

RE: P240355 -

**Site Information:**Project Customer: Clover and Hive Project Name: Wildflower - Farmhouse

Lot/Block: 63 Subdivision: Osage

Model: Wildflower - Farmhouse Address: 3816 SW Ravengate Pl

City: Lee's Summit State: MO

General Truss Engineering Criteria & Design Loads (Individual Truss Design

**Drawings Show Special Loading Conditions):** 

Design Code: IRC2018/TPI2014

Wind Code: ASCE 7-16 Wind Speed: 115 mph

Roof Load: 45.0 psf

Mean Roof Height (feet): 35

Design Program: MiTek 20/20 8.6

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

MiTek, Inc.

314.434.1200

16023 Swingley Ridge Rd.

Chesterfield, MO 63017

Floor Load: N/A psf

Exposure Category: C

No. 12345678910112	Seal# 164820858 164820869 164820861 164820862 164820863 164820866 164820866 164820866 164820866	Truss Name A01 A02 A03 A04 A05 A06 A07 A08 A09 A10 A11	4/12/24 4/12/24 4/12/24 4/12/24 4/12/24 4/12/24 4/12/24 4/12/24 4/12/24 4/12/24
			.,,

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

Truss Design Engineer's Name: Sevier, Scott

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

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



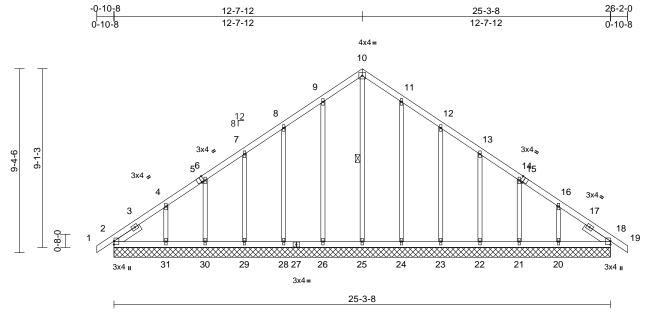
April 12,2024

1 of 1

Job	Truss	Truss Type	Qty	Ply		
P240355	A01	Common Supported Gable	1	1	Job Reference (optional)	164820858

Run: 8.9 S 8.63 Nov 1 2023 Print: 8.630 S Nov 1 2023 MiTek Industries, Inc. Wed Apr 10 12:50:38 ID:GqaIHBL1d133WfnMY0aTwhzaOSF-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

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Ocaic = 1.00.7		
Plate Offsets (X, Y):	[5:0-1-12,Edge], [15:0-1-12,E	dge]

Scalo - 1:59 7

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.10	Vert(LL)	n/a	-	n/a	999	MT20	244/190	
TCDL	10.0	Lumber DOL	1.15	BC	0.06	Vert(CT)	n/a	-	n/a	999			
BCLL	0.0	Rep Stress Incr	YES	WB	0.21	Horz(CT)	0.01	18	n/a	n/a			
RCDI	10.0	Code	IPC2018/TPI2014	Matriy-S							Weight: 135 lh	FT - 20%	

TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.10	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.06	Vert(CT)	n/a	-	n/a	999		
BCLL	0.0	Rep Stress Incr	YES	WB	0.21	Horz(CT)	0.01	18	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S							Weight: 135 lb	FT = 20%
LUMBER			TOP CHORD	1-2=0/16, 2-4=-2	232/187, 4-	-6=-173/135,	-	7) This	truss h	as bee	en designed for a	10.0 psf bottom
TOP CHORD	2x4 SP No.2			6-7=-159/129, 7-	-8=-144/15	54, 8-9=-130/°	196,	chore	d live lo	ad noi	nconcurrent with	any other live loads.
BOT CHORD	2x4 SP No.2			9-10=-164/245,	10-11=-16	4/245,	8	<ol> <li>All be</li> </ol>	earings	are as	ssumed to be SP	No.2 crushing
OTHERS	2v2 SDE No 2			11-12=-128/186	12-13=-89	9/116		capa	city of	565 ps	i	

SLIDER

Left 2x4 SP No.2 -- 1-6-8, Right 2x4 SP No.2 -- 1-6-8

**BRACING** 

TOP CHORD Structural wood sheathing directly applied or

6-0-0 oc purlins

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

bracing.

WEBS 1 Row at midpt 10-25

**REACTIONS** (size) 2=25-3-8, 18=25-3-8, 20=25-3-8, 21=25-3-8, 22=25-3-8, 23=25-3-8, 24=25-3-8, 25=25-3-8, 26=25-3-8,

28=25-3-8, 29=25-3-8, 30=25-3-8,

31=25-3-8

Max Horiz 2=-252 (LC 10)

Max Uplift 2=-62 (LC 8), 18=-6 (LC 9),

20=-132 (LC 13), 21=-64 (LC 13), 22=-80 (LC 13), 23=-83 (LC 13), 24=-69 (LC 13), 26=-73 (LC 12),

28=-82 (LC 12), 29=-81 (LC 12), 30=-62 (LC 12), 31=-142 (LC 12)

Max Grav 2=232 (LC 20), 18=202 (LC 1),

20=250 (LC 20), 21=172 (LC 20), 22=193 (LC 20), 23=189 (LC 20),

24=194 (LC 20), 25=210 (LC 13),

26=198 (LC 19), 28=187 (LC 19),

29=194 (LC 19), 30=169 (LC 19),

31=260 (LC 19)

(lb) - Maximum Compression/Maximum

Tension

-128/186, 12-13=-89/116, 13-14=-97/59, 14-16=-112/54,

16-18=-179/99, 18-19=0/16 2-31=-85/186, 30-31=-85/186,

29-30=-85/186, 28-29=-85/186, 26-28=-85/186, 25-26=-85/186,

24-25=-85/186, 23-24=-85/186, 22-23=-85/186, 21-22=-85/186,

20-21=-85/186, 18-20=-85/186 10-25=-196/79, 9-26=-157/97,

8-28=-148/106, 7-29=-152/104

6-30=-136/90, 4-31=-199/162, 11-24=-154/93, 12-23=-149/107

13-22=-151/104, 14-21=-138/90,

16-20=-191/154

### NOTES

WEBS

**BOT CHORD** 

- 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 4-1-8, Exterior(2N) 4-1-8 to 12-7-12, Corner(3R) 12-7-12 to 17-7-12, Exterior(2N) 17-7-12 to 26-2-0 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 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 2-0-0 oc.

- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 62 lb uplift at joint 2, 6 lb uplift at joint 18, 73 lb uplift at joint 26, 82 lb uplift at joint 28, 81 lb uplift at joint 29, 62 lb uplift at joint 30, 142 lb uplift at joint 31, 69 lb uplift at joint 24, 83 lb uplift at joint 23, 80 lb uplift at joint 22, 64 lb uplift at joint 21 and 132 lb uplift at joint 20.
- 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



April 12,2024



**FORCES** 

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

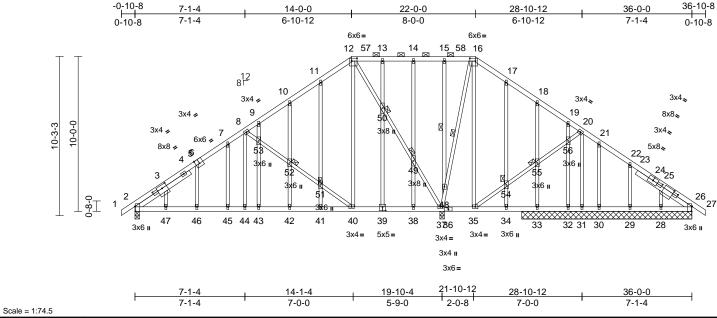


JobTrussTruss TypeQtyPlyP240355A02Piggyback Base Structural Gable11

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

Run: 8.9 S 8.63 Nov 1 2023 Print: 8.630 S Nov 1 2023 MiTek Industries, Inc. Wed Apr 10 12:50:39 ID:2dalXkejkjCW0VB9WmXKRzzaORs-RfC?PsB70Hq3NSgPqnL8w3ulTXbGKWrCDoi7J4zJC?f

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[2:0-3-13,Edge], [2:1-5-4,0-1-8], [3:0-4-0,0-2-8], [6:0-3-0,Edge], [12:0-4-4,0-2-4], [16:0-4-4,0-2-4], [25:1-5-14,0-2-8], [26:0-3-13,Edge], [26:1-1-14,0-1-8], Plate Offsets (X, Y): [26:2-4-4,0-1-8], [39:0-2-8,0-3-0]

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.44	Vert(LL)	0.09	46-47	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.58	Vert(CT)	-0.12	41-42	>999	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.44	Horz(CT)	0.02	37	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S							Weight: 253 lb	FT = 20%

LUMBER TOP CHORD

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

SLIDER Left 2x4 SP No.2 -- 4-2-10, Right 2x4 SP

No.2 -- 4-2-10

BRACING

TOP CHORD Structural wood sheathing directly applied or

5-6-9 oc purlins, except 2-0-0 oc purlins (10-0-0 max.): 12-16.

