RELEASE FOR CONSTRUCTION
AS NOTED ON PLANS REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
11/10/2021 2:07:56

RE: RR116
Lot 116 RR

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

Site Information:

Customer: Project Name: RR116
Lot/Block: Model:
Address: Subdivision:
City: State:

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

Design Code: IRC2018/TPI2014 Design Program: MiTek 20/20 8.4
Wind Code: ASCE 7 - 16[Low Rise] Wind Speed: 115 mph
Roof Load: 45.0 psf Floor Load: N/A psf

This package includes 57 individual, dated Truss Design Drawings and 0 Additional Drawings.

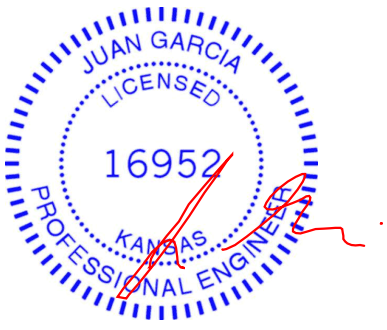
No.	Seal#	Truss Name	Date	No.	Seal#	Truss Name	Date
1	I48524904	A1	10/27/2021	21	I48524924	C11	10/27/2021
2	I48524905	A2	10/27/2021	22	I48524925	D1	10/27/2021
3	I48524906	A3	10/27/2021	23	I48524926	D2	10/27/2021
4	I48524907	A4	10/27/2021	24	I48524927	D3	10/27/2021
5	I48524908	B1	10/27/2021	25	I48524928	E1	10/27/2021
6	I48524909	B2	10/27/2021	26	I48524929	E2	10/27/2021
7	I48524910	B3	10/27/2021	27	I48524930	E3	10/27/2021
8	I48524911	B4	10/27/2021	28	I48524931	G1	10/27/2021
9	I48524912	B5	10/27/2021	29	I48524932	G2	10/27/2021
10	I48524913	B6	10/27/2021	30	I48524933	G3	10/27/2021
11	I48524914	C1	10/27/2021	31	I48524934	J1	10/27/2021
12	I48524915	C2	10/27/2021	32	I48524935	J2	10/27/2021
13	I48524916	C3	10/27/2021	33	I48524936	J3	10/27/2021
14	I48524917	C4	10/27/2021	34	I48524937	J4	10/27/2021
15	I48524918	C5	10/27/2021	35	I48524938	J5	10/27/2021
16	I48524919	C6	10/27/2021	36	I48524939	J6	10/27/2021
17	I48524920	C7	10/27/2021	37	I48524940	J7	10/27/2021
18	I48524921	C8	10/27/2021	38	I48524941	J8	10/27/2021
19	I48524922	C9	10/27/2021	39	I48524942	LAY1	10/27/2021
20	I48524923	C10	10/27/2021	40	I48524943	V1	10/27/2021

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.

October 27, 2021

Garcia, Juan

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

RE: RR116 - Lot 116 RR

Site Information:

Project Customer: Project Name: RR116
Lot/Block: Subdivision:
Address:
City, County: State:

No.	Seal#	Truss Name	Date
41	I48524944	V2	10/27/2021
42	I48524945	V3	10/27/2021
43	I48524946	V4	10/27/2021
44	I48524947	V5	10/27/2021
45	I48524948	V6	10/27/2021
46	I48524949	V7	10/27/2021
47	I48524950	V8	10/27/2021
48	I48524951	V9	10/27/2021
49	I48524952	V10	10/27/2021
50	I48524953	V11	10/27/2021
51	I48524954	V12	10/27/2021
52	I48524955	V13	10/27/2021
53	I48524956	V14	10/27/2021
54	I48524957	V15	10/27/2021
55	I48524958	V16	10/27/2021
56	I48524959	V17	10/27/2021
57	I48524960	V18	10/27/2021

RE: RR116
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Site Information:

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Lot/Block: Model:
Address: Subdivision:
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General Truss Engineering Criteria & Design Loads (Individual Truss Design Drawings Show Special Loading Conditions):

Design Code: IRC2018/TPI2014 Design Program: MiTek 20/20 8.4
Wind Code: ASCE 7 - 16[Low Rise] Wind Speed: 115 mph
Roof Load: 45.0 psf Floor Load: N/A psf

This package includes 57 individual, dated Truss Design Drawings and 0 Additional Drawings.

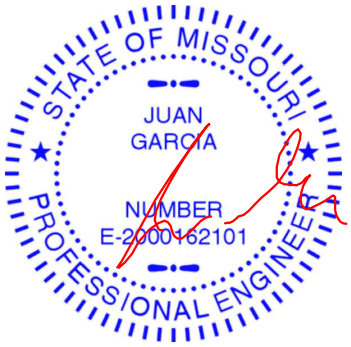
No.	Seal#	Truss Name	Date	No.	Seal#	Truss Name	Date
1	I48524904	A1	10/27/2021	21	I48524924	C11	10/27/2021
2	I48524905	A2	10/27/2021	22	I48524925	D1	10/27/2021
3	I48524906	A3	10/27/2021	23	I48524926	D2	10/27/2021
4	I48524907	A4	10/27/2021	24	I48524927	D3	10/27/2021
5	I48524908	B1	10/27/2021	25	I48524928	E1	10/27/2021
6	I48524909	B2	10/27/2021	26	I48524929	E2	10/27/2021
7	I48524910	B3	10/27/2021	27	I48524930	E3	10/27/2021
8	I48524911	B4	10/27/2021	28	I48524931	G1	10/27/2021
9	I48524912	B5	10/27/2021	29	I48524932	G2	10/27/2021
10	I48524913	B6	10/27/2021	30	I48524933	G3	10/27/2021
11	I48524914	C1	10/27/2021	31	I48524934	J1	10/27/2021
12	I48524915	C2	10/27/2021	32	I48524935	J2	10/27/2021
13	I48524916	C3	10/27/2021	33	I48524936	J3	10/27/2021
14	I48524917	C4	10/27/2021	34	I48524937	J4	10/27/2021
15	I48524918	C5	10/27/2021	35	I48524938	J5	10/27/2021
16	I48524919	C6	10/27/2021	36	I48524939	J6	10/27/2021
17	I48524920	C7	10/27/2021	37	I48524940	J7	10/27/2021
18	I48524921	C8	10/27/2021	38	I48524941	J8	10/27/2021
19	I48524922	C9	10/27/2021	39	I48524942	LAY1	10/27/2021
20	I48524923	C10	10/27/2021	40	I48524943	V1	10/27/2021

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

Truss Design Engineer's Name: Garcia, Juan

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

Missouri COA: 001193



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

October 27, 2021

Garcia, Juan

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

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Site Information:

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No.	Seal#	Truss Name	Date
41	I48524944	V2	10/27/2021
42	I48524945	V3	10/27/2021
43	I48524946	V4	10/27/2021
44	I48524947	V5	10/27/2021
45	I48524948	V6	10/27/2021
46	I48524949	V7	10/27/2021
47	I48524950	V8	10/27/2021
48	I48524951	V9	10/27/2021
49	I48524952	V10	10/27/2021
50	I48524953	V11	10/27/2021
51	I48524954	V12	10/27/2021
52	I48524955	V13	10/27/2021
53	I48524956	V14	10/27/2021
54	I48524957	V15	10/27/2021
55	I48524958	V16	10/27/2021
56	I48524959	V17	10/27/2021
57	I48524960	V18	10/27/2021

Job	Truss	Truss Type	Qty	Ply	Lot 116 RR	
RR116	A1	Hip Girder	1	1	Job Reference (optional)	I48524904

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.43 S Jun 2 2021 Print: 8.430 S Jun 2 2021 MiTek Industries, Inc. Wed Oct 27 11:38:20 Page: 1
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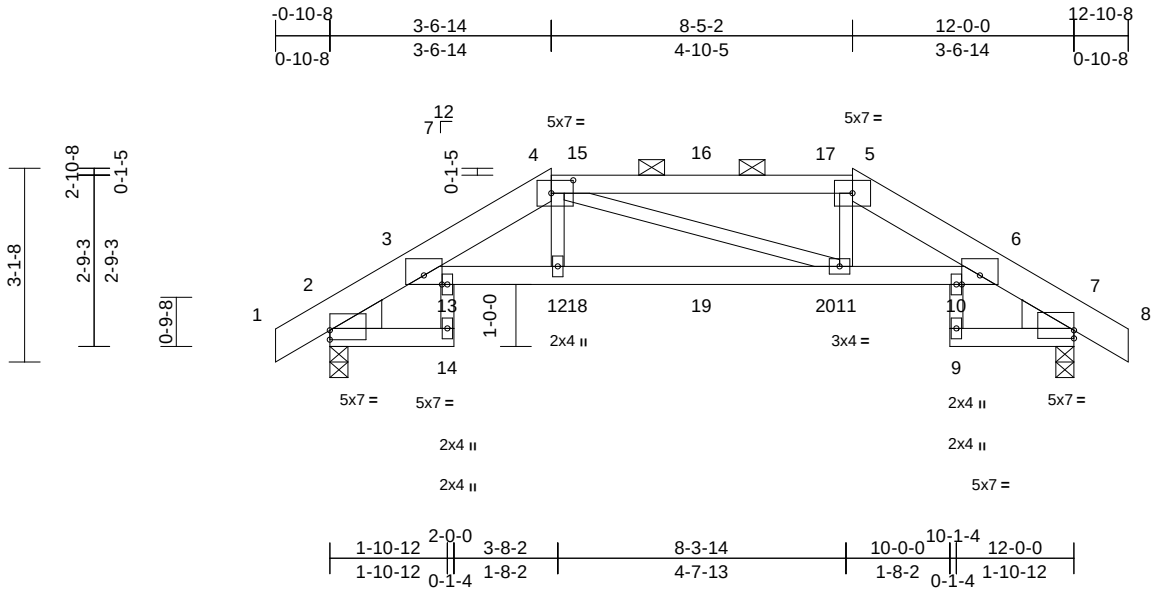


Scale = 1:37.2

Plate Offsets (X, Y): [2:Edge,0-1-13], [4:0-4-4,0-2-8], [7:Edge,0-1-9]

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)	-0.08	11-12	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.73	Vert(CT)	-0.15	11-12	>920	240		
BCLL	0.0*	Rep Stress Incr	NO	WB	0.15	Horz(CT)	0.18	7	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S		Wind(LL)	0.07	11-12	>999	240	Weight: 50 lb	FT = 10%

LUMBER

TOP CHORD	2x6 SPF No.2 *Except* 4-5:2x4 SPF No.2
BOT CHORD	2x4 SPF No.2 *Except* 9-7:2x4 SPF 2100F 1.8E
WEBS	2x3 SPF No.2
WEDGE	Left: 2x6 SPF No.2 Right: 2x6 SPF No.2

BRACING

TOP CHORD	Structural wood sheathing directly applied or 4-1-14 oc purlins, except 2-0-0 oc purlins (3-8-13 max.): 4-5.
BOT CHORD	Rigid ceiling directly applied or 8-8-7 oc bracing. Except: 9-5-0 oc bracing: 10-11

REACTIONS (lb/size) 2=932/0-3-8, 7=932/0-3-8
Max Horiz 2=68 (LC 7)
Max Uplift 2=-222 (LC 8), 7=-221 (LC 9)

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

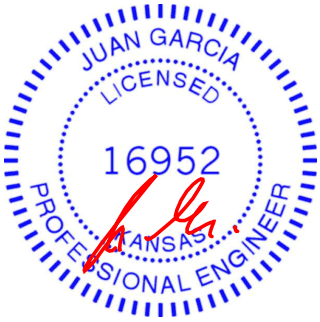
TOP CHORD	2-3=-596/168, 3-4=-1911/468, 4-15=-1765/425, 15-16=-1765/425, 16-17=-1765/425, 5-17=-1765/425, 5-6=-1914/438, 6-7=-604/161
BOT CHORD	3-13=-458/1732, 12-13=-458/1732, 12-18=-462/1763, 18-19=-462/1763, 19-20=-462/1763, 11-20=-462/1763, 10-11=-398/1734, 6-10=-398/1734
WEBS	4-12=-62/436, 5-11=-68/446

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 222 lb uplift at joint 2 and 221 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.
9) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 74 lb down and 59 lb up at 4-0-0, and 78 lb down and 58 lb up at 6-0-0, and 74 lb down and 59 lb up at 8-0-0 on top chord, and 197 lb down and 67 lb up at 3-6-14, 44 lb down and 14 lb up at 4-0-0, 44 lb down and 14 lb up at 6-0-0, and 44 lb down and 14 lb up at 8-0-0, and 197 lb down and 67 lb up at 8-5-2 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
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: 1-4=-70, 4-5=-70, 5-8=-70, 2-14=-20, 10-13=-20, 7-9=-20
   Concentrated Loads (lb)
   Vert: 12=-197 (F), 11=-197 (F), 15=-47 (F), 16=-47 (F), 17=-47 (F), 18=-44 (F), 19=-44 (F), 20=-44 (F)



October 27,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 116 RR	
RR116	A2	Hip	1	1	Job Reference (optional)	I48524905

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.43 S Oct 11 2021 Print: 8.430 S Oct 11 2021 MiTek Industries, Inc. Tue Oct 26 11:05:47 Page: 1
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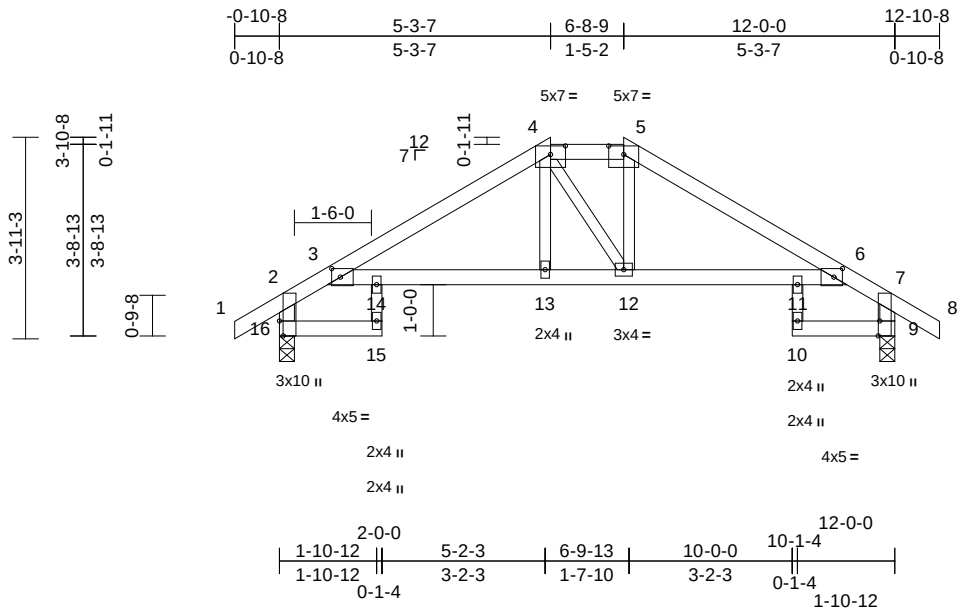

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Plate Offsets (X, Y): [3:0-2-0,0-2-0], [4:0-3-8,0-2-0], [5:0-3-8,0-2-0], [6:0-2-0,0-2-0], [9:0-3-8,Edge], [16:0-3-8,Edge]

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	0.53	Vert(LL)	-0.08	13-14	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.63	Vert(CT)	-0.16	13-14	>886	240		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.07	Horz(CT)	0.23	9	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S		Wind(LL)	0.07	13-14	>999	240	Weight: 42 lb	FT = 10%

LUMBER
TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
WEBS 2x3 SPF No.2 *Except* 16-2,9-7:2x4 SPF No.2

BRACING
TOP CHORD Structural wood sheathing directly applied or 5-6-2 oc purlins, except end verticals, and 2-0-0 oc purlins (6-0-0 max.): 4-5.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing. Except:
10-0-0 oc bracing: 11-12

REACTIONS (lb/size) 9=598/0-3-8, 16=598/0-3-8
Max Horiz 16=114 (LC 7)
Max Uplift 9=-81 (LC 9), 16=-81 (LC 8)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/36, 2-3=-270/74, 3-4=-813/77, 4-5=-667/88, 5-6=-814/64, 6-7=-266/52, 7-8=0/36, 2-16=-621/107, 7-9=-621/98
BOT CHORD 15-16=0/0, 3-14=-18/671, 13-14=-18/671, 12-13=-18/665, 11-12=0/673, 6-11=0/673, 9-10=0/0
WEBS 14-15=-8/69, 10-11=0/59, 4-13=-2/167, 4-12=-126/131, 5-12=-18/192

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 81 lb uplift at joint 16 and 81 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.

LOAD CASE(S) Standard

October 27,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 116 RR	
RR116	A3	Roof Special	1	1	Job Reference (optional)	I48524906

Wheeler Lumber, Waverly, KS - 66871,

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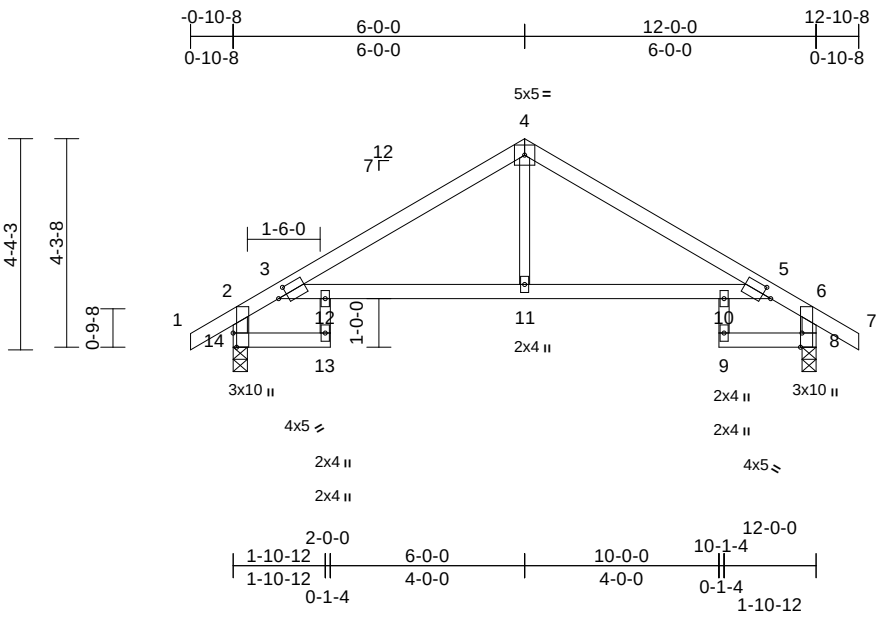

Scale = 1:47.4

Plate Offsets (X, Y): [3:0-2-4,0-1-15], [5:0-2-4,0-1-15], [8:0-3-8,Edge], [14:0-3-8,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	0.53	Vert(LL)	-0.10	11-12	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.70	Vert(CT)	-0.19	11-12	>753	240		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.10	Horz(CT)	0.25	8	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-R		Wind(LL)	0.10	11-12	>999	240	Weight: 39 lb	FT = 10%

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

BRACING
TOP CHORD Structural wood sheathing directly applied or 5-5-7 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing. Except:
10-0-0 oc bracing: 10-11

REACTIONS (lb/size) 8=598/0-3-8, 14=598/0-3-8
Max Horiz 14=126 (LC 7)
Max Uplift 8=-85 (LC 9), 14=-85 (LC 8)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/36, 2-3=-288/85, 3-4=-766/76, 4-5=-766/101, 5-6=-268/55, 6-7=0/36, 2-14=-623/115, 6-8=-623/104
BOT CHORD 13-14=0/0, 3-12=-9/618, 11-12=-9/618, 10-11=-9/618, 5-10=-9/618, 8-9=0/0
WEBS 12-13=-10/75, 9-10=0/60, 4-11=0/327

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) 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) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 85 lb uplift at joint 14 and 85 lb uplift at joint 8.
6) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard

October 27,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 116 RR	
RR116	A4	Roof Special	1	1	Job Reference (optional)	I48524907

Wheeler Lumber, Waverly, KS - 66871,

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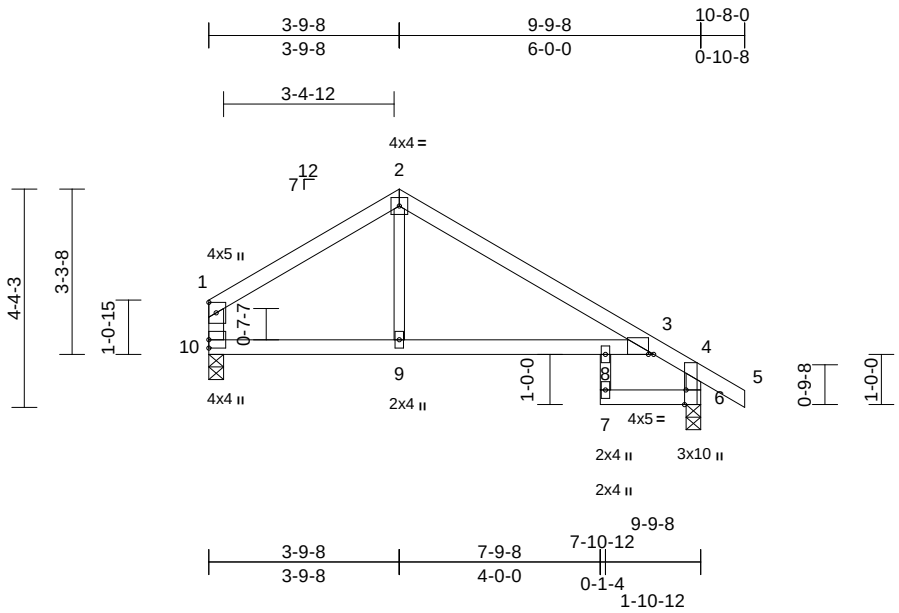

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Plate Offsets (X, Y): [3:0-1-4,Edge], [6:0-3-8,Edge]

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	0.51	Vert(LL)	-0.11	8-9	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.60	Vert(CT)	-0.20	8-9	>558	240		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.06	Horz(CT)	0.12	6	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-R		Wind(LL)	0.09	8-9	>999	240	Weight: 31 lb	FT = 10%

LUMBER
TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
WEBS 2x3 SPF No.2 *Except* 10-1,6-4:2x4 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:
10-0-0 oc bracing: 8-9

REACTIONS (lb/size) 6=503/0-3-8, 10=424/0-3-8
Max Horiz 10=-122 (LC 4)
Max Uplift 6=-85 (LC 9), 10=-40 (LC 8)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-490/80, 2-3=-474/59, 3-4=-217/55, 4-5=0/36, 1-10=-360/64, 4-6=-519/104
BOT CHORD 9-10=0/357, 8-9=0/357, 3-8=0/357, 6-7=0/0
WEBS 7-8=0/53, 2-9=0/198

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) 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) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 40 lb uplift at joint 10 and 85 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

October 27,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 116 RR
RR116	B1	Common Supported Gable	1	1	I48524908
					Job Reference (optional)

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.43 S Oct 11 2021 Print: 8.430 S Oct 11 2021 MiTek Industries, Inc. Tue Oct 26 11:05:49 Page: 1
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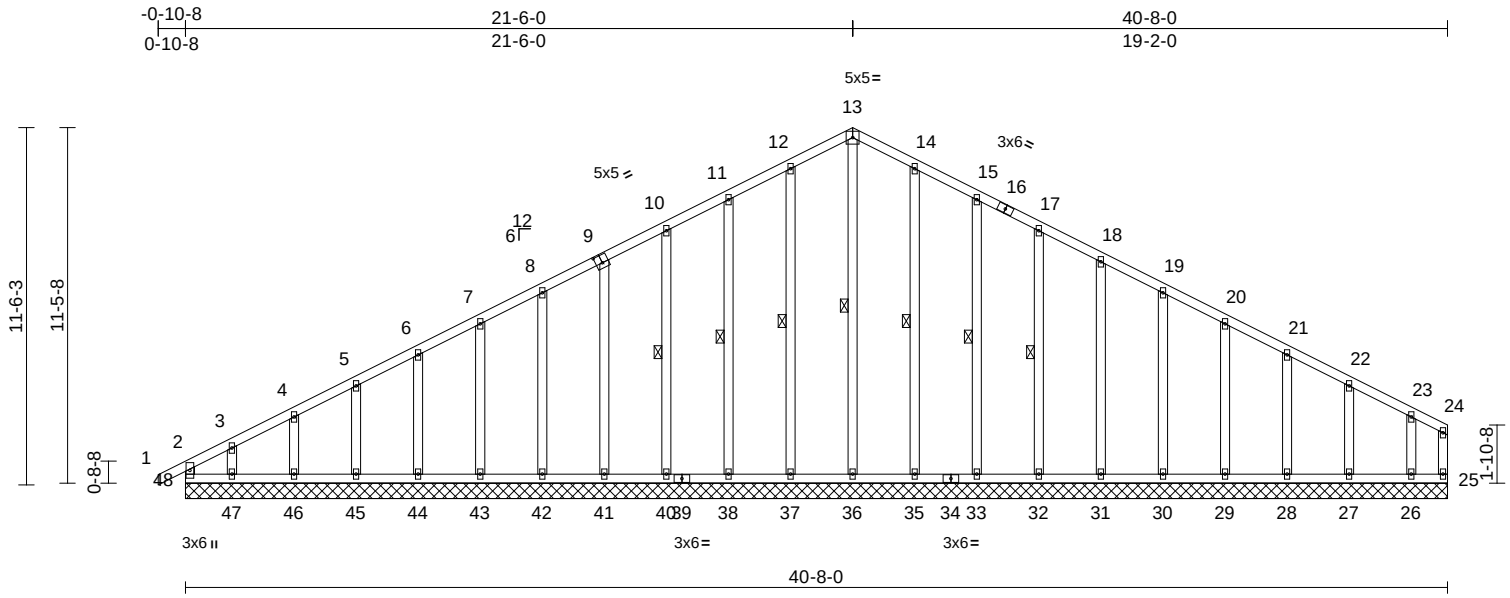

Scale = 1:74.2

Plate Offsets (X, Y): [9:0-2-8,0-3-0]

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	0.08	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.06	Vert(CT)	n/a	-	n/a	999		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.14	Horz(CT)	0.00	25	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-R							Weight: 236 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 13-36, 12-37, 11-38, 10-40, 14-35, 15-33, 17-32

REACTIONS (lb/size) 25=30/40-8-0, 26=148/40-8-0, 27=186/40-8-0, 28=179/40-8-0, 29=180/40-8-0, 30=180/40-8-0, 31=180/40-8-0, 32=180/40-8-0, 33=179/40-8-0, 35=187/40-8-0, 36=165/40-8-0, 37=187/40-8-0, 38=177/40-8-0, 40=187/40-8-0, 41=179/40-8-0, 42=173/40-8-0, 43=181/40-8-0, 44=180/40-8-0, 45=178/40-8-0, 46=189/40-8-0, 47=128/40-8-0, 48=151/40-8-0
Max Horiz 48=199 (LC 5)
Max Uplift 25=-7 (LC 7), 26=-142 (LC 9), 27=-46 (LC 9), 28=-56 (LC 9), 29=-53 (LC 9), 30=-54 (LC 9), 31=-54 (LC 9), 32=-53 (LC 9), 33=-61 (LC 9), 35=-41 (LC 9), 37=-46 (LC 8), 38=-58 (LC 8), 40=-56 (LC 8), 41=-54 (LC 8), 42=-49 (LC 8), 43=-55 (LC 8), 44=-53 (LC 8), 45=-57 (LC 8), 46=-41 (LC 8), 47=-139 (LC 8), 48=-100 (LC 4)
Max Grav 25=111 (LC 9), 26=148 (LC 22), 27=186 (LC 1), 28=179 (LC 22), 29=180 (LC 1), 30=180 (LC 1), 31=180 (LC 22), 32=180 (LC 1), 33=179 (LC 22), 35=189 (LC 22), 36=278 (LC 9), 37=190 (LC 21), 38=178 (LC 21), 40=187 (LC 1), 41=179 (LC 21), 42=173 (LC 1), 43=181 (LC 21), 44=180 (LC 1), 45=178 (LC 21), 46=189 (LC 1), 47=154 (LC 15), 48=206 (LC 17)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 2-48=-166/88, 1-2=0/32, 2-3=-239/136, 3-4=-182/130, 4-5=-153/154, 5-6=-128/179, 6-7=-114/205, 7-8=-99/231, 8-10=-84/282, 10-11=-62/308, 11-12=-51/336, 12-13=-51/355, 13-14=-49/347, 14-15=-45/307, 15-17=-41/258, 17-18=-37/213, 18-19=-35/168, 19-20=-36/122, 20-21=-36/93, 21-22=-37/67, 22-23=-50/43, 23-24=-81/27, 24-25=-62/7
BOT CHORD 47-48=-35/52, 46-47=-35/52, 45-46=-35/52, 44-45=-35/52, 43-44=-35/52, 42-43=-35/52, 41-42=-35/52, 40-41=-35/52, 38-40=-35/52, 37-38=-35/52, 36-37=-35/52, 35-36=-35/52, 33-35=-35/52, 32-33=-35/52, 31-32=-35/52, 30-31=-35/52, 29-30=-35/52, 28-29=-35/52, 27-28=-35/52, 26-27=-35/52, 25-26=-35/52
WEBS 13-36=-254/12, 12-37=-150/70, 11-38=-138/82, 10-40=-147/80, 9-41=-139/78, 8-42=-133/73, 7-43=-141/79, 6-44=-140/78, 5-45=-138/79, 4-46=-147/72, 3-47=-106/118, 14-35=-149/65, 15-33=-139/85, 17-32=-140/77, 18-31=-140/78, 19-30=-140/78, 20-29=-140/78, 21-28=-139/78, 22-27=-145/77, 23-26=-116/113

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 ; and vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
4) All plates are 2x4 MT20 unless otherwise indicated.
5) Gable requires continuous bottom chord bearing.
6) Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
7) Gable studs spaced at 2-0-0 oc.
8) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
9) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.

