RE: Lot 33 OS
Lot 33 OS

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

Site Information:

Customer: Project Name: Lot 33 OS
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 27 individual, dated Truss Design Drawings and 0 Additional Drawings.

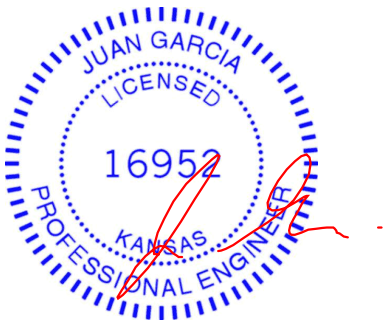
No.	Seal#	Truss Name	Date	No.	Seal#	Truss Name	Date
1	I47581506	B1	8/24/2021	21	I47581526	V4	8/24/2021
2	I47581507	B2	8/24/2021	22	I47581527	V5	8/24/2021
3	I47581508	B3	8/24/2021	23	I47581528	V6	8/24/2021
4	I47581509	C1	8/24/2021	24	I47581529	V7	8/24/2021
5	I47581510	C2	8/24/2021	25	I47581530	V8	8/24/2021
6	I47581511	C3	8/24/2021	26	I47581531	V9	8/24/2021
7	I47581512	D1	8/24/2021	27	I47581532	V10	8/24/2021
8	I47581513	D2	8/24/2021				
9	I47581514	D3	8/24/2021				
10	I47581515	E1	8/24/2021				
11	I47581516	E2	8/24/2021				
12	I47581517	E3	8/24/2021				
13	I47581518	E4	8/24/2021				
14	I47581519	E5	8/24/2021				
15	I47581520	E6	8/24/2021				
16	I47581521	E7	8/24/2021				
17	I47581522	R1	8/24/2021				
18	I47581523	V1	8/24/2021				
19	I47581524	V2	8/24/2021				
20	I47581525	V3	8/24/2021				

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.

August 24, 2021

Garcia, Juan

RE: Lot 33 OS
Lot 33 OS

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

Site Information:

Customer: Project Name: Lot 33 OS
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 27 individual, dated Truss Design Drawings and 0 Additional Drawings.

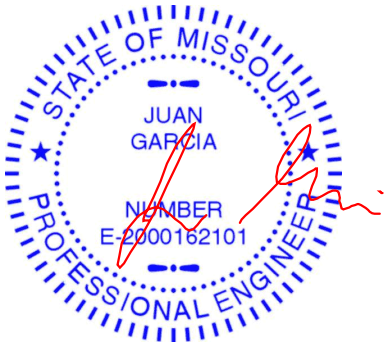
No.	Seal#	Truss Name	Date	No.	Seal#	Truss Name	Date
1	I47581506	B1	8/24/2021	21	I47581526	V4	8/24/2021
2	I47581507	B2	8/24/2021	22	I47581527	V5	8/24/2021
3	I47581508	B3	8/24/2021	23	I47581528	V6	8/24/2021
4	I47581509	C1	8/24/2021	24	I47581529	V7	8/24/2021
5	I47581510	C2	8/24/2021	25	I47581530	V8	8/24/2021
6	I47581511	C3	8/24/2021	26	I47581531	V9	8/24/2021
7	I47581512	D1	8/24/2021	27	I47581532	V10	8/24/2021
8	I47581513	D2	8/24/2021				
9	I47581514	D3	8/24/2021				
10	I47581515	E1	8/24/2021				
11	I47581516	E2	8/24/2021				
12	I47581517	E3	8/24/2021				
13	I47581518	E4	8/24/2021				
14	I47581519	E5	8/24/2021				
15	I47581520	E6	8/24/2021				
16	I47581521	E7	8/24/2021				
17	I47581522	R1	8/24/2021				
18	I47581523	V1	8/24/2021				
19	I47581524	V2	8/24/2021				
20	I47581525	V3	8/24/2021				

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.

August 24, 2021

Garcia, Juan

Job	Truss	Truss Type	Qty	Ply	Lot 33 OS	
Lot 33 OS	B1	GABLE	1	1	Job Reference (optional)	I47581506

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.43 S Aug 16 2021 Print: 8.430 S Aug 16 2021 MiTek Industries, Inc. Mon Aug 23 11:23:36 Page: 1
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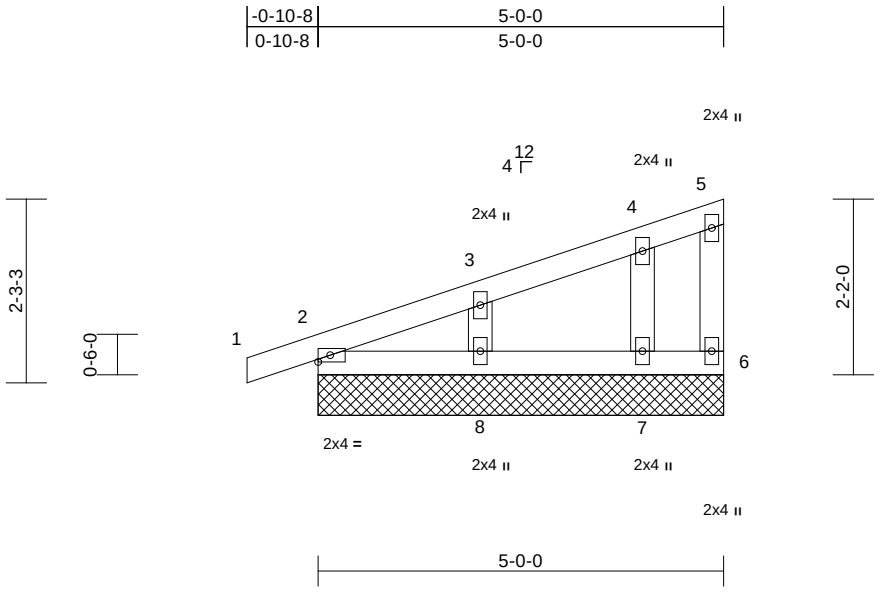

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Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.05	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.03	Vert(CT)	n/a	-	n/a	999		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.02	Horz(CT)	0.00	6	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
WEBS 2x4 SPF No.2
OTHERS 2x4 SPF No.2

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

REACTIONS (lb/size) 2=148/5-0-0, 6=14/5-0-0, 7=147/5-0-0, 8=189/5-0-0
Max Horiz 2=83 (LC 5)
Max Uplift 2=-43 (LC 4), 6=-6 (LC 5), 7=-36 (LC 4), 8=-49 (LC 8)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/6, 2-3=-64/27, 3-4=-47/21, 4-5=-34/19, 5-6=-11/8
BOT CHORD 2-8=-26/20, 7-8=-26/20, 6-7=-26/20
WEBS 3-8=-142/77, 4-7=-116/55

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 6, 43 lb uplift at joint 2, 49 lb uplift at joint 8 and 36 lb uplift at joint 7.
8) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard

August 24,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 33 OS
Lot 33 OS	B2	Monopitch	3	1	I47581507 Job Reference (optional)

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.43 S Aug 16 2021 Print: 8.430 S Aug 16 2021 MiTek Industries, Inc. Mon Aug 23 11:23:38 Page: 1
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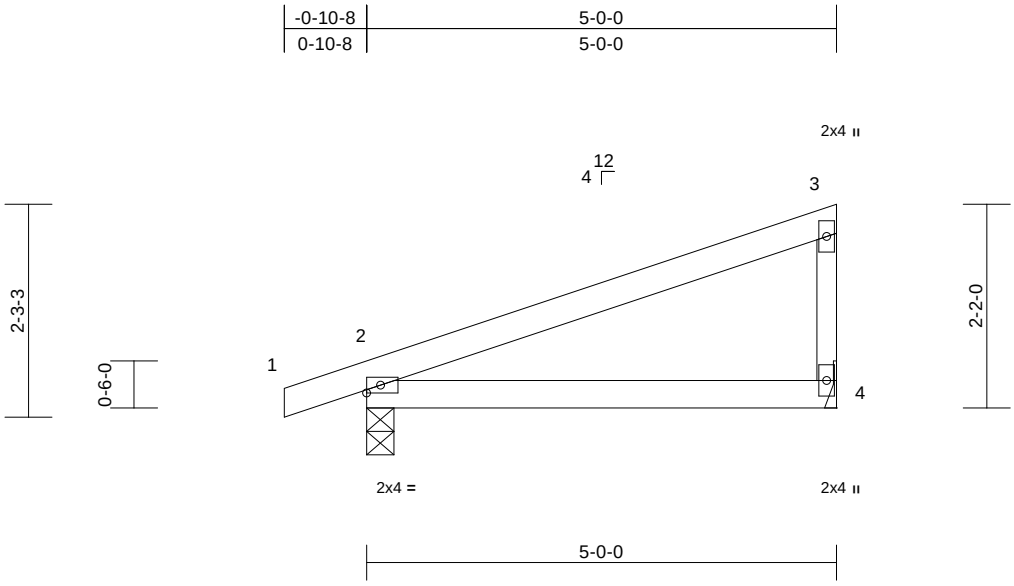

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Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.39	Vert(LL)	-0.03	2-4	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.23	Vert(CT)	-0.06	2-4	>933	240		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.00	Horz(CT)	0.00	4	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-P							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 5-0-0 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (lb/size) 2=293/0-3-8, 4=206/ Mechanical
Max Horiz 2=84 (LC 5)
Max Uplift 2=-81 (LC 4), 4=-45 (LC 8)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/6, 2-3=-74/45, 3-4=-159/73
BOT CHORD 2-4=-26/20

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 45 lb uplift at joint 4 and 81 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

August 24,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 33 OS
Lot 33 OS	B3	Monopitch	7	1	I47581508 Job Reference (optional)

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.43 S Aug 16 2021 Print: 8.430 S Aug 16 2021 MiTek Industries, Inc. Mon Aug 23 11:23:38 Page: 1
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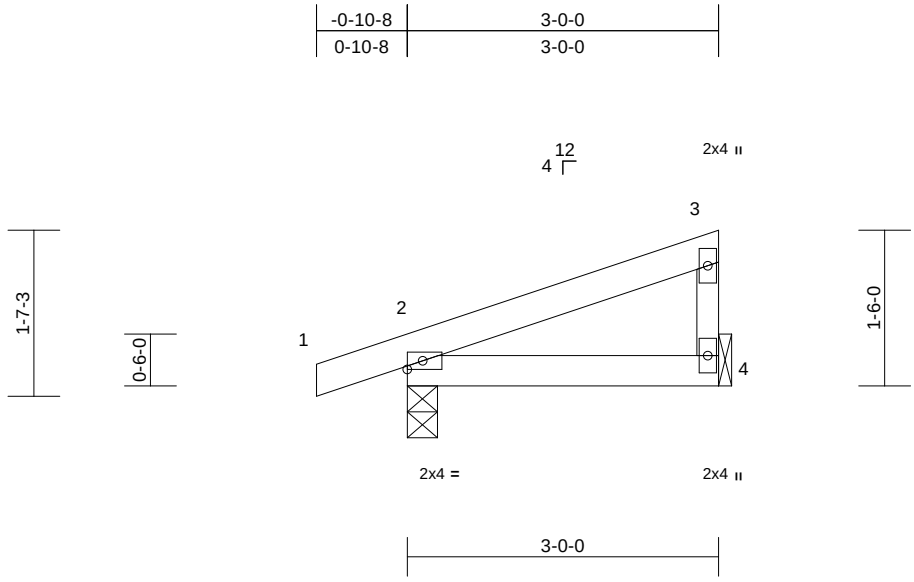

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Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.10	Vert(LL)	0.00	2-4	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.07	Vert(CT)	-0.01	2-4	>999	240		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.00	Horz(CT)	0.00	4	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-P							Weight: 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 3-0-0 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (lb/size) 2=208/0-3-8, 4=110/ Mechanical
Max Horiz 2=54 (LC 5)
Max Uplift 2=-70 (LC 4), 4=-24 (LC 8)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/6, 2-3=-55/25, 3-4=-83/40
BOT CHORD 2-4=-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) 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 4 and 70 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

August 24,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 33 OS	
Lot 33 OS	C1	Common Supported Gable	1	1	Job Reference (optional)	I47581509

