



RE: 400416
Lot 105 MN

MiTek USA, Inc.

16023 Swingley Ridge Rd
Chesterfield, MO 63017
314-434-1200

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

Design Code: IRC2018/TPI2014

Design Program: MiTek 20/20 8.4

Wind Code: N/A

Wind Speed: 115 mph

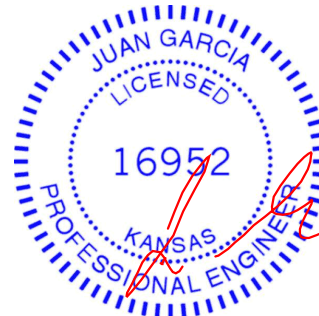
Roof Load: 45.0 psf

Floor Load: N/A psf

This package includes 28 individual, dated Truss Design Drawings and 0 Additional Drawings.

No.	Seal#	Truss Name	Date	No.	Seal#	Truss Name	Date
1	I42013216	B1	7/14/2020	27	I42013242	J5	7/14/2020
2	I42013217	B2	7/14/2020	28	I42013243	V2	7/14/2020
3	I42013218	B2A	7/14/2020				
4	I42013219	B3	7/14/2020				
5	I42013220	B4	7/14/2020				
6	I42013221	B5	7/14/2020				
7	I42013222	B6	7/14/2020				
8	I42013223	B7	7/14/2020				
9	I42013224	B8	7/14/2020				
10	I42013225	B9	7/14/2020				
11	I42013226	C1	7/14/2020				
12	I42013227	C2	7/14/2020				
13	I42013228	D1	7/14/2020				
14	I42013229	D2	7/14/2020				
15	I42013230	D3	7/14/2020				
16	I42013231	D4	7/14/2020				
17	I42013232	D5	7/14/2020				
18	I42013233	D6	7/14/2020				
19	I42013234	D7	7/14/2020				
20	I42013235	D8	7/14/2020				
21	I42013236	D9	7/14/2020				
22	I42013237	E1	7/14/2020				
23	I42013238	E2	7/14/2020				
24	I42013239	G1	7/14/2020				
25	I42013240	G2	7/14/2020				
26	I42013241	J4	7/14/2020				

The truss drawing(s) referenced above have been prepared by
MiTek USA, Inc. under my direct supervision
based on the parameters provided by Wheeler - Waverly.
Truss Design Engineer's Name: Garcia, Juan
My license renewal date for the state of Kansas is April 30, 2022.
Kansas COA: E-943



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





RE: 400416
Lot 105 MN

MiTek USA, Inc.

16023 Swingley Ridge Rd
Chesterfield, MO 63017
314-434-1200

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

Design Code: IRC2018/TPI2014

Design Program: MiTek 20/20 8.4

Wind Code: N/A

Wind Speed: 115 mph

Roof Load: 45.0 psf

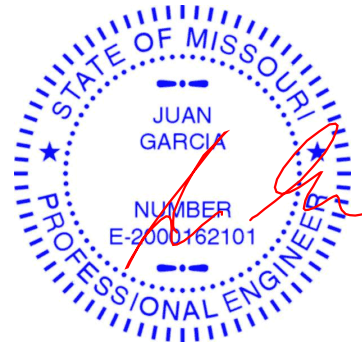
Floor Load: N/A psf

This package includes 28 individual, dated Truss Design Drawings and 0 Additional Drawings.

No.	Seal#	Truss Name	Date	No.	Seal#	Truss Name	Date
1	I42013216	B1	7/14/2020	27	I42013242	J5	7/14/2020
2	I42013217	B2	7/14/2020	28	I42013243	V2	7/14/2020
3	I42013218	B2A	7/14/2020				
4	I42013219	B3	7/14/2020				
5	I42013220	B4	7/14/2020				
6	I42013221	B5	7/14/2020				
7	I42013222	B6	7/14/2020				
8	I42013223	B7	7/14/2020				
9	I42013224	B8	7/14/2020				
10	I42013225	B9	7/14/2020				
11	I42013226	C1	7/14/2020				
12	I42013227	C2	7/14/2020				
13	I42013228	D1	7/14/2020				
14	I42013229	D2	7/14/2020				
15	I42013230	D3	7/14/2020				
16	I42013231	D4	7/14/2020				
17	I42013232	D5	7/14/2020				
18	I42013233	D6	7/14/2020				
19	I42013234	D7	7/14/2020				
20	I42013235	D8	7/14/2020				
21	I42013236	D9	7/14/2020				
22	I42013237	E1	7/14/2020				
23	I42013238	E2	7/14/2020				
24	I42013239	G1	7/14/2020				
25	I42013240	G2	7/14/2020				
26	I42013241	J4	7/14/2020				

The truss drawing(s) referenced above have been prepared by
MiTek USA, Inc. under my direct supervision
based on the parameters provided by Wheeler - Waverly.
Truss Design Engineer's Name: Garcia, Juan
My license renewal date for the state of Missouri is December 31, 2020.
Missouri COA: 001193

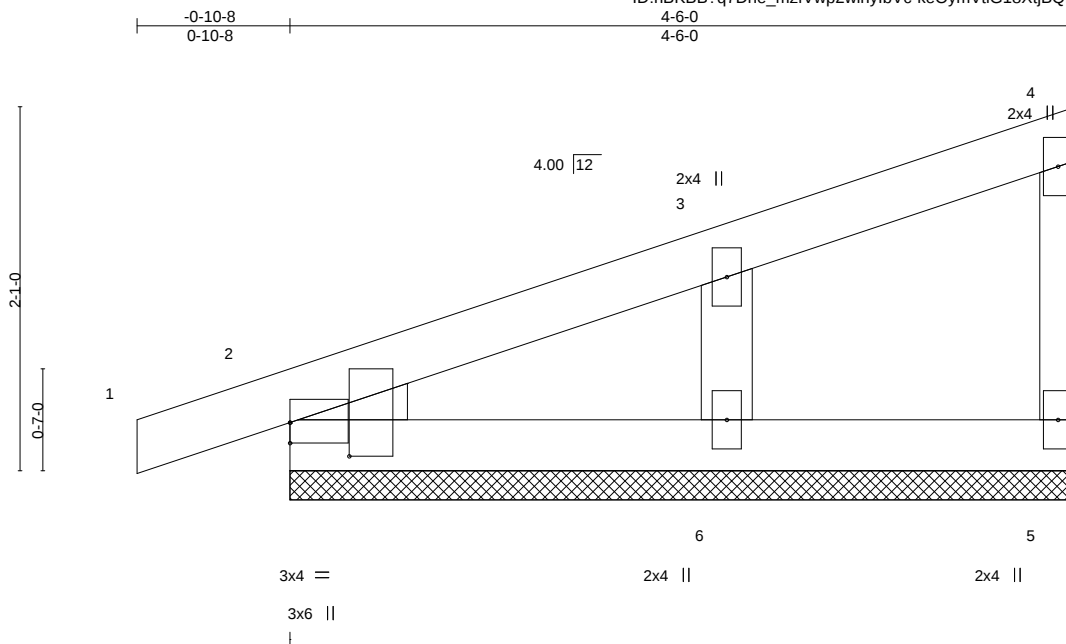
IMPORTANT NOTE: The seal on these truss component designs is a certification that the engineer named is licensed in the jurisdiction(s) identified and that the designs comply with ANSI/TPI 1. These designs are based upon parameters shown (e.g., loads, supports, dimensions, shapes and design codes), which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



Job	Truss	Truss Type	Qty	Ply	Lot 105 MN	I42013216
400416	B1	Monopitch Supported Gable	2	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS 66871

8.410 s May 22 2020 MiTek Industries, Inc. Tue Jul 14 08:57:36 2020 Page 1
ID:hBKBb?7Dne_mzfVwp2wlnylbVc-keOymVtiG18XtjBQR8lxe?eccp3_OJMKlu9z?OyyC2j



Scale = 1:13.2

Plate Offsets (X,Y)--		[2:0-0-0,0-1-6], [2:0-2-5,0-4-1]									
LOADING (psf)		SPACING-2-0-0		CSI.		DEFL. in (loc) l/defl L/d			PLATES GRIP		
TCLL	25.0	Plate Grip DOL	1.15	TC	0.07	Vert(LL)	0.00	1	n/r	120	MT20 197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.04	Vert(CT)	0.00	1	n/r	120	
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.02	Horz(CT)	-0.00	5	n/a	n/a	
BCDL	10.0	Code IRC2018/TPI2014		Matrix-P							Weight: 14 lb FT = 10%

LUMBER-

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

BRACING-

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

REACTIONS. (size) 5=4-6-0, 2=4-6-0, 6=4-6-0
Max Horz 2=78(LC 5)
Max Uplift 5=9(LC 5), 2=47(LC 4), 6=60(LC 8)
Max Grav 5=59(LC 1), 2=165(LC 1), 6=233(LC 1)

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

NOTES-

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



July 14, 2020

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

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

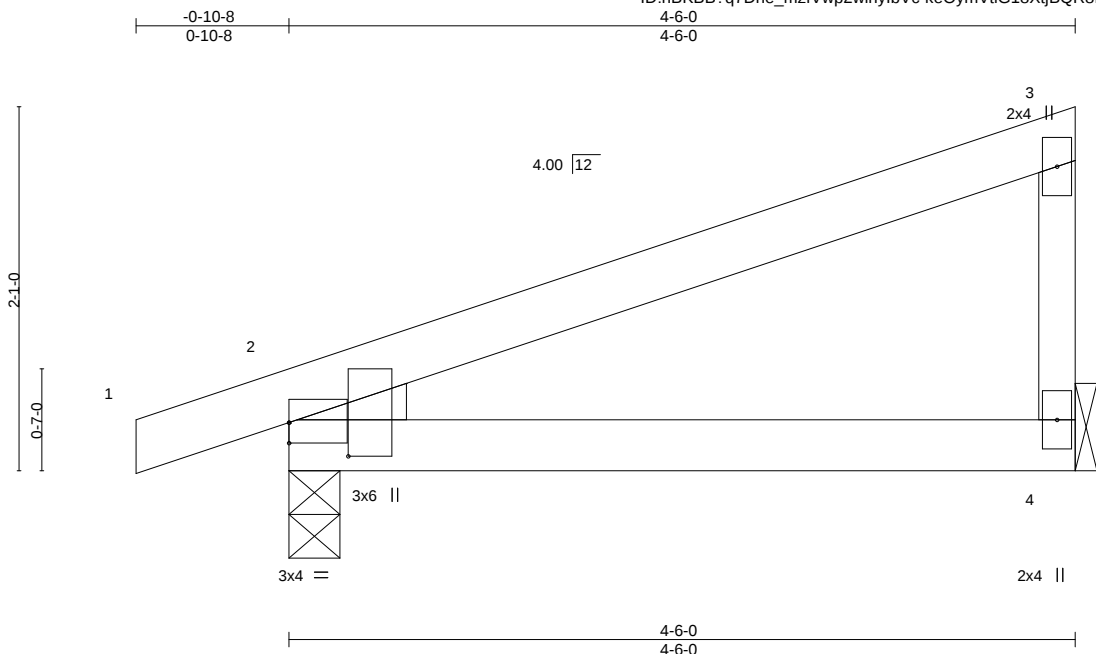


16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 105 MN	I42013217
400416	B2	Monopitch	7	1		
Job Reference (optional)						

Wheeler Lumber, Waverly, KS 66871

8.410 s May 22 2020 MiTek Industries, Inc. Tue Jul 14 08:57:36 2020 Page 1
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Scale = 1:13.2

Plate Offsets (X,Y)--		[2:0-0-0,0-1-6], [2:0-2-5,0-4-1]								
LOADING (psf)		SPACING- 2-0-0		CSI.		DEFL. in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0		Plate Grip DOL 1.15		TC 0.30		Vert(LL) -0.02 2-4	>999	360	MT20	197/144
TCDL 10.0		Lumber DOL 1.15		BC 0.19		Vert(CT) -0.04 2-4	>999	240		
BCLL 0.0 *		Rep Stress Incr YES		WB 0.00		Horz(CT) -0.00 4	n/a	n/a		
BCDL 10.0		Code IRC2018/TPI2014		Matrix-P		Wind(LL) 0.00 2	****	240	Weight: 13 lb	FT = 10%

LUMBER-

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

BRACING-

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

REACTIONS.

(size) 4=Mechanical, 2=0-3-8
Max Horz 2=78(LC 5)
Max Uplift 4=40(LC 8), 2=-77(LC 4)
Max Grav 4=183(LC 1), 2=271(LC 1)

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

NOTES-

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



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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 105 MN	I42013218
400416	B2A	Monopitch	1	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS 66871

8.410 s May 22 2020 MiTek Industries, Inc. Tue Jul 14 08:57:37 2020 Page 1

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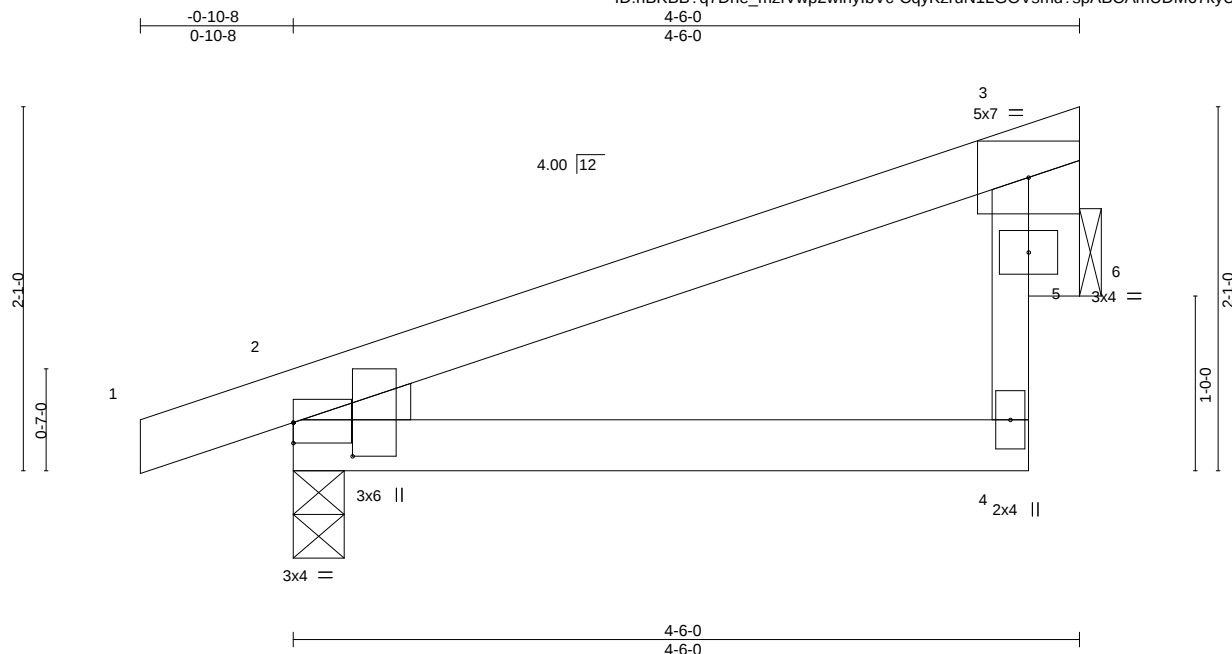


