



RELEASE FOR
CONSTRUCTION
AS NOTED ON PLANS REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
01/28/2021

RE: 210209
Lot 46 W2

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

Site Information:

Customer: Project Name: 210209
Lot/Block:
Address:
City:

Model:
Subdivision:
State:

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

Design Code: IRC2018/TPI2014
Wind Code: N/A
Roof Load: 45.0 psf

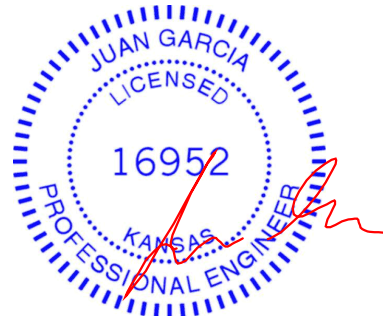
Design Program: MiTek 20/20 8.4
Wind Speed: 115 mph
Floor Load: N/A psf

This package includes 30 individual, dated Truss Design Drawings and 0 Additional Drawings.

No.	Seal#	Truss Name	Date	No.	Seal#	Truss Name	Date
1	I43104414	A1	1/8/2021	21	I43104434	E3	1/8/2021
2	I43104415	A2A	1/8/2021	22	I43104435	J1	1/8/2021
3	I43104416	B1A	1/8/2021	23	I43104436	J2	1/8/2021
4	I43104417	B2A	1/8/2021	24	I43104437	J3	1/8/2021
5	I43104418	B3	1/8/2021	25	I43104438	V1	1/8/2021
6	I43104419	B4	1/8/2021	26	I43104439	V3	1/8/2021
7	I43104420	B5	1/8/2021	27	I43104440	V4	1/8/2021
8	I43104421	B6	1/8/2021	28	I43104441	V5	1/8/2021
9	I43104422	B7	1/8/2021	29	I43104442	V6	1/8/2021
10	I43104423	B8	1/8/2021	30	I43104443	V7	1/8/2021
11	I43104424	B9	1/8/2021				
12	I43104425	B10	1/8/2021				
13	I43104426	B11	1/8/2021				
14	I43104427	C1	1/8/2021				
15	I43104428	C2	1/8/2021				
16	I43104429	C3	1/8/2021				
17	I43104430	D1	1/8/2021				
18	I43104431	D2	1/8/2021				
19	I43104432	E1	1/8/2021				
20	I43104433	E2	1/8/2021				

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.



January 08, 2021



RE: 210209
Lot 46 W2

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

Site Information:

Customer: Project Name: 210209
Lot/Block:
Address:
City:

Model:
Subdivision:
State:

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

Design Code: IRC2018/TPI2014
Wind Code: N/A
Roof Load: 45.0 psf

Design Program: MiTek 20/20 8.4
Wind Speed: 115 mph
Floor Load: N/A psf

This package includes 30 individual, dated Truss Design Drawings and 0 Additional Drawings.

No.	Seal#	Truss Name	Date	No.	Seal#	Truss Name	Date
1	I43104414	A1	1/8/2021	21	I43104434	E3	1/8/2021
2	I43104415	A2A	1/8/2021	22	I43104435	J1	1/8/2021
3	I43104416	B1A	1/8/2021	23	I43104436	J2	1/8/2021
4	I43104417	B2A	1/8/2021	24	I43104437	J3	1/8/2021
5	I43104418	B3	1/8/2021	25	I43104438	V1	1/8/2021
6	I43104419	B4	1/8/2021	26	I43104439	V3	1/8/2021
7	I43104420	B5	1/8/2021	27	I43104440	V4	1/8/2021
8	I43104421	B6	1/8/2021	28	I43104441	V5	1/8/2021
9	I43104422	B7	1/8/2021	29	I43104442	V6	1/8/2021
10	I43104423	B8	1/8/2021	30	I43104443	V7	1/8/2021
11	I43104424	B9	1/8/2021				
12	I43104425	B10	1/8/2021				
13	I43104426	B11	1/8/2021				
14	I43104427	C1	1/8/2021				
15	I43104428	C2	1/8/2021				
16	I43104429	C3	1/8/2021				
17	I43104430	D1	1/8/2021				
18	I43104431	D2	1/8/2021				
19	I43104432	E1	1/8/2021				
20	I43104433	E2	1/8/2021				

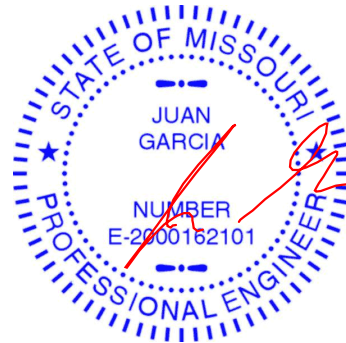
The truss drawing(s) referenced above have been prepared by
MiTek USA, Inc. under my direct supervision
based on the parameters provided by Wheeler - Waverly.

Truss Design Engineer's Name: Garcia, Juan

My license renewal date for the state of Missouri is December 31, 2022.

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.



January 08, 2021

Job 210209	Truss A1	Truss Type Common Supported Gable	Qty 1	Ply 1	Lot 46 W2 143104414
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Wheeler Lumber, Waverly, KS 66871

8.420 s Aug 25 2020 MiTek Industries, Inc. Tue Oct 6 16:58:01 2020 Page 1
ID:2ncXplsXOfbjlB6l7Q?gPMzrYWU-T4jz5Bt3cmOZZtyP_d9iskEzbMeEEF3foToI_myW42K

-0-10-8 23-0-0 46-0-0 46-10-8
0-10-8 23-0-0 23-0-0 0-10-8

Scale = 1:77.6

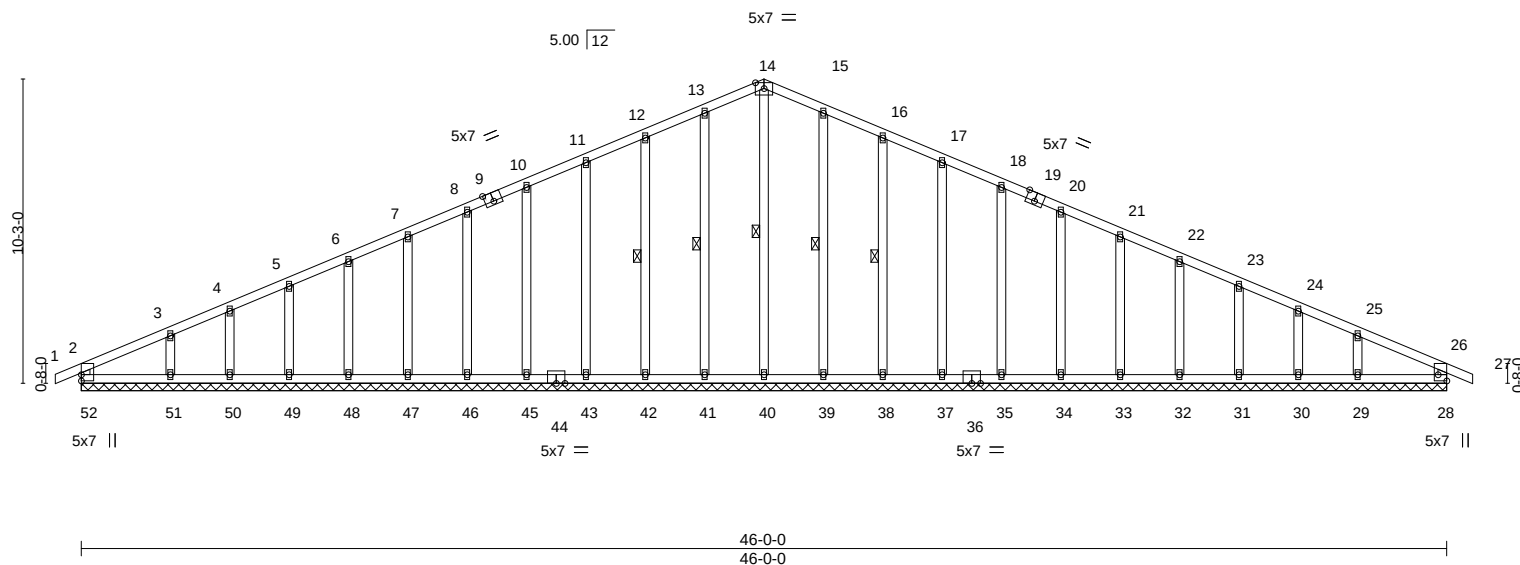


Plate Offsets (X,Y)--		[9:0-3-8,Edge], [19:0-3-8,Edge], [28:Edge,0-3-8]	
LOADING (psf)	SPACING-	2-0-0	CSI.
TCLL 25.0	Plate Grip DOL	1.15	TC 0.07
TCDL 10.0	Lumber DOL	1.15	BC 0.06
BCLL 0.0	Rep Stress Incr	YES	WB 0.14
BCDL 10.0	Code	IRC2018/TPI2014	Matrix-R
			DEFL.
			in (loc) l/defl L/d
			Vert(LL) -0.00 26 n/r 120
			Vert(CT) 0.00 26 n/r 90
			Horz(CT) 0.01 28 n/a n/a
			PLATES
			MT20
			GRIP
			197/144
			Weight: 240 lb FT = 10%

LUMBER-

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

BRACING-

TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 1 Row at midpt 14-40, 13-41, 12-42, 15-39, 16-38

REACTIONS.

All bearings 46-0-0.
(lb) - Max Horz 52=-145(LC 9)
Max Uplift All uplift 100 lb or less at joint(s) 52, 28, 41, 42, 43, 45, 46, 47, 48, 49, 50, 51, 39, 38, 37, 35, 34, 33, 32, 31, 30, 29
Max Grav All reactions 250 lb or less at joint(s) 52, 28, 40, 41, 42, 43, 45, 46, 47, 48, 49, 50, 51, 39, 38, 37, 35, 34, 33, 32, 31, 30, 29

FORCES.

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

TOP CHORD 13-14=-49/251

NOTES-

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.33 plate grip DOL=1.33
- Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- All plates are 2x4 MT20 unless otherwise indicated.
- Gable requires continuous bottom chord bearing.
- Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
- Gable studs spaced at 2-0-0 oc.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 52, 28, 41, 42, 43, 45, 46, 47, 48, 49, 50, 51, 39, 38, 37, 35, 34, 33, 32, 31, 30, 29.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



October 7, 2020

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

Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see

ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component

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



16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job 210209	Truss A2A	Truss Type Roof Special	Qty 3	Ply 1	Lot 46 W2 143104415
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Wheeler Lumber, Waverly, KS 66871

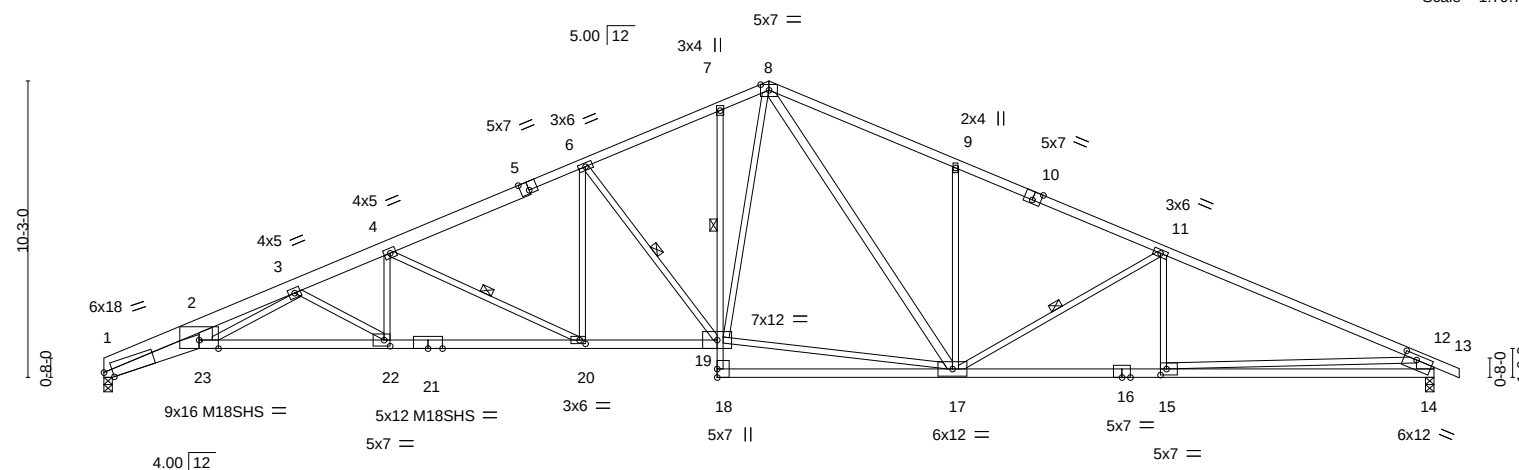
8.420 s Aug 25 2020 MiTek Industries, Inc. Tue Oct 6 16:58:02 2020 Page 1

ID:2ncXplsXOfbjlB6l7Q?gPMzrYWU-yHHLJXuhN4WQB1XcXKgXPyNyfmlCzYep17XsWCyW42J

Job Reference (optional)

3-3-8	6-8-10	9-9-8	16-6-10	21-2-8	23-0-0	29-5-7	36-7-12	46-0-0	46-10-8
3-3-8	3-5-2	3-0-14	6-9-2	4-7-15	1-9-8	6-5-7	7-2-5	9-4-4	0-10-8

Scale = 1:79.7



	3-3-8	9-9-8	16-6-10	21-2-8	23-0-0	29-5-7	36-7-12	46-0-0	
	3-3-8	6-6-0	6-9-2	4-7-15	1-9-8	6-5-7	7-2-5	9-4-4	

Plate Offsets (X,Y)-- [1:0-3-9,Edge], [5:0-3-8,Edge], [10:0-3-8,Edge], [14:0-5-4,0-2-0], [15:0-2-8,0-2-8], [20:0-2-8,0-1-8], [22:0-2-8,0-2-8]

LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.88	Vert(LL)	-0.49	20	>999	360	MT20 197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.98	Vert(CT)	-0.90	20-22	>608	240	M18SHS 197/144
BCLL 0.0	Rep Stress Incr	YES	WB 0.82	Horz(CT)	0.46	14	n/a	n/a	
BCDL 10.0	Code IRC2018/TPI2014		Matrix-S						
									Weight: 216 lb FT = 10%

LUMBER-

TOP CHORD 2x4 SPF No.2 *Except*
1-5: 2x6 SP DSS, 10-13: 2x4 SPF 2100F 1.8E
BOT CHORD 2x4 SPF No.2 *Except*
1-23: 2x6 SPF 1650F 1.4E, 21-23,19-21: 2x4 SPF 2100F 1.8E
7-18: 2x3 SPF No.2
WEBS 2x3 SPF No.2 *Except*
2-23: 2x6 SPF No.2, 8-17: 2x4 SPF No.2, 12-14: 2x8 SP DSS

BRACING-

TOP CHORD Structural wood sheathing directly applied, except end verticals.
BOT CHORD Rigid ceiling directly applied or 2-2-0 oc bracing. Except:
1 Row at midpt 7-19
WEBS 1 Row at midpt 4-20, 6-19, 11-17

REACTIONS.

(size) 1=0-3-8, 14=0-3-8
Max Horz 1=150(LC 12)
Max Uplift 1=-181(LC 8), 14=-203(LC 9)
Max Grav 1=2049(LC 1), 14=2133(LC 1)

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

TOP CHORD 1-2=-8805/874, 2-3=-7465/826, 3-4=-5145/470, 4-6=-3847/335, 6-7=-3122/291,
7-8=-3034/334, 8-9=-3337/409, 9-11=-3345/298, 11-12=-4011/338, 12-14=-2038/256
BOT CHORD 1-23=-919/8009, 22-23=-627/5762, 20-22=-450/4688, 19-20=-230/3472, 15-17=-214/3579,
14-15=-274/1443
WEBS 2-23=-93/1815, 3-22=-1254/207, 4-22=-21/787, 4-20=-1358/245, 6-20=-34/737,
6-19=-1089/208, 8-19=-207/1418, 8-17=-260/954, 9-17=-491/213, 11-17=-721/184,
12-15=0/2139, 3-23=-252/1515, 17-19=-86/2385

NOTES-

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.33 plate grip DOL=1.33
- All plates are MT20 plates unless otherwise indicated.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- Bearing at joint(s) 1 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 1=181, 14=203.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



October 7, 2020

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 46 W2	143104416
210209	B1A	GABLE	1	1		

Wheeler Lumber, Waverly, KS 66871

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ID:2ncXplsXOfbjB6l7Q?gPMzrYWU-mRedZaySzwHavy?mubnlEd1?KBqCNErhP3_AksyW42D

Job Reference (optional)

3-3-8	6-0-11	9-9-8	16-11-12	21-2-8	25-6-0	34-0-3	41-2-7	45-10-4	51-0-0	51-10-8
3-3-8	2-9-3	3-8-13	7-2-5	4-2-12	4-3-8	8-6-3	7-2-4	4-7-13	5-1-12	0-10-8

Scale = 1:88.4

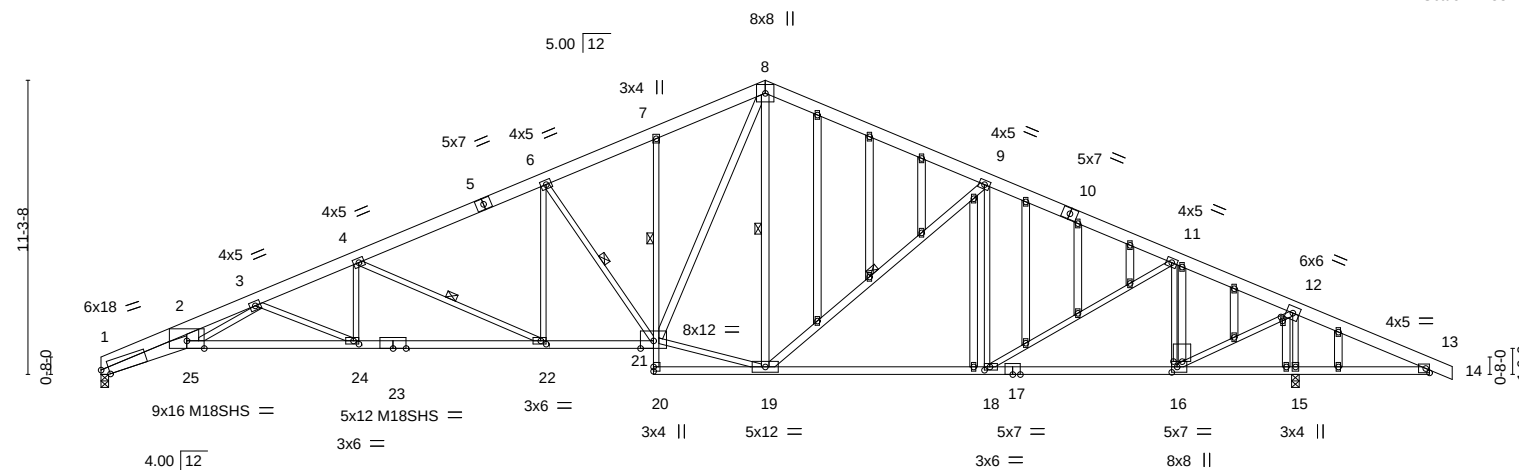


Plate Offsets (X,Y)--	[1:0-3-9,Edge], [16:0-0-1,0-4-0], [16:0-2-8,0-2-8], [18:0-2-8,0-1-8], [22:0-2-8,0-1-8], [24:0-2-8,0-1-8], [44:0-1-13,0-0-12]
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LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.81	Vert(LL)	-0.44	24-25	>999	360	MT20
TCDL 10.0	Lumber DOL	1.15	BC 0.87	Vert(CT)	-0.82	24-25	>669	240	M18SHS
BCLL 0.0	Rep Stress Incr	YES	WB 0.84	Horz(CT)	0.42	15	n/a	n/a	
BCDL 10.0	Code IRC2018/TPI2014		Matrix-S						
									Weight: 322 lb FT = 10%

