

RE: P230913
Roof - Osage Lot 67

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

Site Information:

Customer: Clover and Hive Project Name: P230913
Lot/Block: 67 Model: Wildflower - Farmhouse
Address: 3832 SW Ravengate Pl 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 14 individual, dated Truss Design Drawings and 0 Additional Drawings.

No.	Seal#	Truss Name	Date
1	I62263990	A01	11/30/2023
2	I62263991	A02	11/30/2023
3	I62263992	A03	11/30/2023
4	I62263993	A04	11/30/2023
5	I62263994	A05	11/30/2023
6	I62263995	A06	11/30/2023
7	I62263996	A07	11/30/2023
8	I62263997	A08	11/30/2023
9	I62263998	A09	11/30/2023
10	I62263999	A10	11/30/2023
11	I62264000	A11	11/30/2023
12	I62264001	A12	11/30/2023
13	I62264002	PB01	11/30/2023
14	I62264003	PB02	11/30/2023

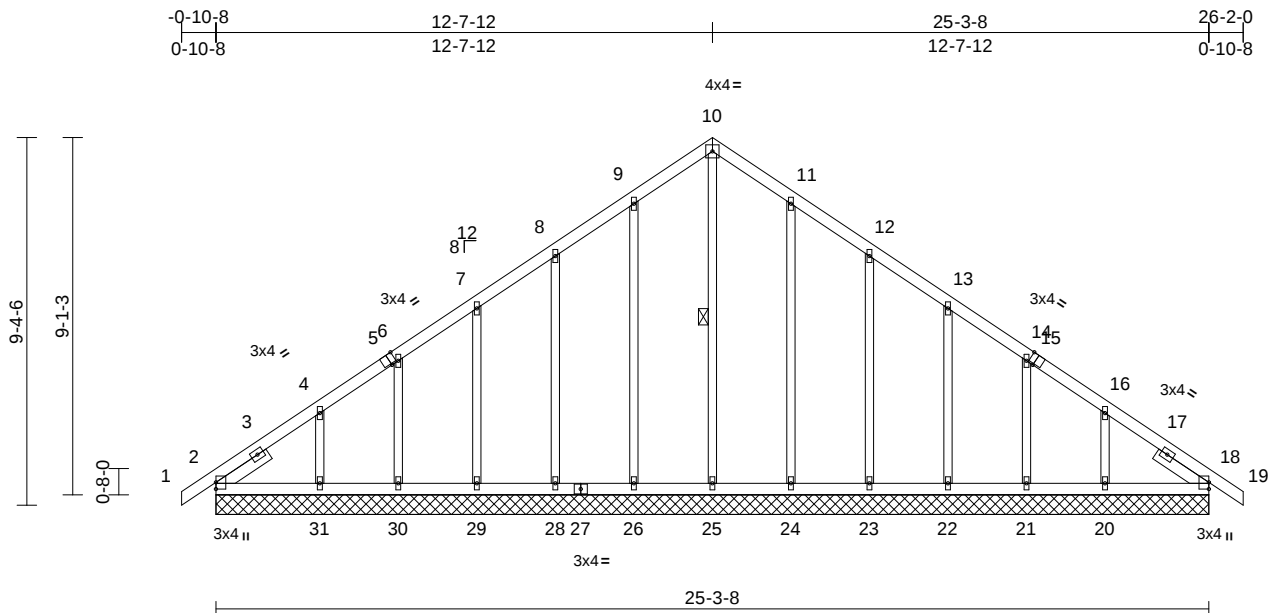
The truss drawing(s) referenced above have been prepared by
MiTek USA, Inc. under my direct supervision
based on the parameters provided by .

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.



November 30, 2023



Scale = 1:58.7

Plate Offsets (X, Y): [5:0-1-12,Edge], [15:0-1-12,Edge]

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.10	Vert(LL)	n/a	-	n/a	999	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.06	Vert(CT)	n/a	-	n/a	999	
BCLL	0.0	Rep Stress Incr	YES	WB	0.21	Horz(CT)	0.01	18	n/a	n/a	
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S							
Weight: 135 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 -- 1-6-8, Right 2x4 SP No.2 -- 1-6-8

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.
WEBS 1 Row at midpt 10-25

REACTIONS (size)
2=25-3-8, 18=25-3-8, 20=25-3-8, 21=25-3-8, 22=25-3-8, 23=25-3-8, 24=25-3-8, 25=25-3-8, 26=25-3-8, 28=25-3-8, 29=25-3-8, 30=25-3-8, 31=25-3-8
Max Horiz 2=252 (LC 10)
Max Uplift 2=-62 (LC 8), 18=-6 (LC 9), 20=-132 (LC 13), 21=-64 (LC 13), 22=-80 (LC 13), 23=-83 (LC 13), 24=-69 (LC 13), 26=-73 (LC 12), 28=-82 (LC 12), 29=-81 (LC 12), 30=-62 (LC 12), 31=-142 (LC 12)
Max Grav 2=232 (LC 20), 18=202 (LC 1), 20=250 (LC 20), 21=172 (LC 20), 22=193 (LC 20), 23=189 (LC 20), 24=194 (LC 20), 25=210 (LC 13), 26=198 (LC 19), 28=187 (LC 19), 29=194 (LC 19), 30=169 (LC 19), 31=260 (LC 19)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=0/16, 2-4=-232/187, 4-6=-173/135, 6-7=-159/129, 7-8=-144/154, 8-9=-130/196, 9-10=-164/245, 10-11=-164/245, 11-12=-128/186, 12-13=-89/116, 13-14=-97/59, 14-16=-112/54, 16-18=-179/99, 18-19=0/16
BOT CHORD 2-31=-85/186, 30-31=-85/186, 29-30=-85/186, 28-29=-85/186, 26-28=-85/186, 25-26=-85/186, 24-25=-85/186, 23-24=-85/186, 22-23=-85/186, 21-22=-85/186, 20-21=-85/186, 18-20=-85/186, 10-25=-196/79, 9-26=-157/97, 8-28=-148/106, 7-29=-152/104, 6-30=-136/90, 4-31=-199/162, 11-24=-154/93, 12-23=-149/107, 13-22=-151/104, 14-21=-138/90, 16-20=-191/154
WEBS

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 4-1-8, Exterior(2N) 4-1-8 to 12-7-12, Corner(3R) 12-7-12 to 17-7-12, Exterior(2N) 17-7-12 to 26-2-0 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 2-0-0 oc.

7) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
8) 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 62 lb uplift at joint 2, 73 lb uplift at joint 26, 82 lb uplift at joint 28, 81 lb uplift at joint 29, 62 lb uplift at joint 30, 142 lb uplift at joint 31, 69 lb uplift at joint 24, 83 lb uplift at joint 23, 80 lb uplift at joint 22, 64 lb uplift at joint 21, 132 lb uplift at joint 20 and 6 lb uplift at joint 18.
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



November 30, 2023

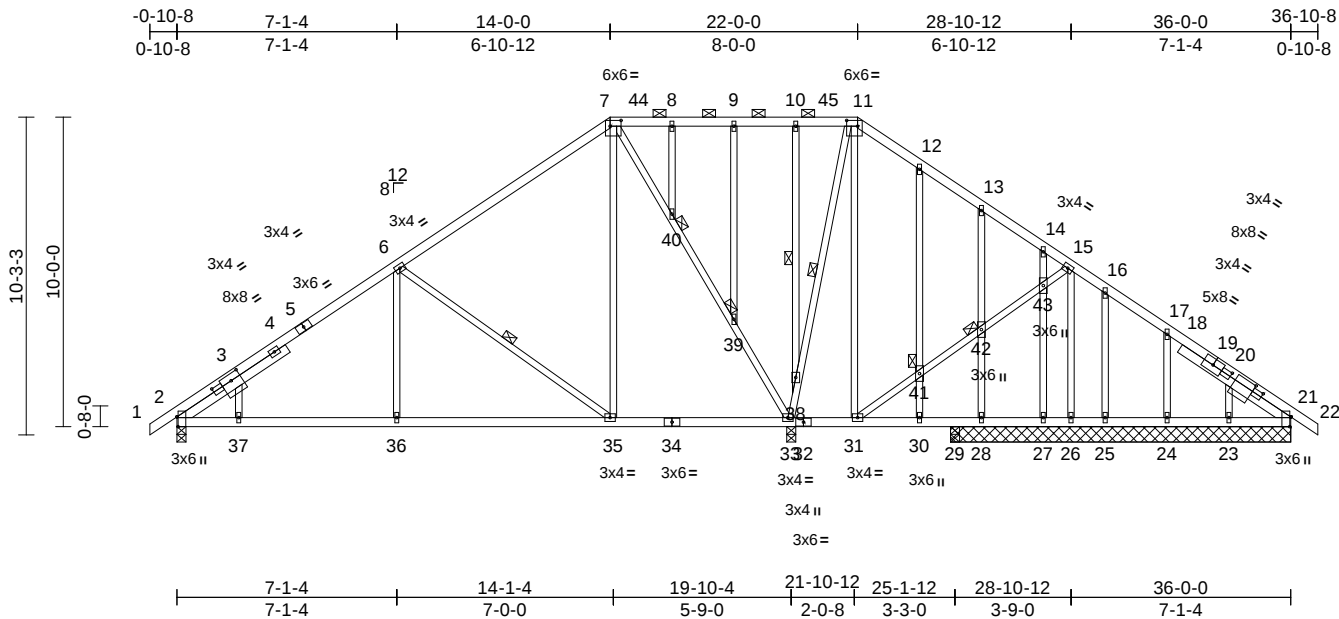
WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 BEFORE USE.

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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Chesterfield, MO 63017
314.434.1200 / MiTek-US.com

Truss Type	Qty	Ply	Roof - Osage Lot 67	I62263991
Piggyback Base Structural Gable	1	1	Job Reference (optional)	

Run: 8.63 S Nov 1 2023 Print: 8.630 S Nov 1 2023 MiTek Industries, Inc. Wed Nov 29 10:48:20 Page: 1
ID:2daIXkejKjCW0VB9WmXKRzZaORs-RfC?PsB70Hq3NSgPqnL8w3uITXbGKwCDoi7J4zJC7f



Scale = 1:74.5

Plate Offsets (X, Y): [2:0-3-13,Edge], [2:1-5-4,0-1-8], [3:0-4-0,0-2-8], [7:0-4-4,0-2-4], [11:0-4-4,0-2-4], [20:1-5-14,0-2-8], [21:0-3-13,Edge], [21:1-1-14,0-1-8], [21:2-4-4,0-1-8]

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.66	Vert(LL)	0.08	36-37	>999	240	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.43	Vert(CT)	-0.11	35-36	>999	180	
BCLL	0.0	Rep Stress Incr	YES	WB	0.44	Horz(CT)	0.02	33	n/a	n/a	
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S							
Weight: 224 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
SLIDER Left 2x4 SP No.2 -- 4-2-10, Right 2x4 SP No.2 -- 4-2-10

BRACING
TOP CHORD Structural wood sheathing directly applied or 5-4-15 oc purlins, except 2-0-0 oc purlins (10-0-0 max.): 7-11.
BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing, Except: 10-0-0 oc bracing: 2-37,36-37,35-36,33-35.
WEBS 1 Row at midpt 6-35, 11-33, 10-38
JOINTS 1 Brace at Jt(s): 39, 40, 41, 42

REACTIONS (size)
2=0-3-8, 21=11-0-0, 23=11-0-0, 24=11-0-0, 25=11-0-0, 26=11-0-0, 27=11-0-0, 28=11-0-0, 29=0-3-8, 33=0-3-8
Max Horiz 2=278 (LC 11)
Max Uplift 2=158 (LC 12), 21=3 (LC 25), 23=89 (LC 13), 24=89 (LC 13), 25=46 (LC 13), 26=15 (LC 25), 27=36 (LC 13), 28=68 (LC 13), 29=73 (LC 13), 33=199 (LC 9)
Max Grav 2=873 (LC 1), 21=120 (LC 26), 23=194 (LC 20), 24=201 (LC 20), 25=152 (LC 20), 26=51 (LC 26), 27=136 (LC 20), 28=128 (LC 20), 29=217 (LC 20), 33=1381 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=0/16, 2-3=-1052/95, 3-6=-971/189, 6-7=-480/189, 7-8=-44/229, 8-9=-44/230, 9-10=-44/230, 10-11=-44/230, 11-12=-65/242, 12-13=-53/186, 13-14=-19/164, 14-15=-15/137, 15-16=-6/122, 16-17=-2/123, 17-20=-53/129, 20-21=-129/134, 21-22=0/16
BOT CHORD 2-37=-203/863, 36-37=-199/862, 35-36=-199/862, 33-35=-74/353, 31-33=-134/218, 30-31=-97/141, 29-30=-97/141, 28-29=-97/141, 27-28=-97/141, 26-27=-97/141, 25-26=-97/141, 24-25=-97/141, 23-24=-97/141, 21-23=-94/137
WEBS 6-36=0/281, 6-35=-648/290, 7-35=-83/500, 7-40=-813/171, 39-40=-850/172, 33-39=-874/180, 33-38=-529/152, 11-38=-243/12, 11-31=-66/77, 31-41=-48/98, 41-42=-43/94, 42-43=-48/96, 15-43=-46/96, 15-26=-49/20, 10-38=-327/170, 9-39=-27/13, 8-40=-44/8, 3-37=-19/96, 12-41=-114/89, 30-41=-103/83, 13-42=-188/122, 28-42=-199/126, 14-43=-93/53, 27-43=-87/52, 16-25=-115/66, 17-24=-161/113, 20-23=-151/113

