

RE: P240494-01

Roof - Osage Lot 87

MiTek, Inc.

16023 Swingley Ridge Rd. Chesterfield, MO 63017

> Date 7/11/2023 7/11/2023 7/11/2023 7/11/2023

314.434.1200

Site Information:

Customer: Clayton Properties Project Name: P240494-01 Lot/Block: 87 Model:

Address: 3711/3713 SW Knoxville CT Subdivision: Osage

City: Lee's Summit State: MO

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

Design Code: IRC2018/TPI2014 Design Program: MiTek 20/20 8.6

Wind Code: ASCE 7-16 Wind Speed: 115 mph Floor Load: N/A psf Roof Load: 45.0 psf

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

No. 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18	Seal# I59435143 I59435144 I59435145 I59435146 I59435147 I59435148 I59435150 I59435151 I59435152 I59435153 I59435155 I59435156 I59435157 I59435158 I59435159 I59435160	Truss Name A1 A2 A3 A4 A5 A6 B1 B2 C1 C2 C3 C4 D1 D2 PB1 PB2 V1 V2	Date 7/11/2023	No. 21 22 23 24	Seal# I59435163 I59435164 I59435165 I59435166	Truss Name V5 V6 V7 V8
17	159435159	V1	7/11/2023			
18	159435160	V2	7/11/2023			
19	159435161	V3	7/11/2023			
20	159435162	V4	7/11/2023			

The truss drawing(s) referenced above have been prepared by

MiTek USA, Inc under my direct supervision based on the parameters provided by .

Truss Design Engineer's Name: Nathan Fox

My license renewal date for the state of Missouri is December 31, 2024.

Missouri COA: 001193

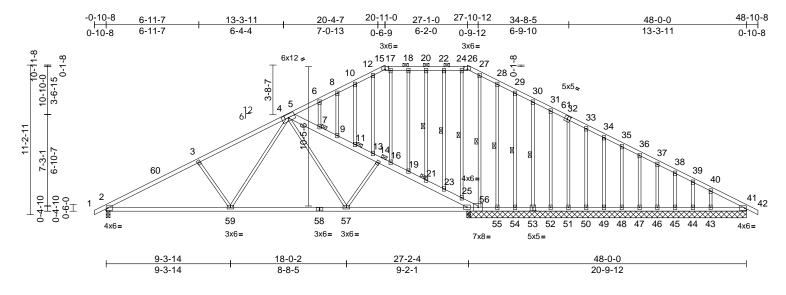
IMPORTANT NOTE: The seal on these truss component designs is a certification that the engineer named is licensed in the jurisdiction(s) identified and that the designs comply with ANSI/TPI 1. These designs are based upon parameters shown (e.g., loads, supports, dimensions, shapes and design codes), which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



Nathan Fox

Job		Truss	Truss Type	Qty	Ply	Roof - Osage Lot 87	
P240	494-01	A1	Piggyback Base Structural Gable	2	1	Job Reference (optional)	159435143

Run: 8.63 S Apr 6 2023 Print: 8.630 S Apr 6 2023 MiTek Industries, Inc. Mon Jul 10 12:58:34 ID:EmCXOiXYCML5IKd?OVTvI7yGxE5-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f Page: 1



Scale = 1:86.4

WEBS

JOINTS

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

LUMBER TOP CHORD BOT CHORD	2x4 SP No.2 *Except* 56-5:2x6 SPF No.2 2x4 SP No.2	
WEBS OTHERS	2x3 SPF No.2 2x3 SPF No.2 2x3 SPF No.2	
BRACING		
TOP CHORD	Structural wood sheathing directly applied or	
	2-2-0 oc purlins, except 2-0-0 oc purlins (10-0-0 max.): 15-26, 5-56.	FORCES
BOT CHORD	Rigid ceiling directly applied or 6-0-0 oc	

TOP CHORD bracing, Except: 8-11-14 oc bracing: 2-59 10-0-0 oc bracing: 57-59 2-2-0 oc bracing: 56-57. 1 Row at midpt 20-21, 22-23, 24-25, 27-56, 28-55, 29-54, 30-53 1 Brace at Jt(s): 14, 21, 11, 7 2=0-3-8, 41=20-11-8, 43=20-11-8,

REACTIONS (size) 44=20-11-8, 45=20-11-8, 46=20-11-8, 47=20-11-8, 48=20-11-8, 49=20-11-8, 50=20-11-8, 51=20-11-8, 52=20-11-8, 53=20-11-8, 54=20-11-8, 55=20-11-8, 56=20-11-8 Max Horiz 2=204 (LC 12) Max Uplift 2=-225 (LC 12), 41=-29 (LC 25), 43=-91 (LC 13), 44=-28 (LC 13),

45=-42 (LC 13), 46=-41 (LC 13), 47=-41 (LC 13), 48=-41 (LC 13), 49=-41 (LC 13), 50=-42 (LC 13), 51=-41 (LC 13), 52=-39 (LC 13), 53=-46 (LC 13), 54=-23 (LC 13), 55=-509 (LC 25), 56=-162 (LC 12) Max Grav 2=1249 (LC 1), 41=166 (LC 26), 43=232 (LC 1), 44=81 (LC 1), 45=128 (LC 26), 46=119 (LC 1), 47=120 (LC 1), 48=120 (LC 1), 49=120 (LC 26), 50=123 (LC 1), 51=118 (LC 26), 52=128 (LC 1), 53=96 (LC 26), 54=234 (LC 1), 55=33 (LC 9), 56=1945 (LC 1) (lb) - Maximum Compression/Maximum

1-2=0/17, 2-3=-1983/353, 3-5=-1735/359, 5-6=-43/246, 6-8=-12/263, 8-10=0/277, 10-12=0/296, 12-15=-17/249, 15-17=-15/234, 17-18=-13/242, 18-20=-13/242,

20-22=-13/242, 22-24=-13/242, 24-26=-10/244, 26-27=-47/223, 27-28=0/312, 28-29=-6/254, 29-30=-9/233, 30-31=-7/227, 31-33=-27/219, 33-34=-46/203, 34-35=-64/198, 35-36=-83/198 36-37=-101/198, 37-38=-120/198, 38-39=-144/200, 39-40=-170/189,

40-41=-240/230, 41-42=0/17, 5-7=-1799/395, 7-9=-1829/416. 9-11=-1862/436. 11-13=-1892/457, 13-14=-1977/479 14-16=-2050/498, 16-19=-2125/504 19-21=-2155/510, 21-23=-2187/516, 23-25=-2216/523, 25-56=-2226/522 2-59=-415/1683, 57-59=-190/1108, 56-57=-274/1789, 55-56=-193/244,

54-55=-193/244, 52-54=-193/244, 51-52=-193/244, 50-51=-194/244, 49-50=-194/244, 48-49=-194/244, 47-48=-194/244, 46-47=-194/244, 45-46=-194/244, 44-45=-194/244, 43-44=-194/244, 41-43=-194/244

WEBS 3-59=-411/269, 5-59=-138/643, 5-57=-9/737 14-57=-551/143, 20-21=-74/35, 22-23=-67/38, 24-25=-49/21, 27-56=-367/24, 28-55=-12/84, 29-54=-87/60, 30-53=-98/56, 31-52=-92/56, 32-51=-93/56, 33-50=-95/58, 34-49=-93/57, 35-48=-93/57, 36-47=-93/57, 37-46=-93/57, 38-45=-97/59, 39-44=-69/41, 40-43=-174/115, 18-19=-73/40, 16-17=-169/20, 12-13=-190/48, 10-11=-67/47. 8-9=-73/46. 6-7=-60/41

NOTES

- 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 20-11-0, Exterior(2E) 20-11-0 to 27-1-0, Exterior(2R) 27-1-0 to 34-1-14, Interior (1) 34-1-14 to 48-10-8 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60



July 11,2023

ontinued on page 2

neters 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

BOT CHORD



Job	Truss	Truss Type	Qty	Ply	Roof - Osage Lot 87	
P240494-01	A1	Piggyback Base Structural Gable	2	1	Job Reference (optional)	159435143

Run: 8.63 S Apr 6 2023 Print: 8.630 S Apr 6 2023 MiTek Industries, Inc. Mon Jul 10 12:58:34 ID:EmCXOiXYCML5IKd?OVTvI7yGxE5-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f Page: 2

- Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- Provide adequate drainage to prevent water ponding.
- All plates are 3x4 MT20 unless otherwise indicated.
- Gable studs spaced at 1-4-0 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 225 lb uplift at joint 2, 162 lb uplift at joint 56, 29 lb uplift at joint 41, 509 lb uplift at joint 55, 23 lb uplift at joint 54, 46 lb uplift at joint 53, 39 lb uplift at joint 52, 41 lb uplift at joint 51, 42 Ib uplift at joint 50, 41 lb uplift at joint 49, 41 lb uplift at joint 48, 41 lb uplift at joint 47, 41 lb uplift at joint 46, 42 lb uplift at joint 45, 28 lb uplift at joint 44 and 91 lb uplift at joint 43.
- 10) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 11) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

LOAD CASE(S) Standard

ſ	Job	Truss	Truss Type	Qty	Ply	Roof - Osage Lot 87	
	P240494-01	A2	Piggyback Base	6	1	Job Reference (optional)	159435144

Run: 8.63 S Apr 6 2023 Print: 8.630 S Apr 6 2023 MiTek Industries, Inc. Mon Jul 10 12:58:37 ID:Eh5q6SjuDTnlbtQwPDFzXnyGxF9-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f Page: 1

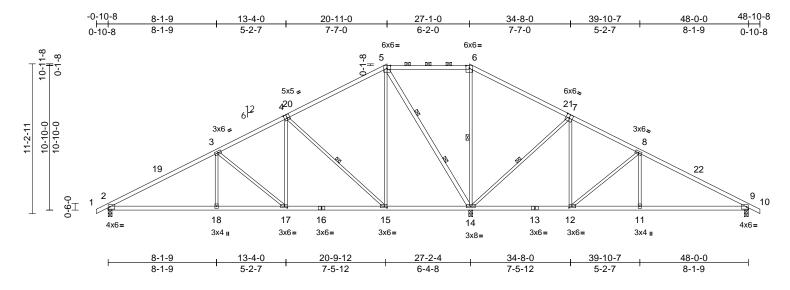


Plate Offsets (X, Y): [4:0-2-8,0-3-4], [7:0-3-0,0-3-4], [12:0-2-8,0-1-8], [15:0-2-8,0-1-8], [17:0-2-8,0-1-8]

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.94	Vert(LL)	-0.13	2-18	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.76	Vert(CT)	-0.30	2-18	>999	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.91	Horz(CT)	0.04	14	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S							Weight: 232 lb	FT = 20%

LUMBER

TOP CHORD 2x4 SP No.2 *Except* 1-4,7-10:2x4 SP

1650F 1.5E 2x4 SP No.2

WEBS 2x3 SPF No.2 *Except* 14-5:2x4 SP No.2

BRACING

WEBS

BOT CHORD

Structural wood sheathing directly applied or TOP CHORD

2-2-0 oc purlins, except 2-0-0 oc purlins (10-0-0 max.): 5-6

Rigid ceiling directly applied or 6-0-0 oc

4-15, 6-14, 7-14

BOT CHORD bracing.

