



**RELEASE FOR  
CONSTRUCTION  
AS NOTED ON PLANS REVIEW  
DEVELOPMENT SERVICES  
LEE'S SUMMIT, MISSOURI**

**10/29/2020**

RE: 400686  
Lot 108 MN

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

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

Design Code: IRC2018/TPI2014

Design Program: MiTek 20/20 8.4

Wind Code: N/A

Wind Speed: 115 mph

Roof Load: 45.0 psf

Floor Load: N/A psf

This package includes 49 individual, dated Truss Design Drawings and 0 Additional Drawings.

No.	Seal#	Truss Name	Date	No.	Seal#	Truss Name	Date
1	I43085918	A1	10/6/2020	27	I43085944	D1	10/6/2020
2	I43085919	A2	10/6/2020	28	I43085945	D2	10/6/2020
3	I43085920	A3	10/6/2020	29	I43085946	E1	10/6/2020
4	I43085921	A4	10/6/2020	30	I43085947	E2	10/6/2020
5	I43085922	B1	10/6/2020	31	I43085948	E3	10/6/2020
6	I43085923	B2	10/6/2020	32	I43085949	J1	10/6/2020
7	I43085924	B3	10/6/2020	33	I43085950	J2	10/6/2020
8	I43085925	B4	10/6/2020	34	I43085951	J3	10/6/2020
9	I43085926	B5	10/6/2020	35	I43085952	J4	10/6/2020
10	I43085927	B6	10/6/2020	36	I43085953	J5	10/6/2020
11	I43085928	B7	10/6/2020	37	I43085954	J6	10/6/2020
12	I43085929	B8	10/6/2020	38	I43085955	J7	10/6/2020
13	I43085930	B9	10/6/2020	39	I43085956	J8	10/6/2020
14	I43085931	B10	10/6/2020	40	I43085957	LAY1	10/6/2020
15	I43085932	B11	10/6/2020	41	I43085958	V1	10/6/2020
16	I43085933	B12	10/6/2020	42	I43085959	V2	10/6/2020
17	I43085934	C1	10/6/2020	43	I43085960	V3	10/6/2020
18	I43085935	C2	10/6/2020	44	I43085961	V4	10/6/2020
19	I43085936	C3	10/6/2020	45	I43085962	V5	10/6/2020
20	I43085937	C4	10/6/2020	46	I43085963	V6	10/6/2020
21	I43085938	C5	10/6/2020	47	I43085964	V7	10/6/2020
22	I43085939	C5A	10/6/2020	48	I43085965	V8	10/6/2020
23	I43085940	C6	10/6/2020	49	I43085966	V9	10/6/2020
24	I43085941	C7	10/6/2020				
25	I43085942	C8	10/6/2020				
26	I43085943	C9	10/6/2020				

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.



October 06, 2020



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RE: 400686  
Lot 108 MN

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

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

Design Code: IRC2018/TPI2014

Design Program: MiTek 20/20 8.4

Wind Code: N/A

Wind Speed: 115 mph

Roof Load: 45.0 psf

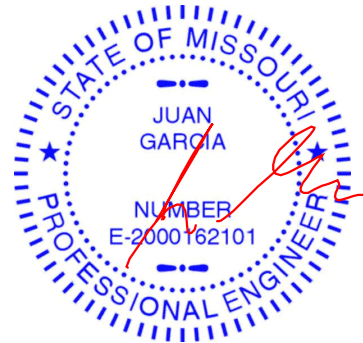
Floor Load: N/A psf

This package includes 49 individual, dated Truss Design Drawings and 0 Additional Drawings.

No.	Seal#	Truss Name	Date	No.	Seal#	Truss Name	Date
1	I43085918	A1	10/6/2020	27	I43085944	D1	10/6/2020
2	I43085919	A2	10/6/2020	28	I43085945	D2	10/6/2020
3	I43085920	A3	10/6/2020	29	I43085946	E1	10/6/2020
4	I43085921	A4	10/6/2020	30	I43085947	E2	10/6/2020
5	I43085922	B1	10/6/2020	31	I43085948	E3	10/6/2020
6	I43085923	B2	10/6/2020	32	I43085949	J1	10/6/2020
7	I43085924	B3	10/6/2020	33	I43085950	J2	10/6/2020
8	I43085925	B4	10/6/2020	34	I43085951	J3	10/6/2020
9	I43085926	B5	10/6/2020	35	I43085952	J4	10/6/2020
10	I43085927	B6	10/6/2020	36	I43085953	J5	10/6/2020
11	I43085928	B7	10/6/2020	37	I43085954	J6	10/6/2020
12	I43085929	B8	10/6/2020	38	I43085955	J7	10/6/2020
13	I43085930	B9	10/6/2020	39	I43085956	J8	10/6/2020
14	I43085931	B10	10/6/2020	40	I43085957	LAY1	10/6/2020
15	I43085932	B11	10/6/2020	41	I43085958	V1	10/6/2020
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17	I43085934	C1	10/6/2020	43	I43085960	V3	10/6/2020
18	I43085935	C2	10/6/2020	44	I43085961	V4	10/6/2020
19	I43085936	C3	10/6/2020	45	I43085962	V5	10/6/2020
20	I43085937	C4	10/6/2020	46	I43085963	V6	10/6/2020
21	I43085938	C5	10/6/2020	47	I43085964	V7	10/6/2020
22	I43085939	C5A	10/6/2020	48	I43085965	V8	10/6/2020
23	I43085940	C6	10/6/2020	49	I43085966	V9	10/6/2020
24	I43085941	C7	10/6/2020				
25	I43085942	C8	10/6/2020				
26	I43085943	C9	10/6/2020				

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.



October 06, 2020

Job	Truss	Truss Type	Qty	Ply	Lot 108 MN
400686	A1	HIP GIRDER	2		I43085918
Wheeler Lumber, Waverly, KS 66871		Job Reference (optional)			
		8.420 s Aug 25 2020 MiTek Industries, Inc. Tue Oct 6 06:58:22 2020 Page 1			
		ID:pq50?Ycap6WpLXoTu4wfy2za1nE-QJEQujShjDQZdgXnuAV9VbG10yxo3UtrLpyhfyWCqV			
-0-10-8 2-0-0 3-10-8 8-5-0 12-11-8 14-10-0 16-10-0 17-8-8					
0-10-8 2-0-0 1-10-8 4-6-8 4-6-8 1-10-8 2-0-0 0-10-8					
		10/29/2020			

Scale = 1:31.3

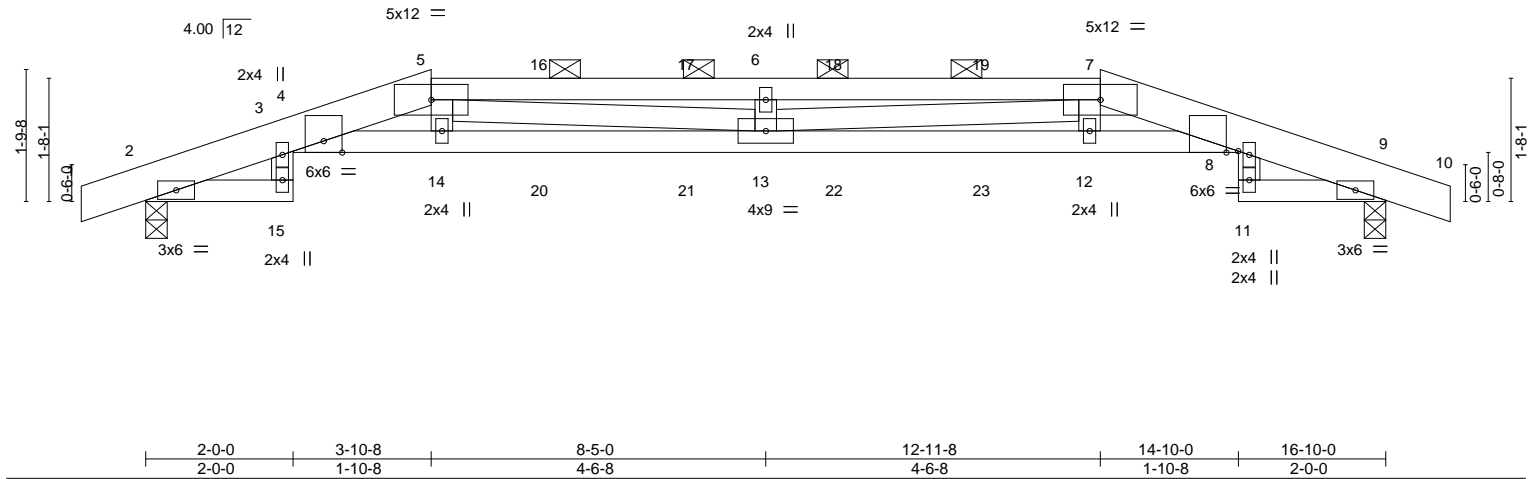


Plate Offsets (X,Y)--	[8:0-1-15,Edge]						
	2-0-0 3-10-8 8-5-0 12-11-8 14-10-0 16-10-0						
	2-0-0 1-10-8 4-6-8 4-6-8 1-10-8 2-0-0						

<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 0.74	Vert(LL)	-0.30 13	>668	360	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.50	Vert(CT)	-0.54 13	>370	240		
BCLL 0.0 *	Rep Stress Incr	NO	WB 0.18	Horz(CT)	0.25 9	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-S	Wind(LL)	0.26 13	>760	240	Weight: 120 lb	FT = 10%

<b>LUMBER-</b>			<b>BRACING-</b>	
TOP CHORD	2x6 SPF 1650F 1.4E *Except*		TOP CHORD	Structural wood sheathing directly applied or 6-0-0 oc purlins, except
	5-7: 2x4 SPF 2100F 1.8E			2-0-0 oc purlins (6-0-0 max.): 5-7.
BOT CHORD	2x4 SPF No.2 *Except*		BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing.
	4-8: 2x4 SPF 2100F 1.8E			
WEBS	2x4 SPF No.2			

<b>REACTIONS.</b>	(size) 2=0-3-8, 9=0-3-8
	Max Horz 2=28(LC 8)
	Max Uplift 2=-299(LC 4), 9=-302(LC 5)
	Max Grav 2=1210(LC 1), 9=1205(LC 1)

<b>FORCES.</b>	(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD	2-3=-468/130, 3-4=-74/384, 4-5=-5173/1159, 5-6=-6532/1458, 6-7=-6532/1458, 7-8=-5149/1146, 8-9=-524/136
BOT CHORD	4-14=-1121/5117, 13-14=-1131/5210, 12-13=-1098/5227, 8-12=-1124/5286
WEBS	5-14=-50/465, 5-13=-332/1430, 6-13=-413/181, 7-13=-321/1411

- 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: 2x4 - 1 row at 0-9-0 oc.  
Webs connected as follows: 2x4 - 1 row at 0-9-0 oc.
  - All loads are considered equally applied to all plies, except if noted as front (F) or back (B) face in the LOAD CASE(S) section. Ply to ply connections have been provided to distribute only loads noted as (F) or (B), unless otherwise indicated.
  - Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
  - Provide adequate drainage to prevent water ponding.
  - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
  - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=299, 9=302.
  - This truss 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.



October 6, 2020

Continued on page 2

Job	Truss	Truss Type	Qty	Ply	Lot 108 MN
400686	A1	HIP GIRDER	8.420 s	2	I43085918

Wheeler Lumber, Waverly, KS 66871

#### NOTES-

- 11) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 97 lb down and 60 lb up at 3-10-8, 97 lb down and 60 lb up at 5-5-0, 97 lb down and 60 lb up at 7-5-0, 97 lb down and 60 lb up at 9-5-0, and 97 lb down and 60 lb up at 11-5-0, and 97 lb down and 60 lb up at 12-11-8 on top chord, and 195 lb down and 68 lb up at 3-10-8, 12 lb down at 5-5-0, 12 lb down at 7-5-0, 12 lb down at 9-5-0, and 12 lb down at 11-5-0, and 195 lb down and 68 lb up at 12-10-12 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.

#### LOAD CASE(S) Standard

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

Uniform Loads (plf)

Vert: 1-5=-70, 5-7=-70, 7-10=-70, 2-15=-20, 4-8=-20, 9-11=-20

Concentrated Loads (lb)

Vert: 5=-65(F) 7=-65(F) 14=-195(F) 12=-195(F) 16=-65(F) 17=-65(F) 18=-65(F) 19=-65(F) 20=-4(F) 21=-4(F) 22=-4(F) 23=-4(F)

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

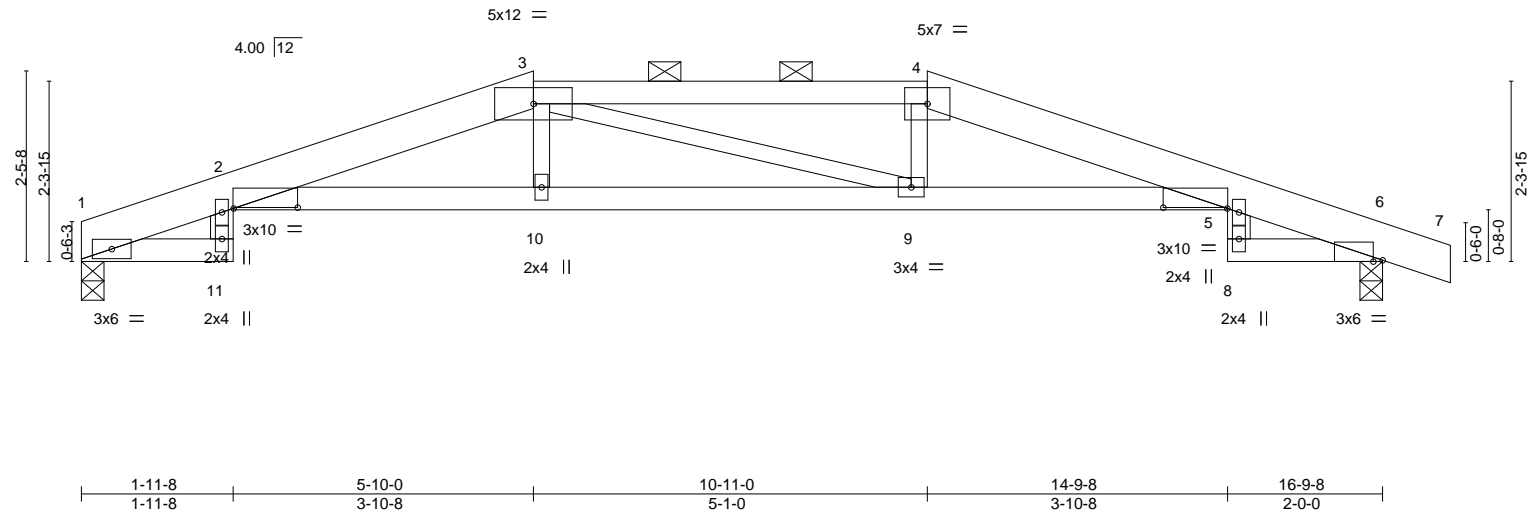
Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall 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 400686	Truss A2	Truss Type Hip	<b>RELEASE FOR CONSTRUCTION</b> <b>AS NOTED ON PLANS REVIEW</b> <b>DEVELOPMENT SERVICES</b> <b>LEE'S SUMMIT, MISSOURI</b> <b>10/29/2020</b>	Qty 1	Lot 108 MN	I43085919
Wheeler Lumber, Waverly, KS 66871			8.420 s Aug 25 2020 MiTek Industries, Inc. Tue Oct 6 06:58:22 2020 Page 1 ID:pq50?Ycap6WpLXoTtu4wfy2za1nE-QJEQujShjDQZdgxXnuAV9VbG80tro4ItRLpyhfyWCqV			
1-11-8 1-11-8		5-10-0 3-10-8	10-11-0 5-1-0	14-9-8 3-10-8	16-9-8 2-0-0	17-8-0 0-10-8

Scale = 1:29.7



LOADING (psf)		SPACING-		CSI.		DEFL.				PLATES		GRIP	
TCLL	25.0	Plate Grip DOL	1.15	TC	0.73	Vert(LL)	-0.26	in (loc)	10	I/defl	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.83	Vert(CT)	-0.47	9-10	>775	>425	240		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.12	Horz(CT)	0.32	6	n/a	n/a			
BCDL	10.0	Code IRC2018/TPI2014		Matrix-S		Wind(LL)	0.19	10	>999	240			
												Weight: 56 lb	FT = 10%

<b>LUMBER-</b>		<b>BRACING-</b>	
TOP CHORD	2x6 SPF 1650F 1.4E *Except* 3-4: 2x4 SPF No.2	TOP CHORD	Structural wood sheathing directly applied or 4-0-8 oc purlins, except 2-0-0 oc purlins (3-7-11 max.): 3-4.
BOT CHORD	2x4 SPF No.2	BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS	2x3 SPF No.2		

**REACTIONS.** (size) 1=0-3-8, 6=0-3-8  
 Max Horz 1=42(LC 9)  
 Max Uplift 1=128(LC 4), 6=173(LC 5)  
 Max Grav 1=733(LC 1), 6=809(LC 1)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 1-2=-353/80, 2-3=-2129/349, 3-4=-2086/337, 4-5=-2128/325, 5-6=-353/76  
 BOT CHORD 2-10=-308/2086, 9-10=-303/2088, 5-9=-251/2085

- 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) 1=128, 6=173.
  - This truss 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.



October 6, 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 400686	Truss A3	Truss Type Hip	<div style="text-align: center;"> <b>RELEASE FOR CONSTRUCTION</b>  <b>AS NOTED ON PLANS REVIEW</b>  <b>DEVELOPMENT SERVICES</b>  <b>LEE'S SUMMIT, MISSOURI</b>  <b>10/29/2020</b> </div>	Qty 1	Lot 108 MN	I43085920
Wheeler Lumber, Waverly, KS 66871			8.420 s Aug 25 2020 MiTek Industries, Inc. Tue Oct 6 06:58:23 2020 Page 1 ID:pq50?Ycap6WpLXoTu4wY2za1nE-vWnp63TJUXYQFqWkLchkii8NgQD9XX?0g?YWD6yWCqU			
1-11-8 1-11-8		7-10-0 5-10-8	8-11-0 1-1-0	14-9-8 5-10-8	16-9-8 2-0-0	17-8-0 0-10-8

Scale = 1:29.7

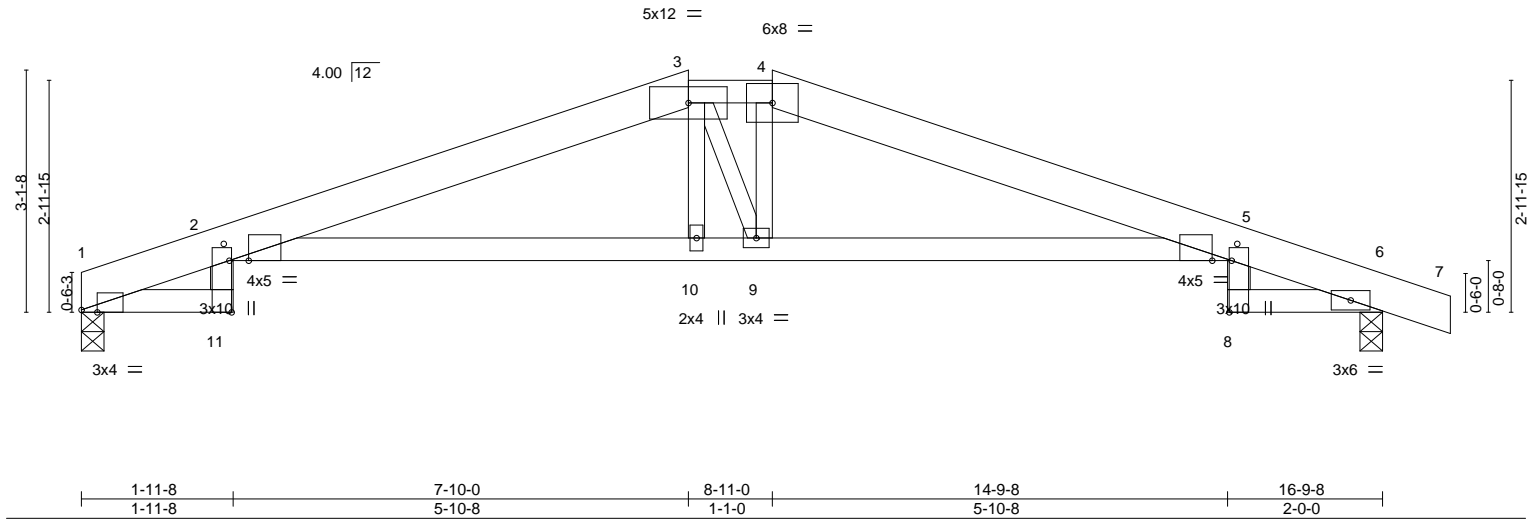


Plate Offsets (X,Y)-- [1:0-2-7,Edge], [2:0-3-0,Edge], [2:0-10-10,Edge], [5:0-3-0,Edge], [5:0-10-10,Edge]												
LOADING (psf)		SPACING- 2-0-0		CSI.		DEFL. in (loc) l/defl L/d				PLATES	GRIP	
TCLL	25.0	Plate Grip DOL	1.15	TC	1.00	Vert(LL)	-0.26	5-9	>755	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.82	Vert(CT)	-0.50	5-9	>400	240		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.09	Horz(CT)	0.33	6	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-S		Wind(LL)	0.20	2-10	>999	240	Weight: 58 lb	FT = 10%

LUMBER-	BRACING-
TOP CHORD 2x6 SPF No.2 *Except*	TOP CHORD Structural wood sheathing directly applied, except
3-4: 2x4 SPF No.2	2-0-0 oc purlins (3-11-3 max.): 3-4.
BOT CHORD 2x4 SPF No.2	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 2x3 SPF No.2 *Except*	
2-11,5-8: 2x4 SPF No.2	

REACTIONS.	(size)
1=0-3-8, 6=0-3-8	
Max Horz 1=-54(LC 9)	
Max Uplift 1=-112(LC 4), 6=-157(LC 5)	
Max Grav 1=740(LC 1), 6=816(LC 1)	

FORCES.	(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD	1-2=-308/80, 2-3=-1718/218, 3-4=-1637/220, 4-5=-1719/201, 5-6=-304/68
BOT CHORD	2-10=-167/1631, 9-10=-165/1636, 5-9=-133/1633
WEBS	4-9=-98/273

- 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) 1=112, 6=157.
  - This truss 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.