Plate Offsets (X,Y)-- [2:0-0-0,0-1-6], [2:0-2-5,0-4-1]									
LOADING (psf)		SPACING- 2-0-0		CSI.		DEFL. in (loc) l/defl L/d		PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.19	Vert(LL)	-0.01 2-4 >999 360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.18	Vert(CT)	-0.01 2-4 >999 240		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.13	Horz(CT)	0.00 6 n/a n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-R		Wind(LL)	0.00 2-4 >999 240	Weight: 14 lb	FT = 10%

LUMBER-

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

BRACING-

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

REACTIONS. (size) 2=0-3-8, 6=Mechanical
 Max Horz 2=60(LC 5)
 Max Uplift 2=-73(LC 4), 6=-39(LC 8)
 Max Grav 2=272(LC 1), 6=156(LC 1)

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

NOTES-

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



July 14, 2020

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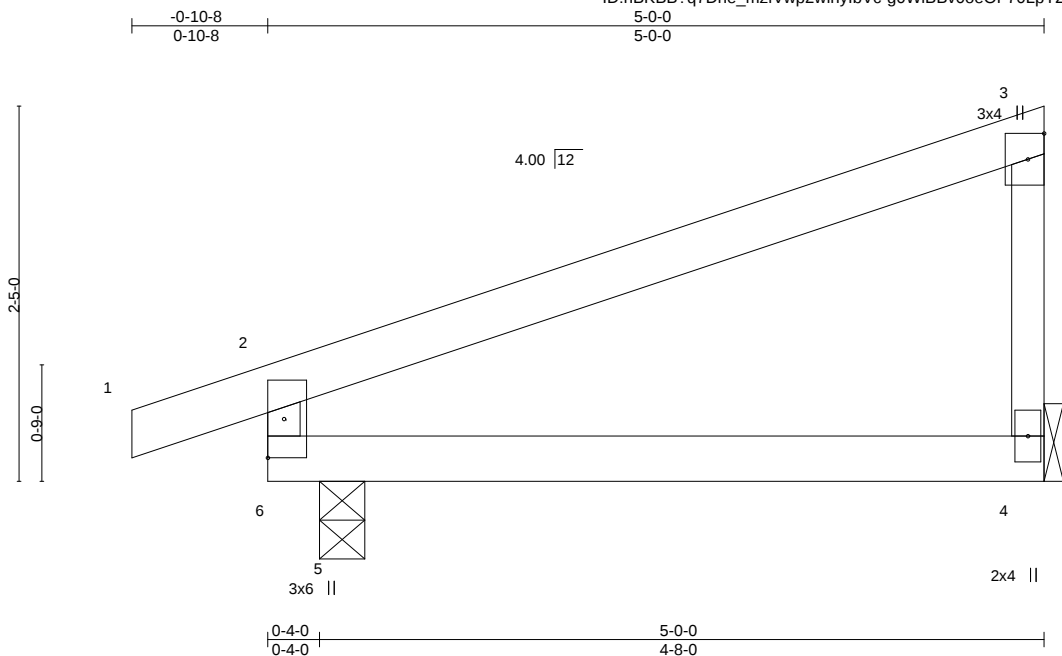


16023 Swingley Ridge Rd
 Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 105 MN	I42013219
400416	B3	Monopitch	7	1		
Job Reference (optional)						

Wheeler Lumber, Waverly, KS 66871

8.410 s May 22 2020 MiTek Industries, Inc. Tue Jul 14 08:57:38 2020 Page 1
ID:hBKBb?7Dne_mzfVwp2wlnylbVc-g0WiBBv0oeOF70LpYZKPjQjvrdisDCdCe43GyyC2h



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 0.28	Vert(LL)	-0.02	4-5	>999	360	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.14	Vert(CT)	-0.03	4-5	>999	240		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.00	Horz(CT)	-0.00	4	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-R	Wind(LL)	-0.00	4-5	>999	240		
									Weight: 15 lb	FT = 10%

LUMBER-

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

BRACING-

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

REACTIONS. (size) 4=Mechanical, 5=0-3-8
Max Horz 5=97(LC 5)
Max Uplift 4=-42(LC 8), 5=-92(LC 4)
Max Grav 4=184(LC 1), 5=316(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-6=-258/115

NOTES-

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



July 14, 2020

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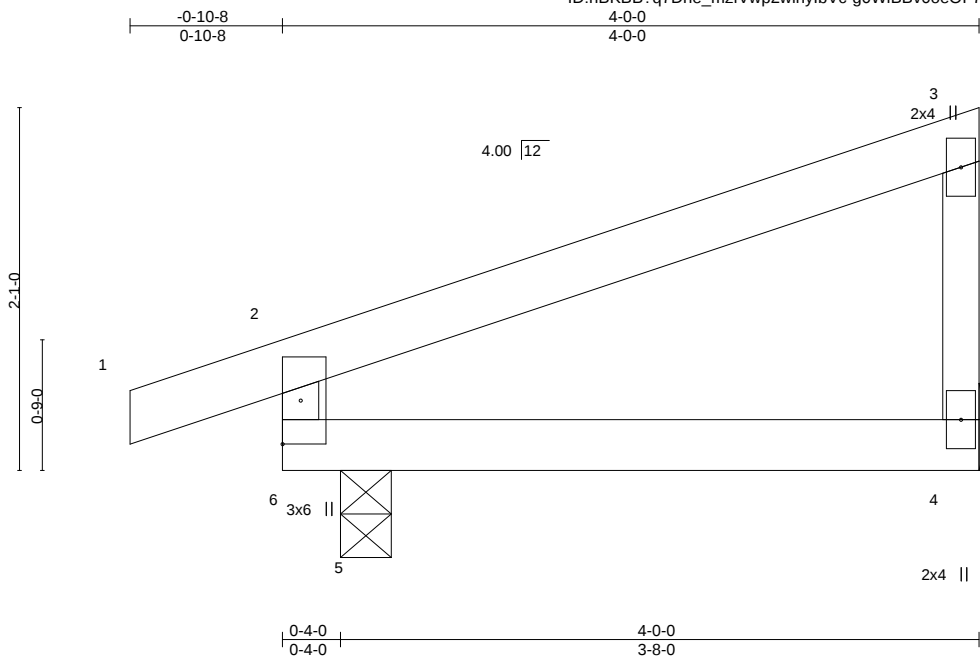


16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 105 MN	I42013220
400416	B4	Monopitch	1	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS 66871

8.410 s May 22 2020 MiTek Industries, Inc. Tue Jul 14 08:57:38 2020 Page 1
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LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.16	Vert(LL)	-0.01	4-5	>999	360	MT20	197/144
BCLL 10.0	Lumber DOL	1.15	BC 0.10	Vert(CT)	-0.01	4-5	>999	240		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.00	Horz(CT)	-0.00	4	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-R	Wind(LL)	-0.00	4-5	>999	240		
									Weight: 12 lb	FT = 10%

LUMBER-

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

BRACING-

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

REACTIONS. (size) 4=Mechanical, 5=0-3-8
Max Horz 5=82(LC 5)
Max Uplift 4=-31(LC 8), 5=-87(LC 4)
Max Grav 4=135(LC 1), 5=275(LC 1)

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

NOTES-

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



July 14, 2020

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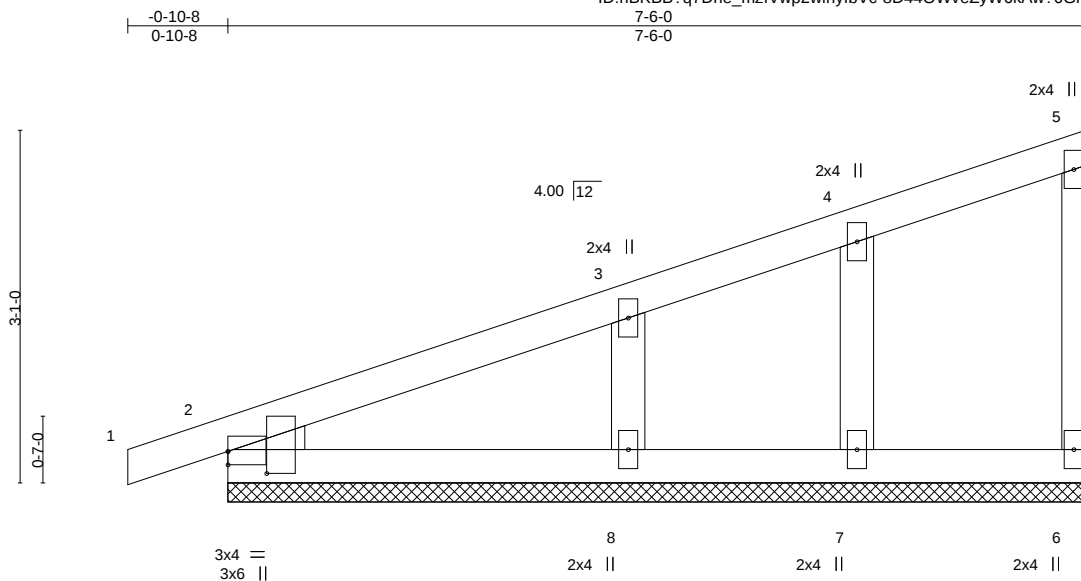
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 105 MN	I42013221
400416	B5	Monopitch Supported Gable	1	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS 66871

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ID:hBKBb?7Dne_mzfVwp2wlnylbVc-8D44OWVeZyW6kAw?6GreGdG6p135bgzn_sOdbjyC2g



Scale = 1:20.1

Plate Offsets (X,Y)-- [2:0-0-0,0-1-6], [2:0-2-5,0-4-1]

LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.14	Vert(LL)	-0.00	1	n/r	120	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.08	Vert(CT)	0.00	1	n/r	120		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.03	Horz(CT)	-0.00	6	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-P						Weight: 25 lb	FT = 10%

LUMBER-

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

BRACING-

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

REACTIONS.

All bearings 7-6-0.
 (lb) - Max Horz 2=123(LC 5)
 Max Uplift All uplift 100 lb or less at joint(s) 6, 2, 7, 8
 Max Grav All reactions 250 lb or less at joint(s) 6, 2, 7 except 8=302(LC 1)

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

NOTES-

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



July 14, 2020

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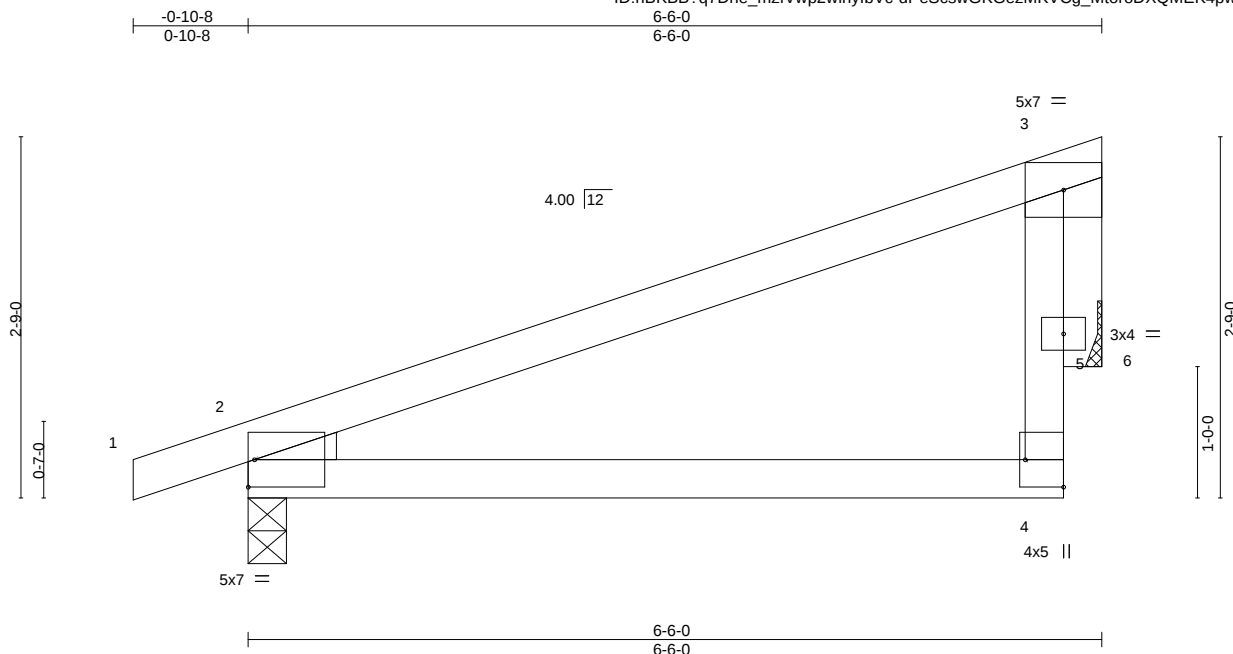
16023 Swingley Ridge Rd
 Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 105 MN	I42013223
400416	B7	Monopitch	9	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS 66871

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ID:hBKBb?q7Dne_mzfVwp2wlnylbVc-dPeScswGKGezMKVCg_MtoroDXQMEK4pwDW7B89yyC2f



Scale = 1:17.5

Plate Offsets (X,Y)--		[4:Edge,0-3-8]	
LOADING (psf)	SPACING-	2-0-0	CSI.
TCLL 25.0	Plate Grip DOL	1.15	TC 0.40
TCDL 10.0	Lumber DOL	1.15	BC 0.28
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.25
BCDL 10.0	Code	IRC2018/TPI2014	Matrix-R
			DEFL.
			in (loc) l/defl L/d
			Vert(LL) -0.03 2-4 >999 360
			Vert(CT) -0.06 2-4 >999 240
			Horz(CT) -0.00 6 n/a n/a
			Wind(LL) 0.02 2-4 >999 240
			PLATES
			MT20
			GRIP
			197/144
			Weight: 21 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
 WEDGE
 Left: 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) 2=0-3-8, 6=Mechanical
 Max Horz 2=79(LC 5)
 Max Uplift 2=-83(LC 4), 6=-61(LC 8)
 Max Grav 2=359(LC 1), 6=245(LC 1)

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

TOP CHORD 2-3=-267/18

NOTES-

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



July 14, 2020

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16023 Swingley Ridge Rd
 Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 105 MN	I42013224
400416	B8	Monopitch Structural Gable	1	1	Job Reference (optional)	

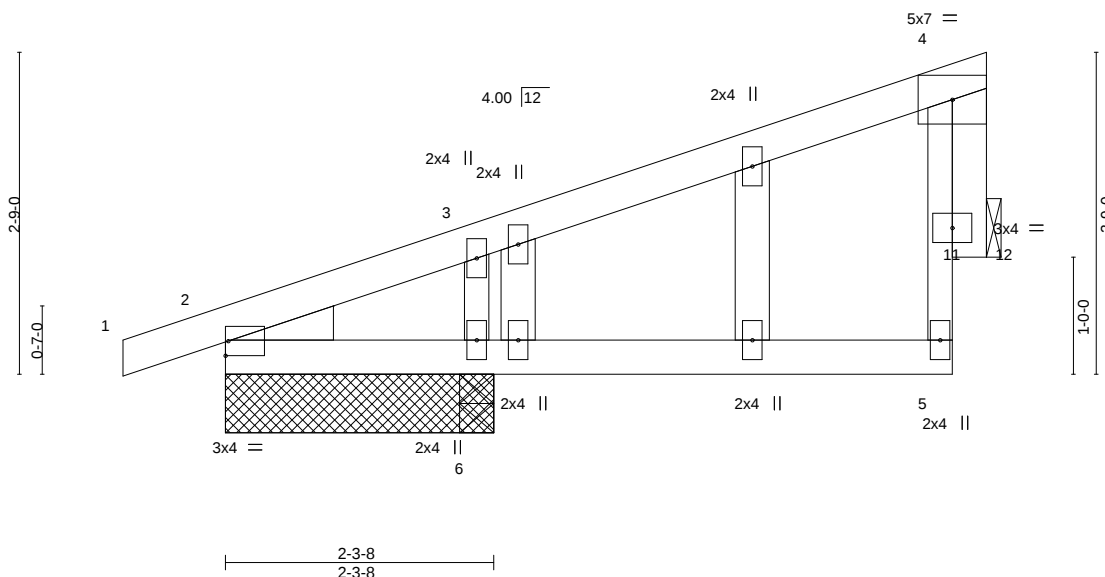
Wheeler Lumber, Waverly, KS 66871

8.410 s May 22 2020 MiTek Industries, Inc. Tue Jul 14 08:57:41 2020 Page 1

ID:hBKBb?7Dne_mzfvwp2wlnylbVc-5bCrpCxu5Zmq_U4OEht6L2LSMqlQ3Z83SAtkgbyyC2e



Scale = 1:19.7



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 0.13	Vert(LL)	-0.01	5-6	>999	360	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.09	Vert(CT)	-0.01	5-6	>999	240		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.12	Horz(CT)	0.00	12	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-R	Wind(LL)	-0.00	5-6	>999	240		
									Weight: 24 lb	FT = 10%

LUMBER-

TOP CHORD 2x4 SPF No.2
 BOT CHORD 2x4 SPF No.2
 WEBS 2x3 SPF No.2
 OTHERS 2x4 SPF No.2
 WEDGE
 Left: 2x4 SP No.3

BRACING-

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

REACTIONS. All bearings 2-3-8 except (jt=length) 12=Mechanical.