WEBS 1 Row at midpt

2 Rows at 1/3 pts REACTIONS (size) 2=0-3-8, 9=0-3-8, 14=0-3-8

Max Horiz 2=204 (LC 12)

Max Uplift 2=-198 (LC 12), 9=-184 (LC 13),

5-14

14=-303 (LC 12)

Max Grav 2=1034 (LC 25), 9=689 (LC 26),

14=2925 (LC 1)

FORCES (lb) - Maximum Compression/Maximum

Tension TOP CHORD

1-2=0/17, 2-3=-1514/257, 3-5=-926/229,

5-6=0/834, 6-8=-184/1051, 8-9=-783/228,

9-10=0/17

2-18=-312/1230, 17-18=-312/1230, **BOT CHORD**

15-17=-143/748, 14-15=-152/328, 12-14=-340/183, 11-12=-102/585,

9-11=-102/585

WEBS 3-18=0/297, 3-17=-623/218, 4-17=-60/504,

4-15=-911/325, 5-15=-137/756, 5-14=-1467/285, 6-14=-882/186,

7-14=-927/326, 7-12=-60/514,

8-12=-651/219, 8-11=0/300

NOTES

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

- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=35ft; Ke=1.00; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) -0-10-8 to 4-1-8, Interior (1) 4-1-8 to 20-11-0, Exterior(2E) 20-11-0 to 27-1-0, Exterior(2R) 27-1-0 to 34-1-14, Interior (1) 34-1-14 to 48-10-8 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 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.
- 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 198 lb uplift at joint 2, 303 lb uplift at joint 14 and 184 lb uplift at joint 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.
- Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

LOAD CASE(S) Standard



July 11,2023

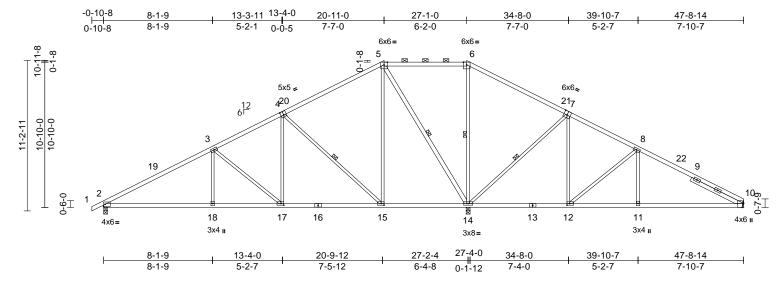
WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 BEFORE USE.

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/TP11 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)



Job	Truss	Truss Type Qty Ply Roof - Osage Lot 87		Roof - Osage Lot 87		
P240494-01	A3	Piggyback Base	2	1	Job Reference (optional)	159435145

Run: 8.63 S Apr 6 2023 Print: 8.630 S Apr 6 2023 MiTek Industries, Inc. Mon Jul 10 12:58:37 ID:_BaRCVCQw9?42CIXuEbokKyGxNZ-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f Page: 1



Scale = 1:85.9

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.89	Vert(LL)	-0.13	2-18	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.77	Vert(CT)	-0.31	2-18	>999	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.96	Horz(CT)	0.05	10	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S							Weight: 236 lb	FT = 20%

LUMBER

BOT CHORD

TOP CHORD 2x4 SP No.2 *Except* 4-1,7-10:2x4 SP

1650F 1.5E 2x4 SP No.2

2x3 SPF No.2 *Except* 14-5:2x4 SP No.2 WFBS

SLIDER Right 2x4 SP No.2 -- 4-4-0

BRACING

TOP CHORD Structural wood sheathing directly applied or

2-2-0 oc purlins, except

2-0-0 oc purlins (10-0-0 max.): 5-6. **BOT CHORD** Rigid ceiling directly applied or 6-0-0 oc

bracing

WEBS 1 Row at midpt 6-14, 5-14, 7-14, 4-15

REACTIONS 2=0-3-8, 10= Mechanical, 14=0-3-8 (size)

Max Horiz 2=209 (LC 12)

Max Uplift 2=-212 (LC 12), 10=-202 (LC 13),

14=-270 (LC 12)

2=1056 (LC 25), 10=696 (LC 26),

14=2770 (LC 1)

FORCES (lb) - Maximum Compression/Maximum

Tension

5-6=0/665, 1-2=0/17, 2-3=-1560/287,

TOP CHORD

3-5=-973/270, 6-8=-364/860, 8-10=-913/318

BOT CHORD 2-18=-344/1270, 17-18=-344/1270,

15-17=-176/790, 14-15=-70/250,

12-14=-285/252, 11-12=-167/718 10-11=-167/718

WEBS

3-18=0/297, 5-15=-136/754, 6-14=-796/153, 8-11=0/287, 5-14=-1391/268, 4-17=-59/501,

3-17=-619/217, 7-12=-51/500,

7-14=-925/324, 8-12=-615/201

4-15=-908/324

NOTES

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 20-11-0, Exterior(2E) 20-11-0 to 27-1-0, Exterior(2R) 27-1-0 to 34-1-14, Interior (1) 34-1-14 to 47-8-14 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- Provide adequate drainage to prevent water ponding.
- All plates are 3x6 MT20 unless otherwise indicated.
- 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 14 SP No.2 crushing capacity of 565 psi.
- Refer to girder(s) for truss to truss connections.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 202 lb uplift at joint 10, 212 lb uplift at joint 2 and 270 lb uplift at joint
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 10) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

LOAD CASE(S) Standard



July 11,2023

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



Job	Truss	Truss Type	Qty	Ply	Roof - Osage Lot 87	
P240494-01	A4	Piggyback Base	2	1	Job Reference (optional)	159435146

Run: 8.63 S Apr 6 2023 Print: 8.630 S Apr 6 2023 MiTek Industries, Inc. Mon Jul 10 12:58:38 ID:SN8pPrD2hT7xgLsjSx71GYyGxNY-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

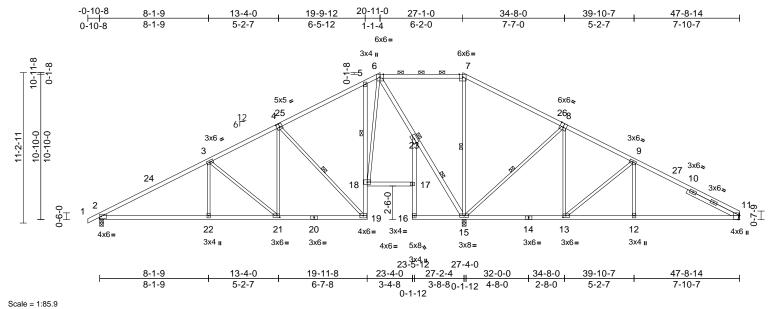


Plate Offsets (X, Y):	[4:0-2-8,0-3-0], [8:0-3-0,	Edge], [11:0-3-10,Edge],	, [13:0-2-8,0-1-8], [21:0-2-8,0-1-8]]
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Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.91	Vert(LL)	-0.13	2-22	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.72	Vert(CT)	-0.30	2-22	>999	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.91	Horz(CT)	0.08	15	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S							Weight: 257 lb	FT = 20%

LUMBER

TOP CHORD 2x4 SP No.2 *Except* 4-1,8-11:2x4 SP 1650F

1.5E

BOT CHORD 2x4 SP No.2

2x3 SPF No.2 *Except* 15-6:2x4 SP No.2 WFBS **SLIDER**

Right 2x4 SP No.2 -- 4-4-0

BRACING

TOP CHORD Structural wood sheathing directly applied or

2-2-0 oc purlins, except

2-0-0 oc purlins (10-0-0 max.): 6-7. **BOT CHORD** Rigid ceiling directly applied or 6-0-0 oc

bracing. Except:

1 Row at midpt 5-18

WEBS 1 Row at midpt 7-15, 15-23, 8-15, 4-19

JOINTS 1 Brace at Jt(s): 23 REACTIONS (size)

2=0-3-8, 11= Mechanical, 15=0-3-8 Max Horiz 2=208 (LC 12)

Max Uplift 2=-233 (LC 12), 11=-358 (LC 13),

15=-221 (LC 12)

Max Grav 2=967 (LC 25), 11=682 (LC 26),

15=2891 (LC 1)

FORCES (lb) - Maximum Compression/Maximum

Tension

TOP CHORD 1-2=0/17, 2-3=-1376/391, 3-5=-774/467,

5-6=-217/494, 6-7=0/903, 7-9=-333/1060, 9-11=-884/640

BOT CHORD 2-22=-385/1109, 21-22=-385/1109,

19-21=-205/604, 18-19=-168/668,

5-18=-288/208, 17-18=-98/31, 16-17=-15/11, 17-23=0/55, 15-16=-69/26, 13-15=-509/225,

12-13=-450/694, 11-12=-450/694

WEBS 3-22=0/301, 7-15=-878/77, 9-12=0/290,

6-23=-1393/238, 15-23=-1432/230,

4-21=-68/507, 3-21=-650/232, 8-13=-42/497,

8-15=-922/318, 9-13=-625/182,

4-19=-822/275, 6-18=-336/995

Unbalanced roof live loads have been considered for

- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=35ft; Ke=1.00; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) -0-10-8 to 4-1-8, Interior (1) 4-1-8 to 20-11-0, Exterior(2E) 20-11-0 to 27-1-0, Exterior(2R) 27-1-0 to 34-1-14, Interior (1) 34-1-14 to 47-8-14 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- Provide adequate drainage to prevent water ponding.
- All plates are 3x6 MT20 unless otherwise indicated.
- 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 15 SP No.2 crushing capacity of 565 psi.
- Refer to girder(s) for truss to truss connections.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 358 lb uplift at joint 11, 221 lb uplift at joint 15 and 233 lb uplift at joint
- 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



Page: 1

July 11,2023

NOTES

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 BEFORE UDesign valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not neters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 BEFORE USE



Job	Truss	Truss Type	Qty	Ply	Roof - Osage Lot 87	
P240494-01	A5	Piggyback Base	10	1	Job Reference (optional)	I59435147

