

RE: P240642-01
Roof - HR Lot 77

MiTek, Inc.
16023 Swingley Ridge Rd.
Chesterfield, MO 63017
314.434.1200

Site Information:

Customer: Clayton Properties Project Name: P240642-01
Lot/Block: 77 Model:
Address: 1538 SW Arbor Falls Dr. Subdivision: Hawthorn Ridge
City: Lee's Summit State: MO

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

Design Code: IRC2018/TPI2014 Design Program: MiTek 20/20 8.6
Wind Code: ASCE 7-16 Wind Speed: 115 mph
Roof Load: 45.0 psf Floor Load: N/A psf

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

No.	Seal#	Truss Name	Date	No.	Seal#	Truss Name	Date
1	I65976336	A1	6/4/2024	21	I65976356	V6	6/4/2024
2	I65976337	A2	6/4/2024	22	I65976357	V07	6/4/2024
3	I65976338	A3	6/4/2024	23	I65976358	V7	6/4/2024
4	I65976339	A4	6/4/2024	24	I65976359	V8	6/4/2024
5	I65976340	A6	6/4/2024				
6	I65976341	A7	6/4/2024				
7	I65976342	B01	6/4/2024				
8	I65976343	B02	6/4/2024				
9	I65976344	C1	6/4/2024				
10	I65976345	C2	6/4/2024				
11	I65976346	C3	6/4/2024				
12	I65976347	C4	6/4/2024				
13	I65976348	C5	6/4/2024				
14	I65976349	PB1	6/4/2024				
15	I65976350	PB2	6/4/2024				
16	I65976351	V1	6/4/2024				
17	I65976352	V2	6/4/2024				
18	I65976353	V3	6/4/2024				
19	I65976354	V4	6/4/2024				
20	I65976355	V5	6/4/2024				

The truss drawing(s) referenced above have been prepared by
MiTek USA, Inc. under my direct supervision
based on the parameters provided by .

Truss Design Engineer's Name: Sevier, Scott

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

Missouri COA: 001193

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



June 04, 2024

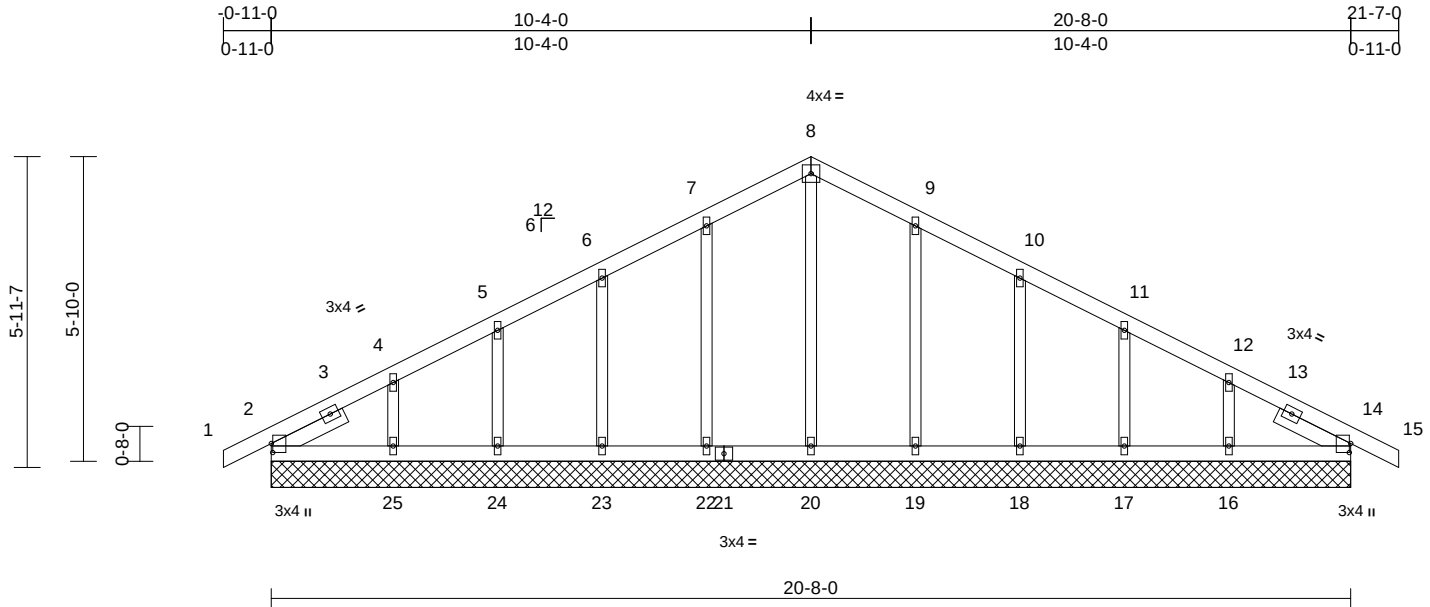
Job	Truss	Truss Type	Qty	Ply	Roof - HR Lot 77
P240642-01	A1	Common Supported Gable	1	1	Job Reference (optional)

AS NOTED FOR PLAN REVIEW
DEVELOPMENT SERVICES
165976336
LEE'S SUMMIT, MISSOURI

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

Run: 8.63 S Apr 26 2024 Print: 8.630 S Apr 26 2024 MiTek Industries, Inc. Mon Jun 03 09:35:40 Page: 1
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07/17/2024



Scale = 1:44.1

Plate Offsets (X, Y): [2:0-2-1,0-0-5], [14:0-2-1,0-0-5]

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	0.11	Vert(LL)	n/a	-	n/a	999	MT20
Snow (Pf)	25.0	Lumber DOL	1.15	BC	0.04	Vert(CT)	n/a	-	n/a	999	197/144
TCDL	10.0	Rep Stress Incr	YES	WB	0.12	Horz(CT)	0.00	14	n/a	n/a	
BCLL	0.0*	Code	IRC2018/TPI2014	Matrix-S							
BCDL	10.0										
										Weight: 95 lb	FT = 20%

LUMBER

TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2
OTHERS 2x3 SPF No.2
SLIDER Left 2x4 SP No.2 -- 1-6-7, Right 2x4 SP No.2 -- 1-6-7

BRACING

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

REACTIONS

(size) 2=20-8-0, 14=20-8-0, 16=20-8-0, 17=20-8-0, 18=20-8-0, 19=20-8-0, 20=20-8-0, 22=20-8-0, 23=20-8-0, 24=20-8-0, 25=20-8-0
Max Horiz 2=106 (LC 20)
Max Uplift 2=27 (LC 17), 14=-4 (LC 13), 16=-85 (LC 17), 17=-56 (LC 17), 18=-64 (LC 17), 19=-61 (LC 17), 22=-62 (LC 16), 23=-63 (LC 16), 24=-55 (LC 16), 25=-93 (LC 16)
Max Grav 2=183 (LC 1), 14=183 (LC 1), 16=198 (LC 37), 17=218 (LC 24), 18=265 (LC 24), 19=276 (LC 24), 20=161 (LC 29), 22=276 (LC 23), 23=265 (LC 23), 24=218 (LC 23), 25=198 (LC 36)

FORCES

(lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/12, 2-4=-137/57, 4-5=-85/73, 5-6=-75/101, 6-7=-76/158, 7-8=-83/211, 8-9=-83/211, 9-10=-76/158, 10-11=-75/102, 11-12=-60/39, 12-14=-104/19, 14-15=0/12

BOT CHORD 2-25=-23/121, 24-25=-23/121, 23-24=-23/121, 22-23=-23/121, 20-22=-23/121, 19-20=-23/121, 18-19=-23/121, 17-18=-23/121, 16-17=-23/121, 14-16=-23/121
WEBS 8-20=-120/7, 7-22=-236/96, 6-23=-224/102, 5-24=-180/117, 4-25=-149/185, 9-19=-236/96, 10-18=-224/102, 11-17=-180/118, 12-16=-149/181

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 4-4-0, Exterior(2N) 4-4-0 to 10-4-0, Corner(3R) 10-4-0 to 15-4-0, Exterior(2N) 15-4-0 to 21-7-0 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- 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.
- Gable studs spaced at 2-0-0 oc.

- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- All bearings are assumed to be SP No.2 crushing capacity of 565 psi.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 27 lb uplift at joint 2, 62 lb uplift at joint 22, 63 lb uplift at joint 23, 55 lb uplift at joint 24, 93 lb uplift at joint 25, 61 lb uplift at joint 19, 64 lb uplift at joint 18, 56 lb uplift at joint 17, 85 lb uplift at joint 16 and 4 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

June 4, 2024

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

Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of the design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI1 Quality Criteria, and DSB-22** available from Truss Plate Institute (www.tpinst.org) and **BCSI Building Component Safety Information** available from the Structural Building Component Association (www.sbcsccomponents.com)

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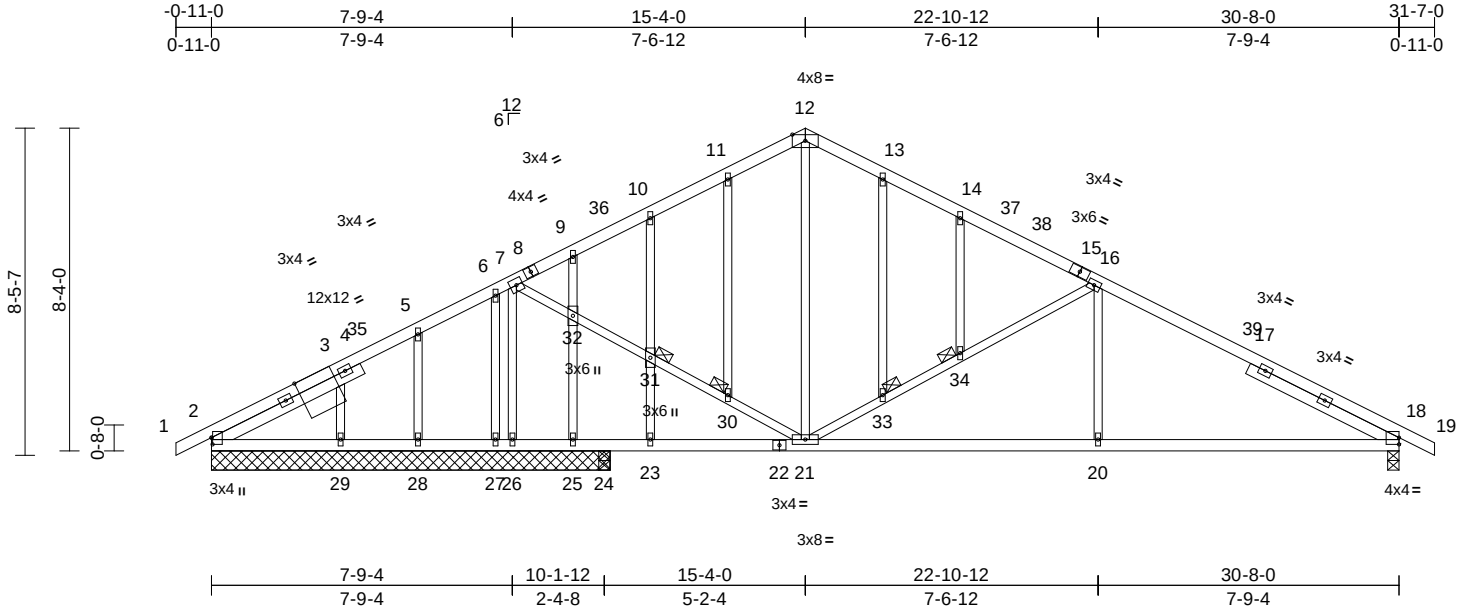
Job	Truss	Truss Type	Qty	Ply	Roof - HR Lot 77	RELEASE FOR CONSTRUCTION
P240642-01	A2	Common Structural Gable	1	1	Job Reference (optional)	AS NOTED FOR PLAN REVIEW DEVELOPMENT SERVICES 165976337 LEE'S SUMMIT, MISSOURI

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

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07/17/2024



Scale = 1:59.5

Plate Offsets (X, Y): [2:0-2-1,0-0-5], [3:2-6-7,Edge], [18:Edge,0-2-1]

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	0.85	Vert(LL)	-0.09	18-20	>999	240	244/190
Snow (Pf)	25.0	Lumber DOL	1.15	BC	0.63	Vert(CT)	-0.19	18-20	>999	180	
TCDL	10.0	Rep Stress Incr	YES	WB	0.72	Horz(CT)	0.03	18	n/a	n/a	
BCLL	0.0*	Code	IRC2018/TPI2014	Matrix-S							
BCDL	10.0										
Weight: 166 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
SLIDER Left 2x4 SP No.2 -- 4-3-11, Right 2x4 SP No.2 -- 4-3-11

BRACING
TOP CHORD Structural wood sheathing directly applied or 3-1-9 oc purlins.
BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing, Except: 10-0-0 oc bracing: 20-21,18-20.
JOINTS 1 Brace at Jt(s): 30, 31, 33, 34

REACTIONS (size)
2=10-3-8, 18=0-3-8, 24=0-3-8, 25=10-3-8, 26=10-3-8, 27=10-3-8, 28=10-3-8, 29=10-3-8
Max Horiz 2=153 (LC 20)
Max Uplift 2=42 (LC 17), 18=213 (LC 17), 24=161 (LC 16), 25=107 (LC 23), 26=22 (LC 17), 27=11 (LC 17), 28=62 (LC 16), 29=101 (LC 16)
Max Grav 2=166 (LC 36), 18=1104 (LC 24), 24=686 (LC 23), 25=75 (LC 24), 26=607 (LC 24), 27=331 (LC 24), 28=153 (LC 36), 29=281 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/12, 2-3=-132/254, 3-5=-42/232, 5-6=0/240, 6-7=-13/159, 7-9=-669/193, 9-10=-721/221, 10-11=-704/248, 11-12=-646/255, 12-13=-639/230, 13-14=-707/213, 14-16=-845/201, 16-18=-1653/298, 18-19=0/12

BOT CHORD 2-29=-192/119, 28-29=-194/119, 27-28=-194/119, 26-27=-194/119, 25-26=-194/119, 24-25=-194/119, 23-24=-194/119, 21-23=-194/119, 20-21=-148/1376, 18-20=-148/1376
WEBS 12-21=-65/241, 21-33=-895/294, 33-34=-871/283, 16-34=-853/280, 16-20=0/335, 7-32=-42/935, 31-32=-44/930, 30-31=-41/918, 21-30=-44/947, 7-26=-570/45, 11-30=-23/60, 10-31=-283/116, 23-31=-301/120, 9-32=-274/85, 25-32=-276/91, 6-27=-314/52, 5-28=-122/83, 3-29=-216/135, 13-33=-47/22, 14-34=-38/12

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 15-4-0, Exterior(2R) 15-4-0 to 20-4-0, Interior (1) 20-4-0 to 31-7-0 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- 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 studs spaced at 2-0-0 oc.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- All bearings are assumed to be SP No.2 crushing capacity of 565 psi.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 42 lb uplift at joint 2, 22 lb uplift at joint 26, 213 lb uplift at joint 18, 107 lb uplift at joint 25, 11 lb uplift at joint 27, 62 lb uplift at joint 28, 101 lb uplift at joint 29 and 161 lb uplift at joint 24.
- 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



June 4, 2024

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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 the design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI1 Quality Criteria, and DSB-22** available from Truss Plate Institute (www.tpinst.org) and **BCSI Building Component Safety Information** available from the Structural Building Component Association (www.sbcsccomponents.com)