- (lb) - Max Horz 2=79(LC 5)
 Max Uplift All uplift 100 lb or less at joint(s) 2, 6, 12
 Max Grav All reactions 250 lb or less at joint(s) 2, 12 except 6=294(LC 1), 6=294(LC 1)

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

NOTES-

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



July 14, 2020

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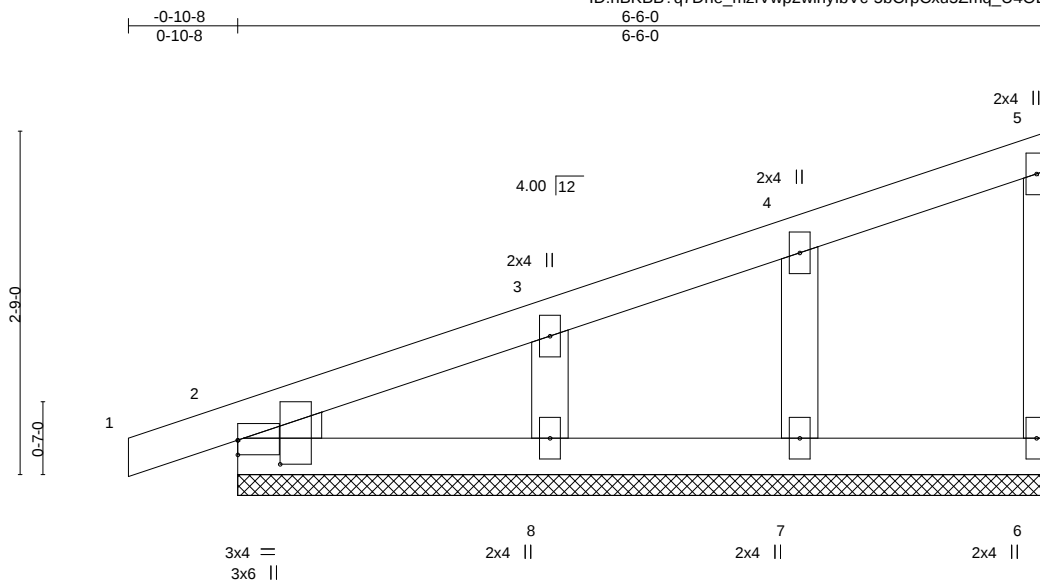


16023 Swingley Ridge Rd
 Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 105 MN	I42013225
400416	B9	Monopitch Supported Gable	1	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS 66871

8.410 s May 22 2020 MiTek Industries, Inc. Tue Jul 14 08:57:41 2020 Page 1
ID:hBKBb7qDne_mzfVwp2wnylbVc-5bCrpCxu5Zmq_U4OEht6L2LTNmC3ac3SAtkgbyyC2e



Scale = 1:18.4

Plate Offsets (X,Y)-- [2:0-0-0,0-1-6], [2:0-2-5,0-4-1]									
LOADING (psf)		SPACING- 2-0-0		CSI.		DEFL. in (loc) l/defl L/d		PLATES GRIP	
TCLL	25.0	Plate Grip DOL	1.15	TC	0.07	Vert(LL)	-0.00 1 n/r 120	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.04	Vert(CT)	0.00 1 n/r 120		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.02	Horz(CT)	-0.00 6 n/a n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-P				Weight: 21 lb	FT = 10%

LUMBER-

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

BRACING-

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

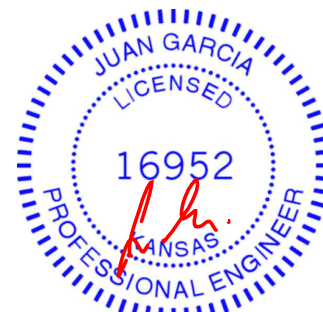
REACTIONS.

All bearings 6-6-0.
(lb) - Max Horz 2=108(LC 5)
Max Uplift All uplift 100 lb or less at joint(s) 6, 2, 7, 8
Max Grav All reactions 250 lb or less at joint(s) 6, 2, 7, 8

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

NOTES-

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



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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 105 MN	I42013226
400416	C1	Common Supported Gable	1	1		
Job Reference (optional)						

Wheeler Lumber, Waverly, KS 66871

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ID:hBKBb?7Dne_mzfVwp2wnylbVc-1_JbEuz8dB0YDnDnL6waQTQpseRkXTzMvUMrUyyC2c

0-10-8 14-6-0 29-0-0 29-10-8
0-10-8 14-6-0 14-6-0 0-10-8

Scale = 1:50.1

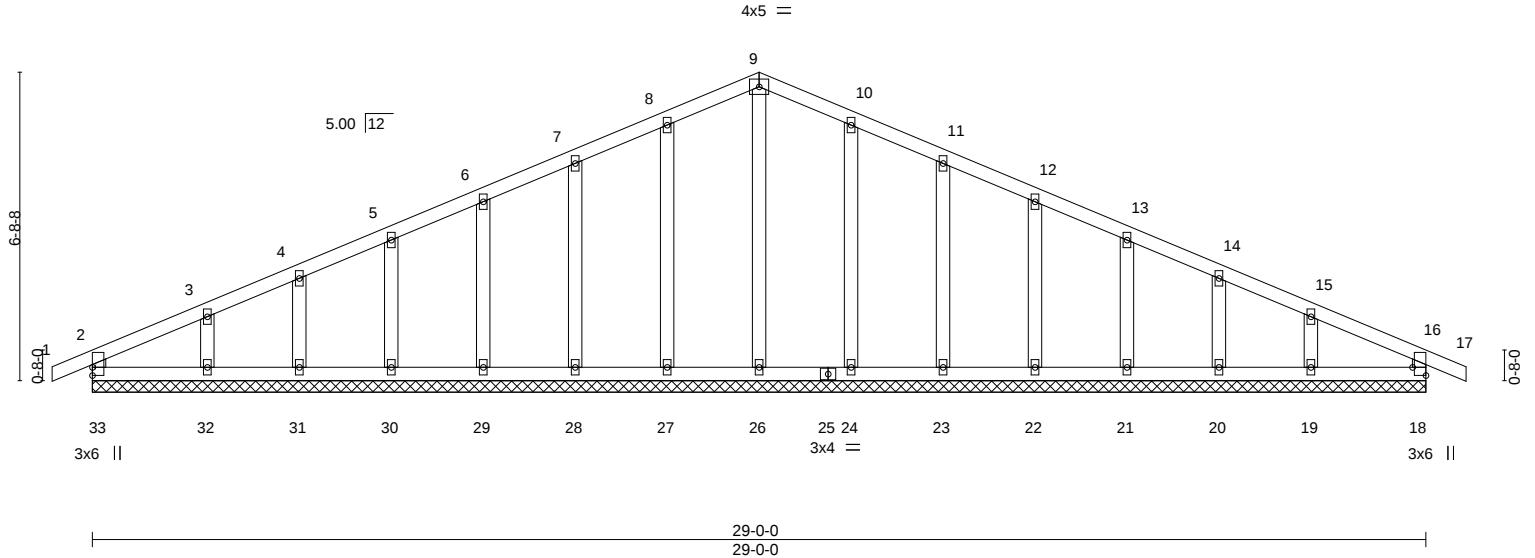


Plate Offsets (X,Y)--		[18:Edge,0-3-8]																	
LOADING (psf)		SPACING-		2-0-0		CSI.		DEFL.		in (loc)		l/defl		L/d		PLATES		GRIP	
TCLL	25.0	Plate Grip DOL		1.15		TC	0.07	Vert(LL)	-0.00	17	n/r	120					MT20	197/144	
TCDL	10.0	Lumber DOL		1.15		BC	0.04	Vert(CT)	-0.00	17	n/r	120							
BCLL	0.0 *	Rep Stress Incr		YES		WB	0.09	Horz(CT)	0.00	18	n/a	n/a							
BCDL	10.0	Code IRC2018/TPI2014				Matrix-R										Weight: 123 lb		FT = 10%	

LUMBER-

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

BRACING-

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

REACTIONS.

All bearings 29'-0-0.
(lb) - Max Horz 33=-99(LC 13)
Max Uplift All uplift 100 lb or less at joint(s) 33, 18, 27, 28, 29, 30, 31, 32, 24, 23, 22, 21, 20, 19
Max Grav All reactions 250 lb or less at joint(s) 33, 18, 26, 27, 28, 29, 30, 31, 32, 24, 23, 22, 21, 20, 19

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

NOTES-

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- All plates are 2x4 MT20 unless otherwise indicated.
- Gable requires continuous bottom chord bearing.
- Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
- Gable studs spaced at 2'-0-0 oc.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3'-6-0 tall by 2'-0-0 wide will fit between the bottom chord and any other members.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 33, 18, 27, 28, 29, 30, 31, 32, 24, 23, 22, 21, 20, 19.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



July 14, 2020

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 105 MN	I42013227
400416	C2	Common	6	1		

Wheeler Lumber, Waverly, KS 66871

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ID:hBKBb?7Dne_mzfVwp2wlnylbVc-VATzREzmNU8PrxozvqRpzhzmA1Y0GrGW885OHwyyC2b

Job Reference (optional)

0-10-8 6-11-7 14-6-0 22-0-10 29-0-0 29-10-8
0-10-8 6-11-7 7-6-10 7-6-9 6-11-7 0-10-8

Scale = 1:49.3

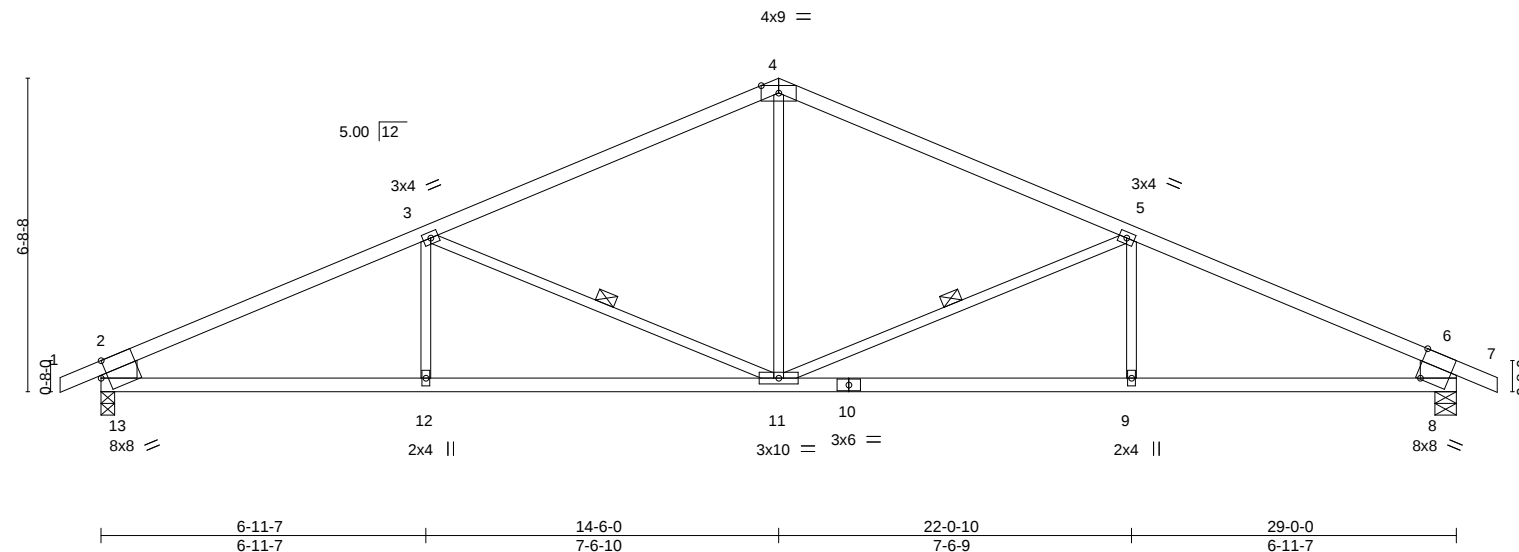


Plate Offsets (X,Y)--	[8:0-1-3,Edge], [13:0-1-12,Edge]								
LOADING (psf)	SPACING	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.99	Vert(LL)	-0.25 11-12	>999	360	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.99	Vert(CT)	-0.49 11-12	>691	240		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.41	Horz(CT)	0.09 8	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-S	Wind(LL)	0.16 11-12	>999	240	Weight: 97 lb	FT = 10%

LUMBER-

TOP CHORD 2x4 SPF 2100F 1.8E
BOT CHORD 2x4 SPF No.2
WEBS 2x3 SPF No.2 *Except*
2-13,6-8: 2x10 SP 2400F 2.0E

BRACING-

TOP CHORD Structural wood sheathing directly applied, except end verticals.
BOT CHORD Rigid ceiling directly applied or 2-2-0 oc bracing.
WEBS 1 Row at midpt 5-11, 3-11

REACTIONS.