Run: 8.63 S Apr 6 2023 Print: 8.630 S Apr 6 2023 MiTek Industries, Inc. Mon Jul 10 12;58;38 ID:waiCdBDgSnFoHVRv0eeGplyGxNX-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f Page: 1

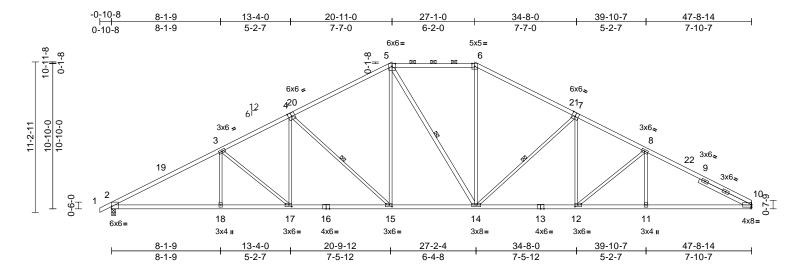


Plate Offsets (X, Y): [2:Edge,0-2-1], [4:0-3-0,0-3-4], [7:0-3-0,Edge], [10:Edge,0-2-2], [12:0-2-8,0-1-8], [15:0-2-8,0-1-8], [17:0-2-8,0-1-8]

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.97	Vert(LL)	-0.26	15-17	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.82	Vert(CT)	-0.53	15-17	>999	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.81	Horz(CT)	0.23	10	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S							Weight: 236 lb	FT = 20%

LUMBER

TOP CHORD 2x4 SP 1650F 1.5E *Except* 5-6:2x4 SP

No.2, 4-1:2x4 SP 2400F 2.0E

BOT CHORD 2x4 SP 1650F 1.5E

2x3 SPF No.2 *Except* 14-5:2x4 SP No.2 WFBS

SLIDER Right 2x4 SP No.2 -- 4-4-0

BRACING

TOP CHORD Structural wood sheathing directly applied,

except 2-0-0 oc purlins (2-2-0 max.): 5-6.

BOT CHORD Rigid ceiling directly applied or 9-5-7 oc

bracing

WEBS 1 Row at midpt 5-14, 7-14, 4-15

REACTIONS 2=0-3-8, 10= Mechanical (size)

Max Horiz 2=209 (LC 16)

Max Uplift 2=-329 (LC 12), 10=-301 (LC 13)

Max Grav 2=2214 (LC 1), 10=2141 (LC 1)

FORCES (lb) - Maximum Compression/Maximum

Tension

TOP CHORD 1-2=0/17, 2-3=-4010/580, 3-5=-3462/598.

5-6=-2386/554, 6-8=-3430/590,

8-10=-3898/580

BOT CHORD 2-18=-561/3433, 17-18=-561/3433, 15-17=-401/3019, 14-15=-175/2388

12-14=-330/3010, 11-12=-404/3340,

10-11=-404/3340

WEBS 3-18=0/291, 5-15=-134/725, 6-14=-80/718,

8-11=0/270, 5-14=-282/275, 4-17=-53/466,

3-17=-547/206, 7-12=-44/425,

7-14=-851/319, 8-12=-452/190,

4-15=-860/321

NOTES

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

- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=35ft; Ke=1.00; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) -0-10-8 to 4-1-8, Interior (1) 4-1-8 to 20-11-0, Exterior(2E) 20-11-0 to 27-1-0, Exterior(2R) 27-1-0 to 34-1-14, Interior (1) 34-1-14 to 47-8-14 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 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 1650F 1.5E
- crushing capacity of 565 psi.
- Refer to girder(s) for truss to truss connections.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 301 lb uplift at joint 10 and 329 lb uplift at joint 2.
- 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



July 11,2023

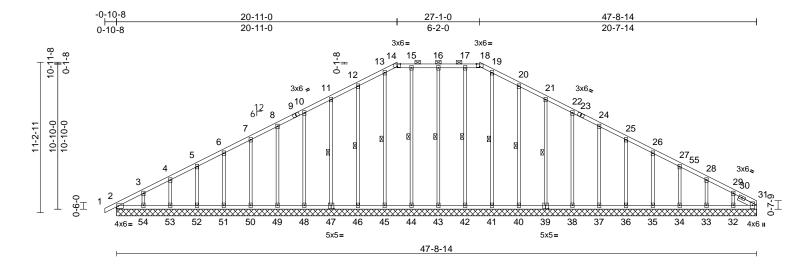
WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 BEFORE USE.

Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not



ſ	Job	Truss	Truss Type	Qty	Ply	Roof - Osage Lot 87	
	P240494-01	A6	Piggyback Base Supported Gable	2	1	Job Reference (optional)	159435148

Run: 8.63 S Apr 6 2023 Print: 8.630 S Apr 6 2023 MiTek Industries, Inc. Mon Jul 10 12;58;39 ID:JbPUB4NmDf0vUSJtFFIELayGxJT-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f Page: 1



Scale = 1:85.9

LUMBER

Plate Offsets (X, Y): [14:0-3-0,Edge], [18:0-3-0,Edge], [31:0-3-2,0-1-12], [39:0-2-8,0-3-0], [47:0-2	:0-2-8,0-3	[47:	0],	3-0	0-3	-8,)-2-	3:0	[39	2],	-12	-1-	2,0	3-2	0-3	31	1, [dge	J,E	3-0	0-:	18:], [dge	0,E	-3-	14:0-	Y):	١, ١	ffsets (X	Plate C	
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Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.13	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.05	Vert(CT)	n/a	-	n/a	999		
BCLL	0.0	Rep Stress Incr	YES	WB	0.18	Horz(CT)	0.02	31	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S							Weight: 267 lb	FT = 20%

TOP CHORD	2x4 SP No.2	32=179 (LC 26), 33=182 (LC 1
BOT CHORD	2x4 SP No.2	34=180 (LC 26), 35=180 (LC 1
OTHERS	2x3 SPF No.2	36=180 (LC 26), 37=180 (LC 1
SLIDER	Right 2x4 SP No.2 1-5-12	38=180 (LC 26), 39=180 (LC 2
BRACING	·	40=180 (LC 1), 41=174 (LC 26
TOP CHORD	Structural wood sheathing directly applied or	42=177 (LC 26), 43=183 (LC 2
	6-0-0 oc purlins, except	44=177 (LC 25), 45=176 (LC 2
	2-0-0 oc purlins (6-0-0 max.): 14-18.	46=180 (LC 1), 47=180 (LC 25
BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc	48=180 (LC 25), 49=180 (LC 1
201 0110112	bracing.	50=180 (LC 1), 51=180 (LC 25
WEBS	1 Row at midpt 16-43, 17-42, 19-41.	52=180 (LC 1), 53=179 (LC 25
		E4 404 (LC 0E)

20-40, 21-39, 15-44, 13-45, 12-46, 11-47 REACTIONS (size) 2=47-8-14, 31=47-8-14,

TOP CHORD 32=47-8-14, 33=47-8-14, 34=47-8-14. 35=47-8-14. 36=47-8-14, 37=47-8-14, 38=47-8-14, 39=47-8-14, 40=47-8-14, 41=47-8-14, 42=47-8-14, 43=47-8-14, 44=47-8-14, 45=47-8-14 46=47-8-14, 47=47-8-14, 48=47-8-14, 49=47-8-14, 50=47-8-14, 51=47-8-14, 52=47-8-14, 53=47-8-14,

FORCES

BOT CHORD

54=47-8-14 Max Horiz 2=209 (LC 16) Max Uplift 2=-26 (LC 8), 32=-103 (LC 13), 33=-59 (LC 13), 34=-62 (LC 13), 35=-61 (LC 13), 36=-61 (LC 13), 37=-61 (LC 13), 38=-61 (LC 13), 39=-60 (LC 13), 40=-74 (LC 13), 42=-9 (LC 9), 43=-58 (LC 8), 44=-12 (LC 9), 46=-71 (LC 12), 47=-61 (LC 12), 48=-61 (LC 12), 49=-61 (LC 12), 50=-61 (LC 12), 51=-61 (LC 12), 52=-61 (LC 12),

53=-61 (LC 12), 54=-87 (LC 12)

Max Grav 2=178 (LC 21), 31=119 (LC 22), 1), 1), 1), 26), 6), 26), 22), 5). 1), 5), 5), 54=181 (LC 25)

(lb) - Maximum Compression/Maximum Tension 1-2=0/17, 2-3=-295/92, 3-4=-229/87, 4-5=-181/97, 5-6=-136/110, 6-7=-110/135,

7-8=-84/162, 8-10=-71/190, 10-11=-88/234, 11-12=-106/287, 12-13=-127/347, 13-14=-126/341, 14-15=-119/341, 15-16=-118/342, 16-17=-118/342, 17-18=-119/341, 18-19=-126/341, 19-20=-127/347, 20-21=-106/287, 21-22=-88/234, 22-24=-69/180, 24-25=-56/126, 25-26=-56/72, 26-27=-74/27, 27-28=-100/27. 28-29=-146/43. 29-31=-232/67 2-54=-59/225, 53-54=-59/225,

52-53=-59/225, 51-52=-59/225, 50-51=-59/225, 49-50=-59/225, 48-49=-59/225, 46-48=-59/225, 45-46=-59/225, 44-45=-59/225, 43-44=-59/225, 42-43=-59/225, 41-42=-59/225, 40-41=-59/225, 38-40=-59/225, 37-38=-59/225, 36-37=-59/225, 35-36=-59/225, 34-35=-59/225, 33-34=-59/225, 32-33=-59/225, 31-32=-59/225

WEBS 16-43=-143/107, 17-42=-137/33, 19-41=-134/0, 20-40=-140/112, 21-39=-140/96, 22-38=-140/96, 24-37=-140/96, 25-36=-140/97, 26-35=-140/96, 27-34=-139/106, 28-33=-142/147, 29-32=-137/191, 15-44=-137/36, 13-45=-136/8, 12-46=-140/112, 11-47=-140/96, 10-48=-140/96, 8-49=-140/96, 7-50=-140/96, 6-51=-140/97, 5-52=-140/97, 4-53=-140/123, 3-54=-138/171

NOTES

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



July 11,2023

ontinued on page 2

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



Job	Truss	Truss Type	Qty	Ply	Roof - Osage Lot 87	
P240494-01	A6	Piggyback Base Supported Gable	2	1	Job Reference (optional)	159435148

Run: 8.63 S Apr 6 2023 Print: 8.630 S Apr 6 2023 MiTek Industries, Inc. Mon Jul 10 12:58:39 ID:JbPUB4NmDf0vUSJtFFIELayGxJT-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