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

bracing.

WEBS 1 Row at midpt 16-37, 15-48

JOINTS 1 Brace at Jt(s): 49,

50, 51, 52, 54, 55

**REACTIONS** (size) 2=0-3-8, 26=11-0-0, 28=11-0-0, 20=11-0-0, 20=11-0-0, 21=11

29=11-0-0, 30=11-0-0, 31=11-0-0, 32=11-0-0, 33=11-0-0, 37=0-3-8

Max Horiz 2=278 (LC 11)

Max Uplift 2=-155 (LC 12), 28=-89 (LC 13),

29=-89 (LC 13), 30=-44 (LC 13), 32=-5 (LC 13), 33=-151 (LC 13),

37=-187 (LC 9)

Max Grav 2=877 (LC 1), 26=130 (LC 26),

28=194 (LC 20), 29=202 (LC 20), 30=148 (LC 20), 31=95 (LC 26), 32=48 (LC 26), 33=373 (LC 20),

37=1390 (LC 1)

FORCES (lb) - Maximum Compression/Maximum

Tension

TOP CHORD 1-2=0/16, 2-3=-1076/106, 3-5=-962/132, 5-7=-920/199, 7-8=-852/228, 8-9=-465/123

9-10=-410/144, 10-11=-377/181, 11-12=-336/217, 12-13=-40/225,

13-14=-40/225, 14-15=-40/225, 15-16=-40/225, 16-17=-61/240,

17-18=-62/176, 18-19=-17/159,

19-20=-11/127, 20-21=-1/117, 21-22=-8/116,

22-25=-51/122, 25-26=-127/133, 26-27=0/16 2-47=-194/853, 46-47=-194/855,

45-46=-194/855, 44-45=-194/855,

43-44=-194/855, 42-43=-194/855,

41-42=-194/855, 40-41=-194/855, 38-40=-80/359, 37-38=-80/359,

35-37=-130/214, 34-35=-97/140,

33-34=-97/140, 32-33=-97/140,

31-32=-97/140, 30-31=-97/140,

29-30=-97/140, 28-29=-97/140,

29-30=-97/140, 28-29=-97/140,

26-28=-94/135

WEBS 8-44=-127/315, 8-53=-664/296,

52-53=-619/275, 51-52=-643/284, 40-51=-653/290, 12-40=-189/586,

12-50=-819/181, 49-50=-859/186,

37-49=-871/189, 37-48=-455/60,

16-48=-263/7, 16-35=-59/91, 35-54=-46/95, 54-55=-39/89, 55-56=-45/94, 20-56=-42/92,

20-31=-58/17. 15-48=-209/82.

20-31=-58/17, 15-48=-209/82, 14-49=-106/60, 38-49=-92/57, 13-50=-66/45,

39-50=-33/52, 11-51=-57/66, 41-51=-42/61,

10-52=-103/85, 42-52=-62/68, 9-53=0/67,

43-53=-35/47, 7-45=-18/39, 5-46=-95/94

3-47=0/93, 17-54=-76/76, 34-54=-52/65,

18-55=-218/132, 33-55=-241/141, 19-56=-83/50, 32-56=-71/46, 21-30=-118/67,

22-29=-161/113, 25-28=-151/114

### NOTES

**BOT CHORD** 

 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 4-0-0, Interior (1) 4-0-0 to 14-0-0, Exterior(2R) 14-0-0 to 21-0-14, Interior (1) 21-0-14 to 22-0-0, Exterior(2R) 22-0-0 to 28-10-12, Interior (1) 28-10-12 to 36-10-8 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- Provide adequate drainage to prevent water ponding.
- 5) All plates are 1.5x4 MT20 unless otherwise indicated
- 6) 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.



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Continued on page 2

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



ĺ	Job	Truss	Truss Type	Qty	Ply	
	P240355	A02	Piggyback Base Structural Gable	1	1	Job Reference (optional)

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- 9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 155 lb uplift at joint 2, 187 lb uplift at joint 37, 151 lb uplift at joint 33, 5 Ib uplift at joint 32, 44 lb uplift at joint 30, 89 lb uplift at joint 29 and 89 lb uplift at joint 28.
- 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



Job	Truss	Truss Type	Qty	Ply	
P240355	A03	Piggyback Base	2	1	Job Reference (optional)

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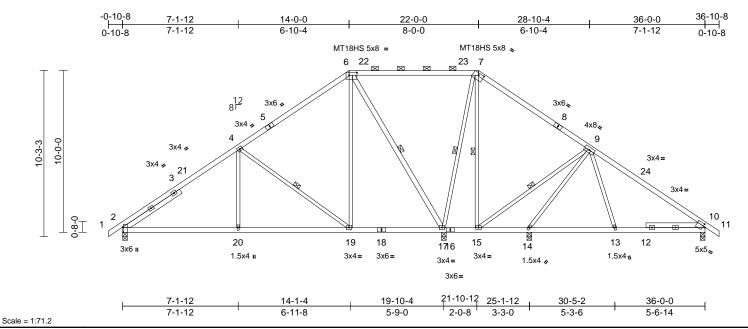


Plate Offsets (X, Y): [2:0-3-13,Edge], [6:0-5-12,0-2-0], [7:0-4-0,0-1-9], [10:0-1-9,0-2-0]

				1								
Loading	(psf)	Spacing	2-0-0	CSI		DEFL	ın	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.77	Vert(LL)	-0.06	2-20	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.49	Vert(CT)	-0.13	2-20	>999	180	MT18HS	197/144
BCLL	0.0	Rep Stress Incr	YES	WB	0.56	Horz(CT)	0.02	10	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S							Weight: 197 lb	FT = 20%

### LUMBER

TOP CHORD 2x4 SP No.2 \*Except\* 6-7:2x4 SP 1650F

1.5E

**BOT CHORD** 2x4 SP No.2

2x3 SPF No.2 \*Except\* 17-6:2x4 SP No.2 WFBS SLIDER Left 2x4 SP No.2 -- 4-2-15, Right 2x4 SP

No.2 -- 3-7-11

**BRACING** TOP CHORD

Structural wood sheathing directly applied or

5-3-2 oc purlins, except 2-0-0 oc purlins (10-0-0 max.): 6-7.

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

bracing, Except:

6-0-0 oc bracing: 15-17,14-15.