(size) 13=0-3-8, 8=0-5-8
Max Horz 13=-95(LC 13)
Max Uplift 13=-192(LC 8), 8=-192(LC 9)
Max Grav 13=1359(LC 1), 8=1359(LC 1)

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

TOP CHORD 2-3=-2266/288, 3-4=-1672/224, 4-5=-1672/224, 5-6=-2266/288, 2-13=-1241/223,
6-8=-1241/223
BOT CHORD 12-13=-282/1975, 11-12=-282/1975, 9-11=-188/1975, 8-9=-188/1975
WEBS 4-11=-9/652, 5-11=-648/230, 3-11=-648/230

NOTES-

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (it=lb) 13=192, 8=192.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



July 14,2020

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 105 MN	I42013228
400416	D1	GABLE	1	1		

Wheeler Lumber, Waverly, KS 66871

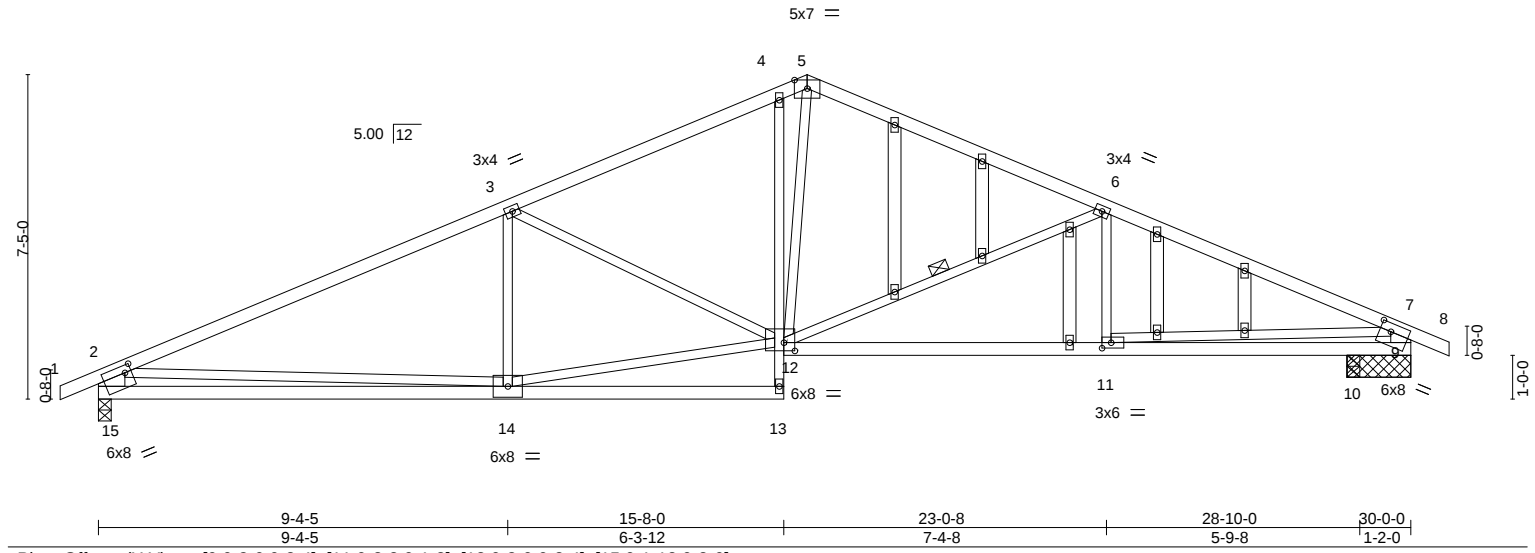
8.410 s May 22 2020 MiTek Industries, Inc. Tue Jul 14 08:57:45 2020 Page 1

ID:hBKBb?7Dne_mzfVwp2wlnylbVc-zNRLfa_P8oGGS5N9TXy2VuW1WRyN?E2fMorypMyC2a

Job Reference (optional)

0-10-8 9-4-5 15-8-0 16-2-6 23-0-8 30-0-0 30-10-8
0-10-8 9-4-5 6-3-12 0-6-6 6-10-2 6-11-8 0-10-8

Scale = 1:52.7



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 0.64	Vert(LL)	-0.18 14-15	>999	360	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.73	Vert(CT)	-0.38 14-15	>890	240		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.70	Horz(CT)	0.08 9	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-S	Wind(LL)	0.09 11-12	>999	240	Weight: 134 lb	FT = 10%

LUMBER-	BRACING-
TOP CHORD 2x4 SPF 2100F 1.8E *Except*	TOP CHORD Structural wood sheathing directly applied or 3-1-11 oc purlins, except end verticals.
5-8: 2x4 SPF No.2	
BOT CHORD 2x4 SPF No.2 *Except*	BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.
4-13: 2x3 SPF No.2	
WEBS 2x3 SPF No.2 *Except*	WEBS 1 Row at midpt 6-12
2-15: 2x8 SP DSS, 7-9: 2x6 SPF No.2	
OTHERS 2x4 SPF No.2	

REACTIONS.	(size) 15=0-3-8, 9=1-5-8, 10=0-3-8
	Max Horz 15=132(LC 8)
	Max Uplift 15=-206(LC 8), 9=-191(LC 9)
	Max Grav 15=1402(LC 1), 9=1231(LC 1), 10=210(LC 3)

FORCES.	(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD	2-3=-2338/298, 3-4=-1897/263, 4-5=-1744/304, 5-6=-1790/267, 6-7=-2417/279, 2-15=-1314/258, 7-9=-1319/220
BOT CHORD	14-15=-435/1165, 11-12=-179/2144, 10-11=-154/634, 9-10=-154/634
WEBS	12-14=-279/2027, 3-12=-520/186, 5-12=-177/939, 6-12=-683/213, 2-14=0/876, 7-11=-55/1513

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
 - Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
 - Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
 - All plates are 2x4 MT20 unless otherwise indicated.
 - Gable studs spaced at 2-0-0 oc.
 - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
 - * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
 - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 15=206, 9=191.
 - This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



July 14, 2020

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 105 MN	I42013229
400416	D2	Roof Special	6	1		
Job Reference (optional)						

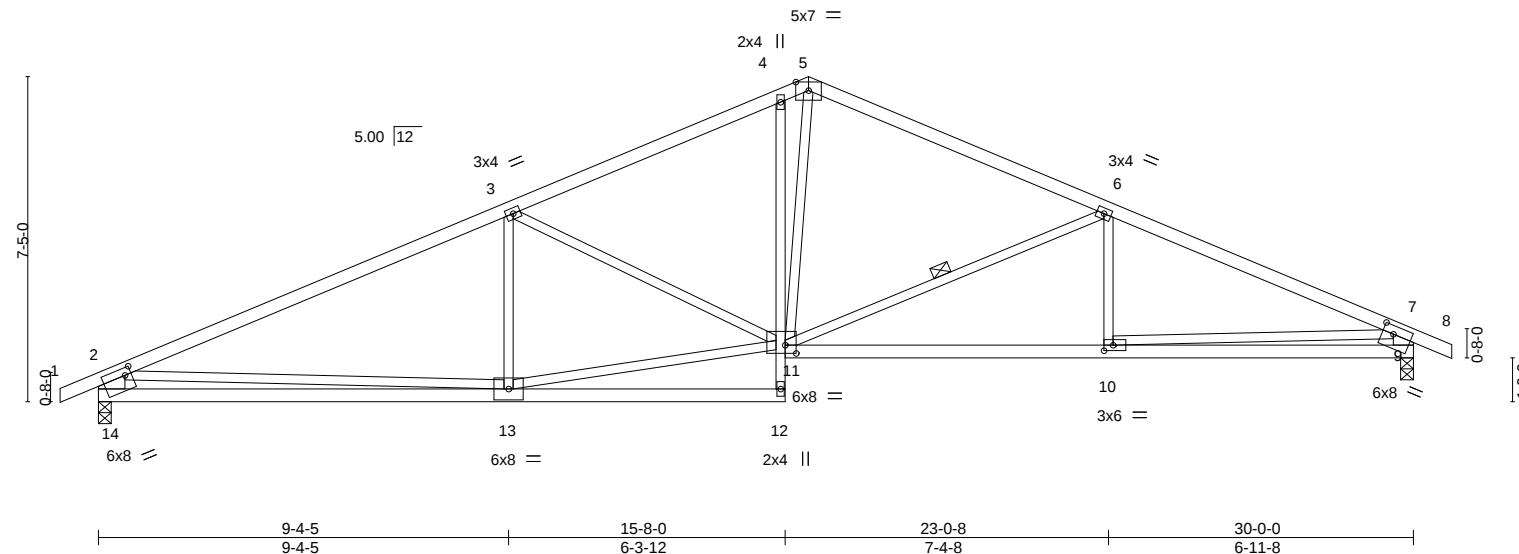
Wheeler Lumber, Waverly, KS 66871

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ID:hBKBb?7Dne_mzfVwp2wlnylbVc-RZ?ksw?1v6074FyL0FTH252ClriphGpbSaVLpyyC2Z

0-10-8 9-4-5 15-8-0 16-2-6 23-0-8 30-0-0 30-10-8
0-10-8 9-4-5 6-3-12 0-6-6 6-10-2 6-11-8 0-10-8

Scale = 1:52.6



LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.63	Vert(LL)	-0.18 13-14	>999	360	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.72	Vert(CT)	-0.38 13-14	>922	240		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.70	Horz(CT)	0.09 9	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-S	Wind(LL)	0.09 10-11	>999	240	Weight: 120 lb	FT = 10%

LUMBER-

TOP CHORD 2x4 SPF 2100F 1.8E *Except*
5-8: 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2 *Except*
4-12: 2x3 SPF No.2
WEBS 2x3 SPF No.2 *Except*
2-14: 2x8 SP DSS, 7-9: 2x6 SPF No.2

BRACING-

TOP CHORD Structural wood sheathing directly applied or 3-1-9 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.
WEBS 1 Row at midpt 6-11

REACTIONS.

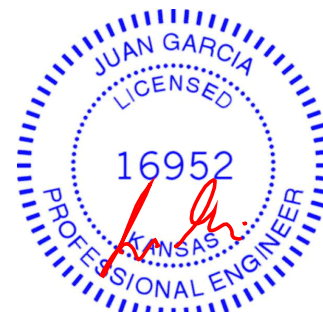
(size) 14=0-3-8, 9=0-3-8
Max Horz 14=132(LC 8)
Max Uplift 14=-205(LC 8), 9=-184(LC 9)
Max Grav 14=1409(LC 1), 9=1403(LC 1)

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

TOP CHORD 2-3=-2353/295, 3-4=-1914/260, 4-5=-1761/302, 5-6=-1806/264, 6-7=-2477/276,
2-14=-1320/257, 7-9=-1336/217
BOT CHORD 13-14=-434/1167, 10-11=-175/2199, 9-10=-165/757
WEBS 11-13=-278/2034, 3-11=-519/186, 5-11=-176/951, 6-11=-725/211, 2-13=0/888,
7-10=-61/1446

NOTES-

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 14=205, 9=184.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



July 14, 2020

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 105 MN	I42013230
400416	D3	Common	1	1		

Wheeler Lumber, Waverly, KS 66871

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ID:hBKBb?7Dne_mzfVwp2wnylbVc-vIZ64G0fgPX_iPXyay_WbJbM9FfOT7Xyq6K3uFyyC2Y

0-10-8	9-4-3	16-2-6	23-0-9	30-0-0	30-10-8
0-10-8	9-4-3	6-10-3	6-10-3	6-11-7	0-10-8

Scale = 1:51.3

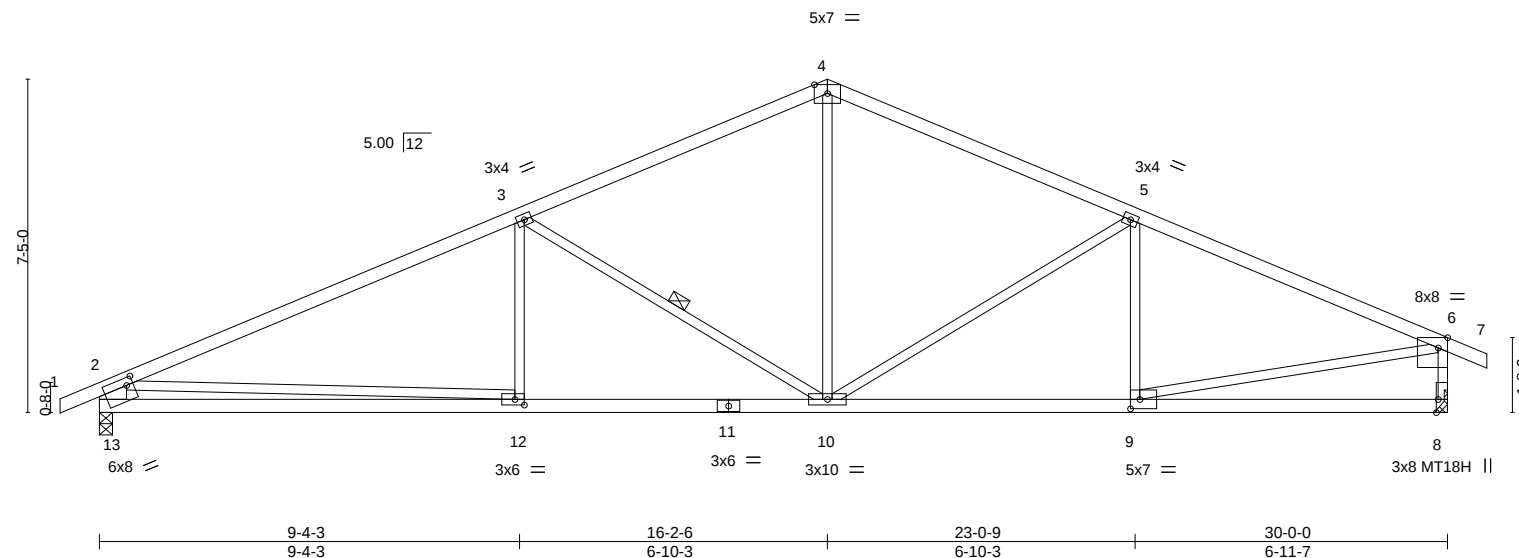


Plate Offsets (X,Y)-- [6:0-2-8,Edge], [8:0-3-8,Edge], [9:0-2-8,0-2-8], [12:0-2-8,0-1-8], [13:0-1-12,0-2-0]									
LOADING (psf)		SPACING- 2-0-0		CSI.		DEFL. in (loc) l/defl L/d		PLATES GRIP	
TCLL	25.0	Plate Grip DOL	1.15	TC	0.63	Vert(LL)	-0.18 12-13 >999 360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.69	Vert(CT)	-0.38 12-13 >937 240	MT18H	197/144
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.76	Horz(CT)	0.06 8 n/a n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-S		Wind(LL)	0.05 12 >999 240	Weight: 113 lb	FT = 10%

LUMBER-

TOP CHORD 2x4 SPF 2100F 1.8E *Except*
4-7: 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
WEBS 2x3 SPF No.2 *Except*
2-13: 2x8 SP DSS

BRACING-

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

REACTIONS.

