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

Re: B220011
Lot 119 MN

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

Pages or sheets covered by this seal: I49718410 thru I49718456

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

Missouri COA: Engineering 001193

January 17,2022

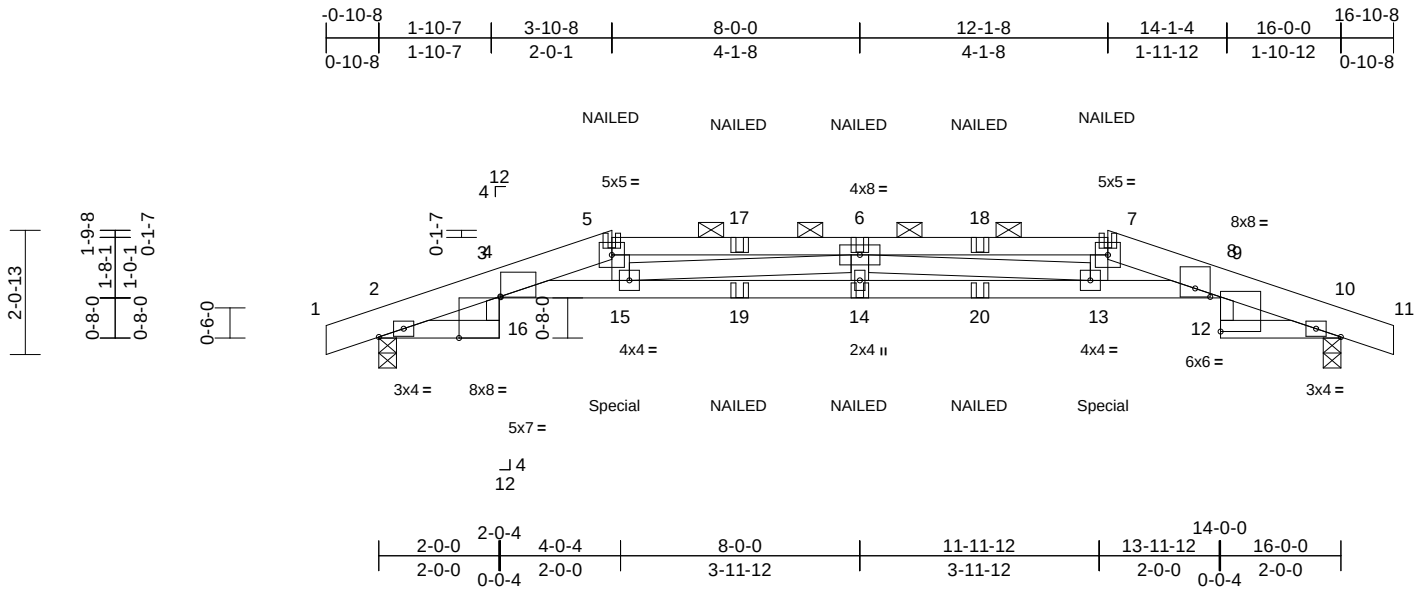
Garcia, Juan ,Engineer

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 or TRENCO. Any project specific information included is for MiTek's or TRENCO's customers file reference purpose only, and was not taken into account in the preparation of these designs. MiTek or TRENCO has not independently verified the applicability of the design parameters or the designs for any particular building. Before use, the building designer should verify applicability of design parameters and properly incorporate these designs into the overall building design per ANSI/TPI 1, Chapter 2.

Job	Truss	Truss Type	Qty	Ply	Lot 119 MN	
B220011	A1	Hip Girder	1	2	Job Reference (optional)	I49718410

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.43 S Oct 11 2021 Print: 8.430 S Oct 11 2021 MiTek Industries, Inc. Fri Jan 14 12:30:37 ID:pq50?Ycap6WpLXoTu4wfY2za1nE-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f



Scale = 1:38.3

Plate Offsets (X, Y): [4:0-0-1,0-0-2], [8:0-3-0,0-1-11], [9:Edge,0-1-1], [16:1-4-0,Edge]

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.89	Vert(LL)	-0.28	14	>679	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.91	Vert(CT)	-0.50	14	>376	240		
BCLL	0.0*	Rep Stress Incr	NO	WB	0.11	Horz(CT)	0.23	10	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S		Wind(LL)	0.24	14	>780	240	Weight: 113 lb	FT = 10%

LUMBER

TOP CHORD 2x6 SPF No.2 *Except* 5-7:2x4 SPF No.2
BOT CHORD 2x4 SPF No.2 *Except* 16-3,9-12:2x3 SPF No.2
WEBS 2x4 SPF No.2

BRACING

TOP CHORD Structural wood sheathing directly applied or 5-6-9 oc purlins, except 2-0-0 oc purlins (5-3-13 max.): 5-7.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (lb/size) 2=1139/0-3-8, 10=1139/0-3-8
Max Horiz 2=-28 (LC 13)
Max Uplift 2=-280 (LC 4), 10=-280 (LC 5)

FORCES (lb) - Maximum Compression/Maximum Tension

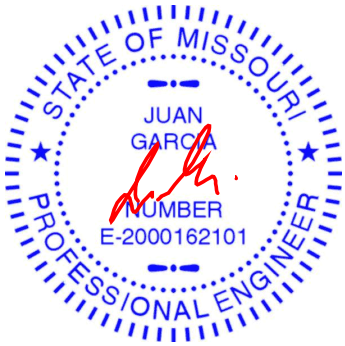
TOP CHORD 1-2=0/12, 2-3=-740/176, 3-4=-96/481, 4-5=-4647/1029, 5-6=-4727/1054, 6-7=-4727/1032, 7-8=-4647/1009, 8-9=-83/481, 9-10=-740/179, 10-11=0/12
BOT CHORD 2-16=-67/322, 3-16=-8/101, 4-15=-994/4606, 14-15=-1262/5892, 13-14=-1262/5892, 8-13=-951/4606, 9-12=-7/101, 10-12=-63/322
WEBS 5-15=-92/620, 6-15=-1269/300, 6-14=0/136, 6-13=-1269/298, 7-13=-93/620

NOTES

1) 2-ply truss to be connected together with 10d (0.131"x3") nails as follows:
Top chords connected as follows: 2x6 - 2 rows staggered at 0-9-0 oc, 2x4 - 1 row at 0-9-0 oc.
Bottom chords connected as follows: 2x4 - 1 row at 0-9-0 oc, 2x3 - 1 row at 0-9-0 oc.
Web connected as follows: 2x4 - 1 row at 0-9-0 oc.
2) All loads are considered equally applied to all plies, except if noted as front (F) or back (B) face in the LOAD CASE(S) section. Ply to ply connections have been provided to distribute only loads noted as (F) or (B), unless otherwise indicated.
3) Unbalanced roof live loads have been considered for this design.
4) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
5) Provide adequate drainage to prevent water ponding.
6) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
7) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 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 280 lb uplift at joint 2 and 280 lb uplift at joint 10.
9) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
10) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
11) "NAILED" indicates 3-10d (0.148"x3") or 3-12d (0.148"x3.25") toe-nails per NDS guidlines.
12) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 195 lb down and 54 lb up at 3-10-8, and 195 lb down and 54 lb up at 12-0-0 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.

LOAD CASE(S) Standard

1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (lb/ft)
Vert: 1-5=-70, 5-7=-70, 7-11=-70, 2-16=-20, 4-8=-20, 10-12=-20
Concentrated Loads (lb)
Vert: 5=-65 (F), 7=-65 (F), 15=-195 (F), 6=-65 (F), 14=-4 (F), 13=-195 (F), 17=-65 (F), 18=-65 (F), 19=-4 (F), 20=-4 (F)



January 17,2022

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 119 MN	I49718411
B220011	A2	Hip	1	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS - 66871,

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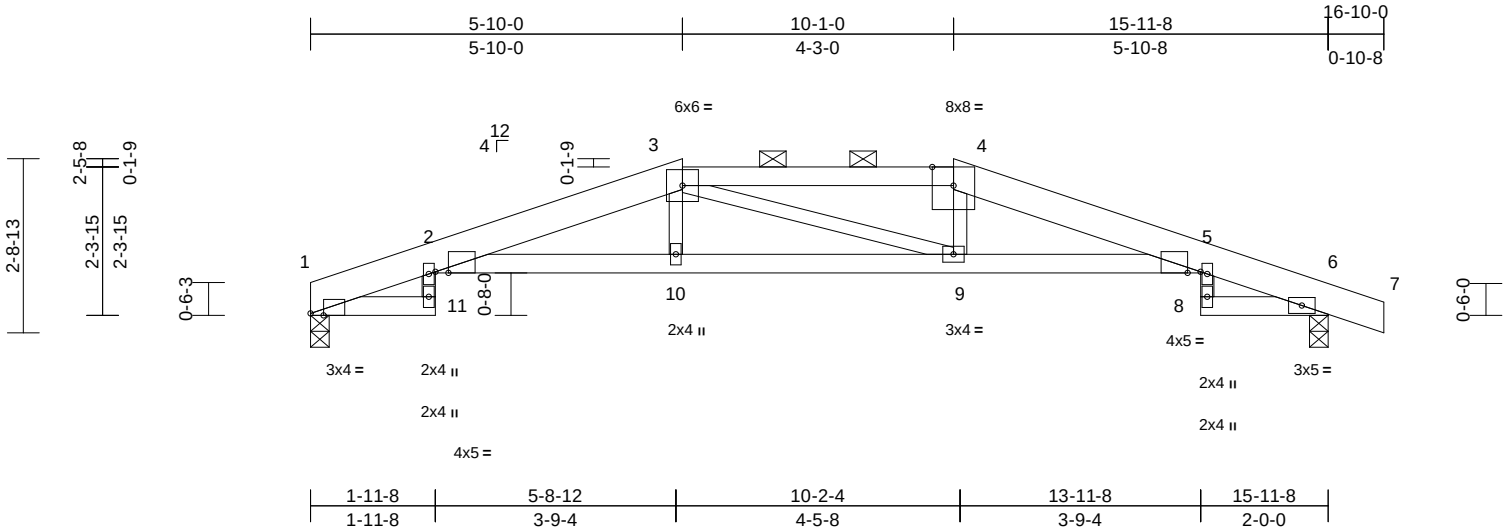


Scale = 1:36.1

Plate Offsets (X, Y): [1:0-2-7,Edge], [2:0-2-7,Edge], [5:0-2-7,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	0.87	Vert(LL)	-0.20	9-10	>954	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.75	Vert(CT)	-0.36	9-10	>522	240		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.10	Horz(CT)	0.25	6	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S		Wind(LL)	0.15	2-10	>999	240	Weight: 53 lb	FT = 10%

LUMBER

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

BOT CHORD 2x4 SPF No.2 *Except* 11-2,5-8:2x3 SPF No.2

WEBS 2x3 SPF No.2

BRACING

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

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

REACTIONS (lb/size) 1=703/0-3-8, 6=779/0-3-8
Max Horiz 1=-42 (LC 9)
Max Uplift 1=-116 (LC 4), 6=-161 (LC 5)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=-303/75, 2-3=-1987/304, 3-4=-1913/301, 4-5=-1986/280, 5-6=-300/70, 6-7=0/12

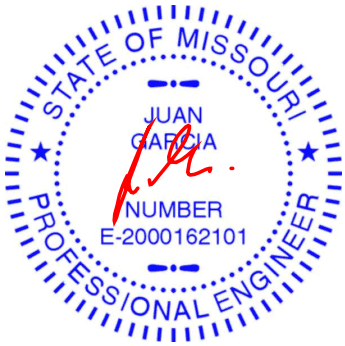
BOT CHORD 1-11=-1/12, 2-11=0/62, 2-10=-261/1922, 9-10=-264/1914, 5-9=-208/1920, 5-8=0/65, 6-8=0/13

WEBS 3-10=0/177, 3-9=-185/186, 4-9=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) Provide adequate drainage to prevent water ponding.
4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
5) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 116 lb uplift at joint 1 and 161 lb uplift at joint 6.
7) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
8) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

LOAD CASE(S) Standard



January 17,2022

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 119 MN	I49718412
B220011	A3	Roof Special	1	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS - 66871,

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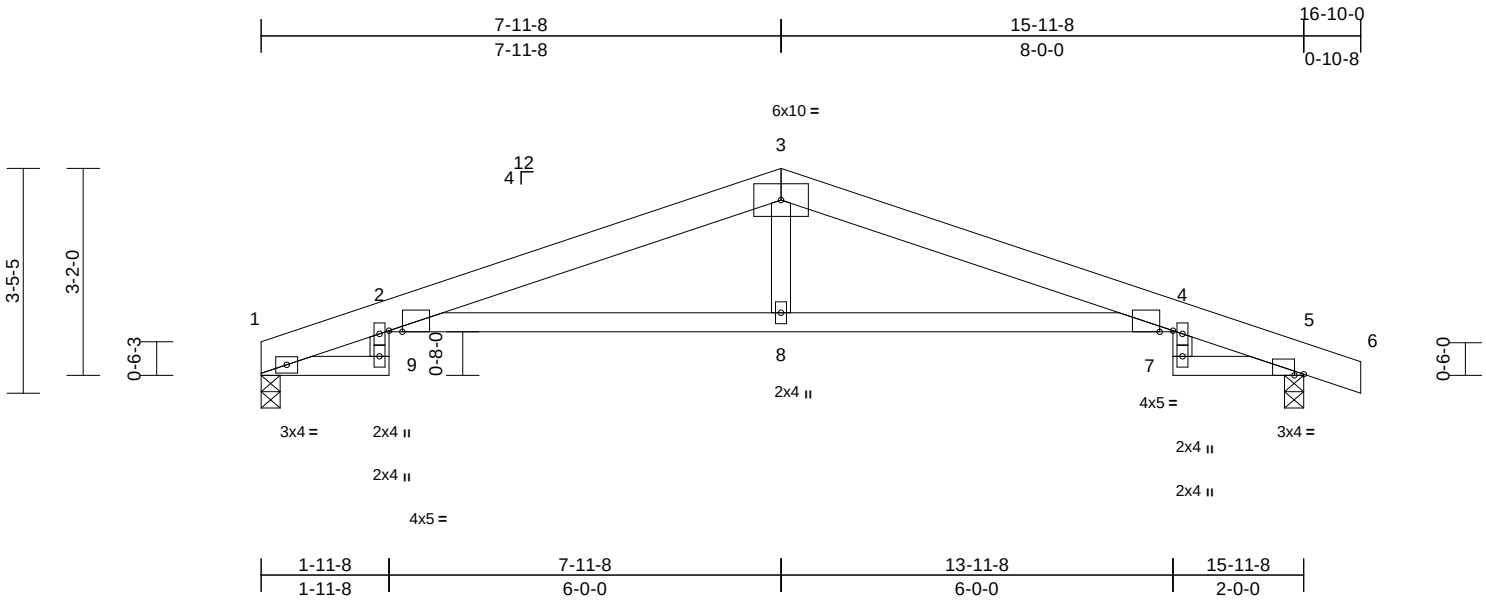


Scale = 1:35.3

Plate Offsets (X, Y): [2:0-2-7,Edge], [4:0-2-7,Edge], [5:0-1-11,Edge]

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.93	Vert(LL)	-0.23	4-8	>813	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.77	Vert(CT)	-0.44	4-8	>431	240		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.12	Horz(CT)	0.29	5	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S		Wind(LL)	0.17	2-8	>999	240	Weight: 60 lb	FT = 10%

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

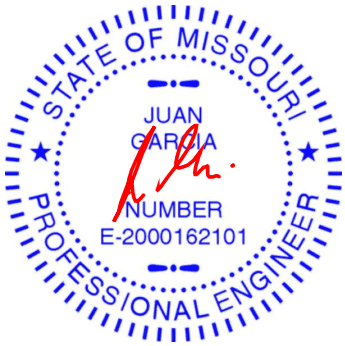
BRACING
TOP CHORD Structural wood sheathing directly applied or 2-2-0 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (lb/size) 1=703/0-3-8, 5=779/0-3-8
Max Horiz 1=-55 (LC 9)
Max Uplift 1=-103 (LC 4), 5=-148 (LC 5)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-310/77, 2-3=-1634/179, 3-4=-1634/196, 4-5=-306/63, 5-6=0/12
BOT CHORD 1-9=-1/18, 2-9=0/63, 2-8=-128/1550, 4-8=-128/1550, 4-7=0/65, 5-7=0/18
WEBS 3-8=0/302

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 103 lb uplift at joint 1 and 148 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



January 17,2022

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 119 MN	I49718413
B220011	A4	Common	1	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS - 66871,

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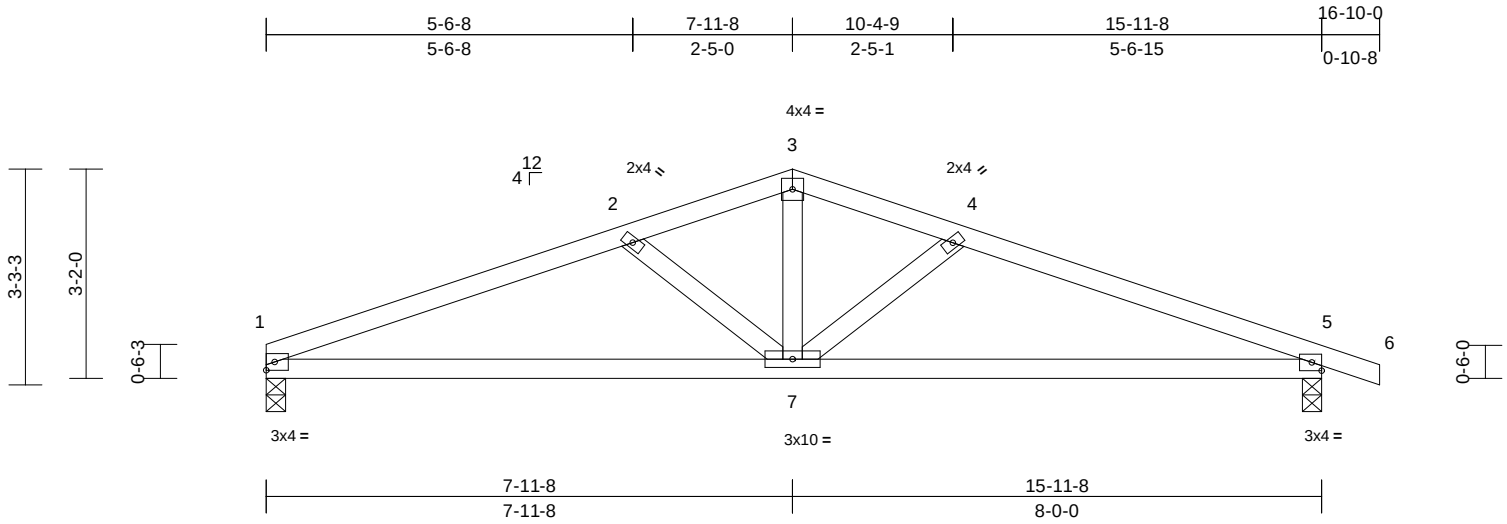


Scale = 1:34.8

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.91	Vert(LL)	-0.09	1-7	>999	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.71	Vert(CT)	-0.21	1-7	>911	240		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.25	Horz(CT)	0.03	5	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S		Wind(LL)	0.04	1-7	>999	240	Weight: 63 lb	FT = 10%

LUMBER
TOP CHORD 2x4 SP No.3
BOT CHORD 2x4 SP No.2
WEBS 2x4 SP No.3

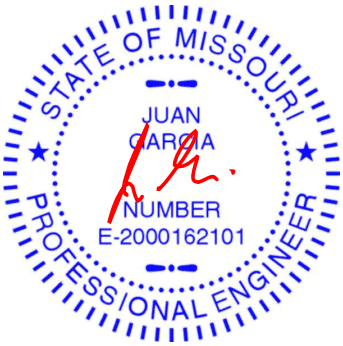
BRACING
TOP CHORD Structural wood sheathing directly applied or 2-2-0 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (lb/size) 1=703/0-3-8, 5=779/0-3-8
Max Horiz 1=-54 (LC 13)
Max Uplift 1=-102 (LC 4), 5=-148 (LC 5)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-1402/219, 2-3=-1105/133, 3-4=-1104/134, 4-5=-1413/212, 5-6=0/6
BOT CHORD 1-7=-191/1269, 5-7=-141/1265
WEBS 3-7=-65/612, 2-7=-356/181, 4-7=-349/176

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 102 lb uplift at joint 1 and 148 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



January 17,2022

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 119 MN	
B220011	B1	Monopitch Supported Gable	1	1	Job Reference (optional)	I49718414

Wheeler Lumber, Waverly, KS - 66871,

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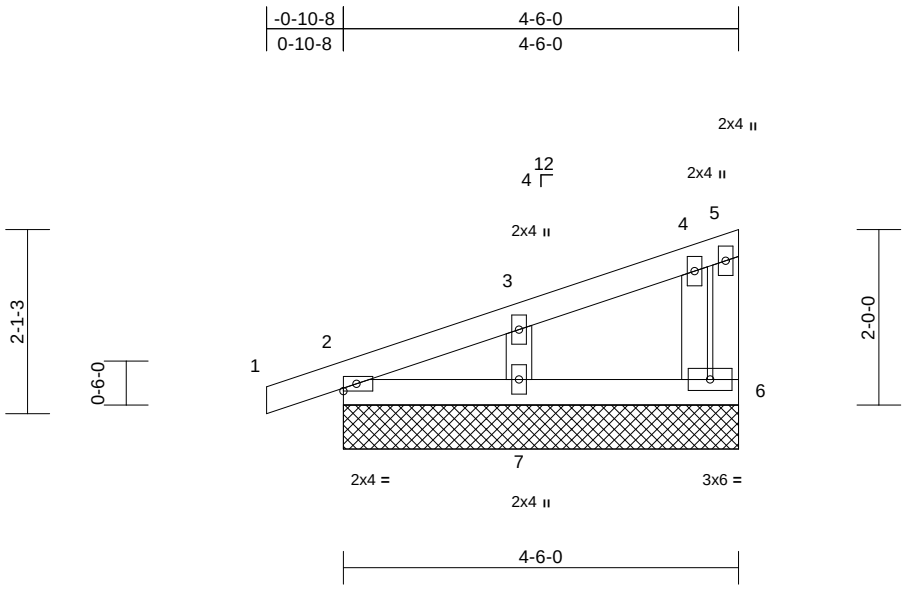


Scale = 1:26.2

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.05	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.04	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: 15 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 4-6-0 oc purlins, except end verticals.
BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (lb/size) 2=154/4-6-0, 6=101/4-6-0, 7=195/4-6-0
Max Horiz 2=76 (LC 7)
Max Uplift 2=-50 (LC 4), 6=-20 (LC 4), 7=-45 (LC 8)

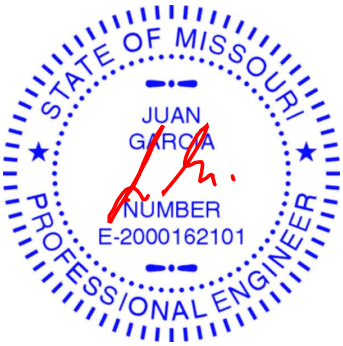
FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD	1-2=0/6, 2-3=-69/11, 3-4=-54/13, 4-5=-32/25, 5-6=-22/26
BOT CHORD	2-7=-22/15, 6-7=-22/15
WEBS	3-7=-143/76, 4-6=-111/54

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 20 lb uplift at joint 6, 50 lb uplift at joint 2 and 45 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



January 17,2022

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 119 MN	
B220011	B2	Monopitch	7	1	Job Reference (optional)	I49718415

Wheeler Lumber, Waverly, KS - 66871,

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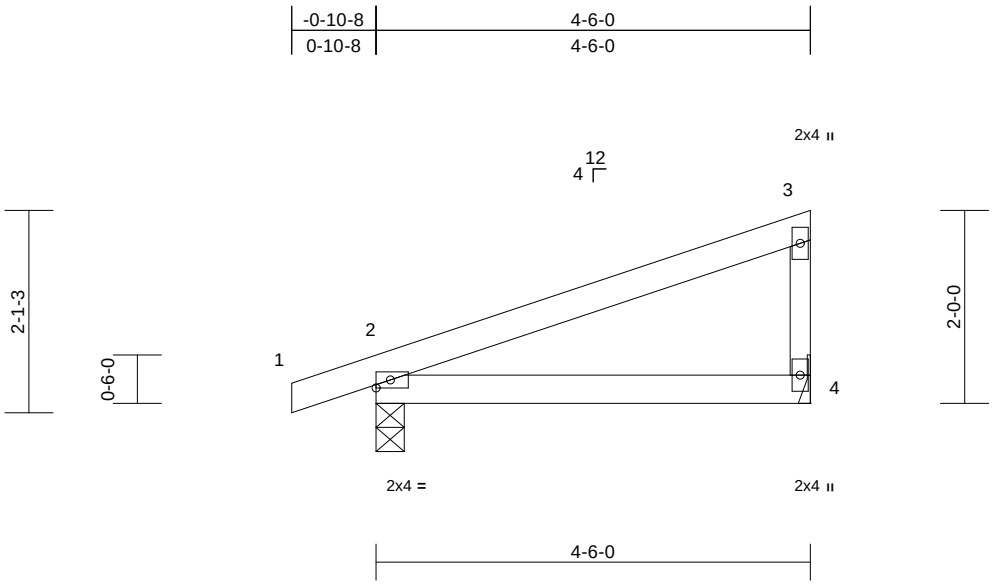