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.43 S Aug 16 2021 Print: 8.430 S Aug 16 2021 MiTek Industries, Inc. Mon Aug 23 11:23:38 Page: 1
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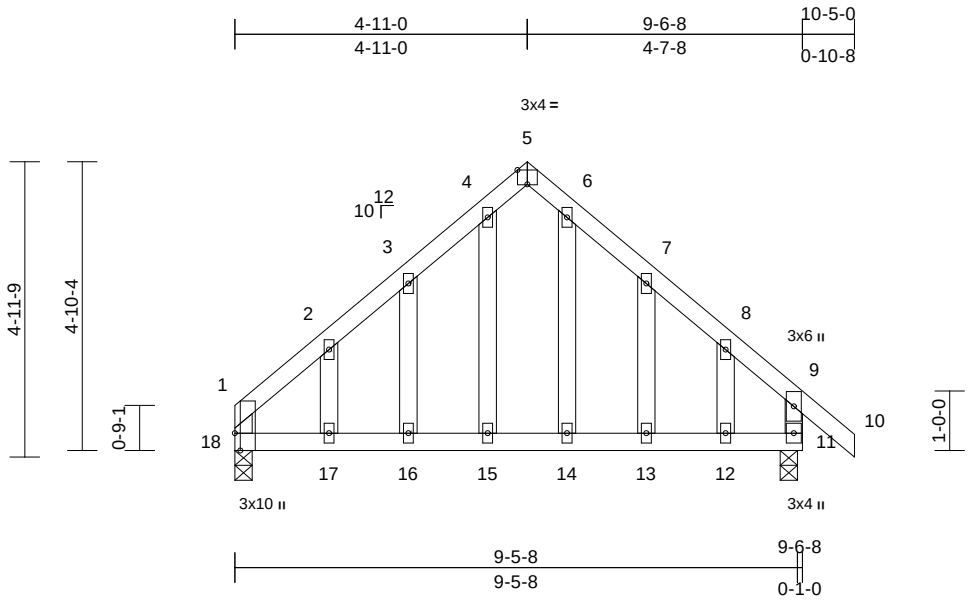

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Plate Offsets (X, Y): [5:0-2-0,Edge], [18:0-3-8,Edge]

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	0.23	Vert(LL)	-0.03	16-17	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.24	Vert(CT)	-0.05	16-17	>999	240		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.02	Horz(CT)	0.00	11	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-R		Wind(LL)	0.04	16-17	>999	240	Weight: 46 lb	FT = 10%

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

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

REACTIONS (lb/size) 11=492/0-3-8, 18=412/0-3-8
Max Horiz 18=-139 (LC 4)
Max Uplift 11=-62 (LC 9), 18=-40 (LC 8)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-18=-312/35, 1-2=-382/45, 2-3=-337/74, 3-4=-323/111, 4-5=-207/94, 5-6=-216/97, 6-7=-333/114, 7-8=-348/76, 8-9=-401/53, 9-10=0/46, 9-11=-414/46
BOT CHORD 17-18=-6/260, 16-17=-6/260, 15-16=-6/260, 14-15=-6/260, 13-14=-6/260, 12-13=-6/260, 11-12=-6/260
WEBS 2-17=-45/54, 3-16=-74/65, 4-15=-34/102, 6-14=-36/102, 7-13=-81/67, 8-12=-9/43

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) Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
6) Gable studs spaced at 1-4-0 oc.
7) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
8) * 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.
9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 40 lb uplift at joint 18 and 62 lb uplift at joint 11.
10) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard

August 24,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 33 OS	
Lot 33 OS	C2	Common	1	1	Job Reference (optional)	I47581510

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.43 S Aug 16 2021 Print: 8.430 S Aug 16 2021 MiTek Industries, Inc. Mon Aug 23 11:23:39 Page: 1
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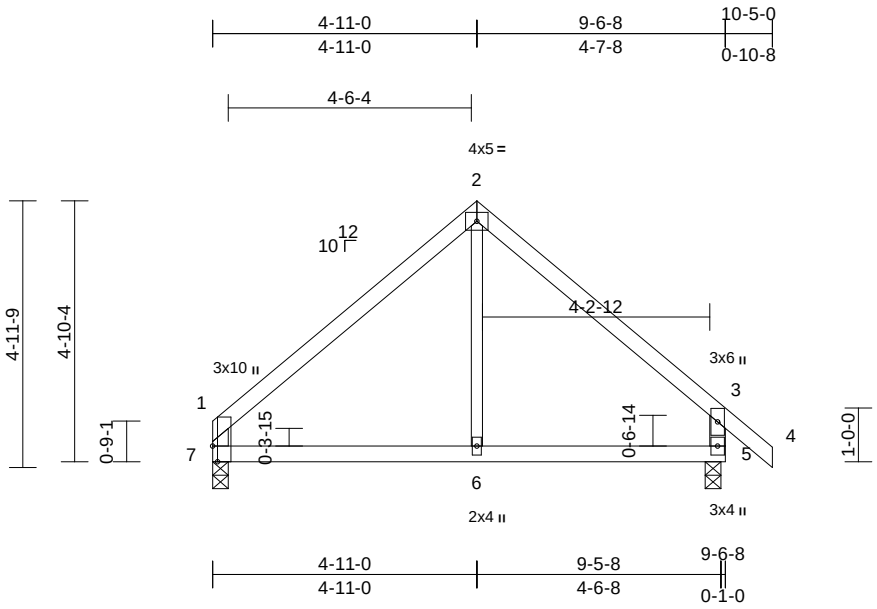

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Plate Offsets (X, Y): [1:0-3-8,Edge]

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	0.31	Vert(LL)	-0.01	6-7	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.15	Vert(CT)	-0.03	6-7	>999	240		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.06	Horz(CT)	0.00	5	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-R		Wind(LL)	-0.01	6-7	>999	240	Weight: 31 lb	FT = 10%

LUMBER
TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
WEBS 2x4 SPF No.2 *Except* 6-2:2x3 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=492/0-3-8, 7=412/0-3-8
Max Horiz 7=-139 (LC 4)
Max Uplift 5=-62 (LC 9), 7=-40 (LC 8)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-408/86, 2-3=-411/90, 3-4=0/46, 3-5=-440/102, 1-7=-362/81
BOT CHORD 6-7=-4/253, 5-6=-4/253
WEBS 2-6=0/191

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 7 and 62 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

August 24,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 33 OS	
Lot 33 OS	C3	Common	1	1	Job Reference (optional)	I47581511

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.43 S Aug 16 2021 Print: 8.430 S Aug 16 2021 MiTek Industries, Inc. Mon Aug 23 11:23:39 Page: 1
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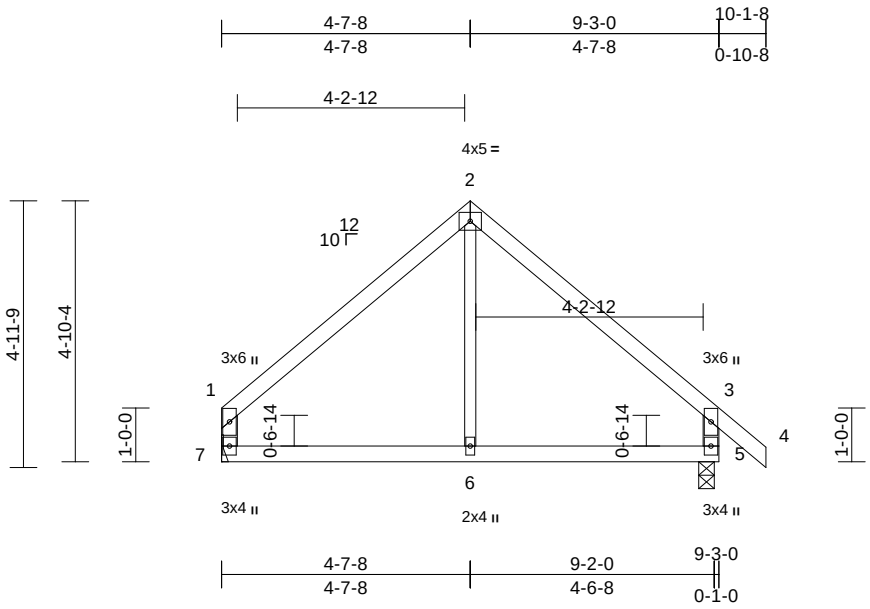

Scale = 1:42.9

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	0.27	Vert(LL)	-0.01	5-6	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.16	Vert(CT)	-0.03	5-6	>999	240		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.06	Horz(CT)	0.00	5	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-R		Wind(LL)	-0.01	6-7	>999	240	Weight: 31 lb	FT = 10%

LUMBER
TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
WEBS 2x4 SPF No.2 *Except* 6-2:2x3 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=479/0-3-8, 7=399/ Mechanical
Max Horiz 7=-142 (LC 4)
Max Uplift 5=-61 (LC 9), 7=-37 (LC 8)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-381/86, 2-3=-388/87, 3-4=0/46, 1-7=-342/77, 3-5=-425/102
BOT CHORD 6-7=-8/238, 5-6=-8/238
WEBS 2-6=0/177

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) Refer to girder(s) for truss to truss connections.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 37 lb uplift at joint 7 and 61 lb uplift at joint 5.
7) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard

August 24,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 33 OS	
Lot 33 OS	D1	Roof Special Structural Gable	1	1	Job Reference (optional)	I47581512

Wheeler Lumber, Waverly, KS - 66871,

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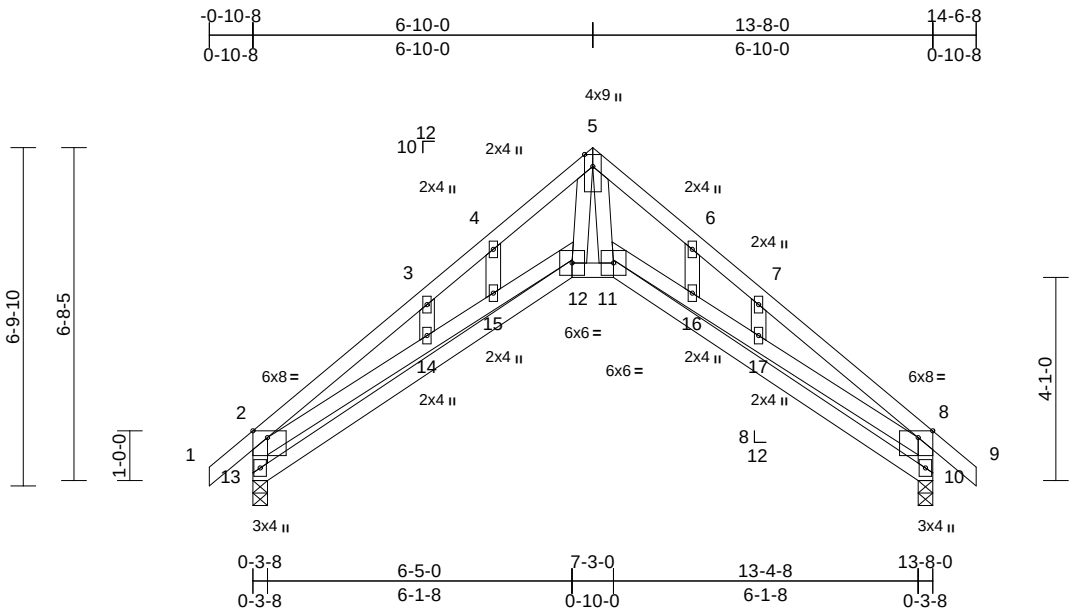

Scale = 1:46.3

Plate Offsets (X, Y): [2:0-3-8,Edge], [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	0.47	Vert(LL)	-0.10	11-12	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.32	Vert(CT)	-0.18	10-11	>917	240		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.59	Horz(CT)	0.24	10	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S		Wind(LL)	0.05	12	>999	240	Weight: 70 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 4-2-12 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (lb/size) 10=673/0-3-8, 13=673/0-3-8
Max Horiz 13=-200 (LC 6)
Max Uplift 10=-81 (LC 9), 13=-81 (LC 8)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/46, 2-3=-1527/0, 3-4=-1408/0, 4-5=-1367/60, 5-6=-1369/64, 6-7=-1461/41, 7-8=-1555/13, 8-9=0/46, 2-13=-850/257, 8-10=-823/194
BOT CHORD 12-13=-278/617, 11-12=-12/1017, 10-11=-157/426
WEBS 5-11=0/691, 5-12=-44/782, 2-14=0/808, 14-15=0/835, 12-15=0/820, 11-16=-83/970, 16-17=-102/1007, 8-17=-101/982, 3-14=-58/26, 4-15=-36/82, 6-16=-58/99, 7-17=-58/25

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) Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
6) Gable studs spaced at 1-4-0 oc.
7) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
8) * 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.
9) Bearing at joint(s) 13, 10 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
10) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 81 lb uplift at joint 13 and 81 lb uplift at joint 10.
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

August 24,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 33 OS
Lot 33 OS	D2	Roof Special Structural Gable	1	1	I47581513
					Job Reference (optional)

Wheeler Lumber, Waverly, KS - 66871,

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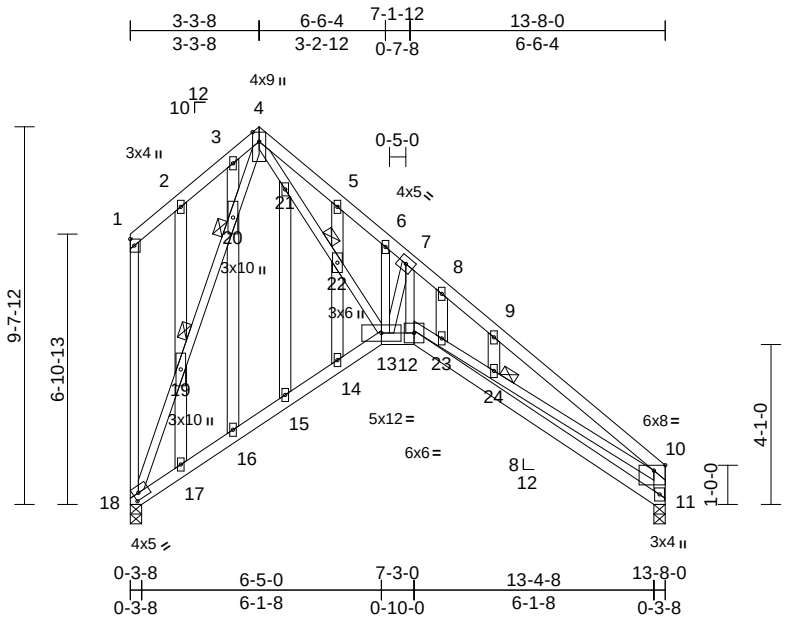

