



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

10/21/2020

RE: 400640
Lot 27 H4

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

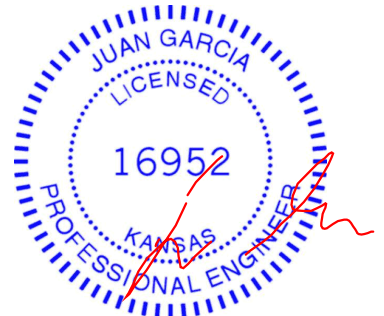
Floor Load: N/A psf

This package includes 42 individual, dated Truss Design Drawings and 0 Additional Drawings.

No.	Seal#	Truss Name	Date	No.	Seal#	Truss Name	Date
1	I42923357	A1	9/28/2020	27	I42923383	J4	9/28/2020
2	I42923358	A2	9/28/2020	28	I42923384	J5	9/28/2020
3	I42923359	B1	9/28/2020	29	I42923385	R1	9/28/2020
4	I42923360	B2	9/28/2020	30	I42923386	V1	9/28/2020
5	I42923361	C1	9/28/2020	31	I42923387	V2	9/28/2020
6	I42923362	C2	9/28/2020	32	I42923388	V3	9/28/2020
7	I42923363	D1	9/28/2020	33	I42923389	V4	9/28/2020
8	I42923364	D2	9/28/2020	34	I42923390	V5	9/28/2020
9	I42923365	E1	9/28/2020	35	I42923391	V6	9/28/2020
10	I42923366	E2	9/28/2020	36	I42923392	V7	9/28/2020
11	I42923367	E3	9/28/2020	37	I42923393	V8	9/28/2020
12	I42923368	G1	9/28/2020	38	I42923394	V9	9/28/2020
13	I42923369	G2	9/28/2020	39	I42923395	V10	9/28/2020
14	I42923370	G3	9/28/2020	40	I42923396	V11	9/28/2020
15	I42923371	H1	9/28/2020	41	I42923397	V12	9/28/2020
16	I42923372	H2	9/28/2020	42	I42923398	V13	9/28/2020
17	I42923373	H3	9/28/2020				
18	I42923374	H4	9/28/2020				
19	I42923375	H5	9/28/2020				
20	I42923376	H6	9/28/2020				
21	I42923377	H7	9/28/2020				
22	I42923378	H8	9/28/2020				
23	I42923379	H9	9/28/2020				
24	I42923380	J1	9/28/2020				
25	I42923381	J2	9/28/2020				
26	I42923382	J3	9/28/2020				

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.



September 28, 2020



RE: 400640
Lot 27 H4

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Design Program: MiTek 20/20 8.4

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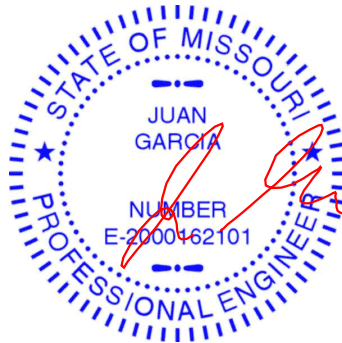
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9	I42923365	E1	9/28/2020	35	I42923391	V6	9/28/2020
10	I42923366	E2	9/28/2020	36	I42923392	V7	9/28/2020
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14	I42923370	G3	9/28/2020	40	I42923396	V11	9/28/2020
15	I42923371	H1	9/28/2020	41	I42923397	V12	9/28/2020
16	I42923372	H2	9/28/2020	42	I42923398	V13	9/28/2020
17	I42923373	H3	9/28/2020				
18	I42923374	H4	9/28/2020				
19	I42923375	H5	9/28/2020				
20	I42923376	H6	9/28/2020				
21	I42923377	H7	9/28/2020				
22	I42923378	H8	9/28/2020				
23	I42923379	H9	9/28/2020				
24	I42923380	J1	9/28/2020				
25	I42923381	J2	9/28/2020				
26	I42923382	J3	9/28/2020				

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.



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DEVELOPMENT SERVICES
 LEE SUMMIT, MISSOURI

Truss Type

Hip Girder

Qty

1

Ply

1

Lot 27 H4

I42923357

Job Reference (optional)

8.420 s Aug 25 2020 MiTek Industries, Inc. Wed Sep 23 07:57:16 2020 Page 1

ID:vBszku21ozNPT?RizYtJMSyXqDi-d10j4veqyOpHhBrizUYZ5Z_9mUJ4UBXV_Hrvm4yapHH

0-10-8 10/21/2020 4-0-0 8-0-0 12-0-0 12-10-8
 0-10-8 4-0-0 4-0-0 4-0-0 0-10-8

Scale = 1:22.4

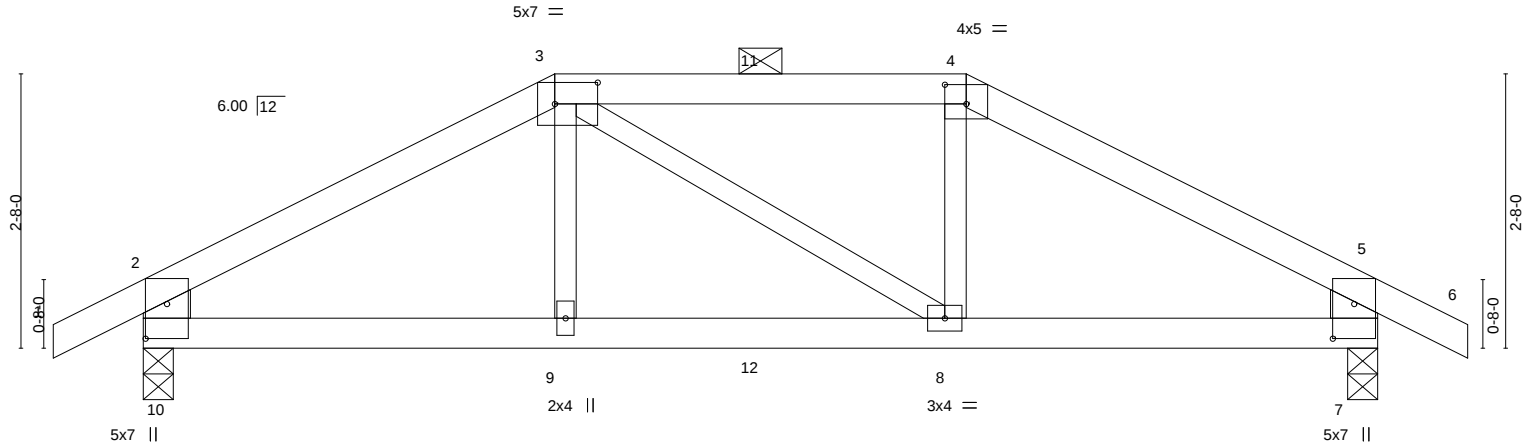


Plate Offsets (X,Y)--	[3:0-5-0,0-2-8], [4:0-2-8,0-2-4], [7:0-4-1,0-2-8], [10:0-4-1,0-2-8]
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LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.71	Vert(LL)	-0.07	8-9	>999	360	MT20
TCDL 10.0	Lumber DOL	1.15	BC 0.67	Vert(CT)	-0.13	8-9	>999	240	197/144
BCLL 0.0 *	Rep Stress Incr	NO	WB 0.10	Horz(CT)	0.02	7	n/a	n/a	
BCDL 10.0	Code IRC2018/TPI2014		Matrix-S	Wind(LL)	0.06	8-9	>999	240	
								Weight: 39 lb	FT = 10%

LUMBER-

TOP CHORD 2x4 SPF No.2
 BOT CHORD 2x4 SPF No.2
 WEBS 2x3 SPF No.2 *Except*
 2-10,5-7: 2x6 SP DSS

BRACING-

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

REACTIONS.

(size) 10=0-3-8, 7=0-3-8
 Max Horz 10=50(LC 7)
 Max Uplift 10=-201(LC 8), 7=-201(LC 9)
 Max Grav 10=899(LC 1), 7=899(LC 1)

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

TOP CHORD 2-3=-1231/277, 3-4=-1024/269, 4-5=-1232/276, 2-10=-806/214, 5-7=-806/213
 BOT CHORD 9-10=-219/1012, 8-9=-219/1023, 7-8=-196/1013
 WEBS 3-9=0/271, 4-8=-5/279

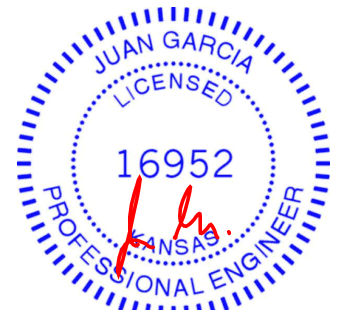
NOTES-

- 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) 10=201, 7=201.
- This truss 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) 79 lb down and 74 lb up at 4-0-0, and 86 lb down and 74 lb up at 6-0-0, and 79 lb down and 74 lb up at 8-0-0 on top chord, and 220 lb down and 76 lb up at 4-0-0, and 31 lb down at 6-0-0, and 220 lb down and 76 lb up at 7-11-4 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
- In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

LOAD CASE(S) Standard

- Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
 Uniform Loads (plf)
 Vert: 1-2=-70, 2-3=-70, 3-4=-70, 4-5=-70, 5-6=-70, 7-10=-20

Continued on page 2



September 23, 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

RELEASE FOR CONSTRUCTION AS NOTED ON PLANS REVIEW DEVELOPMENT SERVICES LEE'S SUMMIT, MISSOURI 10/21/2020 LOAD CASE(S) Standard Concentrated Loads (lb) Vert: 3=-46(F) 4=-46(F) 9=-220(F) 8=-220(F) 11=-46(F) 12=-25(F) Job 400640 Wheeler, Robert Waverly, KS 66087	Truss Type Hip Girder	Qty 1	Ply 1	Lot 27 H4 I42923357 Job Reference (optional)
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CONSTRUCTION
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DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI

Truss Type
Common

Qty
4

Ply
1

Lot 27 H4

I42923358

Job Reference (optional)

8.420 s Aug 25 2020 MiTek Industries, Inc. Wed Sep 23 07:57:17 2020 Page 1
ID:vBszku21ozNPT?RlZYtJMSyXqDi-5Da5lFeSjix8lLQVXB3oemXP7tlbDe4fDxaTIWyapHG

10/23/2020

6-0-0
6-0-0

12-0-0
6-0-0

12-10-8
0-10-8

Scale = 1:24.6

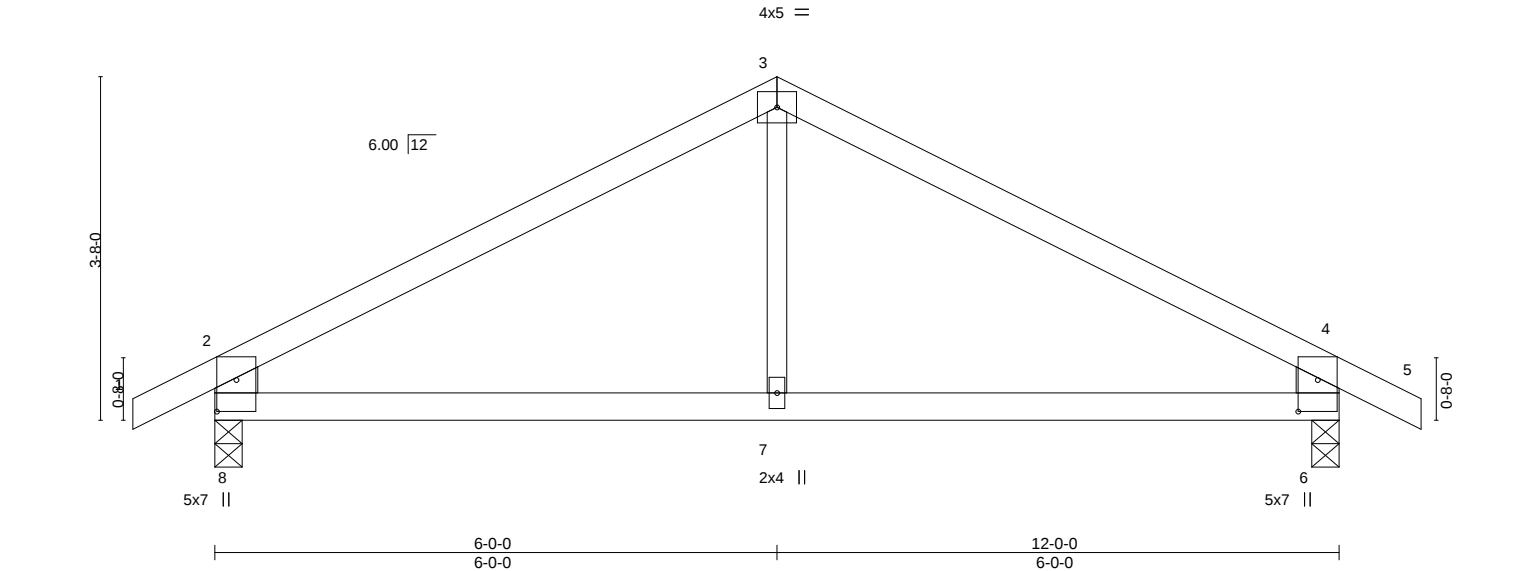


Plate Offsets (X,Y)--		[6:0-4-1,0-2-8], [8:0-4-1,0-2-8]	
LOADING (psf)	SPACING-	2-0-0	CSI.
TCLL 25.0	Plate Grip DOL	1.15	TC 0.42
TCDL 10.0	Lumber DOL	1.15	BC 0.27
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.08
BCDL 10.0	Code IRC2018/TPI2014		Matrix-R
DEFL.	in (loc)	l/defl	L/d
Vert(LL)	-0.02	7-8	>999
Vert(CT)	-0.05	7-8	>999
Horz(CT)	0.01	6	n/a
Wind(LL)	0.01	7-8	>999
PLATES	GRIP		
MT20	197/144		
Weight: 35 lb		FT = 10%	

LUMBER-
TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
WEBS 2x6 SPF No.2 *Except*
3-7: 2x3 SPF No.2

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

REACTIONS. (size) 8=0-3-8, 6=0-3-8
Max Horz 8=62(LC 7)
Max Uplift 8=-90(LC 8), 6=-90(LC 9)
Max Grav 8=597(LC 1), 6=597(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-638/89, 3-4=-638/89, 2-8=-544/131, 4-6=-544/131
BOT CHORD 7-8=-14/480, 6-7=-14/480

- 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) 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.



September 23,2020

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DEVELOPMENT SERVICES
 LEES SUMMIT, MISSOURI

Truss Type

Monopitch

Qty

7

Ply

1

Lot 27 H4

I42923359

Job Reference (optional)

8.420 s Aug 25 2020 MiTek Industries, Inc. Wed Sep 23 07:57:17 2020 Page 1

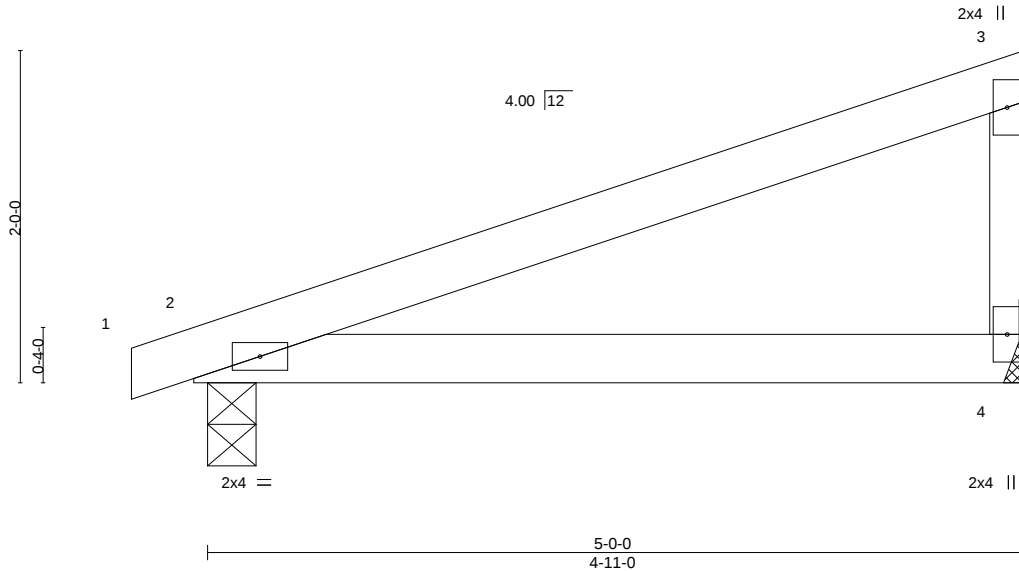
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10/21/2020

0-4-8
0-4-8

5-0-0
5-0-0

Scale = 1:13.9



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 0.42	Vert(LL)	-0.03	2-4	>999	360	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.23	Vert(CT)	-0.06	2-4	>933	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-

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

BRACING-

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

REACTIONS.

(size) 4=Mechanical, 2=0-3-8
 Max Horz 2=76(LC 5)
 Max Uplift 4=-45(LC 8), 2=-58(LC 4)
 Max Grav 4=212(LC 1), 2=252(LC 1)

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

NOTES-

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



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 LEES SUMMIT, MISSOURI

Truss Type

Monopitch

Qty

3

Ply

Lot 27 H4

I42923360

Job Reference (optional)

8.420 s Aug 25 2020 MiTek Industries, Inc. Wed Sep 23 07:57:18 2020 Page 1

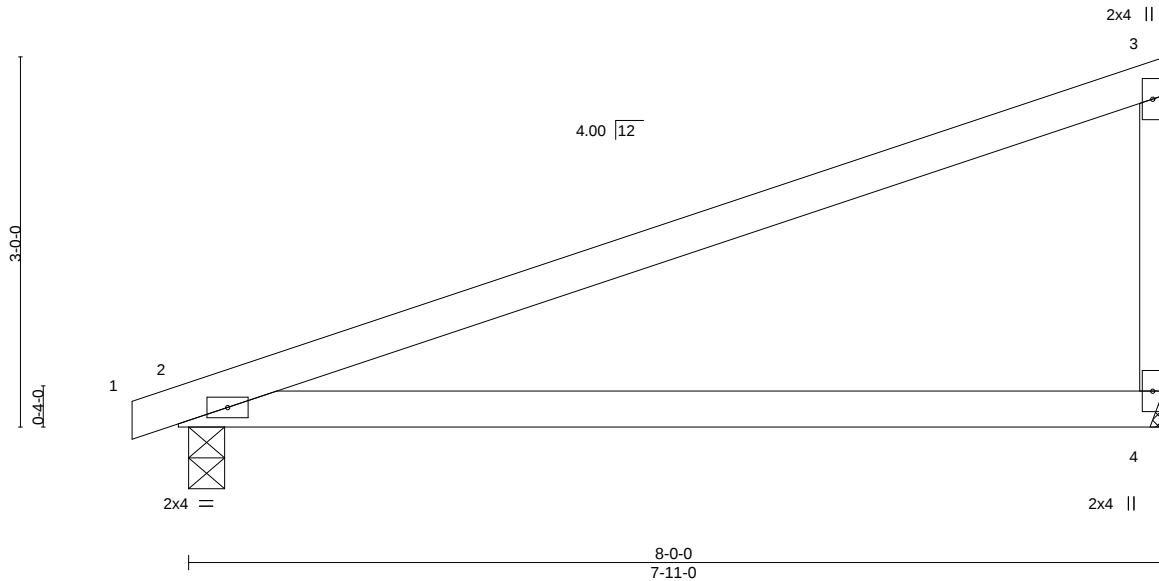
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8-0-0
8-0-0

10/21/2020

0-4-8
0-4-8

Scale = 1:18.7



LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.77	Vert(LL)	-0.17	2-4	>553	360	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.42	Vert(CT)	-0.34	2-4	>276	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: 21 lb	FT = 10%

LUMBER-

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

BRACING-

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

REACTIONS.

(size) 4=Mechanical, 2=0-3-8
 Max Horz 2=121(LC 5)
 Max Uplift 4=-74(LC 8), 2=-79(LC 4)
 Max Grav 4=348(LC 1), 2=386(LC 1)

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

TOP CHORD 3-4=-270/121

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.