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Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.30	Vert(LL)	-0.02	2-4	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.18	Vert(CT)	-0.04	2-4	>999	240		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.00	Horz(CT)	0.00	4	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-P							Weight: 13 lb	FT = 10%

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

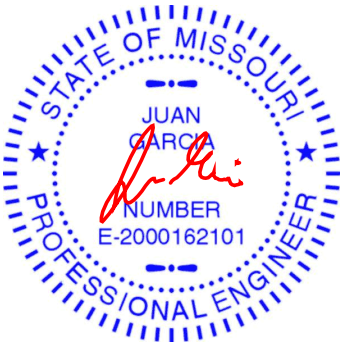
BRACING
TOP CHORD Structural wood sheathing directly applied or 4-6-0 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (lb/size) 2=271/0-3-8, 4=183/ Mechanical
Max Horiz 2=76 (LC 7)
Max Uplift 2=-78 (LC 4), 4=-40 (LC 8)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/6, 2-3=-76/40, 3-4=-140/65
BOT CHORD 2-4=-24/18

NOTES
1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
3) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
4) Refer to girder(s) for truss to truss connections.
5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 40 lb uplift at joint 4 and 78 lb uplift at joint 2.
6) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard



January 17,2022

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 119 MN	I49718416
B220011	B3	Monopitch	7	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.43 S Oct 11 2021 Print: 8.430 S Oct 11 2021 MiTek Industries, Inc. Fri Jan 14 12:30:40 Page: 1
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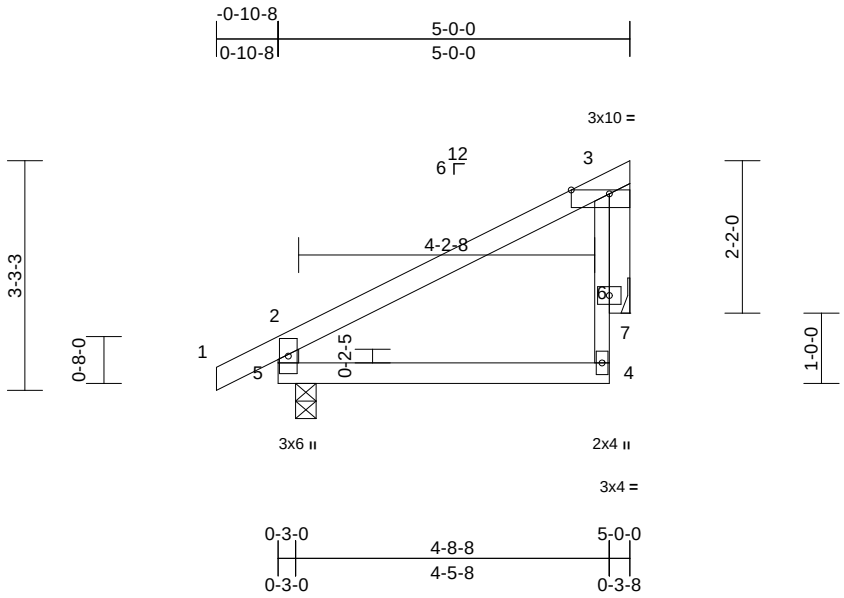


Scale = 1:32.7

Plate Offsets (X, Y): [3:0-6-8,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	0.19	Vert(LL)	-0.01	4-5	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.13	Vert(CT)	-0.02	4-5	>999	240		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.00	Horz(CT)	0.00	7	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-R		Wind(LL)	0.01	4-5	>999	240	Weight: 17 lb	FT = 10%

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

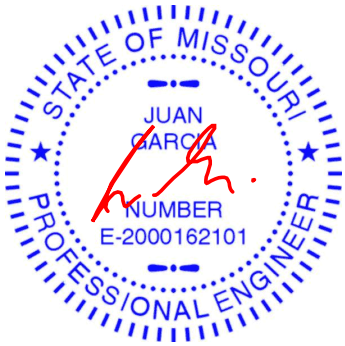
BRACING
TOP CHORD Structural wood sheathing directly applied or 5-0-0 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (lb/size) 5=294/0-3-8, 7=179/ Mechanical
Max Horiz 5=89 (LC 5)
Max Uplift 5=-38 (LC 8), 7=-61 (LC 8)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/32, 2-3=-158/0, 4-6=0/92, 3-6=-128/107, 2-5=-261/78
BOT CHORD 4-5=-26/81
WEBS 3-7=-52/0

NOTES
1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
3) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
4) Refer to girder(s) for truss to truss connections.
5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 38 lb uplift at joint 5 and 61 lb uplift at joint 7.
6) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard



January 17,2022

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 119 MN	I49718417
B220011	B4	Monopitch	1	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.43 S Oct 11 2021 Print: 8.430 S Oct 11 2021 MiTek Industries, Inc. Fri Jan 14 12:30:40
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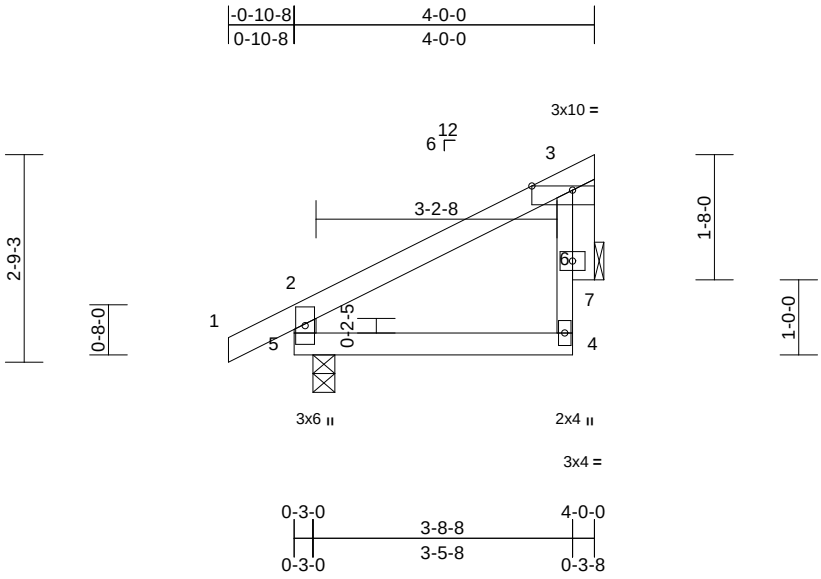


Scale = 1:30.7

Plate Offsets (X, Y): [3:0-6-8,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	0.11	Vert(LL)	0.00	4-5	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.07	Vert(CT)	-0.01	4-5	>999	240		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.00	Horz(CT)	0.00	7	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-R		Wind(LL)	0.00	4-5	>999	240	Weight: 14 lb	FT = 10%

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

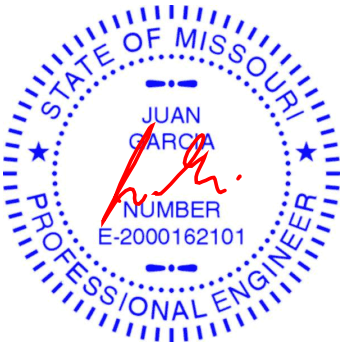
BRACING
TOP CHORD Structural wood sheathing directly applied or 4-0-0 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (lb/size) 5=250/0-3-8, 7=132/ Mechanical
Max Horiz 5=76 (LC 5)
Max Uplift 5=-35 (LC 8), 7=-46 (LC 8)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/32, 2-3=-122/2, 4-6=0/70, 3-6=-87/73, 2-5=-223/67
BOT CHORD 4-5=-24/60
WEBS 3-7=-34/0

NOTES
1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
3) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
4) Refer to girder(s) for truss to truss connections.
5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 35 lb uplift at joint 5 and 46 lb uplift at joint 7.
6) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard



January 17,2022

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 119 MN	I49718418
B220011	B5	Roof Special Girder	1	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.43 S Oct 11 2021 Print: 8.430 S Oct 11 2021 MiTek Industries, Inc. Fri Jan 14 12:30:41
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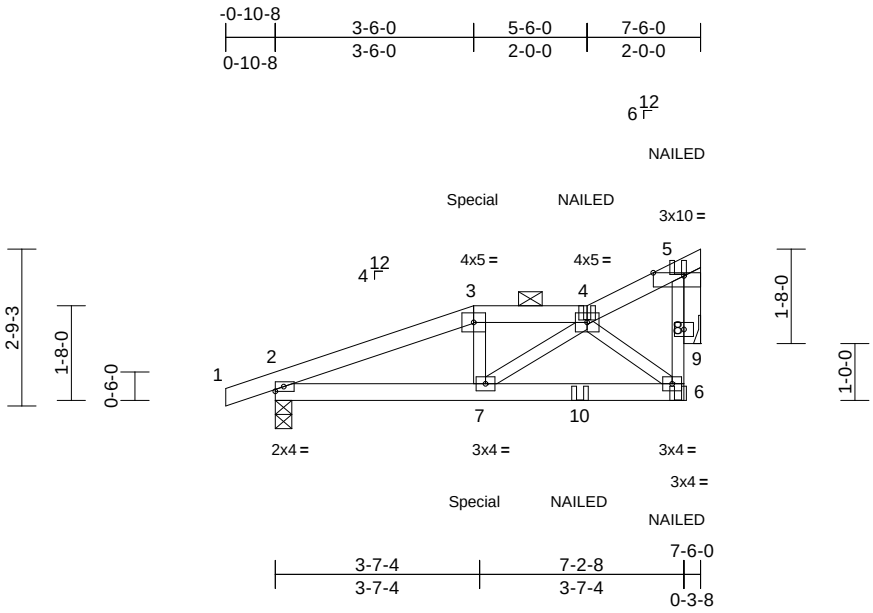


Scale = 1:40.6

Plate Offsets (X, Y): [5:0-6-8,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	0.26	Vert(LL)	-0.01	6-7	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.17	Vert(CT)	-0.02	6-7	>999	240		
BCLL	0.0*	Rep Stress Incr	NO	WB	0.07	Horz(CT)	0.01	9	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-P		Wind(LL)	0.01	7	>999	240	Weight: 26 lb	FT = 10%

LUMBER

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

BRACING

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

REACTIONS (lb/size) 2=409/0-3-8, 9=339/ Mechanical
Max Horiz 2=74 (LC 8)
Max Uplift 2=-104 (LC 4), 9=-96 (LC 8)

FORCES (lb) - Maximum Compression/Maximum Tension

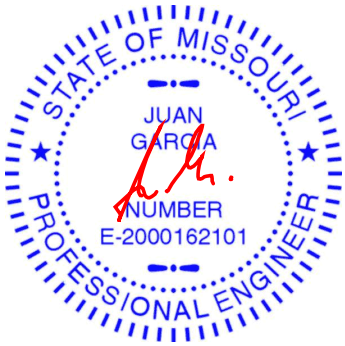
TOP CHORD	1-2=0/6, 2-3=-519/71, 3-4=-435/80, 4-5=-76/14, 6-8=-47/282, 5-8=-47/282
BOT CHORD	2-7=-111/435, 6-7=-88/326
WEBS	3-7=-1/78, 4-7=-22/155, 4-6=-368/102, 5-9=-351/99

NOTES

1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
2) Provide adequate drainage to prevent water ponding.
3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
4) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
5) Refer to girder(s) for truss to truss connections.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 104 lb uplift at joint 2 and 96 lb uplift at joint 9.
7) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
8) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
9) "NAILED" indicates 3-10d (0.148"x3") or 3-12d (0.148"x3.25") toe-nails per NDS guidlines.
10) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 137 lb down and 108 lb up at 3-6-0 on top chord, and 15 lb down and 5 lb up at 3-6-0 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
11) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

LOAD CASE(S) Standard

1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (lb/ft)
Vert: 1-2=-70, 2-3=-72, 3-4=-70, 4-5=-72, 2-6=-20
Concentrated Loads (lb)
Vert: 5=-30 (B), 6=-12 (B), 7=5 (B), 10=-5 (B)



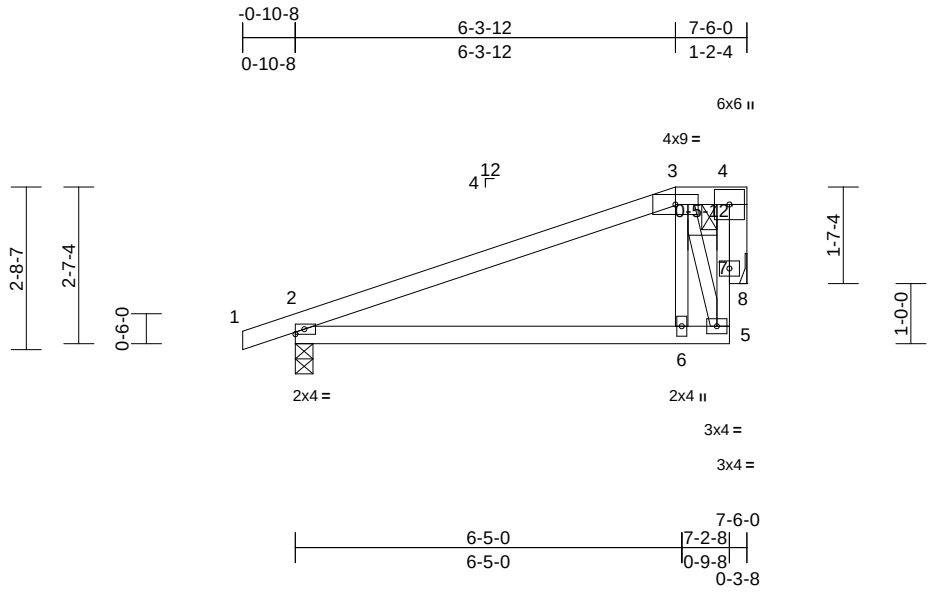
January 17,2022

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 119 MN	I49718419
B220011	B6	Half Hip	1	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.43 S Oct 11 2021 Print: 8.430 S Oct 11 2021 MiTek Industries, Inc. Fri Jan 14 12:30:41 ID:pq50?Ycap6WpLXoTu4wfY2za1nE-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f



Scale = 1:38.3

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	0.75	Vert(LL)	-0.05	2-6	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.32	Vert(CT)	-0.10	2-6	>878	240		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.13	Horz(CT)	0.01	8	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-P		Wind(LL)	0.00	2-6	>999	240	Weight: 25 lb	FT = 10%

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

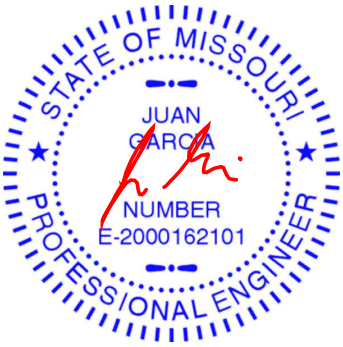
BRACING
TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals, and 2-0-0 oc purlins (6-0-0 max.): 3-4.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (lb/size) 2=409/0-3-8, 8=297/ Mechanical
Max Horiz 2=81 (LC 4)
Max Uplift 2=-91 (LC 4), 8=-65 (LC 4)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/6, 2-3=-237/0, 3-4=-39/12, 5-7=-54/282, 4-7=-54/282
BOT CHORD 2-6=-4/162, 5-6=0/171
WEBS 3-6=0/400, 3-5=-440/0, 4-8=-306/66

NOTES
1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
2) Provide adequate drainage to prevent water ponding.
3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
4) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
5) Refer to girder(s) for truss to truss connections.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 91 lb uplift at joint 2 and 65 lb uplift at joint 8.
7) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
8) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

LOAD CASE(S) Standard



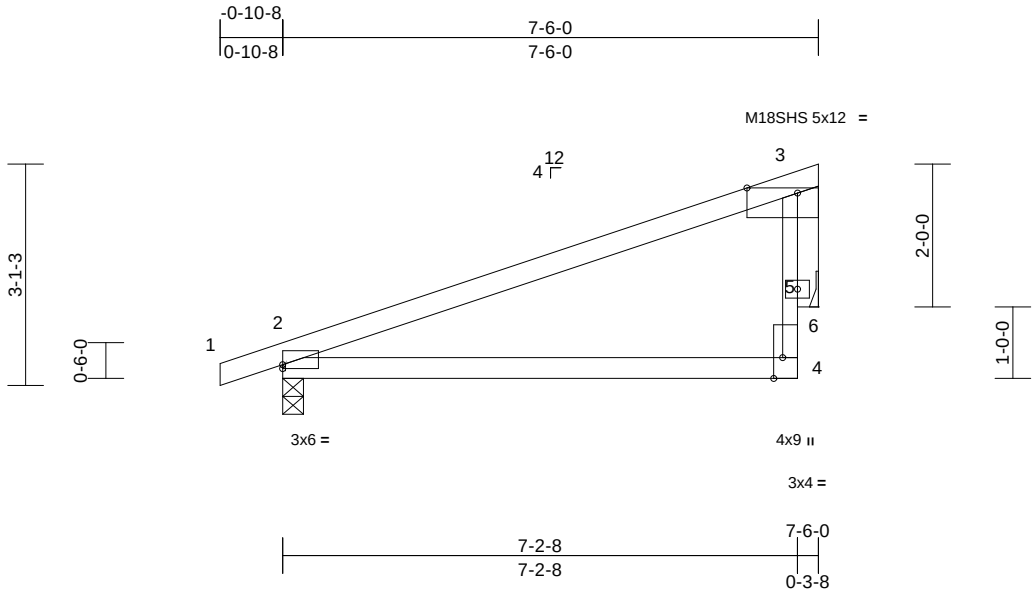
January 17,2022

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 119 MN	I49718420
B220011	B7	Monopitch	2	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.43 S Oct 11 2021 Print: 8.430 S Oct 11 2021 MiTek Industries, Inc. Fri Jan 14 12:30:41 ID:pq50?Ycap6WpLXoTu4wfY2za1nE-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f



Scale = 1:32.3

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

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.57	Vert(LL)	-0.06	2-4	>999	360	M18SHS	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.36	Vert(CT)	-0.14	2-4	>610	240	MT20	197/144
BCLL	0.0*	Rep Stress Incr	YES	WB	0.00	Horz(CT)	-0.01	6	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-R		Wind(LL)	0.04	2-4	>999	240	Weight: 22 lb	FT = 10%

LUMBER

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

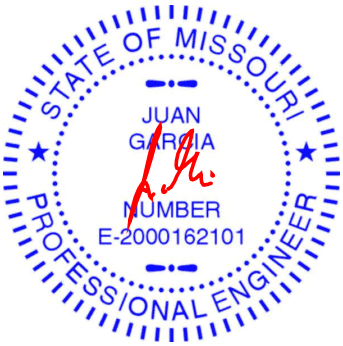
REACTIONS (lb/size) 2=409/0-3-8, 6=298/ Mechanical
Max Horiz 2=91 (LC 4)
Max Uplift 2=-87 (LC 4), 6=-69 (LC 8)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/6, 2-3=-304/22, 4-5=0/150, 3-5=-338/220
BOT CHORD 2-4=-41/213
WEBS 3-6=-114/112

NOTES

1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
2) All plates are MT20 plates unless otherwise indicated.
3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
4) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
5) Refer to girder(s) for truss to truss connections.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 87 lb uplift at joint 2 and 69 lb uplift at joint 6.
7) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard



January 17,2022

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 119 MN	I49718421
B220011	B8	Monopitch	8	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS - 66871,

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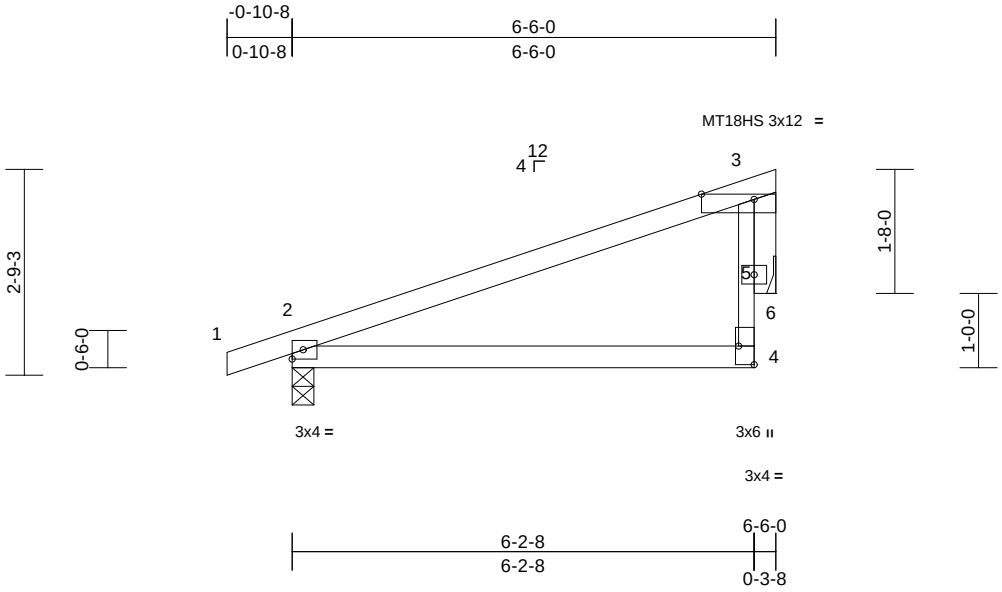


Scale = 1:31

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

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

LUMBER

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

BRACING

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

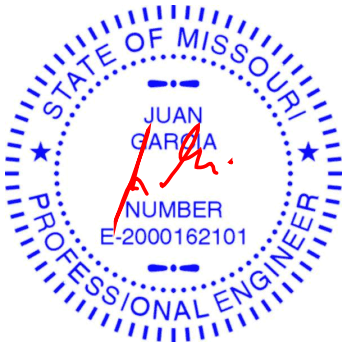
REACTIONS (lb/size) 2=360/0-3-8, 6=248/ Mechanical
Max Horiz 2=78 (LC 5)
Max Uplift 2=-85 (LC 4), 6=-61 (LC 8)

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

NOTES

1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
2) All plates are MT20 plates unless otherwise indicated.
3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
4) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
5) Refer to girder(s) for truss to truss connections.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 85 lb uplift at joint 2 and 61 lb uplift at joint 6.
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



January 17,2022

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 119 MN	I49718422
B220011	B9	Roof Special Girder	1	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.43 S Oct 11 2021 Print: 8.430 S Oct 11 2021 MiTek Industries, Inc. Fri Jan 14 12:30:41
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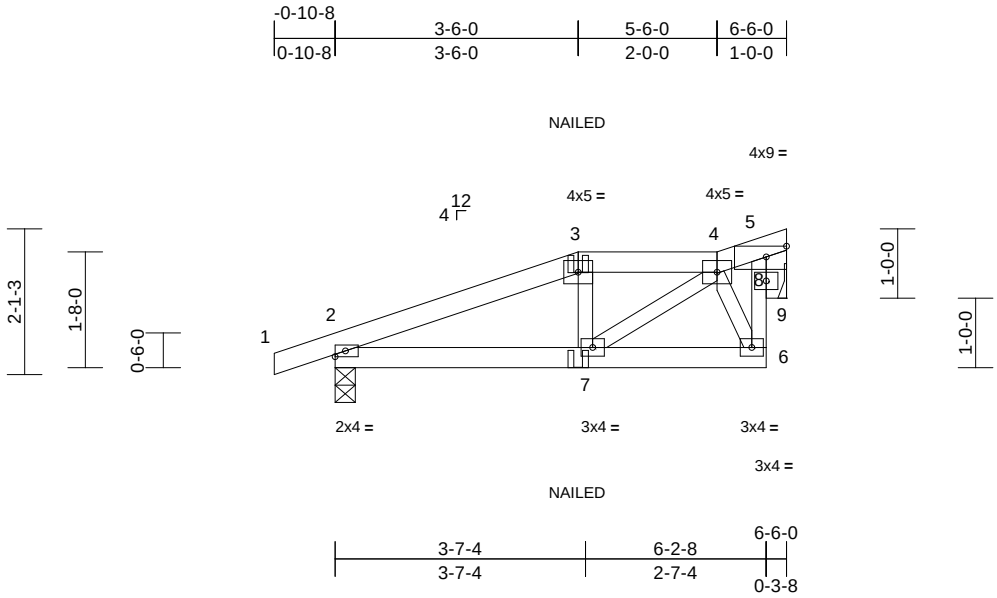