WEBS 1 Row at midpt 4-19, 6-17, 7-17, 7-15,

9-15

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

17=0-3-8

2=278 (LC 11) Max Horiz

Max Uplift 2=-164 (LC 12), 10=-135 (LC 13), 14=-123 (LC 13), 17=-133 (LC 12)

Max Grav 2=878 (LC 25), 10=517 (LC 26), 14=556 (LC 26), 17=1490 (LC 1)

**FORCES** (lb) - Maximum Compression/Maximum

Tension

TOP CHORD 1-2=0/16, 2-4=-1040/186, 4-6=-489/203,

6-7=0/284, 7-9=-69/290, 9-10=-504/144,

10-11=0/16

**BOT CHORD** 2-20=-210/804, 19-20=-210/804,

> 17-19=-143/337, 15-17=-191/212, 14-15=-165/147, 13-14=-12/252

10-13=0/300

WEBS 4-20=0/308, 4-19=-647/288, 6-19=-90/501,

6-17=-949/173, 7-17=-563/121, 7-15=-46/45, 9-15=-67/80, 9-14=-567/232, 9-13=0/261

### NOTES

Unbalanced roof live loads have been considered for this design.

- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=35ft; Ke=1.00; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) -0-10-8 to 4-1-8, Interior (1) 4-1-8 to 14-0-0, Exterior(2R) 14-0-0 to 21-0-14, Interior (1) 21-0-14 to 22-0-0, Exterior(2R) 22-0-0 to 28-11-5, Interior (1) 28-11-5 to 36-10-8 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- Provide adequate drainage to prevent water ponding.
- All plates are MT20 plates unless otherwise indicated.
- All plates are 3x4 MT20 unless otherwise indicated.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- All bearings are assumed to be SP No.2 crushing capacity of 565 psi
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 164 lb uplift at joint 2, 133 lb uplift at joint 17, 123 lb uplift at joint 14 and 135 lb uplift at joint 10.
- 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



April 12,2024

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Job	Truss	Truss Type	Qty	Ply		
P240355	A04	Piggyback Base	5	1	Job Reference (optional)	64820861

Run: 8.9 S 8.63 Nov 1 2023 Print: 8.630 S Nov 1 2023 MiTek Industries, Inc. Wed Apr 10 12:50:40 ID:s3TRMbw8Jn6GH1SaM5RkspzaORV-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

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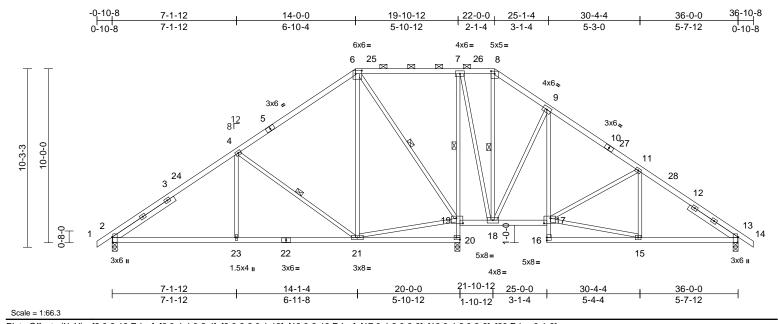


Plate Offsets (X, Y): [2:0-3-13,Edge], [6:0-4-4,0-2-4], [8:0-2-8,0-1-13], [13:0-3-13,Edge], [17:0-4-8,0-3-8], [19:0-4-8,0-3-8], [20:Edge,0-1-8]

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.67	Vert(LL)	-0.06	2-23	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.50	Vert(CT)	-0.14	2-23	>999	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.82	Horz(CT)	0.03	13	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S							Weight: 207 lb	FT = 20%

### LUMBER

TOP CHORD 2x4 SP No.2

2x4 SP No.2 \*Except\* 20-7,9-16:2x3 SPF **BOT CHORD** 

No.2

WFBS 2x3 SPF No 2

**SLIDER** Left 2x4 SP No.2 -- 4-2-15, Right 2x4 SP

No.2 -- 3-4-2

**BRACING** 

**FORCES** 

TOP CHORD Structural wood sheathing directly applied or

> 5-2-5 oc purlins, except 2-0-0 oc purlins (6-0-0 max.): 6-8.

BOT CHORD Rigid ceiling directly applied or 3-8-2 oc

bracing. Except:

1 Row at midpt 7-19 REACTIONS (size)

**WEBS** 1 Row at midpt 4-21, 6-19, 8-18 2=0-3-8, 13=0-3-8, 20=0-3-8

Max Horiz 2=-277 (LC 10)

Max Uplift 2=-175 (LC 12), 13=-195 (LC 13),

20=-110 (LC 12) Max Grav

2=920 (LC 25), 13=738 (LC 26),

20=1736 (LC 1) (lb) - Maximum Compression/Maximum

Tension

TOP CHORD 1-2=0/16, 2-4=-1112/206, 4-6=-560/209,

6-7=-40/218, 7-8=-106/240, 8-9=-160/256

9-11=-500/240, 11-13=-860/244, 13-14=0/16

**BOT CHORD** 2-23=-222/880, 21-23=-222/880,

20-21=-12/23, 19-20=-1687/206,

7-19=-970/193, 18-19=-172/215, 17-18=0/330, 16-17=0/87, 9-17=-67/398,

15-16=0/30, 13-15=-86/628

**WEBS** 4-23=0/304, 4-21=-645/288, 6-21=-87/463,

19-21=-117/386, 6-19=-745/153, 7-18=-101/619, 8-18=-98/38, 9-18=-625/248,

15-17=-91/614, 11-17=-385/194,

11-15=-6/170

NOTES

- Unbalanced roof live loads have been considered for
- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=35ft; Ke=1.00; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) -0-10-8 to 4-1-8, Interior (1) 4-1-8 to 14-0-0, Exterior(2R) 14-0-0 to 21-0-14, Interior (1) 21-0-14 to 22-0-0, Exterior(2R) 22-0-0 to 29-0-14. Interior (1) 29-0-14 to 36-10-8 zone: cantilever left and right exposed; end vertical left and right exposed: C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- Provide adequate drainage to prevent water ponding.
- All plates are 3x4 MT20 unless otherwise indicated.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- All bearings are assumed to be SP No.2 crushing capacity of 565 psi.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 175 lb uplift at joint 2, 110 lb uplift at joint 20 and 195 lb uplift at joint
- 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



April 12,2024

MARNING - 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	
P240355	A05	Piggyback Base	3	1	I64820862 Job Reference (optional)

Run: 8.9 S 8.63 Nov 1 2023 Print: 8.630 S Nov 1 2023 MiTek Industries, Inc. Wed Apr 10 12:50:40 ID:lqjyCzzfN0chlflLbxWg1fzaORR-RfC?PsB70Hq3NSgPqnL8w3ulTXbGKWrCDoi7J4zJC?f

Page: 1

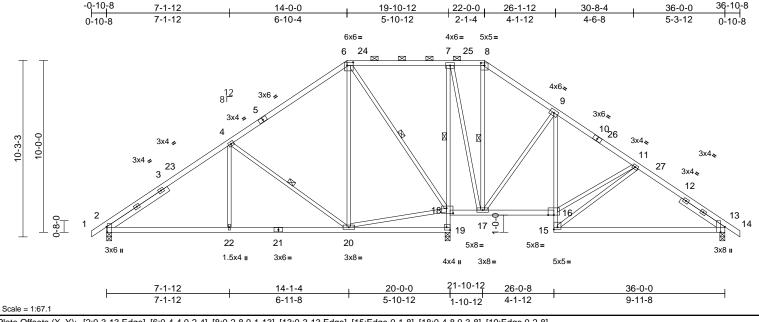


Plate Offsets (X, Y): [2:0-3-13,Edge], [6:0-4-4,0-2-4], [8:0-2-8,0-1-13], [13:0-3-13,Edge], [15:Edge,0-1-8], [18:0-4-8,0-3-8], [19:Edge,0-2-8]

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	0.68	Vert(LL)	-0.30	13-15	>636	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.89	Vert(CT)	-0.62	13-15	>314	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.76	Horz(CT)	0.04	13	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S							Weight: 203 lb	FT = 20%