September 23, 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

RELEASE FOR

Job 400640
CONSTRUCTION
 AS NOTED ON PLANS REVIEW
DEVELOPMENT SERVICES
 LEES SUMMIT, MISSOURI

Truss Type

GABLE

Qty

1

Ply

1

Lot 27 H4

I42923361

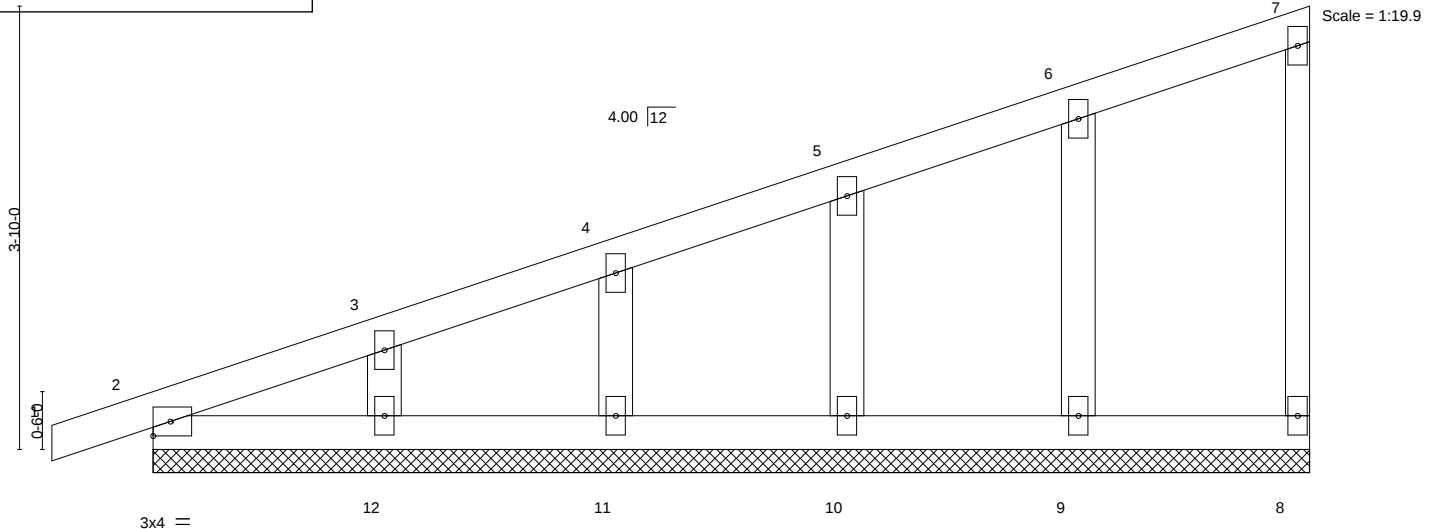
Job Reference (optional)

8.420 s Aug 25 2020 MiTek Industries, Inc. Wed Sep 23 07:57:18 2020 Page 1

ID:vBsZku21ozNPT?RizYtJMSyXqDi-ZP8UVaf4U03?wv?h5va1A_4fwH9cy66oSbK0qyyapHF

10-0-0
10-0-0

10/23/2020
0-10-8



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 0.09	Vert(LL)	0.00	1	n/r	120	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.03	Vert(CT)	0.00	1	n/r	120		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.03	Horz(CT)	-0.00	8	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-S						Weight: 35 lb	FT = 10%

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

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

REACTIONS. All bearings 10-0-0.
 (lb) - Max Horz 2=158(LC 5)
 Max Uplift All uplift 100 lb or less at joint(s) 8, 2, 12, 11, 10, 9
 Max Grav All reactions 250 lb or less at joint(s) 8, 2, 12, 11, 10, 9

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) All plates are 2x4 MT20 unless otherwise indicated.
 - 4) Gable requires continuous bottom chord bearing.
 - 5) Gable studs spaced at 2-0-0 oc.
 - 6) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
 - 7) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
 - 8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 8, 2, 12, 11, 10, 9.
 - 9) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



September 23, 2020

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MiTek
 16023 Swingley Ridge Rd
 Chesterfield, MO 63017

RELEASE FOR

Job 400640
CONSTRUCTION
AS NOTED ON PLANS REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI

Truss Type
 Monopitch

Qty
 10

Ply
 1

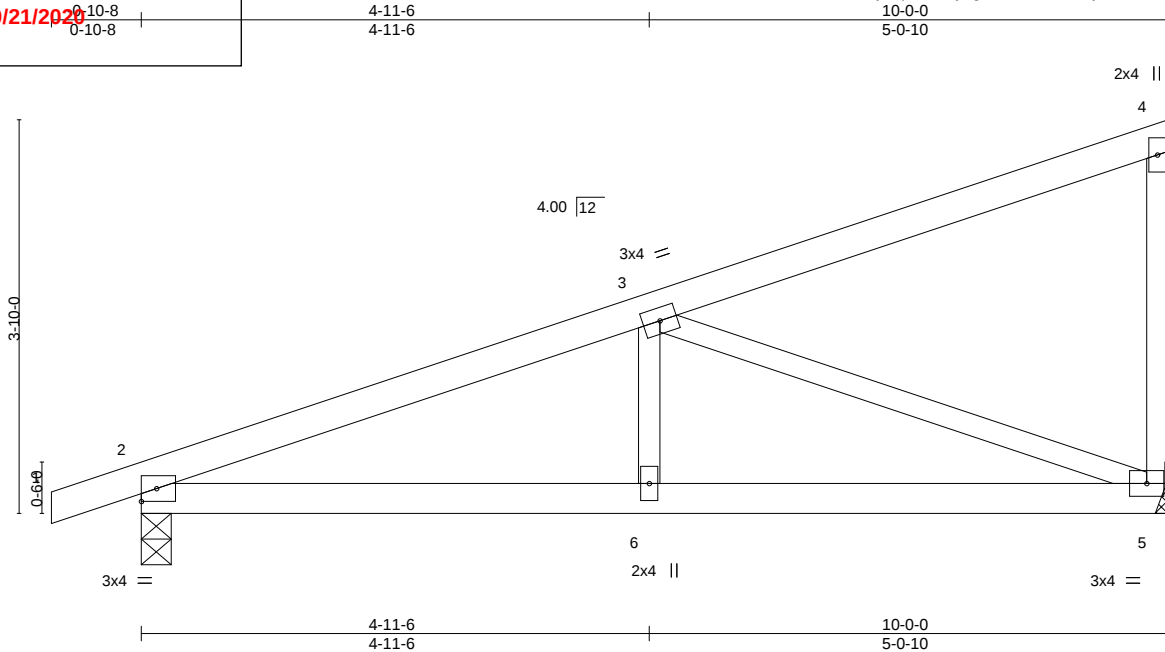
Lot 27 H4

I42923362

Job Reference (optional)

8.420 s Aug 25 2020 MiTek Industries, Inc. Wed Sep 23 07:57:19 2020 Page 1
 ID: vBsZku21ozNPT?RizYtJMSyXqDi-1cisjwgiFJBsYeatfc5GjBcnRhR8hS1yhF3ZNPypaHE

10/21/2020



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 0.30	Vert(LL)	-0.02	2-6	>999	360	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.26	Vert(CT)	-0.04	5-6	>999	240		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.50	Horz(CT)	0.01	5	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-S	Wind(LL)	0.02	2-6	>999	240	Weight: 33 lb	FT = 10%

LUMBER-

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

BRACING-

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

REACTIONS.

(size) 5=Mechanical, 2=0-3-8
 Max Horz 2=158(LC 5)
 Max Uplift 5=94(LC 8), 2=-115(LC 4)
 Max Grav 5=435(LC 1), 2=514(LC 1)

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

TOP CHORD 2-3=-782/113
 BOT CHORD 2-6=-134/682, 5-6=-134/682
 WEBS 3-5=-714/178

NOTES-

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



September 23, 2020

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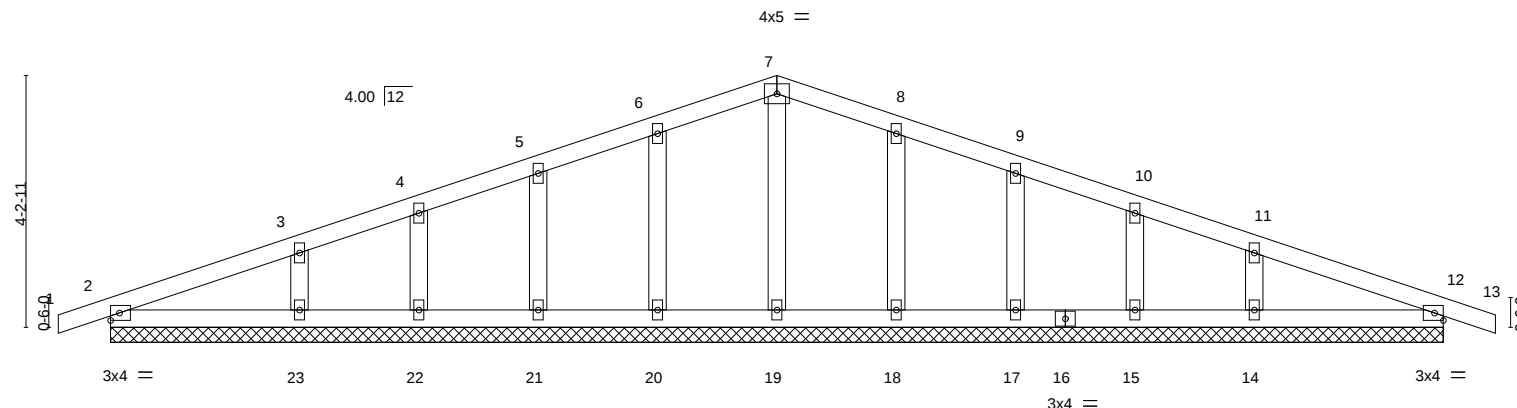


16023 Swingley Ridge Rd
 Chesterfield, MO 63017

RELEASE FOR

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

Job 400640	Truss Type Common Supported Gable	Qty 1	Ply 1	Lot 27 H4 I42923363
Job Reference (optional)				
8.420 s Aug 25 2020 MiTek Industries, Inc. Wed Sep 23 07:57:20 2020 Page 1				
ID:vBsZku21ozNPT?RlZyTjMSyXqDi-VoGEwGhL0dJj9o93CKdVGP9?S5raQ0V5vvp7vryapHD				
0-10-8 0-10-8	11-2-0 11-2-0	22-4-0 11-2-0	23-2-8 0-10-8	



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 0.09	Vert(LL)	0.00	13	n/r	120	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.06	Vert(CT)	0.00	13	n/r	120		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.03	Horz(CT)	0.00	12	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-S						Weight: 77 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 2x4 SPF No.2	

REACTIONS. All bearings 22-4-0.
(lb) - Max Horz 2=-71(LC 9)
Max Uplift All uplift 100 lb or less at joint(s) 2, 20, 21, 22, 23, 18, 17, 15, 14, 12
Max Grav All reactions 250 lb or less at joint(s) 2, 19, 20, 21, 22, 18, 17, 15, 12 except 23=275(LC 21),
14=275(LC 22)

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.
- Gable studs spaced at 2-0-0 oc.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 20, 21, 22, 23, 18, 17, 15, 14, 12.
- Beveled plate or shim required to provide full bearing surface with truss chord at joint(s) 2, 12.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



September 23, 2020

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

RELEASE FOR

Job 400640
CONSTRUCTION
 AS NOTED ON PLANS REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI

Truss Type

Common

Qty

5

Ply

Lot 27 H4

I42923364

Job Reference (optional)

8.420 s Aug 25 2020 MiTek Industries, Inc. Wed Sep 23 07:57:21 2020 Page 1

ID:vBszku21ozNPT?RlZyYtJMSyXqDi-z_qc7chznxRanykGm18koci4IV0t9RNF8ZZgRHyapHC

0-10-8 10-21-2020 5-3-15 11-2-0 17-0-1 22-4-0 23-2-8
 0-10-8 0-10-8 5-3-15 5-10-1 5-10-1 5-3-15 0-10-8

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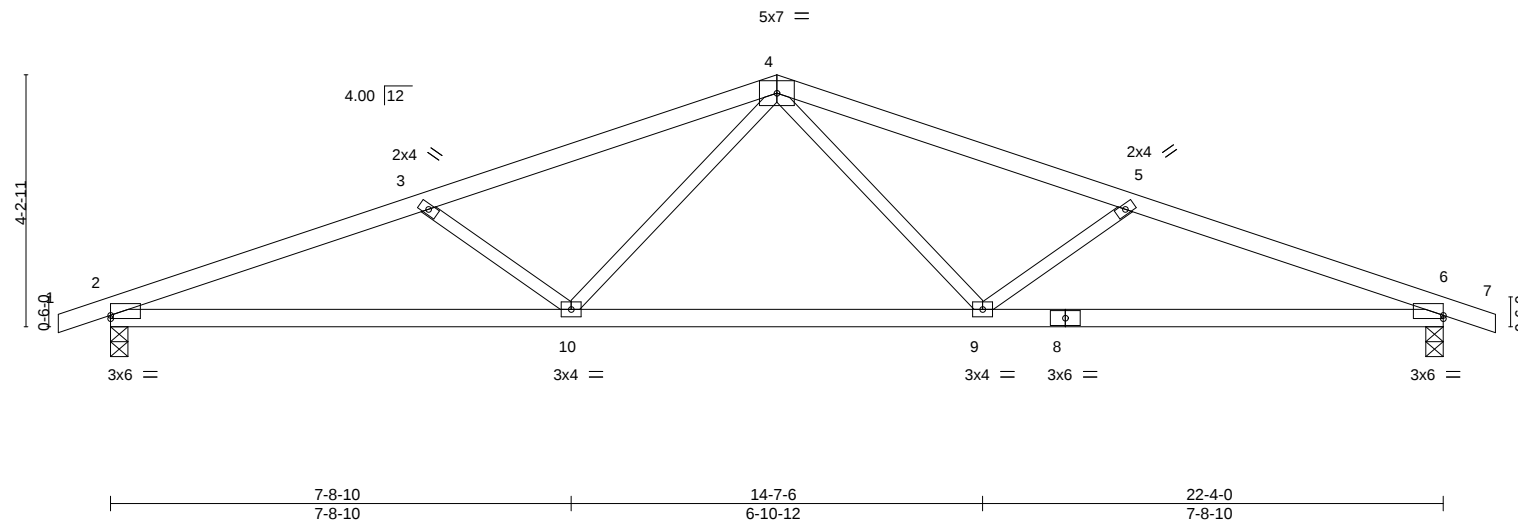


Plate Offsets (X,Y)--		[2:0-0-0,0-0-10], [6:0-0-0,0-0-10]	
LOADING (psf)	SPACING-	2-0-0	CSI.
TCLL 25.0	Plate Grip DOL	1.15	TC 0.47
TCDL 10.0	Lumber DOL	1.15	BC 0.69
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.19
BCDL 10.0	Code IRC2018/TPI2014		Matrix-S
DEFL.	in (loc)	l/defl	L/d
Vert(LL)	-0.12 9-10	>999	360
Vert(CT)	-0.25 6-9	>999	240
Horz(CT)	0.07 6	n/a	n/a
Wind(LL)	0.08 9-10	>999	240
PLATES	GRIP		
MT20	197/144		
Weight: 68 lb	FT = 10%		

LUMBER-

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

BRACING-

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

REACTIONS.

(size) 2=0-3-8, 6=0-3-8
 Max Horz 2=-71(LC 13)
 Max Uplift 2=-189(LC 4), 6=-189(LC 5)
 Max Grav 2=1063(LC 1), 6=1063(LC 1)

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

TOP CHORD 2-3=-2232/355, 3-4=-1909/259, 4-5=-1909/260, 5-6=-2232/355
 BOT CHORD 2-10=-333/2049, 9-10=-127/1406, 6-9=-280/2049
 WEBS 4-9=-59/541, 5-9=-418/221, 4-10=-58/541, 3-10=-418/221

NOTES-

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=189, 6=189.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



September 23, 2020

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16023 Swingley Ridge Rd
 Chesterfield, MO 63017

16023 Swingley Ridge Rd
Chesterfield, MO 63017

RELEASE FOR

Job 400640
CONSTRUCTION
 AS NOTED ON PLANS REVIEW
DEVELOPMENT SERVICES
 LEES SUMMIT, MISSOURI

Truss Type	Qty	Ply	Lot 27 H4	I42923366
Common	3	1	Job Reference (optional)	

Wheels, Trusses, Wave, and Deck

8.420 s Aug 25 2020 MiTek Industries, Inc. Wed Sep 23 07:57:23 2020 Page 1

ID: vBsZku21ozNPT?RizYtJMSyXqDi-wNxMYIjDJYhH0GteuSAC1nMslhUdKoXbt2nWYapHA

10/21/2020

0-10-8 5-2-1 10-0-0 14-10-0 20-0-0 20-10-8
 0-10-8 5-2-1 4-10-0 4-10-0 5-2-1 0-10-8

4x5 =

Scale = 1:46.3

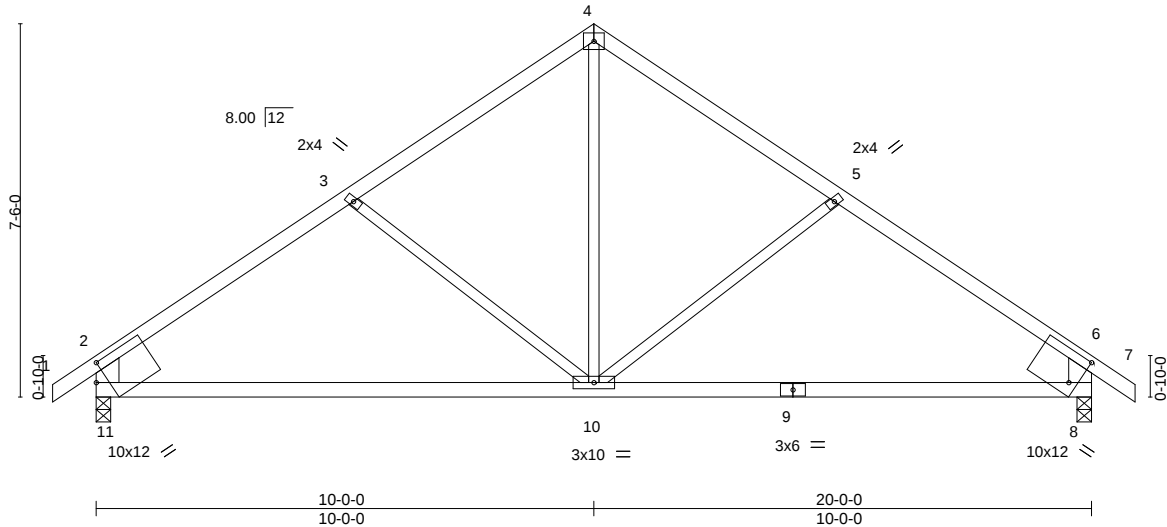


Plate Offsets (X,Y)-- [8:0-1-14,0-7-1], [11:0-2-11,0-4-0]

LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.72	Vert(LL)	-0.17 10-11	>999	360	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.75	Vert(CT)	-0.35 10-11	>662	240		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.25	Horz(CT)	0.03 8	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-S	Wind(LL)	0.05 10	>999	240	Weight: 70 lb	FT = 10%

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

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

REACTIONS. (size) 8=0-3-8, 11=0-3-8
 Max Horz 11=215(LC 7)
 Max Uplift 8=-124(LC 9), 11=-124(LC 8)
 Max Grav 8=957(LC 1), 11=957(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
 TOP CHORD 2-3=-1100/163, 3-4=-842/156, 4-5=-842/155, 5-6=-1100/163, 2-11=-855/174,
 6-8=-855/174
 BOT CHORD 10-11=-147/836, 8-10=-42/803
 WEBS 4-10=-48/492, 5-10=-266/215, 3-10=-266/215

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
 - Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
 - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
 - * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
 - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (it=lb) 8=124, 11=124.
 - This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



September 23,2020

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16023 Swingley Ridge Rd
 Chesterfield, MO 63017

RELEASE FOR

Job 400640
CONSTRUCTION
AS NOTED ON PLANS REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI

Truss Type
ROOF SPECIAL GIRDER

Qty
1

Ply
3

Lot 27 H4

I42923367

Job Reference (optional)

8.420 s Aug 25 2020 MiTek Industries, Inc. Wed Sep 23 07:57:24 2020 Page 1

ID: vBsZku21ozNPT?RizYtJMSyXqDi-OZVImekr3sqeQSR9hRQFJZci8RMfphqWnK2cyapH9

10/21/2020

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

5x7 ||

Scale = 1:46.1

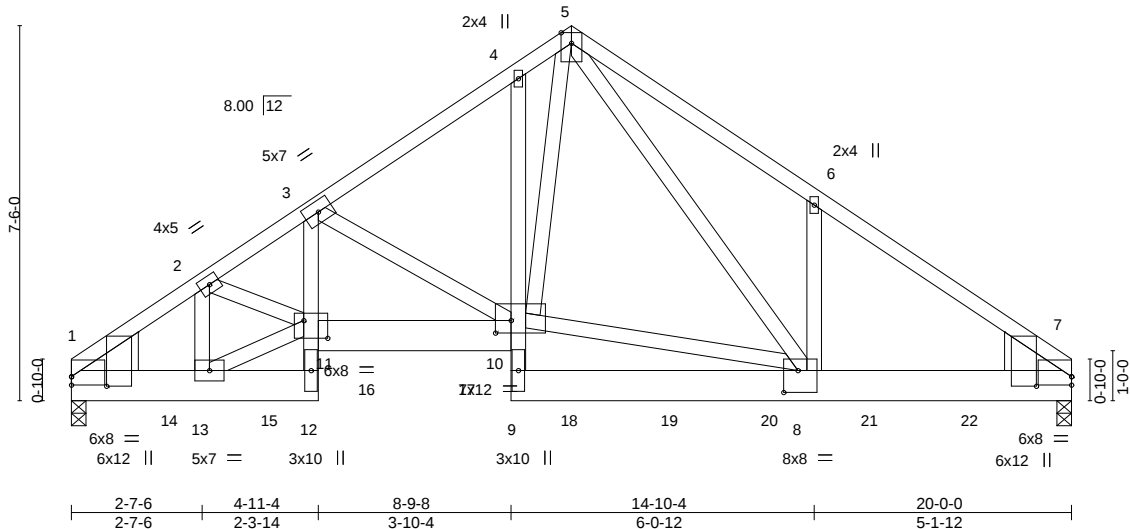


Plate Offsets (X,Y)-- [1:0-0-0,0-2-0], [1:0-2-5,0-8-7], [7:0-2-5,0-8-7], [7:Edge,0-2-0], [8:0-3-7,0-5-4], [10:0-3-12,0-3-0], [11:0-5-12,0-4-4]

