



RE: 400305
Lot 39 HT

MiTek USA, Inc.

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

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

Design Code: IRC2018/TPI2014

Design Program: MiTek 20/20 8.2

Wind Code: N/A

Wind Speed: 115 mph

Roof Load: 45.0 psf

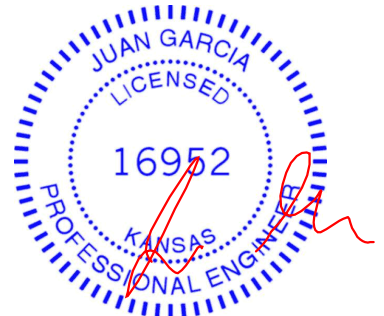
Floor Load: N/A psf

This package includes 83 individual, dated Truss Design Drawings and 0 Additional Drawings.

No.	Seal#	Truss Name	Date	No.	Seal#	Truss Name	Date
1	I41355747	A1	5/19/2020	27	I41355773	G3	5/19/2020
2	I41355748	A2	5/19/2020	28	I41355774	G4	5/19/2020
3	I41355749	A3	5/19/2020	29	I41355775	G5	5/19/2020
4	I41355750	A4	5/19/2020	30	I41355776	G6	5/19/2020
5	I41355751	A5	5/19/2020	31	I41355777	G7	5/19/2020
6	I41355752	B1	5/19/2020	32	I41355778	G8	5/19/2020
7	I41355753	B2	5/19/2020	33	I41355779	H1	5/19/2020
8	I41355754	B3	5/19/2020	34	I41355780	H2	5/19/2020
9	I41355755	C1	5/19/2020	35	I41355781	J1	5/19/2020
10	I41355756	C2	5/19/2020	36	I41355782	J2	5/19/2020
11	I41355757	C3	5/19/2020	37	I41355783	J3	5/19/2020
12	I41355758	C4	5/19/2020	38	I41355784	J4	5/19/2020
13	I41355759	C5	5/19/2020	39	I41355785	J5	5/19/2020
14	I41355760	C6	5/19/2020	40	I41355786	J6	5/19/2020
15	I41355761	C7	5/19/2020	41	I41355787	J7	5/19/2020
16	I41355762	C8	5/19/2020	42	I41355788	J8	5/19/2020
17	I41355763	C9	5/19/2020	43	I41355789	J9	5/19/2020
18	I41355764	D1	5/19/2020	44	I41355790	J10	5/19/2020
19	I41355765	D2	5/19/2020	45	I41355791	J11	5/19/2020
20	I41355766	D3	5/19/2020	46	I41355792	J12	5/19/2020
21	I41355767	D4	5/19/2020	47	I41355793	J13	5/19/2020
22	I41355768	E1	5/19/2020	48	I41355794	J14	5/19/2020
23	I41355769	E2	5/19/2020	49	I41355795	J15	5/19/2020
24	I41355770	E3	5/19/2020	50	I41355796	J16	5/19/2020
25	I41355771	G1	5/19/2020	51	I41355797	J17	5/19/2020
26	I41355772	G2	5/19/2020	52	I41355798	J18	5/19/2020

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.





RE: 400305 - Lot 39 HT

MiTek USA, Inc.

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

Site Information:

Project Customer: Project Name:

Lot/Block:

Subdivision:

Address:

City, County:

State:

No.	Seal#	Truss Name	Date
53	I41355799	J19	5/19/2020
54	I41355800	J20	5/19/2020
55	I41355801	J21	5/19/2020
56	I41355802	J22	5/19/2020
57	I41355803	J23	5/19/2020
58	I41355804	J24	5/19/2020
59	I41355805	J25	5/19/2020
60	I41355806	LAY1	5/19/2020
61	I41355807	LAY2	5/19/2020
62	I41355808	LAY3	5/19/2020
63	I41355809	LAY4	5/19/2020
64	I41355810	LAY5	5/19/2020
65	I41355811	LAY6	5/19/2020
66	I41355812	LAY7	5/19/2020
67	I41355813	V1	5/19/2020
68	I41355814	V2	5/19/2020
69	I41355815	V3	5/19/2020
70	I41355816	V4	5/19/2020
71	I41355817	V5	5/19/2020
72	I41355818	V6	5/19/2020
73	I41355819	V7	5/19/2020
74	I41355820	V8	5/19/2020
75	I41355821	V9	5/19/2020
76	I41355822	V10	5/19/2020
77	I41355823	V11	5/19/2020
78	I41355824	V12	5/19/2020
79	I41355825	V13	5/19/2020
80	I41355826	V14	5/19/2020
81	I41355827	V15	5/19/2020
82	I41355828	V16	5/19/2020
83	I41355829	V17	5/19/2020



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Design Program: MiTek 20/20 8.2

Wind Code: N/A

Wind Speed: 115 mph

Roof Load: 45.0 psf

Floor Load: N/A psf

This package includes 83 individual, dated Truss Design Drawings and 0 Additional Drawings.

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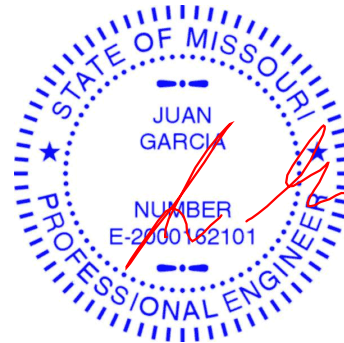
The truss drawing(s) referenced above have been prepared by
MiTek USA, Inc. under my direct supervision
based on the parameters provided by Wheeler - Waverly.

Truss Design Engineer's Name: Garcia, Juan

My license renewal date for the state of Missouri is December 31, 2020.

Missouri COA: 001193

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May 19, 2020



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Chesterfield, MO 63017
314-434-1200

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Address:

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60	I41355806	LAY1	5/19/2020
61	I41355807	LAY2	5/19/2020
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69	I41355815	V3	5/19/2020
70	I41355816	V4	5/19/2020
71	I41355817	V5	5/19/2020
72	I41355818	V6	5/19/2020
73	I41355819	V7	5/19/2020
74	I41355820	V8	5/19/2020
75	I41355821	V9	5/19/2020
76	I41355822	V10	5/19/2020
77	I41355823	V11	5/19/2020
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79	I41355825	V13	5/19/2020
80	I41355826	V14	5/19/2020
81	I41355827	V15	5/19/2020
82	I41355828	V16	5/19/2020
83	I41355829	V17	5/19/2020

Job	Truss	Truss Type	Qty	Ply	Lot 39 HT	I41355747
400305	A1	Hip Girder	1	1		

Wheeler Lumber, Waverly, KS 66871

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ID:13EdZD?h5AdOXx2i0YXRYBzFDC?~YrX_gqpHS7quJici4QWNtUf0fgPc5Wxy6XJiezEyk

3-10-0	10-5-0	14-3-8	15-2-0
3-10-0	6-7-0	3-10-8	0-10-8

Scale = 1:25.9

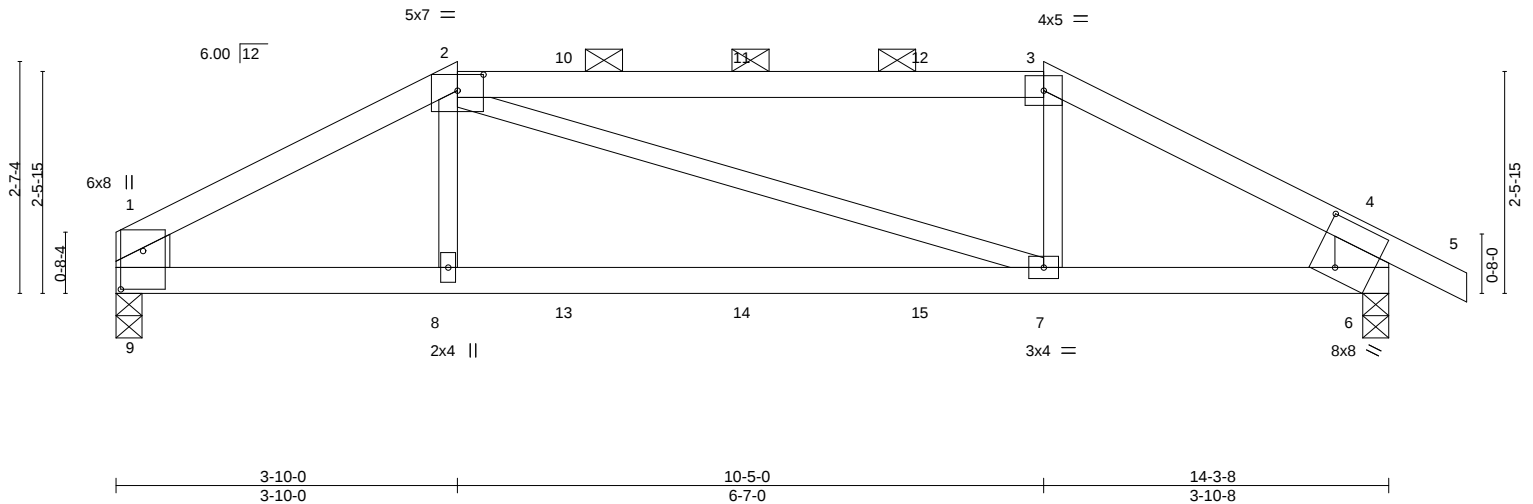


Plate Offsets (X,Y)-- [1:0-5-3,0-3-0], [2:0-3-8,0-2-3], [4:0-4-1,0-0-0], [6:0-3-2,0-6-8], [6:0-3-4,0-1-10]												
LOADING (psf)		SPACING- 2-0-0		CSI.		DEFL. in (loc) l/defl L/d				PLATES	GRIP	
TCLL	25.0	Plate Grip DOL	1.15	TC	0.85	Vert(LL)	-0.14	7-8	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.72	Vert(CT)	-0.30	7-8	>550	240		
BCLL	0.0 *	Rep Stress Incr	NO	WB	0.11	Horz(CT)	0.02	6	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-S		Wind(LL)	0.12	7-8	>999	240	Weight: 46 lb	FT = 10%

LUMBER-

TOP CHORD 2x4 SPF No.2 *Except*
2-3: 2x4 SPF 2100F 1.8E
BOT CHORD 2x4 SPF 2100F 1.8E
WEBS 2x3 SPF No.2 *Except*
1-9,4-6: 2x8 SP DSS

BRACING-

TOP CHORD Structural wood sheathing directly applied or 3-1-4 oc purlins, except end verticals, and 2-0-0 oc purlins (4-8-15 max.): 2-3.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS.

(size) 9=0-3-8, 6=0-3-8
Max Horz 9=-54(LC 6)
Max Uplift 9=-213(LC 8), 6=-241(LC 9)
Max Grav 9=963(LC 1), 6=1050(LC 1)

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

TOP CHORD 1-2=-1518/331, 2-3=-1298/326, 3-4=-1550/339, 1-9=-806/190, 4-6=-934/226
BOT CHORD 8-9=-285/1296, 7-8=-288/1286, 6-7=-263/1310
WEBS 2-8=0/315, 3-7=0/350

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 213 lb uplift at joint 9 and 241 lb uplift at joint 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.
- 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) 77 lb down and 72 lb up at 3-10-0, 84 lb down and 72 lb up at 5-1-8, 84 lb down and 72 lb up at 7-1-8, and 84 lb down and 72 lb up at 9-1-8, and 77 lb down and 72 lb up at 10-5-0 on top chord, and 210 lb down and 75 lb up at 3-10-0, 29 lb down and 5-1-8, 29 lb down at 7-1-8, and 29 lb down at 9-1-8, and 210 lb down and 75 lb up at 10-4-4 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).

LOAD CASE(S) Standard



May 19,2020

Continued on page 2

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 10/03/2015 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, 218 N. Lee Street, Suite 312, Alexandria, VA 22314.



16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 39 HT	I41355747
400305	A1	Hip Girder	1	1	Job Reference (optional)	

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, 4-5=-70, 6-9=-20
- Concentrated Loads (lb)
- Vert: 2=-42(F) 3=-42(F) 8=-210(F) 7=-210(F) 10=-42(F) 11=-42(F) 12=-42(F) 13=-23(F) 14=-23(F) 15=-23(F)

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 39 HT	
400305	A2	Roof Special Girder	1	1		I41355748
Job Reference (optional)						

Wheeler Lumber, Waverly, KS 66871

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ID:I3EdZD?h5AdOXx2i0YXRYBzFDC?-TkPvC0rR1IFhWTHoGnxlwhQuP32tLPi4BmHSE4zEyks

0-10-8	3-10-8	11-0-4	14-8-8	16-8-8	19-3-8	25-2-0	26-0-8
0-10-8	3-10-8	7-1-12	3-8-4	2-0-0	2-7-0	5-10-8	0-10-8

Scale = 1:45.3

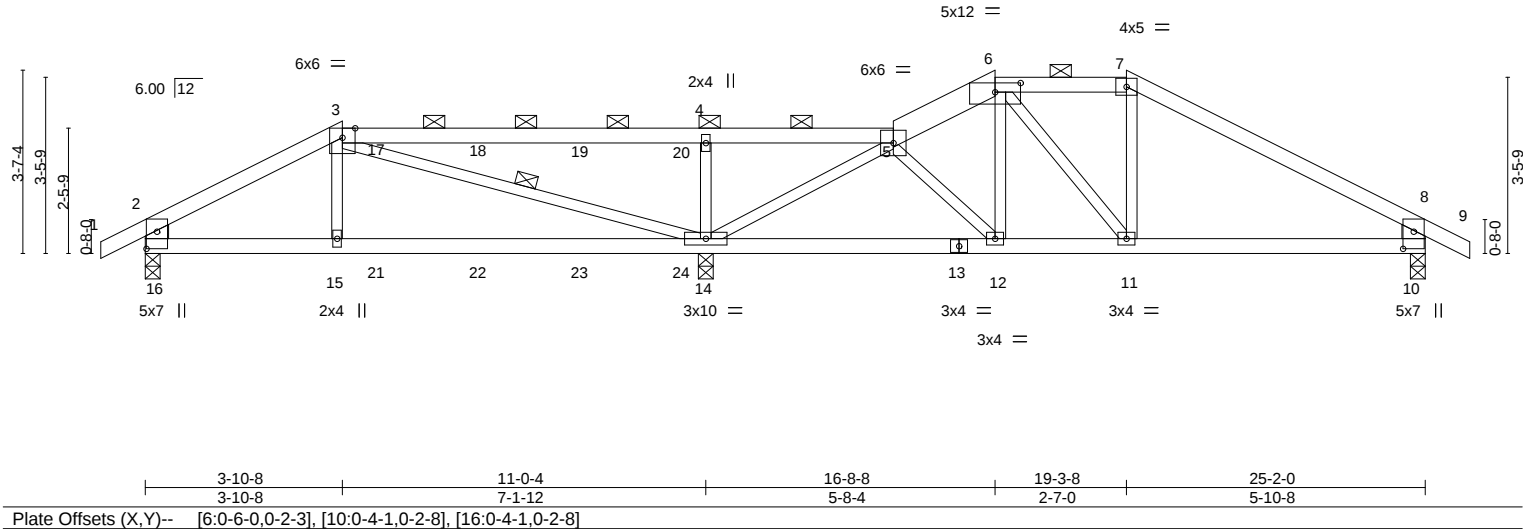


Plate Offsets (X,Y)--		[6:0-6-0,0-2-3], [10:0-4-1,0-2-8], [16:0-4-1,0-2-8]							
LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 1.00	Vert(LL)	-0.09 14-15	>999	360	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.58	Vert(CT)	-0.20 14-15	>657	240		
BCLL 0.0 *	Rep Stress Incr	NO	WB 0.65	Horz(CT)	0.02 10	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-S	Wind(LL)	0.05 14-15	>999	240	Weight: 87 lb	FT = 10%

LUMBER-		BRACING-	
TOP CHORD	2x4 SPF No.2 *Except* 5-6: 2x6 SPF No.2	TOP CHORD	Structural wood sheathing directly applied or 5-3-0 oc purlins, except end verticals, and 2-0-0 oc purlins (6-0-0 max.): 3-5, 6-7.
BOT CHORD	2x4 SPF No.2	BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS	2x3 SPF No.2 *Except* 2-16,8-10: 2x6 SPF No.2	WEBS	1 Row at midpt 3-14

REACTIONS.	(size) 16=0-3-8, 14=0-3-8, 10=0-3-8 Max Horz 16=61(LC 7) Max Uplift 16=-194(LC 8), 14=-285(LC 8), 10=-133(LC 30) Max Grav 16=692(LC 1), 14=1590(LC 1), 10=609(LC 1)
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FORCES.	(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD	2-3=-941/258, 3-4=-9/382, 4-5=-9/380, 5-6=-469/195, 6-7=-507/177, 7-8=-663/151, 2-16=-624/183, 8-10=-553/172
BOT CHORD	15-16=-218/782, 14-15=-221/767, 12-14=-196/364, 11-12=-80/407, 10-11=-50/505
WEBS	3-15=0/392, 3-14=-1197/248, 4-14=-629/307, 5-14=-750/133

- 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 194 lb uplift at joint 16, 285 lb uplift at joint 14 and 133 lb uplift at joint 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.
 - 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) 92 lb down and 72 lb up at 3-10-8, 92 lb down and 72 lb up at 4-7-0, 92 lb down and 72 lb up at 6-7-0, and 92 lb down and 72 lb up at 8-7-0, and 92 lb down and 72 lb up at 10-7-0 on top chord, and 210 lb down and 75 lb up at 3-10-8, 29 lb down at 4-7-0, 29 lb down at 6-7-0, and 29 lb down at 8-7-0, and 29 lb down at 10-7-0 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

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Chesterfield, MO 63017



May 19,2020

Job	Truss	Truss Type	Qty	Ply	Lot 39 HT
400305	A2	Roof Special Girder	1	1	I41355748
Job Reference (optional)					

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, 3-5=-70, 5-6=-70, 6-7=-70, 7-8=-70, 8-9=-70, 10-16=-20

Concentrated Loads (lb)

Vert: 3=-42(F) 15=-210(F) 17=-42(F) 18=-42(F) 19=-42(F) 20=-42(F) 21=-23(F) 22=-23(F) 23=-23(F) 24=-23(F)

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 39 HT	I41355749
400305	A3	Roof Special	1	1		

Wheeler Lumber, Waverly, KS 66871

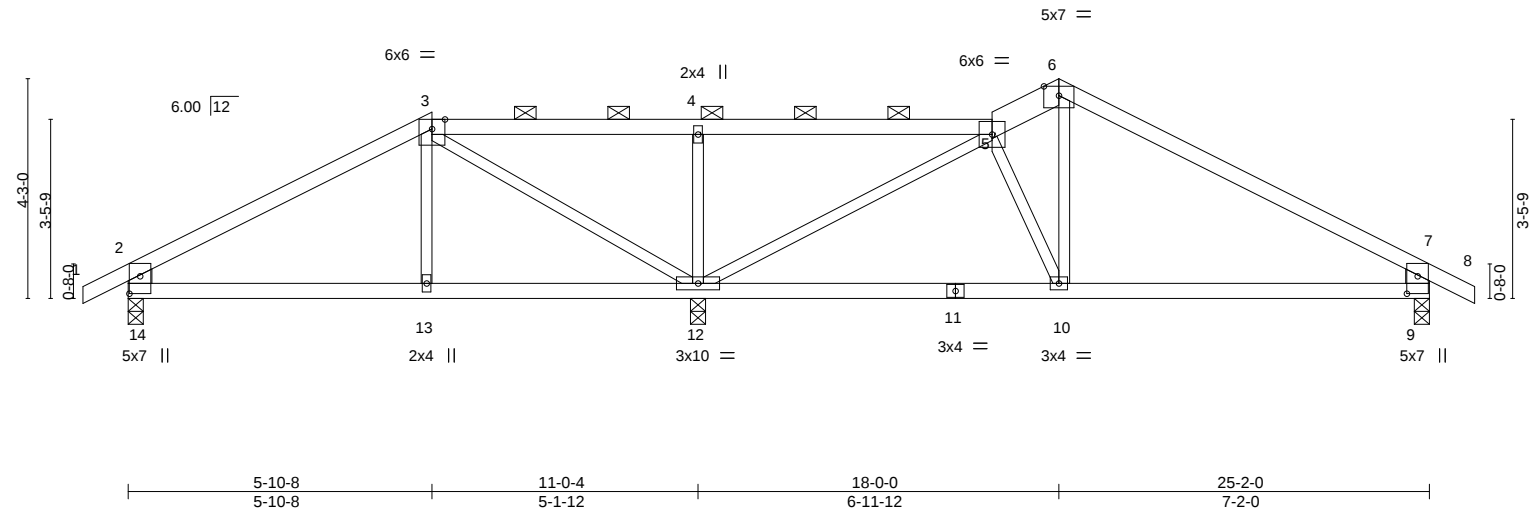
8.240 s Mar 9 2020 MiTek Industries, Inc. Tue May 19 10:50:32 2020 Page 1

ID:I3EdZD?h5AdOXx2i0YXRYBzFDC?-xxzHPMs3o3NY8ds?pVT_SvzAJSRH4pKEQQ0PmWzEYkr

Job Reference (optional)

0-10-8	5-10-8	11-0-4	16-8-8	18-0-0	25-2-0	26-0-8
0-10-8	5-10-8	5-1-12	5-8-4	1-3-8	7-2-0	0-10-8

Scale = 1:44.6



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 0.55	Vert(LL)	-0.04	9-10	>999	360	MT20
TCDL 10.0	Lumber DOL	1.15	BC 0.38	Vert(CT)	-0.10	9-10	>999	240	197/144
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.79	Horz(CT)	0.02	9	n/a	n/a	
BCDL 10.0	Code IRC2018/TPI2014		Matrix-S	Wind(LL)	0.02	9-10	>999	240	

LUMBER-	BRACING-
TOP CHORD 2x4 SPF No.2 *Except*	TOP CHORD Structural wood sheathing directly applied or 5-9-4 oc purlins, except end verticals, and 2-0-0 oc purlins (6-0-0 max.): 3-5.
5-6: 2x6 SPF No.2	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
BOT CHORD 2x4 SPF No.2	
WEBS 2x3 SPF No.2 *Except*	
2-14,7-9: 2x6 SPF No.2	

REACTIONS.	(size) 14=0-3-8, 12=0-3-8, 9=0-3-8
	Max Horz 14=-71(LC 6)
	Max Uplift 14=-138(LC 8), 12=-129(LC 8), 9=-149(LC 9)
	Max Grav 14=526(LC 1), 12=1178(LC 1), 9=675(LC 1)

FORCES.	(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD	2-3=-507/159, 5-6=-624/196, 6-7=-743/171, 2-14=-476/175, 7-9=-618/194
BOT CHORD	13-14=-112/369, 12-13=-113/365, 10-12=-99/601, 9-10=-53/562
WEBS	3-12=-540/41, 4-12=-431/183, 5-12=-743/26, 6-10=-57/288

- 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 138 lb uplift at joint 14, 129 lb uplift at joint 12 and 149 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.
 - Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



May 19,2020

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 39 HT	I41355750
400305	A4	Half Hip	1	1		

Wheeler Lumber, Waverly, KS 66871

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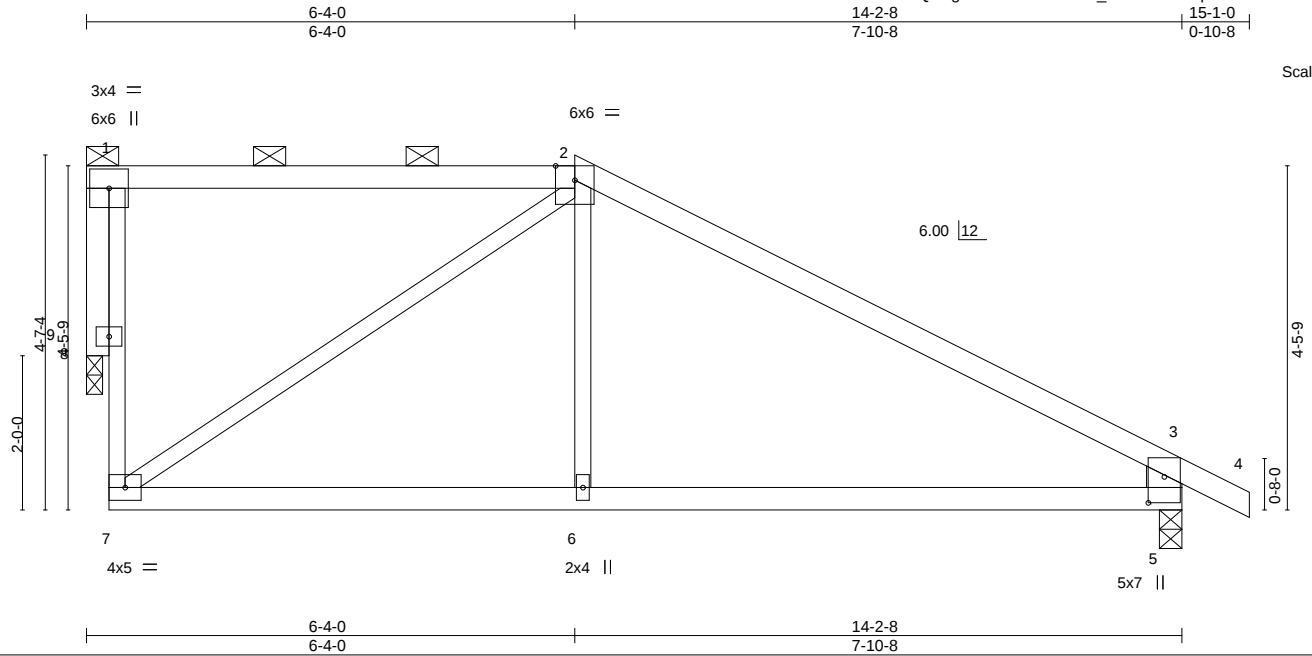


Plate Offsets (X,Y)--		[5:0-4-1,0-2-8]							
LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in (loc)	L/defl	L/d
TCLL 25.0		Plate Grip DOL	1.15	TC 0.65		Vert(LL)	-0.07 5-6	>999	360
TCDL 10.0		Lumber DOL	1.15	BC 0.43		Vert(CT)	-0.16 5-6	>999	240
BCLL 0.0 *		Rep Stress Incr	YES	WB 0.81		Horz(CT)	0.08 5	n/a	n/a
BCDL 10.0		Code IRC2018/TPI2014		Matrix-S		Wind(LL)	0.04 5-6	>999	240
						PLATES		GRIP	
						MT20		197/144	
						Weight: 50 lb		FT = 10%	

LUMBER-

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

BRACING-

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

REACTIONS.

(size) 5=0-3-8, 9=0-2-8
 Max Horz 9=-143(LC 4)
 Max Uplift 5=-112(LC 9), 9=-77(LC 4)
 Max Grav 5=704(LC 1), 9=595(LC 1)

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

TOP CHORD 7-8=-11/406, 1-8=-11/406, 2-3=-764/91, 3-5=-645/170
 BOT CHORD 6-7=0/568, 5-6=0/572
 WEBS 2-7=-613/91, 2-6=0/311, 1-9=-604/79

NOTES-

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCCL=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.
- Bearing at joint(s) 9 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 at joint(s) 9.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 112 lb uplift at joint 5 and 77 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.
- Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



May 19,2020

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16023 Swingley Ridge Rd
 Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 39 HT	I41355751
400305	A5	Half Hip Girder	1	2	Job Reference (optional)	

Wheeler Lumber, Waverly, KS 66871

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Scale = 1:27.8

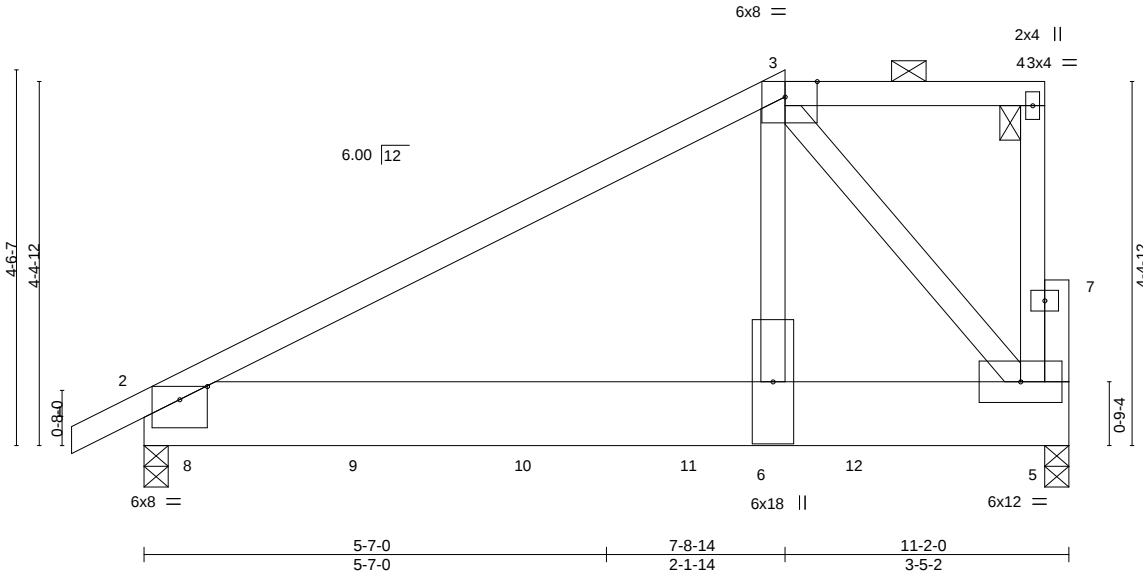


Plate Offsets (X,Y)-- [2:0-4-0,0-1-15], [3:0-4-10,Edge]												
LOADING (psf)		SPACING- 2-0-0		CSI.		DEFL. in (loc) l/defl L/d				PLATES GRIP		
TCLL	25.0	Plate Grip DOL	1.15	TC	0.70	Vert(LL)	-0.07	2-6	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.53	Vert(CT)	-0.13	2-6	>999	240		
BCLL	0.0 *	Rep Stress Incr	NO	WB	0.60	Horz(CT)	0.01	5	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-S		Wind(LL)	0.03	2-6	>999	240	Weight: 145 lb	FT = 10%

LUMBER-

TOP CHORD 2x4 SPF No.2
BOT CHORD 2x10 SP DSS
WEBS 2x4 SPF No.2
OTHERS 2x4 SPF No.2

BRACING-

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

REACTIONS.

(size) 5=0-3-8 (req. 0-3-13), 2=0-3-8 (req. 0-3-10)
Max Horz 2=131(LC 24)
Max Uplift 5=112(LC 5)
Max Grav 5=4864(LC 2), 2=4634(LC 2)

FORCES.

(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-3592/63
BOT CHORD 2-6=-76/3097, 5-6=-77/2916
WEBS 3-6=-24/4880, 3-5=-4604/100

NOTES-

- 2-ply truss to be connected together with 10d (0.131"x3") nails as follows:
Top chords connected as follows: 2x4 - 1 row at 0-9-0 oc.
Bottom chords connected as follows: 2x10 - 2 rows staggered at 0-3-0 oc.
Webs connected as follows: 2x4 - 1 row at 0-9-0 oc.
- All loads are considered equally applied to all plies, except if noted as front (F) or back (B) face in the LOAD CASE(S) section. Ply to ply connections have been provided to distribute only loads noted as (F) or (B), unless otherwise indicated.
- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCCL=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.
- WARNING: Required bearing size at joint(s) 5, 2 greater than input bearing size.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 112 lb uplift at joint 5.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 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) 1444 lb down at 0-8-0, 1442 lb down and 36 lb up at 2-8-0, 1421 lb down and 45 lb up at 4-8-0, 1434 lb down and 46 lb up at 6-8-0, and 1434 lb down and 46 lb up at 8-8-0, and 1442 lb down and 38 lb up at 10-10-8 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.

LOAD CASE(S) Standard

Continued on page 2



May 19, 2020

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 39 HT
400305	A5	Half Hip Girder	1	2	I41355751
					Job Reference (optional)

LOAD CASE(S) Standard

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

Uniform Loads (plf)

Vert: 1-3=-70, 3-4=-70, 2-5=-20

Concentrated Loads (lb)

Vert: 5=-1377 8=-1378(B) 9=-1373(B) 10=-1375(B) 11=-1369 12=-1369

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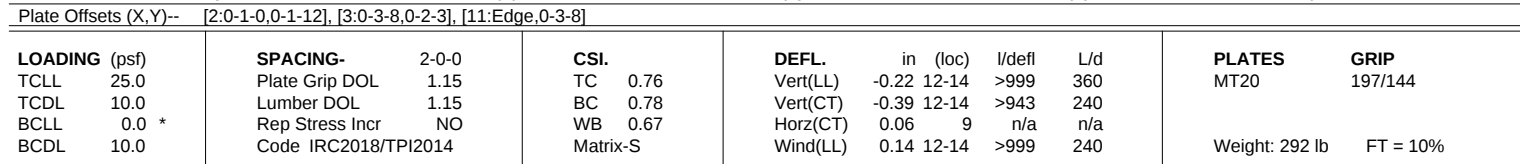
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Wheeler Lumber, Waverly, KS 66871 8.240 s Mar 9 2020 MiTek Industries, Inc. Tue May 19 10:50:37 2020 Page 1

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-0-10-8 5-11-4 12-11-13 20-0-7 27-1-0 31-2-0
0-10-8 5-11-4 7-0-9 7-0-9 7-0-9 4-1-0

Scale = 1:56.8



- 1) 2-ply truss to be connected together with 10d (0.131"x3") nails as follows:
Top chords connected as follows: 2x4 - 1 row at 0-7-0 oc.
Bottom chords connected as follows: 2x6 - 2 rows staggered at 0-9-0 oc, 2x4 - 1 row at 0-9-0 oc.
Webs connected as follows: 2x4 - 1 row at 0-9-0 oc.
- 2) All loads are considered equally applied to all plies, except if noted as front (F) or back (B) face in the LOAD CASE(S) section. Ply to ply connections have been provided to distribute only loads noted as (F) or (B), unless otherwise indicated.
- 3) Unbalanced roof live loads have been considered for this design.
- 4) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDF=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope); cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 5) Provide adequate drainage to prevent water ponding.
- 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) Refer to girder(s) for truss to truss connections.
- 9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 251 lb uplift at joint 9 and 240 lb uplift at joint 2.
- 10) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

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May 19, 2020



16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 39 HT
400305	B1	Half Hip Girder	1	2	I41355752

Wheeler Lumber, Waverly, KS 66871

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NOTES-

12) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 133 lb down and 72 lb up at 5-11-4, 114 lb down and 72 lb up at 6-9-0, 109 lb down and 72 lb up at 8-9-0, 109 lb down and 72 lb up at 10-9-0, 109 lb down and 72 lb up at 12-9-0, 109 lb down and 72 lb up at 14-9-0, 109 lb down and 72 lb up at 16-9-0, 109 lb down and 72 lb up at 18-9-0, 109 lb down and 72 lb up at 20-9-0, 109 lb down and 72 lb up at 22-9-0, 109 lb down and 72 lb up at 24-9-0, 109 lb down and 72 lb up at 26-9-0, and 110 lb down and 73 lb up at 28-9-0, and 136 lb down and 67 lb up at 31-0-4 on top chord, and 408 lb down and 116 lb up at 5-11-4, 68 lb down at 6-9-0, 68 lb down at 8-9-0, 68 lb down at 10-9-0, 68 lb down at 12-9-0, 68 lb down at 14-9-0, 68 lb down at 16-9-0, 68 lb down at 18-9-0, 68 lb down at 20-9-0, 68 lb down at 22-9-0, and 68 lb down at 24-9-0, and 68 lb down at 26-11-4 on bottom chord. The design/selecion of such connection device(s) is the responsibility of others.

