



RE: 400513  
Lot 94 RR

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

Wind Code: N/A

Roof Load: 45.0 psf

Design Program: MiTek 20/20 8.4

Wind Speed: 115 mph

Floor Load: N/A psf

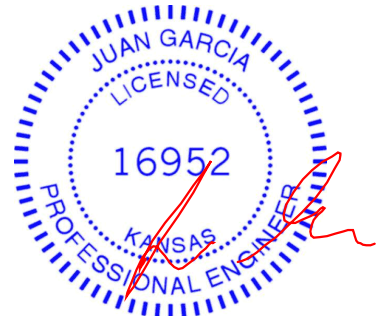
This package includes 71 individual, dated Truss Design Drawings and 0 Additional Drawings.

RELEASE FOR  
CONSTRUCTION  
AS NOTED ON PLANS REVIEW  
DEVELOPMENT SERVICES  
LEE'S SUMMIT, MISSOURI  
09/08/2020

No.	Seal#	Truss Name	Date	No.	Seal#	Truss Name	Date
1	I42087951	A5	8/21/2020	27	I42087977	E8	8/21/2020
2	I42087952	A6	8/21/2020	28	I42087978	E9	8/21/2020
3	I42087953	A7	8/21/2020	29	I42087979	E10	8/21/2020
4	I42087954	A8	8/21/2020	30	I42087980	E11	8/21/2020
5	I42087955	A9	8/21/2020	31	I42087981	G1	8/21/2020
6	I42087956	B1	8/21/2020	32	I42087982	G2	8/21/2020
7	I42087957	B2	8/21/2020	33	I42087983	H1	8/21/2020
8	I42087958	C1	8/21/2020	34	I42087984	H2	8/21/2020
9	I42087959	C2	8/21/2020	35	I42087985	H3	8/21/2020
10	I42087960	C3	8/21/2020	36	I42087986	J1	8/21/2020
11	I42087961	C4	8/21/2020	37	I42087987	J2	8/21/2020
12	I42087962	C5	8/21/2020	38	I42087988	J3	8/21/2020
13	I42087963	C6	8/21/2020	39	I42087989	J4	8/21/2020
14	I42087964	C7	8/21/2020	40	I42087990	J5	8/21/2020
15	I42087965	C8	8/21/2020	41	I42087991	J6	8/21/2020
16	I42087966	C9	8/21/2020	42	I42087992	J7	8/21/2020
17	I42087967	C10	8/21/2020	43	I42087993	J8	8/21/2020
18	I42087968	D1	8/21/2020	44	I42087994	J9	8/21/2020
19	I42087969	D2	8/21/2020	45	I42087995	J10	8/21/2020
20	I42087970	E1	8/21/2020	46	I42087996	J11	8/21/2020
21	I42087971	E2	8/21/2020	47	I42087997	J12	8/21/2020
22	I42087972	E3	8/21/2020	48	I42087998	J13	8/21/2020
23	I42087973	E4	8/21/2020	49	I42087999	J14	8/21/2020
24	I42087974	E5	8/21/2020	50	I42088000	J15	8/21/2020
25	I42087975	E6	8/21/2020	51	I42088001	J16	8/21/2020
26	I42087976	E7	8/21/2020	52	I42088002	J17	8/21/2020

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.





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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	I42088003	J18	8/21/2020
54	I42088004	J19	8/21/2020
55	I42088005	K1	8/21/2020
56	I42088006	K2	8/21/2020
57	I42088007	K3	8/21/2020
58	I42088008	L1	8/21/2020
59	I42088009	L2	8/21/2020
60	I42088010	L3	8/21/2020
61	I42088011	LAY1	8/21/2020
62	I42088012	LAY2	8/21/2020
63	I42088013	LAY3	8/21/2020
64	I42088014	V1	8/21/2020
65	I42088015	V3	8/21/2020
66	I42088016	V4	8/21/2020
67	I42088017	V5	8/21/2020
68	I42088018	V6	8/21/2020
69	I42088019	V7	8/21/2020
70	I42088020	V8	8/21/2020
71	I42088021	V9	8/21/2020



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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 8.4

Wind Code: N/A

Wind Speed: 115 mph

Roof Load: 45.0 psf

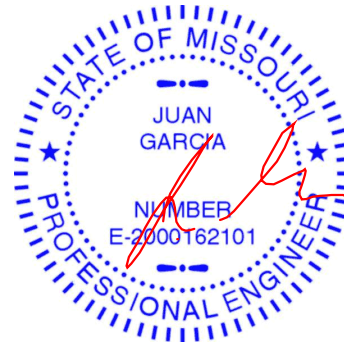
Floor Load: N/A psf

This package includes 71 individual, dated Truss Design Drawings and 0 Additional Drawings.

No.	Seal#	Truss Name	Date	No.	Seal#	Truss Name	Date
1	I42087951	A5	8/21/2020	27	I42087977	E8	8/21/2020
2	I42087952	A6	8/21/2020	28	I42087978	E9	8/21/2020
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9	I42087959	C2	8/21/2020	35	I42087985	H3	8/21/2020
10	I42087960	C3	8/21/2020	36	I42087986	J1	8/21/2020
11	I42087961	C4	8/21/2020	37	I42087987	J2	8/21/2020
12	I42087962	C5	8/21/2020	38	I42087988	J3	8/21/2020
13	I42087963	C6	8/21/2020	39	I42087989	J4	8/21/2020
14	I42087964	C7	8/21/2020	40	I42087990	J5	8/21/2020
15	I42087965	C8	8/21/2020	41	I42087991	J6	8/21/2020
16	I42087966	C9	8/21/2020	42	I42087992	J7	8/21/2020
17	I42087967	C10	8/21/2020	43	I42087993	J8	8/21/2020
18	I42087968	D1	8/21/2020	44	I42087994	J9	8/21/2020
19	I42087969	D2	8/21/2020	45	I42087995	J10	8/21/2020
20	I42087970	E1	8/21/2020	46	I42087996	J11	8/21/2020
21	I42087971	E2	8/21/2020	47	I42087997	J12	8/21/2020
22	I42087972	E3	8/21/2020	48	I42087998	J13	8/21/2020
23	I42087973	E4	8/21/2020	49	I42087999	J14	8/21/2020
24	I42087974	E5	8/21/2020	50	I42088000	J15	8/21/2020
25	I42087975	E6	8/21/2020	51	I42088001	J16	8/21/2020
26	I42087976	E7	8/21/2020	52	I42088002	J17	8/21/2020

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 Missouri is December 31, 2020.  
Missouri COA: 001193

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



August 21, 2020



RE: 400513 - Lot 94 RR

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	I42088003	J18	8/21/2020
54	I42088004	J19	8/21/2020
55	I42088005	K1	8/21/2020
56	I42088006	K2	8/21/2020
57	I42088007	K3	8/21/2020
58	I42088008	L1	8/21/2020
59	I42088009	L2	8/21/2020
60	I42088010	L3	8/21/2020
61	I42088011	LAY1	8/21/2020
62	I42088012	LAY2	8/21/2020
63	I42088013	LAY3	8/21/2020
64	I42088014	V1	8/21/2020
65	I42088015	V3	8/21/2020
66	I42088016	V4	8/21/2020
67	I42088017	V5	8/21/2020
68	I42088018	V6	8/21/2020
69	I42088019	V7	8/21/2020
70	I42088020	V8	8/21/2020
71	I42088021	V9	8/21/2020

Job	Truss	Truss Type	Qty	Ply	Lot 94 RR	I42087951
400513	A5	Hip Girder	1	1		

Wheeler Lumber, Waverly, KS 66871

8.410 s May 22 2020 MiTek Industries, Inc. Mon Jul 20 10:28:03 2020 Page 1

ID:Lek3CAAnj\_gYbKvtCQHtmQzKvNM-mLZAZ7E2GupbQh6nMgbJVWtndfKYsrd47XS5v4ywC9w

Job Reference (optional)

-0-10-8	2-0-0	4-0-0	7-0-0	10-0-0	12-0-0	14-0-0	14-10-8
0-10-8	2-0-0	2-0-0	3-0-0	3-0-0	2-0-0	2-0-0	0-10-8

Scale = 1:26.5

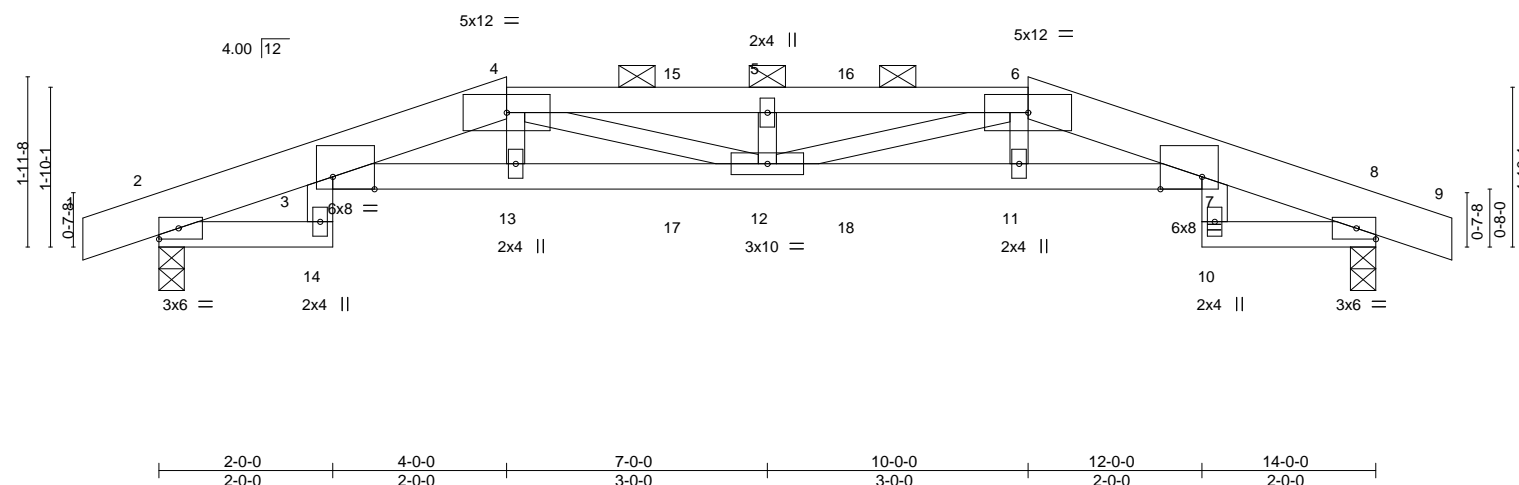


Plate Offsets (X,Y)--		[3:0-5-12,Edge], [7:0-5-12,Edge]									
		2-0-0	4-0-0	7-0-0	10-0-0	12-0-0	14-0-0				
		2-0-0	2-0-0	3-0-0	3-0-0	2-0-0	2-0-0				
<b>LOADING</b> (psf)	<b>SPACING-</b>	2-0-0		<b>CSI.</b>	<b>DEFL.</b>	in (loc)		L/defl	L/d	<b>PLATES</b>	<b>GRIP</b>
TCLL 25.0	Plate Grip DOL	1.15		TC 0.65	Vert(LL)	-0.21 12		>786	360	MT20	197/144
TCDL 10.0	Lumber DOL	1.15		BC 0.53	Vert(CT)	-0.38 12		>432	240		
BCLL 0.0 *	Rep Stress Incr	NO		WB 0.19	Horz(CT)	0.24 8		n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014			Matrix-S	Wind(LL)	0.17 12		>989	240	Weight: 55 lb	FT = 10%

#### LUMBER-

TOP CHORD 2x6 SP DSS \*Except\*  
4-6: 2x4 SPF 2100F 1.8E  
BOT CHORD 2x4 SPF 2400F 2.0E  
WEBS 2x3 SPF No.2 \*Except\*  
3-14,7-10: 2x4 SPF No.2

#### BRACING-

TOP CHORD Structural wood sheathing directly applied or 3-9-3 oc purlins, except  
2-0-0 oc purlins (3-9-2 max.): 4-6.  
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=28(LC 33)  
Max Uplift 2=-217(LC 4), 8=-217(LC 5)  
Max Grav 2=1028(LC 1), 8=1028(LC 1)

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

TOP CHORD 2-3=-447/102, 3-4=-3431/606, 4-5=-3883/671, 5-6=-3883/671, 6-7=-3431/592,  
7-8=-447/99  
BOT CHORD 3-13=-576/3427, 12-13=-572/3435, 11-12=-537/3435, 7-11=-541/3427  
WEBS 4-12=-94/539, 6-12=-94/539

#### NOTES-

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- Provide adequate drainage to prevent water ponding.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=217, 8=217.
- This truss 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) 81 lb down and 52 lb up at 4-0-0, 81 lb down and 52 lb up at 6-0-0, and 81 lb down and 52 lb up at 8-0-0, and 81 lb down and 52 lb up at 10-0-0 on top chord, and 231 lb down and 65 lb up at 4-0-0, 34 lb down at 6-0-0, and 34 lb down at 8-0-0, and 231 lb down and 65 lb up at 9-11-4 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
- In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

#### LOAD CASE(S) Standard



July 20,2020

Continued on page 2

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

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



16023 Swingley Ridge Rd  
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 94 RR	I42087951
400513	A5	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: 1-4=-70, 4-6=-70, 6-9=-70, 2-14=-20, 3-7=-20, 8-10=-20

Concentrated Loads (lb)

Vert: 4=-37(F) 6=-37(F) 13=-231(F) 11=-231(F) 15=-37(F) 16=-37(F) 17=-34(F) 18=-34(F)

Job	Truss	Truss Type	Qty	Ply	Lot 94 RR	I42087952
400513	A6	Hip	1	1		

Wheeler Lumber, Waverly, KS 66871

8.410 s May 22 2020 MiTek Industries, Inc. Mon Jul 20 10:28:04 2020 Page 1

ID:Lek3CAAnj\_gYbKvtCQHtmQzKvNM-EY7YnTFg1CyS2rh\_wN6Y2k?xG3g3BK2EMBBesWYwC9v

Job Reference (optional)

-0-10-8	2-0-0	6-0-0	8-0-0	12-0-0	14-0-0	14-10-8
0-10-8	2-0-0	4-0-0	2-0-0	4-0-0	2-0-0	0-10-8

Scale = 1:26.5

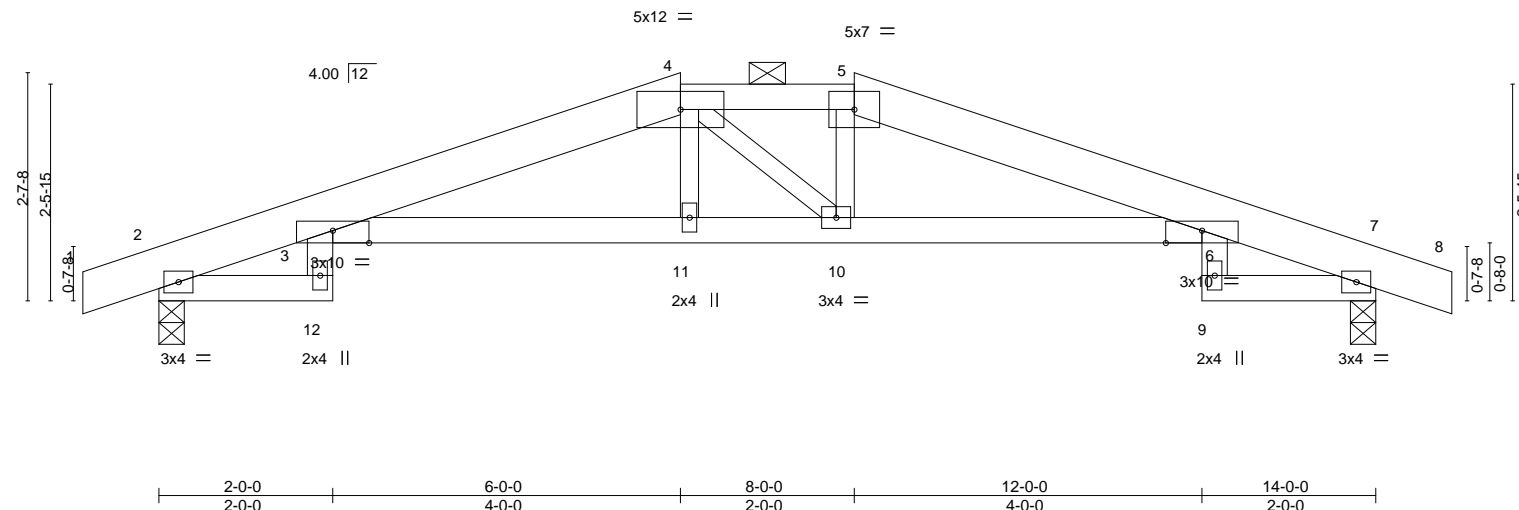


Plate Offsets (X, Y)--		[3-0-5-0, Edge], [6-0-5-0, Edge]									
<b>LOADING</b> (psf)		<b>SPACING-</b>	2-0-0	<b>CSI.</b>		<b>DEFL.</b>	in (loc)	L/defl	L/d	<b>PLATES</b>	<b>GRIP</b>
TCLL 25.0		Plate Grip DOL	1.15	TC 0.72		Vert(LL)	-0.15 6-10	>999	360	MT20	197/144
TCDL 10.0		Lumber DOL	1.15	BC 0.57		Vert(CT)	-0.28 3-11	>596	240		
BCLL 0.0 *		Rep Stress Incr	YES	WB 0.05		Horz(CT)	0.23 7	n/a	n/a		
BCDL 10.0		Code IRC2018/TPI2014		Matrix-S		Wind(LL)	0.11 3-11	>999	240	Weight: 50 lb	FT = 10%

#### LUMBER-

TOP CHORD 2x6 SPF No.2 \*Except\*  
4-5: 2x4 SPF No.2  
BOT CHORD 2x4 SPF No.2  
WEBS 2x3 SPF No.2 \*Except\*  
3-12,6-9: 2x4 SPF No.2

#### BRACING-

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

#### REACTIONS.

(size) 2=0-3-8, 7=0-3-8  
Max Horz 2=-40(LC 13)  
Max Uplift 2=-141(LC 4), 7=-141(LC 5)  
Max Grav 2=688(LC 1), 7=688(LC 1)

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

TOP CHORD 2-3=-284/69, 3-4=-1439/199, 4-5=-1387/198, 5-6=-1440/185, 6-7=-284/62  
BOT CHORD 3-11=-156/1386, 10-11=-152/1387, 6-10=-124/1386

#### NOTES-

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- Provide adequate drainage to prevent water ponding.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (it=lb) 2=141, 7=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.
- Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



July 20,2020

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16023 Swingley Ridge Rd  
Chesterfield, MO 63017



Job	Truss	Truss Type	Qty	Ply	Lot 94 RR	I42087953
400513	A7	Roof Special	2	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS 66871

8.410 s May 22 2020 MiTek Industries, Inc. Mon Jul 20 10:28:05 2020 Page 1

ID:Lek3CAANj\_gYbKvtCQHtmQzKvNM-ikhw\_pGloW4Jg?GAT5dnaxY6iTOlwmzNbrxC\_zywC9u

-0-10-8	2-0-0	7-0-0	12-0-0	14-0-0	14-10-8
0-10-8	2-0-0	5-0-0	5-0-0	2-0-0	0-10-8

Scale = 1:25.7

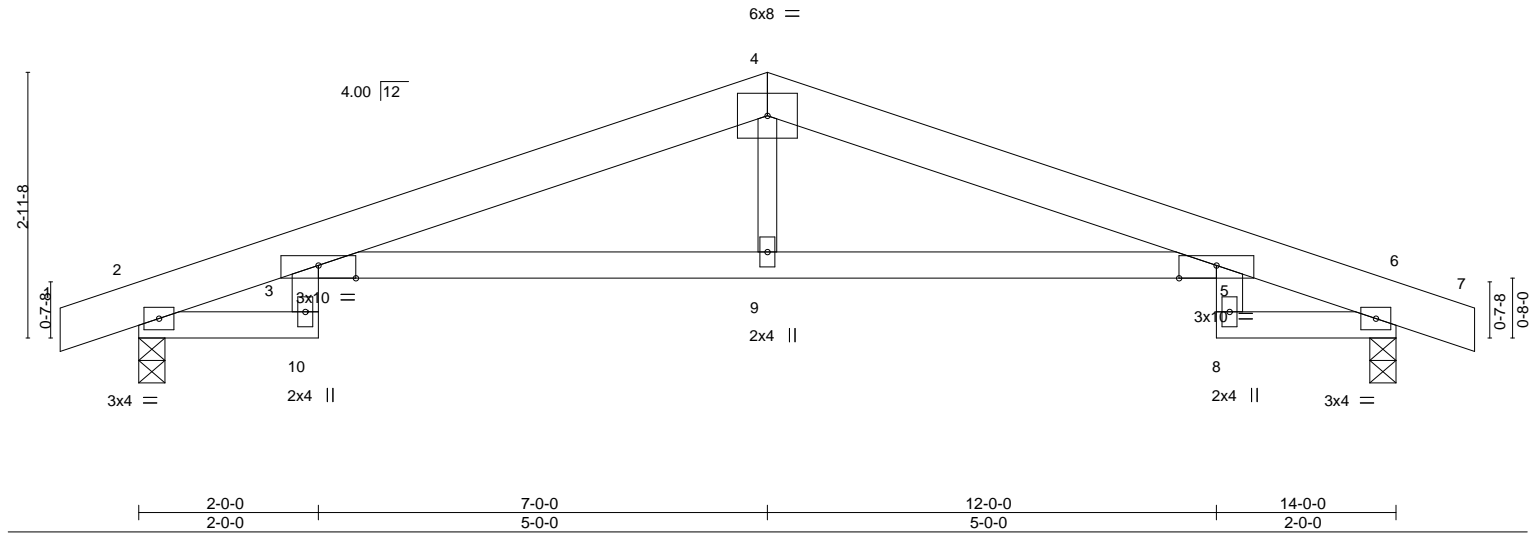


Plate Offsets (X,Y)--		[3:0-5-0,Edge], [5:0-5-0,Edge]							
<b>LOADING</b> (psf)		<b>SPACING-</b>	2-0-0	<b>CSI.</b>		<b>DEFL.</b>	in (loc)	L/defl	L/d
TCLL	25.0	Plate Grip DOL	1.15	TC	0.74	Vert(LL)	-0.16 5-9	>999	360
TCDL	10.0	Lumber DOL	1.15	BC	0.57	Vert(CT)	-0.30 5-9	>544	240
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.07	Horz(CT)	0.24 6	n/a	n/a
BCDL	10.0	Code IRC2018/TPI2014		Matrix-S		Wind(LL)	0.12 3-9	>999	240
						<b>PLATES</b>	<b>GRIP</b>		
						MT20	197/144		
						Weight: 49 lb	FT = 10%		

#### LUMBER-

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

#### BRACING-

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

#### REACTIONS.

(size) 2=0-3-8, 6=0-3-8  
 Max Horz 2=-46(LC 13)  
 Max Uplift 2=-134(LC 4), 6=-134(LC 5)  
 Max Grav 2=688(LC 1), 6=688(LC 1)

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

TOP CHORD 2-3=-284/70, 3-4=-1365/147, 4-5=-1365/161, 5-6=-284/59  
 BOT CHORD 3-9=-102/1304, 5-9=-102/1304

#### 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.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=134, 6=134.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



July 20,2020

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16023 Swingley Ridge Rd  
 Chesterfield, MO 63017



Wheeler Lumber, Waverly, KS 66871 8.410 s May 22 2020 MiTek Industries, Inc. Mon Jul 20 10:28:06 2020 Page 1  
ID:Lek3CAANj\_gYbKvtCQHtmQzKvNM-AwFIC9GwZpC9H9rM1o80795HetMjfDEXpVgIWPywC9t  
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0-10-8 2-0-0 5-0-0 5-0-0 1-8-0  
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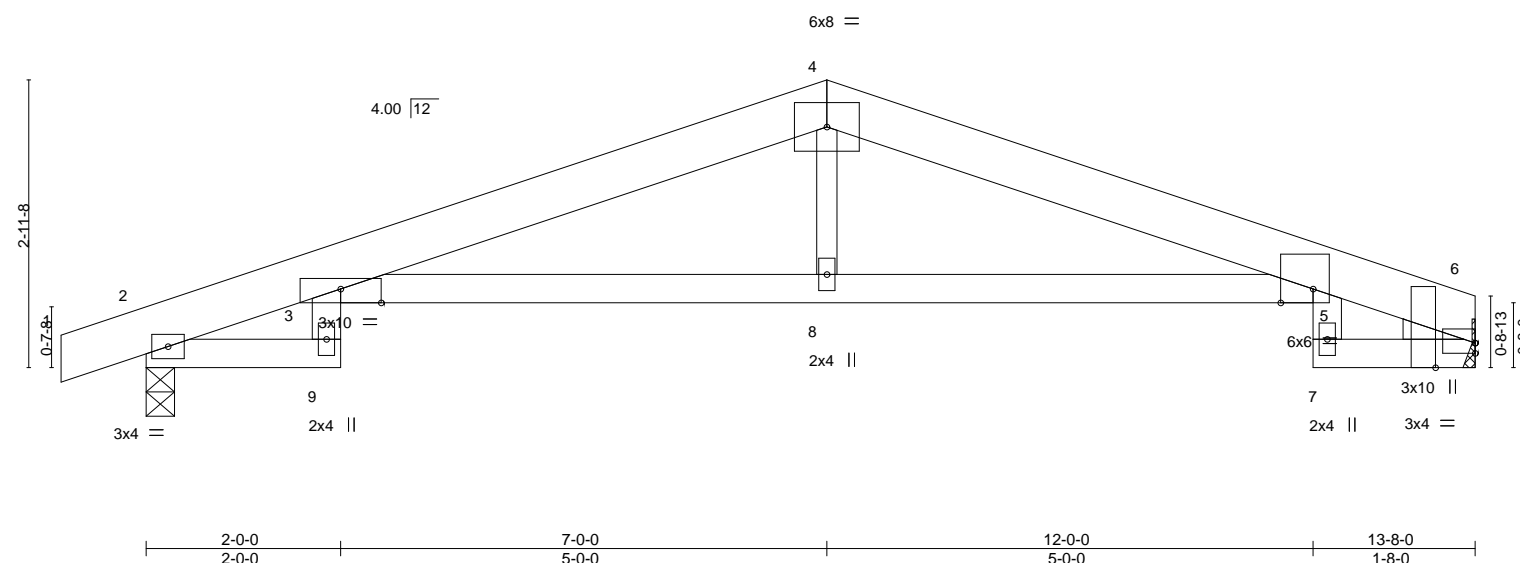


Plate Offsets (X,Y)-- [3:0-5:0,Edge], [5:0-4:0,Edge], [6:0-0:0,0-1-4], [6:0-3-1,Edge]												
<b>LOADING</b> (psf)		<b>SPACING-</b> 2-0-0		<b>CSI.</b>		<b>DEFL.</b> in (loc) l/defl L/d				<b>PLATES</b> <b>GRIP</b>		
TCLL	25.0	Plate Grip DOL	1.15	TC	0.73	Vert(LL)	-0.15	3-8	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.56	Vert(CT)	-0.28	3-8	>571	240		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.07	Horz(CT)	0.23	6	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-S		Wind(LL)	0.11	3-8	>999	240	Weight: 47 lb	FT = 10%

**LUMBER-**  
TOP CHORD 2x6 SPF No.2  
BOT CHORD 2x4 SPF No.2  
WEBS 2x4 SPF No.2 \*Except\*  
4-8: 2x3 SPF No.2

WEDGE  
Right: 2x3 SPF No.2

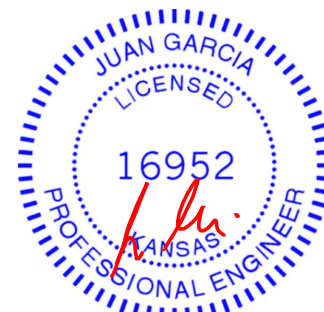
**REACTIONS.** (size) 2=0-3-8, 6=Mechanical  
Max Horz 2=47(LC 12)  
Max Uplift 2=-134(LC 4), 6=-87(LC 5)  
Max Grav 2=680(LC 1), 6=603(LC 1)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-3=-279/67, 3-4=-1325/148, 4-5=-1330/160, 5-6=-315/60  
 BOT CHORD 3-8=-101/1264, 5-8=-101/1264

**NOTES-**

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDD=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 4) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 5) Refer to girder(s) for truss to truss connections.
- 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 6 except (jt=lb) 2=134.
- 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.

<b>BRACING-</b>	
TOP CHORD	Structural wood sheathing directly applied or 3-11-6 oc purlins.
BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing.



July 20, 2020



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16023 Swingley Ridge Rd  
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 94 RR	I42087955
400513	A9	Common	1	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS 66871

8.410 s May 22 2020 MiTek Industries, Inc. Mon Jul 20 10:28:06 2020 Page 1

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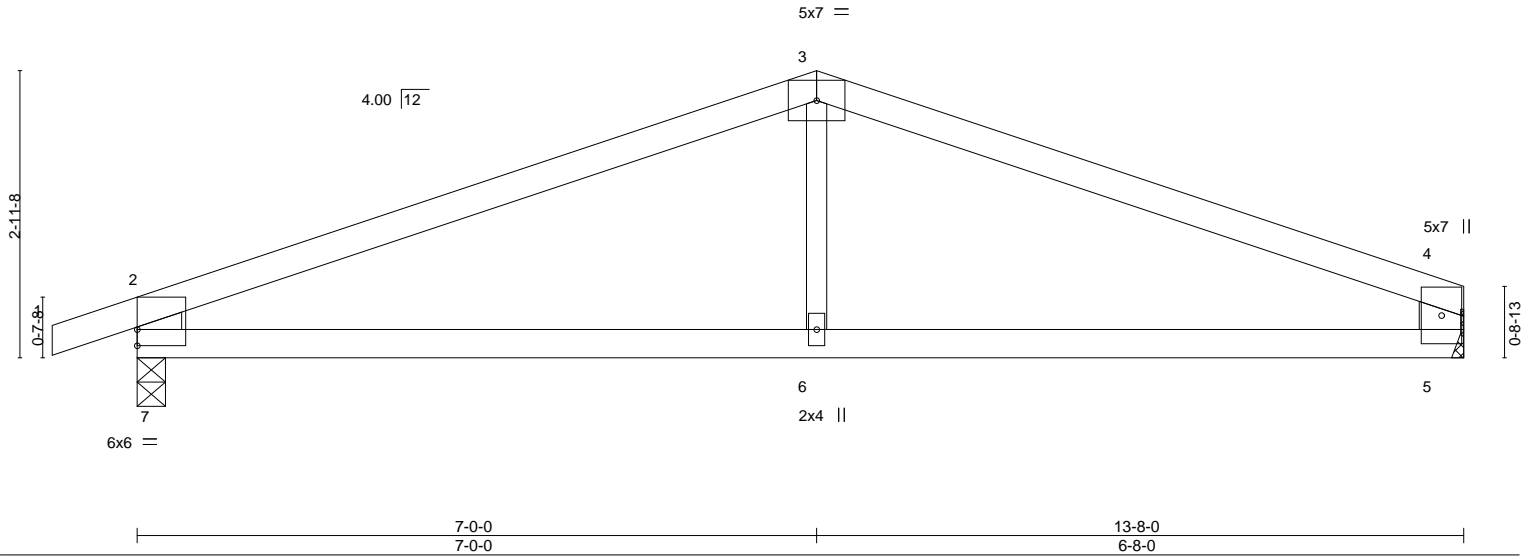


Plate Offsets (X,Y)-- [7:0-0-0,0-2-0]											
LOADING (psf)		SPACING- 2-0-0		CSI.		DEFL. in (loc) l/defl L/d		PLATES GRIP			
TCLL	25.0	Plate Grip DOL	1.15	TC	0.56	Vert(LL)	-0.06 6-7	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.44	Vert(CT)	-0.14 6-7	>999	240		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.08	Horz(CT)	0.02 5	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-R		Wind(LL)	0.04 6-7	>999	240	Weight: 36 lb	FT = 10%

#### LUMBER-

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

#### BRACING-

TOP CHORD Structural wood sheathing directly applied or 5-3-11 oc purlins, except end verticals.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

#### REACTIONS.

(size) 7=0-3-8, 5=Mechanical  
Max Horz 7=39(LC 12)  
Max Uplift 7=-136(LC 4), 5=-85(LC 5)  
Max Grav 7=675(LC 1), 5=591(LC 1)

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

TOP CHORD 2-3=-915/120, 3-4=-909/120, 2-7=-606/179, 4-5=-510/123  
BOT CHORD 6-7=-62/788, 5-6=-62/788  
WEBS 3-6=0/264

#### 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.
- Refer to girder(s) for truss to truss connections.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 5 except (jt=lb) 7=136.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



July 20,2020

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16023 Swingley Ridge Rd  
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 94 RR	I42087956
400513	B1	Monopitch	5	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS 66871

8.410 s May 22 2020 MiTek Industries, Inc. Mon Jul 20 10:28:07 2020 Page 1

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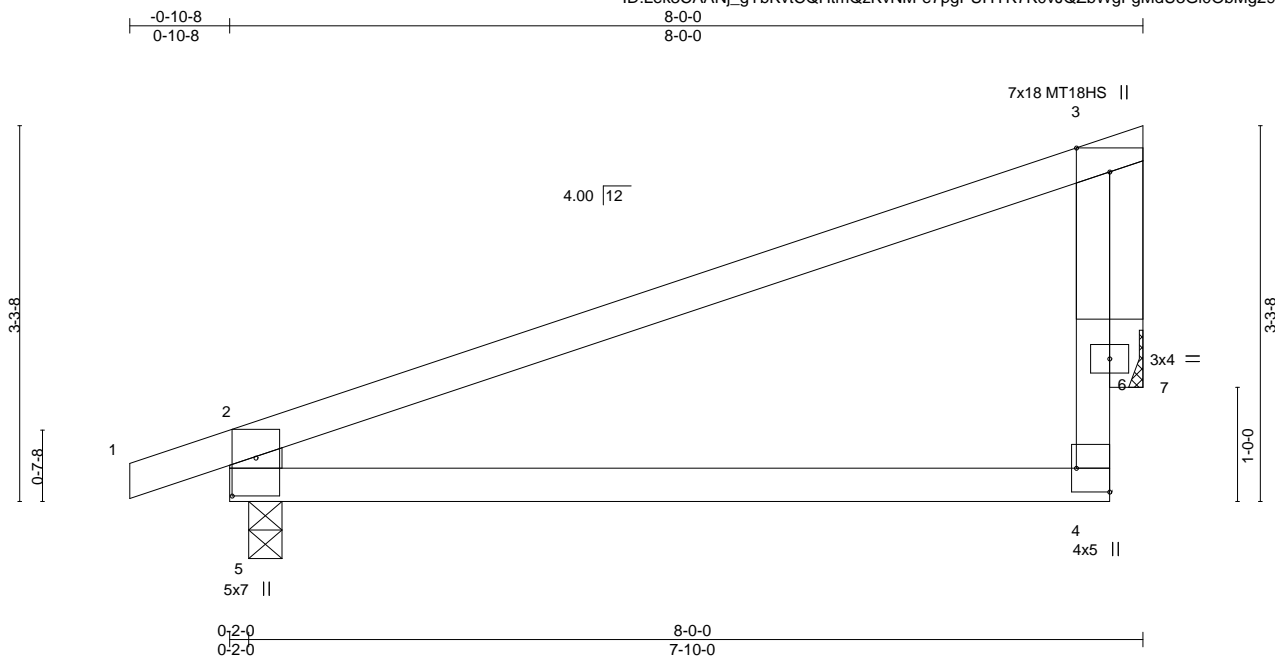


Plate Offsets (X,Y)-- [4:Edge,0-3-8], [5:0-4-0,0-2-8]

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 0.62	Vert(LL)	-0.06	4-5	>999	360	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.36	Vert(CT)	-0.13	4-5	>710	240	MT18HS	197/144
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.39	Horz(CT)	0.01	7	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-R	Wind(LL)	0.04	4-5	>999	240	Weight: 25 lb	FT = 10%