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Plate Offsets (X, Y): [10:0-3-8,Edge], [18:0-1-11,0-2-0]

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.52	Vert(LL)	-0.10	12	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.32	Vert(CT)	-0.18	11-12	>894	240		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.68	Horz(CT)	0.24	11	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S		Wind(LL)	0.04	12	>999	240	Weight: 99 lb	FT = 10%

LUMBER
TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
WEBS 2x3 SPF No.2 *Except* 11-10:2x4 SPF No.2
OTHERS 2x4 SPF No.2

BRACING
TOP CHORD Structural wood sheathing directly applied or 4-0-1 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
JOINTS 1 Brace at Jt(s): 19, 20, 22, 24

REACTIONS (lb/size) 11=604/0-3-8, 18=604/0-3-8
Max Horiz 18=-336 (LC 6)
Max Uplift 11=-44 (LC 9), 18=-125 (LC 9)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-200/145, 2-3=-159/140, 3-4=-126/172, 4-5=-1108/47, 5-6=-1131/40, 6-7=-1381/64, 7-8=-1318/17, 8-9=-1604/12, 9-10=-1716/9, 1-18=-196/126, 10-11=-744/135
BOT CHORD 17-18=-157/410, 16-17=-131/429, 15-16=-137/440, 14-15=-150/380, 13-14=-118/411, 12-13=-25/1228, 11-12=-117/416
WEBS 18-19=-634/0, 19-20=-638/0, 4-20=-686/0, 4-21=0/1202, 21-22=0/1085, 13-22=0/1080, 6-13=-152/409, 7-13=-1166/196, 7-12=0/464, 12-23=-79/989, 23-24=-79/1138, 10-24=-88/1100, 2-19=-61/103, 17-19=-61/101, 3-20=0/90, 16-20=-7/59, 15-21=0/136, 5-22=-80/73, 14-22=-70/69, 8-23=-2/378, 9-24=-100/52

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) Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
6) Gable studs spaced at 1-4-0 oc.
7) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
8) * 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.
9) Bearing at joint(s) 11, 18 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
10) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 44 lb uplift at joint 11 and 125 lb uplift at joint 18.
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

August 24,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 33 OS
Lot 33 OS	D3	Roof Special	7	1	I47581514
					Job Reference (optional)

Wheeler Lumber, Waverly, KS - 66871,

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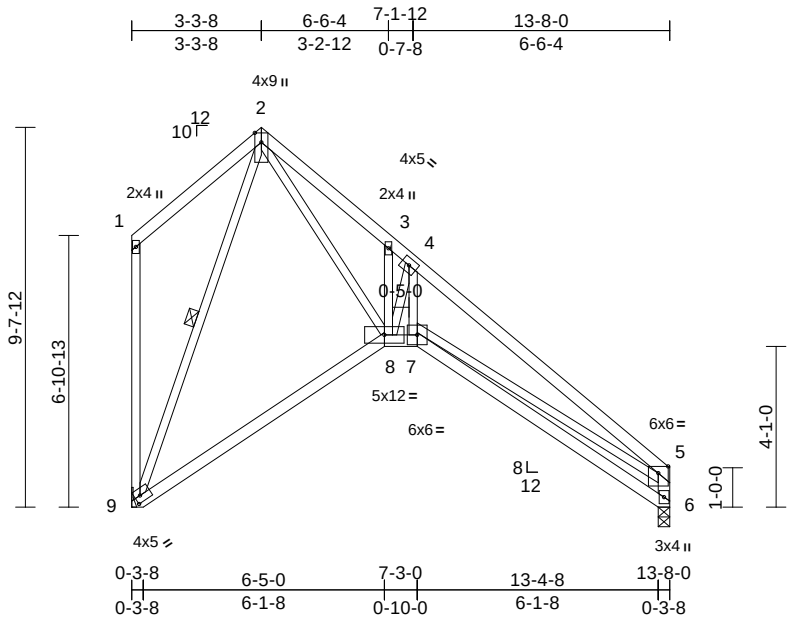

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Plate Offsets (X, Y): [9:0-1-11,0-2-0]

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.58	Vert(LL)	-0.09	8-9	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.36	Vert(CT)	-0.20	8-9	>793	240		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.53	Horz(CT)	0.20	6	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S		Wind(LL)	-0.04	8-9	>999	240	Weight: 69 lb	FT = 10%

LUMBER
TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
WEBS 2x3 SPF No.2 *Except* 6-5:2x4 SPF No.2

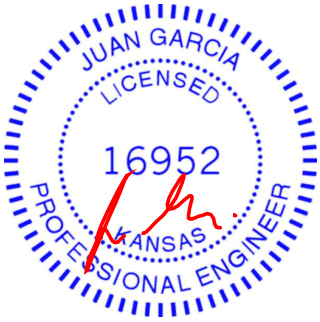
BRACING
TOP CHORD Structural wood sheathing directly applied or 3-5-15 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 1 Row at midpt 2-9

REACTIONS (lb/size) 6=604/0-3-8, 9=604/ Mechanical
Max Horiz 9=-336 (LC 6)
Max Uplift 6=-44 (LC 9), 9=-125 (LC 9)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-189/154, 2-3=-1185/40, 3-4=-1289/106, 4-5=-1664/15, 1-9=-193/119, 5-6=-694/131
BOT CHORD 8-9=-175/425, 7-8=-14/1184, 6-7=-108/318
WEBS 2-9=-598/0, 2-8=0/1193, 3-8=-161/199, 4-8=-976/312, 4-7=0/655, 5-7=-70/1143

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) Refer to girder(s) for truss to truss connections.
6) Bearing at joint(s) 6 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 44 lb uplift at joint 6 and 125 lb uplift at joint 9.
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



August 24,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 33 OS	
Lot 33 OS	E1	Common Supported Gable	1	1	Job Reference (optional)	I47581515

Wheeler Lumber, Waverly, KS - 66871,

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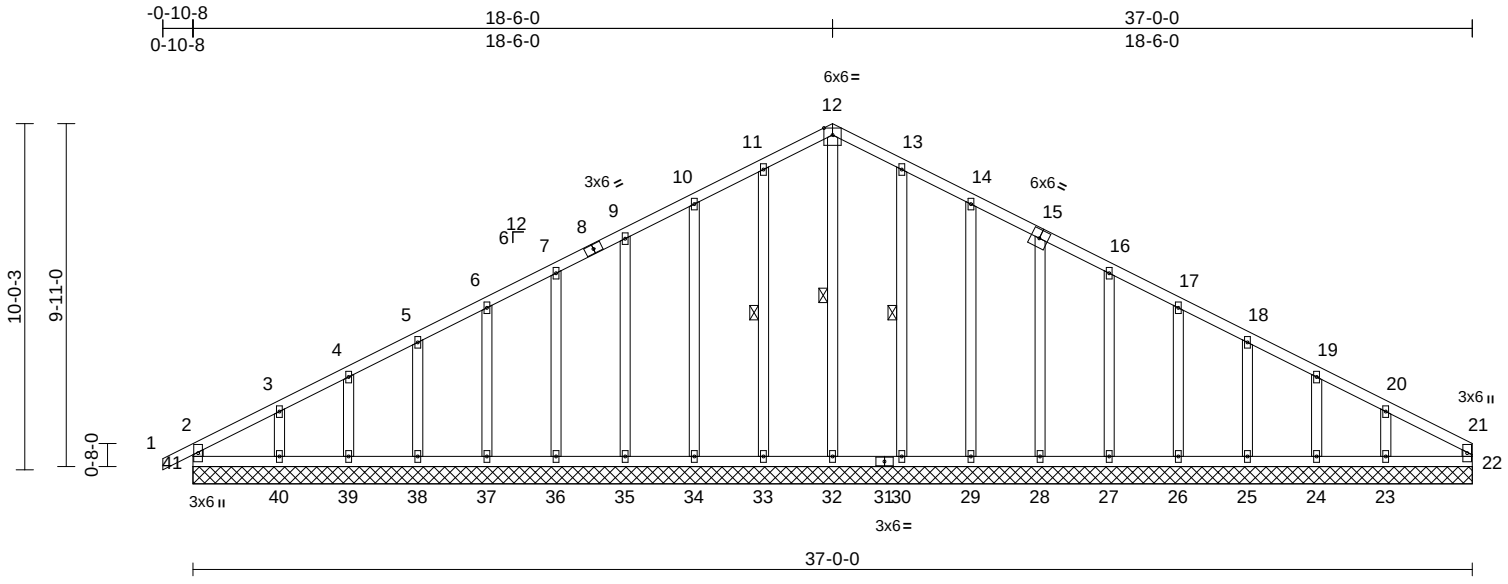

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Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.07	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.07	Vert(CT)	n/a	-	n/a	999		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.14	Horz(CT)	0.01	22	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-R							Weight: 191 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 12-32, 11-33, 13-30

REACTIONS (lb/size) 22=99/37-0-0, 23=222/37-0-0, 24=168/37-0-0, 25=183/37-0-0, 26=180/37-0-0, 27=178/37-0-0, 28=180/37-0-0, 29=181/37-0-0, 30=186/37-0-0, 32=152/37-0-0, 33=187/37-0-0, 34=179/37-0-0, 35=180/37-0-0, 36=180/37-0-0, 37=180/37-0-0, 38=181/37-0-0, 39=175/37-0-0, 40=196/37-0-0, 41=189/37-0-0
Max Horiz 41=165 (LC 8)
Max Uplift 23=-107 (LC 9), 24=-38 (LC 9), 25=-58 (LC 9), 26=-53 (LC 9), 27=-53 (LC 9), 28=-53 (LC 9), 29=-59 (LC 9), 30=-47 (LC 9), 33=-49 (LC 8), 34=-57 (LC 8), 35=-53 (LC 8), 36=-54 (LC 8), 37=-53 (LC 8), 38=-59 (LC 8), 39=-36 (LC 8), 40=-115 (LC 8), 41=-36 (LC 4)
Max Grav 22=114 (LC 18), 23=223 (LC 22), 24=168 (LC 1), 25=183 (LC 22), 26=180 (LC 1), 27=178 (LC 22), 28=180 (LC 1), 29=181 (LC 1), 30=189 (LC 22), 32=213 (LC 18), 33=189 (LC 21), 34=179 (LC 1), 35=180 (LC 1), 36=180 (LC 21), 37=180 (LC 1), 38=181 (LC 21), 39=175 (LC 1), 40=199 (LC 21), 41=189 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 2-41=-167/46, 1-2=0/32, 2-3=-184/81, 3-4=-125/89, 4-5=-102/113, 5-6=-82/139, 6-7=-71/165, 7-9=-60/191, 9-10=-50/217, 10-11=-50/244, 11-12=-53/266, 12-13=-53/258, 13-14=-50/215, 14-16=-51/167, 16-17=-51/113, 17-18=-51/87, 18-19=-62/61, 19-20=-87/37, 20-21=-128/36, 21-22=-85/10
BOT CHORD 40-41=-27/121, 39-40=-27/121, 38-39=-27/121, 37-38=-27/121, 36-37=-27/121, 35-36=-27/121, 34-35=-27/121, 33-34=-27/121, 32-33=-27/121, 30-32=-27/121, 29-30=-27/121, 28-29=-27/121, 27-28=-27/121, 26-27=-27/121, 25-26=-27/121, 24-25=-27/121, 23-24=-27/121, 22-23=-27/121
WEBS 12-32=-181/0, 11-33=-149/73, 10-34=-139/81, 9-35=-140/77, 7-36=-140/78, 6-37=-140/77, 5-38=-141/81, 4-39=-137/66, 3-40=-151/119, 13-30=-149/71, 14-29=-141/83, 15-28=-140/77, 16-27=-138/77, 17-26=-140/78, 18-25=-142/80, 19-24=-131/68, 20-23=-170/112

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.

