

10/12/2020

RE: 400675 Lot 19 HT MiTek USA, Inc. 16023 Swingley Ridge Rd Chesterfield, MO 63017 314-434-1200

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

Design Code: IRC2018/TPI2014 Design Program: MiTek 20/20 8.4

Wind Code: N/A Wind Speed: 115 mph Roof Load: 45.0 psf Floor Load: N/A psf

This package includes 65 individual, dated Truss Design Drawings and 0 Additional Drawings.

No.	Seal#	Truss Name	Date	No.	Seal#	Truss Name	Date
1	143059520	A1	10/2/2020	27	143059546	E3	10/2/2020
2	143059521	A2	10/2/2020	28	143059547	E4	10/2/2020
3	143059522	A3	10/2/2020	29	143059548	E5	10/2/2020
4	143059523	A4	10/2/2020	30	143059549	G1	10/2/2020
5	143059524	B1	10/2/2020	31	143059550	G2	10/2/2020
6	143059525	B2	10/2/2020	32	143059551	G3	10/2/2020
7	143059526	B3	10/2/2020	33	143059552	G4	10/2/2020
8	143059527	B4	10/2/2020	34	143059553	G5	10/2/2020
9	143059528	B5	10/2/2020	35	143059554	G6	10/2/2020
10	143059529	B6	10/2/2020	36	143059555	G7	10/2/2020
11	143059530	B7	10/2/2020	37	143059556	G8	10/2/2020
12	143059531	C4	10/2/2020	38	143059557	G9	10/2/2020
13	143059532	C5	10/2/2020	39	143059558	G10	10/2/2020
14	143059533	C6	10/2/2020	40	143059559	H1	10/2/2020
15	143059534	C7	10/2/2020	41	143059560	H2	10/2/2020
16	143059535	C8	10/2/2020	42	143059561	J1	10/2/2020
17	143059536	C9	10/2/2020	43	143059562	J2	10/2/2020
18	143059537	C10	10/2/2020	44	143059563	J3	10/2/2020
19	143059538	D1	10/2/2020	45	143059564	J4	10/2/2020
20	143059539	D2	10/2/2020	46	143059565	LAY1	10/2/2020
21	143059540	D3	10/2/2020	47	143059566	LAY2	10/2/2020
22	143059541	D4	10/2/2020	48	143059567	LAY3	10/2/2020
23	143059542	D5	10/2/2020	49	143059568	LAY4	10/2/2020
24	143059543	D6	10/2/2020	50	143059569	P1	10/2/2020
25	143059544	E1	10/2/2020	51	I43059570	P2	10/2/2020
26	143059545	E2	10/2/2020	52	I43059571	R1	10/2/2020

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.





10/12/2020

RE: 400675 - Lot 19 HT

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

**Site Information:** 

Project Customer: Project Name:

Lot/Block: Subdivision:

Address: City, County:

State:

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No.	Seal#	Truss Name	Date
53	143059572	V1	10/2/2020
54	143059573	V2	10/2/2020
55	143059574	V3	10/2/2020
56	143059575	V4	10/2/2020
57	143059576	V5	10/2/2020
58	143059577	V6	10/2/2020
59	143059578	V7	10/2/2020
60	143059579	V8	10/2/2020
61	143059580	V9	10/2/2020
62	I43059581	V10	10/2/2020
63	143059582	V11	10/2/2020
64	143059583	V12	10/2/2020
65	143059584	V13	10/2/2020



10/12/2020

RE: 400675 Lot 19 HT MiTek USA, Inc. 16023 Swingley Ridge Rd Chesterfield, MO 63017 314-434-1200

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

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Wind Code: N/A Wind Speed: 115 mph Roof Load: 45.0 psf Floor Load: N/A psf

This package includes 65 individual, dated Truss Design Drawings and 0 Additional Drawings.

No.	Seal#	Truss Name	Date	No.	Seal#	Truss Name	Date
1	143059520	A1	10/2/2020	27	143059546	E3	10/2/2020
2	143059521	A2	10/2/2020	28	143059547	E4	10/2/2020
3	143059522	A3	10/2/2020	29	143059548	E5	10/2/2020
4	143059523	A4	10/2/2020	30	143059549	G1	10/2/2020
5	143059524	B1	10/2/2020	31	143059550	G2	10/2/2020
6	143059525	B2	10/2/2020	32	143059551	G3	10/2/2020
7	143059526	B3	10/2/2020	33	143059552	G4	10/2/2020
8	143059527	B4	10/2/2020	34	143059553	G5	10/2/2020
9	143059528	B5	10/2/2020	35	143059554	G6	10/2/2020
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19	143059538	D1	10/2/2020	45	143059564	J4	10/2/2020
20	143059539	D2	10/2/2020	46	143059565	LAY1	10/2/2020
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25	143059544	E1	10/2/2020	51	I43059570	P2	10/2/2020
26	143059545	E2	10/2/2020	52	I43059571	R1	10/2/2020

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.





10/12/2020

RE: 400675 - Lot 19 HT

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

**Site Information:** 

Project Customer: Project Name:

Lot/Block: Subdivision:

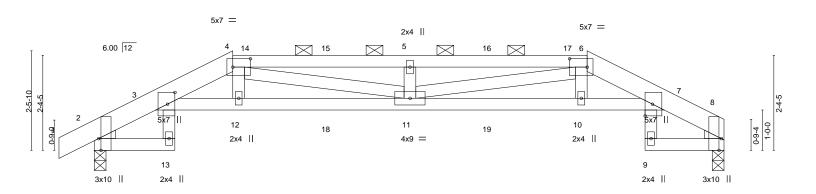
Address: City, County:

State:

	0 1"	<b>-</b> N	ъ.
No.	Seal#	Truss Name	Date
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54	143059573	V2	10/2/2020
55	143059574	V3	10/2/2020
56	143059575	V4	10/2/2020
57	143059576	V5	10/2/2020
58	143059577	V6	10/2/2020
59	143059578	V7	10/2/2020
60	143059579	V8	10/2/2020
61	143059580	V9	10/2/2020
62	I43059581	V10	10/2/2020
63	143059582	V11	10/2/2020
64	143059583	V12	10/2/2020
65	143059584	V13	10/2/2020

**RELEASE FOR CONSTRUCTION** Job Truss Truss Type Lot 19 HT 143059520 AS NOTED ON PLANS REVIE 400675 A1 Hip Girder **DEVELOPMENT SERVICES** DEVELOPMENT SERVICES | Z | Job Reference (optional)

LEE'S SUMMIT, MISSOURI 8.420 s Aug 25 2020 MiTek Industries, Inc. Fri Oct 2 11:00:25 2020 Page 1 Wheeler Lumber, Waverly, KS 66871 ID:bWuMDBN0tjF5cDvSpwhpH1zCzbQ-lXmf5?mjpoCXUEKBOJwjK2ucDsskOKnEPovJyuyXTfa 0-10-8 7-10-0 12-2-1 13-8-0 15-7-8 3-5-4 1-5-4 10/12/2020 2-0-0 4-4-12 4-4-1 1-5-4 1-11-8



ŀ	2-0-0 3-5-4 2-0-0 1-5-4		7-10-0 4-4-12			12-2-12 4-4-12			13-8-0	15-7-8 1-11-8	
Plate Offsets (X,Y		•	,0-2-8], [6:0-5-4,0-2-8], [7:	0-3-8,0-2-3], [8:0-	3-8,Edge				104	1 11 0	
LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in	(loc)	l/defl	L/d	PLATE	S (	GRIP
TCLL 25.0 TCDL 10.0	Plate Grip DOL Lumber DOL	1.15 1.15	TC 0.52 BC 0.48	Vert(LL) Vert(CT)	-0.11 -0.21	11 11	>999 >887	360 240	MT20	1	197/144
BCLL 0.0	Rep Stress Incr		WB 0.12	Horz(CT)	0.16	8	>007 n/a	n/a			
BCDL 10.0	Code IRC2018	TPI2014	Matrix-S	Wind(LL)	0.11	11	>999	240	Weight	: 119 lb	FT = 10%

**BOT CHORD** 

LUMBERTOP CHORD 2x6 SPF No.2 \*Except\*

TOP CHORD

TOP CHORD 2x6 SPF No.2 \*Except\* 4-6: 2x4 SPF No.2

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

WEDGE

Left: 2x3 SPF No.2 , Right: 2x3 SPF No.2

**REACTIONS.** (size) 2=0-3-8, 8=0-3-8

Max Horz 2=40(LC 12)

Max Uplift 2=-228(LC 8), 8=-204(LC 9) Max Grav 2=1031(LC 1), 8=957(LC 22)

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

TOP CHORD 2-3=-608/163, 3-4=-2669/663, 4-5=-3546/917, 5-6=-3546/917, 6-7=-2668/653,

7-8=-619/155

BOT CHORD 3-12=-626/2567, 11-12=-625/2601, 10-11=-603/2600, 7-10=-605/2565 WEBS 4-12=0/284, 4-11=-296/977, 5-11=-335/164, 6-11=-297/986, 6-10=0/283

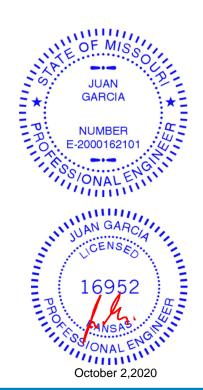
## NOTES-

1) 2-ply truss to be connected together with 10d (0.131"x3") nails as follows: Top chords connected as follows: 2x6 - 2 rows staggered at 0-9-0 oc, 2x4 - 1 row at 0-9-0 oc.

Bottom chords connected as follows: 2x4 - 1 row at 0-9-0 oc.

- Webs connected as follows: 2x4 1 row at 0-9-0 oc.

  2) All loads are considered equally applied to all plies, except if noted as front (F) or back (B) face in the LOAD CASE(S) section. Ply to ply connections have been provided to distribute only loads noted as (F) or (B), unless otherwise indicated.
- 3) Unbalanced roof live loads have been considered for this design.
- 4) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 5) Provide adequate drainage to prevent water ponding.
- 6) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 7) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=228, 8=204.
- 9) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 10) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



Structural wood sheathing directly applied or 6-0-0 oc purlins, except

2-0-0 oc purlins (6-0-0 max.): 4-6.

Rigid ceiling directly applied or 6-0-0 oc bracing.

Scale = 1:28.6

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



**RELEASE FOR** Job Truss Truss Type CONSTRUCTION Lot 19 HT AS NOTED ON PLANS REVIEW DEVELOPMENT SERVICES 400675 A1 Hip Girder

143059520

Wheeler Lumber, Waverly, KS 66871

DEVELOPMENT SERVICES 2 Job Reference (optional)
LEE'S SUMMIT, MISSOURI 8.420 s Aug 25 2020 MiTek Industries, Inc. Fri Oct 2 11:00:25 2020 Page 2 ID:bWuMDBN0tjF5cDvSpwhpH1zCzbQ-lXmf5?mjpoCXUEKBOJwjK2ucDsskOKnEPovJyuyXTfa

NOTES10/12/2020
11) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 154 lb down and 106 lb up at 3-5-4, 69 lb down and 49 lb up at 3-10-0, 74 lb down and 49 lb up at 11-10-0, and 154 lb up at 11-10 down and 106 lb up at 12-2-12 on top chord, and 90 lb down and 26 lb up at 3-10-0, 37 lb down and 26 lb up at 5-10-0, 37 lb down and 26 lb up at 7-10-0, 37 lb down and 26 lb up at 12-2-0 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.

LOAD CASE(S) Standard

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

Uniform Loads (plf)

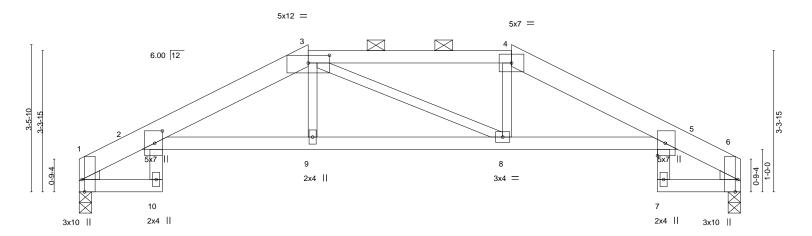
Vert: 1-4=-70, 4-6=-70, 6-8=-70, 2-13=-20, 3-7=-20, 8-9=-20

Concentrated Loads (lb)

Vert: 4=-36(F) 6=-36(F) 12=-127(F) 11=-37(F) 5=-16(F) 10=-127(F) 14=-16(F) 15=-16(F) 16=-16(F) 17=-16(F) 18=-37(F) 19=-37(F)

**RELEASE FOR** Job Truss Truss Type CONSTRUCTION Lot 19 HT 143059521 AS NOTED ON PLANS REVIE 400675 A2 Hip **DEVELOPMENT SERVICES** DEVELOPMENT SERVICES | Job Reference (optional)

LEE'S SUMMIT, MISSOURI 8.420 s Aug 25 2020 MiTek Industries, Inc. Fri Oct 2 11:00:26 2020 Page 1 Wheeler Lumber, Waverly, KS 66871 ID:bWuMDBN0tjF5cDvSpwhpHfzCzbQ-DkK2lLmLa6KO6OvNy0SysGQl1GAW7nhNeSetUKyXTfZ 13-7-8 15-7-0 10/1<mark>2/20</mark>20 1-11-8 3-5-4 3-5-4 1-11-8



1-11-8 5-4-12		10-2-4			13-7-8			15-7-0			
1-11-8		3-5-4	'		4-9-8			'	3-5-4	ı	1-11-8
Plate Offsets (X,Y) [1:0-3-8,Edge], [2:0-3-8,0-2-3], [3:0-6-0,0-2-3], [5:0-6-0,0-2-3]					:0-3-8,Edge]						
SPA	CING-	2-0-0	CSI.		DEFL.	in	(loc)	I/defl	L/d	PLATES	GRIP
Plate	Grip DOL	1.15	TC	0.65	Vert(LL)	-0.10	2-9	>999	360	MT20	197/144
Lumb	oer DOL	1.15	BC	0.57	Vert(CT)	-0.19	2-9	>971	240		
Rep	Stress Incr	YES	WB	80.0	Horz(CT)	0.25	6	n/a	n/a		
Code	: IRC2018/TP	PI2014	Matrix	:-S	Wind(LL)	0.07	10	>999	240	Weight: 56 lb	FT = 10%
	1-11-8 - [1:0-3-8,Edg SPA( Plate Lumb Rep (	1-11-8 - [1:0-3-8,Edge], [2:0-3-8,0  SPACING- Plate Grip DOL Lumber DOL Rep Stress Incr	1-11-8 3-5-4 - [1:0-3-8,Edge], [2:0-3-8,0-2-3], [3:0-6-0] SPACING- 2-0-0 Plate Grip DOL 1.15 Lumber DOL 1.15	1-11-8 3-5-4 - [1:0-3-8,Edge], [2:0-3-8,0-2-3], [3:0-6-0,0-2-3], [5:0-3 - SPACING- 2-0-0 CSI. Plate Grip DOL 1.15 TC - Lumber DOL 1.15 BC - Rep Stress Incr YES WB	1-11-8 3-5-4 [1:0-3-8,Edge], [2:0-3-8,0-2-3], [3:0-6-0,0-2-3], [5:0-3-8,0-2-3], [6  SPACING- Plate Grip DOL 1.15 Lumber DOL 1.15 Rep Stress Incr YES  TC 0.65 BC 0.57 WB 0.08	1-11-8       3-5-4       4-9-8         - [1:0-3-8,Edge], [2:0-3-8,0-2-3], [3:0-6-0,0-2-3], [5:0-3-8,0-2-3], [6:0-3-8,Edge]         SPACING-       2-0-0       CSI.       DEFL.         Plate Grip DOL       1.15       TC       0.65       Vert(LL)         Lumber DOL       1.15       BC       0.57       Vert(CT)         Rep Stress Incr       YES       WB       0.08       Horz(CT)	1-11-8     3-5-4     4-9-8       - [1:0-3-8,Edge], [2:0-3-8,0-2-3], [3:0-6-0,0-2-3], [5:0-3-8,0-2-3], [6:0-3-8,Edge]       SPACING-     2-0-0     CSI.     DEFL.     in       Plate Grip DOL     1.15     TC     0.65     Vert(LL)     -0.10       Lumber DOL     1.15     BC     0.57     Vert(CT)     -0.19       Rep Stress Incr     YES     WB     0.08     Horz(CT)     0.25	1-11-8     3-5-4     4-9-8       - [1:0-3-8,Edge], [2:0-3-8,0-2-3], [3:0-6-0,0-2-3], [5:0-3-8,0-2-3], [6:0-3-8,Edge]       SPACING-     2-0-0     CSI.     DEFL.     in (loc)       Plate Grip DOL     1.15     TC 0.65     Vert(LL) -0.10     2-9       Lumber DOL     1.15     BC 0.57     Vert(CT) -0.19     2-9       Rep Stress Incr     YES     WB 0.08     Horz(CT) 0.25     6	1-11-8 3-5-4 4-9-8  - [1:0-3-8,Edge], [2:0-3-8,0-2-3], [3:0-6-0,0-2-3], [5:0-3-8,0-2-3], [6:0-3-8,Edge]  - SPACING- 2-0-0 CSI. DEFL. in (loc) I/defl Plate Grip DOL 1.15 TC 0.65 Vert(LL) -0.10 2-9 >999  Lumber DOL 1.15 BC 0.57 Vert(CT) -0.19 2-9 >971  Rep Stress Incr YES WB 0.08 Horz(CT) 0.25 6 n/a	1-11-8     3-5-4     4-9-8     3-5-4       - [1:0-3-8,Edge], [2:0-3-8,0-2-3], [3:0-6-0,0-2-3], [5:0-3-8,0-2-3], [6:0-3-8,Edge]       SPACING-     2-0-0     CSI.     DEFL.     in (loc) I/defl     L/d       Plate Grip DOL     1.15     TC 0.65     Vert(LL) -0.10 2-9 >999 360       Lumber DOL     1.15     BC 0.57     Vert(CT) -0.19 2-9 >971 240       Rep Stress Incr     YES     WB 0.08     Horz(CT) 0.25 6 n/a n/a	1-11-8 3-5-4 4-9-8 3-5-4  [1:0-3-8,Edge], [2:0-3-8,0-2-3], [3:0-6-0,0-2-3], [5:0-3-8,0-2-3], [6:0-3-8,Edge]    SPACING- 2-0-0   CSI.   DEFL. in (loc)  /defl   L/d   PLATES     Plate Grip DOL 1.15   TC 0.65   Vert(LL) -0.10 2-9 >999 360   MT20     Lumber DOL 1.15   BC 0.57   Vert(CT) -0.19 2-9 >971 240     Rep Stress Incr YES   WB 0.08   Horz(CT) 0.25 6 n/a n/a

**BRACING-**

TOP CHORD

**BOT CHORD** 

LUMBER-

2x6 SPF No.2 \*Except\* TOP CHORD 3-4: 2x4 SPF No.2

**BOT CHORD** 2x4 SPF No.2 2x3 SPF No.2 \*Except\* **WEBS** 2-10,5-7: 2x4 SPF No.2

WEDGE

Left: 2x3 SPF No.2, Right: 2x3 SPF No.2

REACTIONS. (size) 1=0-3-8, 6=0-3-8 Max Horz 1=-54(LC 9)

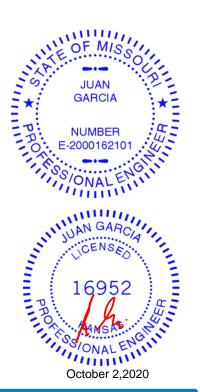
Max Uplift 1=-60(LC 8), 6=-60(LC 9)

Max Grav 1=697(LC 1), 6=697(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown. TOP CHORD 1-2=-441/66, 2-3=-1352/102, 3-4=-1239/90, 4-5=-1352/84, 5-6=-441/59

**BOT CHORD** 2-9=-78/1233, 8-9=-75/1239, 5-8=-37/1234

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



Structural wood sheathing directly applied or 4-6-8 oc purlins, except

2-0-0 oc purlins (5-0-0 max.): 3-4.

Rigid ceiling directly applied or 6-0-0 oc bracing.

Scale = 1:27.1



MARNING - 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® cannectors. 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

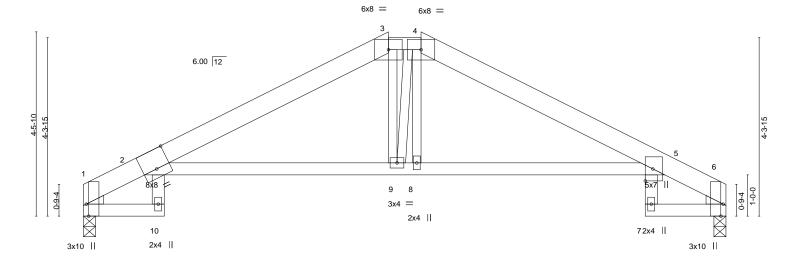
ANSI/TPI Quality Criteria, DSB-89 and BCSI Building Component Safety Information

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



**RELEASE FOR** Job Truss Truss Type CONSTRUCTION Lot 19 HT 143059522 AS NOTED ON PLANS REVIE 400675 **A3** Hip **DEVELOPMENT SERVICES** DEVELOPMENT SERVICES | Job Reference (optional)

LEE'S SUMMIT, MISSOURI 8.420 s Aug 25 2020 MiTek Industries, Inc. Fri Oct 2 11:00:26 2020 Page 1 Wheeler Lumber, Waverly, KS 66871 ID:bWuMDBN0tjF5cDvSpwhpHf1zCzbQ-DkK2lLmLa6KO6OvNy0SysGQkDG927nFNeSetUKyXTfZ 7-4-12 15-7-0 1<del>0/12/2</del>020 1-11-8 5-5-4 5-5-4 1-11-8



	-	1-11-8	5-	-5-4	0-9-8			5-5-4	+	1	-11-8	
Plate Offs	ets (X,Y)	[1:0-3-8,Edge], [2:0-4-0,0	)-5-7], [5:0-3-8,	0-2-3], [6:0-3-8,Edge]								_
LOADING	· /	SPACING-	2-0-0	CSI.	DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP	_
TCLL	25.0	Plate Grip DOL	1.15	TC 0.76	Vert(LL)	-0.17	7	>999	360	MT20	197/144	
TCDL	10.0	Lumber DOL	1.15	BC 0.60	Vert(CT)	-0.32	7	>571	240			
BCLL	0.0 *	Rep Stress Incr	YES	WB 0.11	Horz(CT)	0.33	6	n/a	n/a			
BCDL	10.0	Code IRC2018/TF	PI2014	Matrix-S	Wind(LL)	0.12	7	>999	240	Weight: 59 lb	FT = 10%	

**BRACING-**

TOP CHORD

**BOT CHORD** 

LUMBER-

TOP CHORD 2x6 SPF No.2 \*Except\*

3-4: 2x4 SPF No.2 2x4 SPF No.2

**BOT CHORD WEBS** 2x3 SPF No.2 \*Except\*

2-10,5-7: 2x4 SPF No.2 WEDGE

Left: 2x3 SPF No.2, Right: 2x3 SPF No.2

REACTIONS. 1=0-3-8, 6=0-3-8 (size)

Max Horz 1=71(LC 12) Max Uplift 1=-76(LC 8), 6=-76(LC 9)

Max Grav 1=697(LC 1), 6=697(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown. TOP CHORD 1-2=-441/91, 2-3=-1097/96, 3-4=-983/132, 4-5=-1104/105, 5-6=-390/68

**BOT CHORD** 2-9=-49/975, 8-9=-21/983, 5-8=-22/979

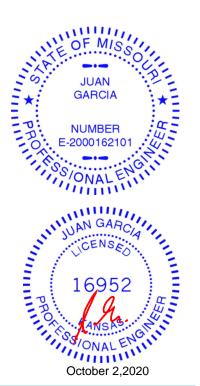
WFBS 3-9=-106/311

## NOTES-

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60

7-4-12

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



Structural wood sheathing directly applied or 3-11-6 oc purlins,

Rigid ceiling directly applied or 10-0-0 oc bracing, Except:

2-0-0 oc purlins (5-1-1 max.): 3-4.

6-0-0 oc bracing: 1-10.

Scale = 1:27.9



MARNING - 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® cannectors. 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

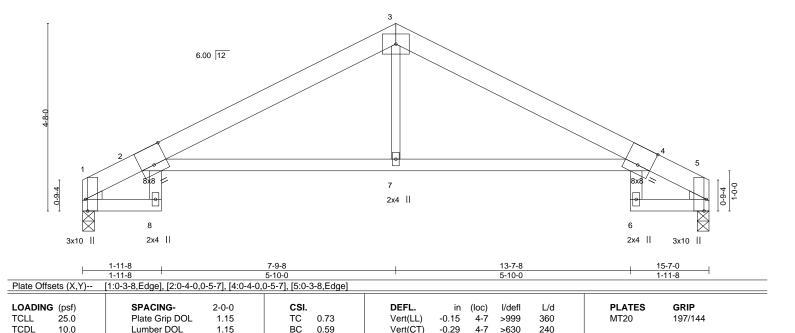
ANSI/TPI Quality Criteria, DSB-89 and BCSI Building Component Safety Information

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



**RELEASE FOR** Job Truss Truss Type CONSTRUCTION Lot 19 HT 143059523 AS NOTED ON PLANS REVIE 400675 A4 Roof Special **DEVELOPMENT SERVICES** DEVELOPMENT SERVICES | Job Reference (optional)

LEE'S SUMMIT, MISSOURI 8.420 s Aug 25 2020 MiTek Industries, Inc. Fri Oct 2 11:00:27 2020 Page 1 Wheeler Lumber, Waverly, KS 66871 ID:bWuMDBN0tjF5cDvSpwhpH1zCzbQ-hwuQWhnzLPSFjYUaWjzBPTzvPgVVsDbXs6OQ0myXTfY 15-7-0 10/12/2020 1-11-8 5-10-5-10-0 1-11-8 Scale = 1:28.7 6x8 =



Horz(CT)

Wind(LL)

**BRACING-**TOP CHORD

**BOT CHORD** 

0.34

0.13

5

2-7

n/a

>999

n/a

240

Rigid ceiling directly applied or 6-0-0 oc bracing.

Structural wood sheathing directly applied or 4-2-11 oc purlins.

LUMBER-

**BCLL** 

BCDL

TOP CHORD 2x6 SPF No.2 **BOT CHORD** 2x4 SPF No.2 **WEBS** 2x4 SPF No.2 \*Except\*

0.0

10.0

3-7: 2x3 SPF No.2

WEDGE

Left: 2x3 SPF No.2, Right: 2x3 SPF No.2

REACTIONS. (size) 1=0-3-8, 5=0-3-8

Max Horz 1=75(LC 8)

Max Uplift 1=-79(LC 8), 5=-79(LC 9) Max Grav 1=697(LC 1), 5=697(LC 1)

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

TOP CHORD 1-2=-441/97, 2-3=-1093/103, 3-4=-1093/131, 4-5=-441/72

Rep Stress Incr

Code IRC2018/TPI2014

2-7=-46/972, 4-7=-46/972 **BOT CHORD** 

3-7=0/319 **WEBS** 

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.

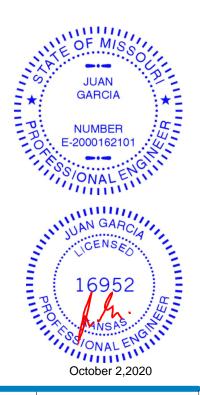
YES

WB

Matrix-S

0.10

- 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, 5.
- 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.



FT = 10%

Weight: 56 lb



**RELEASE FOR** Job Truss Truss Type Lot 19 HT CONSTRUCTION 143059524 AS NOTED ON PLANS REVIE 400675 B1 GABLE **DEVELOPMENT SERVICES** DEVELOPMENT SERVICES | Job Reference (optional)

LEE'S SUMMIT, MISSOURI 8.420 s Aug 25 2020 MiTek Industries, Inc. Fri Oct 2 11:00:29 2020 Page 1 Wheeler Lumber, Waverly, KS 66871 ID:bWuMDBN0tjF5cDvSpwhpH1zCzbQ-dJ?AxNpDt1jzzseyd8?fUu2NLTJZK6EqKQtX5fyXTfW 29-4-8 39-10-8 10/12/2020 20-4-8 9-0-0 10-6-0

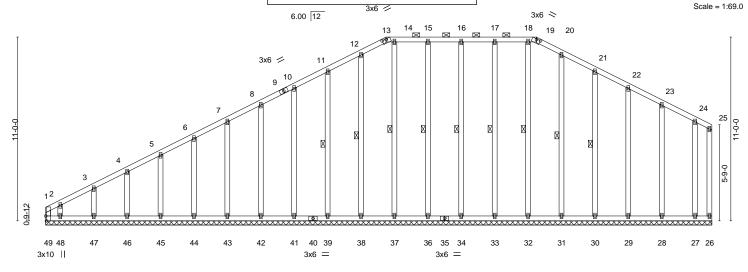


Plate Offsets	Plate Offsets (X,Y) [13:0-3-0,0-0-7], [19:0-3-0,0-0-7], [49:0-3-8,Edge]												
LOADING (	. ,	SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL 2	25.0	Plate Grip DOL	1.15	TC	0.13	Vert(LL)	n/a	-	n/a	999	MT20	197/144	
TCDL 1	10.0	Lumber DOL	1.15	BC	0.10	Vert(CT)	n/a	-	n/a	999			
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.16	Horz(CT)	-0.01	26	n/a	n/a			
BCDL 1	10.0	Code IRC2018/TF	PI2014	Matri	x-R						Weight: 265 lb	FT = 10%	

39-10-8

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 except end verticals, and 2-0-0 oc purlins (6-0-0 max.): 13-19. WEBS 2x4 SPF No.2 **BOT CHORD** Rigid ceiling directly applied or 10-0-0 oc bracing. **OTHERS** 2x4 SPF No.2 **WEBS** 11-39, 12-38, 14-37, 15-36, 16-34, 17-33, 1 Row at midpt

REACTIONS. All bearings 39-10-8.