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 0.59	Vert(LL)	-0.12	8-9	>999	360	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.32	Vert(CT)	-0.21	8-9	>999	240		
BCLL 0.0 *	Rep Stress Incr	NO	WB 0.65	Horz(CT)	0.09	7	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-S	Wind(LL)	0.06	8-9	>999	240	Weight: 439 lb	FT = 10%

LUMBER-

TOP CHORD 2x4 SPF No.2
 BOT CHORD 2x8 SP 2400F 2.0E
 WEBS 2x4 SPF No.2
 WEDGE
 Left: 2x10 SP DSS , Right: 2x10 SP DSS

BRACING-

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

REACTIONS. (size) 1=0-3-8 (req. 0-3-10), 7=0-3-8 (req. 0-3-10)
 Max Horz 1=183(LC 28)
 Max Uplift 1=-374(LC 8), 7=-245(LC 9)
 Max Grav 1=6961(LC 1), 7=6942(LC 1)

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

TOP CHORD 1-2=-9555/468, 2-3=-13506/629, 3-4=-8456/369, 4-5=-8208/458, 5-6=-9326/493,
 6-7=-9703/335
 BOT CHORD 1-13=-429/7224, 10-11=-542/11441, 8-9=-7/389, 7-8=-204/7671
 WEBS 11-12=-24/1261, 3-11=-248/5342, 9-10=-10/1706, 4-10=-196/305, 2-13=-3043/144,
 11-13=-477/7989, 2-11=-114/4337, 3-10=-5227/383, 8-10=-141/5361, 5-10=-377/6349,
 5-8=-288/3716, 6-8=-298/596

NOTES-

- 3-ply truss to be connected together with 10d (0.131"x3") nails as follows:
 Top chords connected as follows: 2x4 - 1 row at 0-7-0 oc.
 Bottom chords connected as follows: 2x8 - 2 rows staggered at 0-5-0 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
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- WARNING: Required bearing size at joint(s) 1, 7 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) 1=374, 7=245.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



September 23, 2020

Continued on page 2

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

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



16023 Swingley Ridge Rd
 Chesterfield, MO 63017

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

LEE'S SUMMIT, MISSOURI

10/21/2020

LOAD CASE(S) Standard

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

Uniform Loads (plf)

Vert: $1-5=-70$, $5-7=-70$, $1-12=-20$, $10-11=-20$, $7-9=-20$

Concentrated Loads (lb)

Vert: 14=-1338(B) 15=-1351(B) 16=-1363(B) 17=-1363(B) 18=-1351(B) 19=-1351(B) 20=-1338(B) 21=-1338(B) 22=-1338(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

Job 400640
CONSTRUCTION
 AS NOTED ON PLANS REVIEW
DEVELOPMENT SERVICES
 LEE'S SUMMIT, MISSOURI

Truss Type
 GABLE

Qty
 1

Ply
 1

Lot 27 H4

I42923368

Job Reference (optional)

8.420 s Aug 25 2020 MiTek Industries, Inc. Wed Sep 23 07:57:25 2020 Page 1
 ID: vBsZku210zNPT?RizYtJMSyXqDi-sI37z_ITq9y?GZ11?tcGzSsiP6Qe5E5q3AXua2yapH8

10/21/2020

0-10-8 3-3-8 6-6-0 9-8-8 13-0-0 13-10-8
 0-10-8 3-3-8 3-2-8 3-2-8 3-3-8 0-10-8

4x5 ||

Scale = 1:32.8

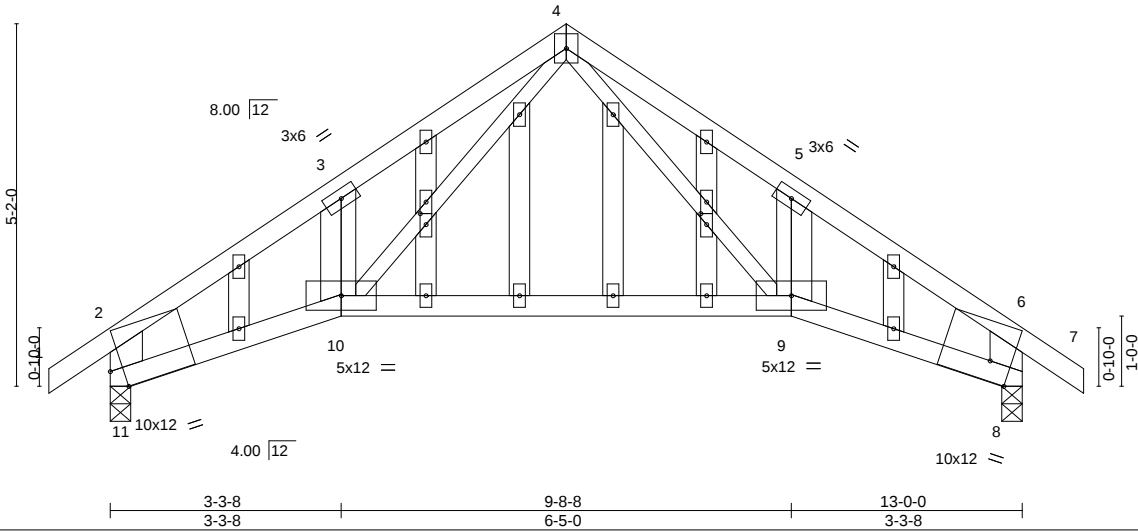


Plate Offsets (X,Y)-- [8:0-3-10,Edge], [11:0-2-3,Edge], [14:0-1-14,0-1-0], [23:0-1-14,0-1-0]

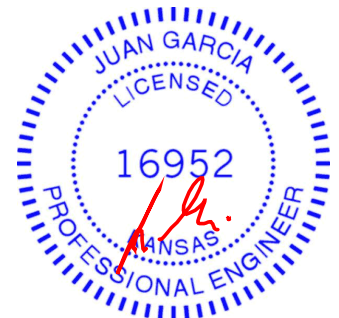
LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.72	Vert(LL)	-0.10	9-10	>999	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.51	Vert(CT)	-0.24	9-10	>635		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.14	Horz(CT)	0.09	8	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-S	Wind(LL)	0.05	9-10	>999	Weight: 65 lb	FT = 10%

LUMBER-	BRACING-
TOP CHORD 2x4 SPF No.2	TOP CHORD Structural wood sheathing directly applied or 4-5-7 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*	
2-11,6-8: 2x6 SPF No.2	
OTHERS 2x4 SPF No.2	

REACTIONS. (size) 11=0-3-8, 8=0-3-8
 Max Horz 11=154(LC 7)
 Max Uplift 11=-88(LC 8), 8=-88(LC 9)
 Max Grav 11=642(LC 1), 8=642(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
 TOP CHORD 2-3=-966/113, 3-4=-849/230, 4-5=-849/193, 5-6=-966/70, 2-11=-784/128, 6-8=-784/100
 BOT CHORD 10-11=-97/776, 9-10=0/453, 8-9=-2/717
 WEBS 4-9=-138/417, 4-10=-161/460

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
 - Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
 - Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
 - All plates are 2x4 MT20 unless otherwise indicated.
 - Gable studs spaced at 1-4-0 oc.
 - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
 - * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
 - Bearing at joint(s) 11, 8 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
 - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 11, 8.
 - This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



September 23,2020

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16023 Swingley Ridge Rd
 Chesterfield, MO 63017

RELEASE FOR

Job 400640
CONSTRUCTION
 AS NOTED ON PLANS REVIEW
DEVELOPMENT SERVICES
 LEES SUMMIT, MISSOURI

Truss Type

Roof Special

Qty

Ply

Lot 27 H4

I42923369

Job Reference (optional)

8.420 s Aug 25 2020 MiTek Industries, Inc. Wed Sep 23 07:57:25 2020 Page 1
 ID: vBsZku210zNPT?RizYtJMSyXqDi-sl37z_ITq9y?GZ11?tCgzSsiP6Qe5E5q3AXua2yapH8

10/21/2020

0-10-8 3-3-8 6-6-0 9-8-8 13-0-0 13-10-8
 0-10-8 3-3-8 3-2-8 3-2-8 3-3-8 0-10-8

4x5 ||

Scale = 1:32.8

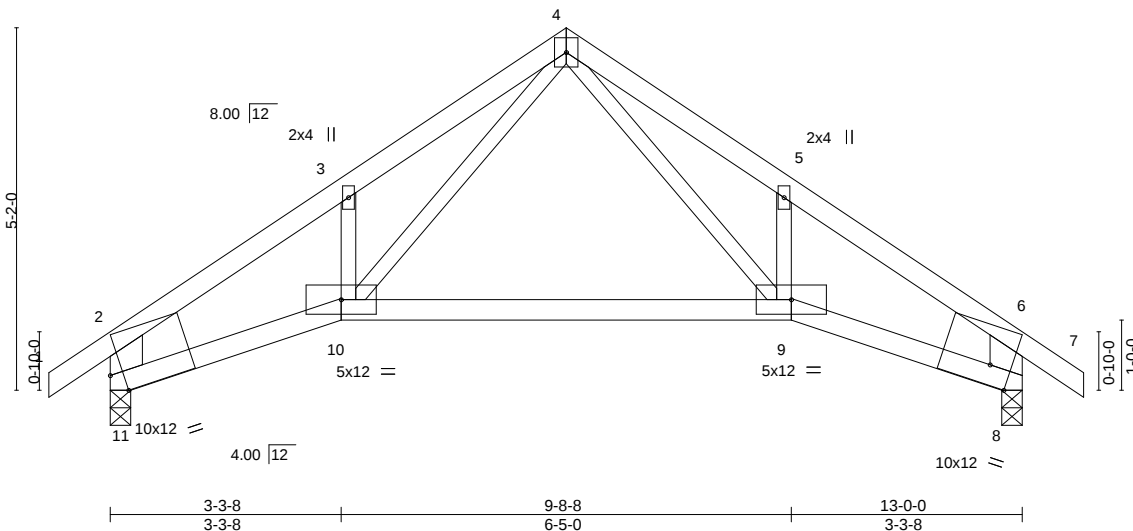


Plate Offsets (X,Y)-- [8:0-3-10,Edge], [11:0-2-3,Edge]

LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.72	Vert(LL)	-0.10	9-10	>999	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.51	Vert(CT)	-0.24	9-10	>635		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.14	Horz(CT)	0.09	8	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-S	Wind(LL)	0.05	9-10	>999	Weight: 48 lb	FT = 10%

LUMBER-

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

BRACING-

TOP CHORD Structural wood sheathing directly applied or 4-5-7 oc purlins, except end verticals.
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS.

(size) 11=0-3-8, 8=0-3-8
 Max Horz 11=154(LC 7)
 Max Uplift 11=-88(LC 8), 8=-88(LC 9)
 Max Grav 11=642(LC 1), 8=642(LC 1)

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

TOP CHORD 2-3=-966/113, 3-4=-849/230, 4-5=-849/193, 5-6=-966/70, 2-11=-784/128, 6-8=-784/100
 BOT CHORD 10-11=-97/776, 9-10=0/453, 8-9=-2/717
 WEBS 4-9=-138/417, 4-10=-161/460

NOTES-

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



September 23, 2020

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16023 Swingley Ridge Rd
 Chesterfield, MO 63017

RELEASE FOR

Job 400640
 AS NOTED ON PLANS REVIEW
 DEVELOPMENT SERVICES
 LEES SUMMIT, MISSOURI

Truss Type
 Roof Special

Qty
 4

Ply
 1

Lot 27 H4

I42923370

Job Reference (optional)

8.420 s Aug 25 2020 MiTek Industries, Inc. Wed Sep 23 07:57:26 2020 Page 1
 ID:vBsZku21ozNPT?RizYtJMSyXqDi-KydVBKl5bT4stjcDZajvVgPwAWkrqhE_IqGR7VyapH7

10/21/2020



Scale = 1:29.8

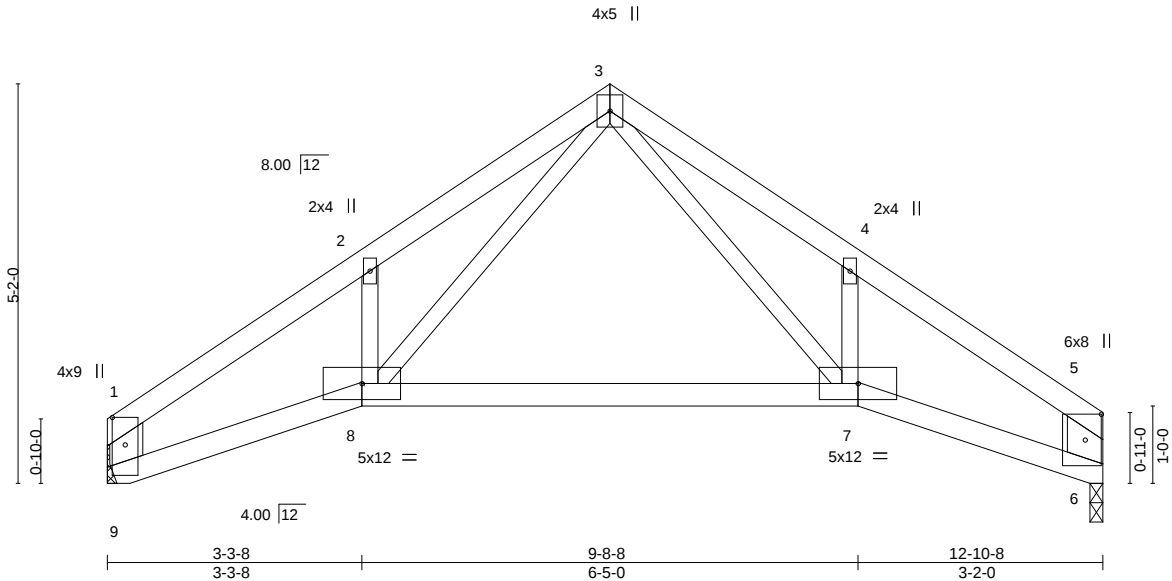


Plate Offsets (X,Y)-- [1:0-4-4,0-2-0], [5:0-4-0,0-2-8]

LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.53	Vert(LL)	-0.12	7-8	>999	360	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.64	Vert(CT)	-0.27	7-8	>544	240		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.15	Horz(CT)	0.11	6	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-S	Wind(LL)	0.05	7-8	>999	240	Weight: 46 lb	FT = 10%

LUMBER-

TOP CHORD 2x4 SPF No.2
 BOT CHORD 2x4 SPF No.2
 WEBS 2x3 SPF No.2 *Except*
 1-9,5-6: 2x6 SPF No.2

BRACING-

TOP CHORD Structural wood sheathing directly applied or 5-2-9 oc purlins, except end verticals.
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS.

(size) 9=Mechanical, 6=0-2-0
 Max Horz 9=108(LC 5)
 Max Uplift 9=-2(LC 8), 6=-2(LC 9)
 Max Grav 9=559(LC 1), 6=559(LC 1)

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

TOP CHORD 1-2=-960/18, 2-3=-865/107, 3-4=-832/90, 4-5=-931/0, 1-9=-681/23, 5-6=-667/9
 BOT CHORD 8-9=-22/740, 7-8=0/441, 6-7=0/692
 WEBS 3-8=-77/456, 3-7=-65/392

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.
- Bearing at joint(s) 6 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- Provide mechanical connection (by others) of truss to bearing plate at joint(s) 6.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 9, 6.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



September 23, 2020

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16023 Swingley Ridge Rd
 Chesterfield, MO 63017

RELEASE FOR

Job 400640
CONSTRUCTION
 AS NOTED ON PLANS REVIEW
DEVELOPMENT SERVICES
 LEES SUMMIT, MISSOURI

Truss Type
 Common Supported Gable

Qty 2
 Ply 1
 Lot 27 H4

I42923371

Job Reference (optional)

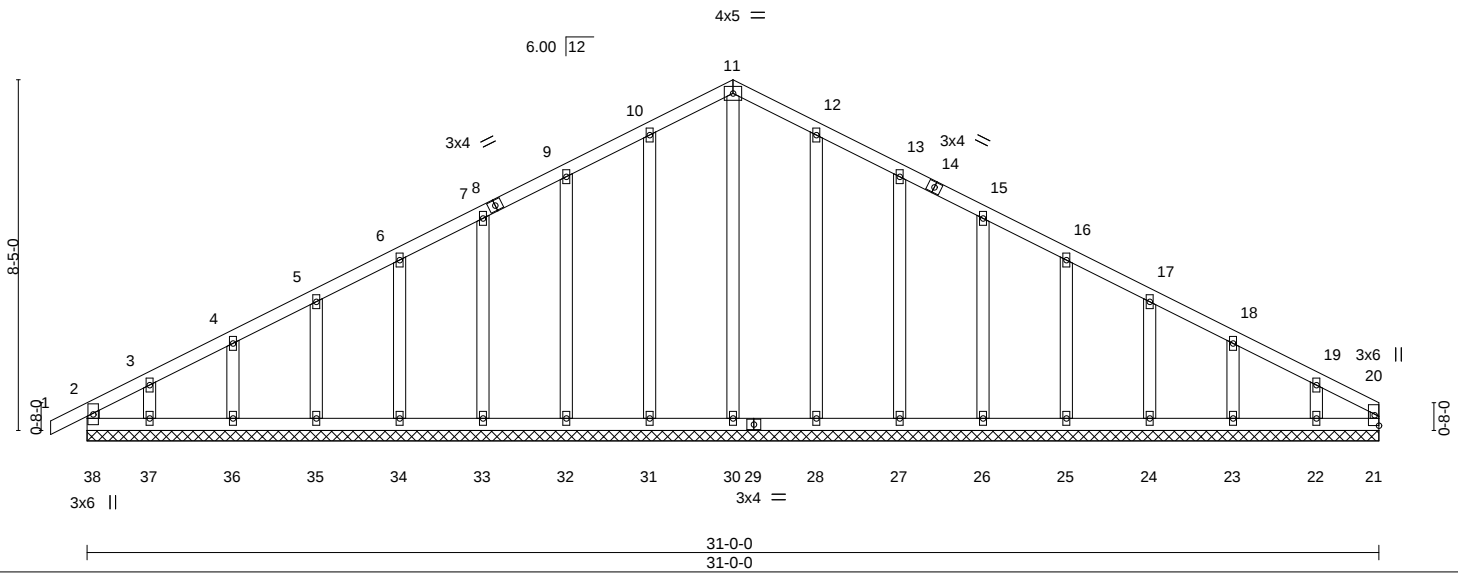
8.420 s Aug 25 2020 MiTek Industries, Inc. Wed Sep 23 07:57:27 2020 Page 1
 ID: vBsZku21ozNPT?RizYtJMSyXqDi-o8BtOfmkMnCjVtBQ7IF82txC1vDOZ8s7WU0_fxyapH6

0-10-8
 0-10-8
10/21/2020

15-6-0
 15-6-0

31-0-0
 15-6-0

Scale = 1:55.3



LOADING (psf)
 TCLL 25.0
 TCCL 10.0
 BCLL 0.0 *
 BCDL 10.0

SPACING- 2-0-0
 Plate Grip DOL 1.15
 Lumber DOL 1.15
 Rep Stress Incr YES
 Code IRC2018/TPI2014

CSI.
 TC 0.07
 BC 0.05
 WB 0.19
 Matrix-R

DEFL. in (loc) l/defl L/d
 Vert(LL) -0.00 1 n/r 120
 Vert(CT) -0.00 1 n/r 120
 Horz(CT) 0.01 21 n/a n/a

PLATES MT20
GRIP 197/144

Weight: 147 lb FT = 10%

LUMBER-

TOP CHORD 2x4 SPF No.2
 BOT CHORD 2x4 SPF No.2
 WEBS 2x4 SPF No.2 *Except*
 20-21: 2x3 SPF No.2
 OTHERS 2x4 SPF No.2

BRACING-

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

REACTIONS.