NOTES

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=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 14-0-0, Exterior(2R) 14-0-0 to 21-0-14, Interior (1) 21-0-14 to 22-0-0, Exterior(2R) 22-0-0 to 28-10-12, Interior (1) 28-10-12 to 36-10-8 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

- 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.
- Provide adequate drainage to prevent water ponding.
- All plates are 1.5x4 MT20 unless otherwise indicated.
- Gable studs spaced at 2-0-0 oc.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- All bearings are assumed to be SP No.2 crushing capacity of 565 psi.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 158 lb uplift at joint 2, 199 lb uplift at joint 33, 15 lb uplift at joint 26, 3 lb uplift at joint 21, 68 lb uplift at joint 28, 36 lb uplift at joint 27, 46 lb uplift at joint 25, 89 lb uplift at joint 24, 89 lb uplift at joint 23 and 73 lb uplift at joint 29.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



November 30,2023

Continued on page 2

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

RELEASE FOR CONSTRUCTION
AS NOTED ON PLANS REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
Premier Building Supply (Springhill, KS), Spring hills, KS - 66083,
01/02/2024 9:38:44

	Truss Type	Qty	Ply	Roof - Osage Lot 67
	Piggyback Base Structural Gable	1	1	I62263991
				Job Reference (optional)

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

Run: 8.63 S Nov 1 2023 Print: 8.630 S Nov 1 2023 MiTek Industries, Inc. Wed Nov 29 10:48:20
ID:2dalXkejCjCW0VB9WmXKRzzaORs-RfC?PsB70Hq3NSgPqnL8w3ulTXbGKWrCDoi7J4zJC?f

Page: 2

LOAD CASE(S) Standard

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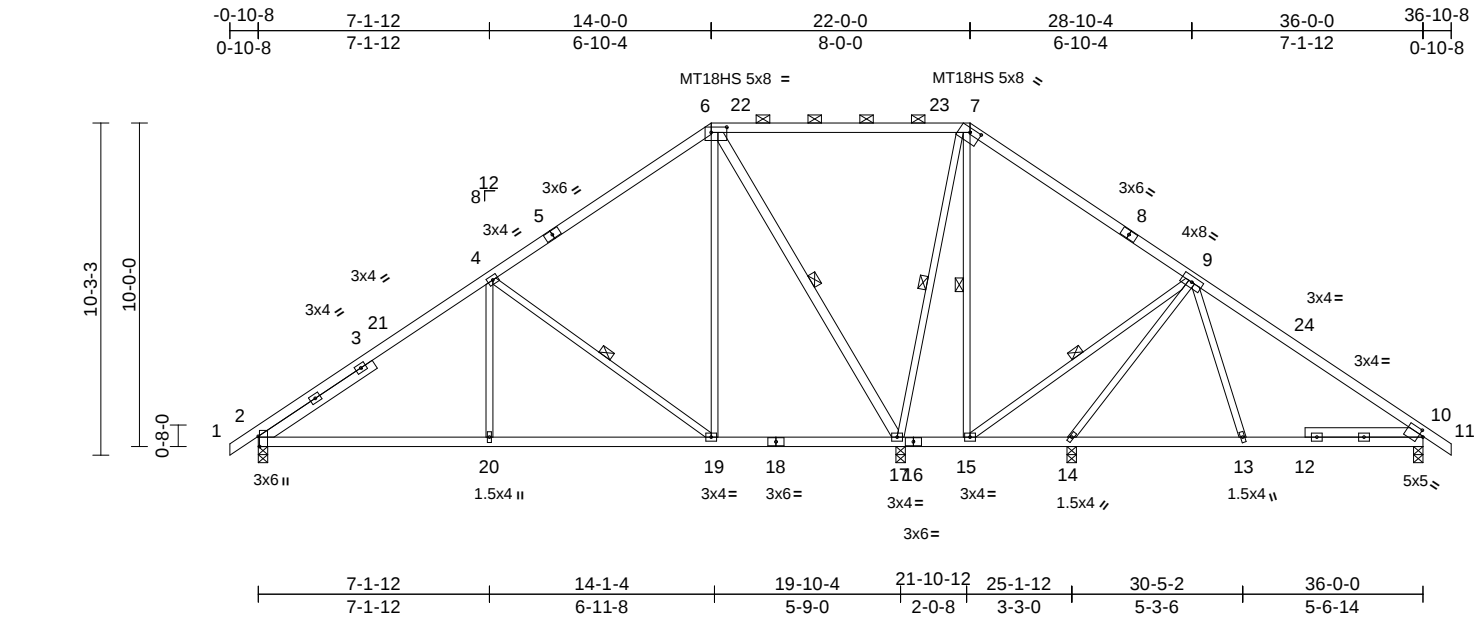


Plate Offsets (X, Y): [2:0-3-13,Edge], [6:0-5-12,0-2-0], [7:0-4-0,0-1-9], [10:0-1-9,0-2-0]									
Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.77	Vert(LL)	-0.06	2-20	>999
TCDL	10.0	Lumber DOL	1.15	BC	0.49	Vert(CT)	-0.13	2-20	>999
BCLL	0.0	Rep Stress Incr	YES	WB	0.56	Horz(CT)	0.02	10	n/a
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S					
					Weight: 197 lb FT = 20%				

LUMBER
TOP CHORD 2x4 SP No.2 *Except* 6-7:2x4 SP 1650F 1.5E
BOT CHORD 2x4 SP No.2
WEBS 2x3 SPF No.2 *Except* 17-6:2x4 SP No.2
SLIDER Left 2x4 SP No.2 -- 4-2-15, Right 2x4 SP No.2 -- 3-7-11

BRACING
TOP CHORD Structural wood sheathing directly applied or 5-3-2 oc purlins, except 2-0-0 oc purlins (10-0-0 max.): 6-7.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing, Except: 6-0-0 oc bracing: 15-17,14-15.
WEBS 1 Row at midpt 4-19, 6-17, 7-17, 7-15, 9-15

REACTIONS (size) 2=0-3-8, 10=0-3-8, 14=0-3-8, 17=0-3-8
Max Horiz 2=278 (LC 11)
Max Uplift 2=-164 (LC 12), 10=-135 (LC 13), 14=-123 (LC 13), 17=-133 (LC 12)
Max Grav 2=878 (LC 25), 10=517 (LC 26), 14=556 (LC 26), 17=1490 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/16, 2-4=-1040/186, 4-6=-489/203, 6-7=0/284, 7-9=-69/290, 9-10=-504/144, 10-11=0/16
BOT CHORD 2-20=-210/804, 19-20=-210/804, 17-19=-143/337, 15-17=-191/212, 14-15=-165/147, 13-14=-12/252, 10-13=0/300
WEBS 4-20=0/308, 4-19=-647/288, 6-19=-90/501, 6-17=-949/173, 7-17=-563/121, 7-15=-46/45, 9-15=-67/80, 9-14=-567/232, 9-13=0/261