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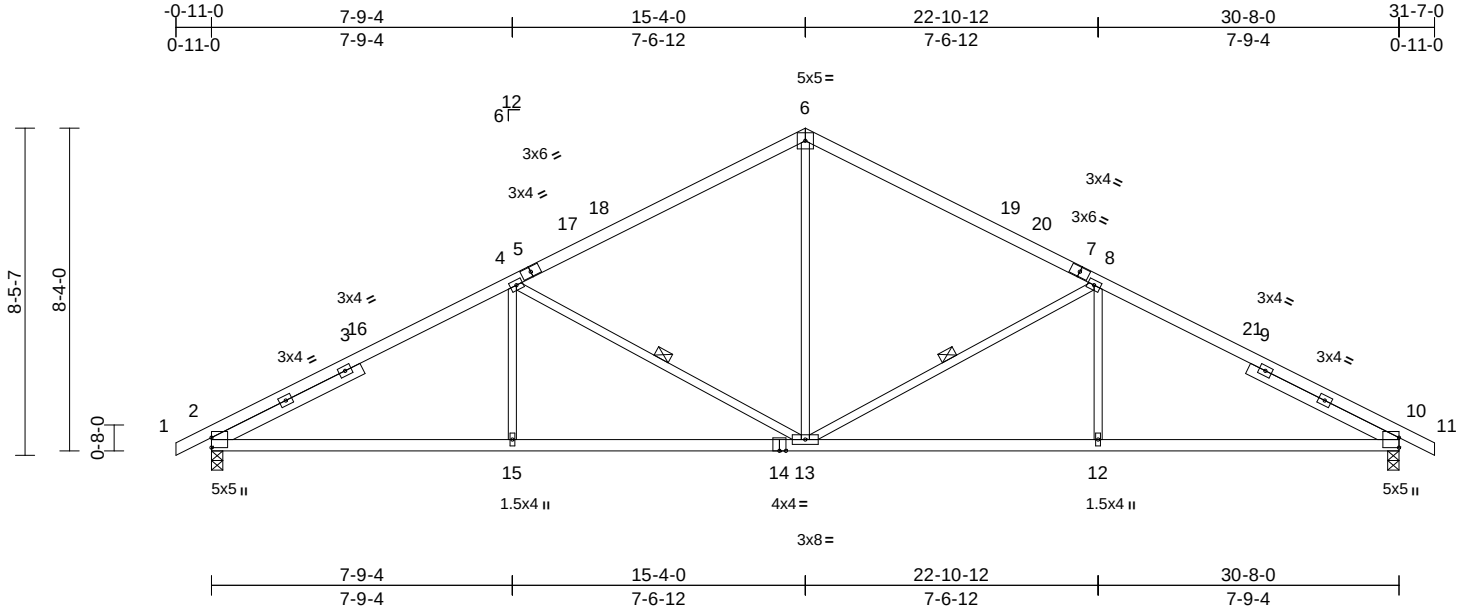
Job	Truss	Truss Type	Qty	Ply	Roof - HR Lot 77	RELEASE FOR CONSTRUCTION
P240642-01	A3	Common	6	1	Job Reference (optional)	AS NOTED FOR PLAN REVIEW DEVELOPMENT SERVICES 165976338 LEE'S SUMMIT, MISSOURI

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

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07/17/2024



Scale = 1:59.5

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	0.76	Vert(LL)	-0.10	12-13	>999	240	244/190
Snow (Pf)	25.0	Lumber DOL	1.15	BC	0.71	Vert(CT)	-0.22	2-15	>999	180	
TCDL	10.0	Rep Stress Incr	YES	WB	0.58	Horz(CT)	0.10	10	n/a	n/a	
BCLL	0.0*	Code	IRC2018/TPI2014	Matrix-S							
BCDL	10.0										
Weight: 139 lb FT = 20%											

LUMBER

TOP CHORD 2x4 SP 2400F 2.0E *Except* 1-5,7-11:2x4 SP 1650F 1.5E
BOT CHORD 2x4 SP No.2
WEBS 2x3 SPF No.2
SLIDER Left 2x4 SP No.2 -- 4-3-11, Right 2x4 SP No.2 -- 4-3-11

BRACING

TOP CHORD Structural wood sheathing directly applied or 4-0-8 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 1 Row at midpt 8-13, 4-13

REACTIONS

(size) 2=0-3-8, 10=0-3-8
Max Horiz 2=-153 (LC 17)
Max Uplift 2=-233 (LC 16), 10=-233 (LC 17)
Max Grav 2=1451 (LC 23), 10=1451 (LC 24)

FORCES

(lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/12, 2-4=-2366/375, 4-6=-1634/361, 6-8=-1634/361, 8-10=-2365/375, 10-11=0/12
BOT CHORD 2-15=-339/2003, 13-15=-339/2003, 12-13=-230/2003, 10-12=-230/2003
WEBS 6-13=-95/841, 8-13=-826/288, 8-12=0/322, 4-13=-826/287, 4-15=0/322

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 15-4-0, Exterior(2R) 15-4-0 to 20-4-0, Interior (1) 20-4-0 to 31-7-0 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60

- 3) 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) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- 8) All bearings are assumed to be SP No.2 crushing capacity of 565 psi.
- 9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 233 lb uplift at joint 2 and 233 lb uplift at joint 10.
- 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



June 4,2024

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MiTek®

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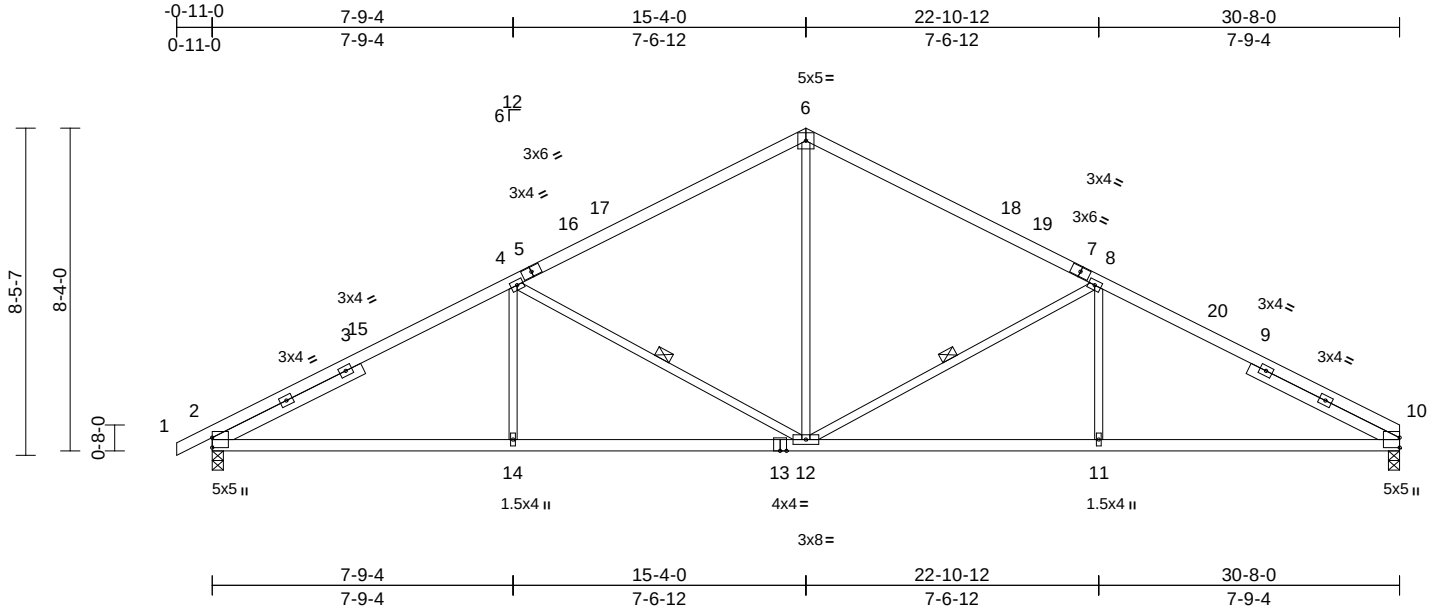
Job	Truss	Truss Type	Qty	Ply	Roof - HR Lot 77	RELEASE FOR CONSTRUCTION
P240642-01	A4	Common	3	1	Job Reference (optional)	AS NOTED FOR PLAN REVIEW DEVELOPMENT SERVICES 165976339 LEE'S SUMMIT, MISSOURI

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

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07/17/2024



Scale = 1:59.5																			
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		0.76	Vert(LL)		-0.10	10-11	>999	240	MT20		244/190		
Snow (Pf)		25.0	Lumber DOL		1.15	BC		0.72	Vert(CT)		-0.23	10-11	>999	180					
TCDL		10.0	Rep Stress Incr		YES	WB		0.58	Horz(CT)		0.10	10	n/a	n/a					
BCLL		0.0*	Code		IRC2018/TPI2014	Matrix-S													
BCDL		10.0													Weight: 138 lb		FT = 20%		

LUMBER
TOP CHORD 2x4 SP 2400F 2.0E *Except* 1-5,7-10:2x4 SP 1650F 1.5E
BOT CHORD 2x4 SP No.2
WEBS 2x3 SPF No.2
SLIDER Left 2x4 SP No.2 -- 4-3-11, Right 2x4 SP No.2 -- 4-3-11

BRACING
TOP CHORD Structural wood sheathing directly applied or 3-10-14 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 1 Row at midpt 8-12, 4-12

REACTIONS (size) 2=0-3-8, 10=0-3-8
Max Horiz 2=155 (LC 16)
Max Uplift 2=233 (LC 16), 10=209 (LC 17)
Max Grav 2=1452 (LC 23), 10=1386 (LC 24)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/12, 2-4=-2367/376, 4-6=-1636/362, 6-8=-1637/366, 8-10=-2371/386
BOT CHORD 2-14=-341/2004, 12-14=-341/2004, 11-12=-235/2009, 10-11=-235/2009
WEBS 6-12=-100/843, 8-12=-831/290, 8-11=0/325, 4-12=-826/287, 4-14=0/323

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 15-4-0, Exterior(2R) 15-4-0 to 20-4-0, Interior (1) 20-4-0 to 30-8-0 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.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- All bearings are assumed to be SP No.2 crushing capacity of 565 psi.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 233 lb uplift at joint 2 and 209 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.

LOAD CASE(S) Standard



June 4, 2024

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

Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI1 Quality Criteria, and DSB-22** available from Truss Plate Institute (www.tpinst.org) and **BCSI Building Component Safety Information** available from the Structural Building Component Association (www.sbcsccomponents.com)

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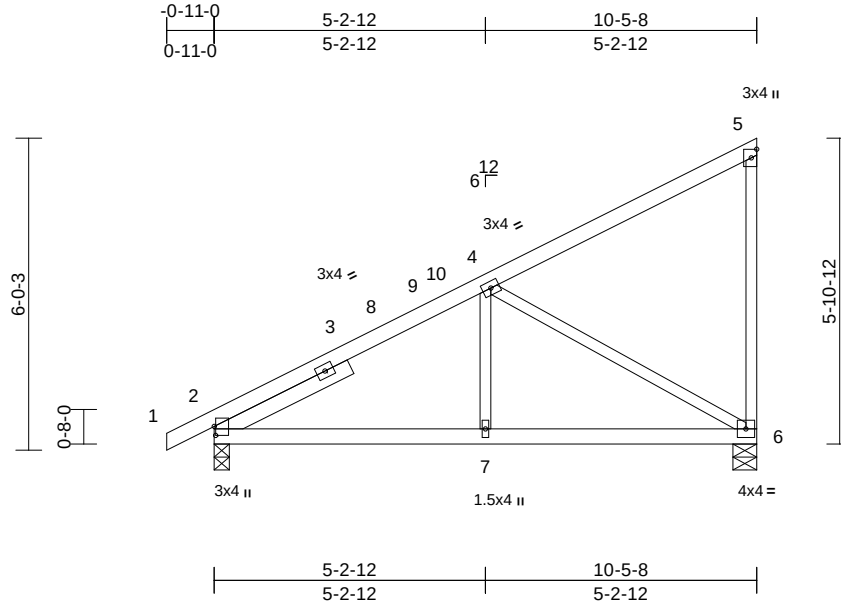
Job	Truss	Truss Type	Qty	Ply	Roof - HR Lot 77	RELEASE FOR CONSTRUCTION
P240642-01	A6	Monopitch	2	1	Job Reference (optional)	AS NOTED FOR PLAN REVIEW
						DEVELOPMENT SERVICES
						165976340
						LEE'S SUMMIT, MISSOURI

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

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07/17/2024



Scale = 1:44.4

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

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	0.61	Vert(LL)	-0.02	6-7	>999	240	MT20	197/144
Snow (Pf)	25.0	Lumber DOL	1.15	BC	0.29	Vert(CT)	-0.04	6-7	>999	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.60	Horz(CT)	0.01	6	n/a	n/a		
BCLL	0.0*	Code	IRC2018/TPI2014	Matrix-S								
BCDL	10.0										Weight: 50 lb	FT = 20%

LUMBER

TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2
WEBS 2x3 SPF No.2
SLIDER Left 2x4 SP No.2 -- 2-10-10

BRACING

TOP CHORD Structural wood sheathing directly applied or 6'-0-0 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 9'-7-1 oc bracing.

