



MiTek USA, Inc.
16023 Swingley Ridge Rd
Chesterfield, MO 63017
314-434-1200

Re: P230133-01
Roof - Osage Lot 69

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: I57488591 thru I57488611

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

Missouri COA: Engineering 001193



March 30, 2023

Nathan Fox, Engineer

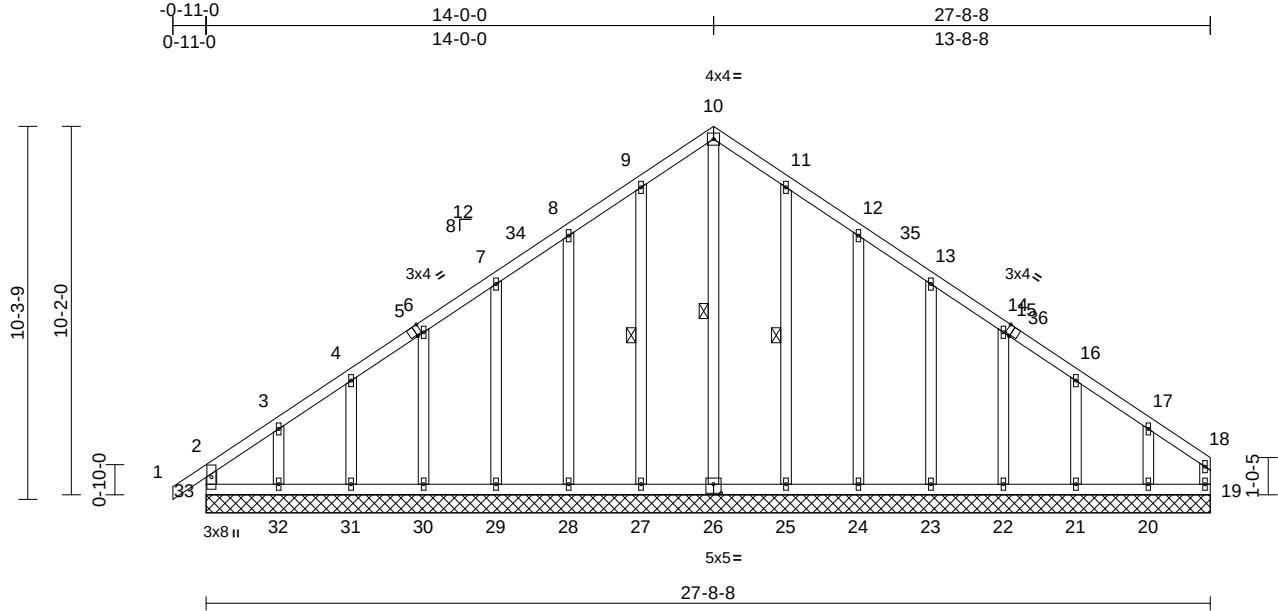
IMPORTANT NOTE: The seal on these truss component designs is a certification that the engineer named is licensed in the jurisdiction(s) identified and that the designs comply with ANSI/TPI 1. These designs are based upon parameters shown (e.g., loads, supports, dimensions, shapes and design codes), which 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 69	I57488591
P230133-01	A1	Common Supported Gable	1	1	Job Reference (optional)	

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

Run: 8.63 S Nov 19 2022 Print: 8.630 S Nov 19 2022 MiTek Industries, Inc. Thu Mar 30 10:58:34
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Page: 1



Scale = 1:63.6

Plate Offsets (X, Y): [5:0-1-12,Edge], [15:0-1-12,Edge], [26:0-2-8,0-3-0]

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.16	Vert(LL)	n/a	-	999	MT20	244/190
Snow (Pf)	25.0	Lumber DOL	1.15	BC	0.10	Vert(CT)	n/a	-	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.24	Horz(CT)	0.01	19	n/a		
BCLL	0.0	Code	IRC2018/TPI2014	Matrix-R							
BCDL	10.0										
Weight: 173 lb FT = 20%											

LUMBER

TOP CHORD	2x4 SP No.2
BOT CHORD	2x4 SP No.2
WEBS	2x4 SP No.2 *Except* 18-19:2x4 SPF No.3
OTHERS	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 6-0-0 oc bracing.

WEBS	1 Row at midpt	10-26, 9-27, 11-25
REACTIONS	(size)	19=27-8-8, 20=27-8-8, 21=27-8-8, 22=27-8-8, 23=27-8-8, 24=27-8-8, 25=27-8-8, 26=27-8-8, 27=27-8-8, 28=27-8-8, 29=27-8-8, 30=27-8-8, 31=27-8-8, 32=27-8-8, 33=27-8-8

Max Horiz	33=299 (LC 13)
Max Uplift	19=72 (LC 15), 20=163 (LC 17), 21=62 (LC 17), 22=82 (LC 17), 23=76 (LC 17), 24=86 (LC 17), 25=65 (LC 17), 27=68 (LC 16), 28=84 (LC 16), 29=76 (LC 16), 30=83 (LC 16), 31=58 (LC 16), 32=166 (LC 16), 33=142 (LC 12)
Max Grav	19=132 (LC 17), 20=232 (LC 27), 21=183 (LC 24), 22=191 (LC 27), 23=191 (LC 24), 24=264 (LC 24), 25=291 (LC 24), 26=294 (LC 17), 27=291 (LC 23), 28=264 (LC 23), 29=191 (LC 23), 30=192 (LC 26), 31=186 (LC 23), 32=240 (LC 26), 33=261 (LC 27)

FORCES	(lb) - Maximum Compression/Maximum Tension
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TOP CHORD	2-33=-217/123, 1-2=0/71, 2-3=-250/226, 3-4=-191/176, 4-6=-178/177, 6-7=-155/195, 7-8=-138/234, 8-9=-179/280, 9-10=-213/337, 10-11=-213/337, 11-12=-179/280, 12-13=-138/210, 13-14=-101/145, 14-16=-82/98, 16-17=-94/72, 17-18=-149/111, 18-19=-94/52
BOT CHORD	32-33=-102/121, 31-32=-102/121, 30-31=-102/121, 29-30=-102/121, 28-29=-102/121, 27-28=-102/121, 25-27=-102/121, 24-25=-102/121, 23-24=-102/121, 22-23=-102/121, 21-22=-102/121, 20-21=-102/121, 19-20=-102/121
WEBS	10-26=-294/131, 9-27=-251/93, 8-28=-224/108, 7-29=-151/100, 6-30=-150/105, 4-31=-145/96, 3-32=-171/148, 11-25=-251/89, 12-24=-224/109, 13-23=-150/100, 14-22=-150/104, 16-21=-147/99, 17-20=-166/138

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) -0-11-0 to 4-0-0, Exterior(2N) 4-0-0 to 14-0-0, Corner(3R) 14-0-0 to 19-0-0, Exterior(2N) 19-0-0 to 27-6-12 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 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.

- TCLL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=25.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
- Unbalanced snow loads have been considered for this design.
- This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 25.0 psf on overhangs non-concurrent with other live loads.
- 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.
- N/A



March 30, 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 69
P230133-01	A1	Common Supported Gable	1	1	I57488591
Job Reference (optional)					

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

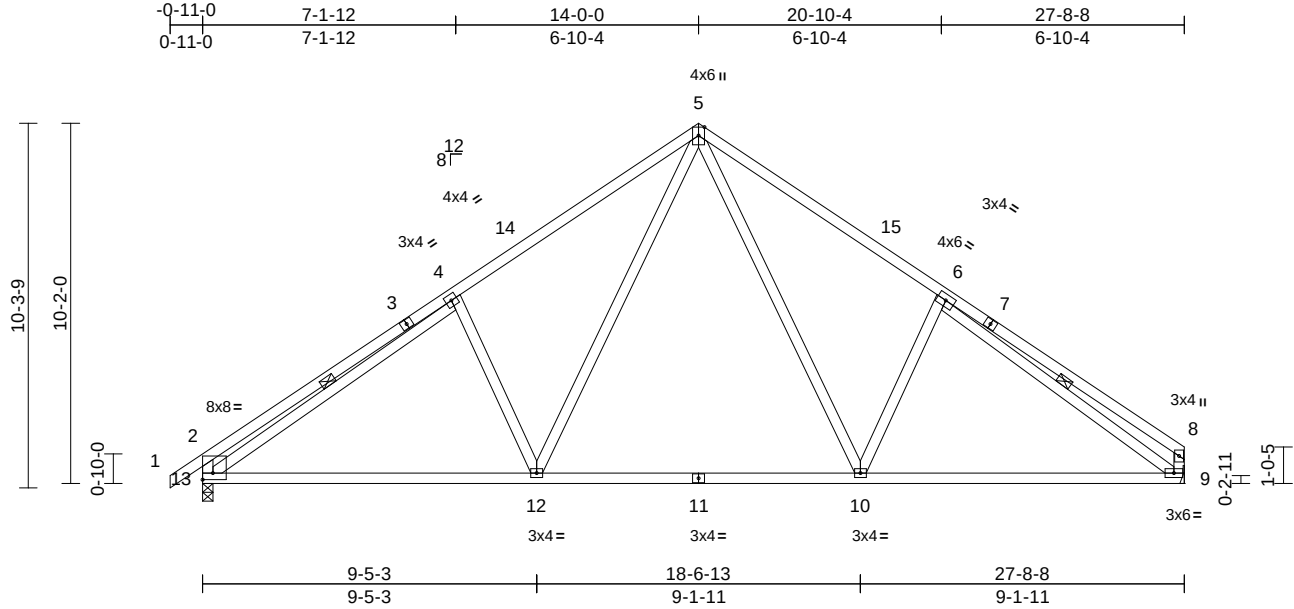
Job	Truss	Truss Type	Qty	Ply	Roof - Osage Lot 69	157488592
P230133-01	A2	Common	10	1	Job Reference (optional)	

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

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Page: 1

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Scale = 1:65

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

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.84	Vert(LL)	-0.17	12-13	>999	240	MT20	244/190
Snow (Pf)	25.0	Lumber DOL	1.15	BC	0.83	Vert(CT)	-0.35	12-13	>935	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.56	Horz(CT)	0.05	9	n/a	n/a		
BCLL	0.0	Code	IRC2018/TPI2014	Matrix-S								
BCDL	10.0											
											Weight: 150 lb	FT = 20%

LUMBER

TOP CHORD 2x4 SP 1650F 1.5E *Except* 1-3,7-8:2x4 SP No.2
 BOT CHORD 2x4 SP No.2
 WEBS 2x4 SPF No.3 *Except* 13-2,9-8:2x4 SP No.2

BRACING

TOP CHORD Structural wood sheathing directly applied or 2-2-0 oc purlins, except end verticals.
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
 WEBS 1 Row at midpt 4-13, 6-9