August 24,2021

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 36 lb uplift at joint 41, 49 lb uplift at joint 33, 57 lb uplift at joint 34, 53 lb uplift at joint 35, 54 lb uplift at joint 36, 53 lb uplift at joint 37, 59 lb uplift at joint 38, 36 lb uplift at joint 39, 115 lb uplift at joint 40, 47 lb uplift at joint 30, 59 lb uplift at joint 29, 53 lb uplift at joint 28, 53 lb uplift at joint 27, 53 lb uplift at joint 26, 58 lb uplift at joint 25, 38 lb uplift at joint 24 and 107 lb uplift at joint 23.
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 33 OS
Lot 33 OS	E2	Common	3	1	I47581516 Job Reference (optional)

Wheeler Lumber, Waverly, KS - 66871,

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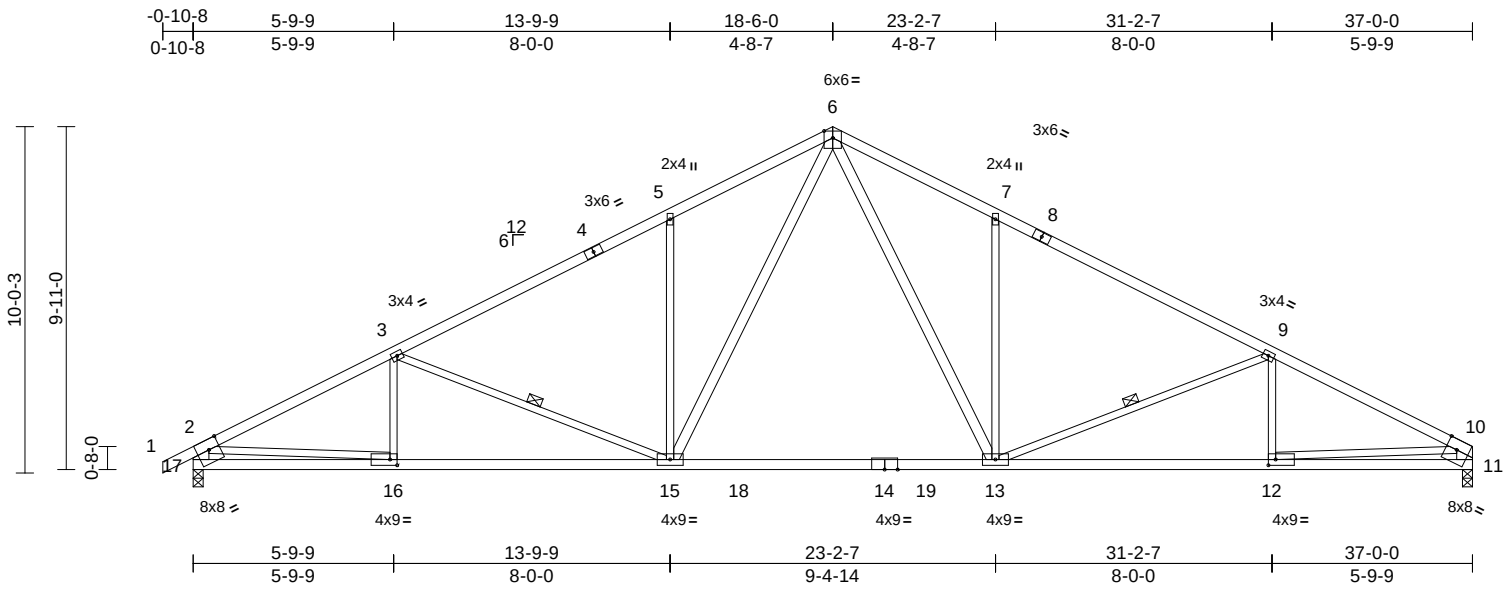

Scale = 1:66.6

Plate Offsets (X, Y): [11:0-3-12,Edge], [12:0-2-8,0-2-0], [16:0-2-8,0-2-0], [17:0-3-12,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	0.93	Vert(LL)	-0.34	13-15	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.59	Vert(CT)	-0.56	13-15	>790	240		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.72	Horz(CT)	0.08	11	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S		Wind(LL)	0.11	15-16	>999	240	Weight: 154 lb	FT = 10%

LUMBER
TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF 2100F 1.8E
WEBS 2x3 SPF No.2 *Except* 13-6,15-6:2x4 SPF No.2, 17-2,11-10:2x6 SPF No.2

BRACING
TOP CHORD Structural wood sheathing directly applied, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 1 Row at midpt 9-13, 3-15

REACTIONS (lb/size) 11=1643/0-3-8, 17=1723/0-3-8
Max Horiz 17=164 (LC 8)
Max Uplift 11=-204 (LC 9), 17=-230 (LC 8)
Max Grav 11=1730 (LC 2), 17=1795 (LC 2)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/35, 2-3=-2975/355, 3-5=-2490/297, 5-6=-2472/446, 6-7=-2472/446, 7-9=-2492/298, 9-10=-2981/357, 2-17=-1686/255, 10-11=-1619/228
BOT CHORD 16-17=-240/692, 15-16=-407/2599, 13-15=-77/1656, 12-13=-266/2611, 11-12=-76/533
WEBS 6-13=-287/1109, 7-13=-507/281, 9-13=-571/225, 9-12=-63/145, 6-15=-286/1107, 5-15=-511/282, 3-15=-557/221, 3-16=-53/152, 2-16=-168/1985, 10-12=-191/2085

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 230 lb uplift at joint 17 and 204 lb uplift at joint 11.
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

August 24,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 33 OS
Lot 33 OS	E3	COMMON GIRDER	1	3	I47581517 Job Reference (optional)

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.43 S Aug 16 2021 Print: 8.430 S Aug 16 2021 MiTek Industries, Inc. Mon Aug 23 11:23:41 Page: 1
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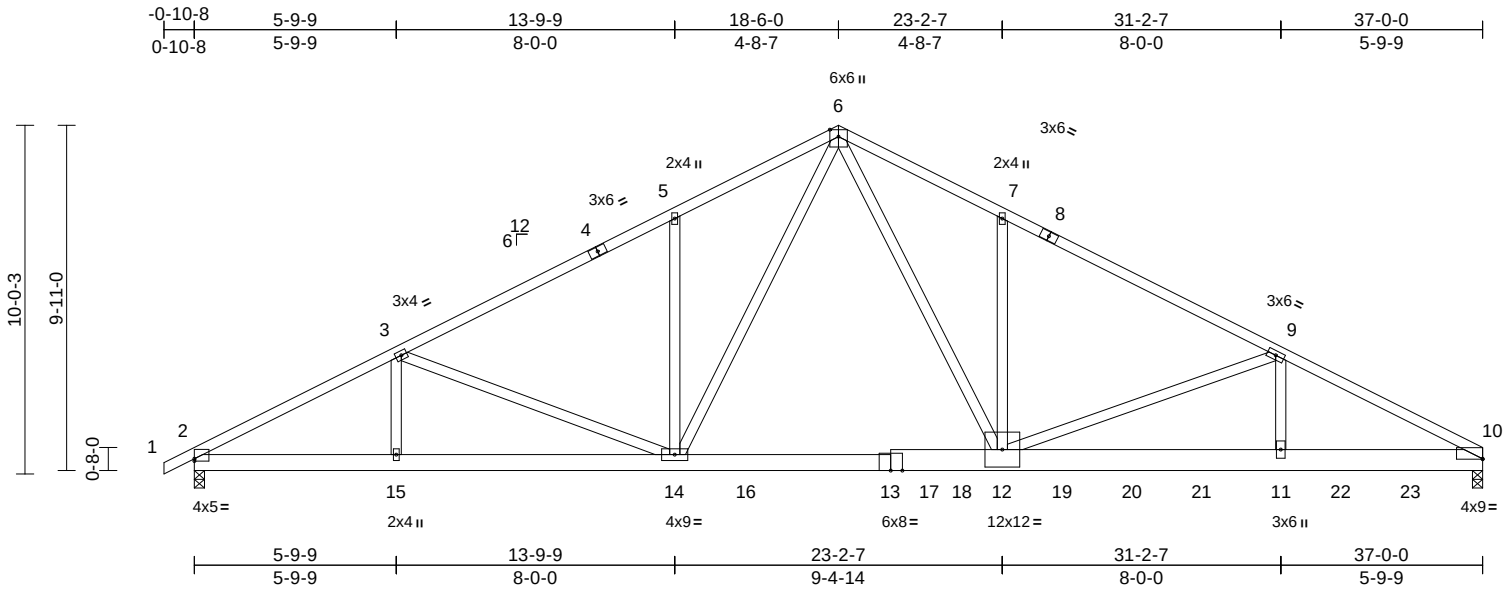

Scale = 1:66.2

Plate Offsets (X, Y): [2:Edge,0-0-13], [10:Edge,0-0-3]

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	0.81	Vert(LL)	-0.21	12-14	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.44	Vert(CT)	-0.36	12-14	>999	240		
BCLL	0.0*	Rep Stress Incr	NO	WB	0.61	Horz(CT)	0.06	10	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S		Wind(LL)	0.12	12-14	>999	240	Weight: 634 lb	FT = 10%

LUMBER

TOP CHORD 2x4 SPF No.2 *Except* 1-4,8-10:2x4 SPF 2100F 1.8E

BOT CHORD 2x6 SP 2400F 2.0E *Except* 13-10:2x8 SP DSS

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=4061/0-3-8, 10=7032/0-3-8, (req. 0-3-14)
Max Horiz 2=111 (LC 24)
Max Uplift 2=-329 (LC 8), 10=-913 (LC 9)
Max Grav 2=4322 (LC 13), 10=7400 (LC 14)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=0/11, 2-3=-8229/649, 3-5=-7951/687, 5-6=-7927/786, 6-7=-11367/1228, 7-9=-11397/1130, 9-10=-13820/1697

BOT CHORD 2-15=-613/7200, 14-15=-613/7200, 12-14=-512/6624, 11-12=-1437/12078, 10-11=-1437/12078

WEBS 6-12=-980/8162, 7-12=-469/177, 9-12=-2279/634, 9-11=-419/1892, 6-14=-92/1256, 5-14=-482/173, 3-14=-207/371, 3-15=0/191

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 0-6-0 oc.
Bottom chords connected as follows: 2x6 - 2 rows staggered at 0-9-0 oc, 2x8 - 4 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); 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) 10 greater than input bearing size.
8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 329 lb uplift at joint 2 and 913 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) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 4147 lb down and 231 lb up at 22-0-11, 584 lb down and 137 lb up at 22-11-4, 584 lb down and 137 lb up at 24-11-4, 584 lb down and 137 lb up at 26-11-4, 584 lb down and 137 lb up at 28-11-4, 584 lb down and 137 lb up at 30-11-4, and 584 lb down and 137 lb up at 32-11-4, and 584 lb down and 137 lb up at 34-11-4 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.

LOAD CASE(S) Standard

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

Uniform Loads (lb/ft)
Vert: 1-6=-70, 6-10=-70, 2-10=-20

Concentrated Loads (lb)
Vert: 12=-584 (B), 11=-584 (B), 18=-3631 (B), 19=-584 (B), 20=-584 (B), 21=-584 (B), 22=-584 (B), 23=-584 (B)

August 24,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 33 OS	
Lot 33 OS	E4	Roof Special	5	1	Job Reference (optional)	I47581518

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.43 S Aug 16 2021 Print: 8.430 S Aug 16 2021 MiTek Industries, Inc. Mon Aug 23 11:23:41 Page: 1
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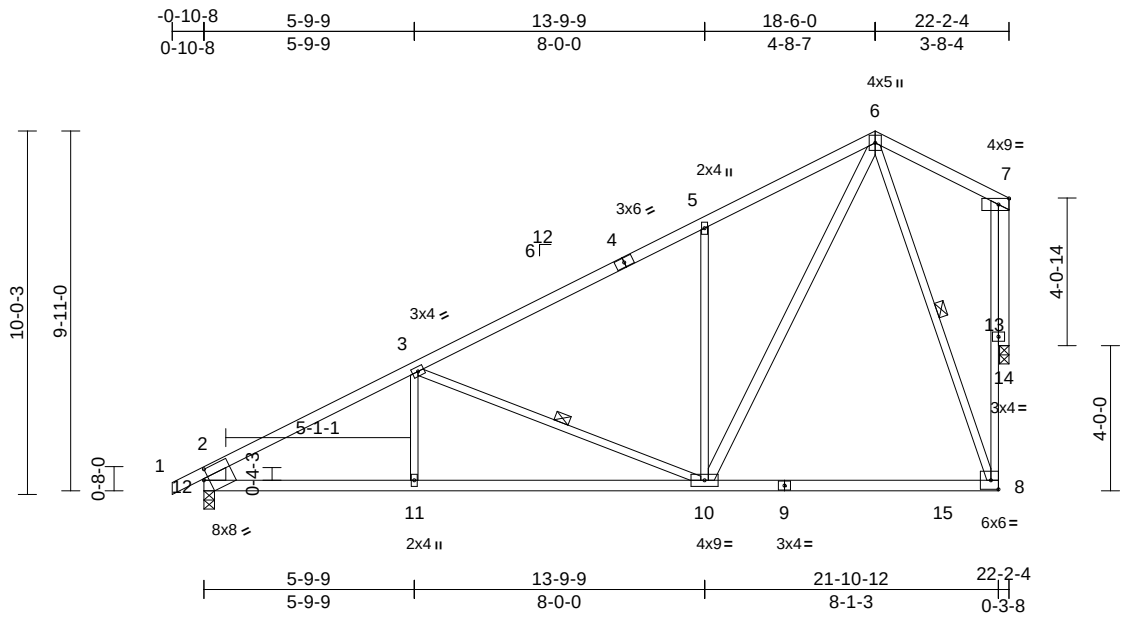