All bearings 31-0-0.
 (lb) - Max Horz 38=138(LC 12)
 Max Uplift All uplift 100 lb or less at joint(s) 38, 31, 32, 33, 34, 35, 36, 28, 27, 26, 25, 24, 23, 22 except 37=-106(LC 8)
 Max Grav All reactions 250 lb or less at joint(s) 38, 21, 30, 31, 32, 33, 34, 35, 36, 37, 28, 27, 26, 25, 24, 23, 22

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

NOTES-

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCCL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- All plates are 2x4 MT20 unless otherwise indicated.
- Gable requires continuous bottom chord bearing.
- Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
- Gable studs spaced at 2-0-0 oc.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 38, 31, 32, 33, 34, 35, 36, 28, 27, 26, 25, 24, 23, 22 except (jt=lb) 37=106.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



September 23, 2020

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16023 Swingley Ridge Rd
 Chesterfield, MO 63017

RELEASE FOR

Job 400640
CONSTRUCTION
AS NOTED ON PLANS REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI

Truss Type
 Roof Special

Qty
 1

Ply
 1

Lot 27 H4

I42923372

Job Reference (optional)

Wheels on Road, Waves, KS 66061

8.420 s Aug 25 2020 MiTek Industries, Inc. Wed Sep 23 07:57:28 2020 Page 1

ID: vBsZku21ozNPT?RlZYUJSyXqDi-GKIFb?nM74Ka71mcg?mNa5U8rJL3IS9GI8YBNyapH5

0-10-8 10/21/2020 7-9-10 7-9-10

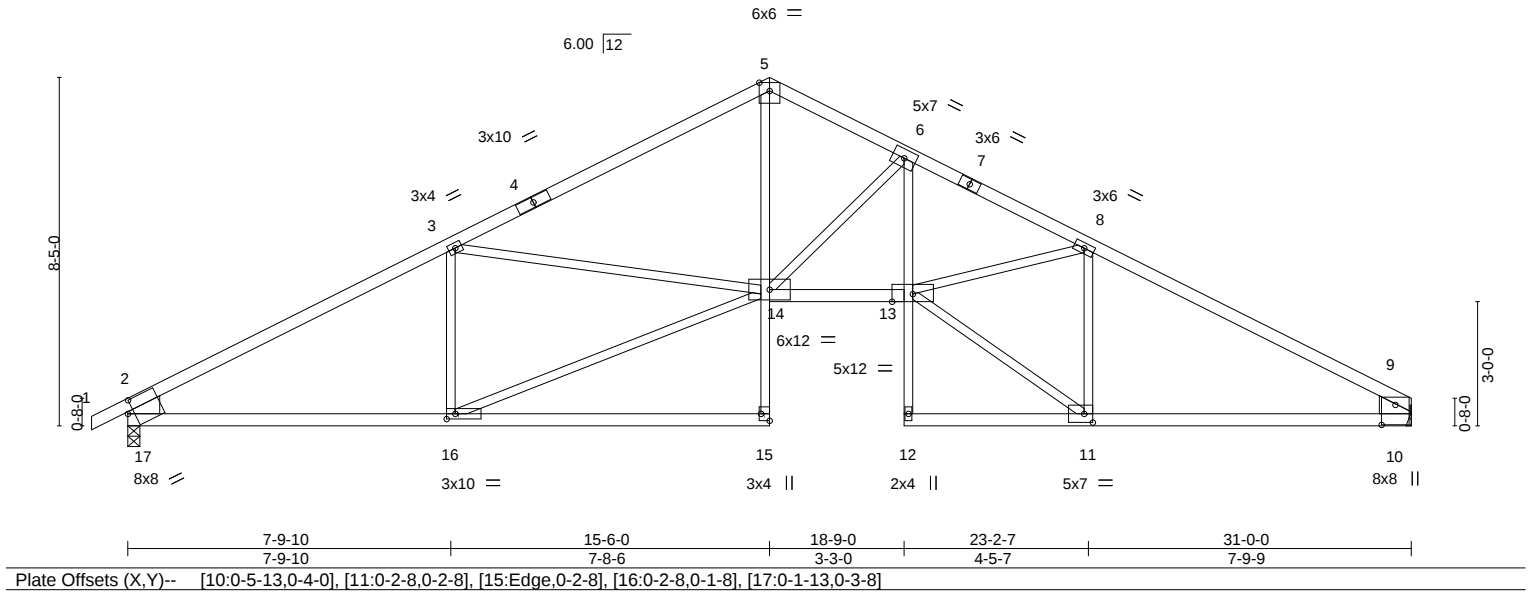
15-6-0 7-8-6

18-9-0 3-3-0

23-2-7 4-5-7

31-0-0 7-9-9

Scale = 1:55.6



LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.96	Vert(LL)	-0.35	13	>999	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.92	Vert(CT)	-0.67	15-16	>538		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.76	Horz(CT)	0.24	10	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-S	Wind(LL)	0.20	13	>999	Weight: 121 lb	FT = 10%

LUMBER-
 TOP CHORD 2x4 SPF 2100F 1.8E *Except*
 5-7,7-9: 2x4 SPF No.2
 BOT CHORD 2x4 SPF No.2 *Except*
 5-15,6-12: 2x3 SPF No.2, 10-12: 2x4 SPF 2100F 1.8E
 WEBS 2x3 SPF No.2 *Except*
 2-17,9-10: 2x10 SP DSS

BRACING-
 TOP CHORD Structural wood sheathing directly applied, except end verticals.
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing, Except:
 2-2-0 oc bracing: 16-17,10-11.

REACTIONS. (size) 17=0-3-8, 10=Mechanical
 Max Horz 17=137(LC 12)
 Max Uplift 17=-198(LC 8), 10=-168(LC 9)
 Max Grav 17=1450(LC 1), 10=1358(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
 TOP CHORD 2-3=-2200/268, 3-5=-2418/266, 5-6=-2289/296, 6-8=-3368/300, 8-9=-2137/261,
 2-17=-1341/237, 9-10=-1201/209
 BOT CHORD 16-17=-274/1833, 5-14=-109/1610, 13-14=-132/2943, 6-13=-99/1179, 10-11=-151/1789
 WEBS 3-16=-603/213, 14-16=-299/1946, 3-14=-30/347, 6-14=-1300/199, 11-13=-182/2172,
 8-13=-49/1191, 8-11=-1270/194

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
 - Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
 - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
 - * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
 - Refer to girder(s) for truss to truss connections.
 - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 17=198, 10=168.
 - This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



September 23,2020

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

RELEASE FOR

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

Job 400640	Truss Type Roof Special	Qty 2	Ply 1	Lot 27 H4	I42923373
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Wheel
ID: vBszku21ozNPT?RizYUJMSyXqDi-WDyMezSGr9Loj0JLCe4RF5o1DeH4?WMk9C1Fi2yajtP
8.410 s May 22 2020 MiTek Industries, Inc. Wed Sep 23 14:06:12 2020 Page 1

0-10-8 2-3-8 7-9-9 13-6-0 15-6-0 23-2-7 31-0-0
0-10-0 2-3-0 5-6-1 5-8-7 2-0-0 7-8-7 7-9-9

Scale = 1:58.0

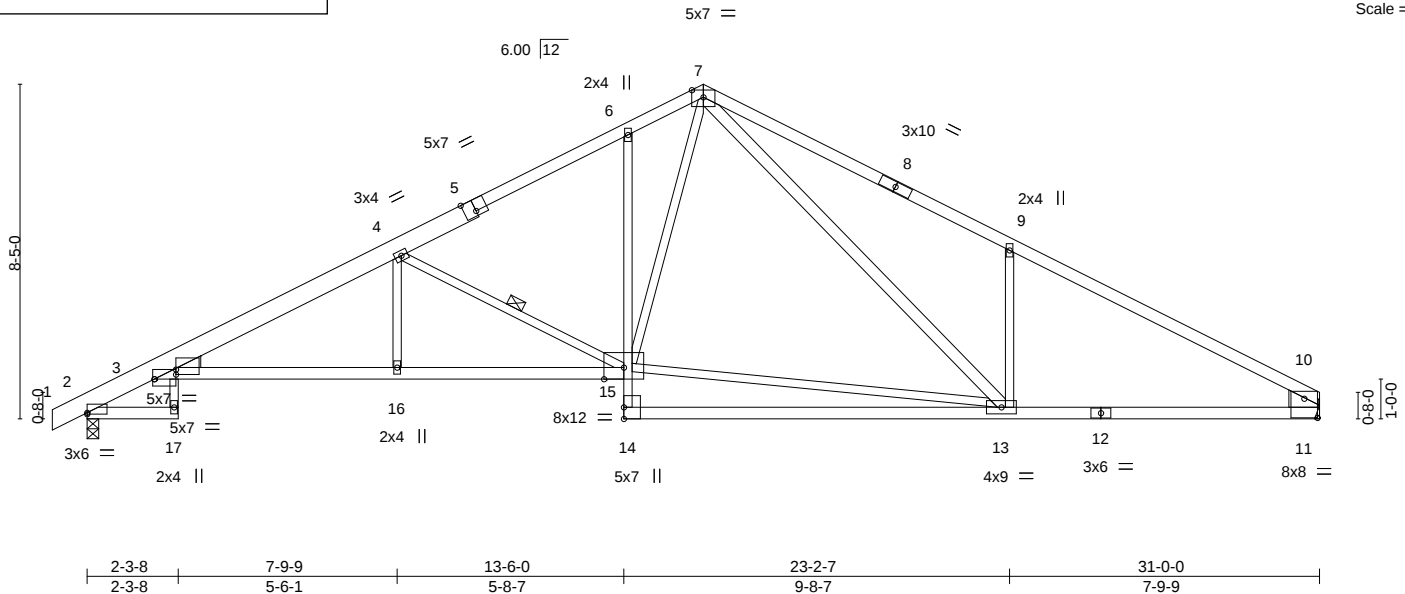


Plate Offsets (X,Y)-- [2:Edge,0-0-7], [3:0-6-8,0-2-14], [3:0-6-8,0-1-6], [5:0-3-8,Edge], [11:0-4-0,0-5-13]

LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.79	Vert(LL)	-0.34 13-14	>999	360	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.72	Vert(CT)	-0.79 13-14	>462	240		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.49	Horz(CT)	0.34 11	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-S	Wind(LL)	0.16 3-16	>999	240	Weight: 136 lb	FT = 10%

LUMBER-

TOP CHORD 2x4 SPF 2100F 1.8E *Except*
5-7: 2x4 SPF No.2, 1-5: 2x6 SP 2400F 2.0E
BOT CHORD 2x4 SPF No.2 *Except*
3-17,6-14: 2x3 SPF No.2, 3-15,11-12: 2x4 SPF 2100F 1.8E
WEBS 2x3 SPF No.2 *Except*
7-13: 2x4 SPF No.2, 10-11: 2x10 SP DSS

WEDGE
Left: 2x4 SPF No.2

REACTIONS. (lb/size) 2=1455/0-3-8, 11=1371/Mechanical
Max Horz 2=106(LC 5)
Max Uplift 2=-21(LC 8), 11=-15(LC 9)

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

TOP CHORD 2-3=-809/45, 3-4=-2945/55, 4-5=-2012/31, 5-6=-1943/58, 6-7=-1824/104, 7-8=-2062/159,
8-9=-2186/122, 9-10=-2224/36, 10-11=-1235/55
BOT CHORD 3-16=-57/2687, 15-16=-57/2687, 12-13=0/1869, 11-12=0/1869
WEBS 4-16=0/304, 4-15=-1168/116, 13-15=0/1258, 7-15=-54/896, 7-13=-135/724,
9-13=-507/203

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 21 lb uplift at joint 2 and 15 lb uplift at joint 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.

BRACING-

TOP CHORD Structural wood sheathing directly applied or 3-3-12 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing, Except: 6-0-0 oc bracing: 2-17.
WEBS 1 Row at midpt 4-15



September 23,2020

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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
400640

Truss Type

Roof Special

Qty

Ply

Lot 27 H4

I42923374

Wheel

Job Reference (optional)

8.410 s May 22 2020 MiTek Industries, Inc. Wed Sep 23 14:06:20 2020 Page 1
ID: vBsZku210zNPT?RlZyTjMSyXqDI-HmRNKIYHzcLgFKugKDJJan7Mos?ct1xv?Szg_ayajH-0-10-8 2-3-8 7-9-10
0-10-8 2-3-8 5-6-2

15-6-0 7-8-6

23-2-6 7-8-6

24-4-0 1-1-10

31-0-0 6-8-0

Scale = 1:58.9

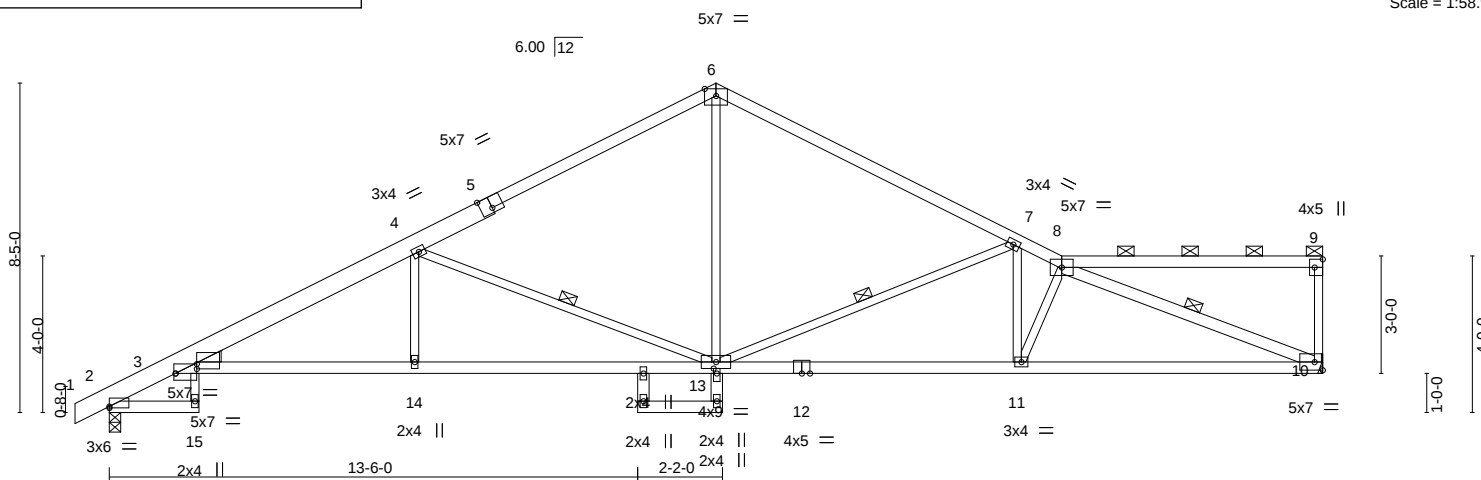


Plate Offsets (X,Y)-- [2:Edge,0-0-7], [3:0-6-8,0-2-14], [3:0-6-8,0-1-6], [5:0-3-8,Edge], [9:Edge,0-2-8], [13:0-1-8,0-1-0]

LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.95	Vert(LL)	-0.28	3-14	>999	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.81	Vert(CT)	-0.53	3-14	>698		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.84	Horz(CT)	0.36	10	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-S	Wind(LL)	0.16	3-14	>999	Weight: 131 lb	FT = 10%

LUMBER-

TOP CHORD 2x4 SPF No.2 *Except*
1-5: 2x6 SP 2400F 2.0E
BOT CHORD 2x4 SPF No.2 *Except*
3-15: 2x3 SPF No.2, 3-12: 2x4 SPF 2100F 1.8E
WEBS 2x3 SPF No.2 *Except*
8-10,16-18,13-17: 2x4 SPF No.2

WEDGE
Left: 2x4 SPF No.2

REACTIONS. (lb/size) 10=1383/Mechanical, 2=1468/0-3-8
Max Horz 2=162(LC 5)
Max Uplift 10=-24(LC 9), 2=-20(LC 8)

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

TOP CHORD 2-3=-817/0, 3-4=-2989/77, 4-5=-1877/12, 5-6=-1806/49, 6-7=-1845/61, 7-8=-2796/2
BOT CHORD 3-14=-108/2732, 13-14=-108/2732, 12-13=-44/2582, 11-12=-44/2582, 10-11=-38/2684
WEBS 4-14=0/312, 4-13=-1298/171, 6-13=0/1095, 7-13=-1141/98, 7-11=0/461, 8-11=-263/73,
8-10=-2842/29

NOTES-

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope); cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 3) Provide adequate drainage to prevent water ponding.
- 4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 5) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 6) Refer to girder(s) for truss to truss connections.
- 7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 24 lb uplift at joint 10 and 20 lb uplift at joint 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.
- 9) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

BRACING-

TOP CHORD Structural wood sheathing directly applied, except end verticals, and 2-0-0 oc purlins (6-0-0 max.): 8-9.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing, Except: 6-0-0 oc bracing: 2-15.
WEBS 1 Row at midpt 4-13, 7-13, 8-10



September 23, 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 400640	Truss Type Roof Special	Qty 1	Ply 1	Lot 27 H4	I42923375
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Wheel
ID: vBsZku21ozNPT?RlZyTjMSyXqDi-a6M1o5dgJmEg0KMEalryMFwbMhMIODtxc19YkgayjtA
8.410 s May 22 2020 MiTek Industries, Inc. Wed Sep 23 14:06:27 2020 Page 1

0-10-8 2-3-8 7-9-10 15-6-0 23-11-0 27-2-6 31-0-0
0-10-8 2-3-8 5-6-2 7-8-6 8-5-0 3-3-6 3-9-10

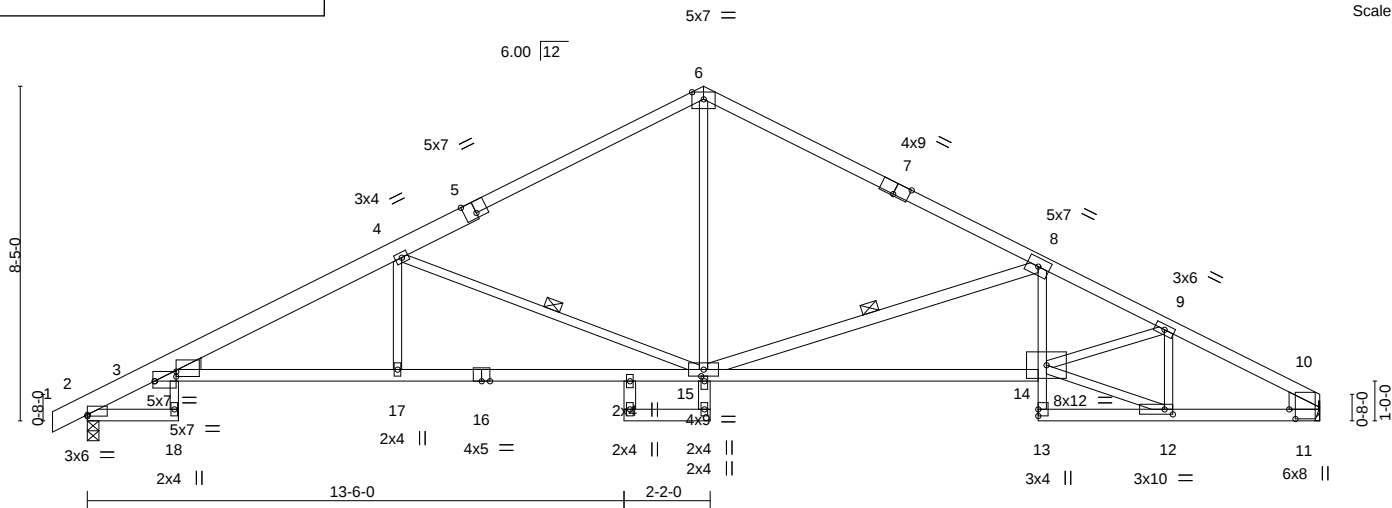


Plate Offsets (X,Y)-- [2:Edge,0-0-7], [3:0-6-8,0-2-14], [3:0-6-8,0-1-6], [5:0-3-8,Edge], [7:0-4-8,Edge], [11:0-2-14,0-1-14], [12:0-2-8,0-1-8], [15:0-1-8,0-1-0]

LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.80	Vert(LL)	-0.29 3-17	>999	360	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.90	Vert(CT)	-0.58 14-15	>626	240		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.82	Horz(CT)	0.41 11	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-S	Wind(LL)	0.16 3-17	>999	240	Weight: 132 lb	FT = 10%

LUMBER-

TOP CHORD 2x4 SPF 2100F 1.8E *Except*
5-6: 2x4 SPF No.2, 1-5: 2x6 SP 2400F 2.0E
BOT CHORD 2x4 SPF No.2 *Except*
3-18,8-13: 2x3 SPF No.2, 3-16,11-13: 2x4 SPF 2100F 1.8E
WEBS 2x3 SPF No.2 *Except*
8-15,19-21,15-20: 2x4 SPF No.2, 10-11: 2x10 SP DSS

WEDGE
Left: 2x4 SPF No.2

REACTIONS. (lb/size) 2=1455/0-3-8, 11=1371/Mechanical
Max Horz 2=106(LC 5)
Max Uplift 2=-21(LC 8), 11=-15(LC 9)

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

TOP CHORD 2-3=-809/45, 3-4=-2948/74, 4-5=-1852/11, 5-6=-1781/48, 6-7=-1689/56, 7-8=-1836/31,
8-9=-3074/49, 9-10=-1990/23, 10-11=-1143/37
BOT CHORD 3-17=-80/2693, 16-17=-79/2693, 15-16=-79/2693, 14-15=0/2829, 8-14=0/474,
11-12=0/1654
WEBS 4-17=0/299, 4-15=-1278/169, 6-15=0/1044, 8-15=-1387/152, 12-14=0/1682, 9-14=0/1187,
9-12=-796/29

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 21 lb uplift at joint 2 and 15 lb uplift at joint 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.



