



RE: H4133
Lot 133 H4

MiTek USA, Inc.

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

Site Information:

Customer: Project Name: H4133
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: ASCE 7 - 16[Low Rise]
Roof Load: 45.0 psf

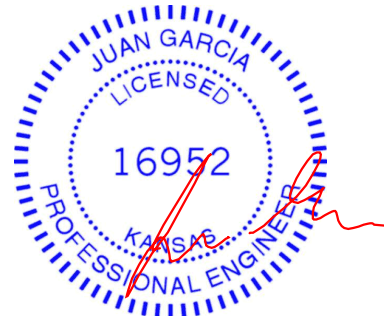
Design Program: MiTek 20/20 8.4
Wind Speed: 115 mph
Floor Load: N/A psf

This package includes 66 individual, dated Truss Design Drawings and 0 Additional Drawings.

No.	Seal#	Truss Name	Date	No.	Seal#	Truss Name	Date
1	I48138117	A1	9/29/2021	21	I48138137	C4	9/29/2021
2	I48138118	A2	9/29/2021	22	I48138138	C5	9/29/2021
3	I48138119	A3	9/29/2021	23	I48138139	D1	9/29/2021
4	I48138120	A4	9/29/2021	24	I48138140	D2	9/29/2021
5	I48138121	B1	9/29/2021	25	I48138141	D3	9/29/2021
6	I48138122	B2	9/29/2021	26	I48138142	D4	9/29/2021
7	I48138123	B3	9/29/2021	27	I48138143	D5	9/29/2021
8	I48138124	B4	9/29/2021	28	I48138144	D6	9/29/2021
9	I48138125	B6	9/29/2021	29	I48138145	D7	9/29/2021
10	I48138126	B7	9/29/2021	30	I48138146	D8	9/29/2021
11	I48138127	B8	9/29/2021	31	I48138147	D9	9/29/2021
12	I48138128	B9	9/29/2021	32	I48138148	D10	9/29/2021
13	I48138129	B10	9/29/2021	33	I48138149	D11	9/29/2021
14	I48138130	B11	9/29/2021	34	I48138150	D12	9/29/2021
15	I48138131	B12	9/29/2021	35	I48138151	D13	9/29/2021
16	I48138132	B13	9/29/2021	36	I48138152	E1	9/29/2021
17	I48138133	B14	9/29/2021	37	I48138153	E2	9/29/2021
18	I48138134	C1	9/29/2021	38	I48138154	E3	9/29/2021
19	I48138135	C2	9/29/2021	39	I48138155	J1	9/29/2021
20	I48138136	C3	9/29/2021	40	I48138156	J2	9/29/2021

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.



September 29, 2021



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No.	Seal#	Truss Name	Date
41	I48138157	J3	9/29/2021
42	I48138158	J4	9/29/2021
43	I48138159	J5	9/29/2021
44	I48138160	J6	9/29/2021
45	I48138161	J7	9/29/2021
46	I48138162	J8	9/29/2021
47	I48138163	J9	9/29/2021
48	I48138164	J10	9/29/2021
49	I48138165	J10A	9/29/2021
50	I48138166	J11	9/29/2021
51	I48138167	J12	9/29/2021
52	I48138168	J13	9/29/2021
53	I48138169	J14	9/29/2021
54	I48138170	J15	9/29/2021
55	I48138171	J16	9/29/2021
56	I48138172	J17	9/29/2021
57	I48138173	J18	9/29/2021
58	I48138174	J19	9/29/2021
59	I48138175	J20	9/29/2021
60	I48138176	J21	9/29/2021
61	I48138177	LAY1	9/29/2021
62	I48138178	LAY2	9/29/2021
63	I48138179	LAY3	9/29/2021
64	I48138180	LAY4	9/29/2021
65	I48138181	V1	9/29/2021
66	I48138182	V2	9/29/2021



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

Design Code: IRC2018/TPI2014
Wind Code: ASCE 7 - 16[Low Rise]
Roof Load: 45.0 psf

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

This package includes 66 individual, dated Truss Design Drawings and 0 Additional Drawings.

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13	I48138129	B10	9/29/2021	33	I48138149	D11	9/29/2021
14	I48138130	B11	9/29/2021	34	I48138150	D12	9/29/2021
15	I48138131	B12	9/29/2021	35	I48138151	D13	9/29/2021
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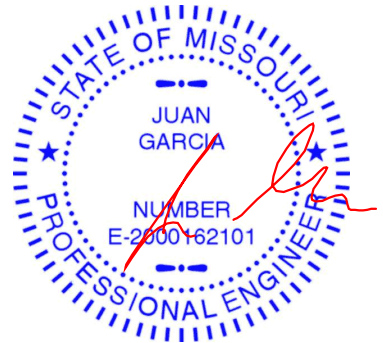
The truss drawing(s) referenced above have been prepared by
MiTek USA, Inc. under my direct supervision
based on the parameters provided by Wheeler - Waverly.

Truss Design Engineer's Name: Garcia, Juan

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

Missouri COA: 001193

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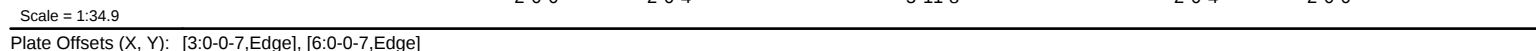
Address:

City, County:

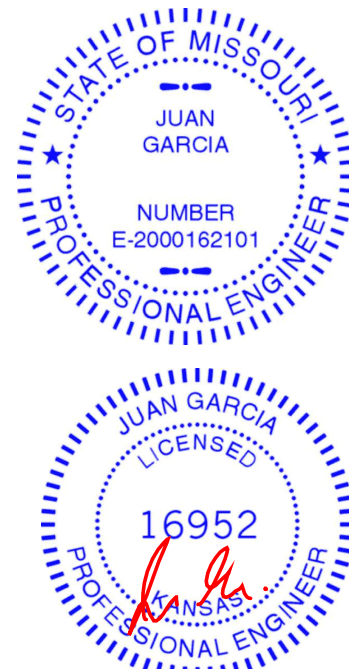
State:

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47	I48138163	J9	9/29/2021
48	I48138164	J10	9/29/2021
49	I48138165	J10A	9/29/2021
50	I48138166	J11	9/29/2021
51	I48138167	J12	9/29/2021
52	I48138168	J13	9/29/2021
53	I48138169	J14	9/29/2021
54	I48138170	J15	9/29/2021
55	I48138171	J16	9/29/2021
56	I48138172	J17	9/29/2021
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63	I48138179	LAY3	9/29/2021
64	I48138180	LAY4	9/29/2021
65	I48138181	V1	9/29/2021
66	I48138182	V2	9/29/2021

Wheeler Lumber, Waverly, KS - 66871, Run: 8.78 S 8.43 Aug 16 2021 Print: 8.430 S Aug 16 2021 MiTek Industries, Inc. Wed Sep 29 11:02:31 Page: 1
ID:pg50?Ycap6WpLXoTu4wfy2za1nE-RfC?PsB70Hq3NSqPqnL8w3uITxbGKWrCDOI7J4zJC?f



LUMBER		3) Wind: ASCE 7-16; Vult=15mph (3-second gust) Vasd=91mph; TC DL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
TOP CHORD	2x6 SPF No.2 *Except* 4-5:2x4 SPF No.2	5) Provide adequate drainage to prevent water ponding.
BOT CHORD	2x4 SPF No.2	6) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
WEBS	2x4 SPF No.2	7) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
BRACING		8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 251 lb uplift at joint 2 and 251 lb uplift at joint 7.
TOP CHORD	Structural wood sheathing directly applied or 6-0-0 oc purlins, except 2-0-0 oc purlins (4-11-2 max.): 4-5.	9) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing.	10) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
REACTIONS (lb/size) 2=1018/0-3-8, 7=1018/0-3-8		11) "NAILED" indicates 3-10d (0.148"x3") or 3-12d (0.148"x3.25") toe-nails per NDS guidelines.
Max Horiz 2=-28 (LC 9)		12) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 195 lb down and 54 lb up at 3-10-8, and 195 lb down and 54 lb up at 10-0-12 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
Max Uplift 2=-251 (LC 4), 7=-251 (LC 5)		
FORCES (lb) - Maximum Compression/Maximum Tension		
TOP CHORD	1-2=0/12, 2-3=-387/111, 3-4=-4180/915, 4-5=-4164/889, 5-6=-4135/882, 6-7=-387/107, 7-8=0/12	
BOT CHORD	2-12=0/0, 3-11=-889/4164, 10-11=-881/4207, 6-10=-843/4118, 7-9=0/0	
WEBS	3-12=-3/72, 6-9=-2/72, 4-11=0/283, 4-10=-165/80, 5-10=0/293	
NOTES		
1) 2-ply truss to be connected together with 10d (0.131"x3") nails as follows: Top chords connected as follows: 2x6 - 2 rows staggered at 0-9-0 oc, 2x4 - 1 row at 0-9-0 oc. Bottom chords connected as follows: 2x4 - 1 row at 0-9-0 oc. Web 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.		



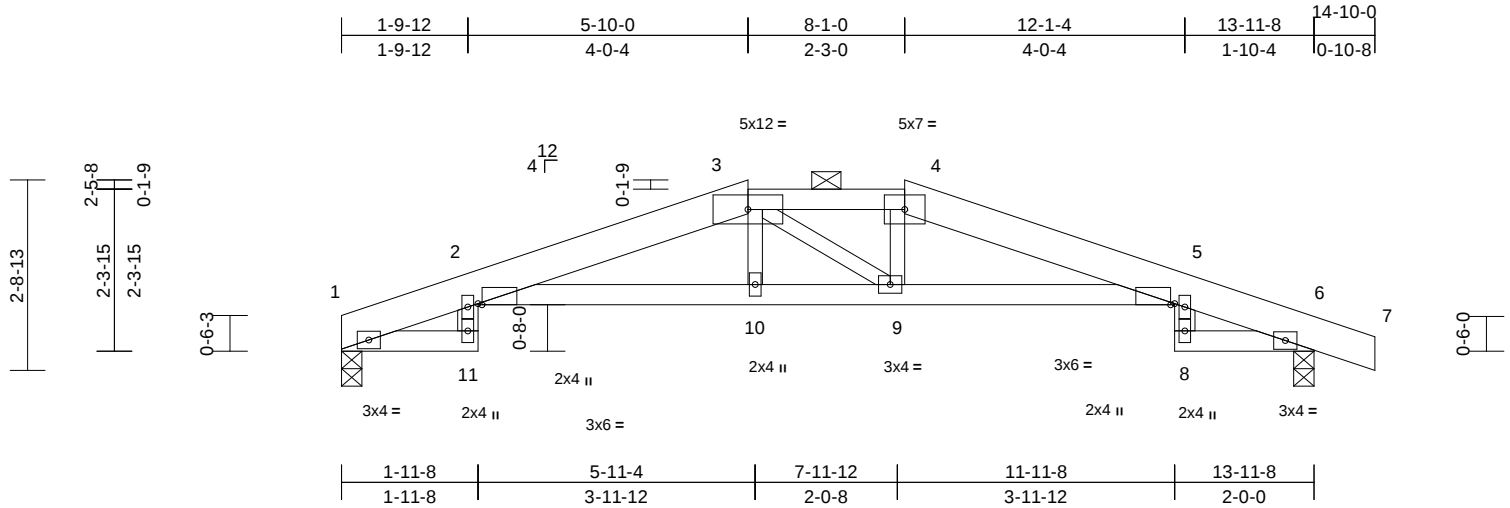
September 29, 2021

Job	Truss	Truss Type	Qty	Ply	Lot 133 H4	I48138118
H4133	A2	Hip	1	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS - 66871,

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Page: 1



Scale = 1:33.1

Plate Offsets (X, Y): [2:0-0-11,Edge], [5:0-0-11,Edge]

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.73	Vert(LL)	-0.15	5-9	>999	360	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.60	Vert(CT)	-0.28	5-9	>584	240	
BCLL	0.0*	Rep Stress Incr	YES	WB	0.05	Horz(CT)	0.20	6	n/a	n/a	
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S		Wind(LL)	0.11	2-10	>999	240	Weight: 47 lb FT = 10%

LUMBER

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

BRACING

TOP CHORD Structural wood sheathing directly applied or 3-9-5 oc purlins, except 2-0-0 oc purlins (4-7-14 max.): 3-4.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (lb/size) 1=612/0-3-8, 6=689/0-3-8
Max Horiz 1=-42 (LC 9)
Max Uplift 1=-97 (LC 4), 6=-142 (LC 5)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=-253/70, 2-3=-1589/227, 3-4=-1534/215, 4-5=-1588/203, 5-6=-249/62, 6-7=0/12
BOT CHORD 1-11=0/0, 2-10=-184/1530, 9-10=-181/1535, 5-9=-145/1529, 6-8=0/0
WEBS 2-11=0/52, 5-8=0/54, 3-10=0/131, 3-9=-144/144, 4-9=0/140

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) exterior 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 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.

- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 97 lb uplift at joint 1 and 142 lb uplift at joint 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.
- Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

LOAD CASE(S) Standard



September 29, 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



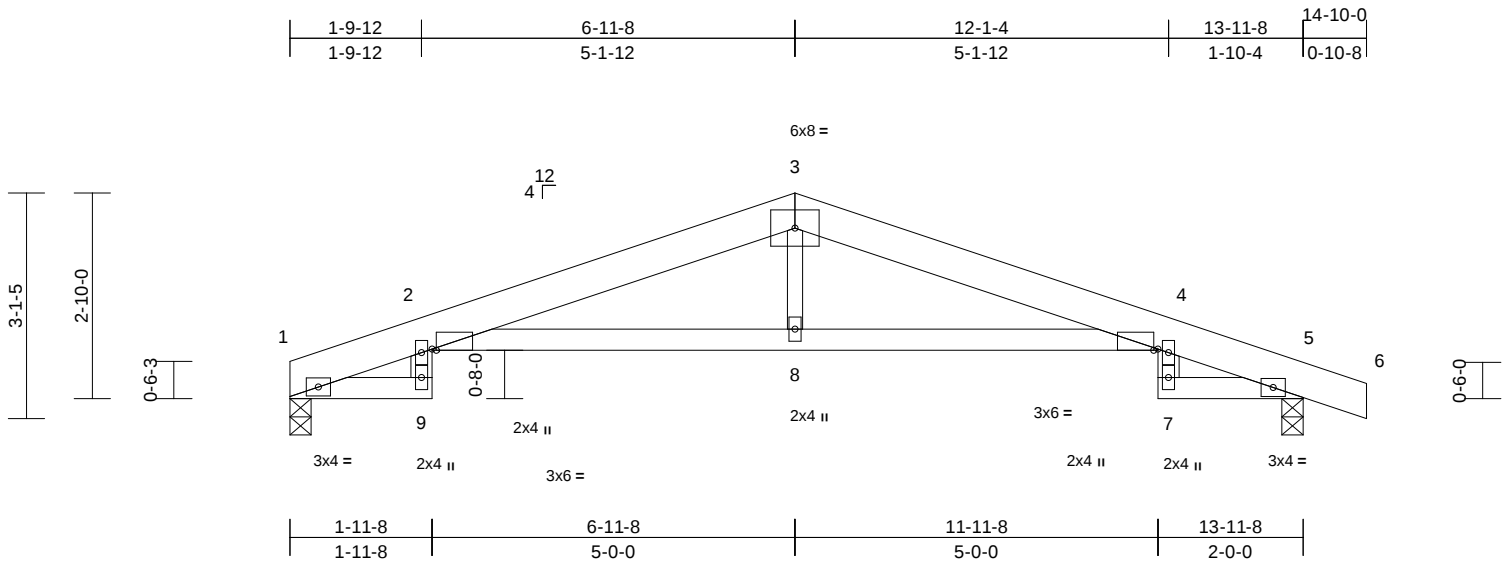
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 133 H4	I48138119
H4133	A3	Roof Special	1	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.78 S 8.43 Aug 16 2021 Print: 8.430 S Aug 16 2021 MiTek Industries, Inc. Wed Sep 29 11:02:35
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Page: 1



Scale = 1:31.7

Plate Offsets (X, Y): [2:0-0-11,Edge], [4:0-0-11,Edge]

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.75	Vert(LL)	-0.17	2-8	>991	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.59	Vert(CT)	-0.31	4-8	>533	240		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.08	Horz(CT)	0.22	5	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S		Wind(LL)	0.12	2-8	>999	240	Weight: 47 lb	FT = 10%

LUMBER

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

LOAD CASE(S) Standard

BRACING

TOP CHORD Structural wood sheathing directly applied or 3-7-9 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (lb/size) 1=612/0-3-8, 5=689/0-3-8
Max Horiz 1=-49 (LC 9)
Max Uplift 1=-89 (LC 4), 5=-135 (LC 5)

FORCES

(lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-253/71, 2-3=-1458/159, 3-4=-1459/174, 4-5=-249/59, 5-6=0/12
BOT CHORD 1-9=0/0, 2-8=-114/1392, 4-8=-114/1392, 5-7=0/0
WEBS 2-9=0/52, 4-7=0/54, 3-8=0/253

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) exterior 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 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 89 lb uplift at joint 1 and 135 lb uplift at joint 5.



September 29, 2021

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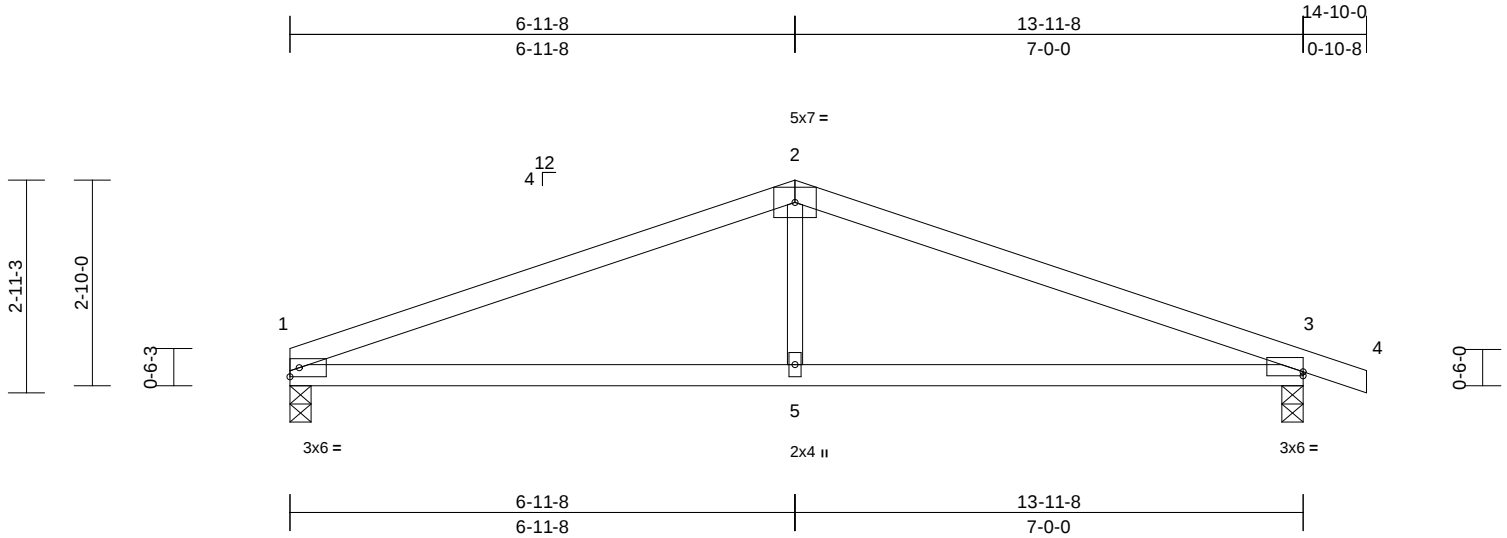
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 133 H4	
H4133	A4	Common	1	1		I48138120
Job Reference (optional)						

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.78 S 8.43 Aug 16 2021 Print: 8.430 S Aug 16 2021 MiTek Industries, Inc. Wed Sep 29 11:02:35
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Page: 1



Scale = 1:31.7

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

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.80	Vert(LL)	-0.06	3-5	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.50	Vert(CT)	-0.14	3-5	>999	240		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.10	Horz(CT)	0.02	3	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S		Wind(LL)	0.05	3-5	>999	240	Weight: 36 lb	FT = 10%

LUMBER

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

LOAD CASE(S) Standard

BRACING

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

REACTIONS (lb/size) 1=612/0-3-8, 3=689/0-3-8
Max Horiz 1=-48 (LC 9)
Max Uplift 1=-89 (LC 4), 3=-135 (LC 5)

FORCES

(lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-1096/130, 2-3=-1097/134, 3-4=0/6
BOT CHORD 1-5=-76/955, 3-5=-76/955
WEBS 2-5=0/332

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) exterior 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 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 89 lb uplift at joint 1 and 135 lb uplift at joint 3.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



September 29, 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



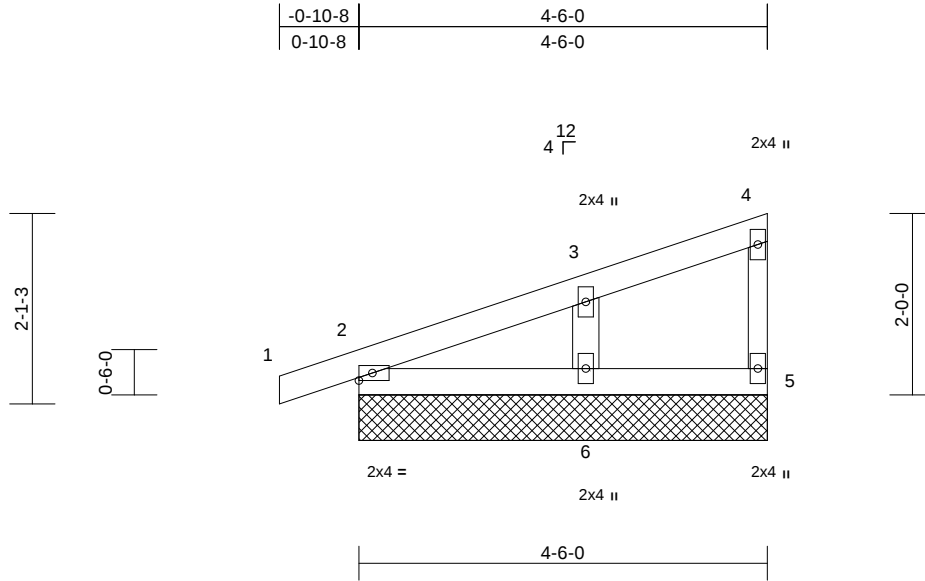
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 133 H4	I48138121
H4133	B1	Monopitch Supported Gable	1	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.78 S 8.43 Aug 16 2021 Print: 8.430 S Aug 16 2021 MiTek Industries, Inc. Wed Sep 29 11:02:36
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Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	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	0.04	Vert(CT)	n/a	-	n/a	999	197/144
BCLL	0.0*	Rep Stress Incr	YES	WB	0.02	Horz(CT)	0.00	5	n/a	n/a	
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-P							Weight: 14 lb FT = 10%

LUMBER

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

BRACING

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

REACTIONS (lb/size)	2=165/4-6-0, 5=59/4-6-0, 6=233/4-6-0
Max Horiz	2=76 (LC 5)
Max Uplift	2=-49 (LC 4), 5=-9 (LC 5), 6=-58 (LC 8)

FORCES (lb) - Maximum Compression/Maximum Tension	
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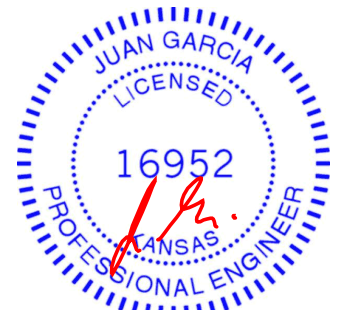
TOP CHORD	1-2=0/6, 2-3=-61/35, 3-4=-44/11, 4-5=-47/16
BOT CHORD	2-6=-24/18, 5-6=-24/18
WEBS	3-6=-177/92

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) exterior zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 2) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- 3) Gable requires continuous bottom chord bearing.
- 4) Gable studs spaced at 2-0-0 oc.
- 5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 6) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.

- 7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 9 lb uplift at joint 5, 49 lb uplift at joint 2 and 58 lb uplift at joint 6.
- 8) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard



September 29, 2021

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

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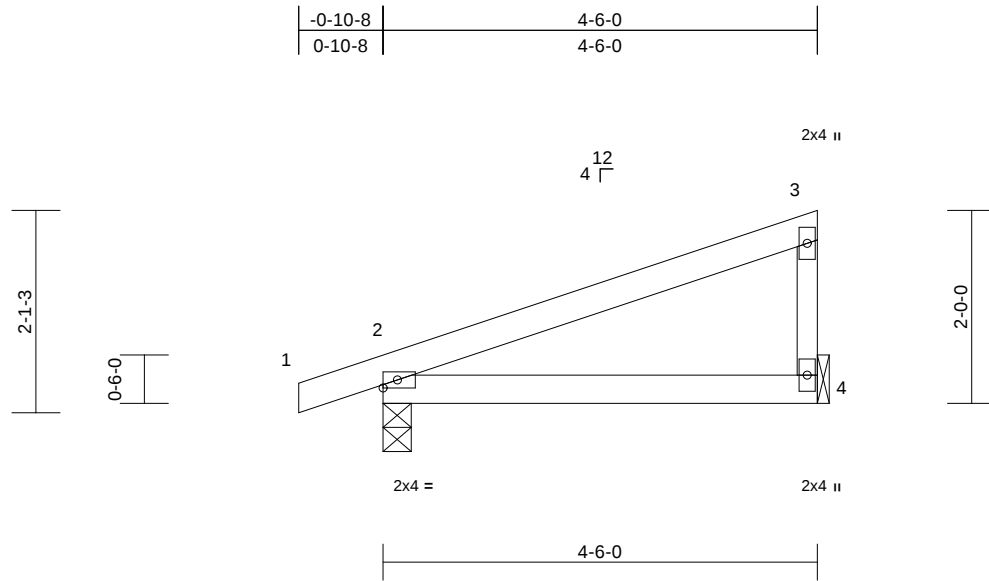
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 133 H4	
H4133	B2	Monopitch	7	1	Job Reference (optional)	I48138122

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.78 S 8.43 Aug 16 2021 Print: 8.430 S Aug 16 2021 MiTek Industries, Inc. Wed Sep 29 11:02:36
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Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.30	Vert(LL)	-0.02	2-4	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.18	Vert(CT)	-0.04	2-4	>999	240		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.00	Horz(CT)	0.00	4	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-P							Weight: 13 lb	FT = 10%

LUMBER

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

BRACING

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

REACTIONS (lb/size) 2=271/0-3-8, 4=183/ Mechanical
Max Horiz 2=76 (LC 5)
Max Uplift 2=-78 (LC 4), 4=-40 (LC 8)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=0/6, 2-3=-76/40, 3-4=-140/65

BOT CHORD 2-4=-24/18

NOTES

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust)
Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior 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 3-06-00 tall by 2-00-00 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 40 lb uplift at joint 4 and 78 lb uplift at joint 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.