October 6,2020

Job 400686	Truss A4	Truss Type Common	<b>RELEASE FOR CONSTRUCTION</b> <b>AS NOTED ON PLANS REVIEW</b> <b>DEVELOPMENT SERVICES</b> <b>LEE'S SUMMIT, MISSOURI</b>		Qty 1	Lot 108 MN	I43085921
Wheeler Lumber, Waverly, KS 66871			8.420 s Aug 25 2020 MiTek Industries, Inc. Tue Oct 6 06:58:24 2020 Page 1 ID: pq50?Ycap6WpLXoTu4wfy2za1nE-NiLBjOUyFqgHs_5wvJCzEwgi_pbgGz29vfl3iYyWCqT				
4-8-3 4-8-3			8-4-8 3-8-5		12-0-13 3-8-5		16-9-8 4-8-11
			10/29/2020				17-8-0 0-10-8

Scale = 1:28.5

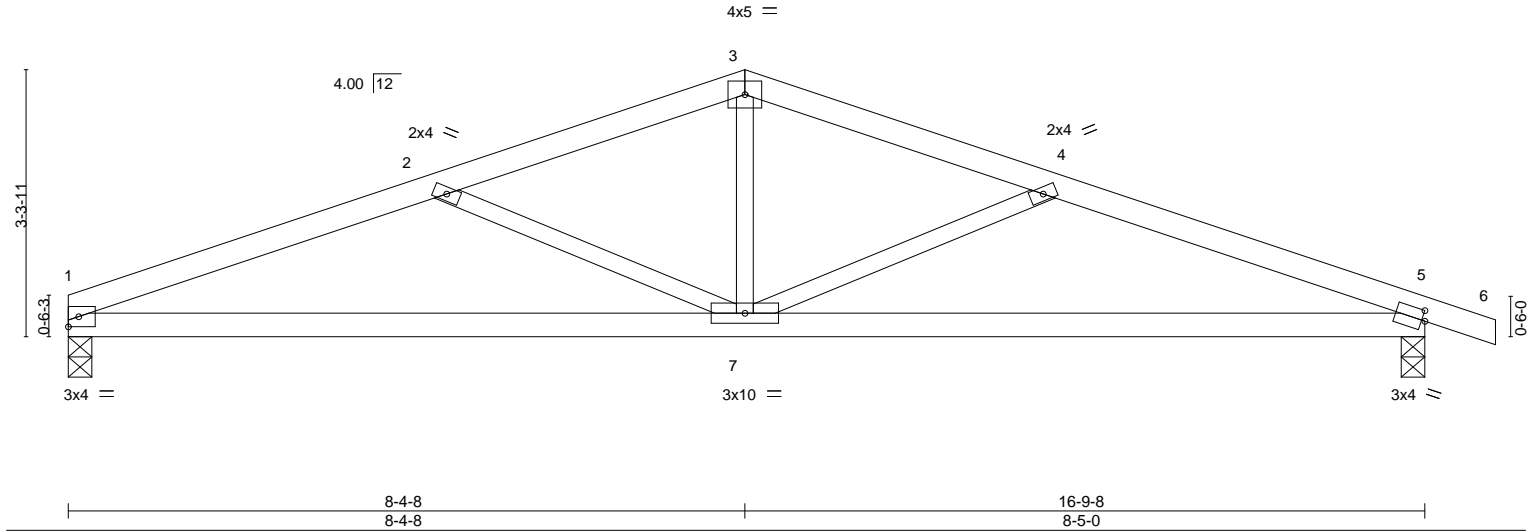


Plate Offsets (X,Y)--		[5:0-0-8,0-1-8]									
LOADING	(psf)	SPACING-		CSI.		DEFL.	in	(loc)	l/defl	L/d	
TCLL	25.0	Plate Grip DOL	1.15	TC	0.32	Vert(LL)	-0.11	1-7	>999	360	
TCDL	10.0	Lumber DOL	1.15	BC	0.68	Vert(CT)	-0.24	1-7	>826	240	
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.17	Horz(CT)	0.04	5	n/a	n/a	
BCDL	10.0	Code IRC2018/TPI2014		Matrix-S		Wind(LL)	0.04	7	>999	240	
										Weight: 49 lb	
										FT = 10%	

<b>LUMBER-</b>		<b>BRACING-</b>	
TOP CHORD	2x4 SPF No.2	TOP CHORD	Structural wood sheathing directly applied or 4-3-11 oc purlins.
BOT CHORD	2x4 SPF No.2	BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS	2x3 SPF No.2		

**REACTIONS.** (size) 1=0-3-8, 5=0-3-8  
 Max Horz 1=-56(LC 9)  
 Max Uplift 1=-108(LC 4), 5=-153(LC 5)  
 Max Grav 1=740(LC 1), 5=816(LC 1)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 1-2=-1535/261, 2-3=-1182/138, 3-4=-1182/141, 4-5=-1533/252  
 BOT CHORD 1-7=-238/1396, 5-7=-186/1393  
 WEBS 3-7=-5/477, 4-7=-381/195, 2-7=-385/200

- 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) 1=108, 5=153.
  - This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



October 6, 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



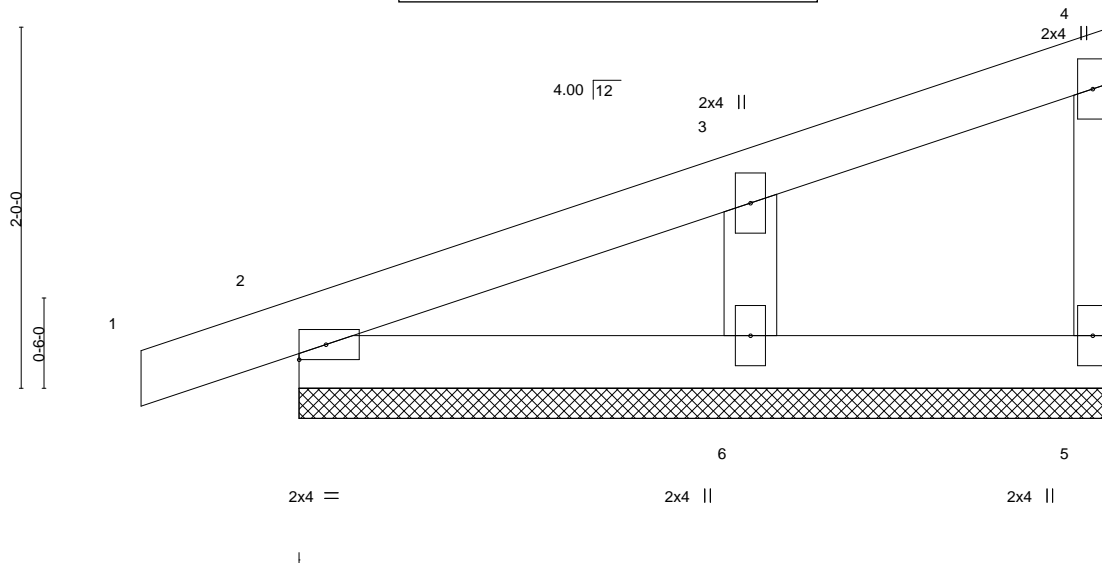
16023 Swingley Ridge Rd  
 Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 108 MN	I43085922
400686	B1	Monopitch Supported Gable	1			

Wheeler Lumber, Waverly, KS 66871

8.420 s Aug 25 2020 MiTek Industries, Inc. Tue Oct 6 06:58:24 2020 Page 1  
ID: pq50?Ycap6WpLXoTu4wY2za1nE-NiLBJOUyFqgHs\_5wvJCzEwgmvpIcG?M9vfl3IyYWCqT

10/29/2020 4-6-0 4-6-0



LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL 1.15	TC 0.07	Vert(LL) 0.00	1	n/r	120	MT20	197/144
TCCL 10.0	Lumber DOL 1.15	BC 0.04	Vert(CT) 0.00	1	n/r	120		
BCLL 0.0 *	Rep Stress Incr YES	WB 0.02	Horz(CT) -0.00	5	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014	Matrix-P					Weight: 14 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 4-6-0 oc purlins, except end verticals.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

#### REACTIONS.

(size) 5=4-6-0, 2=4-6-0, 6=4-6-0  
Max Horz 2=76(LC 5)  
Max Uplift 5=9(LC 5), 2=-49(LC 4), 6=-58(LC 8)  
Max Grav 5=59(LC 1), 2=165(LC 1), 6=233(LC 1)

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

#### NOTES-

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



October 6, 2020

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

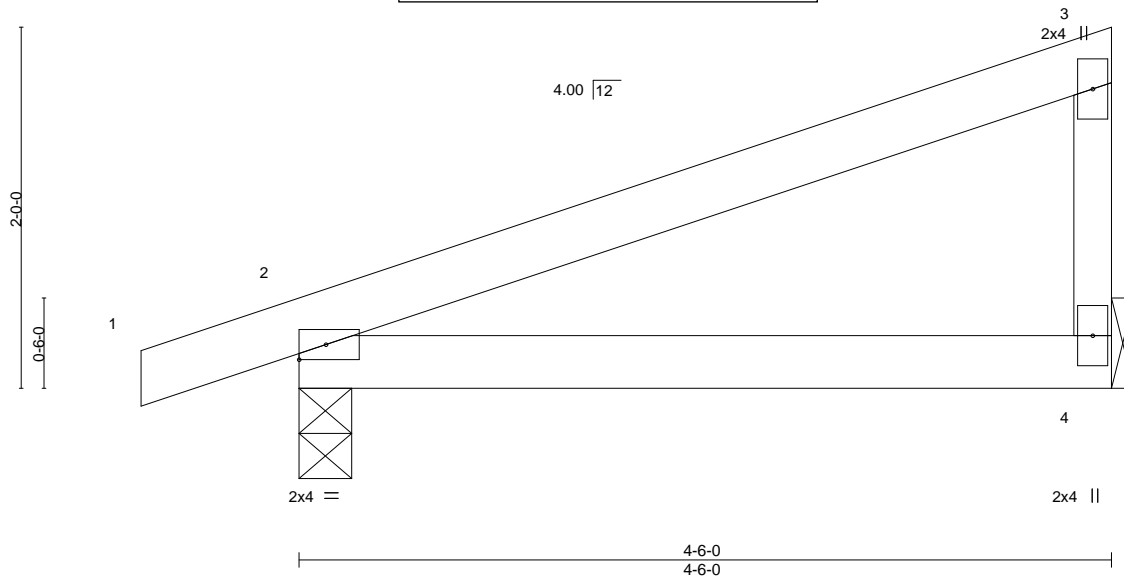
Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall 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 400686	Truss B2	Truss Type Monopitch	<b>RELEASE FOR CONSTRUCTION</b> <b>AS NOTED ON PLANS REVIEW</b> <b>DEVELOPMENT SERVICES</b> <b>LEE'S SUMMIT, MISSOURI</b>		Qty 1	Ply 1	Lot 108 MN	I43085923
Wheeler Lumber, Waverly, KS 66871		8.420 s		Aug 25 2020		MiTek Industries, Inc. Tue Oct 6 06:58:27 2020 Page 1		
		ID: pq50?Ycap6WpLXoTu4wY2za1nE-nH1JxQWqXI2sjSqVaRmgsYIEa1k6TMScbdWjMtyWCqQ						
		-0-10-8 0-10-8		4-6-0 4-6-0				
		10/29/2020						



LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL 1.15	TC 0.30	Vert(LL) -0.02	2-4	>999	360	MT20	197/144
TCDL 10.0	Lumber DOL 1.15	BC 0.18	Vert(CT) -0.04	2-4	>999	240		
BCLL 0.0 *	Rep Stress Incr YES	WB 0.00	Horz(CT) -0.00	4	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014	Matrix-P	Wind(LL) 0.00	2	****	240	Weight: 13 lb	FT = 10%

LUMBER-	BRACING-
TOP CHORD 2x4 SPF No.2	TOP CHORD Structural wood sheathing directly applied or 4-6-0 oc purlins, except end verticals.
BOT CHORD 2x4 SPF No.2	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 2x3 SPF No.2	

**REACTIONS.** (size) 4=Mechanical, 2=0-3-8  
 Max Horz 2=76(LC 5)  
 Max Uplift 4=-40(LC 8), 2=-78(LC 4)  
 Max Grav 4=183(LC 1), 2=271(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; 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
  - 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.



October 6, 2020

Job	Truss	Truss Type	Qty	Ply	Lot 108 MN	I43085924
400686	B3	Monopitch				

Wheeler Lumber, Waverly, KS 66871

**RELEASE FOR  
CONSTRUCTION  
AS NOTED ON PLANS REVIEW  
DEVELOPMENT SERVICES  
LEE'S SUMMIT, MISSOURI**

8.420 s Aug 25 2020 MiTek Industries, Inc. Tue Oct 6 06:58:27 2020 Page 1  
ID:pq50?Ycap6WpLXoTu4wfy2za1nE-nH1JxQWqXl2sjsqVaRmgsYlGS1I7TKxcdbWjMtyWCqQ

-0-10-8  
0-10-8

10/29/2020

Scale = 1:18.7

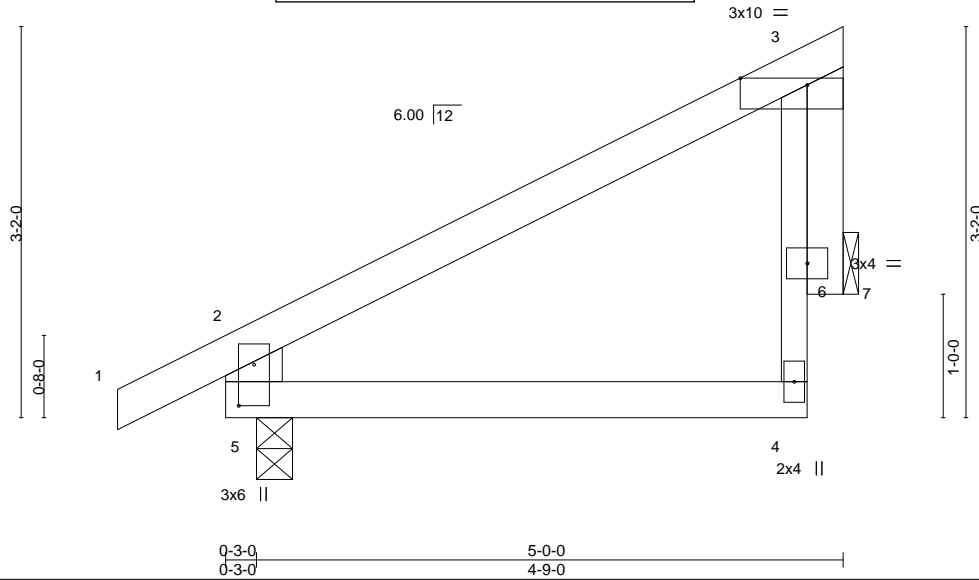


Plate Offsets (X,Y)-- [3-0-6-8,Edge], [5-0-4-0,0-1-8]

LOADING (psf)	SPACING-		CSI.	DEFL.	in	(loc)	I/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	2-0-0	TC 0.18	Vert(LL)	-0.01	4-5	>999	360	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.12	Vert(CT)	-0.02	4-5	>999	240		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.16	Horz(CT)	-0.00	7	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-R	Wind(LL)	0.01	4-5	>999	240		
									Weight: 18 lb	FT = 10%

#### LUMBER-

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

#### BRACING-

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

#### REACTIONS.

(size) 5=0-3-8, 7=Mechanical  
Max Horz 5=90(LC 5)  
Max Uplift 5=-39(LC 8), 7=-60(LC 8)  
Max Grav 5=297(LC 1), 7=174(LC 1)

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

TOP CHORD 2-5=-265/80

#### NOTES-

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



October 6, 2020

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16023 Swingley Ridge Rd  
Chesterfield, MO 63017

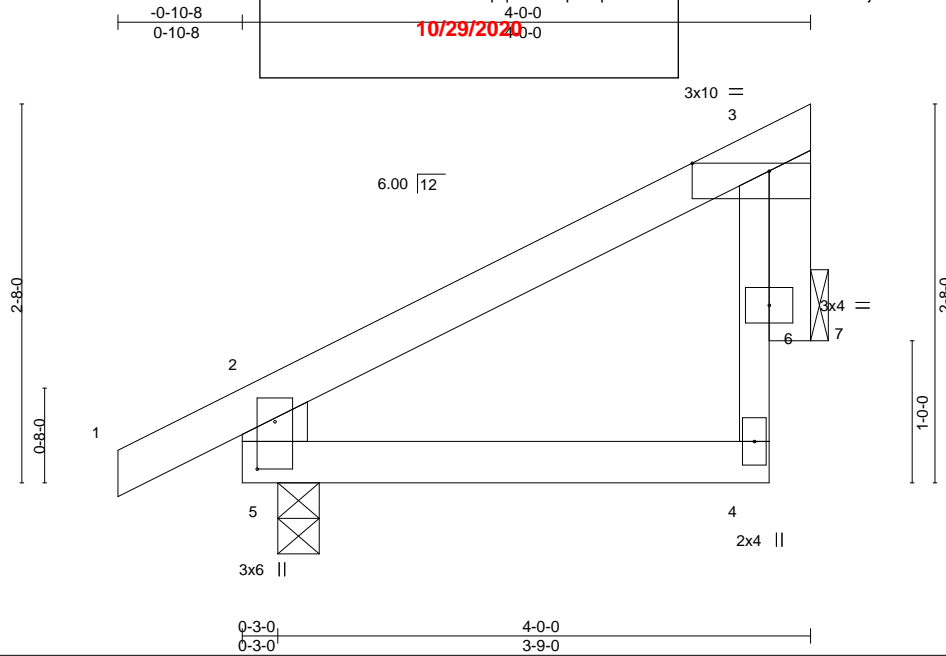
Job	Truss	Truss Type	Qty	Ply	Lot 108 MN
400686	B4	Monopitch		1	

Wheeler Lumber, Waverly, KS 66871

8.420 s Aug 25 2020 MiTek Industries, Inc. Tue Oct 6 06:58:28 2020 Page 1  
ID:pq50?Ycap6WpLXoTu4wY2za1nE-FTbh9mXSI3AjLcPh89HvOmrRJR5ACoTIqHGHuJyWCqP

**RELEASE FOR  
CONSTRUCTION  
AS NOTED ON PLANS REVIEW  
DEVELOPMENT SERVICES  
LEE'S SUMMIT, MISSOURI**

10/29/2020



Scale = 1:16.2

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

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 0.11	Vert(LL)	-0.00	4-5	>999	360	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.07	Vert(CT)	-0.01	4-5	>999	240		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.08	Horz(CT)	0.00	7	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 \*Except\*  
2-5: 2x6 SPF No.2  
OTHERS 2x4 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, 7=Mechanical  
Max Horz 5=77(LC 5)  
Max Uplift 5=37(LC 8), 7=45(LC 8)  
Max Grav 5=254(LC 1), 7=127(LC 1)

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

#### NOTES-

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



October 6, 2020

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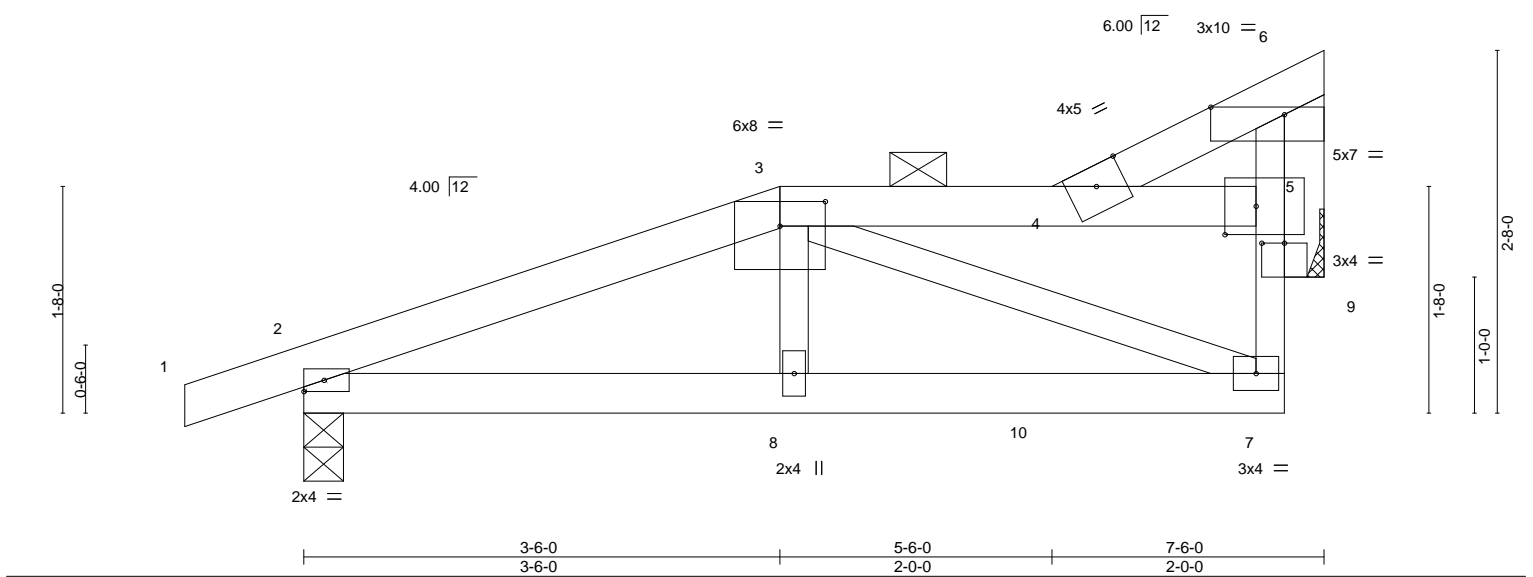


16023 Swingley Ridge Rd  
Chesterfield, MO 63017

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

Job 400686	Truss B5	Truss Type Roof Special Girder	Qty 1	Lot 108 MN	I43085926
Wheeler Lumber, Waverly, KS 66871		Job Reference (optional)			
-0-10-8 0-10-8		3-6-0 3-6-0		8.420 s Aug 25 2020 MiTek Industries, Inc. Tue Oct 6 06:58:29 2020 Page 1 ID: pq50?Ycap6WpLXbTu4wFY2za1nE-jf94M6Y43Nlazi_uhso8xznZlqQxqEtv2x?qRlyWCqQ	
		5-6-0 2-0-0		7-6-0 2-0-0	
10/29/2020					

Scale = 1:16.9



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 0.26	Vert(LL)	-0.01	8	>999	360	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.17	Vert(CT)	-0.02	2-8	>999	240		
BCLL 0.0 *	Rep Stress Incr	NO	WB 0.13	Horz(CT)	0.01	9	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-S	Wind(LL)	0.01	8	>999	240		
									Weight: 27 lb	FT = 10%

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

**REACTIONS.** (size) 2=0-3-8, 9=Mechanical  
 Max Horz 2=98(LC 24)  
 Max Uplift 2=-114(LC 4), 9=-99(LC 8)  
 Max Grav 2=388(LC 1), 9=364(LC 1)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-3=-490/106  
 BOT CHORD 2-8=-133/412, 7-8=-129/417  
 WEBS 3-7=-358/109

- 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
  - 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) 9 except (jt=lb) 2=114.
  - This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
  - 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) 141 lb down and 115 lb up at 3-6-0, and 59 lb down and 43 lb up at 5-6-7, and 42 lb down and 45 lb up at 7-2-8 on top chord, and 15 lb down and 5 lb up at 3-6-0, and 9 lb down at 5-4-8, and 22 lb down at 7-1-4 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

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

Continued on page 2



October 6,2020

Job	Truss	Truss Type	Qty	Ply	Lot 108 MN
400686	B5	Roof Special Girder	1		I43085926

Wheeler Lumber, Waverly, KS 66871

**RELEASE FOR CONSTRUCTION**  
**AS NOTED ON PLANS REVIEW**  
**DEVELOPMENT SERVICES**  
**LEE'S SUMMIT, MISSOURI**  
**10/29/2020**

8.420 s Aug 25 2020 MiTek Industries, Inc. Tue Oct 6 06:58:29 2020 Page 2  
ID:pq50?Ycap6WpLXbTu4wfY2za1nE-jf94M6Y43Nlazi\_uhso8xzNZlqQqxETv2x?qRlyWCqO

**LOAD CASE(S)** Standard  
Concentrated Loads (lb)  
Vert: 5=-33(B) 7=-15(B) 8=5(B) 10=-3(B)

 **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



**RELEASE FOR CONSTRUCTION**  
**AS NOTED ON PLANS REVIEW**  
**DEVELOPMENT SERVICES**  
**LEE'S SUMMIT, MISSOURI**

Job: 400686 Truss: B6 Truss Type: Roof Special Qty: 1 Ply: 1 Lot 108 MN I43085927

Wheeler Lumber, Waverly, KS 66871

8.420 s Aug 25 2020 MiTek Industries, Inc. Tue Oct 6 06:58:29 2020 Page 1

ID: pq50?Ycap6WpLXoTtu4wfy2za1nE-jf94M6Y43Nlazi\_uhso8xzNSMqKyxGAv2x?qRlyWCqO

10/29/2020

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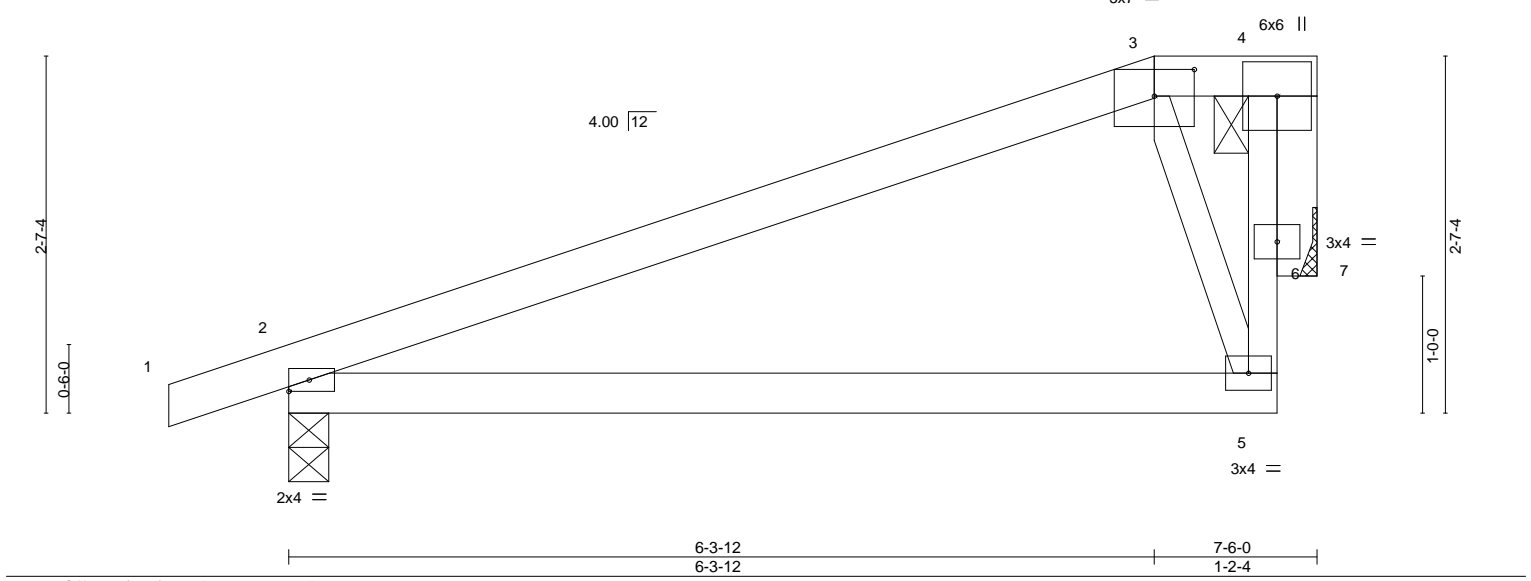