Scale = 1:33.2

Plate Offsets (X, Y): [5:Edge,0-1-14]

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.22	Vert(LL)	-0.01	2-7	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.14	Vert(CT)	-0.01	2-7	>999	240		
BCLL	0.0*	Rep Stress Incr	NO	WB	0.07	Horz(CT)	0.00	9	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-P		Wind(LL)	0.00	7	>999	240	Weight: 21 lb	FT = 10%

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

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

REACTIONS (lb/size) 2=362/0-3-8, 9=248/ Mechanical
Max Horiz 2=60 (LC 5)
Max Uplift 2=-96 (LC 4), 9=-58 (LC 8)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/6, 2-3=-389/53, 3-4=-310/65, 4-5=-57/14, 6-8=-57/282, 5-8=-57/282
BOT CHORD 2-7=-62/314, 6-7=-32/151
WEBS 3-7=-51/63, 4-7=-35/196, 4-6=-287/72, 5-9=-268/64

NOTES
1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
2) Provide adequate drainage to prevent water ponding.
3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
4) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
5) Refer to girder(s) for truss to truss connections.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 96 lb uplift at joint 2 and 58 lb uplift at joint 9.
7) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
8) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
9) "NAILED" indicates 2-12d (0.148"x3.25") toe-nails per NDS guidlines.
10) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

LOAD CASE(S) Standard
1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (lb/ft)
Vert: 1-2=-70, 2-3=-72, 3-4=-70, 4-5=-71, 2-6=-20
Concentrated Loads (lb)
Vert: 7=4 (F)

January 17,2022

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 119 MN	I49718423
B220011	B10	Monopitch	1	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.43 S Oct 11 2021 Print: 8.430 S Oct 11 2021 MiTek Industries, Inc. Fri Jan 14 12:30:42 Page: 1
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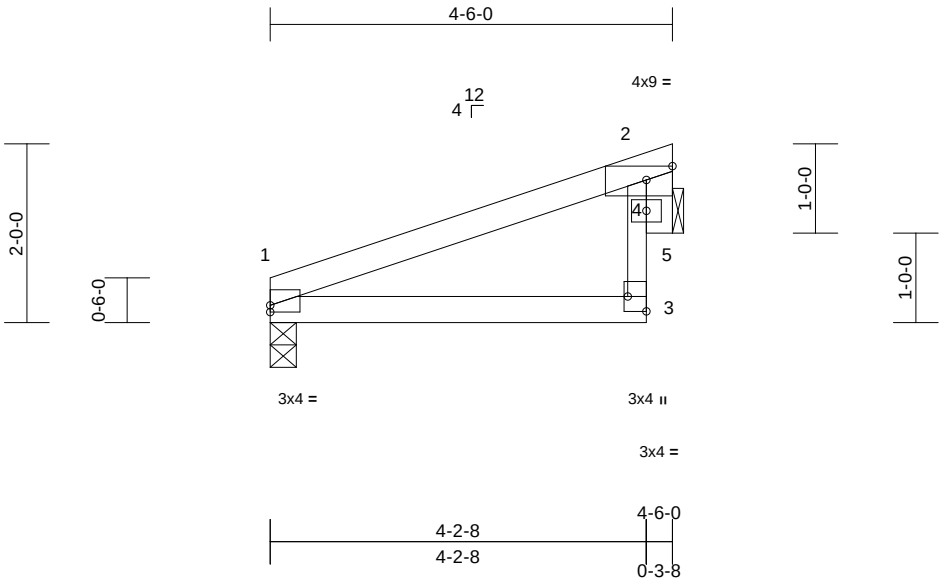

Scale = 1:25.8

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

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

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

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

REACTIONS (lb/size) 1=195/0-3-8, 5=167/ Mechanical
Max Horiz 1=58 (LC 5)
Max Uplift 1=-24 (LC 4), 5=-39 (LC 8)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-185/17, 3-4=0/87, 2-4=-168/92
BOT CHORD 1-3=-24/128
WEBS 2-5=-24/17

NOTES
1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
3) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
4) Refer to girder(s) for truss to truss connections.
5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 24 lb uplift at joint 1 and 39 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

January 17,2022

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 119 MN	
B220011	B11	Monopitch	1	1	Job Reference (optional)	I49718424

Wheeler Lumber, Waverly, KS - 66871,

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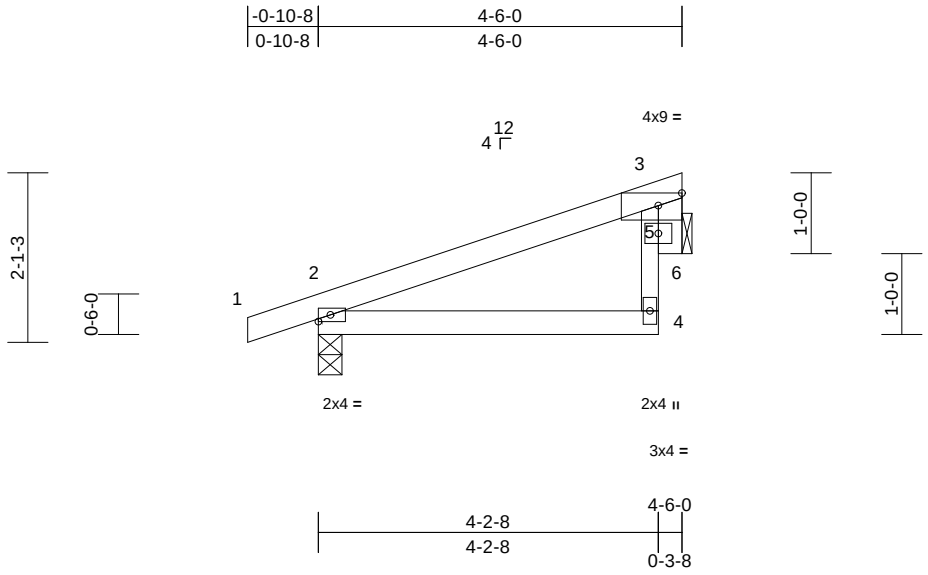

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Plate Offsets (X, Y): [3:Edge,0-1-14]

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.21	Vert(LL)	-0.01	2-4	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.11	Vert(CT)	-0.01	2-4	>999	240		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.00	Horz(CT)	0.00	6	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-R		Wind(LL)	0.00	2-4	>999	240	Weight: 13 lb	FT = 10%

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

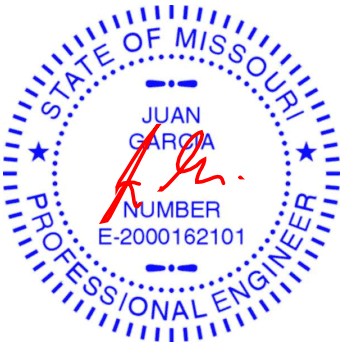
BRACING
TOP CHORD Structural wood sheathing directly applied or 4-6-0 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (lb/size) 2=275/0-3-8, 6=159/ Mechanical
Max Horiz 2=60 (LC 5)
Max Uplift 2=-72 (LC 4), 6=-36 (LC 8)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/6, 2-3=-176/14, 4-5=0/85, 3-5=-159/89
BOT CHORD 2-4=-22/117
WEBS 3-6=-23/14

NOTES
1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
3) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
4) Refer to girder(s) for truss to truss connections.
5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 72 lb uplift at joint 2 and 36 lb uplift at joint 6.
6) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard



January 17,2022

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 119 MN	I49718425
B220011	B12	Monopitch Supported Gable	1	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS - 66871,

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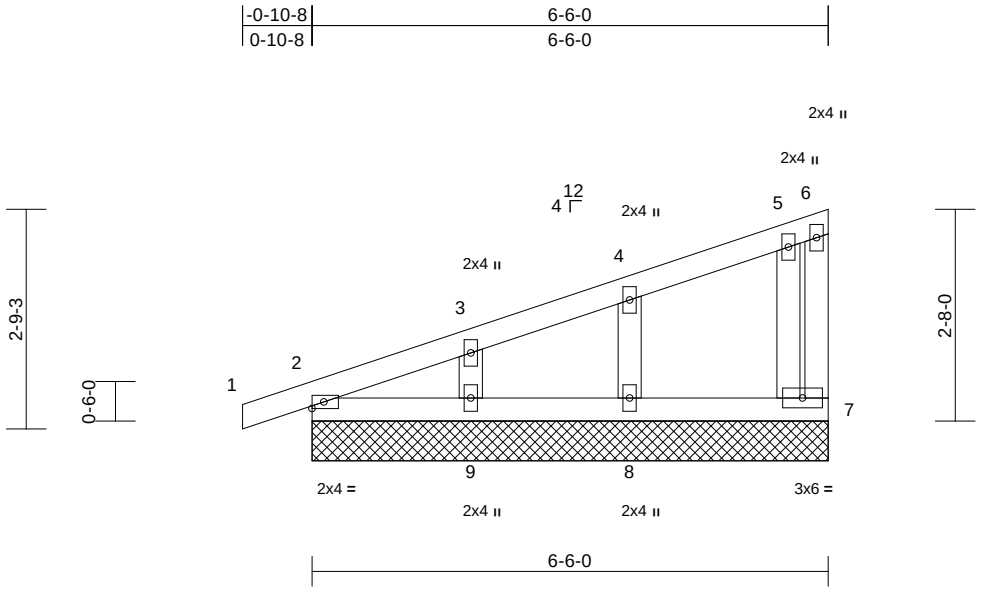


Scale = 1:29

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	7	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-P							Weight: 23 lb	FT = 10%

LUMBER

TOP CHORD	2x4 SPF No.2
BOT CHORD	2x4 SPF No.2
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) 2=154/6-6-0, 7=102/6-6-0, 8=196/6-6-0, 9=177/6-6-0
Max Horiz 2=105 (LC 5)
Max Uplift 2=-39 (LC 4), 7=-23 (LC 5), 8=-43 (LC 4), 9=-49 (LC 8)

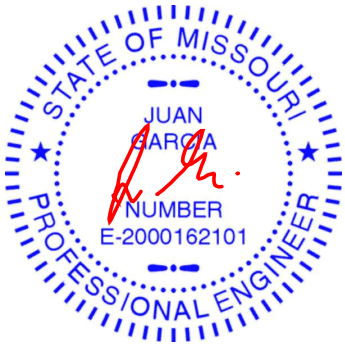
FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD	1-2=0/6, 2-3=-82/16, 3-4=-65/12, 4-5=-59/18, 5-6=-37/31, 6-7=-22/21
BOT CHORD	2-9=-32/19, 8-9=-32/19, 7-8=-32/19
WEBS	3-9=-134/75, 4-8=-150/71, 5-7=-105/52

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 23 lb uplift at joint 7, 39 lb uplift at joint 2, 49 lb uplift at joint 9 and 43 lb uplift at joint 8.
8) Beveled plate or shim required to provide full bearing surface with truss chord at joint(s) 2.
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



January 17,2022

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 119 MN
B220011	C1	Common Supported Gable	1	1	I49718426
					Job Reference (optional)

Wheeler Lumber, Waverly, KS - 66871,

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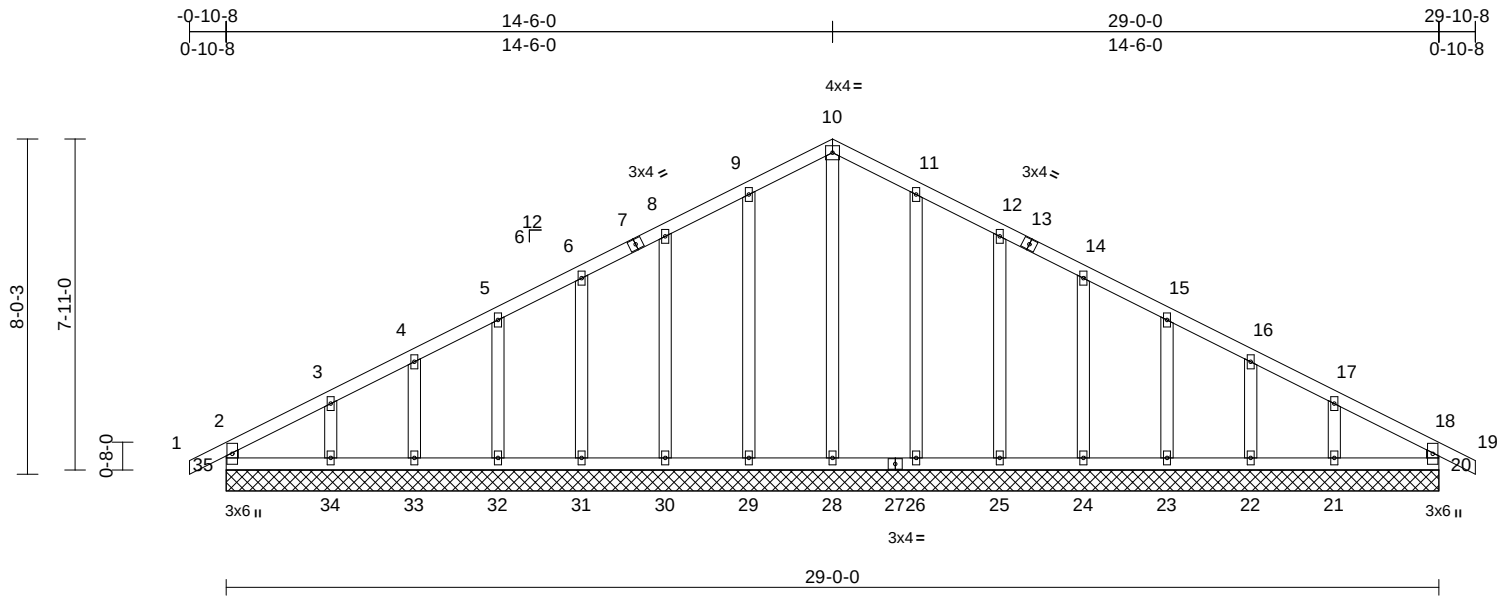
Page: 1



Scale = 1:55.1

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.07	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.05	Vert(CT)	n/a	-	n/a	999		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.16	Horz(CT)	0.00	20	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-R							Weight: 134 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) 20=185/29-0-0, 21=198/29-0-0, 22=175/29-0-0, 23=181/29-0-0, 24=180/29-0-0, 25=179/29-0-0, 26=187/29-0-0, 28=157/29-0-0, 29=187/29-0-0, 30=179/29-0-0, 31=180/29-0-0, 32=181/29-0-0, 33=175/29-0-0, 34=198/29-0-0, 35=185/29-0-0
Max Horiz 35=-121 (LC 13)
Max Uplift 20=-11 (LC 5), 21=-90 (LC 9), 22=-43 (LC 9), 23=-57 (LC 9), 24=-53 (LC 9), 25=-57 (LC 9), 26=-51 (LC 9), 29=-53 (LC 8), 30=-56 (LC 8), 31=-53 (LC 8), 32=-58 (LC 8), 33=-40 (LC 8), 34=-100 (LC 8), 35=-33 (LC 9)
Max Grav 20=185 (LC 1), 21=199 (LC 22), 22=175 (LC 1), 23=181 (LC 22), 24=180 (LC 22), 25=179 (LC 1), 26=190 (LC 22), 28=194 (LC 18), 29=190 (LC 21), 30=179 (LC 1), 31=180 (LC 21), 32=181 (LC 21), 33=175 (LC 1), 34=199 (LC 21), 35=185 (LC 1)

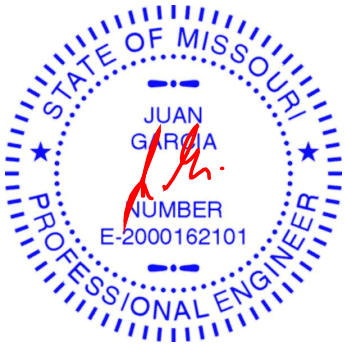
FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 2-35=-163/44, 1-2=0/32, 2-3=-128/70, 3-4=-86/85, 4-5=-68/111, 5-6=-57/137, 6-8=-46/162, 8-9=-43/189, 9-10=-46/212, 10-11=-46/204, 11-12=-43/160, 12-14=-43/126, 14-15=-43/100, 15-16=-43/74, 16-17=-60/49, 17-18=-96/39, 18-19=0/32, 18-20=-163/24
BOT CHORD 34-35=-23/106, 33-34=-23/106, 32-33=-23/106, 31-32=-23/106, 30-31=-23/106, 29-30=-23/106, 28-29=-23/106, 26-28=-23/106, 25-26=-23/106, 24-25=-23/106, 23-24=-23/106, 22-23=-23/106, 21-22=-23/106, 20-21=-23/106
WEBS 10-28=-154/0, 9-29=-150/77, 8-30=-139/80, 6-31=-140/77, 5-32=-141/80, 4-33=-137/68, 3-34=-151/111, 11-26=-150/75, 12-25=-139/81, 14-24=-140/77, 15-23=-141/80, 16-22=-137/70, 17-21=-151/105

NOTES

1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
4) All plates are 2x4 MT20 unless otherwise indicated.
5) Gable requires continuous bottom chord bearing.
6) Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
7) Gable studs spaced at 2-0-0 oc.
8) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
9) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
10) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 33 lb uplift at joint 35, 11 lb uplift at joint 20, 53 lb uplift at joint 29, 56 lb uplift at joint 30, 53 lb uplift at joint 31, 58 lb uplift at joint 32, 40 lb uplift at joint 33, 100 lb uplift at joint 34, 51 lb uplift at joint 26, 57 lb uplift at joint 25, 53 lb uplift at joint 24, 57 lb uplift at joint 23, 43 lb uplift at joint 22 and 90 lb uplift at joint 21.
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



January 17,2022

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 119 MN	I49718427
B220011	C2	Common	6	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS - 66871,

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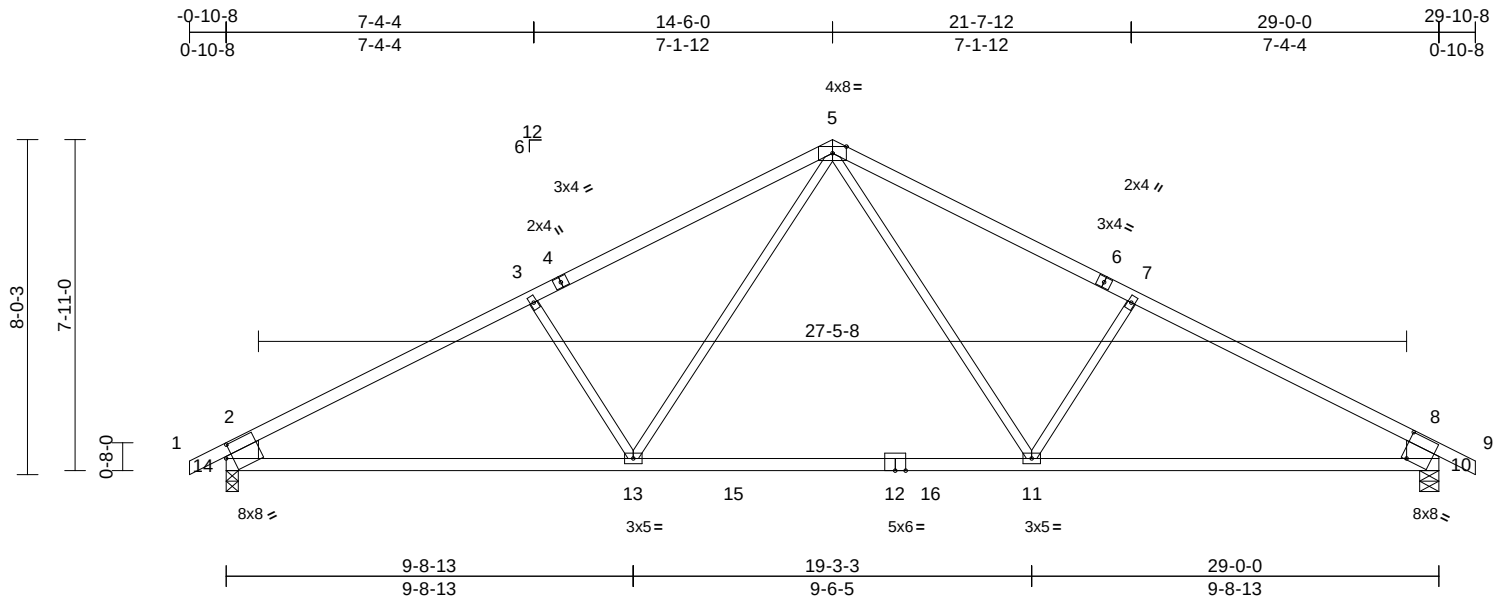


Scale = 1:55.1

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

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.84	Vert(LL)	-0.47	11-13	>717	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.93	Vert(CT)	-0.73	11-13	>463	240		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.26	Horz(CT)	0.07	10	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S		Wind(LL)	0.14	11-13	>999	240	Weight: 97 lb	FT = 10%

LUMBER

TOP CHORD 2x4 SPF 2100F 1.8E
BOT CHORD 2x4 SPF No.2
WEBS 2x3 SPF No.2 *Except* 14-2,10-8:2x10 SP DSS

BRACING

TOP CHORD Structural wood sheathing directly applied or 3-4-13 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 2-2-0 oc bracing.

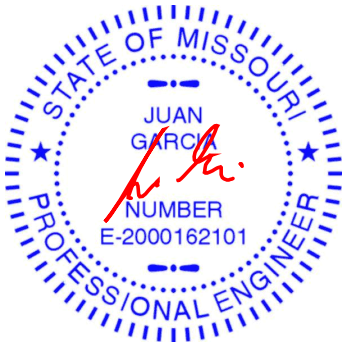
REACTIONS (lb/size) 10=1359/0-5-8, 14=1359/0-3-8
Max Horiz 14=120 (LC 7)
Max Uplift 10=-186 (LC 9), 14=-186 (LC 8)
Max Grav 10=1413 (LC 2), 14=1413 (LC 2)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/39, 2-3=-2108/271, 3-5=-1907/287, 5-7=-1907/287, 7-8=-2108/272, 8-9=0/39, 2-14=-1252/237, 8-10=-1252/237
BOT CHORD 13-14=-261/1774, 11-13=-53/1258, 10-11=-144/1769
WEBS 5-11=-128/731, 7-11=-399/267, 5-13=-127/731, 3-13=-399/267

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 186 lb uplift at joint 14 and 186 lb uplift at joint 10.
6) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard



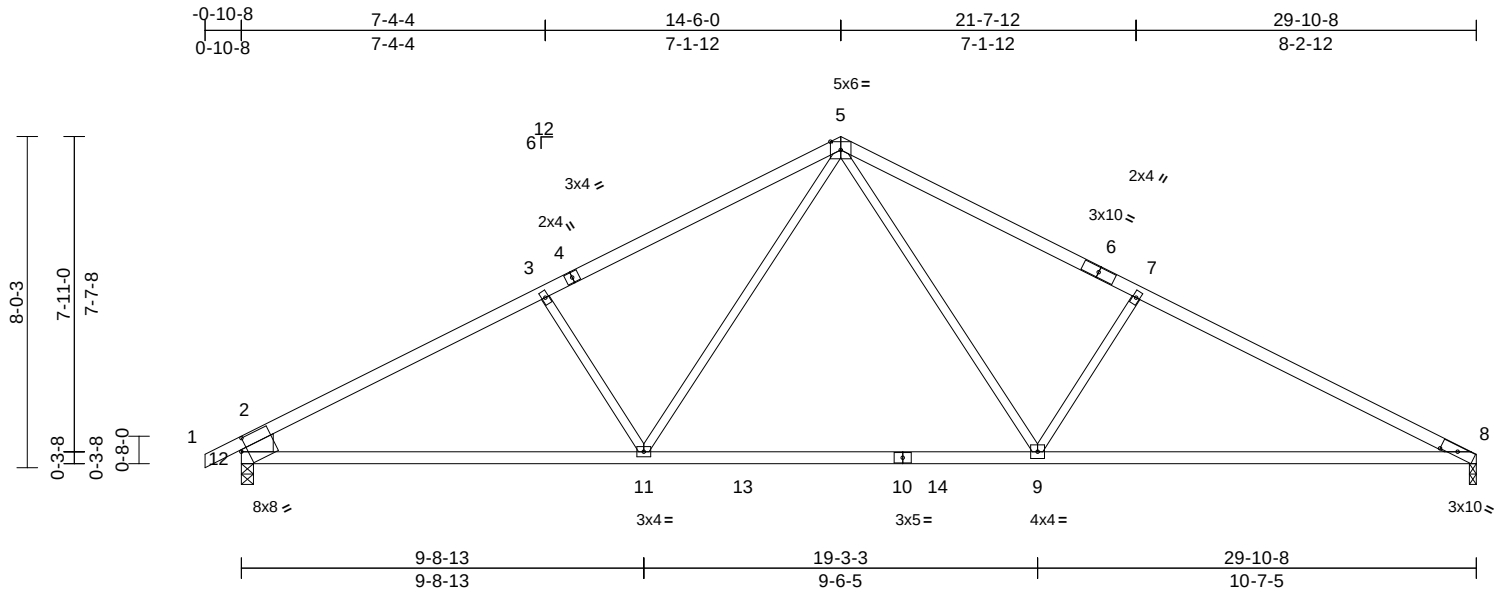
January 17,2022

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 119 MN
B220011	C3	Common	6	1	I49718428
					Job Reference (optional)

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.43 S Oct 11 2021 Print: 8.430 S Oct 11 2021 MiTek Industries, Inc. Fri Jan 14 12:30:43 ID:pq50?Ycap6WpLXoTu4wfY2za1nE-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f



Scale = 1:55.7

Plate Offsets (X, Y): [8:0-5-0,0-1-7], [12:0-1-13,0-3-8]

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.88	Vert(LL)	-0.36	9-11	>970	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.99	Vert(CT)	-0.56	8-9	>631	240		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.35	Horz(CT)	0.07	8	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S		Wind(LL)	0.11	9-11	>999	240	Weight: 96 lb	FT = 10%

LUMBER

TOP CHORD 2x4 SPF 2100F 1.8E *Except* 5-6:2x4 SPF No.2

BOT CHORD 2x4 SPF 2400F 2.0E *Except* 10-12:2x4 SPF No.2

WEBS 2x3 SPF No.2 *Except* 12-2:2x10 SP DSS

BRACING

TOP CHORD Structural wood sheathing directly applied or 2-2-0 oc purlins, except end verticals.

