



RE: 210444
Lot 101 H4

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

Site Information:

Customer: Project Name: 210444
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

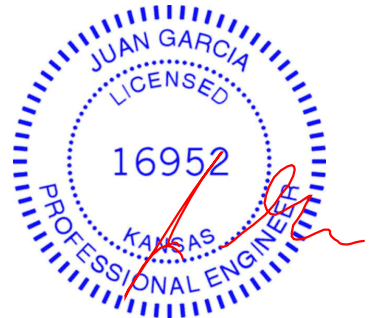
Design Program: MiTek 20/20 8.4
Wind Speed: 115 mph
Floor Load: N/A psf

This package includes 71 individual, dated Truss Design Drawings and 0 Additional Drawings.

No.	Seal#	Truss Name	Date	No.	Seal#	Truss Name	Date
1	I44832078	A1	5/28/2021	21	I44832098	G2	5/28/2021
2	I44832079	A2	5/28/2021	22	I44832099	G3	5/28/2021
3	I44832080	B1	5/28/2021	23	I44832100	G4	5/28/2021
4	I44832081	B2	5/28/2021	24	I44832101	G5	5/28/2021
5	I44832082	B3	5/28/2021	25	I44832102	H1	5/28/2021
6	I44832083	C1	5/28/2021	26	I44832103	H2	5/28/2021
7	I44832084	C2	5/28/2021	27	I44832104	H3	5/28/2021
8	I44832085	C3	5/28/2021	28	I44832105	H4	5/28/2021
9	I44832086	C4	5/28/2021	29	I44832106	H5	5/28/2021
10	I44832087	D1	5/28/2021	30	I44832107	H6	5/28/2021
11	I44832088	D2	5/28/2021	31	I44832108	H7	5/28/2021
12	I44832089	D3	5/28/2021	32	I44832109	J1	5/28/2021
13	I44832090	E1	5/28/2021	33	I44832110	J2	5/28/2021
14	I44832091	E2	5/28/2021	34	I44832111	J3	5/28/2021
15	I44832092	E3	5/28/2021	35	I44832112	J4A	5/28/2021
16	I44832093	E4	5/28/2021	36	I44832113	J5A	5/28/2021
17	I44832094	E5	5/28/2021	37	I44832114	J6	5/28/2021
18	I44832095	E6	5/28/2021	38	I44832115	J7	5/28/2021
19	I44832096	E7	5/28/2021	39	I44832116	J8	5/28/2021
20	I44832097	G1	5/28/2021	40	I44832117	J9	5/28/2021

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.





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Address:

City, County:

State:

No.	Seal#	Truss Name	Date
41	I44832118	J10	5/28/2021
42	I44832119	J11	5/28/2021
43	I44832120	J12	5/28/2021
44	I44832121	J13	5/28/2021
45	I44832122	J14	5/28/2021
46	I44832123	J15	5/28/2021
47	I44832124	J16	5/28/2021
48	I44832125	J17	5/28/2021
49	I44832126	J18	5/28/2021
50	I44832127	J20	5/28/2021
51	I44832128	J21	5/28/2021
52	I44832129	J22	5/28/2021
53	I44832130	J23	5/28/2021
54	I44832131	J24	5/28/2021
55	I44832132	J25	5/28/2021
56	I44832133	J26	5/28/2021
57	I44832134	J27	5/28/2021
58	I44832135	J28	5/28/2021
59	I44832136	J29	5/28/2021
60	I44832137	J30	5/28/2021
61	I44832138	J31	5/28/2021
62	I44832139	LAY1	5/28/2021
63	I44832140	LAY2	5/28/2021
64	I44832141	LAY3	5/28/2021
65	I44832142	LAY4	5/28/2021
66	I44832143	LAY5	5/28/2021
67	I44832144	LAY6	5/28/2021
68	I44832145	V1	5/28/2021
69	I44832146	V2	5/28/2021
70	I44832147	V3	5/28/2021
71	I44832148	V4	5/28/2021



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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 71 individual, dated Truss Design Drawings and 0 Additional Drawings.

No.	Seal#	Truss Name	Date	No.	Seal#	Truss Name	Date
1	I44832078	A1	5/28/2021	21	I44832098	G2	5/28/2021
2	I44832079	A2	5/28/2021	22	I44832099	G3	5/28/2021
3	I44832080	B1	5/28/2021	23	I44832100	G4	5/28/2021
4	I44832081	B2	5/28/2021	24	I44832101	G5	5/28/2021
5	I44832082	B3	5/28/2021	25	I44832102	H1	5/28/2021
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8	I44832085	C3	5/28/2021	28	I44832105	H4	5/28/2021
9	I44832086	C4	5/28/2021	29	I44832106	H5	5/28/2021
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11	I44832088	D2	5/28/2021	31	I44832108	H7	5/28/2021
12	I44832089	D3	5/28/2021	32	I44832109	J1	5/28/2021
13	I44832090	E1	5/28/2021	33	I44832110	J2	5/28/2021
14	I44832091	E2	5/28/2021	34	I44832111	J3	5/28/2021
15	I44832092	E3	5/28/2021	35	I44832112	J4A	5/28/2021
16	I44832093	E4	5/28/2021	36	I44832113	J5A	5/28/2021
17	I44832094	E5	5/28/2021	37	I44832114	J6	5/28/2021
18	I44832095	E6	5/28/2021	38	I44832115	J7	5/28/2021
19	I44832096	E7	5/28/2021	39	I44832116	J8	5/28/2021
20	I44832097	G1	5/28/2021	40	I44832117	J9	5/28/2021

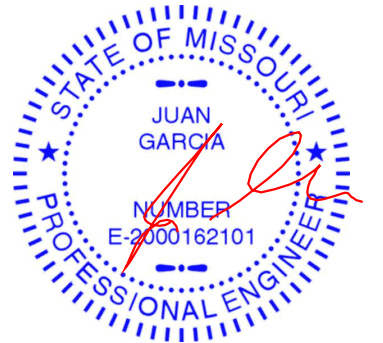
The truss drawing(s) referenced above have been prepared by
MiTek USA, Inc. under my direct supervision
based on the parameters provided by Wheeler - Waverly.

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.



May 28, 2021



RE: 210444 - Lot 101 H4

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Chesterfield, MO 63017
314-434-1200

Site Information:

Project Customer: Project Name: 210444

Lot/Block:

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City, County:

State:

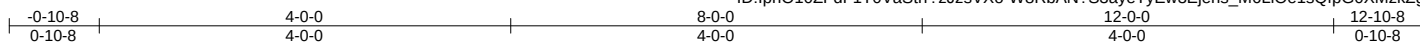
No.	Seal#	Truss Name	Date
41	I44832118	J10	5/28/2021
42	I44832119	J11	5/28/2021
43	I44832120	J12	5/28/2021
44	I44832121	J13	5/28/2021
45	I44832122	J14	5/28/2021
46	I44832123	J15	5/28/2021
47	I44832124	J16	5/28/2021
48	I44832125	J17	5/28/2021
49	I44832126	J18	5/28/2021
50	I44832127	J20	5/28/2021
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55	I44832132	J25	5/28/2021
56	I44832133	J26	5/28/2021
57	I44832134	J27	5/28/2021
58	I44832135	J28	5/28/2021
59	I44832136	J29	5/28/2021
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61	I44832138	J31	5/28/2021
62	I44832139	LAY1	5/28/2021
63	I44832140	LAY2	5/28/2021
64	I44832141	LAY3	5/28/2021
65	I44832142	LAY4	5/28/2021
66	I44832143	LAY5	5/28/2021
67	I44832144	LAY6	5/28/2021
68	I44832145	V1	5/28/2021
69	I44832146	V2	5/28/2021
70	I44832147	V3	5/28/2021
71	I44832148	V4	5/28/2021

Job 210444	Truss A1	Truss Type Hip Girder	Qty 1	Ply 1	Lot 101 H4 144832078
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Wheeler Lumber, Waverly, KS - 66871,

8.430 s Nov 30 2020 MiTek Industries, Inc. Tue Feb 16 12:11:46 2021 Page 1

ID:lpnO10ZFdf1T0VaStrr?zJzsVXo-W8RbAN?S3ayeTyEw3Ejehs_M6LiOe1sQfpG0XMzkZgR



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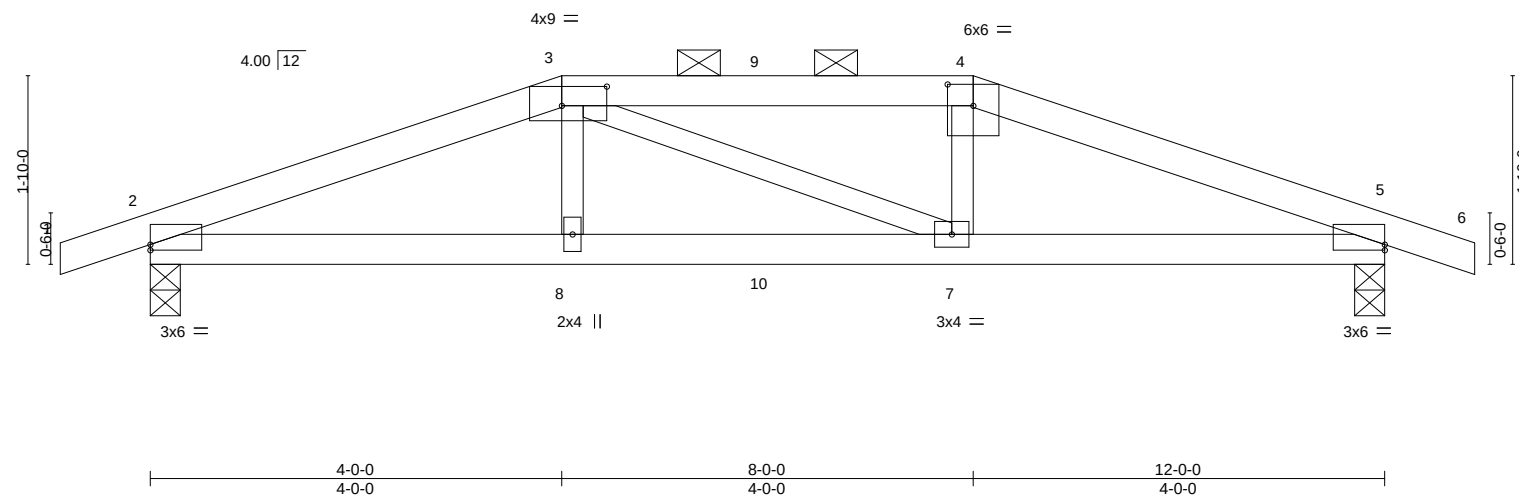


Plate Offsets (X, Y)--		[2:0-0-0,0-0-10], [3:0-5-4,0-2-4], [4:0-3-0,0-2-8], [5:0-0-0,0-0-10]	
LOADING (psf)	SPACING-	2-0-0	CSI.
TCLL 25.0	Plate Grip DOL	1.15	TC 0.47
TCDL 10.0	Lumber DOL	1.15	BC 0.52
BCLL 0.0 *	Rep Stress Incr	NO	WB 0.11
BCDL 10.0	Code IRC2018/TPI2014		Matrix-S
			DEFL. in (loc) l/defl L/d
			Vert(LL) -0.06 7-8 >999 360
			Vert(CT) -0.10 7-8 >999 240
			Horz(CT) 0.03 5 n/a n/a
			Wind(LL) 0.05 7-8 >999 240
			PLATES MT20
			GRIP 197/144
			Weight: 35 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 4-1-5 oc purlins, except 2-0-0 oc purlins (4-0-9 max.): 3-4.
BOT CHORD Rigid ceiling directly applied or 9-8-7 oc bracing.

REACTIONS.

(size) 2=0-3-8, 5=0-3-8
Max Horz 2=-29(LC 9)
Max Uplift 2=-233(LC 4), 5=-233(LC 5)
Max Grav 2=899(LC 1), 5=899(LC 1)

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

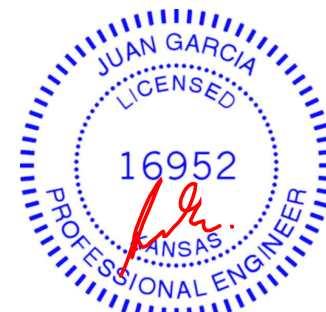
TOP CHORD 2-3=-1828/423, 3-4=-1673/414, 4-5=-1829/422
BOT CHORD 2-8=-370/1652, 7-8=-370/1672, 5-7=-351/1653
WEBS 3-8=0/315, 4-7=-6/325

NOTES-

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- Provide adequate drainage to prevent water ponding.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=233, 5=233.
- 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) 83 lb down and 72 lb up at 4-0-0, and 83 lb down and 72 lb up at 6-0-0, and 83 lb down and 72 lb up at 8-0-0 on top chord, and 212 lb down and 69 lb up at 4-0-0, and 36 lb down at 6-0-0, and 212 lb down and 69 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: 1-3=-70, 3-4=-70, 4-6=-70, 2-5=-20



February 16, 2021

Continued on page 2

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

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

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

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



16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 101 H4	I44832078
210444	A1	Hip Girder	1	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS - 66871,

8.430 s Nov 30 2020 MiTek Industries, Inc. Tue Feb 16 12:11:46 2021 Page 2
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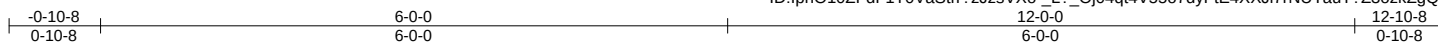
LOAD CASE(S) Standard
Concentrated Loads (lb)
Vert: 3=-53(F) 4=-53(F) 8=-212(F) 7=-212(F) 9=-53(F) 10=-18(F)

Job	Truss	Truss Type	Qty	Ply	Lot 101 H4	I44832079
210444	A2	Common	4	1		

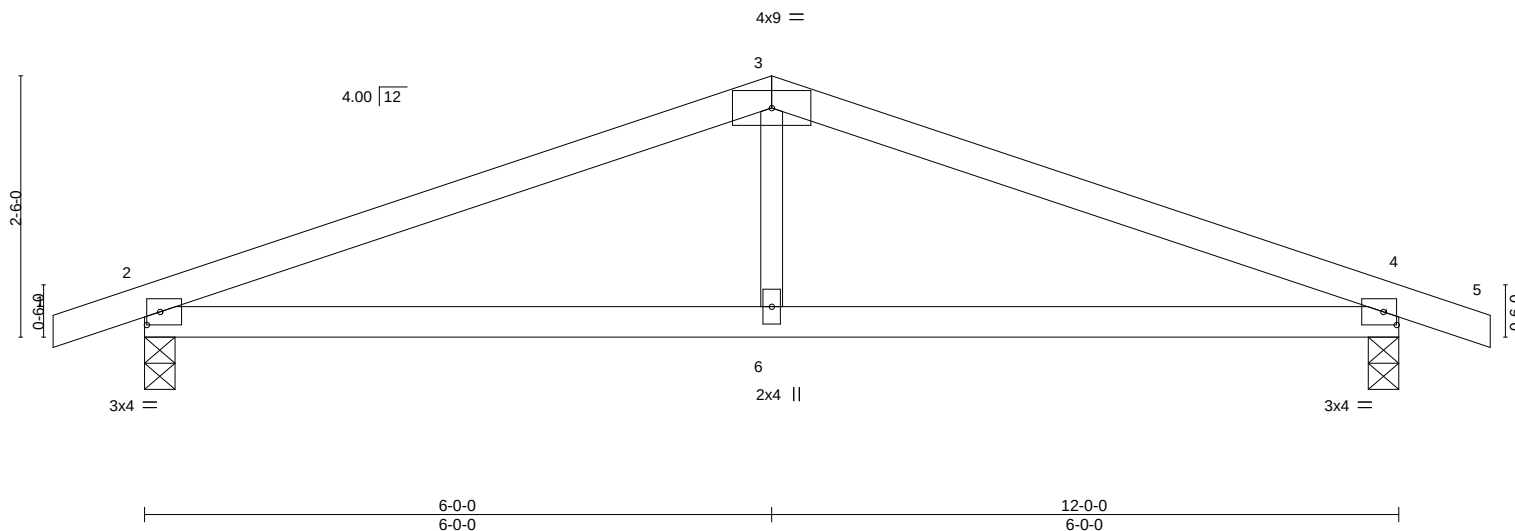
Wheeler Lumber, Waverly, KS - 66871,

8.430 s Nov 30 2020 MiTek Industries, Inc. Tue Feb 16 12:11:47 2021 Page 1

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LOADING (psf)	SPACING-	CSI.	DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL 1.15	TC 0.50	Vert(LL) -0.03	2-6	>999	360		MT20	197/144
TCDL 10.0	Lumber DOL 1.15	BC 0.38	Vert(CT) -0.08	2-6	>999	240			
BCLL 0.0 *	Rep Stress Incr YES	WB 0.09	Horz(CT) 0.02	4	n/a	n/a			
BCDL 10.0	Code IRC2018/TPI2014	Matrix-S	Wind(LL) 0.03	2-6	>999	240		Weight: 32 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 5-0-8 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=40(LC 12)
Max Uplift 2=-121(LC 4), 4=-121(LC 5)
Max Grav 2=598(LC 1), 4=598(LC 1)

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

TOP CHORD 2-3=-914/108, 3-4=-914/107
BOT CHORD 2-6=-57/791, 4-6=-57/791
WEBS 3-6=0/281

NOTES-

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=121, 4=121.
- 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.



February 16, 2021

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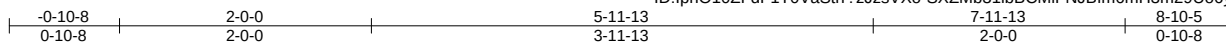
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job 210444	Truss B1	Truss Type Hip Girder	Qty 1	Ply 1	Lot 101 H4 I44832080
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Wheeler Lumber, Waverly, KS - 66871,

8.430 s Nov 30 2020 MiTek Industries, Inc. Tue Feb 16 12:11:48 2021 Page 1

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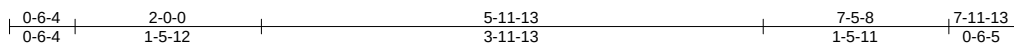
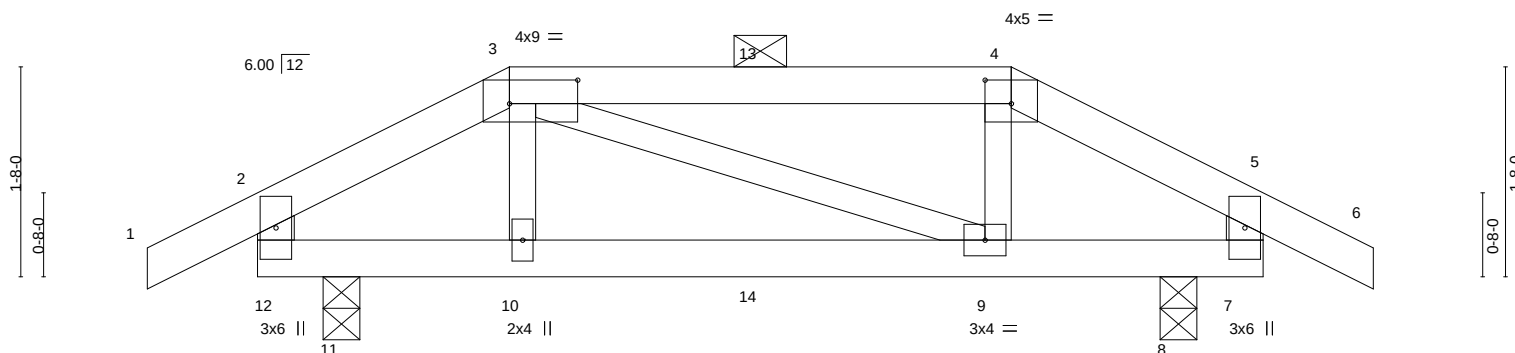


Plate Offsets (X,Y)-- [3:0-6-8,0-2-4], [4:0-2-8,0-2-4]							
LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d
TCLL 25.0	Plate Grip DOL	1.15	TC 0.25	Vert(LL)	-0.02 9-10	>999	360
TCDL 10.0	Lumber DOL	1.15	BC 0.27	Vert(CT)	-0.02 9-10	>999	240
BCLL 0.0 *	Rep Stress Incr	NO	WB 0.03	Horz(CT)	0.00 8	n/a	n/a
BCDL 10.0	Code IRC2018/TPI2014		Matrix-S	Wind(LL)	0.02 9-10	>999	240
				PLATES	GRIP		
				MT20	197/144		
				Weight: 27 lb	FT = 10%		

LUMBER-

TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
WEBS 2x3 SPF No.2 *Except*
2-12,5-7: 2x4 SPF No.2

BRACING-

TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals, and 2-0-0 oc purlins (6-0-0 max.): 3-4.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS.

(size) 11=0-3-8, 8=0-3-8
Max Horz 11=35(LC 7)
Max Uplift 11=-159(LC 8), 8=-170(LC 9)
Max Grav 11=352(LC 45), 8=373(LC 43)

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

TOP CHORD 2-3=-254/149, 4-5=-280/158

NOTES-

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- Provide adequate drainage to prevent water ponding.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 11=159, 8=170.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 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) 45 lb down and 33 lb up at 2-0-0, and 52 lb down and 31 lb up at 3-11-14, and 113 lb down and 119 lb up at 5-11-13 on top chord, and 62 lb down and 111 lb up at 2-0-0, and 2 lb down and 65 lb up at 3-11-14, and 62 lb down and 111 lb up at 5-11-1 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
- In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

LOAD CASE(S) Standard

- Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (plf)
Vert: 1-2=-70, 2-3=-70, 3-4=-70, 4-5=-70, 5-6=-70, 7-12=-20
Concentrated Loads (lb)
Vert: 4=80(F) 10=59(F) 9=59(F) 14=23(F)



February 16, 2021

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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 210444	Truss B2	Truss Type Common	Qty 2	Ply 1	Lot 101 H4 I44832081
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Wheeler Lumber, Waverly, KS - 66871,

8.430 s Nov 30 2020 MiTek Industries, Inc. Tue Feb 16 12:11:49 2021 Page 1

ID:lpnO10ZFdf1T0VaStrr?zJzsVXo-wj7kpP2LMVKDKPyVINHLJVCwlZqerPssLnUg8hzkZgO



4x5 =

Scale = 1:18.5

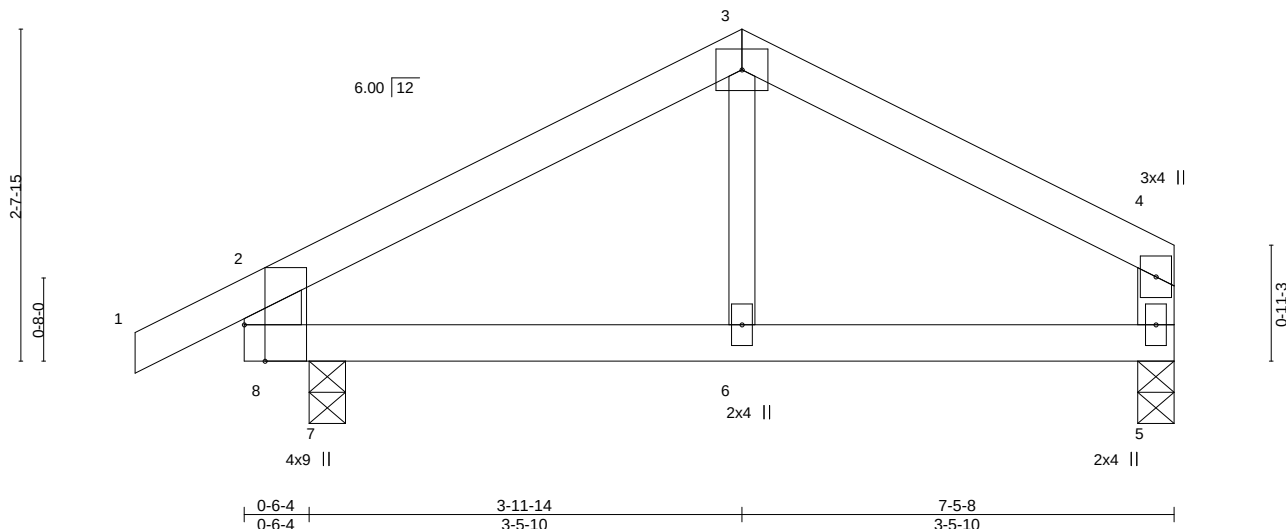


Plate Offsets (X,Y)--		[8:0-3-8,Edge]									
LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.28	Vert(LL)	-0.01	6	>999	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.29	Vert(CT)	-0.02	6	>999		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.03	Horz(CT)	0.00	5	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-R		Wind(LL)	0.01	6	>999	Weight: 22 lb	FT = 10%

LUMBER-

TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
WEBS 2x4 SPF No.2 *Except*
3-6: 2x3 SPF No.2, 2-8: 2x6 SPF No.2

BRACING-

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

REACTIONS.

(size) 5=0-3-8, 7=0-3-8
Max Horz 7=59(LC 5)
Max Uplift 5=-35(LC 9), 7=-71(LC 8)
Max Grav 5=286(LC 1), 7=429(LC 1)

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

TOP CHORD 2-3=-281/49, 3-4=-264/45, 2-8=-339/94

NOTES-

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



February 16, 2021

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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



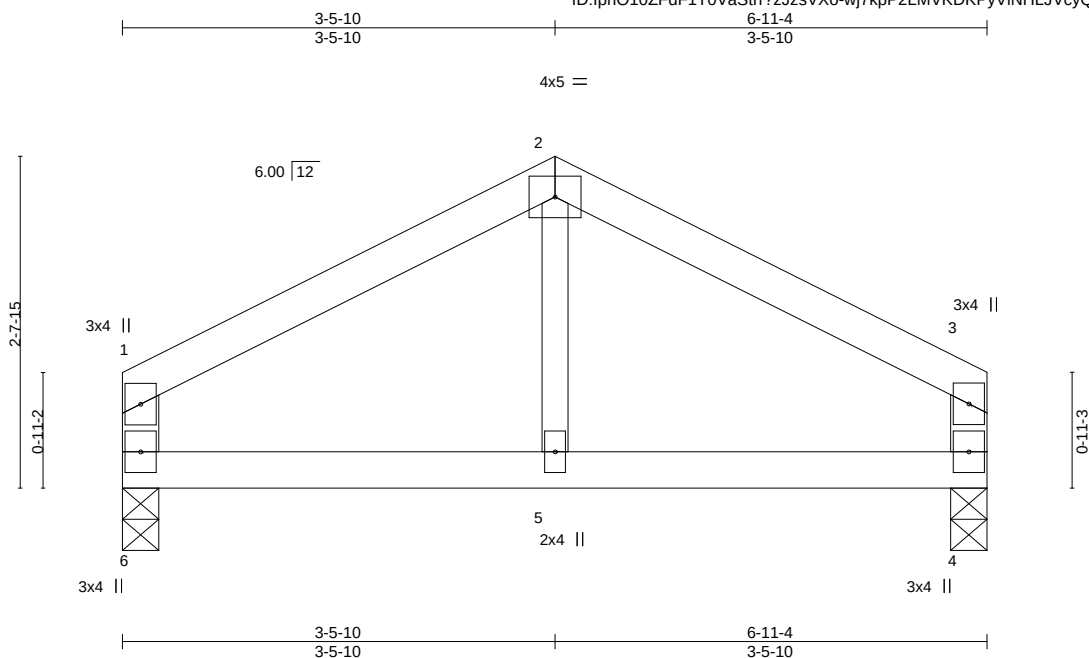
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job 210444	Truss B3	Truss Type Common	Qty 1	Ply 1	Lot 101 H4 I44832082
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Wheeler Lumber, Waverly, KS - 66871,

8.430 s Nov 30 2020 MiTek Industries, Inc. Tue Feb 16 12:11:49 2021 Page 1

ID:lpnO10ZFdF1T0VaStrr?zJzsVXo-wj7kpP2LMVKDKPyVINHLJVcyQZshrPqsLnUg8hzkZgO



Scale = 1:18.5

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 0.15	Vert(LL)	-0.01	5	>999	360	MT20
TCDL 10.0	Lumber DOL	1.15	BC 0.16	Vert(CT)	-0.02	5	>999	240	197/144
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.03	Horz(CT)	0.00	4	n/a	n/a	
BCDL 10.0	Code IRC2018/TPI2014		Matrix-R	Wind(LL)	0.01	5	>999	240	
								Weight: 20 lb	FT = 10%

LUMBER-

TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
WEBS 2x4 SPF No.2 *Except*
2-5: 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) 6=0-3-8, 4=0-3-8
Max Horz 6=48(LC 5)
Max Uplift 6=36(LC 8), 4=36(LC 9)
Max Grav 6=299(LC 1), 4=299(LC 1)

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

TOP CHORD 1-2=-290/50, 2-3=-290/50

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) 6, 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.



February 16, 2021

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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

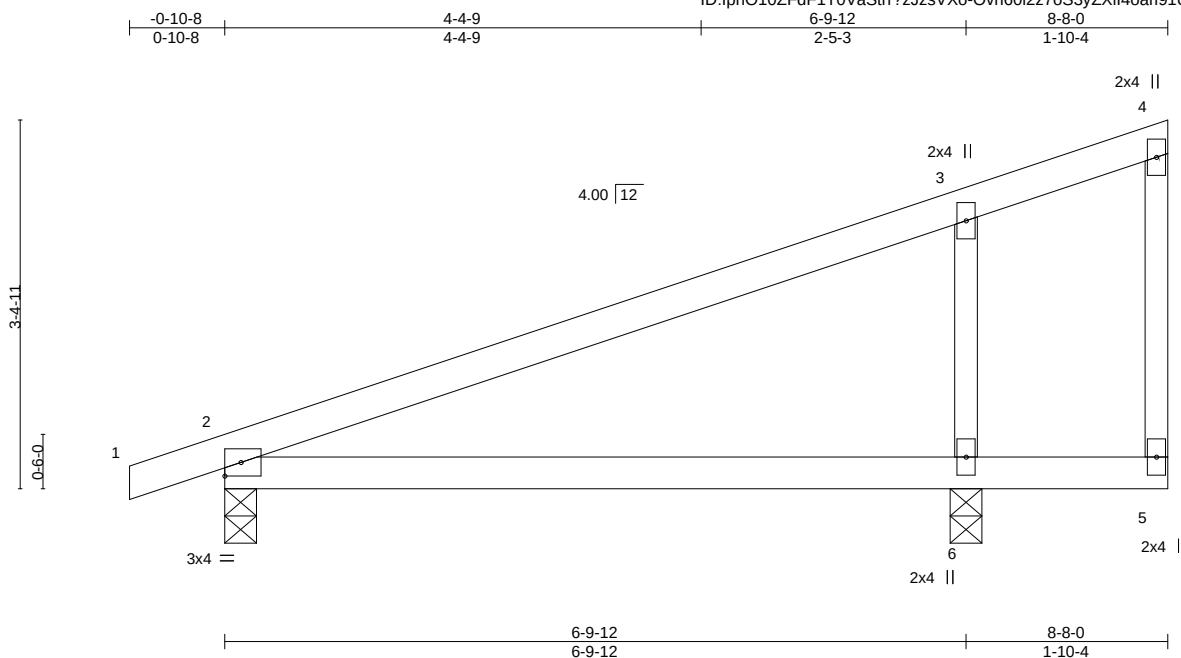


16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job 210444	Truss C1	Truss Type Monopitch	Qty 1	Ply 1	Lot 101 H4	I44832083
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Wheeler Lumber, Waverly, KS - 66871,

8.430 s Nov 30 2020 MiTek Industries, Inc. Tue Feb 16 12:11:50 2021 Page 1
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Scale = 1:21.2

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 0.57	Vert(LL)	-0.06	2-6	>999	360	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.35	Vert(CT)	-0.15	2-6	>523	240		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.09	Horz(CT)	-0.00	6	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-S	Wind(LL)	0.06	2-6	>999	240		
									Weight: 26 lb	FT = 10%

LUMBER-

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

BRACING-

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

REACTIONS.

(size) 2=0-3-8, 6=0-3-8
Max Horz 2=138(LC 5)
Max Uplift 2=-85(LC 4), 6=-102(LC 8)
Max Grav 2=356(LC 1), 6=473(LC 1)

FORCES.

(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
WEBS 3-6=-389/189

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) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2 except (jt=lb) 6=102.
- 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.



February 16, 2021

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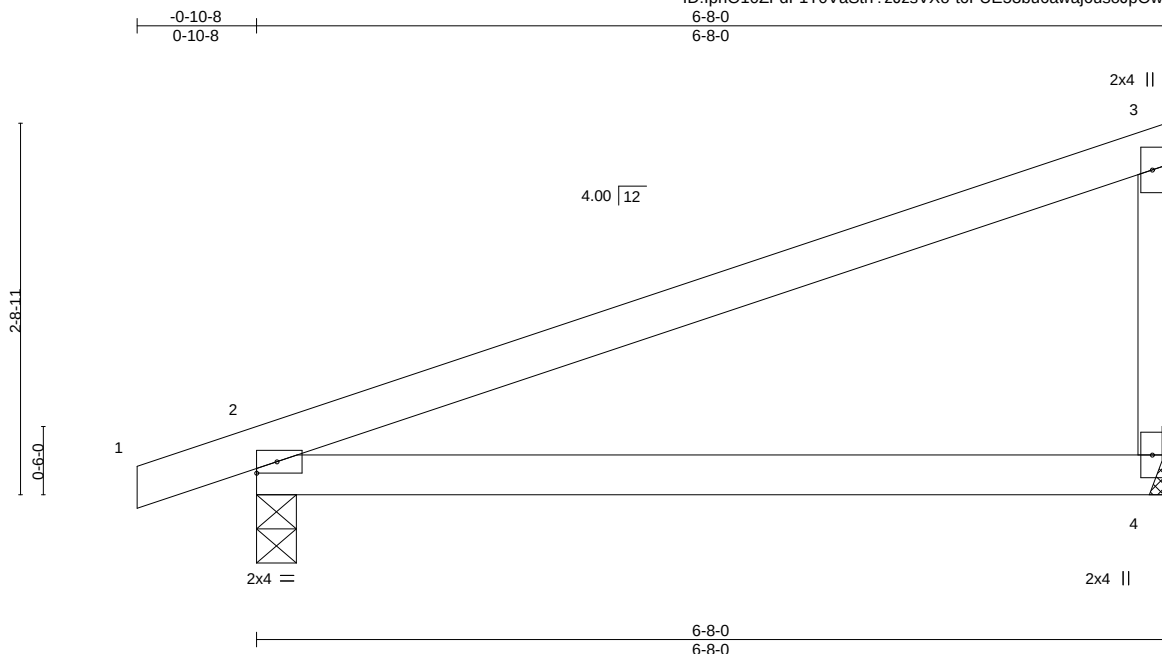
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job 210444	Truss C2	Truss Type Monopitch	Qty 7	Ply 1	Lot 101 H4 Job Reference (optional)	I44832084
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Wheeler Lumber, Waverly, KS - 66871,

8.430 s Nov 30 2020 MiTek Industries, Inc. Tue Feb 16 12:11:51 2021 Page 1

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Scale = 1:16.9

LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in	(loc)	I/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.78	Vert(LL)	-0.10	2-4	>757	360	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.45	Vert(CT)	-0.20	2-4	>379	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: 19 lb	FT = 10%

LUMBER-

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

BRACING-

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

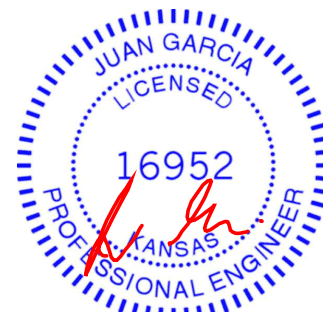
REACTIONS.

(size) 4=Mechanical, 2=0-3-8
Max Horz 2=108(LC 5)
Max Uplift 4=61(LC 8), 2=92(LC 4)
Max Grav 4=283(LC 1), 2=366(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.