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 14-0-0, Exterior(2R) 14-0-0 to 21-0-14, Interior (1) 21-0-14 to 22-0-0, Exterior(2R) 22-0-0 to 28-11-5, Interior (1) 28-11-5 to 36-10-8 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) All plates are MT20 plates unless otherwise indicated.
- 5) All plates are 3x4 MT20 unless otherwise indicated.
- 6) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 7) 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 164 lb uplift at joint 2, 133 lb uplift at joint 17, 123 lb uplift at joint 14 and 135 lb uplift at joint 10.
- 9) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 10) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

LOAD CASE(S) Standard



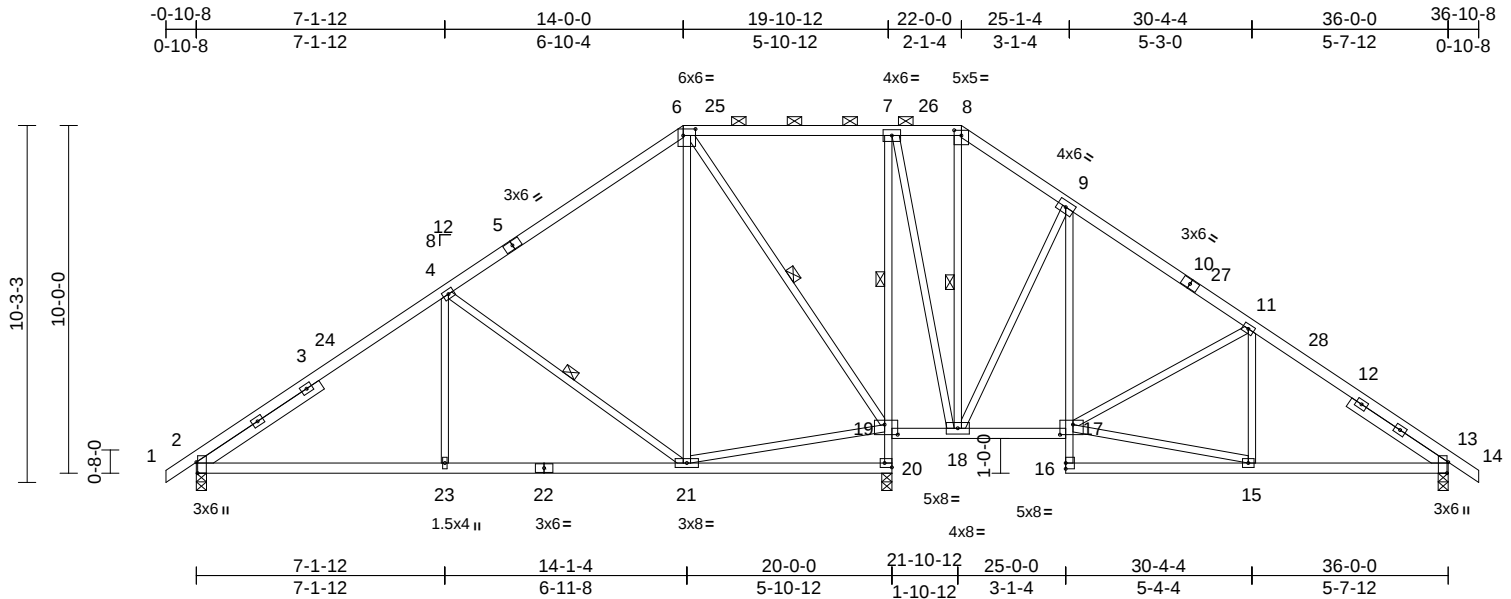
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MiTek®

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Scale = 1:66.3

Plate Offsets (X, Y): [2:0-3-13,Edge], [6:0-4-4,0-2-4], [8:0-2-8,0-1-13], [13:0-3-13,Edge], [17:0-4-8,0-3-8], [19:0-4-8,0-3-8], [20:Edge,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	0.67	Vert(LL)	-0.06	2-23	>999	240	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.50	Vert(CT)	-0.14	2-23	>999	180	
BCLL	0.0	Rep Stress Incr	YES	WB	0.82	Horz(CT)	0.03	13	n/a	n/a	
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S							
Weight: 207 lb FT = 20%											

LUMBER

TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2 *Except* 20-7,9-16:2x3 SPF No.2
WEBS 2x3 SPF No.2
SLIDER Left 2x4 SP No.2 -- 4-2-15, Right 2x4 SP No.2 -- 3-4-2

BRACING

TOP CHORD Structural wood sheathing directly applied or 5-2-5 oc purlins, except 2-0-0 oc purlins (6-0-0 max.): 6-8.
BOT CHORD Rigid ceiling directly applied or 3-8-2 oc bracing. Except:

1 Row at midpt 7-19
WEBS 1 Row at midpt 4-21, 6-19, 8-18

REACTIONS (size) 2=0-3-8, 13=0-3-8, 20=0-3-8
Max Horiz 2=-277 (LC 10)
Max Uplift 2=-175 (LC 12), 13=-195 (LC 13), 20=-110 (LC 12)
Max Grav 2=920 (LC 25), 13=738 (LC 26), 20=1736 (LC 1)

FORCES

(lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/16, 2-4=-1112/206, 4-6=-560/209, 6-7=-40/218, 7-8=-106/240, 8-9=-160/256, 9-11=-500/240, 11-13=-860/244, 13-14=0/16
BOT CHORD 2-23=-222/880, 21-23=-222/880, 20-21=-12/23, 19-20=-1687/206, 7-19=-970/193, 18-19=-172/215, 17-18=0/330, 16-17=0/87, 9-17=-67/398, 15-16=0/30, 13-15=-86/628
WEBS 4-23=0/304, 4-21=-645/288, 6-21=-87/463, 19-21=-117/386, 6-19=-745/153, 7-18=-101/619, 8-18=-98/38, 9-18=-625/248, 15-17=-91/614, 11-17=-385/194, 11-15=-6/170

NOTES

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=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 14-0-0, Exterior(2R) 14-0-0 to 21-0-14, Interior (1) 21-0-14 to 22-0-0, Exterior(2R) 22-0-0 to 29-0-14, Interior (1) 29-0-14 to 36-10-8 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
- Provide adequate drainage to prevent water ponding.
- All plates are 3x4 MT20 unless otherwise indicated.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- All bearings are assumed to be SP No.2 crushing capacity of 565 psi.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 175 lb uplift at joint 2, 110 lb uplift at joint 20 and 195 lb uplift at joint 13.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

LOAD CASE(S) Standard



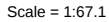
November 30, 2023

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 BEFORE USE.