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

REACTIONS (lb/size) 8=1321/0-2-0, (req. 0-2-3), 12=1413/0-3-8

Max Horiz 12=126 (LC 12)

Max Uplift 8=-170 (LC 9), 12=-189 (LC 8)

Max Grav 8=1392 (LC 2), 12=1471 (LC 2)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=0/39, 2-3=-2213/278, 3-5=-2012/293, 5-7=-2231/327, 7-8=-2459/317, 2-12=-1301/240

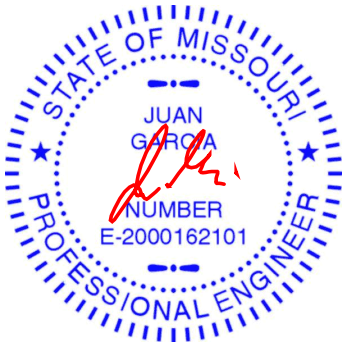
BOT CHORD 11-12=-276/1861, 9-11=-65/1367, 8-9=-191/2148

WEBS 7-9=-579/311, 5-11=-131/706, 3-11=-401/268, 5-9=-166/1010

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) WARNING: Required bearing size at joint(s) 8 greater than input bearing size.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 170 lb uplift at joint 8 and 189 lb uplift at joint 12.
7) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard



January 17,2022

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 119 MN	
B220011	C4	Common	1	1	Job Reference (optional)	I49718429

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.43 S Oct 11 2021 Print: 8.430 S Oct 11 2021 MiTek Industries, Inc. Fri Jan 14 12:30:43
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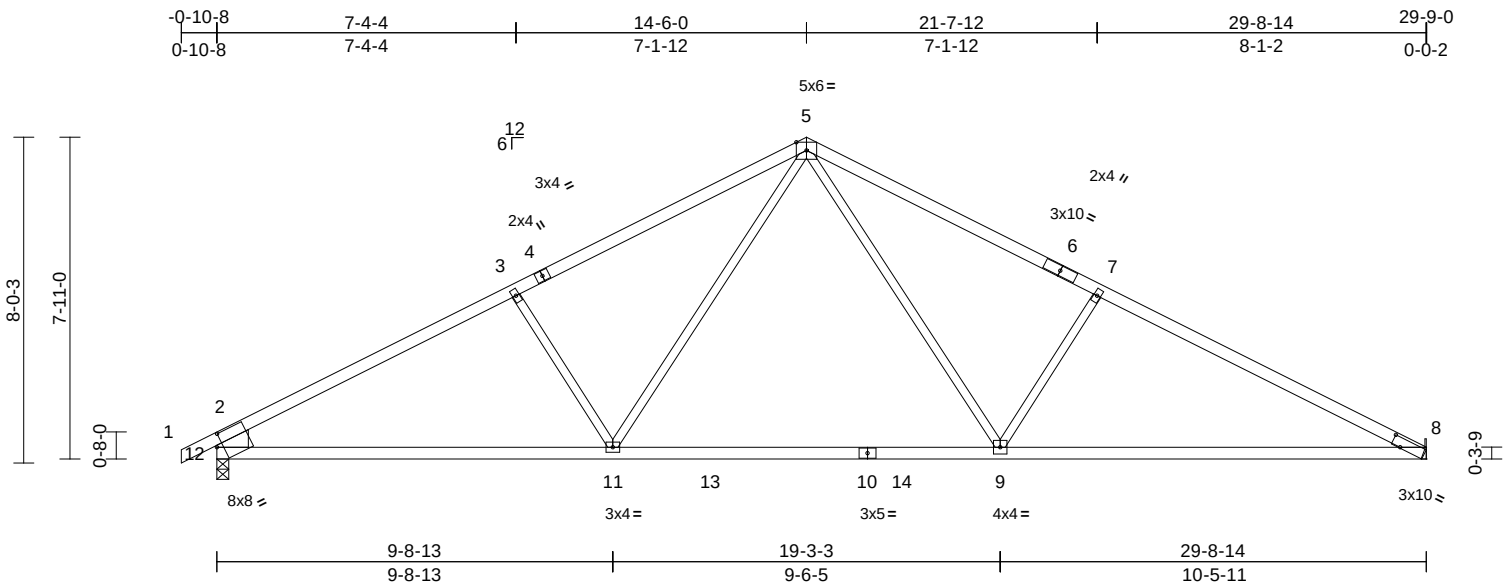

Scale = 1:56.7

Plate Offsets (X, Y): [8:0-2-12,0-2-11], [12:0-1-13,0-3-8]

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.88	Vert(LL)	-0.37	9-11	>954	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.98	Vert(CT)	-0.58	8-9	>603	240		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.34	Horz(CT)	0.08	8	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S		Wind(LL)	0.11	9-11	>999	240	Weight: 96 lb	FT = 10%

LUMBER

TOP CHORD 2x4 SPF 2100F 1.8E *Except* 5-6:2x4 SPF No.2

BOT CHORD 2x4 SPF 2100F 1.8E *Except* 10-12:2x4 SPF No.2

WEBS 2x3 SPF No.2 *Except* 12-2:2x10 SP DSS

BRACING

TOP CHORD Structural wood sheathing directly applied or 2-2-0 oc purlins, except end verticals.

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

REACTIONS (lb/size) 8=1316/ Mechanical, 12=1408/0-3-8

Max Horiz 12=126 (LC 12)

Max Uplift 8=-169 (LC 9), 12=-189 (LC 8)

Max Grav 8=1387 (LC 2), 12=1465 (LC 2)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=0/39, 2-3=-2203/277, 3-5=-2002/292, 5-7=-2206/325, 7-8=-2430/313, 2-12=-1296/239

BOT CHORD 11-12=-275/1852, 9-11=-65/1356, 8-9=-187/2117

WEBS 7-9=-564/307, 5-11=-131/708, 3-11=-402/268, 5-9=-163/990

NOTES

1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
4) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
5) Refer to girder(s) for truss to truss connections.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 189 lb uplift at joint 12 and 169 lb uplift at joint 8.
7) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard

January 17,2022

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 119 MN	I49718430
B220011	C5	Roof Special	3	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.43 S Oct 11 2021 Print: 8.430 S Oct 11 2021 MiTek Industries, Inc. Fri Jan 14 12:30:43
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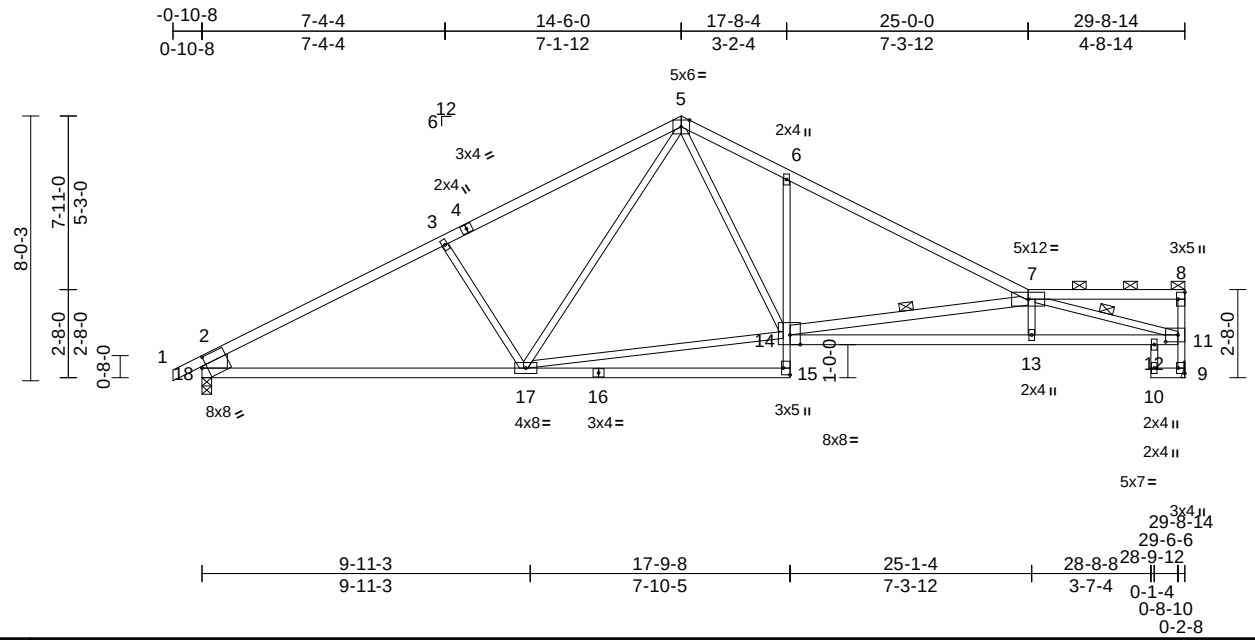
Page: 1



Scale = 1:69.7

Plate Offsets (X, Y): [8:Edge,0-2-8], [9:Edge,0-2-8], [11:0-4-8,0-2-8], [14:0-3-12,Edge], [15:Edge,0-2-8], [18:0-1-13,0-3-8]

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.88	Vert(LL)	-0.29	13-14	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.86	Vert(CT)	-0.58	13-14	>604	240		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.99	Horz(CT)	0.20	9	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S		Wind(LL)	0.20	13-14	>999	240	Weight: 118 lb	FT = 10%

LUMBER

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

BOT CHORD 2x4 SPF No.2 *Except* 15-6:2x3 SPF No.2, 14-11:2x4 SPF 2100F 1.8E

WEBS 2x3 SPF No.2 *Except* 14-7:2x4 SPF No.2, 18-2:2x10 SP DSS

BRACING

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

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

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

REACTIONS (lb/size) 9=1314/ Mechanical, 18=1406/0-3-8

Max Horiz 18=177 (LC 5)

Max Uplift 9=-173 (LC 9), 18=-189 (LC 8)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=0/39, 2-3=-2108/276, 3-5=-1855/288, 5-6=-2185/390, 6-7=-2246/262, 7-8=-148/18, 9-11=-1288/178, 8-11=-164/66, 2-18=-1294/239

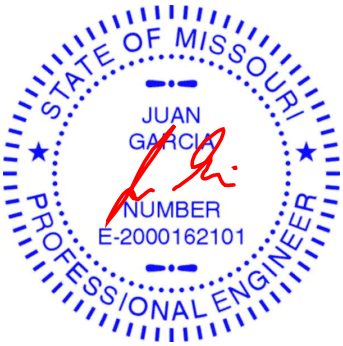
BOT CHORD 17-18=-282/1754, 15-17=-10/77, 14-15=0/133, 6-14=-456/256, 13-14=-483/3760, 12-13=-475/3766, 11-12=-475/3766, 9-10=0/0

WEBS 10-12=-10/9, 3-17=-397/268, 5-17=-113/452, 14-17=-72/1304, 5-14=-272/1213, 7-14=-1872/306, 7-13=0/240, 7-11=-3772/442

NOTES

1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
3) Provide adequate drainage to prevent water ponding.
4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
5) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
6) Refer to girder(s) for truss to truss connections.
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 173 lb uplift at joint 9 and 189 lb uplift at joint 18.
8) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
9) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

LOAD CASE(S) Standard



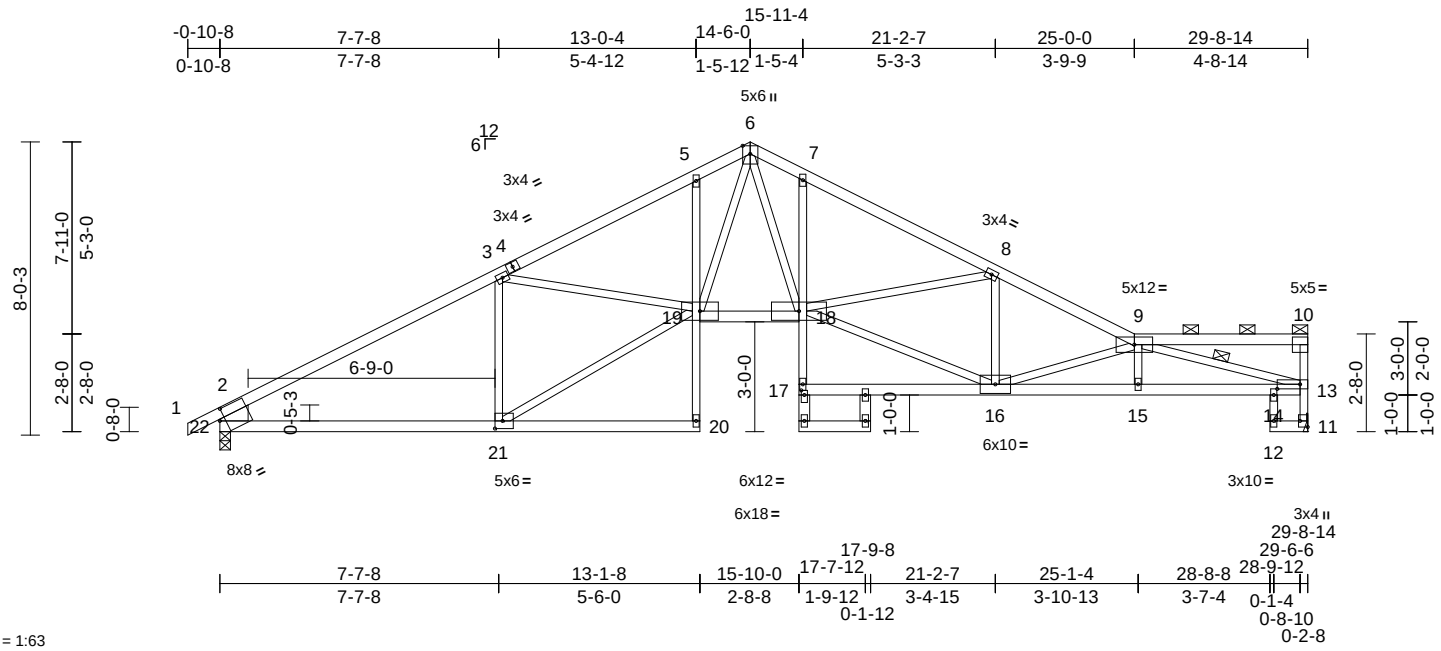
January 17,2022

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 119 MN	
B220011	C5A	Roof Special	1	1	Job Reference (optional)	I49718431

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.43 S Oct 11 2021 Print: 8.430 S Oct 11 2021 MiTek Industries, Inc. Fri Jan 14 12:30:44 ID:pq50?Ycap6WpLXoTu4wfY2za1nE-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f



Scale = 1:63

Plate Offsets (X, Y): [11:Edge,0-2-8], [13:0-7-8,0-1-8], [17:0-1-8,0-1-0], [21:0-2-8,0-2-8], [22:0-1-13,0-3-8]

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.85	Vert(LL)	-0.30	18-19	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.84	Vert(CT)	-0.55	18-19	>633	240		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.95	Horz(CT)	0.31	11	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S		Wind(LL)	0.20	7	>999	240	Weight: 130 lb	FT = 10%

LUMBER

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

BOT CHORD 2x4 SPF No.2 *Except* 20-5,7-17:2x3 SPF No.2, 17-13:2x4 SPF 2100F 1.8E

WEBS 2x3 SPF No.2 *Except* 24-25,17-23:2x4 SPF No.2, 22-2:2x10 SP DSS

BRACING

TOP CHORD Structural wood sheathing directly applied or 2-10-4 oc purlins, except end verticals, and 2-0-0 oc purlins (6-0-0 max.): 9-10.

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

WEBS 1 Row at midpt 9-13

REACTIONS (lb/size) 11=1314/ Mechanical, 22=1406/0-3-8

Max Horiz 22=177 (LC 5)

Max Uplift 11=-173 (LC 9), 22=-189 (LC 8)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=0/39, 2-3=-2088/246, 3-5=-2831/322, 5-6=-2785/388, 6-7=-2793/386, 7-8=-2850/308, 8-9=-2802/334, 9-10=-172/18, 11-13=-1286/179, 10-13=-185/68, 2-22=-1298/232

BOT CHORD 21-22=-249/1730, 20-21=0/19, 19-20=0/93, 5-19=-283/135, 18-19=-102/2079, 17-18=0/94, 7-18=-260/167, 16-17=0/37, 15-16=-473/3648, 14-15=-468/3647, 13-14=-468/3647, 11-12=0/0

WEBS 12-14=-12/8, 3-21=-868/222, 19-21=-285/1958, 3-19=-26/745, 6-19=-257/1228, 6-18=-273/1311, 9-15=-24/96, 9-13=-3623/435, 8-18=-168/146, 8-16=-366/102, 9-16=-1240/193, 16-18=-311/2616

NOTES

1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
3) Provide adequate drainage to prevent water ponding.
4) All plates are 2x4 MT20 unless otherwise indicated.
5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
6) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
7) Refer to girder(s) for truss to truss connections.
8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 173 lb uplift at joint 11 and 189 lb uplift at joint 22.
9) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
10) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

LOAD CASE(S) Standard

January 17,2022

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 119 MN	I49718432
B220011	C6	Roof Special	1	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.43 S Oct 11 2021 Print: 8.430 S Oct 11 2021 MiTek Industries, Inc. Fri Jan 14 12:30:44
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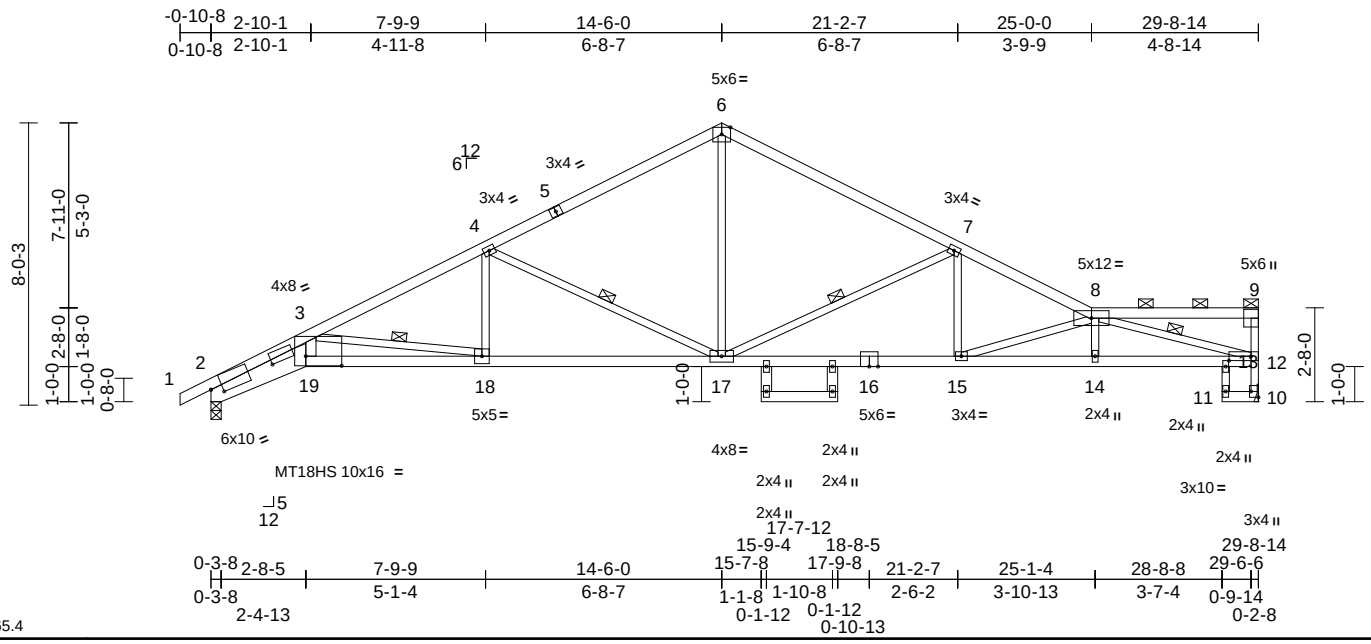


Scale = 1:65.4

Plate Offsets (X, Y): [2:0-3-15,0-2-4], [2:1-10-10,0-0-2], [10:Edge,0-2-8], [12:0-7-8,0-1-8], [19:1-0-4,0-3-4]

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)	-0.28	18-19	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.73	Vert(CT)	-0.51	15-17	>691	240	MT18HS	197/144
BCLL	0.0*	Rep Stress Incr	YES	WB	0.95	Horz(CT)	0.35	10	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S		Wind(LL)	0.21	18-19	>999	240	Weight: 120 lb	FT = 10%

LUMBER

TOP CHORD 2x4 SPF No.2

BOT CHORD 2x4 SPF 2100F 1.8E *Except* 2-19:2x8 SP DSS, 21-22,11-10:2x4 SPF No.2, 13-11:2x3 SPF No.2

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

BRACING

TOP CHORD Structural wood sheathing directly applied or 2-1-7 oc purlins, except end verticals, and 2-0-0 oc purlins (6-0-0 max.): 8-9.

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

WEBS 1 Row at midpt 3-18, 4-17, 8-12, 7-17

REACTIONS (lb/size) 2=1400/0-3-8, 10=1326/ Mechanical

Max Horiz 2=169 (LC 7)

Max Uplift 2=-186 (LC 8), 10=-174 (LC 9)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=0/14, 2-3=-5365/783, 3-4=-2729/350, 4-6=-1803/239, 6-7=-1799/244, 7-8=-2856/346, 8-9=-178/18, 10-12=-1297/180, 9-12=-188/70

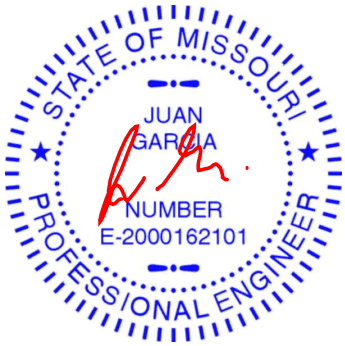
BOT CHORD 2-19=-812/4788, 18-19=-710/4126, 17-18=-332/2420, 15-17=-310/2540, 14-15=-470/3675, 13-14=-465/3673, 12-13=-465/3695, 11-13=-13/8, 10-11=-23/4

WEBS 3-19=-242/1757, 3-18=-1727/382, 4-18=0/420, 4-17=-1011/288, 8-14=-30/88, 8-12=-3644/431, 6-17=-67/1073, 7-17=-1145/281, 7-15=0/565, 8-15=-1206/170

NOTES

1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
3) Provide adequate drainage to prevent water ponding.
4) All plates are MT20 plates unless otherwise indicated.
5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
6) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
7) Refer to girder(s) for truss to truss connections.
8) Bearing at joint(s) 2 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 174 lb uplift at joint 10 and 186 lb uplift at joint 2.
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.