Page: 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 Corner(3E) -0-10-8 to 4-0-0, Exterior(2N) 4-0-0 to 20-11-0, Corner(3R) 20-11-0 to 26-0-0, Exterior(2N) 26-0-0 to 27-1-0, Corner(3R) 27-1-0 to 32-0-0, Exterior(2N) 32-0-0 to 47-8-14 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- 4) Provide adequate drainage to prevent water ponding.
- 5) All plates are 3x4 MT20 unless otherwise indicated.
- 6) Gable requires continuous bottom chord bearing.
- 7) Gable studs spaced at 2-0-0 oc.
- 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.
- 10) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 26 lb uplift at joint 2, 58 lb uplift at joint 43, 9 lb uplift at joint 42, 74 lb uplift at joint 40, 60 lb uplift at joint 39, 61 lb uplift at joint 38, 61 lb uplift at joint 37, 61 lb uplift at joint 36, 61 lb uplift at joint 35, 62 lb uplift at joint 34, 59 lb uplift at joint 33, 103 lb uplift at joint 32, 12 lb uplift at joint 44, 71 lb uplift at joint 46, 61 lb uplift at joint 47, 61 lb uplift at joint 48, 61 lb uplift at joint 49, 61 lb uplift at joint 50, 61 lb uplift at joint 51, 61 lb uplift at joint 52, 61 lb uplift at joint 53 and 87 lb uplift at joint 54.
- 11) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

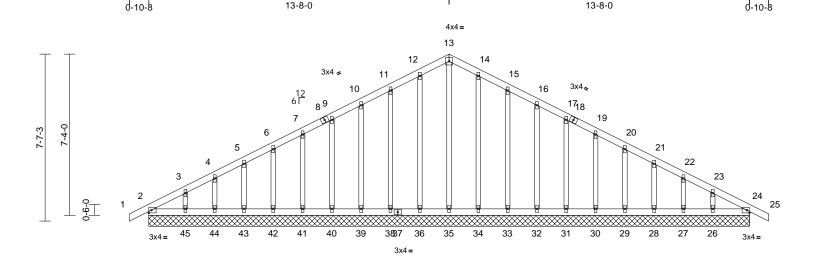
LOAD CASE(S) Standard

Job	Truss	Truss Type	Qty	Ply	Roof - Osage Lot 87	
P240494-01	B1	Common Supported Gable	2	1	Job Reference (optional)	159435149

Run: 8.63 S Apr 6 2023 Print: 8.630 S Apr 6 2023 MiTek Industries, Inc. Mon Jul 10 12;58:40 ID:UdTxDbh?e9q_8iTwPnntXZyGxKM-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

27-4-0

Page: 1



Scal	e = 1	1:52.
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Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.07	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.03	Vert(CT)	n/a	-	n/a	999		
BCLL	0.0	Rep Stress Incr	YES	WB	0.18	Horz(CT)	0.01	24	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S							Weight: 145 lb	FT = 20%

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

BRACING

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

BOT CHORD

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

REACTIONS (size) 2=27-4-0, 24=27-4-0, 26=27-4-0, 27=27-4-0, 28=27-4-0, 29=27-4-0, 30=27-4-0, 31=27-4-0, 32=27-4-0,

33=27-4-0, 34=27-4-0, 35=27-4-0, 36=27-4-0, 38=27-4-0, 39=27-4-0, 40=27-4-0, 41=27-4-0, 42=27-4-0, 43=27-4-0, 44=27-4-0, 45=27-4-0

Max Horiz 2=-137 (LC 13)

Max Uplift 2=-26 (LC 8), 24=-4 (LC 9), 26=-57 (LC 13), 27=-40 (LC 13), 28=-41

(LC 13), 29=-41 (LC 13), 30=-41 (LC 13), 31=-41 (LC 13), 32=-41 (LC 13), 33=-48 (LC 13), 34=-21 (LC 13), 36=-27 (LC 12), 38=-46

(LC 12), 39=-41 (LC 12), 40=-41 (LC 12), 41=-41 (LC 12), 42=-41 (LC 12), 43=-41 (LC 12), 44=-40 (LC 12), 45=-63 (LC 12)

Max Grav 2=150 (LC 1), 24=150 (LC 1),

26=130 (LC 26), 27=117 (LC 26), 28=121 (LC 1), 29=120 (LC 26), 30=120 (LC 26), 31=120 (LC 1), 32=120 (LC 1), 33=121 (LC 26), 34=123 (LC 26), 35=145 (LC 22), 36=123 (LC 25), 38=121 (LC 25), 39=120 (LC 1), 40=120 (LC 1),

41=120 (LC 25), 42=120 (LC 25), 43=121 (LC 1), 44=117 (LC 25), 45=130 (LC 25)

(lb) - Maximum Compression/Maximum

TOP CHORD

BOT CHORD

13-8-0

13-14=-89/255, 14-15=-80/230, 15-16=-66/191, 16-17=-53/155, 17-19=-41/119, 19-20=-34/83, 20-21=-35/48, 21-22=-51/20, 22-23=-74/22, 23-24=-123/45, 24-25=0/17, 1-2=0/17, 2-3=-181/64,

27-4-0

3-4=-131/67, 4-5=-99/76, 5-6=-76/89 6-7=-59/107, 7-9=-50/126, 9-10=-53/155,

10-11=-66/191, 11-12=-80/230, 12-13=-89/255

2-45=-40/160, 44-45=-40/160,

43-44=-40/160, 42-43=-40/160, 41-42=-40/160, 40-41=-40/160, 39-40=-40/160, 38-39=-40/160, 36-38=-40/160, 35-36=-40/160,

34-35=-40/160, 33-34=-40/160, 32-33=-40/160, 31-32=-40/160, 30-31=-40/160, 29-30=-40/160,

28-29=-40/160, 27-28=-40/160 26-27=-40/160, 24-26=-40/160

13-35=-148/26, 12-36=-96/43, 11-38=-95/74, 10-39=-93/64, 9-40=-93/64, 7-41=-93/64, 6-42=-93/64. 5-43=-94/82. 4-44=-92/99. 3-45=-99/122, 14-34=-96/40, 15-33=-95/74 16-32=-93/64, 17-31=-93/64, 19-30=-93/64, 20-29=-93/64, 21-28=-94/82, 22-27=-92/99,

23-26=-99/119

NOTES

WFBS

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) -0-10-8 to 4-4-0, Exterior(2N) 4-4-0 to 13-8-0, Corner(3R) 13-8-0 to 18-8-0, Exterior(2N) 18-8-0 to 28-2-8 zone; cantilever left and right exposed; end vertical left and right exposed:C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60

- 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.
- Gable studs spaced at 1-4-0 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 26 lb uplift at joint 2, 27 lb uplift at joint 36, 46 lb uplift at joint 38, 41 lb uplift at joint 39, 41 lb uplift at joint 40, 41 lb uplift at joint 41, 41 lb uplift at joint 42, 41 lb uplift at joint 43, 40 lb uplift at joint 44, 63 lb uplift at joint 45, 21 lb uplift at joint 34, 48 lb uplift at joint 33, 41 lb uplift at joint 32, 41 lb uplift at joint 31, 41 lb uplift at joint 30, 41 lb uplift at joint 29, 41 lb uplift at joint 28, 40 lb uplift at joint 27, 57 lb uplift at joint 26 and 4 lb uplift at joint 24
- 10) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



Continued on page 2

Tension

FORCES

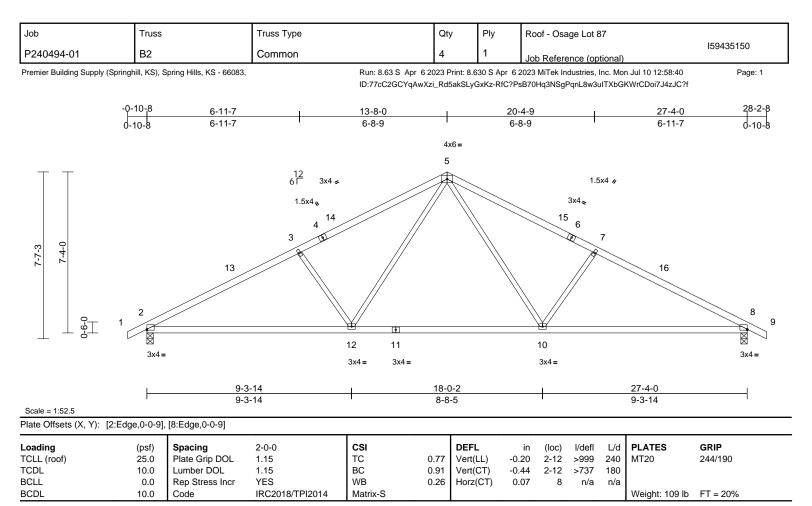
- Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 BEFORE USE



Job	Truss	Truss Type	Qty	Ply	Roof - Osage Lot 87	
P240494-01	B1	Common Supported Gable	2	1	Job Reference (optional)	159435149

Run: 8.63 S Apr 6 2023 Print: 8.630 S Apr 6 2023 MiTek Industries, Inc. Mon Jul 10 12:58:40 $ID: UdTxDbh?e9q_8iTwPnntXZyGxKM-RfC?PsB70Hq3NSgPqnL8w3ulTXbGKWrCDoi7J4zJC?ffrom Particle Pa$ Page: 2

LOAD CASE(S) Standard



LUMBER

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

BRACING

TOP CHORD Structural wood sheathing directly applied or

2-6-11 oc purlins.

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

bracing.

REACTIONS (size) 2=0-3-8, 8=0-3-8

Max Horiz 2=-137 (LC 13)

Max Uplift 2=-211 (LC 12), 8=-211 (LC 13) Max Grav 2=1288 (LC 1), 8=1288 (LC 1)

FORCES (lb) - Maximum Compression/Maximum

Tension

TOP CHORD 1-2=0/17, 2-3=-2072/392, 3-5=-1821/403, 5-7=-1821/403, 7-8=-2072/392, 8-9=0/17

BOT CHORD 2-12=-328/1763, 10-12=-86/1180,

8-10=-263/1763

WEBS 5-10=-154/672, 7-10=-451/287, 5-12=-153/672, 3-12=-451/287

NOTES

- 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 13-8-0, Exterior(2R) 13-8-0 to 18-8-0, Interior (1) 18-8-0 to 28-2-8 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 4) All bearings are assumed to be SP No.2 crushing capacity of 565 psi.