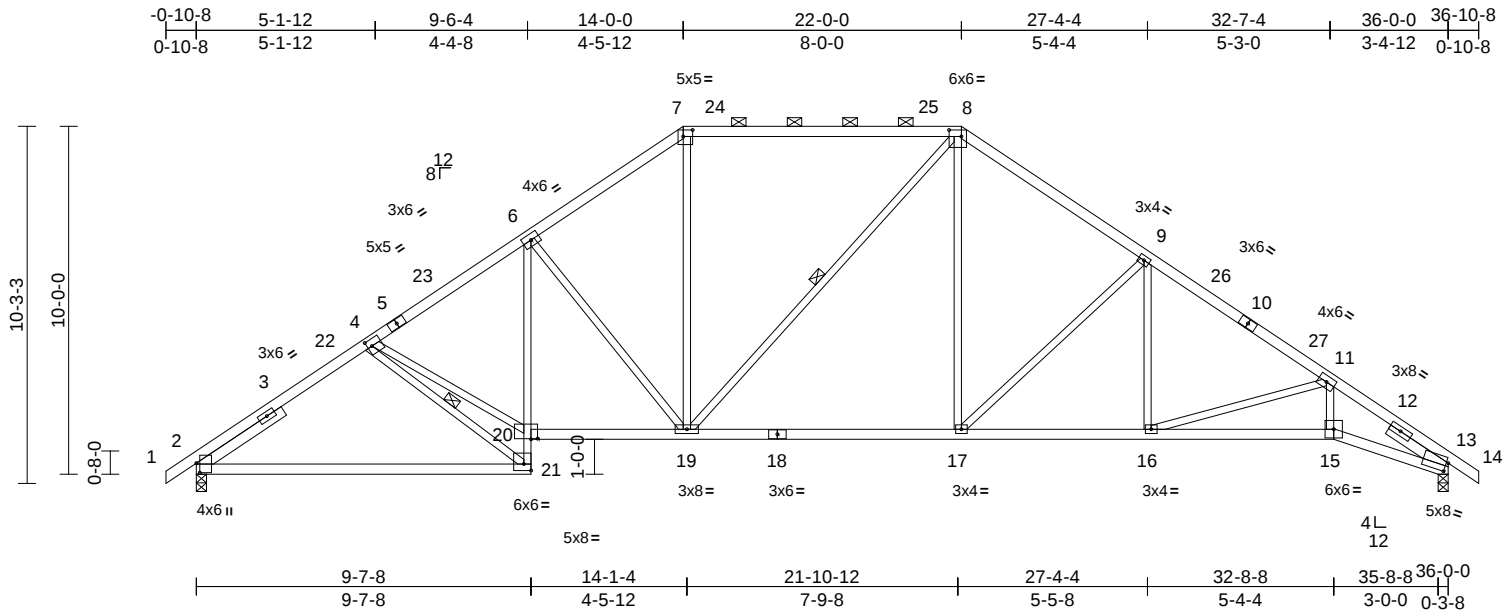
Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall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

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Scale = 1:66.3

Plate Offsets (X, Y): [2:0-3-5,0-1-3], [4:0-1-8,0-2-4], [7:0-3-4,0-2-4], [8:0-4-4,0-2-4], [13:0-0-11,0-3-3], [20:0-2-4,0-0-4], [21:Edge,0-2-4]

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.82	Vert(LL)	-0.28	2-21	>999	240	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.97	Vert(CT)	-0.59	2-21	>731	180	
BCLL	0.0	Rep Stress Incr	YES	WB	0.96	Horz(CT)	0.29	13	n/a	n/a	
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S							
Weight: 185 lb FT = 20%											

LUMBER

TOP CHORD 2x4 SP 2400F 2.0E *Except* 5-7,8-10:2x4 SP No.2
BOT CHORD 2x4 SP No.2 *Except* 21-6:2x3 SPF No.2, 15-13:2x4 SP 1650F 1.5E
WEBS 2x3 SPF No.2
SLIDER Left 2x4 SP No.2 -- 2-11-4, Right 2x4 SP No.2 -- 2-0-7

BRACING

TOP CHORD Structural wood sheathing directly applied or 2-2-0 oc purlins, except 2-0-0 oc purlins (4-7-5 max.): 7-8.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing, Except: 2-2-0 oc bracing: 2-21,20-21.
WEBS 1 Row at midpt 4-21, 8-19

REACTIONS

(size) 2=0-3-8, 13=0-3-8
Max Horiz 2=278 (LC 11)
Max Uplift 2=-224 (LC 12), 13=-226 (LC 13)
Max Grav 2=1677 (LC 1), 13=1684 (LC 1)

FORCES

(lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/16, 2-4=-2400/334, 4-6=-2451/348, 6-7=-2017/354, 7-8=-1618/344, 8-9=-2036/340, 9-11=-2577/327, 11-13=-3858/428, 13-14=0/12
BOT CHORD 2-21=-349/1862, 20-21=-240/1378, 6-20=-76/395, 19-20=-231/1982, 17-19=-20/1609, 16-17=-146/2107, 15-16=-260/2883, 13-15=-278/3097, 4-21=-2040/468, 4-20=-284/1969, 6-19=-637/268, 7-19=-50/626, 8-19=-175/199, 8-17=-96/617, 9-17=-708/262, 9-16=-3/377, 11-16=-812/224, 11-15=-29/992
WEBS

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 14-0-0, Exterior(2R) 14-0-0 to 21-0-14, Interior (1) 21-0-14 to 22-0-0, Exterior(2R) 22-0-0 to 29-0-14, Interior (1) 29-0-14 to 36-10-8 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) Bearings are assumed to be: Joint 2 SP No.2 crushing capacity of 565 psi, Joint 13 SP 1650F 1.5E crushing capacity of 565 psi.
- 6) Bearing at joint(s) 13 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- 7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 224 lb uplift at joint 2 and 226 lb uplift at joint 13.
- 8) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 9) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

LOAD CASE(S) Standard



November 30, 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 the 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.sbcsccomponents.com)