LOAD CASE(S) Standard



September 29, 2021

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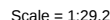
ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Wheeler Lumber, Waverly, KS - 66871, Run: 8.78 S 8.43 Aug 16 2021 Print: 8.430 S Aug 16 2021 MiTek Industries, Inc. Wed Sep 29 11:02:36 Page: 1
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Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.22	Vert(LL)	-0.01	2-4	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.23	Vert(CT)	-0.02	2-4	>999	240		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.00	Horz(CT)	0.00	6	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-R		Wind(LL)	0.01	2-4	>999	240	Weight: 15 lb	FT = 10%

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.

LOAD CASE(S) Standard

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) exterior zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grp 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 3-06-00 tall by 2-00-00 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 77 lb uplift at joint 2 and 44 lb uplift at joint 6.



September 29, 2021



WARNING: Velly design parameters are READ NOTES ON THIS AND INCLUDED WITH REFERENCE PAGE MM-1475 (Rev. 3/25/2020) BEFORE USE. Design valid for use only with MITEK® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information** available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



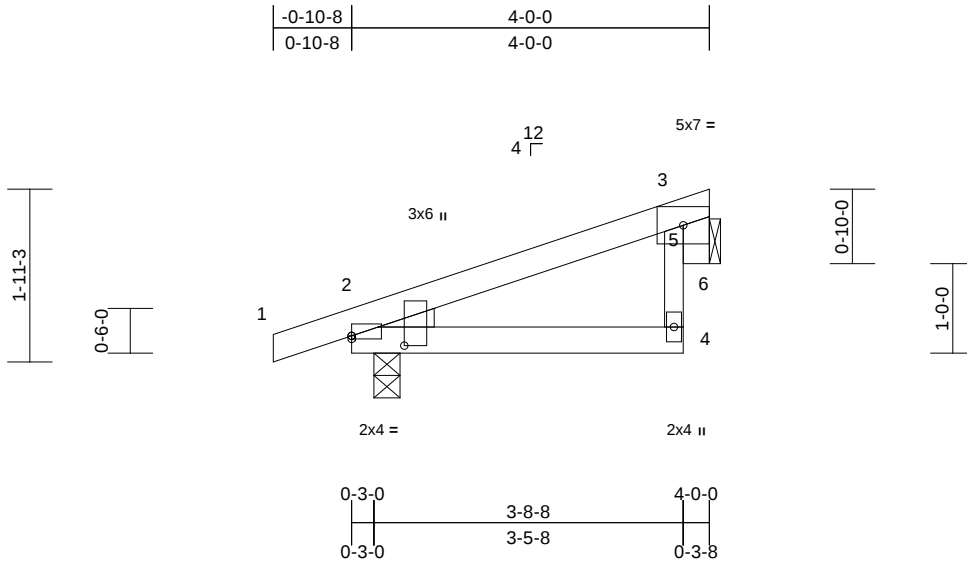
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 133 H4	I48138124
H4133	B4	Monopitch	1	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS - 66871,

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Page: 1



Scale = 1:25.8

Plate Offsets (X, Y): [2:Edge,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 (roof)	25.0	Plate Grip DOL	1.15	TC	0.18	Vert(LL)	0.00	2-4	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.18	Vert(CT)	-0.01	2-4	>999	240		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.00	Horz(CT)	0.00	6	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-R		Wind(LL)	0.00	2-4	>999	240	Weight: 12 lb	FT = 10%

LUMBER

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

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.

LOAD CASE(S) Standard

BRACING

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

REACTIONS (lb/size) 2=250/0-3-8, 6=132/ Mechanical
Max Horiz 2=55 (LC 5)
Max Uplift 2=-72 (LC 4), 6=-32 (LC 8)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=0/6, 2-3=-149/13, 4-5=0/74, 3-5=-125/74
BOT CHORD 2-4=-21/97
WEBS 3-6=-24/0

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) exterior 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 3-06-00 tall by 2-00-00 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 72 lb uplift at joint 2 and 32 lb uplift at joint 6.



September 29, 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

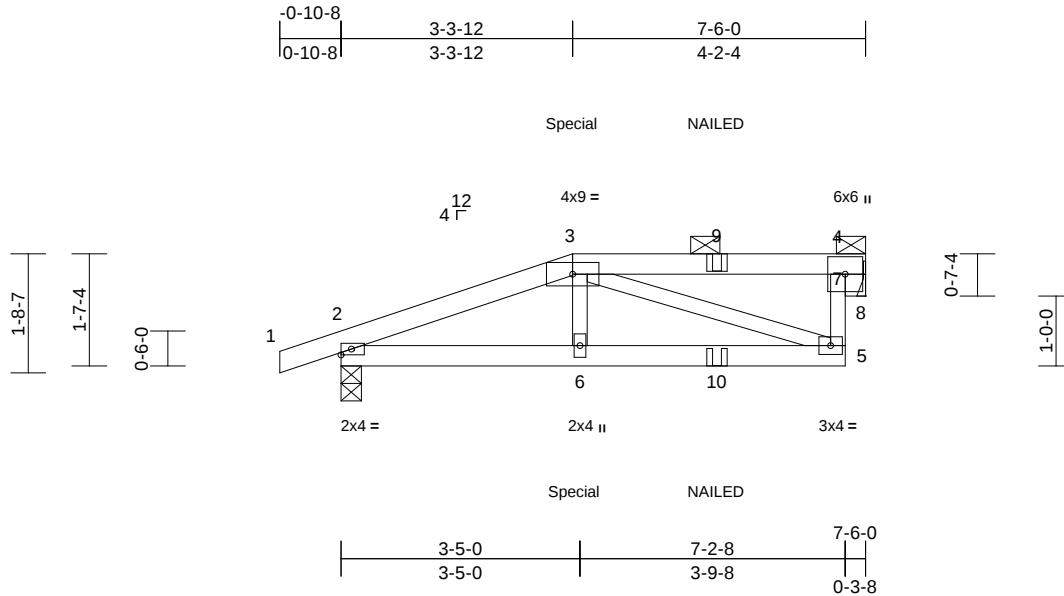
Job	Truss	Truss Type	Qty	Ply	Lot 133 H4	I48138125
H4133	B6	Half Hip Girder	1	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS - 66871,

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Page: 1

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Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.45	Vert(LL)	-0.01	5-6	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.18	Vert(CT)	-0.02	5-6	>999	240		
BCLL	0.0*	Rep Stress Incr	NO	WB	0.14	Horz(CT)	0.01	8	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-P		Wind(LL)	0.01	5-6	>999	240	Weight: 23 lb	FT = 10%

LUMBER

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

BRACING

TOP CHORD	Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals, 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	(lb/size) 2=401/0-3-8, 8=293/ Mechanical Max Horiz 2=53 (LC 5)
	Max Uplift 2=-125 (LC 4), 8=-76 (LC 4)

FORCES	(lb) - Maximum Compression/Maximum Tension
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TOP CHORD	1-2=0/6, 2-3=-517/120, 3-4=-119/49, 5-7=-14/159, 4-7=-14/159
BOT CHORD	2-6=-132/434, 5-6=-128/440
WEBS	3-6=0/167, 3-5=-340/92, 4-8=-450/133

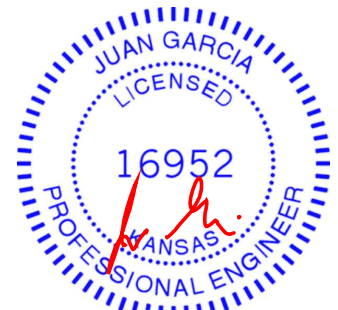
NOTES

- 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) exterior 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) 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 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- 5) Refer to girder(s) for truss to truss connections.
- 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 125 lb uplift at joint 2 and 76 lb uplift at joint 8.

- 7) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 8) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
- 9) "NAILED" indicates 3-10d (0.148"x3") or 3-12d (0.148"x3.25") toe-nails per NDS guidelines.
- 10) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 122 lb down and 128 lb up at 3-3-12 on top chord, and 13 lb down and 6 lb up at 3-3-12 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
- 11) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

LOAD CASE(S) Standard

- 1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (lb/ft)
Vert: 1-3=-70, 3-4=-70, 2-5=-20
Concentrated Loads (lb)
Vert: 6=6 (B), 10=-3 (B)



September 29, 2021

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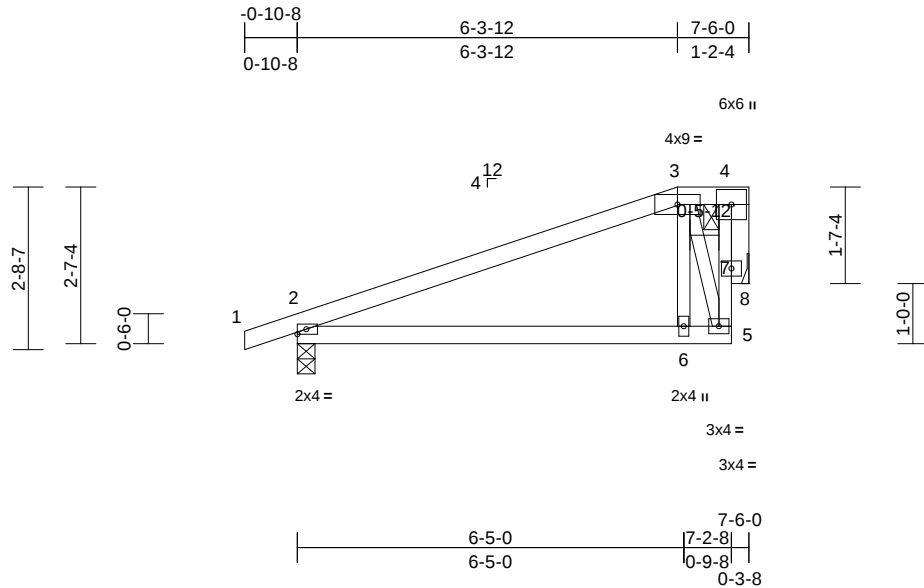
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 133 H4	I48138126
H4133	B7	Half Hip	1	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS - 66871,

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Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.74	Vert(LL)	-0.05	2-6	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.32	Vert(CT)	-0.10	2-6	>878	240		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.13	Horz(CT)	0.01	8	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-P		Wind(LL)	0.00	2-6	>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
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.): 3-4.
BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS	(lb/size) 2=404/0-3-8, 8=294/ Mechanical
	Max Horiz 2=81 (LC 4)
	Max Uplift 2=-94 (LC 4), 8=-67 (LC 4)

FORCES	(lb) - Maximum Compression/Maximum Tension
--------	--

TOP CHORD	1-2=0/6, 2-3=-234/0, 3-4=-38/13, 5-7=-56/278, 4-7=-56/278
BOT CHORD	2-6=-5/161, 5-6=0/169
WEBS	3-6=0/400, 3-5=-436/0, 4-8=-302/68

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) exterior 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) 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 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- 5) Refer to girder(s) for truss to truss connections.
- 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 94 lb uplift at joint 2 and 67 lb uplift at joint 8.

- 7) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 8) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

LOAD CASE(S) Standard



September 29, 2021

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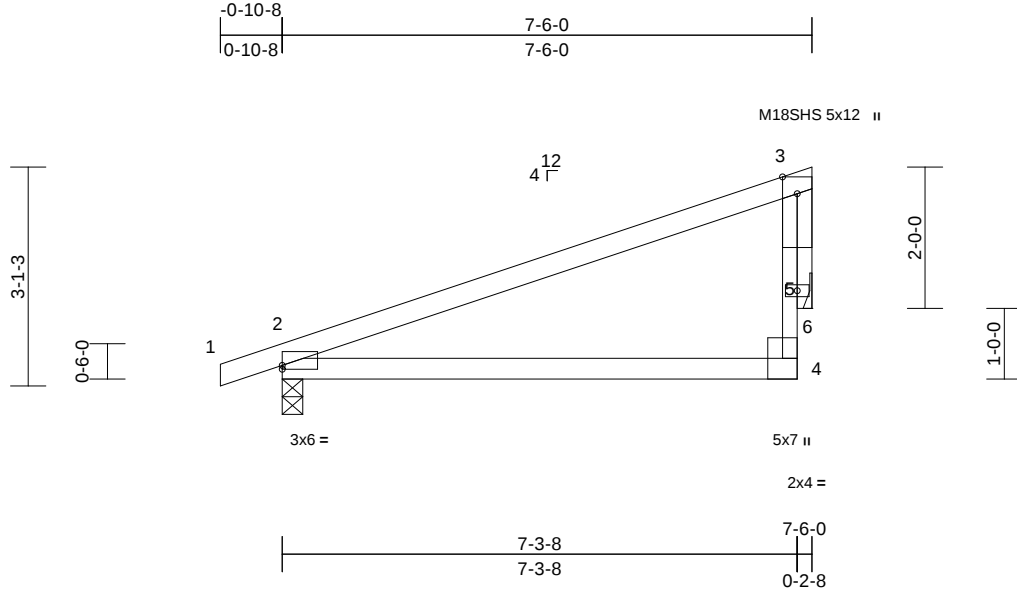
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 133 H4	
H4133	B8	Monopitch	2	1	Job Reference (optional)	I48138127

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.78 S 8.43 Aug 16 2021 Print: 8.430 S Aug 16 2021 MiTek Industries, Inc. Wed Sep 29 11:02:37
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Page: 1



Scale = 1:32.6

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

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.62	Vert(LL)	-0.07	2-4	>999	360	M18SHS	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.37	Vert(CT)	-0.15	2-4	>574	240	MT20	197/144
BCLL	0.0*	Rep Stress Incr	YES	WB	0.00	Horz(CT)	-0.01	6	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-R		Wind(LL)	0.05	2-4	>999	240	Weight: 22 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

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.

LOAD CASE(S) Standard

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	(lb/size)	2=404/0-3-8, 6=301/ Mechanical
	Max Horiz	2=92 (LC 4)
	Max Uplift	2=-90 (LC 4), 6=-73 (LC 8)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD	1-2=0/6, 2-3=-281/16, 4-5=0/152, 3-5=-357/242
BOT CHORD	2-4=-36/190
WEBS	3-6=-138/147

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) exterior zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 2) All plates are MT20 plates unless otherwise indicated.
- 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 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- 5) Refer to girder(s) for truss to truss connections.
- 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 90 lb uplift at joint 2 and 73 lb uplift at joint 6.



September 29, 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



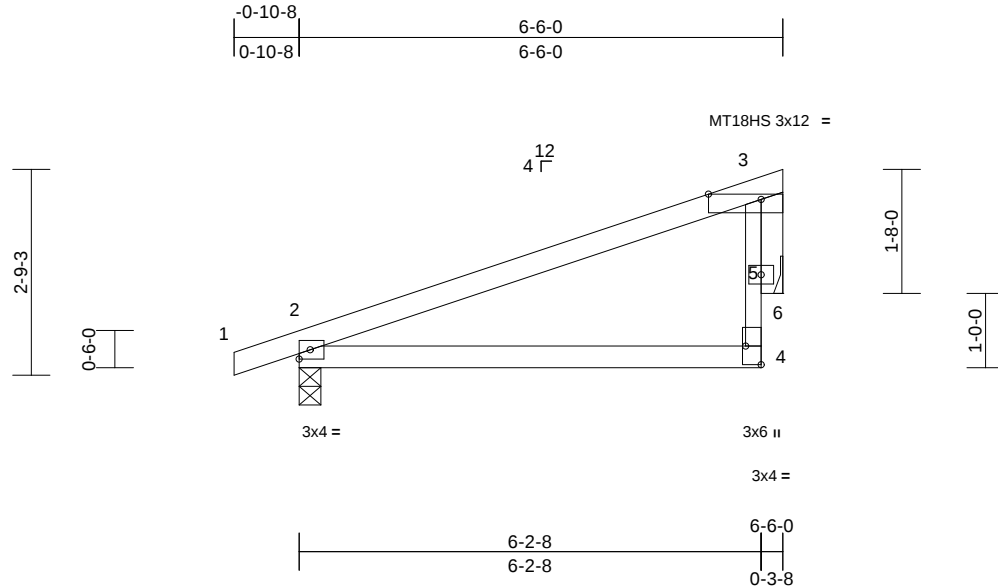
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 133 H4	
H4133	B9	Monopitch	5	1	Job Reference (optional)	I48138128

Wheeler Lumber, Waverly, KS - 66871,

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Page: 1



Scale = 1:31

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

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.39	Vert(LL)	-0.03	2-4	>999	360	MT18HS	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.25	Vert(CT)	-0.08	2-4	>990	240	MT20	197/144
BCLL	0.0*	Rep Stress Incr	YES	WB	0.00	Horz(CT)	-0.01	6	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-R		Wind(LL)	0.02	2-4	>999	240	Weight: 19 lb	FT = 10%

LUMBER

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

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.

LOAD CASE(S) Standard

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	(lb/size)	2=360/0-3-8, 6=248/ Mechanical
	Max Horiz	2=78 (LC 5)
	Max Uplift	2=-85 (LC 4), 6=-61 (LC 8)

FORCES	(lb) - Maximum Compression/Maximum Tension
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TOP CHORD	1-2=0/6, 2-3=-258/20, 4-5=0/128, 3-5=-273/175
BOT CHORD	2-4=-36/180
WEBS	3-6=-81/79

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) exterior zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 2) All plates are MT20 plates unless otherwise indicated.
- 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 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- 5) Refer to girder(s) for truss to truss connections.
- 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 85 lb uplift at joint 2 and 61 lb uplift at joint 6.



September 29, 2021

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

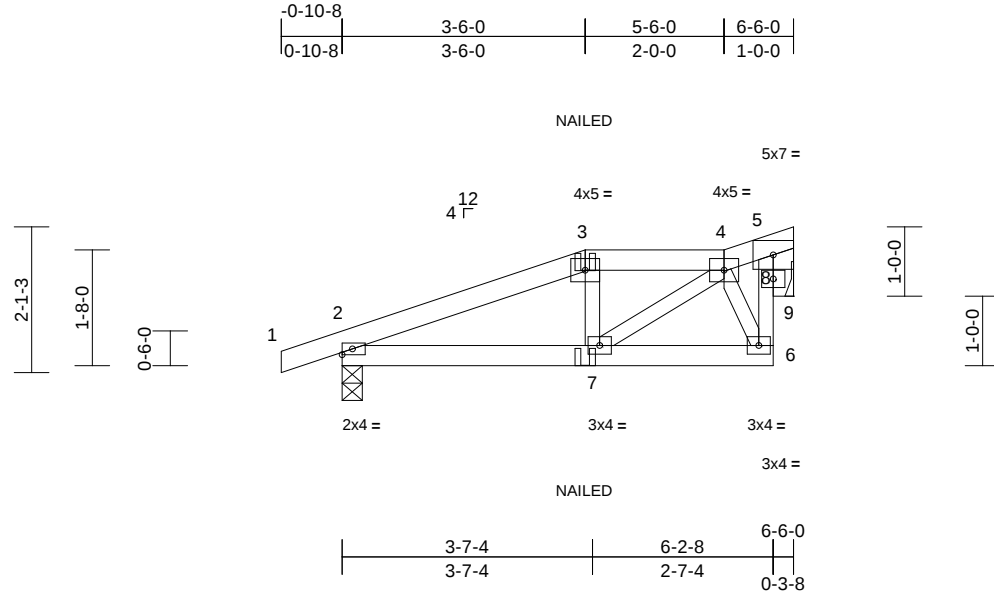
Job	Truss	Truss Type	Qty	Ply	Lot 133 H4	I48138129
H4133	B10	Roof Special Girder	1	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.78 S 8.43 Aug 16 2021 Print: 8.430 S Aug 16 2021 MiTek Industries, Inc. Wed Sep 29 11:02:38

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Scale = 1:33.2

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.21	Vert(LL)	-0.01	2-7	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.14	Vert(CT)	-0.01	2-7	>999	240		
BCLL	0.0*	Rep Stress Incr	NO	WB	0.07	Horz(CT)	0.00	9	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-P		Wind(LL)	0.00	7	>999	240	Weight: 21 lb	FT = 10%

LUMBER

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

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

(lb/size)	2=357/0-3-8, 9=246/ Mechanical
Max Horiz	2=60 (LC 5)
Max Uplift	2=-101 (LC 4), 9=-62 (LC 8)

FORCES

(lb) - Maximum Compression/Maximum Tension	
TOP CHORD	1-2=0/6, 2-3=-384/62, 3-4=-307/73, 4-5=-56/15, 6-8=-62/280, 5-8=-62/280
BOT CHORD	2-7=-71/311, 6-7=-35/150
WEBS	3-7=-50/66, 4-7=-42/194, 4-6=-284/77, 5-9=-265/69

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) exterior 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) 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 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- 5) Refer to girder(s) for truss to truss connections.
- 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 101 lb uplift at joint 2 and 62 lb uplift at joint 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.
 - 8) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
 - 9) "NAILED" indicates 2-12d (0.148"x3.25") toe-nails per NDS guidelines.
 - 10) 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 (lb/ft)
Vert: 1-3=-70, 3-4=-70, 4-5=-70, 2-6=-20
Concentrated Loads (lb)
Vert: 7=5 (F)



September 29, 2021

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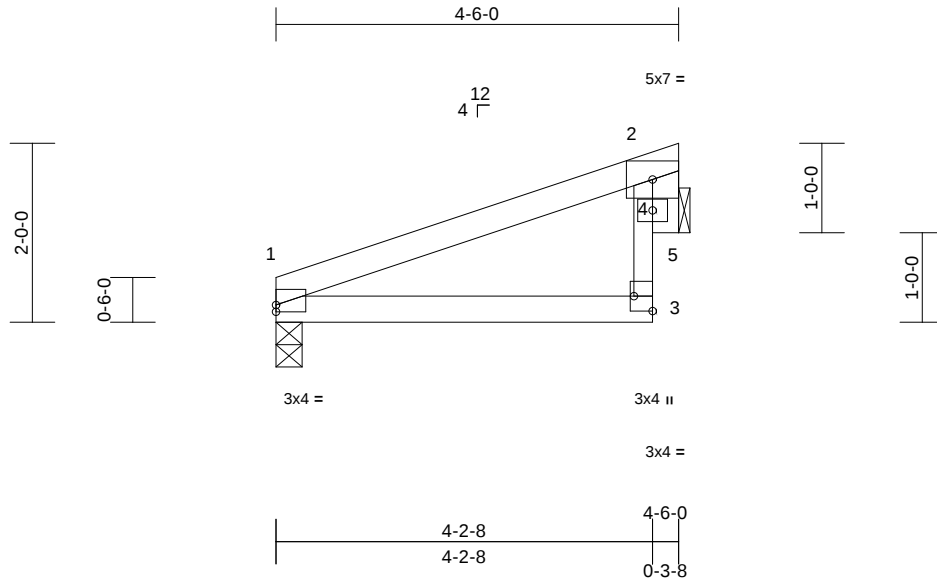
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 133 H4	I48138130
H4133	B11	Monopitch	1	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS - 66871,

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Page: 1



Scale = 1:25.7

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

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.22	Vert(LL)	-0.01	1-3	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.13	Vert(CT)	-0.02	1-3	>999	240		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.00	Horz(CT)	0.00	5	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-R		Wind(LL)	0.00	1-3	>999	240	Weight: 12 lb	FT = 10%

LUMBER

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

BRACING

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

REACTIONS (lb/size) 1=192/0-3-8, 5=164/ Mechanical
Max Horiz 1=58 (LC 5)
Max Uplift 1=-26 (LC 4), 5=-41 (LC 8)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=-182/18, 3-4=0/87, 2-4=-164/94
BOT CHORD 1-3=-25/126
WEBS 2-5=-24/17

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) exterior 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 3-06-00 tall by 2-00-00 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 26 lb uplift at joint 1 and 41 lb uplift at joint 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.

LOAD CASE(S) Standard



September 29, 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



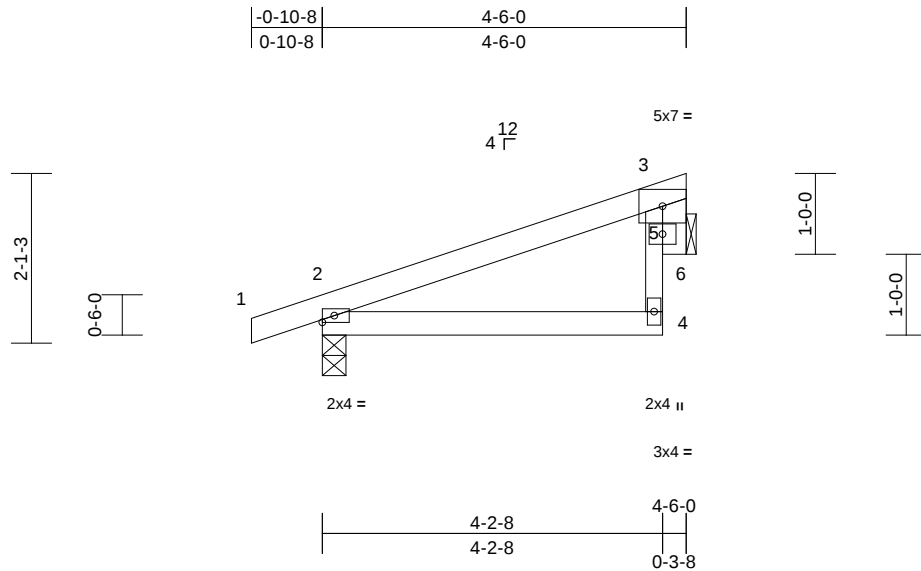
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 133 H4	
H4133	B12	Monopitch	1	1	Job Reference (optional)	I48138131

Wheeler Lumber, Waverly, KS - 66871,

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Page: 1



Scale = 1:28.5

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.20	Vert(LL)	-0.01	2-4	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.11	Vert(CT)	-0.01	2-4	>999	240		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.00	Horz(CT)	0.00	6	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-R		Wind(LL)	0.00	2-4	>999	240	Weight: 13 lb	FT = 10%

LUMBER

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

BRACING

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

REACTIONS (lb/size) 2=272/0-3-8, 6=156/ Mechanical
Max Horiz 2=60 (LC 5)
Max Uplift 2=-74 (LC 4), 6=-38 (LC 8)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/6, 2-3=-173/15, 4-5=0/85, 3-5=-155/91
BOT CHORD 2-4=-24/115
WEBS 3-6=-23/14

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) exterior 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 3-06-00 tall by 2-00-00 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 74 lb uplift at joint 2 and 38 lb uplift at joint 6.
- 6) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard



September 29, 2021

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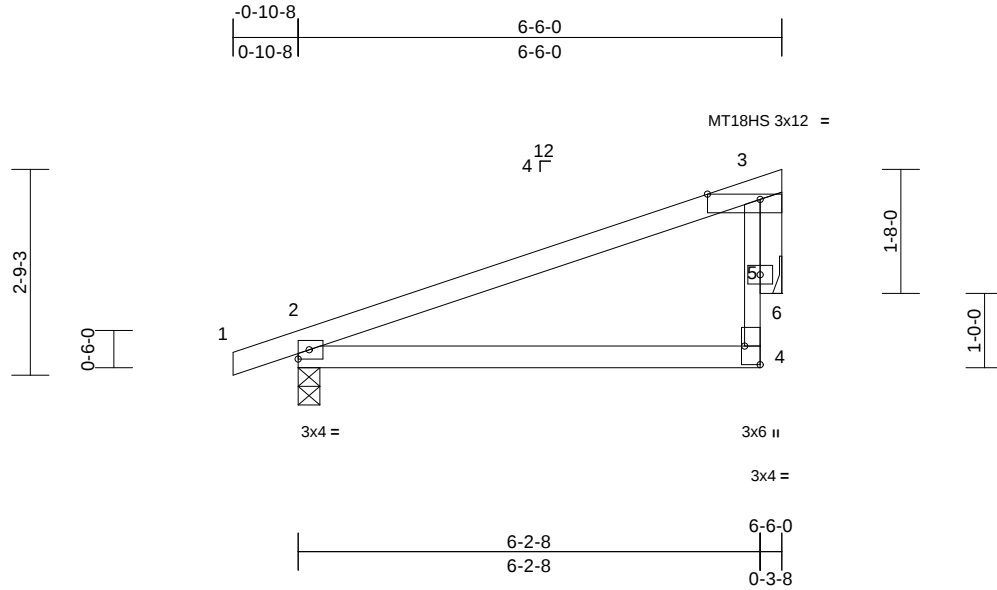
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 133 H4	
H4133	B13	Monopitch	2	1	Job Reference (optional)	I48138132

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.78 S 8.43 Aug 16 2021 Print: 8.430 S Aug 16 2021 MiTek Industries, Inc. Wed Sep 29 11:02:39
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Page: 1



Scale = 1:31

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

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.39	Vert(LL)	-0.03	2-4	>999	360	MT18HS	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.25	Vert(CT)	-0.08	2-4	>990	240	MT20	197/144
BCLL	0.0*	Rep Stress Incr	YES	WB	0.00	Horz(CT)	-0.01	6	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-R		Wind(LL)	0.02	2-4	>999	240	Weight: 19 lb	FT = 10%

LUMBER

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

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.

