MiTek®

RE: P240069-01
Roof - Osage Lot 82

MiTek, Inc.
16023 Swingley Ridge Rd.
Chesterfield, MO 63017
314.434.1200

Site Information:

Customer: Clayton Properties Project Name: P240069-01
Lot/Block: 82 Model:
Address: 3734/3736 SW Knoxville CT Subdivision: Osage
City: Lee's Summit State: MO

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

Design Code: IRC2018/TPI2014 Design Program: MiTek 20/20 8.6
Wind Code: ASCE 7-16 Wind Speed: 115 mph
Roof Load: 45.0 psf Floor Load: N/A psf

This package includes 24 individual, dated Truss Design Drawings and 0 Additional Drawings.

No.	Seal#	Truss Name	Date	No.	Seal#	Truss Name	Date
1	I59435143	A1	7/11/2023	21	I59435163	V5	7/11/2023
2	I59435144	A2	7/11/2023	22	I59435164	V6	7/11/2023
3	I59435145	A3	7/11/2023	23	I59435165	V7	7/11/2023
4	I59435146	A4	7/11/2023	24	I59435166	V8	7/11/2023
5	I59435147	A5	7/11/2023				
6	I59435148	A6	7/11/2023				
7	I59435149	B1	7/11/2023				
8	I59435150	B2	7/11/2023				
9	I59435151	C1	7/11/2023				
10	I59435152	C2	7/11/2023				
11	I59435153	C3	7/11/2023				
12	I59435154	C4	7/11/2023				
13	I59435155	D1	7/11/2023				
14	I59435156	D2	7/11/2023				
15	I59435157	PB1	7/11/2023				
16	I59435158	PB2	7/11/2023				
17	I59435159	V1	7/11/2023				
18	I59435160	V2	7/11/2023				
19	I59435161	V3	7/11/2023				
20	I59435162	V4	7/11/2023				

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

Truss Design Engineer's Name: Nathan Fox
My license renewal date for the state of Missouri is December 31, 2024.
Missouri COA: 001193

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

July 11, 2023
Nathan Fox

Job	Truss	Truss Type	Qty	Ply	Roof - Osage Lot 82
P240069-01	A1	Piggyback Base Structural Gable	2	1	Job Reference (optional) I59435143

Premier Building Supply (Springhill, KS), Spring Hills, KS - 66083,

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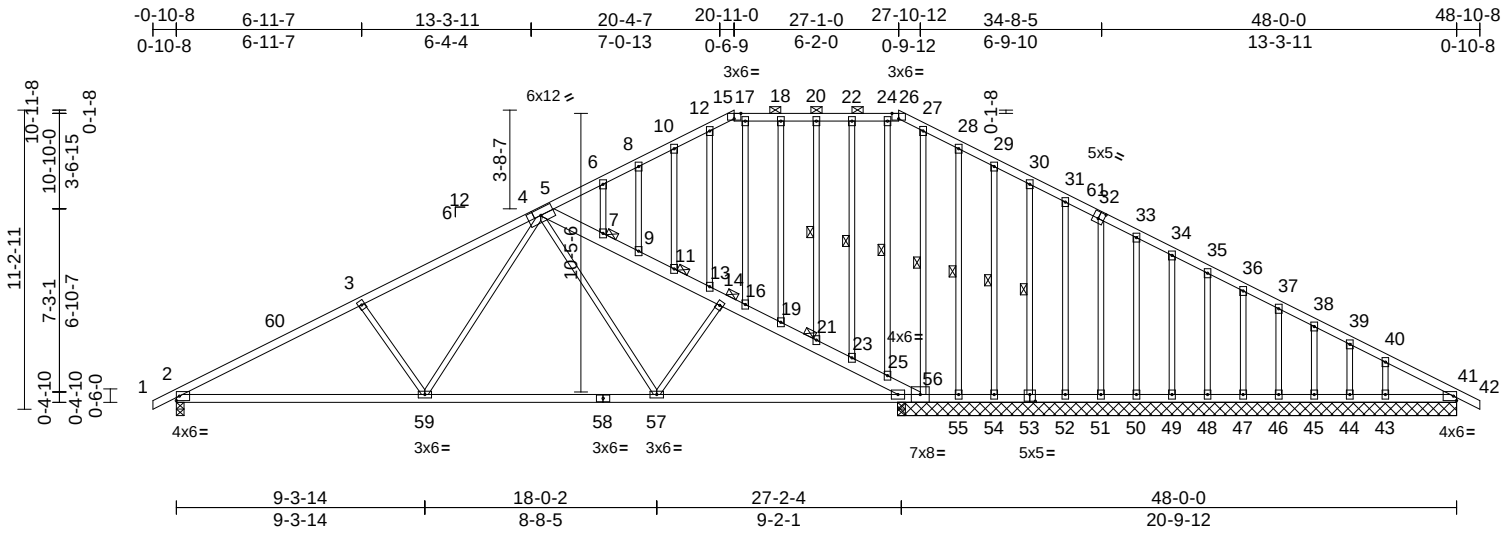

Scale = 1:86.4

Plate Offsets (X, Y): [15:0-3-0,Edge], [26:0-3-0,Edge], [32:0-2-8,0-3-0], [53:0-2-8,0-3-0]

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.75	Vert(LL)	-0.20	2-59	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.95	Vert(CT)	-0.43	2-59	>771	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.35	Horz(CT)	0.07	56	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S							Weight: 312 lb	FT = 20%

LUMBER
TOP CHORD 2x4 SP No.2 *Except* 56-5:2x6 SPF No.2
BOT CHORD 2x4 SP No.2
WEBS 2x3 SPF No.2
OTHERS 2x3 SPF No.2

BRACING
TOP CHORD Structural wood sheathing directly applied or 2-2-0 oc purlins, except
2-0-0 oc purlins (10-0-0 max.): 15-26, 5-56.
BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing, Except:
8-11-14 oc bracing: 2-59
10-0-0 oc bracing: 57-59
2-2-0 oc bracing: 56-57.
WEBS 1 Row at midpt 20-21, 22-23, 24-25, 27-56, 28-55, 29-54, 30-53
JOINTS 1 Brace at Jt(s): 14, 21, 11, 7

REACTIONS (size) 2=0-3-8, 41=20-11-8, 43=20-11-8, 44=20-11-8, 45=20-11-8, 46=20-11-8, 47=20-11-8, 48=20-11-8, 49=20-11-8, 50=20-11-8, 51=20-11-8, 52=20-11-8, 53=20-11-8, 54=20-11-8, 55=20-11-8, 56=20-11-8
Max Horiz 2=204 (LC 12)
Max Uplift 2=-225 (LC 12), 41=-29 (LC 25), 43=-91 (LC 13), 44=-28 (LC 13), 45=-42 (LC 13), 46=-41 (LC 13), 47=-41 (LC 13), 48=-41 (LC 13), 49=-41 (LC 13), 50=-42 (LC 13), 51=-41 (LC 13), 52=-39 (LC 13), 53=-46 (LC 13), 54=-23 (LC 13), 55=-509 (LC 25), 56=-162 (LC 12)
Max Grav 2=1249 (LC 1), 41=166 (LC 26), 43=232 (LC 1), 44=81 (LC 1), 45=128 (LC 26), 46=119 (LC 1), 47=120 (LC 1), 48=120 (LC 1), 49=120 (LC 26), 50=123 (LC 1), 51=118 (LC 26), 52=128 (LC 1), 53=96 (LC 26), 54=234 (LC 1), 55=33 (LC 9), 56=1945 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/17, 2-3=-1983/353, 3-5=-1735/359, 5-6=-43/246, 6-8=-12/263, 8-10=0/277, 10-12=0/296, 12-15=-17/249, 15-17=-15/234, 17-18=-13/242, 18-20=-13/242, 20-22=-13/242, 22-24=-13/242, 24-26=-10/244, 26-27=-47/223, 27-28=0/312, 28-29=-6/254, 29-30=-9/233, 30-31=-7/227, 31-33=-27/219, 33-34=-46/203, 34-35=-64/198, 35-36=-83/198, 36-37=-101/198, 37-38=-120/198, 38-39=-144/200, 39-40=-170/189, 40-41=-240/230, 41-42=0/17, 5-7=-1799/395, 7-9=-1829/416, 9-11=-1862/436, 11-13=-1892/457, 13-14=-1977/479, 14-16=-2050/498, 16-19=-2125/504, 19-21=-2155/510, 21-23=-2187/516, 23-25=-2216/523, 25-56=-2226/522
BOT CHORD 2-59=-415/1683, 57-59=-190/1108, 56-57=-274/1789, 55-56=-193/244, 54-55=-193/244, 52-54=-193/244, 51-52=-193/244, 50-51=-194/244, 49-50=-194/244, 48-49=-194/244, 47-48=-194/244, 46-47=-194/244, 45-46=-194/244, 44-45=-194/244, 43-44=-194/244, 41-43=-194/244
WEBS 3-59=-411/269, 5-59=-138/643, 5-57=-9/737, 14-57=-551/143, 20-21=-74/35, 22-23=-67/38, 24-25=-49/21, 27-56=-367/24, 28-55=-12/84, 29-54=-87/60, 30-53=-98/56, 31-52=-92/56, 32-51=-93/56, 33-50=-95/58, 34-49=-93/57, 35-48=-93/57, 36-47=-93/57, 37-46=-93/57, 38-45=-97/59, 39-44=-69/41, 40-43=-174/115, 18-19=-73/40, 16-17=-169/20, 12-13=-190/48, 10-11=-67/47, 8-9=-73/46, 6-7=-60/41

NOTES
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=35ft; Ke=1.00; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) -0-10-8 to 4-1-8, Interior (1) 4-1-8 to 20-11-0, Exterior(2E) 20-11-0 to 27-1-0, Exterior(2R) 27-1-0 to 34-1-14, Interior (1) 34-1-14 to 48-10-8 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60

July 11,2023

Continued on page 2

MiTek®
16023 Swingley Ridge Rd.
Chesterfield, MO 63017
314.434.1200 / MiTek-US.com

Job	Truss	Truss Type	Qty	Ply	Roof - Osage Lot 82	I59435143
P240069-01	A1	Piggyback Base Structural Gable	2	1	Job Reference (optional)	

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) Provide adequate drainage to prevent water ponding.
5) All plates are 3x4 MT20 unless otherwise indicated.
6) Gable studs spaced at 1-4-0 oc.
7) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
8) All bearings are assumed to be SP No.2 crushing capacity of 565 psi.
9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 225 lb uplift at joint 2, 162 lb uplift at joint 56, 29 lb uplift at joint 41, 509 lb uplift at joint 55, 23 lb uplift at joint 54, 46 lb uplift at joint 53, 39 lb uplift at joint 52, 41 lb uplift at joint 51, 42 lb uplift at joint 50, 41 lb uplift at joint 49, 41 lb uplift at joint 48, 41 lb uplift at joint 47, 41 lb uplift at joint 46, 42 lb uplift at joint 45, 28 lb uplift at joint 44 and 91 lb uplift at joint 43.
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

RELEASE FOR CONSTRUCTION
AS NOTED FOR PLAN REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
02/13/2024

Job	Truss	Truss Type	Qty	Ply	Roof - Osage Lot 82	I59435144
P240069-01	A2	Piggyback Base	6	1	Job Reference (optional)	

Premier Building Supply (Springhill, KS), Spring Hills, KS - 66083,

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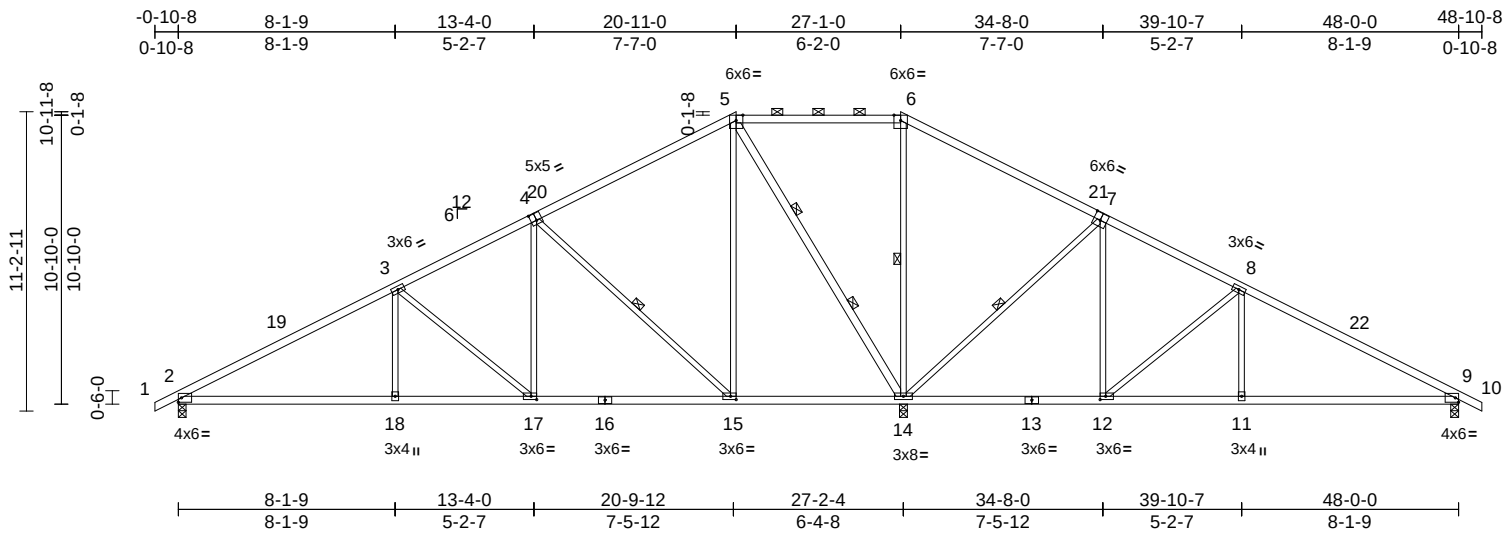

Scale = 1:86.4

Plate Offsets (X, Y): [4:0-2-8,0-3-4], [7:0-3-0,0-3-4], [12:0-2-8,0-1-8], [15:0-2-8,0-1-8], [17:0-2-8,0-1-8]

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	0.94	Vert(LL)	-0.13	2-18	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.76	Vert(CT)	-0.30	2-18	>999	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.91	Horz(CT)	0.04	14	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S							Weight: 232 lb	FT = 20%

LUMBER
TOP CHORD 2x4 SP No.2 *Except* 1-4,7-10:2x4 SP 1650F 1.5E
BOT CHORD 2x4 SP No.2
WEBS 2x3 SPF No.2 *Except* 14-5:2x4 SP No.2