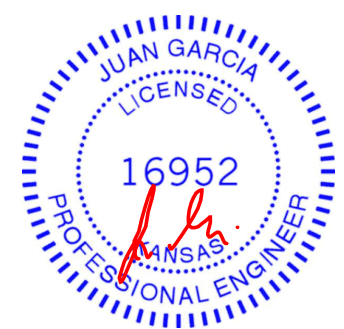
Plate Offsets (X,Y)--		[3.0-3-8,0-2-5]									
LOADING	(psf)	SPACING-		CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES
TCLL	25.0	Plate Grip DOL	2-0-0	TC	0.73	Vert(LL)	-0.14	2-5	>620	360	MT20
TCDL	10.0	Lumber DOL	1.15	BC	0.54	Vert(CT)	-0.28	2-5	>310	240	GRIP
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.05	Horz(CT)	0.01	7	n/a	n/a	197/144
BCDL	10.0	Code IRC2018/TPI2014		Matrix-P		Wind(LL)	0.00	5	>999	240	Weight: 23 lb
											FT = 10%

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

**REACTIONS.** (size) 2=0-3-8, 7=Mechanical  
Max Horz 2=81(LC 4)  
Max Uplift 2=-94(LC 4), 7=-67(LC 4)  
Max Grav 2=404(LC 1), 7=294(LC 1)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
TOP CHORD 5-6=-52/285, 4-6=-52/285  
WEBS 4-7=-301/69

- 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) 2, 7.
  - 7) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
  - 8) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



October 6, 2020

Job 400686	Truss B7	Truss Type Monopitch	<div style="text-align: center;"> <b>RELEASE FOR CONSTRUCTION</b>  <b>AS NOTED ON PLANS REVIEW</b>  <b>DEVELOPMENT SERVICES</b>  <b>LEE'S SUMMIT, MISSOURI</b>  <b>10/29/2020</b> </div>	Qty 1	Ply 1	Lot 108 MN	I43085928
Wheeler Lumber, Waverly, KS 66871		Job Reference (optional) Aug 25 2020 MiTek Industries, Inc. Tue Oct 6 06:58:30 2020 Page 1 ID:pq50?Ycap6WpLXoTuHwfY2za1nE-BsjSaSYiqgQRavY4FaJNUBwgbEj?ghi2HblNzCyWCqN					
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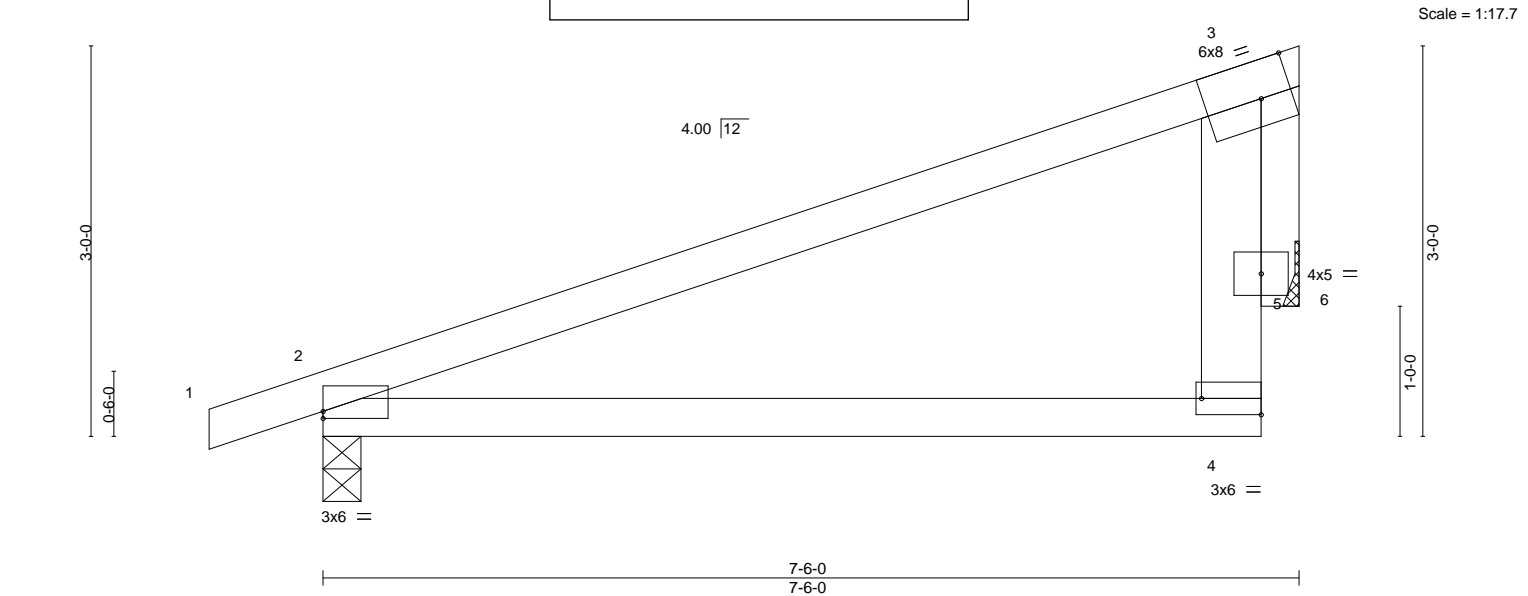


Plate Offsets (X,Y)--		[2:0-0-0,0-0-10], [3:0-2-14,Edge], [4:Edge,0-1-8]													
LOADING	(psf)	SPACING-		CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP			
TCLL	25.0	Plate Grip DOL	1.15	TC	0.57	Vert(LL)	-0.04	2-4	>999	360	MT20	197/144			
TCDL	10.0	Lumber DOL	1.15	BC	0.36	Vert(CT)	-0.10	2-4	>858	240					
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.16	Horz(CT)	0.00	6	n/a	n/a					
BCDL	10.0	Code IRC2018/TPI2014		Matrix-R		Wind(LL)	0.03	2-4	>999	240					
												Weight: 24 lb	FT = 10%		

LUMBER-		BRACING-	
TOP CHORD	2x4 SPF No.2	TOP CHORD	Structural wood sheathing directly applied or 6'-0-0 oc purlins, except end verticals.
BOT CHORD	2x4 SPF No.2	BOT CHORD	Rigid ceiling directly applied or 10'-0-0 oc bracing.
WEBS	2x6 SPF No.2		
OTHERS	2x4 SPF No.2		

**REACTIONS.** (size) 2=0-3-8, 6=Mechanical  
 Max Horz 2=90(LC 4)  
 Max Uplift 2=-91(LC 4), 6=-69(LC 8)  
 Max Grav 2=403(LC 1), 6=283(LC 1)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-3=-331/25

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



October 6,2020

Job	Truss	Truss Type	Qty	Ply	Lot 108 MN	I43085929
400686	B8	Monopitch				
Wheeler Lumber, Waverly, KS 66871			Job Reference (optional)			
			Aug 25 2020 MiTek Industries, Inc. Tue Oct 6 06:58:30 2020 Page 1			
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			10/29/2020			

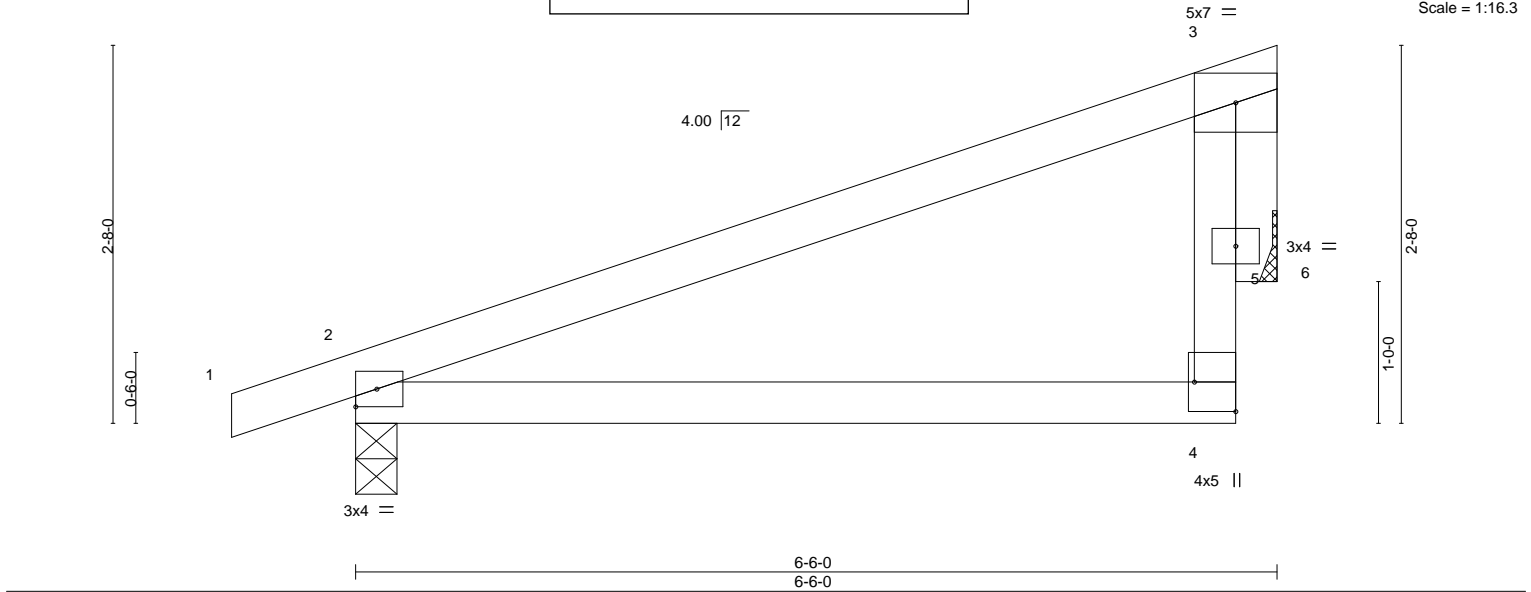


Plate Offsets (X,Y)--		[4:Edge,0-3-8]	
LOADING (psf)	SPACING-	CSI.	DEFL.
TCLL 25.0	Plate Grip DOL 1.15	TC 0.40	in (loc) l/defl L/d
TCDL 10.0	Lumber DOL 1.15	BC 0.25	Vert(LL) -0.03 2-4 >999 360
BCLL 0.0 *	Rep Stress Incr YES	WB 0.25	Vert(CT) -0.06 2-4 >999 240
BCDL 10.0	Code IRC2018/TPI2014	Matrix-R	Horz(CT) -0.00 6 n/a n/a
			Wind(LL) 0.02 2-4 >999 240
			PLATES GRIP
			MT20 197/144
			Weight: 20 lb FT = 10%

LUMBER-	BRACING-
TOP CHORD 2x4 SPF No.2	TOP CHORD Structural wood sheathing directly applied or 6'-0-0 oc purlins, except end verticals.
BOT CHORD 2x4 SPF No.2	BOT CHORD Rigid ceiling directly applied or 10'-0-0 oc bracing.
WEBS 2x4 SPF No.2	
OTHERS 2x4 SPF No.2	

**REACTIONS.** (size) 2=0-3-8, 6=Mechanical  
 Max Horz 2=78(LC 5)  
 Max Uplift 2=-85(LC 4), 6=-60(LC 8)  
 Max Grav 2=359(LC 1), 6=245(LC 1)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-3=-271/20

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



October 6, 2020

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16023 Swingley Ridge Rd  
 Chesterfield, MO 63017

**RELEASE FOR CONSTRUCTION**  
**AS NOTED ON PLANS REVIEW**  
**DEVELOPMENT SERVICES**  
**LEE'S SUMMIT, MISSOURI**

Job 400686	Truss B9	Truss Type Roof Special Girder	Qty 1	Lot 108 MN	I43085930
Wheeler Lumber, Waverly, KS 66871		Job Reference (optional)			
-0-10-8 0-10-8		3-6-0 3-6-0		5-6-0 2-0-0	
		10/29/2020		6-6-0 1-0-0	

8.420 s Aug 25 2020 MiTek Industries, Inc. Tue Oct 6 06:58:31 2020 Page 1  
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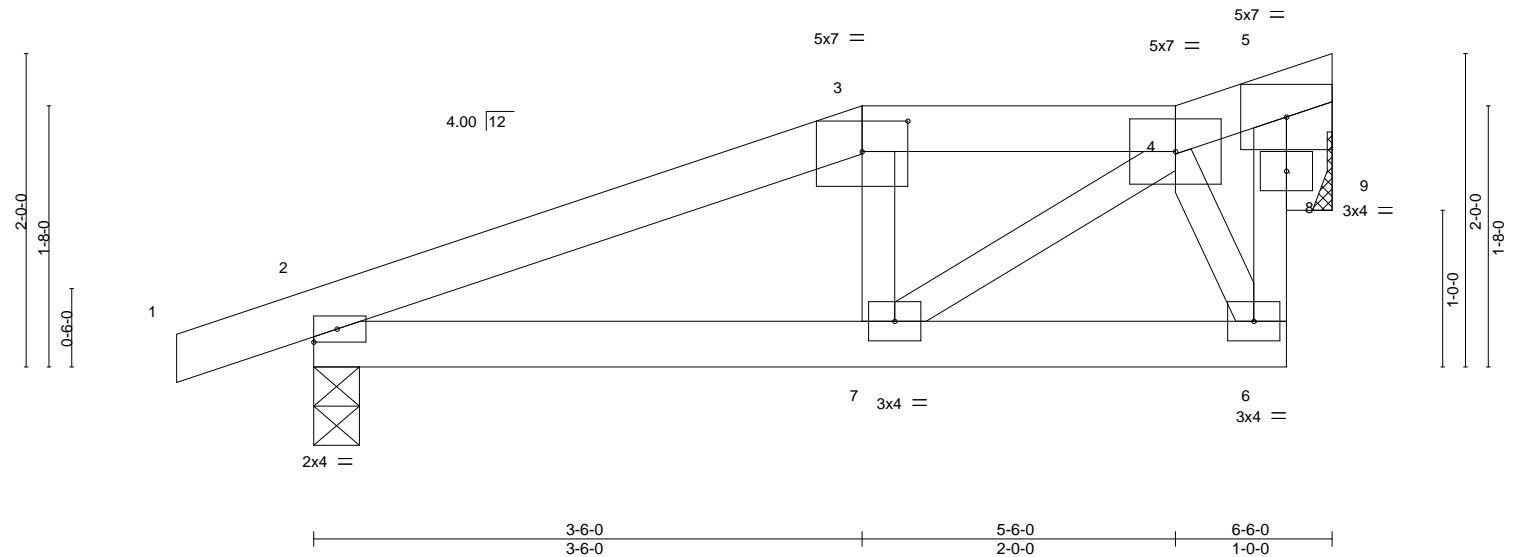


Plate Offsets (X,Y)--		[3:0-3-8,0-2-5]							
<b>LOADING</b> (psf)		<b>SPACING-</b>	2-0-0	<b>CSI.</b>		<b>DEFL.</b>	in (loc)	<b>l/defl</b>	<b>L/d</b>
TCLL	25.0	Plate Grip DOL	1.15	TC	0.21	Vert(LL)	-0.01 2-7	>999	360
TCDL	10.0	Lumber DOL	1.15	BC	0.14	Vert(CT)	-0.01 2-7	>999	240
BCLL	0.0 *	Rep Stress Incr	NO	WB	0.07	Horz(CT)	0.00 9	n/a	n/a
BCDL	10.0	Code IRC2018/TPI2014		Matrix-P		Wind(LL)	0.00 7	>999	240
								<b>PLATES</b>	<b>GRIP</b>
								MT20	197/144
								Weight: 21 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.): 3-4.
BOT CHORD	2x4 SPF No.2	BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS	2x3 SPF No.2		
OTHERS	2x4 SPF No.2		

**REACTIONS.** (size) 2=0-3-8, 9=Mechanical  
Max Horz 2=60(LC 5)  
Max Uplift 2=101(LC 4), 9=62(LC 8)  
Max Grav 2=357(LC 1), 9=246(LC 1)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
TOP CHORD 2-3=-384/62, 3-4=-307/73, 6-8=-62/280, 5-8=-62/280  
BOT CHORD 2-7=-71/311  
WEBS 4-6=-284/77, 5-9=-265/69

- 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) 9 except (jt=lb) 2=101.
  - 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) 86 lb down and 78 lb up at 3-6-0 on top chord, and 7 lb down and 5 lb up at 3-6-0 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: 1-3=-70, 3-4=-70, 4-5=-70, 2-6=-20



October 6, 2020

Continued on page 2

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

Job	Truss	Truss Type	Qty	Ply	Lot 108 MN
400686	B9	Roof Special Girder	1		I43085930

Wheeler Lumber, Waverly, KS 66871

**LOAD CASE(S)** Standard  
Concentrated Loads (lb)  
Vert: 7=5(F)

**RELEASE FOR  
CONSTRUCTION  
AS NOTED ON PLANS REVIEW  
DEVELOPMENT SERVICES  
LEE'S SUMMIT, MISSOURI  
10/29/2020**

8.420 s Aug 25 2020 MiTek Industries, Inc. Tue Oct 6 06:58:31 2020 Page 2  
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16023 Swingley Ridge Rd  
Chesterfield, MO 63017





Wheeler Lumber, Waverly, KS 66871

LEE'S SUMMIT, MISSOURI

8.420 s Aug 25 2020 MiTek Industries, Inc. Tue Oct 6 06:58:25 2020 Page 1

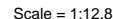
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4-6-0

10/29/2020

4-6-0

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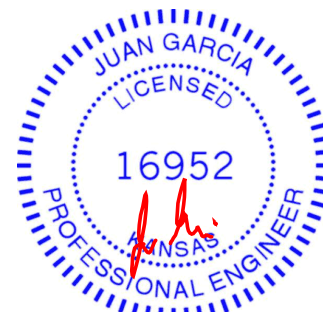


<b>LUMBER-</b>		<b>BRACING-</b>
TOP CHORD	2x4 SPF No.2	TOP CHORD
BOT CHORD	2x4 SPF No.2	Structural wood sheathing directly applied or 4-6-0 oc purlins, except end verticals.
WEBS	2x3 SPF No.2	BOT CHORD
OTHERS	2x4 SPF No.2	Rigid ceiling directly applied or 10-0-0 oc bracing.

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

**NOTES-**

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



October 6, 2020

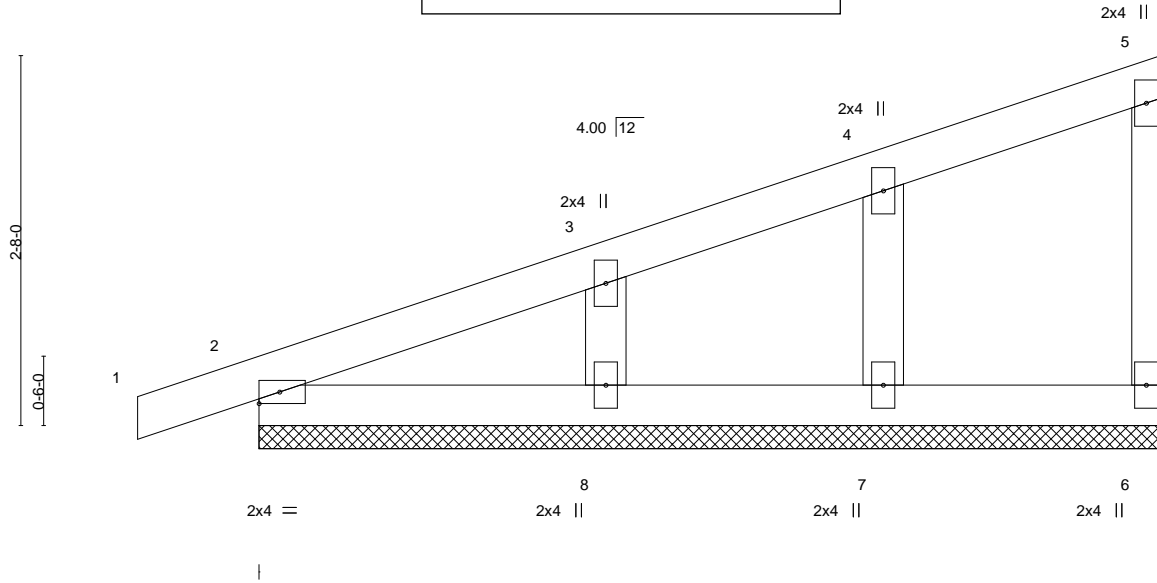


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16023 Swingley Ridge Rd  
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 108 MN	I43085933
400686	B12	Monopitch Supported Gable	1			
Wheeler Lumber, Waverly, KS 66871		Job Reference (optional)				
		8.420 s Aug 25 2020 MiTek Industries, Inc. Tue Oct 6 06:58:26 2020 Page 1				
		ID:pq50?Ycap6WpLXoTu4wY2za1nE-J5Txk4VCmSw?6IFJ0KERJLm6VdR7kvuSMznAqQyWCqR				
		10/29/2020				



LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.07	Vert(LL)	0.00	1	n/r	120	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.04	Vert(CT)	0.00	1	n/r	120		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.02	Horz(CT)	-0.00	6	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-P						Weight: 21 lb	FT = 10%

LUMBER-	BRACING-
TOP CHORD 2x4 SPF No.2	TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.
BOT CHORD 2x4 SPF No.2	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 2x3 SPF No.2	
OTHERS 2x4 SPF No.2	

**REACTIONS.** All bearings 6-6-0.  
 (lb) - Max Horz 2=106(LC 5)  
 Max Uplift All uplift 100 lb or less at joint(s) 6, 2, 7, 8  
 Max Grav All reactions 250 lb or less at joint(s) 6, 2, 7, 8

**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) 6, 2, 7, 8.
  - This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

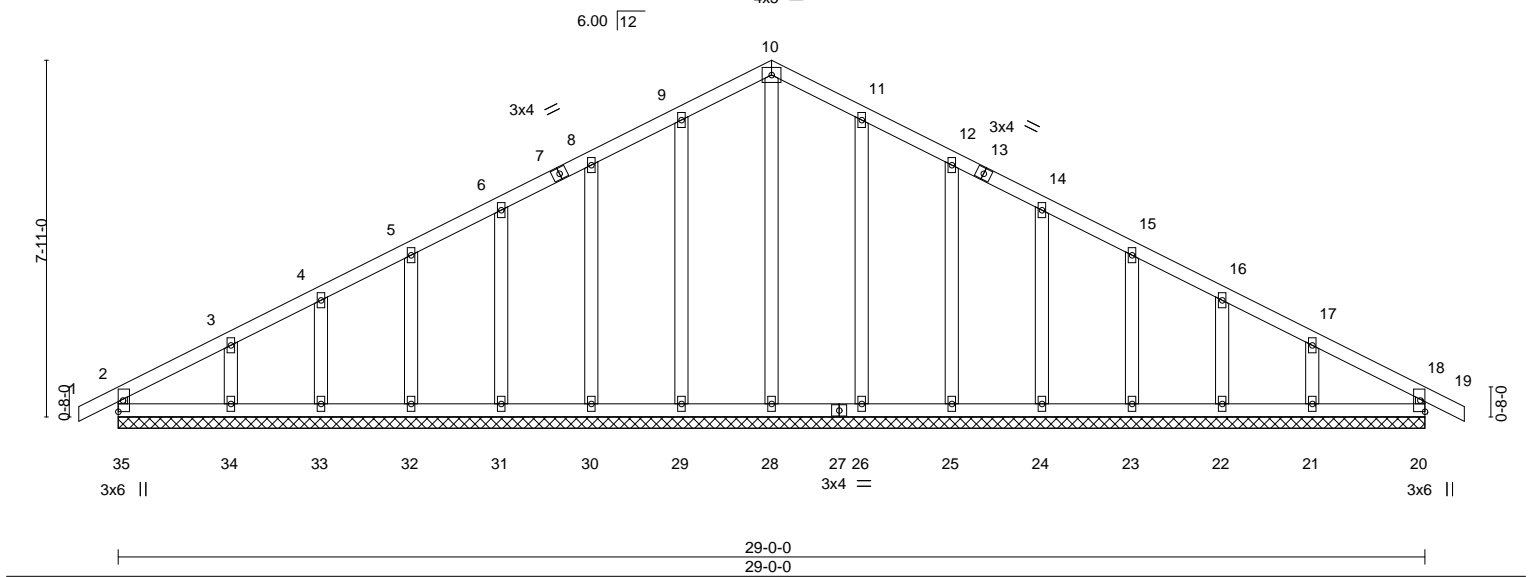


October 6, 2020

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

Job 400686	Truss C1	Truss Type Common Supported	<div style="text-align: center;"> <b>RELEASE FOR CONSTRUCTION</b>  <b>AS NOTED ON PLANS REVIEW</b>  <b>DEVELOPMENT SERVICES</b>  <b>LEE'S SUMMIT, MISSOURI</b>  <b>10/29/2020</b> </div>	Qty 1	Ply 1	Lot 108 MN	I43085934
Wheeler Lumber, Waverly, KS 66871		8.420 s Aug 25 2020 MiTek Industries, Inc. Tue Oct 6 06:58:33 2020 Page 1 ID: pq50?Ycap6VpLXoTu4wY2za1nE-cROaCTbb7bp?RNHfwis45pYIZSght2VUzZ_1aWyWCqK					
-0-10-8 0-10-8	14-6-0 14-6-0	29-0-0 14-6-0		29-10-8 0-10-8			