### LUMBER

TOP CHORD 2x4 SP No.2

**BOT CHORD** 2x4 SP No.2 \*Except\* 19-7,9-15:2x3 SPF

No.2

WFBS 2x3 SPF No 2

**SLIDER** Left 2x4 SP No.2 -- 4-2-15, Right 2x4 SP

No.2 -- 3-0-7

**BRACING** TOP CHORD

Structural wood sheathing directly applied or

5-2-3 oc purlins, except

2-0-0 oc purlins (6-0-0 max.): 6-8 BOT CHORD Rigid ceiling directly applied or 3-7-7 oc

bracing. Except:

1 Row at midpt 7-18

**WEBS** 1 Row at midpt 4-20, 6-18, 8-17 2=0-3-8, 13=0-3-8, 19=0-3-8 REACTIONS (size)

Max Horiz 2=-277 (LC 10)

Max Uplift 2=-167 (LC 12), 13=-179 (LC 13),

19=-128 (LC 12)

2=921 (LC 25), 13=708 (LC 26), Max Grav

19=1786 (LC 1)

**FORCES** (lb) - Maximum Compression/Maximum

Tension

TOP CHORD 1-2=0/16, 2-4=-1114/192, 4-6=-562/189,

> 6-7=-28/206, 7-8=-100/215, 8-9=-125/207 9-11=-513/219, 11-13=-756/258, 13-14=0/16

**BOT CHORD** 2-22=-210/861, 20-22=-210/861,

19-20=-13/26, 18-19=-1736/222

7-18=-1010/200, 17-18=-217/245

16-17=0/354, 15-16=-57/439, 9-16=-54/357, 13-15=-99/556

**WEBS** 4-22=0/304, 4-20=-646/289, 6-20=-89/460,

18-20=-117/371, 6-18=-779/165,

7-17=-122/669, 8-17=-109/1, 9-17=-594/247,

11-16=-10/253, 11-15=-544/181

### 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 14-0-0, Exterior(2R) 14-0-0 to 21-0-14, Interior (1) 21-0-14 to 22-0-0, Exterior(2R) 22-0-0 to 29-0-14, Interior (1) 29-0-14 to 36-10-8 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- Provide adequate drainage to prevent water ponding.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 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 167 lb uplift at joint 2, 128 lb uplift at joint 19 and 179 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.
- 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



April 12,2024



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

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



Job Truss Truss Type Qty Ply 164820863 P240355 A06 Piggyback Base Job Reference (optional)

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

Run: 8.9 S 8.63 Nov 1 2023 Print: 8.630 S Nov 1 2023 MiTek Industries, Inc. Wed Apr 10 12:50:40 ID:2AebgM32j9Vi5jniWv8Jp8zaORK-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

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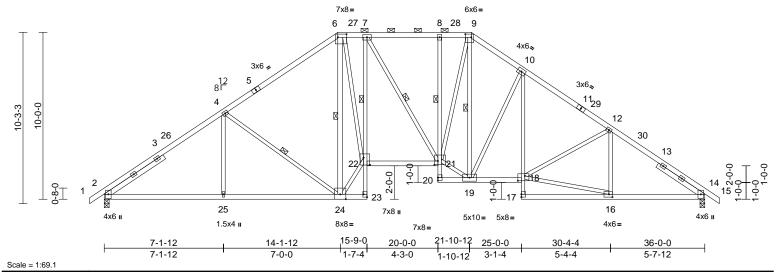


Plate Offsets (X, Y): [2:0-3-5,0-0-15], [6:0-6-4,0-2-4], [9:0-4-4,0-2-4], [14:0-3-5,0-0-15], [16:0-2-8,0-2-0], [18:0-5-0,0-3-8], [21:0-2-8,0-2-1], [22:0-5-4,0-4-8], [23:Edge,0-2-8]

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	0.92	Vert(LL)	-0.19	21-22	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.67	Vert(CT)	-0.36	21-22	>999	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.98	Horz(CT)	0.26	14	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S							Weight: 223 lb	FT = 20%

LUMBER

**BRACING** 

TOP CHORD 2x4 SP No.2

2x4 SP No.2 \*Except\* 23-7,8-20,10-17:2x3 BOT CHORD

SPF No.2

WFBS 2x3 SPF No.2 \*Except\* 24-6:2x4 SP No.2 **SLIDER** Left 2x4 SP No.2 -- 4-2-15, Right 2x4 SP

No.2 -- 3-4-2

TOP CHORD Structural wood sheathing directly applied,

except

2-0-0 oc purlins (3-10-3 max.): 6-9. BOT CHORD

Rigid ceiling directly applied or 10-0-0 oc

bracing, Except: 6-0-0 oc bracing: 22-23,20-21,19-20.

1 Row at midpt 7-22, 8-21

WEBS 1 Row at midpt 4-24, 6-24, 7-21, 9-19

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

Max Horiz 2=-278 (LC 10)

Max Uplift 2=-225 (LC 12), 14=-225 (LC 13)

Max Grav 2=1681 (LC 1), 14=1681 (LC 1) FORCES (lb) - Maximum Compression/Maximum

Tension

TOP CHORD

1-2=0/16, 2-4=-2402/289, 4-6=-1883/325, 6-7=-1850/351, 7-8=-1873/345,

8-9=-1869/345, 9-10=-2002/377 10-12=-2400/341, 12-14=-2433/294

14-15=0/16

**BOT CHORD** 2-25=-289/1874, 24-25=-289/1874,

23-24=-10/36, 22-23=-74/0, 7-22=-345/256, 21-22=-127/1857, 20-21=-18/6, 8-21=-252/122, 19-20=-18/35, 18-19=-100/1919, 17-18=0/94, 10-18=-73/531, 16-17=-1/93,

14-16=-149/1898

**WEBS** 4-25=0/295, 4-24=-586/281, 6-24=-1385/147,

22-24=-158/2316, 6-22=-106/2034, 7-21=-128/183, 19-21=-3/1784, 9-21=-202/1152, 9-19=-302/209 10-19=-738/253, 16-18=-151/1849,

12-18=-155/183, 12-16=-296/108

### **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 Exterior(2E) -0-10-8 to 4-1-8, Interior (1) 4-1-8 to 14-0-0. Exterior(2R) 14-0-0 to 21-0-14, Interior (1) 21-0-14 to 22-0-0, Exterior(2R) 22-0-0 to 29-0-14, Interior (1) 29-0-14 to 36-10-8 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- Provide adequate drainage to prevent water ponding.
- All plates are 3x4 MT20 unless otherwise indicated.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- All bearings are assumed to be SP No.2 crushing capacity of 565 psi.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 225 lb uplift at joint 2 and 225 lb uplift at joint 14.
- 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



April 12,2024



Job	Truss	Truss Type	Qty	Ply	
P240355	A07	Piggyback Base	3	1	Job Reference (optional)

Run: 8.9 S 8.63 Nov 1 2023 Print: 8.630 S Nov 1 2023 MiTek Industries, Inc. Wed Apr 10 12:50:41 ID:hUM8BTCZvr??XZi?DRM7IfzaOR8-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

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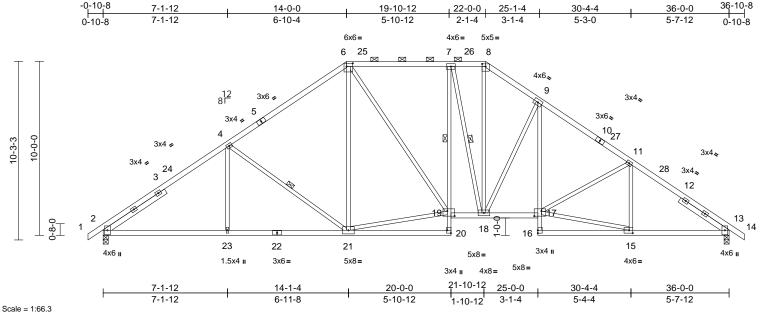


Plate Offsets (X, Y): [2:0-3-5,0-0-15], [6:0-4-4,0-2-4], [8:0-2-8,0-1-13], [13:0-3-5,0-0-15], [15:0-2-8,0-2-0], [17:0-5-0,0-3-8], [19:0-5-0,0-3-8], [20:Edge,0-2-8]