LOAD CASE(S) Standard



January 17,2022

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 119 MN	
B220011	C7	Roof Special	1	1	Job Reference (optional)	I49718433

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.43 S Oct 11 2021 Print: 8.430 S Oct 11 2021 MiTek Industries, Inc. Fri Jan 14 12:30:45
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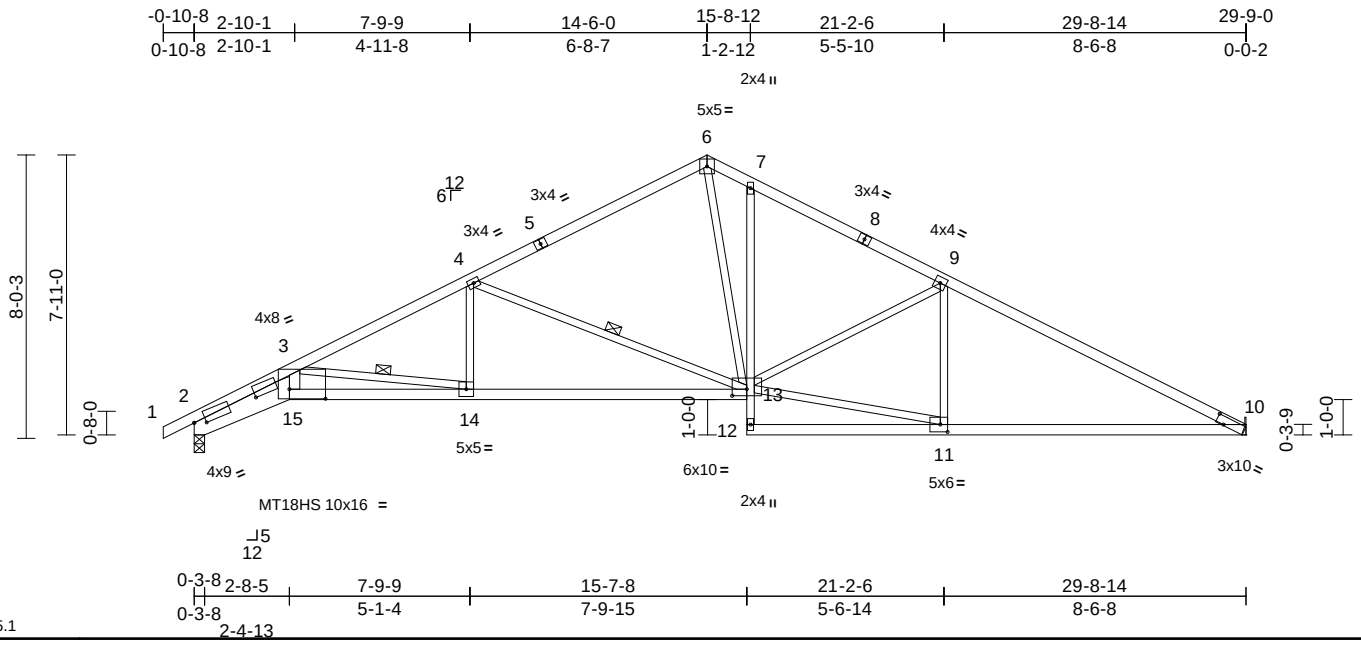


Scale = 1:65.1

Plate Offsets (X, Y): [2:0-3-15,0-1-8], [2:1-10-10,0-0-2], [10:0-2-12,0-2-11], [11:0-2-8,0-2-8], [13:0-5-0,0-2-4], [15:1-0-4,0-3-4]

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.88	Vert(LL)	-0.23	14-15	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.86	Vert(CT)	-0.45	13-14	>792	240	MT18HS	197/144
BCLL	0.0*	Rep Stress Incr	YES	WB	0.77	Horz(CT)	0.25	10	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S		Wind(LL)	0.18	14-15	>999	240	Weight: 116 lb	FT = 10%

LUMBER

TOP CHORD 2x4 SPF No.2 *Except* 5-1,8-10:2x4 SPF 2100F 1.8E

BOT CHORD 2x8 SP DSS *Except* 15-13:2x4 SPF 2100F 1.8E, 7-12:2x3 SPF No.2, 12-10:2x4 SPF No.2

WEBS 2x3 SPF No.2 *Except* 15-3:2x4 SPF No.2

BRACING

TOP CHORD Structural wood sheathing directly applied.

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

WEBS 1 Row at midpt 3-14, 4-13

REACTIONS (lb/size) 2=1402/0-3-8, 10=1328/ Mechanical

Max Horiz 2=138 (LC 12)

Max Uplift 2=-186 (LC 8), 10=-170 (LC 9)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=0/14, 2-3=-5334/776, 3-4=-2749/341, 4-6=-1699/239, 6-7=-1789/277, 7-9=-1941/241, 9-10=-2347/282

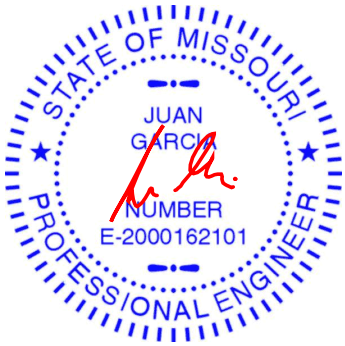
BOT CHORD 2-15=-798/4754, 14-15=-693/4093, 13-14=-318/2443, 12-13=0/68, 7-13=-120/83, 11-12=-26/35, 10-11=-152/2020

WEBS 3-15=-249/1749, 3-14=-1669/379, 4-14=0/473, 4-13=-1112/284, 6-13=-160/1175, 11-13=-130/2018, 9-13=-523/230, 9-11=-179/114

NOTES

1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
3) All plates are MT20 plates unless otherwise indicated.
4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
5) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
6) Refer to girder(s) for truss to truss connections.
7) Bearing at joint(s) 2 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 186 lb uplift at joint 2 and 170 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.

LOAD CASE(S) Standard



January 17,2022

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 119 MN	I49718434
B220011	C8	Roof Special	1	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS - 66871,

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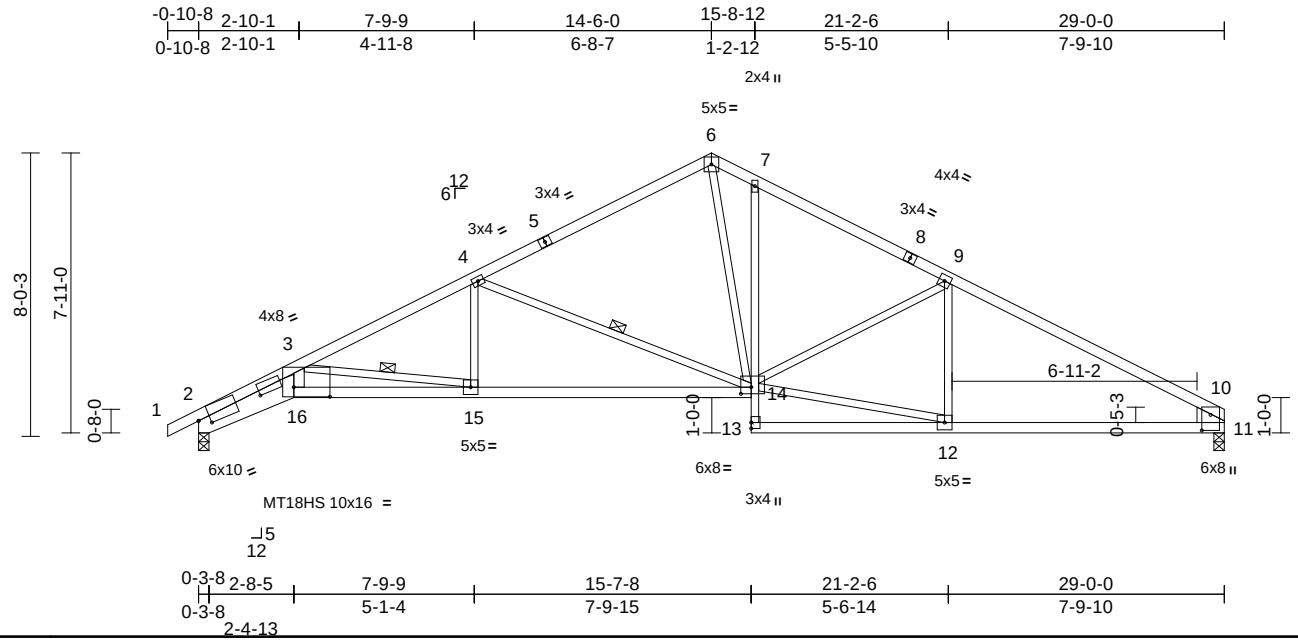

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Plate Offsets (X, Y): [2:0-3-15,0-2-4], [2:1-10-10,0-0-2], [11:0-5-5,0-3-0], [14:0-3-8,0-2-4], [16:1-0-4,0-3-4]

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	0.87	Vert(LL)	-0.27	12-13	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.85	Vert(CT)	-0.54	14-15	>628	240	MT18HS	197/144
BCLL	0.0*	Rep Stress Incr	YES	WB	0.75	Horz(CT)	0.24	11	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S		Wind(LL)	0.20	15-16	>999	240	Weight: 117 lb	FT = 10%

LUMBER

TOP CHORD 2x4 SPF No.2

BOT CHORD 2x4 SPF 2100F 1.8E *Except* 2-16:2x8 SP DSS, 7-13:2x3 SPF No.2

WEBS 2x3 SPF No.2 *Except* 16-3:2x4 SPF No.2, 11-10:2x10 SP DSS

BRACING

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

BOT CHORD Rigid ceiling directly applied or 9-4-12 oc bracing.

WEBS 1 Row at midpt 3-15, 4-14

REACTIONS (lb/size) 2=1354/0-3-8, 11=1280/0-3-8
Max Horiz 2=139 (LC 12)
Max Uplift 2=-184 (LC 8), 11=-158 (LC 9)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=0/14, 2-3=-5145/776, 3-4=-2623/333, 4-6=-1583/228, 6-7=-1695/275, 7-9=-1792/236, 9-10=-1998/243, 10-11=-1131/199

BOT CHORD 2-16=-802/4590, 15-16=-698/3959, 14-15=-311/2325, 13-14=0/108, 7-14=-241/106, 12-13=-26/72, 11-12=-136/1669

WEBS 3-16=-247/1673, 3-15=-1654/391, 4-15=0/475, 4-14=-1094/279, 6-14=-167/1136, 12-14=-112/1623, 9-14=-278/185, 9-12=-268/112

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) All plates are MT20 plates unless otherwise indicated.
4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
5) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
6) Bearing at joint(s) 2 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 184 lb uplift at joint 2 and 158 lb uplift at joint 11.
8) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard

January 17,2022

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 119 MN	
B220011	C9	Common Structural Gable	1	1	Job Reference (optional)	I49718435

Wheeler Lumber, Waverly, KS - 66871,

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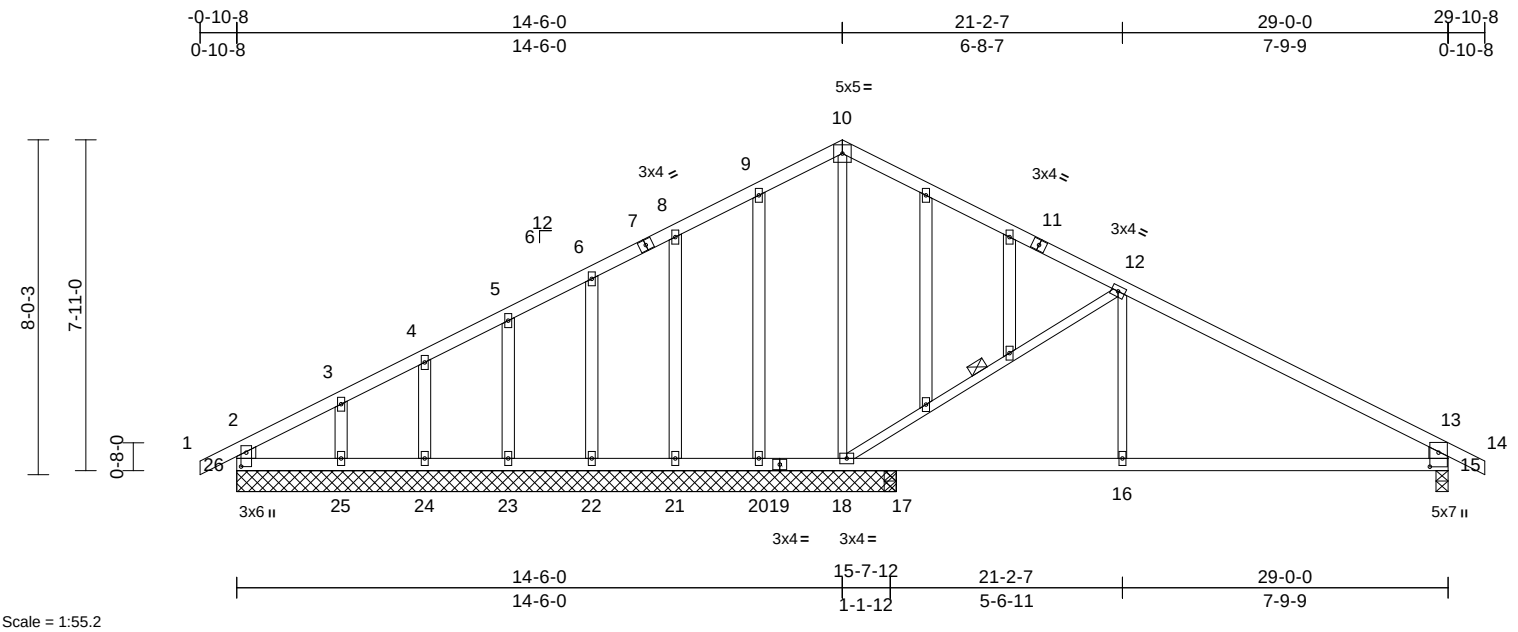

Scale = 1:55.2

Plate Offsets (X, Y): [15:0-4-1,0-2-8], [26:0-4-0,0-1-8]

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.62	Vert(LL)	-0.08	15-16	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.41	Vert(CT)	-0.17	15-16	>898	240		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.50	Horz(CT)	0.01	15	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S		Wind(LL)	0.02	15-16	>999	240	Weight: 125 lb	FT = 10%

LUMBER
TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
WEBS 2x3 SPF No.2 *Except* 26-2,15-13:2x6 SPF No.2
OTHERS 2x4 SPF No.2

BRACING
TOP CHORD Structural wood sheathing directly applied or 5-10-15 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing, Except:
10-0-0 oc bracing: 17-18,16-17,15-16.
WEBS 1 Row at midpt 12-18

REACTIONS All bearings 15-9-8. except 15=0-3-8, 17=0-3-8

(lb) - Max Horiz 26=119 (LC 8)
Max Uplift All uplift 100 (lb) or less at joint(s) 18, 20, 21, 22, 23, 24, 25, 26 except 15=-179 (LC 9)
Max Grav All reactions 250 (lb) or less at joint (s) 17, 20, 21, 22, 23, 24, 25, 26 except 15=687 (LC 1), 18=750 (LC 1)

FORCES (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 12-13=-752/243, 13-15=-618/226
BOT CHORD 17-18=-113/570, 16-17=-113/570, 15-16=-113/570
WEBS 10-18=-352/0, 12-18=-724/239, 12-16=0/293

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 2-0-0 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 100 lb uplift at joint(s) 26, 18, 20, 21, 22, 23, 24, 25 except (jt=lb) 15=179.
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

January 17,2022

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 119 MN	I49718436
B220011	D1	Common	2	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS - 66871,

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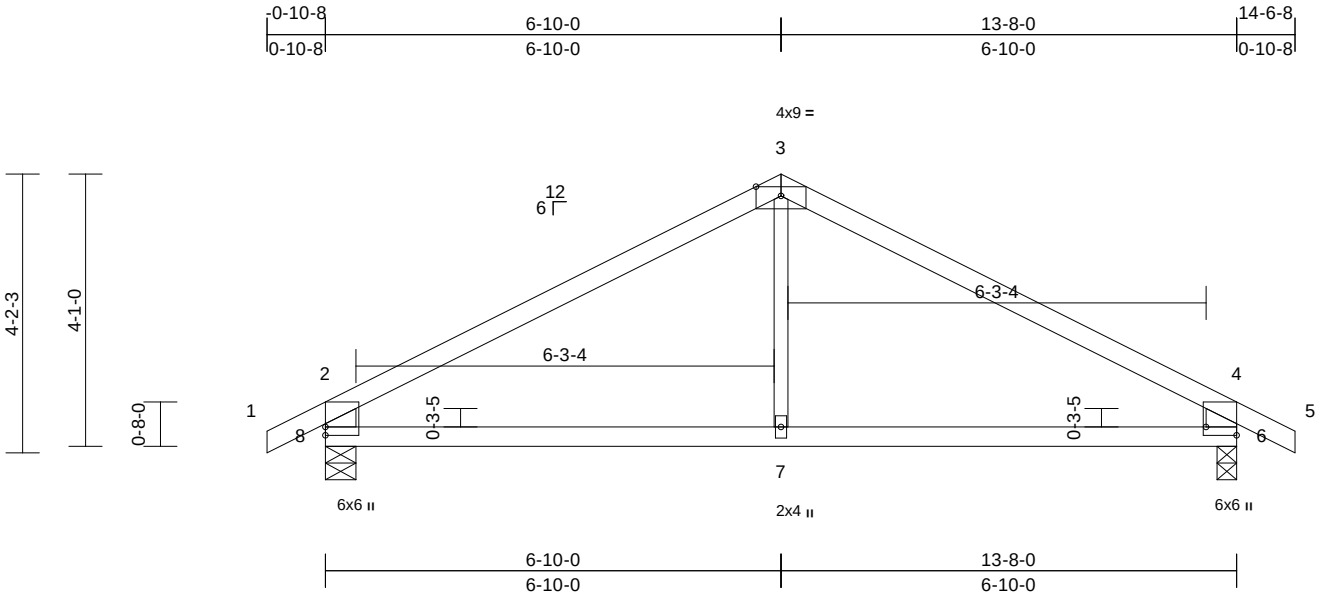


Scale = 1:34.6

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

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	0.53	Vert(LL)	-0.04	6-7	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.36	Vert(CT)	-0.08	6-7	>999	240		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.09	Horz(CT)	0.01	6	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-R		Wind(LL)	0.02	7-8	>999	240	Weight: 39 lb	FT = 10%

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

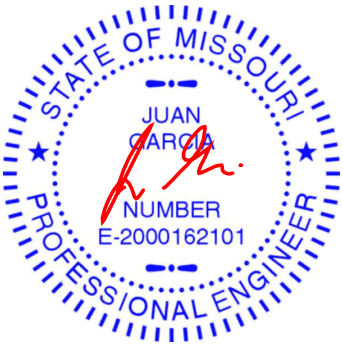
BRACING
TOP CHORD Structural wood sheathing directly applied or 5-10-2 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (lb/size) 6=690/0-3-8, 8=690/0-5-8
Max Horiz 8=-68 (LC 6)
Max Uplift 6=-88 (LC 9), 8=-88 (LC 8)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/36, 2-3=-769/94, 3-4=-769/94, 4-5=0/36, 2-8=-634/135, 4-6=-634/135
BOT CHORD 7-8=-11/583, 6-7=-11/583
WEBS 3-7=0/288

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 88 lb uplift at joint 8 and 88 lb uplift at joint 6.
6) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard



January 17,2022

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 119 MN	
B220011	D2	Common Supported Gable	1	1	Job Reference (optional)	I49718437

Wheeler Lumber, Waverly, KS - 66871,

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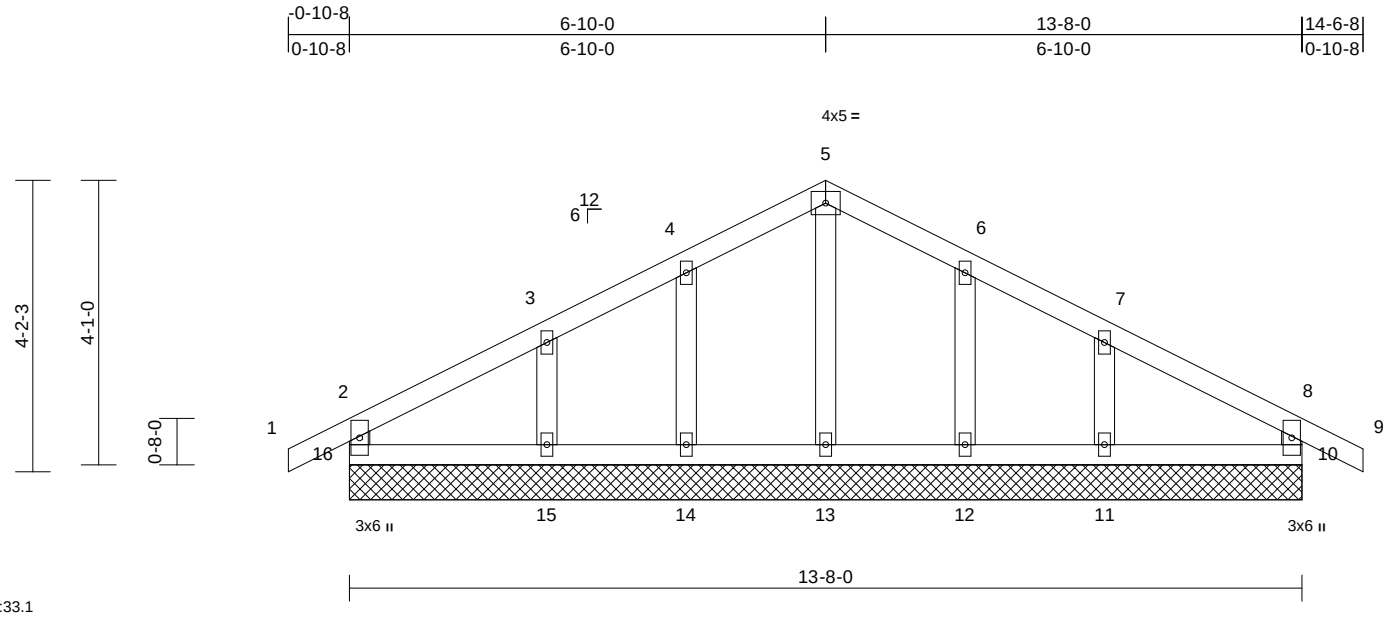


Scale = 1:33.1

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	0.08	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.04	Vert(CT)	n/a	-	n/a	999		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.03	Horz(CT)	0.00	10	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-R							Weight: 49 lb	FT = 10%

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

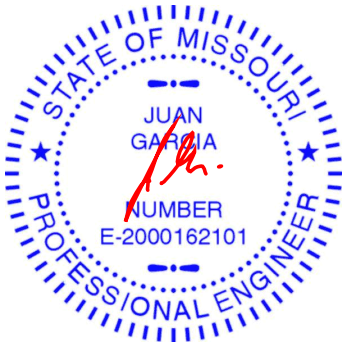
BRACING
TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (lb/size) 10=210/13-8-0, 11=226/13-8-0, 12=179/13-8-0, 13=154/13-8-0, 14=179/13-8-0, 15=226/13-8-0, 16=210/13-8-0
Max Horiz 16=-66 (LC 6)
Max Uplift 10=-33 (LC 9), 11=-74 (LC 9), 12=-48 (LC 9), 14=-47 (LC 8), 15=-77 (LC 8), 16=-28 (LC 9)
Max Grav 10=210 (LC 1), 11=227 (LC 22), 12=182 (LC 22), 13=154 (LC 1), 14=182 (LC 21), 15=227 (LC 21), 16=210 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 2-16=-186/46, 1-2=0/33, 2-3=-80/59, 3-4=-61/87, 4-5=-60/112, 5-6=-60/103, 6-7=-61/76, 7-8=-71/47, 8-9=0/33, 8-10=-186/53
BOT CHORD 15-16=-9/46, 14-15=-9/46, 13-14=-9/46, 12-13=-9/46, 11-12=-9/46, 10-11=-9/46
WEBS 5-13=-112/0, 4-14=-147/71, 3-15=-173/101, 6-12=-147/71, 7-11=-173/99