LOADING (psf)		SPACING-		CSI.		DEFL.				PLATES		GRIP	
TCLL	25.0	Plate Grip DOL	2-0-0	TC	0.08	in	(loc)	l/defl	L/d	MT20		197/144	
TCDL	10.0	Lumber DOL	1.15	BC	0.04	Vert(LL)	-0.00	18	n/r				
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.16	Vert(CT)	-0.00	19	n/r				
BCDL	10.0	Code IRC2018/TPI2014		Matrix-R		Horz(CT)	0.00	20	n/a				
											Weight: 134 lb		FT = 10%

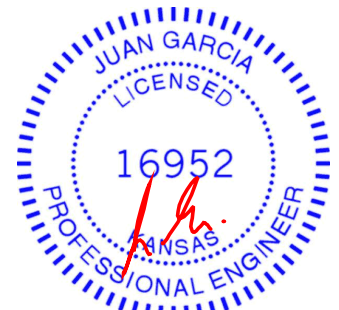
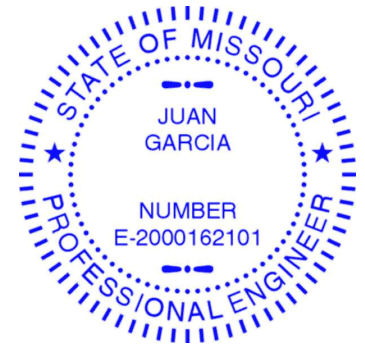
LUMBER-		BRACING-	
TOP CHORD	2x4 SPF No.2	TOP CHORD	Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.
BOT CHORD	2x4 SPF No.2	BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS	2x3 SPF No.2		
OTHERS	2x4 SPF No.2		

**REACTIONS.** All bearings 29-0-0.  
 (lb) - Max Horz 35=-122(LC 9)  
 Max Uplift All uplift 100 lb or less at joint(s) 35, 20, 29, 30, 31, 32, 33, 34, 26, 25, 24, 23, 22, 21  
 Max Grav All reactions 250 lb or less at joint(s) 35, 20, 28, 29, 30, 31, 32, 33, 34, 26, 25, 24, 23, 22, 21

**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; TC DL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 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 on 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) 35, 20, 29, 30, 31, 32, 33, 34, 26, 25, 24, 23, 22, 21.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



October 6, 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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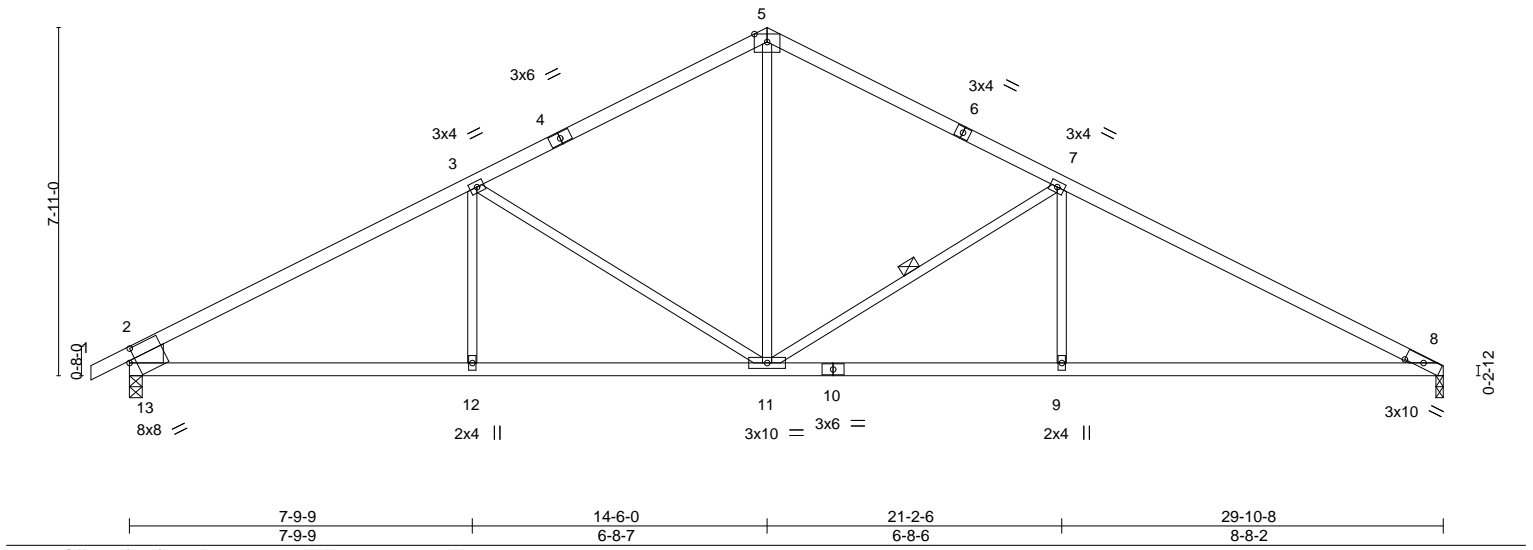


16023 Swingley Ridge Rd  
Chesterfield, MO 63017





Job 400686	Truss C3	Truss Type Common	<div style="text-align: center;"> <b>RELEASE FOR CONSTRUCTION</b>  <b>AS NOTED ON PLANS REVIEW</b>  <b>DEVELOPMENT SERVICES</b>  <b>LEE'S SUMMIT, MISSOURI</b> </div>		Qty 1	Ply 1	Lot 108 MN	I43085936
Wheeler Lumber, Waverly, KS 66871		8.420 s		Aug 25 2020 MiTek Industries, Inc. Tue Oct 6 06:58:34 2020 Page 1				
-0-10-8 0-10-8		7-9-9 7-9-9		14-6-0 6-8-7		21-2-6 6-8-6		29-10-8 8-8-2
				10/29/2020				
				5x7 =				Scale = 1:52.4



LOADING (psf)		SPACING-		CSI.		DEFL.				PLATES		GRIP	
TCLL	25.0	Plate Grip DOL	1.15	TC	0.89	Vert(LL)	-0.18	8-9	>999	360	MT20	197/144	
TCDL	10.0	Lumber DOL	1.15	BC	0.87	Vert(CT)	-0.42	8-9	>833	240			
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.91	Horz(CT)	0.09	8	n/a	n/a			
BCDL	10.0	Code IRC2018/TPI2014		Matrix-S		Wind(LL)	0.11	8-9	>999	240			
												Weight: 100 lb	FT = 10%

<b>LUMBER-</b>		<b>BRACING-</b>	
TOP CHORD	2x4 SPF 2100F 1.8E	TOP CHORD	Structural wood sheathing directly applied, except end verticals.
BOT CHORD	2x4 SPF No.2	BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS	2x3 SPF No.2 *Except*	WEBS	1 Row at midpt
	2-13: 2x10 SP DSS		7-11

**REACTIONS.** (size) 13=0-3-8, 8=0-2-0 (req. 0-2-1)  
 Max Horz 13=126(LC 12)  
 Max Uplift 13=-189(LC 8), 8=-170(LC 9)  
 Max Grav 13=1413(LC 1), 8=1321(LC 1)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-3=-2111/251, 3-5=-1561/244, 5-7=-1581/237, 7-8=-2348/286, 2-13=-1304/233  
 BOT CHORD 12-13=-246/1752, 11-12=-246/1752, 9-11=-157/2026, 8-9=-157/2026  
 WEBS 3-12=0/265, 3-11=-588/226, 5-11=-89/883, 7-11=-873/270, 7-9=0/348

- 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.
  - WARNING: Required bearing size at joint(s) 8 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) 13=189, 8=170.
  - This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



October 6, 2020

Job 400686	Truss C4	Truss Type Common	<div style="text-align: center;"> <b>RELEASE FOR CONSTRUCTION</b>  <b>AS NOTED ON PLANS REVIEW</b>  <b>DEVELOPMENT SERVICES</b>  <b>LEE'S SUMMIT, MISSOURI</b>  <b>10/29/2020</b> </div>		Qty 1	Lot 108 MN	I43085937
Wheeler Lumber, Waverly, KS 66871		Job Reference (optional) Aug 25 2020 MiTek Industries, Inc. Tue Oct 6 06:58:35 2020 Page 1 ID: pq50?Ycap6WpLXoTu4wY2za1nE-YpWLD9crfD3jhgR127vYBEedSpFISLm8nRtT8ePyWCql					
-0-10-8 0-10-8	7-9-9 7-9-9	14-6-0 6-8-7	21-2-6 6-8-6	29-8-14 8-6-8			

Scale = 1:52.3

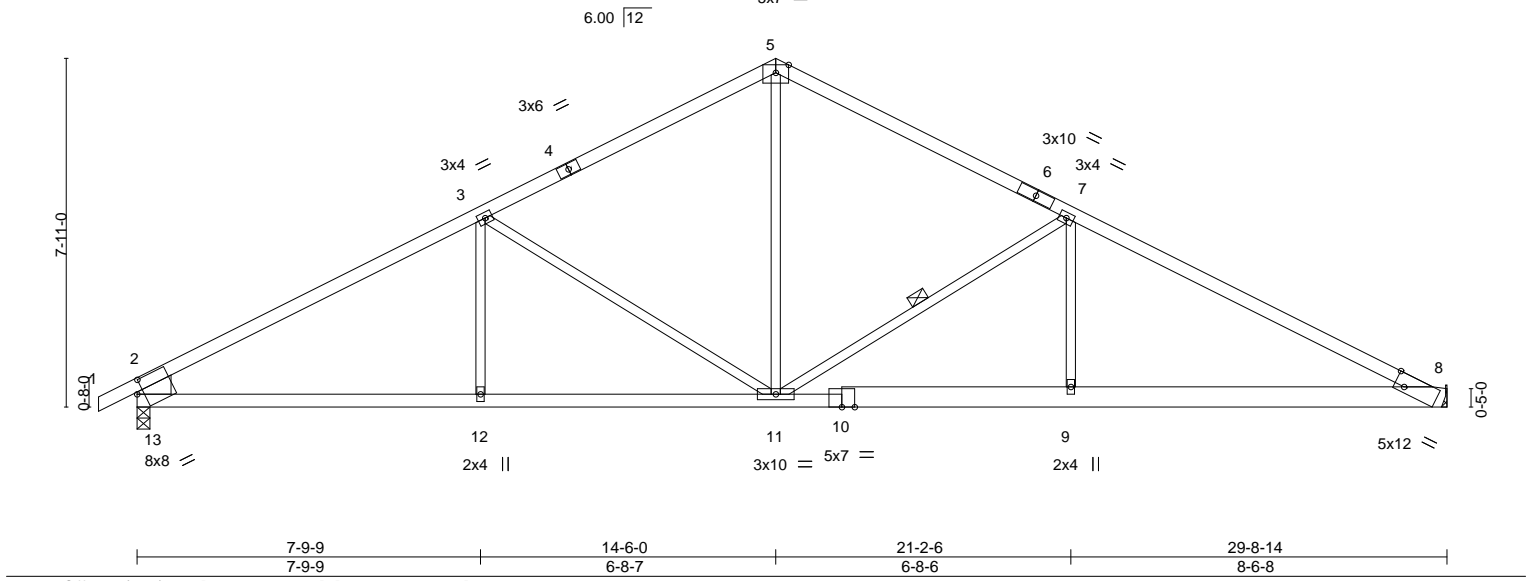


Plate Offsets (X,Y)--		[8:0-2-11,Edge], [13:0-1-13,0-3-8]										
LOADING	(psf)	SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.86	Vert(LL)	-0.17	11-12	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.86	Vert(CT)	-0.34	11-12	>999	240		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.92	Horz(CT)	0.07	8	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-S		Wind(LL)	0.07	11-12	>999	240	Weight: 108 lb	FT = 10%

<b>LUMBER-</b>		<b>BRACING-</b>	
TOP CHORD	2x4 SPF 2100F 1.8E	TOP CHORD	Structural wood sheathing directly applied or 2-4-4 oc purlins, except end verticals.
BOT CHORD	2x4 SPF No.2 *Except* 8-10: 2x6 SPF No.2	BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS	2x3 SPF No.2 *Except* 2-13: 2x10 SP DSS	WEBS	1 Row at midpt 7-11

**REACTIONS.** (size) 13=0-3-8, 8=Mechanical  
 Max Horz 13=-95(LC 6)  
 Max Uplift 13=-27(LC 8), 8=-19(LC 9)  
 Max Grav 13=1408(LC 1), 8=1316(LC 1)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-3=-2101/37, 3-5=-1550/73, 5-7=-1568/68, 7-8=-2373/41, 2-13=-1300/72  
 BOT CHORD 12-13=-32/1743, 11-12=-32/1743, 9-11=0/2025, 8-9=0/2023  
 WEBS 3-12=0/267, 3-11=-589/112, 5-11=0/867, 7-11=-877/116, 7-9=0/363

- 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) 13, 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.



October 6, 2020

Job	Truss	Truss Type	Qty	Ply	Lot 108 MN	I43085938
400686	C5	Roof Special	8.420 s	1	Job Reference (optional)	

**RELEASE FOR  
CONSTRUCTION  
AS NOTED ON PLANS REVIEW  
DEVELOPMENT SERVICES  
LEE'S SUMMIT, MISSOURI**

Wheeler Lumber, Waverly, KS 66871

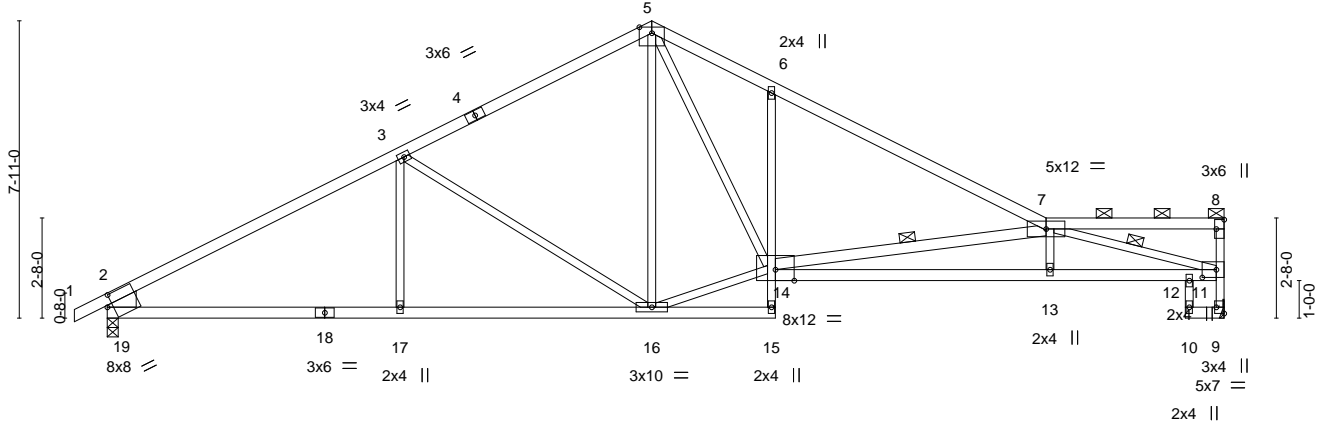
Aug 25 2020 MiTek Industries, Inc. Tue Oct 6 06:58:36 2020 Page 1  
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-0-10-8 7-9-9 14-6-0 17-9-8 25-0-0 28-8-8 29-8-14  
0-10-8 7-9-9 6-8-7 20-8-8 7-2-8 3-8-8 1-0-6

10/29/2020

6.00 12 6x8

Scale = 1:61.4



7-9-9 14-6-0 17-9-8 25-0-0 28-8-8 29-8-14  
7-9-9 6-8-7 3-3-8 7-2-8 3-8-8 1-0-6

Plate Offsets (X,Y)-- [8:Edge,0-2-8], [9:Edge,0-2-8], [11:0-4-8,0-2-8], [19:0-1-13,0-3-8]

LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL 1.15	TC 0.86	Vert(LL) -0.28	13-14	>999	360	MT20	197/144
TCDL 10.0	Lumber DOL 1.15	BC 0.86	Vert(CT) -0.57	13-14	>612	240		
BCLL 0.0 *	Rep Stress Incr YES	WB 0.99	Horz(CT) 0.21	9	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014	Matrix-S	Wind(LL) 0.14	13-14	>999	240	Weight: 119 lb	FT = 10%

#### LUMBER-

**TOP CHORD** 2x4 SPF 2100F 1.8E \*Except\*  
7-8: 2x4 SPF No.2  
**BOT CHORD** 2x4 SPF No.2 \*Except\*  
6-15: 2x3 SPF No.2, 11-14: 2x4 SPF 2100F 1.8E  
**WEBS** 2x3 SPF No.2 \*Except\*  
7-14: 2x4 SPF No.2, 2-19: 2x10 SP DSS

#### BRACING-

**TOP CHORD** Structural wood sheathing directly applied or 3-1-0 oc purlins, except end verticals, and 2-0-0 oc purlins (6-0-0 max.): 7-8.  
**BOT CHORD** Rigid ceiling directly applied or 10-0-0 oc bracing, Except: 6-0-0 oc bracing: 15-16.  
**WEBS** 1 Row at midpt 7-14, 7-11

#### REACTIONS.

(size) 9=Mechanical, 19=0-3-8  
Max Horz 19=145(LC 5)  
Max Uplift 9=-22(LC 9), 19=-26(LC 8)  
Max Grav 9=1314(LC 1), 19=1406(LC 1)

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

**TOP CHORD** 2-3=-2097/36, 3-5=-1548/65, 5-6=-2196/122, 6-7=-2249/37, 9-11=-1288/28, 2-19=-1297/72  
**BOT CHORD** 17-19=-37/1741, 16-17=-37/1741, 6-14=-460/157, 13-14=-49/3758, 12-13=-42/3763, 11-12=-42/3763  
**WEBS** 3-17=0/266, 3-16=-585/112, 14-16=0/1355, 5-14=-103/1416, 7-14=-1867/66, 7-11=-3768/23

#### NOTES-

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope); cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- Provide adequate drainage to prevent water ponding.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- Refer to girder(s) for truss to truss connections.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 9, 19.
- This truss 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.



October 6, 2020

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16023 Swingley Ridge Rd  
Chesterfield, MO 63017

Job: 400686

Truss: C5A

Truss Type: Roof Special

**RELEASE FOR CONSTRUCTION**

**AS NOTED ON PLANS REVIEW**

**DEVELOPMENT SERVICES**

**LEE'S SUMMIT, MISSOURI**

Lot 108 MN

Job Reference (optional)

Wheeler Lumber, Waverly, KS 66871

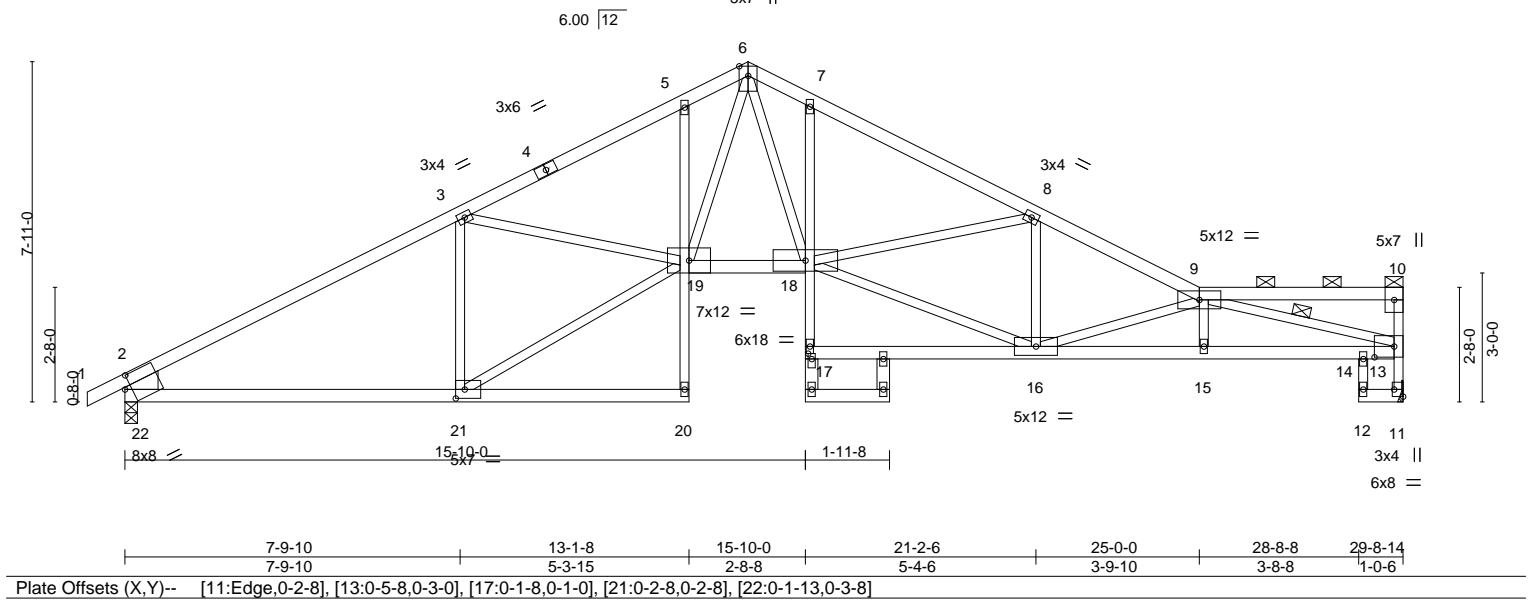
0-10-8 7-9-10 13-1-8 14-6-0 15-10-0 21-2-6 25-0-0 28-8-8 29-8-14

0-10-8 7-9-10 5-3-15 1-10-20 5-4-6 3-9-10 3-8-8 1-0-6

8.420 s Aug 25 2020 MiTek Industries, Inc. Tue Oct 6 06:58:37 2020 Page 1

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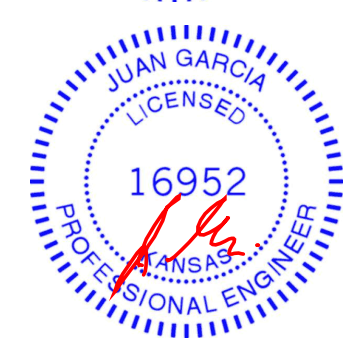
LOADING (psf)		SPACING-		CSI.		DEFL.		PLATES		GRIP	
TCLL	25.0	Plate Grip DOL	1.15	TC	0.86	Vert(LL)	-0.30	MT20		197/144	
TCDL	10.0	Lumber DOL	1.15	BC	0.83	Vert(CT)	-0.54				
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.94	Horz(CT)	0.30				
BCDL	10.0	Code IRC2018/TPI2014		Matrix-S		Wind(LL)	0.14				

LUMBER-		BRACING-	
TOP CHORD	2x4 SPF 2100F 1.8E *Except* 6-9,9-10: 2x4 SPF No.2	TOP CHORD	Structural wood sheathing directly applied or 3-0-14 oc purlins, except end verticals, and 2-0-0 oc purlins (6-0-0 max.): 9-10.
BOT CHORD	2x4 SPF No.2 *Except* 5-20,7-17: 2x3 SPF No.2, 13-17: 2x4 SPF 2100F 1.8E	BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS	2x3 SPF No.2 *Except* 2-22: 2x10 SP DSS, 17-23,24-25: 2x4 SPF No.2	WEBS	1 Row at midpt 9-13

REACTIONS.	
(size)	11=Mechanical, 22=0-3-8
Max Horz	22=145(LC 5)
Max Uplift	11=-22(LC 9), 22=-26(LC 8)
Max Grav	11=1314(LC 1), 22=1406(LC 1)

FORCES.	
(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.	
TOP CHORD	2-3=-2082/34, 3-5=-2824/28, 5-6=-2773/66, 6-7=-2790/74, 7-8=-2850/22, 8-9=-2801/34, 11-13=-1286/28, 2-22=-1299/74
BOT CHORD	21-22=-34/1722, 5-19=-256/70, 18-19=0/2081, 7-18=-256/105, 15-16=-53/3648, 14-15=-49/3647, 13-14=-49/3647
WEBS	3-21=-892/101, 19-21=-40/1966, 3-19=0/752, 6-19=-75/1210, 6-18=-89/1302, 16-18=-20/2615, 8-16=-366/55, 9-16=-1240/39, 9-13=-3623/33

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope); cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
  - Provide adequate drainage to prevent water ponding.
  - All plates are 2x4 MT20 unless otherwise indicated.
  - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
  - 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, 22.
  - This truss 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.