LUMBER-
TOP CHORD 2x6 SPF No.2 *Except*
1-5,10-14: 2x6 SP DSS
BOT CHORD 2x4 SPF 2100F 1.8E *Except*
1-25: 2x6 SPF 1650F 1.4E, 7-20: 2x3 SPF No.2, 17-20: 2x4 SPF No.2
WEBS 2x3 SPF No.2 *Except*
2-25: 2x6 SPF No.2, 8-21,8-19,9-19: 2x4 SPF No.2
OTHERS 2x4 SPF No.2

BRACING-
TOP CHORD Structural wood sheathing directly applied or 2-1-4 oc purlins.
BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing. Except:
1 Row at midpt 7-21
WEBS 1 Row at midpt 4-22, 6-21, 8-19, 9-19

REACTIONS. (size) 1=0-3-8, 15=0-3-8 (req. 0-4-2)
Max Horz 1=-176(LC 9)
Max Uplift 1=-197(LC 8), 15=-245(LC 9)
Max Grav 1=2023(LC 1), 15=2615(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-2=-8741/984, 2-3=-7344/899, 3-4=-5072/521, 4-6=-3780/380, 6-7=-3088/344,
7-8=-3027/404, 8-9=-2379/289, 9-11=-2652/231, 11-12=-1909/158, 12-13=-165/631
BOT CHORD 1-25=-1040/7956, 24-25=-753/5930, 22-24=-522/4641, 21-22=-292/3406, 18-19=-51/2374,
16-18=-29/1690, 15-16=-483/171, 13-15=-483/171
WEBS 2-25=-140/1905, 4-24=-8/695, 4-22=-1363/254, 6-22=-31/706, 6-21=-1120/217,
19-21=-48/2061, 8-21=-292/1772, 9-19=-512/195, 11-18=-26/799, 11-16=-1028/141,
12-16=-154/2438, 12-15=-2486/298, 3-24=-1402/251, 3-25=-227/1254

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
 - Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.33 plate grip DOL=1.33
 - Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
 - All plates are MT20 plates unless otherwise indicated.
 - All plates are 2x4 MT20 unless otherwise indicated.
 - Gable studs spaced at 2-0-0 oc.
 - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
 - WARNING: Required bearing size at joint(s) 15 greater than input bearing size.
 - Bearing at joint(s) 1 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
 - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 1=197, 15=245.
 - This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



October 7, 2020

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

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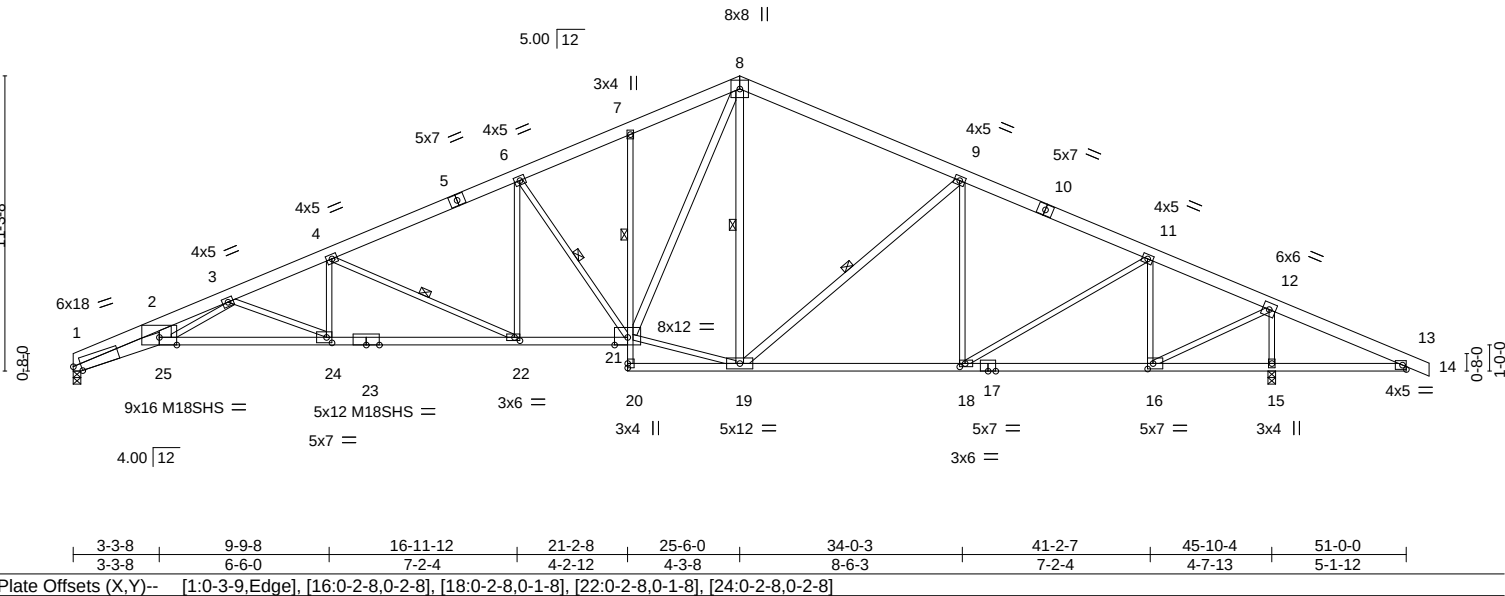
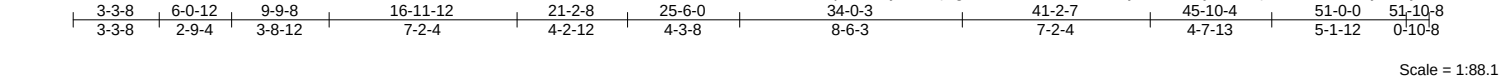


16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 46 W2	143104417
210209	B2A	Roof Special	4	1		

Wheeler Lumber, Waverly, KS 66871

8.420 s Aug 25 2020 MiTek Industries, Inc. Tue Oct 6 16:58:09 2020 Page 1
ID:2ncXplsXOfbjlB6l7Q?gPMzrYWU-EdC?nwz4jDPRW6ZySllaBQZA3bAR6h5rejkkGlyW42C



LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.81	Vert(LL)	-0.44 24-25	>999	360	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.87	Vert(CT)	-0.82 24-25	>669	240	M18SHS	197/144
BCLL 0.0	Rep Stress Incr	YES	WB 0.84	Horz(CT)	0.42 15	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-S						
								Weight: 273 lb	FT = 10%

LUMBER-	BRACING-
TOP CHORD 2x6 SPF No.2 *Except* 1-5,10-14: 2x6 SP DSS	TOP CHORD Structural wood sheathing directly applied or 2-1-4 oc purlins. BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing. Except:
BOT CHORD 2x4 SPF 2100F 1.8E *Except* 1-25: 2x6 SPF 1650F 1.4E, 7-20: 2x3 SPF No.2, 17-20: 2x4 SPF No.2	1 Row at midpt 7-21 1 Row at midpt 4-22, 6-21, 8-19, 9-19
WEBS 2x3 SPF No.2 *Except* 2-25: 2x6 SPF No.2, 8-21,8-19,9-19: 2x4 SPF No.2	

REACTIONS.	(size) 1=0-3-8, 15=0-3-8 (req. 0-4-2) Max Horz 1=-176(LC 9) Max Uplift 1=-197(LC 8), 15=-245(LC 9) Max Grav 1=2023(LC 1), 15=2615(LC 1)
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FORCES.	(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD	1-2=-8741/984, 2-3=-7344/899, 3-4=-5072/521, 4-6=-3780/380, 6-7=-3088/344, 7-8=-3027/404, 8-9=-2379/289, 9-11=-2652/231, 11-12=-1909/158, 12-13=-165/631
BOT CHORD	1-25=-1040/7956, 24-25=-753/5930, 22-24=-522/4641, 21-22=-292/3406, 18-19=-51/2374, 16-18=-29/1690, 15-16=-483/171, 13-15=-483/171
WEBS	2-25=-140/1905, 3-24=-1402/251, 4-24=-8/695, 4-22=-1363/254, 6-22=-31/706, 6-21=-1120/217, 19-21=-48/2061, 8-21=-292/1772, 9-19=-512/195, 11-18=-26/799, 11-16=-1028/141, 12-16=-154/2438, 12-15=-2486/298, 3-25=-227/1253

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
 - Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.33 plate grip DOL=1.33
 - All plates are MT20 plates unless otherwise indicated.
 - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
 - WARNING: Required bearing size at joint(s) 15 greater than input bearing size.
 - Bearing at joint(s) 1 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
 - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 1=197, 15=245.
 - This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



October 7,2020

Job 210209	Truss B3	Truss Type ROOF SPECIAL	Qty 1	Ply 1	Lot 46 W2 I43104418
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Wheeler Lumber, Waverly, KS 66871

ID:2ncXplsXOfbjB6l7Q?gPMzrYWU-lxJdyXynK6jFk4RDR12WwD_PBh1CRmGQ1Or64CQyVpTb
8.420 s Aug 25 2020 MITek Industries, Inc. Wed Oct 7 11:49:28 2020 Page 1

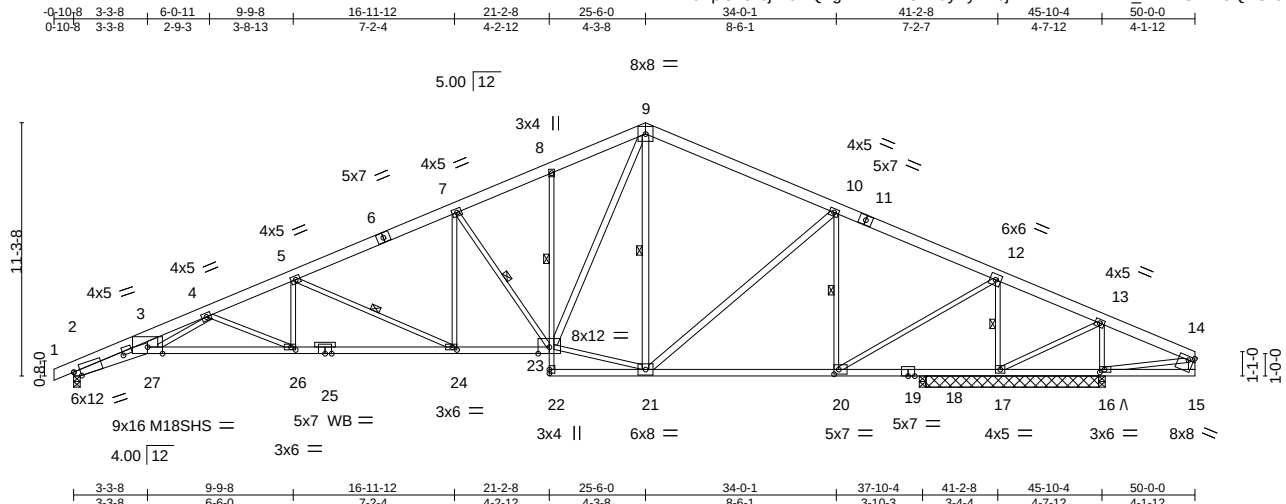


Plate Offsets (X,Y)--	[2:0-3-9,Edge], [2:2-4-1,0-0-3], [15:0-2-12,0-2-0], [16:0-2-8,0-1-8], [20:0-2-8,0-2-8], [24:0-2-8,0-1-8], [26:0-2-8,0-1-8]
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LOADING (psf)		SPACING- 2-0-0		CSI.		DEFL. in (loc)		l/defl L/d		PLATES GRIP	
TCLL	25.0	Plate Grip DOL	1.15	TC	0.88	Vert(LL)	-0.41 26-27	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.78	Vert(CT)	-0.77 26-27	>587	240	M18SHS	197/144
BCLL	0.0	Rep Stress Incr	YES	WB	0.76	Horz(CT)	0.35 18	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-S							
										Weight: 257 lb	FT = 10%

LUMBER-	BRACING-
TOP CHORD 2x6 SPF No.2 *Except*	TOP CHORD Structural wood sheathing directly applied or 2-1-0 oc purlins, except end verticals.
1-6,11-14: 2x6 SPF 1650F 1.4E	
BOT CHORD 2x4 SPF 2100F 1.8E *Except*	BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing. Except:
2-27: 2x6 SPF 1650F 1.4E, 8-22: 2x3 SPF No.2, 19-22: 2x4 SPF No.2	1 Row at midpt 8-23
15-19: 2x4 SPF 2400F 2.0E	1 Row at midpt 5-24, 7-23, 9-21, 10-20, 12-17
WEBS 2x3 SPF No.2 *Except*	
3-27: 2x6 SPF No.2, 9-23,9-21,10-21,14-15: 2x4 SPF No.2	
OTHERS 2x3 SPF No.2	

REACTIONS. All bearings 0-3-8 except (jt=length) 17=7-8-6.
(lb) - Max Horz 2=178(LC 12)
Max Uplift All uplift 100 lb or less at joint(s) except 2=190(LC 8), 17=283(LC 8)
Max Grav All reactions 250 lb or less at joint(s) 18, 16 except 2=1824(LC 1), 17=2546(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-7553/867, 3-4=-6382/806, 4-5=-4229/435, 5-6=-2999/285, 6-7=-2890/302,
7-8=-2325/267, 8-9=-2264/327, 9-10=-1695/219, 10-11=-1114/139, 11-12=-1289/120,
12-13=-185/857, 13-14=-65/315
BOT CHORD 2-27=-937/6875, 26-27=-665/5022, 25-26=-446/3859, 24-25=-446/3859, 23-24=-224/2685,
20-21=0/1108, 19-20=-722/226, 18-19=-722/226, 17-18=-722/226
WEBS 3-27=-107/1570, 5-26=-4/650, 5-24=-1296/245, 7-24=-27/673, 7-23=-1093/217,
21-23=0/1440, 9-23=-274/1582, 9-21=-464/144, 10-21=-88/478, 10-20=-1034/191,
12-20=-181/2138, 12-17=-2293/257, 13-17=-557/235, 14-16=-259/80, 4-27=-228/1231,
4-26=-1266/238

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
 - Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.33 plate grip DOL=1.33
 - All plates are MT20 plates unless otherwise indicated.
 - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
 - Bearing at joint(s) 2 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
 - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 190 lb uplift at joint 2 and 283 lb uplift at joint 17.
 - "A" indicates Released bearing: allow for upward movement at joint(s) 16.
 - This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard



October 7, 2020

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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



16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job 210209	Truss B4	Truss Type Roof Special	Qty 4	Ply 1	Lot 46 W2 I43104419
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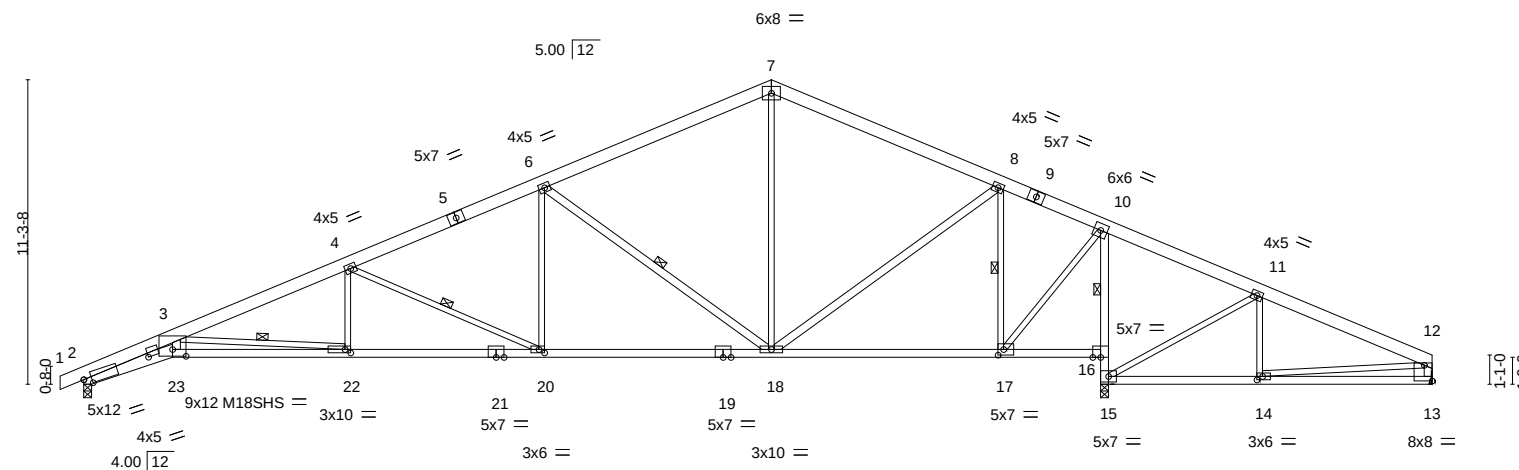
Wheeler Lumber, Waverly, KS 66871

8.420 s Aug 25 2020 MiTek Industries, Inc. Tue Oct 6 16:58:12 2020 Page 1

ID:2ncXplsxOfbjlB6l7Q?gPMzrYWU-fCu7Px?y08n?NaIX7Rslp3Bj9oCxJ3zHKhyOtdyW429

-0-10-8	3-3-8	9-9-8	16-11-13	25-6-0	34-0-1	37-8-8	43-7-5	50-0-0
0-10-8	3-3-8	6-6-0	7-2-5	8-6-3	8-6-1	3-8-7	5-10-13	6-4-12

Scale = 1:85.4



3-3-8	9-9-8	16-11-13	25-6-0	34-0-1	37-8-8	37-10-4	43-7-5	50-0-0
3-3-8	6-6-0	7-2-5	8-6-3	8-6-1	3-8-7	0-1-12	5-9-1	6-4-12

Plate Offsets (X,Y)-- [2:0-3-9,0-2-9], [2:2-6-8,0-0-7], [13:Edge,0-7-0], [14:0-2-8,0-1-8], [17:0-2-8,0-2-8], [20:0-2-8,0-1-8], [22:0-2-8,0-1-8], [23:0-6-0,0-3-0]

LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.69	Vert(LL)	-0.44 22-23	>999	360	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.89	Vert(CT)	-0.82 22-23	>555	240	M18SHS	197/144
BCLL 0.0	Rep Stress Incr	YES	WB 0.83	Horz(CT)	0.26 13	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-S						
								Weight: 238 lb	FT = 10%

LUMBER-

TOP CHORD 2x6 SPF No.2 *Except*
1-5,9-12: 2x6 SPF 1650F 1.4E
BOT CHORD 2x4 SPF No.2 *Except*
2-23: 2x6 SPF 1650F 1.4E, 19-21,21-23: 2x4 SPF 2100F 1.8E
WEBS 2x3 SPF No.2 *Except*
3-23,6-18,8-18,12-13: 2x4 SPF No.2

BRACING-

TOP CHORD Structural wood sheathing directly applied or 2-4-13 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 2-7-4 oc bracing. Except:
1 Row at midpt 10-16
WEBS 1 Row at midpt 3-22, 4-20, 6-18, 8-17

REACTIONS.

