

RE: P240540-01 - Roof - Osage Lot 78

Site Information:

Project Customer: Clayton Properties Project Name: Twin Emerald

Lot/Block: 78

Subdivision: Osage

Model:

Address: 3710/3712 SW Knoxville Ct

City: Lee's Summit

State: MO

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

Design Code: IRC2018/TPI2014

Wind Code: ASCE 7-16

Wind Speed: 115 mph

Roof Load: 45.0 psf

Mean Roof Height (feet): 35

Design Program: MiTek 20/20 8.6

Design Method: MWFRS (Envelope)/C-C hybrid Wind ASCE 7-16

Floor Load: N/A psf

Exposure Category: C

MiTek, Inc.

16023 Swingley Ridge Rd.

Chesterfield, MO 63017

314.434.1200

No.	Seal#	Truss Name	Date
1	I68740741	A2	10/9/24
2	I68740742	A3	10/9/24
3	I68740743	A4	10/9/24
4	I68740744	B1	10/9/24
5	I68740745	B2	10/9/24
6	I68740746	C2	10/9/24
7	I68740747	C3	10/9/24
8	I68740748	C4	10/9/24
9	I68740749	E1	10/9/24
10	I68740750	E2	10/9/24
11	I68740751	G1A	10/9/24
12	I68740752	G2A	10/9/24
13	I68740753	V1	10/9/24
14	I68740754	V2	10/9/24
15	I68740755	V3	10/9/24
16	I68740756	V4	10/9/24
17	I68740757	V5	10/9/24

The truss drawing(s) referenced above have been prepared by MiTek USA, Inc. under my direct supervision based on the parameters provided by Premier Building Supply (Springhill, KS)20300 W 207th Street.

Truss Design Engineer's Name: Sevier, Scott

My license renewal date for the state of Missouri is December 31, 2025.

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



October 9, 2024

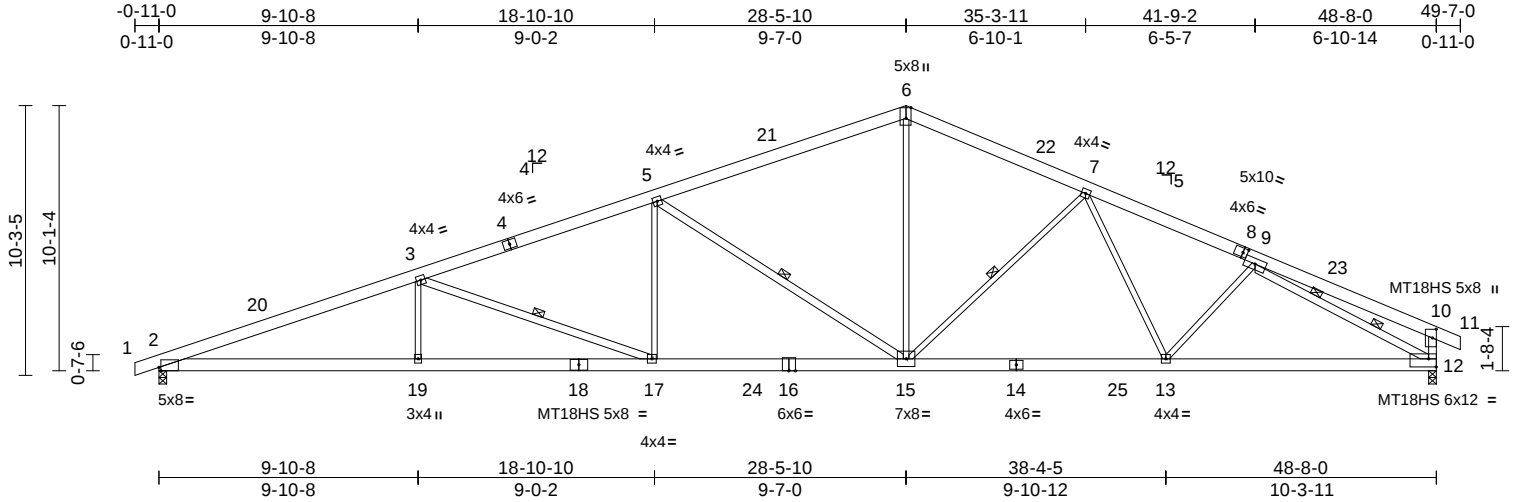
Job	Truss	Truss Type	Qty	Ply	Roof - Osage Lot 78	
P240540-01	A2	Roof Special	2	1	Job Reference (optional)	I68740741

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

Run: 8.63 S Sep 26 2024 Print: 8.630 S Sep 26 2024 MiTek Industries, Inc. Mon Oct 07 13:01:35

Page: 1

ID:QF_s_JP9cHCcGLmFn8Tnnyz_c3R-RfC?PsB70Hq3NSgPqnL8w3ulTXbGKWrCDoi7J4zJC?f



Scale = 1:87.8

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

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.59	Vert(LL)	-0.45	13-15	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.50	Vert(CT)	-0.73	13-15	>796	180	MT18HS	244/190
BCLL	0.0*	Rep Stress Incr	YES	WB	1.00	Horz(CT)	0.15	12	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S								
											Weight: 303 lb	FT = 20%

LUMBER

TOP CHORD 2x6 SP 2400F 2.0E *Except* 8-11,8-6:2x6 SPF No.2
BOT CHORD 2x6 SP 2400F 2.0E *Except* 0-0:2x6 SPF No.2
WEBS 2x3 SPF No.2 *Except* 12-10,15-5,17-3,12-9:2x4 SP No.2

BRACING

TOP CHORD Structural wood sheathing directly applied or 3-6-6 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 1 Row at midpt 5-15, 3-17, 7-15
WEBS 2 Rows at 1/3 pts 9-12

REACTIONS

(size) 2=0-3-8, 12=0-3-8
Max Horiz 2=184 (LC 16)
Max Uplift 2=-449 (LC 8), 12=-328 (LC 13)
Max Grav 2=2347 (LC 2), 12=2364 (LC 2)

FORCES

(lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/11, 2-3=-5818/1176, 3-5=-4574/983, 5-6=-3156/770, 6-7=-3219/790, 7-9=-3783/820, 9-10=-463/202, 10-11=0/29, 10-12=-478/297
BOT CHORD 2-19=-1047/5432, 17-19=-1047/5432, 15-17=-756/4260, 13-15=-569/3325, 12-13=-634/3286
WEBS 3-19=0/390, 6-15=-279/1738, 9-13=-2/309, 5-17=-21/807, 7-13=0/333, 5-15=-1651/460, 3-17=-1262/365, 7-15=-688/295, 9-12=-3441/633

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) -0-11-0 to 4-1-0, Interior (1) 4-1-0 to 28-5-10, Exterior(2R) 28-5-10 to 33-5-10, Interior (1) 33-5-10 to 49-7-0 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) All plates are MT20 plates unless otherwise indicated.
- 4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 5) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- 6) All bearings are assumed to be SP 2400F 2.0E crushing capacity of 805 psi.
- 7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 328 lb uplift at joint 12 and 449 lb uplift at joint 2.
- 8) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard



October 9,2024

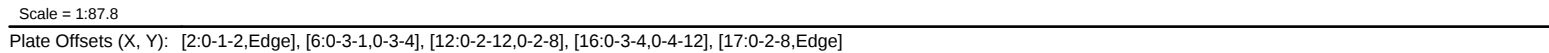
WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 BEFORE USE.

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)

MiTek®

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

Premier Building Supply (Springhill, KS), Spring Hills, KS - 66083, Run: 8.63 S Sep 26 2024 Print: 8.630 S Sep 26 2024 MiTek Industries, Inc. Mon Oct 07 13:01:36 Page: 1
ID:m_P9pcXgCxbN3mpg9BHX8Rz_bfT-RfC?PsB70Hq3NSgPqnL8w3uITXGkWrCd0i7J4zJC?i



LUMBER			3) Unbalanced roof live loads have been considered for this design.
TOP CHORD	2x6 SP 2400F 2.0E *Except* 9-13,9-6:2x6 SPF No.2		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) -0-11-0 to 4-1-0, Interior (1) 4-1-0 to 28-5-10, Exterior(2R) 28-5-10 to 33-5-10, Interior (1) 33-5-10 to 49-7-0 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
BOT CHORD	2x6 SPF No.2 *Except* 18-8:1 1/2" x 9 1/4" 2.0E Microllam® LVL, 11-15:2x4 SP No.2, 15-14,20-22,22-2,20-18:2x6 SP 2400F 2.0E		3) All plates are MT20 plates unless otherwise indicated.
WEBS	2x3 SPF No.2 *Except* 14-12,21-3,19-5,16-10,12-16:2x4 SP No.2		4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
BRACING			5) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
TOP CHORD	Structural wood sheathing directly applied or 3-4-6 oc purlins, except end verticals.		6) All bearings are assumed to be SP 2400F 2.0E crushing capacity of 805 psi.
BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing, Except: 2-2-0 oc bracing: 16-17.		7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 449 lb uplift at joint 2 and 328 lb uplift at joint 14.
WEBS	1 Row at midpt 3-21, 7-19		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.
WEBS	2 Rows at 1/3 pts 5-19		
REACTIONS			LOAD CASE(S) Standard
	(size) 2=0-3-8, 14=0-3-8		
	Max Horiz 2=184 (LC 12)		
	Max Uplift 2=-449 (LC 8), 14=-328 (LC 13)		
	Max Grav 2=2331 (LC 2), 14=2322 (LC 2)		
FORCES			
	(lb) - Maximum Compression/Maximum Tension		
TOP CHORD	1-2=0/11, 2-3=-5793/1162, 3-5=-4529/985, 5-6=-3073/774, 6-7=-3143/795, 7-8=-3888/912, 8-10=-4450/969, 10-11=-4016/931, 11-12=-3727/811, 12-13=0/29, 12-14=-2224/556		
BOT CHORD	17-18=0/189, 8-17=0/117, 16-17=-828/4190, 15-16=0/21, 11-16=-191/158, 14-15=-77/186, 2-23=-1033/5408, 21-23=-1033/5408, 19-21=-757/4218, 18-19=-367/2037		
WEBS	3-23=0/418, 6-19=-278/1678, 3-21=-1285/352, 5-21=-17/836, 5-19=-1689/455, 10-17=-242/161, 7-19=-800/309, 10-16=-619/152, 7-17=-72/519, 14-16=-133/94, 12-16=-700/3324, 17-19=-232/1318		

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MI-7473 rev. 12/2023 BEFORE USE.