LOAD CASE(S) Standard

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	(lb/size)	2=360/0-3-8, 6=248/ Mechanical
	Max Horiz	2=78 (LC 5)
	Max Uplift	2=-85 (LC 4), 6=-61 (LC 8)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD	1-2=0/6, 2-3=-258/20, 4-5=0/128, 3-5=-273/175
BOT CHORD	2-4=-36/180
WEBS	3-6=-81/79

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) exterior zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 2) All plates are MT20 plates unless otherwise indicated.
- 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 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- 5) Refer to girder(s) for truss to truss connections.
- 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 85 lb uplift at joint 2 and 61 lb uplift at joint 6.



September 29, 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

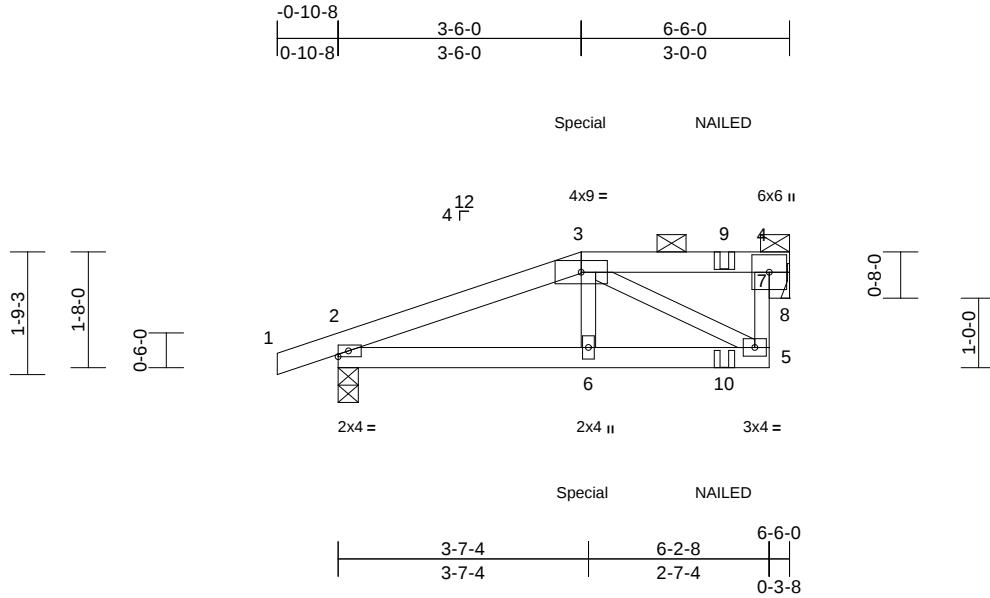
Job	Truss	Truss Type	Qty	Ply	Lot 133 H4	
H4133	B14	Half Hip Girder	1	1	Job Reference (optional)	I48138133

Wheeler Lumber, Waverly, KS - 66871,

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Scale = 1:33.2

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.27	Vert(LL)	-0.01	2-6	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.15	Vert(CT)	-0.01	2-6	>999	240		
BCLL	0.0*	Rep Stress Incr	NO	WB	0.07	Horz(CT)	0.01	8	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-P		Wind(LL)	0.01	6	>999	240	Weight: 20 lb	FT = 10%

LUMBER

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

BRACING

TOP CHORD	Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals, 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	(lb/size) 2=357/0-3-8, 8=244/ Mechanical Max Horiz 2=55 (LC 5) Max Uplift 2=-105 (LC 4), 8=-68 (LC 5)
-----------	---

FORCES	(lb) - Maximum Compression/Maximum Tension
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TOP CHORD	1-2=0/6, 2-3=-382/74, 3-4=-67/30, 5-7=-24/152, 4-7=-24/152
BOT CHORD	2-6=-88/309, 5-6=-85/313
WEBS	3-6=0/146, 3-5=-282/70, 4-8=-314/93

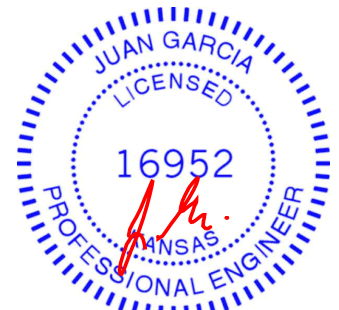
NOTES

- 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) exterior 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) 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 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- 5) Refer to girder(s) for truss to truss connections.
- 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 105 lb uplift at joint 2 and 68 lb uplift at joint 8.

- 7) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 8) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
- 9) "NAILED" indicates 3-10d (0.148"x3") or 3-12d (0.148"x3.25") toe-nails per NDS guidelines.
- 10) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 141 lb down and 113 lb up at 3-6-0 on top chord, and 14 lb down and 6 lb up at 3-6-0 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
- 11) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

LOAD CASE(S) Standard

- 1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (lb/ft)
Vert: 1-3=-70, 3-4=-70, 2-5=-20
Concentrated Loads (lb)
Vert: 6=6 (F), 10=1 (F)



September 29, 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



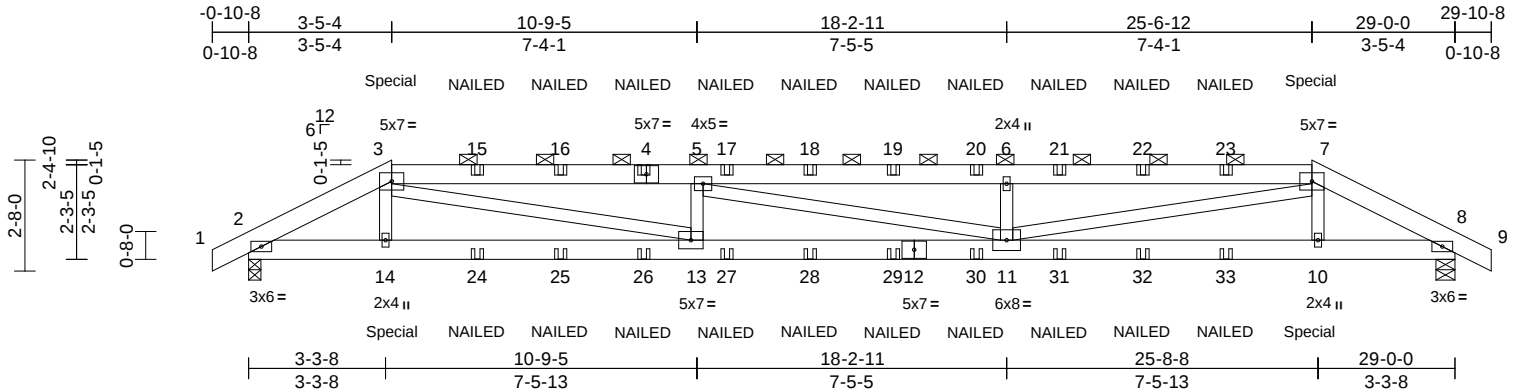
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 133 H4	I48138134
H4133	C1	Hip Girder	1	2	Job Reference (optional)	

Wheeler Lumber, Waverly, KS - 66671,

Run: 8.78 S 8.43 Aug 16 2021 Print: 8.430 S Aug 16 2021 MiTek Industries, Inc. Wed Sep 29 11:02:40
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Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.35	Vert(LL)	-0.24	11-13	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.71	Vert(CT)	-0.45	11-13	>764	240		
BCLL	0.0*	Rep Stress Incr	NO	WB	0.42	Horz(CT)	0.05	8	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S		Wind(LL)	0.23	11-13	>999	240	Weight: 282 lb	FT = 10%

LUMBER

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

BRACING

TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except 2-0-0 oc purlins (6-0-0 max.): 3-7.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (lb/size) 2=1694/0-3-8, 8=1702/0-5-8
Max Horiz 2=-37 (LC 28)
Max Uplift 2=-361 (LC 5), 8=-364 (LC 4)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=0/17, 2-3=-3286/751, 3-5=-6097/1509, 5-6=-6074/1503, 6-7=-6074/1503, 7-8=-3241/742, 8-9=0/17

BOT CHORD 2-14=-655/2850, 13-14=-662/2831, 11-13=-1481/6097, 10-11=-631/2775, 8-10=-623/2795

WEBS 3-14=0/373, 3-13=-858/3379, 5-13=-631/334, 5-11=-28/12, 6-11=-634/334, 7-11=-864/3410, 7-10=0/374

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.
Web 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) exterior 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 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 361 lb uplift at joint 2 and 364 lb uplift at joint 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.
- Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
- "NAILED" indicates 3-10d (0.148"x3") or 3-12d (0.148"x3.25") toe-nails per NDS guidelines.
- Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 162 lb down and 130 lb up at 3-5-4, and 162 lb down and 130 lb up at 25-6-12 on top chord, and 55 lb down at 3-5-4, and 55 lb down at 25-6-0 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.

LOAD CASE(S) Standard

- Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (lb/ft)
Vert: 1-3=-70, 3-7=-70, 7-9=-70, 2-8=-20
Concentrated Loads (lb)

Vert: 3=-64 (F), 4=-30 (F), 14=-37 (F), 7=-64 (F), 10=-37 (F), 15=-30 (F), 16=-30 (F), 17=-30 (F), 18=-30 (F), 19=-30 (F), 20=-30 (F), 21=-30 (F), 22=-30 (F), 23=-30 (F), 24=-17 (F), 25=-17 (F), 26=-17 (F), 27=-17 (F), 28=-17 (F), 29=-17 (F), 30=-17 (F), 31=-17 (F), 32=-17 (F), 33=-17 (F)



September 29, 2021

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

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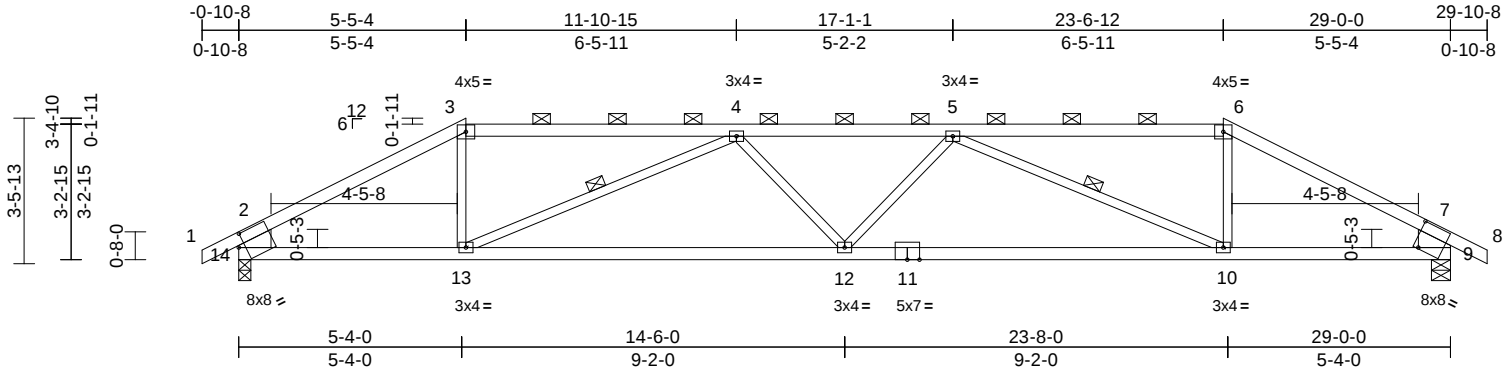
Job	Truss	Truss Type	Qty	Ply	Lot 133 H4	
H4133	C2	Hip	1	1	Job Reference (optional)	I48138135

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.78 S 8.43 Aug 16 2021 Print: 8.430 S Aug 16 2021 MiTek Industries, Inc. Wed Sep 29 11:02:41

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Scale = 1:55.1

Plate Offsets (X, Y): [9:0-1-8,0-7-10], [14:0-1-13,0-3-8]

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.88	Vert(LL)	-0.26	10-12	>999	360	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.66	Vert(CT)	-0.56	10-12	>601	240	
BCLL	0.0*	Rep Stress Incr	YES	WB	0.73	Horz(CT)	0.09	9	n/a	n/a	
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S		Wind(LL)	0.20	10-12	>999	240	
										Weight: 96 lb	FT = 10%

LUMBER

TOP CHORD	2x4 SPF 2100F 1.8E *Except* 3-6:2x4 SPF No.2
BOT CHORD	2x4 SPF 2100F 1.8E
WEBS	2x3 SPF No.2 *Except* 14-2,9-7:2x10 SP DSS

BRACING

TOP CHORD	Structural wood sheathing directly applied or 3-3-12 oc purlins, except end verticals, and 2-0-0 oc purlins (2-2-0 max.): 3-6.
BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS	1 Row at midpt 4-13, 5-10

REACTIONS	(lb/size) 9=1359/0-5-8, 14=1359/0-3-8
	Max Horiz 14=-61 (LC 6)
	Max Uplift 9=-158 (LC 4), 14=-158 (LC 5)

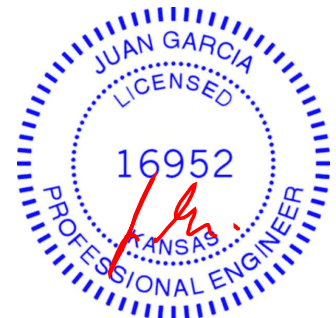
FORCES	(lb) - Maximum Compression/Maximum Tension
TOP CHORD	1-2=0/39, 2-3=-2065/281, 3-4=-1719/267, 4-5=-3073/461, 5-6=-1719/267, 6-7=-2065/282, 7-8=0/39, 2-14=-1237/167, 7-9=-1237/167
BOT CHORD	13-14=-231/1737, 12-13=-483/2974, 10-12=-469/2974, 9-10=-183/1737
WEBS	3-13=-23/635, 4-13=-1437/321, 4-12=0/274, 5-12=0/274, 5-10=-1437/321, 6-10=-23/635

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) exterior 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 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 158 lb uplift at joint 14 and 158 lb uplift at joint 9.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

LOAD CASE(S) Standard



September 29, 2021

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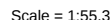
ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component

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



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Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.92	Vert(LL)	-0.21	11-12	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.82	Vert(CT)	-0.41	11-12	>819	240		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.33	Horz(CT)	0.08	8	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S		Wind(LL)	0.16	9-11	>999	240	Weight: 96 lb	FT = 10%

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

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

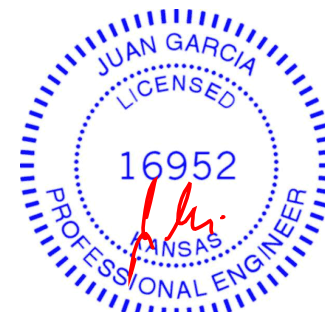
REACTIONS (lb/size) 8=1359/0-5-8, 13=1359/0-3-8
 Max Horiz 13=-74 (LC 6)
 Max Uplift 8=-122 (LC 9), 13=-122 (LC 8)

	Tension
TOP CHORD	1-2=0/39, 2-3=-2022/233, 3-4=-2379/346, 4-5=-2379/346, 5-6=-2022/233, 6-7=0/39, 2-13=-1255/170, 6-8=-1255/170
BOT CHORD	12-13=-184/1679, 11-12=-186/1677, 9-11=-125/1677, 8-9=-123/1679
WEBS	3-12=0/255, 3-11=-201/915, 4-11=-635/245, 5-11=-201/915, 5-9=0/255

- 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) exterior 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 3-06-00 tall by 2-00-00 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 122 lb uplift at joint 13 and 122 lb uplift at joint 8.
- 7) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 8) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

LOAD CASE(S) Standard



September 29, 2021

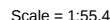


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Chesterfield, MO 63017

Wheeler Lumber, Waverly, KS - 66871, Run: 8.78 S 8.43 Aug 16 2021 Print: 8.430 S Aug 16 2021 MiTek Industries, Inc. Wed Sep 29 11:02:42 Page: 1
ID: yQvEL3JaMLDqBo68G2v5nvznYPw-RfC?PsB70Hg3NSqPqnL8w3ulTXbGKWkCDOI7J4zJC?f



Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.99	Vert(LL)	-0.17	10-11	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.69	Vert(CT)	-0.35	10-11	>968	240		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.25	Horz(CT)	0.07	10	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S		Wind(LL)	0.09	13-14	>999	240	Weight: 107 lb	FT = 10%

TOP CHORD	2x4 SPF 2100F 1.8E *Except* 4-6:2x4 SPF No.2
BOT CHORD	2x4 SPF No.2
WEBS	2x3 SPF No.2 *Except* 15-2,10-8:2x10 SP DSS

TOP CHORD Structural wood sheathing directly applied, except end verticals, and 2-0-0 oc purlins (4-1-5 max.): 4-6.

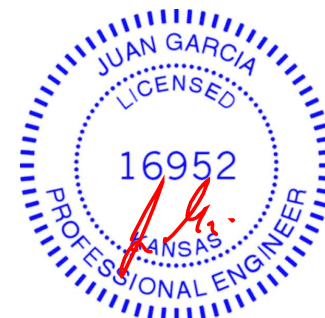
REACTIONS (lb/size) 10=1359/0-5-8, 15=1359/0-3-8
 Max Horiz 15=87 (LC 7)
 Max Uplift 10=-144 (LC 9), 15=-144 (LC 8)

	Tension
TOP CHORD	1-2=0/39, 2-3=-1961/238, 3-4=-1831/162, 4-5=-1834/213, 5-6=-1834/213, 6-7=-1831/162, 7-8=-1961/238, 8-9=0/39, 2-15=-1256/191, 8-10=-1256/191
BOT CHORD	14-15=-223/1609, 13-14=-110/1586, 11-13=-58/1586, 10-11=-152/1609
WEBS	3-14=-66/198, 4-14=0/293, 4-13=-134/456, 5-13=-414/169, 6-13=-134/456, 6-11=0/293, 7-11=-67/199

- 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) exterior 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 3-06-00 tall by 2-00-00 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 144 lb uplift at joint 15 and 144 lb uplift at joint 10.
- 7) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 8) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

LOAD CASE(S) Standard



September 29, 2021



WARNING: Velly design parameters are READ NOTES ON THIS AND INCLUDED WITH REFERENCE PAGE MM-1475 (Rev. 3/25/2020) BEFORE USE. Design valid for use only with MITEK® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information** available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



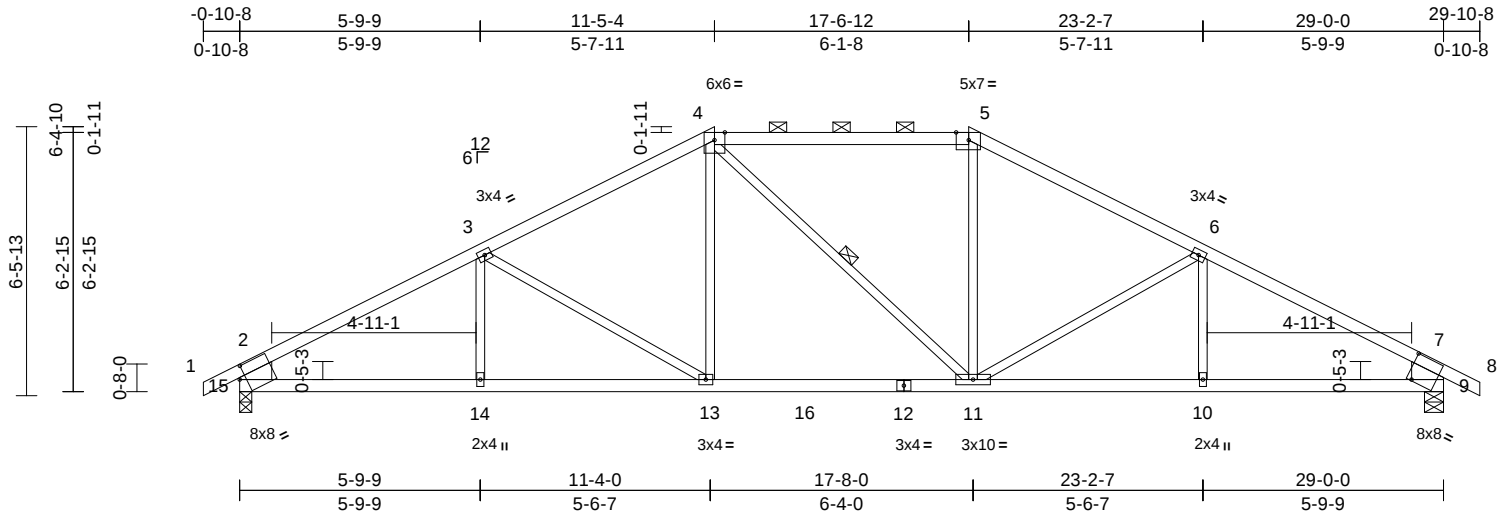
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 133 H4	I48138138
H4133	C5	Hip	1	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS - 66671,

Run: 8.78 S 8.43 Aug 16 2021 Print: 8.430 S Aug 16 2021 MiTek Industries, Inc. Wed Sep 29 11:02:43
ID:yQVeL3JaMLDqBo68G2v5nvznYPw-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

Page: 1



Scale = 1:55.5

Plate Offsets (X, Y): [5:0-3-10,Edge], [9:0-1-8,0-7-10], [15:0-1-13,0-3-8]

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.73	Vert(LL)	-0.17	13-14	>999	360	MT20
TCDL	10.0	Lumber DOL	1.15	BC	0.63	Vert(CT)	-0.30	13-14	>999	240	197/144
BCLL	0.0*	Rep Stress Incr	YES	WB	0.29	Horz(CT)	0.06	9	n/a	n/a	
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S		Wind(LL)	0.09	13-14	>999	240	Weight: 106 lb FT = 10%

LUMBER

TOP CHORD 2x4 SPF 2100F 1.8E *Except* 4-5:2x4 SPF No.2
BOT CHORD 2x4 SPF 2100F 1.8E
WEBS 2x3 SPF No.2 *Except* 15-2,9-7:2x10 SP DSS

BRACING

TOP CHORD Structural wood sheathing directly applied or 3-5-6 oc purlins, except end verticals, and 2-0-0 oc purlins (3-10-7 max.): 4-5.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 1 Row at midpt 4-11
REACTIONS (lb/size) 9=1359/0-5-8, 15=1359/0-3-8
Max Horiz 15=99 (LC 7)
Max Uplift 9=163 (LC 9), 15=163 (LC 8)
Max Grav 9=1393 (LC 2), 15=1398 (LC 2)

FORCES

(lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/39, 2-3=-2079/209, 3-4=-1756/177, 4-5=-1520/197, 5-6=-1745/177, 6-7=-2070/210, 7-8=0/39, 2-15=-1228/191, 7-9=-1228/191
BOT CHORD 14-15=-195/1747, 13-14=-195/1747, 11-13=-48/1530, 10-11=-107/1740, 9-10=-107/1740
WEBS 3-14=0/152, 3-13=-284/170, 4-13=-15/412, 4-11=-164/165, 5-11=0/387, 6-11=-285/171, 6-10=0/152

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) exterior 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 3-06-00 tall by 2-00-00 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 163 lb uplift at joint 15 and 163 lb uplift at joint 9.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

LOAD CASE(S) Standard



September 29, 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

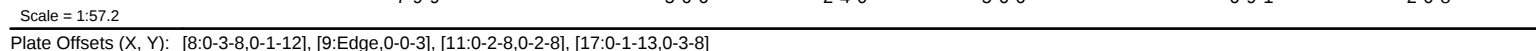
ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component

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, Run: 8.78 S 8.43 Aug 16 2021 Print: 8.430 S Aug 16 2021 MiTek Industries, Inc. Wed Sep 29 11:02:43 Page: 1
ID: yQvEL3JaMLDqBo68G2v5nvznYPw-RfC?PsB70Hg3NSqPqnL8w3ulTXbGKWkCDOI7J4zJC?i



LUMBER

TOP CHORD	2x4 SPF 2100F 1.8E *Except* 4-5, 7-8:2x4 SPF No.2, 8-10:2x6 SPF No.2
BOT CHORD	2x4 SPF No.2
WEBS	2x3 SPF No.2 *Except* 17-2:2x10 SP DSS

BRACING

TOP CHORD	Structural wood sheathing directly applied on 2-4-4 oc purlins, except end verticals, and 2-0-0 oc purlins (3-4-14 max.): 4-5, 7-8.
BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS

(lb/size)	9=1404/0-3-8, 17=1415/0-3-8
Max Horiz	17=-121 (LC 9)
Max Uplift	9=-212 (LC 9), 17=-183 (LC 8)

FORCES

(lb) - Maximum Compression/Maximum Tension	
TOP CHORD	1-2=0/39, 2-3=-2101/236, 3-4=-1639/218, 4-5=-1396/235, 5-6=-1669/226, 6-7=-2292/273, 7-8=-2790/374, 8-9=-1798/201, 9-10=0/12, 2-17=-1306/228 16-17=-218/1741, 15-16=-218/1741, 13-15=-58/1387, 12-13=-124/1990, 11-12=-307/2656, 9-11=-119/1269 3-16=0/248, 3-15=-487/201, 4-15=-79/386, 4-13=-159/201, 5-13=-57/476, 6-13=-741/228, 6-12=0/342, 7-12=-673/184, 7-11=-1061/248, 8-11=-271/1865
WEBS	

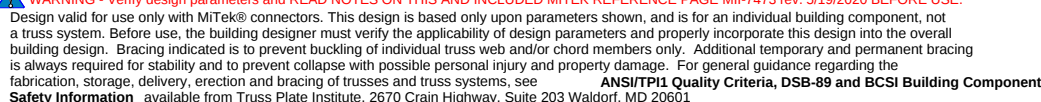
- 5) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 183 lb uplift at joint 17 and 212 lb uplift at joint 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.
- 8) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
- 9) "NAILED" indicates 3-10d (0.148"x3") or 2-12d (0.148"x3.25") toe-nails per NDS guidelines.
- 10) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

1) Dead + Roof Live (balanced): Lumber Increase=1.15,
Plate Increase=1.15
Uniform Loads (lb/ft)
Vert: 1-2=-70, 2-4=-70, 4-5=-70, 5-7=-70, 7-8=-70,
8-10=-70, 9-17=-20
Concentrated Loads (lb)
Vert: 18=-8 (F)

- 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) exterior 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.