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

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

**REACTIONS.** (size) 5=0-3-8, 7=Mechanical  
Max Horz 5=99(LC 5)  
Max Uplift 5=94(LC 4), 7=-77(LC 8)  
Max Grav 5=429(LC 1), 7=308(LC 1)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
TOP CHORD 2-3=-306/27, 3-6=-295/241, 2-5=-385/152

- 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
  - All plates are MT20 plates unless otherwise indicated.
  - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
  - Refer to girder(s) for truss to truss connections.
  - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 5, 7.
  - This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



July 20,2020

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16023 Swingley Ridge Rd  
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 94 RR	I42087957
400513	B2	Monopitch	3	1		

Wheeler Lumber, Waverly, KS 66871

8.410 s May 22 2020 MiTek Industries, Inc. Mon Jul 20 10:28:08 2020 Page 1  
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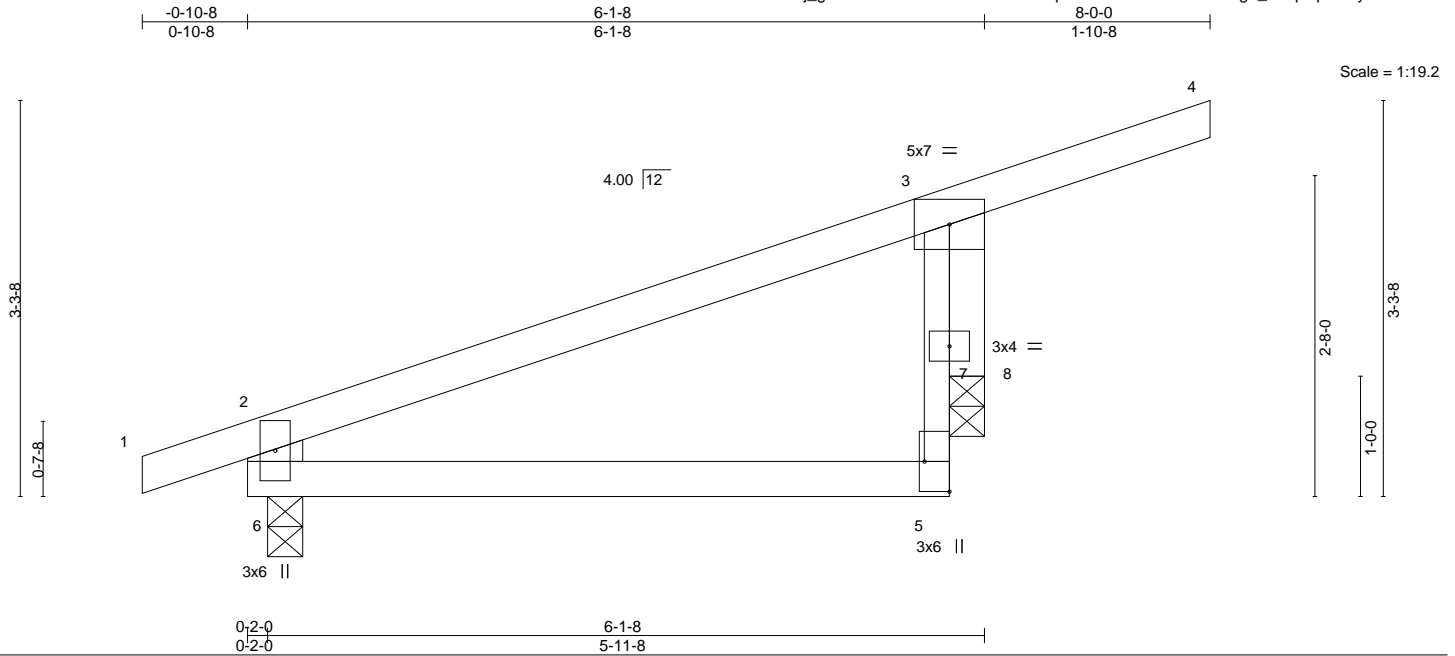


Plate Offsets (X,Y)--		[5:Edge,0-2-8]									
<b>LOADING</b> (psf)		<b>SPACING-</b>	2-0-0	<b>CSI.</b>		<b>DEFL.</b>	in (loc)	l/defl	L/d	<b>PLATES</b>	<b>GRIP</b>
TCLL 25.0		Plate Grip DOL	1.15	TC 0.39		Vert(LL)	-0.02 5-6	>999	360	MT20	197/144
TCDL 10.0		Lumber DOL	1.15	BC 0.19		Vert(CT)	-0.05 5-6	>999	240		
BCLL 0.0 *		Rep Stress Incr	YES	WB 0.06		Horz(CT)	-0.00 8	n/a	n/a		
BCDL 10.0		Code IRC2018/TPI2014		Matrix-R		Wind(LL)	0.01 5-6	>999	240	Weight: 21 lb	FT = 10%

#### LUMBER-

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

#### BRACING-

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

#### REACTIONS.

(size) 6=0-3-8, 8=0-3-8  
Max Horz 6=113(LC 5)  
Max Uplift 6=63(LC 4), 8=130(LC 8)  
Max Grav 6=318(LC 1), 8=413(LC 1)

#### FORCES.

(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
TOP CHORD 2-6=-278/108

#### 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.
- Bearing at joint(s) 8 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 6 except (jt=lb) 8=130.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



July 20,2020

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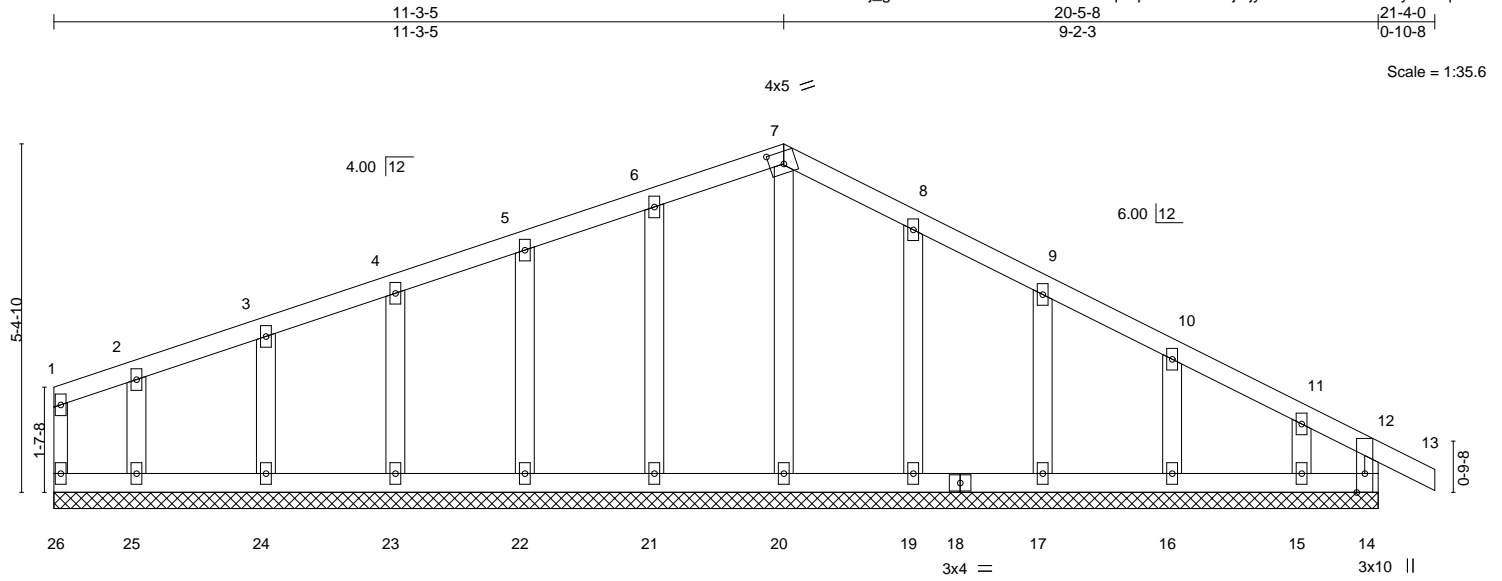


16023 Swingley Ridge Rd  
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 94 RR	I42087958
400513	C1	Roof Special Supported Gable	1	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS 66871

8.410 s May 22 2020 MiTek Industries, Inc. Mon Jul 20 10:28:09 2020 Page 1  
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										20-5-8																																																	
Plate Offsets (X,Y)--										[7:0-2-11,0-2-4]										20-5-8																																							
<b>LOADING</b> (psf)										<b>SPACING-</b> 2-0-0										<b>CSI.</b>										<b>DEFL.</b> in (loc) l/defl L/d										<b>PLATES</b>										<b>GRIP</b>									
TCLL 25.0										Plate Grip DOL 1.15										TC 0.07										Vert(LL) -0.00 13 n/r 120										MT20										197/144									
TCDL 10.0										Lumber DOL 1.15										BC 0.04										Vert(CT) -0.00 13 n/r 120																													
BCLL 0.0 *										Rep Stress Incr YES										WB 0.06										Horz(CT) 0.00 14 n/a n/a																													
BCDL 10.0										Code IRC2018/TPI2014										Matrix-R																				Weight: 83 lb										FT = 10%									

#### LUMBER-

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

#### BRACING-

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

#### REACTIONS.

All bearings 20-5-8.  
(lb) - Max Horz 26=84(LC 7)  
Max Uplift All uplift 100 lb or less at joint(s) 26, 14, 21, 22, 23, 24, 25, 19, 17, 16, 15  
Max Grav All reactions 250 lb or less at joint(s) 26, 14, 20, 21, 22, 23, 24, 25, 19, 17, 16, 15

**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; 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
- Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- All plates are 2x4 MT20 unless otherwise indicated.
- Gable requires continuous bottom chord bearing.
- Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
- Gable studs spaced at 2-0-0 oc.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 26, 14, 21, 22, 23, 24, 25, 19, 17, 16, 15.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



July 20,2020

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16023 Swingley Ridge Rd  
Chesterfield, MO 63017



Job Reference (optional)

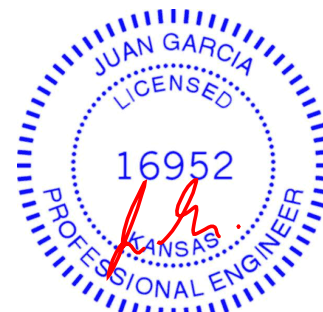
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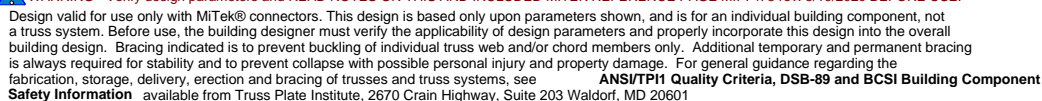
LUMBER	BRACING

TOP CHORD	Structural wood sheathing directly applied or 4-7-1 oc purlins, except end verticals.
BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing.

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDD=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 4) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 11=130, 7=130.
- 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.



July 20, 2020



16023 Swingley Ridge Rd  
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 94 RR	
400513	C3	Roof Special Girder	1	1		142087960
Job Reference (optional)						

Wheeler Lumber, Waverly, KS 66871

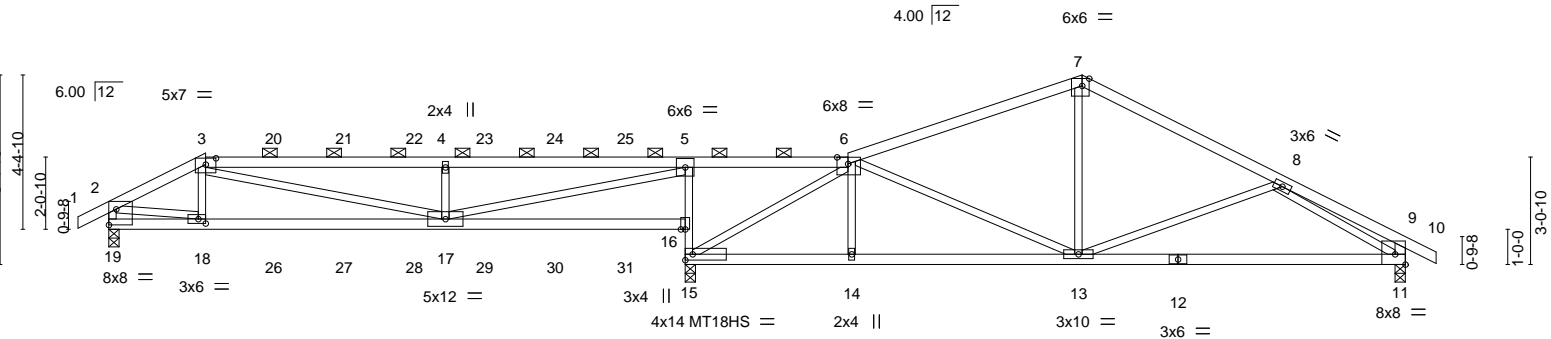
8.410 s May 22 2020 MiTek Industries, Inc. Mon Jul 20 10:28:12 2020 Page 1

ID:Lek3CAANj\_gYbKvtCQHtmQzKvNM-74cZSCLh9fyJ?4lWO3FQMQLHbHMs3jsPCR74k3ywC9n

0-10-8 2-9-0 9-6-12 16-4-8 21-0-0 27-7-13 33-2-8 36-10-0 37-8-8

0-10-8 2-9-0 6-9-12 6-9-12 4-7-8 6-7-13 5-6-11 3-7-8 0-10-8

Scale = 1:65.5



		2-9-0	3-2-0	9-6-12			16-4-8	16-6-4	21-0-0	21-7-8	27-7-13			36-10-0
		2-9-0	0-5-0	6-4-12			6-9-12	0-1-2	4-5-12	0-7-8	6-0-5			9-2-3
Plate Offsets (X,Y)--		[3:0-3-8,0-2-3], [6:0-3-12,0-2-4], [7:0-2-6,Edge], [11:Edge,0-3-8], [18:0-2-8,0-1-8], [19:Edge,0-5-5]												
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 0.83			Vert(LL) -0.18 11-13 >999 360				MT20 197/144		
TCDL	10.0	Lumber DOL 1.15			BC 0.70			Vert(CT) -0.36 11-13 >676 240				MT18HS 197/144		
BCLL	0.0 *	Rep Stress Incr NO			WB 0.95			Horz(CT) -0.02 15 n/a n/a						
BCDL	10.0	Code IRC2018/TPI2014			Matrix-S			Wind(LL) 0.13 17-18 >999 240				Weight: 131 lb FT = 10%		

LUMBER-	BRACING-
TOP CHORD 2x4 SPF No.2 *Except* 3-6: 2x4 SPF 2100F 1.8E	TOP CHORD Structural wood sheathing directly applied or 3-8-2 oc purlins, except end verticals, and 2-0-0 oc purlins (4-0-10 max.): 3-6.
BOT CHORD 2x4 SPF No.2 *Except* 5-15: 2x3 SPF No.2	BOT CHORD Rigid ceiling directly applied or 3-7-7 oc bracing.
WEBS 2x3 SPF No.2 *Except* 9-11: 2x4 SPF No.2	

REACTIONS. (size) 19=0-3-8, 15=0-3-8, 11=0-3-8  
Max Horz 19=-93(LC 9)  
Max Uplift 19=-264(LC 8), 15=-363(LC 8), 11=-151(LC 30)  
Max Grav 19=1129(LC 21), 15=2021(LC 1), 11=944(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
TOP CHORD 2-3=-1691/370, 3-4=-2431/562, 4-5=-2431/562, 6-7=-1003/180, 7-8=-1066/175,  
8-9=-360/0, 2-19=-1132/258, 9-11=-287/38  
BOT CHORD 17-18=-335/1507, 15-16=-1278/307, 5-16=-1169/350, 14-15=-194/966, 13-14=-191/970,  
11-13=-180/1085  
WEBS 3-17=-242/954, 4-17=-682/331, 5-17=-562/2657, 6-15=-1342/185, 7-13=-3/383,  
8-13=-298/206, 2-18=-284/1472, 8-11=-1025/294

NOTES-

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 3) Provide adequate drainage to prevent water ponding.
- 4) All plates are MT20 plates unless otherwise indicated.
- 5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 6) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 19=264, 15=363, 11=151.
- 8) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 9) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
- 10) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 100 lb down and 68 lb up at 4-8-2, 100 lb down and 68 lb up at 6-8-2, 100 lb down and 68 lb up at 8-8-2, 100 lb down and 68 lb up at 10-8-2, and 100 lb down and 68 lb up at 12-8-2, and 100 lb down and 68 lb up at 14-8-2 on top chord, and 217 lb down and 84 lb up at 2-9-0, 33 lb down at 4-8-2, 33 lb down at 6-8-2, 33 lb down at 8-8-2, 33 lb down at 10-8-2, and 33 lb down at 12-8-2, and 33 lb down at 14-8-2 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.

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



July 20,2020



Job	Truss	Truss Type	Qty	Ply	Lot 94 RR	I42087960
400513	C3	Roof Special Girder	1	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS 66871

8.410 s May 22 2020 MiTek Industries, Inc. Mon Jul 20 10:28:13 2020 Page 2  
ID:Lek3CAANj\_gYbKvtCQHtmQzKvNM-THAygYMJwz4AdEtixmnfvdtSKhi5oA6ZQ5tdGVywC9m

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, 3-6=-70, 6-7=-70, 7-9=-70, 9-10=-70, 16-19=-20, 11-15=-20
  - Concentrated Loads (lb)
    - Vert: 18=-217(B) 20=-50(B) 21=-50(B) 22=-50(B) 23=-50(B) 24=-50(B) 25=-50(B) 26=-24(B) 27=-24(B) 28=-24(B) 29=-24(B) 30=-24(B) 31=-24(B)

Job	Truss	Truss Type	Qty	Ply	Lot 94 RR	I42087961
400513	C4	Roof Special	1	1		
Job Reference (optional)						

Wheeler Lumber,
Waverly, KS 66871

8.410 s May 22 2020 MiTek Industries, Inc.
Mon Jul 20 10:28:14 2020
Page 1

0-10-8
4-3-0
10-3-12
16-4-8
23-3-0
27-7-13
33-5-7
36-10-0
37-8-8

0-10-8
4-3-0
6-0-12
6-0-12
6-10-8
4-4-13
5-9-10
3-4-9
0-10-8

Scale = 1:65.6

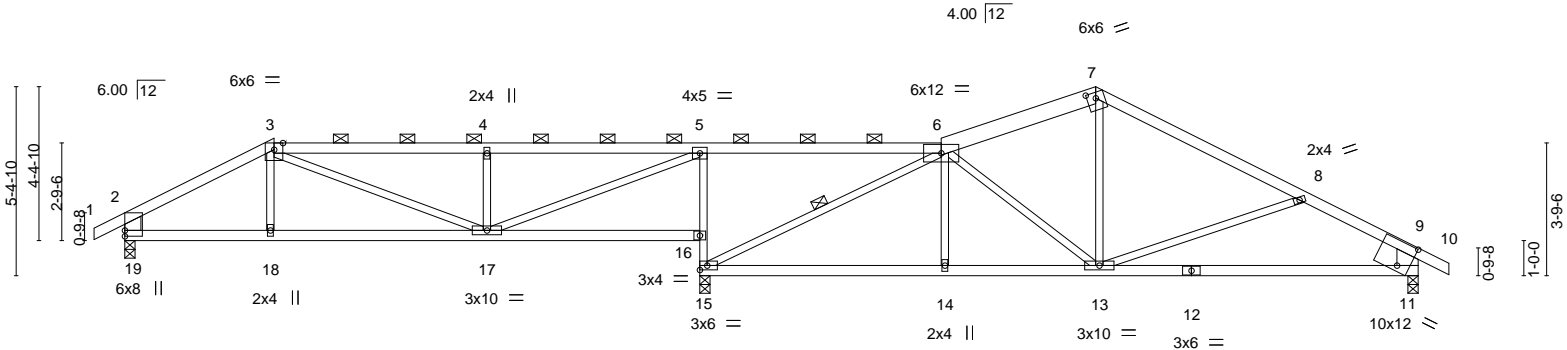


Plate Offsets (X,Y)--		[7:0-3-0,0-1-15], [11:0-4-1,0-8-2]									
LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP		
TCLL 25.0	Plate Grip DOL	1.15	TC 0.67	Vert(LL)	-0.16 11-13	>999	360	MT20	197/144		
TCDL 10.0	Lumber DOL	1.15	BC 0.56	Vert(CT)	-0.32 11-13	>754	240				
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.74	Horz(CT)	-0.04 15	n/a	n/a				
BCDL 10.0	Code IRC2018/TPI2014		Matrix-S	Wind(LL)	0.06 17-18	>999	240	Weight: 132 lb	FT = 10%		

<b>LUMBER-</b>		<b>BRACING-</b>	
TOP CHORD	2x4 SPF No.2 *Except* 6-7: 2x6 SPF No.2, 7-10: 2x4 SPF 2100F 1.8E	TOP CHORD	Structural wood sheathing directly applied or 4-9-10 oc purlins, except end verticals, and 2-0-0 oc purlins (4-9-13 max.): 3-6.
BOT CHORD	2x4 SPF No.2 *Except* 5-15: 2x3 SPF No.2	BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing, Except: 6-0-0 oc bracing: 16-17 4-0-1 oc bracing: 15-16.
WEBS	2x3 SPF No.2 *Except* 2-19: 2x6 SPF No.2, 9-11: 2x8 SP DSS	WEBS	1 Row at midpt 6-15

<b>REACTIONS.</b>	(size) 19=0-3-8, 15=0-3-8, 11=0-3-8 Max Horz 19=-90(LC 9) Max Uplift 19=-150(LC 8), 15=-285(LC 8), 11=-143(LC 9) Max Grav 19=764(LC 21), 15=1724(LC 1), 11=944(LC 1)
-------------------	-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

<b>FORCES.</b>	(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD	2-3=-975/180, 3-4=-1041/223, 4-5=-1039/221, 6-7=-942/168, 7-8=-1016/139, 8-9=-1225/233, 2-19=-676/164, 9-11=-848/191
BOT CHORD	18-19=-125/793, 17-18=-127/792, 15-16=-1053/257, 5-16=-988/287, 14-15=-94/1032, 13-14=-92/1035, 11-13=-150/986
WEBS	3-17=-95/268, 4-17=-456/188, 5-17=-231/1305, 6-15=-1329/155, 6-13=-308/100, 7-13=0/387

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
  - Provide adequate drainage to prevent water ponding.
  - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
  - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 19=150, 15=285, 11=143.
  - This truss 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.



July 20,2020

Job	Truss	Truss Type	Qty	Ply	Lot 94 RR	I42087962
400513	C5	Roof Special	1	1		

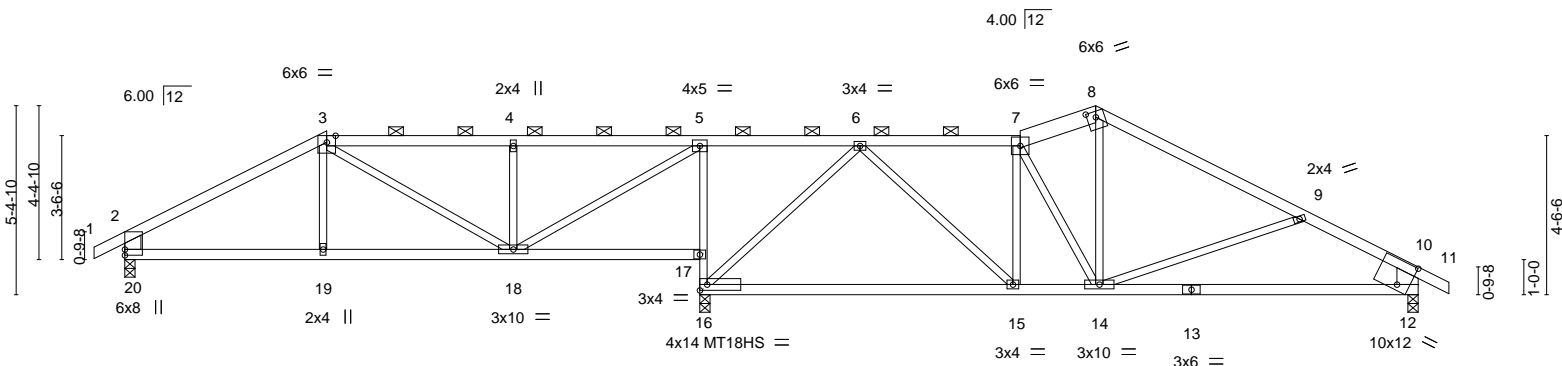
Wheeler Lumber, Waverly, KS 66871

8.410 s May 22 2020 MiTek Industries, Inc. Mon Jul 20 10:28:15 2020 Page 1

ID:Lek3CAANj\_gYbKvtCQHtmQzKvNM-PfHi5ENZRaKusX153Bp7\_2zq7VOZG4nruPMkLOywC9k

0-10-8	5-9-0	11-0-12	16-4-8	20-11-4	25-6-0	27-7-13	33-5-7	36-10-0	37-8-8
0-10-8	5-9-0	5-3-12	5-3-12	4-6-12	4-6-12	2-1-13	5-9-10	3-4-9	0-10-8

Scale = 1:65.6



	5-9-0	11-0-12	16-4-8	16-6-4	25-6-0	27-7-13	36-10-0
	5-9-0	5-3-12	5-3-12	0-1-12	8-11-12	2-1-13	9-2-3

Plate Offsets (X,Y)-- [8:0-3-0,0-1-15], [12:0-4-1,0-8-2]

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 0.68	Vert(LL)	-0.19 15-16	>999	360	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.64	Vert(CT)	-0.39 15-16	>614	240	MT18HS	197/144
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.94	Horz(CT)	-0.04 16	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-S	Wind(LL)	0.05 18-19	>999	240	Weight: 136 lb	FT = 10%

#### LUMBER-

TOP CHORD 2x4 SPF No.2 \*Except\*  
7-8: 2x6 SPF No.2, 8-11: 2x4 SPF 2100F 1.8E  
BOT CHORD 2x4 SPF No.2 \*Except\*  
5-16: 2x3 SPF No.2  
WEBS 2x3 SPF No.2 \*Except\*  
2-20: 2x6 SPF No.2, 10-12: 2x8 SP DSS

#### BRACING-

TOP CHORD Structural wood sheathing directly applied or 4-11-5 oc purlins, except end verticals, and 2-0-0 oc purlins (5-6-14 max.): 3-7.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing, Except:  
6-0-0 oc bracing: 17-18  
4-4-0 oc bracing: 16-17.

#### REACTIONS.

(size) 20=0-3-8, 16=0-3-8, 12=0-3-8  
Max Horz 20=-90(LC 9)  
Max Uplift 20=-154(LC 8), 16=-277(LC 8), 12=-147(LC 9)  
Max Grav 20=776(LC 21), 16=1706(LC 1), 12=953(LC 1)

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

TOP CHORD 2-3=-956/186, 3-4=-764/199, 4-5=-762/197, 6-7=-994/162, 7-8=-921/174,  
8-9=-1032/147, 9-10=-1236/239, 2-20=-699/188, 10-12=-855/194  
BOT CHORD 19-20=-111/760, 18-19=-113/758, 16-17=-941/211, 5-17=-878/236, 15-16=-73/608,  
14-15=-55/998, 12-14=-155/996  
WEBS 4-18=-411/173, 5-18=-182/1016, 6-16=-1000/175, 6-15=0/532, 7-14=-365/86,  
8-14=-25/415

#### 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.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 20=154, 16=277, 12=147.
- This truss 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.



July 20,2020

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

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



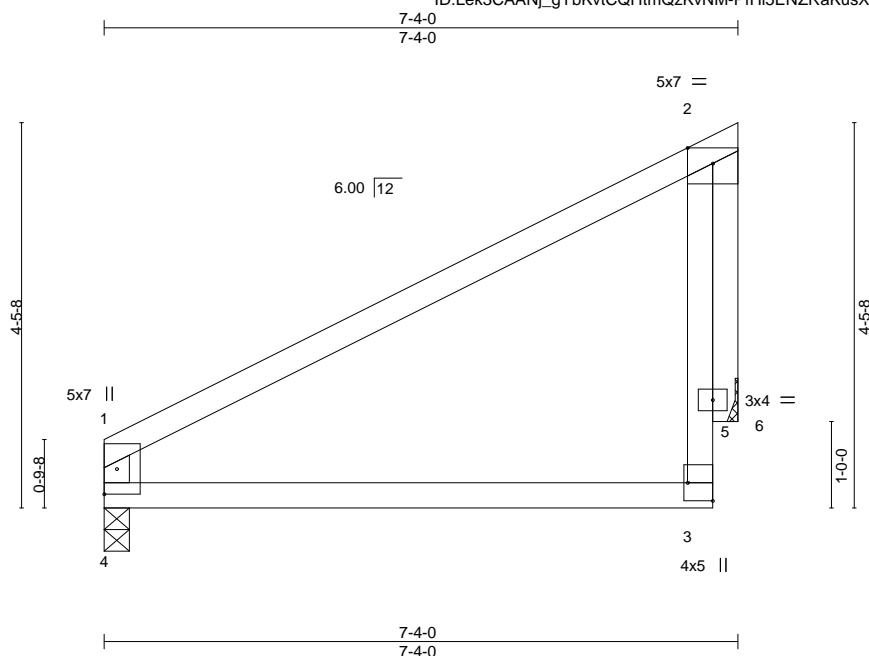
16023 Swingley Ridge Rd  
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 94 RR	I42087963
400513	C6	Monopitch	1	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS 66871

8.410 s May 22 2020 MiTek Industries, Inc. Mon Jul 20 10:28:15 2020 Page 1

ID:Lek3CAANj\_gYbKvtCQHtmQzKvNM-PfHi5ENZRaKusX153Bp7\_2zsSVUuGD6ruPMkLOYwC9k



Scale = 1:26.7

Plate Offsets (X,Y)--		[3:Edge,0-3-8]	
<b>LOADING</b> (psf)		<b>SPACING-</b>	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	
		<b>CSI.</b>	
		TC	0.53
		BC	0.30
		WB	0.34
		Matrix-R	
		<b>DEFL.</b>	
		in (loc)	l/defl
		Vert(LL)	-0.05 3-4 >999 360
		Vert(CT)	-0.10 3-4 >822 240
		Horz(CT)	-0.01 6 n/a n/a
		Wind(LL)	0.04 3-4 >999 240
		<b>PLATES</b>	<b>GRIP</b>
		MT20	197/144
		Weight: 26 lb	FT = 10%

#### LUMBER-

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

#### BRACING-

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

#### REACTIONS.

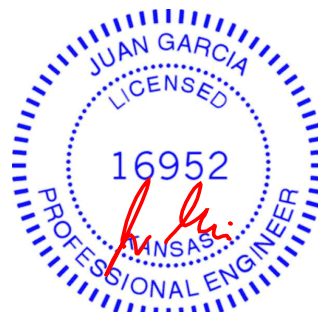
(size) 4=0-3-8, 6=Mechanical  
Max Horz 4=113(LC 8)  
Max Uplift 4=-18(LC 8), 6=-96(LC 8)  
Max Grav 4=320(LC 1), 6=288(LC 1)

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

TOP CHORD 1-4=-281/78

#### NOTES-

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 3) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 4) Refer to girder(s) for truss to truss connections.
- 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 4, 6.
- 6) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



July 20,2020

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

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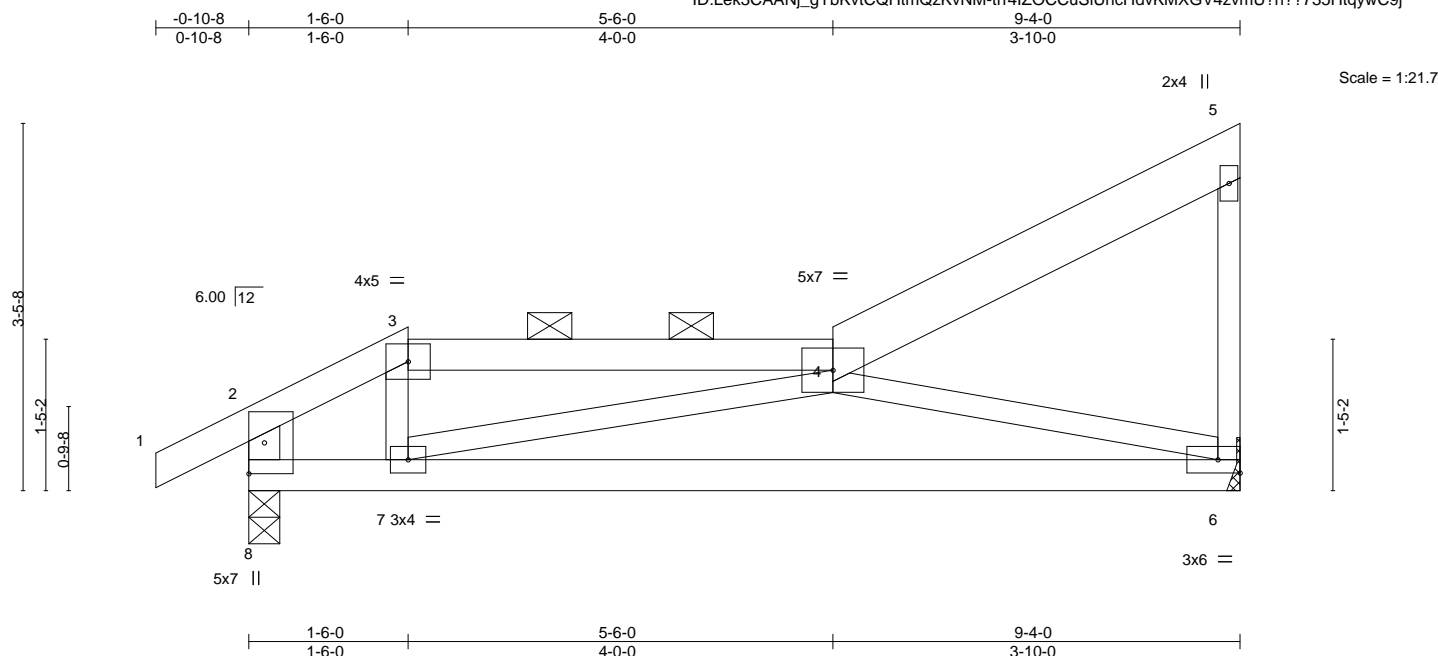
16023 Swingley Ridge Rd  
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 94 RR	I42087964
400513	C7	Roof Special Girder	1	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS 66871

8.410 s May 22 2020 MiTek Industries, Inc. Mon Jul 20 10:28:16 2020 Page 1

ID:Lek3CAANj\_gYbKvtCQHtmQzKvNM-trr4lZOCCuSIUhCdvKMXGV4zvmU?h??735HtqywC9j



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 0.35	Vert(LL)	-0.11	6-7	>971	360	MT20	197/144
BCLL 10.0	Lumber DOL	1.15	BC 0.53	Vert(CT)	-0.23	6-7	>467	240		
BCLL 0.0 *	Rep Stress Incr	NO	WB 0.30	Horz(CT)	0.01	6	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-S	Wind(LL)	0.02	6-7	>999	240	Weight: 36 lb	FT = 10%

#### LUMBER-

TOP CHORD 2x4 SPF No.2 \*Except\*  
4-5: 2x6 SPF No.2  
BOT CHORD 2x4 SPF No.2  
WEBS 2x3 SPF No.2 \*Except\*  
2-8: 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) 6=Mechanical, 8=0-3-8  
Max Horz 8=133(LC 5)  
Max Uplift 6=-85(LC 8), 8=-92(LC 8)  
Max Grav 6=405(LC 1), 8=483(LC 1)

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

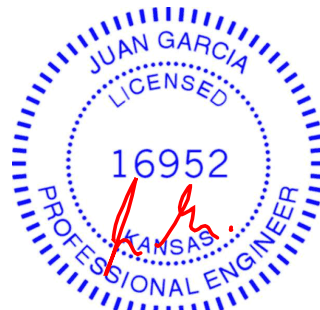
TOP CHORD 2-3=-562/14, 3-4=-438/35, 2-8=-439/35  
BOT CHORD 7-8=-60/449, 6-7=-192/732  
WEBS 3-7=0/286, 4-7=-306/180, 4-6=-748/236