LOAD CASE(S) Standard

1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (plf)
Vert: 1-3=-70, 3-8=-70, 2-11=-20, 9-10=-20
Concentrated Loads (lb)
Vert: 3=-109(F) 8=-136(F) 9=-59 11=-52(F) 7=-109(F) 15=-408(F) 14=-52(F) 4=-109(F) 16=-109(F) 17=-109(F) 18=-109(F) 19=-109(F) 20=-109(F) 21=-109(F) 22=-109(F) 23=-109(F) 24=-109(F) 25=-110(F) 26=-52(F) 27=-52(F) 28=-52(F) 29=-52(F) 30=-52(F) 31=-52(F) 32=-52(F) 33=-52(F) 34=-52(F) 35=-51

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 39 HT	I41355753
400305	B2	Hip	1	1		

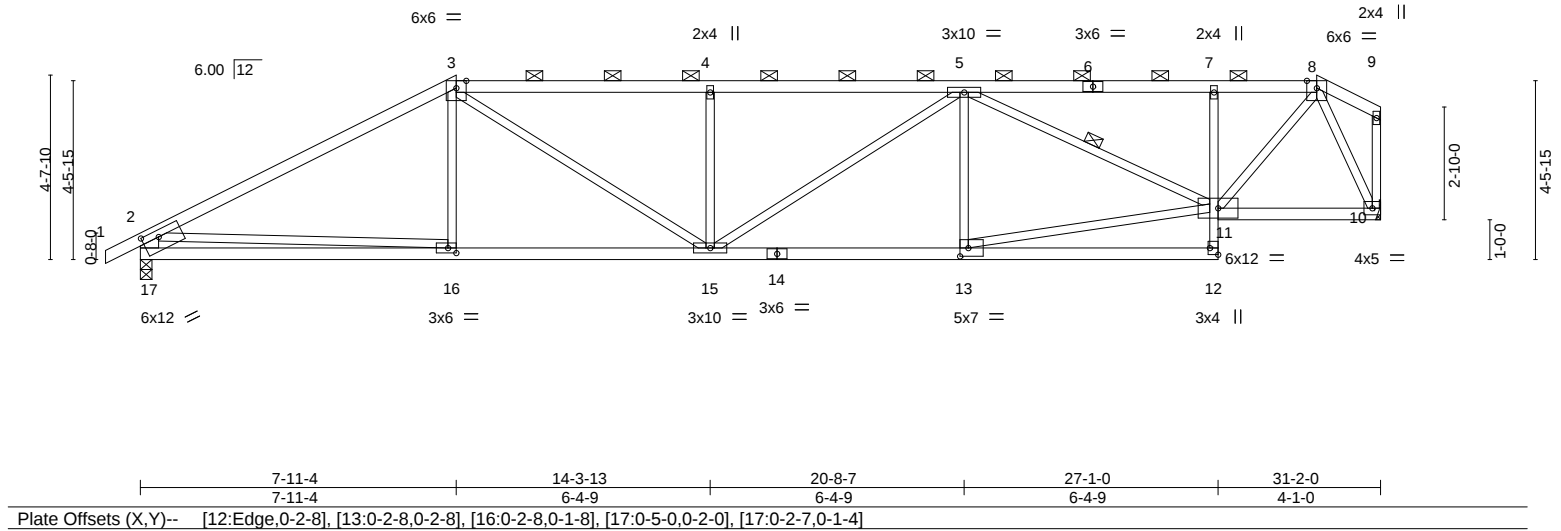
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0-10-8	7-11-4	14-3-13	20-8-7	27-1-0	29-6-12	31-2-0
0-10-8	7-11-4	6-4-9	6-4-9	6-4-9	2-5-12	1-7-4

Scale = 1:57.9



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 0.79	Vert(LL)	-0.16 13-15	>999	360	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.64	Vert(CT)	-0.30 13-15	>999	240		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.77	Horz(CT)	0.07 10	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-S	Wind(LL)	0.09 13-15	>999	240	Weight: 123 lb	FT = 10%

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

REACTIONS.	(size) 17=0-3-8, 10=Mechanical Max Horz 17=120(LC 5) Max Uplift 17=-9(LC 5), 10=-40(LC 5) Max Grav 17=1466(LC 1), 10=1386(LC 1)
-------------------	--

FORCES.	(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD	2-3=-2286/60, 3-4=-2592/114, 4-5=-2589/113, 5-7=-1563/87, 7-8=-1570/85, 2-17=-1393/52
BOT CHORD	16-17=-198/1002, 15-16=-101/1927, 13-15=-123/2337, 7-11=-398/87, 10-11=-47/592
WEBS	3-16=0/254, 3-15=-95/905, 4-15=-503/115, 5-15=-20/306, 11-13=-128/2234, 5-11=-875/29, 8-11=-77/1574, 2-16=-44/1156, 8-10=-1382/79

- 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 9 lb uplift at joint 17 and 40 lb uplift at joint 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.
 - Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



May 19, 2020

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 39 HT	I41355754
400305	B3	Hip	1	1		

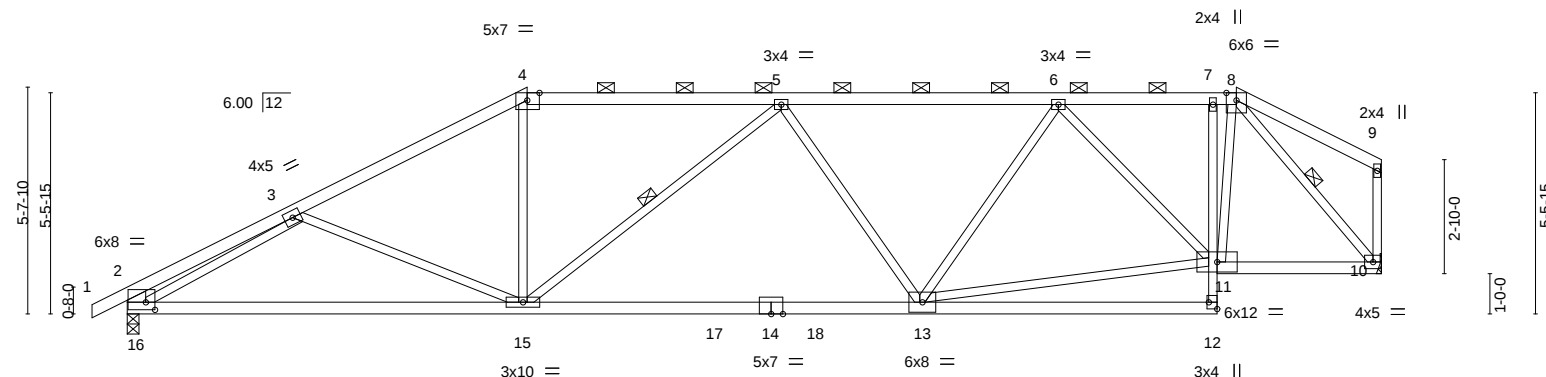
Wheeler Lumber, Waverly, KS 66871

8.240 s Mar 9 2020 MiTek Industries, Inc. Tue May 19 10:50:39 2020 Page 1

ID: i3EdZD?h5AdOXx2i0YXRYBzFDC?-EHuxtixS9DFZUiuLkT5dFNILwHgQDy4G10DHWczEykk

0-10-8	4-2-13	9-11-4	16-3-0	23-1-11	27-1-0	27-6-12	31-2-0
0-10-8	4-2-13	5-8-7	6-3-12	6-10-10	3-11-5	0-5-12	3-7-4

Scale = 1:57.3



	9-11-4	19-8-5	27-1-0	31-2-0
	9-11-4	9-9-2	7-4-11	4-1-0

Plate Offsets (X,Y)-- [2:0-2-12,0-2-4], [2:0-2-12,0-1-6], [4:0-3-10,Edge], [12: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 0.65	Vert(LL)	-0.28 13-15	>999	360	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.98	Vert(CT)	-0.49 13-15	>761	240		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.92	Horz(CT)	0.08 10	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-S	Wind(LL)	0.07 13-15	>999	240	Weight: 127 lb	FT = 10%

LUMBER-

TOP CHORD 2x4 SPF No.2
 BOT CHORD 2x4 SPF No.2 *Except*
 14-16: 2x4 SPF 2100F 1.8E, 7-12: 2x3 SPF No.2
 WEBS 2x3 SPF No.2 *Except*
 2-16: 2x6 SPF No.2

BRACING-

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

REACTIONS.

(size) 16=0-3-8, 10=Mechanical
 Max Horz 16=130(LC 5)
 Max Uplift 10=-8(LC 4)
 Max Grav 16=1509(LC 2), 10=1444(LC 2)

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

TOP CHORD 2-3=-683/0, 3-4=-2211/38, 4-5=-1908/50, 5-6=-2022/48, 6-7=-1200/55, 7-8=-1205/54, 2-16=-465/11
 BOT CHORD 15-16=-133/1997, 13-15=-117/2168, 10-11=-43/1066
 WEBS 4-15=0/628, 5-15=-502/122, 5-13=-351/93, 6-13=0/396, 11-13=-99/1709, 6-11=-929/70, 8-11=-29/1056, 3-16=-1741/86, 8-10=-1630/45

NOTES-

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCCL=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, with BCDL = 10.0psf.
- Refer to girder(s) for truss to truss connections.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 8 lb uplift at joint 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.
- Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



May 19,2020

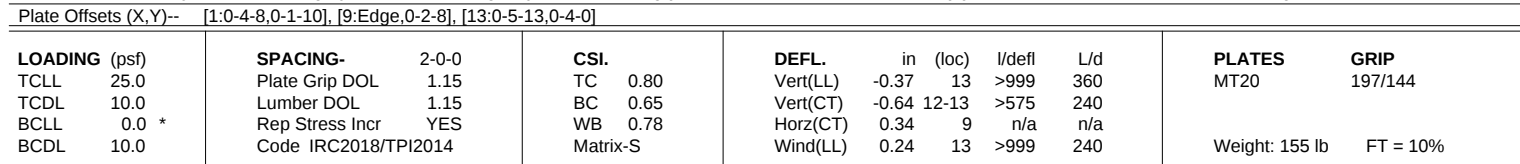
WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 10/03/2015 BEFORE USE.

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Wheeler Lumber, Waverly, KS 66871 8.240 s Mar 9 2020 MiTek Industries, Inc. Tue May 19 10:50:40 2020 Page 1
ID:I3EdZD?h5AdOXx2i0YXRYBzFDC?-iTSJ55y5wWOQ5rTXHAcsnblUGh5pyRYPfgyr33zEykj
4-1-6 8-0-4 11-11-4 15-9-0 20-9-2 25-6-12 31-2-0
4-1-6 3-10-14 3-11-0 3-9-12 5-0-2 4-9-10 5-7-4
Scale = 1:53.6



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

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown
TOP CHORD 1-2=-4894/521, 2-3=-5497/636, 3-4=-2502/307, 4-5=-1892/246, 5-6=-1890/244,
6-7=-1127/157, 7-8=-1323/151, 8-9=-1423/126
BOT CHORD 1-14=-597/4361, 13-14=-611/4464, 12-13=-657/4816, 11-12=-340/2327, 10-11=-265/1630
WEBS 2-14=-261/102, 2-13=-85/690, 3-13=-356/317, 3-12=-3057/407, 4-11=-588/110,
5-11=-348/138, 6-11=-30/435, 6-10=-876/212, 7-10=0/344, 8-10=-120/1326,
4-12=-125/1363

NOTES-

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCFL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) 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) Bearing at joint(s) 1 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- 7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 144 lb uplift at joint 1 and 109 lb uplift at joint 9.
- 8) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 9) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



May 19, 2020



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Chesterfield, MO 63017

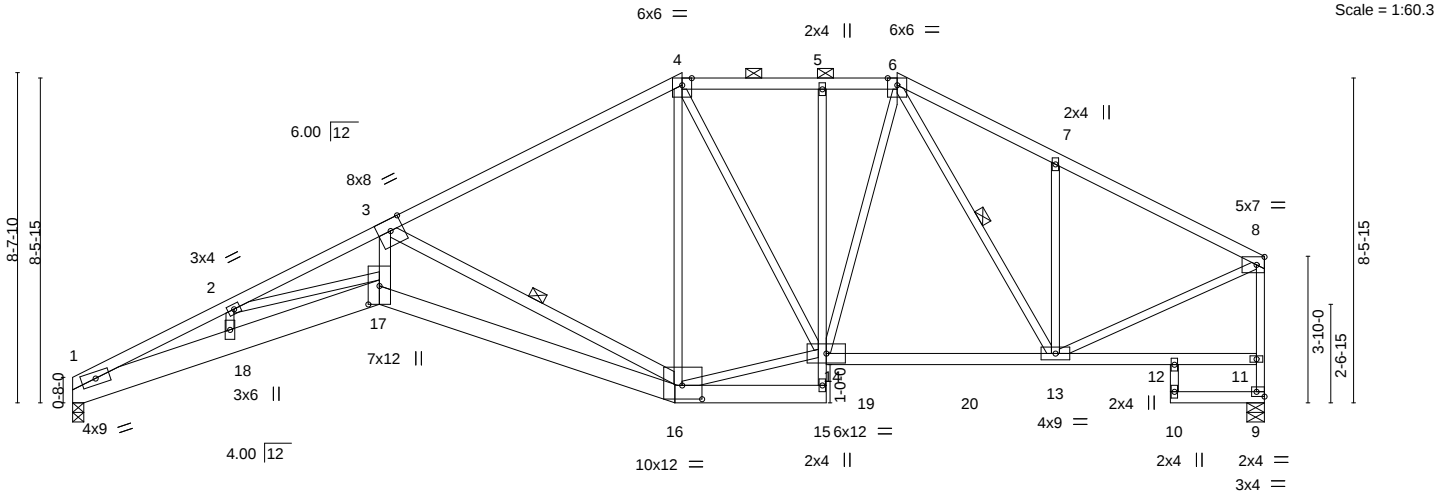
Job	Truss	Truss Type	Qty	Ply	Lot 39 HT	I41355757
400305	C3	Hip	1	1		

Wheeler Lumber, Waverly, KS 66871

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ID:I3EdZD?h5AdOXx2i0YXRYBzFDC?-727Sj6_zDRm_yJC6zJ9ZPDw1Cu7F9oYrxdBVfNzEykg

4-1-6	8-0-4	15-11-4	19-8-8	21-6-12	25-8-7	28-8-8	31-2-0
4-1-6	3-10-14	7-11-0	3-9-4	1-10-4	4-1-11	3-0-1	2-5-8



4-1-6	8-0-4	15-9-0	19-8-8	21-6-12	25-1-10	28-8-8	31-2-0
4-1-6	3-10-14	7-8-12	3-11-8	1-10-4	3-6-14	3-6-14	2-5-8

Plate Offsets (X,Y)-- [9:Edge,0-1-8], [16:0-6-4,0-4-5], [17:0-5-13,0-3-8]

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 0.63	Vert(LL)	-0.39	16-17	>961	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.67	Vert(CT)	-0.68	16-17	>543		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.83	Horz(CT)	0.39	9	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-S	Wind(LL)	0.26	17	>999	Weight: 165 lb	FT = 10%

LUMBER-

TOP CHORD 2x4 SPF No.2 *Except*
1-4: 2x4 SPF 2100F 1.8E
BOT CHORD 2x4 SPF No.2 *Except*
1-17: 2x8 SP DSS, 16-17: 2x6 SPF 1650F 1.4E, 15-16: 2x6 SPF No.2
5-15,10-12: 2x3 SPF No.2
WEBS 2x3 SPF No.2 *Except*
3-17: 2x4 SPF No.2, 3-16: 2x4 SPF 2100F 1.8E

REACTIONS.

(size) 1=0-3-8, 9=0-5-8
Max Horz 1=208(LC 7)
Max Uplift 1=175(LC 8), 9=121(LC 9)
Max Grav 1=1443(LC 2), 9=1491(LC 2)

FORCES.

(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-2=-4982/688, 2-3=-5690/786, 3-4=-1686/225, 4-5=-1471/209, 5-6=-1474/209,
6-7=-1500/245, 7-8=-1507/132, 9-11=-1445/135, 8-11=-1388/143
BOT CHORD 1-18=-725/4445, 17-18=-737/4538, 16-17=-739/5035, 13-14=-92/1323
WEBS 2-17=-40/819, 3-17=-398/3366, 3-16=-3841/706, 4-16=-37/280, 14-16=-97/1461,
4-14=-54/253, 6-14=-73/635, 7-13=-374/218, 8-13=-63/1394

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.
- Bearing at joint(s) 1 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 175 lb uplift at joint 1 and 121 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.
- Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



May 19,2020

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 39 HT	I41355758
400305	C4	Hip	1	1		

Wheeler Lumber, Waverly, KS 66871

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4-1-6 8-0-4 15-9-0 17-11-4 19-6-12 23-8-8 28-8-8 30-11-8 31-2-0
4-1-6 3-10-14 7-8-12 2-2-4 1-7-8 4-1-11 5-0-0 2-3-0 0-2-8

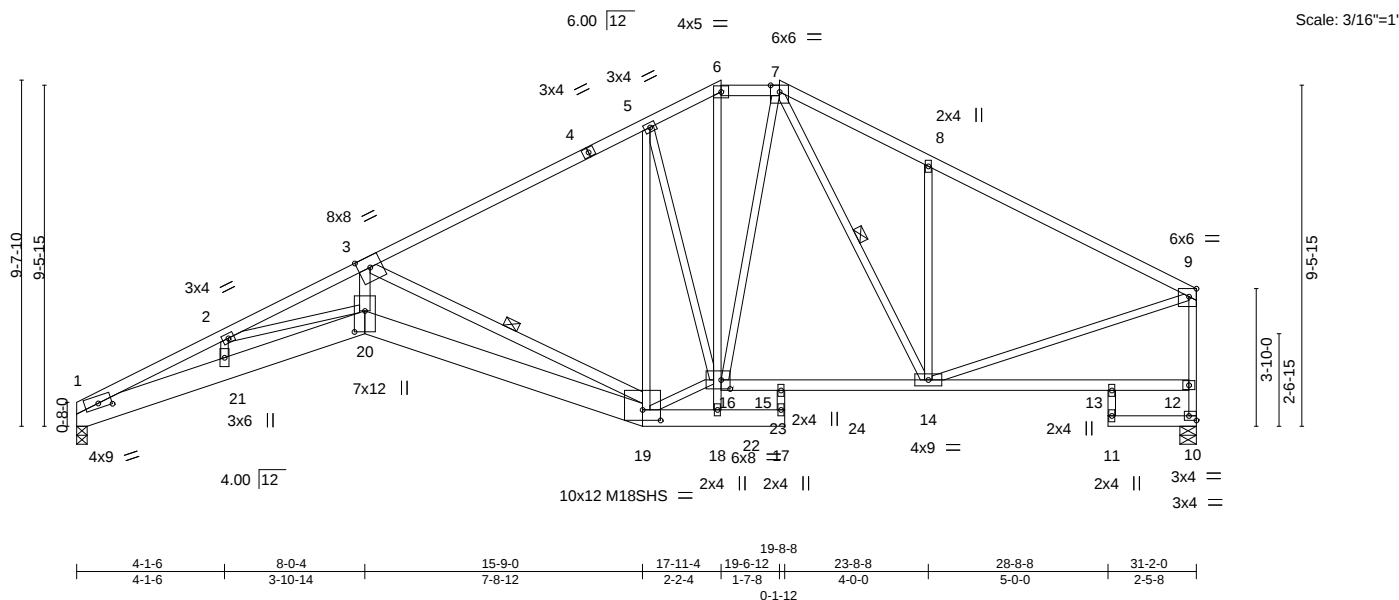


Plate Offsets (X,Y)--		[1:0-4-8,0-1-10], [9:0-2-8,Edge], [10:Edge,0-1-8], [16:0-3-0,0-3-0], [19:0-6-0,0-3-8], [20:0-7-0,0-3-8]	
LOADING (psf)	SPACING-	CSI.	DEFL.
TCLL 25.0	Plate Grip DOL 1.15	TC 0.88	in (loc) l/defl L/d
TCDL 10.0	Lumber DOL 1.15	BC 0.58	Vert(LL) -0.42 20 >890 360
BCLL 0.0 *	Rep Stress Incr YES	WB 0.88	Vert(CT) -0.72 19-20 >514 240
BCDL 10.0	Code IRC2018/TPI2014	Matrix-S	Horz(CT) 0.44 10 n/a n/a
			Wind(LL) 0.30 20 >999 240
			PLATES GRIP
			MT20 197/144
			M18SHS 197/144
			Weight: 181 lb FT = 10%

LUMBER-

TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2 *Except*
1-20,19-20: 2x8 SP DSS, 17-19: 2x6 SPF No.2
15-17,11-13: 2x3 SPF No.2
WEBS 2x3 SPF No.2 *Except*
3-20: 2x4 SPF No.2, 3-19: 2x4 SPF 2100F 1.8E

BRACING-

TOP CHORD Structural wood sheathing directly applied, except end verticals, and 2-0-0 oc purlins (4-11-11 max.): 6-7.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing, Except:
6-0-0 oc bracing: 17-18,15-17,10-11.
WEBS 1 Row at midpt 3-19, 7-14

REACTIONS.

(size) 1=0-3-8, 10=0-5-8
Max Horz 1=219(LC 7)
Max Uplift 1=186(LC 8), 10=139(LC 9)
Max Grav 1=1461(LC 2), 10=1514(LC 2)

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

TOP CHORD 1-2=-4985/747, 2-3=-5752/867, 3-5=-1735/256, 5-6=-1620/310, 6-7=-1392/260,
7-8=-1636/302, 8-9=-1664/188, 10-12=-1461/155, 9-12=-1362/175
BOT CHORD 1-21=-794/4443, 20-21=-810/4543, 19-20=-873/5432, 15-16=-32/1312, 14-15=-41/1325
WEBS 2-20=-58/870, 3-20=-467/3490, 3-19=-4184/786, 5-16=-458/261, 6-16=-184/746,
7-16=-78/416, 7-14=-181/318, 8-14=-474/277, 9-14=-90/1405, 16-19=-134/1555

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.
- Bearing at joint(s) 1 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 186 lb uplift at joint 1 and 139 lb uplift at joint 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.
- Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



May 19,2020

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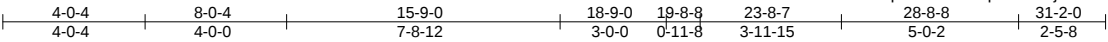
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 39 HT	I41355759
400305	C5	Roof Special	3	1		

Wheeler Lumber, Waverly, KS 66871

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Scale = 1:65.1

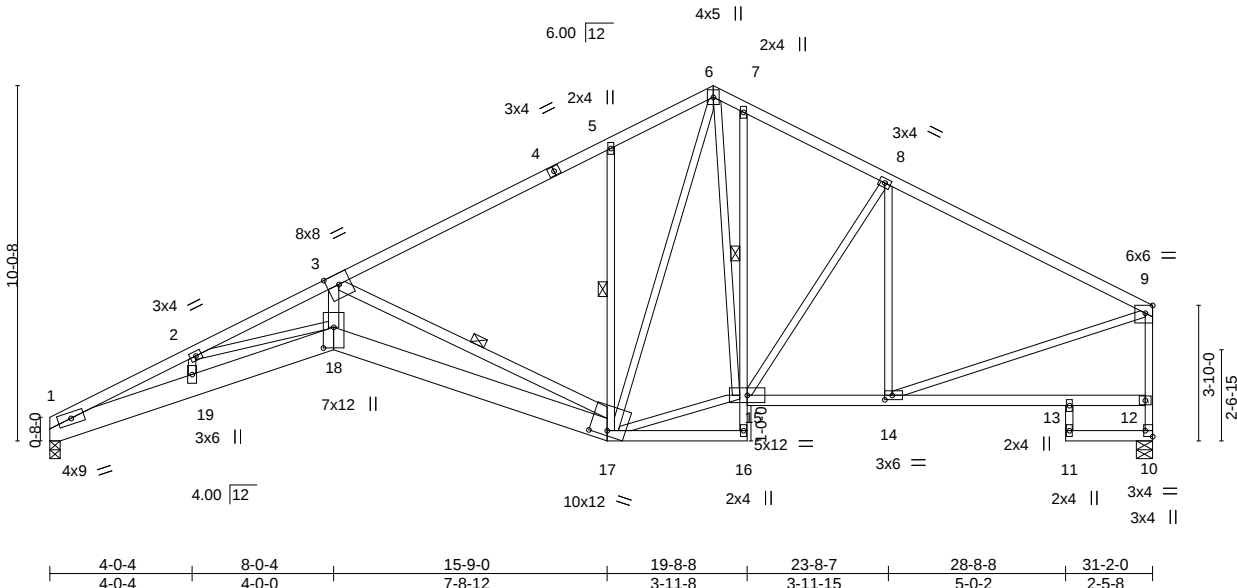


Plate Offsets (X,Y)-- [9:0-2-8,Edge], [10:Edge,0-2-8], [14:0-2-8,0-1-8], [17:0-6-0,0-1-11], [18:0-7-0,0-3-8]										
LOADING (psf)		SPACING- 2-0-0		CSI.		DEFL. in (loc) l/defl L/d		PLATES GRIP		
TCLL	25.0	Plate Grip DOL	1.15	TC	0.85	Vert(LL)	-0.38 18	>968	360	MT20 197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.46	Vert(CT)	-0.69 17-18	>537	240	
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.85	Horz(CT)	0.40 10	n/a	n/a	
BCDL	10.0	Code IRC2018/TPI2014		Matrix-S		Wind(LL)	0.31 18	>999	240	Weight: 179 lb FT = 10%

LUMBER-	BRACING-
TOP CHORD 2x4 SPF No.2	TOP CHORD Structural wood sheathing directly applied, except end verticals.
BOT CHORD 2x4 SPF No.2 *Except*	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing, Except:
1-18,17-18: 2x8 SP DSS, 7-16,11-13: 2x3 SPF No.2	6-0-0 oc bracing: 10-11.
WEBS 2x3 SPF No.2 *Except*	1 Row at midpt 7-15
3-18: 2x4 SPF No.2, 3-17: 2x4 SPF 2100F 1.8E	1 Row at midpt 3-17, 5-17

REACTIONS. (size) 1=0-3-8, 10=0-5-8
Max Horz 1=226(LC 7)
Max Uplift 1=-190(LC 8), 10=-145(LC 9)
Max Grav 1=1391(LC 1), 10=1391(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-2=-4723/766, 2-3=-5470/899, 3-5=-1623/261, 5-6=-1607/402, 6-7=-1325/295, 7-8=-1447/277, 8-9=-1566/203, 10-12=-1360/161, 9-12=-1315/182
BOT CHORD 1-19=-820/4184, 18-19=-837/4278, 17-18=-916/5170, 14-15=-118/1309
WEBS 3-18=-497/3292, 3-17=-4048/819, 5-17=-501/274, 6-15=-133/525, 8-15=-300/159, 2-18=-71/853, 15-17=-61/1147, 6-17=-316/772, 8-14=-300/123, 9-14=-105/1304

- 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.
 - Bearing at joint(s) 1 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 190 lb uplift at joint 1 and 145 lb uplift at joint 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.



May 19,2020

Job	Truss	Truss Type	Qty	Ply	Lot 39 HT	I41355760
400305	C6	Roof Special	3	1		

Wheeler Lumber, Waverly, KS 66871

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ID: i3EdZD?h5AdOXx2i0YXRYBzFDC?~?pNyZU2UGgGQRwVtC8EVZ35gMVTLSbbRsF9io9zEykC

Job Reference (optional)

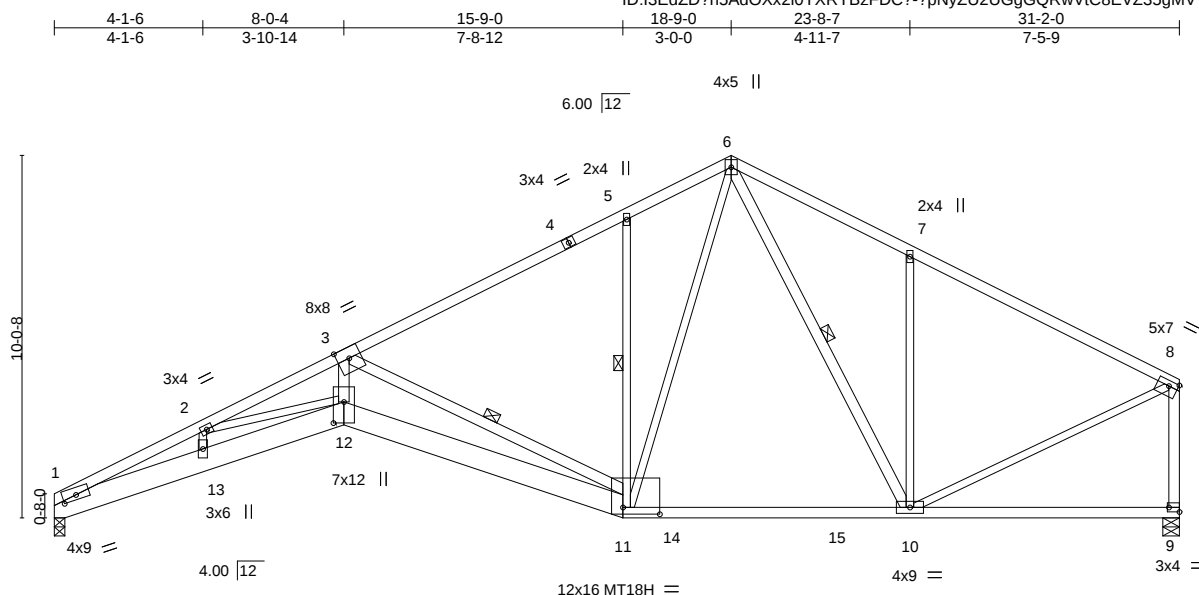


Plate Offsets (X, Y)--	[1:0-4-8,0-1-10], [8:Edge,0-1-12], [9:Edge,0-1-8], [11:1-0-4,0-2-4], [12:0-7-0,0-3-8]
------------------------	---

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 0.81	Vert(LL)	-0.42	12	>890	360	MT20
TCDL 10.0	Lumber DOL	1.15	BC 0.72	Vert(CT)	-0.72	11-12	>513	240	MT18H
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.89	Horz(CT)	0.38	9	n/a	n/a	
BCDL 10.0	Code IRC2018/TPI2014		Matrix-S	Wind(LL)	0.21	12	>999	240	
									Weight: 167 lb FT = 10%

LUMBER-

TOP CHORD 2x4 SPF No.2
 BOT CHORD 2x8 SP DSS *Except*
 9-11: 2x4 SPF No.2
 WEBS 2x3 SPF No.2 *Except*
 3-12,6-10,8-9: 2x4 SPF No.2, 3-11: 2x4 SPF 2100F 1.8E

BRACING-

TOP CHORD Structural wood sheathing directly applied or 1-11-2 oc purlins, except end verticals.
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
 WEBS 1 Row at midpt 3-11, 5-11, 6-10

REACTIONS.

(size) 1=0-3-8, 9=0-5-8
 Max Horz 1=187(LC 7)
 Max Uplift 1=-26(LC 8), 9=-1(LC 9)
 Max Grav 1=1454(LC 2), 9=1471(LC 2)

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

TOP CHORD 1-2=-5019/168, 2-3=-5787/202, 3-5=-1700/80, 5-6=-1685/168, 6-7=-1438/127, 7-8=-1438/51, 8-9=-1368/36
 BOT CHORD 1-13=-225/4550, 12-13=-228/4650, 11-12=-221/5559, 10-11=0/1142
 WEBS 2-12=0/871, 3-12=-65/3615, 3-11=-4321/241, 5-11=-498/162, 6-11=-131/1128, 6-10=-98/324, 7-10=-514/175, 8-10=0/1295

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
- 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.
- Bearing at joint(s) 1 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 26 lb uplift at joint 1 and 1 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.



May 19,2020

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 10/03/2015 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, 218 N. Lee Street, Suite 312, Alexandria, VA 22314.



16023 Swingley Ridge Rd
 Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 39 HT	I41355761
400305	C7	Hip	1	1		

Wheeler Lumber, Waverly, KS 66871

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ID:13EdZD?h5AdOXx2i0YXRYBzFDC?T0xLmq261_OH3443IsIk6HdRAvtKq2mb5vuGLbzEykb

4-1-6	8-0-4	15-9-0	17-11-4	19-6-12	25-8-7	31-2-0
4-1-6	3-10-14	7-8-12	2-2-4	1-7-8	6-1-11	5-5-9

6.00 12 6x6 = 4x5 =

Scale = 1:60.8

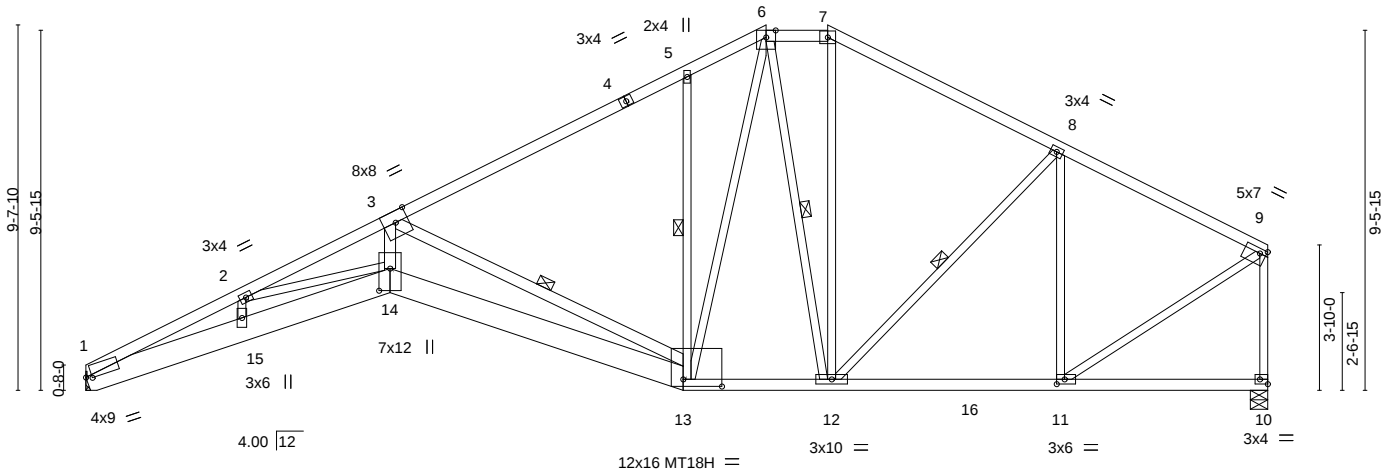


Plate Offsets (X,Y)--	[1:0-1-15,0-0-12], [9:0-2-0,0-1-8], [10:Edge,0-1-8], [11:0-2-8,0-1-8], [13:1-0-4,0-2-4], [14:0-7-0,0-3-8]
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LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.81	Vert(LL)	-0.42 13-14	>891	360	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.48	Vert(CT)	-0.73 13-14	>507	240	MT18H	197/144
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.89	Horz(CT)	0.39 10	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-S	Wind(LL)	0.22 14	>999	240	Weight: 172 lb	FT = 10%

LUMBER-

TOP CHORD 2x4 SPF No.2
BOT CHORD 2x8 SP DSS *Except*
10-13: 2x4 SPF No.2
WEBS 2x3 SPF No.2 *Except*
3-14: 2x4 SPF No.2, 3-13: 2x4 SPF 2100F 1.8E

BRACING-

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

REACTIONS.

(size) 1=Mechanical, 10=0-5-8
Max Horz 1=182(LC 7)
Max Uplift 1=25(LC 8)
Max Grav 1=1441(LC 2), 10=1462(LC 2)

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

TOP CHORD 1-2=-5007/158, 2-3=-5738/183, 3-5=-1660/80, 5-6=-1620/162, 6-7=-1151/91,
7-8=-1372/90, 8-9=-1275/36, 9-10=-1386/21
BOT CHORD 1-15=-211/4545, 14-15=-213/4648, 13-14=-192/5512, 12-13=0/1203, 11-12=0/1091
WEBS 2-14=0/829, 3-14=-48/3620, 3-13=-4320/221, 5-13=-470/165, 6-13=-157/960,
6-12=-364/54, 7-12=-0/372, 8-11=-560/67, 9-11=0/1294

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, with BCDL = 10.0psf.
- Refer to girder(s) for truss to truss connections.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 25 lb uplift at joint 1.
- 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.



May 19,2020

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 39 HT	I41355762
400305	C8	Half Hip	1	1		

Wheeler Lumber, Waverly, KS 66871

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ID:I3EdZD?h5AdOXx2i0YXRYBzFDC?-yCUj_A3koHW8gEfGJZGzeUA0fJAUZTLkkZept1zEyka

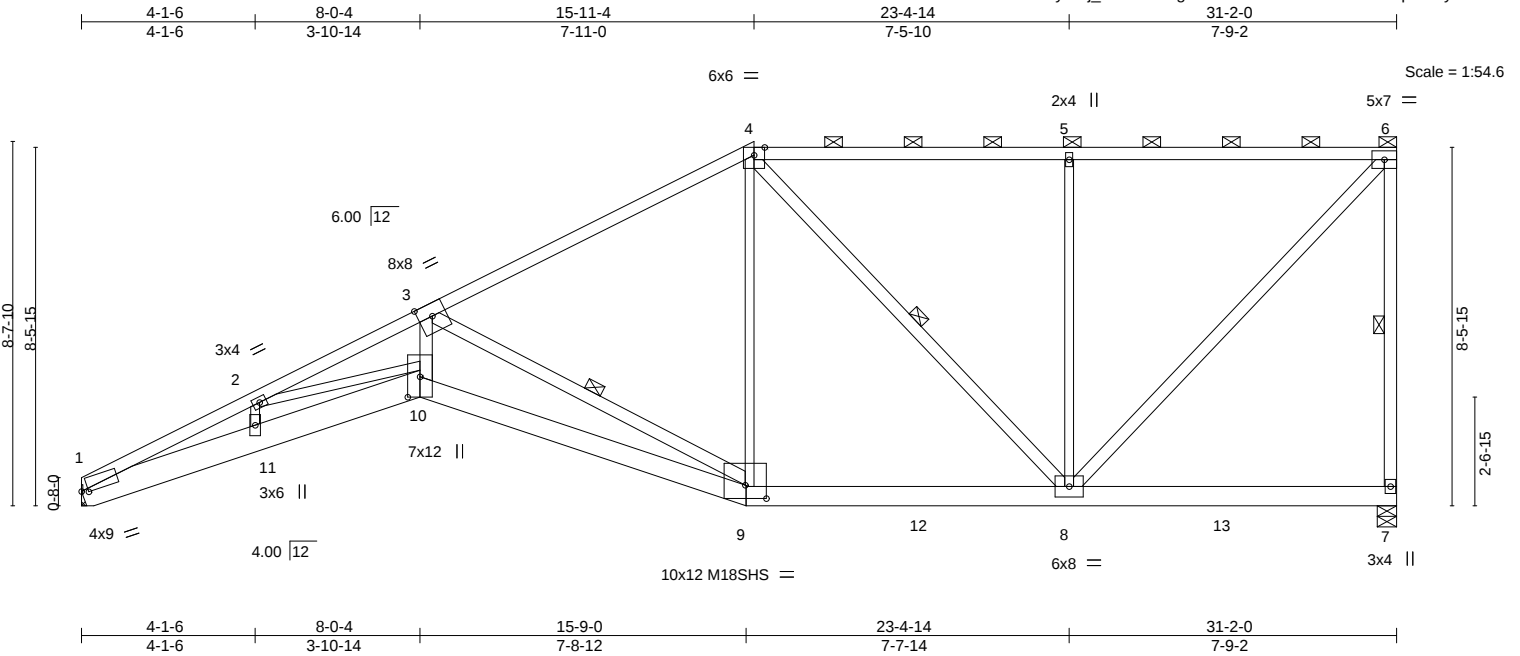


Plate Offsets (X,Y)-- [1:0-1-15,0-0-12], [9:0-6-0,0-3-13], [10:0-5-13,0-3-8]

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 0.83	Vert(LL)	-0.40 9-10	>924	360	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.68	Vert(CT)	-0.70 9-10	>527	240	M18SHS	197/144
BCLL 0.0 *	Rep Stress Incr	YES	WB 1.00	Horz(CT)	0.37 7	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-S	Wind(LL)	0.20 10	>999	240		

LUMBER-
TOP CHORD 2x4 SPF 2100F 1.8E *Except*
4-6: 2x4 SPF No.2
BOT CHORD 2x8 SP DSS *Except*
9-10: 2x6 SPF 1650F 1.4E, 7-9: 2x6 SPF No.2
WEBS 2x4 SPF No.2 *Except*
2-11,2-10,4-9,5-8: 2x3 SPF No.2, 3-9: 2x4 SPF 2100F 1.8E

BRACING-
TOP CHORD Structural wood sheathing directly applied or 2-11-0 oc purlins, except end verticals, and 2-0-0 oc purlins (4-1-5 max.): 4-6.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 1 Row at midpt 6-7, 3-9, 4-8

REACTIONS. (size) 1=Mechanical, 7=0-5-8
Max Horz 1=266(LC 7)
Max Uplift 1=-16(LC 8), 7=-71(LC 5)
Max Grav 1=1462(LC 2), 7=1523(LC 2)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-2=-5125/127, 2-3=-5821/171, 3-4=-1731/53, 4-5=-1129/45, 5-6=-1127/44, 6-7=-1370/99
BOT CHORD 1-11=-341/4585, 10-11=-341/4681, 9-10=-365/5149, 8-9=-122/1449
WEBS 2-10=-28/802, 3-10=-141/3446, 3-9=-3925/246, 4-9=0/684, 4-8=-510/52, 5-8=-623/148, 6-8=-70/1625

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
 - Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCCL=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, with BCDL = 10.0psf.
 - Refer to girder(s) for truss to truss connections.
 - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 16 lb uplift at joint 1 and 71 lb uplift at joint 7.
 - This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and conform to standard ANSI/TPI 1.



May 19,2020

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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, 218 N. Lee Street, Suite 312, Alexandria, VA 22314.