REACTIONS (size) 2=0-3-8, 6=0-5-8
Max Horiz 2=248 (LC 13)
Max Uplift 2=-93 (LC 16), 6=-134 (LC 16)
Max Grav 2=599 (LC 23), 6=633 (LC 23)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=0/12, 2-4=-756/178, 4-5=-167/129, 5-6=-241/163

BOT CHORD 2-7=-360/609, 6-7=-360/609

WEBS 4-7=0/241, 4-6=-691/321

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 10-4-4 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) * This truss has been designed for a live load of 20.0psf
on the bottom chord in all areas where a rectangle
3'-06-00 tall by 2'-00-00 wide will fit between the bottom
chord and any other members.
- 7) All bearings are assumed to be SP No.2 crushing
capacity of 565 psi.
- 8) Provide mechanical connection (by others) of truss to
bearing plate capable of withstanding 134 lb uplift at
joint 6 and 93 lb uplift at joint 2.
- 9) This truss is designed in accordance with the 2018
International Residential Code sections R502.11.1 and
R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard



June 4, 2024

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

Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI1 Quality Criteria, and DSB-22** available from Truss Plate Institute (www.tpinst.org) and **BCSI Building Component Safety Information** available from the Structural Building Component Association (www.sbcsccomponents.com)

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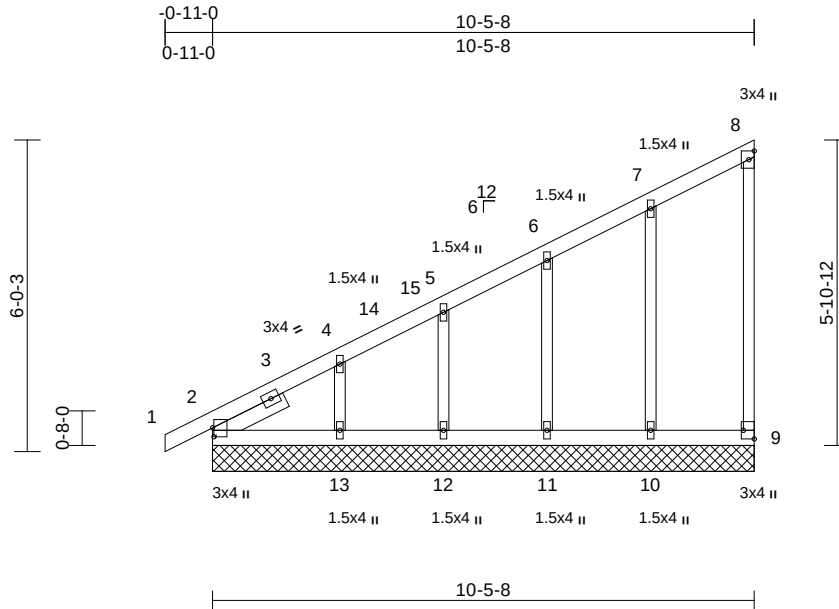
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Chesterfield, MO 63017
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Job	Truss	Truss Type	Qty	Ply	Roof - HR Lot 77
P240642-01	A7	Monopitch	1	1	Job Reference (optional)

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

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07/17/2024



Scale = 1:44.5

Plate Offsets (X, Y): [2:0-2-1,0-0-5], [9: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	0.39	Vert(LL)	n/a	-	n/a	999	MT20
Snow (Pf)	25.0	Lumber DOL	1.15	BC	0.13	Vert(CT)	n/a	-	n/a	999	197/144
TCDL	10.0	Rep Stress Incr	YES	WB	0.12	Horz(CT)	0.00	9	n/a	n/a	
BCLL	0.0*	Code	IRC2018/TPI2014	Matrix-S							
BCDL	10.0										
Weight: 50 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
SLIDER	Left 2x4 SP No.2 -- 1-6-7

BRACING

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

REACTIONS

(size)	2=10-5-8, 9=10-5-8, 10=10-5-8, 11=10-5-8, 12=10-5-8, 13=10-5-8
Max Horiz	2=248 (LC 13)
Max Uplift	2=-7 (LC 12), 9=-33 (LC 13), 10=-65 (LC 16), 11=-62 (LC 16), 12=-52 (LC 16), 13=-106 (LC 16)
Max Grav	2=192 (LC 27), 9=101 (LC 23), 10=278 (LC 23), 11=266 (LC 23), 12=214 (LC 23), 13=211 (LC 1)

FORCES

(lb) - Maximum Compression/Maximum Tension	
TOP CHORD	1-2=0/12, 2-4=-416/244, 4-5=-321/190, 5-6=-260/170, 6-7=-194/147, 7-8=-109/103, 8-9=-85/61
BOT CHORD	2-13=-113/123, 12-13=-113/123, 11-12=-113/123, 10-11=-113/123, 9-10=-113/123
WEBS	7-10=-235/170, 6-11=-225/125, 5-12=-177/112, 4-13=-160/171

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) -0-11-0 to 4-1-0, Interior (1) 4-1-0 to 10-4-4 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.
- Gable studs spaced at 2-0-0 oc.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- All bearings are assumed to be SP No.2 crushing capacity of 565 psi.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 33 lb uplift at joint 9, 7 lb uplift at joint 2, 65 lb uplift at joint 10, 62 lb uplift at joint 11, 52 lb uplift at joint 12 and 106 lb uplift at joint 13.

- 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

June 4, 2024

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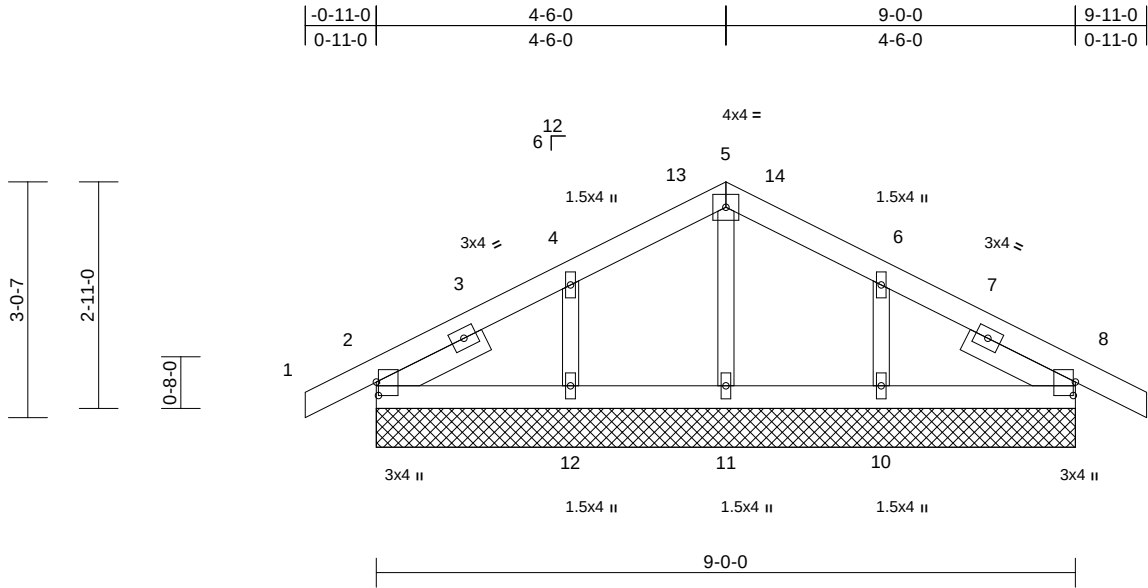
Job	Truss	Truss Type	Qty	Ply	Roof - HR Lot 77	RELEASE FOR CONSTRUCTION AS NOTED FOR PLAN REVIEW DEVELOPMENT SERVICES 165976342 LEE'S SUMMIT, MISSOURI
P240642-01	B01	Common	1	1	Job Reference (optional)	

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

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07/17/2024



Scale = 1:29.7

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

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	0.11	n/a	-	n/a	999	MT20	197/144
Snow (Pf)	25.0	Lumber DOL	1.15	BC	0.05	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.05	Horz(CT)	0.00	8	n/a		
BCLL	0.0*	Code	IRC2018/TPI2014	Matrix-S							
BCDL	10.0										
										Weight: 40 lb	FT = 20%

LUMBER

TOP CHORD	2x4 SP No.2
BOT CHORD	2x4 SP No.2
OTHERS	2x3 SPF No.2
SLIDER	Left 2x4 SP No.2 -- 1-6-7, Right 2x4 SP No.2 -- 1-6-7

BRACING

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

REACTIONS

(size)	2=9-0-0, 8=9-0-0, 10=9-0-0, 11=9-0-0, 12=9-0-0
Max Horiz	2=-51 (LC 21)
Max Uplift	2=-38 (LC 16), 8=-49 (LC 17), 10=-80 (LC 17), 12=-84 (LC 16)
Max Grav	2=287 (LC 23), 8=287 (LC 24), 10=316 (LC 24), 11=116 (LC 24), 12=316 (LC 23)

FORCES

(lb) - Maximum Compression/Maximum Tension	
TOP CHORD	1-2=0/12, 2-4=-136/77, 4-5=-107/177, 5-6=-107/175, 6-8=-136/68, 8-9=0/12
BOT CHORD	2-12=-2/54, 11-12=-2/54, 10-11=-2/54, 8-10=-2/54
WEBS	5-11=-83/0, 4-12=-262/223, 6-10=-262/221

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 Corner(3E) -0-11-0 to 4-1-0, Exterior(2N) 4-1-0 to 4-6-0, Corner(3R) 4-6-0 to 9-6-0, Exterior(2N) 9-6-0 to 9-11-0 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) 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) 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.
- 7) Gable requires continuous bottom chord bearing.
- 8) Gable studs spaced at 2-0-0 oc.
- 9) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 10) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- 11) All bearings are assumed to be SP No.2 crushing capacity of 565 psi.
- 12) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 38 lb uplift at joint 2, 49 lb uplift at joint 8, 84 lb uplift at joint 12 and 80 lb uplift at joint 10.
- 13) Beveled plate or shim required to provide full bearing surface with truss chord at joint(s) 8.

- 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



June 4,2024

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Job	Truss	Truss Type	Qty	Ply	Roof - HR Lot 77
P240642-01	B02	Common	2	1	Job Reference (optional)

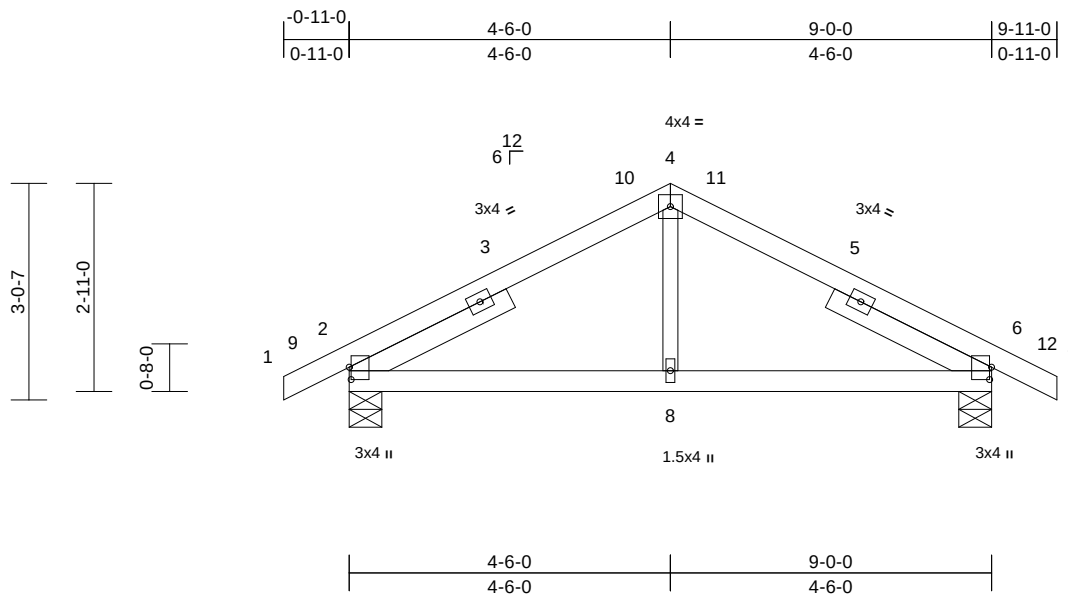
AS NOTED FOR PLAN REVIEW
DEVELOPMENT SERVICES
165976343
LEE'S SUMMIT, MISSOURI

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

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07/17/2024



Scale = 1:32.3

Plate Offsets (X, Y): [2'-0"-2'-1, 0'-0"-5], [6'-0"-2'-1, 0'-0"-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	0.41	Vert(LL)	-0.01	2-8	>999	240	MT20	197/144
Snow (Pf)	25.0	Lumber DOL	1.15	BC	0.22	Vert(CT)	-0.02	2-8	>999	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.06	Horz(CT)	0.01	6	n/a	n/a		
BCLL	0.0 *	Code	IRC2018/TPI2014	Matrix-S								
BCDL	10.0											
											Weight: 41 lb	FT = 20%

LUMBER

TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2
WEBS 2x3 SP No.2
SLIDER Left 2x4 SP No.2 -- 2-5-12, Right 2x4 SP No.2 -- 2-5-12

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) 2=0-5-8, 6=0-5-8
Max Horiz 2=-51 (LC 17)
Max Uplift 2=-84 (LC 16), 6=-84 (LC 17)
Max Grav 2=608 (LC 23), 6=608 (LC 24)

FORCES

(lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=0/12, 2-4=-590/257, 4-6=-590/257, 6-7=0/12
BOT CHORD 2-8=-111/389, 6-8=-111/389
WEBS 4-8=0/204

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 4-6-0, Exterior(2R) 4-6-0 to 9-6-0, Interior (1) 9-6-0 to 9-11-0 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.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3'-06"-00 tall by 2'-00"-00 wide will fit between the bottom chord and any other members.
- All bearings are assumed to be SP No.2 crushing capacity of 565 psi.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 84 lb uplift at joint 2 and 84 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



June 4, 2024

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

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MiTek®

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

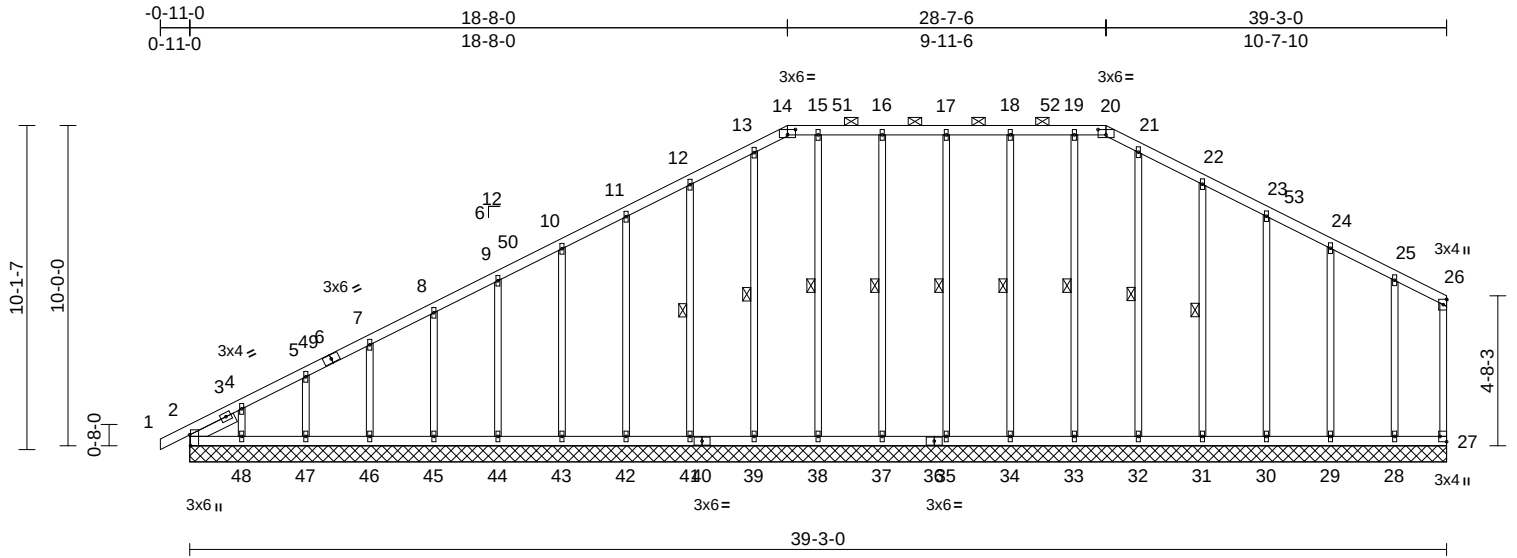
Job	Truss	Truss Type	Qty	Ply	Roof - HR Lot 77	RELEASE FOR CONSTRUCTION
P240642-01	C1	Piggyback Base Supported Gable	1	1	Job Reference (optional)	AS NOTED FOR PLAN REVIEW DEVELOPMENT SERVICES 165976344 LEE'S SUMMIT, MISSOURI