(size) 2=0-3-8, 13=Mechanical, 15=0-3-8 (req. 0-4-1)
Max Horz 2=106(LC 10)
Max Uplift 2=-6(LC 8), 13=-41(LC 9)
Max Grav 2=1685(LC 1), 13=393(LC 20), 15=2586(LC 1)

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

TOP CHORD 2-3=-6936/94, 3-4=-3852/25, 4-6=-2628/40, 6-7=-1470/56, 7-8=-1468/71, 8-10=-615/87,
10-11=0/647, 11-12=-405/216, 12-13=-340/73
BOT CHORD 2-23=-169/6320, 22-23=-161/5594, 20-22=-39/3555, 18-20=0/2331, 17-18=0/529,
16-17=-591/30, 15-16=-2209/0, 10-16=-2138/0, 14-15=-175/304
WEBS 3-23=0/1999, 3-22=-2051/122, 4-22=0/442, 4-20=-1351/67, 6-20=0/714, 6-18=-1359/95,
7-18=0/531, 8-18=0/898, 8-17=-1302/27, 10-17=0/1779, 11-15=-702/42, 11-14=0/300

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=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope); cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.33 plate grip DOL=1.33
- 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) WARNING: Required bearing size at joint(s) 15 greater than input bearing size.
- 6) Refer to girder(s) for truss to truss connections.
- 7) Bearing at joint(s) 2, 15 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- 8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 6 lb uplift at joint 2 and 41 lb uplift at joint 13.
- 9) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



October 7, 2020

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



16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job 210209	Truss B5	Truss Type ROOF SPECIAL	Qty 2	Ply 1	Lot 46 W2 I43104420
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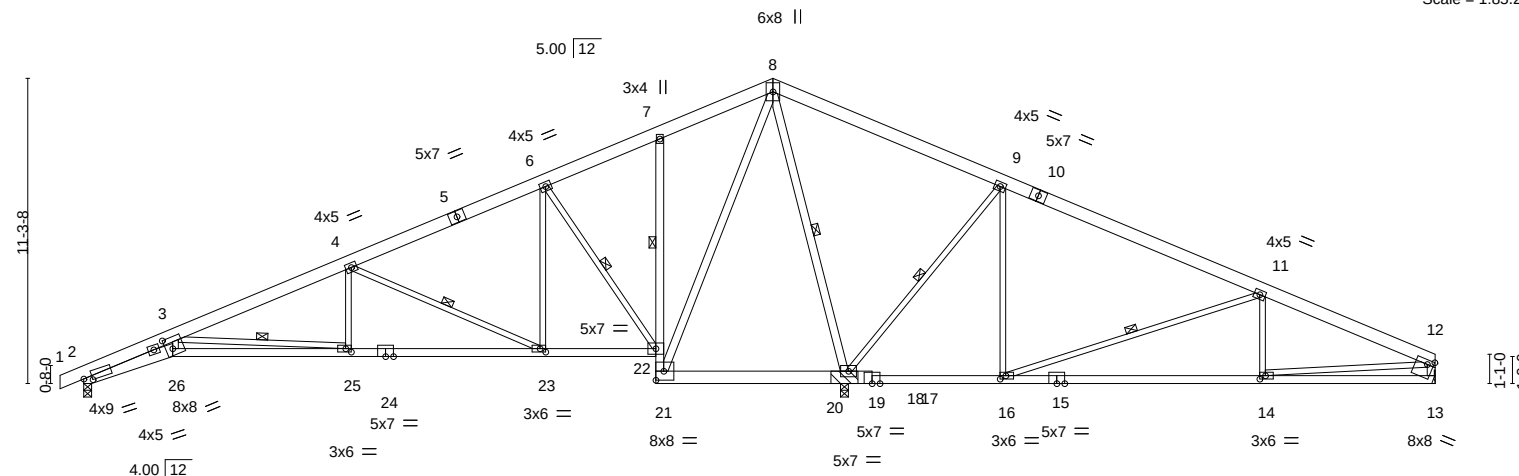
Wheeler Lumber, Waverly, KS 66871

8.420 s Aug 25 2020 MiTek Industries, Inc. Tue Oct 6 16:58:13 2020 Page 1

ID:2ncXplsXOfbjiB6l7Q?gPMzryWU-7ORWcH0anSvs?jfh8NXLGktCCZb2TWQZLixP3yW428

0-10-8	3-3-8	9-9-8	16-11-13	21-2-0	25-6-0	34-0-1	43-7-6	50-0-0
0-10-8	3-3-8	6-6-0	7-2-5	4-2-3	4-4-0	8-6-2	9-7-5	6-4-10

Scale = 1:85.2



3-3-8	9-9-8	16-11-13	21-2-0	28-1-12	31-6-14	43-7-6	50-0-0
3-3-8	6-6-0	7-2-5	4-2-3	6-11-12	3-5-2	12-0-8	6-4-10

Plate Offsets (X,Y)-- [2:0-3-13,0-1-9], [13:0-2-12,0-2-0], [14:0-2-8,0-1-8], [16:0-2-8,0-1-8], [23:0-2-8,0-1-8], [25:0-2-8,0-1-8], [26:0-3-0,0-5-0]

LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.74	Vert(LL)	-0.21 25-26	>999	360	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.80	Vert(CT)	-0.40 25-26	>850	240		
BCLL 0.0	Rep Stress Incr	YES	WB 1.00	Horz(CT)	0.11 19	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-S						
								Weight: 259 lb	FT = 10%

LUMBER-

TOP CHORD 2x6 SPF No.2
 BOT CHORD 2x4 SPF No.2 *Except*
 2-26: 2x6 SPF No.2, 17-21: 2x6 SP DSS
 WEBS 2x3 SPF No.2 *Except*
 8-21, 12-13: 2x4 SPF No.2, 8-19: 2x4 SPF 2100F 1.8E

BRACING-

TOP CHORD Structural wood sheathing directly applied or 3-9-3 oc purlins, except end verticals.
 BOT CHORD Rigid ceiling directly applied or 5-0-4 oc bracing. Except:
 1 Row at midpt 7-22
 1 Row at midpt 3-25, 4-23, 6-22, 8-19, 9-19, 11-16

REACTIONS.

(size) 2=0-3-8, 19=(0-3-8 + bearing block) (req. 0-5-6), 13=Mechanical
 Max Horz 2=106(LC 10)
 Max Uplift 2=-9(LC 8), 13=-192(LC 19)
 Max Grav 2=847(LC 19), 19=3443(LC 1), 13=617(LC 20)

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

TOP CHORD 2-3=-2961/104, 3-4=-1245/37, 6-7=0/628, 7-8=0/627, 8-9=0/1752, 9-11=-48/1184, 11-12=-907/584, 12-13=-569/232
 BOT CHORD 2-26=-178/2669, 25-26=-167/2395, 23-25=-52/1130, 21-22=-1106/101, 7-22=-284/68, 19-21=-942/73, 16-19=-1057/110, 14-16=-508/777
 WEBS 3-26=0/893, 3-25=-1272/116, 4-25=0/395, 4-23=-1161/78, 6-23=0/579, 6-22=-923/59, 8-21=-62/1202, 8-19=-2424/31, 9-19=-1156/89, 9-16=0/557, 11-16=-1049/40, 11-14=0/351, 12-14=-495/618

NOTES-

- 1) 2x6 SP DSS bearing block 12" long at jt. 19 attached to front face with 3 rows of 10d (0.131"x3") nails spaced 3" o.c. 12 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=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope); cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.33 plate grip DOL=1.33
- 4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 5) Refer to girder(s) for truss to truss connections.
- 6) 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.
- 7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 9 lb uplift at joint 2 and 192 lb uplift at joint 13.
- 8) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



October 7, 2020

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

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



16023 Swingley Ridge Rd
 Chesterfield, MO 63017

Job 210209	Truss B6	Truss Type COMMON	Qty 1	Ply 1	Lot 46 W2 143104421
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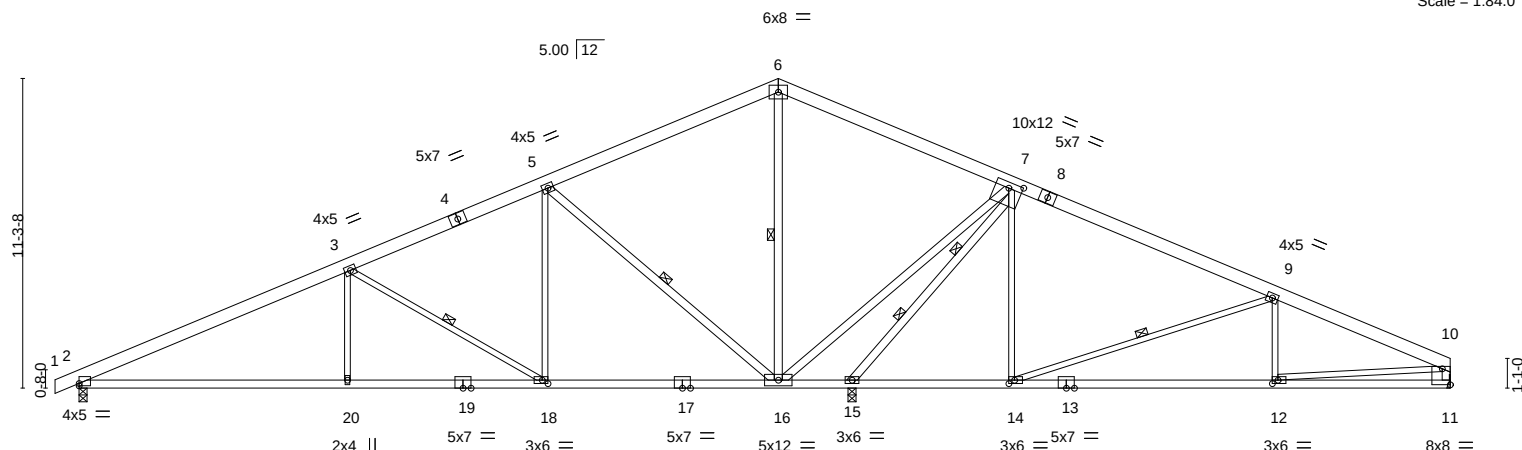
Wheeler Lumber, Waverly, KS 66871

8.420 s Aug 25 2020 MiTek Industries, Inc. Tue Oct 6 16:58:14 2020 Page 1

ID:2ncXplsXOfbjiB6i7Q?gPMzrYWU-bb?uqd1CYm1jdtSvEsumuUG2lcuPnx0ao?RUxWyW427

-0-10-8 0-10-8	9-9-7 9-9-7	16-11-15 7-2-7	25-6-0 8-6-1	34-0-1 8-6-2	43-7-6 9-7-5	50-0-0 6-4-10
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Scale = 1:84.0



	9-9-7 9-9-7	17-1-3 7-3-11	25-6-0 8-4-13	28-2-4 2-8-4	34-0-1 5-9-13	43-7-6 9-7-5	50-0-0 6-4-10
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Plate Offsets (X,Y)-- [2:0-0-0,0-1-0], [7:0-6-0,0-2-8], [11:Edge,0-7-0], [12:0-2-8,0-1-8], [14:0-2-8,0-1-8], [18:0-2-8,0-1-8]

LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.75	Vert(LL)	-0.24	2-20	>999	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.82	Vert(CT)	-0.54	2-20	>625		
BCLL 0.0	Rep Stress Incr	YES	WB 0.92	Horz(CT)	0.08	11	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-S						
								Weight: 240 lb	FT = 10%

LUMBER-

TOP CHORD 2x6 SPF No.2
BOT CHORD 2x4 SPF No.2
WEBS 2x3 SPF No.2 *Except*
5-16,6-16,7-16,7-15,10-11: 2x4 SPF No.2

BRACING-

TOP CHORD Structural wood sheathing directly applied or 3-2-2 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing, Except: 4-4-0 oc bracing: 15-16.
WEBS 1 Row at midpt 3-18, 5-16, 6-16, 9-14
2 Rows at 1/3 pts 7-15

REACTIONS.

(size) 2=0-3-8, 11=Mechanical, 15=0-3-8 (req. 0-3-15)
Max Horz 2=106(LC 8)
Max Uplift 2=-15(LC 8), 11=-20(LC 9)
Max Grav 2=1223(LC 19), 11=871(LC 20), 15=2525(LC 1)

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

TOP CHORD 2-3=-1991/31, 3-5=-1146/68, 7-9=-595/95, 9-10=-1413/56, 10-11=-820/46
BOT CHORD 2-20=-57/1733, 18-20=-57/1733, 16-18=-1/963, 15-16=-1622/42, 14-15=0/440, 12-14=-16/1240
WEBS 3-20=0/363, 3-18=-904/66, 5-18=0/628, 5-16=-1220/89, 6-16=-535/9, 7-16=0/2139, 7-15=-3095/0, 7-14=0/532, 9-14=-870/64, 9-12=0/279, 10-12=-8/1034

NOTES-

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope); cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.33 plate grip DOL=1.33
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- WARNING: Required bearing size at joint(s) 15 greater than input bearing size.
- Refer to girder(s) for truss to truss connections.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 15 lb uplift at joint 2 and 20 lb uplift at joint 11.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



October 7, 2020

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

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job 210209	Truss B7	Truss Type Roof Special	Qty 1	Ply 1	Lot 46 W2 143104422
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Wheeler Lumber, Waverly, KS 66871

8.420 s Aug 25 2020 MiTek Industries, Inc. Tue Oct 6 16:58:15 2020 Page 1

ID:2ncXplsXOfB6I7Q?gPMzrYWU-3nZG1z2rJ39aE116oZP?QhpA10GLWQui0fB2UyyW426

Job Reference (optional)

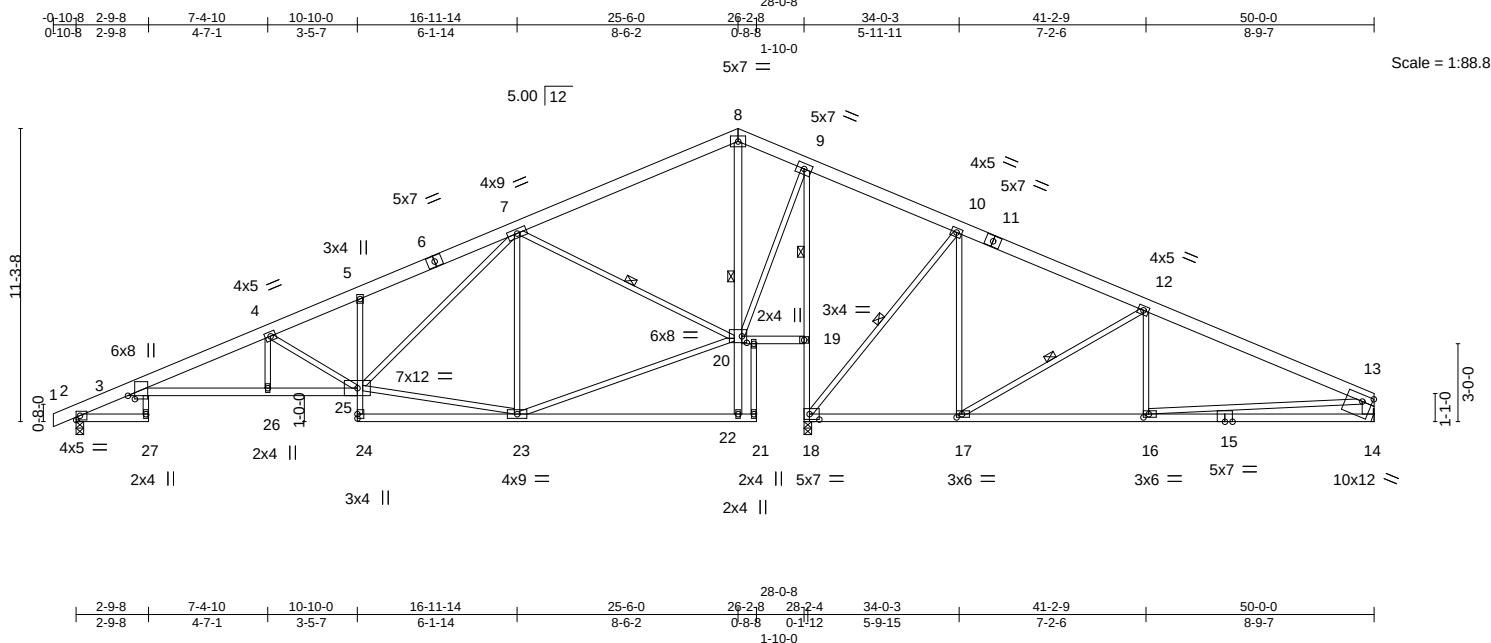


Plate Offsets (X,Y)--		[3:0-1-9,0-3-3], [14:0-4-8,0-3-0], [16:0-2-8,0-1-8], [17:0-2-8,0-1-8], [18:0-4-8,0-2-8], [20:0-2-4,0-3-0]	
LOADING (psf)	SPACING-	CSI.	DEFL.
TCLL 25.0	Plate Grip DOL 1.15	TC 0.84	in (loc) l/defl L/d
TCDL 10.0	Lumber DOL 1.15	BC 0.65	Vert(LL) -0.32 27 >999 360
BCLL 0.0	Rep Stress Incr YES	WB 0.82	Vert(CT) -0.58 27 >578 240
BCDL 10.0	Code IRC2018/TPI2014	Matrix-S	Horz(CT) 0.12 14 n/a n/a
		Weight: 274 lb FT = 10%	

LUMBER-

TOP CHORD 2x6 SPF No.2 *Except*
1-6,11-13: 2x6 SP DSS
BOT CHORD 2x4 SPF No.2 *Except*
3-25: 2x4 SPF 2100F 1.8E, 5-24,9-18: 2x3 SPF No.2
WEBS 2x3 SPF No.2 *Except*
13-14: 2x6 SPF No.2, 8-22: 2x4 SPF No.2

REACTIONS.