(lb) -Max Horz 49=294(LC 5)

Max Uplift All uplift 100 lb or less at joint(s) 26, 47, 46, 45, 44, 43, 42, 41, 39, 38, 37, 36, 34, 33, 32, 31, 30, 29, 28, 27 except 49=-133(LC 6), 48=-263(LC 8)

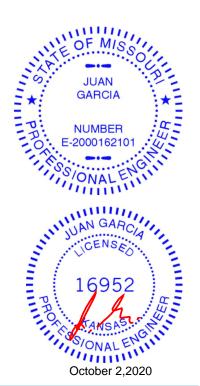
Max Grav All reactions 250 lb or less at joint(s) 26, 48, 47, 46, 45, 44, 43, 42, 41, 39, 38, 37, 36, 34, 33,

32, 31, 30, 29, 28, 27 except 49=332(LC 5)

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

TOP CHORD 1-2=-309/126

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 3) 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.
- 4) Provide adequate drainage to prevent water ponding
- 5) All plates are 2x4 MT20 unless otherwise indicated.
- 6) Gable requires continuous bottom chord bearing.
- 7) Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
- 8) Gable studs spaced at 2-0-0 oc.
- 9) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 10) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 11) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 26, 47, 46, 45, 44, 43, 42, 41, 39, 38, 37, 36, 34, 33, 32, 31, 30, 29, 28, 27 except (jt=lb) 49=133, 48=263.
- 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.
- 13) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



18-32, 20-31, 21-30



MARNING - 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 Design Valid to Use Only with New Controlled S. This costign is based only upon parameters shown, and is for an individual druining Component, not a fundamental property 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



**RELEASE FOR** Job Truss Truss Type Lot 19 HT CONSTRUCTION PIGGYBACK BASE GIVEN COMPLETE COMPLICATION COMPLETE COMPLICATION COMPLETE COMPLETE COMPLETE COMPLETE COMPLETE COMPLETE C 143059525 400675 B2 VELOPMENT SERVICES DEVELOPMENT SERVICES | Z | Job Reference (optional)

LEE'S SUMMIT, MISSOURI 8.420 s Aug 25 2020 MiTek Industries, Inc. Fri Oct 2 11:00:31 2020 Page 1 Wheeler Lumber, Waverly, KS 66871 ID:bWuMDBN0tjF5cDvSpwhpH1zCzbQ-ah7xL2qTPezhC9oLlZ17ZJ8eGHpyovj6nkMe9XyXTfU 10/12/2020 31-6-0 42-0-0 23-4-0 0-10-0 27-5-0 4-1-0 1-5-4 2x4 || Scale = 1:81.1 5x7 = 5x7 = 3x4 =9 8 10 2x4 || 3x4 < 3x6 / 12 6 4x5 > 13 3x4 / 5 9x12 M18SHS = 6.00 12 6x12 / 2-9-0 1-5-10 0-6-0 0-7-0 19 <sup>22</sup> 21 24 20 23 27 26 28 15 18 17 16 14 5x7 = 4x9 =25 3x4 || 5x12 = 3x6 =2x4 | 8x8 5x7 7x12 \_ 5.00 12 3x6 =1-8-6 3-5-4 1-8-6 1-8-14 22-6-0 31-6-0 42-0-0 8-0-0 4-1-0 4-1-0 Plate Offsets (X,Y)--[3:0-10-0,0-2-8], [8:0-5-0,0-2-8], [11:0-5-0,0-2-8], [25:0-2-8,0-2-12] GRIP LOADING (psf) SPACING-DEFL. (loc) I/defl L/d **PLATES TCLL** 25.0 Plate Grip DOL 1.15 TC 0.49 Vert(LL) -0.30 22-23 >999 360 MT20 197/144 TCDL 10.0 Lumber DOL 1.15 ВС 0.87 Vert(CT) -0.53 22-23 >951 240 M18SHS 197/144 **BCLL** 0.0 Rep Stress Incr NO WB 0.60 Horz(CT) 0.19 14 n/a n/a Code IRC2018/TPI2014 **BCDL** 10.0 Matrix-S Wind(LL) 0.21 22-23 >999 240 Weight: 491 lb FT = 10% LUMBER-**BRACING-**TOP CHORD 2x4 SPF No.2 TOP CHORD Structural wood sheathing directly applied or 5-1-12 oc purlins, 2x4 SPF No.2 \*Except\* **BOT CHORD** except end verticals, and 2-0-0 oc purlins (5-5-9 max.): 3-4, 8-11. 21-24: 2x4 SPF 2100F 1.8E **BOT CHORD** Rigid ceiling directly applied or 10-0-0 oc bracing. Except: 2x4 SPF No.2 \*Except\* **WEBS** 9-19 1 Row at midpt 2-24,13-14: 2x3 SPF No.2 REACTIONS. 25=0-3-8, 14=Mechanical (size) Max Horz 25=304(LC 5) Max Uplift 25=-270(LC 8), 14=-139(LC 9) Max Grav 25=2026(LC 26), 14=1992(LC 26) OF MIS FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown. TOP CHORD 2-3=-4456/718, 3-4=-4770/771, 4-5=-4869/617, 5-7=-3255/404, 7-8=-3243/569, 8-9=-2039/333, 9-10=-2033/333, 10-11=-1490/232, 11-12=-1730/242, 12-13=-1379/168, **GARCIA** 2-25=-2073/363, 13-14=-1907/163 **BOT CHORD** 24-25=-326/470, 23-24=-1369/8799, 22-23=-1395/8877, 20-22=-661/4349, 19-20=-208/2049, 16-17=-106/1193 NUMBER **WEBS** 3-24=-323/2149, 4-24=-4256/467, 4-23=-360/110, 4-22=-4557/739, 5-22=-15/887, 5-20=-1650/374, 7-20=-529/297, 8-20=-388/1543, 17-19=-196/1591, 10-19=-121/686, E-2000162101 10-17=-955/175, 11-17=-58/519, 12-17=-81/609, 12-16=-1003/134, 2-24=-562/3512, ONAL ENGIN 13-16=-92/1668 16952

RANSAS

MANSAS

MANSAS NOTES-1) 2-ply truss to be connected together with 10d (0.131"x3") nails as follows: Top chords connected as follows: 2x4 - 1 row at 0-7-0 oc, 2x3 - 1 row at 0-9-0 oc. Bottom chords connected as follows: 2x4 - 1 row at 0-9-0 oc. Webs connected as follows: 2x4 - 1 row at 0-9-0 oc, 2x3 - 1 row at 0-9-0 oc. 2) All loads are considered equally applied to all plies, except if noted as front (F) or back (B) face in the LOAD CASE(S) section. Ply to ply connections have been provided to distribute only loads noted as (F) or (B), unless otherwise indicated. 3) Unbalanced roof live loads have been considered for this design. 4) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed;

- MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 5) Provide adequate drainage to prevent water ponding
- 6) All plates are MT20 plates unless otherwise indicated.
- 7) 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.
- 9) Refer to girder(s) for truss to truss connections.
- 10) Bearing at joint(s) 25 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify Continue city page azing surface



October ?

			RELEASE FUR			
Job	Truss	Truss Type	CONSTRUCTION PI	у	Lot 19 HT	
400675	B2	PIGGYBACK	BASE GROED ON PLANS REVIEW	2	143	3059525

DELEASE ESD

Wheeler Lumber, Waverly, KS 66871

DEVELOPMENT SERVICES | \( \bigsim \big| \) Job Reference (optional)

LEE'S SUMMIT, MISSOURI 8.420 s Aug 25 2020 MiTek Industries, Inc. Fri Oct 2 11:00:31 2020 Page 2 ID:bWuMDBN0tjF5cDvSpwhpH1zCzbQ-ah7xL2qTPezhC9oLlZ17ZJ8eGHpyovj6nkMe9XyXTfU

NOTES10/12/2020
11) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 25=270, 14=139.
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.
13) Graphical purlin representation does not depict the size of the orientation of the surfice close the size of the s

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

14) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 19 lb down and 32 lb up at 1-5-4 on top chord, and 3 lb down and 0 lb up at 1-8-6 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.

LOAD CASE(S) Standard

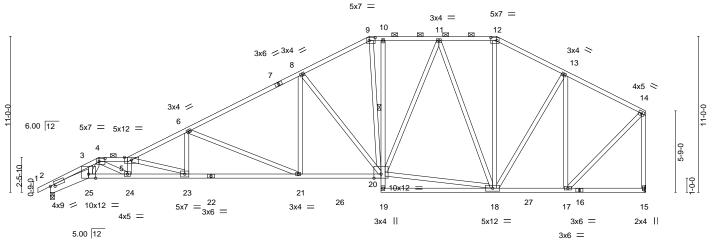
1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15

Uniform Loads (plf)

Vert: 1-2=-70, 2-3=-70, 3-4=-70, 4-8=-70, 8-11=-70, 11-13=-70, 24-25=-20, 19-24=-20, 14-18=-20

Concentrated Loads (lb) Vert: 24=0(F)





Г	2-8-5 2-	8-15 4-2-5	i	8-0-1	1	5-8-7	8-2-0		4-10-7	5-7-9	
Plate Offsets (X,Y)	[2:0-3-12	,0-1-7], [4:0-5-0	,0-2-8], [9:0-5-0	0,0-2-8], [12:	0-5-0,0-2-8]						
_OADING (psf)	SF	ACING-	2-0-0	CSI.		DEFL.	in (loc)	I/defl	L/d	PLATES	GRIP
CLL 25.0	Pla	ate Grip DOL	1.15	TC	0.61	Vert(LL)	-0.29 21-23	>999	360	MT20	197/144
CDL 10.0	Lu	mber DOL	1.15	BC	0.98	Vert(CT)	-0.53 21-23	>947	240		
CLL 0.0 *	Re	p Stress Incr	YES	WB	0.52	Horz(CT)	0.22 15	n/a	n/a		
3CDL 10.0	Co	de IRC2018/TF	PI2014	Matrix	k-S	Wind(LL)	0.20 23-24	>999	240	Weight: 500 lb	FT = 10%

**BRACING-**

TOP CHORD

**BOT CHORD** 

31-6-0

2-2-0 oc bracing: 23-24. 1 Row at midpt

LUMBER-TOP CHORD 2x4 SPF No.2

2x4 SPF No.2 \*Except\* **BOT CHORD** 

2-25: 2x8 SP DSS **WEBS** 2x4 SPF No.2

REACTIONS. (size) 2=0-3-8, 15=Mechanical

Max Horz 2=297(LC 7)

Max Uplift 2=-270(LC 8), 15=-138(LC 9) Max Grav 2=2018(LC 2), 15=1981(LC 2)

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

2-3=-7433/1150, 3-4=-6232/1031, 4-5=-7712/1058, 5-6=-5074/654, 6-8=-3264/406, TOP CHORD

8-9=-2332/338, 9-10=-2094/335, 10-11=-2089/335, 11-12=-1476/231, 12-13=-1713/241, 13-14=-1377/167, 14-15=-1892/164

17-7-9

**BOT CHORD** 2-25=-1193/6558, 24-25=-926/5244, 23-24=-1152/7534, 21-23=-669/4538,

20-21=-295/2828, 17-18=-105/1176

**WEBS** 4-25=-262/996, 4-24=-285/2814, 5-24=-1435/192, 5-23=-3110/502, 6-23=-55/1103,

6-21=-1847/403, 8-21=-60/1006, 8-20=-1302/316, 9-20=-81/821, 18-20=-211/1690, 11-20=-122/761, 11-18=-1048/187, 12-18=-58/514, 13-18=-80/611, 13-17=-1004/129,

14-17=-89/1645, 3-25=-195/1745

## NOTES-

1) 2-ply truss to be connected together with 10d (0.131"x3") nails as follows:

Top chords connected as follows: 2x4 - 1 row at 0-7-0 oc.

Bottom chords connected as follows: 2x8 - 2 rows staggered at 0-9-0 oc, 2x4 - 1 row at 0-9-0 oc. Webs connected as follows: 2x4 - 1 row at 0-9-0 oc.

2) All loads are considered equally applied to all plies, except if noted as front (F) or back (B) face in the LOAD CASE(S) section. Ply to ply connections have been provided to distribute only loads noted as (F) or (B), unless otherwise indicated.

3) Unbalanced roof live loads have been considered for this design.

- 4) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 5) Provide adequate drainage to prevent water ponding.
- 6) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- \* This truss has been designed for a live load of 20.0psf on the bottom chord in 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.
- 8) Refer to girder(s) for truss to truss connections.
- Bearing at joint(s) 2 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- 10) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb)

Continue 700 of 5 at 1 2 2



F MIS

**GARCIA** 

42-0-0

Structural wood sheathing directly applied or 3-10-11 oc purlins,

Rigid ceiling directly applied or 10-0-0 oc bracing, Except:

10-20

except end verticals, and 2-0-0 oc purlins (4-2-13 max.): 4-5, 9-12.



Design Valid to Use Only with New Controlled S. This costign is based only upon parameters shown, and is for an information of unique controlling Component, not a function of the property of



			RELEASE FOR	
Job	Truss	Truss Type	CONSTRUCTION Ply	Lot 19 HT
400675	В3	PIGGYBACK		143059526

Waverly, KS 66871 Wheeler Lumber,

DEVELOPMENT SERVICES | Z | Job Reference (optional)

LEE'S SUMMIT, MISSOURI 8.420 s Aug 25 2020 MiTek Industries, Inc. Fri Oct 2 11:00:32 2020 Page 2

ID:bWuMDBN0tjF5cDvSpwhpH1zCzbQ-2uhJZOr6Ay5YqJNXIHYM6Xgn1h6cXNHG0O5Bi\_yXTfT

NOTES10/12/2020
11) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

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

**RELEASE FOR** Job Truss Truss Type Lot 19 HT CONSTRUCTION 143059527 AS NOTED ON PLANS REVIE 400675 B4 Piggyback Base **DEVELOPMENT SERVICES** DEVELOPMENT SERVICES | Job Reference (optional)

LEE'S SUMMIT, MISSOURI 8.420 s Aug 25 2020 MiTek Industries, Inc. Fri Oct 2 11:00:34 2020 Page 1 Wheeler Lumber, Waverly, KS 66871 ID:bWuMDBN0tjF5cDvSpwhpH1zCzbQ-\_Gp3\_4tMhZLG3dWwQibqBym3CUo??CZZTiaImsyXTfR

22-6-0 **10/12/2000** 27-5-0 6-10-7 0-10-0 4-1-0

31-6-0

4-1

36-4-8

4-10-7

42-0-0

5-7-9

5x7 =

Structural wood sheathing directly applied, except end verticals, and

Rigid ceiling directly applied or 10-0-0 oc bracing, Except:

2-0-0 oc purlins (2-6-10 max.): 4-5, 8-11.

2-2-0 oc bracing: 23-24.

1 Row at midpt

1 Row at midpt

Scale = 1:85.2

 $6x6 = _{2x4}$ 5x7 = 3x6 = 9 8 11 3x10 / 3x4 > 2x4 || 12 6 5x7 = 13 6.00 12 6x6 < 7x12 =2-9-0 3-5-10 9 19 23 20 26 16 15 21 25 27 6x18 = 18 6x8 = 6x8 = 5x12 M18SHS = 12x18 M18SHS = 3x6 || 5x12 = 3x6 = 3x8 MT18HS ||

		2-8-5   5-5-4   7-5-4	15-7-9	22-6-0	23-4-0	31-6-0	36-4-8	42-0-0				
	' 2	2-8-5	8-2-5	6-10-7	0-10-ხ	8-2-0	4-10-7	5-7-9				
Plate Offse	Plate Offsets (X,Y) [2:0-7-4,0-3-0], [4:0-3-0,0-2-7], [8:0-3-8,0-2-4], [11:0-5-0,0-2-8], [14:0-3-8,Edge], [16:0-2-8,0-2-8], [24:1-3-11,Edge]											
LOADING	(psf)	SPACING- 2	2-0-0 <b>CSI</b>		DEFL.	in (loc) I/d	defl L/d	PLATES	GRIP			
TCLL	25.0	Plate Grip DOL	1.15 TC	0.89	Vert(LL)	-0.47 20-22 >9	99 360	MT20	197/144			
TCDL	10.0	Lumber DOL	1.15 BC	0.98	Vert(CT)	-0.85 20-22 >5	93 240	M18SHS	197/144			
BCLL	0.0 *	Rep Stress Incr	YES WB	0.85	Horz(CT)	0.34 14	n/a n/a	MT18HS	197/144			
BCDL	10.0	Code IRC2018/TPI2	014 Mat	rix-S	Wind(LL)	0.22 20-22 >9	999 240	Weight: 230 lb	FT = 10%			

**BOT CHORD** 

**WEBS** 

LUMBER-**BRACING-**TOP CHORD TOP CHORD

2x4 SPF No.2 \*Except\* 1-4,7-8: 2x4 SPF 2100F 1.8E, 5-7: 2x4 SPF 2400F 2.0E

2x4 SPF 2100F 1.8E \*Except\*

**BOT CHORD** 

2-24: 2x8 SP DSS, 9-18,14-15: 2x4 SPF No.2 **WEBS** 2x3 SPF No.2 \*Except\*

5.00 12

3-24,5-20,8-20,10-19,10-17,11-17: 2x4 SPF No.2

5-5-4 2-8-15

 $\frac{7-5-4}{2-0-0}$ 

8-2-5

-0<sub>1</sub>10<sub>1</sub>8 2-8-5 0-10-8 2-8-5

REACTIONS. (size) 2=0-3-8, 14=Mechanical Max Horz 2=240(LC 7)

Max Uplift 2=-41(LC 8)

Max Grav 2=2031(LC 2), 14=1996(LC 2)

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

TOP CHORD 2-3=-7310/242, 3-4=-4744/120, 4-5=-4351/122, 5-6=-3672/69, 6-8=-3693/198,

8-9=-2136/95, 9-10=-2128/96, 10-11=-1495/71, 11-12=-1735/70, 12-13=-1384/41,

13-14=-1913/0

2-24=-316/6442, 23-24=-278/5603, 22-23=-152/5533, 20-22=-157/5528, 19-20=-35/2147, **BOT CHORD** 

16-17=0/1197

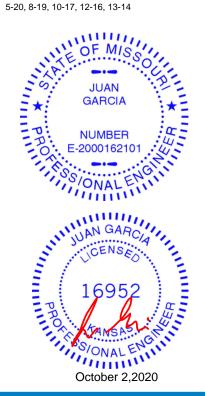
**WEBS** 3-24=-74/2348, 3-23=-1438/127, 4-23=-41/1887, 5-23=-1795/0, 5-20=-2402/137,

6-20=-627/206, 8-20=-165/1846, 17-19=-37/1739, 10-19=-23/798, 10-17=-1057/80,

11-17=-2/521, 12-17=-24/609, 12-16=-1000/35, 13-16=0/1673

## 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) All plates are MT20 plates unless otherwise indicated.
- 5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 6) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- 7) Refer to girder(s) for truss to truss connections.
- 8) Bearing at joint(s) 2 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- 9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2.
- 10) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 11) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.





Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not Design Valid to Use Only with New Controlled S. This costign is based only upon parameters shown, and is for an information of unique controlling Component, not a function of the property of



**RELEASE FOR** Job Truss Truss Type Lot 19 HT CONSTRUCTION 143059528 PIGGYBACK BASE AS NOTED ON PLANS REVIE 400675 B5 **DEVELOPMENT SERVICES** DEVELOPMENT SERVICES | Job Reference (optional)

LEE'S SUMMIT, MISSOURI 8.420 s Aug 25 2020 MiTek Industries, Inc. Fri Oct 2 11:00:35 2020 Page 1 Wheeler Lumber, Waverly, KS 66871 ID:bWuMDBN0tjF5cDvSpwhpH1zCzbQ-STNRBQt\_StT6hn56\_P63k9llvuAhkeSiiMKrJJyXTfQ 31-6-0 -0<sub>7</sub>10-8 2-8-5 0-10-8 2-8-5 22-6-0 **10/12/2020** 27-0-0 33-10-0 37-11-15 42-0-0

4-6-0

4-6-0

1 Row at midpt

2 Rows at 1/3 pts

2-4-0

4-1-15

5-22, 6-20, 7-20, 9-16, 10-16, 11-14, 11-13

Structural wood sheathing directly applied or 2-11-7 oc purlins,

8-18

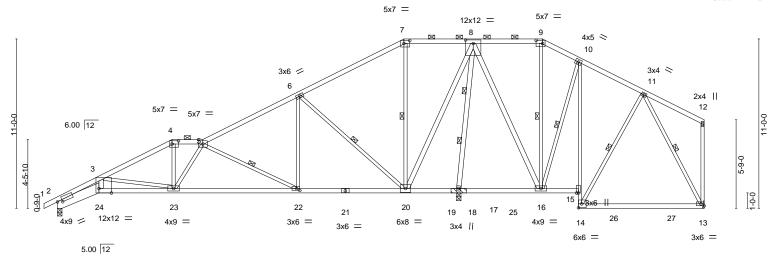
Rigid ceiling directly applied or 5-11-5 oc bracing.

except end verticals, and 2-0-0 oc purlins (4-8-7 max.): 4-5, 7-9.

4-0-1

6-10-7

Scale = 1:74.8



<b></b>	2-8-5 2-8-5	7-5-4 9-5-4 4-8-15 2-0-0	15-7-9 6-2-5	-	22-6-0 6-10-7	26-0 3-6-		31-6-0 5-5-4	33-10-0	42-0-0 8-2-0	<del></del>
Plate Offsets		[2:0-3-12,0-1-7], [4:0-5-		3,0-2-4], [8:0						020	
LOADING (p	psf)	SPACING-	2-0-0	CSI.		DEFL.	in (lo	c) I/defl	L/d	PLATES	GRIP
TCLL 2	5.Ó	Plate Grip DOL	1.15	TC	0.64	Vert(LL)	-0.24 13-	ý >804	360	MT20	197/144
TCDL 10	0.0	Lumber DOL	1.15	BC	0.89	Vert(CT)	-0.39 13-1	4 >492	240		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.94	Horz(CT)	0.14	8 n/a	n/a		
BCDL 10	0.0	Code IRC2018/	ΓPI2014	Matr	ix-S	Wind(LL)	0.10 23-2	4 >999	240	Weight: 218 lb	FT = 10%

**BOT CHORD** 

**WEBS** 

LUMBER-**BRACING-**TOP CHORD 2x4 SPF No.2 TOP CHORD

**BOT CHORD** 2x4 SPF No.2 \*Except\*

2-24: 2x8 SP DSS, 10-14: 2x3 SPF No.2, 13-14: 2x4 SPF 2100F 1.8E

2x3 SPF No.2 \*Except\* **WEBS** 

4-8-15

2-0-0

6-2-5

3-24,8-20,8-18,8-16: 2x4 SPF No.2

(size) 2=0-3-8, 18=(0-3-8 + bearing block) (req. 0-4-5), 13=Mechanical

Max Horz 2=240(LC 7)

Max Uplift 2=-41(LC 8), 18=-26(LC 5), 13=-67(LC 4) Max Grav 2=1011(LC 21), 18=2767(LC 2), 13=474(LC 22)

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

TOP CHORD 2-3=-3471/279. 3-4=-1682/85. 4-5=-1488/97. 5-6=-799/75. 6-7=-68/420. 7-8=-16/304.

8-9=-41/287, 9-10=-60/329

**BOT CHORD** 2-24=-354/3097, 23-24=-312/2670, 22-23=-123/1528, 20-22=-22/656, 18-20=-878/102,

16-18=-641/98, 14-15=-18/334, 10-15=-19/395

**WEBS** 3-24=-88/1206, 3-23=-1235/209, 4-23=0/510, 5-22=-979/114, 6-22=0/769,

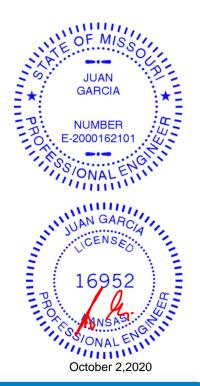
6-20=-1172/129, 7-20=-496/80, 8-20=-67/1489, 8-18=-2560/75, 8-16=-17/997,

9-16=-319/51, 10-16=-542/74, 11-13=-303/201

## NOTES-

REACTIONS.

- 1) 2x4 SPF No.2 bearing block 12" long at jt. 18 attached to front face with 2 rows of 10d (0.131"x3") nails spaced 3" o.c. 8 Total fasteners. Bearing is assumed to be SPF No.2.
- 2) Unbalanced roof live loads have been considered for this design.
- 3) 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
- 4) Provide adequate drainage to prevent water ponding.
- 5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 6) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- 7) Refer to girder(s) for truss to truss connections.
- 8) Bearing at joint(s) 2 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- 9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 18, 13.
- 10) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 11) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.





MARNING - 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/TPH Quality Criteria, DSB-89 and BCSI Building Component fabrication, storage, delivery, erection and bracing of trusses and truss systems, see

ANS/TPI1 Qu
Safety Information available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



**RELEASE FOR** Job Truss Truss Type Lot 19 HT CONSTRUCTION 143059529 PIGGYBACK BASE AS NOTED ON PLANS REVIE 400675 B6 **DEVELOPMENT SERVICES** DEVELOPMENT SERVICES | Job Reference (optional)

LEE'S SUMMIT, MISSOURI 8.420 s Aug 25 2020 MiTek Industries, Inc. Fri Oct 2 11:00:36 2020 Page 1 Wheeler Lumber, Waverly, KS 66871 ID:bWuMDBN0tjF5cDvSpwhpH1zCzbQ-wfwpPmucDAbzJxgIX6dIGNrQZIZOT5zrx03PrlyXTfP -0-10-8 2-8-5 0-10-8 2-8-5 31-6-0 15-7-8 22-6-0 **10/12/2020** 27-0-0 33-10-0 37-11-15 42-0-0

4-6-0

4-6-0

2-4-0

4-1-15

Structural wood sheathing directly applied or 2-2-0 oc purlins,

8-18

Rigid ceiling directly applied or 6-0-0 oc bracing.

1 Row at midpt

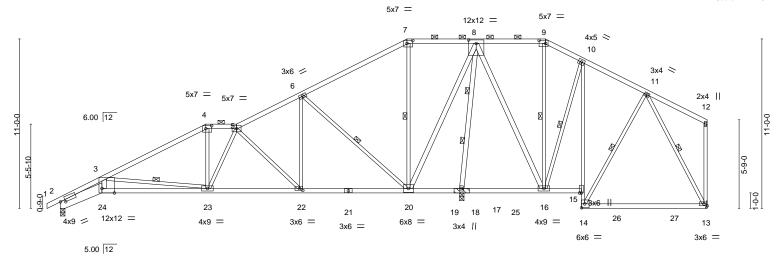
2 Rows at 1/3 pts

except end verticals, and 2-0-0 oc purlins (4-11-8 max.): 4-5, 7-9.

4-0-1

6-10-8

Scale = 1:74.8



	2-8-5	9-5-4	111-5-4	15-7-8	22-6-0	1 26-0-1	2   3	1-6-0	<sub>1</sub> 33-10-0 <sub>1</sub>	42-0-0	
	2-8-5	6-8-15	2-0-0	4-2-4	6-10-8	3-6-12	2 '	5-5-4	2-4-0	8-2-0	l
Plate Offs	sets (X,Y)	[2:0-3-12,0-1-7], [4:0-4-8	3,0-2-4], [7	:0-4-8,0-2-4], [8	:0-6-0,0-2-12],	[9:0-5-0,0-2-8], [22:	0-2-8,0-1-8],	[24:0-9-1	1,Edge]		
LOADING	G (psf)	SPACING-	2-0-0	cs	l.	DEFL.	in (loc)	I/defI	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.77	Vert(LL)	-0.24 13-14	>805	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.67	Vert(CT)	-0.40 23-24	>779	240		
BCLL	0.0 *	Rep Stress Incr	YES	WE	0.92	Horz(CT)	0.14 18	n/a	n/a		
BCDL	10.0	Code IRC2018/T	PI2014	Ma	trix-S	Wind(LL)	0.12 23-24	>999	240	Weight: 220 lb	FT = 10%
						` ′					

**BOT CHORD** 

**WEBS** 

LUMBER-**BRACING-**TOP CHORD

2x4 SPF No.2 TOP CHORD **BOT CHORD** 2x4 SPF No.2 \*Except\*

2-24: 2x8 SP DSS, 21-24,13-14: 2x4 SPF 2100F 1.8E

6-8-15

2-0-0

4-2-4

10-14: 2x3 SPF No.2

**WEBS** 2x3 SPF No.2 \*Except\*

3-24,8-20,8-18,8-16: 2x4 SPF No.2

(size) 2=0-3-8, 18=(0-3-8 + bearing block) (req. 0-4-5), 13=Mechanical

Max Horz 2=240(LC 7)

Max Uplift 2=-41(LC 8), 18=-28(LC 5), 13=-66(LC 4) Max Grav 2=1020(LC 21), 18=2744(LC 2), 13=482(LC 22)

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

TOP CHORD 2-3=-3703/292, 3-4=-1469/84, 4-5=-1249/104, 5-6=-758/82, 6-7=-77/402, 7-8=-25/284, 8-9=-46/271, 9-10=-66/314

**BOT CHORD** 2-24=-371/3348, 23-24=-339/2881, 22-23=-77/1185, 20-22=-22/663, 18-20=-857/101,

16-18=-622/97, 14-15=-19/327, 10-15=-19/385 3-24=-58/1336, 3-23=-1673/256, 4-23=0/304, 5-22=-736/77, 6-22=0/788,

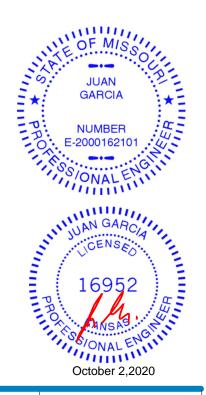
**WEBS** 6-20=-1144/129, 7-20=-498/84, 8-20=-66/1487, 8-18=-2545/74, 8-16=-19/984,

9-16=-314/52, 10-16=-532/75, 11-13=-308/184

## NOTES-

REACTIONS.

- 1) 2x4 SPF No.2 bearing block 12" long at jt. 18 attached to front face with 2 rows of 10d (0.131"x3") nails spaced 3" o.c. 8 Total fasteners. Bearing is assumed to be SPF No.2.
- 2) Unbalanced roof live loads have been considered for this design.
- 3) 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
- 4) Provide adequate drainage to prevent water ponding.
- 5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 6) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- 7) Refer to girder(s) for truss to truss connections.
- 8) Bearing at joint(s) 2 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- 9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 18, 13.
- 10) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 11) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



3-23, 6-20, 7-20, 9-16, 10-16, 11-14, 11-13



Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not Design Valid to Use Only with New Controlled S. This costign is based only upon parameters shown, and is for an individual druining Component, not a fundamental property 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



**RELEASE FOR** Job Truss Truss Type Lot 19 HT CONSTRUCTION 143059530 PIGGYBACK BASE AS NOTED ON PLANS REVIE 400675 B7 **DEVELOPMENT SERVICES** DEVELOPMENT SERVICES | Job Reference (optional)

LEE'S SUMMIT, MISSOURI 8.420 s Aug 25 2020 MiTek Industries, Inc. Fri Oct 2 11:00:38 2020 Page 1 Wheeler Lumber, Waverly, KS 66871 ID:bWuMDBN0tjF5cDvSpwhpH1zCzbQ-s22apSwslorhYEqhfXfmLowp15CNx1w8OKYVvdyXTfN 37-11-15 22-**6-0/12/2020** 27-0-0 -0<sub>7</sub>10-8 2-8-5 0-10-8 2-8-5 31-6-0 33-10-0 42-0-0

4-6-0

2-4-0

4-1-15

Structural wood sheathing directly applied or 2-10-12 oc purlins,

9-19

Rigid ceiling directly applied or 6-0-0 oc bracing.

1 Row at midpt

2 Rows at 1/3 pts

except end verticals, and 2-0-0 oc purlins (6-0-0 max.): 5-6, 8-10.