February 16, 2021

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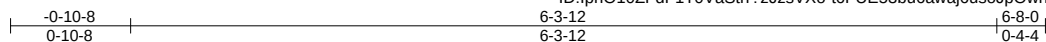
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job 210444	Truss C3	Truss Type Half Hip	Qty 1	Ply 1	Lot 101 H4 Job Reference (optional)	I44832085
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Wheeler Lumber, Waverly, KS - 66871,

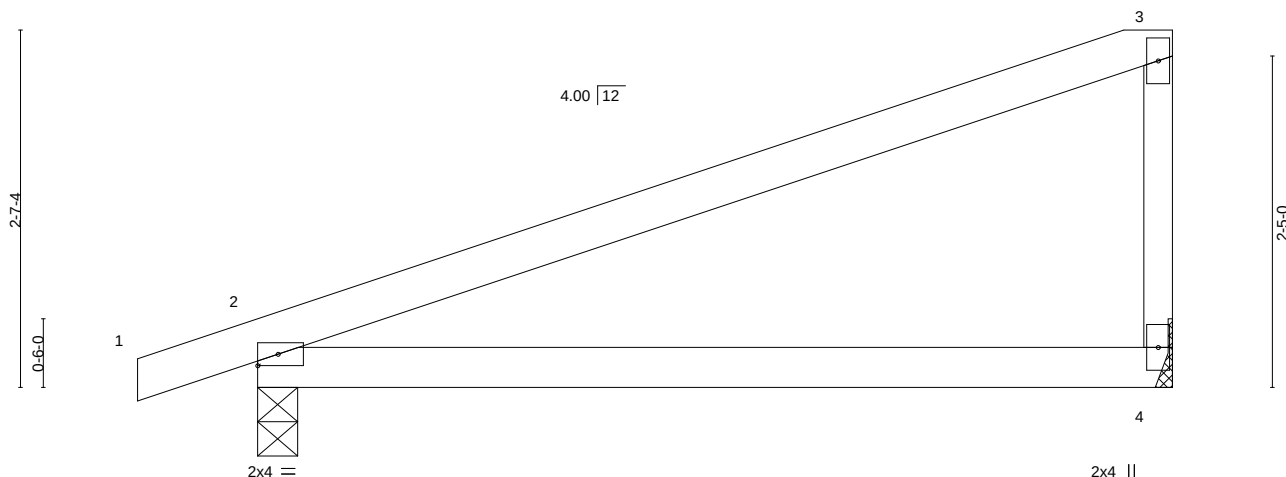
8.430 s Nov 30 2020 MiTek Industries, Inc. Tue Feb 16 12:11:51 2021 Page 1

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2x4 ||

Scale = 1:16.8



LOADING (psf)		SPACING-		CSI.		DEFL.		PLATES		GRIP	
TCLL	25.0	Plate Grip DOL	1.15	TC	0.78	Vert(LL)	-0.10	MT20		197/144	
TCDL	10.0	Lumber DOL	1.15	BC	0.45	Vert(CT)	-0.20				
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.00	Horz(CT)	-0.00				
BCDL	10.0	Code IRC2018/TPI2014		Matrix-P		Wind(LL)	0.00				

LUMBER-

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

BRACING-

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

REACTIONS.

(size) 4=Mechanical, 2=0-3-8
Max Horz 2=108(LC 5)
Max Uplift 4=61(LC 8), 2=92(LC 4)
Max Grav 4=283(LC 1), 2=366(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.



February 16, 2021

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job 210444	Truss D1	Truss Type Hip Girder	Qty 1	Ply 1	Lot 101 H4 144832087
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Wheeler Lumber, Waverly, KS - 66871,

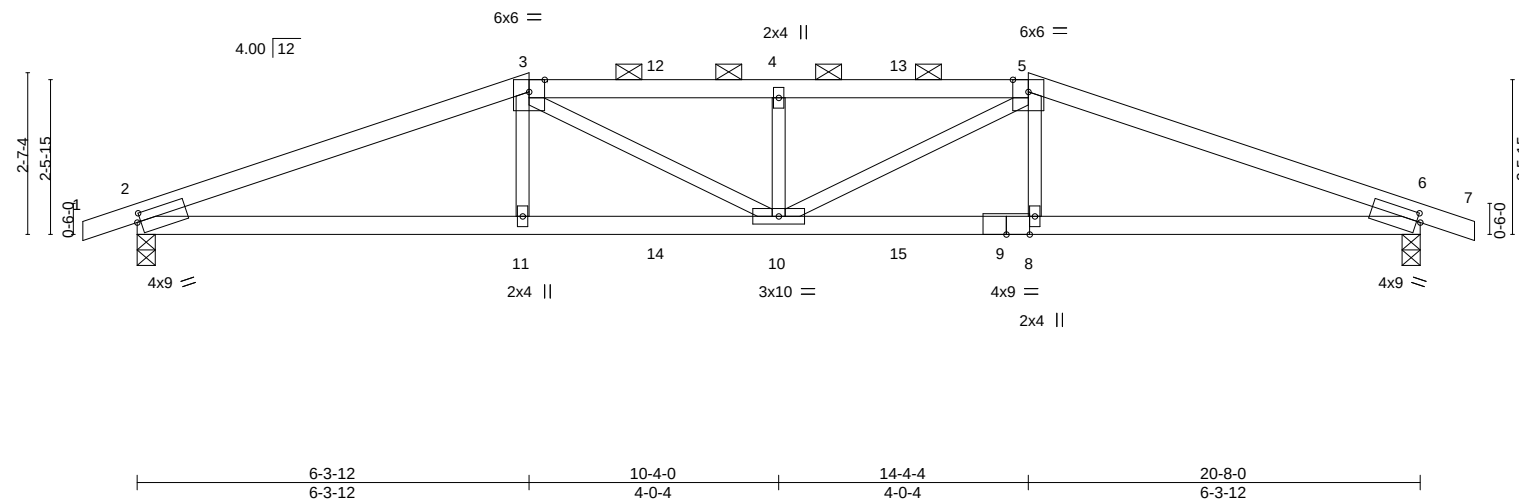
8.430 s Nov 30 2020 MiTek Industries, Inc. Tue Feb 16 12:11:54 2021 Page 1

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Job Reference (optional)

0-10-8 0-10-8	6-3-12 6-3-12	10-4-0 4-0-4	14-4-4 4-0-4	20-8-0 6-3-12	21-6-8 0-10-8
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Scale = 1:37.1



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 0.67	Vert(LL)	-0.18	10	>999	360	MT20
TCDL 10.0	Lumber DOL	1.15	BC 0.97	Vert(CT)	-0.32	10	>753	240	197/144
BCLL 0.0 *	Rep Stress Incr	NO	WB 0.24	Horz(CT)	0.10	6	n/a	n/a	
BCDL 10.0	Code IRC2018/TPI2014		Matrix-S	Wind(LL)	0.16	10	>999	240	
								Weight: 62 lb	FT = 10%

LUMBER-

TOP CHORD 2x4 SPF 2100F 1.8E *Except*
3-5: 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
WEBS 2x3 SPF No.2

BRACING-

TOP CHORD Structural wood sheathing directly applied or 3-6-3 oc purlins, except 2-0-0 oc purlins (2-9-14 max.): 3-5.
BOT CHORD Rigid ceiling directly applied or 7-1-11 oc bracing.

REACTIONS.

(size) 2=0-3-8, 6=0-3-8
Max Horz 2=-41(LC 9)
Max Uplift 2=-352(LC 4), 6=-352(LC 5)
Max Grav 2=1396(LC 1), 6=1395(LC 1)

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

TOP CHORD 2-3=-3185/758, 3-4=-3397/857, 4-5=-3397/857, 5-6=-3184/759
BOT CHORD 2-11=-680/2923, 10-11=-680/2904, 8-10=-648/2903, 6-8=-649/2922
WEBS 3-11=-7/406, 3-10=-185/685, 4-10=-469/219, 5-10=-185/686, 5-8=-7/405

NOTES-

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- Provide adequate drainage to prevent water ponding.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=352, 6=352.
- 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) 85 lb down and 75 lb up at 6-3-12, 85 lb down and 75 lb up at 8-4-8, 85 lb down and 75 lb up at 10-4-0, and 85 lb down and 75 lb up at 12-3-8, and 85 lb down and 75 lb up at 14-4-4 on top chord, and 260 lb down and 93 lb up at 6-3-12, 31 lb down at 8-4-8, 31 lb down at 10-4-0, and 31 lb down at 12-3-8, and 260 lb down and 93 lb up at 14-3-8 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
- In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

LOAD CASE(S) Standard

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



February 16, 2021

Continued on page 2

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

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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 101 H4
210444	D1	Hip Girder	1	1	I44832087
Job Reference (optional)					

Wheeler Lumber, Waverly, KS - 66871,

8.430 s Nov 30 2020 MiTek Industries, Inc. Tue Feb 16 12:11:54 2021 Page 2
ID:lpnO10ZF1T0VaStrr?zJzsVXo-Hhwds66TA1yVRArTXwtW0YJhvaMBWdVbV3CRpvzkZgJ

LOAD CASE(S) Standard

Uniform Loads (plf)

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

Concentrated Loads (lb)

Vert: 3=-45(B) 5=-45(B) 9=-23(B) 11=-260(B) 10=-23(B) 4=-45(B) 8=-237(B) 12=-45(B) 13=-45(B) 14=-23(B) 15=-23(B)

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job 210444	Truss D2	Truss Type Hip	Qty 1	Ply 1	Lot 101 H4 I44832088
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Wheeler Lumber, Waverly, KS - 66871,

8.430 s Nov 30 2020 MiTek Industries, Inc. Tue Feb 16 12:11:55 2021 Page 1

ID:lpnO10ZFdF1T0VaStrr?zJzsVXo-ltU?3S65xL4M2KQf5dOIYmswg_mpF3Xlkjx_LLzkZgl

0-10-8	4-5-7	9-3-12	11-4-4	16-2-9	20-8-0	21-6-8
0-10-8	4-5-7	4-10-5	2-0-8	4-10-5	4-5-7	0-10-8

Scale = 1:37.1

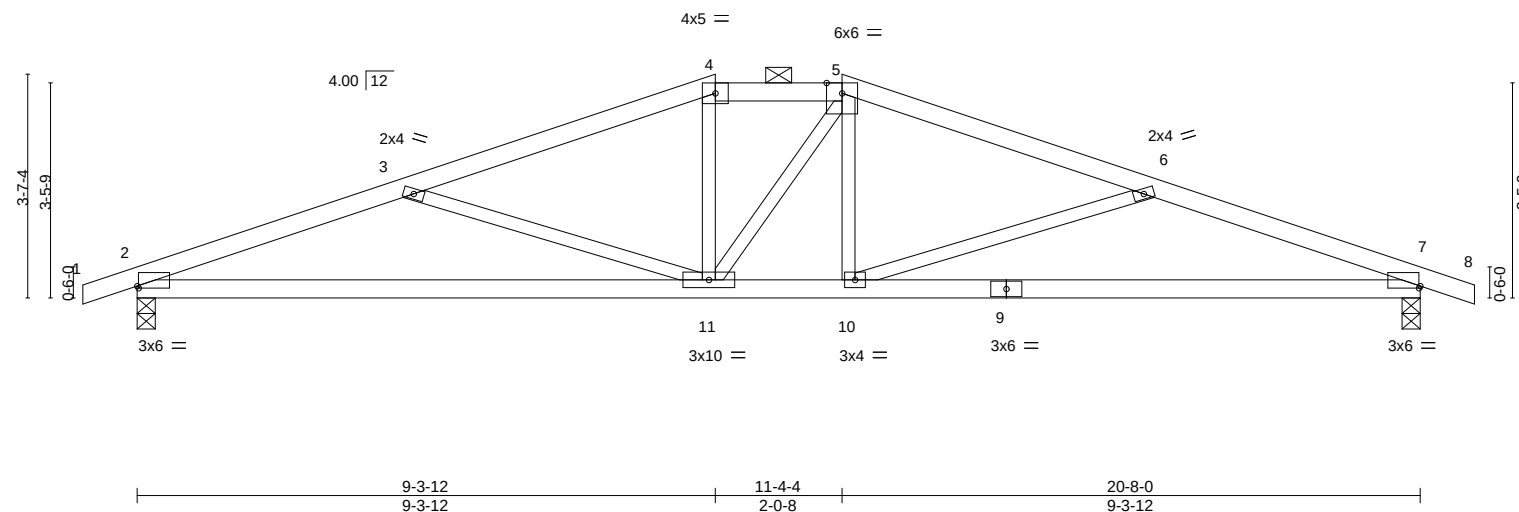


Plate Offsets (X,Y)-- [2:0-0-4,0-0-6], [7:0-0-4,0-0-6]									
LOADING (psf)		SPACING- 2-0-0		CSI.		DEFL. in (loc) l/defl L/d		PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.35	Vert(LL)	-0.20 7-10 >999 360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.75	Vert(CT)	-0.43 7-10 >573 240		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.27	Horz(CT)	0.06 7 n/a n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-S		Wind(LL)	0.07 11 >999 240	Weight: 67 lb	FT = 10%

LUMBER-

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

BRACING-

TOP CHORD Structural wood sheathing directly applied or 3-11-1 oc purlins, except
2-0-0 oc purlins (4-9-3 max.): 4-5.
BOT CHORD Rigid ceiling directly applied or 9-9-7 oc bracing.

REACTIONS.

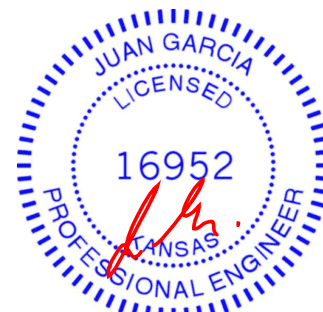
(size) 2=0-3-8, 7=0-3-8
Max Horz 2=-59(LC 13)
Max Uplift 2=-185(LC 4), 7=-185(LC 5)
Max Grav 2=988(LC 1), 7=988(LC 1)

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

TOP CHORD 2-3=-2010/369, 3-4=-1612/217, 4-5=-1471/230, 5-6=-1610/217, 6-7=-2010/370
BOT CHORD 2-11=-341/1843, 10-11=-115/1470, 7-10=-297/1843
WEBS 3-11=-416/229, 4-11=-3/268, 5-10=0/268, 6-10=-417/229

NOTES-

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- Provide adequate drainage to prevent water ponding.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=185, 7=185.
- 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.



February 16, 2021

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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 101 H4	I44832089
210444	D3	Common	2	1		

Wheeler Lumber, Waverly, KS - 66871,

8.430 s Nov 30 2020 MiTek Industries, Inc. Tue Feb 16 12:11:56 2021 Page 1

ID:lpnO10ZFdF1T0VaStrr?zJzsVXo-D32NH07kieDDgU?rfLv_5zP5gN8Z_WsuyNhYunzkZgH

0-10-8	5-3-13	10-4-0	15-4-3	20-8-0	21-6-8
0-10-8	5-3-13	5-0-3	5-0-3	5-3-13	0-10-8

Scale = 1:35.9

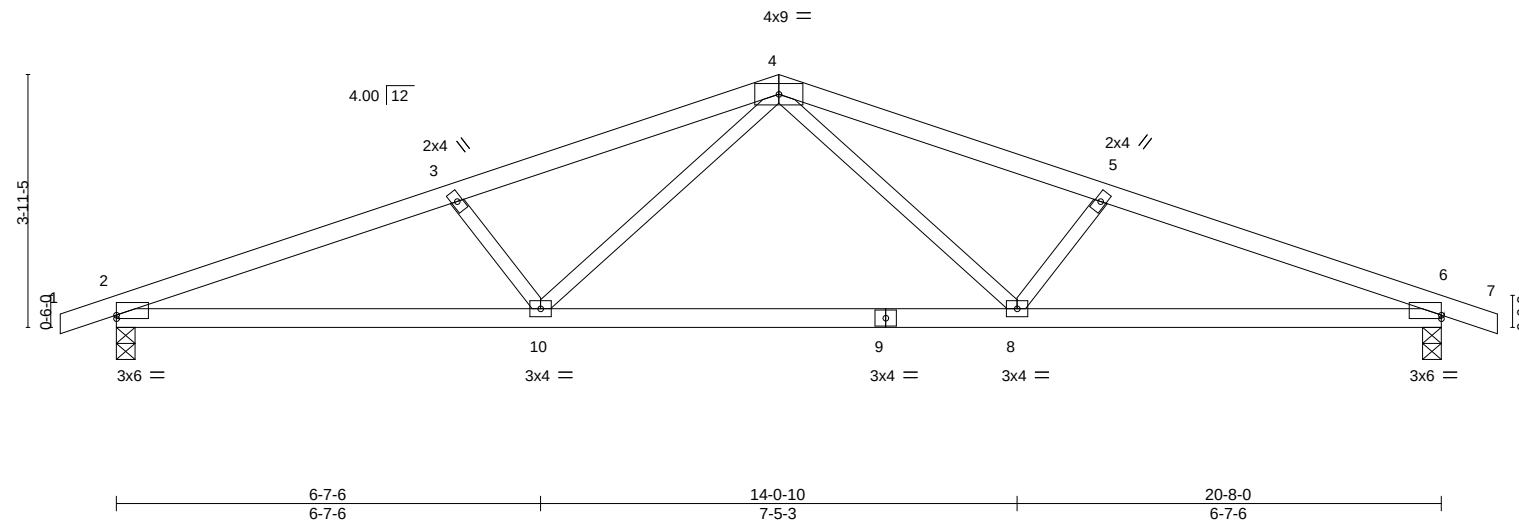


Plate Offsets (X,Y)--		[2:0-0-0,0-0-10], [6:Edge,0-0-10]	
LOADING (psf)	SPACING-	CSI.	DEFL.
TCLL 25.0	2-0-0	TC 0.34	in (loc) l/defl L/d
TCDL 10.0	Plate Grip DOL 1.15	BC 0.59	Vert(LL) -0.10 8-10 >999 360
BCLL 0.0 *	Lumber DOL 1.15	WB 0.21	Vert(CT) -0.22 8-10 >999 240
BCDL 10.0	Rep Stress Incr YES	Matrix-S	Horz(CT) 0.05 6 n/a n/a
	Code IRC2018/TPI2014		Wind(LL) 0.07 8-10 >999 240
			PLATES MT20
			GRIP 197/144
			Weight: 62 lb FT = 10%

LUMBER-

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

BRACING-

TOP CHORD Structural wood sheathing directly applied or 3-8-15 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS.

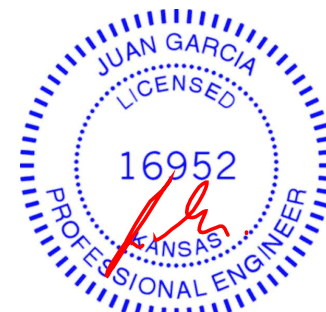
(size) 2=0-3-8, 6=0-3-8
Max Horz 2=66(LC 12)
Max Uplift 2=178(LC 4), 6=178(LC 5)
Max Grav 2=988(LC 1), 6=988(LC 1)

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

TOP CHORD 2-3=-2045/297, 3-4=-1836/268, 4-5=-1836/268, 5-6=-2045/297
BOT CHORD 2-10=-275/1859, 8-10=-118/1278, 6-8=-225/1859
WEBS 4-8=-84/598, 5-8=-327/179, 4-10=-83/598, 3-10=-327/179

NOTES-

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=178, 6=178.
- 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.



February 16, 2021

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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 210444	Truss E1	Truss Type Hip Girder	Qty 1	Ply 2	Lot 101 H4 I44832090
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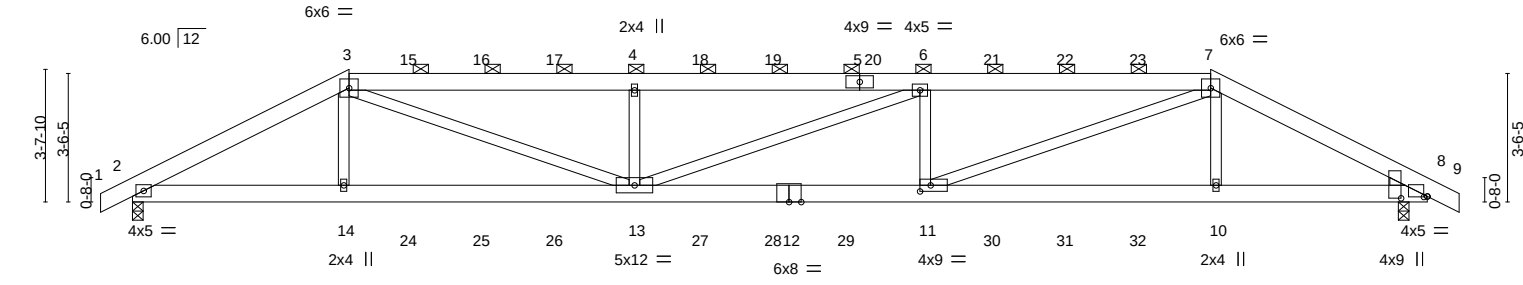
Wheeler Lumber, Waverly, KS - 66871,

8.430 s Nov 30 2020 MiTek Industries, Inc. Tue Feb 16 12:11:59 2021 Page 1

ID:bWuMdBNOtjF5cDvSpwphH1zCzbQ-eejWvq9c?ZboXxjQKTSjhc1WAbCTBpHLeKvCU6zkZgE

-0-10-8	5-11-4	13-9-3	21-8-13	29-6-12	35-6-0	36-4-8
0-10-8	5-11-4	7-9-15	7-11-11	7-9-15	5-11-4	0-10-8

Scale = 1:63.2



	5-11-4	13-9-3	21-8-13	29-6-12	35-0-0	35-6-0
	5-11-4	7-9-15	7-11-11	7-9-15	5-5-4	0-6-0

Plate Offsets (X,Y)--		[8:0-0-10,0-8-10], [8:0-1-2,0-0-3], [11:0-3-8,0-2-0]									
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 0.77		Vert(LL) -0.27 11-13 >999 360				MT20 197/144	
TCDL	10.0	Lumber DOL 1.15		BC 0.45		Vert(CT) -0.49 11-13 >855 240					
BCLL	0.0 *	Rep Stress Incr NO		WB 0.48		Horz(CT) 0.08 8 n/a n/a					
BCDL	10.0	Code IRC2018/TPI2014		Matrix-S		Wind(LL) 0.19 11-13 >999 240				Weight: 387 lb FT = 10%	

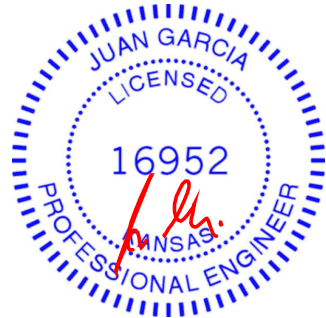
LUMBER-		BRACING-	
TOP CHORD	2x6 SPF No.2	TOP CHORD	Structural wood sheathing directly applied or 6-0-0 oc purlins, except
BOT CHORD	2x6 SP 2400F 2.0E	BOT CHORD	2-0-0 oc purlins (4-6-4 max.): 3-7.
WEBS	2x4 SPF No.2		Rigid ceiling directly applied or 10-0-0 oc bracing.
WEDGE			
Right: 2x3 SPF No.2			

REACTIONS. (size) 2=0-3-8, 8=0-3-8
 Max Horz 2=-59(LC 34)
 Max Uplift 2=-373(LC 5), 8=-371(LC 4)
 Max Grav 2=3032(LC 1), 8=2962(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
 TOP CHORD 2-3=-5938/775, 3-4=-8597/1122, 4-6=-8595/1121, 6-7=-8583/1125, 7-8=-5785/769
 BOT CHORD 2-14=-667/5160, 13-14=-668/5128, 11-13=-1065/8580, 10-11=-624/4996, 8-10=-624/5024
 WEBS 3-14=0/709, 3-13=-487/3803, 4-13=-1052/364, 6-11=-1090/371, 7-11=-497/3929,
 7-10=0/644

NOTES-

- 2-ply truss to be connected together with 10d (0.131"x3") nails as follows:
 Top chords connected as follows: 2x6 - 2 rows staggered at 0-9-0 oc.
 Bottom chords connected as follows: 2x6 - 2 rows staggered at 0-9-0 oc.
 Webs connected as follows: 2x4 - 1 row at 0-9-0 oc.
- All loads are considered equally applied to all plies, except if noted as front (F) or back (B) face in the LOAD CASE(S) section. Ply to ply connections have been provided to distribute only loads noted as (F) or (B), unless otherwise indicated.
- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- Provide adequate drainage to prevent water ponding.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=373, 8=371.
- 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.



February 16, 2021

Continued on page 2

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Job	Truss	Truss Type	Qty	Ply	Lot 101 H4
210444	E1	Hip Girder	1	2	I44832090
Wheeler Lumber, Waverly, KS - 66871,					Job Reference (optional)

8.430 s Nov 30 2020 MiTek Industries, Inc. Tue Feb 16 12:11:59 2021 Page 2
ID:bWuMDBN0tjF5cDvSpwphH1zCzbQ-eejWvq9c?ZboXxjQKTShjc1WAbCTBpHLeKvCU6zkZgE

NOTES-

11) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 129 lb down and 65 lb up at 5-11-4, 114 lb down and 65 lb up at 7-6-0, 114 lb down and 65 lb up at 9-6-0, 114 lb down and 65 lb up at 11-6-0, 114 lb down and 65 lb up at 13-6-0, 114 lb down and 65 lb up at 15-6-0, 114 lb down and 65 lb up at 17-6-0, 114 lb down and 65 lb up at 19-6-0, 114 lb down and 65 lb up at 21-6-0, 114 lb down and 65 lb up at 23-6-0, 114 lb down and 65 lb up at 25-6-0, and 114 lb down and 65 lb up at 27-6-0, and 129 lb down and 65 lb up at 29-6-12 on top chord, and 412 lb down and 119 lb up at 5-11-4, 66 lb down at 7-6-0, 66 lb down at 9-6-0, 66 lb down at 11-6-0, 66 lb down at 13-6-0, 66 lb down at 15-6-0, 66 lb down at 17-6-0, 66 lb down at 19-6-0, 66 lb down at 21-6-0, 66 lb down at 23-6-0, 66 lb down at 25-6-0, and 66 lb down at 27-6-0, and 338 lb down and 116 lb up at 29-6-0 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.

LOAD CASE(S) Standard

1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (plf)
Vert: 1-3=-70, 3-7=-70, 7-9=-70, 2-8=-20
Concentrated Loads (lb)
Vert: 3=-105(F) 14=-412(F) 13=-51(F) 4=-105(F) 6=-105(F) 11=-51(F) 7=-105(F) 10=-338(F) 15=-105(F) 16=-105(F) 17=-105(F) 18=-105(F) 19=-105(F) 20=-105(F) 21=-105(F) 22=-105(F) 23=-105(F) 24=-51(F) 25=-51(F) 26=-51(F) 27=-51(F) 28=-51(F) 29=-51(F) 30=-51(F) 31=-51(F) 32=-51(F)

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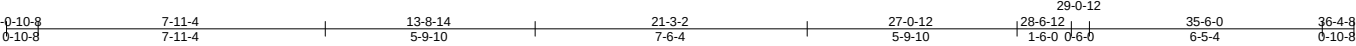
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 101 H4	I44832091
210444	E2	Roof Special	1	1		

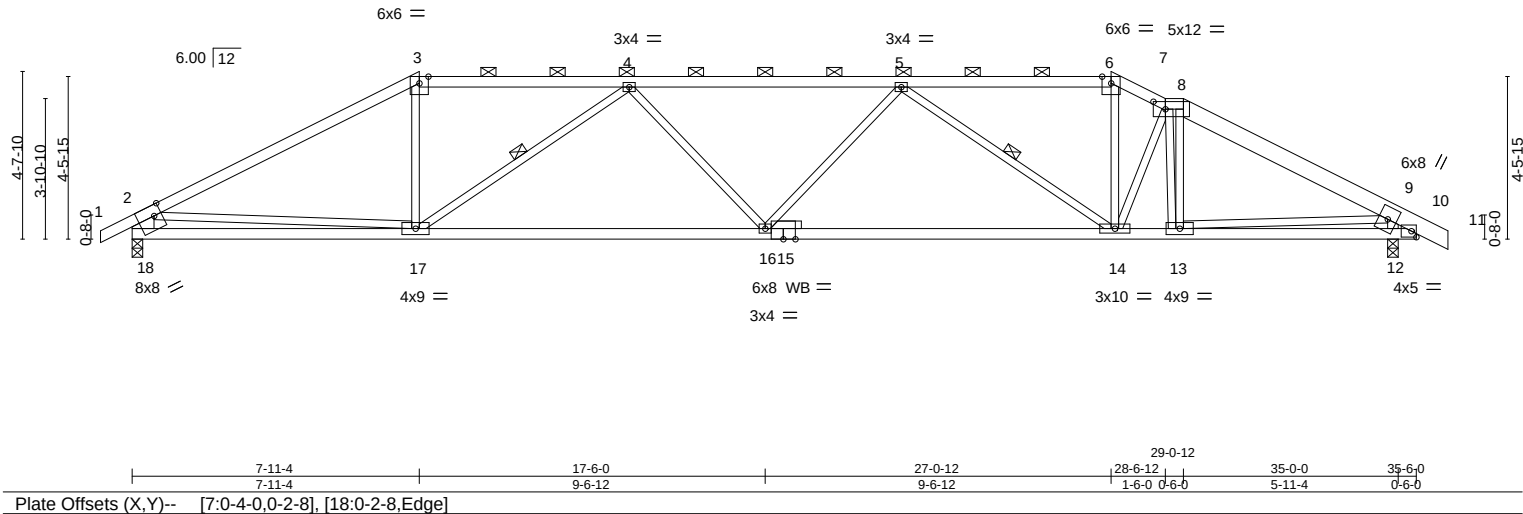
Wheeler Lumber, Waverly, KS - 66871,

8.430 s Nov 30 2020 MiTek Industries, Inc. Tue Feb 16 12:12:01 2021 Page 1

ID:bWuMDBN0tjF5cDvSpwhpH1zCzbQ-a1rGKWBSXBrWmFtpSuV9o16oCOLDfh4d6eOIZ?zkZgC



Scale: 3/16"=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 0.99	Vert(LL)	-0.22	16	>999	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.98	Vert(CT)	-0.50	14-16	>825		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.59	Horz(CT)	0.12	12	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-S	Wind(LL)	0.16	16	>999	Weight: 139 lb	FT = 10%

LUMBER-

TOP CHORD 2x4 SPF No.2 *Except*

1-3: 2x4 SPF 2100F 1.8E, 8-11: 2x6 SPF No.2

BOT CHORD 2x4 SPF No.2

WEBS 2x3 SPF No.2 *Except*

2-18: 2x8 SP DSS, 9-12: 2x4 SPF No.2

OTHERS 2x3 SPF No.2

BRACING-

TOP CHORD Structural wood sheathing directly applied or 3-7-4 oc purlins, except end verticals, and 2-0-0 oc purlins (2-2-0 max.): 3-6, 7-8.

BOT CHORD Rigid ceiling directly applied or 2-2-0 oc bracing.

WEBS 1 Row at midpt 4-17, 5-14

REACTIONS. (size) 18=0-3-8, 12=0-3-8

Max Horz 18=-73(LC 9)

Max Uplift 18=-165(LC 5), 12=-159(LC 4)

Max Grav 18=1636(LC 1), 12=1675(LC 1)

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

TOP CHORD 2-3=-2603/323, 3-4=-2197/314, 4-5=-3165/441, 5-6=-2214/310, 6-7=-2418/325, 7-8=-2191/298, 8-9=-2494/303, 9-10=-604/2, 2-18=-1568/203

BOT CHORD 17-18=-353/972, 16-17=-449/3069, 14-16=-430/3082, 13-14=-200/2183, 12-13=-60/684, 10-12=-60/684

WEBS 3-17=-45/752, 4-17=-1166/290, 4-16=0/274, 5-16=0/265, 5-14=-1138/279, 6-14=-36/691, 7-14=-47/258, 7-13=-585/83, 8-13=-49/439, 2-17=-188/1436, 9-13=-186/1442, 9-12=-1368/273

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
 - Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
 - Provide adequate drainage to prevent water ponding.
 - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
 - * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
 - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 18=165, 12=159.
 - 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.



February 16,2021

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MiTek

16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 101 H4	I44832092
210444	E3	Roof Special	1	1		

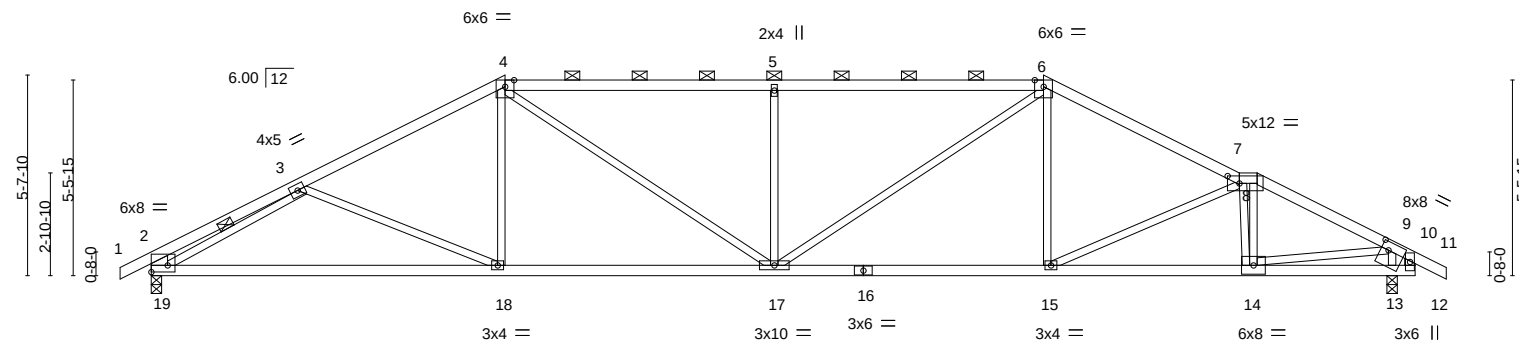
Wheeler Lumber, Waverly, KS - 66871,

8.430 s Nov 30 2020 MiTek Industries, Inc. Tue Feb 16 12:12:02 2021 Page 1

ID: bWuMDBN0tjF5cDvSpwhpH1zCzbQ-2DPeXsCUIUzMOPS??b0OLEf1Go76O8anLI8s5RzkZgB

-0-10-8	4-2-13	9-11-4	17-6-0	25-0-12	30-6-12	31-0-12	35-6-0	36-4-8
0-10-8	4-2-13	5-8-7	7-6-12	7-6-12	5-6-0	0-6-0	4-5-4	0-10-8

Scale = 1:64.7



	9-11-4	17-6-0	25-0-12	30-6-12	31-0-12	35-0-0	35-6-0
	9-11-4	7-6-12	7-6-12	5-6-0	0-6-0	3-11-4	0-6-0

Plate Offsets (X,Y)-- [2:Edge,0-2-4], [7:0-4-0,0-2-8], [9:0-2-8,0-2-12]

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 0.71	Vert(LL)	-0.22 18-19	>999	360	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.84	Vert(CT)	-0.47 18-19	>879	240		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.64	Horz(CT)	0.11 13	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-S	Wind(LL)	0.12 17	>999	240	Weight: 134 lb	FT = 10%

LUMBER-

TOP CHORD 2x4 SPF No.2 *Except*
4-6: 2x4 SPF 2100F 1.8E
BOT CHORD 2x4 SPF No.2
WEBS 2x3 SPF No.2 *Except*
2-19: 2x6 SPF No.2, 10-12: 2x4 SPF No.2

BRACING-

TOP CHORD Structural wood sheathing directly applied or 2-2-0 oc purlins, except end verticals, and 2-0-0 oc purlins (3-11-4 max.): 4-6, 7-8.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 1 Row at midpt 3-19

REACTIONS.

(size) 19=0-3-8, 13=0-3-8
Max Horz 19=-86(LC 6)
Max Uplift 19=-151(LC 8), 13=-159(LC 9)
Max Grav 19=1634(LC 1), 13=1676(LC 1)

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

TOP CHORD 2-3=-669/8, 3-4=-2442/265, 4-5=-2675/357, 5-6=-2675/357, 6-7=-2426/270,
7-8=-2114/198, 8-9=-2354/200, 2-19=-497/63
BOT CHORD 18-19=-261/2211, 17-18=-198/2109, 15-17=-141/2109, 14-15=-142/2242
WEBS 4-18=0/352, 4-17=-196/812, 5-17=-646/260, 6-17=-184/815, 6-15=0/328,
7-14=-1146/154, 8-14=-84/879, 3-19=-1972/274, 9-14=-116/1858, 9-13=-1461/212

NOTES-

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- Provide adequate drainage to prevent water ponding.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 19=151, 13=159.
- 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.