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

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07/17/2024



Scale = 1:71.9									
Plate Offsets (X, Y): [2:0-4-1,Edge], [14:0-3-0,0-2-0], [20:0-3-0,0-2-0], [27: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	0.32	Vert(LL)	n/a	-	n/a
Snow (Pf)	25.0	Lumber DOL	1.15	BC	0.11	Vert(CT)	n/a	-	n/a
TCDL	10.0	Rep Stress Incr	YES	WB	0.30	Horz(CT)	0.01	27	n/a
BCLL	0.0*	Code	IRC2018/TPI2014	Matrix-S					
BCDL	10.0								
Weight: 232 lb FT = 20%									

LUMBER																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																							
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June 4,2024

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Chesterfield, MO 63017
314.434.1200 / MiTek-US.com

Job	Truss	Truss Type	Qty	Ply	Roof - HR Lot 77	RELEASE FOR CONSTRUCTION
P240642-01	C1	Piggyback Base Supported Gable	1	1	Job Reference (optional)	AS NOTED FOR PLAN REVIEW DEVELOPMENT SERVICES 165976344 LEE'S SUMMIT, MISSOURI

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

Run: 8.63 S Apr 26 2024 Print: 8.630 S Apr 26 2024 MiTek Industries, Inc. Mon Jun 03 09:35:42 Page: 2
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07/17/2024

- 2) Wind: ASCE 7-16; Vult=115mph (3-second gust)
Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=35ft;
Ke=1.00; Cat. II; Exp C; Enclosed; MWFRS (envelope)
exterior zone and C-C Corner(3E) -0-11-0 to 4-1-0,
Exterior(2N) 4-1-0 to 18-8-0, Corner(3R) 18-8-0 to
23-7-8, Exterior(2N) 23-7-8 to 28-7-6, Corner(3R) 28-7-6
to 33-7-8, Exterior(2N) 33-7-8 to 39-1-12 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) 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) 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.
- 7) Provide adequate drainage to prevent water ponding.
- 8) All plates are 1.5x4 MT20 unless otherwise indicated.
- 9) Gable requires continuous bottom chord bearing.
- 10) Gable studs spaced at 2-0-0 oc.
- 11) This truss has been designed for a 10.0 psf bottom
chord live load nonconcurrent with any other live loads.
- 12) * This truss has been designed for a live load of 20.0psf
on the bottom chord in all areas where a rectangle
3-06-00 tall by 2-00-00 wide will fit between the bottom
chord and any other members.
- 13) All bearings are assumed to be SP No.2 crushing
capacity of 565 psi.
- 14) Provide mechanical connection (by others) of truss to
bearing plate capable of withstanding 26 lb uplift at joint
27, 64 lb uplift at joint 2, 28 lb uplift at joint 38, 13 lb
uplift at joint 39, 73 lb uplift at joint 41, 60 lb uplift at joint
42, 61 lb uplift at joint 43, 61 lb uplift at joint 44, 61 lb
uplift at joint 45, 61 lb uplift at joint 46, 60 lb uplift at joint
47, 109 lb uplift at joint 48, 51 lb uplift at joint 37, 39 lb
uplift at joint 35, 50 lb uplift at joint 34, 24 lb uplift at joint
33, 74 lb uplift at joint 31, 59 lb uplift at joint 30, 63 lb
uplift at joint 29 and 59 lb uplift at joint 28.
- 15) 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.
- 16) 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. 1/2/2023 BEFORE USE.**

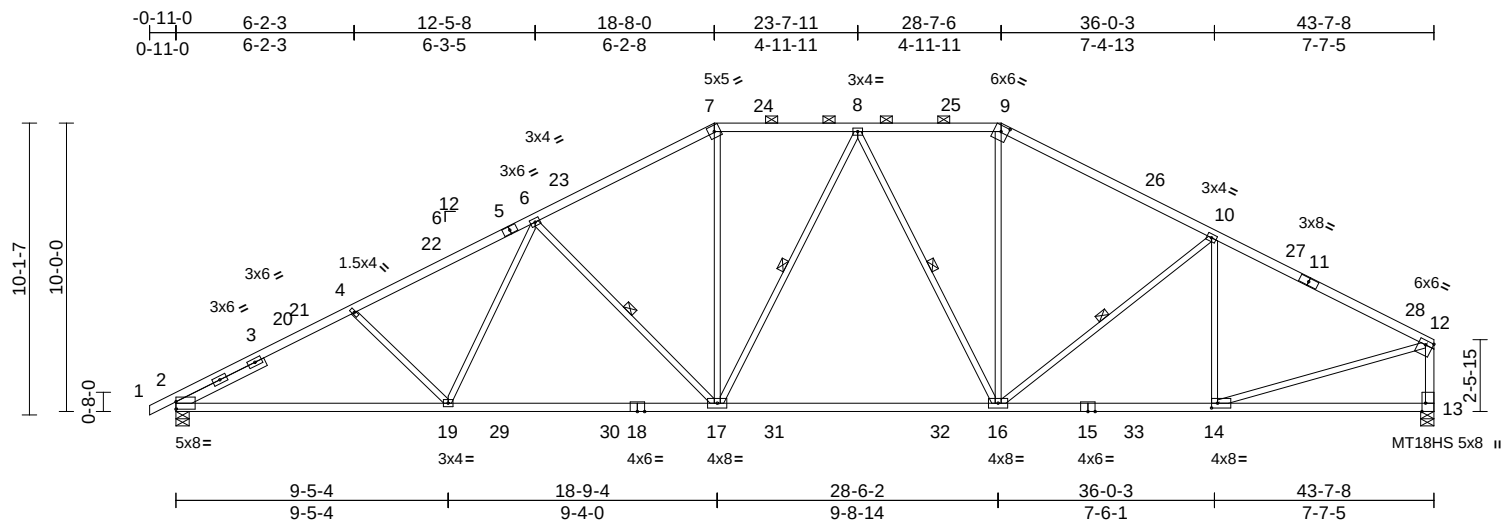
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Job	Truss	Truss Type	Qty	Ply	Roof - HR Lot 77
P240642-01	C2	Piggyback Base	10	1	Job Reference (optional)

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

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Scale = 1:79.9

Plate Offsets (X, Y): [2:Edge,0-3-1], [9:0-3-0,0-2-7], [12:Edge,0-1-12], [13:0-3-8,Edge], [14:0-2-8,0-2-0]

[illegible]

LUMBER

TOP CHORD 2x4 SP 2400F 2.0E *Except* 5-7:2x4 SP
1650F 1.5E, 7-9:2x4 SP No.2

BOT CHORD 2x4 SP 1650F 1.5E *Except* 15-13:2x4 SP
No.2, 18-15:2x4 SP 2400F 2.0E

WEBS 2x3 SPF No.2 *Except* 13-12:2x4 SP No.2

SLIDER Left 2x4 SP No.2 -- 3-5-1

BRACING

TOP CHORD	Structural wood sheathing directly applied or 2-5-1 oc purlins, except end verticals, and 2-0-0 oc purlins (3-3-12 max.): 7-9.
BOT CHORD	Rigid ceiling directly applied or 2-2-0 oc bracing.

WEBS	1 Row at midpt	10-16, 6-17, 8-17, 8-16
REACTIONS	(size)	2=0-5-8, 13=0-5-8
	Max Horiz	2=205 (LC 13)
	Max Uplift	2=-296 (LC 16), 13=-232 (LC 17)
	Max Grav	2=2504 (LC 47), 13=2527 (LC 47)

FORCES

Tension

TOP CHORD 1-2=0/12, 2-4=-4488/592, 4-6=-4176/575,
6-7=-3158/553, 7-8=-2698/542,
8-9=-2470/524, 9-10=-2934/518,
10-12=-3141/452, 12-13=-2439/370

BOT CHORD 2-19=-587/3840, 17-19=-494/3412,
16-17=-350/2610, 14-16=-365/2699,
13-14=-55/130

WEBS 7-17=-90/1000, 9-16=-66/832,
10-16=-407/222, 10-14=-626/188,
12-14=-324/2689, 4-19=-374/230,
6-19=-50/612, 6-17=-1142/309,
8-17=-245/310, 8-16=-583/171

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 18-8-0, Exterior(2R) 18-8-0 to
23-7-11, Interior (1) 23-7-11 to 28-7-6, Exterior(2R)
28-7-6 to 33-7-6, Interior (1) 33-7-6 to 43-5-12 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) TCELL: 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) Provide adequate drainage to prevent water ponding.
- 7) All plates are MT20 plates unless otherwise indicated.
- 8) This truss has been designed for a 10.0 psf bottom
chord live load nonconcurrent with any other live loads.
- 9) * This truss has been designed for a live load of 20.0psf
on the bottom chord in all areas where a rectangle
3-06-00 tall by 2-00-00 wide will fit between the bottom
chord and any other members, with BCDL = 10.0psf.
- 10) Bearings are assumed to be: Joint 2 SP 1650F 1.5E
crushing capacity of 565 psi, Joint 13 SP No.2 crushing
capacity of 565 psi.
- 11) Provide mechanical connection (by others) of truss to
bearing plate capable of withstanding 296 lb uplift at
joint 2 and 232 lb uplift at joint 13.
- 12) This truss is designed in accordance with the 2018
International Residential Code sections R502.11.1 and
R802.10.2 and referenced standard ANSI/TPI 1.

13) 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



June 4, 2024



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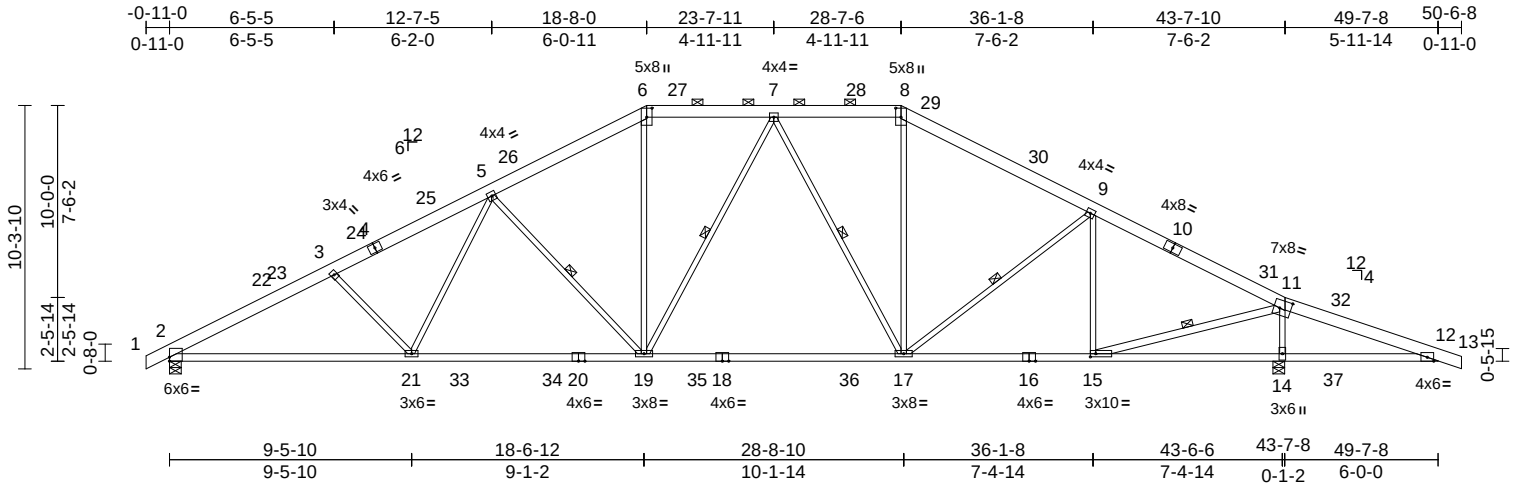
Job	Truss	Truss Type	Qty	Ply	Roof - HR Lot 77	RELEASE FOR CONSTRUCTION
P240642-01	C3	Piggyback Base	3	1	Job Reference (optional)	AS NOTED FOR PLAN REVIEW DEVELOPMENT SERVICES 165976346 LEE'S SUMMIT, MISSOURI

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

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07/17/2024



Scale = 1:90.1

Plate Offsets (X, Y): [2:Edge,0-1-14], [6:0-4-4,0-2-8], [8:0-4-4,0-2-8], [11:0-5-4,0-3-12], [15:0-2-8,0-1-8]

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.58	Vert(LL)	-0.45	17-19	>999	240	197/144
Snow (Pf)	25.0	Lumber DOL	1.15	BC	0.98	Vert(CT)	-0.73	17-19	>711	180	
TCDL	10.0	Rep Stress Incr	YES	WB	0.79	Horz(CT)	0.15	14	n/a	n/a	
BCLL	0.0*	Code	IRC2018/TPI2014	Matrix-S							
BCDL	10.0										
Weight: 248 lb FT = 20%											

LUMBER

TOP CHORD 2x6 SPF No.2
BOT CHORD 2x4 SP 1650F 1.5E *Except* 20-18:2x4 SP 2400F 2.0E
WEBS 2x3 SPF No.2 *Except* 15-11:2x4 SP No.2

BRACING

TOP CHORD Structural wood sheathing directly applied or 3-1-8 oc purlins, except 2-0-0 oc purlins (4-5-10 max.): 6-8.
BOT CHORD Rigid ceiling directly applied or 2-2-0 oc bracing.
WEBS 1 Row at midpt 9-17, 11-15, 7-19, 7-17, 5-19

REACTIONS

(size) 2=0-5-8, 14=0-5-8
Max Horiz 2=-185 (LC 21)
Max Uplift 2=-299 (LC 16), 14=-385 (LC 17)
Max Grav 2=2477 (LC 51), 14=2981 (LC 51)

FORCES

(lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/23, 2-3=-4414/757, 3-5=-4133/733, 5-6=-3102/648, 6-7=-2636/622, 7-8=-2379/560, 8-9=-2849/550, 9-11=-2971/334, 11-12=-1122/1277, 12-13=0/23
BOT CHORD 2-21=-553/3789, 19-21=-377/3312, 17-19=-204/2523, 15-17=-117/2522, 14-15=-1201/1161, 12-14=-1108/1111
WEBS 6-19=-102/952, 8-17=-38/757, 9-17=-320/304, 9-15=-725/437, 11-15=-1174/3236, 11-14=-2740/1015, 7-19=-187/378, 7-17=-602/204, 3-21=-413/233, 5-21=-64/642, 5-19=-1096/304

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 18-8-0, Exterior(2R) 18-8-0 to 23-7-11, Interior (1) 23-7-11 to 28-7-6, Exterior(2R) 28-7-6 to 33-7-6, Interior (1) 33-7-6 to 50-6-8 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
- 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.
- Provide adequate drainage to prevent water ponding.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- All bearings are assumed to be SP 1650F 1.5E crushing capacity of 565 psi.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 299 lb uplift at joint 2 and 385 lb uplift at joint 14.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

LOAD CASE(S) Standard



June 4, 2024

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

Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of the design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI1 Quality Criteria, and DSB-22** available from Truss Plate Institute (www.tpinst.org) and **BCSI Building Component Safety Information** available from the Structural Building Component Association (www.sbcscomponents.com)