(size) 13=0-3-8, 8=Mechanical
Max Horz 13=67(LC 10)
Max Uplift 13=-36(LC 8), 8=-23(LC 9)
Max Grav 13=1415(LC 1), 8=1400(LC 1)

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

TOP CHORD 2-3=-2370/50, 3-4=-1624/57, 4-5=-1620/67, 5-6=-1955/34, 6-8=-1333/57, 2-13=-1326/88
BOT CHORD 12-13=-190/1157, 10-12=-32/2070, 9-10=0/1727
WEBS 3-12=0/305, 3-10=-826/105, 4-10=0/750, 5-10=-475/94, 6-9=0/1621, 2-12=0/915

NOTES-

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



July 14, 2020

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 105 MN	I42013231
400416	D4	Roof Special	3	1		

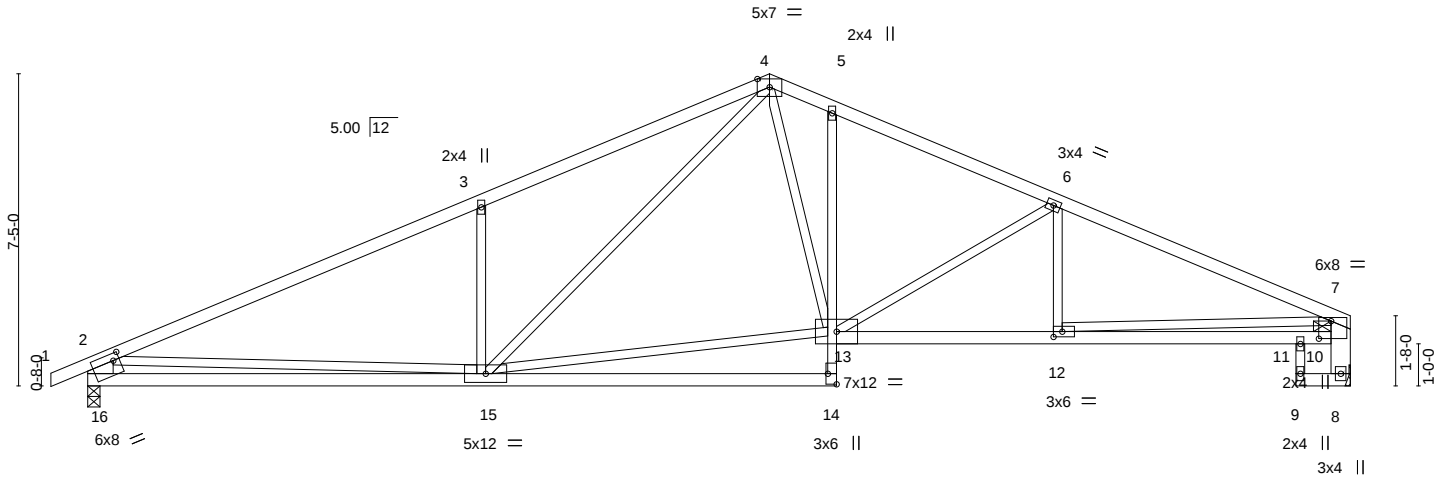
Wheeler Lumber, Waverly, KS 66871

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ID:hBKBbB?7Dne_mzfVwp2wnylbVc-Oy7UHb0HRJfJZ6k8fV7W7Wqf?pCd?53m3cQhyC2X

0-10-8	9-4-3	16-2-6	17-9-8	23-0-10	28-8-8	30-0-0
0-10-8	9-4-3	6-10-3	1-7-2	5-3-1	5-7-15	1-3-8

Scale = 1:54.7



		9-4-3		16-2-6		17-9-8		23-0-10		28-8-8		30-0-0	
		9-4-3		6-10-3		1-7-2		5-3-1		5-7-15		1-3-8	
Plate Offsets (X,Y)-- [7:0-3-8,0-5-0], [12:0-2-8,0-1-8], [14:Edge,0-2-8], [16:0-1-12,0-2-0]													
LOADING (psf)		SPACING- 2-0-0		CSI.		DEFL. in (loc)		l/defl L/d		PLATES		GRIP	
TCLL	25.0	Plate Grip DOL	1.15	TC	0.70	Vert(LL)	-0.17 15-16	>999	360	MT20		197/144	
TCDL	10.0	Lumber DOL	1.15	BC	0.68	Vert(CT)	-0.37 15-16	>966	240				
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.56	Horz(CT)	0.08 8	n/a	n/a				
BCDL	10.0	Code IRC2018/TPI2014		Matrix-S		Wind(LL)	0.06 12-13	>999	240	Weight: 124 lb		FT = 10%	

LUMBER-

TOP CHORD 2x4 SPF 2100F 1.8E *Except*
4-7: 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2 *Except*
5-14: 2x3 SPF No.2
WEBS 2x3 SPF No.2 *Except*
7-8: 2x6 SPF No.2, 2-16: 2x8 SP DSS

BRACING-

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

REACTIONS.

(size) 16=0-3-8, 8=Mechanical
Max Horz 16=72(LC 10)
Max Uplift 16=-36(LC 8), 8=-12(LC 9)
Max Grav 16=1410(LC 1), 8=1324(LC 1)

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

TOP CHORD 2-3=-2366/47, 3-4=-2319/141, 4-5=-1870/71, 5-6=-1958/47, 6-7=-2458/28, 8-10=-1234/40, 7-10=-1236/54, 2-16=-1323/87
BOT CHORD 15-16=-198/1150, 12-13=0/2189, 11-12=-6/760, 10-11=-6/760
WEBS 3-15=-578/183, 4-15=-106/828, 13-15=0/1446, 4-13=-39/782, 6-13=-574/78, 7-12=-2/1432, 2-15=0/918

NOTES-

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



July 14, 2020

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 105 MN	I42013232
400416	D5	Roof Special	1	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS 66871

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ID:hBKBb?7Dne_mzfVwp2wlnylbVc-s8hsVx1vC1nhxihwiN1_gkge72H5x_KFHPp9y8yyC2W

0-10-8 9-4-4 13-1-0 15-9-8 16-2-6 23-0-8 28-8-8 30-0-0
0-10-8 9-4-4 3-8-12 2-8-8 0-4-14 6-10-1 5-8-0 1-3-8

Scale = 1:52.0

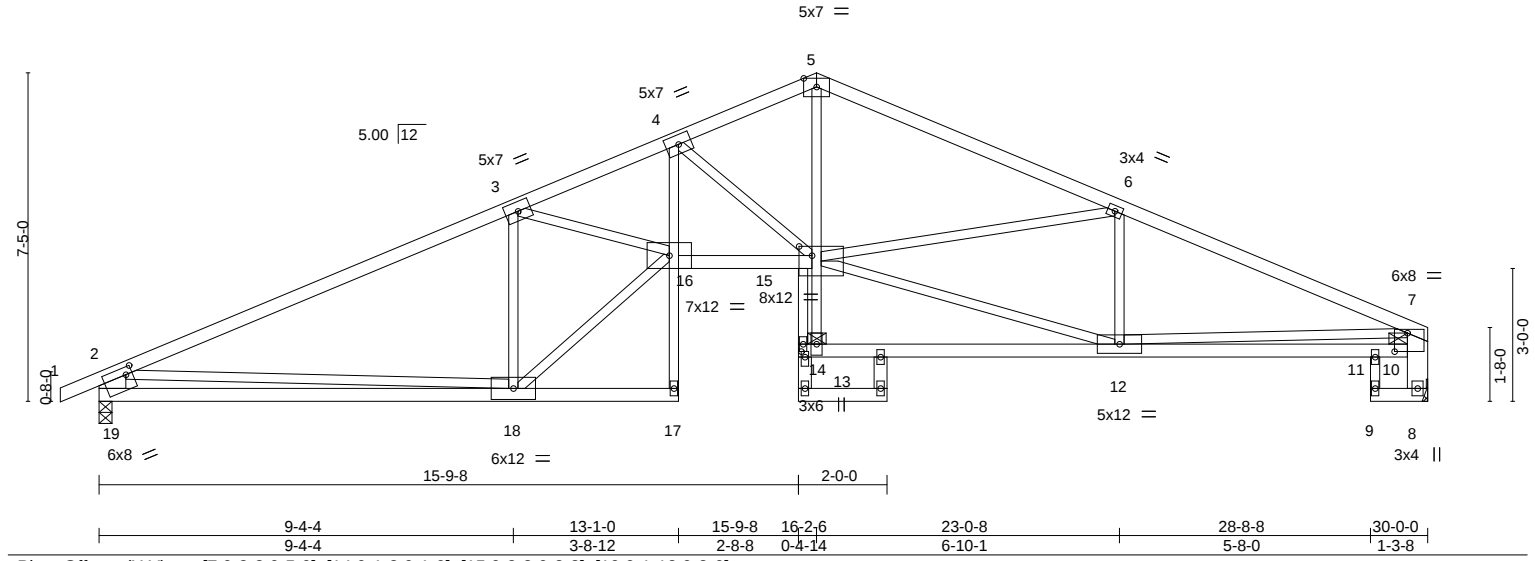


Plate Offsets (X,Y)--										[7:0-3-8,0-5-0], [14:0-1-8,0-1-0], [15:0-3-8,0-2-8], [19:0-1-12,0-2-0]									
LOADING (psf)		SPACING- 2-0-0			CSI.		DEFL. in (loc) l/defl L/d				PLATES		GRIP						
TCLL	25.0	Plate Grip DOL 1.15			TC	0.85	Vert(LL)	-0.27	17	>999	360	MT20	197/144						
TCDL	10.0	Lumber DOL 1.15			BC	0.93	Vert(CT)	-0.48	16	>729	240								
BCLL	0.0 *	Rep Stress Incr YES			WB	0.93	Horz(CT)	0.27	8	n/a	n/a								
BCDL	10.0	Code IRC2018/TPI2014			Matrix-S		Wind(LL)	0.13	17	>999	240	Weight: 131 lb	FT = 10%						

LUMBER-

TOP CHORD 2x4 SPF 2100F 1.8E *Except*
5-7: 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2 *Except*
4-17: 2x3 SPF No.2
WEBS 2x3 SPF No.2 *Except*
2-19: 2x8 SP DSS, 7-8: 2x6 SPF No.2, 14-20,21-22: 2x4 SPF No.2

BRACING-

TOP CHORD Structural wood sheathing directly applied, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing, Except:
2-2-0 oc bracing: 15-16.
10-0-0 oc bracing: 13-14

REACTIONS.

(size) 19=0-3-8, 8=Mechanical
Max Horz 19=72(LC 8)
Max Uplift 19=-35(LC 8), 8=-11(LC 9)
Max Grav 19=1412(LC 1), 8=1327(LC 1)

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

TOP CHORD 2-3=-2354/44, 3-4=-4109/43, 4-5=-2627/26, 5-6=-2671/32, 6-7=-2477/29,
2-19=-1324/88, 8-10=-1233/36, 7-10=-1237/51
BOT CHORD 18-19=-205/1198, 4-16=-23/1634, 15-16=0/3722, 11-12=-3/742, 10-11=-3/742
WEBS 14-15=-499/0, 3-18=-1699/115, 16-18=-39/2720, 3-16=0/1721, 4-15=-1732/58,
6-12=-616/85, 2-18=0/855, 13-15=0/651, 5-15=0/1601, 6-15=-112/347, 12-15=-6/2224,
7-12=0/1472

NOTES-

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope); cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- All plates are 2x4 MT20 unless otherwise indicated.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- Refer to girder(s) for truss to truss connections.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 19, 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.



July 14,2020

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 105 MN	I42013233
400416	D6	Roof Special	1	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS 66871

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ID:hBKBB?7qDne_mzfVwp2wlnylbVc-KKEEiH2XzkvYZsG7F4YDCxDn9SebgPWOW3YjUayyC2V

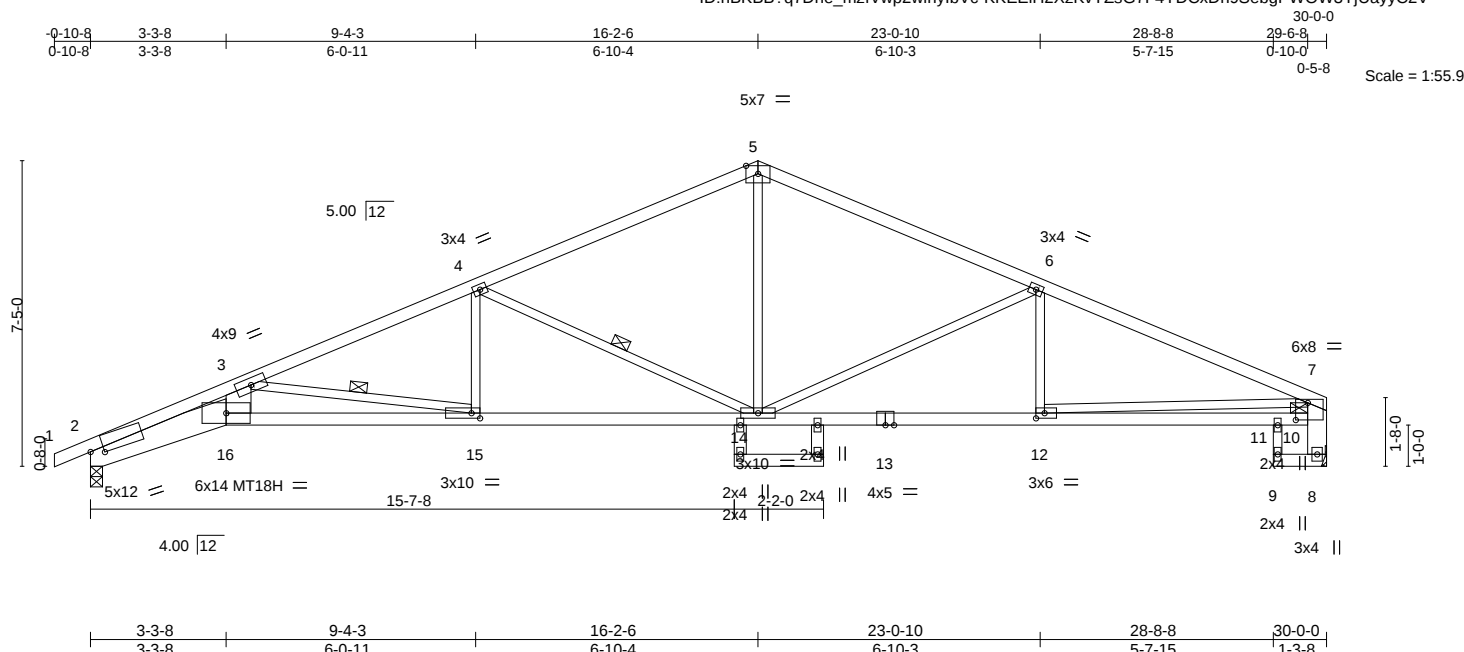


Plate Offsets (X,Y)--		[2:0-3-15,0-1-6], [7:0-3-8,0-5-0], [12:0-2-8,0-1-8], [15:0-2-8,0-1-8]											
LOADING (psf)		SPACING- 2-0-0		CSI.		DEFL. in (loc) l/defl L/d				PLATES		GRIP	
TCLL	25.0	Plate Grip DOL 1.15		TC 0.96		Vert(LL) -0.36 15-16 >996 360				MT20		197/144	
TCDL	10.0	Lumber DOL 1.15		BC 0.79		Vert(CT) -0.66 15-16 >536 240				MT18H		197/144	
BCLL	0.0 *	Rep Stress Incr YES		WB 1.00		Horz(CT) 0.28 8 n/a n/a							
BCDL	10.0	Code IRC2018/TPI2014		Matrix-S		Wind(LL) 0.19 15-16 >999 240				Weight: 121 lb		FT = 10%	

LUMBER-

TOP CHORD 2x4 SPF No.2
 BOT CHORD 2x4 SPF No.2 *Except*
 2-16: 2x8 SP DSS, 13-16: 2x4 SPF 2100F 1.8E
 WEBS 2x3 SPF No.2 *Except*
 3-16: 2x8 SP DSS, 7-8: 2x6 SPF No.2, 14-17,18-19: 2x4 SPF No.2

BRACING-

TOP CHORD Structural wood sheathing directly applied or 1-9-1 oc purlins, except end verticals.
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
 WEBS 1 Row at midpt 3-15, 4-14

REACTIONS.

