



MiTek USA, Inc.

16023 Swingley Ridge Rd
Chesterfield, MO 63017
314-434-1200

Re: P230231-01
Roof - Osage Lot 68

The truss drawing(s) referenced below 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.

Pages or sheets covered by this seal: I58165602 thru I58165626

My license renewal date for the state of Missouri is December 31, 2023.

Missouri COA: Engineering 001193



Scott M. Sevier

May 5, 2023

Sevier, Scott, Engineer

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.

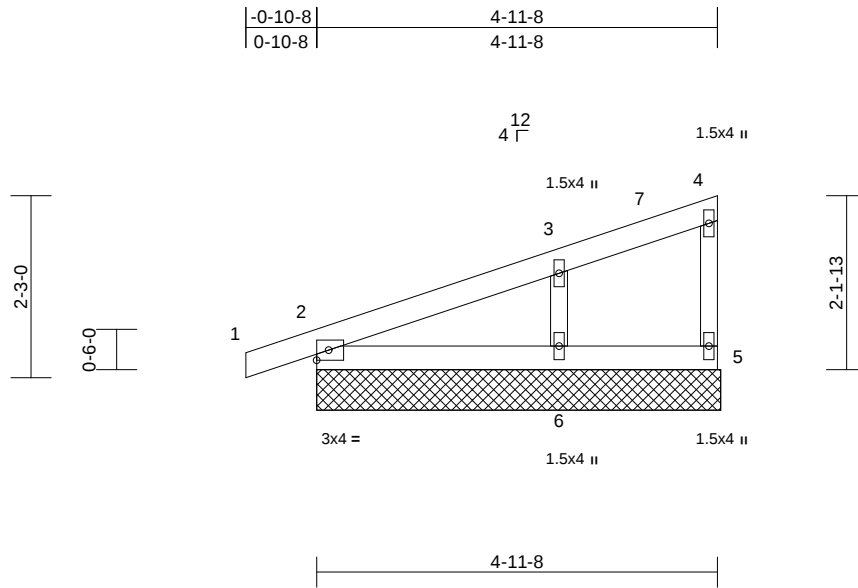
Job	Truss	Truss Type	Qty	Ply	Roof - Osage Lot 68	AS NOTED FOR PLAN REVIEW
P230231-01	B1	Monopitch Supported Gable	1	1	Job Reference (optional)	DEVELOPMENT SERVICES
						158165602
						LEE'S SUMMIT, MISSOURI

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

Run: 8.63 S Apr 6 2023 Print: 8.630 S Apr 6 2023 MiTek Industries, Inc. Thu May 04 12:14:26 Page: 1

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05/25/2023



Scale = 1:28.5

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	0.12	Vert(LL)	n/a	-	n/a	999	MT20
TCDL	10.0	Lumber DOL	1.15	BC	0.07	Vert(CT)	n/a	-	n/a	999	197/144
BCLL	0.0	Rep Stress Incr	YES	WB	0.07	Horz(CT)	n/a	-	n/a	n/a	
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-P							Weight: 19 lb FT = 20%

LUMBER

TOP CHORD	2x4 SP No.2
BOT CHORD	2x4 SP No.2
WEBS	2x3 SPF No.2
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=5-0-0, 5=5-0-0, 6=5-0-0
Max Horiz	2=85 (LC 8)
Max Uplift	2=-49 (LC 8), 5=-14 (LC 8), 6=-78 (LC 12)
Max Grav	2=182 (LC 1), 5=47 (LC 1), 6=269 (LC 1)

FORCES

(lb) - Maximum Compression/Maximum Tension

TOP CHORD	1-2=0/6, 2-3=-141/58, 3-4=-29/8, 4-5=-37/47
BOT CHORD	2-6=0/0, 5-6=0/0
WEBS	3-6=-205/304

NOTES

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCCL=6.0psf; BCDL=6.0psf; h=35ft; Ke=1.00; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) -0-10-8 to 4-1-8, Interior (1) 4-1-8 to 4-10-4 zone; cantilever left and right exposed; end vertical left exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 2) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- 3) Gable requires continuous bottom chord bearing.
- 4) Gable studs spaced at 2-0-0 oc.
- 5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.

- 6) All bearings are assumed to be SP No.2 crushing capacity of 565 psi.
- 7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 14 lb uplift at joint 5, 49 lb uplift at joint 2 and 78 lb uplift at joint 6.
- 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

May 5, 2023

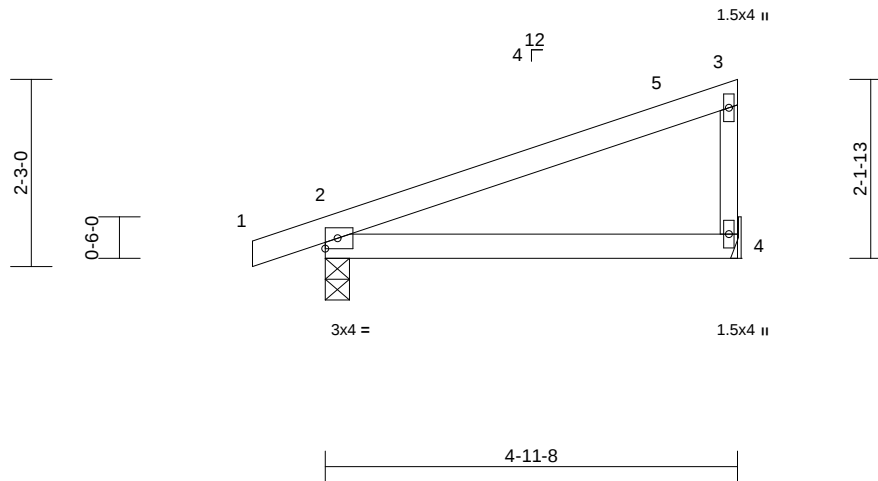
WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE.

Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see

ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component**Safety Information** available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 2060116023 Swingley Ridge Rd
Chesterfield, MO 63017

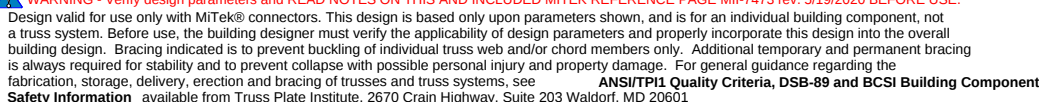
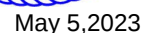
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-0-10-8	4-11-8
0-10-8	4-11-8



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	0.49	Vert(LL)	-0.03	2-4	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.27	Vert(CT)	-0.06	2-4	>958	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.00	Horz(CT)	n/a	-	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-P							Weight: 18 lb	FT = 20%

LOAD CASE(S) Standard



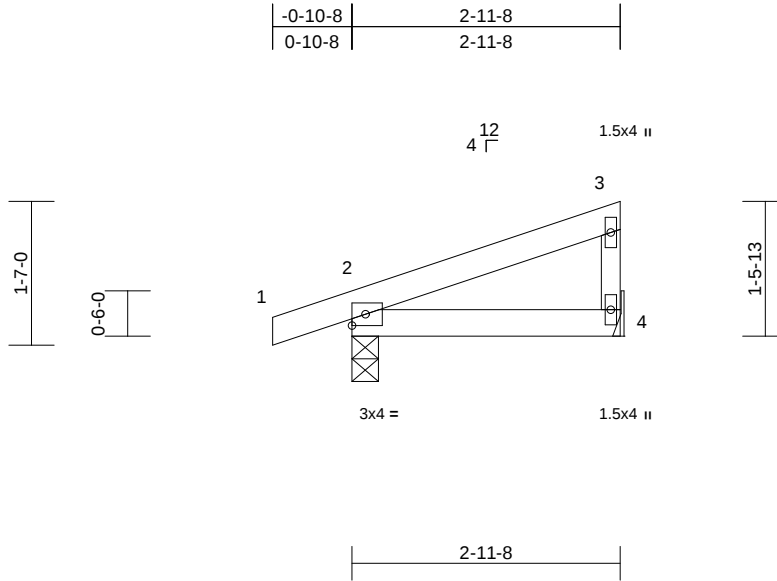
Job	Truss	Truss Type	Qty	Ply	Roof - Osage Lot 68
P230231-01	B3	Monopitch	7	1	Job Reference (optional)

RELEASE FOR CONSTRUCTION
AS NOTED FOR PLAN REVIEW
DEVELOPMENT SERVICES
158165604
LEE'S SUMMIT, MISSOURI

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

Run: 8.63 S Apr 6 2023 Print: 8.630 S Apr 6 2023 MiTek Industries, Inc. Thu May 04 12:44:25 Page: 1
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05/25/2023



Scale = 1:25.4

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	0.13	Vert(LL)	0.00	2-4	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.08	Vert(CT)	-0.01	2-4	>999	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.00	Horz(CT)	n/a	-	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-P							Weight: 11 lb	FT = 20%

LUMBER

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

BRACING

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

REACTIONS (size) 2=0-3-8, 4= Mechanical
Max Horiz 2=56 (LC 8)
Max Uplift 2=-72 (LC 8), 4=-32 (LC 12)
Max Grav 2=207 (LC 1), 4=108 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=0/6, 2-3=-61/28, 3-4=-81/124
BOT CHORD 2-4=0/0

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 exposed;C-C for
members and forces & MWFRS for reactions shown;
Lumber DOL=1.60 plate grip DOL=1.60
- 2) This truss has been designed for a 10.0 psf bottom
chord live load nonconcurrent with any other live loads.
- 3) Bearings are assumed to be: Joint 2 SP No.2 crushing
capacity of 565 psi.
- 4) Refer to girder(s) for truss to truss connections.
- 5) Provide mechanical connection (by others) of truss to
bearing plate capable of withstanding 32 lb uplift at joint
4 and 72 lb uplift at joint 2.
- 6) This truss is designed in accordance with the 2018
International Residential Code sections R502.11.1 and
R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard



May 5, 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 a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see

ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component

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Chesterfield, MO 63017

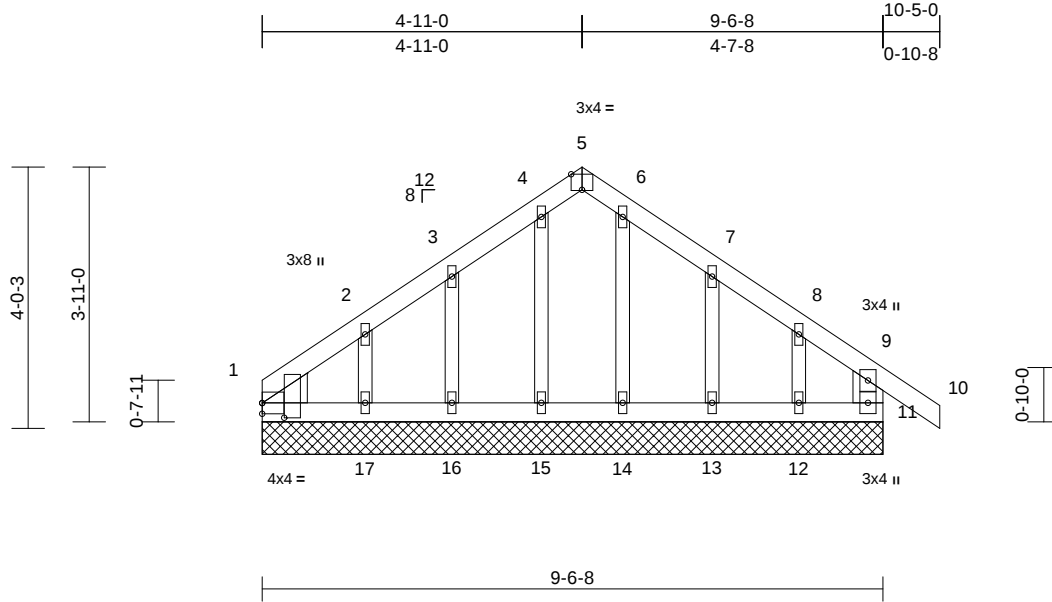
Job	Truss	Truss Type	Qty	Ply	Roof - Osage Lot 68
P230231-01	C1	Common Structural Gable	1	1	Job Reference (optional)

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

Run: 8.63 S Apr 6 2023 Print: 8.630 S Apr 6 2023 MiTek Industries, Inc. Thu May 04 12:14:25 Page: 1

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05/25/2023



Scale = 1:35.4

Plate Offsets (X, Y): [1:0-2-11,0-4-1], [5:0-2-0,Edge]

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.10	Vert(LL)	n/a	-	n/a	999	MT20
TCDL	10.0	Lumber DOL	1.15	BC	0.04	Vert(CT)	n/a	-	n/a	999	244/190
BCLL	0.0	Rep Stress Incr	YES	WB	0.03	Horz(CT)	0.00	11	n/a	n/a	
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S							
										Weight: 45 lb	FT = 20%

LUMBER

TOP CHORD	2x4 SP No.2
BOT CHORD	2x4 SP No.2
WEBS	2x6 SPF No.2
OTHERS	2x3 SPF No.2
WEDGE	Left: 2x6 SPF No.2

BRACING

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

REACTIONS (size)	1=9-6-8, 11=9-6-8, 12=9-6-8, 13=9-6-8, 14=9-6-8, 15=9-6-8, 16=9-6-8, 17=9-6-8
Max Horiz	1=117 (LC 11)
Max Uplift	1=-30 (LC 8), 11=-4 (LC 9), 12=-77 (LC 13), 13=-60 (LC 13), 15=-9 (LC 9), 16=-57 (LC 12), 17=-84 (LC 12)
Max Grav	1=85 (LC 20), 11=160 (LC 1), 12=94 (LC 20), 13=139 (LC 20), 14=116 (LC 1), 15=131 (LC 19), 16=119 (LC 19), 17=170 (LC 19)

FORCES

	(lb) - Maximum Compression/Maximum Tension
TOP CHORD	5-6=-67/98, 6-7=-67/99, 7-8=-27/37, 8-9=-54/38, 9-10=0/43, 1-2=-101/97, 2-3=-67/65, 3-4=-67/98, 4-5=-67/99, 9-11=-138/68
BOT CHORD	1-17=-62/96, 16-17=-62/96, 15-16=-62/96, 14-15=-62/96, 13-14=-62/96, 12-13=-62/96, 11-12=-62/96
WEBS	4-15=-104/24, 6-14=-91/1, 2-17=-131/116, 8-12=-91/89, 3-16=-96/96, 7-13=-110/102