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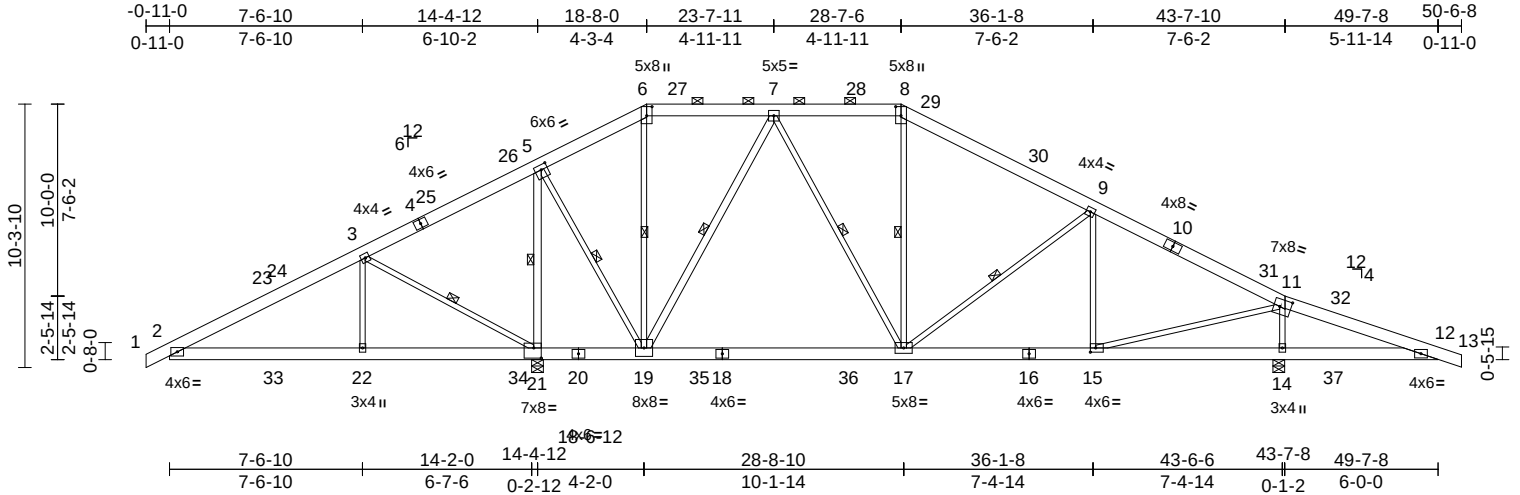
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Chesterfield, MO 63017
314.434.1200 / MiTek-US.com

Job	Truss	Truss Type	Qty	Ply	Roof - HR Lot 77	RELEASE FOR CONSTRUCTION
P240642-01	C4	Piggyback Base	6	1	Job Reference (optional)	AS NOTED FOR PLAN REVIEW DEVELOPMENT SERVICES 165976347 LEE'S SUMMIT, MISSOURI

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

Run: 8.63 S Apr 26 2024 Print: 8.630 S Apr 26 2024 MiTek Industries, Inc. Mon Jun 03 09:35:43 Page: 1
ID: V0XEh3v48CiwKGluc6V9zwl7-RfC?PsB70Hq3NSgPqnL8w3uITXbGK1VrCD0i7J42JC2f

07/17/2024



Scale = 1:90.1

Plate Offsets (X, Y): [5:0-3-0,0-2-4], [6:0-4-4,0-2-8], [8:0-4-4,0-2-8], [11:0-5-4,0-3-8], [15:0-2-8,0-2-0], [21:0-3-8,0-4-12]

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.71	Vert(LL)	-0.14	17-19	>999	240	197/144
Snow (Pf)	25.0	Lumber DOL	1.15	BC	0.47	Vert(CT)	-0.23	17-19	>999	180	
TCDL	10.0	Rep Stress Incr	YES	WB	0.86	Horz(CT)	0.02	14	n/a	n/a	
BCLL	0.0*	Code	IRC2018/TPI2014	Matrix-S							
BCDL	10.0										
Weight: 274 lb FT = 20%											

LUMBER

TOP CHORD 2x6 SPF No.2
BOT CHORD 2x6 SPF No.2
WEBS 2x3 SPF No.2 *Except* 5-21, 7-19: 2x4 SP No.2

BRACING

TOP CHORD Structural wood sheathing directly applied or 5-8-8 oc purlins, except 2-0-0 oc purlins (6-0-0 max.): 6-8.
BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing, Except: 5-6-12 oc bracing: 19-21 10-0-0 oc bracing: 15-17.
WEBS 1 Row at midpt 6-19, 8-17, 9-17, 5-21, 5-19, 7-19, 7-17, 3-21

REACTIONS (size) 14=0-5-8, 21=0-5-8, (req. 0-5-12)
Max Horiz 21=185 (LC 21)
Max Uplift 14=346 (LC 17), 21=443 (LC 16)
Max Grav 14=1881 (LC 6), 21=3683 (LC 43)

FORCES

(lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/32, 2-3=-895/955, 3-5=-1591/1994, 5-6=-883/780, 6-7=-741/653, 7-8=-712/242, 8-9=-929/209, 9-11=-1304/184, 11-12=-1137/1272, 12-13=0/32
BOT CHORD 2-22=-666/890, 21-22=-666/890, 19-21=-1627/1684, 17-19=-265/868, 15-17=0/1110, 14-15=-1182/1168, 12-14=-1117/1140
WEBS 6-19=-550/507, 8-17=-266/358, 9-17=-725/203, 9-15=-369/289, 11-15=-592/1792, 11-14=-1624/543, 5-21=-2983/1384, 5-19=-1035/2099, 7-19=-1235/642, 7-17=-416/1067, 3-21=-1110/937, 3-22=-496/327

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 18-8-0, Exterior(2R) 18-8-0 to 23-7-11, Interior (1) 23-7-11 to 28-7-6, Exterior(2R) 28-7-6 to 33-7-6, Interior (1) 33-7-6 to 50-6-8 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
- 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.
- Provide adequate drainage to prevent water ponding.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- WARNING: Required bearing size at joint(s) 21 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 346 lb uplift at joint 14 and 443 lb uplift at joint 21.

- 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



June 4, 2024

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

Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI1 Quality Criteria, and DSB-22** available from Truss Plate Institute (www.tpinst.org) and **BCSI Building Component Safety Information** available from the Structural Building Component Association (www.sbcscomponents.com)

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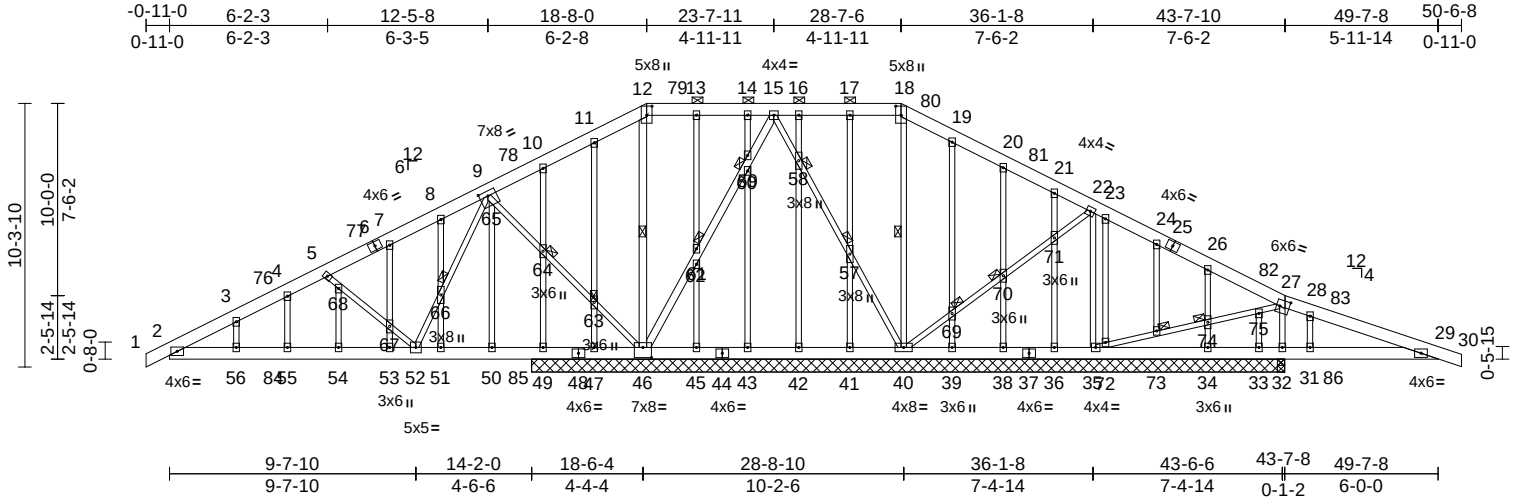
Job	Truss	Truss Type	Qty	Ply	Roof - HR Lot 77	RELEASE FOR CONSTRUCTION
P240642-01	C5	Piggyback Base Structural Gable	1	1	Job Reference (optional)	AS NOTED FOR PLAN REVIEW DEVELOPMENT SERVICES 165976348 LEE'S SUMMIT, MISSOURI

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

Run: 8.63 S Apr 26 2024 Print: 8.630 S Apr 26 2024 MiTek Industries, Inc. Mon Jun 03 09:35:43 Page: 1

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07/17/2024



Scale = 1:90.1									
Plate Offsets (X, Y): [9:0-4-0,0-2-4], [12:0-4-4,0-2-8], [18:0-4-4,0-2-8], [27:0-4-8,0-3-0], [46:0-4-0,0-4-12]									
Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in (loc)	l/defl	L/d
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.59	Vert(LL)	0.00 47-49	>999	240
Snow (Pf)	25.0	Lumber DOL	1.15	BC	0.43	Vert(CT)	0.00 47-49	>999	180
TCDL	10.0	Rep Stress Incr	YES	WB	0.42	Horz(CT)	-0.03 32	n/a	n/a
BCLL	0.0*	Code	IRC2018/TPI2014	Matrix-S					
BCDL	10.0								
									PLATES GRIP
									MT20 197/144
									Weight: 356 lb FT = 20%

LUMBER	
TOP CHORD	2x6 SPF No.2
BOT CHORD	2x6 SPF No.2
WEBS	2x3 SPF No.2 *Except* 46-12,15-46:2x4 SP No.2
OTHERS	2x3 SPF No.2
BRACING	
TOP CHORD	Structural wood sheathing directly applied or 5-6-5 oc purlins, except 2-0-0 oc purlins (6-3-12 max.): 12-18. Rigid ceiling directly applied or 5-5-7 oc bracing.
BOT CHORD	
WEBS	1 Row at midpt 12-46, 18-40
JOINTS	1 Brace at Jt(s): 57, 58, 59, 61, 63, 64, 66, 69, 70, 73, 74
REACTIONS	(size)
Max Horiz	32=0-3-8, 33=29-5-8, 34=29-5-8, 35=29-5-8, 36=29-5-8, 38=29-5-8, 39=29-5-8, 40=29-5-8, 41=29-5-8, 42=29-5-8, 43=29-5-8, 45=29-5-8, 46=29-5-8, 47=29-5-8, 49=29-5-8
Max Uplift	49=185 (LC 17)
Max Grav	32=567 (LC 13), 33=729 (LC 49), 34=132 (LC 17), 35=103 (LC 60), 36=42 (LC 17), 38=61 (LC 17), 39=52 (LC 17), 40=42 (LC 13), 41=38 (LC 13), 42=108 (LC 43), 43=14 (LC 13), 45=42 (LC 12), 46=343 (LC 16), 47=135 (LC 43), 49=207 (LC 16)

FORCES	(lb) - Maximum Compression/Maximum Tension
TOP CHORD	1-2=0/32, 2-3=-767/639, 3-4=-709/638, 4-5=-826/785, 5-7=-1117/1215, 7-8=-1120/1241, 8-9=-1078/1250, 9-10=-1708/2159, 10-11=-1564/2043, 11-12=-1534/2049, 12-13=-1354/1806, 13-14=-1354/1806, 14-15=-1353/1804, 15-16=-612/946, 16-17=-612/946, 17-18=-612/947, 18-19=-707/1081, 19-20=-788/1128, 20-21=-843/1125, 21-22=-848/1045, 22-23=-668/796, 23-24=-640/762, 24-26=-654/695, 26-27=-721/752, 27-28=-975/1083, 28-29=-1025/1178, 29-30=0/32
BOT CHORD	2-56=-548/759, 55-56=-548/759, 54-55=-548/759, 53-54=-548/759, 52-53=-548/759, 51-52=-1485/1581, 50-51=-1485/1581, 49-50=-1485/1581, 47-49=-1485/1563, 46-47=-1485/1563, 45-46=-1307/1345, 43-45=-1309/1346, 42-43=-1309/1346, 41-42=-1309/1346, 40-41=-1309/1346, 39-40=-625/807, 38-39=-625/807, 36-38=-625/807, 35-36=-625/807, 34-35=-1050/1039, 33-34=-1050/1039, 32-33=-1050/1039, 31-32=-1036/1030, 29-31=-1036/1030



June 4,2024

Continued on page 2

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

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Job	Truss	Truss Type	Qty	Ply	Roof - HR Lot 77	AS NOTED FOR PLAN REVIEW DEVELOPMENT SERVICES 165976348 LEE'S SUMMIT, MISSOURI
P240642-01	C5	Piggyback Base Structural Gable	1	1	Job Reference (optional)	

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

Run: 8.63 S Apr 26 2024 Print: 8.630 S Apr 26 2024 MiTek Industries, Inc. Mon Jun 03 09:35:43 Page: 2

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07/17/2024

WEBS 12-46=-921/656, 18-40=-520/322, 40-69=-457/378, 69-70=-440/364, 70-71=-440/364, 22-71=-458/378, 22-35=-318/229, 35-72=-286/537, 72-73=-265/489, 73-74=-259/487, 74-75=-262/486, 27-75=-268/499, 27-32=-274/189, 46-62=-1027/903, 61-62=-1206/1062, 60-61=-1034/909, 59-60=-1016/900, 15-59=-1130/993, 15-58=-699/829, 57-58=-637/756, 40-57=-640/759, 5-68=-658/604, 67-68=-697/665, 52-67=-758/707, 52-66=-807/1017, 9-66=-788/993, 9-65=-707/454, 64-65=-499/378, 63-64=-459/342, 46-63=-486/364, 17-57=-273/117, 41-57=-275/120, 16-58=-100/70, 42-58=-132/146, 14-59=-105/130, 43-60=-134/38, 13-61=-293/175, 45-62=-293/182, 11-63=-207/75, 47-63=-169/64, 10-64=-498/295, 49-64=-553/342, 50-65=-258/130, 8-66=-200/72, 51-66=-227/92, 7-67=-189/81, 53-67=-103/58, 54-68=-97/63, 4-55=-285/168, 3-56=-143/94, 19-69=-319/158, 39-69=-291/134, 20-70=-232/100, 38-70=-232/101, 21-71=-105/42, 36-71=-120/48, 23-72=-84/137, 24-73=-28/16, 26-74=-427/162, 34-74=-449/170, 33-75=-26/51, 28-31=-380/148

- 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.
- 15) 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**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 18-8-0, Exterior(2R) 18-8-0 to 23-7-11, Interior (1) 23-7-11 to 28-7-6, Exterior(2R) 28-7-6 to 33-7-6, Interior (1) 33-7-6 to 50-6-8 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
- 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) 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.
- 7) Provide adequate drainage to prevent water ponding.
- 8) All plates are 3x4 MT20 unless otherwise indicated.
- 9) Gable studs spaced at 2'-0" oc.
- 10) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 11) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3'-0" tall by 2'-0" wide will fit between the bottom chord and any other members.
- 12) All bearings are assumed to be SPF No.2 crushing capacity of 425 psi.
- 13) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 343 lb uplift at joint 46, 42 lb uplift at joint 40, 103 lb uplift at joint 35, 38 lb uplift at joint 41, 108 lb uplift at joint 42, 14 lb uplift at joint 43, 42 lb uplift at joint 45, 135 lb uplift at joint 47, 207 lb uplift at joint 49, 52 lb uplift at joint 39, 61 lb uplift at joint 38, 42 lb uplift at joint 36, 132 lb uplift at joint 34, 729 lb uplift at joint 33 and 567 lb uplift at joint 32.