Design valid for use only with MiteTek® 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)

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

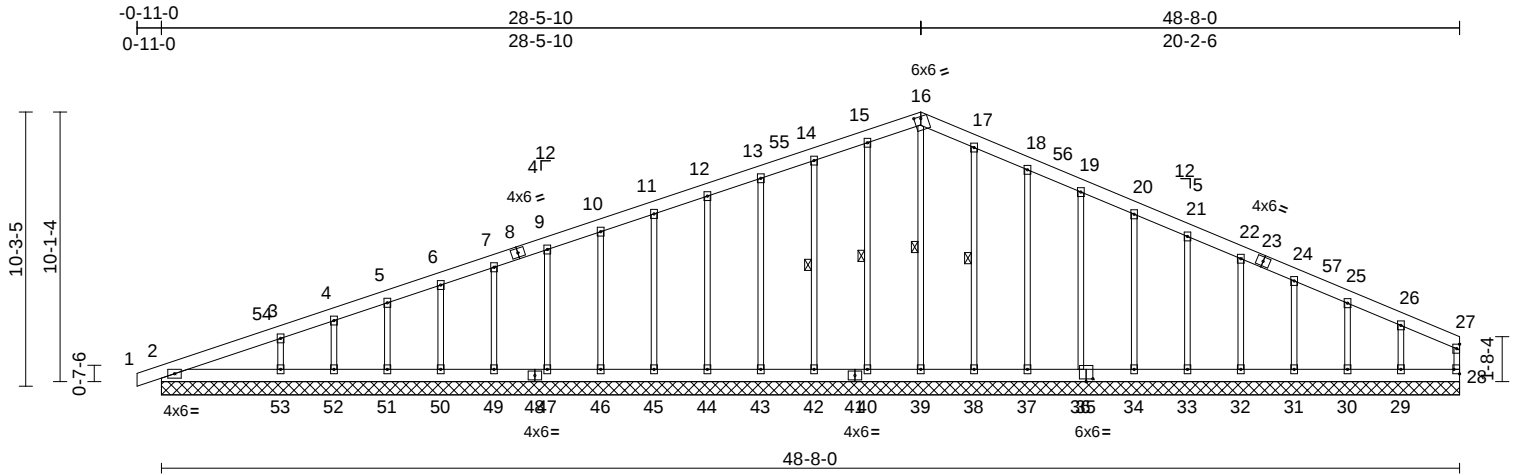
Job	Truss	Truss Type	Qty	Ply	Roof - Osage Lot 78	
P240540-01	A4	Roof Special Supported Gable	1	1	Job Reference (optional)	168740743

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

Run: 8.63 S Sep 26 2024 Print: 8.630 S Sep 26 2024 MiTek Industries, Inc. Mon Oct 07 13:01:36

Page: 1

ID:9CS9baXEWIG0D9YvLzplp8z_bgl-RfC?PsB70Hq3NSgPqnL8w3uITXBGKWrCDoi7J4zJC?F



Scale = 1:86.4

Plate Offsets (X, Y): [16:0-3-0,0-0-15], [28:Edge,0-2-8], [36:0-3-0,0-1-4]

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	0.10	Vert(LL)	n/a	-	n/a	999	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.06	Vert(CT)	n/a	-	n/a	999	
BCLL	0.0*	Rep Stress Incr	YES	WB	0.21	Horz(CT)	0.00	28	n/a	n/a	
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S							
Weight: 275 lb FT = 20%											

LUMBER

TOP CHORD	2x6 SPF No.2
BOT CHORD	2x6 SPF No.2
WEBS	2x3 SPF No.2
OTHERS	2x3 SPF No.2

BRACING

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

REACTIONS (size)	2=48-8-0, 28=48-8-0, 29=48-8-0, 30=48-8-0, 31=48-8-0, 32=48-8-0, 33=48-8-0, 34=48-8-0, 36=48-8-0, 37=48-8-0, 38=48-8-0, 39=48-8-0, 40=48-8-0, 42=48-8-0, 43=48-8-0, 44=48-8-0, 45=48-8-0, 46=48-8-0, 47=48-8-0, 49=48-8-0, 50=48-8-0, 51=48-8-0, 52=48-8-0, 53=48-8-0
Max Horiz	2=192 (LC 12)
Max Uplift	2=44 (LC 13), 29=94 (LC 13), 30=43 (LC 13), 31=58 (LC 13), 32=59 (LC 13), 33=51 (LC 13), 34=53 (LC 13), 36=58 (LC 13), 37=64 (LC 13), 38=20 (LC 13), 40=26 (LC 12), 42=57 (LC 8), 43=50 (LC 8), 44=49 (LC 12), 45=49 (LC 12), 46=46 (LC 8), 47=51 (LC 8), 49=54 (LC 12), 50=45 (LC 8), 51=52 (LC 12), 52=30 (LC 8), 53=111 (LC 12)

FORCES

	(lb) - Maximum Compression/Maximum Tension
TOP CHORD	1-2=0/11, 2-3=-194/131, 3-4=-144/145, 4-5=-124/159, 5-6=-102/176, 6-7=-81/193, 7-9=-84/211, 9-10=-96/229, 10-11=-107/246, 11-12=-119/263, 12-13=-131/287, 13-14=-143/317, 14-15=-156/348, 15-16=-161/365, 16-17=-165/367, 17-18=-157/334, 18-19=-140/285, 19-20=-125/245, 20-21=-109/209, 21-22=-96/173, 22-24=-79/134, 24-25=-63/96, 25-26=-50/62, 26-27=-55/34, 27-28=-66/22
BOT CHORD	2-53=-35/58, 52-53=-35/58, 51-52=-35/58, 50-51=-35/58, 49-50=-35/58, 47-49=-35/58, 46-47=-35/58, 45-46=-35/58, 44-45=-35/58, 43-44=-35/58, 42-43=-35/58, 40-42=-35/58, 39-40=-35/58, 38-39=-35/58, 37-38=-35/58, 36-37=-35/58, 34-36=-35/58, 33-34=-35/58, 32-33=-35/58, 31-32=-35/58, 30-31=-35/58, 29-30=-35/58, 28-29=-35/58

WEBS

16-39=-164/19, 15-40=-144/56, 14-42=-143/97, 13-43=-140/74, 12-44=-140/73, 11-45=-140/73, 10-46=-134/70, 9-47=-144/75, 7-49=-149/78, 6-50=-131/69, 5-51=-149/77, 4-52=-84/47, 3-53=-286/172, 17-38=-144/59, 18-37=-143/105, 19-36=-140/80, 20-34=-140/78, 21-33=-133/74, 22-32=-149/84, 24-31=-143/80, 25-30=-132/93, 26-29=-158/135
--

NOTES

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TC DL=6.0psf; BCDL=6.0psf; h=35ft; Ke=1.00; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) -0-11-0 to 4-1-0, Interior (1) 4-1-0 to 28-5-10, Exterior(2R) 28-5-10 to 33-5-10, Interior (1) 33-5-10 to 48-6-12 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



October 9,2024

Continued on page 2

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)

MiTek®

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

Job	Truss	Truss Type	Qty	Ply	Roof - Osage Lot 78
P240540-01	A4	Roof Special Supported Gable	1	1	I68740743
					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) All plates are 3x4 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) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- 9) All bearings are assumed to be SPF No.2 crushing capacity of 425 psi.
- 10) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 44 lb uplift at joint 2, 26 lb uplift at joint 40, 57 lb uplift at joint 42, 50 lb uplift at joint 43, 49 lb uplift at joint 44, 49 lb uplift at joint 45, 46 lb uplift at joint 46, 51 lb uplift at joint 47, 54 lb uplift at joint 49, 45 lb uplift at joint 50, 52 lb uplift at joint 51, 30 lb uplift at joint 52, 111 lb uplift at joint 53, 20 lb uplift at joint 38, 64 lb uplift at joint 37, 58 lb uplift at joint 36, 53 lb uplift at joint 34, 51 lb uplift at joint 33, 59 lb uplift at joint 32, 58 lb uplift at joint 31, 43 lb uplift at joint 30 and 94 lb uplift at joint 29.
- 11) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard

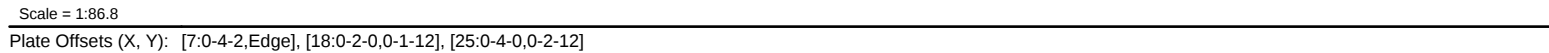
 **WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 BEFORE USE.**

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®

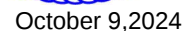
16023 Swingley Ridge Rd.
Chesterfield, MO 63017
314.434.1200 / MiTek-US.com

Premier Building Supply (Springhill, KS), Spring Hills, KS - 66083, Run: 8.63 S Sep 26 2024 Print: 8.630 S Sep 26 2024 MiTek Industries, Inc. Mon Oct 07 13:01:36 Page: 1
ID:?AVNLbq4WBVV5137XnfusHz_dHf-RfC?PsB70Hg3NSgPqnL8w3uITXbGKWrCdoi7J4zJC?f