NOTES

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

- 2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=35ft; Ke=1.00; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) 0-0-0 to 4-11-0, Exterior(2R) 4-11-0 to 9-11-0, Interior (1) 9-11-0 to 10-5-0 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- 4) All plates are 1.5x4 MT20 unless otherwise indicated.
- 5) Gable requires continuous bottom chord bearing.
- 6) Gable studs spaced at 2-0-0 oc.
- 7) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 8) All bearings are assumed to be SP No.2 crushing capacity of 565 psi.
- 9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 4 lb uplift at joint 11, 30 lb uplift at joint 1, 9 lb uplift at joint 15, 84 lb uplift at joint 17, 77 lb uplift at joint 12, 57 lb uplift at joint 16 and 60 lb uplift at joint 13.
- 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



May 5,2023

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Roof - Osage Lot 68
P230231-01	C2	Common	1	1	Job Reference (optional)

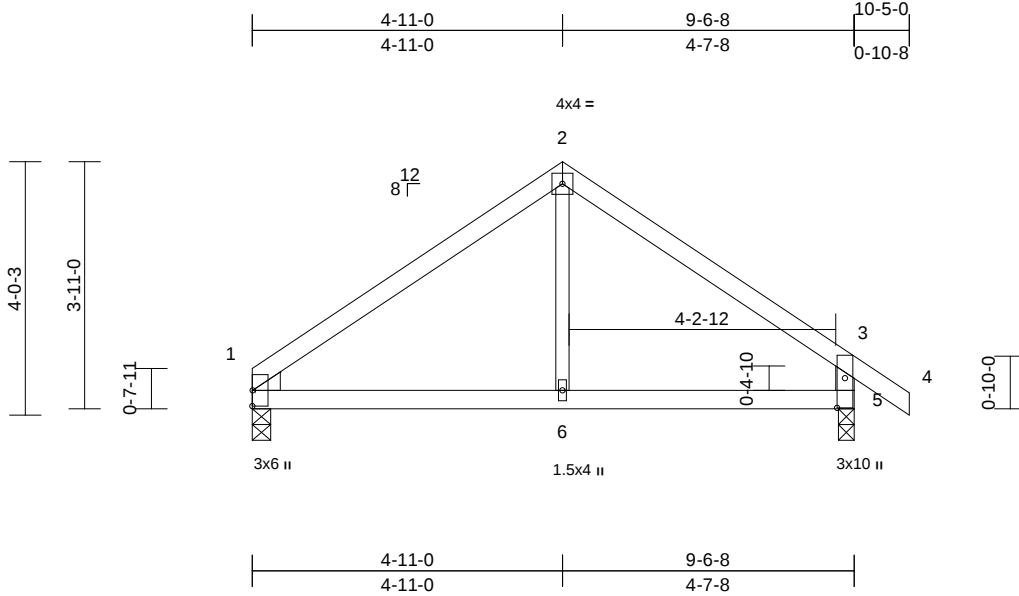
RELEASE FOR CONSTRUCTION
AS NOTED FOR PLAN REVIEW
DEVELOPMENT SERVICES
158165606
LEE'S SUMMIT, MISSOURI

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

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05/25/2023



Scale = 1:36.5

Plate Offsets (X, Y): [5:0-5-10,0-1-8]

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	0.42	Vert(LL)	0.06	1-6	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.54	Vert(CT)	-0.04	1-6	>999	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.11	Horz(CT)	0.00	5	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S							Weight: 37 lb	FT = 20%

LUMBER

TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2
WEBS 2x3 SPF No.2 *Except* 5-3:2x4 SP No.2
WEDGE Left: 2x4 SPF No.3

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=0-3-8, 5=0-3-0
Max Horiz 1=116 (LC 11)
Max Uplift 1=-57 (LC 12), 5=-82 (LC 13)
Max Grav 1=412 (LC 1), 5=492 (LC 1)

FORCES

(lb) - Maximum Compression/Maximum Tension
TOP CHORD 2-3=-452/479, 3-4=0/40, 1-2=-465/468, 3-5=-445/419
BOT CHORD 1-6=-264/295, 5-6=-264/295
WEBS 2-6=-342/207

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) 0-1-12 to 4-11-0, Exterior(2R) 4-11-0 to 9-11-0, Interior (1) 9-11-0 to 10-5-0 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.
- 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 82 lb uplift at joint 5 and 57 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.

LOAD CASE(S) Standard



May 5, 2023

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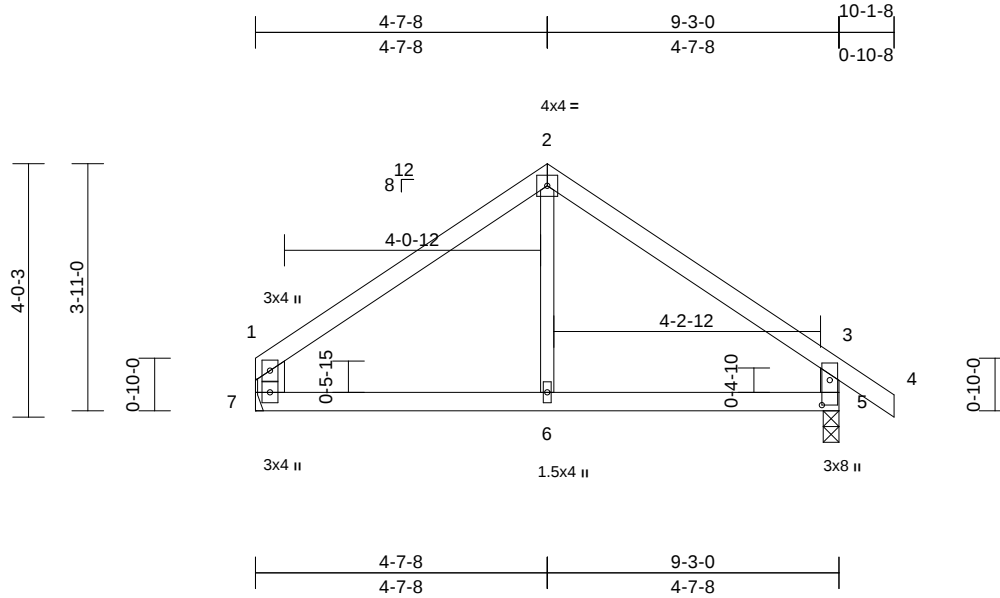
Job	Truss	Truss Type	Qty	Ply	Roof - Osage Lot 68
P230231-01	C3	Common	1	1	Job Reference (optional)

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

Run: 8.63 S Apr 6 2023 Print: 8.630 S Apr 6 2023 MiTek Industries, Inc. Thu May 04 12:14:30 Page: 1

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05/25/2023



Scale = 1:36.5

Plate Offsets (X, Y): [5:0-4-12,0-1-8]

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	0.32	Vert(LL)	0.03	5-6	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.19	Vert(CT)	-0.03	5-6	>999	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.09	Horz(CT)	0.00	5	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-R							Weight: 37 lb	FT = 20%

LUMBER

TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2
WEBS 2x3 SPF No.2 *Except* 7-1:2x6 SPF No.2,
5-3:2x4 SP No.2

- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 81 lb uplift at joint 5 and 54 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.

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.

LOAD CASE(S) Standard

REACTIONS

(size) 5=0-3-0, 7= Mechanical
Max Horiz 7=-122 (LC 8)
Max Uplift 5=-81 (LC 13), 7=-54 (LC 12)
Max Grav 5=475 (LC 1), 7=395 (LC 1)

FORCES

(lb) - Maximum Compression/Maximum Tension
TOP CHORD 2-3=-411/435, 3-4=0/40, 1-2=-404/434,
1-7=-339/330, 3-5=-423/400
BOT CHORD 6-7=-228/259, 5-6=-228/259
WEBS 2-6=-298/175

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) 0-2-12 to 4-7-8, Exterior(2R) 4-7-8 to 9-7-8, Interior (1) 9-7-8 to 10-1-8 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 5 SP No.2 crushing capacity of 565 psi.
- Refer to girder(s) for truss to truss connections.



May 5, 2023

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE.

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ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component

Safety Information available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Roof - Osage Lot 68
P230231-01	D1	Roof Special Supported Gable	1	1	Job Reference (optional)

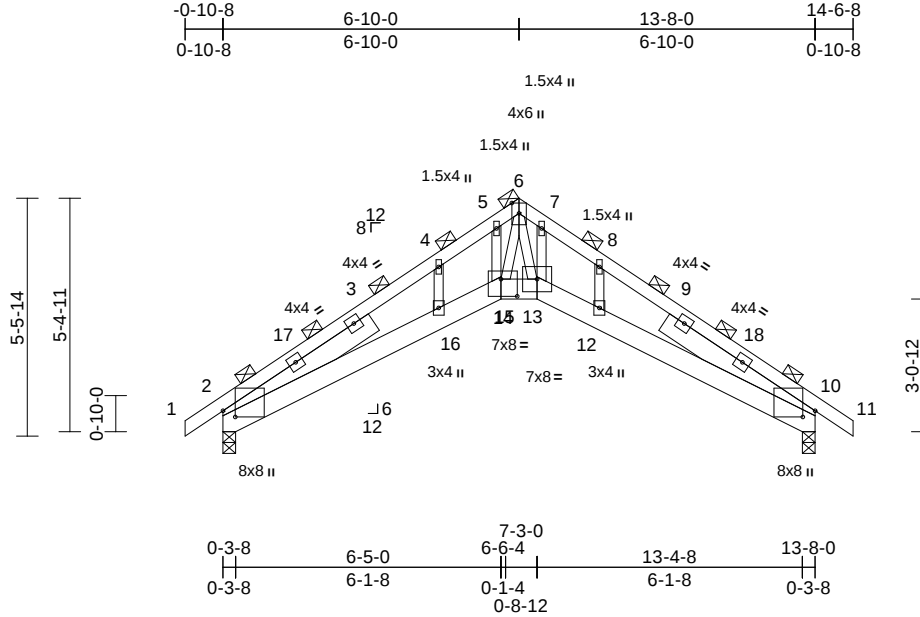
Premier Building Supply (Springhill, KS), Spring Hills, KS - 66083,

Run: 8.63 S Apr 6 2023 Print: 8.630 S Apr 6 2023 MiTek Industries, Inc. Thu May 04 12:44:30 Page: 1

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RELEASE FOR CONSTRUCTION
AS NOTED FOR PLAN REVIEW
DEVELOPMENT SERVICES
158165608
LEE'S SUMMIT, MISSOURI

05/25/2023



Scale = 1:53.2

Plate Offsets (X, Y): [2:0-1-12,0-3-6], [10:0-1-12,0-3-6], [15:0-4-8,0-4-12]

Loading	(psf)	Spacing	4-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.55	Vert(LL)	-0.11	15-16	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.74	Vert(CT)	-0.20	15-16	>785	180		
BCLL	0.0	Rep Stress Incr	NO	WB	0.49	Horz(CT)	0.25	10	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S							Weight: 77 lb	FT = 20%

LUMBER

TOP CHORD	2x4 SP No.2
BOT CHORD	2x6 SPF No.2 *Except* 15-13:2x6 SP 2400F 2.0E
WEBS	2x3 SPF No.2
OTHERS	2x3 SPF No.2
SLIDER	Left 2x6 SPF No.2 -- 4-1-3, Right 2x6 SPF No.2 -- 4-1-3

BRACING

TOP CHORD	2-0-0 oc purlins (3-2-7 max.)
	(Switched from sheeted: Spacing > 2-8-0).
BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS

(size)	2=0-3-8, 10=0-3-8
Max Horiz	2=287 (LC 11)
Max Uplift	2=-219 (LC 12), 10=-219 (LC 13)
Max Grav	2=1344 (LC 1), 10=1344 (LC 1)

FORCES

	(lb) - Maximum Compression/Maximum Tension
TOP CHORD	1-2=0/19, 2-4=-3167/324, 4-5=-2829/530, 5-6=-2669/581, 6-7=-2684/550, 7-8=-2859/498, 8-10=-3191/316, 10-11=0/19
BOT CHORD	2-16=-248/2685, 15-16=-339/2770, 14-15=-201/2408, 13-14=-91/2118, 12-13=-134/2716, 10-12=-105/2646
WEBS	6-13=-423/1377, 6-14=-570/1549, 5-15=-5/190, 7-13=-114/264, 4-16=-140/339, 8-12=-169/358

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 6-10-0, Exterior(2R) 6-10-0 to 11-10-0, Interior (1) 11-10-0 to 14-6-8 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 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.
- 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 SPF No.2 crushing capacity of 425 psi.
- Bearing at joint(s) 2, 10 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 219 lb uplift at joint 2 and 219 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.
- 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



May 5, 2023

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE.

Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information** available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



16023 Swingley Ridge Rd
Chesterfield, MO 63017

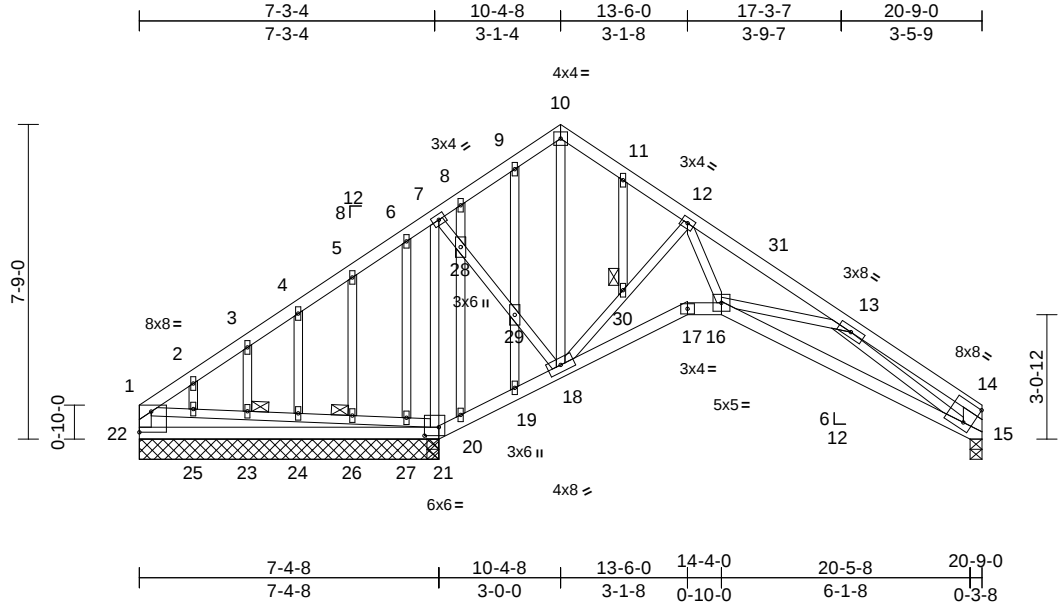
Job	Truss	Truss Type	Qty	Ply	Roof - Osage Lot 68	RELEASE FOR CONSTRUCTION
P230231-01	D2	Roof Special Structural Gable	1	1	Job Reference (optional)	AS NOTED FOR PLAN REVIEW
						DEVELOPMENT SERVICES
						158165609
						LEE'S SUMMIT, MISSOURI

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

Run: 8.63 S Apr 6 2023 Print: 8.630 S Apr 6 2023 MiTek Industries, Inc. Thu May 04 12:14:30 Page: 1

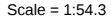
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05/25/2023



Scale = 1:56.7									
Plate Offsets (X, Y): [1:Edge,0-6-2], [14:0-2-8,0-6-0], [21:0-4-4,0-2-8]									
Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in (loc)	l/defl	L/d
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.51	Vert(LL)	-0.09 21-22	>999	240
TCDL	10.0	Lumber DOL	1.15	BC	0.47	Vert(CT)	-0.17 21-22	>500	180
BCLL	0.0	Rep Stress Incr	YES	WB	0.60	Horz(CT)	0.07 15	n/a	n/a
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S					
								Weight: 124 lb	FT = 20%

LUMBER		WEBS		7-21=-856/219, 12-16=0/461, 1-25=-888/293, 23-25=-883/290, 23-24=-885/292, 24-26=-886/292, 26-27=-888/293, 21-27=-913/293, 13-15=-620/207, 7-28=0/549, 28-29=0/613, 18-29=0/586, 10-18=-304/0, 18-30=-517/132, 12-30=-517/132, 13-16=-309/285, 3-23=-46/33, 4-24=-23/15, 2-25=-48/83, 5-26=-36/30, 6-27=-152/7, 8-28=-115/50, 20-28=-132/0, 9-29=-54/18, 19-29=-21/11, 11-30=0/3		10) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 242 lb uplift at joint 22, 141 lb uplift at joint 21 and 84 lb uplift at joint 15.			
TOP CHORD	2x4 SP No.2								
BOT CHORD	2x4 SP No.2								
WEBS	2x3 SPF No.2 *Except* 22-1:2x4 SP No.2, 15-14:2x6 SPF No.2								
OTHERS	2x3 SPF No.2								
BRACING									
TOP CHORD	Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.								
BOT CHORD	Rigid ceiling directly applied or 6-0-0 oc bracing.								
JOINTS	1 Brace at Jt(s): 23, 26, 30								
REACTIONS									
(size)	15=0-3-8, 21=7-4-8, 22=7-4-8								
Max Horiz	22=217 (LC 11)								
Max Uplift	15=-84 (LC 13), 21=-141 (LC 12), 22=-242 (LC 26)								
Max Grav	15=367 (LC 1), 21=1549 (LC 1), 22=128 (LC 25)								
FORCES									
(lb) - Maximum Compression/Maximum Tension									
TOP CHORD	1-2=-67/574, 2-3=-79/606, 3-4=-57/619, 4-5=-43/658, 5-6=-21/698, 6-7=-7/643, 7-8=-46/219, 8-9=0/183, 9-10=-1/192, 10-11=0/231, 11-12=-3/171, 12-13=-482/48, 13-14=-221/47, 1-22=-58/309, 14-15=-193/60								
BOT CHORD	21-22=-293/534, 20-21=-658/155, 19-20=-607/182, 18-19=-594/194, 17-18=-19/226, 16-17=-8/203, 15-16=-192/688								



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	0.74	Vert(LL)	-0.16	9	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.66	Vert(CT)	-0.28	9	>865	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.92	Horz(CT)	0.25	7	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S							Weight: 104 lb	FT = 20%

- 2) Wind: ASCE 7-16; Vult=115mph (3-second gust)
Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=35ft;
Ke=1.00; Cat. II; Exp C; Enclosed; MWFRS (envelope)
exterior zone and C-C Exterior(2E) 0-1-12 to 5-1-12,
Interior (1) 5-1-12 to 10-4-8, Exterior(2R) 10-4-8 to
15-4-8, Interior (1) 15-4-8 to 20-6-4 zone; cantilever left
and right exposed ; end vertical right exposed;C-C for
members and forces & MWFRS for reactions shown;
Lumber DOL=1.60 plate grip DOL=1.60
- 3) This truss has been designed for a 10.0 psf bottom
chord live load nonconcurrent with any other live loads.
- 4) All bearings are assumed to be SP No.2 crushing
capacity of 565 psi.
- 5) Bearing at joint(s) 7 considers parallel to grain value
using ANSI/TPI 1 angle to grain formula. Building
designer should verify capacity of bearing surface.
- 6) Provide mechanical connection (by others) of truss to
bearing plate capable of withstanding 127 lb uplift at
joint 12 and 127 lb uplift at joint 7.
- 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.

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Safety Information available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601.



16023 Swingley Ridge Rd
Chesterfield, MO 63017

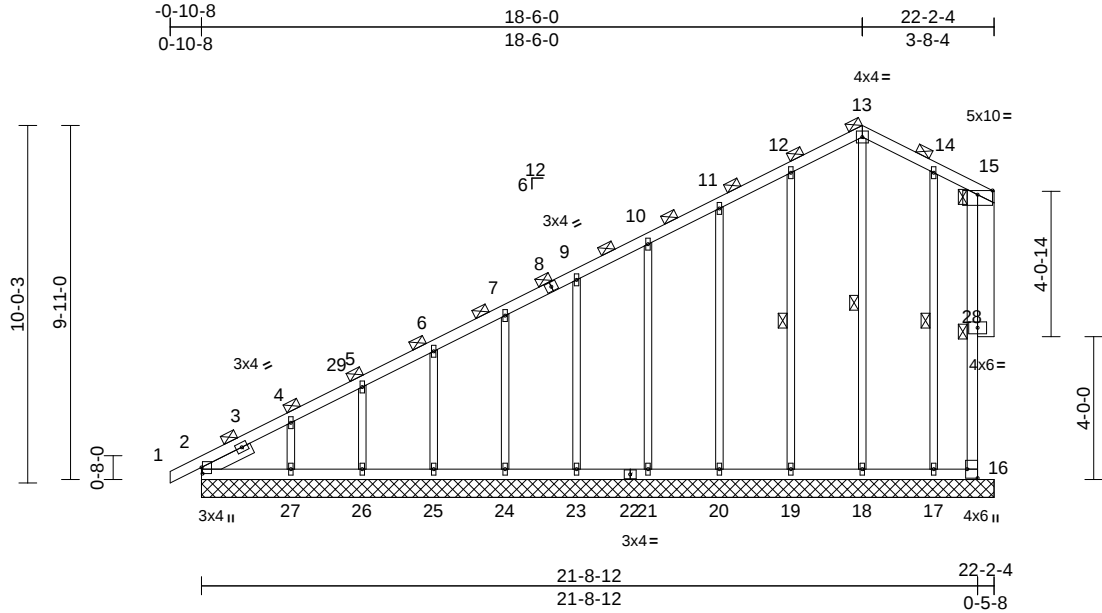
Job	Truss	Truss Type	Qty	Ply	Roof - Osage Lot 68	RELEASE FOR CONSTRUCTION AS NOTED FOR PLAN REVIEW DEVELOPMENT SERVICES 158165611 LEE'S SUMMIT, MISSOURI
P230231-01	E1	Common Supported Gable	1	1	Job Reference (optional)	

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

Run: 8.63 S Apr 6 2023 Print: 8.630 S Apr 6 2023 MiTek Industries, Inc. Thu May 04 12:14:32 Page: 1

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05/25/2023



Scale = 1:64.5									
Plate Offsets (X, Y): [2:0-2-1,0-0-5], [16:Edge,0-3-8]									
Loading	(psf)	Spacing	4-0-0	CSI		DEFL	in	(loc)	l/defl
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.72	Vert(LL)	n/a	-	n/a
TCDL	10.0	Lumber DOL	1.15	BC	0.42	Vert(CT)	n/a	-	n/a
BCLL	0.0	Rep Stress Incr	NO	WB	0.40	Horz(CT)	-0.01	16	n/a
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S					
PLATES MT20 GRIP 244/190									
Weight: 138 lb FT = 20%									

LUMBER
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2
WEBS 2x4 SP 1650F 1.5E
OTHERS 2x3 SPF No.2 *Except* 28-15:2x6 SPF No.2
SLIDER Left 2x4 SP No.2 -- 1-6-7

BRACING
TOP CHORD 2-0-0 oc purlins (5-8-2 max.), except end verticals
(Switched from sheeted: Spacing > 2-8-0).
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 1 Row at midpt 13-18, 12-19, 14-17, 15-16

REACTIONS (size) 2=22-2-4, 16=22-2-4, 17=22-2-4, 18=22-2-4, 19=22-2-4, 20=22-2-4, 21=22-2-4, 23=22-2-4, 24=22-2-4, 25=22-2-4, 26=22-2-4, 27=22-2-4
Max Horiz 2=759 (LC 9)
Max Uplift 2=-36 (LC 8), 16=-91 (LC 8), 17=-77 (LC 13), 18=-126 (LC 11), 19=-123 (LC 12), 20=-126 (LC 12), 21=-122 (LC 12), 23=-123 (LC 12), 24=-121 (LC 12), 25=-129 (LC 12), 26=-91 (LC 12), 27=-261 (LC 12)
Max Grav 2=475 (LC 26), 16=144 (LC 20), 17=310 (LC 20), 18=370 (LC 19), 19=377 (LC 25), 20=359 (LC 25), 21=360 (LC 1), 23=360 (LC 25), 24=359 (LC 1), 25=365 (LC 25), 26=341 (LC 1), 27=432 (LC 25)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=0/11, 2-4=-949/566, 4-5=-741/473, 5-6=-651/448, 6-7=-540/408, 7-9=-433/371, 9-10=-397/333, 10-11=-365/349, 11-12=-336/462, 12-13=-358/559, 13-14=-357/536, 14-15=-401/506, 15-16=-349/450
BOT CHORD 2-27=-270/321, 26-27=-270/321, 25-26=-270/321, 24-25=-270/321, 23-24=-270/321, 21-23=-270/321, 20-21=-270/321, 19-20=-270/321, 18-19=-270/321, 17-18=-270/321, 16-17=-270/321
WEBS 13-18=-312/188, 12-19=-298/195, 11-20=-279/205, 10-21=-280/193, 9-23=-280/193, 7-24=-280/193, 6-25=-282/202, 5-26=-270/199, 4-27=-326/428, 14-17=-285/351

- NOTES**
- Unbalanced roof live loads have been considered for this design.
 - Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=35ft; Ke=1.00; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Corner(3E) -0-10-8 to 4-1-8, Exterior(2N) 4-1-8 to 18-6-0, Corner(3E) 18-6-0 to 21-8-12 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.
 - 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.

- 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 91 lb uplift at joint 16, 126 lb uplift at joint 18, 123 lb uplift at joint 19, 126 lb uplift at joint 20, 122 lb uplift at joint 21, 123 lb uplift at joint 23, 121 lb uplift at joint 24, 129 lb uplift at joint 25, 91 lb uplift at joint 26, 261 lb uplift at joint 27, 77 lb uplift at joint 17 and 36 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



May 5, 2023

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ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Roof - Osage Lot 68
P230231-01	E4	Roof Special	8	1	Job Reference (optional)

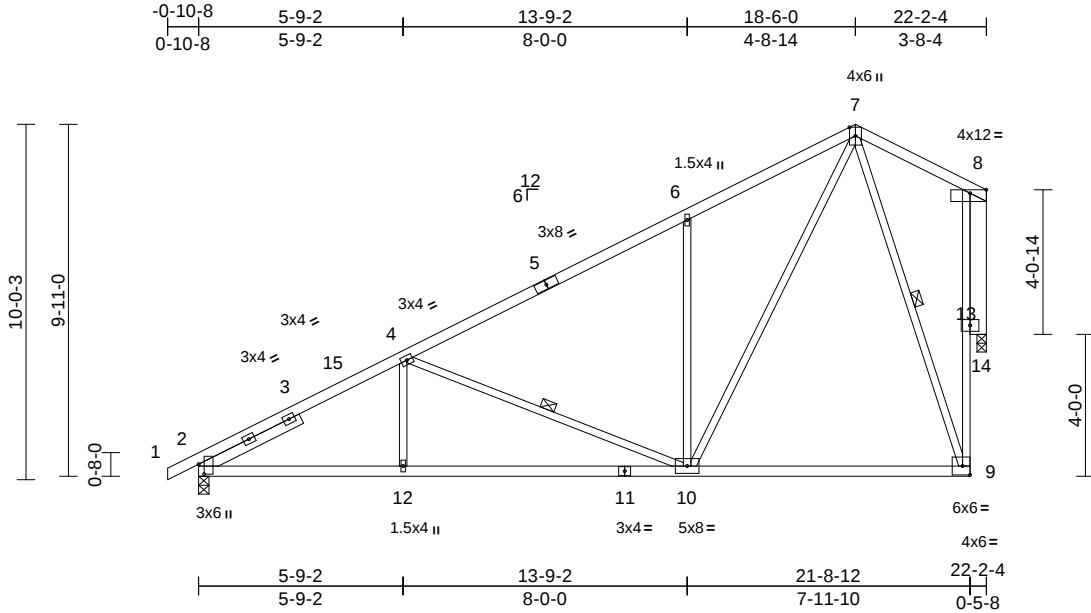
Premier Building Supply (Springhill, KS), Spring Hills, KS - 66083,

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Page: 1

05/25/2023



Scale = 1:64.9

Plate Offsets (X, Y): [2:0-3-5,0-1-13], [8:0-5-8,Edge]

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.89	Vert(LL)	-0.11	9-10	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.69	Vert(CT)	-0.22	9-10	>999	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.95	Horz(CT)	0.34	14	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S							Weight: 121 lb	FT = 20%

LUMBER

TOP CHORD	2x4 SP No.2
BOT CHORD	2x4 SP No.2
WEBS	2x3 SPF No.2
OTHERS	2x6 SPF No.2
SLIDER	Left 2x4 SP No.2 -- 3-2-3

BRACING

TOP CHORD	Structural wood sheathing directly applied or 3-2-6 oc purlins, except end verticals.
BOT CHORD	Rigid ceiling directly applied or 8-3-8 oc bracing.
WEBS	1 Row at midpt 4-10, 7-9

REACTIONS	(lb/size) 2=1055/0-3-8, 14=953/0-3-2
	Max Horiz 2=384 (LC 12)
	Max Uplift 2=-158 (LC 12), 14=-230 (LC 12)

FORCES	(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
--------	--

TOP CHORD	2-3=-1662/194, 3-15=-1541/201, 4-15=-1509/217, 4-5=-981/108, 5-6=-854/129, 6-7=-960/286, 9-14=-214/854, 8-14=-214/854
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BOT CHORD	2-12=-491/1398, 11-12=-491/1398, 10-11=-491/1398, 9-10=-93/305
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WEBS	6-10=-518/307, 7-10=-334/1054, 4-12=0/279, 4-10=-681/274, 7-9=-820/263, 8-14=-957/262
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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 18-6-0, Exterior(2E) 18-6-0 to 21-7-8 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

- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- Bearing at joint(s) 14 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 158 lb uplift at joint 2 and 230 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.