BRACING
TOP CHORD Structural wood sheathing directly applied or 2-2-0 oc purlins, except 2-0-0 oc purlins (10-0-0 max.): 5-6.
BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.
WEBS 1 Row at midpt 4-15, 6-14, 7-14
WEBS 2 Rows at 1/3 pts 5-14

REACTIONS (size) 2=0-3-8, 9=0-3-8, 14=0-3-8
Max Horiz 2=204 (LC 12)
Max Uplift 2=-198 (LC 12), 9=-184 (LC 13), 14=-303 (LC 12)
Max Grav 2=1034 (LC 25), 9=689 (LC 26), 14=2925 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/17, 2-3=-1514/257, 3-5=-926/229, 5-6=0/834, 6-8=-184/1051, 8-9=-783/228, 9-10=0/17
BOT CHORD 2-18=-312/1230, 17-18=-312/1230, 15-17=-143/748, 14-15=-152/328, 12-14=-340/183, 11-12=-102/585, 9-11=-102/585
WEBS 3-18=0/297, 3-17=-623/218, 4-17=-60/504, 4-15=-911/325, 5-15=-137/756, 5-14=-1467/285, 6-14=-882/186, 7-14=-927/326, 7-12=-60/514, 8-12=-651/219, 8-11=0/300

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=35ft; Ke=1.00; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) -0-10-8 to 4-1-8, Interior (1) 4-1-8 to 20-11-0, Exterior(2E) 20-11-0 to 27-1-0, Exterior(2R) 27-1-0 to 34-1-14, Interior (1) 34-1-14 to 48-10-8 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; 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) All bearings are assumed to be SP No.2 crushing capacity of 565 psi.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 198 lb uplift at joint 2, 303 lb uplift at joint 14 and 184 lb uplift at joint 9.
7) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
8) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

LOAD CASE(S) Standard

STATE OF MISSOURI
NATHANIEL FOX
NUMBER PE-2022042259
PROFESSIONAL ENGINEER

July 11,2023

MiTek®
16023 Swingley Ridge Rd.
Chesterfield, MO 63017
314.434.1200 / MiTek-US.com

Job	Truss	Truss Type	Qty	Ply	Roof - Osage Lot 82	I59435145
P240069-01	A3	Piggyback Base	2	1	Job Reference (optional)	

Premier Building Supply (Springhill, KS), Spring Hills, KS - 66083,

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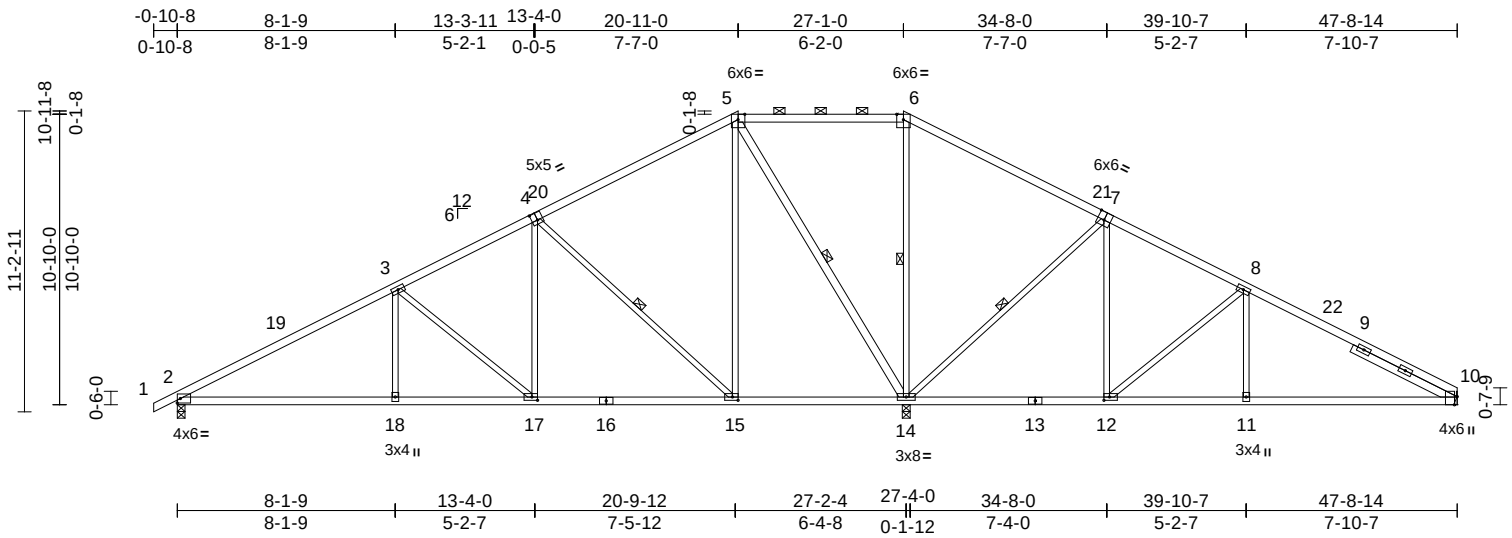

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Plate Offsets (X, Y): [4:0-2-8,0-3-4], [7:0-3-0,Edge], [10:0-3-10,Edge], [12:0-2-8,0-1-8], [15:0-2-8,0-1-8], [17:0-2-8,0-1-8]

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	0.89	Vert(LL)	-0.13	2-18	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.77	Vert(CT)	-0.31	2-18	>999	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.96	Horz(CT)	0.05	10	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S							Weight: 236 lb	FT = 20%

LUMBER

TOP CHORD	2x4 SP No.2 *Except* 4-1,7-10:2x4 SP 1650F 1.5E
BOT CHORD	2x4 SP No.2
WEBS	2x3 SPF No.2 *Except* 14-5:2x4 SP No.2
SLIDER	Right 2x4 SP No.2 -- 4-4-0

BRACING

TOP CHORD	Structural wood sheathing directly applied or 2-2-0 oc purlins, except 2-0-0 oc purlins (10-0-0 max.): 5-6.
BOT CHORD	Rigid ceiling directly applied or 6-0-0 oc bracing.
WEBS	1 Row at midpt 6-14, 5-14, 7-14, 4-15

REACTIONS (size) 2=0-3-8, 10= Mechanical, 14=0-3-8
Max Horiz 2=209 (LC 12)
Max Uplift 2=-212 (LC 12), 10=-202 (LC 13), 14=-270 (LC 12)
Max Grav 2=1056 (LC 25), 10=696 (LC 26), 14=2770 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD	5-6=0/665, 1-2=0/17, 2-3=-1560/287, 3-5=-973/270, 6-8=-364/860, 8-10=-913/318
BOT CHORD	2-18=-344/1270, 17-18=-344/1270, 15-17=-176/790, 14-15=-70/250, 12-14=-285/252, 11-12=-167/718, 10-11=-167/718
WEBS	3-18=0/297, 5-15=-136/754, 6-14=-796/153, 8-11=0/287, 5-14=-1391/268, 4-17=-59/501, 3-17=-619/217, 7-12=-51/500, 7-14=-925/324, 8-12=-615/201, 4-15=-908/324

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=35ft; Ke=1.00; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) -0-10-8 to 4-1-8, Interior (1) 4-1-8 to 20-11-0, Exterior(2E) 20-11-0 to 27-1-0, Exterior(2R) 27-1-0 to 34-1-14, Interior (1) 34-1-14 to 47-8-14 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) Provide adequate drainage to prevent water ponding.
4) All plates are 3x6 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) Bearings are assumed to be: Joint 2 SP No.2 crushing capacity of 565 psi, Joint 14 SP No.2 crushing capacity of 565 psi.
7) Refer to girder(s) for truss to truss connections.
8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 202 lb uplift at joint 10, 212 lb uplift at joint 2 and 270 lb uplift at joint 14.
9) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
10) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

LOAD CASE(S) Standard

July 11,2023

MiTek®
16023 Swingley Ridge Rd.
Chesterfield, MO 63017
314.434.1200 / MiTek-US.com

Job	Truss	Truss Type	Qty	Ply	Roof - Osage Lot 82	I59435146
P240069-01	A4	Piggyback Base	2	1	Job Reference (optional)	

Premier Building Supply (Springhill, KS), Spring Hills, KS - 66083,

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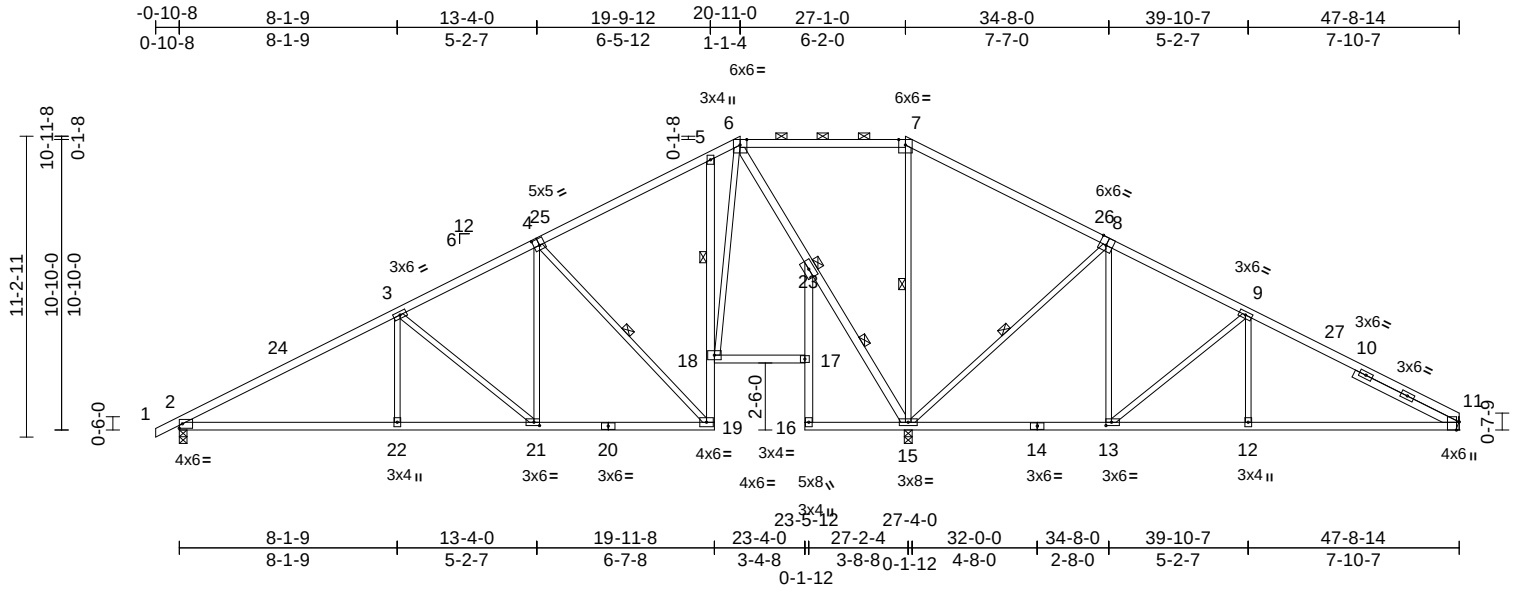

Scale = 1:85.9

Plate Offsets (X, Y): [4:0-2-8,0-3-0], [8:0-3-0,Edge], [11:0-3-10,Edge], [13:0-2-8,0-1-8], [21:0-2-8,0-1-8]

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	0.91	Vert(LL)	-0.13	2-22	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.72	Vert(CT)	-0.30	2-22	>999	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.91	Horz(CT)	0.08	15	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S							Weight: 257 lb	FT = 20%

LUMBER
TOP CHORD 2x4 SP No.2 *Except* 4-1,8-11:2x4 SP 1650F 1.5E
BOT CHORD 2x4 SP No.2
WEBS 2x3 SPF No.2 *Except* 15-6:2x4 SP No.2
SLIDER Right 2x4 SP No.2 -- 4-4-0

BRACING
TOP CHORD Structural wood sheathing directly applied or 2-2-0 oc purlins, except
2-0-0 oc purlins (10-0-0 max.): 6-7.
BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing. Except:
1 Row at midpt 5-18
WEBS 1 Row at midpt 7-15, 15-23, 8-15, 4-19
JOINTS 1 Brace at Jt(s): 23

REACTIONS (size) 2=0-3-8, 11= Mechanical, 15=0-3-8
Max Horiz 2=208 (LC 12)
Max Uplift 2=-233 (LC 12), 11=-358 (LC 13), 15=-221 (LC 12)
Max Grav 2=967 (LC 25), 11=682 (LC 26), 15=2891 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/17, 2-3=-1376/391, 3-5=-774/467, 5-6=-217/494, 6-7=0/903, 7-9=-333/1060, 9-11=-884/640
BOT CHORD 2-22=-385/1109, 21-22=-385/1109, 19-21=-205/604, 18-19=-168/668, 5-18=-288/208, 17-18=-98/31, 16-17=-15/11, 17-23=0/55, 15-16=-69/26, 13-15=-509/225, 12-13=-450/694, 11-12=-450/694
WEBS 3-22=0/301, 7-15=-878/77, 9-12=0/290, 6-23=-1393/238, 15-23=-1432/230, 4-21=-68/507, 3-21=-650/232, 8-13=-42/497, 8-15=-922/318, 9-13=-625/182, 4-19=-822/275, 6-18=-336/995

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=35ft; Ke=1.00; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) -0-10-8 to 4-1-8, Interior (1) 4-1-8 to 20-11-0, Exterior(2E) 20-11-0 to 27-1-0, Exterior(2R) 27-1-0 to 34-1-14, Interior (1) 34-1-14 to 47-8-14 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) Provide adequate drainage to prevent water ponding.
4) All plates are 3x6 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) Bearings are assumed to be: Joint 2 SP No.2 crushing capacity of 565 psi, Joint 15 SP No.2 crushing capacity of 565 psi.
7) Refer to girder(s) for truss to truss connections.
8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 358 lb uplift at joint 11, 221 lb uplift at joint 15 and 233 lb uplift at joint 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.
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

July 11,2023

MiTek®
16023 Swingley Ridge Rd.
Chesterfield, MO 63017
314.434.1200 / MiTek-US.com

Job	Truss	Truss Type	Qty	Ply	Roof - Osage Lot 82	I59435147
P240069-01	A5	Piggyback Base	10	1	Job Reference (optional)	