16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 39 HT	I41355762
400305	C8	Half Hip	1	1	Job Reference (optional)	

NOTES-
10) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

 **WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 10/03/2015 BEFORE USE.**

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 39 HT	I41355763
400305	C9	Half Hip	1	1		

Wheeler Lumber, Waverly, KS 66871

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ID:I3EdZD?h5AdOXx2i0YXRYBzFDC?-QO25BW4MZbe?IOESTHnCBIJBeJUdlxWtYDNMPTzEykZ

Job Reference (optional)

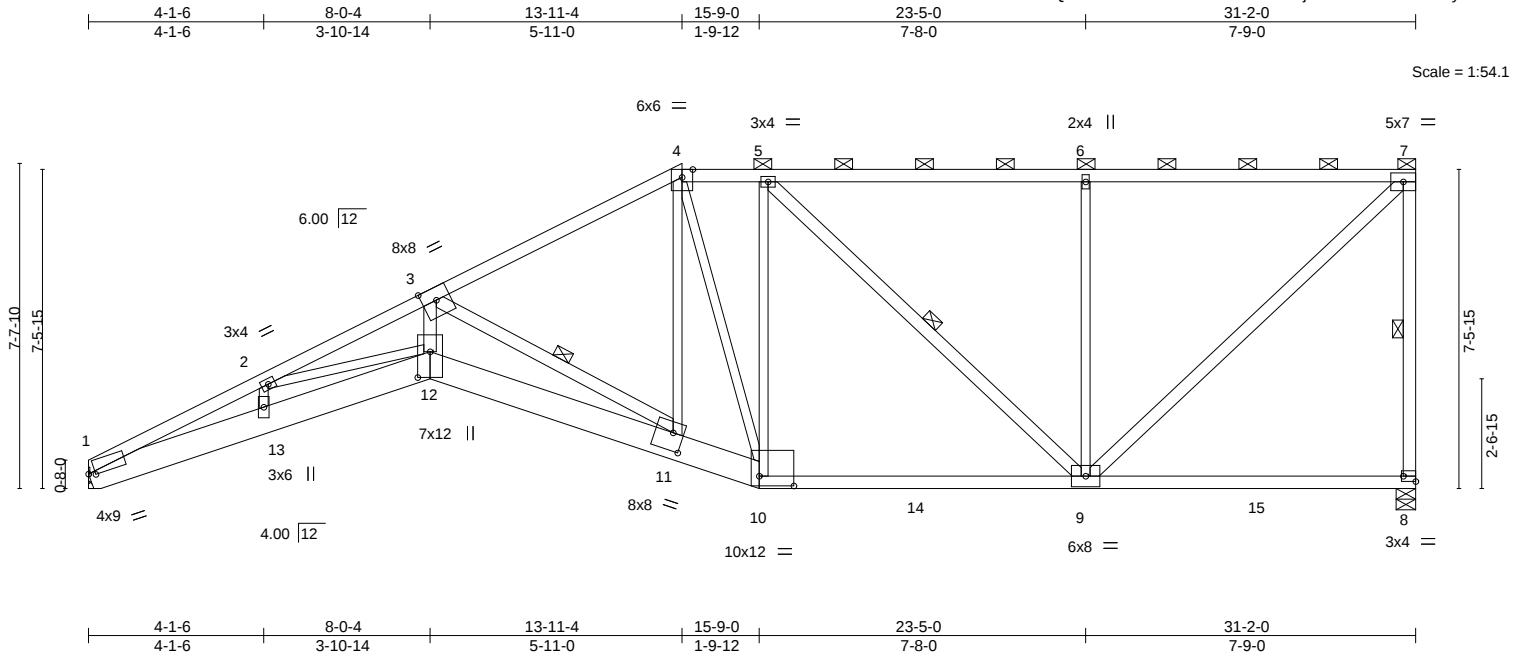


Plate Offsets (X,Y)-- [1:0-1-15,0-0-12], [8:Edge,0-1-8], [10:0-9-12,0-2-12], [11:0-3-0,0-5-0], [12:0-7-4,0-3-8]

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 0.81	Vert(LL)	-0.41	12	>912	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.82	Vert(CT)	-0.71	12	>527		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.88	Horz(CT)	0.38	8	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-S	Wind(LL)	0.21	12	>999		

LUMBER-
TOP CHORD 2x4 SPF No.2
BOT CHORD 2x8 SP DSS *Except*
8-10: 2x4 SPF No.2
WEBS 2x3 SPF No.2 *Except*
7-8,3-12,3-11,5-9,7-9: 2x4 SPF No.2

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

REACTIONS. (size) 1=Mechanical, 8=0-5-8
Max Horz 1=202(LC 8)
Max Uplift 8=60(LC 5)
Max Grav 1=1459(LC 2), 8=1514(LC 2)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-2=-5054/166, 2-3=-5685/193, 3-4=-2073/52, 4-5=-1662/62, 5-6=-1264/49, 6-7=-1264/49, 7-8=-1362/97
BOT CHORD 1-13=-324/4517, 12-13=-330/4614, 11-12=-300/5327, 10-11=-69/1908, 9-10=-62/1659
WEBS 2-12=-10/729, 3-12=-135/3343, 3-11=-3825/279, 4-10=-520/84, 5-10=-259/134, 5-9=-544/52, 6-9=-596/141, 7-9=-65/1711, 4-11=-25/1228

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 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.
- Refer to girder(s) for truss to truss connections.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 60 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.



May 19,2020

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 39 HT	I41355764
400305	D1	Half Hip	1	1		

Wheeler Lumber, Waverly, KS 66871

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ID:13EdZD?h5AdOXx2i0YXRYBzFDC?-ubcTOS5_KvmswYpeR_IRkvFMj7oL1QA1nt7wxwzEykY

0-10-8	5-9-9	11-11-4	18-8-10	24-2-2	31-2-0
0-10-8	5-9-9	6-1-10	6-9-6	5-5-7	6-11-14

Scale = 1:54.4

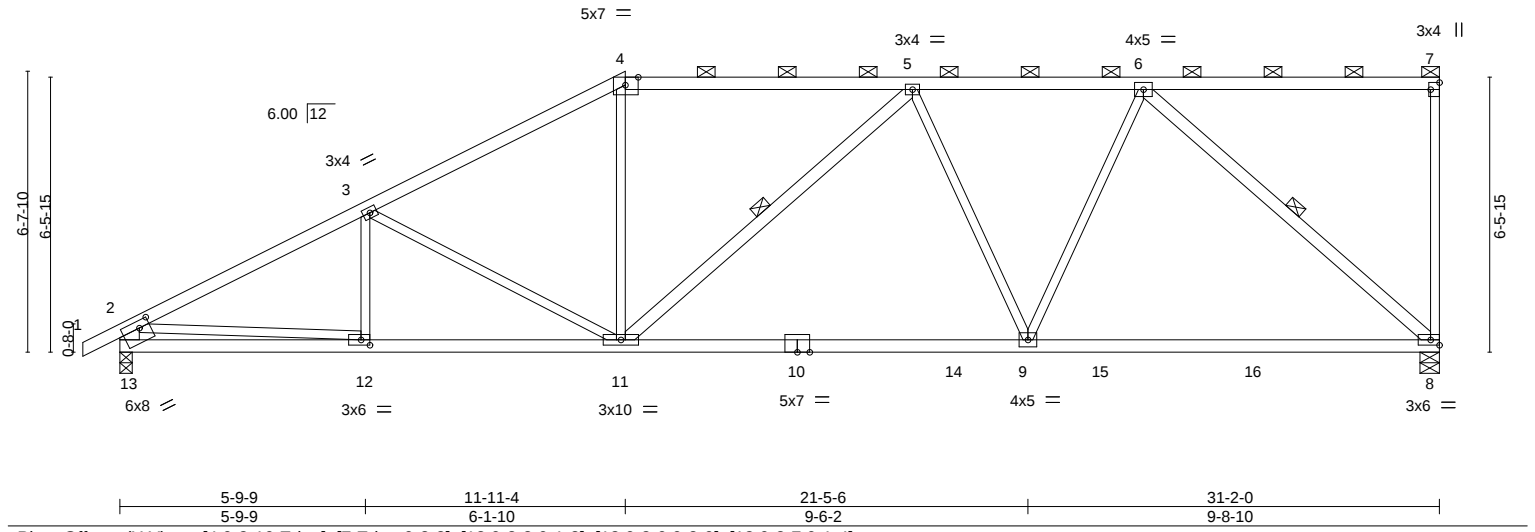


Plate Offsets (X,Y)--		4:0-3-10,Edge], [7:Edge,0-2-8], [12:0-2-8,0-1-8], [13:0-3-0,0-2-0], [13:0-2-7,0-1-4]							
LOADING (psf)		SPACING- 2-0-0		CSI.		DEFL. in (loc) l/defl L/d		PLATES	GRIP
TCLL 25.0		Plate Grip DOL 1.15		TC 0.79		Vert(LL) -0.27 8-9 >999 360		MT20	197/144
TCDL 10.0		Lumber DOL 1.15		BC 0.85		Vert(CT) -0.47 8-9 >796 240			
BCLL 0.0 *		Rep Stress Incr YES		WB 0.72		Horz(CT) 0.07 8 n/a n/a			
BCDL 10.0		Code IRC2018/TPI2014		Matrix-S		Wind(LL) 0.07 9-11 >999 240		Weight: 127 lb	FT = 10%

LUMBER-
TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2 *Except*
8-10: 2x4 SPF 2100F 1.8E
WEBS 2x3 SPF No.2 *Except*
5-11,6-8: 2x4 SPF No.2, 2-13: 2x6 SPF No.2

BRACING-
TOP CHORD Structural wood sheathing directly applied or 3-3-10 oc purlins, except end verticals, and 2-0-0 oc purlins (3-1-4 max.): 4-7.
BOT CHORD Rigid ceiling directly applied or 9-8-7 oc bracing.
WEBS 1 Row at midpt 5-11, 6-8

REACTIONS. (size) 8=0-5-8, 13=0-3-8
Max Horz 13=266(LC 5)
Max Uplift 8=-250(LC 5), 13=-167(LC 8)
Max Grav 8=1500(LC 2), 13=1525(LC 2)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-2430/232, 3-4=-2053/221, 4-5=-1766/221, 5-6=-1672/215, 2-13=-1417/198
BOT CHORD 12-13=-281/586, 11-12=-361/2105, 9-11=-358/1814, 8-9=-288/1325
WEBS 3-11=-411/197, 4-11=0/525, 5-9=-445/162, 6-9=-11/863, 6-8=-1759/317, 2-12=-81/1528

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 250 lb uplift at joint 8 and 167 lb uplift at joint 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.
- Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



May 19,2020

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 39 HT	I41355765
400305	D2	Half Hip	1	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS 66871

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ID:I3EdZD?h5AdOXx2i0YXRYBzFDC?-MnArcB5c5CujXhOr_iqgG7oXGWBcmjA0XsTUMzEyKX

0-10-8	2-3-8	6-2-1	9-11-4	13-1-0	17-9-1	24-7-11	31-2-0
0-10-8	2-3-8	3-10-9	3-9-3	3-1-12	4-8-1	6-10-11	6-6-5

Scale = 1:55.8

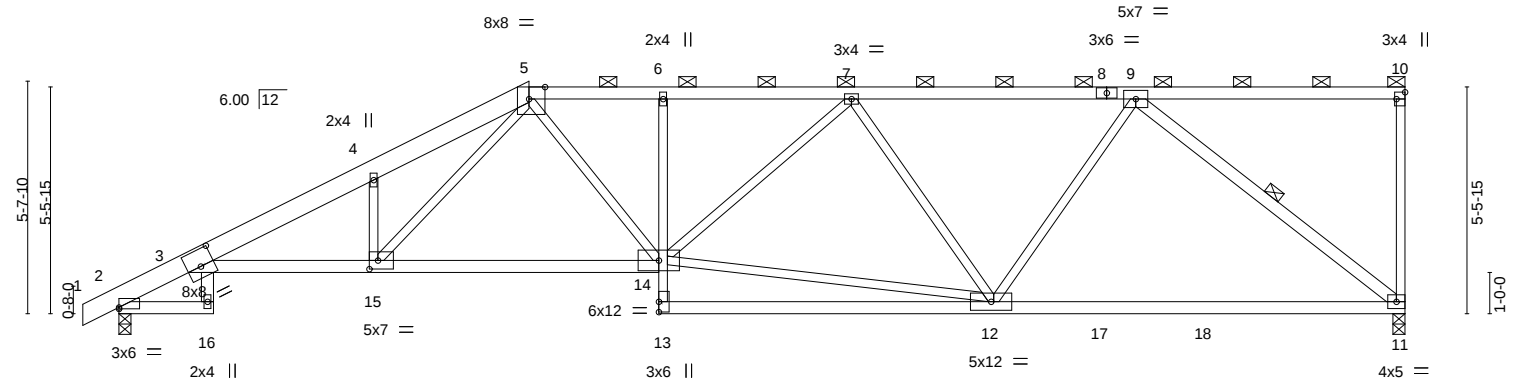


Plate Offsets (X,Y)--		[2:0-0-0,0-0-7], [3:0-4-0,0-4-12], [5:0-4-10,Edge], [10:Edge,0-2-8], [15:0-2-8,0-2-8]
LOADING (psf)	SPACING-	2-0-0
TCLL 25.0	Plate Grip DOL	1.15
TCDL 10.0	Lumber DOL	1.15
BCLL 0.0 *	Rep Stress Incr	YES
BCDL 10.0	Code IRC2018/TPI2014	
CS.	DEFL.	in (loc) l/defl L/d
TC 0.80	Vert(LL)	-0.32 11-12 >999 360
BC 0.65	Vert(CT)	-0.57 11-12 >646 240
WB 0.77	Horz(CT)	0.32 11 n/a n/a
Matrix-S	Wind(LL)	0.18 14-15 >999 240
PLATES	GRIP	
MT20	197/144	
Weight: 138 lb		FT = 10%

LUMBER-

TOP CHORD 2x4 SPF No.2 *Except*
1-5: 2x6 SP 2400F 2.0E
BOT CHORD 2x4 SPF No.2 *Except*
3-14: 2x4 SPF 2100F 1.8E, 6-13: 2x3 SPF No.2
11-13: 2x4 SPF 2400F 2.0E
WEBS 2x3 SPF No.2 *Except*
3-16,9-11: 2x4 SPF No.2

BRACING-

TOP CHORD Structural wood sheathing directly applied or 3-4-5 oc purlins, except end verticals, and 2-0-0 oc purlins (3-4-13 max.): 5-10.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing, Except:
6-0-0 oc bracing: 2-16.
WEBS 1 Row at midpt 9-11

REACTIONS.

(size) 11=0-3-8, 2=0-3-8
Max Horz 2=220(LC 5)
Max Uplift 11=-253(LC 5), 2=-141(LC 8)
Max Grav 11=1460(LC 2), 2=1515(LC 2)

FORCES.

(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-872/75, 3-4=-3425/398, 4-5=-3648/501, 5-6=-2602/403, 6-7=-2583/402, 7-9=-1925/264
BOT CHORD 3-15=-542/3192, 14-15=-442/2261, 6-14=-262/108, 11-12=-326/1439
WEBS 5-14=-131/632, 12-14=-427/2194, 7-14=-42/371, 7-12=-781/234, 9-12=-8/868, 9-11=-1824/364, 4-15=-805/251, 5-15=-232/1397

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 253 lb uplift at joint 11 and 141 lb uplift at joint 2.
- 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.



May 19,2020

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 39 HT	I41355766
400305	D3	Half Hip	1	1		

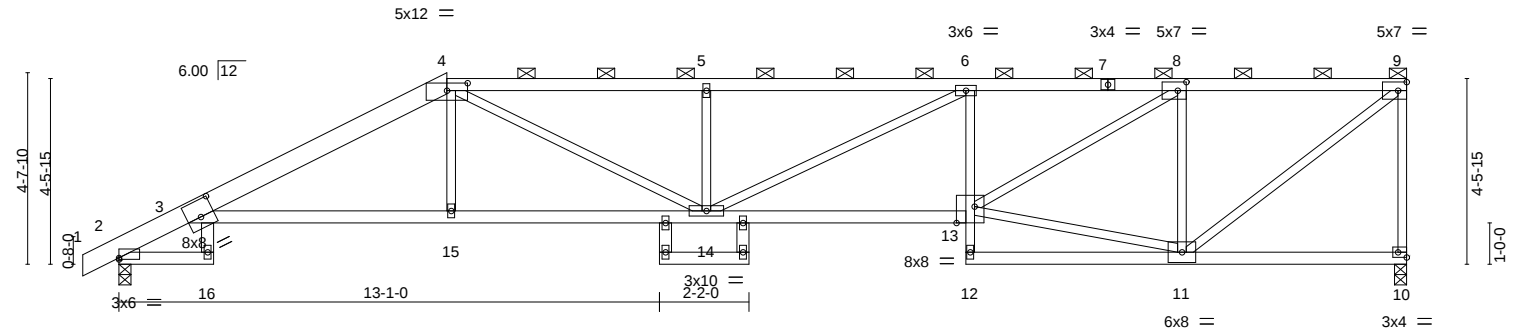
Wheeler Lumber, Waverly, KS 66871

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ID: I3EdZD7h5AdOXx2i0YXRYBzFDC?-qzkDpX6EsW0a9rz1YPLvpKKiowYGVlQKFbc10ozEyKW

0-10-8	2-3-8	7-11-4	14-2-10	20-6-0	25-8-12	31-2-0
0-10-8	2-3-8	5-7-12	6-3-6	6-3-6	5-2-12	5-5-4

Scale = 1:55.8



	2-3-8	7-11-4	14-2-10	20-6-0	25-8-12	31-2-0
	2-3-8	5-7-12	6-3-6	6-3-6	5-2-12	5-5-4

Plate Offsets (X,Y)-- [2:0-0-0,0-0-7], [3:0-4-0,0-4-12], [4:0-6-0,0-2-3], [8:0-2-8,0-2-8], [10:Edge,0-1-8], [13:0-5-4,Edge]

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)	-0.34 13-14	>999	360	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.63	Vert(CT)	-0.64 13-14	>582	240		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.67	Horz(CT)	0.40 10	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-S	Wind(LL)	0.28 13-14	>999	240	Weight: 130 lb	FT = 10%

LUMBER-
TOP CHORD 2x4 SPF No.2 *Except*
1-4: 2x6 SP 2400F 2.0E
BOT CHORD 2x4 SPF No.2 *Except*
3-13: 2x4 SPF 2100F 1.8E, 6-12: 2x3 SPF No.2
WEBS 2x3 SPF No.2 *Except*
3-16,17-19,18-20: 2x4 SPF No.2

BRACING-
TOP CHORD Structural wood sheathing directly applied or 2-9-12 oc purlins, except end verticals, and 2-0-0 oc purlins (2-6-2 max.): 4-9.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing, Except:
6-0-0 oc bracing: 2-16
9-9-11 oc bracing: 13-14.

REACTIONS. (size) 10=0-3-8, 2=0-3-8
Max Horz 2=178(LC 5)
Max Uplift 10=-256(LC 5), 2=-141(LC 5)
Max Grav 10=1391(LC 1), 2=1474(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-816/91, 3-4=-2898/428, 4-5=-3405/592, 5-6=-3405/592, 6-8=-3196/568,
8-9=-1513/286, 9-10=-1341/277
BOT CHORD 3-15=-498/2622, 14-15=-496/2628, 13-14=-644/3231, 6-13=-480/168
WEBS 4-15=0/295, 4-14=-259/1004, 5-14=-469/199, 11-13=-294/1468, 8-13=-381/1957,
8-11=-1397/363, 9-11=-347/1908

- 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.
 - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 256 lb uplift at joint 10 and 141 lb uplift at joint 2.
 - 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.



May 19, 2020

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 39 HT	I41355767
400305	D4	Half Hip Girder	1	2	Job Reference (optional)	

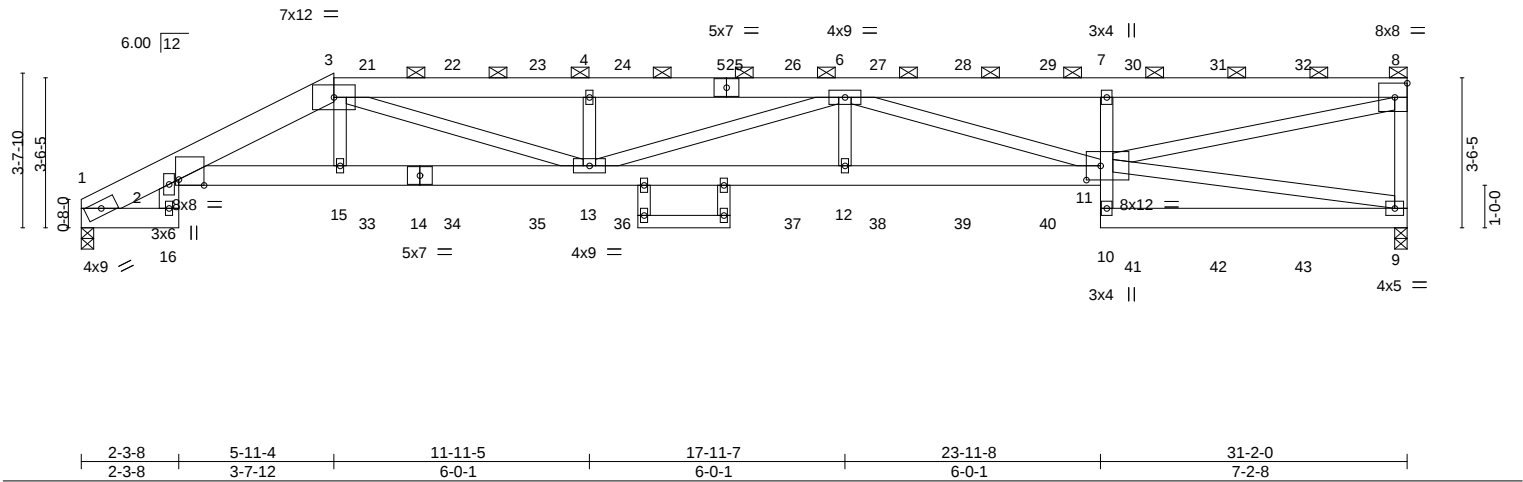
Wheeler Lumber, Waverly, KS 66871

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ID:I3EdZD?h5AdOXx2i0YXRYBzFDC?-EYQMSZ979RP80JhcDXucRzyFA8caif7mx9qhd7zEyKT

0-10-8	2-3-8	5-11-4	11-11-5	17-11-7	23-11-8	31-2-0
0-10-8	2-3-8	3-7-12	6-0-1	6-0-1	6-0-1	7-2-8

Scale = 1:54.2



LOADING (psf)		SPACING-		CSI.		DEFL.		PLATES		GRIP	
TCLL	25.0	Plate Grip DOL	1.15	TC	0.68	Vert(LL)	-0.33 12-13 >999	MT20		197/144	
TCDL	10.0	Lumber DOL	1.15	BC	0.46	Vert(CT)	-0.59 12-13 >628				
BCLL	0.0 *	Rep Stress Incr	NO	WB	0.87	Horz(CT)	0.26 9 n/a n/a				
BCDL	10.0	Code IRC2018/TPI2014		Matrix-S		Wind(LL)	0.23 12-13 >999	Weight: 406 lb		FT = 10%	

LUMBER-		BRACING-	
TOP CHORD	2x6 SP 2400F 2.0E *Except* 1-3: 2x8 SP DSS	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.): 3-8.
BOT CHORD	2x6 SP 2400F 2.0E *Except* 7-10,17-18: 2x4 SPF No.2	BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS	2x4 SPF No.2 *Except* 2-16: 2x6 SPF No.2		

REACTIONS. (size) 1=0-3-8, 9=0-3-8
Max Horz 1=128(LC 7)
Max Uplift 1=283(LC 5), 9=334(LC 5)
Max Grav 1=2637(LC 1), 9=2766(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-2=-1457/170, 2-3=-7383/910, 3-4=-9662/1170, 4-6=-9661/1170, 6-7=-7076/892,
7-8=-6877/884, 8-9=-2525/423
BOT CHORD 2-15=-943/6978, 13-15=-944/7045, 12-13=-1244/9833, 11-12=-1244/9833, 10-11=0/267,
7-11=-849/314, 9-10=-27/422
WEBS 2-16=-25/269, 3-15=-17/860, 3-13=-345/2861, 4-13=-648/234, 6-12=0/439,
6-11=-2908/317, 9-11=-327/44, 8-11=-940/7074

- NOTES-**
- 2-ply truss to be connected together with 10d (0.131"x3") nails as follows:
Top chords connected as follows: 2x8 - 2 rows staggered at 0-9-0 oc, 2x6 - 2 rows staggered at 0-9-0 oc, 2x4 - 1 row at 0-9-0 oc.
Bottom chords connected as follows: 2x6 - 2 rows staggered at 0-9-0 oc, 2x4 - 1 row at 0-9-0 oc.
Webs connected as follows: 2x6 - 2 rows staggered at 0-9-0 oc, 2x4 - 1 row at 0-9-0 oc.
 - All loads are considered equally applied to all plies, except if noted as front (F) or back (B) face in the LOAD CASE(S) section. Ply to ply connections have been provided to distribute only loads noted as (F) or (B), unless otherwise indicated.
 - Unbalanced roof live loads have been considered for this design.
 - Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TC DL=6.0psf; BC DL=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.
 - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 283 lb uplift at joint 1 and 334 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.

On-Grade Impairment representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



May 19,2020

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 39 HT
400305	D4	Half Hip Girder	1	2	I41355767
Wheeler Lumber, Waverly, KS 66871					Job Reference (optional)

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- NOTES-**
- 12) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 117 lb down and 55 lb up at 5-11-4, 109 lb down and 55 lb up at 6-9-0, 111 lb down and 55 lb up at 8-9-0, 111 lb down and 55 lb up at 10-9-0, 111 lb down and 55 lb up at 12-9-0, 111 lb down and 55 lb up at 14-9-0, 116 lb down and 67 lb up at 16-9-0, 116 lb down and 67 lb up at 18-9-0, 116 lb down and 67 lb up at 20-9-0, 116 lb down and 67 lb up at 22-9-0, 116 lb down and 67 lb up at 24-9-0, 116 lb down and 67 lb up at 26-9-0, and 116 lb down and 67 lb up at 28-9-0, and 135 lb down and 64 lb up at 31-0-4 on top chord, and 447 lb down and 129 lb up at 5-11-4, 73 lb down at 6-9-0, 73 lb down at 8-9-0, 73 lb down at 10-9-0, 73 lb down at 12-9-0, 68 lb down at 24-9-0, 68 lb down at 26-9-0, and 68 lb down at 28-9-0, and 83 lb down at 31-0-4 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
- 13) Filler applied to ply: 1(Front)

- LOAD CASE(S)** Standard
- 1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
- Uniform Loads (plf)
- Vert: 1-3=-70, 3-8=-70, 1-16=-20, 2-11=-20, 9-10=-20
- Concentrated Loads (lb)
- Vert: 3=-94(B) 8=-135(B) 9=-59(B) 15=-447(B) 21=-94(B) 22=-94(B) 23=-94(B) 24=-94(B) 25=-94(B) 26=-110(B) 27=-110(B) 28=-110(B) 29=-110(B) 30=-109(B) 31=-109(B) 32=-109(B) 33=-73(B) 34=-73(B) 35=-73(B) 36=-73(B) 37=-51 38=-51 39=-51 40=-51 41=-52(B) 42=-52(B) 43=-52(B)

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 39 HT	I41355768
400305	E1	Hip Girder	1	1		

Wheeler Lumber, Waverly, KS 66871

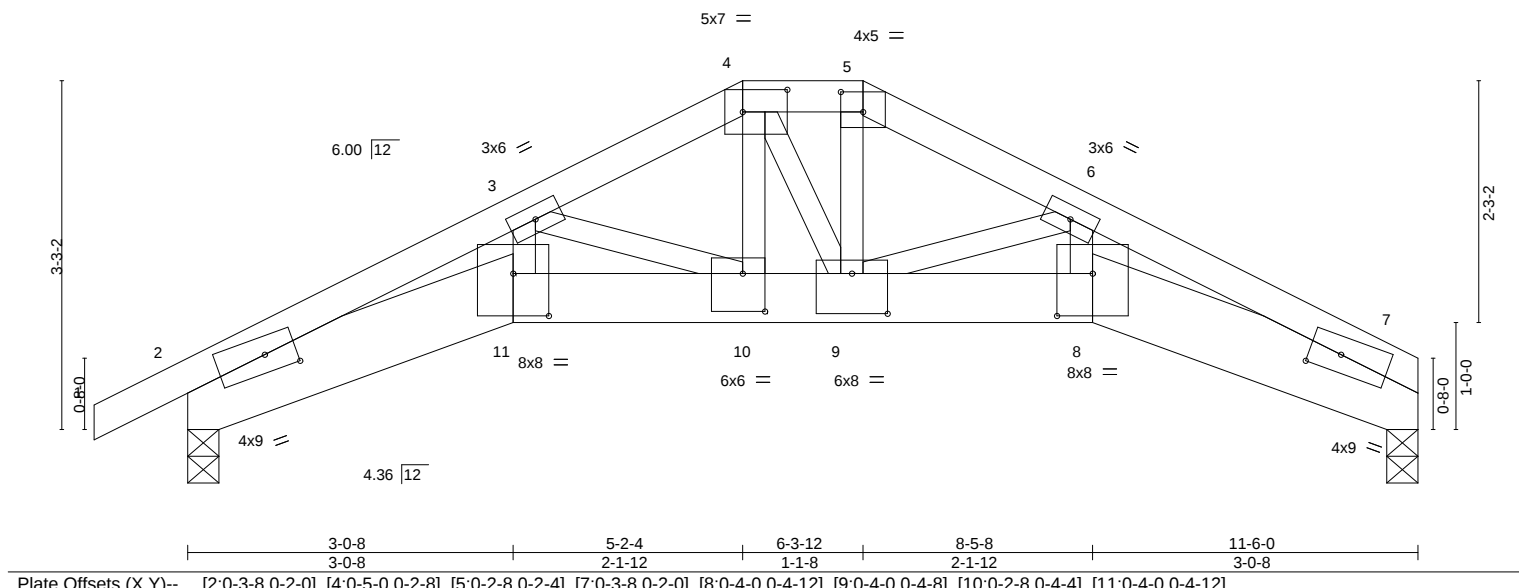
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Job Reference (optional)

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

Scale = 1:21.5



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 0.62	Vert(LL)	-0.09	10	>999	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.87	Vert(CT)	-0.17	10-11	>800		
BCLL 0.0 *	Rep Stress Incr	NO	WB 0.27	Horz(CT)	0.13	7	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-S	Wind(LL)	0.08	10-11	>999	Weight: 55 lb	FT = 10%

LUMBER-

TOP CHORD 2x4 SPF No.2
 BOT CHORD 2x8 SP DSS *Except*
 8-11: 2x6 SPF No.2
 WEBS 2x3 SPF No.2

BRACING-

TOP CHORD Structural wood sheathing directly applied or 3-0-6 oc purlins, except
 2-0-0 oc purlins (4-0-7 max.): 4-5.
 BOT CHORD Rigid ceiling directly applied or 9-2-7 oc bracing.

REACTIONS.

(size) 7=0-3-8, 2=0-3-8
 Max Horz 2=57(LC 33)
 Max Uplift 7=-221(LC 9), 2=-246(LC 8)
 Max Grav 7=974(LC 1), 2=1051(LC 1)

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

TOP CHORD 2-3=-3131/747, 3-4=-2251/573, 4-5=-2097/534, 5-6=-2307/578, 6-7=-3145/700
 BOT CHORD 2-11=-674/2734, 10-11=-623/2523, 9-10=-472/2040, 8-9=-541/2546, 7-8=-583/2753
 WEBS 3-11=-130/687, 3-10=-563/173, 4-10=-155/678, 5-9=-161/792, 6-9=-534/155,
 6-8=-97/649

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.
- Bearing at joint(s) 7, 2 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 221 lb uplift at joint 7 and 246 lb uplift at joint 2.
- 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) 109 lb down and 95 lb up at 5-2-4, and 109 lb down and 95 lb up at 6-3-12 on top chord, and 336 lb down and 119 lb up at 5-2-4, and 355 lb down and 124 lb up at 6-3-12 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



May 19, 2020

Continued on page 2

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 10/03/2015 BEFORE USE.

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16023 Swingley Ridge Rd
 Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 39 HT	I41355768
400305	E1	Hip Girder	1	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS 66871

8.240 s Mar 9 2020 MiTek Industries, Inc. Tue May 19 10:50:57 2020 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: 1-4=-70, 4-5=-70, 5-7=-70, 2-11=-20, 8-11=-20, 7-8=-20
Concentrated Loads (lb)
Vert: 4=-86(F) 5=-86(F) 10=-377(F=-336) 9=-396(F=-355)

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 39 HT	I41355769
400305	E2	Roof Special	1	1	Job Reference (optional)	

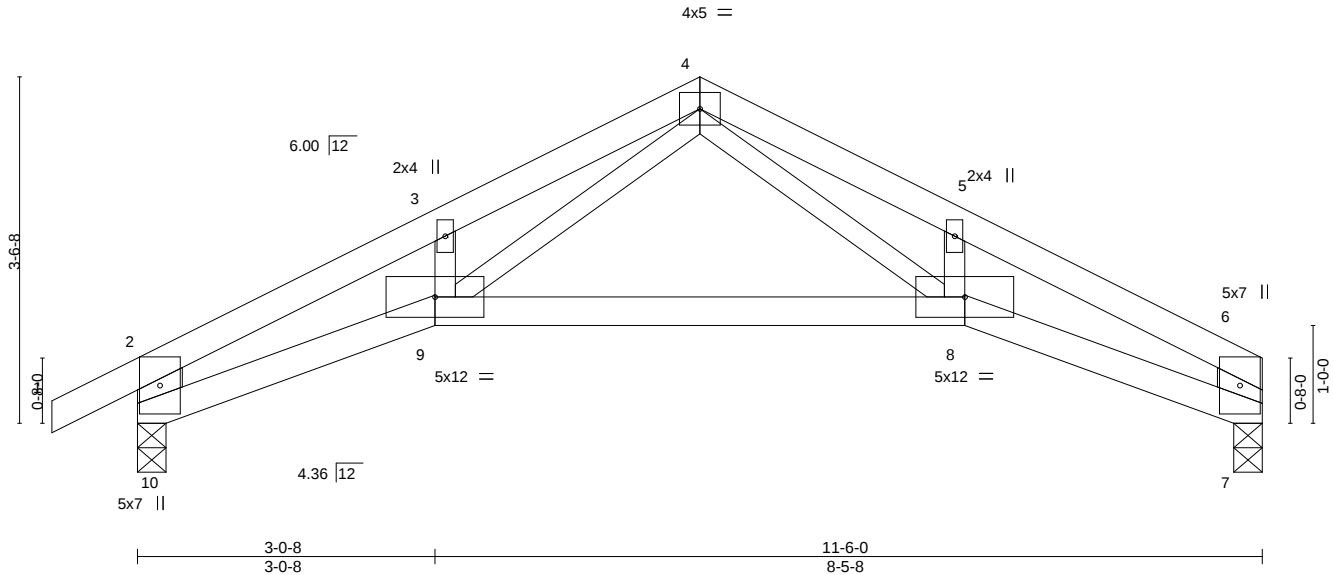
Wheeler Lumber, Waverly, KS 66871

8.240 s Mar 9 2020 MiTek Industries, Inc. Tue May 19 10:50:58 2020 Page 1

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Scale = 1:23.6



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 0.73	Vert(LL)	-0.12	8-9	>999	360	MT20	197/144
BCDL 10.0	Lumber DOL	1.15	BC 0.66	Vert(CT)	-0.25	8-9	>523	240		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.16	Horz(CT)	0.14	7	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-S	Wind(LL)	0.08	8-9	>999	240		
									Weight: 38 lb	FT = 10%

LUMBER-

TOP CHORD 2x4 SPF No.2
 BOT CHORD 2x4 SPF No.2
 WEBS 2x3 SPF No.2 *Except*
 2-10,6-7: 2x6 SP DSS

BRACING-

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

REACTIONS.

(size) 10=0-3-8, 7=0-3-8
 Max Horz 10=65(LC 5)
 Max Uplift 10=-87(LC 8), 7=-60(LC 9)
 Max Grav 10=578(LC 1), 7=493(LC 1)

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

TOP CHORD 2-3=-1188/145, 3-4=-1053/213, 4-5=-1057/192, 5-6=-1172/116, 2-10=-830/139,
 6-7=-718/93
 BOT CHORD 9-10=-136/1000, 8-9=-36/595, 7-8=-78/990
 WEBS 4-8=-122/471, 4-9=-132/459

NOTES-

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCCL=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.
- Bearing at joint(s) 10, 7 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 87 lb uplift at joint 10 and 60 lb uplift at joint 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.