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

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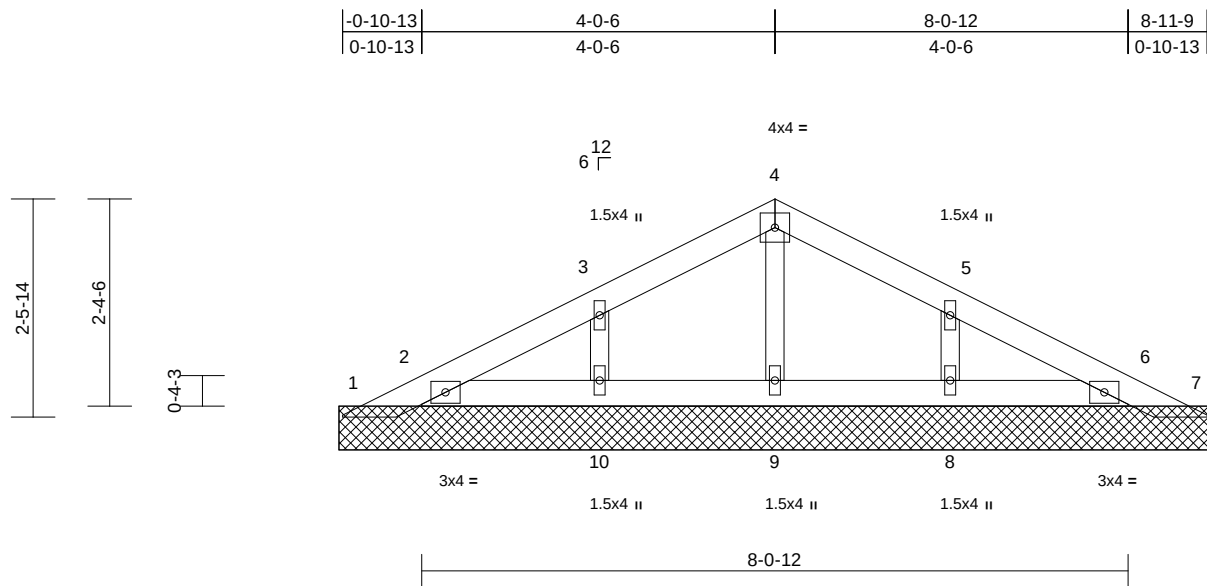
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Job	Truss	Truss Type	Qty	Ply	Roof - HR Lot 77
P240642-01	PB1	Piggyback	2	1	Job Reference (optional)

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

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Scale = 1:26.3

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LUMBER

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

BRACING

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

REACTIONS

(size)	1=9-11-6, 2=9-11-6, 6=9-11-6, 7=9-11-6, 8=9-11-6, 9=9-11-6, 10=9-11-6
Max Horiz	1=-44 (LC 17)
Max Uplift	1=-13 (LC 29), 2=-48 (LC 16), 6=-38 (LC 17), 7=-8 (LC 24), 8=-71 (LC 17), 10=-72 (LC 16)
Max Grav	1=29 (LC 16), 2=211 (LC 23), 6=211 (LC 24), 7=11 (LC 17), 8=300 (LC 24), 9=136 (LC 23), 10=300 (LC 23)

FORCES

FORCES	(lb) - Maximum Compression/Maximum Tension
TOP CHORD	1-2=-51/55, 2-3=-63/40, 3-4=-75/91, 4-5=-75/97, 5-6=-63/40, 6-7=-5/34
BOT CHORD	2-10=-15/50, 9-10=-15/50, 8-9=-15/50, 6-8=-15/50
WEBS	4-9=-99/16, 3-10=-254/206, 5-8=-254/167

NOTES

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-16; Vult=115mph (3-second gust)
Vasd=91mph; TCFL=6.0psf; BCFL=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 2'-0" oc.
- 8) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 9) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3'-0" tall by 2'-0" wide will fit between the bottom chord and any other members.
- 10) All bearings are assumed to be SP No.2 crushing capacity of 565 psi.
- 11) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 13 lb uplift at joint 1, 8 lb uplift at joint 7, 48 lb uplift at joint 2, 38 lb uplift at joint 6, 72 lb uplift at joint 10 and 71 lb uplift at joint 8.
- 12) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 13) See Standard Industry Piggyback Truss Connection Detail for Connection to base truss as applicable, or consult qualified building designer.

LOAD CASE(S) Standard



June 4, 2024



WARNING – Verify design parameters and READ NOTES ON THIS and INCLUDED MITER REFERENCE PAGE MP174751ev. 12/2023 BEFORE USE. Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TP11 Quality Criteria, and DSB-22** available from Truss Plate Institute (www.tpinst.org) and **BCSI Building Component Safety Information** available from the Structural Building Components Association (www.sbcscomponents.com)

MiTek®

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

Job	Truss	Truss Type	Qty	Ply	Roof - HR Lot 77
P240642-01	PB2	Piggyback	19	1	Job Reference (optional)

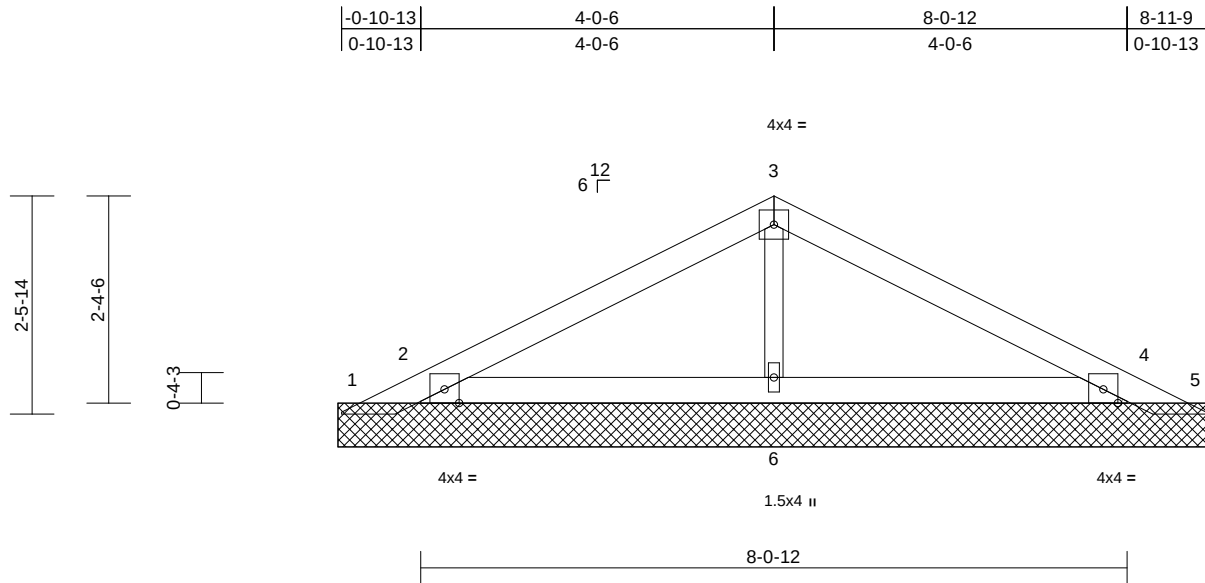
AS NOTED FOR PLAN REVIEW
DEVELOPMENT SERVICES
165976350
LEE'S SUMMIT, MISSOURI

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

Run: 8.63 S Apr 26 2024 Print: 8.630 S Apr 26 2024 MiTek Industries, Inc. Mon Jun 03 09:35:44
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Page: 1

07/17/2024



Scale = 1:26.3

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	0.44	Vert(LL)	n/a	-	n/a	999	MT20	197/144
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	0.04	Horiz(TL)	0.00	4	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 2x3 SPF No.2

BRACING

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

REACTIONS

(size) 1=9-11-6, 2=9-11-6, 4=9-11-6,
5=9-11-6, 6=9-11-6
Max Horiz 1=44 (LC 20)
Max Uplift 1=-288 (LC 23), 2=-216 (LC 16),
4=-205 (LC 17), 5=-288 (LC 24)
Max Grav 1=139 (LC 16), 2=677 (LC 23),
4=677 (LC 24), 5=120 (LC 17),
6=304 (LC 24)

FORCES

(lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-132/146, 2-3=-148/74, 3-4=-148/81,
4-5=-79/146
BOT CHORD 2-6=-8/41, 4-6=-8/41
WEBS 3-6=-204/133

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.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- All bearings are assumed to be SP No.2 crushing capacity of 565 psi.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 288 lb uplift at joint 1, 288 lb uplift at joint 5, 216 lb uplift at joint 2 and 205 lb uplift at joint 4.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- See Standard Industry Piggyback Truss Connection Detail for Connection to base truss as applicable, or consult qualified building designer.

LOAD CASE(S) Standard



June 4, 2024

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

Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI1 Quality Criteria, and DSB-22** available from Truss Plate Institute (www.tpinst.org) and **BCSI Building Component Safety Information** available from the Structural Building Component Association (www.sbcsccomponents.com)

MiTek®

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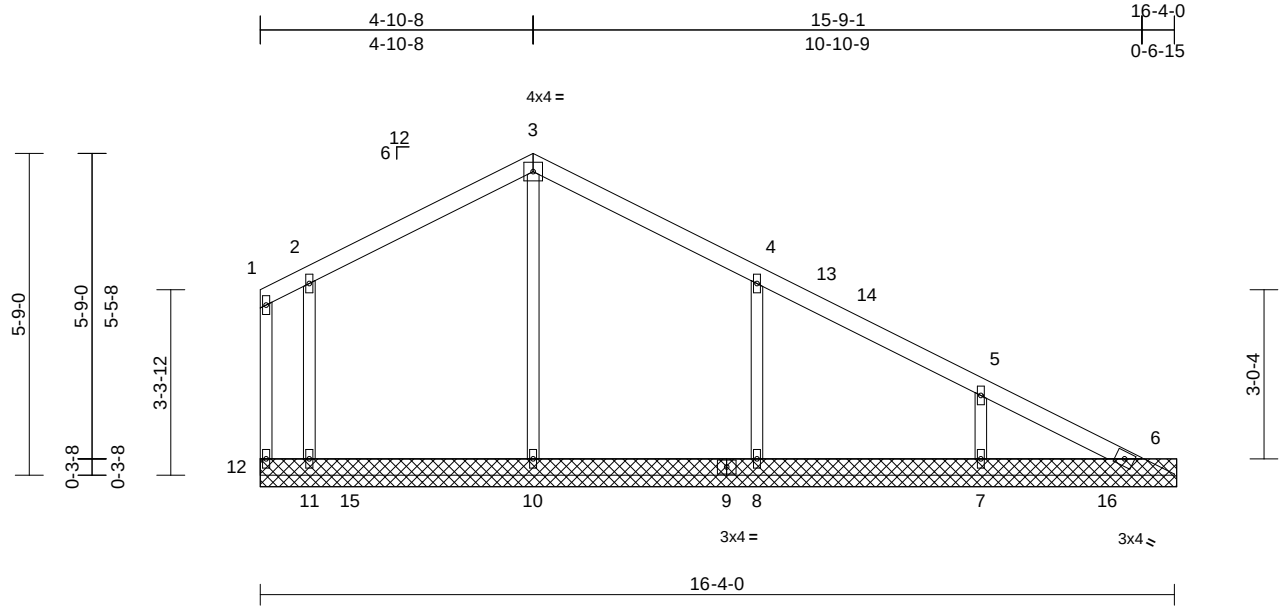
Job	Truss	Truss Type	Qty	Ply	Roof - HR Lot 77	RELEASE FOR CONSTRUCTION
P240642-01	V1	Valley	1	1	Job Reference (optional)	AS NOTED FOR PLAN REVIEW
						DEVELOPMENT SERVICES
						165976351
						LEE'S SUMMIT, MISSOURI

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

Run: 8.63 S Apr 26 2024 Print: 8.630 S Apr 26 2024 MiTek Industries, Inc. Mon Jun 03 09:35:44 Page: 1

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07/17/2024



Scale = 1:41.2

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	0.36	n/a	-	n/a	999	MT20	197/144
Snow (Pf)	25.0	Lumber DOL	1.15	BC	0.17	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.20	Horiz(TL)	0.00	6	n/a		
BCLL	0.0*	Code	IRC2018/TPI2014	Matrix-S							
BCDL	10.0										
										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 6-0-0 oc bracing.

REACTIONS (size)
6=16-4-8, 7=16-4-8, 8=16-4-8,
10=16-4-8, 11=16-4-8, 12=16-4-8
Max Horiz 12=169 (LC 12)
Max Uplift 6=-6 (LC 13), 7=-113 (LC 17),
8=-137 (LC 17), 11=-131 (LC 16),
12=-168 (LC 5)
Max Grav 6=120 (LC 25), 7=344 (LC 6),
8=543 (LC 23), 10=429 (LC 26),
11=549 (LC 22), 12=49 (LC 16)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-12=-93/145, 1-2=-78/102, 2-3=-117/179,
3-4=-118/191, 4-5=-123/96, 5-6=-196/118
BOT CHORD 11-12=-101/196, 10-11=-101/196,
8-10=-101/196, 7-8=-101/196, 6-7=-101/196
WEBS 3-10=-269/126, 2-11=-476/220,
4-8=-463/239, 5-7=-258/188

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) 0-1-4 to 4-10-8, Exterior(2R) 4-10-8 to 9-10-8, Interior (1) 9-10-8 to 15-8-15 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) All plates are 1.5x4 MT20 unless otherwise indicated.
- 7) Gable requires continuous bottom chord bearing.
- 8) Gable studs spaced at 4-0-0 oc.
- 9) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 10) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- 11) All bearings are assumed to be SP No.2 crushing capacity of 565 psi.
- 12) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 168 lb uplift at joint 12, 6 lb uplift at joint 6, 131 lb uplift at joint 11, 137 lb uplift at joint 8 and 113 lb uplift at joint 7.
- 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.
- 14) Gap between inside of top chord bearing and first diagonal or vertical web shall not exceed 0.500in.

