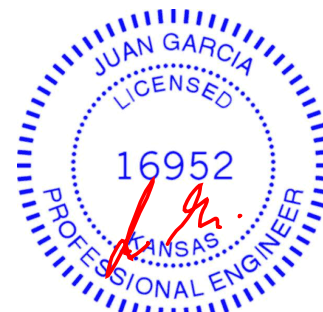
REACTIONS.

(size) 5=5-0-0, 2=5-0-0, 6=5-0-0
Max Horz 2=84(LC 5)
Max Uplift 5=-9(LC 5), 2=-51(LC 4), 6=-67(LC 8)
Max Grav 5=49(LC 1), 2=182(LC 1), 6=270(LC 1)

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

NOTES-

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 2) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- 3) Gable requires continuous bottom chord bearing.
- 4) Gable studs spaced at 2-0-0 oc.
- 5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 6) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 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 100 lb uplift at joint(s) 5, 2, 6.
- 8) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



March 25, 2021

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

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



16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job 210486	Truss J9	Truss Type Jack-Closed	Qty 7	Ply 1	Lot 104 H4	I45348902
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Wheeler Lumber, Waverly, KS - 66871,

8.430 s Feb 12 2021 MiTek Industries, Inc. Wed Mar 24 16:09:42 2021 Page 1

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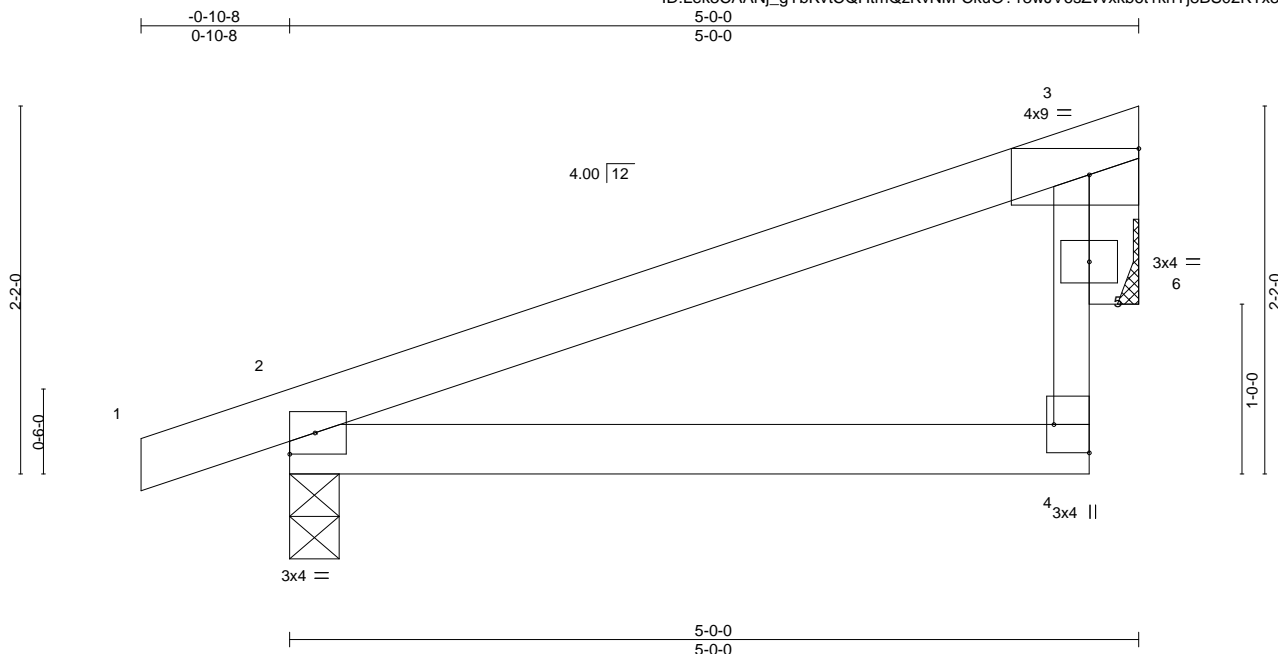


Plate Offsets (X,Y)--		[3:Edge,0-1-14], [4:Edge,0-2-8]	
LOADING (psf)	SPACING-	2-0-0	CSI.
TCLL 25.0	Plate Grip DOL	1.15	TC 0.22
TCDL 10.0	Lumber DOL	1.15	BC 0.14
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.18
BCDL 10.0	Code	IRC2018/TPI2014	Matrix-R
			DEFL.
			in (loc) l/defl L/d
			Vert(LL) -0.01 2-4 >999 360
			Vert(CT) -0.02 2-4 >999 240
			Horz(CT) 0.00 6 n/a n/a
			Wind(LL) 0.01 2-4 >999 240
			PLATES GRIP
			MT20 197/144
			Weight: 15 lb FT = 10%

LUMBER-

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

BRACING-

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

REACTIONS.

(size) 2=0-3-8, 6=Mechanical
Max Horz 2=65(LC 5)
Max Uplift 2=77(LC 4), 6=44(LC 8)
Max Grav 2=294(LC 1), 6=179(LC 1)

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

NOTES-

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end 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 3-6-0 tall by 2-0-0 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 100 lb uplift at joint(s) 2, 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.



March 25, 2021

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

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



16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job 210486	Truss J10	Truss Type Jack-Closed	Qty 3	Ply 1	Lot 104 H4	I45348903
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Wheeler Lumber, Waverly, KS - 66871,