Premier Building Supply (Springhill, KS), Spring Hills, KS - 66083,

Run: 8.63 S Apr 6 2023 Print: 8.630 S Apr 6 2023 MiTek Industries, Inc. Mon Jul 10 12:58:38 Page: 1
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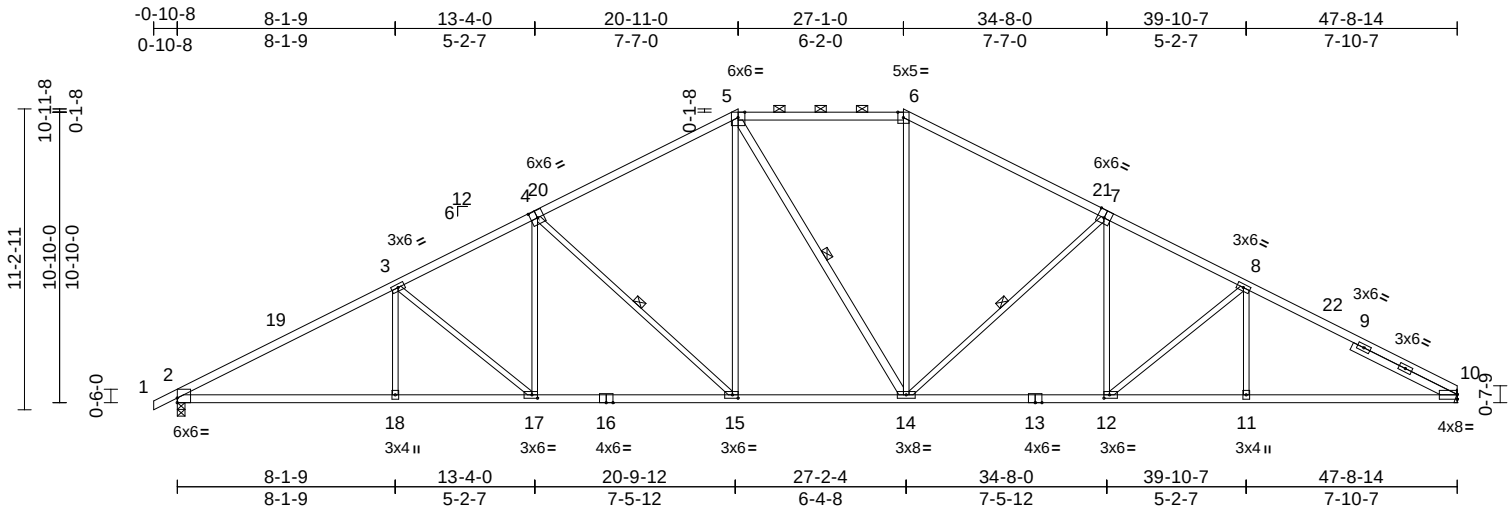

Scale = 1:85.9

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

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	0.97	Vert(LL)	-0.26	15-17	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.82	Vert(CT)	-0.53	15-17	>999	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.81	Horz(CT)	0.23	10	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S							Weight: 236 lb	FT = 20%

LUMBER
TOP CHORD 2x4 SP 1650F 1.5E *Except* 5-6:2x4 SP No.2, 4-1:2x4 SP 2400F 2.0E
BOT CHORD 2x4 SP 1650F 1.5E
WEBS 2x3 SPF No.2 *Except* 14-5:2x4 SP No.2
SLIDER Right 2x4 SP No.2 -- 4-4-0

BRACING
TOP CHORD Structural wood sheathing directly applied, except
2-0-0 oc purlins (2-2-0 max.): 5-6.
BOT CHORD Rigid ceiling directly applied or 9-5-7 oc bracing.
WEBS 1 Row at midpt 5-14, 7-14, 4-15

REACTIONS (size) 2=0-3-8, 10= Mechanical
Max Horiz 2=209 (LC 16)
Max Uplift 2=-329 (LC 12), 10=-301 (LC 13)
Max Grav 2=2214 (LC 1), 10=2141 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/17, 2-3=-4010/580, 3-5=-3462/598, 5-6=-2386/554, 6-8=-3430/590, 8-10=-3898/580
BOT CHORD 2-18=-561/3433, 17-18=-561/3433, 15-17=-401/3019, 14-15=-175/2388, 12-14=-330/3010, 11-12=-404/3340, 10-11=-404/3340
WEBS 3-18=0/291, 5-15=-134/725, 6-14=-80/718, 8-11=0/270, 5-14=-282/275, 4-17=-53/466, 3-17=-547/206, 7-12=-44/425, 7-14=-851/319, 8-12=-452/190, 4-15=-860/321

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=35ft; Ke=1.00; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) -0-10-8 to 4-1-8, Interior (1) 4-1-8 to 20-11-0, Exterior(2E) 20-11-0 to 27-1-0, Exterior(2R) 27-1-0 to 34-1-14, Interior (1) 34-1-14 to 47-8-14 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; 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) Bearings are assumed to be: Joint 2 SP 1650F 1.5E crushing capacity of 565 psi.
6) Refer to girder(s) for truss to truss connections.
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 301 lb uplift at joint 10 and 329 lb uplift at joint 2.
8) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
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

July 11,2023

MiTek®
16023 Swingley Ridge Rd.
Chesterfield, MO 63017
314.434.1200 / MiTek-US.com

Job	Truss	Truss Type	Qty	Ply	Roof - Osage Lot 82	I59435148
P240069-01	A6	Piggyback Base Supported Gable	2	1	Job Reference (optional)	

Premier Building Supply (Springhill, KS), Spring Hills, KS - 66083,

Run: 8.63 S Apr 6 2023 Print: 8.630 S Apr 6 2023 MiTek Industries, Inc. Mon Jul 10 12:58:39 Page: 1
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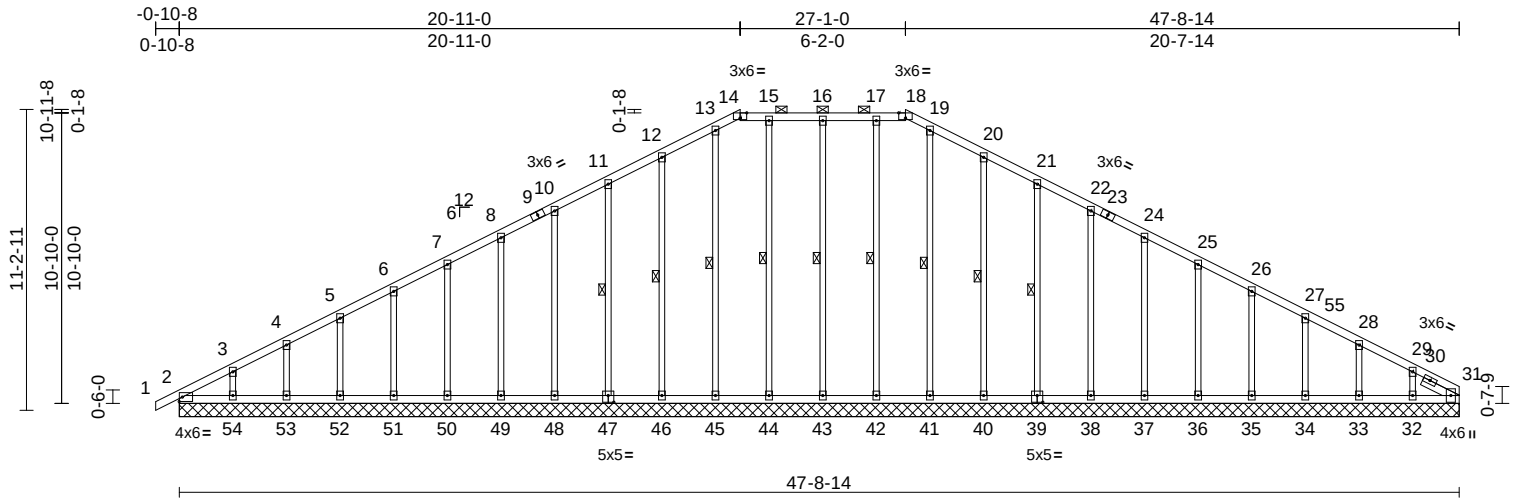


Scale = 1:85.9

Plate Offsets (X, Y): [14:0-3-0,Edge], [18:0-3-0,Edge], [31:0-3-2,0-1-12], [39:0-2-8,0-3-0], [47:0-2-8,0-3-0]

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.13	Vert(LL)	n/a	-	n/a	999	MT20	244/190
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	0.18	Horz(CT)	0.02	31	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S							Weight: 267 lb	FT = 20%

LUMBER
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2
OTHERS 2x3 SPF No.2
SLIDER Right 2x4 SP No.2 -- 1-5-12

BRACING
TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except 2-0-0 oc purlins (6-0-0 max.): 14-18.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 1 Row at midpt 16-43, 17-42, 19-41, 20-40, 21-39, 15-44, 13-45, 12-46, 11-47

REACTIONS (size) 2=47-8-14, 31=47-8-14, 32=47-8-14, 33=47-8-14, 34=47-8-14, 35=47-8-14, 36=47-8-14, 37=47-8-14, 38=47-8-14, 39=47-8-14, 40=47-8-14, 41=47-8-14, 42=47-8-14, 43=47-8-14, 44=47-8-14, 45=47-8-14, 46=47-8-14, 47=47-8-14, 48=47-8-14, 49=47-8-14, 50=47-8-14, 51=47-8-14, 52=47-8-14, 53=47-8-14, 54=47-8-14
Max Horiz 2=209 (LC 16)
Max Uplift 2=-26 (LC 8), 32=-103 (LC 13), 33=-59 (LC 13), 34=-62 (LC 13), 35=-61 (LC 13), 36=-61 (LC 13), 37=-61 (LC 13), 38=-61 (LC 13), 39=-60 (LC 13), 40=-74 (LC 13), 42=-9 (LC 9), 43=-58 (LC 8), 44=-12 (LC 9), 46=-71 (LC 12), 47=-61 (LC 12), 48=-61 (LC 12), 49=-61 (LC 12), 50=-61 (LC 12), 51=-61 (LC 12), 52=-61 (LC 12), 53=-61 (LC 12), 54=-87 (LC 12)
Max Grav 2=178 (LC 21), 31=119 (LC 22), 32=179 (LC 26), 33=182 (LC 1), 34=180 (LC 26), 35=180 (LC 1), 36=180 (LC 26), 37=180 (LC 1), 38=180 (LC 26), 39=180 (LC 26), 40=180 (LC 1), 41=174 (LC 26), 42=177 (LC 26), 43=183 (LC 26), 44=177 (LC 25), 45=176 (LC 22), 46=180 (LC 1), 47=180 (LC 25), 48=180 (LC 25), 49=180 (LC 1), 50=180 (LC 1), 51=180 (LC 25), 52=180 (LC 1), 53=179 (LC 25), 54=181 (LC 25)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/17, 2-3=-295/92, 3-4=-229/87, 4-5=-181/97, 5-6=-136/110, 6-7=-110/135, 7-8=-84/162, 8-10=-71/190, 10-11=-88/234, 11-12=-106/287, 12-13=-127/347, 13-14=-126/341, 14-15=-119/341, 15-16=-118/342, 16-17=-118/342, 17-18=-119/341, 18-19=-126/341, 19-20=-127/347, 20-21=-106/287, 21-22=-88/234, 22-24=-69/180, 24-25=-56/126, 25-26=-56/72, 26-27=-74/27, 27-28=-100/27, 28-29=-146/43, 29-31=-232/67
BOT CHORD 2-54=-59/225, 53-54=-59/225, 52-53=-59/225, 51-52=-59/225, 50-51=-59/225, 49-50=-59/225, 48-49=-59/225, 46-48=-59/225, 45-46=-59/225, 44-45=-59/225, 43-44=-59/225, 42-43=-59/225, 41-42=-59/225, 40-41=-59/225, 38-40=-59/225, 37-38=-59/225, 36-37=-59/225, 35-36=-59/225, 34-35=-59/225, 33-34=-59/225, 32-33=-59/225, 31-32=-59/225
WEBS 16-43=-143/107, 17-42=-137/33, 19-41=-134/0, 20-40=-140/112, 21-39=-140/96, 22-38=-140/96, 24-37=-140/96, 25-36=-140/97, 26-35=-140/96, 27-34=-139/106, 28-33=-142/147, 29-32=-137/191, 15-44=-137/36, 13-45=-136/8, 12-46=-140/112, 11-47=-140/96, 10-48=-140/96, 8-49=-140/96, 7-50=-140/96, 6-51=-140/97, 5-52=-140/97, 4-53=-140/123, 3-54=-138/171

NOTES
1) Unbalanced roof live loads have been considered for this design.

July 11,2023

Continued on page 2

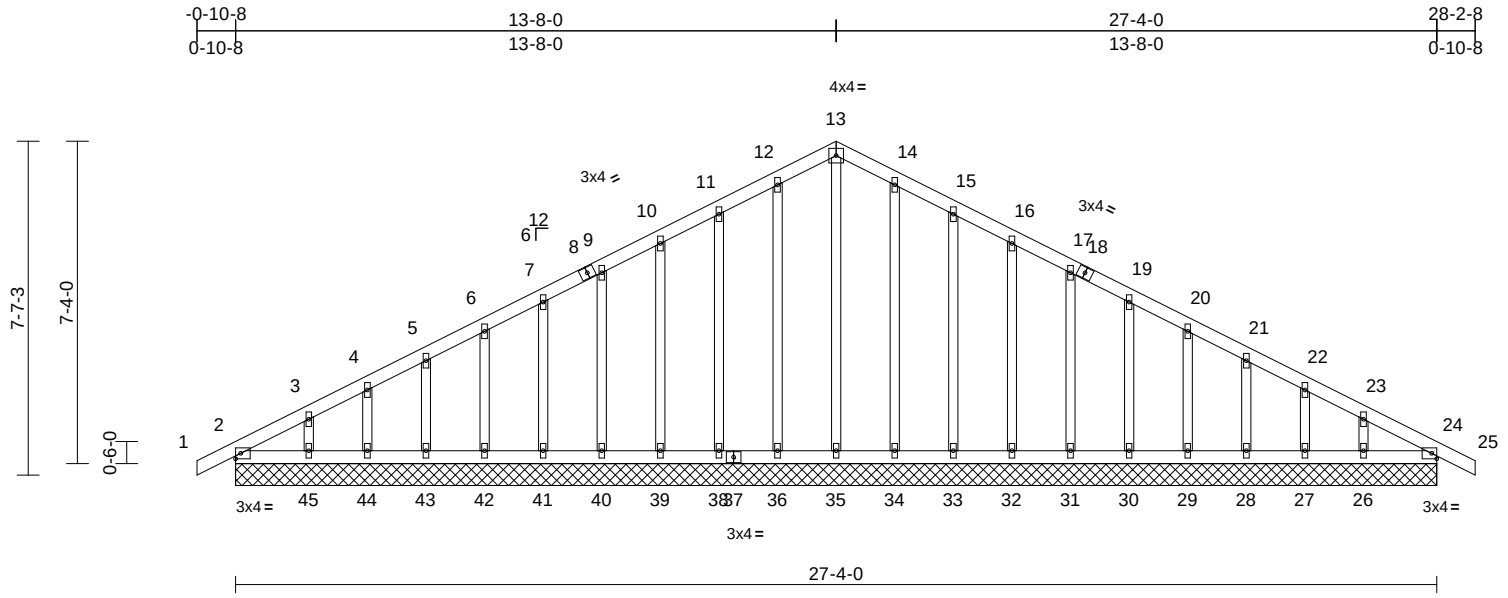
MiTek®
16023 Swingley Ridge Rd.
Chesterfield, MO 63017
314.434.1200 / MiTek-US.com

