

RE: P240028-01
Roof

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

Site Information:

Customer: Clayton Properties Project Name: P240028-01
Lot/Block: 115 Model:
Address: 3225 SW Arbortree Dr Subdivision: Hawthorne 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 30 individual, dated Truss Design Drawings and 0 Additional Drawings.

No.	Seal#	Truss Name	Date	No.	Seal#	Truss Name	Date
1	I63022331	A1	1/15/2024	21	I63022351	K1	1/15/2024
2	I63022332	A2	1/15/2024	22	I63022352	K2	1/15/2024
3	I63022333	B1	1/15/2024	23	I63022353	VI1	1/15/2024
4	I63022334	B2	1/15/2024	24	I63022354	VI2	1/15/2024
5	I63022335	B3	1/15/2024	25	I63022355	VI3	1/15/2024
6	I63022336	C1	1/15/2024	26	I63022356	VI4	1/15/2024
7	I63022337	C2	1/15/2024	27	I63022357	VK1	1/15/2024
8	I63022338	D1	1/15/2024	28	I63022358	VK2	1/15/2024
9	I63022339	D2	1/15/2024	29	I63022359	VK3	1/15/2024
10	I63022340	E1	1/15/2024	30	I63022360	VK4	1/15/2024
11	I63022341	G1	1/15/2024				
12	I63022342	G2	1/15/2024				
13	I63022343	H1	1/15/2024				
14	I63022344	H2	1/15/2024				
15	I63022345	H3	1/15/2024				
16	I63022346	H4	1/15/2024				
17	I63022347	H5	1/15/2024				
18	I63022348	H6	1/15/2024				
19	I63022349	I1	1/15/2024				
20	I63022350	I2	1/15/2024				

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.

EVERSTEAD
SHOP DRAWINGS/SUBMITTAL REVIEW

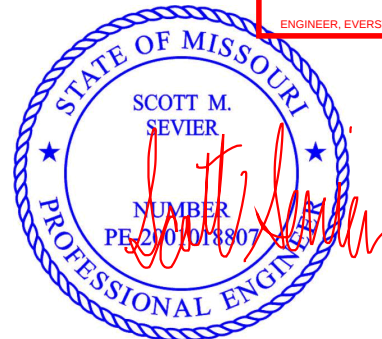
SUBMITTAL WAS REVIEWED FOR DESIGN CONFORMITY AND GENERAL CONFORMANCE TO CONTRACT DOCUMENTS ONLY. THE CONTRACTOR IS RESPONSIBLE FOR CONFIRMING AND CORRELATING DIMENSIONS AT JOBSITE FOR TOLERANCE, CLEARANCE, QUANTITIES, FABRICATION, COORDINATION OF HIS OR HER WORK WITH OTHER TRADES, AND FULL COMPLIANCE WITH CONTRACT DOCUMENTS.

STATUS:
APPROVED

01/23/2024

REVIEWED BY:
H CJ

ENGINEER, EVERSTEAD ENGINEERING & DESIGN LLC.



January 15, 2024

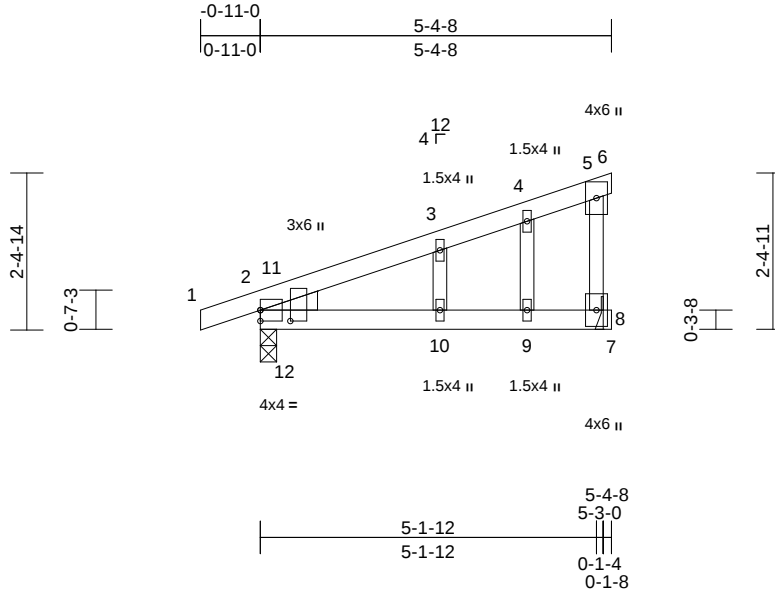
Job	Truss	Truss Type	Qty	Ply	Roof
P240028-01	A1	Monopitch	1	1	Job Reference (optional)

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

Run: 8.63 S Nov 1 2023 Print: 8.630 S Nov 1 2023 MiTek Industries, Inc. File: Jan 12 15:46:00 Page: 1

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02/01/2024



Scale = 1:35.3

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

Loading	(psf)	Spacing	1-11-4	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.54	Vert(LL)	0.11	2-10	>545	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.71	Vert(CT)	0.10	2-10	>643	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.01	Horz(CT)	0.00	8	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S							Weight: 23 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
WEDGE	Left: 2x4 SP No.2

BRACING

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

REACTIONS	(size) 2=0-3-0, 8= Mechanical
	Max Horiz 2=88 (LC 8)
	Max Uplift 2=-128 (LC 8), 8=-118 (LC 8)
	Max Grav 2=292 (LC 1), 8=228 (LC 1)

FORCES

	(lb) - Maximum Compression/Maximum Tension
TOP CHORD	1-2=0/0, 2-3=-121/49, 3-4=-64/61, 4-5=-46/65, 5-6=-1/0, 5-8=-114/235
BOT CHORD	2-10=-138/61, 9-10=-138/61, 8-9=-138/61, 7-8=0/0
WEBS	4-9=-24/19, 3-10=-72/61

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 5-4-8 zone; cantilever left and right exposed; end vertical left exposed; porch left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 2) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- 3) Gable studs spaced at 1-4-0 oc.