8.430 s Feb 12 2021 MiTek Industries, Inc. Wed Mar 24 16:09:35 2021 Page 1

ID:Lek3CAANj_gYbKvtCQHtmQzKvNM-vOzkXe2XyLDrSbqdUEFG?K_JnitrvRKTHUuLzXgPk

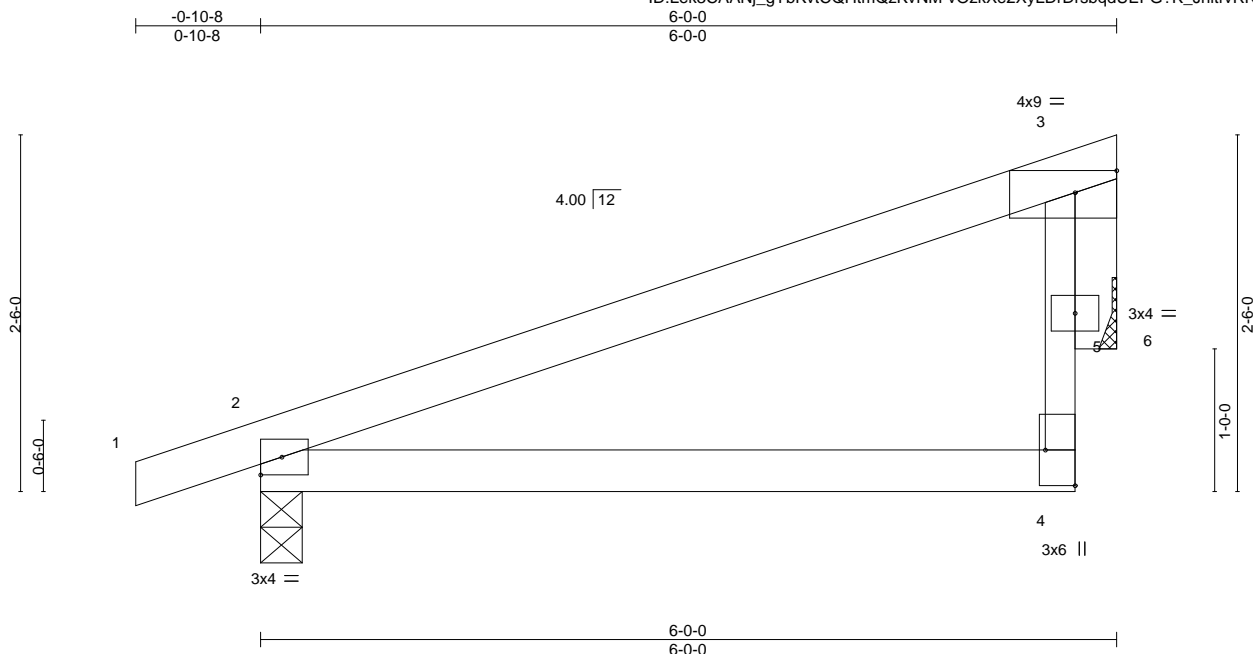


Plate Offsets (X,Y)--		[3:Edge,0-1-14], [4:Edge,0-2-8]	
LOADING (psf)	SPACING-	2-0-0	CSI.
TCLL 25.0	Plate Grip DOL	1.15	TC 0.32
TCDL 10.0	Lumber DOL	1.15	BC 0.21
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.28
BCDL 10.0	Code	IRC2018/TPI2014	Matrix-R
			DEFL.
			in (loc) l/defl L/d
			Vert(LL) -0.02 2-4 >999 360
			Vert(CT) -0.05 2-4 >999 240
			Horz(CT) 0.00 6 n/a n/a
			Wind(LL) 0.01 2-4 >999 240
			PLATES
			MT20
			GRIP
			197/144
			Weight: 18 lb FT = 10%

LUMBER-

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

BRACING-

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

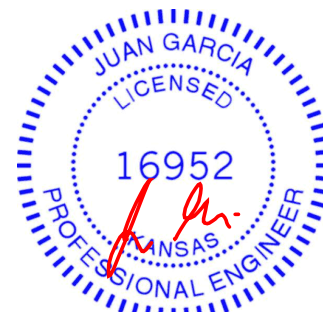
REACTIONS.

(size) 2=0-3-8, 6=Mechanical
Max Horz 2=74(LC 5)
Max Uplift 2=82(LC 4), 6=55(LC 8)
Max Grav 2=338(LC 1), 6=225(LC 1)

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

NOTES-

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end 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 3-6-0 tall by 2-0-0 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 100 lb uplift at joint(s) 2, 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.



March 25, 2021

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job 210486	Truss J11	Truss Type Jack-Closed Supported Gable	Qty 1	Ply 1	Lot 104 H4	I45348904
Job Reference (optional)						

Wheeler Lumber, Waverly, KS - 66871,

8.430 s Feb 12 2021 MiTek Industries, Inc. Wed Mar 24 16:09:35 2021 Page 1

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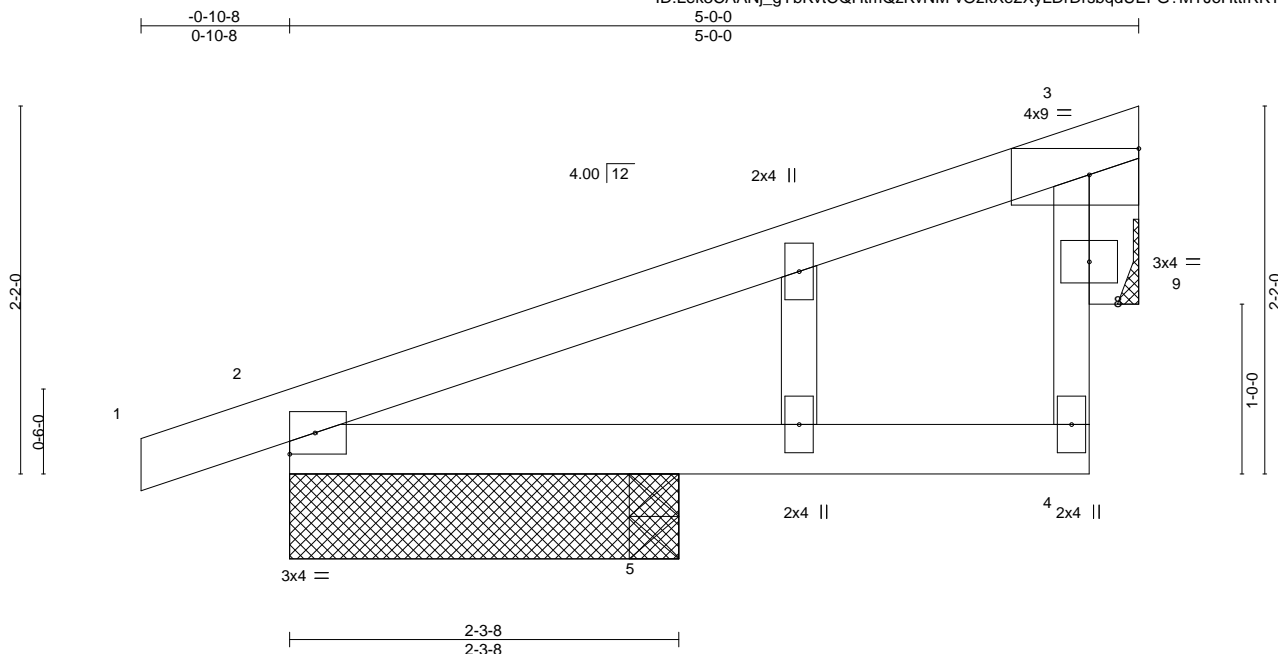