LOAD CASE(S) Standard



May 5, 2023

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ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component

Safety Information available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



16023 Swingley Ridge Rd
Chesterfield, MO 63017

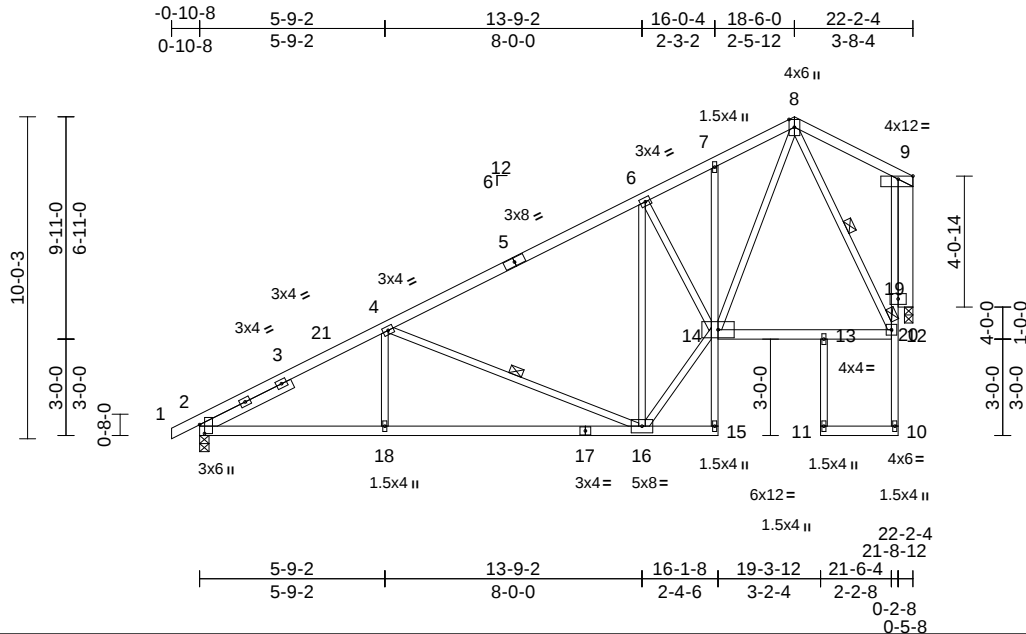
Premier Building Supply (Springhill, KS), Spring Hills, KS - 66083.

Run: 8.63 E Feb 23 2023 Print: 8.630 E Feb 23 2023 MiTek Industries, Inc. Fri May 06 14:42:05 Page: 1

ID:X3j9csSdTd?hyQgxb8rn6OzwvzW-rjKKFNJwvDzaK6nCyCI54gEu2wYVJCJ6Q?J2f0ZJhC

Page: 1

05/25/2023



Scale = 1:71.7

Plate Offsets (X, Y): [2:0-3-5,0-1-13], [9:0-5-8,Edge]

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	0.82	Vert(LL)	-0.10	16-18	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.60	Vert(CT)	-0.23	16-18	>999	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.79	Horz(CT)	0.05	20	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S							Weight: 134 lb	FT = 20%

TOP CHORD	2x4 SP No.2
BOT CHORD	2x4 SP No.2 *Except* 15-7,13-11:2x3 SPF No.2
WEBS	2x3 SPF No.2
OTHERS	2x6 SPF No.2
SLIDER	Left 2x4 SP No.2 -- 3-2-3

TOP CHORD	Structural wood sheathing directly applied or 3-8-15 oc purlins, except end verticals.
BOT CHORD	Rigid ceiling directly applied or 6-0-0 oc bracing.

JOINTS 1 Brace at Jt(s): 12

Max Horiz 2=384 (LC 12)
Max Uplift 2=-158 (LC 12), 20=-230 (LC 12)

TOP CHORD 2-3=-1662/190, 3-21=-1541/197,
4-21=-1508/213, 4-5=-981/113,
5-6=-855/135, 6-7=-1006/278, 7-8=-903/294,
12-20=-193/792, 9-20=-193/792

BOT CHORD 2-18=-488/1397, 17-18=-488/1397,
16-17=-488/1397, 13-14=-131/446,
12-13=-133/449

WEBS 6-16=-613/298, 8-14=-302/1003, 4-18=0/293
4-16=-679/264, 8-12=-800/244,
14-16=-387/1275, 9-20=-959/263

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

- 2) Wind: ASCE 7-16; Vult=115mph (3-second gust)
Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=35ft;
Ke=1.00; Cat. II; Exp C; Enclosed; MWFRS (envelope)
exterior zone and C-C Exterior(2E) -0-10-8 to 4-1-8,
Interior (1) 4-1-8 to 18-6-0, Exterior(2E) 18-6-0 to 21-7-8
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
- 3) This truss has been designed for a 10.0 psf bottom
chord live load nonconcurrent with any other live loads.
- 4) Bearing at joint(s) 20 considers parallel to grain value
using ANSI/TPI 1 angle to grain formula. Building
designer should verify capacity of bearing surface.
- 5) Provide mechanical connection (by others) of truss to
bearing plate capable of withstanding 158 lb uplift at
joint 2 and 230 lb uplift at joint 20.
- 6) This truss is designed in accordance with the 2018
International Residential Code sections R502.11.1 and
R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard



May 5, 2023



Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Code**

ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component

Safety Information available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



16023 Swingley Ridge Rd
Chesterfield, MO 63017

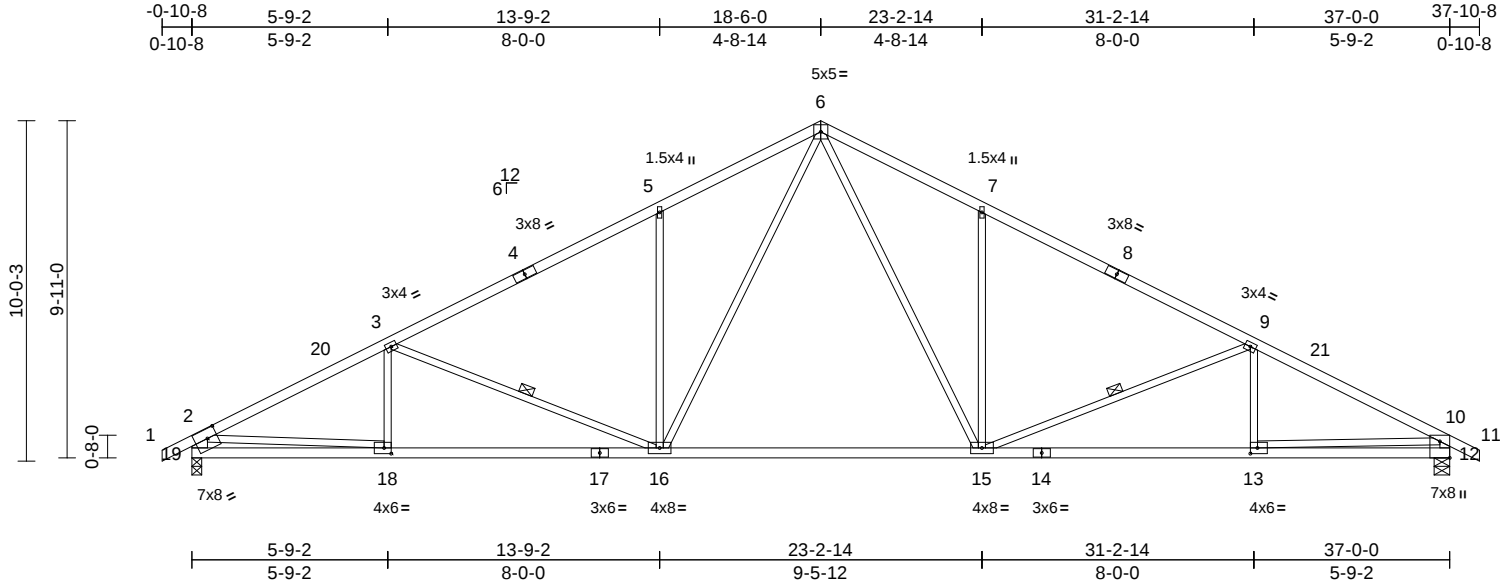
Job	Truss	Truss Type	Qty	Ply	Roof - Osage Lot 68	RELEASE FOR CONSTRUCTION
P230231-01	E6	Common	7	1	Job Reference (optional)	AS NOTED FOR PLAN REVIEW
						DEVELOPMENT SERVICES
						158165614
						LEE'S SUMMIT, MISSOURI

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

Run: 8.63 S Apr 6 2023 Print: 8.630 S Apr 6 2023 MiTek Industries, Inc. Thu May 04 12:14:33 Page: 1

ID: TnZ3x61kRmd3IVZaqXdQq5zwvtc-RfC?PsB70Hq3NSgPqnL8w3uITxBGLWwCD0i73429C71

05/25/2023



Scale = 1:67.8									
Plate Offsets (X, Y): [12:Edge,0-3-8], [13:0-2-8,0-2-0], [18:0-2-8,0-2-0], [19:0-3-8,0-3-4]									
Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in (loc)	l/defl	L/d
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.64	Vert(LL)	-0.19 15-16	>999	240
TCDL	10.0	Lumber DOL	1.15	BC	0.90	Vert(CT)	-0.44 15-16	>993	180
BCLL	0.0	Rep Stress Incr	YES	WB	0.92	Horz(CT)	0.10 12	n/a	n/a
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S					
Weight: 176 lb FT = 20%									

LUMBER
TOP CHORD 2x4 SP 1650F 1.5E
BOT CHORD 2x4 SP No.2
WEBS 2x3 SPF No.2 *Except* 19-2:2x6 SPF No.2, 12-10:2x4 SP 1650F 1.5E

BRACING
TOP CHORD Structural wood sheathing directly applied or 3-4-13 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing. Except:
8-5-5 oc bracing: 16-18.
WEBS 1 Row at midpt 3-16, 9-15

REACTIONS (size) 12=0-5-8, 19=0-3-8
Max Horiz 19=-166 (LC 17)
Max Uplift 12=-276 (LC 13), 19=-278 (LC 12)
Max Grav 12=1719 (LC 1), 19=1726 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/35, 2-3=-2848/431, 3-5=-2360/418, 5-6=-2337/549, 6-7=-2343/549, 7-9=-2365/419, 9-10=-2884/437, 10-11=0/32, 2-19=-1661/337, 10-12=-1654/334
BOT CHORD 18-19=-249/555, 16-18=-474/2474, 15-16=-102/1561, 13-15=-312/2506, 12-13=-114/613
WEBS 5-16=-512/308, 6-16=-325/1012, 9-13=-32/166, 7-15=-511/308, 3-18=-52/151, 10-13=-206/1899, 3-16=-556/246, 6-15=-327/1021, 2-18=-225/1934, 9-15=-581/251

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 18-6-0, Exterior(2R) 18-6-0 to 23-2-14, Interior (1) 23-2-14 to 37-10-8 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
- The Fabrication Tolerance at joint 10 = 16%
- 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 276 lb uplift at joint 12 and 278 lb uplift at joint 19.
- 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



May 5, 2023

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE.

Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see

ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component

Safety Information available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



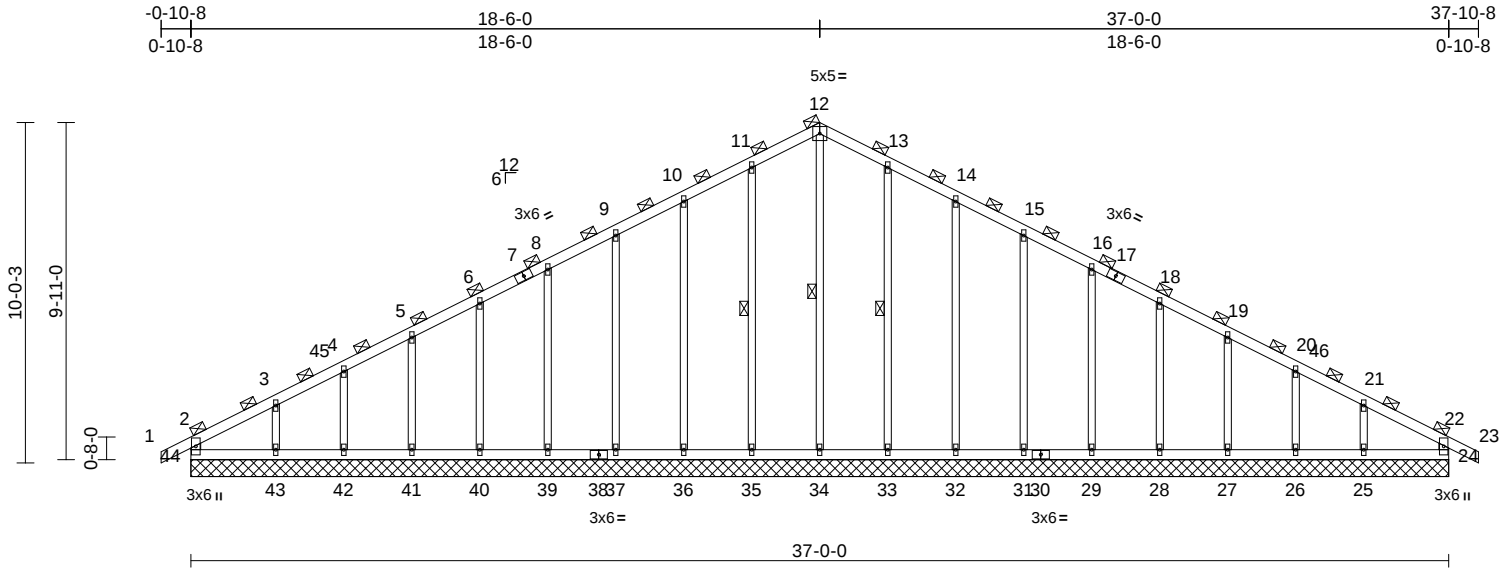
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Roof - Osage Lot 68	RELEASE FOR CONSTRUCTION AS NOTED FOR PLAN REVIEW DEVELOPMENT SERVICES 158165615 LEE'S SUMMIT, MISSOURI
P230231-01	E7	Common Supported Gable	1	1	Job Reference (optional)	