NOTES
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
4) All plates are 2x4 MT20 unless otherwise indicated.
5) Gable requires continuous bottom chord bearing.
6) Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
7) Gable studs spaced at 2-0-0 oc.
8) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
9) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
10) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 28 lb uplift at joint 16, 33 lb uplift at joint 10, 47 lb uplift at joint 14, 77 lb uplift at joint 15, 48 lb uplift at joint 12 and 74 lb uplift at joint 11.
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



January 17,2022

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 119 MN	
B220011	E1	Common Supported Gable	1	1	Job Reference (optional)	I49718438

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.43 S Oct 11 2021 Print: 8.430 S Oct 11 2021 MiTek Industries, Inc. Fri Jan 14 12:30:46 Page: 1
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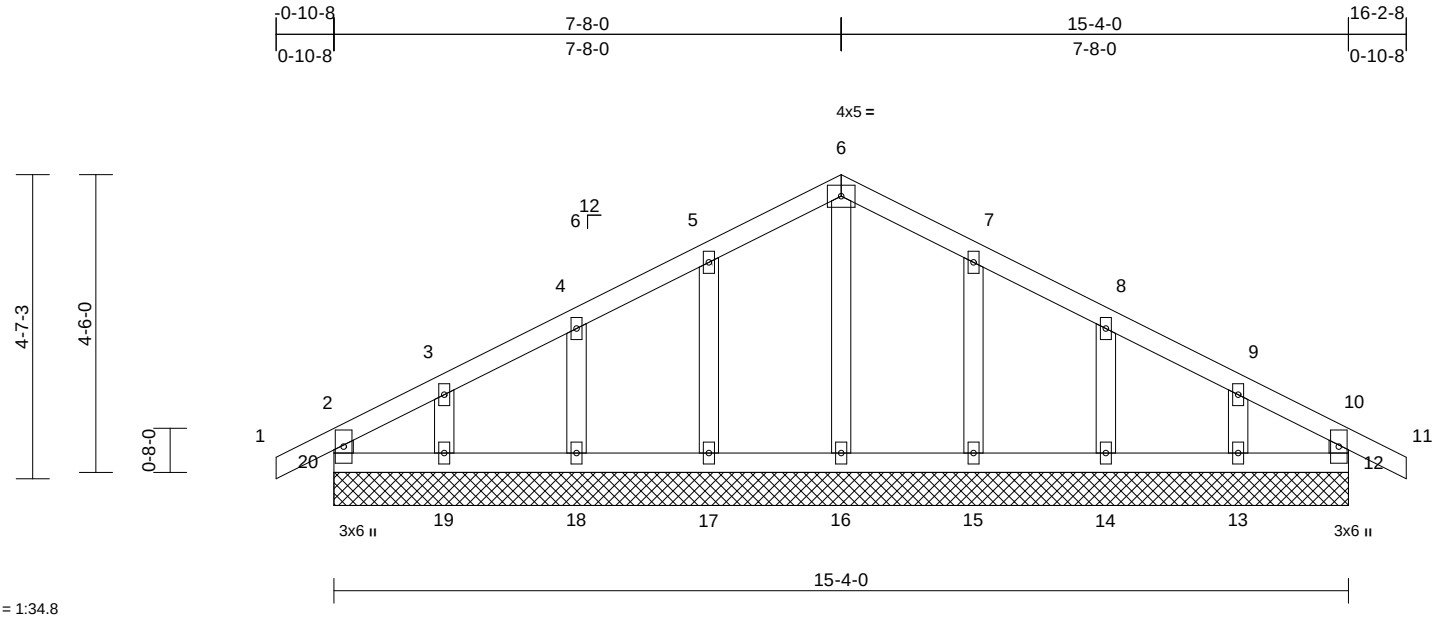


Scale = 1:34.8

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	0.02	Vert(CT)	n/a	-	n/a	999		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.04	Horz(CT)	0.00	12	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-R							Weight: 58 lb	FT = 10%

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

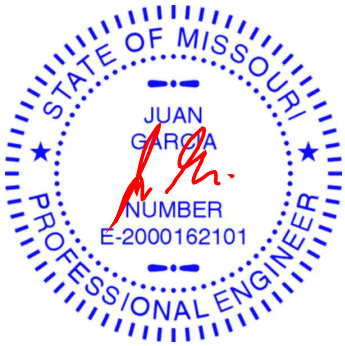
BRACING
TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.

REACTIONS (lb/size) 12=145/15-4-0, 13=144/15-4-0, 14=185/15-4-0, 15=187/15-4-0, 16=173/15-4-0, 17=187/15-4-0, 18=185/15-4-0, 19=144/15-4-0, 20=145/15-4-0
Max Horiz 20=71 (LC 7)
Max Uplift 12=-18 (LC 5), 13=-62 (LC 9), 14=-53 (LC 9), 15=-58 (LC 9), 17=-58 (LC 8), 18=-51 (LC 8), 19=-68 (LC 8), 20=-30 (LC 4)
Max Grav 12=148 (LC 22), 13=144 (LC 1), 14=185 (LC 1), 15=190 (LC 22), 16=173 (LC 1), 17=190 (LC 21), 18=185 (LC 1), 19=144 (LC 1), 20=148 (LC 21)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 2-20=-131/34, 1-2=0/32, 2-3=-59/48, 3-4=-38/64, 4-5=-29/86, 5-6=-31/111, 6-7=-31/103, 7-8=-27/70, 8-9=-25/52, 9-10=-44/35, 10-11=0/32, 10-12=-131/24
BOT CHORD 19-20=-19/58, 18-19=-19/58, 17-18=-19/58, 16-17=-19/58, 15-16=-19/58, 14-15=-19/58, 13-14=-19/58, 12-13=-19/58
WEBS 6-16=-133/0, 5-17=-150/82, 4-18=-144/78, 3-19=-111/80, 7-15=-150/81, 8-14=-144/78, 9-13=-111/77

NOTES
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
4) All plates are 2x4 MT20 unless otherwise indicated.
5) Gable requires continuous bottom chord bearing.
6) Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
7) Gable studs spaced at 2-0-0 oc.
8) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
9) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
10) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 30 lb uplift at joint 20, 18 lb uplift at joint 12, 58 lb uplift at joint 17, 51 lb uplift at joint 18, 68 lb uplift at joint 19, 58 lb uplift at joint 15, 53 lb uplift at joint 14 and 62 lb uplift at joint 13.
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



January 17,2022

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 119 MN	
B220011	E2	Common Girder	1	**2**	Job Reference (optional)	I49718439

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.43 S Oct 11 2021 Print: 8.430 S Oct 11 2021 MiTek Industries, Inc. Fri Jan 14 12:30:46
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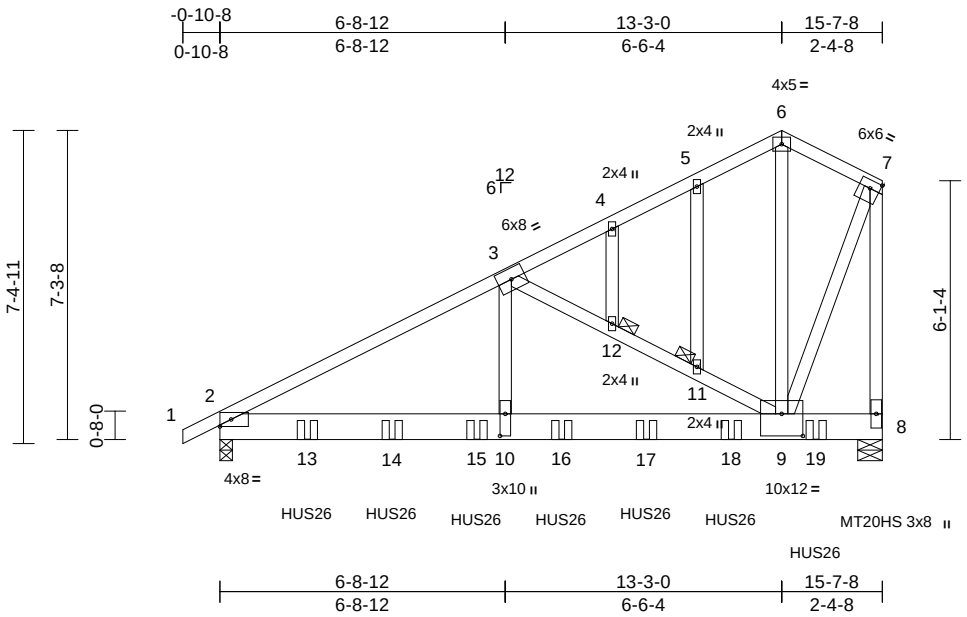


Scale = 1:54.3

Plate Offsets (X, Y): [7:Edge,0-2-4], [9:0-6-0,0-6-4], [10:0-6-4,0-1-8]

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.90	Vert(LL)	-0.10	2-10	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.57	Vert(CT)	-0.18	2-10	>999	240	MT20HS	148/108
BCLL	0.0*	Rep Stress Incr	NO	WB	0.60	Horz(CT)	0.03	8	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S		Wind(LL)	0.07	2-10	>999	240	Weight: 217 lb	FT = 10%

LUMBER

TOP CHORD	2x4 SPF No.2
BOT CHORD	2x8 SP DSS
WEBS	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.
JOINTS	1 Brace at Jt(s): 11, 12

REACTIONS (lb/size) 2=5167/0-3-8, (req. 0-4-1), 8=5372/0-7-0
Max Horiz 2=257 (LC 5)
Max Uplift 2=-745 (LC 8), 8=-788 (LC 8)

FORCES (lb) - Maximum Compression/Maximum Tension

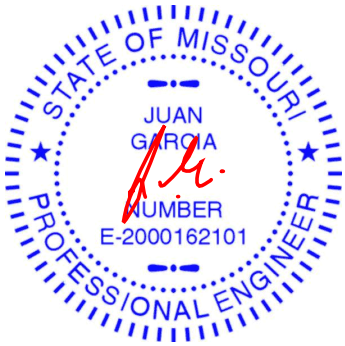
TOP CHORD	1-2=0/16, 2-3=-7644/1082, 3-4=-2017/285, 4-5=-1951/298, 5-6=-2062/350, 6-7=-2025/364, 7-8=-5470/814
BOT CHORD	2-10=-1001/6624, 9-10=-1001/6624, 8-9=-75/72
WEBS	6-9=-290/1858, 3-12=-5480/907, 11-12=-5500/911, 9-11=-5685/956, 3-10=-610/4883, 7-9=-684/4783, 5-11=-376/89, 4-12=-44/9

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 0-6-0 oc.
Bottom chords connected as follows: 2x8 - 2 rows staggered at 0-7-0 oc.
Web connected as follows: 2x4 - 1 row at 0-9-0 oc.
2) All loads are considered equally applied to all plies, except if noted as front (F) or back (B) face in the LOAD CASE(S) section. Ply to ply connections have been provided to distribute only loads noted as (F) or (B), unless otherwise indicated.
3) Unbalanced roof live loads have been considered for this design.
4) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
5) 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.
6) All plates are MT20 plates unless otherwise indicated.
7) Gable studs spaced at 2-0-0 oc.
8) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
9) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
10) WARNING: Required bearing size at joint(s) 2 greater than input bearing size.
11) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 745 lb uplift at joint 2 and 788 lb uplift at joint 8.
12) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
13) Use Simpson Strong-Tie HUS26 (14-10d Girder, 4-10d Truss) or equivalent spaced at 2-0-0 oc max. starting at 2-0-12 from the left end to 14-0-12 to connect truss(es) to front face of bottom chord.
14) Fill all nail holes where hanger is in contact with lumber.

LOAD CASE(S) Standard

1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (lb/ft)
Vert: 1-6=-70, 6-7=-70, 2-8=-20
Concentrated Loads (lb)
Vert: 13=-1308 (F), 14=-1306 (F), 15=-1294 (F), 16=-1294 (F), 17=-1294 (F), 18=-1294 (F), 19=-1296 (F)



January 17,2022

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 119 MN	
B220011	E3	Monopitch Supported Gable	1	1	Job Reference (optional)	I49718440

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.43 S Oct 11 2021 Print: 8.430 S Oct 11 2021 MiTek Industries, Inc. Fri Jan 14 12:30:47
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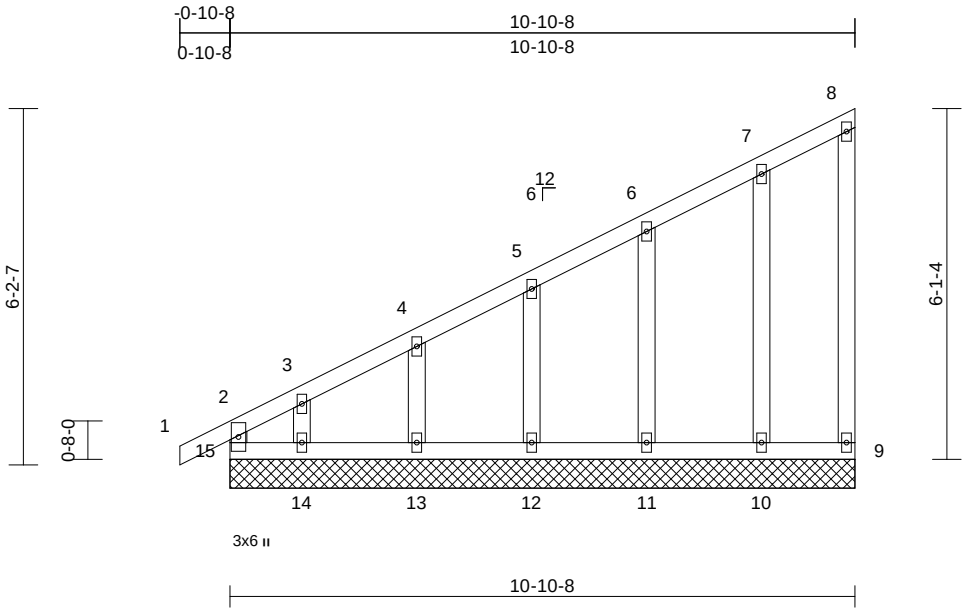

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Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.14	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.06	Vert(CT)	n/a	-	n/a	999		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.06	Horz(CT)	0.00	9	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-R							Weight: 50 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) 9=51/10-10-8, 10=169/10-10-8, 11=184/10-10-8, 12=177/10-10-8, 13=190/10-10-8, 14=114/10-10-8, 15=139/10-10-8
Max Horiz 15=246 (LC 5)
Max Uplift 9=-31 (LC 5), 10=-51 (LC 8), 11=-54 (LC 8), 12=-56 (LC 8), 13=-47 (LC 8), 14=-116 (LC 8), 15=-15 (LC 4)
Max Grav 9=55 (LC 15), 10=169 (LC 1), 11=184 (LC 1), 12=177 (LC 1), 13=190 (LC 1), 14=114 (LC 1), 15=199 (LC 16)

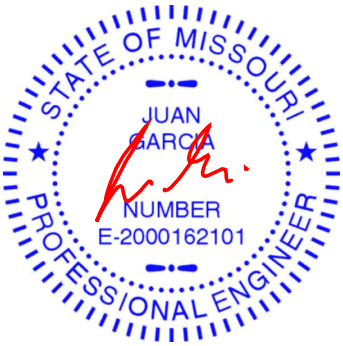
FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD	2-15=-163/19, 1-2=0/32, 2-3=-217/37, 3-4=-175/49, 4-5=-149/47, 5-6=-132/48, 6-7=-120/59, 7-8=-88/56, 8-9=-40/18
BOT CHORD	14-15=-82/62, 13-14=-82/62, 12-13=-82/62, 11-12=-82/62, 10-11=-82/62, 9-10=-82/62
WEBS	3-14=-89/102, 4-13=-148/77, 5-12=-137/77, 6-11=-144/84, 7-10=-131/58

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) Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
6) Gable studs spaced at 2-0-0 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 15 lb uplift at joint 15, 31 lb uplift at joint 9, 116 lb uplift at joint 14, 47 lb uplift at joint 13, 56 lb uplift at joint 12, 54 lb uplift at joint 11 and 51 lb uplift at joint 10.
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



January 17,2022

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 119 MN	
B220011	J1	Diagonal Hip Girder	2	1	Job Reference (optional)	I49718441

Wheeler Lumber, Waverly, KS - 66871,

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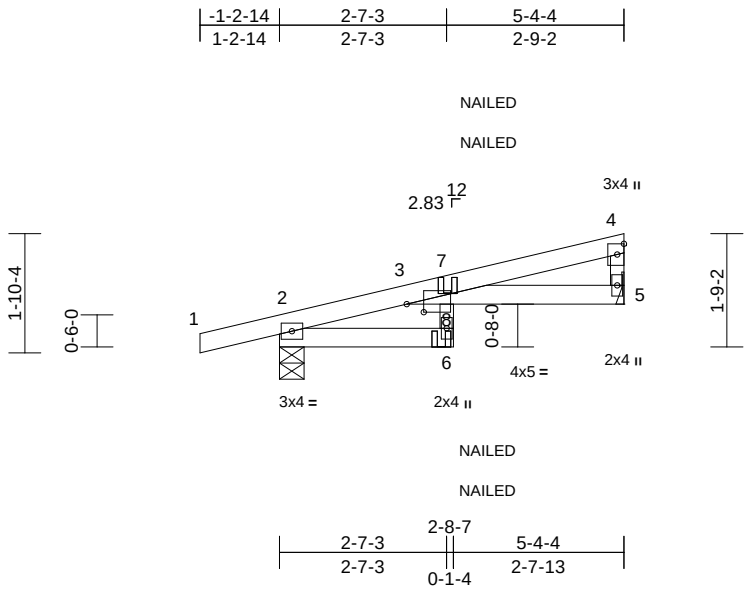


Scale = 1:35.8

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

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.49	Vert(LL)	-0.06	6	>945	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.28	Vert(CT)	-0.13	6	>476	240		
BCLL	0.0*	Rep Stress Incr	NO	WB	0.02	Horz(CT)	0.04	5	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S		Wind(LL)	0.06	6	>999	240	Weight: 15 lb	FT = 10%

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

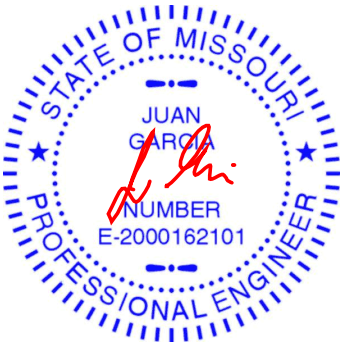
BRACING
TOP CHORD Structural wood sheathing directly applied or 5-4-4 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.

REACTIONS (lb/size) 2=349/0-4-9, 5=219/ Mechanical
Max Horiz 2=52 (LC 5)
Max Uplift 2=-102 (LC 4), 5=-40 (LC 8)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/6, 2-3=-71/16, 3-4=-132/17, 4-5=-144/50
BOT CHORD 2-6=-52/0, 3-5=-13/115
WEBS 3-6=0/75

NOTES
1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
3) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
4) Refer to girder(s) for truss to truss connections.
5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 40 lb uplift at joint 5 and 102 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.
7) "NAILED" indicates 3-10d (0.148"x3") or 2-12d (0.148"x3.25") toe-nails per NDS guidlines.
8) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

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



January 17,2022

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 119 MN	
B220011	J2	Jack-Open	5	1	Job Reference (optional)	I49718442

Wheeler Lumber, Waverly, KS - 66871,

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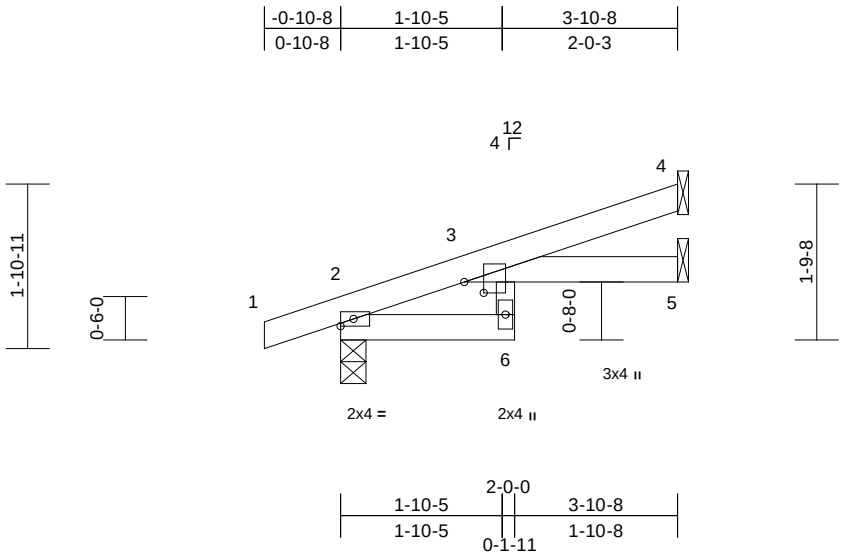

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Plate Offsets (X, Y): [3:0-1-8,0-2-11]

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.25	Vert(LL)	-0.03	6	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.05	Vert(CT)	-0.05	6	>820	240		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.01	Horz(CT)	0.02	5	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-P		Wind(LL)	0.03	6	>999	240	Weight: 11 lb	FT = 10%

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

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

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

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/6, 2-3=-65/0, 3-4=-25/37
BOT CHORD 2-6=-26/0, 3-5=0/0
WEBS 3-6=0/44

NOTES
1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
3) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
4) Refer to girder(s) for truss to truss connections.
5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 52 lb uplift at joint 4 and 65 lb uplift at joint 2.
6) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard

STATE OF MISSOURI
JUAN GARCIA
NUMBER E-2000162101
PROFESSIONAL ENGINEER

January 17,2022

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 119 MN	
B220011	J3	Jack-Open	4	1	Job Reference (optional)	I49718443

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.43 S Oct 11 2021 Print: 8.430 S Oct 11 2021 MiTek Industries, Inc. Fri Jan 14 12:30:47 Page: 1
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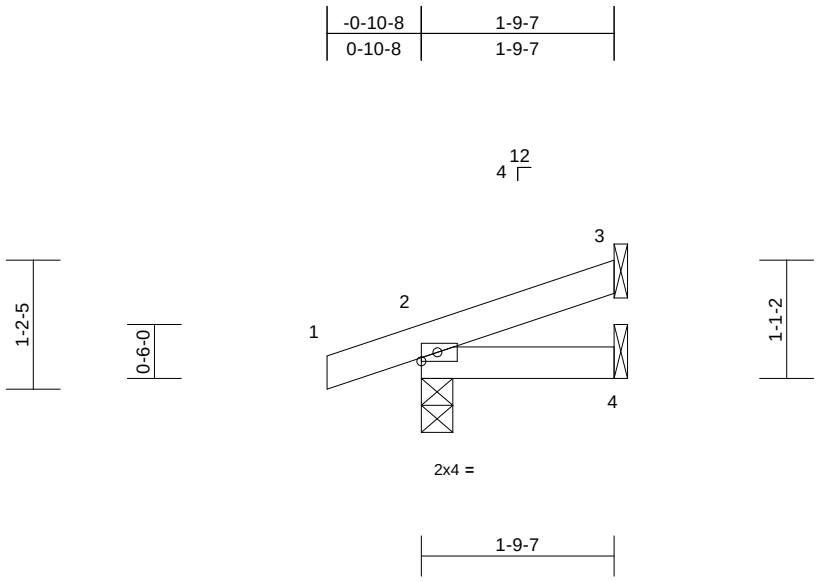


Scale = 1:21.4

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	0.05	Vert(LL)	0.00	2-4	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.03	Vert(CT)	0.00	2-4	>999	240		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.00	Horz(CT)	0.00	3	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-P							Weight: 5 lb	FT = 10%

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

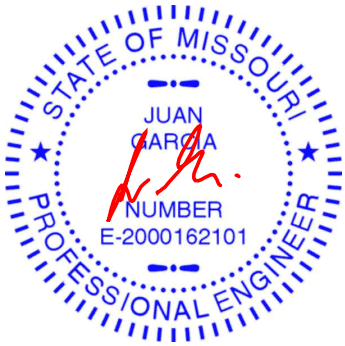
BRACING
TOP CHORD Structural wood sheathing directly applied or 1-9-7 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (lb/size) 2=158/0-3-8, 3=45/ Mechanical, 4=17/ Mechanical
Max Horiz 2=37 (LC 4)
Max Uplift 2=-56 (LC 4), 3=-27 (LC 8)
Max Grav 2=158 (LC 1), 3=45 (LC 1), 4=35 (LC 3)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/6, 2-3=-33/13
BOT CHORD 2-4=0/0