LUMBER		BOT CHORD	2-32=-828/4130, 30-32=-828/4130, 29-30=-524/2958, 27-29=-158/1153, 26-27=-158/1153, 25-26=-158/1153, 24-25=-210/84, 23-24=-210/84, 22-23=-210/84, 21-22=-210/84, 20-21=-210/84	5) Gable studs spaced at 2-0-0 oc. 6) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads. 7) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.	
TOP CHORD	2x6 SPF No.2			8) All bearings are assumed to be SP 2400F 2.0E crushing capacity of 805 psi.	
BOT CHORD	2x6 SP 2400F 2.0E			9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 385 lb uplift at joint 2, 335 lb uplift at joint 20, 366 lb uplift at joint 23, 177 lb uplift at joint 21 and 368 lb uplift at joint 24.	
WEBS	2x3 SPF No.2 *Except* 30-3,29-5,20-18:2x4 SP No.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.	
OTHERS	2x3 SPF No.2	WEBS	3-32=0/378, 3-30=-1258/361, 5-30=-19/833, 5-33=-1625/426, 29-33=-1681/447, 7-29=-128/811, 16-39=-313/71, 39-40=-145/141, 40-41=-167/115, 20-41=-170/127, 29-34=-127/731, 34-35=-120/700, 35-36=-123/707, 11-36=-139/816, 11-37=-1792/321, 25-37=-1666/299, 25-38=-96/882, 16-38=-79/772, 6-33=-103/38, 8-34=-11/46, 9-35=-20/11, 10-36=0/123, 27-36=0/209, 12-37=-70/259, 26-37=-45/145, 13-25=-5/198, 14-38=-1027/244, 24-38=-1174/266, 23-39=-242/51, 22-40=-17/68, 17-41=-611/266, 21-41=-622/270		
BRACING					
TOP CHORD	Structural wood sheathing directly applied or 2-10-12 oc purlins, except end verticals.				
BOT CHORD	Rigid ceiling directly applied or 6-0-0 oc bracing.				
WEBS	1 Row at midpt	3-30, 5-33, 25-37			
JOINTS	1 Brace at Jt(s): 33, 34, 35, 37, 38, 40				
REACTIONS	(size)	2=0-3-8, 20=7-7-8, 21=7-7-8, 22=7-7-8, 23=7-7-8, 24=0-3-8			
	Max Horiz	2=179 (LC 16)			
	Max Uplift	2=-385 (LC 8), 20=-335 (LC 27), 21=-177 (LC 13), 23=-366 (LC 27), 24=-368 (LC 8)			

- | | | |
|------------------|---|---|
| | Max Grav | 2=1874 (LC 2), 20=87 (LC 12),
21=701 (LC 1), 22=161 (LC 2),
23=120 (LC 8), 24=2334 (LC 2) |
| FORCES | (lb) - Maximum Compression/Maximum Tension | |
| TOP CHORD | 1-2=0/11, 2-3=-4435/916, 3-5=-3202/724,
5-6=-1783/516, 6-7=-1675/536,
7-8=-1701/529, 8-9=-1756/523,
9-10=-1796/511, 10-11=-1838/482,
11-12=-358/236, 12-13=-497/254,
13-14=-607/241, 14-16=-330/139,
16-17=-22/148, 17-18=-45/254, 18-19=0/28,
18-20=-35/219 | |



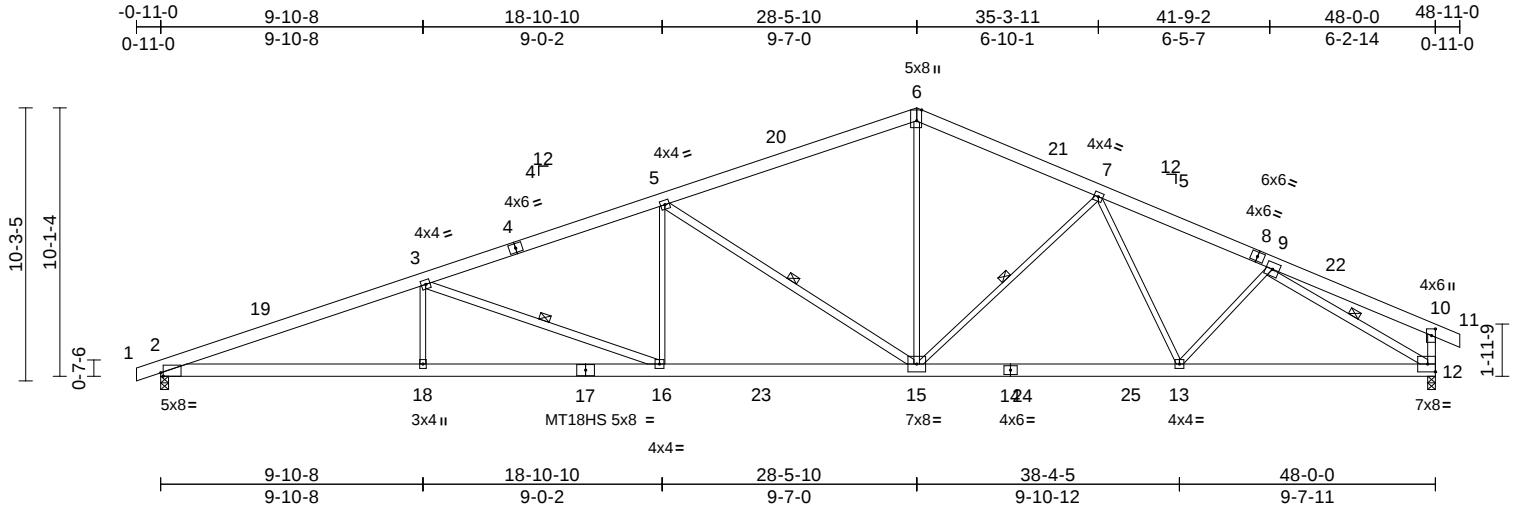
Job	Truss	Truss Type	Qty	Ply	Roof - Osage Lot 78	
P240540-01	B2	Roof Special	4	1	Job Reference (optional)	I68740745

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

Run: 8.63 S Sep 26 2024 Print: 8.630 S Sep 26 2024 MiTek Industries, Inc. Mon Oct 07 13:01:36

Page: 1

ID:TM3IYxriHVdLiBeK5VA5RVz_dHe-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f



Scale = 1:86.8

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

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.41	Vert(LL)	-0.34	13-15	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.44	Vert(CT)	-0.61	16-18	>942	180	MT18HS	244/190
BCLL	0.0*	Rep Stress Incr	YES	WB	1.00	Horz(CT)	0.14	12	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S								
											Weight: 299 lb	FT = 20%

LUMBER

TOP CHORD 2x6 SP 2400F 2.0E *Except* 6-8,8-11:2x6
SPF No.2
BOT CHORD 2x6 SP 2400F 2.0E
WEBS 2x3 SPF No.2 *Except*
16-3,15-5,12-10,9-12:2x4 SP No.2

BRACING

TOP CHORD Structural wood sheathing directly applied or
3-8-2 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc
bracing.
WEBS 1 Row at midpt 3-16, 5-15, 7-15, 9-12

REACTIONS

(size) 2=0-3-8, 12=0-3-8
Max Horiz 2=185 (LC 12)
Max Uplift 2=446 (LC 8), 12=320 (LC 13)
Max Grav 2=2317 (LC 2), 12=2336 (LC 2)

FORCES

(lb) - Maximum Compression/Maximum
Tension
TOP CHORD 1-2=0/11, 2-3=-5719/1149, 3-5=-4481/967,
5-6=-3060/754, 6-7=-3121/773,
7-9=-3529/767, 9-10=-297/162, 10-11=0/29,
10-12=-380/259
BOT CHORD 2-18=-1040/5339, 16-18=-1040/5339,
15-16=-759/4172, 13-15=-554/3153,
12-13=-584/2944
WEBS 3-18=0/393, 3-16=-1261/356, 5-16=-21/810,
5-15=-1655/459, 6-15=-268/1671,
7-15=-605/277, 7-13=-55/206, 9-13=0/425,
9-12=-3309/629

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) -0-11-0 to 4-1-0,
Interior (1) 4-1-0 to 28-5-10, Exterior(2R) 28-5-10 to
33-5-10, Interior (1) 33-5-10 to 48-11-0 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) All plates are MT20 plates unless otherwise indicated.
- 4) This truss has been designed for a 10.0 psf bottom
chord live load nonconcurrent with any other live loads.
- 5) * This truss has been designed for a live load of 20.0psf
on the bottom chord in all areas where a rectangle
3-06-00 tall by 2-00-00 wide will fit between the bottom
chord and any other members, with BCDL = 10.0psf.
- 6) All bearings are assumed to be SP 2400F 2.0E crushing
capacity of 805 psi.
- 7) Provide mechanical connection (by others) of truss to
bearing plate capable of withstanding 446 lb uplift at
joint 2 and 320 lb uplift at joint 12.
- 8) This truss is designed in accordance with the 2018
International Residential Code sections R502.11.1 and
R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard



October 9,2024

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)