REACTIONS

(size) 9= Mechanical, 13=0-3-8
 Max Horiz 13=299 (LC 13)
 Max Uplift 9=-171 (LC 17), 13=-200 (LC 16)
 Max Grav 9=1252 (LC 24), 13=1331 (LC 23)

FORCES

(lb) - Maximum Compression/Maximum Tension
 TOP CHORD 1-2=0/71, 2-4=-758/311, 4-5=-1554/357, 5-6=-1532/356, 6-8=-466/175, 2-13=-660/287, 8-9=-407/172
 BOT CHORD 12-13=-261/1318, 10-12=-35/865, 9-10=-150/1286
 WEBS 5-10=-206/646, 6-10=-440/330, 5-12=-209/684, 4-12=-472/335, 4-13=-1075/63, 6-9=-1310/143

NOTES

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

- 2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=35ft; Ke=1.00; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) -0-11-0 to 4-1-0, Interior (1) 4-1-0 to 14-0-0, Exterior(2R) 14-0-0 to 19-0-0, Interior (1) 19-0-0 to 27-6-12 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 3) TCLL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=25.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
- 4) Unbalanced snow loads have been considered for this design.
- 5) This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 25.0 psf on overhangs non-concurrent with other live loads.
- 6) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 7) Refer to girder(s) for truss to truss connections.
- 8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 171 lb uplift at joint 9.
- 9) One H2.5T Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 13. This connection is for uplift only and does not consider lateral forces.
- 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



March 30, 2023

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16023 Swingley Ridge Rd
 Chesterfield, MO 63017

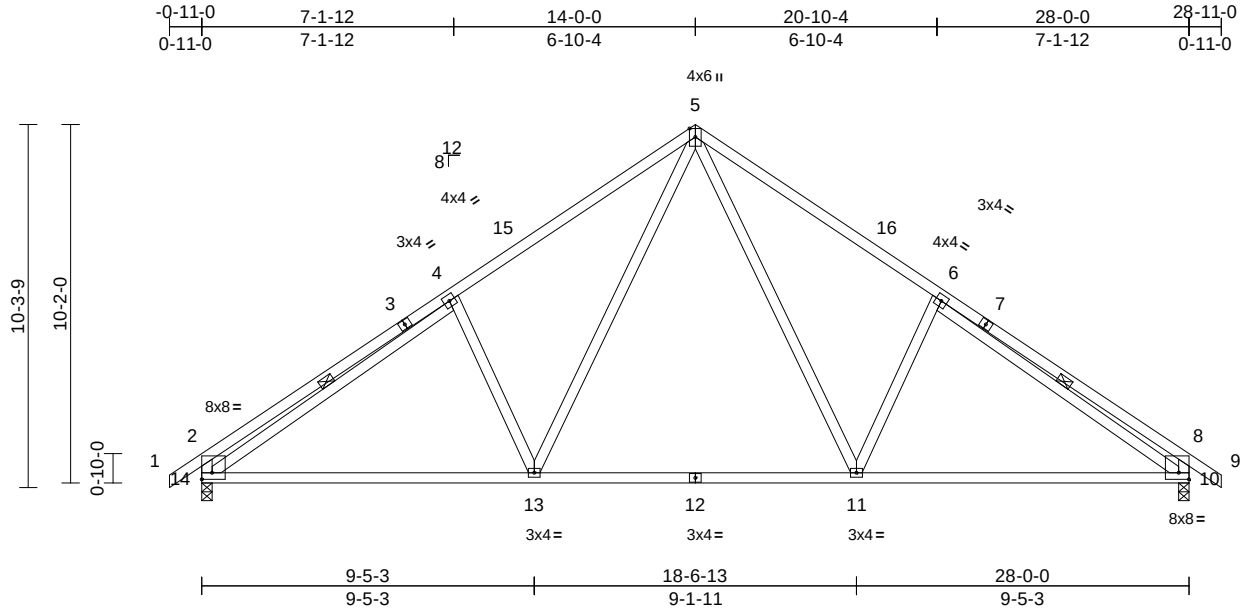
Job	Truss	Truss Type	Qty	Ply	Roof - Osage Lot 69	I57488593
P230133-01	A3	Common	3	1	Job Reference (optional)	

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

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Page: 1

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Plate Offsets (X, Y): [2:Edge,0-2-4], [10:Edge,0-2-4]

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.84	Vert(LL)	-0.17	13-14	>999	240	MT20	244/190
Snow (Pf)	25.0	Lumber DOL	1.15	BC	0.83	Vert(CT)	-0.35	13-14	>937	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.51	Horz(CT)	0.05	10	n/a	n/a		
BCLL	0.0	Code	IRC2018/TPI2014	Matrix-S								
BCDL	10.0											
											Weight: 152 lb FT = 20%	

LUMBER

TOP CHORD	2x4 SP 1650F 1.5E *Except* 1-3,7-9:2x4 SP No.2
BOT CHORD	2x4 SP No.2
WEBS	2x4 SPF No.3 *Except* 14-2,10-8:2x4 SP No.2

BRACING

TOP CHORD	Structural wood sheathing directly applied or 2-2-0 oc purlins, except end verticals.
BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS	1 Row at midpt 4-14, 6-10

REACTIONS

(size)	10=0-3-8, 14=0-3-8
Max Horiz	14=303 (LC 14)
Max Uplift	10=201 (LC 17), 14=201 (LC 16)
Max Grav	10=1341 (LC 24), 14=1341 (LC 23)

FORCES

(lb) - Maximum Compression/Maximum Tension	
TOP CHORD	1-2=0/71, 2-4=-761/311, 4-5=-1569/359, 5-6=-1569/359, 6-8=-761/311, 8-9=0/71, 2-14=-662/287, 8-10=-662/286
BOT CHORD	13-14=-248/1330, 11-13=-23/882, 10-11=-105/1330
WEBS	5-11=-210/681, 6-11=-471/335, 5-13=-210/681, 4-13=-471/335, 4-14=-1088/65, 6-10=-1088/65

NOTES

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

- 2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=35ft; Ke=1.00; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) -0-11-0 to 4-1-0, Interior (1) 4-1-0 to 14-0-0, Exterior(2R) 14-0-0 to 19-0-0, Interior (1) 19-0-0 to 28-11-0 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 3) TCLL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=25.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
- 4) Unbalanced snow loads have been considered for this design.
- 5) This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 25.0 psf on overhangs non-concurrent with other live loads.
- 6) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 7) One H2.5T Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 14 and 10. This connection is for uplift only and does not consider lateral forces.
- 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



March 30, 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

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



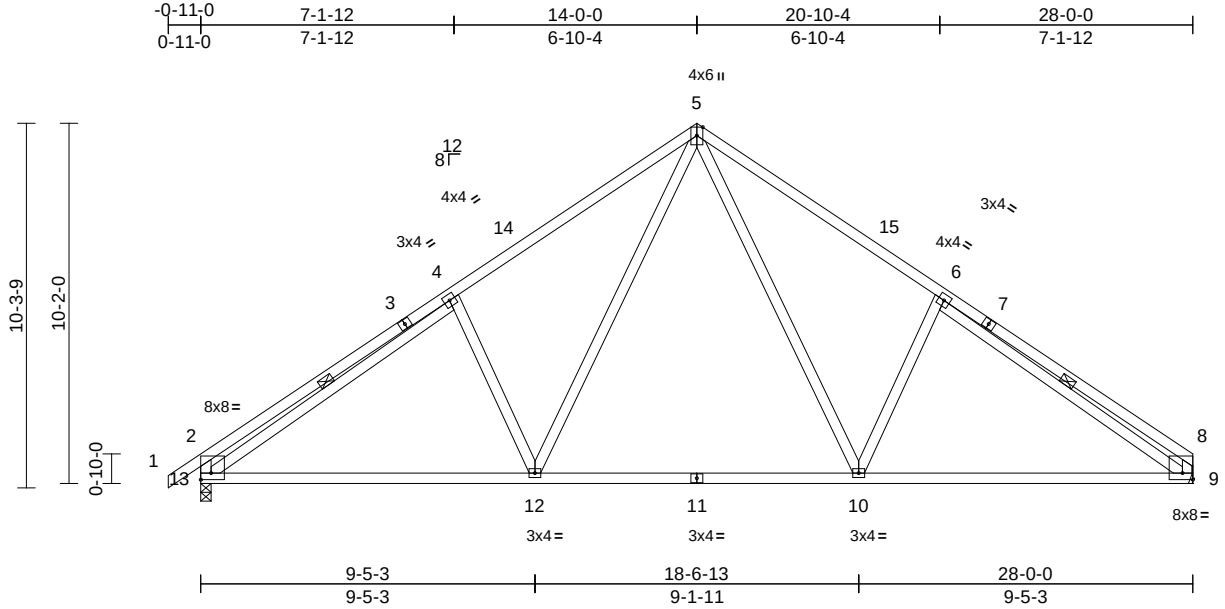
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Roof - Osage Lot 69	I57488594
P230133-01	A4	Common	4	1	Job Reference (optional)	

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

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Page: 1



Scale = 1:65

Plate Offsets (X, Y): [2:Edge,0-2-4], [9:Edge,0-2-4]

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.84	Vert(LL)	-0.17	12-13	>999	240	MT20	244/190
Snow (Pf)	25.0	Lumber DOL	1.15	BC	0.83	Vert(CT)	-0.35	12-13	>937	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.53	Horz(CT)	0.05	9	n/a	n/a		
BCLL	0.0	Code	IRC2018/TPI2014	Matrix-S								
BCDL	10.0											
Weight: 151 lb											FT = 20%	

LUMBER

TOP CHORD 2x4 SP 1650F 1.5E *Except* 1-3,7-8:2x4 SP No.2
BOT CHORD 2x4 SP No.2
WEBS 2x4 SPF No.3 *Except* 13-2,9-8:2x4 SP No.2

BRACING

TOP CHORD Structural wood sheathing directly applied or 2-2-0 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 1 Row at midpt 4-13, 6-9

REACTIONS

(size) 9= Mechanical, 13=0-3-8
Max Horiz 13=296 (LC 13)
Max Uplift 9=-174 (LC 17), 13=-201 (LC 16)
Max Grav 9=1265 (LC 24), 13=1341 (LC 23)

FORCES

(lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/71, 2-4=-760/311, 4-5=-1571/360, 5-6=-1579/364, 6-8=-619/211, 2-13=-662/286, 8-9=-501/196
BOT CHORD 12-13=-262/1332, 10-12=-36/884, 9-10=-149/1341
WEBS 5-10=-214/692, 6-10=-482/340, 5-12=-210/682, 4-12=-471/335, 4-13=-1089/67, 6-9=-1202/125