NOTES
1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
3) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
4) Refer to girder(s) for truss to truss connections.
5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 56 lb uplift at joint 2 and 27 lb uplift at joint 3.
6) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard



January 17,2022

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 119 MN	
B220011	J6	Jack-Open Girder	2	1	Job Reference (optional)	I49718444

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.43 S Oct 11 2021 Print: 8.430 S Oct 11 2021 MiTek Industries, Inc. Fri Jan 14 12:30:47
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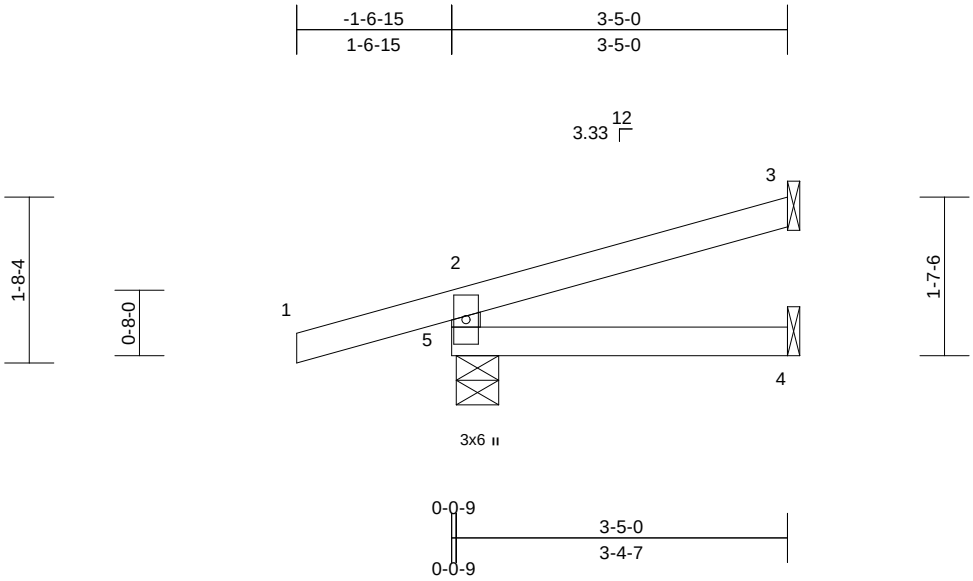

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Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.22	Vert(LL)	0.00	4-5	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.06	Vert(CT)	-0.01	4-5	>999	240		
BCLL	0.0*	Rep Stress Incr	NO	WB	0.00	Horz(CT)	0.00	3	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-R		Wind(LL)	0.00	4-5	>999	240	Weight: 10 lb	FT = 10%

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

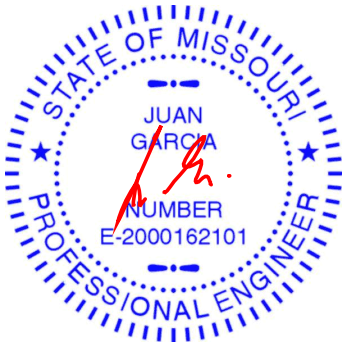
BRACING
TOP CHORD Structural wood sheathing directly applied or 3-5-0 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (lb/size) 3=44/ Mechanical, 4=9/ Mechanical, 5=151/0-5-3
Max Horiz 5=59 (LC 12)
Max Uplift 3=-47 (LC 12), 4=-1 (LC 19), 5=-104 (LC 6)
Max Grav 3=44 (LC 1), 4=43 (LC 3), 5=151 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 2-5=-132/124, 1-2=-6/23, 2-3=-24/7
BOT CHORD 4-5=0/0

NOTES
1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
3) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
4) Refer to girder(s) for truss to truss connections.
5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 104 lb uplift at joint 5, 47 lb uplift at joint 3 and 1 lb uplift at joint 4.
6) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
7) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 32 lb down and 11 lb up at -1-6-15, and 32 lb down and 11 lb up at -1-6-15 on top chord. The design/selection of such connection device(s) is the responsibility of others.
8) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

LOAD CASE(S) Standard
1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
Concentrated Loads (lb)
Vert: 1=-49 (F=-25, B=-25)
Trapezoidal Loads (lb/ft)
Vert: 1=0 (F=35, B=35)-to-2=-30 (F=20, B=20), 2=-3 (F=34, B=34)-to-3=-60 (F=5, B=5), 5=0 (F=10, B=10)-to-4=-17 (F=1, B=1)



January 17,2022

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 119 MN	
B220011	J7	Jack-Open	1	1	Job Reference (optional)	I49718445

Wheeler Lumber, Waverly, KS - 66871,

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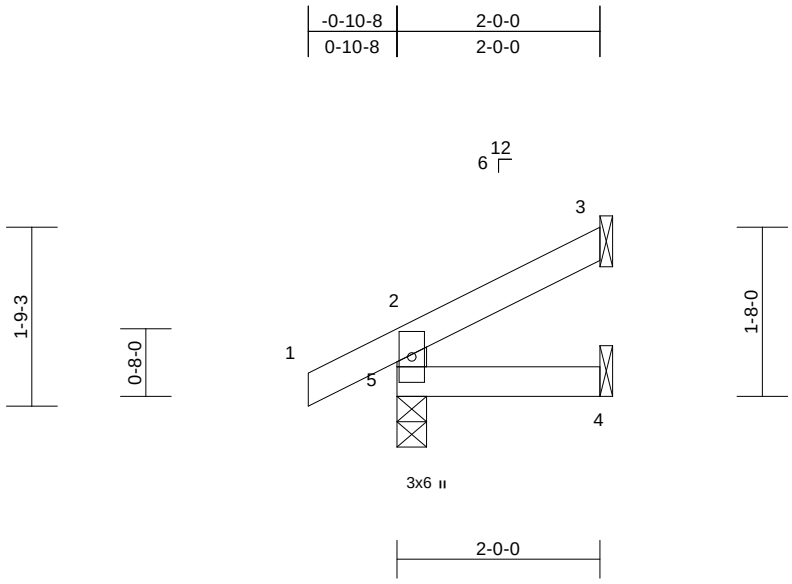


Scale = 1:22.7

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)	0.00	4-5	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.02	Vert(CT)	0.00	4-5	>999	240		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.00	Horz(CT)	0.00	3	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-R		Wind(LL)	0.00	4-5	>999	240	Weight: 6 lb	FT = 10%

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

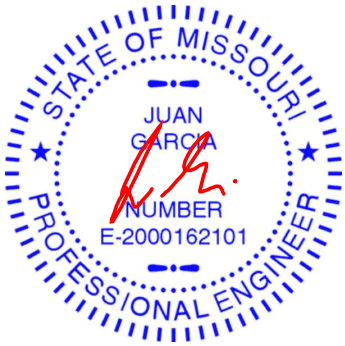
BRACING
TOP CHORD Structural wood sheathing directly applied or 2-0-0 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

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

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 2-5=-153/45, 1-2=0/32, 2-3=-39/16
BOT CHORD 4-5=0/0

NOTES
1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
3) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
4) Refer to girder(s) for truss to truss connections.
5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 26 lb uplift at joint 5 and 32 lb uplift at joint 3.
6) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard



January 17,2022

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 119 MN	
B220011	J8	Jack-Open	2	1	Job Reference (optional)	I49718446

Wheeler Lumber, Waverly, KS - 66871,

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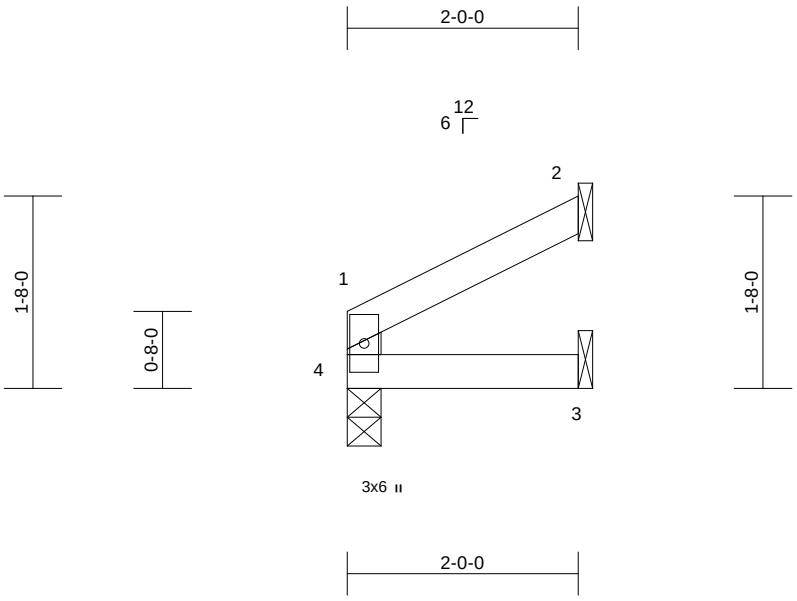

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Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.05	Vert(LL)	0.00	3-4	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.03	Vert(CT)	0.00	3-4	>999	240		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.00	Horz(CT)	0.00	2	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-R		Wind(LL)	0.00	3-4	>999	240	Weight: 5 lb	FT = 10%

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

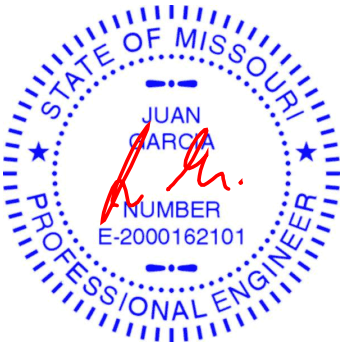
BRACING
TOP CHORD Structural wood sheathing directly applied or 2-0-0 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (lb/size) 2=60/ Mechanical, 3=23/ Mechanical, 4=83/0-3-8
Max Horiz 4=32 (LC 5)
Max Uplift 2=-35 (LC 8)
Max Grav 2=60 (LC 1), 3=35 (LC 3), 4=83 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-4=-69/18, 1-2=-36/21
BOT CHORD 3-4=0/0

NOTES
1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
3) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
4) Refer to girder(s) for truss to truss connections.
5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 35 lb uplift at joint 2.
6) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard



January 17,2022

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 119 MN	
B220011	LAY1	Lay-In Gable	1	1	Job Reference (optional)	I49718447

Wheeler Lumber, Waverly, KS - 66871,

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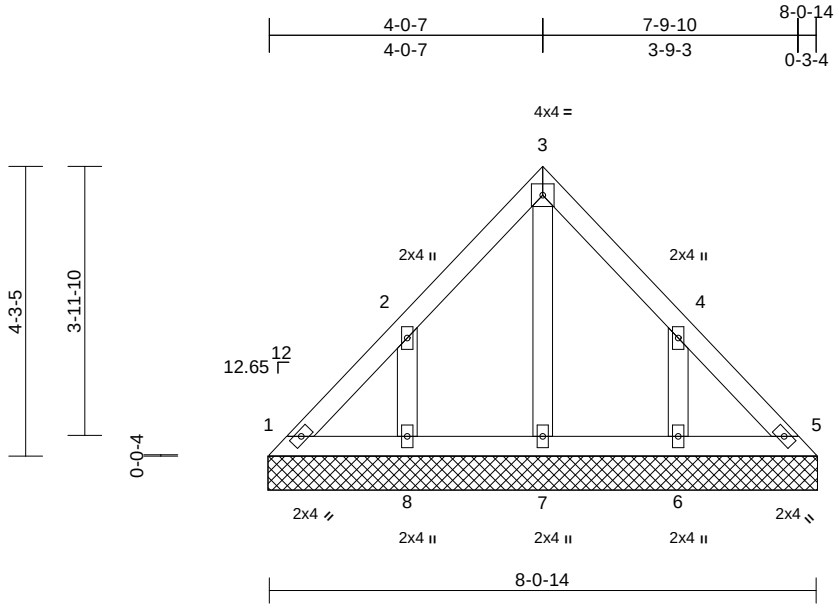

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Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.06	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.02	Vert(TL)	n/a	-	n/a	999		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.03	Horiz(TL)	0.00	5	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-P							Weight: 29 lb	FT = 10%

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

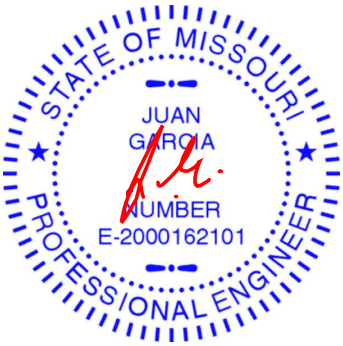
BRACING
TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (lb/size) 1=76/8-1-6, 5=76/8-1-6, 6=204/8-1-6, 7=109/8-1-6, 8=204/8-1-6
Max Horiz 1=-104 (LC 4)
Max Uplift 1=-22 (LC 4), 5=-5 (LC 5), 6=-146 (LC 9), 8=-146 (LC 8)
Max Grav 1=98 (LC 16), 5=88 (LC 18), 6=230 (LC 16), 7=123 (LC 18), 8=230 (LC 15)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-111/86, 2-3=-97/79, 3-4=-89/63, 4-5=-95/64
BOT CHORD 1-8=-42/90, 7-8=-42/90, 6-7=-42/90, 5-6=-42/90
WEBS 3-7=-83/0, 2-8=-189/171, 4-6=-189/170

NOTES
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
4) Gable requires continuous bottom chord bearing.
5) Gable studs spaced at 2-0-0 oc.
6) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
7) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 22 lb uplift at joint 1, 5 lb uplift at joint 5, 146 lb uplift at joint 8 and 146 lb uplift at joint 6.
9) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard



January 17,2022

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 119 MN	
B220011	V1	Valley	1	1	Job Reference (optional)	I49718448

Wheeler Lumber, Waverly, KS - 66871,

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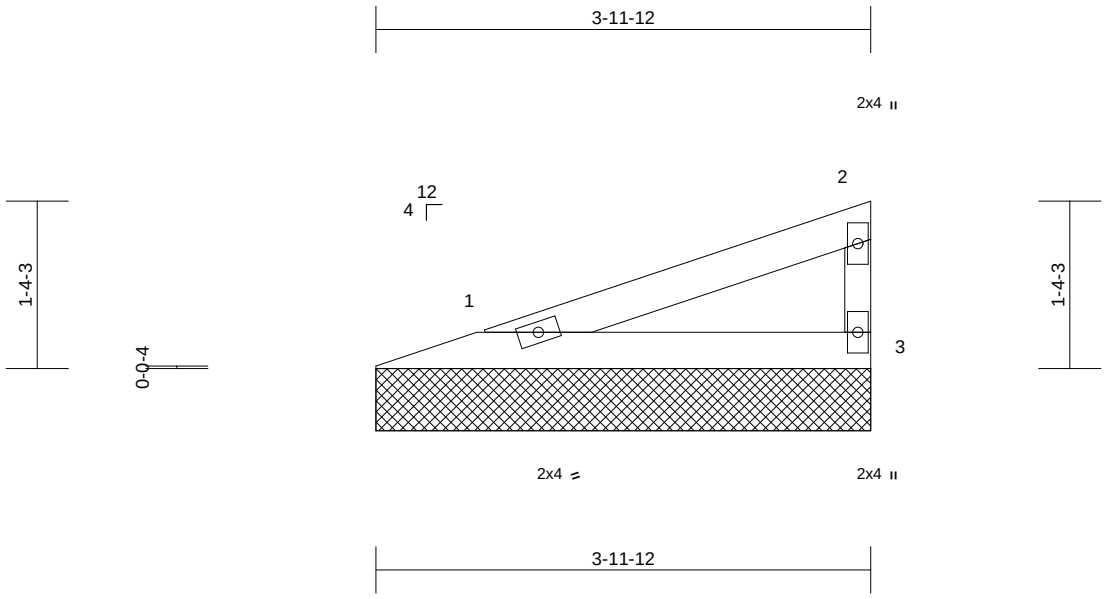

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Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.16	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.09	Vert(TL)	n/a	-	n/a	999		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.00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

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

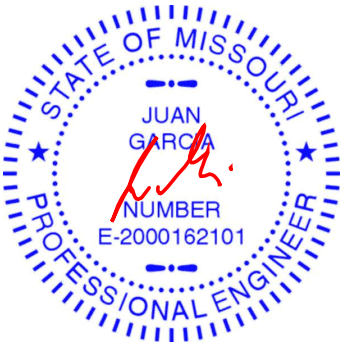
BRACING
TOP CHORD Structural wood sheathing directly applied or 4-0-8 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

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

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-40/27, 2-3=-105/47
BOT CHORD 1-3=-14/11

NOTES
1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
2) Gable requires continuous bottom chord bearing.
3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
4) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 22 lb uplift at joint 1 and 29 lb uplift at joint 3.
6) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard



January 17,2022

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 119 MN	
B220011	V2	Valley	1	1	Job Reference (optional)	I49718449

Wheeler Lumber, Waverly, KS - 66871,

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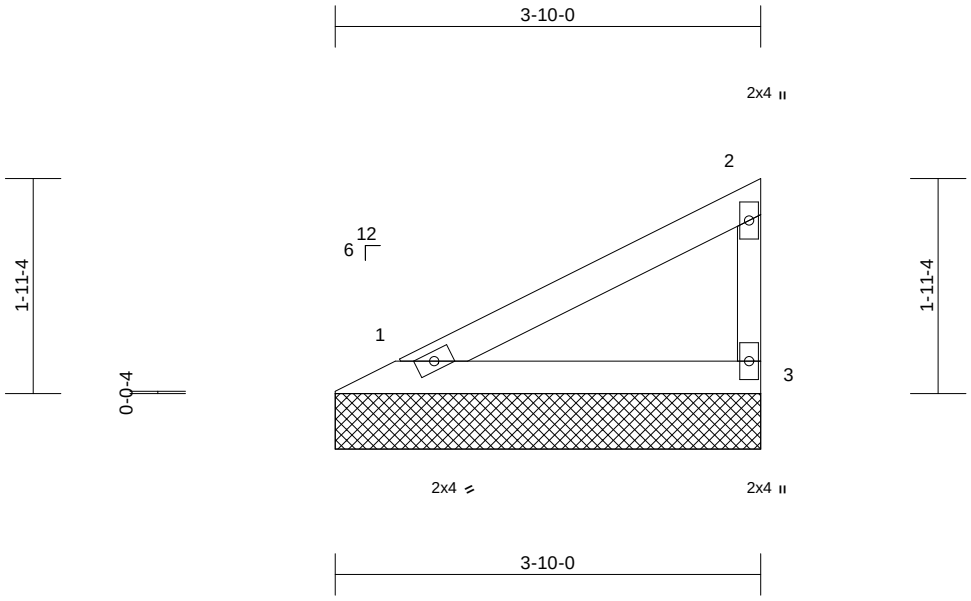

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Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.18	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.10	Vert(TL)	n/a	-	n/a	999		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.00	Horiz(TL)	0.00	3	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-P							Weight: 10 lb	FT = 10%

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

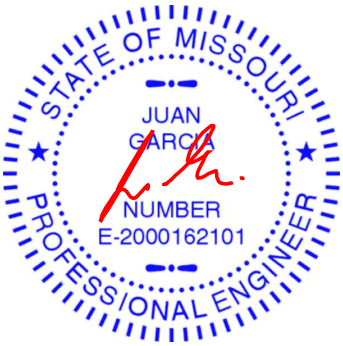
BRACING
TOP CHORD Structural wood sheathing directly applied or 3-10-8 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (lb/size) 1=141/3-10-0, 3=141/3-10-0
Max Horiz 1=66 (LC 5)
Max Uplift 1=-18 (LC 8), 3=-35 (LC 8)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-60/39, 2-3=-110/54
BOT CHORD 1-3=-22/17

NOTES
1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
2) Gable requires continuous bottom chord bearing.
3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
4) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 18 lb uplift at joint 1 and 35 lb uplift at joint 3.
6) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard



January 17,2022

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 119 MN	
B220011	V3	Valley	1	1	Job Reference (optional)	I49718450

Wheeler Lumber, Waverly, KS - 66871,

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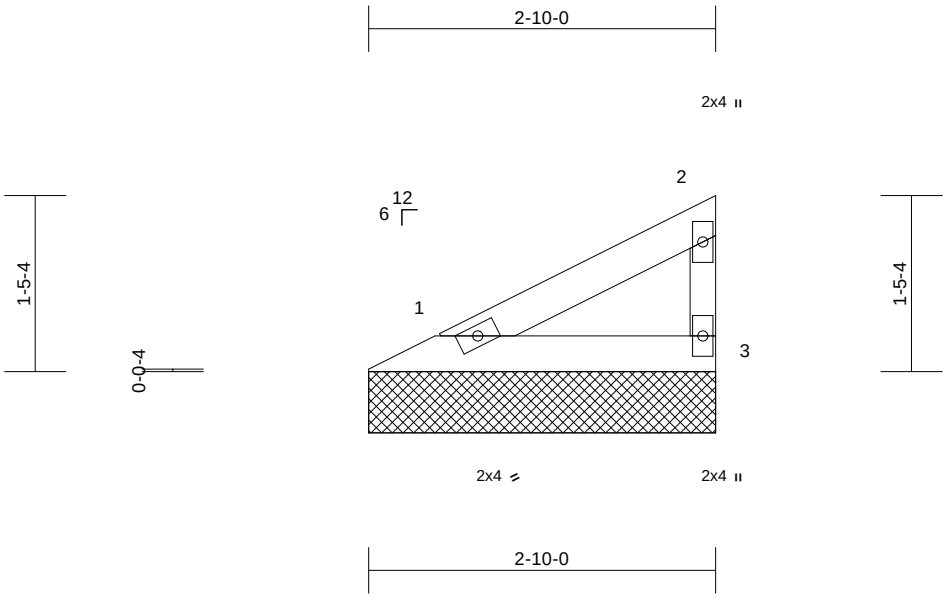


Scale = 1:18.8

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	0.08	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

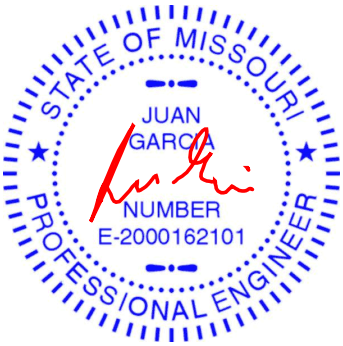
BRACING
TOP CHORD Structural wood sheathing directly applied or 2-10-8 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (lb/size) 1=96/2-10-0, 3=96/2-10-0
Max Horiz 1=45 (LC 5)
Max Uplift 1=-12 (LC 8), 3=-24 (LC 8)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-41/27, 2-3=-75/36
BOT CHORD 1-3=-15/12

NOTES
1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
2) Gable requires continuous bottom chord bearing.
3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
4) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 12 lb uplift at joint 1 and 24 lb uplift at joint 3.
6) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard



January 17,2022

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 119 MN	I49718451
B220011	V4	Valley	1	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS - 66871,

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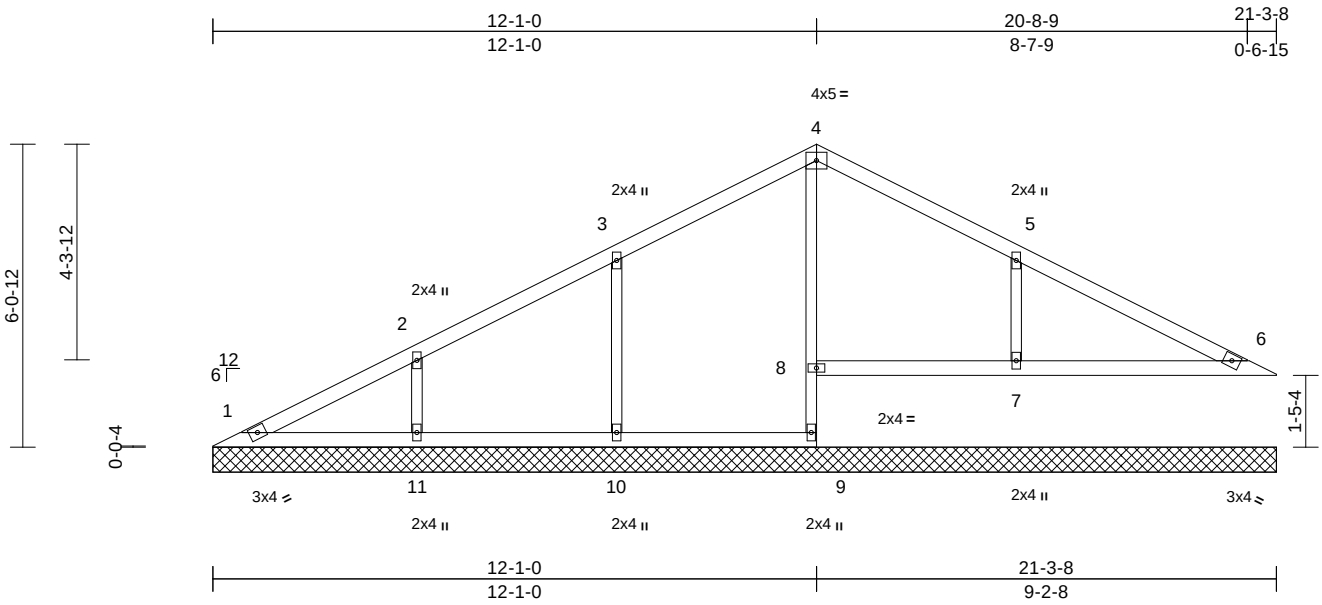