#### 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) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 4) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 5) Refer to girder(s) for truss to truss connections.
- 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 6, 8.
- 7) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 8) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
- 9) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 67 lb down and 76 lb up at 1-6-0 on top chord, and 11 lb down and 1 lb up at 1-6-0 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
- 10) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

#### LOAD CASE(S) Standard

- 1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
- Uniform Loads (plf)  
Vert: 1-2=-70, 2-3=-70, 3-4=-70, 4-5=-70, 6-8=-20
- Concentrated Loads (lb)  
Vert: 7=1(F)



July 20,2020

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16023 Swingley Ridge Rd  
Chesterfield, MO 63017



Job	Truss	Truss Type	Qty	Ply	Lot 94 RR	I42087965
400513	C8	Roof Special	1	1	Job Reference (optional)	

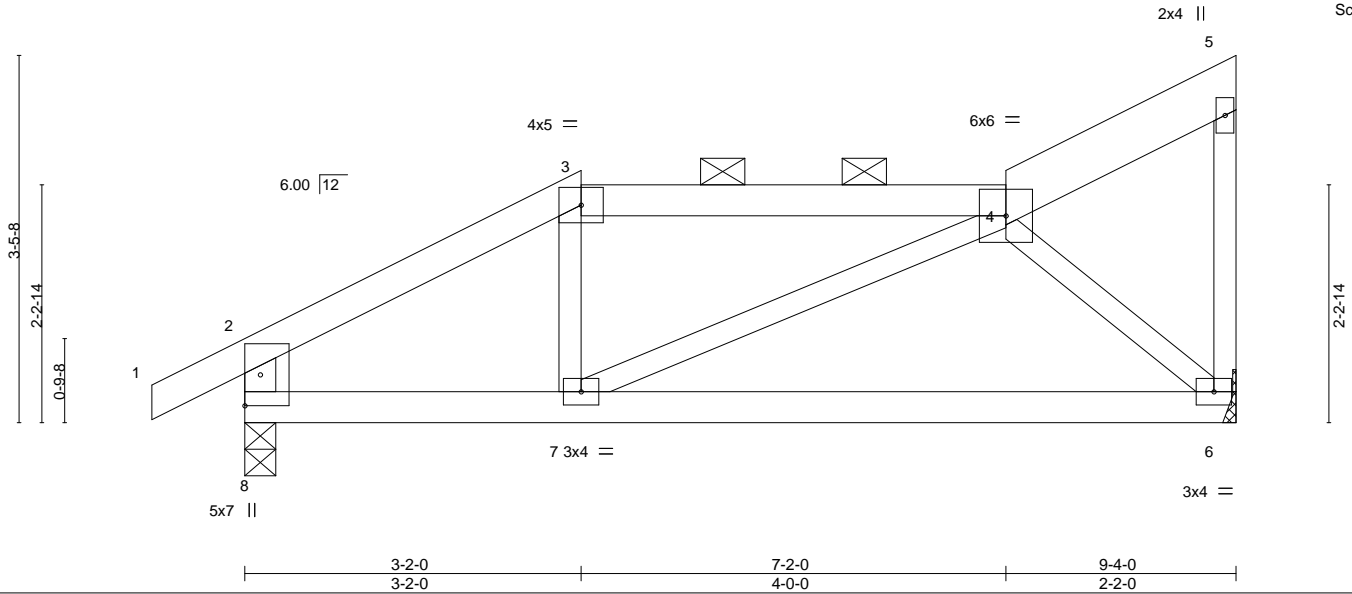
Wheeler Lumber, Waverly, KS 66871

8.410 s May 22 2020 MiTek Industries, Inc. Mon Jul 20 10:28:17 2020 Page 1

ID:Lek3CAANj\_gYbKvtCQHtmQzKvNM-M2PSVvPqzCac6rBUAcrb3T2GIIAJkBI8LjrPGywC9i

-0-10-8	3-2-0	7-2-0	9-4-0
0-10-8	3-2-0	4-0-0	2-2-0

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 0.32	Vert(LL)	-0.05	6-7	>999	360	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.30	Vert(CT)	-0.11	6-7	>976	240		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.11	Horz(CT)	0.01	6	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-S	Wind(LL)	0.02	6-7	>999	240	Weight: 35 lb	FT = 10%

#### LUMBER-

TOP CHORD 2x4 SPF No.2 \*Except\*  
4-5: 2x6 SPF No.2  
BOT CHORD 2x4 SPF No.2  
WEBS 2x3 SPF No.2 \*Except\*  
2-8: 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) 6=Mechanical, 8=0-3-8  
Max Horz 8=133(LC 5)  
Max Uplift 6=-85(LC 8), 8=-91(LC 8)  
Max Grav 6=405(LC 1), 8=484(LC 1)

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

TOP CHORD 2-3=-535/72, 3-4=-421/90, 2-8=-433/95  
BOT CHORD 7-8=-68/420, 6-7=-72/329  
WEBS 4-6=-441/143

#### 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) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 4) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 5) Refer to girder(s) for truss to truss connections.
- 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 6, 8.
- 7) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 8) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



July 20,2020

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16023 Swingley Ridge Rd  
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 94 RR	I42087966
400513	C9	Half Hip	1	1		

Wheeler Lumber, Waverly, KS 66871

8.410 s May 22 2020 MiTek Industries, Inc. Mon Jul 20 10:28:18 2020 Page 1

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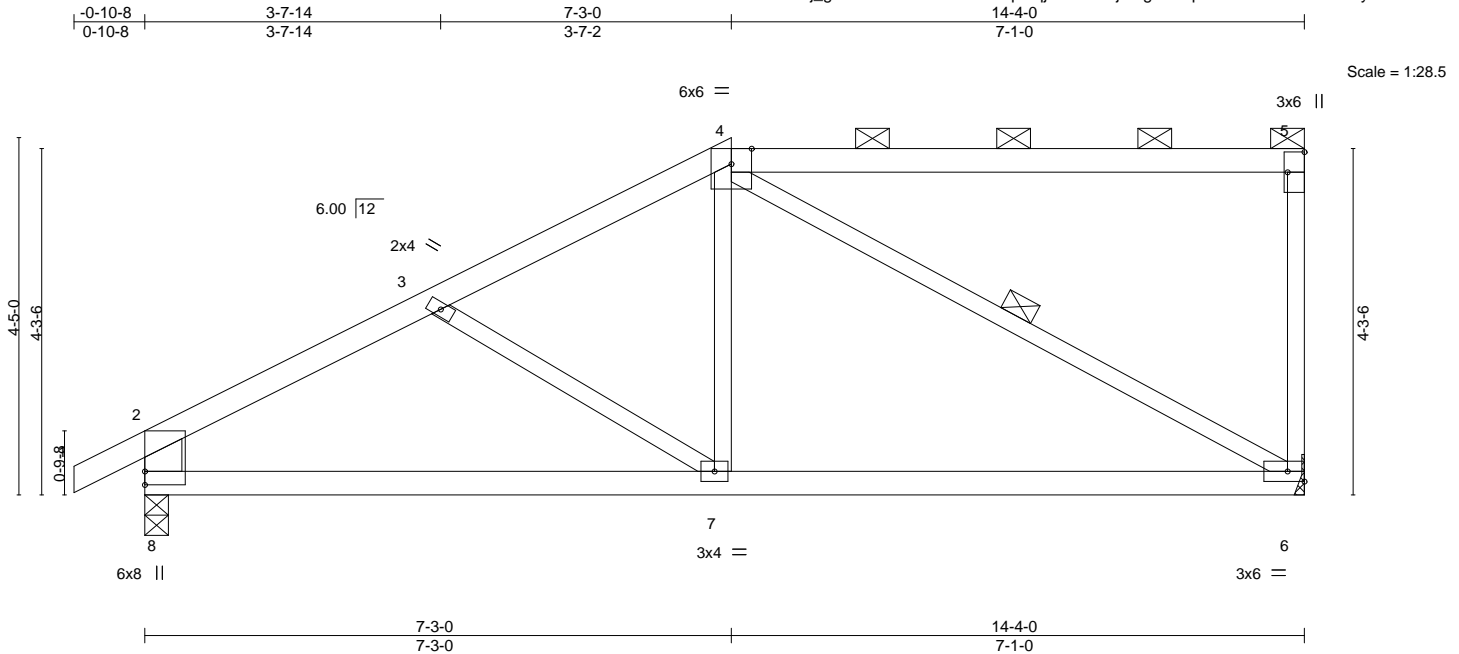


Plate Offsets (X,Y)--		[5:Edge,0-2-8]											
LOADING (psf)		SPACING- 2-0-0		CSI.		DEFL.		in (loc)		l/defl L/d		PLATES GRIP	
TCLL	25.0	Plate Grip DOL	1.15	TC	0.75	Vert(LL)	-0.07	6-7	>999	360		MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.43	Vert(CT)	-0.15	6-7	>999	240			
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.40	Horz(CT)	0.01	6	n/a	n/a			
BCDL	10.0	Code IRC2018/TPI2014		Matrix-S		Wind(LL)	0.03	6-7	>999	240		Weight: 51 lb	FT = 10%

#### LUMBER-

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

#### BRACING-

TOP CHORD Structural wood sheathing directly applied or 4-11-2 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.  
WEBS 1 Row at midpt 4-6

#### REACTIONS.

(size) 6=Mechanical, 8=0-3-8  
Max Horz 8=174(LC 5)  
Max Uplift 6=113(LC 5), 8=101(LC 8)  
Max Grav 6=627(LC 1), 8=710(LC 1)

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

TOP CHORD 2-3=-837/129, 3-4=-687/79, 2-8=-636/135  
BOT CHORD 7-8=-164/656, 6-7=-127/596  
WEBS 4-7=0/306, 4-6=-654/100

#### NOTES-

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- Provide adequate drainage to prevent water ponding.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- Refer to girder(s) for truss to truss connections.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 6=113, 8=101.
- This truss 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.



July 20,2020

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16023 Swingley Ridge Rd  
Chesterfield, MO 63017

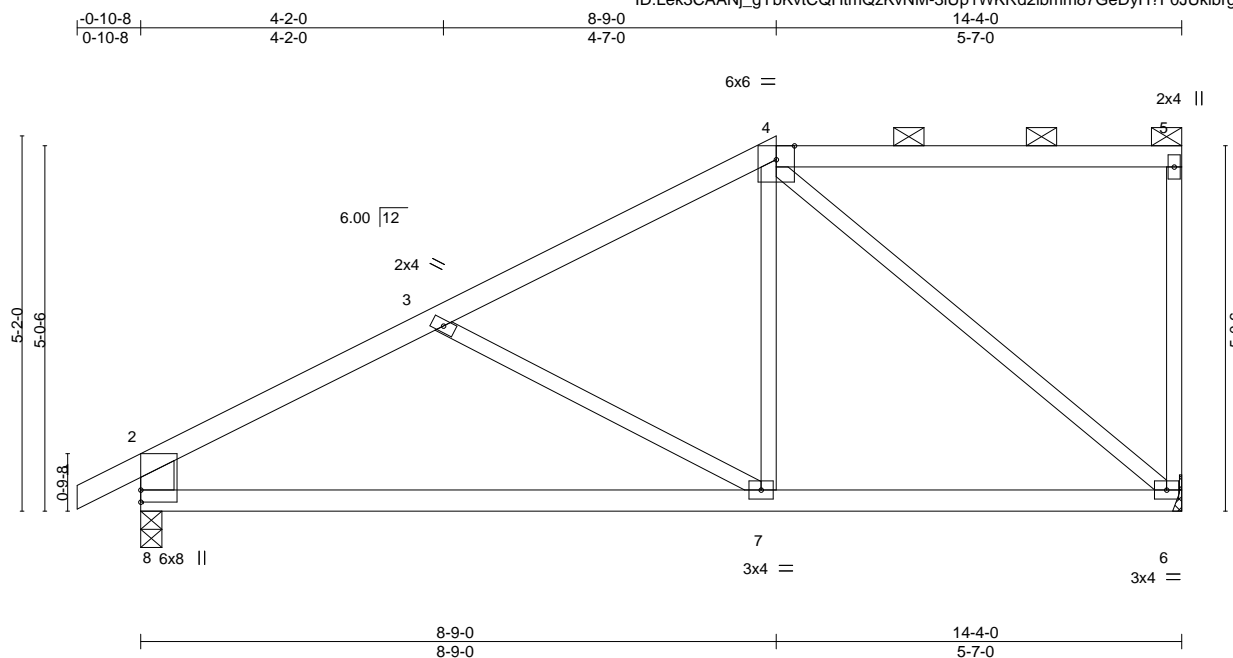


Job	Truss	Truss Type	Qty	Ply	Lot 94 RR	I42087967
400513	C10	Half Hip	1	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS 66871

8.410 s May 22 2020 MiTek Industries, Inc. Mon Jul 20 10:28:10 2020 Page 1

ID:Lek3CAANj\_gYbKvtCQHTmQzKvNM-3iUp1WKRd2ibmm87GeDyH?F0JUKlbrg6k7ezfAyc9p



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)	-0.12	7-8	>999	360	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.49	Vert(CT)	-0.24	7-8	>707	240		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.81	Horz(CT)	0.01	6	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-S	Wind(LL)	0.02	6-7	>999	240	Weight: 53 lb	FT = 10%

#### LUMBER-

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

#### BRACING-

TOP CHORD Structural wood sheathing directly applied or 5-4-1 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.

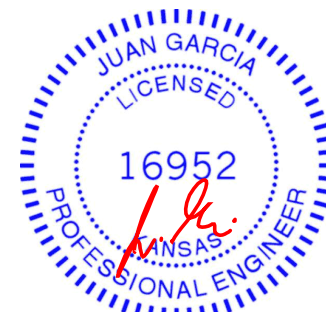
(size) 6=Mechanical, 8=0-3-8  
 Max Horz 8=205(LC 5)  
 Max Uplift 6=110(LC 5), 8=108(LC 8)  
 Max Grav 6=627(LC 1), 8=710(LC 1)

#### FORCES.

(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-3=-842/157, 3-4=-584/80, 2-8=-621/153  
 BOT CHORD 7-8=-178/670, 6-7=-107/475  
 WEBS 4-7=0/351, 4-6=-616/85

#### NOTES-

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- Provide adequate drainage to prevent water ponding.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- Refer to girder(s) for truss to truss connections.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 6=110, 8=108.
- This truss 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.



July 20,2020

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16023 Swingley Ridge Rd  
 Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 94 RR	I42087968
400513	D1	Common Supported Gable	1	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS 66871

8.410 s May 22 2020 MiTek Industries, Inc. Mon Jul 20 10:28:19 2020 Page 1

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0-10-8 12-3-0 24-6-0 25-4-8  
0-10-8 12-3-0 12-3-0 0-10-8

4x5 =

Scale = 1:45.8

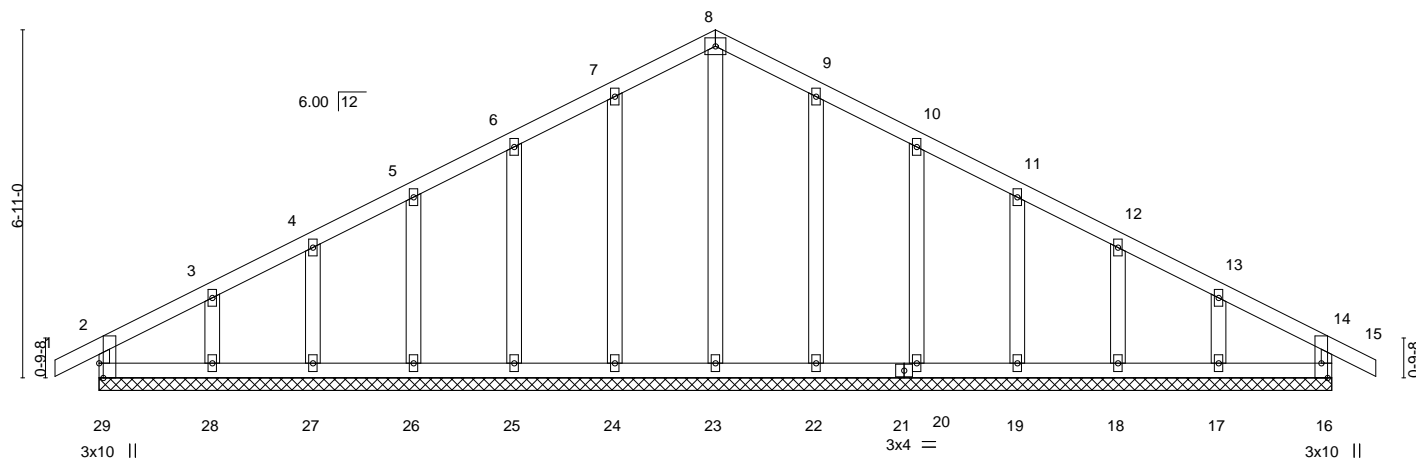


Plate Offsets (X,Y)-- [29:0-3-8,Edge]		24-6-0 24-6-0			
<b>LOADING</b> (psf)	<b>SPACING-</b>	2-0-0	<b>CSI.</b>	<b>DEFL.</b>	<b>PLATES</b>
TCLL 25.0	Plate Grip DOL	1.15	TC 0.08	in (loc) l/defl L/d	MT20
TCDL 10.0	Lumber DOL	1.15	BC 0.04	Vert(LL) -0.00 15 n/r 120	GRIP 197/144
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.11	Vert(CT) -0.00 15 n/r 120	
BCDL 10.0	Code IRC2018/TPI2014		Matrix-R	Horz(CT) 0.00 16 n/a n/a	Weight: 108 lb FT = 10%

#### LUMBER-

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

#### BRACING-

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

#### REACTIONS.

All bearings 24-6-0.  
(lb) - Max Horz 29=105(LC 7)  
Max Uplift All uplift 100 lb or less at joint(s) 29, 16, 24, 25, 26, 27, 28, 22, 20, 19, 18, 17  
Max Grav All reactions 250 lb or less at joint(s) 29, 16, 23, 24, 25, 26, 27, 28, 22, 20, 19, 18, 17

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

#### NOTES-

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- All plates are 2x4 MT20 unless otherwise indicated.
- Gable requires continuous bottom chord bearing.
- Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
- Gable studs spaced at 2-0-0 oc.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 29, 16, 24, 25, 26, 27, 28, 22, 20, 19, 18, 17.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



July 20,2020

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16023 Swingley Ridge Rd  
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 94 RR	I42087969
400513	D2	Common	7	1		

Wheeler Lumber, Waverly, KS 66871

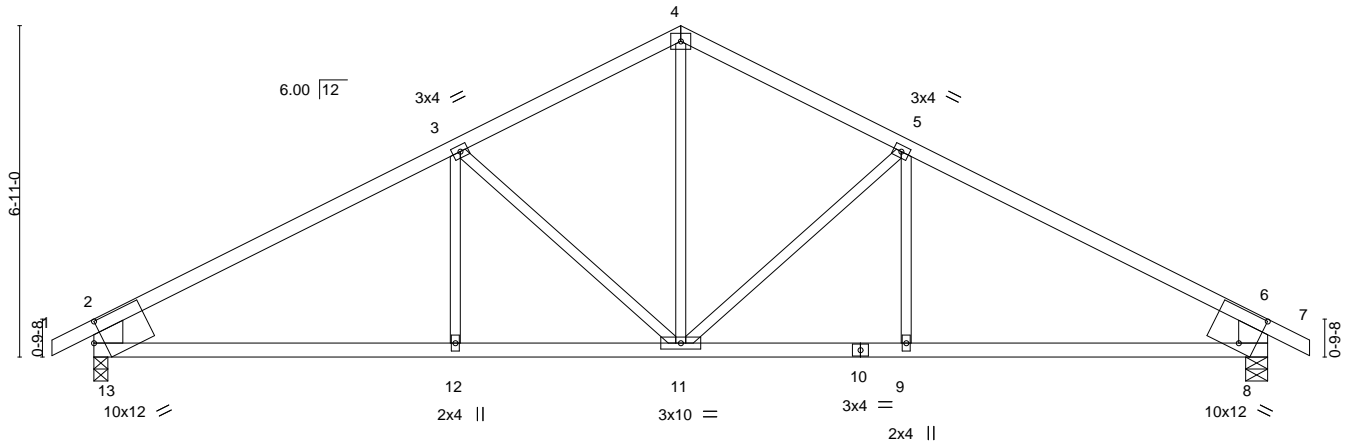
8.410 s May 22 2020 MiTek Industries, Inc. Mon Jul 20 10:28:20 2020 Page 1

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0-10-8 7-6-9 12-3-0 16-11-8 24-6-0 25-4-8  
0-10-8 7-6-9 4-8-8 4-8-7 7-6-8 0-10-8

4x5 =

Scale: 1/4"=1'



7-6-9 12-3-0 16-11-8 24-6-0  
7-6-9 4-8-8 4-8-7 7-6-8

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

LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	L/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.73	Vert(LL)	-0.13	9-11	>999	360	MT20
TCDL 10.0	Lumber DOL	1.15	BC 0.66	Vert(CT)	-0.24	9-11	>999	240	197/144
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.45	Horz(CT)	0.05	8	n/a	n/a	
BCDL 10.0	Code IRC2018/TPI2014		Matrix-S	Wind(LL)	0.07	9-11	>999	240	
								Weight: 86 lb	FT = 10%

#### LUMBER-

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

#### BRACING-

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

#### REACTIONS.

(size) 13=0-3-8, 8=0-5-8  
Max Horz 13=109(LC 7)  
Max Uplift 13=-160(LC 8), 8=-160(LC 9)  
Max Grav 13=1158(LC 1), 8=1158(LC 1)

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

TOP CHORD 2-3=-1586/195, 3-4=-1178/200, 4-5=-1178/200, 5-6=-1586/195, 2-13=-1056/206, 6-8=-1056/206  
BOT CHORD 12-13=-168/1286, 11-12=-168/1286, 9-11=-74/1286, 8-9=-74/1286  
WEBS 4-11=-100/662, 5-11=-455/187, 3-11=-455/186

#### 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 100 lb uplift at joint(s) except (it=lb) 13=160, 8=160.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



July 20,2020

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16023 Swingley Ridge Rd  
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 94 RR	I42087970
400513	E1	Common Structural Gable	1	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS 66871

8.410 s May 22 2020 MiTek Industries, Inc. Mon Jul 20 10:28:21 2020 Page 1

ID:Lek3CAANj\_gYbKvtCQHtmQzKvNM-EpfzLHsk1Q51aSUFPswXEJCsSwTRgw9kGLp2Y1ywC9e

0-10-8 7-6-9 14-9-0 21-11-8 29-4-8  
0-10-8 7-6-9 7-2-8 7-2-8 7-5-0

5x7 =

Scale = 1:55.4

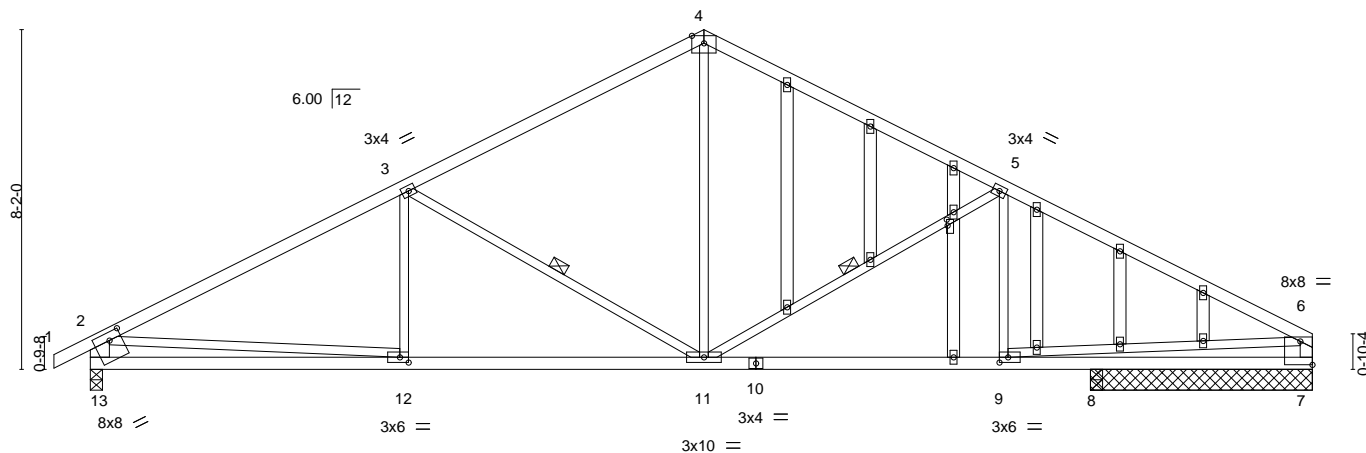


Plate Offsets (X,Y)--	[6:Edge,0-6-12], [9:0-2-8,0-1-8], [12:0-2-8,0-1-8], [13:0-3-8,0-2-4], [20:0-1-12,0-0-4]
-----------------------	-----------------------------------------------------------------------------------------

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 0.69	Vert(LL)	-0.12	9-11	>999	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.61	Vert(CT)	-0.26	9-11	>999		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.44	Horz(CT)	0.05	7	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-S	Wind(LL)	0.08	9-11	>999	Weight: 134 lb	FT = 10%

#### LUMBER-

TOP CHORD 2x4 SPF No.2  
BOT CHORD 2x4 SPF No.2  
WEBS 2x3 SPF No.2 \*Except\*  
2-13: 2x6 SPF No.2, 6-7: 2x4 SPF No.2  
OTHERS 2x4 SPF No.2

#### BRACING-

TOP CHORD Structural wood sheathing directly applied or 3-0-14 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

#### REACTIONS.

(size) 7=5-4-0, 13=0-3-8, 8=0-3-8  
Max Horz 13=127(LC 7)  
Max Uplift 7=-174(LC 9), 13=-191(LC 8)  
Max Grav 7=1135(LC 1), 13=1348(LC 1), 8=210(LC 3)

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

TOP CHORD 2-3=-2016/263, 3-4=-1433/240, 4-5=-1436/242, 5-6=-1847/272, 2-13=-1273/231, 6-7=-1117/208  
BOT CHORD 12-13=-285/604, 11-12=-262/1700, 9-11=-168/1561, 8-9=-99/293, 7-8=-99/293  
WEBS 3-11=-656/235, 4-11=-61/717, 5-11=-520/251, 2-12=-13/1100, 6-9=-78/1272

#### NOTES-

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- All plates are 2x4 MT20 unless otherwise indicated.
- Gable studs spaced at 2-0-0 oc.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 7=174, 13=191.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



July 20,2020

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16023 Swingley Ridge Rd  
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 94 RR	I42087971
400513	E2	Common	2	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS 66871

8.410 s May 22 2020 MiTek Industries, Inc. Mon Jul 20 10:28:25 2020 Page 1  
ID:Lek3CAANj\_gYbKvtCQHtmQzKvNM-7auUBeVr5fbT34o0eL\_TO9NYzXrNcjKKBynGhoywC9a

0-10-8 7-6-9 14-9-0 21-11-7 28-2-14  
0-10-8 7-6-9 7-2-8 7-2-6 6-3-8

5x7 =

Scale = 1:54.6

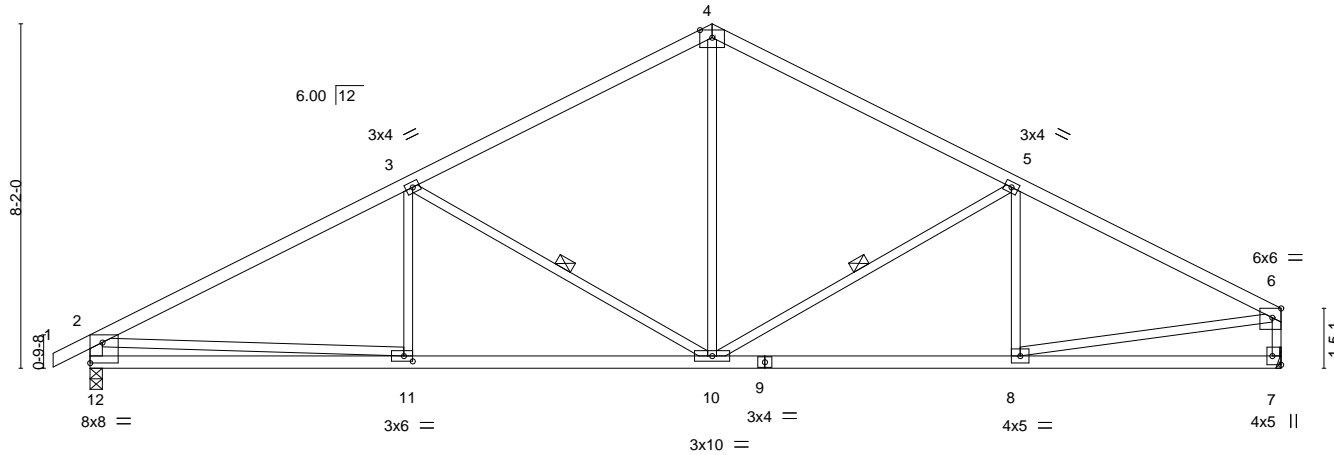


Plate Offsets (X, Y)-- [6:0-2-8,Edge], [7:Edge,0-2-8], [11:0-2-8,0-1-8], [12:Edge,0-5-13]

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 0.66	Vert(LL)	-0.09 10-11	>999	360	MT20	197/144
TCCL 10.0	Lumber DOL	1.15	BC 0.55	Vert(CT)	-0.18 10-11	>999	240		
BCCL 0.0 *	Rep Stress Incr	YES	WB 0.49	Horz(CT)	0.05 7	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-S	Wind(LL)	0.06 10-11	>999	240	Weight: 107 lb	FT = 10%

#### LUMBER-

TOP CHORD 2x4 SPF No.2  
BOT CHORD 2x4 SPF No.2  
WEBS 2x3 SPF No.2 \*Except\*  
2-12: 2x4 SPF 2100F 1.8E

#### BRACING-

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

#### REACTIONS.

(size) 12=0-3-8, 7=Mechanical  
Max Horz 12=142(LC 5)  
Max Uplift 12=183(LC 8), 7=150(LC 9)  
Max Grav 12=1332(LC 1), 7=1258(LC 1)

#### FORCES.

(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
TOP CHORD 2-3=-2015/252, 3-4=-1409/221, 4-5=-1408/229, 5-6=-1771/217, 2-12=-1258/224, 6-7=-1199/179  
BOT CHORD 11-12=-295/642, 10-11=-256/1700, 8-10=-143/1513  
WEBS 3-10=-677/238, 4-10=-49/689, 5-10=-492/207, 2-11=0/1060, 6-8=-112/1425

#### 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
- The Fabrication Tolerance at joint 2 = 2%
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- Refer to girder(s) for truss to truss connections.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 12=183, 7=150.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



July 20,2020

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16023 Swingley Ridge Rd  
Chesterfield, MO 63017



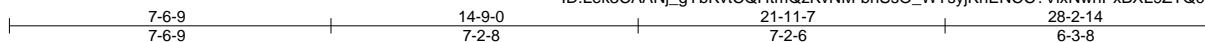
Job	Truss	Truss Type	Qty	Ply	Lot 94 RR	I42087972
400513	E3	Common	4	1		

Wheeler Lumber, Waverly, KS 66871

8.410 s May 22 2020 MiTek Industries, Inc. Mon Jul 20 10:28:26 2020 Page 1

ID:Lek3CAANj\_gYbKvtCQHtmQzKvNM-bnSsO\_WTsYjKhENCC?VixNwhPxBXL9ZTQcWpDFyWC9Z

Job Reference (optional)



5x7 =

Scale = 1:54.1

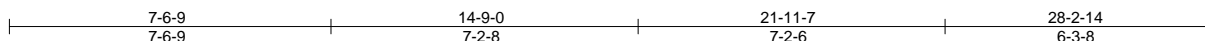
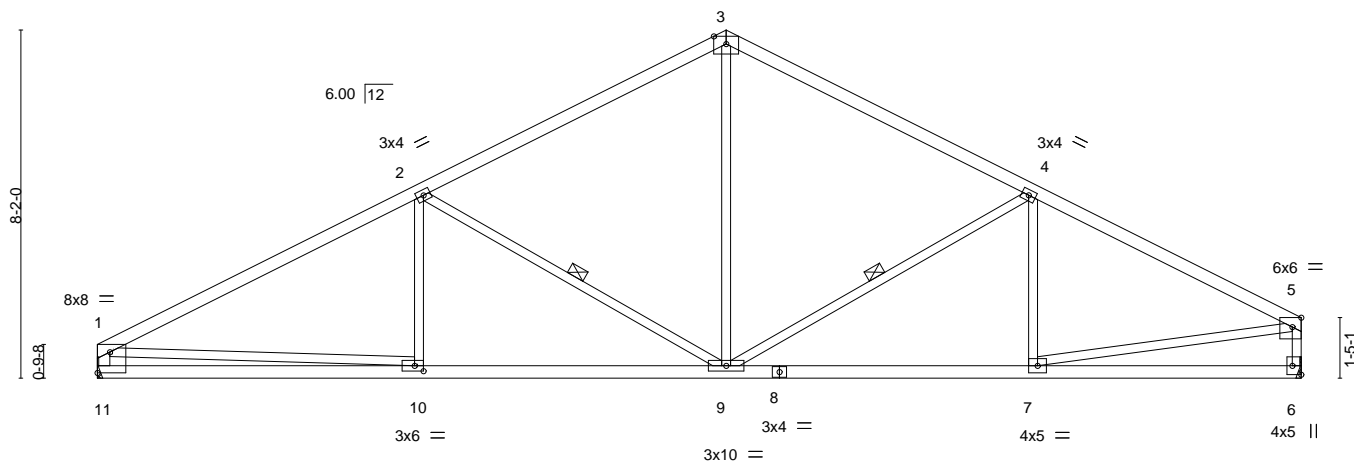


Plate Offsets (X,Y)-- [1:Edge,0-5-13], [5:0-2-8,Edge], [6:Edge,0-2-8], [10:0-2-8,0-1-8]

LOADING (psf)	SPACING-		CSI.	DEFL.	in	(loc)	I/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	2-0-0	TC 0.74	Vert(LL)	-0.09	9-10	>999	360	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.55	Vert(CT)	-0.19	9-10	>999	240		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.49	Horz(CT)	0.04	6	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-S	Wind(LL)	0.05	9-10	>999	240	Weight: 106 lb	FT = 10%

#### LUMBER-

TOP CHORD 2x4 SPF No.2  
BOT CHORD 2x4 SPF No.2  
WEBS 2x3 SPF No.2 \*Except\*  
1-11: 2x4 SPF No.2

#### BRACING-

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

#### REACTIONS.

(size) 11=Mechanical, 6=Mechanical  
Max Horz 11=113(LC 7)  
Max Uplift 11=17(LC 8), 6=11(LC 9)  
Max Grav 11=1260(LC 1), 6=1260(LC 1)

#### FORCES.

(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
TOP CHORD 1-2=-2020/42, 2-3=-1413/69, 3-4=-1411/74, 4-5=-1774/35, 1-11=-1184/57, 5-6=-1200/41  
BOT CHORD 10-11=-96/480, 9-10=-42/1713, 7-9=0/1515  
WEBS 2-9=-690/115, 3-9=0/698, 4-9=-492/108, 1-10=0/1239, 5-7=0/1428

#### 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
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- Refer to girder(s) for truss to truss connections.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 11, 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.