(size) 2=0-3-8, 14=Mechanical, 18=0-3-8 (req. 0-3-10)
Max Horz 2=106(LC 8)
Max Uplift 2=-24(LC 8), 14=-60(LC 9)
Max Grav 2=1320(LC 1), 14=951(LC 20), 18=2308(LC 1)

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

TOP CHORD 2-3=-609/61, 3-4=-3240/118, 4-5=-2361/118, 5-7=-2266/166, 7-8=-450/174,
8-9=-378/178, 10-12=-711/193, 12-13=-1437/150, 13-14=-868/108
BOT CHORD 3-26=-155/3074, 25-26=-154/3074, 18-19=-1542/0, 9-19=-1474/0, 17-18=-36/559,
16-17=-82/1224, 14-16=-27/459
WEBS 4-25=-1203/71, 23-25=-39/1083, 7-25=-82/1297, 7-23=-401/131, 7-20=-975/73,
9-20=0/1025, 10-18=-937/59, 10-17=0/552, 12-17=-780/54, 12-16=0/292, 13-16=-55/768,
20-23=-43/1229

NOTES-

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope); cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.33 plate grip DOL=1.33
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- WARNING: Required bearing size at joint(s) 18 greater than input bearing size.
- Refer to girder(s) for truss to truss connections.
- Bearing at joint(s) 18 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 24 lb uplift at joint 2 and 60 lb uplift at joint 14.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

BRACING-

TOP CHORD Structural wood sheathing directly applied or 2-3-2 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing, Except:
6-0-0 oc bracing: 2-27,19-20
3-0-5 oc bracing: 18-19.
WEBS 1 Row at midpt 9-19
1 Row at midpt 7-20, 10-18, 12-17, 8-22



October 7, 2020

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

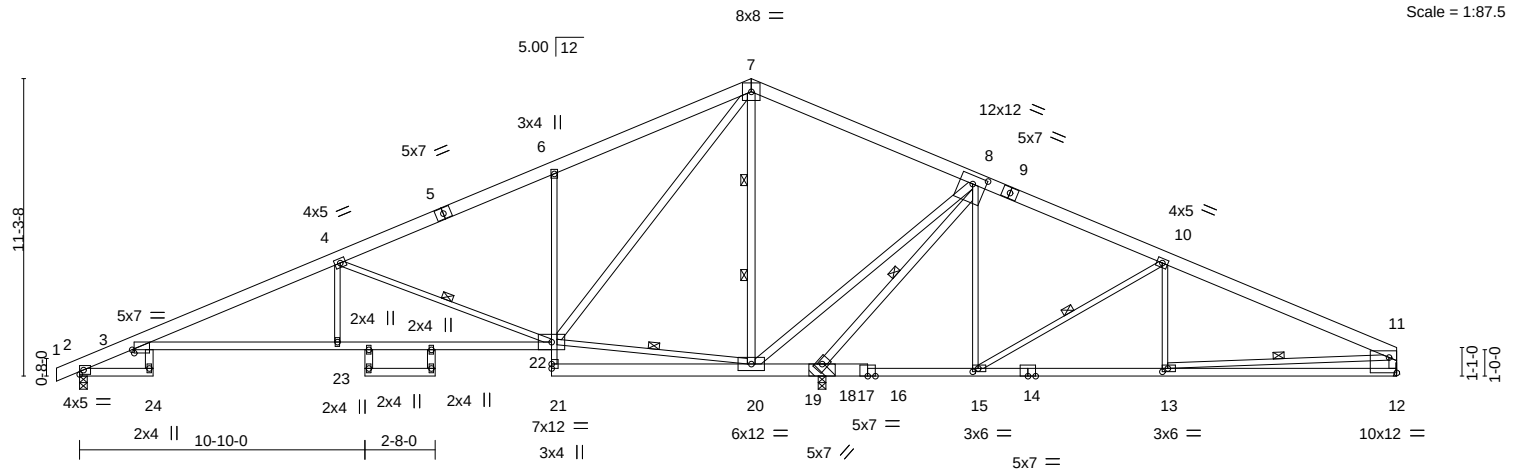
Job	Truss	Truss Type	Qty	Ply	Lot 46 W2	I43104423
210209	B8	ROOF SPECIAL	3	1		

Wheeler Lumber, Waverly, KS 66871

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ID:2ncXplsXOfbjB6l7Q?gPMzrYWU-Xz7eFJ3T4NHRsBclMHwEzvMNPPcvFqctFlwb0OyW425

-0-10-8 2-9-8	9-9-7	17-11-0	25-6-0	34-0-1	41-2-7	50-0-0
0-10-8 2-9-8	6-11-15	8-1-9	7-7-0	8-6-2	7-2-6	8-9-9



	2-9-8	9-9-7	17-11-0	25-6-0	28-2-4	34-0-1	41-2-7	50-0-0
	2-9-8	6-11-15	8-1-9	7-7-0	2-8-4	5-9-13	7-2-6	8-9-9

Plate Offsets (X,Y)-- [3:0-0-15,0-1-8], [8:0-6-0,0-3-12], [12:Edge,0-7-0], [13:0-2-8,0-1-8], [15:0-2-8,0-1-8]

LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.74	Vert(LL)	-0.35	24	>950	360	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.69	Vert(CT)	-0.67	3-23	>500	240		
BCLL 0.0	Rep Stress Incr	YES	WB 0.98	Horz(CT)	0.29	18	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-S							
									Weight: 271 lb	FT = 10%

LUMBER-	BRACING-
TOP CHORD 2x6 SPF No.2 *Except* 1-5,9-11: 2x6 SPF 1650F 1.4E	TOP CHORD Structural wood sheathing directly applied or 4-7-14 oc purlins, except end verticals.
BOT CHORD 2x4 SPF No.2 *Except* 6-21: 2x3 SPF No.2, 16-21: 2x6 SP DSS	BOT CHORD Rigid ceiling directly applied or 4-5-5 oc bracing.
WEBS 2x4 SPF No.2 *Except* 4-23,4-22,20-22,8-15,10-15,10-13,11-13: 2x3 SPF No.2 8-18: 2x4 SPF 2100F 1.8E	WEBS 1 Row at midpt 4-22, 20-22, 8-18, 10-15, 11-13 2 Rows at 1/3 pts 7-20

REACTIONS. (size) 2=0-3-8, 12=Mechanical, 18=(0-3-8 + bearing block) (req. 0-5-8)
Max Horz 2=106(LC 10)
Max Uplift 12=235(LC 19)
Max Grav 2=806(LC 19), 12=639(LC 20), 18=3488(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-352/72, 3-4=-1167/0, 4-6=-26/327, 6-7=0/335, 7-8=0/1221, 8-10=-75/1295, 10-11=-773/844, 11-12=-560/308
BOT CHORD 3-23=-10/1073, 22-23=-9/1073, 6-22=-537/146, 18-20=-3362/152, 15-18=-1170/149, 13-15=-742/613, 12-13=-27/367
WEBS 4-23=0/381, 4-22=-1339/73, 20-22=-1001/128, 7-22=-96/1374, 7-20=-2117/92, 8-20=-48/3064, 8-18=-3915/7, 8-15=0/510, 10-15=-914/37, 10-13=0/387, 11-13=-800/247

NOTES-

- 1) 2x6 SP DSS bearing block 12" long at jt. 18 attached to front face with 3 rows of 10d (0.131"x3") nails spaced 3" o.c. 12 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=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope); cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.33 plate grip DOL=1.33
- 4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 5) Refer to girder(s) for truss to truss connections.
- 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 235 lb uplift at joint 12.
- 7) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



October 7, 2020

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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



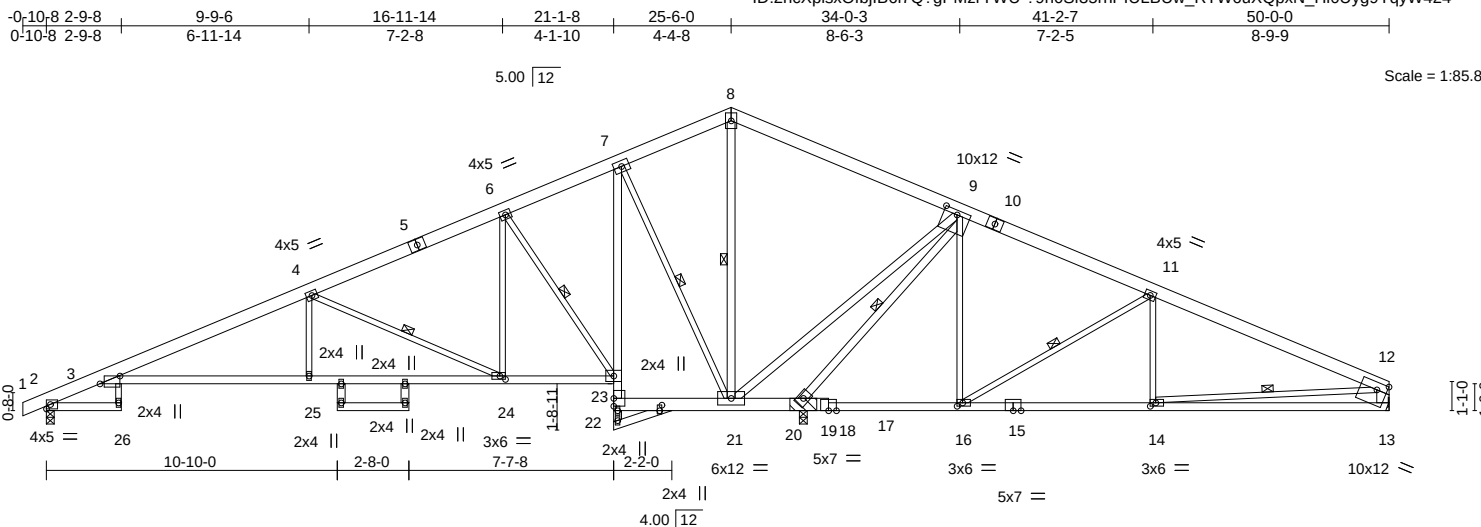
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 46 W2	I43104424
210209	B9	ROOF SPECIAL	1	1		

Wheeler Lumber, Waverly, KS 66871

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ID:2ncXplsXOfbjIB6i7Q?gPMzrYWU-?9h0Sf35rhPIULBUw_RTW6uXQpxN_Hi0Uyg9YqyW424



	2-9-8	9-9-6	16-11-14	21-1-8	25-6-0	28-2-4	34-0-3	41-2-7	50-0-0
	2-9-8	6-11-14	7-2-8	4-1-10	4-4-8	2-8-4	5-9-15	7-2-5	8-9-9

Plate Offsets (X,Y)-- [3:0-8-15,Edge], [9:0-6-0,0-2-0], [13:0-4-8,0-3-4], [14:0-2-8,0-1-8], [16:0-2-8,0-1-8], [24:0-2-8,0-1-8], [32:0-2-8,0-1-0]

LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.79	Vert(LL)	-0.37	26	>903	360	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.74	Vert(CT)	-0.69	3-25	>481	240		
BCLL 0.0	Rep Stress Incr	YES	WB 0.99	Horz(CT)	0.27	19	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-S						Weight: 272 lb	FT = 10%

LUMBER-

TOP CHORD 2x6 SPF No.2 *Except*
1-5,10-12: 2x6 SPF 1650F 1.4E
BOT CHORD 2x4 SPF No.2 *Except*
17-22: 2x6 SP DSS
WEBS 2x3 SPF No.2 *Except*
8-21,9-21,27-29,28-30,22-31: 2x4 SPF No.2, 12-13: 2x6 SPF No.2
9-19: 2x4 SPF 2100F 1.8E

BRACING-

TOP CHORD Structural wood sheathing directly applied or 3-10-5 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 4-8-1 oc bracing.
WEBS 1 Row at midpt 4-24, 6-23, 7-21, 8-21, 11-16, 12-14, 9-19

REACTIONS.

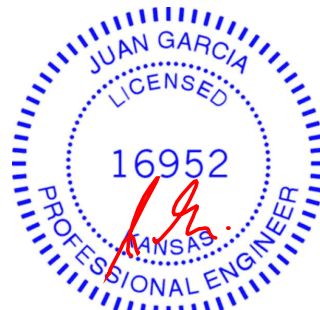
(size) 2=0-3-8, 13=Mechanical, 19=(0-3-8 + bearing block) (req. 0-5-5)
Max Horz 2=106(LC 8)
Max Uplift 13=182(LC 19)
Max Grav 2=852(LC 19), 13=672(LC 20), 19=3369(LC 1)

FORCES.

(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-373/74, 3-4=-1306/13, 6-7=0/579, 7-8=0/1063, 8-9=0/1107, 9-11=-76/1159, 11-12=-842/722, 12-13=-594/255
BOT CHORD 3-25=-37/1206, 24-25=-36/1206, 7-23=0/875, 21-22=-464/66, 19-21=-3122/132, 16-19=-1042/128, 14-16=-631/675, 13-14=-39/399
WEBS 4-25=0/353, 4-24=-1290/82, 6-24=0/621, 6-23=-872/53, 7-21=-1116/64, 8-21=-1180/0, 9-21=-51/2882, 9-16=0/514, 11-16=-886/34, 11-14=0/376, 12-14=-703/278, 9-19=-3761/11

NOTES-

- 2x6 SP DSS bearing block 12" long at jt. 19 attached to front face with 3 rows of 10d (0.131"x3") nails spaced 3" o.c. 12 Total fasteners. Bearing is assumed to be SPF No.2.
- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope); cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.33 plate grip DOL=1.33
- All plates are 5x7 MT20 unless otherwise indicated.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- Refer to girder(s) for truss to truss connections.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 182 lb uplift at joint 13.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



October 7, 2020

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

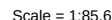
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FORCES. (lb) - Max. Cmp./Max. Ten. - All forces 250 (lb) or less except when shown.

TOP CHORD
2-3=-1578/220, 3-4=-1111/241, 4-6=0/310, 6-7=-16/301, 7-8=0/1309, 8-10=-183/772,
10-11=-1049/354, 11-12=-644/217

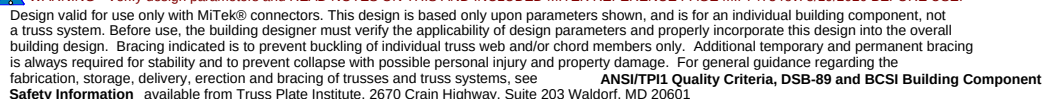
BOT CHORD
2-24=-300/1367, 4-22=-12/556, 21-22=-216/963, 20-21=-1157/295, 6-21=-468/209,
18-20=-595/1033, 15-18=-676/142, 13-15=-284/906

WEBS
22-24=-277/1372, 3-22=-46/490, 4-21=-119/258, 7-20=-271/1300, 7-18=-2135/228,
8-18=-1141/255, 8-15=0/546, 10-15=-974/165, 10-13=0/328, 11-13=-229/721

- 1) 2x6 SP DSS bearing block 12" long at jt. 18 attached to front face with 3 rows of 10d (0.131"x3") nails spaced 3" o.c. 12 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; TCDFL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.33 plate grip DOL=1.33
- 4) All plates are 5x7 MT20 unless otherwise indicated.
- 5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 6) 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) except (jt=lb) 2=144, 18=177, 12=194.
- 8) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



October 7, 2020



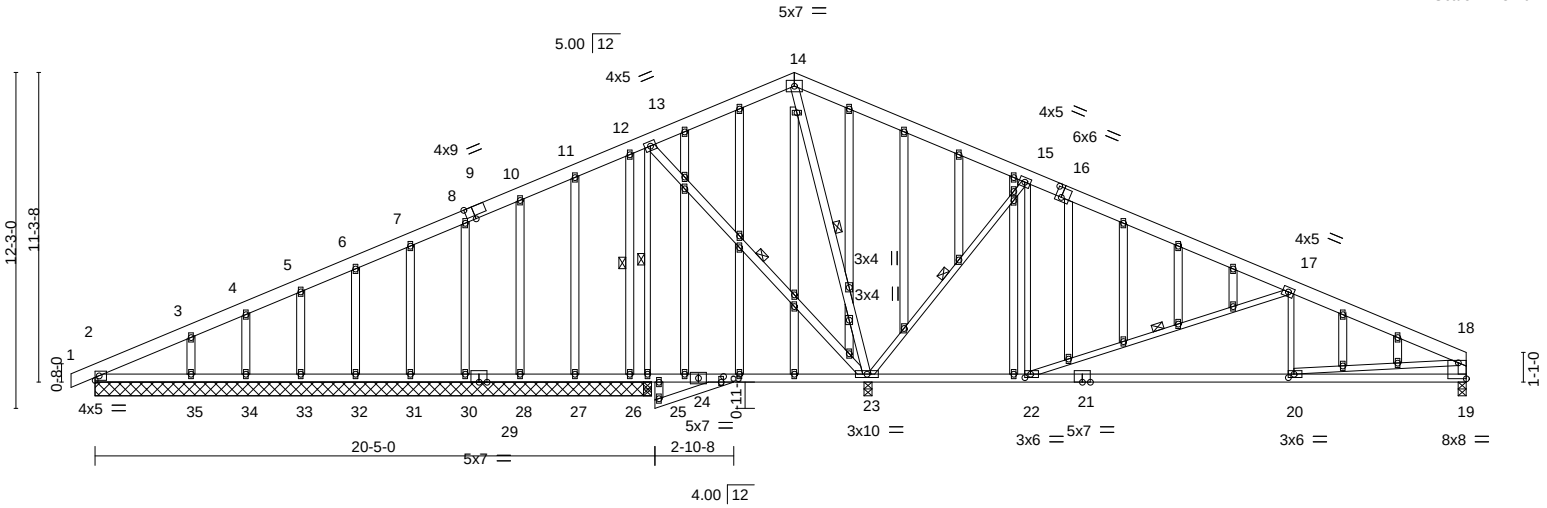
Job	Truss	Truss Type	Qty	Ply	Lot 46 W2	143104426
210209	B11	GABLE	1	1		