Plate Offsets (X,Y)--		[3:Edge,0-1-14]										
LOADING (psf)		SPACING- 2-0-0		CSI.		DEFL. in (loc) l/defl L/d				PLATES GRIP		
TCLL	25.0	Plate Grip DOL	1.15	TC	0.23	Vert(LL)	-0.00	2-5	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.17	Vert(CT)	-0.00	2-5	>999	240		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.17	Horz(CT)	0.01	9	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-R		Wind(LL)	0.00	2-5	>999	240	Weight: 15 lb	FT = 10%

LUMBER-

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

BRACING-

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

REACTIONS.

(size) 2=2-3-8, 5=0-3-8, 9=Mechanical
Max Horz 2=65(LC 5)
Max Uplift 2=-79(LC 4), 9=-50(LC 8)
Max Grav 2=236(LC 1), 5=118(LC 3), 9=148(LC 1)

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

NOTES-

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end 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 studs spaced at 2-0-0 oc.
- 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 3-6-0 tall by 2-0-0 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 100 lb uplift at joint(s) 2, 9.
- 8) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



March 25, 2021

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

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



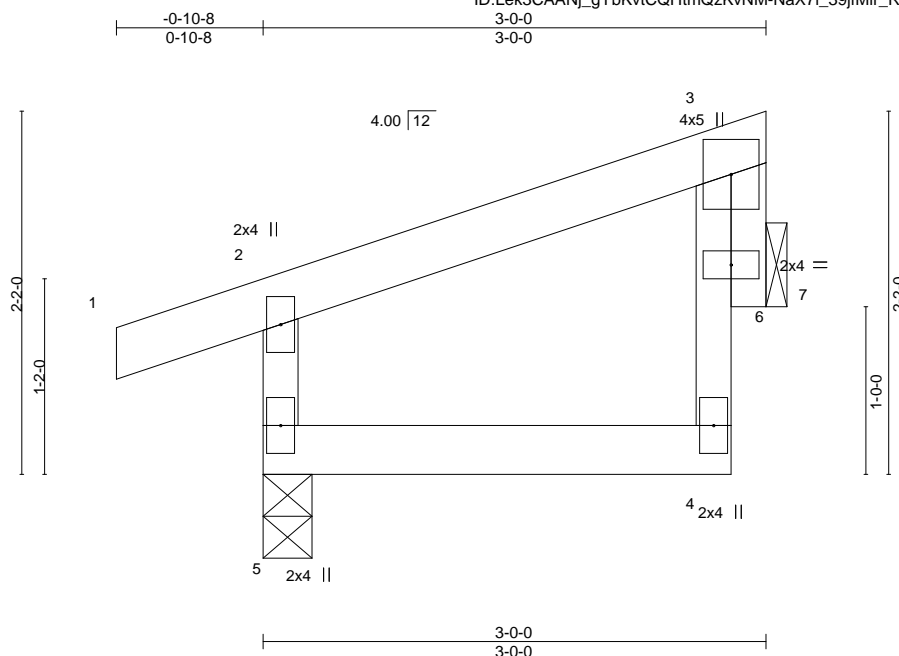
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 104 H4	I45348905
210486	J12	Jack-Closed	5	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS - 66871,

8.430 s Feb 12 2021 MiTek Industries, Inc. Wed Mar 24 16:09:36 2021 Page 1

ID:Lek3CAANj_gYbKvtCQHtmQzKvNM-NaX7L_39jMir_RnOK0ToTYZSjAZcMzbY701RnzXgPj



Scale = 1:13.7

LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in	(loc)	L/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.08	Vert(LL)	-0.00	4-5	>999	360	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.04	Vert(CT)	-0.00	4-5	>999	240		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.04	Horz(CT)	-0.00	7	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-R	Wind(LL)	-0.00	5	>999	240		
									Weight: 10 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 3-0-0 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS.

(size) 5=0-3-8, 7=Mechanical
Max Horz 5=65(LC 5)
Max Uplift 5=-56(LC 4), 7=-31(LC 8)
Max Grav 5=207(LC 1), 7=94(LC 1)

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

NOTES-

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end 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 3-6-0 tall by 2-0-0 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 100 lb uplift at joint(s) 5, 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.



March 25, 2021

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

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

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

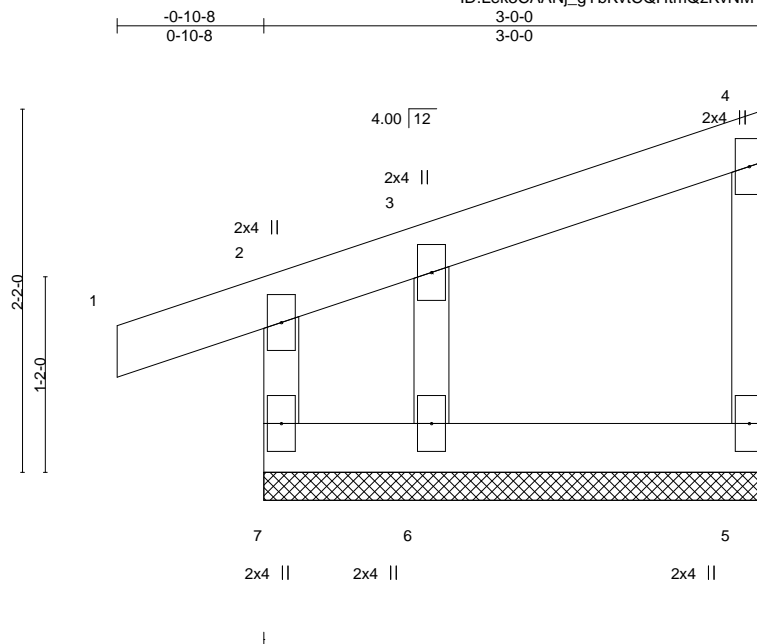


16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job 210486	Truss J13	Truss Type Jack-Closed Supported Gable	Qty 1	Ply 1	Lot 104 H4 Job Reference (optional)	I45348906
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Wheeler Lumber, Waverly, KS - 66871,