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	0.97	Vert(LL)	-0.13	19	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.62	Vert(CT)	-0.24	20-21	>999	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.98	Horz(CT)	0.14	13	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S							Weight: 207 lb	FT = 20%

### LUMBER

TOP CHORD 2x4 SP No.2

2x4 SP No.2 \*Except\* 20-7,9-16:2x3 SPF **BOT CHORD** 

No.2

WFBS 2x3 SPF No 2

**SLIDER** Left 2x4 SP No.2 -- 4-2-15, Right 2x4 SP

No.2 -- 3-4-2

**BRACING** 

TOP CHORD Structural wood sheathing directly applied,

except

2-0-0 oc purlins (3-6-12 max.): 6-8. BOT CHORD Rigid ceiling directly applied or 10-0-0 oc

bracing. Except:

1 Row at midpt 7-19 **WEBS** 

1 Row at midpt 4-21, 7-18 2=0-3-8, 13=0-3-8

REACTIONS (size)

Max Horiz 2=-277 (LC 10) Max Uplift 2=-225 (LC 12), 13=-225 (LC 13)

Max Grav 2=1681 (LC 1), 13=1681 (LC 1)

FORCES (lb) - Maximum Compression/Maximum

Tension

TOP CHORD 1-2=0/16, 2-4=-2404/290, 4-6=-1880/325, 6-7=-1695/349, 7-8=-1606/338,

8-9=-1998/375, 9-11=-2400/341,

11-13=-2434/294, 13-14=0/16

**BOT CHORD** 2-23=-290/1875, 21-23=-290/1875,

20-21=0/87, 19-20=0/99, 7-19=-99/221, 18-19=-68/1695, 17-18=-100/1918,

16-17=0/94, 9-17=-72/536, 15-16=-1/92,

13-15=-149/1899

**WEBS** 4-23=0/296, 4-21=-592/284, 6-21=-71/297,

19-21=-111/1388, 6-19=-131/543, 7-18=-514/223, 8-18=-185/960,

9-18=-735/252, 15-17=-151/1851,

11-17=-156/183. 11-15=-296/108

### 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 14-0-0, Exterior(2R) 14-0-0 to 21-0-14, Interior (1) 21-0-14 to 22-0-0, Exterior(2R) 22-0-0 to 29-0-14, Interior (1) 29-0-14 to 36-10-8 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- Provide adequate drainage to prevent water ponding.
- All plates are 3x4 MT20 unless otherwise indicated.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- All bearings are assumed to be SP No.2 crushing capacity of 565 psi.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 225 lb uplift at joint 2 and 225 lb uplift at joint 13.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

LOAD CASE(S) Standard



April 12,2024

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

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



Job	Truss	Truss Type	Qty	Ply		
P240355	A08	Piggyback Base	2	1	Job Reference (optional)	164820865

Run: 8.9 S 8.63 Nov 1 2023 Print: 8.630 S Nov 1 2023 MiTek Industries, Inc. Wed Apr 10 12:50:41 ID:2RA1EAGijNeHeLbz?\_xl?jzaOR3-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

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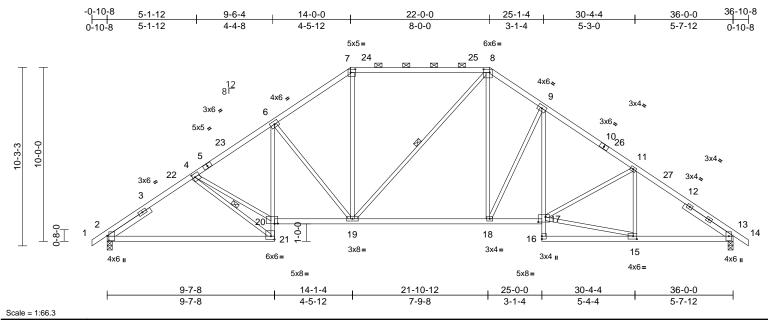


Plate Offsets (X, Y): [2:0-3-5,0-1-3], [4:0-1-8,0-2-4], [7:0-3-4,0-2-4], [8:0-4-4,0-2-4], [13:0-3-5,0-0-15], [15:0-2-8,0-2-0], [17:0-5-0,0-3-8], [20:0-2-4,0-0-4], [21:Edge,0-2-4]

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	0.70	Vert(LL)	-0.28	2-21	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.98	Vert(CT)	-0.58	2-21	>740	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.91	Horz(CT)	0.21	13	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S							Weight: 195 lb	FT = 20%

### LUMBER

**BOT CHORD** 

TOP CHORD 2x4 SP No.2 \*Except\* 7-8:2x4 SP 2400F

2.0E

2x4 SP No.2 \*Except\* 21-6,9-16:2x3 SPF

No.2

WEBS 2x3 SPF No.2

SLIDER Left 2x4 SP No.2 -- 2-11-4, Right 2x4 SP

No.2 -- 3-4-2

**BRACING** 

TOP CHORD Structural wood sheathing directly applied or

3-1-9 oc purlins, except 2-0-0 oc purlins (4-7-14 max.): 7-8.

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

bracing, Except:

2-2-0 oc bracing: 2-21,20-21. 4-21, 8-19

WFBS 1 Row at midpt

REACTIONS 2=0-3-8, 13=0-3-8 (size) Max Horiz 2=277 (LC 11)

Max Uplift 2=-225 (LC 12), 13=-225 (LC 13)

Max Grav 2=1681 (LC 1), 13=1681 (LC 1)

**FORCES** (lb) - Maximum Compression/Maximum

TOP CHORD

Tension 1-2=0/16, 2-4=-2405/333, 4-6=-2459/348,

6-7=-2025/355, 7-8=-1624/344, 8-9=-1990/366, 9-11=-2399/341,

11-13=-2435/294, 13-14=0/16

2-21=-349/1866, 20-21=-240/1381, 6-20=-76/395, 19-20=-232/1989, 18-19=-20/1622, 17-18=-100/1912 16-17=0/94, 9-17=-86/532, 15-16=0/92,

13-15=-149/1900

**WEBS** 4-21=-2046/467, 4-20=-285/1978,

6-19=-638/268, 7-19=-49/632, 8-19=-184/188, 8-18=-151/698 9-18=-691/255, 15-17=-159/1852, 11-17=-156/183, 11-15=-297/110

**NOTES** 

**BOT CHORD** 

- 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 14-0-0, Exterior(2R) 14-0-0 to 21-0-14, Interior (1) 21-0-14 to 22-0-0, Exterior(2R) 22-0-0 to 29-0-14. Interior (1) 29-0-14 to 36-10-8 zone: cantilever left and right exposed; end vertical left and right exposed: C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- Provide adequate drainage to prevent water ponding.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 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 and 225 lb uplift at joint 13.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

LOAD CASE(S) Standard



April 12,2024

MARNING - 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		
P240355	A09	Piggyback Base	5	1	Job Reference (optional)	20866

Run: 8.9 S 8.63 Nov 1 2023 Print: 8.630 S Nov 1 2023 MiTek Industries, Inc. Wed Apr 10 12:50:42 ID:tbXIVEKTJDORMG26ME2iE\_zaOQz-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

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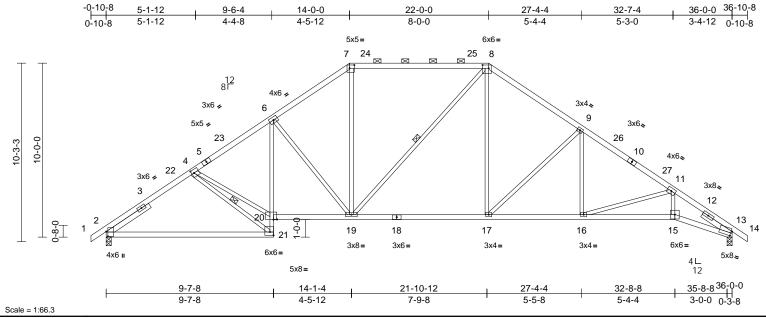


Plate Offsets (X, Y): [2:0-3-5,0-1-3], [4:0-1-8,0-2-4], [7:0-3-4,0-2-4], [8:0-4-4,0-2-4], [13:0-0-11,0-3-3], [20:0-2-4,0-0-4], [21:Edge,0-2-4]

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.82	Vert(LL)	-0.28	2-21	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.97	Vert(CT)	-0.59	2-21	>731	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.96	Horz(CT)	0.29	13	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S							Weight: 185 lb	FT = 20%

### LUMBER

TOP CHORD 2x4 SP 2400F 2.0E \*Except\* 5-7,8-10:2x4 SP

No.2

**BOT CHORD** 2x4 SP No 2 \*Except\* 21-6:2x3 SPF No 2

15-13:2x4 SP 1650F 1.5E

WEBS 2x3 SPF No.2

SLIDER Left 2x4 SP No.2 -- 2-11-4, Right 2x4 SP

No.2 -- 2-0-7 **BRACING** 

TOP CHORD Structural wood sheathing directly applied or

2-2-0 oc purlins, except 2-0-0 oc purlins (4-7-5 max.): 7-8.