NOTES

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

- 2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=35ft; Ke=1.00; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) -0-11-0 to 4-1-0, Interior (1) 4-1-0 to 14-0-0, Exterior(2R) 14-0-0 to 19-0-0, Interior (1) 19-0-0 to 27-10-4 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 3) TCLL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=25.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
- 4) Unbalanced snow loads have been considered for this design.
- 5) This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 25.0 psf on overhangs non-concurrent with other live loads.
- 6) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 7) Refer to girder(s) for truss to truss connections.
- 8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 174 lb uplift at joint 9.
- 9) One H2.5T Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 13. This connection is for uplift only and does not consider lateral forces.
- 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



March 30, 2023

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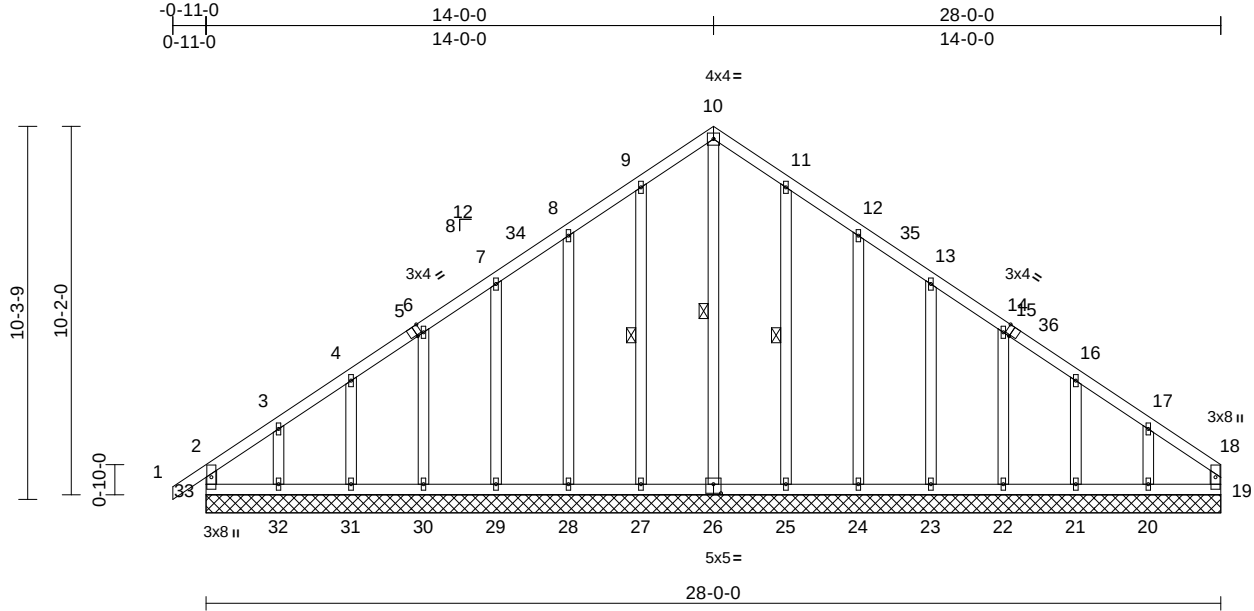
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Roof - Osage Lot 69	IS7488595
P230133-01	A5	Common Supported Gable	1	1	Job Reference (optional)	

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

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Scale = 1:63.6

Plate Offsets (X, Y): [5:0-1-12,Edge], [15:0-1-12,Edge], [26:0-2-8,0-3-0]

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.16	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf)	25.0	Lumber DOL	1.15	BC	0.10	Vert(CT)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.24	Horz(CT)	0.01	19	n/a	n/a		
BCLL	0.0	Code	IRC2018/TPI2014	Matrix-R								
BCDL	10.0											
											Weight: 174 lb	FT = 20%

LUMBER

TOP CHORD	2x4 SP No.2
BOT CHORD	2x4 SP No.2
WEBS	2x4 SP No.2 *Except* 18-19:2x4 SPF No.3
OTHERS	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 6-0-0 oc bracing.

WEBS 1 Row at midpt 10-26, 9-27, 11-25

REACTIONS (size) 19=28-0-0, 20=28-0-0, 21=28-0-0, 22=28-0-0, 23=28-0-0, 24=28-0-0, 25=28-0-0, 26=28-0-0, 27=28-0-0, 28=28-0-0, 29=28-0-0, 30=28-0-0, 31=28-0-0, 32=28-0-0, 33=28-0-0

Max Horiz 33=296 (LC 13)

Max Uplift 19=59 (LC 13), 20=154 (LC 17), 21=60 (LC 17), 22=83 (LC 17), 23=76 (LC 17), 24=85 (LC 17), 25=66 (LC 17), 27=69 (LC 16), 28=84 (LC 16), 29=76 (LC 16), 30=83 (LC 16), 31=58 (LC 16), 32=166 (LC 16), 33=125 (LC 12)
Max Grav 19=136 (LC 26), 20=240 (LC 27), 21=179 (LC 24), 22=192 (LC 27), 23=190 (LC 24), 24=264 (LC 24), 25=291 (LC 24), 26=278 (LC 17), 27=291 (LC 23), 28=264 (LC 23), 29=191 (LC 23), 30=192 (LC 26), 31=186 (LC 23), 32=235 (LC 26), 33=253 (LC 27)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD	2-33=-210/109, 1-2=0/71, 2-3=-237/209, 3-4=-176/160, 4-6=-162/158, 6-7=-139/180, 7-8=-132/219, 8-9=-173/268, 9-10=-207/325, 10-11=-207/325, 11-12=-173/268, 12-13=-132/197, 13-14=-95/137, 14-16=-96/97, 16-17=-109/85, 17-18=-164/126, 18-19=-104/50
BOT CHORD	32-33=-112/137, 31-32=-112/137, 30-31=-112/137, 29-30=-112/137, 28-29=-112/137, 27-28=-112/137, 25-27=-112/137, 24-25=-112/137, 23-24=-112/137, 22-23=-112/137, 21-22=-112/137, 20-21=-112/137, 19-20=-112/137
WEBS	10-26=-281/125, 9-27=-251/93, 8-28=-224/108, 7-29=-151/100, 6-30=-150/105, 4-31=-145/95, 3-32=-168/148, 11-25=-251/90, 12-24=-224/109, 13-23=-150/100, 14-22=-150/104, 16-21=-144/95, 17-20=-174/139

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) -0-11-0 to 4-0-0, Exterior(2N) 4-0-0 to 14-0-0, Corner(3R) 14-0-0 to 19-0-0, Exterior(2N) 19-0-0 to 27-10-4 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 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.

- TCLL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=25.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
- Unbalanced snow loads have been considered for this design.
- This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 25.0 psf on overhangs non-concurrent with other live loads.
- 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.



March 30, 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.

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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 69
P230133-01	A5	Common Supported Gable	1	1	I57488595
Job Reference (optional)					

- 12) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 125 lb uplift at joint 33, 59 lb uplift at joint 19, 69 lb uplift at joint 27, 84 lb uplift at joint 28, 76 lb uplift at joint 29, 83 lb uplift at joint 30, 58 lb uplift at joint 31, 166 lb uplift at joint 32, 66 lb uplift at joint 25, 85 lb uplift at joint 24, 76 lb uplift at joint 23, 83 lb uplift at joint 22, 60 lb uplift at joint 21 and 154 lb uplift at joint 20.
- 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.

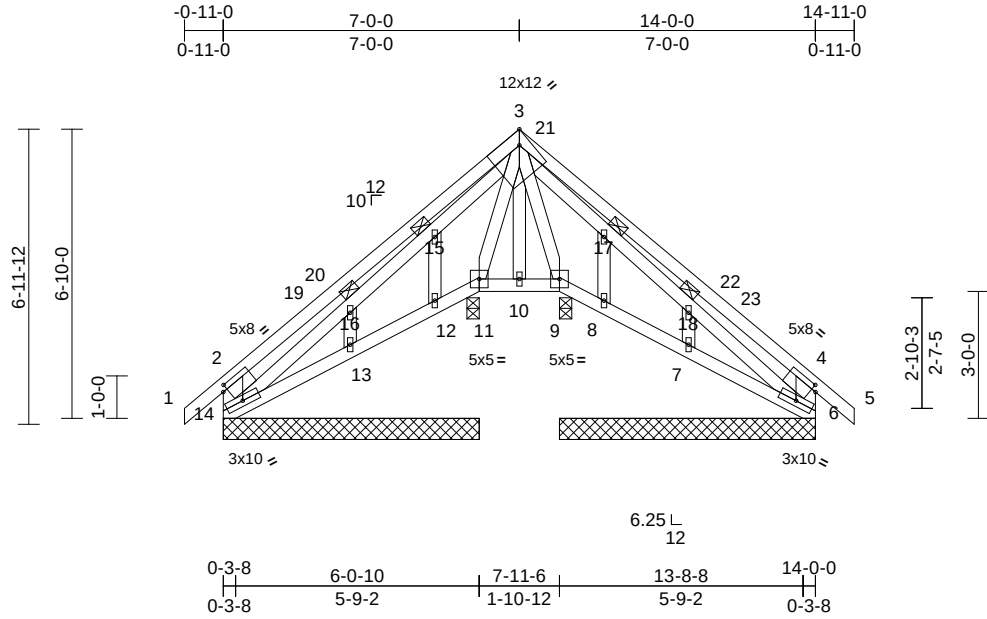
LOAD CASE(S) Standard

Job	Truss	Truss Type	Qty	Ply	Roof - Osage Lot 69	I57488596
P230133-01	B1	Roof Special	1	1	Job Reference (optional)	

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

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Page: 1



Scale = 1:54.5

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

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	0.75	Vert(LL)	0.01	12-13	>999	240	197/144
Snow (Pf)	25.0	Lumber DOL	1.15	BC	0.53	Vert(CT)	0.01	12-13	>999	180	
TCDL	10.0	Rep Stress Incr	YES	WB	0.93	Horz(CT)	-0.01	7	n/a	n/a	
BCLL	0.0	Code	IRC2018/TPI2014	Matrix-S							
BCDL	10.0										
Weight: 94 lb FT = 20%											

LUMBER

TOP CHORD	2x4 SP 1650F 1.5E
BOT CHORD	2x4 SP No.2
WEBS	2x4 SPF No.3 *Except* 14-2,6-4:2x6 SPF No.2
OTHERS	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 5-7-10 oc bracing.
JOINTS	1 Brace at Jt(s): 15, 16, 17, 18

REACTIONS

(size)	7=6-0-10, 8=6-0-10, 9=6-0-10, 11=6-0-10, 12=6-0-10, 13=6-0-10
Max Horiz	13=212 (LC 15)
Max Uplift	7=-154 (LC 17), 8=-241 (LC 24), 9=-182 (LC 17), 11=-375 (LC 16), 12=-435 (LC 23), 13=-119 (LC 16)
Max Grav	7=433 (LC 24), 8=142 (LC 17), 9=927 (LC 24), 11=1246 (LC 23), 12=263 (LC 16), 13=438 (LC 23)