Job	Truss	Truss Type	Qty	Ply	Roof - Osage Lot 82	I59435148
P240069-01	A6	Piggyback Base Supported Gable	2	1	Job Reference (optional)	

2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=35ft; Ke=1.00; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Corner(3E) -0-10-8 to 4-0-0, Exterior(2N) 4-0-0 to 20-11-0, Corner(3R) 20-11-0 to 26-0-0, Exterior(2N) 26-0-0 to 27-1-0, Corner(3R) 27-1-0 to 32-0-0, Exterior(2N) 32-0-0 to 47-8-14 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; 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) Provide adequate drainage to prevent water ponding.
5) All plates are 3x4 MT20 unless otherwise indicated.
6) Gable requires continuous bottom chord bearing.
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) All bearings are assumed to be SP No.2 crushing capacity of 565 psi.
10) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 26 lb uplift at joint 2, 58 lb uplift at joint 43, 9 lb uplift at joint 42, 74 lb uplift at joint 40, 60 lb uplift at joint 39, 61 lb uplift at joint 38, 61 lb uplift at joint 37, 61 lb uplift at joint 36, 61 lb uplift at joint 35, 62 lb uplift at joint 34, 59 lb uplift at joint 33, 103 lb uplift at joint 32, 12 lb uplift at joint 44, 71 lb uplift at joint 46, 61 lb uplift at joint 47, 61 lb uplift at joint 48, 61 lb uplift at joint 49, 61 lb uplift at joint 50, 61 lb uplift at joint 51, 61 lb uplift at joint 52, 61 lb uplift at joint 53 and 87 lb uplift at joint 54.
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.
12) 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

Job	Truss	Truss Type	Qty	Ply	Roof - Osage Lot 82
P240069-01	B1	Common Supported Gable	2	1	Job Reference (optional) I59435149



Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.07	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.03	Vert(CT)	n/a	-	n/a	999		
BCLL	0.0	Rep Stress Incr	YES	WB	0.18	Horz(CT)	0.01	24	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S							Weight: 145 lb	FT = 20%

LUMBER
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP 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 (size) 2=27-4-0, 24=27-4-0, 26=27-4-0, 27=27-4-0, 28=27-4-0, 29=27-4-0, 30=27-4-0, 31=27-4-0, 32=27-4-0, 33=27-4-0, 34=27-4-0, 35=27-4-0, 36=27-4-0, 38=27-4-0, 39=27-4-0, 40=27-4-0, 41=27-4-0, 42=27-4-0, 43=27-4-0, 44=27-4-0, 45=27-4-0
Max Horiz 2=-137 (LC 13)
Max Uplift 2=-26 (LC 8), 24=-4 (LC 9), 26=-57 (LC 13), 27=-40 (LC 13), 28=-41 (LC 13), 29=-41 (LC 13), 30=-41 (LC 13), 31=-41 (LC 13), 32=-41 (LC 13), 33=-48 (LC 13), 34=-21 (LC 13), 36=-27 (LC 12), 38=-46 (LC 12), 39=-41 (LC 12), 40=-41 (LC 12), 41=-41 (LC 12), 42=-41 (LC 12), 43=-41 (LC 12), 44=-40 (LC 12), 45=-63 (LC 12)
Max Grav 2=150 (LC 1), 24=150 (LC 1), 26=130 (LC 26), 27=117 (LC 26), 28=121 (LC 1), 29=120 (LC 26), 30=120 (LC 26), 31=120 (LC 1), 32=120 (LC 1), 33=121 (LC 26), 34=123 (LC 26), 35=145 (LC 22), 36=123 (LC 25), 38=121 (LC 25), 39=120 (LC 1), 40=120 (LC 1), 41=120 (LC 25), 42=120 (LC 25), 43=121 (LC 1), 44=117 (LC 25), 45=130 (LC 25)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 13-14=-89/255, 14-15=-80/230, 15-16=-66/191, 16-17=-53/155, 17-19=-41/119, 19-20=-34/83, 20-21=-35/48, 21-22=-51/20, 22-23=-74/22, 23-24=-123/45, 24-25=0/17, 1-2=0/17, 2-3=-181/64, 3-4=-131/67, 4-5=-99/76, 5-6=-76/89, 6-7=-59/107, 7-9=-50/126, 9-10=-53/155, 10-11=-66/191, 11-12=-80/230, 12-13=-89/255
BOT CHORD 2-45=-40/160, 44-45=-40/160, 43-44=-40/160, 42-43=-40/160, 41-42=-40/160, 40-41=-40/160, 39-40=-40/160, 38-39=-40/160, 36-38=-40/160, 35-36=-40/160, 34-35=-40/160, 33-34=-40/160, 32-33=-40/160, 31-32=-40/160, 30-31=-40/160, 29-30=-40/160, 28-29=-40/160, 27-28=-40/160, 26-27=-40/160, 24-26=-40/160
WEBS 13-35=-148/26, 12-36=-96/43, 11-38=-95/74, 10-39=-93/64, 9-40=-93/64, 7-41=-93/64, 6-42=-93/64, 5-43=-94/82, 4-44=-92/99, 3-45=-99/122, 14-34=-96/40, 15-33=-95/74, 16-32=-93/64, 17-31=-93/64, 19-30=-93/64, 20-29=-93/64, 21-28=-94/82, 22-27=-92/99, 23-26=-99/119

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=35ft; Ke=1.00; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Corner(3E) -0-10-8 to 4-4-0, Exterior(2N) 4-4-0 to 13-8-0, Corner(3R) 13-8-0 to 18-8-0, Exterior(2N) 18-8-0 to 28-2-8 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; 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 1.5x4 MT20 unless otherwise indicated.
5) Gable requires continuous bottom chord bearing.
6) Gable studs spaced at 1-4-0 oc.
7) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
8) All bearings are assumed to be SP No.2 crushing capacity of 565 psi.
9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 26 lb uplift at joint 2, 27 lb uplift at joint 36, 46 lb uplift at joint 38, 41 lb uplift at joint 39, 41 lb uplift at joint 40, 41 lb uplift at joint 41, 41 lb uplift at joint 42, 41 lb uplift at joint 43, 40 lb uplift at joint 44, 63 lb uplift at joint 45, 21 lb uplift at joint 34, 48 lb uplift at joint 33, 41 lb uplift at joint 32, 41 lb uplift at joint 31, 41 lb uplift at joint 30, 41 lb uplift at joint 29, 41 lb uplift at joint 28, 40 lb uplift at joint 27, 57 lb uplift at joint 26 and 4 lb uplift at joint 24.
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.

July 11,2023

Continued on page 2

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Job	Truss	Truss Type	Qty	Ply	Roof - Osage Lot 82	I59435149
P240069-01	B1	Common Supported Gable	2	1	Job Reference (optional)	

LOAD CASE(S) Standard

Job	Truss	Truss Type	Qty	Ply	Roof - Osage Lot 82	I59435150
P240069-01	B2	Common	4	1	Job Reference (optional)	

Premier Building Supply (Springhill, KS), Spring Hills, KS - 66083,

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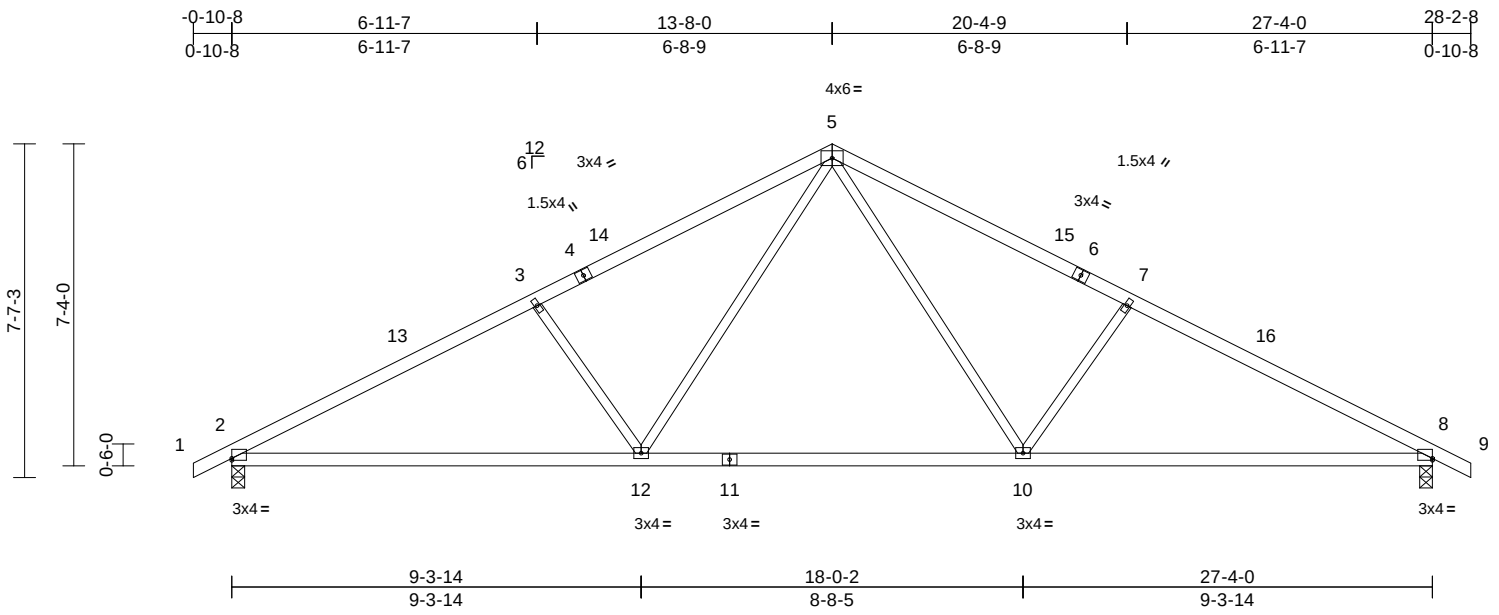

Scale = 1:52.5

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

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.77	Vert(LL)	-0.20	2-12	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.91	Vert(CT)	-0.44	2-12	>737	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.26	Horz(CT)	0.07	8	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S							Weight: 109 lb	FT = 20%

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

BRACING
TOP CHORD Structural wood sheathing directly applied or 2-6-11 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (size) 2=0-3-8, 8=0-3-8
Max Horiz 2=-137 (LC 13)
Max Uplift 2=-211 (LC 12), 8=-211 (LC 13)
Max Grav 2=1288 (LC 1), 8=1288 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/17, 2-3=-2072/392, 3-5=-1821/403, 5-7=-1821/403, 7-8=-2072/392, 8-9=0/17
BOT CHORD 2-12=-328/1763, 10-12=-86/1180, 8-10=-263/1763
WEBS 5-10=-154/672, 7-10=-451/287, 5-12=-153/672, 3-12=-451/287

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=35ft; Ke=1.00; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) -0-10-8 to 4-1-8, Interior (1) 4-1-8 to 13-8-0, Exterior(2R) 13-8-0 to 18-8-0, Interior (1) 18-8-0 to 28-2-8 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; 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) All bearings are assumed to be SP No.2 crushing capacity of 565 psi.
5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 211 lb uplift at joint 2 and 211 lb uplift at joint 8.
6) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard

July 11,2023

MiTek®
16023 Swingley Ridge Rd.
Chesterfield, MO 63017
314.434.1200 / MiTek-US.com

RELEASE FOR CONSTRUCTION
AS NOTED FOR PLAN REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
02/13/2024

Job	Truss	Truss Type	Qty	Ply	Roof - Osage Lot 82	I59435151
P240069-01	C1	Common Supported Gable	1	1	Job Reference (optional)	

Premier Building Supply (Springhill, KS), Spring Hills, KS - 66083,

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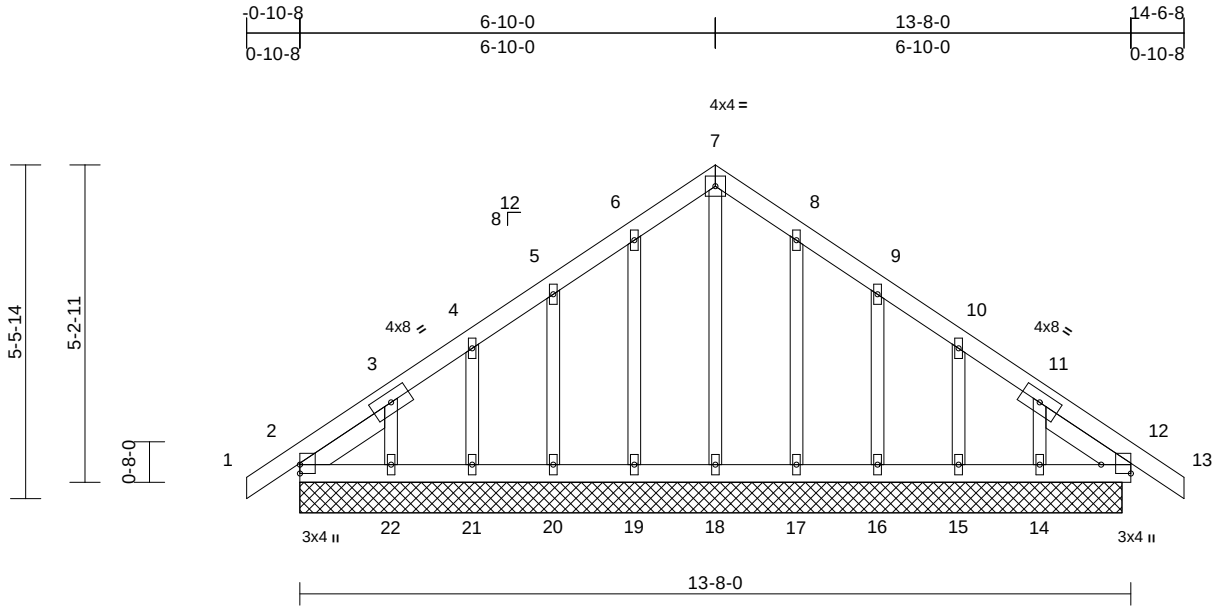