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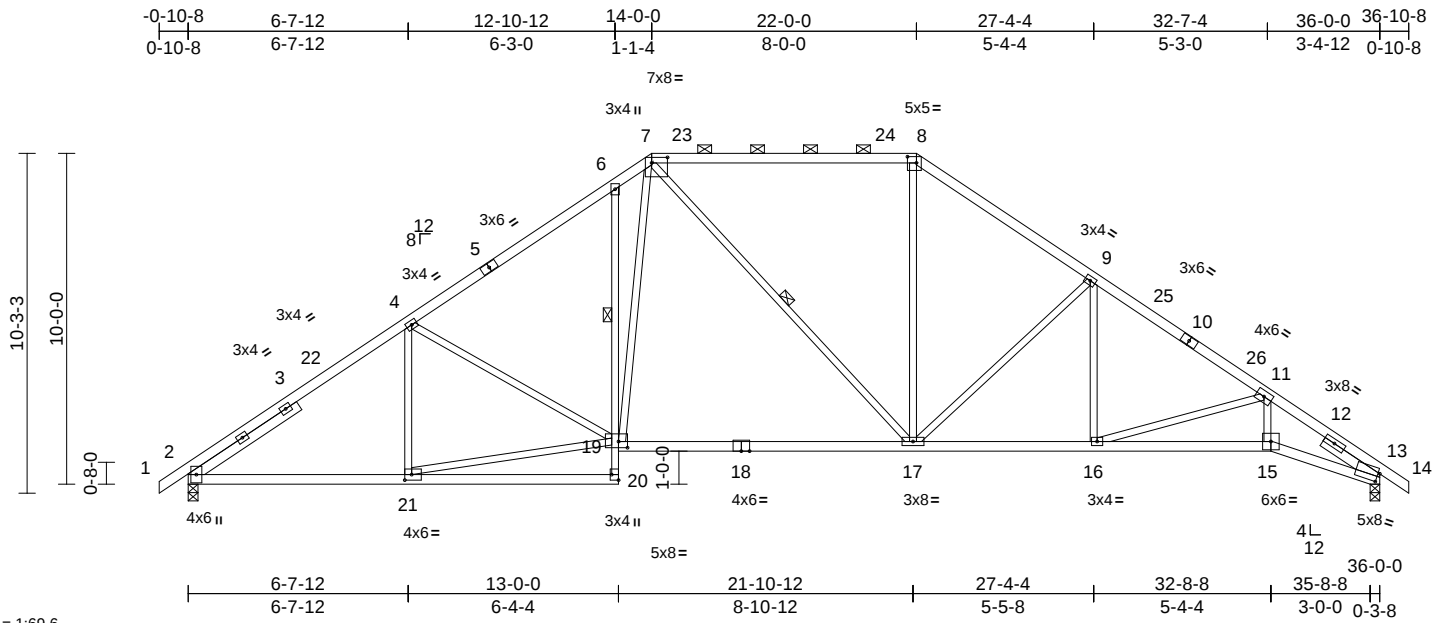
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Chesterfield, MO 63017
314.434.1200 / MiTek-US.com

Truss Type	Qty	Ply	Roof - Osage Lot 67
Piggyback Base	2	1	Job Reference (optional)

I62263999

Run: 8.63 S Nov 1 2023 Print: 8.630 S Nov 1 2023 MiTek Industries, Inc. Wed Nov 29 10:48:24
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Page: 1



Scale = 1:69.6

Plate Offsets (X, Y): [2:0-3-5,0-0-15], [7:0-5-12,0-2-0], [8:0-3-4,0-2-4], [13:0-0-11,0-3-3], [19:0-3-4,0-2-4], [20:Edge,0-2-8], [21:0-2-8,0-2-0]

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	0.99	Vert(LL)	-0.24	17-19	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.86	Vert(CT)	-0.54	17-19	>798	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.95	Horz(CT)	0.22	13	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S							Weight: 188 lb	FT = 20%

LUMBER

TOP CHORD 2x4 SP No.2 *Except* 7-8;2x4 SP 1650F 1.5E, 10-14;2x4 SP 2400F 2.0E
BOT CHORD 2x4 SP No.2 *Except* 20-6;2x3 SPF No.2, 15-13;2x4 SP 1650F 1.5E
WEBS 2x3 SPF No.2
SLIDER Left 2x4 SP No.2 -- 3-11-5, Right 2x4 SP No.2 -- 2-0-7

BRACING

TOP CHORD Structural wood sheathing directly applied or 2-2-0 oc purlins, except 2-0-0 oc purlins (2-2-0 max.): 7-8.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing, Except: 6-0-0 oc bracing: 20-21.

1 Row at midpt 6-19

WEBS 1 Row at midpt 7-17

REACTIONS

(size) 2=0-3-8, 13=0-3-8
Max Horiz 2=-278 (LC 10)
Max Uplift 2=-224 (LC 12), 13=-226 (LC 13)
Max Grav 2=1677 (LC 1), 13=1684 (LC 1)

FORCES

(lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/16, 2-4=-2408/288, 4-6=-2167/342, 6-7=-2045/460, 7-8=-1617/337, 8-9=-2045/337, 9-11=-2573/328, 11-13=-3860/427, 13-14=0/12
BOT CHORD 2-21=-294/1878, 20-21=-35/25, 19-20=0/108, 6-19=-336/233, 17-19=-133/1605, 16-17=-147/2104, 15-16=-259/2885, 13-15=-277/3100
WEBS 4-21=-161/125, 19-21=-267/1877, 4-19=-282/213, 7-19=-305/902, 7-17=-169/200, 8-17=-48/622, 9-17=-695/269, 9-16=-10/351, 11-16=-817/221, 11-15=-27/997

NOTES

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=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 14-0-0, Exterior(2R) 14-0-0 to 21-0-14, Interior (1) 21-0-14 to 22-0-0, Exterior(2R) 22-0-0 to 29-0-14, Interior (1) 29-0-14 to 36-10-8 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
- Provide adequate drainage to prevent water ponding.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- Bearings are assumed to be: Joint 2 SP No.2 crushing capacity of 565 psi, Joint 13 SP 1650F 1.5E crushing capacity of 565 psi.
- Bearing at joint(s) 13 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 224 lb uplift at joint 2 and 226 lb uplift at joint 13.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

LOAD CASE(S) Standard



November 30, 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.sbcsccomponents.com)

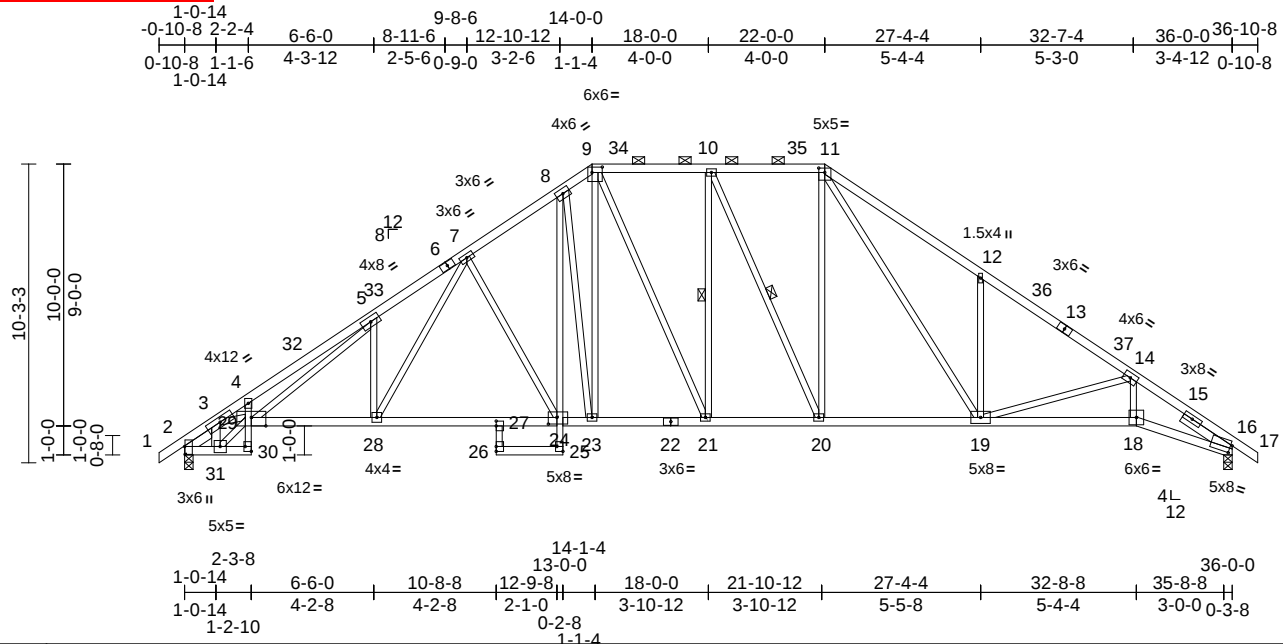
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RELEASE FOR CONSTRUCTION
AS NOTED ON PLANS REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
Premier Building Supply (Springhill, KS), Spring Hills, KS - 66083,
01/02/2024 9:38:44