8.430 s Feb 12 2021 MiTek Industries, Inc. Wed Mar 24 16:09:36 2021 Page 1
ID:Lek3CAANj_gYbKvCQHtmQzKvNM-NaX7l_39jfiMir_RnOK0ToTYajAkMKbY701RnzXgPj



Scale = 1:13.7

LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.06	Vert(LL)	0.00	1	n/r	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.03	Vert(CT)	-0.00	2	n/r		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.02	Horz(CT)	-0.00	5	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-R					Weight: 11 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 3-0-0 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS.

(size) 7=3-0-0, 5=3-0-0, 6=3-0-0
Max Horz 7=83(LC 5)
Max Uplift 7=40(LC 4), 5=13(LC 5), 6=57(LC 5)
Max Grav 7=123(LC 1), 5=74(LC 1), 6=123(LC 1)

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

NOTES-

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end 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) Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
- 5) Gable studs spaced at 2-0-0 oc.
- 6) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 7) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 7, 5, 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.



March 25, 2021

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Safety Information available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601
ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component

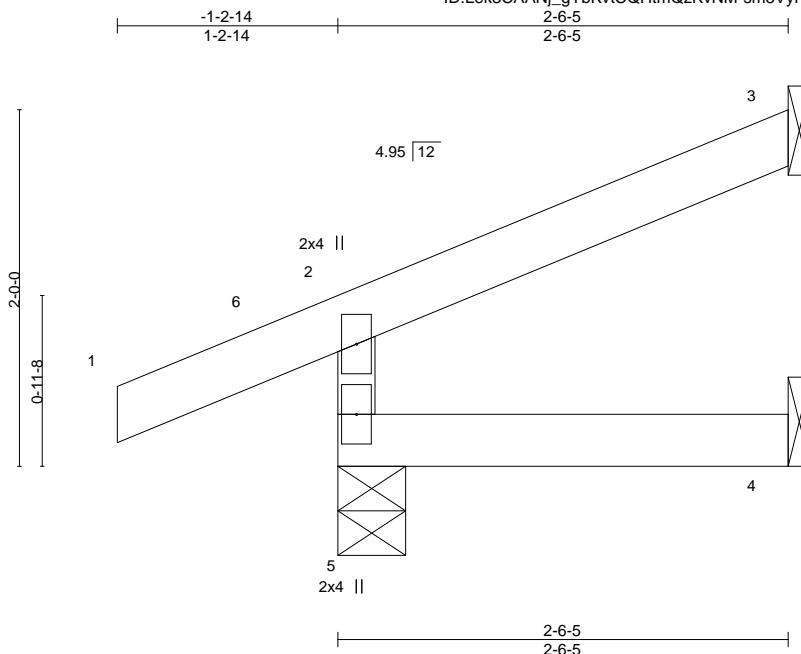


16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job 210486	Truss J14	Truss Type Diagonal Hip Girder	Qty 1	Ply 1	Lot 104 H4 Job Reference (optional)	I45348907
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Wheeler Lumber, Waverly, KS - 66871,

8.430 s Feb 12 2021 MiTek Industries, Inc. Wed Mar 24 16:09:37 2021 Page 1
ID:Lek3CAANj_gYbKvtCQHtmQzKvNM-sm5VyK4oUyUzT80zy2XiKh4ko7WhLpqknmbzEzXgPi



Scale = 1:12.9

LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.11	Vert(LL)	0.00	4-5	>999	240	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.05	Vert(CT)	-0.00	4-5	>999	240		
BCLL 0.0 *	Rep Stress Incr	NO	WB 0.00	Horz(CT)	-0.01	3	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-R						Weight: 8 lb	FT = 10%

LUMBER-

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

BRACING-

TOP CHORD Structural wood sheathing directly applied or 2-6-5 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS.

(size) 5=0-4-9, 3=Mechanical, 4=Mechanical
Max Horz 5=69(LC 7)
Max Uplift 5=78(LC 12), 3=51(LC 12), 4=4(LC 19)
Max Grav 5=99(LC 1), 3=24(LC 1), 4=33(LC 3)

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

NOTES-

- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- Refer to girder(s) for truss to truss connections.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 5, 3, 4.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 21 lb down and 8 lb up at -1-2-14, and 21 lb down and 8 lb up at -1-2-14 on top chord. The design/selection of such connection device(s) is the responsibility of others.
- In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

LOAD CASE(S) Standard

- Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
Concentrated Loads (lb)
Vert: 1=-32(F=-16, B=-16)
Trapezoidal Loads (plf)
Vert: 1=0(F=35, B=35)-to-6=-25(F=22, B=22), 6=0(F=35, B=35)-to-2=-7(F=31, B=31), 2=-7(F=31, B=31)-to-3=-50(F=10, B=10), 5=-2(F=9, B=9)-to-4=-14(F=3, B=3)



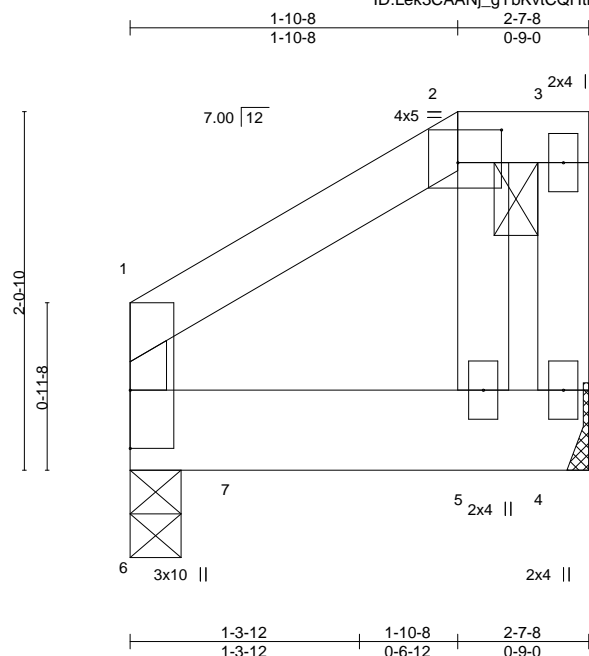
March 25, 2021

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16023 Swingley Ridge Rd
Chesterfield, MO 63017