September 29, 2021



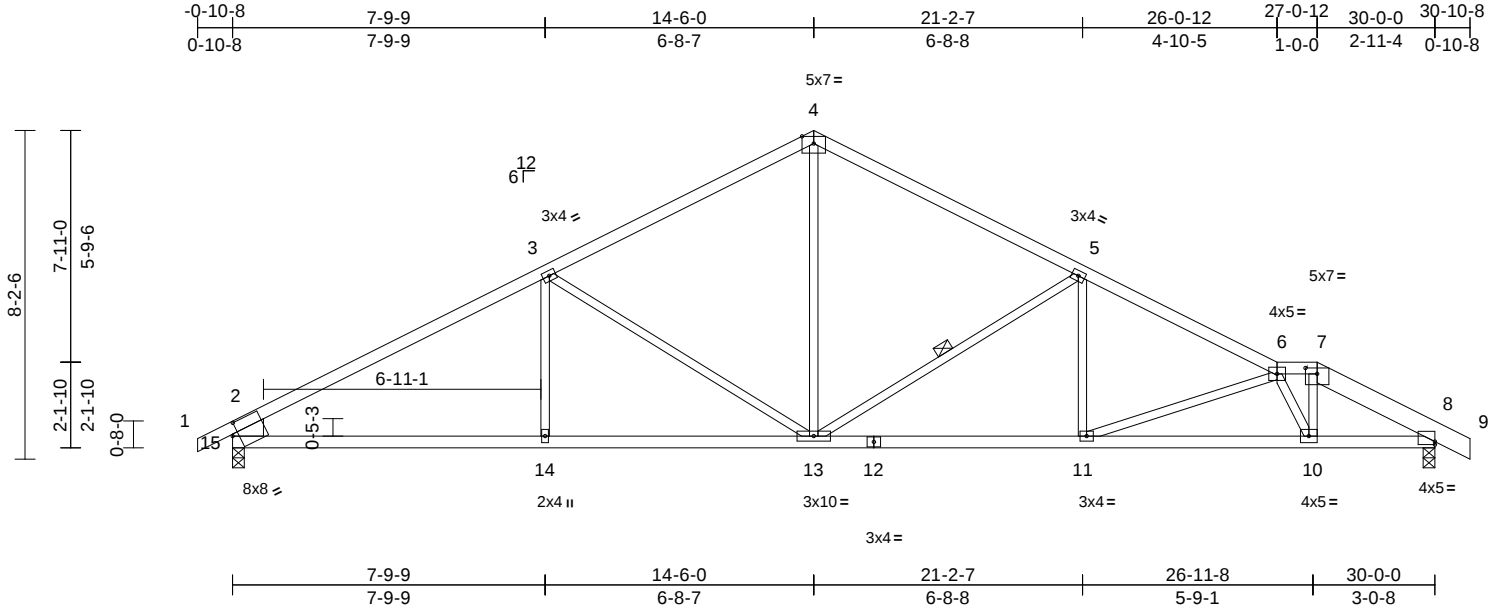
Job	Truss	Truss Type	Qty	Ply	Lot 133 H4	I48138140
H4133	D2	Roof Special	1	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.78 S 8.43 Aug 16 2021 Print: 8.430 S Aug 16 2021 MiTek Industries, Inc. Wed Sep 29 11:02:44

Page: 1

ID:yQVeL3JaMLDqBo68G2v5nvznYPw-RfC?PsB70Hq3NSgPqnL8w3uITXbGKwRCDoi7J4zJC?f



Scale = 1:57.5									
Plate Offsets (X, Y): [7:0-3-8,0-1-12], [8:Edge,0-0-15], [15:0-1-13,0-3-8]									
Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in (loc)	l/defl	L/d
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.86	Vert(LL)	-0.18 13-14	>999	360
TCDL	10.0	Lumber DOL	1.15	BC	0.86	Vert(CT)	-0.35 13-14	>999	240
BCLL	0.0*	Rep Stress Incr	YES	WB	0.91	Horz(CT)	0.09 8	n/a	n/a
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S		Wind(LL)	0.11 13-14	>999	240
					Weight: 111 lb FT = 10%				

LUMBER
TOP CHORD 2x4 SPF No.2 *Except* 1-4:2x4 SPF 2100F 1.8E, 7-9:2x6 SPF No.2
BOT CHORD 2x4 SPF No.2
WEBS 2x3 SPF No.2 *Except* 15-2:2x10 SP DSS
BRACING
TOP CHORD Structural wood sheathing directly applied or 2-2-1 oc purlins, except end verticals, and 2-0-0 oc purlins (4-3-0 max.): 6-7.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 1 Row at midpt 5-13
REACTIONS (lb/size) 8=1397/0-3-8, 15=1415/0-3-8
Max Horiz 15=-131 (LC 9)
Max Uplift 8=-194 (LC 9), 15=-189 (LC 8)
FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/39, 2-3=-2111/252, 3-4=-1569/244, 4-5=-1576/233, 5-6=-2235/291, 6-7=-1922/257, 7-8=-2266/266, 8-9=0/12, 2-15=-1305/233
BOT CHORD 14-15=-243/1752, 13-14=-243/1752, 11-13=-130/1966, 10-11=-244/2355, 8-10=-172/1861
WEBS 3-14=0/258, 3-13=-584/227, 4-13=-68/852, 5-13=-787/243, 5-11=0/355, 6-11=-416/122, 6-10=-996/152, 7-10=-80/973

- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 189 lb uplift at joint 15 and 194 lb uplift at joint 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.
- Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

LOAD CASE(S) Standard



September 29, 2021

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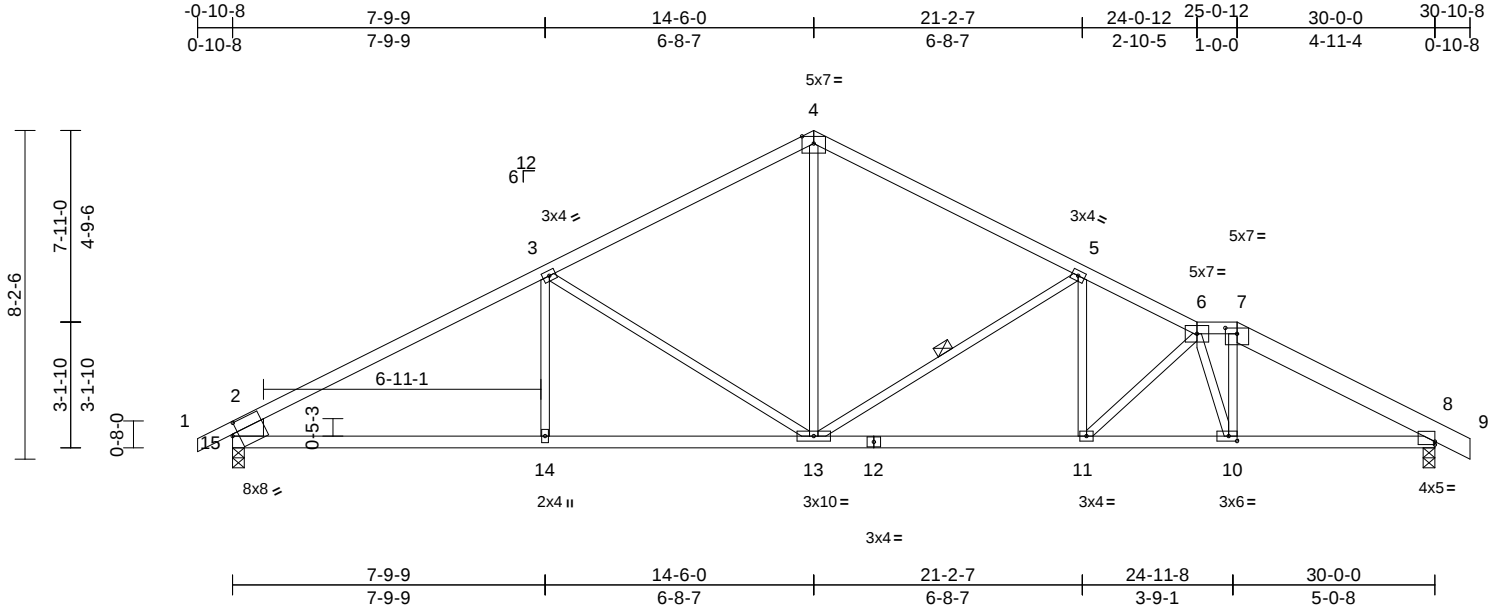
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 133 H4	
H4133	D3	Roof Special	1	1	Job Reference (optional)	I48138141

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.78 S 8.43 Aug 16 2021 Print: 8.430 S Aug 16 2021 MiTek Industries, Inc. Wed Sep 29 11:02:45
ID:yQVeL3JaMLDqBo68G2v5nvznYPw-RfC?PsB70Hq3NSgPqnL8w3uITXbGKwRCDoi7J4zJC?f

Page: 1



Scale = 1:57.5									
Plate Offsets (X, Y): [7:0-3-8,0-1-12], [8:Edge,0-0-15], [10:0-2-8,0-1-8], [15:0-1-13,0-3-8]									
Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in (loc)	l/defl	L/d
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.86	Vert(LL)	-0.18 13-14	>999	360
TCDL	10.0	Lumber DOL	1.15	BC	0.86	Vert(CT)	-0.34 13-14	>999	240
BCLL	0.0*	Rep Stress Incr	YES	WB	0.91	Horz(CT)	0.09 8	n/a	n/a
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S		Wind(LL)	0.10 13-14	>999	240
							Weight: 113 lb FT = 10%		

LUMBER	
TOP CHORD	2x4 SPF No.2 *Except* 1-4:2x4 SPF 2100F 1.8E, 7-9:2x6 SPF No.2
BOT CHORD	2x4 SPF No.2
WEBS	2x3 SPF No.2 *Except* 15-2:2x10 SP DSS
BRACING	
TOP CHORD	Structural wood sheathing directly applied or 2-2-1 oc purlins, except end verticals, and 2-0-0 oc purlins (4-1-5 max.): 6-7.
BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS	1 Row at midpt 5-13
REACTIONS	
(lb/size)	8=1397/0-3-8, 15=1415/0-3-8
Max Horiz	15=-131 (LC 13)
Max Uplift	8=-194 (LC 9), 15=-189 (LC 8)
FORCES	
(lb) - Maximum Compression/Maximum Tension	
TOP CHORD	1-2=0/39, 2-3=-2111/252, 3-4=-1570/244, 4-5=-1576/233, 5-6=-2184/295, 6-7=-1957/288, 7-8=-2287/278, 8-9=0/12, 2-15=-1305/233
BOT CHORD	14-15=-244/1751, 13-14=-244/1751, 11-13=-129/1955, 10-11=-173/2141, 8-10=-165/1922
WEBS	3-14=0/256, 3-13=-583/227, 4-13=-66/849, 5-13=-775/243, 5-11=0/346, 6-11=-262/62, 6-10=-642/57, 7-10=-7/697

- 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) exterior 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 3-06-00 tall by 2-00-00 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 189 lb uplift at joint 15 and 194 lb uplift at joint 8.
- 7) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 8) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

LOAD CASE(S) Standard



September 29, 2021

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

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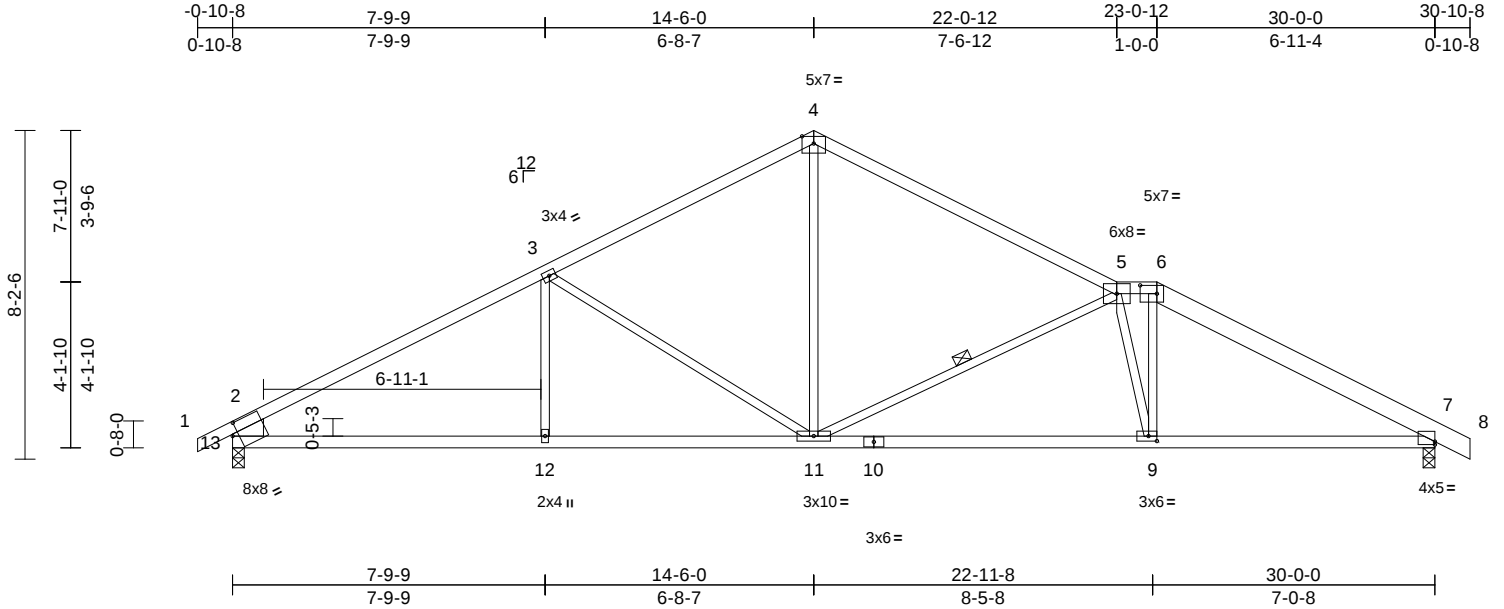
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 133 H4	
H4133	D4	Roof Special	1	1	Job Reference (optional)	I48138142

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.78 S 8.43 Aug 16 2021 Print: 8.430 S Aug 16 2021 MiTek Industries, Inc. Wed Sep 29 11:02:45
ID:yQVeL3JaMLDqBo68G2v5nvznYPw-RfC?PsB70Hq3NSgPqnL8w3uITXBGKWrCDoi7J4zJC?i

Page: 1



Scale = 1:57.5									
Plate Offsets (X, Y): [6:0-5-0,0-2-8], [7:Edge,0-0-15], [9:0-2-8,0-1-8], [13:0-1-13,0-3-8]									
Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in (loc)	l/defl	L/d
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.86	Vert(LL)	-0.18 11-12	>999	360
TCDL	10.0	Lumber DOL	1.15	BC	0.86	Vert(CT)	-0.33 9-11	>999	240
BCLL	0.0*	Rep Stress Incr	YES	WB	0.89	Horz(CT)	0.09 7	n/a	n/a
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S		Wind(LL)	0.10 11-12	>999	240
							Weight: 111 lb FT = 10%		

LUMBER	
TOP CHORD	2x4 SPF 2100F 1.8E *Except* 5-6:2x4 SPF No.2, 6-8:2x6 SPF No.2
BOT CHORD	2x4 SPF No.2
WEBS	2x3 SPF No.2 *Except* 13-2:2x10 SP DSS
BRACING	
TOP CHORD	Structural wood sheathing directly applied or 2-4-4 oc purlins, except end verticals, and 2-0-0 oc purlins (3-10-7 max.): 5-6.
BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS	1 Row at midpt 5-11
REACTIONS	
(lb/size)	7=1397/0-3-8, 13=1415/0-3-8
Max Horiz	13=-131 (LC 9)
Max Uplift	7=-194 (LC 9), 13=-189 (LC 8)
FORCES	
(lb) - Maximum Compression/Maximum Tension	
TOP CHORD	1-2=0/39, 2-3=-2108/252, 3-4=-1576/243, 4-5=-1590/228, 5-6=-1900/281, 6-7=-2237/252, 7-8=0/12, 2-13=-1305/234
BOT CHORD	12-13=-244/1748, 11-12=-244/1748, 9-11=-149/2023, 7-9=-120/1878
WEBS	3-12=0/247, 3-11=-575/228, 4-11=-51/802, 5-11=-801/251, 5-9=-552/125, 6-9=-26/706

- 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) exterior 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 3-06-00 tall by 2-00-00 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 189 lb uplift at joint 13 and 194 lb uplift at joint 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.

LOAD CASE(S) Standard



September 29, 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

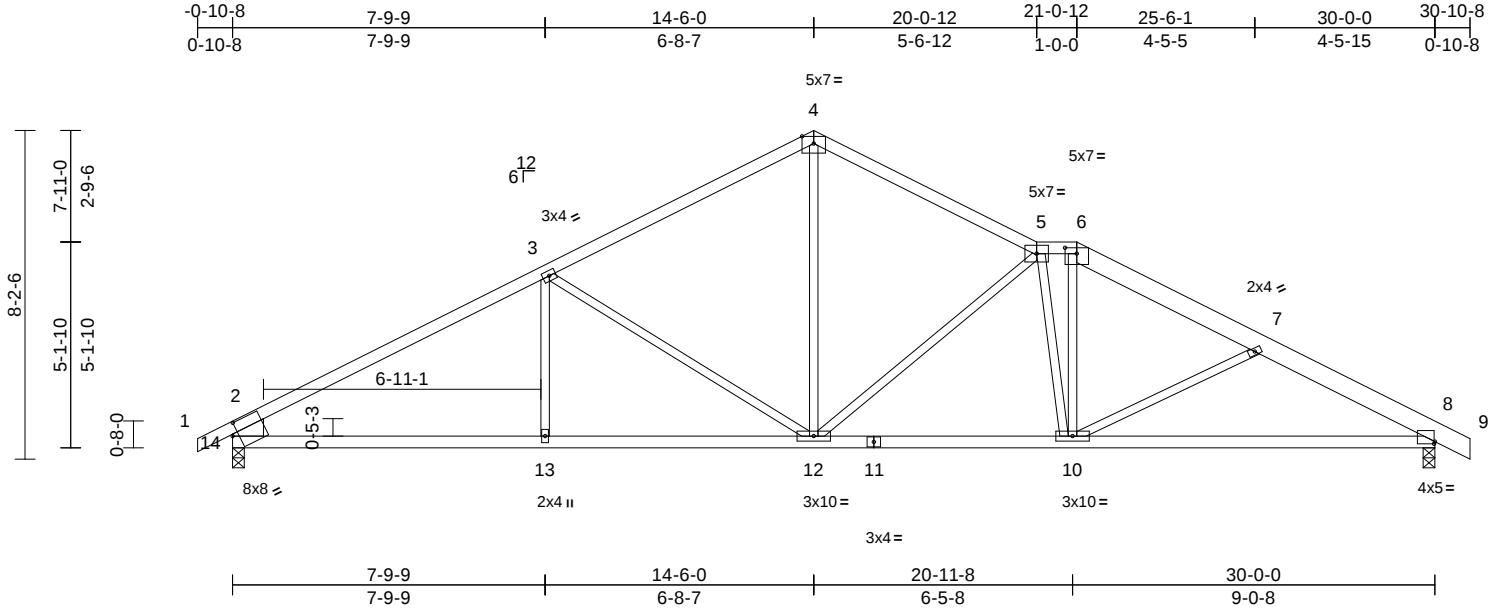
Job	Truss	Truss Type	Qty	Ply	Lot 133 H4	I48138143
H4133	D5	Roof Special	1	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.78 S 8.43 Aug 16 2021 Print: 8.430 S Aug 16 2021 MiTek Industries, Inc. Wed Sep 29 11:02:45

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ID: yQVeL3JaMLDqBo68G2v5nvznYPw-RfC?PsB70Hq3NSgPqnL8w3uITXbGKwRCDoi7J4zJC?f



Scale = 1:57.5									
Plate Offsets (X, Y): [6:0-3-8,0-1-12], [8:0-0-4,0-0-11], [14:0-1-13,0-3-8]									
Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in (loc)	l/defl	L/d
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.87	Vert(LL)	-0.18 8-10	>999	360
TCDL	10.0	Lumber DOL	1.15	BC	0.86	Vert(CT)	-0.39 8-10	>903	240
BCLL	0.0*	Rep Stress Incr	YES	WB	0.91	Horz(CT)	0.09 8	n/a	n/a
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S		Wind(LL)	0.10 12-13	>999	240
					Weight: 117 lb FT = 10%				

LUMBER	
TOP CHORD	2x4 SPF No.2 *Except* 1-4:2x4 SPF 2100F 1.8E, 6-9:2x6 SPF No.2
BOT CHORD	2x4 SPF No.2
WEBS	2x3 SPF No.2 *Except* 14-2:2x10 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 (4-3-8 max.): 5-6.
BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing.
REACTIONS (lb/size)	
8=1397/0-3-8, 14=1415/0-3-8	
Max Horiz 14=131 (LC 13)	
Max Uplift 8=194 (LC 9), 14=189 (LC 8)	
FORCES (lb) - Maximum Compression/Maximum Tension	
TOP CHORD	1-2=0/39, 2-3=-2113/251, 3-4=-1566/245, 4-5=-1539/236, 5-6=-1752/263, 6-7=-2021/256, 7-8=-2272/335, 8-9=0/12, 2-14=-1306/233
BOT CHORD	13-14=-243/1753, 12-13=-243/1753, 10-12=-75/1807, 8-10=-224/1922
WEBS	3-13=0/267, 3-12=-587/225, 4-12=-79/857, 5-12=-678/200, 5-10=-331/106, 6-10=-54/584, 7-10=-243/183

- 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) exterior 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 3-06-00 tall by 2-00-00 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 189 lb uplift at joint 14 and 194 lb uplift at joint 8.
- 7) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 8) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

LOAD CASE(S) Standard



September 29, 2021

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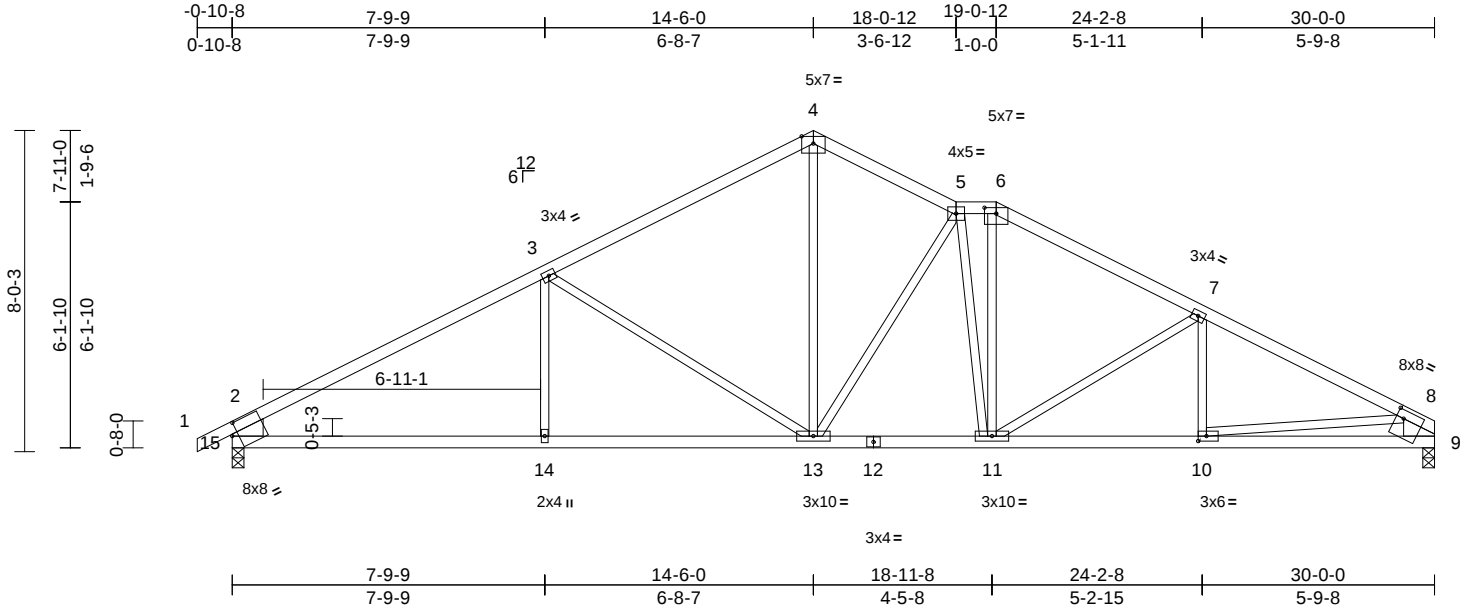
Job	Truss	Truss Type	Qty	Ply	Lot 133 H4	I48138144
H4133	D6	Roof Special	1	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.78 S 8.43 Aug 16 2021 Print: 8.430 S Aug 16 2021 MiTek Industries, Inc. Wed Sep 29 11:02:46