- 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 211 lb uplift at joint 2 and 211 lb uplift at joint 8.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard



July 11,2023

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



J	Job	Truss	Truss Type	Qty	Ply	Roof - Osage Lot 87	
F	P240494-01	C1	Common Supported Gable	1	1	Job Reference (optional)	159435151

Run: 8.63 S Apr 6 2023 Print: 8.630 S Apr 6 2023 MiTek Industries, Inc. Mon Jul 10 12:58:40 ID:pEeiREjqUZILYPLYj_L6IhyGxLc-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

Page: 1



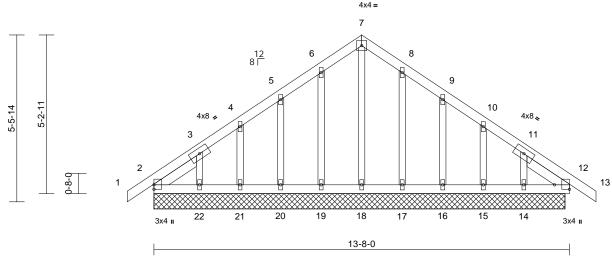


Plate Offsets (X, Y): [12:Edge,0-5-14]

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.06	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.03	Vert(CT)	n/a	-	n/a	999		
BCLL	0.0	Rep Stress Incr	YES	WB	0.07	Horz(CT)	0.00	12	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S							Weight: 73 lb	FT = 20%

LUMBER

Scale = 1:37.9

TOP CHORD 2x4 SP No.2 **BOT CHORD** 2x4 SP No.2 2x3 SPF No.2 **OTHERS**

SLIDER Left 2x4 SP No.2 -- 1-8-5, Right 2x4 SP No.2

-- 1-8-5

BRACING

TOP CHORD Structural wood sheathing directly applied or

6-0-0 oc purlins

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

bracing.

REACTIONS (size)

2=13-6-4, 12=13-6-4, 14=13-6-4, 15=13-6-4, 16=13-6-4, 17=13-6-4, 18=13-6-4, 19=13-6-4, 20=13-6-4,

21=13-6-4, 22=13-6-4 Max Horiz 2=-144 (LC 10)

Max Uplift 2=-39 (LC 8), 12=-2 (LC 9), 14=-73

(LC 13), 15=-52 (LC 13), 16=-57

(LC 13), 17=-42 (LC 13), 19=-45 (LC 12), 20=-56 (LC 12), 21=-52 (LC 12), 22=-80 (LC 12)

Max Grav 2=159 (LC 20), 12=154 (LC 1),

14=132 (LC 20), 15=125 (LC 20), 16=128 (LC 20), 17=127 (LC 20), 18=119 (LC 22), 19=131 (LC 19),

20=126 (LC 19), 21=126 (LC 19), 22=139 (LC 19)

FORCES (lb) - Maximum Compression/Maximum

Tension

TOP CHORD 7-8=-91/176, 8-9=-66/126, 9-10=-49/59

10-11=-58/29, 11-12=-112/57, 12-13=0/16, 1-2=0/16, 2-3=-140/112, 3-4=-96/80, 4-5=-87/72, 5-6=-77/126, 6-7=-91/176

BOT CHORD 2-22=-52/150, 21-22=-52/150,

20-21=-52/150, 19-20=-52/150, 18-19=-52/150, 17-18=-52/150, 16-17=-52/150, 15-16=-52/150,

14-15=-52/150, 12-14=-52/150

WEBS

7-18=-119/26, 8-17=-100/74, 9-16=-101/107, 10-15=-100/111, 11-14=-102/129,

6-19=-104/73, 5-20=-99/106, 4-21=-100/111,

3-22=-109/131

NOTES

Unbalanced roof live loads have been considered for 1) 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) -0-10-8 to 4-2-0, Exterior(2N) 4-2-0 to 6-10-0, Corner(3R) 6-10-0 to 11-10-0, Exterior(2N) 11-10-0 to 14-6-8 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOI = 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 studs spaced at 1-4-0 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 2 lb uplift at joint 12, 39 lb uplift at joint 2, 42 lb uplift at joint 17, 57 lb uplift at joint 16, 52 lb uplift at joint 15, 73 lb uplift at joint 14, 45 lb uplift at joint 19, 56 lb uplift at joint 20, 52 lb uplift at joint 21 and 80 lb uplift at joint 22.
- Non Standard bearing condition. Review required.
- 10) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard



July 11,2023

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

Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not



Job	Truss	Truss Type	Qty	Ply	Roof - Osage Lot 87	
P240494-01	C2	Monopitch	1	1	Job Reference (optional)	159435152

Run: 8.63 S Apr 6 2023 Print: 8.630 S Apr 6 2023 MiTek Industries. Inc. Mon Jul 10 12:58:41 ID:Ho1WEiUTGX1gwu78IG1QiOyGxNB-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f Page: 1

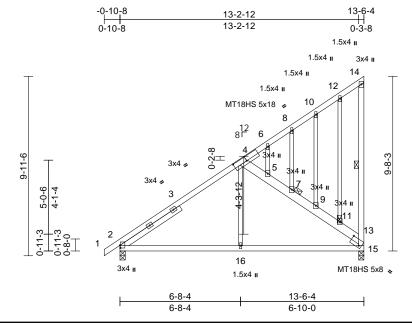


Plate Offsets (X, Y): [2:0-1-13,0-0-4], [4:0-9-0,0-3-0], [15:0-6-6,0-3-11]

									.,, .			
Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	I/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.65	Vert(LL)	-0.04	15-16	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.44	Vert(CT)	-0.09	2-16	>999	180	MT18HS	197/144
BCLL	0.0	Rep Stress Incr	YES	WB	0.26	Horz(CT)	0.01	15	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S							Weight: 97 lb	FT = 20%

LUMBER

2x4 SP No.2 *Except* 4-13:2x6 SPF No.2 TOP CHORD

BOT CHORD 2x4 SP No.2 WEBS

2x4 SP No.2 *Except* 4-16:2x3 SPF No.2 2x3 SPF No 2

OTHERS **SLIDER** Left 2x4 SP No.2 -- 3-11-10

BRACING

TOP CHORD Structural wood sheathing directly applied or

6-0-0 oc purlins, except end verticals. Rigid ceiling directly applied or 9-10-14 oc

BOT CHORD bracing.

WFBS 1 Row at midpt

14-15 **JOINTS** 1 Brace at Jt(s): 11,

REACTIONS (size) 2=0-3-8, 15=0-3-8

Max Horiz 2=399 (LC 9)

Max Uplift 2=-83 (LC 12), 15=-202 (LC 12)

Max Grav 2=665 (LC 1), 15=658 (LC 19)

FORCES (lb) - Maximum Compression/Maximum

Tension

TOP CHORD 1-2=0/16, 2-6=-708/227, 6-8=-276/239, 8-10=-236/218, 10-12=-204/204,

12-14=-95/98, 13-15=-600/366,

13-14=-89/85, 4-5=-538/231, 5-7=-560/246,

7-9=-606/280, 9-11=-648/313,

11-13=-725/370

BOT CHORD 2-16=-333/580, 15-16=-338/572

WEBS 4-16=0/305, 11-12=-214/183, 9-10=-77/64,

7-8=-84/61, 5-6=-12/6

NOTES

1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=35ft; Ke=1.00; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) -0-10-8 to 4-1-8, Interior (1) 4-1-8 to 13-4-8 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60

- 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 MT20 plates unless otherwise indicated.
- 5) All plates are 3x4 MT20 unless otherwise indicated.
- Gable studs spaced at 1-4-0 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 202 lb uplift at joint 15 and 83 lb uplift at joint 2.
- 10) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 11) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

LOAD CASE(S) Standard



July 11,2023

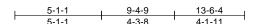
WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 BEFORE USE.

Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not



Job	Truss	Truss Type	Qty	Ply	Roof - Osage Lot 87	
P240494-01	C3	Monopitch Girder	2	2	Job Reference (optional)	I59435153

Run: 8.63 S Apr 6 2023 Print: 8.630 S Apr 6 2023 MiTek Industries. Inc. Mon Jul 10 12:58:41 ID:HXV5guHpHJt4OGKtoCERWpyGxNS-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f Page: 1



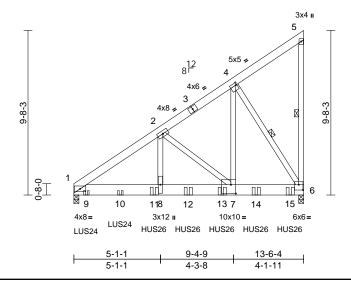


Plate Offsets (X, Y): [4:0-0-12,0-1-12], [6:0-3-0,0-3-12], [7:0-3-8,0-6-4]

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

LUMBER

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

BRACING

TOP CHORD Structural wood sheathing directly applied or 5-5-9 oc purlins, except end verticals.

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

bracing.

WEBS 1 Row at midpt 5-6. 4-6 REACTIONS (size) 1=0-3-8, 6=0-3-8

Max Horiz 1=384 (LC 9)

Max Uplift 1=-1112 (LC 12), 6=-1295 (LC 12)

Max Grav 1=5503 (LC 1), 6=7639 (LC 1)

FORCES (lb) - Maximum Compression/Maximum

Tension TOP CHORD

1-2=-7647/1389 2-4=-4084/764 4-5=-202/180, 5-6=-144/122

BOT CHORD 1-8=-1372/6184, 7-8=-1372/6184,

6-7=-721/3362

WFBS 2-8=-765/4127. 2-7=-3634/843.

4-7=-1201/7202, 4-6=-6287/1143

NOTES

1) 2-ply truss to be connected together with 10d (0.131"x3") nails as follows:

Top chords connected as follows: 2x6 - 2 rows staggered at 0-9-0 oc, 2x4 - 1 row at 0-9-0 oc. Bottom chords connected as follows: 2x8 - 4 rows

staggered at 0-9-0 oc.

Web connected as follows: 2x4 - 1 row at 0-9-0 oc. 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.

- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=35ft; Ke=1.00; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) 0-1-12 to 5-1-1, Interior (1) 5-1-1 to 13-4-8 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 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 2400F 2.0E crushing capacity of 805 psi.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 1295 lb uplift at joint 6 and 1112 lb uplift at joint 1.
- 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 LUS24 (4-10d Girder, 2-10d Truss, Single Ply Girder) or equivalent spaced at 2-0-0 oc max. starting at 0-8-12 from the left end to 2-8-12 to connect truss(es) to back face of bottom chord.
- Use Simpson Strong-Tie HUS26 (14-10d Girder, 6-10d Truss) or equivalent spaced at 2-0-0 oc max. starting at 4-8-12 from the left end to 12-8-12 to connect truss(es) to back face of bottom chord.
- 10) Fill all nail holes where hanger is in contact with lumber.