July 20,2020

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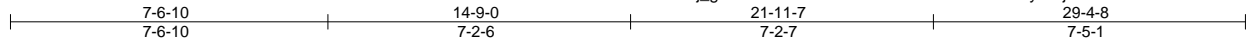
16023 Swingley Ridge Rd  
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 94 RR	I42087973
400513	E4	Common	1	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS 66871

8.410 s May 22 2020 MiTek Industries, Inc. Mon Jul 20 10:28:27 2020 Page 1

ID:Lek3CAANj\_gYbKvtCQHtmQzKvNM-3z0EcX5dGrBJNyPmj1xTaSrdKXW4c9cfGGMmhywC9Y



5x7 =

Scale = 1:54.8

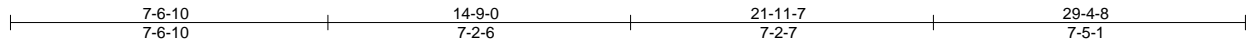
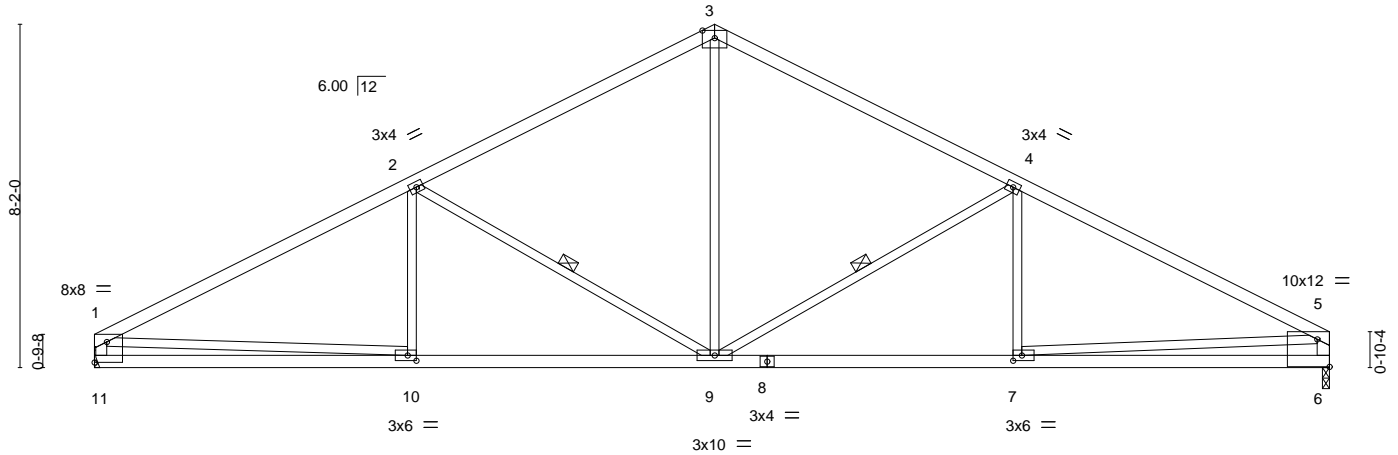


Plate Offsets (X,Y)-- [1:Edge,0-5-13], [5:Edge,0-7-13], [7:0-2-8,0-1-8], [10:0-2-8,0-1-8]

LOADING (psf)	SPACING-		CSI.	DEFL.	in	(loc)	I/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	2-0-0	TC 0.77	Vert(LL)	-0.10	9-10	>999	360	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.57	Vert(CT)	-0.21	7-9	>999	240		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.47	Horz(CT)	0.05	6	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-S	Wind(LL)	0.07	9-10	>999	240	Weight: 109 lb	FT = 10%

#### LUMBER-

TOP CHORD 2x4 SPF No.2  
BOT CHORD 2x4 SPF No.2  
WEBS 2x3 SPF No.2 \*Except\*  
1-11,5-6: 2x4 SPF No.2

#### BRACING-

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

#### REACTIONS.

(size) 11=Mechanical, 6=0-2-0  
Max Horz 11=117(LC 7)  
Max Uplift 11=162(LC 8), 6=161(LC 9)  
Max Grav 11=1309(LC 1), 6=1309(LC 1)

#### FORCES.

(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
TOP CHORD 1-2=-2116/258, 2-3=-1515/236, 3-4=-1515/237, 4-5=-2090/255, 1-11=-1233/202,  
5-6=-1234/200  
BOT CHORD 10-11=-209/487, 9-10=-263/1798, 7-9=-152/1778, 6-7=-93/419  
WEBS 2-9=-686/242, 3-9=-59/795, 4-9=-665/238, 1-10=-57/1315, 5-7=-68/1364

#### 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
- Bearing capacity is increased by the plate at joint(s) 6. Plate must be within 1/4 in of bearing surface.
- 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 at joint(s) 6.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 11=162, 6=161.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



July 20,2020

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16023 Swingley Ridge Rd  
Chesterfield, MO 63017



Job	Truss	Truss Type	Qty	Ply	Lot 94 RR	I42087974
400513	E5	Common	1	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS 66871

8.410 s May 22 2020 MiTek Industries, Inc. Mon Jul 20 10:28:28 2020 Page 1

ID:Lek3CAANj\_gYbKvtCQHtmQzKvNM-X9acpgXjOaz2wXWbKQYA0o?1Bksp3Pmtw?w17ywC9X

-0-10-8 7-6-9 14-9-0 21-11-8 29-4-8  
0-10-8 7-6-9 7-2-8 7-2-8 7-5-0

5x7 =

Scale = 1:55.4

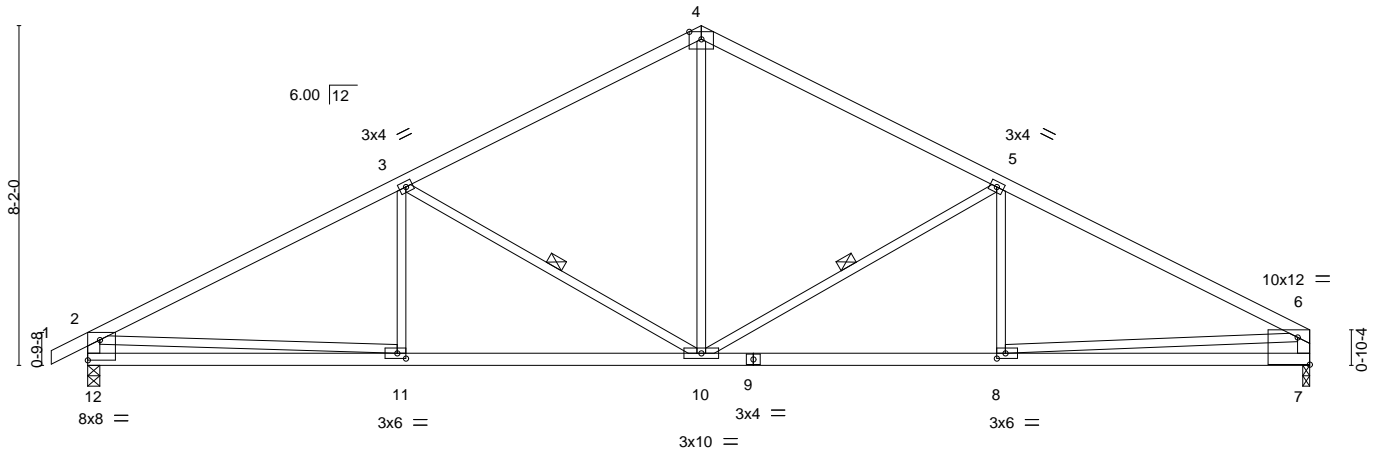


Plate Offsets (X, Y)--		[6:Edge,0-7-13], [8:0-2-8,0-1-8], [11:0-2-8,0-1-8], [12:Edge,0-5-13]	
<b>LOADING</b> (psf)	<b>SPACING-</b>	<b>CSI.</b>	<b>DEFL.</b>
TCLL 25.0	Plate Grip DOL 1.15	TC 0.72	in (loc) l/defl L/d
TCDL 10.0	Lumber DOL 1.15	BC 0.56	Vert(LL) -0.10 8-10 >999 360
BCLL 0.0 *	Rep Stress Incr YES	WB 0.47	Vert(CT) -0.21 8-10 >999 240
BCDL 10.0	Code IRC2018/TPI2014	Matrix-S	Horz(CT) 0.05 7 n/a n/a
			Wind(LL) 0.07 8-10 >999 240
			<b>PLATES</b> <b>GRIP</b>
			MT20 197/144
			Weight: 111 lb FT = 10%

#### LUMBER-

TOP CHORD 2x4 SPF No.2  
BOT CHORD 2x4 SPF No.2  
WEBS 2x3 SPF No.2 \*Except\*  
2-12: 2x4 SPF 2400F 2.0E, 6-7: 2x4 SPF No.2

#### BRACING-

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

#### REACTIONS.

(size) 12=0-3-8, 7=0-2-0  
Max Horz 12=128(LC 12)  
Max Uplift 12=186(LC 8), 7=161(LC 9)  
Max Grav 12=1381(LC 1), 7=1307(LC 1)

#### FORCES.

(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
TOP CHORD 2-3=-2111/258, 3-4=-1511/235, 4-5=-1512/236, 5-6=-2088/255, 2-12=-1307/226, 6-7=-1233/200  
BOT CHORD 11-12=-295/656, 10-11=-259/1785, 8-10=-152/1775, 7-8=-93/419  
WEBS 3-10=-673/237, 4-10=-57/786, 5-10=-665/238, 2-11=-6/1132, 6-8=-67/1362

#### 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
- The Fabrication Tolerance at joint 2 = 2%
- Bearing capacity is increased by the plate at joint(s) 7. Plate must be within 1/4 in of bearing surface.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- Provide mechanical connection (by others) of truss to bearing plate at joint(s) 7.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 12=186, 7=161.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



July 20,2020

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16023 Swingley Ridge Rd  
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 94 RR	142087975
400513	E6	Roof Special	1	1		

Wheeler Lumber, Waverly, KS 66871

8.410 s May 22 2020 MiTek Industries, Inc. Mon Jul 20 10:28:29 2020 Page 1

0-10-8 7-6-9 14-9-0 15-4-0 17-10-0 21-11-7 29-4-8  
0-10-8 7-6-9 7-2-8 0-7-0 2-6-0 4-1-7 7-5-1

5x7 =

Scale = 1:56.8

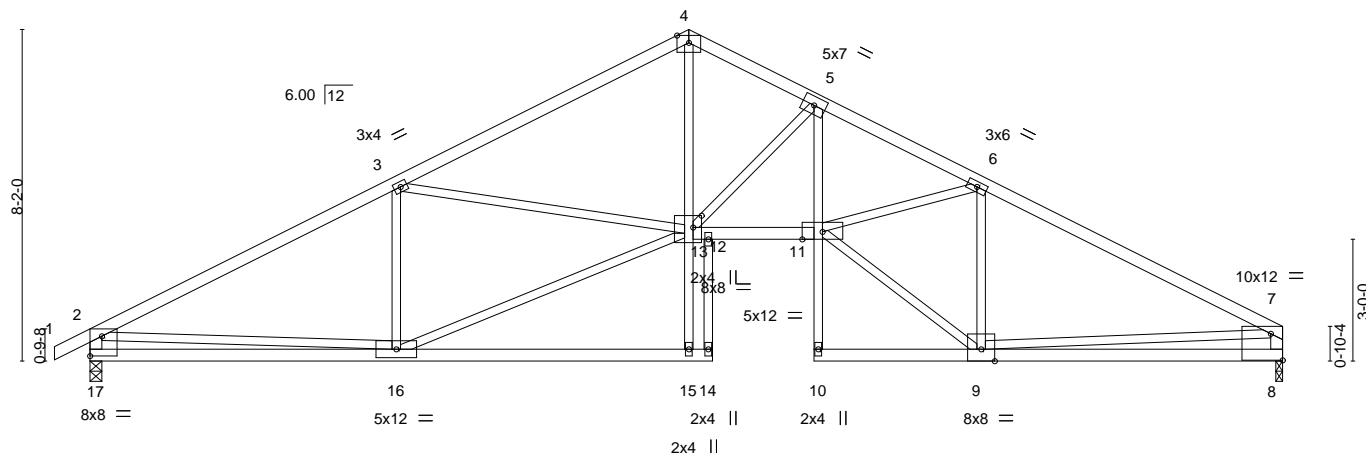


Plate Offsets (X,Y)--	[7:Edge,0-7-13], [13:0-2-8,0-3-8], [17:Edge,0-5-13]
-----------------------	-----------------------------------------------------

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 0.93	Vert(LL)	-0.21	10	>999	360	MT20
TCDL 10.0	Lumber DOL	1.15	BC 0.83	Vert(CT)	-0.37	10	>937	240	197/144
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.75	Horz(CT)	0.22	8	n/a	n/a	
BCDL 10.0	Code IRC2018/TPI2014		Matrix-S	Wind(LL)	0.13	11	>999	240	Weight: 128 lb FT = 10%

#### LUMBER-

TOP CHORD 2x4 SPF No.2  
BOT CHORD 2x4 SPF No.2 \*Except\*  
5-10: 2x3 SPF No.2  
WEBS 2x3 SPF No.2 \*Except\*  
2-17: 2x4 SPF 2100F 1.8E, 7-8: 2x4 SPF No.2

#### BRACING-

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

#### REACTIONS.

(size) 17=0-3-8, 8=0-2-0  
Max Horz 17=128(LC 8)  
Max Uplift 17=-186(LC 8), 8=-161(LC 9)  
Max Grav 17=1381(LC 1), 8=1307(LC 1)

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

TOP CHORD 2-3=-2114/257, 3-4=-2331/248, 4-5=-2264/282, 5-6=-3277/293, 6-7=-2066/246,  
2-17=-1308/226, 7-8=-1230/201  
BOT CHORD 16-17=-296/647, 12-13=-127/2844, 11-12=-128/2846, 5-11=-115/1173, 8-9=-111/461  
WEBS 3-16=-665/201, 3-13=-48/318, 13-15=0/394, 4-13=-101/1605, 5-13=-1215/198,  
9-11=-176/2189, 6-11=-46/1139, 6-9=-1336/196, 2-16=-11/1145, 7-9=-64/1294,  
13-16=-283/1921

#### 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
- The Fabrication Tolerance at joint 2 = 2%
- Bearing capacity is increased by the plate at joint(s) 8. Plate must be within 1/4 in of bearing surface.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- Provide mechanical connection (by others) of truss to bearing plate at joint(s) 8.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 17=186, 8=161.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



July 20,2020

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16023 Swingley Ridge Rd  
Chesterfield, MO 63017

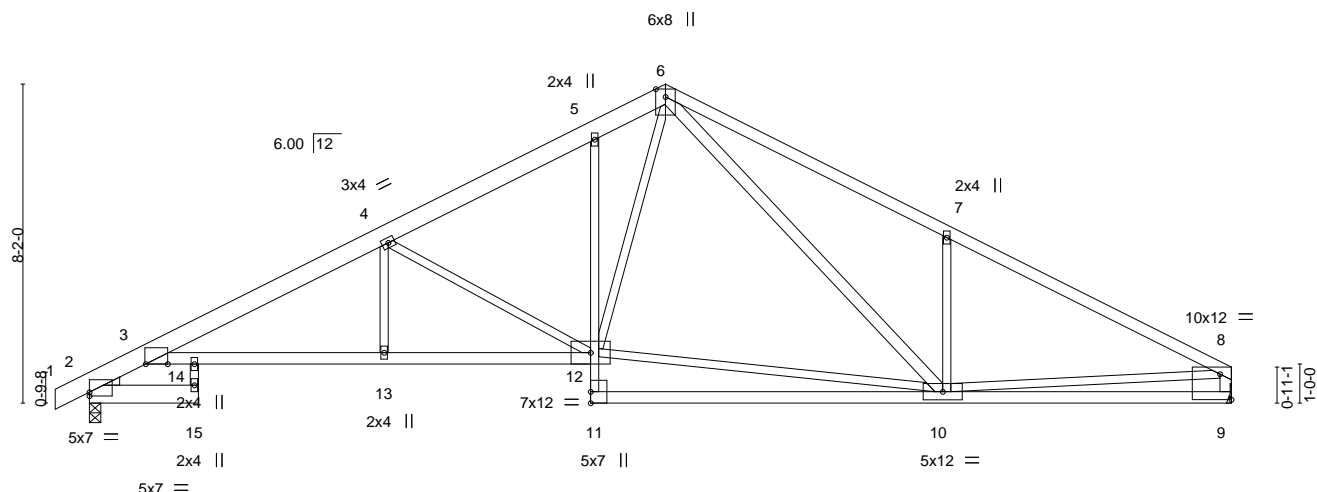
Job	Truss	Truss Type	Qty	Ply	Lot 94 RR	I42087976
400513	E7	Roof Special	2	1		

Wheeler Lumber, Waverly, KS 66871, Mitek

8.410 s May 22 2020 Mitek Industries, Inc. Mon Jul 20 15:57:22 2020 Page 1

ID:Lek3CAANj\_gYbKvtCQHtmQzKvNM-IFNBFPHYJtNoEm?q7znqoKSUe0xW0SRI8K9xJyw7LB

-Q-10-8	2-9-8	7-6-9	12-10-0	14-9-0	21-11-7	29-2-14
0-10-8	2-9-8	4-9-1	5-3-7	1-11-0	7-2-7	7-3-7



	2-9-8	7-6-9	12-10-0	21-11-7	29-2-14
	2-9-8	4-9-1	5-3-7	9-1-7	7-3-7

Plate Offsets (X,Y)--	[2:0-0-0,0-1-3], [3:0-6-12,0-0-0], [8:Edge,0-7-13]						
<b>LOADING</b> (psf)	<b>SPACING-</b> 2-0-0	<b>CSI.</b>	<b>DEFL.</b> in (loc)	<b>l/defl</b>	<b>L/d</b>	<b>PLATES</b>	<b>GRIP</b>
TCLL 25.0	Plate Grip DOL 1.15	TC 0.69	Vert(LL) -0.22 13-14	>999	360	MT20	197/144
TCDL 10.0	Lumber DOL 1.15	BC 0.67	Vert(CT) -0.46 10-11	>758	240		
BCLL 0.0 *	Rep Stress Incr YES	WB 1.00	Horz(CT) 0.22 9	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014	Matrix-S	Wind(LL) 0.12 13-14	>999	240		
						Weight: 143 lb	FT = 10%

#### LUMBER-

TOP CHORD 2x6 SP 2400F 2.0E \*Except\*  
6-8: 2x4 SPF No.2  
BOT CHORD 2x4 SPF No.2 \*Except\*  
2-15: 2x6 SPF No.2, 3-12: 2x4 SPF 2100F 1.8E, 5-11: 2x3 SPF No.2  
WEBS 2x3 SPF No.2 \*Except\*  
6-10,8-9: 2x4 SPF No.2  
WEDGE  
Left: 2x3 SPF No.2

#### BRACING-

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

**REACTIONS.** (lb/size) 2=1375/0-3-8, 9=1301/Mechanical  
Max Horz 2=105(LC 7)  
Max Uplift 2=-27(LC 8), 9=-15(LC 9)

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

TOP CHORD 2-3=-824/41, 3-4=-2752/50, 4-5=-1882/54, 5-6=-1721/97, 6-7=-2051/146, 7-8=-2063/33, 8-9=-1233/50  
BOT CHORD 3-14=-47/2473, 13-14=-47/2473, 12-13=-47/2473, 9-10=-36/351  
WEBS 4-13=0/325, 4-12=-1056/104, 10-12=0/1209, 6-12=-48/839, 6-10=-119/679, 7-10=-535/186, 8-10=0/1410

#### 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
- 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.
- All bearings are assumed to be SPF No.2 crushing capacity of 425 psi.
- Refer to girder(s) for truss to truss connections.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 27 lb uplift at joint 2 and 15 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.



July 20,2020

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16023 Swingley Ridge Rd  
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 94 RR	I42087977
400513	E8	Roof Special	1	1	Job Reference (optional)	

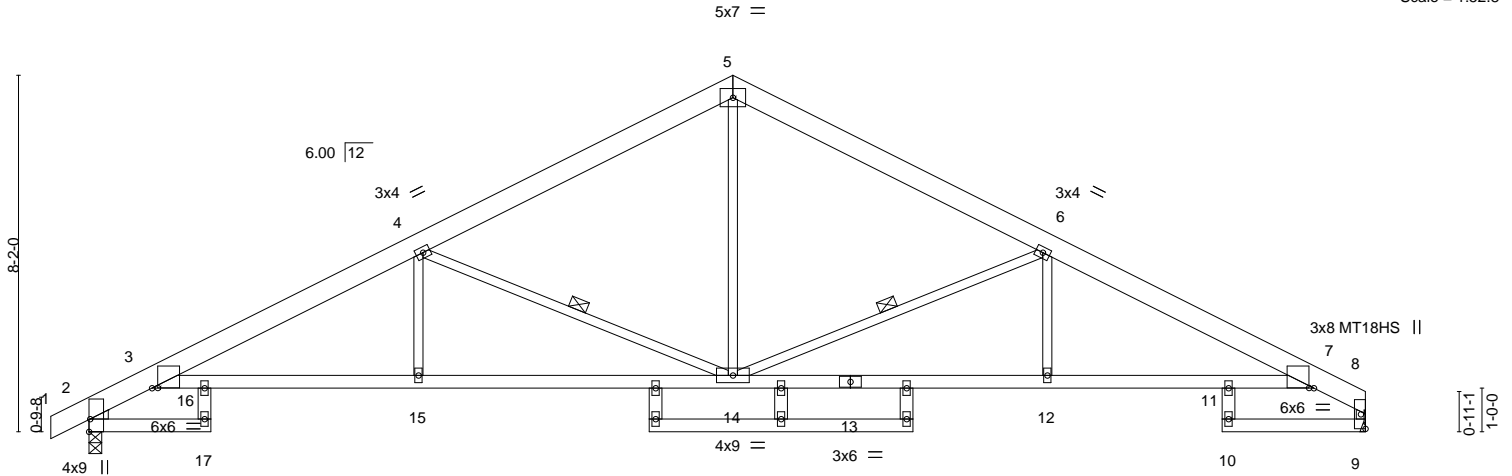
Wheeler Lumber, Waverly, KS 66871

8.410 s May 22 2020 MiTek Industries, Inc. Mon Jul 20 10:28:31 2020 Page 1

ID:Lek3CAANj\_gYbKvtCQHtmQzKvNM-xkFISiagcVLCn?FA?Y5teQda9ysq?N5CZuEavSywC9U

-0-10-8	2-9-8	7-6-9	14-9-0	21-11-7	25-11-8	29-2-14
0-10-8	2-9-8	4-9-1	7-2-7	7-2-7	4-0-1	3-3-6

Scale = 1:52.8



	2-9-8	7-6-9	14-9-0	21-11-7	25-11-8	29-2-14
	2-9-8	4-9-1	7-2-7	7-2-7	4-0-1	3-3-6

Plate Offsets (X,Y)-- [2:Edge,0-0-5], [3:0-1-9,0-0-1], [7:0-1-5,0-0-1]							
<b>LOADING</b> (psf)	<b>SPACING-</b>	2-0-0	<b>CSI.</b>	<b>DEFL.</b>	in (loc)	l/defl	L/d
TCLL 25.0	Plate Grip DOL	1.15	TC 0.61	Vert(LL)	-0.24 15-16	>999	360
TCDL 10.0	Lumber DOL	1.15	BC 0.67	Vert(CT)	-0.45 15-16	>769	240
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.66	Horz(CT)	0.42 9	n/a	n/a
BCDL 10.0	Code IRC2018/TPI2014		Matrix-S	Wind(LL)	0.14 15-16	>999	240
				<b>PLATES</b>		<b>GRIP</b>	
				MT20		197/144	
				MT18HS		197/144	
				Weight: 151 lb		FT = 10%	

#### LUMBER-

TOP CHORD 2x6 SP DSS \*Except\*  
5-8: 2x6 SP 2400F 2.0E  
BOT CHORD 2x4 SPF No.2 \*Except\*  
3-13,7-13: 2x4 SPF 2100F 1.8E  
WEBS 2x3 SPF No.2 \*Except\*  
16-17,10-11,18-20,19-21,22-23: 2x4 SPF No.2  
WEDGE  
Left: 2x3 SPF No.2

#### REACTIONS.

(size) 2=0-3-8, 9=Mechanical  
Max Horz 2=101(LC 7)  
Max Uplift 2=-27(LC 8), 9=-15(LC 9)  
Max Grav 2=1377(LC 1), 9=1303(LC 1)

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

TOP CHORD 2-3=-817/42, 3-4=-2750/55, 4-5=-1730/48, 5-6=-1727/59, 6-7=-2701/31, 7-8=-474/14,  
8-9=-1291/36  
BOT CHORD 3-16=-54/2473, 15-16=-54/2473, 14-15=-54/2473, 12-14=0/2417, 11-12=0/2417,  
7-11=0/2417  
WEBS 4-15=0/328, 4-14=-1146/135, 5-14=0/1024, 6-14=-1084/118, 6-12=0/320

#### NOTES-

- 1) Unbalanced roof live loads have been considered for this design.
- 2) 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
- 3) All plates are MT20 plates unless otherwise indicated.
- 4) All plates are 2x4 MT20 unless otherwise indicated.
- 5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 6) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 7) Refer to girder(s) for truss to truss connections.
- 8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 9.
- 9) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



July 20,2020

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16023 Swingley Ridge Rd  
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 94 RR	I42087978
400513	E9	Roof Special	1	1		

Wheeler Lumber, Waverly, KS 66871, Mitek

8.410 s May 22 2020 Mitek Industries, Inc. Mon Jul 20 15:57:30 2020 Page 1  
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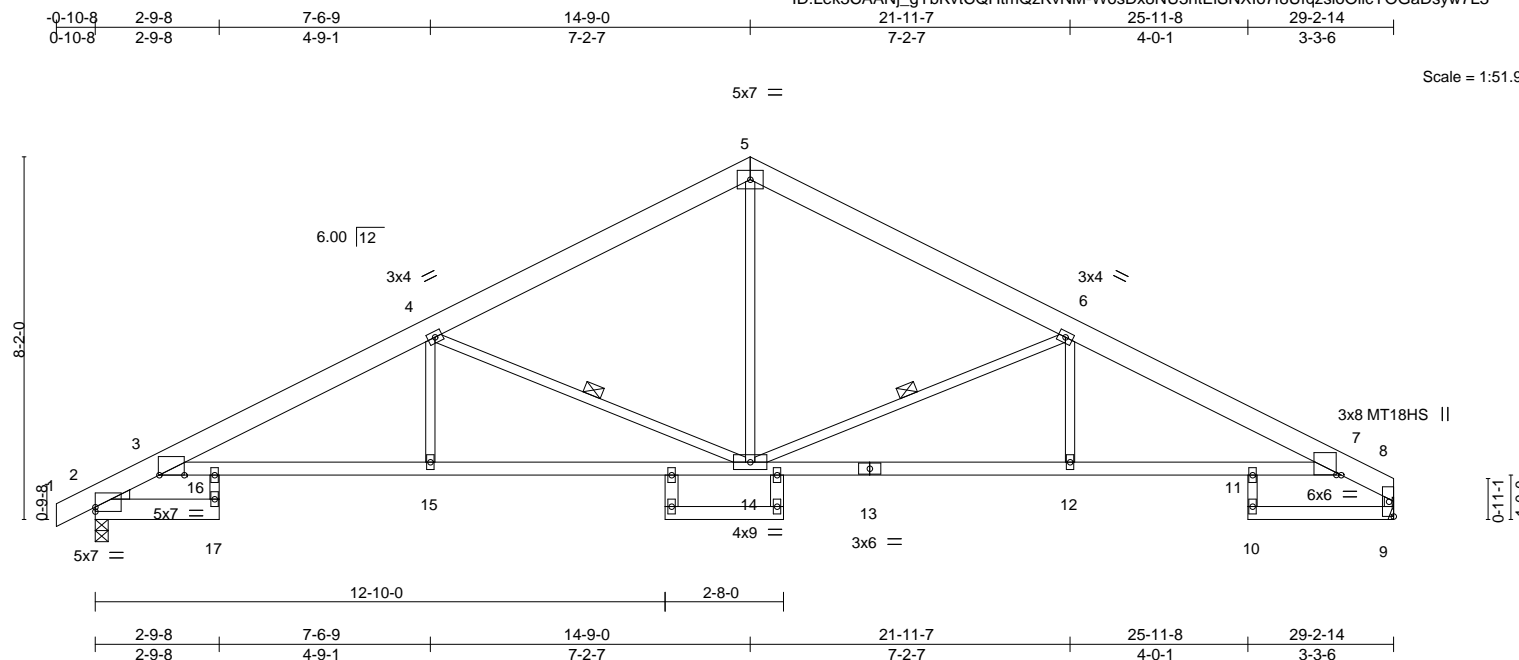


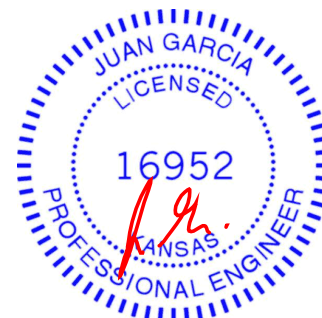
Plate Offsets (X,Y)--		[2:0-0-0,0-1-3], [3:0-6-12,0-0-0], [7:0-1-5,0-0-1]			
<b>LOADING</b> (psf)	<b>SPACING</b>	<b>CSI</b>	<b>DEFL.</b>	<b>PLATES</b>	<b>GRIP</b>
TCLL 25.0	2-0-0	TC 0.60	in (loc) l/defl L/d	MT20	197/144
TCDL 10.0	Plate Grip DOL 1.15	BC 0.67	Vert(LL) -0.24 15-16 >999 360	MT18HS	197/144
BCLL 0.0 *	Lumber DOL 1.15	WB 0.66	Vert(CT) -0.44 15-16 >793 240		
BCDL 10.0	Rep Stress Incr YES	Matrix-S	Horz(CT) 0.39 9 n/a n/a		
	Code IRC2018/TPI2014		Wind(LL) 0.19 15-16 >999 240		
				Weight: 147 lb	FT = 10%

<b>LUMBER-</b>	<b>BRACING-</b>
TOP CHORD 2x6 SP 2400F 2.0E	TOP CHORD Structural wood sheathing directly applied or 4-8-2 oc purlins, except end verticals.
BOT CHORD 2x4 SPF 2100F 1.8E *Except*	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
2-17: 2x6 SPF No.2, 9-10,18-19: 2x4 SPF No.2	WEBS 1 Row at midpt 4-14, 6-14
WEBS 2x3 SPF No.2 *Except*	
18-20,19-21: 2x4 SPF No.2	
WEDGE	
Left: 2x3 SPF No.2	

<b>REACTIONS.</b>	(lb/size) 2=1377/0-3-8, 9=1303/Mechanical
	Max Horz 2=141(LC 12)
	Max Uplift 2=187(LC 8), 9=161(LC 9)

<b>FORCES.</b>	(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD	2-3=-825/149, 3-4=-2750/354, 4-5=-1729/224, 5-6=-1727/242, 6-7=-2701/311, 7-8=-474/66, 8-9=-1290/185
BOT CHORD	3-16=-360/2471, 15-16=-360/2471, 13-14=-208/2417, 12-13=-208/2417, 11-12=-208/2417, 7-11=-208/2417
WEBS	4-15=0/332, 4-14=-1143/326, 5-14=-63/1022, 6-14=-1084/293, 6-12=0/320

- 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) All plates are MT20 plates unless otherwise indicated.
  - 4) All plates are 2x4 MT20 unless otherwise indicated.
  - 5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - 6) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
  - 7) All bearings are assumed to be SPF No.2 crushing capacity of 425 psi.
  - 8) Refer to girder(s) for truss to truss connections.
  - 9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 187 lb uplift at joint 2 and 161 lb uplift at joint 9.
  - 10) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



July 20,2020

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**Mitek**  
16023 Swingley Ridge Rd  
Chesterfield, MO 63017





Job	Truss	Truss Type	Qty	Ply	Lot 94 RR	142087980
400513	E11	GABLE	1	1		

Wheeler Lumber, Waverly, KS 66871

8.410 s May 22 2020 MiTek Industries, Inc. Mon Jul 20 10:28:24 2020 Page 1

ID:Lek3CAANj\_gYbKvtCQHtmQzKvNM-eOK6\_IUDKLTcSwDq5aTEsyqR87YqfF3Ay1i9MywC9b

Job Reference (optional)

0-10-8 14-9-0 21-11-7 29-6-0 30-4-8  
0-10-8 14-9-0 7-2-7 7-6-9 0-10-8

5x7 ||

Scale = 1:55.2

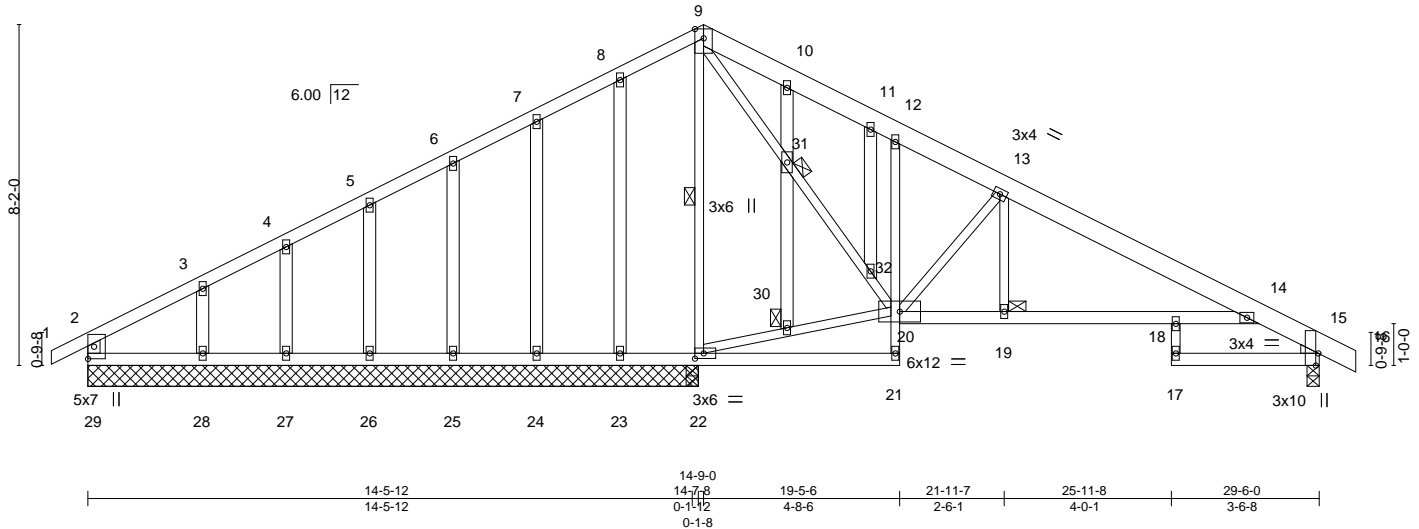


Plate Offsets (X,Y)-- [15:0-3-8,Edge], [22:0-2-8,0-1-8]

LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	L/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.40	Vert(LL)	-0.08	18	>999	360	MT20
TCDL 10.0	Lumber DOL	1.15	BC 0.37	Vert(CT)	-0.18	18-19	>999	240	197/144
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.55	Horz(CT)	0.08	15	n/a	n/a	
BCDL 10.0	Code IRC2018/TPI2014		Matrix-S	Wind(LL)	0.07	18	>999	240	
								Weight: 154 lb	FT = 10%

#### LUMBER-

TOP CHORD 2x4 SPF No.2 \*Except\*  
9-16: 2x6 SPF No.2  
BOT CHORD 2x4 SPF No.2 \*Except\*  
12-21: 2x3 SPF No.2  
WEBS 2x3 SPF No.2 \*Except\*  
2-29: 2x4 SPF No.2  
OTHERS 2x4 SPF No.2  
WEDGE  
Right: 2x3 SPF No.2

#### BRACING-

TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.  
BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing, Except:  
10-0-0 oc bracing: 21-22,20-21,15-17.  
10-0-0 oc bracing: 19-20, 18-19  
WEBS 1 Row at midpt 9-22  
JOINTS 1 Brace at Jt(s): 19, 30, 31

#### REACTIONS.

All bearings 14-7-8 except (jt=length) 15=0-3-8.  
(lb) - Max Horz 29=-132(LC 9)  
Max Uplift All uplift 100 lb or less at joint(s) 23, 24, 25, 26, 27 except  
29=-292(LC 22), 15=-104(LC 9), 22=-131(LC 9), 28=-121(LC 8)  
Max Grav All reactions 250 lb or less at joint(s) 29, 23, 24, 25, 26, 27 except  
15=488(LC 1), 22=1238(LC 1), 22=1238(LC 1), 28=395(LC 1)

#### FORCES.

(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
TOP CHORD 2-3=-145/587, 3-4=-76/529, 4-5=-37/548, 5-6=-8/544, 6-7=0/543, 7-8=0/550,  
8-9=0/534, 13-14=-391/99, 2-29=-35/261  
BOT CHORD 28-29=-463/243, 27-28=-463/243, 26-27=-463/243, 25-26=-463/243, 24-25=-463/243,  
23-24=-463/243, 22-23=-463/243, 19-20=-14/321, 18-19=-14/321, 14-18=-14/321  
WEBS 9-31=-178/655, 31-32=-166/613, 20-32=-174/650, 22-30=-500/240, 20-30=-480/230,  
13-20=-648/168, 13-19=0/256, 3-28=-268/127, 9-22=-966/106

#### NOTES-

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- All plates are 2x4 MT20 unless otherwise indicated.
- Gable studs spaced at 2-0-0 oc.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 23, 24, 25, 26, 27 except (jt=lb) 29=292, 15=104, 22=131, 28=121.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



July 20,2020

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16023 Swingley Ridge Rd  
Chesterfield, MO 63017



Job	Truss	Truss Type	Qty	Ply	Lot 94 RR	I42087981
400513	G1	Roof Special	1	1		

Wheeler Lumber, Waverly, KS 66871

8.410 s May 22 2020 MiTek Industries, Inc. Mon Jul 20 10:28:33 2020 Page 1

ID:Lek3CAANj\_gYbKvtCQHtmQzKvNM-u7NVsNbsC6bK1IPY6z7Ljrv4IYfTN7V1CjhzLywC9S

Job Reference (optional)



4x5 ||

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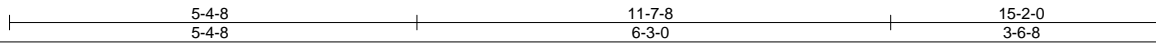
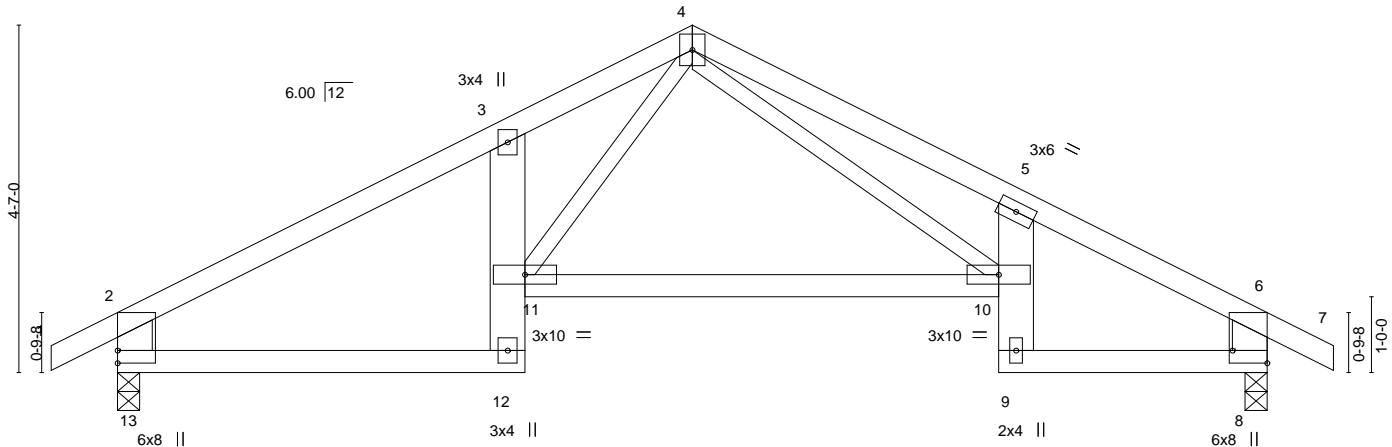


Plate Offsets (X,Y)-- [8:Edge,0-5-8]

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)	-0.11 10-11	>999	360	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.65	Vert(CT)	-0.25 10-11	>701	240		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.31	Horz(CT)	0.11 8	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-S	Wind(LL)	0.06 10-11	>999	240	Weight: 56 lb	FT = 10%

#### LUMBER-

TOP CHORD 2x4 SPF No.2  
 BOT CHORD 2x4 SPF No.2 \*Except\*  
 3-12,5-9: 2x6 SPF No.2  
 WEBS 2x6 SPF No.2 \*Except\*  
 4-11,4-10: 2x3 SPF No.2

#### BRACING-

TOP CHORD Structural wood sheathing directly applied or 4-2-4 oc purlins, except end verticals.  
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing, Except: 6-0-0 oc bracing: 9-10.