7-21, 8-21, 10-17, 11-17, 12-15, 12-14

4-0-1

Scale = 1:74.8

5x7 = 5x7 = 12x12 = 8 9 10 4x5 < 11 3x6 / 3x4 > 5x7 = 12 5x7 = 2x4 || 5 13 6.00 12 3x4 / 1-0-0 012 9 16 17 25 24 21 26 23 18 22 27 20 19 28 12x12 = 30 4x9 = 3x6 =3x10 = 6x8 = 4x9 = 15 14 3x6 = 3x4 -11 6x6 =3x6 = 3x6 =

	42-0-0	42-0-0	<sub>1</sub> 33-10-0	1-6-0	1 3	5-0-12	·6-0 <sub>1</sub> 26	1 22-	1-10	17-1	11-5-4 <sub>I</sub>	7-0-12 11-	5 <sub>1</sub>	<u> 2-8-</u>	
	8-2-0	8-2-0	2-4-0	5-5-4		-6-12	6-6 3-	4-6	-6	6-6	4-4-8	4-4-8 4-4	5 '	2-8-	
	e]	:0-9-11,Edge]	8,0-1-8], [26:	[25:0-2-8	2-8,0-1-8]	], [23:0-:	10:0-5-0,0-2-8]	-0,0-2-12], [	3], [9:0-0	[8:0-5-0,0-2-	5-0,0-2-8], [	2:0-3-12,0-1-7], [5:0-5-0	′)	sets (X,Y	Plate Of
						-	<u> </u>							-	
RIP	TES	PLATES	L/d	I/defI	in (loc)		DEFL.		CSI.		2-0-0	SPACING-		G (psf)	LOADIN
7/144	02	MT20	360	>808	4 14-15	-0.2	Vert(LL)	0.58	TC		1.15	Plate Grip DOL		25.0	TCLL
			240	>495	8 14-15	) -0.3	Vert(CT)	0.89	BC		1.15	Lumber DOL		10.0	TCDL
			n/a	n/a	3 19	0.1	Horz(CT	0.83	WB		r YES	Rep Stress Incr	*	0.0	BCLL
T = 10%	ght: 227 lb	Weight: 22	240	>999	0 25-26	.) 0.1	Wind(LL)	s	Matrix-		3/TPI2014	Code IRC2018/T		10.0	BCDL
·T =	ght: 227 lb	Weight: 22	n/a	n/a	3 19	0.1	Horz(CT	0.83	WB		r YES	Rep Stress Incr	*	0.0	BCLL

**BOT CHORD** 

**WEBS** 

LUMBER-**BRACING-**TOP CHORD 2x4 SPF No.2 TOP CHORD

**BOT CHORD** 2x4 SPF No.2 \*Except\*

2-26: 2x8 SP DSS, 11-15: 2x3 SPF No.2, 14-15: 2x4 SPF 2100F 1.8E

2x3 SPF No.2 \*Except\* **WEBS** 

5.00 12

3-26,9-21,9-19,9-17: 2x4 SPF No.2

4-11-4

3-9-11

2-0-0

4-2-5

REACTIONS. 2=0-3-8, 19=(0-3-8 + bearing block) (req. 0-4-4), 14=Mechanical (size)

Max Horz 2=240(LC 7)

Max Uplift 2=-43(LC 8), 19=-26(LC 5), 14=-66(LC 4) Max Grav 2=1022(LC 21), 19=2719(LC 2), 14=490(LC 22)

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

TOP CHORD  $2 - 3 = -3541/265, \ 3 - 4 = -1686/106, \ 4 - 5 = -1144/99, \ 5 - 6 = -973/102, \ 6 - 7 = -497/90, \ 7 - 8 = -63/367, \ 7 - 8$ 

8-9=-25/281, 9-10=-49/260, 10-11=-70/298

**BOT CHORD** 2-26=-339/3168, 25-26=-302/2724, 24-25=-125/1480, 23-24=-54/884, 21-23=-11/404,

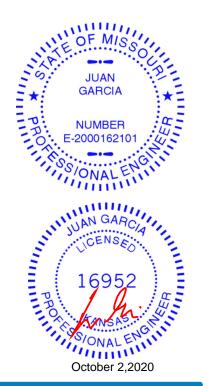
19-21=-835/98, 17-19=-602/94, 15-16=-18/319, 11-16=-17/376

**WEBS** 3-26=-70/1264, 3-25=-1271/179, 4-25=0/371, 4-24=-689/94, 5-24=-1/349, 6-24=-29/308,

6-23=-761/95, 7-23=-2/841, 7-21=-1041/115, 8-21=-413/67, 9-21=-66/1427, 9-19=-2489/81, 9-17=-18/962, 10-17=-303/51, 11-17=-525/74, 12-14=-314/172

## NOTES-

- 1) 2x4 SPF No.2 bearing block 12" long at jt. 19 attached to front face with 2 rows of 10d (0.131"x3") nails spaced 3" o.c. 8 Total fasteners. Bearing is assumed to be SPF No.2.
- 2) Unbalanced roof live loads have been considered for this design.
- 3) 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
- 4) Provide adequate drainage to prevent water ponding.
- 5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 6) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- 7) Refer to girder(s) for truss to truss connections.
- 8) Bearing at joint(s) 2 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- 9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 19, 14.
- 10) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 11) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.





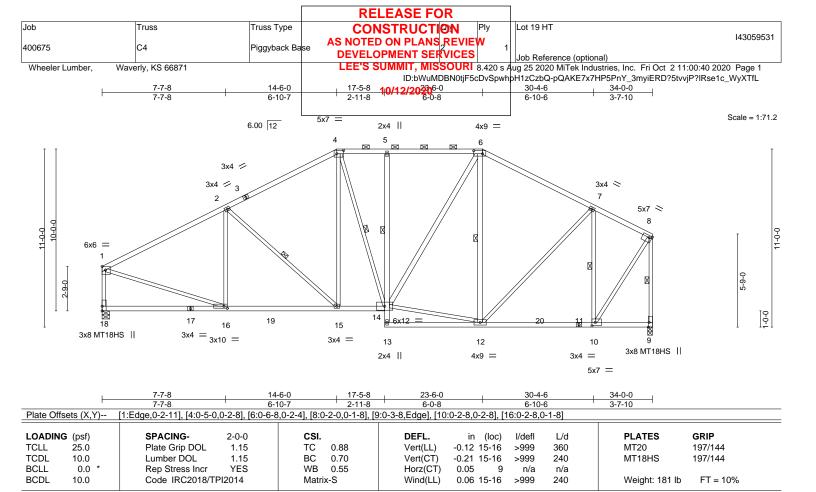
MARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE

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/TPH Quality Criteria, DSB-89 and BCSI Building Component fabrication, storage, delivery, erection and bracing of trusses and truss systems, see

ANS/TPI1 Qu
Safety Information available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601





**BRACING-**

TOP CHORD

**BOT CHORD** 

**WEBS** 

LUMBER-

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

**WEBS** 2x3 SPF No.2 \*Except\* 6-14,6-12: 2x4 SPF No.2

REACTIONS. (size) 18=0-5-8, 9=0-3-8

Max Horz 18=274(LC 7)

Max Uplift 18=-165(LC 8), 9=-132(LC 9) Max Grav 18=1601(LC 2), 9=1616(LC 2)

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

1-2=-1860/201, 2-4=-1649/227, 4-5=-1398/223, 5-6=-1399/224, 6-7=-1333/179, 7-8=-853/107, 1-18=-1487/201, 8-9=-1591/136 TOP CHORD

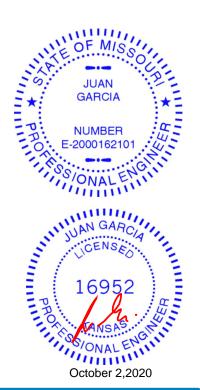
**BOT CHORD** 15-16=-233/1590, 14-15=-186/1385, 5-14=-354/154, 10-12=-104/753 2-16=-321/133, 2-15=-329/191, 4-15=-61/438, 4-14=-134/254, 12-14=-127/1015, **WEBS** 

6-14=-142/636, 6-12=-384/164, 7-12=-81/528, 7-10=-977/183, 1-16=-100/1609,

8-10=-122/1390

## NOTES-

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate arip DOL=1.60
- 3) Provide adequate drainage to prevent water ponding.
- 4) All plates are MT20 plates unless otherwise indicated.
- 5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 6) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- 7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 18=165, 9=132.
- 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.



Structural wood sheathing directly applied, except end verticals, and

2-15, 4-14, 6-12, 7-10, 8-9

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

5-14

2-0-0 oc purlins (4-5-1 max.): 4-6.

1 Row at midpt

1 Row at midpt



**RELEASE FOR** Job Truss Truss Type CONSTRUCTION Lot 19 HT 143059532 AS NOTED ON PLANS REVIE 400675 C5 Piggyback Base **DEVELOPMENT SERVICES** DEVELOPMENT SERVICES | Job Reference (optional)

LEE'S SUMMIT, MISSOURI 8.420 s Aug 25 2020 MiTek Industries, Inc. Fri Oct 2 11:00:41 2020 Page 1 Wheeler Lumber, Waverly, KS 66871 ID:bWuMDBN0tjF5cDvSpwhpH1zCzbQ-HckiSTyl2jDGPiZGKgDTzQYImJHK8Mub4InAWyyXTfK 14-6-0 6-10-7 10/12/2020 24-1-0 25-11-8 0-7-0 1-10-8 Scale = 1:61.1 4x5 = 4x5 = 6.00 12 3x4 = 4 5  $\boxtimes$  $\boxtimes$ 4x5 < 3x4 / / 10-0-0 = Ш 3-0-0 2-9-0 **⊠** 16 22 13 15 14 3x8 MT18HS || 3x4 \_ 3x6 = 3x6 4x9 =

	7-7-8 7-7-8	14-6-0 6-10-7	23-6-0 9-0-0	24-1-0 25-11-8 0-7-0 1-10-8	
Plate Offsets (X,Y)	[1:Edge,0-2-11], [4:0-3-0,0-2-4], [6:0-2-8	,0-2-4], [7:0-2-0,0-1-8], [8:Edge,0-2-8]	[10:0-3-8,0-3-0], [11:0-1-8,0-1-0], [15:0	-2-8,0-1-8]	
LOADING (psf) TCLL 25.0 TCDL 10.0 BCLL 0.0 *	SPACING-         2-0-0           Plate Grip DOL         1.15           Lumber DOL         1.15           Rep Stress Incr         YES	CSI.         DEFL.           TC 0.74         Vert(LI           BC 0.62         Vert(C           WB 0.94         Horz(C	r) -0.25 12-14 >999 240	PLATES GRIP MT20 197/144 MT18HS 197/144	

Wind(LL)

**BRACING-**

TOP CHORD

**BOT CHORD** 

WEBS

**JOINTS** 

0.03 14-15

>999

1 Row at midpt

1 Brace at Jt(s): 11

240

Matrix-S

LUMBER-

**BCDL** 

TOP CHORD 2x4 SPF No.2 **BOT CHORD** 2x4 SPF No.2 **WEBS** 2x3 SPF No.2 \*Except\*

10.0

5-14,17-19,11-18,20-21: 2x4 SPF No.2

Code IRC2018/TPI2014

REACTIONS. (size) 16=0-5-8, 8=0-3-8 Max Horz 16=311(LC 5)

Max Uplift 16=-139(LC 8), 8=-149(LC 5) Max Grav 16=1219(LC 2), 8=1212(LC 2)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown. TOP CHORD 1-2=-1343/167, 2-4=-1016/178, 4-5=-819/201, 5-6=-414/97, 6-7=-482/104,

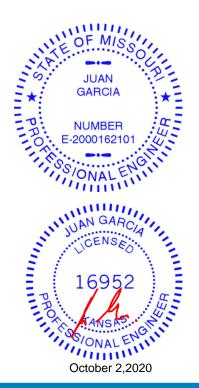
1-16=-1102/176, 7-8=-1228/128 15-16=-288/137, 14-15=-230/1127

**BOT CHORD** WEBS

9-11=-343/0, 2-14=-446/207, 5-14=-73/271, 5-10=-593/134, 10-12=0/539,

1-15=-68/1123, 7-10=-147/1050, 10-14=-195/757

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 3) Provide adequate drainage to prevent water ponding.
- 4) All plates are MT20 plates unless otherwise indicated.
- 5) All plates are 2x4 MT20 unless otherwise indicated.
- 6) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- 8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 16=139, 8=149.
- 9) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1
- 10) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



Structural wood sheathing directly applied or 2-2-0 oc purlins,

except end verticals, and 2-0-0 oc purlins (6-0-0 max.): 4-6.

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

Weight: 145 lb

2-14, 5-14, 6-12, 7-8

FT = 10%



**RELEASE FOR CONSTRUCTION** Job Truss Truss Type Lot 19 HT 143059533 AS NOTED ON PLANS REVIE 400675 C6 Piggyback Base **DEVELOPMENT SERVICES** DEVELOPMENT SERVICES | Job Reference (optional)

LEE'S SUMMIT, MISSOURI 8.420 s Aug 25 2020 MiTek Industries, Inc. Fri Oct 2 11:00:42 2020 Page 1 Wheeler Lumber, Waverly, KS 66871 ID:bWuMDBN0tjF5cDv\$pwhpH1zCzbQ-lpl5fpzNp0L71s7SuNkiWe5TTjdeturkJyWj2PyXTfJ 25-11-8 14-6-0<mark>10/12/2020</mark>| 17-5-8 23-6-0 2-11-8 6-0-8 2-5-8 Scale: 3/16"=1' 2x4 | 5x7 = 6.00 12 3x4 || 3x4 / 3x4 / 3 11-0-0 6x6 = 2-9-0 9 10 13 12 11 Ř 3x8 MT18HS II = 3x4 = 3x6 = 9 8 4x9 = 4x5 || 25-11-8 23-6-0 7-7-8 6-10-7 Plate Offsets (X,Y)--[1:Edge,0-2-11], [4:0-5-0,0-2-8], [6:0-4-8,0-2-4], [12:0-2-8,0-1-8] SPACING-**PLATES** GRIP LOADING (psf) CSI. DEFL. (loc) I/defI L/d 197/144 **TCLL** 25.0 Plate Grip DOL 1.15 TC 0.74 Vert(LL) -0.17 8-9 >999 360 MT20 **TCDL** 10.0 Lumber DOL 1.15 ВС 0.61 Vert(CT) -0.358-9 >893 240 MT18HS 197/144 **BCLL** 0.0 Rep Stress Incr YES WB 0.58 Horz(CT) 0.03 8 n/a n/a Code IRC2018/TPI2014 Wind(LL) FT = 10% **BCDL** 10.0 Matrix-S -0.06 >999 240 Weight: 151 lb 8-9 LUMBER-**BRACING-**TOP CHORD 2x4 SPF No.2 TOP CHORD Structural wood sheathing directly applied or 2-2-0 oc purlins, except end verticals, and 2-0-0 oc purlins (6-0-0 max.): 4-6.

**BOT CHORD** 

**WEBS** 

1 Row at midpt

1 Row at midpt

**BOT CHORD** 2x4 SPF No.2 **WEBS** 2x3 SPF No.2 \*Except\*

6-10,7-8,6-8: 2x4 SPF No.2

REACTIONS. (size) 14=0-5-8, 8=0-3-8 Max Horz 14=390(LC 7)

Max Uplift 14=-141(LC 8), 8=-152(LC 5)

Max Grav 14=1216(LC 2), 8=1203(LC 2)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown. TOP CHORD  $1\hbox{-}2\hbox{--}1344/169, 2\hbox{-}4\hbox{--}1007/188, 4\hbox{-}5\hbox{--}709/182, 5\hbox{-}6\hbox{--}710/183, 1\hbox{-}14\hbox{--}1103/178}$ 

BOT CHORD 12-14=-362/173, 11-12=-292/1133, 10-11=-232/812, 5-10=-380/161

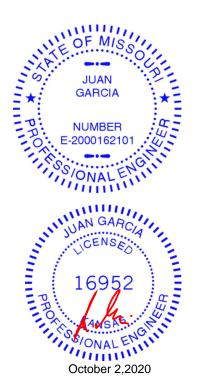
**WEBS** 2-11=-461/200, 4-11=-67/514, 4-10=-392/100, 6-10=-159/928, 1-12=-70/1125,

6-8=-1068/312

## NOTES-

1) Unbalanced roof live loads have been considered for this design.

- 2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 3) Provide adequate drainage to prevent water ponding.
- 4) All plates are MT20 plates unless otherwise indicated.
- 5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 6) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- 7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb)
- 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.



Rigid ceiling directly applied or 9-5-14 oc bracing. Except:

5-10

2-11, 4-10, 7-8, 6-8



MARNING - 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® cannectors. 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/TPI Quality Criteria, DSB-89 and BCSI Building Component Safety Information

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



Plate Offsets (X,Y)	5-5-4   7-5-4   2-0-0     [1:0-2-0,0-1-8], [2:0-2-12,0-2-4], [4:0-4-8]	7-0-12	18-0-12 3-6-12 11:Edge,0-3-8]	23-6-0 5-5-4	<del>25-10-0</del>   <del>2-4-0</del>	34-0-0 8-2-0	
LOADING (psf) TCLL 25.0 TCDL 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 0.69 BC 0.66 WB 0.67 Matrix-S	DEFL. Vert(LL) Vert(CT) Horz(CT) Wind(LL)	in (loc) -0.23 10-11 -0.38 16-17 0.06 10 -0.03 10-11	l/defl L/d >844 360 >564 240 n/a n/a >999 240	PLATES MT20 Weight: 187 lb	<b>GRIP</b> 197/144 FT = 10%

**BOT CHORD** 

WFBS

15

3x6 =

16

4x9

14

2x4 ||

12

3x4

Structural wood sheathing directly applied or 6-0-0 oc purlins,

Rigid ceiling directly applied or 10-0-0 oc bracing, Except:

except end verticals, and 2-0-0 oc purlins (6-0-0 max.): 2-3, 4-6.

3-16, 4-16, 5-14, 6-13, 7-13, 8-10

8x8 =

6-0-0 oc bracing: 14-16,13-14.

1 Row at midpt

22

13

4x9 =

**BRACING-**LUMBER-TOP CHORD TOP CHORD

19

17

3x10 =

20

2x4 SPF No.2 **BOT CHORD** 2x4 SPF No.2 \*Except\*

3-9-0

**⊠** 18

2x4 ||

7-11: 2x3 SPF No.2, 10-11: 2x4 SPF 2100F 1.8E

2x3 SPF No.2 \*Except\* **WEBS** 

5-16,5-14,5-13: 2x4 SPF No.2

18=0-5-8, 14=0-3-8, 10=Mechanical (size)

Max Horz 18=270(LC 7)

Max Uplift 18=-151(LC 8), 14=-206(LC 5), 10=-54(LC 4) Max Grav 18=841(LC 23), 14=1762(LC 2), 10=743(LC 16)

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

TOP CHORD  $1-2=-704/131,\ 2-3=-572/160,\ 3-4=-381/172,\ 4-5=-257/208,\ 5-6=-274/167,\ 6-7=-343/177,\ 4-5=-257/208,\ 5-6=-274/167,\ 6-7=-343/177,\ 6-7=$ 

7-8=-444/154, 1-18=-790/168

**BOT CHORD** 17-18=-251/202, 16-17=-116/608, 12-13=-8/297, 10-11=-69/255

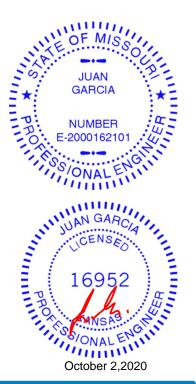
**WEBS** 3-16=-478/171, 4-16=-336/123, 5-16=-107/890, 5-14=-1628/238, 5-13=-123/585,

7-13=-258/157, 1-17=-80/660, 8-10=-529/71

## NOTES-

REACTIONS.

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 3) Provide adequate drainage to prevent water ponding.
- 4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 5) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- 6) Refer to girder(s) for truss to truss connections.
- 7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 10 except (jt=lb) 18=151, 14=206.
- 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.



2-9-0

10

3x6 =

1 0 2



MARNING - 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 Design Valid to Use Only with New Controlled S. This costign is based only upon parameters shown, and is for an individual druining Component, not a fundamental property 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



**RELEASE FOR CONSTRUCTION** Job Truss Truss Type Lot 19 HT 143059535 AS NOTED ON PLANS REVIE 400675 C8 Piggyback Base **DEVELOPMENT SERVICES** DEVELOPMENT SERVICES | Job Reference (optional)

LEE'S SUMMIT, MISSOURI 8.420 s Aug 25 2020 MiTek Industries, Inc. Fri Oct 2 11:00:44 2020 Page 1 Wheeler Lumber, Waverly, KS 66871 ID:bWuMDBN0tjF5cDvSpwhpH1zCzbQ-hBPr4V\_dLebrG9Hr?omAb3AnpWEKLiK1mF?q7HyXTfH 34-0-0 23-6-0 28-4-7 32-2-8 <del>0/12/2020</del> 4-9-4 2-0-0 7-8-12 3-9-8 4-10-7 3-10-1 1-9-8 Scale = 1:69.3 6x8 / 2x4 || 5x7 = 4 6 2x4 || 4x5 = 6.00 12 6x8 = 2 5x7 8 5x7 6-1-10 4-9-0 3-9-0

22

 $15_{6x12} =$ 

2x4 ||

**BOT CHORD** 

**WEBS** 

1 Row at midpt

1 Row at midpt

	4-9-4	6-9-4	14-6-0	19-8-8	23-6-0	28-4-7	32-2-8	34-0-0
	4-9-4	2-0-0	7-8-12	5-2-8	3-9-8	4-10-7	3-10-1	1-9-8
Plate Offsets (X,Y)	[1:0-2-0,0-1-8],	2:0-2-8,0-2-	4], [4:0-4-0,0-1-15], [6:0-5-0,0-2	!-8], [9:0-3-8,Edge]				

16

4x9 =

		1,		-1/1-	/1/-						
LOADIN	G (psf)	SPACING- 2-0	)-0	CSI.		DEFL.	in (loc)	I/defI	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL 1.	15	TC	0.88	Vert(LL)	-0.31 13-14	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL 1.	15	BC	0.92	Vert(CT)	-0.53 16-18	>770	240	MT18HS	197/144
BCLL	0.0 *	Rep Stress Incr YI	ES	WB	0.96	Horz(CT)	0.07 9	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI201	4	Matrix	c-S	Wind(LL)	0.05 13-14	>999	240	Weight: 164 lb	FT = 10%

**BRACING-**LUMBER-TOP CHORD

21

20

18

4x9 =

17

3x6 =

TOP CHORD 2x4 SPF No.2 \*Except\*

3-4: 2x4 SPF 2100F 1.8E **BOT CHORD** 2x4 SPF No.2 \*Except\*

5-15,10-12: 2x3 SPF No.2

19

3x8 MT18HS II

**WEBS** 2x3 SPF No.2

REACTIONS. (size) 19=0-5-8, 9=0-3-8

Max Horz 19=242(LC 5)

Max Uplift 19=-170(LC 8), 9=-132(LC 9) Max Grav 19=1622(LC 2), 9=1647(LC 2)

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

1-2=-1392/136, 2-3=-1201/160, 3-4=-1693/198, 4-5=-1569/195, 5-6=-1573/194, TOP CHORD

6-7=-1506/254, 7-8=-1493/119, 1-19=-1593/179, 9-11=-1614/142, 8-11=-1575/148

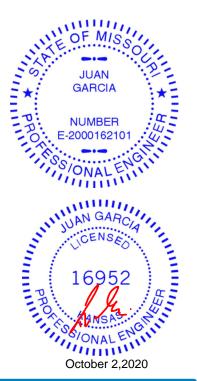
**BOT CHORD** 16-18=-219/1515, 5-14=-343/149, 13-14=-136/1338

**WEBS** 2-18=-3/443, 3-18=-1037/166, 14-16=-124/1564, 4-14=-81/394, 6-14=-94/646,

6-13=-305/119, 7-13=-426/242, 1-18=-102/1466, 8-13=-69/1495

## NOTES-

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate arip DOL=1.60
- 3) Provide adequate drainage to prevent water ponding.
- 4) All plates are MT20 plates unless otherwise indicated.
- 5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 6) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- 7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 19=170, 9=132.
- 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.



2

12

10

2x4 II

2x4 =

3x8 MT18HS II

П

2x4

13

4x9 =

Structural wood sheathing directly applied or 4-1-9 oc purlins,

5-14

Rigid ceiling directly applied or 2-2-0 oc bracing. Except:

except end verticals, and 2-0-0 oc purlins (4-5-14 max.): 2-3, 4-6.

3-16, 4-16, 6-13, 8-9

23

MARNING - 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® cannectors. 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/TPI 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** Job Truss Truss Type Lot 19 HT 143059536 AS NOTED ON PLANS REVIE 400675 C9 Piggyback Base **DEVELOPMENT SERVICES** DEVELOPMENT SERVICES | Job Reference (optional)

LEE'S SUMMIT, MISSOURI 8.420 s Aug 25 2020 MiTek Industries, Inc. Fri Oct 2 11:00:45 2020 Page 1 Wheeler Lumber, Waverly, KS 66871 ID:bWuMDBN0tjF5cDvSpwhpH1zCzbQ-9OzDHr?F6xkiuJs1ZVHP8GjxYwZX4AIA?vINfkyXTfG 23-6-0 28-4-7 32-2-8 34-0-0 1<mark>0/12/2020</mark> 2-0-0 4-10-6 4-10-6 3-9-8 4-10-7 3-10-1 1-9-8 Scale = 1:69.5 5x7 = 2x4 || 5x7 = 5 3x4 / 2x4 || 4 6.00 12 4x5 = 5x7 = 5x7 = 2 9 4x5 / 5-1-10 3-9-0 9-0-13 12 14 23 Ш 22 2x4 <mark>製</mark> 10 18 4x9 = 20 19 17 11  $16_{6x12} =$ 

	2-9-4	9-7-10	14-6-0	19-8-8	28-4-7	32-2-8	34-0-0
	2-9-4	6-10-6	4-10-6	5-2-8	8-7-15	3-10-1	1-9-8
Offsets (X Y)	[1:0-2-0 0-1	1-8] [2:0-2-8 0-2-4] [5:0-5	-0.0-2-81 [7:0-5-0.0-2-	R1 [10:0-3-8 Edge]			

4x9 =

3x4 =

3x4 =

riale Olisels (A,	[1.0-2-0,0-1-0], [2.0-2-0,0-2- <del>4</del> ], [3.0-3-0	,0-2-0], [1.0-3-0,0-2-0], [10.0-	-3-6,Eugej	
LOADING (psf)	SPACING- 2-0-0	CSI.	DEFL. in (loc) I/defl L/d	PLATES GRIP
TCLL 25.0	Plate Grip DOL 1.15	TC 0.88	Vert(LL) -0.31 14-15 >999 360	MT20 197/144
TCDL 10.0	Lumber DOL 1.15	BC 0.92	Vert(CT) -0.52 14-15 >781 240	MT18HS 197/144
BCLL 0.0	Rep Stress Incr YES	WB 0.85	Horz(CT) 0.08 10 n/a n/a	
BCDL 10.0	Code IRC2018/TPI2014	Matrix-S	Wind(LL) 0.05 14-15 >999 240	Weight: 171 lb FT = 10%

**BRACING-**

TOP CHORD

**BOT CHORD** 

**WEBS** 

1 Row at midpt

1 Row at midpt

2x4 ||

LUMBER-

TOP CHORD 2x4 SPF No.2

2x4 SPF No.2 \*Except\* BOT CHORD

6-16,11-13: 2x3 SPF No.2

3x8 MT18HS

6x8 =

**WEBS** 2x3 SPF No.2

REACTIONS. (size) 21=0-5-8, 10=0-3-8

Max Horz 21=242(LC 5)

Max Uplift 21=-170(LC 8), 10=-132(LC 9) Max Grav 21=1609(LC 2), 10=1647(LC 2)

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

1-2=-1001/95, 2-3=-873/107, 3-4=-1805/207, 4-5=-1633/227, 5-6=-1572/197, TOP CHORD

6-7=-1576/196, 7-8=-1507/254, 8-9=-1493/119, 1-21=-1593/168, 10-12=-1614/142,

9-12=-1575/148

**BOT CHORD** 19-20=-223/1339, 17-19=-197/1569, 6-15=-352/151, 14-15=-137/1338 **WEBS** 

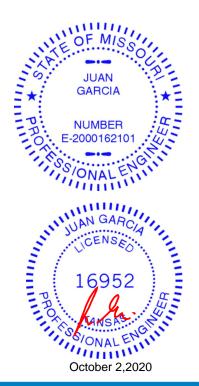
2-20=-4/299, 3-20=-1277/156, 3-19=-5/324, 4-17=-337/165, 15-17=-140/1501,

5-15=-74/427, 7-15=-97/653, 7-14=-304/119, 8-14=-426/242, 9-14=-69/1495,

1-20=-121/1386

## NOTES-

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed: MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 3) Provide adequate drainage to prevent water ponding.
- 4) All plates are MT20 plates unless otherwise indicated
- 5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 6) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- 7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (it=lb) 21=170, 10=132.
- 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.



2x4 =

3x8 MT18HS II

2x4 II

Structural wood sheathing directly applied or 4-1-8 oc purlins,

6-15

Rigid ceiling directly applied or 2-2-0 oc bracing. Except:

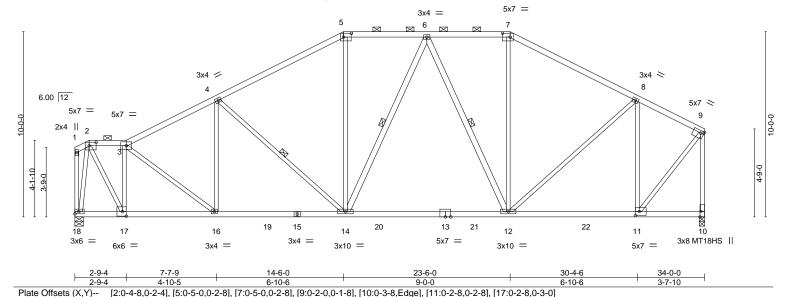
except end verticals, and 2-0-0 oc purlins (4-4-3 max.): 2-3, 5-7.

4-17, 5-17, 7-14, 9-10



**RELEASE FOR CONSTRUCTION** Job Truss Truss Type Lot 19 HT 143059537 AS NOTED ON PLANS REVIE C10 400675 Piggyback Base **DEVELOPMENT SERVICES** DEVELOPMENT SERVICES | Job Reference (optional)

LEE'S SUMMIT, MISSOURI 8.420 s Aug 25 2020 MiTek Industries, Inc. Fri Oct 2 11:00:39 2020 Page 1 Wheeler Lumber, Waverly, KS 66871 ID:bWuMDBN0tjF5cDvSpwhgH1zCzbQ-LEcy1nwVW5zYAOPtDFA?u?TvIVXHgS7ld\_I3S4yXTfM 23-6-0 34-0-0 0-9-4 2-9-4 0-9-4 2-0-0 14-6-0 30-4-6 **1<del>0</del>/12/2020**+ 4-10-5 6-10-6 4-6-0 6-10-6 3-7-10 Scale = 1:62.2 5x7 =



									-		
LOADING (psf	SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	I/defI	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC	0.90	Vert(LL)	-0.26	12-14	>999	360	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC	0.85	Vert(CT)	-0.41	12-14	>985	240	MT18HS	197/144
BCLL 0.0	* Rep Stress Incr	YES	WB	0.90	Horz(CT)	0.06	10	n/a	n/a		
BCDL 10.0	Code IRC2018/TF	12014	Matri	k-S	Wind(LL)	0.05	14	>999	240	Weight: 169 lb	FT = 10%

**BRACING-**

TOP CHORD

**BOT CHORD** 

WEBS

LUMBER-

REACTIONS.