MiTek®

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

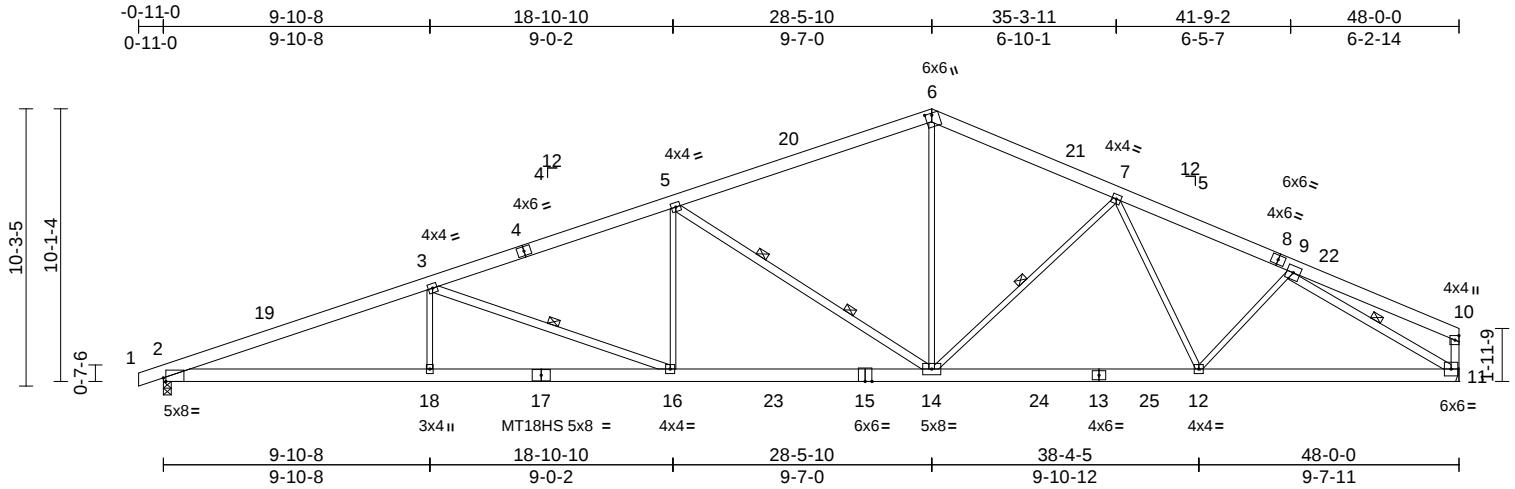
Job	Truss	Truss Type	Qty	Ply	Roof - Osage Lot 78	
P240540-01	C2	Roof Special	2	1	Job Reference (optional)	I68740746

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

Run: 8.63 S Sep 26 2024 Print: 8.630 S Sep 26 2024 MiTek Industries, Inc. Mon Oct 07 13:01:36

Page: 1

ID:4EauqFdo3SKWQ9muUfydzZz_WW6-RFC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?I



Scale = 1:85.4									
Plate Offsets (X, Y): [2:0-1-2,Edge], [6:0-0-15,0-3-0]									
Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in (loc)	l/defl	L/d
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.36	Vert(LL)	-0.40 12-14	>999	240
TCDL	10.0	Lumber DOL	1.15	BC	0.48	Vert(CT)	-0.68 16-18	>847	180
BCLL	0.0*	Rep Stress Incr	YES	WB	0.87	Horz(CT)	0.15 11	n/a	n/a
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S					
Weight: 298 lb FT = 20%									

LUMBER
TOP CHORD 2x6 SP 2400F 2.0E *Except* 8-10,8-6:2x6 SPF No.2
BOT CHORD 2x6 SP 2400F 2.0E
WEBS 2x3 SPF No.2 *Except*
11-10,14-5,16-3,11-9:2x4 SP No.2

BRACING
TOP CHORD Structural wood sheathing directly applied or 3-7-11 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 1 Row at midpt 3-16, 7-14, 9-11
WEBS 2 Rows at 1/3 pts 5-14

REACTIONS (size) 2=0-3-8, 11= Mechanical
Max Horiz 2=193 (LC 12)
Max Uplift 2=-446 (LC 8), 11=-293 (LC 13)
Max Grav 2=2317 (LC 2), 11=2274 (LC 2)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/11, 2-3=-5764/1144, 3-5=-4482/966, 5-6=-3039/756, 6-7=-3099/781, 7-9=-3586/778, 9-10=-258/140, 10-11=-281/167
BOT CHORD 2-18=-1071/5380, 16-18=-1071/5380, 14-16=-793/4173, 12-14=-594/3173, 11-12=-631/2988
WEBS 3-18=0/423, 6-14=-270/1656, 9-12=0/438, 5-16=-17/828, 7-12=-27/287, 5-14=-1678/454, 3-16=-1302/352, 7-14=-631/272, 9-11=-3419/679

NOTES
1) 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) -0-11-0 to 4-1-0, Interior (1) 4-1-0 to 28-5-10, Exterior(2R) 28-5-10 to 33-5-10, Interior (1) 33-5-10 to 47-10-4 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
- All plates are MT20 plates unless otherwise indicated.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- Bearings are assumed to be: Joint 2 SP 2400F 2.0E crushing capacity of 805 psi.
- Refer to girder(s) for truss to truss connections.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 446 lb uplift at joint 2 and 293 lb uplift at joint 11.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard



October 9,2024

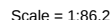
WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 BEFORE USE.

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

Premier Building Supply (Springhill, KS), Spring Hills, KS - 66083, Run: 8.63 S Sep 26 2024 Print: 8.630 S Sep 26 2024 MiTek Industries, Inc. Mon Oct 07 13:01:37 Page: 1
ID:Sb0KJjKhISHkuN7dNnkhz WMA-RFC?PsB70Hg3NSqPanL8w3uITXbGKWRCDoI7J4zJC?f

[illegible]

- 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) 0-11-0 to 4-1-0,
Interior (1) 4-1-0 to 28-5-10, Exterior(2R) 28-5-10 to
33-5-10, Interior (1) 33-5-10 to 47-10-4 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) All plates are MT20 plates unless otherwise indicated.
- 4) This truss has been designed for a 10.0 psf bottom
chord live load nonconcurrent with any other live loads.
- 5) * This truss has been designed for a live load of 20.0psf
on the bottom chord in all areas where a rectangle
3-06-00 tall by 2-00-00 wide will fit between the bottom
chord and any other members, with BCDL = 10.0psf.
- 6) Bearings are assumed to be: Joint 2 SP 2400F 2.0E
crushing capacity of 805 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 293 lb uplift at
joint 13 and 446 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,

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

WARNING – verify design parameters and READ NOTES on this and INCLUDED INTER-REFERENCE PAGE IMMEDIATELY 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 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.tpinet.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

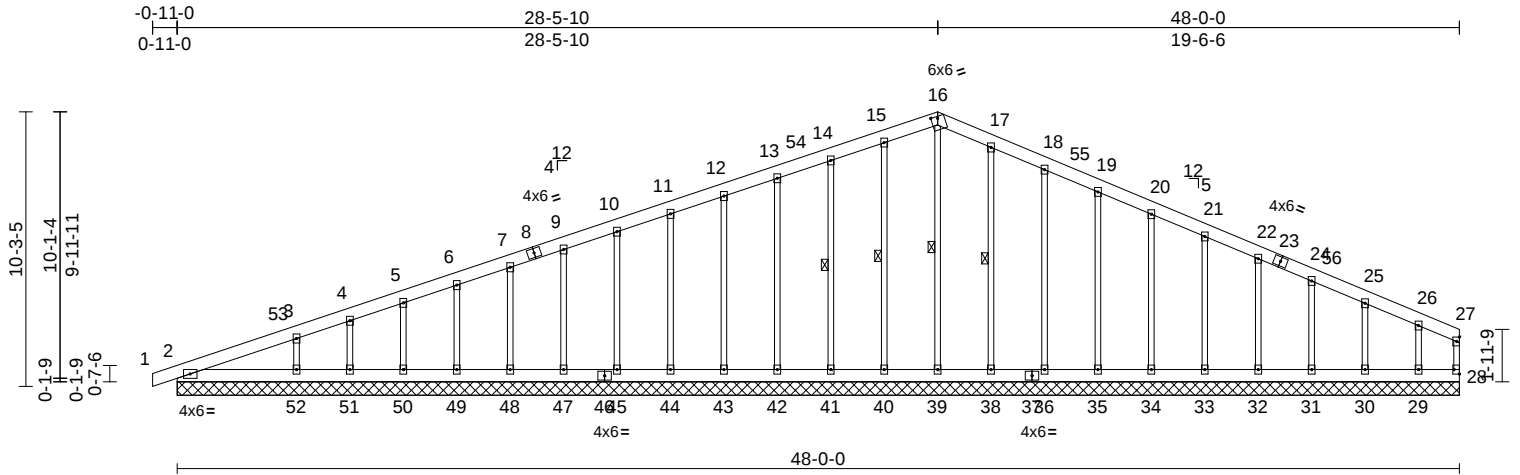
Job	Truss	Truss Type	Qty	Ply	Roof - Osage Lot 78	168740748
P240540-01	C4	Roof Special Supported Gable	1	1	Job Reference (optional)	

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

Run: 8.63 S Sep 26 2024 Print: 8.630 S Sep 26 2024 MiTek Industries, Inc. Mon Oct 07 13:01:37

Page: 1

ID:IDeKMeSePsGxYtVpYj8zJQz_WR9-RfC?PsB70Hq3NSgPqnL8w3uITXbGKwRCDoi7J4zJC?f



Scale = 1:86.2

Plate Offsets (X, Y): [16:0-3-0,0-0-15], [28: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	0.10	Vert(LL)	n/a	-	n/a	999	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.06	Vert(CT)	n/a	-	n/a	999	
BCLL	0.0*	Rep Stress Incr	YES	WB	0.21	Horz(CT)	0.00	28	n/a	n/a	
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S							
Weight: 273 lb FT = 20%											

LUMBER

TOP CHORD	2x6 SPF No.2
BOT CHORD	2x6 SPF No.2
WEBS	2x3 SPF No.2
OTHERS	2x3 SPF No.2

BRACING

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

REACTIONS (size)	2=48-0-0, 28=48-0-0, 29=48-0-0, 30=48-0-0, 31=48-0-0, 32=48-0-0, 33=48-0-0, 34=48-0-0, 35=48-0-0, 36=48-0-0, 38=48-0-0, 39=48-0-0, 40=48-0-0, 41=48-0-0, 42=48-0-0, 43=48-0-0, 44=48-0-0, 45=48-0-0, 47=48-0-0, 48=48-0-0, 49=48-0-0, 50=48-0-0, 51=48-0-0, 52=48-0-0
Max Horiz	2=193 (LC 12)
Max Uplift	2=-44 (LC 13), 29=-81 (LC 13), 30=-49 (LC 13), 31=-57 (LC 13), 32=-59 (LC 13), 33=-50 (LC 13), 34=-54 (LC 13), 35=-56 (LC 13), 36=-65 (LC 13), 38=-20 (LC 13), 40=-26 (LC 12), 41=-57 (LC 8), 42=-50 (LC 8), 43=-49 (LC 12), 44=-49 (LC 12), 45=-46 (LC 8), 47=-51 (LC 8), 48=-54 (LC 12), 49=-45 (LC 8), 50=-52 (LC 12), 51=-30 (LC 8), 52=-111 (LC 12)