Scale = 1:13.2

Plate Offsets (X,Y)-- [2:0-3:0,0-2-4]													
LOADING (psf)		SPACING- 2-0-0		CSI.		DEFL. in (loc) l/defl L/d				PLATES		GRIP	
TCLL	25.0	Plate Grip DOL	1.15	TC	0.11	Vert(LL)	-0.00	5-6	>999	360	MT20	197/144	
TCDL	10.0	Lumber DOL	1.15	BC	0.30	Vert(CT)	-0.01	5-6	>999	240			
BCLL	0.0 *	Rep Stress Incr	NO	WB	0.01	Horz(CT)	-0.00	4	n/a	n/a			
BCDL	10.0	Code IRC2018/TPI2014		Matrix-R		Wind(LL)	0.00	5-6	>999	240	Weight: 11 lb	FT = 10%	

LUMBER-		BRACING-	
TOP CHORD	2x4 SPF No.2	TOP CHORD	Structural wood sheathing directly applied or 2-7-8 oc purlins, except end verticals, and 2-0-0 oc purlins: 2-3.
BOT CHORD	2x6 SPF No.2	BOT CHORD	
WEBS	2x4 SPF No.2 *Except*		
	1-6: 2x3 SPF No.2		Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) 6=0-3-8, 4=Mechanical
Max Horz 6=66(LC 5)
Max Uplift 6=-135(LC 8), 4=-112(LC 5)
Max Grav 6=677(LC 1), 4=291(LC 1)

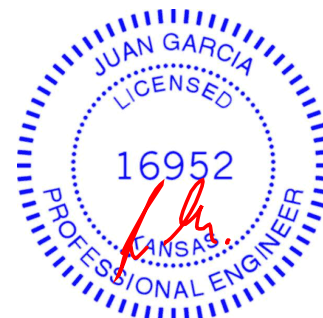
FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.

NOTES-

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TC DL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end 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) 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 3-6-0 tall by 2-0-0 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 100 lb uplift at joint(s) except (jt=lb) 6=135, 4=112.
- 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.
- 9) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 37 lb down and 74 lb up at 1-10-8 on top chord, and 774 lb down and 155 lb up at 0-8-4, and 6 lb down and 13 lb up at 1-10-8 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
- 10) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

LOAD CASE(S) Standard

- 1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (plf)
Vert: 1-2=-70, 2-3=-70, 4-6=-20
Concentrated Loads (lb)
Vert: 5=2(B) 7=-755(F)



March 25, 2021

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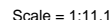
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16023 Swingley Ridge Rd
Chesterfield, MO 63017

8.430 s Feb 12 2021 MiTek Industries, Inc. Wed Mar 24 16:09:38 2021 Page 1
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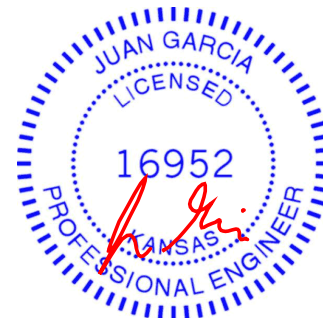


TOP CHORD	Structural wood sheathing directly applied or 1-7-11 oc purlins, except end verticals.
BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing.

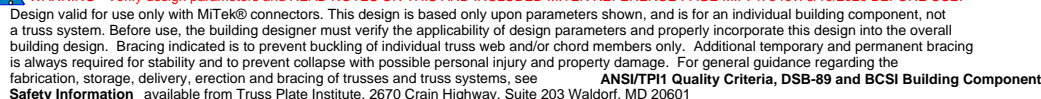
FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.

- 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) gable end 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 3-6-0 tall by 2-0-0 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 100 lb uplift at joint(s) 5, 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.
- 7) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 8 lb down and 3 lb up at -1-2-14 , and 8 lb down and 3 lb up at -1-2-14 on top chord. The design/selection of such connection device(s) is the responsibility of others.
- 8) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
Concentrated Loads (lb)
Vert: 1=12(F=6, B=6)
Trapezoidal Loads (plf)
Vert: 1=0(F=35, B=35)-to-2=-23(F=23, B=23), 2=-23(F=23, B=23)-to-3=-50(F=10, B=10), 5=-6(F=7, B=7)-to-4=-14(F=3, B=3)



March 25, 2021

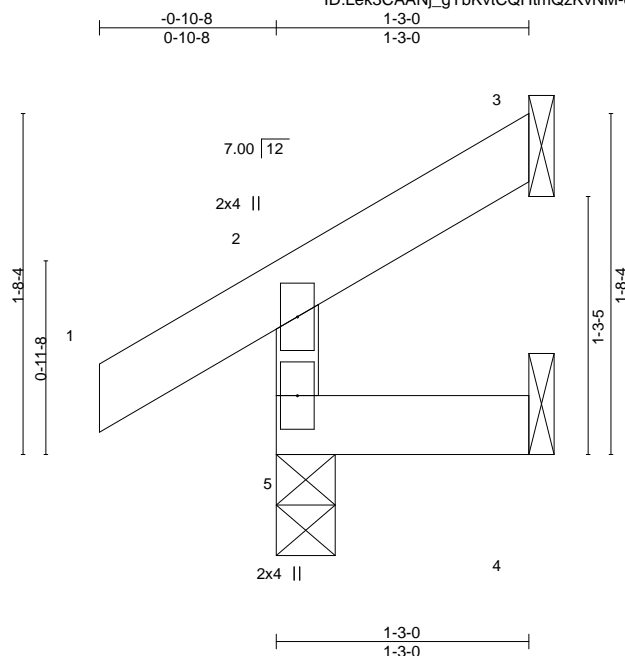


Job 210486	Truss J17	Truss Type Jack-Open	Qty 1	Ply 1	Lot 104 H4 I45348910
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Wheeler Lumber, Waverly, KS - 66871,

8.430 s Feb 12 2021 MiTek Industries, Inc. Wed Mar 24 16:09:39 2021 Page 1

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Scale = 1:11.4

LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in	(loc)	L/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.07	Vert(LL)	-0.00	5	>999	240	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.02	Vert(CT)	-0.00	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: 5 lb	FT = 10%

LUMBER-

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

BRACING-

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

REACTIONS.