September 23,2020

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

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

400640

Common

Lot 27 H4

142923376

Job Reference (optional)

8.420 s Aug 25 2020 MiTek Industries, Inc. Wed Sep 23 07:57:32 2020 Page 1

ID:vBszku21ozNPT?RlzYtJMSyXqDi-96 mRNqsBJq0be3NyrqJlxfsdwmsEKhsqmilK9vapH1

~~-0-10-8~~ **10/21/2020**
~~0-10-8~~

7-9-10
7-9-10

$$\begin{array}{r} 15-6-0 \\ \hline 7-8-6 \end{array}$$

23-2-6
7-8-6

31-0-0
7-9-10

Scale = 1:55.2

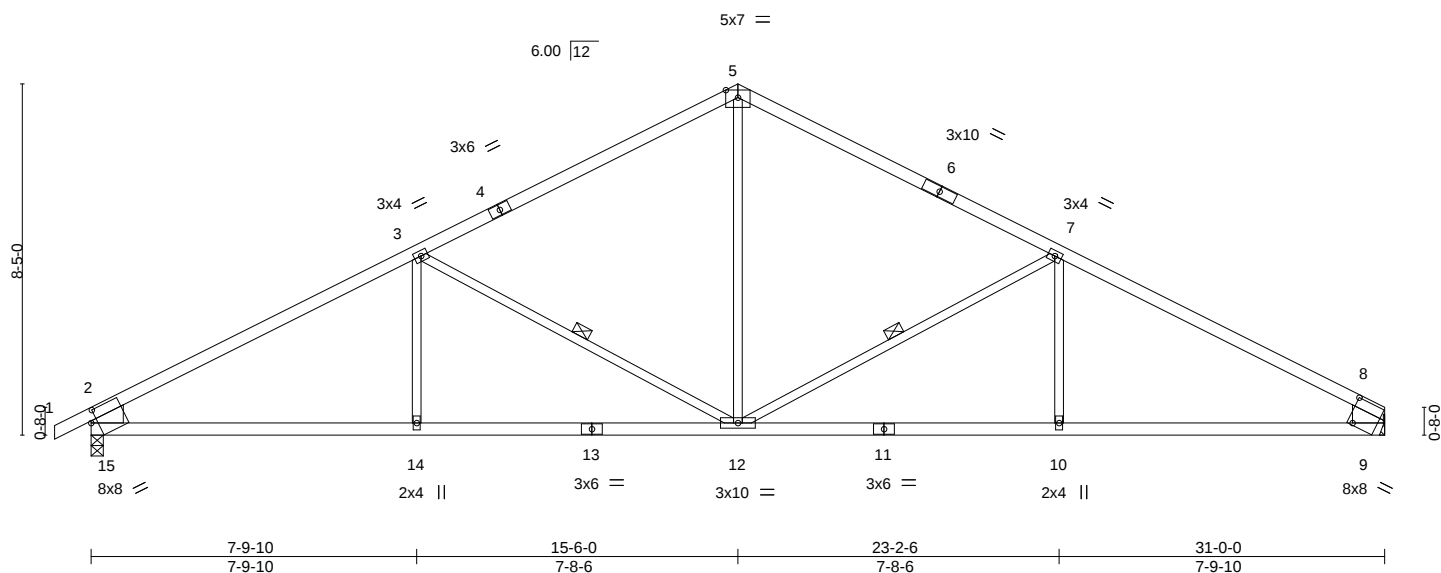


Plate Offsets (X,Y)-- [9:0-1-8,0-7-6], [15:0-1-13,0-3-4]												
LOADING (psf)		SPACING- 2-0-0		CSI.		DEFL. in (loc) l/defl L/d				PLATES GRIP		
TCLL	25.0	Plate Grip DOL	1.15	TC	0.85	Vert(LL)	-0.26	10-12	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.73	Vert(CT)	-0.50	10-12	>720	240		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.47	Horz(CT)	0.07	9	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-S		Wind(LL)	0.11	10-12	>999	240	Weight: 106 lb	FT = 10%

TOP CHORD	2x4 SPF 2100F 1.8E
BOT CHORD	2x4 SPF 2100F 1.8E *Except*
	11-13: 2x4 SPF No.2
WEBS	2x3 SPF No.2 *Except*
	2-15,8-9: 2x10 SP DSS

TOP CHORD	Structural wood sheathing directly applied or 3-4-9 oc purlins, except end verticals.
BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS	1 Row at midpt 7-12, 3-12

REACTIONS. (size) 15=0-3-8, 9=Mechanical
 Max Horz 15=112(LC 7)
 Max Uplift 15=-29(LC 8), 9=-16(LC 9)
 Max Grav 15=1450(LC 1), 9=1358(LC 1)

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

TOP CHORD 2-3=-2187/43, 3-5=-1587/73, 5-7=-1589/72, 7-8=-2176/43, 2-15=-1330/74,
8-9=-1211/59

BOT CHORD 14-15=-44/1824, 12-14=-44/1824, 10-12=0/1827, 9-10=0/1827

WEBS 5-12=0/775, 7-12=-651/125, 3-12=-647/124, 3-14=0/267

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



September 23, 2020



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16023 Swingley Ridge Rd
Chesterfield, MO 63017

RELEASE FOR

Job 400640
CONSTRUCTION
 AS NOTED ON PLANS REVIEW
 DEVELOPMENT SERVICES
 LEES SUMMIT, MISSOURI

Truss Type
 Common

Qty
 3

Ply
 1

Lot 27 H4

I42923377

Job Reference (optional)

8.420 s Aug 25 2020 MiTek Industries, Inc. Wed Sep 23 07:57:33 2020 Page 1
 ID:vBszku21ozNPT?RizYtJMSyXqDi-diY8jrUydytDoeZTYLH8B1fK3Ezn0vQTJsbyapH0

0-10-8 10/21/2020 7-9-10
 0-10-8 7-9-10

15-6-0 7-8-6

23-2-6 7-8-6

31-0-0 7-9-10

31-10-8 0-10-8

Scale = 1:55.7

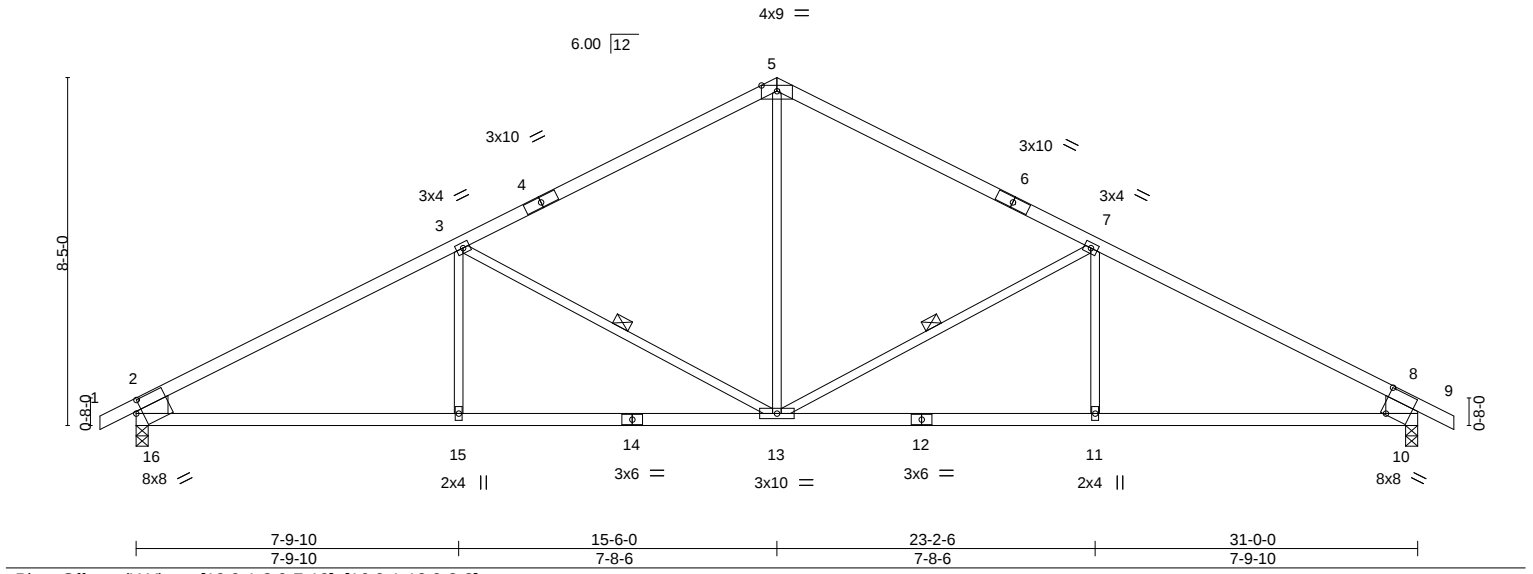


Plate Offsets (X,Y)--		[10:0-1-8,0-7-10], [16:0-1-13,0-3-8]	
LOADING (psf)	SPACING-	2-0-0	CSI.
TCLL 25.0	Plate Grip DOL	1.15	TC 0.89
TCDL 10.0	Lumber DOL	1.15	BC 0.92
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.47
BCDL 10.0	Code IRC2018/TPI2014		Matrix-S
DEFL.	in (loc)	l/defl	L/d
Vert(LL)	-0.22 11-13	>999	360
Vert(CT)	-0.44 11-13	>820	240
Horz(CT)	0.09 10	n/a	n/a
Wind(LL)	0.13 13-15	>999	240
PLATES	GRIP		
MT20	197/144		
Weight: 108 lb		FT = 10%	

LUMBER-
 TOP CHORD 2x4 SPF 2100F 1.8E
 BOT CHORD 2x4 SPF No.2
 WEBS 2x3 SPF No.2 *Except*
 2-16,8-10: 2x10 SP DSS

BRACING-
 TOP CHORD Structural wood sheathing directly applied or 2-2-0 oc purlins, except end verticals.
 BOT CHORD Rigid ceiling directly applied or 2-2-0 oc bracing.
 WEBS 1 Row at midpt 7-13, 3-13

REACTIONS. (size) 16=0-3-8, 10=0-3-8
 Max Horz 16=-126(LC 6)
 Max Uplift 16=-198(LC 8), 10=-198(LC 9)
 Max Grav 16=1449(LC 1), 10=1449(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
 TOP CHORD 2-3=-2187/271, 3-5=-1582/243, 5-7=-1582/243, 7-8=-2187/271, 2-16=-1336/239, 8-10=-1336/239
 BOT CHORD 15-16=-265/1821, 13-15=-265/1821, 11-13=-140/1821, 10-11=-140/1821
 WEBS 5-13=-48/760, 7-13=-647/250, 7-11=0/274, 3-13=-647/250, 3-15=0/274

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
 - Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
 - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
 - * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
 - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (it=lb) 16=198, 10=198.
 - This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



September 23,2020

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

RELEASE FOR

Job 400640
CONSTRUCTION
 AS NOTED ON PLANS REVIEW
 DEVELOPMENT SERVICES
 LEE'S SUMMIT, MISSOURI

Truss Type

COMMON GIRDER

Qty

1

Ply

2

Lot 27 H4

I42923378

Job Reference (optional)

8.420 s Aug 25 2020 MiTek Industries, Inc. Wed Sep 23 07:57:34 2020 Page 1

ID: vBsZku21ozNPT?RizYtJMSyXqDi-5U6Xs3r7jw4jryDm1GtnqMkCRkSEi9q974CsP1yapH?

 0-10-8
 0-10-8

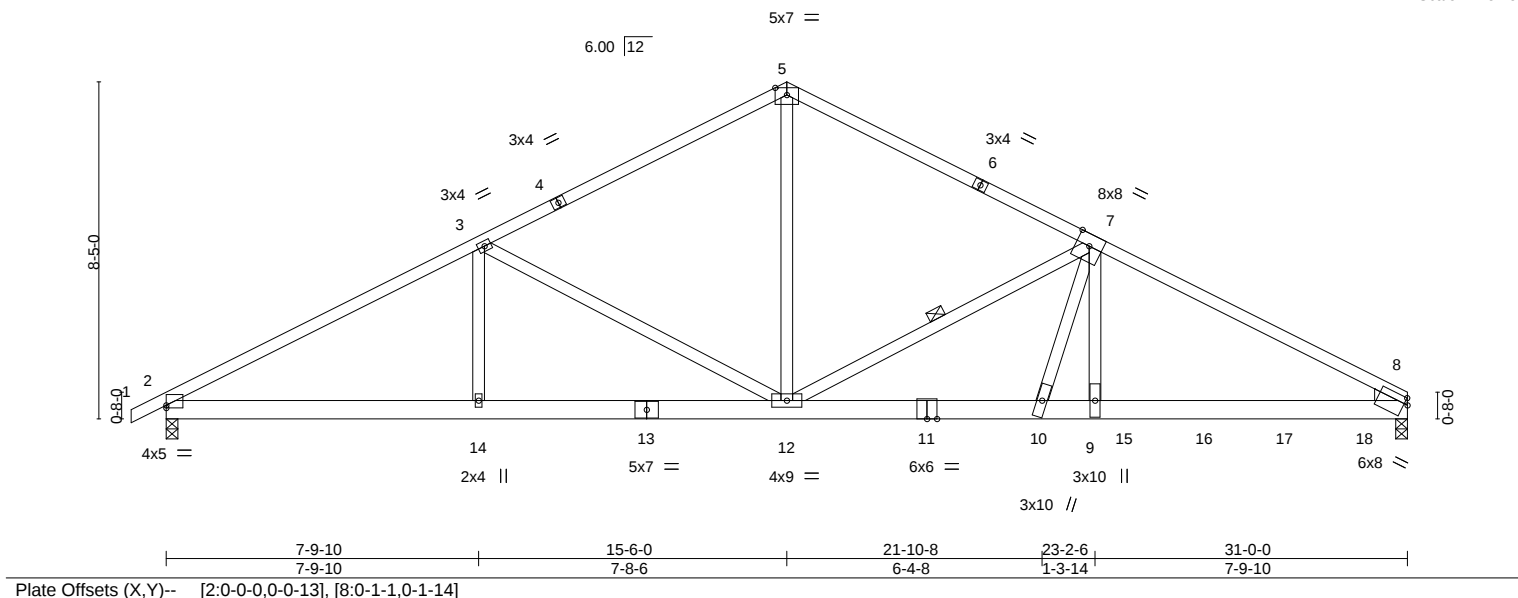
 7-9-10
 7-9-10

 15-6-0
 7-8-6

 23-2-6
 7-8-6

 31-0-0
 7-9-10

Scale = 1:57.5



LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.89	Vert(LL)	-0.16	8-9	>999	360	MT20
TCDL 10.0	Lumber DOL	1.15	BC 0.67	Vert(CT)	-0.29	8-9	>999	240	197/144
BCLL 0.0 *	Rep Stress Incr	NO	WB 0.81	Horz(CT)	0.07	8	n/a	n/a	
BCDL 10.0	Code IRC2018/TPI2014		Matrix-S	Wind(LL)	0.09	10-12	>999	240	
								Weight: 311 lb	FT = 10%

LUMBER-

TOP CHORD 2x4 SPF No.2 *Except*
 1-4,6-8: 2x4 SPF 2400F 2.0E
 BOT CHORD 2x6 SP 2400F 2.0E
 WEBS 2x4 SPF No.2
 WEDGE
 Right: 2x4 SP No.3

BRACING-

TOP CHORD Structural wood sheathing directly applied.
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
 WEBS 1 Row at midpt 7-12

REACTIONS. (size) 8=0-3-8 (req. 0-4-7), 2=0-3-8
 Max Horz 2=93(LC 26)
 Max Uplift 8=336(LC 9), 2=148(LC 8)
 Max Grav 8=5627(LC 1), 2=2718(LC 1)

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

TOP CHORD 2-3=-5024/291, 3-5=-4374/333, 5-7=-4375/332, 7-8=-9437/667
 BOT CHORD 2-14=-264/4309, 12-14=-264/4309, 10-12=-612/8921, 9-10=-514/8271, 8-9=-513/8219
 WEBS 5-12=-198/3311, 7-12=-5841/597, 7-9=-33/2873, 3-12=-686/221, 3-14=0/308,
 7-10=-313/1975

NOTES-

- 2-ply truss to be connected together with 10d (0.131"x3") nails as follows:
 Top chords connected as follows: 2x4 - 1 row at 0-4-0 oc.
 Bottom chords connected as follows: 2x6 - 2 rows staggered at 0-3-0 oc.
 Webs connected as follows: 2x4 - 1 row at 0-9-0 oc.
- All loads are considered equally applied to all plies, except if noted as front (F) or back (B) face in the LOAD CASE(S) section. Ply to ply connections have been provided to distribute only loads noted as (F) or (B), unless otherwise indicated.
- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; 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.
- 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) 8=336, 2=148.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 3353 lb down and 392 lb up at 21-10-7, 539 lb down and 22 lb up at 23-11-4, 539 lb down and 22 lb up at 25-11-4, and 539 lb down and 22 lb up at 27-11-4, and 540 lb down and 21 lb up at 29-11-4 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.

Continued on page 2

LOAD CASE(S) Standard

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September 23, 2020



16023 Swingley Ridge Rd
 Chesterfield, MO 63017

RELEASE FOR

Job 400640
AS NOTED ON PLANS REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
10/21/2020
Standard

1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (plf)
Vert: 1-5=-70, 5-8=-70, 2-8=-20
Concentrated Loads (lb)
Vert: 10=-3353(B) 15=-539(B) 16=-539(B) 17=-539(B) 18=-540(B)

Truss Type
COMMON GIRDER

Qty
1

Ply
2

Lot 27 H4
I42923378
Job Reference (optional)

8.420 s Aug 25 2020 MiTek Industries, Inc. Wed Sep 23 07:57:34 2020 Page 2
ID:vBszku21ozNPT?RizYtJMSyXqDi-5U6Xs3r7jw4jryDm1GtnqMkCRkSEi9q974CsP1yapH?

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job 400640

Wheeler, Waverly, Lee's Summit, Missouri

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

Job Title	Truss Type	Qty	Ply	Lot 27 H4	142923379
400640	Roof Special	6	1	Job Reference (optional)	

8.420 s Aug 25 2020 MiTek Industries, Inc. Wed Sep 23 07:57:35 2020 Page 1

ID:vBszku21ozNPT?RIzYtJMSyXqDi-Zhgv3OslUECaT6oybzO0NZHNN8q6RgVIMkyPxTyapH_

10/21/2020

7-9-10
7-9-10

$$\begin{array}{r} 15-6-0 \\ \hline 7-8-6 \end{array}$$
$$\begin{array}{r} 22-0-0 \\ \hline 6-6-0 \end{array}$$
 $5 \times 7 =$

Scale = 1:50.9

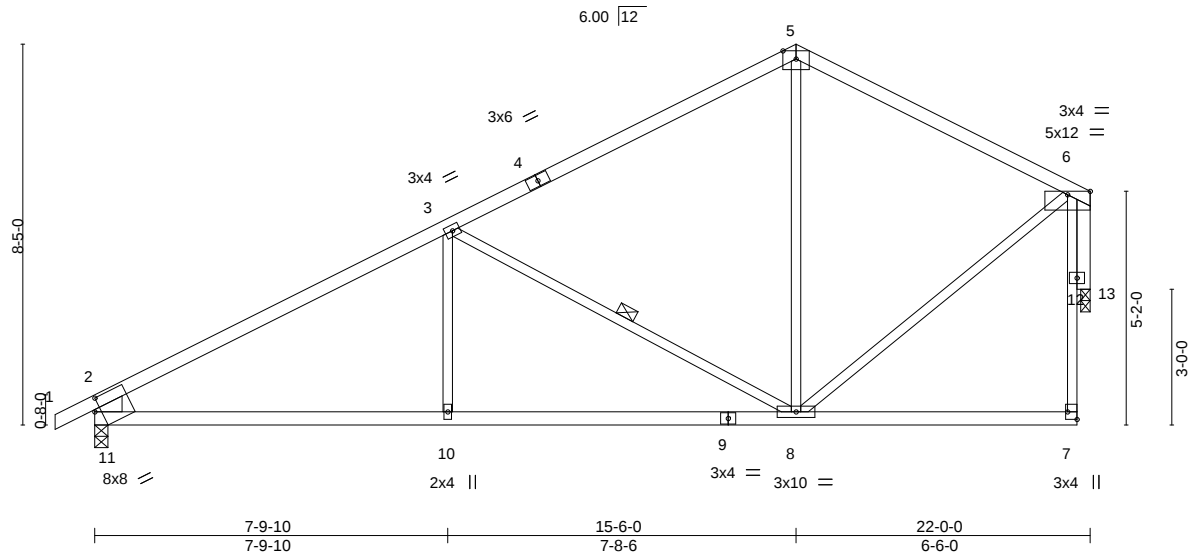


Plate Offsets (X,Y)--	[7:Edge,0-2-8], [11:0-1-10,0-3-4]
-----------------------	-----------------------------------

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 0.88		Vert(LL) -0.09	8-10	>999	360	MT20	197/144
TCDL 10.0		Lumber DOL 1.15		BC 0.57		Vert(CT) -0.21	8-10	>999	240		
BCLL 0.0 *		Rep Stress Incr YES		WB 0.53		Horz(CT) 0.17	13	n/a	n/a		
BCDL 10.0		Code IRC2018/TPI2014		Matrix-S		Wind(LL) 0.05	8-10	>999	240	Weight: 84 lb	FT = 10%

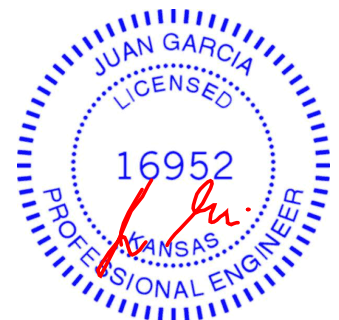
TOP CHORD	2x4 SPF No.2
BOT CHORD	2x4 SPF No.2
WEBS	2x3 SPF No.2 *Except*
	2-11: 2x8 SP DSS
OTHERS	2x4 SPF No.2

TOP CHORD	Structural wood sheathing directly applied or 2-2-0 oc purlins, except end verticals.
BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS	1 Row at midpt 3-8

(size) 11=0-3-8, 13=0-2-8
 Max Horz 11=223(LC 5)
 Max Uplift 11=-156(LC 8), 13=-122(LC 8)
 Max Grav 11=1056(LC 1), 13=943(LC 1)

TOP CHORD 2-3=-1465/195, 3-5=-768/129, 5-6=-705/160, 2-11=-966/201
BOT CHORD 10-11=-269/1196, 8-10=-269/1196
WEBS 3-10=0/302, 3-8=-733/262, 6-8=-93/646, 6-13=-955/124

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCCL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 4) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 5) Bearing at joint(s) 13 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- 6) Provide mechanical connection (by others) of truss to bearing plate at joint(s) 13.
- 7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 11=156, 13=122.
- 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.