#### REACTIONS.

(size) 13=0-3-8, 8=0-3-8  
 Max Horz 13=-77(LC 6)  
 Max Uplift 13=-107(LC 8), 8=-107(LC 9)  
 Max Grav 13=739(LC 1), 8=739(LC 1)

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

TOP CHORD 2-3=-883/117, 3-4=-1211/208, 4-5=-1675/258, 5-6=-845/113, 2-13=-674/141, 6-8=-667/122  
 BOT CHORD 12-13=-87/689, 3-11=-345/158, 10-11=-26/725, 5-10=-493/171, 8-9=-48/650  
 WEBS 4-11=-115/561, 4-10=-177/901

#### 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 100 lb uplift at joint(s) except (jt=lb) 13=107, 8=107.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



July 20,2020

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16023 Swingley Ridge Rd  
 Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 94 RR	I42087982
400513	G2	Common Supported Gable	1	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS 66871

8.410 s May 22 2020 MiTek Industries, Inc. Mon Jul 20 10:28:34 2020 Page 1

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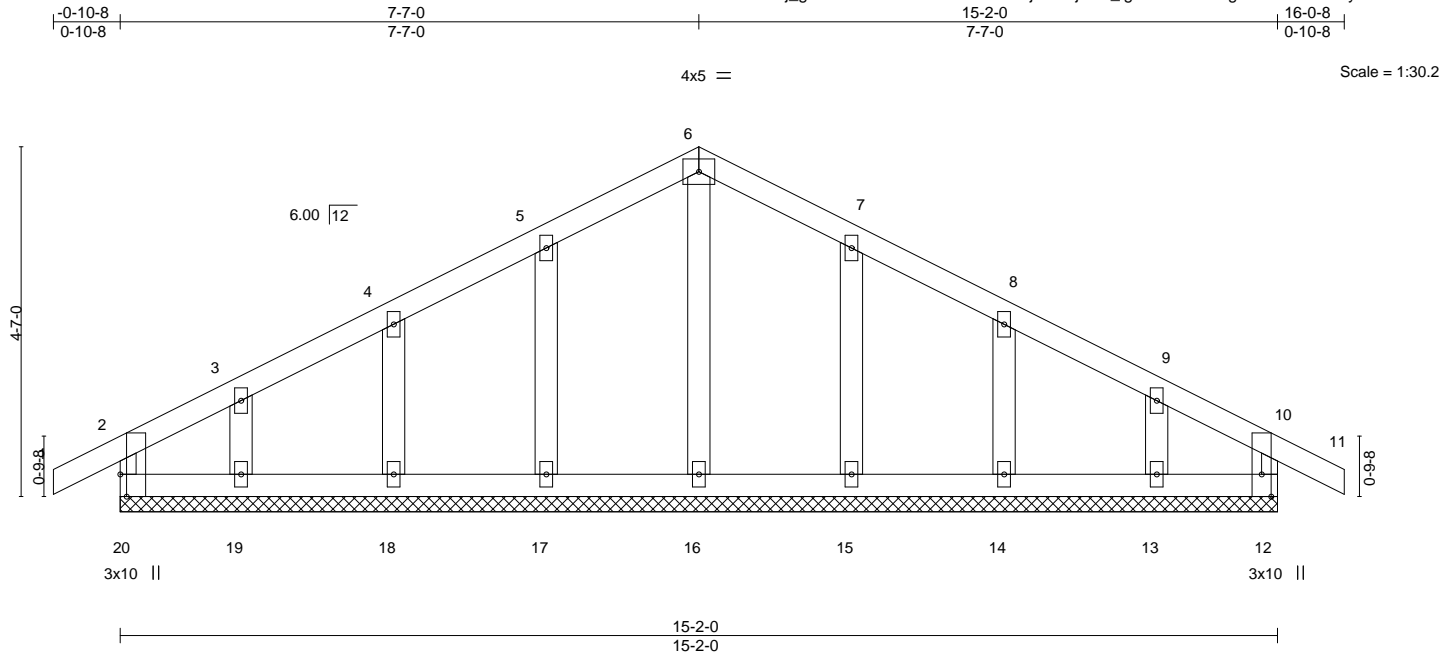


Plate Offsets (X,Y)-- [20:0-3-8,Edge]									
LOADING (psf)		SPACING- 2-0-0		CSI.		DEFL. in (loc) l/defl L/d		PLATES GRIP	
TCLL	25.0	Plate Grip DOL	1.15	TC	0.07	Vert(LL)	-0.00 11 n/r 120	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.02	Vert(CT)	-0.00 11 n/r 120		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.04	Horz(CT)	0.00 12 n/a n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-R				Weight: 58 lb	FT = 10%

#### LUMBER-

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

#### BRACING-

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

#### REACTIONS.

All bearings 15-2-0.  
(lb) - Max Horz 20=-75(LC 6)  
Max Uplift All uplift 100 lb or less at joint(s) 20, 12, 17, 18, 19, 15, 14, 13  
Max Grav All reactions 250 lb or less at joint(s) 20, 12, 16, 17, 18, 19, 15, 14, 13

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

#### NOTES-

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



July 20,2020

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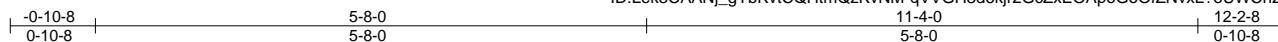
16023 Swingley Ridge Rd  
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 94 RR	I42087983
400513	H1	Common Supported Gable	1	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS 66871

8.410 s May 22 2020 MiTek Industries, Inc. Mon Jul 20 10:28:35 2020 Page 1

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4x5 =

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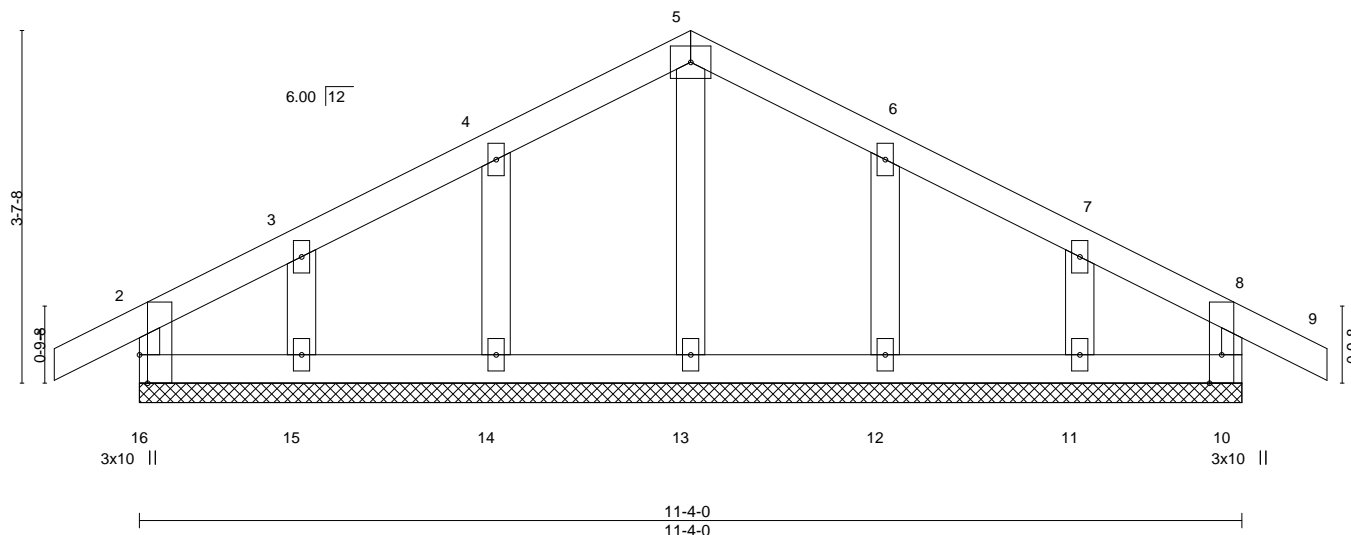


Plate Offsets (X,Y)-- [16:0-3-8,Edge]

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 0.07	Vert(LL)	-0.00	9	n/r	120	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.02	Vert(CT)	-0.00	9	n/r	120		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.03	Horz(CT)	0.00	10	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-R						Weight: 41 lb	FT = 10%

#### LUMBER-

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

#### BRACING-

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

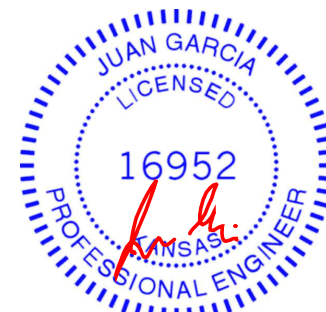
#### REACTIONS.

All bearings 11-4-0.  
(lb) - Max Horz 16=-63(LC 6)  
Max Uplift All uplift 100 lb or less at joint(s) 16, 10, 14, 15, 12, 11  
Max Grav All reactions 250 lb or less at joint(s) 16, 10, 13, 14, 15, 12, 11

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

#### NOTES-

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- All plates are 2x4 MT20 unless otherwise indicated.
- Gable requires continuous bottom chord bearing.
- Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
- Gable studs spaced at 2-0-0 oc.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 16, 10, 14, 15, 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.



July 20,2020

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16023 Swingley Ridge Rd  
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 94 RR	I42087984
400513	H2	Common	1	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS 66871

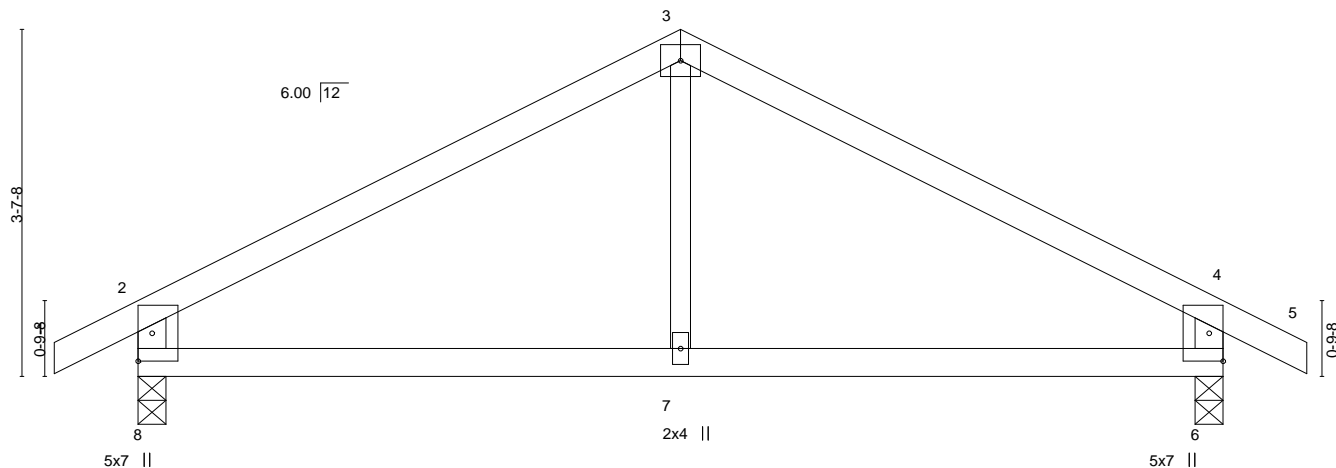
8.410 s May 22 2020 MiTek Industries, Inc. Mon Jul 20 10:28:36 2020 Page 1

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4x5 =

Scale: 1/2"=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 0.40	Vert(LL)	-0.02	6-7	>999	360	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.23	Vert(CT)	-0.05	6-7	>999	240		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.07	Horz(CT)	0.01	6	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-R	Wind(LL)	0.01	7-8	>999	240		
									Weight: 33 lb	FT = 10%

#### LUMBER-

TOP CHORD 2x4 SPF No.2  
 BOT CHORD 2x4 SPF No.2  
 WEBS 2x4 SPF No.2 \*Except\*  
 3-7: 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=0-3-8, 6=0-3-8  
 Max Horz 8=63(LC 6)  
 Max Uplift 8=84(LC 8), 6=84(LC 9)  
 Max Grav 8=568(LC 1), 6=568(LC 1)

#### FORCES.

(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-3=-588/85, 3-4=-588/85, 2-8=-510/123, 4-6=-510/123  
 BOT CHORD 7-8=-12/438, 6-7=-12/438

#### 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 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.



July 20,2020

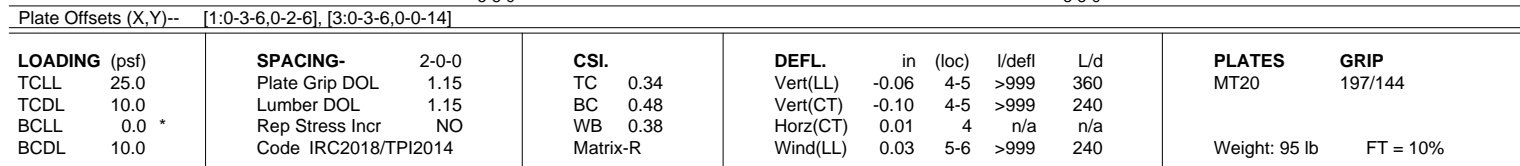
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16023 Swingley Ridge Rd  
 Chesterfield, MO 63017

Wheeler Lumber, Waverly, KS 66871 8.410 s May 22 2020 MiTek Industries, Inc. Mon Jul 20 10:28:37 2020 Page 1  
ID:Lek3CAANj\_gYbKvtCQHtmQzKvNM-mud0ileNGL6mVwiKLpCHthtgwMyAPA\_5yquh66ywC90  
5-8-0 11-4-0  
5-8-0 5-8-0  
4x5 II Scale = 1:22.3



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

**REACTIONS.** (size) 6=0-3-8, 4=0-3-8  
 Max Horz 6=-57(LC 25)  
 Max Uplift 6=-260(LC 8), 4=-145(LC 9)  
 Max Grav 6=3667(LC 1), 4=3531(LC 1)

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

TOP CHORD	1-2=-3884/198, 2-3=-3884/198, 1-6=-1917/149, 3-4=-1917/151
BOT CHORD	5-6=-123/3384, 4-5=-123/3384
WEBS	2-5=-52/3113

**NOTES-**

- 1) 2-ply truss to be connected together with 10d (0.131"x3") nails as follows:  
Top chords connected as follows: 2x4 - 1 row at 0-9-0 oc, 2x10 - 2 rows staggered at 0-9-0 oc.  
Bottom chords connected as follows: 2x6 - 2 rows staggered at 0-7-0 oc.  
Webs connected as follows: 2x4 - 1 row at 0-9-0 oc.
- 2) All loads are considered equally applied to all plies, except if noted as front (F) or back (B) face in the LOAD CASE(S) section. Ply to ply connections have been provided to distribute only loads noted as (F) or (B), unless otherwise indicated.
- 3) Unbalanced roof live loads have been considered for this design.
- 4) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCdL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 6) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 6=260, 4=145.
- 8) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 9) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 1289 lb down and 182 lb up at 1-6-12, 1240 lb down and 37 lb up at 3-6-12, 1240 lb down and 37 lb up at 5-6-12, and 1240 lb down and 37 lb up at 7-6-12, and 1240 lb down and 37 lb up at 9-6-12 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.

LOAD CASE(S) Standard



July 20, 2020

Continued on page 2



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16023 Swingley Ridge Rd  
Chesterfield, MO 63017



Job	Truss	Truss Type	Qty	Ply	Lot 94 RR
400513	H3	Common Girder	1	2	I42087985
					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, 4-6=-20

Concentrated Loads (lb)

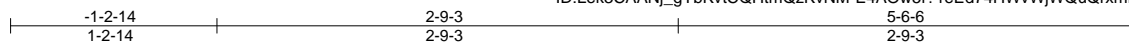
Vert: 5=-1240(B) 7=-1289(B) 8=-1240(B) 9=-1240(B) 10=-1240(B)

Job	Truss	Truss Type	Qty	Ply	Lot 94 RR	I42087986
400513	J1	Diagonal Hip Girder	2	1		
Job Reference (optional)						

Wheeler Lumber, Waverly, KS 66871

8.410 s May 22 2020 MiTek Industries, Inc. Mon Jul 20 10:28:38 2020 Page 1

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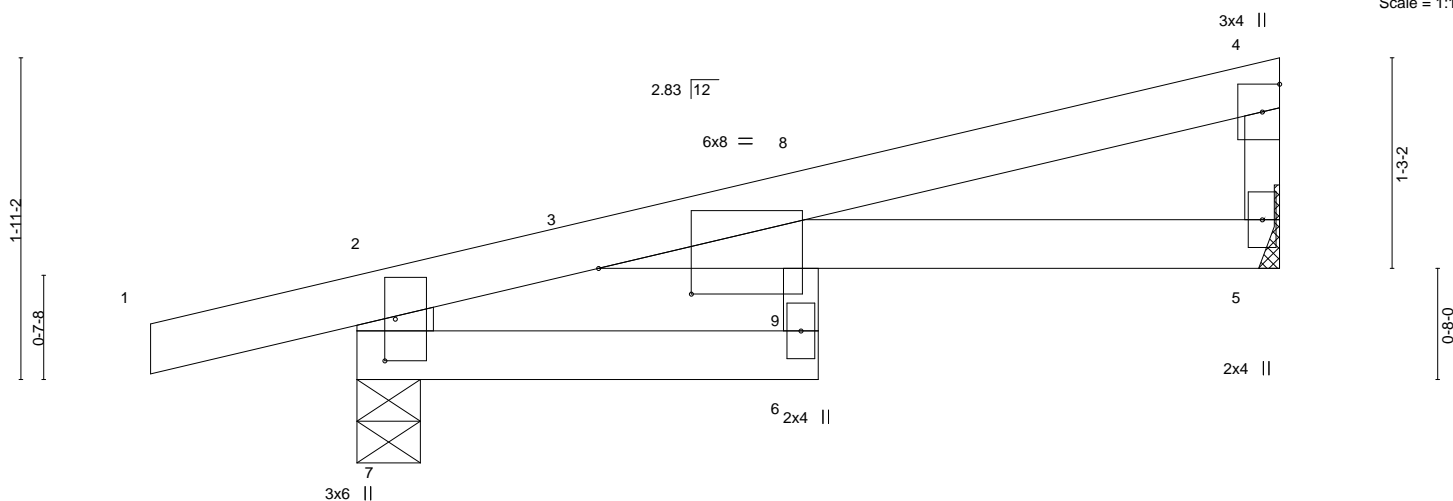


Plate Offsets (X,Y)--	[3:0-6-11,0-1-14], [7:0-3-0,0-0-12]
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LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.38	Vert(LL)	-0.06	6	>999	360	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.27	Vert(CT)	-0.14	6	>433	240		
BCLL 0.0 *	Rep Stress Incr	NO	WB 0.00	Horz(CT)	0.04	5	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-R	Wind(LL)	0.07	6	>891	240	Weight: 17 lb	FT = 10%

#### LUMBER-

TOP CHORD 2x4 SPF No.2  
 BOT CHORD 2x4 SPF No.2 \*Except\*  
 3-6: 2x3 SPF No.2  
 WEBS 2x6 SPF No.2 \*Except\*  
 4-5: 2x3 SPF No.2

#### BRACING-

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

#### REACTIONS.

(size) 7=0-4-9, 5=Mechanical  
 Max Horz 7=63(LC 5)  
 Max Uplift 7=99(LC 4), 5=-40(LC 8)  
 Max Grav 7=364(LC 1), 5=225(LC 1)

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

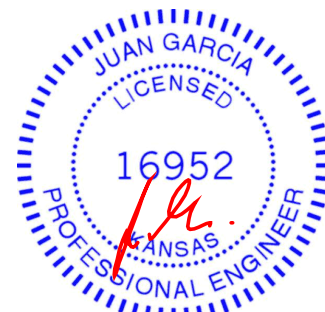
TOP CHORD 2-7=-342/112

#### NOTES-

- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- Refer to girder(s) for truss to truss connections.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 7, 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) 66 lb down and 27 lb up at 2-9-8, and 66 lb down and 27 lb up at 2-9-8 on top chord, and 4 lb down and 3 lb up at 2-7-15, and 4 lb down and 3 lb up at 2-7-15 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, 6-7=-20, 3-5=-20  
 Concentrated Loads (lb)  
 Vert: 6=6(F=3, B=3)



July 20,2020

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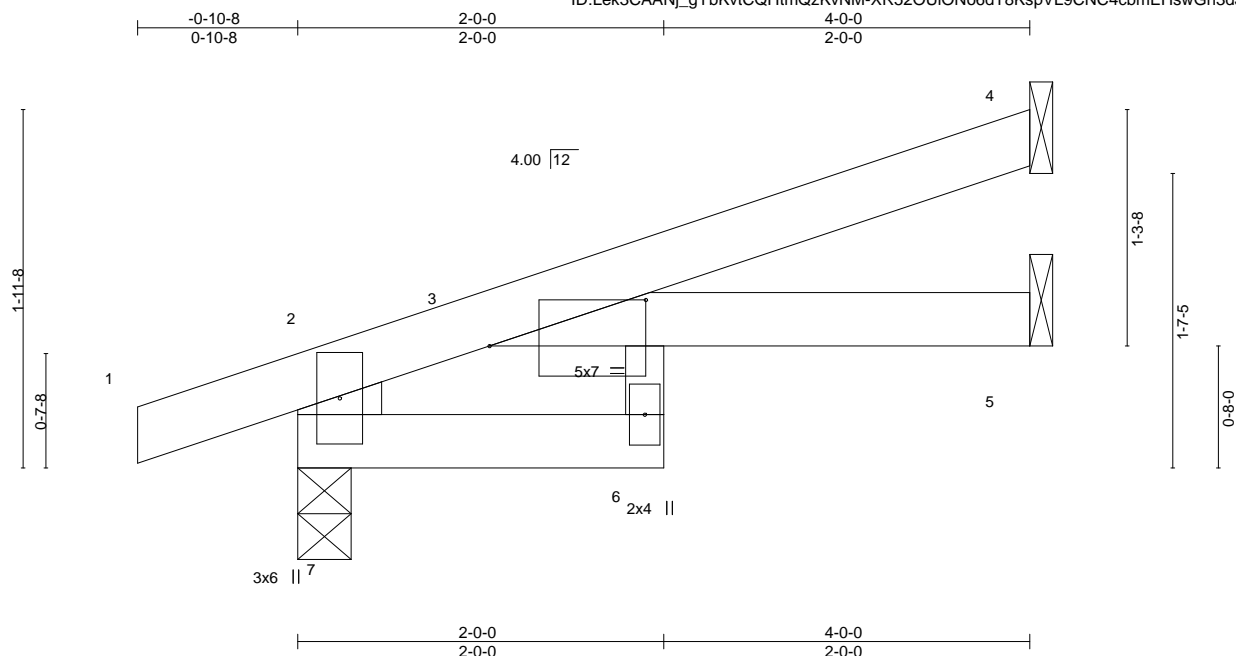
16023 Swingley Ridge Rd  
 Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 94 RR	I42087987
400513	J2	Jack-Open	4	1		
Job Reference (optional)						

Wheeler Lumber, Waverly, KS 66871

8.410 s May 22 2020 MiTek Industries, Inc. Mon Jul 20 10:28:45 2020 Page 1

ID:Lek3CAANj\_gYbKvtCQHtmQzKvNM-XR52OUIONo6dT8KspVL9CNC4cbmEHswGn3dJOeywC9G



Scale = 1:12.6

Plate Offsets (X,Y)--		[3:0-10-4,0-3-0]	
<b>LOADING</b> (psf)	<b>SPACING-</b>	<b>CSI.</b>	<b>DEFL.</b>
TCLL 25.0	Plate Grip DOL 1.15	TC 0.16	in (loc) l/defl L/d
TCDL 10.0	Lumber DOL 1.15	BC 0.15	Vert(LL) -0.01 6 >999 360
BCLL 0.0 *	Rep Stress Incr YES	WB 0.00	Vert(CT) -0.03 6 >999 240
BCDL 10.0	Code IRC2018/TPI2014	Matrix-R	Horz(CT) 0.01 5 n/a n/a
			Wind(LL) 0.02 6 >999 240
			<b>PLATES</b> MT20
			<b>GRIP</b> 197/144
			Weight: 12 lb FT = 10%

#### LUMBER-

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

#### BRACING-

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

#### REACTIONS.

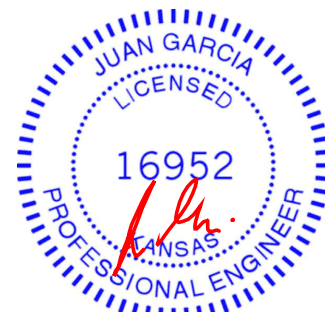
(size) 7=0-3-8, 4=Mechanical, 5=Mechanical  
 Max Horz 7=64(LC 4)  
 Max Uplift 7=63(LC 4), 4=44(LC 8)  
 Max Grav 7=267(LC 1), 4=107(LC 1), 5=71(LC 3)

#### FORCES.

(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-7=-252/75

#### NOTES-

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 3) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 4) Refer to girder(s) for truss to truss connections.
- 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 7, 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.



July 20,2020

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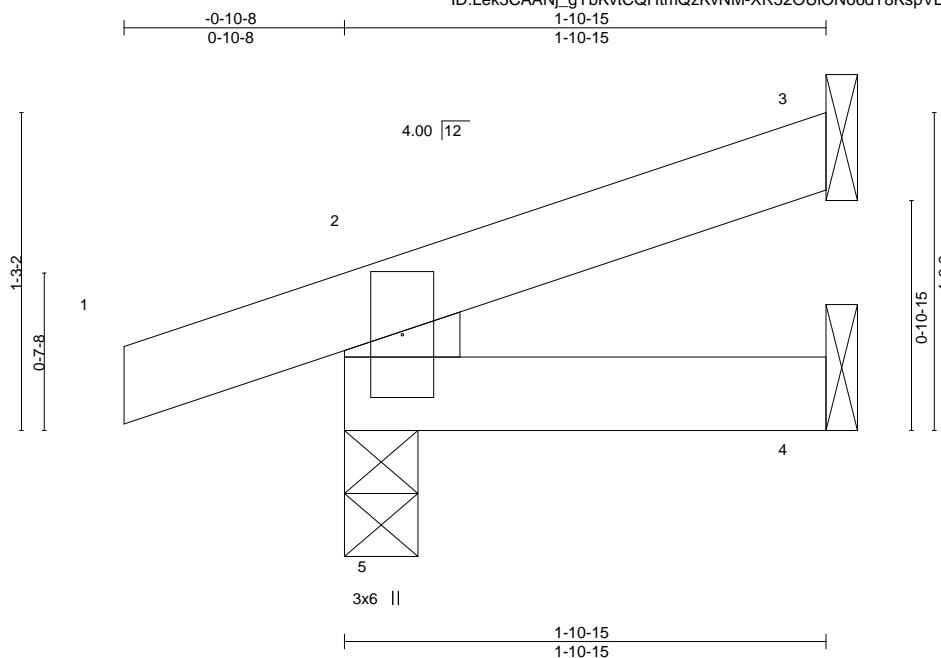
16023 Swingley Ridge Rd  
 Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 94 RR	I42087988
400513	J3	Jack-Open	4	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS 66871

8.410 s May 22 2020 MiTek Industries, Inc. Mon Jul 20 10:28:45 2020 Page 1

ID:Lek3CAANj\_gYbKvtCQHtmQzKvNM-XR52OUIONo6dT8KspVL9CNC5wboGHswGn3dJOeywC9G



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 0.08	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 2x6 SPF No.2

#### BRACING-

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

**REACTIONS.** (size) 5=0-3-8, 3=Mechanical, 4=Mechanical  
Max Horz 5=36(LC 4)  
Max Uplift 5=65(LC 4), 3=22(LC 8)  
Max Grav 5=178(LC 1), 3=40(LC 1), 4=28(LC 3)

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

#### NOTES-

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 3) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 4) Refer to girder(s) for truss to truss connections.
- 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 5, 3.
- 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.



July 20,2020

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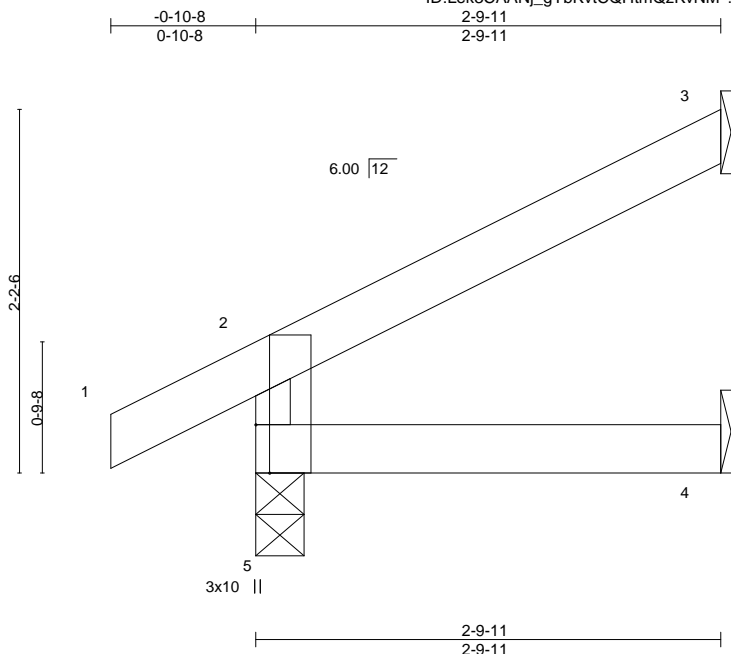


16023 Swingley Ridge Rd  
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 94 RR	I42087989
400513	J4	Jack-Open	1	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS 66871

8.410 s May 22 2020 MiTek Industries, Inc. Mon Jul 20 10:28:46 2020 Page 1  
ID:Lek3CAANj\_gYbKvtCQHtmQzKvNM-?dfQbql086EU4lv2NCsOlalGX?8v0JAP0jMtx5ywC9F



Scale = 1:13.9

Plate Offsets (X,Y)--		[5:0-3-8,Edge]									
<b>LOADING</b> (psf)		<b>SPACING-</b>	2-0-0	<b>CSI.</b>		<b>DEFL.</b>	in (loc)	L/defl	L/d	<b>PLATES</b>	<b>GRIP</b>
TCLL 25.0		Plate Grip DOL	1.15	TC 0.09		Vert(LL)	-0.00 4-5	>999	360	MT20	197/144
TCDL 10.0		Lumber DOL	1.15	BC 0.06		Vert(CT)	-0.01 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 2x3 SPF No.2

#### BRACING-

TOP CHORD Structural wood sheathing directly applied or 2-9-11 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=63(LC 8)  
Max Uplift 5=-23(LC 8), 3=-49(LC 8)  
Max Grav 5=200(LC 1), 3=78(LC 1), 4=50(LC 3)

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

#### NOTES-

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 3) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 4) Refer to girder(s) for truss to truss connections.
- 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 5, 3.
- 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.