(size) 5=0-3-8, 3=Mechanical, 4=Mechanical
Max Horz 5=40(LC 5)
Max Uplift 5=-13(LC 8), 3=-24(LC 8), 4=-5(LC 8)
Max Grav 5=149(LC 1), 3=21(LC 15), 4=21(LC 3)

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

NOTES-

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end 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 3-6-0 tall by 2-0-0 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 100 lb uplift at joint(s) 5, 3, 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.



March 25, 2021

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

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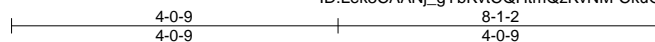
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job 210486	Truss LAY1	Truss Type GABLE	Qty 1	Ply 1	Lot 104 H4 I45348911
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Wheeler Lumber, Waverly, KS - 66871,

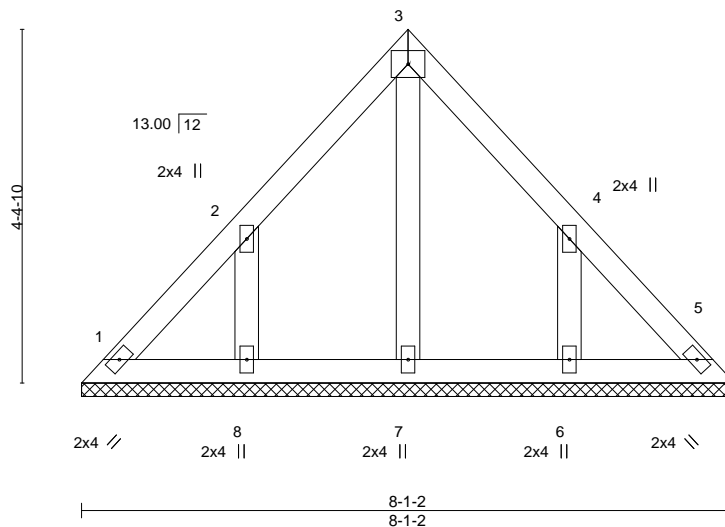
8.430 s Feb 12 2021 MiTek Industries, Inc. Wed Mar 24 16:09:42 2021 Page 1

ID:Lek3CAANj_gYbKvtCQHtmQzKvNM-CkuO?18wJV6sZvvxb6t1knbK8DD04aTx3TLerZxgPd



4x5 =

Scale = 1:28.6



LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.06	Vert(LL)	n/a	-	n/a	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.02	Vert(CT)	n/a	-	n/a		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.03	Horz(CT)	0.00	5	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-P						
								Weight: 30 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.

REACTIONS.

All bearings 8-1-2.
(lb) - Max Horz 1=108(LC 6)
Max Uplift All uplift 100 lb or less at joint(s) 1, 5 except 8=151(LC 8), 6=151(LC 9)
Max Grav All reactions 250 lb or less at joint(s) 1, 5, 7, 8, 6

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

NOTES-

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- Gable requires continuous bottom chord bearing.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 5 except (jt=lb) 8=151, 6=151.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



March 25, 2021

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

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



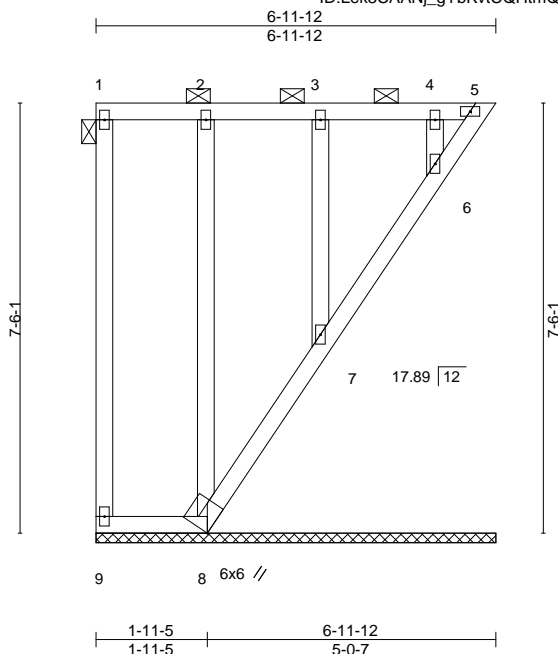
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 104 H4	I45348912
210486	LAY2	GABLE	1	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS - 66871,

8.430 s Feb 12 2021 MiTek Industries, Inc. Wed Mar 24 16:09:43 2021 Page 1

ID:Lek3CAANj_gYbKvtCQHtmQzKvNM-gwSmDN9Y4oEjB3T7IJe6ayKh4YZ8lVNd9iDvAtzXgPc



Scale = 1:40.2

LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.38	Vert(LL)	n/a	-	n/a	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.04	Vert(CT)	n/a	-	n/a		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.12	Horz(CT)	0.00	5	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-P					Weight: 42 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 2-0-0 oc purlins: 1-5, except end verticals.
BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.

REACTIONS.

All bearings 6-11-12.

(lb) - Max Horz 9=205(LC 6)

Max Uplift All uplift 100 lb or less at joint(s) 9, 7, 6 except 5=116(LC 5), 8=138(LC 6)

Max Grav All reactions 250 lb or less at joint(s) 9, 5, 8, 7, 6

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

NOTES-

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end 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 2x4 MT20 unless otherwise indicated.
- 4) Gable requires continuous bottom chord bearing.
- 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 3-6-0 tall by 2-0-0 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 100 lb uplift at joint(s) 9, 7, 6 except (jt=lb) 5=116, 8=138.
- 8) Beveled plate or shim required to provide full bearing surface with truss chord at joint(s) 5, 7, 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.