Scale = 1:63.5

Plate Offsets (X, Y): [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	0.90	Vert(LL)	-0.23	8-10	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.81	Vert(CT)	-0.36	8-10	>733	240		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.79	Horz(CT)	0.21	14	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S		Wind(LL)	0.06	10-11	>999	240	Weight: 101 lb	FT = 10%

LUMBER
TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
WEBS 2x3 SPF No.2 *Except* 12-2:2x8 SP DSS, 10-6:2x4 SPF No.2
OTHERS 2x4 SPF No.2

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

REACTIONS (lb/size) 12=1063/0-3-8, 14=953/0-3-2
Max Horiz 12=237 (LC 5)
Max Uplift 12=-15 (LC 8), 14=-58 (LC 8)
Max Grav 12=1093 (LC 13), 14=1040 (LC 13)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/37, 2-3=-1602/15, 3-5=-999/19, 5-6=-994/118, 6-7=-111/46, 2-12=-964/43, 8-13=-26/955, 7-13=-26/955
BOT CHORD 11-12=-139/1392, 10-11=-139/1392, 8-10=-41/331
WEBS 6-8=-848/73, 3-11=0/235, 5-10=-532/169, 3-10=-594/114, 6-10=-120/1162, 7-14=-1042/58

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) Bearing at joint(s) 14 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 15 lb uplift at joint 12 and 58 lb uplift at joint 14.
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

August 24,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 33 OS	
Lot 33 OS	E5	Roof Special	2	1	Job Reference (optional)	I47581519

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.43 S Aug 16 2021 Print: 8.430 S Aug 16 2021 MiTek Industries, Inc. Mon Aug 23 11:23:42 Page: 1
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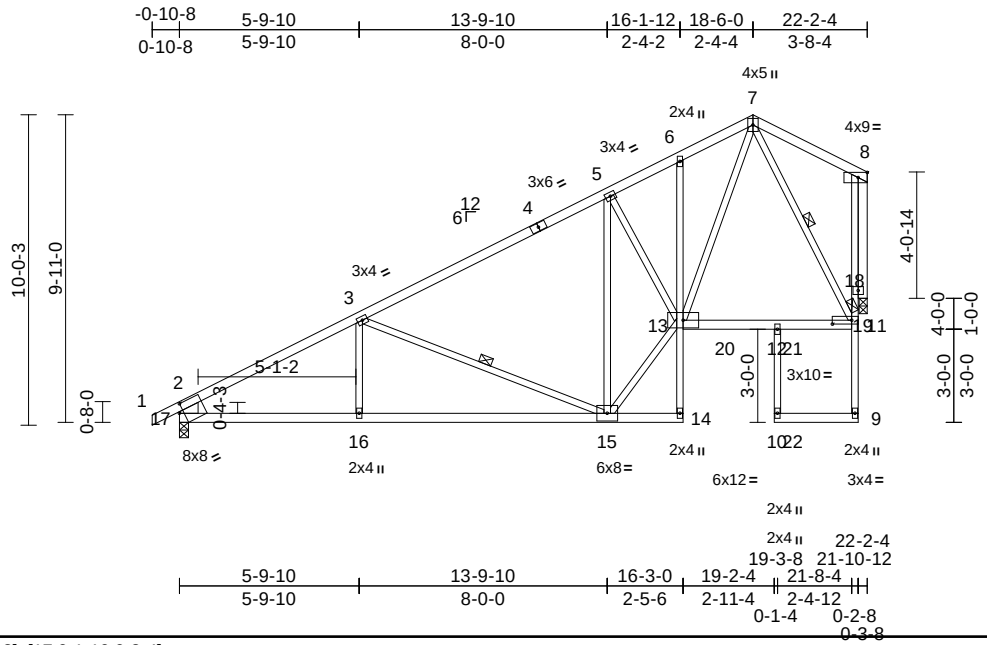

Scale = 1:74.3

Plate Offsets (X, Y): [11:0-7-8,0-1-8], [17:0-1-10,0-3-4]

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	0.91	Vert(LL)	-0.19	15-16	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.77	Vert(CT)	-0.36	15-16	>724	240		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.75	Horz(CT)	-0.03	19	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S		Wind(LL)	0.09	15-16	>999	240	Weight: 111 lb	FT = 10%

LUMBER

TOP CHORD	2x4 SPF No.2
BOT CHORD	2x4 SPF No.2 *Except* 14-6:2x3 SPF No.2
WEBS	2x3 SPF No.2 *Except* 17-2:2x8 SP DSS
OTHERS	2x4 SPF No.2

BRACING

TOP CHORD	Structural wood sheathing directly applied, except end verticals.
BOT CHORD	Rigid ceiling directly applied or 6-0-0 oc bracing.
WEBS	1 Row at midpt 7-11, 3-15
JOINTS	1 Brace at Jt(s): 11

REACTIONS (lb/size) 17=1063/0-3-8, 19=953/0-3-2
Max Horiz 17=294 (LC 5)
Max Uplift 17=-141 (LC 8), 19=-189 (LC 8)
Max Grav 17=1084 (LC 2), 19=1049 (LC 2)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD	1-2=0/37, 2-3=-1592/177, 3-5=-981/114, 5-6=-1011/200, 6-7=-919/204, 7-8=-132/56, 2-17=-965/163, 9-11=0/58, 11-18=-165/915, 8-18=-165/915
BOT CHORD	16-17=-353/1359, 15-16=-353/1359, 14-15=-21/1, 13-14=-48/0, 6-13=-17/76, 12-13=-97/489, 11-12=-97/489, 9-10=0/0
WEBS	10-12=0/57, 5-13=-89/106, 7-13=-221/1079, 7-11=-853/203, 3-16=0/250, 3-15=-590/224, 5-15=-577/184, 13-15=-218/1343, 8-19=-1052/189

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) Bearing at joint(s) 19 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 141 lb uplift at joint 17 and 189 lb uplift at joint 19.
7) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard

August 24,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 33 OS
Lot 33 OS	E6	Common	7	1	I47581520 Job Reference (optional)

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.43 S Aug 16 2021 Print: 8.430 S Aug 16 2021 MiTek Industries, Inc. Mon Aug 23 11:23:42 Page: 1
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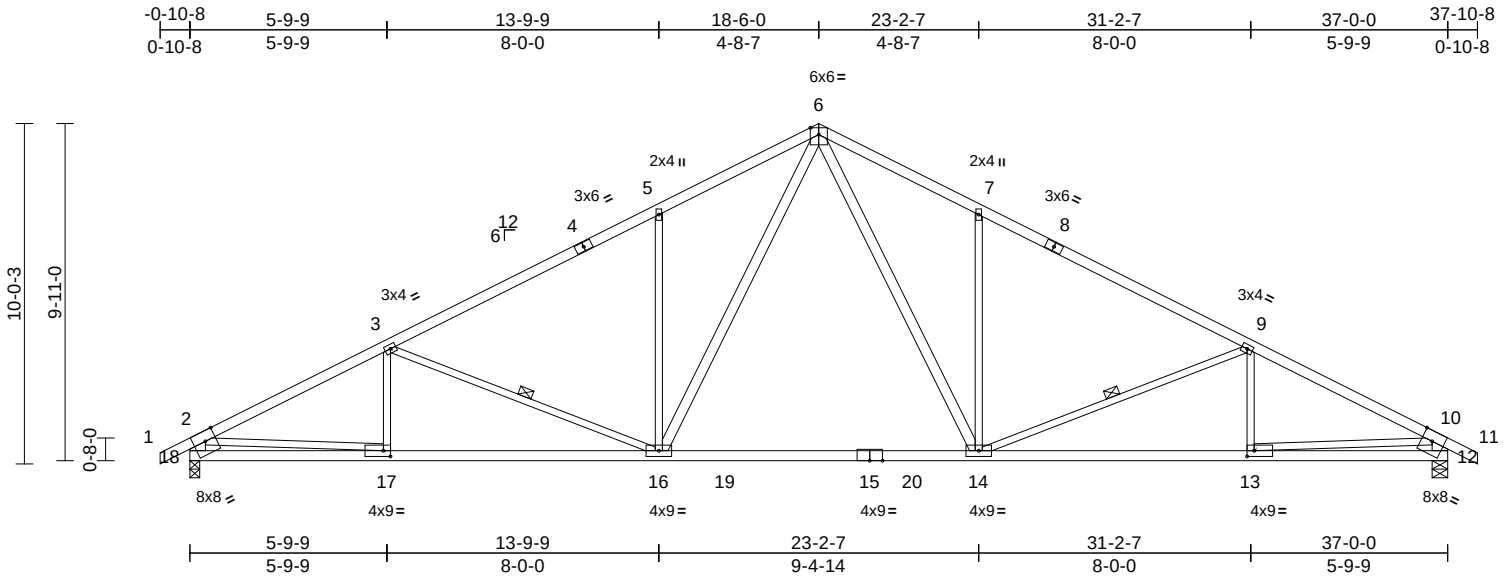

Scale = 1:67.8

Plate Offsets (X, Y): [12:0-3-12,Edge], [13:0-2-8,0-2-0], [17:0-2-8,0-2-0], [18:0-3-12,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	0.93	Vert(LL)	-0.34	14-16	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.59	Vert(CT)	-0.56	14-16	>789	240		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.68	Horz(CT)	0.08	12	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S		Wind(LL)	0.11	16-17	>999	240	Weight: 155 lb	FT = 10%

LUMBER
TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF 2100F 1.8E
WEBS 2x3 SPF No.2 *Except* 14-6,16-6:2x4 SPF No.2, 18-2,12-10:2x6 SPF No.2

BRACING
TOP CHORD Structural wood sheathing directly applied, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 1 Row at midpt 9-14, 3-16

REACTIONS (lb/size) 12=1722/0-5-8, 18=1722/0-3-8
Max Horiz 18=155 (LC 8)
Max Uplift 12=-230 (LC 9), 18=-230 (LC 8)
Max Grav 12=1795 (LC 2), 18=1795 (LC 2)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/35, 2-3=-2975/355, 3-5=-2489/297, 5-6=-2471/446, 6-7=-2471/446, 7-9=-2489/297, 9-10=-2975/355, 10-11=0/35, 2-18=-1686/255, 10-12=-1686/254
BOT CHORD 17-18=-231/700, 16-17=-398/2598, 14-16=-67/1655, 13-14=-243/2598, 12-13=-91/621
WEBS 6-14=-287/1108, 7-14=-512/282, 9-14=-557/221, 9-13=-52/152, 6-16=-287/1108, 5-16=-512/282, 3-16=-557/221, 3-17=-52/152, 2-17=-167/1984, 10-13=-153/1984

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 230 lb uplift at joint 18 and 230 lb uplift at joint 12.
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

August 24,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 33 OS
Lot 33 OS	E7	Common Supported Gable	1	1	I47581521 Job Reference (optional)

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.43 S Aug 16 2021 Print: 8.430 S Aug 16 2021 MiTek Industries, Inc. Mon Aug 23 11:23:43 Page: 1
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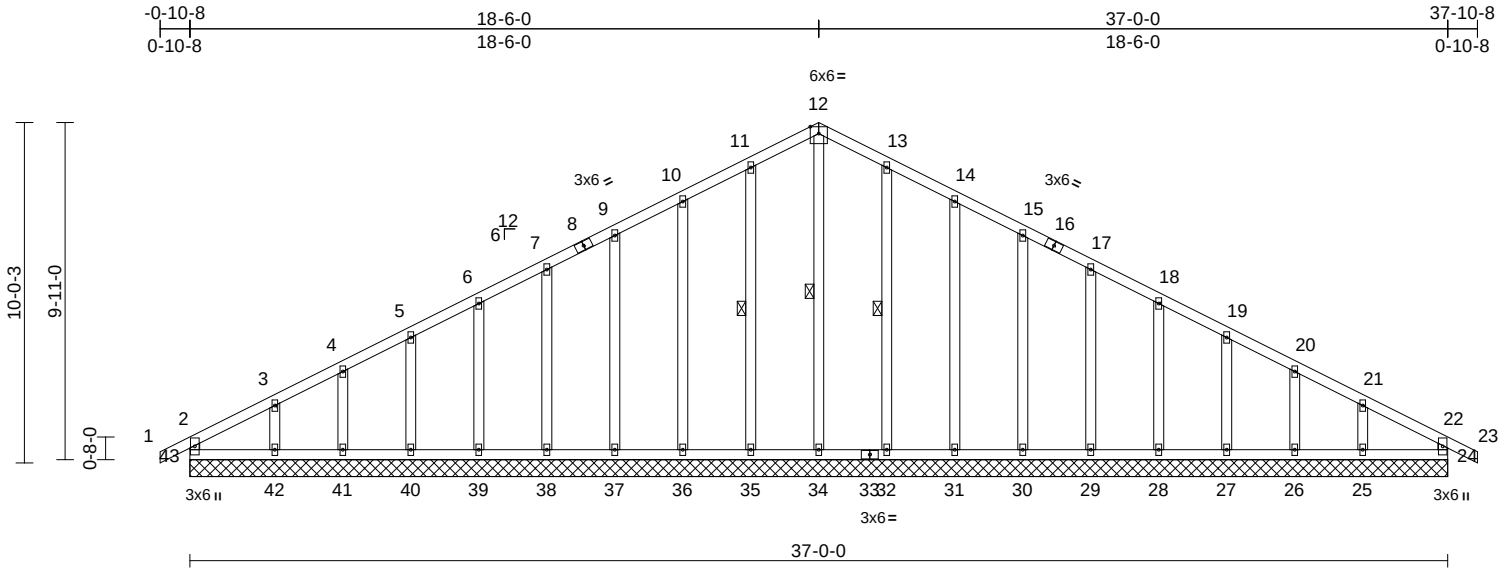