FORCES

TOP CHORD	(lb) - Maximum Compression/Maximum Tension 1-2=0/11, 2-3=-195/129, 3-4=-145/143, 4-5=-125/157, 5-6=-103/175, 6-7=-82/192, 7-9=-88/210, 9-10=-100/228, 10-11=-111/245, 11-12=-123/264, 12-13=-135/293, 13-14=-147/323, 14-15=-160/354, 15-16=-165/371, 16-17=-169/372, 17-18=-161/340, 18-19=-144/291, 19-20=-129/251, 20-21=-114/215, 21-22=-100/179, 22-24=-83/140, 24-25=-67/102, 25-26=-53/66, 26-27=-45/36, 27-28=-41/19
BOT CHORD	2-52=-38/53, 51-52=-38/53, 50-51=-38/53, 49-50=-38/53, 48-49=-38/53, 47-48=-38/53, 45-47=-38/53, 44-45=-38/53, 43-44=-38/53, 42-43=-38/53, 41-42=-38/53, 40-41=-38/53, 39-40=-38/53, 38-39=-38/53, 36-38=-38/53, 35-36=-38/53, 34-35=-38/53, 33-34=-38/53, 32-33=-38/53, 31-32=-38/53, 30-31=-38/53, 29-30=-38/53, 28-29=-38/53

WEBS

16-39=-164/21, 15-40=-144/57, 14-41=-143/97, 13-42=-140/74, 12-43=-140/73, 11-44=-140/73, 10-45=-134/70, 9-47=-144/75, 7-48=-149/78, 6-49=-131/69, 5-50=-149/77, 4-51=-84/47, 3-52=-286/172, 17-38=-144/59, 18-36=-143/105, 19-35=-140/80, 20-34=-140/78, 21-33=-133/74, 22-32=-149/84, 24-31=-143/84, 25-30=-138/105, 26-29=-129/112

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) -0-11-0 to 4-1-0, Interior (1) 4-1-0 to 28-5-10, Exterior(2R) 28-5-10 to 33-5-10, Interior (1) 33-5-10 to 47-10-12 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



October 9,2024

Continued on page 2

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)

MiTek®

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

Job	Truss	Truss Type	Qty	Ply	Roof - Osage Lot 78
P240540-01	C4	Roof Special Supported Gable	1	1	I68740748
					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) All plates are 3x4 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) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- 9) All bearings are assumed to be SPF No.2 crushing capacity of 425 psi.
- 10) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 44 lb uplift at joint 2, 26 lb uplift at joint 40, 57 lb uplift at joint 41, 50 lb uplift at joint 42, 49 lb uplift at joint 43, 49 lb uplift at joint 44, 46 lb uplift at joint 45, 51 lb uplift at joint 47, 54 lb uplift at joint 48, 45 lb uplift at joint 49, 52 lb uplift at joint 50, 30 lb uplift at joint 51, 111 lb uplift at joint 52, 20 lb uplift at joint 38, 65 lb uplift at joint 36, 56 lb uplift at joint 35, 54 lb uplift at joint 34, 50 lb uplift at joint 33, 59 lb uplift at joint 32, 57 lb uplift at joint 31, 49 lb uplift at joint 30 and 81 lb uplift at joint 29.
- 11) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard

 **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

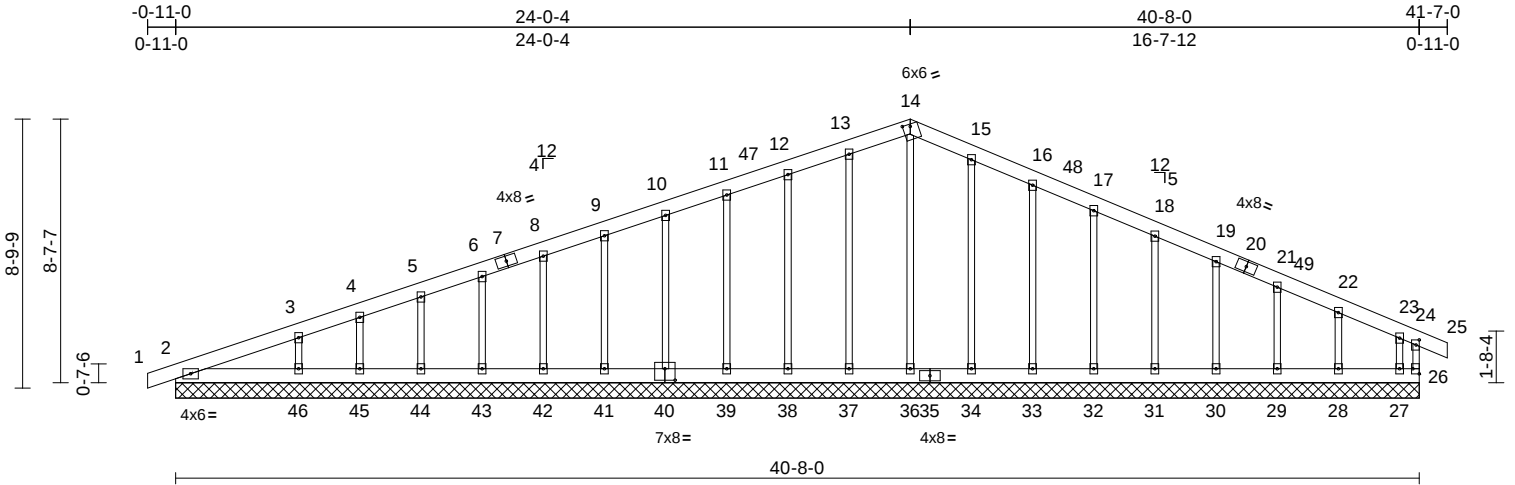
Job	Truss	Truss Type	Qty	Ply	Roof - Osage Lot 78	I68740749
P240540-01	E1	Roof Special Supported Gable	2	1	Job Reference (optional)	

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

Run: 8.63 S Sep 26 2024 Print: 8.630 S Sep 26 2024 MiTek Industries, Inc. Mon Oct 07 13:01:37

Page: 1

ID: _3koBpIF41zm7y3f9Y6MyBz_WS3-RfC?PsB70Hq3NSgPqnL8w3uITxbGKwRCDoi7J4zJC?F



Scale = 1:75.3

Plate Offsets (X, Y): [14:0-3-0,0-0-15], [24:0-2-0,0-1-4], [26:Edge,0-2-8], [40:0-4-0,0-4-8]

Loading	(psf)	Spacing	1-11-4	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.08	Vert(LL)	n/a	-	n/a	999	MT20
TCDL	10.0	Lumber DOL	1.15	BC	0.04	Vert(CT)	n/a	-	n/a	999	197/144
BCLL	0.0*	Rep Stress Incr	YES	WB	0.23	Horz(CT)	0.00	26	n/a	n/a	
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S							
Weight: 220 lb FT = 20%											

LUMBER
TOP CHORD 2x6 SPF No.2
BOT CHORD 2x6 SPF No.2
WEBS 2x3 SPF No.2
OTHERS 2x3 SPF No.2

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

REACTIONS (size)
2=40-8-0, 26=40-8-0, 27=40-8-0, 28=40-8-0, 29=40-8-0, 30=40-8-0, 31=40-8-0, 32=40-8-0, 33=40-8-0, 34=40-8-0, 36=40-8-0, 37=40-8-0, 38=40-8-0, 39=40-8-0, 40=40-8-0, 41=40-8-0, 42=40-8-0, 43=40-8-0, 44=40-8-0, 45=40-8-0, 46=40-8-0
Max Horiz 2=151 (LC 12)
Max Uplift 2=-40 (LC 13), 26=-16 (LC 9), 27=-81 (LC 13), 28=-51 (LC 13), 29=-57 (LC 13), 30=-56 (LC 13), 31=-48 (LC 13), 32=-53 (LC 13), 33=-62 (LC 13), 34=-27 (LC 13), 37=-31 (LC 12), 38=-55 (LC 8), 39=-45 (LC 8), 40=-52 (LC 8), 41=-42 (LC 12), 42=-49 (LC 12), 43=-53 (LC 8), 44=-45 (LC 12), 45=-35 (LC 8), 46=-96 (LC 12)
Max Grav 2=216 (LC 1), 26=114 (LC 1), 27=95 (LC 26), 28=166 (LC 26), 29=182 (LC 1), 30=181 (LC 26), 31=167 (LC 1), 32=175 (LC 1), 33=176 (LC 26), 34=178 (LC 1), 36=192 (LC 22), 37=177 (LC 1), 38=176 (LC 25), 39=180 (LC 1), 40=167 (LC 1), 41=175 (LC 25), 42=175 (LC 25), 43=182 (LC 1), 44=179 (LC 1), 45=111 (LC 25), 46=338 (LC 25)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/11, 2-3=-153/115, 3-4=-108/127, 4-5=-89/142, 5-6=-68/159, 6-8=-65/176, 8-9=-76/193, 9-10=-87/210, 10-11=-99/234, 11-12=-110/262, 12-13=-123/292, 13-14=-131/311, 14-15=-134/312, 15-16=-123/277, 16-17=-107/230, 17-18=-92/192, 18-19=-79/158, 19-21=-63/121, 21-22=-47/84, 22-23=-33/48, 23-24=-36/24, 24-25=0/27, 24-26=-113/89
BOT CHORD 2-46=-32/54, 45-46=-32/54, 44-45=-32/54, 43-44=-32/54, 42-43=-32/54, 41-42=-32/54, 39-41=-32/54, 38-39=-32/53, 37-38=-32/53, 36-37=-32/53, 34-36=-32/53, 33-34=-32/53, 32-33=-32/53, 31-32=-32/53, 30-31=-32/53, 29-30=-32/53, 28-29=-32/53, 27-28=-32/53, 26-27=-32/53
WEBS 14-36=-150/5, 13-37=-140/61, 12-38=-138/93, 11-39=-136/71, 10-40=-136/71, 9-41=-131/69, 8-42=-137/71, 6-43=-145/76, 5-44=-134/69, 4-45=-96/53, 3-46=-247/152, 15-34=-140/65, 16-33=-138/101, 17-32=-136/77, 18-31=-129/72, 19-30=-142/80, 21-29=-143/82, 22-28=-126/97, 23-27=-65/63

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) -0-11-0 to 4-0-4, Interior (1) 4-0-4 to 24-0-4, Exterior(2R) 24-0-4 to 29-0-4, Interior (1) 29-0-4 to 41-7-0 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

- 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.
- All plates are 3x4 MT20 unless otherwise indicated.
- Gable requires continuous bottom chord bearing.
- 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.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- All bearings are assumed to be SPF No.2 crushing capacity of 425 psi.