February 16, 2021

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job 210444	Truss E4	Truss Type Roof Special Girder	Qty 1	Ply 1	Lot 101 H4	144832093
Wheeler Lumber, Waverly, KS - 66871,						8.430 s Nov 30 2020 MiTek Industries, Inc. Tue Feb 16 12:12:04 2021 Page 1
Job Reference (optional)						ID:bwuMDbN0tjF5cDvSpwhpH1zCzbQ-.cXPYXDIq6D4dcO702sQfklJcqnS2Q4ocdzAJzkZg9

0-10-8 5-9-10 11-11-4 17-6-0 23-0-12 29-2-8 32-6-12 33-0-12 35-6-0 36-4-8
0-10-8 5-9-10 6-1-10 5-6-12 5-6-12 6-1-11 3-4-4 0-6-0 2-5-4 0-10-8

Scale = 1:63.0

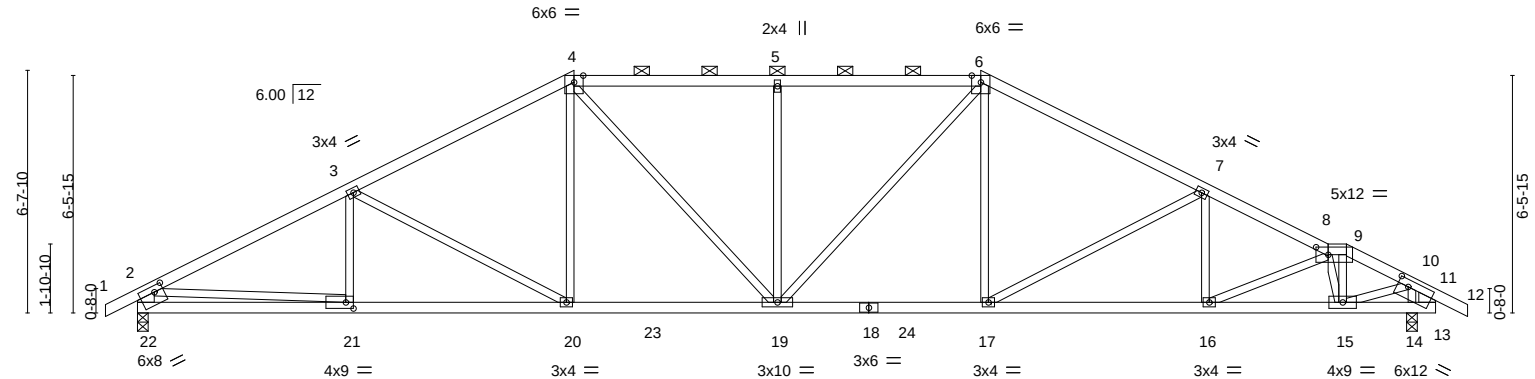


Plate Offsets (X,Y)--	[8:0-4-0,0-2-8], [13:0-3-8,0-2-4], [21:0-2-8,0-2-0], [22:0-3-0,0-2-0]
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LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.84	Vert(LL)	-0.17	19-20	>999	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.83	Vert(CT)	-0.30	19-20	>999		
BCLL 0.0 *	Rep Stress Incr	NO	WB 0.62	Horz(CT)	0.10	14	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-S	Wind(LL)	0.09	19	>999		
								Weight: 142 lb	FT = 10%

LUMBER-	BRACING-
TOP CHORD 2x4 SPF No.2	TOP CHORD Structural wood sheathing directly applied, except end verticals, and
BOT CHORD 2x4 SPF No.2	2-0-0 oc purlins (3-6-6 max.): 4-6, 8-9.
WEBS 2x3 SPF No.2 *Except*	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
2-22,11-13: 2x6 SPF No.2	

REACTIONS.	(size) 22=0-3-8, 14=0-3-8
	Max Horz 22=100(LC 7)
	Max Uplift 22=-177(LC 8), 14=-237(LC 9)
	Max Grav 22=1697(LC 2), 14=1737(LC 2)

FORCES.	(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD	2-3=-2766/249, 3-4=-2391/212, 4-5=-2335/240, 5-6=-2335/240, 6-7=-2397/217, 7-8=-2725/276, 8-9=-1793/230, 9-10=-1983/243, 2-22=-1591/206, 11-13=-279/36
BOT CHORD	21-22=-186/638, 20-21=-240/2405, 19-20=-136/2067, 17-19=-84/2072, 16-17=-162/2433, 15-16=-198/2112
WEBS	3-20=-410/189, 4-20=-20/438, 4-19=-133/528, 5-19=-476/190, 6-19=-130/529, 6-17=-25/448, 7-17=-432/205, 8-16=-52/403, 8-15=-1322/112, 9-15=-33/688, 2-21=-54/1795, 10-15=-194/1751, 10-14=-1337/204

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
 - Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
 - Provide adequate drainage to prevent water ponding.
 - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
 - * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
 - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 22=177, 14=237.
 - 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) 60 lb down and 105 lb up at 33-0-12 on top chord, and 27 lb down and 52 lb up at 33-0-12 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

Continued on page 2



February 16, 2021

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MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 101 H4
210444	E4	Roof Special Girder	1	1	I44832093
Job Reference (optional)					

Wheeler Lumber, Waverly, KS - 66871,

8.430 s Nov 30 2020 MiTek Industries, Inc. Tue Feb 16 12:12:04 2021 Page 2
ID:bWuMDBN0tjF5cDvSpwhpH1zCzbQ-_cXPyXDIq6D4djcO702sQfkLjcqns2Q4ocdZAJzkZg9

LOAD CASE(S) Standard

- 1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
- Uniform Loads (plf)
 - Vert: 1-2=-70, 2-4=-70, 4-6=-70, 6-8=-70, 8-9=-70, 9-11=-70, 11-12=-70, 13-22=-20

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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	Truss	Truss Type	Qty	Ply	Lot 101 H4	I44832094
210444	E5	Hip	1	1	Job Reference (optional)	

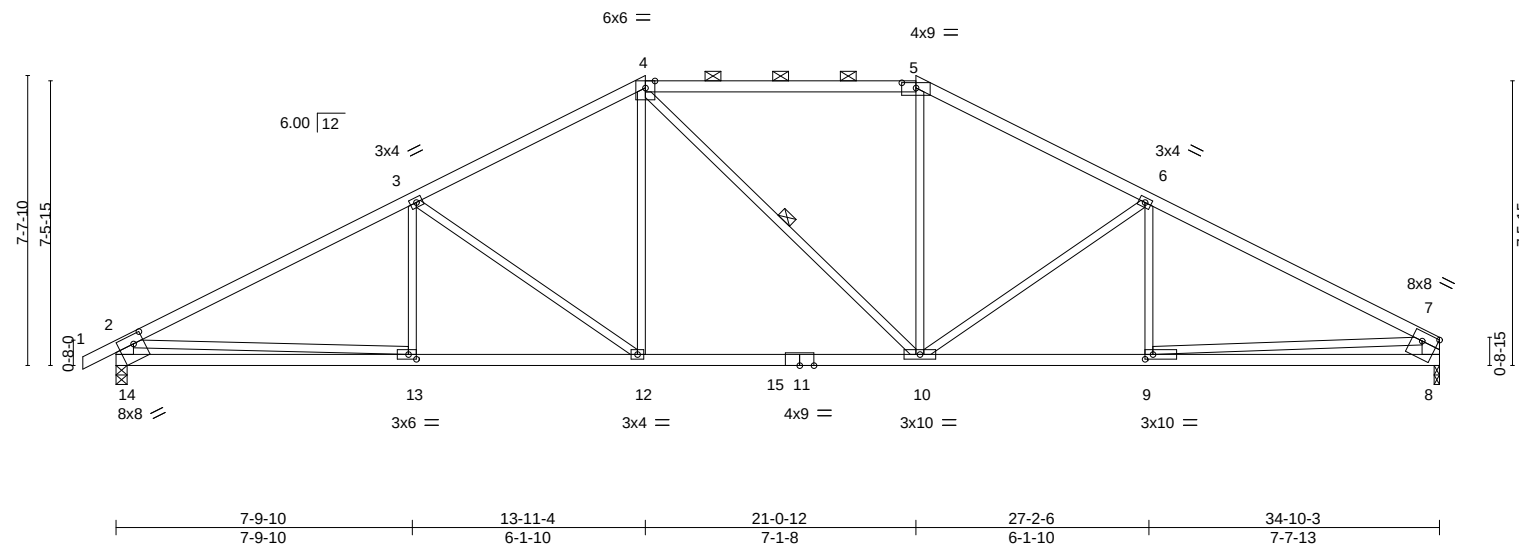
Wheeler Lumber, Waverly, KS - 66871,

8.430 s Nov 30 2020 MiTek Industries, Inc. Tue Feb 16 12:12:05 2021 Page 1

ID:bWuMDBN0tjF5cDvSpwhpH1zCzbQ-So5nAtENbPLxFSBakZ5ysHXU0ARbT1D1GMWimzkZg8

0-10-8	7-9-10	13-11-4	21-0-12	27-2-6	34-10-3
0-10-8	7-9-10	6-1-10	7-1-8	6-1-10	7-7-13

Scale = 1:60.7



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 0.78	Vert(LL)	-0.21	10-12	>999	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.80	Vert(CT)	-0.36	10-12	>999		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.72	Horz(CT)	0.09	8	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-S	Wind(LL)	0.08	12	>999	Weight: 135 lb	FT = 10%

LUMBER-

TOP CHORD 2x4 SPF 2100F 1.8E *Except*
1-4: 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
WEBS 2x3 SPF No.2 *Except*
2-14: 2x6 SP DSS, 7-8: 2x6 SPF No.2

BRACING-

TOP CHORD Structural wood sheathing directly applied or 2-2-0 oc purlins, except end verticals, and 2-0-0 oc purlins (4-7-10 max.): 4-5.
BOT CHORD Rigid ceiling directly applied or 9-10-14 oc bracing.
WEBS 1 Row at midpt 4-10

REACTIONS.

(size) 14=0-3-8, 8=0-1-11 (req. 0-2-8)
Max Horz 14=123(LC 8)
Max Uplift 14=192(LC 8), 8=164(LC 9)
Max Grav 14=1684(LC 2), 8=1613(LC 2)

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

TOP CHORD 2-3=-2706/264, 3-4=-2200/229, 4-5=-1876/242, 5-6=-2183/228, 6-7=-2656/260,
2-14=-1549/236, 7-8=-1478/206
BOT CHORD 13-14=-345/964, 12-13=-251/2326, 10-12=-76/1893, 9-10=-152/2292, 8-9=-117/625
WEBS 3-12=-542/214, 4-12=-44/593, 5-10=-9/558, 6-10=-524/216, 2-13=0/1391, 7-9=-35/1672

NOTES-

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- Provide adequate drainage to prevent water ponding.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- WARNING: Required bearing size at joint(s) 8 greater than input bearing size.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 14=192, 8=164.
- 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.



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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 101 H4	144832095
210444	E6	Hip	1	1	Job Reference (optional)	

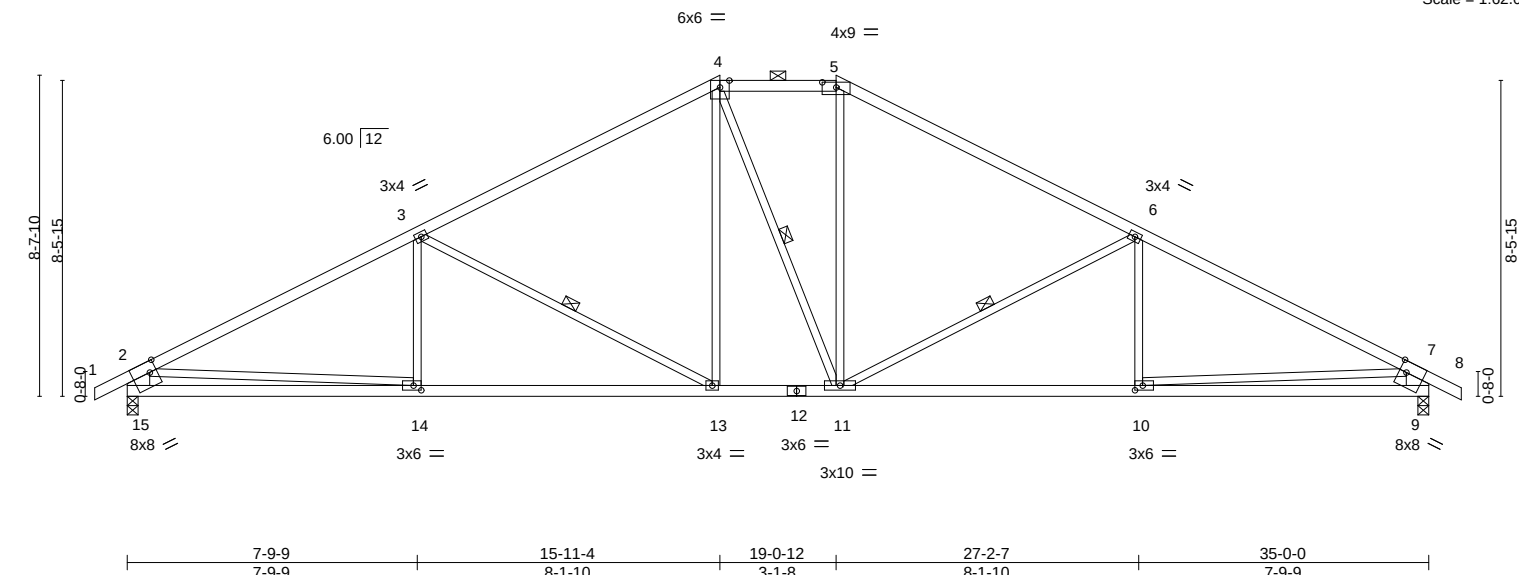
Wheeler Lumber, Waverly, KS - 66871,

8.430 s Nov 30 2020 MiTek Industries, Inc. Tue Feb 16 12:12:06 2021 Page 1

ID: bWuMDbN0tjF5cDvSpwhpH1zCzbQ-w_f9NDF?LjTot0lmer4KV4plmPXJKzxNFw63ECzkZg7

0-10-8	7-9-9	15-11-4	19-0-12	27-2-7	35-0-0	35-10-8
0-10-8	7-9-9	8-1-10	3-1-8	8-1-10	7-9-9	0-10-8

Scale = 1:62.0



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 0.62	Vert(LL)	-0.13 13-14	>999	360	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.70	Vert(CT)	-0.31 13-14	>999	240		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.55	Horz(CT)	0.09 9	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-S	Wind(LL)	0.08 13-14	>999	240	Weight: 141 lb	FT = 10%

LUMBER-

TOP CHORD 2x4 SPF 2100F 1.8E *Except*
4-5: 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
WEBS 2x3 SPF No.2 *Except*
2-15,7-9: 2x8 SP DSS

BRACING-

TOP CHORD Structural wood sheathing directly applied or 4-1-11 oc purlins, except end verticals, and 2-0-0 oc purlins (4-3-7 max.): 4-5.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 1 Row at midpt 3-13, 4-11, 6-11

REACTIONS.

(size) 15=0-3-8, 9=0-3-8
Max Horz 15=130(LC 12)
Max Uplift 15=209(LC 8), 9=209(LC 9)
Max Grav 15=1630(LC 1), 9=1630(LC 1)

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

TOP CHORD 2-3=-2612/298, 3-4=-1948/237, 4-5=-1619/268, 5-6=-1950/237, 6-7=-2611/299,
2-15=-1556/248, 7-9=-1556/248
BOT CHORD 14-15=-295/766, 13-14=-294/2233, 11-13=-66/1618, 10-11=-164/2233, 9-10=-179/767
WEBS 3-14=0/266, 3-13=-718/257, 4-13=-56/444, 5-11=-52/444, 6-11=-717/257, 6-10=0/265,
2-14=-1/1471, 7-10=-15/1469

NOTES-

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- Provide adequate drainage to prevent water ponding.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 15=209, 9=209.
- 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.



February 16, 2021

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job 210444	Truss E7	Truss Type Roof Special	Qty 1	Ply 1	Lot 101 H4 144832096
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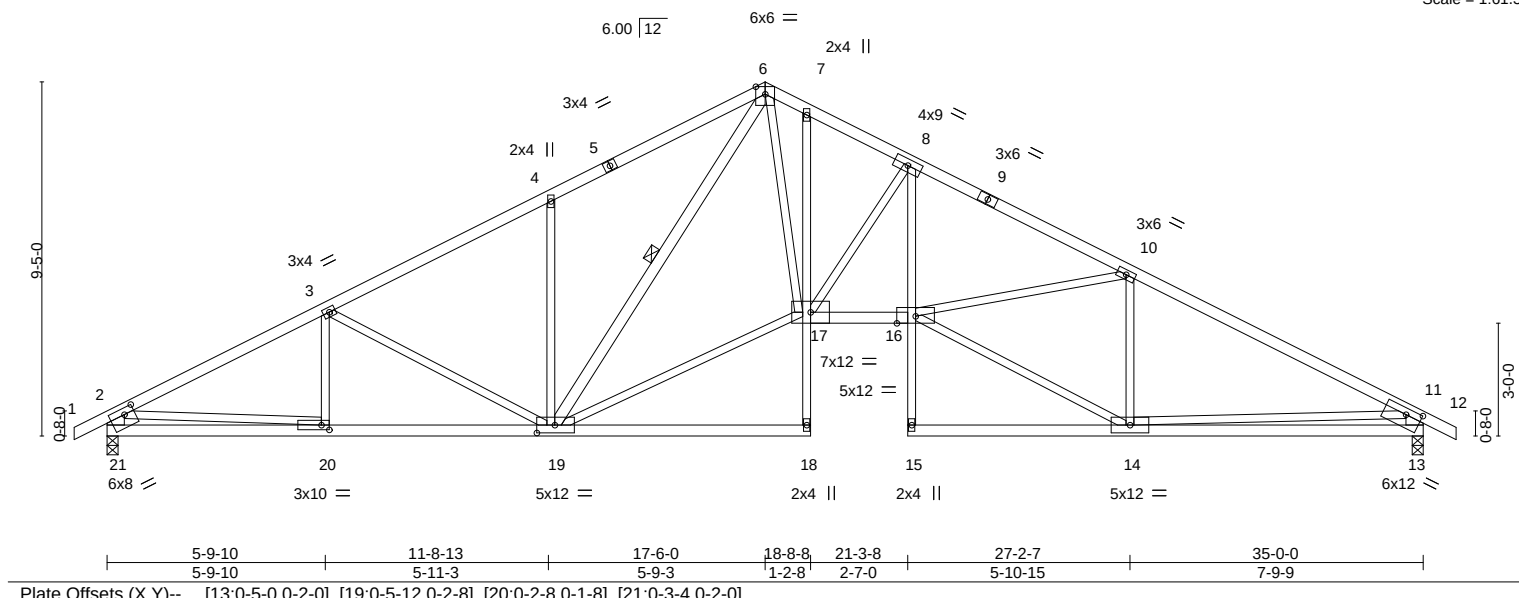
Wheeler Lumber, Waverly, KS - 66871,

8.430 s Nov 30 2020 MiTek Industries, Inc. Tue Feb 16 12:12:07 2021 Page 1

ID: bWuMdbN0tjF5cDvSpwhpH1zCzbQ-PBCXbZGd61bfUAKzo9cZ2HMtnprl3LKWUardmezKZg6

0-10-8 5-9-10 11-9-10 17-6-0 18-8-8 21-3-8 27-2-7 35-0-0 35-10-8
0-10-8 5-9-10 6-0-0 5-8-6 1-2-8 2-7-0 5-10-15 7-9-9 0-10-8

Scale = 1:61.3



LOADING (psf)		SPACING-		CSI.		DEFL.		PLATES		GRIP	
TCLL	25.0	Plate Grip DOL	1.15	TC	0.79	Vert(LL)	-0.27 16 >999 360	MT20		197/144	
TCDL	10.0	Lumber DOL	1.15	BC	0.81	Vert(CT)	-0.49 16-17 >854 240				
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.86	Horz(CT)	0.26 13 n/a n/a				
BCDL	10.0	Code IRC2018/TPI2014		Matrix-S		Wind(LL)	0.16 16 >999 240				

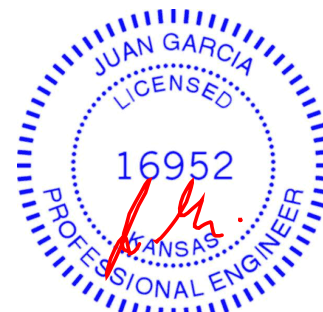
LUMBER-
TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2 *Except*
7-18,8-15: 2x3 SPF No.2
WEBS 2x3 SPF No.2 *Except*
6-19: 2x4 SPF No.2, 2-21: 2x6 SPF No.2, 11-13: 2x6 SP DSS

BRACING-
TOP CHORD Structural wood sheathing directly applied or 2-2-0 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 9-10-4 oc bracing.
WEBS 1 Row at midpt 6-19

REACTIONS. (size) 21=0-3-8, 13=0-3-8
Max Horz 21=-146(LC 13)
Max Uplift 21=-219(LC 8), 13=-219(LC 9)
Max Grav 21=1632(LC 1), 13=1632(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-2630/323, 3-4=-2270/297, 4-6=-2272/433, 6-7=-2595/324, 7-8=-2739/328,
8-10=-3641/329, 10-11=-2613/313, 2-21=-1564/249, 11-13=-1554/262
BOT CHORD 20-21=-260/624, 19-20=-353/2267, 16-17=-136/3168, 8-16=-74/1210, 13-14=-257/944
WEBS 3-19=-398/161, 4-19=-440/243, 6-19=-372/147, 6-17=-118/1939, 8-17=-1400/224,
14-16=-194/2497, 10-16=-41/961, 10-14=-1125/179, 2-20=-94/1649, 11-14=-9/1282,
17-19=-103/2204

- 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) 21=219, 13=219.
 - 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.



February 16, 2021

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job 210444	Truss G1	Truss Type Hip Girder	Qty 1	Ply 1	Lot 101 H4 I44832097
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Wheeler Lumber, Waverly, KS - 66871,

8.430 s Nov 30 2020 MiTek Industries, Inc. Tue Feb 16 12:12:08 2021 Page 1

ID: bWuMDBN0tjF5cDvSpwph1zCzbQ-tNmwoVGFtKjW6Kv9Ms7oaVu16DCjozLfjEbAJ5zkZg5

Job Reference (optional)

-0-10-8	2-3-8	5-5-4	11-2-12	14-4-8	16-8-0
0-10-8	2-3-8	3-1-12	5-9-8	3-1-12	2-3-8

Scale = 1:29.7

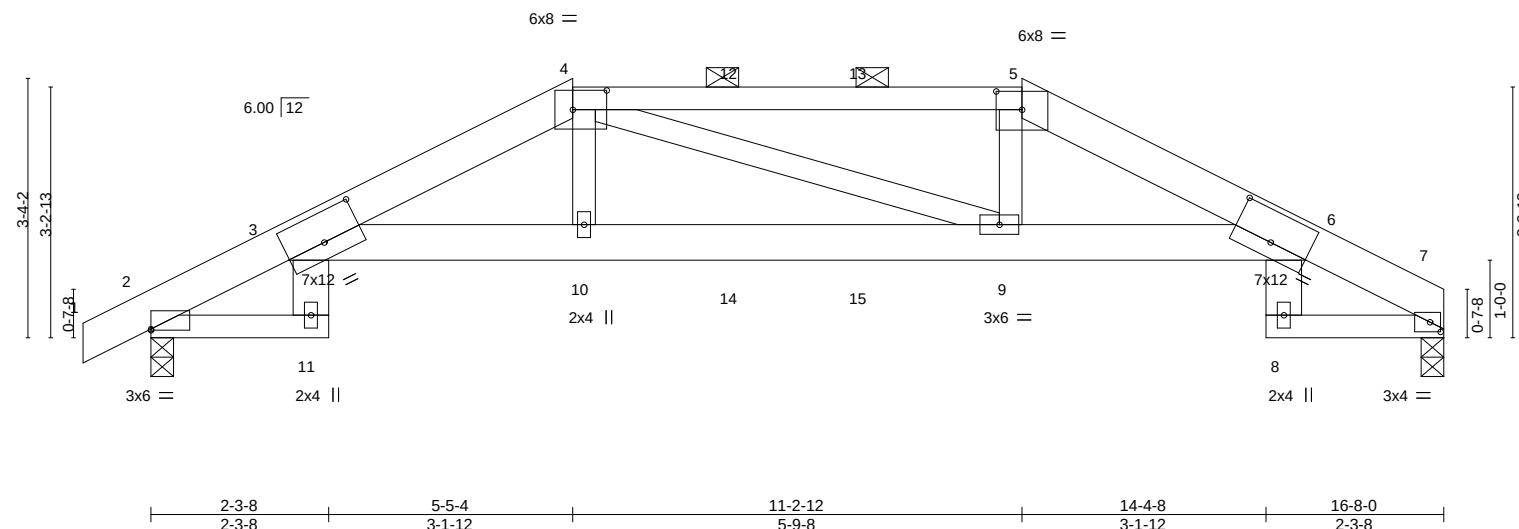


Plate Offsets (X,Y)--										[2:0-0-0,0-0-3], [3:0-6-0,0-4-8], [4:0-5-4,0-3-0], [5:0-4-0,0-2-13], [6:0-6-0,0-4-12], [7:0-1-10,0-1-8]									
LOADING (psf)		SPACING-		2-0-0		CSI.		DEFL.		in (loc)		l/defl		L/d		PLATES		GRIP	
TCLL	25.0	Plate Grip DOL		1.15		TC 0.88		Vert(LL)		-0.20 9-10		>980		360		MT20		197/144	
TCDL	10.0	Lumber DOL		1.15		BC 0.76		Vert(CT)		-0.36 9-10		>550		240					
BCLL	0.0 *	Rep Stress Incr		NO		WB 0.17		Horz(CT)		0.38 7		n/a		n/a					
BCDL	10.0	Code IRC2018/TPI2014				Matrix-S		Wind(LL)		0.18 9-10		>999		240		Weight: 79 lb		FT = 10%	

LUMBER-

TOP CHORD 2x6 SP 2400F 2.0E *Except*
4-5: 2x4 SPF 2100F 1.8E
BOT CHORD 2x4 SPF No.2 *Except*
3-6: 2x6 SPF 1650F 1.4E
WEBS 2x4 SPF No.2 *Except*
3-11,6-8: 2x6 SPF No.2

BRACING-

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

REACTIONS.

(size) 7=0-3-8, 2=0-3-8
Max Horz 2=59(LC 8)
Max Uplift 7=338(LC 9), 2=362(LC 8)
Max Grav 7=1336(LC 1), 2=1411(LC 1)

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

TOP CHORD 2-3=-757/229, 3-4=-3500/952, 4-5=-3304/906, 5-6=-3499/922, 6-7=-748/216
BOT CHORD 3-10=-865/3249, 9-10=-875/3304, 6-9=-821/3250
WEBS 4-10=-141/699, 5-9=-144/702

NOTES-

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- Provide adequate drainage to prevent water ponding.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 7=338, 2=362.
- 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) 108 lb down and 83 lb up at 5-5-4, 108 lb down and 83 lb up at 7-6-0, and 108 lb down and 83 lb up at 9-2-0, and 108 lb down and 83 lb up at 11-2-12 on top chord, and 371 lb down and 159 lb up at 5-5-4, 54 lb down and 22 lb up at 7-6-0, and 54 lb down and 22 lb up at 9-2-0, and 371 lb down and 159 lb up at 11-2-0 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



February 16, 2021

Continued on page 2

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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 101 H4
210444	G1	Hip Girder	1	1	I44832097
Job Reference (optional)					

Wheeler Lumber, Waverly, KS - 66871,

8.430 s Nov 30 2020 MiTek Industries, Inc. Tue Feb 16 12:12:09 2021 Page 2
ID:bWuMDBN0tjF5cDvSpwhpH1zCzbQ-LZKI?FHteerNkUULwZe17iRCsdYyXQbpyuKkrXzkZg4

LOAD CASE(S) Standard

- 1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (plf)
Vert: 1-4=-70, 4-5=-70, 5-7=-70, 2-11=-20, 3-6=-20, 7-8=-20
Concentrated Loads (lb)
Vert: 4=-84(B) 5=-84(B) 10=-371(B) 9=-371(B) 12=-84(B) 13=-84(B) 14=-54(B) 15=-54(B)

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 101 H4	144832098
210444	G2	Hip	1	1	Job Reference (optional)	

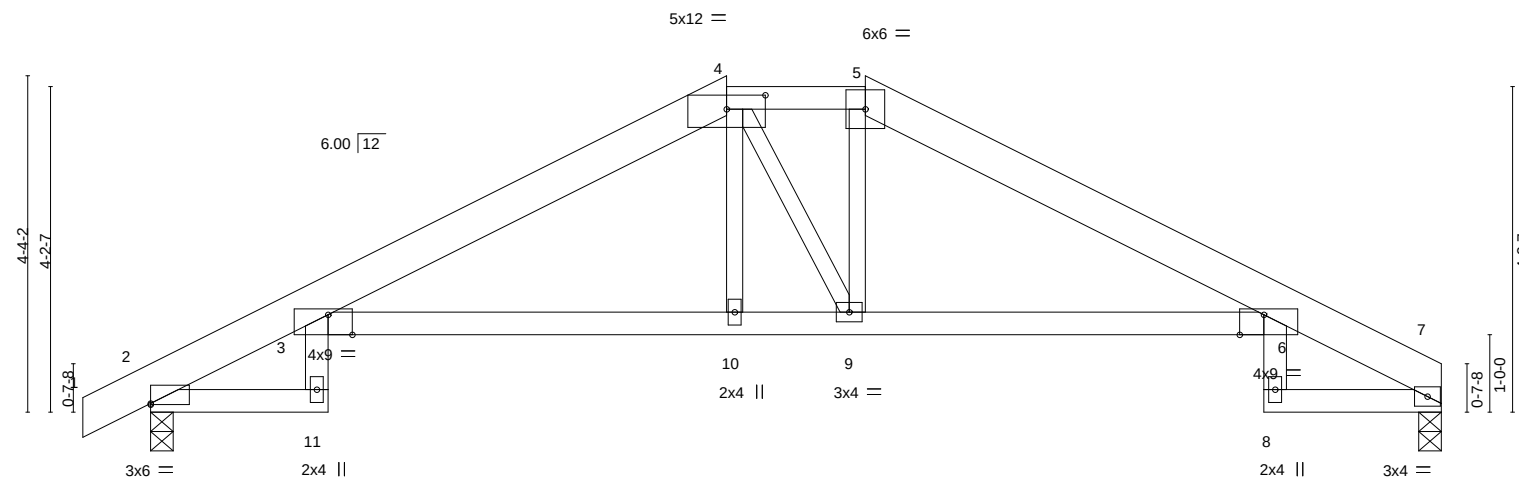
Wheeler Lumber, Waverly, KS - 66871,

8.430 s Nov 30 2020 MiTek Industries, Inc. Tue Feb 16 12:12:09 2021 Page 1

ID: bWuMDBN0tjF5cDvSpwhpH1zCzbQ-LZKI?FHteerNkUULwZe17iRE5dZAXSJpyuKkrXzkZg4

-0-10-8	2-3-8	7-5-4	9-2-12	14-4-8	16-8-0
0-10-8	2-3-8	5-1-12	1-9-8	5-1-12	2-3-8

Scale = 1:29.8



	2-3-8	7-5-4	9-2-12	14-4-8	16-8-0
	2-3-8	5-1-12	1-9-8	5-1-12	2-3-8

Plate Offsets (X,Y)-- [2:0-0-0,0-0-3], [3:0-3-12,Edge], [4:0-6-0,0-2-3], [6:0-3-12,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 0.74	Vert(LL)	-0.29	6-9	>683	360	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.69	Vert(CT)	-0.53	6-9	>370	240		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.06	Horz(CT)	0.56	7	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-S	Wind(LL)	0.21	3-10	>953	240	Weight: 62 lb	FT = 10%

LUMBER-

TOP CHORD 2x6 SPF 1650F 1.4E *Except*
4-5: 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
WEBS 2x3 SPF No.2 *Except*
3-11,6-8: 2x4 SPF No.2

BRACING-

TOP CHORD Structural wood sheathing directly applied or 4-8-2 oc purlins, except
2-0-0 oc purlins (4-11-12 max.): 4-5.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS.

(size) 7=0-3-8, 2=0-3-8
Max Horz 2=77(LC 8)
Max Uplift 7=85(LC 9), 2=109(LC 8)
Max Grav 7=735(LC 1), 2=811(LC 1)

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

TOP CHORD 2-3=-415/94, 3-4=-1211/104, 4-5=-1110/118, 5-6=-1213/96, 6-7=-412/69
BOT CHORD 3-10=-57/1106, 9-10=-55/1106, 6-9=-19/1110

NOTES-

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 3) Provide adequate drainage to prevent water ponding.
- 4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 5) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 7 except (jt=lb) 2=109.
- 7) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 8) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



February 16, 2021

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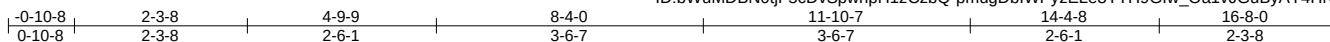
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job 210444	Truss G3	Truss Type Roof Special	Qty 2	Ply 1	Lot 101 H4 Job Reference (optional)	I44832099
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Wheeler Lumber, Waverly, KS - 66871,

8.430 s Nov 30 2020 MiTek Industries, Inc. Tue Feb 16 12:12:10 2021 Page 1

ID:bWuMDBN0tjF5cDvSpwhpH1zCzbQ-pmugDbIWPyzELe3YTH9GfW_Oa1vJGuByAY4HNzzkZg3



Scale = 1:30.5

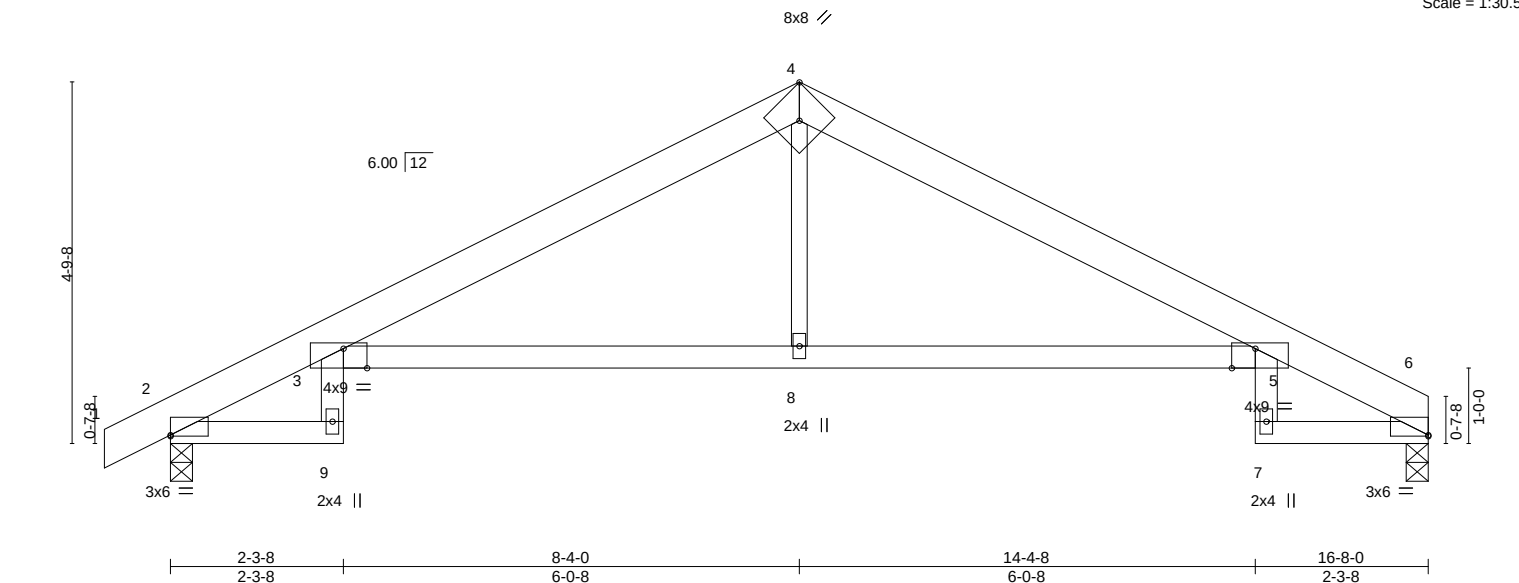


Plate Offsets (X,Y)--		[2:Edge,0-0-3], [3:0-3-12,Edge], [4:0-4-5,Edge], [5:0-3-12,Edge], [6:0-0-0,0-0-3]	
LOADING (psf)	SPACING-	CSI.	DEFL.
TCLL 25.0	Plate Grip DOL 1.15	TC 0.76	in (loc) l/defl L/d
TCDL 10.0	Lumber DOL 1.15	BC 0.69	Vert(LL) -0.31 5-8 >633 360
BCLL 0.0 *	Rep Stress Incr YES	WB 0.09	Vert(CT) -0.57 5-8 >342 240
BCDL 10.0	Code IRC2018/TPI2014	Matrix-S	Horz(CT) 0.60 6 n/a n/a
			Wind(LL) 0.24 3-8 >822 240
			PLATES GRIP
			MT20 197/144
			Weight: 60 lb FT = 10%

LUMBER-

TOP CHORD 2x6 SPF 1650F 1.4E
BOT CHORD 2x4 SPF No.2
WEBS 2x4 SPF No.2 *Except*
4-8: 2x3 SPF No.2

BRACING-

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

REACTIONS.