- 4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 5) Bearings are assumed to be: Joint 2 SP No.2 crushing capacity of 565 psi.
- 6) Refer to girder(s) for truss to truss connections.
- 7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 118 lb uplift at joint 8 and 128 lb uplift at joint 2.
- 8) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard



January 15, 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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Job	Truss	Truss Type	Qty	Ply	Roof	Job Reference (optional)
P240028-01	A2	Monopitch	8	1		

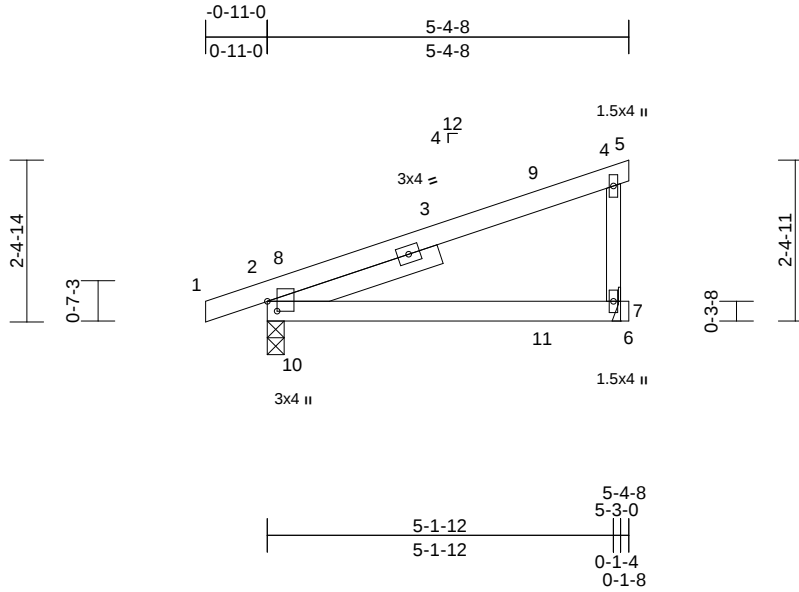
RELEASE FOR CONSTRUCTION
AS NOTED FOR PLAN REVIEW
DEVELOPMENT SERVICES
163022332
LEE'S SUMMIT, MISSOURI

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

Run: 8.63 S Nov 1 2023 Print: 8.630 S Nov 1 2023 MiTek Industries, Inc. File: Jan 12 15:46:12 Page: 1

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02/01/2024



Scale = 1:34.3												
Plate Offsets (X, Y): [2:0-1-12,0-1-12]												
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	0.62	Vert(LL)	0.16	2-7	>391	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.62	Vert(CT)	0.13	2-7	>465	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.00	Horz(CT)	0.00	7	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-P							Weight: 23 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 -- 2-7-14

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

REACTIONS (size) 2=0-3-0, 7= Mechanical
Max Horiz 2=91 (LC 8)
Max Uplift 2=-132 (LC 8), 7=-122 (LC 8)
Max Grav 2=301 (LC 1), 7=235 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/0, 2-4=-106/43, 4-5=-1/0, 4-7=-179/270
BOT CHORD 2-7=0/0, 6-7=0/0

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

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 5-4-8 zone; cantilever left and right exposed; end vertical left exposed; porch left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
3) Bearings are assumed to be: Joint 2 SP No.2 crushing capacity of 565 psi.
4) Refer to girder(s) for truss to truss connections.
5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 122 lb uplift at joint 7 and 132 lb uplift at joint 2.



January 15, 2024

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Chesterfield, MO 63017
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Job	Truss	Truss Type	Qty	Ply	Roof	Job Reference (optional)
P240028-01	B1	Monopitch Supported Gable	1	1		

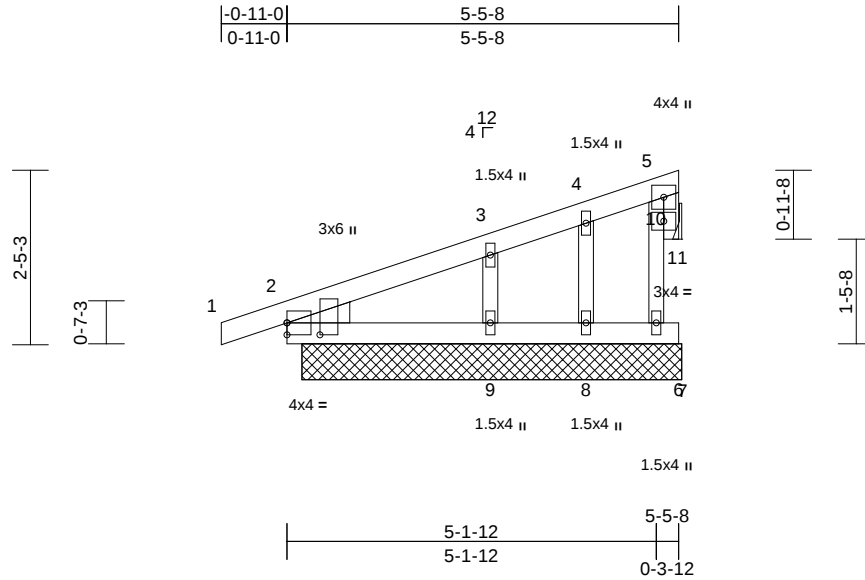
Premier Building Supply (Springhill, KS), Spring Hills, KS - 66083,