STATE OF MISSOURI JUAN GARCIA NUMBER PE-2009016901 PROFESSIONAL ENGINEER

JUAN GARCIA LICENSED 16952 KANSAS PROFESSIONAL ENGINEER

October 27,2021

Continued on page 2

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

10) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint 48, 7 lb uplift at joint 25, 46 lb uplift at joint 37, 58 lb uplift at joint 38, 56 lb uplift at joint 40, 54 lb uplift at joint 41, 49 lb uplift at joint 42, 55 lb uplift at joint 43, 53 lb uplift at joint 44, 57 lb uplift at joint 45, 41 lb uplift at joint 46, 139 lb uplift at joint 47, 41 lb uplift at joint 35, 61 lb uplift at joint 33, 53 lb uplift at joint 32, 54 lb uplift at joint 31, 54 lb uplift at joint 30, 53 lb uplift at joint 29, 56 lb uplift at joint 28, 46 lb uplift at joint 27 and 142 lb uplift at joint 26.
11) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard

Job	Truss	Truss Type	Qty	Ply	Lot 116 RR	
RR116	B2	Roof Special	6	1	Job Reference (optional)	I48524909

Wheeler Lumber, Waverly, KS - 66871, Run: 8.43 S Oct 11 2021 Print: 8.430 S Oct 11 2021 MiTek Industries, Inc. Tue Oct 26 11:05:49 Page: 1

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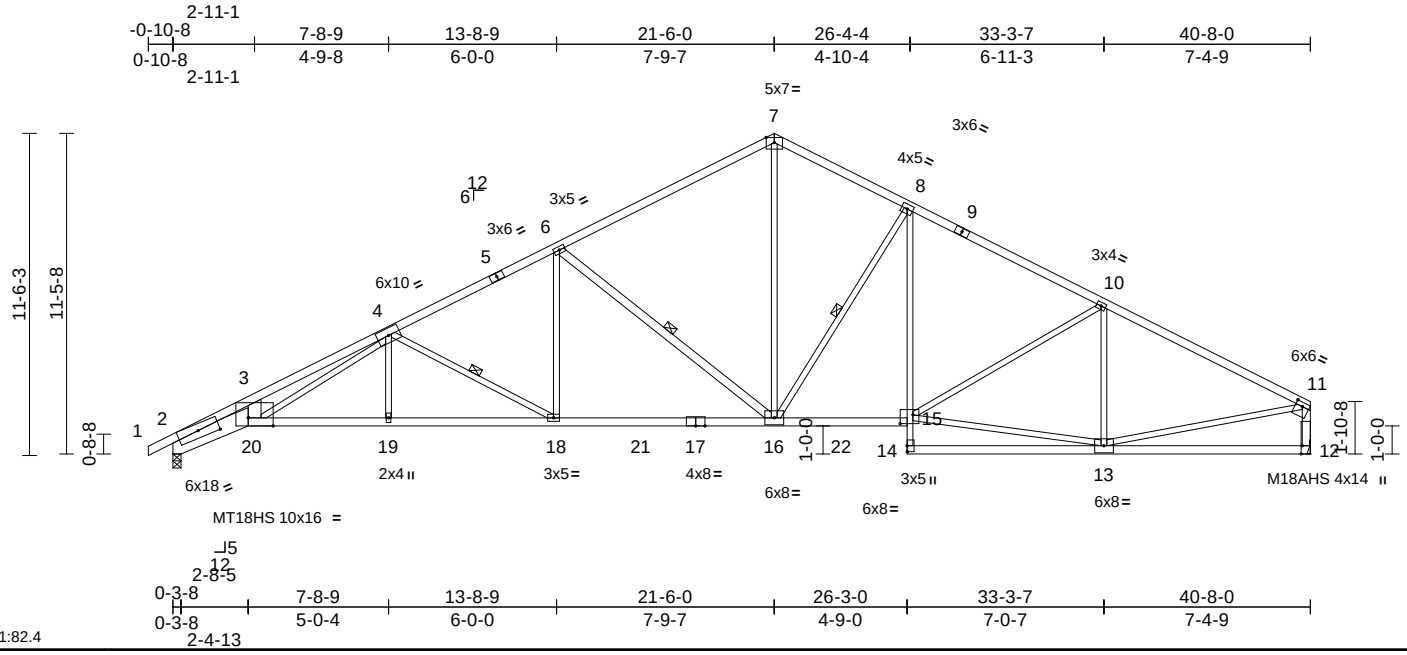

Scale = 1:82.4

Plate Offsets (X, Y): [2:0-9-0,0-3-2], [11:Edge,0-1-12], [12:0-3-8,Edge], [15:0-5-8,0-3-12], [20:0-10-11,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	1.00	Vert(LL)	-0.40	19-20	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.87	Vert(CT)	-0.70	16-18	>691	240	M18AHS	142/136
BCLL	0.0*	Rep Stress Incr	YES	WB	0.84	Horz(CT)	0.38	12	n/a	n/a	MT18HS	197/144
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S		Wind(LL)	0.29	19-20	>999	240	Weight: 181 lb	FT = 10%

LUMBER

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

BOT CHORD 2x4 SPF 2100F 1.8E *Except* 2-20:2x8 SP DSS, 8-14:2x3 SPF No.2, 14-12:2x4 SPF No.2

WEBS 2x3 SPF No.2 *Except* 20-3:2x6 SPF No.2, 16-6,12-11:2x4 SPF No.2

BRACING

TOP CHORD Structural wood sheathing directly applied, except end verticals.

BOT CHORD Rigid ceiling directly applied or 9-2-14 oc bracing.

WEBS 1 Row at midpt 4-18, 6-16, 8-16

REACTIONS (lb/size) 2=1889/0-3-8, 12=1816/ Mechanical

Max Horiz 2=204 (LC 12)

Max Uplift 2=-257 (LC 8), 12=-215 (LC 9)

Max Grav 2=1969 (LC 2), 12=1906 (LC 2)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=0/11, 2-3=-7350/1089, 3-4=-6491/1103, 4-6=-3251/424, 6-7=-2280/318, 7-8=-2235/356, 8-10=-2728/334, 10-11=-2595/297, 11-12=-1789/250

BOT CHORD 2-20=-1138/6537, 19-20=-562/3738, 18-19=-562/3738, 16-18=-339/2841, 15-16=-109/2357, 14-15=0/120, 8-15=-56/540, 13-14=0/127, 12-13=-46/140

WEBS 3-20=-18/1062, 4-20=-592/2484, 4-19=0/250, 4-18=-1022/254, 6-18=-29/753, 6-16=-1151/326, 7-16=-166/1597, 8-16=-792/258, 13-15=-211/2148, 10-15=-52/200, 10-13=-644/172, 11-13=-162/2158

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) All plates are MT20 plates unless otherwise indicated.
4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
5) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
6) Refer to girder(s) for truss to truss connections.
7) 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 257 lb uplift at joint 2 and 215 lb uplift at joint 12.
9) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard

October 27,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 116 RR	
RR116	B3	Roof Special	1	1	Job Reference (optional)	I48524910

Wheeler Lumber, Waverly, KS - 66871,

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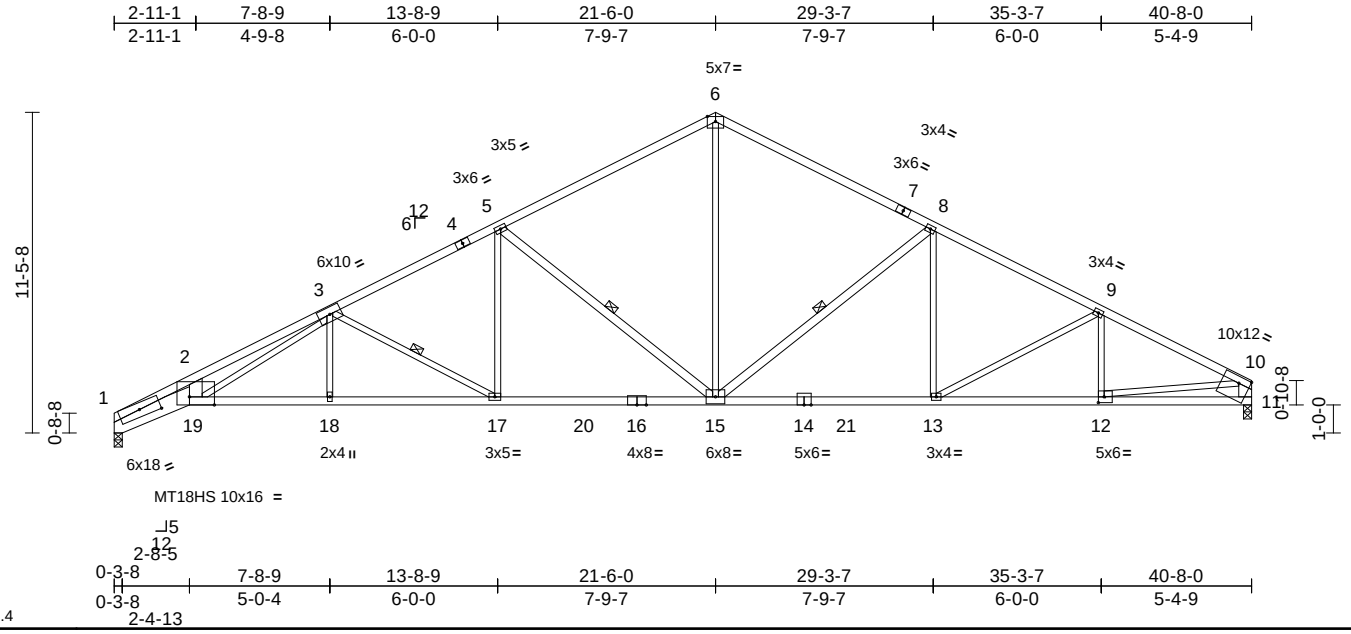

MT18HS 10x16 =

Scale = 1:82.4

Plate Offsets (X, Y): [1:0-9-0,0-3-2], [10:Edge,0-2-12], [12:0-2-8,0-2-8], [19:0-10-11,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	1.00	Vert(LL)	-0.40	18-19	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.88	Vert(CT)	-0.70	18-19	>691	240	MT18HS	197/144
BCLL	0.0*	Rep Stress Incr	YES	WB	0.85	Horz(CT)	0.35	11	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S		Wind(LL)	0.29	18-19	>999	240	Weight: 171 lb	FT = 10%

LUMBER

TOP CHORD 2x4 SPF 2100F 1.8E
BOT CHORD 2x4 SPF 2100F 1.8E *Except* 1-19:2x8 SP DSS
WEBS 2x3 SPF No.2 *Except* 19-2,11-10:2x6 SPF No.2, 15-5,15-8:2x4 SPF No.2

BRACING

TOP CHORD Structural wood sheathing directly applied, except end verticals.
BOT CHORD Rigid ceiling directly applied or 9-0-0 oc bracing.
WEBS 1 Row at midpt 3-17, 5-15, 8-15

REACTIONS (lb/size) 1=1813/0-3-8, 11=1813/0-3-8
Max Horiz 1=217 (LC 8)
Max Uplift 1=-233 (LC 8), 11=-214 (LC 9)
Max Grav 1=1907 (LC 2), 11=1913 (LC 2)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=-7373/1132, 2-3=-6532/1146, 3-5=-3245/428, 5-6=-2279/318, 6-8=-2281/349, 8-9=-2925/345, 9-10=-3074/340, 10-11=-1805/239
BOT CHORD 1-19=-1200/6545, 18-19=-590/3741, 17-18=-590/3741, 15-17=-362/2835, 13-15=-145/2559, 12-13=-251/2686, 11-12=-71/384
WEBS 2-19=-17/1037, 3-19=-628/2515, 3-18=0/253, 3-17=-1031/259, 5-17=-34/751, 5-15=-1142/328, 6-15=-134/1518, 8-15=-821/273, 8-13=0/383, 9-13=-218/121, 9-12=-208/94, 10-12=-182/2323

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) All plates are MT20 plates unless otherwise indicated.
4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
5) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
6) Bearing at joint(s) 1 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 233 lb uplift at joint 1 and 214 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.

LOAD CASE(S) Standard

October 27,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 116 RR	
RR116	B4	Roof Special	2	1	Job Reference (optional)	I48524911

Wheeler Lumber, Waverly, KS - 66871,

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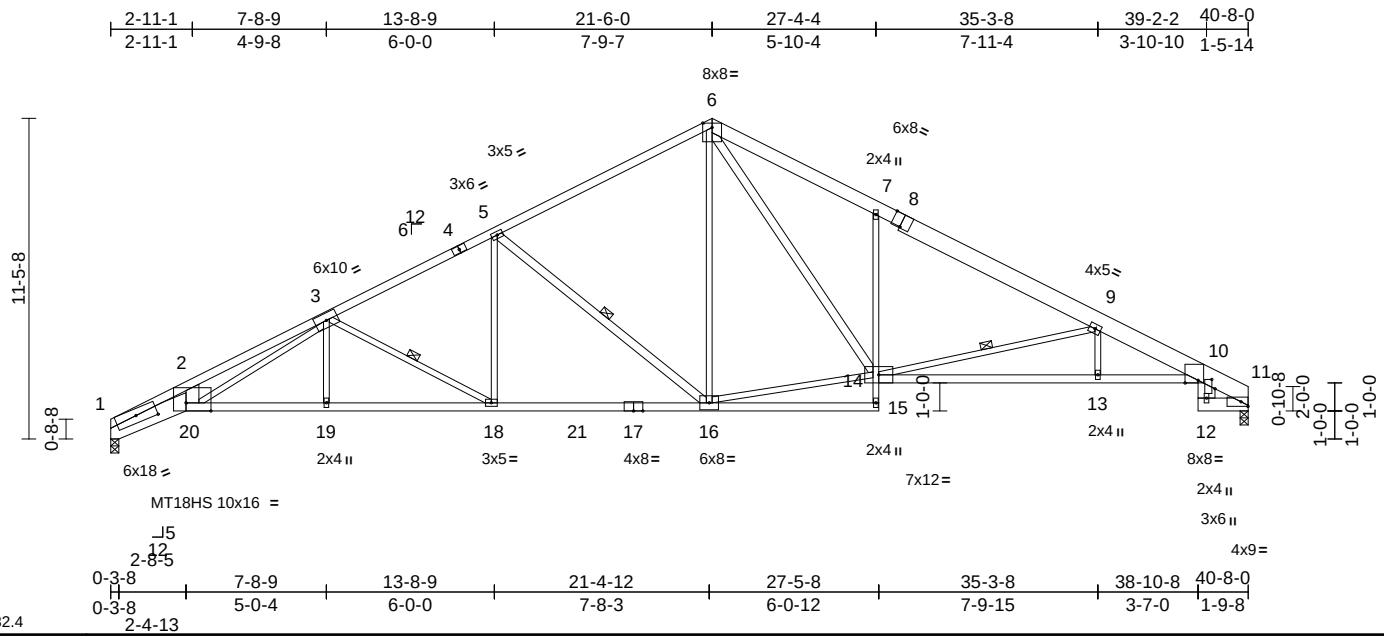

Scale = 1:82.4

Plate Offsets (X, Y): [1:0-9-0,0-3-2], [8:0-4-0,Edge], [10:0-5-10,Edge], [10:0-4-0,0-1-6], [11:0-3-0,0-2-0], [20:0-10-11,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	0.99	Vert(LL)	-0.44	16-18	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.98	Vert(CT)	-0.77	16-18	>628	240	MT18HS	197/144
BCLL	0.0*	Rep Stress Incr	YES	WB	0.94	Horz(CT)	0.54	11	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S		Wind(LL)	0.30	19-20	>999	240	Weight: 208 lb	FT = 10%

LUMBER

TOP CHORD 2x4 SPF 2100F 1.8E *Except* 6-8:2x6 SPF No.2, 8-11:2x8 SP 2400F 2.0E

BOT CHORD 2x4 SPF 2100F 1.8E *Except* 1-20:2x8 SP DSS, 15-7:2x3 SPF No.2, 12-11:2x6 SPF No.2, 17-15:2x4 SPF No.2

WEBS 2x3 SPF No.2 *Except* 10-12:2x8 SP DSS, 20-2:2x6 SPF No.2, 16-5,14-6:2x4 SPF No.2

BRACING

TOP CHORD Structural wood sheathing directly applied.

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

WEBS 1 Row at midpt 3-18, 5-16, 9-14

REACTIONS (lb/size) 1=1817/0-3-8, 11=1817/0-3-8
Max Horiz 1=216 (LC 8)
Max Uplift 1=-234 (LC 8), 11=-214 (LC 9)
Max Grav 1=1895 (LC 2), 11=1884 (LC 2)

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

TOP CHORD 1-2=-7326/1132, 2-3=-6492/1145, 3-4=-3219/422, 4-5=-3080/429, 5-6=-2260/322, 6-7=-3177/497, 7-8=-3032/337, 8-9=-3193/314, 9-10=-4500/483, 10-11=-1232/157

BOT CHORD 1-20=-1199/6504, 19-20=-591/3712, 18-19=-590/3712, 18-21=-361/2812, 17-21=-361/2812, 16-17=-361/2812, 7-14=-517/284, 13-14=-380/4224, 10-13=-383/4224

WEBS 2-20=-18/1028, 3-20=-626/2505, 3-19=0/251, 3-18=-1024/261, 5-18=-34/755, 5-16=-1133/321, 6-16=-98/722, 14-16=-92/1926, 6-14=-325/1552, 9-14=-1495/316

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) All plates are MT20 plates unless otherwise indicated.
4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
5) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
6) Bearing at joint(s) 1 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 234 lb uplift at joint 1 and 214 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.

LOAD CASE(S) Standard

October 27,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 116 RR	
RR116	B5	Roof Special	1	1	Job Reference (optional)	I48524912

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.43 S Oct 11 2021 Print: 8.430 S Oct 11 2021 MiTek Industries, Inc. Tue Oct 26 11:05:51
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Page: 1

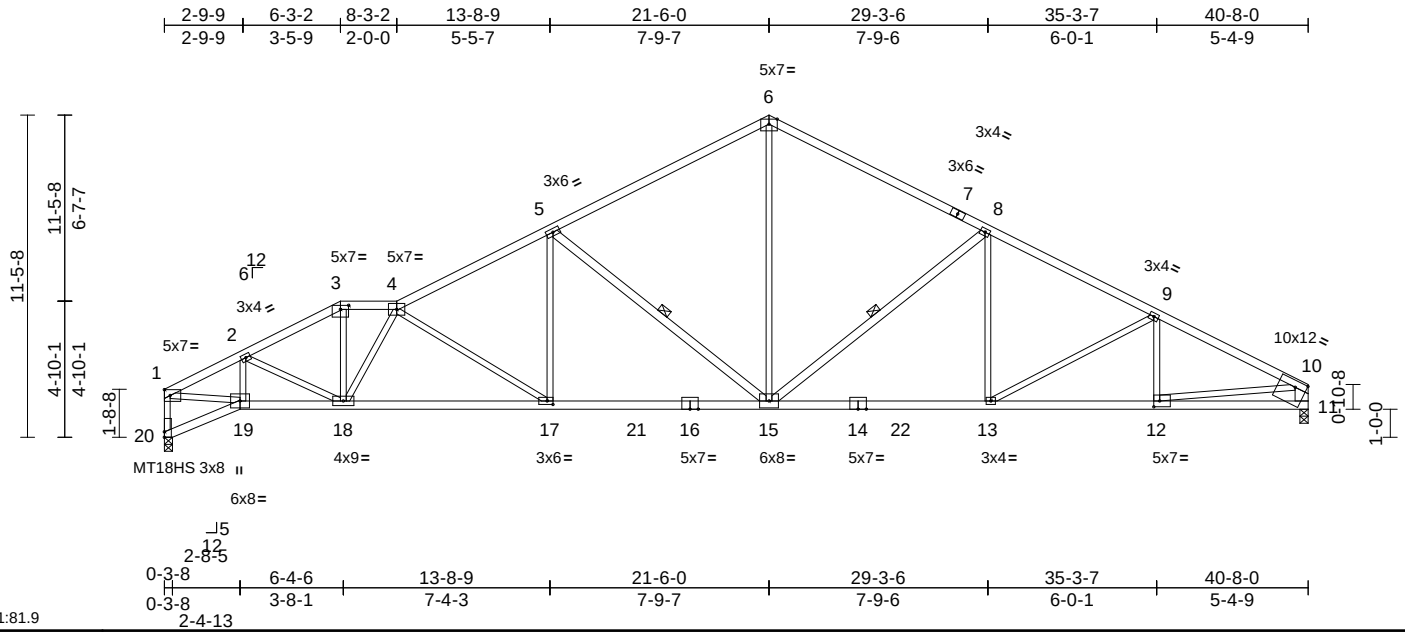

Plate Offsets (X, Y): [3:0-3-8,0-1-12], [10:Edge,0-2-12], [12:0-2-8,0-2-8], [17:0-2-8,0-1-8], [20:0-2-5,Edge]

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	0.74	Vert(LL)	-0.28	15-17	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	1.00	Vert(CT)	-0.48	15-17	>999	240	MT18HS	197/144
BCLL	0.0*	Rep Stress Incr	YES	WB	0.91	Horz(CT)	0.19	11	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S		Wind(LL)	0.16	15-17	>999	240	Weight: 169 lb	FT = 10%

LUMBER

TOP CHORD 2x4 SPF No.2 *Except* 4-6,6-7:2x4 SPF 2100F 1.8E

BOT CHORD 2x4 SPF No.2 *Except* 19-16,14-11:2x4 SPF 2100F 1.8E

WEBS 2x3 SPF No.2 *Except* 15-5,15-8:2x4 SPF No.2, 11-10:2x6 SPF No.2

BRACING

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

BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing, Except:
2-2-0 oc bracing: 15-17,13-15.

WEBS 1 Row at midpt 5-15, 8-15

REACTIONS (lb/size) 11=1815/0-3-8, 20=1815/0-3-8
Max Horiz 20=172 (LC 5)
Max Uplift 11=-213 (LC 9), 20=-234 (LC 8)
Max Grav 11=1915 (LC 2), 20=1909 (LC 2)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=-2995/477, 2-3=-3237/448, 3-4=-2902/429, 4-5=-3225/423, 5-6=-2282/318, 6-8=-2281/349, 8-9=-2929/343, 9-10=-3077/340, 1-20=-1857/310, 10-11=-1805/238

BOT CHORD 19-20=-173/181, 18-19=-562/2687, 17-18=-542/3512, 15-17=-361/2857, 13-15=-142/2561, 12-13=-252/2692, 11-12=-68/365

WEBS 2-19=-390/89, 2-18=-35/270, 3-18=-119/1248, 1-19=-409/2652, 5-17=-23/738, 4-17=-781/216, 5-15=-1168/327, 6-15=-135/1522, 8-15=-821/269, 8-13=0/391, 9-13=-226/126, 9-12=-213/94, 4-18=-1292/161, 10-12=-186/2347

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, with BCDL = 10.0psf.
7) Bearing at joint(s) 20 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 234 lb uplift at joint 20 and 213 lb uplift at joint 11.
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

October 27,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 116 RR	
RR116	B6	Roof Special	1	1	Job Reference (optional)	I48524913

Wheeler Lumber, Waverly, KS - 66871, Run: 8.43 S Oct 11 2021 Print: 8.430 S Oct 11 2021 MiTek Industries, Inc. Tue Oct 26 11:05:51 Page: 1

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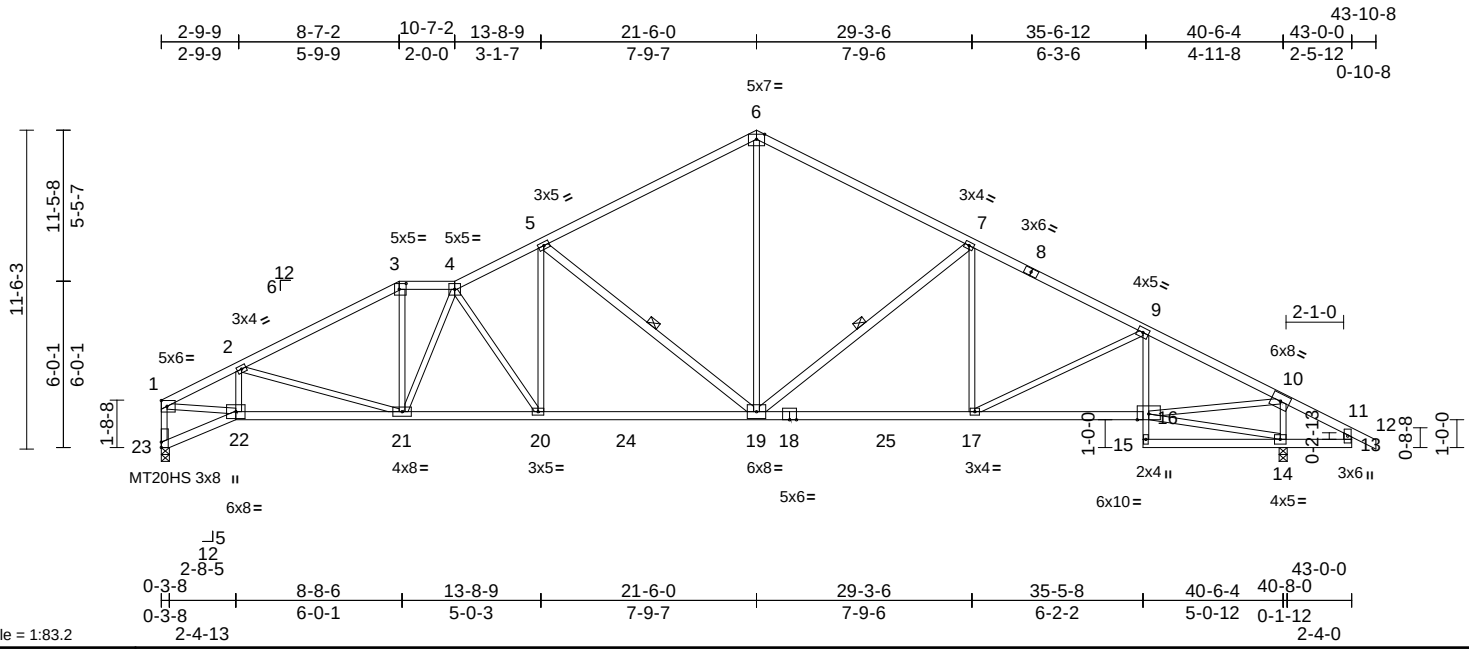

Scale = 1:83.2

Plate Offsets (X, Y): [3:0-3-0,0-2-8], [23:0-2-5,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	0.81	Vert(LL)	-0.28	19-20	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.88	Vert(CT)	-0.49	19-20	>981	240	MT20HS	148/108
BCLL	0.0*	Rep Stress Incr	YES	WB	0.94	Horz(CT)	0.24	14	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S		Wind(LL)	0.15	19-20	>999	240	Weight: 184 lb	FT = 10%

LUMBER

TOP CHORD 2x4 SPF No.2 *Except* 4-6,6-8:2x4 SPF 2100F 1.8E

BOT CHORD 2x4 SPF No.2 *Except* 22-18:2x4 SPF 2100F 1.8E, 9-15:2x3 SPF No.2

WEBS 2x3 SPF No.2 *Except* 19-5,19-7,13-11:2x4 SPF No.2

BRACING

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

BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing, Except: 6-0-0 oc bracing: 13-14.