Wheeler Lumber, Waverly, KS 66871

8.420 s Aug 25 2020 MiTek Industries, Inc. Tue Oct 6 16:58:06 2020 Page 1
ID:2ncXplsxOfbjlB6l7Q?gPMzrYWU-q2Ws8uxBRI1sffrNmAltZoxjhNCivKSPylV3fzyW42F

0-10-8 20-1-12 25-6-0 34-0-1 43-7-6 50-0-0
0-10-8 20-1-12 5-4-4 8-6-2 9-7-5 6-4-10

Scale = 1:84.0



	20-1-12	20-3-8	28-1-12	28-2-4	34-0-1	43-7-6	50-0-0
	20-1-12	0-1'-12	7-10-4	0-0-8	5-9-13	9-7-5	6-4-10
Plate Offsets (X,Y)--	[9:0-3-9,Edge], [16:0-2-8,0-4-4], [19:Edge,0-7-0], [20:0-2-8,0-1-8], [22:0-2-8,0-1-8], [68:0-2-8,0-1-0]						

LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.56	Vert(LL)	-0.19	20-22	>999	360	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.65	Vert(CT)	-0.40	20-22	>652	240	
BCLL 0.0	Rep Stress Incr	YES	WB 0.89	Horz(CT)	0.01	19	n/a	n/a	
BCDL 10.0	Code IRC2018/TPI2014		Matrix-S						
									Weight: 354 lb FT = 10%

LUMBER-	BRACING-
TOP CHORD 2x6 SPF No.2	TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.
BOT CHORD 2x4 SPF No.2	BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing, Except:
WEBS 2x3 SPF No.2 *Except*	10-0-0 oc bracing: 22-23,20-22,19-20.
13-23,14-23,18-19,67-69: 2x4 SPF No.2	WEBS 1 Row at midpt 13-25, 13-23, 14-23, 15-23, 17-22, 12-26
OTHERS 2x4 SPF No.2	

REACTIONS.	All bearings 20-3-8 except (jt=length) 23=0-3-8, 19=0-3-8.
(lb) - Max Horz	2=178(LC 12)
Max Uplift	All uplift 100 lb or less at joint(s) 2, 27, 28, 30, 31, 32, 33, 34, 35 except 23=267(LC 9), 19=101(LC 9), 26=428(LC 3)
Max Grav	All reactions 250 lb or less at joint(s) 2, 27, 28, 30, 31, 32, 33, 34 except 25=504(LC 3), 25=300(LC 1), 23=2082(LC 1), 19=736(LC 2), 35=311(LC 1)

FORCES.	(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD	13-14=0/467, 14-15=0/709, 15-17=-280/113, 17-18=-1145/171, 18-19=-687/125
BOT CHORD	20-22=-115/995
WEBS	13-23=-349/118, 14-23=-847/45, 15-23=-1122/269, 15-22=0/524, 17-22=-902/200, 17-20=0/292, 18-20=-84/814

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=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.33 plate grip DOL=1.33
- 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) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 27, 28, 30, 31, 32, 33, 34, 35 except (jt=lb) 23=267, 19=101, 26=428.
- 8) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



October 7, 2020

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

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Wheeler Lumber, Waverly, KS 66871 8.420 s Aug 25 2020 MiTek Industries, Inc. Tue Oct 6 16:58:18 2020 Page 1
ID:2ncXplsOfbjlB6l7Q?gPMzrYWU-UMFPg?4jc_X95VlhThzi2KRSDsdjz1AicPi5Hyw423
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1-4-8 4-7-10 4-7-10 1-4-8
Scale = 1:22.0

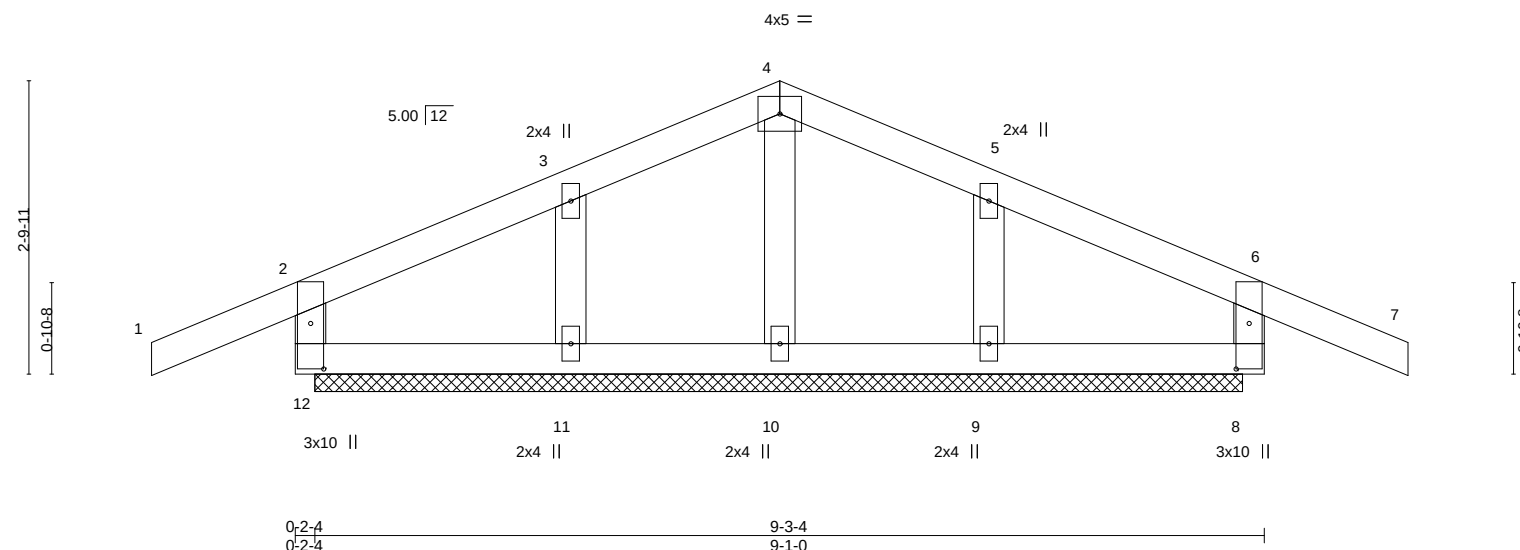


Plate Offsets (X,Y)-- [8:0-5-4,0-1-8], [12:0-5-4,0-1-8]												
LOADING (psf)		SPACING- 2-0-0		CSI.		DEFL. in (loc) l/defl L/d					PLATES GRIP	
TCLL	25.0	Plate Grip DOL	1.15	TC	0.16	Vert(LL)	-0.01	7	n/r	120	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.04	Vert(CT)	-0.01	7	n/r	90		
BCLL	0.0	Rep Stress Incr	YES	WB	0.02	Horz(CT)	-0.00	8	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-R							Weight: 32 lb	FT = 10%

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

REACTIONS. All bearings 8-10-8.
 (lb) - Max Horiz 12=-20(LC 13)
 Max Uplift All uplift 100 lb or less at joint(s) 12, 8, 11, 9
 Max Grav All reactions 250 lb or less at joint(s) 12, 8, 10, 11, 9

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=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.33 plate grip DOL=1.33
 - 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) Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
 - 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) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 12, 8, 11, 9.
 - 8) N/A
 - 9) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



October 7, 2020



WARNING – verify design parameters and READ NOTES ON THIS AND INCLUDED WITHER REFERENCE PAGE MM1473 Rev. 3/25/2020 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/P11 Quality Criteria, DSB-89 and BCSI Building Component Safety Information** available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601

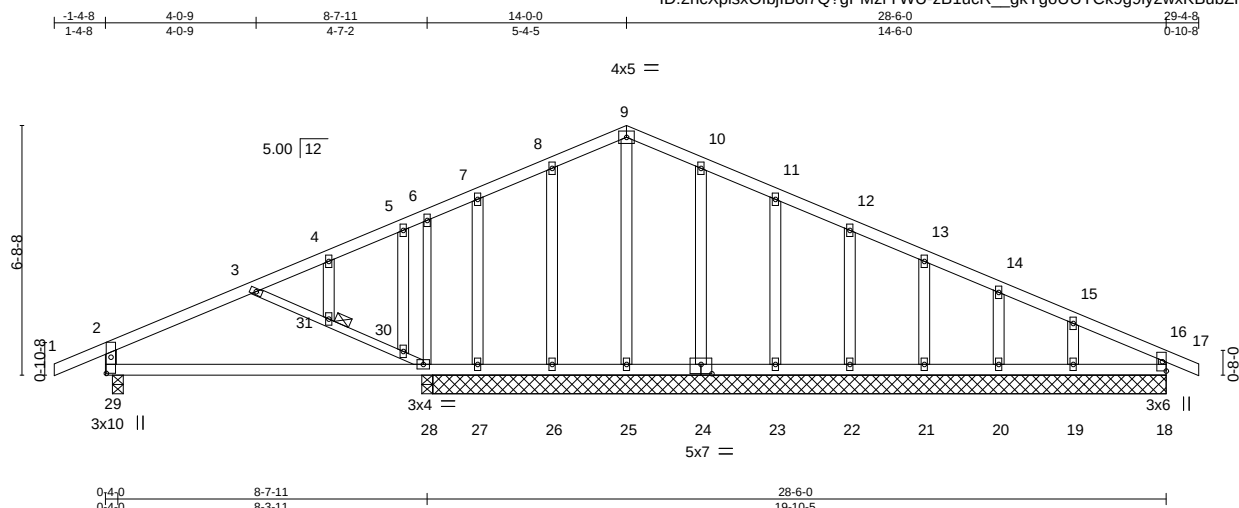


16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job 210209	Truss C2	Truss Type GABLE	Qty 1	Ply 1	Lot 46 W2	I43104428
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Wheeler Lumber, Waverly, KS 66871

ID:2ncXplsxOfbjIB6i7Q?gPMzrYWU-zB1ucR_gkYgoUUYCk9g9ly2wxKBubZh3gcPTHyVpJ0
8.420 s Aug 25 2020 MiTek Industries, Inc. Wed Oct 7 12:00:45 2020 Page 1



Scale = 1:61.9

Plate Offsets (X,Y)--	[24:0-3-8,0-3-0], [29:0-5-4,0-1-8]
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LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.24	Vert(LL)	-0.12 28-29	>864	360	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.50	Vert(CT)	-0.23 28-29	>439	240		
BCLL 0.0	Rep Stress Incr	YES	WB 0.15	Horz(CT)	0.00 18	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-S					Weight: 125 lb	FT = 10%

LUMBER-	BRACING-
TOP CHORD 2x4 SPF No.2	TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.
BOT CHORD 2x4 SPF No.2	BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing, Except:
WEBS 2x3 SPF No.2 *Except* 2-29: 2x4 SPF No.2	10-0-0 oc bracing: 28-29.
OTHERS 2x4 SPF No.2	JOINTS 1 Brace at Jt(s): 31

REACTIONS. All bearings 19-8-7 except (jt=length) 29=0-3-8, 28=0-3-8.
(lb) - Max Horz 29=-86(LC 9)
Max Uplift All uplift 100 lb or less at joint(s) 29, 18, 26, 24, 23, 22, 21, 20, 19, 28 except 27=-183(LC 3)
Max Grav All reactions 250 lb or less at joint(s) 18, 25, 26, 24, 23, 22, 21, 20, 19 except 29=420(LC 1), 28=647(LC 21)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-283/64, 2-29=-340/89
WEBS 3-31=-339/157, 30-31=-350/162, 28-30=-365/170, 6-28=-251/106

- 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=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.33 plate grip DOL=1.33
 - 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) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 29, 18, 26, 24, 23, 22, 21, 20, 19, 28 except (jt=lb) 27=183.
 - 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.

LOAD CASE(S) Standard



October 7, 2020

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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



16023 Swingley Ridge Rd
Chesterfield, MO 63017



16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 46 W2	I43104429
210209	C3	COMMON GIRDER	1	3	Job Reference (optional)	

Wheeler Lumber, Waverly, KS 66871

LOAD CASE(S) Standard

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

Uniform Loads (plf)

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

Concentrated Loads (lb)

Vert: 9=-931(B) 12=-373(B) 11=-373(B) 14=-373(B) 15=-373(B) 16=-597(B) 17=-597(B) 18=-851(B) 19=-619(B) 20=-619(B) 21=-619(B) 22=-652(B) 23=-671(B)

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

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



16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job 210209	Truss D1	Truss Type Roof Special	Qty 4	Ply 1	Lot 46 W2 143104430
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Wheeler Lumber, Waverly, KS 66871

8.420 s Aug 25 2020 MiTek Industries, Inc. Tue Oct 6 16:58:22 2020 Page 1

ID:2ncXplsXOfbjlB6l7Q?gPMzrYWU-M7UvVM7EgD2aa63SiX1eDAcOJqh8feuldENwE2yW42?

0-10-8	3-3-8	8-0-8	15-0-0	23-0-9	30-0-0	30-10-8
0-10-8	3-3-8	4-9-0	6-11-8	8-0-9	6-11-7	0-10-8

Scale = 1:51.7

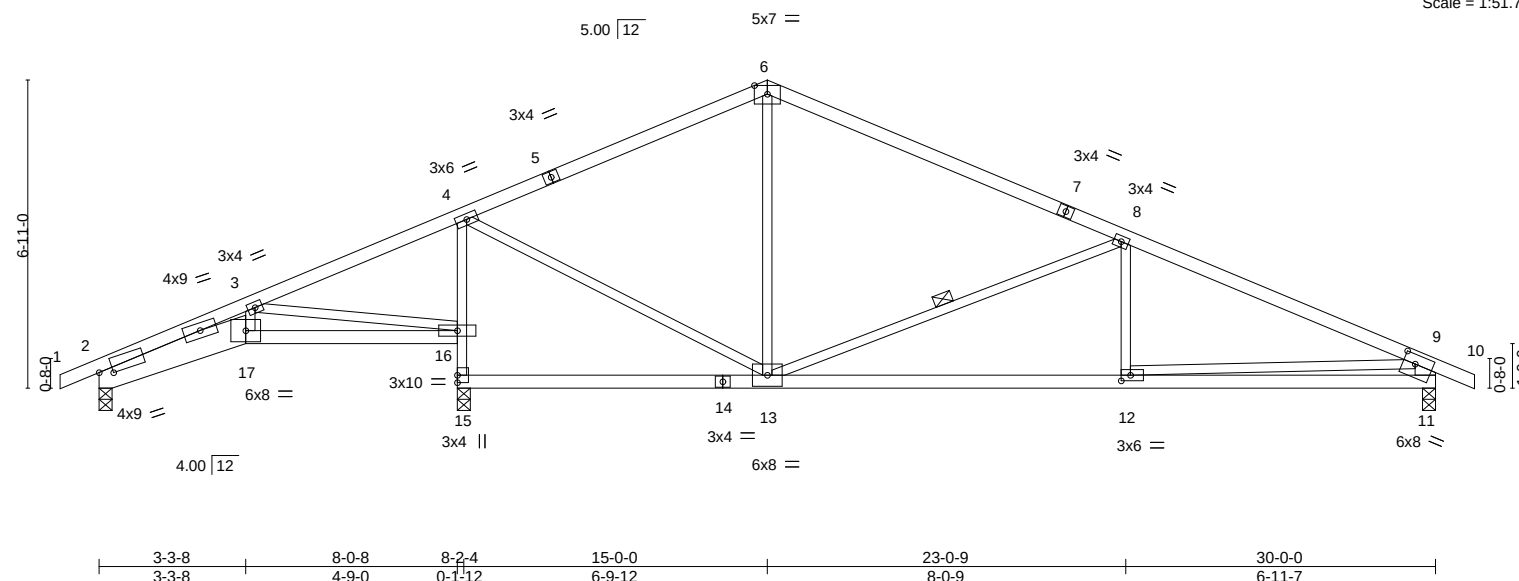


Plate Offsets (X,Y)-- [2:0-3-11,0-1-4], [11:0-3-4,0-2-8], [12:0-2-8,0-1-8]							
LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d
TCLL 25.0	Plate Grip DOL	1.15	TC 0.78	Vert(LL)	-0.08 12-13	>999	360
TCDL 10.0	Lumber DOL	1.15	BC 0.58	Vert(CT)	-0.19 12-13	>999	240
BCLL 0.0	Rep Stress Incr	YES	WB 0.61	Horz(CT)	0.02 11	n/a	n/a
BCDL 10.0	Code IRC2018/TPI2014		Matrix-S				
				PLATES		GRIP	
				MT20		197/144	
				Weight: 114 lb		FT = 10%	

LUMBER-

TOP CHORD 2x4 SPF No.2
 BOT CHORD 2x4 SPF No.2 *Except*
 2-17: 2x8 SP DSS, 4-15: 2x3 SPF No.2
 WEBS 2x3 SPF No.2 *Except*
 9-11: 2x6 SPF No.2

BRACING-

TOP CHORD Structural wood sheathing directly applied or 3-9-8 oc purlins, except end verticals.
 BOT CHORD Rigid ceiling directly applied or 3-8-9 oc bracing.
 WEBS 1 Row at midpt 8-13

REACTIONS.