May 19,2020

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16023 Swingley Ridge Rd
 Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 39 HT	I41355770
400305	E3	Half Hip Girder	1	2	Job Reference (optional)	

Wheeler Lumber, Waverly, KS 66871

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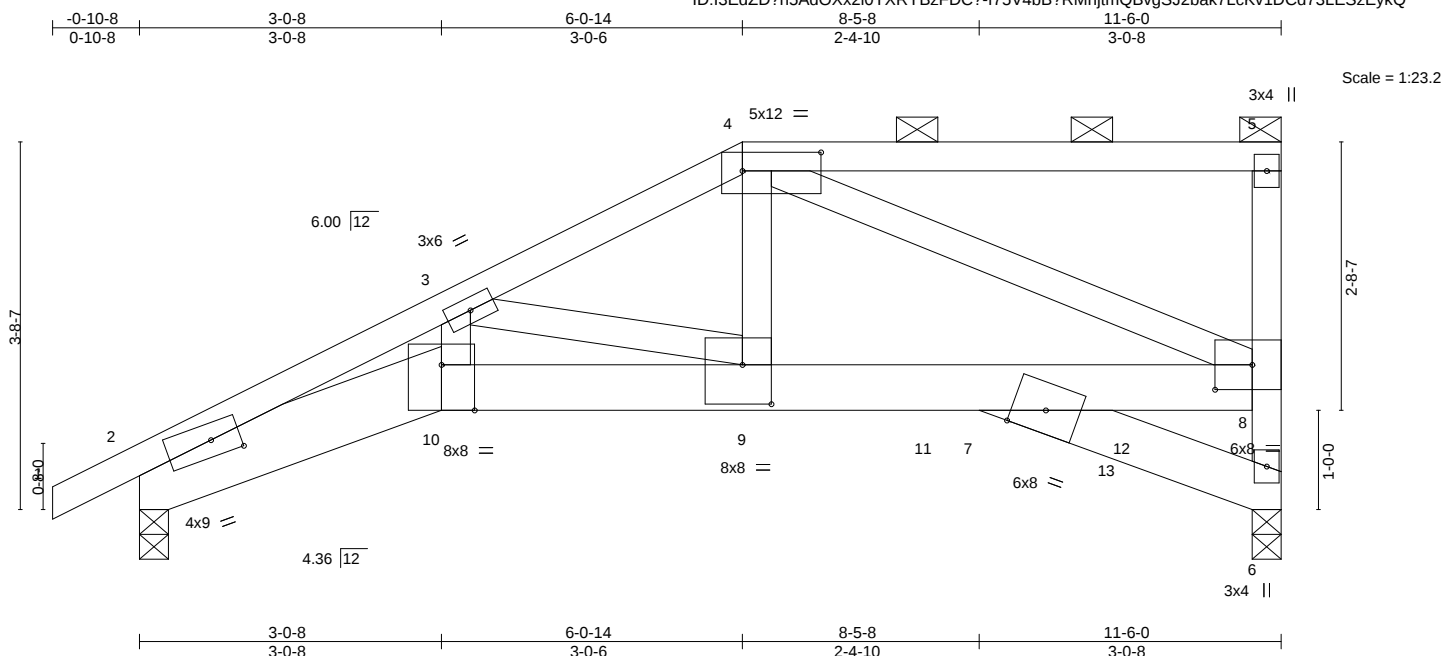


Plate Offsets (X,Y)--		[2:0-3-8,0-2-0], [4:0-9-8,0-2-4], [8:0-4-8,0-3-0], [9:0-3-8,0-4-12], [10:0-4-0,Edge]											
LOADING (psf)		SPACING- 2-0-0		CSI.		DEFL. in (loc) l/defl L/d				PLATES		GRIP	
TCLL	25.0	Plate Grip DOL 1.15		TC	0.76	Vert(LL)	-0.10	9-10	>999	360	MT20	197/144	
TCDL	10.0	Lumber DOL 1.15		BC	0.52	Vert(CT)	-0.17	9-10	>778	240			
BCLL	0.0 *	Rep Stress Incr NO		WB	0.78	Horz(CT)	0.13	6	n/a	n/a			
BCDL	10.0	Code IRC2018/TPI2014		Matrix-S		Wind(LL)	0.06	9-10	>999	240	Weight: 135 lb	FT = 10%	

LUMBER-

TOP CHORD 2x4 SPF No.2
 BOT CHORD 2x6 SP 2400F 2.0E *Except*
 2-10: 2x8 SP DSS
 WEBS 2x4 SPF No.2

BRACING-

TOP CHORD Structural wood sheathing directly applied or 3-11-7 oc purlins, except end verticals, and 2-0-0 oc purlins (6-0-0 max.): 4-5.
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS.

(size) 6=0-3-8, 2=0-3-8
 Max Horz 2=143(LC 7)
 Max Uplift 6=-285(LC 5), 2=-225(LC 8)
 Max Grav 6=4157(LC 1), 2=2420(LC 1)

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

TOP CHORD 2-3=-8033/699, 3-4=-6290/475, 4-5=-281/49, 6-8=-3937/298
 BOT CHORD 2-10=-709/7077, 9-10=-648/6531, 7-9=-517/5931, 7-8=-514/5608
 WEBS 3-10=-155/1503, 3-9=-957/224, 4-9=-328/4970, 4-8=-6172/489

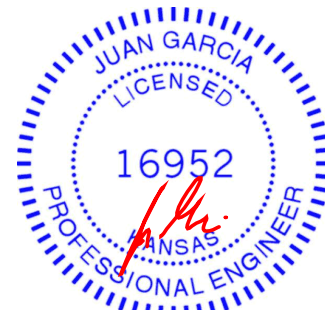
NOTES-

- 2-ply truss to be connected together with 10d (0.131"x3") nails as follows:
 Top chords connected as follows: 2x4 - 1 row at 0-7-0 oc.
 Bottom chords connected as follows: 2x8 - 2 rows staggered at 0-9-0 oc, 2x6 - 2 rows staggered at 0-4-0 oc.
 Webs connected as follows: 2x4 - 1 row at 0-9-0 oc.
- All loads are considered equally applied to all plies, except if noted as front (F) or back (B) face in the LOAD CASE(S) section. Ply to ply connections have been provided to distribute only loads noted as (F) or (B), unless otherwise indicated.
- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) 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.
- Bearing at joint(s) 6, 2 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 285 lb uplift at joint 6 and 225 lb uplift at joint 2.
- 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) 2765 lb down and 271 lb up at 6-0-13, and 1366 lb down and 60 lb up at 8-0-0, and 1424 lb down and 28 lb up at 10-0-0 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.

LOAD CASE(S) Standard

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May 19, 2020



16023 Swingley Ridge Rd
 Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 39 HT
400305	E3	Half Hip Girder	1	2	I41355770
					Job Reference (optional)

LOAD CASE(S) Standard

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

Uniform Loads (plf)

Vert: 1-4=-70, 4-5=-70, 2-10=-20, 7-10=-20, 6-7=-20

Concentrated Loads (lb)

Vert: 9=-2765(B) 11=-1366(B) 12=-1366(B)

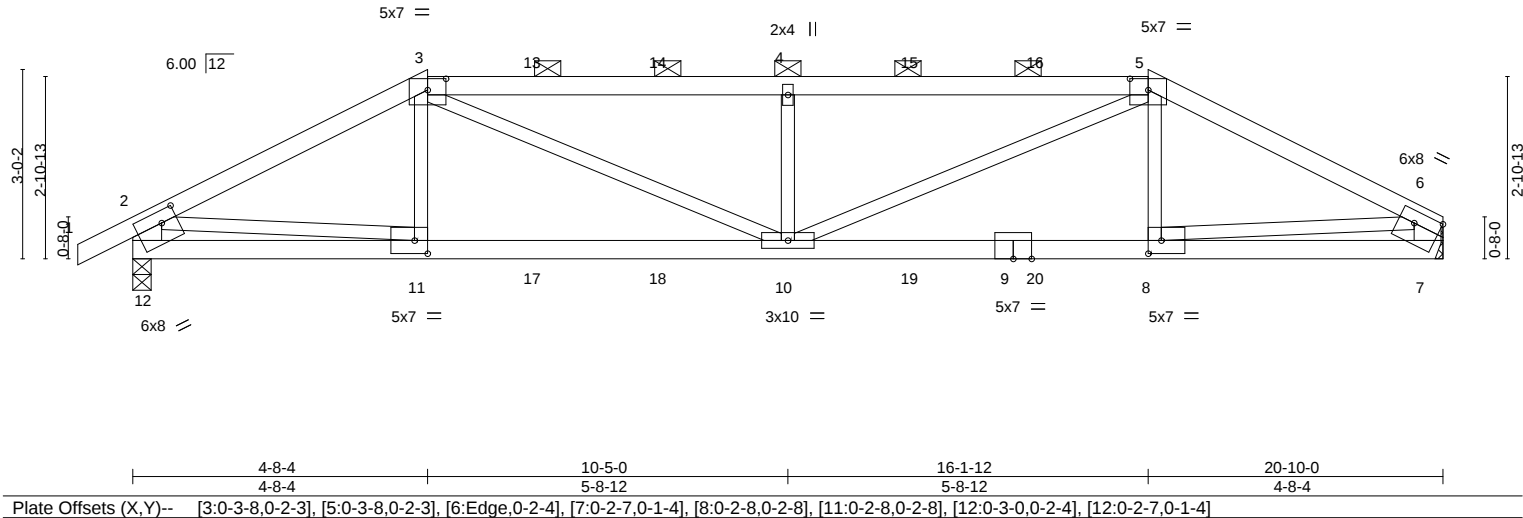
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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 39 HT	
400305	G1	Hip Girder	1	1		I41355771
Job Reference (optional)						



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 0.55	Vert(LL)	-0.13	10	>999	360	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.77	Vert(CT)	-0.26	8-10	>953	240		
BCLL 0.0 *	Rep Stress Incr	NO	WB 0.64	Horz(CT)	0.05	7	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-S	Wind(LL)	0.10	10	>999	240	Weight: 73 lb	FT = 10%

LUMBER-		BRACING-	
TOP CHORD	2x4 SPF No.2 *Except* 3-5: 2x4 SPF 2100F 1.8E	TOP CHORD	Structural wood sheathing directly applied or 3-3-4 oc purlins, except end verticals, and 2-0-0 oc purlins (3-9-8 max.): 3-5.
BOT CHORD	2x4 SPF No.2	BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS	2x3 SPF No.2 *Except* 2-12,6-7: 2x6 SPF No.2		

REACTIONS.	
(size)	12=0-3-8, 7=Mechanical
Max Horz	12=57(LC 7)
Max Uplift	12=-227(LC 8), 7=-201(LC 9)
Max Grav	12=1603(LC 1), 7=1521(LC 1)

FORCES.	
(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.	
TOP CHORD	2-3=-2586/358, 3-4=-3301/471, 4-5=-3301/471, 5-6=-2590/357, 2-12=-1554/244, 6-7=-1471/218
BOT CHORD	11-12=-155/477, 10-11=-320/2242, 8-10=-286/2255, 7-8=-96/401
WEBS	3-11=0/294, 3-10=-185/1217, 4-10=-744/259, 5-10=-184/1209, 5-8=0/288, 2-11=-257/1813, 6-8=-261/1873

- 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 227 lb uplift at joint 12 and 201 lb uplift at joint 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.
 - Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 92 lb down and 55 lb up at 4-8-4, 97 lb down and 55 lb up at 6-5-0, 97 lb down and 55 lb up at 8-5-0, 97 lb down and 55 lb up at 10-5-0, 97 lb down and 55 lb up at 12-5-0, and 97 lb down and 55 lb up at 14-5-0, and 92 lb down and 55 lb up at 16-1-12 on top chord, and 279 lb down and 82 lb up at 4-8-4, 44 lb down at 6-5-0, 44 lb down at 8-5-0, 44 lb down at 10-5-0, 44 lb down at 12-5-0, and 44 lb down at 14-5-0 , and 279 lb down and 82 lb up at 16-1-0 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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16952

JUAN GARCIA

PROFESSIONAL ENGINEER

MISSOURI

NUMBER E-2000162101

MAY 19, 2020

MiTek

16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 39 HT
400305	G1	Hip Girder	1	1	I41355771
Job Reference (optional)					

Wheeler Lumber, Waverly, KS 66871

8.240 s Mar 9 2020 MiTek Industries, Inc. Tue May 19 10:51:01 2020 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: 1-2=-70, 2-3=-70, 3-5=-70, 5-6=-70, 7-12=-20
 - Concentrated Loads (lb)
 - Vert: 3=-69(F) 5=-69(F) 11=-279(F) 10=-35(F) 4=-69(F) 8=-279(F) 13=-69(F) 14=-69(F) 15=-69(F) 16=-69(F) 17=-35(F) 18=-35(F) 19=-35(F) 20=-35(F)

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 39 HT	
400305	G2	ROOF SPECIAL GIRDER	1	2		I41355772
Job Reference (optional)						

Wheeler Lumber, Waverly, KS 66871

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-0-10-8 6-8-4 14-1-12 16-1-12 21-8-12 27-3-12 32-0-0 32-10-8
0-10-8 6-8-4 7-5-8 2-0-0 5-7-0 5-7-0 4-8-4 0-10-8

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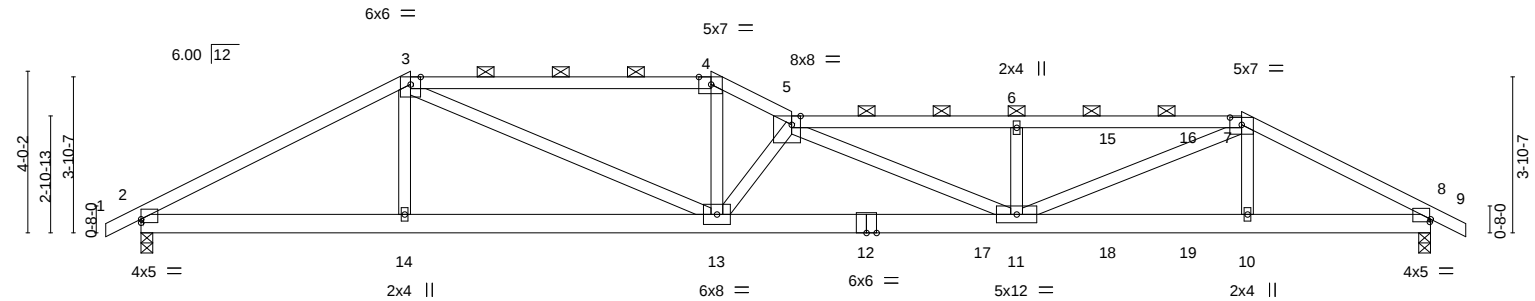


Plate Offsets (X,Y)--		[2:0-0-0,0-1-1], [4:0-3-10,Edge], [5:0-2-10,Edge], [7:0-3-8,0-2-3], [8:0-0-4,0-0-13]
LOADING (psf)	SPACING-	2-0-0
TCLL 25.0	Plate Grip DOL	1.15
TCDL 10.0	Lumber DOL	1.15
BCLL 0.0 *	Rep Stress Incr	NO
BCDL 10.0	Code IRC2018/TPI2014	
CSI.	DEFL.	in (loc) l/defl L/d
TC 0.64	Vert(LL) -0.27 11-13	>999 360
BC 0.90	Vert(CT) -0.48 11-13	>793 240
WB 0.49	Horz(CT) 0.07 8	n/a n/a
Matrix-S	Wind(LL) 0.19 11-13	>999 240
PLATES	GRIP	
MT20	197/144	
Weight: 273 lb		FT = 10%

LUMBER-

TOP CHORD 2x4 SPF No.2 *Except*
3-4,5-7: 2x4 SPF 2100F 1.8E
BOT CHORD 2x6 SPF No.2 *Except*
8-12: 2x6 SPF 1650F 1.4E
WEBS 2x4 SPF No.2

BRACING-

TOP CHORD Structural wood sheathing directly applied or 4-11-3 oc purlins, except
2-0-0 oc purlins (5-5-4 max.): 3-4, 5-7.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS.

(size) 2=0-3-8, 8=0-3-8
Max Horz 2=-66(LC 13)
Max Uplift 2=-220(LC 5), 8=-433(LC 9)
Max Grav 2=1998(LC 1), 8=2737(LC 1)

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

TOP CHORD 2-3=-3601/457, 3-4=-5208/742, 4-5=-5898/824, 5-6=-7979/1190, 6-7=-7979/1190, 7-8=-5074/758
BOT CHORD 2-14=-383/3067, 13-14=-386/3060, 11-13=-1029/7427, 10-11=-589/4330, 8-10=-588/4350
WEBS 3-14=0/307, 3-13=-387/2483, 4-13=-260/2208, 5-13=-3639/613, 5-11=-498/815, 6-11=-700/242, 7-11=-628/4015, 7-10=0/393

NOTES-

- 2-ply truss to be connected together with 10d (0.131"x3") nails as follows:
Top chords connected as follows: 2x4 - 1 row at 0-7-0 oc.
Bottom chords connected as follows: 2x6 - 2 rows staggered at 0-7-0 oc.
Webs connected as follows: 2x4 - 1 row at 0-9-0 oc.
- All loads are considered equally applied to all plies, except if noted as front (F) or back (B) face in the LOAD CASE(S) section. Ply to ply connections have been provided to distribute only loads noted as (F) or (B), unless otherwise indicated.
- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) 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 220 lb uplift at joint 2 and 433 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.



May 19,2020

Continued on page 2

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 10/03/2015 BEFORE USE.

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 39 HT
400305	G2	ROOF SPECIAL GIRDER	1	2	I41355772
Job Reference (optional)					

Wheeler Lumber, Waverly, KS 66871

8.240 s Mar 9 2020 MiTek Industries, Inc. Tue May 19 10:51:02 2020 Page 2
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NOTES-

11) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 119 lb down and 55 lb up at 22-0-0, 119 lb down and 55 lb up at 24-0-0, and 119 lb down and 55 lb up at 26-0-0, and 119 lb down and 55 lb up at 27-3-12 on top chord, and 1080 lb down and 200 lb up at 20-10-12, 44 lb down at 22-0-0, 44 lb down at 24-0-0, and 44 lb down at 26-0-0, and 279 lb down and 82 lb up at 27-3-0 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.

LOAD CASE(S) Standard

- 1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
- Uniform Loads (plf)
 - Vert: 1-3=-70, 3-4=-70, 4-5=-70, 5-7=-70, 7-9=-70, 2-8=-20
- Concentrated Loads (lb)
 - Vert: 7=-69(F) 6=-69(F) 11=-35(F) 10=-279(F) 15=-69(F) 16=-69(F) 17=-1080(F) 18=-35(F) 19=-35(F)

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 39 HT	I41355773
400305	G3	Roof Special	1	1		

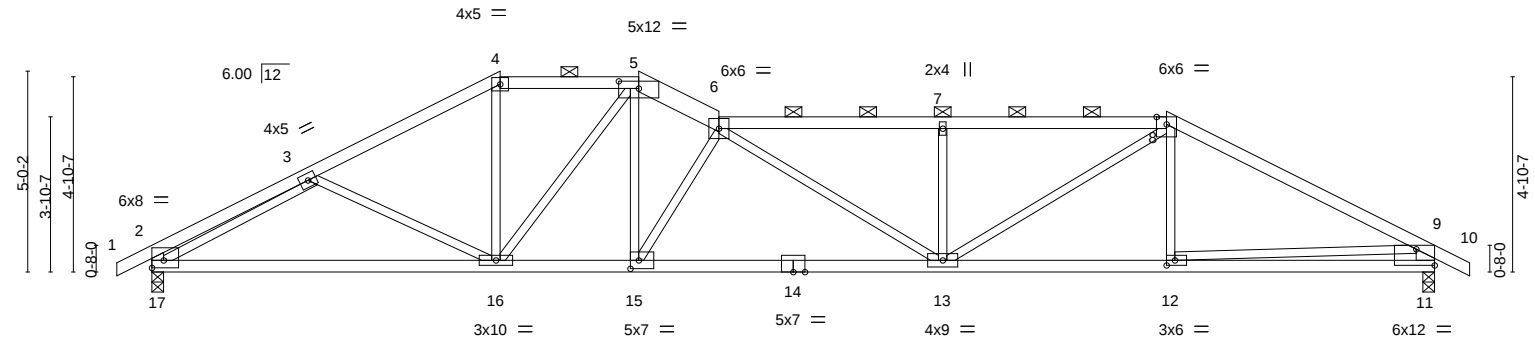
Wheeler Lumber, Waverly, KS 66871

8.240 s Mar 9 2020 MiTek Industries, Inc. Tue May 19 10:51:03 2020 Page 1

ID:I3EdZD?h5AdOXx2i0YXRYBzFDC?-XuL?wyEWVbH9MOKy8VWFDRIRayuKrqmoY11YNDzEyK

-0-10-8	4-0-2	8-8-4	12-1-12	14-1-12	19-8-12	25-3-12	32-0-0	32-10-8
0-10-8	4-0-2	4-8-2	3-5-8	2-0-0	5-7-0	5-7-0	6-8-4	0-10-8

Scale = 1:57.5



	8-8-4	12-1-12	14-1-12	19-8-12	25-3-12	32-0-0
	8-8-4	3-5-8	2-0-0	5-7-0	5-7-0	6-8-4

Plate Offsets (X,Y)-- [2:Edge,0-2-4], [2:0-1-12,0-0-14], [5:0-6-0,0-2-3], [11:Edge,0-4-13], [11:0-2-12,0-0-0], [12:0-2-8,0-1-8], [15:0-2-8,0-2-8]

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 0.67	Vert(LL)	-0.22 13-15	>999	360	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.90	Vert(CT)	-0.47 13-15	>803	240		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.87	Horz(CT)	0.11 11	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-S	Wind(LL)	0.15 13-15	>999	240	Weight: 123 lb	FT = 10%

LUMBER-
TOP CHORD 2x4 SPF No.2 *Except*
5-6: 2x6 SPF No.2
BOT CHORD 2x4 SPF No.2
WEBS 2x3 SPF No.2 *Except*
2-17: 2x4 SPF 2400F 2.0E, 9-11: 2x6 SPF No.2

BRACING-
TOP CHORD Structural wood sheathing directly applied or 2-9-9 oc purlins, except end verticals, and 2-0-0 oc purlins (2-9-12 max.): 4-5, 6-8.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) 11=0-3-8, 17=0-3-8
Max Horz 17=-79(LC 6)
Max Uplift 11=-245(LC 9), 17=-135(LC 8)
Max Grav 11=1501(LC 1), 17=1494(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-686/31, 3-4=-2234/242, 4-5=-1928/231, 5-6=-2590/339, 6-7=-3032/477,
7-8=-3034/479, 8-9=-2383/363, 2-17=-504/80, 9-11=-1432/283
BOT CHORD 16-17=-212/2018, 15-16=-199/2319, 13-15=-311/3077, 12-13=-229/2035, 11-12=-235/786
WEBS 4-16=-56/670, 5-16=-721/144, 5-15=-224/1450, 6-15=-1565/328, 7-13=-479/192,
8-13=-194/1189, 3-17=-1723/232, 9-12=-169/1253

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) The Fabrication Tolerance at joint 2 = 0%, joint 2 = 0%
5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
6) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 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 245 lb uplift at joint 11 and 135 lb uplift at joint 17.
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.



May 19,2020

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Wheeler Lumber, Waverly, KS 66871

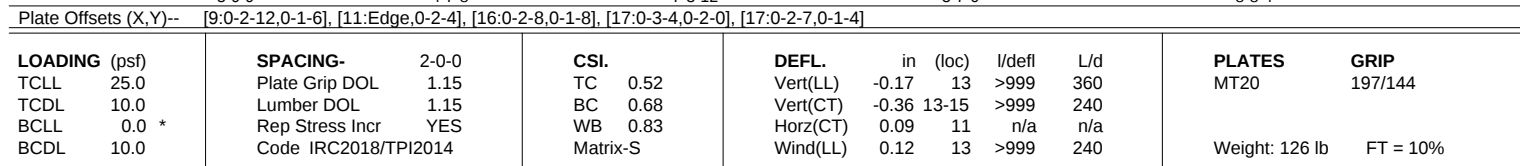
8.240 s Mar 9 2020 MiTek Industries, Inc. Tue May 19 10:51:04 2020 Page 1

ID: i3EdZD?h5AdOxx2iOYXRYBzFDC?75uO7IF8GuP0_XJ8hD1UlfleeMH_aHexmPm6vgzEykL

-0-10-8 5-9-9 10-5-0 12-1-12 17-8-12 23-3-12 27-11-14 32-0-8

0-10-8 5-9-9 4-7-8 1-8-12 5-7-0 5-7-0 4-8-2 4-0-2 0-10-8

Scale = 1:56.0



REACTIONS. (size) 17=0-3-8, 11=0-3-8
 Max Horz 17=91(LC 7)
 Max Uplift 17=-155(LC 8), 11=-253(LC 9)
 Max Grav 17=1497(LC 1), 11=1497(LC 1)

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

TOP CHORD 2-3=-2358/263, 3-4=-2078/310, 4-5=-2026/313, 5-6=-2466/438, 6-7=-2468/439,
7-8=-2213/375, 8-9=-620/71, 2-17=-1427/188, 9-11=-480/103

BOT CHORD 16-17=-191/622, 15-16=-181/2021, 13-15=-189/2286, 12-13=-191/1921, 11-12=-317/1969

WEBS 3-15=-347/157, 4-15=-234/1590, 5-15=-1391/323, 5-13=-88/357, 6-13=-476/189,
7-13=-141/707, 7-12=0/267, 2-16=-104/1404, 8-11=-1747/368

NOTES- _____

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDF=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) 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 capable of withstanding 155 lb uplift at joint 17 and 253 lb uplift at joint 11.
- 7) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 8) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



May 19, 2020



WARNING - Verify design parameters and READ NOTES ON THIS and INCLUDED MITER EXPLANATION PAGE MP1473 (rev. 10/03/2023) BEFORE USE.

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 39 HT	I41355775
400305	G5	Hip	1	1		

Wheeler Lumber, Waverly, KS 66871

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ID: i3EdZD?h5AdOXx2i0YXRYBzFDC?UHSmKeFm1CXtbtLFWZjsqYmfPjpU5?3WfR6zEyKk

5-9-9	10-8-4	16-0-0	21-3-12	26-2-7	32-0-0	32-10-8
5-9-9	4-10-10	5-3-12	5-3-12	4-10-10	5-9-9	0-10-8

Scale = 1:55.9

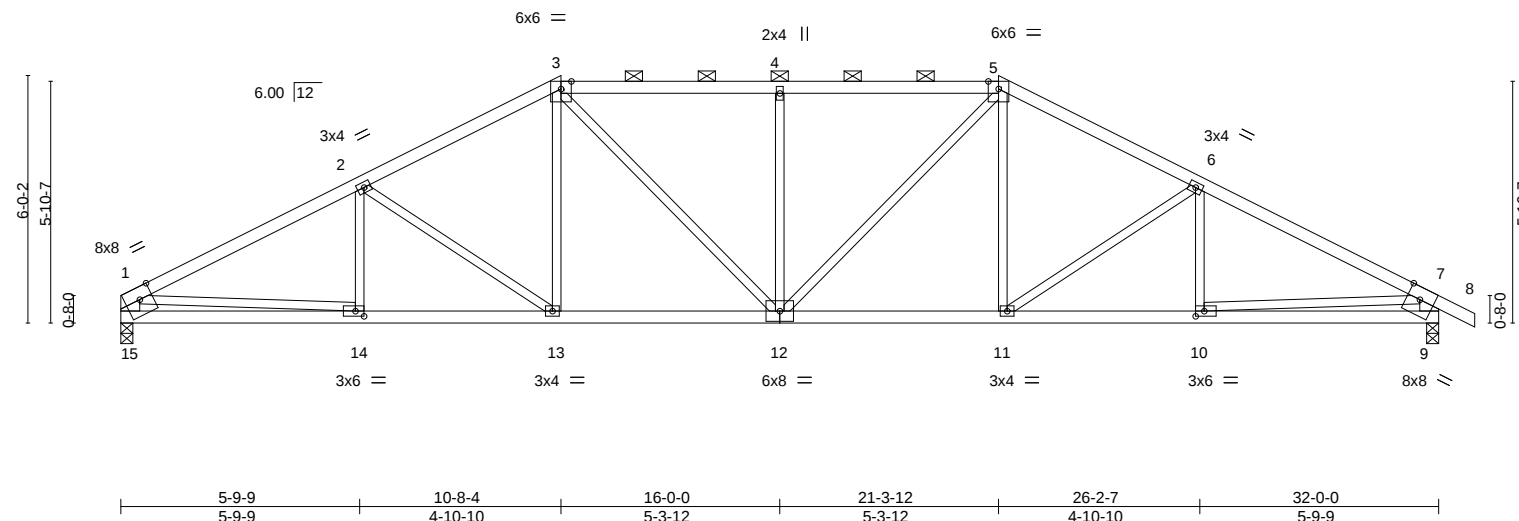


Plate Offsets (X,Y)-- [1:0-3-12,Edge], [9:0-3-12,Edge], [9:0-2-7,0-1-4], [10:0-2-8,0-1-8], [14:0-2-8,0-1-8], [15:0-2-7,0-1-4]									
LOADING (psf)		SPACING- 2-0-0		CSI.		DEFL. in (loc) l/defl L/d		PLATES GRIP	
TCLL	25.0	Plate Grip DOL	1.15	TC	0.51	Vert(LL)	-0.13 12 >999 360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.54	Vert(CT)	-0.23 12-13 >999 240		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.54	Horz(CT)	0.07 9 n/a n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-S		Wind(LL)	0.08 12 >999 240	Weight: 126 lb	FT = 10%

LUMBER-

TOP CHORD 2x4 SPF No.2
 BOT CHORD 2x4 SPF No.2
 WEBS 2x3 SPF No.2 *Except*
 1-15,7-9: 2x6 SPF No.2

BRACING-

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

REACTIONS.

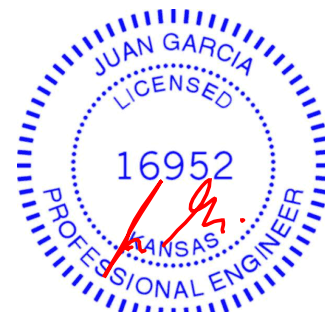
(size) 15=0-3-8, 9=0-3-8
 Max Horz 15=-95(LC 4)
 Max Uplift 15=-132(LC 8), 9=-158(LC 9)
 Max Grav 15=1418(LC 1), 9=1498(LC 1)

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

TOP CHORD 1-2=-2376/209, 2-3=-2067/195, 3-4=-2046/217, 4-5=-2046/217, 5-6=-2061/195,
 6-7=-2369/207, 1-15=-1348/163, 7-9=-1431/189
 BOT CHORD 14-15=-140/486, 13-14=-193/2048, 12-13=-124/1778, 11-12=-68/1776, 10-11=-103/2032,
 9-10=-115/606
 WEBS 2-13=-338/163, 3-13=-34/318, 3-12=-118/511, 4-12=-463/183, 5-12=-119/513,
 5-11=-31/314, 6-11=-321/158, 1-14=-65/1568, 7-10=-39/1431

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 132 lb uplift at joint 15 and 158 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.
- Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



May 19,2020

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16023 Swingley Ridge Rd
 Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 39 HT	I41355776
400305	G6	Hip	1	1		

Wheeler Lumber, Waverly, KS 66871

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ID:I3EdZD?h5AdOXx2i0YXRYBzFDC?-yT08Y_G0oWfkDrSXpe4yr4NvoAx22D7EEjFDzYzEykJ

Job Reference (optional)

5-9-9	12-8-4	19-3-12	26-2-7	32-0-0	32-10-8
5-9-9	6-10-11	6-7-8	6-10-11	5-9-9	0-10-8

Scale = 1:56.5

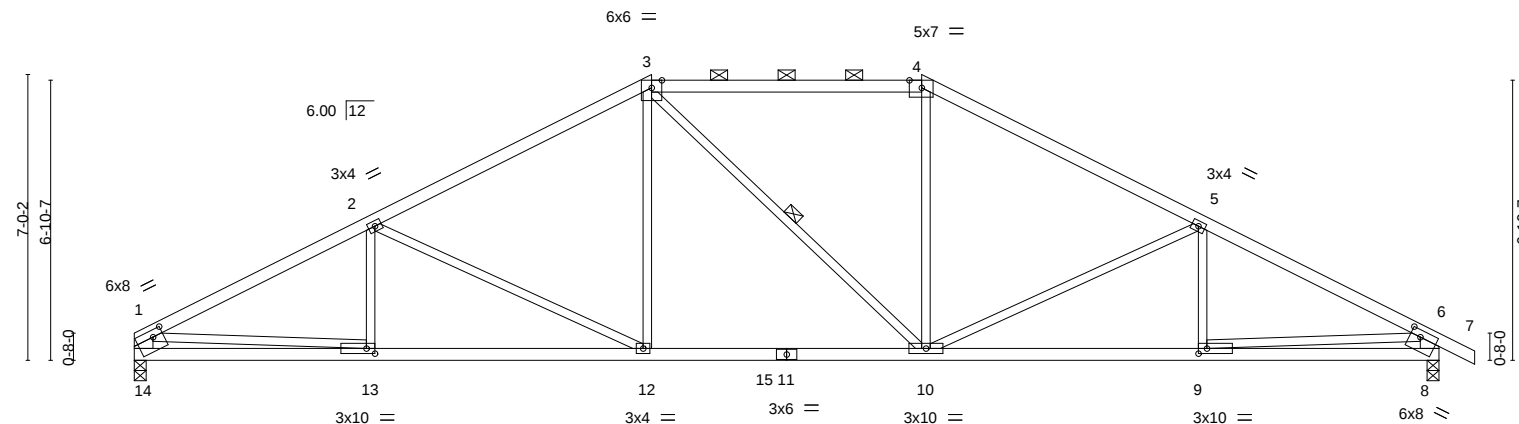


Plate Offsets (X,Y)--	1:0-3-0,0-2-0], [4:0-3-10,Edge], [8:0-3-0,0-2-0], [8:0-2-7,0-1-4], [9:0-2-8,0-1-8], [13:0-2-8,0-1-8], [14:0-2-7,0-1-4]
-----------------------	--

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 0.86	Vert(LL)	-0.16	10-12	>999	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.77	Vert(CT)	-0.27	10-12	>999		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.71	Horz(CT)	0.08	8	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-S	Wind(LL)	0.08	12-13	>999	Weight: 122 lb	FT = 10%

LUMBER-

TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
WEBS 2x3 SPF No.2 *Except*
1-14,6-8: 2x6 SPF No.2

BRACING-

TOP CHORD Structural wood sheathing directly applied, except end verticals, and 2-0-0 oc purlins (2-9-12 max.): 3-4.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 1 Row at midpt 3-10

REACTIONS.

(size) 14=0-3-8, 8=0-3-8
Max Horz 14=-112(LC 13)
Max Uplift 14=-151(LC 8), 8=-177(LC 9)
Max Grav 14=1482(LC 2), 8=1542(LC 2)

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

TOP CHORD 1-2=-2501/254, 2-3=-2040/198, 3-4=-1730/224, 4-5=-2026/196, 5-6=-2486/252,
1-14=-1380/178, 6-8=-1442/204
BOT CHORD 13-14=-142/499, 12-13=-256/2179, 10-12=-62/1741, 9-10=-149/2158, 8-9=-83/543
WEBS 2-12=-504/215, 3-12=-11/502, 4-10=0/473, 5-10=-494/211, 1-13=-115/1728,
6-9=-67/1622

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 151 lb uplift at joint 14 and 177 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.



May 19,2020

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 39 HT	I41355777
400305	G7	Hip	1	1		

Wheeler Lumber, Waverly, KS 66871

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ID:I3EdZD?h5AdOx2i0YXRYBzFDC?-us8uzglfK7vRS9cww36QwVSEZglWAEXh0kJ2RzEykH

Job Reference (optional)

7-9-9	14-8-4	17-3-12	24-2-7	32-0-0	32-10-8
7-9-9	6-10-10	2-7-8	6-10-10	7-9-9	0-10-8

6x6 =

5x7 =

Scale = 1:56.7

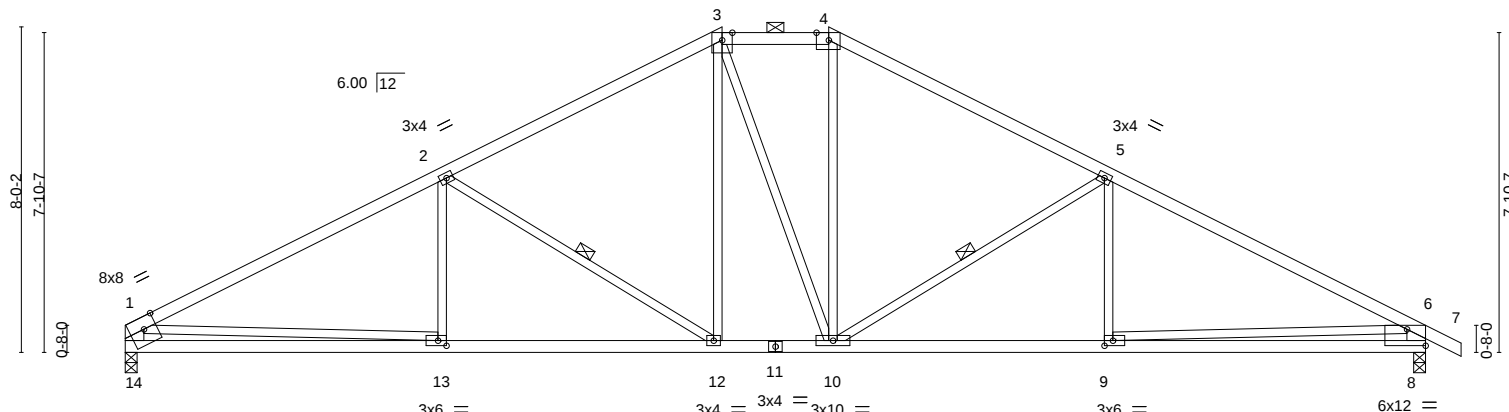


Plate Offsets (X,Y)--	1:0-3-12,Edge], [4:0-3-10,Edge], [8:Edge,0-4-13], [8:0-2-12,0-0-0], [9:0-2-8,0-1-8], [13:0-2-8,0-1-8], [14:0-2-7,0-1-4]
-----------------------	---

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 0.91	Vert(LL)	-0.12 12-13	>999	360	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.59	Vert(CT)	-0.25 12-13	>999	240		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.47	Horz(CT)	0.07 8	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-S	Wind(LL)	0.08 12-13	>999	240	Weight: 129 lb	FT = 10%

LUMBER-

TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
WEBS 2x3 SPF No.2 *Except*
1-14,6-8: 2x6 SPF No.2

BRACING-

TOP CHORD Structural wood sheathing directly applied, except end verticals, and 2-0-0 oc purlins (4-7-11 max.): 3-4.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 1 Row at midpt 2-12, 5-10

REACTIONS.

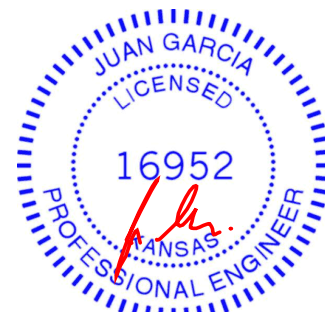
(size) 14=0-3-8, 8=0-3-8
Max Horz 14=-130(LC 9)
Max Uplift 14=-167(LC 8), 8=-193(LC 9)
Max Grav 14=1418(LC 1), 8=1498(LC 1)

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

TOP CHORD 1-2=-2366/268, 2-3=-1768/226, 3-4=-1473/246, 4-5=-1767/224, 5-6=-2361/267,
1-14=-1340/209, 6-8=-1422/235
BOT CHORD 13-14=-226/639, 12-13=-258/2018, 10-12=-60/1471, 9-10=-133/2004, 8-9=-223/846
WEBS 2-13=0/253, 2-12=-664/233, 3-12=-71/441, 4-10=-53/418, 5-10=-646/227, 5-9=0/258,
1-13=-37/1382, 6-9=0/1160

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.
- The Fabrication Tolerance at joint 6 = 6%
- 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 167 lb uplift at joint 14 and 193 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.