WEBS 1 Row at midpt 5-19, 7-19

REACTIONS (lb/size) 14=2111/0-3-8, 23=1808/0-3-8
Max Horiz 23=-195 (LC 6)
Max Uplift 14=-278 (LC 9), 23=-234 (LC 8)
Max Grav 14=2203 (LC 2), 23=1903 (LC 2)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=-3053/474, 2-3=-3163/422, 3-4=-2784/421, 4-5=-3156/424, 5-6=-2270/314, 6-7=-2271/345, 7-9=-2903/326, 9-10=-2943/314, 10-11=-57/217, 11-12=0/32, 1-23=-1863/289, 11-13=-32/10

BOT CHORD 22-23=-154/233, 21-22=-539/2784, 20-21=-399/3146, 19-20=-325/2832, 17-19=-100/2536, 16-17=-160/2589, 15-16=0/82, 9-16=-299/104, 14-15=-3/33, 13-14=-135/65

WEBS 2-22=-365/139, 2-21=-95/170, 3-21=-37/1082, 14-16=-160/69, 1-22=-422/2734, 10-14=-1969/314, 10-16=-228/2700, 5-20=-34/730, 4-20=-568/133, 5-19=-1149/327, 6-19=-131/1514, 7-19=-802/267, 7-17=0/371, 9-17=-135/111, 4-21=-967/106

NOTES

1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=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, with BCDL = 10.0psf.
7) Bearing at joint(s) 23 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 234 lb uplift at joint 23 and 278 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

October 27,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 116 RR	
RR116	C1	Roof Special	1	1	Job Reference (optional)	I48524914

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.43 S Oct 11 2021 Print: 8.430 S Oct 11 2021 MiTek Industries, Inc. Tue Oct 26 11:05:52 Page: 1
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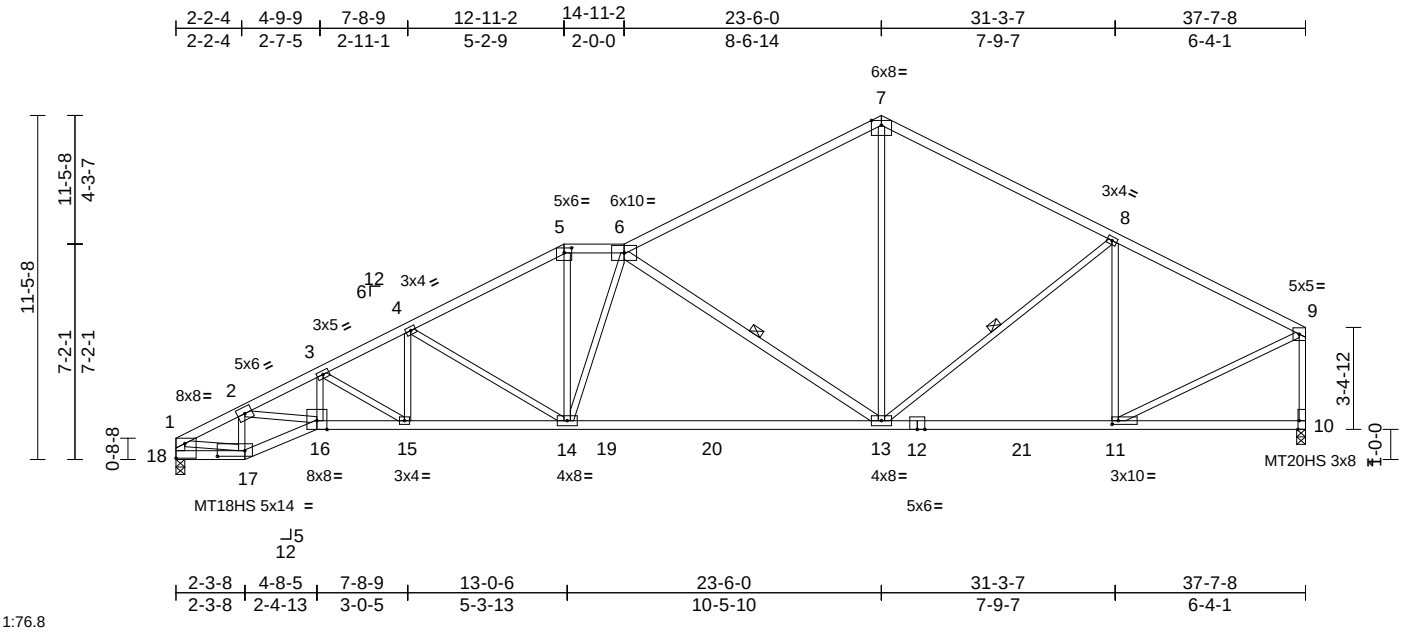

Scale = 1:76.8

Plate Offsets (X, Y): [1:Edge,0-5-13], [5:0-3-0,0-2-0], [10:0-3-8,Edge], [11:0-2-8,0-1-8], [17:0-11-0,0-2-4]

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	0.94	Vert(LL)	-0.40	13-14	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.69	Vert(CT)	-0.73	13-14	>613	240	MT18HS	197/144
BCLL	0.0*	Rep Stress Incr	YES	WB	0.80	Horz(CT)	0.16	10	n/a	n/a	MT20HS	148/108
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S		Wind(LL)	0.16	14-15	>999	240	Weight: 157 lb	FT = 10%

LUMBER

TOP CHORD 2x4 SPF No.2 *Except* 6-7:2x4 SPF 2100F 1.8E

BOT CHORD 2x4 SPF No.2 *Except* 16-12:2x4 SPF 2100F 1.8E

WEBS 2x3 SPF No.2 *Except* 13-6,18-1:2x4 SPF No.2

BRACING

TOP CHORD Structural wood sheathing directly applied, except end verticals, and 2-0-0 oc purlins (3-2-11 max.): 5-6.

BOT CHORD Rigid ceiling directly applied or 8-1-7 oc bracing.

WEBS 1 Row at midpt 6-13, 8-13

REACTIONS (lb/size) 10=1682/0-3-8, 18=1682/0-3-8
Max Horiz 18=244 (LC 5)
Max Uplift 10=-168 (LC 9), 18=-237 (LC 8)
Max Grav 10=1788 (LC 2), 18=1768 (LC 2)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=-2622/362, 2-3=-4534/722, 3-4=-3719/584, 4-5=-2997/435, 5-6=-2635/428, 6-7=-1893/288, 7-8=-1890/330, 8-9=-1810/218, 1-18=-1693/247, 9-10=-1695/197

BOT CHORD 17-18=-234/392, 16-17=-535/2408, 15-16=-774/3990, 14-15=-613/3320, 13-14=-413/2752, 11-13=-143/1563, 10-11=-37/35

WEBS 2-17=-1316/293, 2-16=-296/1850, 3-16=-111/673, 3-15=-790/189, 4-15=-66/489, 4-14=-842/279, 5-14=-143/1168, 6-14=-450/133, 6-13=-1399/382, 7-13=-89/1131, 8-13=-163/226, 8-11=-590/145, 1-17=-282/2033, 9-11=-130/1720

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, with BCDL = 10.0psf.
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 237 lb uplift at joint 18 and 168 lb uplift at joint 10.
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

October 27,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 116 RR	
RR116	C2	Roof Special	1	1	Job Reference (optional)	I48524915

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.43 S Oct 11 2021 Print: 8.430 S Oct 11 2021 MiTek Industries, Inc. Tue Oct 26 11:05:52 Page: 1

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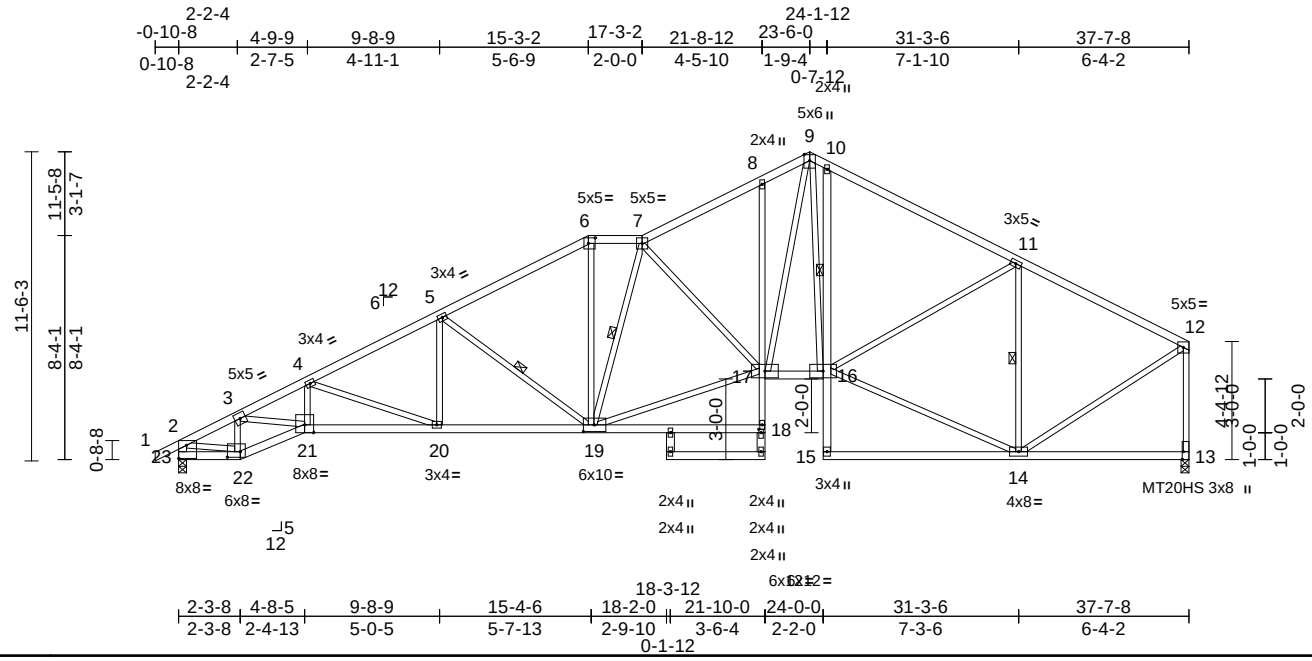


Scale = 1:85.8

Plate Offsets (X, Y): [6:0-3-0,0-2-8], [13:0-3-8,Edge], [18:0-1-8,0-1-0], [19:0-4-12,0-3-0], [22:0-5-12,0-2-8], [23:Edge,0-5-13]

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	0.94	Vert(LL)	-0.24	19-20	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.99	Vert(CT)	-0.45	18-19	>991	240	MT20HS	148/108
BCLL	0.0*	Rep Stress Incr	YES	WB	0.85	Horz(CT)	0.27	13	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S		Wind(LL)	0.19	19-20	>999	240	Weight: 198 lb	FT = 10%

LUMBER

TOP CHORD 2x4 SPF No.2

BOT CHORD 2x4 SPF No.2 *Except* 18-8:2x3 SPF No.2

WEBS 2x3 SPF No.2 *Except* 23-2,24-26,25-18:2x4 SPF No.2

BRACING

TOP CHORD Structural wood sheathing directly applied or 2-6-9 oc purlins, except end verticals, and 2-0-0 oc purlins (3-9-15 max.): 6-7.

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

1 Row at midpt 10-16

WEBS 1 Row at midpt 5-19, 7-19, 11-14

REACTIONS (lb/size) 13=1681/0-3-8, 23=1754/0-3-8

Max Horiz 23=271 (LC 5)

Max Uplift 13=-169 (LC 9), 23=-261 (LC 8)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=0/32, 2-3=-2471/353, 3-4=-4315/719, 4-5=-3262/511, 5-6=-2501/407, 6-7=-2178/405, 7-8=-2425/385, 8-9=-2372/457, 9-10=-2140/405, 10-11=-2207/355, 11-12=-1467/204, 2-23=-1697/272, 12-13=-1629/194

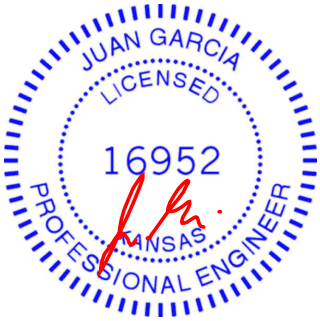
BOT CHORD 22-23=-226/372, 21-22=-500/2240, 20-21=-760/3808, 19-20=-497/2861, 18-19=0/46, 17-18=0/110, 8-17=-229/142, 16-17=-97/1816, 15-16=0/125, 10-16=-380/245, 14-15=0/30, 13-14=-53/43

WEBS 3-22=-1250/272, 3-21=-313/1813, 4-21=-85/577, 4-20=-1007/280, 5-20=-30/460, 5-19=-883/264, 6-19=-68/802, 7-19=-935/119, 17-19=-326/2477, 7-17=-507/206, 9-17=-353/1385, 9-16=-289/681, 14-16=-147/1343, 11-16=-59/708, 11-14=-1194/220, 2-22=-258/1854, 12-14=-115/1491

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 261 lb uplift at joint 23 and 169 lb uplift at joint 13.
8) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
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



October 27,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 116 RR	
RR116	C3	Roof Special	1	1	Job Reference (optional)	I48524916

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.43 S Oct 11 2021 Print: 8.430 S Oct 11 2021 MiTek Industries, Inc. Tue Oct 26 11:05:53
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Page: 1

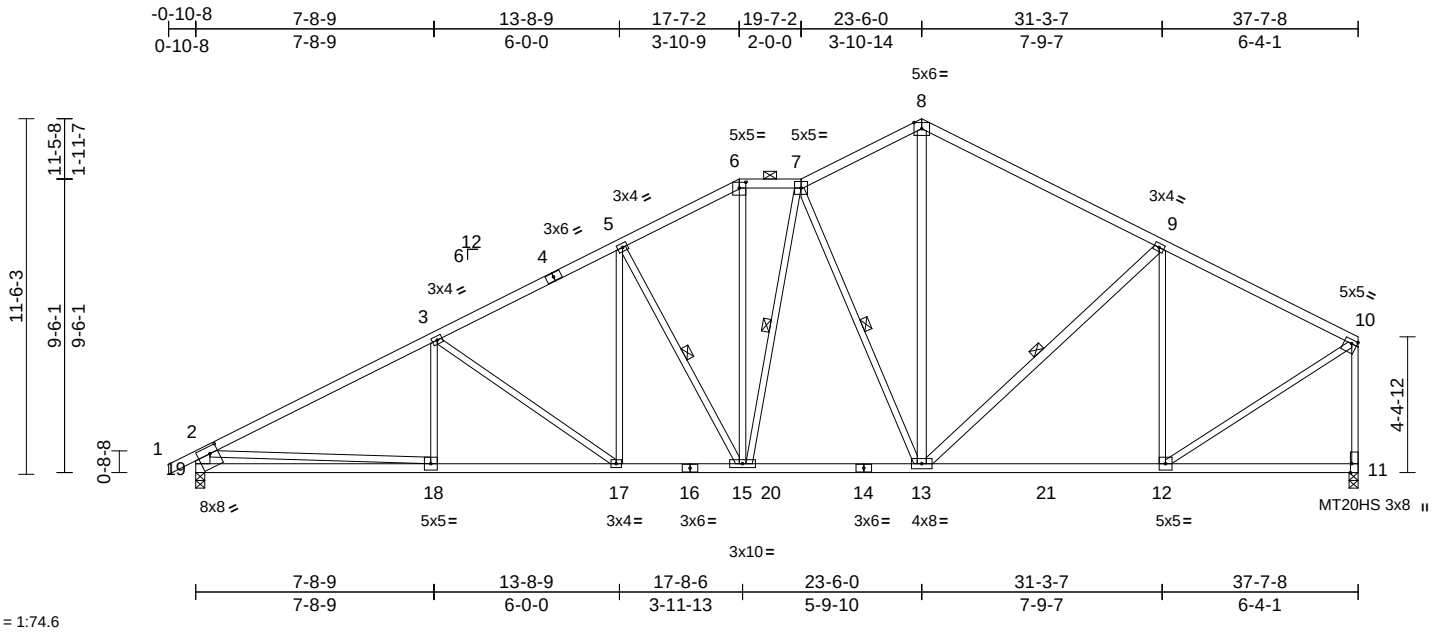

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Plate Offsets (X, Y): [6:0-2-8,0-2-4], [10:0-2-0,0-1-8], [11:0-3-8,Edge], [19:0-3-4,0-2-12]

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	0.93	Vert(LL)	-0.18	12-13	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.81	Vert(CT)	-0.32	12-13	>999	240	MT20HS	148/108
BCLL	0.0*	Rep Stress Incr	YES	WB	0.88	Horz(CT)	0.08	11	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S		Wind(LL)	0.11	17-18	>999	240	Weight: 181 lb	FT = 10%

LUMBER

TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
WEBS 2x3 SPF No.2 *Except* 13-8,13-9:2x4 SPF No.2, 19-2:2x6 SP DSS

BRACING

TOP CHORD Structural wood sheathing directly applied, except end verticals, and 2-0-0 oc purlins (4-4-2 max.): 6-7.
BOT CHORD Rigid ceiling directly applied or 8-8-13 oc bracing.
WEBS 1 Row at midpt 7-15, 7-13, 9-13, 5-15

REACTIONS (lb/size) 11=1677/0-3-8, 19=1757/0-3-8
Max Horiz 19=271 (LC 5)
Max Uplift 11=-168 (LC 9), 19=-262 (LC 8)
Max Grav 11=1792 (LC 2), 19=1822 (LC 2)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=0/35, 2-3=-2959/398, 3-5=-2463/383, 5-6=-2078/372, 6-7=-1812/357, 7-8=-1630/312, 8-9=-1716/322, 9-10=-1566/205, 2-19=-1690/305, 10-11=-1709/194
BOT CHORD 18-19=-429/958, 17-18=-450/2552, 15-17=-298/2129, 13-15=-181/1805, 12-13=-136/1361, 11-12=-53/44
WEBS 6-15=-93/742, 7-15=-95/139, 5-17=-53/465, 7-13=-959/290, 8-13=-168/1087, 9-13=-102/250, 9-12=-678/166, 10-12=-124/1615, 3-17=-532/186, 3-18=0/215, 2-18=-21/1673, 5-15=-683/224

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, with BCDL = 10.0psf.
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 262 lb uplift at joint 19 and 168 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.

LOAD CASE(S) Standard

October 27,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 116 RR	
RR116	C4	Roof Special	1	1	Job Reference (optional)	I48524917

Wheeler Lumber, Waverly, KS - 66871, Run: 8.43 S Jun 2 2021 Print: 8.430 S Jun 2 2021 MiTek Industries, Inc. Wed Oct 27 11:51:54 Page: 1

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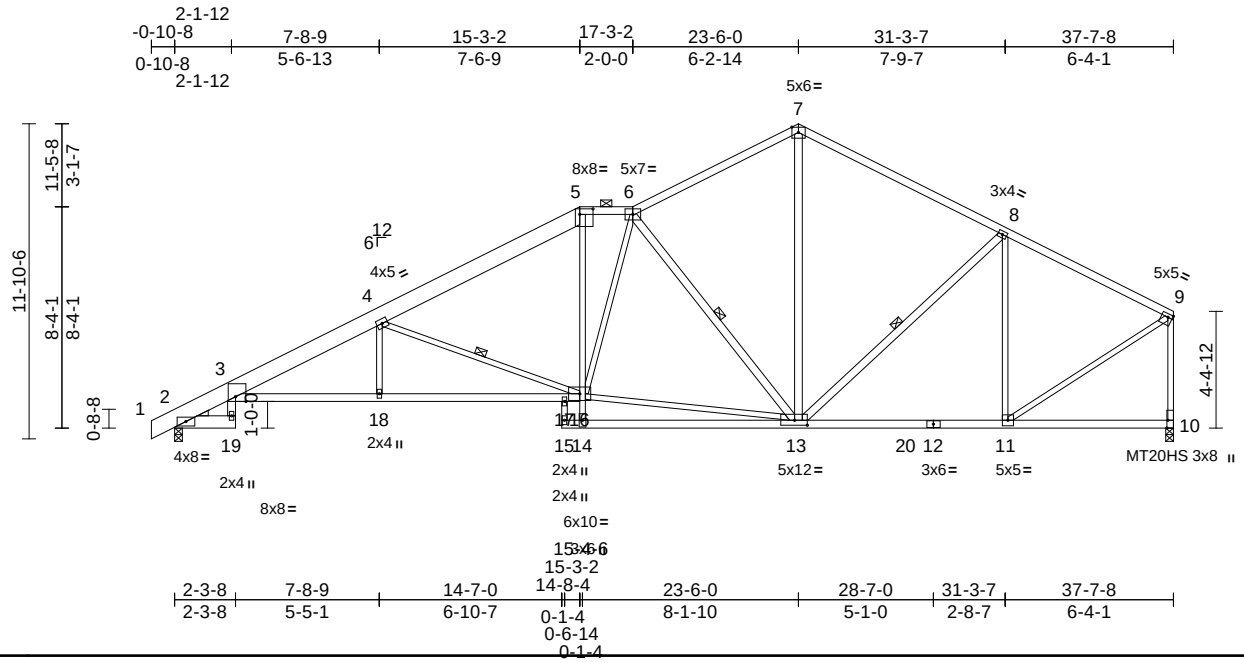

Scale = 1:86.8

Plate Offsets (X, Y): [3:0-4-12,Edge], [5:0-6-0,0-2-8], [9:0-2-0,0-1-8], [10:0-3-8,Edge], [13:0-5-12,0-2-4]

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	0.92	Vert(LL)	-0.32	17-18	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.68	Vert(CT)	-0.58	17-18	>778	240	MT20HS	148/108
BCLL	0.0*	Rep Stress Incr	YES	WB	0.93	Horz(CT)	0.35	10	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S		Wind(LL)	0.24	3-18	>999	240	Weight: 209 lb	FT = 10%

LUMBER

TOP CHORD 2x4 SPF No.2 *Except* 1-5:2x8 SP 2400F 2.0E

BOT CHORD 2x4 SPF No.2 *Except* 2-19:2x6 SPF No.2, 3-16:2x4 SPF 2100F 1.8E

WEBS 2x3 SPF No.2 *Except* 19-3,13-7,13-8,6-13:2x4 SPF No.2

WEDGE Left: 2x3 SPF No.2

BRACING

TOP CHORD Structural wood sheathing directly applied, except end verticals, and 2-0-0 oc purlins (3-9-0 max.): 5-6.

BOT CHORD Rigid ceiling directly applied or 9-7-14 oc bracing.

WEBS 1 Row at midpt 8-13, 6-13, 4-16

REACTIONS (lb/size) 2=1754/0-3-8, 10=1681/0-3-8
Max Horiz 2=267 (LC 7)
Max Uplift 2=-262 (LC 8), 10=-168 (LC 9)
Max Grav 2=1805 (LC 2), 10=1775 (LC 2)

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

TOP CHORD 2-3=-1042/49, 3-4=-3868/571, 4-5=-2718/394, 5-6=-2301/402, 6-7=-1667/297, 7-8=-1694/322, 8-9=-1549/205, 9-10=-1692/195

BOT CHORD 3-18=-664/3669, 17-18=-660/3663, 16-17=-660/3663, 13-20=-136/1346, 12-20=-136/1346, 11-12=-136/1346

WEBS 15-17=-312/0, 7-13=-128/1023, 8-13=-101/262, 8-11=-682/164, 9-11=-124/1597, 14-16=0/506, 5-16=-69/894, 6-16=-23/268, 13-16=-293/2180, 6-13=-1337/346, 4-16=-1469/402

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, with BCDL = 10.0psf.
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 262 lb uplift at joint 2 and 168 lb uplift at joint 10.
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

October 27,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 116 RR
RR116	C5	Roof Special	1	1	I48524918
					Job Reference (optional)

Wheeler Lumber, Waverly, KS - 66871, Run: 8.43 S Oct 11 2021 Print: 8.430 S Oct 11 2021 MiTek Industries, Inc. Tue Oct 26 11:05:54 Page: 1

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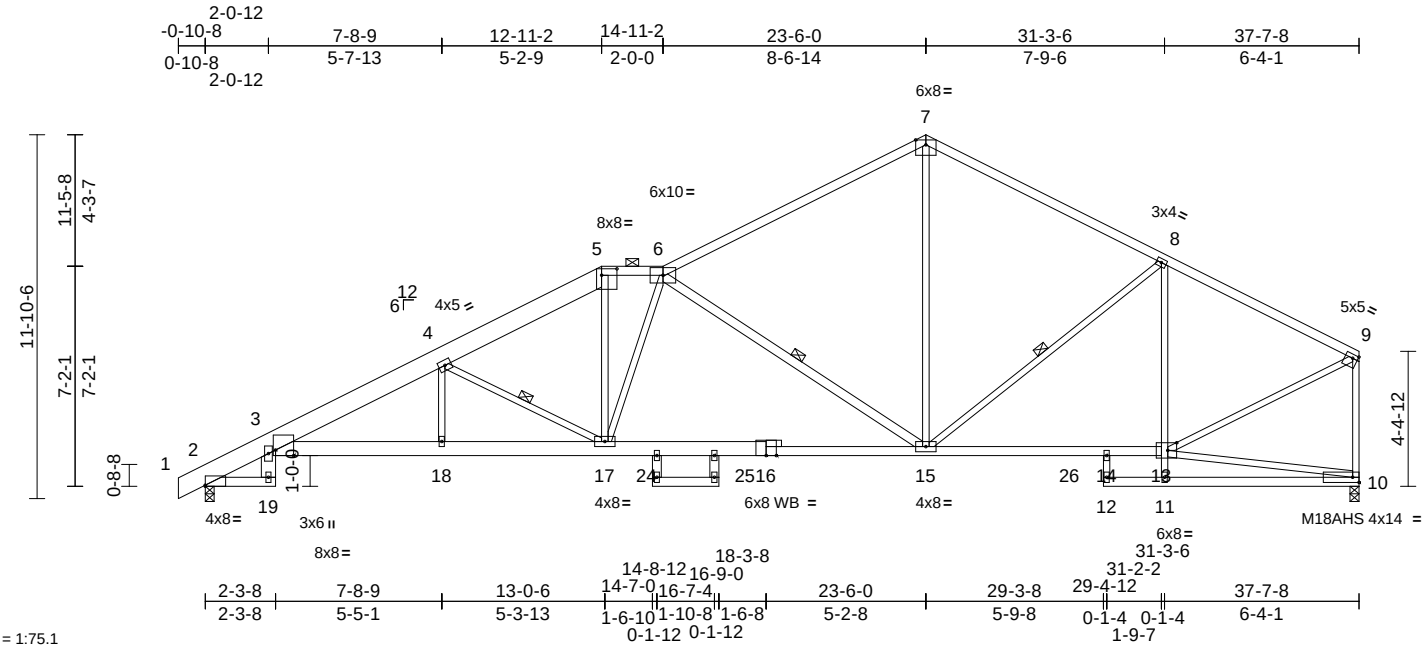

Scale = 1:75.1

Plate Offsets (X, Y): [2:Edge,0-0-6], [3:0-7-2,Edge], [5:0-6-0,0-2-8], [9:0-2-0,0-1-8], [13:0-3-8,0-3-0]

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	0.97	Vert(LL)	-0.32	15-17	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.67	Vert(CT)	-0.58	15-17	>769	240	M18AHS	142/136
BCLL	0.0*	Rep Stress Incr	YES	WB	0.73	Horz(CT)	0.33	10	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S		Wind(LL)	0.21	3-18	>999	240	Weight: 205 lb	FT = 10%

LUMBER

TOP CHORD 2x4 SPF No.2 *Except* 1-5:2x8 SP 2400F 2.0E, 6-7:2x4 SPF 2100F 1.8E

BOT CHORD 2x4 SPF No.2 *Except* 3-16:2x6 SPF 1650F 1.4E, 16-13:2x4 SPF 2100F 1.8E

WEBS 2x3 SPF No.2 *Except* 19-3:2x6 SPF No.2, 20-22,21-23,15-6:2x4 SPF No.2

OTHERS 2x3 SPF No.2

BRACING

TOP CHORD Structural wood sheathing directly applied, except end verticals, and 2-0-0 oc purlins (3-2-2 max.): 5-6.

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

WEBS 1 Row at midpt 4-17, 8-15, 6-15

REACTIONS (lb/size) 2=1754/0-3-8, 10=1681/0-3-8
Max Horiz 2=266 (LC 5)
Max Uplift 2=-261 (LC 8), 10=-169 (LC 9)
Max Grav 2=1836 (LC 2), 10=1828 (LC 2)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=0/15, 2-3=-1056/50, 3-4=-4053/602, 4-5=-3145/436, 5-6=-2714/418, 6-7=-1909/287, 7-8=-1906/329, 8-9=-1852/218, 9-10=-1738/202

BOT CHORD 2-19=0/0, 3-18=-677/3795, 17-18=-676/3795, 15-17=-390/2802, 14-15=-158/1608, 13-14=-158/1608, 11-12=0/0, 10-11=0/37

WEBS 3-19=0/71, 12-14=-49/0, 4-18=0/154, 4-17=-1264/375, 5-17=-179/1252, 6-17=-354/138, 7-15=-88/1146, 8-15=-170/218, 11-13=0/316, 8-13=-579/147, 9-13=-143/1784, 10-13=-69/36, 6-15=-1438/379

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) All plates are 2x4 MT20 unless otherwise indicated.
6) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
7) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 261 lb uplift at joint 2 and 169 lb uplift at joint 10.
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

October 27,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 116 RR	
RR116	C6	Roof Special	1	1	Job Reference (optional)	I48524919

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.43 S Oct 11 2021 Print: 8.430 S Oct 11 2021 MiTek Industries, Inc. Tue Oct 26 11:05:55 Page: 1

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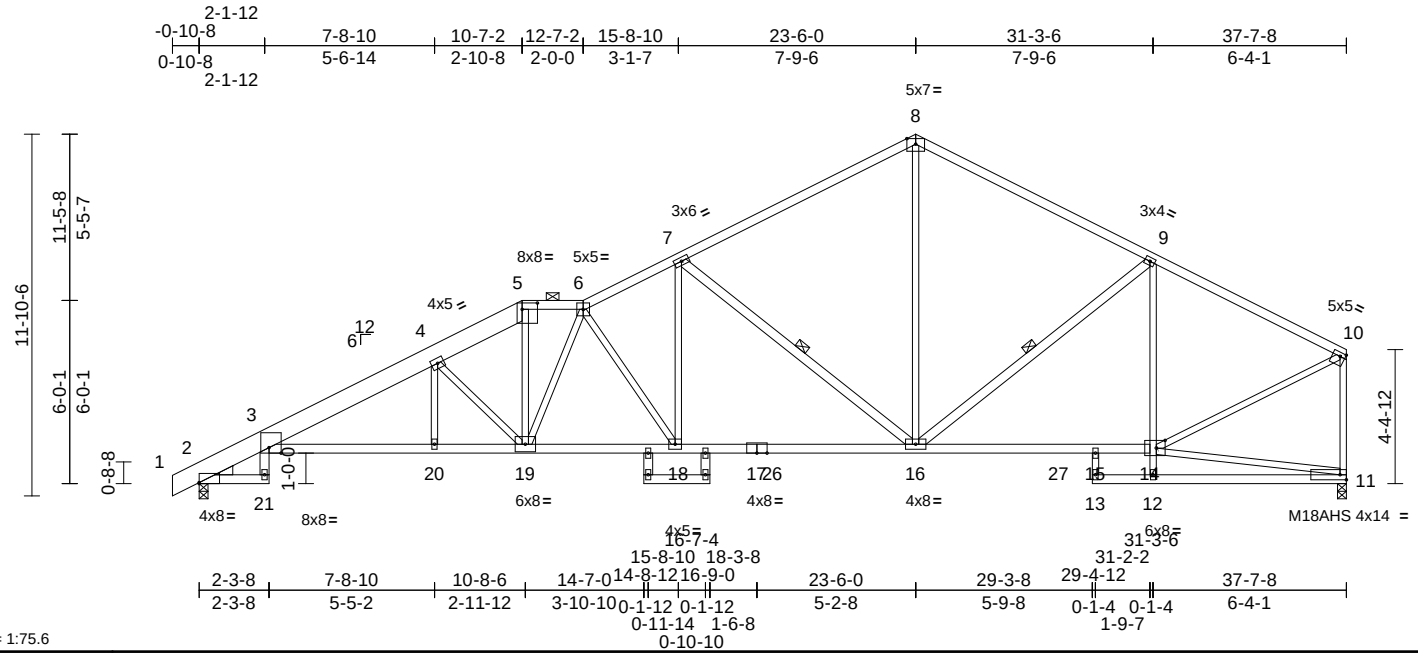

Scale = 1:75.6

Plate Offsets (X, Y): [2:Edge,0-0-6], [3:0-4-12,Edge], [5:0-6-0,0-2-8], [10:0-2-0,0-1-8], [14:0-3-8,0-3-0]

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	0.97	Vert(LL)	-0.34	16-18	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	1.00	Vert(CT)	-0.60	16-18	>753	240	M18AHS	142/136
BCLL	0.0*	Rep Stress Incr	YES	WB	0.70	Horz(CT)	0.38	11	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S		Wind(LL)	0.24	18-19	>999	240	Weight: 198 lb	FT = 10%

LUMBER

TOP CHORD 2x4 SPF No.2 *Except* 1-5:2x8 SP 2400F 2.0E

BOT CHORD 2x4 SPF No.2 *Except* 17-3:2x4 SPF 2100F 1.8E

WEBS 2x3 SPF No.2 *Except* 21-3,16-7,16-9,22-24,23-25:2x4 SPF No.2

WEDGE Left: 2x4 SP No.3

BRACING

TOP CHORD Structural wood sheathing directly applied, except end verticals, and 2-0-0 oc purlins (3-3-4 max.): 5-6.