FORCES

(lb) - Maximum Compression/Maximum Tension	
TOP CHORD	1-2=0/88, 2-3=-414/347, 3-4=-587/409, 4-5=0/88, 2-14=-541/344, 4-6=-673/385
BOT CHORD	13-14=-649/485, 12-13=-761/572, 11-12=-647/514, 10-11=-376/370, 9-10=-387/378, 8-9=-706/493, 7-8=-818/547, 6-7=-694/488
WEBS	3-9=-1120/353, 3-11=-1375/500, 14-16=-704/1062, 15-16=-669/993, 3-15=-767/1151, 3-17=-749/1260, 17-18=-740/1234, 6-18=-775/1308, 3-10=-183/113, 12-15=-139/226, 13-16=-104/53, 8-17=-17/39, 7-18=-110/53

NOTES

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=35ft; Ke=1.00; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) -0-11-0 to 4-1-0, Interior (1) 4-1-0 to 7-0-11, Exterior(2R) 7-0-11 to 12-0-11, Interior (1) 12-0-11 to 14-11-0 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 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.
- TCLL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=25.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
- Unbalanced snow loads have been considered for this design.
- This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 25.0 psf on overhangs non-concurrent with other live loads.
- All plates are 1.5x4 MT20 unless otherwise indicated.
- 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.
- Bearing at joint(s) 11, 9, 12, 13, 8, 7 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 375 lb uplift at joint 11, 182 lb uplift at joint 9, 435 lb uplift at joint 12, 119 lb uplift at joint 13, 241 lb uplift at joint 8 and 154 lb uplift at joint 7.
- Beveled plate or shim required to provide full bearing surface with truss chord at joint(s) 11, 9.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard



March 30, 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

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



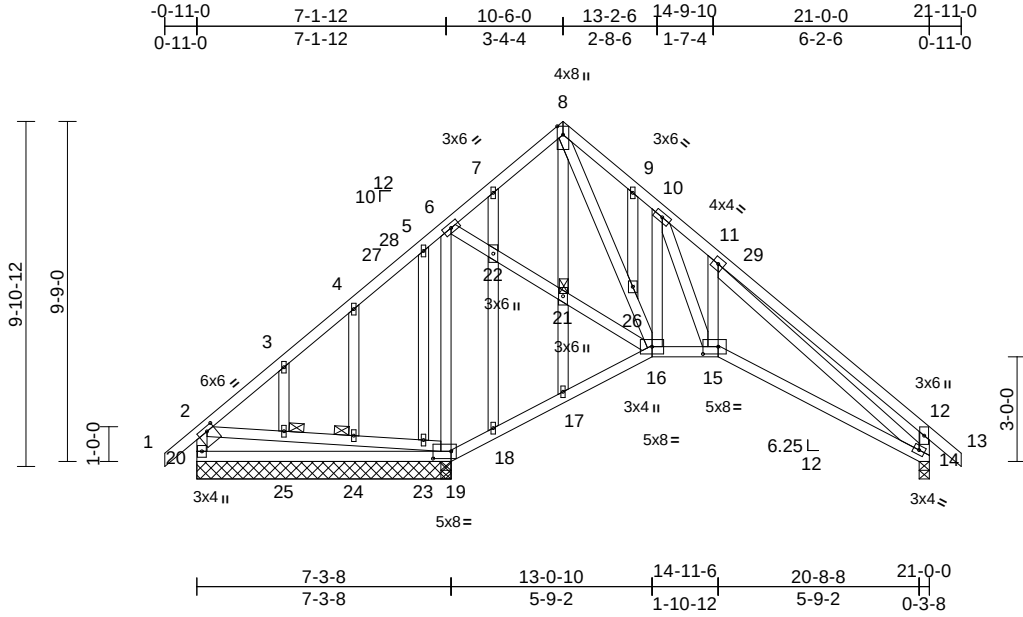
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Roof - Osage Lot 69	I57488597
P230133-01	C1	Roof Special Structural Gable	1	1	Job Reference (optional)	

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

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Page: 1



Scale = 1:66.1

Plate Offsets (X, Y): [2:0-2-12,0-1-8], [15:0-5-4,0-2-8], [19:0-6-4,0-2-8]

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	0.53	Vert(LL)	-0.08	19-20	>999	240	244/190
Snow (Pf)	25.0	Lumber DOL	1.15	BC	0.44	Vert(CT)	-0.16	19-20	>526	180	
TCDL	10.0	Rep Stress Incr	YES	WB	0.82	Horz(CT)	0.05	14	n/a	n/a	
BCLL	0.0	Code	IRC2018/TPI2014	Matrix-S							
BCDL	10.0										
Weight: 164 lb FT = 20%											

LUMBER
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2
WEBS 2x4 SPF No.3 *Except* 20-2,14-12:2x4 SP No.2
OTHERS 2x4 SPF No.3

BRACING
TOP CHORD Structural wood sheathing directly applied or 5-10-11 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.
JOINTS 1 Brace at Jt(s): 21, 24, 25

REACTIONS (size) 14=0-3-8, 19=7-3-8, 20=7-3-8
Max Horiz 20=300 (LC 15)
Max Uplift 14=-125 (LC 17), 19=-153 (LC 16), 20=-123 (LC 24)
Max Grav 14=574 (LC 24), 19=1388 (LC 24), 20=246 (LC 36)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/82, 2-3=-86/465, 3-4=-61/500, 4-5=-17/528, 5-6=-19/470, 6-7=-335/127, 7-8=-276/127, 8-9=-372/186, 9-10=-396/154, 10-11=-851/306, 11-12=-516/335, 12-13=0/82, 2-20=-175/193, 12-14=-541/320
BOT CHORD 19-20=-308/492, 18-19=-474/186, 17-18=-435/207, 16-17=-443/204, 15-16=-32/269, 14-15=0/645

WEBS
6-19=-905/163, 6-22=0/675, 21-22=0/691, 16-21=0/687, 8-26=-174/170, 16-26=-141/135, 10-16=-582/171, 10-15=-307/771, 11-15=-407/394, 2-25=-648/320, 24-25=-650/322, 23-24=-656/328, 19-23=-671/319, 11-14=-392/33, 8-21=0/100, 17-21=0/108, 7-22=-67/1, 18-22=-77/0, 5-23=-116/1, 4-24=-99/92, 3-25=-16/11, 9-26=-72/35

NOTES

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=35ft; Ke=1.00; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) -0-11-0 to 4-1-0, Interior (1) 4-1-0 to 10-6-0, Exterior(2R) 10-6-0 to 15-6-0, Interior (1) 15-6-0 to 21-11-0 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 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.
- TCLL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=25.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
- Unbalanced snow loads have been considered for this design.
- This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 25.0 psf on overhangs non-concurrent with other live loads.
- All plates are 1.5x4 MT20 unless otherwise indicated.
- 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.
- 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.
- N/A

- 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



March 30, 2023

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



16023 Swingley Ridge Rd
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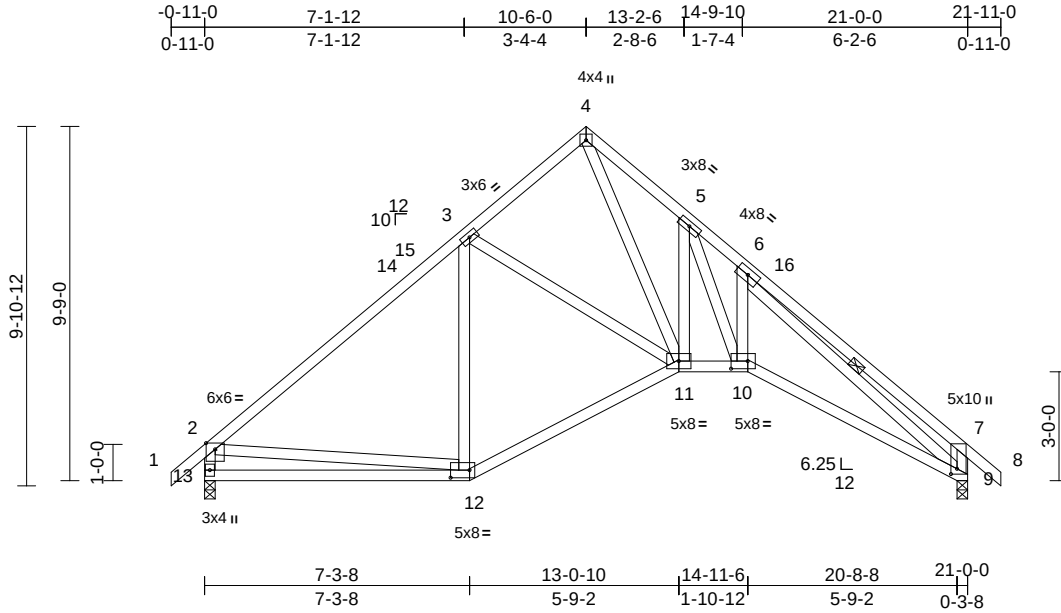
Job	Truss	Truss Type	Qty	Ply	Roof - Osage Lot 69	I57488598
P230133-01	C2	Roof Special	6	1	Job Reference (optional)	

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

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Scale = 1:63.4

Plate Offsets (X, Y): [7:0-1-12,0-2-0], [10:0-5-8,0-2-8], [12:0-6-4,0-2-8]

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	0.64	Vert(LL)	-0.10	10	>999	240	MT20	197/144
Snow (Pf)	25.0	Lumber DOL	1.15	BC	0.59	Vert(CT)	-0.20	12-13	>999	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.66	Horz(CT)	0.16	9	n/a	n/a		
BCLL	0.0	Code	IRC2018/TPI2014	Matrix-S								
BCDL	10.0											
											Weight: 132 lb	FT = 20%

LUMBER

TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2
WEBS 2x4 SPF No.3 *Except* 13-2,9-7:2x4 SP No.2

BRACING

TOP CHORD Structural wood sheathing directly applied or 3-9-15 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 9-6-2 oc bracing.
WEBS 1 Row at midpt 6-9

REACTIONS

(size) 9=0-3-8, 13=0-3-8
Max Horiz 13=300 (LC 15)
Max Uplift 9=-142 (LC 17), 13=-142 (LC 16)
Max Grav 9=1053 (LC 24), 13=1061 (LC 23)

FORCES

(lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/82, 2-3=-1131/197, 3-4=-890/183, 4-5=-1567/299, 5-6=-2150/391, 6-7=-670/342, 7-8=0/82, 2-13=-987/220, 7-9=-647/326
BOT CHORD 12-13=-366/622, 11-12=-117/864, 10-11=0/1153, 9-10=-62/1789
WEBS 3-12=-292/95, 3-11=-223/227, 4-11=-258/1345, 5-11=-863/219, 5-10=-317/1110, 6-10=-256/378, 2-12=-50/372, 6-9=-1646/0