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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 39 HT	I41355778
400305	G8	Common	2	1		

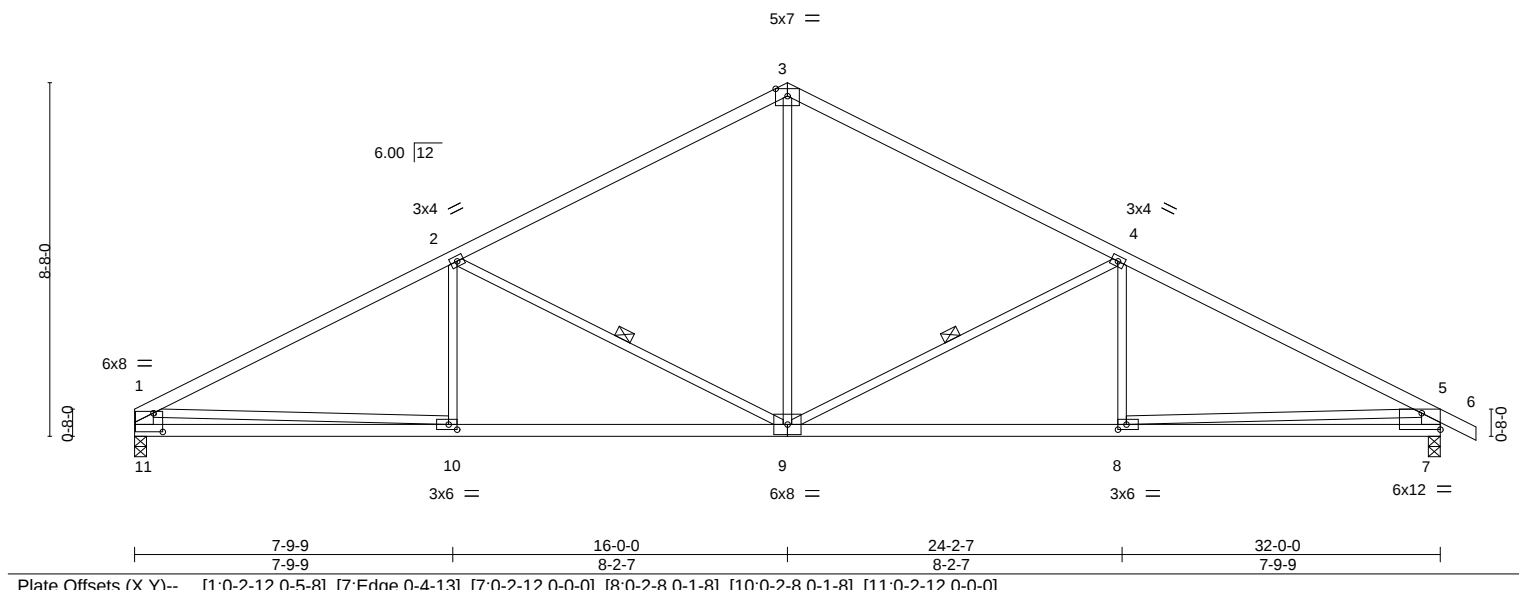
Wheeler Lumber, Waverly, KS 66871

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ID: I3EdZD?h5AdOXx2i0YXRYBzFDC?-us8uzglfK7vRS9cww36QwVSDdxfW8zXh0kJ2RzEyKH

7-9-9	16-0-0	24-2-7	32-0-0	32-10-8
7-9-9	8-2-7	8-2-7	7-9-9	0-10-8

Scale = 1:56.5



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 0.97	Vert(LL)	-0.12	9-10	>999	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.68	Vert(CT)	-0.27	9-10	>999		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.62	Horz(CT)	0.07	7	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-S	Wind(LL)	0.08	9-10	>999		
								Weight: 119 lb	FT = 10%

LUMBER-

TOP CHORD 2x4 SPF No.2 *Except*
3-6: 2x4 SPF 2100F 1.8E
BOT CHORD 2x4 SPF No.2
WEBS 2x3 SPF No.2 *Except*
1-11,5-7: 2x6 SPF No.2

BRACING-

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

REACTIONS.

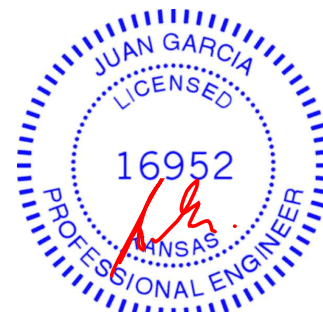
(size) 11=0-3-8, 7=0-3-8
Max Horz 11=-142(LC 9)
Max Uplift 11=-176(LC 8), 7=-202(LC 9)
Max Grav 11=1418(LC 1), 7=1498(LC 1)

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

TOP CHORD 1-2=-2379/292, 2-3=-1680/253, 3-4=-1678/254, 4-5=-2376/291, 1-11=-1341/216,
5-7=-1423/242
BOT CHORD 10-11=-224/609, 9-10=-295/2034, 8-9=-158/2021, 7-8=-187/808
WEBS 3-9=-47/848, 4-9=-771/269, 4-8=0/272, 2-9=-782/273, 2-10=0/265, 1-10=-72/1428,
5-8=-17/1216

NOTES-

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCCL=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.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 176 lb uplift at joint 11 and 202 lb uplift at joint 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.



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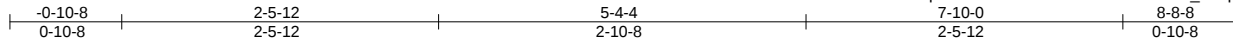
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 39 HT	I41355779
400305	H1	Hip Girder	1	1		

Wheeler Lumber, Waverly, KS 66871

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ID:13EdZD?h5AdOXx2i0YXRYBzFDC?-qEGfOLJvsk99iSmi2U8u?wYIMnOv_BPq9KDQ6JzEykF



Scale = 1:18.0

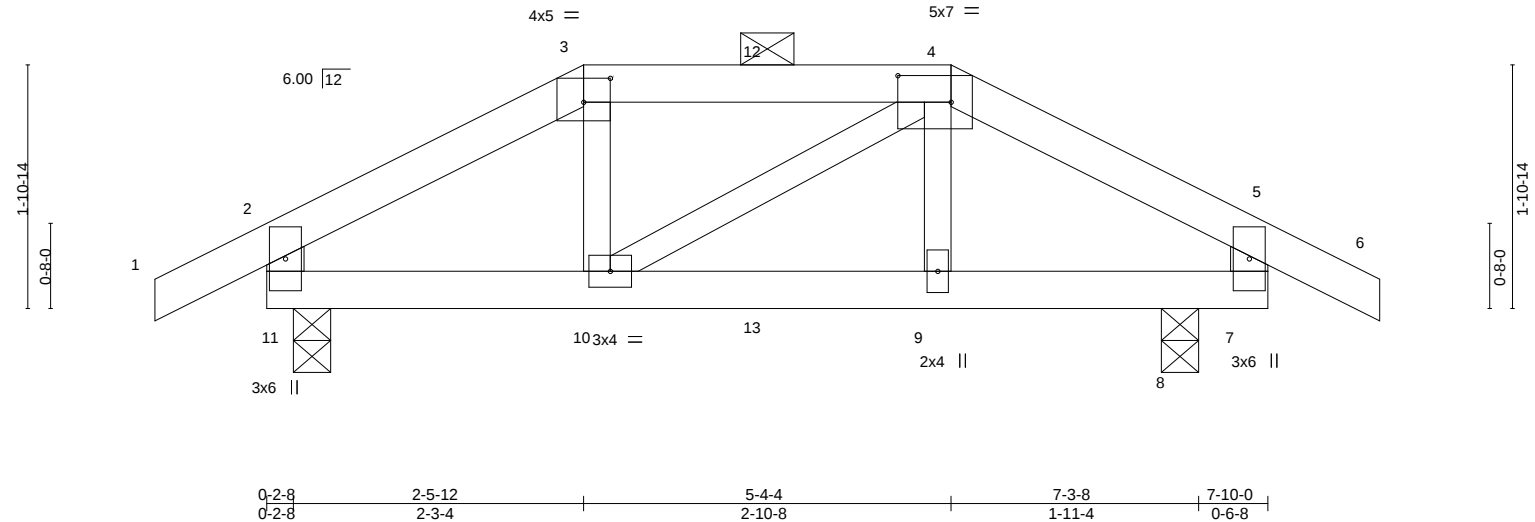


Plate Offsets (X,Y)-- [3:0-2-8,0-2-4], [4:0-5-0,0-2-8]												
LOADING (psf)		SPACING- 2-0-0		CSI.		DEFL. in (loc) l/defl L/d				PLATES	GRIP	
TCLL	25.0	Plate Grip DOL	1.15	TC	0.25	Vert(LL)	-0.02	9-10	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.39	Vert(CT)	-0.03	9-10	>999	240		
BCLL	0.0 *	Rep Stress Incr	NO	WB	0.05	Horz(CT)	0.00	8	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-S		Wind(LL)	0.02	9-10	>999	240	Weight: 26 lb	FT = 10%

LUMBER-

TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
WEBS 2x3 SPF No.2 *Except*
2-11,5-7: 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.): 3-4.
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=-38(LC 6)
Max Uplift 11=-138(LC 8), 8=-168(LC 9)
Max Grav 11=383(LC 21), 8=445(LC 1)

FORCES.

(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-380/166, 3-4=-296/157, 4-5=-309/155, 2-11=-335/142, 5-7=-302/134
BOT CHORD 10-11=-129/318

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 138 lb uplift at joint 11 and 168 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) 111 lb down and 126 lb up at 2-5-12, and 62 lb down and 43 lb up at 3-11-0, and 103 lb down and 141 lb up at 5-4-4 on top chord, and 17 lb down and 5 lb up at 2-5-12, and 12 lb down at 3-11-0, and 37 lb down and 53 lb up at 5-3-8 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
- In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

LOAD CASE(S) Standard

- Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (plf)
Vert: 1-2=-70, 2-3=-70, 3-4=-70, 4-5=-70, 5-6=-70, 7-11=-20



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Continued on page 2

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 39 HT	I41355779
400305	H1	Hip Girder	1	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS 66871

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ID:I3EdZD?h5AdOXx2i0YXRYBzFDC?-qEGfOLJvsk99iSmi2U8u?wYIMnOv_BPq9KDQ6JzEykF

LOAD CASE(S) Standard
Concentrated Loads (lb)
Vert: 10=-0(F) 9=-2(F) 13=-2(F)

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 39 HT	I41355780
400305	H2	Common	3	1		

Wheeler Lumber, Waverly, KS 66871

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ID:I3EdZD?h5AdOXx2i0YXRYBzFDC?-qEGfOLJvsk99iSml2U8u?wY'ktnPJ_Bbq9KDQ6JzEyKf

-0-10-8	3-11-0	7-10-0	8-8-8
0-10-8	3-11-0	3-11-0	0-10-8

Scale = 1:18.3

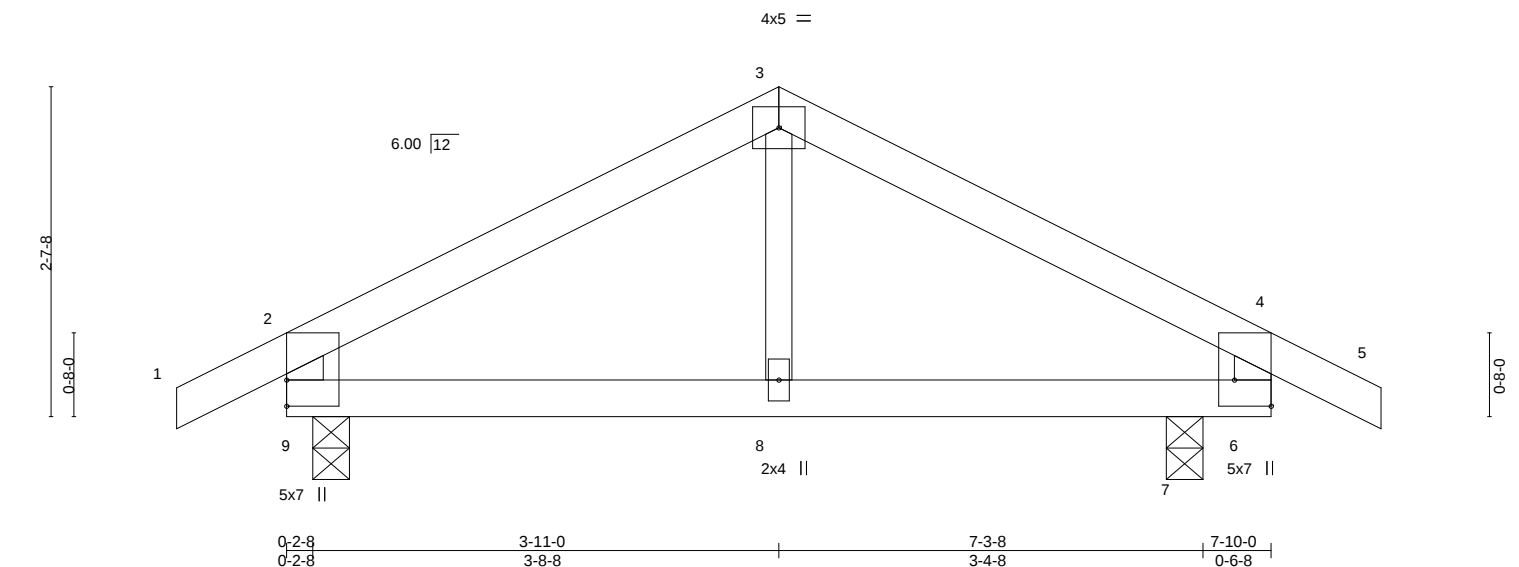


Plate Offsets (X,Y)-- [2:0-0-14,0-1-12], [4:0-0-14,0-1-12], [6:Edge,0-3-8], [6:0-0-0,0-1-12], [9:0-0-0,0-1-12]									
LOADING (psf)		SPACING- 2-0-0		CSI.		DEFL. in (loc) l/defl L/d		PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.28	Vert(LL)	-0.01 8-9 >999 360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.37	Vert(CT)	-0.03 8-9 >999 240		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.03	Horz(CT)	0.00 7 n/a n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-R		Wind(LL)	0.01 8-9 >999 240	Weight: 24 lb	FT = 10%

LUMBER-

TOP CHORD 2x4 SPF No.2
 BOT CHORD 2x4 SPF No.2
 WEBS 2x4 SPF No.2 *Except*
 3-8: 2x3 SPF No.2

BRACING-

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

REACTIONS.

(size) 9=0-3-8, 7=0-3-8
 Max Horz 9=-47(LC 6)
 Max Uplift 9=-64(LC 8), 7=-71(LC 9)
 Max Grav 9=379(LC 1), 7=443(LC 1)

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

TOP CHORD 2-3=-298/43, 3-4=-306/52, 2-9=-325/89, 4-6=-342/90

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.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 64 lb uplift at joint 9 and 71 lb uplift at joint 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.



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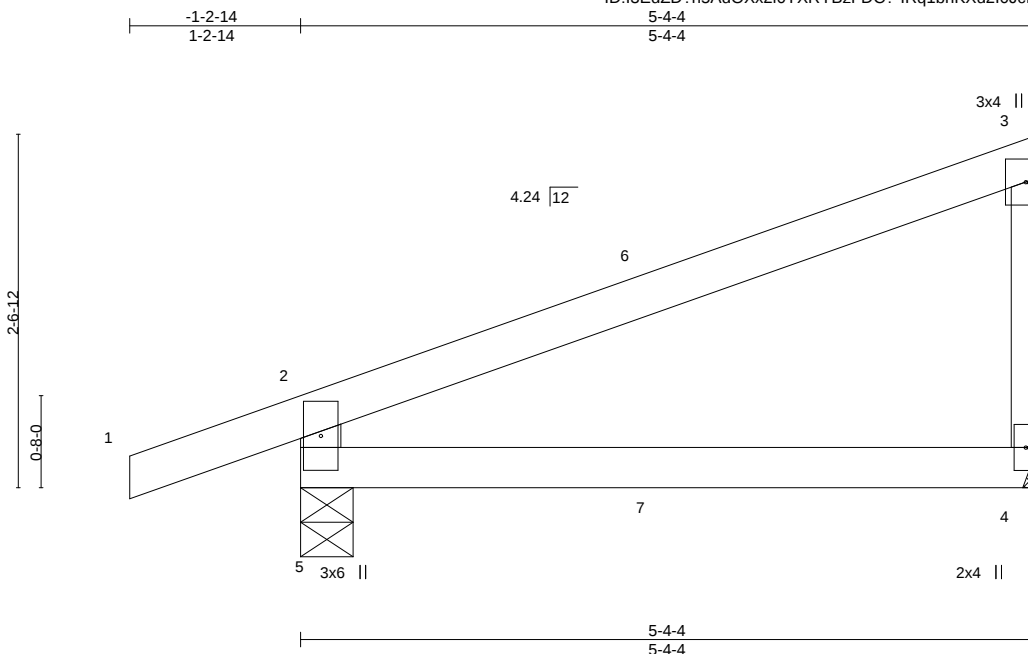


16023 Swingley Ridge Rd
 Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 39 HT	I41355781
400305	J1	Diagonal Hip Girder	3	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS 66871

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ID:13EdZD?h5AdOXx2i0YXRYBzFDC?-IRq1bhKXd2i0JcLUcBf8Y74u9BnfjeNzO_z_fmzEyKE



Scale = 1:16.7

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 0.37	Vert(LL)	-0.03	4-5	>999	360	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.23	Vert(CT)	-0.06	4-5	>999	240		
BCLL 0.0 *	Rep Stress Incr	NO	WB 0.00	Horz(CT)	-0.00	4	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-R	Wind(LL)	0.01	4-5	>999	240	Weight: 16 lb	FT = 10%

LUMBER-

TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
WEBS 2x4 SPF No.2 *Except*
3-4: 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=0-4-9, 4=Mechanical
Max Horz 5=108(LC 22)
Max Uplift 5=100(LC 4), 4=48(LC 8)
Max Grav 5=338(LC 1), 4=215(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-5=300/138

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 5 and 48 lb uplift at joint 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) 68 lb down and 33 lb up at 2-7-6, and 68 lb down and 33 lb up at 2-7-6 on top chord, and 3 lb down and 2 lb up at 2-7-6, and 3 lb down and 2 lb up at 2-7-6 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
- In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

LOAD CASE(S) Standard

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



May 19, 2020

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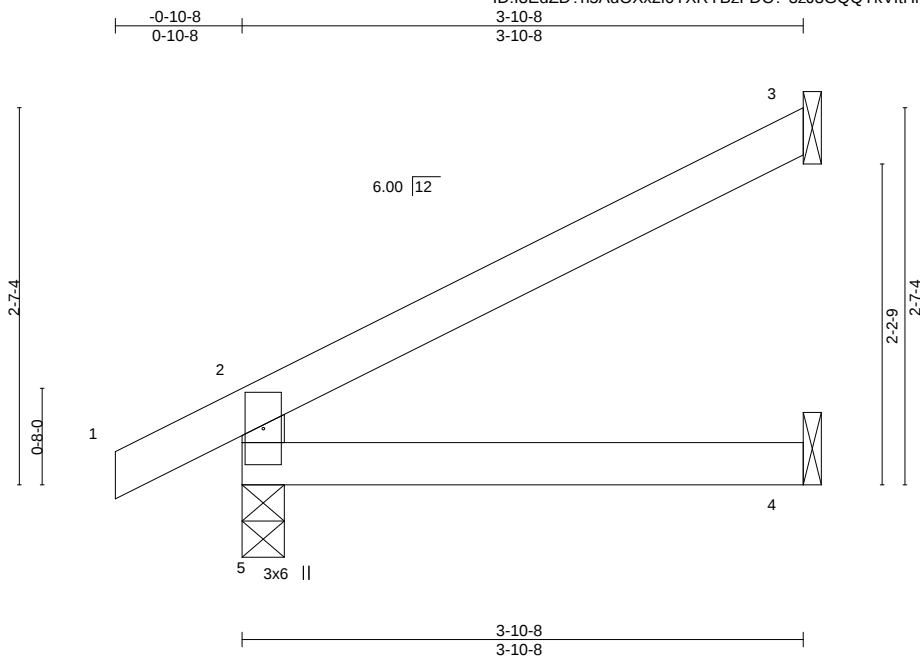
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 39 HT	I41355782
400305	J2	Jack-Open	10	1		
Job Reference (optional)						

Wheeler Lumber, Waverly, KS 66871

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ID:13EdZD?h5AdOXx2i0YXRYBzFDC?-3zJ3GQQYkVltHry14tp0spP1PYJbGM9DEvPxIzEyk6



Scale: 3/4"=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 0.19	Vert(LL)	-0.01	4-5	>999	360	MT20	197/144
BCLL 10.0	Lumber DOL	1.15	BC 0.12	Vert(CT)	-0.02	4-5	>999	240		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.00	Horz(CT)	0.01	3	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-R	Wind(LL)	0.01	4-5	>999	240		
									Weight: 11 lb	FT = 10%

LUMBER-

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

BRACING-

TOP CHORD Structural wood sheathing directly applied or 3-10-8 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=87(LC 8)
Max Uplift 5=-29(LC 8), 3=-64(LC 8)
Max Grav 5=246(LC 1), 3=112(LC 1), 4=69(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 29 lb uplift at joint 5 and 64 lb uplift at joint 3.
- 6) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



May 19, 2020

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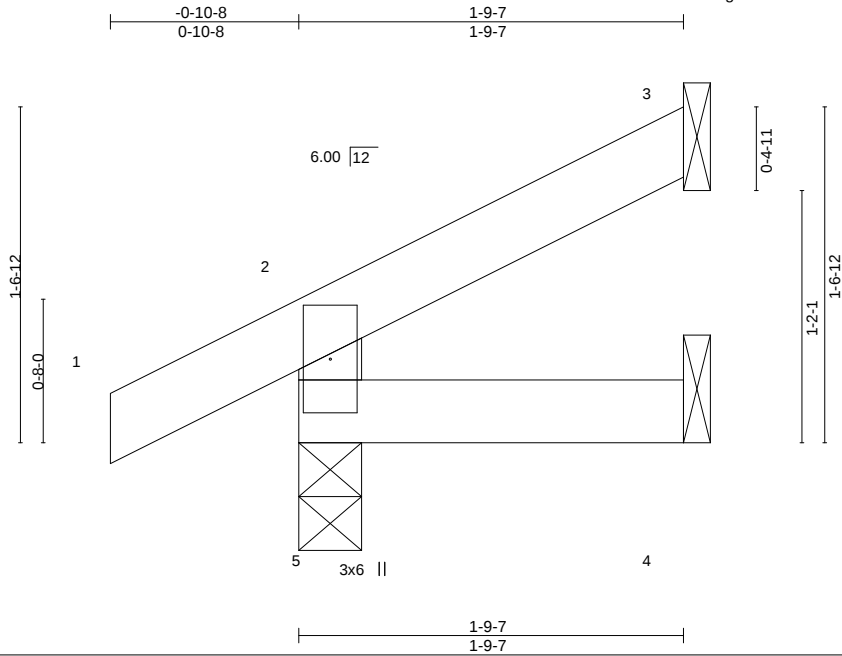
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 39 HT	I41355783
400305	J3	Jack-Open	6	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS 66871

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ID: i3EdZD?h5AdOXx2i0YXRYBzFDC?-u7gKXUVJKL21?mPBQ7vQ64fLNqG?_r1cAMj8yzEyk0



Scale = 1:10.7

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 0.07	Vert(LL)	-0.00	5	>999	360	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.02	Vert(CT)	-0.00	5	>999	240		
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	Wind(LL)	0.00	5	>999	240	Weight: 6 lb	FT = 10%

LUMBER-

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

BRACING-

TOP CHORD Structural wood sheathing directly applied or 1-9-7 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=45(LC 8)
Max Uplift 5=-26(LC 8), 3=-28(LC 8)
Max Grav 5=167(LC 1), 3=39(LC 1), 4=29(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 26 lb uplift at joint 5 and 28 lb uplift at joint 3.
- 6) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



May 19, 2020

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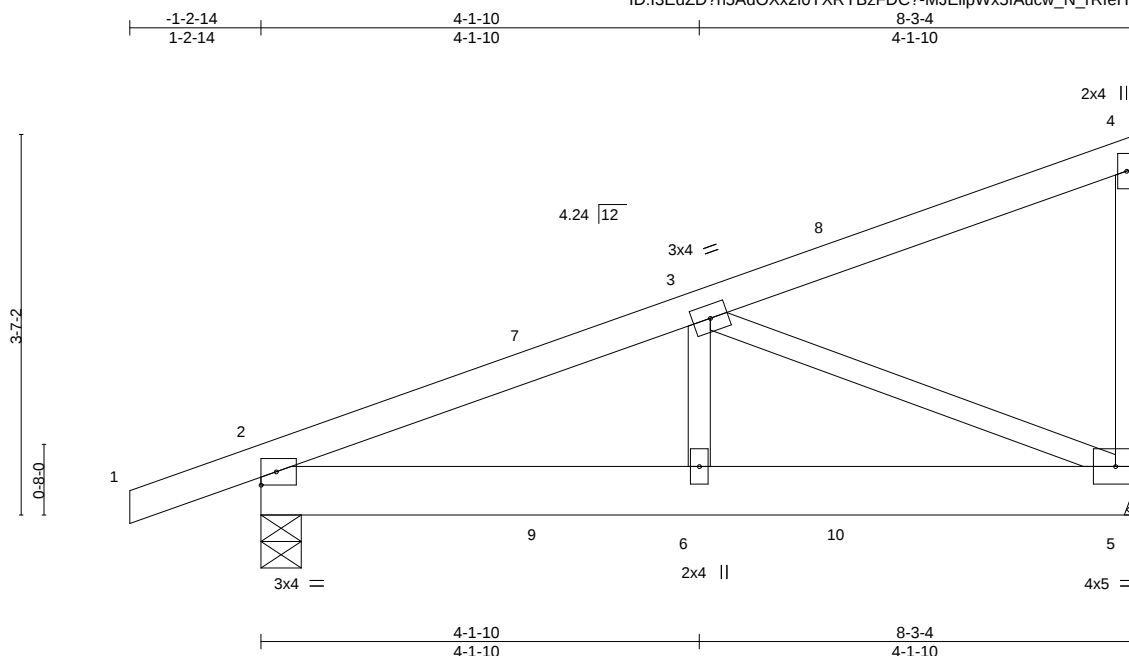
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 39 HT	I41355784
400305	J4	Diagonal Hip Girder	1	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS 66871

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Scale = 1:21.7

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 0.29	Vert(LL)	-0.01	6	>999	360	MT20
TCDL 10.0	Lumber DOL	1.15	BC 0.18	Vert(CT)	-0.02	6	>999	240	197/144
BCLL 0.0 *	Rep Stress Incr	NO	WB 0.26	Horz(CT)	0.00	5	n/a	n/a	
BCDL 10.0	Code IRC2018/TPI2014		Matrix-P	Wind(LL)	0.01	6	>999	240	
									Weight: 33 lb FT = 10%

LUMBER-

TOP CHORD 2x4 SPF No.2
BOT CHORD 2x6 SPF No.2
WEBS 2x3 SPF No.2

BRACING-

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

REACTIONS.

(size) 5=Mechanical, 2=0-4-9
Max Horz 2=146(LC 22)
Max Uplift 5=-102(LC 8), 2=-133(LC 4)
Max Grav 5=385(LC 1), 2=483(LC 1)

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

TOP CHORD 2-3=-614/102
BOT CHORD 2-6=-141/494, 5-6=-141/494
WEBS 3-5=-538/166

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 102 lb uplift at joint 5 and 133 lb uplift at joint 2.
- 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) 68 lb down and 34 lb up at 2-8-7, 68 lb down and 34 lb up at 2-8-7, and 96 lb down and 72 lb up at 5-6-6, and 96 lb down and 72 lb up at 5-6-6 on top chord, and 3 lb down and 1 lb up at 2-8-7, 3 lb down and 1 lb up at 2-8-7, and 22 lb down at 5-6-6, and 22 lb down at 5-6-6 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
- In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

LOAD CASE(S) Standard

- Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (plf)
Vert: 1-4=-70, 2-5=-20
Concentrated Loads (lb)
Vert: 8=-24(F=-12, B=-12) 9=3(F=1, B=1) 10=-29(F=-14, B=-14)



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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 39 HT	I41355785
400305	J5	Jack-Open	16	1		
Job Reference (optional)						

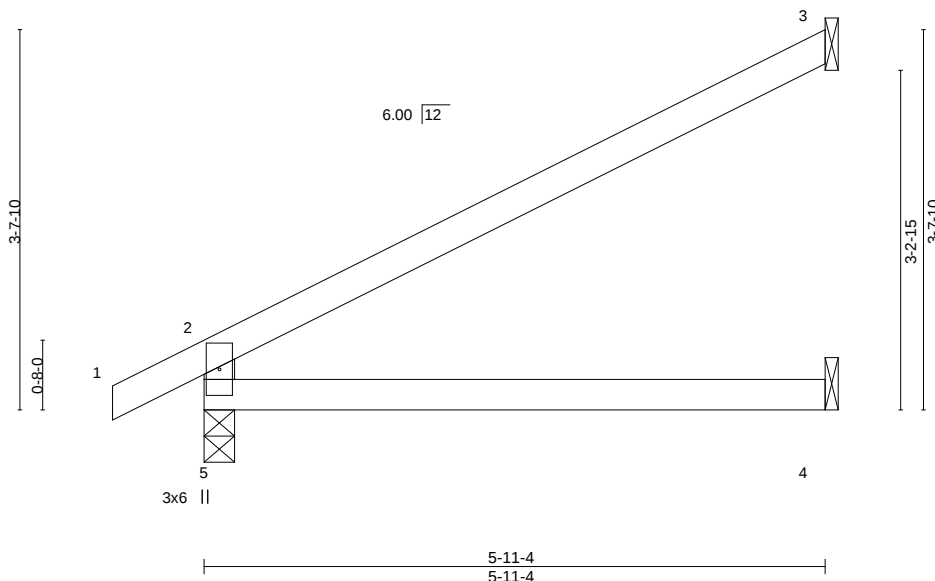
Wheeler Lumber, Waverly, KS 66871

8.240 s Mar 9 2020 MiTek Industries, Inc. Tue May 19 10:51:27 2020 Page 1

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-0-10-8 5-11-4
0-10-8 5-11-4

Scale = 1:22.0



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 0.52	Vert(LL)	-0.05	4-5	>999	360	MT20
BCLL 10.0	Lumber DOL	1.15	BC 0.31	Vert(CT)	-0.11	4-5	>612	240	197/144
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.00	Horz(CT)	0.03	3	n/a	n/a	
BCDL 10.0	Code IRC2018/TPI2014		Matrix-R	Wind(LL)	0.04	4-5	>999	240	
								Weight: 16 lb	FT = 10%

LUMBER-

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

BRACING-

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

REACTIONS. (size) 5=0-3-8, 3=Mechanical, 4=Mechanical
Max Horz 5=90(LC 8)
Max Uplift 3=58(LC 8)
Max Grav 5=336(LC 1), 3=179(LC 1), 4=108(LC 3)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-5=-293/47

NOTES-

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCCL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope); cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 3) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 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 58 lb uplift at joint 3.
- 6) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



May 19, 2020

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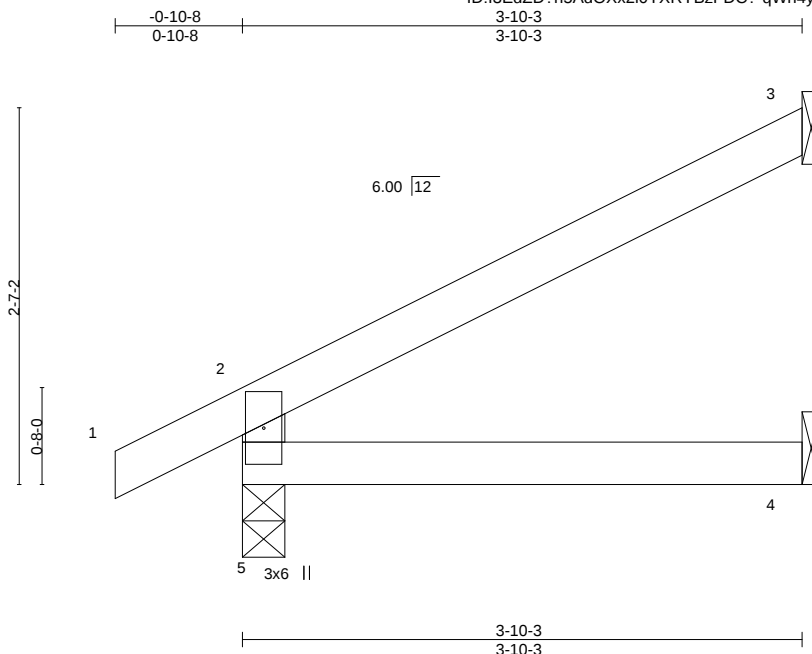
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 39 HT	I41355786
400305	J6	Jack-Open	2	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS 66871

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Scale: 3/4"=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 0.19	Vert(LL)	-0.01	4-5	>999	360	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.12	Vert(CT)	-0.02	4-5	>999	240		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.00	Horz(CT)	0.01	3	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-R	Wind(LL)	0.01	4-5	>999	240	Weight: 11 lb	FT = 10%

LUMBER-

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

BRACING-

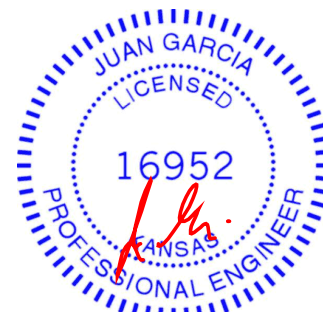
TOP CHORD Structural wood sheathing directly applied or 3-10-3 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) 5=0-3-8, 3=Mechanical, 4=Mechanical
Max Horz 5=86(LC 8)
Max Uplift 5=-29(LC 8), 3=-63(LC 8)
Max Grav 5=245(LC 1), 3=111(LC 1), 4=68(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 29 lb uplift at joint 5 and 63 lb uplift at joint 3.
- 6) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



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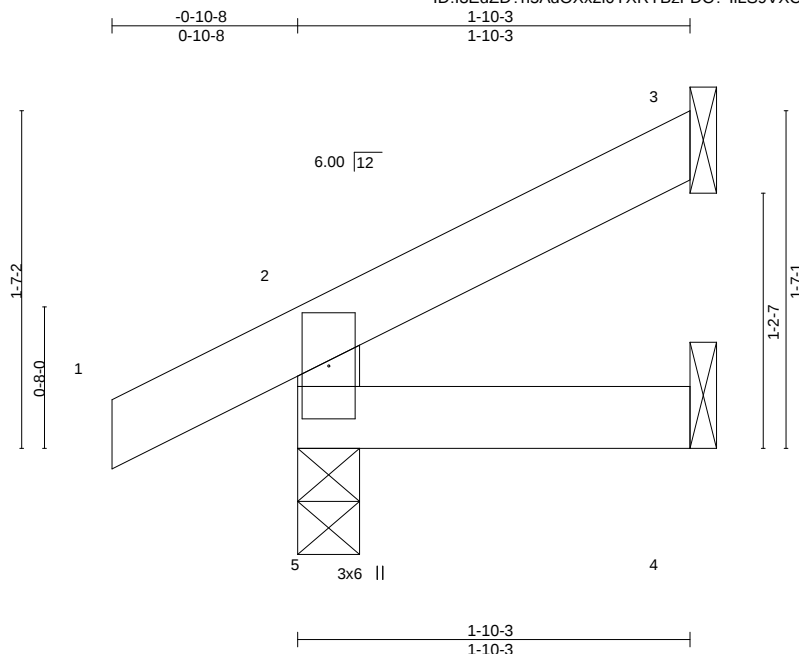


16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job 400305	Truss J7	Truss Type Jack-Open	Qty 4	Ply 1	Lot 39 HT Job Reference (optional)	I41355787
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Wheeler Lumber, Waverly, KS 66871

8.240 s Mar 9 2020 MiTek Industries, Inc. Tue May 19 10:51:28 2020 Page 1
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Scale = 1:10.9

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	5	>999	360	MT20	197/144
BCLL 10.0	Lumber DOL	1.15	BC 0.02	Vert(CT)	-0.00	5	>999	240		
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	Wind(LL)	0.00	5	>999	240		
									Weight: 6 lb	FT = 10%

LUMBER-

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

BRACING-

TOP CHORD Structural wood sheathing directly applied or 1-10-3 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=46(LC 8)
Max Uplift 5=-26(LC 8), 3=-29(LC 8)
Max Grav 5=169(LC 1), 3=42(LC 1), 4=30(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 26 lb uplift at joint 5 and 29 lb uplift at joint 3.
- 6) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



May 19, 2020

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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, 218 N. Lee Street, Suite 312, Alexandria, VA 22314.