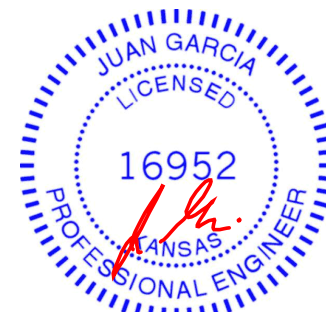
(size) 2=0-3-8, 15=0-3-8, 11=0-3-8
 Max Horz 2=100(LC 12)
 Max Uplift 2=-43(LC 4), 15=-143(LC 8), 11=-145(LC 9)
 Max Grav 2=353(LC 21), 15=1446(LC 1), 11=1020(LC 1)

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

TOP CHORD 2-3=-747/58, 3-4=-55/263, 4-6=-814/184, 6-8=-833/159, 8-9=-1646/233, 9-11=-955/178
 BOT CHORD 2-17=-117/650, 16-17=-110/574, 15-16=-1394/178, 4-16=-1223/181, 12-13=-146/1443, 11-12=-104/554
 WEBS 3-17=0/314, 3-16=-708/148, 4-13=0/875, 8-13=-864/209, 8-12=0/263, 9-12=-42/891

NOTES-

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.33 plate grip DOL=1.33
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- Bearing at joint(s) 2 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2 except (jt=lb) 15=143, 11=145.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



October 7, 2020

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16023 Swingley Ridge Rd
 Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 46 W2	143104431
210209	D2	GABLE	1	1		

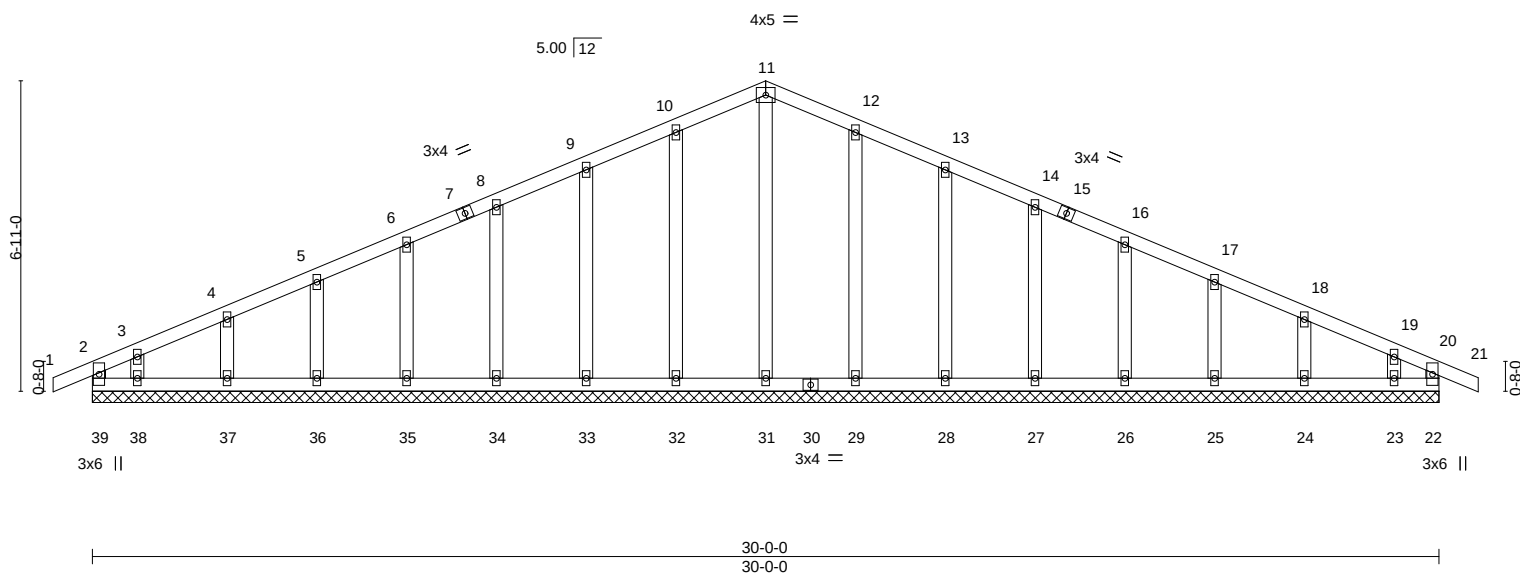
Wheeler Lumber, Waverly, KS 66871

8.420 s Aug 25 2020 MiTek Industries, Inc. Tue Oct 6 16:58:23 2020 Page 1

ID:2ncXplsXOfbjB6l7Q?gPMzrYWU-qJ2lji8sQXARCGeGFYtIN8k5E9oOC0vsu7TmUyW42_

0-10-8 15-0-0 30-0-0 30-10-8
0-10-8 15-0-0 15-0-0 0-10-8

Scale = 1:51.3



LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.07	Vert(LL)	-0.00	21	n/r	120	MT20
TCDL 10.0	Lumber DOL	1.15	BC 0.04	Vert(CT)	-0.00	21	n/r	90	197/144
BCLL 0.0	Rep Stress Incr	YES	WB 0.10	Horz(CT)	0.00	22	n/a	n/a	
BCDL 10.0	Code IRC2018/TPI2014		Matrix-R						
								Weight: 130 lb	FT = 10%

LUMBER-

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

BRACING-

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

REACTIONS.

All bearings 30-0-0.

(lb) - Max Horz 39=92(LC 9)

Max Uplift All uplift 100 lb or less at joint(s) 39, 22, 32, 33, 34, 35, 36, 37, 38, 29, 28, 27, 26, 25, 24, 23

Max Grav All reactions 250 lb or less at joint(s) 39, 22, 31, 32, 33, 34, 35, 36, 37, 38, 29, 28, 27, 26, 25, 24, 23

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

NOTES-

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.33 plate grip DOL=1.33
- Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- All plates are 2x4 MT20 unless otherwise indicated.
- Gable requires continuous bottom chord bearing.
- Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
- Gable studs spaced at 2-0-0 oc.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 39, 22, 32, 33, 34, 35, 36, 37, 38, 29, 28, 27, 26, 25, 24, 23.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



October 7, 2020

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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



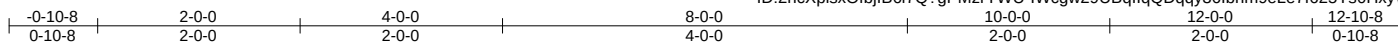
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job 210209	Truss E1	Truss Type Hip Girder	Qty 1	Ply 1	Lot 46 W2 Job Reference (optional)	I43104432
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Wheeler Lumber, Waverly, KS 66871

8.420 s Aug 25 2020 MiTek Industries, Inc. Tue Oct 6 16:58:24 2020 Page 1

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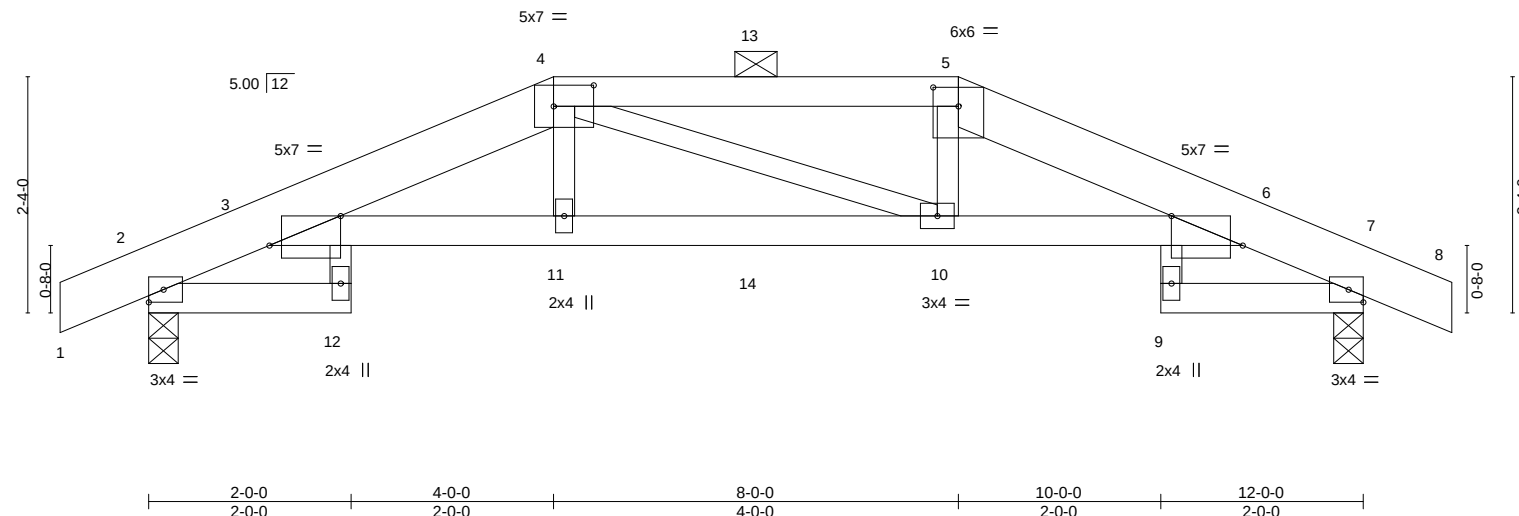


Plate Offsets (X,Y)-- [3:0-8-7,Edge], [4:0-4-12,0-2-8], [5:0-3-0,0-2-4], [6:0-8-7,Edge]							
LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d
TCLL 25.0	Plate Grip DOL	1.15	TC 0.69	Vert(LL)	-0.09 10-11	>999	360
TCDL 10.0	Lumber DOL	1.15	BC 0.70	Vert(CT)	-0.16 10-11	>886	240
BCLL 0.0	Rep Stress Incr	NO	WB 0.11	Horz(CT)	0.15 7	n/a	n/a
BCDL 10.0	Code IRC2018/TPI2014		Matrix-S				
				PLATES	GRIP		
				MT20	197/144		
				Weight: 45 lb	FT = 20%		

LUMBER-

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

BRACING-

TOP CHORD Structural wood sheathing directly applied or 3-11-15 oc purlins, except
2-0-0 oc purlins (3-9-14 max.): 4-5.
BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.

REACTIONS.

(size) 2=0-3-8, 7=0-3-8
Max Horz 2=-33(LC 13)
Max Uplift 2=-155(LC 8), 7=-155(LC 9)
Max Grav 2=916(LC 1), 7=916(LC 1)

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

TOP CHORD 2-3=-484/110, 3-4=-2079/391, 4-5=-1985/382, 5-6=-2081/390, 6-7=-484/106
BOT CHORD 3-11=-332/1960, 10-11=-334/1984, 6-10=-330/1961
WEBS 4-11=-30/310, 5-10=-38/330

NOTES-

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.33 plate grip DOL=1.33
- Provide adequate drainage to prevent water ponding.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=155, 7=155.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
- Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 73 lb down and 49 lb up at 4-0-0, and 78 lb down and 49 lb up at 6-0-0, and 73 lb down and 49 lb up at 8-0-0 on top chord, and 229 lb down and 86 lb up at 4-0-0, and 34 lb down and 21 lb up at 6-0-0, and 229 lb down and 86 lb up at 7-11-4 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
- In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

LOAD CASE(S) Standard

- Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (plf)
Vert: 1-4=-70, 4-5=-70, 5-8=-70, 2-12=-20, 3-6=-20, 7-9=-20
Concentrated Loads (lb)
Vert: 4=-37(F) 5=-37(F) 11=-229(F) 10=-229(F) 13=-37(F) 14=-34(F)



October 7, 2020

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job 210209	Truss E2	Truss Type Roof Special	Qty 3	Ply 1	Lot 46 W2 Job Reference (optional)	I43104433
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Wheeler Lumber, Waverly, KS 66871

8.420 s Aug 25 2020 MiTek Industries, Inc. Tue Oct 6 16:58:25 2020 Page 1

ID:2ncXplsXOfbjlB6l7Q?gPMzrYWU-miA28O96y8Q9RZo1OgbLqoE_42hVs6bCJCcapNyW41y

-0-10-8 0-10-8	2-0-0 2-0-0	6-0-0 4-0-0	10-0-0 4-0-0	12-0-0 2-0-0	12-10-8 0-10-8
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5x7 =

Scale = 1:22.4

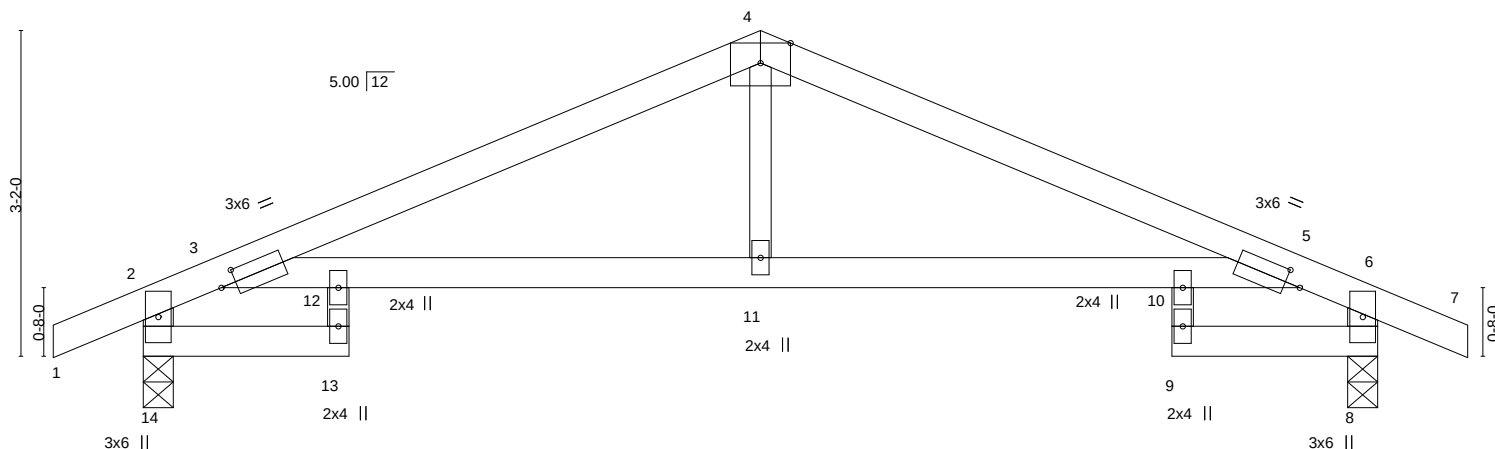


Plate Offsets (X,Y)--	[3:0-1-13,0-1-8], [5:0-1-13,0-1-8]
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LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.49	Vert(LL)	-0.08 10-11	>999	360	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.66	Vert(CT)	-0.16 10-11	>889	240		
BCLL 0.0	Rep Stress Incr	YES	WB 0.10	Horz(CT)	0.15 8	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-R					Weight: 36 lb	FT = 20%

LUMBER-

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

BRACING-

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

REACTIONS.

(size) 14=0-3-8, 8=0-3-8
Max Horz 14=-32(LC 9)
Max Uplift 14=-66(LC 8), 8=-66(LC 9)
Max Grav 14=598(LC 1), 8=598(LC 1)

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

TOP CHORD 3-4=-936/55, 4-5=-936/69, 2-14=-621/90, 6-8=-621/85
BOT CHORD 3-12=-10/824, 11-12=-10/824, 10-11=-10/824, 5-10=-10/824
WEBS 4-11=0/312

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=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.33 plate grip DOL=1.33
- 3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 4) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 14, 8.
- 5) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



October 7, 2020

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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



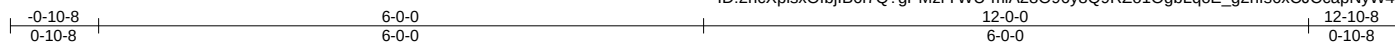
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job 210209	Truss E3	Truss Type Common	Qty 1	Ply 1	Lot 46 W2 Job Reference (optional)	I43104434
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Wheeler Lumber, Waverly, KS 66871

8.420 s Aug 25 2020 MiTek Industries, Inc. Tue Oct 6 16:58:25 2020 Page 1

ID:2ncXplsXOfbjlB6l7Q?gPMzrYWU-miA28O96y8Q9RZo1OgbLqoE_g2nfs6xCJCcapNyW41y



Scale = 1:22.9

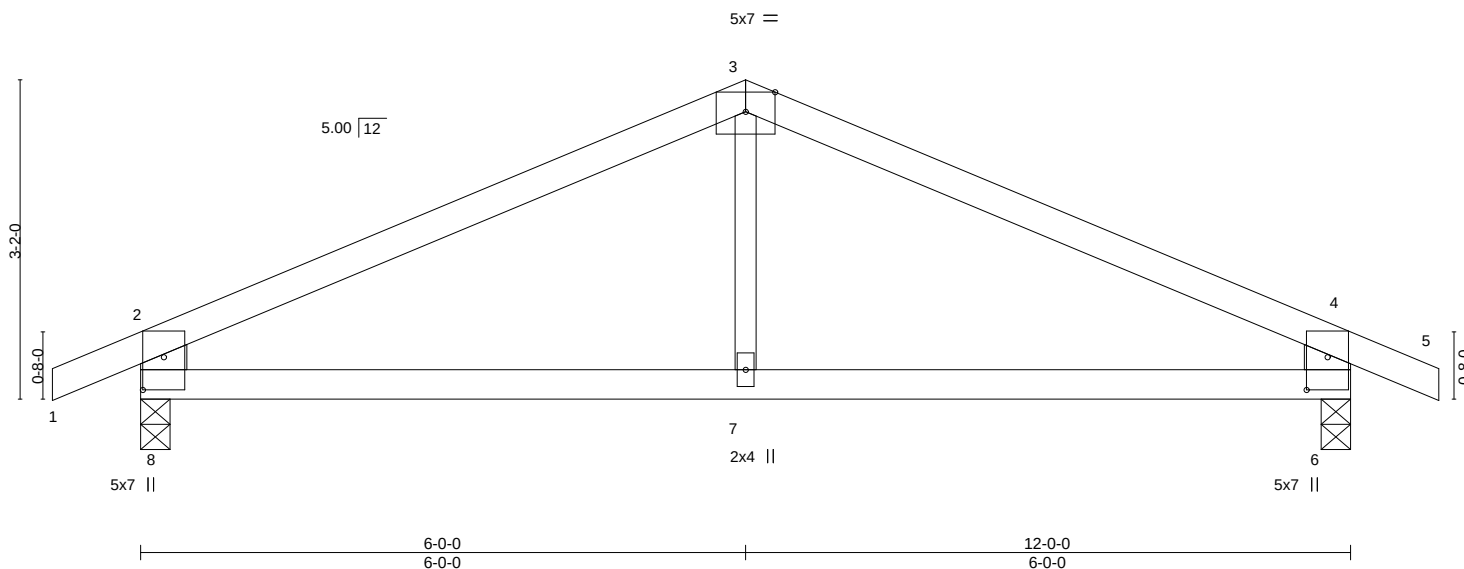


Plate Offsets (X,Y)-- [6:0-3-14,0-2-8], [8:0-3-14,0-2-8]							
LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d
TCLL 25.0	Plate Grip DOL	1.15	TC 0.45	Vert(LL)	-0.03	6-7	>999
TCDL 10.0	Lumber DOL	1.15	BC 0.27	Vert(CT)	-0.06	6-7	>999
BCLL 0.0	Rep Stress Incr	YES	WB 0.08	Horz(CT)	0.01	6	n/a
BCDL 10.0	Code IRC2018/TPI2014		Matrix-R				
				PLATES	GRIP		
				MT20	197/144		
				Weight: 34 lb	FT = 20%		

LUMBER-

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

BRACING-

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

REACTIONS.