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

bracing, Except:

2-2-0 oc bracing: 2-21,20-21. 4-21, 8-19

WFBS 1 Row at midpt

REACTIONS 2=0-3-8, 13=0-3-8 (size)

Max Horiz 2=278 (LC 11)

Max Uplift 2=-224 (LC 12), 13=-226 (LC 13)

Max Grav 2=1677 (LC 1), 13=1684 (LC 1) (lb) - Maximum Compression/Maximum **FORCES** 

Tension TOP CHORD

1-2=0/16, 2-4=-2400/334, 4-6=-2451/348,

6-7=-2017/354, 7-8=-1618/344, 8-9=-2036/340, 9-11=-2577/327

11-13=-3858/428, 13-14=0/12 **BOT CHORD** 2-21=-349/1862, 20-21=-240/1378,

6-20=-76/395, 19-20=-231/1982, 17-19=-20/1609, 16-17=-146/2107 15-16=-260/2883, 13-15=-278/3097

**WEBS** 4-21=-2040/468, 4-20=-284/1969,

6-19=-637/268, 7-19=-50/626, 8-19=-175/199, 8-17=-96/617,

9-17=-708/262, 9-16=-3/377, 11-16=-812/224, 11-15=-29/992

### 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 14-0-0, Exterior(2R) 14-0-0 to 21-0-14, Interior (1) 21-0-14 to 22-0-0, Exterior(2R) 22-0-0 to 29-0-14, Interior (1) 29-0-14 to 36-10-8 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- Provide adequate drainage to prevent water ponding.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- Bearings are assumed to be: Joint 2 SP No.2 crushing capacity of 565 psi, Joint 13 SP 1650F 1.5E crushing capacity of 565 psi.
- Bearing at joint(s) 13 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 224 lb uplift at joint 2 and 226 lb uplift at joint 13.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

LOAD CASE(S) Standard



April 12,2024



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

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



Job	Truss	Truss Type	Qty	Ply		
P240355	A10	Piggyback Base	2	1	Job Reference (optional)	164820867

Run: 8.9 S 8.63 Nov 1 2023 Print: 8.630 S Nov 1 2023 MiTek Industries, Inc. Wed Apr 10 12:50:42 ID:6KaiOIR6B\_X9xeErOdjp6tzaOQq-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

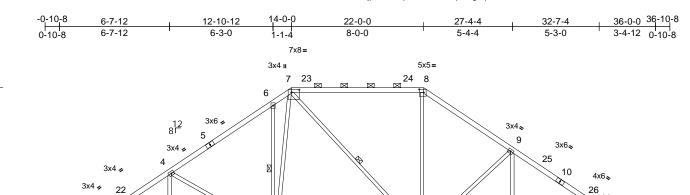
17

3x8=

Page: 1

16

3x4=



18

4x6=

5x8= 36-0-0 6-7-12 13-0-0 21-10-12 27-4-4 32-8-8 35-8-8 3-0-0 0-3-8 6-7-12 6-4-4 8-10-12 5-5-8 5-4-4 Scale = 1:69.6

ġ.

20

3x4 II

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

21

4x6=

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.99	Vert(LL)	-0.24	17-19	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.86	Vert(CT)	-0.54	17-19	>798	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.95	Horz(CT)	0.22	13	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S							Weight: 188 lb	FT = 20%

### LUMBER

10-3-3

TOP CHORD 2x4 SP No.2 \*Except\* 7-8:2x4 SP 1650F

1.5E, 10-14:2x4 SP 2400F 2.0E

3

**BOT CHORD** 2x4 SP No.2 \*Except\* 20-6:2x3 SPF No.2.

15-13:2x4 SP 1650F 1.5E WEBS 2x3 SPF No.2

SLIDER Left 2x4 SP No.2 -- 3-11-5, Right 2x4 SP

No.2 -- 2-0-7

**BRACING** 

TOP CHORD Structural wood sheathing directly applied or

2-2-0 oc purlins, except

2-0-0 oc purlins (2-2-0 max.): 7-8. **BOT CHORD** Rigid ceiling directly applied or 10-0-0 oc

bracing, Except:

6-0-0 oc bracing: 20-21.

1 Row at midpt 6-19

**WEBS** 1 Row at midpt 7-17

REACTIONS (size) 2=0-3-8, 13=0-3-8

Max Horiz 2=-278 (LC 10)

Max Uplift 2=-224 (LC 12), 13=-226 (LC 13) Max Grav 2=1677 (LC 1), 13=1684 (LC 1)

**FORCES** (lb) - Maximum Compression/Maximum

Tension

TOP CHORD 1-2=0/16, 2-4=-2408/288, 4-6=-2167/342,

6-7=-2045/460, 7-8=-1617/337 8-9=-2045/337, 9-11=-2573/328 11-13=-3860/427, 13-14=0/12

**BOT CHORD** 2-21=-294/1878, 20-21=-35/25, 19-20=0/108,

6-19=-336/233, 17-19=-133/1605,

16-17=-147/2104, 15-16=-259/2885,

13-15=-277/3100

WFBS 4-21=-161/125, 19-21=-267/1877,

4-19=-282/213, 7-19=-305/902, 7-17=-169/200, 8-17=-48/622, 9-17=-695/269, 9-16=-10/351, 11-16=-817/221, 11-15=-27/997

NOTES

- 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 14-0-0, Exterior(2R) 14-0-0 to 21-0-14, Interior (1) 21-0-14 to 22-0-0, Exterior(2R) 22-0-0 to 29-0-14. Interior (1) 29-0-14 to 36-10-8 zone: cantilever left and right exposed; end vertical left and right exposed: C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- Provide adequate drainage to prevent water ponding.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- Bearings are assumed to be: Joint 2 SP No.2 crushing capacity of 565 psi, Joint 13 SP 1650F 1.5E crushing capacity of 565 psi.
- Bearing at joint(s) 13 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 224 lb uplift at joint 2 and 226 lb uplift at joint 13.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

LOAD CASE(S) Standard



11

15

6x6=

12

3x8. 12

13

5x8≥

April 12,2024

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

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



Job	Truss	Truss Type	Qty	Ply		
P240355	A11	Piggyback Base	5	1	I64820868 Job Reference (optional)	3

Run: 8.9 S 8.63 Nov 1 2023 Print: 8.630 S Nov 1 2023 MiTek Industries, Inc. Wed Apr 10 12:50:42 ID:tP6aCgySlupCz5RwrSTfpkzaOQA-RfC?PsB70Hq3NSgPqnL8w3ulTXbGKWrCDoi7J4zJC?f