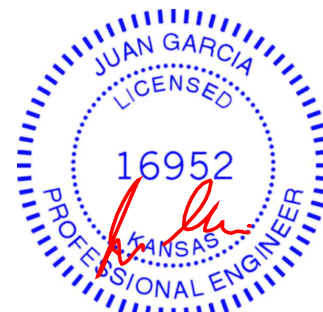
(size) 6=0-3-8, 2=0-3-8
Max Horz 2=85(LC 8)
Max Uplift 6=-91(LC 9), 2=-115(LC 8)
Max Grav 6=735(LC 1), 2=811(LC 1)

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

TOP CHORD 2-3=-415/106, 3-4=-1191/118, 4-5=-1189/143, 5-6=-412/73
BOT CHORD 3-8=-57/1080, 5-8=-57/1080
WEBS 4-8=0/273

NOTES-

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 4) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 6 except (jt=lb) 2=115.
- 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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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 210444	Truss G4	Truss Type Half Hip	Qty 1	Ply 1	Lot 101 H4 I44832100
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Wheeler Lumber, Waverly, KS - 66871,

8.430 s Nov 30 2020 MiTek Industries, Inc. Tue Feb 16 12:12:11 2021 Page 1

ID: bWuMDBN0tF5cDvSpwhpH1zCzbQ-HyS2QwJ8AF55znekl_gVC7WYJQEL?Es6PCpqvPzkZg2

0-10-8 0-10-8	2-3-8 2-3-8	4-11-14 2-8-6	9-6-4 4-6-6	14-4-8 4-10-4	16-8-0 2-3-8
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6x8 =

Scale = 1:33.6

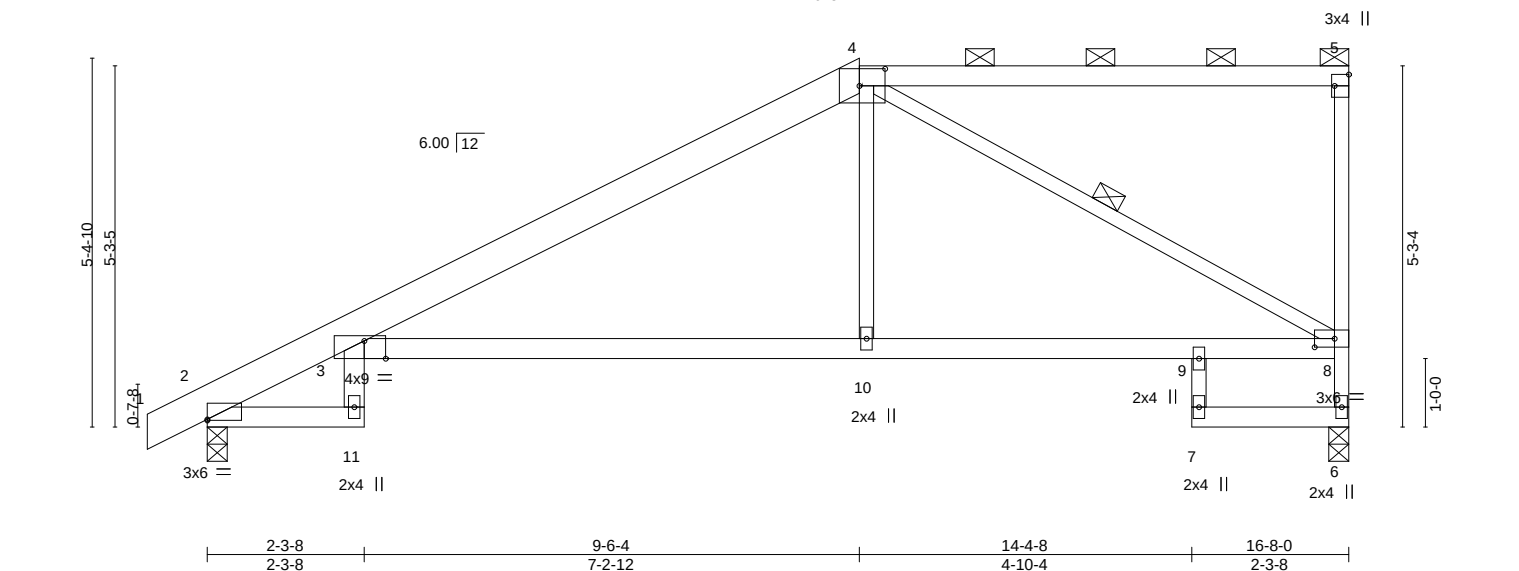


Plate Offsets (X,Y)-- [2:0-0-0,0-0-3], [3:0-3-12,Edge], [4:0-4-8,0-3-0], [5:Edge,0-2-8], [8:0-3-8,0-1-8]									
LOADING (psf)		SPACING- 2-0-0		CSI.		DEFL. in (loc) l/defl L/d		PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.82	Vert(LL)	-0.34 3-10 >574 360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.70	Vert(CT)	-0.66 3-10 >301 240		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.57	Horz(CT)	0.40 6 n/a n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-S		Wind(LL)	0.31 3-10 >638 240	Weight: 66 lb	FT = 10%

LUMBER-

TOP CHORD 2x6 SPF 1650F 1.4E *Except*
4-5: 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2 *Except*
7-9: 2x3 SPF No.2
WEBS 2x3 SPF No.2 *Except*
3-11: 2x4 SPF No.2

BRACING-

TOP CHORD Structural wood sheathing directly applied or 3-5-6 oc purlins, except end verticals, and 2-0-0 oc purlins (6-0-0 max.): 4-5.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing, Except: 6-0-0 oc bracing: 6-7.
WEBS 1 Row at midpt 4-8

REACTIONS.

(size) 6=0-3-8, 2=0-3-8
Max Horz 2=211(LC 5)
Max Uplift 6=127(LC 5), 2=120(LC 8)
Max Grav 6=737(LC 1), 2=812(LC 1)

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

TOP CHORD 2-3=-441/31, 3-4=-965/87, 6-8=-711/140
BOT CHORD 3-10=-184/856, 9-10=-180/859, 8-9=-195/859
WEBS 4-10=0/337, 4-8=-956/138

NOTES-

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- Provide adequate drainage to prevent water ponding.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 6=127, 2=120.
- 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.



February 16, 2021

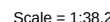
WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE.

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

Wheeler Lumber, Waverly, KS - 66871, 8.430 s Nov 30 2020 MiTek Industries, Inc. Tue Feb 16 12:12:13 2021 Page 1
 ID:bWuMDBN0tjF5cDvSpwhpH1zCzbQ-DLaprcKOitMpC5o6PizHYctCEy2T1?OsWix_lzkZg0
 0-10-8 5-11-1 11-6-4 16-8-0
 0-10-8 5-11-1 5-7-3 5-1-12



LUMBER-		BRACING-
TOP CHORD	2x4 SPF No.2	TOP CHORD
BOT CHORD	2x6 SP 2400F 2.0E	Structural wood sheathing directly applied or 4-1-15 oc purlins, except end verticals, and 2-0-0 oc purlins (6-0-0 max.): 4-5.
WEBS	2x4 SPF No.2	BOT CHORD
		Rigid ceiling directly applied or 10-0-0 oc bracing.

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

TOP CHORD	2-3=-6889/703, 3-4=-3379/261
BOT CHORD	2-8=-668/5972, 7-8=-668/5972, 6-7=-245/2843
WEBS	3-8=-391/3183, 3-7=-3500/547, 4-7=-299/4419, 4-6=-4359/316

- 1) 2-ply truss to be connected together with 10d (0.131"x3") nails as follows:
Top chords connected as follows: 2x4 - 1 row at 0-7-0 oc.
Bottom chords connected as follows: 2x6 - 2 rows staggered at 0-5-0 oc.
Webs connected as follows: 2x4 - 1 row at 0-9-0 oc.
- 2) All loads are considered equally applied to all plies, except if noted as front (F) or back (B) face in the LOAD CASE(S) section. Ply to ply connections have been provided to distribute only loads noted as (F) or (B), unless otherwise indicated.
- 3) Unbalanced roof live loads have been considered for this design.
- 4) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCdL=6.0psf; BCdL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope); cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 5) Provide adequate drainage to prevent water ponding.
- 6) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 7) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 8) WARNING: Required bearing size at joint(s) 6 greater than input bearing size.
- 9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 6=319, 2=441.
- 10) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 11) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
- 12) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 1787 lb down and 420 lb up at 4-1-13, 918 lb down and 68 lb up at 6-1-0, 892 lb down and 60 lb up at 8-1-0, 957 lb down and 58 lb up at 10-1-0, 954 lb down and 55 lb up at 12-1-0, and 1025 lb down and 38 lb up at 14-1-0, and 994 lb down and 49 lb up at 16-1-0 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.

Continued on page 2



February 16, 2021



WARNING - verify design parameters and READ NOTES ON THIS AND INCLUDED MITER REFERENCE PAGE MH/473 (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 101 H4
210444	G5	Half Hip Girder	1	2	I44832101
					Job Reference (optional)

Wheeler Lumber, Waverly, KS - 66871,

8.430 s Nov 30 2020 MiTek Industries, Inc. Tue Feb 16 12:12:13 2021 Page 2
ID:bWuMDBN0tjF5cDvSpwhpH1zCzbQ-DLaprcKOitMpC5o69PizHYctCEy2T1?OsWix_lzkZg0

LOAD CASE(S) Standard

- 1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
- Uniform Loads (plf)
 - Vert: 1-4=-70, 4-5=-70, 2-6=-20
- Concentrated Loads (lb)
 - Vert: 8=-918(F) 9=-1787(F) 10=-892(F) 11=-892(F) 12=-892(F) 13=-918(F) 14=-924(F)

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

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job 210444	Truss H1	Truss Type Roof Special	Qty 1	Ply 1	Lot 101 H4 144832102
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Wheeler Lumber, Waverly, KS - 66871,

8.430 s Nov 30 2020 MiTek Industries, Inc. Tue Feb 16 12:12:13 2021 Page 1

ID:bWuMDBN0tjF5cDvSpwhpH1zCzbQ-DLaprcKOitMpC5o69PizHYcu0EvyT9sOsWix_lzkZg0

0-10-8 5-9-10 11-9-10 17-6-0 18-10-8 21-3-10
0-10-8 5-9-10 6-0-0 5-8-6 1-4-8 2-5-2

Scale = 1:55.3

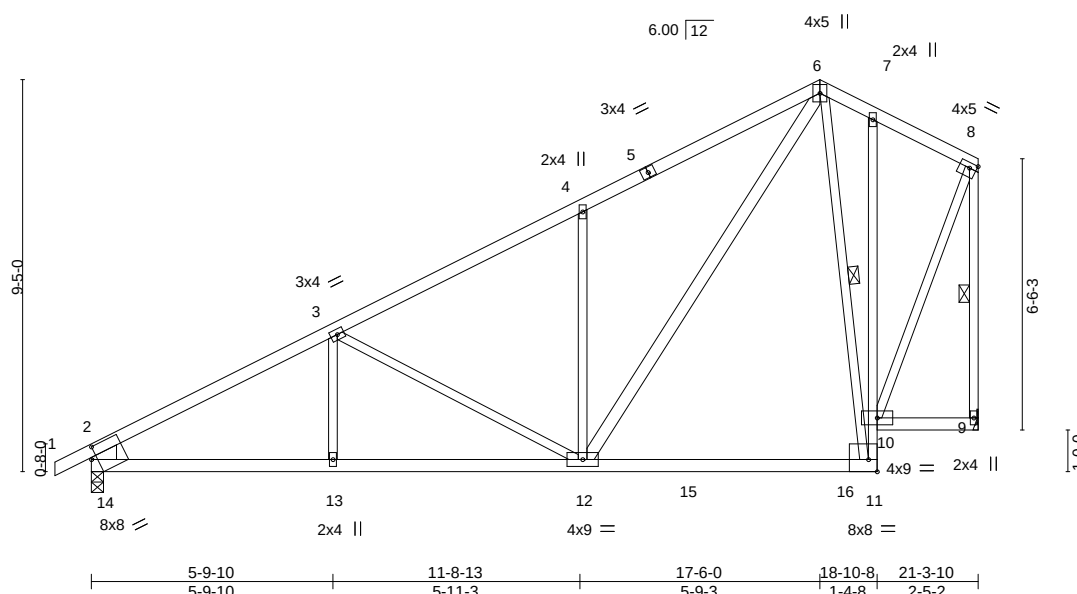


Plate Offsets (X,Y)--	[8:0-2-0,0-1-8], [11:Edge,0-3-8], [14:0-1-10,0-3-4]					
LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl
TCLL 25.0	Plate Grip DOL	1.15	TC 0.81	Vert(LL)	-0.13 11-12	>999
TCDL 10.0	Lumber DOL	1.15	BC 0.76	Vert(CT)	-0.22 11-12	>999
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.48	Horz(CT)	0.07 9	n/a
BCDL 10.0	Code IRC2018/TPI2014		Matrix-S	Wind(LL)	0.05 12-13	>999
					L/d	
					360	
					240	
					n/a	
					240	
					Weight: 103 lb	FT = 10%

LUMBER-

TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2 *Except*
7-11: 2x3 SPF No.2
WEBS 2x3 SPF No.2 *Except*
6-12: 2x4 SPF No.2, 2-14: 2x8 SP DSS

BRACING-

TOP CHORD Structural wood sheathing directly applied or 3-5-2 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 1 Row at midpt 6-11, 8-9

REACTIONS.

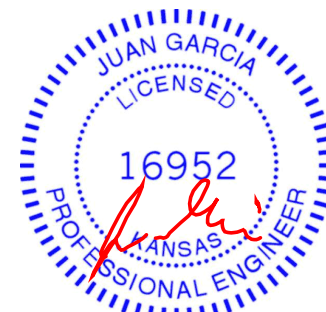
(size) 14=0-3-8, 9=Mechanical
Max Horz 14=255(LC 5)
Max Uplift 14=-31(LC 8), 9=-35(LC 8)
Max Grav 14=1050(LC 13), 9=1014(LC 13)

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

TOP CHORD 2-3=-1481/44, 3-4=-1051/56, 4-6=-1071/152, 6-7=-343/85, 7-8=-379/85, 2-14=-930/65, 8-9=-911/68
BOT CHORD 13-14=-105/1289, 12-13=-105/1289, 11-12=-46/367, 10-11=-36/686
WEBS 3-12=-419/85, 4-12=-468/146, 6-12=-119/1044, 6-11=-542/71, 8-10=-16/774

NOTES-

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



February 16, 2021

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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



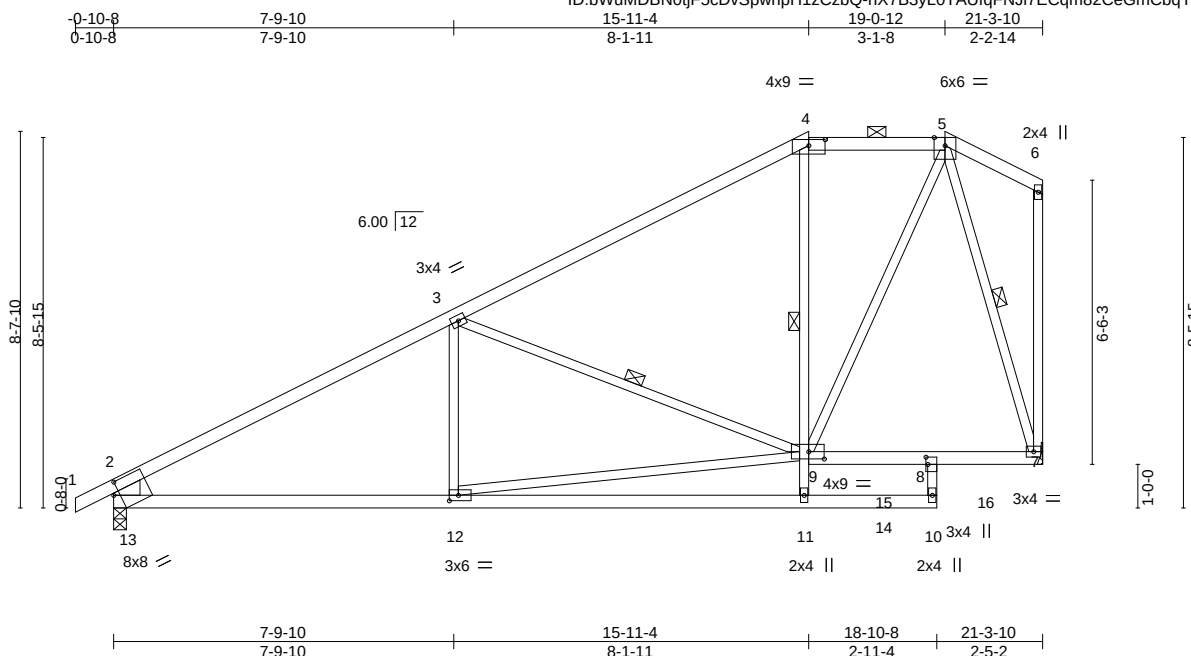
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job 210444	Truss H2	Truss Type Hip	Qty 1	Ply 1	Lot 101 H4 144832103
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Wheeler Lumber, Waverly, KS - 66871,

8.430 s Nov 30 2020 MiTek Industries, Inc. Tue Feb 16 12:12:14 2021 Page 1

ID: bWuMDBN0tjF5cDvSpwhpH1zCzbQ-hX7B3yL0TAUfqFNj7ECqm82CeGmCbqY5A2UWkzZg?



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 0.84	Vert(LL)	-0.13 11-12	>999	360	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.66	Vert(CT)	-0.26 11-12	>975	240		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.49	Horz(CT)	0.03 7	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-S	Wind(LL)	0.03 12	>999	240	Weight: 98 lb	FT = 10%

LUMBER-

TOP CHORD 2x4 SPF No.2
 BOT CHORD 2x4 SPF No.2 *Except*
 8-10: 2x3 SPF No.2
 WEBS 2x3 SPF No.2 *Except*
 2-13: 2x8 SP DSS

BRACING-

TOP CHORD Structural wood sheathing directly applied or 2-2-0 oc purlins, except end verticals, and 2-0-0 oc purlins (6-0-0 max.): 4-5.
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing, Except:
 6-0-0 oc bracing: 8-10.
 WEBS 1 Row at midpt 3-9, 4-11, 5-7

REACTIONS.

(size) 13=0-3-8, 7=Mechanical
 Max Horz 13=245(LC 5)
 Max Uplift 13=-31(LC 8), 7=-18(LC 8)
 Max Grav 13=1050(LC 2), 7=1045(LC 2)

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

TOP CHORD 2-3=-1456/48, 3-4=-765/55, 4-5=-589/82, 2-13=-936/75
 BOT CHORD 12-13=-89/1248, 7-8=-53/272
 WEBS 3-9=-693/125, 9-11=0/310, 9-12=-85/1151, 5-9=-45/847, 5-7=-901/54

NOTES-

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



February 16, 2021

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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

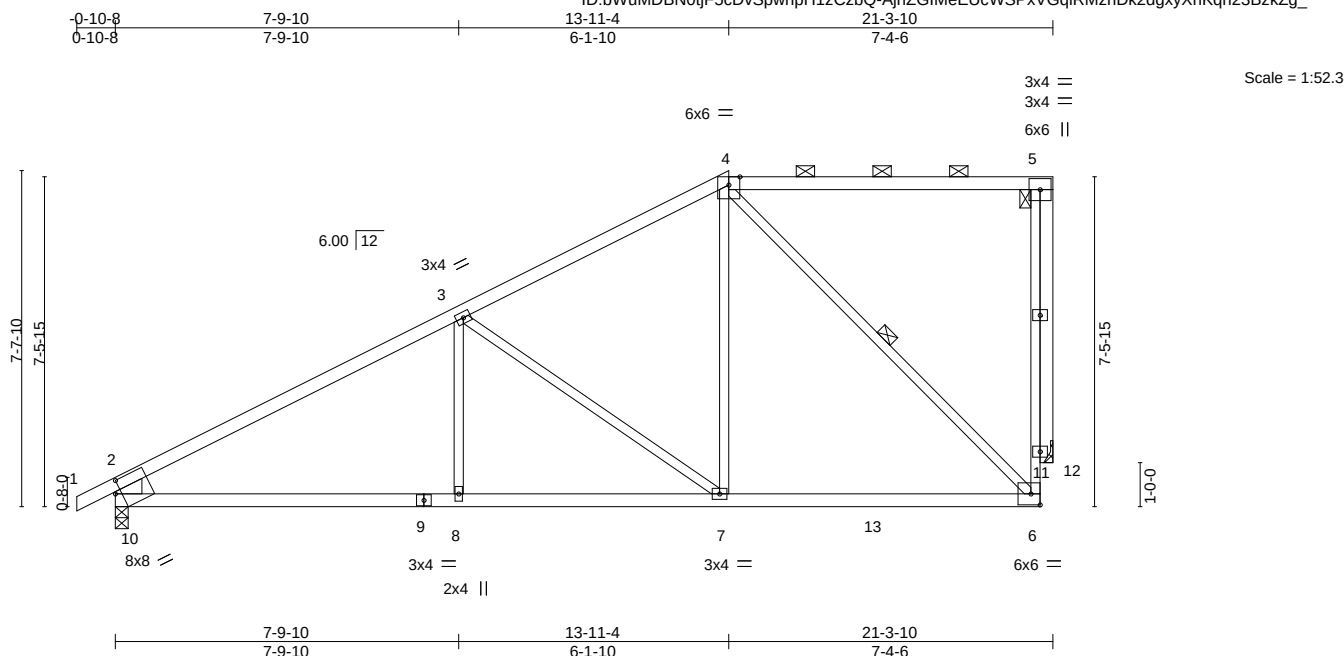


Plate Offsets (X,Y)-- [10:0-1-10,0-3-4]													
LOADING (psf)		SPACING- 2-0-0		CSI.		DEFL. in (loc) l/defl L/d				PLATES		GRIP	
TCLL	25.0	Plate Grip DOL	1.15	TC	0.86	Vert(LL)	-0.13	6-7	>999	360	MT20	197/144	
TCDL	10.0	Lumber DOL	1.15	BC	0.62	Vert(CT)	-0.22	6-7	>999	240			
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.85	Horz(CT)	0.04	12	n/a	n/a			
BCDL	10.0	Code IRC2018/TPI2014		Matrix-S		Wind(LL)	0.02	7-8	>999	240	Weight: 88 lb	FT = 10%	

LUMBER-

TOP CHORD	2x4 SPF No.2
BOT CHORD	2x4 SPF No.2
WEBS	2x3 SPF No.2 *Except*
	2-10: 2x8 SP DSS
OTHERS	2x4 SPF No.2

BRACING-

TOP CHORD	Structural wood sheathing directly applied or 3-1-0 oc purlins, except end verticals, and 2-0-0 oc purlins (6-0-0 max.): 4-5.
BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS	1 Row at midpt 4-6

REACTIONS.

(size) 10=0-3-8, 12=Mechanical
Max Horz 10=187(LC 8)
Max Uplift 10=-10(LC 8), 12=-35(LC 5)
Max Grav 10=1050(LC 2), 12=974(LC 2)

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

TOP CHORD 2-3=-1421/8, 3-4=-862/18, 6-11=-1/778, 5-11=-1/778, 2-10=-937/60
BOT CHORD 8-10=-118/1177, 7-8=-118/1177, 6-7=-28/693
WEBS 3-8=0/258, 3-7=-602/115, 4-7=0/642, 4-6=-910/52, 5-12=-976/35

NOTES-

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope); cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 3) Provide adequate drainage to prevent water ponding.
- 4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 5) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- 6) Refer to girder(s) for truss to truss connections.
- 7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 10, 12.
- 8) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 9) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



February 16, 2021

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

WARNING – Verify design parameters and READ NOTES ON THIS AND INCLUDED WITHIN REFERENCE TAFE MP-1419 (Rev. 3/29/2020) 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.

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



16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job 210444	Truss H4	Truss Type Half Hip	Qty 1	Ply 1	Lot 101 H4	I44832105
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Wheeler Lumber, Waverly, KS - 66871,

8.430 s Nov 30 2020 MiTek Industries, Inc. Tue Feb 16 12:12:16 2021 Page 1

ID: bWuMDBN0tjF5cDvSpwhpH1zCzbQ-ewFxTeNG?okN3ZWhtYgGvBEPZRxGgVRrZUXbadzkZfz

0-10-8	5-9-10	11-11-4	16-6-3	21-3-10
0-10-8	5-9-10	6-1-11	4-6-15	4-9-7

Scale = 1:47.3

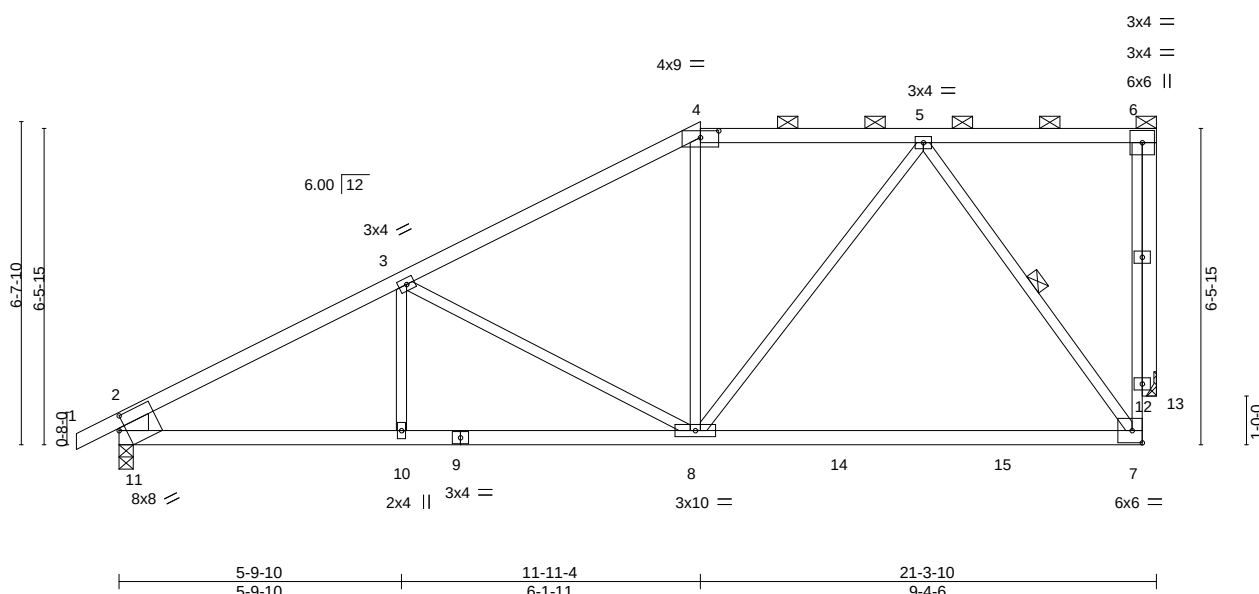


Plate Offsets (X,Y)--		[4:0-4-8,0-1-11], [11:0-1-10,0-3-4]									
LOADING (psf)		SPACING- 2-0-0		CSI.		DEFL. in (loc) l/defl L/d		PLATES		GRIP	
TCLL	25.0	Plate Grip DOL 1.15		TC	0.79	Vert(LL)	-0.27 7-8 >938 360	MT20	197/144		
TCDL	10.0	Lumber DOL 1.15		BC	0.72	Vert(CT)	-0.44 7-8 >568 240				
BCLL	0.0 *	Rep Stress Incr YES		WB	0.49	Horz(CT)	-0.04 13 n/a n/a				
BCDL	10.0	Code IRC2018/TPI2014		Matrix-S		Wind(LL)	0.04 8-10 >999 240	Weight: 88 lb	FT = 10%		

LUMBER-

TOP CHORD 2x4 SPF No.2
 BOT CHORD 2x4 SPF No.2 *Except*
 7-9: 2x4 SPF 2100F 1.8E
 WEBS 2x3 SPF No.2 *Except*
 2-11: 2x8 SP DSS
 OTHERS 2x4 SPF No.2

BRACING-

TOP CHORD Structural wood sheathing directly applied or 2-2-0 oc purlins, except end verticals, and 2-0-0 oc purlins (6-0-0 max.): 4-6.
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
 WEBS 1 Row at midpt 5-7

REACTIONS.

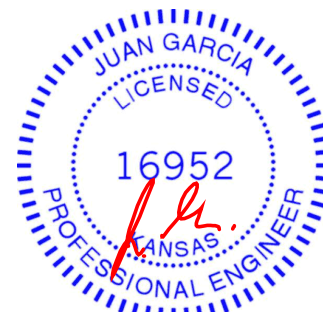
(size) 11=0-3-8, 13=Mechanical
 Max Horz 11=159(LC 8)
 Max Uplift 11=-11(LC 8), 13=-38(LC 5)
 Max Grav 11=1047(LC 2), 13=977(LC 2)

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

TOP CHORD 2-3=-1473/13, 3-4=-1060/5, 4-5=-883/29, 7-12=-10/863, 6-12=-10/863, 2-11=-923/47
 BOT CHORD 10-11=-114/1230, 8-10=-114/1230, 7-8=-49/565
 WEBS 3-8=-420/113, 5-8=-11/540, 5-7=-860/69, 6-13=-978/38

NOTES-

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



February 16, 2021

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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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 210444	Truss H5	Truss Type Half Hip	Qty 1	Ply 1	Lot 101 H4	144832106
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Wheeler Lumber, Waverly, KS - 66871,

8.430 s Nov 30 2020 MiTek Industries, Inc. Tue Feb 16 12:12:17 2021 Page 1

ID:bwuMdBNOtjF5cDvSpwphP1zCzbQ-66pJh_Nvm5sEhj5uOfnvROMZPrILP_t_n8G963zkZfy

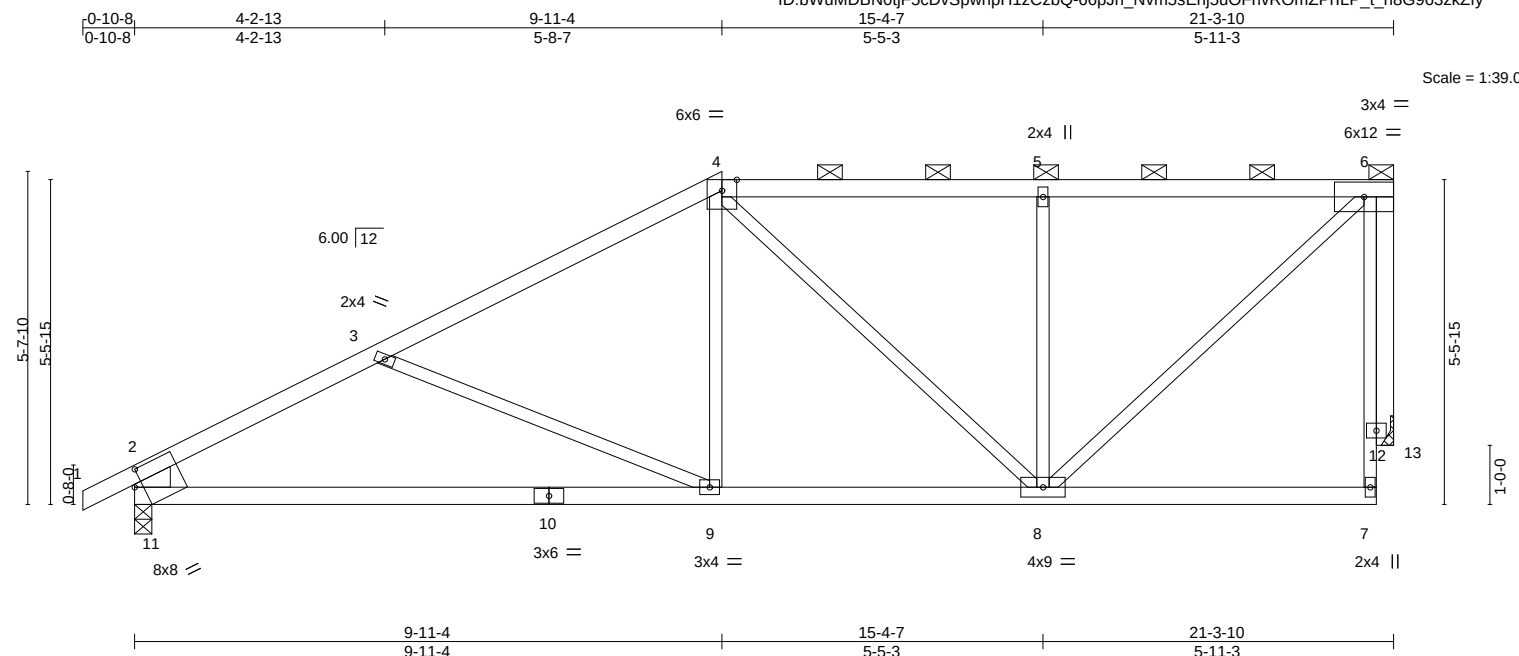


Plate Offsets (X,Y)--		[11:0-1-10,0-3-4]	
LOADING (psf)	SPACING	2-0-0	CSI.
TCLL 25.0	Plate Grip DOL	1.15	TC 0.85
TCDL 10.0	Lumber DOL	1.15	BC 0.67
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.35
BCDL 10.0	Code	IRC2018/TPI2014	Matrix-S
			DEFL.
			in (loc) l/defl L/d
			Vert(LL) -0.21 9-11 >999 360
			Vert(CT) -0.42 9-11 >602 240
			Horz(CT) 0.03 13 n/a n/a
			Wind(LL) 0.04 8-9 >999 240
			PLATES
			MT20
			GRIP
			197/144
			Weight: 86 lb FT = 10%

LUMBER-

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

BRACING-

TOP CHORD Structural wood sheathing directly applied or 2-7-4 oc purlins, except end verticals, and 2-0-0 oc purlins (6-0-0 max.): 4-6.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS.