Scale = 1:46.1

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	0.28	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	0.11	Horiz(TL)	0.00	6	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S							Weight: 60 lb	FT = 10%

LUMBER
TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2 *Except* 9-4:2x3 SPF No.2
OTHERS 2x3 SPF No.2

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

REACTIONS (lb/size) 1=124/21-3-8, 6=169/21-3-8, 7=471/21-3-8, 8=260/21-3-8, 9=33/21-3-8, 10=382/21-3-8, 11=370/21-3-8
Max Horiz 1=135 (LC 8)
Max Uplift 1=-25 (LC 9), 6=-45 (LC 9), 7=-139 (LC 9), 10=-115 (LC 8), 11=-111 (LC 8)
Max Grav 1=142 (LC 16), 6=176 (LC 2), 7=490 (LC 24), 8=264 (LC 18), 9=102 (LC 14), 10=433 (LC 23), 11=375 (LC 2)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-126/97, 2-3=-93/122, 3-4=-74/175, 4-5=-87/158, 5-6=-58/73
BOT CHORD 1-11=0/13, 10-11=0/13, 9-10=0/13, 8-9=0/0, 4-8=-232/1, 7-8=0/19, 6-7=0/19
WEBS 3-10=-302/168, 2-11=-282/155, 5-7=-359/195

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) Gable studs spaced at 4-0-0 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, with BCDL = 10.0psf.
9) Bearing at joint(s) 8 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 25 lb uplift at joint 1, 45 lb uplift at joint 6, 115 lb uplift at joint 10, 111 lb uplift at joint 11 and 139 lb uplift at joint 7.
11) Beveled plate or shim required to provide full bearing surface with truss chord at joint(s) 6, 7.
12) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard

January 17,2022

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 119 MN
B220011	V5	Valley	1	1	I49718452
					Job Reference (optional)

Wheeler Lumber, Waverly, KS - 66871,

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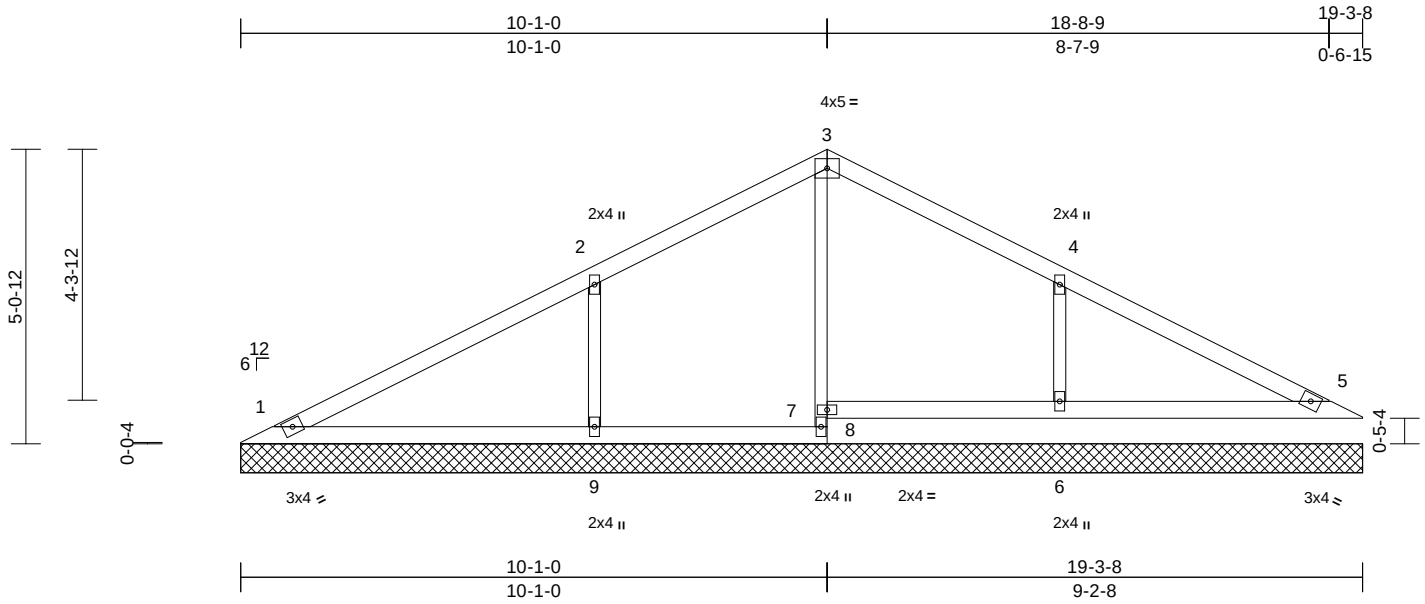


Scale = 1:39.6

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	0.20	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.15	Vert(TL)	n/a	-	n/a	999		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.10	Horiz(TL)	0.00	5	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S							Weight: 52 lb	FT = 10%

LUMBER

TOP CHORD 2x4 SPF 2400F 2.0E *Except* 3-5:2x4 SPF 2100F 1.8E

BOT CHORD 2x4 SPF 2400F 2.0E *Except* 8-3:2x3 SPF No.2, 7-5:2x4 SPF No.2

OTHERS 2x3 SPF No.2

BRACING

TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins.

BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing, Except:
10-0-0 oc bracing: 7-8.

REACTIONS (lb/size) 1=206/19-3-8, 5=173/19-3-8, 6=474/19-3-8, 7=223/19-3-8, 8=22/19-3-8, 9=532/19-3-8

Max Horiz 1=94 (LC 8)

Max Uplift 1=-27 (LC 9), 5=-32 (LC 9), 6=-139 (LC 9), 9=-161 (LC 8)

Max Grav 1=206 (LC 1), 5=173 (LC 1), 6=477 (LC 22), 7=223 (LC 1), 8=51 (LC 3), 9=536 (LC 21)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=-102/120, 2-3=-95/146, 3-4=-97/128, 4-5=-67/69

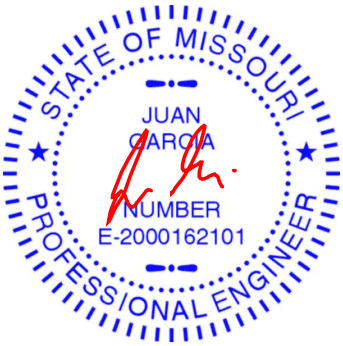
BOT CHORD 1-9=-5/35, 8-9=-5/35, 7-8=0/0, 3-7=-194/0, 6-7=-3/37, 5-6=-3/37

WEBS 2-9=-405/219, 4-6=-362/197

NOTES

1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
4) Gable requires continuous bottom chord bearing.
5) Gable studs spaced at 4-0-0 oc.
6) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
7) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
8) Bearing at joint(s) 7 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 27 lb uplift at joint 1, 32 lb uplift at joint 5, 161 lb uplift at joint 9 and 139 lb uplift at joint 6.
10) Beveled plate or shim required to provide full bearing surface with truss chord at joint(s) 5, 6.
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



January 17,2022

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 119 MN	I49718453
B220011	V6	Valley	1	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS - 66871,

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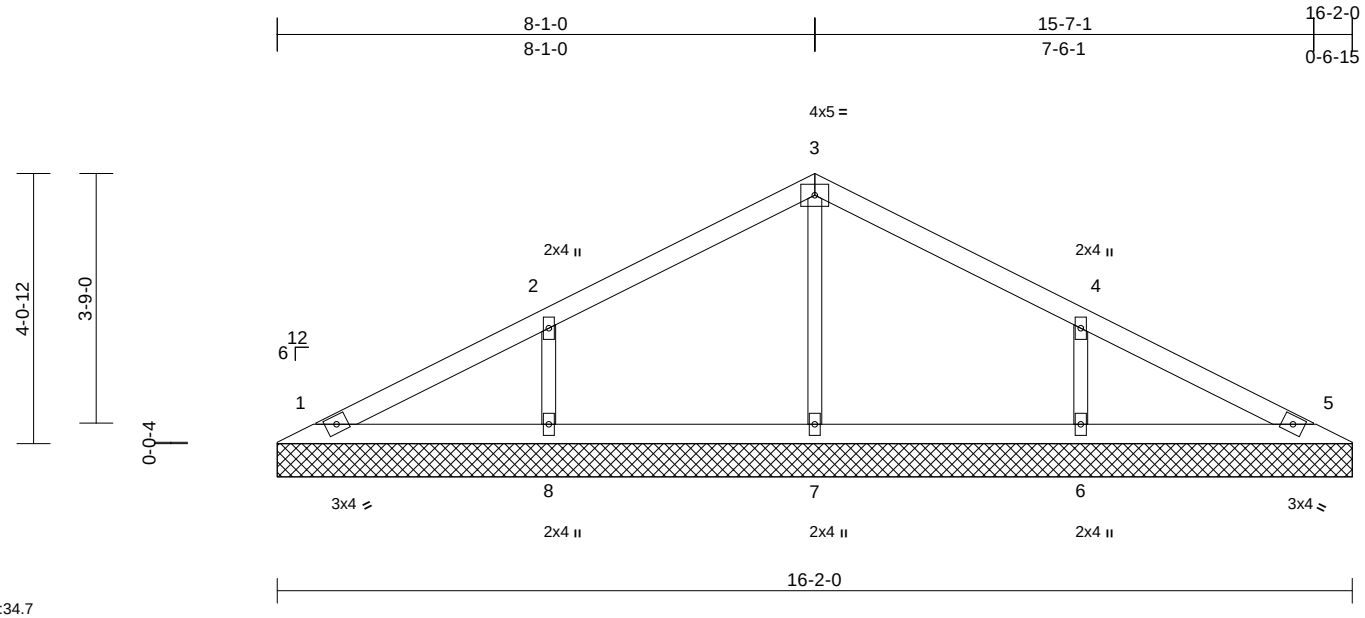

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Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.12	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.05	Vert(TL)	n/a	-	n/a	999		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.08	Horiz(TL)	0.00	5	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S							Weight: 43 lb	FT = 10%

LUMBER
TOP CHORD 2x4 SPF 2100F 1.8E
BOT CHORD 2x4 SPF 2400F 2.0E
OTHERS 2x3 SPF No.2

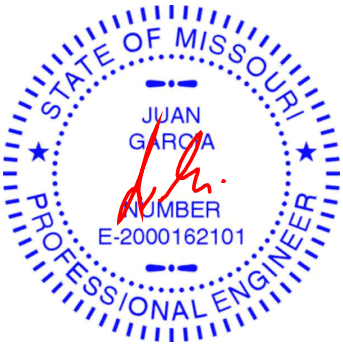
BRACING
TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (lb/size) 1=138/16-2-0, 5=138/16-2-0, 6=394/16-2-0, 7=284/16-2-0, 8=394/16-2-0
Max Horiz 1=-66 (LC 13)
Max Uplift 1=-12 (LC 9), 5=-6 (LC 9), 6=-125 (LC 9), 8=-125 (LC 8)
Max Grav 1=138 (LC 1), 5=138 (LC 1), 6=401 (LC 22), 7=284 (LC 1), 8=401 (LC 21)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-99/46, 2-3=-116/94, 3-4=-116/79, 4-5=-80/37
BOT CHORD 1-8=0/64, 7-8=0/64, 6-7=0/64, 5-6=0/64
WEBS 3-7=-208/25, 2-8=-311/170, 4-6=-311/170

NOTES
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
4) Gable requires continuous bottom chord bearing.
5) Gable studs spaced at 4-0-0 oc.
6) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
7) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 12 lb uplift at joint 1, 6 lb uplift at joint 5, 125 lb uplift at joint 8 and 125 lb uplift at joint 6.
9) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard



January 17,2022

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 119 MN	
B220011	V7	Valley	1	1	Job Reference (optional)	I49718454

Wheeler Lumber, Waverly, KS - 66871,

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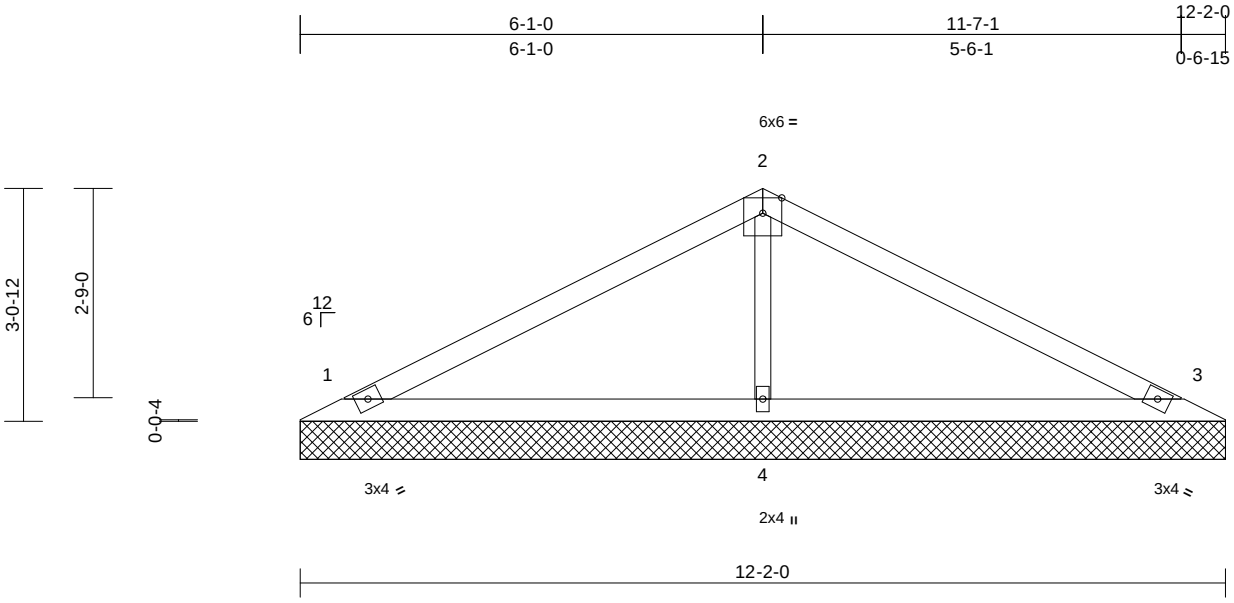

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Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.42	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.14	Vert(TL)	n/a	-	n/a	999		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.08	Horiz(TL)	0.00	3	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S							Weight: 30 lb	FT = 10%

LUMBER
TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF 2400F 2.0E
OTHERS 2x3 SPF No.2

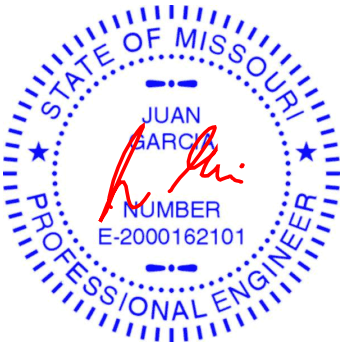
BRACING
TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (lb/size) 1=234/12-2-0, 3=234/12-2-0, 4=520/12-2-0
Max Horiz 1=-49 (LC 13)
Max Uplift 1=-47 (LC 8), 3=-54 (LC 9), 4=-29 (LC 8)
Max Grav 1=234 (LC 21), 3=234 (LC 22), 4=520 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-149/67, 2-3=-149/51
BOT CHORD 1-4=-3/65, 3-4=-3/65
WEBS 2-4=-347/92

NOTES
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
4) Gable requires continuous bottom chord bearing.
5) Gable studs spaced at 4-0-0 oc.
6) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
7) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 47 lb uplift at joint 1, 54 lb uplift at joint 3 and 29 lb uplift at joint 4.
9) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard



January 17,2022

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 119 MN	I49718455
B220011	V8	Valley	1	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS - 66871,

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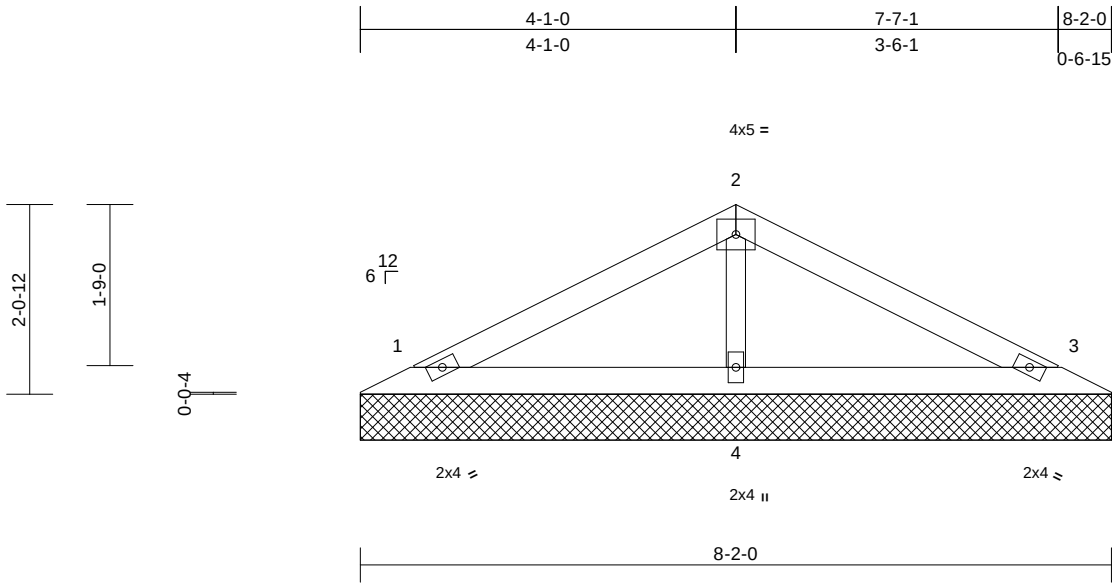

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Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.22	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.10	Vert(TL)	n/a	-	n/a	999		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.04	Horiz(TL)	0.00	3	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-P							Weight: 19 lb	FT = 10%

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

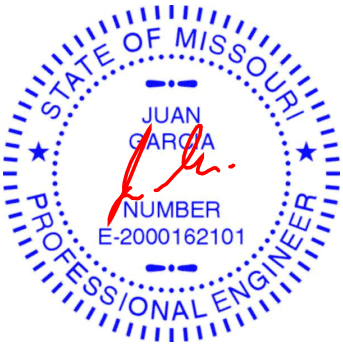
BRACING
TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (lb/size) 1=164/8-2-0, 3=164/8-2-0, 4=301/8-2-0
Max Horiz 1=31 (LC 12)
Max Uplift 1=-38 (LC 8), 3=-43 (LC 9), 4=-4 (LC 8)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-79/44, 2-3=-79/31
BOT CHORD 1-4=-1/35, 3-4=-1/35
WEBS 2-4=-213/56

NOTES
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
4) Gable requires continuous bottom chord bearing.
5) Gable studs spaced at 4-0-0 oc.
6) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
7) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 38 lb uplift at joint 1, 43 lb uplift at joint 3 and 4 lb uplift at joint 4.
9) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard



January 17,2022

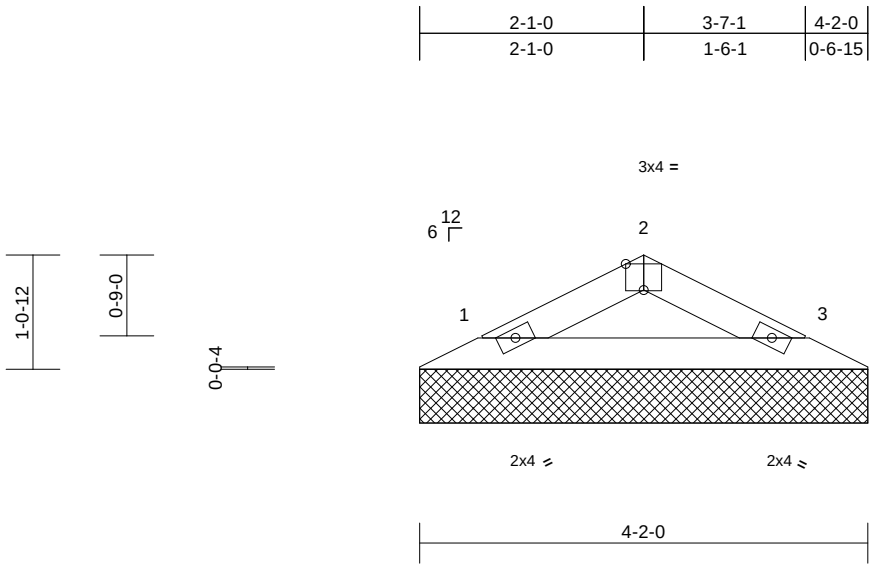
MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 119 MN	I49718456
B220011	V9	Valley	1	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.43 S Oct 11 2021 Print: 8.430 S Oct 11 2021 MiTek Industries, Inc. Fri Jan 14 12:30:49
ID:pq50?Ycap6WpLXoTu4wfY2za1nE-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

Page: 1



Scale = 1:21.4

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

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.04	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.09	Vert(TL)	n/a	-	n/a	999		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.00	Horiz(TL)	0.00	3	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-P							Weight: 9 lb	FT = 10%

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

BRACING
TOP CHORD Structural wood sheathing directly applied or 4-3-0 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (lb/size) 1=135/4-2-0, 3=135/4-2-0
Max Horiz 1=13 (LC 8)
Max Uplift 1=-17 (LC 8), 3=-17 (LC 9)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-135/40, 2-3=-135/40
BOT CHORD 1-3=-24/104

NOTES
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
3) Gable requires continuous bottom chord bearing.
4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
5) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 17 lb uplift at joint 1 and 17 lb uplift at joint 3.
7) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

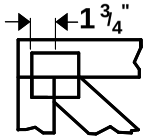
LOAD CASE(S) Standard

January 17,2022

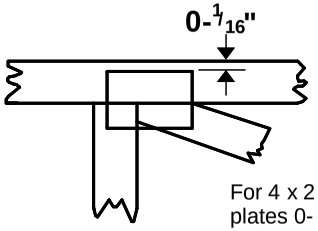
MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

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.

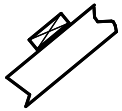
*** Plate location details available in MiTek 20/20 software or upon request.**

PLATE SIZE

4 x 4

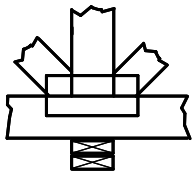
The first dimension is the plate width measured perpendicular to slots. Second dimension is the length parallel to slots.

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

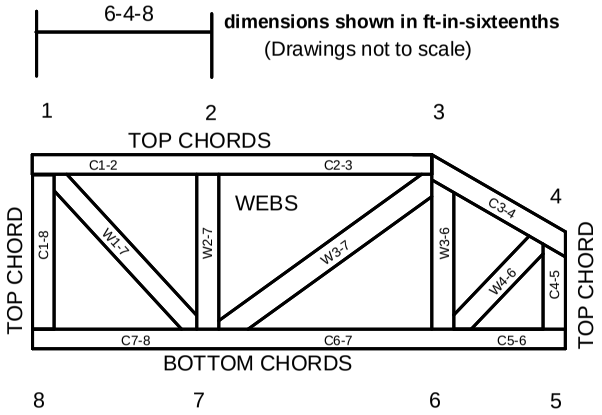


Indicates location where bearings (supports) occur. Icons vary but reaction section indicates joint number where bearings occur. Min size shown is for crushing only.

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.