Truss Type	Qty	Ply	Roof - Osage Lot 67
Piggyback Base	5	1	162264000
Job Reference (optional)			

Run: 8.63 S Nov 1 2023 Print: 8.630 S Nov 1 2023 MiTek Industries, Inc. Wed Nov 29 10:48:25 Page: 1
ID: tP6aCgySlupCz5RwrSTfpkzaOQA-RfC?PsB70Hq3NSgPqnL8w3uITxbGKWrCDoi7J4zJC?i



Scale = 1:79.2

Plate Offsets (X, Y): [2:0-3-4,0-0-3], [9:0-4-4,0-2-4], [11:0-2-8,0-1-13], [16:0-0-11,0-3-3], [24:0-3-8,0-2-12], [25:Edge,0-2-8], [27:0-2-0,Edge], [29:0-6-0,Edge], [30: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	0.91	Vert(LL)	-0.22	24-27	>999	240	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.97	Vert(CT)	-0.42	27-28	>999	180	
BCLL	0.0	Rep Stress Incr	YES	WB	0.93	Horz(CT)	0.34	16	n/a	n/a	
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S							
Weight: 216 lb FT = 20%											

LUMBER
TOP CHORD 2x4 SP No.2 *Except* 13-17:2x4 SP 2400F 2.0E
BOT CHORD 2x4 SP No.2 *Except* 30-4,27-26,25-8:2x3 SPF No.2, 18-16:2x4 SP 1650F 1.5E
WEBS 2x3 SPF No.2 *Except* 31-3:2x4 SP No.2
SLIDER Left 2x4 SP No.2 -- 1-1-9, Right 2x4 SP No.2 -- 2-0-7

WEBS
11-20=-113/421, 11-19=-352/990, 12-19=-494/306, 14-19=-807/229, 14-18=-33/991, 5-28=-624/294, 5-29=-526/1739, 10-20=-353/185, 9-23=-232/709, 8-23=-577/219, 9-21=-181/341, 10-21=-244/208, 7-24=-610/255, 7-28=-270/922, 3-31=-1258/280, 29-31=-358/1701, 3-29=-435/2216

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

BRACING
TOP CHORD Structural wood sheathing directly applied or 1-8-5 oc purlins, except 2-0-0 oc purlins (4-4-13 max.): 9-11.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing, Except: 2-2-0 oc bracing: 28-29.
WEBS 1 Row at midpt 10-20, 10-21
REACTIONS (size) 2=0-3-8, 16=0-3-8
Max Horiz 2=278 (LC 11)
Max Uplift 2=-224 (LC 12), 16=-226 (LC 13)
Max Grav 2=1677 (LC 1), 16=1684 (LC 1)

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 14-0-0, Exterior(2R) 14-0-0 to 21-0-14, Interior (1) 21-0-14 to 22-0-0, Exterior(2R) 22-0-0 to 29-0-14, Interior (1) 29-0-14 to 36-10-8 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) All plates are 3x4 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 16 SP 1650F 1.5E crushing capacity of 565 psi.
7) Bearing at joint(s) 16 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 224 lb uplift at joint 2 and 226 lb uplift at joint 16.
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.

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/16, 2-3=-2148/247, 3-4=-4521/756, 4-5=-4476/866, 5-7=-2962/528, 7-8=-2085/365, 8-9=-1917/396, 9-10=-1675/341, 10-11=-1597/340, 11-12=-2660/507, 12-14=-2579/324, 14-16=-3856/431, 16-17=0/12
BOT CHORD 2-31=-317/1487, 30-31=-51/222, 29-30=-13/100, 4-29=-50/144, 28-29=-352/2398, 27-28=-222/1962, 24-27=-210/1928, 26-27=0/35, 25-26=-12/34, 24-25=0/49, 8-24=-134/516, 23-24=-131/1679, 21-23=-122/1599, 20-21=-92/1674, 19-20=-20/1593, 18-19=-262/2882, 16-18=-281/3096



November 30,2023

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 the 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.sbcsccomponents.com)

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RELEASE FOR CONSTRUCTION
AS NOTED ON PLANS REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
01/02/2024 9:38:44

Truss Type	Qty	Ply	Roof - Osage Lot 67
Piggyback Base Supported Gable	1	1	I62264001
Job Reference (optional)			

Premier Building Supply (Springhill, KS), Spring Hills, KS - 66083, Run: 8.63 S Nov 1 2023 Print: 8.630 S Nov 1 2023 MiTek Industries, Inc. Wed Nov 29 10:48:26 Page: 2
ID: TvX9rukE_s?zG5vP9c7vxSzaOP9-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrcDoi7J4zJC?f

- 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 20 lb uplift at joint 24, 115 lb uplift at joint 2, 44 lb uplift at joint 32, 42 lb uplift at joint 33, 42 lb uplift at joint 34, 22 lb uplift at joint 35, 78 lb uplift at joint 36, 81 lb uplift at joint 37, 77 lb uplift at joint 38, 80 lb uplift at joint 39, 71 lb uplift at joint 40, 131 lb uplift at joint 41, 75 lb uplift at joint 30, 82 lb uplift at joint 29, 77 lb uplift at joint 28, 82 lb uplift at joint 27, 64 lb uplift at joint 26 and 136 lb uplift at joint 25.
- 11) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 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

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 BEFORE USE.