TOP CHORD 2x4 SPF No.2 **BOT CHORD** 2x4 SPF No.2 **WEBS** 2x3 SPF No.2 \*Except\*

6-14,6-12: 2x4 SPF No.2

Max Horz 18=242(LC 5) Max Uplift 18=-170(LC 8), 10=-132(LC 9)

Max Grav 18=1634(LC 2), 10=1653(LC 2)

(size) 18=0-5-8, 10=0-3-8

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

2-3=-1021/88, 3-4=-1816/193, 4-5=-1715/209, 5-6=-1452/234, 6-7=-1276/187, TOP CHORD

7-8=-1518/165, 8-9=-1003/98, 9-10=-1613/140

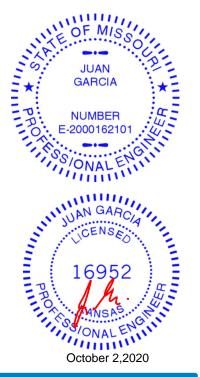
**BOT CHORD** 17-18=-205/362, 16-17=-220/1075, 14-16=-214/1598, 12-14=-171/1419, 11-12=-107/887 **WEBS** 2-17=-149/1686, 3-17=-1389/187, 3-16=-39/687, 4-16=-271/94, 4-14=-252/173,

5-14=0/421, 6-12=-473/144, 7-12=-0/374, 8-12=-71/546, 8-11=-931/168,

2-18=-1552/187, 9-11=-123/1432

## NOTES-

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate arip DOL=1.60
- 3) Provide adequate drainage to prevent water ponding.
- 4) All plates are MT20 plates unless otherwise indicated.
- 5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 6) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- 7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 18=170, 10=132.
- 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.



Structural wood sheathing directly applied or 3-3-3 oc purlins,

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

1 Row at midpt

except end verticals, and 2-0-0 oc purlins (4-9-4 max.): 2-3, 5-7.

4-14, 6-14, 6-12



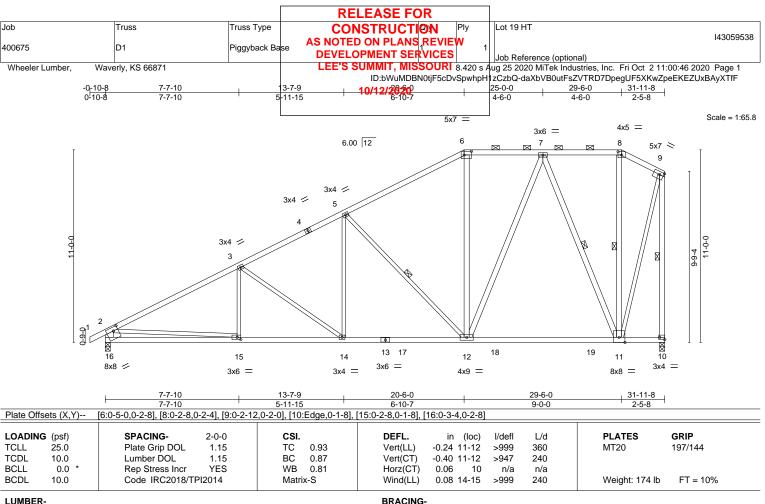
MARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE

Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not Design Valid to Use Only with New Controlled S. This costign is based only upon parameters shown, and is for an individual druining Component, not a fundamental property 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



TOP CHORD 2x4 SPF No.2 **BOT CHORD** 2x4 SPF No.2 **WEBS** 2x3 SPF No.2 \*Except\*

6-12,7-12,7-11,8-11,9-10: 2x4 SPF No.2, 2-16: 2x6 SPF No.2

**WEBS** 

TOP CHORD

Structural wood sheathing directly applied or 2-11-6 oc purlins, except end verticals, and 2-0-0 oc purlins (5-6-10 max.): 6-8. Rigid ceiling directly applied or 8-8-14 oc bracing.

**BOT CHORD** 5-12, 7-11, 8-11, 9-10 1 Row at midpt

REACTIONS. (size) 16=0-3-8, 10=0-3-8

Max Horz 16=420(LC 5)

Max Uplift 16=-219(LC 8), 10=-163(LC 5) Max Grav 16=1569(LC 2), 10=1548(LC 2)

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

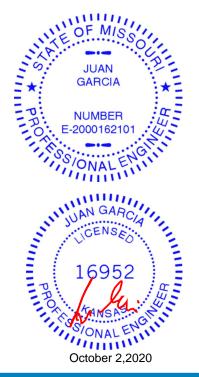
 $2\text{-}3\text{--}2435/309,\ 3\text{-}5\text{--}1948/295,\ 5\text{-}6\text{--}1297/234,\ 6\text{-}7\text{--}1076/257,\ 7\text{-}8\text{--}382/137,}$ TOP CHORD

8-9=-472/158. 2-16=-1440/262. 9-10=-1594/163

**BOT CHORD** 15-16=-447/829, 14-15=-378/2084, 12-14=-278/1677, 11-12=-199/770 3-14=-507/175, 5-14=-32/531, 5-12=-871/280, 6-12=0/266, 7-12=-137/830, **WEBS** 

7-11=-1114/204, 2-15=0/1323, 9-11=-175/1403

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 3) Provide adequate drainage to prevent water ponding.
- 4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 5) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 16=219, 10=163,
- 7) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 8) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



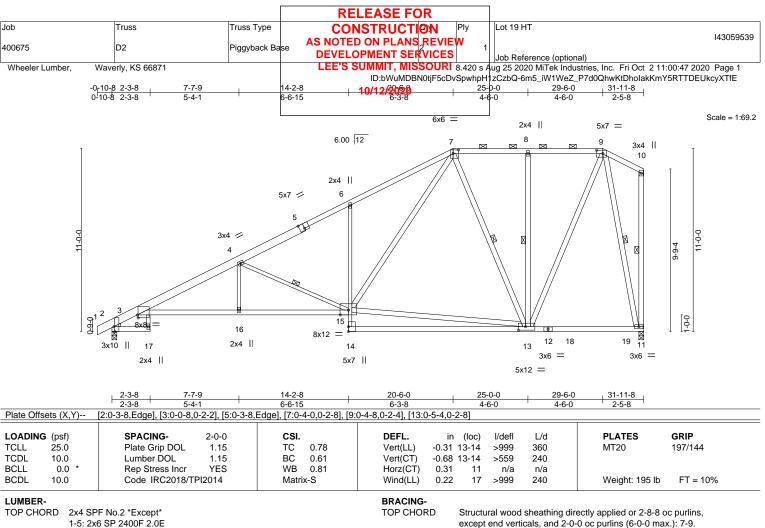


MARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE

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





**BOT CHORD** 

**WEBS** 

**BOT CHORD** 2x4 SPF No.2 \*Except\*

3-17,6-14: 2x3 SPF No.2, 3-15,12-14: 2x4 SPF 2100F 1.8E

**WEBS** 2x4 SPF No.2 \*Except\*

4-16,4-15: 2x3 SPF No.2

WEDGE

Left: 2x3 SPF No.2

REACTIONS. (size) 2=0-3-8, 11=0-3-8

Max Horz 2=414(LC 5)

Max Uplift 2=-209(LC 8), 11=-163(LC 5) Max Grav 2=1556(LC 2), 11=1522(LC 2)

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

TOP CHORD 2-3=-1070/25, 3-4=-3144/453, 4-6=-2106/329, 6-7=-2064/475, 7-8=-793/193,

8-9=-794/193

**BOT CHORD** 3-16=-540/2875, 15-16=-540/2875, 6-15=-390/247, 11-13=-132/304

4-16=0/316, 4-15=-1219/322, 13-15=-264/883, 7-15=-354/1378, 9-13=-137/1273, **WEBS** 

9-11=-1384/263, 8-13=-357/154, 7-13=-673/221

## NOTES-

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 3) Provide adequate drainage to prevent water ponding.
- 4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 5) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=209 11=163 7) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and
- referenced standard ANSI/TPI 1. 8) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



OF MIS

Rigid ceiling directly applied or 10-0-0 oc bracing, Except:

4-15, 10-11, 9-11, 8-13, 7-13

6-0-0 oc bracing: 2-17.

1 Row at midpt



MARNING - 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 Design Valid to Use Only with New Controlled S. This costign is based only upon parameters shown, and is for an individual druining Component, not a fundamental property 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



**RELEASE FOR** Job Truss Truss Type Lot 19 HT CONSTRUCTION 143059540 AS NOTED ON PLANS REVIE 400675 D3 Piggyback Base **DEVELOPMENT SERVICES** DEVELOPMENT SERVICES | Job Reference (optional)

LEE'S SUMMIT, MISSOURI 8.420 s Aug 25 2020 MiTek Industries, Inc. Fri Oct 2 11:00:48 2020 Page 1 Wheeler Lumber, Waverly, KS 66871 ID:bWuMDBN0tjF5cDvSpwhpH1zCzbQ-azfMws18Os6GlnbcEer6lvLT67bJHWpchtz1G2yXTfD 31-11-8 10/12/20<sup>2</sup>06-0 -0-10-8 2-3-8 0-10-8 2-3-8 29-6-0 5-4-1 7-11-15 4-4-10-8 2-5-8 Scale = 1:69.1 5x7 = 2x4 || 5x7 = 6.00 12 9 3x4 II  $\propto$ 3x6 / 6 5x7 / 3x4 / 9-9-4 9-0-13 6x12 2 17 14 16 2x4 || 3x6 = 4x5 = П 3x10 11 18 5x7 = 12 2x4 || 2x4 || 4x9 = 2x4 II 3x6 II 14-2-8 2-2-0<sub>2x4</sub> || 31-11-8 20-6-0 5-4-1 6-9-9 4-1-8 Plate Offsets (X,Y)--[2:0-3-8,Edge], [3:0-0-8,0-2-2], [5:0-3-8,Edge], [7:0-5-0,0-2-8], [9:0-4-8,0-2-4], [15:0-2-8,0-1-8] SPACING-GRIP LOADING (psf) CSI. DEFL. (loc) I/defI L/d **PLATES** -0.27 15-17 **TCLL** 25.0 Plate Grip DOL 1.15 TC 0.80 Vert(LL) >999 360 MT20 197/144 **TCDL** 10.0 Lumber DOL 1.15 ВС 0.91 Vert(CT) -0.51 15-17 >743 240 **BCLL** 0.0 Rep Stress Incr YES WB 0.93 Horz(CT) 0.34 11 n/a n/a Code IRC2018/TPI2014 FT = 10% **BCDL** 10.0 Matrix-S Wind(LL) 0.22 18 >999 240 Weight: 193 lb LUMBER-**BRACING-**TOP CHORD 2x4 SPF No.2 \*Except\* TOP CHORD Structural wood sheathing directly applied or 3-2-10 oc purlins, 1-5: 2x6 SP 2400F 2.0E except end verticals, and 2-0-0 oc purlins (6-0-0 max.): 7-9. **BOT CHORD** 2x4 SPF No.2 \*Except\* **BOT CHORD** Rigid ceiling directly applied or 10-0-0 oc bracing, Except: 3-18: 2x3 SPF No.2, 3-16: 2x4 SPF 2100F 1.8E 6-0-0 oc bracing: 2-18 2-2-0 oc bracing: 15-17. **WEBS** 2x4 SPF No.2 \*Except\* 4-17,4-15,6-15,6-14,7-14,11-13: 2x3 SPF No.2 1 Row at midpt WEDGE WFBS 1 Row at midpt 4-15, 6-14, 7-13, 10-11, 9-11 Left: 2x3 SPF No.2 OF MIS REACTIONS. (size) 2=0-3-8, 11=0-3-8 Max Horz 2=414(LC 5) Max Uplift 2=-209(LC 8), 11=-163(LC 5) Max Grav 2=1578(LC 2), 11=1509(LC 2) JUAN

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

TOP CHORD 2-3=-1084/25, 3-4=-3228/473, 4-6=-2037/300, 6-7=-1354/262, 7-8=-873/203,

8-9=-870/203

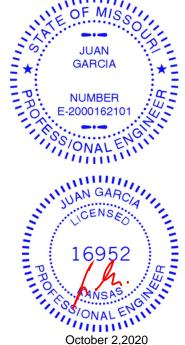
3-17=-565/2958, 15-17=-564/2957, 14-15=-293/1697, 13-14=-244/1158, 8-13=-361/154 **BOT CHORD** 

4-17=0/330, 4-15=-1355/388, 6-15=-59/760, 6-14=-973/277, 7-14=-177/990, **WEBS** 

7-13=-726/155, 9-13=-174/1304, 9-11=-1391/306

## NOTES-

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 3) Provide adequate drainage to prevent water ponding.
- 4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 5) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=209 11=163
- 7) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 8) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.





\Lambda 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 Design Valid to Use Only with New Controlled S. This costign is based only upon parameters shown, and is for an individual druining Component, not a fundamental property 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

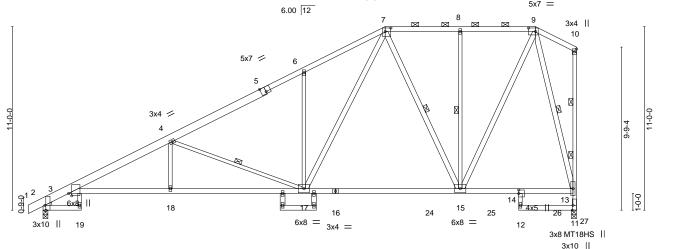
ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



October 2,2020

**RELEASE FOR** Job Truss Truss Type Lot 19 HT CONSTRUCTION 143059541 AS NOTED ON PLANS REVIE 400675 D4 Piggyback Base **DEVELOPMENT SERVICES** DEVELOPMENT SERVICES | Job Reference (optional)

LEE'S SUMMIT, MISSOURI 8.420 s Aug 25 2020 MiTek Industries, Inc. Fri Oct 2 11:00:49 2020 Page 1 Wheeler Lumber, Waverly, KS 66871 ID:bWuMDBN0tjF5cDvSpwhpH1zCzbQ-29Dk7C2m9AE7MwAooLMLl6teeXxl0zNmwXjboVyXTfC 28-6-0 29-6-0 31-11-8 1-0-0 2-5-8 -0-10-8 2-3-8 0-10-8 2-3-8 . 25-0-**10/12/<del>2</del>020** 5-4-1 7-11-15 4-6-3-6-0 Scale = 1:69.0 6x6 = 5x7 = 6.00 12 9 3x4 || 10



6-0-0 oc bracing: 2-19.

1 Row at midpt

2 Rows at 1/3 pts

Structural wood sheathing directly applied or 3-1-0 oc purlins,

except end verticals, and 2-0-0 oc purlins (5-11-1 max.): 7-9.

4-17, 7-15, 8-15, 9-13

Rigid ceiling directly applied or 10-0-0 oc bracing, Except:

	2-3-8 7-7-9 2-3-8 5-4-1	14-5-3 6-9-9	25-0-0 10-6-13	28-6-0 3-6-0	29-6-0 31-11-8 1-0-0 2-5-8
Plate Offsets (X,Y)	[2:0-3-8,Edge], [3:0-1-10,0-2-4], [5	:0-3-8,Edge], [7:0-4-0,0-2-8],	[9:0-5-0,0-2-8], [11:0-3-8,Edge], [1	4:0-2-8,0-0-0]	
LOADING (psf) TCLL 25.0 TCDL 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 0.81 BC 0.90 WB 0.91 Matrix-S	DEFL. in (loc) Vert(LL) -0.33 15-17 Vert(CT) -0.56 15-17 Horz(CT) 0.35 11 Wind(LL) 0.22 19	l/defl L/d >999 360 >677 240 n/a n/a >999 240	PLATES GRIP MT20 197/144 MT18HS 197/144 Weight: 183 lb FT = 10%

**BRACING-**

TOP CHORD

**BOT CHORD** 

**WEBS** 

LUMBER-

2x4 SPF No.2 \*Except\* TOP CHORD

1-5: 2x6 SP 2400F 2.0E **BOT CHORD** 2x4 SPF No.2 \*Except\*

3-16: 2x4 SPF 2100F 1.8E, 12-14: 2x3 SPF No.2

**WEBS** 2x4 SPF No.2 \*Except\*

3-19,4-18,4-17,6-17,8-15,10-11: 2x3 SPF No.2 WEDGE

Left: 2x3 SPF No.2

REACTIONS. (size) 2=0-3-8, 11=0-3-8

Max Horz 2=413(LC 5)

Max Uplift 2=-209(LC 8), 11=-162(LC 5) Max Grav 2=1593(LC 2), 11=1651(LC 2)

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

TOP CHORD 2-3=-1087/27, 3-4=-3249/469, 4-6=-2094/290, 6-7=-2023/427, 7-8=-922/195,

8-9=-922/195, 11-13=-1576/177

**BOT CHORD** 3-18=-558/2979, 17-18=-558/2979, 15-17=-251/1167, 14-15=-151/358, 13-14=-238/306 **WEBS** 

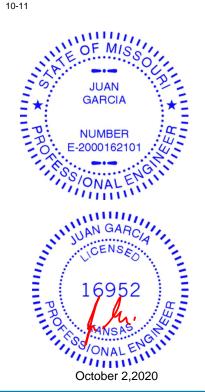
4-18=0/299, 4-17=-1325/390, 6-17=-397/247, 7-17=-308/1295, 7-15=-606/189,

8-15=-357/152, 9-15=-155/1365, 9-13=-1466/239

## NOTES-

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60

- 3) Provide adequate drainage to prevent water ponding.
- 4) All plates are MT20 plates unless otherwise indicated.
- 5) All plates are 2x4 MT20 unless otherwise indicated.
- 6) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- 8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=209, 11=162,
- 9) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 10) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



**RELEASE FOR** Job Truss Truss Type Lot 19 HT CONSTRUCTION 143059542 AS NOTED ON PLANS REVIE D5 400675 Piggyback Base **DEVELOPMENT SERVICES** DEVELOPMENT SERVICES | Job Reference (optional)

LEE'S SUMMIT, MISSOURI 8.420 s Aug 25 2020 MiTek Industries, Inc. Fri Oct 2 11:00:50 2020 Page 1 Wheeler Lumber, Waverly, KS 66871 ID:bWuMDBN0tjF5cDvSpwhpH1zCzbQ-WLn6LY3OwUM\_4I\_M3tarKQqsxHmlTgv9BS8KxyXTfB 31-11-8 16-4-9 **0/12/2626**-0 2-8-15 29-6-0 -0<sub>-</sub>10-8 0-10-8 13-7-9 6-0-0 25-0-4-6-0 4-6-0 2-5-8 Scale = 1:70.1 6x6 = 2x4 || 5x7 = 6.00 12 3x4 || 2x4 || 6 3x4 3x6 / 5 3x4 / 3 1-0-0 14 13 15 22 21 23

	7-7-9 7-7-9	13-7-9 6-0-0 16-4- 2-8-1		28-6-0 3-6-0	31-9-0 31-11-8 3-3-0 0-2-8
Plate Offsets (X,Y)	[7:0-4-0,0-2-8], [9:0-5-0,0-2-8], [11:0-	3-8,Edge], [14:0-2-8,0-0-0], [	19:0-2-8,0-1-8], [20:0-3-4,0-2-8]		
LOADING (psf) TCLL 25.0 TCDL 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 0.72 BC 0.92 WB 0.72 Matrix-S	Vert(LL) -0.27 15-16 >9 Vert(CT) -0.48 15-16 >7 Horz(CT) 0.10 11	defl L/d 199 360 195 240 10/a n/a 199 240	PLATES GRIP MT20 197/144 MT18HS 197/144 Weight: 179 lb FT = 10%

**BOT CHORD** 

**WEBS** 

1 Row at midpt

1 Row at midpt

2 Rows at 1/3 pts

 $^{17}6x12 =$ 

2x4 ||

18

5x12 =

**BRACING-**LUMBER-TOP CHORD

19

3x6 =

TOP CHORD 2x4 SPF No.2 **BOT CHORD** 2x4 SPF No.2 \*Except\*

6-17,12-14: 2x3 SPF No.2 2x3 SPF No.2 \*Except\*

20

8x8 /

**WEBS** 7-16,7-15,9-15,9-13: 2x4 SPF No.2, 2-20: 2x6 SPF No.2

REACTIONS. 20=0-3-8, 11=0-3-8 (size)

Max Horz 20=420(LC 5)

Max Uplift 20=-219(LC 8), 11=-162(LC 5) Max Grav 20=1565(LC 2), 11=1642(LC 2)

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

TOP CHORD 2-3=-2435/312, 3-5=-1927/292, 5-6=-1860/321, 6-7=-1871/401, 7-8=-916/194,

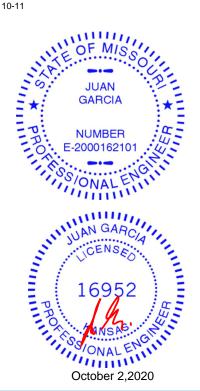
8-9=-916/194, 2-20=-1437/261, 11-13=-1566/178

**BOT CHORD** 19-20=-441/803, 18-19=-383/2086, 15-16=-253/1153, 14-15=-151/356, 13-14=-238/304 **WEBS** 3-18=-543/193, 16-18=-251/1859, 7-16=-288/1184, 7-15=-596/192, 2-19=0/1350,

8-15=-357/151, 9-15=-154/1355, 9-13=-1457/239

## NOTES-

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate arip DOL=1.60
- 3) Provide adequate drainage to prevent water ponding.
- 4) All plates are MT20 plates unless otherwise indicated.
- 5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 6) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- 7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 20=219, 11=162.
- 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.



1<sub>1</sub>25

3x10 ||

3x8 MT18HS ||

4x5 || 12

2x4 ||

Structural wood sheathing directly applied or 3-0-3 oc purlins,

except end verticals, and 2-0-0 oc purlins (5-11-5 max.): 7-9.

7-15, 8-15, 9-13

Rigid ceiling directly applied or 2-2-0 oc bracing. Except: 6-16



MARNING - 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 Lessign value for use only with full lekes 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/TPI 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** Job Truss Truss Type Lot 19 HT CONSTRUCTION 143059543 AS NOTED ON PLANS REVIE 400675 D6 GABLE **DEVELOPMENT SERVICES** DEVELOPMENT SERVICES | Job Reference (optional)

LEE'S SUMMIT, MISSOURI 8.420 s Aug 25 2020 MiTek Industries, Inc. Fri Oct 2 11:00:52 2020 Page 1 Wheeler Lumber, Waverly, KS 66871 ID:bWuMDBN0tjF5cDvSpwhpH1zCzbQ-SkutlE4eS5ciDOuNTUv2wlVFpl8jDWwCcVxFPqyXTf9 31-11-8 -0-10-8 0-10-8 20-6-0 20-6-0 10/12/2020 9-0-0 2-5-8 3x4 = Scale = 1:65.6 3x4 =3x4 || 6.00 12 17 18 19 16 20 14 21 13 12 3x4 / 9 10 8 X X Ø 41 40 39 38 37 36 35 34 33 32 31 30 29 28 27 26 25 24 23 3x4 = 5x7 | 3x4 = 31-11-8 Plate Offsets (X,Y)--[14:0-2-0,0-2-8], [20:0-2-0,0-2-8], [23:Edge,0-1-8] SPACING-GRIP LOADING (psf) DEFL. (loc) I/defI L/d **PLATES TCLL** 25.0 Plate Grip DOL 1.15 TC 0.43 Vert(LL) -0.00 120 MT20 197/144 n/r **TCDL** 10.0 Lumber DOL 1.15 ВС 0.18 Vert(CT) -0.00 n/r 120 **BCLL** 0.0 Rep Stress Incr YES WB 0.16 Horz(CT) -0.01 23 n/a n/a Code IRC2018/TPI2014 FT = 10% **BCDL** 10.0 Matrix-R Weight: 218 lb

LUMBER-

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

**BRACING-**

TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals, and 2-0-0 oc purlins (6-0-0 max.): 14-20. **BOT CHORD** Rigid ceiling directly applied or 10-0-0 oc bracing.

**WEBS** 1 Row at midpt

22-23, 12-31, 13-30, 15-29, 16-28, 17-27, 18-26, 19-25, 21-24

REACTIONS. All bearings 31-11-8.

Max Horz 41=420(LC 5) (lb) -

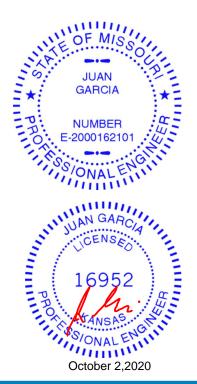
Max Uplift All uplift 100 lb or less at joint(s) 41, 23, 39, 38, 37, 36, 35, 34, 33, 31, 30, 29, 28, 27, 26, 25, 24 except 40=-249(LC 5)

Max Grav All reactions 250 lb or less at joint(s) 23, 40, 39, 38, 37, 36, 35, 34, 33, 31, 30, 29, 28, 27, 26, 25, 24 except 41=373(LC 5)

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

TOP CHORD 2-41=-266/29, 2-3=-408/79, 3-4=-333/76, 4-5=-309/75, 5-6=-280/75, 6-7=-252/75

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate arip DOL=1.60
- 3) 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.
- 4) Provide adequate drainage to prevent water ponding
- 5) All plates are 2x4 MT20 unless otherwise indicated.
- 6) Gable requires continuous bottom chord bearing.
- 7) Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
- 8) Gable studs spaced at 2-0-0 oc
- 9) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 10) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 11) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 41, 23, 39, 38, 37, 36, 35, 34, 33, 31, 30, 29, 28, 27, 26, 25, 24 except (jt=lb) 40=249.
- 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.
- 13) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.





**RELEASE FOR** Job Truss Truss Type Lot 19 HT CONSTRUCTION 143059544 Common Supported Gable E1 400675 DEVELOPMENT SERVICES | Job Reference (optional)

LEE'S SUMMIT, MISSOURI 8.420 s Aug 25 2020 MiTek Industries, Inc. Fri Oct 2 11:00:53 2020 Page 1 Wheeler Lumber, Waverly, KS 66871 ID:bWuMDBN0tjF5cDvSpwhpH1zCzbQ-wwSFza5HDPkZrYTZ1BRHSy2VH8WDy?qMr9hoxGyXTf8 14-0-0 0-10-8 14-10-8 10/12/2020 7-0-0 7-0-0 0-10-8 Scale = 1:30.8 4x5 =

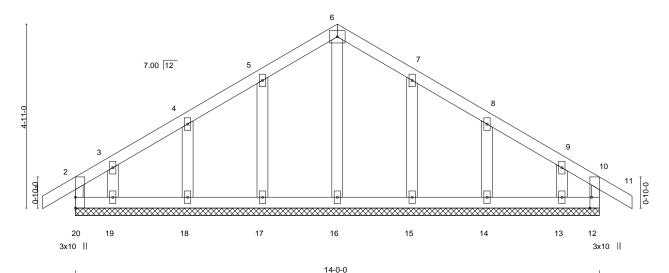


Plate Offsets (X,Y)	[12:0-3-8,Edge]			
LOADING (psf)	SPACING- 2-0-0	CSI.	DEFL. in (loc) I/defl L/d	PLATES GRIP
TCLL 25.0	Plate Grip DOL 1.15	TC 0.07	Vert(LL) -0.00 11 n/r 120	MT20 197/144
TCDL 10.0	Lumber DOL 1.15	BC 0.04	Vert(CT) -0.00 11 n/r 120	
BCLL 0.0 *	Rep Stress Incr YES	WB 0.05	Horz(CT) 0.00 12 n/a n/a	
BCDL 10.0	Code IRC2018/TPI2014	Matrix-R		Weight: 57 lb FT = 10%

14-0-0

LUMBER-

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

**WEBS** 2x3 SPF No.2 **OTHERS** 2x4 SPF No.2 **BRACING-**

TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins,

except end verticals.

**BOT CHORD** Rigid ceiling directly applied or 6-0-0 oc bracing.

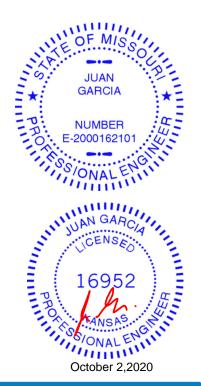
REACTIONS. All bearings 14-0-0.

(lb) -Max Horz 20=-142(LC 6)

Max Uplift All uplift 100 lb or less at joint(s) 20, 12, 17, 18, 19, 15, 14, 13 All reactions 250 lb or less at joint(s) 20, 12, 16, 17, 18, 19, 15, 14, 13

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

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 3) 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.
- 4) All plates are 2x4 MT20 unless otherwise indicated.
- 5) Gable requires continuous bottom chord bearing.
- 6) 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.
- 8) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 9) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 10) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 20, 12, 17, 18,
- 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.





MARNING - 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® cannectors. 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/TPI Quality Criteria, DSB-89 and BCSI Building Component Safety Information

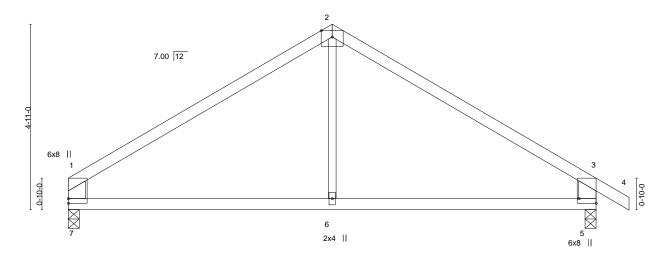
available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



16023 Swingley Ridge Rd Chesterfield, MO 63017

**RELEASE FOR** Job Truss Truss Type CONSTRUCTION Lot 19 HT 143059545 AS NOTED ON PLANS REVIE 400675 E2 Common **DEVELOPMENT SERVICES** DEVELOPMENT SERVICES | Job Reference (optional)

LEE'S SUMMIT, MISSOURI 8.420 s Aug 25 2020 MiTek Industries, Inc. Fri Oct 2 11:00:53 2020 Page 1 Wheeler Lumber, Waverly, KS 66871 ID:bWuMDBN0tjF5cDvSpwhpHtzCzbQ-wwSFza5HDPkZrYTZ1BRHSy2M18RXy\_CMr9hoxGyXTf8 14-10-8 7-0-0 7-0-0 10/12/2020 7-0-0 0-10-8 Scale = 1:30.6 5x7 =



	7-0-0	1	7-0-0					
Plate Offsets (X,Y)	ts (X,Y) [5:Edge,0-5-8]							
LOADING (psf)	SPACING- 2-0-0	CSI.	DEFL. in (loc) I/defl L/d	PLATES GRIP				
TCLL 25.0	Plate Grip DOL 1.15	TC 0.66	Vert(LL) -0.05 5-6 >999 360	MT20 197/144				
TCDL 10.0	Lumber DOL 1.15	BC 0.34	Vert(CT) -0.10 5-6 >999 240					
BCLL 0.0 *	Rep Stress Incr YES	WB 0.09	Horz(CT) 0.01 5 n/a n/a					
BCDL 10.0	Code IRC2018/TPI2014	Matrix-R	Wind(LL) -0.04 6-7 >999 240	Weight: 41 lb FT = 10%				

**BRACING-**

TOP CHORD

**BOT CHORD** 

LUMBER-

2x4 SPF No.2 TOP CHORD **BOT CHORD** 2x4 SPF No.2 **WEBS** 2x6 SPF No.2 \*Except\*

2-6: 2x3 SPF No.2

REACTIONS. (size) 7=0-3-8, 5=0-3-8

Max Horz 7=-139(LC 4)

Max Uplift 7=-71(LC 8), 5=-97(LC 9) Max Grav 7=606(LC 1), 5=690(LC 1)

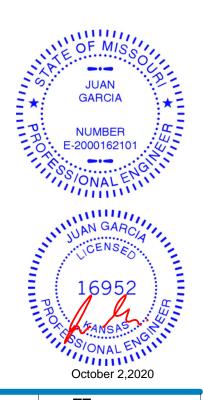
FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown. TOP CHORD 1-2=-693/108, 2-3=-699/109, 1-7=-534/120, 3-5=-625/148

6-7=-9/490, 5-6=-9/490 **BOT CHORD WEBS** 2-6=0/283

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- \* This truss has been designed for a live load of 20.0psf on the bottom chord in 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) 7, 5.