(size) 11=0-3-8, 13=Mechanical
Max Horz 11=130(LC 8)
Max Uplift 11=-9(LC 8), 13=-40(LC 5)
Max Grav 11=1025(LC 1), 13=912(LC 1)

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

TOP CHORD 2-3=-1438/51, 3-4=-1161/10, 4-5=-805/38, 5-6=-803/37, 2-11=-920/62
BOT CHORD 9-11=-130/1189, 8-9=-35/961
WEBS 4-9=0/355, 5-8=-450/107, 6-8=-46/1005, 6-13=-915/41

NOTES-

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



February 16, 2021

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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

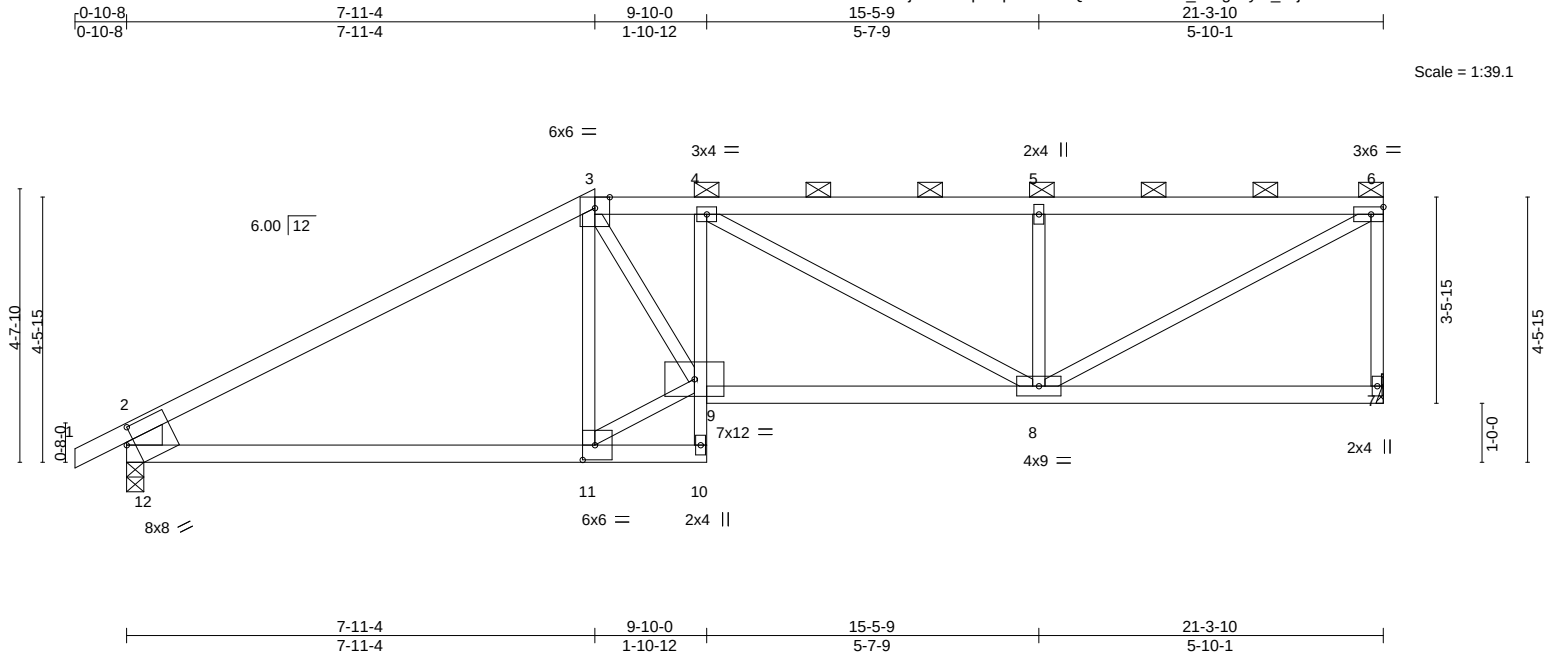
Job	Truss	Truss Type	Qty	Ply	Lot 101 H4	I44832107
210444	H6	Half Hip	1	1		

Wheeler Lumber, Waverly, KS - 66871,

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ID: bWuMdbN0tjF5cDvSpwhpH1zCzbQ-aINiuK0XXP_5Jsg4xyl8_cJj9fHm8Pd80o0ieWzkZfx

Job Reference (optional)



Scale = 1:39.1

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 0.91	Vert(LL)	-0.09	9	>999	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.49	Vert(CT)	-0.18	11-12	>999		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.51	Horz(CT)	0.05	7	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-S	Wind(LL)	0.05	9	>999		
								Weight: 78 lb	FT = 10%

LUMBER-

TOP CHORD 2x4 SPF No.2
 BOT CHORD 2x4 SPF No.2 *Except*
 4-10: 2x3 SPF No.2
 WEBS 2x3 SPF No.2 *Except*
 2-12: 2x8 SP DSS

BRACING-

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

REACTIONS.

(size) 7=Mechanical, 12=0-3-8
 Max Horz 12=133(LC 5)
 Max Uplift 7=-48(LC 5), 12=-9(LC 8)
 Max Grav 7=938(LC 1), 12=1025(LC 1)

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

TOP CHORD 2-3=-1371/17, 3-4=-1631/73, 4-5=-1308/48, 5-6=-1308/48, 6-7=-886/75, 2-12=-945/63
 BOT CHORD 11-12=-74/1104, 8-9=-115/1651
 WEBS 3-11=-572/116, 9-11=-71/1289, 3-9=-69/1013, 6-8=-77/1472, 4-8=-390/29, 5-8=-456/110

NOTES-

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope); cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- Provide adequate drainage to prevent water ponding.
- 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) 7, 12.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



February 16, 2021

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

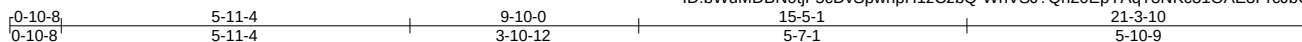
Safety Information available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



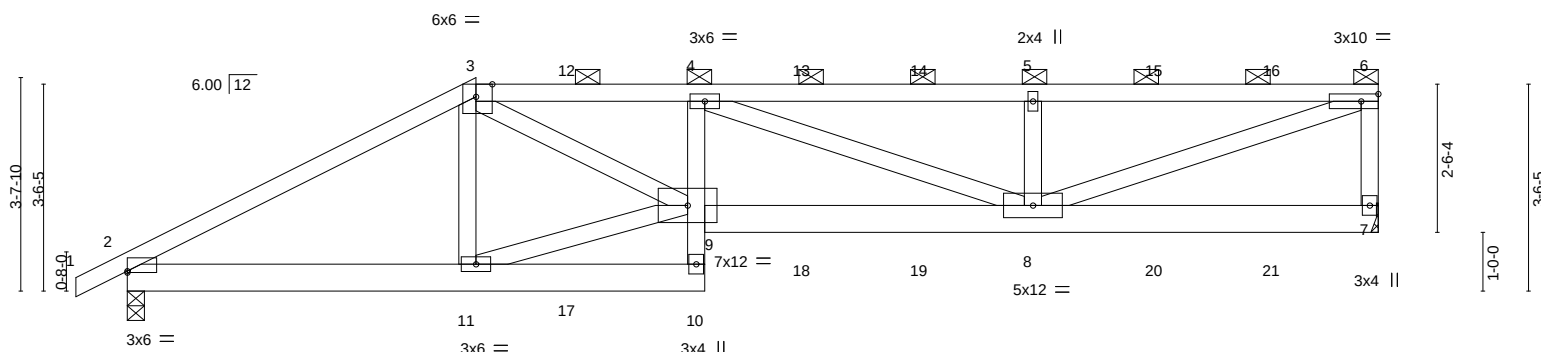
16023 Swingley Ridge Rd
 Chesterfield, MO 63017

8.430 s Nov 30 2020 MiTek Industries, Inc. Tue Feb 16 12:12:20 2021 Page 1

ID:bWuMDBN0tjF5cDvSpwhpH1zCzbO-WhVSJ?On20EpYAqT3NKc31OAE3PrcJbOU6VpiOzkZfv



Scale = 1:39.2



A horizontal timeline with a central line and vertical tick marks at the beginning, end, and between each decade. The decades are labeled as follows:

Decade	Start Year	End Year
1950s	1950	1959
1960s	1960	1969
1970s	1970	1979
1980s	1980	1989
1990s	1990	1999
2000s	2000	2009
2010s	2010	2019
2020s	2020	2029

LOADING	SPACING-	2-0-0	CSI.	DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.49	Vert(LL)	-0.11	8-9	>999	360	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.29	Vert(CT)	-0.19	8-9	>999	240		
BCLL 0.0 *	Rep Stress Incr	NO	WB 0.48	Horz(CT)	0.04	7	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-S	Wind(LL)	0.09	8-9	>999	240	Weight: 217 lb	FT = 10%

LUMBER-

TOP CHORD 2x4 SPF No.2
BOT CHORD 2x6 SP 2400F 2.0E *Except*
4-10: 2x4 SPF No.2
WEBS 2x4 SPF No.2

BRACING-

TOP CHORD	Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals, and 2-0-0 oc purlins (5-8-8 max.): 3-6.
BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS.

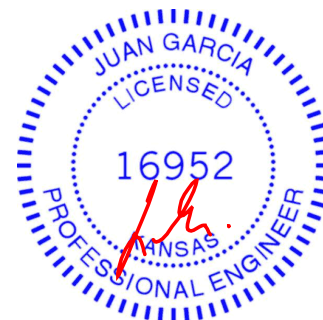
(size) 7=Mechanical, 2=0-3-8
Max Horz 2=93(LC 5)
Max Uplift 7=-400(LC 5), 2=-262(LC 8)
Max Grav 7=1807(LC 1), 2=1804(LC 1)

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

TOP CHORD 2-3=-3172/516, 3-4=-4616/882, 4-5=-3764/809, 5-6=-3764/809, 6-7=-1635/395
BOT CHORD 2-11=-493/2685, 10-11=-81/406, 4-9=-310/195, 8-9=-944/4748
WEBS 3-9=-475/2257, 5-8=-707/299, 4-8=-1050/115, 6-8=-837/3879, 9-11=-430/2355

NOTES-

- 1) 2-ply truss to be connected together with 10d (0.131"x3") nails as follows:
Top chords connected as follows: 2x4 - 1 row at 0-9-0 oc.
Bottom chords connected as follows: 2x6 - 2 rows staggered at 0-9-0 oc, 2x4 - 1 row at 0-9-0 oc.
Webs connected as follows: 2x4 - 1 row at 0-9-0 oc.
- 2) All loads are considered equally applied to all plies, except if noted as front (F) or back (B) face in the LOAD CASE(S) section. Ply to ply connections have been provided to distribute only loads noted as (F) or (B), unless otherwise indicated.
- 3) Unbalanced roof live loads have been considered for this design.
- 4) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCdL=6.0psf; BCdL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope); cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 5) Provide adequate drainage to prevent water ponding.
- 6) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 7) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 8) Refer to girder(s) for truss to truss connections.
- 9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 7=400, 2=262.
- 10) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 11) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



February 16, 2021

Continued on page 2

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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 210444	Truss H7	Truss Type Half Hip Girder	Qty 1	Ply 2	Lot 101 H4 I44832108 Job Reference (optional)
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Wheeler Lumber,
Waverly, KS - 66871,
8.430 s Nov 30 2020 MiTek Industries, Inc.
Tue Feb 16 12:12:20 2021
Page 2
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NOTES-

12) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 129 lb down and 71 lb up at 5-11-4, 105 lb down and 71 lb up at 7-6-0, 105 lb down and 71 lb up at 9-6-0, 100 lb down and 94 lb up at 11-6-0, 100 lb down and 94 lb up at 13-6-0, 100 lb down and 94 lb up at 15-6-0, and 100 lb down and 94 lb up at 17-6-0, and 100 lb down and 94 lb up at 19-6-0 on top chord, and 412 lb down and 119 lb up at 5-11-4, 66 lb down at 7-6-0, 66 lb down at 9-8-4, 72 lb down and 26 lb up at 11-6-0, 72 lb down and 26 lb up at 13-6-0, 72 lb down and 26 lb up at 15-6-0, and 72 lb down and 26 lb up at 17-6-0, and 72 lb down and 26 lb up at 19-6-0 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.

LOAD CASE(S) Standard

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

Uniform Loads (plf)

Vert: 1-3=-70, 3-6=-70, 2-10=-20, 7-9=-20

Concentrated Loads (lb)

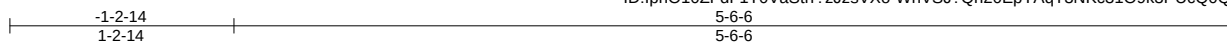
Vert: 3=-105(B) 10=-51(B) 4=-105(B) 11=-412(B) 5=-92(B) 8=-72(B) 12=-105(B) 13=-92(B) 14=-92(B) 15=-92(B) 16=-92(B) 17=-51(B) 18=-72(B) 19=-72(B) 20=-72(B) 21=-72(B)

Job 210444	Truss J1	Truss Type Diagonal Hip Girder	Qty 2	Ply 1	Lot 101 H4 Job Reference (optional)	I44832109
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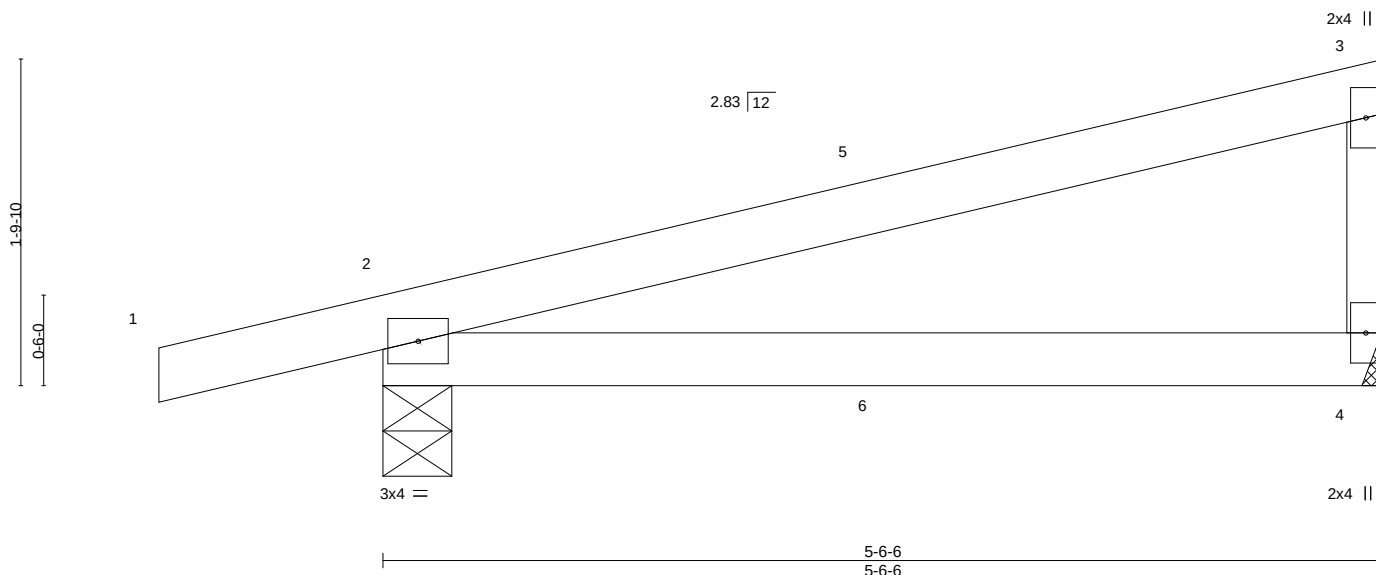
Wheeler Lumber, Waverly, KS - 66871,

8.430 s Nov 30 2020 MiTek Industries, Inc. Tue Feb 16 12:12:20 2021 Page 1

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Scale = 1:12.7



LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.52	Vert(LL)	-0.05	2-4	>999	360	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.32	Vert(CT)	-0.09	2-4	>696	240		
BCLL 0.0 *	Rep Stress Incr	NO	WB 0.00	Horz(CT)	-0.00	4	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-P	Wind(LL)	0.00	2	****	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 5-6-6 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS.

(size) 4=Mechanical, 2=0-4-9
Max Horz 2=65(LC 5)
Max Uplift 4=44(LC 8), 2=-109(LC 4)
Max Grav 4=222(LC 1), 2=349(LC 1)

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

NOTES-

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCCL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 3) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 4) Refer to girder(s) for truss to truss connections.
- 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 4 except (jt=lb) 2=109.
- 6) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 7) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 67 lb down and 34 lb up at 2-9-8, and 67 lb down and 34 lb up at 2-9-8 on top chord, and 2 lb down at 2-9-8, and 2 lb down at 2-9-8 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
- 8) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

LOAD CASE(S) Standard

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



February 16, 2021

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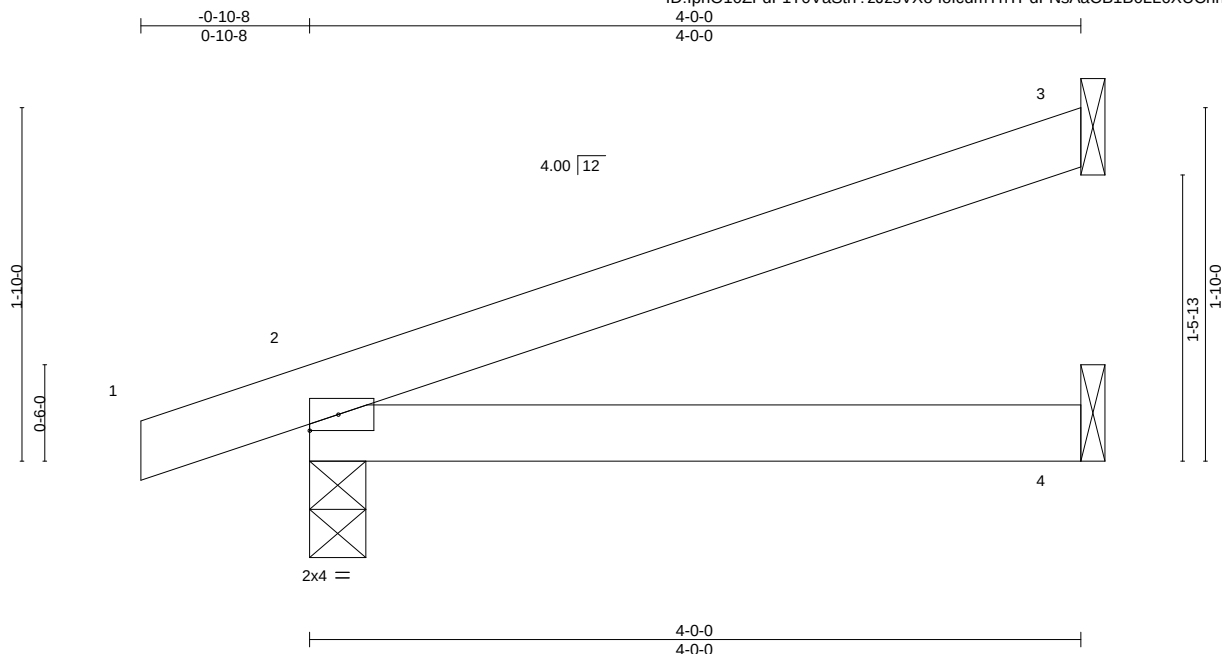
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job 210444	Truss J2	Truss Type Jack-Open	Qty 3	Ply 1	Lot 101 H4 Job Reference (optional)	I44832110
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Wheeler Lumber, Waverly, KS - 66871,

8.430 s Nov 30 2020 MiTek Industries, Inc. Tue Feb 16 12:12:31 2021 Page 1

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Scale: 1"=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 0.23	Vert(LL)	-0.01	2-4	>999	360	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.14	Vert(CT)	-0.02	2-4	>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-P	Wind(LL)	0.00	2	****	240		
									Weight: 11 lb	FT = 10%

LUMBER-

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

BRACING-

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

REACTIONS.

(size) 3=Mechanical, 2=0-3-8, 4=Mechanical
Max Horz 2=67(LC 4)
Max Uplift 3=64(LC 8), 2=69(LC 4)
Max Grav 3=123(LC 1), 2=252(LC 1), 4=76(LC 3)

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

NOTES-

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



February 16, 2021

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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

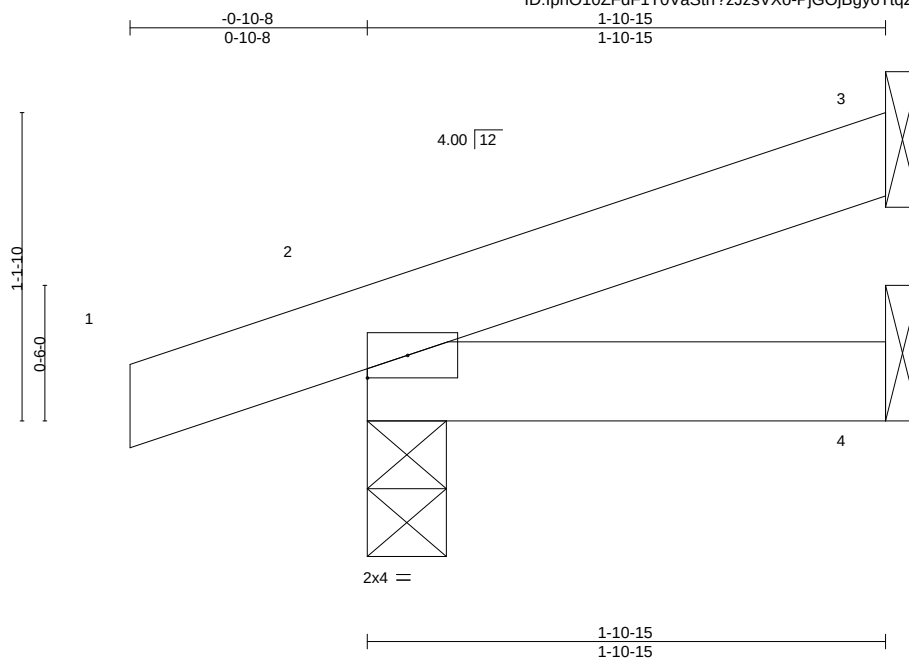


16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job 210444	Truss J3	Truss Type Jack-Open	Qty 4	Ply 1	Lot 101 H4 Job Reference (optional)	I44832111
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Wheeler Lumber, Waverly, KS - 66871,

8.430 s Nov 30 2020 MiTek Industries, Inc. Tue Feb 16 12:12:41 2021 Page 1
ID:lpnO10ZFdF1T0VaStrr?zJzsVXo-PjGOjBgy6TtqZPxVolDXQsmtmWeu1wCWJt4QygzKZfa



Scale = 1:8.5

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 0.05	Vert(LL)	-0.00	2	>999	360	MT20
TCDL 10.0	Lumber DOL	1.15	BC 0.03	Vert(CT)	-0.00	2-4	>999	240	197/144
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.00	Horz(CT)	-0.00	3	n/a	n/a	
BCDL 10.0	Code IRC2018/TPI2014		Matrix-P	Wind(LL)	0.00	2	****	240	
								Weight: 6 lb	FT = 10%

LUMBER-

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

BRACING-

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

REACTIONS.

(size) 3=Mechanical, 2=0-3-8, 4=Mechanical
Max Horz 2=39(LC 4)
Max Uplift 3=-29(LC 8), 2=-56(LC 4)
Max Grav 3=50(LC 1), 2=163(LC 1), 4=37(LC 3)

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

NOTES-

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; 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 connections.
- 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 3, 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.



February 16, 2021

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job 210444	Truss J5A	Truss Type JACK-CLOSED	Qty 2	Ply 1	Lot 101 H4 I44832113
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Wheeler Lumber, Waverly, KS - 66871,

8.430 s Nov 30 2020 MiTek Industries, Inc. Tue Feb 16 12:12:43 2021 Page 1

ID:lpnO10ZF1T0VaStrr?zJzsVXo-L6O88thCe58Ypi4tviF?VtrCuKKkVqipmBZX1ZzkZfY



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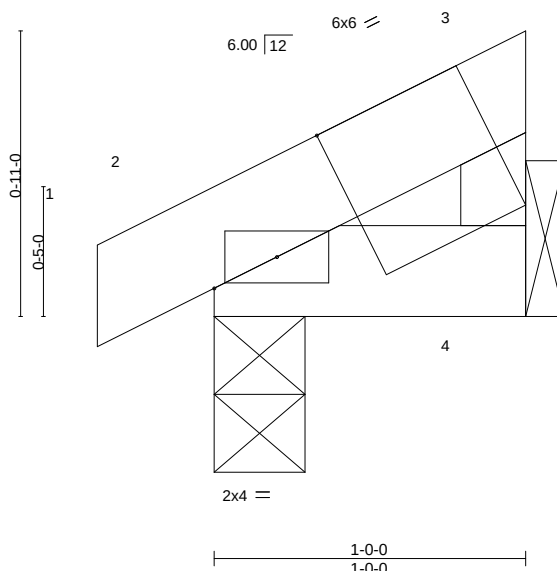


Plate Offsets (X,Y)--		[3:0-6-3,Edge]									
LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0		Plate Grip DOL	1.15	TC 0.01		Vert(LL)	-0.00 2	>999	360	MT20	197/144
TCDL 10.0		Lumber DOL	1.15	BC 0.01		Vert(CT)	-0.00 2	>999	240		
BCLL 0.0 *		Rep Stress Incr	YES	WB 0.00		Horz(CT)	-0.00 4	n/a	n/a		
BCDL 10.0		Code IRC2018/TPI2014		Matrix-P		Wind(LL)	0.00 2	****	240	Weight: 3 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 1-0-0 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS.

(size) 4=Mechanical, 2=0-3-8
Max Horz 2=25(LC 5)
Max Uplift 4=-9(LC 8), 2=-15(LC 8)
Max Grav 4=32(LC 1), 2=74(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.



February 16, 2021

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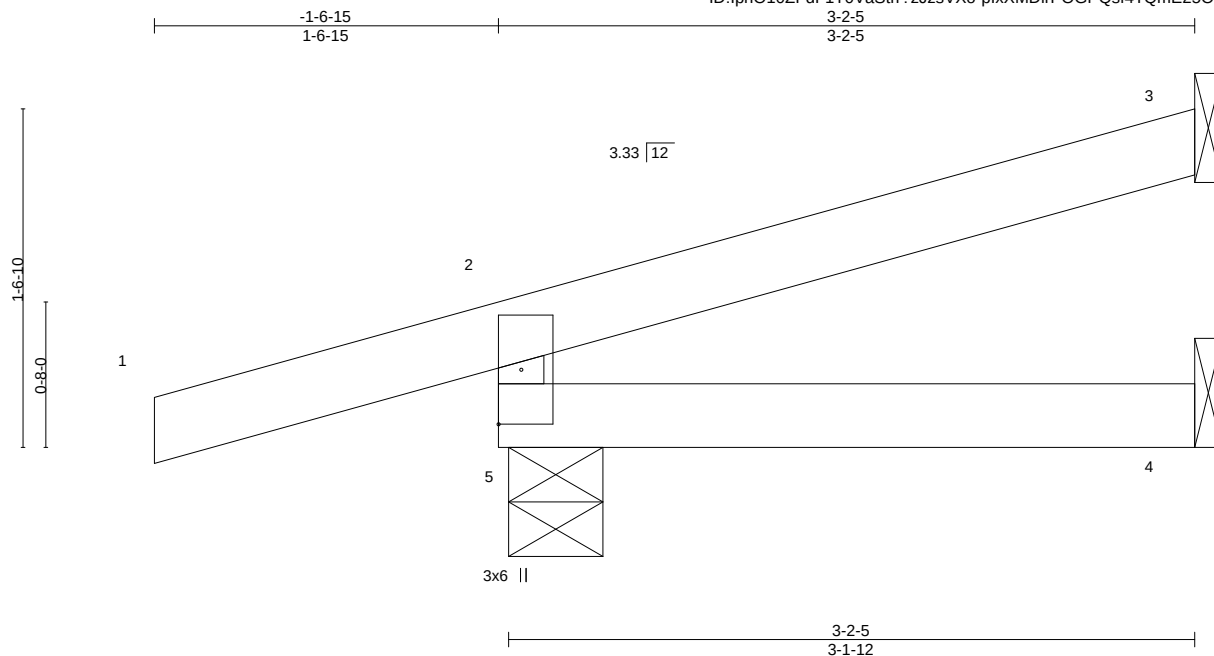


16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job 210444	Truss J6	Truss Type Jack-Open Girder	Qty 1	Ply 1	Lot 101 H4 Job Reference (optional)	I44832114
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Wheeler Lumber, Waverly, KS - 66871,

8.430 s Nov 30 2020 MiTek Industries, Inc. Tue Feb 16 12:12:44 2021 Page 1
ID:lpnO10ZFdF1T0VaStrr?zJzsVXo-plxXMDirPOGPQsf4TQmE25OKjFHEHy?rJ4Z?zkZfX



Scale = 1:10.6

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 0.20	Vert(LL)	-0.00	4-5	>999	360	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.05	Vert(CT)	-0.00	4-5	>999	240		
BCLL 0.0 *	Rep Stress Incr	NO	WB 0.00	Horz(CT)	-0.00	3	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-R	Wind(LL)	0.00	4-5	>999	240		
									Weight: 9 lb	FT = 10%

LUMBER-

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

BRACING-

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

REACTIONS.

(size) 5=0-5-3, 3=Mechanical, 4=Mechanical
Max Horz 5=57(LC 12)
Max Uplift 5=-105(LC 6), 3=-48(LC 12), 4=-1(LC 19)
Max Grav 5=140(LC 1), 3=34(LC 1), 4=41(LC 3)

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

NOTES-

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 3) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 4) Refer to girder(s) for truss to truss connections.
- 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 3, 4 except (jt=lb) 5=105.
- 6) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 7) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 30 lb down and 11 lb up at -1-6-15, and 30 lb down and 11 lb up at -1-6-15 on top chord. The design/selection of such connection device(s) is the responsibility of others.
- 8) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

LOAD CASE(S) Standard

- 1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
Concentrated Loads (lb)
Vert: 1=-46(F=-23, B=-23)
Trapezoidal Loads (plf)
Vert: 1=0(F=35, B=35)-to-2=-29(F=20, B=20), 2=-2(F=34, B=34)-to-3=-56(F=7, B=7), 5=-0(F=10, B=10)-to-4=-16(F=2, B=2)



February 16, 2021

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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 101 H4	I44832115
210444	J7	Diagonal Hip Girder	2	1		

Wheeler Lumber, Waverly, KS - 66871,

8.430 s Nov 30 2020 MiTek Industries, Inc. Tue Feb 16 12:12:44 2021 Page 1

ID:lpnO10ZF1T0VaStrr?zJzsVXo-plxXMDirPOGPQsf4TQmE25OENkaEEHy?rJ4Z?zkZfX

-1-6-15
1-6-15

6-9-9
6-9-9

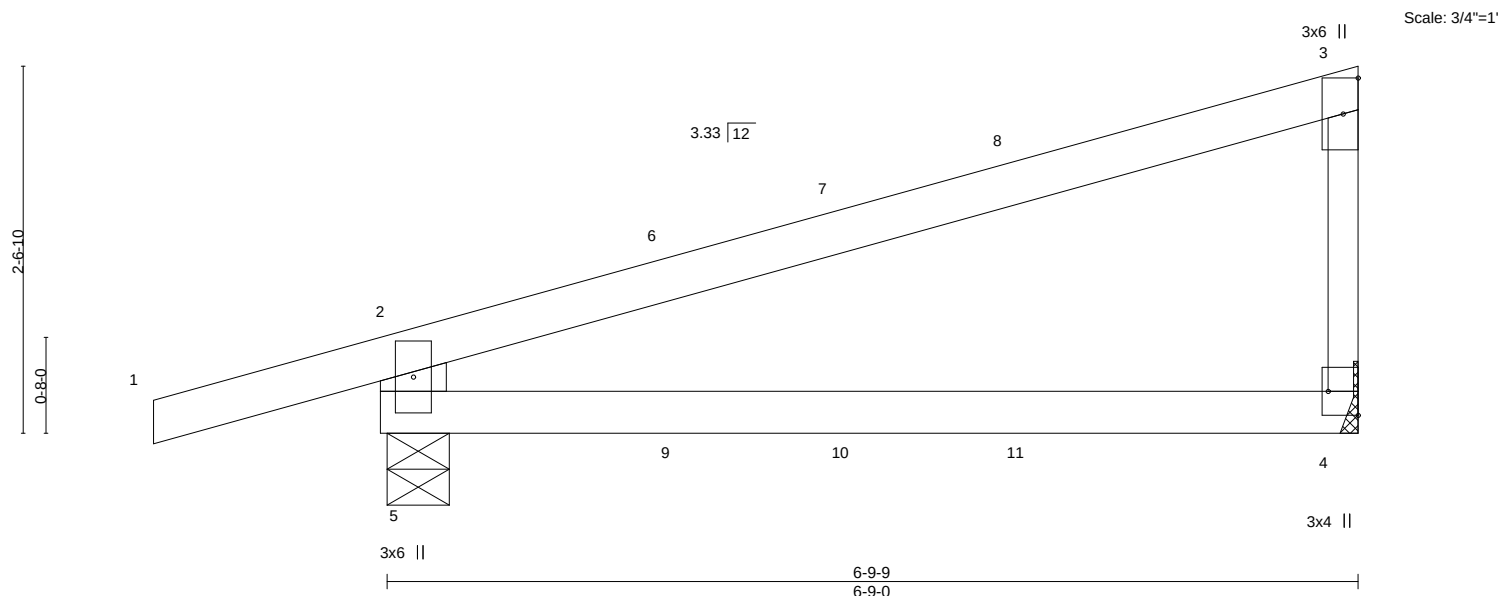


Plate Offsets (X,Y)-- [4:Edge,0-2-8]												
LOADING (psf)		SPACING- 2-0-0		CSI.		DEFL. in (loc) l/defl L/d				PLATES GRIP		
TCLL	25.0	Plate Grip DOL	1.15	TC	0.60	Vert(LL)	-0.07	4-5	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.37	Vert(CT)	-0.14	4-5	>554	240		
BCLL	0.0 *	Rep Stress Incr	NO	WB	0.00	Horz(CT)	0.00	4	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-R		Wind(LL)	0.03	4-5	>999	240	Weight: 20 lb	FT = 10%

LUMBER-

TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
WEBS 2x6 SPF No.2 *Except*
3-4: 2x3 SPF No.2

BRACING-

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

REACTIONS.