LOAD CASE(S) Standard



June 4,2024

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

Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI1 Quality Criteria, and DSB-22** available from Truss Plate Institute (www.tpinst.org) and **BCSI Building Component Safety Information** available from the Structural Building Component Association (www.sbcsccomponents.com)

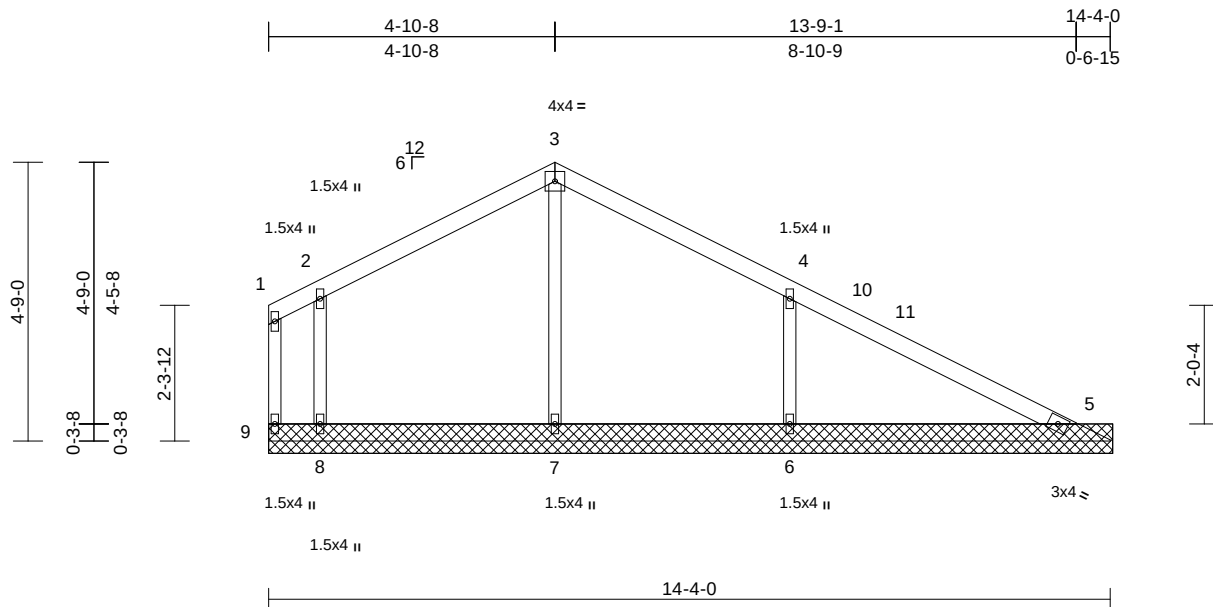
MiTek®

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

Job	Truss	Truss Type	Qty	Ply	Roof - HR Lot 77
P240642-01	V2	Valley	1	1	Job Reference (optional)

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

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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 6-0-0 oc bracing.

REACTIONS

Max Horiz	8=14-4-8, 9=14-4-8
Max Uplift	9=-124 (LC 12)
Max Grav	5=-3 (LC 17), 6=-170 (LC 17), 8=-138 (LC 16), 9=-177 (LC 22)
	5=-177 (LC 23), 6=-643 (LC 23), 7=330 (LC 22), 8=567 (LC 22), 9=52 (LC 16)

FORCES

	Tension
TOP CHORD	1-9=-85/154, 1-2=-61/106, 2-3=-113/161, 3-4=-119/179, 4-5=-115/117
BOT CHORD	8-9=-70/143, 7-8=-70/143, 6-7=-70/143, 5-6=-70/143
WEBS	3-7=-258/110, 2-8=-488/269, 4-6=-528/298

NOTES

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-16; Vult=115mph (3-second gust)
Vasd=91mph; TCDFL=6.0psf; BCDFL=6.0psf; h=35ft;
Ke=1.00; Cat. II; Exp C; Enclosed; MWFRS (envelope)
exterior zone and C-C Exterior(2E) 0-1-4 to 4-10-8,
Exterior(2R) 4-10-8 to 9-10-8, Interior (1) 9-10-8 to
13-8-15 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 drip 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) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- 10) All bearings are assumed to be SP No.2 crushing capacity of 565 psi.
- 11) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 177 lb uplift at joint 9, 3 lb uplift at joint 5, 138 lb uplift at joint 8 and 170 lb uplift at joint 6.
- 12) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 13) Gap between inside of top chord bearing and first diagonal or vertical web shall not exceed 0.500in.

LOAD CASE(S) Standard



June 4, 2024



WARNING – verify design parameters and READ NOTES on THIS and INCLUDED MITER REFERENCE PAGE. MIT-7473 Rev. 12/2023 BEFORE USE.

Design valid for use only with MiTEK® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI1 Quality Criteria**, and **DSB-22** available from Truss Plate Institute (www.tpinst.org) and **BCSI Building Component Safety Information** available from the Structural Building Component Association (www.sbcsccomponents.com)

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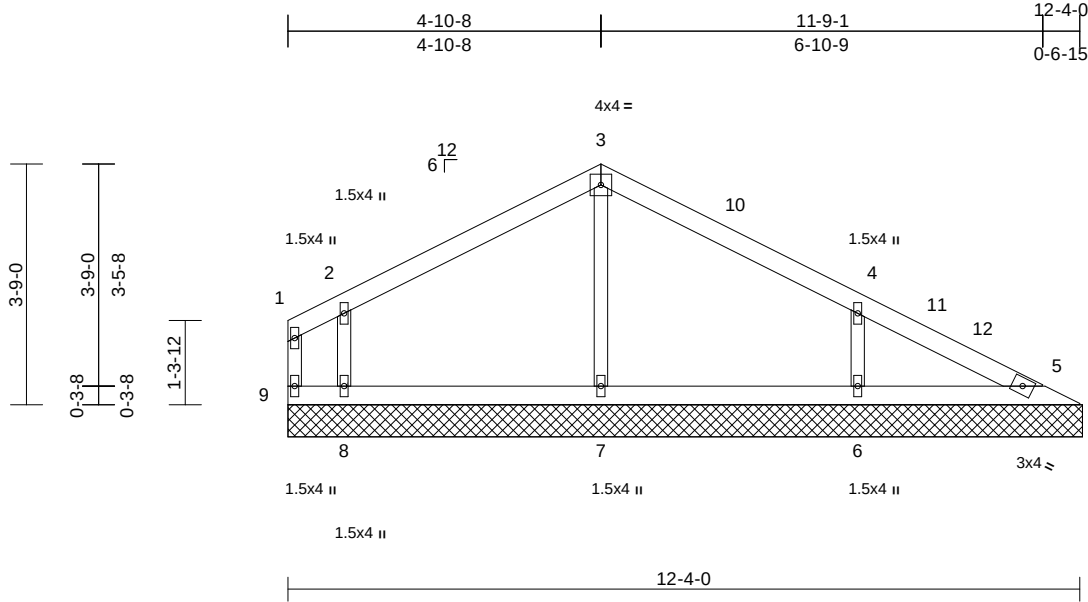
16023 Swingley Ridge Rd.
Chesterfield, MO 63017
314.434.1200 / MiTek-US.com

Job	Truss	Truss Type	Qty	Ply	Roof - HR Lot 77
P240642-01	V3	Valley	1	1	Job Reference (optional)

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

Run: 8.63 S Apr 26 2024 Print: 8.630 S Apr 26 2024 MiTek Industries, Inc. Mon Jun 03 09:35:45 Page: 1
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07/17/2024



Scale = 1:35.9

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	0.35	Vert(LL)	n/a	-	n/a	999	MT20
Snow (Pf)	25.0	Lumber DOL	1.15	BC	0.11	Vert(TL)	n/a	-	n/a	999	197/144
TCDL	10.0	Rep Stress Incr	YES	WB	0.09	Horiz(TL)	0.00	5	n/a	n/a	
BCLL	0.0*	Code	IRC2018/TPI2014	Matrix-S							
BCDL	10.0										
										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" oc purlins, except end verticals.
BOT CHORD	Rigid ceiling directly applied or 6'-0" oc bracing.

REACTIONS	(size)	5=12-4-8, 6=12-4-8, 7=12-4-8, 8=12-4-8, 9=12-4-8
	Max Horiz	9=-80 (LC 12)
	Max Uplift	5=-10 (LC 16), 6=-131 (LC 17), 8=-150 (LC 16), 9=-175 (LC 22)
	Max Grav	5=91 (LC 23), 6=523 (LC 23), 7=348 (LC 22), 8=563 (LC 22), 9=62 (LC 16)

FORCES	(lb) - Maximum Compression/Maximum Tension	
TOP CHORD		1-9=-93/159, 1-2=-44/106, 2-3=-115/136, 3-4=-117/149, 4-5=-72/83
BOT CHORD		8-9=-34/85, 7-8=-34/85, 6-7=-34/85, 5-6=-34/85
WEBS		3-7=-265/116, 2-8=-493/309, 4-6=-445/271

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) 0-1-4 to 4-10-8, Exterior(2R) 4-10-8 to 9-10-8, Interior (1) 9-10-8 to 11-8-15 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.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3'-0" x 6'-0" wide will fit between the bottom chord and any other members.
- All bearings are assumed to be SP No.2 crushing capacity of 565 psi.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 175 lb uplift at joint 9, 10 lb uplift at joint 5, 150 lb uplift at joint 8 and 131 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



June 4, 2024

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

Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI1 Quality Criteria, and DSB-22** available from Truss Plate Institute (www.tpinst.org) and **BCSI Building Component Safety Information** available from the Structural Building Component Association (www.sbcsccomponents.com)

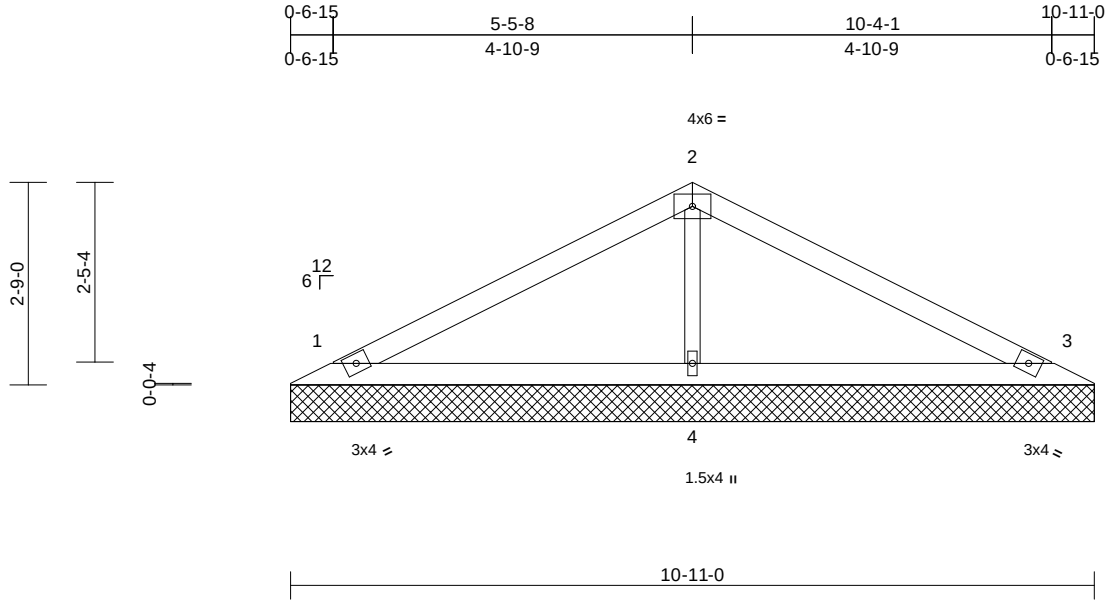
MiTek®

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

Job	Truss	Truss Type	Qty	Ply	Roof - HR Lot 77	RELEASE FOR CONSTRUCTION AS NOTED FOR PLAN REVIEW DEVELOPMENT SERVICES 165976354 LEE'S SUMMIT, MISSOURI
P240642-01	V4	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	0.62	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf)	25.0	Lumber DOL	1.15	BC	0.24	Vert(TL)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.07	Horiz(TL)	0.00	3	n/a	n/a		
BCLL	0.0*	Code	IRC2018/TPI2014	Matrix-S								
BCDL	10.0										Weight: 34 lb	FT = 20%

LUMBER

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

BRACING

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

REACTIONS

(size)	1=10-11-0, 3=10-11-0, 4=10-11-0
Max Horiz	1=-46 (LC 21)
Max Uplift	1=-49 (LC 16), 3=-57 (LC 17), 4=-37 (LC 16)
Max Grav	1=304 (LC 22), 3=304 (LC 23), 4=479 (LC 22)

FORCES

(lb) - Maximum Compression/Maximum Tension	
TOP CHORD	1-2=-175/78, 2-3=-175/85
BOT CHORD	1-4=-3/53, 3-4=-3/53
WEBS	2-4=-330/219

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) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- 10) All bearings are assumed to be SP No.2 crushing capacity of 565 psi.
- 11) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 49 lb uplift at joint 1, 57 lb uplift at joint 3 and 37 lb uplift at joint 4.
- 12) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard



June 4,2024

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

Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI1 Quality Criteria, and DSB-22** available from Truss Plate Institute (www.tpinst.org) and **BCSI Building Component Safety Information** available from the Structural Building Component Association (www.sbcsccomponents.com)

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Job	Truss	Truss Type	Qty	Ply	Roof - HR Lot 77
P240642-01	V5	Valley	1	1	Job Reference (optional)

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07/17/2024

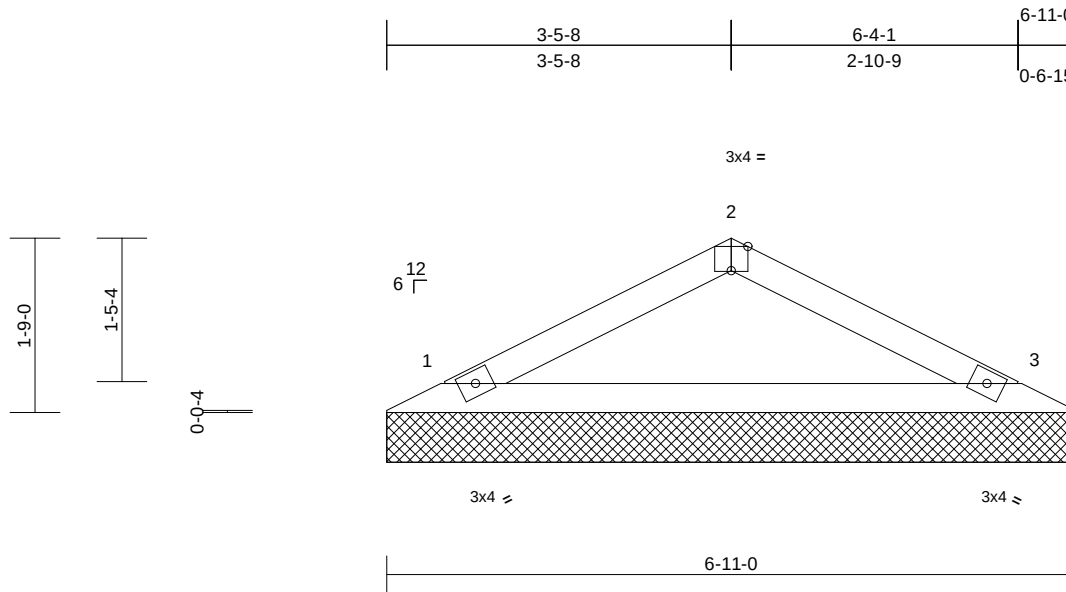


Plate Offsets (X, Y): [2:0-2-0,Edge]

[illegible]

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

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.