October 6,2020



Job	Truss	Truss Type	Qty	Ply	Lot 108 MN	I43085940
400686	C6	Roof Special	1			

Wheeler Lumber, Waverly, KS 66871

10/29/2020

6.00

Scale = 1:60.8

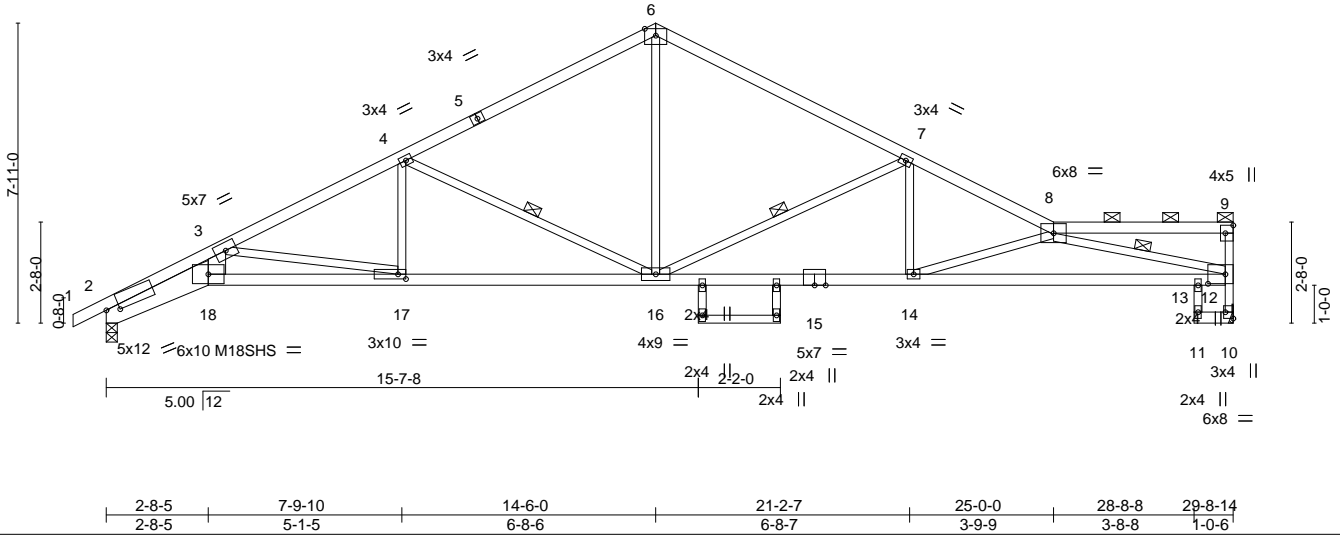


Plate Offsets (X,Y)-- [2:0-4-3,0-1-5], [9:Edge,0-2-8], [10:Edge,0-2-8], [12:0-5-8,0-3-0], [17:0-2-8,0-1-8]											
<b>LOADING</b> (psf)		<b>SPACING-</b> 2-0-0		<b>CSI.</b>		<b>DEFL.</b> in (loc) l/defl L/d		<b>PLATES</b>		<b>GRIP</b>	
TCLL	25.0	Plate Grip DOL	1.15	TC	0.89	Vert(LL)	-0.29 14-16	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.71	Vert(CT)	-0.52 14-16	>683	240	M18SHS	197/144
BCLL	0.0 *	Rep Stress Incr	YES	WB	1.00	Horz(CT)	0.34 10	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-S		Wind(LL)	0.15 17-18	>999	240	Weight: 119 lb	FT = 10%

<b>LUMBER-</b>	<b>BRACING-</b>
TOP CHORD 2x4 SPF No.2	TOP CHORD Structural wood sheathing directly applied or 2-1-2 oc purlins, except end verticals, and 2-0-0 oc purlins (6-0-0 max.): 8-9.
BOT CHORD 2x4 SPF 2100F 1.8E *Except*	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 2-18: 2x8 SP DSS, 10-11: 2x4 SPF No.2, 19-20: 2x3 SPF No.2	WEBS 1 Row at midpt 4-16, 7-16, 8-12

<b>REACTIONS.</b>	(size) 10=Mechanical, 2=0-3-8
	Max Horz 2=139(LC 7)
	Max Uplift 10=-22(LC 9), 2=-25(LC 8)
	Max Grav 10=1326(LC 1), 2=1400(LC 1)

<b>FORCES.</b>	(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD	2-3=-5461/135, 3-4=-2724/49, 4-6=-1803/53, 6-7=-1800/56, 7-8=-2846/27, 10-12=-1300/32
BOT CHORD	2-18=-181/4887, 17-18=-160/4030, 16-17=-38/2416, 14-16=-13/2534, 13-14=-95/3680, 12-13=-95/3680
WEBS	3-18=-21/1841, 3-17=-1637/123, 4-17=0/425, 4-16=-1005/116, 6-16=0/1073, 7-16=-1136/92, 7-14=0/552, 8-14=-1219/87, 8-12=-3673/110

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope); cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
  - Provide adequate drainage to prevent water ponding.
  - All plates are MT20 plates unless otherwise indicated.
  - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
  - Refer to girder(s) for truss to truss connections.
  - Bearing at joint(s) 2 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
  - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 10, 2.
  - This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
  - Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



October 6,2020

**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 400686 Truss C7 Truss Type Roof Special Lot 108 MN 143085941

Wheeler Lumber, Waverly, KS 66871

Roof plan showing dimensions and truss layout. The roof is divided into sections with dimensions: 0-10-8, 2-8-5, 7-9-10, 15-7-8, 21-2-7, 14-6-0, 6-8-6, 5-6-15, and 8-6-7.

Job Reference (optional)

143085941

Scale = 1:50.2

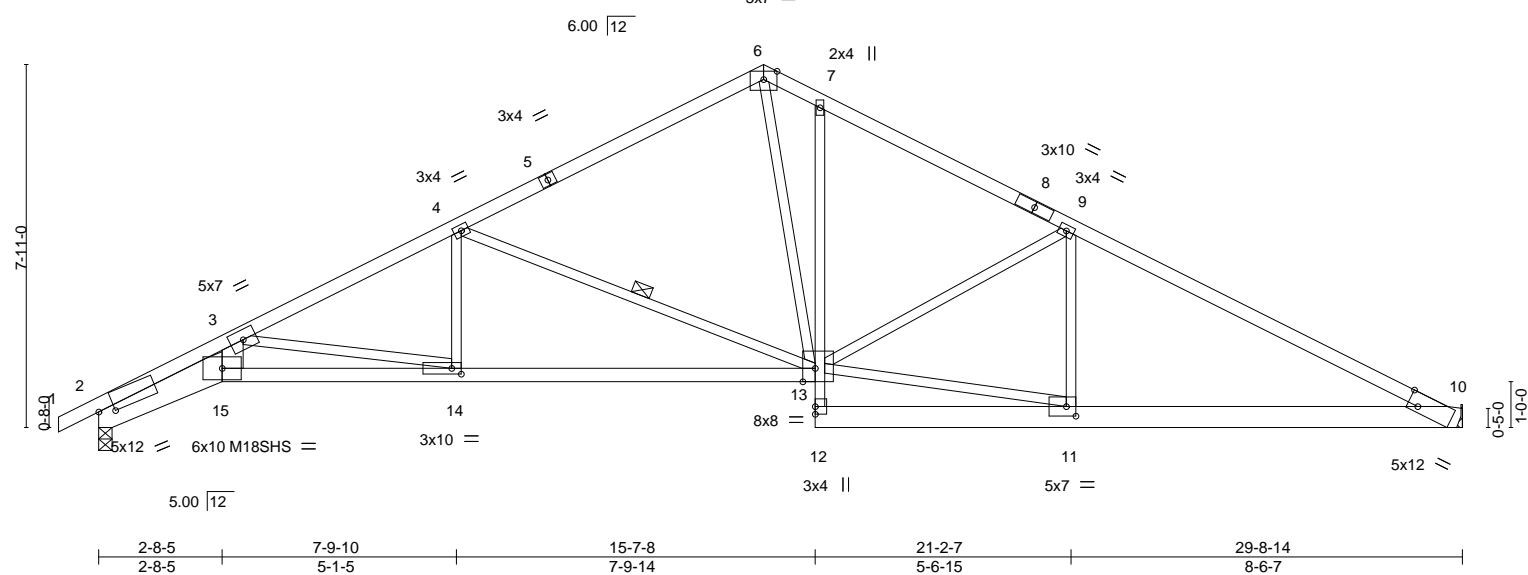


Plate Offsets (X,Y)-- [2:0-4-3,0-1-5], [10:0-2-11,Edge], [11:0-2-8,0-2-8], [13:0-3-4,Edge], [14:0-2-8,0-1-8]												
LOADING (psf)		SPACING-- 2-0-0		CSI.		DEFL. in (loc) l/defl L/d				PLATES	GRIP	
TCLL	25.0	Plate Grip DOL	1.15	TC	0.90	Vert(LL)	-0.25	14-15	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.72	Vert(CT)	-0.47	13-14	>759	240	M18SHS	197/144
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.96	Horz(CT)	0.25	10	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-S		Wind(LL)	0.14	14-15	>999	240	Weight: 125 lb	FT = 10%

**LUMBER-**

TOP CHORD	2x4 SPF No.2 *Except* 6-8,8-10: 2x4 SPF 2100F 1.8E
BOT CHORD	2x4 SPF 2100F 1.8E *Except* 2-15: 2x8 SP DSS, 7-12: 2x3 SPF No.2, 10-12: 2x6 SPF No.2
WEBS	2x3 SPF No.2 *Except* 3-15: 2x6 SPF No.2

**BRACING-**

TOP CHORD	Structural wood sheathing directly applied or 2-1-3 oc purlins.	
BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing, Except: 6-0-0 oc bracing: 11-12.	
WEBS	1 Row at midpt	4-13

**REACTIONS.**

(size) 2=0-3-8, 10=Mechanical  
Max Horz 2=88(LC 7)  
Max Uplift 2=-25(LC 8), 10=-19(LC 9)  
Max Grav 2=1402(LC 1), 10=1328(LC 1)

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

TOP CHORD 2-3=-5450/138, 3-4=-2744/40, 4-6=-1698/60, 6-7=-1785/68, 7-9=-1937/45,  
9-10=-2400/39

BOT CHORD 2-15=-180/4875, 14-15=-156/4027, 13-14=-25/2434, 10-11=0/2047

WEBS 3-15=-28/1821, 3-14=-1615/132, 4-14=0/480, 4-13=-1100/102, 6-13=-14/1161,  
11-13=0/1993, 9-13=-549/118

**NOTES-**

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope); cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 3) All plates are MT20 plates unless otherwise indicated.
- 4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 5) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 6) Refer to girder(s) for truss to truss connections.
- 7) Bearing at joint(s) 2 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- 8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 10.
- 9) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



October 6, 2020



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16023 Swingley Ridge Rd  
Chesterfield, MO 63017

Job: 400686

Truss: C8

Truss Type: Roof Special

**RELEASE FOR CONSTRUCTION**

**AS NOTED ON PLANS REVIEW**

**DEVELOPMENT SERVICES**

**LEE'S SUMMIT, MISSOURI**

10/29/2020

Lot 108 MN

Job Reference (optional)

Wheeler Lumber, Waverly, KS 66871

0-10-8 2-8-5 7-9-10 14-6-0 15-7-8 21-2-7 29-0-0

0-10-8 2-8-5 5-1-5 6-8-6 5-6-15 7-9-9

8.420 s Aug 25 2020 MiTek Industries, Inc. Tue Oct 6 06:58:39 2020 Page 1

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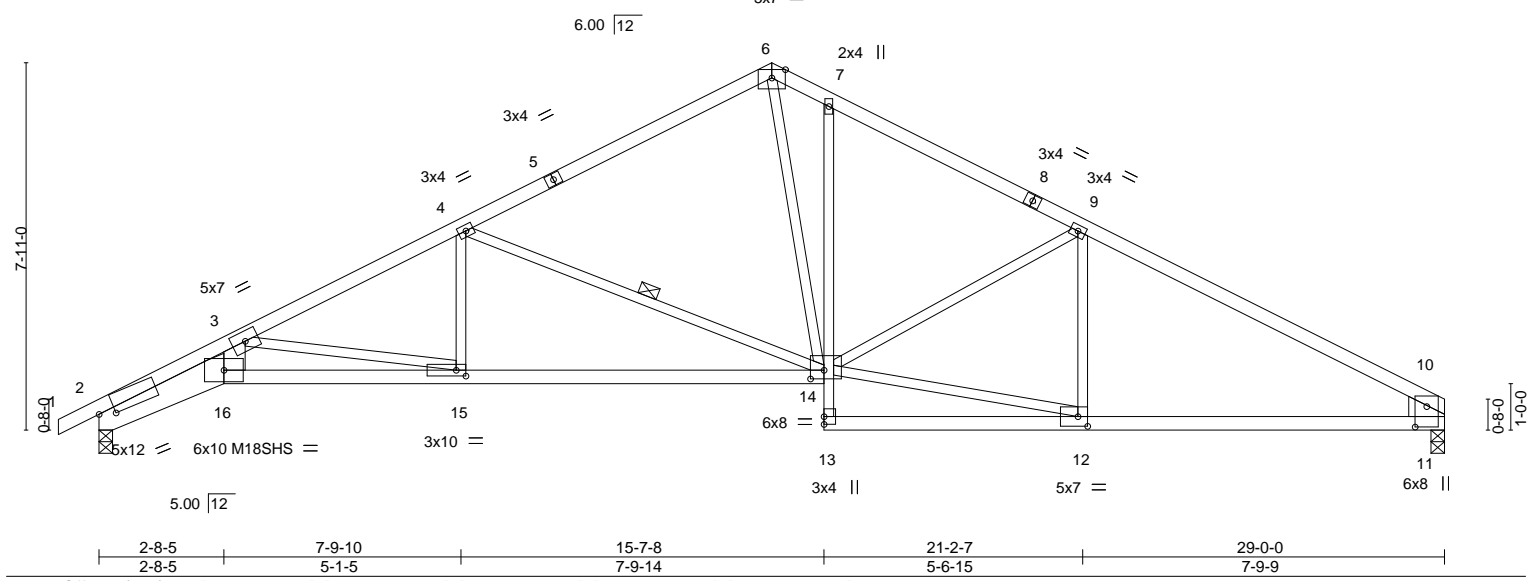


Plate Offsets (X,Y)-- [2:0-4-3,0-1-5], [11:0-5-5,0-3-0], [12:0-2-8,0-2-8], [14:0-3-8,0-2-4], [15:0-2-8,0-1-8]							
LOADING (psf)	SPACING-		CSI.	DEFL.	in (loc)	l/defl	L/d
TCLL 25.0	Plate Grip DOL	2-0-0	TC 0.87	Vert(LL)	-0.27 12-13	>999	360
TCDL 10.0	Lumber DOL	1.15	BC 0.85	Vert(CT)	-0.54 14-15	>628	240
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.93	Horz(CT)	0.24 11	n/a	n/a
BCDL 10.0	Code IRC2018/TPI2014		Matrix-S	Wind(LL)	0.20 15-16	>999	240
				PLATES	GRIP		
				MT20	197/144		
				M18SHS	197/144		
				Weight: 117 lb	FT = 10%		

LUMBER-	BRACING-
TOP CHORD 2x4 SPF No.2	TOP CHORD Structural wood sheathing directly applied, except end verticals.
BOT CHORD 2x4 SPF 2100F 1.8E *Except*	BOT CHORD Rigid ceiling directly applied or 9-6-4 oc bracing.
2-16: 2x8 SP DSS, 7-13: 2x3 SPF No.2	WEBS 1 Row at midpt 4-14
WEBS 2x3 SPF No.2 *Except*	
3-16: 2x6 SPF No.2, 10-11: 2x10 SP DSS	

**REACTIONS.** (size) 2=0-3-8, 11=0-3-8  
Max Horz 2=139(LC 12)  
Max Uplift 2=184(LC 8), 11=158(LC 9)  
Max Grav 2=1354(LC 1), 11=1280(LC 1)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
TOP CHORD 2-3=-5236/785, 3-4=-2619/333, 4-6=-1582/228, 6-7=-1695/275, 7-9=-1792/236, 9-10=-1998/243, 10-11=-1131/198  
BOT CHORD 2-16=-811/4683, 15-16=-679/3867, 14-15=-310/2321, 11-12=-136/1669  
WEBS 3-16=-258/1752, 3-15=-1567/374, 4-15=0/475, 4-14=-1090/278, 6-14=-167/1135, 12-14=-112/1624, 9-14=-278/185, 9-12=-268/112

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
  - 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.
  - Bearing at joint(s) 2 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
  - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=184, 11=158.
  - This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



October 6,2020

Job 400686	Truss C9	Truss Type GABLE	<div style="text-align: center;"> <b>RELEASE FOR CONSTRUCTION</b>  <b>AS NOTED ON PLANS REVIEW</b>  <b>DEVELOPMENT SERVICES</b>  <b>LEE'S SUMMIT, MISSOURI</b>  <b>10/29/2020</b> </div>	Qty 1	Ply 1	Lot 108 MN	I43085943
Wheeler Lumber, Waverly, KS 66871		8.420 s Aug 25 2020 MiTek Industries, Inc. Tue Oct 6 06:58:41 2020 Page 1 ID: pq50?Ycap6WpLXoT u4wfy2za1nE-NztctChcE3ptPbuBON0yQVtYjgSjkdgpowTs3yWCqC 15-7-12 21-2-7 29-0-0 29-10-8 0-10-8 14-6-0 14-6-0 0-10-8					
0-10-8 0-10-8		14-6-0 14-6-0		15-7-12 21-2-7		29-0-0 7-9-9	
6.00		4x6				Scale = 1:52.4	

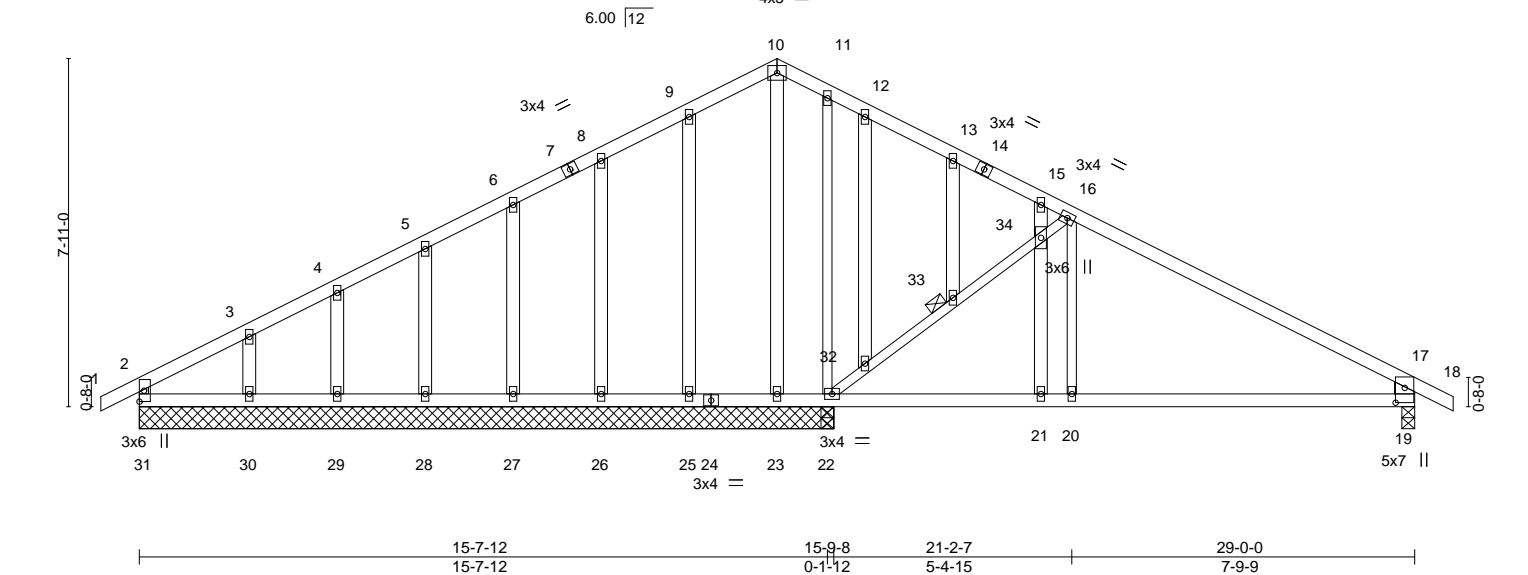


Plate Offsets (X,Y)--		[19:0-4-1,0-2-8]							
<b>LOADING</b> (psf)		<b>SPACING-</b>	2-0-0	<b>CSI.</b>		<b>DEFL.</b>	in (loc)	L/defl	L/d
TCLL	25.0	Plate Grip DOL	1.15	TC	0.58	Vert(LL)	-0.08 19-20	>999	360
TCDL	10.0	Lumber DOL	1.15	BC	0.42	Vert(CT)	-0.17 19-20	>951	240
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.26	Horz(CT)	0.01 19	n/a	n/a
BCDL	10.0	Code IRC2018/TPI2014		Matrix-S		Wind(LL)	0.03 19-20	>999	240
								Weight: 138 lb	
								FT = 10%	

<b>LUMBER-</b>		<b>BRACING-</b>	
TOP CHORD	2x4 SPF No.2	TOP CHORD	Structural wood sheathing directly applied or 5-11-1 oc purlins, except end verticals.
BOT CHORD	2x4 SPF No.2	BOT CHORD	Rigid ceiling directly applied or 6-0-0 oc bracing, Except:
WEBS	2x3 SPF No.2 *Except*		10-0-0 oc bracing: 21-22,20-21,19-20.
	17-19: 2x6 SPF No.2		
OTHERS	2x4 SPF No.2	JOINTS	1 Brace at Jt(s): 33

**REACTIONS.** All bearings 15-9-8 except (jt=length) 19=0-3-8.  
 (lb) - Max Horz 31=121(LC 12)  
 Max Uplift All uplift 100 lb or less at joint(s) 31, 23, 25, 26, 27, 28, 29, 30 except 22=-185(LC 9),  
 19=-172(LC 9)  
 Max Grav All reactions 250 lb or less at joint(s) 31, 23, 25, 26, 27, 28, 29, 30 except 22=725(LC 22),  
 22=721(LC 1), 19=664(LC 1)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 9-10=-35/250, 10-11=-43/259, 16-17=-703/226, 17-19=-600/220  
 BOT CHORD 21-22=-97/525, 20-21=-97/525, 19-20=-97/525  
 WEBS 22-32=-685/222, 32-33=-661/212, 33-34=-635/197, 16-34=-706/235, 16-20=0/325

- 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) 31, 23, 25, 26, 27, 28, 29, 30 except (jt=lb) 22=185, 19=172.
  - This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



October 6, 2020

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16023 Swingley Ridge Rd  
Chesterfield, MO 63017

Job 400686	Truss D1	Truss Type Common	<div style="text-align: center;"> <b>RELEASE FOR CONSTRUCTION</b>  <b>AS NOTED ON PLANS REVIEW</b>  <b>DEVELOPMENT SERVICES</b>  <b>LEE'S SUMMIT, MISSOURI</b> </div>		Qty 1	Ply	Lot 108 MN	I43085944
Wheeler Lumber, Waverly, KS 66871		8.420 s		Aug 25 2020 MiTek Industries, Inc. Tue Oct 6 06:58:41 2020 Page 1				
-0-10-8 0-10-8		6-9-0 6-9-0		13-6-0 6-9-0		14-4-8 0-10-8		
		10/29/2020						

Scale = 1:26.3

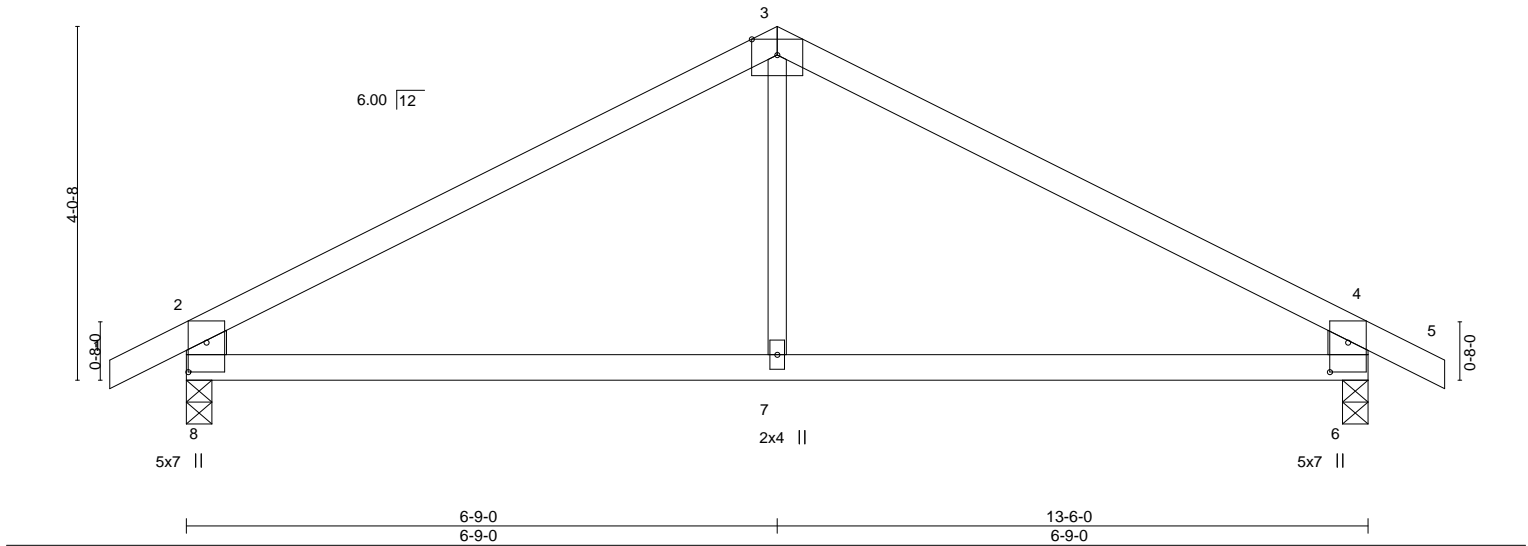


Plate Offsets (X,Y)-- [6:0-4-1,0-2-8], [8:0-4-1,0-2-8]									
LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in	(loc)	l/defl	L/d	PLATES
TCLL 25.0	Plate Grip DOL	1.15	TC 0.50	Vert(LL)	-0.04	7-8	>999	360	MT20
TCDL 10.0	Lumber DOL	1.15	BC 0.35	Vert(CT)	-0.08	7-8	>999	240	GRIP
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.09	Horz(CT)	0.01	6	n/a	n/a	
BCDL 10.0	Code IRC2018/TPI2014		Matrix-R	Wind(LL)	0.02	7-8	>999	240	
									Weight: 39 lb FT = 10%

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

**REACTIONS.** (size) 8=0-3-8, 6=0-3-8  
 Max Horz 8=-67(LC 6)  
 Max Uplift 8=-98(LC 8), 6=-98(LC 9)  
 Max Grav 8=664(LC 1), 6=664(LC 1)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-3=-738/101, 3-4=-738/101, 2-8=-609/145, 4-6=-609/145  
 BOT CHORD 7-8=-19/560, 6-7=-19/560  
 WEBS 3-7=0/283

- 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.