(size) 5=0-5-3, 4=Mechanical
Max Horz 5=105(LC 5)
Max Uplift 5=136(LC 4), 4=59(LC 8)
Max Grav 5=433(LC 1), 4=273(LC 1)

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

TOP CHORD 2-5=-385/182

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 except (jt=lb) 5=136.
- 6) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 7) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 59 lb down and 14 lb up at 2-1-7, and 93 lb down and 59 lb up at 3-3-11, and 68 lb down and 47 lb up at 4-6-4 on top chord, and 2 lb down and 3 lb up at 2-1-7, and 8 lb down at 3-3-11, and 10 lb down at 4-6-4 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
- 8) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

LOAD CASE(S) Standard

- 1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (plf)
Vert: 1-2=-70, 2-3=-70, 4-5=-20
Concentrated Loads (lb)
Vert: 9=3(B) 11=-1(B)



February 16, 2021

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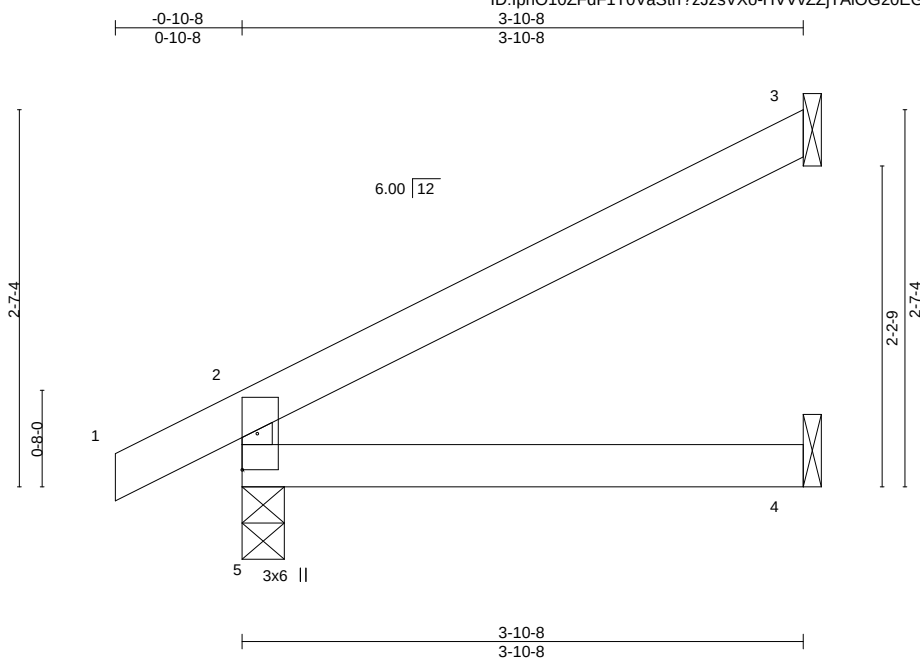
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job 210444	Truss J8	Truss Type Jack-Open	Qty 5	Ply 1	Lot 101 H4 I44832116
Job Reference (optional)					

Wheeler Lumber, Waverly, KS - 66871,

8.430 s Nov 30 2020 MiTek Industries, Inc. Tue Feb 16 12:12:45 2021 Page 1

ID:lpnO10ZFdf1T0VaStrr?zJzsVXo-HVVvZZjTAiOG20EG17HTalxVR7_NzkC6DV2d5RzkZfW



LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in	(loc)	L/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.20	Vert(LL)	-0.01	4-5	>999	360	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.12	Vert(CT)	-0.02	4-5	>999	240		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.00	Horz(CT)	0.01	3	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-R	Wind(LL)	0.01	4-5	>999	240		
									Weight: 11 lb	FT = 10%

LUMBER-

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

BRACING-

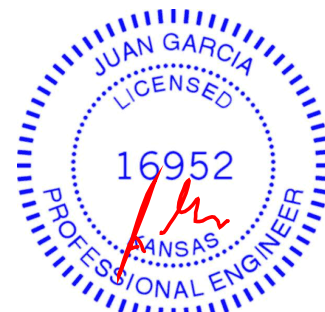
TOP CHORD Structural wood sheathing directly applied or 3-10-8 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) 5=0-3-8, 3=Mechanical, 4=Mechanical
Max Horz 5=87(LC 8)
Max Uplift 5=-29(LC 8), 3=-66(LC 8)
Max Grav 5=244(LC 1), 3=115(LC 1), 4=71(LC 3)

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

NOTES-

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



February 16, 2021

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job 210444	Truss J9	Truss Type Jack-Open	Qty 2	Ply 1	Lot 101 H4 I44832117
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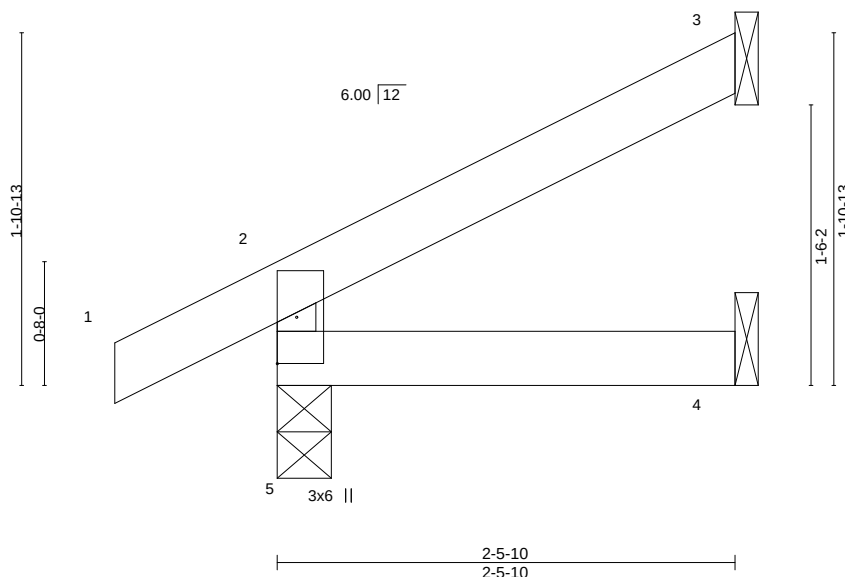
Wheeler Lumber, Waverly, KS - 66871,

8.430 s Nov 30 2020 MiTek Industries, Inc. Tue Feb 16 12:12:46 2021 Page 1

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0-10-8 0-10-8 2-5-10 2-5-10

Scale = 1:12.4



LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in	(loc)	L/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.07	Vert(LL)	-0.00	4-5	>999	360	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.04	Vert(CT)	-0.00	4-5	>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	Wind(LL)	0.00	4-5	>999	240	Weight: 7 lb	FT = 10%

LUMBER-

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

BRACING-

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

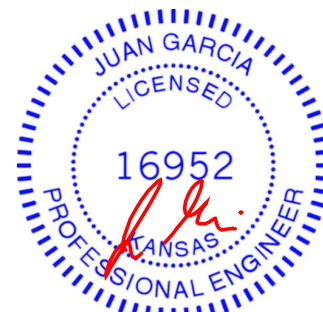
REACTIONS.

(size) 5=0-3-8, 3=Mechanical, 4=Mechanical
Max Horz 5=58(LC 8)
Max Uplift 5=26(LC 8), 3=41(LC 8)
Max Grav 5=187(LC 1), 3=66(LC 1), 4=43(LC 3)

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

NOTES-

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



February 16, 2021

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

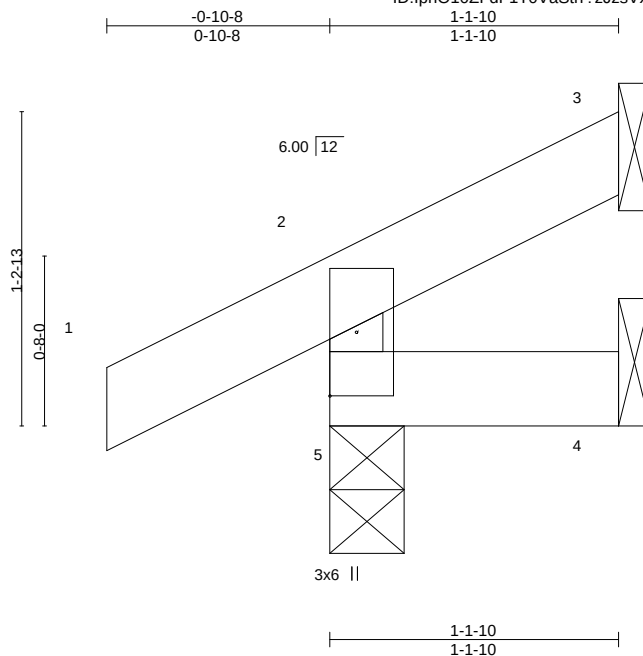


16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job 210444	Truss J10	Truss Type Jack-Open	Qty 2	Ply 1	Lot 101 H4 I44832118
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Wheeler Lumber, Waverly, KS - 66871,

8.430 s Nov 30 2020 MiTek Industries, Inc. Tue Feb 16 12:12:22 2021 Page 1
ID:lpnO10ZFdF1T0VaStrr?zJzsVXo-S3cCkhR1aeUXoU_rAoN48SUcLS9I4KVjxQ_wnHzkZft



Scale = 1:9.0

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 0.07	Vert(LL)	0.00	5	>999	360	MT20
TCDL 10.0	Lumber DOL	1.15	BC 0.01	Vert(CT)	-0.00	5	>999	240	197/144
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.00	Horz(CT)	-0.00	3	n/a	n/a	
BCDL 10.0	Code IRC2018/TPI2014		Matrix-R	Wind(LL)	0.00	5	>999	240	
								Weight: 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 1-1-10 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=32(LC 8)
Max Uplift 5=27(LC 8), 3=14(LC 8)
Max Grav 5=147(LC 1), 3=9(LC 15), 4=18(LC 3)

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

NOTES-

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



February 16, 2021

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



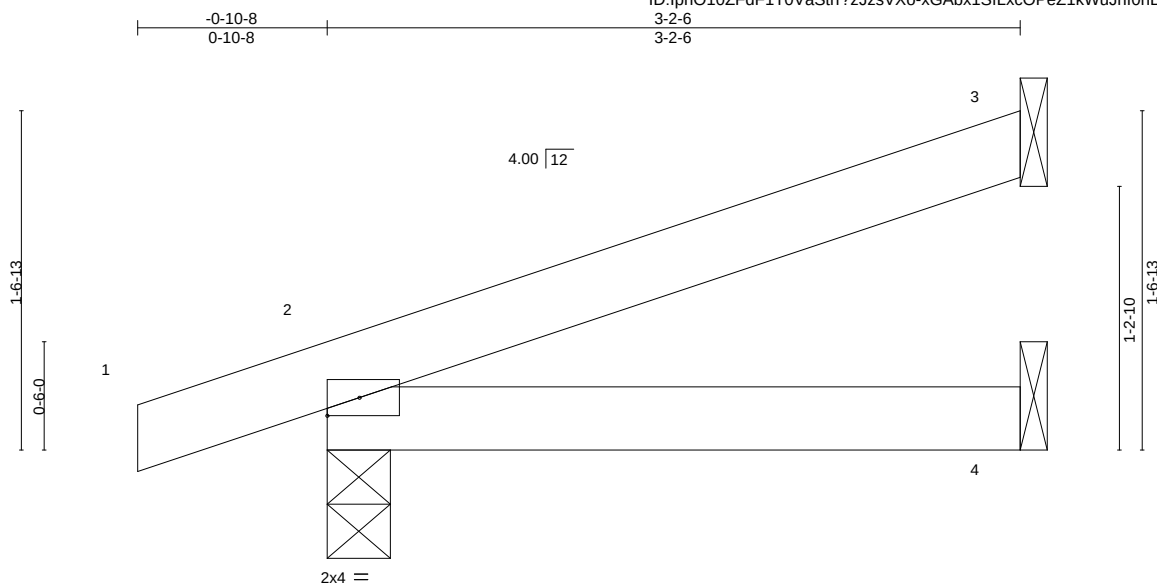
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job 210444	Truss J11	Truss Type Jack-Open	Qty 2	Ply 1	Lot 101 H4 Job Reference (optional)	I44832119
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Wheeler Lumber, Waverly, KS - 66871,

8.430 s Nov 30 2020 MiTek Industries, Inc. Tue Feb 16 12:12:23 2021 Page 1

ID:lpnO10ZFdF1T0VaStrr?zJzsVXo-xGAbx1SfLxcOPeZ1kWuJhf0nBGUppnlA3jTKjkZfs



Scale = 1:10.6

LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in	(loc)	I/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.12	Vert(LL)	-0.00	2-4	>999	360	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.09	Vert(CT)	-0.01	2-4	>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-P	Wind(LL)	0.00	2	****	240	Weight: 9 lb	FT = 10%

LUMBER-

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

BRACING-

TOP CHORD Structural wood sheathing directly applied or 3-2-6 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

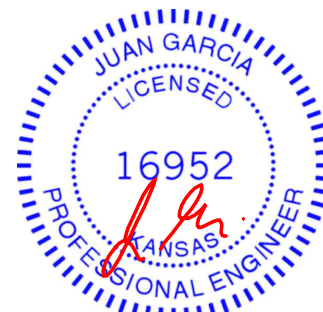
REACTIONS.

(size) 3=Mechanical, 2=0-3-8, 4=Mechanical
Max Horz 2=56(LC 4)
Max Uplift 3=50(LC 8), 2=65(LC 4)
Max Grav 3=93(LC 1), 2=218(LC 1), 4=60(LC 3)

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

NOTES-

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



February 16, 2021

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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

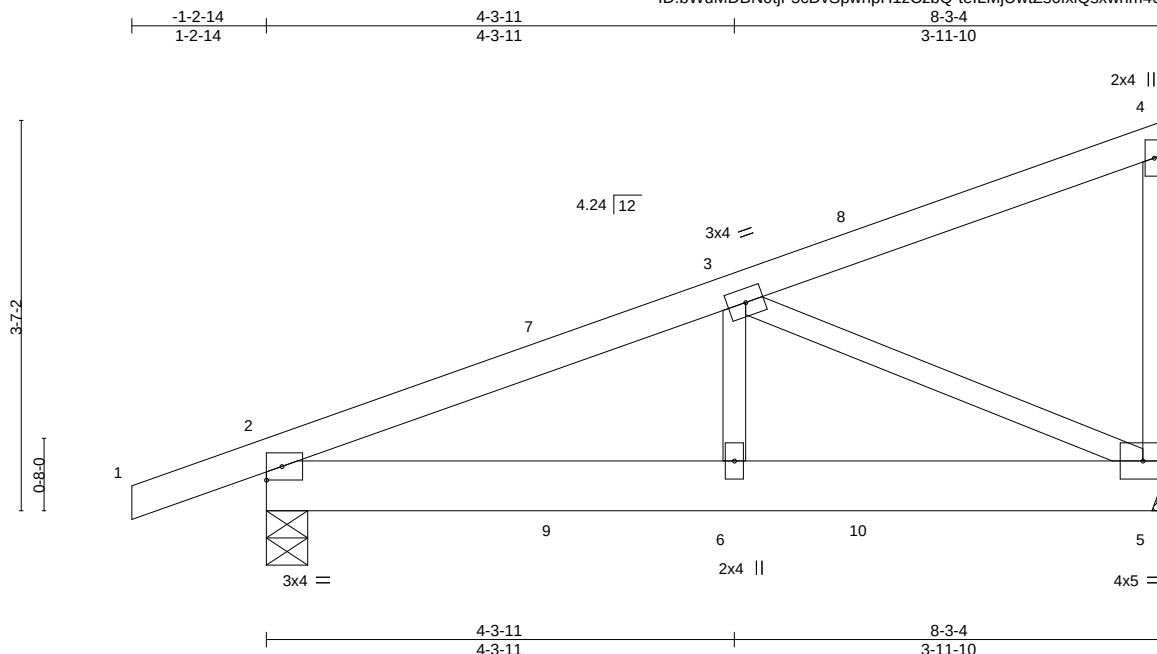


16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job 210444	Truss J12	Truss Type Diagonal Hip Girder	Qty 2	Ply 1	Lot 101 H4 Job Reference (optional)	I44832120
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Wheeler Lumber, Waverly, KS - 66871,

8.430 s Nov 30 2020 MiTek Industries, Inc. Tue Feb 16 12:12:25 2021 Page 1
ID:bWuMDBN0tjF5cDvSpwhpH1zCzbQ-teILMjUwtZs6fxiQsxwnm464p48hHeSAAdNCaOczkZfq



LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in	(loc)	I/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.31	Vert(LL)	-0.01	6	>999	360	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.19	Vert(CT)	-0.02	6	>999	240		
BCLL 0.0 *	Rep Stress Incr	NO	WB 0.24	Horz(CT)	0.00	5	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-P	Wind(LL)	0.01	6	>999	240	Weight: 33 lb	FT = 10%

LUMBER-

TOP CHORD 2x4 SPF No.2
BOT CHORD 2x6 SPF No.2
WEBS 2x3 SPF No.2

BRACING-

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

REACTIONS.

(size) 5=Mechanical, 2=0-4-9
Max Horz 2=146(LC 5)
Max Uplift 5=-104(LC 8), 2=-134(LC 4)
Max Grav 5=389(LC 1), 2=486(LC 1)

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

TOP CHORD 2-3=-603/103
BOT CHORD 2-6=-141/486, 5-6=-141/486
WEBS 3-5=-537/167

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) except (jt=lb) 5=104, 2=134.
- 6) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 7) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 69 lb down and 35 lb up at 2-8-7, 69 lb down and 35 lb up at 2-8-7, and 97 lb down and 73 lb up at 5-6-6, and 97 lb down and 73 lb up at 5-6-6 on top chord, and 2 lb down and 1 lb up at 2-8-7, 2 lb down and 1 lb up at 2-8-7, and 23 lb down at 5-6-6, and 23 lb down at 5-6-6 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
- 8) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

LOAD CASE(S) Standard

- 1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (plf)
Vert: 1-4=-70, 2-5=-20
Concentrated Loads (lb)
Vert: 8=-31(F=-15, B=-15) 9=1(F=1, B=1) 10=-28(F=-14, B=-14)



February 16, 2021

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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

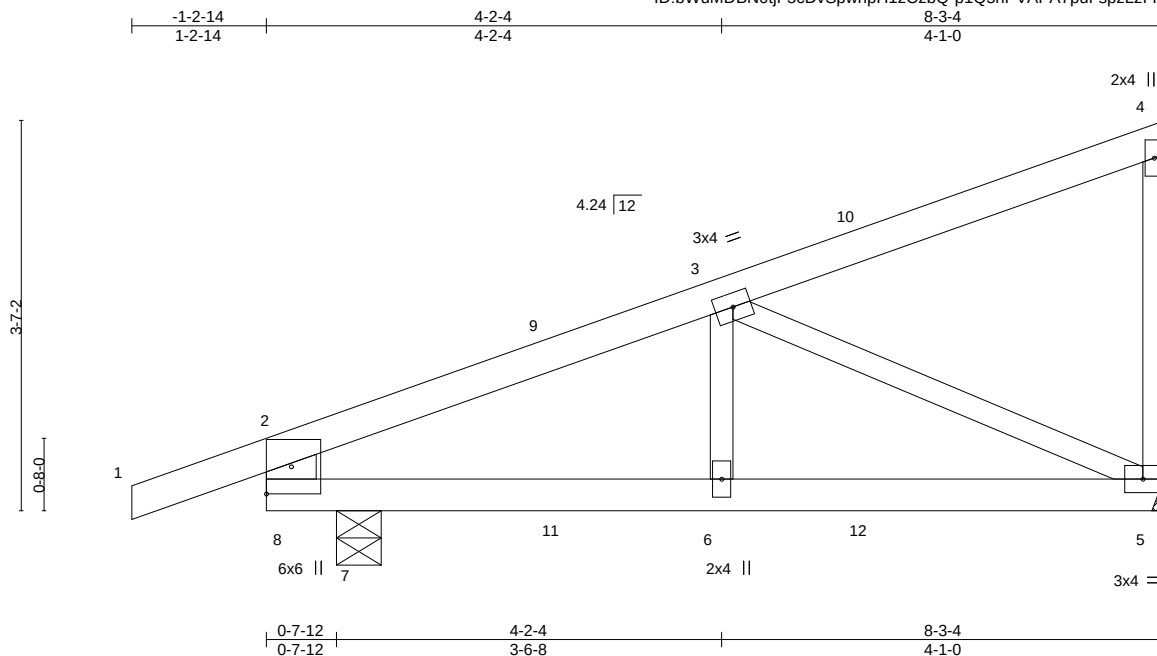


16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job 210444	Truss J13	Truss Type Diagonal Hip Girder	Qty 1	Ply 1	Lot 101 H4 Job Reference (optional)	I44832121
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Wheeler Lumber, Waverly, KS - 66871,

8.430 s Nov 30 2020 MiTek Industries, Inc. Tue Feb 16 12:12:27 2021 Page 1
ID:bWuMDBN0tjF5cDvSpwhpH1zCzbQ-p1Q5nPVAPA7puFspzLzFrVBMnthlZbS5hhTUzkZfo



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 0.47	Vert(LL)	-0.03	5-6	>999	360	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.47	Vert(CT)	-0.05	5-6	>999	240		
BCLL 0.0 *	Rep Stress Incr	NO	WB 0.14	Horz(CT)	0.00	5	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-S	Wind(LL)	0.03	5-6	>999	240	Weight: 29 lb	FT = 10%

LUMBER-

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

BRACING-

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

REACTIONS.

(size) 5=Mechanical, 7=0-4-15
Max Horz 7=155(LC 5)
Max Uplift 5=-101(LC 8), 7=-175(LC 4)
Max Grav 5=315(LC 1), 7=494(LC 1)

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

TOP CHORD 2-3=-402/89, 2-8=-382/147
BOT CHORD 7-8=-73/344, 6-7=-148/287, 5-6=-148/287
WEBS 3-5=-290/139

NOTES-

- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- Refer to girder(s) for truss to truss connections.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 5=101, 7=175.
- 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) 68 lb down and 29 lb up at 2-8-7, 69 lb down and 35 lb up at 2-8-7, and 90 lb down and 70 lb up at 5-6-6, and 97 lb down and 73 lb up at 5-6-6 on top chord, and 72 lb up at 2-8-7, 2 lb down and 1 lb up at 2-8-7, and 14 lb down and 7 lb up at 5-6-6, and 23 lb down at 5-6-6 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, 5-8=-20
Concentrated Loads (lb)
Vert: 10=-16(F=-1, B=-15) 11=32(F=32, B=1) 12=-7(F=7, B=-14)



February 16, 2021

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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



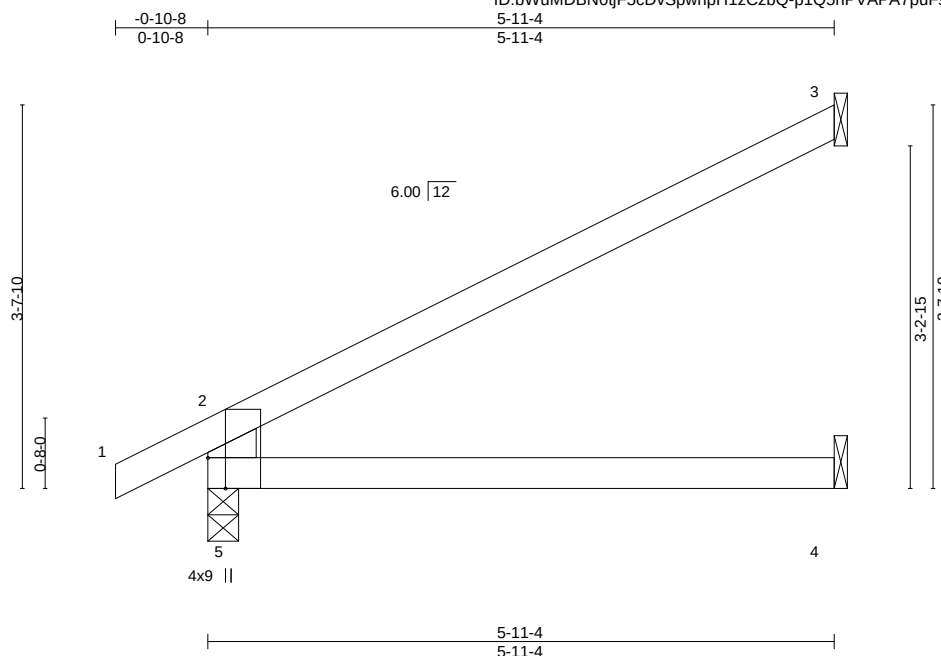
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job 210444	Truss J14	Truss Type Jack-Open	Qty 16	Ply 1	Lot 101 H4 I44832122
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Wheeler Lumber, Waverly, KS - 66871,

8.430 s Nov 30 2020 MiTek Industries, Inc. Tue Feb 16 12:12:27 2021 Page 1

ID: bWuMdBNOtjF5cDvSpwphH1zCzbQ-p1Q5nPVAPA7puFspzLzFrVBMntoPlbkS5hhTUzkZfo



Scale = 1:21.8

Plate Offsets (X,Y)--		[5:0-3-8,Edge]	
LOADING (psf)	SPACING-	2-0-0	CSI.
TCLL 25.0	Plate Grip DOL	1.15	TC 0.49
TCDL 10.0	Lumber DOL	1.15	BC 0.30
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.00
BCDL 10.0	Code	IRC2018/TPI2014	Matrix-R
			DEFL. in (loc) l/defl L/d
			Vert(LL) -0.04 4-5 >999 360
			Vert(CT) -0.10 4-5 >650 240
			Horz(CT) 0.03 3 n/a n/a
			Wind(LL) 0.04 4-5 >999 240
			PLATES MT20
			GRIP 197/144
			Weight: 16 lb FT = 10%

LUMBER-

TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
WEBS 2x6 SPF No.2

BRACING-

TOP CHORD Structural wood sheathing directly applied or 5-11-4 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS.

(size) 5=0-3-8, 3=Mechanical, 4=Mechanical
Max Horz 5=89(LC 8)
Max Uplift 3=57(LC 8)
Max Grav 5=339(LC 1), 3=175(LC 1), 4=106(LC 3)

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

TOP CHORD 2-5=-297/48

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); 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) 3.
- 6) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



February 16, 2021

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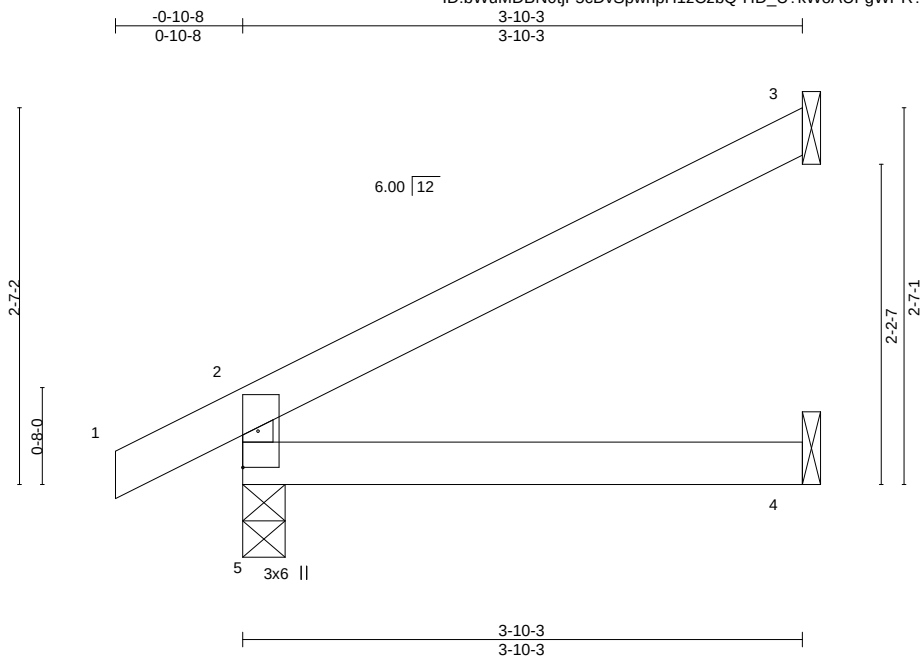
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job 210444	Truss J15	Truss Type Jack-Open	Qty 5	Ply 1	Lot 101 H4 I44832123
Job Reference (optional)					

Wheeler Lumber, Waverly, KS - 66871,

8.430 s Nov 30 2020 MiTek Industries, Inc. Tue Feb 16 12:12:28 2021 Page 1

ID:bWuMdbN0tjF5cDvSpwhpH1zCzbQ-HD_U?kWoAUFGWPR?X3UUOjjbnHBQU2_cJLRE?wzkZfn



LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in	(loc)	L/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.20	Vert(LL)	-0.01	4-5	>999	360	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.12	Vert(CT)	-0.02	4-5	>999	240		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.00	Horz(CT)	0.01	3	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-R	Wind(LL)	0.01	4-5	>999	240		
									Weight: 11 lb	FT = 10%

LUMBER-

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

BRACING-

TOP CHORD Structural wood sheathing directly applied or 3-10-3 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=86(LC 8)
Max Uplift 5=-29(LC 8), 3=-66(LC 8)
Max Grav 5=243(LC 1), 3=114(LC 1), 4=70(LC 3)

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

NOTES-

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



February 16, 2021

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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



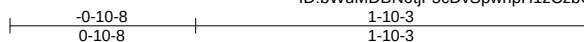
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job 210444	Truss J16	Truss Type Jack-Open	Qty 5	Ply 1	Lot 101 H4 I44832124
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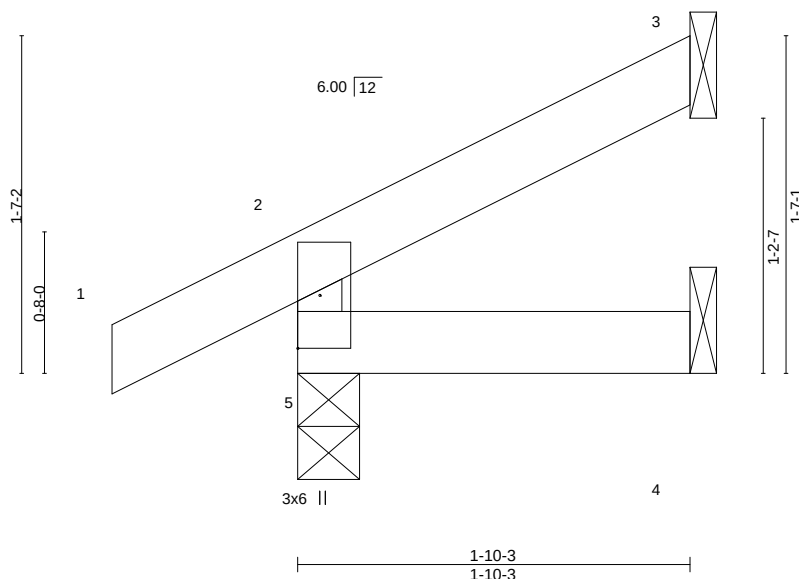
Wheeler Lumber, Waverly, KS - 66871,

8.430 s Nov 30 2020 MiTek Industries, Inc. Tue Feb 16 12:12:29 2021 Page 1

ID:bWuMdbN0tjF5cDvSpwhpH1zCzbQ-IQXsC4XQxnNX7Z0B5m?jxwGoahYCDVEIY?AnXNzkZfm



Scale = 1:10.9



LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in	(loc)	L/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.07	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	Wind(LL)	0.00	5	>999	240	Weight: 6 lb	FT = 10%

LUMBER-

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

BRACING-

TOP CHORD Structural wood sheathing directly applied or 1-10-3 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=47(LC 8)
Max Uplift 5=25(LC 8), 3=30(LC 8)
Max Grav 5=166(LC 1), 3=44(LC 1), 4=32(LC 3)

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

NOTES-

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



February 16, 2021

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job 210444	Truss J17	Truss Type Jack-Open	Qty 1	Ply 1	Lot 101 H4 I44832125
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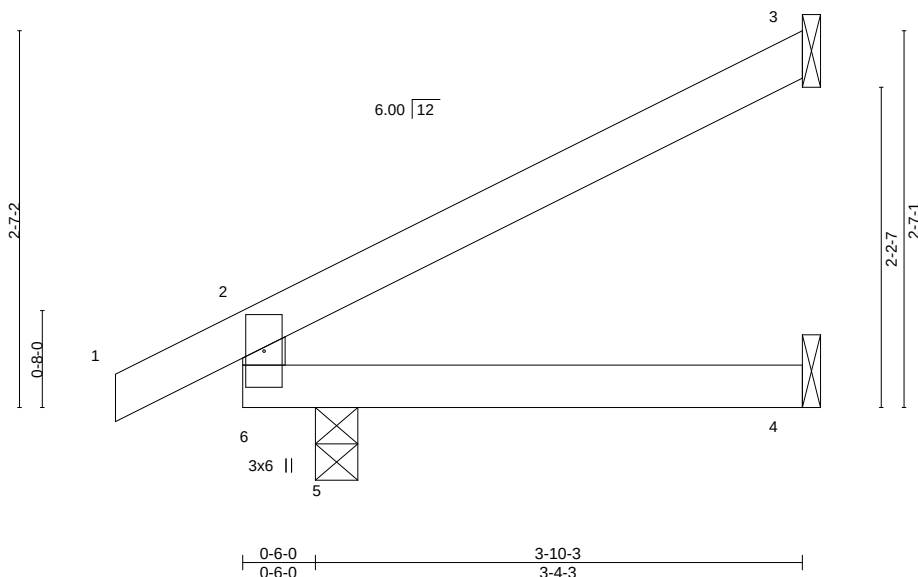
Wheeler Lumber, Waverly, KS - 66871,

8.430 s Nov 30 2020 MiTek Industries, Inc. Tue Feb 16 12:12:30 2021 Page 1

ID: bWuMDBN0tjF5cDvSpwhpH1zCzbQ-Dc5EPQX2i5V0libOeUWyt8pyV5tryyUvnfwL3pzkZfl

-0-10-8
0-10-8
3-10-3
3-10-3

Scale: 3/4"=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 0.18	Vert(LL)	-0.00	4-5	>999	360	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.12	Vert(CT)	-0.01	4-5	>999	240		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.00	Horz(CT)	-0.01	3	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-R	Wind(LL)	0.00	4-5	>999	240		
									Weight: 11 lb	FT = 10%

LUMBER-

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

BRACING-

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

REACTIONS. (size) 3=Mechanical, 4=Mechanical, 5=0-3-8
Max Horz 5=86(LC 8)
Max Uplift 3=62(LC 8), 5=34(LC 8)
Max Grav 3=99(LC 1), 4=54(LC 3), 5=284(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) 3, 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.



February 16, 2021

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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



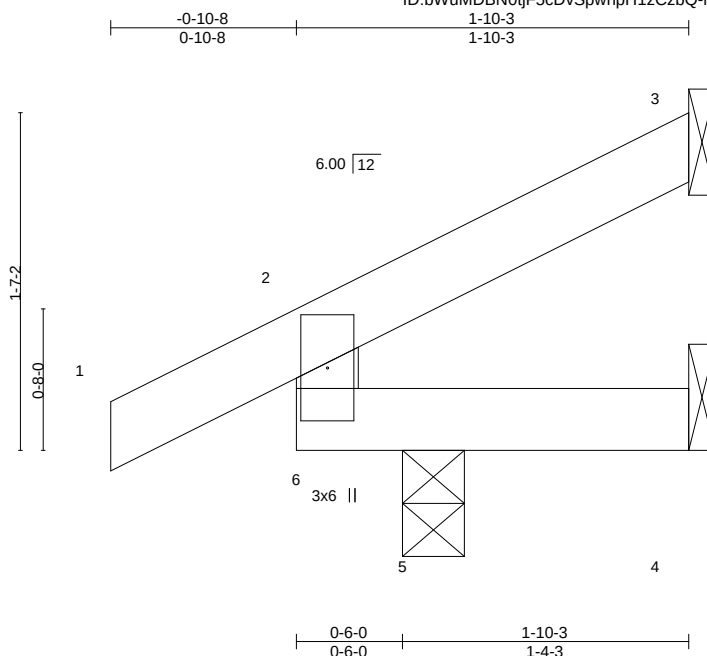
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job 210444	Truss J18	Truss Type Jack-Open	Qty 1	Ply 1	Lot 101 H4 I44832126
Job Reference (optional)					

Wheeler Lumber, Waverly, KS - 66871,

8.430 s Nov 30 2020 MiTek Industries, Inc. Tue Feb 16 12:12:31 2021 Page 1

ID:bWuMDBN0tjF5cDvSpwhpH1zCzbQ-iofcdmYhTPdFNsAaCB1B0LL8cUD9hPk2?JfucFzkZfk



Scale = 1:10.9

LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.09	Vert(LL)	0.00	5	>999	360	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.12	Vert(CT)	0.00	4-5	>999	240		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.00	Horz(CT)	-0.01	3	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-R	Wind(LL)	-0.00	5	>999	240	Weight: 6 lb	FT = 10%

LUMBER-

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

BRACING-

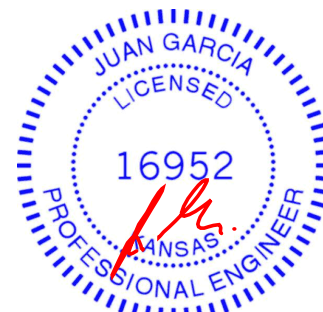
TOP CHORD Structural wood sheathing directly applied or 1-10-3 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) 3=Mechanical, 4=Mechanical, 5=0-3-8
Max Horz 5=46(LC 8)
Max Uplift 3=27(LC 8), 4=44(LC 1), 5=37(LC 8)
Max Grav 3=27(LC 1), 4=12(LC 8), 5=240(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) 3, 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.