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RELEASE FOR CONSTRUCTION
AS NOTED FOR PLAN REVIEW
DEVELOPMENT SERVICES
163022333
LEE'S SUMMIT, MISSOURI

02/01/2024



Scale = 1:32.1									
Plate Offsets (X, Y): [2:0-2-0,0-5-8]									
Loading	(psf)	Spacing	1-11-4	CSI		DEFL	in	(loc)	l/defl
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.11	Vert(LL)	0.00	2-9	>999
TCDL	10.0	Lumber DOL	1.15	BC	0.05	Vert(CT)	0.00	2-9	>999
BCLL	0.0	Rep Stress Incr	YES	WB	0.07	Horz(CT)	0.00	11	n/a
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-R					
								PLATES	GRIP
								MT20	197/144
								Weight: 23 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
WEDGE Left: 2x4 SP No.2

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

REACTIONS (size) 2=5-3-8, 6=5-3-8, 7=5-3-8, 8=5-3-8, 9=5-3-8, 11= Mechanical
Max Horiz 2=86 (LC 8)
Max Uplift 2=-46 (LC 8), 6=-6 (LC 8), 8=-17 (LC 8), 9=-72 (LC 12), 11=-11 (LC 12)
Max Grav 2=178 (LC 1), 6=-1 (LC 1), 7=49 (LC 3), 8=53 (LC 1), 9=233 (LC 1), 11=9 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/0, 2-3=-157/54, 3-4=-41/9, 4-5=-12/7, 7-10=-23/22, 5-10=-28/41
BOT CHORD 2-9=-10/4, 8-9=-10/4, 7-8=-10/4, 6-7=0/0
WEBS 4-8=-50/79, 3-9=-170/283, 5-11=-6/13

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 Corner(3E) -0-11-0 to 4-2-0,
Exterior(2N) 4-2-0 to 5-1-12 zone; cantilever left and
right exposed; end vertical left exposed; C-C for
members and forces & MWFRS for reactions shown;
Lumber DOL=1.60 plate grip DOL=1.60

- Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- Gable studs spaced at 1-4-0 oc.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- Bearings are assumed to be: , Joint 9 SP No.2 crushing capacity of 565 psi.
- Refer to girder(s) for truss to truss connections.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 46 lb uplift at joint 2, 6 lb uplift at joint 6, 17 lb uplift at joint 8, 72 lb uplift at joint 9 and 11 lb uplift at joint 11.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard



January 15, 2024

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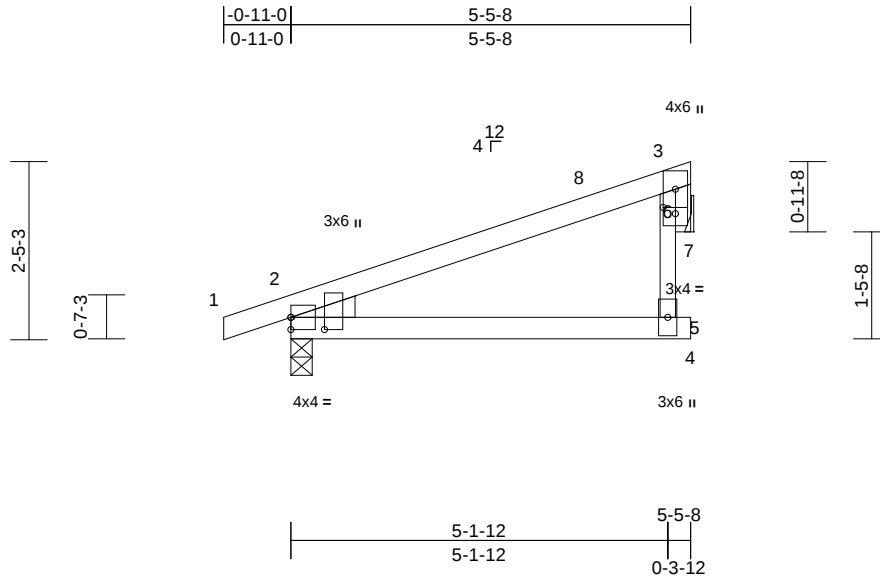
Job	Truss	Truss Type	Qty	Ply	Roof	RELEASE FOR CONSTRUCTION AS NOTED FOR PLAN REVIEW DEVELOPMENT SERVICES 163022334 LEE'S SUMMIT, MISSOURI
P240028-01	B2	Monopitch	9	1	Job Reference (optional)	

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

Run: 8.63 S Nov 1 2023 Print: 8.630 S Nov 1 2023 MiTek Industries, Inc. File: Jan 12 15:46:23 Page: 1

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02/01/2024



Scale = 1:31.5

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

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.44	Vert(LL)	0.02	2-5	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.73	Vert(CT)	-0.04	2-5	>999	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.00	Horz(CT)	-0.01	7	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-R							Weight: 22 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
WEDGE Left: 2x4 SP No.2

BRACING

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

REACTIONS (size) 2=0-3-8, 7= Mechanical
Max Horiz 2=88 (LC 8)
Max Uplift 2=-83 (LC 8), 7=-58 (LC 12)
Max Grav 2=314 (LC 1), 7=220 (LC 1)

FORCES (lb) - Maximum Compression/Maximum
Tension

TOP CHORD 1-2=0/0, 2-3=-211/55, 5-6=-3/125,
3-6=-288/405

BOT CHORD 2-5=-128/138, 4-5=0/0
WEBS 3-7=-186/112

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 5-1-12 zone; cantilever left and right
exposed; end vertical left exposed; C-C for members
and forces & MWFRS for reactions shown; Lumber
DOL=1.60 plate grip DOL=1.60
- 2) This truss has been designed for a 10.0 psf bottom
chord live load nonconcurrent with any other live loads.
- 3) Bearings are assumed to be: , Joint 2 SP No.2 crushing
capacity of 565 psi.
- 4) Refer to girder(s) for truss to truss connections.
- 5) Provide mechanical connection (by others) of truss to
bearing plate capable of withstanding 83 lb uplift at joint
2 and 58 lb uplift at joint 7.