BOT CHORD Rigid ceiling directly applied or 1-4-12 oc bracing.

WEBS 1 Row at midpt 7-16, 9-16

REACTIONS (lb/size) 2=1754/0-3-8, 11=1681/0-3-8
Max Horiz 2=266 (LC 5)
Max Uplift 2=-261 (LC 8), 11=-169 (LC 9)
Max Grav 2=1833 (LC 2), 11=1829 (LC 2)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=0/15, 2-3=-1048/54, 3-4=-3955/572, 4-5=-3439/535, 5-6=-2951/477, 6-7=-2993/439, 7-8=-1900/299, 8-9=-1902/331, 9-10=-1857/217, 10-11=-1742/201

BOT CHORD 2-21=0/0, 3-20=-661/3761, 19-20=-657/3754, 18-19=-461/3144, 16-18=-359/2686, 15-16=-158/1614, 14-15=-158/1614, 12-13=0/0, 11-12=0/39

WEBS 3-21=0/72, 13-15=-64/0, 4-20=-41/104, 4-19=-1205/296, 5-19=-193/1438, 6-19=-538/58, 6-18=-828/184, 7-18=-69/971, 7-16=-1387/361, 8-16=-119/1187, 9-16=-177/208, 12-14=0/337, 9-14=-578/152, 11-14=-71/35, 10-14=-142/1791

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) All plates are 2x4 MT20 unless otherwise indicated.
6) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
7) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 261 lb uplift at joint 2 and 169 lb uplift at joint 11.
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

October 27,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 116 RR	
RR116	C7	Roof Special	1	1	Job Reference (optional)	I48524920

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.43 S Oct 11 2021 Print: 8.430 S Oct 11 2021 MiTek Industries, Inc. Tue Oct 26 11:05:55

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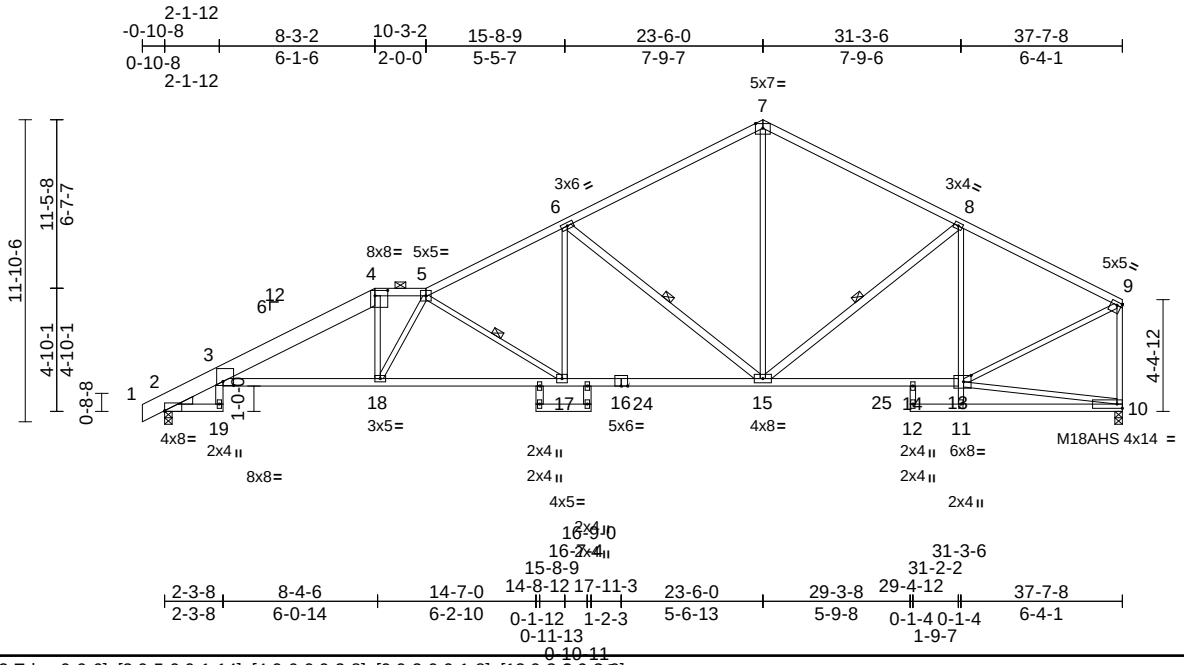
Page: 1



Scale = 1:90.5

Plate Offsets (X, Y): [2:Edge,0-0-6], [3:0-5-0,0-1-14], [4:0-6-0,0-2-8], [9:0-2-0,0-1-8], [13:0-3-8,0-1-12]

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	0.97	Vert(LL)	-0.36	15-17	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	1.00	Vert(CT)	-0.63	3-18	>715	240	M18AHS	142/136
BCLL	0.0*	Rep Stress Incr	YES	WB	0.70	Horz(CT)	0.42	10	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S		Wind(LL)	0.27	3-18	>999	240	Weight: 187 lb	FT = 10%

LUMBER

TOP CHORD 2x4 SPF No.2 *Except* 1-4:2x8 SP 2400F 2.0E

BOT CHORD 2x4 SPF No.2 *Except* 3-16:2x4 SPF 2100F 1.8E

WEBS 2x3 SPF No.2 *Except* 19-3,15-6,15-8,20-22,21-23:2x4 SPF No.2

WEDGE Left: 2x4 SP No.3

BRACING

TOP CHORD Structural wood sheathing directly applied, except end verticals, and 2-0-0 oc purlins (2-7-10 max.): 4-5.

BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing, Except: 2-2-0 oc bracing: 15-17.

WEBS 1 Row at midpt 5-17, 6-15, 8-15

REACTIONS (lb/size) 2=1754/0-3-8, 10=1681/0-3-8
Max Horiz 2=266 (LC 7)
Max Uplift 2=-261 (LC 8), 10=-169 (LC 9)
Max Grav 2=1833 (LC 2), 10=1829 (LC 2)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=0/15, 2-3=-1048/56, 3-4=-3643/485, 4-5=-3424/530, 5-6=-3039/434, 6-7=-1901/300, 7-8=-1901/331, 8-9=-1857/217, 9-10=-1742/201

BOT CHORD 2-19=0/0, 3-18=-557/3398, 17-18=-592/3721, 15-17=-359/2691, 14-15=-158/1614, 13-14=-158/1614, 11-12=0/0, 10-11=0/39

WEBS 3-19=0/72, 12-14=-64/0, 4-18=0/702, 5-18=-652/87, 5-17=-1228/278, 6-17=-57/963, 6-15=-1394/361, 7-15=-120/1189, 8-15=-178/207, 11-13=0/338, 8-13=-578/153, 9-13=-142/1791, 10-13=-71/35

NOTES

1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) 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) All plates are 2x4 MT20 unless otherwise indicated.
6) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
7) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 261 lb uplift at joint 2 and 169 lb uplift at joint 10.
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

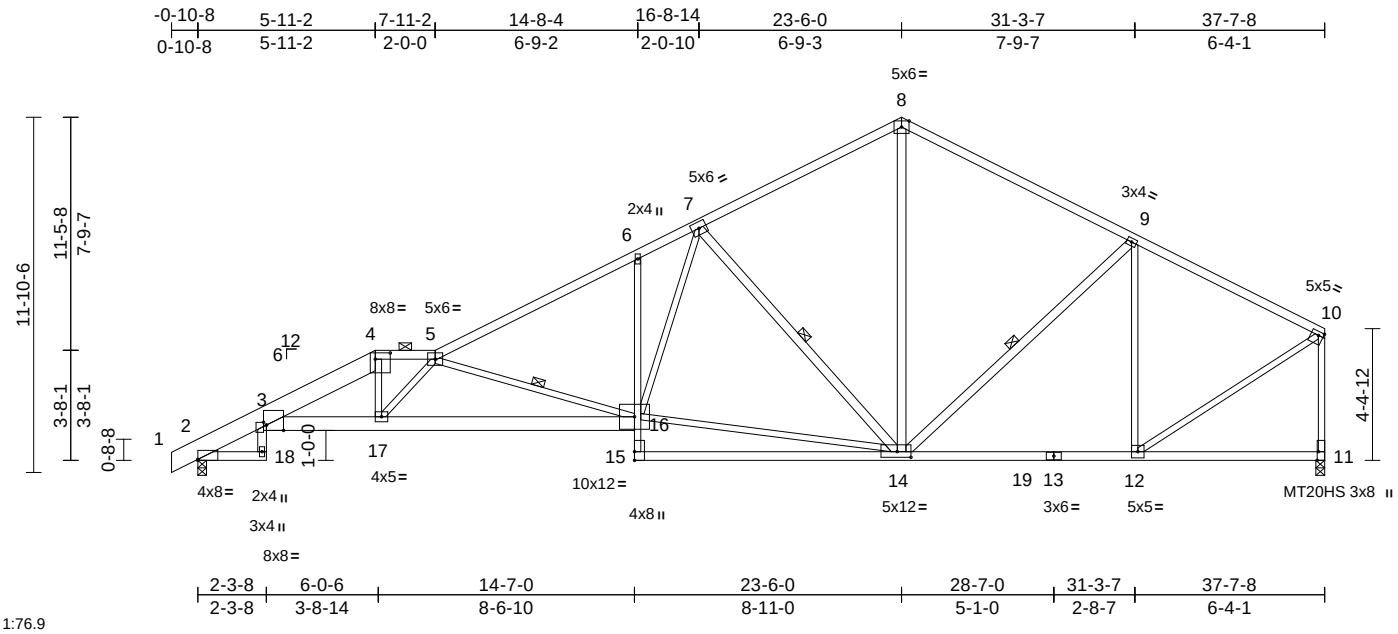
October 27,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 116 RR	
RR116	C8	Roof Special	1	1	Job Reference (optional)	I48524921

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.43 S Oct 11 2021 Print: 8.430 S Oct 11 2021 MiTek Industries, Inc. Tue Oct 26 11:05:56 ID:bDljNJA6?5tiTk6El3KUKZyAkTB-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f



Scale = 1:76.9

Plate Offsets (X, Y): [2:Edge,0-0-6], [3:0-6-14,Edge], [3:0-1-2,0-1-2], [4:0-6-0,0-2-8], [10:0-2-0,0-1-8], [11:0-3-8,Edge], [14:0-5-8,0-2-4]

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	0.91	Vert(LL)	-0.37	16-17	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.75	Vert(CT)	-0.69	14-15	>645	240	MT20HS	148/108
BCLL	0.0*	Rep Stress Incr	YES	WB	1.00	Horz(CT)	0.35	11	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S		Wind(LL)	0.26	16-17	>999	240	Weight: 194 lb	FT = 10%

LUMBER

TOP CHORD 2x4 SPF No.2 *Except* 1-4:2x8 SP DSS, 5-8:2x4 SPF 2100F 1.8E

BOT CHORD 2x4 SPF No.2 *Except* 3-16:2x6 SPF 1650F 1.4E, 6-15:2x3 SPF No.2

WEBS 2x3 SPF No.2 *Except* 14-7,14-8,14-9:2x4 SPF No.2

BRACING

TOP CHORD Structural wood sheathing directly applied, except end verticals, and 2-0-0 oc purlins (2-7-15 max.): 4-5.

BOT CHORD Rigid ceiling directly applied or 9-7-8 oc bracing.

WEBS 1 Row at midpt 5-16, 7-14, 9-14

REACTIONS (lb/size) 2=1754/0-3-8, 11=1681/0-3-8
Max Horiz 2=266 (LC 5)
Max Uplift 2=-261 (LC 8), 11=-169 (LC 9)
Max Grav 2=1800 (LC 2), 11=1772 (LC 2)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=0/15, 2-3=-1045/54, 3-4=-4197/570, 4-5=-4030/605, 5-6=-3172/455, 6-7=-3097/540, 7-8=-1684/296, 8-9=-1694/321, 9-10=-1544/207, 10-11=-1686/196

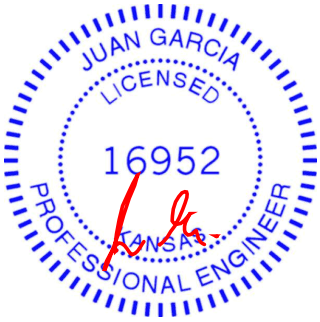
BOT CHORD 2-18=-1/13, 3-18=0/84, 3-17=-678/3976, 16-17=-816/4666, 15-16=0/157, 6-16=-315/172, 14-15=-13/198, 12-14=-137/1341, 11-12=-52/44

WEBS 4-17=-54/987, 5-17=-1058/216, 5-16=-2002/441, 14-16=-305/2133, 7-16=-272/1491, 7-14=-1363/380, 8-14=-128/1028, 9-14=-95/265, 9-12=-686/161, 10-12=-125/1591

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, with BCDL = 10.0psf.
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 261 lb uplift at joint 2 and 169 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.

LOAD CASE(S) Standard



October 27,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 116 RR	
RR116	C9	Roof Special	1	1	Job Reference (optional)	I48524922

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.43 S Oct 11 2021 Print: 8.430 S Oct 11 2021 MiTek Industries, Inc. Tue Oct 26 11:05:56

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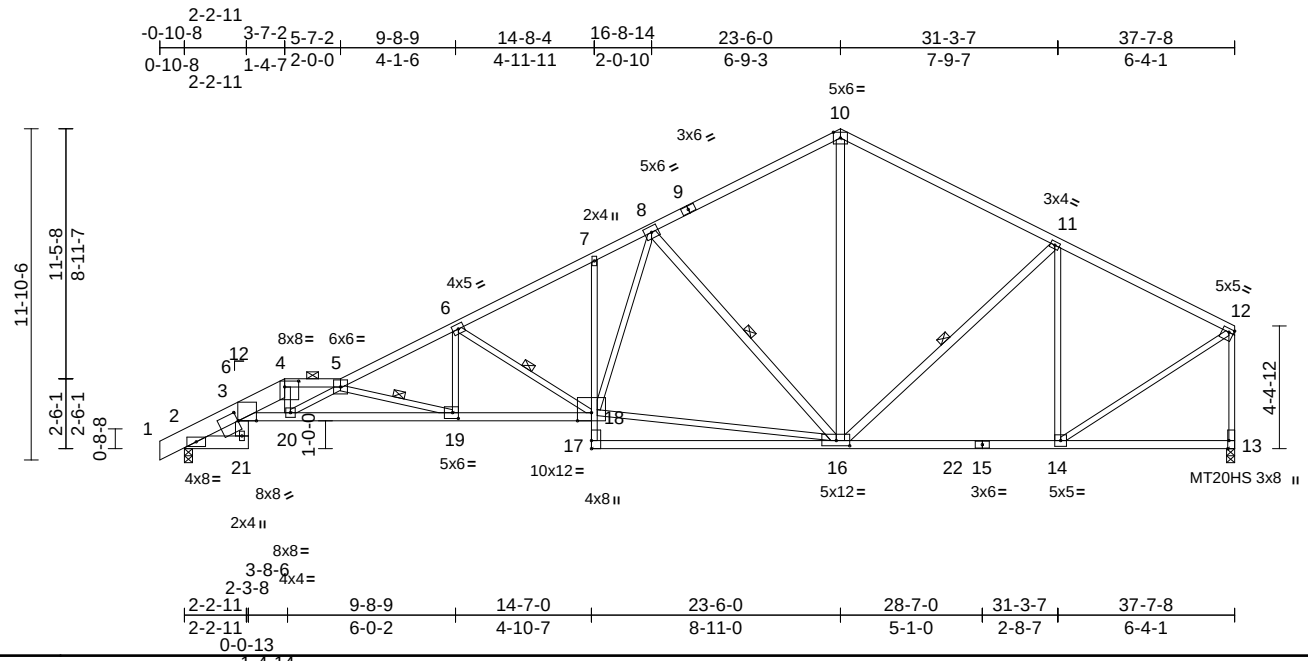


Scale = 1:82.5

Plate Offsets (X, Y): [3:0-7-13,Edge], [3:0-0-5,0-4-1], [4:0-6-0,0-2-8], [12:0-2-0,0-1-8], [13:0-3-8,Edge], [16:0-5-12,0-2-4], [19:0-2-8,0-2-8]

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	0.91	Vert(LL)	-0.40	18-19	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.83	Vert(CT)	-0.77	16-17	>583	240	MT20HS	148/108
BCLL	0.0*	Rep Stress Incr	YES	WB	0.89	Horz(CT)	0.33	13	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S		Wind(LL)	0.30	18-19	>999	240	Weight: 186 lb	FT = 10%

LUMBER

TOP CHORD 2x4 SPF No.2 *Except* 1-4:2x8 SP 2400F 2.0E

BOT CHORD 2x4 SPF No.2 *Except* 2-21:2x6 SPF No.2, 3-18:2x4 SPF 2100F 1.8E, 7-17:2x3 SPF No.2

WEBS 2x3 SPF No.2 *Except* 21-3:2x6 SPF No.2, 16-8,16-10,16-11:2x4 SPF No.2

BRACING

TOP CHORD Structural wood sheathing directly applied, except end verticals, and 2-0-0 oc purlins (2-3-6 max.): 4-5.

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

WEBS 1 Row at midpt 5-19, 6-18, 8-16, 11-16

REACTIONS (lb/size) 2=1759/0-3-8, 13=1681/0-3-8
Max Horiz 2=267 (LC 7)
Max Uplift 2=-259 (LC 8), 13=-168 (LC 9)
Max Grav 2=1809 (LC 2), 13=1772 (LC 2)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=0/20, 2-3=-1028/59, 3-4=-4885/724, 4-5=-4963/782, 5-6=-4359/618, 6-7=-3093/456, 7-8=-2982/494, 8-10=-1686/296, 10-11=-1695/320, 11-12=-1545/206, 12-13=-1687/195

BOT CHORD 2-21=-34/3, 3-20=-903/4883, 19-20=-1144/6550, 18-19=-630/3884, 17-18=0/158, 7-18=-108/66, 16-17=0/227, 14-16=-137/1341, 13-14=-52/44

WEBS 3-21=-12/139, 4-20=-30/860, 5-20=-1892/286, 5-19=-2778/535, 6-19=-81/1025, 6-18=-1414/302, 16-18=-321/2083, 8-18=-207/1345, 8-16=-1335/378, 10-16=-128/1032, 11-16=-97/266, 11-14=-686/161, 12-14=-125/1592

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, with BCDL = 10.0psf.
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 259 lb uplift at joint 2 and 168 lb uplift at joint 13.
8) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
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

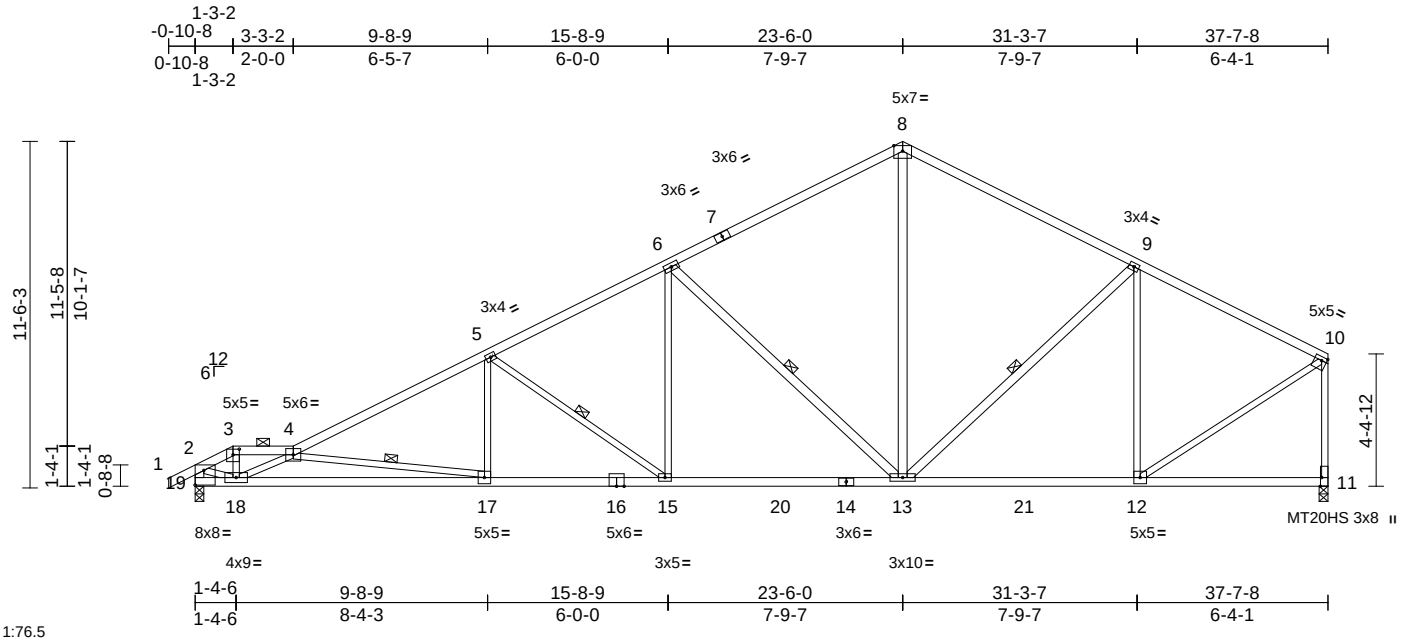
October 27,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 116 RR
RR116	C10	Roof Special Girder	1	1	I48524923
					Job Reference (optional)

Wheeler Lumber, Waverly, KS - 66871, Run: 8.43 S Oct 11 2021 Print: 8.430 S Oct 11 2021 MiTek Industries, Inc. Tue Oct 26 11:05:57 Page: 1

ID:bDljNJA6?5tiTk6El3KUKZyAkTB-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f



Scale = 1:76.5

Plate Offsets (X, Y): [3:0-2-8,0-2-4], [10:0-2-0,0-1-8], [11:0-3-8,Edge], [19:Edge,0-5-13]

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)	-0.27	17-18	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.82	Vert(CT)	-0.48	17-18	>928	240	MT20HS	148/108
BCLL	0.0*	Rep Stress Incr	NO	WB	0.89	Horz(CT)	0.11	11	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S		Wind(LL)	0.16	17-18	>999	240	Weight: 166 lb	FT = 10%

LUMBER

TOP CHORD 2x4 SPF No.2 *Except* 7-8,4-7:2x4 SPF 2100F 1.8E

BOT CHORD 2x4 SPF 2100F 1.8E

WEBS 2x3 SPF No.2 *Except* 13-6,13-8,13-9,19-2:2x4 SPF No.2

BRACING

TOP CHORD Structural wood sheathing directly applied, except end verticals, and 2-0-0 oc purlins (4-1-6 max.): 3-4.

BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing, Except: 8-3-12 oc bracing: 17-18.

WEBS 1 Row at midpt 4-17, 5-15, 6-13, 9-13

REACTIONS (lb/size) 11=1679/0-3-8, 19=1706/0-3-8
Max Horiz 19=271 (LC 5)
Max Uplift 11=-170 (LC 9), 19=-306 (LC 8)
Max Grav 11=1796 (LC 2), 19=1782 (LC 2)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=0/32, 2-3=-2183/252, 3-4=-2005/237, 4-5=-3464/458, 5-6=-2647/391, 6-8=-1726/292, 8-9=-1728/325, 9-10=-1567/207, 2-19=-1773/222, 10-11=-1711/196

BOT CHORD 18-19=-255/317, 17-18=-890/4681, 15-17=-502/3053, 13-15=-314/2306, 12-13=-137/1361, 11-12=-53/44

WEBS 3-18=-130/974, 4-18=-3053/561, 4-17=-1649/393, 5-17=0/524, 5-15=-921/230, 6-15=-54/804, 6-13=-1170/332, 8-13=-113/1030, 9-13=-98/266, 9-12=-683/164, 2-18=-170/1811, 10-12=-125/1616

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, with BCDL = 10.0psf.
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 306 lb uplift at joint 19 and 170 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) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 127 lb down and 76 lb up at 1-3-2 on top chord, and 32 lb up at 1-3-2 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: 1-2=-70, 2-3=-70, 3-4=-70, 4-8=-70, 8-10=-70, 11-19=-20
Concentrated Loads (lb)
Vert: 3=21 (B), 18=29 (B)

October 27,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 116 RR
RR116	C11	Common Supported Gable	1	1	I48524924
					Job Reference (optional)

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.43 S Oct 11 2021 Print: 8.430 S Oct 11 2021 MiTek Industries, Inc. Tue Oct 26 11:05:57 ID:bDljNJA6?5tiTk6El3KUKZyAkTB-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

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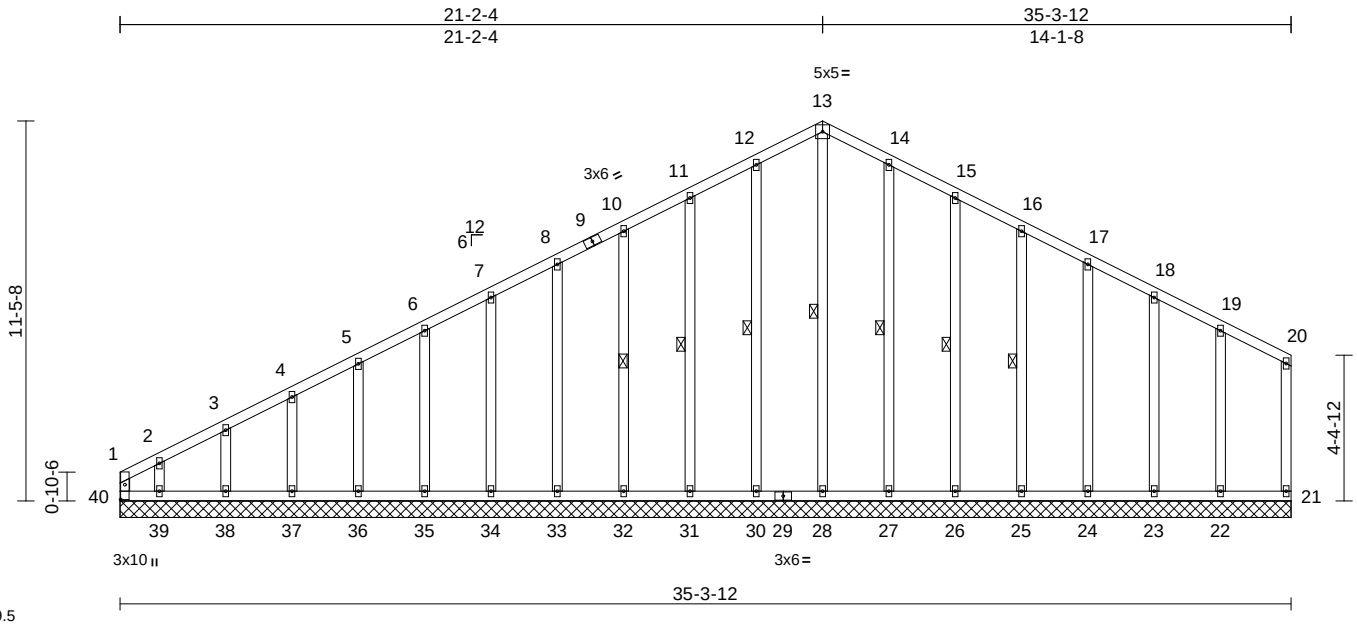


Scale = 1:69.5

Plate Offsets (X, Y): [40:0-5-6,0-1-8]

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	0.10	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.10	Vert(TL)	n/a	-	n/a	999		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.13	Horiz(TL)	0.00	21	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-R							Weight: 215 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 13-28, 12-30, 11-31, 10-32, 14-27, 15-26, 16-25

REACTIONS (lb/size) 21=77/35-3-12, 22=194/35-3-12, 23=177/35-3-12, 24=181/35-3-12, 25=180/35-3-12, 26=179/35-3-12, 27=187/35-3-12, 28=166/35-3-12, 30=187/35-3-12, 31=179/35-3-12, 32=180/35-3-12, 33=180/35-3-12, 34=180/35-3-12, 35=180/35-3-12, 36=180/35-3-12, 37=179/35-3-12, 38=186/35-3-12, 39=153/35-3-12, 40=27/35-3-12

Max Horiz 40=261 (LC 5)

Max Uplift 21=-27 (LC 8), 22=-65 (LC 9), 23=-52 (LC 9), 24=-54 (LC 9), 25=-53 (LC 9), 26=-59 (LC 9), 27=-45 (LC 9), 28=-5 (LC 20), 30=-48 (LC 8), 31=-58 (LC 8), 32=-53 (LC 8), 33=-54 (LC 8), 34=-54 (LC 8), 35=-54 (LC 8), 36=-53 (LC 8), 37=-58 (LC 8), 38=-37 (LC 8), 39=-218 (LC 8), 40=-124 (LC 6)

Max Grav 21=82 (LC 16), 22=195 (LC 22), 23=177 (LC 1), 24=181 (LC 22), 25=180 (LC 1), 26=179 (LC 22), 27=189 (LC 22), 28=212 (LC 18), 30=189 (LC 21), 31=179 (LC 21), 32=180 (LC 1), 33=180 (LC 21), 34=180 (LC 1), 35=180 (LC 21), 36=180 (LC 1), 37=179 (LC 21), 38=186 (LC 1), 39=199 (LC 15), 40=261 (LC 8)

FORCES (lb) - Maximum Compression/Maximum Tension

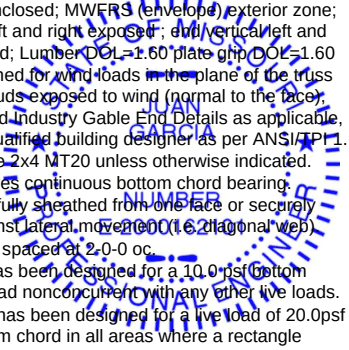
TOP CHORD 1-40=-175/86, 1-2=-279/143, 2-3=-210/127, 3-4=-196/133, 4-5=-181/146, 5-6=-166/159, 6-7=-151/173, 7-8=-137/186, 8-10=-122/200, 10-11=-107/224, 11-12=-93/252, 12-13=-79/273, 13-14=-75/265, 14-15=-73/223, 15-16=-74/177, 16-17=-74/150, 17-18=-74/122, 18-19=-75/94, 19-20=-75/68, 20-21=-77/45

BOT CHORD 39-40=-61/48, 38-39=-61/48, 37-38=-61/48, 36-37=-61/48, 35-36=-61/48, 34-35=-61/48, 33-34=-61/48, 32-33=-61/48, 31-32=-61/48, 30-31=-61/48, 28-30=-61/48, 27-28=-61/48, 26-27=-61/48, 25-26=-61/48, 24-25=-61/48, 23-24=-61/48, 22-23=-61/48, 21-22=-61/48

WEBS 13-28=-185/30, 12-30=-149/72, 11-31=-139/82, 10-32=-140/77, 8-33=-140/78, 7-34=-140/78, 6-35=-140/78, 5-36=-140/78, 4-37=-139/79, 3-38=-144/72, 2-39=-128/146, 14-27=-149/69, 15-26=-139/83, 16-25=-140/77, 17-24=-140/79, 18-23=-138/74, 19-22=-152/96

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) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
4) All plates are 2x4 MT20 unless otherwise indicated.
5) Gable requires continuous bottom chord bearing.
6) Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
7) Gable studs spaced at 2-0-0 oc.
8) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
9) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.