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ID: yQVeL3JaMLDqBo68G2v5nvznYPw-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f



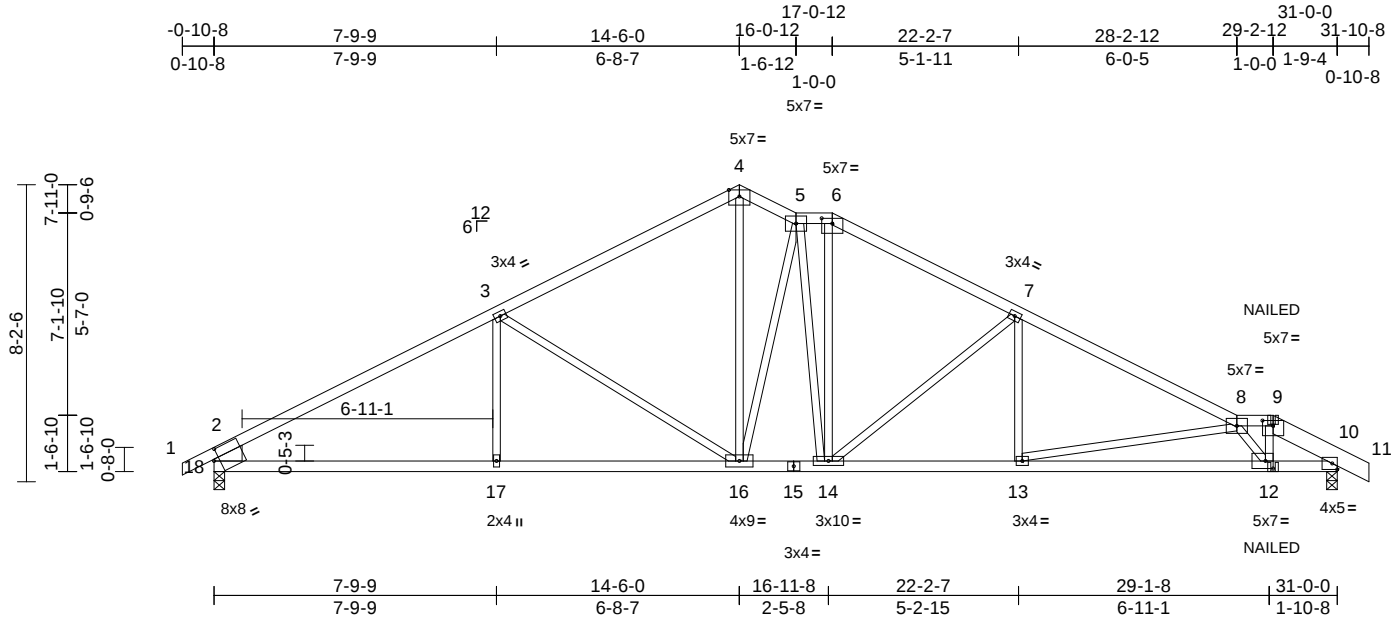
Job	Truss	Truss Type	Qty	Ply	Lot 133 H4	I48138145
H4133	D7	Roof Special Girder	1	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.78 S 8.43 Aug 16 2021 Print: 8.430 S Aug 16 2021 MiTek Industries, Inc. Wed Sep 29 11:02:46

Page: 1

ID:yQVeL3JaMLDqBo68G2v5nvznYPw-RfC?PsB70Hq3NSgPqnl8w3uITXbGKWrCDoi7J4zJC?f



Scale = 1:63.6

Plate Offsets (X, Y): [6:0-3-8,0-1-12], [9:0-3-8,0-1-12], [12:0-2-8,0-2-8], [18:0-1-13,0-3-8]

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.92	Vert(LL)	-0.19	16-17	>999	360	MT20
TCDL	10.0	Lumber DOL	1.15	BC	0.96	Vert(CT)	-0.37	16-17	>997	240	197/144
BCLL	0.0*	Rep Stress Incr	NO	WB	0.89	Horz(CT)	0.10	10	n/a	n/a	
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S		Wind(LL)	0.11	16-17	>999	240	Weight: 128 lb FT = 10%

LUMBER

TOP CHORD 2x4 SPF No.2 *Except* 1-4:2x4 SPF 2400F 2.0E, 9-11:2x6 SPF No.2
 BOT CHORD 2x4 SPF No.2
 WEBS 2x3 SPF No.2 *Except* 18-2:2x10 SP DSS

BRACING

TOP CHORD Structural wood sheathing directly applied or 2-10-13 oc purlins, except end verticals, and 2-0-0 oc purlins (4-3-2 max.): 5-6, 8-9.
 BOT CHORD Rigid ceiling directly applied or 9-6-15 oc bracing.

REACTIONS (lb/size) 10=1442/0-3-8, 18=1460/0-3-8
 Max Horiz 18=-131 (LC 9)
 Max Uplift 10=-251 (LC 9), 18=-195 (LC 8)

FORCES (lb) - Maximum Compression/Maximum Tension
 TOP CHORD 1-2=0/39, 2-3=-2199/262, 3-4=-1660/263, 4-5=-1502/259, 5-6=-1519/279, 6-7=-1785/275, 7-8=-2381/322, 8-9=-1824/274, 9-10=-2187/301, 10-11=0/12, 11-12=-1351/238
 BOT CHORD 17-18=-253/1827, 16-17=-253/1827, 14-16=-68/1508, 13-14=-161/2058, 12-13=-377/2617, 10-12=-206/1721
 WEBS 3-17=0/268, 3-16=-574/223, 4-16=-146/920, 5-16=-583/187, 5-14=-104/198, 6-14=-38/404, 7-14=-705/217, 7-13=0/350, 8-13=-570/220, 8-12=-1372/282, 9-12=-158/1187

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) exterior 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 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 195 lb uplift at joint 18 and 251 lb uplift at joint 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.
- Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
- "NAILED" indicates 3-10d (0.148"x3") or 2-12d (0.148"x3.25") toe-nails per NDS guidelines.
- 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 (lb/ft)
 Vert: 1-2=-70, 2-4=-70, 4-5=-70, 5-6=-70, 6-8=-70, 8-9=-70, 9-11=-70, 10-18=-20



September 29, 2021

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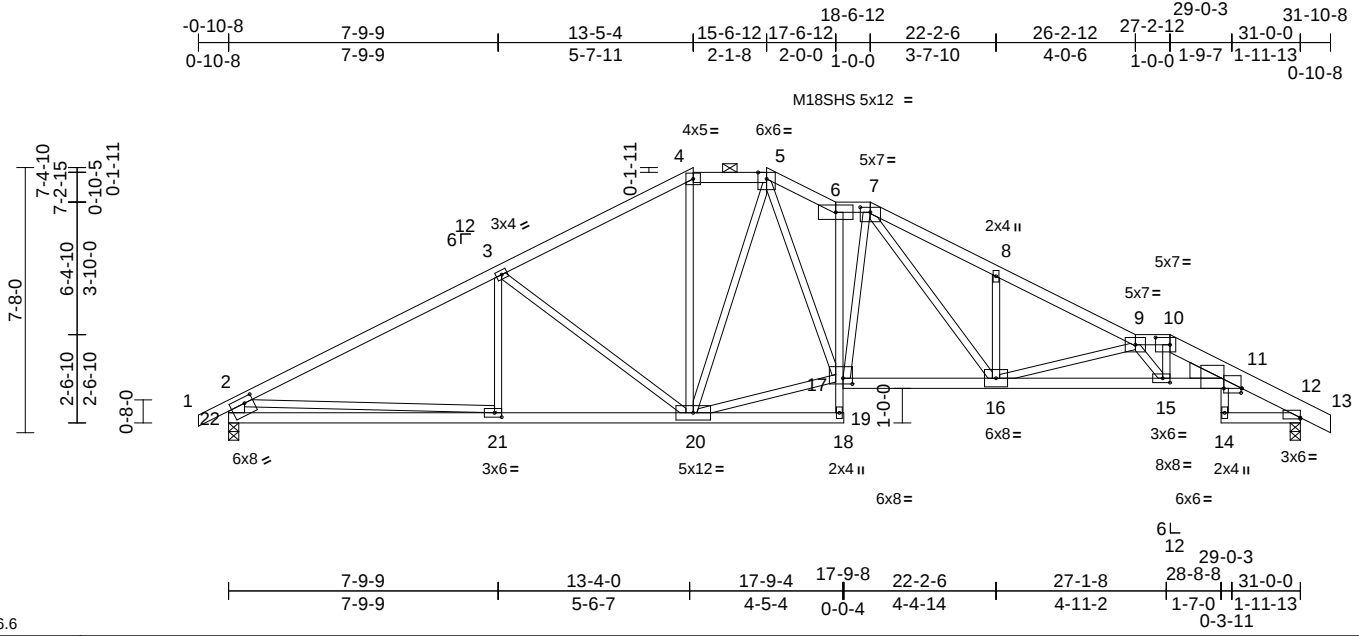
Job	Truss	Truss Type	Qty	Ply	Lot 133 H4	I48138146
H4133	D8	Roof Special	1	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.78 S 8.43 Aug 16 2021 Print: 8.430 S Aug 16 2021 MiTek Industries, Inc. Wed Sep 29 11:02:47

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ID:yQVeL3JaMLDqBo68G2v5nvznYPw-RfC?Psb70Hq3NSgPqnL8w3uITxbGKwRcD0i7J4zJC?f



Scale = 1:66.6

Plate Offsets (X, Y): [7:0-3-8,0-1-12], [10:0-5-0,0-2-8], [11:0-0-4,0-1-10], [11:0-6-4,Edge], [12:Edge,0-0-7], [15:0-2-8,0-1-8], [17:0-3-4,0-2-0], [21:0-2-8,0-1-8], [22:0-3-0,0-2-0]

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.74	Vert(LL)	-0.26	16-17	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.68	Vert(CT)	-0.47	16-17	>782	240	M18SHS	197/144
BCLL	0.0*	Rep Stress Incr	YES	WB	0.79	Horz(CT)	0.28	12	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S		Wind(LL)	0.18	16	>999	240	Weight: 143 lb	FT = 10%

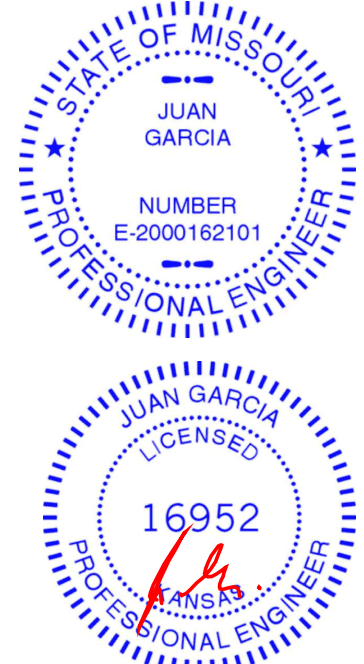
LUMBER		
TOP CHORD	2x4 SPF No.2 *Except* 10-13:2x6 SP 2400F 2.0E	
BOT CHORD	2x4 SPF No.2 *Except* 19-6:2x3 SPF No.2, 17-11:2x4 SPF 2100F 1.8E	
WEBS	2x3 SPF No.2 *Except* 22-2:2x6 SP DSS	
WEDGE	Right: 2x6 SP No.2	
BRACING		
TOP CHORD	Structural wood sheathing directly applied or 2-11-9 oc purlins, except end verticals, and 2-0-0 oc purlins (2-9-8 max.): 4-5, 6-7, 9-10.	
BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing, Except: 9-11-12 oc bracing: 21-22 6-0-0 oc bracing: 12-14, 10-0-0 oc bracing: 17-19	
REACTIONS	(lb/size) 12=1462/0-3-8, 22=1457/0-3-8 Max Horiz 22=-122 (LC 9) Max Uplift 12=-192 (LC 9), 22=-181 (LC 8)	
FORCES	(lb) - Maximum Compression/Maximum Tension	
TOP CHORD	1-2=0/35, 2-3=-2268/239, 3-4=-1755/226, 4-5=-1491/224, 5-6=-2238/313, 6-7=-2016/259, 7-8=-3039/427, 8-9=-3009/330, 9-10=-3761/415, 10-11=-3824/403, 11-12=-806/128, 12-13=0/12, 2-22=-1380/225	
BOT CHORD	21-22=-341/885, 20-21=-220/1916, 19-20=-1/86, 18-19=0/0, 17-19=0/79, 6-17=-875/145, 16-17=-47/1993, 15-16=-401/4248, 11-15=-313/3687, 12-14=-35/0	

WEBS 11-14=0/70, 3-21=0/239, 3-20=-568/201, 4-20=-54/470, 5-20=-528/84, 17-20=-44/1572, 5-17=-178/1257, 7-17=-30/247, 9-15=-855/142, 10-15=-65/734, 7-16=-228/1147, 8-16=-320/172, 9-16=-1663/261, 2-21=0/1033

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) exterior zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 3) Provide adequate drainage to prevent water ponding.
- 4) All plates are MT20 plates unless otherwise indicated.
- 5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 6) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- 7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 181 lb uplift at joint 22 and 192 lb uplift at joint 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.

LOAD CASE(S) Standard



September 29, 2021

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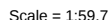
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Wheeler Lumber, Waverly, KS - 66871, Run: 8.78 S 8.43 Aug 16 2021 Print: 8.430 S Aug 16 2021 MiTek Industries, Inc. Wed Sep 29 11:02:48 Page: 1
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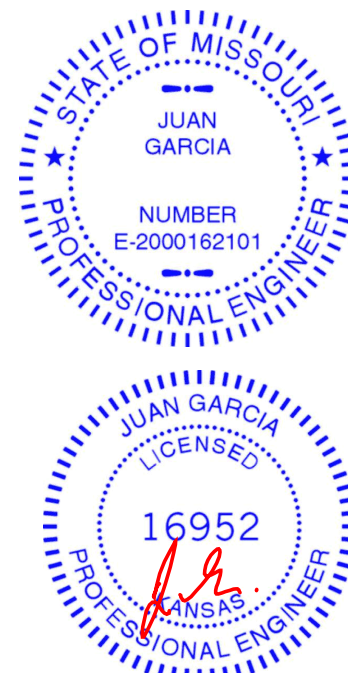
Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.76	Vert(LL)	-0.23	16-17	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.67	Vert(CT)	-0.42	16-17	>874	240	M18SHS	197/144
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.53	Horz(CT)	0.30	12	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S		Wind(LL)	0.15	16	>999	240	Weight: 137 lb	FT = 10%

WEBS 11-14=0/70, 3-20=-27/130, 3-19=-390/179,
4-19=-22/220, 17-19=-76/1550,
4-17=-85/628, 7-17=-693/142, 7-16=-264/64,
8-16=-12/795, 9-16=-1006/185,
9-15=-435/68, 10-15=-2/529, 2-20=-23/1403

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) exterior zone, cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 3) Provide adequate drainage to prevent water ponding.
- 4) All plates are MT20 plates unless otherwise indicated.
- 5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 6) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- 7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 164 lb uplift at joint 21 and 177 lb uplift at joint 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.

LOAD CASE(S) Standard



September 29, 2021

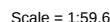


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Wheeler Lumber, Waverly, KS - 66871, Run: 8.78 S 8.43 Aug 16 2021 Print: 8.430 S Aug 16 2021 MiTek Industries, Inc. Wed Sep 29 11:02:48 Page: 1
ID: yQvEL3JaMLDqBo68G2v5vznvYPw-RfC?PsB70Hg3NSqPqnL8w3ulTXbGKWRCdoi7J4zJC?i



Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.78	Vert(LL)	-0.27	10-14	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.80	Vert(CT)	-0.51	10-14	>722	240		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.89	Horz(CT)	0.37	11	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S		Wind(LL)	0.18	10-14	>999	240	Weight: 136 lb	FT = 10%

WEBS 10-13=0/70, 3-18=-166/189, 4-18=-1/607,
5-18=-843/181, 16-18=-226/2094,
5-16=-33/429, 7-16=-104/453, 7-15=-83/742,
8-15=-783/143, 8-14=-476/120,
9-14=-32/547, 3-19=-1554/157

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) exterior 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 3-06-00 tall by 2-00-00 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 195 lb uplift at joint 11 and 143 lb uplift at joint 19.
- 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.

LOAD CASE(S) Standard



September 29, 2021



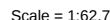
Design valid for use only with MITEK® connectors. This design is based only upon parameters shown, and is for the individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall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

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, Run: 8.78 S 8.43 Aug 16 2021 Print: 8.430 S Aug 16 2021 MiTek Industries, Inc. Wed Sep 29 11:02:49 Page: 1
ID: yQvEL3JaMLDqBo68G2v5nvznYPw-RfC?PsB70Hg3NSqPqnL8w3ulTXbGKWRCdoi7J4zJC?i



Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.62	Vert(LL)	-0.12	14-15	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.79	Vert(CT)	-0.22	14-15	>835	240		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.68	Horz(CT)	0.15	12	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S		Wind(LL)	0.10	14-15	>999	240	Weight: 113 lb	FT = 10%

WEBS 17-19=0/38, 13-14=-2/77, 3-24=0/292,
3-23=-561/62, 4-21=-896/133,
6-18=-1082/54, 6-16=-36/462,
7-16=-490/145, 7-15=0/86, 8-15=0/168

TOP CHORD	Structural wood sheathing directly applied or 5-4-12 oc purlins, except end verticals, and 2-0-0 oc purlins (5-9-15 max.): 3-6, 7-8.
BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing, Except: 4-8-11 oc bracing: 18-20 4-3-1 oc bracing: 18-21. 10-0-0 oc bracing: 14-15
WEBS	1 Row at midpt 6-18

(lb/size)	12=661/0-3-8, 20=1567/0-3-8, 25=676/0-3-8
Max Horiz	25=71 (LC 7)
Max Uplift	12=-149 (LC 9), 20=-201 (LC 5), 25=-119 (LC 8)
Max Grav	12=666 (LC 22), 20=1567 (LC 1), 25=684 (LC 21)

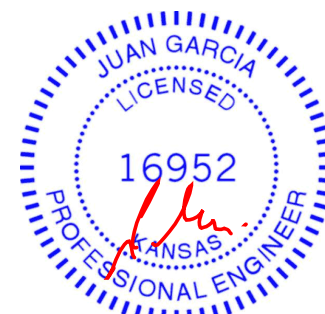
(lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=0/35, 2-3=-744/106, 3-4=-108/128,
4-5=-59/631, 5-6=-22/427, 6-7=-634/189,
7-8=-954/245, 8-9=-1075/233, 9-10=-273/82,
10-11=0/35, 2-25=-625/171, 10-12=-703/174

BOT CHORD 24-25=-48/559, 23-24=-50/555,
22-23=-3/369, 4-22=0/305, 21-22=-1/113,
18-20=-1554/219, 18-21=-1029/215,
5-21=-352/136, 19-20=0/0, 17-18=-31/554,
16-17=-31/554, 15-16=-129/899,
14-15=-126/948, 9-14=-126/948, 12-13=0/0

- 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) exterior 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 3-06-00 tall by 2-00-00 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 119 lb uplift at joint 25, 201 lb uplift at joint 20 and 149 lb uplift at joint 12.
- 7) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 8) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

LOAD CASE(S) Standard



September 29, 2021



WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITER REFERENCE PAGE (H-7473 (REV. 3/19/2020) BEFORE USE.

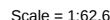
Design valid for use only with MiTEK® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall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

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, Run: 8.78 S 8.43 Aug 16 2021 Print: 8.430 S Aug 16 2021 MiTek Industries, Inc. Wed Sep 29 11:02:50 Page: 1
ID: yQvEL3JaMLDqBo68G2v5vznvYPw-RfC?PsB70Hg3NSqPqnL8w3ulTXbGKWRCdoi7J4zJC?f



Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.76	Vert(LL)	-0.12	24-25	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.77	Vert(CT)	-0.28	24-25	>662	240	MT18HS	197/144
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.63	Horz(CT)	0.15	14	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S		Wind(LL)	0.08	18-19	>999	240	Weight: 112 lb	FT = 10%

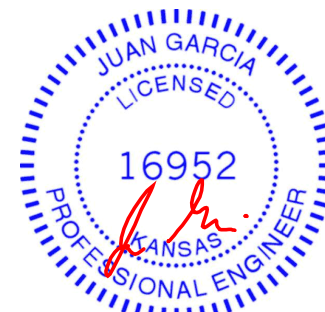
WEBS 20-22=0/34, 15-16=0/69, 3-25=0/247,
4-25=-146/840, 4-24=-451/106,
5-24=-350/154, 6-24=-274/1842,
7-21=-1724/124, 7-19=0/342, 8-19=-246/33,
8-18=-232/1130, 9-18=-730/207,
10-18=-6/73, 10-17=-16/199

NOTES

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) exterior zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 3) Provide adequate drainage to prevent water ponding.
- 4) All plates are MT20 plates unless otherwise indicated.
- 5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 6) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- 7) Bearing at joint(s) 2 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- 8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 129 lb uplift at joint 2, 255 lb uplift at joint 23 and 119 lb uplift at joint 14.
- 9) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 10) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

LOAD CASE(S) Standard



September 29, 2021

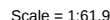


Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall 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, Run: 8.78 S 8.43 Aug 16 2021 Print: 8.430 S Aug 16 2021 MiTek Industries, Inc. Wed Sep 29 11:02:51 Page: 1
ID: yQVeL3JaMLDqBo68G2v5vznvYPw-RfC?PsB70Hg3NSqPqnL8w3ulTXbGKWkCDOI7J4zJC?f



Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.82	Vert(LL)	-0.21	17-18	>869	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.94	Vert(CT)	-0.40	17-18	>460	240		
BCLL	0.0 *	Rep Stress Incr	NO	WB	0.66	Horz(CT)	0.11	11	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S		Wind(LL)	0.21	17-18	>875	240	Weight: 142 lb	FT = 10%

- 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) exterior 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 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- 6) Bearing at joint(s) 2 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- 7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 231 lb uplift at joint 2, 362 lb uplift at joint 15 and 140 lb uplift at joint 11.
- 8) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 9) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
- 10) "NAILED" indicates 3-10d (0.148"x3") or 3-12d (0.148"x3.25") toe-nails per NDS guidelines.
- 11) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 156 lb down and 160 lb up at 3-5-4 on top chord, and 44 lb down at 3-5-4 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
- 12) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

1) Dead + Roof Live (balanced): Lumber Increase=1.15,
Plate Increase=1.15
Uniform Loads (lb/ft)
Vert: 1-4=-70, 4-7=-70, 7-8=-70, 8-9=-70, 9-10=-70,
10-12=-70, 2-18=-20, 16-18=-20, 14-15=-20
Concentrated Loads (lb)
Vert: 4=-36 (B), 16=-20 (B), 6=-38 (B), 17=-16 (B),
5=-28 (B), 13=-1 (B), 19=-28 (B), 20=-28 (B), 21=-28 (B),
22=-28 (B), 23=-21 (B), 24=-16 (B), 25=-16 (B),
26=-16 (B), 27=-16 (B)



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

WARNING: Velly design parameters are READ NOTES ON THIS AND INCLUDED WITH REFERENCE PAGE MM-1473 (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



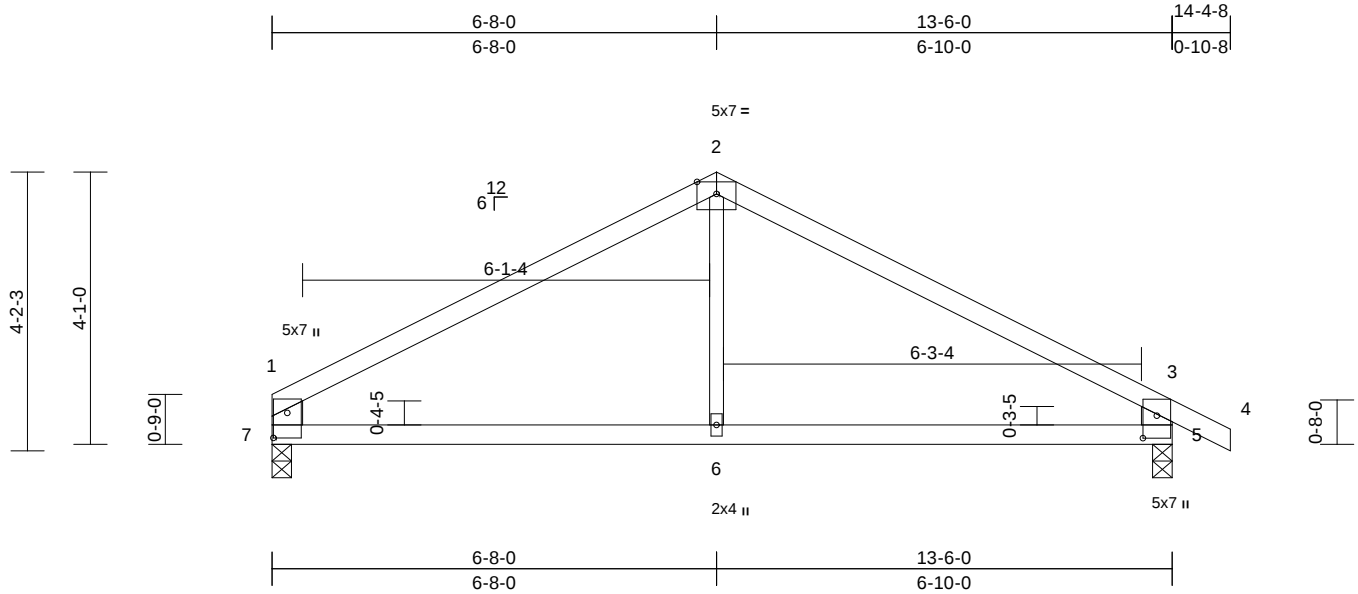
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 133 H4	I48138152
H4133	E1	Common	1	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.78 S 8.43 Aug 16 2021 Print: 8.430 S Aug 16 2021 MiTek Industries, Inc. Wed Sep 29 11:02:52
ID:yQVeL3JaMLDqBo68G2v5nvznYPw-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

Page: 1



Scale = 1:34.6

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

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.58	Vert(LL)	-0.05	5-6	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.33	Vert(CT)	-0.10	5-6	>999	240		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.09	Horz(CT)	0.01	5	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-R		Wind(LL)	0.03	5-6	>999	240	Weight: 38 lb	FT = 10%

LUMBER

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

LOAD CASE(S) Standard

BRACING

TOP CHORD Structural wood sheathing directly applied or 5-9-4 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (lb/size) 5=667/0-3-8, 7=584/0-3-8
Max Horiz 7=-73 (LC 4)
Max Uplift 5=-98 (LC 9), 7=-71 (LC 8)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=-726/100, 2-3=-733/100, 3-4=0/35,
1-7=-514/114, 3-5=-607/146
BOT CHORD 6-7=-18/554, 5-6=-18/554
WEBS 2-6=0/274

NOTES

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior 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 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 71 lb uplift at joint 7 and 98 lb uplift at joint 5.