LOAD CASE(S) Standard

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

Uniform Loads (lb/ft)

Vert: 1-5=-70, 1-6=-20

Concentrated Loads (lb) Vert: 9=-680 (B), 10=-662 (B), 11=-2121 (B),

12=-2121 (B), 13=-2121 (B), 14=-2121 (B),

15=-2124 (B)



July 11,2023

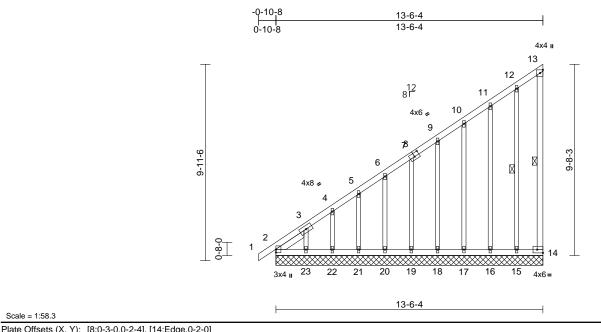
WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 BEFORE USE.

Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not



Job	Truss	Truss Type	Qty	Ply	Roof - Osage Lot 87	
P240494-01	C4	Monopitch Supported Gable	1	1	Job Reference (optional)	159435154

Run: 8.63 S Apr 6 2023 Print: 8.630 S Apr 6 2023 MiTek Industries, Inc. Mon Jul 10 12;58:42 ID:GjwpzSgpHeSKmRw4J_pUy2yGxOF-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f Page: 1



Scale = 1:58.3

Tate Onocia (A, 1). [0.0 0 0,0 2 4], [14.2496,0 2 0]													
Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.77	Vert(LL)	n/a	-	n/a	999	MT20	244/190	
TCDL	10.0	Lumber DOL	1.15	BC	0.37	Vert(CT)	n/a	-	n/a	999			
BCLL	0.0	Rep Stress Incr	YES	WB	0.14	Horz(CT)	0.00	14	n/a	n/a			
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S							Weight: 96 lb	FT = 20%	

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

SLIDER Left 2x4 SP No.2 -- 1-8-10

BRACING TOP CHORD **BOT CHORD**

Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.

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

WFBS

1 Row at midpt 13-14, 12-15 **REACTIONS** (size)

2=13-6-4, 14=13-6-4, 15=13-6-4, 16=13-6-4, 17=13-6-4, 18=13-6-4, 19=13-6-4, 20=13-6-4, 21=13-6-4,

22=13-6-4, 23=13-6-4

Max Horiz 2=399 (LC 9)

Max Uplift 2=-101 (LC 8), 14=-108 (LC 11), 15=-83 (LC 12), 16=-41 (LC 9),

17=-63 (LC 12), 18=-50 (LC 12), 19=-53 (LC 12), 20=-52 (LC 12), 21=-51 (LC 12), 22=-54 (LC 12),

23=-118 (LC 12)

Max Grav 2=258 (LC 20), 14=105 (LC 8), 15=124 (LC 20), 16=140 (LC 19),

17=122 (LC 19), 18=127 (LC 19), 19=126 (LC 19), 20=126 (LC 19), 21=126 (LC 19), 22=126 (LC 19),

23=160 (LC 19)

FORCES (lb) - Maximum Compression/Maximum

Tension TOP CHORD

1-2=0/16, 2-3=-841/547, 3-4=-686/452,

4-5=-624/422, 5-6=-566/394, 6-7=-508/365, 7-9=-449/337, 9-10=-384/308, 10-11=-316/282, 11-12=-244/253,

12-13=-127/149, 13-14=-60/74

BOT CHORD

2-23=-178/230, 22-23=-178/230, 21-22=-178/230, 20-21=-178/230, 19-20=-178/230, 18-19=-178/230, 17-18=-178/230, 16-17=-178/230, 15-16=-178/230, 14-15=-178/230 12-15=-221/207, 11-16=-103/114, 10-17=-98/107, 9-18=-99/101, 7-19=-99/90,

6-20=-99/90, 5-21=-99/99, 4-22=-101/114, 3-23=-179/231

NOTES

WEBS

- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=35ft; Ke=1.00; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Corner(3E) -0-10-8 to 4-2-4, Exterior(2N) 4-2-4 to 13-4-8 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 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.
- Gable studs spaced at 1-4-0 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 108 lb uplift at joint 14, 101 lb uplift at joint 2, 83 lb uplift at joint 15, 41 Ib uplift at joint 16, 63 lb uplift at joint 17, 50 lb uplift at joint 18, 53 lb uplift at joint 19, 52 lb uplift at joint 20, 51 Ib uplift at joint 21, 54 lb uplift at joint 22 and 118 lb uplift at joint 23.
- Beveled plate or shim required to provide full bearing surface with truss chord at joint(s) 2.

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

LOAD CASE(S) Standard



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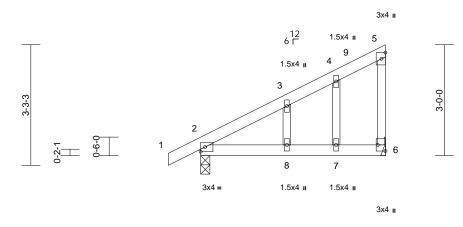


Job	Truss	Truss Type	Qty	Ply	Roof - Osage Lot 87	
P240494-01	D1	Monopitch	4	1	Job Reference (optional)	159435155

Run: 8.63 S Apr 6 2023 Print: 8.630 S Apr 6 2023 MiTek Industries, Inc. Mon Jul 10 12:58:42 ID:J9uoFkXWrWxKhW?zklsI4bzDH1v-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

Page: 1





Scale = 1:31.2

Plate Offsets (X, Y): [6:Edge,0-2-8]

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.20	Vert(LL)	0.04	7-8	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.28	Vert(CT)	-0.05	7-8	>999	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.03	Horz(CT)	0.00	6	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S							Weight: 22 lb	FT = 20%

5-0-0

LUMBER

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

BRACING

TOP CHORD Structural wood sheathing directly applied or

5-0-0 oc purlins, except end verticals.

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

bracing.

REACTIONS (size) 2=0-3-0, 6= Mechanical

Max Horiz 2=123 (LC 9)

Max Uplift 2=-59 (LC 12), 6=-60 (LC 12) Max Grav 2=292 (LC 1), 6=207 (LC 1)

FORCES (Ib) - Maximum Compression/Maximum

Tension

TOP CHORD 1-2=0/17, 2-3=-169/71, 3-4=-102/61, 4-5=-65/57, 5-6=-106/113

BOT CHORD 2-8=-67/74, 7-8=-67/74, 6-7=-67/74

WEBS 4-7=-36/69, 3-8=-48/105

NOTES

- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=35ft; Ke=1.00; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) -0-10-8 to 4-1-8, Interior (1) 4-1-8 to 4-10-12 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 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 studs spaced at 1-4-0 oc.
- 4) This truss has been designed for a 10.0 psf bottom
- chord live load nonconcurrent with any other live loads.

 5) Bearings are assumed to be: Joint 2 SP No.2 crushing capacity of 565 psi.

- 6) Refer to girder(s) for truss to truss connections
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 60 lb uplift at joint 6 and 59 lb uplift at joint 2.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard



July 11,2023

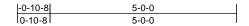
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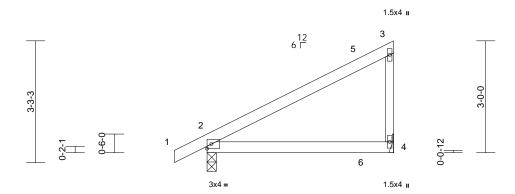
Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not



Job	Truss	Truss Type	Qty	Ply	Roof - Osage Lot 87	
P240494-01	D2	Monopitch	10	1	Job Reference (optional)	59435156

Run: 8.63 S Apr 6 2023 Print: 8.630 S Apr 6 2023 MiTek Industries, Inc. Mon Jul 10 12:58:42 ID:yf123P231X1sVXWTy3fc?NzDH2W-RfC?PsB70Hq3NSgPqnL8w3ulTXbGKWrCDoi7J4zJC?f Page: 1





5-0-0 Scale = 1:30.9

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

LUMBER

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

BRACING

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

bracing.

REACTIONS (size) 2=0-3-0, 4= Mechanical

Max Horiz 2=123 (LC 9)

Max Uplift 2=-59 (LC 12), 4=-87 (LC 9) Max Grav 2=292 (LC 1), 4=207 (LC 1)

FORCES (lb) - Maximum Compression/Maximum

Tension

TOP CHORD 1-2=0/17, 2-3=-167/114, 3-4=-167/225

BOT CHORD 2-4=-54/59

NOTES

- Wind: ASCE 7-16; Vult=115mph (3-second gust) 1) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=35ft; Ke=1.00; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) -0-10-8 to 4-1-8, Interior (1) 4-1-8 to 4-10-12 zone; cantilever left and right exposed; end vertical left and right exposed; porch left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 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.
- Refer to girder(s) for truss to truss connections.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 87 lb uplift at joint 4 and 59 lb uplift at joint 2.
- 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

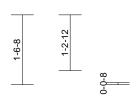


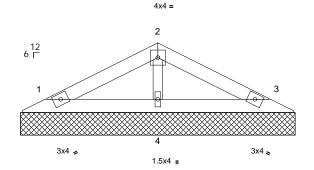
Job	Truss	Truss Type	Qty	Ply	Roof - Osage Lot 87	
P240494-01	PB1	Piggyback	2	1	Job Reference (optional)	I59435157

Run: 8.63 S Apr 6 2023 Print: 8.630 S Apr 6 2023 MiTek Industries, Inc. Mon Jul 10 12:58:42 ID:9wUnxfypw9GahpSGfCwjgdzczGe-RfC?PsB70Hq3NSgPqnL8w3ulTXbGKWrCDoi7J4zJC?f

ries, Inc. Mon Jul 10 12:58:42 Page: 1 kw3ulTXbGKWrCDoi7J4zJC?f







6-0-0

Scale = 1:25.5

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

LUMBER

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

BRACING

TOP CHORD Structural wood sheathing directly applied or

6-0-0 oc purlins.

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

bracing.

REACTIONS (size) 1=6-1-0, 3=6-1-0, 4=6-1-0

Max Horiz 1=23 (LC 12)

Max Uplift 1=-30 (LC 12), 3=-34 (LC 13), 4=-7

(LC 12)

Max Grav 1=115 (LC 1), 3=115 (LC 1), 4=211

(LC 1)

FORCES (lb) - Maximum Compression/Maximum

Tension

TOP CHORD 1-2=-55/46, 2-3=-55/52 BOT CHORD 1-4=-1/25, 3-4=-1/25 WEBS 2-4=-150/135

NOTES

- 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; cnd 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.
- 4) Gable requires continuous bottom chord bearing.
- 5) Gable studs spaced at 1-4-0 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 30 lb uplift at joint 1, 34 lb uplift at joint 3 and 7 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.
- See Standard Industry Piggyback Truss Connection Detail for Connection to base truss as applicable, or consult qualified building designer.