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



January 15, 2024

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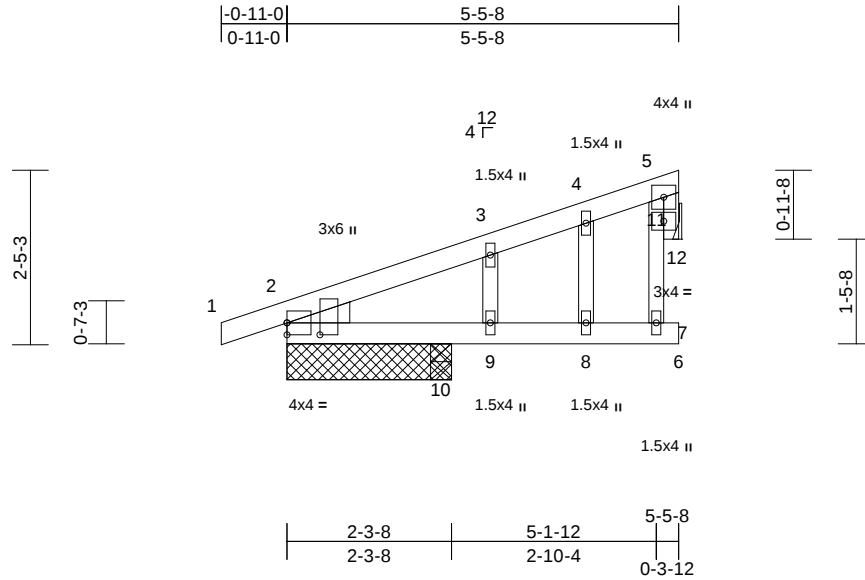
16023 Swingley Ridge Rd.
Chesterfield, MO 63017
314.434.1200 / MiTek-US.com

Job	Truss	Truss Type	Qty	Ply	Roof
P240028-01	B3	Monopitch Structural Gable	1	1	Job Reference (optional)

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

Run: 8.63 S Nov 1 2023 Print: 8.630 S Nov 1 2023 MiTek Industries, Inc. File: Jan 12 15:46:23 Page: 1
ID: chPq0_r0D5WMx_6VPB2D63zw3PY-RfC?PsB70Hq3NSgPqnL8w3uITXb6KWrcD6rJ423C?

02/01/2024



Scale = 1:32.1

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

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	0.13	Vert(LL)	0.01	8-9	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.30	Vert(CT)	-0.01	8-9	>999	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.06	Horz(CT)	0.00	12	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-R							Weight: 23 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
WEDGE Left: 2x4 SP 2400F 2.0E

BRACING

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

REACTIONS (size) 2=2-3-8, 10=0-3-8, 12= Mechanical
Max Horiz 2=88 (LC 8)
Max Uplift 2=-45 (LC 8), 10=-68 (LC 12),
12=-32 (LC 8)
Max Grav 2=172 (LC 1), 10=234 (LC 1),
12=127 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=0/0, 2-3=-96/17, 3-4=-74/10, 4-5=-43/17,
7-11=-29/62, 5-11=-45/65

BOT CHORD 2-10=-40/44, 9-10=-40/44, 8-9=-40/44,
7-8=-40/44, 6-7=0/0

WEBS 4-8=0/26, 3-9=-172/239, 5-12=-34/15

NOTES

- Wind: ASCE 7-16; Vult=115mph (3-second gust)
Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=35ft;
Ke=1.00; Cat. II; Exp C; Enclosed; MWFRS (envelope)
exterior zone and C-C Exterior(2E) -0-11-0 to 4-2-0,
Interior (1) 4-2-0 to 5-1-12 zone; cantilever left and right
exposed; end vertical left exposed; C-C for members
and forces & MWFRS for reactions shown; Lumber
DOL=1.60 plate grip DOL=1.60
- Truss designed for wind loads in the plane of the truss
only. For studs exposed to wind (normal to the face),
see Standard Industry Gable End Details as applicable,
or consult qualified building designer as per ANSI/TPI 1.
- Gable studs spaced at 1-4-0 oc.

- This truss has been designed for a 10.0 psf bottom
chord live load nonconcurrent with any other live loads.
- Bearings are assumed to be: , Joint 2 SP No.2 crushing
capacity of 565 psi, Joint 10 SP No.2 crushing capacity
of 565 psi.
- Refer to girder(s) for truss to truss connections.
- Provide mechanical connection (by others) of truss to
bearing plate capable of withstanding 45 lb uplift at joint
2, 68 lb uplift at joint 10 and 32 lb uplift at joint 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



January 15, 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	Job Reference (optional)
P240028-01	C1	Monopitch	5	1		