Page: 1

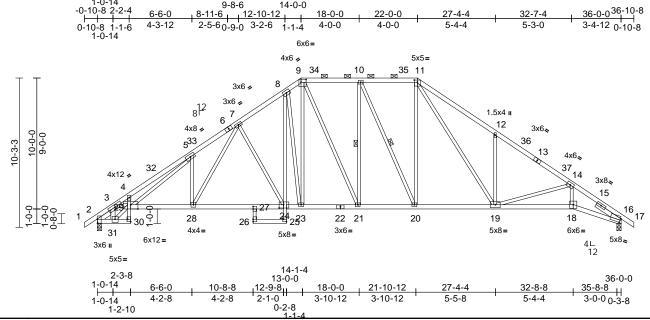


Plate Offsets (X, Y): [2:0-3-4,0-0-3], [9:0-4-4,0-2-4], [11:0-2-8,0-1-13], [16:0-0-11,0-3-3], [24:0-3-8,0-2-12], [25:Edge,0-2-8], [27:0-2-0,Edge], [29:0-6-0,Edge], [30:Edge,0-2-8]

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.91	Vert(LL)	-0.22	24-27	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.97	Vert(CT)	-0.42	27-28	>999	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.93	Horz(CT)	0.34	16	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S							Weight: 216 lb	FT = 20%

LUMBER TOP CHORD

Scale = 1:79.2

2x4 SP No.2 \*Except\* 13-17:2x4 SP 2400F

2.0E

**BOT CHORD** 2x4 SP No.2 \*Except\* 30-4,27-26,25-8:2x3 SPF No.2, 18-16:2x4 SP 1650F 1.5E

WEBS 2x3 SPF No.2 \*Except\* 31-3:2x4 SP No.2 SLIDER Left 2x4 SP No.2 -- 1-1-9, Right 2x4 SP No.2

-- 2-0-7

**BRACING** 

TOP CHORD Structural wood sheathing directly applied or 1-8-5 oc purlins, except

2-0-0 oc purlins (4-4-13 max.): 9-11. **BOT CHORD** 

Rigid ceiling directly applied or 10-0-0 oc bracing, Except:

2-2-0 oc bracing: 28-29.

WFBS 1 Row at midpt 10-20, 10-21

REACTIONS 2=0-3-8, 16=0-3-8 (size) Max Horiz 2=278 (LC 11)

Max Uplift 2=-224 (LC 12), 16=-226 (LC 13)

Max Grav 2=1677 (LC 1), 16=1684 (LC 1) (lb) - Maximum Compression/Maximum **FORCES** 

Tension

TOP CHORD

1-2=0/16, 2-3=-2148/247, 3-4=-4521/756

4-5=-4476/866, 5-7=-2962/528, 7-8=-2085/365, 8-9=-1917/396

9-10=-1675/341, 10-11=-1597/340 11-12=-2660/507, 12-14=-2579/324,

14-16=-3856/431, 16-17=0/12 **BOT CHORD** 2-31=-317/1487, 30-31=-51/222,

29-30=-13/100, 4-29=-50/144,

28-29=-352/2398, 27-28=-222/1962, 24-27=-210/1928, 26-27=0/35, 25-26=-12/34,

24-25=0/49, 8-24=-134/516,

23-24=-131/1679, 21-23=-122/1599,

20-21=-92/1674, 19-20=-20/1593,

18-19=-262/2882, 16-18=-281/3096

**WEBS** 

11-20=-113/421, 11-19=-352/990, 12-19=-494/306, 14-19=-807/229, 14-18=-33/991, 5-28=-624/294, 5-29=-526/1739, 10-20=-353/185, 9-23=-232/709, 8-23=-577/219,

9-21=-181/341, 10-21=-244/208, 7-24=-610/255, 7-28=-270/922, 3-31=-1258/280, 29-31=-358/1701,

3-29=-435/2216

### 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 Exterior(2E) -0-10-8 to 4-1-8, Interior (1) 4-1-8 to 14-0-0. Exterior(2R) 14-0-0 to 21-0-14, Interior (1) 21-0-14 to 22-0-0, Exterior(2R) 22-0-0 to 29-0-14, Interior (1) 29-0-14 to 36-10-8 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- Provide adequate drainage to prevent water ponding.
- All plates are 3x4 MT20 unless otherwise indicated.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- Bearings are assumed to be: Joint 2 SP No.2 crushing capacity of 565 psi, Joint 16 SP 1650F 1.5E crushing capacity of 565 psi.
- Bearing at joint(s) 16 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 224 lb uplift at joint 2 and 226 lb uplift at joint 16.
- 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



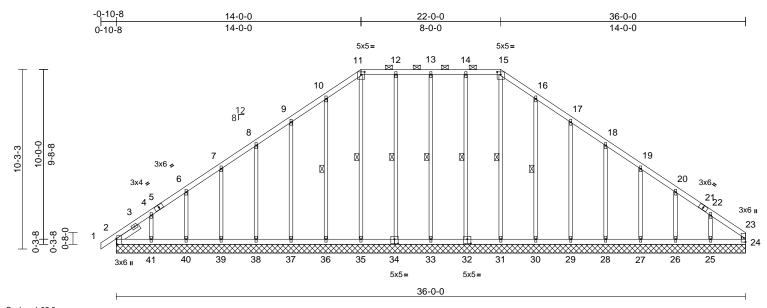
MARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 BEFORE USE



Job	Truss	Truss Type	Qty	Ply		
P240355	A12	Piggyback Base Supported Gable	1	1	Job Reference (optional)	164820869

Run: 8.9 S 8.63 Nov 1 2023 Print: 8.630 S Nov 1 2023 MiTek Industries, Inc. Wed Apr 10 12:50:43 ID:TvX9rukE\_s?zG5vP9c7vxSzaOP9-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

Page: 1



Scale = 1:65.9

Plate Offsets (X, Y): [2:0-3-13,Edge], [11:0-2-8,0	-1-13], [15:0-2-8,0-1-13], [32:0-2-8,0-3-0], [34:0-2-8,0-3-0]
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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	0.09	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.08	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: 205 lb	FT = 20%

LUMBER TOP CHORD 2x4 SP No.2 2x4 SP No.2 **BOT CHORD** 2x3 SPF No.2 WEBS OTHERS 2x3 SPF No 2 **SLIDER** Left 2x4 SP No.2 -- 1-6-4 **BRACING** 

TOP CHORD

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

2-0-0 oc purlins (6-0-0 max.): 11-15.

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

bracing.

WEBS 1 Row at midpt 15-31, 14-32, 13-33,

12-34, 11-35, 10-36,

16-30

2=36-0-0, 24=36-0-0, 25=36-0-0, REACTIONS (size) 26=36-0-0, 27=36-0-0, 28=36-0-0,

29=36-0-0 30=36-0-0 31=36-0-0 32=36-0-0, 33=36-0-0, 34=36-0-0,

35=36-0-0, 36=36-0-0, 37=36-0-0 38=36-0-0, 39=36-0-0, 40=36-0-0,

41=36-0-0 Max Horiz 2=281 (LC 9)

Max Uplift 2=-115 (LC 8), 24=-20 (LC 11), 25=-136 (LC 13), 26=-64 (LC 13),

27=-82 (LC 13), 28=-77 (LC 13), 29=-82 (LC 13), 30=-75 (LC 13), 32=-44 (LC 9), 33=-42 (LC 8),

34=-42 (LC 9), 35=-22 (LC 9), 36=-78 (LC 12), 37=-81 (LC 12),

38=-77 (LC 12), 39=-80 (LC 12), 40=-71 (LC 12), 41=-131 (LC 12) Max Grav 2=236 (LC 20), 24=130 (LC 22), 25=221 (LC 20), 26=181 (LC 20), 27=191 (LC 20), 28=189 (LC 20), 29=189 (LC 20), 30=196 (LC 20), 31=172 (LC 22), 32=187 (LC 25),

33=182 (LC 26), 34=187 (LC 26), 35=191 (LC 22), 36=199 (LC 19), 37=188 (LC 19), 38=189 (LC 19), 39=190 (LC 19), 40=185 (LC 19),

41=221 (LC 19)