March 25, 2021

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



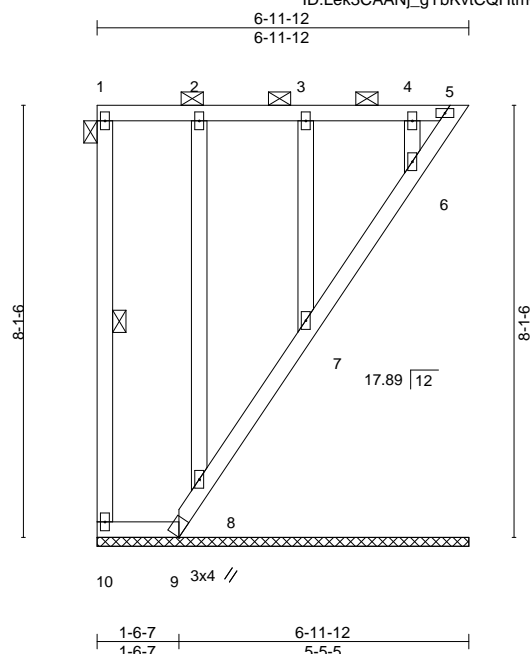
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job 210486	Truss LAY3	Truss Type GABLE	Qty 1	Ply 1	Lot 104 H4 I45348913
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Wheeler Lumber, Waverly, KS - 66871,

8.430 s Feb 12 2021 MiTek Industries, Inc. Wed Mar 24 16:09:43 2021 Page 1

ID:Lek3CAAnj_gYbKvtCQHtmQzKvNM-gwSmDN9Y4oEjB3T7IJe6ayKgGYZ8lVNd9lDvAtzXgPc



Scale = 1:43.3

LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.43	Vert(LL)	n/a	-	n/a	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.04	Vert(CT)	n/a	-	n/a		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.12	Horz(CT)	0.01	5	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-P					Weight: 43 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 2-0-0 oc purlins: 1-5, except end verticals.
BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.
WEBS 1 Row at midpt 1-10

REACTIONS.

All bearings 6-11-12.

(lb) - Max Horz 10=-222(LC 6)
Max Uplift All uplift 100 lb or less at joint(s) 10, 8, 7, 6 except 5=-127(LC 5), 9=-194(LC 6)
Max Grav All reactions 250 lb or less at joint(s) 10, 5, 9, 8, 7, 6

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

NOTES-

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end 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 2x4 MT20 unless otherwise indicated.
- 4) Gable requires continuous bottom chord bearing.
- 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 3-6-0 tall by 2-0-0 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 100 lb uplift at joint(s) 10, 8, 7, 6 except (jt=lb) 5=127, 9=194.
- 8) Beveled plate or shim required to provide full bearing surface with truss chord at joint(s) 5, 8, 7, 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.



March 25, 2021

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



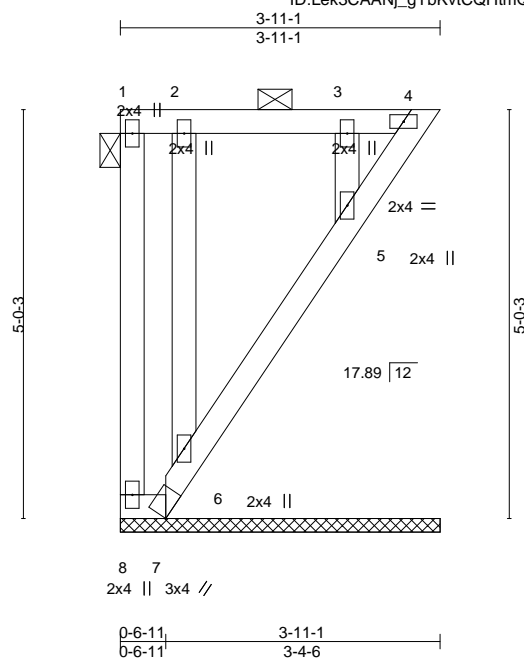
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job 210486	Truss LAY4	Truss Type GABLE	Qty 1	Ply 1	Lot 104 H4 I45348914
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Wheeler Lumber, Waverly, KS - 66871,

8.430 s Feb 12 2021 MiTek Industries, Inc. Wed Mar 24 16:09:44 2021 Page 1

ID:Lek3CAANj_gYbKvtCQHtmQzKvNM-8708Qj9Br6MZoD2Js09L79tvSyyWUz2mOMySjKzXgPb



Scale = 1:28.3

LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.14	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.04	Vert(CT)	n/a	-	n/a	999		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.03	Horz(CT)	0.00	4	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-P						Weight: 23 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 2-0-0 oc purlins: 1-4, except end verticals.
BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.

REACTIONS.

All bearings 3-11-1.

(lb) - Max Horz 8=134(LC 6)

Max Uplift All uplift 100 lb or less at joint(s) 4, 6, 5 except 7=153(LC 6)

Max Grav All reactions 250 lb or less at joint(s) 8, 4, 7, 6, 5

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

NOTES-

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end 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) Gable requires continuous bottom chord bearing.
- 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 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 4, 6, 5 except (jt=lb) 7=153.
- 7) Beveled plate or shim required to provide full bearing surface with truss chord at joint(s) 4, 6, 5.
- 8) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 9) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



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



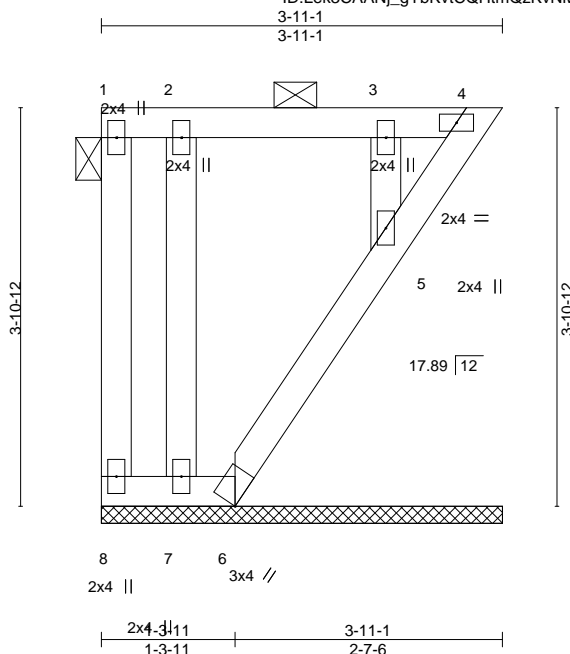
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 104 H4	I45348915
210486	LAY5	GABLE	1	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS - 66871,