October 6, 2020

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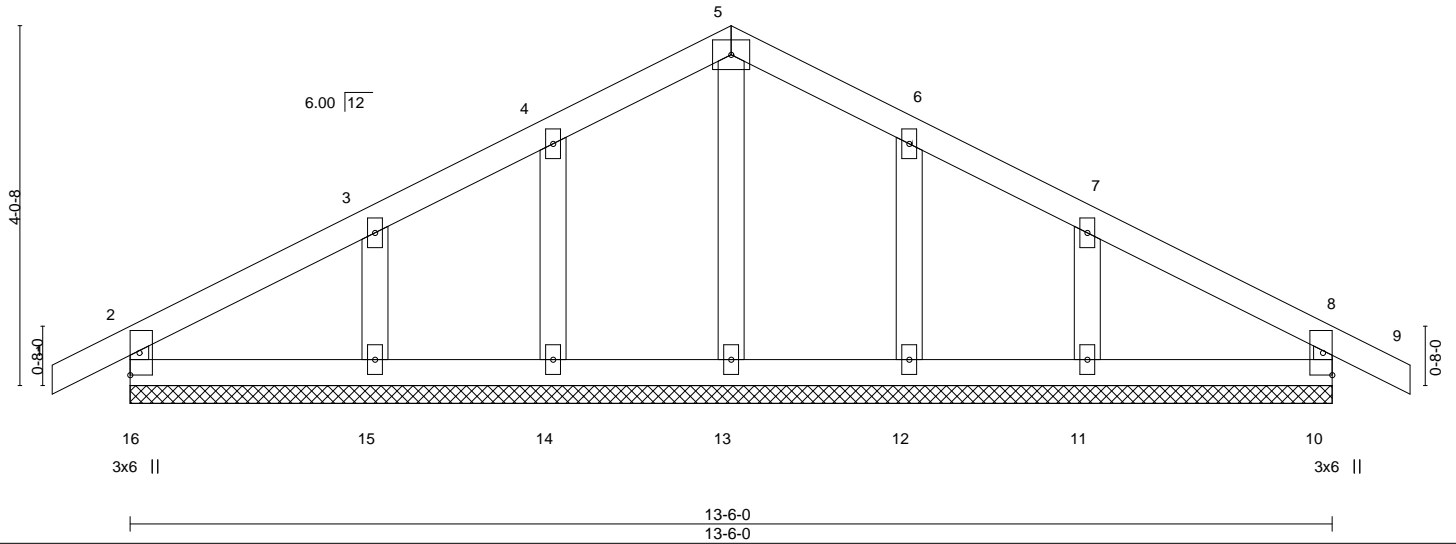
16023 Swingley Ridge Rd  
 Chesterfield, MO 63017

Job 400686	Truss D2	Truss Type Common Supported	Qty 1	Ply 1	Lot 108 MN	I43085945
Wheeler Lumber, Waverly, KS 66871		8.420 s		Job Reference (optional)		
-0-10-8 0-10-8		6-9-0 6-9-0		13-6-0 6-9-0		14-4-8 0-10-8
		4x6				

**RELEASE FOR CONSTRUCTION**  
**AS NOTED ON PLANS REVIEW**  
**DEVELOPMENT SERVICES**  
**LEE'S SUMMIT, MISSOURI**  
**10/29/2020**

Aug 25 2020 MiTek Industries, Inc. Tue Oct 6 06:58:42 2020 Page 1  
ID: pq50?Ycap6WpLXoTu4wfy2za1nE-rAR\_5YIE?Mxk1ITNy5XBzjQrR4uoT8jp2Sf0OVyWCqB

Scale = 1:25.9



LOADING (psf)	SPACING-	CSI.	DEFL.	PLATES	GRIP
TCLL 25.0	2-0-0	TC 0.07	in (loc) l/def L/d	MT20	197/144
TCDL 10.0	Plate Grip DOL 1.15	BC 0.04	Vert(LL) -0.00 8 n/r 120		
BCLL 0.0 *	Lumber DOL 1.15	WB 0.03	Vert(CT) -0.00 8 n/r 120		
BCDL 10.0	Rep Stress Incr YES	Matrix-R	Horz(CT) 0.00 10 n/a n/a		
	Code IRC2018/TPI2014			Weight: 48 lb	FT = 10%

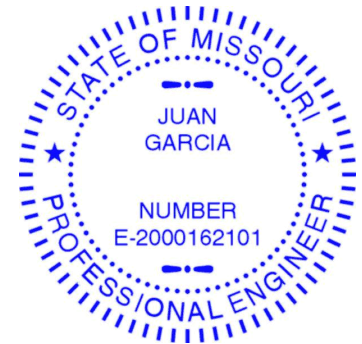
LUMBER-	BRACING-
TOP CHORD 2x4 SPF No.2	TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.
BOT CHORD 2x4 SPF No.2	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 2x3 SPF No.2	
OTHERS 2x4 SPF No.2	

**REACTIONS.** All bearings 13-6-0.  
(lb) - Max Horz 16=-65(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; 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 on 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.



October 6, 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

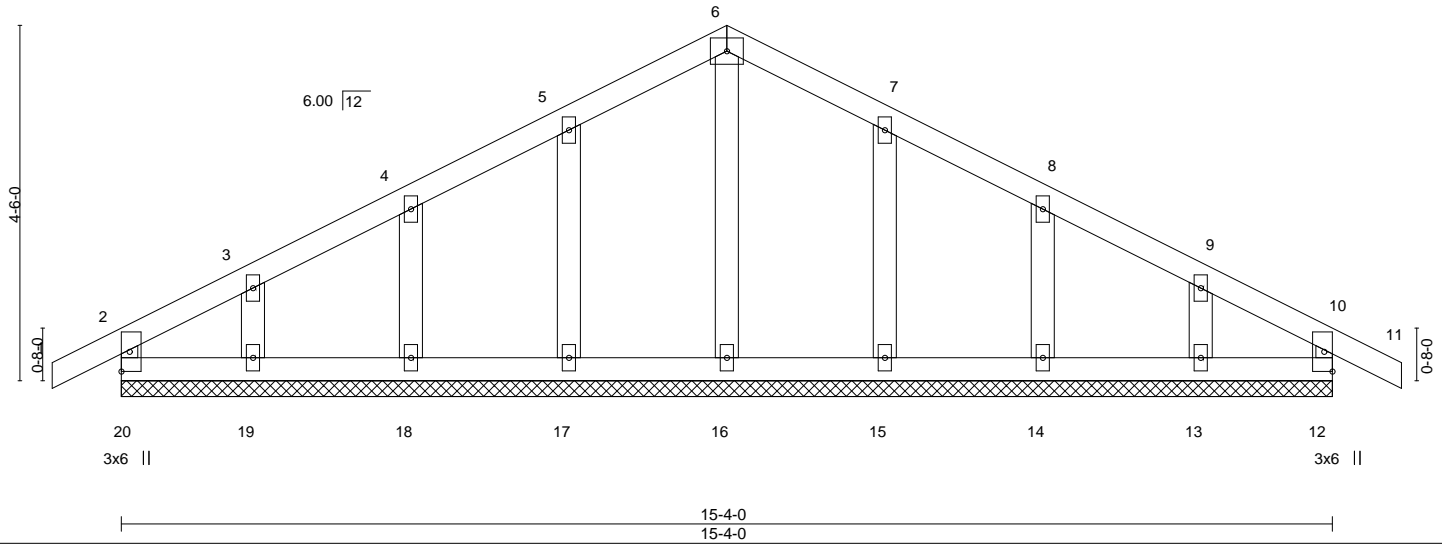


16023 Swingley Ridge Rd  
Chesterfield, MO 63017



Job 400686	Truss E1	Truss Type Common Supported	<div style="text-align: center;"> <b>RELEASE FOR CONSTRUCTION</b>  <b>AS NOTED ON PLANS REVIEW</b>  <b>DEVELOPMENT SERVICES</b>  <b>LEE'S SUMMIT, MISSOURI</b>  <b>10/29/2020</b> </div>	Qty 1	Ply 1	Lot 108 MN	I43085946
Wheeler Lumber, Waverly, KS 66871		Job Reference (optional) 8.420 s Aug 25 2020 MiTek Industries, Inc. Tue Oct 6 06:58:43 2020 Page 1 ID:pq50?Ycap6WpLXoTu4wY2za1nE-JM?Mluismg3bev2aWo2QVwz0CTENCbmyG6PZwxyWCqA					
-0-10-8 0-10-8		7-8-0 7-8-0		15-4-0 7-8-0		16-2-8 0-10-8	
4x6							

Scale = 1:29.2



LOADING (psf)		SPACING-		CSI.		DEFL.				PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.07	in	(loc)	l/defl	L/d	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.02	Vert(LL)	-0.00	11	n/r		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.04	Vert(CT)	-0.00	11	n/r		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-R		Horz(CT)	0.00	12	n/a		
										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" oc purlins, except end verticals.  
 BOT CHORD Rigid ceiling directly applied or 6'-0" oc bracing.

#### REACTIONS.

All bearings 15'-4".  
 (lb) - Max Horz 20=-71(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; 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 on one face or securely braced against lateral movement (i.e. diagonal web).
- Gable studs spaced at 2'-0" oc.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3'-6" tall by 2'-0" wide will fit between the bottom chord and any other members.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 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.



October 6, 2020

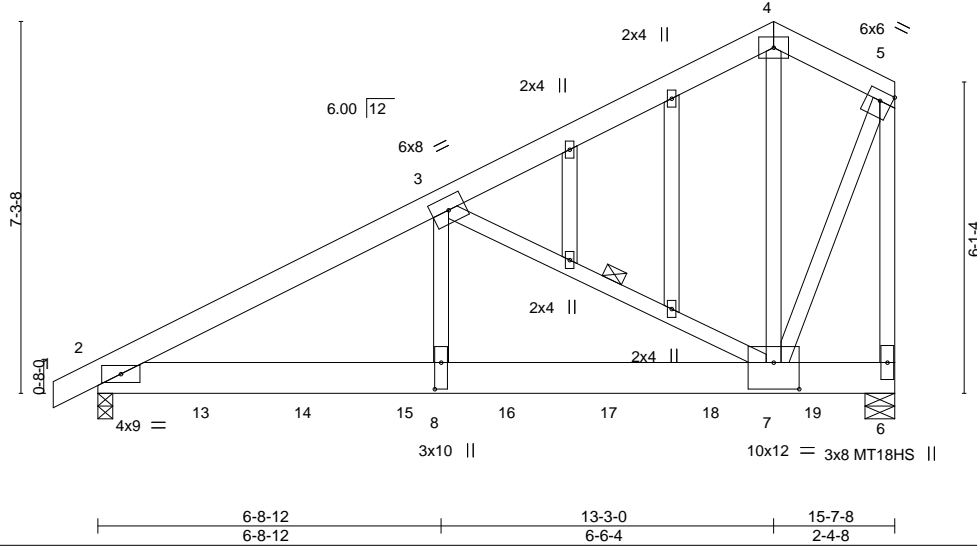
**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE.**

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 400686	Truss E2	Truss Type GABLE	<div style="text-align: center;"> <b>RELEASE FOR CONSTRUCTION</b>  <b>AS NOTED ON PLANS REVIEW</b>  <b>DEVELOPMENT SERVICES</b>  <b>LEE'S SUMMIT, MISSOURI</b>  <b>10/29/2020</b> </div>	Qty 2	Ply 2	Lot 108 MN	I43085947
Wheeler Lumber, Waverly, KS 66871		Job Reference (optional) 8.420 s Aug 25 2020 MiTek Industries, Inc. Tue Oct 6 06:58:44 2020 Page 1 ID:pq50?Ycap6VpLXoTu4wY2za1nE-nYZIWEJUX_BRG3dm4WZf28V15tSivG6Vm87SOyWCq9					
0-10-8 0-10-8'		6-8-12 6-8-12		13-3-0 6-6-4		15-7-8 2-4-8	



LOADING (psf)	SPACING-	CSI.	DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL 1.15	TC 0.70	Vert(LL) -0.09	7-8	>999	360		MT20	197/144
TCDL 10.0	Lumber DOL 1.15	BC 0.53	Vert(CT) -0.16	7-8	>999	240		MT18HS	197/144
BCLL 0.0 *	Rep Stress Incr NO	WB 0.60	Horz(CT) 0.03	6	n/a	n/a			
BCDL 10.0	Code IRC2018/TPI2014	Matrix-S	Wind(LL) 0.05	2-8	>999	240		Weight: 240 lb	FT = 10%

LUMBER-	BRACING-
TOP CHORD 2x6 SPF No.2	TOP CHORD Structural wood sheathing directly applied or 5-1-14 oc purlins, except end verticals.
BOT CHORD 2x8 SP DSS	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 2x4 SPF No.2	WEBS 1 Row at midpt 3-7
OTHERS 2x4 SPF No.2	

**REACTIONS.** (size) 2=0-3-8 (req. 0-4-1), 6=0-7-0  
 Max Horz 2=254(LC 28)  
 Max Uplift 2=232(LC 8), 6=240(LC 8)  
 Max Grav 2=5166(LC 1), 6=5372(LC 1)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-3=-7790/312, 3-4=-2135/123, 4-5=-2044/160, 5-6=-5471/257  
 BOT CHORD 2-8=-331/6846, 7-8=-331/6846  
 WEBS 3-8=-45/4834, 3-7=-5705/356, 4-7=-70/1560, 5-7=-196/4864

- 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.
  - 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 MT20 plates 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.
  - WARNING: Required bearing size at joint(s) 2 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) 2=232, 6=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.



October 6, 2020

Continued on page 2

Job	Truss	Truss Type	Qty	Ply	Lot 108 MN
400686	E2	GABLE	8.420 s	2	I43085947

Wheeler Lumber, Waverly, KS 66871

#### NOTES-

- 13) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 1308 lb down and 39 lb up at 2-0-12, 1306 lb down and 42 lb up at 4-0-12, 1294 lb down and 42 lb up at 6-0-12, 1294 lb down and 42 lb up at 8-0-12, 1294 lb down and 42 lb up at 10-0-12, and 1294 lb down and 42 lb up at 12-0-12, and 1296 lb down and 39 lb up at 14-0-12 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.

#### LOAD CASE(S) Standard

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

Uniform Loads (plf)

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

Concentrated Loads (lb)

Vert: 13=-1308(F) 14=-1306(F) 15=-1294(F) 16=-1294(F) 17=-1294(F) 18=-1294(F) 19=-1296(F)

 **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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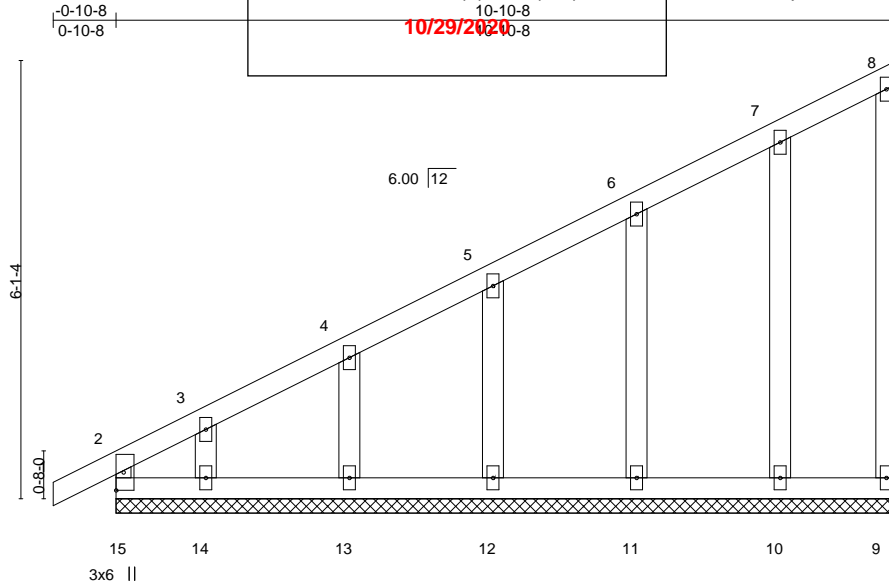
16023 Swingley Ridge Rd  
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 108 MN	I43085948
400686	E3	GABLE	8.420 s	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS 66871

**RELEASE FOR  
CONSTRUCTION  
AS NOTED ON PLANS REVIEW  
DEVELOPMENT SERVICES  
LEE'S SUMMIT, MISSOURI**

Aug 25 2020 MiTek Industries, Inc. Tue Oct 6 06:58:44 2020 Page 1  
ID:pq50?Ycap6VpLXoTu4wY2za1nE-nYZIWEjUX\_BRG3dm4WZf28V9mta1x2m6Vm87SOyWCq9



Scale: 3/8"=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 0.14	Vert(LL)	0.00	2	n/r	120	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.06	Vert(CT)	-0.00	1	n/r	120		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.06	Horz(CT)	-0.00	9	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-R						Weight: 50 lb	FT = 10%

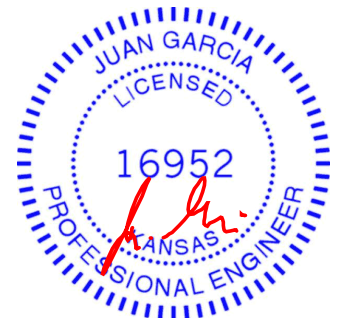
LUMBER-	BRACING-
TOP CHORD 2x4 SPF No.2	TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.
BOT CHORD 2x4 SPF No.2	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 2x3 SPF No.2 *Except*	
8-9: 2x4 SPF No.2	
OTHERS 2x4 SPF No.2	

**REACTIONS.** All bearings 10-10-8.  
(lb) - Max Horz 15=246(LC 5)  
Max Uplift All uplift 100 lb or less at joint(s) 15, 9, 10, 11, 12, 13 except 14=-112(LC 8)  
Max Grav All reactions 250 lb or less at joint(s) 15, 9, 10, 11, 12, 13, 14

**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; 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
- 2) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- 3) All plates are 2x4 MT20 unless otherwise indicated.
- 4) Gable requires continuous bottom chord bearing.
- 5) Truss to be fully sheathed on one face or securely braced against lateral movement (i.e. diagonal web).
- 6) Gable studs spaced at 2-0-0 oc.
- 7) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 8) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 15, 9, 10, 11, 12, 13 except (it=lb) 14=112.
- 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.