October 27,2021

Continued on page 2

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

10) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 124 lb uplift at joint 40, 27 lb uplift at joint 21, 5 lb uplift at joint 28, 48 lb uplift at joint 30, 58 lb uplift at joint 31, 53 lb uplift at joint 32, 54 lb uplift at joint 33, 54 lb uplift at joint 34, 54 lb uplift at joint 35, 53 lb uplift at joint 36, 58 lb uplift at joint 37, 37 lb uplift at joint 38, 218 lb uplift at joint 39, 45 lb uplift at joint 27, 59 lb uplift at joint 26, 53 lb uplift at joint 25, 54 lb uplift at joint 24, 52 lb uplift at joint 23 and 65 lb uplift at joint 22.
11) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard

Job	Truss	Truss Type	Qty	Ply	Lot 116 RR	
RR116	D1	Common Supported Gable	1	1	Job Reference (optional)	I48524925

Wheeler Lumber, Waverly, KS - 66871,

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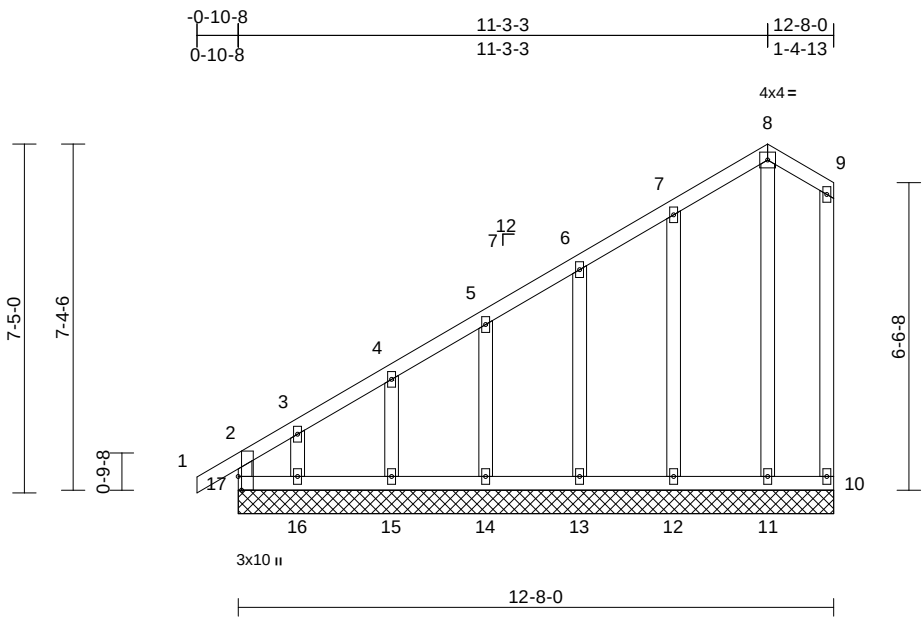

Scale = 1:49

Plate Offsets (X, Y): [17:0-3-8,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	0.18	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.08	Vert(CT)	n/a	-	n/a	999		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.12	Horz(CT)	0.00	10	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-R							Weight: 67 lb	FT = 10%

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

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

REACTIONS (lb/size) 10=47/12-8-0, 11=147/12-8-0, 12=191/12-8-0, 13=178/12-8-0, 14=178/12-8-0, 15=190/12-8-0, 16=115/12-8-0, 17=139/12-8-0
Max Horiz 17=280 (LC 5)
Max Uplift 10=-33 (LC 4), 11=-31 (LC 5), 12=-58 (LC 8), 13=-63 (LC 8), 14=-64 (LC 8), 15=-50 (LC 8), 16=-165 (LC 8), 17=-111 (LC 4)
Max Grav 10=75 (LC 16), 11=159 (LC 15), 12=200 (LC 15), 13=181 (LC 15), 14=185 (LC 15), 15=190 (LC 1), 16=194 (LC 15), 17=248 (LC 16)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 2-17=-199/87, 1-2=0/36, 2-3=-266/176, 3-4=-206/143, 4-5=-180/124, 5-6=-163/113, 6-7=-149/110, 7-8=-129/102, 8-9=-133/105, 9-10=-113/80
BOT CHORD 16-17=-91/69, 15-16=-91/69, 14-15=-91/69, 13-14=-91/69, 12-13=-91/69, 11-12=-91/69, 10-11=-91/69
WEBS 8-11=-140/121, 7-12=-156/89, 6-13=-142/86, 5-14=-144/86, 4-15=-148/82, 3-16=-133/129

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) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
4) All plates are 2x4 MT20 unless otherwise indicated.
5) Gable requires continuous bottom chord bearing.
6) Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
7) Gable studs spaced at 2-0-0 oc.
8) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
9) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
10) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 111 lb uplift at joint 17, 33 lb uplift at joint 10, 31 lb uplift at joint 11, 58 lb uplift at joint 12, 63 lb uplift at joint 13, 64 lb uplift at joint 14, 50 lb uplift at joint 15 and 165 lb uplift at joint 16.
11) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard

October 27,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 116 RR	
RR116	D2	Common	1	1	Job Reference (optional)	I48524926

Wheeler Lumber, Waverly, KS - 66871,

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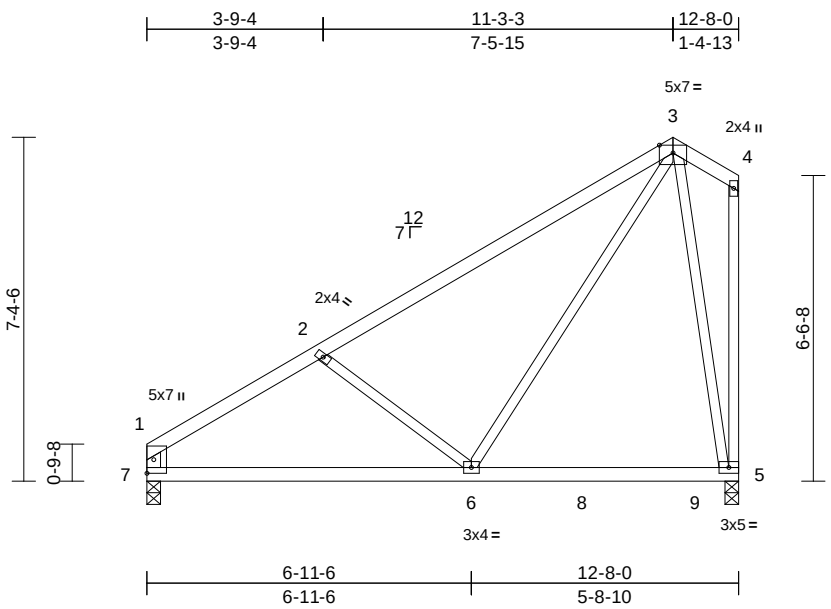

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Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.76	Vert(LL)	-0.06	5-6	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.46	Vert(CT)	-0.10	5-6	>999	240		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.87	Horz(CT)	0.01	5	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S		Wind(LL)	0.04	5-6	>999	240	Weight: 52 lb	FT = 10%

LUMBER
TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
WEBS 2x3 SPF No.2 *Except* 7-1:2x4 SPF 2100F 1.8E

BRACING
TOP CHORD Structural wood sheathing directly applied or 3-11-15 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (lb/size) 5=559/0-3-8, 7=559/0-3-8
Max Horiz 7=269 (LC 7)
Max Uplift 5=-122 (LC 8), 7=-63 (LC 8)
Max Grav 5=686 (LC 15), 7=610 (LC 15)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-802/153, 2-3=-588/102, 3-4=-138/125, 4-5=-115/131, 1-7=-479/94
BOT CHORD 6-7=-220/773, 5-6=-89/157
WEBS 2-6=-407/265, 3-6=-87/567, 3-5=-721/162

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) 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, with BCDL = 10.0psf.
5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 63 lb uplift at joint 7 and 122 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

October 27,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 116 RR
RR116	D3	Common Girder	1	3	I48524927
					Job Reference (optional)

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.43 S Oct 11 2021 Print: 8.430 S Oct 11 2021 MiTek Industries, Inc. Tue Oct 26 11:05:59 Page: 1
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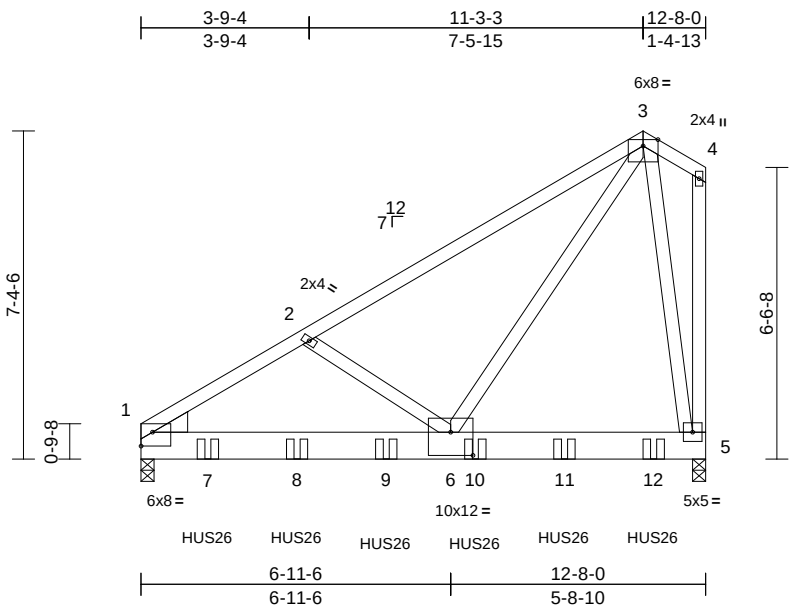

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Plate Offsets (X, Y): [1:Edge,0-3-12], [6:0-6-0,0-6-4]

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	0.86	Vert(LL)	-0.09	1-6	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.53	Vert(CT)	-0.15	1-6	>996	240		
BCLL	0.0*	Rep Stress Incr	NO	WB	0.69	Horz(CT)	0.01	5	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S		Wind(LL)	0.05	1-6	>999	240	Weight: 254 lb	FT = 10%

LUMBER
TOP CHORD 2x4 SPF No.2
BOT CHORD 2x8 SP DSS
WEBS 2x4 SPF No.2
WEDGE Left: 2x6 SPF No.2

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

REACTIONS (lb/size) 1=5800/0-3-8, 5=6090/0-3-8, (req. 0-3-9)
Max Horiz 1=264 (LC 7)
Max Uplift 1=-725 (LC 8), 5=-820 (LC 8)
Max Grav 1=6433 (LC 15), 5=6814 (LC 15)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-6698/823, 2-3=-6637/786, 3-4=-165/126, 4-5=-151/118
BOT CHORD 1-6=-788/5636, 5-6=-166/912
WEBS 2-6=-152/505, 3-6=-1041/8963, 3-5=-4742/621

NOTES
1) 3-ply truss to be connected together with 10d (0.131"x3") nails as follows:
Top chords connected as follows: 2x4 - 1 row at 0-9-0 oc.
Bottom chords connected as follows: 2x8 - 2 rows staggered at 0-4-0 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.
4) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
6) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
7) WARNING: Required bearing size at joint(s) 5 greater than input bearing size.
8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 820 lb uplift at joint 5 and 725 lb uplift at joint 1.
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) Use Simpson Strong-Tie HUS26 (14-10d Girder, 6-10d Truss) or equivalent spaced at 2-0-0 oc max. starting at 1-6-0 from the left end to 11-6-0 to connect truss(es) to back face of bottom chord.
11) Fill all nail holes where hanger is in contact with lumber.

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, 1-5=-20
Concentrated Loads (lb)
Vert: 7=-1796 (B), 8=-1796 (B), 9=-1796 (B), 10=-1796 (B), 11=-1796 (B), 12=-1796 (B)

October 27,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 116 RR	
RR116	E1	Common Supported Gable	1	1	Job Reference (optional)	I48524928

Wheeler Lumber, Waverly, KS - 66871,

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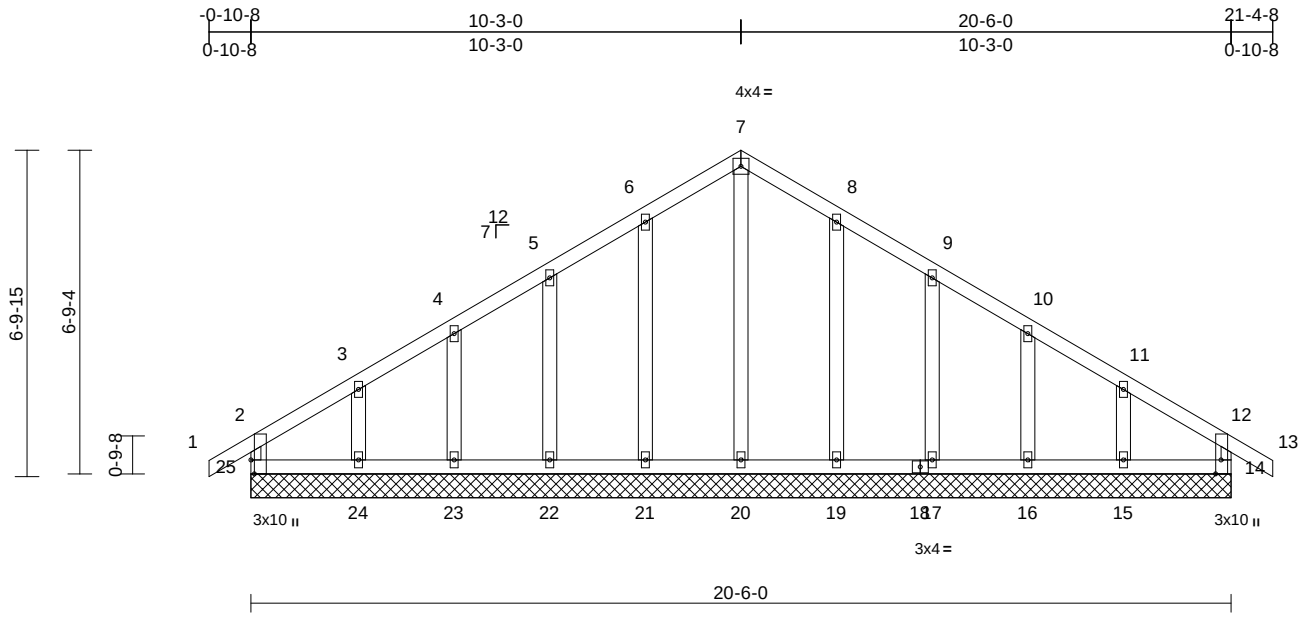

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Plate Offsets (X, Y): [14:0-3-8,Edge], [25:0-3-8,Edge]

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	0.08	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.05	Vert(CT)	n/a	-	n/a	999		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.11	Horz(CT)	0.00	14	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-R							Weight: 91 lb	FT = 10%

LUMBER

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

BRACING

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

REACTIONS (lb/size) 14=171/20-6-0, 15=185/20-6-0, 16=179/20-6-0, 17=179/20-6-0, 19=188/20-6-0, 20=160/20-6-0, 21=188/20-6-0, 22=179/20-6-0, 23=179/20-6-0, 24=185/20-6-0, 25=171/20-6-0
Max Horiz 25=190 (LC 7)
Max Uplift 14=-28 (LC 8), 15=-95 (LC 9), 16=-52 (LC 9), 17=-66 (LC 9), 19=-60 (LC 9), 21=-60 (LC 8), 22=-66 (LC 8), 23=-50 (LC 8), 24=-101 (LC 8), 25=-50 (LC 4)
Max Grav 14=171 (LC 1), 15=215 (LC 16), 16=179 (LC 1), 17=185 (LC 16), 19=193 (LC 16), 20=194 (LC 18), 21=193 (LC 15), 22=185 (LC 15), 23=179 (LC 1), 24=224 (LC 15), 25=183 (LC 16)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 2-25=-153/50, 1-2=0/35, 2-3=-124/111, 3-4=-97/97, 4-5=-88/128, 5-6=-75/161, 6-7=-65/189, 7-8=-55/179, 8-9=-48/142, 9-10=-61/110, 10-11=-71/79, 11-12=-92/73, 12-13=0/35, 12-14=-152/38
BOT CHORD 24-25=-78/93, 23-24=-78/93, 22-23=-78/93, 21-22=-78/93, 20-21=-78/93, 19-20=-78/93, 17-19=-78/93, 16-17=-78/93, 15-16=-78/93, 14-15=-78/93
WEBS 7-20=-154/0, 6-21=-154/85, 5-22=-144/89, 4-23=-140/78, 3-24=-164/110, 8-19=-153/84, 9-17=-144/89, 10-16=-141/79, 11-15=-159/107

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) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
4) All plates are 2x4 MT20 unless otherwise indicated.
5) Gable requires continuous bottom chord bearing.
6) Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
7) Gable studs spaced at 2-0-0 oc.
8) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
9) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
10) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 50 lb uplift at joint 25, 28 lb uplift at joint 14, 60 lb uplift at joint 21, 66 lb uplift at joint 22, 50 lb uplift at joint 23, 101 lb uplift at joint 24, 60 lb uplift at joint 19, 66 lb uplift at joint 17, 52 lb uplift at joint 16 and 95 lb uplift at joint 15.
11) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard

October 27,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 116 RR	
RR116	E2	Common	6	1	Job Reference (optional)	I48524929

Wheeler Lumber, Waverly, KS - 66871,

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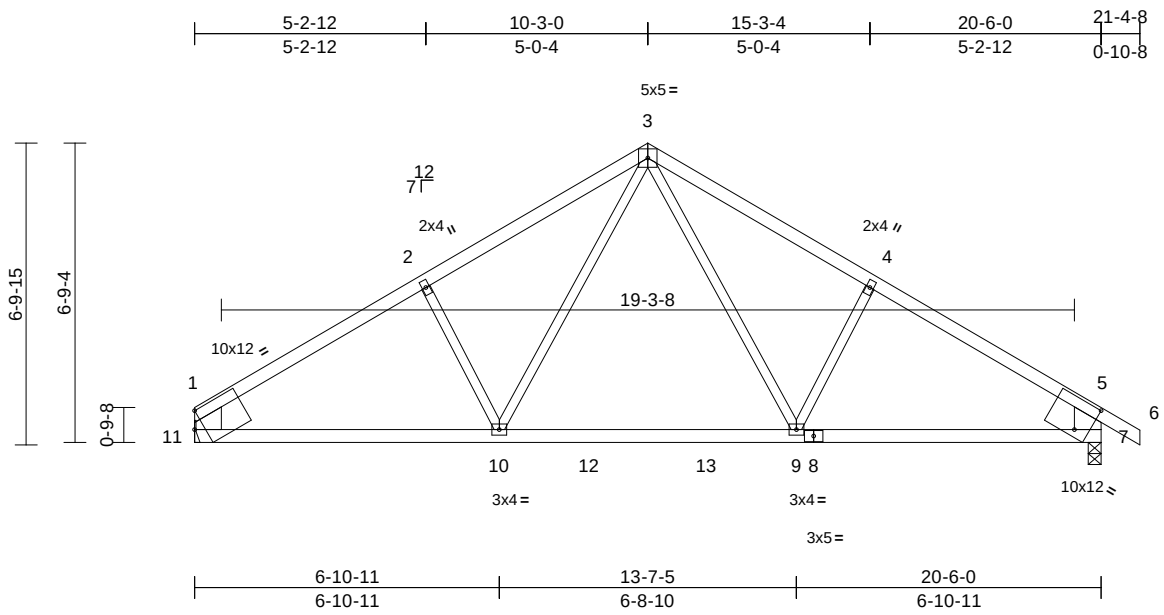

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Plate Offsets (X, Y): [1:Edge,0-4-7], [7:0-3-11,0-8-1]

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	0.85	Vert(LL)	-0.22	9-10	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.76	Vert(CT)	-0.35	9-10	>679	240		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.15	Horz(CT)	0.03	7	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S		Wind(LL)	0.09	9-10	>999	240	Weight: 72 lb	FT = 10%

LUMBER
TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
WEBS 2x3 SPF No.2 *Except* 11-1,7-5:2x8 SP DSS

BRACING
TOP CHORD Structural wood sheathing directly applied or 2-4-4 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (lb/size) 7=980/0-3-8, 11=893/ Mechanical
Max Horiz 11=-188 (LC 6)
Max Uplift 7=-133 (LC 9), 11=-105 (LC 8)
Max Grav 7=1058 (LC 16), 11=979 (LC 15)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-1294/162, 2-3=-1170/207, 3-4=-1157/207, 4-5=-1297/162, 5-6=0/42, 1-11=-831/138, 5-7=-929/168
BOT CHORD 10-11=-151/1141, 9-10=-12/805, 7-9=-57/1007
WEBS 3-9=-106/498, 4-9=-240/198, 3-10=-106/490, 2-10=-264/203

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) 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, with BCDL = 10.0psf.
5) Refer to girder(s) for truss to truss connections.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 105 lb uplift at joint 11 and 133 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.

LOAD CASE(S) Standard

October 27,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 116 RR	
RR116	E3	Common	5	1	Job Reference (optional)	I48524930

Wheeler Lumber, Waverly, KS - 66871,

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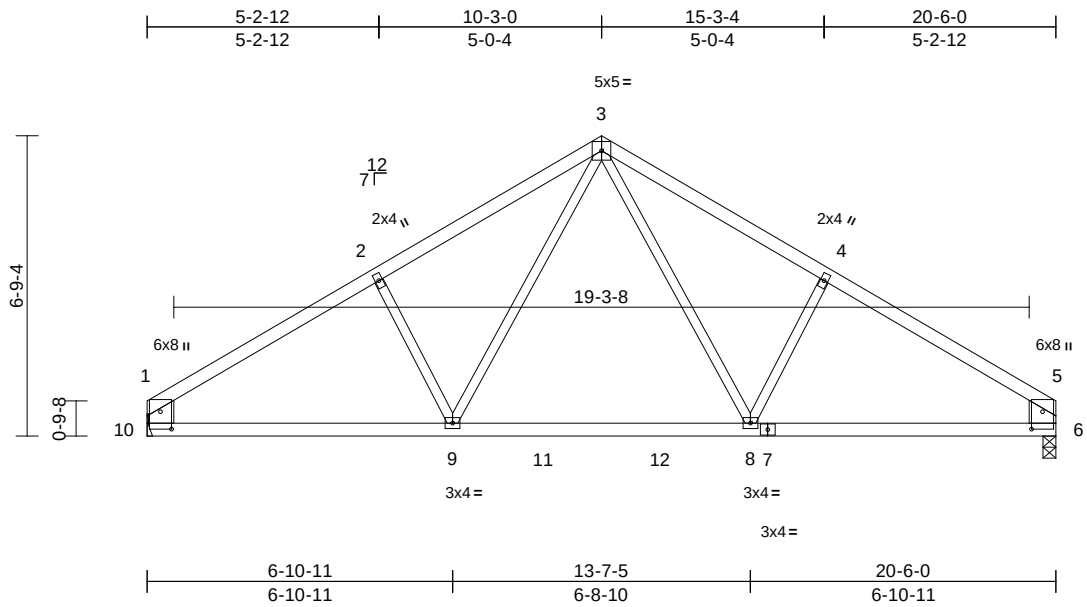

Scale = 1:52

Plate Offsets (X, Y): [1:0-4-12,0-3-0], [5:0-4-12,0-3-0]

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	0.64	Vert(LL)	-0.24	8-9	>977	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.76	Vert(CT)	-0.40	8-9	>598	240		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.15	Horz(CT)	0.03	6	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S		Wind(LL)	0.08	8-9	>999	240	Weight: 71 lb	FT = 10%

LUMBER
TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
WEBS 2x3 SPF No.2 *Except* 10-1,6-5:2x8 SP DSS

BRACING
TOP CHORD Structural wood sheathing directly applied or 4-1-14 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (lb/size) 6=895/0-3-8, 10=895/ Mechanical
Max Horiz 10=141 (LC 7)
Max Uplift 6=-7 (LC 9), 10=-7 (LC 8)
Max Grav 6=980 (LC 14), 10=980 (LC 13)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-1301/38, 2-3=-1176/78, 3-4=-1176/78, 4-5=-1301/38, 1-10=-833/44, 5-6=-833/44
BOT CHORD 9-10=-35/1114, 8-9=0/786, 6-8=0/1013
WEBS 3-8=-38/486, 4-8=-264/130, 3-9=-38/486, 2-9=-264/130

NOTES
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope); cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
4) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
5) Refer to girder(s) for truss to truss connections.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 7 lb uplift at joint 10 and 7 lb uplift at joint 6.
7) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard

October 27,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 116 RR	
RR116	G1	Common Supported Gable	1	1	Job Reference (optional)	I48524931

Wheeler Lumber, Waverly, KS - 66871,

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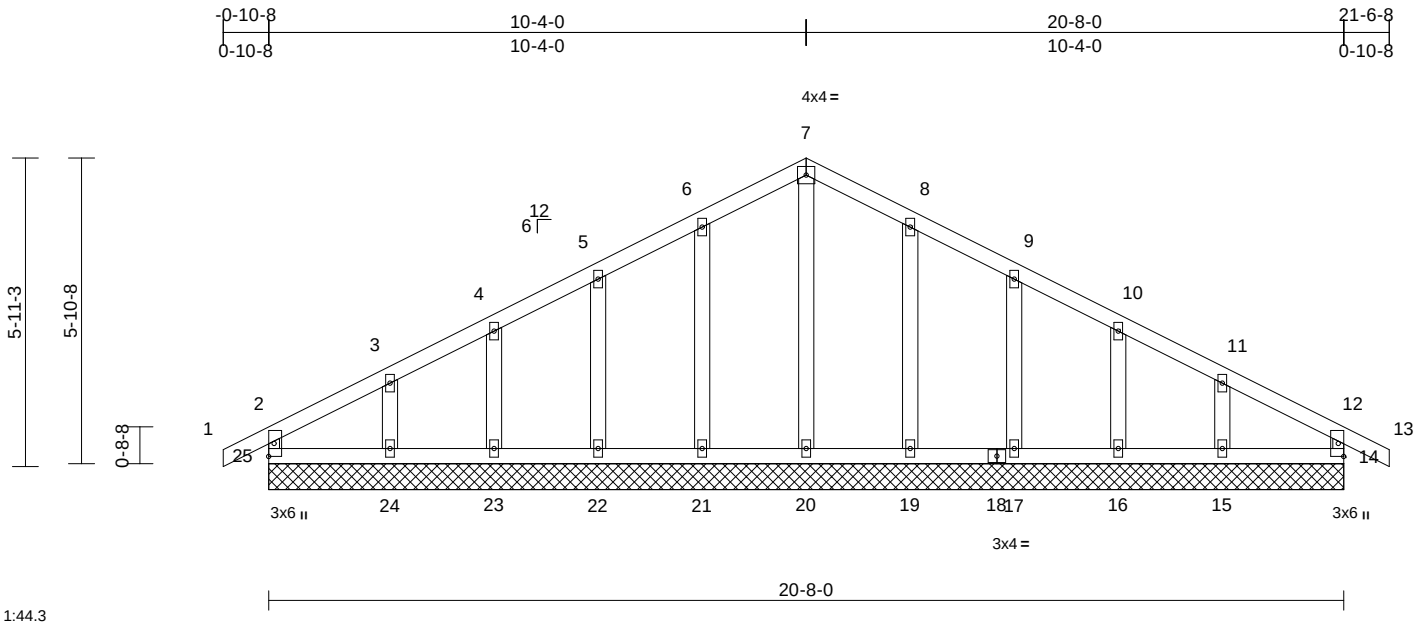