October 9,2024

Continued on page 2

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.sbcscomponents.com)

MiTek®

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

Job	Truss	Truss Type	Qty	Ply	Roof - Osage Lot 78
P240540-01	E1	Roof Special Supported Gable	2	1	I68740749
					Job Reference (optional)

- 10) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 16 lb uplift at joint 26, 40 lb uplift at joint 2, 31 lb uplift at joint 37, 55 lb uplift at joint 38, 45 lb uplift at joint 39, 52 lb uplift at joint 40, 42 lb uplift at joint 41, 49 lb uplift at joint 42, 53 lb uplift at joint 43, 45 lb uplift at joint 44, 35 lb uplift at joint 45, 96 lb uplift at joint 46, 27 lb uplift at joint 34, 62 lb uplift at joint 33, 53 lb uplift at joint 32, 48 lb uplift at joint 31, 56 lb uplift at joint 30, 57 lb uplift at joint 29, 51 lb uplift at joint 28 and 81 lb uplift at joint 27.
- 11) Beveled plate or shim required to provide full bearing surface with truss chord at joint(s) 2.
- 12) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard

⚠ 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)

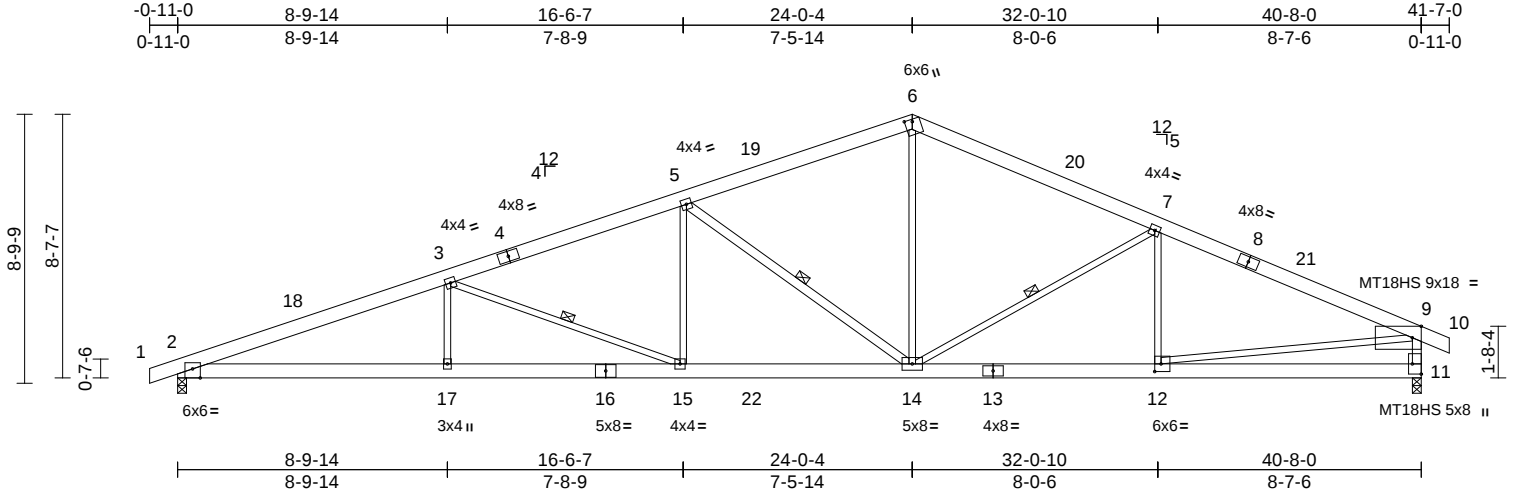
Job	Truss	Truss Type	Qty	Ply	Roof - Osage Lot 78	
P240540-01	E2	Roof Special	4	1	Job Reference (optional)	I68740750

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

Run: 8.63 S Sep 26 2024 Print: 8.630 S Sep 26 2024 MiTek Industries, Inc. Mon Oct 07 13:01:37

Page: 1

ID:H8704Oe_QziBoQlkZrW0Y4z_WSD-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f



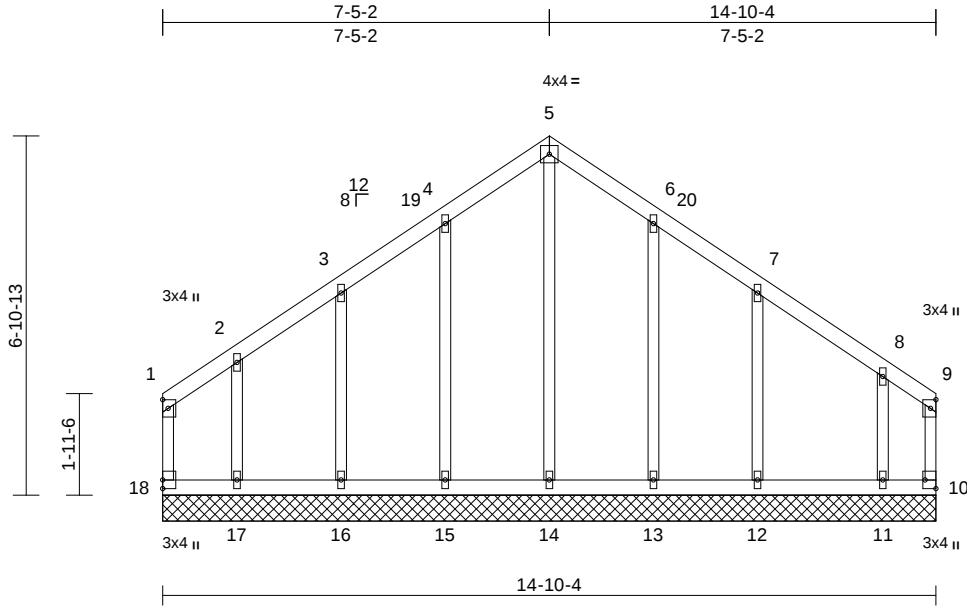
Job	Truss	Truss Type	Qty	Ply	Roof - Osage Lot 78	
P240540-01	G1A	Common Supported Gable	1	1	Job Reference (optional)	I68740751

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

Run: 8.63 S Sep 26 2024 Print: 8.630 S Sep 26 2024 MiTek Industries, Inc. Mon Oct 07 13:01:37

Page: 1

ID:P?23fvqSL42HZUnaJ1h?Xkz_WQh-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrcD0i7J4zJC?f



Scale = 1:44.3

Plate Offsets (X, Y): [10: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	0.25	Vert(LL)	n/a	-	999	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.14	Vert(TL)	n/a	-	999		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.25	Horiz(TL)	0.00	10	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-R						Weight: 74 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)	10=14-10-4, 11=14-10-4, 12=14-10-4, 13=14-10-4, 14=14-10-4, 15=14-10-4, 16=14-10-4, 17=14-10-4, 18=14-10-4
Max Horiz	18=206 (LC 8)
Max Uplift	10=225 (LC 9), 11=217 (LC 8), 12=88 (LC 13), 13=73 (LC 13), 15=76 (LC 12), 16=75 (LC 12), 17=168 (LC 9), 18=157 (LC 8)
Max Grav	10=235 (LC 10), 11=333 (LC 20), 12=207 (LC 20), 13=193 (LC 20), 14=192 (LC 21), 15=200 (LC 19), 16=183 (LC 1), 17=280 (LC 19), 18=188 (LC 11)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD	1-18=-111/95, 1-2=-123/117, 2-3=-80/131, 3-4=-99/220, 4-5=-139/299, 5-6=-139/299, 6-7=-101/222, 7-8=-93/123, 8-9=-142/136, 9-10=-137/128
BOT CHORD	17-18=-113/108, 16-17=-113/108, 15-16=-113/108, 14-15=-113/108, 13-14=-113/108, 12-13=-113/108, 11-12=-113/108, 10-11=-113/108

WEBS

8-11=-213/148, 5-14=-236/51,
4-15=-158/128, 3-16=-145/169,
2-17=-183/134, 6-13=-153/123,
7-12=-168/188

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 Corner(3E) 0-1-4 to 5-1-4, Exterior(2N) 5-1-4 to 7-5-2, Corner(3R) 7-5-2 to 12-5-2, Exterior(2N) 12-5-2 to 14-9-0 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
- 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.
- All plates are 1.5x4 MT20 unless otherwise indicated.
- Gable requires continuous bottom chord bearing.
- Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
- 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.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- 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 157 lb uplift at joint 18, 225 lb uplift at joint 10, 217 lb uplift at joint 11, 76 lb uplift at joint 15, 75 lb uplift at joint 16, 168 lb uplift at joint 17, 73 lb uplift at joint 13 and 88 lb uplift at joint 12.

12) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard



October 9,2024

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)

MiTek®

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

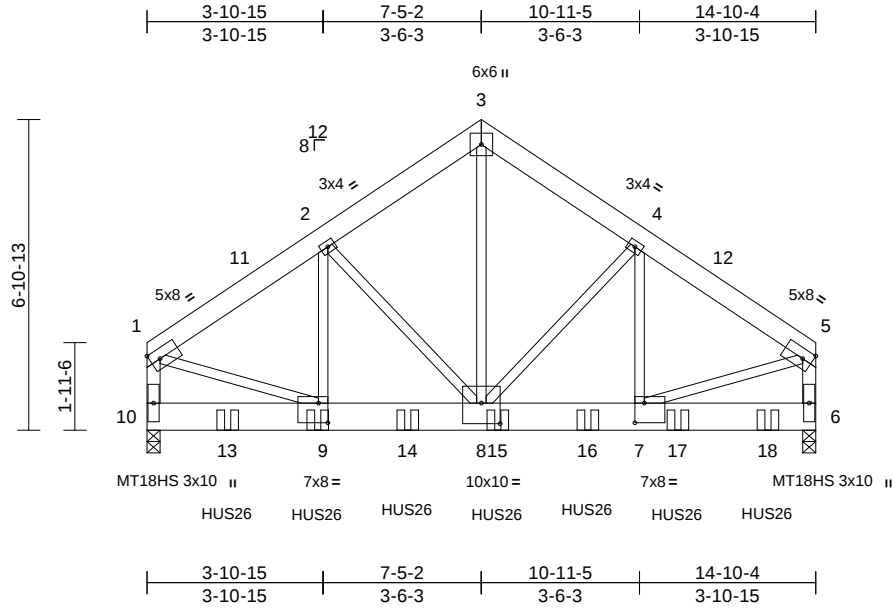
Job	Truss	Truss Type	Qty	Ply	Roof - Osage Lot 78	168740752
P240540-01	G2A	Common Girder	1	3	Job Reference (optional)	

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

Run: 8.63 S Sep 26 2024 Print: 8.630 S Sep 26 2024 MiTek Industries, Inc. Mon Oct 07 13:01:38

Page: 1

ID:P3Ff?AeoNHL7fkarwdBaSz_WL4-RfC?PsB70Hq3NSgPqnL8w3uTXbGKwRCDoi7J4zJC?f



Scale = 1:51.2

Plate Offsets (X, Y): [7:0-2-8,0-5-4], [8:0-5-0,0-5-8], [9:0-2-8,0-5-4]

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	0.41	Vert(LL)	-0.04	8-9	>999	240	MT20 197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.20	Vert(CT)	-0.08	8-9	>999	180	MT18HS 244/190
BCLL	0.0*	Rep Stress Incr	NO	WB	0.73	Horz(CT)	0.01	6	n/a	n/a	
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S							Weight: 318 lb FT = 20%

LUMBER
TOP CHORD 2x6 SPF No.2
BOT CHORD 2x8 SP 2400F 2.0E
WEBS 2x3 SPF No.2 *Except* 10-1,6-5:2x4 SP 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) 6=0-3-8, 10=0-3-8
Max Horiz 10=196 (LC 11)
Max Uplift 6=-1210 (LC 13), 10=-1099 (LC 12)
Max Grav 6=8752 (LC 2), 10=7936 (LC 2)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-7474/1100, 2-3=-6250/997, 3-4=-6250/997, 4-5=-7512/1107, 1-10=-6540/969, 5-6=-6563/973
BOT CHORD 9-10=-229/500, 8-9=-913/6106, 7-8=-893/6136, 6-7=-93/453
WEBS 1-9=-856/6085, 5-7=-858/6089, 2-9=-236/1737, 2-8=-1327/288, 3-8=-960/6409, 4-8=-1373/295, 4-7=-246/1795

NOTES

- 3-ply truss to be connected together with 10d (0.131"x3") nails as follows:
Top chords connected as follows: 2x6 - 2 rows staggered at 0-9-0 oc, 2x4 - 1 row at 0-9-0 oc.
Bottom chords connected as follows: 2x8 - 3 rows staggered at 0-5-0 oc.
Web connected as follows: 2x3 - 1 row at 0-9-0 oc, Except member 2-9 2x3 - 1 row at 0-4-0 oc.
- 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.

- 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) 0-1-12 to 5-1-12, Interior (1) 5-1-12 to 7-5-2, Exterior(2R) 7-5-2 to 12-5-2, Interior (1) 12-5-2 to 14-8-8 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
- All plates are MT20 plates unless otherwise indicated.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- All bearings are assumed to be SP 2400F 2.0E crushing capacity of 805 psi.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 1099 lb uplift at joint 10 and 1210 lb uplift at joint 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.
- Use Simpson Strong-Tie HUS26 (14-16d Girder, 4-16d Truss) or equivalent spaced at 12-0-0 oc max. starting at 1-9-8 from the left end to 13-9-8 to connect truss(es) to back face of bottom chord.
- Use Simpson Strong-Tie HUS26 (14-16d Girder, 6-16d Truss) or equivalent spaced at 2-0-0 oc max. starting at 3-9-8 from the left end to 11-9-8 to connect truss(es) to back face of bottom chord.
- Fill all nail holes where hanger is in contact with lumber.

LOAD CASE(S) Standard

- Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (lb/ft)

Vert: 1-3=-70, 3-5=-70, 6-10=-20
Concentrated Loads (lb)
Vert: 9=-2126 (B), 13=-2126 (B), 14=-2126 (B), 15=-2126 (B), 16=-2126 (B), 17=-2126 (B), 18=-2127 (B)



October 9,2024

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

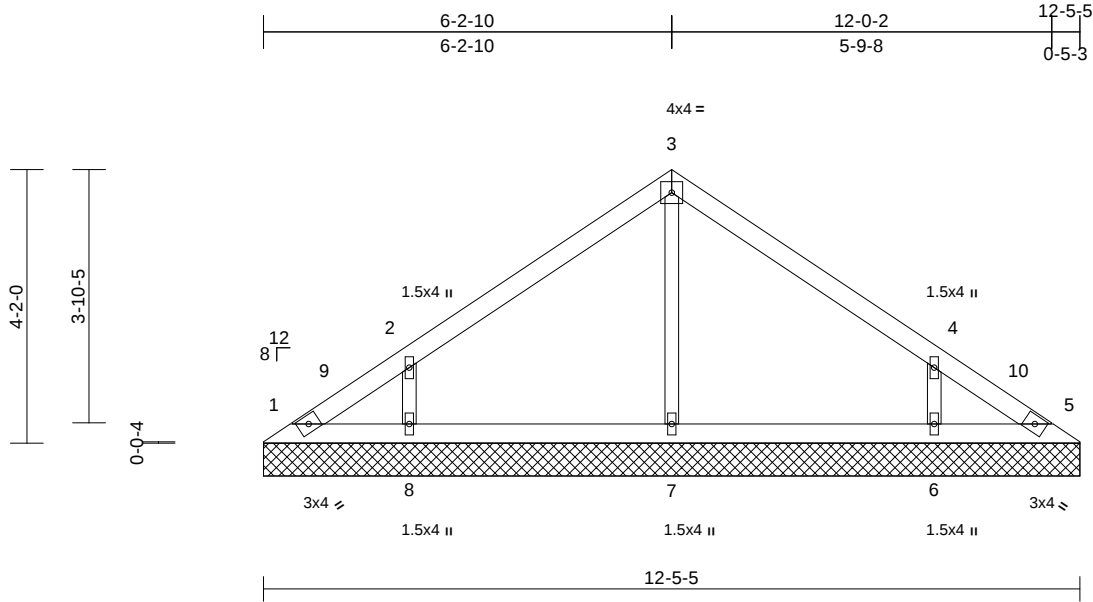
Job	Truss	Truss Type	Qty	Ply	Roof - Osage Lot 78	
P240540-01	V1	Valley	1	1	Job Reference (optional)	I68740753

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

Run: 8.63 S Sep 26 2024 Print: 8.630 S Sep 26 2024 MiTek Industries, Inc. Mon Oct 07 13:01:38

Page: 1

ID:OnDpgDIPFyOWECNPcAKNtpyVolu-RfC?PsB70Hq3NSgPqnL8w3uITxBGKWrCDoi7J4zJC?f



Scale = 1:35.1

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.20	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	0.08	Horiz(TL)	0.00	5	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S							Weight: 44 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=12-5-5, 5=12-5-5, 6=12-5-5, 7=12-5-5, 8=12-5-5
Max Horiz	1=-107 (LC 8)
Max Uplift	1=-30 (LC 8), 5=-10 (LC 9), 6=-153 (LC 13), 8=-153 (LC 12)
Max Grav	1=78 (LC 20), 5=62 (LC 19), 6=347 (LC 20), 7=285 (LC 1), 8=347 (LC 19)

FORCES

(lb) - Maximum Compression/Maximum Tension

TOP CHORD	1-2=-108/86, 2-3=-145/102, 3-4=-140/99, 4-5=-85/49
BOT CHORD	1-8=-26/73, 7-8=-26/73, 6-7=-26/73, 5-6=-26/73
WEBS	3-7=-200/34, 2-8=-284/209, 4-6=-284/209

NOTES

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCCL=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 6-3-0, Exterior(2R) 6-3-0 to 11-3-0, Interior (1) 11-3-0 to 12-0-5 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.