Scale = 1:67.8

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	0.07	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)	0.01	24	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-R							Weight: 192 lb	FT = 10%

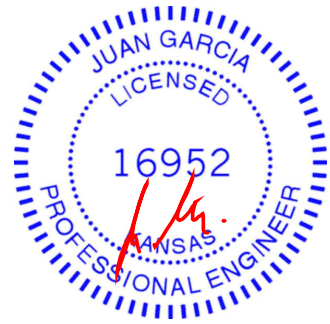
LUMBER
TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
WEBS 2x4 SPF No.2
OTHERS 2x4 SPF No.2

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 12-34, 11-35, 13-32

REACTIONS (lb/size) 24=185/37-0-0, 25=198/37-0-0, 26=175/37-0-0, 27=181/37-0-0, 28=180/37-0-0, 29=180/37-0-0, 30=180/37-0-0, 31=179/37-0-0, 32=187/37-0-0, 34=157/37-0-0, 35=187/37-0-0, 36=179/37-0-0, 37=180/37-0-0, 38=180/37-0-0, 39=180/37-0-0, 40=181/37-0-0, 41=175/37-0-0, 42=198/37-0-0, 43=185/37-0-0
Max Horiz 43=-156 (LC 9)
Max Uplift 24=-8 (LC 5), 25=-100 (LC 9), 26=-40 (LC 9), 27=-57 (LC 9), 28=-53 (LC 9), 29=-54 (LC 9), 30=-53 (LC 9), 31=-58 (LC 9), 32=-47 (LC 9), 35=-49 (LC 8), 36=-57 (LC 8), 37=-53 (LC 8), 38=-54 (LC 8), 39=-53 (LC 8), 40=-59 (LC 8), 41=-36 (LC 8), 42=-114 (LC 8), 43=-36 (LC 4)
Max Grav 24=185 (LC 1), 25=199 (LC 22), 26=175 (LC 1), 27=181 (LC 22), 28=180 (LC 1), 29=180 (LC 22), 30=180 (LC 1), 31=179 (LC 1), 32=189 (LC 22), 34=217 (LC 18), 35=189 (LC 21), 36=179 (LC 1), 37=180 (LC 1), 38=180 (LC 21), 39=180 (LC 1), 40=181 (LC 21), 41=175 (LC 1), 42=199 (LC 21), 43=185 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 2-43=-163/46, 1-2=0/32, 2-3=-181/83, 3-4=-121/90, 4-5=-95/114, 5-6=-75/140, 6-7=-64/165, 7-9=-53/191, 9-10=-44/217, 10-11=-43/244, 11-12=-46/266, 12-13=-46/258, 13-14=-43/215, 14-15=-44/168, 15-17=-44/141, 17-18=-44/115, 18-19=-44/89, 19-20=-57/63, 20-21=-80/43, 21-22=-128/39, 22-23=0/32, 22-24=-163/20
BOT CHORD 42-43=-27/139, 41-42=-27/139, 40-41=-27/139, 39-40=-27/139, 38-39=-27/139, 37-38=-27/139, 36-37=-27/139, 35-36=-27/139, 34-35=-27/139, 32-34=-27/139, 31-32=-27/139, 30-31=-27/139, 29-30=-27/139, 28-29=-27/139, 27-28=-27/139, 26-27=-27/139, 25-26=-27/139, 24-25=-27/139
WEBS 12-34=-181/0, 11-35=-149/73, 10-36=-139/81, 9-37=-140/77, 7-38=-140/78, 6-39=-140/77, 5-40=-141/81, 4-41=-137/66, 3-42=-151/119, 13-32=-149/71, 14-31=-139/82, 15-30=-140/77, 17-29=-140/78, 18-28=-140/77, 19-27=-141/80, 20-26=-137/68, 21-25=-151/111

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.



August 24,2021

Continued on page 2

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

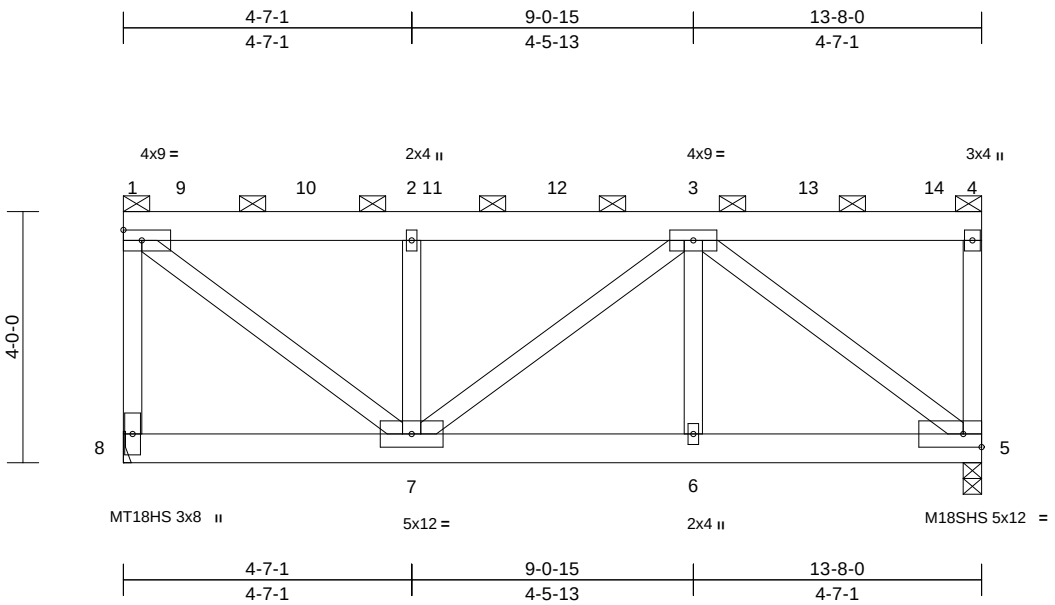
10) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 36 lb uplift at joint 43, 8 lb uplift at joint 24, 49 lb uplift at joint 35, 57 lb uplift at joint 36, 53 lb uplift at joint 37, 54 lb uplift at joint 38, 53 lb uplift at joint 39, 59 lb uplift at joint 40, 36 lb uplift at joint 41, 114 lb uplift at joint 42, 47 lb uplift at joint 32, 58 lb uplift at joint 31, 53 lb uplift at joint 30, 54 lb uplift at joint 29, 53 lb uplift at joint 28, 57 lb uplift at joint 27, 40 lb uplift at joint 26 and 100 lb uplift at joint 25.
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 33 OS
Lot 33 OS	R1	Flat Girder	1	2	I47581522
					Job Reference (optional)

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.43 S Aug 16 2021 Print: 8.430 S Aug 16 2021 MiTek Industries, Inc. Mon Aug 23 11:23:43 ID:osAYHNvzKvVfCyc7SJ3nBHyQU1I-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f



Scale = 1:36.7

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	0.48	Vert(LL)	-0.04	6-7	>999	360	MT18HS	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.39	Vert(CT)	-0.07	6-7	>999	240	MT20	197/144
BCLL	0.0*	Rep Stress Incr	NO	WB	0.54	Horz(CT)	0.02	5	n/a	n/a	M18SHS	197/144
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S		Wind(LL)	0.02	6-7	>999	240	Weight: 162 lb	FT = 10%

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

BRACING
TOP CHORD 2-0-0 oc purlins (6-0-0 max.): 1-4, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (lb/size) 5=3755/0-3-8, 8=3651/ Mechanical
Max Horiz 8=-108 (LC 6)
Max Uplift 5=-425 (LC 5), 8=-219 (LC 4)
Max Grav 5=4276 (LC 13), 8=4132 (LC 14)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-8=-4040/236, 1-2=-3616/200, 2-3=-3616/200, 3-4=-104/42, 4-5=-1335/239
BOT CHORD 7-8=-80/129, 6-7=-291/3675, 5-6=-291/3675
WEBS 1-7=-254/4513, 2-7=-2725/155, 3-7=-90/108, 3-6=0/171, 3-5=-4595/331

NOTES
1) 2-ply truss to be connected together with 10d (0.131"x3") nails as follows:
Top chords connected as follows: 2x4 - 1 row at 0-9-0 oc, 2x6 - 2 rows staggered at 0-9-0 oc.
Bottom chords connected as follows: 2x6 - 2 rows staggered at 0-9-0 oc.
Web connected as follows: 2x4 - 1 row at 0-9-0 oc.
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) 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
4) Provide adequate drainage to prevent water ponding.
5) All plates are MT20 plates 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.
8) Refer to girder(s) for truss to truss connections.
9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 219 lb uplift at joint 8 and 425 lb uplift at joint 5.
10) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
11) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
12) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 1074 lb down and 42 lb up at 0-11-0, 1067 lb down and 42 lb up at 2-11-0, 1067 lb down and 42 lb up at 4-11-0, 1067 lb down and 42 lb up at 6-11-0, 1067 lb down and 42 lb up at 8-11-0, and 1083 lb down and 173 lb up at 10-11-0, and 1092 lb down and 176 lb up at 12-11-0 on top chord. The design/selection of such connection device(s) is the responsibility of others.

LOAD CASE(S) Standard
1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (lb/ft)
Vert: 1-4=-70, 5-8=-20
Concentrated Loads (lb)
Vert: 3=-883, 9=-891, 10=-883, 11=-883, 12=-883, 13=-883, 14=-897

August 24,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 33 OS
Lot 33 OS	V1	Valley	1	1	I47581523
					Job Reference (optional)

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.43 S Aug 16 2021 Print: 8.430 S Aug 16 2021 MiTek Industries, Inc. Mon Aug 23 11:23:43 Page: 1
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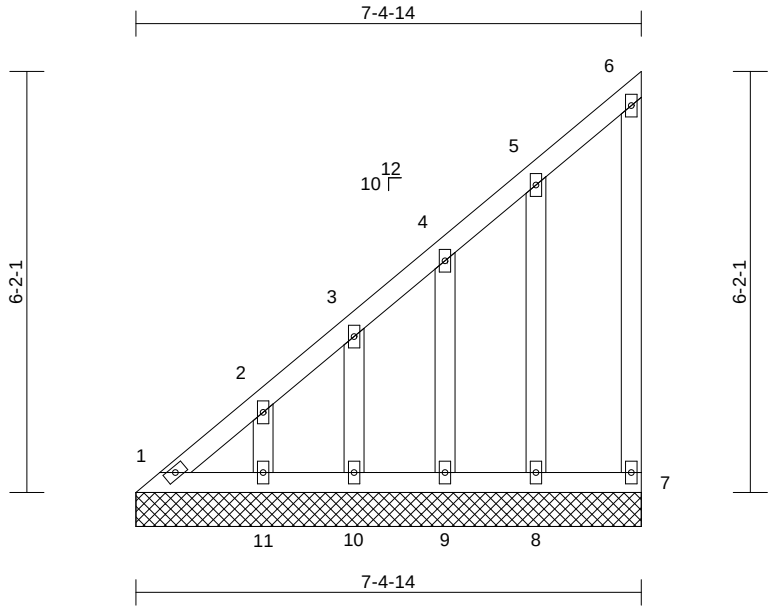

Scale = 1:33.8

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.22	Vert(LL)	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	0.04	Horiz(TL)	0.00	7	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-P							Weight: 37 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) 1=53/7-4-14, 7=51/7-4-14, 8=136/7-4-14, 9=119/7-4-14, 10=114/7-4-14, 11=144/7-4-14
Max Horiz 1=228 (LC 5)
Max Uplift 1=-55 (LC 6), 7=-55 (LC 7), 8=-65 (LC 8), 9=-61 (LC 8), 10=-57 (LC 8), 11=-72 (LC 8)
Max Grav 1=141 (LC 5), 7=72 (LC 15), 8=146 (LC 15), 9=126 (LC 15), 10=122 (LC 15), 11=154 (LC 15)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-223/148, 2-3=-185/119, 3-4=-156/99, 4-5=-141/93, 5-6=-123/85, 6-7=-61/66
BOT CHORD 1-11=-81/62, 10-11=-81/62, 9-10=-81/62, 8-9=-81/62, 7-8=-81/62
WEBS 2-11=-121/91, 3-10=-97/72, 4-9=-101/77, 5-8=-115/84