February 16, 2021

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



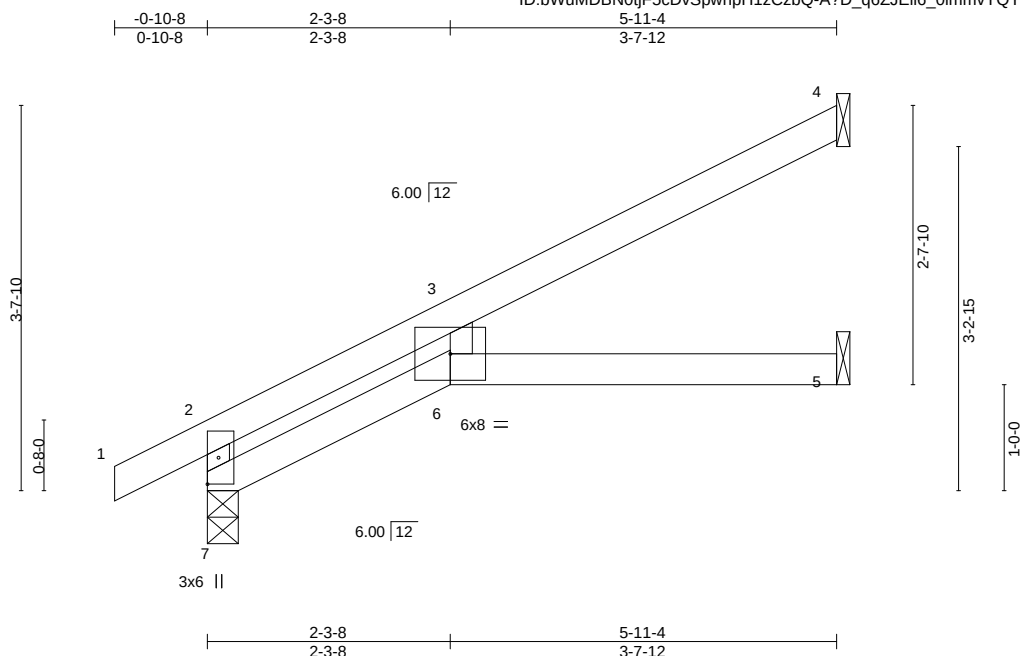
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job 210444	Truss J20	Truss Type Jack-Open	Qty 5	Ply 1	Lot 101 H4 I44832127
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Wheeler Lumber, Waverly, KS - 66871,

8.430 s Nov 30 2020 MiTek Industries, Inc. Tue Feb 16 12:12:32 2021 Page 1

ID:bWuMDBN0tjF5cDvSpwhpH1zCzbQ-A?D_q6ZJEil6_0lmmvYQYZuEjuTYQsbBEzPR8izkZfj



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 0.39	Vert(LL)	-0.08	5-6	>861	360	MT20
TCDL 10.0	Lumber DOL	1.15	BC 0.43	Vert(CT)	-0.15	5-6	>470	240	197/144
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.03	Horz(CT)	0.07	5	n/a	n/a	
BCDL 10.0	Code IRC2018/TPI2014		Matrix-P	Wind(LL)	0.10	5-6	>700	240	
									Weight: 16 lb FT = 10%

LUMBER-

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

BRACING-

TOP CHORD Structural wood sheathing directly applied or 5-11-4 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.

REACTIONS.

(size) 7=0-3-8, 4=Mechanical, 5=Mechanical
Max Horz 7=128(LC 8)
Max Uplift 7=33(LC 8), 4=80(LC 8), 5=6(LC 8)
Max Grav 7=334(LC 1), 4=162(LC 1), 5=101(LC 3)

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

NOTES-

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



February 16, 2021

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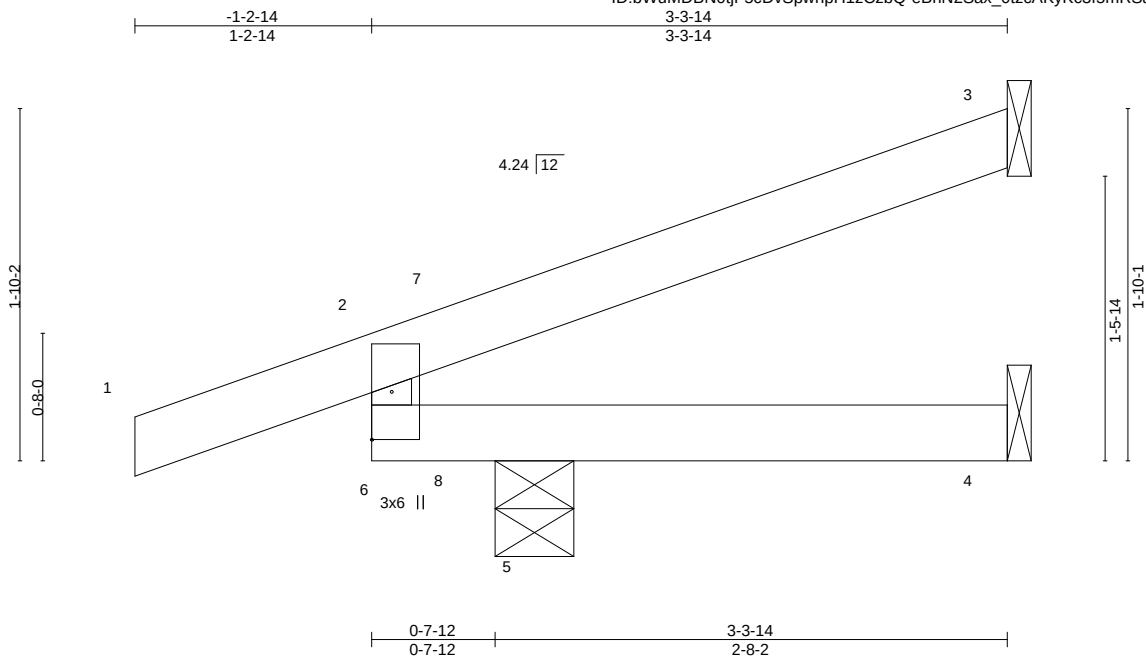


16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job 210444	Truss J21	Truss Type Diagonal Hip Girder	Qty 1	Ply 1	Lot 101 H4 Job Reference (optional)	I44832128
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Wheeler Lumber, Waverly, KS - 66871,

8.430 s Nov 30 2020 MiTek Industries, Inc. Tue Feb 16 12:12:33 2021 Page 1
ID:bWuMDBN0tjF5cDvSpwhpH1zCzbQ-eBnN2Sax_0tzcAKyKc3f5mRSaltm9IELTd8?g8zkZfi



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)	0.00	4-5	>999	360	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.17	Vert(CT)	0.01	4-5	>999	240		
BCLL 0.0 *	Rep Stress Incr	NO	WB 0.00	Horz(CT)	-0.01	3	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-R	Wind(LL)	-0.00	4-5	>999	240	Weight: 10 lb	FT = 10%

LUMBER-

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

BRACING-

TOP CHORD Structural wood sheathing directly applied or 3-3-14 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS.

(size) 3=Mechanical, 4=Mechanical, 5=0-4-15
Max Horz 5=75(LC 12)
Max Uplift 3=60(LC 12), 4=21(LC 1), 5=129(LC 6)
Max Grav 3=25(LC 1), 4=25(LC 4), 5=157(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) 3, 4 except (jt=lb) 5=129.
- 6) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 7) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 30 lb down and 11 lb up at -1-2-14, and 30 lb down and 11 lb up at -1-2-14 on top chord. The design/selection of such connection device(s) is the responsibility of others.
- 8) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

LOAD CASE(S) Standard

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

Concentrated Loads (lb)

Vert: 1=46(F=-23, B=-23)

Trapezoidal Loads (plf)

Vert: 1=0(F=35, B=35)-to-2=-23(F=23, B=23), 2=-23(F=23, B=23)-to-7=-30(F=20, B=20), 7=0(F=35, B=35)-to-3=-49(F=10, B=10), 6=0(F=10, B=10)-to-8=-5(F=8, B=8), 8=0(F=10, B=10)-to-4=-14(F=3, B=3)



February 16, 2021

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



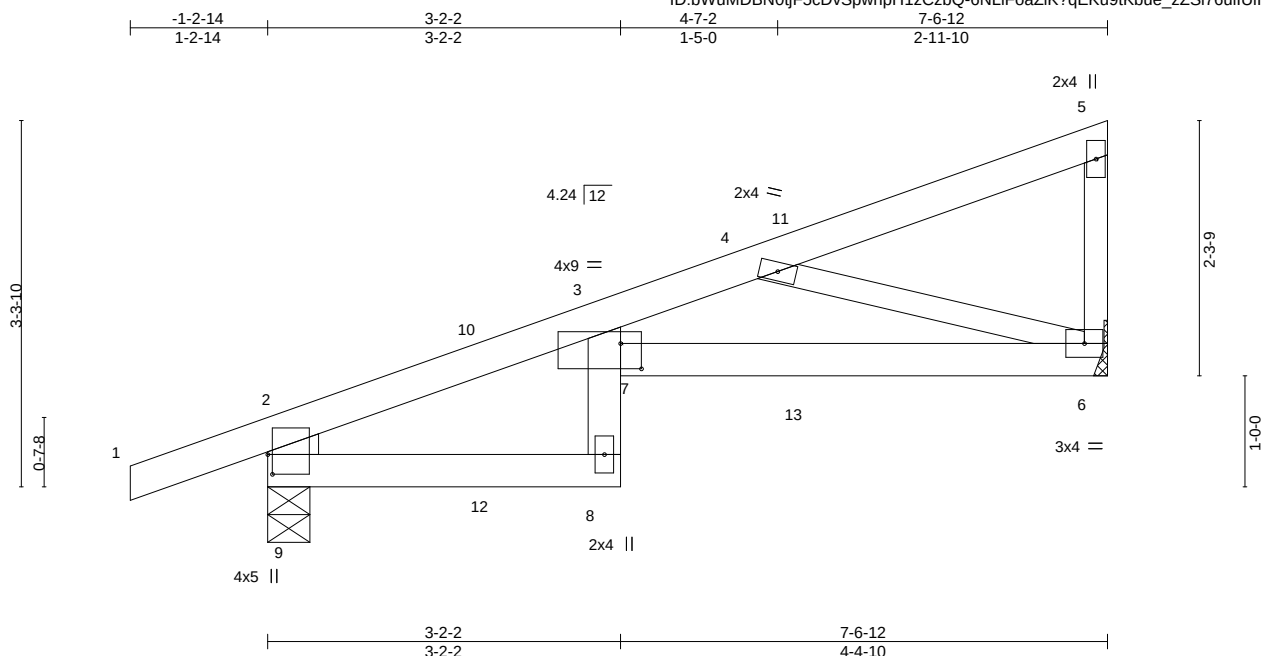
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job 210444	Truss J22	Truss Type Diagonal Hip Girder	Qty 2	Ply 1	Lot 101 H4 Job Reference (optional)	I44832129
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Wheeler Lumber, Waverly, KS - 66871,

8.430 s Nov 30 2020 MiTek Industries, Inc. Tue Feb 16 12:12:34 2021 Page 1

ID: bWuMDbN0tjF5cDvSpwphH1zCzbQ-6NLIfoaZIK?qEKU9tKbue_zZSi76uIUHuYDazkZfh



Scale = 1:20.8

LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.50	Vert(LL)	-0.06	6-7	>999	360	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.55	Vert(CT)	-0.10	6-7	>841	240	
BCLL 0.0 *	Rep Stress Incr	NO	WB 0.20	Horz(CT)	0.04	6	n/a	n/a	
BCDL 10.0	Code IRC2018/TPI2014		Matrix-S	Wind(LL)	0.06	6-7	>999	240	
								Weight: 25 lb	FT = 10%

LUMBER-

TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
WEBS 2x3 SPF No.2 *Except*
2-9: 2x6 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) 9=0-4-9, 6=Mechanical
Max Horz 9=125(LC 5)
Max Uplift 9=138(LC 4), 6=109(LC 8)
Max Grav 9=451(LC 1), 6=346(LC 1)

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

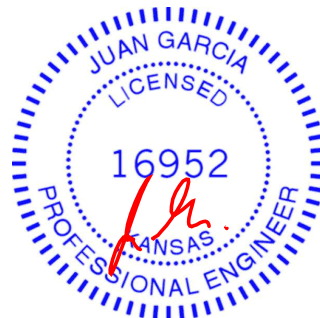
TOP CHORD 2-9=-429/158, 2-3=-426/83, 3-4=-695/223
BOT CHORD 8-9=-109/302, 6-7=-249/721
WEBS 4-6=-725/271

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) except (jt=lb) 9=138, 6=109.
- 6) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 7) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 66 lb down and 21 lb up at 1-11-15, 66 lb down and 21 lb up at 1-11-15, and 83 lb down and 46 lb up at 4-9-14, and 83 lb down and 46 lb up at 4-9-14 on top chord, and 4 lb down and 4 lb up at 1-11-15, 4 lb down and 4 lb up at 1-11-15, and 24 lb down and 32 lb up at 4-9-14, and 24 lb down and 32 lb up at 4-9-14 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
- 8) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

LOAD CASE(S) Standard

- 1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (plf)
Vert: 1-2=-70, 2-5=-70, 8-9=-20, 6-7=-20
Concentrated Loads (lb)
Vert: 11=-4(F=-2, B=-2) 12=8(F=4, B=4) 13=-47(F=-24, B=-24)



February 16, 2021

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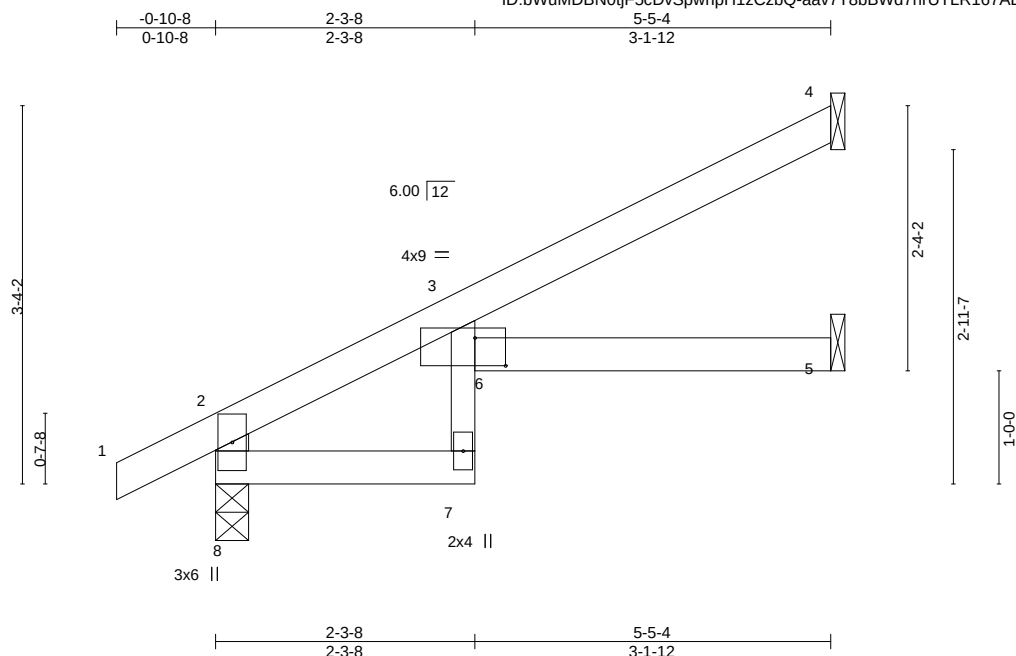
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job 210444	Truss J23	Truss Type Jack-Open	Qty 4	Ply 1	Lot 101 H4 I44832130
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Wheeler Lumber, Waverly, KS - 66871,

8.430 s Nov 30 2020 MiTek Industries, Inc. Tue Feb 16 12:12:35 2021 Page 1

ID: bWuMDBN0tjF5cDvSpwhpH1zCzbQ-aav7T8bBWd7hrUTLR167ABWme6VjdCjewxd6l0zkZfg



Scale = 1:20.4

Plate Offsets (X,Y)--		[3:0-3-4,0-2-15]									
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	0.35	Vert(LL)	-0.06	6	>999	360	MT20 197/144
TCDL	10.0	Lumber DOL 1.15		BC	0.40	Vert(CT)	-0.10	5-6	>626	240	
BCLL	0.0 *	Rep Stress Incr YES		WB	0.00	Horz(CT)	0.05	5	n/a	n/a	
BCDL	10.0	Code IRC2018/TPI2014		Matrix-R		Wind(LL)	0.07	6	>958	240	Weight: 16 lb FT = 10%

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

REACTIONS.

(size) 4=Mechanical, 8=0-3-8, 5=Mechanical
Max Horz 8=119(LC 8)
Max Uplift 4=-75(LC 8), 8=-35(LC 8), 5=-2(LC 8)
Max Grav 4=154(LC 1), 8=314(LC 1), 5=87(LC 3)

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

TOP CHORD 2-8=-303/63

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, 8, 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.



February 16, 2021

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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



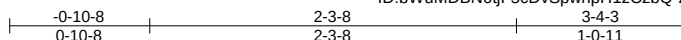
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job 210444	Truss J24	Truss Type Jack-Open	Qty 4	Ply 1	Lot 101 H4 I44832131
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Wheeler Lumber, Waverly, KS - 66871,

8.430 s Nov 30 2020 MiTek Industries, Inc. Tue Feb 16 12:12:36 2021 Page 1

ID: bWuMdBNOtjF5cDvSpwphH1zCzbQ-2mTVgUcpHxFTd2X?kdMjP3?TVvwMfzn9bNfHTzkZff



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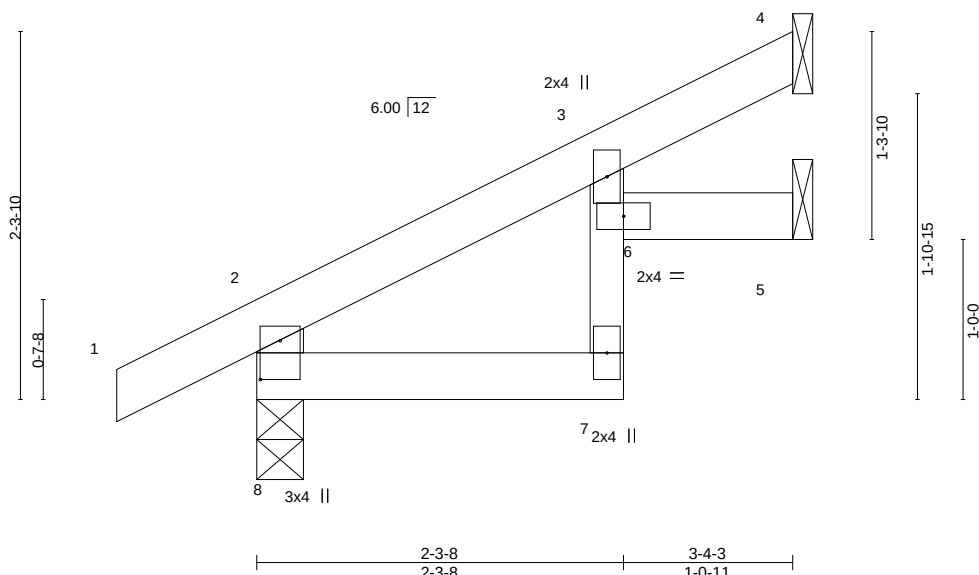


Plate Offsets (X,Y)--		[8:0-2-15,0-1-8]	
LOADING (psf)	SPACING-	2-0-0	CSI.
TCLL 25.0	Plate Grip DOL	1.15	TC 0.09
TCDL 10.0	Lumber DOL	1.15	BC 0.15
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.00
BCDL 10.0	Code	IRC2018/TPI2014	Matrix-R
			DEFL. in (loc) l/defl L/d
			Vert(LL) -0.00 7 >999 360
			Vert(CT) -0.01 7 >999 240
			Horz(CT) 0.01 5 n/a n/a
			Wind(LL) 0.01 7 >999 240
			PLATES MT20 GRIP 197/144
			Weight: 10 lb FT = 10%

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

REACTIONS.

(size) 4=Mechanical, 8=0-3-8, 5=Mechanical
Max Horz 8=76(LC 8)
Max Uplift 4=-33(LC 8), 8=-29(LC 8), 5=-14(LC 8)
Max Grav 4=78(LC 1), 8=224(LC 1), 5=52(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, 8, 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.



February 16, 2021

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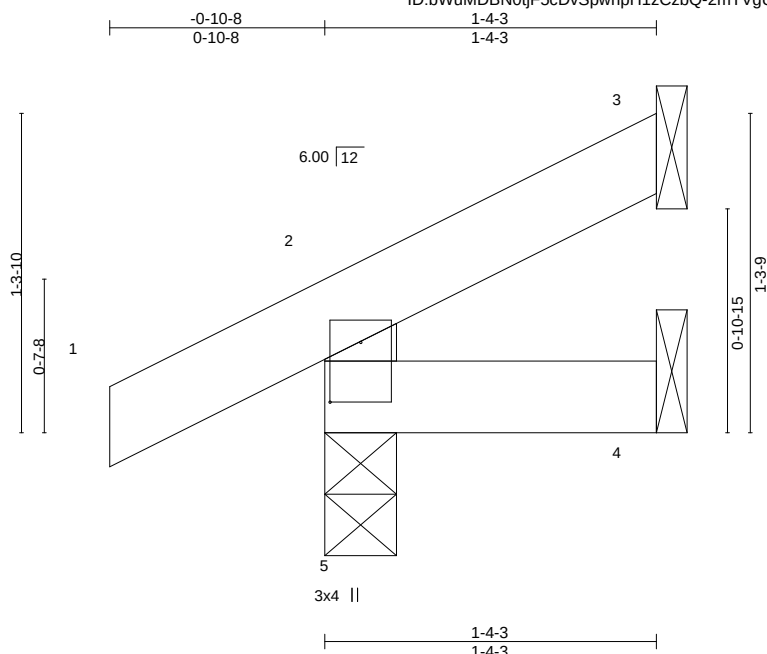
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job 210444	Truss J25	Truss Type Jack-Open	Qty 4	Ply 1	Lot 101 H4 I44832132
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Wheeler Lumber, Waverly, KS - 66871,

8.430 s Nov 30 2020 MiTek Industries, Inc. Tue Feb 16 12:12:36 2021 Page 1

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Scale = 1:9.4

Plate Offsets (X,Y)--		[5:0-2-15,0-1-8]							
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 0.07	Vert(LL)	0.00	5	>999	360	MT20
TCDL 10.0	Lumber DOL	1.15	BC 0.02	Vert(CT)	-0.00	5	>999	240	197/144
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.00	Horz(CT)	-0.00	3	n/a	n/a	
BCDL 10.0	Code IRC2018/TPI2014		Matrix-R	Wind(LL)	0.00	5	>999	240	
				Weight: 5 lb		FT = 10%			

LUMBER-

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

BRACING-

TOP CHORD Structural wood sheathing directly applied or 1-4-3 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS.

(size) 3=Mechanical, 5=0-3-8, 4=Mechanical
Max Horz 5=37(LC 8)
Max Uplift 3=-18(LC 8), 5=-28(LC 8)
Max Grav 3=20(LC 1), 5=156(LC 1), 4=20(LC 3)

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

NOTES-

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



February 16, 2021

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 101 H4	I44832133
210444	J26	Diagonal Hip Girder	1	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS - 66871,

8.430 s Nov 30 2020 MiTek Industries, Inc. Tue Feb 16 12:12:38 2021 Page 1
ID:lpnO10ZFdF1T0VaStrr?zJzsVXo-?8aF59e4pYVGixCw69fqoq8EpJXXqZT4cvsmMLzkZfd



Scale = 1:13.9

LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.54	Vert(LL)	0.03	4-5	>999	360	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.33	Vert(CT)	0.04	4-5	>999	240		
BCLL 0.0 *	Rep Stress Incr	NO	WB 0.00	Horz(CT)	0.00	4	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-R	Wind(LL)	-0.02	4-5	>999	240		
									Weight: 16 lb	FT = 10%

LUMBER-

TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
WEBS 2x6 SPF No.2 *Except*
3-4: 2x3 SPF No.2

BRACING-

TOP CHORD Structural wood sheathing directly applied or 5-3-4 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.

REACTIONS.

(size) 4=Mechanical, 5=0-6-5
Max Horz 5=87(LC 27)
Max Uplift 4=-34(LC 8), 5=-191(LC 4)
Max Grav 4=106(LC 34), 5=431(LC 1)

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

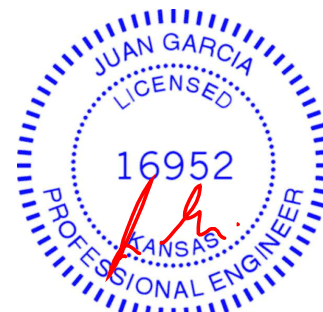
TOP CHORD 2-6=-348/167

NOTES-

- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- Refer to girder(s) for truss to truss connections.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 4 except (jt=lb) 5=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.
- Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 86 lb down and 48 lb up at 2-8-3, and 59 lb down and 24 lb up at 2-11-5 on top chord, and 3 lb down and 3 lb up down and 99 lb up at 2-11-5 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
- In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

LOAD CASE(S) Standard

- Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (plf)
Vert: 1-2=-70, 2-3=-70, 4-6=-20
Concentrated Loads (lb)
Vert: 8=34(B)



February 16, 2021

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job 210444	Truss J27	Truss Type Jack-Open	Qty 1	Ply 1	Lot 101 H4 I44832134
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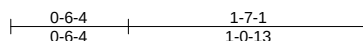
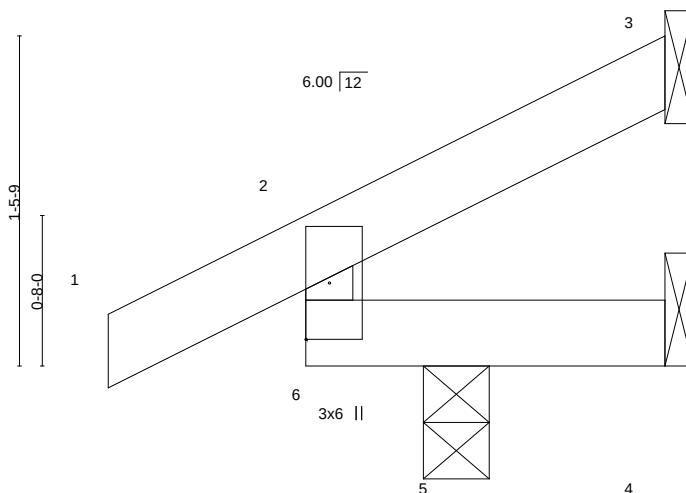
Wheeler Lumber, Waverly, KS - 66871,

8.430 s Nov 30 2020 MiTek Industries, Inc. Tue Feb 16 12:12:38 2021 Page 1

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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 0.08	Vert(LL)	0.00	5	>999	360	MT20
TCDL 10.0	Lumber DOL	1.15	BC 0.14	Vert(CT)	0.00	5	>999	240	197/144
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.00	Horz(CT)	-0.01	3	n/a	n/a	
BCDL 10.0	Code IRC2018/TPI2014		Matrix-R	Wind(LL)	-0.00	5	>999	240	
								Weight: 5 lb	FT = 10%

LUMBER-

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

BRACING-

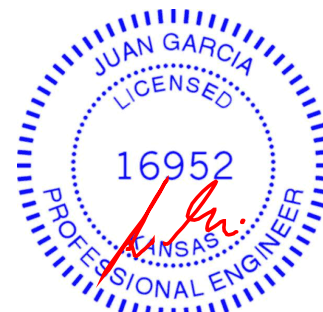
TOP CHORD Structural wood sheathing directly applied or 1-7-1 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) 3=Mechanical, 4=Mechanical, 5=0-3-8
Max Horz 5=41(LC 8)
Max Uplift 3=-23(LC 8), 4=-75(LC 1), 5=-41(LC 8)
Max Grav 3=21(LC 1), 4=17(LC 8), 5=255(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) 3, 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.



February 16, 2021

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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 101 H4	I44832135
210444	J28	Jack-Open	1	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS - 66871,

8.430 s Nov 30 2020 MiTek Industries, Inc. Tue Feb 16 12:12:39 2021 Page 1
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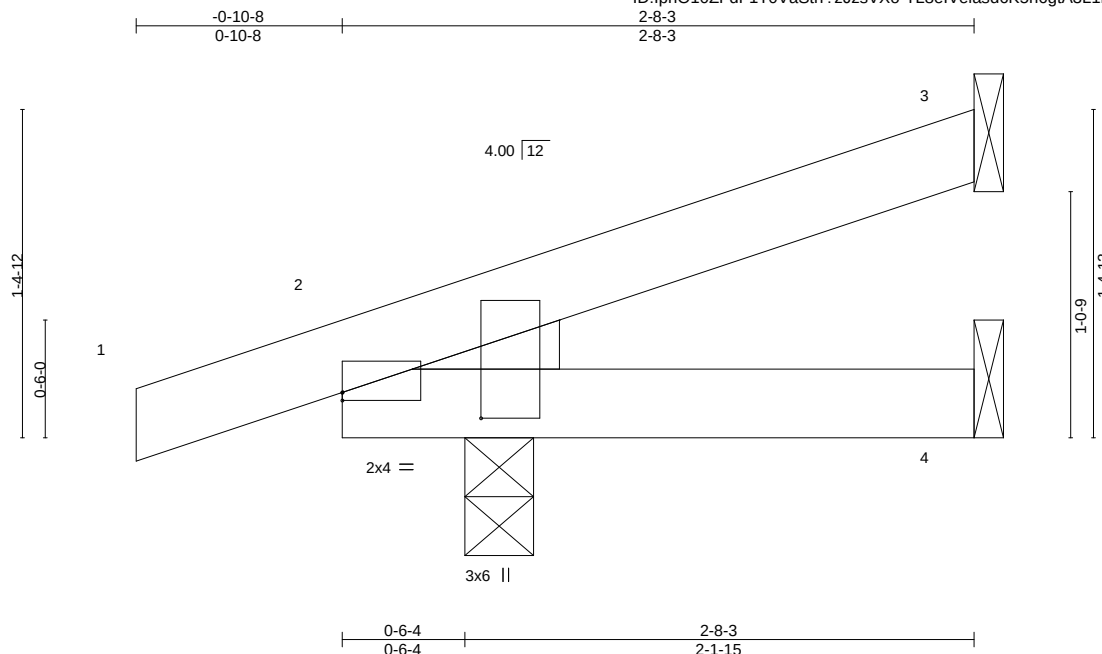


Plate Offsets (X,Y)--		[2:0-0-0,0-0-6], [2:0-1-5,0-7-1]									
LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0		Plate Grip DOL	1.15	TC 0.11		Vert(LL)	-0.00 2-4	>999	360	MT20	197/144
TCDL 10.0		Lumber DOL	1.15	BC 0.06		Vert(CT)	-0.00 2-4	>999	240		
BCLL 0.0 *		Rep Stress Incr	YES	WB 0.00		Horz(CT)	-0.00 3	n/a	n/a		
BCDL 10.0		Code IRC2018/TPI2014		Matrix-P		Wind(LL)	0.00 2	****	240	Weight: 8 lb	FT = 10%

LUMBER-

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

BRACING-

TOP CHORD Structural wood sheathing directly applied or 2-8-3 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) 3=Mechanical, 4=Mechanical, 2=0-3-8
Max Horz 2=49(LC 4)
Max Uplift 3=-40(LC 8), 2=-64(LC 4)
Max Grav 3=72(LC 1), 4=49(LC 3), 2=198(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) 3, 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.



February 16, 2021

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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 210444	Truss J29	Truss Type Jack-Closed	Qty 4	Ply 1	Lot 101 H4 Job Reference (optional)	I44832136
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Wheeler Lumber, Waverly, KS - 66871,

8.430 s Nov 30 2020 MiTek Industries, Inc. Tue Feb 16 12:12:40 2021 Page 1

ID:lpnO10ZFdF1T0VaStrr?zJzsVXo-xXi0WrfKLAlzyFMJEahltFDci6EyITyN4DLtQEzkZfb

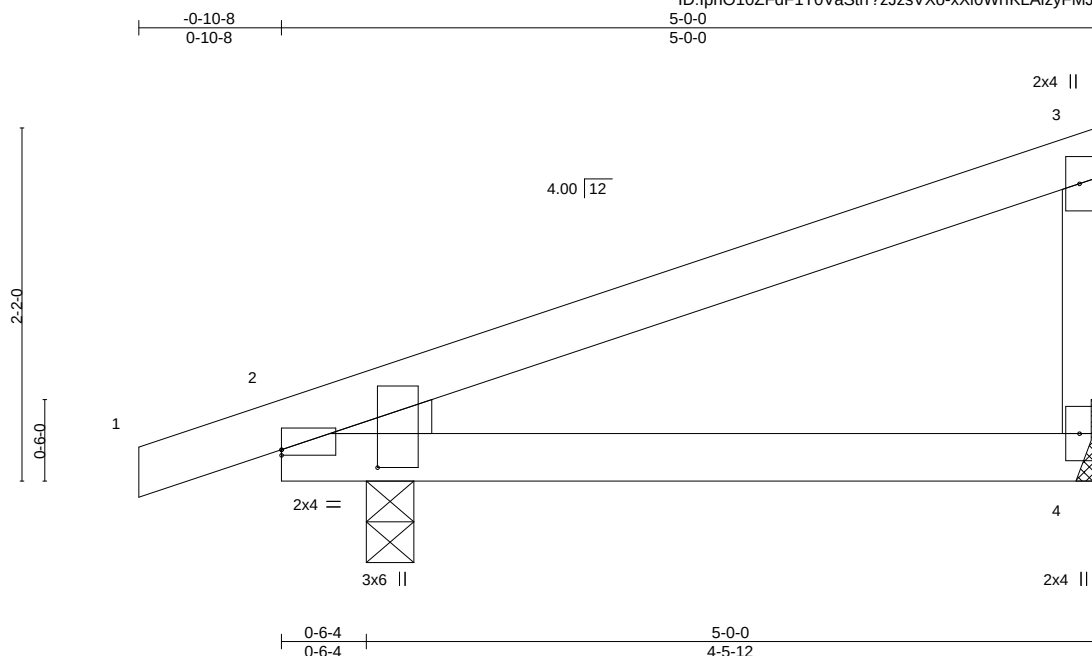


Plate Offsets (X,Y)--		[2:0-0-0,0-0-6], [2:0-1-5,0-7-1]										
LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP	
TCLL	25.0	Plate Grip DOL	1.15	TC	0.39	Vert(LL)	-0.03	2-4	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.27	Vert(CT)	-0.06	2-4	>933	240		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.00	Horz(CT)	-0.00	4	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-P		Wind(LL)	0.00	2	****	240	Weight: 15 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 5-0-0 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) 4=Mechanical, 2=0-3-8
Max Horz 2=84(LC 5)
Max Uplift 4=45(LC 8), 2=81(LC 4)
Max Grav 4=206(LC 1), 2=293(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.



February 16, 2021

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

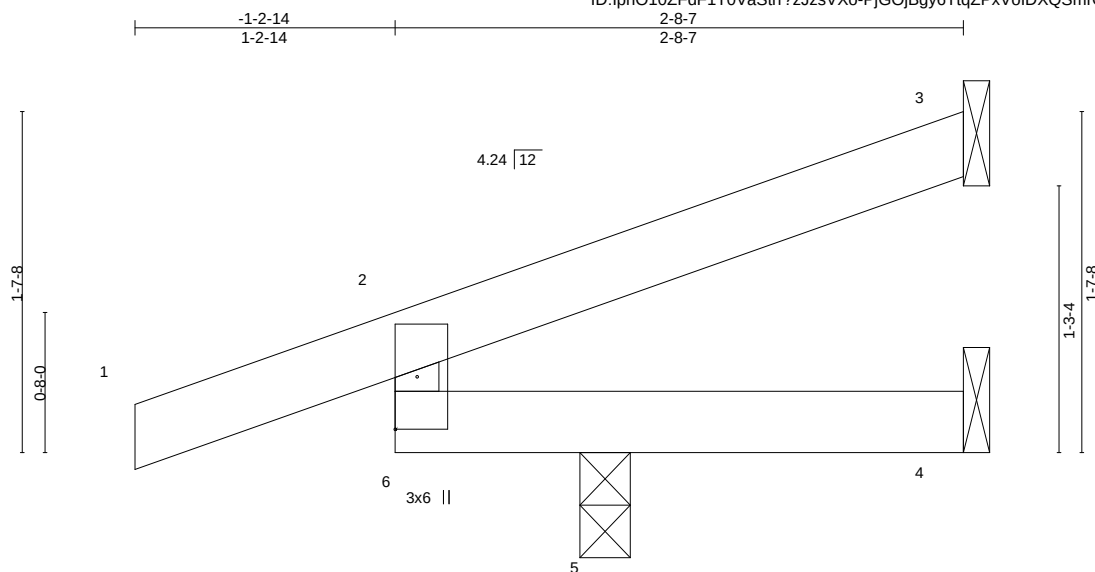


16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 101 H4	I44832137
210444	J30	Diagonal Hip Girder	2	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS - 66871,

8.430 s Nov 30 2020 MiTek Industries, Inc. Tue Feb 16 12:12:41 2021 Page 1
ID:lpnO10ZFdF1T0VaStrr?zJzsVXo-PjGOjBgy6TtqZPxVolDXQSmrGWcy1wCWJt4QygzKZfa



Scale = 1:11.0

LOADING (psf)		SPACING-		CSI.		DEFL.		PLATES		GRIP	
TCLL	25.0	Plate Grip DOL	1.15	TC	0.15	Vert(LL)	-0.00	MT20		197/144	
TCDL	10.0	Lumber DOL	1.15	BC	0.15	Vert(CT)	0.00				
BCLL	0.0 *	Rep Stress Incr	NO	WB	0.00	Horz(CT)	0.01				
BCDL	10.0	Code IRC2018/TPI2014		Matrix-R							
								Weight: 8 lb		FT = 10%	

LUMBER-

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

BRACING-

TOP CHORD Structural wood sheathing directly applied or 2-8-7 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) 3=Mechanical, 4=Mechanical, 5=0-2-14
Max Horz 5=74(LC 12)
Max Uplift 3=-49(LC 12), 4=-37(LC 9), 5=-145(LC 6)
Max Grav 3=39(LC 9), 4=58(LC 6), 5=164(LC 1)

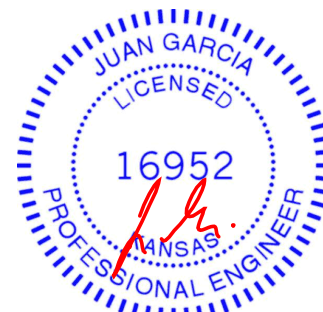
FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.