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

Run: 8.63 S Apr 6 2023 Print: 8.630 S Apr 6 2023 MiTek Industries, Inc. Thu May 04 12:14:33 Page: 1
ID:30TC0Xcr8WgF3uEpecUgNDzwss-RfC?PsB70Hq3NSgPqnL8w3uITXbCKWrcDofJ423C9f

05/25/2023



Scale = 1:67.8

Plate Offsets (X, Y): [17:0-0-0, 0-0-0]

Loading	(psf)	Spacing	4-0-0	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
TCDL	10.0	Lumber DOL	1.15	BC	0.16	Vert(CT)	n/a	-	n/a	999	244/190
BCLL	0.0	Rep Stress Incr	NO	WB	0.40	Horz(CT)	0.02	24	n/a	n/a	
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-R							
Weight: 191 lb FT = 20%											

LUMBER

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

BRACING

TOP CHORD 2-0-0 oc purlins (6-0-0 max.), except end verticals
(Switched from sheathed: Spacing > 2-8-0).
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

WEBS 1 Row at midpt 12-34, 11-35, 13-33

REACTIONS (size) 24=37-0-0, 25=37-0-0, 26=37-0-0, 27=37-0-0, 28=37-0-0, 29=37-0-0, 31=37-0-0, 32=37-0-0, 33=37-0-0, 34=37-0-0, 35=37-0-0, 36=37-0-0, 37=37-0-0, 39=37-0-0, 40=37-0-0, 41=37-0-0, 42=37-0-0, 43=37-0-0, 44=37-0-0

Max Horiz 44=334 (LC 17)

Max Uplift 24=-20 (LC 9), 25=-225 (LC 13), 26=-92 (LC 13), 27=-129 (LC 13), 28=-121 (LC 13), 29=-123 (LC 13), 31=-120 (LC 13), 32=-135 (LC 13), 33=-99 (LC 13), 35=-105 (LC 12), 36=-132 (LC 12), 37=-120 (LC 12), 39=-123 (LC 12), 40=-120 (LC 12), 41=-132 (LC 12), 42=-83 (LC 12), 43=-254 (LC 12), 44=-78 (LC 8)

Max Grav 24=375 (LC 1), 25=397 (LC 26), 26=350 (LC 1), 27=363 (LC 26), 28=359 (LC 1), 29=360 (LC 26), 31=360 (LC 1), 32=359 (LC 26), 33=376 (LC 26), 34=431 (LC 22), 35=376 (LC 25), 36=359 (LC 25), 37=360 (LC 1), 39=360 (LC 25), 40=359 (LC 1), 41=363 (LC 25), 42=350 (LC 1), 43=397 (LC 25), 44=375 (LC 1)

FORCES

(lb) - Maximum Compression/Maximum Tension
TOP CHORD 2-44=-331/141, 1-2=0/64, 2-3=-395/168, 3-4=-263/184, 4-5=-207/232, 5-6=-163/287, 6-8=-139/343, 8-9=-175/426, 9-10=-213/533, 10-11=-252/648, 11-12=-286/740, 12-13=-286/740, 13-14=-252/648, 14-15=-213/533, 15-16=-175/426, 16-18=-138/319, 18-19=-101/211, 19-20=-128/127, 20-21=-177/81, 21-22=-285/83, 22-23=0/64, 22-24=-331/155
BOT CHORD 43-44=-87/325, 42-43=-87/325, 41-42=-87/325, 40-41=-87/325, 39-40=-87/325, 37-39=-87/325, 36-37=-87/325, 35-36=-87/325, 34-35=-87/325, 33-34=-87/325, 32-33=-87/325, 31-32=-87/325, 29-31=-87/325, 28-29=-87/325, 27-28=-87/325, 26-27=-87/325, 25-26=-87/325, 24-25=-87/325
WEBS 12-34=-474/106, 11-35=-296/159, 10-36=-279/210, 9-37=-280/190, 8-39=-280/193, 6-40=-280/193, 5-41=-281/197, 4-42=-275/204, 3-43=-302/379, 13-33=-296/159, 14-32=-279/210, 15-31=-280/190, 16-29=-280/193, 18-28=-280/193, 19-27=-281/197, 20-26=-275/205, 21-25=-302/375

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 Corner(3E) -0-10-8 to 4-1-8, Exterior(2N) 4-1-8 to 18-6-0, Corner(3R) 18-6-0 to 23-6-0, Exterior(2N) 23-6-0 to 37-10-8 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.
- All plates are 1.5x4 MT20 unless otherwise indicated.
- Gable requires continuous bottom chord bearing.
- Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
- Gable studs spaced at 2-0-0 oc.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- All bearings are assumed to be SP No.2 crushing capacity of 565 psi.



May 5, 2023

Continued on page 2

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE.

Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see

ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component

Safety Information available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Roof - Osage Lot 68
P230231-01	E7	Common Supported Gable	1	1	Job Reference (optional)

RELEASE FOR CONSTRUCTION
AS NOTED FOR PLAN REVIEW
DEVELOPMENT SERVICES
158165615
LEE'S SUMMIT, MISSOURI

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

Run: 8.63 S Apr 6 2023 Print: 8.630 S Apr 6 2023 MiTek Industries, Inc. Thu May 04 12:44:33 Page: 2
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05/25/2023

- 10) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 78 lb uplift at joint 44, 20 lb uplift at joint 24, 105 lb uplift at joint 35, 132 lb uplift at joint 36, 120 lb uplift at joint 37, 123 lb uplift at joint 39, 120 lb uplift at joint 40, 132 lb uplift at joint 41, 83 lb uplift at joint 42, 254 lb uplift at joint 43, 99 lb uplift at joint 33, 135 lb uplift at joint 32, 120 lb uplift at joint 31, 123 lb uplift at joint 29, 121 lb uplift at joint 28, 129 lb uplift at joint 27, 92 lb uplift at joint 26 and 225 lb uplift at joint 25.
- 11) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 12) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

LOAD CASE(S) Standard

 **WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE.**

Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information** available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



16023 Swingley Ridge Rd
Chesterfield, MO 63017

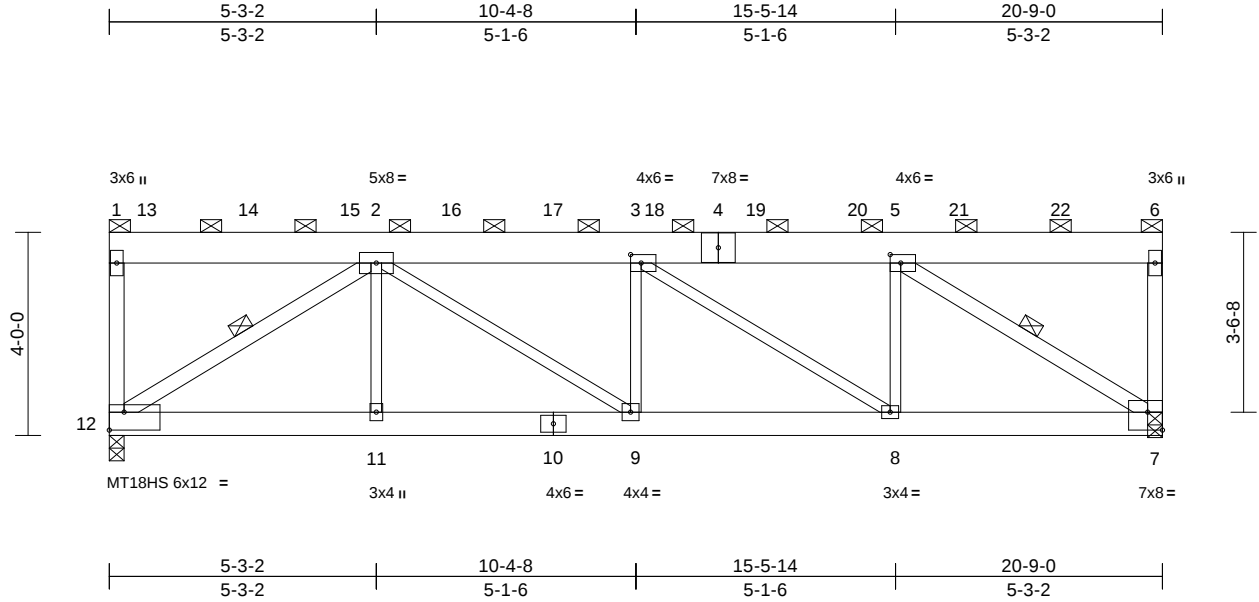
Job	Truss	Truss Type	Qty	Ply	Roof - Osage Lot 68	RELEASE FOR CONSTRUCTION
P230231-01	R1	Flat Girder	1	2	Job Reference (optional)	AS NOTED FOR PLAN REVIEW
						DEVELOPMENT SERVICES
						158165616
						LEE'S SUMMIT, MISSOURI

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

Run: 8.63 S Apr 6 2023 Print: 8.630 S Apr 6 2023 MiTek Industries, Inc. Thu May 04 12:14:32 Page: 1

ID:X3j9csSdTd7hyQgxh8rn6OzwvzW-RfC?PsB70Hq3NSgPqnL8w3uITxbGKWrCDoi734z3C7

05/25/2023



Scale = 1:45.4

Plate Offsets (X, Y): [3:0-2-8,0-2-0], [5:0-2-8,0-2-0], [7:Edge,0-4-4], [12:Edge,0-4-4]												
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	0.42	Vert(LL)	-0.11	9	>999	240	MT18HS	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.85	Vert(CT)	-0.20	9	>999	180	MT20	197/144
BCLL	0.0	Rep Stress Incr	NO	WB	0.62	Horz(CT)	0.07	7	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S							Weight: 257 lb	FT = 20%

LUMBER	
TOP CHORD	2x8 SPF No.2
BOT CHORD	2x6 SPF No.2
WEBS	2x3 SPF No.2 *Except* 12-1,5-7,12-2:2x4 SP No.2
OTHERS	2x4 SP No.2
BRACING	
TOP CHORD	2-0-0 oc purlins (5-10-6 max.): 1-6, except end verticals.
BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS	1 Row at midpt 5-7, 2-12
REACTIONS	(size) 7=0-3-8, (req. 0-4-1), 12=0-3-8, (req. 0-4-8)
	Max Uplift 7=-1154 (LC 8), 12=-1281 (LC 8)
	Max Grav 7=5155 (LC 1), 12=5719 (LC 1)
FORCES	
(lb) - Maximum Compression/Maximum Tension	
TOP CHORD	1-12=-1320/361, 1-2=-76/18, 2-3=-8293/2099, 3-5=-6403/1622, 5-6=-72/17, 6-7=-768/252
BOT CHORD	11-12=-1628/6426, 9-11=-1628/6426, 8-9=-2099/8293, 7-8=-1622/6403
WEBS	5-7=-7649/1939, 2-11=0/188, 2-12=-7674/1945, 2-9=-570/2256, 3-9=-1153/373, 3-8=-2284/577, 5-8=-239/1336

- NOTES**
- 2-ply truss to be connected together with 10d (0.131"x3") nails as follows:
Top chords connected as follows: 2x4 - 1 row at 0-9-0 oc, 2x8 - 2 rows staggered at 0-9-0 oc.
Bottom chords connected as follows: 2x6 - 2 rows staggered at 0-9-0 oc.
Web connected as follows: 2x4 - 1 row at 0-9-0 oc, 2x3 - 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 Corner (3) zone; cantilever 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.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- WARNING:** Required bearing size at joint(s) 12, 7 greater than input bearing size.
- All bearings are assumed to be SPF No.2 crushing capacity of 425 psi.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 1281 lb uplift at joint 12 and 1154 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.
- Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

SUPPLEMENTARY BEARING PLATES, SPECIAL ANCHORAGE, OR OTHER MEANS TO ALLOW FOR THE MINIMUM REQUIRED SUPPORT WIDTH (SUCH AS COLUMN CAPS, BEARING BLOCKS, ETC.) ARE THE RESPONSIBILITY OF THE TRUSS MANUFACTURER OR THE BUILDING DESIGNER.

- Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 916 lb down and 206 lb up at 0-9-0, 902 lb down and 203 lb up at 2-9-0, 902 lb down and 203 lb up at 4-9-0, 902 lb down and 203 lb up at 6-9-0, 902 lb down and 203 lb up at 8-9-0, 902 lb down and 203 lb up at 10-9-0, 902 lb down and 203 lb up at 12-9-0, 902 lb down and 203 lb up at 14-9-0, and 902 lb down and 203 lb up at 16-9-0, and 902 lb down and 203 lb up at 18-9-0 on top chord. The design/selection of such connection device(s) is the responsibility of others.
- LOAD CASE(S)** Standard
- Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (lb/ft)
Vert: 1-6=-70, 7-12=-20
Concentrated Loads (lb)
Vert: 13=-916, 14=-902, 15=-902, 16=-902, 17=-902, 18=-902, 19=-902, 20=-902, 21=-902, 22=-902



May 5,2023

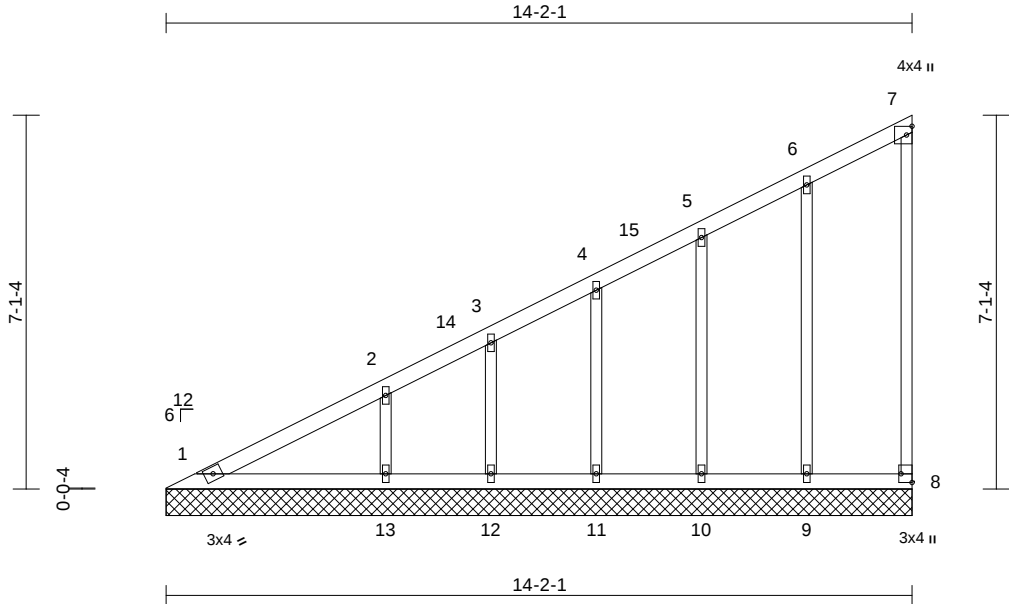
Job	Truss	Truss Type	Qty	Ply	Roof - Osage Lot 68	RELEASE FOR CONSTRUCTION
P230231-01	V1	Valley	1	1	Job Reference (optional)	AS NOTED FOR PLAN REVIEW
						DEVELOPMENT SERVICES
						158165617
						LEE'S SUMMIT, MISSOURI

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

Run: 8.63 S Apr 6 2023 Print: 8.630 S Apr 6 2023 MiTek Industries, Inc. Thu May 04 12:14:37 ID:9TR7X_t7mZkbh6rSl1VQ2DzJtkh-RfC?PsB70Hq3NSgPqnL8w3uITXbGK\WrCDoi7J42JC41

Page: 1

05/25/2023



Scale = 1:43.8									
Plate Offsets (X, Y): [8:Edge,0-2-8]									
Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.53	Vert(LL)	n/a	-	n/a
TCDL	10.0	Lumber DOL	1.15	BC	0.18	Vert(TL)	n/a	-	n/a
BCLL	0.0	Rep Stress Incr	YES	WB	0.12	Horiz(TL)	0.00	8	n/a
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S					
							PLATES	GRIP	
							MT20	244/190	
							Weight: 63 lb	FT = 20%	

LUMBER	
TOP CHORD	2x4 SP No.2
BOT CHORD	2x4 SP No.2
WEBS	2x3 SPF No.2
OTHERS	2x3 SPF No.2
BRACING	
TOP CHORD	Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.
BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing.
REACTIONS (size)	
	1=14-2-1, 8=14-2-1, 9=14-2-1, 10=14-2-1, 11=14-2-1, 12=14-2-1, 13=14-2-1
Max Horiz	1=300 (LC 9)
Max Uplift	8=-39 (LC 9), 9=-68 (LC 12), 10=-57 (LC 12), 11=-67 (LC 12), 12=-42 (LC 12), 13=-111 (LC 12)
Max Grav	1=168 (LC 20), 8=73 (LC 19), 9=193 (LC 1), 10=175 (LC 1), 11=194 (LC 1), 12=121 (LC 1), 13=328 (LC 1)
FORCES (lb) - Maximum Compression/Maximum Tension	
TOP CHORD	1-2=-431/248, 2-3=-339/196, 3-4=-297/187, 4-5=-240/162, 5-6=-184/145, 6-7=-114/106, 7-8=-54/47
BOT CHORD	1-13=-122/134, 12-13=-122/134, 11-12=-122/134, 10-11=-122/134, 9-10=-122/134, 8-9=-122/134
WEBS	6-9=-149/160, 5-10=-138/108, 4-11=-149/104, 3-12=-100/70, 2-13=-244/189
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) 0-7-9 to 5-7-9, Interior (1) 5-7-9 to 14-1-5 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- 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.
- 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 39 lb uplift at joint 8, 68 lb uplift at joint 9, 57 lb uplift at joint 10, 67 lb uplift at joint 11, 42 lb uplift at joint 12 and 111 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.

LOAD CASE(S) Standard



May 5,2023

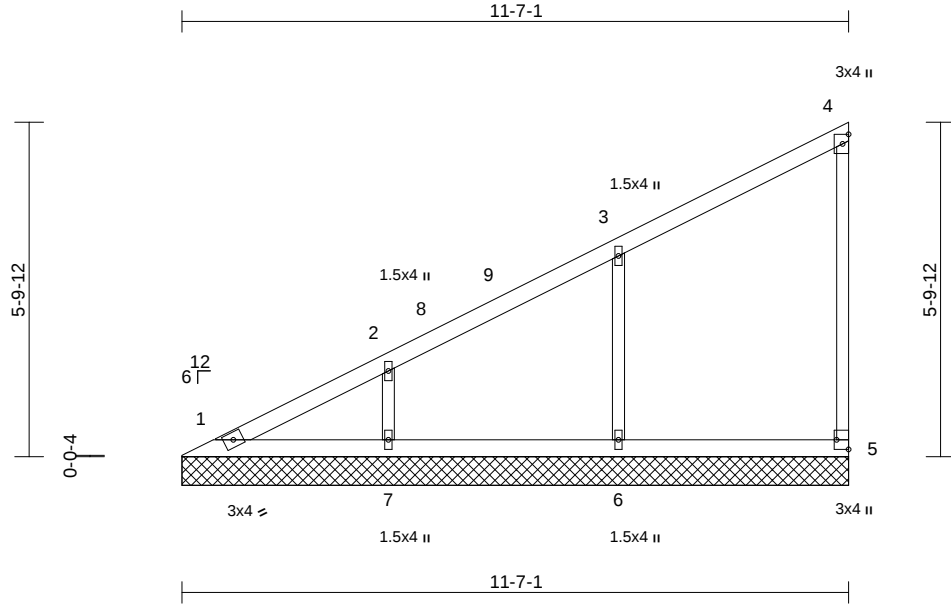
Job	Truss	Truss Type	Qty	Ply	Roof - Osage Lot 68	RELEASE FOR CONSTRUCTION AS NOTED FOR PLAN REVIEW DEVELOPMENT SERVICES 158165618 LEE'S SUMMIT, MISSOURI
P230231-01	V2	Valley	1	1	Job Reference (optional)	

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

Run: 8.63 S Apr 6 2023 Print: 8.630 S Apr 6 2023 MiTek Industries, Inc. Thu May 04 12:44:35 Page: 1

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05/25/2023



Scale = 1:40.1

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	0.35	Vert(LL)	n/a	-	n/a	999	MT20
TCDL	10.0	Lumber DOL	1.15	BC	0.13	Vert(TL)	n/a	-	n/a	999	244/190
BCLL	0.0	Rep Stress Incr	YES	WB	0.10	Horiz(TL)	0.00	5	n/a	n/a	
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S							Weight: 43 lb FT = 20%

LUMBER

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

BRACING

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

REACTIONS	(size)	1=11-7-1, 5=11-7-1, 6=11-7-1, 7=11-7-1
	Max Horiz	1=243 (LC 9)
	Max Uplift	5=-39 (LC 9), 6=-135 (LC 12), 7=-116 (LC 12)
	Max Grav	1=132 (LC 20), 5=141 (LC 1), 6=398 (LC 1), 7=340 (LC 1)

FORCES

	(lb) - Maximum Compression/Maximum Tension
TOP CHORD	1-2=-374/217, 2-3=-282/176, 3-4=-136/107, 4-5=-109/118
BOT CHORD	1-7=-99/110, 6-7=-99/110, 5-6=-99/110
WEBS	3-6=-311/288, 2-7=-260/228

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) 0-7-9 to 5-7-9, Interior (1) 5-7-9 to 11-6-5 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 2) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- 3) Gable requires continuous bottom chord bearing.
- 4) Gable studs spaced at 4-0-0 oc.

- 5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 6) All bearings are assumed to be SP No.2 crushing capacity of 565 psi.
- 7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 39 lb uplift at joint 5, 135 lb uplift at joint 6 and 116 lb uplift at joint 7.
- 8) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard



May 5, 2023

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE.

Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see

ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component

Safety Information available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



16023 Swingley Ridge Rd
Chesterfield, MO 63017

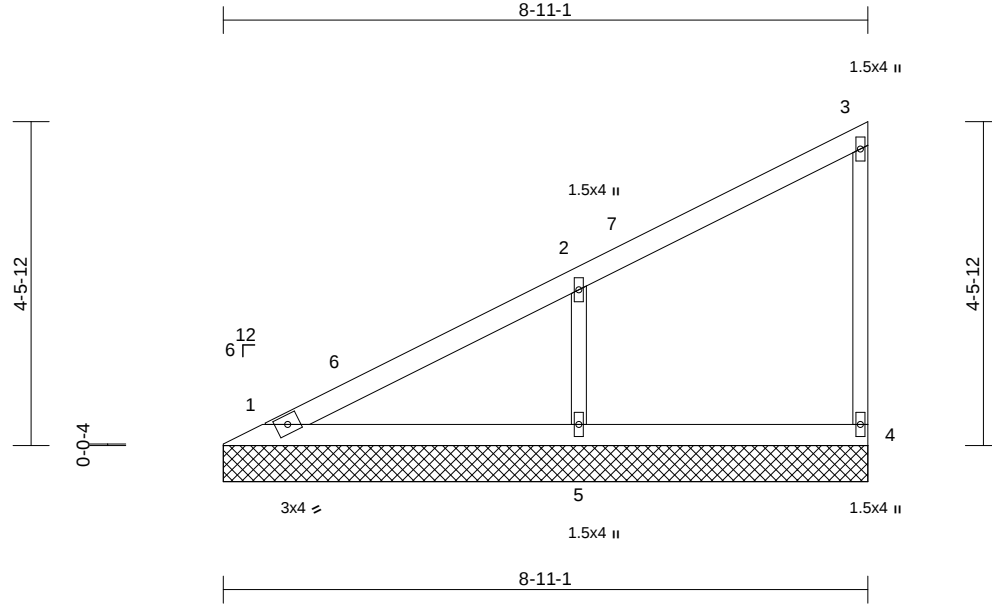
Job	Truss	Truss Type	Qty	Ply	Roof - Osage Lot 68
P230231-01	V3	Valley	1	1	Job Reference (optional)

RELEASE FOR CONSTRUCTION
AS NOTED FOR PLAN REVIEW
DEVELOPMENT SERVICES
158165619
LEE'S SUMMIT, MISSOURI

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

Run: 8.63 S Apr 6 2023 Print: 8.630 S Apr 6 2023 MiTek Industries, Inc. Thu May 04 12:14:35 Page: 1
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05/25/2023



Scale = 1:31.9

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	0.33	Vert(LL)	n/a	-	n/a	999	MT20
TCDL	10.0	Lumber DOL	1.15	BC	0.17	Vert(TL)	n/a	-	n/a	999	244/190
BCLL	0.0	Rep Stress Incr	YES	WB	0.09	Horiz(TL)	0.00	4	n/a	n/a	
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-P							Weight: 32 lb FT = 20%

LUMBER

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

BRACING

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

REACTIONS	(size) 1=8-11-1, 4=8-11-1, 5=8-11-1
	Max Horiz 1=183 (LC 9)
	Max Uplift 4=-32 (LC 9), 5=-157 (LC 12)
	Max Grav 1=153 (LC 20), 4=126 (LC 1), 5=463 (LC 1)

FORCES

(lb) - Maximum Compression/Maximum Tension

TOP CHORD	1-2=-302/183, 2-3=-125/96, 3-4=-102/125
BOT CHORD	1-5=-79/87, 4-5=-79/87
WEBS	2-5=-360/350

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) 0-7-9 to 5-7-9,
Interior (1) 5-7-9 to 8-10-5 zone; cantilever left and right
exposed; end vertical left and right exposed; C-C for
members and forces & MWFRS for reactions shown;
Lumber DOL=1.60 plate grip DOL=1.60
- 2) Truss designed for wind loads in the plane of the truss
only. For studs exposed to wind (normal to the face),
see Standard Industry Gable End Details as applicable,
or consult qualified building designer as per ANSI/TPI 1.
- 3) Gable requires continuous bottom chord bearing.
- 4) Gable studs spaced at 4-0-0 oc.
- 5) This truss has been designed for a 10.0 psf bottom
chord live load nonconcurrent with any other live loads.
- 6) All bearings are assumed to be SP No.2 crushing
capacity of 565 psi.

- 7) Provide mechanical connection (by others) of truss to
bearing plate capable of withstanding 32 lb uplift at joint
4 and 157 lb uplift at joint 5.
- 8) This truss is designed in accordance with the 2018
International Residential Code sections R502.11.1 and
R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard



May 5, 2023

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE.

Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see

ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component

Safety Information available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



16023 Swingley Ridge Rd
Chesterfield, MO 63017

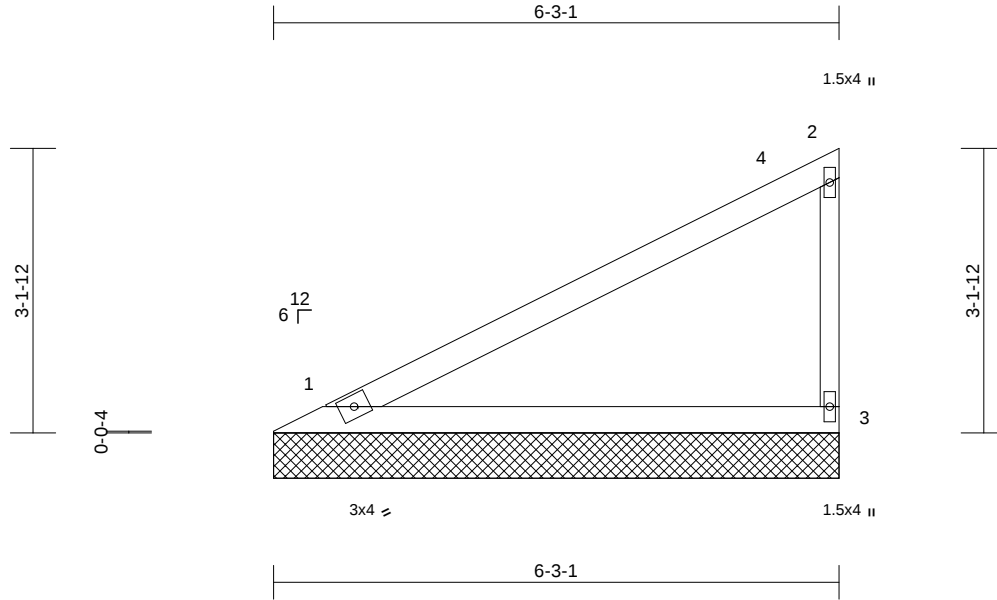
Job	Truss	Truss Type	Qty	Ply	Roof - Osage Lot 68
P230231-01	V4	Valley	1	1	Job Reference (optional)

RELEASE FOR CONSTRUCTION
AS NOTED FOR PLAN REVIEW
DEVELOPMENT SERVICES
158165620
LEE'S SUMMIT, MISSOURI

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

Run: 8.63 S Apr 6 2023 Print: 8.630 S Apr 6 2023 MiTek Industries, Inc. Thu May 04 12:14:35 Page: 1
ID:9kzY5o4omouBEjeJF6JPEpzJtkQ-RfC?PsB70Hq3NSgPqnL8w3uITXbGKw/rCDoi7J4ZJC9

05/25/2023



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	0.73	Vert(LL)	n/a	-	n/a	999	MT20
TCDL	10.0	Lumber DOL	1.15	BC	0.39	Vert(TL)	n/a	-	n/a	999	244/190
BCLL	0.0	Rep Stress Incr	YES	WB	0.00	Horiz(TL)	0.00	3	n/a	n/a	
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-P							Weight: 21 lb FT = 20%

LUMBER

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

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

LOAD CASE(S) Standard

BRACING

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

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

Max Horiz 1=124 (LC 9)
Max Uplift 1=-39 (LC 12), 3=-70 (LC 12)
Max Grav 1=250 (LC 1), 3=250 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=-169/114, 2-3=-195/240
BOT CHORD 1-3=-56/61

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) 0-7-9 to 5-7-9,
Interior (1) 5-7-9 to 6-2-5 zone; cantilever left and right
exposed; end vertical left and right exposed; C-C for
members and forces & MWFRS for reactions shown;
Lumber DOL=1.60 plate grip DOL=1.60
- Truss designed for wind loads in the plane of the truss
only. For studs exposed to wind (normal to the face),
see Standard Industry Gable End Details as applicable,
or consult qualified building designer as per ANSI/TPI 1.
- Gable requires continuous bottom chord bearing.
- Gable studs spaced at 4-0-0 oc.
- This truss has been designed for a 10.0 psf bottom
chord live load nonconcurrent with any other live loads.
- 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 39 lb uplift at joint
1 and 70 lb uplift at joint 3.



May 5, 2023

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE.

Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information** available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



16023 Swingley Ridge Rd
Chesterfield, MO 63017

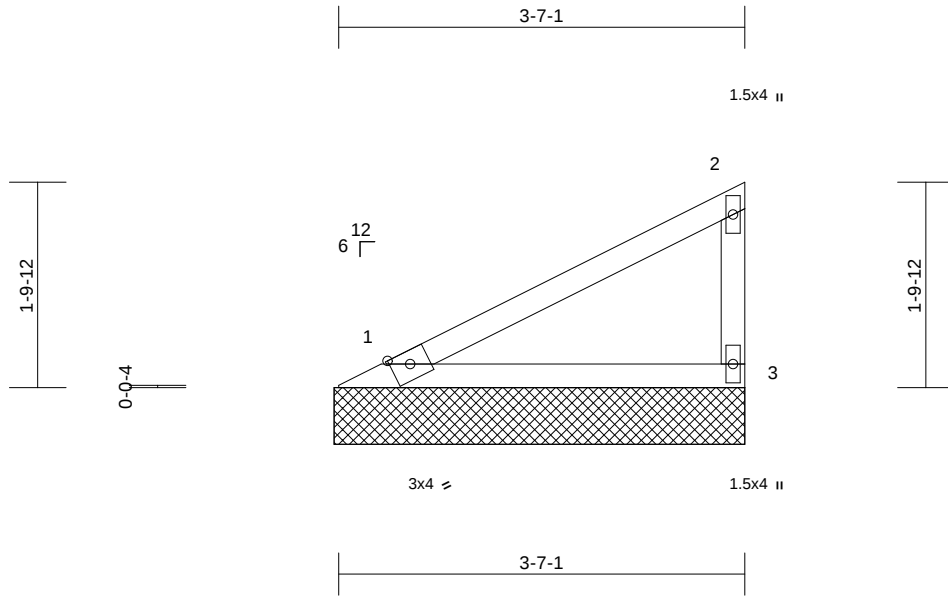
Job	Truss	Truss Type	Qty	Ply	Roof - Osage Lot 68
P230231-01	V5	Valley	1	1	Job Reference (optional)

RELEASE FOR CONSTRUCTION
AS NOTED FOR PLAN REVIEW
DEVELOPMENT SERVICES
158165621
LEE'S SUMMIT, MISSOURI

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

Run: 8.63 S Apr 6 2023 Print: 8.630 S Apr 6 2023 MiTek Industries, Inc. Thu May 04 12:14:35 Page: 1
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05/25/2023



Scale = 1:20.4

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	0.35	Vert(LL)	n/a	-	n/a	999	MT20
TCDL	10.0	Lumber DOL	1.15	BC	0.19	Vert(TL)	n/a	-	n/a	999	197/144
BCLL	0.0	Rep Stress Incr	YES	WB	0.00	Horiz(TL)	n/a	-	n/a	n/a	
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-P							Weight: 7 lb FT = 20%

LUMBER

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

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

LOAD CASE(S) Standard

BRACING

TOP CHORD Structural wood sheathing directly applied or 3-7-9 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (size) 1=3-7-9, 3=3-7-9

Max Horiz 1=67 (LC 12)
Max Uplift 1=-13 (LC 12), 3=-47 (LC 12)
Max Grav 1=138 (LC 1), 3=138 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=-72/39, 2-3=-107/128
BOT CHORD 1-3=0/0

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 exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 2) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- 3) Gable requires continuous bottom chord bearing.
- 4) Gable studs spaced at 4-0-0 oc.
- 5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 6) All bearings are assumed to be SPF No.2 crushing capacity of 425 psi.
- 7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 13 lb uplift at joint 1 and 47 lb uplift at joint 3.



May 5, 2023

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ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component

Safety Information available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



16023 Swingley Ridge Rd
Chesterfield, MO 63017

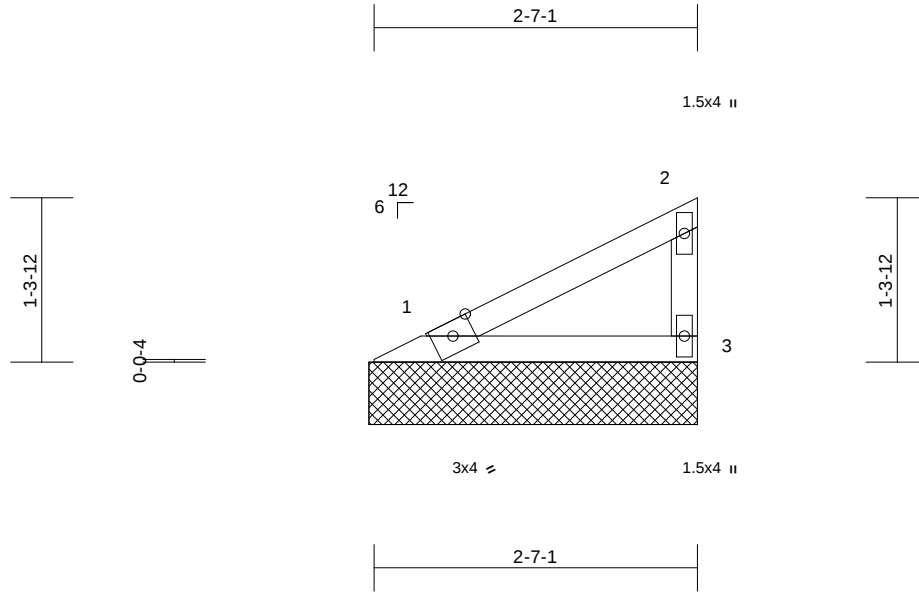
Job	Truss	Truss Type	Qty	Ply	Roof - Osage Lot 68
P230231-01	V6	Valley	1	1	Job Reference (optional)

RELEASE FOR CONSTRUCTION
AS NOTED FOR PLAN REVIEW
DEVELOPMENT SERVICES
158165622
LEE'S SUMMIT, MISSOURI

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

Run: 8.63 S Apr 6 2023 Print: 8.630 S Apr 6 2023 MiTek Industries, Inc. Thu May 04 12:14:36 PM Page: 1
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05/25/2023



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	0.15	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.08	Vert(TL)	n/a	-	n/a	999		
BCLL	0.0	Rep Stress Incr	YES	WB	0.00	Horiz(TL)	n/a	-	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-P							Weight: 5 lb	FT = 20%

LUMBER

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

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

LOAD CASE(S) Standard

BRACING

TOP CHORD Structural wood sheathing directly applied or 2-7-9 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (size) 1=2-7-9, 3=2-7-9

Max Horiz 1=45 (LC 12)
Max Uplift 1=-9 (LC 12), 3=-32 (LC 12)
Max Grav 1=93 (LC 1), 3=93 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=-49/26, 2-3=-72/86
BOT CHORD 1-3=0/0

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 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 SPF No.2 crushing capacity of 425 psi.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 9 lb uplift at joint 1 and 32 lb uplift at joint 3.



May 5, 2023

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE.

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Safety Information available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



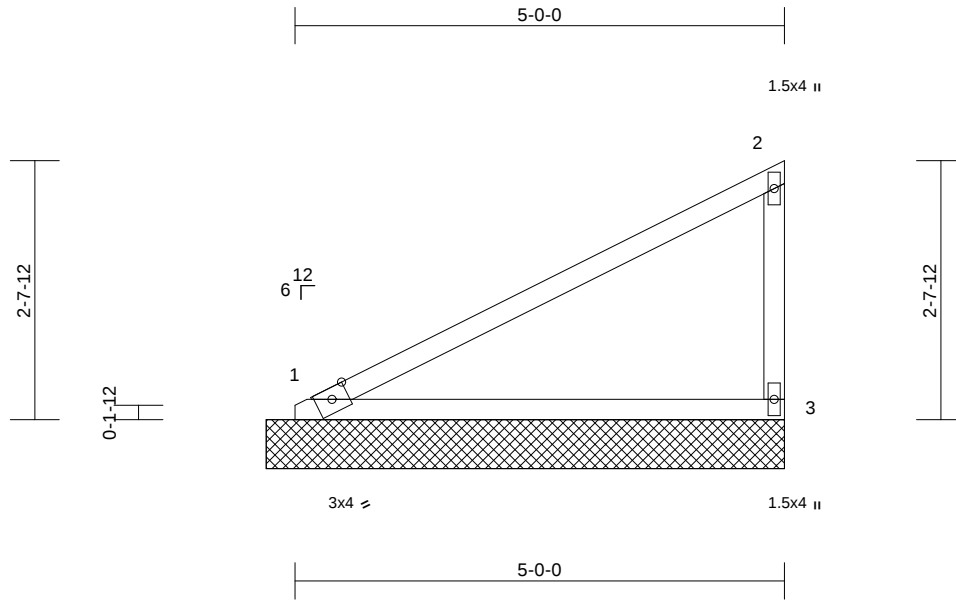
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Roof - Osage Lot 68
P230231-01	V7	Valley	1	1	Job Reference (optional)

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

Run: 8.63 S Apr 6 2023 Print: 8.630 S Apr 6 2023 MiTek Industries, Inc. Thu May 04 12:14:36 Page: 1
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05/25/2023



Scale = 1:23.5

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	0.89	Vert(LL)	n/a	-	n/a	999	MT20
TCDL	10.0	Lumber DOL	1.15	BC	0.48	Vert(TL)	n/a	-	n/a	999	197/144
BCLL	0.0	Rep Stress Incr	YES	WB	0.00	Horiz(TL)	n/a	-	n/a	n/a	
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-P							Weight: 10 lb FT = 20%

LUMBER

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

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

LOAD CASE(S) Standard

BRACING

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

REACTIONS

(size) 1=5-3-9, 3=5-3-9
Max Horiz 1=104 (LC 12)
Max Uplift 1=-20 (LC 12), 3=-72 (LC 12)
Max Grav 1=213 (LC 1), 3=213 (LC 1)

FORCES

(lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=-111/59, 2-3=-165/197
BOT CHORD 1-3=0/0

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 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 SPF No.2 crushing capacity of 425 psi.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 20 lb uplift at joint 1 and 72 lb uplift at joint 3.



May 5, 2023

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

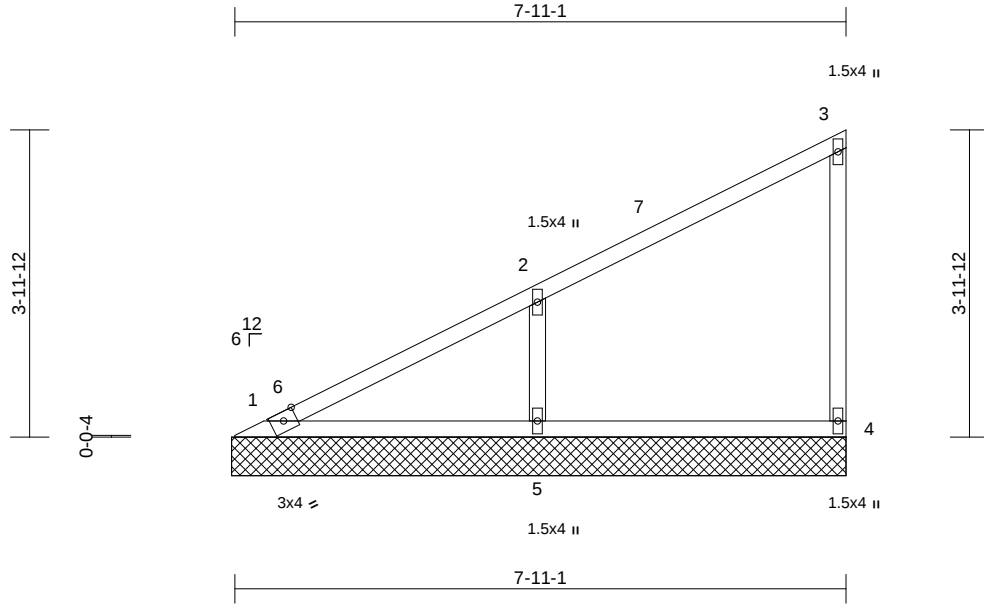
Job	Truss	Truss Type	Qty	Ply	Roof - Osage Lot 68
P230231-01	V8	Valley	1	1	Job Reference (optional)

RELEASE FOR CONSTRUCTION
AS NOTED FOR PLAN REVIEW
DEVELOPMENT SERVICES
158165624
LEE'S SUMMIT, MISSOURI

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

Run: 8.63 S Apr 6 2023 Print: 8.630 S Apr 6 2023 MiTek Industries, Inc. Thu May 04 12:14:36
ID:X3j9csSdTd?hyQgxh8rn6OzwvzW-RfC?PsB70Hq3NSgPqnL8w3uITxbGKWrCD0i734zJG%7

05/25/2023



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	0.43	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.23	Vert(TL)	n/a	-	n/a	999		
BCLL	0.0	Rep Stress Incr	YES	WB	0.08	Horiz(TL)	n/a	-	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-P							Weight: 17 lb	FT = 20%

LUMBER

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

BRACING

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

REACTIONS

(size)	1=7-11-9, 4=7-11-9, 5=7-11-9
Max Horiz	1=162 (LC 12)
Max Uplift	4=-46 (LC 12), 5=-142 (LC 12)
Max Grav	1=113 (LC 1), 4=136 (LC 1), 5=417 (LC 1)

FORCES

(lb) - Maximum Compression/Maximum Tension

TOP CHORD	1-2=-237/110, 2-3=-81/35, 3-4=-105/109
BOT CHORD	1-5=0/0, 4-5=0/0
WEBS	2-5=-324/335

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) 0-5-9 to 5-5-9,
Interior (1) 5-5-9 to 7-10-5 zone; cantilever left and right
exposed; end vertical left exposed; C-C for members
and forces & MWFRS for reactions shown; Lumber
DOL=1.60 plate grip DOL=1.60
- 2) Truss designed for wind loads in the plane of the truss
only. For studs exposed to wind (normal to the face),
see Standard Industry Gable End Details as applicable,
or consult qualified building designer as per ANSI/TPI 1.
- 3) Gable requires continuous bottom chord bearing.
- 4) Gable studs spaced at 4-0-0 oc.
- 5) This truss has been designed for a 10.0 psf bottom
chord live load nonconcurrent with any other live loads.
- 6) All bearings are assumed to be SPF No.2 crushing
capacity of 425 psi.