July 20,2020

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16023 Swingley Ridge Rd  
Chesterfield, MO 63017

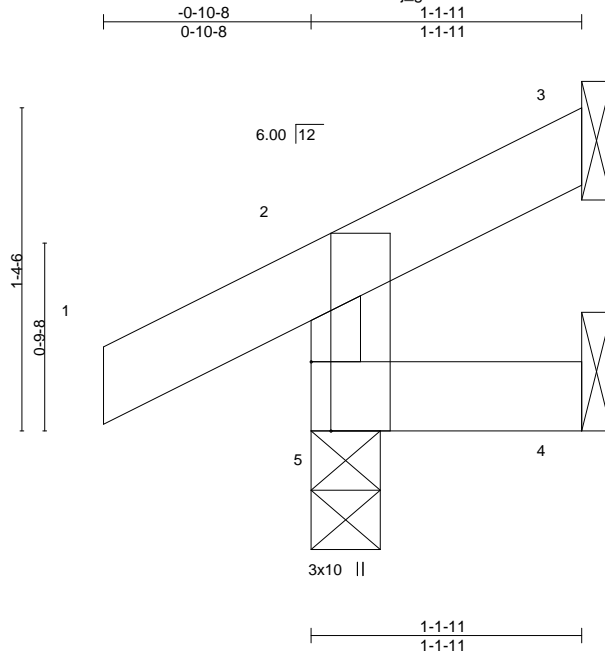


Job	Truss	Truss Type	Qty	Ply	Lot 94 RR	I42087990
400513	J5	Jack-Open	1	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS 66871

8.410 s May 22 2020 MiTek Industries, Inc. Mon Jul 20 10:28:47 2020 Page 1

ID:Lek3CAANj\_gYbKvtCQHtmQzKvNM-TpDooAmevPMLISTFvOdHoHRdOTwlmPZFN6QTXYwC9E



Scale = 1:9.7

Plate Offsets (X,Y)-- [5:0-3-8,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 0.07	Vert(LL)	-0.00	5	>999	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.01	Vert(CT)	-0.00	5	>999		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.00	Horz(CT)	-0.00	3	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-R	Wind(LL)	0.00	5	>999	Weight: 4 lb	FT = 10%

#### LUMBER-

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

#### BRACING-

TOP CHORD Structural wood sheathing directly applied or 1-1-11 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=34(LC 5)  
Max Uplift 5=23(LC 8), 3=16(LC 8), 4=1(LC 5)  
Max Grav 5=147(LC 1), 3=9(LC 15), 4=18(LC 3)

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

#### NOTES-

- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- Refer to girder(s) for truss to truss connections.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 5, 3, 4.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



July 20,2020

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16023 Swingley Ridge Rd  
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 94 RR	I42087991
400513	J6	Roof Special Girder	1	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS 66871

8.410 s May 22 2020 MiTek Industries, Inc. Mon Jul 20 10:28:48 2020 Page 1  
ID:Lek3CAANj\_gYbKvtCQHtmQzKvNM-x?nA0WnGgjUCKc2RUdvsq?gSxojSUDfiU1rz?zywC9D

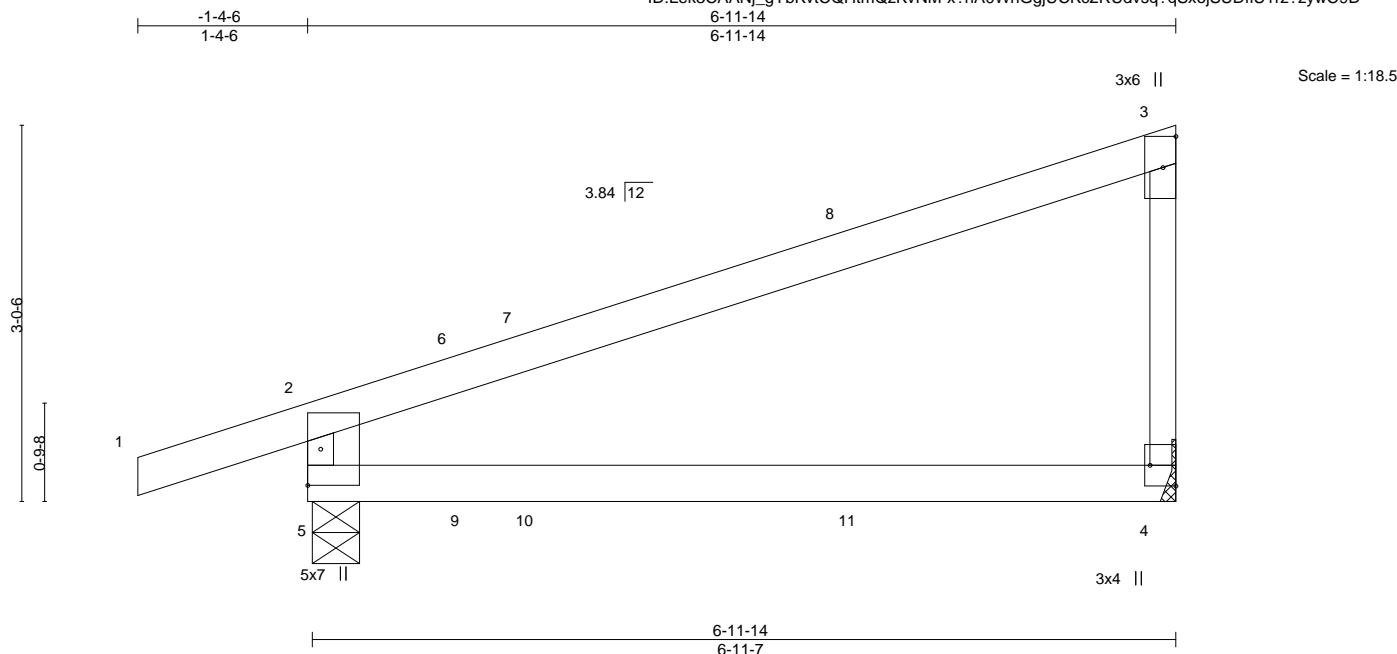


Plate Offsets (X,Y)--		[4:Edge,0-2-8]	
<b>LOADING</b> (psf)	<b>SPACING-</b>	2-0-0	<b>CSI.</b>
TCLL 25.0	Plate Grip DOL	1.15	TC 0.73
TCDL 10.0	Lumber DOL	1.15	BC 0.44
BCLL 0.0 *	Rep Stress Incr	NO	WB 0.00
BCDL 10.0	Code IRC2018/TPI2014		Matrix-R
			<b>DEFL.</b> in (loc) l/defl L/d
			Vert(LL) -0.09 4-5 >937 360
			Vert(CT) -0.18 4-5 >446 240
			Horz(CT) -0.00 4 n/a n/a
			Wind(LL) 0.04 4-5 >999 240
			<b>PLATES</b> MT20 <b>GRIP</b> 197/144
			Weight: 20 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 6-0-0 oc purlins, except end verticals.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

#### REACTIONS.

(size) 4=Mechanical, 5=0-4-9  
Max Horz 5=126(LC 5)  
Max Uplift 4=-79(LC 8), 5=-128(LC 4)  
Max Grav 4=299(LC 1), 5=419(LC 1)

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

TOP CHORD 2-5=-367/174

#### NOTES-

- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- Refer to girder(s) for truss to truss connections.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 4 except (jt=lb) 5=128.
- This truss 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) 73 lb down and 15 lb up at 1-4-1, 63 lb down and 16 lb up at 1-10-6, and 95 lb down and 67 lb up at 4-5-8, and 77 lb down and 57 lb up at 4-5-10 on top chord, and 2 lb down and 3 lb up at 1-4-1, 3 lb down and 6 lb up at 1-10-6, and 17 lb down at 4-5-8, and 13 lb down at 4-5-10 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: 8=-1(B) 9=3(B) 10=2(F) 11=-9(F=-2, B=-7)



July 20,2020

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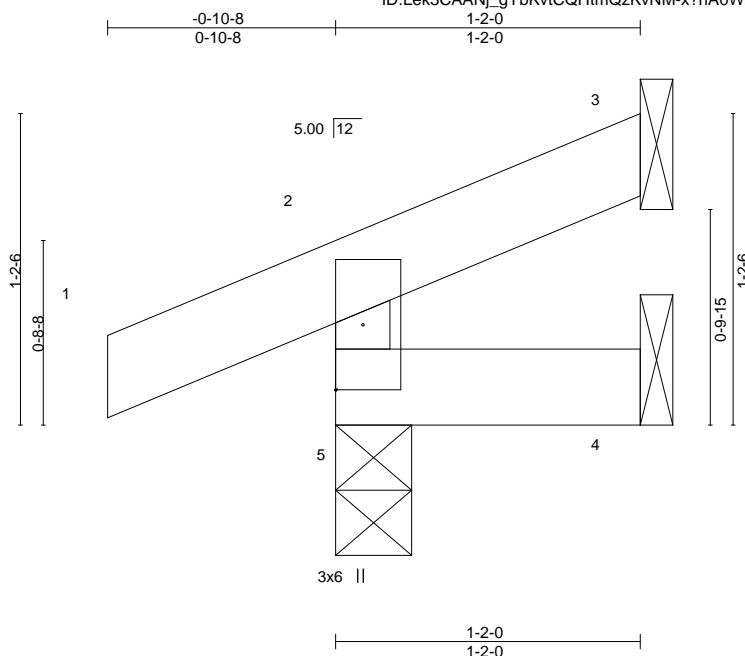
16023 Swingley Ridge Rd  
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 94 RR	I42087992
400513	J7	Jack-Open	1	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS 66871

8.410 s May 22 2020 MiTek Industries, Inc. Mon Jul 20 10:28:48 2020 Page 1

ID:Lek3CAANj\_gYbKvtCQHtmQzKvNM-x?nA0WnGgjUCKc2RUdvsq?qcOop8UDfiU1rz?zywC9D



Scale = 1:8.8

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

#### LUMBER-

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

#### BRACING-

TOP CHORD Structural wood sheathing directly applied or 1-2-0 oc purlins, except end verticals.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS.** (size) 5=0-3-8, 3=Mechanical, 4=Mechanical  
Max Horz 5=30(LC 5)  
Max Uplift 5=37(LC 4), 3=13(LC 8)  
Max Grav 5=148(LC 1), 3=10(LC 1), 4=19(LC 3)

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

#### NOTES-

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 3) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 4) Refer to girder(s) for truss to truss connections.
- 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 5, 3.
- 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.



July 20,2020

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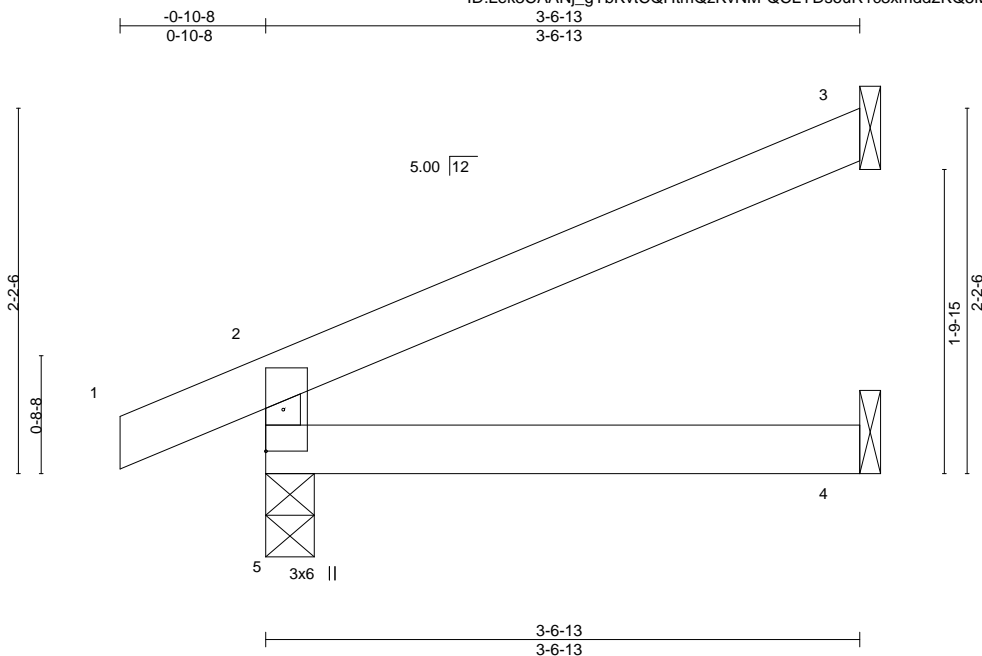
16023 Swingley Ridge Rd  
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 94 RR	I42087993
400513	J8	Jack-Open	1	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS 66871

8.410 s May 22 2020 MiTek Industries, Inc. Mon Jul 20 10:28:49 2020 Page 1

ID:Lek3CAANj\_gYbVtCQHtmQzKvNM-QCLYDsouR1c3xmdd2KQ5MDNmcC8wDgvsihbXXPywC9C



Scale = 1:13.8

LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.16	Vert(LL)	-0.01	4-5	>999	360	MT20
TCDL 10.0	Lumber DOL	1.15	BC 0.10	Vert(CT)	-0.01	4-5	>999	240	197/144
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: 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 3-6-13 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=66(LC 8)  
Max Uplift 5=34(LC 8), 3=-56(LC 8)  
Max Grav 5=232(LC 1), 3=105(LC 1), 4=65(LC 3)

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

#### NOTES-

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 3) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 4) Refer to girder(s) for truss to truss connections.
- 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 5, 3.
- 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.



July 20,2020

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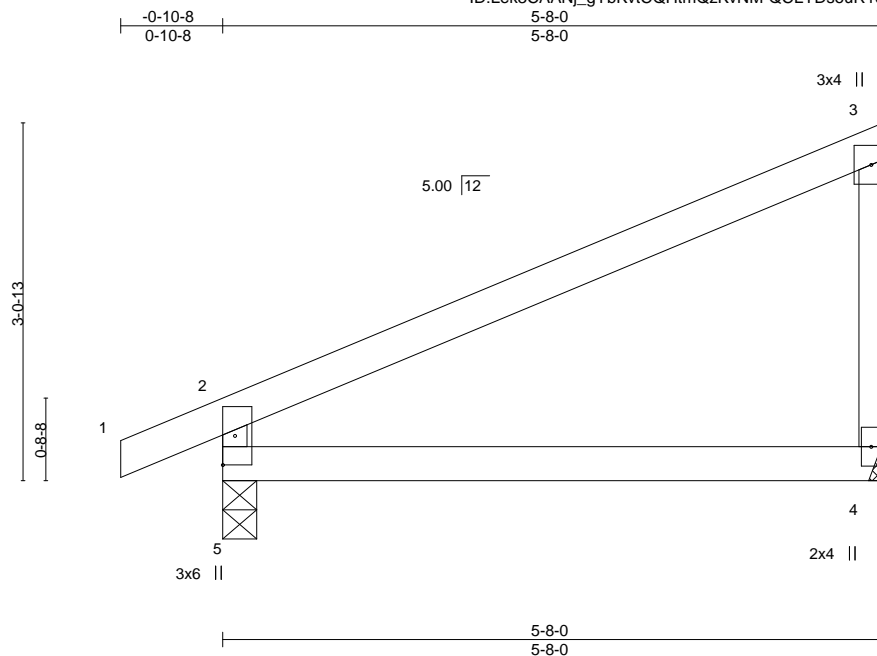
16023 Swingley Ridge Rd  
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 94 RR	I42087994
400513	J9	Jack-Closed	2	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS 66871

8.410 s May 22 2020 MiTek Industries, Inc. Mon Jul 20 10:28:49 2020 Page 1

ID:Lek3CAANj\_gYbKvtCQHtmQzKvNM-QCLYDsouR1c3xmd2KQ5MDNieC6aDgvsihbXXPywC9C



Scale = 1:19.8

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 0.42	Vert(LL)	-0.04	4-5	>999	360	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.25	Vert(CT)	-0.08	4-5	>831	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)	0.02	4-5	>999	240	Weight: 17 lb	FT = 10%

#### LUMBER-

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

#### BRACING-

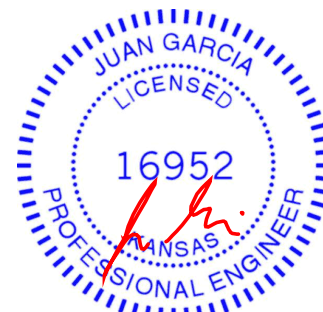
TOP CHORD Structural wood sheathing directly applied or 5-8-0 oc purlins, except end verticals.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS.** (size) 5=0-3-8, 4=Mechanical  
Max Horz 5=125(LC 5)  
Max Uplift 5=-57(LC 8), 4=-58(LC 8)  
Max Grav 5=320(LC 1), 4=239(LC 1)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
TOP CHORD 2-5=-279/98

#### NOTES-

- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- Refer to girder(s) for truss to truss connections.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 5, 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.



July 20,2020

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16023 Swingley Ridge Rd  
Chesterfield, MO 63017

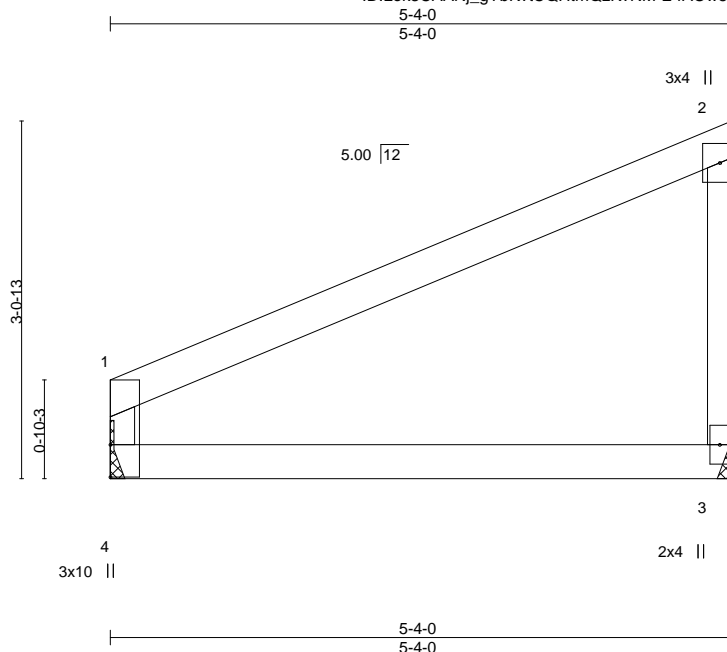


Job	Truss	Truss Type	Qty	Ply	Lot 94 RR	I42087995
400513	J10	Jack-Closed	1	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS 66871

8.410 s May 22 2020 MiTek Industries, Inc. Mon Jul 20 10:28:38 2020 Page 1

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Scale = 1:19.8

LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.39	Vert(LL)	-0.03	3-4	>999	360	MT20
TCDL 10.0	Lumber DOL	1.15	BC 0.22	Vert(CT)	-0.06	3-4	>988	240	197/144
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.00	Horz(CT)	-0.00	3	n/a	n/a	
BCDL 10.0	Code IRC2018/TPI2014		Matrix-R	Wind(LL)	0.01	3-4	>999	240	
								Weight: 15 lb	FT = 10%

#### LUMBER-

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

#### BRACING-

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

**REACTIONS.** (size) 4=Mechanical, 3=Mechanical  
Max Horz 4=116(LC 5)  
Max Uplift 4=-30(LC 8), 3=-56(LC 8)  
Max Grav 4=231(LC 1), 3=231(LC 1)

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

#### NOTES-

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 3) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 4) Refer to girder(s) for truss to truss connections.
- 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 4, 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.



July 20,2020

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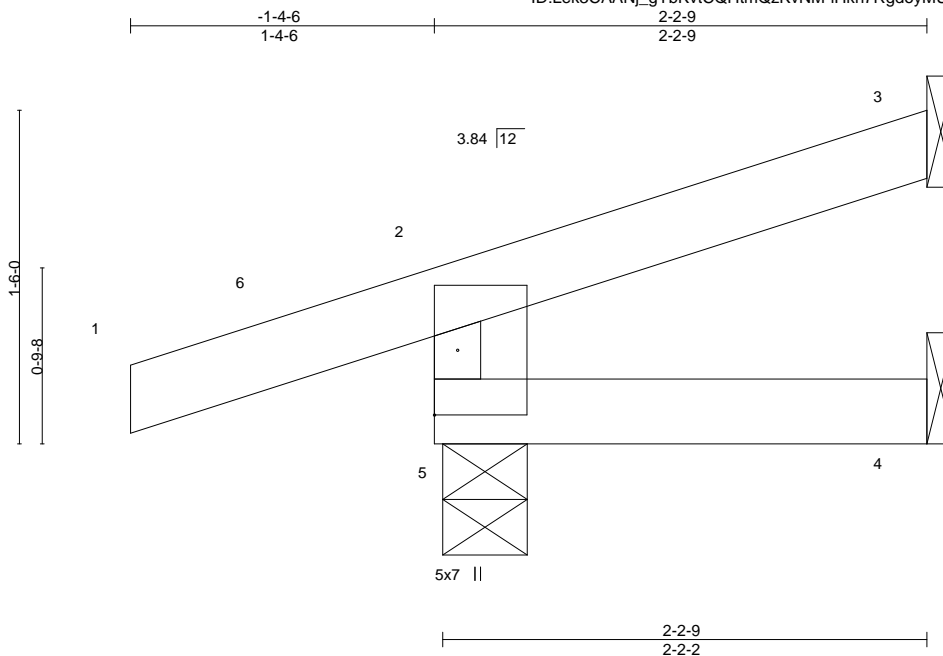


16023 Swingley Ridge Rd  
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 94 RR	I42087996
400513	J11	Jack-Open Girder	1	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS 66871

8.410 s May 22 2020 MiTek Industries, Inc. Mon Jul 20 10:28:39 2020 Page 1  
ID:Lek3CAANj\_gYbKvtCQHtmQzKvNM-iHkn7RgdoyMUIDSiTEElz6y4JAot9ROP8A?B?ywC9M



Scale = 1:10.4

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	5	>999	360	MT20	197/144
BCLL 10.0	Lumber DOL	1.15	BC 0.03	Vert(CT)	-0.00	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	5	>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 2-2-9 oc purlins, except end verticals.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS.** (size) 5=0-4-9, 3=Mechanical, 4=Mechanical  
Max Horz 5=51(LC 7)  
Max Uplift 5=115(LC 6), 3=-25(LC 12)  
Max Grav 5=78(LC 1), 3=24(LC 1), 4=29(LC 3)

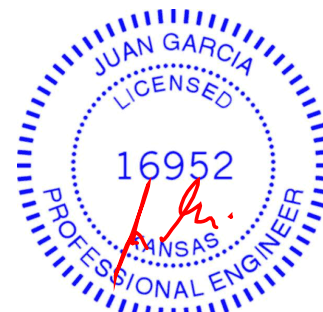
**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.

#### 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 100 lb uplift at joint(s) 3 except (jt=lb) 5=115.
- 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) 12 lb down and 4 lb up at -1-4-6, and 12 lb down and 4 lb up at -1-4-6 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=-19(F=-10, B=-10)  
Trapezoidal Loads (plf)  
Vert: 1=-0(F=35, B=35)-to-6=-13(F=28, B=28), 6=0(F=35, B=35)-to-2=-13(F=29, B=29), 2=-13(F=29, B=29)-to-3=-49(F=10, B=10), 5=-4(F=8, B=8)-to-4=-14(F=3, B=3)



July 20,2020

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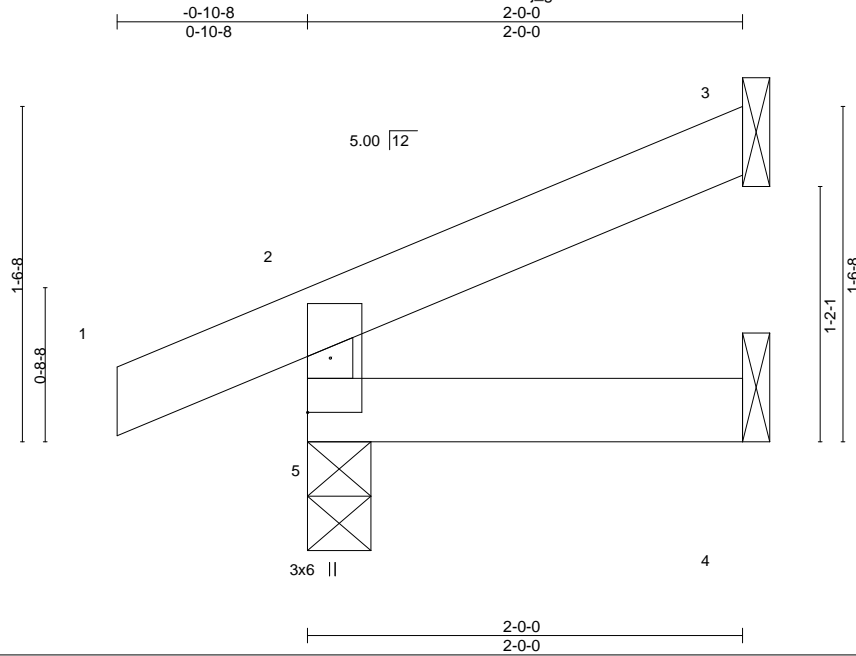
16023 Swingley Ridge Rd  
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 94 RR	I42087997
400513	J12	Jack-Open	1	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS 66871

8.410 s May 22 2020 MiTek Industries, Inc. Mon Jul 20 10:28:40 2020 Page 1

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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 0.06	Vert(LL)	-0.00	5	>999	360	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.03	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	5	>999	240	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 2-0-0 oc purlins, except end verticals.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS.** (size) 5=0-3-8, 3=Mechanical, 4=Mechanical  
Max Horz 5=40(LC 8)  
Max Uplift 5=32(LC 4), 3=31(LC 8)  
Max Grav 5=171(LC 1), 3=50(LC 1), 4=35(LC 3)

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

#### NOTES-

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



July 20,2020

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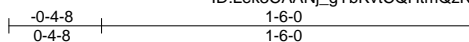
16023 Swingley Ridge Rd  
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 94 RR	I42087998
400513	J13	Jack-Closed Supported Gable	2	1	Job Reference (optional)	

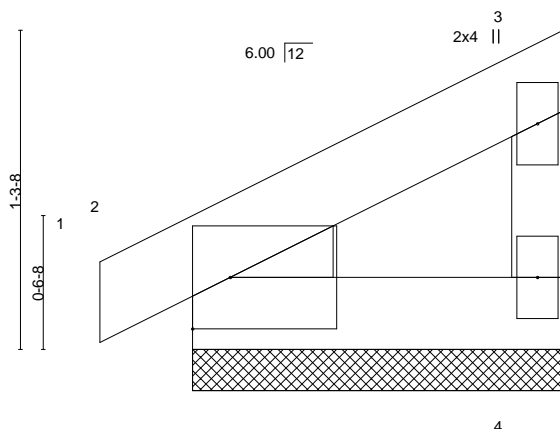
Wheeler Lumber, Waverly, KS 66871

8.410 s May 22 2020 MiTek Industries, Inc. Mon Jul 20 10:28:40 2020 Page 1

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Scale = 1:9.3



LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.03	Vert(LL)	-0.00	1	n/r	120	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.02	Vert(CT)	0.00	1	n/r	120		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.00	Horz(CT)	-0.00	4	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-P						Weight: 5 lb	FT = 10%

#### LUMBER-

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

#### BRACING-

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

**REACTIONS.** (size) 4=1-6-0, 2=1-6-0  
Max Horz 2=38(LC 5)  
Max Uplift 4=17(LC 8), 2=15(LC 8)  
Max Grav 4=59(LC 1), 2=93(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; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- Gable requires continuous bottom chord bearing.
- Gable studs spaced at 2-0-0 oc.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 4, 2.
- Beveled plate or shim required to provide full bearing surface with truss chord at joint(s) 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.



July 20,2020

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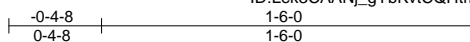
16023 Swingley Ridge Rd  
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 94 RR
400513	J14	Jack-Closed	2	1	I42087999
Job Reference (optional)					

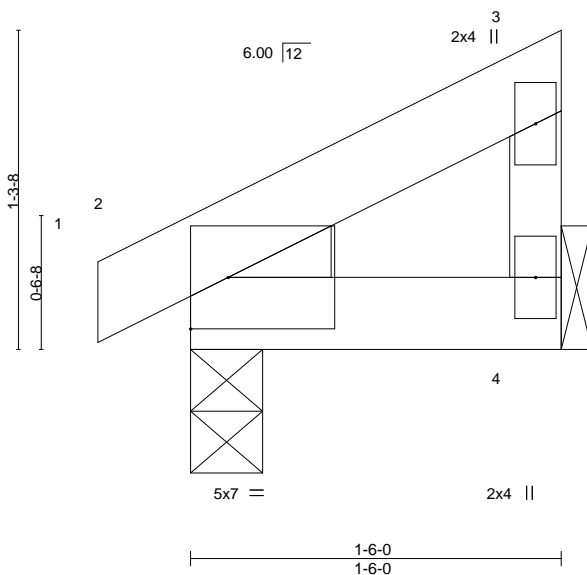
Wheeler Lumber, Waverly, KS 66871

8.410 s May 22 2020 MiTek Industries, Inc. Mon Jul 20 10:28:41 2020 Page 1

ID:Lek3CAANj\_gYbKvtCQHtmQzKvNM-ffsXY7itKZcC\_X05afHD2X1Rn\_QBL3wgtSf6FtywC9K



Scale = 1:9.3



LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.02	Vert(LL)	-0.00	2	>999	360	MT20	197/144
BCLL 10.0	Lumber DOL	1.15	BC 0.03	Vert(CT)	-0.00	2	>999	240		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.00	Horz(CT)	-0.00	4	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-P	Wind(LL)	0.00	2	****	240	Weight: 5 lb	FT = 10%

#### LUMBER-

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

#### BRACING-

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

**REACTIONS.** (size) 4=Mechanical, 2=0-3-8  
 Max Horz 2=38(LC 5)  
 Max Uplift 4=17(LC 8), 2=16(LC 8)  
 Max Grav 4=57(LC 1), 2=94(LC 1)

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

#### NOTES-

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 3) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 4) Refer to girder(s) for truss to truss connections.
- 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 4, 2.
- 6) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



July 20,2020

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16023 Swingley Ridge Rd  
 Chesterfield, MO 63017

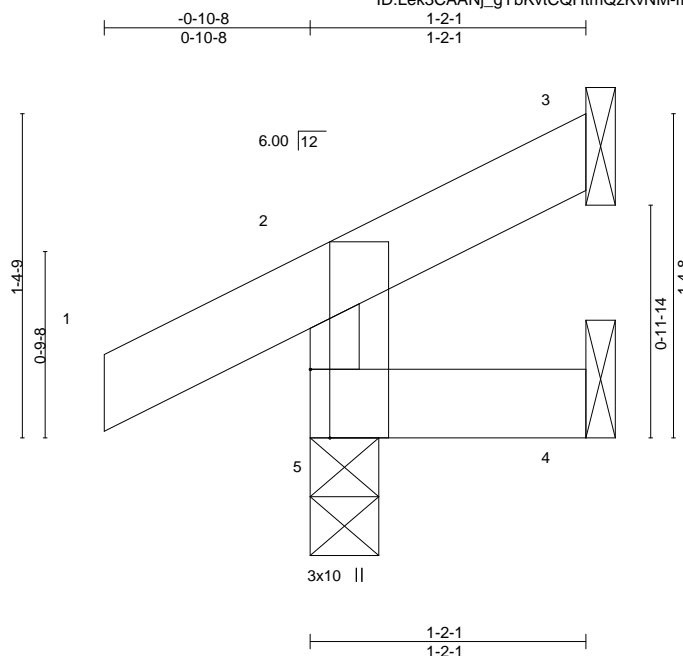


Job	Truss	Truss Type	Qty	Ply	Lot 94 RR	I42088000
400513	J15	Jack-Open	1	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS 66871

8.410 s May 22 2020 MiTek Industries, Inc. Mon Jul 20 10:28:41 2020 Page 1

ID:Lek3CAANj\_gYbKvtCQHtmQzKvNM-ffsXY7itKZcC\_X05afHD2X1Q8\_QVL3wgtSf6FtywC9K



Scale = 1:9.8

Plate Offsets (X,Y)--		[5:0-3-8,Edge]									
<b>LOADING</b> (psf)		<b>SPACING-</b>	2-0-0	<b>CSI.</b>		<b>DEFL.</b>	in (loc)	L/defl	L/d	<b>PLATES</b>	<b>GRIP</b>
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 0.01		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: 4 lb	FT = 10%

#### LUMBER-

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

#### BRACING-

TOP CHORD Structural wood sheathing directly applied or 1-2-1 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=34(LC 5)  
Max Uplift 5=23(LC 8), 3=17(LC 8), 4=1(LC 5)  
Max Grav 5=148(LC 1), 3=11(LC 15), 4=19(LC 3)

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

#### NOTES-

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 3) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 4) Refer to girder(s) for truss to truss connections.
- 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 5, 3, 4.
- 6) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



July 20,2020

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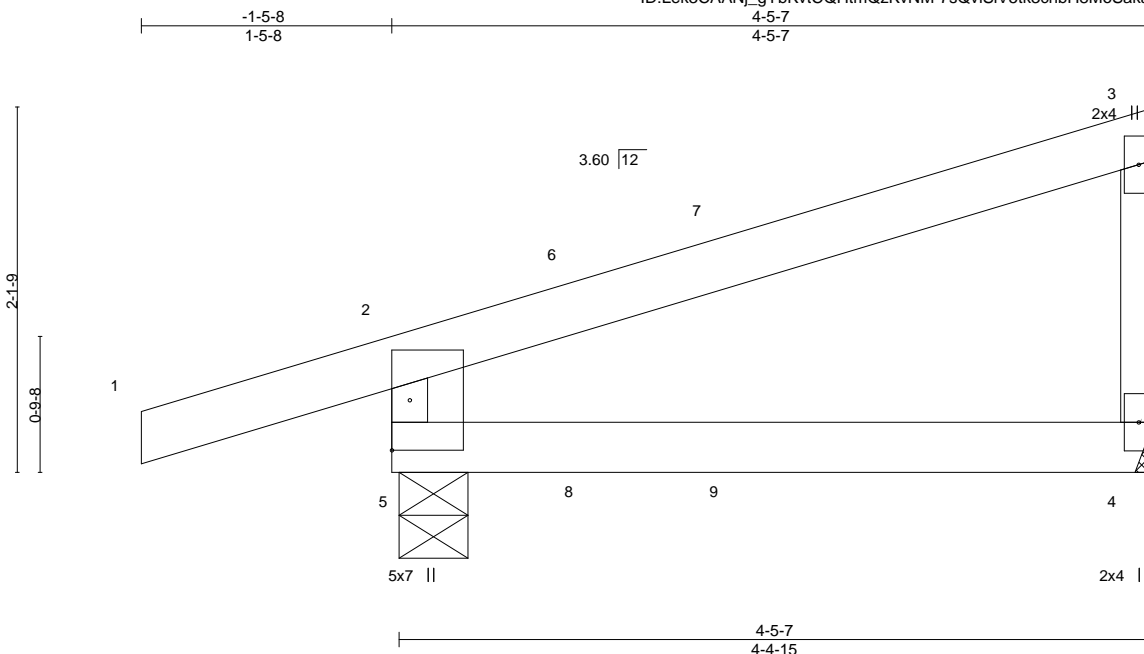


16023 Swingley Ridge Rd  
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 94 RR	I42088001
400513	J16	Diagonal Hip Girder	1	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS 66871

8.410 s May 22 2020 MiTek Industries, Inc. Mon Jul 20 10:28:42 2020 Page 1  
ID:Lek3CAANj\_gYbKvtCQHtmQzKvNM-7sQvISiV5tk3chbH8MoSakaYPNkT4WAq56Of0JywC9J



Scale = 1:13.4

LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCCL 25.0	Plate Grip DOL	1.15	TC 0.22	Vert(LL)	-0.01	4-5	>999	360	MT20
TCDL 10.0	Lumber DOL	1.15	BC 0.16	Vert(CT)	-0.03	4-5	>999	240	197/144
BCCL 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)	0.00	4-5	>999	240	
									Weight: 14 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 4-5-7 oc purlins, except end verticals.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

#### REACTIONS.

(size) 5=0-4-13, 4=Mechanical  
Max Horz 5=86(LC 5)  
Max Uplift 5=110(LC 4), 4=59(LC 8)  
Max Grav 5=317(LC 1), 4=242(LC 1)

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

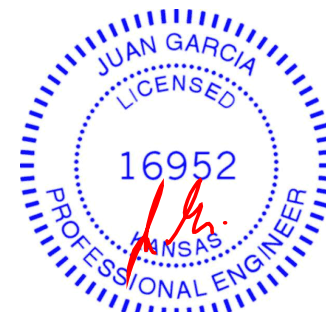
TOP CHORD 2-5=-282/136

#### NOTES-

- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- Refer to girder(s) for truss to truss connections.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 4 except (jt=lb) 5=110.
- This truss 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) 79 lb down and 15 lb up at 1-2-4, and 61 lb down and 17 lb up at 2-0-6, and 75 lb down and 63 lb up at 4-4-3 on top chord, and 2 lb down and 2 lb up at 1-2-4, and 3 lb down and 6 lb up at 2-0-6, and 33 lb down at 4-4-3 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: 3=-50(B) 4=-23(B) 8=2(B) 9=2(F)



July 20,2020

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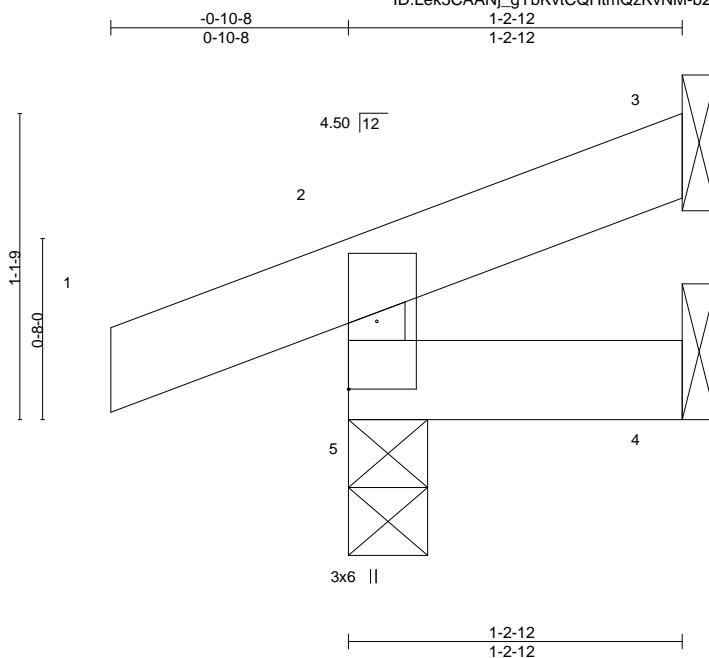


16023 Swingley Ridge Rd  
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 94 RR	I42088002
400513	J17	Jack-Open	1	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS 66871

8.410 s May 22 2020 MiTek Industries, Inc. Mon Jul 20 10:28:43 2020 Page 1  
ID:Lek3CAANj\_gYbKvtCQHtmQzKvNM-b2\_Hzoj7rBsvDrATi4Jh7y7mgn6zpZqZKm8DKmywC9I



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 0.06	Vert(LL)	-0.00	5	>999	360	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.01	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: 4 lb	FT = 10%

#### LUMBER-

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

#### BRACING-

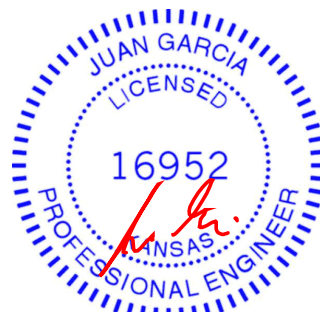
TOP CHORD Structural wood sheathing directly applied or 1-2-12 oc purlins, except end verticals.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS.** (size) 5=0-3-8, 3=Mechanical, 4=Mechanical  
Max Horz 5=29(LC 5)  
Max Uplift 5=53(LC 4), 3=13(LC 8)  
Max Grav 5=149(LC 1), 3=14(LC 1), 4=20(LC 3)

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

#### NOTES-

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 3) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 4) Refer to girder(s) for truss to truss connections.
- 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 5, 3.
- 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.