7-0-0

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.



Structural wood sheathing directly applied or 5-3-8 oc purlins,

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

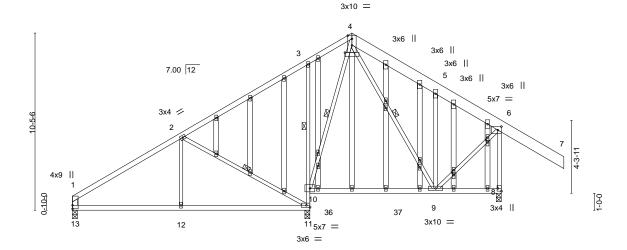
except end verticals.



**RELEASE FOR CONSTRUCTION** Job Truss Truss Type Lot 19 HT 143059546 AS NOTED ON PLANS REVIE GABLE 400675 E3 **DEVELOPMENT SERVICES** DEVELOPMENT SERVICES | Job Reference (optional)

LEE'S SUMMIT, MISSOURI 8.420 s Aug 25 2020 MiTek Industries, Inc. Fri Oct 2 11:00:55 2020 Page 1 Wheeler Lumber, Waverly, KS 66871 ID:bWuMDBN0tjF5cDvSpwhpH1zCzbQ-tJa?OG7XI0\_H4rdy9cTIXN7iHy3IQngelTAv08yXTf6 21-4-15 4-11-3 25-3-8 3-10-9 28-11-12 6-4-13 6-4-13 **10/12/2020** →

6x12



	. 000	6-4-13 6-4-13	+	7	-10-4 '-5-7	14-0-0 16-5-12 0-1-12 2-5-12	21-4 4-1		-	25-3-8 3-10-9	_		
Plate Offsets (X,Y) [4:0-5-0,0-5-1], [6:0-2-8,0-2-8], [8:Edge,0-2-8], [32:0-1-8,0-1-0], [35:0-1-8,0-1-0]													
LOADING	(psf)	SPACING- 2-	)-0	CSI.		DEFL.	in	(loc)	I/defI	L/d		PLATES	GRIP
TCLL	25.0	Plate Grip DOL 1	15	TC	0.67	Vert(LL)	-0.15	9-10	>895	360		MT20	197/144
TCDL	10.0	Lumber DOL 1	15	BC	0.64	Vert(CT)	-0.22	9-10	>604	240			
BCLL	0.0 *	Rep Stress Incr	10	WB	0.54	Horz(CT)	-0.05	8	n/a	n/a			
BCDL	10.0	Code IRC2018/TPI20	4	Matrix	k-S	Wind(LL)	0.04 1	1-12	>999	240		Weight: 201 lb	FT = 10%

LUMBER-**BRACING-**

2x4 SPF No.2 \*Except\* TOP CHORD TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins,

4-7: 2x8 SP DSS except end verticals.

**BOT CHORD** 2x4 SPF No.2 \*Except\* **BOT CHORD** Rigid ceiling directly applied or 4-4-7 oc bracing. Except: 3-11: 2x3 SPF No.2 3-10 1 Row at midpt

**WEBS** 2x3 SPF No.2 \*Except\* **WEBS** 1 Row at midpt 2-11, 4-10, 4-9

1-13: 2x4 SPF No.2 **OTHERS** 2x4 SPF No 2

REACTIONS. 13=0-3-8, 8=0-3-8, 11=0-3-8 (size)

Max Horz 13=318(LC 7)

Max Uplift 13=-100(LC 8), 11=-196(LC 8)

Max Grav 13=582(LC 16), 8=1118(LC 16), 11=1472(LC 15)

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

1-2=-719/138, 2-3=-182/372, 3-4=-126/255, 4-5=-176/377, 5-6=-352/125, 6-7=0/258, TOP CHORD 1-13=-470/131, 6-8=-1105/0

12-13=-189/603, 11-12=-189/603, 10-11=-965/122, 3-10=-478/258

BOT CHORD WEBS 2-12=0/309, 2-11=-795/230, 4-10=-364/20, 4-9=-295/154, 5-9=0/449

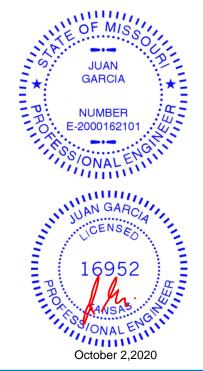
## NOTES-

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 3) 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.
- 4) All plates are 2x4 MT20 unless otherwise indicated.
- 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, with BCDL = 10.0psf.
- 8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 13=100, 11=196,
- 9) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 10) Load case(s) 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25 has/have been modified. Building designer must review loads to verify that they are correct for the intended use of this truss.
- 11) 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 Except:

Continued on page 2





Scale = 1:67.9



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9) Dead + 0.6 MWFRS Wind (Pos. Internal) 2nd Parallel: Lumber Increase=1.60, Plate Increase=1.60

Uniform Loads (plf) Vert: 1-4=11, 4-6=29, 6-7=23, 11-13=-12, 8-10=-12

Horz: 1-4=-23, 4-6=41, 6-7=35, 1-13=-20, 6-8=-14 Drag: 6-8=0

Concentrated Loads (lb) Vert: 7=-250

10) Dead + 0.6 MWFRS Wind (Pos. Internal) 3rd Parallel: Lumber Increase=1.60, Plate Increase=1.60 Uniform Loads (plf)

Vert: 1-4=29, 4-6=11, 6-7=5, 11-13=-12, 8-10=-12 Horz: 1-4=-41, 4-6=23, 6-7=17, 1-13=14, 6-8=20

Drag: 6-8=-0 Concentrated Loads (lb)

Vert: 7=-250

11) Dead + 0.6 MWFRS Wind (Pos. Internal) 4th Parallel: Lumber Increase=1.60, Plate Increase=1.60 Uniform Loads (plf)

Vert: 1-4=11, 4-6=29, 6-7=23, 11-13=-12, 8-10=-12

Horz: 1-4=-23, 4-6=41, 6-7=35, 1-13=-20, 6-8=-14

Drag: 6-8=0

Concentrated Loads (lb)

Vert: 7=-250

12) Dead + 0.6 MWFRS Wind (Neg. Internal) 1st Parallel: Lumber Increase=1.60, Plate Increase=1.60

Continued on page 3





143059546

Concentrated Loads (lb)

Vert: 7=-250

22) 2nd Dead + Roof Live (unbalanced): Lumber Increase=1.15, Plate Increase=1.15

Uniform Loads (plf)

Vert: 1-4=-20, 4-6=-70, 6-7=-70, 11-13=-20, 8-10=-20

Concentrated Loads (lb)

Vert: 7=-250

23) 3rd Dead + 0.75 Roof Live (unbalanced) + 0.75 Uninhab. Attic Storage: Lumber Increase=1.15, Plate Increase=1.15

Uniform Loads (plf)

Vert: 1-4=-58, 4-6=-20, 6-7=-20, 11-13=-35, 10-36=-35, 36-37=-50, 8-37=-35

Concentrated Loads (lb)

24) 4th Dead + 0.75 Roof Live (unbalanced) + 0.75 Uninhab. Attic Storage: Lumber Increase=1.15, Plate Increase=1.15

## Continued on page 4







143059546

**RELEASE FOR** Job Truss Truss Type CONSTRUCTION Lot 19 HT E3 GABLE 400675

10/12/2020

AS NOTED ON PLANS REVIEW
DEVELOPMENT SERVICES

Job Reference (optional)

LEE'S SUMMIT, MISSOURI 8.420 s Aug 25 2020 MiTek Industries, Inc. Fri Oct 2 11:00:55 2020 Page 4

ID:bWuMDBN0tjF5cDvSpwhpH1zCzbQ-tJa?OG7Xl0\_H4rdy9cTIXN7iHy3lQngeITAv08yXTf6

143059546

Waverly, KS 66871 Wheeler Lumber,

LOAD CASE(S) Standard Except:

Uniform Loads (plf) Vert: 1-4=-20, 4-6=-58, 6-7=-57, 11-13=-35, 10-36=-35, 36-37=-50, 8-37=-35

Concentrated Loads (lb) Vert: 7=-250

25) User defined: Lumber Increase=1.15, Plate Increase=1.15

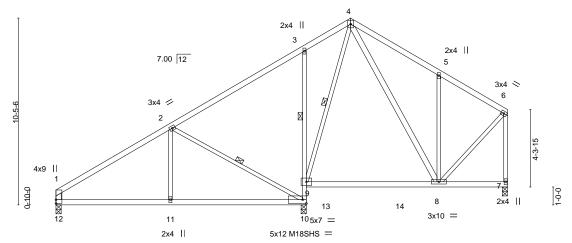
Vert: 1-4=-70(F), 4-6=-70(F), 6-7=-70(F), 11-13=-20(F), 8-10=-20(F)

Concentrated Loads (lb) Vert: 7=-250

Uniform Loads (plf)

**RELEASE FOR** Job Truss Truss Type CONSTRUCTION Lot 19 HT 143059547 AS NOTED ON PLANS REVIE 400675 E4 Roof Special **DEVELOPMENT SERVICES** DEVELOPMENT SERVICES | Job Reference (optional)

LEE'S SUMMIT, MISSOURI 8.420 s Aug 25 2020 MiTek Industries, Inc. Fri Oct 2 11:00:55 2020 Page 1 Wheeler Lumber, Waverly, KS 66871 ID:bWuMDBN0tjF5cDvSpwhpH1zCzbQ-tJa?OG7XI0\_H4rdy9cTIXN7jky4RQnieITAv08yXTf6 **10/12/2020**6-5-12 21-4-15 25-3-0 6-4-13 7-7-3 4-11-3 3-10-1 Scale: 3/16"=1' 4x5



	6-4-13	7-7-3	2-5-12 4-11-3	3-10-1
LOADING (psf)	SPACING- 2-0-0	<b>CSI.</b>	<b>DEFL.</b> in (loc) I/defl L/d	PLATES GRIP
TCLL 25.0	Plate Grip DOL 1.15	TC 0.58	Vert(LL) -0.15 8-9 >891 360	MT20 197/144
TCDL 10.0	Lumber DOL 1.15	BC 0.56	Vert(CT) -0.23 8-9 >588 240	M18SHS 197/144
BCLL 0.0 *	Rep Stress Incr YES	WB 0.54	Horz(CT) -0.05 7 n/a n/a	Weight: 111 lb FT = 10%
BCDL 10.0	Code IRC2018/TPI2014	Matrix-S	Wind(LL) 0.03 10-11 >999 240	

16-5-12

BRACING-

TOP CHORD

**BOT CHORD** 

**WEBS** 

14-0-0

LUMBER-

TOP CHORD 2x4 SPF No.2

BOT CHORD 2x4 SPF No.2 \*Except\* 3-10: 2x3 SPF No.2

**WEBS** 2x3 SPF No.2 \*Except\* 4-8,1-12: 2x4 SPF No.2

REACTIONS. (size) 12=0-3-8, 7=0-3-8, 10=0-3-8

Max Horz 12=317(LC 5)

Max Uplift 12=-77(LC 8), 7=-80(LC 9), 10=-154(LC 8) Max Grav 12=583(LC 16), 7=502(LC 16), 10=1552(LC 15)

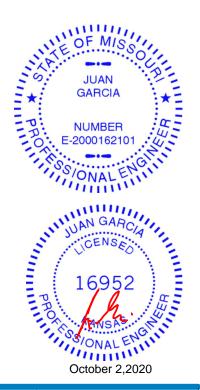
FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.

TOP CHORD  $1\hbox{-}2\hbox{--}720/98,\ 2\hbox{-}3\hbox{--}179/340,\ 4\hbox{-}5\hbox{--}430/193,\ 5\hbox{-}6\hbox{--}353/82,\ 1\hbox{--}12\hbox{--}472/110,\ 6\hbox{-}7\hbox{--}488/83}$ 

BOT CHORD 11-12=-196/601, 10-11=-196/601, 9-10=-1045/77, 3-9=-454/255

**WEBS** 2-11=0/308, 2-10=-792/236, 4-9=-467/3, 4-8=-119/468, 5-8=-369/225, 6-8=-40/324

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 3) All plates are MT20 plates unless otherwise indicated.
- 4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 5) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 12, 7 except
- 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.



Structural wood sheathing directly applied or 6-0-0 oc purlins,

Rigid ceiling directly applied or 4-1-14 oc bracing. Except:

3-9

2-10, 4-9

except end verticals

1 Row at midpt

1 Row at midpt



**RELEASE FOR** Job Truss Truss Type Lot 19 HT CONSTRUCTION 143059548 MONOPITCH GIRDER NOTED ON PLANS REVIE 400675 E5 **DEVELOPMENT SERVICES** DEVELOPMENT SERVICES | Z | Job Reference (optional)

LEE'S SUMMIT, MISSOURI 8.420 s Aug 25 2020 MiTek Industries, Inc. Fri Oct 2 11:00:56 2020 Page 1 Wheeler Lumber, Waverly, KS 66871 ID:bWuMDBN0tjF5cDvSpwhpH1zCzbQ-LV8Nbb89WK68i?C8iJ\_\_4bgqNMQj9C6oX7vSYbyXTf5 14-0-0 10/12/2020 6-4-13

3x4 ||

Scale = 1:50.6

FT = 10%

F MIS

JUAN **GARCIA** 

NUMBER

E-2000162101

ONALES

CIX

O

Weight: 207 lb

3 7.00 12 6x8 / 2 X 0-10-0 × 6 8 9 10 11 12 5 413 6x8 3x10 || 6x6 =

Plate Offsets (X,Y)--[1:0-0-0,0-1-15], [5:0-7-8,0-1-8] SPACING-GRIP LOADING (psf) CSI. DEFL. in (loc) I/defl L/d **PLATES TCLL** 25.0 Plate Grip DOL 1.15 TC 0.84 Vert(LL) -0.07 1-5 >999 360 MT20 197/144 TCDL 10.0 Lumber DOL 1.15 ВС 0.56 Vert(CT) -0.121-5 >999 240 **BCLL** 0.0 Rep Stress Incr NO WB 0.65 Horz(CT) 0.01 n/a n/a 4

Wind(LL)

**BRACING-**

TOP CHORD

**BOT CHORD** 

**WEBS** 

14-0-0

7-7-3

0.03

>999

except end verticals.

1 Row at midpt

1-5

240

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

Structural wood sheathing directly applied or 4-11-3 oc purlins,

3-4, 2-4

LUMBER-

**BCDL** 

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

10.0

REACTIONS. 1=(0-3-8 + bearing block) (req. 0-4-4), 4=0-3-8 (size)

Code IRC2018/TPI2014

Max Horz 1=333(LC 7)

Max Uplift 1=-89(LC 8), 4=-252(LC 8) Max Grav 1=5430(LC 2), 4=3633(LC 2)

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

TOP CHORD 1-2=-5355/0

**BOT CHORD** 1-5=-46/4464, 4-5=-46/4464 WFBS 2-5=0/4779. 2-4=-5051/143

### NOTES-

1) 2-ply truss to be connected together with 10d (0.131"x3") nails as follows: Top chords connected as follows: 2x4 - 1 row at 0-7-0 oc. Bottom chords connected as follows: 2x10 - 2 rows staggered at 0-5-0 oc.

Webs connected as follows: 2x4 - 1 row at 0-9-0 oc.

- 2) All loads are considered equally applied to all plies, except if noted as front (F) or back (B) face in the LOAD CASE(S) section. Ply to ply connections have been provided to distribute only loads noted as (F) or (B), unless otherwise indicated.

6-4-13

Matrix-S

- 3) 2x10 SP DSS bearing block 12" long at jt. 1 attached to each face with 5 rows of 10d (0.131"x3") nails spaced 3" o.c. 20 Total fasteners per block. Bearing is assumed to be SPF No.2.
- 4) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 6) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1 except (jt=lb) 4=252.
- 8) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 9) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 1972 lb down and 159 lb up at 1-6-13, 1961 lb down and 158 lb up at 3-6-13, 1977 lb down at 5-6-0, 454 lb down and 87 lb up at 7-6-0, 462 lb down and 86 lb up at 9-6-0, and 470 lb down and 86 lb up at 11-6-0, and 706 lb down and 67 lb up at 13-6-0 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.

LOAD CASE(S) Standard

## 16952 PROMOTE NAME OF THE PROPERTY OF THE PRO

October 2,2020

### Continued on page 2

MARNING - 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/TPH Quality Criteria, DSB-89 and BCSI Building Component fabrication, storage, delivery, erection and bracing of trusses and truss systems, see

ANS/TPI1 Qu
Safety Information available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



**RELEASE FOR** Job Truss Truss Type CONSTRUCTION Lot 19 HT 143059548 MONOPITCH GIRDER DEVELOPMENT SERVICES 2 Job Reference (optional)

LEE'S SUMMIT, MISSOURI 8.420 s Aug 25 2020 MiTek Industries, Inc. Fri Oct 2 11:00:56 2020 Page 2

ID:bWuMDBN0tjF5cDvSpwhpH1zCzbQ-LV8Nbb89WK68i?C8iJ\_4bgqNMQj9C6oX7vSYbyXTf5 E5 400675

Waverly, KS 66871 Wheeler Lumber,

10/12/2020

LOAD CASE(S) Standard

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

Uniform Loads (plf)

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

Concentrated Loads (lb)

Vert: 7=-1858(B) 8=-1856(B) 9=-1858(B) 10=-436(B) 11=-440(B) 12=-445(B) 13=-609(B)



**RELEASE FOR** Job Truss Truss Type Lot 19 HT CONSTRUCTION 143059549 Common Supported Gable CELOPMENT SERVICES 400675 G1 DEVELOPMENT SERVICES | Job Reference (optional)

LEE'S SUMMIT, MISSOURI 8.420 s Aug 25 2020 MiTek Industries, Inc. Fri Oct 2 11:00:57 2020 Page 1 Wheeler Lumber, Waverly, KS 66871 ID:bWuMDBN0tjF5cDvSpwhpH1zCzbQ-phimpx8nHdE?K9nLG1VDdoCBwmuyuotxmnf041yXTf4 20-10-8 0-10-8 -0-10-8 0-10-8 10-0-0 20-0-0 10/12/2020 10-0-0 10-0-0 Scale = 1:41.3 4x5 =

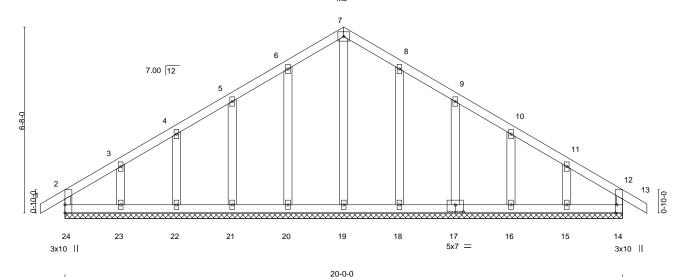


Plate Offs	Plate Offsets (X,Y) [14:0-3-8,Edge], [17:0-3-8,0-3-0]											
LOADING	G (psf)	SPACING- 2-0-0	CSI.	DEFL. in	(loc)	l/defl	L/d	PLATES	GRIP			
TCLL	25.0	Plate Grip DOL 1.15	TC 0.09	Vert(LL) -0.00	13	n/r	120	MT20	197/144			
TCDL	10.0	Lumber DOL 1.15	BC 0.05	Vert(CT) -0.00	13	n/r	120					
BCLL	0.0 *	Rep Stress Incr YES	WB 0.11	Horz(CT) 0.00	14	n/a	n/a					
BCDL	10.0	Code IRC2018/TPI2014	Matrix-R					Weight: 89 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

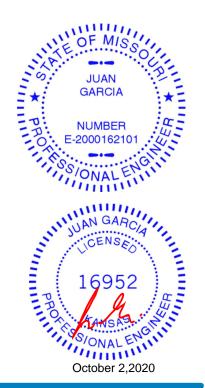
REACTIONS. All bearings 20-0-0.

(lb) -Max Horz 24=-188(LC 6)

Max Uplift All uplift 100 lb or less at joint(s) 24, 14, 20, 21, 22, 23, 18, 17, 16, 15 All reactions 250 lb or less at joint(s) 24, 14, 19, 20, 21, 22, 23, 18, 17, 16, 15

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

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 3) 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.
- 4) All plates are 2x4 MT20 unless otherwise indicated.
- 5) Gable requires continuous bottom chord bearing.
- 6) 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.
- 8) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 9) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 10) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 24, 14, 20, 21,
- 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.

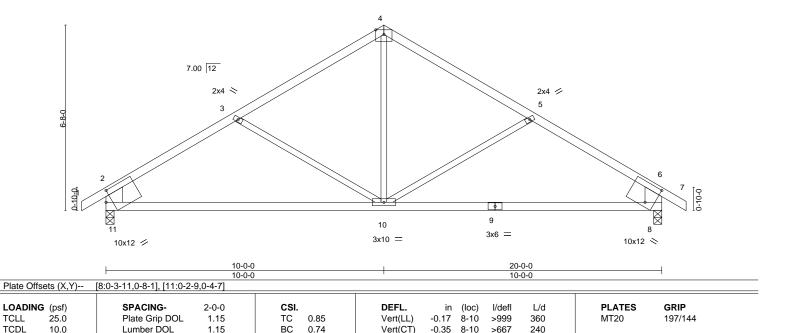




**RELEASE FOR CONSTRUCTION** Job Truss Truss Type Lot 19 HT 143059550 AS NOTED ON PLANS REVIE 400675 G2 Common **DEVELOPMENT SERVICES** DEVELOPMENT SERVICES | Job Reference (optional)

LEE'S SUMMIT, MISSOURI 8.420 s Aug 25 2020 MiTek Industries, Inc. Fri Oct 2 11:00:59 2020 Page 1 Wheeler Lumber, Waverly, KS 66871 ID:bWuMDBN0tjF5cDvSpwhpH1zCzbQ-l4pWEdA1pFUiZTxjOSXhiDILaZOhMgGED5879wyXTf2 20-0-0 20-10-8 0-10-8 10-0-0 15-2-15 10/12/2020 4-9-0 5-2-15 5-3-0 4-9-1 Scale = 1:41.5

5x7 =



Horz(CT)

Wind(LL)

**BRACING-**

TOP CHORD

**BOT CHORD** 

0.03

0.06

8

10

n/a

>999

except end verticals.

n/a

240

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

Structural wood sheathing directly applied or 3-1-0 oc purlins,

LUMBER-

REACTIONS.

**BCLL** 

BCDL

**WEBS** 

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

0.0

10.0

2x3 SPF No.2 \*Except\* 2-11,6-8: 2x8 SP DSS

> (size) 11=0-3-8, 8=0-3-8 Max Horz 11=192(LC 7)

Max Uplift 11=-130(LC 8), 8=-130(LC 9) Max Grav 11=955(LC 1), 8=955(LC 1)

Rep Stress Incr

Code IRC2018/TPI2014

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown. 2-3=-1148/182, 3-4=-875/141, 4-5=-875/141, 5-6=-1148/183, 2-11=-852/178, TOP CHORD

YES

WB

Matrix-S

0.24

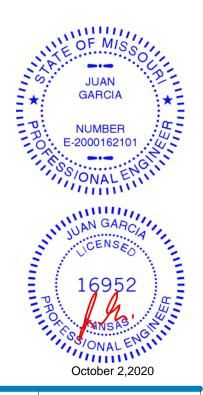
6-8=-852/178

**BOT CHORD** 10-11=-167/901, 8-10=-79/881

4-10=-6/460, 5-10=-255/206, 3-10=-254/206 WEBS

### NOTES-

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



FT = 10%

Weight: 70 lb



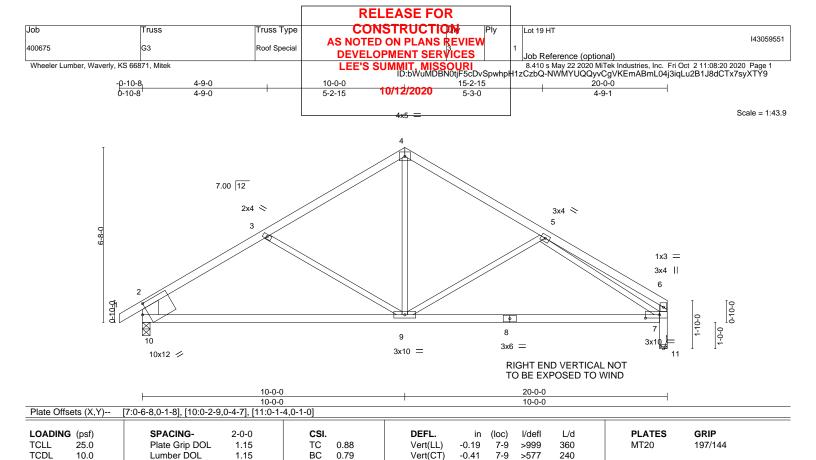
MARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE

Design valid for use only with MiTek® cannectors. 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/TPI Quality Criteria, DSB-89 and BCSI Building Component Safety Information

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





Horz(CT)

Wind(LL)

**BRACING-**

TOP CHORD

**BOT CHORD** 

0.04

0.05

11

7-9

n/a

>999

n/a

240

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

Weight: 73 lb

Structural wood sheathing directly applied or 2-2-0 oc purlins, except

FT = 10%

LUMBER-

**BCLL** 

**BCDL** 

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

0.0

10.0

2x3 SPF No.2 \*Except\* **WEBS** 

2-10: 2x8 SP DSS, 6-11: 2x4 SPF No.2

Rep Stress Incr

Code IRC2018/TPI2014

REACTIONS. (lb/size) 10=965/0-3-8, 11=877/Mechanical

Max Horz 10=175(LC 5)

Max Uplift 10=-130(LC 8), 11=-104(LC 9)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown. TOP CHORD 2-3=-1169/183, 3-4=-896/144, 4-5=-928/143, 5-6=-400/39, 2-10=-865/178,

7-11=-877/104, 6-7=-304/63

**BOT CHORD** 9-10=-191/901, 8-9=-104/954, 7-8=-104/954

4-9=-15/484, 5-9=-311/221, 3-9=-254/207, 5-7=-823/157 **WEBS** 

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left exposed; end vertical left 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.

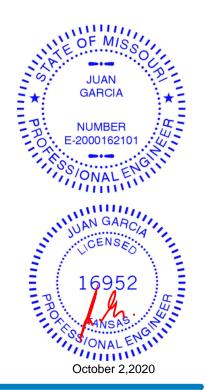
YES

WB

Matrix-S

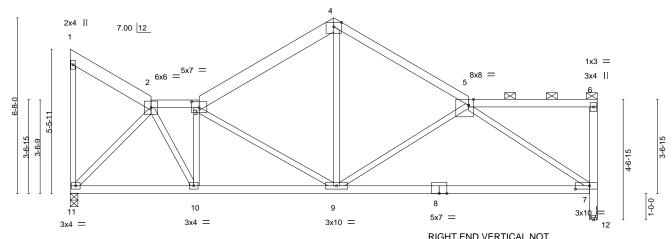
0.64

- \* This truss has been designed for a live load of 20.0psf on the bottom chord in 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 130 lb uplift at joint 10 and 104 lb uplift at
- 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.





**RELEASE FOR** CONSTRUCTION Job Truss Truss Type Lot 19 HT 143059552 AS NOTED ON PLANS REVIEW DEVELOPMENT SERVICES 400675 G4 Roof Special Job Reference (optional) B410 s May 22 2020 MiTek Industries, Inc. Fri Oct 2 11:08:39 2020 Page 1 whpH1zCzbQ-JA?kTwftQ24o69jpoGBTLjL4A?Oh8Xgx?fZSHFyXTXs LEE'S SUMMIT, MISSOURI ID:bWuMDBN0tjF5cDvS Wheeler Lumber, Waverly, KS 66871, Mitek 3-0-13 4-10-11 10-0-0 15-1-5 20-0-0 10/12/2020 3-0-13 1-9-15 5-1-5 5-1-5 4-10-11 Scale = 1:43.7



TO BE EXPOSED TO WIND 3-0-13 4-10-11 10-0-0 15-1-5 20-0-0 3-0-13 1-9-15 4-10-11 5-1-5 [3:0-3-8,0-2-12], [5:0-2-5,Edge], [7:0-6-8,0-1-8], [12:0-1-4,0-1-0]

LOADIN	G (psf)	SPACING- 2-0	0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL 1.	.15	TC	0.35	Vert(LL)	-0.24	7-9	>991	360	MT20	197/144
TCDL	10.0	Lumber DOL 1.	.15	BC	0.71	Vert(CT)	-0.49	7-9	>488	240		
BCLL	0.0 *	Rep Stress Incr Y	ES	WB	0.91	Horz(CT)	0.06	12	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI201	14	Matri	x-S	Wind(LL)	0.02	9	>999	240	Weight: 91 lb	FT = 10%

BRACING-

TOP CHORD

**BOT CHORD** 

LUMBER-

Plate Offsets (X,Y)--

TOP CHORD 2x4 SPF No.2 \*Except\*

1-2,3-4: 2x6 SPF No.2 2x4 SPF No.2

**BOT CHORD** 2x3 SPF No.2 \*Except\* **WEBS** 

6-12: 2x4 SPF No.2

**REACTIONS.** (lb/size) 11=888/0-3-8, 12=889/Mechanical

Max Horz 11=-162(LC 6)

Max Uplift 11=-25(LC 8), 12=-13(LC 9)

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

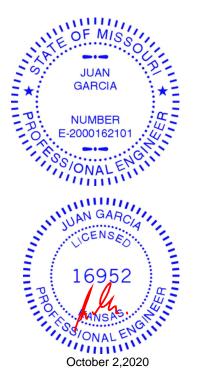
TOP CHORD 2-3=-981/0, 3-4=-916/32, 4-5=-944/16, 7-12=-889/13 **BOT CHORD** 10-11=-9/678, 9-10=0/997, 8-9=-36/952, 7-8=-36/952

WEBS 2-11=-1005/6, 2-10=0/648, 3-10=-498/44, 3-9=-343/43, 4-9=0/495, 5-9=-279/94,

5-7=-1106/59

### 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 exposed; end vertical left 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 25 lb uplift at joint 11 and 13 lb uplift at ioint 12.
- 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.



Structural wood sheathing directly applied or 5-4-14 oc purlins,

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

except end verticals, and 2-0-0 oc purlins (5-11-11 max.): 2-3, 5-6.