NOTES

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

- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=35ft; Ke=1.00; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) -0-11-0 to 4-1-0, Interior (1) 4-1-0 to 10-6-0, Exterior(2R) 10-6-0 to 15-6-0, Interior (1) 15-6-0 to 21-11-0 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- TCLL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=25.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
- Unbalanced snow loads have been considered for this design.
- This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 25.0 psf on overhangs non-concurrent with other live loads.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- Bearing at joint(s) 9 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- One H2.5T Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 13 and 9. This connection is for uplift only and does not consider lateral forces.
- 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



March 30, 2023

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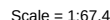
ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component

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Chesterfield, MO 63017

Premier Building Supply (Springhill, KS), Spring Hills, KS - 66083, Run: 8.63 S Nov 19 2022 Print: 8.630 S Nov 19 2022 MiTek Industries, Inc. Thu Mar 30 10:58:39 Page: 1
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[illegible]

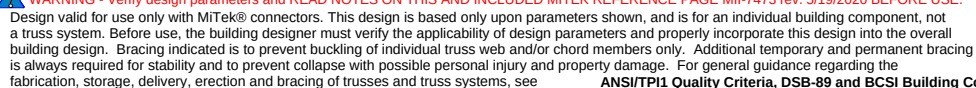
Vert: 13=-1232 (B), 14=-1232 (B), 15=-1232 (B),
16=-1232 (B), 17=-1232 (B), 18=-1232 (B),
19=-1232 (B), 20=-1232 (B), 21=-1232 (B),
22=-1234 (B)

- 1) 2-ply truss to be connected together with 10d (0.131"x3") nails as follows:
Top chords connected as follows: 2x6 - 2 rows staggered at 0-9-0 oc.
Bottom chords connected as follows: 2x6 - 2 rows staggered at 0-8-0 oc.
Web connected as follows: 2x4 - 1 row at 0-9-0 oc.
- 2) 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.

1) Dead & Snow (balanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (lb/ft)
Vert: 1-3=-70, 3-6=-70, 1-6=-20
Concentrated Loads (lb)



March 30.2023



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



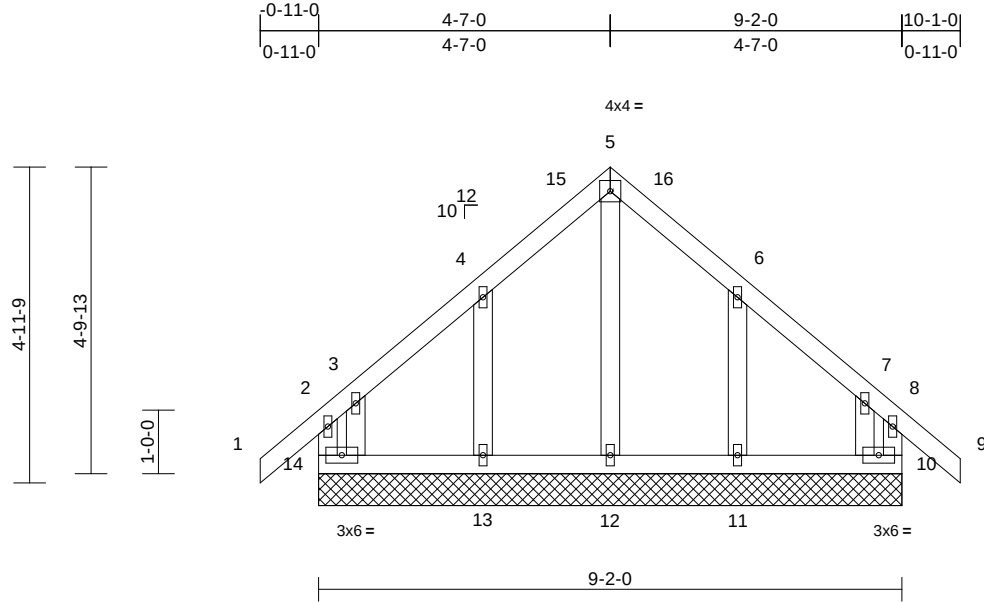
Job	Truss	Truss Type	Qty	Ply	Roof - Osage Lot 69	I57488600
P230133-01	D1	Common Supported Gable	1	1	Job Reference (optional)	

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

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Scale = 1:36.2

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.16	Vert(LL)	n/a	-	n/a	999	MT20	197/144
Snow (Pf)	25.0	Lumber DOL	1.15	BC	0.05	Vert(CT)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.10	Horz(CT)	0.00	10	n/a	n/a		
BCLL	0.0	Code	IRC2018/TPI2014	Matrix-R								
BCDL	10.0											
											Weight: 50 lb	FT = 20%

LUMBER

TOP CHORD	2x4 SP No.2
BOT CHORD	2x4 SP No.2
WEBS	2x4 SP No.2
OTHERS	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 6-0-0 oc bracing.

REACTIONS	(size)	10=9-2-0, 11=9-2-0, 12=9-2-0, 13=9-2-0, 14=9-2-0
	Max Horiz	14=160 (LC 14)
	Max Uplift	10=-70 (LC 16), 11=-135 (LC 17), 13=-137 (LC 16), 14=-74 (LC 17)
	Max Grav	10=262 (LC 24), 11=319 (LC 24), 12=200 (LC 29), 13=319 (LC 23), 14=262 (LC 23)

FORCES

(lb) - Maximum Compression/Maximum Tension

TOP CHORD	2-14=-153/211, 1-2=0/82, 2-3=-26/52, 3-4=-85/124, 4-5=-146/273, 5-6=-146/272, 6-7=-74/122, 7-8=-27/52, 8-9=0/82, 8-10=-153/210
BOT CHORD	13-14=-77/94, 12-13=-77/94, 11-12=-77/94, 10-11=-77/94
WEBS	5-12=-233/75, 4-13=-273/263, 3-14=-163/82, 6-11=-273/262, 7-10=-163/71

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) -0-11-0 to 4-1-0, Exterior(2N) 4-1-0 to 4-7-0, Corner(3R) 4-7-0 to 9-7-0, Exterior(2N) 9-7-0 to 10-1-0 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- TCLL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=25.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
- Unbalanced snow loads have been considered for this design.
- This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 25.0 psf on overhangs non-concurrent with other live loads.
- 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.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 74 lb uplift at joint 14, 70 lb uplift at joint 10, 137 lb uplift at joint 13 and 135 lb uplift at joint 11.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard



March 30, 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



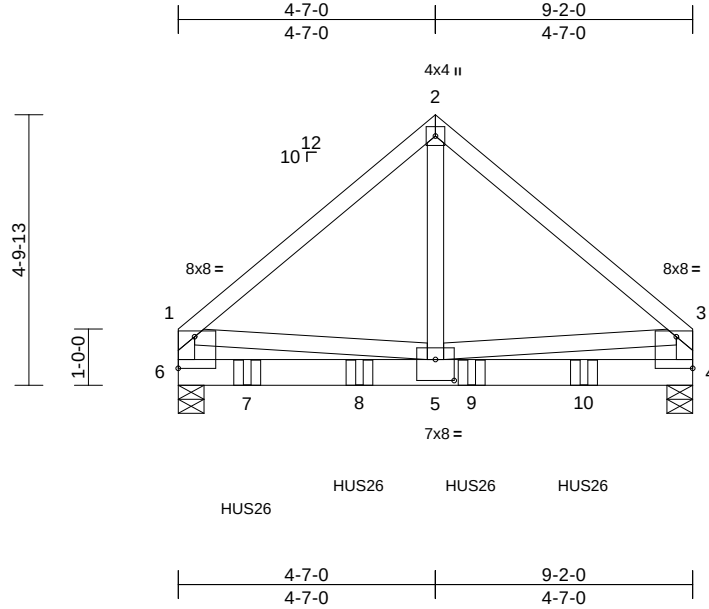
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Roof - Osage Lot 69	I57488601
P230133-01	D2	Common Girder	1	2	Job Reference (optional)	

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

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Scale = 1:41.1

Plate Offsets (X, Y): [1:Edge,0-6-12], [3:Edge,0-6-12], [5:0-4-0,0-4-8]

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	0.50	Vert(LL)	-0.03	5-6	>999	240	MT20	197/144
Snow (Pf)	25.0	Lumber DOL	1.15	BC	0.29	Vert(CT)	-0.05	5-6	>999	180		
TCDL	10.0	Rep Stress Incr	NO	WB	0.62	Horz(CT)	0.00	4	n/a	n/a		
BCLL	0.0	Code	IRC2018/TPI2014	Matrix-S								
BCDL	10.0											
Weight: 110 lb											FT = 20%	

LUMBER

TOP CHORD 2x4 SP No.2
BOT CHORD 2x6 SP 2400F 2.0E
WEBS 2x4 SPF No.3 *Except* 6-1,4-3:2x4 SP No.2

BRACING

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

REACTIONS

(size) 4=0-5-8, 6=0-5-8
Max Horiz 6=-132 (LC 12)
Max Uplift 4=-390 (LC 17), 6=-449 (LC 16)
Max Grav 4=2818 (LC 23), 6=3215 (LC 22)

FORCES

(lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=-2644/467, 2-3=-2644/481,
1-6=-2035/398, 3-4=-2047/402

BOT CHORD 5-6=-254/785, 4-5=-182/706

WEBS 2-5=-383/2823, 1-5=-208/1273,
3-5=-226/1353

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.
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.
- All loads are considered equally applied to all plies, except if noted as front (F) or back (B) face in the LOAD CASE(S) section. Ply to ply connections have been provided to distribute only loads noted as (F) or (B), unless otherwise indicated.
- Unbalanced roof live loads have been considered for this design.

- Wind: ASCE 7-16; Vult=115mph (3-second gust)
Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=35ft;
Ke=1.00; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) 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
- TCLL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=25.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
- Unbalanced snow loads have been considered for this design.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- One H2.5T Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 6 and 4. This connection is for uplift only and does not consider lateral forces.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- Use Simpson Strong-Tie HUS26 (14-10d Girder, 4-10d Truss) or equivalent spaced at 2-0-0 oc max. starting at 1-2-12 from the left end to 7-2-12 to connect truss(es) to back face of bottom chord.
- Fill all nail holes where hanger is in contact with lumber.