LOAD CASE(S) Standard

NATHANIEL FOX
PE-2022042259
PE-2022042259

July 11,2023

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

Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not

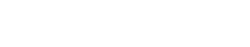


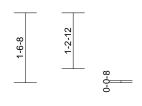
Job		Truss	Truss Type	Qty	Ply	Roof - Osage Lot 87	
P24	40494-01	PB2	Piggyback	22	1	Job Reference (optional)	159435158

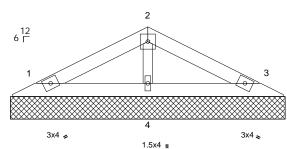
Run: 8.63 S Apr 6 2023 Print: 8.630 S Apr 6 2023 MiTek Industries, Inc. Mon Jul 10 12;58:43 ID:9wUnxfypw9GahpSGfCwjgdzczGe-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

3-0-0 5-5-9 3-0-0 2-5-9

4x4 =







6-0-0

Scale = 1:25.5

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

LUMBER

2x4 SP No.2 TOP CHORD **BOT CHORD** 2x4 SP No.2 2x3 SPF No.2 OTHERS

BRACING

TOP CHORD Structural wood sheathing directly applied or

6-0-0 oc purlins.

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

bracing.

REACTIONS (size) 1=6-1-0, 3=6-1-0, 4=6-1-0

Max Horiz 1=23 (LC 12) Max Uplift

1=-30 (LC 12), 3=-34 (LC 13), 4=-7 (LC 12)

1=115 (LC 1), 3=115 (LC 1), 4=211 Max Grav

(LC 1)

FORCES (lb) - Maximum Compression/Maximum

TOP CHORD 1-2=-55/46, 2-3=-55/52 **BOT CHORD** 1-4=-1/25, 3-4=-1/25 2-4=-150/135 WEBS

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) 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
- 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.
- 5) 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.

- 7) 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, 34 lb uplift at joint 3 and 7 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.
- 10) See Standard Industry Piggyback Truss Connection Detail for Connection to base truss as applicable, or consult qualified building designer.

LOAD CASE(S) Standard

OF MISSO **NATHANIEI** PE-2022042259 SSIONAL

July 11,2023

Page: 1

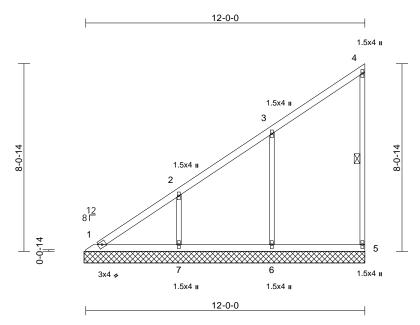
WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 BEFORE USE.

Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not



Job	Truss	Truss Type	Qty	Ply	Roof - Osage Lot 87	
P240494-01	V1	Valley	2	1	Job Reference (optional)	159435159

Run: 8.63 S Apr 6 2023 Print: 8.630 S Apr 6 2023 MiTek Industries, Inc. Mon Jul 10 12:58:43 ID:3dyyPIGdvpWQ0?o0jPG2wlyGxRL-RfC?PsB70Hq3NSgPqnL8w3ulTXbGKWrCDoi7J4zJC?f Page: 1



Scale = 1:49.5

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

LUMBER

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

BRACING

TOP CHORD Structural wood sheathing directly applied or

6-0-0 oc purlins, except end verticals. Rigid ceiling directly applied or 10-0-0 oc

BOT CHORD bracing.

WEBS 4-5 1 Row at midpt

REACTIONS (size) 1=12-0-15, 5=12-0-15, 6=12-0-15,

7=12-0-15 Max Horiz 1=335 (LC 12)

Max Uplift 5=-62 (LC 12), 6=-169 (LC 12),

7=-171 (LC 12)

Max Grav 1=183 (LC 21), 5=149 (LC 19),

6=412 (LC 19), 7=388 (LC 19)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=-377/251, 2-3=-228/156, 3-4=-104/51,

4-5=-116/84

BOT CHORD 1-7=-1/2, 6-7=-1/2, 5-6=-1/2 WEBS 3-6=-327/235, 2-7=-299/221

NOTES

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=35ft; Ke=1.00; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) 0-7-13 to 5-7-13, Interior (1) 5-7-13 to 12-0-1 zone; cantilever left and right exposed; end vertical left exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 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.

- 5) 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 62 lb uplift at joint 5, 169 lb uplift at joint 6 and 171 lb uplift at joint 7.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard



July 11,2023

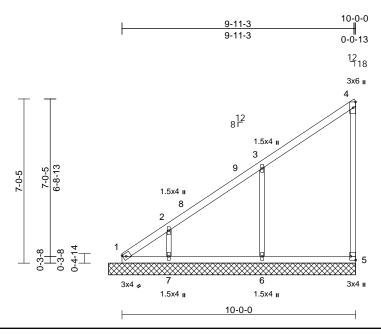
WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 BEFORE USE.

Design valid for use only with MITek® connectors. This design is based only upon parameters shown, and is for an individual building component, not



Job	Truss	Truss Type	Qty	Ply	Roof - Osage Lot 87	
P240494-01	V2	Valley	2	1	Job Reference (optional)	35160

Run: 8.63 S Apr 6 2023 Print: 8.630 S Apr 6 2023 MiTek Industries, Inc. Mon Jul 10 12:58:43 ID:XHTUUTtwhgM5ZxmgHzAJ4LyGxRs-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f Page: 1



Scale = 1:49.3

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

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.60	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.20	Vert(TL)	n/a	-	n/a	999		
BCLL	0.0	Rep Stress Incr	YES	WB	0.14	Horiz(TL)	0.00	5	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S							Weight: 42 lb	FT = 20%

LUMBER

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

BRACING

TOP CHORD Structural wood sheathing directly applied or

6-0-0 oc purlins, except end verticals. **BOT CHORD** Rigid ceiling directly applied or 10-0-0 oc

bracing.

REACTIONS (size) 1=10-6-15, 5=10-6-15, 6=10-6-15,

7=10-6-15

Max Horiz 1=285 (LC 9)

1=-77 (LC 10), 5=-59 (LC 9), Max Uplift 6=-176 (LC 12), 7=-148 (LC 12)

1=164 (LC 9), 5=164 (LC 19), Max Grav

6=426 (LC 19), 7=317 (LC 19) (lb) - Maximum Compression/Maximum

FORCES

Tension TOP CHORD 1-2=-503/322, 2-3=-372/260, 3-4=-177/152,

4-5=-129/138

BOT CHORD 1-7=-133/145, 6-7=-133/145, 5-6=-133/145

WEBS 3-6=-344/303, 2-7=-249/215

NOTES

- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=35ft; Ke=1.00; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) 0-9-1 to 5-9-1, Interior (1) 5-9-1 to 10-6-1 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 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.
- 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 77 lb uplift at joint 1, 59 lb uplift at joint 5, 176 lb uplift at joint 6 and 148 lb uplift at joint 7.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard



July 11,2023

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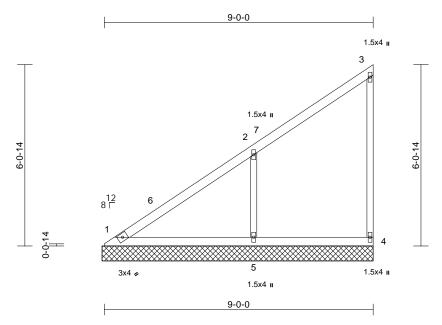
Design valid for use only with MITek® connectors. This design is based only upon parameters shown, and is for an individual building component, not besign value to use only with recks colline tools. This design is based only upon parameters shown, and is not an individual busining denipolinit, not a 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/TP11 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)



Job	Truss	Truss Type	Qty	Ply	Roof - Osage Lot 87	
P240494-01	V3	Valley	2	1	Job Reference (optional)	I59435161

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Page: 1



Scale = 1:38.6

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

LUMBER

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

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.

(size) REACTIONS 1=9-0-15, 4=9-0-15, 5=9-0-15

Max Horiz 1=242 (LC 9) Max Uplift

1=-4 (LC 8), 4=-50 (LC 9), 5=-209 (LC 12)

Max Grav

1=194 (LC 20), 4=143 (LC 19), 5=506 (LC 19)

FORCES (lb) - Maximum Compression/Maximum

Tension

TOP CHORD 1-2=-388/267, 2-3=-172/145, 3-4=-134/142

BOT CHORD 1-5=-116/126, 4-5=-116/126

WEBS 2-5=-399/340

NOTES

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=35ft; Ke=1.00; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) 0-5-12 to 5-5-12, Interior (1) 5-5-12 to 9-0-1 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 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.

- 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 4 lb uplift at joint 1, 50 lb uplift at joint 4 and 209 lb uplift at joint 5.
- 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.

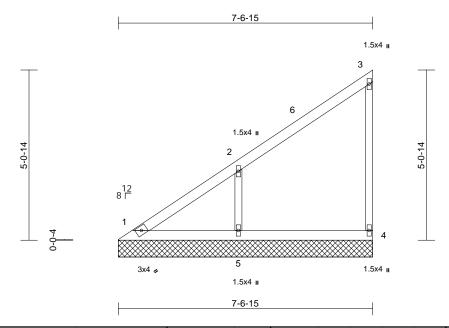
Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not



Job	Truss	Truss Type	Qty	Ply	Roof - Osage Lot 87	
P240494-01	V4	Valley	2	1	Job Reference (optional)	159435162

Run: 8.63 S Apr 6 2023 Print: 8.630 S Apr 6 2023 MiTek Industries, Inc. Mon Jul 10 12:58:43 ID:i76DDQo95qbyq0JWxj3vr4yGxRy-RfC?PsB70Hq3NSgPqnL8w3ulTXbGKWrCDoi7J4zJC?f

Page: 1



Scale = 1:34.3

Loading	(psf)	Spacing	2-0-0	csı		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.45	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.13	Vert(TL)	n/a	-	n/a	999		
BCLL	0.0	Rep Stress Incr	YES	WB	0.08	Horiz(TL)	0.00	4	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-P							Weight: 29 lb	FT = 20%

LUMBER

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

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.