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

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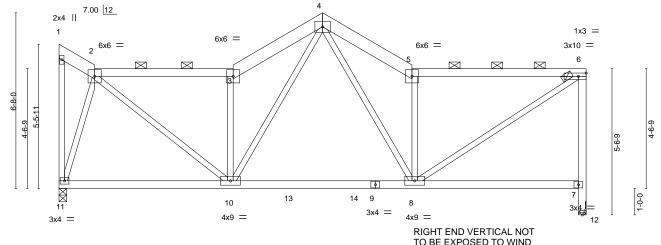
ANSI/TPH Quality Criteria, DSB-89 and BCSI Building Component fabrication, storage, delivery, erection and bracing of trusses and truss systems, see

ANS/TPI1 Qu
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 Job Truss Truss Type Lot 19 HT 143059553 AS NOTED ON PLANS REVIEW DEVELOPMENT SERVICES 400675 G5 Roof Special Job Reference (optional) LEE'S SUMMIT, MISSOURI ID:bWuMDBN0tjF5cD 8.410 s May 22 2020 MiTek Industries, Inc. Fri Oct 2 11:08:55 2020 Page 1 SpwhpH1zCzbQ-FznqOsvfz5X1dyukdTD?50ktRw6uvClg8SIrKyXTXc Wheeler Lumber, Waverly, KS 66871, Mitek 1-4-3 6-7-5 10-0-0 13-4-11 20-0-0 1-4-3 10/12/2020 3-4-11 5-3-1 3-4-11 Scale = 1:43.7



	1-4-3	6-7-5	13-4-11	20-0-0
	1-4-3	5-3-1	6-9-7	6-7-5
Plate Offsets (X,Y) [12:0	)-1-4,0-1-0]			

LOADING (psf) TCLL 25.0	SPACING- 2-0-0 Plate Grip DOL 1.15	<b>CSI.</b> TC 0.69	<b>DEFL.</b> in (loc) I/defl L/d Vert(LL) -0.11 8-10 >999 360	<b>PLATES GRIP</b> MT20 197/144
TCDL 10.0	Lumber DOL 1.15	BC 0.48	Vert(CT) -0.17 8-10 >999 240	
BCLL 0.0 *	Rep Stress Incr YES	WB 0.43	Horz(CT) 0.03 12 n/a n/a	
BCDL 10.0	Code IRC2018/TPI2014	Matrix-S	Wind(LL) 0.03 8-10 >999 240	Weight: 96 lb FT = 10%

BRACING-

TOP CHORD

**BOT CHORD** 

LUMBER-

TOP CHORD 2x6 SPF No.2 \*Except\*

2-3,5-6: 2x4 SPF No.2 2x4 SPF No.2

**BOT CHORD** 2x3 SPF No.2 \*Except\* **WEBS** 

6-12: 2x4 SPF No.2

**REACTIONS.** (lb/size) 11=888/0-3-8, 12=889/Mechanical

Max Horz 11=-153(LC 6)

Max Uplift 11=-21(LC 8), 12=-19(LC 9) Max Grav 11=931(LC 2), 12=932(LC 2)

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

TOP CHORD 2-3=-1003/0, 3-4=-1234/29, 4-5=-1248/53, 5-6=-1007/2, 7-12=-932/19, 6-7=-835/50

**BOT CHORD** 10-11=-57/313, 10-13=0/753, 13-14=0/753, 9-14=0/753, 8-9=0/753

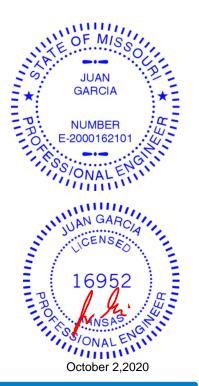
**WEBS** 2-11=-910/54, 2-10=0/963, 3-10=-860/69, 4-10=0/593, 4-8=-28/607, 5-8=-933/111,

6-8=0/1167

### 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 exposed; end vertical left exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 3) Provide adequate drainage to prevent water ponding.
- 4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 5) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- 6) Refer to girder(s) for truss to truss connections.
- 7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 21 lb uplift at joint 11 and 19 lb uplift at ioint 12
- 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.

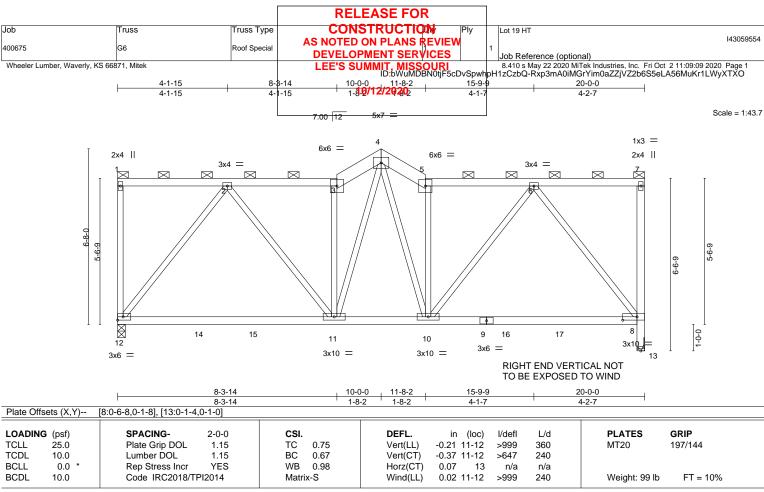


Structural wood sheathing directly applied or 6-0-0 oc purlins, except

end verticals, and 2-0-0 oc purlins (4-4-1 max.): 2-3, 5-6.

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





**BRACING-**

TOP CHORD

**BOT CHORD** 

LUMBER-

TOP CHORD 2x4 SPF No.2 \*Except\*

3-4,4-5: 2x6 SPF No.2 2x4 SPF No.2

BOT CHORD 2x3 SPF No.2 \*Except\* **WEBS** 

7-13: 2x4 SPF No.2

REACTIONS. (lb/size) 12=889/0-3-8, 13=889/Mechanical

Max Horz 12=-175(LC 6)

Max Uplift 12=-127(LC 8), 13=-131(LC 9) Max Grav 12=944(LC 2), 13=944(LC 2)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown. TOP CHORD 2-3=-890/89, 3-4=-1026/119, 4-5=-1019/131, 5-6=-884/88, 8-13=-944/131 BOT CHORD 12-14=-80/562, 14-15=-80/562, 11-15=-80/562, 10-11=-70/783, 9-10=-96/565,

9-16=-96/565, 16-17=-96/565, 8-17=-96/565 2-12=-897/162, 2-11=-2/535, 3-11=-598/111, 4-11=-51/457, 4-10=-73/435,

5-10=-595/134, 6-10=-5/524, 6-8=-879/164

### NOTES-

WEBS

1) Unbalanced roof live loads have been considered for this design.

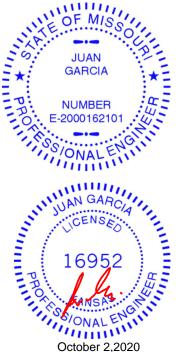
2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left exposed; end vertical left exposed; Lumber DOL=1.60 plate grip DOL=1.60

3) Provide adequate drainage to prevent water ponding.

- 4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 5) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.

6) Refer to girder(s) for truss to truss connections.

- 7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 127 lb uplift at joint 12 and 131 lb uplift at ioint 13
- 8) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 9) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



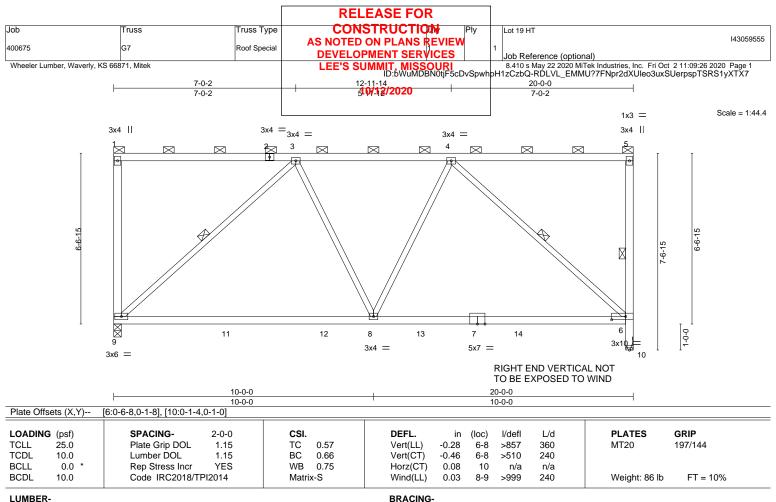
Structural wood sheathing directly applied or 6-0-0 oc purlins, except

end verticals, and 2-0-0 oc purlins (6-0-0 max.): 1-3, 5-7.

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

October 2,2020





**BOT CHORD** 

**WEBS** 

LUMBER-

TOP CHORD 2x4 SPF No.2 **BOT CHORD** 2x4 SPF No.2 \*Except\* 7-9: 2x4 SPF 2100F 1.8E

**WEBS** 2x3 SPF No.2 \*Except\* 1-9,5-10: 2x4 SPF No.2

REACTIONS. (lb/size) 9=887/0-3-8, 10=887/Mechanical

Max Horz 9=-178(LC 6)

Max Uplift 9=-182(LC 4), 10=-187(LC 5) Max Grav 9=968(LC 2), 10=968(LC 2)

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

TOP CHORD 3-4=-839/140, 6-10=-968/187

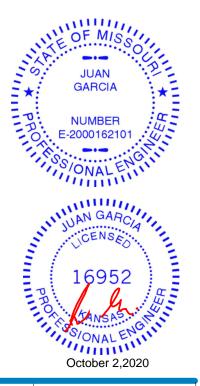
BOT CHORD 9-11=-182/722, 11-12=-182/722, 8-12=-182/722, 8-13=-163/723, 7-13=-163/723,

7-14=-163/723, 6-14=-163/723

**WEBS** 3-9=-940/213, 3-8=0/322, 4-8=0/318, 4-6=-934/221

### 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 exposed; end vertical left exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 2) Provide adequate drainage to prevent water ponding.
- 3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 4) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- 5) Refer to girder(s) for truss to truss connections.
- 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 182 lb uplift at joint 9 and 187 lb uplift at ioint 10.
- 7) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1
- 8) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



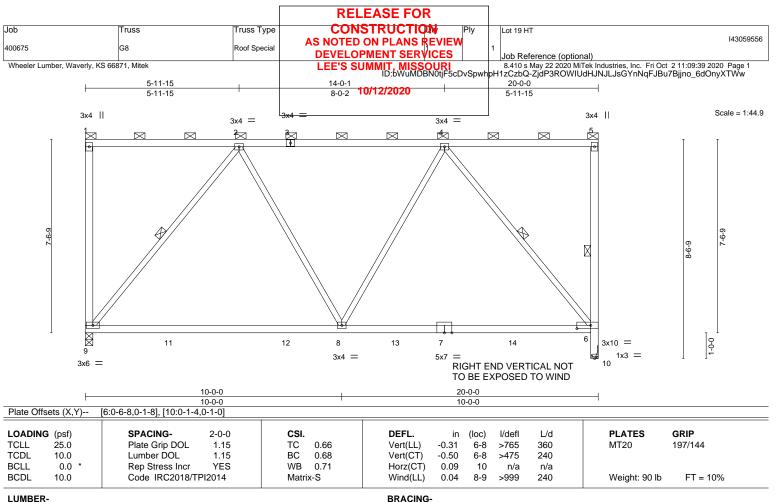
2-0-0 oc purlins (5-11-9 max.): 1-5, except end verticals.

5-10, 3-9, 4-6

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

1 Row at midpt





**BOT CHORD** 

WEBS

LUMBER-

TOP CHORD 2x4 SPF No.2 **BOT CHORD** 2x4 SPF No.2 \*Except\* 7-9: 2x4 SPF 2100F 1.8E

**WEBS** 2x3 SPF No.2 \*Except\* 1-9,5-10: 2x4 SPF No.2

REACTIONS. (lb/size) 9=887/0-3-8, 10=887/Mechanical

Max Horz 9=-206(LC 6)

Max Uplift 9=-188(LC 4), 10=-194(LC 5) Max Grav 9=980(LC 2), 10=980(LC 2)

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

TOP CHORD 2-3=-713/121, 3-4=-713/121, 6-10=-980/194

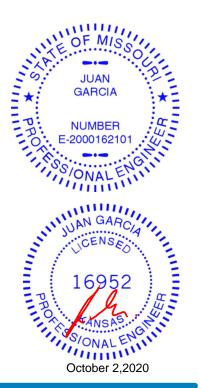
BOT CHORD 9-11=-173/575, 11-12=-173/575, 8-12=-173/575, 8-13=-144/576, 7-13=-144/576,

7-14=-144/576, 6-14=-144/576

**WEBS** 2-9=-886/226, 2-8=0/340, 4-8=0/336, 4-6=-880/234

### 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 exposed; end vertical left exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 2) Provide adequate drainage to prevent water ponding.
- 3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 4) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- 5) Refer to girder(s) for truss to truss connections.
- 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 188 lb uplift at joint 9 and 194 lb uplift at ioint 10.
- 7) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1
- 8) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



2-0-0 oc purlins (6-0-0 max.): 1-5, except end verticals.

5-10, 2-9, 4-6

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

1 Row at midpt

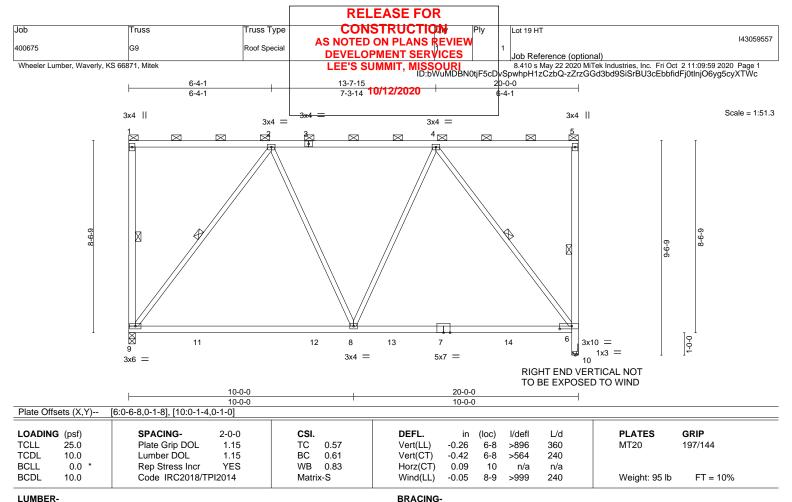


a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing 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/TPH Quality Criteria, DSB-89 and BCSI Building Component fabrication, storage, delivery, erection and bracing of trusses and truss systems, see

ANS/TPI1 Qu
Safety Information available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601





**BOT CHORD** 

WEBS

LUMBER-

TOP CHORD 2x4 SPF No.2

**BOT CHORD** 2x4 SPF 2400F 2.0E \*Except\* 6-7: 2x4 SPF 2100F 1.8E

**WEBS** 2x3 SPF No.2 \*Except\*

1-9,5-10: 2x4 SPF No.2

REACTIONS. (lb/size) 9=887/0-3-8, 10=887/Mechanical Max Horz 9=-234(LC 6)

Max Uplift 9=-194(LC 4), 10=-203(LC 5)

Max Grav 9=989(LC 2), 10=989(LC 2)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown. TOP CHORD 2-3=-641/120, 3-4=-641/120, 6-10=-989/203

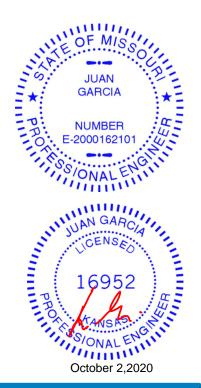
BOT CHORD 9-11=-164/526, 11-12=-164/526, 8-12=-164/526, 8-13=-135/528, 7-13=-135/528,

7-14=-135/528, 6-14=-135/528

**WEBS** 2-9=-849/217, 2-8=0/336, 4-8=0/333, 4-6=-844/227

### 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 exposed; end vertical left exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 2) Provide adequate drainage to prevent water ponding.
- 3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 4) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- 5) Refer to girder(s) for truss to truss connections.
- 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 194 lb uplift at joint 9 and 203 lb uplift at ioint 10.
- 7) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1
- 8) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



2-0-0 oc purlins (6-0-0 max.): 1-5, except end verticals.

1-9, 5-10, 2-9, 4-6

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

1 Row at midpt

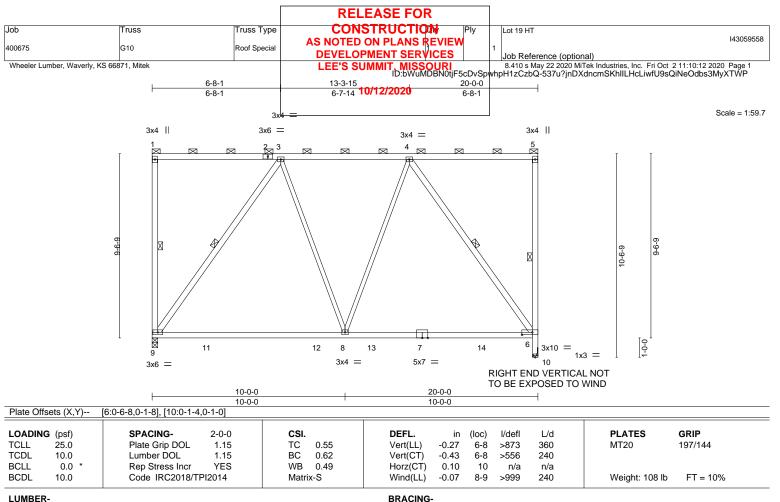


Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall 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/TPH Quality Criteria, DSB-89 and BCSI Building Component fabrication, storage, delivery, erection and bracing of trusses and truss systems, see

ANS/TPI1 Qu
Safety Information available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601





**BOT CHORD** 

**WEBS** 

LUMBER-

TOP CHORD 2x4 SPF No.2

**BOT CHORD** 2x4 SPF 2400F 2.0E \*Except\*

6-7: 2x4 SPF 2100F 1.8E **WEBS** 2x4 SPF No.2 \*Except\*

3-8,4-8: 2x3 SPF No.2

REACTIONS. (lb/size) 9=887/0-3-8, 10=887/Mechanical

Max Horz 9=-263(LC 6)

Max Uplift 9=-202(LC 4), 10=-212(LC 5) Max Grav 9=997(LC 2), 10=997(LC 2)

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

FORCES. TOP CHORD 3-4=-584/120, 6-10=-997/212

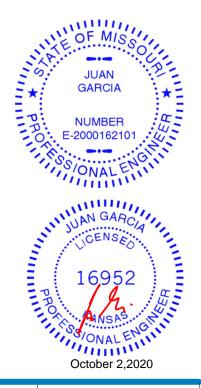
BOT CHORD 9-11=-158/488, 11-12=-158/488, 8-12=-158/488, 8-13=-129/489, 7-13=-129/489,

7-14=-129/489, 6-14=-129/489

**WEBS** 3-9=-821/212, 3-8=0/335, 4-8=0/332, 4-6=-815/226

### 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 exposed; end vertical left exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 2) Provide adequate drainage to prevent water ponding.
- 3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 4) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- 5) Refer to girder(s) for truss to truss connections.
- 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 202 lb uplift at joint 9 and 212 lb uplift at ioint 10.
- 7) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1
- 8) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



2-0-0 oc purlins (6-0-0 max.): 1-5, except end verticals.

1-9, 5-10, 3-9, 4-6

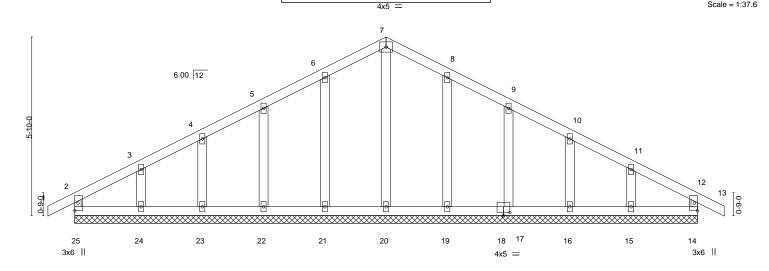
Rigid ceiling directly applied or 10-0-0 oc bracing.

1 Row at midpt



**RELEASE FOR** Job Truss Truss Type CONSTRUCTION Lot 19 HT 143059559 Common Supported Gable 400675 Н1 DEVELOPMENT SERVICES | Job Reference (optional)

LEE'S SUMMIT, MISSOURI 8.420 s Aug 25 2020 MiTek Industries, Inc. Fri Oct 2 11:01:04 2020 Page 1 Wheeler Lumber, Waverly, KS 66871 ID:bWuMDBN0tjF5cDvSpwhpH1zCzbQ-62dPHKEAdn7?gEphA?7sPH?NWaGr1yCzNNsup7yXTez 21-2-8 0-10-8 <del>0-10-8</del> <del>0-10-8</del> 10-2-0 20-4-0 10/12/2020 10-2-0 10-2-0



20-4-0 Plate Offsets (X,Y)--[18:0-2-8,0-1-4] LOADING (psf) SPACING-2-0-0 CSI. DEFL. (loc) I/defI L/d **PLATES** GRIP **TCLL** 25.0 Plate Grip DOL 1.15 TC 0.07 Vert(LL) -0.00 120 MT20 197/144 13 n/r **TCDL** 10.0 Lumber DOL 1.15 ВС 0.03 Vert(CT) -0.00 13 n/r 120 **BCLL** 0.0 Rep Stress Incr YES WB 0.07 Horz(CT) 0.00 14 n/a n/a Code IRC2018/TPI2014 FT = 10% **BCDL** 10.0 Matrix-R Weight: 83 lb

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 except end verticals. **WEBS** 2x3 SPF No.2 **BOT CHORD** Rigid ceiling directly applied or 10-0-0 oc bracing **OTHERS** 2x4 SPF No.2

REACTIONS. All bearings 20-4-0.

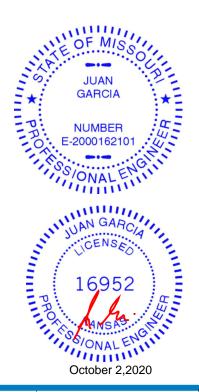
Max Horz 25=90(LC 7) (lb) -

Max Uplift All uplift 100 lb or less at joint(s) 25, 14, 21, 22, 23, 24, 19, 17, 16, 15 All reactions 250 lb or less at joint(s) 25, 14, 20, 21, 22, 23, 24, 19, 17, 16, 15

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

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 3) 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.
- 4) All plates are 2x4 MT20 unless otherwise indicated.
- 5) Gable requires continuous bottom chord bearing.
- 6) 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.
- 8) 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.
- 10) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 25, 14, 21, 22,

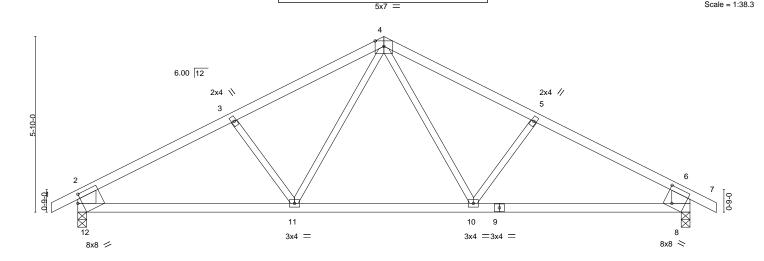




Scale = 1:37.6

**RELEASE FOR** Job Truss Truss Type CONSTRUCTION Lot 19 HT 143059560 AS NOTED ON PLANS REVIE 400675 H2 Common **DEVELOPMENT SERVICES** DEVELOPMENT SERVICES | Job Reference (optional)

LEE'S SUMMIT, MISSOURI 8.420 s Aug 25 2020 MiTek Industries, Inc. Fri Oct 2 11:01:05 2020 Page 1 Wheeler Lumber, Waverly, KS 66871 ID:bWuMDBN0tjF5cDvSpwhpH1zCzbQ-aEBnUgFoO5FsHOOtkie5xUYMf\_UbmPj7b1bRLZyXTey 15-1-12 20-4-0 21-2-8 0-10-8 <del>0-10-8</del> 0-10-8 10-2-0 5-2-4 5-2-4 10/12/2020 4-11-12 4-11-12 5-2-4



7-2-6 Plate Offsets (X,Y) [8:0-3-2,0-6-8], [12:0-1-10,0-3-4]					5-11-4				7-2-6			
iate on	3013 (71,17	[0.0 0 2,0 0 0], [12.0 1 1	0,0 0 4]									
LOADIN	G (psf)	SPACING-	2-0-0	CSI.		DEFL.	in (loc)	I/defI	L/d	PLATES	GRIP	
TCLL	25.0	Plate Grip DOL	1.15	TC	0.87	Vert(LL)	-0.14 10-11	>999	360	MT20	197/144	
TCDL	10.0	Lumber DOL	1.15	BC	0.57	Vert(CT)	-0.24 10-11	>996	240			
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.12	Horz(CT)	0.03 8	n/a	n/a			
BCDL	10.0	Code IRC2018/TI	PI2014	Matri	k-S	Wind(LL)	0.08 10-11	>999	240	Weight: 70 lb	FT = 10%	

TOP CHORD

**BOT CHORD** 

LUMBER-**BRACING-**

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

2x3 SPF No.2 \*Except\* 2-12,6-8: 2x8 SP DSS

REACTIONS. (size) 12=0-3-8, 8=0-3-8

Max Horz 12=-94(LC 6)

Max Uplift 12=-137(LC 8), 8=-137(LC 9) Max Grav 12=970(LC 1), 8=970(LC 1)

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

2-3=-1302/183, 3-4=-1106/183, 4-5=-1106/183, 5-6=-1302/183, 2-12=-877/173, TOP CHORD

6-8=-877/173

**BOT CHORD** 11-12=-167/1059, 10-11=-28/794, 8-10=-90/1059

WEBS 4-10=-75/346, 4-11=-75/346

### NOTES-

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



Structural wood sheathing directly applied or 2-2-0 oc purlins,

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

except end verticals.

Scale = 1:38.3



**RELEASE FOR** Job Truss Truss Type Lot 19 HT CONSTRUCTION Diagonal Hip Girder AS NOTED ON PLANS REVIE 143059561 400675 J1 **DEVELOPMENT SERVICES** DEVELOPMENT SERVICES | Job Reference (optional)

LEE'S SUMMIT, MISSOURI 8.420 s Aug 25 2020 MiTek Industries, Inc. Fri Oct 2 11:01:06 2020 Page 1 Wheeler Lumber, Waverly, KS 66871 ID:bWuMDBN0tjF5cDvSpwhpH1zCzbQ-2Ql9i0FQ9ONjvYz3lQ9KUi4hKOuhVtpGqgL\_u0yXTex 4-8-13 10/12/2020 1-2-14 1-11-10 Scale = 1:14.9 4.24 12 3x4 11 5 1-0-0 10 7<sub>2x4</sub> || 3x6 4-8-13 1-11-10 Plate Offsets (X,Y)--[6:0-2-0,0-0-8] SPACING-**PLATES** LOADING (psf) 2-0-0 CSI. DEFL. in (loc) I/defl L/d GRIP Plate Grip DOL **TCLL** 25.0 1.15 TC 0.24 Vert(LL) -0.02 6 >999 360 MT20 197/144 TCDL 10.0 Lumber DOL 1.15 ВС 0.26 Vert(CT) -0.04 6 >999 240 **BCLL** 0.0 Rep Stress Incr NO WB 0.00 Horz(CT) 0.02 5 n/a n/a Code IRC2018/TPI2014 Wind(LL) FT = 10% **BCDL** 10.0 Matrix-R 0.02 >999 240 Weight: 15 lb 6

**BRACING-**

TOP CHORD

**BOT CHORD** 

LUMBER-

TOP CHORD 2x4 SPF No.2

**BOT CHORD** 2x4 SPF No.2 \*Except\*

6-7: 2x3 SPF No.2

**WEBS** 2x3 SPF No.2

REACTIONS. (size) 8=0-4-9, 4=Mechanical, 5=Mechanical

Max Horz 8=84(LC 4)

Max Uplift 8=-77(LC 4), 4=-48(LC 8)

Max Grav 8=323(LC 1), 4=119(LC 1), 5=100(LC 3)

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

TOP CHORD 2-8=-302/100

### 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
- 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.
- 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) 8, 4.
- 6) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 7) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 67 lb down and 23 lb up at 1-11-15, and 67 lb down and 23 lb up at 1-11-15 on top chord, and 3 lb down and 2 lb up at 1-11-15, and 3 lb down and 2 lb up at 1-11-15 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
- 8) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

### LOAD CASE(S) Standard

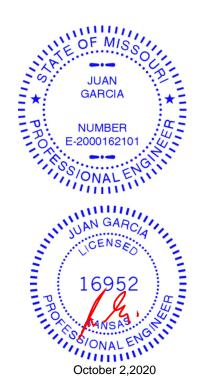
1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15

Uniform Loads (plf)

Vert: 1-2=-70, 2-4=-70, 7-8=-20, 3-6=-20, 5-6=-20

Concentrated Loads (lb)

Vert: 10=4(F=2, B=2)



Structural wood sheathing directly applied or 4-8-13 oc purlins,

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

except end verticals.



**RELEASE FOR** Job Truss Truss Type Lot 19 HT CONSTRUCTION 143059562 AS NOTED ON PLANS REVIE 400675 J2 Jack-Open DEVELOPMENT SERVICES DEVELOPMENT SERVICES | Job Reference (optional)

LEE'S SUMMIT, MISSOURI 8.420 s Aug 25 2020 MiTek Industries, Inc. Fri Oct 2 11:01:07 2020 Page 1 Wheeler Lumber, Waverly, KS 66871 ID:bWuMDBN0tjF5cDvSpwhpH1zCzbQ-WdIYvMG3wiVaXiYGs7hZ1vduAoHDEK3P3K4YQSyXTew 2-0-0 **10/12/2020** 0-10-8 2-0-0 Scale = 1:15.3 6.00 12 1-5-10 2-0-15 6 2x4 || 2x4 = 5 1-0-0 0-6-0 7<sub>2x4</sub> || 3x6 2-0-0 1-5-4

DEFL.

Vert(LL)

Vert(CT)

Horz(CT)

Wind(LL)

BRACING-

TOP CHORD

BOT CHORD

L/d

360

240

n/a

240

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

(loc)

3

6 >999

5

3 >999

-0.01

-0.01

0.01

0.01

I/defl

>999

n/a

except end verticals.

**PLATES** 

Weight: 11 lb

MT20

Structural wood sheathing directly applied or 3-5-4 oc purlins,

GRIP

197/144

FT = 10%

LUMBER-

TCLL

**TCDL** 

**BCLL** 

BCDL

LOADING (psf)

25.0

10.0

0.0

10.0

TOP CHORD 2x4 SPF No.2

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

**WEBS** 2x3 SPF No.2

REACTIONS.

(size) 8=0-3-8, 4=Mechanical, 5=Mechanical

Code IRC2018/TPI2014

SPACING-

Plate Grip DOL

Rep Stress Incr

Lumber DOL

Max Horz 8=77(LC 8)

Max Uplift 8=-21(LC 8), 4=-42(LC 8), 5=-6(LC 8) Max Grav 8=234(LC 1), 4=86(LC 1), 5=70(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

CSI.

TC

ВС

WB

Matrix-R

0.10

0.12

0.00

2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.