July 20,2020

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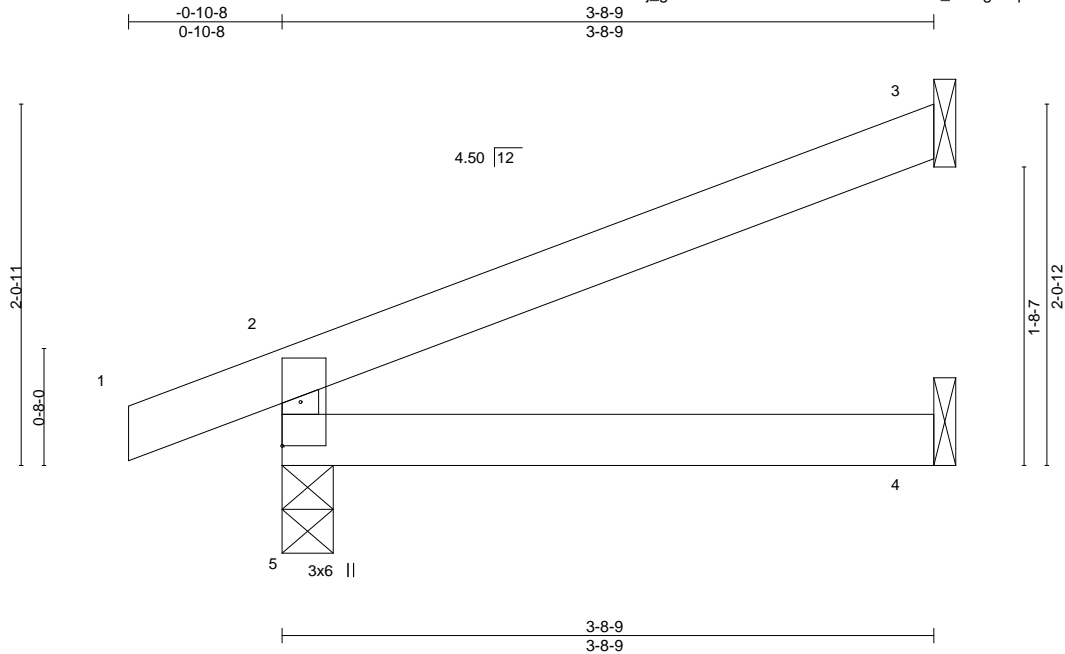
16023 Swingley Ridge Rd  
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 94 RR	I42088003
400513	J18	Jack-Open	1	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS 66871

8.410 s May 22 2020 MiTek Industries, Inc. Mon Jul 20 10:28:44 2020 Page 1

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Scale = 1:13.1

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 0.18	Vert(LL)	-0.01	4-5	>999	360	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.11	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: 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 3-8-9 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=63(LC 4)  
Max Uplift 5=54(LC 4), 3=-55(LC 8)  
Max Grav 5=238(LC 1), 3=110(LC 1), 4=67(LC 3)

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

#### NOTES-

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 3) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 4) Refer to girder(s) for truss to truss connections.
- 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 5, 3.
- 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.



July 20,2020

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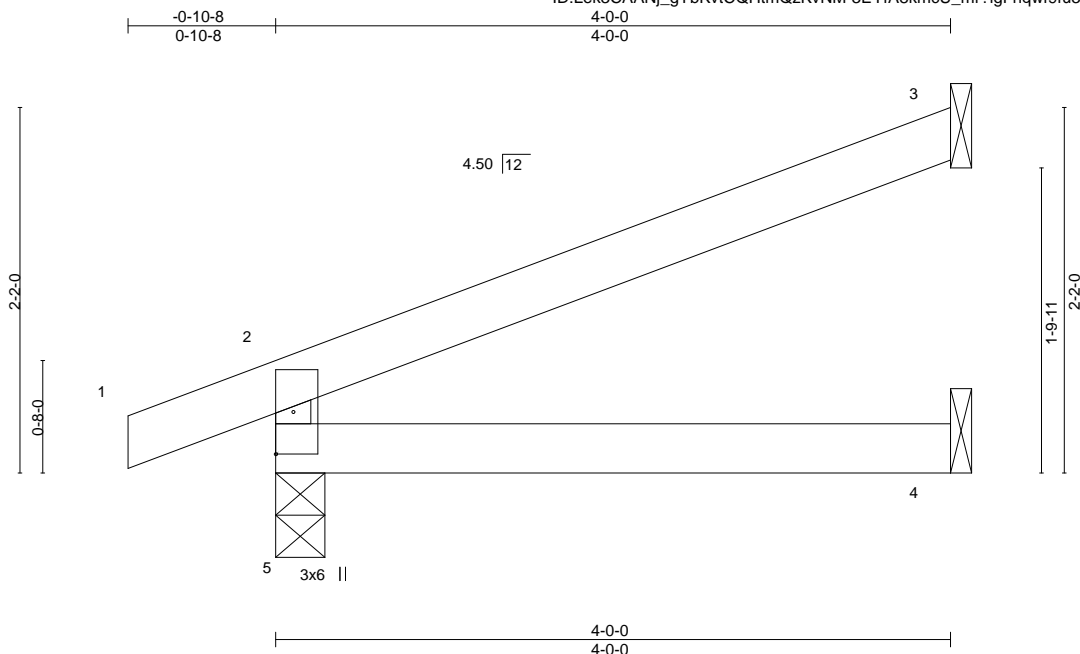
16023 Swingley Ridge Rd  
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 94 RR	I42088004
400513	J19	Jack-Open	6	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS 66871

8.410 s May 22 2020 MiTek Industries, Inc. Mon Jul 20 10:28:44 2020 Page 1

ID:Lek3CAANj\_gYbKvtCQHtmQzKvNM-3EYfA8kmcU\_mr?lgFnqwf9fu3BQlYPg7ZQtmsC9H



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 0.21	Vert(LL)	-0.01	4-5	>999	360	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.13	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 2x3 SPF No.2

#### BRACING-

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

**REACTIONS.** (size) 5=0-3-8, 3=Mechanical, 4=Mechanical  
Max Horz 5=68(LC 4)  
Max Uplift 5=55(LC 4), 3=-60(LC 8)  
Max Grav 5=250(LC 1), 3=120(LC 1), 4=73(LC 3)

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

#### NOTES-

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 3) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 4) Refer to girder(s) for truss to truss connections.
- 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 5, 3.
- 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.



July 20,2020

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16023 Swingley Ridge Rd  
Chesterfield, MO 63017



Job	Truss	Truss Type	Qty	Ply	Lot 94 RR	I42088005
400513	K1	GABLE	1	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS 66871

8.410 s May 22 2020 MiTek Industries, Inc. Mon Jul 20 10:28:51 2020 Page 1

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3x4 =

Scale = 1:27.5

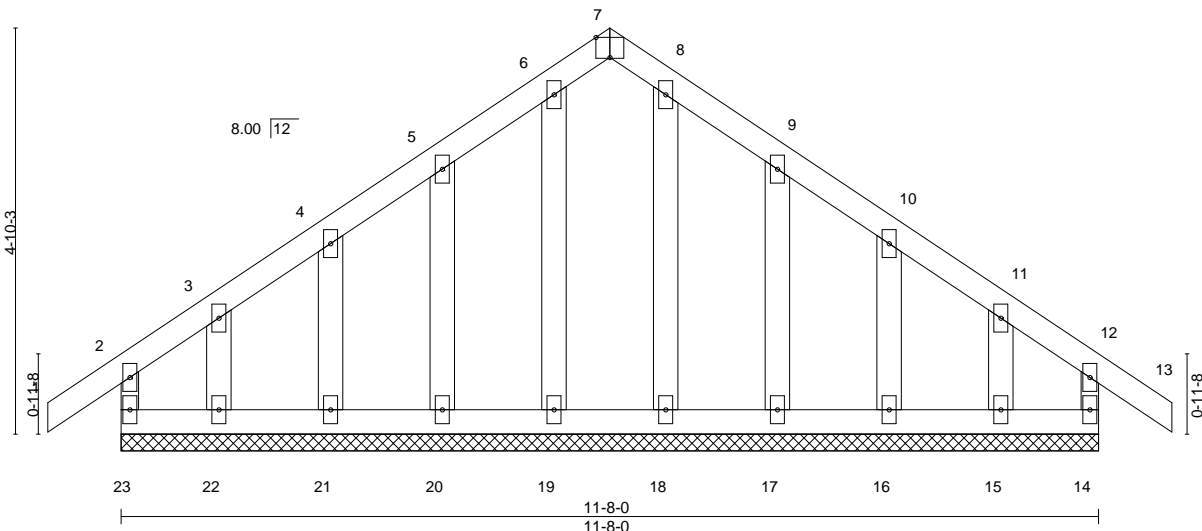


Plate Offsets (X,Y)-- [7:0-2-0,Edge]

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 0.07	Vert(LL)	-0.00	13	n/r	120	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.04	Vert(CT)	-0.00	13	n/r	120		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.03	Horz(CT)	0.00	14	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-R						Weight: 56 lb	FT = 10%

#### LUMBER-

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

#### BRACING-

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

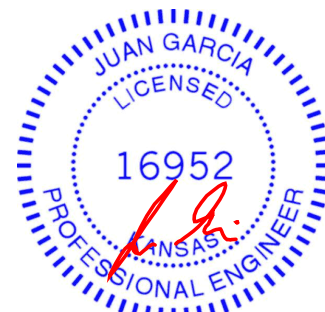
#### REACTIONS.

All bearings 11-8-0.  
(lb) - Max Horz 23=-144(LC 6)  
Max Uplift All uplift 100 lb or less at joint(s) 23, 14, 22, 21, 20, 17, 16, 15  
Max Grav All reactions 250 lb or less at joint(s) 23, 14, 22, 21, 20, 19, 18, 17, 16, 15

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

#### NOTES-

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- All plates are 2x4 MT20 unless otherwise indicated.
- Gable requires continuous bottom chord bearing.
- Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
- Gable studs spaced at 1-4-0 oc.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 23, 14, 22, 21, 20, 17, 16, 15.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



July 20,2020

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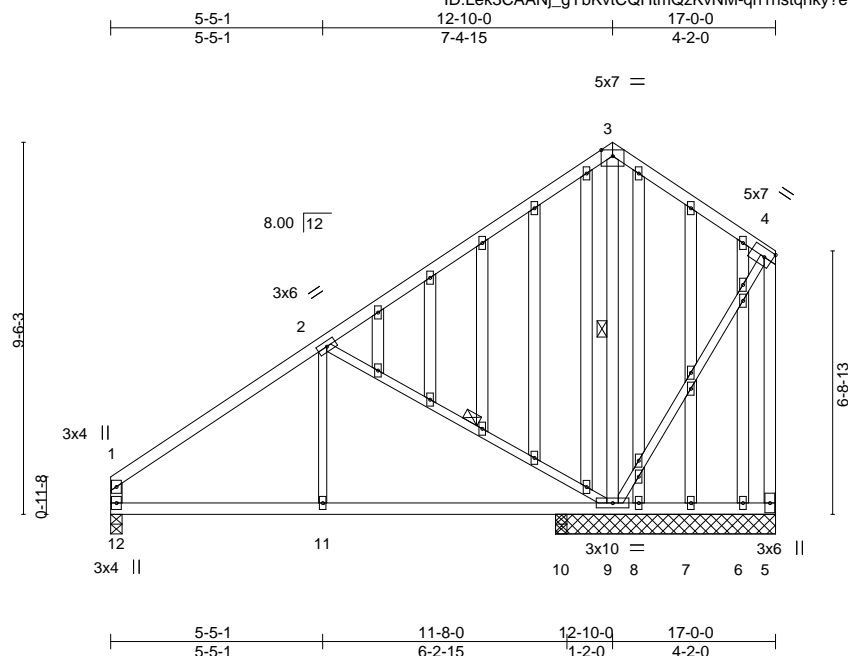
16023 Swingley Ridge Rd  
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 94 RR	I42088006
400513	K2	GABLE	1	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS 66871

8.410 s May 22 2020 MiTek Industries, Inc. Mon Jul 20 10:28:52 2020 Page 1

ID:Lek3CAANj\_gYbKvtCQHtmQzKvNM-qn1hstqnky?eoDMCjTzo\_r?93P8RQtXIOfpB8kywC99



Scale = 1:58.9

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 0.66	Vert(LL)	-0.03 10-11	>999	360	MT20	197/144
BCLL 10.0	Lumber DOL	1.15	BC 0.24	Vert(CT)	-0.06 10-11	>999	240		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.65	Horz(CT)	0.01 5	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-S	Wind(LL)	0.01 11	>999	240		
								Weight: 131 lb	FT = 10%

#### LUMBER-

TOP CHORD 2x4 SPF No.2  
 BOT CHORD 2x4 SPF No.2  
 WEBS 2x4 SPF No.2 \*Except\*  
 2-11,2-9,4-9: 2x3 SPF No.2  
 OTHERS 2x4 SPF No.2

#### BRACING-

TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.  
 BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.  
 WEBS 1 Row at midpt 2-9, 3-9

#### REACTIONS.

All bearings 5-7-8 except (jt=length) 12=0-3-8, 10=0-3-8.  
 (lb) - Max Horz 12=328(LC 5)  
 Max Uplift All uplift 100 lb or less at joint(s) 12, 6 except 5=-466(LC 21), 9=-240(LC 8)  
 Max Grav All reactions 250 lb or less at joint(s) 5, 8, 7, 6 except 12=397(LC 1), 9=1173(LC 1), 10=274(LC 3)

#### FORCES.

(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 1-2=-411/78, 2-3=-38/377, 3-4=0/339, 1-12=-329/82, 4-5=0/460  
 BOT CHORD 11-12=-244/397, 10-11=-244/397, 9-10=-244/397  
 WEBS 2-9=-588/263, 3-9=-681/60, 4-9=-457/63

#### NOTES-

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- All plates are 2x4 MT20 unless otherwise indicated.
- Gable studs spaced at 1-4-0 oc.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 12, 6 except (jt=lb) 5=466, 9=240.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



July 20,2020

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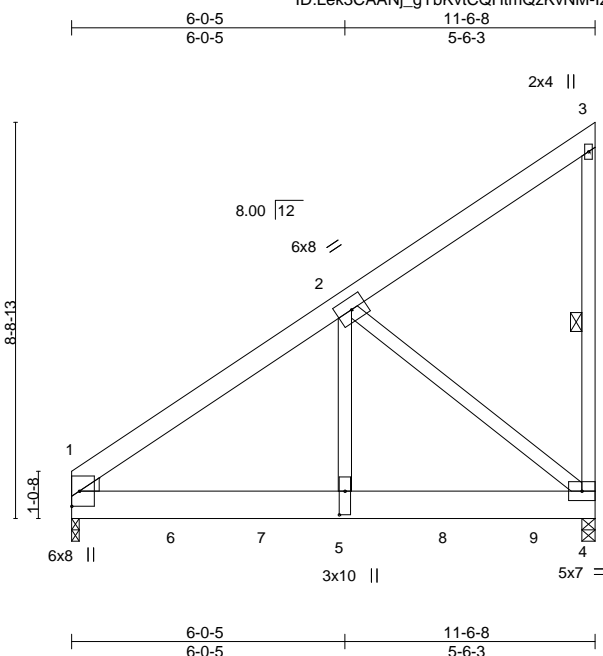
16023 Swingley Ridge Rd  
 Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 94 RR	
400513	K3	MONOPITCH GIRDER	1	2		I42088007

Wheeler Lumber, Waverly, KS 66871

8.410 s May 22 2020 MiTek Industries, Inc. Mon Jul 20 10:28:53 2020 Page 1

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Scale = 1:50.8

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

LOADING (psf)	SPACING-		CSI.	DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	2-0-0	TC 0.61	Vert(LL)	-0.04	1-5	>999	360	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.41	Vert(CT)	-0.08	1-5	>999	240		
BCLL 0.0 *	Rep Stress Incr	NO	WB 0.70	Horz(CT)	0.01	4	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-S	Wind(LL)	0.03	1-5	>999	240	Weight: 164 lb	FT = 10%

#### LUMBER-

TOP CHORD 2x6 SPF No.2  
BOT CHORD 2x8 SP DSS  
WEBS 2x4 SPF No.2  
WEDGE  
Left: 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 3-4

#### REACTIONS.

(size) 4=0-3-8, 1=0-2-0 (req. 0-3-9)  
Max Horz 1=321(LC 22)  
Max Uplift 4=245(LC 8), 1=356(LC 8)  
Max Grav 4=3890(LC 1), 1=4571(LC 1)

#### FORCES.

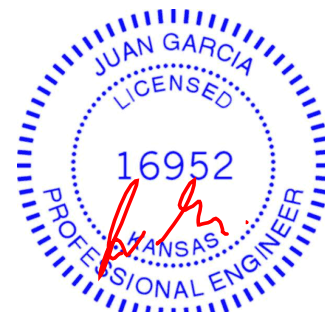
(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
TOP CHORD 1-2=-3816/143  
BOT CHORD 1-5=-220/2995, 4-5=-220/2995  
WEBS 2-5=-96/4248, 2-4=-3885/344

#### NOTES-

- 2-ply truss to be connected together with 10d (0.131"x3") nails as follows:  
Top chords connected as follows: 2x6 - 2 rows staggered at 0-9-0 oc, 2x4 - 1 row at 0-9-0 oc.  
Bottom chords connected as follows: 2x8 - 2 rows staggered at 0-7-0 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.
- Wind: ASCE 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.
- WARNING: Required bearing size at joint(s) 1 greater than input bearing size.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 4=245, 1=356.
- This truss 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) 1246 lb down and 162 lb up at 0-1-0, 1238 lb down and 170 lb up at 2-3-12, 1240 lb down and 31 lb up at 4-3-12, 1240 lb down and 31 lb up at 6-3-12, and 1240 lb down and 31 lb up at 8-3-12, and 1240 lb down and 31 lb up at 10-3-12 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.

#### LOAD CASE(S) Standard

Continued on page 2



July 20,2020

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16023 Swingley Ridge Rd  
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 94 RR	I42088007
400513	K3	MONOPITCH GIRDER	1	2	Job Reference (optional)	

Wheeler Lumber, Waverly, KS 66871

8.410 s May 22 2020 MiTek Industries, Inc. Mon Jul 20 10:28:53 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: 1-3=-70, 1-4=-20  
Concentrated Loads (lb)  
Vert: 5=-1240(B) 1=-1246(B) 6=-1238(B) 7=-1240(B) 8=-1240(B) 9=-1240(B)

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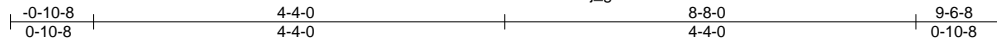
16023 Swingley Ridge Rd  
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 94 RR	I42088008
400513	L1	GABLE	1	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS 66871

8.410 s May 22 2020 MiTek Industries, Inc. Mon Jul 20 10:28:54 2020 Page 1

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3x4 =

Scale = 1:24.3

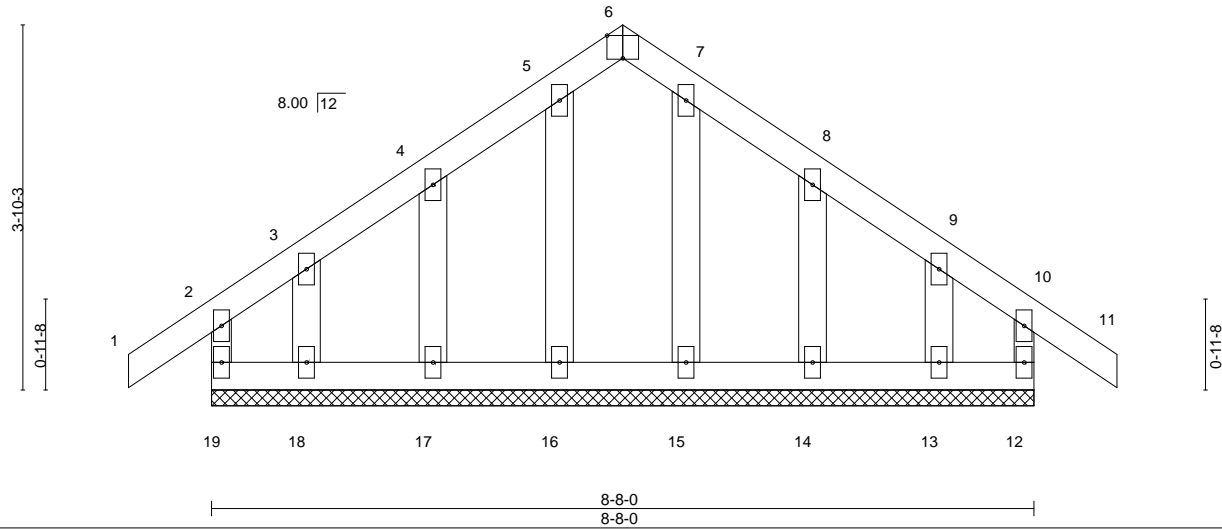


Plate Offsets (X,Y)-- [6:0-2-0,Edge]											
LOADING (psf)		SPACING- 2-0-0		CSI.	DEFL. in (loc) l/defl L/d				PLATES	GRIP	
TCLL	25.0	Plate Grip DOL	1.15	TC 0.07	Vert(LL)	-0.00	11	n/r	120	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC 0.03	Vert(CT)	-0.00	11	n/r	120		
BCLL	0.0 *	Rep Stress Incr	YES	WB 0.02	Horz(CT)	0.00	12	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-R						Weight: 39 lb	FT = 10%

#### LUMBER-

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

#### BRACING-

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

#### REACTIONS.

All bearings 8-8-0.  
(lb) - Max Horz 19=118(LC 7)  
Max Uplift All uplift 100 lb or less at joint(s) 19, 12, 18, 17, 14, 13  
Max Grav All reactions 250 lb or less at joint(s) 19, 12, 18, 17, 16, 15, 14, 13

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

#### NOTES-

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- All plates are 2x4 MT20 unless otherwise indicated.
- Gable requires continuous bottom chord bearing.
- Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
- Gable studs spaced at 1-4-0 oc.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 19, 12, 18, 17, 14, 13.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



July 20,2020

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16023 Swingley Ridge Rd  
Chesterfield, MO 63017



Wheeler Lumber, Waverly, KS 66871

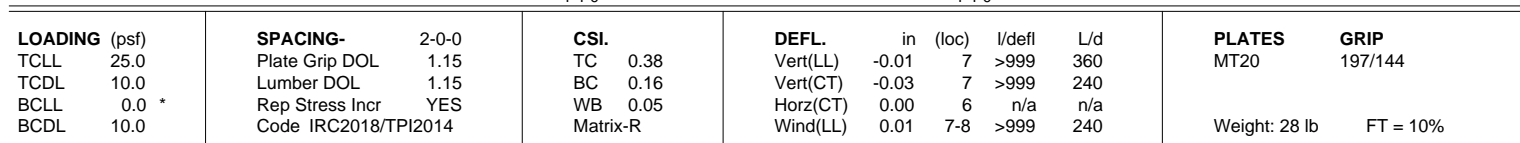
8.410 s May 22 2020 MiTek Industries, Inc. Mon Jul 20 10:28:55 2020 Page 1

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-0-10-8 4-4-0 8-8-0 9-6-8  
0-10-8 4-4-0 4-4-0 0-10-8

4x5 =

Scale = 1:25.4



**REACTIONS.** (size) 8=0-3-8, 6=0-3-8  
 Max Horz 8=118(LC 7)  
 Max Uplift 8=-64(LC 8), 6=-64(LC 9)  
 Max Grav 8=449(LC 1), 6=449(LC 1)

**NOTES-**

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



July 20, 2020

Job	Truss	Truss Type	Qty	Ply	Lot 94 RR
400513	L3	GABLE	1	2	

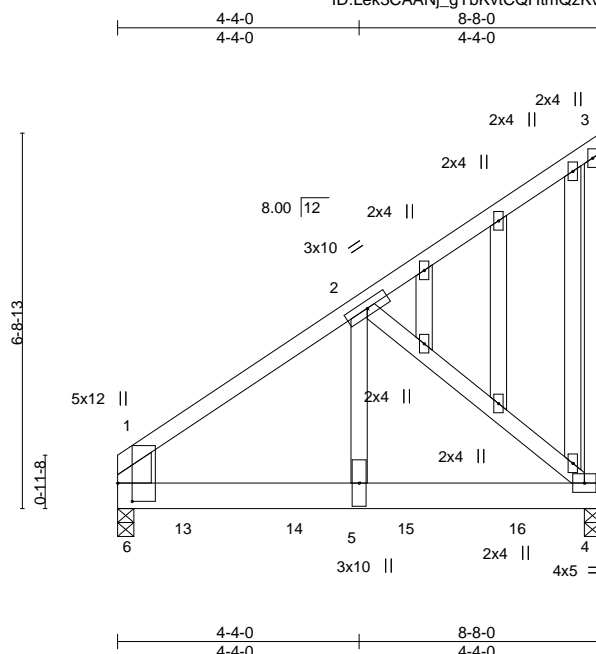
I42088010

Wheeler Lumber, Waverly, KS 66871

8.410 s May 22 2020 MiTek Industries, Inc. Mon Jul 20 10:28:56 2020 Page 1

ID:Lek3CAANj\_gYbKvtCQHtmQzKvNM-iYGChFtHoAV3Hrfzyl2k9h9y51TXMmOuJHnPHVywC95

Job Reference (optional)



Scale = 1:41.3

Plate Offsets (X,Y)-- [1:0-3-15,0-3-2]							
<b>LOADING</b> (psf)	<b>SPACING-</b>	2-0-0	<b>CSI.</b>	<b>DEFL.</b>	in (loc)	L/defl	<b>PLATES</b>
TCLL 25.0	Plate Grip DOL	1.15	TC 0.21	Vert(LL)	-0.03	4-5	MT20
TCDL 10.0	Lumber DOL	1.15	BC 0.36	Vert(CT)	-0.06	4-5	
BCLL 0.0 *	Rep Stress Incr	NO	WB 0.34	Horz(CT)	0.01	4	
BCDL 10.0	Code IRC2018/TPI2014		Matrix-S	Wind(LL)	0.02	4-5	
							Weight: 124 lb
							FT = 10%

**LUMBER-**

TOP CHORD 2x4 SPF No.2  
 BOT CHORD 2x6 SP 2400F 2.0E  
 WEBS 2x4 SPF No.2 \*Except\*  
 1-6: 2x8 SP DSS  
 OTHERS 2x4 SPF No.2

**BRACING-**

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

**REACTIONS.**

(size) 4=0-3-8, 6=0-3-8  
 Max Horz 6=247(LC 5)  
 Max Uplift 4=184(LC 8), 6=207(LC 8)  
 Max Grav 4=2820(LC 1), 6=3049(LC 1)

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

TOP CHORD 1-2=-2546/108, 1-6=-1534/100  
 BOT CHORD 5-6=-177/2037, 4-5=-177/2037  
 WEBS 2-5=-68/2746, 2-4=-2607/248

**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, 2x8 - 2 rows staggered at 0-9-0 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.
- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed;  
 MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- Gable studs spaced at 1-4-0 oc.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 4=184, 6=207.
- This truss 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) 1283 lb down and 181 lb up at 1-2-12, 1283 lb down and 35 lb up at 3-2-12, and 1281 lb down and 35 lb up at 5-2-12, and 1281 lb down and 35 lb up at 7-2-12 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.

**LOAD CASE(S)**

Standard



July 20,2020

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16023 Swingley Ridge Rd  
 Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 94 RR
400513	L3	GABLE	1	2	I42088010
					Job Reference (optional)

Wheeler Lumber, Waverly, KS 66871

8.410 s May 22 2020 MiTek Industries, Inc. Mon Jul 20 10:28:56 2020 Page 2  
ID:Lek3CAANj\_gYbKvtCQHtmQzKvNM-iYGChFtHoAV3HrfzyI2k9h9y51TXMmOuJHnPHVywC95

**LOAD CASE(S)** Standard  
1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15  
Uniform Loads (plf)  
Vert: 1-3=-70, 4-6=-20  
Concentrated Loads (lb)  
Vert: 13=-1283(F) 14=-1283(F) 15=-1281(F) 16=-1281(F)

Job	Truss	Truss Type	Qty	Ply	Lot 94 RR
400513	LAY1	GABLE	1	1	
					Job Reference (optional)

I42088011

Wheeler Lumber, Waverly, KS 66871

8.410 s May 22 2020 MiTek Industries, Inc. Mon Jul 20 10:28:57 2020 Page 1

ID:Lek3CAANj\_gYbKvtCQHtmQzKvNM-BkqavbuvYUdvv?EAW0ZzhviAfQu251a1YxXyqyywC94

5-9-10

2-10-13

2-10-13

2-10-13

3x4 =

Scale = 1:21.1

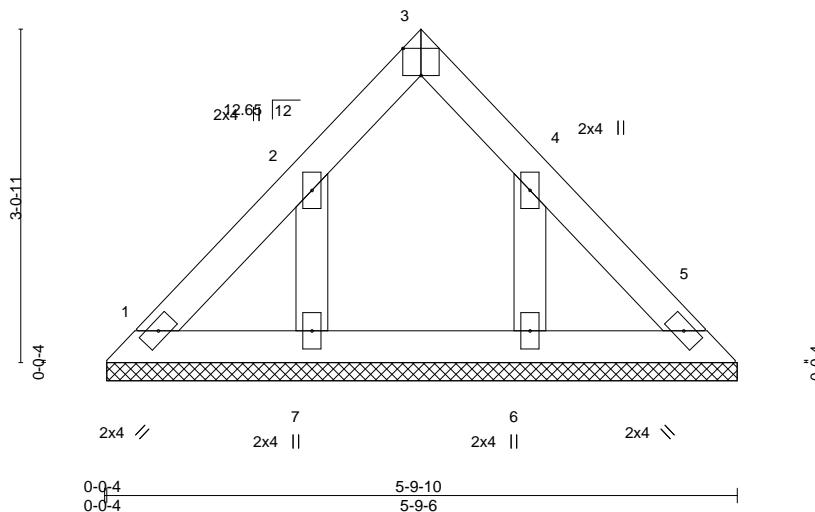


Plate Offsets (X,Y)--		[3:Edge,0-3-0], [4:0-0-0,0-0-0]	
<b>LOADING</b> (psf)		<b>SPACING-</b>	2-0-0
TCLL 25.0		Plate Grip DOL	1.15
TCDL 10.0		Lumber DOL	1.15
BCLL 0.0 *		Rep Stress Incr	YES
BCDL 10.0		Code IRC2018/TPI2014	
		<b>CSI.</b>	
		TC 0.03	
		BC 0.02	
		WB 0.02	
		Matrix-P	
		<b>DEFL.</b>	
		in (loc)	l/defl
		Vert(LL) n/a	- n/a 999
		Vert(CT) n/a	- n/a 999
		Horz(CT) 0.00	5 n/a n/a
		<b>PLATES</b>	<b>GRIP</b>
		MT20	197/144
		Weight: 19 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 5-9-10 oc purlins.  
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

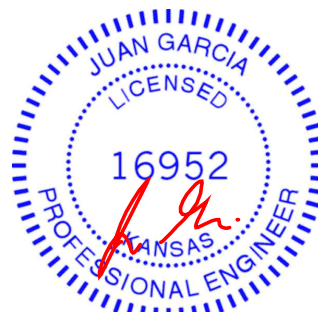
**REACTIONS.**

All bearings 5-9-6.  
 (lb) - Max Horz 1=-72(LC 4)  
 Max Uplift All uplift 100 lb or less at joint(s) 7, 6  
 Max Grav All reactions 250 lb or less at joint(s) 1, 5, 7, 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) 7, 6.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



July 20,2020

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16023 Swingley Ridge Rd  
 Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 94 RR	I42088012
400513	LAY2	GABLE	1	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS 66871

8.410 s May 22 2020 MiTek Industries, Inc. Mon Jul 20 10:28:58 2020 Page 1  
ID:Lek3CAANj\_gYbKvtCQHtmQzKvNM-fxOy6xvYJolnX8pM4j4CE6FJGqEAqiYBnbGVMOywc93

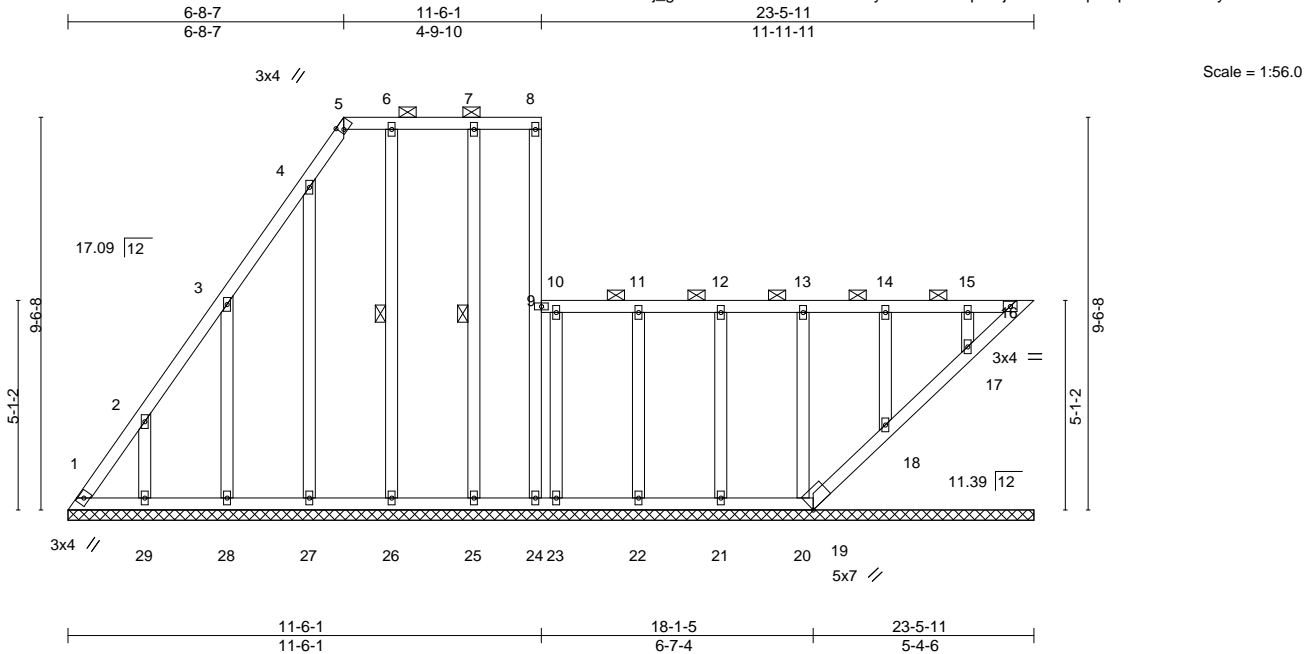


Plate Offsets (X,Y)--		[5:0-1-2,Edge]							
LOADING (psf)		SPACING- 2-0-0		CSI.		DEFL. in (loc) l/defl L/d		PLATES GRIP	
TCLL	25.0	Plate Grip DOL	1.15	TC	0.10	Vert(LL)	n/a - n/a	999	MT20 197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.03	Vert(CT)	n/a - n/a	999	
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.23	Horz(CT)	-0.01 16 n/a	n/a	
BCDL	10.0	Code IRC2018/TPI2014		Matrix-S					Weight: 133 lb FT = 10%

<b>LUMBER-</b>	<b>BRACING-</b>
TOP CHORD 2x4 SPF No.2	TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals, and 2-0-0 oc purlins (6-0-0 max.): 5-8, 9-24, 9-16.
BOT CHORD 2x4 SPF No.2	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing, Except: 6-0-0 oc bracing: 17-18,16-17.
WEBS 2x4 SPF No.2	WEBS 1 Row at midpt 6-26, 7-25
OTHERS 2x4 SPF No.2	

**REACTIONS.** All bearings 23-5-11.  
 (lb) - Max Horz 1=559(LC 8)  
 Max Uplift All uplift 100 lb or less at joint(s) 24, 19, 26, 25, 23, 22, 21, 20, 18, 17 except 1=256(LC 6), 16=104(LC 8), 29=200(LC 8), 28=190(LC 8), 27=243(LC 8)  
 Max Grav All reactions 250 lb or less at joint(s) 24, 16, 19, 29, 28, 26, 25, 23, 22, 21, 20, 18, 17 except 1=588(LC 8), 27=253(LC 15)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 1-2=-729/366, 2-3=-539/283, 3-4=-342/198  
 WEBS 4-27=-213/266

- 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.
  - 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) 24, 19, 26, 25, 23, 22, 21, 20, 18, 17 except (jt=lb) 1=256, 16=104, 29=200, 28=190, 27=243.
  - Beveled plate or shim required to provide full bearing surface with truss chord at joint(s) 16, 18, 17.
  - This truss 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.