(size) REACTIONS 1=7-6-15, 4=7-6-15, 5=7-6-15

Max Horiz 1=199 (LC 9)

Max Uplift 1=-16 (LC 8), 4=-46 (LC 9), 5=-172

(LC 12)

1=132 (LC 20), 4=158 (LC 19), Max Grav

5=418 (LC 19)

FORCES (lb) - Maximum Compression/Maximum

Tension

TOP CHORD 1-2=-353/236, 2-3=-165/135, 3-4=-138/151

BOT CHORD 1-5=-96/105, 4-5=-96/105 **WEBS** 2-5=-330/305

NOTES

- Wind: ASCE 7-16; Vult=115mph (3-second gust) 1) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=35ft; Ke=1.00; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) 0-5-12 to 5-5-12, Interior (1) 5-5-12 to 7-6-1 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 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.

- 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 16 lb uplift at joint 1, 46 lb uplift at joint 4 and 172 lb uplift at joint 5.
- 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



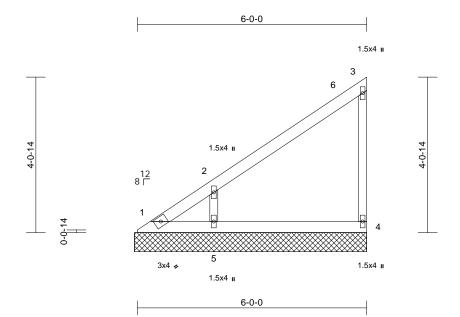
WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 BEFORE USE.

Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not



Job	Truss	Truss Type	Qty	Ply	Roof - Osage Lot 87	
P240494-01	V5	Valley	2	1	Job Reference (optional)	159435163

Run: 8.63 S Apr 6 2023 Print: 8.630 S Apr 6 2023 MiTek Industries, Inc. Mon Jul 10 12:58:44 ID:mk_SpknvZDLEbi98pI1RmfyGxS_-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?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	0.28	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.12	Vert(TL)	n/a	-	n/a	999		
BCLL	0.0	Rep Stress Incr	YES	WB	0.07	Horiz(TL)	0.00	4	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-P							Weight: 22 lb	FT = 20%

LUMBER

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

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.

(size) REACTIONS 1=6-0-15, 4=6-0-15, 5=6-0-15

Max Horiz 1=157 (LC 9)

1=-56 (LC 10), 4=-41 (LC 9), Max Uplift 5=-156 (LC 12)

1=83 (LC 9), 4=159 (LC 19), 5=378 Max Grav

(LC 19)

FORCES (lb) - Maximum Compression/Maximum

Tension

TOP CHORD 1-2=-331/216, 2-3=-155/120, 3-4=-135/154

BOT CHORD 1-5=-76/82, 4-5=-76/82 **WEBS** 2-5=-298/299

NOTES

- Wind: ASCE 7-16; Vult=115mph (3-second gust) 1) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=35ft; Ke=1.00; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) 0-5-12 to 5-5-12, Interior (1) 5-5-12 to 6-0-1 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 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.

- 6) 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 56 lb uplift at joint 1, 41 lb uplift at joint 4 and 156 lb uplift at joint 5.
- 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.

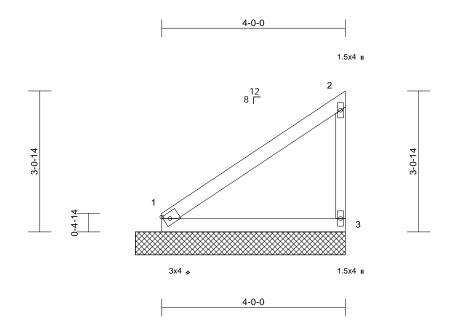
Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not



Job	Truss	Truss Type	Qty	Ply	Roof - Osage Lot 87	
P240494-01	V6	Valley	2	1	Job Reference (optional)	159435164

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Page: 1



Scale = 1:25.1

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

LUMBER

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

BRACING

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

bracing.

REACTIONS (size) 1=4-6-15, 3=4-6-15

Max Horiz 1=114 (LC 9)

Max Uplift 1=-15 (LC 12), 3=-58 (LC 12) Max Grav 1=169 (LC 1), 3=186 (LC 19)

FORCES (lb) - Maximum Compression/Maximum

Tension

TOP CHORD 1-2=-163/120, 2-3=-154/185

BOT CHORD 1-3=-55/60

NOTES

- Wind: ASCE 7-16; Vult=115mph (3-second gust) 1) 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
- 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.
- 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 15 lb uplift at joint 1 and 58 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



July 11,2023

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

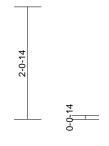
Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not

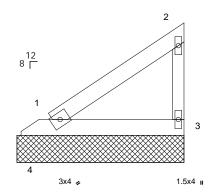


Job	Truss	Truss Type	Qty	Ply	Roof - Osage Lot 87	
P240494-01	V7	Valley	2	1	Job Reference (optional)	159435165

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3-0-0

Scale = 1:21.2

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

LUMBER

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

BRACING

TOP CHORD Structural wood sheathing directly applied or 3-1-5 oc purlins, except end verticals.

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

bracing.

REACTIONS (size) 1=3-0-15, 3=3-0-15, 4=3-0-15

Max Horiz 4=72 (LC 9)

Max Uplift 3=-39 (LC 12), 4=-47 (LC 3) Max Grav 1=143 (LC 3), 3=110 (LC 19),

4=-14 (LC 8)

FORCES (lb) - Maximum Compression/Maximum

Tension

TOP CHORD 1-2=-105/77, 2-3=-99/121 BOT CHORD 1-4=-160/107, 1-3=-35/38

NOTES

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=35ft; Ke=1.00: Cat. II: Exp C: Enclosed: MWFRS (envelope) exterior zone and C-C Exterior(2E) zone; cantilever left and right exposed; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 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.
- All bearings are assumed to be SP No.2 crushing capacity of 565 psi.

- 7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 39 lb uplift at joint 3 and 47 lb uplift at joint 4.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard



July 11,2023

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

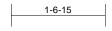
Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not



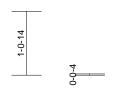
Job	Truss	Truss Type	Qty	Ply	Roof - Osage Lot 87	
P240494-01	V8	Valley	2	1	Job Reference (optional)	159435166

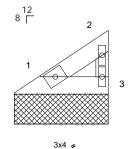
Run: 8.63 S Apr 6 2023 Print: 8.630 S Apr 6 2023 MiTek Industries, Inc. Mon Jul 10 12:58:44 ID:3pNgiJfdw84fOAODEBr5MYyGxS8-RfC?PsB70Hq3NSgPqnL8w3ulTXbGKWrCDoi7J4zJC?f

Page: 1



1.5x4 II







1.5x4 **॥**

1-6-15

Scale = 1:19.3

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.02	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.01	Vert(TL)	n/a	-	n/a	999		
BCLL	0.0	Rep Stress Incr	YES	WB	0.00	Horiz(TL)	0.00	3	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-P							Weight: 5 lb	FT = 20%

LUMBER

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

BRACING

TOP CHORD Structural wood sheathing directly applied or 1-7-5 oc purlins, except end verticals.

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

bracing.

REACTIONS (size) 1=1-6-15, 3=1-6-15

Max Horiz 1=29 (LC 9)

Max Uplift 1=-5 (LC 12), 3=-15 (LC 12) Max Grav 1=46 (LC 1), 3=50 (LC 19) (lb) - Maximum Compression/Maximum

FORCES (lb) - Ma Tension

D 1-2=-42/32, 2-3=-44/50

TOP CHORD 1-2=-42/32 BOT CHORD 1-3=-14/15

NOTES

- 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.
- 3) Gable requires continuous bottom chord bearing.
- 4) 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.
- 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 5 lb uplift at joint 1 and 15 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



July 11,2023

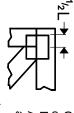
WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 BEFORE USE.

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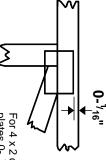


Symbols

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.



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



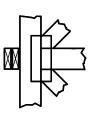
The first dimension is the plate width measured perpendicular to slots. Second dimension is the length parallel to slots.

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.

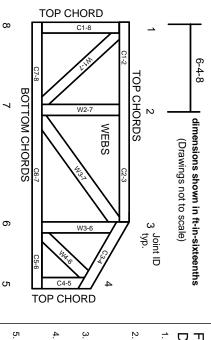
Industry Standards:

National Design Specification for Metal Plate Connected Wood Truss Construction Design Standard for Bracing.

Building Component Safety Information, Guide to Good Practice for Handling, Installing, Restraining & Bracing of Metal Plate Connected Wood Trusses.

ANSI/TPI1: DSB-22:

Numbering System



JOINTS ARE GENERALLY NUMBERED/LETTERED CLOCKWISE AROUND THE TRUSS STARTING AT THE JOINT FARTHEST TO THE LEFT.

CHORDS AND WEBS ARE IDENTIFIED BY END JOINT NUMBERS/LETTERS.

Product Code Approvals

ICC-ES Reports:

ESR-1988, ESR-2362, ESR-2685, ESR-3282 ESR-4722, ESL-1388

Design General Notes

Trusses are designed for wind loads in the plane of the truss unless otherwise shown.

Lumber design values are in accordance with ANSI/TPI 1 section 6.3 These truss designs rely on lumber values established by others.

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MiTek Engineering Reference Sheet: MII-7473 rev. 1/2/2023

General Safety Notes

Failure to Follow Could Cause Property Damage or Personal Injury

- Additional stability bracing for truss system, e.g. diagonal or X-bracing, is always required. See BCSI
- 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.
- Never exceed the design loading shown and never stack materials on inadequately braced trusses.
- Provide copies of this truss design to the building designer, erection supervisor, property owner and all other interested parties.
- Cut members to bear tightly against each other.
- 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.
- Design assumes trusses will be suitably protected from the environment in accord with ANSI/TPI 1.
- Unless otherwise noted, moisture content of lumber shall not exceed 19% at time of fabrication.

œ

Unless expressly noted, this design is not applicable for use with fire retardant, preservative treated, or green lumber.

9

- Camber is a non-structural consideration and is the responsibility of truss fabricator. General practice is to camber for dead load deflection.
- Plate type, size, orientation and location dimensions indicated are minimum plating requirements.
- Lumber used shall be of the species and size, and in all respects, equal to or better than that specified.
- Top chords must be sheathed or purlins provided at spacing indicated on design.
- Bottom chords require lateral bracing at 10 ft. spacing, or less, if no ceiling is installed, unless otherwise noted.
- Connections not shown are the responsibility of others.
- Do not cut or alter truss member or plate without prior approval of an engineer.
- Install and load vertically unless indicated otherwise.
- Use of green or treated lumber may pose unacceptable environmental, health or performance risks. Consult with project engineer before use.
- Review all portions of this design (front, back, words and pictures) before use. Reviewing pictures alone is not sufficient.
- 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.

DEVELOPMENT SERVICES LEE'S SUMMIT, MISSOURI 06/11/2024 3:10:19