Scale = 1:37.9

Plate Offsets (X, Y): [12:Edge,0-5-14]

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	0.06	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.03	Vert(CT)	n/a	-	n/a	999		
BCLL	0.0	Rep Stress Incr	YES	WB	0.07	Horz(CT)	0.00	12	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S							Weight: 73 lb	FT = 20%

LUMBER
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2
OTHERS 2x3 SPF No.2
SLIDER Left 2x4 SP No.2 -- 1-8-5, Right 2x4 SP No.2 -- 1-8-5

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 (size) 2=13-6-4, 12=13-6-4, 14=13-6-4, 15=13-6-4, 16=13-6-4, 17=13-6-4, 18=13-6-4, 19=13-6-4, 20=13-6-4, 21=13-6-4, 22=13-6-4
Max Horiz 2=-144 (LC 10)
Max Uplift 2=-39 (LC 8), 12=-2 (LC 9), 14=-73 (LC 13), 15=-52 (LC 13), 16=-57 (LC 13), 17=-42 (LC 13), 19=-45 (LC 12), 20=-56 (LC 12), 21=-52 (LC 12), 22=-80 (LC 12)
Max Grav 2=159 (LC 20), 12=154 (LC 1), 14=132 (LC 20), 15=125 (LC 20), 16=128 (LC 20), 17=127 (LC 20), 18=119 (LC 22), 19=131 (LC 19), 20=126 (LC 19), 21=126 (LC 19), 22=139 (LC 19)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 7-8=-91/176, 8-9=-66/126, 9-10=-49/59, 10-11=-58/29, 11-12=-112/57, 12-13=0/16, 1-2=0/16, 2-3=-140/112, 3-4=-96/80, 4-5=-87/72, 5-6=-77/126, 6-7=-91/176
BOT CHORD 2-22=-52/150, 21-22=-52/150, 20-21=-52/150, 19-20=-52/150, 18-19=-52/150, 17-18=-52/150, 16-17=-52/150, 15-16=-52/150, 14-15=-52/150, 12-14=-52/150
WEBS 7-18=-119/26, 8-17=-100/74, 9-16=-101/107, 10-15=-100/111, 11-14=-102/129, 6-19=-104/73, 5-20=-99/106, 4-21=-100/111, 3-22=-109/131

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=35ft; Ke=1.00; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Corner(3E) -0-10-8 to 4-2-0, Exterior(2N) 4-2-0 to 6-10-0, Corner(3R) 6-10-0 to 11-10-0, Exterior(2N) 11-10-0 to 14-6-8 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; 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 1.5x4 MT20 unless otherwise indicated.
5) Gable studs spaced at 1-4-0 oc.
6) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
7) All bearings are assumed to be SP No.2 crushing capacity of 565 psi.
8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 2 lb uplift at joint 12, 39 lb uplift at joint 2, 42 lb uplift at joint 17, 57 lb uplift at joint 16, 52 lb uplift at joint 15, 73 lb uplift at joint 14, 45 lb uplift at joint 19, 56 lb uplift at joint 20, 52 lb uplift at joint 21 and 80 lb uplift at joint 22.
9) Non Standard bearing condition. Review required.
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

STATE OF MISSOURI
NATHANIEL FOX
NUMBER PE-2022042259
PROFESSIONAL ENGINEER

July 11,2023

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 BEFORE USE.
Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI1 Quality Criteria, and DSB-22** available from Truss Plate Institute (www.tpinst.org) and **BCSI Building Component Safety Information** available from the Structural Building Component Association (www.sbcscomponents.com)

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RELEASE FOR CONSTRUCTION
AS NOTED FOR PLAN REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
02/13/2024

Job	Truss	Truss Type	Qty	Ply	Roof - Osage Lot 82	I59435152
P240069-01	C2	Monopitch	1	1	Job Reference (optional)	

Premier Building Supply (Springhill, KS), Spring Hills, KS - 66083,

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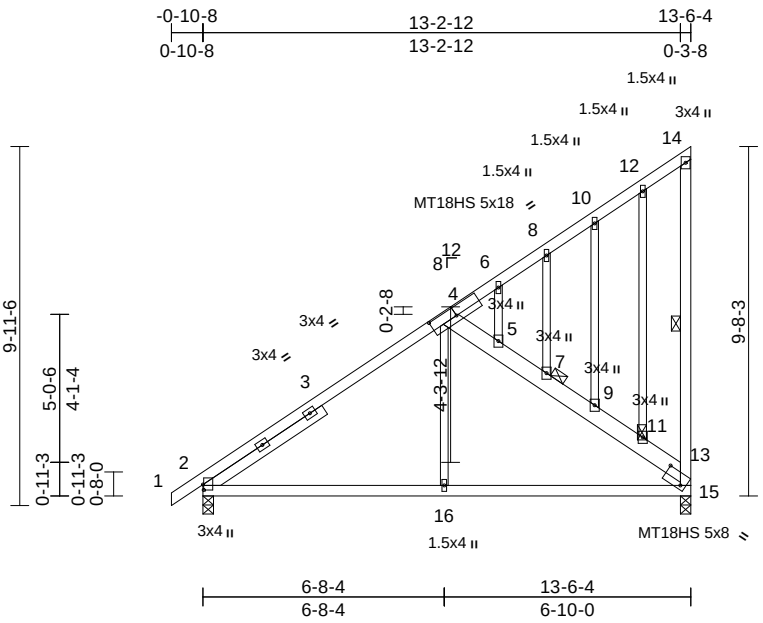

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Plate Offsets (X, Y): [2:0-1-13,0-0-4], [4:0-9-0,0-3-0], [15:0-6-6,0-3-11]

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	0.65	Vert(LL)	-0.04	15-16	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.44	Vert(CT)	-0.09	2-16	>999	180	MT18HS	197/144
BCLL	0.0	Rep Stress Incr	YES	WB	0.26	Horz(CT)	0.01	15	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S							Weight: 97 lb	FT = 20%

LUMBER
TOP CHORD 2x4 SP No.2 *Except* 4-13:2x6 SPF No.2
BOT CHORD 2x4 SP No.2
WEBS 2x4 SP No.2 *Except* 4-16:2x3 SPF No.2
OTHERS 2x3 SPF No.2
SLIDER Left 2x4 SP No.2 -- 3-11-10

BRACING
TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 9-10-14 oc bracing.
WEBS 1 Row at midpt 14-15
JOINTS 1 Brace at Jt(s): 11, 7

REACTIONS (size) 2=0-3-8, 15=0-3-8
Max Horiz 2=399 (LC 9)
Max Uplift 2=-83 (LC 12), 15=-202 (LC 12)
Max Grav 2=665 (LC 1), 15=658 (LC 19)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/16, 2-6=-708/227, 6-8=-276/239, 8-10=-236/218, 10-12=-204/204, 12-14=-95/98, 13-15=-600/366, 13-14=-89/85, 4-5=-538/231, 5-7=-560/246, 7-9=-606/280, 9-11=-648/313, 11-13=-725/370
BOT CHORD 2-16=-333/580, 15-16=-338/572
WEBS 4-16=0/305, 11-12=-214/183, 9-10=-77/64, 7-8=-84/61, 5-6=-12/6

NOTES
1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=35ft; Ke=1.00; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) -0-10-8 to 4-1-8, Interior (1) 4-1-8 to 13-4-8 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; 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) Provide adequate drainage to prevent water ponding.
4) All plates are MT20 plates unless otherwise indicated.
5) All plates are 3x4 MT20 unless otherwise indicated.
6) Gable studs spaced at 1-4-0 oc.
7) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
8) All bearings are assumed to be SP No.2 crushing capacity of 565 psi.
9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 202 lb uplift at joint 15 and 83 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

STATE OF MISSOURI
NATHANIEL FOX
NUMBER PE-2022042259
PROFESSIONAL ENGINEER

July 11,2023

MiTek®
16023 Swingley Ridge Rd.
Chesterfield, MO 63017
314.434.1200 / MiTek-US.com

Job	Truss	Truss Type	Qty	Ply	Roof - Osage Lot 82
P240069-01	C3	Monopitch Girder	2	2	Job Reference (optional) I59435153

Premier Building Supply (Springhill, KS), Spring Hills, KS - 66083,

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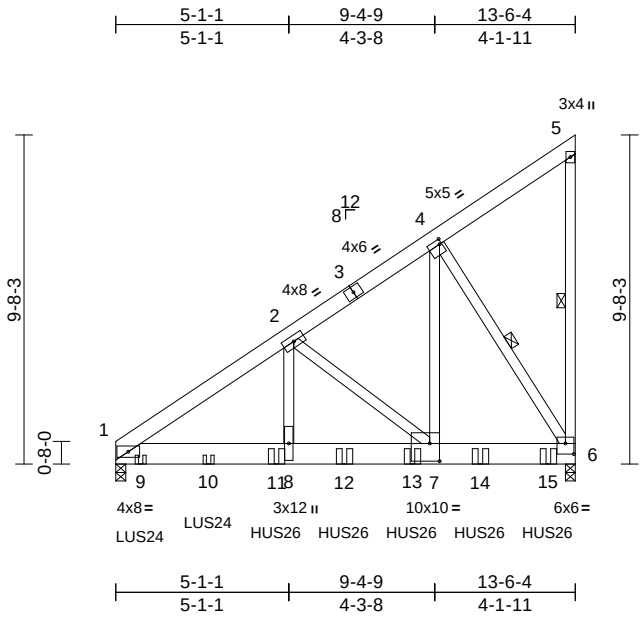

Scale = 1:67.8

Plate Offsets (X, Y): [4:0-0-12,0-1-12], [6:0-3-0,0-3-12], [7:0-3-8,0-6-4]

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.29	Vert(LL)	-0.07	7-8	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.36	Vert(CT)	-0.12	7-8	>999	180		
BCLL	0.0	Rep Stress Incr	NO	WB	0.88	Horz(CT)	0.02	6	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S							Weight: 230 lb	FT = 20%

LUMBER
TOP CHORD 2x6 SPF No.2
BOT CHORD 2x8 SP 2400F 2.0E
WEBS 2x4 SP No.2

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

REACTIONS (size) 1=0-3-8, 6=0-3-8
Max Horiz 1=384 (LC 9)
Max Uplift 1=-1112 (LC 12), 6=-1295 (LC 12)
Max Grav 1=5503 (LC 1), 6=7639 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-7647/1389, 2-4=-4084/764, 4-5=-202/180, 5-6=-144/122
BOT CHORD 1-8=-1372/6184, 7-8=-1372/6184, 6-7=-721/3362
WEBS 2-8=-765/4127, 2-7=-3634/843, 4-7=-1201/7202, 4-6=-6287/1143

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: 2x8 - 4 rows staggered at 0-9-0 oc.
Web connected as follows: 2x4 - 1 row at 0-9-0 oc.
2) All loads are considered equally applied to all plies, except if noted as front (F) or back (B) face in the LOAD CASE(S) section. Ply to ply connections have been provided to distribute only loads noted as (F) or (B), unless otherwise indicated.
3) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=35ft; Ke=1.00; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) 0-1-12 to 5-1-1, Interior (1) 5-1-1 to 13-4-8 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
5) All bearings are assumed to be SP 2400F 2.0E crushing capacity of 805 psi.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 1295 lb uplift at joint 6 and 1112 lb uplift at joint 1.
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) Use Simpson Strong-Tie LUS24 (4-10d Girder, 2-10d Truss, Single Ply Girder) or equivalent spaced at 2-0-0 oc max. starting at 0-8-12 from the left end to 2-8-12 to connect truss(es) to back face of bottom chord.
9) Use Simpson Strong-Tie HUS26 (14-10d Girder, 6-10d Truss) or equivalent spaced at 2-0-0 oc max. starting at 4-8-12 from the left end to 12-8-12 to connect truss(es) to back face of bottom chord.
10) Fill all nail holes where hanger is in contact with lumber.

LOAD CASE(S) Standard
1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (lb/ft)
Vert: 1-5=-70, 1-6=-20
Concentrated Loads (lb)
Vert: 9=-680 (B), 10=-662 (B), 11=-2121 (B), 12=-2121 (B), 13=-2121 (B), 14=-2121 (B), 15=-2124 (B)

STATE OF MISSOURI
NATHANIEL FOX
NUMBER
PE-2022042259
PROFESSIONAL ENGINEER

July 11,2023

MiTek®
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314.434.1200 / MiTek-US.com

RELEASE FOR CONSTRUCTION
AS NOTED FOR PLAN REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
02/13/2024

Job	Truss	Truss Type	Qty	Ply	Roof - Osage Lot 82	I59435154
P240069-01	C4	Monopitch Supported Gable	1	1	Job Reference (optional)	

Premier Building Supply (Springhill, KS), Spring Hills, KS - 66083,

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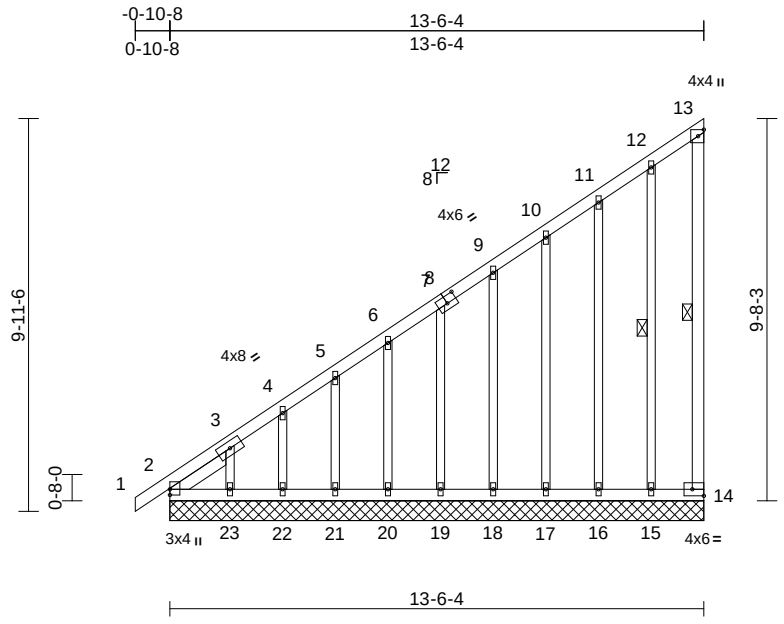

Scale = 1:58.3

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

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.77	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.37	Vert(CT)	n/a	-	n/a	999		
BCLL	0.0	Rep Stress Incr	YES	WB	0.14	Horz(CT)	0.00	14	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S							Weight: 96 lb	FT = 20%

LUMBER
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2
WEBS 2x4 SP No.2
OTHERS 2x3 SPF No.2
SLIDER Left 2x4 SP No.2 -- 1-8-10