(size) 2=0-3-8, 8=Mechanical
 Max Horz 2=79(LC 10)
 Max Uplift 2=-35(LC 8), 8=-12(LC 9)
 Max Grav 2=1406(LC 1), 8=1332(LC 1)

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

TOP CHORD 2-3=-6141/166, 3-4=-2981/67, 4-5=-1877/43, 5-6=-1876/57, 6-7=-2491/32, 8-10=-1239/38, 7-10=-1244/52
 BOT CHORD 2-16=-204/5654, 15-16=-190/4748, 14-15=-45/2721, 12-14=0/2223, 11-12=-0/737, 10-11=-0/737
 WEBS 3-16=-4/1830, 3-15=-2049/146, 4-15=0/462, 4-14=-1199/117, 5-14=0/934, 6-14=-705/105, 7-12=-2/1489

NOTES-

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



July 14,2020

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16023 Swingley Ridge Rd
 Chesterfield, MO 63017

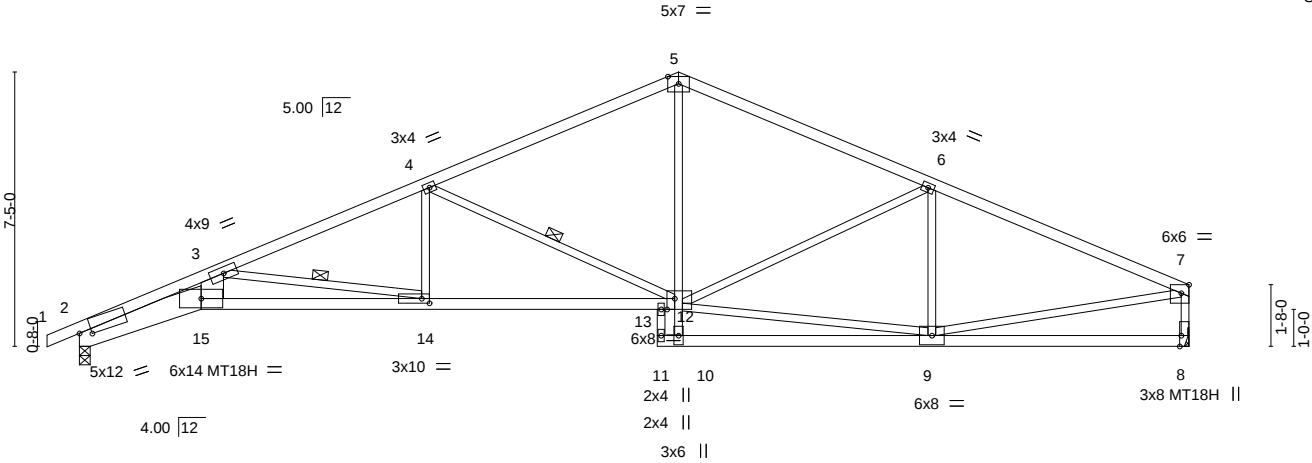
Job	Truss	Truss Type	Qty	Ply	Lot 105 MN	I42013234
400416	D7	Roof Special	1	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS 66871

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ID:hBKBB?7Dne_mzfVwp2wlnyIbVc-oWodwd39ke1PA0qJpo3SI9lyrs_IPxYljtG10yyC2U

0-10-8	2-8-5	3-3-8	9-4-5	15-7-8	16-2-6	23-0-10	30-0-0
0-10-8	2-8-5	0-7-3	6-0-13	6-3-3	0-6-14	6-10-3	6-11-7

Scale = 1:62.3



	3-3-8	9-4-5	15-7-8	16-2-6	23-0-10	30-0-0				
	3-3-8	6-0-13	6-3-3	0-6-14	6-10-3	6-11-7				
Plate Offsets (X,Y)--	[2:0-3-15,0-1-6], [7:0-2-8,Edge], [8:0-3-8,Edge], [12:0-2-8,Edge], [14:0-2-8,0-1-8]									
LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP	
TCLL 25.0	Plate Grip DOL	1.15	TC 0.97	Vert(LL)	-0.36	14-15	>999	360	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.79	Vert(CT)	-0.66	14-15	>541	240	MT18H	197/144
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.68	Horz(CT)	0.29	8	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-S	Wind(LL)	0.19	14-15	>999	240	Weight: 123 lb	FT = 10%

LUMBER-

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

BRACING-

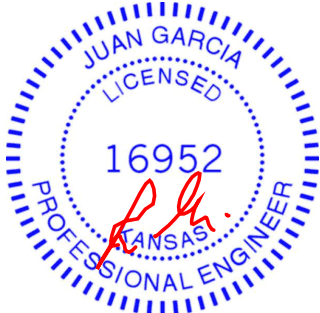
TOP CHORD Structural wood sheathing directly applied or 1-8-14 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 1 Row at midpt 3-14, 4-12

REACTIONS. (size) 2=0-3-8, 8=Mechanical
Max Horz 2=79(LC 10)
Max Uplift 2=-35(LC 8), 8=-13(LC 9)
Max Grav 2=1411(LC 1), 8=1338(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-6168/166, 3-4=-2998/65, 4-5=-1900/46, 5-6=-1879/60, 6-7=-1973/33, 7-8=-1270/47
BOT CHORD 2-15=-204/5679, 14-15=-190/4770, 13-14=-43/2737, 12-13=-43/2737
WEBS 11-13=-314/0, 3-15=-5/1837, 3-14=-2055/148, 4-14=0/469, 4-12=-1198/114, 10-12=0/472, 5-12=0/950, 6-12=-284/115, 6-9=-443/86, 7-9=0/1664, 9-12=-4/1718

NOTES-

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



July 14,2020

Job	Truss	Truss Type	Qty	Ply	Lot 105 MN	I42013235
400416	D8	Roof Special	1	1		
Job Reference (optional)						

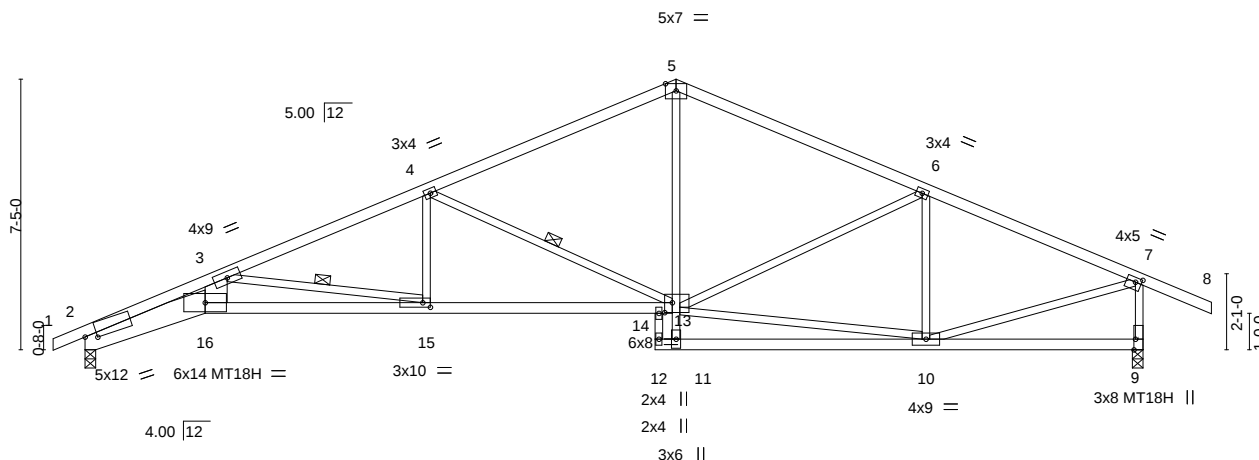
Wheeler Lumber, Waverly, KS 66871

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0-10-8 2-8-5 3-3-8 9-4-5 15-7-8 16-2-6 23-0-10 29-0-0 30-10-8
0-10-8 2-8-5 0-7-3 6-0-13 6-3-3 0-6-14 6-10-3 5-11-7 1-10-8

ID:hBKBb?7qDne_mzfVwp2wlnylbVc-GjM?7z4oVy9GoAPVNVahHMI89GLV8OFhzN1pZSyyC2T

Scale = 1:63.2



3-3-8 9-4-5 15-7-8 16-2-6 23-0-10 29-0-0
3-3-8 6-0-13 6-3-3 0-6-14 6-10-3 5-11-7

Plate Offsets (X,Y)--		[2:0-3-15,0-1-6], [7:0-2-0,0-1-8], [9:0-3-8,Edge], [13:0-2-8,0-3-4], [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 0.93		Vert(LL)		-0.33 15-16 >999 360		MT20		197/144	
TCDL	10.0	Lumber DOL		1.15		BC 0.76		Vert(CT)		-0.62 15-16 >553 240		MT18H		197/144	
BCLL	0.0 *	Rep Stress Incr		YES		WB 0.67		Horz(CT)		0.27 9 n/a n/a					
BCDL	10.0	Code IRC2018/TPI2014				Matrix-S		Wind(LL)		0.26 15-16 >999 240		Weight: 122 lb		FT = 10%	

LUMBER-

TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2 *Except*
2-16: 2x8 SP DSS, 13-16: 2x4 SPF 2100F 1.8E
WEBS 2x3 SPF No.2 *Except*
3-16: 2x8 SP DSS

BRACING-

TOP CHORD Structural wood sheathing directly applied or 1-10-13 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing, Except:
8-10-10 oc bracing: 15-16.
WEBS 1 Row at midpt 3-15, 4-13

REACTIONS.

(size) 2=0-3-8, 9=0-3-8
Max Horz 2=118(LC 12)
Max Uplift 2=201(LC 8), 9=196(LC 9)
Max Grav 2=1362(LC 1), 9=1436(LC 1)

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

TOP CHORD 2-3=-5918/891, 3-4=-2845/393, 4-5=-1759/233, 5-6=-1737/253, 6-7=-1658/200, 7-9=-1382/223
BOT CHORD 2-16=-904/5448, 15-16=-783/4574, 14-15=-351/2595, 13-14=-351/2595
WEBS 12-14=-330/0, 3-16=-220/1765, 3-15=-2000/436, 4-15=0/463, 4-13=-1183/301, 11-13=0/492, 5-13=-51/830, 6-10=-522/139, 7-10=-117/1500, 10-13=-140/1434

NOTES-

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- All plates are MT20 plates unless otherwise indicated.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- Bearing at joint(s) 2 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=201, 9=196.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



July 14, 2020

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 105 MN	I42013236
400416	D9	GABLE	1	1		

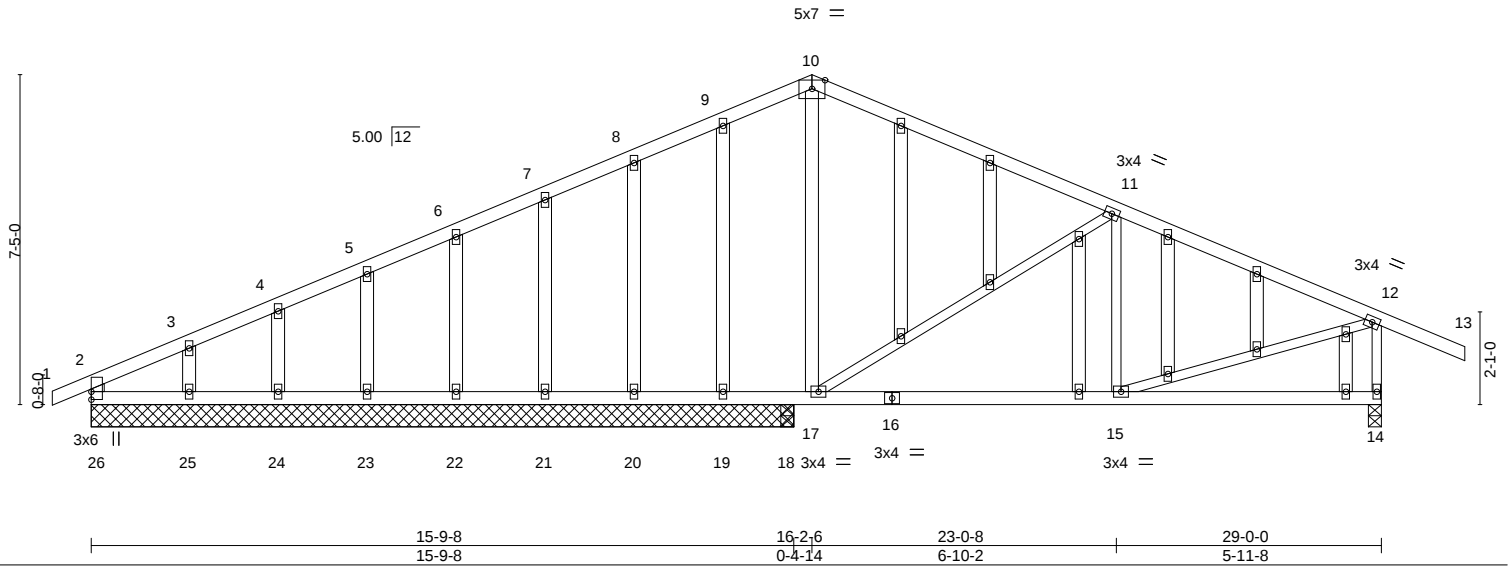
Wheeler Lumber, Waverly, KS 66871

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ID:hBKBB?q7Dne_mzfVwp2wlnylbVc-kwnNKJ4QGfH7QK_ixD5wqarP?gmtoHqC1nN5vyvC2S

-0-10-8	16-2-6	23-0-8	29-0-0	30-10-8
0-10-8	16-2-6	6-10-2	5-11-8	1-10-8

Scale = 1:51.8



LOADING (psf)		SPACING-		CSI.		DEFL.		PLATES		GRIP	
TCLL	25.0	Plate Grip DOL	1.15	TC	0.54	Vert(LL)	-0.05 15-17 >999 360	MT20		197/144	
TCDL	10.0	Lumber DOL	1.15	BC	0.39	Vert(CT)	-0.11 15-17 >999 240				
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.87	Horz(CT)	0.01 14 n/a n/a				
BCDL	10.0	Code IRC2018/TPI2014		Matrix-S		Wind(LL)	0.03 15-17 >999 240				
								Weight: 144 lb		FT = 10%	

LUMBER-

TOP CHORD 2x4 SPF No.2
 BOT CHORD 2x4 SPF No.2 *Except*
 16-26: 2x4 SPF 2100F 1.8E
 WEBS 2x3 SPF No.2 *Except*
 10-17,2-26: 2x4 SPF No.2
 OTHERS 2x4 SPF No.2

BRACING-

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

REACTIONS.

All bearings 15-9-8 except (jt=length) 14=0-3-8, 18=0-3-8.
 (lb) - Max Horz 26=109(LC 8)
 Max Uplift All uplift 100 lb or less at joint(s) 20, 21, 22, 23, 24, 25 except 14=-144(LC 9), 19=-277(LC 22), 18=-112(LC 9)
 Max Grav All reactions 250 lb or less at joint(s) 26, 19, 20, 21, 22, 23, 24, 25 except 14=756(LC 1), 18=901(LC 1)

FORCES.