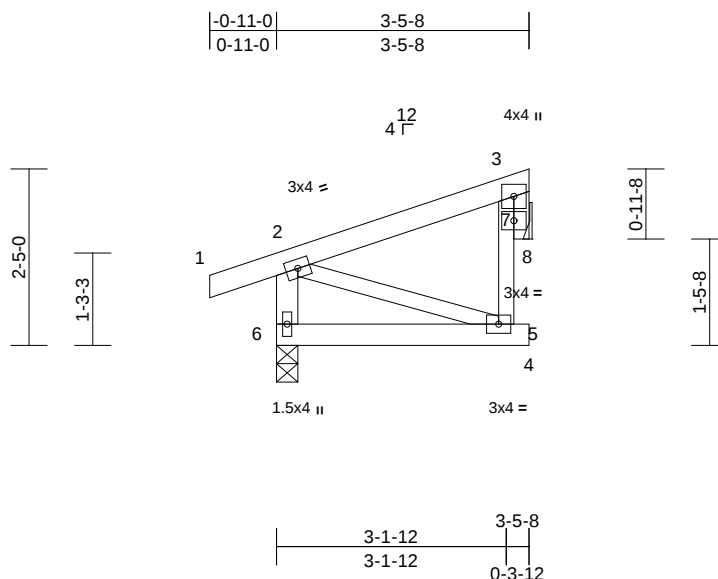
AS NOTED FOR PLAN REVIEW
DEVELOPMENT SERVICES
163022336
LEE'S SUMMIT, MISSOURI

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

Run: 8.63 S Nov 1 2023 Print: 8.630 S Nov 1 2023 MiTek Industries, Inc. File: Jan 12 15:46:14 Page: 1

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02/01/2024



Scale = 1:31.6

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.13	Vert(LL)	0.00	5-6	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.10	Vert(CT)	-0.01	5-6	>999	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.03	Horz(CT)	-0.01	8	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-P							Weight: 18 lb	FT = 20%

LUMBER

TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2
WEBS 2x3 SPF No.2 *Except* 6-2:2x4 SP No.2
OTHERS 2x3 SPF No.2

LOAD CASE(S) Standard**BRACING**

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

REACTIONS (size) 6=0-3-8, 8= Mechanical
Max Horiz 6=61 (LC 9)
Max Uplift 6=-66 (LC 8), 8=-40 (LC 12)
Max Grav 6=234 (LC 1), 8=117 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=0/24, 2-3=-61/6, 5-7=-12/69, 3-7=-12/69, 2-6=-204/206
BOT CHORD 5-6=-124/43, 4-5=0/0
WEBS 2-5=-19/105, 3-8=-140/151

NOTES

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust)
Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=35ft;
Ke=1.00; Cat. II; Exp C; Enclosed; MWFRS (envelope)
exterior zone and C-C Exterior(2E) zone; cantilever left
and right exposed; end vertical left exposed; C-C for
members and forces & MWFRS for reactions shown;
Lumber DOL=1.60 plate grip DOL=1.60
- 2) This truss has been designed for a 10.0 psf bottom
chord live load nonconcurrent with any other live loads.
- 3) Bearings are assumed to be: , Joint 6 SP No.2 crushing
capacity of 565 psi.
- 4) Refer to girder(s) for truss to truss connections.
- 5) Provide mechanical connection (by others) of truss to
bearing plate capable of withstanding 66 lb uplift at joint
6 and 40 lb uplift at joint 8.
- 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.



January 15, 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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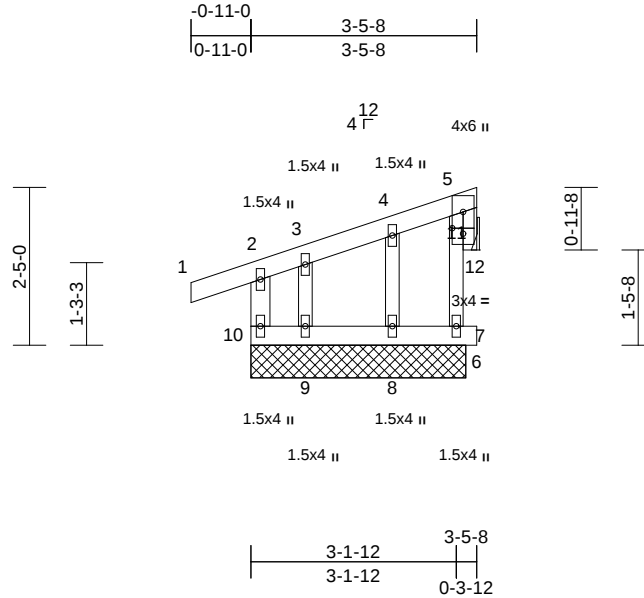
Job	Truss	Truss Type	Qty	Ply	Roof
P240028-01	C2	Monopitch Supported Gable	1	1	Job Reference (optional)

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

Run: 8.63 S Nov 1 2023 Print: 8.630 S Nov 1 2023 MiTek Industries, Inc. File Jan 12 15:46:14 Page: 1

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02/01/2024



Scale = 1:35.3

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

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.68	Vert(LL)	0.00	9	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.01	Vert(CT)	0.00	8-9	>999	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.02	Horz(CT)	-0.11	12	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-P							Weight: 17 lb	FT = 20%

LUMBER

TOP CHORD	2x4 SP No.2
BOT CHORD	2x4 SP No.2
WEBS	2x3 SPF No.2 *Except* 10-2:2x4 SP No.2
OTHERS	2x3 SPF No.2

BRACING

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

REACTIONS	(size)	7=3-3-8, 8=3-3-8, 9=3-3-8, 10=3-3-8, 12= Mechanical
	Max Horiz	10=61 (LC 9)
	Max Uplift	9=-14 (LC 12), 10=-100 (LC 8), 12=-277 (LC 8)
	Max Grav	7=248 (LC 8), 8=116 (LC 1), 9=53 (LC 3), 10=151 (LC 1), 12=-1 (LC 3)