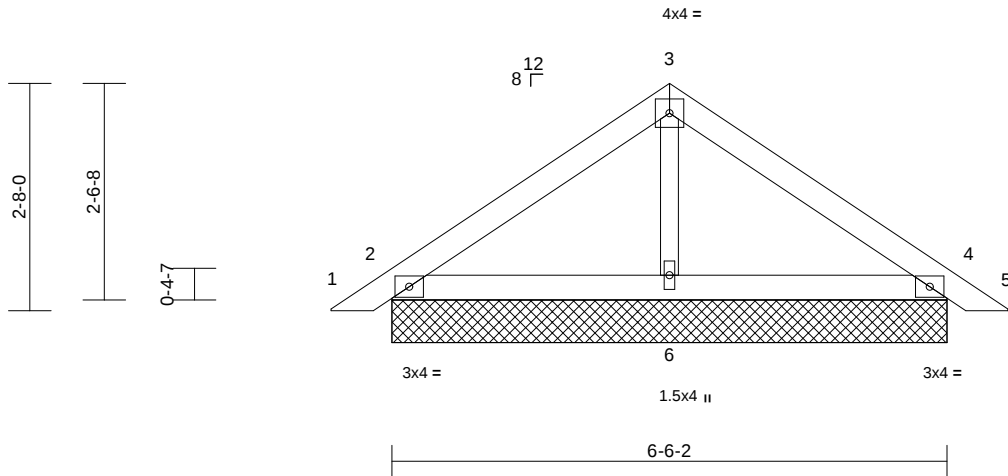
Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall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

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	Truss Type	Qty	Ply	Roof - Osage Lot 67	I62264002
	Piggyback	2	1	Job Reference (optional)	
Hills, KS - 66083, Run: 8.63 S Nov 1 2023 Print: 8.630 S Nov 1 2023 MiTek Industries, Inc. Wed Nov 29 10:48:26 Page: 1 ID:15XuO6EOkGwLxHbdXdwM2ozaOSO-RfC?PsB70Hq3NSgPqnL8w3ulTXbGKWrCDoi7J4zJC?f					

-0-8-9	3-3-1	6-6-2	7-2-11
0-8-9	3-3-1	3-3-1	0-8-9



Scale = 1:27

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.22	n/a	-	n/a	999	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.11	n/a	-	n/a	999		
BCLL	0.0	Rep Stress Incr	YES	WB	0.03	Horz(CT)	0.00	4	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-P						Weight: 25 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=6-6-2, 4=6-6-2, 6=6-6-2
Max Horiz 2=-69 (LC 10)
Max Uplift 2=-55 (LC 12), 4=-64 (LC 13)
Max Grav 2=200 (LC 1), 4=200 (LC 1), 6=251 (LC 1)

FORCES

(lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=0/16, 2-3=-106/75, 3-4=-100/76, 4-5=0/16

BOT CHORD 2-6=-13/53, 4-6=-13/53

WEBS 3-6=-170/93

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 55 lb uplift at joint 2 and 64 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



November 30, 2023

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 BEFORE USE.

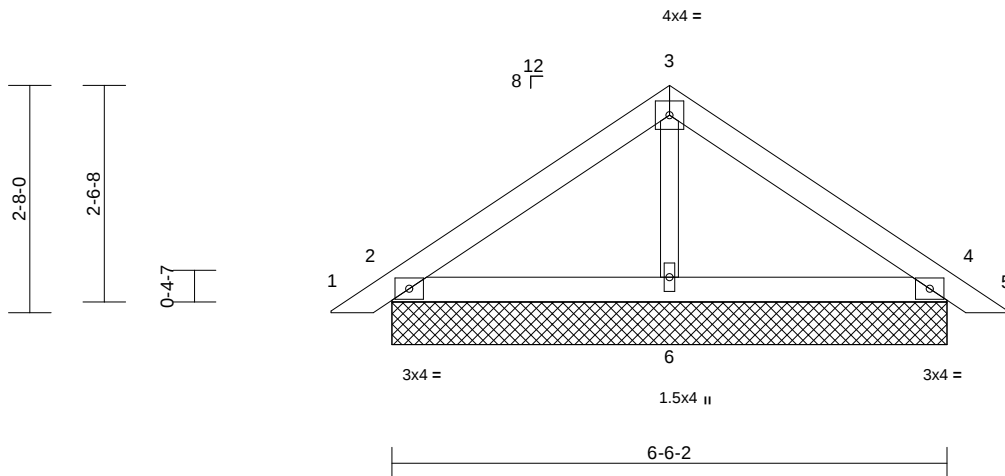
Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall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

MiTek®

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

	Truss Type	Qty	Ply	Roof - Osage Lot 67	I62264003
	Piggyback	28	1	Job Reference (optional)	
Run: 8.63 S Nov 1 2023 Print: 8.630 S Nov 1 2023 MiTek Industries, Inc. Wed Nov 29 10:48:26 ID:wsmPEUHuoVRnQuuOmT_IDezaOSK-RfC?PsB70Hq3NSgPqnL8w3uITxbGKWrCDoi7J4zJC?f					

-0-8-9	3-3-1	6-6-2	7-2-11
0-8-9	3-3-1	3-3-1	0-8-9



Scale = 1:27

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.22	n/a	-	n/a	999	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.11	n/a	-	n/a	999		
BCLL	0.0	Rep Stress Incr	YES	WB	0.03	Horz(CT)	0.00	4	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-P						Weight: 25 lb	FT = 20%

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BOT CHORD 2x4 SP No.2
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NOTES

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LOAD CASE(S) Standard



November 30, 2023

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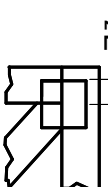
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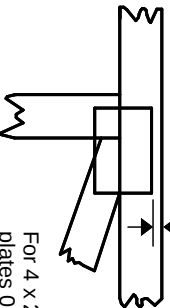
Symbols

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.



0- $\frac{1}{16}$ "



For 4 x 2 orientation, locate plates 0- $\frac{1}{16}$ " 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

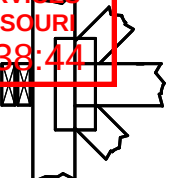
The first dimension is the plate width measured perpendicular to slots. Second dimension is the length parallel to slots.

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/TPI-1: National Design Specification for Metal Plate Connected Wood Truss Construction.
BCS-2: Design Standard for Bracing.
BCS-3: Building Component Safety Information.
Guide to Good Practice for Handling, Installing, Restraining & Bracing of Metal Plate Connected Wood Trusses.

Numbering System

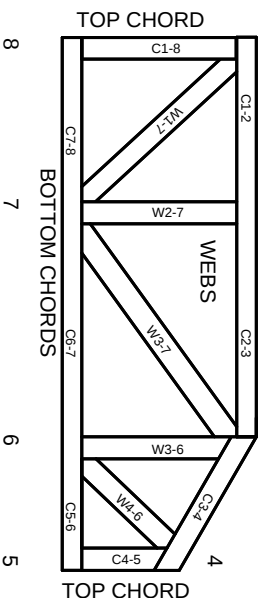
6-4-8 dimensions shown in ft-in-sixteenths (Drawings not to scale)

1

2

3 Joint ID typ.

TOP CHORDS



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.

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MITek Engineering Reference Sheet: MIL-7473 rev. 1/12/2023

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.