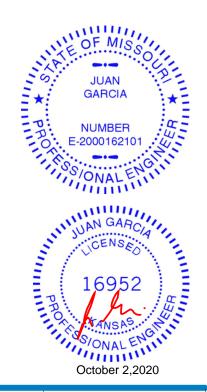
2-0-0

1.15

1.15

YES

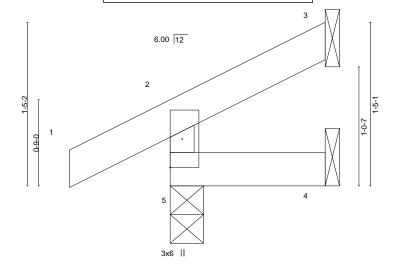
- 3) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 4) Refer to girder(s) for truss to truss connections.
- 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 8, 4, 5.
- 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.





**RELEASE FOR** Job Truss Truss Type CONSTRUCTION Lot 19 HT 143059563 AS NOTED ON PLANS REVIE DEVELOPMENT SERVICES 400675 J3 Jack-Open DEVELOPMENT SERVICES | Job Reference (optional)

LEE'S SUMMIT, MISSOURI 8.420 s Aug 25 2020 MiTek Industries, Inc. Fri Oct 2 11:01:07 2020 Page 1 Wheeler Lumber, Waverly, KS 66871 ID:bWuMDBN0tjF5cDvSpwhpH1zCzbQ-WdIYvMG3wiVaXiYGs7hZ1vduloItEK3P3K4YQSyXTew 10/12/2020 1-4-3 1-4-3 0-10-8



1-4-3

BRACING-

TOP CHORD

BOT CHORD

LOADING (psf) TCLL 25.0 TCDL 10.0 BCLL 0.0 *	SPACING- 2-0-0 Plate Grip DOL 1.15 Lumber DOL 1.15 Rep Stress Incr YES	CSI. TC 0.07 BC 0.01 WB 0.00	DEFL.         in (loc)         I/defl         L/d           Vert(LL)         -0.00         5 >999         360           Vert(CT)         -0.00         5 >999         240           Horz(CT)         -0.00         3 n/a         n/a	<b>PLATES GRIP</b> MT20 197/144
BCDL 10.0	Code IRC2018/TPI2014	Matrix-R	Wind(LL) 0.00 5 >999 240	Weight: 5 lb FT = 10%

LUMBER-

REACTIONS.

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

2x3 SPF No.2

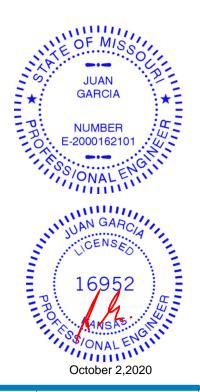
5=0-3-8, 3=Mechanical, 4=Mechanical (size) Max Horz 5=35(LC 5) Max Uplift 5=-23(LC 8), 3=-20(LC 8)

Max Grav 5=151(LC 1), 3=20(LC 1), 4=22(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.



Structural wood sheathing directly applied or 1-4-3 oc purlins,

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

except end verticals.

Scale = 1:10.0



**RELEASE FOR** Job Truss Truss Type Lot 19 HT CONSTRUCTION 143059564 **AS NOTED ON PLANS REVIE** 400675 J4 Jack-Open Girder **DEVELOPMENT SERVICES** DEVELOPMENT SERVICES | Job Reference (optional)

LEE'S SUMMIT, MISSOURI 8.420 s Aug 25 2020 MiTek Industries, Inc. Fri Oct 2 11:01:08 2020 Page 1 Wheeler Lumber, Waverly, KS 66871 hpH1zCzbQ-\_psw6iHhh0dR8r7SPrCoZ7A3BBe\_znIZI\_q5yuyXTev ID:bWuMDBN0tjF5cDvSp -1-2-14 1-10-14 10/12/2020 1-2-14 1-10-14 Scale = 1:10.0 4.24 12 2 0-6-0 0-5-12 0-5-5 3.54 12 3x6 | LOADING (psf) SPACING-2-0-0 CSI. DEFL. **PLATES** GRIP (loc) I/defI L/d Plate Grip DOL Vert(LL) -0.00 >999 197/144 **TCLL** 25.0 1.15 TC 0.09 5 360 MT20 **TCDL** 10.0 Lumber DOL 1.15 ВС 0.02 Vert(CT) -0.00 5 >999 240

Horz(CT)

Wind(LL)

BRACING-

TOP CHORD

BOT CHORD

-0.00

0.00

3

5 >999

n/a

except end verticals

n/a

240

Rigid ceiling directly applied or 6-0-0 oc bracing.

Weight: 7 lb

Structural wood sheathing directly applied or 1-10-14 oc purlins,

FT = 10%

LUMBER-

**BCLL** 

BCDL

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

**WEBS** 2x4 SPF No.2

0.0

10.0

REACTIONS. (size) 5=0-3-7, 3=Mechanical, 4=Mechanical Max Horz 5=51(LC 7)

Rep Stress Incr

Code IRC2018/TPI2014

Max Uplift 5=-119(LC 6), 3=-15(LC 12) Max Grav 5=60(LC 1), 3=27(LC 1), 4=25(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

WB

Matrix-R

0.00

2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.

NO

- 3) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 4) Refer to girder(s) for truss to truss connections.
- 5) Bearing at joint(s) 5 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 3 except (jt=lb) 5=119
- 7) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 8) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 5 lb down and 2 lb up at -1-2-14 , and 5 lb down and 2 lb up at -1-2-14 on top chord. The design/selection of such connection device(s) is the responsibility of
- 9) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B)

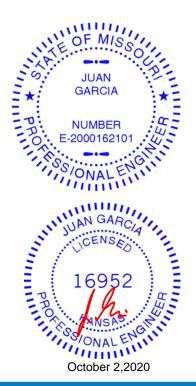
### LOAD CASE(S) Standard

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

Concentrated Loads (lb) Vert: 1=-8(F=-4, B=-4)

Trapezoidal Loads (plf)

Vert: 1=0(F=35, B=35)-to-6=-6(F=32, B=32), 6=0(F=35, B=35)-to-2=-19(F=26, B=26), 2=-19(F=26, B=26)-to-3=-50(F=10, B=10), 5=-5(F=7, B=7)-to-4=-14(F=3, B=3)







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/TPH Quality Criteria, DSB-89 and BCSI Building Component fabrication, storage, delivery, erection and bracing of trusses and truss systems, see

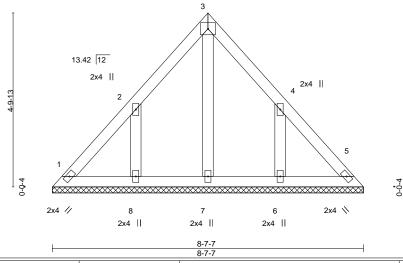
ANS/TPI1 Qu
Safety Information available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



**RELEASE FOR** Job Truss Truss Type CONSTRUCTION Lot 19 HT 143059565 AS NOTED ON PLANS REVIE 400675 LAY1 GABLE **DEVELOPMENT SERVICES** DEVELOPMENT SERVICES | Job Reference (optional)

LEE'S SUMMIT, MISSOURI 8.420 s Aug 25 2020 MiTek Industries, Inc. Fri Oct 2 11:01:08 2020 Page 1 Wheeler Lumber, Waverly, KS 66871 ID:bWuMDBN0tjF5cDvSpwhpH1zCzbQ-\_psw6iHhh0dR8r7SPrCoZ7A3VBepznmZI\_q5yuyXTev 8-7-7 10/12/2020 4-3-12 4-3-12

4x5 =



LOADING	G (psf)	SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	I/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.07	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.03	Vert(CT)	n/a	-	n/a	999		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.03	Horz(CT)	0.00	5	n/a	n/a		
BCDL	10.0	Code IRC2018/TF	PI2014	Matri	x-P	, ,					Weight: 33 lb	FT = 10%

BRACING-

TOP CHORD

BOT CHORD

LUMBER-

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

**OTHERS** 2x4 SPF No.2

REACTIONS. All bearings 8-7-7.

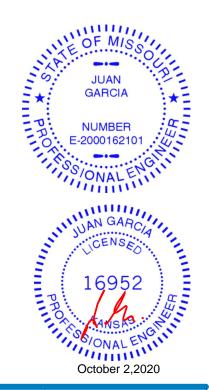
Max Horz 1=-120(LC 4)

Max Uplift All uplift 100 lb or less at joint(s) 1, 5 except 8=-169(LC 8), 6=-169(LC 9) Max Grav All reactions 250 lb or less at joint(s) 1, 5, 7 except 8=253(LC 15), 6=253(LC 16)

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

### NOTES-

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 3) Gable requires continuous bottom chord bearing.
- 4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 5) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 5 except (jt=lb) 8=169, 6=169,
- 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.



Structural wood sheathing directly applied or 6-0-0 oc purlins.

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

Scale: 3/8"=1'



**RELEASE FOR CONSTRUCTION** Job Truss Truss Type Lot 19 HT 143059566 **AS NOTED ON PLANS REVIE** 400675 LAY2 LAY-IN GABLE **DEVELOPMENT SERVICES** DEVELOPMENT SERVICES | Job Reference (optional)

LEE'S SUMMIT, MISSOURI 8.420 s Aug 25 2020 MiTek Industries, Inc. Fri Oct 2 11:01:09 2020 Page 1 Wheeler Lumber, Waverly, KS 66871 ID:bWuMDBN0tjF5cDvSpwhpH1zCzbQ-S?QIK2IJSJIIm?iezYj16KiBFbzbiCPiWeZeUKyXTeu 1-4-5 109-22/2020 1-4-5 0-3-13 1-8-3 5-4-5 -0-7-11 0-7-11 2-0-0 0-0 4-12 Scale = 1:42.1  $\boxtimes^3$ 5 6  $\boxtimes^4$  $\bowtie$ × 2-6-11 Z-8-10 13 -8-7 5x7 15.65 12 0-1-8 0-1-8

6-9-1

3x4 =

Plate Offsets (X,Y)	[7:0-2-11,0-1-0], [11:Edge,0-2-10]			
LOADING (psf) TCLL 25.0	SPACING- 2-0-0 Plate Grip DOL 1.15	<b>CSI.</b> TC 0.26	<b>DEFL.</b> in (loc) I/defl L/d Vert(LL) n/a - n/a 999	PLATES GRIP MT20 197/144
TCDL 10.0 BCLL 0.0 *	Lumber DOL 1.15 Rep Stress Incr YES	BC 0.12 WB 0.14	Vert(CT) n/a - n/a 999 Horz(CT) -0.00 9 n/a n/a	W1120 137/144
BCDL 10.0	Code IRC2018/TPI2014	Matrix-S	11012(01) -0.00 3 11/4 11/4	Weight: 54 lb FT = 10%

**BOT CHORD** 

2-0-0 oc purlins: 1-7, except end verticals.

Rigid ceiling directly applied or 6-0-0 oc bracing.

LUMBER-**BRACING-**TOP CHORD

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

REACTIONS. All bearings 8-3-9.

Max Horz 13=28(LC 5) (lb) -

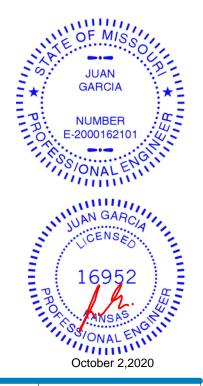
Max Uplift All uplift 100 lb or less at joint(s) 13, 11, 10 except 9=-115(LC 5), 12=-118(LC 5) Max Grav All reactions 250 lb or less at joint(s) 13, 11, 10 except 9=369(LC 1), 12=352(LC 1)

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

TOP CHORD 1-13=-311/170

WEBS 5-9=-253/109, 3-12=-274/129, 2-13=-184/317

- 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; Lumber DOL=1.60 plate grip DOL=1.60
- 2) Provide adequate drainage to prevent water ponding. 3) All plates are 2x4 MT20 unless otherwise indicated.
- 4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 5) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 13, 11, 10 except (jt=lb) 9=115, 12=118.
- 7) Non Standard bearing condition. Review required.
- 8) Beveled plate or shim required to provide full bearing surface with truss chord at joint(s) 13, 11, 10, 9, 12.
- 9) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 10) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.





**RELEASE FOR** Job Truss Truss Type CONSTRUCTION Lot 19 HT 143059567 AS NOTED ON PLANS REVIE 400675 LAY3 GABLE **DEVELOPMENT SERVICES** DEVELOPMENT SERVICES | Job Reference (optional)

LEE'S SUMMIT, MISSOURI 8.420 s Aug 25 2020 MiTek Industries, Inc. Fri Oct 2 11:01:10 2020 Page 1 Wheeler Lumber, Waverly, KS 66871 ID:bWuMDBN0tjF5cDvSpwhpH1zCzbQ-xC\_gXOIxDdt9O9GqXFEGeYFF6?GqRUIsIIJC1nyXTet <mark>10/12/2020</mark> Scale = 1:41.7 3x6 II 3x4 II 3x4 =10 12  $\boxtimes$  $\boxtimes$  $\boxtimes$ Ш 6-9-11 25 24 23 22 21 20 19 18 17 16 15 14 3x4 5x7 = 4x5 || 19-11-8 Plate Offsets (X,Y)--[14:Edge,0-3-8] GRIP LOADING (psf) SPACING-2-0-0 CSI. DEFL. in (loc) I/defI L/d **PLATES TCLL** 25.0 Plate Grip DOL 1.15 TC 0.76 Vert(LL) n/a 999 MT20 197/144 n/a **TCDL** 10.0 Lumber DOL 1.15 ВС 0.25 Vert(CT) n/a n/a 999 **BCLL** 0.0 Rep Stress Incr YES WB 0.84 Horz(CT) -0.00

**BRACING-**

TOP CHORD

**BOT CHORD** 

14

n/a

n/a

2-0-0 oc purlins (6-0-0 max.): 1-13, except end verticals.

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

LUMBER-

BCDL

TOP CHORD 2x4 SPF No.2 \*Except\*

1-5: 2x4 SPF 2400F 2.0E

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

10.0

REACTIONS. All bearings 19-11-8.

Max Horz 25=-249(LC 4) (lb) -

Max Uplift All uplift 100 lb or less at joint(s) 22, 21, 20, 19, 17, 16 except 25=-338(LC 4), 14=-244(LC 5),

24=-429(LC 5), 23=-126(LC 4), 15=-293(LC 4)

Max Grav All reactions 250 lb or less at joint(s) 14, 23, 22, 21, 20, 19, 17, 16 except 25=322(LC 7), 24=424(LC

Matrix-R

15), 15=299(LC 16)

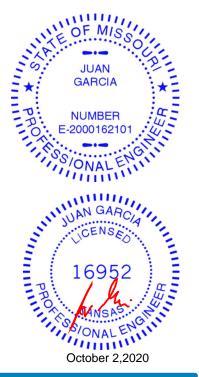
FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.

Code IRC2018/TPI2014

1-25=-942/934 TOP CHORD

**WEBS** 2-25=-1127/1172, 3-24=-281/340

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 2) Provide adequate drainage to prevent water ponding.
- All plates are 2x4 MT20 unless otherwise indicated.
- 4) Gable requires continuous bottom chord bearing.
- 5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 6) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 22, 21, 20, 19, 17, 16 except (it=lb) 25=338, 14=244, 24=429, 23=126, 15=293.
- 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.



FT = 10%

Weight: 131 lb

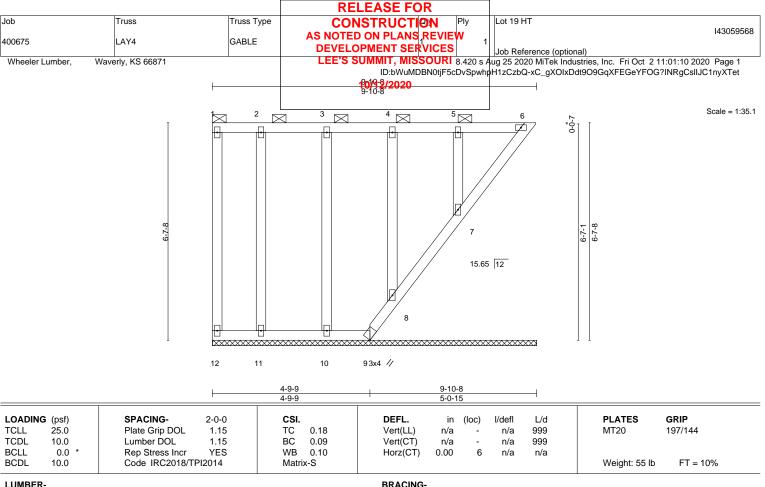


MARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE

Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not Design Valid to Use Only with New Controlled S. This costign is based only upon parameters shown, and is for an individual druining Component, not a fundamental property 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





TOP CHORD 2x4 SPF No.2

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

BRACING-

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

6-0-0 oc bracing: 6-7.

REACTIONS. All bearings 9-10-8.

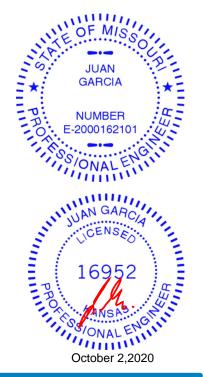
(lb) -Max Horz 12=-180(LC 6)

Max Uplift All uplift 100 lb or less at joint(s) 12, 11, 10, 8, 7 except 6=-103(LC 5), 9=-112(LC 6)

Max Grav All reactions 250 lb or less at joint(s) 12, 6, 9, 11, 10, 8, 7

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

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 2) Provide adequate drainage to prevent water ponding.
- 3) All plates are 2x4 MT20 unless otherwise indicated.
- 4) Gable requires continuous bottom chord bearing.
- 5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 12, 11, 10, 8, 7 except (it=lb) 6=103, 9=112,
- 8) Beveled plate or shim required to provide full bearing surface with truss chord at joint(s) 6, 8, 7.
- 9) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 10) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.





**RELEASE FOR** Job Truss Truss Type Lot 19 HT CONSTRUCTION 143059569 AS NOTED ON PLANS REVIE 400675 Piggyback **DEVELOPMENT SERVICES** DEVELOPMENT SERVICES | Job Reference (optional)

LEE'S SUMMIT, MISSOURI 8.420 s Aug 25 2020 MiTek Industries, Inc. Fri Oct 2 11:01:11 2020 Page 1 Wheeler Lumber, Waverly, KS 66871 ID:bWuMDBN0tjF5cDvSpwhpH1zCzbQ-POY2lkJZ\_x?0?Jr15zlVBlob2PfcA8m?\_y2lZDyXTes 9-0-0 10/12/2020 4-6-0 4-6-0

4x5 = 4 6.00 12 2x4 || 5 2x4 || 3 1-1 10 9 8 2x4 = 2x4 || 2x4 || 2x4 || 2x4 = 9-0-0 LOADING (psf) SPACING-2-0-0 CSI. DEFL. L/d **PLATES** GRIP (loc) I/defl TCLL 25.0 Plate Grip DOL Vert(LL) 999 197/144 1.15 TC 0.05 n/a n/a MT20 **TCDL** 10.0 Lumber DOL 1.15 BC 0.02 Vert(CT) n/a 999

Horz(CT)

BRACING-

TOP CHORD

BOT CHORD

0.00

n/a

n/a

n/a

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

Structural wood sheathing directly applied or 6-0-0 oc purlins.

Weight: 23 lb

FT = 10%

LUMBER-

**BCLL** 

BCDL

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

0.0

10.0

**OTHERS** 2x4 SPF No.2

REACTIONS. All bearings 9-0-0. Max Horz 1=-37(LC 13)

Max Uplift All uplift 100 lb or less at joint(s) 1, 7, 2, 6, 10, 8 Max Grav All reactions 250 lb or less at joint(s) 1, 7, 2, 6, 9, 10, 8

YES

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

### NOTES-

1) Unbalanced roof live loads have been considered for this design.

Rep Stress Incr

Code IRC2018/TPI2014

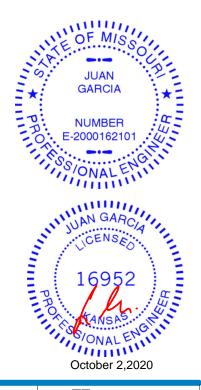
2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60

WB

Matrix-P

0.02

- 3) 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.
- 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.
- \* This truss has been designed for a live load of 20.0psf on the bottom chord in 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) 1, 7, 2, 6, 10, 8.
- 9) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 10) See Standard Industry Piggyback Truss Connection Detail for Connection to base truss as applicable, or consult qualified building designer.

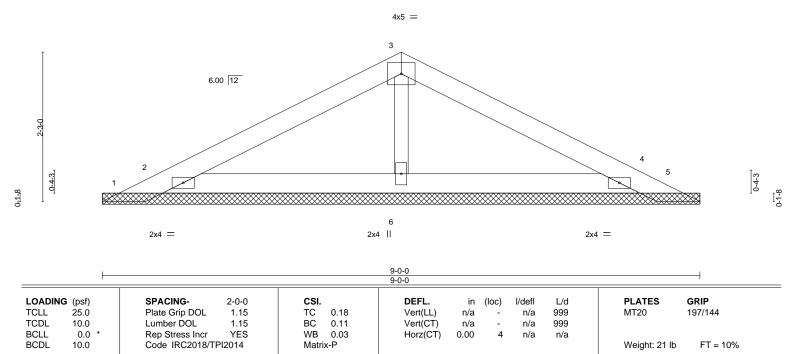


Scale = 1:16.8



**RELEASE FOR** Job Truss Truss Type Lot 19 HT CONSTRUCTION 143059570 AS NOTED ON PLANS REVIE 400675 P2 Piggyback **DEVELOPMENT SERVICES** DEVELOPMENT SERVICES | Job Reference (optional)

LEE'S SUMMIT, MISSOURI 8.420 s Aug 25 2020 MiTek Industries, Inc. Fri Oct 2 11:01:12 2020 Page 1 Wheeler Lumber, Waverly, KS 66871 ID:bWuMDBN0tjF5cDvSpwhpH1zCzbQ-ta6Ry4KBlE7sdTQDegGkkzKkfp\_Yvbn9CcoJ5fyXTer 4-6-0 10/12/2020 4-6-0 4-6-0



BRACING-

TOP CHORD

BOT CHORD

LUMBER-TOP CHORD

2x4 SPF No.2 2x4 SPF No.2

BOT CHORD **OTHERS** 2x3 SPF No.2

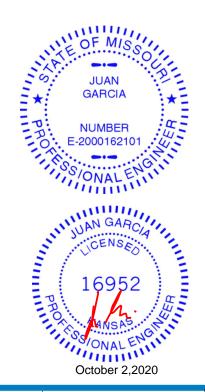
REACTIONS. All bearings 9-0-0.

Max Uplift All uplift 100 lb or less at joint(s) except 1=-126(LC 1), 5=-126(LC 1), 2=-157(LC 8), 4=-148(LC 9) All reactions 250 lb or less at joint(s) 1, 5 except 2=371(LC 1), 4=371(LC 1), 6=264(LC 1)

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

### NOTES-

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 3) Gable requires continuous bottom chord bearing.
- 4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 5) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 126 lb uplift at joint 1, 126 lb uplift at joint 5, 157 lb uplift at joint 2 and 148 lb uplift at joint 4.
- 7) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 8) See Standard Industry Piggyback Truss Connection Detail for Connection to base truss as applicable, or consult qualified building



Structural wood sheathing directly applied or 6-0-0 oc purlins.

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

Scale = 1:17.4



**RELEASE FOR CONSTRUCTION** Job Truss Truss Type Lot 19 HT 143059571 AS NOTED ON PLANS, REVIE R1 400675 Common Girder **DEVELOPMENT SERVICES** DEVELOPMENT SERVICES | Z | Job Reference (optional)

LEE'S SUMMIT, MISSOURI 8.420 s Aug 25 2020 MiTek Industries, Inc. Fri Oct 2 11:01:13 2020 Page 1 Wheeler Lumber, Waverly, KS 66871 ID:bWuMDBN0tjF5cDvSpwhpH1zCzbQ-LmgpAPLqWYFjFd?PCOozGAtsWCCFexKIRGXsd6yXTeq 20-4-0 10/12/2020 4-11-12 4-11-12 5-2-4 Scale = 1:34.9 5x7 3 6.00 12 2 0-6-0 15 16 17 8 7 20 6 22 23

	6-10-3	13	3-5-13	20-4-0	
	6-10-3	6-	-7-11	6-10-3	
Plate Offsets (X,Y)	[1:0-10-0,0-0-13], [5:0-10-0,0-0-13], [6:0-10-0,0-0-13]	4-0,0-4-12], [8:0-4-0,0-4-12]			
LOADING (psf)	SPACING- 2-0-0	CSI.	DEFL. in (loc) I/	/defl L/d PLATES GRIP	
TCLL 25.0 TCDL 10.0 BCLL 0.0 * BCDL 10.0	Plate Grip DOL 1.15 Lumber DOL 1.15 Rep Stress Incr NO Code IRC2018/TPI2014	BC 0.59 WB 0.46	Vert(CT) -0.19 5-6 > Horz(CT) 0.04 5	999 360 MT20 197/144 999 240 n/a n/a 999 240 Weight: 251 lb FT = 10%	

**BRACING-**

TOP CHORD

**BOT CHORD** 

5x7 =

8x8 =

Structural wood sheathing directly applied or 5-3-8 oc purlins.

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

LUMBER-

REACTIONS.

TOP CHORD 2x6 SPF No.2 BOT CHORD 2x6 SP 2400F 2.0E

WEBS 2x4 SPF No.2

3x10

(size) 1=0-3-8 (req. 0-4-5), 5=0-3-8 (req. 0-3-13)

Max Horz 1=-61(LC 4)

Max Uplift 1=-329(LC 8), 5=-410(LC 9) Max Grav 1=5465(LC 1), 5=4831(LC 1)

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

TOP CHORD 1-2=-7571/534, 2-3=-7408/554, 3-4=-7527/625, 4-5=-7675/605

BOT CHORD 1-8=-471/6550, 6-8=-295/4691, 5-6=-481/6645

WEBS 3-6=-406/3772, 4-6=-192/273, 3-8=-240/3599, 2-8=-198/281

### NOTES-

- 2-ply truss to be connected together with 10d (0.131"x3") nails as follows: Top chords connected as follows: 2x6 - 2 rows staggered at 0-9-0 oc. 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.
- 2) All loads are considered equally applied to all plies, except if noted as front (F) or back (B) face in the LOAD CASE(S) section. Ply to ply connections have been provided to distribute only loads noted as (F) or (B), unless otherwise indicated.

8x8 =

- 3) Unbalanced roof live loads have been considered for this design.
- 4) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mpn, 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
- 5) All plates are 2x4 MT20 unless otherwise indicated.
- 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) WARNING: Required bearing size at joint(s) 1, 5 greater than input bearing size.
- 9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 329 lb uplift at joint 1 and 410 lb uplift at joint 5.
- 10) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 11) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 924 lb down and 160 lb up at 8-4-12, 912 lb down and 42 lb up at 10-4-12, 869 lb down and 35 lb up at 12-4-12, 854 lb down and 122 lb up at 16-4-12, 854 lb down and 122 lb up at 16-4-12, 854 lb down and 122 lb up at 18-4-12, 817 lb down and 40 lb up at 2-4-12, 817 lb down and 40 lb up at 4-4-12, and 817 lb down and 40 lb up at 6-4-12, and 874 lb down and 43 lb up at 0-1-12 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.

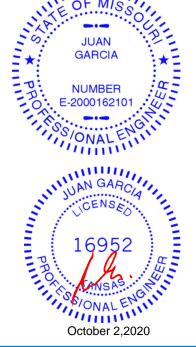
LOAD CASE(S) Standard

Continued on page 2

### MARNING - 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



3x10 =



**RELEASE FOR** Job Truss Truss Type CONSTRUCTION Lot 19 HT AS NOTED ON PLANS REVIEW DEVELOPMENT SERVICES 2 Job Reference (optional)

LEE'S SUMMIT, MISSOURI 8.420 s Aug 25 2020 MiTek Industries, Inc. Fri Oct 2 11:01:13 2020 Page 2 R1 400675 Common Girder

10/12/2020

I43059571

ID:bWuMDBN0tjF5cDvSpwhpH1zCzbQ-LmgpAPLqWYFjFd?PCOozGAtsWCCFexKIRGXsd6yXTeq

LOAD CASE(S) Standard

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

Uniform Loads (plf)

Wheeler Lumber,

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

Waverly, KS 66871

Concentrated Loads (lb)

Vert: 1=-874(F) 15=-817(F) 16=-817(F) 17=-817(F) 18=-869(F) 19=-869(F) 20=-869(F) 21=-854(F) 22=-854(F) 23=-854(F)

16023 Swingley Ridge Rd Chesterfield, MO 63017

**RELEASE FOR** Job Truss Truss Type CONSTRUCTION Lot 19 HT 143059572 AS NOTED ON PLANS REVIE Valley 400675 V1 **DEVELOPMENT SERVICES** DEVELOPMENT SERVICES | Job Reference (optional)

LEE'S SUMMIT, MISSOURI 8.420 s Aug 25 2020 MiTek Industries, Inc. Fri Oct 2 11:01:14 2020 Page 1 Wheeler Lumber, Waverly, KS 66871 ID:bWuMDBN0tjF5cDvSpwhpH1zCzbQ-pzDBNlLSHsNasmacm5JCpOQ1McedNVnRgwHPAYyXTep 10/1<mark>2/2</mark>020 Scale: 3/4"=1" 2x4 || 2 6.00 12 9-0-0 3 2x4 || 2x4 /

LOADING	(psf)	SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.36	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.20	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/TP	12014	Matri	x-P						Weight: 13 lb	FT = 10%

BRACING-

TOP CHORD

**BOT CHORD** 

LUMBER-

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

**WEBS** 2x3 SPF No.2

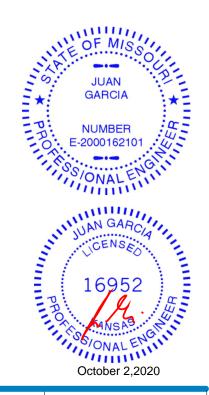
REACTIONS. 1=5-1-4, 3=5-1-4 (size) Max Horz 1=91(LC 5)

Max Uplift 1=-25(LC 8), 3=-48(LC 8) Max Grav 1=197(LC 1), 3=197(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 25 lb uplift at joint 1 and 48 lb uplift at joint 3.
- 6) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



Structural wood sheathing directly applied or 5-1-4 oc purlins,

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

except end verticals.