September 29, 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



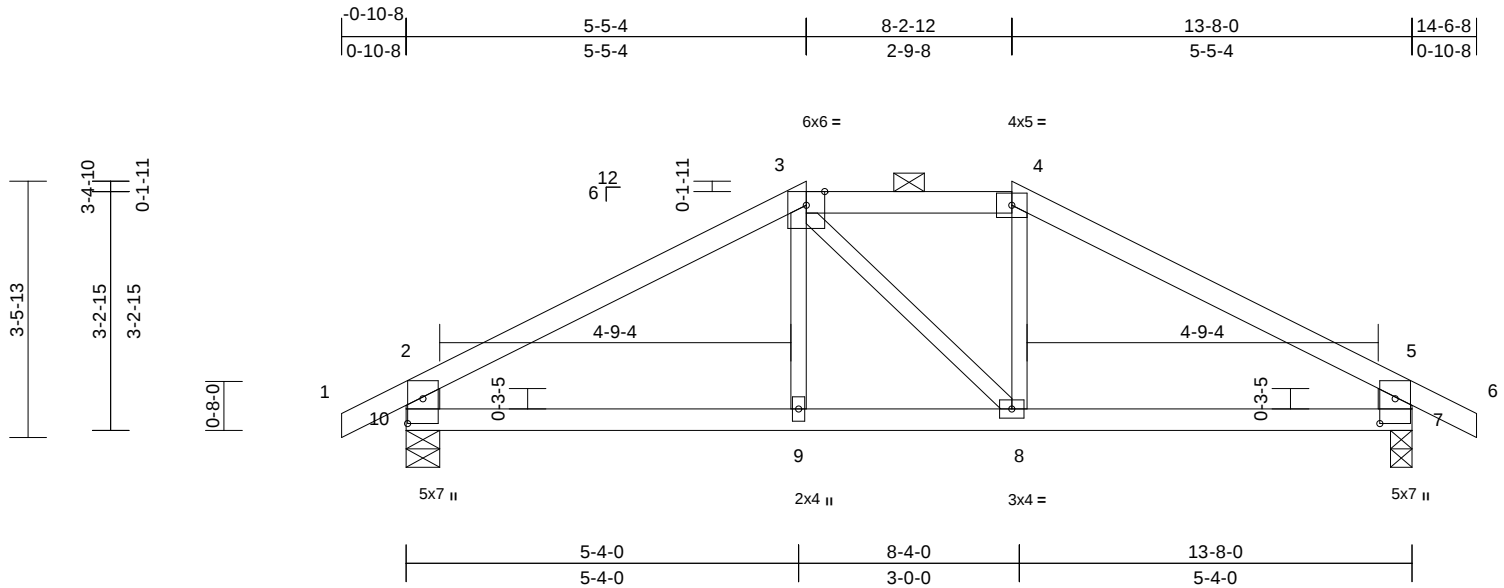
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job H4133	Truss E2	Truss Type Hip	Qty 1	Ply 1	Lot 133 H4 Job Reference (optional)	I48138153
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Wheeler Lumber, Waverly, KS - 66871,

Run: 8.78 S 8.43 Aug 16 2021 Print: 8.430 S Aug 16 2021 MiTek Industries, Inc. Wed Sep 29 11:02:52
ID:yQVeL3JaMLDqBo68G2v5nvznYPw-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrcDoi7J4zJC?f

Page: 1



Scale = 1:31.3

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

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.47	Vert(LL)	-0.03	8-9	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.27	Vert(CT)	-0.05	9-10	>999	240		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.05	Horz(CT)	0.01	7	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S		Wind(LL)	0.01	8-9	>999	240	Weight: 44 lb	FT = 10%

LUMBER

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

BRACING

TOP CHORD	Structural wood sheathing directly applied or 5-11-9 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	(lb/size) 7=672/0-3-8, 10=672/0-5-8
	Max Horiz 10=-58 (LC 6)
	Max Uplift 7=-89 (LC 9), 10=-89 (LC 8)

FORCES	(lb) - Maximum Compression/Maximum Tension
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TOP CHORD	1-2=0/35, 2-3=-795/70, 3-4=-624/103, 4-5=-796/70, 5-6=0/35, 2-10=-608/128, 5-7=-608/128
-----------	---

BOT CHORD	9-10=-23/626, 8-9=-24/623, 7-8=0/626
WEBS	3-9=0/152, 3-8=-101/102, 4-8=0/153

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) exterior 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 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.

- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 89 lb uplift at joint 10 and 89 lb uplift at joint 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.

LOAD CASE(S) Standard



September 29, 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



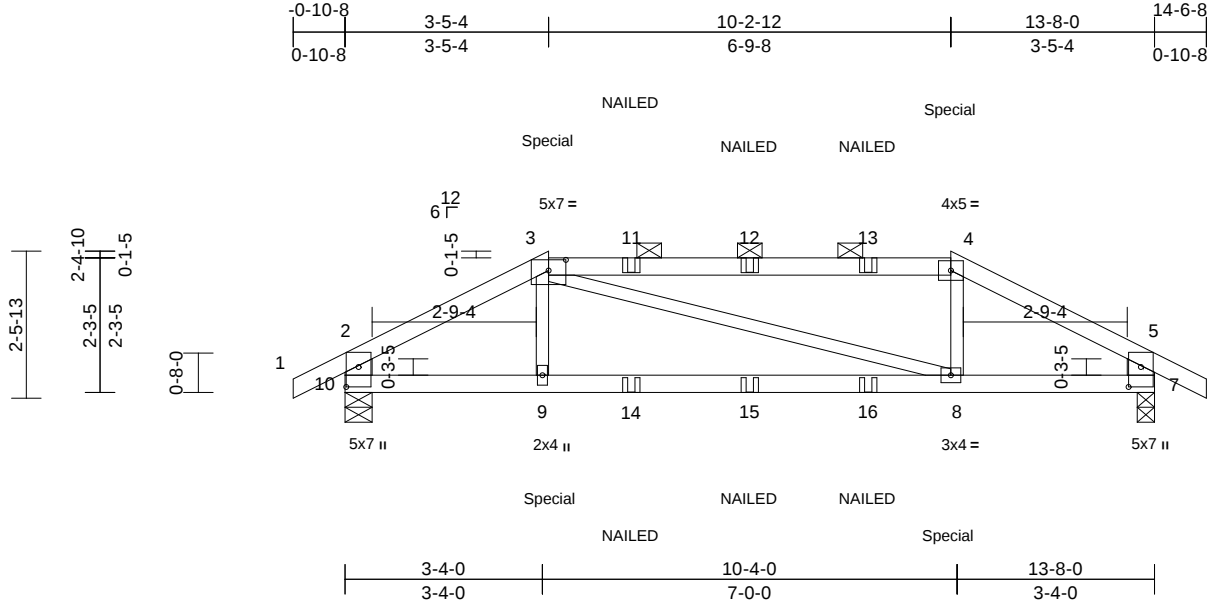
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 133 H4	I48138154
H4133	E3	Hip Girder	1	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.78 S 8.43 Aug 16 2021 Print: 8.430 S Aug 16 2021 MiTek Industries, Inc. Wed Sep 29 11:02:53
ID:yQVeL3JaMLDqBo68G2v5nvznYPw-RfC?PsB70Hq3NSgPqL8w3uITXbGKWrCD0i7J4zJC?f

Page: 1



Scale = 1:38.9

Plate Offsets (X, Y): [3:0-3-8,0-2-3], [7:0-4-1,0-2-8], [10:0-4-1,0-2-8]												
Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.75	Vert(LL)	-0.11	8-9	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.73	Vert(CT)	-0.25	8-9	>628	240		
BCLL	0.0*	Rep Stress Incr	NO	WB	0.09	Horz(CT)	0.02	7	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S		Wind(LL)	0.09	8-9	>999	240	Weight: 45 lb	FT = 10%

LUMBER	
TOP CHORD	2x4 SPF No.2 *Except* 3-4:2x4 SPF 2100F 1.8E
BOT CHORD	2x4 SPF No.2
WEBS	2x3 SPF No.2 *Except* 10-2,7-5:2x6 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 (5-6-9 max.): 3-4.
BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing.
REACTIONS	(lb/size) 7=843/0-3-8, 10=843/0-5-8 Max Horiz 10=-45 (LC 6) Max Uplift 7=-192 (LC 9), 10=-192 (LC 8)
FORCES	(lb) - Maximum Compression/Maximum Tension
TOP CHORD	1-2=0/35, 2-3=-1227/264, 3-4=-1029/258, 4-5=-1229/264, 5-6=0/35, 2-10=-760/178, 5-7=-761/178
BOT CHORD	9-10=-226/1033, 8-9=-233/1027, 7-8=-209/1035
WEBS	3-9=0/282, 3-8=-18/20, 4-8=0/282

- 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) exterior 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 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.

- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 192 lb uplift at joint 10 and 192 lb uplift at joint 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.
- "NAILED" indicates 3-10d (0.148"x3") or 3-12d (0.148"x3.25") toe-nails per NDS guidelines.
- Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 162 lb down and 130 lb up at 3-5-4, and 162 lb down and 130 lb up at 10-2-12 on top chord, and 55 lb down at 3-5-4, and 55 lb down at 10-2-0 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

- Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (lb/ft)
Vert: 1-2=-70, 2-3=-70, 3-4=-70, 4-5=-70, 5-6=-70, 7-10=-20
Concentrated Loads (lb)
Vert: 3=-64 (B), 4=-64 (B), 9=-37 (B), 8=-37 (B), 11=-30 (B), 12=-30 (B), 13=-30 (B), 14=-17 (B), 15=-17 (B), 16=-17 (B)



September 29, 2021

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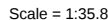
Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall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

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Chesterfield, MO 63017

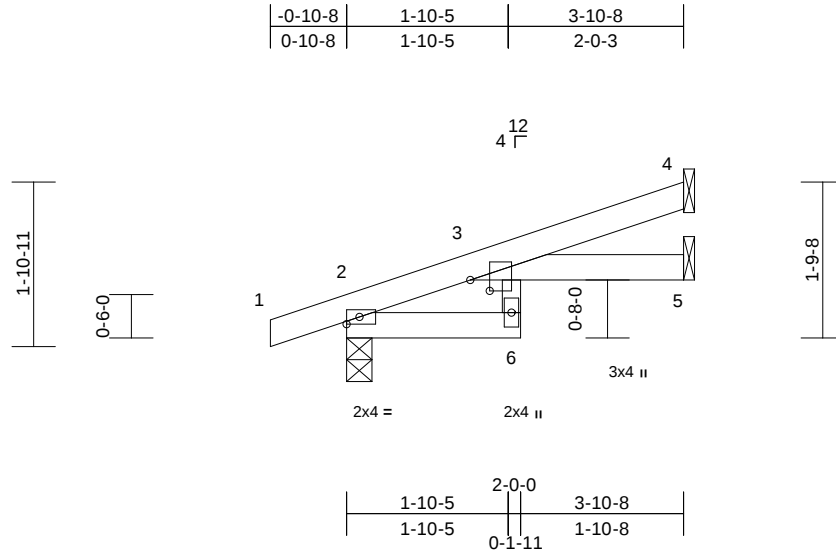
Page: 1

Job	Truss	Truss Type	Qty	Ply	Lot 133 H4	I48138156
H4133	J2	Jack-Open	4	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.78 S 8.43 Aug 16 2021 Print: 8.430 S Aug 16 2021 MiTek Industries, Inc. Wed Sep 29 11:02:53
ID:pq50?Ycap6WpLXoTu4wfy2za1nE-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWRCDoi7J4zJC?i

Page: 1



Scale = 1:26.5

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

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.25	Vert(LL)	-0.03	6	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.05	Vert(CT)	-0.05	6	>820	240		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.01	Horz(CT)	0.02	5	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-P		Wind(LL)	0.03	6	>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

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.

LOAD CASE(S) Standard

BRACING

TOP CHORD Structural wood sheathing directly applied or 3-10-8 oc purlins.
BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.

REACTIONS (lb/size) 2=252/0-3-8, 4=135/ Mechanical, 5=24/ Mechanical
Max Horiz 2=65 (LC 4)
Max Uplift 2=-65 (LC 4), 4=-52 (LC 8)
Max Grav 2=252 (LC 1), 4=135 (LC 1), 5=48 (LC 3)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=0/6, 2-3=-65/0, 3-4=-25/37
BOT CHORD 2-6=-26/0, 3-5=0/0
WEBS 3-6=0/44

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) exterior 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 3-06-00 tall by 2-00-00 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 52 lb uplift at joint 4 and 65 lb uplift at joint 2.



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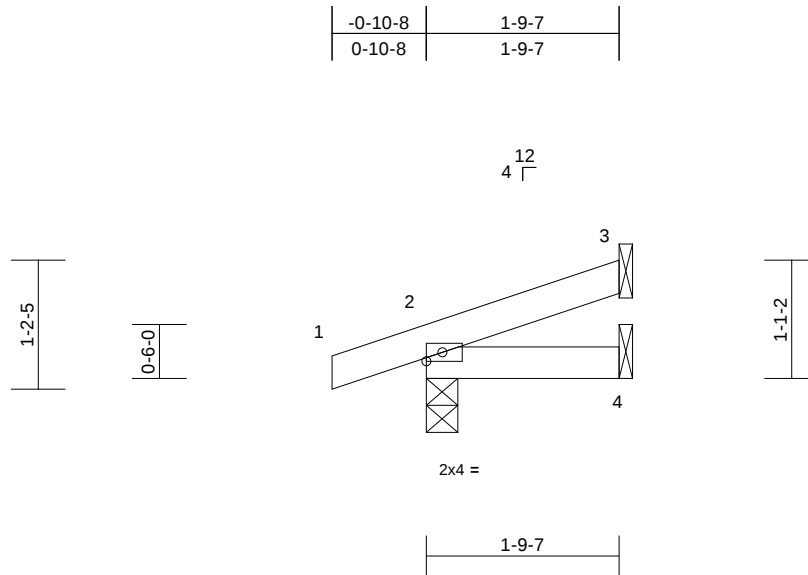
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 133 H4	
H4133	J3	Jack-Open	4	1	Job Reference (optional)	I48138157

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.78 S 8.43 Aug 16 2021 Print: 8.430 S Aug 16 2021 MiTek Industries, Inc. Wed Sep 29 11:02:54
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Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.05	Vert(LL)	0.00	2-4	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.03	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							Weight: 5 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 1-9-7 oc purlins.

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

REACTIONS (lb/size) 2=158/0-3-8, 3=45/ Mechanical, 4=17/ Mechanical

Max Horiz 2=37 (LC 4)

Max Uplift 2=-56 (LC 4), 3=-27 (LC 8)

Max Grav 2=158 (LC 1), 3=45 (LC 1), 4=35 (LC 3)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=0/6, 2-3=-33/13

BOT CHORD 2-4=0/0

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) exterior 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 3-06-00 tall by 2-00-00 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 56 lb uplift at joint 2 and 27 lb uplift at joint 3.
- 6) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard



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

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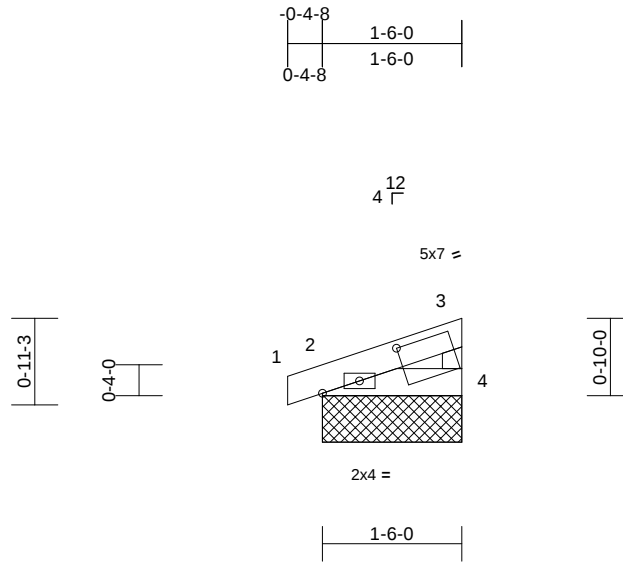
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 133 H4	I48138158
H4133	J4	JACK-CLOSED SUPPORTE	2	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.78 S 8.43 Aug 16 2021 Print: 8.430 S Aug 16 2021 MiTek Industries, Inc. Wed Sep 29 11:02:54
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Page: 1



Scale = 1:24.8

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

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.03	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	0.00	Horz(CT)	0.00	4	n/a	n/a	
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-P							Weight: 4 lb FT = 10%

LUMBER

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

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

LOAD CASE(S) Standard

BRACING

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

REACTIONS (lb/size) 2=93/1-6-0, 4=59/1-6-0
Max Horiz 2=24 (LC 5)
Max Uplift 2=-28 (LC 4), 4=-12 (LC 8)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=0/6, 2-3=-23/12, 3-4=-45/21
BOT CHORD 2-4=-7/5

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) exterior zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 2) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- 3) Gable requires continuous bottom chord bearing.
- 4) Gable studs spaced at 2-0-0 oc.
- 5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 6) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- 7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 12 lb uplift at joint 4 and 28 lb uplift at joint 2.



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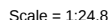
Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall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

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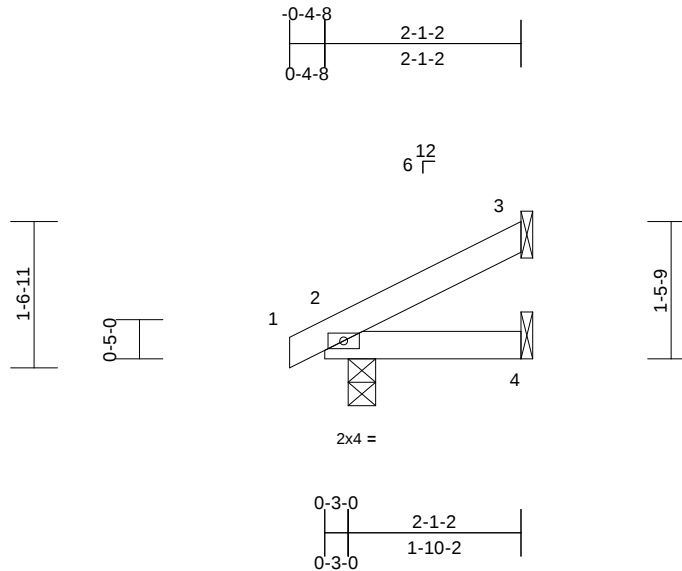
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 133 H4	I48138160
H4133	J6	Jack-Open	1	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS - 66871,

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Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.05	0.00	2-4	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.03	0.00	2-4	>999	240		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.00	0.00	3	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-P						Weight: 6 lb	FT = 10%

LUMBER

TOP CHORD 2x4 SPF No.2

BOT CHORD 2x4 SPF No.2

BRACING

TOP CHORD Structural wood sheathing directly applied or 2-1-2 oc purlins.

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

REACTIONS (lb/size) 2=126/0-3-8, 3=61/ Mechanical, 4=19/ Mechanical

Max Horiz 2=49 (LC 8)

Max Uplift 2=-16 (LC 8), 3=-39 (LC 8)

Max Grav 2=126 (LC 1), 3=61 (LC 1), 4=38 (LC 3)

FORCES (lb) - Maximum Compression/Maximum Tension

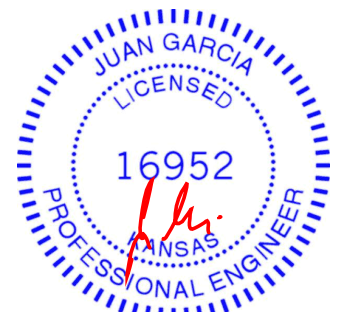
TOP CHORD 1-2=0/6, 2-3=-43/24

BOT CHORD 2-4=0/0

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) exterior 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 3-06-00 tall by 2-00-00 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 39 lb uplift at joint 3 and 16 lb uplift at joint 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.

LOAD CASE(S) Standard



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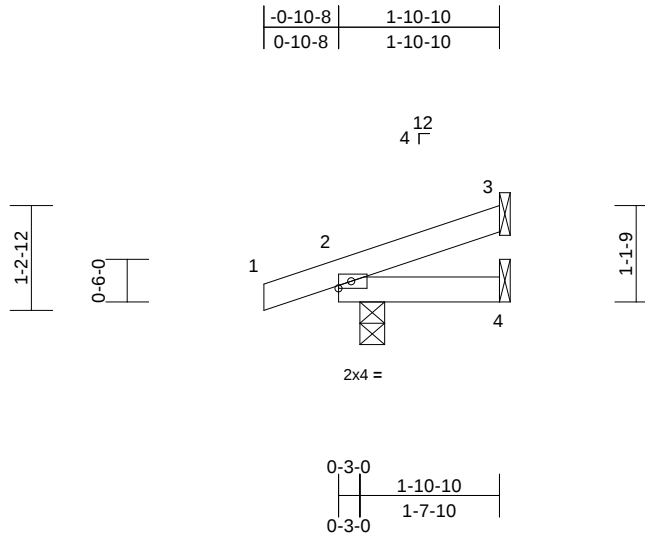
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 133 H4	I48138161
H4133	J7	Jack-Open	1	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS - 66871,

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Page: 1



Scale = 1:27

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.07	Vert(LL)	0.00	2-4	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.03	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							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 1-10-10 oc purlins.

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

REACTIONS (lb/size) 2=162/0-3-8, 3=49/ Mechanical, 4=18/ Mechanical

Max Horiz 2=39 (LC 4)

Max Uplift 2=-56 (LC 4), 3=-29 (LC 8)

Max Grav 2=162 (LC 1), 3=49 (LC 1), 4=37 (LC 3)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=0/6, 2-3=-34/15

BOT CHORD 2-4=0/0

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) exterior 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 3-06-00 tall by 2-00-00 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 56 lb uplift at joint 2 and 29 lb uplift at joint 3.
- 6) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard



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16023 Swingley Ridge Rd
Chesterfield, MO 63017

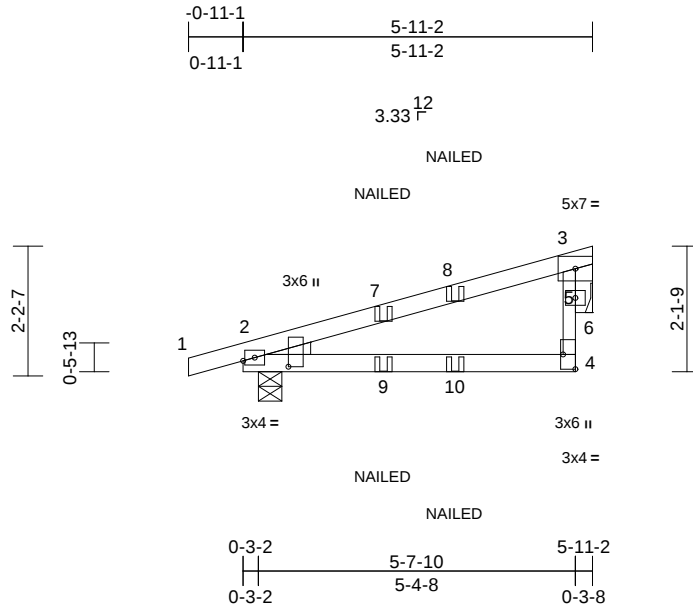
Job	Truss	Truss Type	Qty	Ply	Lot 133 H4
H4133	J8	Diagonal Hip Girder	1	1	I48138162
Job Reference (optional)					

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.78 S 8.43 Aug 16 2021 Print: 8.430 S Aug 16 2021 MiTek Industries, Inc. Wed Sep 29 11:02:55

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ID:yQVeL3JaMLDqBo68G2v5nvznYPw-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrcD0i7J4zJC?f



Scale = 1:39.1

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

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.35	Vert(LL)	-0.02	2-4	>999	360	MT20
TCDL	10.0	Lumber DOL	1.15	BC	0.35	Vert(CT)	-0.05	2-4	>999	240	197/144
BCLL	0.0*	Rep Stress Incr	NO	WB	0.00	Horz(CT)	0.00	6	n/a	n/a	
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-R		Wind(LL)	0.01	2-4	>999	240	Weight: 17 lb FT = 10%

LUMBER

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

BRACING

TOP CHORD	Structural wood sheathing directly applied or 5-11-2 oc purlins, except end verticals.
BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS	(lb/size) 2=340/0-4-12, 6=218/ Mechanical
	Max Horiz 2=62 (LC 5)
	Max Uplift 2=-91 (LC 4), 6=-49 (LC 8)

FORCES	(lb) - Maximum Compression/Maximum Tension
--------	--

TOP CHORD	1-2=0/5, 2-3=-251/28, 4-5=0/115, 3-5=-274/152
BOT CHORD	2-4=-37/188
WEBS	3-6=-63/76

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) exterior 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 3-06-00 tall by 2-00-00 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 91 lb uplift at joint 2 and 49 lb uplift at joint 6.