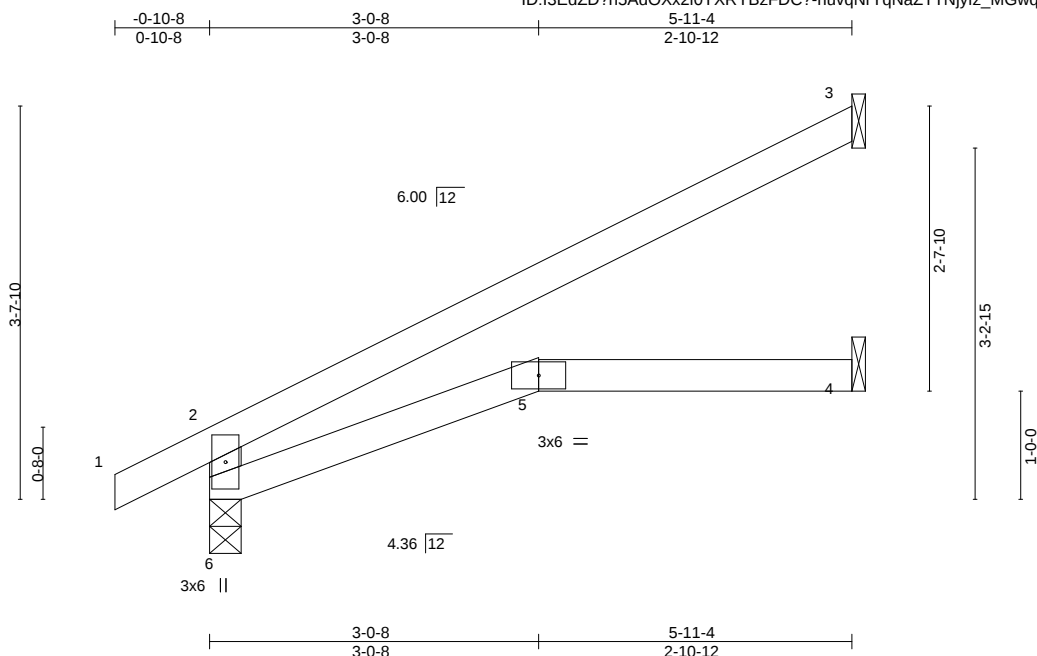
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 39 HT	I41355788
400305	J8	Jack-Open	2	1		

Wheeler Lumber, Waverly, KS 66871

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ID:13EdZD?h5AdOXx2i0YXRYBzFDC?-nuvqNrYqNaZTTNjyFz_MGwqWGRvsxnrdWoKxGjzEyjy



Scale = 1:21.3

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 0.52	Vert(LL)	-0.05	5	>999	360	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.30	Vert(CT)	-0.11	5	>598	240		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.00	Horz(CT)	0.04	4	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-R	Wind(LL)	0.04	5-6	>999	240	Weight: 16 lb	FT = 10%

LUMBER-

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

BRACING-

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

REACTIONS. (size) 6=0-3-8, 3=Mechanical, 4=Mechanical
Max Horz 6=89(LC 8)
Max Uplift 3=59(LC 8)
Max Grav 6=336(LC 1), 3=180(LC 1), 4=108(LC 3)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-6=-292/46

NOTES-

- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope); cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 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.
- Bearing at joint(s) 6 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 59 lb uplift at joint 3.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



May 19, 2020

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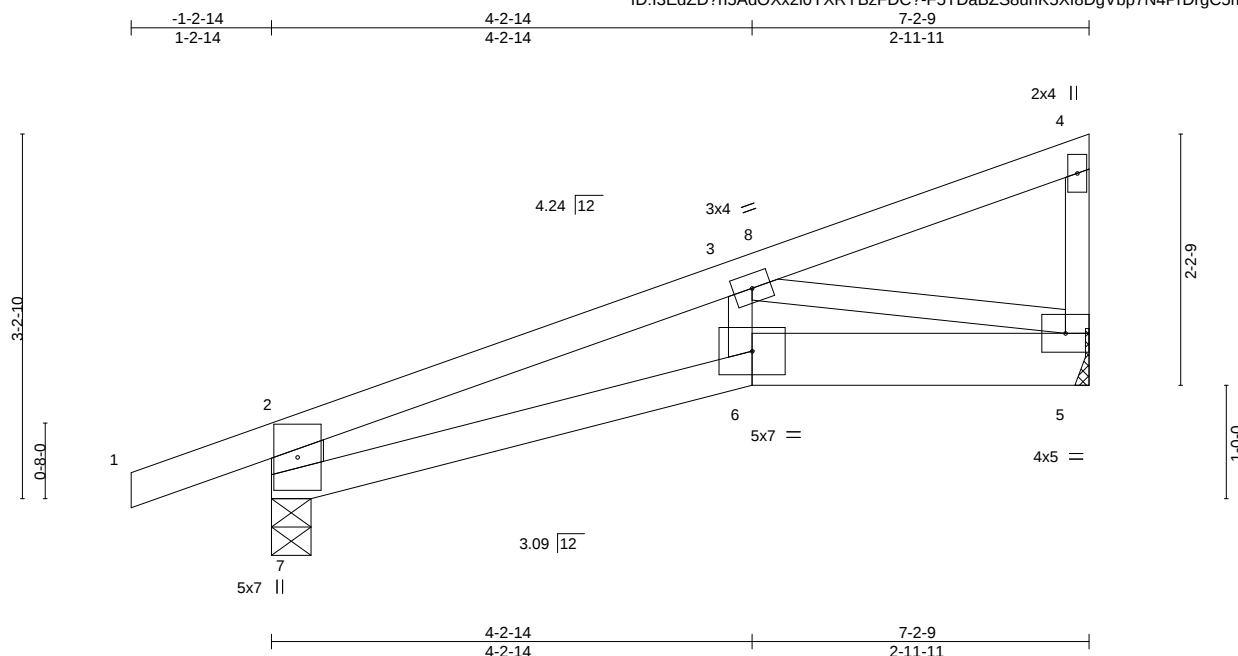
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 39 HT	I41355789
400305	J9	Diagonal Hip Girder	1	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS 66871

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ID:I3EdZD?h5AdOXx2i0YXRYBzFDC?-F5TDaBZS8uhK5Xl8DgVbp7N4PrDrgC5mlR3Up9zEyjx



Scale = 1:20.3

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 0.56	Vert(LL)	-0.04	6	>999	360	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.44	Vert(CT)	-0.08	6	>999	240		
BCLL 0.0 *	Rep Stress Incr	NO	WB 0.19	Horz(CT)	0.03	5	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-S	Wind(LL)	0.04	6	>999	240		
									Weight: 25 lb	FT = 10%

LUMBER-

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

BRACING-

TOP CHORD Structural wood sheathing directly applied or 5-9-14 oc purlins, except end verticals.
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS.

(size) 7=0-4-3, 5=Mechanical
 Max Horz 7=120(LC 5)
 Max Uplift 7=-129(LC 4), 5=-91(LC 8)
 Max Grav 7=470(LC 1), 5=364(LC 1)

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

TOP CHORD 2-7=-561/190, 2-3=-783/184
 BOT CHORD 6-7=-205/690, 5-6=-200/705
 WEBS 3-6=-27/329, 3-5=-700/218

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.
- Bearing at joint(s) 7 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 129 lb uplift at joint 7 and 91 lb uplift at joint 5.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 69 lb down and 38 lb up at 4-5-10, and 69 lb down and 38 lb up at 4-5-10 on top chord, and 56 lb down and 31 lb up at 4-2-14, and 56 lb down and 31 lb up at 4-2-14 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
- In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

LOAD CASE(S) Standard

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



May 19,2020

Continued on page 2

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16023 Swingley Ridge Rd
 Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 39 HT	I41355789
400305	J9	Diagonal Hip Girder	1	1	Job Reference (optional)	

LOAD CASE(S) Standard
Concentrated Loads (lb)
Vert: 6=-112(F=-56, B=-56)

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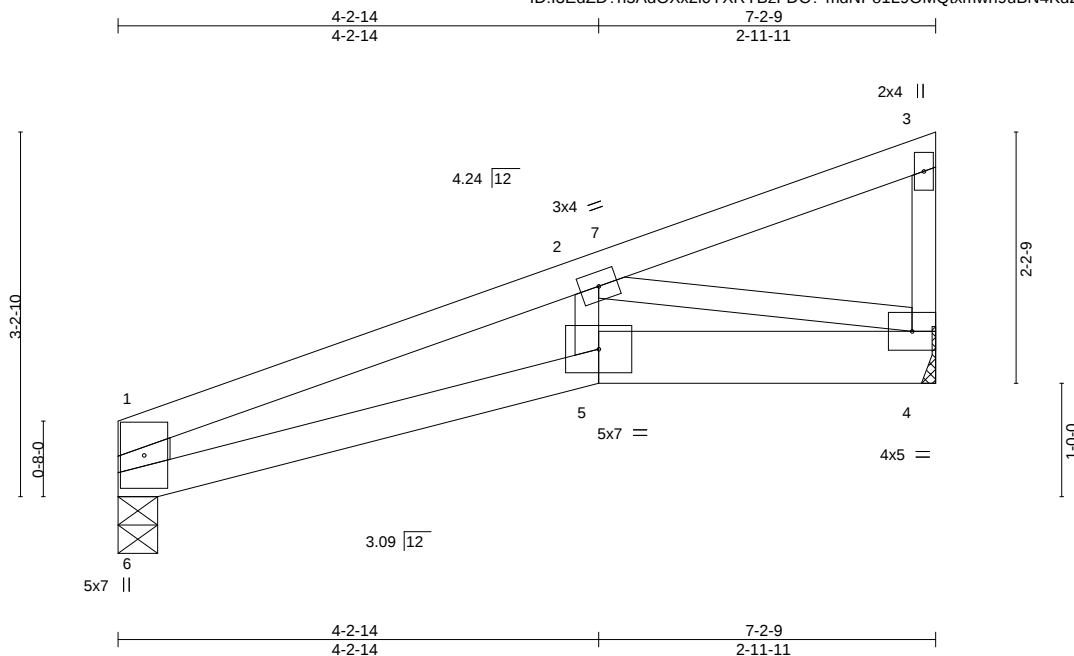
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 39 HT	I41355790
400305	J10	Diagonal Hip Girder	1	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS 66871

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ID:I3EdZD?h5AdOXx2i0YXRYBzFDC?-mdNPo1L9OMQtxmwh9uBN4Kd2ja25S2R7ceiXBCzEyKD



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 0.39	Vert(LL)	-0.05	5	>999	360	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.54	Vert(CT)	-0.09	5	>882	240		
BCLL 0.0 *	Rep Stress Incr	NO	WB 0.20	Horz(CT)	0.03	4	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-S	Wind(LL)	0.05	5	>999	240	Weight: 24 lb	FT = 10%

LUMBER-

TOP CHORD 2x4 SPF No.2
 BOT CHORD 2x6 SPF No.2 *Except*
 5-6: 2x4 SPF No.2
 WEBS 2x3 SPF No.2 *Except*
 1-6: 2x6 SPF No.2

BRACING-

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

REACTIONS.

(size) 6=0-4-3, 4=Mechanical
 Max Horz 6=109(LC 5)
 Max Uplift 6=-62(LC 4), 4=-96(LC 8)
 Max Grav 6=363(LC 1), 4=384(LC 1)

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

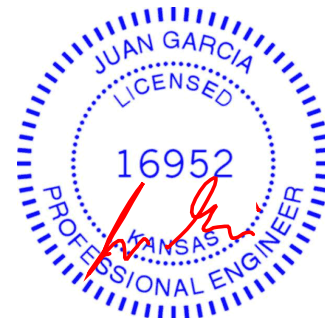
TOP CHORD 1-6=-451/128, 1-2=-825/194
 BOT CHORD 5-6=-217/735, 4-5=-212/753
 WEBS 2-5=-27/318, 2-4=-749/230

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.
- Bearing at joint(s) 6 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 62 lb uplift at joint 6 and 96 lb uplift at joint 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) 69 lb down and 37 lb up at 4-5-10, and 69 lb down and 38 lb up at 4-5-10 on top chord, and 71 lb down and 34 lb up at 4-2-14, and 56 lb down and 31 lb up at 4-2-14 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
- In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

LOAD CASE(S) Standard

- Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
 Uniform Loads (plf)
 Vert: 1-3=-70, 5-6=-20, 4-5=-20



May 19, 2020

Continued on page 2

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16023 Swingley Ridge Rd
 Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 39 HT	I41355790
400305	J10	Diagonal Hip Girder	1	1	Job Reference (optional)	

LOAD CASE(S) Standard
Concentrated Loads (lb)
Vert: 5=-127(F=-71, B=-56)

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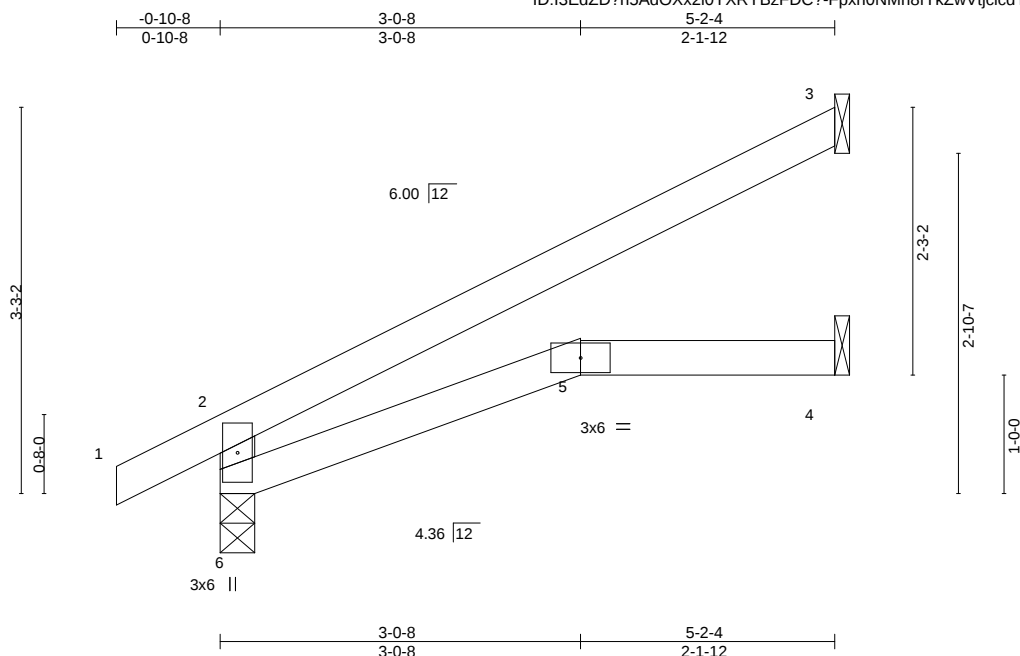


16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 39 HT	I41355791
400305	J11	Jack-Open	2	1		
Job Reference (optional)						

Wheeler Lumber, Waverly, KS 66871

8.240 s Mar 9 2020 MiTek Industries, Inc. Tue May 19 10:51:13 2020 Page 1
ID:13EdZD?h5AdOXx2i0YXRYBzFDC?Fpxn0NMn8fYkZwVtjicdY9EV_TPBtGrlS4jezEykC



Scale = 1:19.4

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 0.38	Vert(LL)	-0.03	5	>999	360	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.21	Vert(CT)	-0.07	5-6	>907	240		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.00	Horz(CT)	0.02	3	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-R	Wind(LL)	0.03	5-6	>999	240		
									Weight: 14 lb	FT = 10%

LUMBER-

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

BRACING-

TOP CHORD Structural wood sheathing directly applied or 5-2-4 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.

REACTIONS. (size) 6=0-3-8, 3=Mechanical, 4=Mechanical
Max Horz 6=113(LC 8)
Max Uplift 6=32(LC 8), 3=-86(LC 8)
Max Grav 6=303(LC 1), 3=156(LC 1), 4=94(LC 3)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-6=-264/80

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.
- Bearing at joint(s) 6 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 32 lb uplift at joint 6 and 86 lb uplift at joint 3.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



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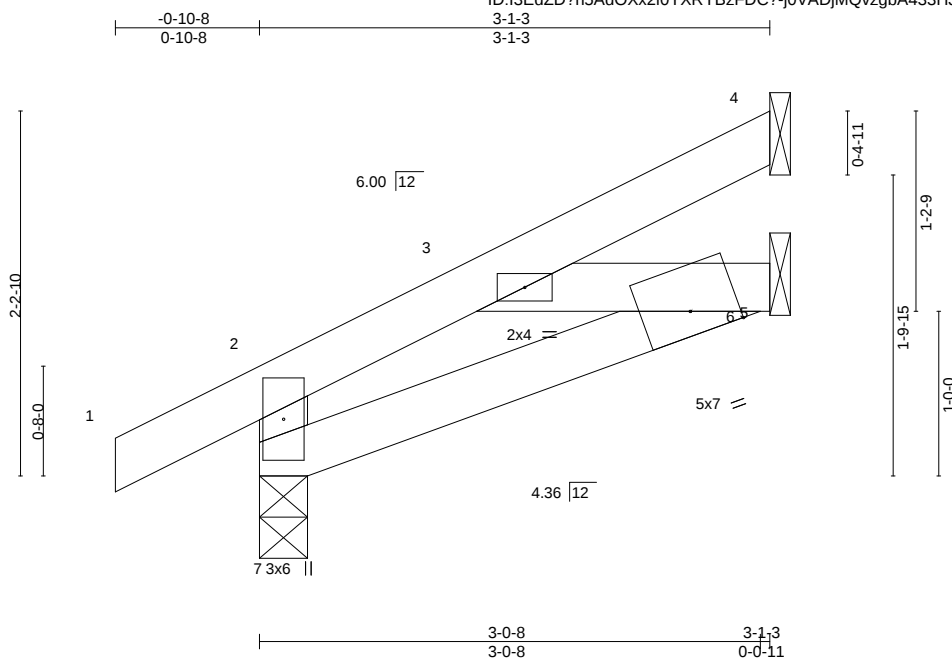
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 39 HT	I41355792
400305	J12	Jack-Open	3	1		
Job Reference (optional)						

Wheeler Lumber, Waverly, KS 66871

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Scale = 1:14.0

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 0.09	Vert(LL)	-0.00	3	>999	360	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.07	Vert(CT)	-0.00	6-7	>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-R	Wind(LL)	0.00	3	>999	240		
									Weight: 11 lb	FT = 10%

LUMBER-

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

BRACING-

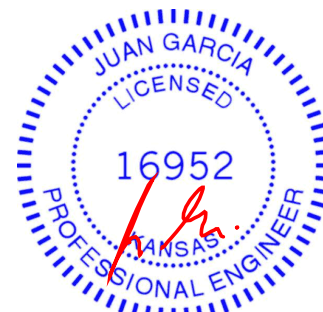
TOP CHORD Structural wood sheathing directly applied or 3-1-3 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) 7=0-3-8, 4=Mechanical, 6=Mechanical
Max Horz 7=70(LC 8)
Max Uplift 7=-20(LC 8), 4=-28(LC 8), 6=-2(LC 8)
Max Grav 7=224(LC 1), 4=59(LC 1), 6=112(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) Bearing at joint(s) 7 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 20 lb uplift at joint 7, 28 lb uplift at joint 4 and 2 lb uplift at joint 6.
- 7) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



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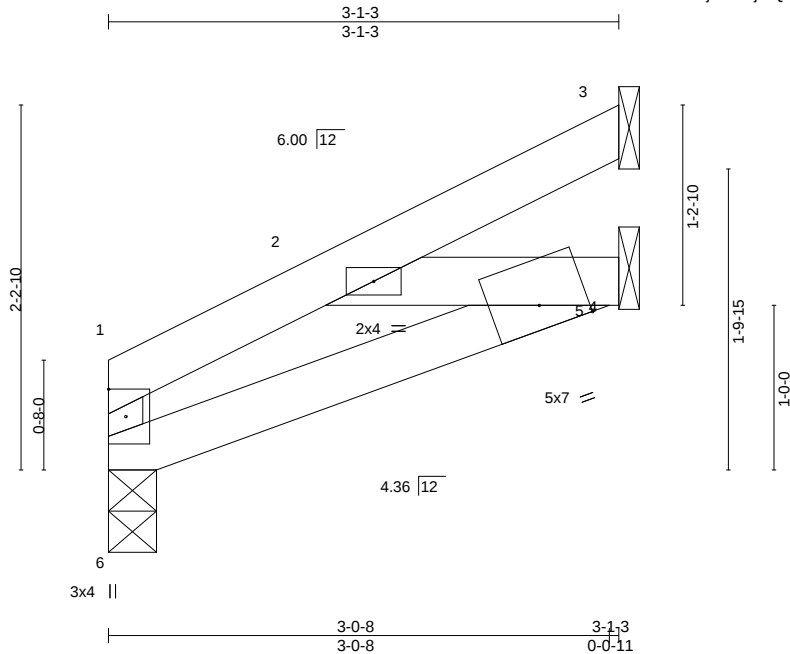
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 39 HT	I41355793
400305	J13	Jack-Open	1	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS 66871

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ID:I3EdZD?h5AdOXx2i0YXRYBzFDC?-j0VADjMQvzgbA433HJDr9liSKOrtw?7P4yBeF4zEyKB



Scale = 1:14.0

Plate Offsets (X,Y)-- [1:0-0-10,0-1-4], [6:0-0-7,0-1-4]												
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	0.12	Vert(LL)	-0.00	2	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.07	Vert(CT)	-0.00	5-6	>999	240		
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		Wind(LL)	0.00	2	>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

BRACING-

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

REACTIONS.

(size) 6=0-3-8, 3=Mechanical, 5=Mechanical
Max Horz 6=53(LC 8)
Max Uplift 3=-28(LC 8), 5=-6(LC 8)
Max Grav 6=141(LC 1), 3=58(LC 1), 5=117(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.
- Bearing at joint(s) 6 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 28 lb uplift at joint 3 and 6 lb uplift at joint 5.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



May 19,2020

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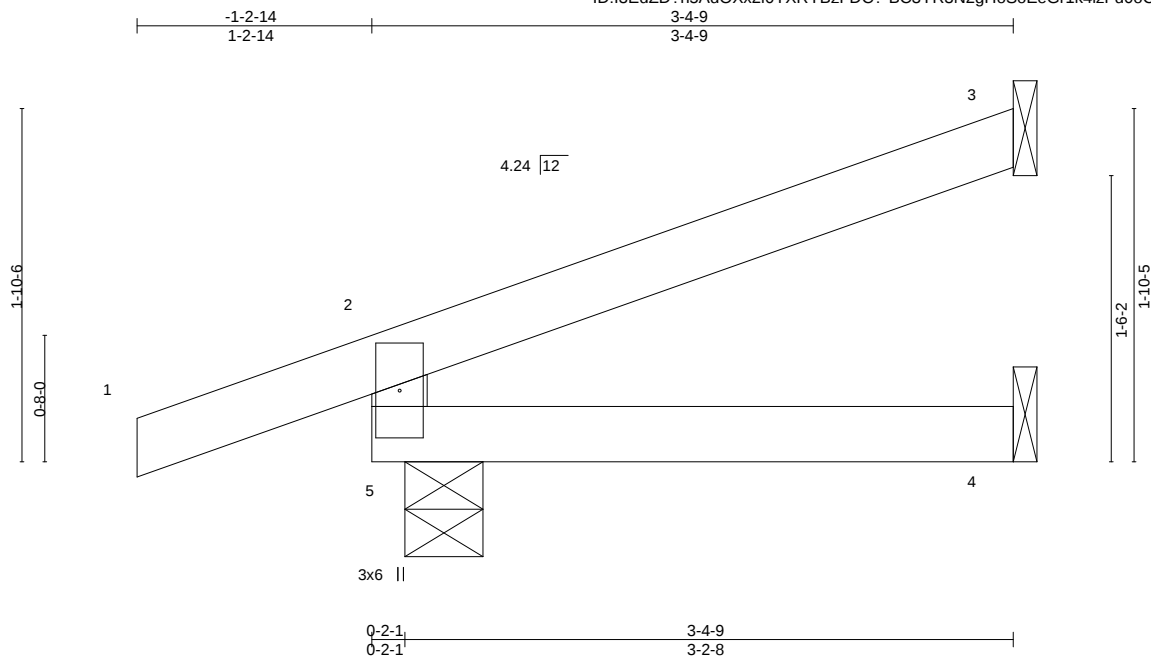
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 39 HT	I41355794
400305	J14	Diagonal Hip Girder	1	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS 66871

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ID:13EdZD?h5AdOXx2i0YXRYBzFDC?-BC3YR3N2gHoSoEeGr1k4izFd0oCGfSNZlCxBoXzEyK



Scale = 1:12.1

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 0.13	Vert(LL)	-0.00	4-5	>999	360	MT20	197/144
BCLL 10.0	Lumber DOL	1.15	BC 0.06	Vert(CT)	-0.01	4-5	>999	240		
BCLL 0.0 *	Rep Stress Incr	NO	WB 0.00	Horz(CT)	-0.00	3	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-R	Wind(LL)	0.00	4-5	>999	240	Weight: 10 lb	FT = 10%

LUMBER-

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

BRACING-

TOP CHORD Structural wood sheathing directly applied or 3-4-9 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) 5=0-4-15, 3=Mechanical, 4=Mechanical
Max Horz 5=73(LC 12)
Max Uplift 5=95(LC 6), 3=-51(LC 12), 4=-1(LC 19)
Max Grav 5=116(LC 1), 3=50(LC 1), 4=44(LC 3)

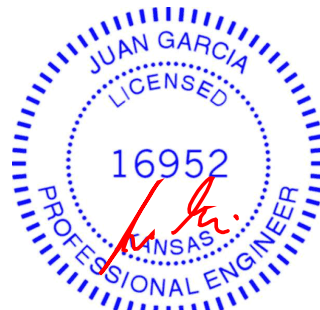
FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.

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 95 lb uplift at joint 5, 51 lb uplift at joint 3 and 1 lb uplift at joint 4.
- 6) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 7) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 25 lb down and 9 lb up at -1-2-14, and 25 lb down and 9 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).

LOAD CASE(S) Standard

- 1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
Concentrated Loads (lb)
Vert: 1=-38(F=-19, B=-19)
Trapezoidal Loads (plf)
Vert: 1=0(F=35, B=35)-to-2=-24(F=23, B=23), 2=-3(F=34, B=34)-to-3=-59(F=5, B=5), 5=0(F=10, B=10)-to-4=-17(F=2, B=2)



May 19, 2020

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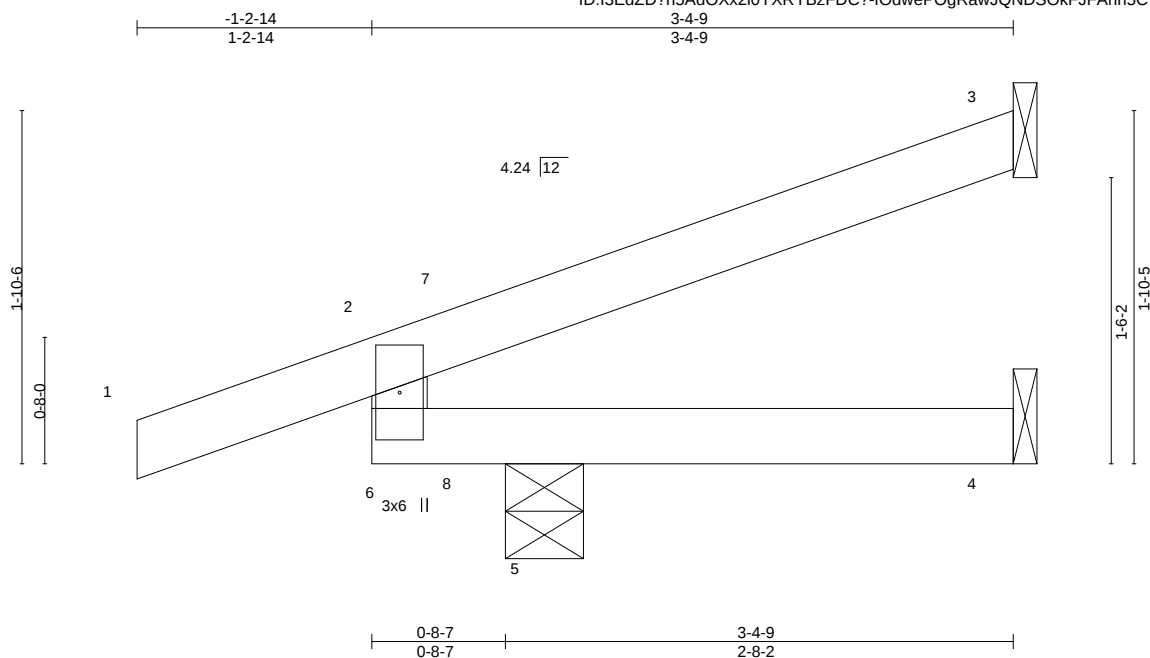
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 39 HT	I41355795
400305	J15	Diagonal Hip Girder	1	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS 66871

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ID:I3EdZD?h5AdOXx2i0YXRYBzFDC?-fOdwePOgRawJQNDSoKfJFAnn5CVaOvdiXGglKzzEyK9



Scale = 1:12.1

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 0.17	Vert(LL)	0.00	4-5	>999	360	MT20	197/144
BCLL 10.0	Lumber DOL	1.15	BC 0.18	Vert(CT)	0.01	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	Wind(LL)	-0.01	4-5	>999	240		
									Weight: 10 lb	FT = 10%

LUMBER-

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

BRACING-

TOP CHORD Structural wood sheathing directly applied or 3-4-9 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) 3=Mechanical, 4=Mechanical, 5=0-4-15
Max Horz 5=76(LC 12)
Max Uplift 3=-57(LC 12), 4=-22(LC 1), 5=-130(LC 6)
Max Grav 3=23(LC 1), 4=26(LC 4), 5=165(LC 1)

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; TCCL=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 57 lb uplift at joint 3, 22 lb uplift at joint 4 and 130 lb uplift at joint 5.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 31 lb down and 12 lb up at -1-2-14, and 31 lb down and 12 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).

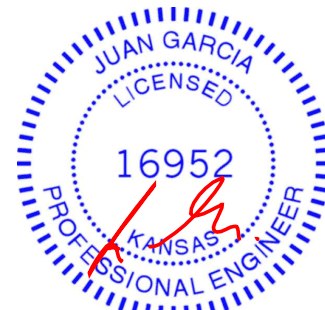
LOAD CASE(S) Standard

- Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
Concentrated Loads (lb)

Vert: 1=-48(F=-24, B=-24)

Trapezoidal Loads (plf)

Vert: 1=0(F=35, B=35)-to-2=-24(F=23, B=23), 2=-24(F=23, B=23)-to-7=-31(F=19, B=19), 7=0(F=35, B=35)-to-3=-49(F=10, B=10), 6=0(F=10, B=10)-to-8=-6(F=7, B=7), 8=0(F=10, B=10)-to-4=-14(F=3, B=3)



May 19, 2020

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job 400305	Truss J16	Truss Type Jack-Open	Qty 3	Ply 1	Lot 39 HT Job Reference (optional)
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I41355796

Wheeler Lumber, Waverly, KS 66871

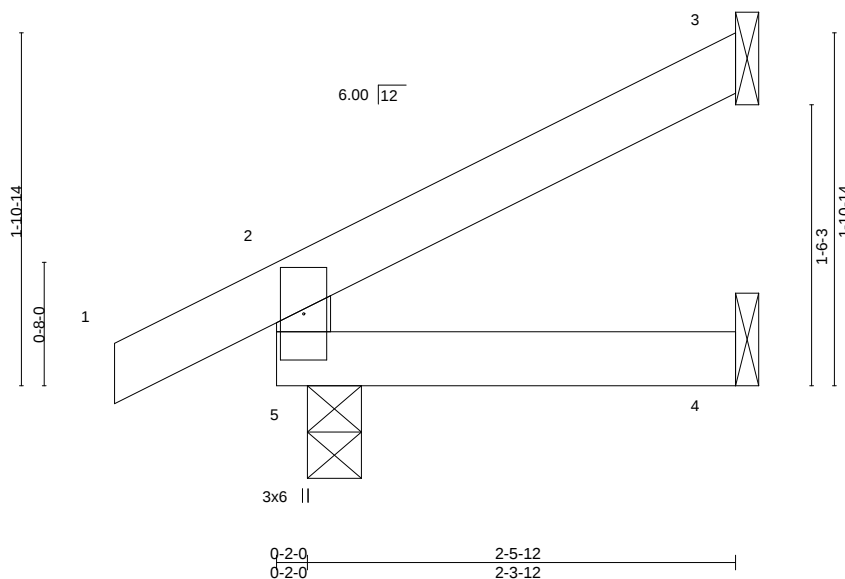
8.240 s Mar 9 2020 MiTek Industries, Inc. Tue May 19 10:51:16 2020 Page 1

ID:I3EdZD7h5AdOXx2i0YXRYBzFDC?-fOdwePOgRawJQNDSOkFJFAnoeCXqOvdiXGglKzzEyk9

-0-10-8
0-10-8

2-5-12
2-5-12

Scale = 1:12.4



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	4-5	>999	360	MT20	197/144
BCLL 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 0.00	Horz(CT)	-0.00	3	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-R	Wind(LL)	0.00	4-5	>999	240	Weight: 7 lb	FT = 10%

LUMBER-

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

BRACING-

TOP CHORD Structural wood sheathing directly applied or 2-5-12 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=58(LC 8)
Max Uplift 5=-27(LC 8), 3=-40(LC 8)
Max Grav 5=190(LC 1), 3=64(LC 1), 4=42(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 27 lb uplift at joint 5 and 40 lb uplift at joint 3.
- 6) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



May 19, 2020

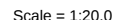
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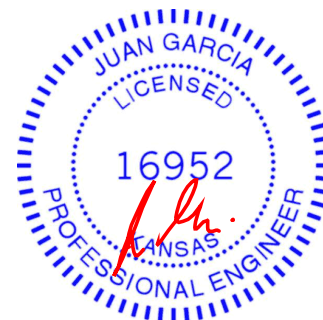
16023 Swingley Ridge Rd
Chesterfield, MO 63017

8.240 s Mar 9 2020 MiTek Industries, Inc. Tue May 19 10:51:17 2020 Page 1
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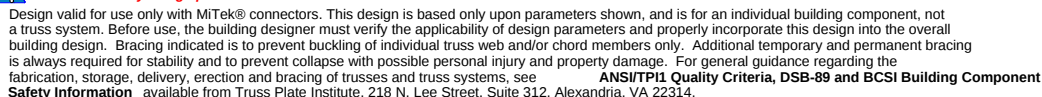


TOP CHORD	Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.
BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing.

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



May 19, 2020



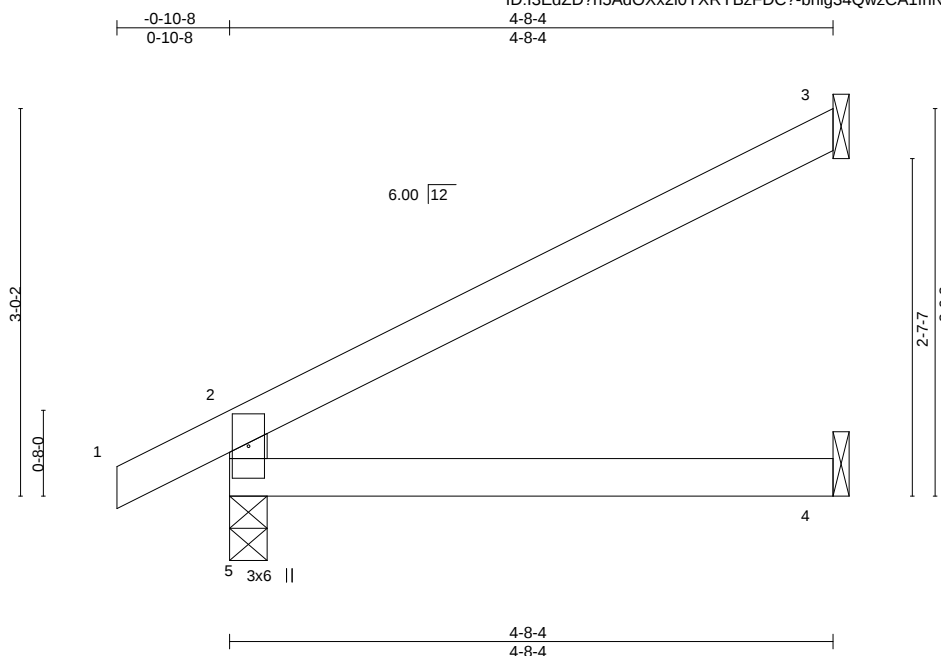
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 39 HT	I41355798
400305	J18	Jack-Open	11	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS 66871

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Scale = 1:17.9

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 0.30	Vert(LL)	-0.02	4-5	>999	360	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.18	Vert(CT)	-0.04	4-5	>999	240		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.00	Horz(CT)	0.01	3	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-R	Wind(LL)	0.02	4-5	>999	240	Weight: 13 lb	FT = 10%

LUMBER-

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

BRACING-

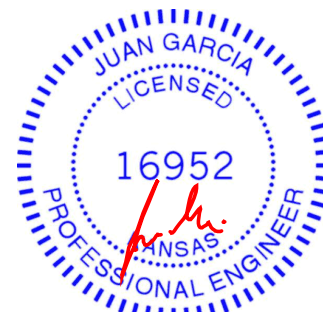
TOP CHORD Structural wood sheathing directly applied or 4-8-4 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) 5=0-3-8, 3=Mechanical, 4=Mechanical
Max Horz 5=72(LC 8)
Max Uplift 3=46(LC 8)
Max Grav 5=281(LC 1), 3=139(LC 1), 4=84(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); 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 46 lb uplift at joint 3.
- 6) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



May 19, 2020

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 39 HT	I41355799
400305	J19	Jack-Open	5	1	Job Reference (optional)	

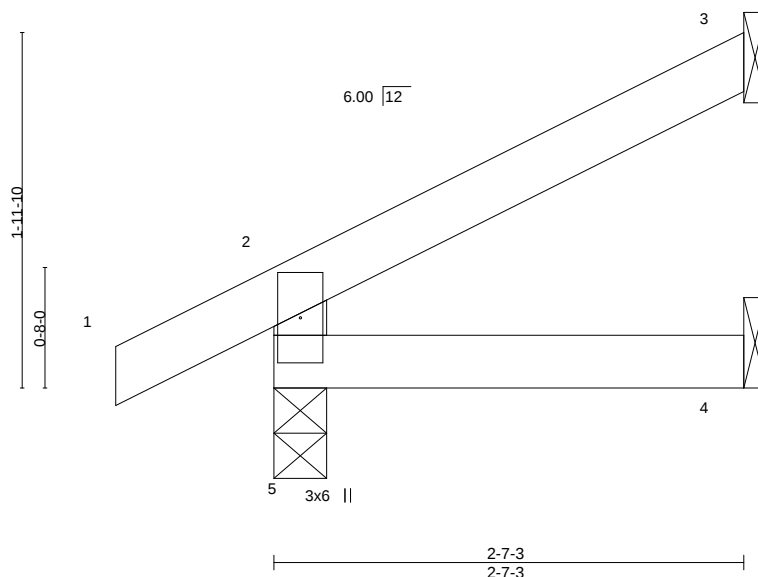
Wheeler Lumber, Waverly, KS 66871

8.240 s Mar 9 2020 MiTek Industries, Inc. Tue May 19 10:51:19 2020 Page 1

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0-10-8 2-7-3
0-10-8 2-7-3

Scale = 1:12.7



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 0.07	Vert(LL)	-0.00	4-5	>999	360	MT20	197/144
BCLL 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 0.00	Horz(CT)	-0.00	3	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-R	Wind(LL)	0.00	4-5	>999	240	Weight: 8 lb	FT = 10%

LUMBER-

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

BRACING-

TOP CHORD Structural wood sheathing directly applied or 2-7-3 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=61(LC 8)
Max Uplift 5=-27(LC 8), 3=-42(LC 8)
Max Grav 5=194(LC 1), 3=68(LC 1), 4=44(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 27 lb uplift at joint 5 and 42 lb uplift at joint 3.
- 6) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



May 19, 2020

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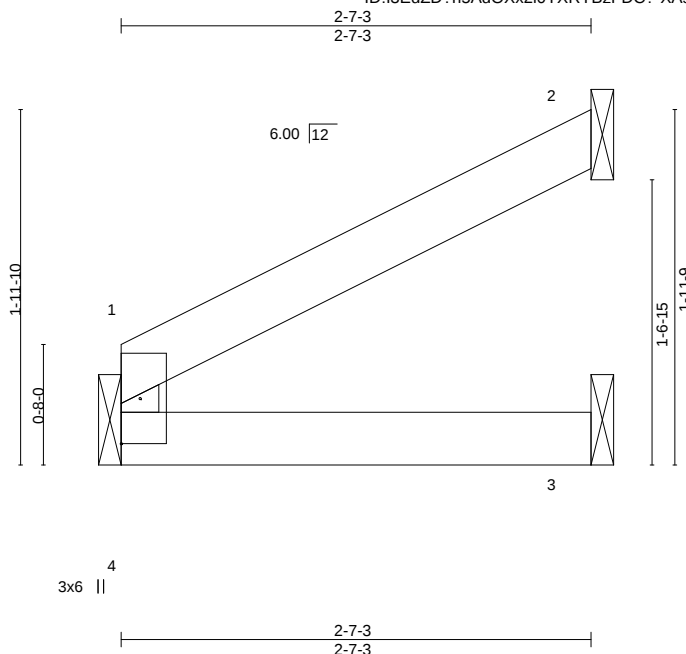
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job 400305	Truss J20	Truss Type Jack-Open	Qty 1	Ply 1	Lot 39 HT Job Reference (optional)	I41355800
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Wheeler Lumber, Waverly, KS 66871

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ID: I3EdZD?h5AdOXx2i0YXRYBzFDC?-XAsRUMRAVpQku?XDdaKFP0yUKpvaKjclSueyTkzEyk5



Scale = 1:12.7

Plate Offsets (X,Y)-- [1:0-0-10,0-1-4], [4:0-0-0,0-1-4]												
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	0.09	Vert(LL)	-0.00	3-4	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.05	Vert(CT)	-0.00	3-4	>999	240		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.00	Horz(CT)	0.00	2	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-R		Wind(LL)	0.00	3-4	>999	240	Weight: 7 lb	FT = 10%

LUMBER-

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

BRACING-

TOP CHORD Structural wood sheathing directly applied or 2-7-3 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS.