(lb) - Maximum Compression/Maximum

Tension 1-2=0/16, 2-4=-282/250, 4-6=-212/202, 6-7=-193/188, 7-8=-173/183, 8-9=-155/210,

9-10=-156/252, 10-11=-194/298, 11-12=-168/271, 12-13=-168/271,

13-14=-168/271, 14-15=-168/271, 15-16=-194/298, 16-17=-156/233,

17-18=-116/165, 18-19=-79/100,

19-20=-74/43, 20-22=-103/55, 22-23=-170/90, 23-24=-101/22

BOT CHORD 2-41=-81/146, 40-41=-81/146,

39-40=-81/146, 38-39=-81/146, 37-38=-81/146, 36-37=-81/146,

35-36=-81/146, 33-35=-81/146, 31-33=-81/146, 30-31=-81/146, 29-30=-81/146, 28-29=-81/146

27-28=-81/146, 26-27=-81/146, 25-26=-81/146, 24-25=-81/146 15-31=-133/18, 14-32=-148/68,

13-33=-139/67, 12-34=-148/66 11-35=-152/55, 10-36=-159/102, 9-37=-148/105, 8-38=-149/101,

7-39=-149/103, 6-40=-147/96, 4-41=-174/150, 16-30=-155/100, 17-29=-149/106, 18-28=-149/101,

19-27=-150/104, 20-26=-145/95, 22-25=-167/132

**NOTES** 

WEBS

**FORCES** 

TOP CHORD

- 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 4-0-0, Exterior(2N) 4-0-0 to 14-0-0, Corner(3R) 14-0-0 to 19-0-0, Exterior(2N) 19-0-0 to 22-0-0, Corner(3R) 22-0-0 to 27-0-0, Exterior(2N) 27-0-0 to 35-10-12 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.
- Provide adequate drainage to prevent water ponding. All plates are 1.5x4 MT20 unless otherwise indicated.
- Gable requires continuous bottom chord bearing.
- Gable studs spaced at 2-0-0 oc.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.



April 12,2024

Continued on page 2

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	
P240355	A12	Piggyback Base Supported Gable	1	1	Job Reference (optional)

Run: 8.9 S 8.63 Nov 1 2023 Print: 8.630 S Nov 1 2023 MiTek Industries, Inc. Wed Apr 10 12:50:43  $ID: TvX9rukE\_s?zG5vP9c7vxSzaOP9-RfC?PsB70Hq3NSgPqnL8w3ulTXbGKWrCDoi7J4zJC?ff$ 

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- All bearings are assumed to be SP No.2 crushing capacity of 565 psi.
- 10) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 20 lb uplift at joint 24, 115 lb uplift at joint 2, 44 lb uplift at joint 32, 42 lb uplift at joint 33, 42 lb uplift at joint 34, 22 lb uplift at joint 35, 78 lb uplift at joint 36, 81 lb uplift at joint 37, 77 lb uplift at joint 38, 80 lb uplift at joint 39, 71 lb uplift at joint 40, 131 lb uplift at joint 41, 75 lb uplift at joint 30, 82 lb uplift at joint 29, 77 lb uplift at joint 28, 82 lb uplift at joint 27, 64 lb uplift at joint 26 and 136 lb uplift at joint 25.
- 11) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 12) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

LOAD CASE(S) Standard

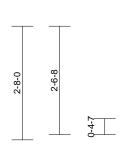


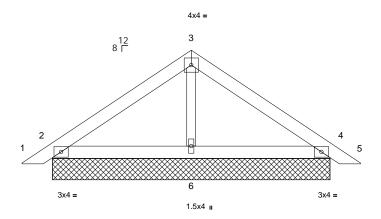
Job	Truss	Truss Type	Qty	Ply	
P240355	PB01	Piggyback	2	1	Job Reference (optional)

Run: 8.9 S 8.63 Nov 1 2023 Print: 8.630 S Nov 1 2023 MiTek Industries, Inc. Wed Apr 10 12:50:43 ID:15XuO6EOkGwLxHbdXdwM2ozaOSO-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?ff

Page: 1

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





6-6-2

Scal	le	=	1	.27

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

### LUMBER

2x4 SP No.2 TOP CHORD 2x4 SP No.2 **BOT CHORD** 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=6-6-2, 4=6-6-2, 6=6-6-2

Max Horiz 2=-69 (LC 10)

Max Uplift 2=-55 (LC 12), 4=-64 (LC 13)

Max Grav 2=200 (LC 1), 4=200 (LC 1), 6=251

(LC 1)

**FORCES** (lb) - Maximum Compression/Maximum Tension

TOP CHORD

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

**BOT CHORD** 

2-6=-13/53, 4-6=-13/53 WEBS 3-6=-170/93

### NOTES

- 1) Unbalanced roof live loads have been considered for this design.
- 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.
- 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 55 lb uplift at joint 2 and 64 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



April 12,2024

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

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

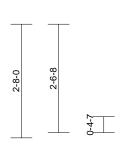


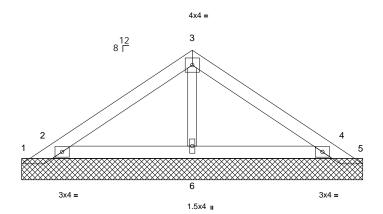
Job	Truss	Truss Type	Qty	Ply		
P240355	PB02	Piggyback	28	1	Job Reference (optional)	

Run: 8.9 S 8.63 Nov 1 2023 Print: 8.630 S Nov 1 2023 MiTek Industries, Inc. Wed Apr 10 12:50:43 ID:wsmPEUHuoVRnQuuOmT\_IDezaOSK-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

Page: 1

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





6-6-2

Scal	le	=	1	.27

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.19	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.11	Vert(TL)	n/a	-	n/a	999		
BCLL	0.0	Rep Stress Incr	YES	WB	0.03	Horiz(TL)	0.00	4	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-P							Weight: 25 lb	FT = 20%

### LUMBER

TOP CHORD 2x4 SP No.2 2x4 SP No.2 **BOT CHORD** 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=8-0-0, 2=8-0-0, 4=8-0-0,

5=8-0-0, 6=8-0-0

Max Horiz 1=-69 (LC 8)

Max Uplift 1=-195 (LC 19), 2=-213 (LC 12),

4=-196 (LC 13), 5=-166 (LC 20) 1=149 (LC 12), 2=404 (LC 19), Max Grav

4=385 (LC 20), 5=123 (LC 13),

6=223 (LC 1)

FORCES (lb) - Maximum Compression/Maximum

Tension

TOP CHORD 1-2=-113/159, 2-3=-111/70, 3-4=-110/70,

4-5=-92/99 **BOT CHORD** 2-6=-19/51, 4-6=-19/51

WEBS 3-6=-142/60

### NOTES

- Unbalanced roof live loads have been considered for 1) this design
- Wind: ASCF 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.
- 4) Gable requires continuous bottom chord bearing.

- Gable studs spaced at 2-0-0 oc.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 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 195 lb uplift at joint 1, 166 lb uplift at joint 5, 213 lb uplift at joint 2 and . 196 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



April 12,2024



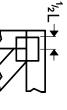
WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 BEFORE USE.

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

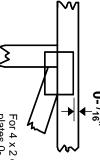


### Symbols

## 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



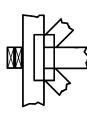
The first dimension is the plate width measured perpendicular to slots. Second dimension is the length parallel to slots.

## 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.

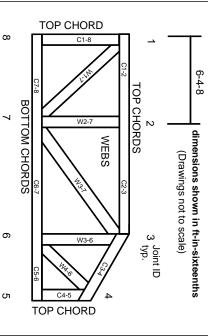
### Industry Standards:

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.

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Never exceed the design loading shown and never stack materials on inadequately braced trusses.

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- 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.

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- Unless expressly noted, this design is not applicable for use with fire retardant, preservative treated, or green lumber.
- 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.
- 15. 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.
- The design does not take into account any dynamic or other loads other than those expressly stated.