September 23, 2020



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16023 Swingley Ridge Rd
Chesterfield, MO 63017

RELEASE FOR

Job 400640
CONSTRUCTION
 AS NOTED ON PLANS REVIEW
DEVELOPMENT SERVICES
 LEE'S SUMMIT, MISSOURI

Truss Type

Diagonal Hip Girder

Qty

2

Ply

1

Lot 27 H4

I42923380

Job Reference (optional)

Wheels on Road, Waverly, KS 66081

8.420 s Aug 25 2020 MiTek Industries, Inc. Wed Sep 23 07:57:35 2020 Page 1

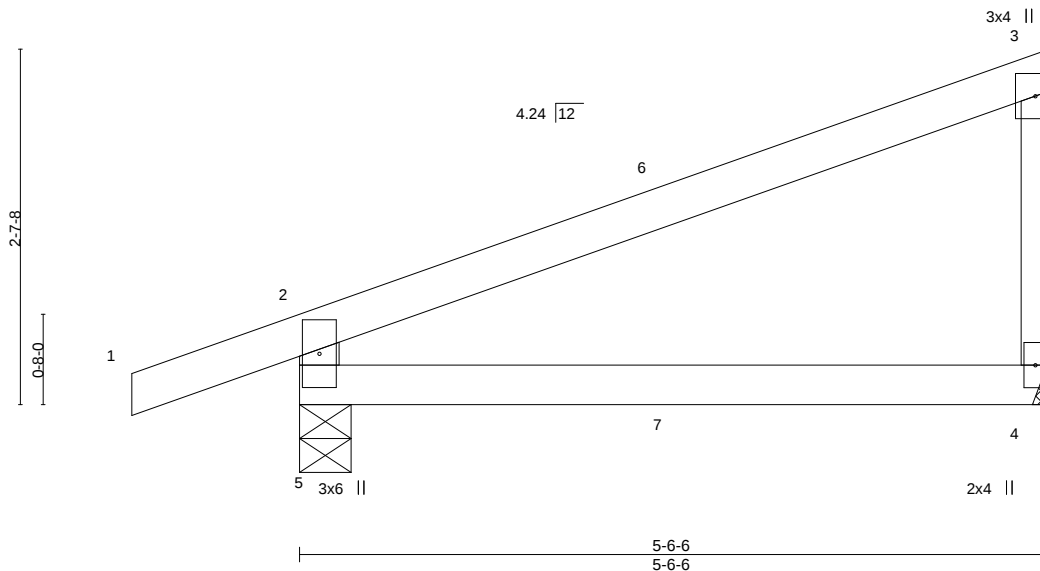
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10/21/2020

-1-2-14
1-2-14

5-6-6
5-6-6

Scale = 1:17.0



LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCCL 25.0	Plate Grip DOL	1.15	TC 0.41	Vert(LL)	-0.03	4-5	>999	360	MT20
TCDL 10.0	Lumber DOL	1.15	BC 0.25	Vert(CT)	-0.07	4-5	>967	240	197/144
BCLL 0.0 *	Rep Stress Incr	NO	WB 0.00	Horz(CT)	-0.00	4	n/a	n/a	
BCDL 10.0	Code IRC2018/TPI2014		Matrix-R	Wind(LL)	0.01	4-5	>999	240	
									Weight: 16 lb FT = 10%

LUMBER-

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

BRACING-

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

REACTIONS.

(size) 5=0-4-9, 4=Mechanical
 Max Horz 5=111(LC 5)
 Max Uplift 5=-101(LC 4), 4=-50(LC 8)
 Max Grav 5=346(LC 1), 4=224(LC 1)

FORCES.

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

TOP CHORD 2-5=-306/140

NOTES-

- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- Refer to girder(s) for truss to truss connections.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 4 except (jt=lb) 5=101.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 69 lb down and 36 lb up at 2-9-8, and 69 lb down and 36 lb up at 2-9-8 on top chord, and 3 lb down and 1 lb up at 2-9-8, and 3 lb down and 1 lb up at 2-9-8 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
- In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

LOAD CASE(S) Standard

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



September 23, 2020

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16023 Swingley Ridge Rd
 Chesterfield, MO 63017

RELEASE FOR

Job 400640
CONSTRUCTION
 AS NOTED ON PLANS REVIEW
DEVELOPMENT SERVICES
 LEES SUMMIT, MISSOURI

Truss Type

Jack-Open

Qty

3

Ply

Lot 27 H4

I42923381

Job Reference (optional)

Wheels on floor, Wavy, 1800mm

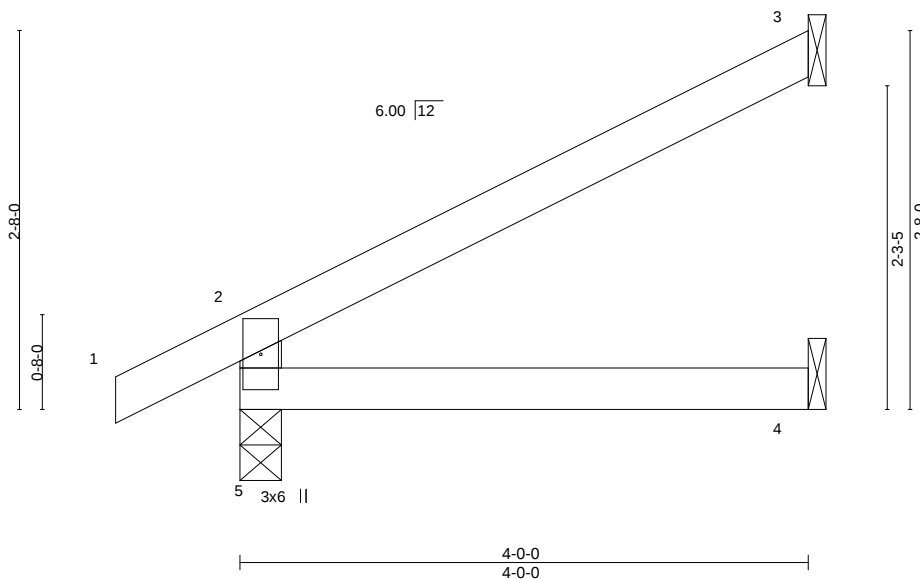
8.420 s Aug 25 2020 MiTek Industries, Inc. Wed Sep 23 07:57:36 2020 Page 1

ID: vBszku21ozNPT?RlZYtJMSyXqDi-1tEHhktNFYKR4GN88hvFvnpigYHGAF_SbOhzSwyapGz

10/21/2020

-0-10-8
0-10-84-0-0
4-0-0

Scale = 1:16.2



LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.20	Vert(LL)	-0.01	4-5	>999	360	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.13	Vert(CT)	-0.02	4-5	>999	240		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.00	Horz(CT)	0.01	3	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-R	Wind(LL)	0.01	4-5	>999	240	Weight: 11 lb	FT = 10%

LUMBER-

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

BRACING-

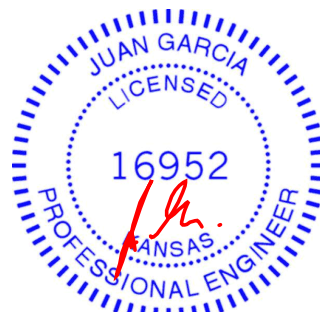
TOP CHORD Structural wood sheathing directly applied or 4-0-0 oc purlins, except end verticals.
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) 5=0-3-8, 3=Mechanical, 4=Mechanical
 Max Horz 5=89(LC 8)
 Max Uplift 5=-30(LC 8), 3=-66(LC 8)
 Max Grav 5=252(LC 1), 3=116(LC 1), 4=71(LC 3)

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

NOTES-

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



September 23, 2020

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16023 Swingley Ridge Rd
 Chesterfield, MO 63017

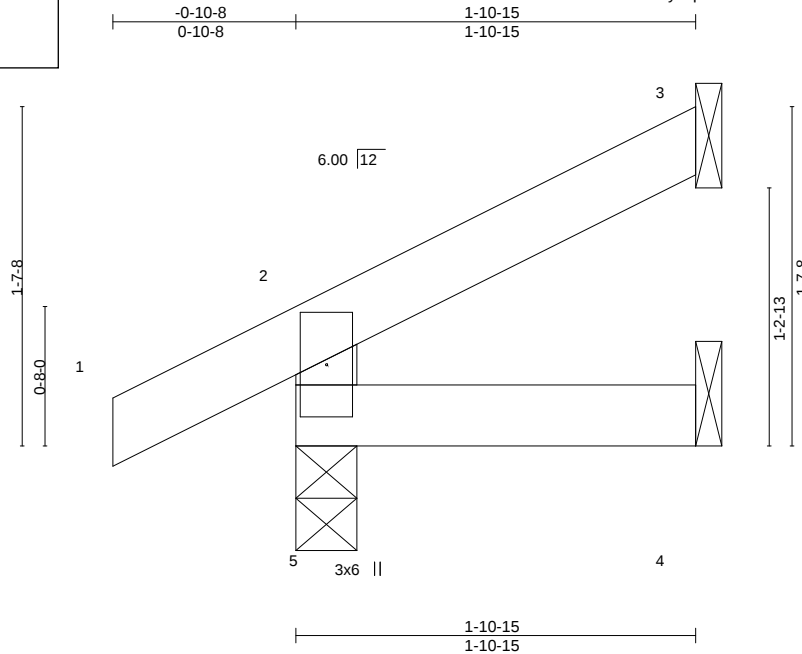
RELEASE FOR

Job 400640
CONSTRUCTION
 AS NOTED ON PLANS REVIEW
DEVELOPMENT SERVICES
 LEES SUMMIT, MISSOURI

10/21/2020

Truss Type	Qty	Ply	Lot 27 H4	I42923382
Jack-Open	4	1	Job Reference (optional)	

8.420 s Aug 25 2020 MiTek Industries, Inc. Wed Sep 23 07:57:36 2020 Page 1
 ID: vBsZku21ozNPT?RizYtJMSyXqDi-1tEHhkNFYKR4GN88hvFvnpklYivAF_SbOhzSwyapGz



LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.07	Vert(LL)	-0.00	5	>999	360	MT20
TCDL 10.0	Lumber DOL	1.15	BC 0.02	Vert(CT)	-0.00	5	>999	240	197/144
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.00	Horz(CT)	-0.00	3	n/a	n/a	
BCDL 10.0	Code IRC2018/TPI2014		Matrix-R	Wind(LL)	0.00	5	>999	240	
								Weight: 6 lb	FT = 10%

LUMBER-

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

BRACING-

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

REACTIONS.

(size) 5=0-3-8, 3=Mechanical, 4=Mechanical
 Max Horz 5=48(LC 8)
 Max Uplift 5=-26(LC 8), 3=-30(LC 8)
 Max Grav 5=171(LC 1), 3=44(LC 1), 4=31(LC 3)

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

NOTES-

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



September 23, 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



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RELEASE FOR

Job 400640
CONSTRUCTION
AS NOTED ON PLANS REVIEW
DEVELOPMENT SERVICES
LEES SUMMIT, MISSOURI

10/21/2020

Truss Type	Jack-Closed	Qty	2	Ply	1	Lot 27 H4	I42923384
Job Reference (optional)							

8.420 s Aug 25 2020 MiTek Industries, Inc. Wed Sep 23 07:57:37 2020 Page 1
 ID: vBsZku21ozNPT?RizYtJMSyXqDi-V3nfU4u?0rSliQyLiOQUS_MwDxeDviEbq2RW_MyapGy

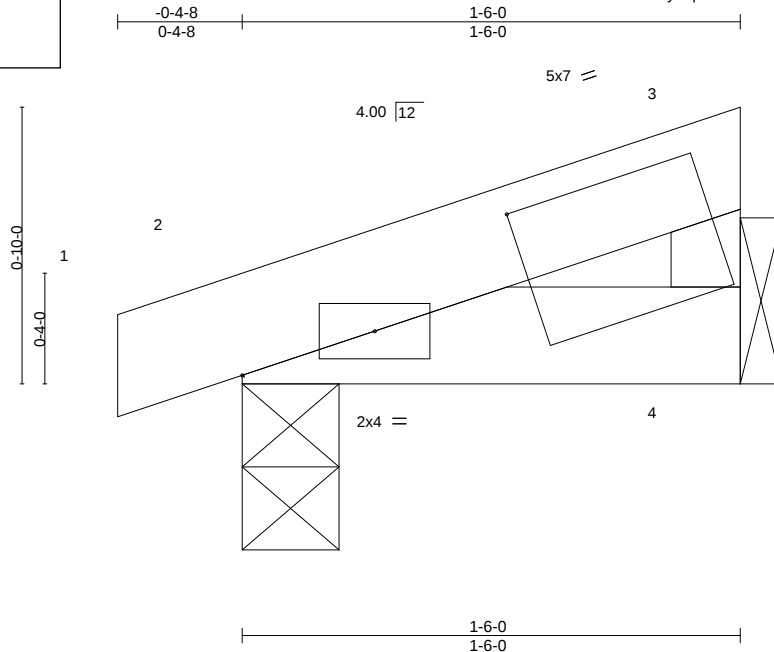


Plate Offsets (X,Y)-- [3:0-10-14,0-2-8]									
LOADING (psf)		SPACING- 2-0-0		CSI.		DEFL. in (loc) l/defl L/d		PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.02	Vert(LL)	-0.00 2 >999 360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.02	Vert(CT)	-0.00 2 >999 240		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.00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

LUMBER-

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

BRACING-

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

REACTIONS.

(size) 4=Mechanical, 2=0-3-8
 Max Horz 2=24(LC 5)
 Max Uplift 4=-12(LC 8), 2=-30(LC 4)
 Max Grav 4=57(LC 1), 2=94(LC 1)

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

NOTES-

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



September 23, 2020

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RELEASE FOR

Job 400640
CONSTRUCTION
 AS NOTED ON PLANS REVIEW
DEVELOPMENT SERVICES
 LEE SUMMIT, MISSOURI

Truss Type
 FLAT GIRDER

Qty
 1

Ply
 2

Lot 27 H4

I42923385

Job Reference (optional)

8.420 s Aug 25 2020 MiTek Industries, Inc. Wed Sep 23 07:57:38 2020 Page 1

ID: vBsZku21ozNPT?RizYtJMSyXqDi- FL1iQvdm9a9KZXXG6xj_Cv_ALy9e01I2IA4XoyapGx

10/21/2020

6-5-4
 6-5-4

12-10-8
 6-5-4

Scale = 1:21.9

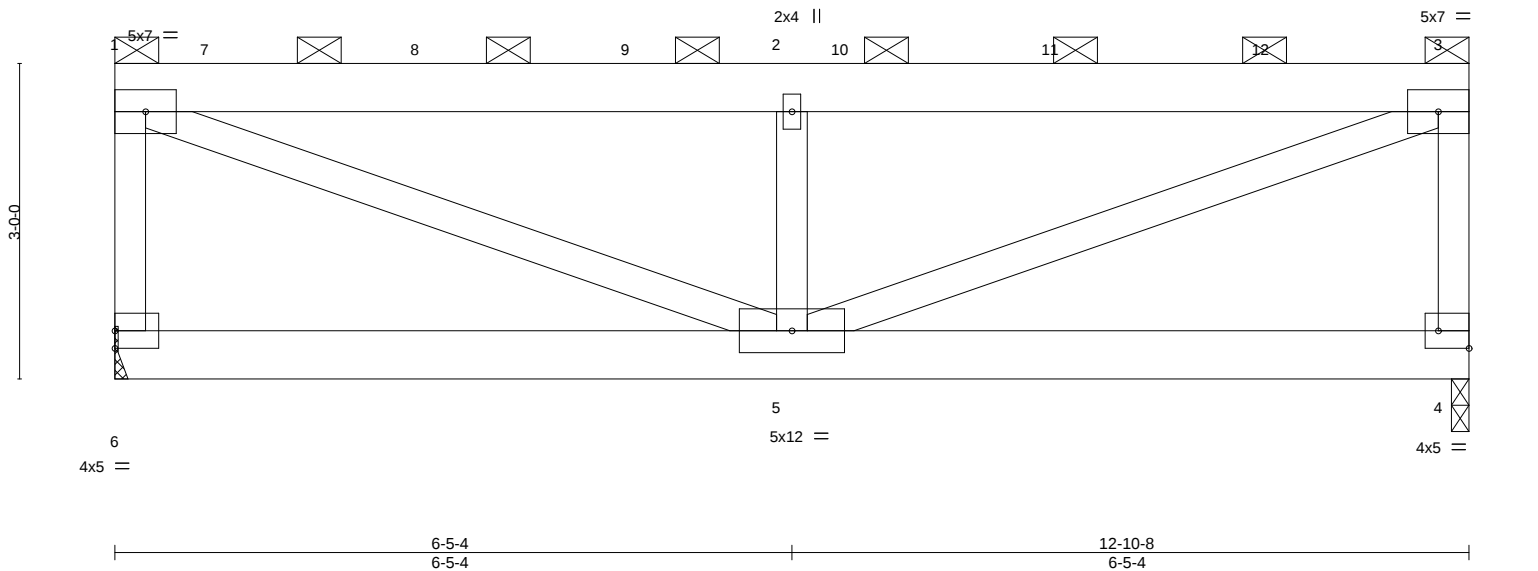


Plate Offsets (X,Y)--		[4:Edge,0-2-0]	
LOADING (psf)	SPACING-	2-0-0	CSI.
TCLL 25.0	Plate Grip DOL	1.15	TC 0.46
TCDL 10.0	Lumber DOL	1.15	BC 0.16
BCLL 0.0 *	Rep Stress Incr	NO	WB 0.61
BCDL 10.0	Code IRC2018/TPI2014		Matrix-S
			DEFL.
			in (loc) l/defl L/d
			Vert(LL) -0.06 5 >999 360
			Vert(CT) -0.11 5 >999 240
			Horz(CT) 0.00 4 n/a n/a
			Wind(LL) 0.04 5 >999 240
			PLATES
			MT20
			GRIP
			197/144
			Weight: 150 lb FT = 10%

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

BRACING-
 TOP CHORD 2-0-0 oc purlins (6-0-0 max.): 1-3, except end verticals.
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) 6=Mechanical, 4=0-2-0 (req. 0-2-6)
 Max Horz 6=-77(LC 4)
 Max Uplift 6=-372(LC 4), 4=-329(LC 5)
 Max Grav 6=3373(LC 1), 4=3005(LC 1)

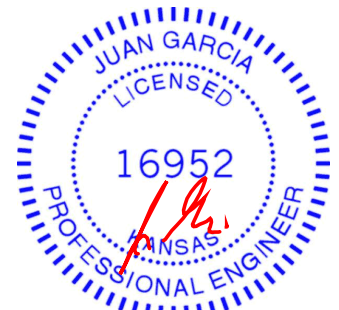
FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
 TOP CHORD 1-6=-3245/393, 1-2=-4776/522, 2-3=-4776/522, 3-4=-2876/350
 WEBS 1-5=-553/4925, 2-5=-3699/508, 3-5=-555/4937

NOTES-

- 2-ply truss to be connected together with 10d (0.131"x3") nails as follows:
 Top chords connected as follows: 2x4 - 1 row at 0-9-0 oc, 2x6 - 2 rows staggered at 0-9-0 oc.
 Bottom chords connected as follows: 2x6 - 2 rows staggered 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.
- 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); cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- Provide adequate drainage to prevent water ponding.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- WARNING: Required bearing size at joint(s) 4 greater than input bearing size.
- Refer to girder(s) for truss to truss connections.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 6=372, 4=329.
- This truss 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) 879 lb down and 123 lb up at 1-0-0, 873 lb down and 125 lb up at 3-0-0, 873 lb down and 125 lb up at 5-0-0, 873 lb down and 125 lb up at 7-0-0, and 873 lb down and 125 lb up at 9-0-0, and 873 lb down and 125 lb up at 11-0-0 on top chord. The design/selection of such connection device(s) is the responsibility of others.