Max Horiz 1=27 (LC 16)
Max Uplift 1=-39 (LC 16), 3=-39 (LC 17)
Max Grav 1=300 (LC 22), 3=300 (LC 23)

TOP CHORD 1-2=-270/212, 2-3=-270/224
BOT CHORD 1-3=-144/200

- 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) TCDL: 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) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- 10) All bearings are assumed to be SP No.2 crushing capacity of 565 psi.
- 11) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 39 lb uplift at joint 1 and 39 lb uplift at joint 3.
- 12) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard



June 4, 2024



Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI1 Quality Criteria**, and **DSB-22** available from Truss Plate Institute (www.tpinst.org) and **BCSI Building Component Safety Information** available from the Structural Building Components Association (www.sbcsccomponents.com)

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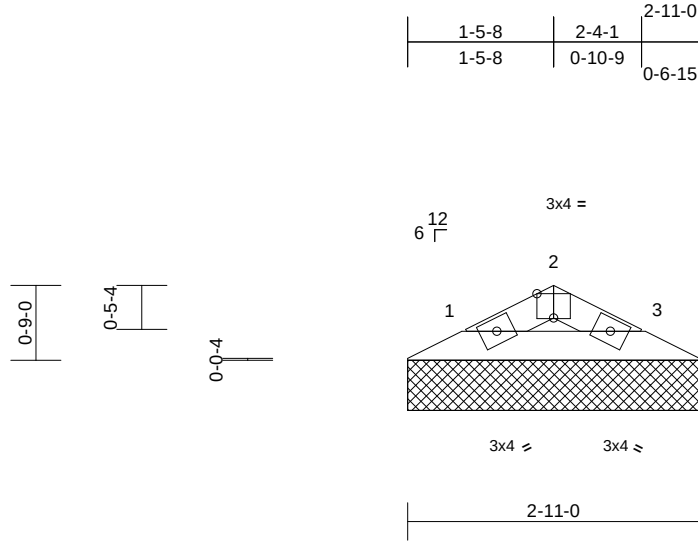
Job	Truss	Truss Type	Qty	Ply	Roof - HR Lot 77	RELEASE FOR CONSTRUCTION
P240642-01	V6	Valley	1	1	Job Reference (optional)	AS NOTED FOR PLAN REVIEW
						DEVELOPMENT SERVICES
						165976356
						LEE'S SUMMIT, MISSOURI

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

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07/17/2024



Scale = 1:23

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	0.03	Vert(LL)	n/a	-	n/a	999	MT20
Snow (Pf)	25.0	Lumber DOL	1.15	BC	0.04	Vert(TL)	n/a	-	n/a	999	244/190
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: 7 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 3-0-0 oc purlins.

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

REACTIONS (size) 1=2-11-0, 3=2-11-0

Max Horiz 1=8 (LC 16)

Max Uplift 1=-12 (LC 16), 3=-12 (LC 17)

Max Grav 1=82 (LC 22), 3=82 (LC 23)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=-78/70, 2-3=-78/74

BOT CHORD 1-3=-48/60

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) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- 10) All bearings are assumed to be SP No.2 crushing capacity of 565 psi.
- 11) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 12 lb uplift at joint 1 and 12 lb uplift at joint 3.
- 12) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard



June 4, 2024

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

Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI1 Quality Criteria, and DSB-22** available from Truss Plate Institute (www.tpinst.org) and **BCSI Building Component Safety Information** available from the Structural Building Component Association (www.sbcsccomponents.com)

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Job	Truss	Truss Type	Qty	Ply	Roof - HR Lot 77
P240642-01	V07	Valley	1	1	Job Reference (optional)

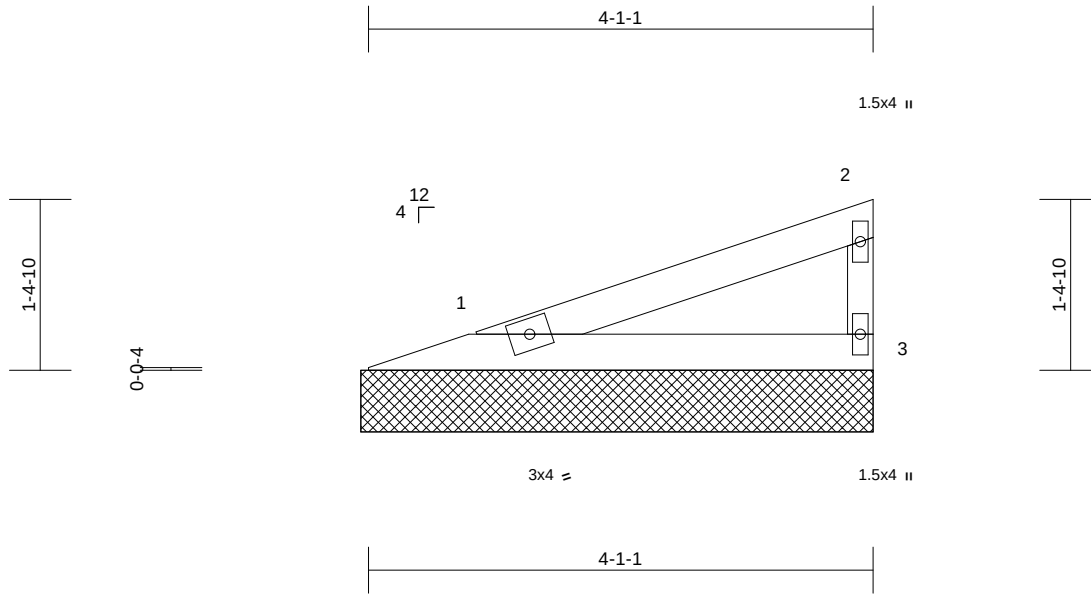
AS NOTED FOR PLAN REVIEW
DEVELOPMENT SERVICES
165976357
LEE'S SUMMIT, MISSOURI

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

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07/17/2024



Scale = 1:18.7

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.28	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	0.00	Horiz(TL)	0.00	3	n/a	n/a		
BCLL	0.0*	Code	IRC2018/TPI2014	Matrix-P								
BCDL	10.0											
											Weight: 12 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 4-1-13 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (size) 1=4-1-13, 3=4-1-13

Max Horiz 1=50 (LC 15)
Max Uplift 1=-27 (LC 12), 3=-34 (LC 16)
Max Grav 1=181 (LC 22), 3=181 (LC 22)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=-71/43, 2-3=-150/142
BOT CHORD 1-3=-22/23

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) Gable requires continuous bottom chord bearing.
- 6) Gable studs spaced at 4-0-0 oc.

- 7) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 8) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- 9) All bearings are assumed to be SP No.2 crushing capacity of 565 psi.
- 10) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 27 lb uplift at joint 1 and 34 lb uplift at joint 3.
- 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

June 4, 2024

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

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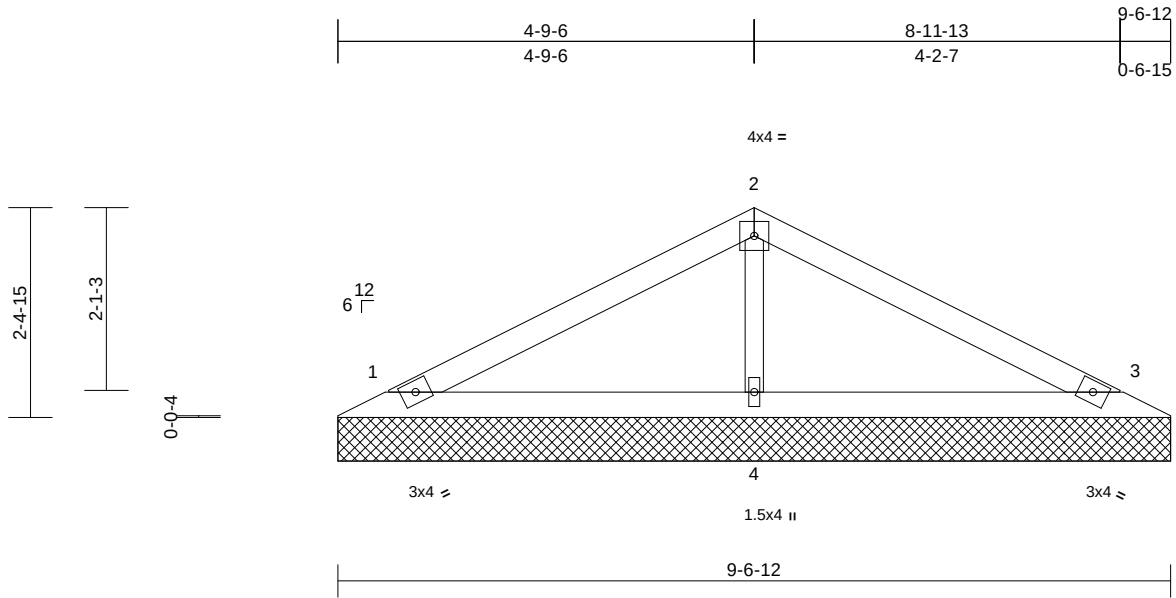
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Chesterfield, MO 63017
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Job	Truss	Truss Type	Qty	Ply	Roof - HR Lot 77
P240642-01	V7	Valley	1	1	Job Reference (optional)

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

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07/17/2024



Scale = 1:26.5

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	0.43	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf)	25.0	Lumber DOL	1.15	BC	0.18	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-S								
BCDL	10.0										Weight: 30 lb	FT = 20%

LUMBER

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

BRACING

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

REACTIONS

(size)	1=9-6-12, 3=9-6-12, 4=9-6-12
Max Horiz	1=40 (LC 16)
Max Uplift	1=-42 (LC 16), 3=-49 (LC 17), 4=-32 (LC 16)
Max Grav	1=256 (LC 22), 3=256 (LC 23), 4=406 (LC 23)

FORCES

(lb) - Maximum Compression/Maximum Tension	
TOP CHORD	1-2=-147/69, 2-3=-147/77
BOT CHORD	1-4=-3/46, 3-4=-3/46
WEBS	2-4=-278/200

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) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- 10) All bearings are assumed to be SP No.2 crushing capacity of 565 psi.
- 11) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 42 lb uplift at joint 1, 49 lb uplift at joint 3 and 32 lb uplift at joint 4.
- 12) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard



June 4,2024

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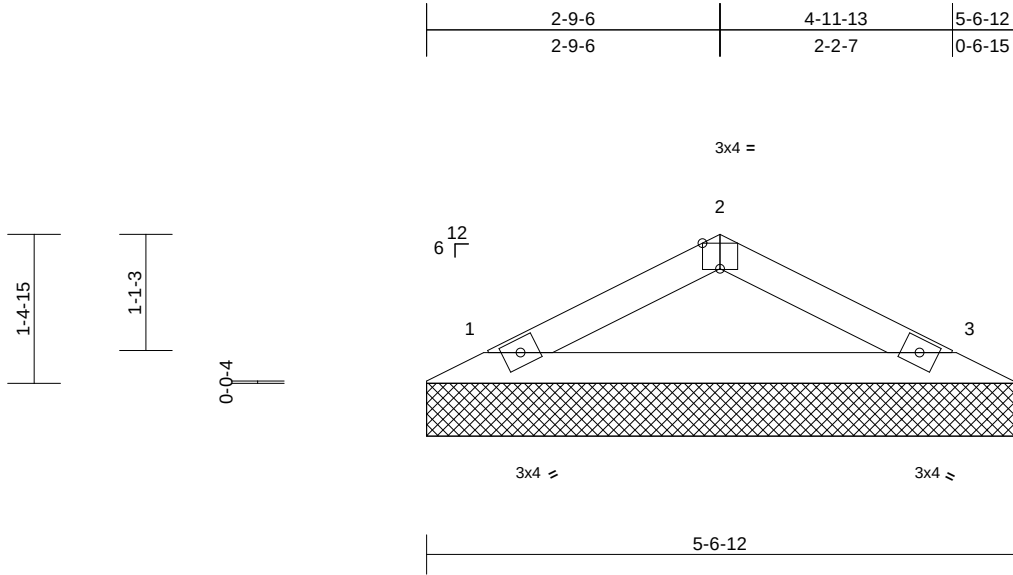
16023 Swingley Ridge Rd.
Chesterfield, MO 63017
314.434.1200 / MiTek-US.com

Job	Truss	Truss Type	Qty	Ply	Roof - HR Lot 77	RELEASE FOR CONSTRUCTION
P240642-01	V8	Valley	1	1	Job Reference (optional)	AS NOTED FOR PLAN REVIEW
						DEVELOPMENT SERVICES
						165976359
						LEE'S SUMMIT, MISSOURI

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

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07/17/2024



Scale = 1:21.8

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	0.13	n/a	-	n/a	999	MT20	244/190
Snow (Pf)	25.0	Lumber DOL	1.15	BC	0.24	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.00	Horiz(TL)	0.00	3	n/a		
BCLL	0.0*	Code	IRC2018/TPI2014	Matrix-P							
BCDL	10.0										
										Weight: 16 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 5-7-12 oc purlins.

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

REACTIONS

(size) 1=5-6-12, 3=5-6-12

Max Horiz 1=21 (LC 16)

Max Uplift 1=-30 (LC 16), 3=-30 (LC 17)

Max Grav 1=223 (LC 22), 3=223 (LC 23)

FORCES

(lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=-200/174, 2-3=-200/184

BOT CHORD 1-3=-119/153

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) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- 10) All bearings are assumed to be SP No.2 crushing capacity of 565 psi.
- 11) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 30 lb uplift at joint 1 and 30 lb uplift at joint 3.
- 12) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard



June 4,2024

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

Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI1 Quality Criteria, and DSB-22** available from Truss Plate Institute (www.tpinst.org) and **BCSI Building Component Safety Information** available from the Structural Building Component Association (www.sbcsccomponents.com)

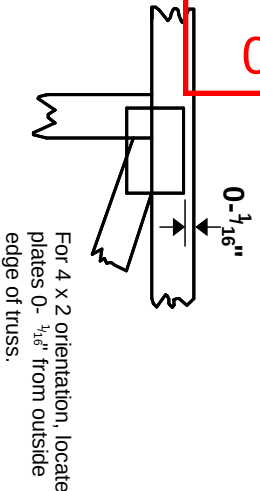
MiTek®

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Chesterfield, MO 63017
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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.



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

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

PLATE SIZE

4 X 4

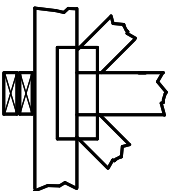
The first dimension is the plate width measured perpendicular to slots. Second dimension is the length parallel to slots.

LATERAL BRACING LOCATION



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

BEARING



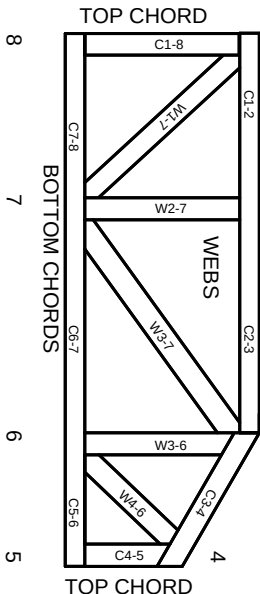
Indicates location where bearings (supports) occur. Icons vary but reaction section indicates joint number/letter where bearings occur. Min size shown is for crushing only.

Industry Standards:
ANSI/TP1.1: National Design Specification for Metal Plate Connected Wood Truss Construction.
DSB-22: Design Standard for Bracing.
BCSI: Building Component Safety Information, Guide to Good Practice for Handling, Installing, Restraining & Bracing of Metal Plate Connected Wood Trusses.

Numbering System



1 2 3 Joint ID typ.



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

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

Product Code Approvals

ICC-ES Reports:
ESR-1988, ESR-2362, ESR-2685, ESR-3282
ESR-4722, ESL-1388

Design General Notes

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

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

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MITek Engineering Reference Sheet: MII-7473 rev. 1/12/2023

General Safety Notes

Failure to Follow Could Cause Property Damage or Personal Injury

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