- Gable requires continuous bottom chord bearing.
- Gable studs spaced at 4-0-0 oc.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- 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 30 lb uplift at joint 1, 10 lb uplift at joint 5, 153 lb uplift at joint 8 and 153 lb uplift at joint 6.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard



October 9,2024

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®

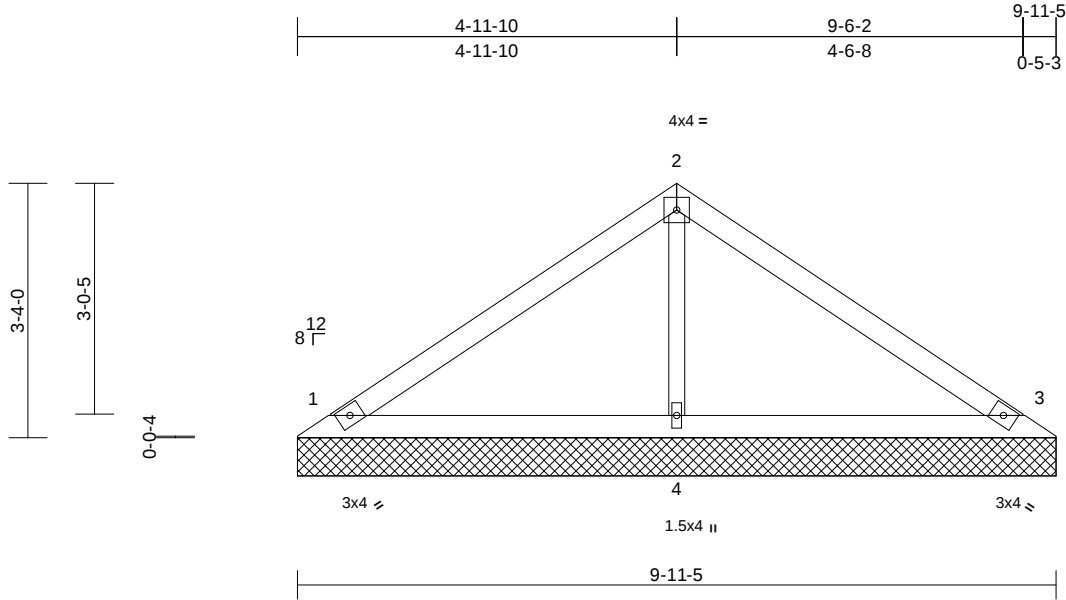
16023 Swingley Ridge Rd.
Chesterfield, MO 63017
314.434.1200 / MiTek-US.com

Job	Truss	Truss Type	Qty	Ply	Roof - Osage Lot 78	
P240540-01	V2	Valley	1	1	Job Reference (optional)	I68740754

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

Run: 8.63 S Sep 26 2024 Print: 8.630 S Sep 26 2024 MiTek Industries, Inc. Mon Oct 07 13:01:38
ID:OnDpgDIPFyOWECNPcAKNtpyVolu-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrcDdi7J4zJC?f

Page: 1



Scale = 1:30.2

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	0.34	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.21	Vert(TL)	n/a	-	n/a	999		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.07	Horiz(TL)	0.00	3	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S							Weight: 33 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=9-11-5, 3=9-11-5, 4=9-11-5
Max Horiz	1=-84 (LC 8)
Max Uplift	1=-46 (LC 12), 3=-56 (LC 13), 4=-24 (LC 12)
Max Grav	1=209 (LC 1), 3=209 (LC 1), 4=395 (LC 1)

FORCES

(lb) - Maximum Compression/Maximum Tension

TOP CHORD	1-2=-158/79, 2-3=-156/79
BOT CHORD	1-4=-17/74, 3-4=-17/74
WEBS	2-4=-257/116

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) 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.
- Gable requires continuous bottom chord bearing.
- Gable studs spaced at 4-0-0 oc.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.

- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- 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 46 lb uplift at joint 1, 56 lb uplift at joint 3 and 24 lb uplift at joint 4.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard



October 9,2024

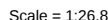
WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 BEFORE USE.

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

Premier Building Supply (Springhill, KS), Spring Hills, KS - 66083, Run: 8.63 S Sep 26 2024 Print: 8.630 S Sep 26 2024 MiTek Industries, Inc. Mon Oct 07 13:01:38 Page: 1
ID:OnDpgDIPfYOWECNPcAKNtpVVolu-RfC?PsB70Hg3NSgPqnL8w3ulTXbGKWkCDoi7J4zJC?f



LUMBER

- 7) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- 8) 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 42 lb uplift at joint 1 and 49 lb uplift at joint 3.
- 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.

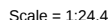
LOAD CASE(S) Standard



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

Premier Building Supply (Springhill, KS), Spring Hills, KS - 66083, Run: 8.63 S Sep 26 2024 Print: 8.630 S Sep 26 2024 MiTek Industries, Inc. Mon Oct 07 13:01:38 Page: 1
ID:OnDpgDIPfYOWECNPcAKNtpVVolu-RfC?PsB70Hg3NSgPqnL8w3ulTXbGKWkCDoi7J4zJC?f

LOAD CASE(S) Standard

- October 9.2024

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

WARNING – verify design parameters and READ NOTES on this and INCLUDED MITER REFERENCE PAGE MIT-7475 REV. 12/2023 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.tpinet.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

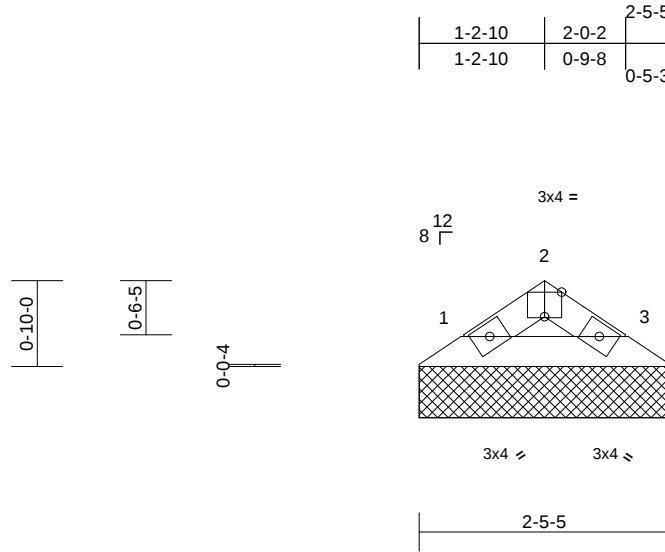
Job	Truss	Truss Type	Qty	Ply	Roof - Osage Lot 78	
P240540-01	V5	Valley	1	1	Job Reference (optional)	I68740757

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

Run: 8.63 S Sep 26 2024 Print: 8.630 S Sep 26 2024 MiTek Industries, Inc. Mon Oct 07 13:01:38

Page: 1

ID:OnDpgDIPFyOWECNPcAKNtpyVolu-RfC?PsB70Hq3NSgPqnL8w3uITXbGKwRCDoi7J4zJC?f



Scale = 1:22.4

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

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.02	Vert(LL)	n/a	-	n/a	999	MT20
TCDL	10.0	Lumber DOL	1.15	BC	0.03	Vert(TL)	n/a	-	n/a	999	244/190
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: 6 lb FT = 20%

LUMBER

TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2

BRACING

TOP CHORD Structural wood sheathing directly applied or 2-6-1 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (size) 1=2-5-5, 3=2-5-5
Max Horiz 1=14 (LC 11)
Max Uplift 1=-10 (LC 12), 3=-10 (LC 13)
Max Grav 1=69 (LC 1), 3=69 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-61/42, 2-3=-61/42
BOT CHORD 1-3=-15/40

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) 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.
- Gable requires continuous bottom chord bearing.
- Gable studs spaced at 4-0-0 oc.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.

- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
 - 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 10 lb uplift at joint 1 and 10 lb uplift at joint 3.
 - This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- LOAD CASE(S)** Standard



October 9,2024

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

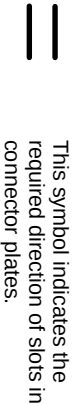
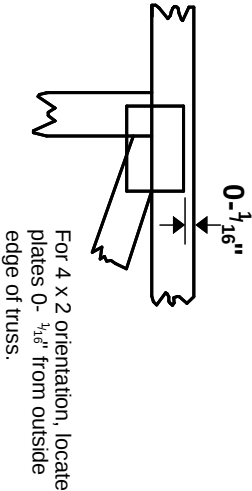
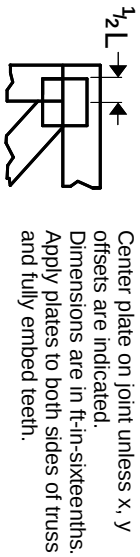
Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall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

Symbols

PLATE LOCATION AND ORIENTATION



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

PLATE SIZE

4 X 4

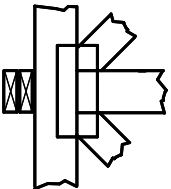
The first dimension is the plate width measured perpendicular to slots. Second dimension is the length parallel to slots.

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.

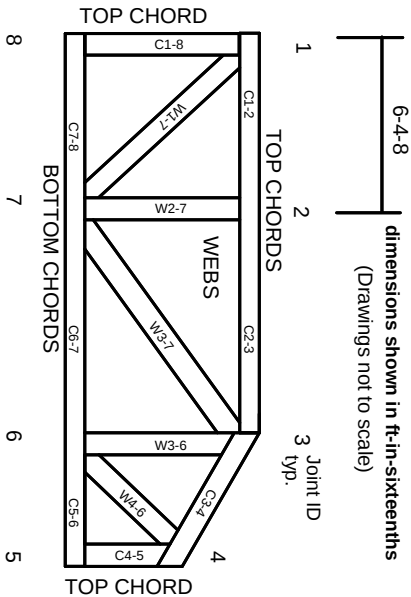
BEARING



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/TP1.1: 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/TP1 1 section 6.3. These truss designs rely on lumber values established by others.

© 2023 MITek® All Rights Reserved



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/TP1 1.
7. Design assumes trusses will be suitably protected from the environment in accord with ANSI/TP1 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/TP1 1 Quality Criteria.
21. The design does not take into account any dynamic or other loads other than those expressly stated.