(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
 TOP CHORD 11-12=-659/124, 12-14=-710/172
 BOT CHORD 15-17=-54/543
 WEBS 10-17=-258/58, 11-17=-550/181, 12-15=-43/551

NOTES-

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- All plates are 2x4 MT20 unless otherwise indicated.
- Gable studs spaced at 2-0-0 oc.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 20, 21, 22, 23, 24, 25 except (jt=lb) 14=144, 19=277, 18=112.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



July 14, 2020

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16023 Swingley Ridge Rd
 Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 105 MN	I42013237
400416	E1	Common Supported Gable	1	1		

Wheeler Lumber, Waverly, KS 66871

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ID:hBKBb?7Dne_mzfVwp2wnylbVc-C5UIYf521ZP_1UZuUwc9NnNh53CCcSo_RhWwdLyyC2R

Job Reference (optional)

-0-10-8	6-9-0	13-6-0	14-4-8
0-10-8	6-9-0	6-9-0	0-10-8

Scale = 1:24.5

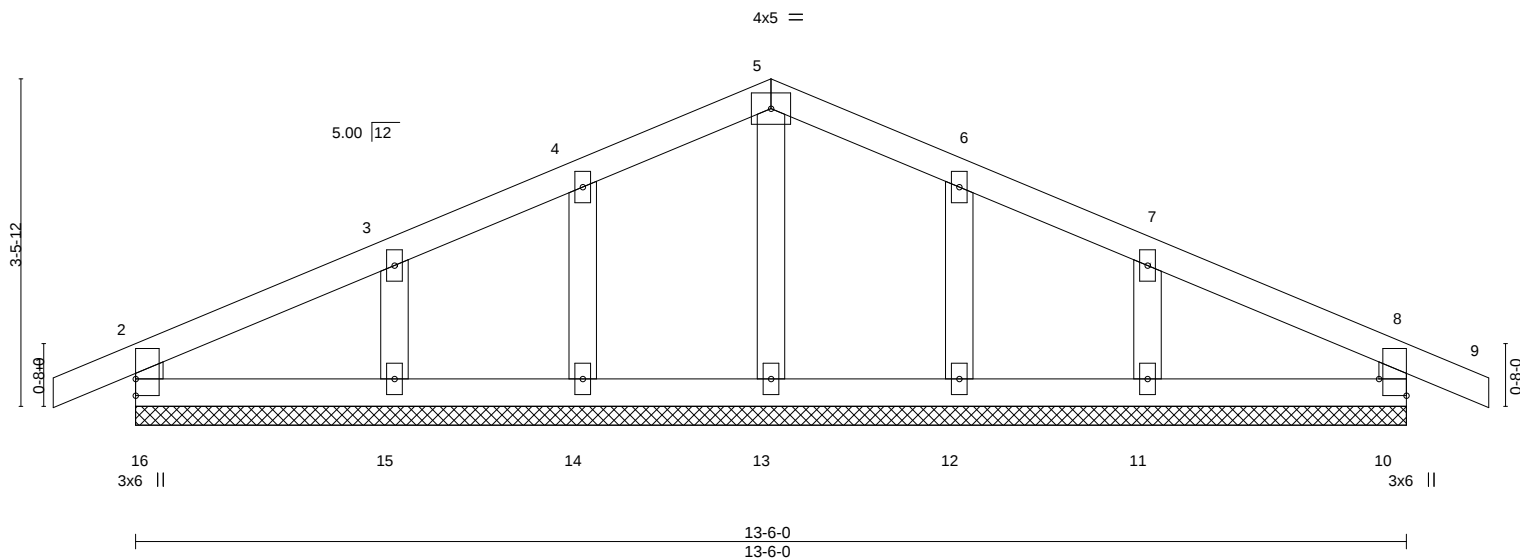


Plate Offsets (X,Y)-- [10:Edge,0-3-8]

LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.07	Vert(LL)	-0.00	8	n/r	120	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.04	Vert(CT)	-0.00	9	n/r	120		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.02	Horz(CT)	0.00	10	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-R						Weight: 46 lb	FT = 10%

LUMBER-

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

BRACING-

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

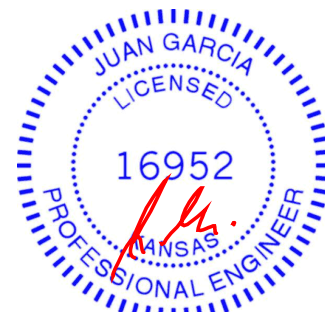
REACTIONS.

All bearings 13-6-0.
(lb) - Max Horz 16=42(LC 8)
Max Uplift All uplift 100 lb or less at joint(s) 16, 10, 14, 15, 12, 11
Max Grav All reactions 250 lb or less at joint(s) 16, 10, 13, 14, 15, 12, 11

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

NOTES-

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- All plates are 2x4 MT20 unless otherwise indicated.
- Gable requires continuous bottom chord bearing.
- Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
- Gable studs spaced at 2-0-0 oc.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 16, 10, 14, 15, 12, 11.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



July 14, 2020

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 105 MN	I42013238
400416	E2	Common	2	1		

Wheeler Lumber, Waverly, KS 66871

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Job Reference (optional)

-0-10-8	6-9-0	13-6-0	14-4-8
0-10-8	6-9-0	6-9-0	0-10-8

Scale = 1:24.4

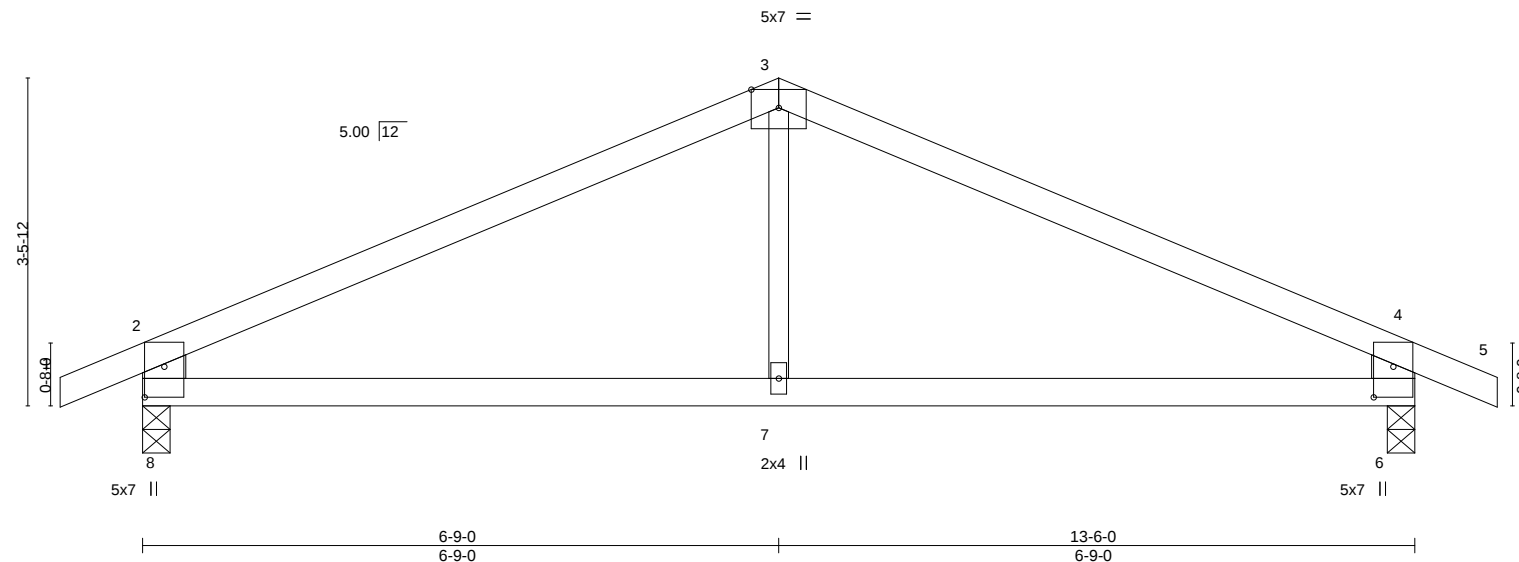


Plate Offsets (X,Y)--		[6:0-3-14,0-2-8], [8:0-3-14,0-2-8]	
LOADING (psf)	SPACING-	2-0-0	CSI.
TCLL 25.0	Plate Grip DOL	1.15	TC 0.53
TCDL 10.0	Lumber DOL	1.15	BC 0.35
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.09
BCDL 10.0	Code	IRC2018/TPI2014	Matrix-R
			DEFL.
			in (loc) l/defl L/d
			Vert(LL) -0.04 7-8 >999 360
			Vert(CT) -0.09 7-8 >999 240
			Horz(CT) 0.01 6 n/a n/a
			Wind(LL) 0.02 7-8 >999 240
			PLATES
			MT20
			GRIP
			197/144
			Weight: 38 lb FT = 10%

LUMBER-

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

BRACING-

TOP CHORD Structural wood sheathing directly applied or 5-10-1 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=-40(LC 13)
Max Uplift 8=-100(LC 8), 6=-100(LC 9)
Max Grav 8=664(LC 1), 6=664(LC 1)

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

TOP CHORD 2-3=-804/100, 3-4=-804/99, 2-8=-605/145, 4-6=-605/145
BOT CHORD 7-8=-30/652, 6-7=-30/652
WEBS 3-7=0/278

NOTES-

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



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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 105 MN	I42013239
400416	G1	Common Supported Gable	1	1		

Wheeler Lumber, Waverly, KS 66871

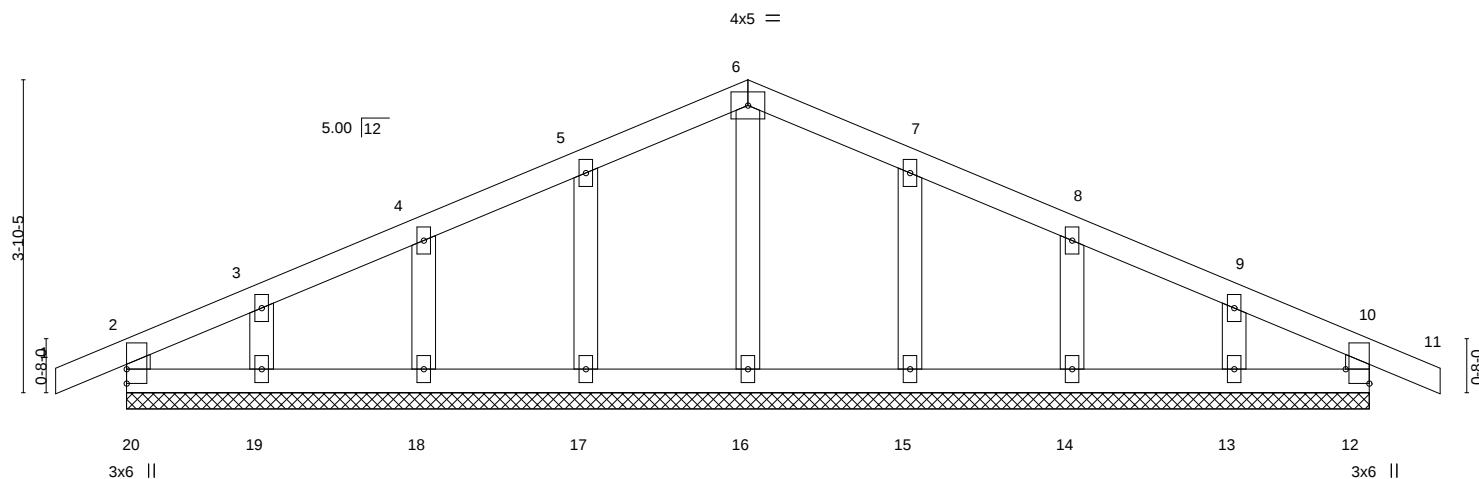
8.410 s May 22 2020 MiTek Industries, Inc. Tue Jul 14 08:57:56 2020 Page 1

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Job Reference (optional)

0-10-8 7-8-0 15-4-0 16-2-8
0-10-8 7-8-0 7-8-0 0-10-8

Scale = 1:28.4



										15-4-0													
Plate Offsets (X,Y)--										[12:Edge,0-3-8]													
LOADING (psf)		SPACING-		2-0-0		CSI.		DEFL.		in (loc)		l/defl		L/d		PLATES		GRIP					
TCLL	25.0	Plate Grip DOL		1.15		TC	0.07	Vert(LL)	-0.00	11	n/r		120		MT20		197/144						
TCDL	10.0	Lumber DOL		1.15		BC	0.02	Vert(CT)	-0.00	11	n/r		120										
BCLL	0.0 *	Rep Stress Incr		YES		WB	0.03	Horz(CT)	0.00	12	n/a		n/a										
BCDL	10.0	Code IRC2018/TPI2014				Matrix-R										Weight: 54 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 15-4-0.
(lb) - Max Horz 20=48(LC 8)
Max Uplift All uplift 100 lb or less at joint(s) 20, 12, 17, 18, 19, 15, 14, 13
Max Grav All reactions 250 lb or less at joint(s) 20, 12, 16, 17, 18, 19, 15, 14, 13

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

NOTES-

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



July 14, 2020

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 105 MN	I42013240
400416	G2	Common Girder	1	2	Job Reference (optional)	

Wheeler Lumber, Waverly, KS 66871

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0-10-8	4-4-4	7-8-0	10-11-12	15-4-0	16-2-8
0-10-8	4-4-4	3-3-12	3-3-12	4-4-4	0-10-8

Scale = 1:27.4

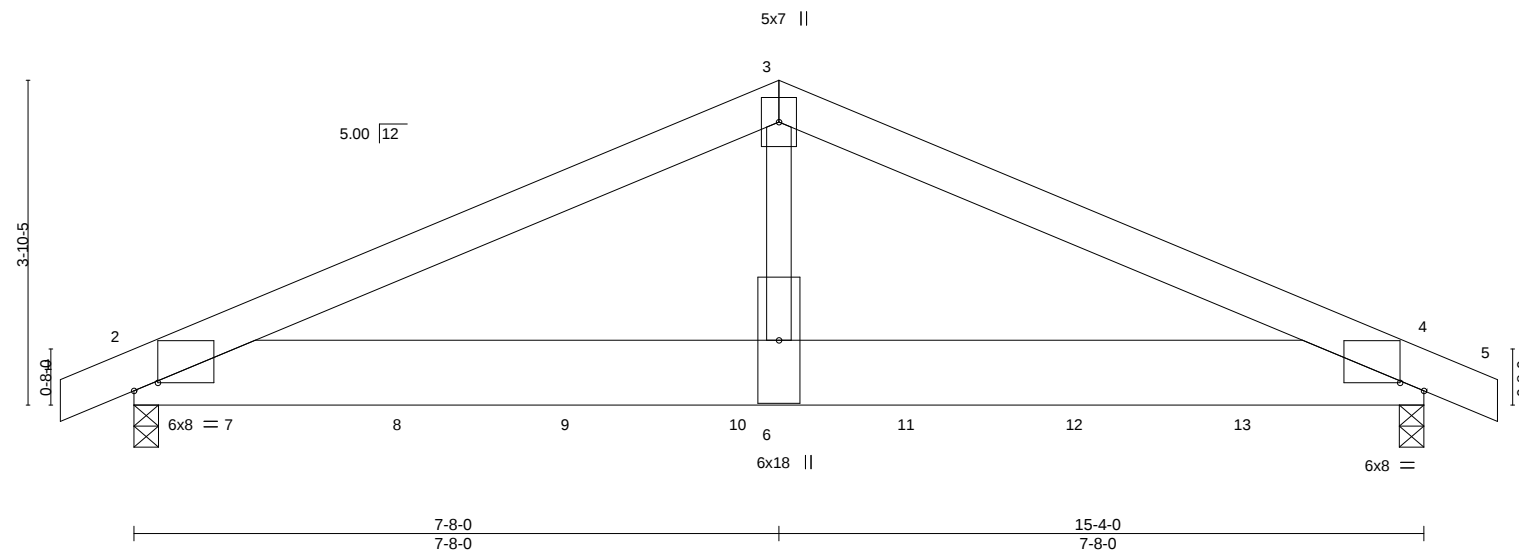


Plate Offsets (X,Y)--	[2:0-3-6,0-1-2], [4:0-3-6,0-1-2]								
LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.48	Vert(LL)	-0.08	2-6	>999	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.57	Vert(CT)	-0.15	2-6	>999		
BCLL 0.0 *	Rep Stress Incr	NO	WB 0.72	Horz(CT)	0.03	4	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-S	Wind(LL)	0.04	2-6	>999	Weight: 194 lb	FT = 10%

LUMBER-

TOP CHORD 2x6 SPF No.2
BOT CHORD 2x10 SP DSS
WEBS 2x4 SPF No.2

BRACING-

TOP CHORD Structural wood sheathing directly applied or 4-10-14 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS.