- 7) Provide mechanical connection (by others) of truss to
bearing plate capable of withstanding 46 lb uplift at joint
4 and 142 lb uplift at joint 5.
- 8) This truss is designed in accordance with the 2018
International Residential Code sections R502.11.1 and
R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard



May 5, 2023

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE.

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Roof - Osage Lot 68
P230231-01	V9	Valley	1	1	Job Reference (optional)

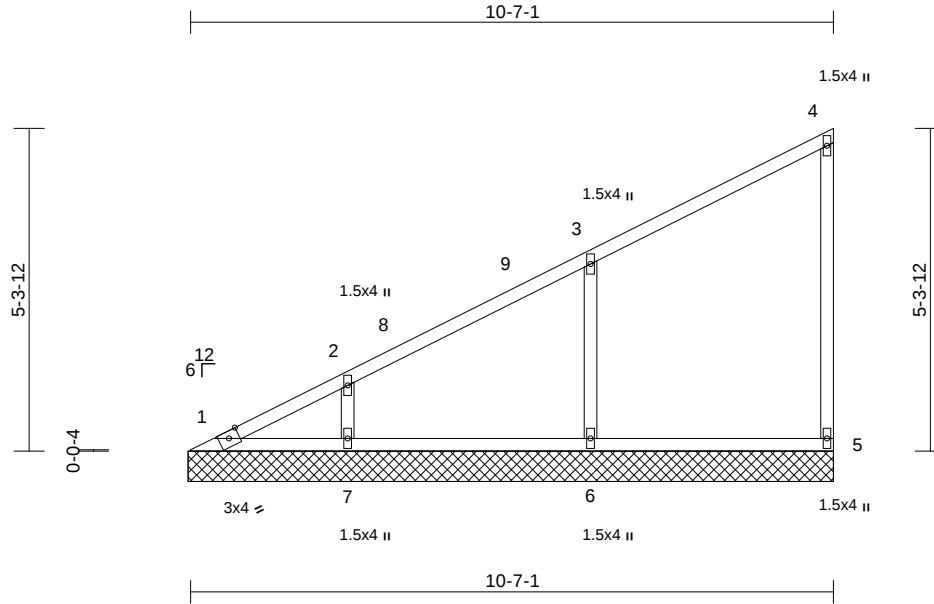
Premier Building Supply (Springhill, KS), Spring Hills, KS - 66083,

Run: 8.63 S Apr 6 2023 Print: 8.630 S Apr 6 2023 MiTek Industries, Inc. Thu May 04 12:14:36 Page: 1

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RELEASE FOR CONSTRUCTION
AS NOTED FOR PLAN REVIEW
DEVELOPMENT SERVICES
158165625
LEE'S SUMMIT, MISSOURI

05/25/2023



Scale = 1:38

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.41	Vert(LL)	n/a	-	n/a	999	MT20
TCDL	10.0	Lumber DOL	1.15	BC	0.21	Vert(TL)	n/a	-	n/a	999	197/144
BCLL	0.0	Rep Stress Incr	YES	WB	0.09	Horiz(TL)	0.00	5	n/a	n/a	
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S							Weight: 25 lb FT = 20%

LUMBER

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

BRACING

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

REACTIONS (size)	1=10-7-9, 5=10-7-9, 6=10-7-9, 7=10-7-9
Max Horiz	1=220 (LC 12)
Max Uplift	5=-49 (LC 12), 6=-135 (LC 12), 7=-105 (LC 12)
Max Grav	1=91 (LC 21), 5=143 (LC 1), 6=399 (LC 1), 7=304 (LC 1)

FORCES

	(lb) - Maximum Compression/Maximum Tension
TOP CHORD	1-2=-299/129, 2-3=-212/91, 3-4=-83/44, 4-5=-110/101
BOT CHORD	1-7=-4/6, 6-7=-4/6, 5-6=-4/6
WEBS	3-6=-311/285, 2-7=-235/220

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) 0-5-9 to 5-5-9, Interior (1) 5-5-9 to 10-6-5 zone; cantilever left and right exposed; end vertical left exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 2) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- 3) Gable requires continuous bottom chord bearing.
- 4) Gable studs spaced at 4-0-0 oc.

- 5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 6) All bearings are assumed to be SPF No.2 crushing capacity of 425 psi.
- 7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 49 lb uplift at joint 5, 135 lb uplift at joint 6 and 105 lb uplift at joint 7.
- 8) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard



May 5, 2023

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Roof - Osage Lot 68
P230231-01	V10	Valley	1	1	Job Reference (optional)

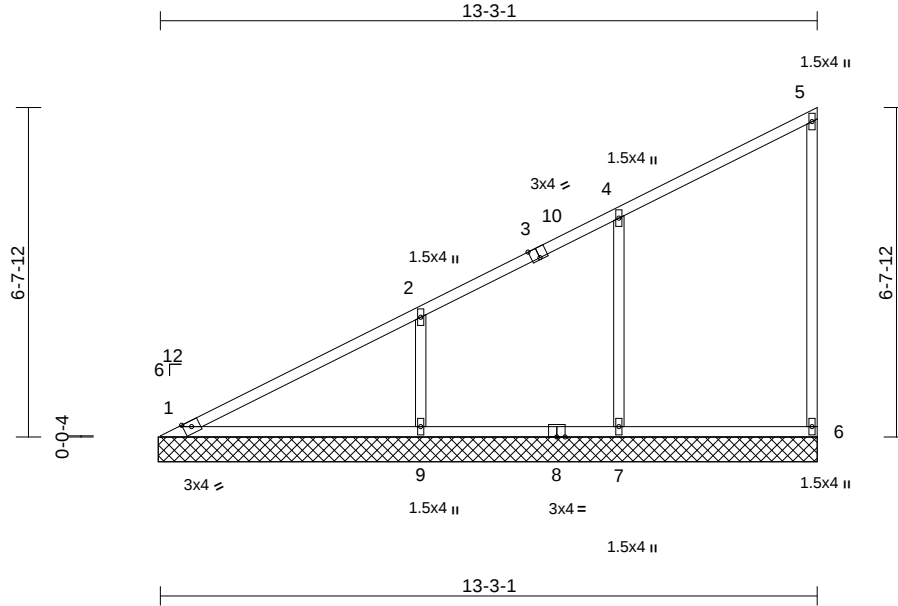
RELEASE FOR CONSTRUCTION
AS NOTED FOR PLAN REVIEW
DEVELOPMENT SERVICES
158165626
LEE'S SUMMIT, MISSOURI

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

Run: 8.63 S Apr 6 2023 Print: 8.630 S Apr 6 2023 MiTek Industries, Inc. Thu May 04 12:14:36 Page: 1

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05/25/2023



Scale = 1:46.5

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

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.59	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.32	Vert(TL)	n/a	-	n/a	999		
BCLL	0.0	Rep Stress Incr	YES	WB	0.14	Horiz(TL)	0.00	6	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S							Weight: 33 lb	FT = 20%

LUMBER

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

BRACING

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

REACTIONS	(size)	1=13-3-9, 6=13-3-9, 7=13-3-9, 9=13-3-9
	Max Horiz	1=278 (LC 12)
	Max Uplift	6=-52 (LC 12), 7=-121 (LC 12), 9=-157 (LC 12)
	Max Grav	1=179 (LC 1), 6=151 (LC 1), 7=357 (LC 1), 9=459 (LC 1)

FORCES

	(lb) - Maximum Compression/Maximum Tension
TOP CHORD	1-2=-317/141, 2-4=-185/76, 4-5=-82/47, 5-6=-115/95
BOT CHORD	1-9=-3/5, 7-9=-3/5, 6-7=-3/5
WEBS	4-7=-282/228, 2-9=-346/264

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) 0-5-9 to 5-3-9, Interior (1) 5-3-9 to 13-2-5 zone; cantilever left and right exposed; end vertical left exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 2) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- 3) Gable requires continuous bottom chord bearing.
- 4) Gable studs spaced at 4-0-0 oc.

- 5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 6) All bearings are assumed to be SPF No.2 crushing capacity of 425 psi.
- 7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 52 lb uplift at joint 6, 121 lb uplift at joint 7 and 157 lb uplift at joint 9.
- 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



May 5, 2023

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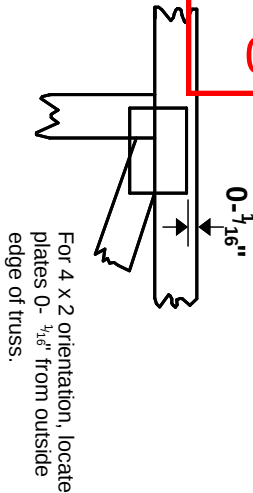
16023 Swingley Ridge Rd
Chesterfield, MO 63017

05/25/2023

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.



This symbol indicates the required direction of slots in connector plates.

* Plate location details available in **MiTek 20120** software or upon request.

PLATE SIZE

4 X 4

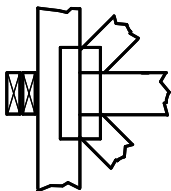
The first dimension is the plate width measured perpendicular to slots. Second dimension is the length parallel to slots.

LATERAL BRACING LOCATION



Indicated by symbol shown and/or by text in the bracing section of the output. Use T or I bracing if indicated.

BEARING



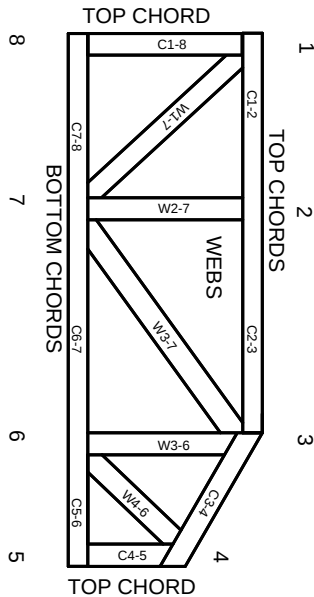
Indicates location where bearings (supports) occur. Icons vary but reaction section indicates joint number where bearings occur. Min size shown is for crushing only.

Industry Standards:

ANSI/TP1.1: National Design Specification for Metal Plate Connected Wood Truss Construction.
DSB-89: Design Standard for Bracing.
BCSI: Building Component Safety Information, Guide to Good Practice for Handling, Installing & Bracing of Metal Plate Connected Wood Trusses.

Numbering System

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



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-1311, ESR-1352, ESR1988
ER-3907, ESR-2362, ESR-1397, ESR-3282

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

Lumber design values are in accordance with ANSI/TP1 1 section 6.3 These truss designs rely on lumber values established by others.

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MiTek Engineering Reference Sheet: MII-7473 rev. 5/19/2020



General Safety Notes

Failure to Follow Could Cause Property Damage or Personal Injury

1. Additional stability bracing for truss system, e.g. diagonal or X-bracing, is always required. See BCSI.
2. Truss bracing must be designed by an engineer. For wide truss spacing, individual lateral braces themselves may require bracing, or alternative Tor I bracing should be considered.
3. Never exceed the design loading shown and never stack materials on inadequately braced trusses.
4. Provide copies of this truss design to the building designer, erection supervisor, property owner and all other interested parties.
5. Cut members to bear tightly against each other.
6. Place plates on each face of truss at each joint and embed fully. Knots and wane at joint locations are regulated by ANSI/TP1 1.
7. Design assumes trusses will be suitably protected from the environment in accord with ANSI/TP1 1.
8. Unless otherwise noted, moisture content of lumber shall not exceed 19% at time of fabrication.
9. Unless expressly noted, this design is not applicable for use with fire retardant, preservative treated, or green lumber.
10. Camber is a non-structural consideration and is the responsibility of truss fabricator. General practice is to camber for dead load deflection.
11. Plate type, size, orientation and location dimensions indicated are minimum plating requirements.
12. Lumber used shall be of the species and size, and in all respects, equal to or better than that specified.
13. Top chords must be sheathed or purlins provided at spacing indicated on design.
14. Bottom chords require lateral bracing at 10 ft. spacing, or less, if no ceiling is installed, unless otherwise noted.
15. Connections not shown are the responsibility of others.
16. Do not cut or alter truss member or plate without prior approval of an engineer.
17. Install and load vertically unless indicated otherwise.
18. Use of green or treated lumber may pose unacceptable environmental, health or performance risks. Consult with project engineer before use.
19. Review all portions of this design (front, back, words and pictures) before use. Reviewing pictures alone is not sufficient.
20. Design assumes manufacture in accordance with ANSI/TP1 1 Quality Criteria.
21. The design does not take into account any dynamic or other loads other than those expressly stated.