LOAD CASE(S) Standard

- Dead + Snow (balanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (lb/ft)
Vert: 1-2=-70, 2-3=-70, 4-6=-20
Concentrated Loads (lb)
Vert: 7=-1245 (B), 8=-1245 (B), 9=-1245 (B), 10=-1245 (B)



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

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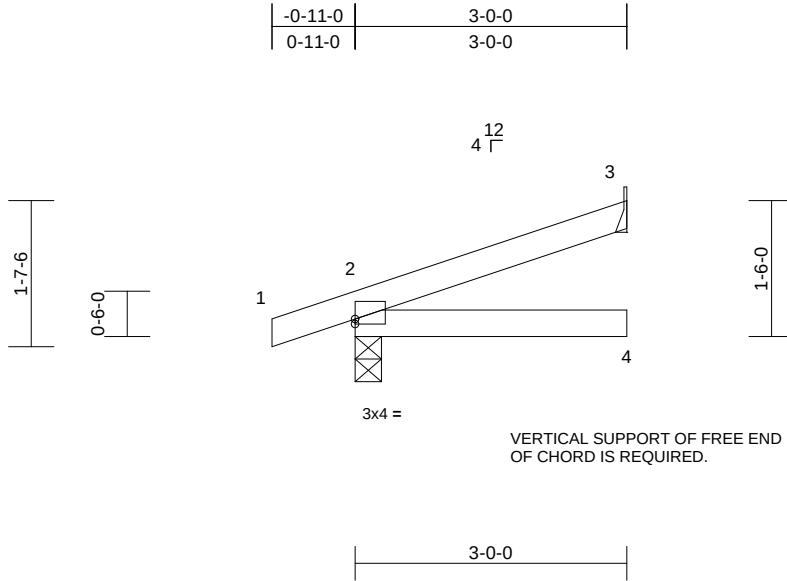
Job	Truss	Truss Type	Qty	Ply	Roof - Osage Lot 69
P230133-01	J1	Monopitch	1	1	I57488602
Job Reference (optional)					

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Scale = 1:25.4

Plate Offsets (X, Y): [2:Edge,0-0-10]

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)	-0.09	4	>373	240	MT20	244/190
Snow (Pf)	25.0	Lumber DOL	1.15	BC	0.25	Vert(CT)	-0.18	4	>181	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.00	Horz(CT)	0.00	3	n/a	n/a		
BCLL	0.0	Code	IRC2018/TPI2014	Matrix-P								
BCDL	10.0										Weight: 11 lb	FT = 20%

LUMBER

TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP 1650F 1.5E

BRACING

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

REACTIONS (size) 2=0-3-8, 3= Mechanical
Max Horiz 2=58 (LC 12)
Max Uplift 2=75 (LC 12), 3=32 (LC 16)
Max Grav 2=292 (LC 23), 3=148 (LC 23)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=0/13, 2-3=-56/47
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 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) TCLL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15
Plate DOL=1.15); Pf=25.0 psf (Lum DOL=1.15 Plate
DOL=1.15); Is=1.0; Rough Cat C; Fully Exp.; Ce=0.9;
Cs=1.00; Ct=1.10
- 4) Unbalanced snow loads have been considered for this
design.

- 5) This truss has been designed for greater of min roof live
load of 12.0 psf or 2.00 times flat roof load of 25.0 psf on
overhangs non-concurrent with other live loads.
- 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) Refer to girder(s) for truss to truss connections.
- 9) Provide mechanical connection (by others) of truss to
bearing plate capable of withstanding 32 lb uplift at joint
3.
- 10) One H2.5T Simpson Strong-Tie connectors
recommended to connect truss to bearing walls due to
UPLIFT at jt(s) 2. This connection is for uplift only and
does not consider lateral forces.
- 11) This truss is designed in accordance with the 2018
International Residential Code sections R502.11.1 and
R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard



March 30, 2023

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Chesterfield, MO 63017

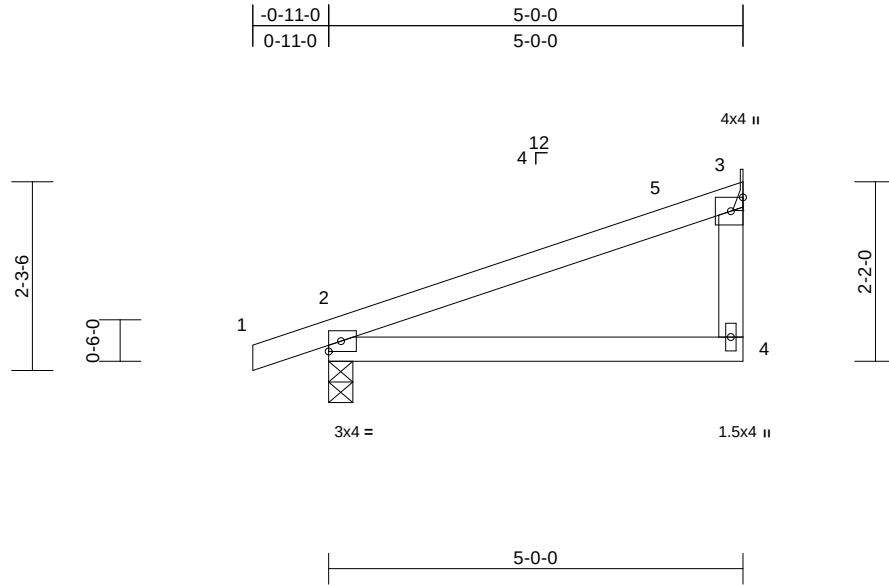
Job	Truss	Truss Type	Qty	Ply	Roof - Osage Lot 69	I57488603
P230133-01	J2	Monopitch	3	1	Job Reference (optional)	

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

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Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.67	Vert(LL)	-0.03	2-4	>999	240	MT20	197/144
Snow (Pf)	25.0	Lumber DOL	1.15	BC	0.27	Vert(CT)	-0.06	2-4	>956	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.00	Horz(CT)	0.00	3	n/a	n/a		
BCLL	0.0	Code	IRC2018/TPI2014	Matrix-P								
BCDL	10.0										Weight: 19 lb	FT = 20%

LUMBER

TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2
WEBS 2x4 SPF No.3

BRACING

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

REACTIONS

(size) 2=0-3-8, 3= Mechanical
Max Horiz 2=89 (LC 13)
Max Uplift 2=-94 (LC 12), 3=-51 (LC 16)
Max Grav 2=412 (LC 23), 3=278 (LC 23)

FORCES

(lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=0/13, 2-3=-128/73, 3-4=0/94
BOT CHORD 2-4=-37/41

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) -0-11-0 to 4-1-0,
Interior (1) 4-1-0 to 4-10-4 zone; cantilever left and right
exposed; end vertical left and right exposed; C-C for
members and forces & MWFRS for reactions shown;
Lumber DOL=1.60 plate grip DOL=1.60
- 2) TCLL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15
Plate DOL=1.15); Pf=25.0 psf (Lum DOL=1.15 Plate
DOL=1.15); Is=1.0; Rough Cat C; Fully Exp.; Ce=0.9;
Cs=1.00; Ct=1.10
- 3) Unbalanced snow loads have been considered for this
design.
- 4) This truss has been designed for greater of min roof live
load of 12.0 psf or 2.00 times flat roof load of 25.0 psf on
overhangs non-concurrent with other live loads.
- 5) This truss has been designed for a 10.0 psf bottom
chord live load nonconcurrent with any other live loads.
- 6) Refer to girder(s) for truss to truss connections.

- 7) Provide mechanical connection (by others) of truss to
bearing plate capable of withstanding 51 lb uplift at joint
3.
 - 8) One H2.5T Simpson Strong-Tie connectors
recommended to connect truss to bearing walls due to
UPLIFT at jt(s) 2. This connection is for uplift only and
does not consider lateral forces.
 - 9) This truss is designed in accordance with the 2018
International Residential Code sections R502.11.1 and
R802.10.2 and referenced standard ANSI/TPI 1.
 - 10) Gap between inside of top chord bearing and first
diagonal or vertical web shall not exceed 0.500in.
- LOAD CASE(S)** Standard



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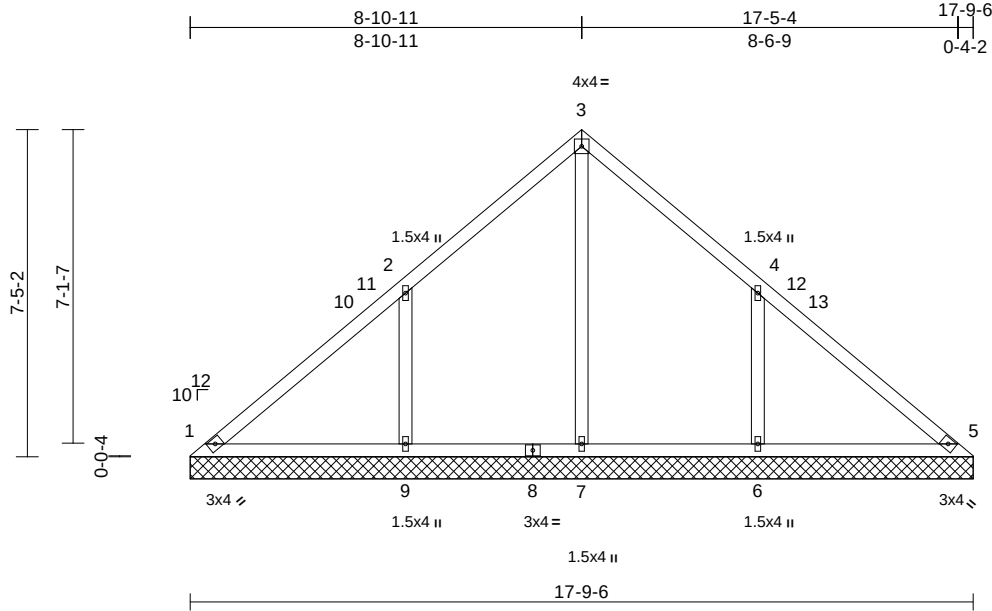
Job	Truss	Truss Type	Qty	Ply	Roof - Osage Lot 69	I57488604
P230133-01	V1	Valley	1	1	Job Reference (optional)	

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

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Scale = 1:52.3

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.42	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf)	25.0	Lumber DOL	1.15	BC	0.16	Vert(TL)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.20	Horiz(TL)	0.00	5	n/a	n/a		
BCLL	0.0	Code	IRC2018/TPI2014	Matrix-S								
BCDL	10.0											
											Weight: 75 lb	FT = 20%

LUMBER

TOP CHORD	2x4 SP No.2
BOT CHORD	2x4 SP No.2
OTHERS	2x4 SPF No.3

BRACING

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

REACTIONS

(size)	1=17-9-6, 5=17-9-6, 6=17-9-6, 7=17-9-6, 9=17-9-6
Max Horiz	1=-198 (LC 14)
Max Uplift	1=-18 (LC 12), 6=-261 (LC 17), 9=-261 (LC 16)
Max Grav	1=212 (LC 30), 5=195 (LC 1), 6=609 (LC 23), 7=259 (LC 22), 9=609 (LC 22)