BRACING
TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 1 Row at midpt 13-14, 12-15

REACTIONS (size) 2=13-6-4, 14=13-6-4, 15=13-6-4, 16=13-6-4, 17=13-6-4, 18=13-6-4, 19=13-6-4, 20=13-6-4, 21=13-6-4, 22=13-6-4, 23=13-6-4
Max Horiz 2=399 (LC 9)
Max Uplift 2=-101 (LC 8), 14=-108 (LC 11), 15=-83 (LC 12), 16=-41 (LC 9), 17=-63 (LC 12), 18=-50 (LC 12), 19=-53 (LC 12), 20=-52 (LC 12), 21=-51 (LC 12), 22=-54 (LC 12), 23=-118 (LC 12)
Max Grav 2=258 (LC 20), 14=105 (LC 8), 15=124 (LC 20), 16=140 (LC 19), 17=122 (LC 19), 18=127 (LC 19), 19=126 (LC 19), 20=126 (LC 19), 21=126 (LC 19), 22=126 (LC 19), 23=160 (LC 19)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/16, 2-3=-841/547, 3-4=-686/452, 4-5=-624/422, 5-6=-566/394, 6-7=-508/365, 7-9=-449/337, 9-10=-384/308, 10-11=-316/282, 11-12=-244/253, 12-13=-127/149, 13-14=-60/74
BOT CHORD 2-23=-178/230, 22-23=-178/230, 21-22=-178/230, 20-21=-178/230, 19-20=-178/230, 18-19=-178/230, 17-18=-178/230, 16-17=-178/230, 15-16=-178/230, 14-15=-178/230
WEBS 12-15=-221/207, 11-16=-103/114, 10-17=-98/107, 9-18=-99/101, 7-19=-99/90, 6-20=-99/90, 5-21=-99/99, 4-22=-101/114, 3-23=-179/231

NOTES
1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=35ft; Ke=1.00; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Corner(3E) -0-10-8 to 4-2-4, Exterior(2N) 4-2-4 to 13-4-8 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; 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 1.5x4 MT20 unless otherwise indicated.
4) Gable requires continuous bottom chord bearing.
5) Gable studs spaced at 1-4-0 oc.
6) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
7) All bearings are assumed to be SP No.2 crushing capacity of 565 psi.
8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 108 lb uplift at joint 14, 101 lb uplift at joint 2, 83 lb uplift at joint 15, 41 lb uplift at joint 16, 63 lb uplift at joint 17, 50 lb uplift at joint 18, 53 lb uplift at joint 19, 52 lb uplift at joint 20, 51 lb uplift at joint 21, 54 lb uplift at joint 22 and 118 lb uplift at joint 23.
9) Beveled plate or shim required to provide full bearing surface with truss chord at joint(s) 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.

LOAD CASE(S) Standard

July 11,2023

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RELEASE FOR CONSTRUCTION
AS NOTED FOR PLAN REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
02/13/2024

Job	Truss	Truss Type	Qty	Ply	Roof - Osage Lot 82	I59435155
P240069-01	D1	Monopitch	4	1	Job Reference (optional)	

Premier Building Supply (Springhill, KS), Spring Hills, KS - 66083,

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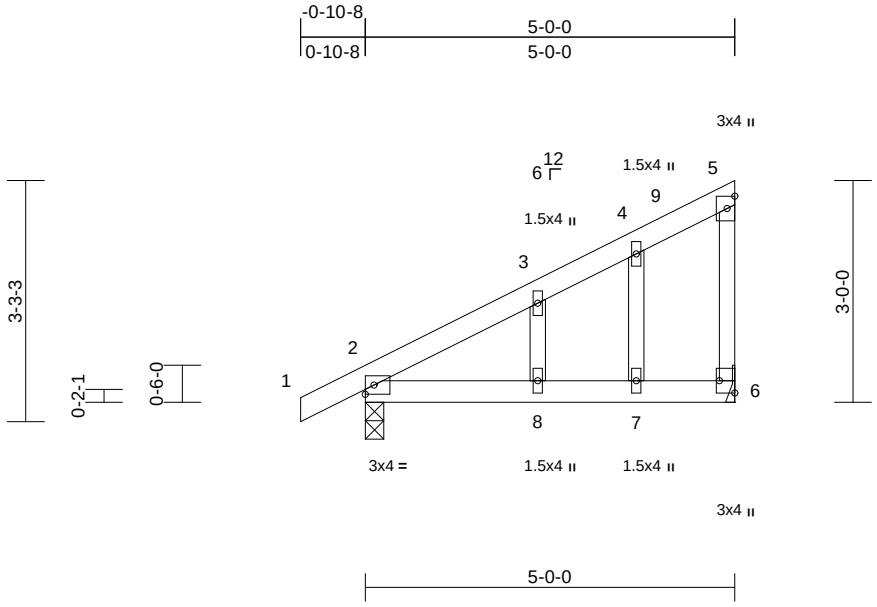

Scale = 1:31.2

Plate Offsets (X, Y): [6: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	0.20	Vert(LL)	0.04	7-8	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.28	Vert(CT)	-0.05	7-8	>999	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.03	Horz(CT)	0.00	6	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S							Weight: 22 lb	FT = 20%

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

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

REACTIONS (size) 2=0-3-0, 6= Mechanical
Max Horiz 2=123 (LC 9)
Max Uplift 2=-59 (LC 12), 6=-60 (LC 12)
Max Grav 2=292 (LC 1), 6=207 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/17, 2-3=-169/71, 3-4=-102/61, 4-5=-65/57, 5-6=-106/113
BOT CHORD 2-8=-67/74, 7-8=-67/74, 6-7=-67/74
WEBS 4-7=-36/69, 3-8=-48/105

NOTES
1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=35ft; Ke=1.00; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) -0-10-8 to 4-1-8, Interior (1) 4-1-8 to 4-10-12 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; 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 studs spaced at 1-4-0 oc.
4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
5) Bearings are assumed to be: Joint 2 SP No.2 crushing capacity of 565 psi.
6) Refer to girder(s) for truss to truss connections.
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 60 lb uplift at joint 6 and 59 lb uplift at joint 2.
8) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard

STATE OF MISSOURI
NATHANIEL FOX
NUMBER PE-2022042259
PROFESSIONAL ENGINEER
July 11,2023

MiTek®
16023 Swingley Ridge Rd.
Chesterfield, MO 63017
314.434.1200 / MiTek-US.com

Job	Truss	Truss Type	Qty	Ply	Roof - Osage Lot 82	I59435156
P240069-01	D2	Monopitch	10	1	Job Reference (optional)	

Premier Building Supply (Springhill, KS), Spring Hills, KS - 66083,

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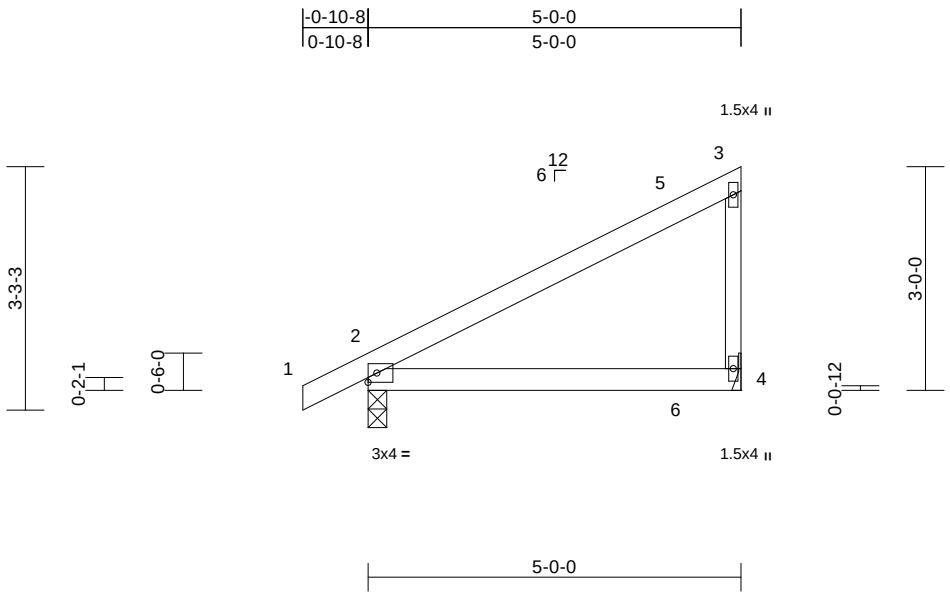

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Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.48	Vert(LL)	0.09	2-4	>603	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.42	Vert(CT)	0.08	2-4	>751	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.00	Horz(CT)	0.00	4	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-P							Weight: 19 lb	FT = 20%

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

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

REACTIONS (size) 2=0-3-0, 4= Mechanical
Max Horiz 2=123 (LC 9)
Max Uplift 2=-59 (LC 12), 4=-87 (LC 9)
Max Grav 2=292 (LC 1), 4=207 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/17, 2-3=-167/114, 3-4=-167/225
BOT CHORD 2-4=-54/59

NOTES
1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=35ft; Ke=1.00; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) -0-10-8 to 4-1-8, Interior (1) 4-1-8 to 4-10-12 zone; cantilever left and right exposed ; end vertical left and right exposed; porch left and right exposed;C-C for members and forces & MWFRS for reactions shown; 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) Bearings are assumed to be: Joint 2 SP No.2 crushing capacity of 565 psi.
4) Refer to girder(s) for truss to truss connections.
5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 87 lb uplift at joint 4 and 59 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

July 11,2023

MiTek®
16023 Swingley Ridge Rd.
Chesterfield, MO 63017
314.434.1200 / MiTek-US.com

Job	Truss	Truss Type	Qty	Ply	Roof - Osage Lot 82	I59435157
P240069-01	PB1	Piggyback	2	1	Job Reference (optional)	

Premier Building Supply (Springhill, KS), Spring Hills, KS - 66083,

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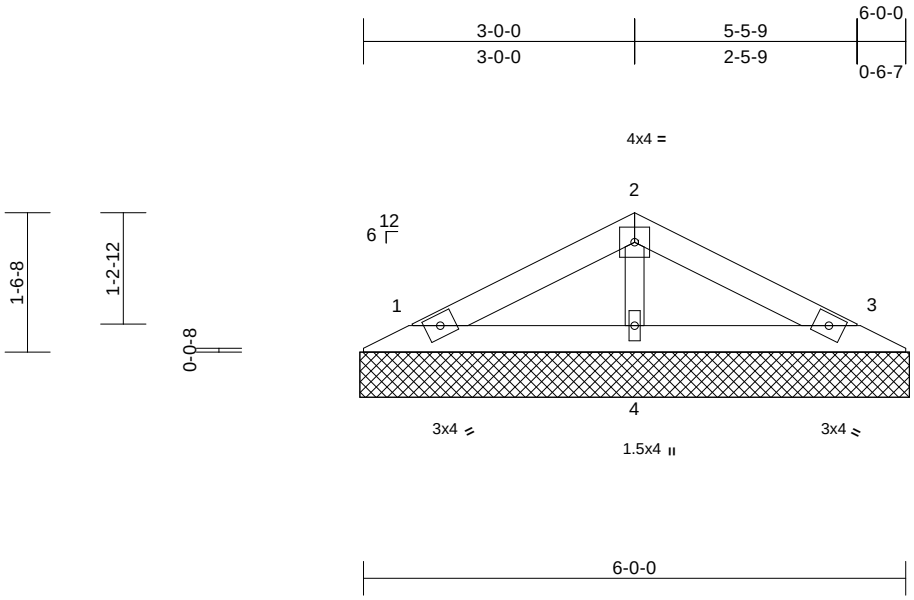

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Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.13	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.06	Vert(TL)	n/a	-	n/a	999		
BCLL	0.0	Rep Stress Incr	YES	WB	0.03	Horiz(TL)	0.00	3	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-P							Weight: 18 lb	FT = 20%

LUMBER
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP 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 (size) 1=6-1-0, 3=6-1-0, 4=6-1-0
Max Horiz 1=23 (LC 12)
Max Uplift 1=-30 (LC 12), 3=-34 (LC 13), 4=-7 (LC 12)
Max Grav 1=115 (LC 1), 3=115 (LC 1), 4=211 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-55/46, 2-3=-55/52
BOT CHORD 1-4=-1/25, 3-4=-1/25
WEBS 2-4=-150/135

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=35ft; Ke=1.00; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; 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 1-4-0 oc.
6) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
7) All bearings are assumed to be SP No.2 crushing capacity of 565 psi.
8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 30 lb uplift at joint 1, 34 lb uplift at joint 3 and 7 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.
10) See Standard Industry Piggyback Truss Connection Detail for Connection to base truss as applicable, or consult qualified building designer.

LOAD CASE(S) Standard

July 11,2023

MiTek®
16023 Swingley Ridge Rd.
Chesterfield, MO 63017
314.434.1200 / MiTek-US.com

Job	Truss	Truss Type	Qty	Ply	Roof - Osage Lot 82	I59435158
P240069-01	PB2	Piggyback	22	1	Job Reference (optional)	

Premier Building Supply (Springhill, KS), Spring Hills, KS - 66083,

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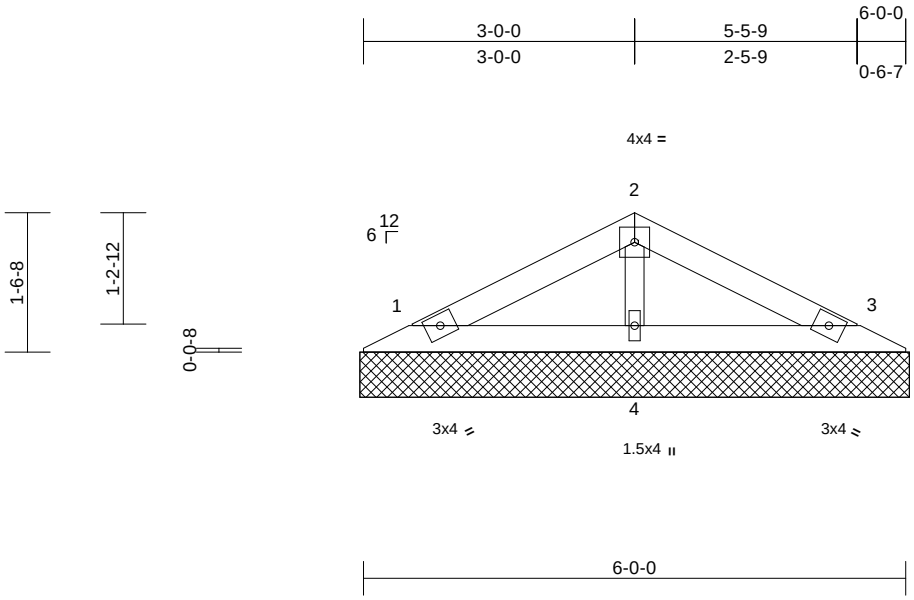

Scale = 1:25.5

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.13	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.06	Vert(TL)	n/a	-	n/a	999		
BCLL	0.0	Rep Stress Incr	YES	WB	0.03	Horiz(TL)	0.00	3	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-P							Weight: 18 lb	FT = 20%

LUMBER
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP 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 (size) 1=6-1-0, 3=6-1-0, 4=6-1-0
Max Horiz 1=23 (LC 12)
Max Uplift 1=-30 (LC 12), 3=-34 (LC 13), 4=-7 (LC 12)
Max Grav 1=115 (LC 1), 3=115 (LC 1), 4=211 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-55/46, 2-3=-55/52
BOT CHORD 1-4=-1/25, 3-4=-1/25
WEBS 2-4=-150/135

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=35ft; Ke=1.00; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; 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) All bearings are assumed to be SP No.2 crushing capacity of 565 psi.
8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 30 lb uplift at joint 1, 34 lb uplift at joint 3 and 7 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.
10) See Standard Industry Piggyback Truss Connection Detail for Connection to base truss as applicable, or consult qualified building designer.