October 6, 2020

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16023 Swingley Ridge Rd  
Chesterfield, MO 63017

Job 400686	Truss J1	Truss Type Diagonal Hip Girder	Qty 1	Lot 108 MN	I43085949
Wheeler Lumber, Waverly, KS 66871		8.420 s		Job Reference (optional)	
-1-2-14 1-2-14		2-8-7 2-8-7		5-4-4 2-7-13	
		10/29/2020			

Aug 25 2020 MiTek Industries, Inc. Tue Oct 6 06:58:45 2020 Page 1  
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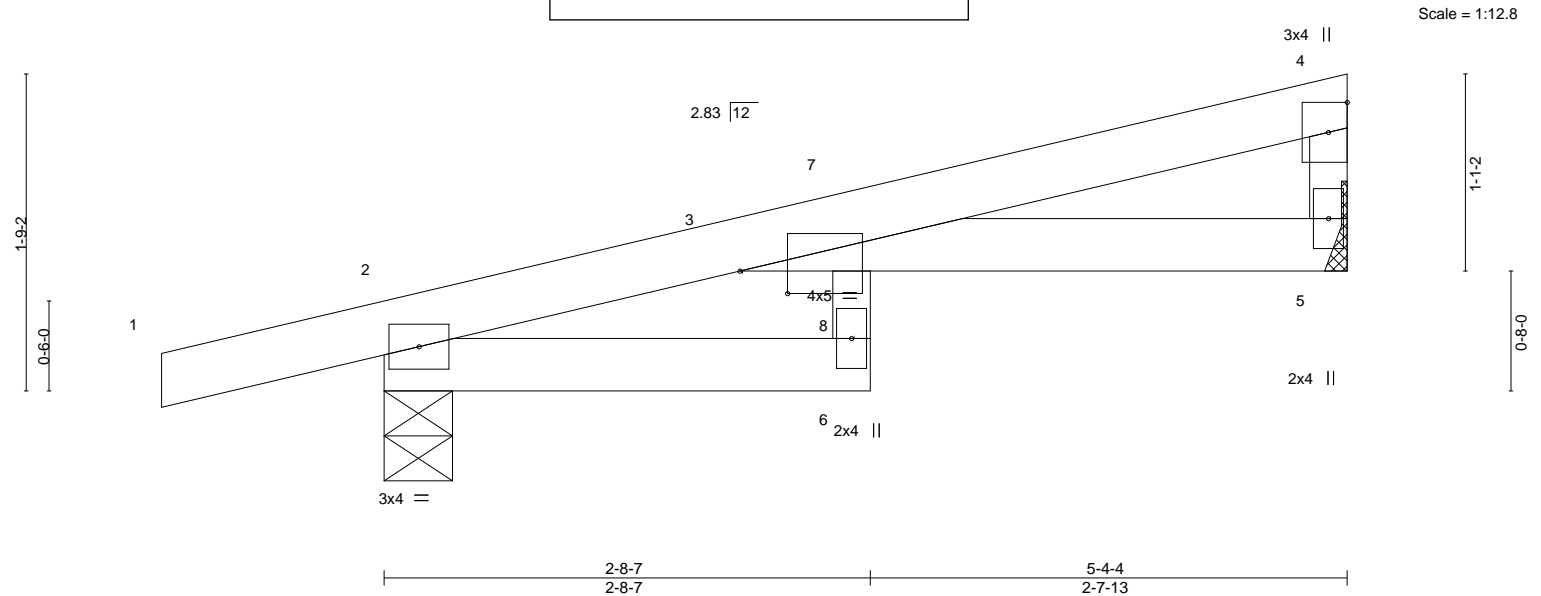


Plate Offsets (X,Y)--		[3:0-3-3,0-1-8]										
LOADING (psf)		SPACING- 2-0-0		CSI.		DEFL. in (loc) l/defl L/d				PLATES GRIP		
TCLL	25.0	Plate Grip DOL	1.15	TC	0.50	Vert(LL)	-0.06	6	>944	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.28	Vert(CT)	-0.13	6	>475	240		
BCLL	0.0 *	Rep Stress Incr	NO	WB	0.02	Horz(CT)	0.04	5	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-S		Wind(LL)	0.06	6	>999	240	Weight: 15 lb	FT = 10%

<b>LUMBER-</b>		<b>BRACING-</b>	
TOP CHORD	2x4 SPF No.2	TOP CHORD	Structural wood sheathing directly applied or 5-4-4 oc purlins, except end verticals.
BOT CHORD	2x4 SPF No.2	BOT CHORD	Rigid ceiling directly applied or 6-0-0 oc bracing.
WEBS	2x3 SPF No.2		

**REACTIONS.** (size) 5=Mechanical, 2=0-4-9  
 Max Horz 2=52(LC 5)  
 Max Uplift 5=40(LC 8), 2=102(LC 4)  
 Max Grav 5=219(LC 1), 2=349(LC 1)

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

- NOTES-**
- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
  - 2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - 3) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
  - 4) Refer to girder(s) for truss to truss connections.
  - 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 5 except (jt=lb) 2=102.
  - 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) 67 lb down and 31 lb up at 2-7-6, and 67 lb down and 31 lb up at 2-7-6 on top chord, and 0 lb down at 2-7-3, and 0 lb down at 2-7-3 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
  - 8) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

**LOAD CASE(S)** Standard

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



October 6, 2020



Job 400686	Truss J2	Truss Type Jack-Open	<b>RELEASE FOR CONSTRUCTION</b> <b>AS NOTED ON PLANS REVIEW</b> <b>DEVELOPMENT SERVICES</b> <b>LEE'S SUMMIT, MISSOURI</b> 10/29/2020		Qty 1	Ply 1	Lot 108 MN	I43085950
Wheeler Lumber, Waverly, KS 66871		8.420 s		Aug 25 2020 MiTek Industries, Inc. Tue Oct 6 06:58:46 2020 Page 1				
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		-0-10-8 0-10-8		2-0-0 2-0-0		3-10-8 1-10-8		

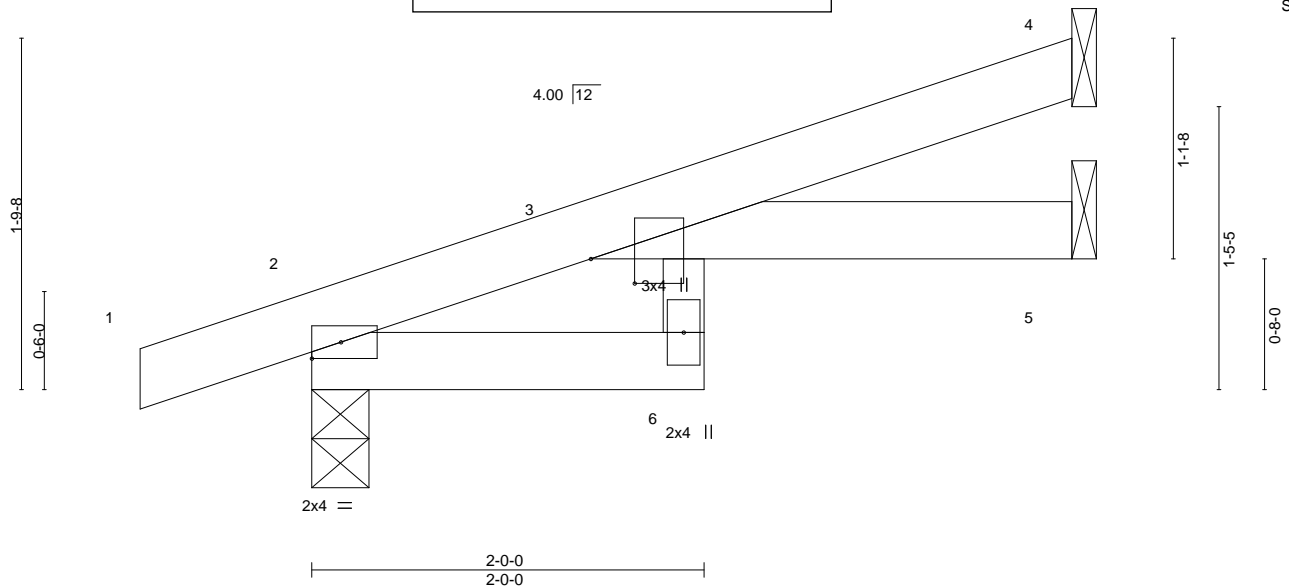


Plate Offsets (X,Y)--		[3:0-1-8,0-2-11]								
LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP	
TCLL 25.0	Plate Grip DOL	1.15	TC 0.25	Vert(LL)	-0.03	6	>999	360	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.05	Vert(CT)	-0.05	6	>820	240		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.01	Horz(CT)	0.02	5	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-P	Wind(LL)	0.03	6	>999	240		
								Weight: 11 lb	FT = 10%	

LUMBER-	BRACING-
TOP CHORD 2x4 SPF No.2	TOP CHORD Structural wood sheathing directly applied or 3-10-8 oc purlins.
BOT CHORD 2x4 SPF No.2	BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.
WEBS 2x3 SPF No.2	

**REACTIONS.** (size) 4=Mechanical, 2=0-3-8, 5=Mechanical  
Max Horz 2=65(LC 4)  
Max Uplift 4=52(LC 8), 2=65(LC 4)  
Max Grav 4=135(LC 1), 2=252(LC 1), 5=48(LC 3)

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

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



October 6, 2020

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

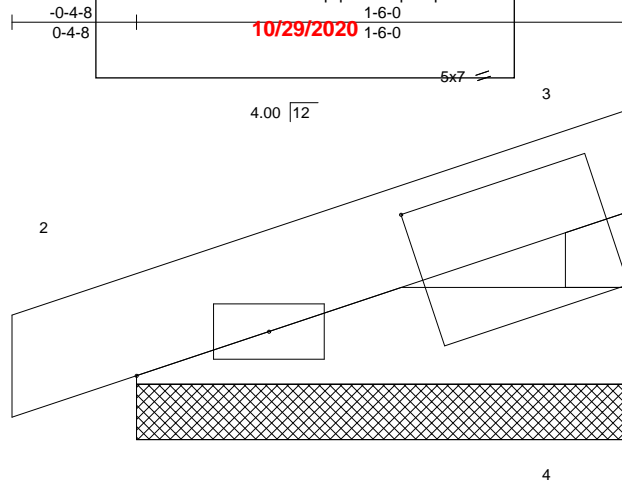
Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall 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

16023 Swingley Ridge Rd  
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 108 MN
400686	J4	JACK-CLOSED SUB	1		
Wheeler Lumber, Waverly, KS 66871					
Job Reference (optional)					



Scale = 1:6.9

Plate Offsets (X,Y)--		[3.0-10-14,0-2-8]									
LOADING	(psf)	SPACING-		CSI.		DEFL.	in	(loc)	l/defl	L/d	
TCLL	25.0	Plate Grip DOL	1.15	TC	0.03	Vert(LL)	-0.00	1	n/r	120	
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: 4 lb		FT = 10%			

<b>LUMBER-</b>		<b>BRACING-</b>	
TOP CHORD	2x4 SPF No.2	TOP CHORD	Structural wood sheathing directly applied or 1-6-0 oc purlins, except end verticals.
BOT CHORD	2x4 SPF No.2	BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS	2x3 SPF No.2		

**REACTIONS.** (size) 4=1-6-0, 2=1-6-0  
Max Horz 2=24(LC 5)  
Max Uplift 4=-12(LC 8), 2=-28(LC 4)  
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-**
- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
  - 2) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
  - 3) Gable requires continuous bottom chord bearing.
  - 4) Gable studs spaced at 2-0-0 oc.
  - 5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - 6) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
  - 7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 4, 2.
  - 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.



October 6,2020

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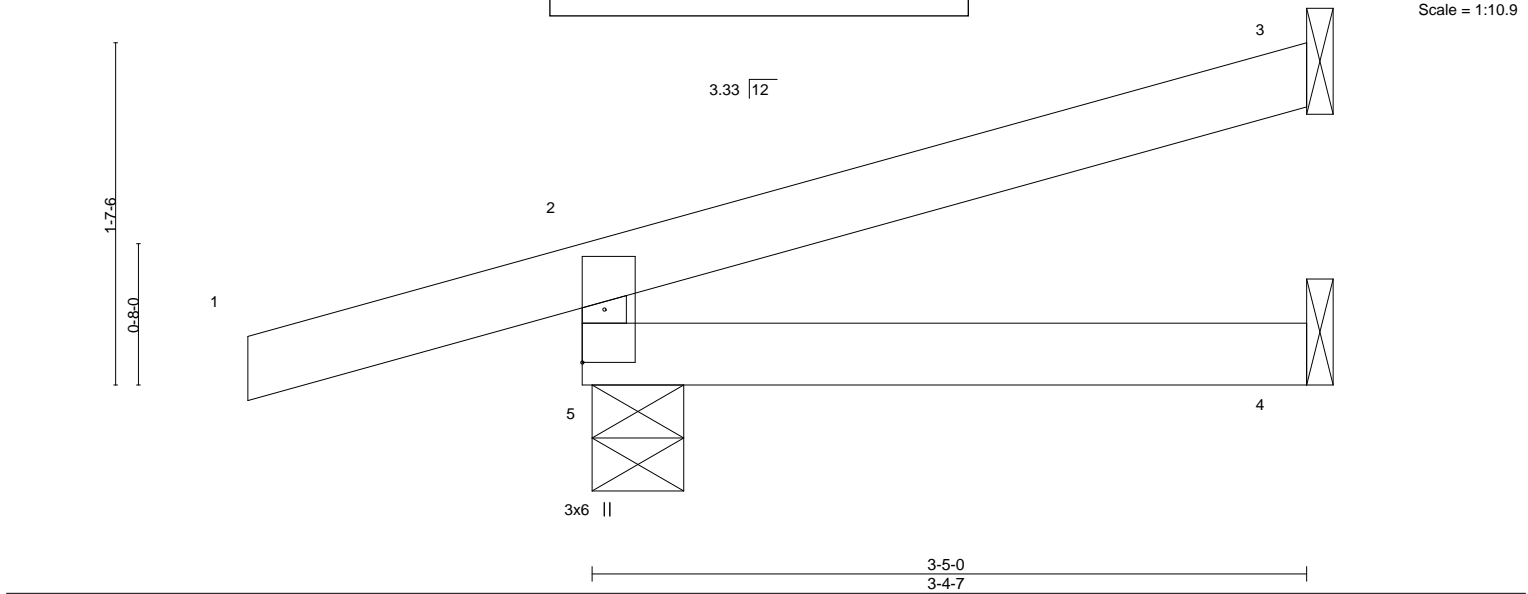
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16023 Swingley Ridge Rd  
Chesterfield, MO 63017



Job 400686	Truss J6	Truss Type Jack-Open	Qty 1	Lot 108 MN	I43085954
Wheeler Lumber, Waverly, KS 66871		Girder		Job Reference (optional)	
-1-6-15 1-6-15		8.420 s		Aug 25 2020 MiTek Industries, Inc. Tue Oct 6 06:58:48 2020 Page 1	
		10/29/2020		ID:pg50?Ycap6WpLXoTu4wY2za1nE-gJoFMcm?bCitlgwXJMeBc_gpvUwstsfriQO6Kb9yWCq5	



LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	l/def	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL 1.15	TC 0.26	Vert(LL) -0.01	4-5	>999	360	MT20	197/144
TCDL 10.0	Lumber DOL 1.15	BC 0.07	Vert(CT) -0.01	4-5	>999	240		
BCLL 0.0 *	Rep Stress Incr NO	WB 0.00	Horz(CT) -0.00	3	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014	Matrix-R	Wind(LL) 0.00	4-5	>999	240	Weight: 10 lb	FT = 10%

<b>LUMBER-</b>	<b>BRACING-</b>
TOP CHORD 2x4 SPF No.2	TOP CHORD Structural wood sheathing directly applied or 3-5-0 oc purlins, except end verticals.
BOT CHORD 2x4 SPF No.2	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 2x3 SPF No.2	

**REACTIONS.** (size) 5=0-5-3, 3=Mechanical, 4=Mechanical  
 Max Horz 5=58(LC 12)  
 Max Uplift 5=83(LC 4), 3=53(LC 12), 4=2(LC 19)  
 Max Grav 5=176(LC 1), 3=38(LC 1), 4=45(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.
  - 7) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 39 lb down and 14 lb up at -1-6-15, and 39 lb down and 14 lb up at -1-6-15 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=-60(F=-30, B=-30)  
 Trapezoidal Loads (plf)  
 Vert: 1=0(F=35, B=35)-to-2=-42(F=14, B=14), 2=-2(F=34, B=34)-to-3=-60(F=5, B=5), 5=-0(F=10, B=10)-to-4=-17(F=1, B=1)



October 6, 2020

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





Job	Truss	Truss Type	Qty	Ply	Lot 108 MN
400686	J8	Jack-Open		1	

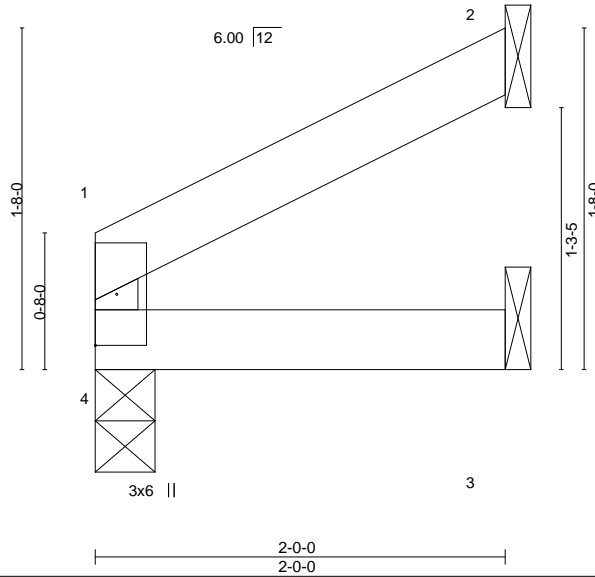
**RELEASE FOR  
CONSTRUCTION  
AS NOTED ON PLANS REVIEW  
DEVELOPMENT SERVICES  
LEE'S SUMMIT, MISSOURI**

Wheeler Lumber, Waverly, KS 66871

Aug 25 2020 MiTek Industries, Inc. Tue Oct 6 06:58:49 2020 Page 1  
ID: pq50?Ycap6WpLXoTu4wY2za1nE-8WMeZyndMWqkMqVks39qBC2uuHgcJurf2su8byWCq4

2-0-0  
10/26/2020

Scale = 1:11.2



LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	L/def	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL 2-0-0	TC 0.05	Vert(LL) -0.00	4	>999	360	MT20	197/144
TCDL 10.0	Lumber DOL 1.15	BC 0.03	Vert(CT) -0.00	3-4	>999	240		
BCLL 0.0 *	Rep Stress Incr YES	WB 0.00	Horz(CT) -0.00	2	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014	Matrix-R	Wind(LL) 0.00	4	>999	240	Weight: 5 lb	FT = 10%

#### LUMBER-

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

#### BRACING-

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

#### REACTIONS.

(size) 4=0-3-8, 2=Mechanical, 3=Mechanical  
Max Horz 4=33(LC 8)  
Max Uplift 2=37(LC 8)  
Max Grav 4=85(LC 1), 2=62(LC 1), 3=37(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; 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
- 2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 3) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 4) Refer to girder(s) for truss to truss connections.
- 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2.
- 6) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



October 6, 2020

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16023 Swingley Ridge Rd  
Chesterfield, MO 63017

Wheeler Lumber, Waverly, KS 66871

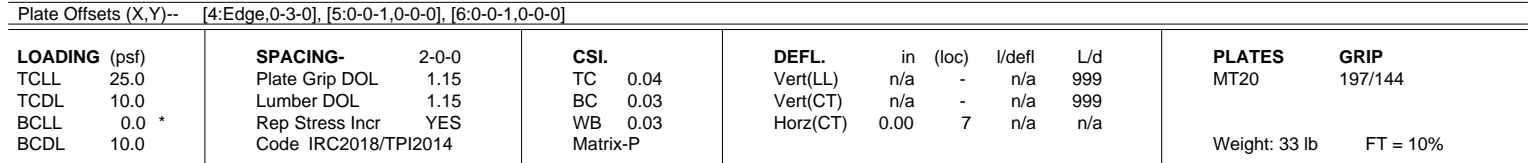
LEE'S SUMMIT, MISSOURI

8.420 s Aug 25 2020 MiTek Industries, Inc. Tue Oct 6 06:58:50 2020 Page 1  
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4-5-11 8-11-16  
4-5-11 10/29/2020 4-5-11

3x4 =

Scale = 1:30.1



<b>BRACING-</b>	
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.

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

The seal is circular with a double-lined border. The outer border contains the text "STATE OF MISSOURI" at the top and "PROFESSIONAL ENGINEER" at the bottom, separated by two stars. The inner circle contains the name "JUAN GARCIA" in the center, with "NUMBER" and "E-2000162101" below it. There are decorative horizontal lines above and below the name.

A circular blue seal for a Professional Engineer in the State of Kansas. The outer ring contains the text "JUAN GARCIA" at the top and "PROFESSIONAL ENGINEER" at the bottom. The inner ring contains the word "LICENSED" at the top and "KANSAS" at the bottom. In the center, the license number "16952" is displayed. A red signature is written across the bottom half of the seal, overlapping the "KANSAS" text.

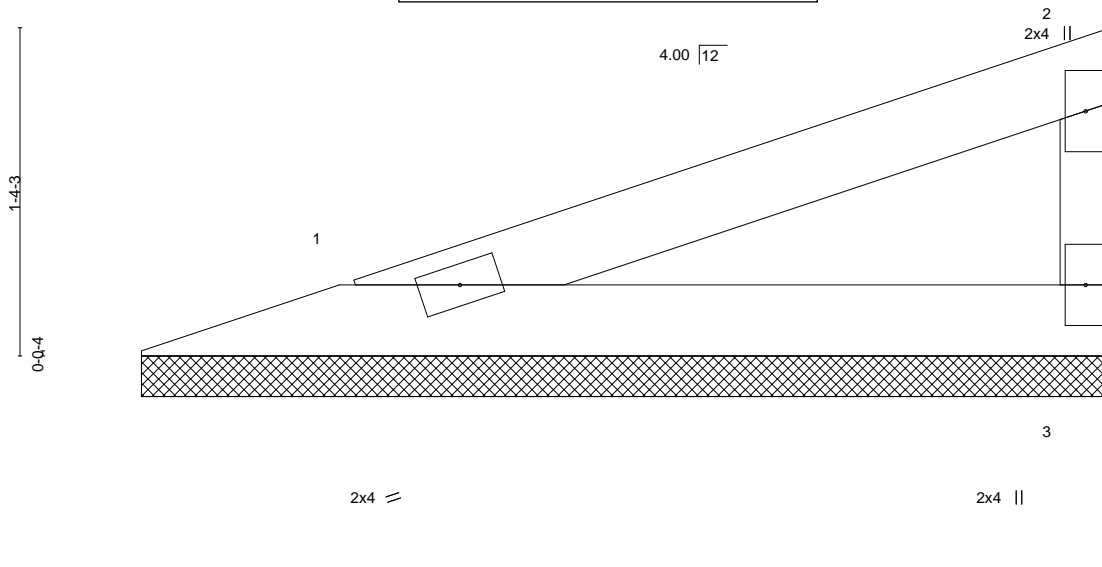
October 6, 2020

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16023 Swingley Ridge Rd  
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 108 MN
400686	V1	Valley	1		I43085958
Wheeler Lumber, Waverly, KS 66871			Job Reference (optional)		
			8.420 s Aug 25 2020 MiTek Industries, Inc. Tue Oct 6 06:58:50 2020 Page 1		
			ID:pq507Ycap6WpLXoTj4wfY2za1nE-ciw0mHoF7qyb_4wQmg3IPiB_Ic0Lm8_tibRg1yWCq3		
			10/29/2020		



Scale = 1:9.5

LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	L/def	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL 1.15	TC 0.16	Vert(LL)	n/a	-	n/a	MT20	197/144
TCDL 10.0	Lumber DOL 1.15	BC 0.09	Vert(CT)	n/a	-	n/a		
BCLL 0.0 *	Rep Stress Incr YES	WB 0.00	Horz(CT)	-0.00	3	n/a		
BCDL 10.0	Code IRC2018/TPI2014	Matrix-P					Weight: 9 lb	FT = 10%

LUMBER-	BRACING-
TOP CHORD 2x4 SPF No.2	TOP CHORD Structural wood sheathing directly applied or 4-0-8 oc purlins, except end verticals.
BOT CHORD 2x4 SPF No.2	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 2x3 SPF No.2	

**REACTIONS.** (size) 1=3-11-12, 3=3-11-12  
 Max Horz 1=45(LC 5)  
 Max Uplift 1=-22(LC 4), 3=-29(LC 8)  
 Max Grav 1=135(LC 1), 3=135(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.