(size) 2=0-3-8, 4=0-3-8
Max Horz 2=63(LC 29)
Max Uplift 2=210(LC 8), 4=192(LC 9)
Max Grav 2=5628(LC 1), 4=5098(LC 1)

FORCES.

(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-8285/254, 3-4=-8287/253
BOT CHORD 2-6=-173/7552, 4-6=-173/7552
WEBS 3-6=-39/5878

NOTES-

- 2-ply truss to be connected together with 10d (0.131"x3") nails as follows:
Top chords connected as follows: 2x6 - 2 rows staggered at 0-9-0 oc.
Bottom chords connected as follows: 2x10 - 2 rows staggered at 0-3-0 oc.
Webs connected as follows: 2x4 - 1 row at 0-9-0 oc.
- All loads are considered equally applied to all plies, except if noted as front (F) or back (B) face in the LOAD CASE(S) section. Ply to ply connections have been provided to distribute only loads noted as (F) or (B), unless otherwise indicated.
- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=210, 4=192.
- 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) 1380 lb down and 43 lb up at 1-3-4, 1304 lb down and 32 lb up at 3-3-4, 1304 lb down and 32 lb up at 5-3-4, 1304 lb down and 32 lb up at 7-3-4, 1307 lb down and 31 lb up at 9-3-4, and 1312 lb down and 32 lb up at 11-3-4, and 1318 lb down and 33 lb up at 13-3-4 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.

LOAD CASE(S) Standard



July 14, 2020

Continued on page 2

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 105 MN
400416	G2	Common Girder	1	2	I42013240
					Job Reference (optional)

Wheeler Lumber, Waverly, KS 66871

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LOAD CASE(S) Standard

- 1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (plf)
Vert: 1-3=-70, 3-5=-70, 2-4=-20
Concentrated Loads (lb)
Vert: 7=-1380(B) 8=-1304(B) 9=-1304(B) 10=-1304(B) 11=-1307(B) 12=-1312(B) 13=-1318(B)

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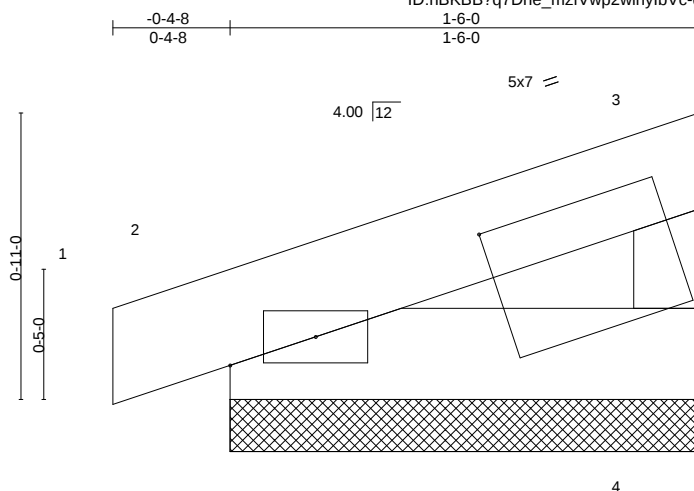


16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 105 MN	I42013241
400416	J4	JACK-CLOSED SUPPORTE	2	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS 66871

8.410 s May 22 2020 MiTek Industries, Inc. Tue Jul 14 08:57:57 2020 Page 1
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Scale = 1:7.4

Plate Offsets (X,Y)--		[3:0-10-10,0-1-12]	
LOADING (psf)	SPACING-	2-0-0	CSI.
TCLL 25.0	Plate Grip DOL	1.15	TC 0.03
TCDL 10.0	Lumber DOL	1.15	BC 0.02
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.00
BCDL 10.0	Code IRC2018/TPI2014		Matrix-P
			DEFL.
			in (loc) l/defl L/d
			Vert(LL) -0.00 1 n/r 120
			Vert(CT) 0.00 1 n/r 120
			Horz(CT) -0.00 4 n/a n/a
			PLATES
			MT20
			GRIP
			197/144
			Weight: 4 lb FT = 10%

LUMBER-

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

BRACING-

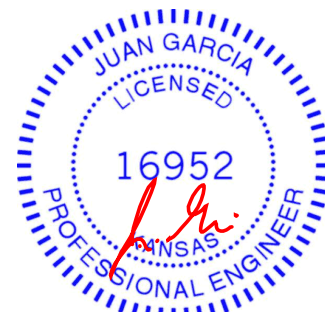
TOP CHORD Structural wood sheathing directly applied or 1-6-0 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) 4=1-6-0, 2=1-6-0
Max Horz 2=26(LC 5)
Max Uplift 4=13(LC 8), 2=27(LC 4)
Max Grav 4=59(LC 1), 2=93(LC 1)

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

NOTES-

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



July 14, 2020

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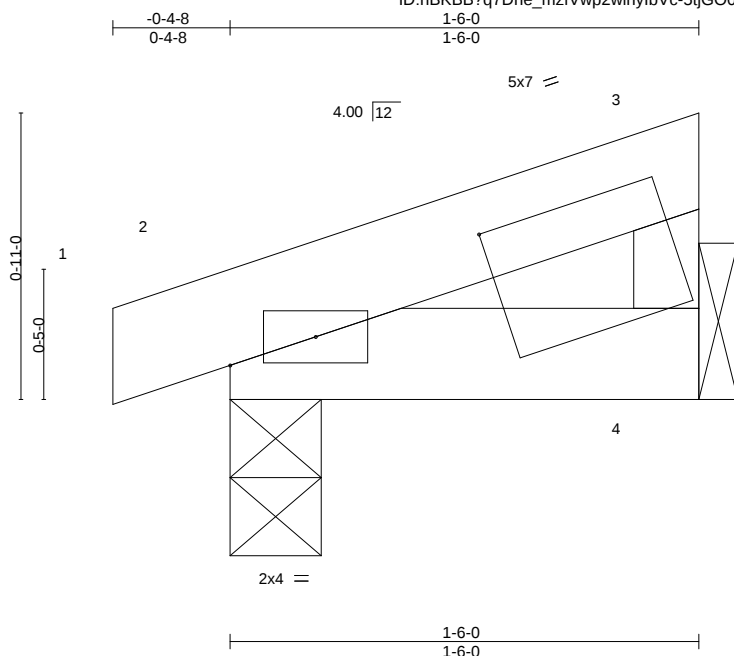


Plate Offsets (X,Y)-- [3:0-10-10,0-1-12]													
LOADING (psf)		SPACING- 2-0-0		CSI.		DEFL. in (loc) l/defl L/d				PLATES GRIP			
TCLL	25.0	Plate Grip DOL	1.15	TC	0.02	Vert(LL)	-0.00	2	>999	360	MT20	197/144	
TCDL	10.0	Lumber DOL	1.15	BC	0.02	Vert(CT)	-0.00	2	>999	240			
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.00	Horz(CT)	-0.00	4	n/a	n/a			
BCDL	10.0	Code IRC2018/TPI2014		Matrix-P		Wind(LL)	0.00	2	****	240	Weight: 4 lb	FT = 10%	

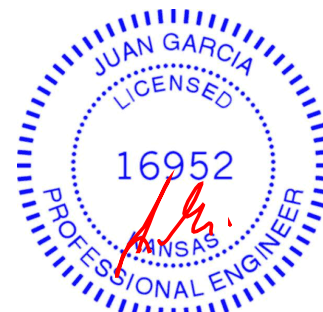
LUMBER-		BRACING-	
TOP CHORD	2x4 SPF No.2	TOP CHORD	Structural wood sheathing directly applied or 1-6-0 oc purlins, except end verticals.
BOT CHORD	2x4 SPF No.2	BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS	2x3 SPF No.2		

REACTIONS. (size) 4=Mechanical, 2=0-3-8
Max Horz 2=26(LC 5)
Max Uplift 4=13(LC 8), 2=29(LC 4)
Max Grav 4=57(LC 1), 2=94(LC 1)

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

NOTES-

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



July 14, 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 BCS Building Component Safety Information** available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601.



16023 Swingley Ridge Rd
Chesterfield, MO 63017

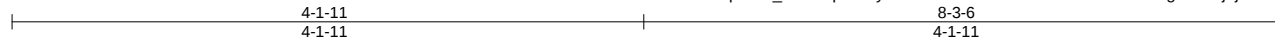
Job	Truss	Truss Type	Qty	Ply	Lot 105 MN	I42013243
400416	V2	Valley	1	1		

Wheeler Lumber, Waverly, KS 66871

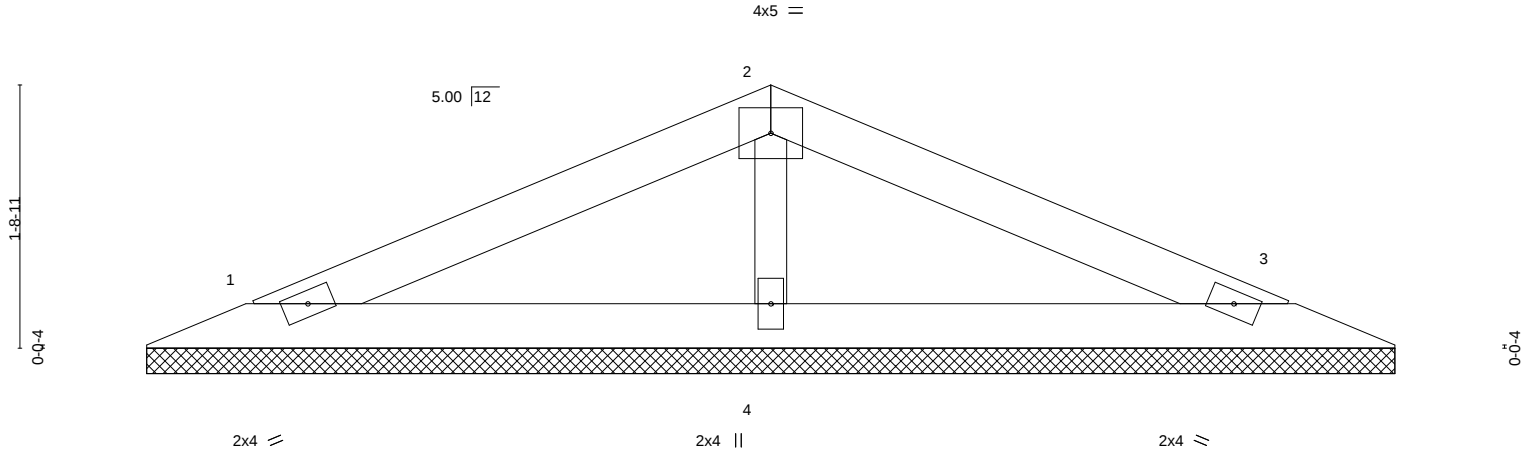
8.410 s May 22 2020 MiTek Industries, Inc. Tue Jul 14 08:57:59 2020 Page 1

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Job Reference (optional)



Scale = 1:15.1



		8-2-13		8-2-13		8-2-6		8-2-6	
		8-2-13		8-2-13		8-2-6		8-2-6	
LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in	(loc)	l/defl	L/d	PLATES
TCLL 25.0	Plate Grip DOL	1.15	TC 0.21	Vert(LL)	n/a	-	n/a	999	MT20
TCDL 10.0	Lumber DOL	1.15	BC 0.10	Vert(CT)	n/a	-	n/a	999	GRIP
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.04	Horz(CT)	0.00	3	n/a	n/a	197/144
BCDL 10.0	Code IRC2018/TPI2014		Matrix-P						
								Weight: 19 lb	
								FT = 10%	

LUMBER-

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

BRACING-

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

REACTIONS.

(size) 1=8-2-3, 3=8-2-3, 4=8-2-3
Max Horz 1=25(LC 12)
Max Uplift 1=35(LC 8), 3=40(LC 9), 4=8(LC 8)
Max Grav 1=154(LC 1), 3=154(LC 1), 4=302(LC 1)

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

NOTES-

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



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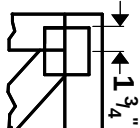
Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall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



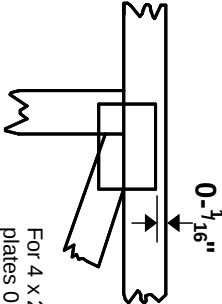
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Symbols

PLATE LOCATION AND ORIENTATION



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



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

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

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

PLATE SIZE

4 X 4

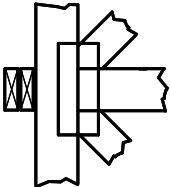
The first dimension is the plate width measured perpendicular to slots. Second dimension is the length parallel to slots.

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



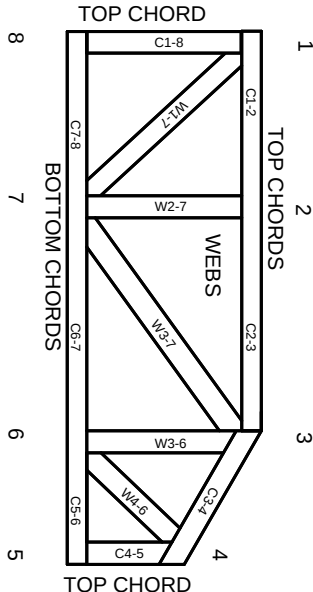
Indicates location where bearings (supports) occur. Icons vary but reaction section indicates joint number where bearings occur. Min size shown is for crushing only.

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 Tor I bracing should be considered.
3. Never exceed the design loading shown and never stack materials on inadequately braced trusses.
4. Provide copies of this truss design to the building designer, erection supervisor, property owner and all other interested parties.
5. Cut members to bear tightly against each other.
6. Place plates on each face of truss at each joint and embed fully. Knots and wane at joint locations are regulated by ANSI/TP1 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.