LOAD CASE(S) Standard

July 11,2023

MiTek®
16023 Swingley Ridge Rd.
Chesterfield, MO 63017
314.434.1200 / MiTek-US.com

Job	Truss	Truss Type	Qty	Ply	Roof - Osage Lot 82	I59435159
P240069-01	V1	Valley	2	1	Job Reference (optional)	

Premier Building Supply (Springhill, KS), Spring Hills, KS - 66083,

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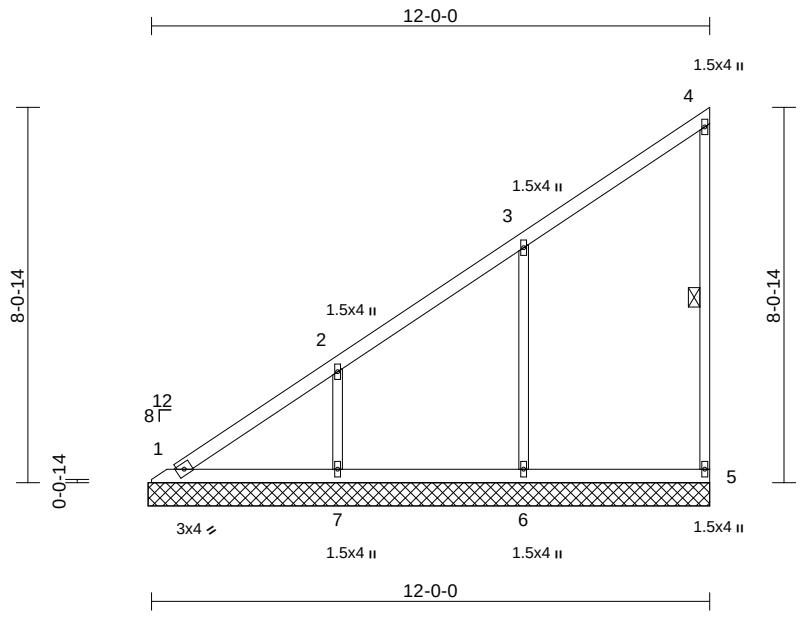

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Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.25	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.13	Vert(TL)	n/a	-	n/a	999		
BCLL	0.0	Rep Stress Incr	YES	WB	0.20	Horiz(TL)	0.00	5	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S							Weight: 50 lb	FT = 20%

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

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

REACTIONS (size) 1=12-0-15, 5=12-0-15, 6=12-0-15, 7=12-0-15
Max Horiz 1=335 (LC 12)
Max Uplift 5=-62 (LC 12), 6=-169 (LC 12), 7=-171 (LC 12)
Max Grav 1=183 (LC 21), 5=149 (LC 19), 6=412 (LC 19), 7=388 (LC 19)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-377/251, 2-3=-228/156, 3-4=-104/51, 4-5=-116/84
BOT CHORD 1-7=-1/2, 6-7=-1/2, 5-6=-1/2
WEBS 3-6=-327/235, 2-7=-299/221

NOTES
1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=35ft; Ke=1.00; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) 0-7-13 to 5-7-13, Interior (1) 5-7-13 to 12-0-1 zone; cantilever left and right exposed ; end vertical left exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
3) Gable requires continuous bottom chord bearing.
4) Gable studs spaced at 4-0-0 oc.
5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
6) All bearings are assumed to be SP No.2 crushing capacity of 565 psi.
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 62 lb uplift at joint 5, 169 lb uplift at joint 6 and 171 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

July 11,2023

MiTek®
16023 Swingley Ridge Rd.
Chesterfield, MO 63017
314.434.1200 / MiTek-US.com

Job	Truss	Truss Type	Qty	Ply	Roof - Osage Lot 82	I59435160
P240069-01	V2	Valley	2	1	Job Reference (optional)	

Premier Building Supply (Springhill, KS), Spring Hills, KS - 66083,

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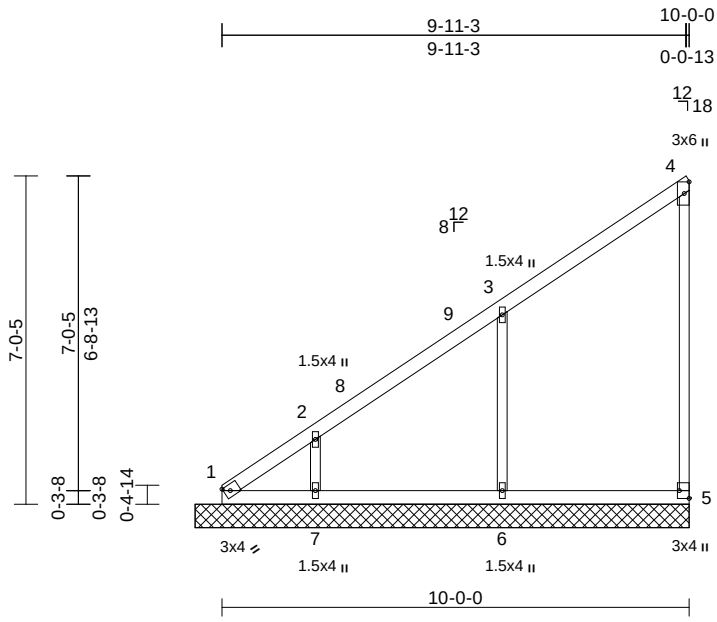

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Plate Offsets (X, Y): [5:Edge,0-2-8]

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	0.60	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.20	Vert(TL)	n/a	-	n/a	999		
BCLL	0.0	Rep Stress Incr	YES	WB	0.14	Horiz(TL)	0.00	5	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S							Weight: 42 lb	FT = 20%

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

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

REACTIONS (size) 1=10-6-15, 5=10-6-15, 6=10-6-15, 7=10-6-15
Max Horiz 1=285 (LC 9)
Max Uplift 1=-77 (LC 10), 5=-59 (LC 9), 6=-176 (LC 12), 7=-148 (LC 12)
Max Grav 1=164 (LC 9), 5=164 (LC 19), 6=426 (LC 19), 7=317 (LC 19)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-503/322, 2-3=-372/260, 3-4=-177/152, 4-5=-129/138
BOT CHORD 1-7=-133/145, 6-7=-133/145, 5-6=-133/145
WEBS 3-6=-344/303, 2-7=-249/215

NOTES
1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=35ft; Ke=1.00; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) 0-9-1 to 5-9-1, Interior (1) 5-9-1 to 10-6-1 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
3) Gable requires continuous bottom chord bearing.
4) Gable studs spaced at 4-0-0 oc.
5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
6) All bearings are assumed to be SP No.2 crushing capacity of 565 psi.
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 77 lb uplift at joint 1, 59 lb uplift at joint 5, 176 lb uplift at joint 6 and 148 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

July 11,2023

MiTek®
16023 Swingley Ridge Rd.
Chesterfield, MO 63017
314.434.1200 / MiTek-US.com

Job	Truss	Truss Type	Qty	Ply	Roof - Osage Lot 82	I59435161
P240069-01	V3	Valley	2	1	Job Reference (optional)	

Premier Building Supply (Springhill, KS), Spring Hills, KS - 66083,

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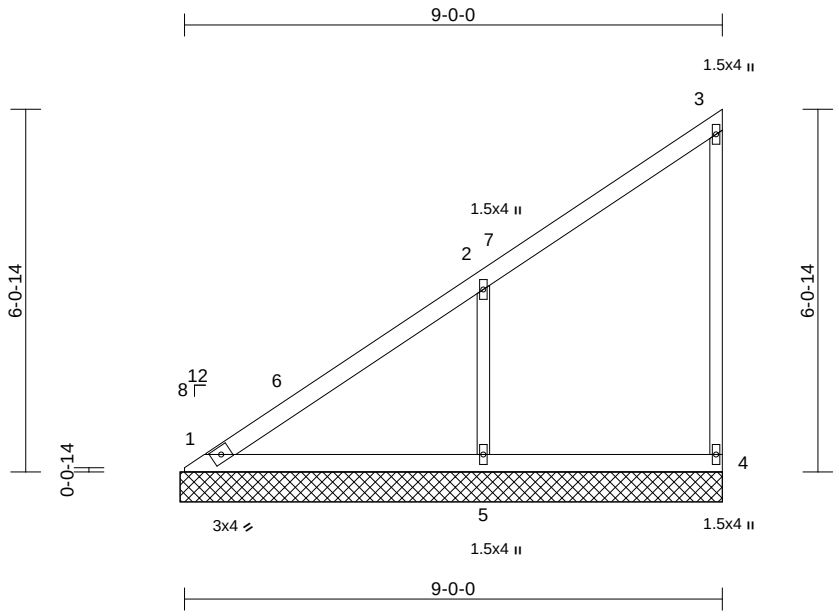

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Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.70	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.18	Vert(TL)	n/a	-	n/a	999		
BCLL	0.0	Rep Stress Incr	YES	WB	0.10	Horiz(TL)	0.00	4	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S							Weight: 36 lb	FT = 20%

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

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

REACTIONS (size) 1=9-0-15, 4=9-0-15, 5=9-0-15
Max Horiz 1=242 (LC 9)
Max Uplift 1=-4 (LC 8), 4=-50 (LC 9), 5=-209 (LC 12)
Max Grav 1=194 (LC 20), 4=143 (LC 19), 5=506 (LC 19)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-388/267, 2-3=-172/145, 3-4=-134/142
BOT CHORD 1-5=-116/126, 4-5=-116/126
WEBS 2-5=-399/340

NOTES
1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=35ft; Ke=1.00; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) 0-5-12 to 5-5-12, Interior (1) 5-5-12 to 9-0-1 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
3) Gable requires continuous bottom chord bearing.
4) Gable studs spaced at 4-0-0 oc.
5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
6) All bearings are assumed to be SP No.2 crushing capacity of 565 psi.
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 4 lb uplift at joint 1, 50 lb uplift at joint 4 and 209 lb uplift at joint 5.
8) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard

July 11,2023

MiTek®
16023 Swingley Ridge Rd.
Chesterfield, MO 63017
314.434.1200 / MiTek-US.com

RELEASE FOR CONSTRUCTION
AS NOTED FOR PLAN REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI

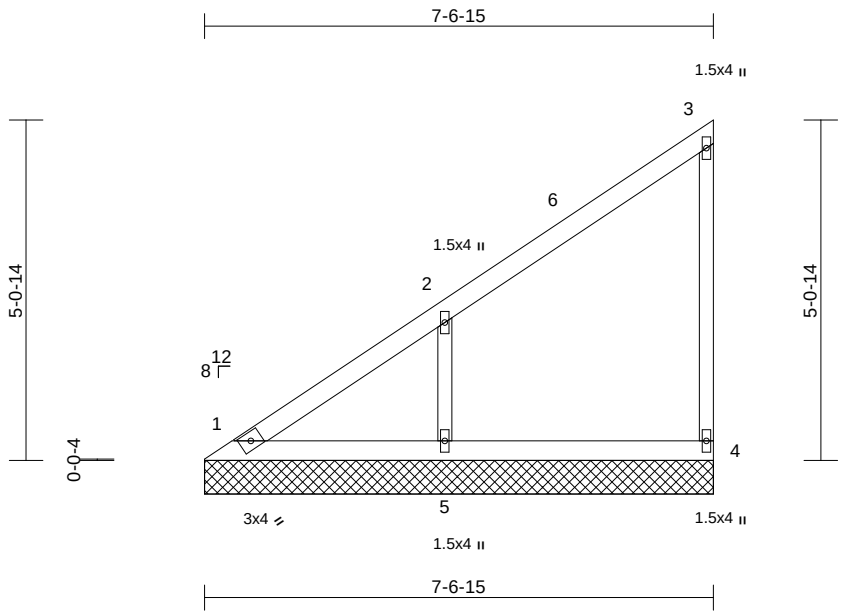
Job	Truss	Truss Type	Qty	Ply	Roof - Osage Lot 82	I59435162
P240069-01	V4	Valley	2	1	Job Reference (optional)	

Premier Building Supply (Springhill, KS), Spring Hills, KS - 66083,

Run: 8.63 S Apr 6 2023 Print: 8.630 S Apr 6 2023 MiTek Industries, Inc. Mon Jul 10 12:58:23 ID:i76DDQo95qbyq0JWxj3vr4yGxRy-RfC?PsB70Hq3NSgPqnL8w3ulTXbGK?VrCDoi7J42JC?f

Page: 1

02/13/2024



Scale = 1:34.3

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	0.45	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.13	Vert(TL)	n/a	-	n/a	999		
BCLL	0.0	Rep Stress Incr	YES	WB	0.08	Horiz(TL)	0.00	4	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-P							Weight: 29 lb	FT = 20%

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

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

REACTIONS (size) 1=7-6-15, 4=7-6-15, 5=7-6-15
Max Horiz 1=199 (LC 9)
Max Uplift 1=-16 (LC 8), 4=-46 (LC 9), 5=-172 (LC 12)
Max Grav 1=132 (LC 20), 4=158 (LC 19), 5=418 (LC 19)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-353/236, 2-3=-165/135, 3-4=-138/151
BOT CHORD 1-5=-96/105, 4-5=-96/105
WEBS 2-5=-330/305

NOTES
1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=35ft; Ke=1.00; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) 0-5-12 to 5-5-12, Interior (1) 5-5-12 to 7-6-1 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
3) Gable requires continuous bottom chord bearing.
4) Gable studs spaced at 4-0-0 oc.
5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
6) All bearings are assumed to be SP No.2 crushing capacity of 565 psi.
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 16 lb uplift at joint 1, 46 lb uplift at joint 4 and 172 lb uplift at joint 5.
8) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard

July 11,2023

MiTek®
16023 Swingley Ridge Rd.
Chesterfield, MO 63017
314.434.1200 / MiTek-US.com

RELEASE FOR CONSTRUCTION
AS NOTED FOR PLAN REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI

Job	Truss	Truss Type	Qty	Ply	Roof - Osage Lot 82	I59435163
P240069-01	V5	Valley	2	1	Job Reference (optional)	

02/13/2024

Premier Building Supply (Springhill, KS), Spring Hills, KS - 66083,

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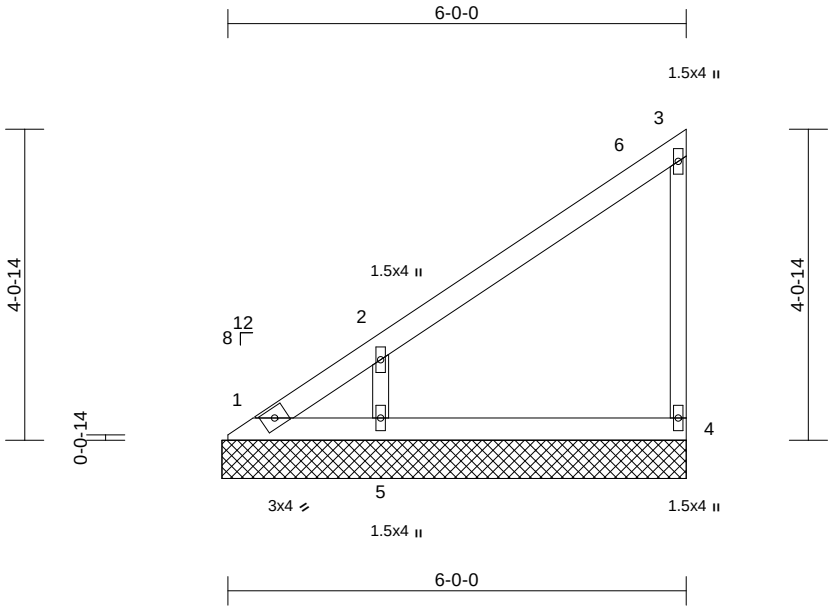

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Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.28	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.12	Vert(TL)	n/a	-	n/a	999		
BCLL	0.0	Rep Stress Incr	YES	WB	0.07	Horiz(TL)	0.00	4	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-P							Weight: 22 lb	FT = 20%

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

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

REACTIONS (size) 1=6-0-15, 4=6-0-15, 5=6-0-15
Max Horiz 1=157 (LC 9)
Max Uplift 1=-56 (LC 10), 4=-41 (LC 9), 5=-156 (LC 12)
Max Grav 1=83 (LC 9), 4=159 (LC 19), 5=378 (LC 19)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-331/216, 2-3=-155/120, 3-4=-135/154
BOT CHORD 1-5=-76/82, 4-5=-76/82
WEBS 2-5=-298/299

NOTES
1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=35ft; Ke=1.00; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) 0-5-12 to 5-5-12, Interior (1) 5-5-12 to 6-0-1 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
3) Gable requires continuous bottom chord bearing.
4) Gable studs spaced at 4-0-0 oc.
5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
6) All bearings are assumed to be SP No.2 crushing capacity of 565 psi.
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 56 lb uplift at joint 1, 41 lb uplift at joint 4 and 156 lb uplift at joint 5.
8) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard

July 11,2023

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16023 Swingley Ridge Rd.
Chesterfield, MO 63017
314.434.1200 / MiTek-US.com

Job	Truss	Truss Type	Qty	Ply	Roof - Osage Lot 82	I59435164
P240069-01	V6	Valley	2	1	Job Reference (optional)	

Premier Building Supply (Springhill, KS), Spring Hills, KS - 66083,

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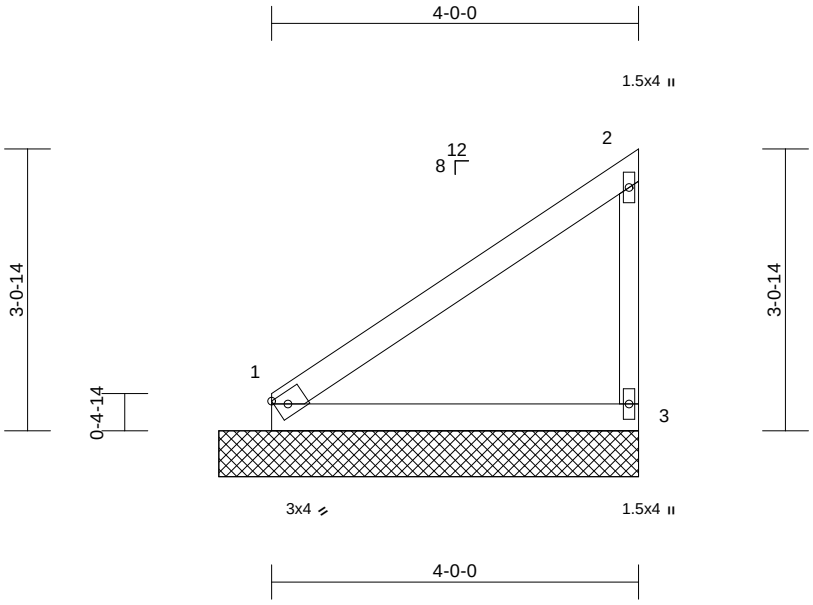

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Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.31	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.17	Vert(TL)	n/a	-	n/a	999		
BCLL	0.0	Rep Stress Incr	YES	WB	0.00	Horiz(TL)	0.00	3	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-P							Weight: 15 lb	FT = 20%

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

BRACING
TOP CHORD Structural wood sheathing directly applied or 4-7-5 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (size) 1=4-6-15, 3=4-6-15
Max Horiz 1=114 (LC 9)
Max Uplift 1=-15 (LC 12), 3=-58 (LC 12)
Max Grav 1=169 (LC 1), 3=186 (LC 19)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-163/120, 2-3=-154/185
BOT CHORD 1-3=-55/60

NOTES
1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=35ft; Ke=1.00; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
3) Gable requires continuous bottom chord bearing.
4) Gable studs spaced at 4-0-0 oc.
5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
6) All bearings are assumed to be SP No.2 crushing capacity of 565 psi.
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 15 lb uplift at joint 1 and 58 lb uplift at joint 3.
8) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard

July 11,2023

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16023 Swingley Ridge Rd.
Chesterfield, MO 63017
314.434.1200 / MiTek-US.com

Job	Truss	Truss Type	Qty	Ply	Roof - Osage Lot 82	I59435165
P240069-01	V7	Valley	2	1	Job Reference (optional)	

Premier Building Supply (Springhill, KS), Spring Hills, KS - 66083,

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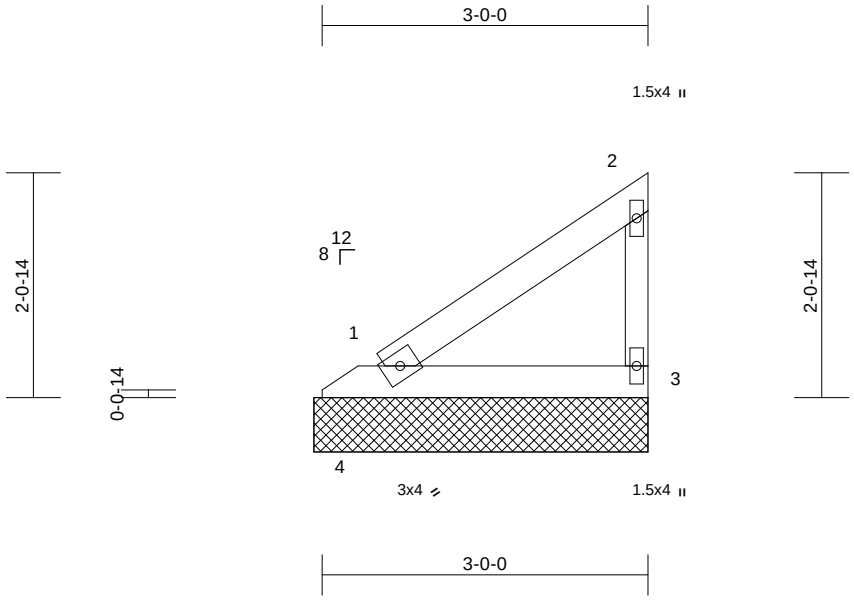

Scale = 1:21.2

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.11	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.05	Vert(TL)	n/a	-	n/a	999		
BCLL	0.0	Rep Stress Incr	YES	WB	0.00	Horiz(TL)	0.00	3	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-P							Weight: 10 lb	FT = 20%

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

BRACING
TOP CHORD Structural wood sheathing directly applied or 3-1-5 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (size) 1=3-0-15, 3=3-0-15, 4=3-0-15
Max Horiz 4=72 (LC 9)
Max Uplift 3=-39 (LC 12), 4=-47 (LC 3)
Max Grav 1=143 (LC 3), 3=110 (LC 19), 4=-14 (LC 8)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-105/77, 2-3=-99/121
BOT CHORD 1-4=-160/107, 1-3=-35/38

NOTES
1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=35ft; Ke=1.00; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
3) Gable requires continuous bottom chord bearing.
4) Gable studs spaced at 4-0-0 oc.
5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
6) All bearings are assumed to be SP No.2 crushing capacity of 565 psi.
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 39 lb uplift at joint 3 and 47 lb uplift at joint 4.
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

July 11,2023

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16023 Swingley Ridge Rd.
Chesterfield, MO 63017
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Job	Truss	Truss Type	Qty	Ply	Roof - Osage Lot 82	I59435166
P240069-01	V8	Valley	2	1	Job Reference (optional)	

Premier Building Supply (Springhill, KS), Spring Hills, KS - 66083,

Run: 8.63 S Apr 6 2023 Print: 8.630 S Apr 6 2023 MiTek Industries, Inc. Mon Jul 10 12:58:24 Page: 1
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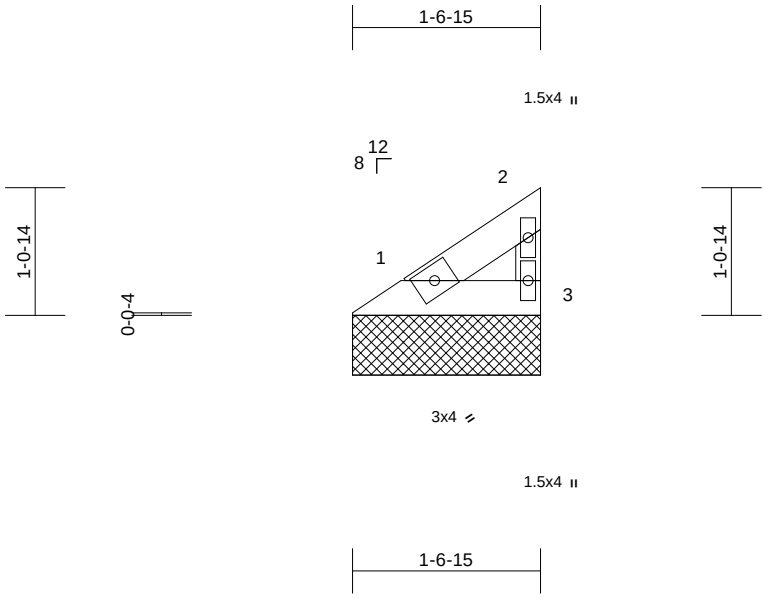

Scale = 1:19.3

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	0.02	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.01	Vert(TL)	n/a	-	n/a	999		
BCLL	0.0	Rep Stress Incr	YES	WB	0.00	Horiz(TL)	0.00	3	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-P							Weight: 5 lb	FT = 20%

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

BRACING
TOP CHORD Structural wood sheathing directly applied or 1-7-5 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (size) 1=1-6-15, 3=1-6-15
Max Horiz 1=29 (LC 9)
Max Uplift 1=-5 (LC 12), 3=-15 (LC 12)
Max Grav 1=46 (LC 1), 3=50 (LC 19)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-42/32, 2-3=-44/50
BOT CHORD 1-3=-14/15

NOTES
1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=35ft; Ke=1.00; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
3) Gable requires continuous bottom chord bearing.
4) Gable studs spaced at 4-0-0 oc.
5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
6) All bearings are assumed to be SP No.2 crushing capacity of 565 psi.
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 5 lb uplift at joint 1 and 15 lb uplift at joint 3.
8) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard

July 11,2023

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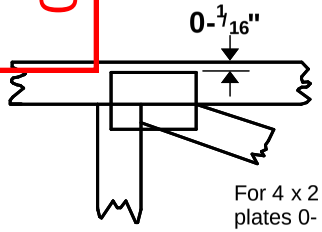
16023 Swingley Ridge Rd.
Chesterfield, MO 63017
314.434.1200 / MiTek-US.com

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.

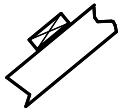
* Plate location details available in MiTek software or upon request.

PLATE SIZE

4 x 4

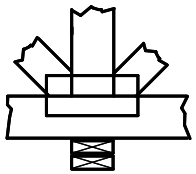
The first dimension is the plate width measured perpendicular to slots. Second dimension is the length parallel to slots.

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

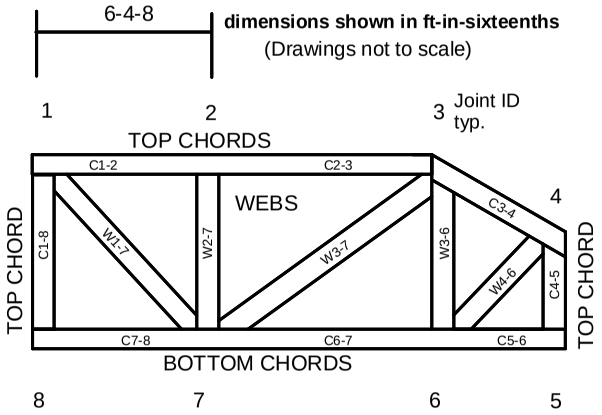


Indicates location where bearings (supports) occur. Icons vary but reaction section indicates joint number/letter where bearings occur. Min size shown is for crushing only.

Industry Standards:

ANSI/TPI1: National Design Specification for Metal Plate Connected Wood Truss Construction.
DSB-22: Design Standard for Bracing.
BCSI: Building Component Safety Information, Guide to Good Practice for Handling, Installing, Restraining & 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-1988, ESR-2362, ESR-2685, ESR-3282
ESR-4722, ESL-1388

Design General Notes

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®

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.