FORCES

(lb) - Maximum Compression/Maximum Tension	
TOP CHORD	1-2=-191/151, 2-3=-245/166, 3-4=-245/143, 4-5=-158/109
BOT CHORD	1-9=-71/156, 7-9=-71/156, 6-7=-71/156, 5-6=-71/156
WEBS	3-7=-193/0, 2-9=-501/307, 4-6=-501/306

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) 0-4-13 to 5-4-13, Interior (1) 5-4-13 to 8-11-0, Exterior(2R) 8-11-0 to 13-11-0, Interior (1) 13-11-0 to 17-5-2 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.
- TCLL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=25.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
- Unbalanced snow loads have been considered for this design.
- 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.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 18 lb uplift at joint 1, 261 lb uplift at joint 9 and 261 lb uplift at joint 6.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard



March 30, 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



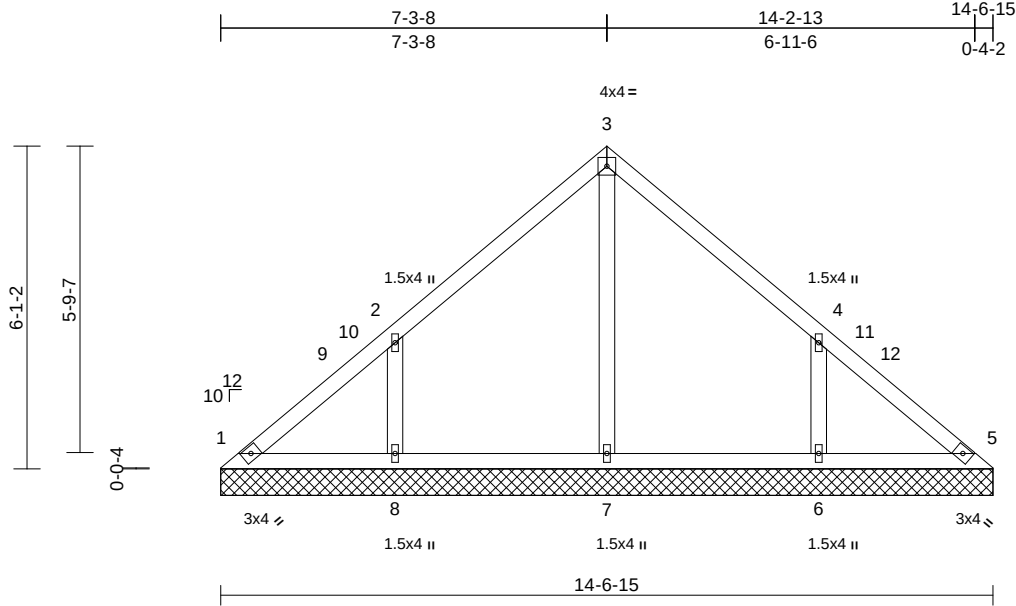
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Roof - Osage Lot 69	I57488605
P230133-01	V2	Valley	1	1	Job Reference (optional)	

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

Run: 8.63 S Nov 19 2022 Print: 8.630 S Nov 19 2022 MiTek Industries, Inc. Thu Mar 30 10:58:41
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Page: 1



Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.36	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf)	25.0	Lumber DOL	1.15	BC	0.11	Vert(TL)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.14	Horiz(TL)	0.00	5	n/a	n/a		
BCLL	0.0	Code	IRC2018/TPI2014	Matrix-S								
BCDL	10.0										Weight: 60 lb	FT = 20%

LUMBER

TOP CHORD	2x4 SP No.2
BOT CHORD	2x4 SP No.2
OTHERS	2x4 SPF No.3

BRACING

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

REACTIONS	(size)	1=14-6-15, 5=14-6-15, 6=14-6-15, 7=14-6-15, 8=14-6-15
	Max Horiz	1=-161 (LC 12)
	Max Uplift	1=-30 (LC 12), 6=-212 (LC 17), 8=-212 (LC 16)
	Max Grav	1=155 (LC 26), 5=133 (LC 29), 6=525 (LC 23), 7=288 (LC 22), 8=525 (LC 22)

FORCES

	(lb) - Maximum Compression/Maximum Tension
TOP CHORD	1-2=-161/123, 2-3=-244/139, 3-4=-244/130, 4-5=-134/76
BOT CHORD	1-8=-53/117, 7-8=-53/117, 6-7=-53/117, 5-6=-53/117
WEBS	3-7=-206/0, 2-8=-449/259, 4-6=-449/259

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) 0-4-13 to 5-4-13, Interior (1) 5-4-13 to 7-3-12, Exterior(2R) 7-3-12 to 12-3-12, Interior (1) 12-3-12 to 14-2-12 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.
- TCLL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=25.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
- Unbalanced snow loads have been considered for this design.
- 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.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 30 lb uplift at joint 1, 212 lb uplift at joint 8 and 212 lb uplift at joint 6.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard



March 30, 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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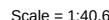
ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component

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

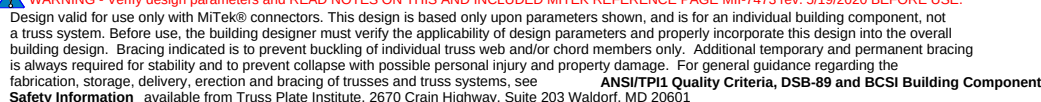


16023 Swingley Ridge Rd
Chesterfield, MO 63017

Premier Building Supply (Springhill, KS), Spring Hills, KS - 66083, Run: 8.63 S Nov 19 2022 Print: 8.630 S Nov 19 2022 MiTek Industries, Inc. Thu Mar 30 10:58:42 Page: 1
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LOAD CASE(S) Standard

March 30.2023

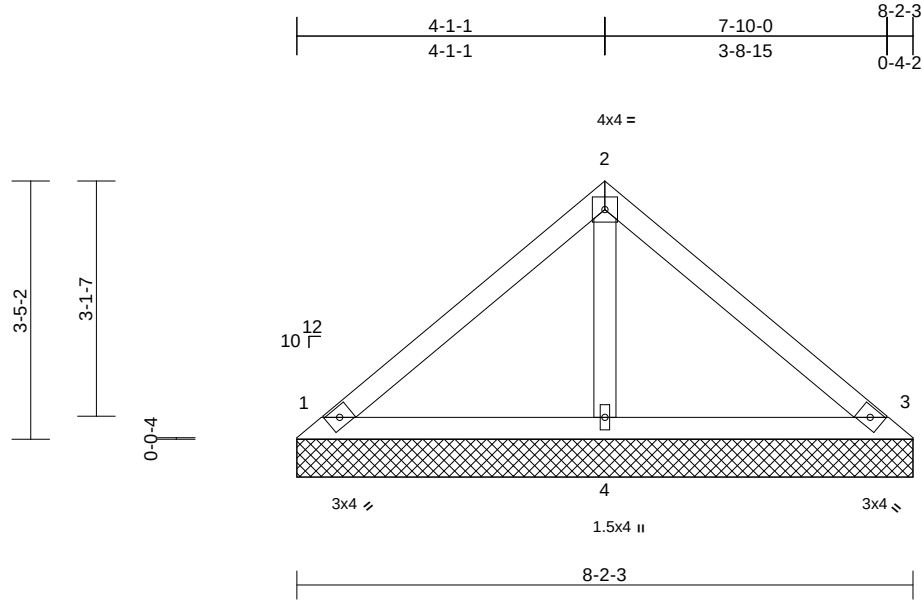


Job	Truss	Truss Type	Qty	Ply	Roof - Osage Lot 69	
P230133-01	V4	Valley	1	1	Job Reference (optional)	I57488607

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

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Page: 1



Scale = 1:30.6

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.51	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf)	25.0	Lumber DOL	1.15	BC	0.14	Vert(TL)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.06	Horiz(TL)	0.00	3	n/a	n/a		
BCLL	0.0	Code	IRC2018/TPI2014	Matrix-P								
BCDL	10.0											
											Weight: 30 lb	FT = 20%

LUMBER

TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2
OTHERS 2x4 SPF No.3

BRACING

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

REACTIONS

(size) 1=8-2-3, 3=8-2-3, 4=8-2-3
Max Horiz 1=86 (LC 15)
Max Uplift 1=-46 (LC 16), 3=-57 (LC 17)
Max Grav 1=284 (LC 22), 3=284 (LC 23), 4=290 (LC 23)

FORCES

(lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=-175/75, 2-3=-175/83
BOT CHORD 1-4=-21/64, 3-4=-21/64
WEBS 2-4=-197/95

NOTES

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=35ft; Ke=1.00; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- 4) TCLL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=25.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10

- 5) Unbalanced snow loads have been considered for this design.
 - 6) Gable requires continuous bottom chord bearing.
 - 7) Gable studs spaced at 4-0-0 oc.
 - 8) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
 - 9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 46 lb uplift at joint 1 and 57 lb uplift at joint 3.
 - 10) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- LOAD CASE(S)** Standard



March 30, 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



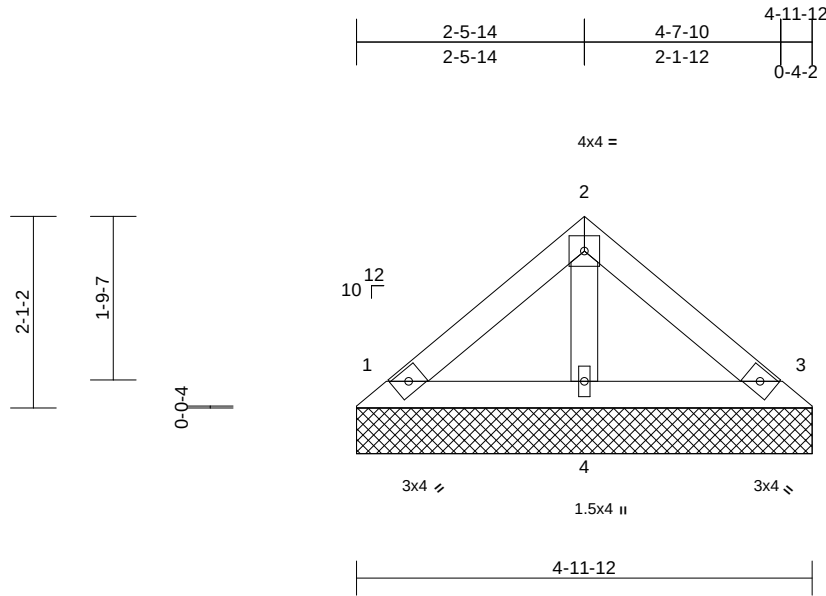
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Roof - Osage Lot 69	I57488608
P230133-01	V5	Valley	1	1	Job Reference (optional)	