July 20,2020

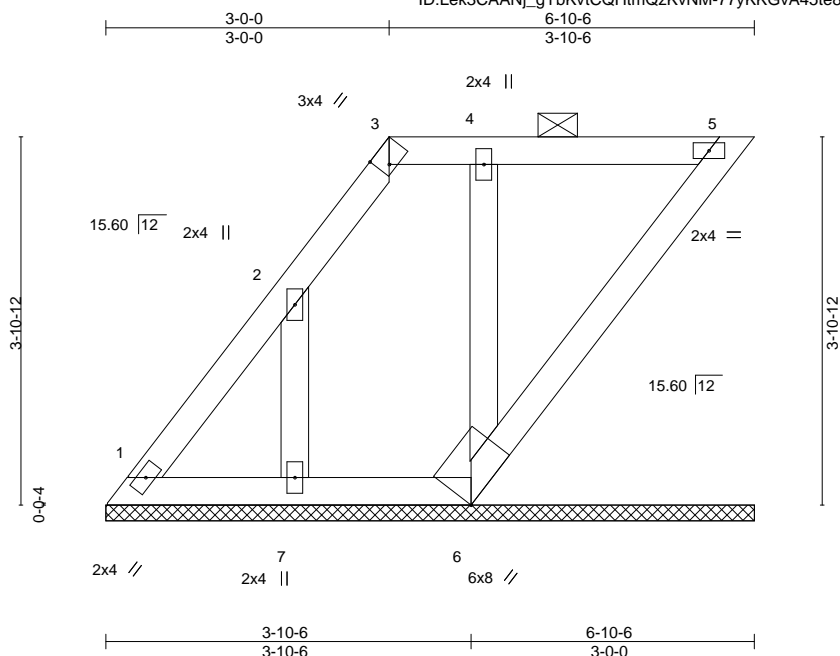


Job	Truss	Truss Type	Qty	Ply	Lot 94 RR
400513	LAY3	GABLE	1	1	
					Job Reference (optional)

Wheeler Lumber, Waverly, KS 66871

8.410 s May 22 2020 MiTek Industries, Inc. Mon Jul 20 10:28:59 2020 Page 1

ID:Lek3CAANj\_gYbKvtCQHtmQzKvNM-77yKKGvA45te8IOYeRbRmKnUMZgZCoK?F03uqywC92



Scale = 1:24.4

Plate Offsets (X,Y)--		[3:0-1-4,Edge]									
<b>LOADING</b> (psf)		<b>SPACING-</b>	2-0-0	<b>CSI.</b>		<b>DEFL.</b>	in (loc)	l/defl	L/d	<b>PLATES</b>	<b>GRIP</b>
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 0.08		Vert(CT)	n/a -	n/a	999		
BCLL 0.0 *		Rep Stress Incr	YES	WB 0.04		Horz(CT)	-0.00 5	n/a	n/a		
BCDL 10.0		Code IRC2018/TPI2014		Matrix-P						Weight: 25 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, 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 6-10-6.  
(lb) - Max Horz 1=147(LC 8)  
Max Uplift All uplift 100 lb or less at joint(s) 1, 5, 6 except 7=143(LC 8)  
Max Grav All reactions 250 lb or less at joint(s) 1, 5, 6, 7

**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; 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.
- 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, 6 except (jt=lb) 7=143.
- Beveled plate or shim required to provide full bearing surface with truss chord at joint(s) 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.



July 20,2020

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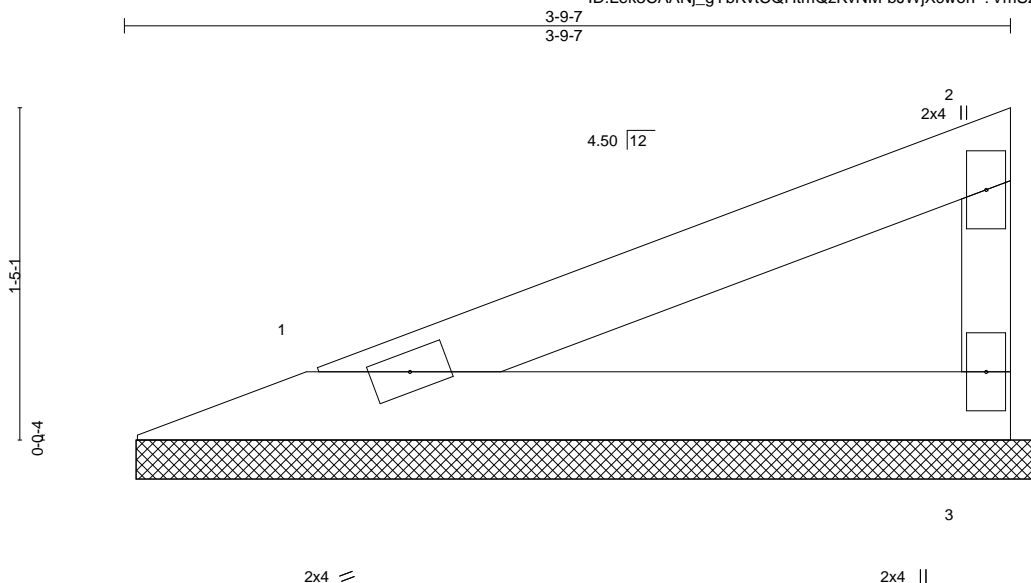
16023 Swingley Ridge Rd  
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 94 RR	I42088014
400513	V1	VALLEY	1	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS 66871

8.410 s May 22 2020 MiTek Industries, Inc. Mon Jul 20 10:29:00 2020 Page 1

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Scale = 1:9.8

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 0.14	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.08	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 3-9-7 oc purlins, except end verticals.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

#### REACTIONS.

(size) 1=3-10-5, 3=3-10-5  
Max Horz 1=48(LC 5)  
Max Uplift 1=-20(LC 8), 3=-28(LC 8)  
Max Grav 1=128(LC 1), 3=128(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.



July 20,2020

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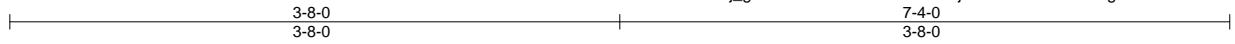
16023 Swingley Ridge Rd  
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 94 RR	I42088015
400513	V3	Valley	1	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS 66871

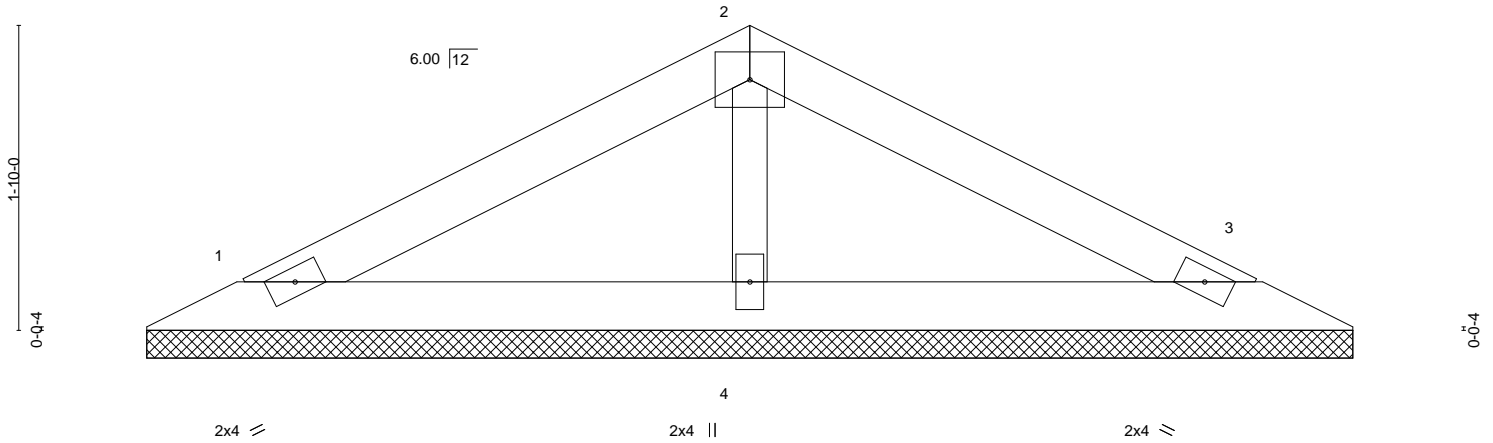
8.410 s May 22 2020 MiTek Industries, Inc. Mon Jul 20 10:29:00 2020 Page 1

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Scale = 1:13.9

4x5 =



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 0.16	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.08	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: 17 lb	FT = 10%

#### LUMBER-

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

#### BRACING-

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

#### REACTIONS.

(size) 1=7-3-0, 3=7-3-0, 4=7-3-0  
Max Horz 1=27(LC 12)  
Max Uplift 1=33(LC 8), 3=37(LC 9), 4=33(LC 8)  
Max Grav 1=143(LC 1), 3=143(LC 1), 4=261(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.



July 20,2020

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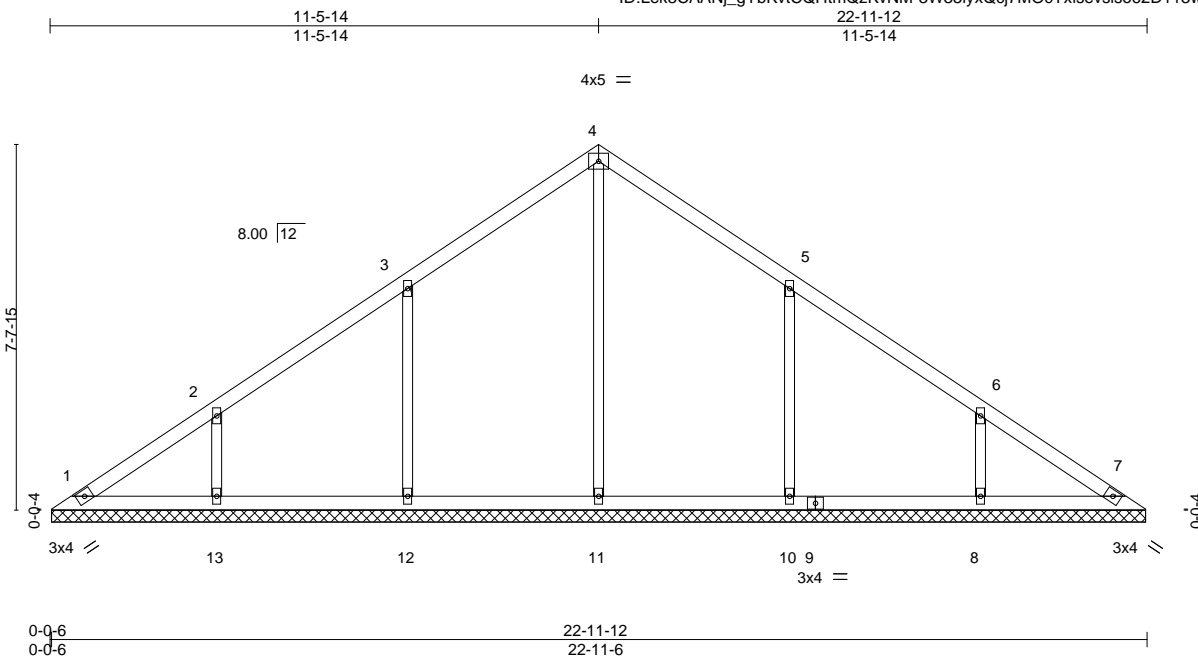


16023 Swingley Ridge Rd  
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 94 RR	I42088016
400513	V4	Valley	1	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS 66871

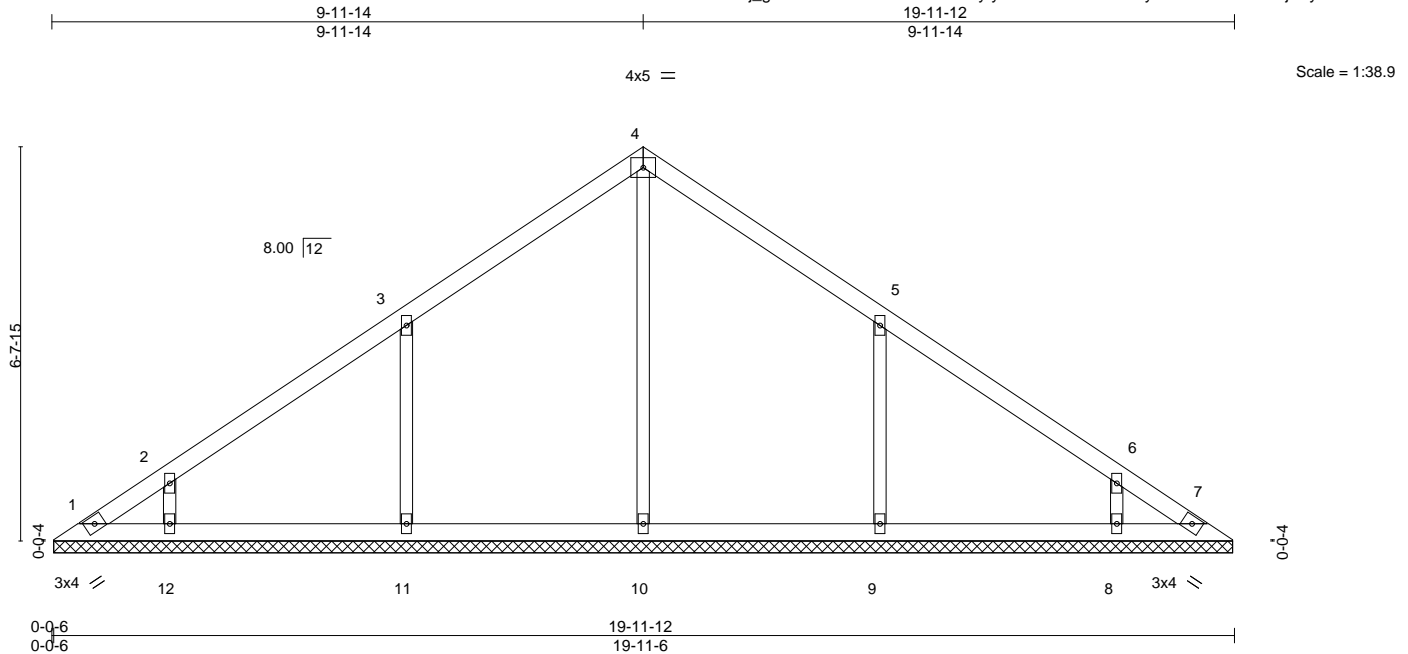
8.410 s May 22 2020 MiTek Industries, Inc. Mon Jul 20 10:29:01 2020 Page 1  
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Job	Truss	Truss Type	Qty	Ply	Lot 94 RR	I42088017
400513	V5	Valley	1	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS 66871

8.410 s May 22 2020 MiTek Industries, Inc. Mon Jul 20 10:29:02 2020 Page 1  
ID:Lek3CAAnj\_gYbKvtCQHtmQzKvNM-XidTyly2N0FD?m77JZ98OyPzIRZJmXDmIDEjV9ywC9?



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 0.20	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 0.19	Horz(CT)	0.00	7	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-S						Weight: 61 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.

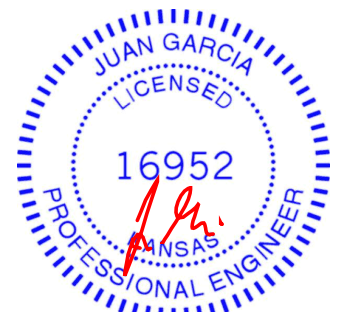
- All bearings 19-11-0.  
(lb) - Max Horz 1=166(LC 5)  
Max Uplift All uplift 100 lb or less at joint(s) 1, 7 except 11=158(LC 8), 12=111(LC 8), 9=158(LC 9), 8=111(LC 9)  
Max Grav All reactions 250 lb or less at joint(s) 1, 7 except 10=384(LC 18), 11=499(LC 15), 12=347(LC 15), 9=499(LC 16), 8=347(LC 16)

#### FORCES.

(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
WEBS 3-11=325/208, 5-9=325/208

#### 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, with BCDL = 10.0psf.
- 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=158, 12=111, 9=158, 8=111.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



July 20,2020

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16023 Swingley Ridge Rd  
Chesterfield, MO 63017

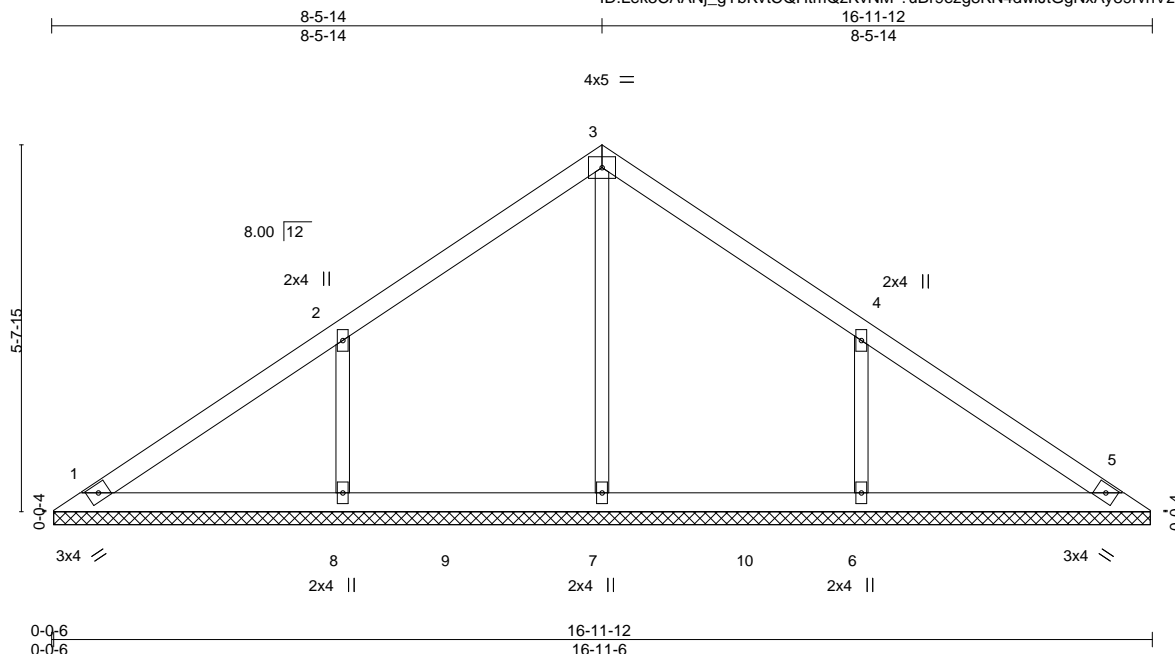


Job	Truss	Truss Type	Qty	Ply	Lot 94 RR	I42088018
400513	V6	Valley	1	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS 66871

8.410 s May 22 2020 MiTek Industries, Inc. Mon Jul 20 10:29:03 2020 Page 1

ID:Lek3CAANj\_gYbKvtCQHtmQzKvNM-?uBr9ezg8KN4dwiJtGgNxAY89rvnVzNwwt\_G1bywC9\_



Scale = 1:35.5

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 0.22	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.13	Vert(CT)	n/a	-	n/a	999		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.13	Horz(CT)	0.00	5	n/a	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 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 16-11-0.  
(lb) - Max Horz 1=-139(LC 4)  
Max Uplift All uplift 100 lb or less at joint(s) 1 except 8=-172(LC 8), 6=-171(LC 9)  
Max Grav All reactions 250 lb or less at joint(s) 1, 5 except 7=353(LC 15), 8=521(LC 15), 6=521(LC 16)

#### FORCES.

(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
WEBS 2-8=-347/218, 4-6=-347/217

#### 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, with BCDL = 10.0psf.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1 except (jt=lb) 8=172, 6=171.
- This truss 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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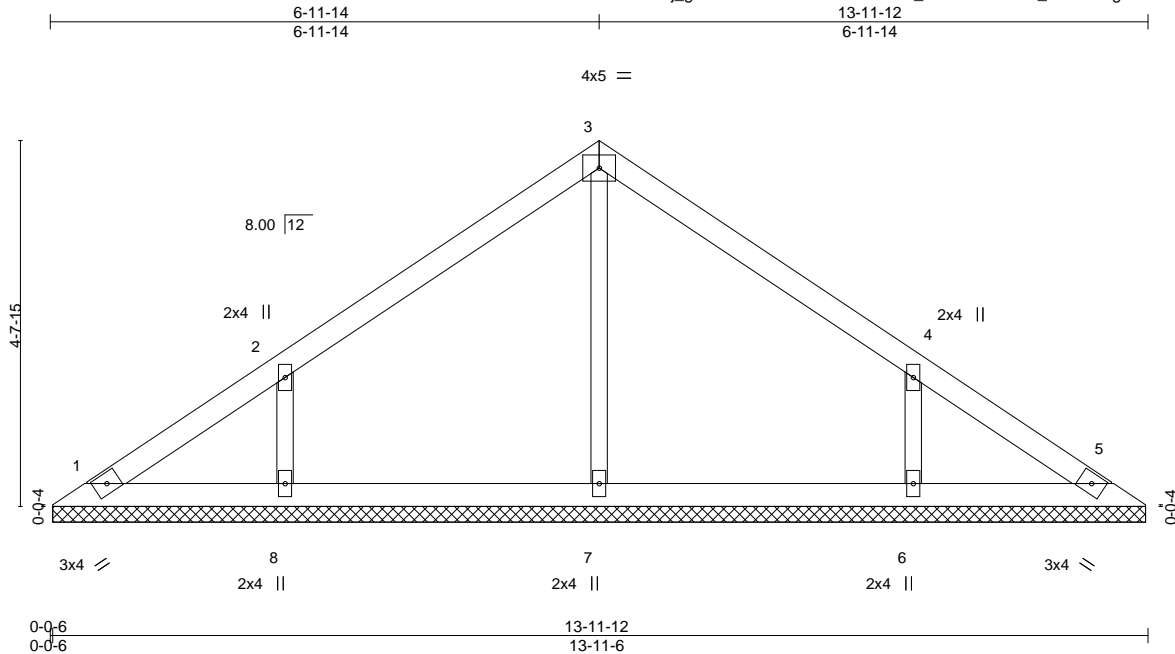
16023 Swingley Ridge Rd  
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 94 RR	I42088019
400513	V7	Valley	1	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS 66871

8.410 s May 22 2020 MiTek Industries, Inc. Mon Jul 20 10:29:04 2020 Page 1

ID:Lek3CAANj\_gYbKvtCQHtmQzKvNM-T4IDN\_zJveVxF3HWQ\_BcTNUKgFGTERA39XjqY2ywC8z



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 0.09	Horz(CT)	0.00	5	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-S						Weight: 39 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 13-11-0.  
(lb) - Max Horz 1=-113(LC 4)  
Max Uplift All uplift 100 lb or less at joint(s) 1 except 8=-144(LC 8), 6=-143(LC 9)  
Max Grav All reactions 250 lb or less at joint(s) 1, 5 except 7=282(LC 1), 8=363(LC 15), 6=363(LC 16)

#### FORCES.

(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
WEBS 2-8=-290/185, 4-6=-290/185

#### 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 except (jt=lb) 8=144, 6=143.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



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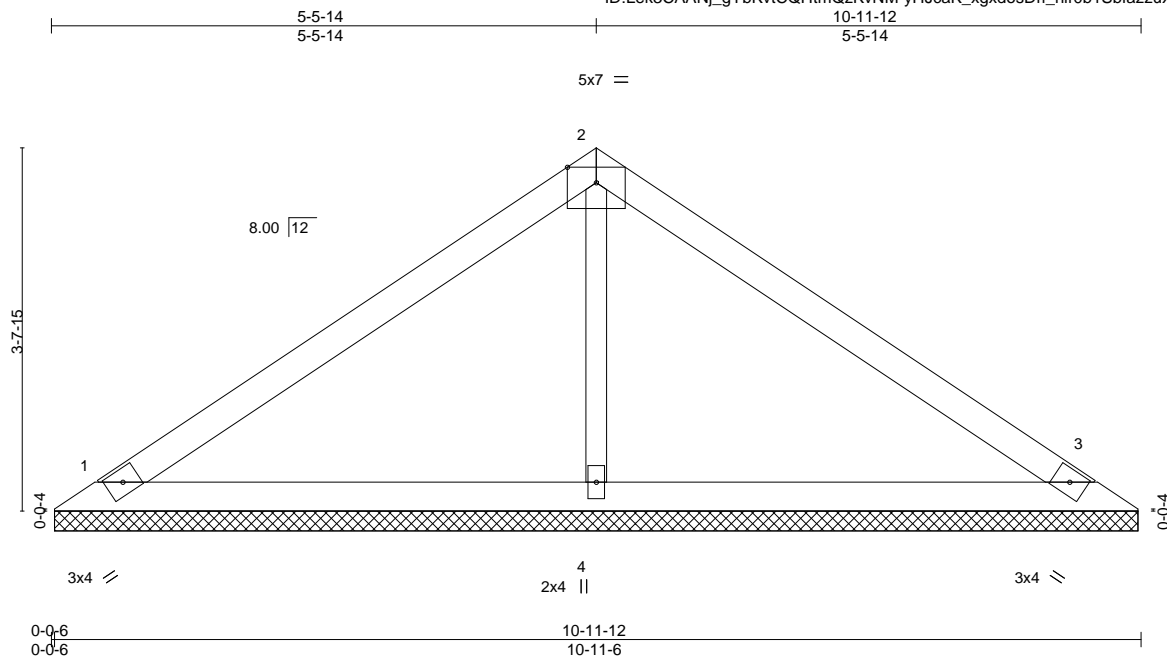


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Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 94 RR	I42088020
400513	V8	Valley	1	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS 66871

8.410 s May 22 2020 MiTek Industries, Inc. Mon Jul 20 10:29:05 2020 Page 1  
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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 0.35	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.21	Vert(CT)	n/a	-	n/a	999		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.09	Horz(CT)	0.00	3	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-S						Weight: 29 lb	FT = 10%

#### LUMBER-

TOP CHORD 2x4 SPF No.2  
BOT CHORD 2x4 SPF No.2  
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=10-11-0, 3=10-11-0, 4=10-11-0  
Max Horz 1=87(LC 5)  
Max Uplift 1=44(LC 8), 3=55(LC 9), 4=17(LC 8)  
Max Grav 1=232(LC 1), 3=232(LC 1), 4=438(LC 1)

#### FORCES.

(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
WEBS 2-4=-285/73

#### 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, 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.



July 20,2020

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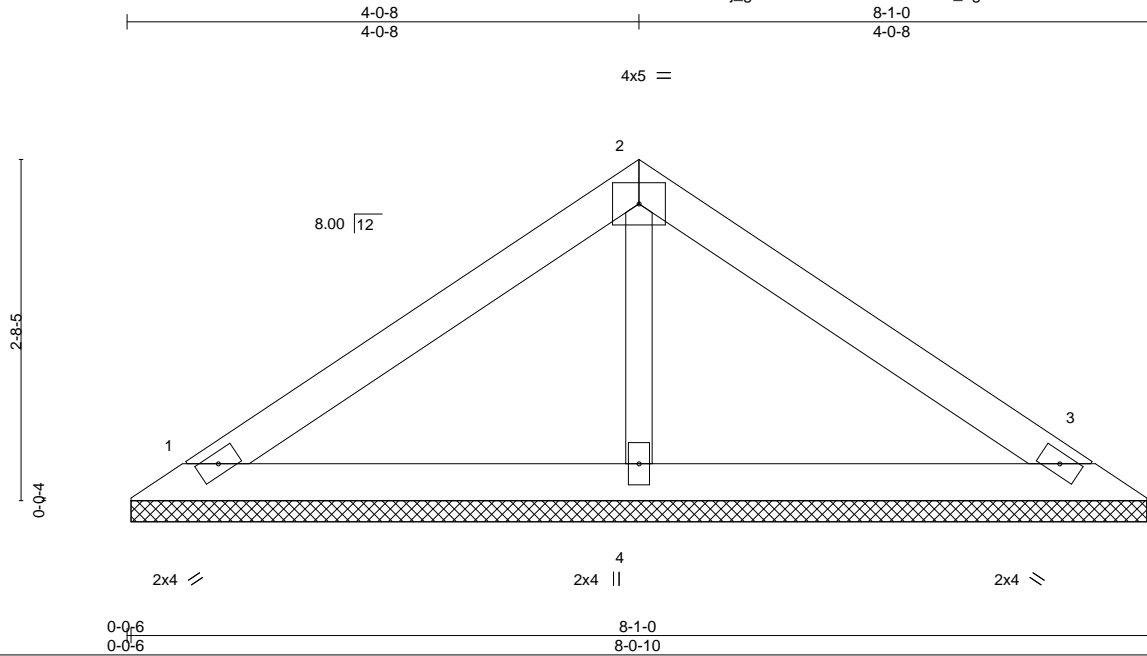


16023 Swingley Ridge Rd  
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 94 RR	I42088021
400513	V9	Valley	1	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS 66871

8.410 s May 22 2020 MiTek Industries, Inc. Mon Jul 20 10:29:06 2020 Page 1  
ID:Lek3CAAnj\_gYbKvtCQHtmQzKvNM-QTt\_og?ZRFIfUNQuYPD4ZoafB3xpiMVMcrCwdwywC8x



Scale = 1:18.2

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 0.23	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.11	Vert(CT)	n/a	-	n/a	999		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.04	Horz(CT)	0.00	3	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-P						Weight: 21 lb	FT = 10%

#### LUMBER-

TOP CHORD 2x4 SPF No.2  
BOT CHORD 2x4 SPF No.2  
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=8-0-4, 3=8-0-4, 4=8-0-4  
Max Horz 1=-62(LC 4)  
Max Uplift 1=-40(LC 8), 3=-48(LC 9)  
Max Grav 1=180(LC 1), 3=180(LC 1), 4=280(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.



July 20,2020

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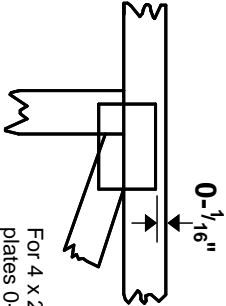
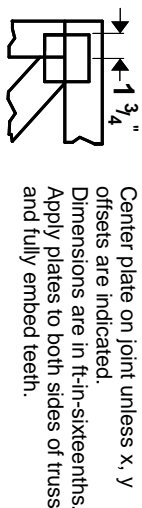
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16023 Swingley Ridge Rd  
Chesterfield, MO 63017

# Symbols

## PLATE LOCATION AND ORIENTATION



For 4 x 2 orientation, locate plates 0- $\frac{1}{16}$ " from outside edge of truss.

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

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

## PLATE SIZE

4 X 4

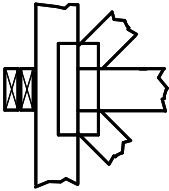
The first dimension is the plate width measured perpendicular to slots. Second dimension is the length parallel to slots.

## LATERAL BRACING LOCATION



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

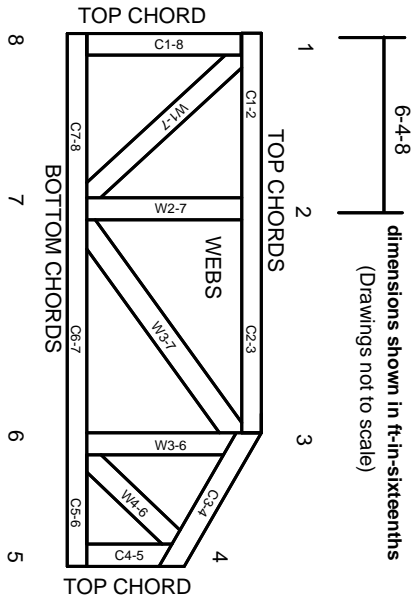
## BEARING



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

**Industry Standards:**  
ANSI/TP1: National Design Specification for Metal Plate Connected Wood Truss Construction.  
DSB-89: Design Standard for Bracing.  
BCSI: Building Component Safety Information, Guide to Good Practice for Handling, Installing & Bracing of Metal Plate Connected Wood Trusses.

# Numbering System



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

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

## PRODUCT CODE APPROVALS

ICC-ES Reports:

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

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

Lumber design values are in accordance with ANSI/TP1 section 6.3 These truss designs rely on lumber values established by others.

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



# General Safety Notes

Failure to Follow Could Cause Property Damage or Personal Injury

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