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) All plates are 2x4 MT20 unless otherwise indicated.
4) Gable requires continuous bottom chord bearing.
5) Gable studs spaced at 1-4-0 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 55 lb uplift at joint 1, 55 lb uplift at joint 7, 72 lb uplift at joint 11, 57 lb uplift at joint 10, 61 lb uplift at joint 9 and 65 lb uplift at joint 8.
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

August 24,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 33 OS	
Lot 33 OS	V2	Valley	1	1	Job Reference (optional)	I47581524

Wheeler Lumber, Waverly, KS - 66871,

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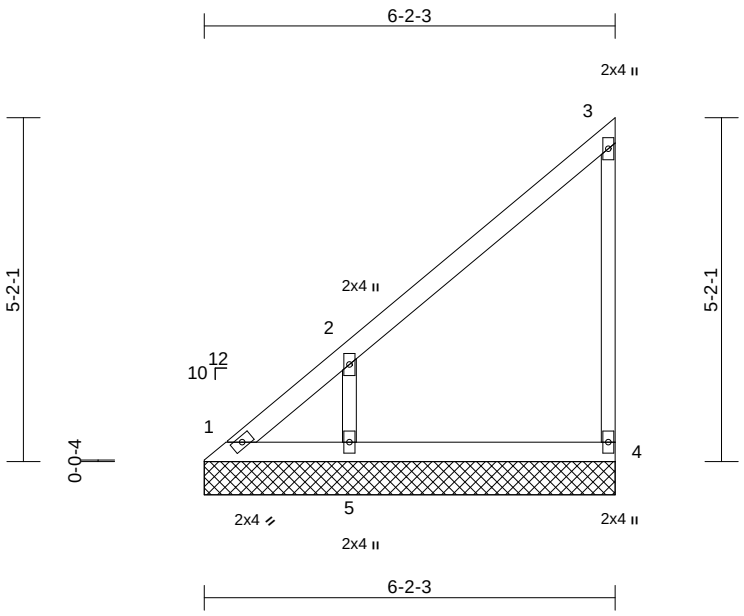

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Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.31	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.10	Vert(TL)	n/a	-	n/a	999		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.06	Horiz(TL)	0.00	4	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-P							Weight: 20 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) 1=11/6-2-3, 4=143/6-2-3, 5=360/6-2-3
Max Horiz 1=189 (LC 7)
Max Uplift 1=-70 (LC 6), 4=-57 (LC 5), 5=-180 (LC 8)
Max Grav 1=123 (LC 5), 4=167 (LC 15), 5=384 (LC 15)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD	1-2=-192/151, 2-3=-166/86, 3-4=-135/76
BOT CHORD	1-5=-67/51, 4-5=-67/51
WEBS	2-5=-304/228

NOTES

1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
2) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
3) Gable requires continuous bottom chord bearing.
4) Gable studs spaced at 4-0-0 oc.
5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
6) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 70 lb uplift at joint 1, 57 lb uplift at joint 4 and 180 lb uplift at joint 5.
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

August 24,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 33 OS	
Lot 33 OS	V3	Valley	1	1	Job Reference (optional)	I47581525

Wheeler Lumber, Waverly, KS - 66871,

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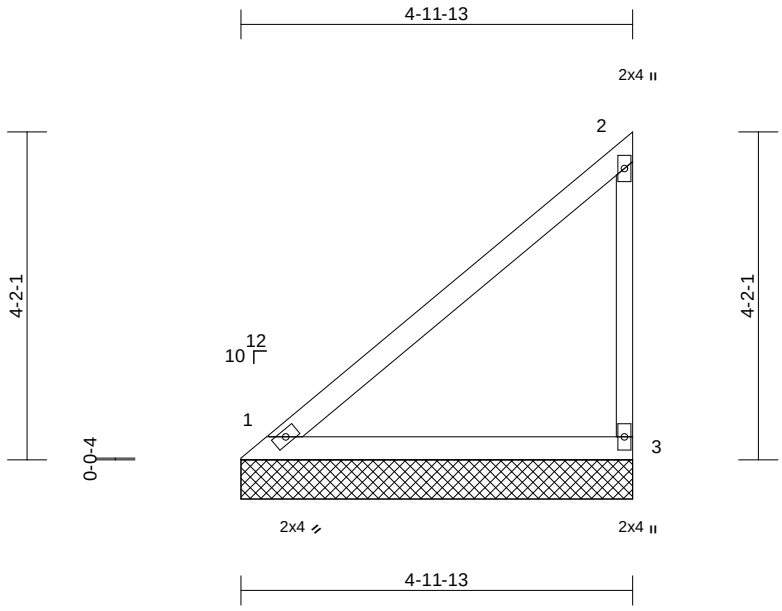

Scale = 1:29.3

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	0.40	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.21	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: 15 lb	FT = 10%

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

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

REACTIONS (lb/size) 1=203/4-11-13, 3=203/4-11-13
Max Horiz 1=149 (LC 7)
Max Uplift 1=-5 (LC 8), 3=-70 (LC 8)
Max Grav 1=203 (LC 1), 3=228 (LC 15)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-139/111, 2-3=-183/97
BOT CHORD 1-3=-53/40

NOTES
1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
2) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
3) Gable requires continuous bottom chord bearing.
4) Gable studs spaced at 4-0-0 oc.
5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
6) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 5 lb uplift at joint 1 and 70 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

August 24,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 33 OS
Lot 33 OS	V4	Valley	1	1	I47581526
					Job Reference (optional)

Wheeler Lumber, Waverly, KS - 66871,

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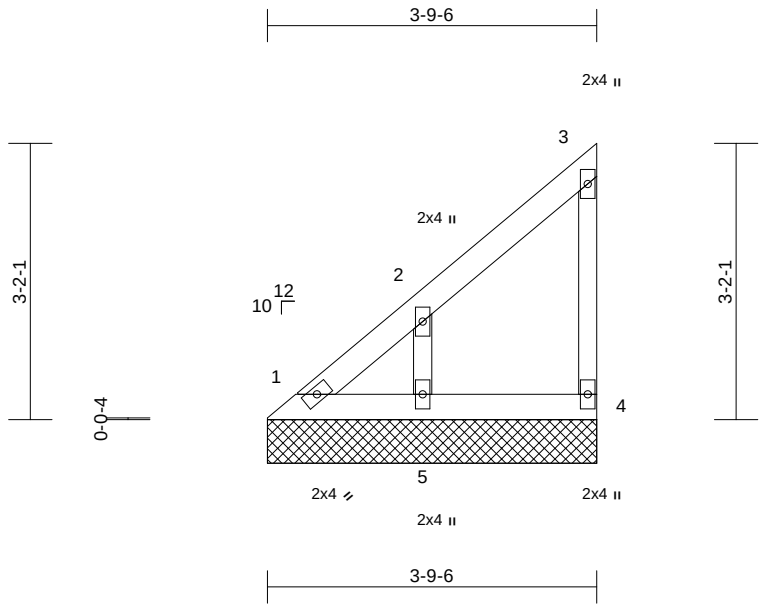


Scale = 1:26.5

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.10	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.02	Vert(TL)	n/a	-	n/a	999		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.03	Horiz(TL)	0.00	4	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-P							Weight: 12 lb	FT = 10%

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

BRACING
TOP CHORD Structural wood sheathing directly applied or 3-9-11 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (lb/size) 1=41/3-9-6, 4=69/3-9-6, 5=188/3-9-6
Max Horiz 1=110 (LC 5)
Max Uplift 1=-19 (LC 4), 4=-31 (LC 5), 5=-93 (LC 8)
Max Grav 1=73 (LC 16), 4=82 (LC 15), 5=201 (LC 15)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-104/82, 2-3=-87/45, 3-4=-67/40
BOT CHORD 1-5=-39/30, 4-5=-39/30
WEBS 2-5=-159/118

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 19 lb uplift at joint 1, 31 lb uplift at joint 4 and 93 lb uplift at joint 5.
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

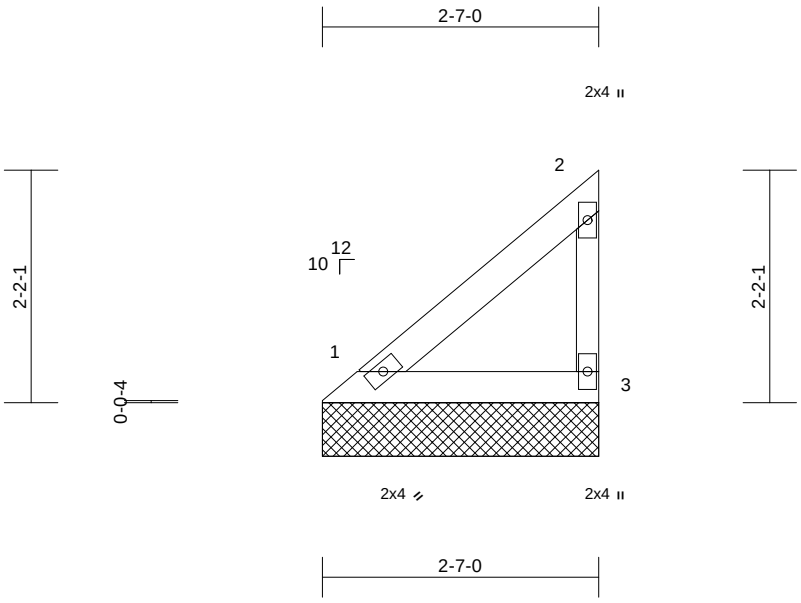
August 24,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 33 OS
Lot 33 OS	V5	Valley	1	1	I47581527
					Job Reference (optional)

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.43 S Aug 16 2021 Print: 8.430 S Aug 16 2021 MiTek Industries, Inc. Mon Aug 23 11:23:44 Page: 1
ID:2oM?zB0IS7vhcBHyf?oB1wyl_VL-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f



Scale = 1:21.5

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.08	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	0.00	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

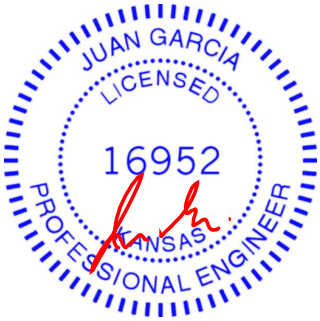
BRACING
TOP CHORD Structural wood sheathing directly applied or 2-7-5 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (lb/size) 1=95/2-7-0, 3=95/2-7-0
Max Horiz 1=70 (LC 7)
Max Uplift 1=-2 (LC 8), 3=-33 (LC 8)
Max Grav 1=95 (LC 1), 3=106 (LC 15)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-65/52, 2-3=-85/46
BOT CHORD 1-3=-25/19

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 2 lb uplift at joint 1 and 33 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



August 24,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 33 OS
Lot 33 OS	V6	Valley	1	1	I47581528

Job Reference (optional)

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.43 S Aug 16 2021 Print: 8.430 S Aug 16 2021 MiTek Industries, Inc. Mon Aug 23 11:23:44 Page: 1
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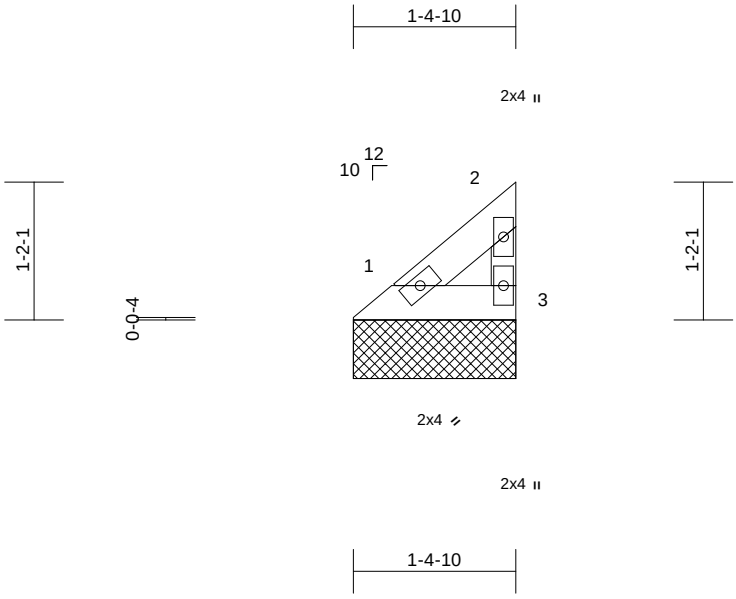

Scale = 1:19.6

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	0.01	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 1-4-14 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (lb/size) 1=41/1-4-10, 3=41/1-4-10
Max Horiz 1=30 (LC 5)
Max Uplift 1=-1 (LC 8), 3=-14 (LC 8)
Max Grav 1=41 (LC 1), 3=46 (LC 15)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-28/22, 2-3=-37/20
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 1 lb uplift at joint 1 and 14 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

August 24,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 33 OS	
Lot 33 OS	V7	Valley	1	1	Job Reference (optional)	I47581529