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Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.07	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.03	Vert(CT)	n/a	-	n/a	999		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.07	Horz(CT)	0.00	14	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-R							Weight: 85 lb	FT = 10%

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

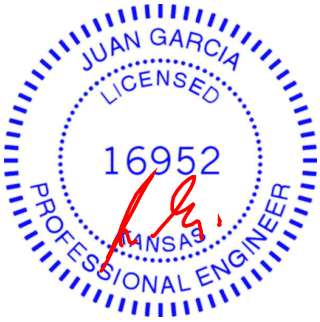
BRACING
TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (lb/size) 14=174/20-8-0, 15=191/20-8-0, 16=177/20-8-0, 17=179/20-8-0, 19=188/20-8-0, 20=159/20-8-0, 21=188/20-8-0, 22=179/20-8-0, 23=177/20-8-0, 24=191/20-8-0, 25=174/20-8-0
Max Horiz 25=89 (LC 7)
Max Uplift 14=-20 (LC 8), 15=-79 (LC 9), 16=-47 (LC 9), 17=-57 (LC 9), 19=-55 (LC 9), 21=-55 (LC 8), 22=-57 (LC 8), 23=-45 (LC 8), 24=-85 (LC 8), 25=-33 (LC 9)
Max Grav 14=174 (LC 1), 15=192 (LC 22), 16=177 (LC 1), 17=179 (LC 1), 19=190 (LC 22), 20=173 (LC 18), 21=190 (LC 21), 22=179 (LC 1), 23=177 (LC 1), 24=192 (LC 21), 25=174 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 2-25=-154/42, 1-2=0/31, 2-3=-85/60, 3-4=-56/82, 4-5=-46/108, 5-6=-40/135, 6-7=-43/159, 7-8=-43/151, 8-9=-40/115, 9-10=-40/89, 10-11=-41/63, 11-12=-69/44, 12-13=0/31, 12-14=-154/31
BOT CHORD 24-25=-22/69, 23-24=-22/69, 22-23=-22/69, 21-22=-22/69, 20-21=-22/69, 19-20=-22/69, 17-19=-22/69, 16-17=-22/69, 15-16=-22/69, 14-15=-22/69
WEBS 7-20=-133/0, 6-21=-151/79, 5-22=-139/80, 4-23=-139/72, 3-24=-146/100, 8-19=-151/79, 9-17=-139/80, 10-16=-139/73, 11-15=-146/96

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) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
4) All plates are 2x4 MT20 unless otherwise indicated.
5) Gable requires continuous bottom chord bearing.
6) Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
7) Gable studs spaced at 2-0-0 oc.
8) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
9) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
10) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 33 lb uplift at joint 25, 20 lb uplift at joint 14, 55 lb uplift at joint 21, 57 lb uplift at joint 22, 45 lb uplift at joint 23, 85 lb uplift at joint 24, 55 lb uplift at joint 19, 57 lb uplift at joint 17, 47 lb uplift at joint 16 and 79 lb uplift at joint 15.
11) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard



October 27,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 116 RR	I48524932
RR116	G2	Common	4	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.43 S Oct 11 2021 Print: 8.430 S Oct 11 2021 MiTek Industries, Inc. Tue Oct 26 11:06:00 Page: 1
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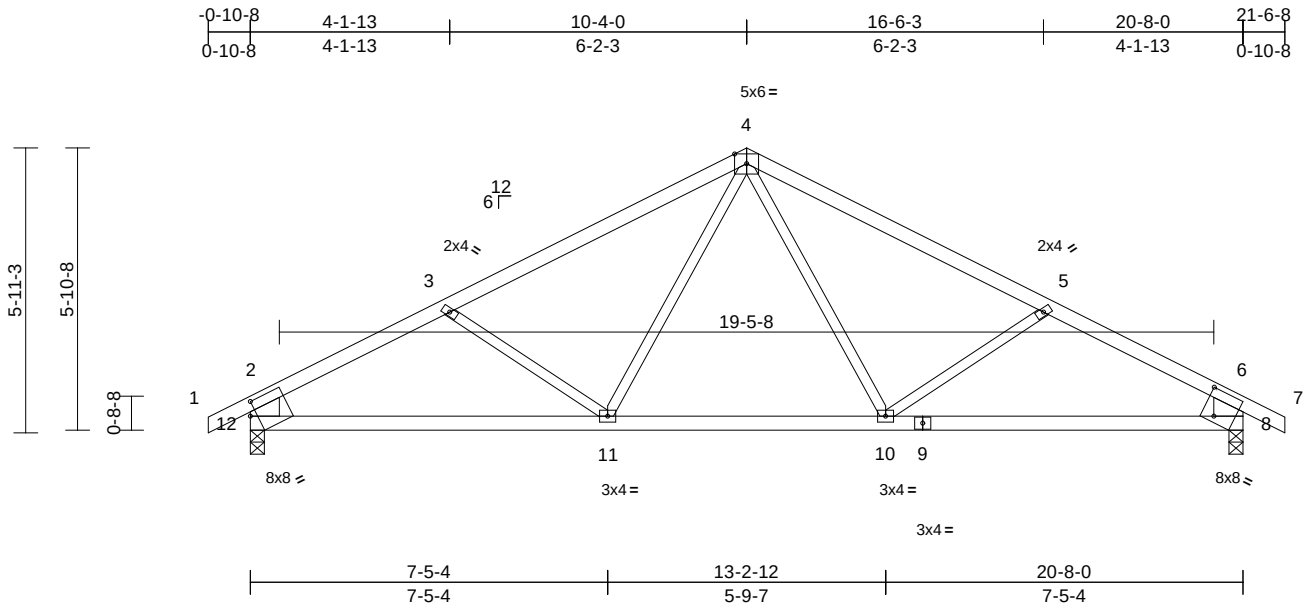


Scale = 1:48

Plate Offsets (X, Y): [8:0-3-2,0-6-8], [12:0-1-10,0-3-4]

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	0.88	Vert(LL)	-0.14	10-11	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.58	Vert(CT)	-0.22	10-11	>999	240		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.12	Horz(CT)	0.03	8	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S		Wind(LL)	0.09	10-11	>999	240	Weight: 71 lb	FT = 10%

LUMBER
TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
WEBS 2x3 SPF No.2 *Except* 12-2,8-6:2x8 SP DSS

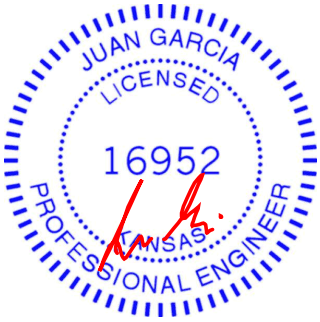
BRACING
TOP CHORD Structural wood sheathing directly applied or 2-2-0 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (lb/size) 8=985/0-3-8, 12=985/0-3-8
Max Horiz 12=93 (LC 7)
Max Uplift 8=-139 (LC 9), 12=-139 (LC 8)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/37, 2-3=-1375/219, 3-4=-1152/156, 4-5=-1152/156, 5-6=-1375/220, 6-7=0/37, 2-12=-892/174, 6-8=-892/174
BOT CHORD 11-12=-217/1132, 10-11=-32/827, 8-10=-137/1132
WEBS 4-10=-36/300, 5-10=-273/205, 4-11=-36/300, 3-11=-273/205

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) 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) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 139 lb uplift at joint 12 and 139 lb uplift at joint 8.
6) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard



October 27,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 116 RR	
RR116	G3	COMMON GIRDER	1	**3**	Job Reference (optional)	I48524933

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.43 S Oct 11 2021 Print: 8.430 S Oct 11 2021 MiTek Industries, Inc. Tue Oct 26 11:06:01
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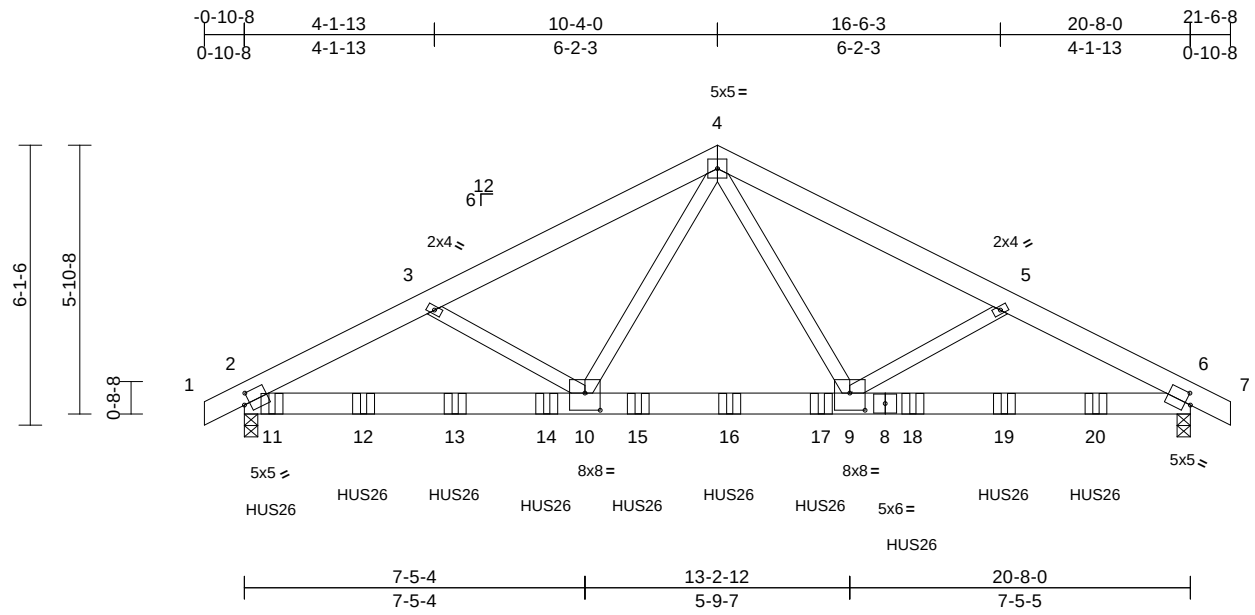
Page: 1



Scale = 1:50.3

Plate Offsets (X, Y): [2:0-1-8,0-2-12], [6:0-1-8,0-2-12], [9:0-4-0,0-4-8], [10:0-4-0,0-4-8]

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	0.33	Vert(LL)	-0.10	2-10	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.48	Vert(CT)	-0.18	2-10	>999	240		
BCLL	0.0*	Rep Stress Incr	NO	WB	0.31	Horz(CT)	0.03	6	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S		Wind(LL)	0.06	6-9	>999	240	Weight: 347 lb	FT = 10%

LUMBER
TOP CHORD 2x6 SPF No.2
BOT CHORD 2x6 SP 2400F 2.0E
WEBS 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) 2=5680/0-3-8, 6=5043/0-3-8
Max Horiz 2=64 (LC 7)
Max Uplift 2=-264 (LC 8), 6=-459 (LC 9)
Max Grav 2=6111 (LC 13), 6=5397 (LC 14)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/15, 2-3=-8329/489, 3-4=-8228/468, 4-5=-8203/668, 5-6=-8296/695, 6-7=0/15
BOT CHORD 2-10=-442/7321, 9-10=-313/5451, 6-9=-572/7238
WEBS 4-9=-451/3919, 5-9=-87/288, 4-10=-72/3964, 3-10=-103/279

NOTES
1) 3-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 - 3 rows staggered at 0-7-0 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.
4) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope); cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
5) 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 264 lb uplift at joint 2 and 459 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.
9) Use Simpson Strong-Tie HUS26 (14-10d Girder, 4-10d Truss) or equivalent spaced at 2-0-0 oc max. starting at 0-7-4 from the left end to 18-7-4 to connect truss(es) to front face of bottom chord.
10) Fill all nail holes where hanger is in contact with lumber.

LOAD CASE(S) Standard
1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (lb/ft)
Vert: 1-4=-70, 4-7=-70, 2-6=-20
Concentrated Loads (lb)
Vert: 11=-881 (F), 12=-875 (F), 13=-875 (F), 14=-875 (F), 15=-875 (F), 16=-873 (F), 17=-873 (F), 18=-873 (F), 19=-873 (F), 20=-873 (F)

October 27,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 116 RR
RR116	J1	Diagonal Hip Girder	2	1	I48524934
					Job Reference (optional)

Wheeler Lumber, Waverly, KS - 66871,

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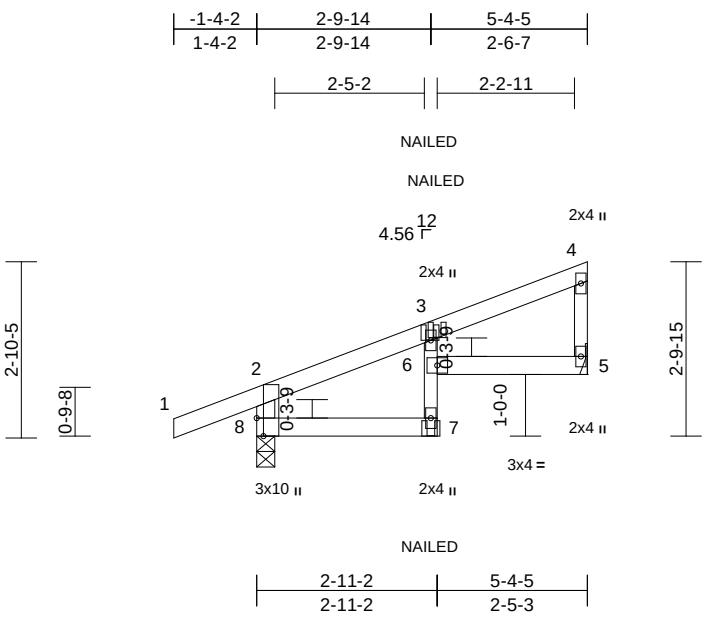


Scale = 1:37.4

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

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.29	Vert(LL)	-0.03	6	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.43	Vert(CT)	-0.07	7	>910	240		
BCLL	0.0*	Rep Stress Incr	NO	WB	0.00	Horz(CT)	0.03	5	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-R		Wind(LL)	0.04	7	>999	240	Weight: 17 lb	FT = 10%

LUMBER
TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2 *Except* 7-3:2x3 SPF No.2
WEBS 2x4 SPF No.2 *Except* 4-5:2x3 SPF No.2

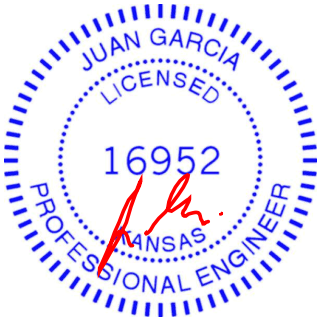
BRACING
TOP CHORD Structural wood sheathing directly applied or 5-7-3 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (lb/size) 5=223/ Mechanical, 8=357/0-3-8
Max Horiz 8=103 (LC 5)
Max Uplift 5=-51 (LC 8), 8=-88 (LC 4)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 2-8=-331/108, 1-2=0/37, 2-3=-227/20, 3-4=-79/12, 4-5=-135/46
BOT CHORD 7-8=-47/128, 6-7=-3/56, 3-6=-14/52, 5-6=-25/60

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 88 lb uplift at joint 8 and 51 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.
7) "NAILED" indicates 2-12d (0.148"x3.25") toe-nails per NDS guidlines.
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, 2-4=-70, 7-8=-20, 5-6=-20
Concentrated Loads (lb)
Vert: 7=2 (B), 3=-17 (F)



October 27,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 116 RR	
RR116	J2	Jack-Open	3	1	Job Reference (optional)	I48524935

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.43 S Oct 11 2021 Print: 8.430 S Oct 11 2021 MiTek Industries, Inc. Tue Oct 26 11:06:01 Page: 1
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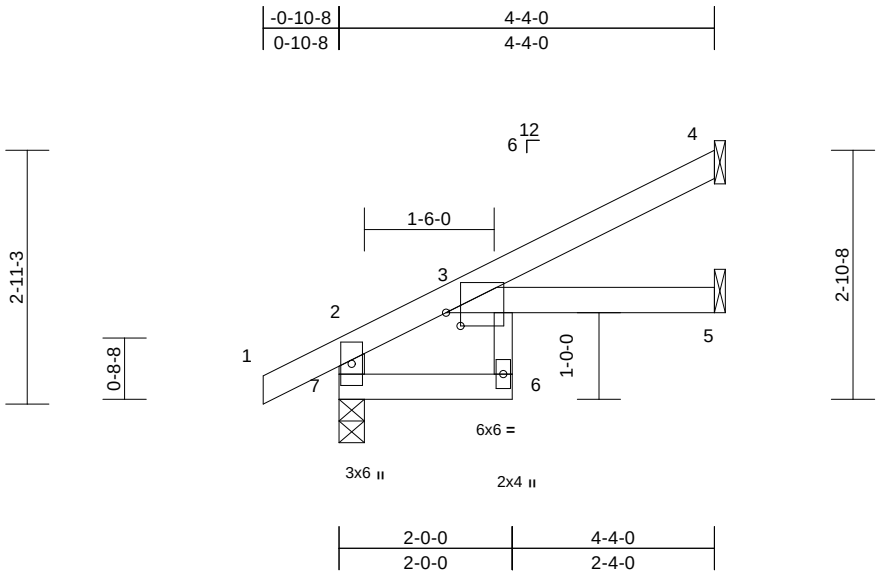

Scale = 1:26.6

Plate Offsets (X, Y): [3:0-2-0,0-1-13]

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	0.23	Vert(LL)	-0.03	6	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.21	Vert(CT)	-0.05	6	>909	240		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.00	Horz(CT)	0.03	5	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-R		Wind(LL)	0.04	6	>999	240	Weight: 13 lb	FT = 10%

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

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

REACTIONS (lb/size) 4=117/ Mechanical, 5=64/ Mechanical, 7=275/0-3-8
Max Horiz 7=95 (LC 8)
Max Uplift 4=-59 (LC 8), 5=-2 (LC 8), 7=-24 (LC 8)
Max Grav 4=117 (LC 1), 5=79 (LC 3), 7=275 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 2-7=-266/53, 1-2=0/32, 2-3=-88/0, 3-4=-47/43
BOT CHORD 6-7=-23/0, 3-6=-6/52, 3-5=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 24 lb uplift at joint 7, 59 lb uplift at joint 4 and 2 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

October 27,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 116 RR	
RR116	J3	Jack-Open	2	1	Job Reference (optional)	I48524936

Wheeler Lumber, Waverly, KS - 66871,

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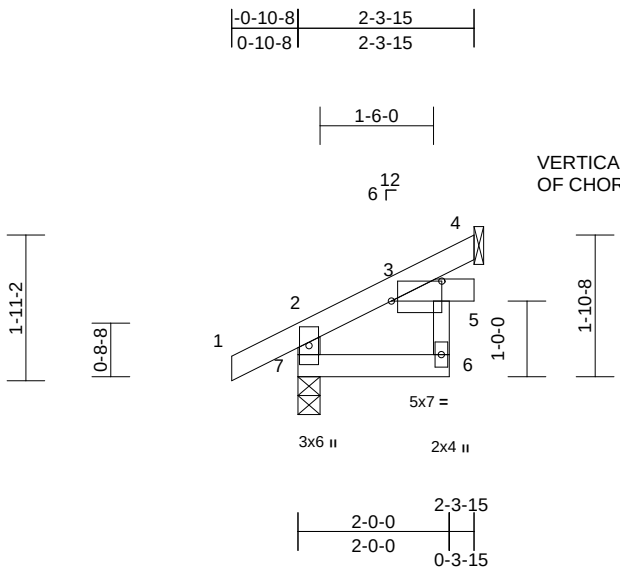

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Plate Offsets (X, Y): [3:0-8-0,0-3-3]

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	0.12	Vert(LL)	-0.01	5	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.04	Vert(CT)	-0.01	5	>999	240		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.00	Horz(CT)	0.00	4	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-R		Wind(LL)	0.01	6	>999	240	Weight: 9 lb	FT = 10%

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

BRACING
TOP CHORD Structural wood sheathing directly applied or 2-3-15 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.

REACTIONS (lb/size) 4=89/ Mechanical, 7=189/0-3-8
Max Horiz 7=54 (LC 8)
Max Uplift 4=-27 (LC 8), 7=-23 (LC 8)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 2-7=-171/38, 1-2=0/32, 2-3=-40/9, 3-4=-17/36
BOT CHORD 6-7=-22/0, 3-6=0/44, 3-5=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 23 lb uplift at joint 7 and 27 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.

LOAD CASE(S) Standard

October 27,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 116 RR
RR116	J4	Jack-Open	2	1	I48524937
					Job Reference (optional)

Wheeler Lumber, Waverly, KS - 66871,

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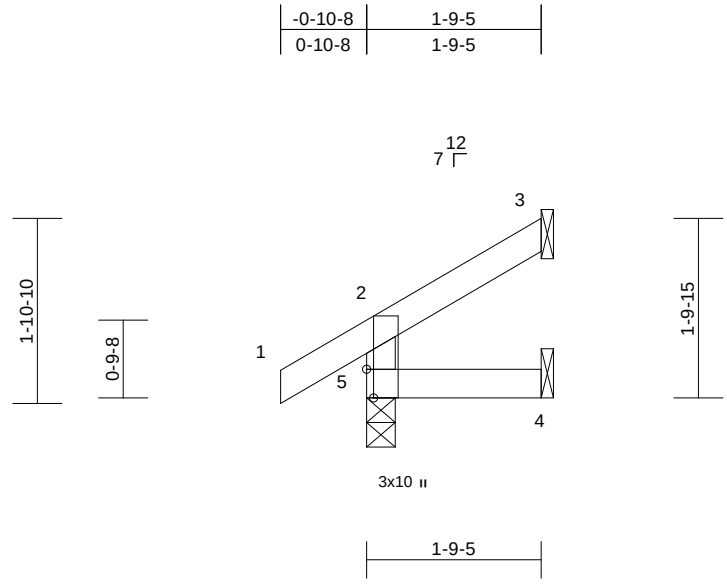

Scale = 1:23.4

Plate Offsets (X, Y): [5:0-3-8,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	0.07	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 1-9-5 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (lb/size) 3=38/ Mechanical, 4=12/ Mechanical, 5=167/0-3-8
Max Horiz 5=51 (LC 8)
Max Uplift 3=-33 (LC 8), 5=-18 (LC 8)
Max Grav 3=44 (LC 15), 4=29 (LC 3), 5=167 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 2-5=-146/37, 1-2=0/36, 2-3=-41/18
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 18 lb uplift at joint 5 and 33 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

October 27,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 116 RR	
RR116	J5	Jack-Closed Supported Gable	2	1	Job Reference (optional)	I48524938

Wheeler Lumber, Waverly, KS - 66871,

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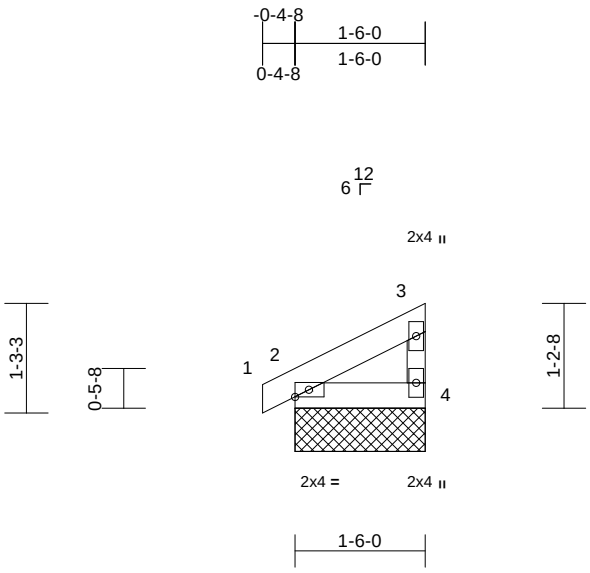

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Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.03	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.02	Vert(CT)	n/a	-	n/a	999		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.00	Horz(CT)	0.00	4	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

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=36 (LC 5)
Max Uplift 2=-16 (LC 8), 4=-16 (LC 8)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/3, 2-3=-37/19, 3-4=-45/24
BOT CHORD 2-4=-12/9

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 16 lb uplift at joint 4 and 16 lb uplift at joint 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

October 27,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 116 RR	
RR116	J6	Jack-Closed	2	1	Job Reference (optional)	I48524939

Wheeler Lumber, Waverly, KS - 66871,

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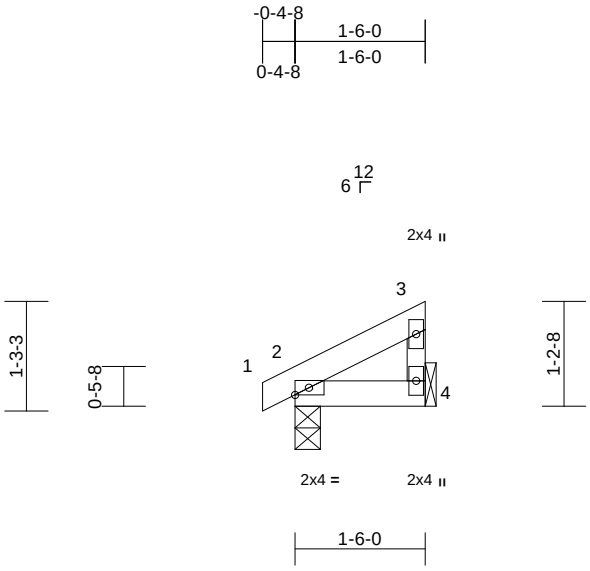

Scale = 1:26.6

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	0.02	Vert(LL)	0.00	2-4	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.02	Vert(CT)	0.00	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: 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 1-6-0 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (lb/size) 2=94/0-3-8, 4=57/ Mechanical
Max Horiz 2=36 (LC 5)
Max Uplift 2=-17 (LC 8), 4=-16 (LC 8)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/3, 2-3=-38/18, 3-4=-44/24
BOT CHORD 2-4=-12/9

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 16 lb uplift at joint 4 and 17 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

October 27,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 116 RR	
RR116	J7	Jack-Open Girder	1	1	Job Reference (optional)	I48524940

Wheeler Lumber, Waverly, KS - 66871,

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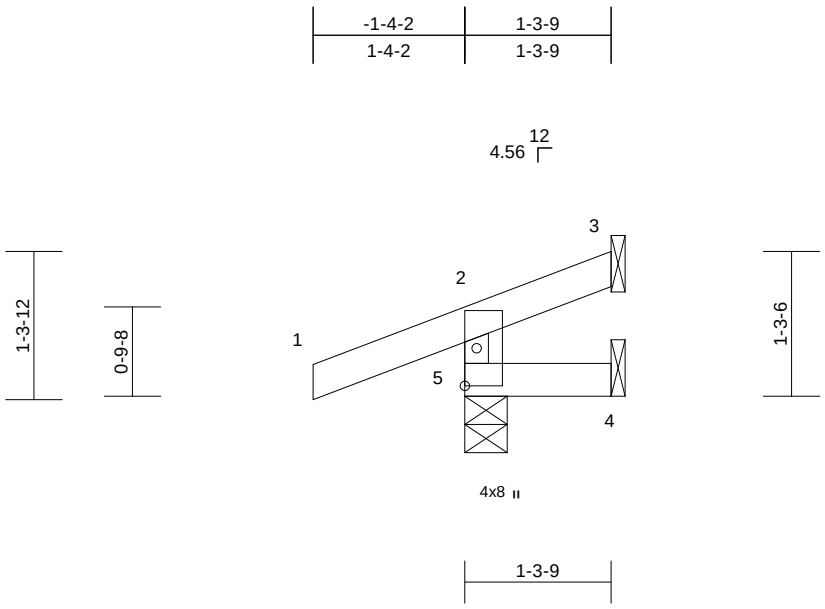

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Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.12	Vert(LL)	0.00	4-5	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.01	Vert(CT)	0.00	5	>999	240		
BCLL	0.0*	Rep Stress Incr	NO	WB	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 1-3-9 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (lb/size) 3=22/ Mechanical, 4=0/ Mechanical, 5=35/0-4-8
Max Horiz 5=46 (LC 7)
Max Uplift 3=-21 (LC 5), 4=-5 (LC 5), 5=-156 (LC 12)
Max Grav 3=31 (LC 15), 4=11 (LC 3), 5=63 (LC 9)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 2-5=-61/151, 1-2=-3/5, 2-3=-10/9
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 156 lb uplift at joint 5, 5 lb uplift at joint 4 and 21 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) 1 lb down and 3 lb up at -1-4-2, and 1 lb down and 3 lb up at -1-4-2 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=5 (F=2, B=2)
Trapezoidal Loads (lb/ft)
Vert: 1=0 (F=35, B=35)-to-2=-27 (F=21, B=21), 2=-27 (F=21, B=21)-to-3=-49 (F=10, B=10), 5=12 (F=16, B=16)-to-4=-5 (F=7, B=7)