(size) 4=Mechanical, 2=Mechanical, 3=Mechanical
Max Horz 4=44(LC 8)
Max Uplift 2=-46(LC 8)
Max Grav 4=109(LC 1), 2=80(LC 1), 3=47(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 46 lb uplift at joint 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.



May 19, 2020

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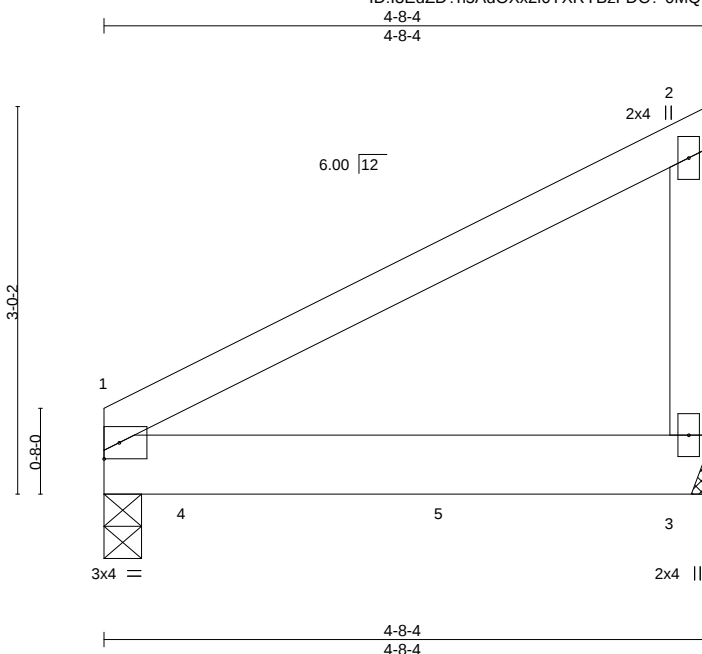
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 39 HT	I41355801
400305	J21	Jack-Closed Girder	1	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS 66871

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ID:13EdZD?h5AdOXx2i0YXRYBzFDC?-0Mqph6SpG7YbW96PBHrUyEVZ5D2a3AsRhYOV?AzEyk4



Scale = 1:17.9

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 0.47	Vert(LL)	-0.07	1-3	>810	360	MT20
TCDL 10.0	Lumber DOL	1.15	BC 0.83	Vert(CT)	-0.12	1-3	>447	240	197/144
BCLL 0.0 *	Rep Stress Incr	NO	WB 0.00	Horz(CT)	-0.00	3	n/a	n/a	
BCDL 10.0	Code IRC2018/TPI2014		Matrix-P	Wind(LL)	0.05	1-3	>999	240	
								Weight: 20 lb	FT = 10%

LUMBER-

TOP CHORD 2x4 SPF No.2
BOT CHORD 2x6 SP DSS
WEBS 2x4 SPF No.2

BRACING-

TOP CHORD Structural wood sheathing directly applied or 4-8-4 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 5-2-6 oc bracing.

REACTIONS.

(size) 1=0-3-8, 3=Mechanical
Max Horz 1=106(LC 5)
Max Uplift 1=-117(LC 8), 3=-180(LC 8)
Max Grav 1=890(LC 1), 3=1100(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 117 lb uplift at joint 1 and 180 lb uplift at joint 3.
- 6) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 7) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 93 lb down and 16 lb up at 0-9-0, and 1501 lb down and 221 lb up at 2-9-0 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: 1-2=-70, 1-3=-20
Concentrated Loads (lb)
Vert: 4=-93(B) 5=-1501(B)



May 19, 2020

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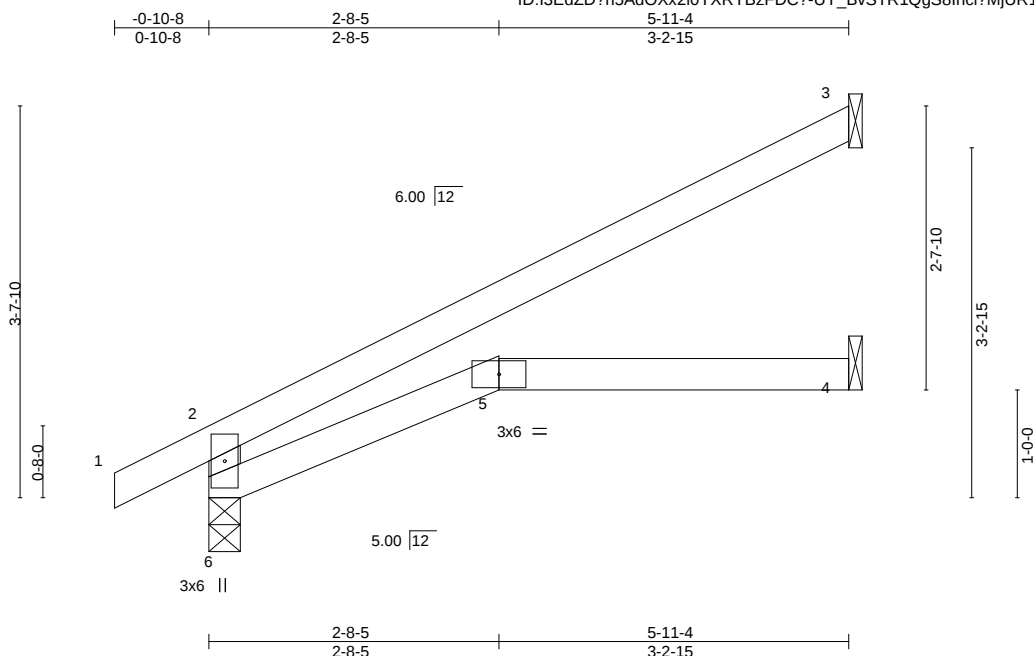
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 39 HT	I41355802
400305	J22	Jack-Open	4	1		

Wheeler Lumber, Waverly, KS 66871

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Scale = 1:21.4

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 0.53	Vert(LL)	-0.05	4-5	>999	360	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.29	Vert(CT)	-0.11	4-5	>600	240		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.00	Horz(CT)	0.05	4	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-R	Wind(LL)	0.04	5	>999	240		
									Weight: 16 lb	FT = 10%

LUMBER-

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

BRACING-

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

REACTIONS. (size) 6=0-3-8, 3=Mechanical, 4=Mechanical
Max Horz 6=89(LC 8)
Max Uplift 3=59(LC 8)
Max Grav 6=336(LC 1), 3=180(LC 1), 4=108(LC 3)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-6=-292/46

NOTES-

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope); cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 3) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 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) Bearing at joint(s) 6 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 59 lb uplift at joint 3.
- 7) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



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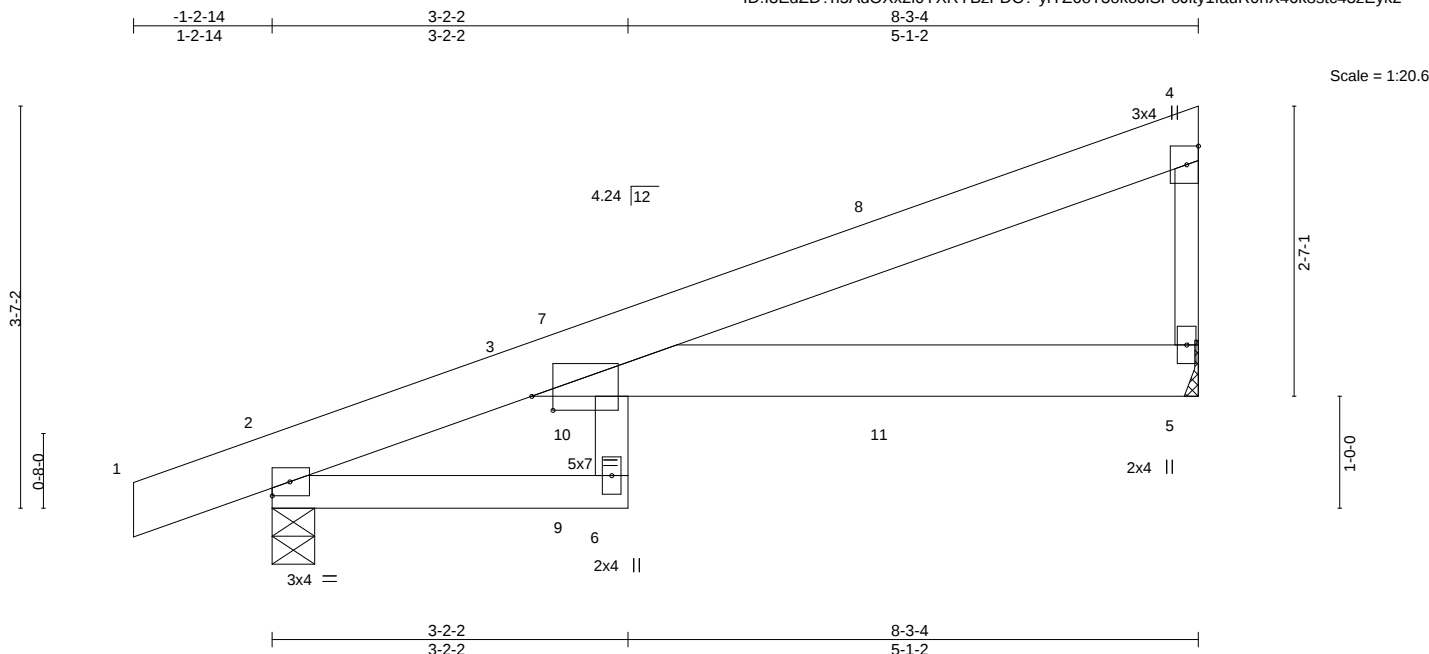
16023 Swingley Ridge Rd
Chesterfield, MO 63017

16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 39 HT	I41355804
400305	J24	Diagonal Hip Girder	1	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS 66871

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ID:I3EdZD?h5AdOXx2i0YXRYBzFDC?-yIYZ6oT3okoJISFoJity1fauR0riX46k8stc43zEyK2



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 0.55	Vert(LL)	-0.11	6	>860	360	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.34	Vert(CT)	-0.21	6	>466	240		
BCLL 0.0 *	Rep Stress Incr	NO	WB 0.02	Horz(CT)	0.08	5	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-S	Wind(LL)	0.12	6	>802	240	Weight: 35 lb	FT = 10%

LUMBER-

TOP CHORD 2x6 SPF No.2
BOT CHORD 2x6 SPF No.2 *Except*
2-6: 2x4 SPF No.2
WEBS 2x3 SPF No.2 *Except*
3-6: 2x4 SPF No.2

BRACING-

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

REACTIONS.

(size) 5=Mechanical, 2=0-4-9
Max Horz 2=128(LC 5)
Max Uplift 5=118(LC 8), 2=134(LC 4)
Max Grav 5=402(LC 1), 2=500(LC 1)

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

TOP CHORD 4-5=-256/102

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 118 lb uplift at joint 5 and 134 lb uplift at joint 2.
- 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) 68 lb down and 34 lb up at 2-8-7, 68 lb down and 34 lb up at 2-8-7, and 93 lb down and 55 lb up at 5-6-6, and 93 lb down and 55 lb up at 5-6-6 on top chord, and 3 lb down and 1 lb up at 2-8-7, 3 lb down and 1 lb up at 2-8-7, and 28 lb down and 31 lb up at 5-6-6, and 28 lb down and 31 lb up at 5-6-6 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
- In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

LOAD CASE(S) Standard

- Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (plf)
Vert: 1-4=-70, 2-6=-20, 3-5=-20
Concentrated Loads (lb)
Vert: 8=-17(F=-8, B=-8) 9=3(F=1, B=1) 11=-56(F=-28, B=-28)



May 19, 2020

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 39 HT	I41355806
400305	LAY1	GABLE	1	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS 66871

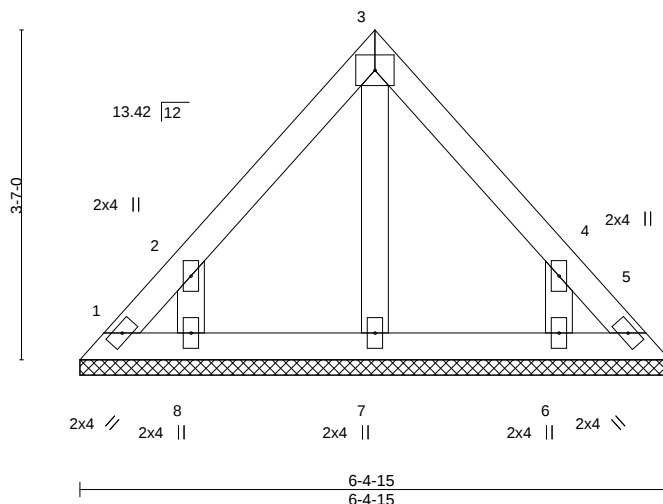
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3-2-8 3-2-8 6-4-15 3-2-8

4x5 =

Scale = 1:25.0



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 0.05	Vert(LL)	n/a	-	n/a	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.03	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: 22 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 6-4-15.
(lb) - Max Horz 1=-87(LC 4)
Max Uplift All uplift 100 lb or less at joint(s) 1, 5 except 8=-141(LC 8), 6=-141(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=141, 6=141.
- 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.



May 19, 2020

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 39 HT	I41355807
400305	LAY2	GABLE	1	1		

Wheeler Lumber, Waverly, KS 66871

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4x5 =

Scale = 1:60.6

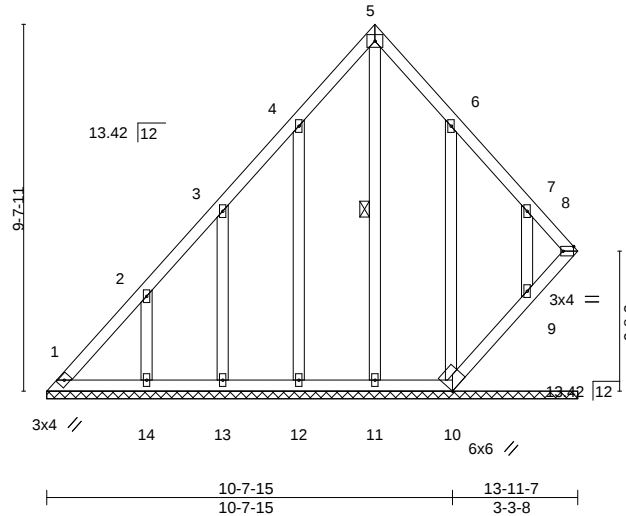


Plate Offsets (X,Y)-- [8:Edge,0-1-8]

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 0.08	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 0.15	Horz(CT)	0.00	8	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-S						Weight: 78 lb	FT = 10%

LUMBER-

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

BRACING-

TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 1 Row at midpt 5-11

REACTIONS.

All bearings 13-11-7.
(lb) - Max Horz 1=245(LC 8)
Max Uplift All uplift 100 lb or less at joint(s) 1 except 8=-134(LC 7), 12=-140(LC 8), 13=-128(LC 8),
14=-168(LC 8), 10=-281(LC 9), 9=-120(LC 9)
Max Grav All reactions 250 lb or less at joint(s) 1, 11, 12, 13, 9 except 8=256(LC 9), 14=258(LC 15), 10=262(LC 16)

FORCES.

(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-2=-350/197

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
- All plates are 2x4 MT20 unless otherwise indicated.
- 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 except (jt=lb) 8=134, 12=140, 13=128, 14=168, 10=281, 9=120.
- Beveled plate or shim required to provide full bearing surface with truss chord at joint(s) 8, 9.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



May 19,2020

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 10/03/2015 BEFORE USE.

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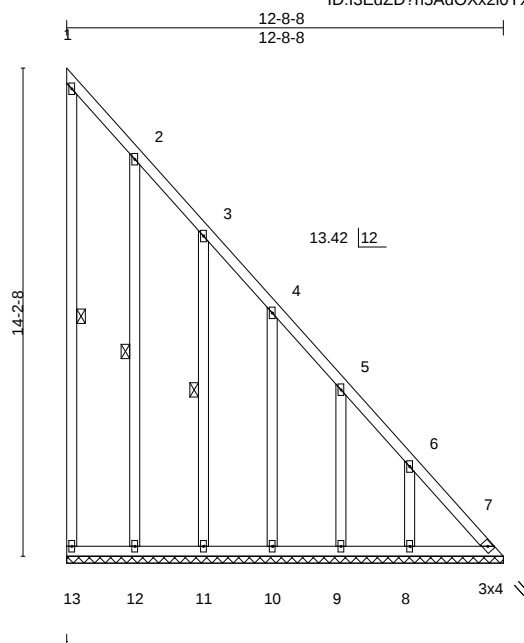


16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 39 HT
400305	LAY3	GABLE	2	1	I41355808
Job Reference (optional)					

Wheeler Lumber, Waverly, KS 66871

8.240 s Mar 9 2020 MiTek Industries, Inc. Tue May 19 10:51:32 2020 Page 1
ID:I3EdZD?h5AdOXx2i0YXRYBzFDC?-BTbz?taigVx1LrSXK5Y3uYSXAe_S86F3DIYbt2zEyjv



Scale = 1:67.0

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 0.10	Vert(LL)	n/a	-	n/a	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.11	Vert(CT)	n/a	-	n/a		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.15	Horz(CT)	0.01	7	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-S						
									Weight: 91 lb FT = 10%

LUMBER-

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

BRACING-

TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 1 Row at midpt 1-13, 2-12, 3-11

REACTIONS.

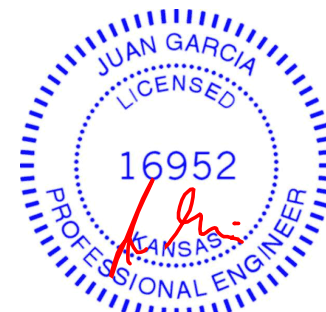
All bearings 12-8-8.
(lb) - Max Horz 13=-558(LC 9)
Max Uplift All uplift 100 lb or less at joint(s) 13 except 7=-166(LC 7), 12=-137(LC 9), 11=-137(LC 9), 10=-138(LC 9), 9=-125(LC 9), 8=-174(LC 9)
Max Grav All reactions 250 lb or less at joint(s) 13, 12, 11, 10, 9 except 7=557(LC 9), 8=267(LC 16)

FORCES.

(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 3-4=-339/141, 4-5=-477/195, 5-6=-607/242, 6-7=-772/313
BOT CHORD 12-13=-214/558, 11-12=-214/558, 10-11=-214/558, 9-10=-214/558, 8-9=-214/558, 7-8=-214/558

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 right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 2) All plates are 2x4 MT20 unless otherwise indicated.
- 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) 13 except (jt=lb) 7=166, 12=137, 11=137, 10=138, 9=125, 8=174.
- 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.



May 19,2020

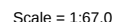
WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 10/03/2015 BEFORE USE.

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

8.240 s Mar 9 2020 MiTek Industries, Inc. Tue May 19 10:51:33 2020 Page 1
AdOXx2i0YXRYBzFDC?-fq9LDDbKBp3uv?0iup3IRm i 2KhtZWCRPI8PUzEviu



LUMBER-		BRACING-	
TOP CHORD	2x4 SPF No.2	TOP CHORD	Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.
BOT CHORD	2x4 SPF No.2		
WEBS	2x4 SPF No.2	BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing.
OTHERS	2x4 SPF No.2	WEBS	1 Row at midpt 1-13, 2-12, 3-11

REACTIONS. All bearings 12-4-8.
 (lb) - Max Horz 13=-558(LC 9)
 Max Uplift All uplift 100 lb or less at joint(s) 13 except 7=-184(LC 7), 12=-137(LC 9), 11=-137(LC 9), 10=-137(LC 9), 9=-126(LC 9), 8=-209(LC 9)
 Max Grav All reactions 250 lb or less at joint(s) 13, 12, 11, 10, 9 except 7=597(LC 9), 8=267(LC 16)

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

TOP CHORD	3-4=-339/141, 4-5=-477/195, 5-6=-608/243, 6-7=-800/324
BOT CHORD	12-13=-214/558, 11-12=-214/558, 10-11=-214/558, 9-10=-214/558, 8-9=-214/558, 7-8=-214/558

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 right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 2) All plates are 2x4 MT20 unless otherwise indicated.
- 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) 13 except (jt=lb) 7=184, 12=137, 11=137, 10=137, 9=126, 8=209.
- 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.



May 19, 2020



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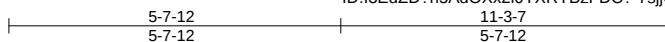
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 39 HT	I41355810
400305	LAY5	GABLE	1	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS 66871

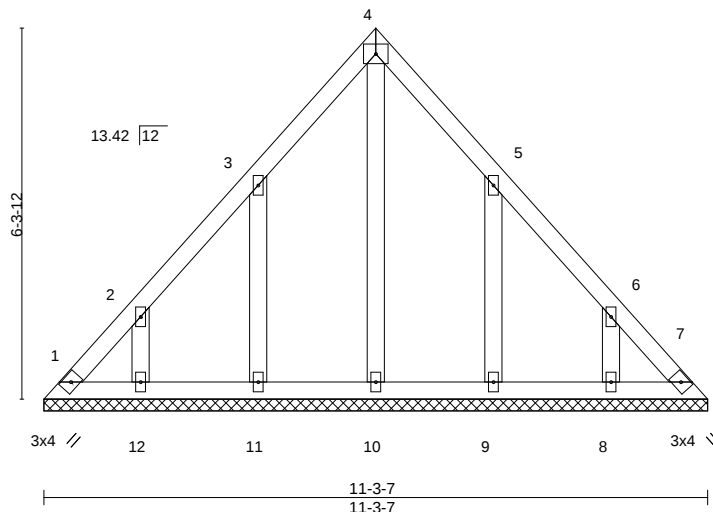
8.240 s Mar 9 2020 MiTek Industries, Inc. Tue May 19 10:51:34 2020 Page 1

ID:I3EdZD?h5AdOXx2i0YXRYBzFDC?-7sjjQZcyC6Bla9bvSWaXzzXuMShDc12Mg31hywzEyt



4x5 =

Scale = 1:39.2



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 0.05	Vert(LL)	n/a	-	n/a	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.03	Vert(CT)	n/a	-	n/a		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.07	Horz(CT)	0.00	7	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-S					Weight: 49 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 11-3-7.
(lb) - Max Horz 1=-160(LC 4)
Max Uplift All uplift 100 lb or less at joint(s) 1, 7 except 11=-145(LC 8), 12=-124(LC 8), 9=-144(LC 9), 8=-125(LC 9)
Max Grav All reactions 250 lb or less at joint(s) 1, 7, 10, 11, 12, 9, 8

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
- All plates are 2x4 MT20 unless otherwise indicated.
- 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, 7 except (jt=lb) 11=145, 12=124, 9=144, 8=125.
- 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.



May 19, 2020

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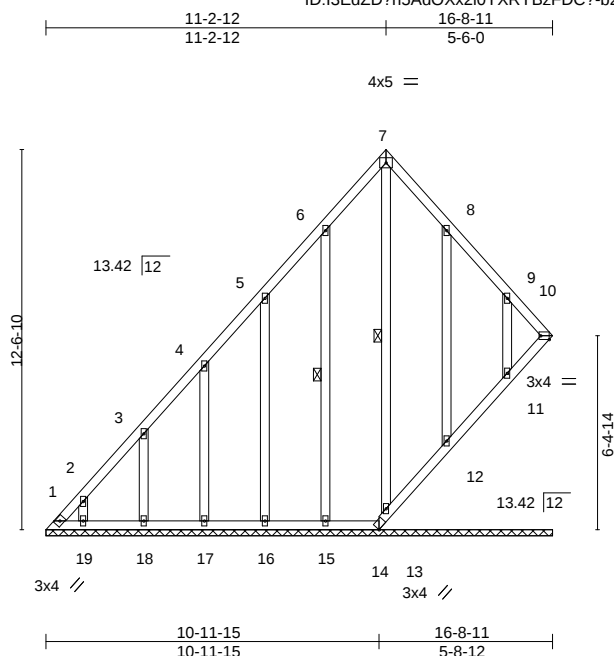


16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 39 HT	I41355811
400305	LAY6	GABLE	1	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS 66871

8.240 s Mar 9 2020 MiTek Industries, Inc. Tue May 19 10:51:35 2020 Page 1
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Scale = 1:76.1

Plate Offsets (X,Y)--		[10:Edge,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 0.07	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC 0.04	Vert(CT)	n/a	-	n/a	999		
BCLL	0.0 *	Rep Stress Incr	YES	WB 0.17	Horz(CT)	0.01	10	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-S						Weight: 105 lb	FT = 10%

LUMBER-

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

BRACING-

TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 1 Row at midpt 7-13, 6-15

REACTIONS.

All bearings 16-8-11.
(lb) - Max Horz 1=360(LC 8)
Max Uplift All uplift 100 lb or less at joint(s) except 1=-184(LC 6), 10=-139(LC 7), 14=-155(LC 9), 15=-133(LC 8), 16=-140(LC 8), 17=-134(LC 8), 18=-140(LC 8), 19=-114(LC 8), 12=-134(LC 9), 11=-129(LC 9)
Max Grav All reactions 250 lb or less at joint(s) 10, 14, 13, 15, 16, 17, 18, 19, 12, 11 except 1=406(LC 8)

FORCES.

(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-2=-546/268, 2-3=-442/230, 3-4=-301/175

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
- All plates are 2x4 MT20 unless otherwise indicated.
- 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 184 lb uplift at joint 1, 139 lb uplift at joint 10, 155 lb uplift at joint 14, 133 lb uplift at joint 15, 140 lb uplift at joint 16, 134 lb uplift at joint 17, 140 lb uplift at joint 18, 114 lb uplift at joint 19, 134 lb uplift at joint 12 and 129 lb uplift at joint 11.
- Beveled plate or shim required to provide full bearing surface with truss chord at joint(s) 10, 13, 12, 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.



May 19,2020

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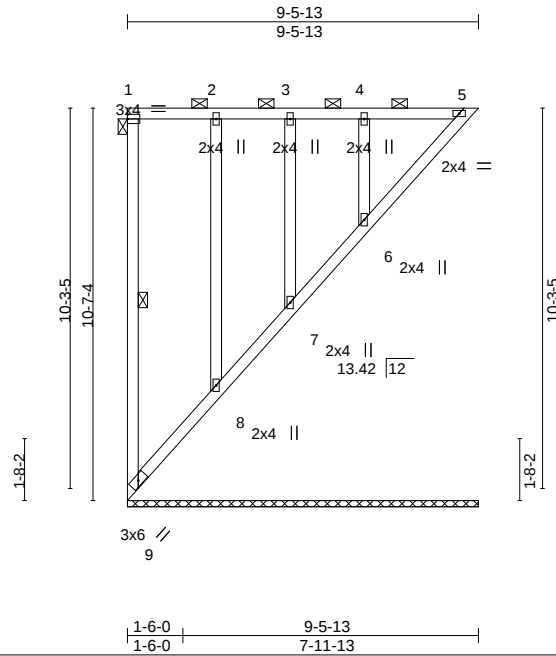
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 39 HT
400305	LAY7	GABLE	1	1	I41355812
Job Reference (optional)					

Wheeler Lumber, Waverly, KS 66871

8.240 s Mar 9 2020 MiTek Industries, Inc. Tue May 19 10:51:36 2020 Page 1

ID:13EdZD?h5AdOXx2i0YXRYBzFDC?-3FqUrEdDkkRTpSIIzxc?2Oc7?GJT4wyf7NW00pzEyr



Scale = 1:62.2

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 0.49	Vert(LL)	n/a	-	n/a	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.23	Vert(CT)	n/a	-	n/a		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.17	Horz(CT)	0.01	5	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-S					Weight: 55 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 (6-0-0 max.): 1-5, except end verticals.
BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.
WEBS 1 Row at midpt 1-9

REACTIONS.

All bearings 9-5-13.
(lb) - Max Horz 9=-286(LC 6)
Max Uplift All uplift 100 lb or less at joint(s) 8, 7, 6 except 9=-147(LC 6), 5=-141(LC 5)
Max Grav All reactions 250 lb or less at joint(s) 9, 5, 8, 7 except 6=259(LC 1)

FORCES.

(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
BOT CHORD 8-9=-213/290

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) Bearing at joint(s) 9 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- 7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 8, 7, 6 except (jt=lb) 9=147, 5=141.
- 8) Beveled plate or shim required to provide full bearing surface with truss chord at joint(s) 9, 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.
- 11) Gap between inside of top chord bearing and first diagonal or vertical web shall not exceed 0.500in.



May 19, 2020

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

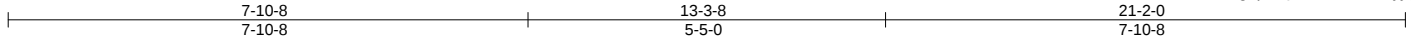
Job	Truss	Truss Type	Qty	Ply	Lot 39 HT	I41355813
400305	V1	Valley	1	1		

Wheeler Lumber, Waverly, KS 66871

8.240 s Mar 9 2020 MiTek Industries, Inc. Tue May 19 10:51:37 2020 Page 1

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Job Reference (optional)



Scale = 1:34.9

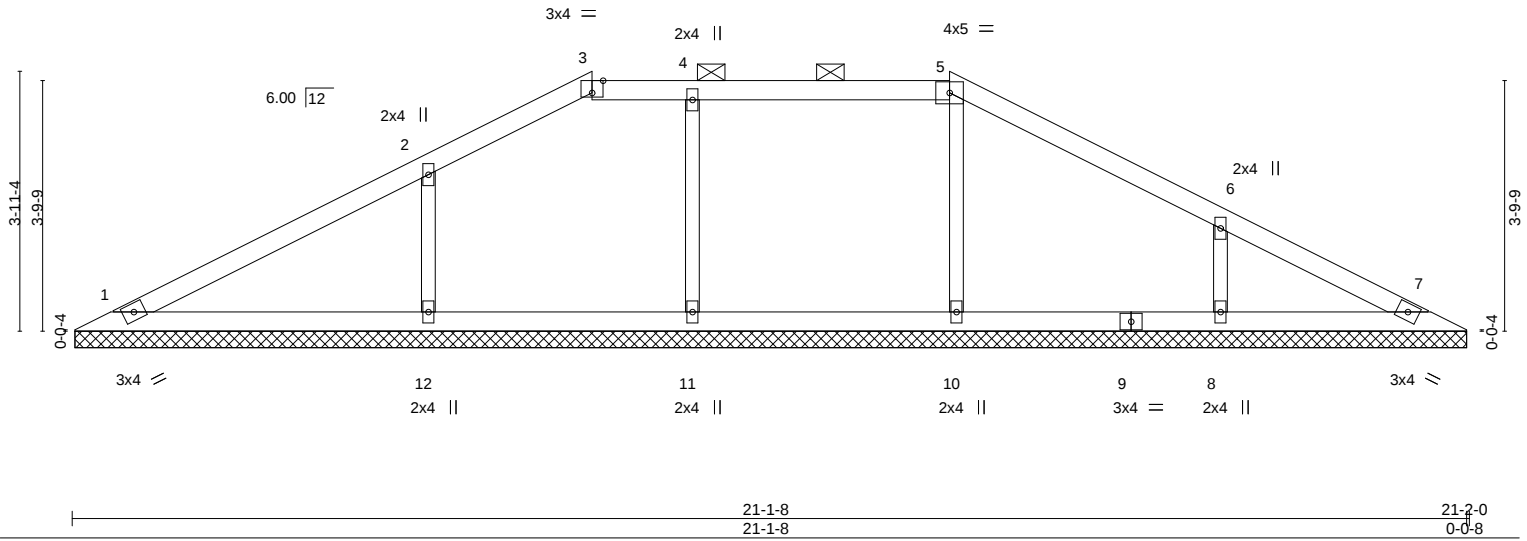


Plate Offsets (X,Y)--		[3:0-2-0,Edge]									
LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0		Plate Grip DOL	1.15	TC 0.26		Vert(LL)	n/a	-	n/a	MT20	197/144
TCDL 10.0		Lumber DOL	1.15	BC 0.15		Vert(CT)	n/a	-	n/a		
BCLL 0.0 *		Rep Stress Incr	YES	WB 0.09		Horz(CT)	0.00	7	n/a		
BCDL 10.0		Code IRC2018/TPI2014		Matrix-S						Weight: 57 lb	FT = 10%

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

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

REACTIONS. All bearings 21-1-0.
(lb) - Max Horz 1=63(LC 9)
Max Uplift All uplift 100 lb or less at joint(s) 1, 10, 11 except 12=125(LC 8), 8=122(LC 9)
Max Grav All reactions 250 lb or less at joint(s) 1, 7 except 10=340(LC 22), 11=342(LC 21), 12=451(LC 21), 8=379(LC 22)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
WEBS 5-10=-258/76, 4-11=-273/105, 2-12=-337/176, 6-8=-296/166

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.
- 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, 10, 11 except (jt=lb) 12=125, 8=122.
- 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.



May 19,2020

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 39 HT	I41355814
400305	V2	Valley	1	1		

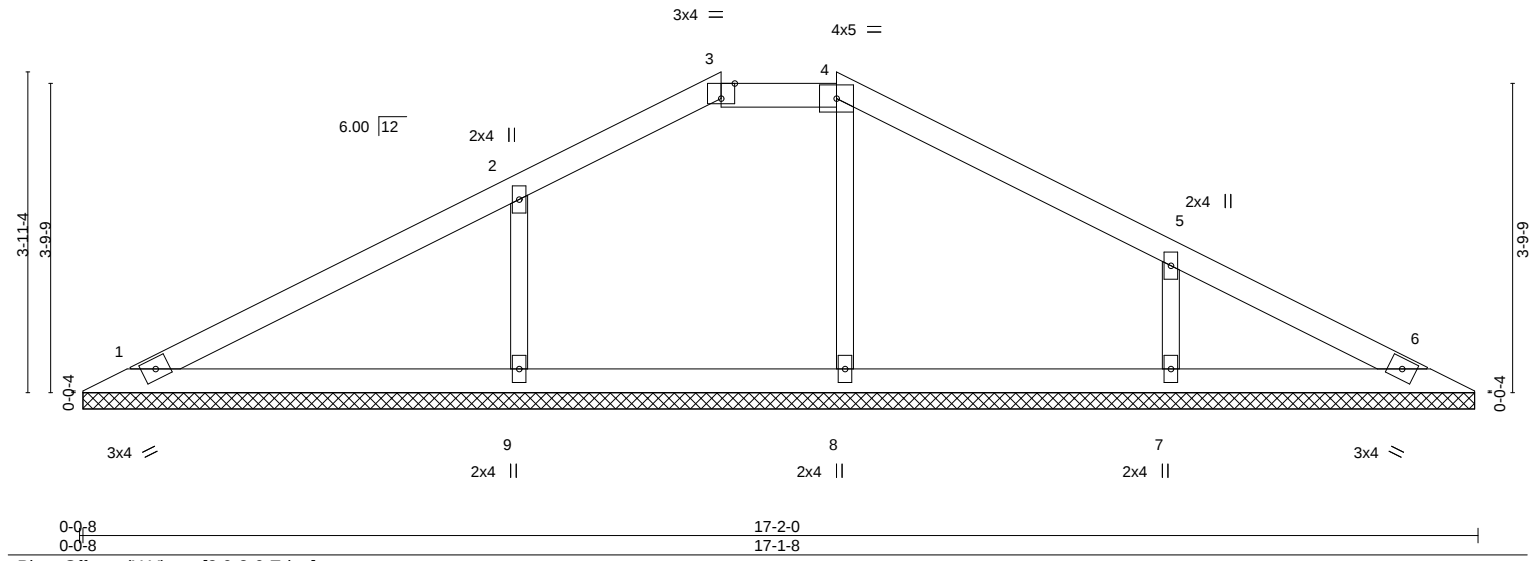
Wheeler Lumber, Waverly, KS 66871

8.240 s Mar 9 2020 MiTek Industries, Inc. Tue May 19 10:51:43 2020 Page 1

ID:13EdZD?h5AdOXx2i0YXRYBzFDC?-Mbl7Jdjc4tKU9XneUvEertPNn4jPD69hkzjgmVzEyjk

Job Reference (optional)
17-2-0
7-10-8

Scale = 1:28.3



LOADING (psf)		SPACING-		CSI.		DEFL.		PLATES		GRIP	
TCLL	25.0	Plate Grip DOL	1.15	TC	0.27	Vert(LL)	n/a	MT20	197/144		
TCDL	10.0	Lumber DOL	1.15	BC	0.15	Vert(CT)	n/a				
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.07	Horz(CT)	0.00				
BCDL	10.0	Code IRC2018/TPI2014		Matrix-S							

LUMBER-		BRACING-	
TOP CHORD	2x4 SPF No.2	TOP CHORD	Structural wood sheathing directly applied or 6'-0-0 oc purlins, except 2'-0-0 oc purlins (6'-0-0 max.): 3-4.
BOT CHORD	2x4 SPF No.2	BOT CHORD	Rigid ceiling directly applied or 10'-0-0 oc bracing.
OTHERS	2x3 SPF No.2		

REACTIONS.	
All bearings 17-1-0.	
(lb) - Max Horz 1=-63(LC 13)	
Max Uplift All uplift 100 lb or less at joint(s) 1, 8 except 9=-125(LC 8), 7=-124(LC 9)	
Max Grav All reactions 250 lb or less at joint(s) 1, 6 except 8=271(LC 22), 9=458(LC 21), 7=384(LC 22)	

FORCES.	
(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.	
WEBS 2-9=-344/176, 5-7=-299/168	

- 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.
 - 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, 8 except (jt=lb) 9=125, 7=124.
 - 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.