LOAD CASE(S) Standard

Continued on page 2



September 23, 2020

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 Chesterfield, MO 63017

RELEASE FOR

Job 400640
AS NOTED ON PLANS REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
10/21/2020
Standard

Truss Type
FLAT GIRDER
Qty
1
Ply
2
Lot 27 H4
I42923385
Job Reference (optional)
8.420 s Aug 25 2020 MiTek Industries, Inc. Wed Sep 23 07:57:38 2020 Page 2
ID:vBszku21ozNPT?RizYtJMSyXqDi-_FL1iQvdm9a9KZXXG6xj_Cv_ALy9e01I2iA4XoyapGx
1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (plf)
Vert: 1-3=-70, 4-6=-20
Concentrated Loads (lb)
Vert: 7=-879 8=-873 9=-873 10=-873 11=-873 12=-873

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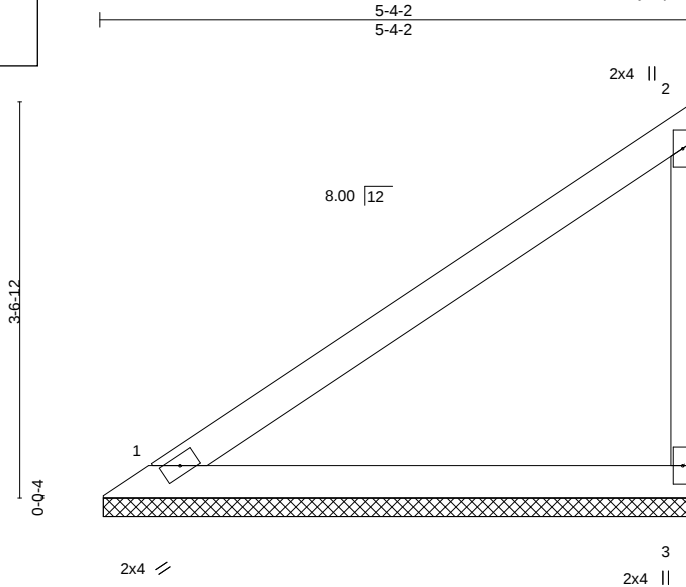
RELEASE FOR

Job 400640
CONSTRUCTION
 AS NOTED ON PLANS REVIEW
 DEVELOPMENT SERVICES
 LEES SUMMIT, MISSOURI
 10/21/2020

Truss Type	Valley	Qty	1	Ply	1	Lot 27 H4	I42923386
Job Reference (optional)							

8.420 s Aug 25 2020 MiTek Industries, Inc. Wed Sep 23 07:57:39 2020 Page 1

ID: vBsZku21ozNPT?RizYtJMSyXqDi-SSvQvmvFXTj0xj6jqpSyXPRAEIHGNckuHMwd3FyapGw



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 0.44	Vert(LL)	n/a	-	n/a	999	MT20	197/144
BCDL 10.0	Lumber DOL	1.15	BC 0.23	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: 15 lb	FT = 10%

LUMBER-

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

BRACING-

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

REACTIONS.

(size) 1=5-3-12, 3=5-3-12
 Max Horz 1=126(LC 5)
 Max Uplift 1=-18(LC 8), 3=-62(LC 8)
 Max Grav 1=214(LC 1), 3=230(LC 15)

FORCES. (lb) - 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.



September 23, 2020

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 Chesterfield, MO 63017

Job 400640
CONSTRUCTION
 AS NOTED ON PLANS REVIEW
 DEVELOPMENT SERVICES
 LEES SUMMIT, MISSOURI
 10/21/2020

Truss Type

Valley

Qty

1

Ply

1

Lot 27 H4

I42923387

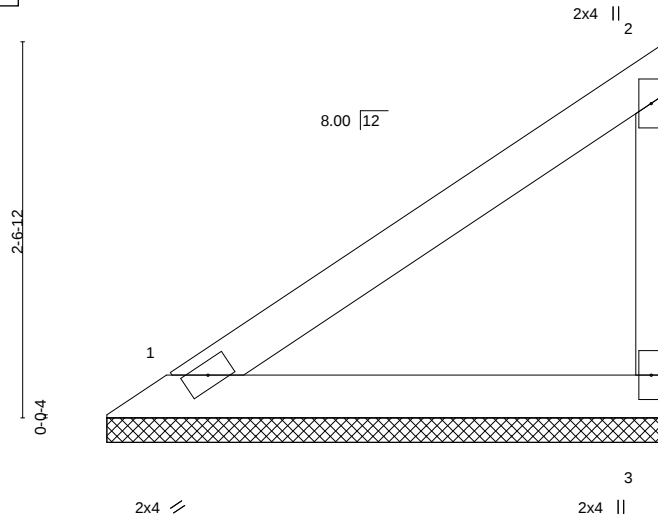
Job Reference (optional)

8.420 s Aug 25 2020 MiTek Industries, Inc. Wed Sep 23 07:57:41 2020 Page 1

ID: vBsZku21ozNPT?RizYtJMSyXqDi-Oq1AKSxW34zkB1G6xEVQcqXZaZ_nrWDBkgPk77yapGu

3-10-2
3-10-2

Scale = 1:15.7



LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.19	Vert(LL)	n/a	-	n/a	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.10	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: 11 lb	FT = 10%

LUMBER-

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

BRACING-

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

REACTIONS.

(size) 1=3-9-12, 3=3-9-12
 Max Horz 1=86(LC 7)
 Max Uplift 1=-12(LC 8), 3=-42(LC 8)
 Max Grav 1=147(LC 1), 3=157(LC 15)

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

NOTES-

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



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RELEASE FOR

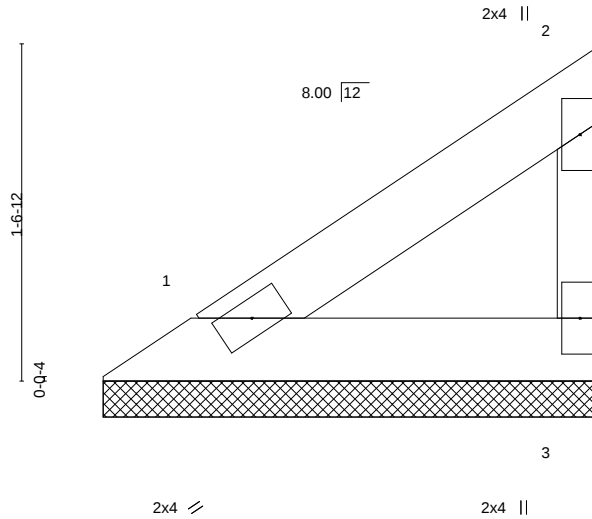
Job 400640
CONSTRUCTION
 AS NOTED ON PLANS REVIEW
DEVELOPMENT SERVICES
 LEES SUMMIT, MISSOURI

10/21/2020

Truss Type	Qty	Ply	Lot 27 H4	I42923388
Valley	1	1	Job Reference (optional)	

8.420 s Aug 25 2020 MiTek Industries, Inc. Wed Sep 23 07:57:41 2020 Page 1

ID: vBsZku21ozNPT?RizYtJMSyXqDi-Oq1AKSxW34zkB1G6xEVQcXcpZ?zrWDBkgPk77yapGu



Scale = 1:10.7

LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.05	Vert(LL)	n/a	-	n/a	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.03	Vert(CT)	n/a	-	n/a		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.00	Horz(CT)	-0.00	3	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-P					Weight: 6 lb	FT = 10%

LUMBER-

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

BRACING-

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

REACTIONS.

(size) 1=2-3-12, 3=2-3-12
 Max Horz 1=47(LC 5)
 Max Uplift 1=-7(LC 8), 3=-23(LC 8)
 Max Grav 1=79(LC 1), 3=85(LC 15)

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.



September 23, 2020

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16023 Swingley Ridge Rd
 Chesterfield, MO 63017

RELEASE FOR

Job 400640
CONSTRUCTION
 AS NOTED ON PLANS REVIEW
DEVELOPMENT SERVICES
 LEES SUMMIT, MISSOURI

10/21/2020

Truss Type

Valley

Qty

1

Ply

1

Lot 27 H4

I42923389

Job Reference (optional)

8.420 s Aug 25 2020 MiTek Industries, Inc. Wed Sep 23 07:57:42 2020 Page 1
 ID: vBsZku21ozNPT?RlZYtJMSyXqDi-s1bYXoy8qQ05boBqIVx0f923jPyJiaXlKzK8HgZyapGt
 13-5-10
 9-4-14

Scale = 1:39.2

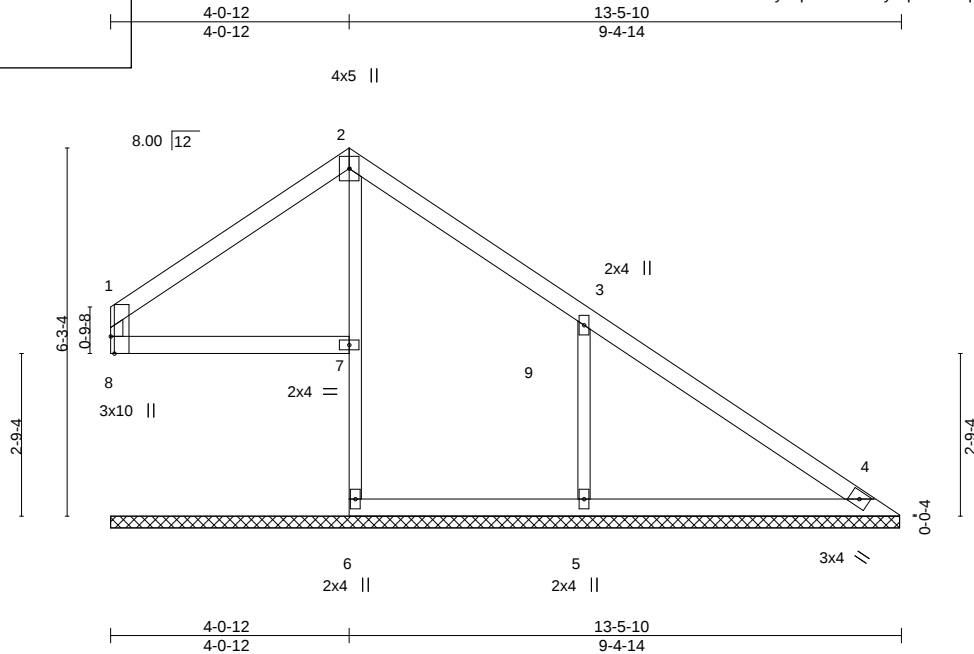


Plate Offsets (X,Y)-- [8:0-3-8,Edge]

LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.32	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.19	Vert(CT)	n/a	-	n/a	999		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.11	Horz(CT)	0.02	4	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-S						Weight: 41 lb	FT = 10%

LUMBER-

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

BRACING-

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

REACTIONS.

All bearings 13-5-4.
 (lb) - Max Horz 8=-171(LC 9)
 Max Uplift All uplift 100 lb or less at joint(s) 4, 7 except 8=-145(LC 9), 5=-191(LC 9)
 Max Grav All reactions 250 lb or less at joint(s) 8, 4, 6 except 7=376(LC 18), 5=616(LC 16)

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

BOT CHORD 2-7=-292/42
 WEBS 3-5=-390/243

NOTES-

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- Gable requires continuous bottom chord bearing.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- Bearing at joint(s) 7 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 4, 7 except (jt=lb) 8=145, 5=191.
- Beveled plate or shim required to provide full bearing surface with truss chord at joint(s) 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.



September 23, 2020

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16023 Swingley Ridge Rd
 Chesterfield, MO 63017

RELEASE FOR

Job 400640
CONSTRUCTION
AS NOTED ON PLANS REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI

10/21/2020

Truss Type	Valley	Qty	1	Ply	1	Lot 27 H4	I42923390
Job Reference (optional)							

8.420 s Aug 25 2020 MiTek Industries, Inc. Wed Sep 23 07:57:43 2020 Page 1
 ID: vBsZku21ozNPT?RlZyTjMSyXqDi-KD9wI8ymbhDSQLPU3fXuhFcvMfjpJPkUC_urCOyapGs

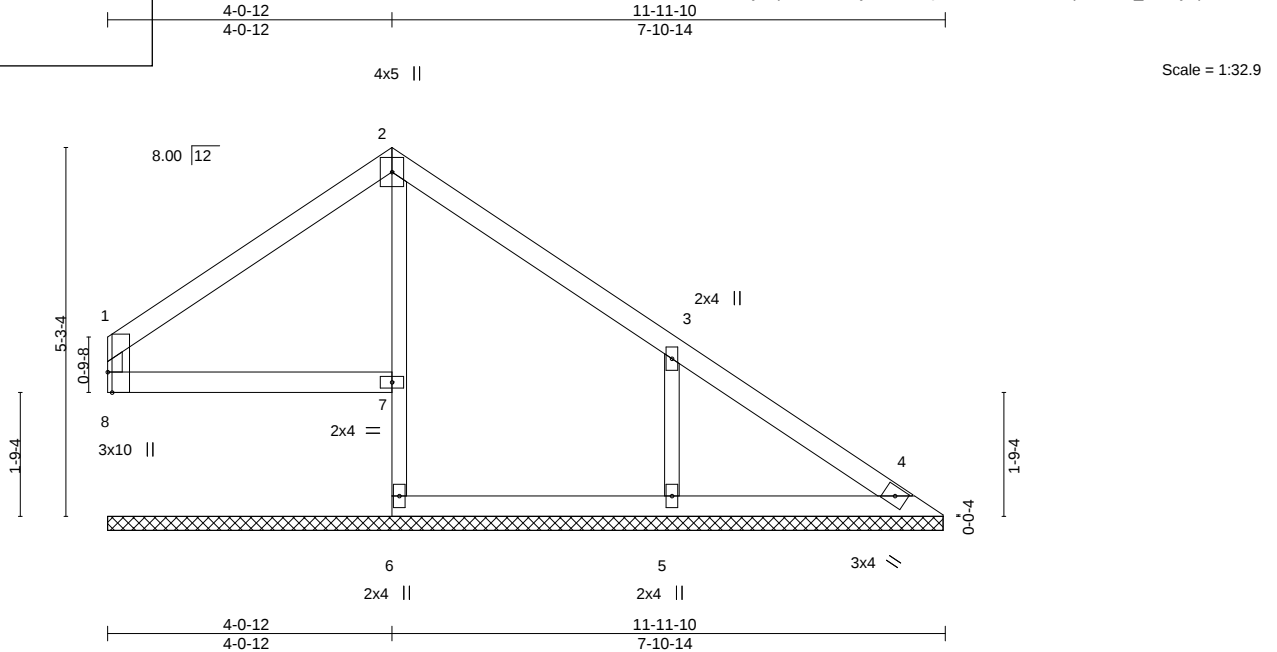


Plate Offsets (X,Y)--		[8:0-3-8,Edge]										
LOADING (psf)		SPACING- 2-0-0		CSI.		DEFL. in (loc) l/defl L/d				PLATES GRIP		
TCLL	25.0	Plate Grip DOL	1.15	TC	0.21	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.13	Vert(CT)	n/a	-	n/a	999		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.06	Horz(CT)	0.02	4	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-S							Weight: 35 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 *Except*	BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 2x3 SPF No.2		
OTHERS 2x3 SPF No.2		

REACTIONS. All bearings 11-11-4.
 (lb) - Max Horz 8=-131(LC 4)
 Max Uplift All uplift 100 lb or less at joint(s) 4, 7 except 8=-106(LC 9), 5=-156(LC 9)
 Max Grav All reactions 250 lb or less at joint(s) 8, 4, 6 except 7=313(LC 15), 5=413(LC 16)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
 BOT CHORD 2-7=-262/23
 WEBS 3-5=-317/201

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
 - Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
 - Gable requires continuous bottom chord bearing.
 - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
 - * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
 - Bearing at joint(s) 7 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
 - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 4, 7 except (jt=lb) 8=106, 5=156.
 - Beveled plate or shim required to provide full bearing surface with truss chord at joint(s) 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.



September 23, 2020

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MiTek
 16023 Swingley Ridge Rd
 Chesterfield, MO 63017

RELEASE FOR

Job 400640
CONSTRUCTION
 AS NOTED ON PLANS REVIEW
DEVELOPMENT SERVICES
 LEES SUMMIT, MISSOURI

10/21/2020

Truss Type

Valley

Qty

1

Ply

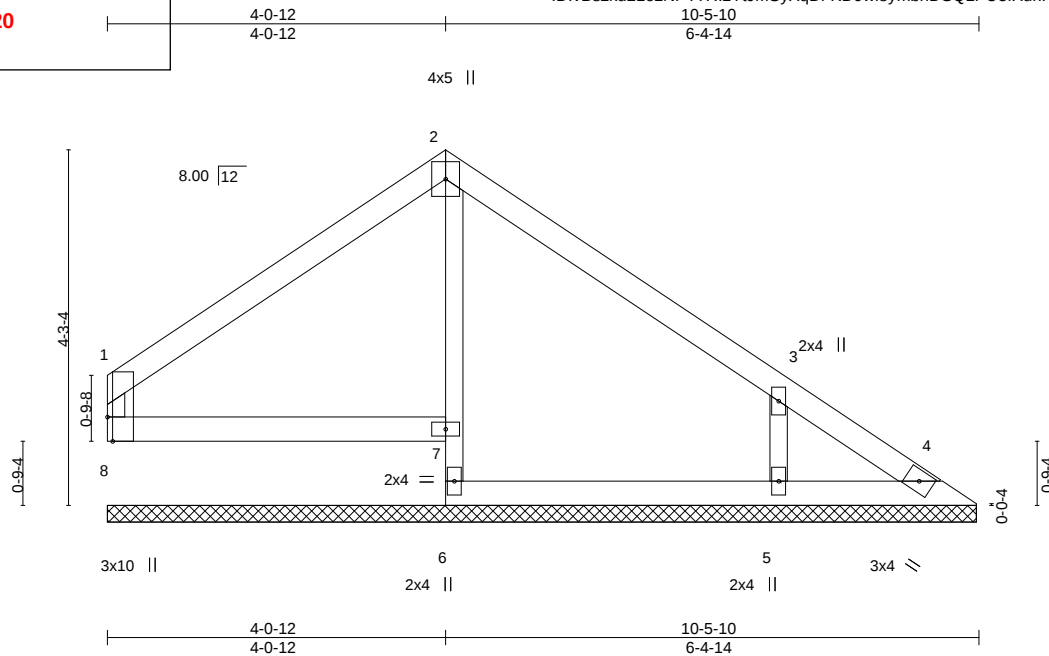
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Lot 27 H4

I42923391

Job Reference (optional)

8.420 s Aug 25 2020 MiTek Industries, Inc. Wed Sep 23 07:57:43 2020 Page 1
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Scale = 1:27.7

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

LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.21	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.13	Vert(CT)	n/a	-	n/a	999		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.05	Horz(CT)	0.01	4	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-S						Weight: 30 lb	FT = 10%

LUMBER-

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

BRACING-

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

REACTIONS.

All bearings 10-5-4.
 (lb) - Max Horz 8=-108(LC 4)
 Max Uplift All uplift 100 lb or less at joint(s) 8, 4 except 5=-136(LC 9)
 Max Grav All reactions 250 lb or less at joint(s) 8, 4, 6 except 7=256(LC 1), 5=351(LC 16)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
 WEBS 3-5=-277/178

NOTES-

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- Gable requires continuous bottom chord bearing.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- Bearing at joint(s) 7 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 8, 4 except (jt=lb) 5=136.
- Beveled plate or shim required to provide full bearing surface with truss chord at joint(s) 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.