October 6, 2020

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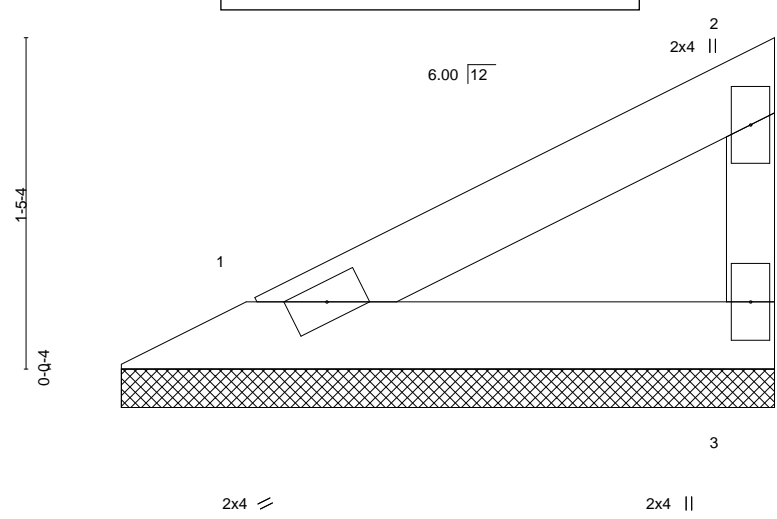


Job	Truss	Truss Type	Qty	Ply	Lot 108 MN
400686	V3	Valley	1		I43085960

Wheeler Lumber, Waverly, KS 66871

**RELEASE FOR CONSTRUCTION**  
**AS NOTED ON PLANS REVIEW**  
**DEVELOPMENT SERVICES**  
**LEE'S SUMMIT, MISSOURI**  
 10/23/2020

8.420 s Aug 25 2020 MiTek Industries, Inc. Tue Oct 6 06:58:53 2020 Page 1  
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Scale = 1:10.0

LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL 1.15	TC 0.08	Vert(LL) n/a	-	n/a	999	MT20	197/144
TCDL 10.0	Lumber DOL 1.15	BC 0.04	Vert(CT) n/a	-	n/a	999		
BCLL 0.0 *	Rep Stress Incr YES	WB 0.00	Horz(CT) -0.00	3	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014	Matrix-P					Weight: 7 lb	FT = 10%

LUMBER-	BRACING-
TOP CHORD 2x4 SPF No.2	TOP CHORD Structural wood sheathing directly applied or 2-10-8 oc purlins, except end verticals.
BOT CHORD 2x4 SPF No.2	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 2x3 SPF No.2	

REACTIONS.	(size)
1=2-10-0, 3=2-10-0	
Max Horz 1=45(LC 5)	
Max Uplift 1=-12(LC 8), 3=-24(LC 8)	
Max Grav 1=96(LC 1), 3=96(LC 1)	

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



October 6, 2020

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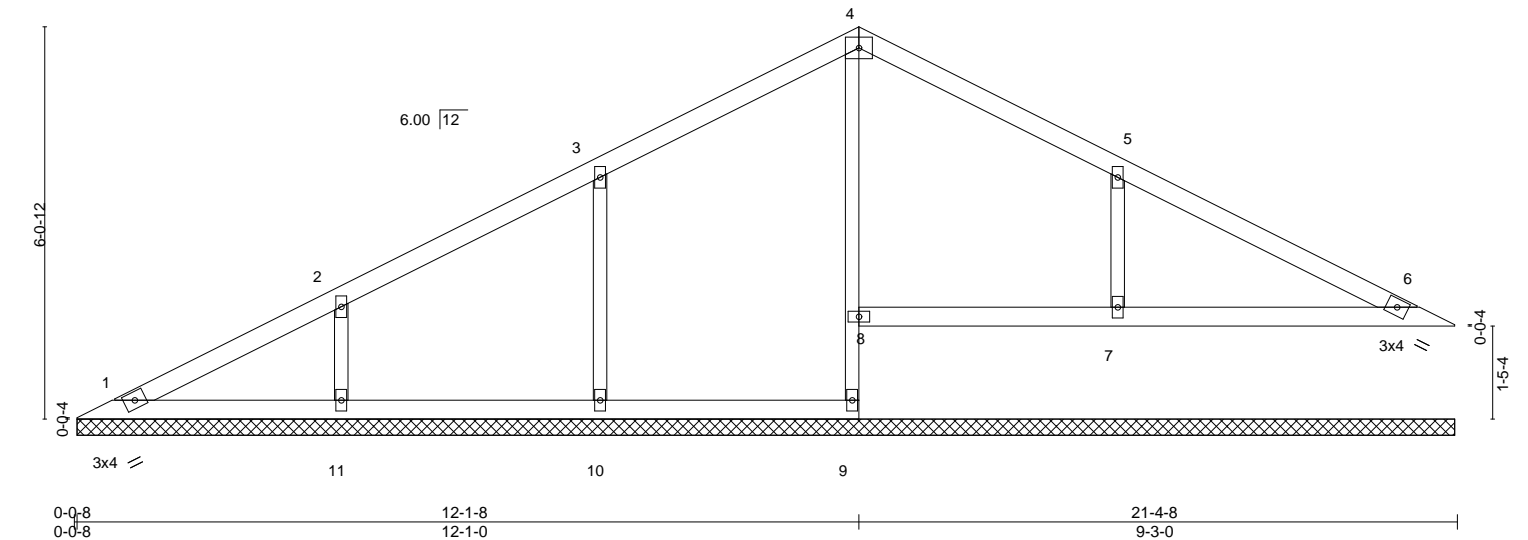
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16023 Swingley Ridge Rd  
 Chesterfield, MO 63017

Job 400686	Truss V4	Truss Type Valley	<div style="text-align: center;"> <b>RELEASE FOR CONSTRUCTION</b>  <b>AS NOTED ON PLANS REVIEW</b>  <b>DEVELOPMENT SERVICES</b>  <b>LEE'S SUMMIT, MISSOURI</b>  <b>10/29/2020</b> </div>	Qty 1	Ply 1	Lot 108 MN	I43085961
Wheeler Lumber, Waverly, KS 66871		8.420 s		Aug 25 2020 MiTek Industries, Inc. Tue Oct 6 06:58:53 2020 Page 1			
		ID: pq50?Ycap6WpLXoTu4wY2za1nE-0Hb8PJq8QIKArRpV5vDmv1NgNVcbY6ARagq5HMyWCq0					
		12-1-8 12-1-8		21-4-8 9-3-0			
		4x5					

Scale = 1:35.6



LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	l/def	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL 1.15	TC 0.28	Vert(LL) n/a	-	n/a	999	MT20	197/144
TCDL 10.0	Lumber DOL 1.15	BC 0.16	Vert(CT) n/a	-	n/a	999		
BCLL 0.0 *	Rep Stress Incr YES	WB 0.11	Horz(CT) 0.00	6	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014	Matrix-S					Weight: 60 lb	FT = 10%

**LUMBER-**  
TOP CHORD 2x4 SPF No.2  
BOT CHORD 2x4 SPF No.2 \*Except\*  
4-9: 2x3 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 21-3-8.  
(lb) - Max Horz 1=135(LC 8)  
Max Uplift All uplift 100 lb or less at joint(s) 1, 6 except 10=115(LC 8), 11=111(LC 8), 7=139(LC 9)  
Max Grav All reactions 250 lb or less at joint(s) 1, 6, 9 except 8=264(LC 18), 10=433(LC 23), 11=375(LC 2), 7=490(LC 24)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
WEBS 3-10=-302/168, 2-11=-282/155, 5-7=-359/195

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TC DL=6.0psf; 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.
  - 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) 1, 6 except (jt=lb) 10=115, 11=111, 7=139.
  - Beveled plate or shim required to provide full bearing surface with truss chord at joint(s) 6, 7.
  - This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



October 6, 2020

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

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

Wheeler Lumber, Waverly, KS 66871

8.420 s

Aug 25 2020 MiTek Industries, Inc. Tue Oct 6 06:58:54 2020 Page 1

1D:pq50?Ycap6WpLXoTu4wY2za1nE-UT9XcfraM2S1TbOhcfl?SFwqUvx8HZdaoKZfpyWCq?

10-1-8

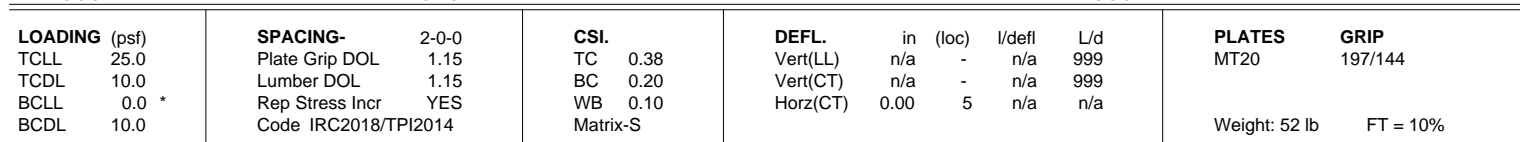
10-1-8

10-4-8

9-3-0

4x5

Scale = 1:32.9



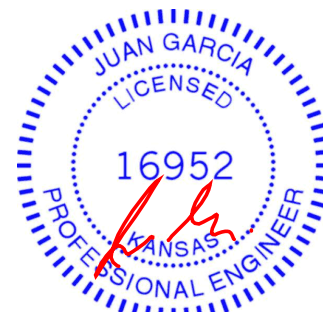
<b>BRACING-</b>	
<b>TOP CHORD</b>	Structural wood sheathing directly applied or 6-0-0 oc purlins.
<b>BOT CHORD</b>	Rigid ceiling directly applied or 6-0-0 oc bracing, Except: 10-0-0 oc bracing: 7-8.

**REACTIONS.** All bearings 19-3-8.  
(lb) - Max Horz 1=94(LC 8)  
Max Uplift All uplift 100 lb or less at joint(s) 1, 5 except 9=161(LC 8), 6=-139(LC 9)  
Max Grav All reactions 250 lb or less at joint(s) 1, 5, 8, 7 except 9=536(LC 21), 6=477(LC 22)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
**WEBS** 2-9=-405/220, 4-6=-360/196

**NOTES-**

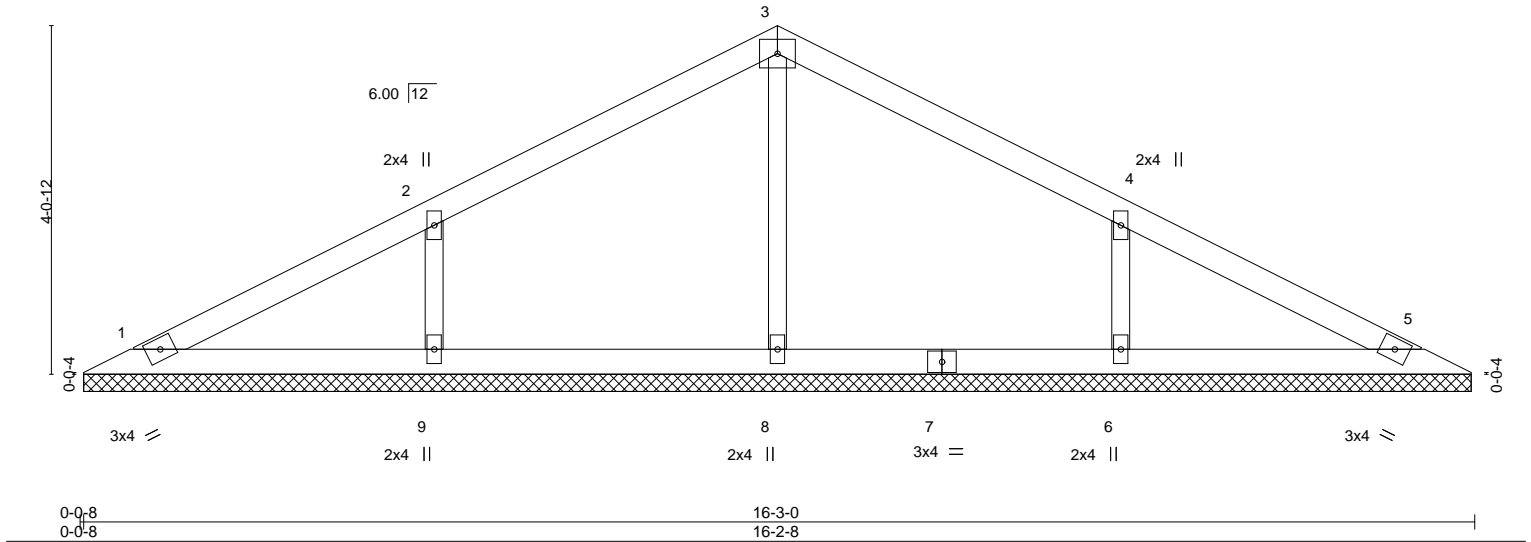
- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCdL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 3) Gable requires continuous bottom chord bearing.
- 4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 5) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 6) Bearing at joint(s) 7 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- 7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 5 except (jt=lb) 9=161, 6=139.
- 8) Beveled plate or shim required to provide full bearing surface with truss chord at joint(s) 5, 6.
- 9) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



October 6, 2020

Job 400686	Truss V6	Truss Type Valley	<b>RELEASE FOR CONSTRUCTION</b> <b>AS NOTED ON PLANS REVIEW</b> <b>DEVELOPMENT SERVICES</b> <b>LEE'S SUMMIT, MISSOURI</b>		Lot 108 MN	I43085963
Wheeler Lumber, Waverly, KS 66871		8.420 s		Aug 25 2020	MiTek Industries, Inc. Tue Oct 6 06:58:55 2020 Page 1	
8-1-8 8-1-8		10/29/2020		16-3-0 8-1-8		

Scale = 1:26.8



LOADING (psf)	SPACING-	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 0.10	Vert(CT) n/a	-	n/a	999		
BCLL 0.0 *	Rep Stress Incr YES	WB 0.08	Horz(CT) 0.00	5	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014	Matrix-S					Weight: 43 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.
BOT CHORD 2x4 SPF No.2	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
OTHERS 2x3 SPF No.2	

**REACTIONS.** All bearings 16-2-0.  
 (lb) - Max Horz 1=66(LC 13)  
 Max Uplift All uplift 100 lb or less at joint(s) 1, 5 except 9=125(LC 8), 6=125(LC 9)  
 Max Grav All reactions 250 lb or less at joint(s) 1, 5 except 8=293(LC 1), 9=401(LC 21), 6=401(LC 22)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
**WEBS** 2-9=-312/170, 4-6=-312/170

- 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, 5 except (jt=lb) 9=125, 6=125.
  - This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



October 6, 2020

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

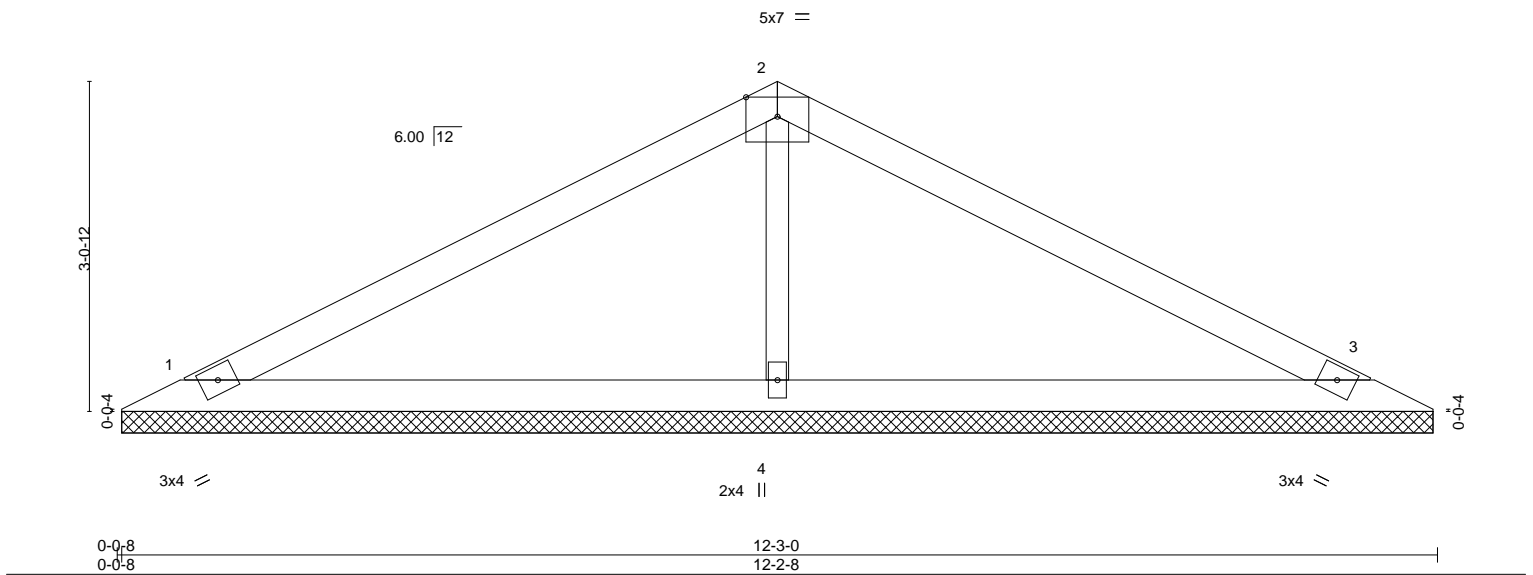
Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall 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



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Chesterfield, MO 63017

Job 400686	Truss V7	Truss Type Valley	<b>RELEASE FOR CONSTRUCTION</b> <b>AS NOTED ON PLANS REVIEW</b> <b>DEVELOPMENT SERVICES</b> <b>LEE'S SUMMIT, MISSOURI</b>		Qty 1	Ply	Lot 108 MN	I43085964
Wheeler Lumber, Waverly, KS 66871		8.420 s		Aug 25 2020		MiTek Industries, Inc. Tue Oct 6 06:58:56 2020 Page 1		
6-1-8		6-1-8		12-3-0		6-1-8		
10/29/2020								

Scale = 1:21.4



LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.43	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.25	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: 30 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.
BOT CHORD 2x4 SPF No.2	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
OTHERS 2x3 SPF No.2	

**REACTIONS.** (size) 1=12-2-0, 3=12-2-0, 4=12-2-0  
 Max Horz 1=49(LC 12)  
 Max Uplift 1=-47(LC 8), 3=-56(LC 9), 4=-29(LC 8)  
 Max Grav 1=233(LC 21), 3=233(LC 22), 4=525(LC 1)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
**WEBS** 2-4=-359/94

- 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.

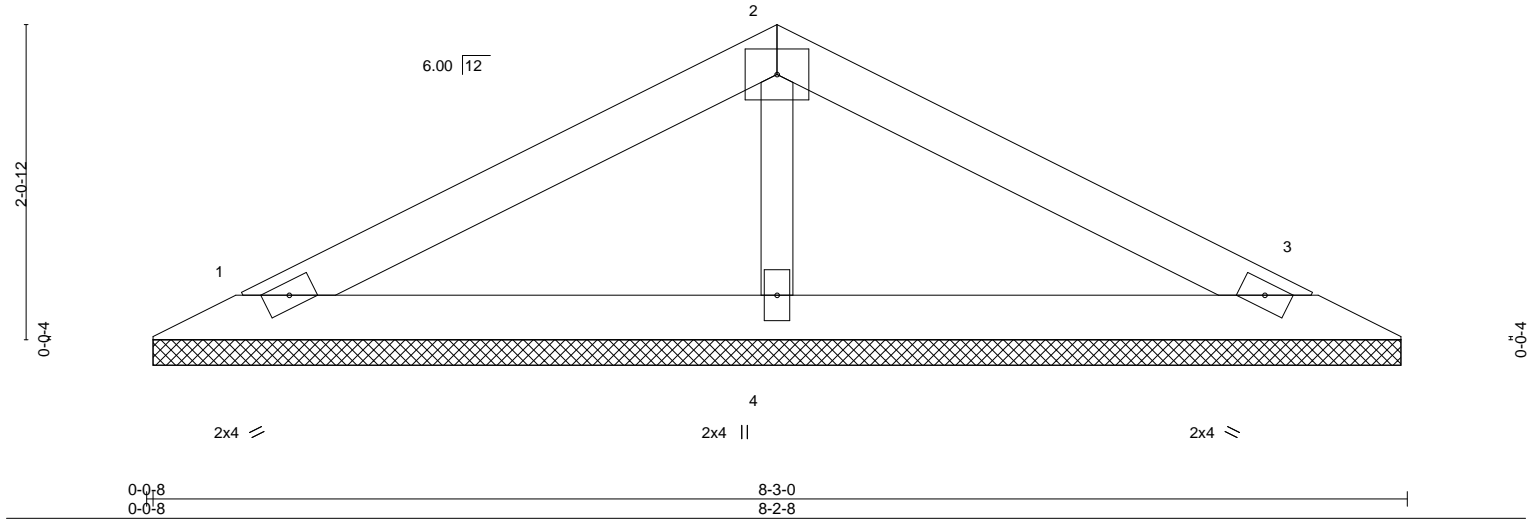


October 6, 2020



Job 400686	Truss V8	Truss Type Valley	<b>RELEASE FOR CONSTRUCTION</b> <b>AS NOTED ON PLANS REVIEW</b> <b>DEVELOPMENT SERVICES</b> <b>LEE'S SUMMIT, MISSOURI</b>		Qty 1	Ply	Lot 108 MN	I43085965
Wheeler Lumber, Waverly, KS 66871		8.420 s		Aug 25 2020		MiTek Industries, Inc. Tue Oct 6 06:58:56 2020 Page 1		
4-1-8 4-1-8		10/29/2020		8-3-0 4-1-8		Job Reference (optional)		
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Scale = 1:15.1



LOADING (psf)		SPACING-		CSI.		DEFL.		PLATES		GRIP	
TCLL	25.0	Plate Grip DOL	1.15	TC	0.22	in (loc)	l/defl	MT20		197/144	
TCDL	10.0	Lumber DOL	1.15	BC	0.10	Vert(LL)	n/a				
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.04	Vert(CT)	n/a				
BCDL	10.0	Code IRC2018/TPI2014		Matrix-P		Horz(CT)	0.00				
								Weight: 19 lb		FT = 10%	

LUMBER-		BRACING-	
TOP CHORD	2x4 SPF No.2	TOP CHORD	Structural wood sheathing directly applied or 6'-0"-0" oc purlins.
BOT CHORD	2x4 SPF No.2	BOT CHORD	Rigid ceiling directly applied or 10'-0"-0" oc bracing.
OTHERS	2x3 SPF No.2		

**REACTIONS.** (size) 1=8-2-0, 3=8-2-0, 4=8-2-0  
 Max Horz 1=-31(LC 13)  
 Max Uplift 1=-38(LC 8), 3=-43(LC 9), 4=-4(LC 8)  
 Max Grav 1=164(LC 1), 3=164(LC 1), 4=301(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" tall by 2'-0" wide will fit between the bottom chord and any other members.
  - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 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.



October 6, 2020

Job	Truss	Truss Type	Qty	Ply	Lot 108 MN	I43085966
400686	V9	Valley				

**RELEASE FOR  
CONSTRUCTION  
AS NOTED ON PLANS REVIEW  
DEVELOPMENT SERVICES  
LEE'S SUMMIT, MISSOURI**

8.420 s Aug 25 2020 MiTek Industries, Inc. Tue Oct 6 06:58:57 2020 Page 1  
ID: pq50?Ycap6WpLXoTu4wY2za1nE-v2rfEhteTzqbK37GKili4tYQ87?ZUxt0UoJP7yWCpy

2-1-8  
2-1-8

10/29/2020

4-3-0  
2-1-8

Scale: 1.5"=1'

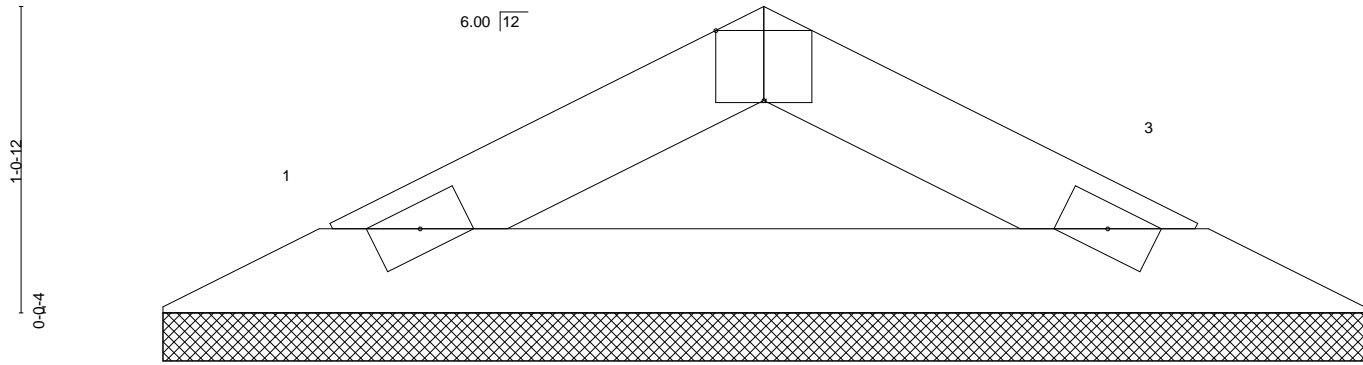


Plate Offsets (X,Y)-- [2:0-2-0,Edge]		4-3-0 4-2-8	
<b>LOADING</b> (psf)	<b>SPACING-</b>	<b>CSI.</b>	<b>DEFL.</b>
TCLL 25.0	Plate Grip DOL 1.15	TC 0.04	in (loc) l/defl L/d
TCDL 10.0	Lumber DOL 1.15	BC 0.09	Vert(LL) n/a - n/a 999
BCLL 0.0 *	Rep Stress Incr YES	WB 0.00	Vert(CT) n/a - n/a 999
BCDL 10.0	Code IRC2018/TPI2014	Matrix-P	Horz(CT) 0.00 3 n/a n/a
		Weight: 9 lb FT = 10%	

#### LUMBER-

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

#### BRACING-

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

#### REACTIONS.

(size) 1=4-2-0, 3=4-2-0  
Max Horz 1=13(LC 12)  
Max Uplift 1=17(LC 8), 3=17(LC 9)  
Max Grav 1=135(LC 1), 3=135(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; TC DL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 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.



October 6, 2020

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

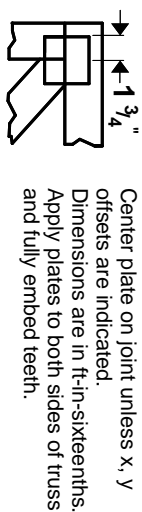
Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall 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



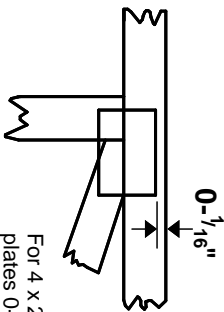
16023 Swingley Ridge Rd  
Chesterfield, MO 63017

## Symbols

### PLATE LOCATION AND ORIENTATION



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



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



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

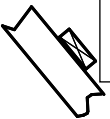
Plate location details available in **MiTek 20/20** software or upon request.

### PLATE SIZE



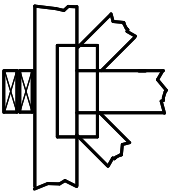
The first dimension is the plate width measured perpendicular to slots. Second dimension is the length parallel to slots.

### 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/TPI 1: National Design Specification for Metal Plate Connected Wood Truss Construction.  
DSB-89: Design Standard for Bracing.  
BCSI: Building Component Safety Information, Guide to Good Practice for Handling, Installing & Bracing of Metal Plate Connected Wood Trusses.

## Numbering System

6-4-8 dimensions shown in ft-in-sixteenths (Drawings not to scale)