May 19, 2020

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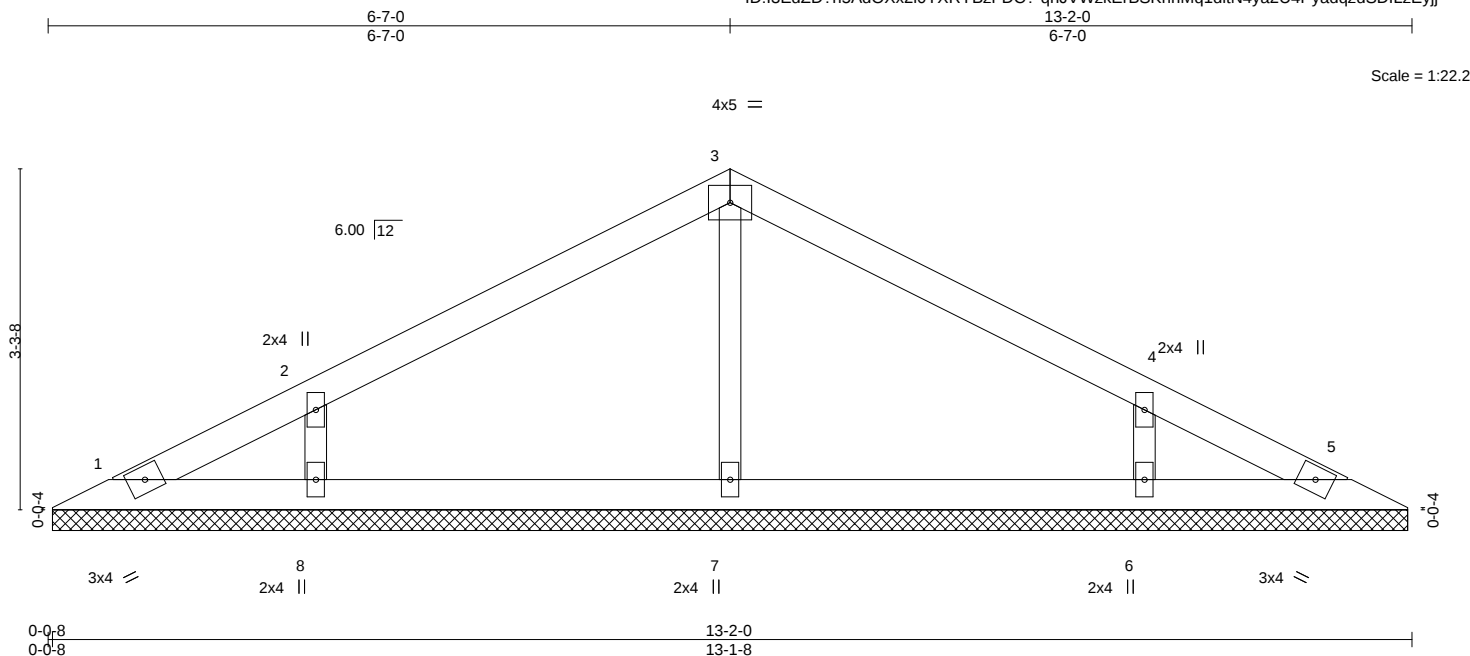


16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 39 HT	I41355815
400305	V3	Valley	1	1		

Wheeler Lumber, Waverly, KS 66871

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ID:I3EdZD?h5AdOXx2i0YXRYBzFDC?-qnJVVWzkErBSKnhMq1dltN4ya2U4PyadqzdSDILzEyjj



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 0.17	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.10	Vert(CT)	n/a	-	n/a	999		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.06	Horz(CT)	0.00	5	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-S						Weight: 33 lb	FT = 10%

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

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

REACTIONS. All bearings 13-1-0.
(lb) - Max Horz 1=53(LC 8)
Max Uplift All uplift 100 lb or less at joint(s) 1 except 8=-109(LC 8), 6=-109(LC 9)
Max Grav All reactions 250 lb or less at joint(s) 1, 5 except 7=314(LC 1), 8=337(LC 21), 6=337(LC 22)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
WEBS 2-8=-272/150, 4-6=-272/150

NOTES-

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCCL=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 except (jt=lb) 8=109, 6=109.
- 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.



May 19, 2020

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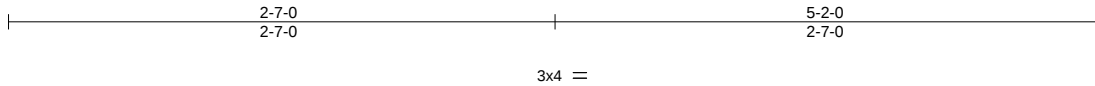


16023 Swingley Ridge Rd
Chesterfield, MO 63017

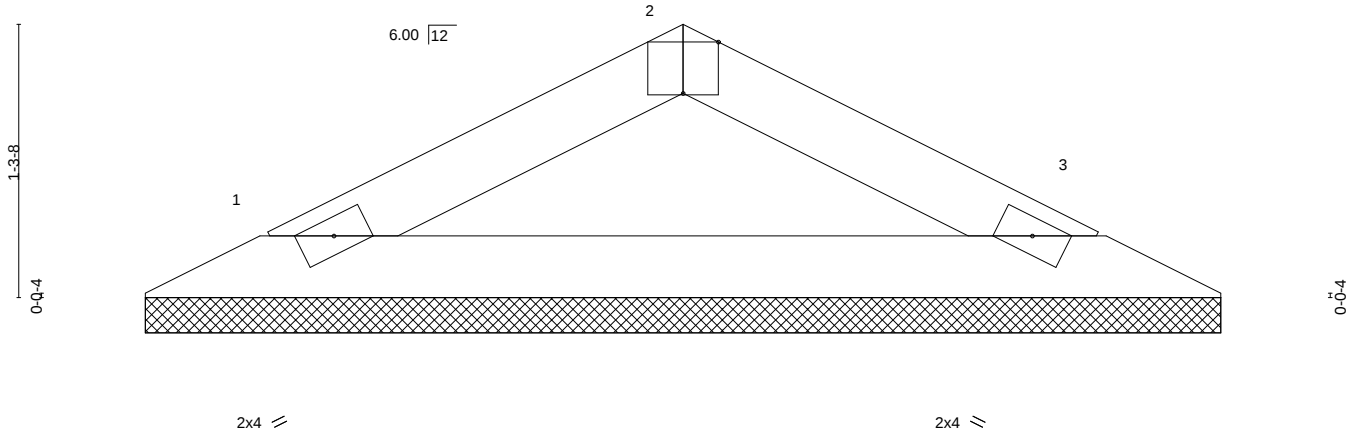
Job	Truss	Truss Type	Qty	Ply	Lot 39 HT	I41355817
400305	V5	Valley	1	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS 66871

8.240 s Mar 9 2020 MiTek Industries, Inc. Tue May 19 10:51:45 2020 Page 1
ID:13EdZD?h5AdOXx2i0YXRYBzFDC?-JztukJkscVaBORx1bKG6wIUnRuPhk0ozCHCnmzEyji



Scale = 1:10.9



				0-0-8					5-2-0		
				0-0-8					5-1-8		
Plate Offsets (X,Y)--				[2:0-2-0,Edge]							
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	999	MT20 197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.16	Vert(CT)	n/a	-	n/a	999	
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							Weight: 11 lb FT = 10%

LUMBER-

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

BRACING-

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

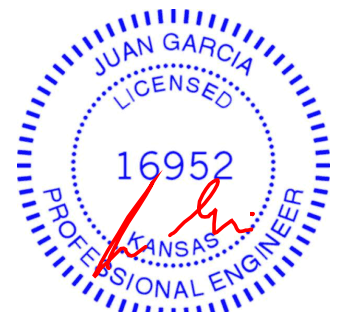
REACTIONS.

(size) 1=5-1-0, 3=5-1-0
Max Horz 1=17(LC 8)
Max Uplift 1=22(LC 8), 3=22(LC 9)
Max Grav 1=176(LC 1), 3=176(LC 1)

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, 3.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



May 19,2020

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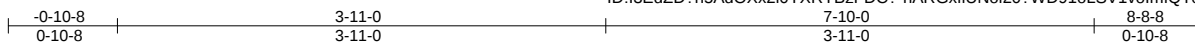
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 39 HT	I41355818
400305	V6	Valley	1	1	Job Reference (optional)	

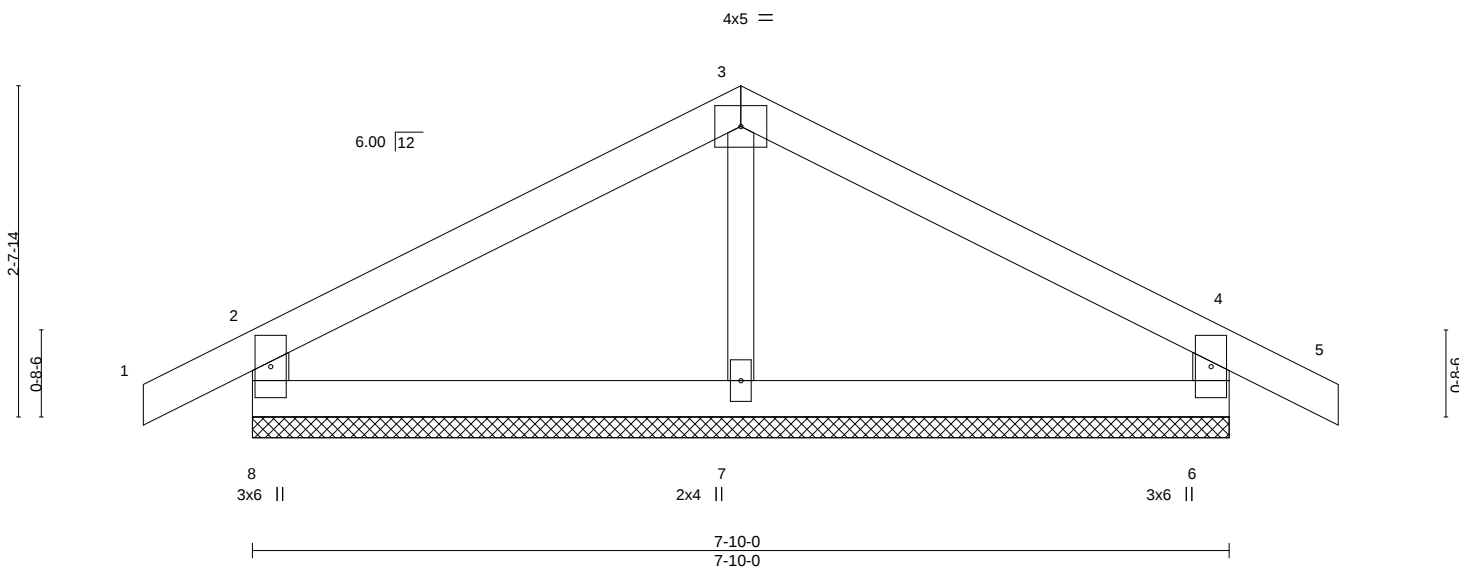
Wheeler Lumber, Waverly, KS 66871

8.240 s Mar 9 2020 MiTek Industries, Inc. Tue May 19 10:51:46 2020 Page 1

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Scale = 1:18.5



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 0.15	Vert(LL)	0.01	5	n/r	120	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.12	Vert(CT)	0.01	5	n/r	120		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.03	Horz(CT)	0.00	6	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-R						Weight: 24 lb	FT = 10%

LUMBER-

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

BRACING-

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

REACTIONS.

(size) 8=7-10-0, 6=7-10-0, 7=7-10-0
Max Horz 8=-48(LC 6)
Max Uplift 8=-88(LC 8), 6=-90(LC 9)
Max Grav 8=300(LC 1), 6=300(LC 1), 7=223(LC 1)

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

TOP CHORD 2-8=-269/111, 4-6=-269/112

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) 8, 6.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 39 HT	I41355819
400305	V7	Valley	1	1	Job Reference (optional)	

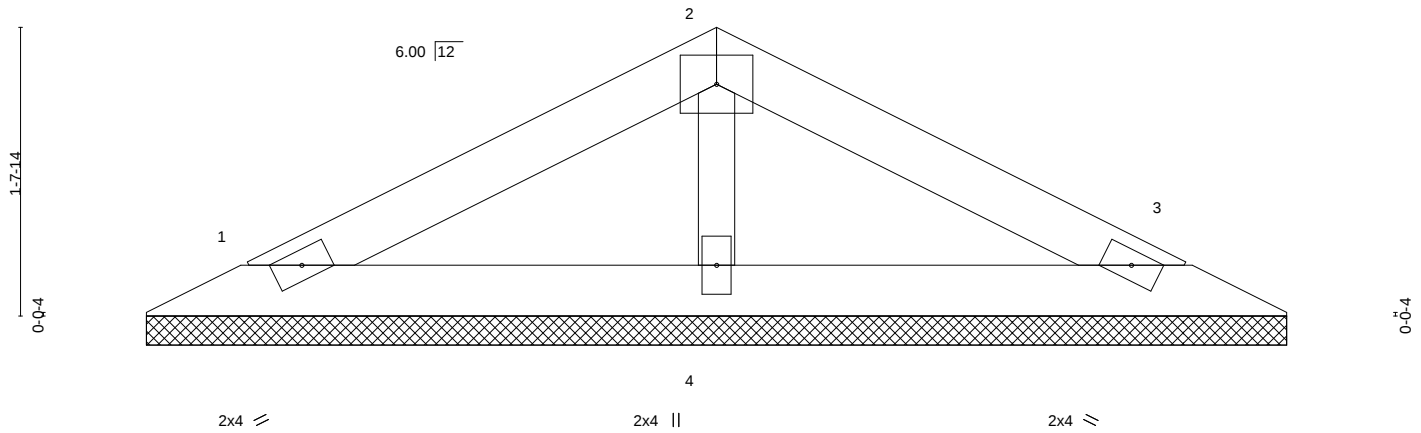
Wheeler Lumber, Waverly, KS 66871

8.240 s Mar 9 2020 MiTek Industries, Inc. Tue May 19 10:51:47 2020 Page 1
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3-3-12 3-3-12 6-7-8 3-3-12

4x5 =

Scale = 1:13.2



0-0-8				6-7-8								
0-0-8				6-7-0								
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	0.13	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL	10.0	Lumber DOL 1.15		BC	0.06	Vert(CT)	n/a	-	n/a	999		
BCLL	0.0 *	Rep Stress Incr YES		WB	0.03	Horz(CT)	0.00	3	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-P							Weight: 15 lb	FT = 10%

LUMBER-

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

BRACING-

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

REACTIONS.

(size) 1=6-6-8, 3=6-6-8, 4=6-6-8
Max Horz 1=-24(LC 9)
Max Uplift 1=-29(LC 8), 3=-33(LC 9), 4=-3(LC 8)
Max Grav 1=126(LC 1), 3=126(LC 1), 4=231(LC 1)

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, 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.



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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 39 HT	I41355820
400305	V8	Valley	1	1	Job Reference (optional)	

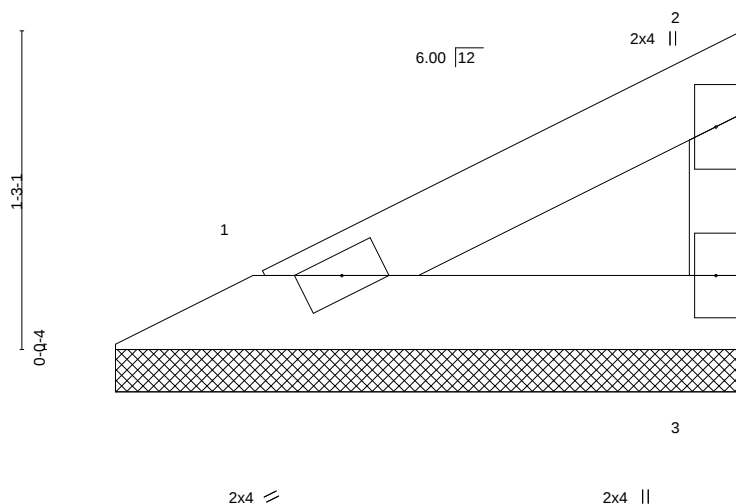
Wheeler Lumber, Waverly, KS 66871

8.240 s Mar 9 2020 MiTek Industries, Inc. Tue May 19 10:51:48 2020 Page 1

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2-6-2
2-6-2

Scale = 1:9.1



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 0.05	Vert(LL)	n/a	-	n/a	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.03	Vert(CT)	n/a	-	n/a		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.00	Horz(CT)	-0.00	3	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-P					Weight: 6 lb	FT = 10%

LUMBER-

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

BRACING-

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

REACTIONS.

(size) 1=2-5-10, 3=2-5-10
Max Horz 1=37(LC 5)
Max Uplift 1=-10(LC 8), 3=-20(LC 8)
Max Grav 1=80(LC 1), 3=80(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) Gable requires continuous bottom chord bearing.
- 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) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 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.



May 19, 2020

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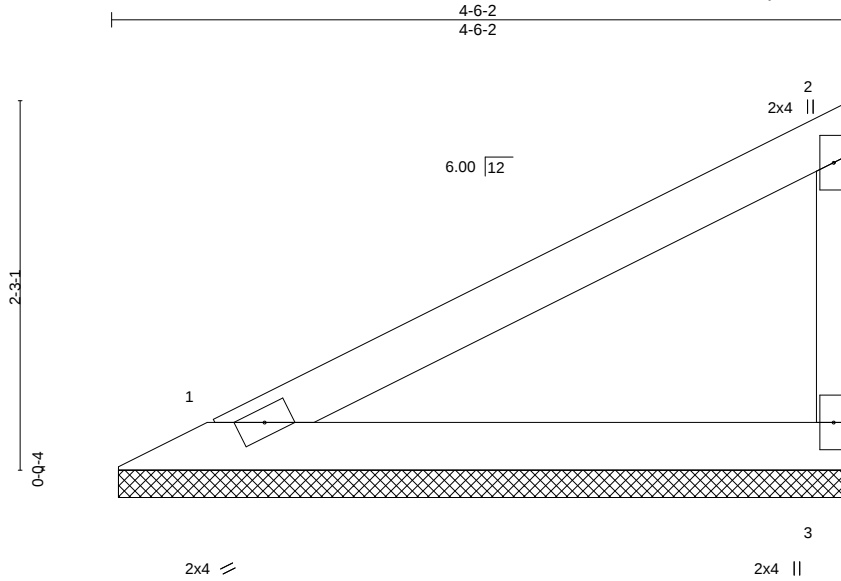
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 39 HT	I41355821
400305	V9	Valley	1	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS 66871

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ID:l3EdZD?h5AdOXx2i0YXRYBzFDC?-jYZ0MLnkVQymFlgcGSqpYw6DY5QjuNYQuFQRR6zEyjf



Scale = 1:14.1

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 0.26	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.14	Vert(CT)	n/a	-	n/a	999		
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						Weight: 11 lb	FT = 10%

LUMBER-

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

BRACING-

TOP CHORD Structural wood sheathing directly applied or 4-6-2 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS.

(size) 1=4-5-10, 3=4-5-10
Max Horz 1=79(LC 5)
Max Uplift 1=-22(LC 8), 3=-42(LC 8)
Max Grav 1=170(LC 1), 3=170(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) Gable requires continuous bottom chord bearing.
- 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) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 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.



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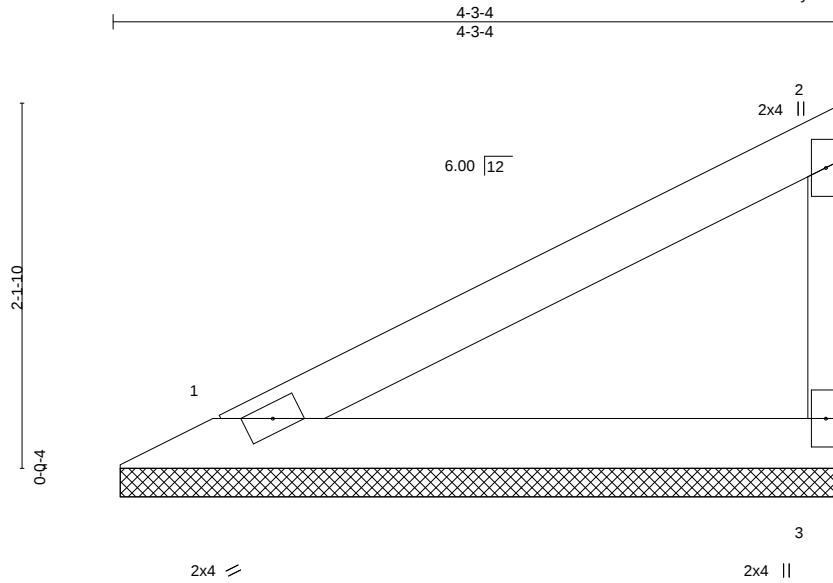
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 39 HT	I41355822
400305	V10	Valley	1	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS 66871

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ID:l3EdZD?h5AdOXx2i0YXRYBzFDC?-0dyEGwFTGLhB3mvhhMeT8piXd31gYs3ybh?v5hzEyjp



Scale = 1:13.5

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 0.23	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.12	Vert(CT)	n/a	-	n/a	999		
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						Weight: 11 lb	FT = 10%

LUMBER-

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

BRACING-

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

REACTIONS.

(size) 1=4-2-12, 3=4-2-12
Max Horz 1=74(LC 5)
Max Uplift 1=-20(LC 8), 3=-39(LC 8)
Max Grav 1=159(LC 1), 3=159(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) Gable requires continuous bottom chord bearing.
- 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) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 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.



May 19, 2020

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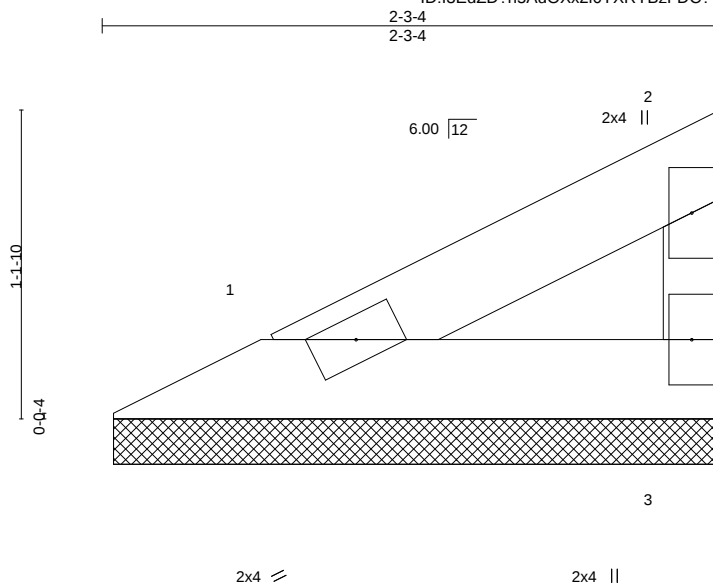
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 39 HT	I41355823
400305	V11	Valley	1	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS 66871

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Scale = 1:8.5

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 0.04	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 0.00	Horz(CT)	-0.00	3	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-P					Weight: 5 lb	FT = 10%

LUMBER-

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

BRACING-

TOP CHORD Structural wood sheathing directly applied or 2-3-4 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) 1=2-2-12, 3=2-2-12
Max Horz 1=32(LC 5)
Max Uplift 1=9(LC 8), 3=17(LC 8)
Max Grav 1=69(LC 1), 3=69(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) Gable requires continuous bottom chord bearing.
- 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) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 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.



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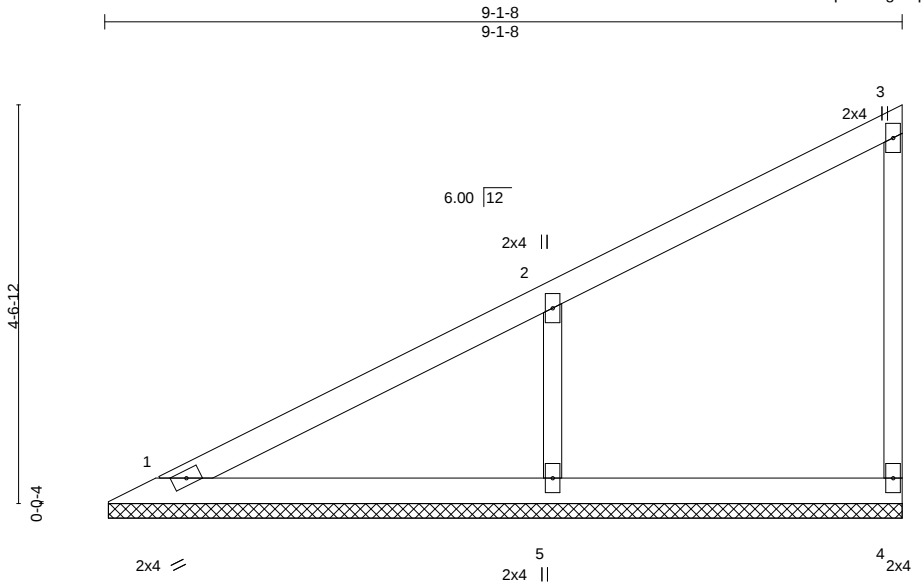
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 39 HT	I41355824
400305	V12	Valley	1	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS 66871

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ID: i3EdZD?h5AdOXx2i0YXRYBzFDC?-UqWcTGg51fp2gwUfF3Aig1EhhTMaHIA5qLISd8zEyjo



Scale = 1:26.4

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 0.27	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.14	Vert(CT)	n/a	-	n/a	999		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.07	Horz(CT)	-0.00	4	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-S						Weight: 26 lb	FT = 10%

LUMBER-

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

BRACING-

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

REACTIONS.

(size) 1=9-1-0, 4=9-1-0, 5=9-1-0
Max Horz 1=175(LC 7)
Max Uplift 4=-28(LC 5), 5=-140(LC 8)
Max Grav 1=160(LC 1), 4=127(LC 1), 5=468(LC 1)

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

WEBS 2-5=-356/189

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) Gable requires continuous bottom chord bearing.
- 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) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 4 except (jt=lb) 5=140.
- 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.



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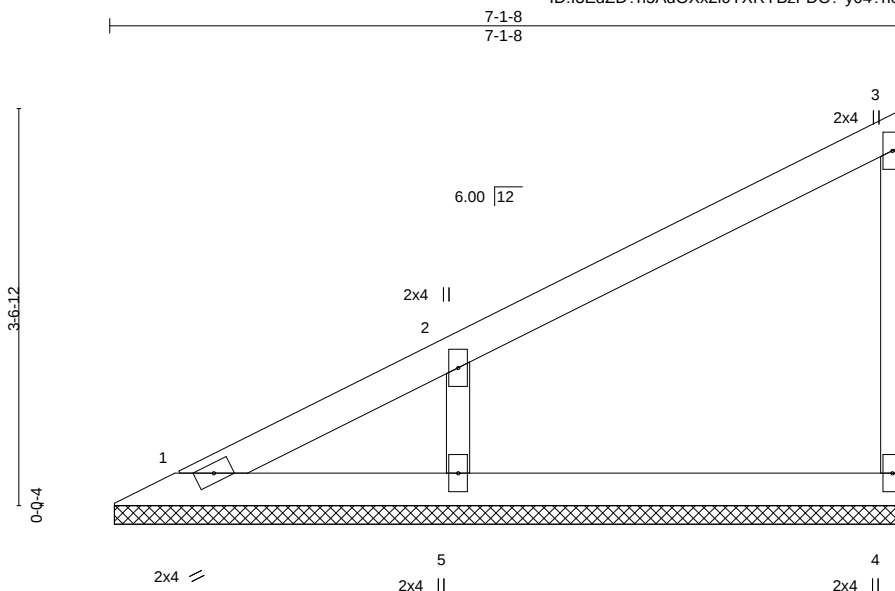


16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 39 HT	I41355825
400305	V13	Valley	1	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS 66871

8.240 s Mar 9 2020 MiTek Industries, Inc. Tue May 19 10:51:40 2020 Page 1
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Scale = 1:20.7

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 0.19	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.10	Vert(CT)	n/a	-	n/a	999		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.05	Horz(CT)	-0.00	4	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-P						Weight: 20 lb	FT = 10%

LUMBER-

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

BRACING-

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

REACTIONS.

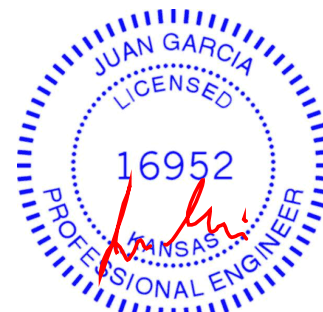
(size) 1=7-1-0, 4=7-1-0, 5=7-1-0
Max Horz 1=133(LC 5)
Max Uplift 4=-27(LC 8), 5=-112(LC 8)
Max Grav 1=76(LC 16), 4=142(LC 1), 5=374(LC 1)

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

WEBS 2-5=-290/162

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) Gable requires continuous bottom chord bearing.
- 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) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 4 except (jt=lb) 5=112.
- 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.



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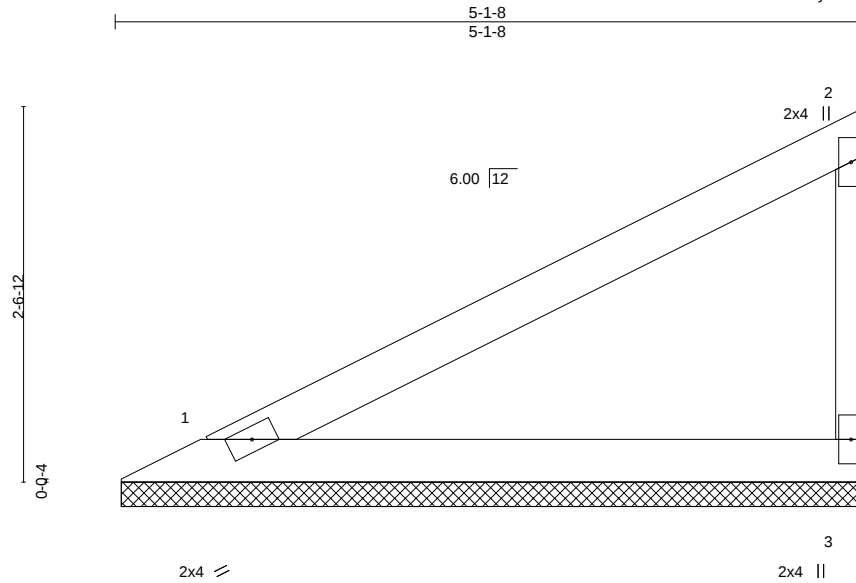


16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 39 HT	I41355826
400305	V14	Valley	1	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS 66871

8.240 s Mar 9 2020 MiTek Industries, Inc. Tue May 19 10:51:40 2020 Page 1
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Scale = 1:15.7

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 0.37	Vert(LL)	n/a	-	n/a	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.20	Vert(CT)	n/a	-	n/a		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.00	Horz(CT)	-0.00	3	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-P					Weight: 13 lb	FT = 10%

LUMBER-

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

BRACING-

TOP CHORD Structural wood sheathing directly applied or 5-1-8 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS.

(size) 1=5-1-0, 3=5-1-0
Max Horz 1=92(LC 5)
Max Uplift 1=-25(LC 8), 3=-48(LC 8)
Max Grav 1=198(LC 1), 3=198(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) Gable requires continuous bottom chord bearing.
- 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) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 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.



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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 39 HT	I41355827
400305	V15	Valley	1	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS 66871

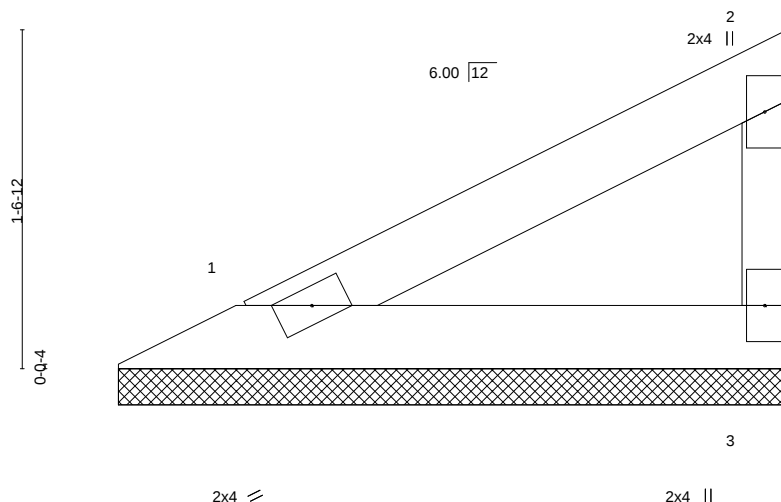
8.240 s Mar 9 2020 MiTek Industries, Inc. Tue May 19 10:51:41 2020 Page 1

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3-1-8

3-1-8

Scale = 1:10.6



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)	n/a	-	n/a	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.05	Vert(CT)	n/a	-	n/a		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.00	Horz(CT)	-0.00	3	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-P					Weight: 7 lb	FT = 10%

LUMBER-

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

BRACING-

TOP CHORD Structural wood sheathing directly applied or 3-1-8 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) 1=3-1-0, 3=3-1-0
Max Horz 1=50(LC 5)
Max Uplift 1=-14(LC 8), 3=-26(LC 8)
Max Grav 1=108(LC 1), 3=108(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) Gable requires continuous bottom chord bearing.
- 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) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 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.



May 19, 2020

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 39 HT	I41355828
400305	V16	Valley	1	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS 66871

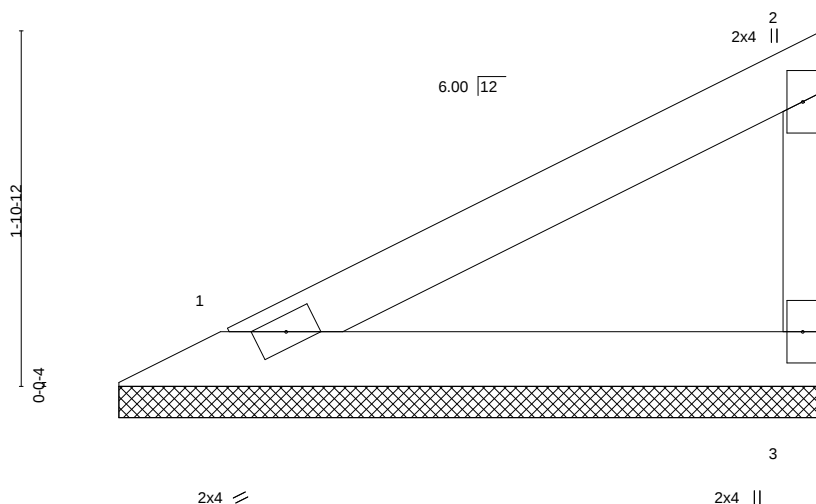
8.240 s Mar 9 2020 MiTek Industries, Inc. Tue May 19 10:51:41 2020 Page 1

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3-9-8

3-9-8

Scale = 1:12.3



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 0.17	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.09	Vert(CT)	n/a	-	n/a	999		
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						Weight: 9 lb	FT = 10%

LUMBER-

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

BRACING-

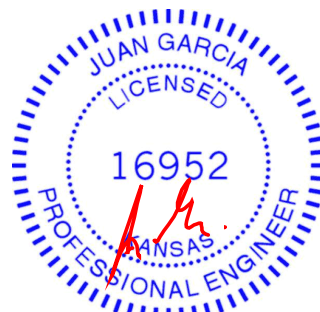
TOP CHORD Structural wood sheathing directly applied or 3-9-8 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) 1=3-9-0, 3=3-9-0
Max Horz 1=64(LC 5)
Max Uplift 1=-18(LC 8), 3=-34(LC 8)
Max Grav 1=138(LC 1), 3=138(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) Gable requires continuous bottom chord bearing.
- 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) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 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.



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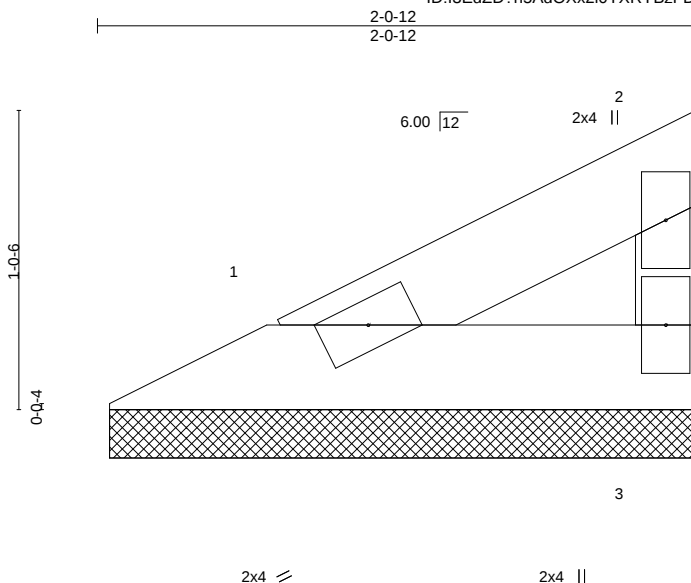
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 39 HT	I41355829
400305	V17	Valley	1	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS 66871

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Scale: 1.5"=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 0.03	Vert(LL)	n/a	-	n/a	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.01	Vert(CT)	n/a	-	n/a		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.00	Horz(CT)	-0.00	3	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-P					Weight: 4 lb	FT = 10%

LUMBER-

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

BRACING-

TOP CHORD Structural wood sheathing directly applied or 2-0-12 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS.

(size) 1=2-0-4, 3=2-0-4
Max Horz 1=28(LC 5)
Max Uplift 1=8(LC 8), 3=15(LC 8)
Max Grav 1=60(LC 1), 3=60(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) Gable requires continuous bottom chord bearing.
- 3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
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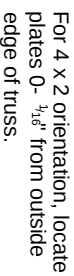
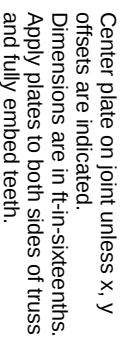


16023 Swingley Ridge Rd
Chesterfield, MO 63017



General Safety Notes

Failure to Follow Could Cause Property Damage or Personal Injury

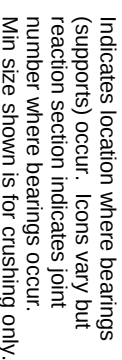
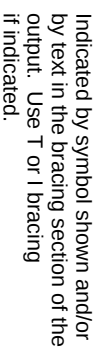


— This symbol indicates the required direction of slots in connector plates.

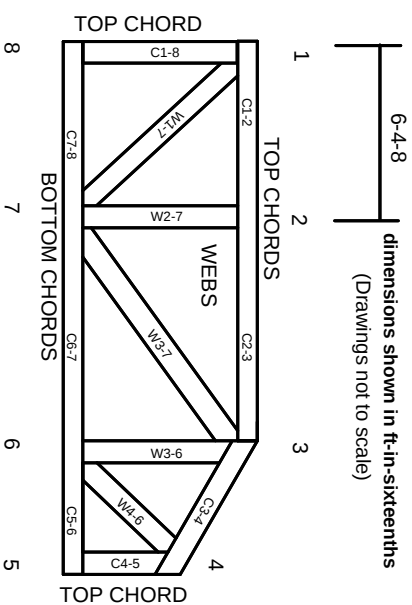
JOINTS ARE GENERALLY NUMBERED/LETTERED CLOCKWISE AROUND THE TRUSS STARTING AT THE JOINT FARTHEST TO THE LEFT.

PRODUCT CODE APPROVALS

ICC-ES Reports:
ESR-1311, ESR-1352, ESR1988
ER-3907, ESR-2362, ESR-1397, ESR-3282



Industry Standards:
ANSI/TPI.1: 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.



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 ANS/TPP 1 section 6.3. These truss designs rely on lumber values established by others.

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Mittek Engineering Reference Sheet: MII-7473 rev. 10/03/2015

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