**RELEASE FOR** Job Truss Truss Type CONSTRUCTION Lot 19 HT AS NOTED ON PLANS REVIE Valley 400675 V2 DEVELOPMENT SERVICES Wheeler Lumber, Waverly, KS 66871

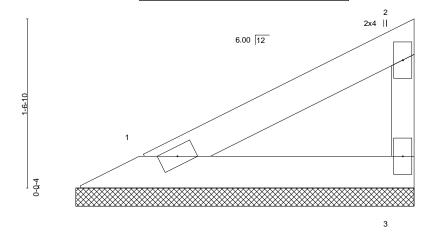
DEVELOPMENT SERVICES | Job Reference (optional)

LEE'S SUMMIT, MISSOURI 8.420 s Aug 25 2020 MiTek Industries, Inc. Fri Oct 2 11:01:16 2020 Page 1 ID:bWuMDBN0tjF5cDvSpwhpH1zCzbQ-ILLxoRNioTdl64k\_tWLgupVQ?QNLrPHk7EmWERyXTen

1<del>0/12/2</del>020

Scale = 1:10.6

143059573



2x4 / 2x4 ||

LOADING (psf) SPACING-2-0-0 CSI. DEFL. L/d **PLATES** GRIP (loc) I/defI TCLL 25.0 Plate Grip DOL 1.15 Vert(LL) 999 197/144 TC 0.10 n/a n/a MT20 **TCDL** 10.0 Lumber DOL 1.15 ВС 0.05 Vert(CT) n/a 999 n/a **BCLL** 0.0 Rep Stress Incr YES WB 0.00 Horz(CT) -0.00 3 n/a n/a Code IRC2018/TPI2014 BCDL 10.0 Matrix-P Weight: 7 lb FT = 10%

LUMBER-BRACING-

2x4 SPF No.2 TOP CHORD Structural wood sheathing directly applied or 3-1-4 oc purlins, TOP CHORD BOT CHORD 2x4 SPF No.2 except end verticals. **WEBS** 2x3 SPF No.2 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing

REACTIONS. 1=3-1-4, 3=3-1-4 (size)

Max Horz 1=50(LC 5) Max Uplift 1=-14(LC 8), 3=-26(LC 8) Max Grav 1=107(LC 1), 3=107(LC 1)

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

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 2) 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 14 lb uplift at joint 1 and 26 lb uplift at joint 3.
- 6) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.





Job Truss Truss Type 400675 V3 GABLE

Waverly, KS 66871

**RELEASE FOR** CONSTRUCTION AS NOTED ON PLANS REVIE

Lot 19 HT

143059574

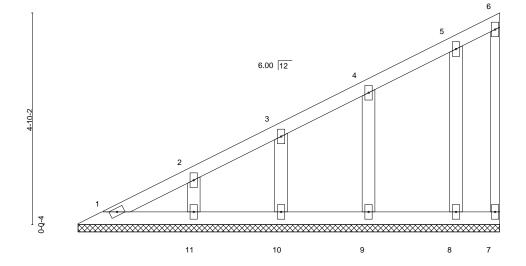
**DEVELOPMENT SERVICES** 

DEVELOPMENT SERVICES | Job Reference (optional)

LEE'S SUMMIT, MISSOURI 8.420 s Aug 25 2020 MiTek Industries, Inc. Fri Oct 2 11:01:17 2020 Page 1 ID:bWuMDBN0tjF5cDvSpwhpH1zCzbQ-DYvJ?nOKZnm9jEJBREsvR01bWqixasAuMuV4ntyXTem

<del>10/<u>१</u>१/2</del>020

Scale = 1:26.4



LOADING TCLL TCDL	25.0 10.0	SPACING- Plate Grip DOL Lumber DOL	1-5-4 1.15 1.15	CSI. TC BC	0.11 0.03	DEFL. Vert(LL) Vert(CT)	in n/a n/a	(loc) - -	l/defl n/a n/a	L/d 999 999	PLATES MT20	<b>GRIP</b> 197/144
BCLL BCDL	0.0 * 10.0	Rep Stress Incr Code IRC2018/TF	YES PI2014	WB Matri	0.02 x-S	Horz(CT)	-0.00	7	n/a	n/a	Weight: 36 lb	FT = 10%

LUMBER-

Wheeler Lumber,

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

**OTHERS** 2x4 SPF No.2 BRACING-

Structural wood sheathing directly applied or 6-0-0 oc purlins, TOP CHORD

except end verticals.

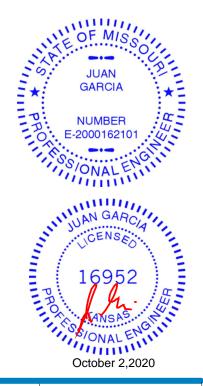
**BOT CHORD** Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. All bearings 9-7-12. Max Horz 1=134(LC 5) (lb) -

Max Uplift All uplift 100 lb or less at joint(s) 7, 11, 10, 9, 8 Max Grav All reactions 250 lb or less at joint(s) 1, 7, 11, 10, 9, 8

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

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 2) All plates are 2x4 MT20 unless otherwise indicated.
- 3) Gable requires continuous bottom chord bearing.
- 4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 5) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 7, 11, 10, 9, 8.
- 7) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.





Job Truss Truss Type Valley 400675 V4

Waverly, KS 66871

**RELEASE FOR** CONSTRUCTION AS NOTED ON PLANS REVIE

Lot 19 HT

143059575

Structural wood sheathing directly applied or 6-0-0 oc purlins,

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

except end verticals.

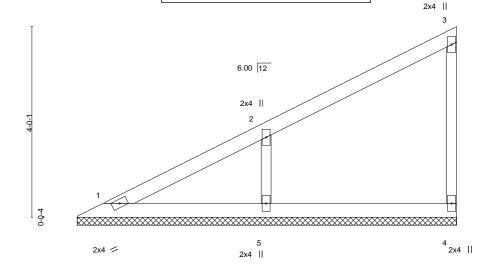
DEVELOPMENT SERVICES | Job Reference (optional)

LEE'S SUMMIT, MISSOURI 8.420 s Aug 25 2020 MiTek Industries, Inc. Fri Oct 2 11:01:17 2020 Page 1 ID:bWuMDBN0tjF5cDvSpwhpH1zCzbQ-DYvJ?nOKZnm9jEJBREsvR01ZrghdasbuMuV4ntyXTem

<del>10/<mark>§2/2</mark>020</del>

**DEVELOPMENT SERVICES** 

Scale: 1/2"=1'



LOADING	G (psf)	SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.22	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.11	Vert(CT)	n/a	-	n/a	999		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.06	Horz(CT)	-0.00	4	n/a	n/a		
BCDL	10.0	Code IRC2018/TF	PI2014	Matri	ix-P						Weight: 22 lb	FT = 10%

BRACING-

TOP CHORD

BOT CHORD

LUMBER-

REACTIONS.

Wheeler Lumber,

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

2x3 SPF No.2 **WEBS OTHERS** 2x3 SPF No.2

(size) 1=7-11-10, 4=7-11-10, 5=7-11-10

Max Horz 1=152(LC 5)

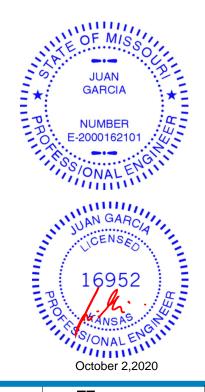
Max Uplift 4=-26(LC 5), 5=-123(LC 8)

Max Grav 1=115(LC 16), 4=137(LC 1), 5=411(LC 1)

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

2-5=-319/178 **WEBS** 

- 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=123
- 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.





**RELEASE FOR** Job Truss Truss Type CONSTRUCTION Lot 19 HT 143059576 AS NOTED ON PLANS REVIE Valley 400675 V5 **DEVELOPMENT SERVICES** DEVELOPMENT SERVICES | Job Reference (optional)

LEE'S SUMMIT, MISSOURI 8.420 s Aug 25 2020 MiTek Industries, Inc. Fri Oct 2 11:01:18 2020 Page 1 Wheeler Lumber, Waverly, KS 66871 ID:bWuMDBN0tjF5cDvSpwhpH1zCzbQ-ikTiD7PyK4u0LOuN?xN8zEagcD?eJJn1bYFdJJyXTel 10/<u>12/2</u>020 Scale = 1:17.5 2x4 || 2

0.0.4	6.00  12		
	2x4 =	2x4	3 

LOADIN	G (psf)	SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	I/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.47	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.25	Vert(CT)	n/a	-	n/a	999		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.00	Horz(CT)	-0.00	3	n/a	n/a		
BCDL	10.0	Code IRC2018/Ti	PI2014	Matri	x-P	` ′					Weight: 15 lb	FT = 10%

BRACING-

TOP CHORD

BOT CHORD

LUMBER-

REACTIONS.

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

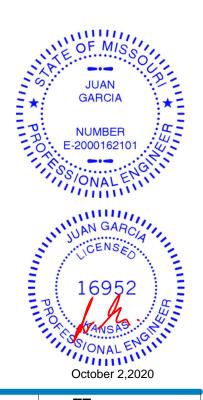
**WEBS** 2x3 SPF No.2

> 1=5-7-10, 3=5-7-10 (size) Max Horz 1=103(LC 7) Max Uplift 1=-29(LC 8), 3=-55(LC 8) Max Grav 1=222(LC 1), 3=222(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.



Structural wood sheathing directly applied or 5-8-2 oc purlins,

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

except end verticals.



Job Truss Truss Type Valley 400675 V6

Waverly, KS 66871

**RELEASE FOR** CONSTRUCTION AS NOTED ON PLANS REVIE **DEVELOPMENT SERVICES** 

Lot 19 HT

143059577

DEVELOPMENT SERVICES | Job Reference (optional)

LEE'S SUMMIT, MISSOURI 8.420 s Aug 25 2020 MiTek Industries, Inc. Fri Oct 2 11:01:18 2020 Page 1 ID:bWuMDBN0tjF5cDvSpwhpH1zCzbQ-ikTiD7PyK4u0LOuN?xN8zEam8D2dJJn1bYFdJJyXTel

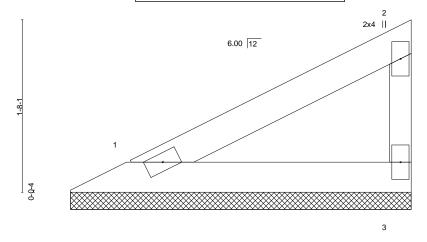
Structural wood sheathing directly applied or 3-4-2 oc purlins,

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

except end verticals.

10/1<mark>2/2</mark>020

Scale = 1:11.2



2x4 || 2x4 /

BRACING-

TOP CHORD

BOT CHORD

LOADING	G (psf)	SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.12	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.06	Vert(CT)	n/a	-	n/a	999		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.00	Horz(CT)	-0.00	3	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2	2014	Matri	x-P	, ,					Weight: 8 lb	FT = 10%

LUMBER-

REACTIONS.

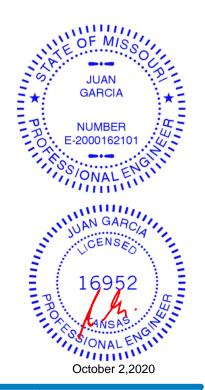
Wheeler Lumber,

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

1=3-3-10, 3=3-3-10 (size) Max Horz 1=55(LC 5) Max Uplift 1=-15(LC 8), 3=-29(LC 8) Max Grav 1=117(LC 1), 3=117(LC 1)

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

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 2) 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.





**RELEASE FOR CONSTRUCTION** Job Truss Truss Type Lot 19 HT 143059578 AS NOTED ON PLANS REVIE Valley 400675 V7 **DEVELOPMENT SERVICES** DEVELOPMENT SERVICES | Job Reference (optional)

LEE'S SUMMIT, MISSOURI 8.420 s Aug 25 2020 MiTek Industries, Inc. Fri Oct 2 11:01:19 2020 Page 1 Wheeler Lumber, Waverly, KS 66871 ID:bWuMDBN0tjF5cDvSpwhpH1zCzbQ-Aw14QTPa5O0tzYTZZeuNWR7wldNO2lXBqC\_ArlyXTek 15-10-10 7-11-5 7-11-5 10/12/2020 7-11-5 Scale = 1:29.4 4x5 = 3 7.00 12 2x4 || 2x4 || 2 **\*\*\*\*\*** 8 6 3x4 / 3x4 < 2x4 || 2x4 || 2x4 || 15-10-10 15-10-3 LOADING (psf) SPACING-2-0-0 CSI. DEFL. I/defI L/d **PLATES** GRIP (loc) TCLL 25.0 Plate Grip DOL TC Vert(LL) 999 MT20 197/144 1.15 0.19 n/a n/a

Vert(CT)

Horz(CT)

BRACING-

TOP CHORD

BOT CHORD

n/a

0.00

999

n/a

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

Structural wood sheathing directly applied or 6-0-0 oc purlins.

Weight: 44 lb

FT = 10%

n/a

n/a

5

LUMBER-

**TCDL** 

**BCLL** 

BCDL

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

**BOT CHORD OTHERS** 2x3 SPF No.2

10.0

0.0

10.0

All bearings 15-9-13. REACTIONS.

Max Horz 1=-113(LC 4)

Max Uplift All uplift 100 lb or less at joint(s) 1 except 8=-140(LC 8), 6=-140(LC 9)

1.15

YES

All reactions 250 lb or less at joint(s) 1, 5 except 7=282(LC 1), 8=402(LC 15), 6=402(LC 16)

ВС

WB

Matrix-S

0.09

0.10

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

2-8=-314/184, 4-6=-314/184 **WEBS** 

### NOTES-

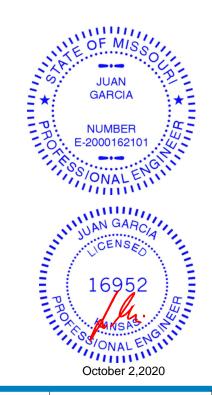
1) Unbalanced roof live loads have been considered for this design.

Lumber DOL

Rep Stress Incr

Code IRC2018/TPI2014

- 2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 3) Gable requires continuous bottom chord bearing.
- 4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 5) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1 except (jt=lb) 8=140 6=140
- 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.



MARNING - 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® cannectors. 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/TPI Quality Criteria, DSB-89 and BCSI Building Component Safety Information

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



**RELEASE FOR** Job Truss Truss Type CONSTRUCTION Lot 19 HT 143059579 AS NOTED ON PLANS REVIE Valley 400675 V8 **DEVELOPMENT SERVICES** DEVELOPMENT SERVICES | Job Reference (optional)

LEE'S SUMMIT, MISSOURI 8.420 s Aug 25 2020 MiTek Industries, Inc. Fri Oct 2 11:01:19 2020 Page 1 Wheeler Lumber, Waverly, KS 66871 ID:bWuMDBN0tjF5cDvSpwhpH1zCzbQ-Aw14QTPa5O0tzYTZZeuNWR7w5dNE2l1BqC\_ArlyXTek 6-2-12 6-2-12 12-5-8 10/12/2020 6-2-12 Scale = 1:23.2 4x5 = 3 7.00 12 2x4 II 4<sup>2x4</sup> || 3x4 > 3x4 / 2x4 || 2x4 || 2x4 ||

DEFL.

Vert(LL)

Vert(CT)

Horz(CT)

BRACING-

TOP CHORD

BOT CHORD

I/defI

n/a

n/a

n/a

(loc)

5

n/a

n/a

0.00

L/d

999

999

n/a

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

**PLATES** 

Weight: 33 lb

MT20

Structural wood sheathing directly applied or 6-0-0 oc purlins.

GRIP

197/144

FT = 10%

LUMBER-

TCLL

**TCDL** 

**BCLL** 

BCDL

LOADING (psf)

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

**OTHERS** 2x3 SPF No.2

25.0

10.0

0.0

10.0

REACTIONS. All bearings 12-4-10. Max Horz 1=-87(LC 4)

Max Uplift All uplift 100 lb or less at joint(s) 1, 5 except 8=-122(LC 8), 6=-122(LC 9)

2-0-0

1.15

1.15

YES

All reactions 250 lb or less at joint(s) 1, 5 except 7=300(LC 1), 8=338(LC 15), 6=337(LC 16)

CSI.

TC

ВС

WB

Matrix-S

0.17

0.10

0.06

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown. 2-8=-276/165, 4-6=-275/164 **WEBS** 

### NOTES-

1) Unbalanced roof live loads have been considered for this design.

SPACING-

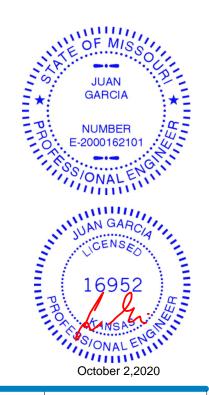
Plate Grip DOL

Rep Stress Incr

Code IRC2018/TPI2014

Lumber DOL

- 2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 3) Gable requires continuous bottom chord bearing.
- 4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 5) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 5 except (jt=lb) 8=122 6=122
- 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.





MARNING - 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® cannectors. 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

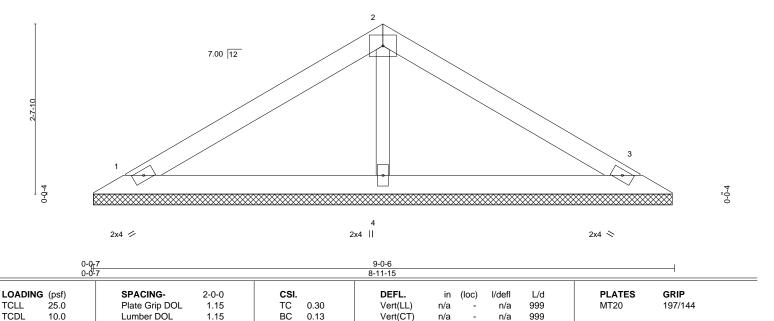
ANSI/TPI Quality Criteria, DSB-89 and BCSI Building Component Safety Information

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



**RELEASE FOR CONSTRUCTION** Job Truss Truss Type Lot 19 HT 143059580 AS NOTED ON PLANS REVIE Valley 400675 V9 **DEVELOPMENT SERVICES** DEVELOPMENT SERVICES | Job Reference (optional)

LEE'S SUMMIT, MISSOURI 8.420 s Aug 25 2020 MiTek Industries, Inc. Fri Oct 2 11:01:20 2020 Page 1 Wheeler Lumber, Waverly, KS 66871 ID:bWuMDBN0tjF5cDvSpwhpH1zCzbQ-e7bSepQDsi8kah1l6MQc2ff3s1i\_nDYK2skkNCyXTej 4-6-3 4-6-3 10/12/2020 4-6-3 Scale = 1:17.8 4x5 =



Horz(CT)

BRACING-

TOP CHORD

BOT CHORD

0.00

3

n/a

n/a

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

Structural wood sheathing directly applied or 6-0-0 oc purlins.

Weight: 22 lb

FT = 10%

LUMBER-

**BCLL** 

BCDL

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

0.0

10.0

REACTIONS.

1=8-11-8, 3=8-11-8, 4=8-11-8 (size) Max Horz 1=61(LC 5) Max Uplift 1=-44(LC 8), 3=-51(LC 9)

Rep Stress Incr

Code IRC2018/TPI2014

Max Grav 1=194(LC 1), 3=194(LC 1), 4=328(LC 1)

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

### NOTES-

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60

WB

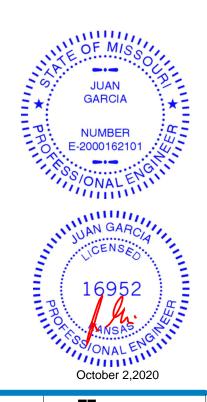
Matrix-P

0.05

- 3) Gable requires continuous bottom chord bearing.
- 4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.

YES

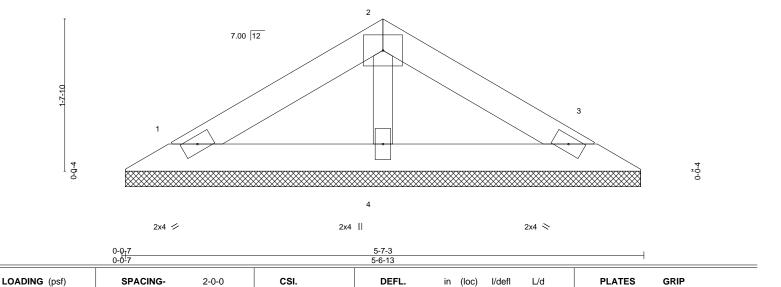
- \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift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





**RELEASE FOR** Job Truss Truss Type CONSTRUCTION Lot 19 HT 143059581 AS NOTED ON PLANS REVIE Valley 400675 V10 **DEVELOPMENT SERVICES** DEVELOPMENT SERVICES | Job Reference (optional)

LEE'S SUMMIT, MISSOURI 8.420 s Aug 25 2020 MiTek Industries, Inc. Fri Oct 2 11:01:14 2020 Page 1 Wheeler Lumber, Waverly, KS 66871 ID:bWuMDBN0tjF5cDvSpwhpH1zCzbQ-pzDBNlLSHsNasmacm5JCpOQ5ech\_NVQRgwHPAYyXTep 10/12/2020 2-9-10 2-9-10 Scale = 1:12.4 4x5 =



Vert(LL)

Vert(CT)

Horz(CT)

BRACING-

TOP CHORD

BOT CHORD

n/a

n/a

0.00

999

999

n/a

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

n/a

n/a

n/a

3

MT20

Structural wood sheathing directly applied or 5-7-3 oc purlins.

Weight: 13 lb

197/144

FT = 10%

LUMBER-

1.15

1.15

YES

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

25.0

10.0

0.0

10.0

2x3 SPF No.2 1=5-6-6, 3=5-6-6, 4=5-6-6 (size) Max Horz 1=34(LC 5)

Plate Grip DOL

Rep Stress Incr

Code IRC2018/TPI2014

Lumber DOL

Max Uplift 1=-25(LC 8), 3=-29(LC 9) Max Grav 1=110(LC 1), 3=110(LC 1), 4=186(LC 1)

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

### NOTES-

REACTIONS.

TCLL

**TCDL** 

**BCLL** 

BCDL

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60

TC

ВС

WB

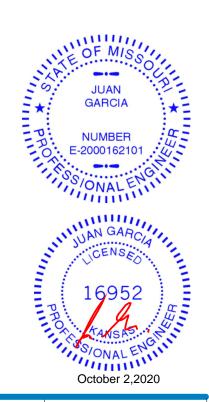
Matrix-P

0.09

0.04

0.02

- 3) Gable requires continuous bottom chord bearing.
- 4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 25 lb uplift at joint 1 and 29 lb uplift at joint 3.
- 7) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.





**RELEASE FOR** Job Truss Truss Type CONSTRUCTION Lot 19 HT 143059582 AS NOTED ON PLANS REVIE V11 Valley 400675 **DEVELOPMENT SERVICES** DEVELOPMENT SERVICES | Job Reference (optional)

LEE'S SUMMIT, MISSOURI 8.420 s Aug 25 2020 MiTek Industries, Inc. Fri Oct 2 11:01:15 2020 Page 1 Wheeler Lumber, Waverly, KS 66871 ID:bWuMDBN0tjF5cDvSpwhpH1zCzbQ-H9nZa5M419VRUw9oKpqRLbyFz00P6y1bva0zi\_yXTeo

<del>0712/2020</del>

2 2x4 || 6.00 12 0-0-4

LOADING (psf) TCLL 25.0	SPACING- 2-0-0 Plate Grip DOL 1.15	<b>CSI.</b> TC 0.18	DEFL. Vert(LL)	in (loc) /a -	l/defl n/a	L/d 999	PLATES MT20	<b>GRIP</b> 197/144
TCDL 10.0	Lumber DOL 1.15	BC 0.10	Vert(CT) n/	/a -	n/a	999		
BCLL 0.0 * BCDL 10.0	Rep Stress Incr YES Code IRC2018/TPI2014	WB 0.00 Matrix-P	Horz(CT) -0.0	00 3	n/a	n/a	Weight: 10 lb	FT = 10%

TOP CHORD

BOT CHORD

2x4 ||

except end verticals.

Structural wood sheathing directly applied or 3-10-10 oc purlins,

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

LUMBER-BRACING-

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

REACTIONS. 1=3-10-2, 3=3-10-2 (size)

Max Horz 1=66(LC 5)

Max Uplift 1=-18(LC 8), 3=-35(LC 8) Max Grav 1=142(LC 1), 3=142(LC 1)

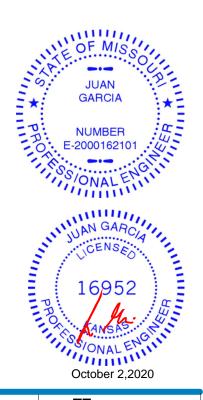
FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.

### 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

2x4 /

- 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 18 lb uplift at joint 1 and 35 lb uplift at joint 3.
- 6) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



Scale = 1:12.5



Job Truss Truss Type Valley 400675 V12

Waverly, KS 66871

**RELEASE FOR** CONSTRUCTION AS NOTED ON PLANS REVIE **DEVELOPMENT SERVICES** 

Lot 19 HT

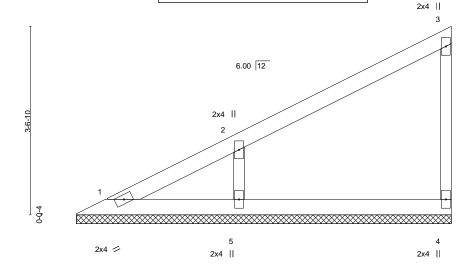
143059583

DEVELOPMENT SERVICES | Job Reference (optional)

LEE'S SUMMIT, MISSOURI 8.420 s Aug 25 2020 MiTek Industries, Inc. Fri Oct 2 11:01:15 2020 Page 1 ID:bWuMDBN0tjF5cDvSpwhpH1zCzbQ-H9nZa5M419VRUw9oKpqRLbyFp00L6yDbva0zi\_yXTeo

10/<mark>12/2</mark>020

Scale = 1:21.7



LOADING (	(psf)	SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL 2	25.0	Plate Grip DOL	1.15	TC	0.19	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL 1	10.0	Lumber DOL	1.15	BC	0.10	Vert(CT)	n/a	-	n/a	999		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.05	Horz(CT)	-0.00	4	n/a	n/a		
BCDL 1	10.0	Code IRC2018/TF	PI2014	Matri	x-P						Weight: 20 lb	FT = 10%

LUMBER-

Wheeler Lumber,

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

2x3 SPF No.2 **WEBS OTHERS** 2x3 SPF No.2

BRACING-

Structural wood sheathing directly applied or 6-0-0 oc purlins, TOP CHORD

except end verticals.

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

REACTIONS. (size) 1=7-0-12, 4=7-0-12, 5=7-0-12

Max Horz 1=133(LC 5)

Max Uplift 4=-27(LC 8), 5=-112(LC 8)

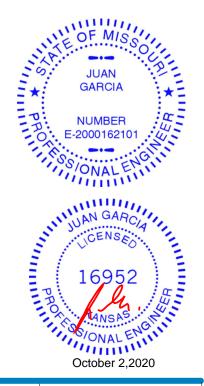
Max Grav 1=75(LC 16), 4=142(LC 1), 5=373(LC 1)

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

2-5=-290/162 **WEBS** 

### 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 27 lb uplift at joint 4 and 112 lb uplift at ioint 5.
- 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.





MARNING - 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® cannectors. 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/TPI Quality Criteria, DSB-89 and BCSI Building Component Safety Information

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



**RELEASE FOR** Job Truss Truss Type CONSTRUCTION Lot 19 HT 143059584 AS NOTED ON PLANS REVIE Valley 400675 V13 **DEVELOPMENT SERVICES** DEVELOPMENT SERVICES | Job Reference (optional)

LEE'S SUMMIT, MISSOURI 8.420 s Aug 25 2020 MiTek Industries, Inc. Fri Oct 2 11:01:16 2020 Page 1 Wheeler Lumber, Waverly, KS 66871 ID:bWuMDBN0tjF5cDvSpwhpH1zCzbQ-ILLxoRNioTdl64k\_tWLgupVMsQK5rPHk7EmWERyXTen 10/<u>12/2</u>020

> 2x4 || 2 6.00 12 9-0-0 3 2x4 || 2x4 /

LOADIN TCLL TCDL	25.0 10.0	SPACING- Plate Grip DOL Lumber DOL	2-0-0 1.15 1.15	CSI. TC BC	0.36 0.20	DEFL. Vert(LL) Vert(CT)	in n/a n/a	(loc) - -	l/defl n/a n/a	L/d 999 999	PLATES MT20	<b>GRIP</b> 197/144
BCLL BCDL	0.0 * 10.0	Rep Stress Incr Code IRC2018/TF	YES PI2014	WB Matri	0.00 x-P	Horz(CT)	-0.00	3	n/a	n/a	Weight: 13 lb	FT = 10%

BRACING-

TOP CHORD

BOT CHORD

LUMBER-

REACTIONS.

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

**WEBS** 2x3 SPF No.2

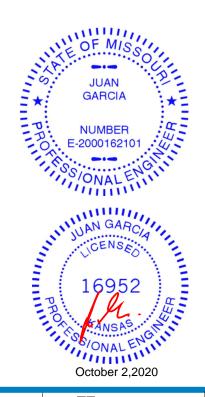
> 1=5-0-12, 3=5-0-12 (size) Max Horz 1=91(LC 5)

Max Uplift 1=-25(LC 8), 3=-48(LC 8) Max Grav 1=197(LC 1), 3=197(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 25 lb uplift at joint 1 and 48 lb uplift at joint 3.
- 6) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



Structural wood sheathing directly applied or 5-1-4 oc purlins,

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

except end verticals.

Scale: 3/4"=1"

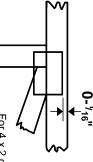


### Symbols

# PLATE LOCATION AND ORIENTATION



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



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

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

REVIEUS Plate location details available in MiTek 20/20

NOTED ON PLANE SIZE

NOTED ON PLANE SIZE

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

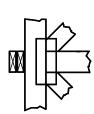
RELEASE FOR CONSTRUCTION

# LATERAL BRACING LOCATION



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

### **BEARING**



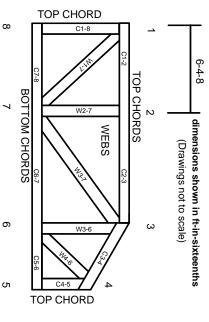
Min size shown is for crushing only reaction section indicates joint Indicates location where bearings number where bearings occur. (supports) occur. Icons vary but

### ANSI/TPI1: Industry Standards: National Design Specification for Metal

DSB-89:

**Building Component Safety Information** Guide to Good Practice for Handling Design Standard for Bracing. Connected Wood Trusses. Installing & Bracing of Metal Plate Plate Connected Wood Truss Construction.

# Numbering System



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

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

## PRODUCT CODE APPROVALS

ICC-ES Reports:

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

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

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

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

# **General Safety Notes**

## Damage or Personal Injury Failure to Follow Could Cause Property

- Additional stability bracing for truss system, e.g. diagonal or X-bracing, is always required. See BCSI
- Truss bracing must be designed by an engineer. For bracing should be considered. may require bracing, or alternative Tor I wide truss spacing, individual lateral braces themselves

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Never exceed the design loading shown and never stack materials on inadequately braced trusses.

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- Provide copies of this truss design to the building all other interested parties. designer, erection supervisor, property owner and
- Cut members to bear tightly against each other.
- 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.

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- Design assumes trusses will be suitably protected from the environment in accord with ANSI/TPI 1.
- Unless otherwise noted, moisture content of lumber shall not exceed 19% at time of fabrication.

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Unless expressly noted, this design is not applicable for use with fire retardant, preservative treated, or green lumber.

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- 10. Camber is a non-structural consideration and is the responsibility of truss fabricator. General practice is to camber for dead load deflection.
- 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
- Top chords must be sheathed or purlins provided at spacing indicated on design.
- Bottom chords require lateral bracing at 10 ft. spacing, or less, if no ceiling is installed, unless otherwise noted
- Connections not shown are the responsibility of others
- Do not cut or alter truss member or plate without prior approval of an engineer.
- 17. Install and load vertically unless indicated otherwise.
- Use of green or treated lumber may pose unacceptable project engineer before use. environmental, health or performance risks. Consult with
- Review all portions of this design (front, back, words is not sufficient. and pictures) before use. Reviewing pictures alone
- 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.