- 6) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 7) "NAILED" indicates 2-12d (0.148"x3.25") toe-nails per NDS guidelines.
- 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 (lb/ft)
Vert: 1-3=70, 2-4=20



September 29, 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

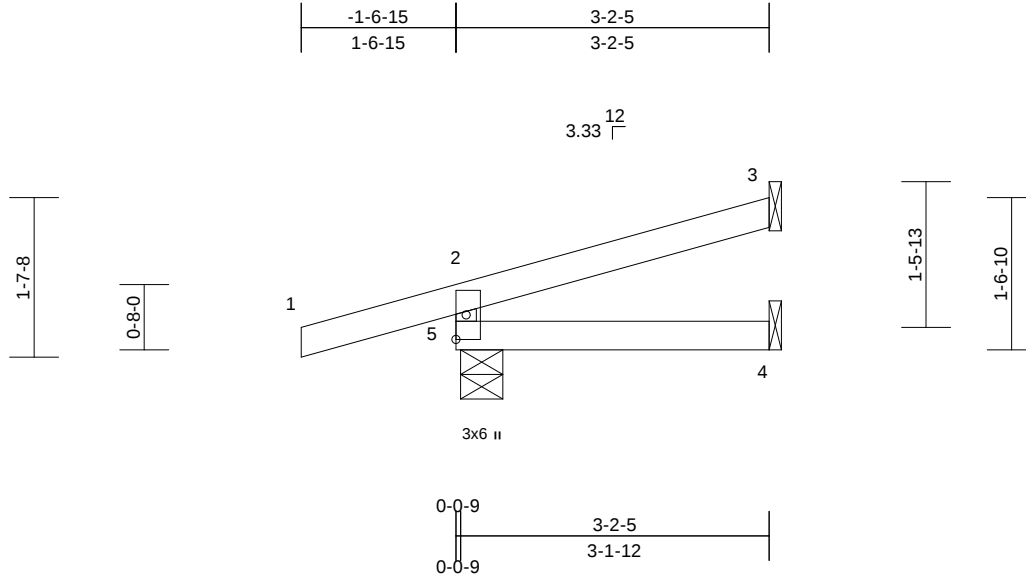
Job	Truss	Truss Type	Qty	Ply	Lot 133 H4	
H4133	J9	Jack-Open Girder	1	1	Job Reference (optional)	I48138163

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.78 S 8.43 Aug 16 2021 Print: 8.430 S Aug 16 2021 MiTek Industries, Inc. Wed Sep 29 11:02:55

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Scale = 1:23.5

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.25	Vert(LL)	0.00	4-5	>999	360	MT20
TCDL	10.0	Lumber DOL	1.15	BC	0.06	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

(lb/size) 3=29/ Mechanical, 4=6/ Mechanical, 5=167/0-5-3
Max Horiz 5=56 (LC 12)
Max Uplift 3=-52 (LC 12), 4=-3 (LC 19), 5=-82 (LC 6)
Max Grav 3=29 (LC 1), 4=40 (LC 3), 5=167 (LC 1)

FORCES

(lb) - Maximum Compression/Maximum Tension
TOP CHORD 2-5=-149/101, 1-2=-7/27, 2-3=-25/4
BOT CHORD 4-5=0/0

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) exterior 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 3-06-00 tall by 2-00-00 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 82 lb uplift at joint 5, 52 lb uplift at joint 3 and 3 lb uplift at joint 4.
- 6) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

- 7) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 36 lb down and 13 lb up at -1-6-15, and 36 lb down and 13 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=-56 (F=-28, B=-28)
Trapezoidal Loads (lb/ft)
Vert: 1=0 (F=35, B=35)-to-2=-42 (F=14, B=14), 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)



September 29, 2021

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

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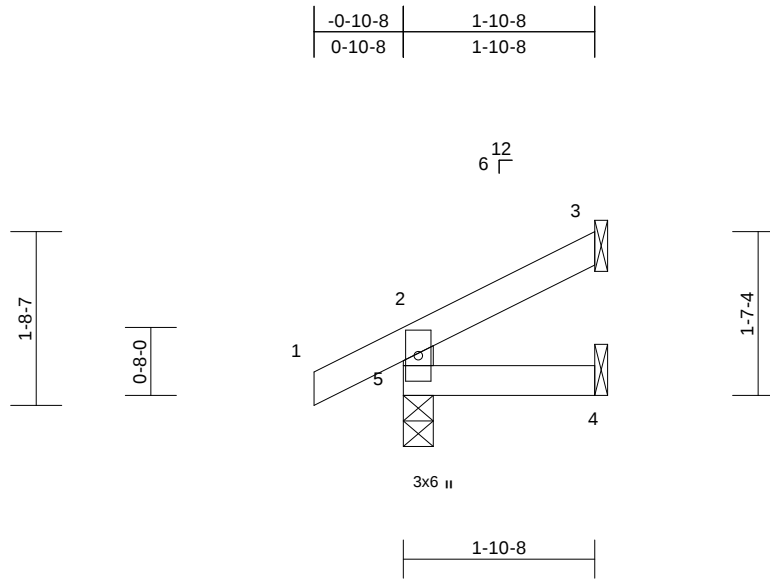
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 133 H4	
H4133	J10	Jack-Open	1	1	Job Reference (optional)	I48138164

Wheeler Lumber, Waverly, KS - 66871,

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Scale = 1:22.6

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	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	0.02	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: 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 1-10-8 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (lb/size) 3=43/ Mechanical, 4=13/ Mechanical, 5=170/0-3-8
Max Horiz 5=47 (LC 8)
Max Uplift 3=-29 (LC 8), 5=-26 (LC 8)
Max Grav 3=43 (LC 1), 4=31 (LC 3), 5=170 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 2-5=-149/43, 1-2=0/32, 2-3=-37/14
BOT CHORD 4-5=0/0

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) exterior 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 3-06-00 tall by 2-00-00 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 26 lb uplift at joint 5 and 29 lb uplift at joint 3.
- 6) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard



September 29, 2021

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

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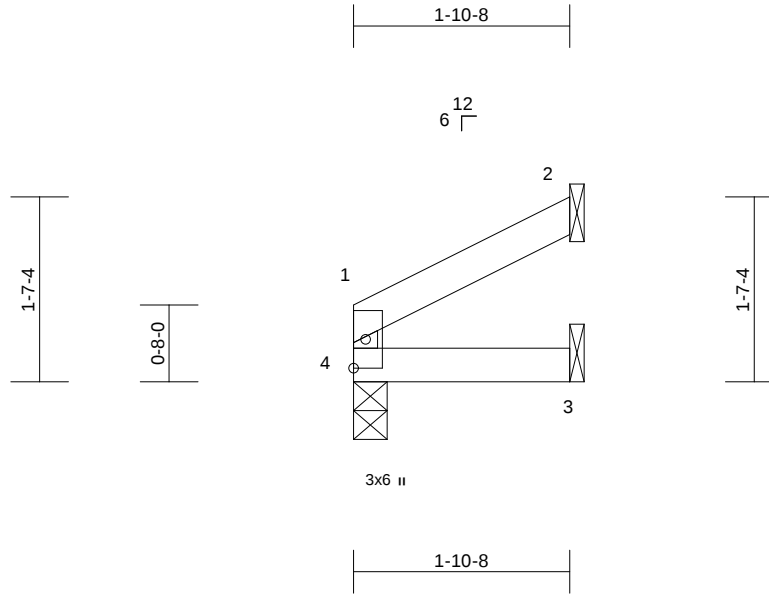
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 133 H4	I48138165
H4133	J10A	Jack-Open	1	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS - 66871,

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Page: 1



Scale = 1:20

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.05	Vert(LL)	0.00	3-4	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.03	Vert(CT)	0.00	3-4	>999	240		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.00	Horz(CT)	0.00	2	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-R		Wind(LL)	0.00	3-4	>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
1-10-8 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc
bracing.

REACTIONS (lb/size) 2=58/ Mechanical, 3=21/
Mechanical, 4=79/0-3-8
Max Horiz 4=31 (LC 5)
Max Uplift 2=-35 (LC 8)
Max Grav 2=58 (LC 1), 3=34 (LC 3), 4=79
(LC 1)

FORCES (lb) - Maximum Compression/Maximum
Tension

TOP CHORD 1-4=-65/16, 1-2=-34/21
BOT CHORD 3-4=0/0

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) exterior 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
3-06-00 tall by 2-00-00 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 35 lb uplift at joint
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.

LOAD CASE(S) Standard



September 29, 2021

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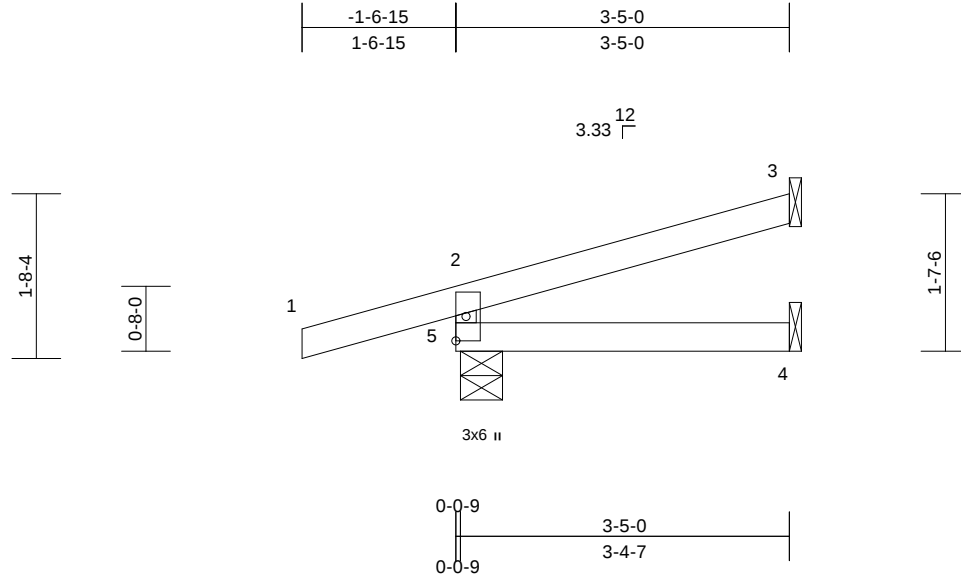
Job	Truss	Truss Type	Qty	Ply	Lot 133 H4	
H4133	J11	Jack-Open Girder	2	1	Job Reference (optional)	I48138166

Wheeler Lumber, Waverly, KS - 66871,

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Scale = 1:23.6

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.26	Vert(LL)	-0.01	4-5	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.07	Vert(CT)	-0.01	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: 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 3-5-0 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS

(lb/size) 3=38/ Mechanical, 4=9/ Mechanical, 5=176/0-5-3
Max Horiz 5=58 (LC 12)
Max Uplift 3=-53 (LC 12), 4=-2 (LC 19), 5=-83 (LC 4)
Max Grav 3=38 (LC 1), 4=45 (LC 3), 5=176 (LC 1)

FORCES

(lb) - Maximum Compression/Maximum Tension

TOP CHORD 2-5=-157/100, 1-2=-7/29, 2-3=-26/5
BOT CHORD 4-5=0/0

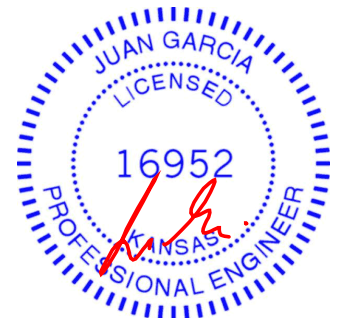
NOTES

- 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) exterior 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 3-06-00 tall by 2-00-00 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 83 lb uplift at joint 5, 53 lb uplift at joint 3 and 2 lb uplift at joint 4.
- 6) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

- 7) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 39 lb down and 14 lb up at -1-6-15, and 39 lb down and 14 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=-60 (F=-30, B=-30)
Trapezoidal Loads (lb/ft)
Vert: 1=0 (F=35, B=35)-to-2=-42 (F=14, B=14), 2=-2 (F=34, B=34)-to-3=-60 (F=5, B=5), 5=0 (F=10, B=10)-to-4=-17 (F=1, B=1)



September 29, 2021

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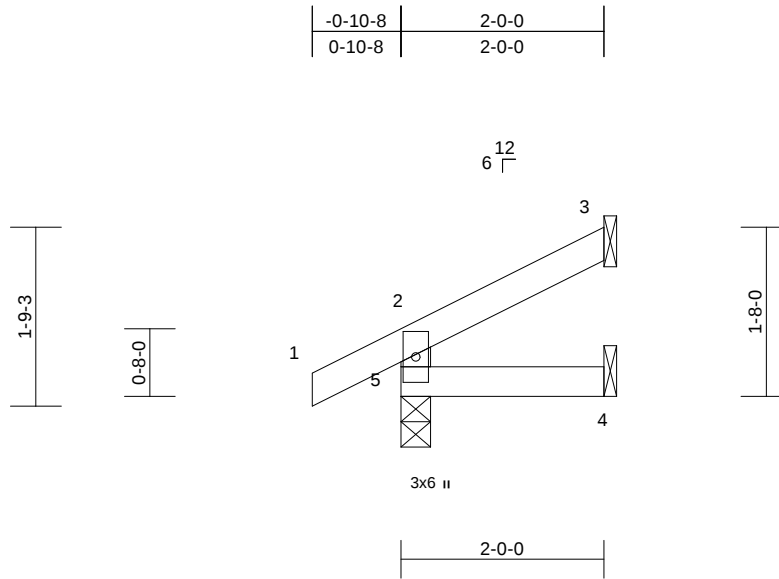
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 133 H4	I48138167
H4133	J12	Jack-Open	2	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS - 66871,

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Page: 1



Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	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	0.02	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: 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 2-0-0 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (lb/size) 3=48/ Mechanical, 4=15/ Mechanical, 5=174/0-3-8
Max Horiz 5=49 (LC 8)
Max Uplift 3=-32 (LC 8), 5=-26 (LC 8)
Max Grav 3=48 (LC 1), 4=33 (LC 3), 5=174 (LC 1)

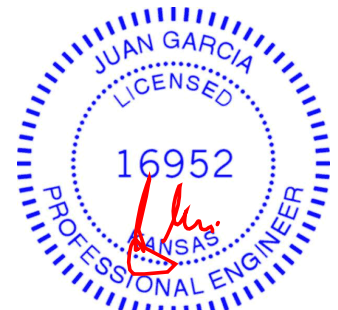
FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 2-5=-153/45, 1-2=0/32, 2-3=-39/16
BOT CHORD 4-5=0/0

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) exterior 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 3-06-00 tall by 2-00-00 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 26 lb uplift at joint 5 and 32 lb uplift at joint 3.
- 6) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard



September 29, 2021

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

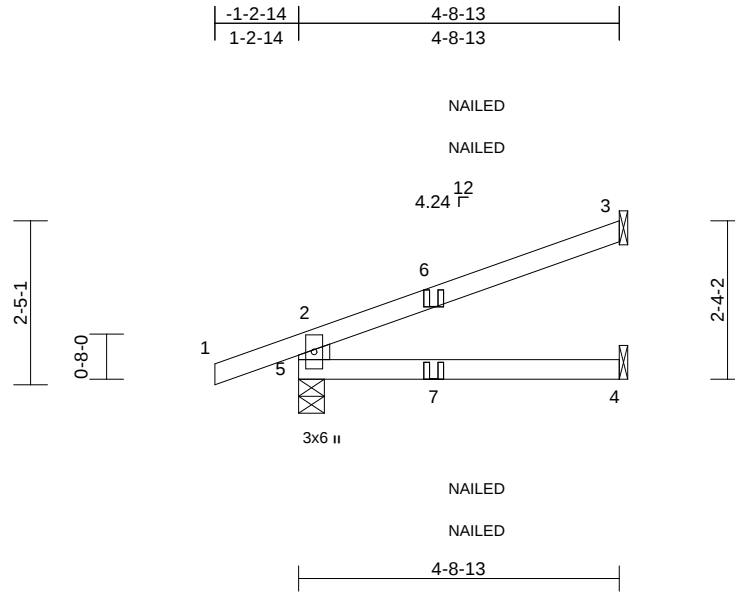
Job	Truss	Truss Type	Qty	Ply	Lot 133 H4	I48138168
H4133	J13	Jack-Open Girder	4	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.78 S 8.43 Aug 16 2021 Print: 8.430 S Aug 16 2021 MiTek Industries, Inc. Wed Sep 29 11:02:57

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Scale = 1:34

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.31	Vert(LL)	-0.02	4-5	>999	360	MT20
TCDL	10.0	Lumber DOL	1.15	BC	0.19	Vert(CT)	-0.04	4-5	>999	240	197/144
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)	0.02	4-5	>999	240	Weight: 13 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 4-8-13 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS

(lb/size) 3=133/ Mechanical, 4=49/
Mechanical, 5=317/0-4-9
Max Horiz 5=85 (LC 4)
Max Uplift 3=-63 (LC 8), 5=-91 (LC 4)
Max Grav 3=133 (LC 1), 4=82 (LC 3), 5=317 (LC 1)

FORCES

(lb) - Maximum Compression/Maximum Tension

TOP CHORD 2-5=-281/129, 1-2=0/34, 2-3=-82/34
BOT CHORD 4-5=0/0

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) exterior 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 3-06-00 tall by 2-00-00 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 91 lb uplift at joint 5 and 63 lb uplift at joint 3.
- 6) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

- 7) "NAILED" indicates 3-10d (0.148"x3") or 2-12d (0.148"x3.25") toe-nails per NDS guidelines.
 - 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 (lb/ft)
Vert: 1-2=-70, 2-3=-70, 4-5=-20
Concentrated Loads (lb)
Vert: 7=4 (F=2, B=2)



September 29, 2021

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

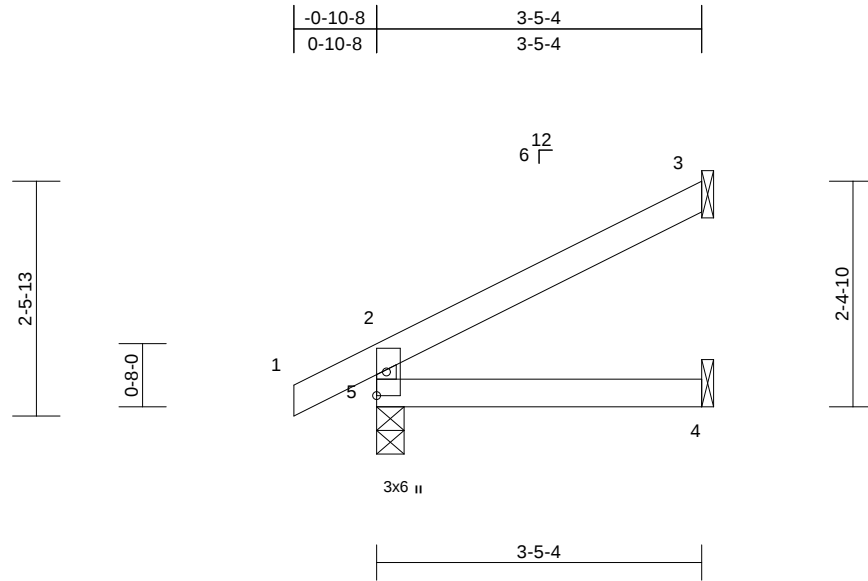
Job	Truss	Truss Type	Qty	Ply	Lot 133 H4	
H4133	J14	Jack-Open	17	1	Job Reference (optional)	I48138169

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.78 S 8.43 Aug 16 2021 Print: 8.430 S Aug 16 2021 MiTek Industries, Inc. Wed Sep 29 11:02:57

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Scale = 1:24.4

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.15	Vert(LL)	-0.01	4-5	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.09	Vert(CT)	-0.01	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)	0.01	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 3-5-4 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (lb/size) 3=100/ Mechanical, 4=37/ Mechanical, 5=226/0-3-8
Max Horiz 5=78 (LC 8)
Max Uplift 3=-58 (LC 8), 5=-28 (LC 8)
Max Grav 3=100 (LC 1), 4=62 (LC 3), 5=226 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 2-5=-197/58, 1-2=0/31, 2-3=-65/35
BOT CHORD 4-5=0/0

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) exterior 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 3-06-00 tall by 2-00-00 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 28 lb uplift at joint 5 and 58 lb uplift at joint 3.
- 6) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard



September 29, 2021

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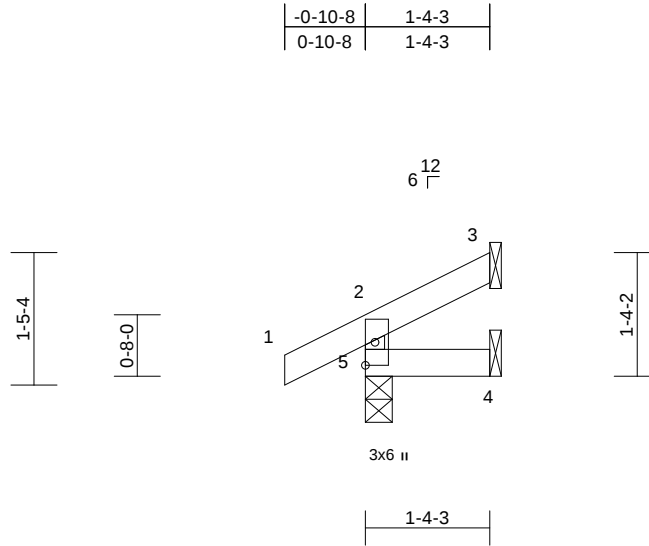
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 133 H4	I48138170
H4133	J15	Jack-Open	8	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS - 66871,

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Scale = 1:25

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (roof)	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	0.01	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: 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
1-4-3 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc
bracing.

REACTIONS (lb/size) 3=21/ Mechanical, 4=8/
Mechanical, 5=151/0-3-8
Max Horiz 5=36 (LC 8)
Max Uplift 3=-19 (LC 8), 5=-26 (LC 8)
Max Grav 3=21 (LC 1), 4=22 (LC 3), 5=151
(LC 1)

FORCES (lb) - Maximum Compression/Maximum
Tension

TOP CHORD 2-5=-134/39, 1-2=0/31, 2-3=-29/5
BOT CHORD 4-5=0/0

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) exterior 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
3-06-00 tall by 2-00-00 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 26 lb uplift at joint
5 and 19 lb uplift at joint 3.
- 6) This truss is designed in accordance with the 2018
International Residential Code sections R502.11.1 and
R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard



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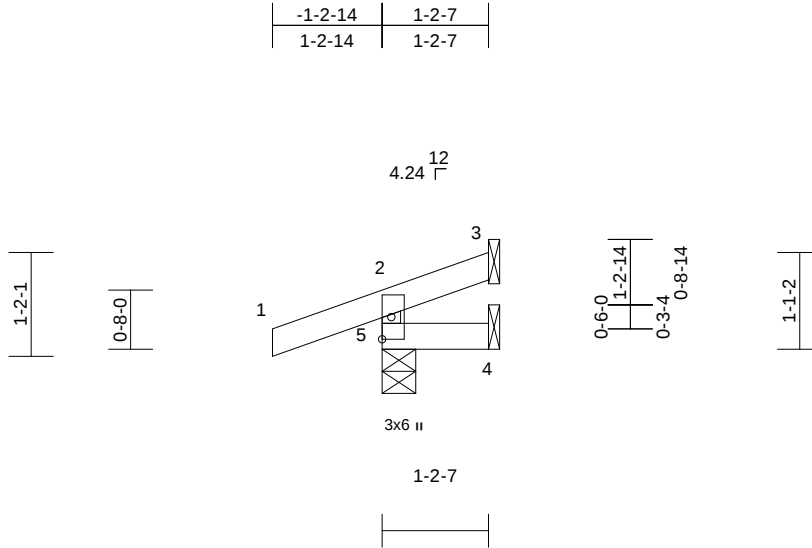
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 133 H4	I48138171
H4133	J16	Jack-Open Girder	1	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS - 66871,

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Page: 1



Scale = 1:26

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.16	Vert(LL)	0.00	4-5	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.02	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: 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 1-2-7 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS

(lb/size) 3=58/ Mechanical, 4=10/ Mechanical, 5=-100/0-4-9
Max Horiz 5=54 (LC 7)
Max Uplift 3=-36 (LC 5), 4=-7 (LC 5), 5=-242 (LC 6)
Max Grav 3=73 (LC 15), 4=13 (LC 15), 5=117 (LC 9)

FORCES

(lb) - Maximum Compression/Maximum Tension

TOP CHORD 2-5=-113/228, 1-2=-24/0, 2-3=-14/23
BOT CHORD 4-5=0/0

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) exterior 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 3-06-00 tall by 2-00-00 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 242 lb uplift at joint 5, 7 lb uplift at joint 4 and 36 lb uplift at joint 3.
- 6) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

- 7) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 2 lb down and 1 lb up at -1-2-14, and 2 lb down and 1 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=-3 (F=-1, B=-1)
Trapezoidal Loads (lb/ft)
Vert: 1=63 (F=67, B=67)-to-2=47 (F=59, B=59), 2=-30 (F=20, B=20)-to-3=-49 (F=10, B=10), 5=11 (F=16, B=16)-to-4=-4 (F=8, B=8)



September 29, 2021

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16023 Swingley Ridge Rd
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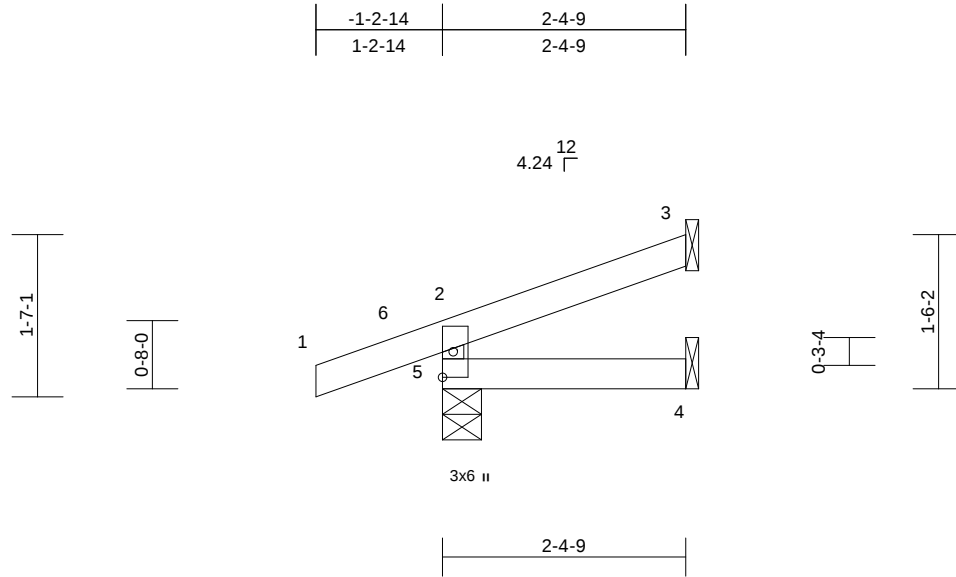
Job	Truss	Truss Type	Qty	Ply	Lot 133 H4	I48138172
H4133	J17	Jack-Open Girder	1	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.78 S 8.43 Aug 16 2021 Print: 8.430 S Aug 16 2021 MiTek Industries, Inc. Wed Sep 29 11:02:58

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Scale = 1:22.5

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.09	Vert(LL)	0.00	4-5	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.02	Vert(CT)	0.00	4-5	>999	180		
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: 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 2-4-9 oc purlins, except end verticals.
BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS

(lb/size)	3=23/ Mechanical, 4=-1/ Mechanical, 5=78/0-4-9
Max Horiz	5=57 (LC 12)
Max Uplift	3=-38 (LC 12), 4=-9 (LC 19), 5=-107 (LC 6)
Max Grav	3=23 (LC 1), 4=22 (LC 3), 5=78 (LC 1)

FORCES

(lb) - Maximum Compression/Maximum Tension	
TOP CHORD	2-5=-83/105, 1-2=-5/15, 2-3=-22/4
BOT CHORD	4-5=0/0

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) exterior 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 3-06-00 tall by 2-00-00 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 107 lb uplift at joint 5, 38 lb uplift at joint 3 and 9 lb uplift at joint 4.
- 6) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

- 7) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 18 lb down and 7 lb up at -1-2-14, and 18 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.
- 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=-28 (F=-14, B=-14)
Trapezoidal Loads (lb/ft)
Vert: 1=0 (F=35, B=35)-to-6=-23 (F=24, B=24), 6=0 (F=35, B=35)-to-2=-10 (F=30, B=30), 2=-10 (F=30, B=30)-to-3=-49 (F=10, B=10), 5=17 (F=19, B=19)-to-4=-12 (F=4, B=4)