October 27,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 116 RR	I48524941
RR116	J8	Jack-Open	1	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS - 66871,

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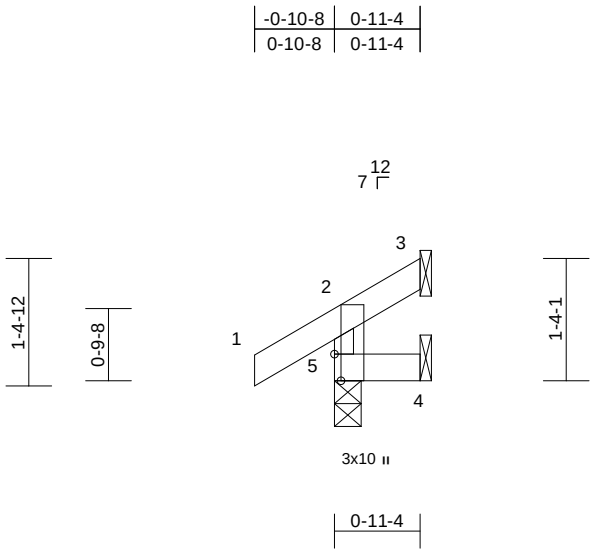

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Plate Offsets (X, Y): [5:0-3-8,Edge]

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	0.07	Vert(LL)	0.00	5	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.01	Vert(CT)	0.00	5	>999	180		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.00	Horz(CT)	0.00	3	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-R							Weight: 4 lb	FT = 10%

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

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

REACTIONS (lb/size) 3=-6/ Mechanical, 4=2/ Mechanical, 5=146/0-3-8
Max Horiz 5=33 (LC 5)
Max Uplift 3=-11 (LC 8), 4=-4 (LC 8), 5=-21 (LC 8)
Max Grav 3=7 (LC 4), 4=14 (LC 3), 5=146 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 2-5=-132/35, 1-2=0/35, 2-3=-32/3
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 21 lb uplift at joint 5, 4 lb uplift at joint 4 and 11 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

October 27,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 116 RR	
RR116	LAY1	Lay-In Gable	1	1	Job Reference (optional)	I48524942

Wheeler Lumber, Waverly, KS - 66871,

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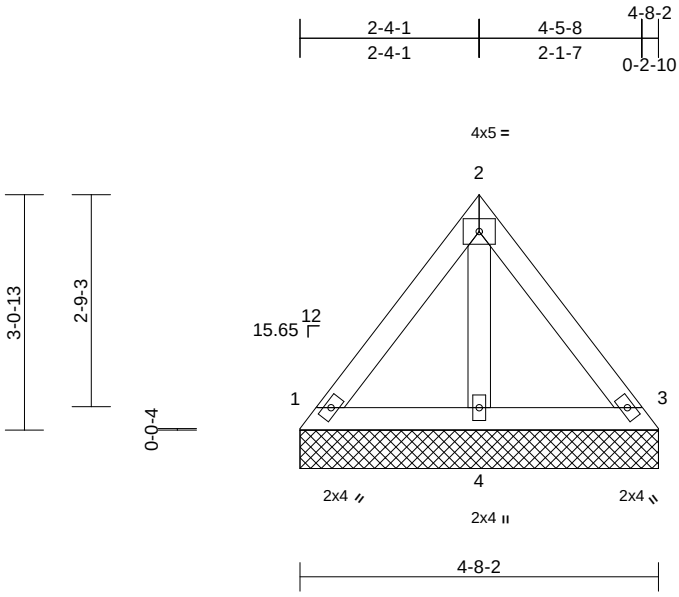

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Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.08	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.04	Vert(TL)	n/a	-	n/a	999		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.01	Horiz(TL)	0.00	3	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-P							Weight: 16 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 4-8-8 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (lb/size) 1=120/4-8-2, 3=120/4-8-2, 4=131/4-8-2
Max Horiz 1=-76 (LC 4)
Max Uplift 1=-36 (LC 9), 3=-29 (LC 8)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-101/50, 2-3=-91/42
BOT CHORD 1-4=-29/53, 3-4=-29/53
WEBS 2-4=-79/18

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) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
4) Gable requires continuous bottom chord bearing.
5) Gable studs spaced at 2-0-0 oc.
6) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
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 36 lb uplift at joint 1 and 29 lb uplift at joint 3.
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

October 27,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 116 RR
RR116	V1	Valley	1	1	I48524943
					Job Reference (optional)

Wheeler Lumber, Waverly, KS - 66871,

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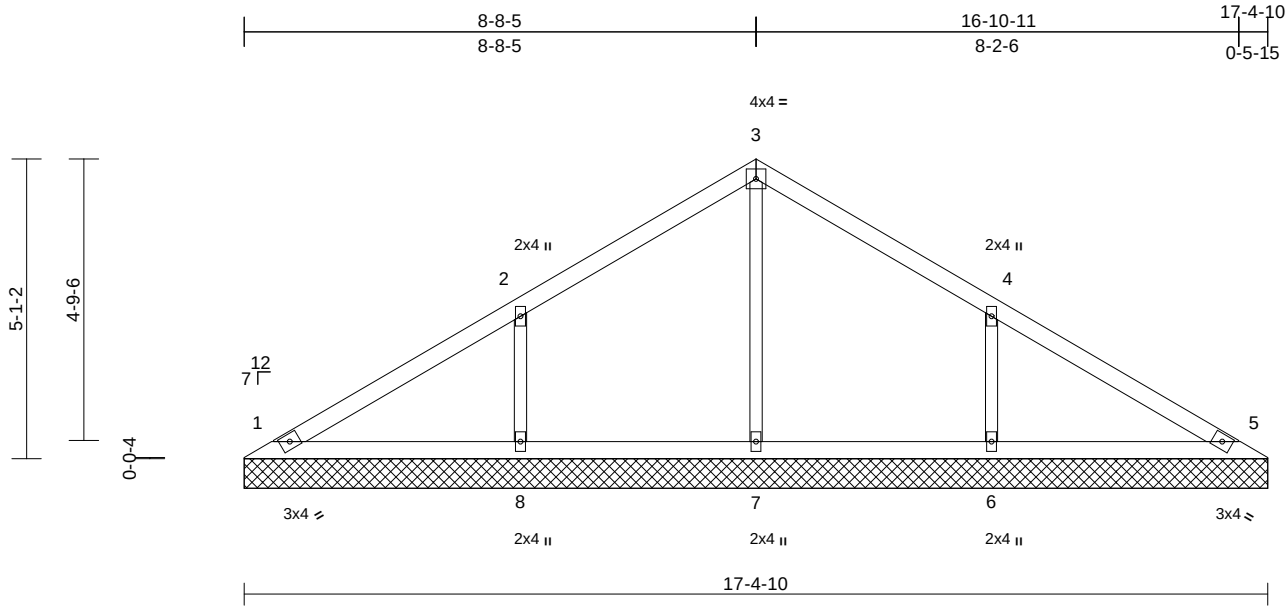

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Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.23	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.12	Vert(TL)	n/a	-	n/a	999		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.11	Horiz(TL)	0.00	5	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S							Weight: 49 lb	FT = 10%

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

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

REACTIONS (lb/size) 1=168/17-4-10, 5=168/17-4-10, 6=438/17-4-10, 7=261/17-4-10, 8=438/17-4-10
Max Horiz 1=-125 (LC 4)
Max Uplift 1=-15 (LC 9), 5=-4 (LC 9), 6=-155 (LC 9), 8=-155 (LC 8)
Max Grav 1=168 (LC 1), 5=168 (LC 1), 6=451 (LC 16), 7=261 (LC 1), 8=452 (LC 15)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-132/97, 2-3=-133/118, 3-4=-124/100, 4-5=-97/62
BOT CHORD 1-8=-34/78, 7-8=-34/78, 6-7=-34/78, 5-6=-34/78
WEBS 3-7=-193/1, 2-8=-348/203, 4-6=-348/203

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) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
4) Gable requires continuous bottom chord bearing.
5) Gable studs spaced at 4-0-0 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 15 lb uplift at joint 1, 4 lb uplift at joint 5, 155 lb uplift at joint 8 and 155 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

October 27,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 116 RR	
RR116	V2	Valley	1	1	Job Reference (optional)	I48524944

Wheeler Lumber, Waverly, KS - 66871,

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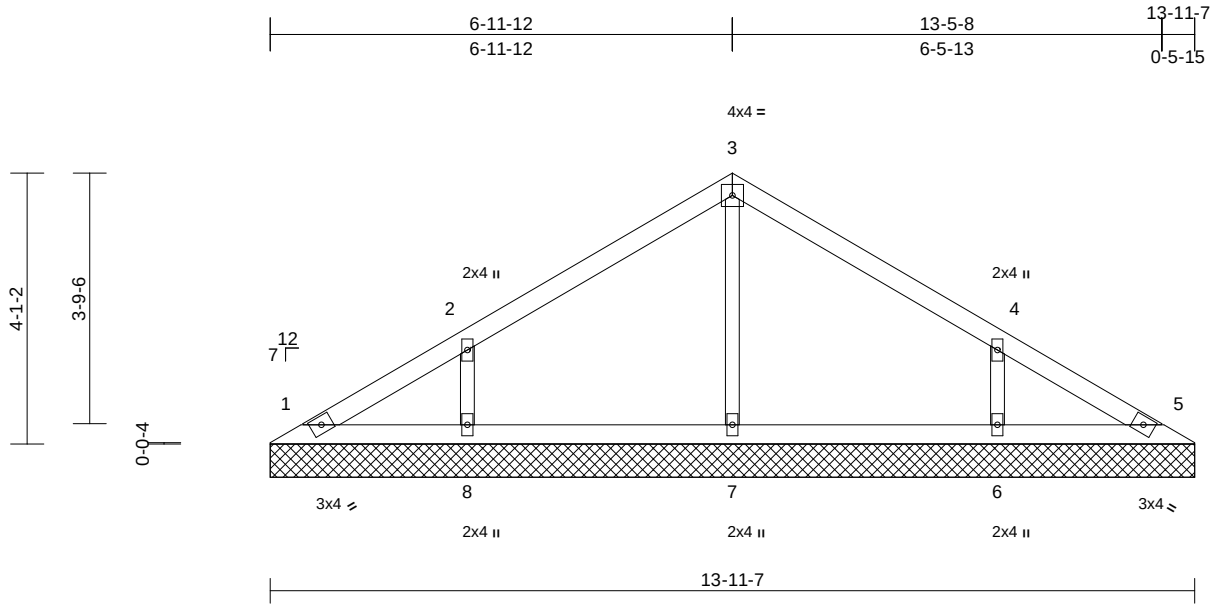

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Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.17	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.10	Vert(TL)	n/a	-	n/a	999		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.08	Horiz(TL)	0.00	5	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S							Weight: 38 lb	FT = 10%

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

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

REACTIONS (lb/size) 1=91/13-11-7, 5=91/13-11-7, 6=343/13-11-7, 7=297/13-11-7, 8=343/13-11-7
Max Horiz 1=-99 (LC 4)
Max Uplift 1=-12 (LC 9), 6=-126 (LC 9), 8=-127 (LC 8)
Max Grav 1=98 (LC 16), 5=91 (LC 1), 6=357 (LC 16), 7=297 (LC 1), 8=357 (LC 15)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-106/75, 2-3=-129/94, 3-4=-124/75, 4-5=-78/38
BOT CHORD 1-8=-23/64, 7-8=-23/64, 6-7=-23/64, 5-6=-23/64
WEBS 3-7=-213/27, 2-8=-284/168, 4-6=-284/168

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) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
4) Gable requires continuous bottom chord bearing.
5) Gable studs spaced at 4-0-0 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 12 lb uplift at joint 1, 127 lb uplift at joint 8 and 126 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

October 27,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 116 RR	
RR116	V3	Valley	1	1	Job Reference (optional)	I48524945

Wheeler Lumber, Waverly, KS - 66871,

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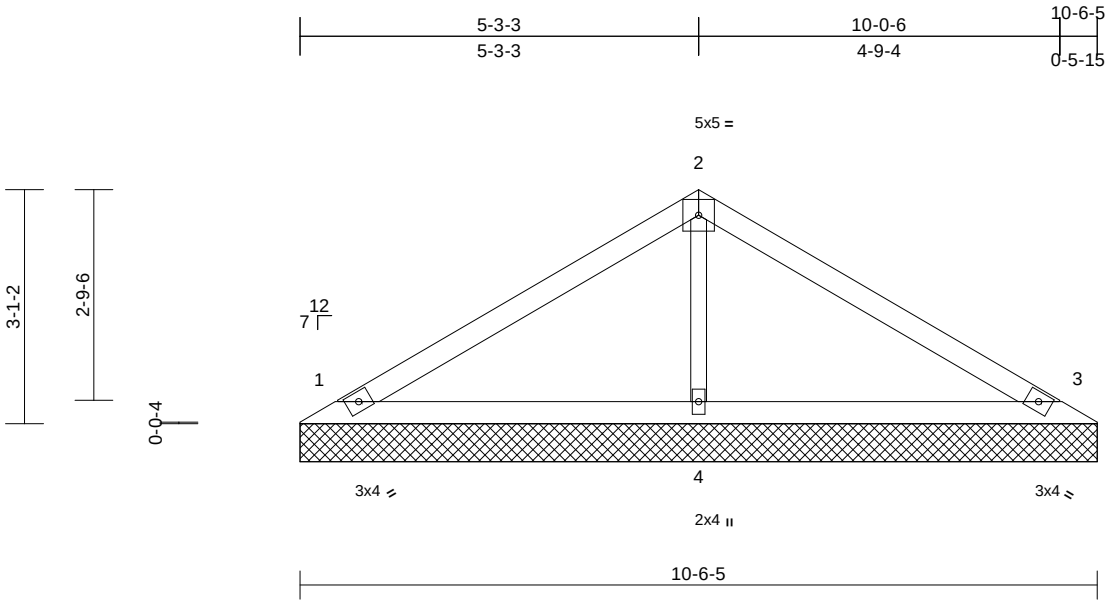

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Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.32	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.19	Vert(TL)	n/a	-	n/a	999		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.07	Horiz(TL)	0.00	3	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S							Weight: 27 lb	FT = 10%

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

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

REACTIONS (lb/size) 1=210/10-6-5, 3=210/10-6-5, 4=436/10-6-5
Max Horiz 1=73 (LC 5)
Max Uplift 1=-42 (LC 8), 3=-51 (LC 9), 4=-21 (LC 8)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-145/70, 2-3=-144/52
BOT CHORD 1-4=-13/66, 3-4=-13/66
WEBS 2-4=-291/75

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) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
4) Gable requires continuous bottom chord bearing.
5) Gable studs spaced at 4-0-0 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 42 lb uplift at joint 1, 51 lb uplift at joint 3 and 21 lb uplift at joint 4.
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

October 27,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 116 RR	
RR116	V4	Valley	1	1	Job Reference (optional)	I48524946

Wheeler Lumber, Waverly, KS - 66871,

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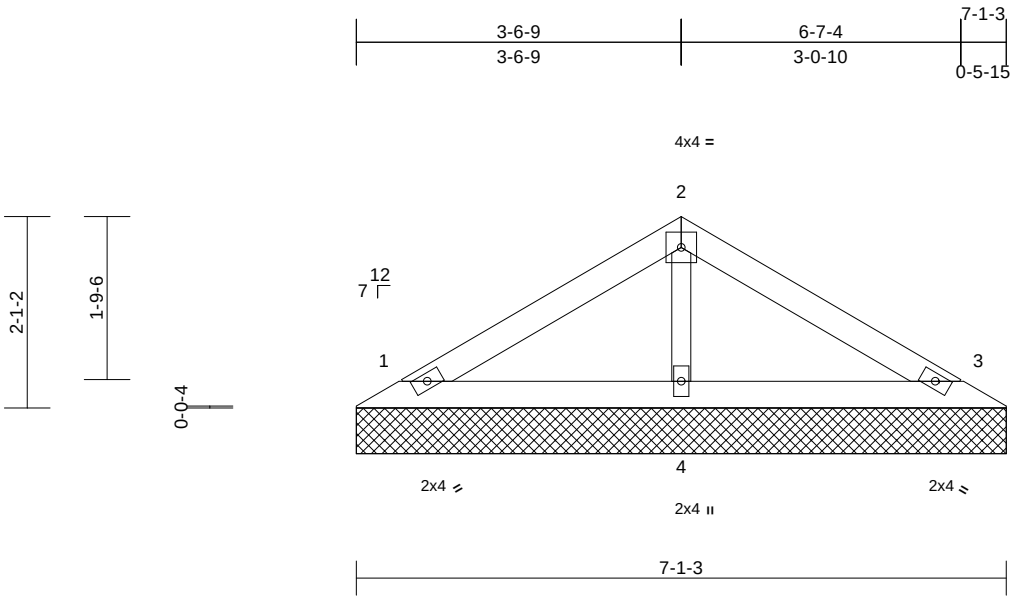

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Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.17	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.08	Vert(TL)	n/a	-	n/a	999		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.03	Horiz(TL)	0.00	3	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-P							Weight: 17 lb	FT = 10%

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

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

REACTIONS (lb/size) 1=148/7-1-3, 3=148/7-1-3, 4=251/7-1-3
Max Horiz 1=46 (LC 5)
Max Uplift 1=-33 (LC 8), 3=-39 (LC 9)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-84/44, 2-3=-81/32
BOT CHORD 1-4=-9/38, 3-4=-9/38
WEBS 2-4=-175/45

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) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
4) Gable requires continuous bottom chord bearing.
5) Gable studs spaced at 4-0-0 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 33 lb uplift at joint 1 and 39 lb uplift at joint 3.
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

October 27,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 116 RR	
RR116	V5	Valley	1	1	Job Reference (optional)	I48524947

Wheeler Lumber, Waverly, KS - 66871,

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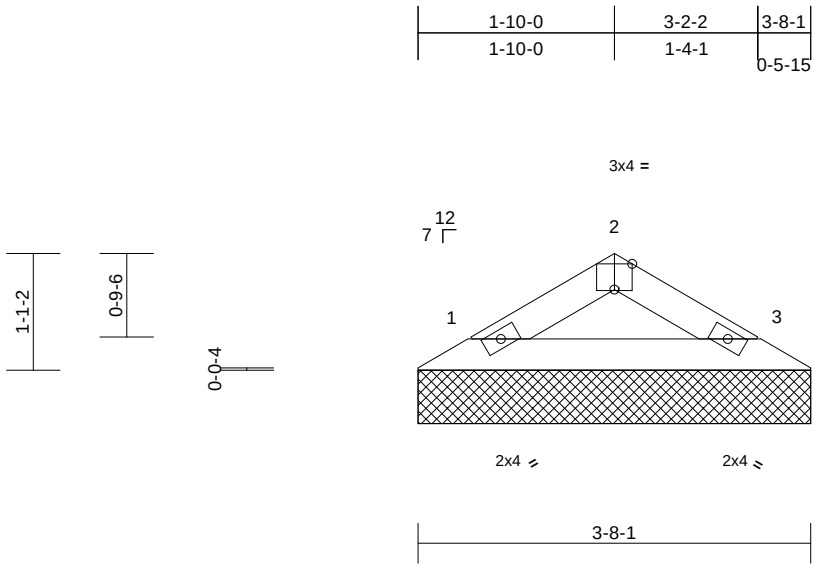

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Plate Offsets (X, Y): [2:0-2-0,Edge]

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	0.03	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.07	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: 8 lb	FT = 10%

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

BRACING
TOP CHORD Structural wood sheathing directly applied or 3-8-14 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (lb/size) 1=120/3-8-1, 3=120/3-8-1
Max Horiz 1=20 (LC 5)
Max Uplift 1=-14 (LC 8), 3=-14 (LC 9)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-111/34, 2-3=-111/34
BOT CHORD 1-3=-17/80

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) 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 14 lb uplift at joint 1 and 14 lb uplift at joint 3.
7) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard

October 27,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 116 RR	
RR116	V6	Valley	1	1	Job Reference (optional)	I48524948

Wheeler Lumber, Waverly, KS - 66871,

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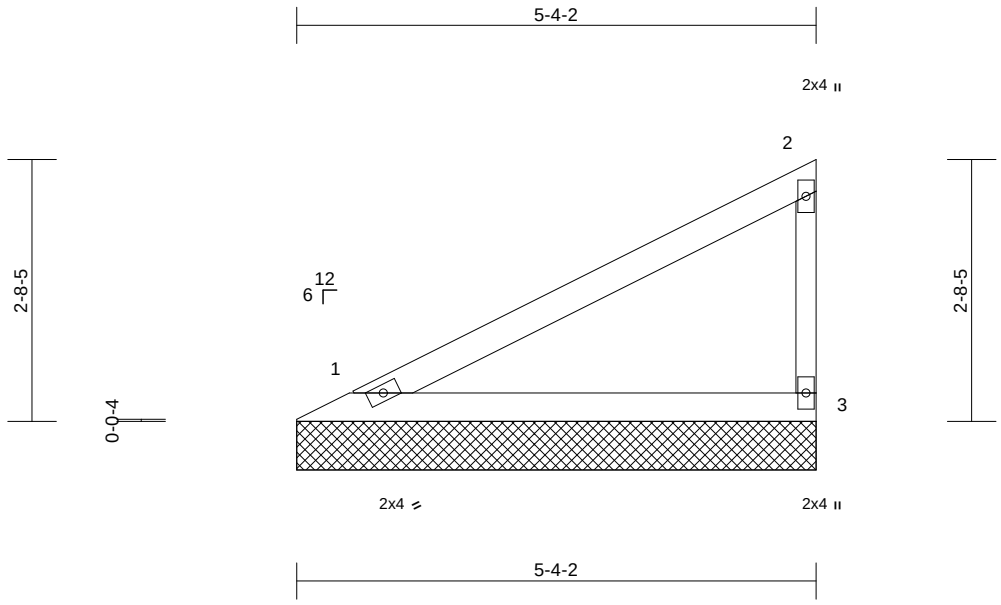

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Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.41	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.22	Vert(TL)	n/a	-	n/a	999		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.00	Horiz(TL)	0.00	3	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-P							Weight: 14 lb	FT = 10%

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

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

REACTIONS (lb/size) 1=209/5-4-2, 3=209/5-4-2
Max Horiz 1=97 (LC 5)
Max Uplift 1=-27 (LC 8), 3=-51 (LC 8)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-89/58, 2-3=-163/79
BOT CHORD 1-3=-33/25

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) Gable requires continuous bottom chord bearing.
3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
4) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 27 lb uplift at joint 1 and 51 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

STATE OF MISSOURI
JUAN GARCIA
NUMBER E-2000162101
PROFESSIONAL ENGINEER

JUAN GARCIA
LICENSED
16952
KANSAS
PROFESSIONAL ENGINEER

October 27,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 116 RR	
RR116	V7	Valley	1	1	Job Reference (optional)	I48524949

Wheeler Lumber, Waverly, KS - 66871,

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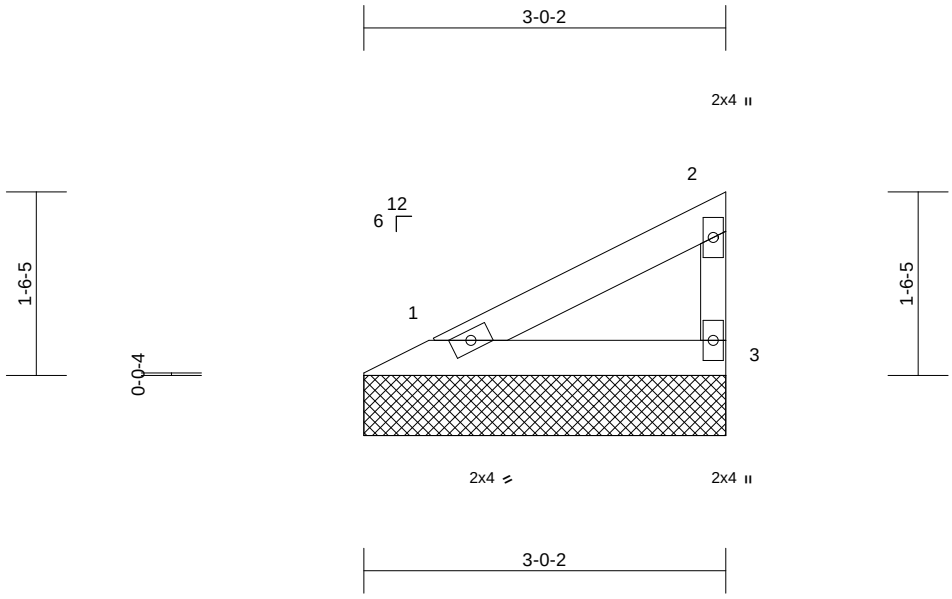

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Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.09	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.05	Vert(TL)	n/a	-	n/a	999		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.00	Horiz(TL)	0.00	3	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-P							Weight: 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 3-0-10 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (lb/size) 1=104/3-0-2, 3=104/3-0-2
Max Horiz 1=48 (LC 5)
Max Uplift 1=-13 (LC 8), 3=-26 (LC 8)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-44/29, 2-3=-81/39
BOT CHORD 1-3=-17/13

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) Gable requires continuous bottom chord bearing.
3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
4) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 13 lb uplift at joint 1 and 26 lb uplift at joint 3.
6) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard

October 27,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 116 RR	
RR116	V8	Valley	1	1	Job Reference (optional)	I48524950

Wheeler Lumber, Waverly, KS - 66871,

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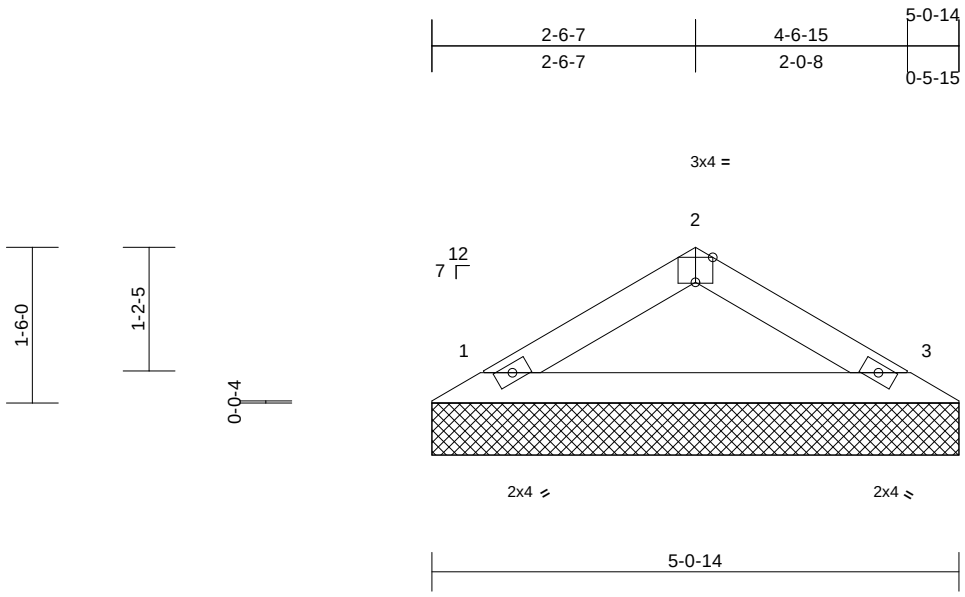

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Plate Offsets (X, Y): [2:0-2-0,Edge]

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	0.07	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.17	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: 11 lb	FT = 10%

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

BRACING
TOP CHORD Structural wood sheathing directly applied or 5-1-11 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (lb/size) 1=183/5-0-14, 3=183/5-0-14
Max Horiz 1=31 (LC 5)
Max Uplift 1=-22 (LC 8), 3=-22 (LC 9)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-170/51, 2-3=-170/51
BOT CHORD 1-3=-26/122

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) 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 22 lb uplift at joint 1 and 22 lb uplift at joint 3.
7) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard

October 27,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 116 RR	
RR116	V9	Valley	1	1	Job Reference (optional)	I48524951

Wheeler Lumber, Waverly, KS - 66871,

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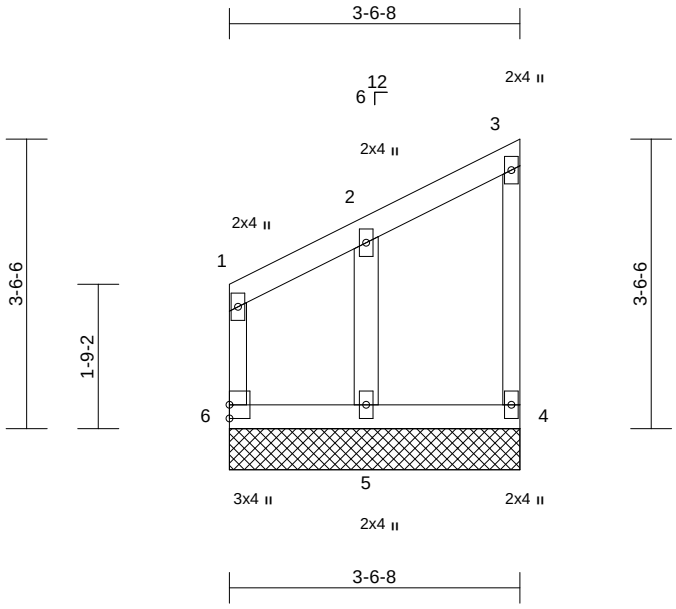

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Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.17	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.08	Vert(TL)	n/a	-	n/a	999		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.02	Horiz(TL)	0.00	4	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-R							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 3-6-8 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (lb/size) 4=65/3-6-8, 5=182/3-6-8, 6=53/3-6-8
Max Horiz 6=127 (LC 7)
Max Uplift 4=-21 (LC 5), 5=-91 (LC 5), 6=-27 (LC 4)
Max Grav 4=65 (LC 1), 5=182 (LC 1), 6=117 (LC 7)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-6=-77/21, 1-2=-84/39, 2-3=-61/31, 3-4=-50/21
BOT CHORD 5-6=-53/37, 4-5=-53/37
WEBS 2-5=-141/83

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) Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
5) Gable studs spaced at 2-0-0 oc.
6) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
7) * 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 27 lb uplift at joint 6, 21 lb uplift at joint 4 and 91 lb uplift at joint 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.