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

Run: 8.63 S Nov 19 2022 Print: 8.630 S Nov 19 2022 MiTek Industries, Inc. Thu Mar 30 10:58:42
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Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.14	n/a	-	n/a	999	MT20	244/190
Snow (Pf)	25.0	Lumber DOL	1.15	BC	0.05	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.02	Horiz(TL)	0.00	3	n/a		
BCLL	0.0	Code	IRC2018/TPI2014	Matrix-P							
BCDL	10.0									Weight: 17 lb	FT = 20%

LUMBER

TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2
OTHERS 2x4 SPF No.3

BRACING

TOP CHORD Structural wood sheathing directly applied or 5-0-6 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (size) 1=4-11-12, 3=4-11-12, 4=4-11-12
Max Horiz 1=49 (LC 15)
Max Uplift 1=-26 (LC 16), 3=-32 (LC 17)
Max Grav 1=148 (LC 22), 3=148 (LC 23), 4=157 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=-91/52, 2-3=-91/56
BOT CHORD 1-4=-12/36, 3-4=-12/36
WEBS 2-4=-104/68

NOTES

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=35ft; Ke=1.00; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- TCLL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=25.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10

- Unbalanced snow loads have been considered for this design.
 - 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.
 - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 26 lb uplift at joint 1 and 32 lb uplift at joint 3.
 - This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- LOAD CASE(S)** Standard



March 30, 2023

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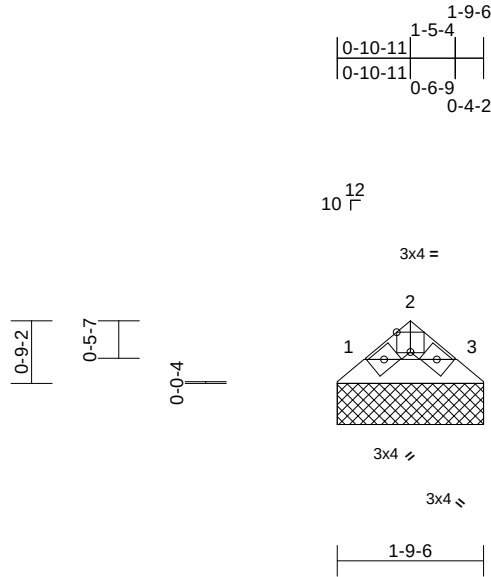
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Roof - Osage Lot 69	
P230133-01	V6	Valley	1	1	Job Reference (optional)	I57488609

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

Run: 8.63 S Nov 19 2022 Print: 8.630 S Nov 19 2022 MiTek Industries, Inc. Thu Mar 30 10:58:42
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Page: 1



Scale = 1:28

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

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

LUMBER

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

BRACING

TOP CHORD Structural wood sheathing directly applied or 1-9-15 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (size) 1=1-9-6, 3=1-9-6
Max Horiz 1=-12 (LC 12)
Max Uplift 1=-6 (LC 16), 3=-6 (LC 17)
Max Grav 1=48 (LC 22), 3=48 (LC 23)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=-37/30, 2-3=-37/31
BOT CHORD 1-3=-5/22

NOTES

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=35ft; Ke=1.00; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- TCLL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=25.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
- Unbalanced snow loads have been considered for this design.

- 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.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 6 lb uplift at joint 1 and 6 lb uplift at joint 3.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard



March 30, 2023

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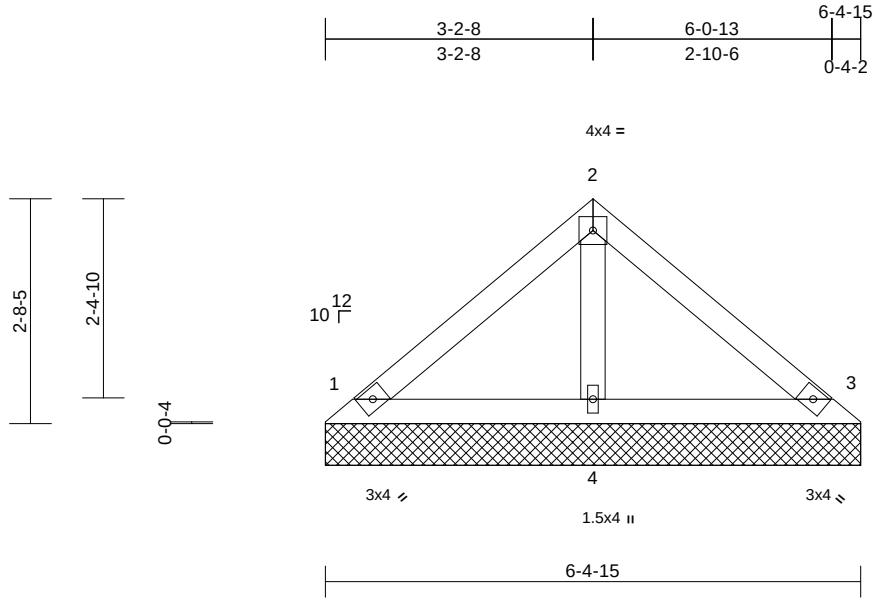
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Roof - Osage Lot 69	I57488610
P230133-01	V7	Valley	1	1	Job Reference (optional)	

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

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Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.27	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf)	25.0	Lumber DOL	1.15	BC	0.08	Vert(TL)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.04	Horiz(TL)	0.00	3	n/a	n/a		
BCLL	0.0	Code	IRC2018/TPI2014	Matrix-P								
BCDL	10.0											
											Weight: 23 lb	FT = 20%

LUMBER

TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2
OTHERS 2x4 SPF No.3

BRACING

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

REACTIONS

(size) 1=6'-4"-15, 3=6'-4"-15, 4=6'-4"-15
Max Horiz 1=66 (LC 15)
Max Uplift 1=-35 (LC 16), 3=-44 (LC 17)
Max Grav 1=207 (LC 22), 3=207 (LC 23), 4=215 (LC 22)

FORCES

(lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=-127/65, 2-3=-127/70
BOT CHORD 1-4=-16/49, 3-4=-16/49
WEBS 2-4=-144/84

NOTES

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=35ft; Ke=1.00; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- TCLL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=25.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10

- Unbalanced snow loads have been considered for this design.
 - Gable requires continuous bottom chord bearing.
 - Gable studs spaced at 4'-0" oc.
 - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
 - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 35 lb uplift at joint 1 and 44 lb uplift at joint 3.
 - This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- LOAD CASE(S)** Standard



March 30, 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



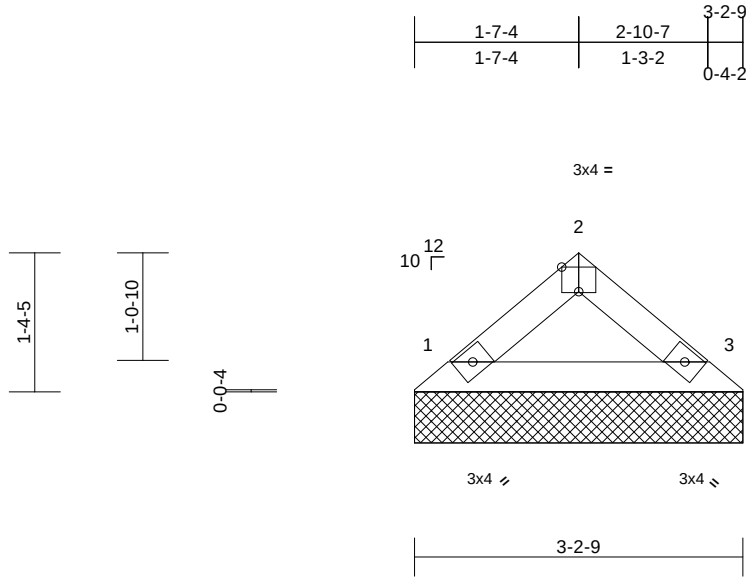
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Roof - Osage Lot 69	I57488611
P230133-01	V8	Valley	1	1	Job Reference (optional)	

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

Run: 8.63 S Nov 19 2022 Print: 8.630 S Nov 19 2022 MiTek Industries, Inc. Thu Mar 30 10:58:43
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Page: 1



Scale = 1:22.6

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

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.05	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf)	25.0	Lumber DOL	1.15	BC	0.07	Vert(TL)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.00	Horiz(TL)	0.00	3	n/a	n/a		
BCLL	0.0	Code	IRC2018/TPI2014	Matrix-P								
BCDL	10.0										Weight: 10 lb	FT = 20%

LUMBER

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

BRACING

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

REACTIONS (size) 1=3-2-9, 3=3-2-9
Max Horiz 1=-29 (LC 12)
Max Uplift 1=-14 (LC 16), 3=-14 (LC 17)
Max Grav 1=124 (LC 22), 3=124 (LC 23)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=-93/64, 2-3=-93/70
BOT CHORD 1-3=-13/53

NOTES

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=35ft; Ke=1.00; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- TCLL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=25.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
- Unbalanced snow loads have been considered for this design.

- 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.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 14 lb uplift at joint 1 and 14 lb uplift at joint 3.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard



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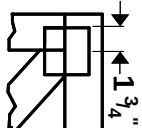
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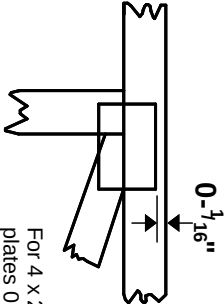
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Symbols

PLATE LOCATION AND ORIENTATION



Center plate on joint unless X, Y offsets are indicated. Dimensions are in ft-in-sixteenths. Apply plates to both sides of truss and fully embed teeth.



For 4 x 2 orientation, locate plates 0- $\frac{3}{16}$ " from outside edge of truss.

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

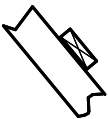
*** Plate location details available in MITek 20120 software or upon request.**

PLATE SIZE

4 X 4

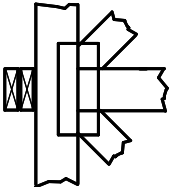
The first dimension is the plate width measured perpendicular to slots. Second dimension is the length parallel to slots.

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



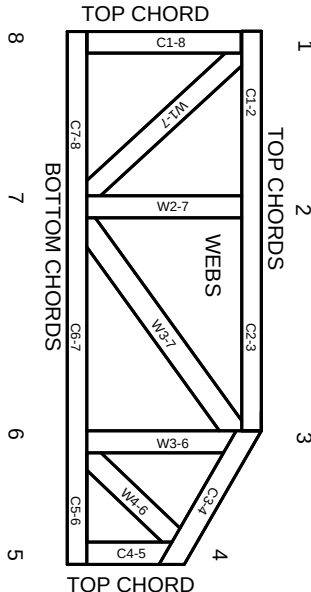
Indicates location where bearings (supports) occur. Icons vary but reaction section indicates joint number where bearings occur. Min size shown is for crushing only.

Industry Standards:

ANSI/TP1.1: National Design Specification for Metal Plate Connected Wood Truss Construction.
DSB-89: 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 T or 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.