FORCES

	(lb) - Maximum Compression/Maximum Tension
TOP CHORD	1-2=0/24, 2-3=-23/103, 3-4=-34/133, 4-5=-35/130, 7-11=-767/176, 5-11=-767/176, 2-10=-148/291
BOT CHORD	9-10=-176/43, 8-9=-176/43, 7-8=-176/43, 6-7=0/0
WEBS	4-8=-91/7, 3-9=-80/79, 5-12=-246/1011

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

- 3) Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
- 4) Gable studs spaced at 1-4-0 oc.
- 5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 6) Bearings are assumed to be: Joint 9 SP No.2 crushing capacity of 565 psi.
- 7) Refer to girder(s) for truss to truss connections.
- 8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint 10, 14 lb uplift at joint 9 and 277 lb uplift at joint 12.
- 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



January 15, 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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Job	Truss	Truss Type	Qty	Ply	Roof	Job Reference (optional)
P240028-01	D1	Monopitch Supported Gable	2	1		

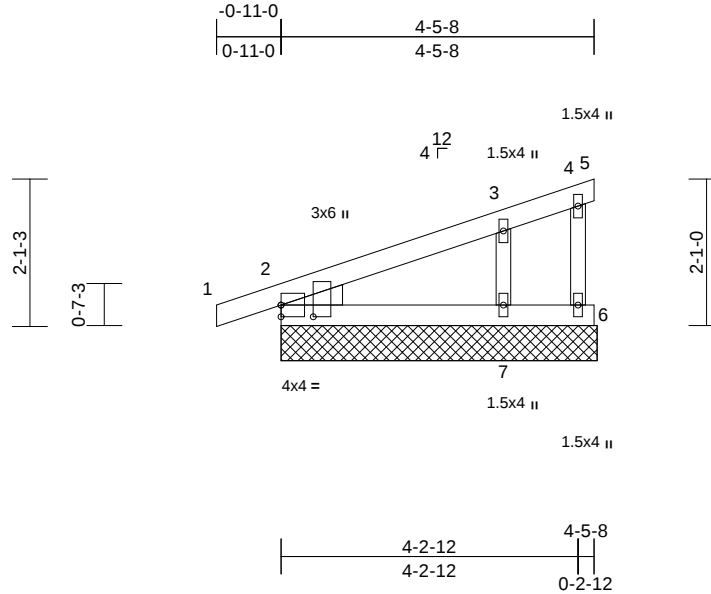
RELEASE FOR CONSTRUCTION
AS NOTED FOR PLAN REVIEW
DEVELOPMENT SERVICES
163022338
LEE'S SUMMIT, MISSOURI

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

Run: 8.63 S Nov 1 2023 Print: 8.630 S Nov 1 2023 MiTek Industries, Inc. File: Jan 12 15:46:15 Page: 1

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02/01/2024



Scale = 1:32.8

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

Loading	(psf)	Spacing	1-11-4	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.14	Vert(LL)	n/a	-	n/a	999	MT20
TCDL	10.0	Lumber DOL	1.15	BC	0.08	Vert(CT)	n/a	-	n/a	999	197/144
BCLL	0.0	Rep Stress Incr	YES	WB	0.09	Horz(CT)	0.00	5	n/a	n/a	
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-P							Weight: 19 lb FT = 20%

LUMBER

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

BRACING

TOP CHORD Structural wood sheathing directly applied or 4-6-0 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (size) 2=4-6-0, 5=4-6-0, 6=4-6-0, 7=4-6-0
Max Horiz 2=76 (LC 8)
Max Uplift 2=-51 (LC 8), 5=-13 (LC 12), 6=-32 (LC 1), 7=-82 (LC 12)
Max Grav 2=186 (LC 1), 5=23 (LC 1), 6=14 (LC 12), 7=270 (LC 1)

FORCES

(lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/0, 2-3=-144/55, 3-4=-28/3, 4-5=-13/7, 4-6=-52/33
BOT CHORD 2-7=0/0, 6-7=0/0
WEBS 3-7=-205/358

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

- 5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 6) All bearings are assumed to be SP No.2 crushing capacity of 565 psi.
- 7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 13 lb uplift at joint 5, 32 lb uplift at joint 6, 51 lb uplift at joint 2 and 82 lb uplift at joint 7.
- 8) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard



January 15, 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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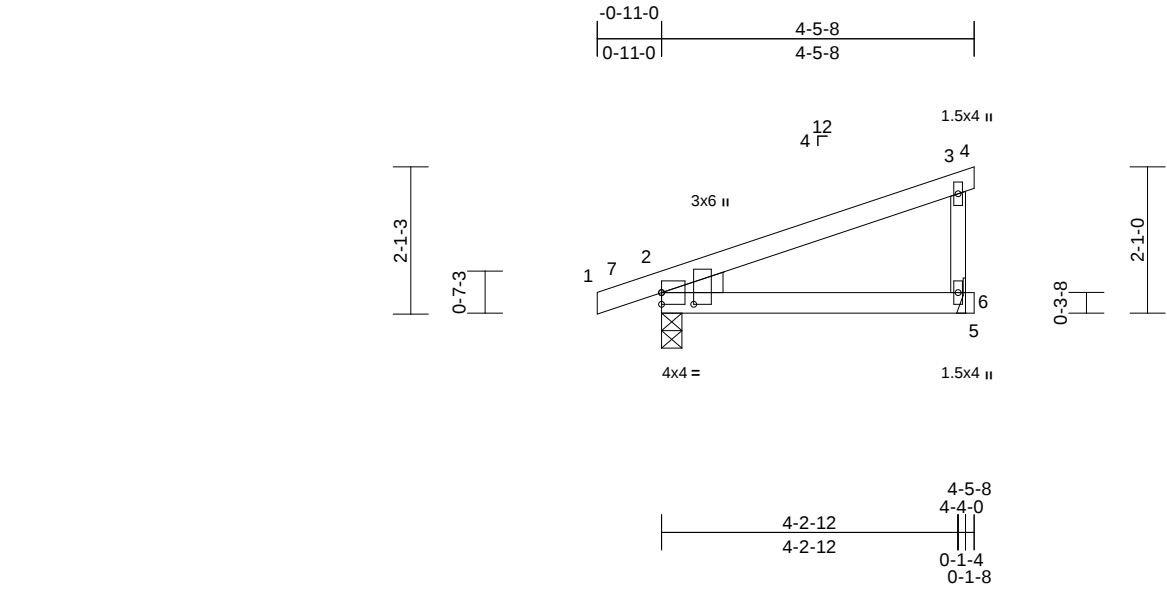
16023 Swingley Ridge Rd.
Chesterfield, MO 63017
314.434.1200 / MiTek-US.com