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 at joint(s) 5.
- 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 3, 4 except (jt=lb) 5=145.
- 7) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 8) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 19 lb down and 7 lb up at -1-2-14, and 19 lb down and 7 lb up at -1-2-14 on top chord. The design/selection of such connection device(s) is the responsibility of others.
- 9) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

LOAD CASE(S) Standard

- 1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (plf)
Vert: 2-3=-20(F=50)
Concentrated Loads (lb)
Vert: 1=-29(F=-14, B=-14)
Trapezoidal Loads (plf)
Vert: 1=0(F=35, B=35)-to-2=-23(F=23, B=23), 6=-0(F=10, B=10)-to-4=-44(F=-12, B=-12)



February 16, 2021

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job 210444	Truss J31	Truss Type Jack-Open	Qty 3	Ply 1	Lot 101 H4 I44832138
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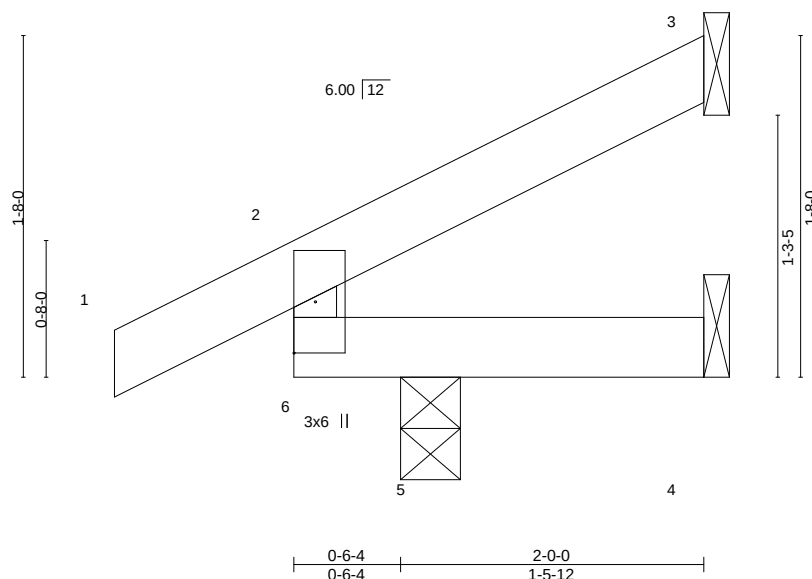
Wheeler Lumber, Waverly, KS - 66871,

8.430 s Nov 30 2020 MiTek Industries, Inc. Tue Feb 16 12:12:42 2021 Page 1

ID:lpnO10ZFdf1T0VaStrr?zJzsVXo-twqmxXhatn?hBYWhL?kmygJ0wwyRmNSgXXqzV6zkZfZ

-0-10-8
0-10-8
2-0-0
2-0-0

Scale = 1:11.2



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 0.09	Vert(LL)	0.00	4-5	>999	360	MT20
TCDL 10.0	Lumber DOL	1.15	BC 0.14	Vert(CT)	0.00	4-5	>999	240	197/144
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.00	Horz(CT)	-0.01	3	n/a	n/a	
BCDL 10.0	Code IRC2018/TPI2014		Matrix-R	Wind(LL)	-0.00	5	>999	240	
								Weight: 6 lb	FT = 10%

LUMBER-

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

BRACING-

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

REACTIONS.

(size) 3=Mechanical, 4=Mechanical, 5=0-3-8
Max Horz 5=50(LC 8)
Max Uplift 3=-32(LC 8), 4=-45(LC 1), 5=-36(LC 8)
Max Grav 3=39(LC 1), 4=14(LC 8), 5=244(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) 3, 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.



February 16, 2021

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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

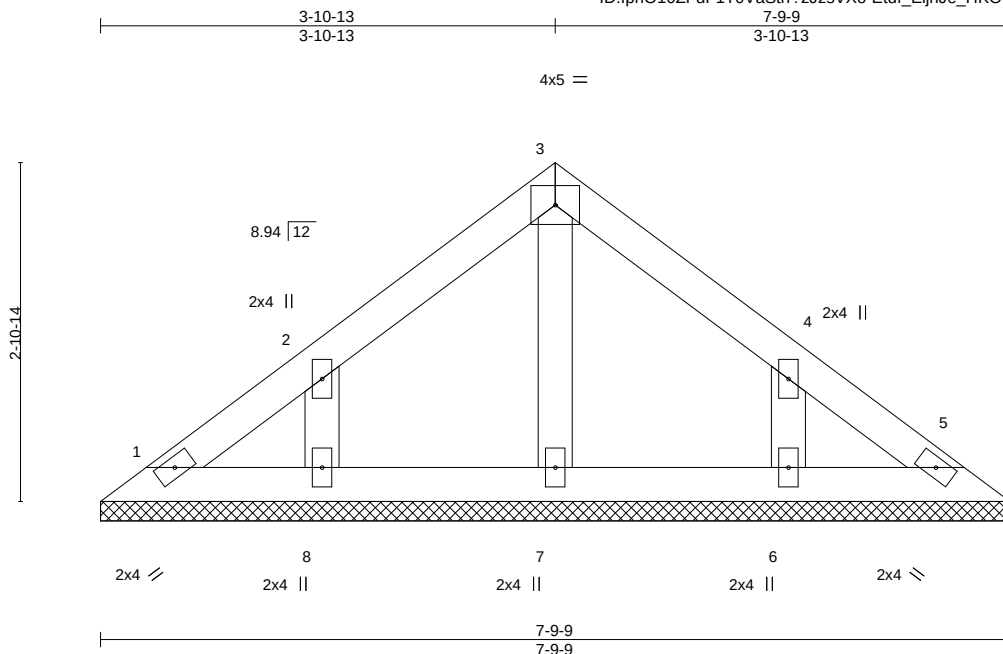


16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job 210444	Truss LAY1	Truss Type GABLE	Qty 1	Ply 1	Lot 101 H4 I44832139
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Wheeler Lumber, Waverly, KS - 66871,

8.430 s Nov 30 2020 MiTek Industries, Inc. Tue Feb 16 12:12:47 2021 Page 1
ID:lpnO10ZFdf1T0VaStrr?zJzsVXo-Etdf_EljhJe_HKOf8YJxfj0uixhOReOPhoXkAKzkZfU



Scale = 1:19.8

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 0.05	Vert(LL)	n/a	-	n/a	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.02	Vert(CT)	n/a	-	n/a		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.02	Horz(CT)	0.00	5	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-P						
								Weight: 23 lb	FT = 10%

LUMBER-

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

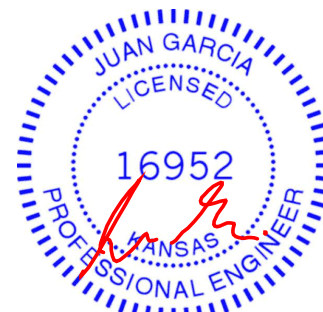
REACTIONS.

All bearings 7-9-9.
(lb) - Max Horz 1=67(LC 5)
Max Uplift All uplift 100 lb or less at joint(s) 1, 8, 6
Max Grav All reactions 250 lb or less at joint(s) 1, 5, 7, 8, 6

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, 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.



February 16, 2021

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



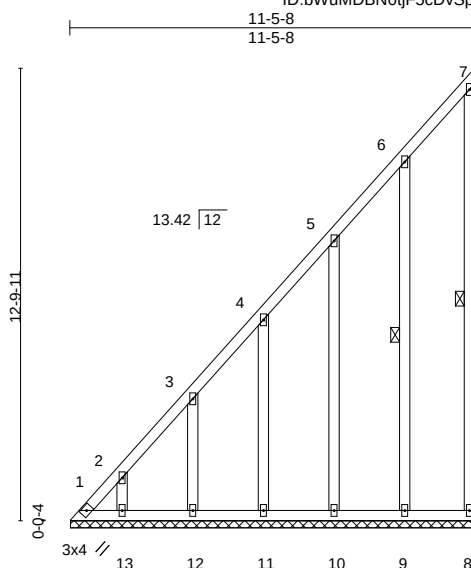
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job 210444	Truss LAY2	Truss Type GABLE	Qty 2	Ply 1	Lot 101 H4 I44832140
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Wheeler Lumber, Waverly, KS - 66871,

8.430 s Nov 30 2020 MiTek Industries, Inc. Tue Feb 16 12:12:48 2021 Page 1

ID:bWuMDBN0tjF5cDvSpwhpH1zCzbQ-i4B1BaL SdmrvTzriGrACxZ2hL1dA32YwSHlimzkZfT



Scale = 1:65.2

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)	n/a	-	n/a	999	MT20
TCDL 10.0	Lumber DOL	1.15	BC 0.02	Vert(CT)	n/a	-	n/a	999	197/144
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.19	Horz(CT)	-0.00	8	n/a	n/a	
BCDL 10.0	Code IRC2018/TPI2014		Matrix-S						
								Weight: 78 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 7-8, 6-9

REACTIONS.

All bearings 11-5-4.
(lb) - Max Horz 1=501(LC 8)
Max Uplift All uplift 100 lb or less at joint(s) 8 except 1=-189(LC 6), 13=-120(LC 8), 12=-139(LC 8), 11=-135(LC 8), 10=-137(LC 8), 9=-138(LC 8)
Max Grav All reactions 250 lb or less at joint(s) 8, 13, 12, 11, 10, 9 except 1=536(LC 8)

FORCES.

(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-2=-726/289, 2-3=-616/248, 3-4=-475/193, 4-5=-339/141

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 exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 2) All plates are 2x4 MT20 unless otherwise indicated.
- 3) Gable requires continuous bottom chord bearing.
- 4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 5) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 8 except (jt=lb) 1=189, 13=120, 12=139, 11=135, 10=137, 9=138.
- 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.



February 16, 2021

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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

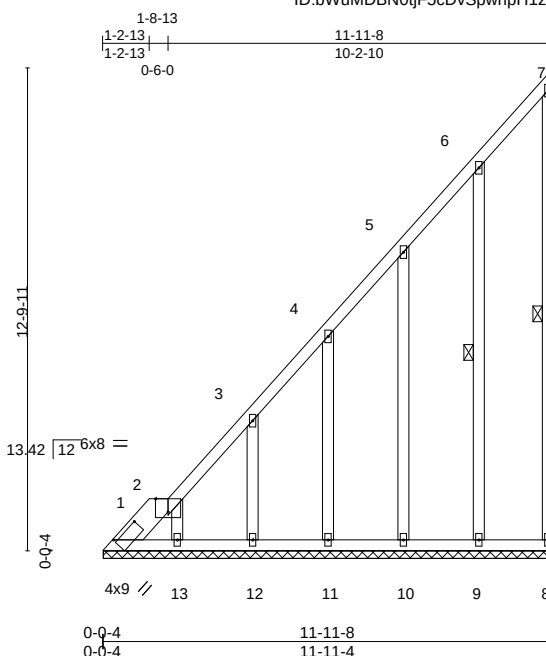


16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job 210444	Truss LAY3	Truss Type GABLE	Qty 1	Ply 1	Lot 101 H4 I44832141
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Wheeler Lumber, Waverly, KS - 66871,

8.430 s Nov 30 2020 MiTek Industries, Inc. Tue Feb 16 12:12:49 2021 Page 1
ID:bWuMDBN0tjF5cDvSpwhpH1zCzbQ-AGIQPwmzDxuiXdY1FzMPk85DQINsvWHI860rEDzkZfS



Scale = 1:61.1

Plate Offsets (X,Y)--		[1:0-8-12,0-1-0], [2:0-4-0,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 0.07		Vert(LL) n/a -	n/a 999	MT20	197/144
TCDL 10.0		Lumber DOL 1.15		BC 0.02		Vert(CT) n/a -	n/a 999		
BCLL 0.0 *		Rep Stress Incr YES		WB 0.19		Horz(CT) -0.00 8	n/a n/a		
BCDL 10.0		Code IRC2018/TPI2014		Matrix-S				Weight: 82 lb	FT = 10%

LUMBER-

TOP CHORD 2x8 SP DSS *Except*
2-7: 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 7-8, 6-9

REACTIONS.

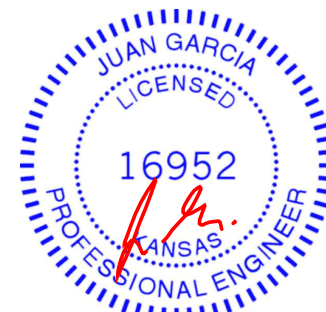
All bearings 11-11-4.
(lb) - Max Horz 1=501(LC 8)
Max Uplift All uplift 100 lb or less at joint(s) 8, 13 except 1=151(LC 6), 12=109(LC 8), 11=134(LC 8), 10=137(LC 8), 9=138(LC 8)
Max Grav All reactions 250 lb or less at joint(s) 8, 13, 12, 11, 10, 9 except 1=465(LC 8)

FORCES.

(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-2=-662/255, 2-3=-593/239, 3-4=-475/193, 4-5=-339/142

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 exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 2) All plates are 2x4 MT20 unless otherwise indicated.
- 3) Gable requires continuous bottom chord bearing.
- 4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 5) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 8, 13 except (jt=lb) 1=151, 12=109, 11=134, 10=137, 9=138.
- 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.



February 16, 2021

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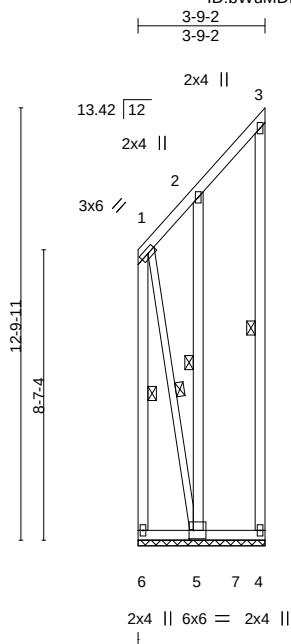
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 101 H4
210444	LAY4	GABLE	1	1	I44832142
Job Reference (optional)					

Wheeler Lumber, Waverly, KS - 66871,

8.430 s Nov 30 2020 MiTek Industries, Inc. Tue Feb 16 12:12:49 2021 Page 1

ID:bWuMDBN0tjF5cDvSpwhpH1zCzbQ-AGIQPwmzDxuiXdY1FzMPk85CvINsvVti860rEDzkZfS



Scale = 1:68.3

Plate Offsets (X,Y)--		[5:0-1-8,0-3-0]										
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	0.17	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.02	Vert(CT)	n/a	-	n/a	999		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.21	Horz(CT)	-0.00	4	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-S							Weight: 53 lb	FT = 10%

LUMBER-

TOP CHORD 2x4 SPF No.2
 BOT CHORD 2x4 SPF No.2
 WEBS 2x4 SPF No.2 *Except*
 1-7: 2x3 SPF No.2
 OTHERS 2x4 SPF No.2

BRACING-

TOP CHORD Structural wood sheathing directly applied or 3-9-2 oc purlins, except end verticals.
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
 WEBS 1 Row at midpt 1-6, 3-4, 2-5, 1-7

REACTIONS.

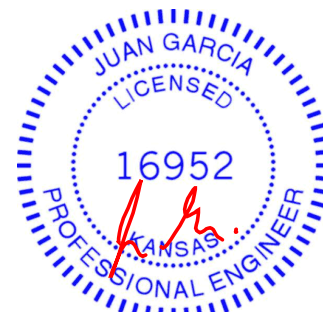
(size) 6=3-9-2, 4=3-9-2, 5=3-9-2
 Max Horz 6=158(LC 8)
 Max Uplift 6=323(LC 6), 4=73(LC 8), 5=908(LC 8)
 Max Grav 6=923(LC 8), 4=85(LC 15), 5=451(LC 6)

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

TOP CHORD 1-6=-906/332
 WEBS 5-7=-407/930, 1-7=-309/804

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; Lumber DOL=1.60 plate grip DOL=1.60
- 2) Gable requires continuous bottom chord bearing.
- 3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 4) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 4 except (jt=lb) 6=323, 5=908.
- 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.



February 16, 2021

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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



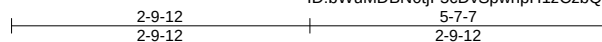
16023 Swingley Ridge Rd
 Chesterfield, MO 63017

Job 210444	Truss LAY5	Truss Type GABLE	Qty 1	Ply 1	Lot 101 H4 I44832143
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Wheeler Lumber, Waverly, KS - 66871,

8.430 s Nov 30 2020 MiTek Industries, Inc. Tue Feb 16 12:12:50 2021 Page 1

ID: bWuMDBN0tjF5cDvSpwphH1zCzbQ-eSJocGnb_E0Z9n7EphteHMePr8j7e?6rNmmOnfzkZfR



3x4 =

Scale = 1:21.7

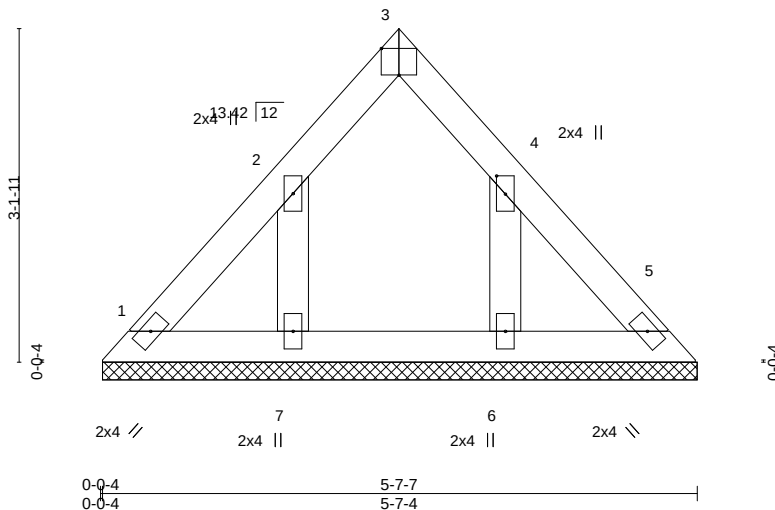


Plate Offsets (X,Y)-- [3:Edge,0-3-0], [4:0-2-1,0-1-0]							
LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d
TCLL 25.0	Plate Grip DOL	1.15	TC 0.03	Vert(LL)	n/a	-	n/a
TCDL 10.0	Lumber DOL	1.15	BC 0.02	Vert(CT)	n/a	-	n/a
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.02	Horz(CT)	0.00	5	n/a
BCDL 10.0	Code IRC2018/TPI2014		Matrix-P				
				PLATES	GRIP		
				MT20	197/144		
				Weight: 18 lb	FT = 10%		

LUMBER-

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

BRACING-

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

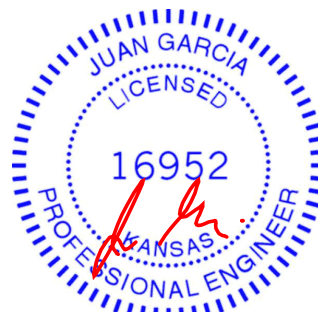
REACTIONS.

All bearings 5-7-3.
(lb) - Max Horz 1=75(LC 4)
Max Uplift All uplift 100 lb or less at joint(s) 7, 6
Max Grav All reactions 250 lb or less at joint(s) 1, 5, 7, 6

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



February 16, 2021

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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

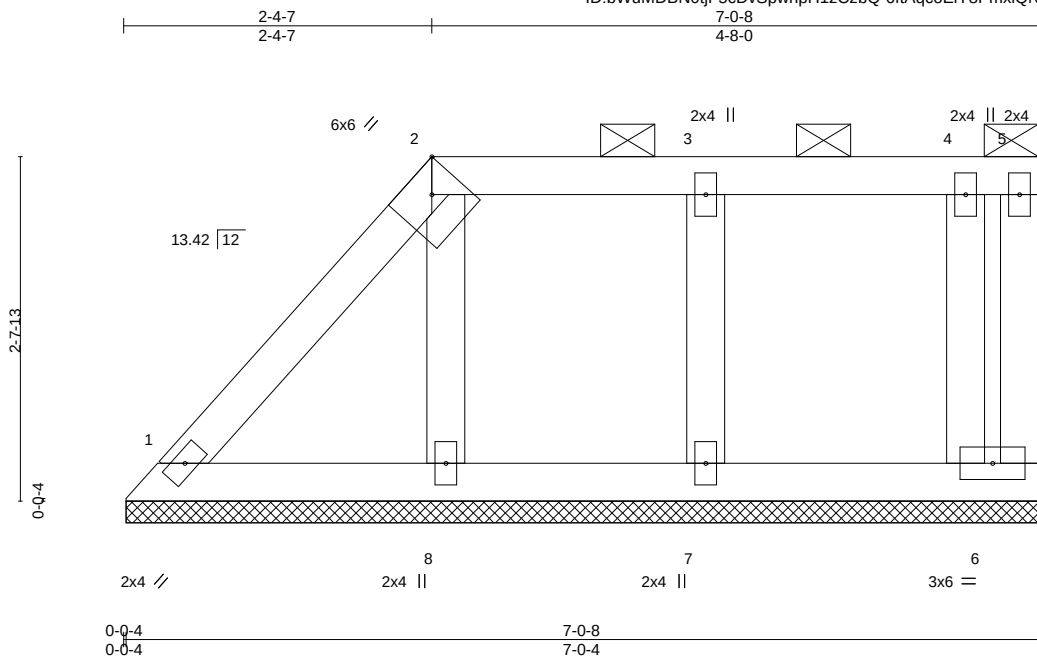


16023 Swingley Ridge Rd
Chesterfield, MO 63017

Wheeler Lumber. Waverly, KS - 66871

8.430 s Nov 30 2020 MiTek Industries, Inc. Tue Feb 16 12:12:51 2021 Page 1
ID:bWuMDBN0tjF5cDvSpwhpH1zCzbQ-6ftAqcoEIY8PmxiQNOOtqZAZuY2ENRH_cQVYj5zkZFQ
7-0-8
4-8-0

Scale = 1:17.7



LUMBER-

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

BRACING-

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

REACTIONS.

All bearings 7-0-4.

(lb) - Max Horz 1=94(LC 5)

Max Uplift All uplift 100 lb or less at joint(s) 1, 6, 8, 7

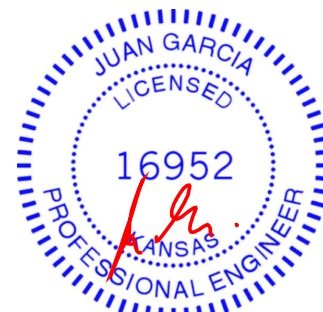
Max Grav All reactions 250 lb or less at joint(s) 1, 6, 8, 7

FORCES. (1

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



February 16, 2021



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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



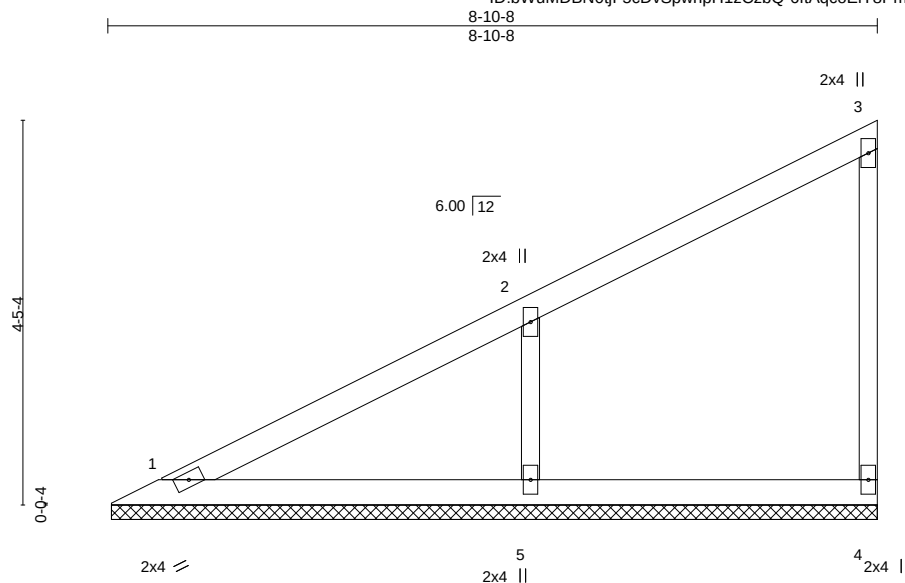
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job 210444	Truss V1	Truss Type Valley	Qty 1	Ply 1	Lot 101 H4 I44832145
Job Reference (optional)					

Wheeler Lumber, Waverly, KS - 66871,

8.430 s Nov 30 2020 MiTek Industries, Inc. Tue Feb 16 12:12:51 2021 Page 1

ID:bWuMDBN0tjF5cDvSpwhpH1zCzbQ-6ftAqcoEIY8PmxiQNOOtqZAWqY0XNQa_cQVyJ5zkZfQ



Scale = 1:26.6

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 0.27	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.14	Vert(CT)	n/a	-	n/a	999		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.07	Horz(CT)	-0.00	4	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 2x3 SPF No.2

BRACING-

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

REACTIONS.

(size) 1=8-10-0, 4=8-10-0, 5=8-10-0
Max Horz 1=170(LC 5)
Max Uplift 4=-27(LC 5), 5=-137(LC 8)
Max Grav 1=148(LC 16), 4=127(LC 1), 5=458(LC 1)

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

WEBS 2-5=-356/199

NOTES-

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 2) Gable requires continuous bottom chord bearing.
- 3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 4) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 4 except (jt=lb) 5=137.
- 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.



February 16, 2021

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

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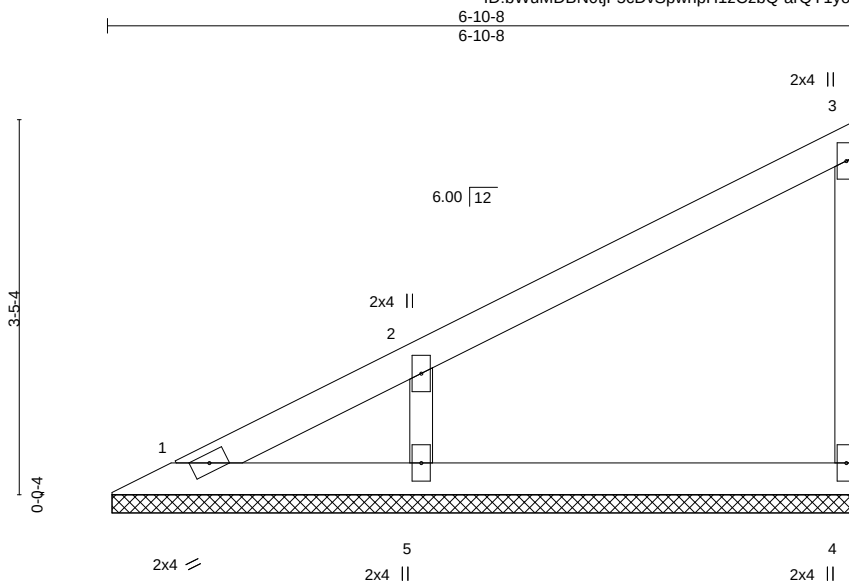
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job 210444	Truss V2	Truss Type Valley	Qty 1	Ply 1	Lot 101 H4 I44832146
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Wheeler Lumber, Waverly, KS - 66871,

8.430 s Nov 30 2020 MiTek Industries, Inc. Tue Feb 16 12:12:52 2021 Page 1

ID:bWuMDBN0tjF5cDvSpwhpH1zCzbQ-arQY1yosWsGGO5Hcx5v6MnjtyNN6u88q4FvrxZkZfP



Scale = 1:21.1

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)	n/a	-	n/a	999	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.10	Vert(CT)	n/a	-	n/a	999		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.05	Horz(CT)	-0.00	4	n/a	n/a		
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
WEBS 2x3 SPF No.2
OTHERS 2x3 SPF No.2

BRACING-

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

REACTIONS.

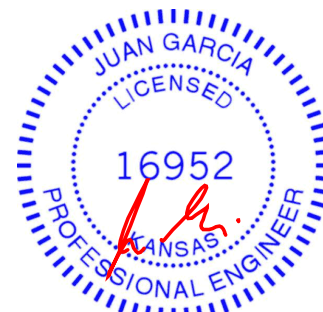
(size) 1=6-10-0, 4=6-10-0, 5=6-10-0
Max Horz 1=128(LC 5)
Max Uplift 4=-27(LC 8), 5=-110(LC 8)
Max Grav 1=63(LC 16), 4=142(LC 1), 5=366(LC 1)

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

WEBS 2-5=-285/159

NOTES-

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 2) Gable requires continuous bottom chord bearing.
- 3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 4) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 4 except (jt=lb) 5=110.
- 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.



February 16, 2021

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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



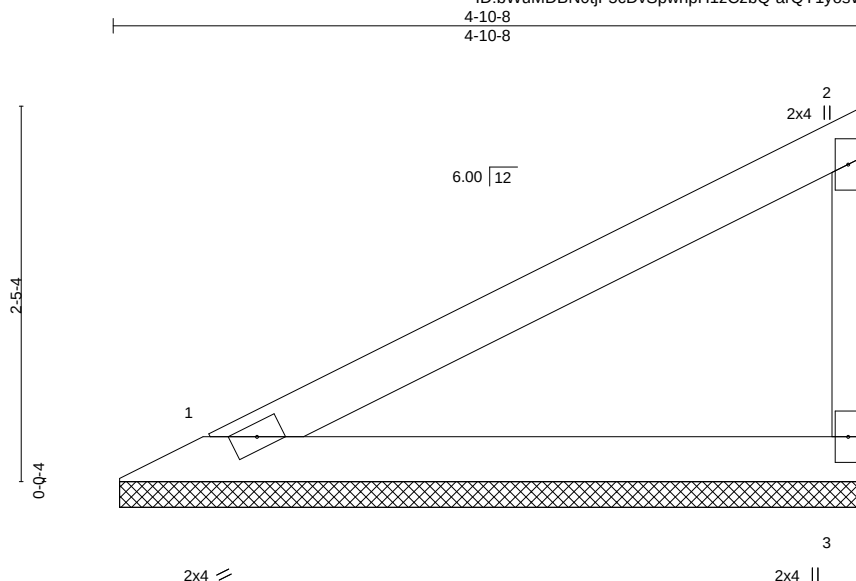
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job 210444	Truss V3	Truss Type Valley	Qty 1	Ply 1	Lot 101 H4 I44832147
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Wheeler Lumber, Waverly, KS - 66871,

8.430 s Nov 30 2020 MiTek Industries, Inc. Tue Feb 16 12:12:52 2021 Page 1

ID:bWuMDBN0tjF5cDvSpwhpH1zCzbQ-arQY1yosWsGG05Hcx5v6MnjgmyME6ux8q4FvrxzkZfP



Scale = 1:15.0

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 0.32	Vert(LL)	n/a	-	n/a	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.17	Vert(CT)	n/a	-	n/a		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.00	Horz(CT)	-0.00	3	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-P					Weight: 12 lb	FT = 10%

LUMBER-

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

BRACING-

TOP CHORD Structural wood sheathing directly applied or 4-10-8 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

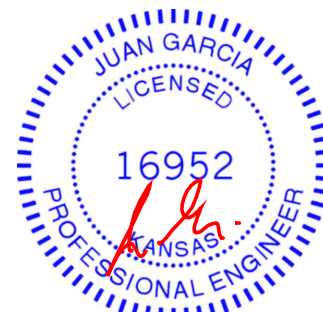
REACTIONS.

(size) 1=4-10-0, 3=4-10-0
Max Horz 1=86(LC 5)
Max Uplift 1=24(LC 8), 3=46(LC 8)
Max Grav 1=186(LC 1), 3=186(LC 1)

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

NOTES-

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



February 16, 2021

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 210444	Truss V4	Truss Type Valley	Qty 1	Ply 1	Lot 101 H4 I44832148
Job Reference (optional)					

Wheeler Lumber, Waverly, KS - 66871,

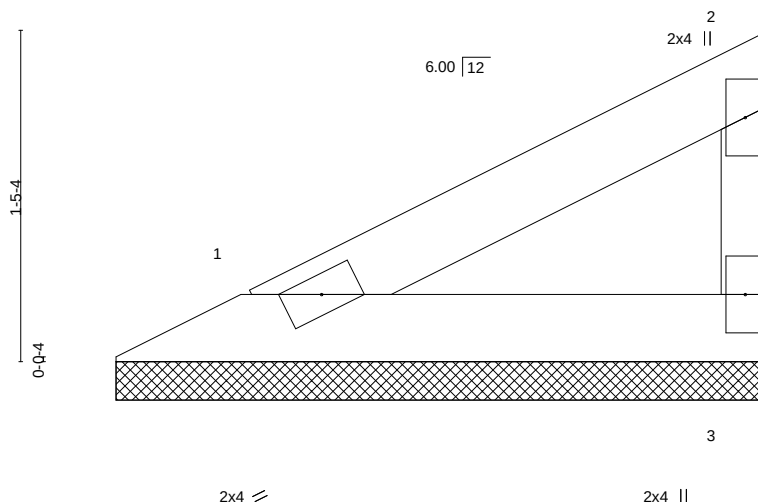
8.430 s Nov 30 2020 MiTek Industries, Inc. Tue Feb 16 12:12:53 2021 Page 1

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2-10-8

2-10-8

Scale = 1:10.0



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 0.08	Vert(LL)	n/a	-	n/a	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.04	Vert(CT)	n/a	-	n/a		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.00	Horz(CT)	-0.00	3	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-P					Weight: 7 lb	FT = 10%

LUMBER-

TOP CHORD 2x4 SPF No.2

BOT CHORD 2x4 SPF No.2

WEBS 2x3 SPF No.2

BRACING-

TOP CHORD Structural wood sheathing directly applied or 2-10-8 oc purlins, except end verticals.

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

REACTIONS.

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

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

NOTES-

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



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

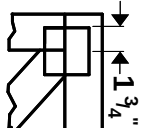
Safety Information available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



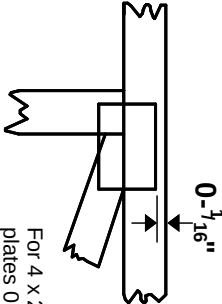
16023 Swingley Ridge Rd
Chesterfield, MO 63017

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- $\frac{3}{16}$ " 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

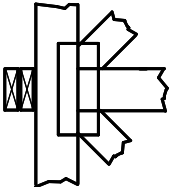
The first dimension is the plate width measured perpendicular to slots. Second dimension is the length parallel to slots.

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



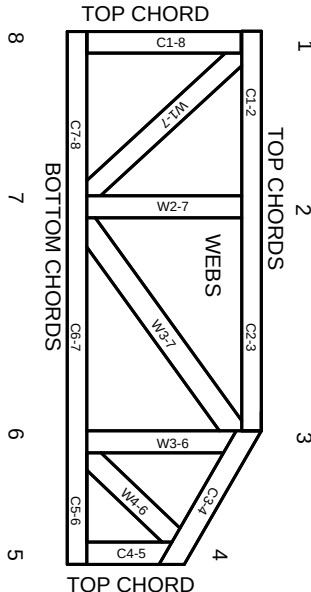
Indicates location where bearings (supports) occur. Icons vary but reaction section indicates joint number where bearings occur. Min size shown is for crushing only.

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 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.