(size) 8=0-3-8, 6=0-3-8
Max Horz 8=-31(LC 9)
Max Uplift 8=-67(LC 8), 6=-67(LC 9)
Max Grav 8=597(LC 1), 6=597(LC 1)

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

TOP CHORD 2-3=-692/63, 3-4=-692/62, 2-8=-540/106, 4-6=-540/106
BOT CHORD 7-8=-6/556, 6-7=-6/556

NOTES-

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.33 plate grip DOL=1.33
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 8, 6.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



October 7, 2020

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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



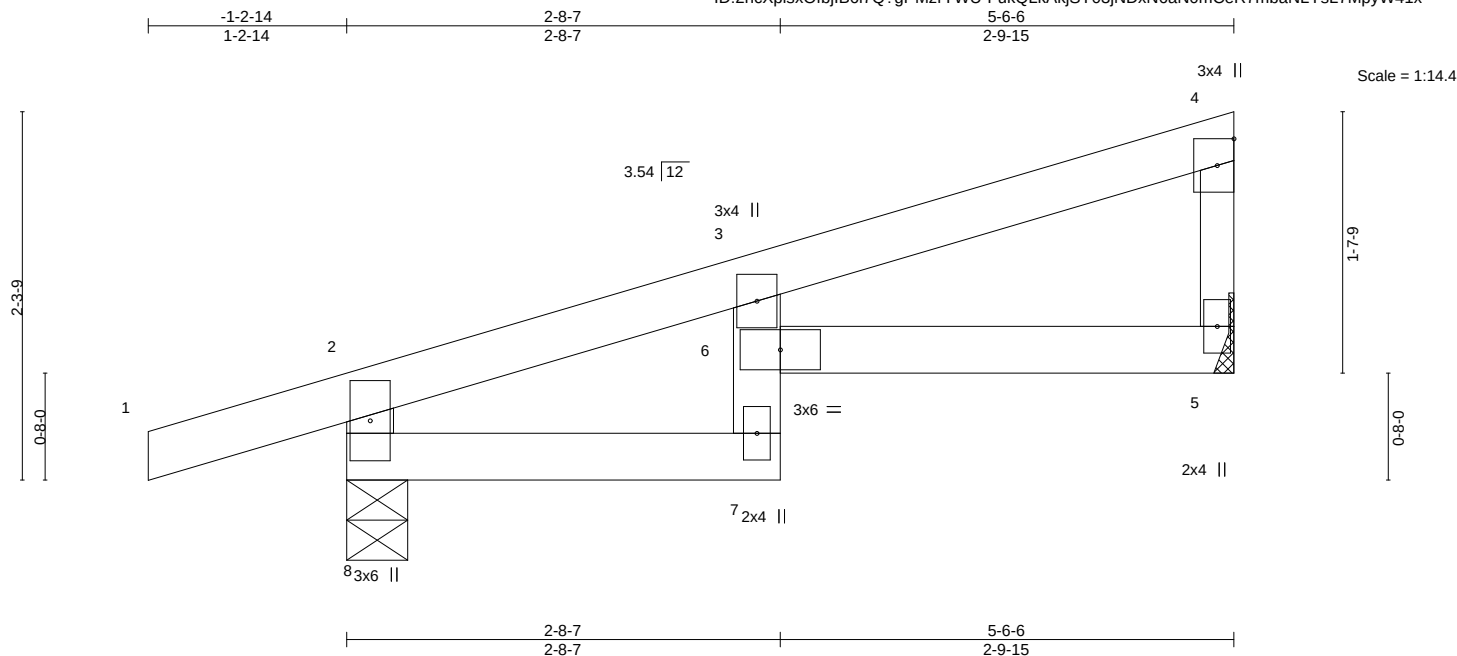
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job 210209	Truss J1	Truss Type Diagonal Hip Girder	Qty 2	Ply 1	Lot 46 W2 Job Reference (optional)	I43104435
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Wheeler Lumber, Waverly, KS 66871

8.420 s Aug 25 2020 MiTek Industries, Inc. Tue Oct 6 16:58:26 2020 Page 1

ID:2ncXplsXOfbjB6l7Q?gPMzrYWU-FukQLkAkjSY03jNDxN6aN0mCeR7mbaNLySL7MpyW41x



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 0.31	Vert(LL)	-0.04	6	>999	360	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.28	Vert(CT)	-0.07	6	>957	240		
BCLL 0.0	Rep Stress Incr	NO	WB 0.00	Horz(CT)	0.02	5	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-R						Weight: 16 lb	FT = 20%

LUMBER-

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

BRACING-

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

REACTIONS.

(size) 8=0-4-9, 5=Mechanical
Max Horz 8=73(LC 5)
Max Uplift 8=-84(LC 4), 5=-37(LC 8)
Max Grav 8=346(LC 1), 5=224(LC 1)

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

TOP CHORD 2-8=-311/97

NOTES-

- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.33 plate grip DOL=1.33
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- Refer to girder(s) for truss to truss connections.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 8, 5.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 61 lb down and 30 lb up at 2-9-8, and 61 lb down and 30 lb up at 2-9-8 on top chord, and 2 lb down and 1 lb up at 2-6-11, and 2 lb down and 1 lb up at 2-6-11 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
- In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

LOAD CASE(S) Standard

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



October 7, 2020

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

ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component



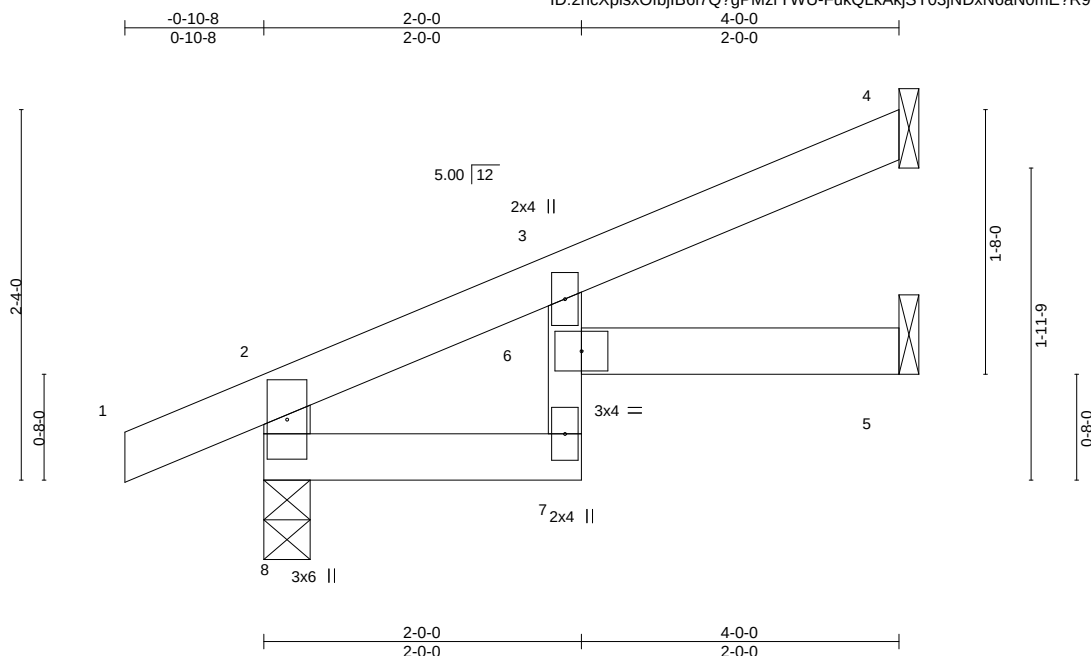
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job 210209	Truss J2	Truss Type Jack-Open	Qty 3	Ply 1	Lot 46 W2 Job Reference (optional)	I43104436
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Wheeler Lumber, Waverly, KS 66871

8.420 s Aug 25 2020 MiTek Industries, Inc. Tue Oct 6 16:58:26 2020 Page 1

ID:2ncXplsXOfbjB6l7Q?gPMzrYWU-FukQLkAkjSY03jNDxN6aN0mE?R9KbaNLYsL7MpyW41x



Scale = 1:14.5

LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.16	Vert(LL)	-0.01	6	>999	360	MT20
TCDL 10.0	Lumber DOL	1.15	BC 0.18	Vert(CT)	-0.02	7	>999	240	197/144
BCLL 0.0	Rep Stress Incr	YES	WB 0.00	Horz(CT)	0.01	5	n/a	n/a	
BCDL 10.0	Code IRC2018/TPI2014		Matrix-R						
								Weight: 12 lb	FT = 20%

LUMBER-

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

BRACING-

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

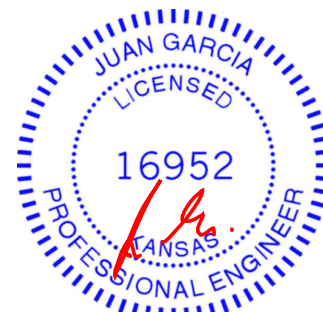
REACTIONS.

(size) 8=0-3-8, 4=Mechanical, 5=Mechanical
Max Horz 8=66(LC 8)
Max Uplift 8=-27(LC 8), 4=-39(LC 8), 5=-1(LC 8)
Max Grav 8=252(LC 1), 4=107(LC 1), 5=61(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=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.33 plate grip DOL=1.33
- 2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 3) Refer to girder(s) for truss to truss connections.
- 4) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 8, 4, 5.
- 5) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



October 7, 2020

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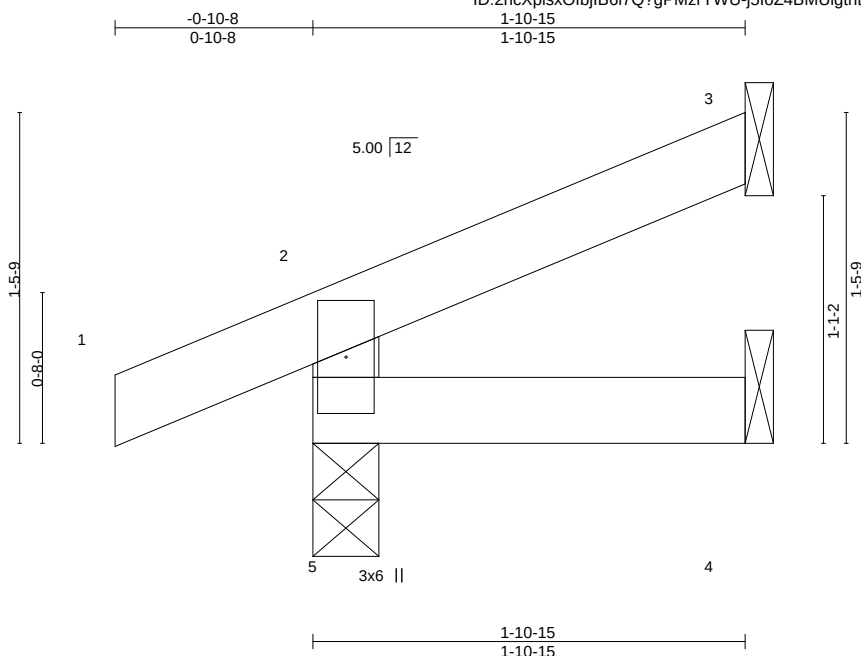
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 46 W2	I43104437
210209	J3	Jack-Open	4	1		

Wheeler Lumber, Waverly, KS 66871

8.420 s Aug 25 2020 MiTek Industries, Inc. Tue Oct 6 16:58:27 2020 Page 1

ID:2ncXplsxOfbjIB6l7Q?gPMzrYWU-j5loZ4BMUlgthtPV4dpvDJQ5rWzK1dUnW5guFyW41w



Scale = 1:10.2

LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.07	Vert(LL)	-0.00 5	>999	360	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.02	Vert(CT)	-0.00 5	>999	240		
BCLL 0.0	Rep Stress Incr	YES	WB 0.00	Horz(CT)	-0.00 3	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-R					Weight: 6 lb	FT = 20%

LUMBER-

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

BRACING-

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

REACTIONS.

(size) 5=0-3-8, 3=Mechanical, 4=Mechanical
Max Horz 5=35(LC 8)
Max Uplift 5=27(LC 4), 3=24(LC 8)
Max Grav 5=171(LC 1), 3=44(LC 1), 4=31(LC 3)

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

NOTES-

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.33 plate grip DOL=1.33
- 2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 3) Refer to girder(s) for truss to truss connections.
- 4) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 5, 3.
- 5) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



October 7, 2020

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ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component

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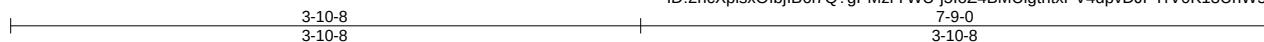
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job 210209	Truss V1	Truss Type Valley	Qty 1	Ply 1	Lot 46 W2 Job Reference (optional)	I43104438
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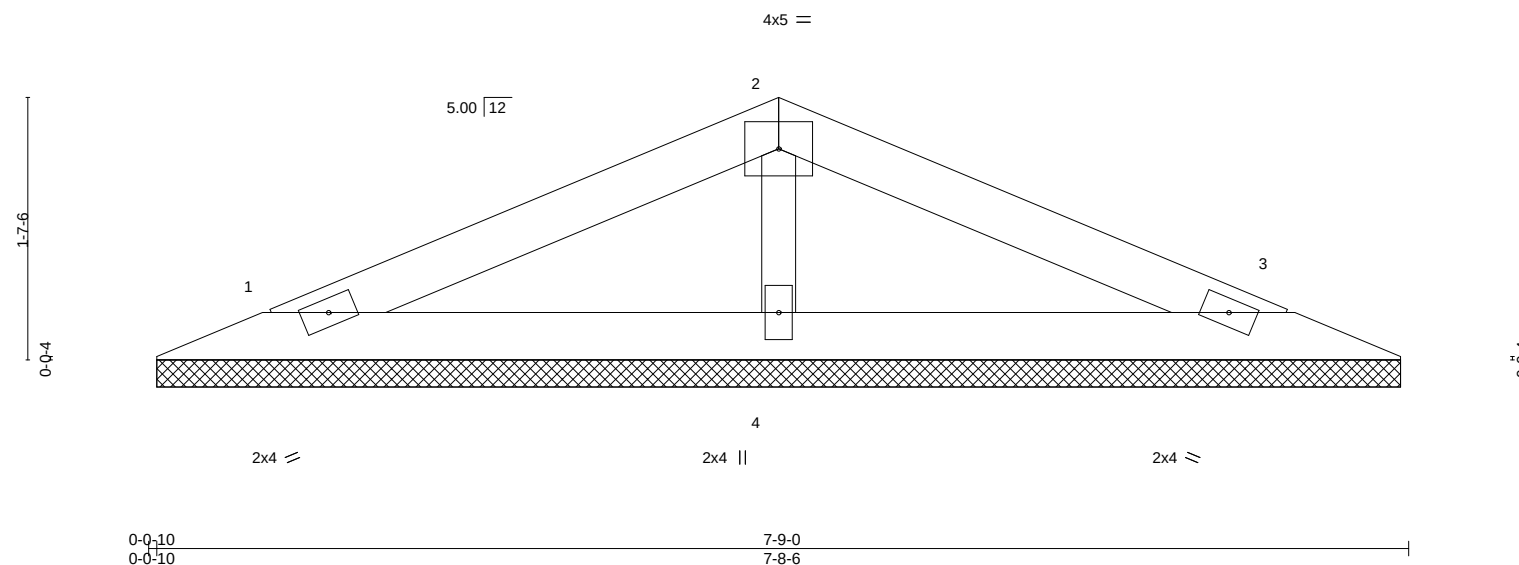
Wheeler Lumber, Waverly, KS 66871

8.420 s Aug 25 2020 MiTek Industries, Inc. Tue Oct 6 16:58:27 2020 Page 1

ID:2ncXplsXOfbjIB6I7Q?gPMzrYWU-j5loZ4BMUlgthxPV4dpvDJPTrV0K13UnW5guFyW41w



Scale = 1:14.2



LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.17	Vert(LL)	n/a	-	n/a	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.08	Vert(CT)	n/a	-	n/a		
BCLL 0.0	Rep Stress Incr	YES	WB 0.04	Horz(CT)	0.00	3	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-P					Weight: 17 lb	FT = 20%

LUMBER-

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

BRACING-

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

REACTIONS.

(size) 1=7-7-13, 3=7-7-13, 4=7-7-13
Max Horz 1=21(LC 12)
Max Uplift 1=26(LC 8), 3=29(LC 9)
Max Grav 1=142(LC 1), 3=142(LC 1), 4=278(LC 1)

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

NOTES-

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.33 plate grip DOL=1.33
- Gable requires continuous bottom chord bearing.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 3.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



October 7, 2020

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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



16023 Swingley Ridge Rd
Chesterfield, MO 63017

143104439

ID:2ncXp|sxOfbilB6l7O?gPMzrYWU-BHrBmOC F3okl1Wc3o82SRsZrFr33T6e0AqEOivW41v

22-9-1

Scale = 1:36.3

22-8-7

22-9-1

0-0-10

Weight: 61 lb FT = 10%

(lb) - Max Horz 1=70(LC 8)

(lb) - Max Horz 1=70(LC 8)

Max Uplift All uplift 100 lb or less at joint(s) 1, 12, 13, 10, 8

Max Grav All reactions 250 lb or less at joint(s) 1, 7 except 11=308(LC 1), 12=392(LC 21), 13=326(LC 1), 10=392(LC 22), 8=326(LC 1)

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=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.33 plate grip DOL=1.33
- 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.
- 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 12, 13, 10, 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.