Job	Truss	Truss Type	Qty	Ply	Roof	Job Reference (optional)
P240028-01	D2	Monopitch	7	1		

RELEASE FOR CONSTRUCTION
AS NOTED FOR PLAN REVIEW
DEVELOPMENT SERVICES
163022339
LEE'S SUMMIT, MISSOURI

Premier Building Supply (Springhill, KS), Spring Hills, KS - 66083, Run: 8.63 S Nov 1 2023 Print: 8.630 S Nov 1 2023 MiTek Industries, Inc. File: Jan 12 15:46:15 Page: 1
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02/01/2024



Scale = 1:32.9									
Plate Offsets (X, Y): [2-0-2-0,0-0-5-8]									
Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in (loc)	l/defl	L/d
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.39	Vert(LL)	-0.02 2-6	>999	240
TCDL	10.0	Lumber DOL	1.15	BC	0.57	Vert(CT)	-0.04 2-6	>999	180
BCLL	0.0	Rep Stress Incr	YES	WB	0.00	Horz(CT)	n/a -	n/a	n/a
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-P					
								Weight: 18 lb	FT = 20%

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

BRACING
TOP CHORD Structural wood sheathing directly applied or 4-6-0 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (size) 2=0-3-8, 6= Mechanical
Max Horiz 2=78 (LC 8)
Max Uplift 2=-72 (LC 8), 6=-58 (LC 12)
Max Grav 2=261 (LC 1), 6=193 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/0, 2-3=-102/42, 3-4=-1/0, 3-6=-146/228
BOT CHORD 2-6=0/0, 5-6=0/0

NOTES
1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=35ft; Ke=1.00; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) zone; cantilever left and right exposed; end vertical left exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
3) Bearings are assumed to be: Joint 2 SP No.2 crushing capacity of 565 psi.
4) Refer to girder(s) for truss to truss connections.
5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 58 lb uplift at joint 6 and 72 lb uplift at joint 2.
6) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard



January 15, 2024

Job	Truss	Truss Type	Qty	Ply	Roof
P240028-01	E1	Monopitch	4	1	Job Reference (optional)

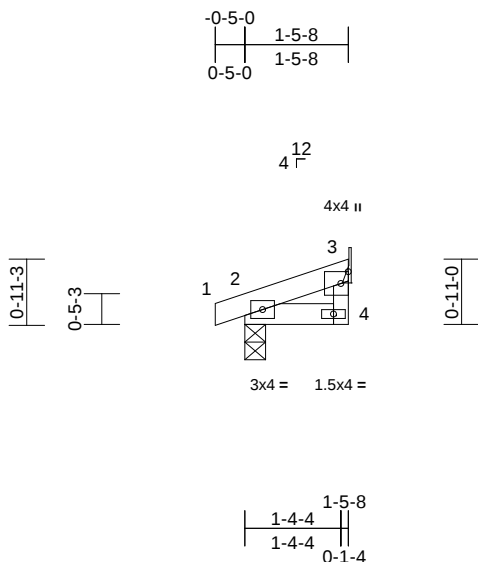
AS NOTED FOR PLAN REVIEW
DEVELOPMENT SERVICES
163022340
LEE'S SUMMIT, MISSOURI

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

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02/01/2024



Scale = 1:32.5

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	0.03	Vert(LL)	0.00	2-4	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.02	Vert(CT)	0.00	2-4	>999	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.00	Horz(CT)	0.00	3	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-P							Weight: 5 lb	FT = 20%

LUMBER

LOAD CASE(S) Standard

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

BRACING

TOP CHORD Structural wood sheathing directly applied or
1-6-0 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc
bracing.

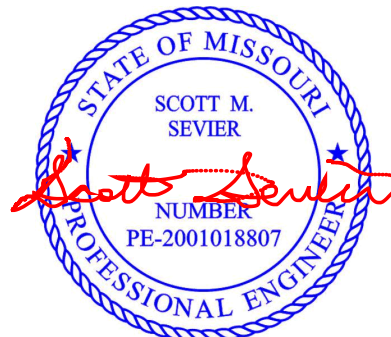
REACTIONS (size) 2=0-3-8, 3= Mechanical
Max Horiz 2=28 (LC 9)
Max Uplift 2=-34 (LC 8), 3=-14 (LC 12)
Max Grav 2=96 (LC 1), 3=54 (LC 1)

FORCES (lb) - Maximum Compression/Maximum
Tension

TOP CHORD 1-2=0/0, 2-3=-41/24, 3-4=0/26
BOT CHORD 2-4=-12/13

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) This truss has been designed for a 10.0 psf bottom
chord live load nonconcurrent with any other live loads.
- 3) Bearings are assumed to be: , Joint 2 SP No.2 crushing
capacity of 565 psi.
- 4) Refer to girder(s) for truss to truss connections.
- 5) Provide mechanical connection (by others) of truss to
bearing plate capable of withstanding 34 lb uplift at joint
2 and 14 lb uplift at joint 3.
- 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.
- 7) Gap between inside of top chord bearing and first
diagonal or vertical web shall not exceed 0.500in.