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.43 S Aug 16 2021 Print: 8.430 S Aug 16 2021 MiTek Industries, Inc. Mon Aug 23 11:23:44 Page: 1
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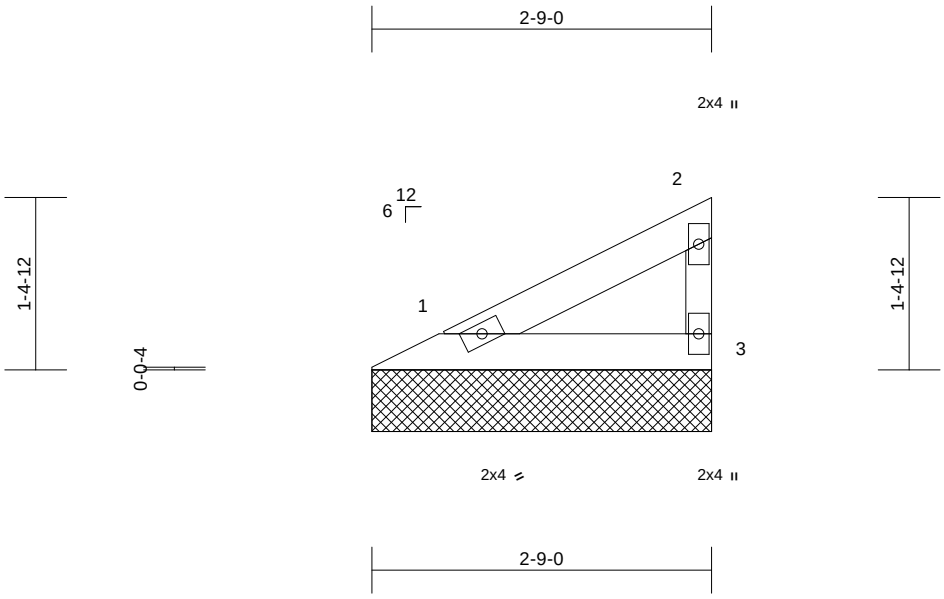

Scale = 1:18.7

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	0.04	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 2-9-8 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (lb/size) 1=93/2-9-0, 3=93/2-9-0
Max Horiz 1=43 (LC 7)
Max Uplift 1=-12 (LC 8), 3=-23 (LC 8)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-39/26, 2-3=-72/35
BOT CHORD 1-3=-15/11

NOTES
1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
2) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
3) Gable requires continuous bottom chord bearing.
4) Gable studs spaced at 4-0-0 oc.
5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
6) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 12 lb uplift at joint 1 and 23 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

August 24,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 33 OS	
Lot 33 OS	V8	Valley	1	1	Job Reference (optional)	I47581530

Wheeler Lumber, Waverly, KS - 66871,

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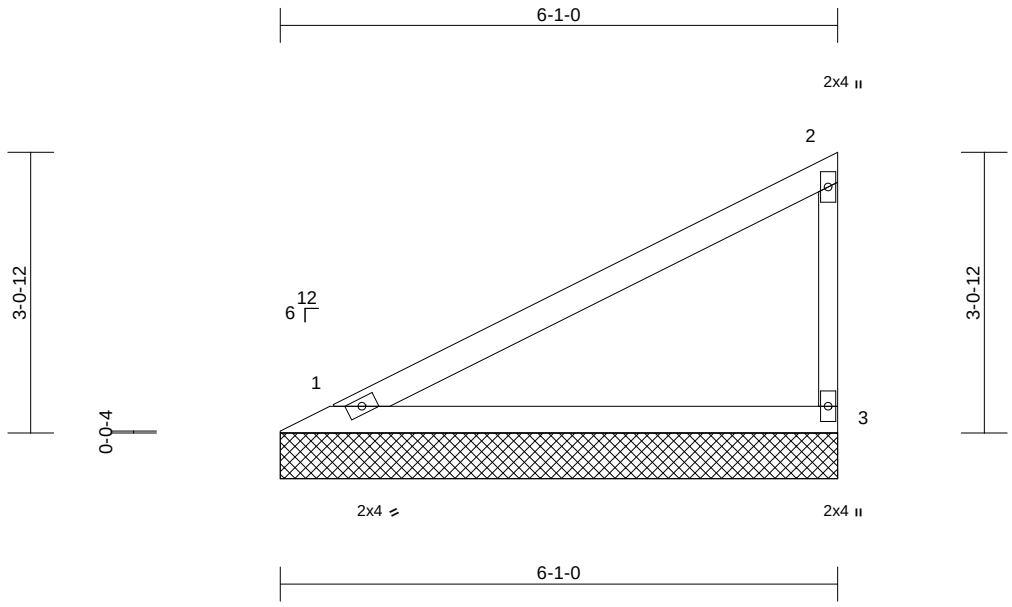

Scale = 1:25.1

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	0.57	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.31	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: 16 lb	FT = 10%

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

BRACING
TOP CHORD Structural wood sheathing directly applied or 6-1-8 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (lb/size) 1=243/6-1-0, 3=243/6-1-0
Max Horiz 1=112 (LC 5)
Max Uplift 1=-31 (LC 8), 3=-59 (LC 8)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-103/68, 2-3=-189/92
BOT CHORD 1-3=-38/29

NOTES
1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
2) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
3) Gable requires continuous bottom chord bearing.
4) Gable studs spaced at 4-0-0 oc.
5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
6) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 31 lb uplift at joint 1 and 59 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

August 24,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 33 OS
Lot 33 OS	V9	Valley	1	1	I47581531
					Job Reference (optional)

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.43 S Aug 16 2021 Print: 8.430 S Aug 16 2021 MiTek Industries, Inc. Mon Aug 23 11:23:44 Page: 1
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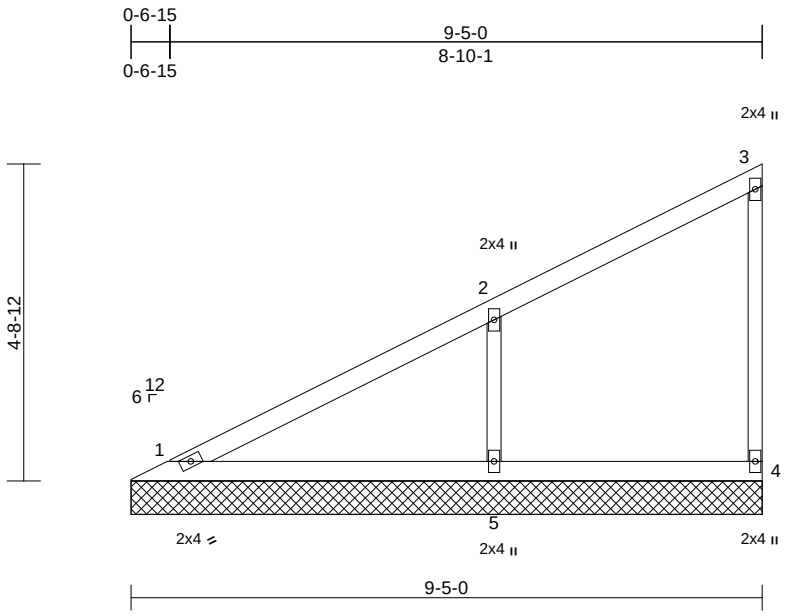

Scale = 1:34.4

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	0.30	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.16	Vert(TL)	n/a	-	n/a	999		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.08	Horiz(TL)	0.00	4	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
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) 1=174/9-5-0, 4=121/9-5-0, 5=490/9-5-0
Max Horiz 1=182 (LC 5)
Max Uplift 4=-28 (LC 5), 5=-147 (LC 8)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-144/87, 2-3=-124/48, 3-4=-96/41
BOT CHORD 1-5=-62/47, 4-5=-62/47
WEBS 2-5=-372/197

NOTES
1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
2) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
3) Gable requires continuous bottom chord bearing.
4) Gable studs spaced at 4-0-0 oc.
5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
6) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 28 lb uplift at joint 4 and 147 lb uplift at joint 5.
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

STATE OF MISSOURI
JUAN GARCIA
NUMBER E-2000162101
PROFESSIONAL ENGINEER

JUAN GARCIA
LICENSED
16952
KANSAS
PROFESSIONAL ENGINEER

August 24,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 33 OS
Lot 33 OS	V10	Valley	1	1	I47581532
					Job Reference (optional)

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.43 S Aug 16 2021 Print: 8.430 S Aug 16 2021 MiTek Industries, Inc. Mon Aug 23 11:23:45 Page: 1
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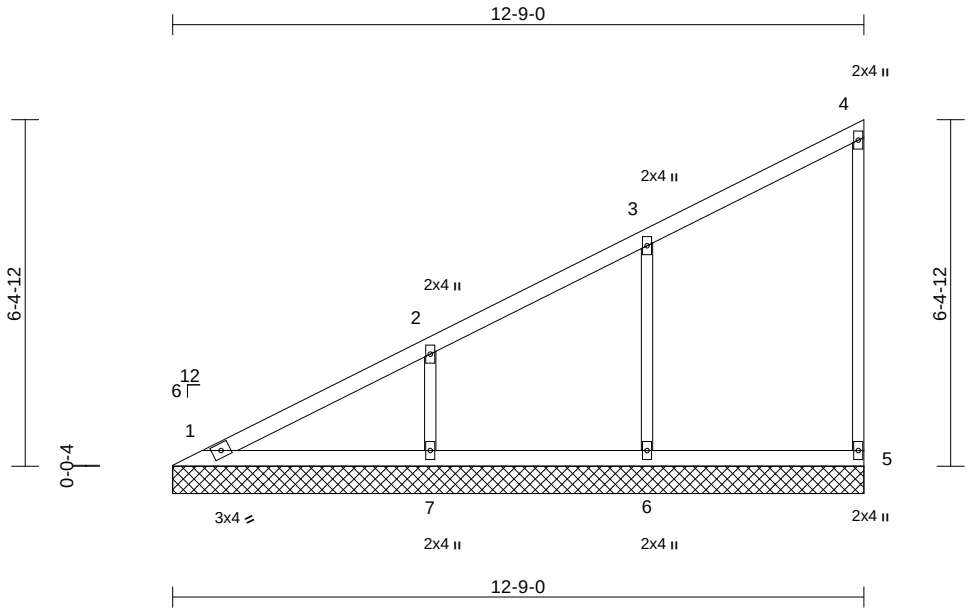


Scale = 1:42.5

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.32	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.14	Vert(TL)	n/a	-	n/a	999		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.13	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

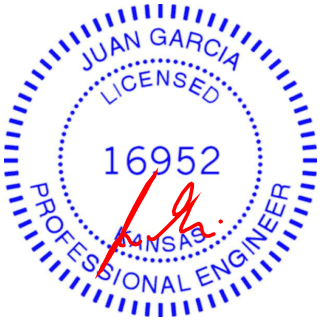
BRACING
TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (lb/size) 1=151/12-9-0, 5=144/12-9-0, 6=379/12-9-0, 7=411/12-9-0
Max Horiz 1=251 (LC 5)
Max Uplift 5=-37 (LC 5), 6=-113 (LC 8), 7=-124 (LC 8)
Max Grav 1=198 (LC 16), 5=185 (LC 15), 6=426 (LC 2), 7=417 (LC 2)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-208/82, 2-3=-161/71, 3-4=-137/65, 4-5=-111/46
BOT CHORD 1-7=-85/65, 6-7=-85/65, 5-6=-85/65
WEBS 3-6=-297/153, 2-7=-311/173

NOTES
1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
2) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
3) Gable requires continuous bottom chord bearing.
4) Gable studs spaced at 4-0-0 oc.
5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
6) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 37 lb uplift at joint 5, 113 lb uplift at joint 6 and 124 lb uplift at joint 7.
8) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard

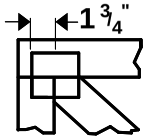


August 24,2021

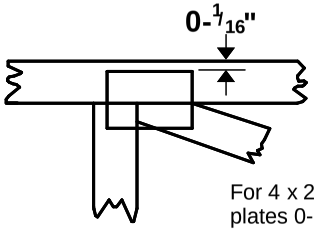
MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

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.

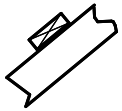
*** Plate location details available in MiTek 20/20 software or upon request.**

PLATE SIZE

4 x 4

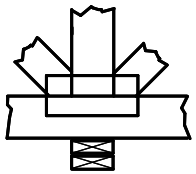
The first dimension is the plate width measured perpendicular to slots. Second dimension is the length parallel to slots.

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

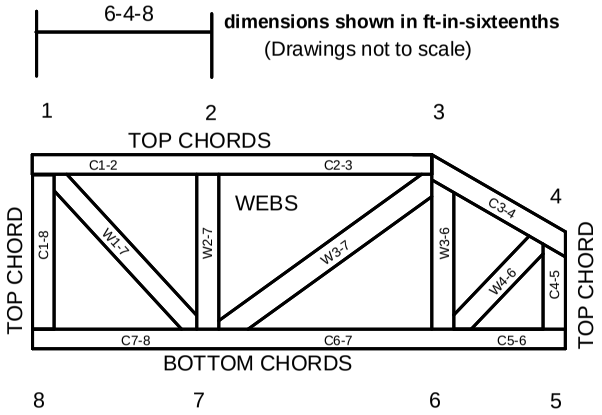


Indicates location where bearings (supports) occur. Icons vary but reaction section indicates joint number where bearings occur. Min size shown is for crushing only.

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.