September 23, 2020

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16023 Swingley Ridge Rd
 Chesterfield, MO 63017

RELEASE FOR

Job 400640
CONSTRUCTION
AS NOTED ON PLANS REVIEW
DEVELOPMENT SERVICES
LEE SUMMIT, MISSOURI

Truss Type
 Valley

Qty
 1

Ply
 1

Lot 27 H4

I42923392

Job Reference (optional)

8.420 s Aug 25 2020 MiTek Industries, Inc. Wed Sep 23 07:57:44 2020 Page 1

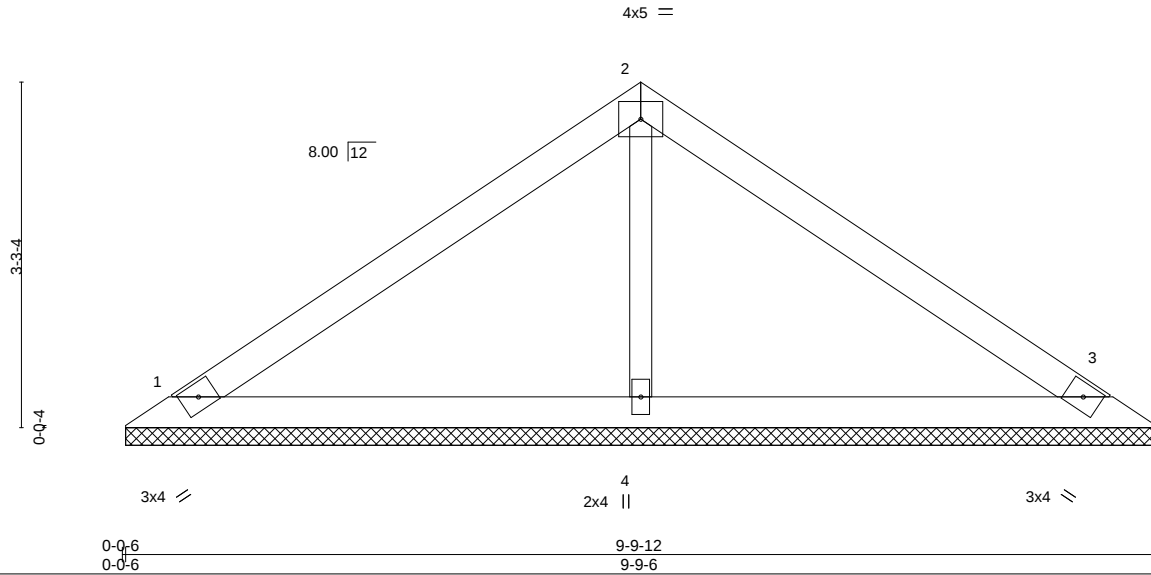
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10/21/2020

4-10-14
 4-10-14

9-9-12
 4-10-14

Scale = 1:21.8



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 0.27	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.17	Vert(CT)	n/a	-	n/a	999		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.06	Horz(CT)	0.00	3	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-S						Weight: 25 lb	FT = 10%

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

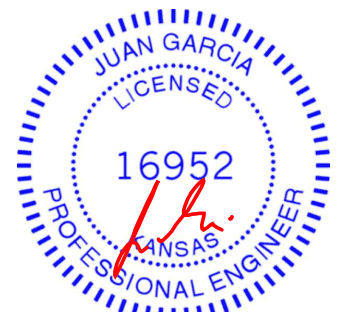
BRACING-
 TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins.
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) 1=9-9-0, 3=9-9-0, 4=9-9-0
 Max Horz 1=-77(LC 4)
 Max Uplift 1=-39(LC 8), 3=-48(LC 9), 4=-15(LC 8)
 Max Grav 1=205(LC 1), 3=205(LC 1), 4=387(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
WEBS 2-4=-252/64

NOTES-

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



September 23, 2020

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16023 Swingley Ridge Rd
 Chesterfield, MO 63017

RELEASE FOR

Job 400640
CONSTRUCTION
 AS NOTED ON PLANS REVIEW
DEVELOPMENT SERVICES
 LEES SUMMIT, MISSOURI

Truss Type
 Valley

Qty
 1

Ply
 1

Lot 27 H4

I42923393

Job Reference (optional)

8.420 s Aug 25 2020 MiTek Industries, Inc. Wed Sep 23 07:57:45 2020 Page 1

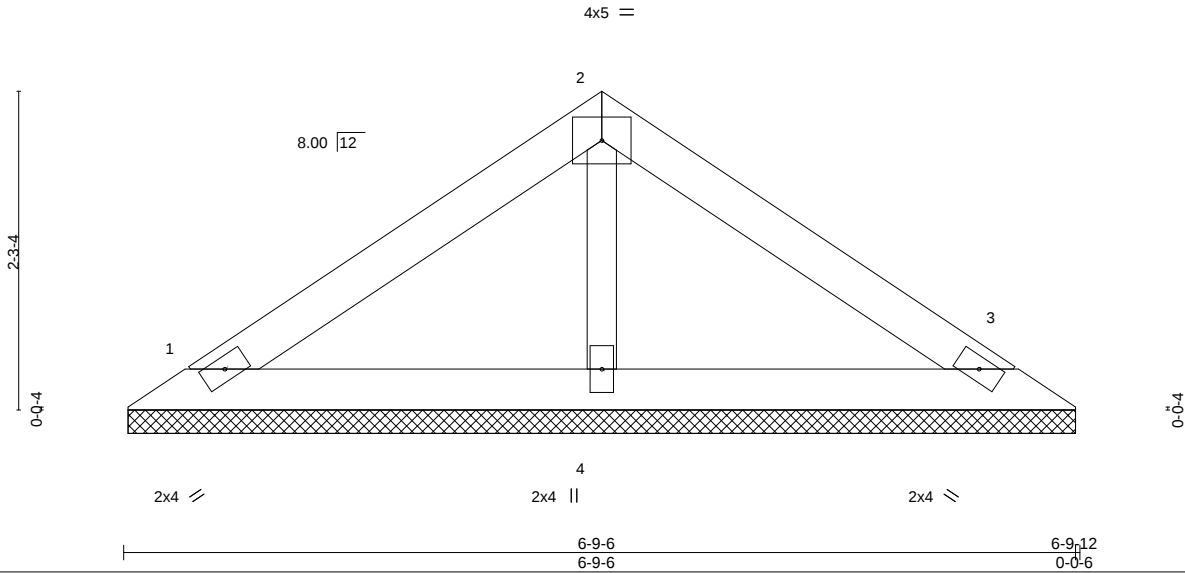
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10/21/2020

3-4-14
 3-4-14

6-9-12
 3-4-14

Scale = 1:16.4



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 0.15	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.07	Vert(CT)	n/a	-	n/a	999		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.03	Horz(CT)	0.00	3	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-P						Weight: 17 lb	FT = 10%

LUMBER-

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

BRACING-

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

REACTIONS.

(size) 1=6-9-0, 3=6-9-0, 4=6-9-0
 Max Horz 1=-51(LC 4)
 Max Uplift 1=-33(LC 8), 3=-39(LC 9)
 Max Grav 1=148(LC 1), 3=148(LC 1), 4=230(LC 1)

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

NOTES-

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



September 23, 2020

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 Chesterfield, MO 63017

RELEASE FOR

Job 400640
CONSTRUCTION
 AS NOTED ON PLANS REVIEW
DEVELOPMENT SERVICES
 LEES SUMMIT, MISSOURI

Truss Type
 Valley

Qty
 1

Ply
 1

Lot 27 H4

I42923394

Job Reference (optional)

8.420 s Aug 25 2020 MiTek Industries, Inc. Wed Sep 23 07:57:45 2020 Page 1

ID:vBszku21ozNPT?RizYtJMSyXqDi-GcGhAp_07JTafeZtA4ZMmghH4AM3nJDnflNxGuyapGq

10/21/2020

1-10-14
 1-10-14

3-9-12
 1-10-14

Scale = 1:9.1

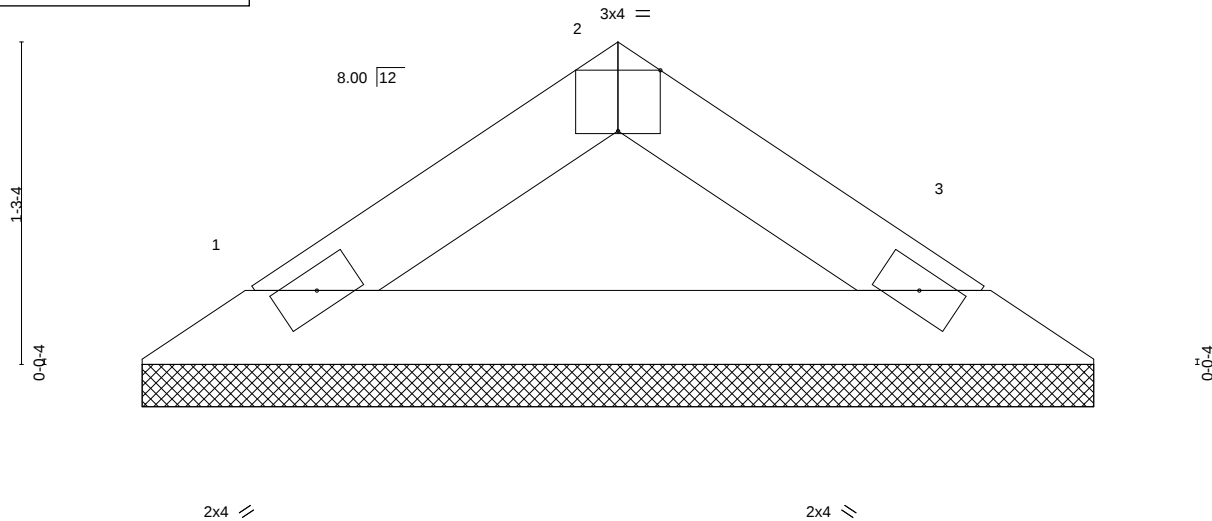


Plate Offsets (X,Y)--		[2:0-2-0,Edge]		3-9-6		3-9-12		0-0-6	
LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.03	Vert(LL)	n/a	-	n/a	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.08	Vert(CT)	n/a	-	n/a		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.00	Horz(CT)	0.00	3	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-P					Weight: 8 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 3-9-12 oc purlins.
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS.

(size) 1=3-9-0, 3=3-9-0
 Max Horz 1=-25(LC 4)
 Max Uplift 1=-15(LC 8), 3=-15(LC 9)
 Max Grav 1=128(LC 1), 3=128(LC 1)

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

NOTES-

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



September 23, 2020

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16023 Swingley Ridge Rd
 Chesterfield, MO 63017

RELEASE FOR

Job 400640
CONSTRUCTION
 AS NOTED ON PLANS REVIEW
DEVELOPMENT SERVICES
 LEES SUMMIT, MISSOURI

10/21/2020

Truss Type
 Valley

Qty
 1

Ply
 1

Lot 27 H4

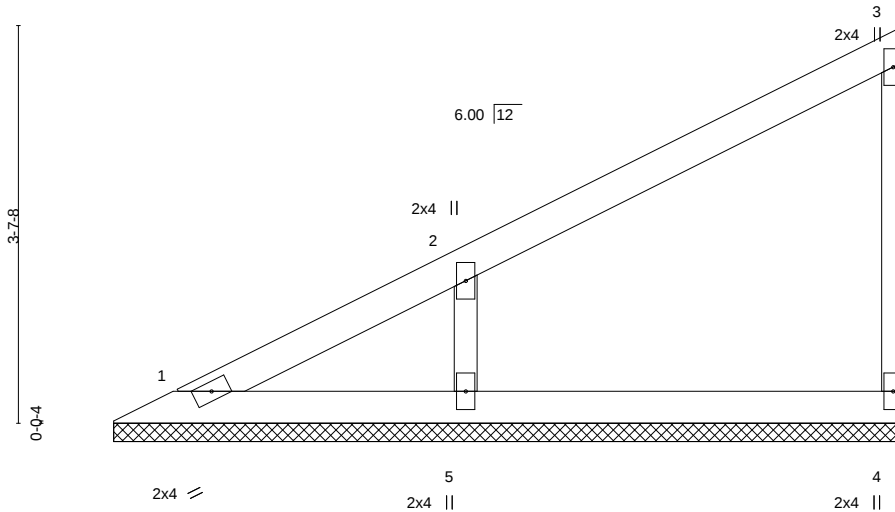
I42923395

Job Reference (optional)

8.420 s Aug 25 2020 MiTek Industries, Inc. Wed Sep 23 07:57:39 2020 Page 1

ID: vBsZku21ozNPT?RizYtJMSyXqDi-SSvQvmvFXTj0xj6jqpsyXPRE6IJMNcvuHMwd3FyapGw

Scale = 1:21.0



LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.19	Vert(LL)	n/a	-	n/a	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.10	Vert(CT)	n/a	-	n/a		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.05	Horz(CT)	-0.00	4	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-P					Weight: 20 lb	FT = 10%

LUMBER-

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

BRACING-

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

REACTIONS.

(size) 1=7-2-8, 4=7-2-8, 5=7-2-8
 Max Horz 1=136(LC 5)
 Max Uplift 4=-26(LC 8), 5=-113(LC 8)
 Max Grav 1=82(LC 16), 4=141(LC 1), 5=378(LC 1)

FORCES.

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

WEBS 2-5=-294/164

NOTES-

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 2) Gable requires continuous bottom chord bearing.
- 3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 4) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 4 except (jt=lb) 5=113.
- 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.



September 23, 2020

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 Chesterfield, MO 63017

RELEASE FOR

Job 400640
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DEVELOPMENT SERVICES
 LEES SUMMIT, MISSOURI

10/21/2020

Truss Type
 Valley

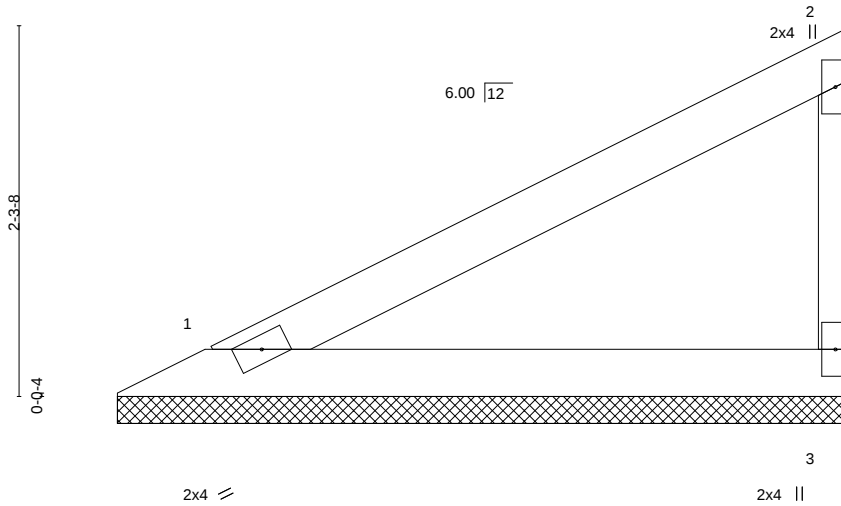
Qty 1
 Ply 1
 Lot 27 H4

I42923396

Job Reference (optional)

8.420 s Aug 25 2020 MiTek Industries, Inc. Wed Sep 23 07:57:40 2020 Page 1
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Scale = 1:14.2



LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.27	Vert(LL)	n/a	-	n/a	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.15	Vert(CT)	n/a	-	n/a		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.00	Horz(CT)	-0.00	3	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-P					Weight: 12 lb	FT = 10%

LUMBER-

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

BRACING-

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

REACTIONS.

(size) 1=4-6-8, 3=4-6-8
 Max Horz 1=80(LC 5)
 Max Uplift 1=-22(LC 8), 3=-42(LC 8)
 Max Grav 1=173(LC 1), 3=173(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.



September 23, 2020

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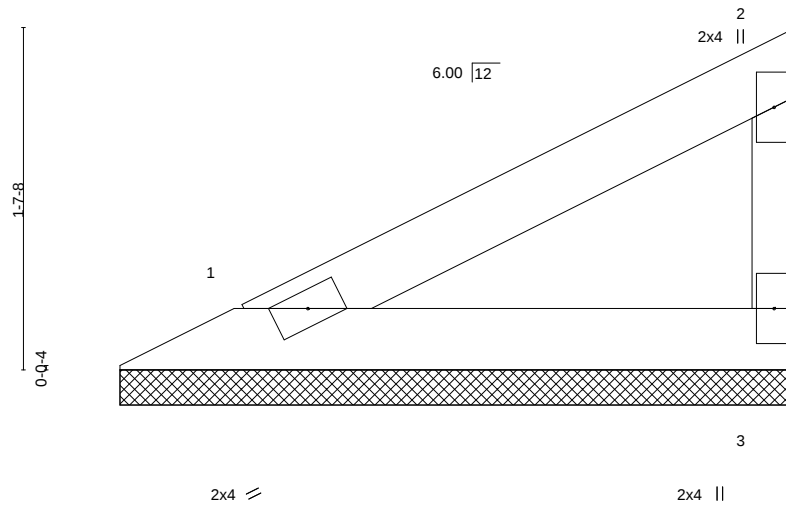
RELEASE FOR

Job 400640
CONSTRUCTION
 AS NOTED ON PLANS REVIEW
DEVELOPMENT SERVICES
 LEES SUMMIT, MISSOURI

10/21/2020

Truss Type	Qty	Ply	Lot 27 H4	I42923397
Valley	1	1	Job Reference (optional)	

8.420 s Aug 25 2020 MiTek Industries, Inc. Wed Sep 23 07:57:40 2020 Page 1
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Scale = 1:10.9

LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.11	Vert(LL)	n/a	-	n/a	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.06	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: 8 lb	FT = 10%

LUMBER-

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

BRACING-

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

REACTIONS.

(size) 1=3-2-8, 3=3-2-8
 Max Horz 1=53(LC 5)
 Max Uplift 1=-15(LC 8), 3=-28(LC 8)
 Max Grav 1=113(LC 1), 3=113(LC 1)

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

NOTES-

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



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DEVELOPMENT SERVICES
 LEES SUMMIT, MISSOURI

10/21/2020

Truss Type
 Valley

Qty
 1

Ply
 1

Lot 27 H4

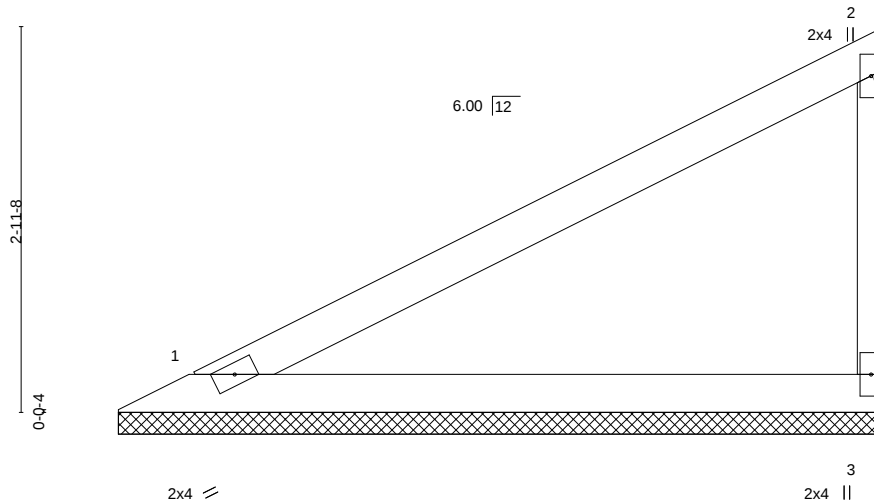
I42923398

Job Reference (optional)

8.420 s Aug 25 2020 MiTek Industries, Inc. Wed Sep 23 07:57:41 2020 Page 1

ID: vBsZku21ozNPT?RlZyUjMSyXqDi-Oq1AKSxW34zkB1G6xEVQcqxUQZx_rWDBkgPk77yapGu
 5-11-0
 5-11-0

Scale = 1:17.7



LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.52	Vert(LL)	n/a	-	n/a	999	MT20	197/144
BCLL 10.0	Lumber DOL	1.15	BC 0.28	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: 15 lb	FT = 10%

LUMBER-

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

BRACING-

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

REACTIONS.

(size) 1=5-10-8, 3=5-10-8
 Max Horz 1=108(LC 5)
 Max Uplift 1=30(LC 8), 3=57(LC 8)
 Max Grav 1=233(LC 1), 3=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) Gable requires continuous bottom chord bearing.
- 3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 4) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 3.
- 6) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



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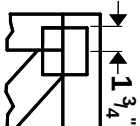
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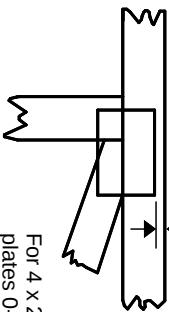
Symbols

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.

0- $\frac{1}{16}$ "



For 4 x 2 orientation, locate plates 0- $\frac{3}{16}$ " from outside edge of truss.



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

* Plate location details available in **MiTek 20120 software** or upon request.

PLATE SIZE

4 X 4

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

LATERAL BRACING LOCATION



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

BEARING



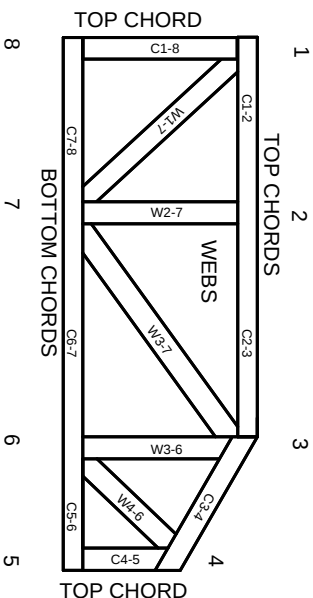
Indicates location where bearings (supports) occur. Icons vary but reaction section indicates joint number where bearings occur. Min size shown is for crushing only.

Industry Standards:

ANSI/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)



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

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

PRODUCT CODE APPROVALS

ICC-ES Reports:

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

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

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

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



General Safety Notes

Failure to Follow Could Cause Property Damage or Personal Injury

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