8.430 s Feb 12 2021 MiTek Industries, Inc. Wed Mar 24 16:09:45 2021 Page 1

ID:Lek3CAANj_gYbKvtCQHtmQzKvNM-dJaWe3ApcQUQQNdWQjgafNP5DLEyDQNwd0i0FmzXgPa



Scale = 1:22.5

LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.08	Vert(LL)	n/a	-	n/a	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.02	Vert(CT)	n/a	-	n/a		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.03	Horz(CT)	0.00	4	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-P					Weight: 20 lb	FT = 10%

LUMBER-

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

BRACING-

TOP CHORD 2-0-0 oc purlins: 1-4, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing, Except:
6-0-0 oc bracing: 4-5.

REACTIONS.

All bearings 3-11-1.

(lb) - Max Horz 8=102(LC 6)

Max Uplift All uplift 100 lb or less at joint(s) 4, 6, 7, 5

Max Grav All reactions 250 lb or less at joint(s) 8, 4, 6, 7, 5

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

NOTES-

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end 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) Gable requires continuous bottom chord bearing.
- 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 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 4, 6, 7, 5.
- 7) Beveled plate or shim required to provide full bearing surface with truss chord at joint(s) 4, 5.
- 8) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 9) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



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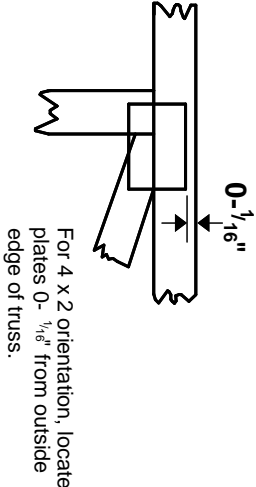
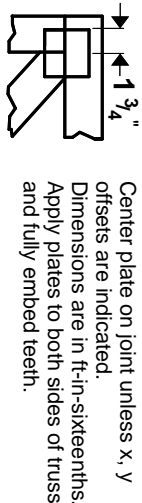
Safety Information available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



16023 Swingley Ridge Rd
Chesterfield, MO 63017

Symbols

PLATE LOCATION AND ORIENTATION



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

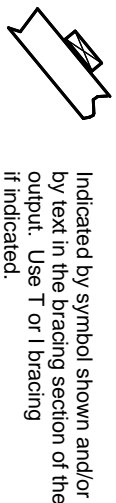
For 4 x 2 orientation, locate plates 0- 1/16" from outside edge of truss.

PLATE SIZE

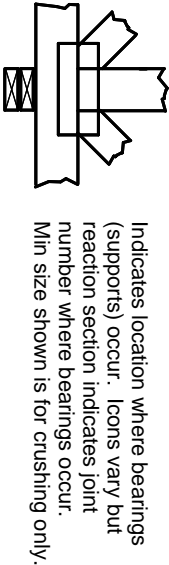
4 X 4

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

LATERAL BRACING LOCATION



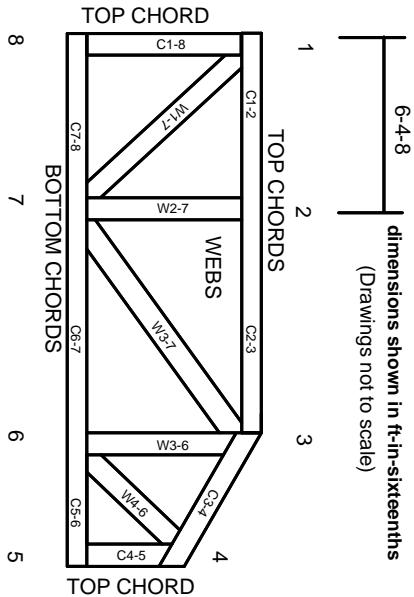
BEARING



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

Industry Standards:
ANSI/TP1: 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/TP1 1 section 6.3 These truss designs rely on lumber values established by others.

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

General Safety Notes

Failure to Follow Could Cause Property Damage or Personal Injury

1. Additional stability bracing for truss system, e.g. diagonal or X-bracing, is always required. See BCSI.
2. Truss bracing must be designed by an engineer. For wide truss spacing, individual lateral braces themselves may require bracing, or alternative Tor1 bracing should be considered.
3. Never exceed the design loading shown and never stack materials on inadequately braced trusses.
4. Provide copies of this truss design to the building designer, erection supervisor, property owner and all other interested parties.
5. Cut members to bear tightly against each other.
6. Place plates on each face of truss at each joint and embed fully. Knots and wane at joint locations are regulated by ANSI/TP1 1.
7. Design assumes trusses will be suitably protected from the environment in accord with ANSI/TP1 1.
8. Unless otherwise noted, moisture content of lumber shall not exceed 19% at time of fabrication.
9. Unless expressly noted, this design is not applicable for use with fire retardant, preservative treated, or green lumber.
10. Camber is a non-structural consideration and is the responsibility of truss fabricator. General practice is to camber for dead load deflection.
11. Plate type, size, orientation and location dimensions indicated are minimum plating requirements.
12. Lumber used shall be of the species and size, and in all respects, equal to or better than that specified.
13. Top chords must be sheathed or purlins provided at spacing indicated on design.
14. Bottom chords require lateral bracing at 10 ft. spacing, or less, if no ceiling is installed, unless otherwise noted.
15. Connections not shown are the responsibility of others.
16. Do not cut or alter truss member or plate without prior approval of an engineer.
17. Install and load vertically unless indicated otherwise.
18. Use of green or treated lumber may pose unacceptable environmental, health or performance risks. Consult with project engineer before use.
19. Review all portions of this design (front, back, words and pictures) before use. Reviewing pictures alone is not sufficient.
20. Design assumes manufacture in accordance with ANSI/TP1 1 Quality Criteria.
21. The design does not take into account any dynamic or other loads other than those expressly stated.