LOAD CASE(S) Standard

October 27,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 116 RR	
RR116	V10	Valley	1	1	Job Reference (optional)	I48524952

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.43 S Oct 11 2021 Print: 8.430 S Oct 11 2021 MiTek Industries, Inc. Tue Oct 26 11:06:05 Page: 1
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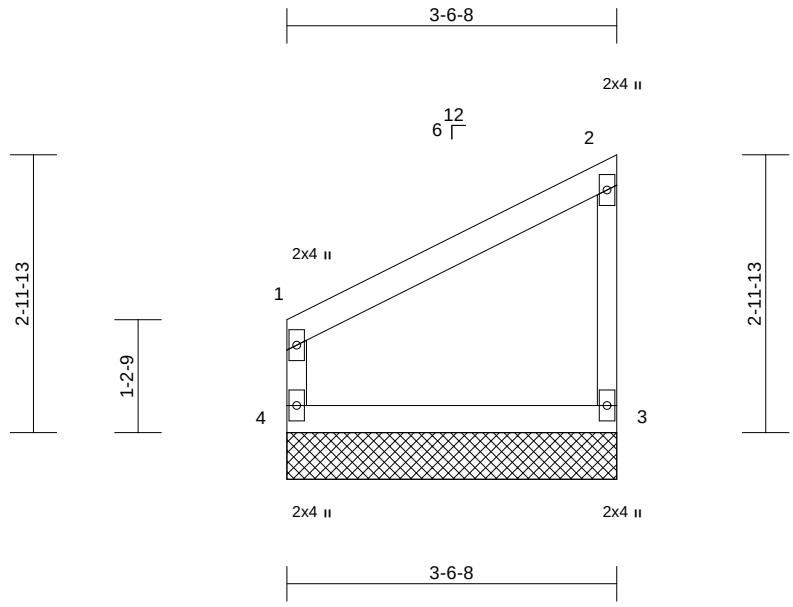

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Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.16	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.09	Vert(TL)	n/a	-	n/a	999		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.00	Horiz(TL)	0.00	3	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-R							Weight: 11 lb	FT = 10%

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

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

REACTIONS (lb/size) 3=150/3-6-8, 4=150/3-6-8
Max Horiz 4=106 (LC 7)
Max Uplift 3=-44 (LC 5), 4=-14 (LC 8)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-4=-122/41, 1-2=-90/40, 2-3=-112/55
BOT CHORD 3-4=-41/31

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) Gable requires continuous bottom chord bearing.
3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
4) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 14 lb uplift at joint 4 and 44 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

October 27,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 116 RR	
RR116	V11	Valley	1	1	Job Reference (optional)	I48524953

Wheeler Lumber, Waverly, KS - 66871,

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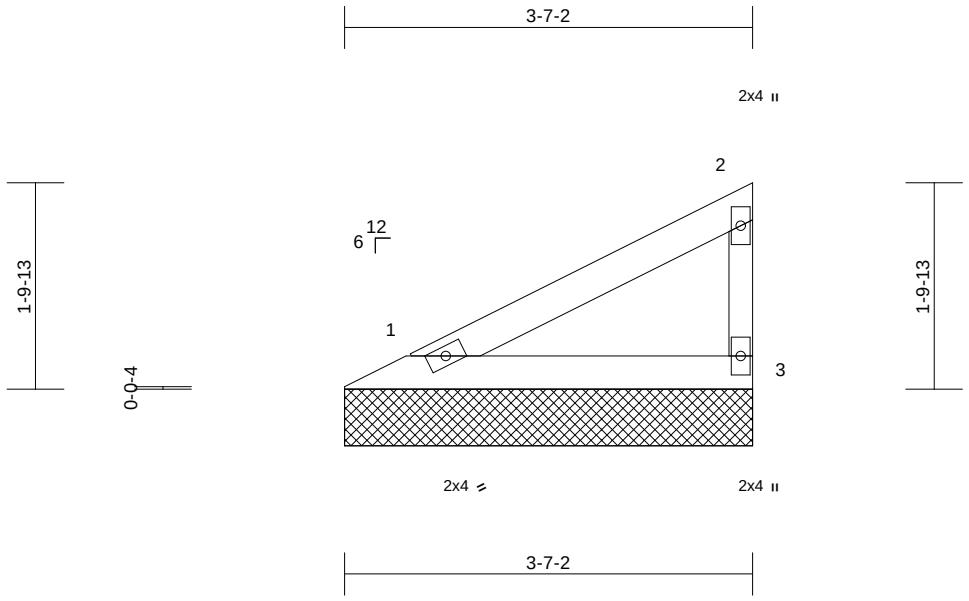

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Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.15	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.08	Vert(TL)	n/a	-	n/a	999		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.00	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

BRACING
TOP CHORD Structural wood sheathing directly applied or 3-7-10 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (lb/size) 1=131/3-7-2, 3=131/3-7-2
Max Horiz 1=61 (LC 7)
Max Uplift 1=-17 (LC 8), 3=-32 (LC 8)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-55/36, 2-3=-102/49
BOT CHORD 1-3=-21/16

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) Gable requires continuous bottom chord bearing.
3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
4) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 17 lb uplift at joint 1 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

October 27,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 116 RR	
RR116	V12	Valley	1	1	Job Reference (optional)	I48524954

Wheeler Lumber, Waverly, KS - 66871,

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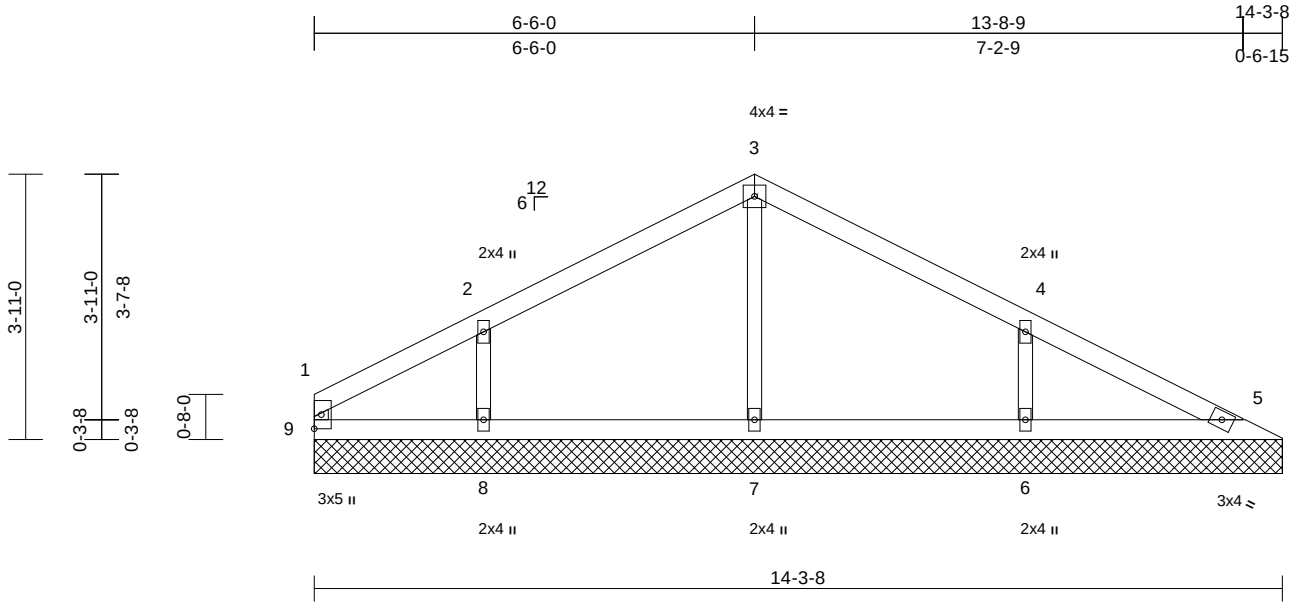

Scale = 1:34

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	0.18	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.10	Vert(TL)	n/a	-	n/a	999		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.08	Horiz(TL)	0.00	5	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S							Weight: 39 lb	FT = 10%

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

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

REACTIONS (lb/size) 5=117/14-3-8, 6=376/14-3-8, 7=314/14-3-8, 8=336/14-3-8, 9=80/14-3-8
Max Horiz 9=-65 (LC 13)
Max Uplift 5=-10 (LC 8), 6=-121 (LC 9), 8=-119 (LC 8), 9=-14 (LC 9)
Max Grav 5=117 (LC 1), 6=384 (LC 22), 7=314 (LC 1), 8=346 (LC 21), 9=80 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-9=-63/22, 1-2=-62/41, 2-3=-97/85, 3-4=-98/88, 4-5=-71/50
BOT CHORD 8-9=-13/57, 7-8=-13/57, 6-7=-13/57, 5-6=-13/57
WEBS 3-7=-232/14, 2-8=-277/157, 4-6=-301/164

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) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
4) Gable requires continuous bottom chord bearing.
5) Gable studs spaced at 4-0-0 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 14 lb uplift at joint 9, 10 lb uplift at joint 5, 119 lb uplift at joint 8 and 121 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

October 27,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 116 RR	
RR116	V13	Valley	1	1	Job Reference (optional)	I48524955

Wheeler Lumber, Waverly, KS - 66871,

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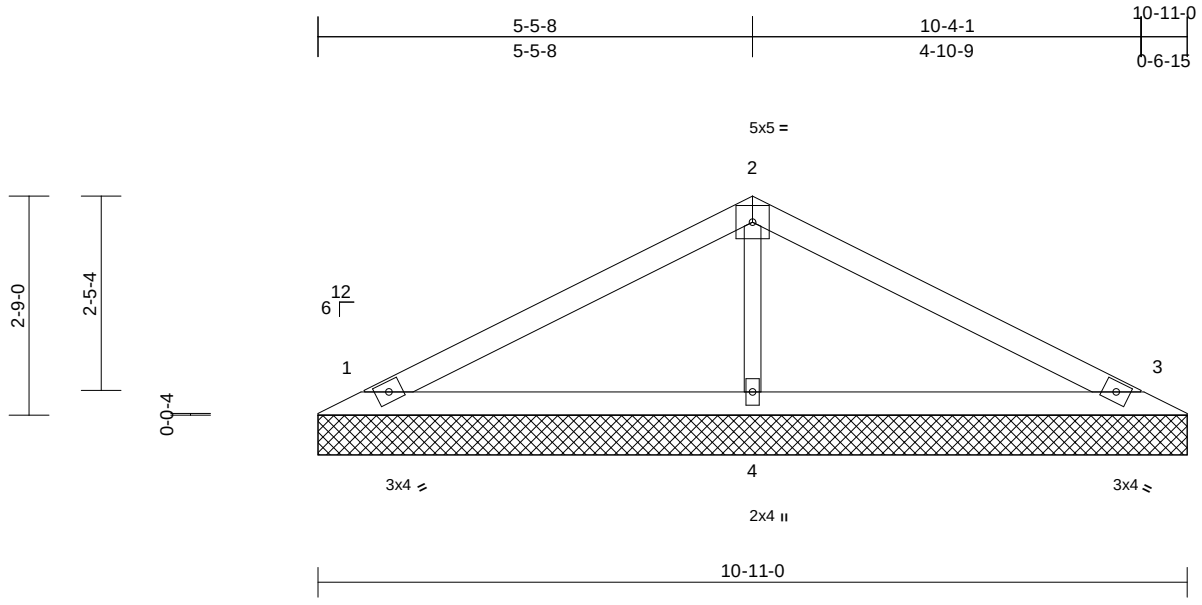

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Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.33	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.20	Vert(TL)	n/a	-	n/a	999		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.07	Horiz(TL)	0.00	3	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S							Weight: 27 lb	FT = 10%

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

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

REACTIONS (lb/size) 1=206/10-11-0, 3=206/10-11-0, 4=465/10-11-0
Max Horiz 1=-43 (LC 13)
Max Uplift 1=-42 (LC 8), 3=-50 (LC 9), 4=-26 (LC 8)
Max Grav 1=207 (LC 21), 3=207 (LC 22), 4=465 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-126/63, 2-3=-126/45
BOT CHORD 1-4=-3/52, 3-4=-3/52
WEBS 2-4=-318/83

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) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
4) Gable requires continuous bottom chord bearing.
5) Gable studs spaced at 4-0-0 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 42 lb uplift at joint 1, 50 lb uplift at joint 3 and 26 lb uplift at joint 4.
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

October 27,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 116 RR	
RR116	V14	Valley	1	1	Job Reference (optional)	I48524956

Wheeler Lumber, Waverly, KS - 66871,

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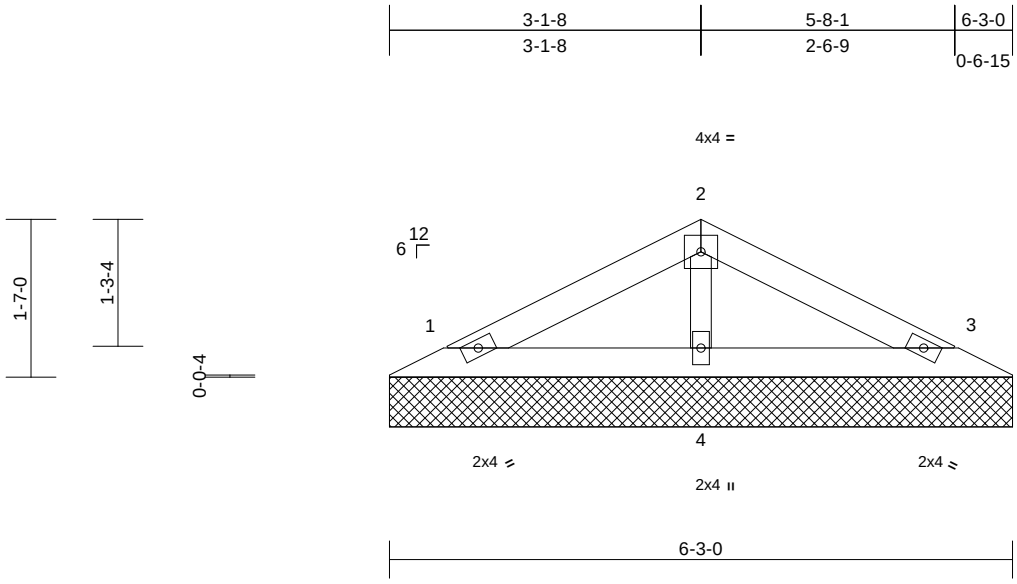

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Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.11	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.06	Vert(TL)	n/a	-	n/a	999		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.03	Horiz(TL)	0.00	3	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
OTHERS 2x3 SPF No.2

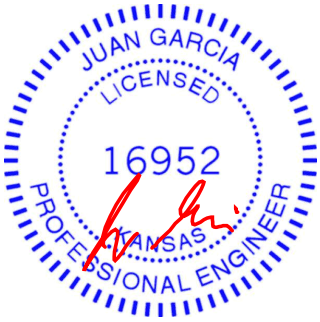
BRACING
TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (lb/size) 1=119/6-3-0, 3=119/6-3-0, 4=218/6-3-0
Max Horiz 1=-22 (LC 13)
Max Uplift 1=-27 (LC 8), 3=-31 (LC 9), 4=-3 (LC 8)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-57/32, 2-3=-57/23
BOT CHORD 1-4=-1/25, 3-4=-1/25
WEBS 2-4=-155/41

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) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
4) Gable requires continuous bottom chord bearing.
5) Gable studs spaced at 4-0-0 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 27 lb uplift at joint 1, 31 lb uplift at joint 3 and 3 lb uplift at joint 4.
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



October 27,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 116 RR	
RR116	V15	Valley	1	1	Job Reference (optional)	I48524957

Wheeler Lumber, Waverly, KS - 66871,

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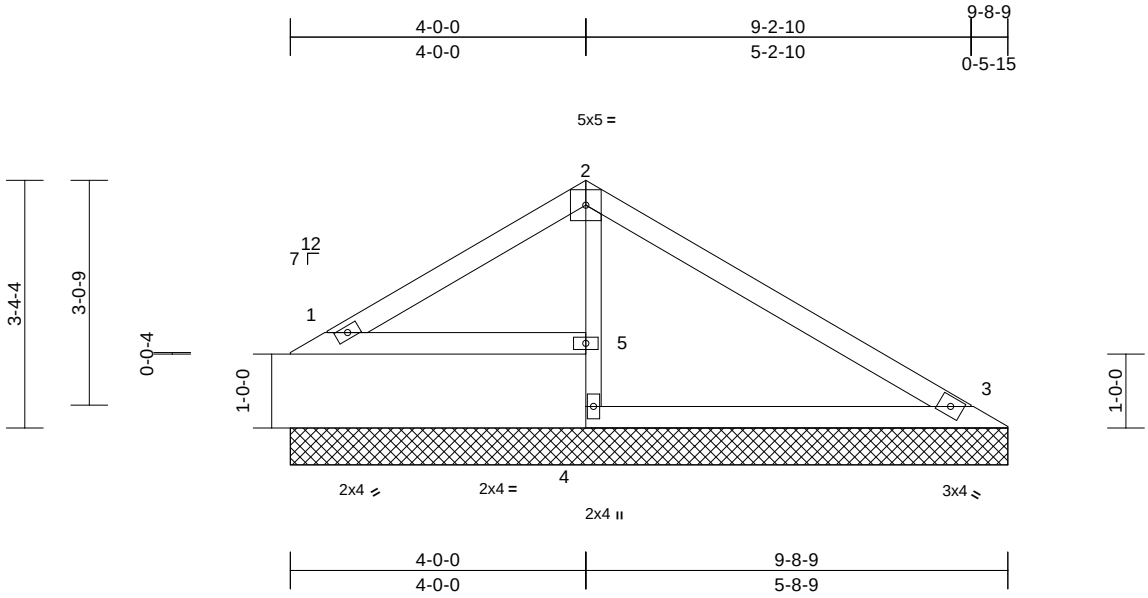

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Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.38	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.22	Vert(TL)	n/a	-	n/a	999		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.00	Horiz(TL)	0.00	3	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-R							Weight: 25 lb	FT = 10%

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

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

REACTIONS (lb/size) 1=151/9-8-9, 3=222/9-8-9, 4=66/9-8-9, 5=344/9-8-9
Max Horiz 1=-77 (LC 9)
Max Uplift 1=-34 (LC 9), 3=-64 (LC 9), 5=-40 (LC 8)
Max Grav 1=161 (LC 21), 3=227 (LC 16), 4=108 (LC 3), 5=344 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-104/94, 2-3=-116/89
BOT CHORD 1-5=0/40, 4-5=0/0, 2-5=-302/57, 3-4=0/34

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) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
4) Gable requires continuous bottom chord bearing.
5) Gable studs spaced at 4-0-0 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) 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.
9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 34 lb uplift at joint 1, 64 lb uplift at joint 3 and 40 lb uplift at joint 5.
10) Beveled plate or shim required to provide full bearing surface with truss chord at joint(s) 1.
11) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard

October 27,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 116 RR	
RR116	V16	Valley	1	1	Job Reference (optional)	I48524958

Wheeler Lumber, Waverly, KS - 66871,

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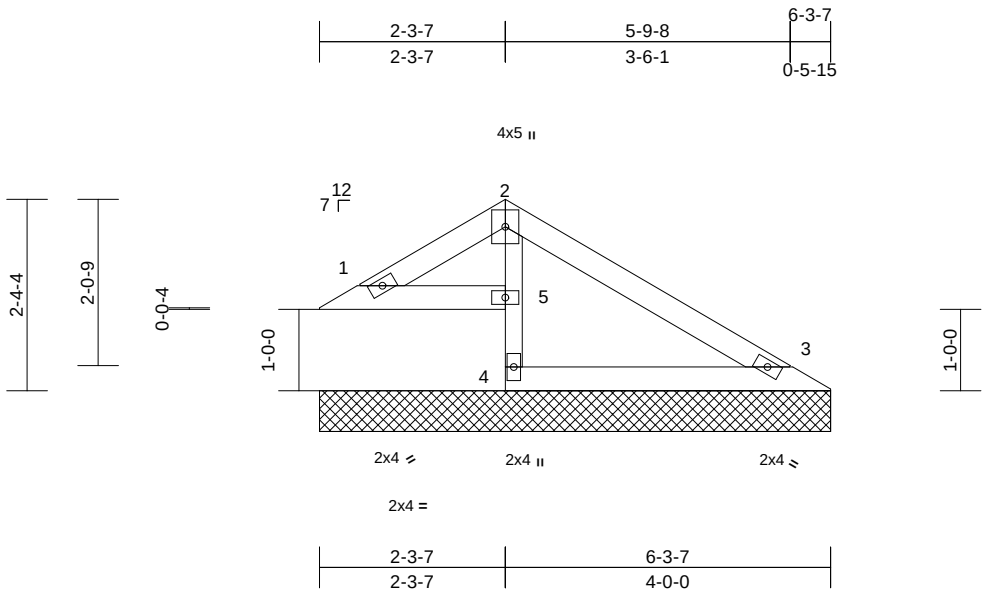

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Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.13	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.11	Vert(TL)	n/a	-	n/a	999		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.00	Horiz(TL)	0.00	4	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-R							Weight: 16 lb	FT = 10%

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

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

REACTIONS (lb/size) 1=69/6-3-7, 3=144/6-3-7, 4=50/6-3-7, 5=212/6-3-7
Max Horiz 1=-59 (LC 9)
Max Uplift 1=-15 (LC 8), 3=-40 (LC 9), 5=-24 (LC 8)
Max Grav 1=82 (LC 21), 3=147 (LC 16), 4=73 (LC 3), 5=212 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-60/51, 2-3=-90/54
BOT CHORD 1-5=0/34, 4-5=0/0, 2-5=-198/31, 3-4=0/32

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) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
4) Gable requires continuous bottom chord bearing.
5) Gable studs spaced at 2-0-0 oc.
6) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
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) 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.
9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 15 lb uplift at joint 1, 40 lb uplift at joint 3 and 24 lb uplift at joint 5.
10) Beveled plate or shim required to provide full bearing surface with truss chord at joint(s) 1.
11) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard

October 27,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 116 RR	
RR116	V17	Valley	1	1	Job Reference (optional)	I48524959

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.43 S Oct 11 2021 Print: 8.430 S Oct 11 2021 MiTek Industries, Inc. Tue Oct 26 11:06:07 Page: 1
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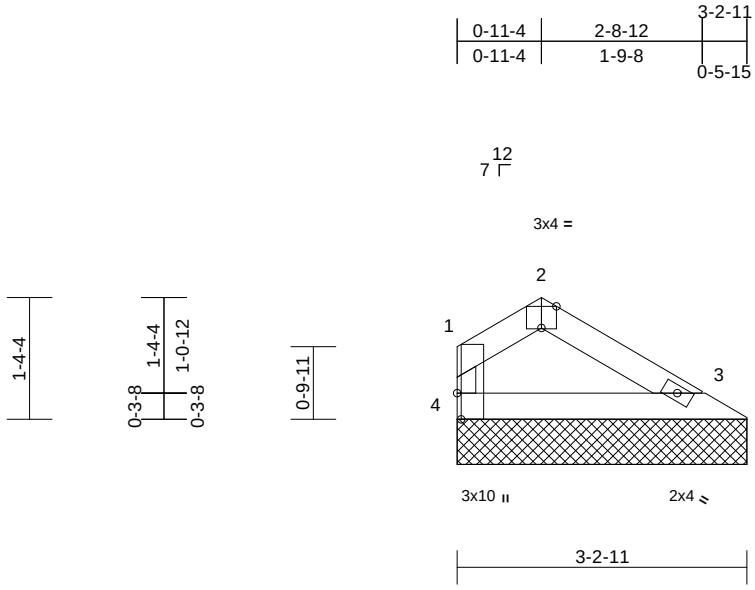

Scale = 1:25.6

Plate Offsets (X, Y): [2:0-2-0,Edge], [4:0-3-8,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	0.07	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.05	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-R							Weight: 8 lb	FT = 10%

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

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

REACTIONS (lb/size) 3=118/3-2-11, 4=118/3-2-11
Max Horiz 4=-35 (LC 4)
Max Uplift 3=-16 (LC 9), 4=-13 (LC 9)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-4=-84/26, 1-2=-93/35, 2-3=-101/18
BOT CHORD 3-4=-2/60

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) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
4) Gable requires continuous bottom chord bearing.
5) Gable studs spaced at 2-0-0 oc.
6) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
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 13 lb uplift at joint 4 and 16 lb uplift at joint 3.
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

October 27,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 116 RR	
RR116	V18	Valley	1	1	Job Reference (optional)	I48524960

Wheeler Lumber, Waverly, KS - 66871,

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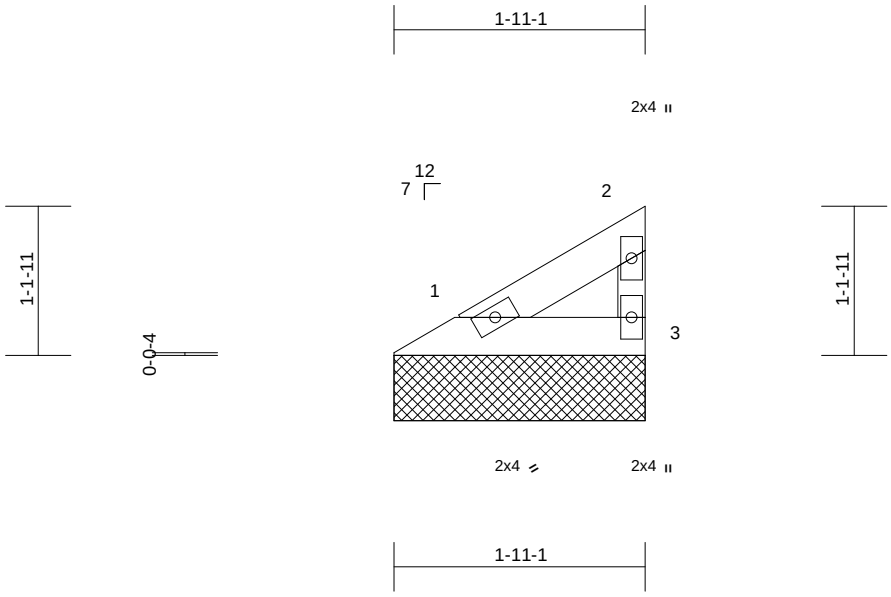


Scale = 1:17.6

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	0.03	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.01	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: 4 lb	FT = 10%

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

BRACING
TOP CHORD Structural wood sheathing directly applied or 1-11-8 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (lb/size) 1=59/1-11-1, 3=59/1-11-1
Max Horiz 1=31 (LC 5)
Max Uplift 1=-6 (LC 8), 3=-16 (LC 8)
Max Grav 1=59 (LC 1), 3=62 (LC 15)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-28/23, 2-3=-49/24
BOT CHORD 1-3=-11/8

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 6 lb uplift at joint 1 and 16 lb uplift at joint 3.
8) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

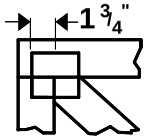
LOAD CASE(S) Standard

October 27,2021

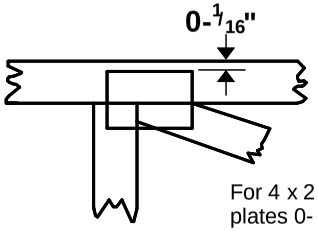
MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

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- 1/16" from outside edge of truss.

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

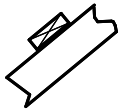
*** Plate location details available in MiTek 20/20 software or upon request.**

PLATE SIZE

4 x 4

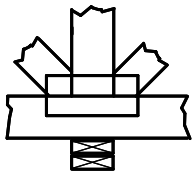
The first dimension is the plate width measured perpendicular to slots. Second dimension is the length parallel to slots.

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

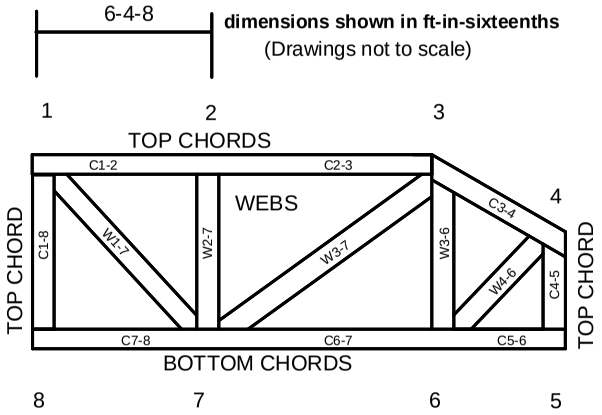


Indicates location where bearings (supports) occur. Icons vary but reaction section indicates joint number where bearings occur. Min size shown is for crushing only.

Industry Standards:

ANSI/TPI1: National Design Specification for Metal Plate Connected Wood Truss Construction.
DSB-89: Design Standard for Bracing.
BCSI: Building Component Safety Information, Guide to Good Practice for Handling, Installing & Bracing of Metal Plate Connected Wood Trusses.

Numbering System



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

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

PRODUCT CODE APPROVALS

ICC-ES Reports:

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

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

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

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/TPI 1.
7. Design assumes trusses will be suitably protected from the environment in accord with ANSI/TPI 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/TPI 1 Quality Criteria.

21.The design does not take into account any dynamic or other loads other than those expressly stated.