October 7, 2020



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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

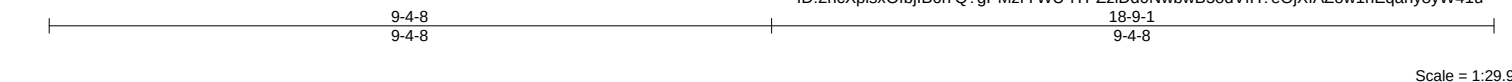


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Chesterfield, MO 63017

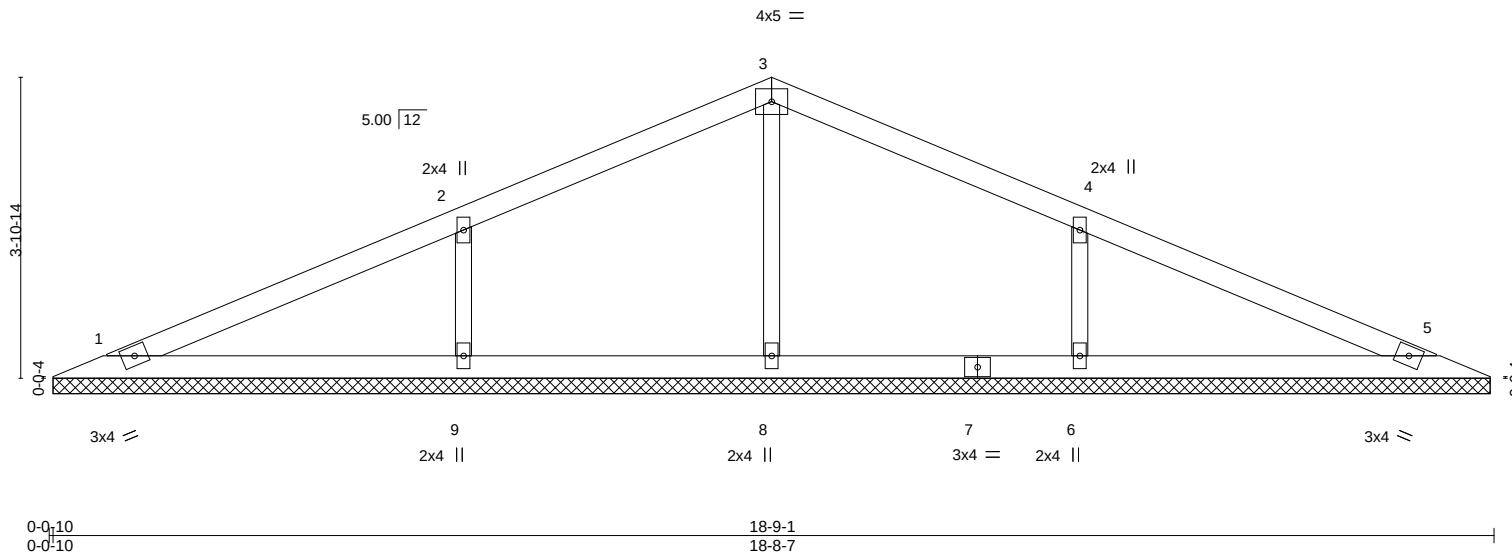
Job 210209	Truss V4	Truss Type Valley	Qty 1	Ply 1	Lot 46 W2	I43104440
Job Reference (optional)						

Wheeler Lumber, Waverly, KS 66871

8.420 s Aug 25 2020 MiTek Industries, Inc. Tue Oct 6 16:58:29 2020 Page 1
ID:2ncXplsXOfbjlB6l7Q?gPMzrYWU-fTPZzIdD0NwbwB5odVfH?eOjXfAZow1nEqany8yW41u



Scale = 1:29.9



LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.26	Vert(LL)	n/a	-	n/a	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.14	Vert(CT)	n/a	-	n/a		
BCLL 0.0	Rep Stress Incr	YES	WB 0.07	Horz(CT)	0.00	5	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-S					Weight: 48 lb	FT = 10%

LUMBER-

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

BRACING-

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

REACTIONS.

All bearings 18-7-14.
(lb) - Max Horz 1=57(LC 12)
Max Uplift All uplift 100 lb or less at joint(s) 1, 5 except 9=103(LC 8), 6=103(LC 9)
Max Grav All reactions 250 lb or less at joint(s) 1, 5 except 8=267(LC 1), 9=472(LC 21), 6=472(LC 22)

FORCES.

(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
WEBS 2-9=-361/156, 4-6=-361/156

NOTES-

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.33 plate grip DOL=1.33
- Gable requires continuous bottom chord bearing.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 5 except (jt=lb) 9=103, 6=103.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



October 7, 2020

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ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component



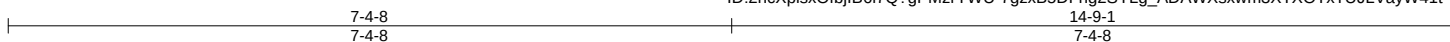
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job 210209	Truss V5	Truss Type Valley	Qty 1	Ply 1	Lot 46 W2 I43104441
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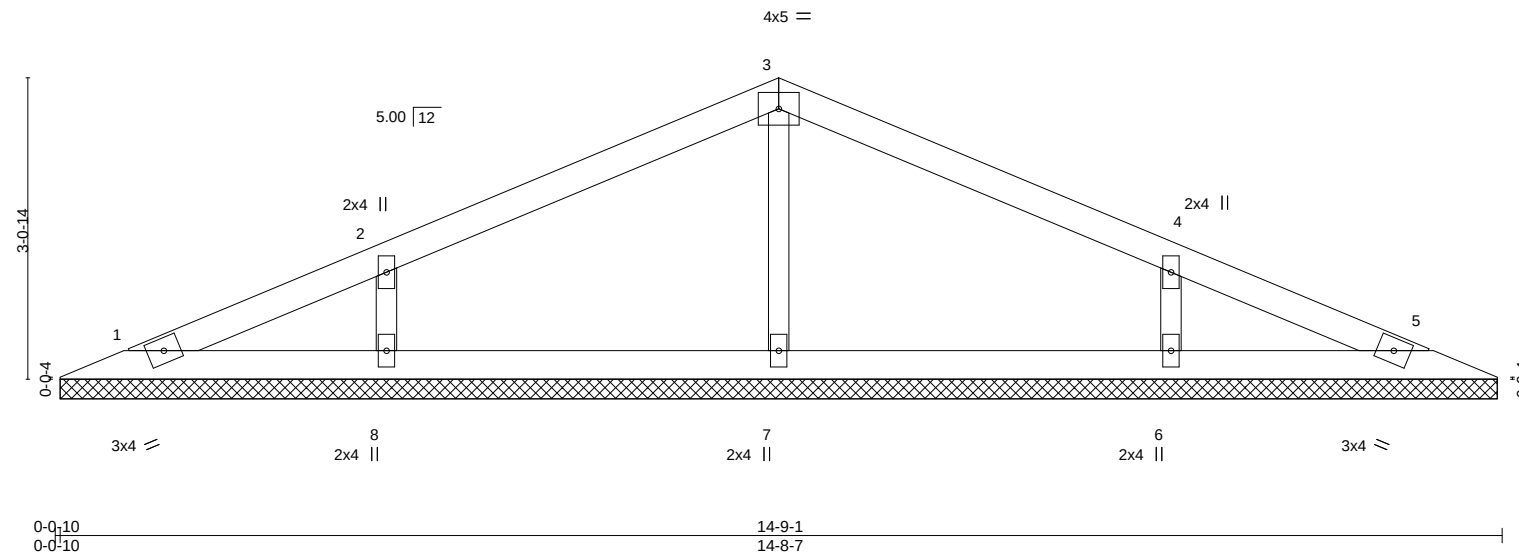
Wheeler Lumber, Waverly, KS 66871

8.420 s Aug 25 2020 MiTek Industries, Inc. Tue Oct 6 16:58:30 2020 Page 1

ID:2ncXplsOfbjlB6I7Q?gPMzrYWU-7gzxB5DFng2SYLg_ADAWXsxwm3XTXOTxTUJLVayW41t



Scale = 1:23.5



LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.17	Vert(LL)	n/a	-	n/a	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.10	Vert(CT)	n/a	-	n/a		
BCLL 0.0	Rep Stress Incr	YES	WB 0.06	Horz(CT)	0.00	5	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-S					Weight: 36 lb	FT = 10%

LUMBER-

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

BRACING-

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

REACTIONS.

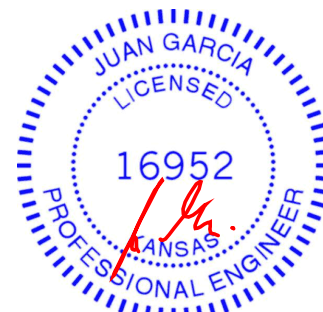
All bearings 14-7-14.
(lb) - Max Horz 1=-44(LC 13)
Max Uplift All uplift 100 lb or less at joint(s) 1, 5, 8, 6
Max Grav All reactions 250 lb or less at joint(s) 1, 5 except 7=321(LC 1), 8=358(LC 21), 6=358(LC 22)

FORCES.

(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
WEBS 2-8=-284/124, 4-6=-284/124

NOTES-

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.33 plate grip DOL=1.33
- Gable requires continuous bottom chord bearing.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 5, 8, 6.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



October 7, 2020

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



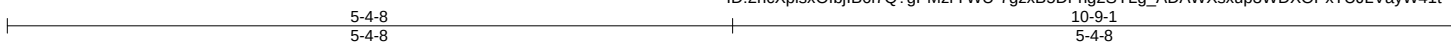
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job 210209	Truss V6	Truss Type Valley	Qty 1	Ply 1	Lot 46 W2 I43104442
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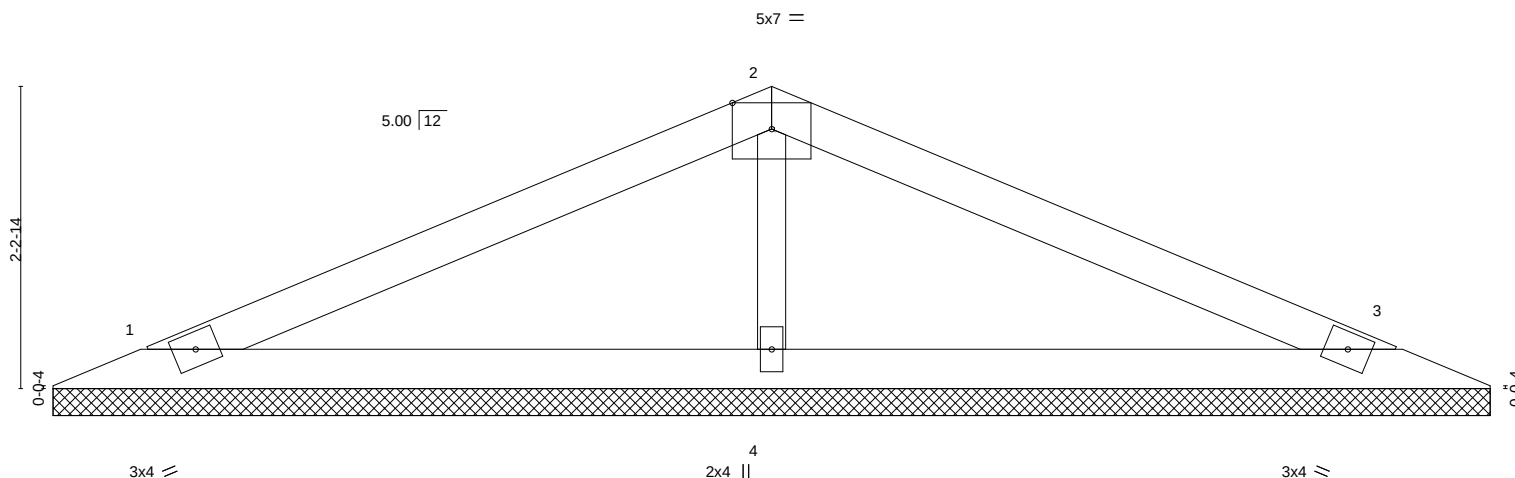
Wheeler Lumber, Waverly, KS 66871

8.420 s Aug 25 2020 MiTek Industries, Inc. Tue Oct 6 16:58:30 2020 Page 1

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Scale = 1:17.1



LOADING (psf)		SPACING-		CSI.		DEFL.		PLATES		GRIP	
TCLL	25.0	Plate Grip DOL	1.15	TC	0.29	Vert(LL)	n/a	MT20		197/144	
TCDL	10.0	Lumber DOL	1.15	BC	0.18	Vert(CT)	n/a				
BCLL	0.0	Rep Stress Incr	YES	WB	0.06	Horz(CT)	0.00				
BCDL	10.0	Code IRC2018/TPI2014		Matrix-S							
								Weight: 25 lb		FT = 10%	

LUMBER-

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

BRACING-

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

REACTIONS.

(size) 1=10-7-14, 3=10-7-14, 4=10-7-14
Max Horz 1=31(LC 12)
Max Uplift 1=31(LC 8), 3=36(LC 9), 4=13(LC 8)
Max Grav 1=191(LC 21), 3=191(LC 22), 4=458(LC 1)

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

WEBS 2-4=-318/70

NOTES-

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.33 plate grip DOL=1.33
- Gable requires continuous bottom chord bearing.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 3, 4.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



October 7, 2020

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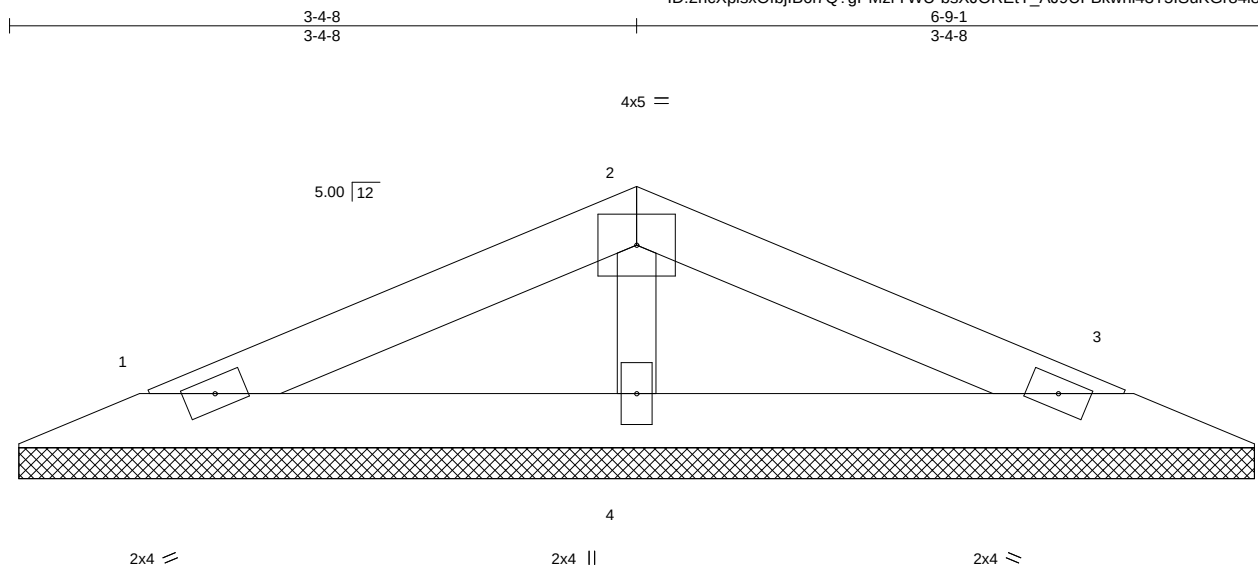


16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job 210209	Truss V7	Truss Type Valley	Qty 1	Ply 1	Lot 46 W2 Job Reference (optional)	I43104443
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Wheeler Lumber, Waverly, KS 66871

8.420 s Aug 25 2020 MiTek Industries, Inc. Tue Oct 6 16:58:31 2020 Page 1
ID:2ncXplsxOfbjlB6i7Q?gPMzrYWU-bsXJOREtY_AJ9UFBkwhl43T5lSukGr84i83u11yW41s



Scale = 1:12.4

0-0-10				6-9-1					
0-0-10				6-8-7					
LOADING (psf)		SPACING- 2-0-0		CSI.		DEFL. in (loc) l/defl L/d		PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.12	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	0.03	Horz(CT)	0.00 3 n/a	n/a	
BCDL	10.0	Code IRC2018/TPI2014		Matrix-P					
								Weight: 15 lb	FT = 10%

LUMBER-

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

BRACING-

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

REACTIONS.

(size) 1=6-7-14, 3=6-7-14, 4=6-7-14
Max Horz 1=-17(LC 9)
Max Uplift 1=-22(LC 8), 3=-25(LC 9)
Max Grav 1=119(LC 1), 3=119(LC 1), 4=234(LC 1)

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

NOTES-

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.33 plate grip DOL=1.33
- Gable requires continuous bottom chord bearing.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 3.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



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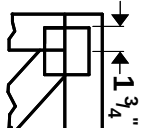
Safety Information available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601
ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component



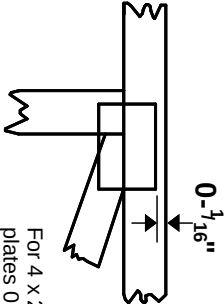
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Symbols

PLATE LOCATION AND ORIENTATION



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



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

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

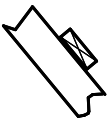
*** Plate location details available in MITek 20120 software or upon request.**

PLATE SIZE

4 X 4

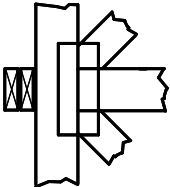
The first dimension is the plate width measured perpendicular to slots. Second dimension is the length parallel to slots.

LATERAL BRACING LOCATION



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

BEARING



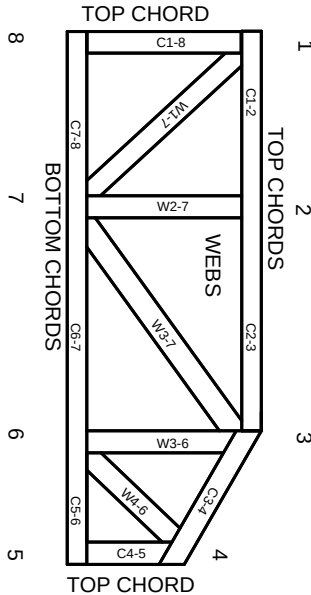
Indicates location where bearings (supports) occur. Icons vary but reaction section indicates joint number where bearings occur. Min size shown is for crushing only.

Industry Standards:

ANSI/TP1.1: National Design Specification for Metal Plate Connected Wood Truss Construction.
DSB-89: Building Component Safety Information, Guide to Good Practice for Handling, Installing & Bracing of Metal Plate Connected Wood Trusses.

Numbering System

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



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

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

PRODUCT CODE APPROVALS

ICC-ES Reports:

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

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

Lumber design values are in accordance with ANSI/TP1 1 section 6.3 These truss designs rely on lumber values established by others.

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



General Safety Notes

Failure to Follow Could Cause Property Damage or Personal Injury

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