September 29, 2021

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

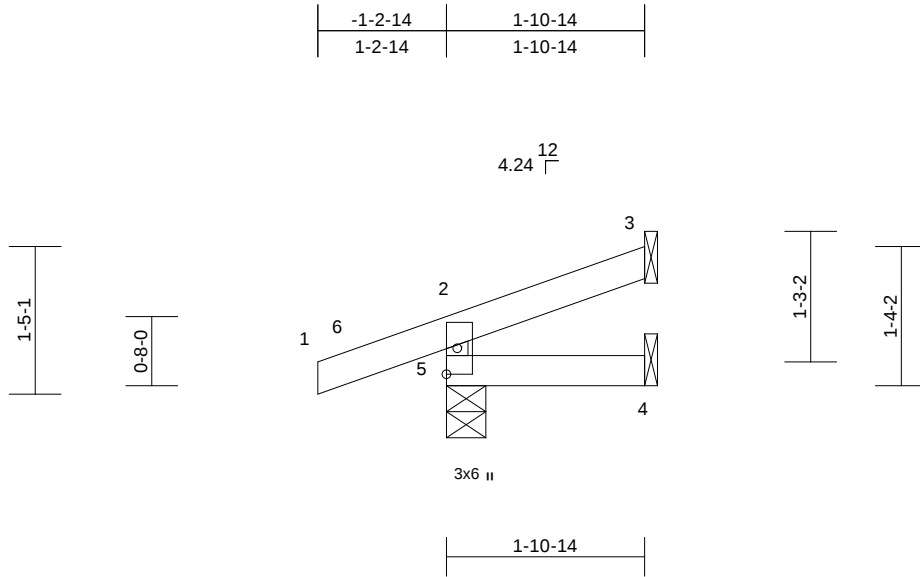
Job	Truss	Truss Type	Qty	Ply	Lot 133 H4	I48138173
H4133	J18	Jack-Open Girder	1	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.78 S 8.43 Aug 16 2021 Print: 8.430 S Aug 16 2021 MiTek Industries, Inc. Wed Sep 29 11:02:59

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ID: yQVeL3JaMLDqBo68G2v5nvznYPw-RfC?PsB70Hq3NsgPqnL8w3uITXbGKWrcDoi7J4zJC?f



Scale = 1:22.2

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.08	0.00	4-5	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.01	0.00	4-5	>999	240		
BCLL	0.0*	Rep Stress Incr	NO	WB	0.00	0.00	3	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-R		0.00	4-5	>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 1-10-14 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS

(lb/size) 3=23/ Mechanical, 4=0/ Mechanical, 5=57/0-4-9
Max Horiz 5=49 (LC 7)
Max Uplift 3=-18 (LC 12), 4=-5 (LC 20), 5=-121 (LC 6)
Max Grav 3=23 (LC 1), 4=18 (LC 3), 5=57 (LC 1)

FORCES

(lb) - Maximum Compression/Maximum Tension
TOP CHORD 2-5=-61/117, 1-2=-2/9, 2-3=-16/5
BOT CHORD 4-5=0/0

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) exterior 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 3-06-00 tall by 2-00-00 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 121 lb uplift at joint 5, 5 lb uplift at joint 4 and 18 lb uplift at joint 3.
- 6) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

- 7) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 9 lb down and 3 lb up at -1-2-14, and 9 lb down and 3 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=-14 (F=-7, B=-7)
Trapezoidal Loads (lb/ft)
Vert: 1=0 (F=35, B=35)-to-6=-10 (F=30, B=30), 6=0 (F=35, B=35)-to-2=-18 (F=26, B=26), 2=-18 (F=26, B=26)-to-3=-49 (F=10, B=10), 5=15 (F=17, B=17)-to-4=-10 (F=5, B=5)



September 29, 2021

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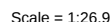
Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall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

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

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



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Chesterfield, MO 63017

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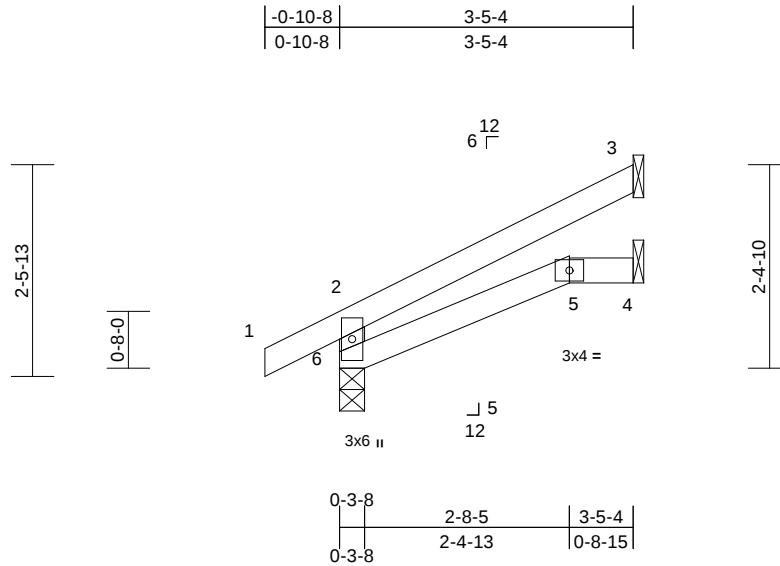
Job	Truss	Truss Type	Qty	Ply	Lot 133 H4	I48138175
H4133	J20	Jack-Open	6	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.78 S 8.43 Aug 16 2021 Print: 8.430 S Aug 16 2021 MiTek Industries, Inc. Wed Sep 29 11:03:00

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Scale = 1:27

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.14	Vert(LL)	-0.01	5-6	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.09	Vert(CT)	-0.01	5-6	>999	240		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.00	Horz(CT)	-0.01	3	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-R		Wind(LL)	0.01	5-6	>999	240	Weight: 10 lb	FT = 10%

LUMBER

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

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.

LOAD CASE(S) Standard

BRACING

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

REACTIONS

(lb/size) 3=98/ Mechanical, 4=36/
Mechanical, 6=228/0-3-8
Max Horiz 6=77 (LC 8)
Max Uplift 3=-57 (LC 8), 6=-27 (LC 8)
Max Grav 3=98 (LC 1), 4=60 (LC 3), 6=228 (LC 1)

FORCES

(lb) - Maximum Compression/Maximum Tension

TOP CHORD 2-6=-200/59, 1-2=0/32, 2-3=-64/34
BOT CHORD 5-6=-26/9, 4-5=0/0

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) exterior 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 3-06-00 tall by 2-00-00 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) 6 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 27 lb uplift at joint 6 and 57 lb uplift at joint 3.



September 29, 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

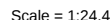
ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component

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16023 Swingley Ridge Rd
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Wheeler Lumber, Waverly, KS - 66871, Run: 8.78 S 8.43 Aug 16 2021 Print: 8.430 S Aug 16 2021 MiTek Industries, Inc. Wed Sep 29 11:03:00 Page: 1
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LUMBER		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.
TOP CHORD	2x4 SPF No.2	LOAD CASE(S) Standard
BOT CHORD	2x4 SPF No.2	
WEBS	2x3 SPF No.2	

BRACING	
TOP CHORD	Structural wood sheathing directly applied or 3-5-4 oc purlins, except end verticals.
BOT CHORD	Rigid ceiling directly applied or 6-0-0 oc bracing.
REACTIONS	(lb/size) 2=108/ Mechanical, 3=40/ Mechanical, 5=147/0-3-8
	Max Horiz 5=60 (LC 8)
	Max Uplift 2=-62 (LC 8), 5=-2 (LC 8)
	Max Grav 2=108 (LC 1), 3=63 (LC 3), 5=147 (LC 1)

FORCES	(lb) - Maximum Compression
TOP CHORD	1-5=-121/33, 1-2=-64/38
BOT CHORD	4-5=-26/10, 3-4=0/0

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) exterior 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 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- 4) Refer to girder(s) for truss to truss connections.
- 5) Bearing at joint(s) 5 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 2 lb uplift at joint 5 and 62 lb uplift at joint 2.



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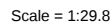


WARNING – Verify design parameters and READ NOTES ON THIS AND INCLUDED WINTER REFERENCE PAGE MH-1473 (rev. 3/29/2020) BEFORE USE. Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before 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



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Chesterfield, MO 63017

Wheeler Lumber, Waverly, KS - 66871, Run: 8.78 S 8.43 Aug 16 2021 Print: 8.430 S Aug 16 2021 MiTek Industries, Inc. Wed Sep 29 11:03:00 Page: 1
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Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.04	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.02	Vert(TL)	n/a	-	n/a	999		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.02	Horiz(TL)	0.00	5	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-P							Weight: 20 lb	FT = 10%

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-16; Vult=115mph (3-second gust)
Vasd=91mph; TCDF=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/ITP 1.
- 4) Gable requires continuous bottom chord bearing.
- 5) Gable studs spaced at 2-0-0 oc.
- 6) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.

- 7) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- 8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 102 lb uplift at joint 7 and 100 lb uplift at joint 6.
- 9) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard



September 29, 2021



WARNING: Velly design parameters are READ NOTES ON THIS AND INCLUDED WITH REFERENCE PAGE MM-1475 (Rev. 3/25/2020) BEFORE USE. Design valid for use only with MITEK® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information** available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



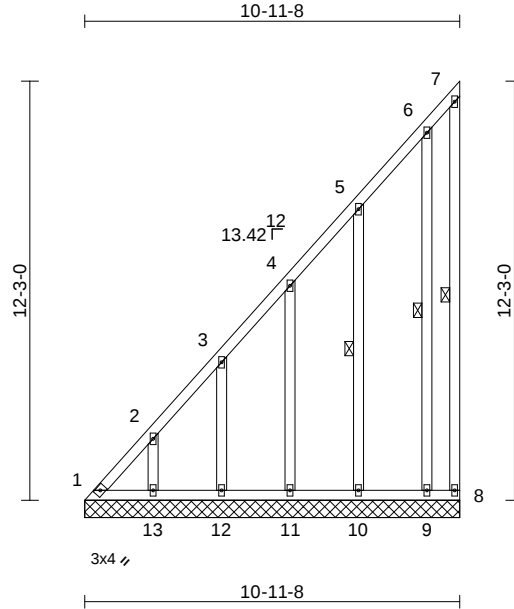
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 133 H4	I48138178
H4133	LAY2	GABLE	3	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS - 66871,

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Page: 1



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Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.07	Vert(LL)	n/a	-	999	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.02	Vert(TL)	n/a	-	999		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.11	Horiz(TL)	0.00	8	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S						Weight: 79 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, 5-10, 6-9
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REACTIONS	(lb/size)	1=57/10-11-8, 8=17/10-11-8, 9=137/10-11-8, 10=189/10-11-8, 11=178/10-11-8, 12=180/10-11-8, 13=184/10-11-8
	Max Horiz	1=478 (LC 8)
	Max Uplift	1=-157 (LC 6), 8=-19 (LC 8), 9=-96 (LC 8), 10=-144 (LC 8), 11=-134 (LC 8), 12=-135 (LC 8), 13=-138 (LC 8)
	Max Grav	1=491 (LC 8), 8=21 (LC 15), 9=157 (LC 15), 10=219 (LC 15), 11=206 (LC 15), 12=208 (LC 15), 13=212 (LC 15)

FORCES	(lb) - Maximum Compression/Maximum Tension
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TOP CHORD	1-2=-674/272, 2-3=-544/220, 3-4=-406/167, 4-5=-270/119, 5-6=-127/72, 6-7=-34/14, 7-8=-19/19
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BOT CHORD	1-13=0/0, 12-13=0/0, 11-12=0/0, 10-11=0/0, 9-10=0/0, 8-9=0/0
-----------	--

WEBS	2-13=-166/155, 3-12=-169/161, 4-11=-166/158, 5-10=-177/169, 6-9=-125/118
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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) exterior 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 3-06-00 tall by 2-00-00 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 157 lb uplift at joint 1, 19 lb uplift at joint 8, 138 lb uplift at joint 13, 135 lb uplift at joint 12, 134 lb uplift at joint 11, 144 lb uplift at joint 10 and 96 lb uplift at joint 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.

LOAD CASE(S) Standard



September 29, 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



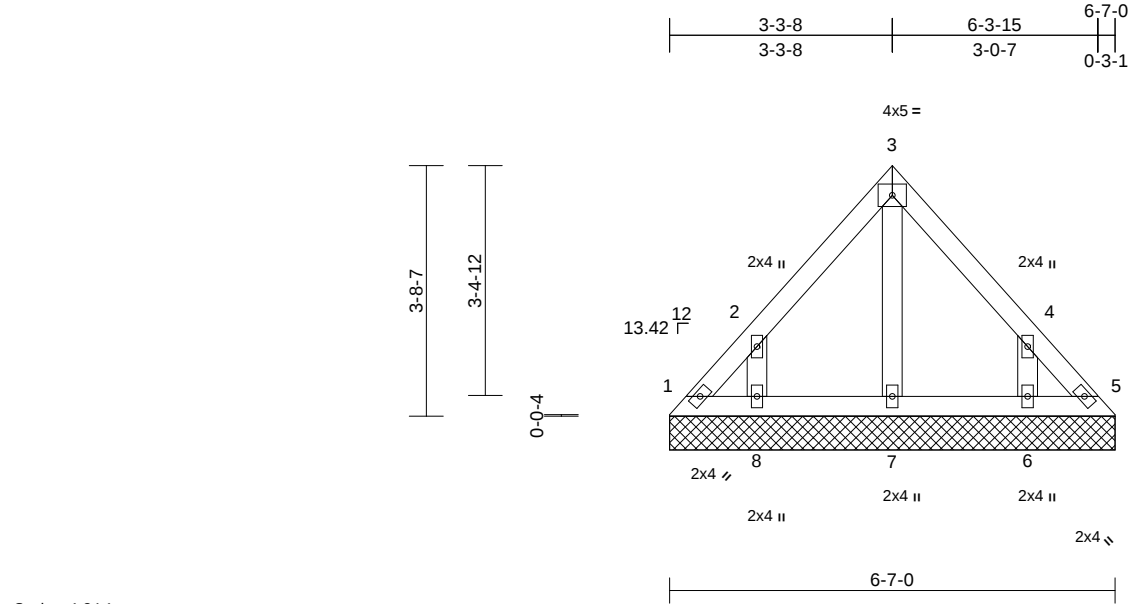
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 133 H4	I48138179
H4133	LAY3	Lay-In Gable	1	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS - 66871,

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Page: 1



Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.05	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.03	Vert(TL)	n/a	-	n/a	999		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.03	Horiz(TL)	0.00	5	n/a	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

(lb/size)	1=36/6-7-0, 5=36/6-7-0, 6=177/6-7-0, 7=112/6-7-0, 8=177/6-7-0
Max Horiz	1=-90 (LC 4)
Max Uplift	1=-43 (LC 6), 5=-28 (LC 7), 6=-141 (LC 9), 8=-141 (LC 8)
Max Grav	1=85 (LC 8), 5=75 (LC 9), 6=205 (LC 16), 7=115 (LC 18), 8=205 (LC 15)

FORCES

(lb) - Maximum Compression/Maximum Tension	
TOP CHORD	1-2=-115/82, 2-3=-99/66, 3-4=-92/53, 4-5=-103/63
BOT CHORD	1-8=-36/75, 7-8=-36/75, 6-7=-36/75, 5-6=-36/75
WEBS	3-7=-72/0, 2-8=-171/161, 4-6=-171/161

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) exterior zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- Gable requires continuous bottom chord bearing.
- Gable studs spaced at 2-0-0 oc.

- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 43 lb uplift at joint 1, 28 lb uplift at joint 5, 141 lb uplift at joint 8 and 141 lb uplift at joint 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.

LOAD CASE(S) Standard



September 29, 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



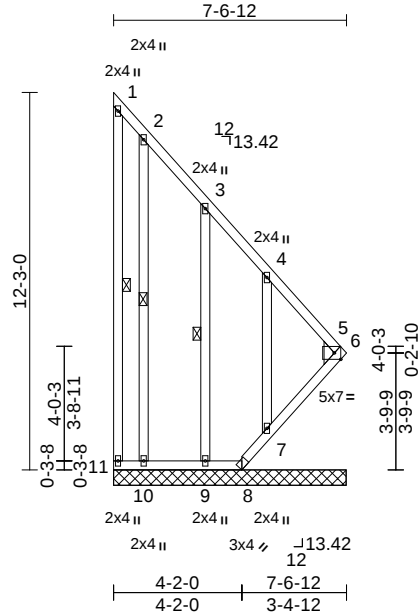
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 133 H4	
H4133	LAY4	Lay-In Gable	1	1	Job Reference (optional)	I48138180

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.78 S 8.43 Aug 16 2021 Print: 8.430 S Aug 16 2021 MiTek Industries, Inc. Wed Sep 29 11:03:01
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Page: 1



Scale = 1:74.8

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.09	Vert(LL)	n/a	-	999	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.14	Vert(TL)	n/a	-	999		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.10	Horiz(TL)	0.01	6	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S						Weight: 65 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, Except: 6-0-0 oc bracing: 6-7.
WEBS	1 Row at midpt 1-11, 2-10, 3-9

REACTIONS

(lb/size)	6=83/7-6-9, 7=222/7-6-9, 8=-4/7-6-9, 9=180/7-6-9, 10=141/7-6-9, 11=18/7-6-9
Max Horiz	11=-334 (LC 9)
Max Uplift	6=-231 (LC 7), 7=-215 (LC 9), 8=-372 (LC 9), 9=-135 (LC 9), 10=-98 (LC 9), 11=-21 (LC 9)
Max Grav	6=721 (LC 9), 7=270 (LC 16), 8=144 (LC 7), 9=206 (LC 16), 10=161 (LC 16), 11=22 (LC 16)

FORCES

(lb) - Maximum Compression/Maximum Tension	
TOP CHORD	1-11=-19/19, 1-2=-35/14, 2-3=-131/74, 3-4=-261/112, 4-5=-445/189, 5-6=-428/148
BOT CHORD	10-11=-128/334, 9-10=-128/334, 8-9=-128/334, 7-8=-190/514, 6-7=-219/527
WEBS	2-10=-129/123, 3-9=-166/151, 4-7=-208/225

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) exterior zone; cantilever left and right exposed; end vertical right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 2) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.

- 3) All plates are 2x4 MT20 unless otherwise indicated.
- 4) Gable studs spaced at 2-0-0 oc.
- 5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 6) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- 7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 21 lb uplift at joint 11, 231 lb uplift at joint 6, 372 lb uplift at joint 8, 98 lb uplift at joint 10, 135 lb uplift at joint 9 and 215 lb uplift at joint 7.
- 8) N/A
- 9) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard



September 29, 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

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



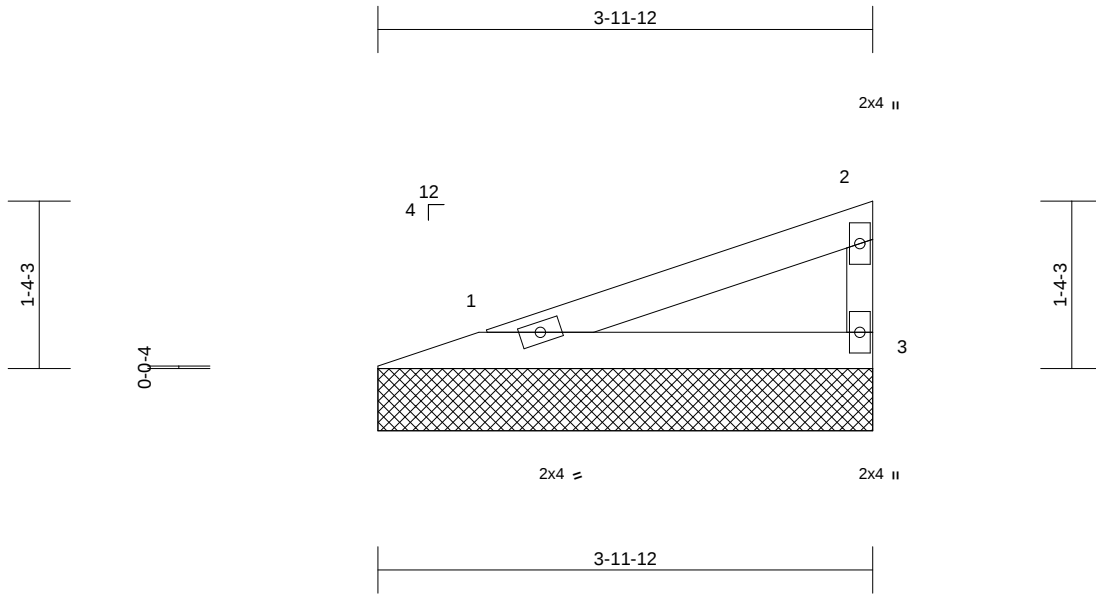
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 133 H4	I48138181
H4133	V1	Valley	1	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.78 S 8.43 Aug 16 2021 Print: 8.430 S Aug 16 2021 MiTek Industries, Inc. Wed Sep 29 11:03:02
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Page: 1



Scale = 1:18.5

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.16	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.09	Vert(TL)	n/a	-	n/a	999		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.00	Horiz(TL)	0.00	3	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-P							Weight: 9 lb	FT = 10%

LUMBER

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

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

LOAD CASE(S) Standard

BRACING

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

REACTIONS (lb/size) 1=135/3-11-12, 3=135/3-11-12
Max Horiz 1=45 (LC 5)
Max Uplift 1=-22 (LC 4), 3=-29 (LC 8)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=-40/27, 2-3=-105/47
BOT CHORD 1-3=-14/11

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) exterior zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 2) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- 3) Gable requires continuous bottom chord bearing.
- 4) Gable studs spaced at 4-0-0 oc.
- 5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 6) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- 7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 22 lb uplift at joint 1 and 29 lb uplift at joint 3.



September 29, 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



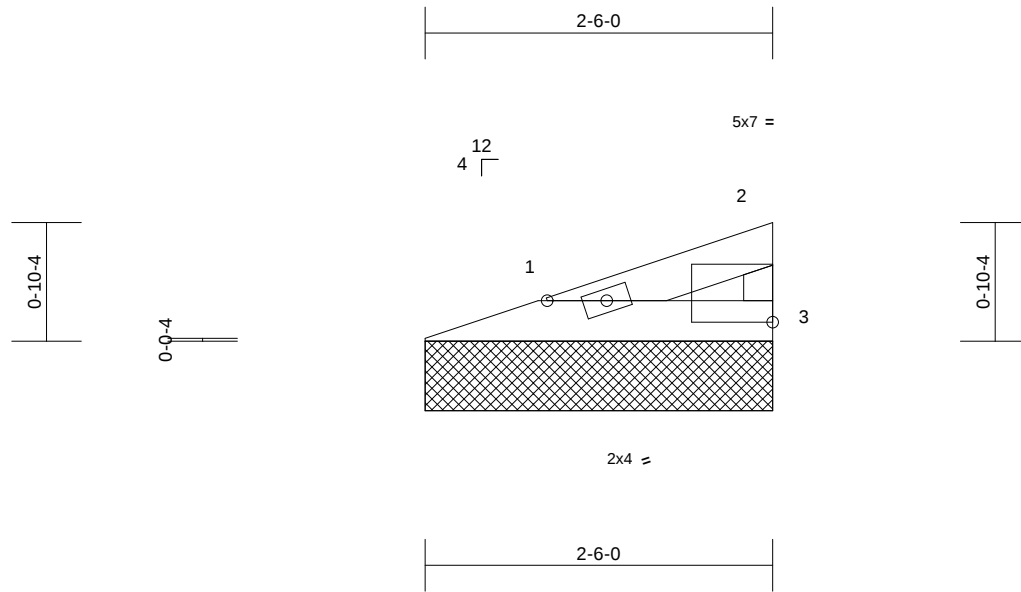
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 133 H4	I48138182
H4133	V2	Valley	1	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.78 S 8.43 Aug 16 2021 Print: 8.430 S Aug 16 2021 MiTek Industries, Inc. Wed Sep 29 11:03:02
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Page: 1



Scale = 1:16.6

Plate Offsets (X, Y): [2:Edge,0-1-14]

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.04	Vert(LL)	n/a	-	n/a	999	MT20
TCDL	10.0	Lumber DOL	1.15	BC	0.02	Vert(TL)	n/a	-	n/a	999	197/144
BCLL	0.0*	Rep Stress Incr	YES	WB	0.00	Horiz(TL)	0.00	3	n/a	n/a	
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-P							Weight: 5 lb FT = 10%

LUMBER

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

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

LOAD CASE(S) Standard

BRACING

TOP CHORD Structural wood sheathing directly applied or 2-6-12 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (lb/size) 1=68/2-6-0, 3=68/2-6-0

Max Horiz 1=23 (LC 5)

Max Uplift 1=-11 (LC 4), 3=-15 (LC 8)

FORCES

(lb) - Maximum Compression/Maximum

Tension

TOP CHORD 1-2=-20/14, 2-3=-53/24

BOT CHORD 1-3=-7/6

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) exterior zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 2) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- 3) Gable requires continuous bottom chord bearing.
- 4) Gable studs spaced at 4-0-0 oc.
- 5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 6) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- 7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 11 lb uplift at joint 1 and 15 lb uplift at joint 3.



September 29, 2021

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

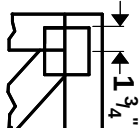
Safety Information available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



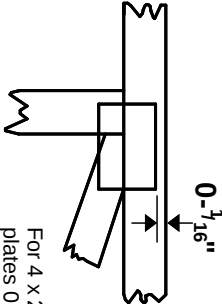
16023 Swingley Ridge Rd
Chesterfield, MO 63017

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 2012 software or upon request.**

PLATE SIZE

4 X 4

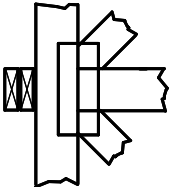
The first dimension is the plate width measured perpendicular to slots. Second dimension is the length parallel to slots.

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



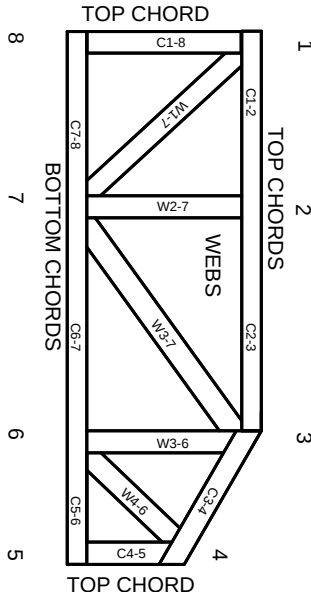
Indicates location where bearings (supports) occur. Icons vary but reaction section indicates joint number where bearings occur. Min size shown is for crushing only.

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.