January 15, 2024

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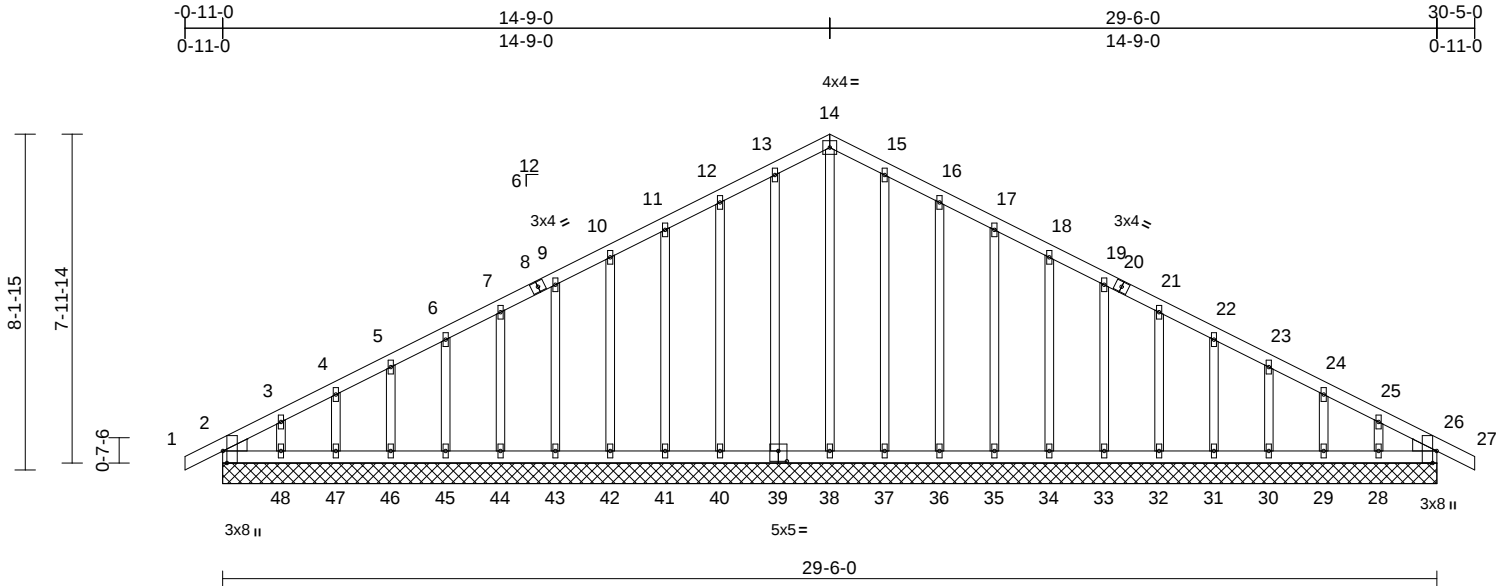
Job	Truss	Truss Type	Qty	Ply	Roof
P240028-01	G1	Common Supported Gable	1	1	Job Reference (optional)

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

Run: 8.63 S Nov 1 2023 Print: 8.630 S Nov 1 2023 MiTek Industries, Inc. File Jan 12 15:45:16 Page: 1

ID:X0UlcAee_eyxTYg3c0Osfzw3DV-RfC?PsB70Hq3NSgPqnL8w3uITxbGKWrCDoi734z4C9

02/01/2024



Scale = 1:56

Plate Offsets (X, Y): [2:0-3-8,Edge], [26:0-3-8,Edge], [39:0-2-8,0-3-0]

Loading	(psf)	Spacing	1-11-4	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.07	Ver(LL)	n/a	-	n/a	999	MT20
TCDL	10.0	Lumber DOL	1.15	BC	0.03	Ver(CT)	n/a	-	n/a	999	244/190
BCLL	0.0	Rep Stress Incr	YES	WB	0.22	Horz(CT)	0.01	26	n/a	n/a	
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S							
Weight: 165 lb FT = 20%											

LUMBER

TOP CHORD	2x4 SP No.2
BOT CHORD	2x4 SP No.2
OTHERS	2x3 SPF No.2
WEDGE	Left: 2x4 SP No.2 Right: 2x4 SP 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)	2=29-6-0, 26=29-6-0, 28=29-6-0, 29=29-6-0, 30=29-6-0, 31=29-6-0, 32=29-6-0, 33=29-6-0, 34=29-6-0, 35=29-6-0, 36=29-6-0, 37=29-6-0, 38=29-6-0, 39=29-6-0, 40=29-6-0, 41=29-6-0, 42=29-6-0, 43=29-6-0, 44=29-6-0, 45=29-6-0, 46=29-6-0, 47=29-6-0, 48=29-6-0
Max Horiz	2=143 (LC 12)
Max Uplift	2=-30 (LC 8), 26=-4 (LC 9), 28=-62 (LC 13), 29=-40 (LC 13), 30=-39 (LC 13), 31=-40 (LC 13), 32=-39 (LC 13), 33=-39 (LC 13), 34=-39 (LC 13), 35=-39 (LC 13), 36=-47 (LC 13), 37=-17 (LC 13), 39=-24 (LC 12), 40=-44 (LC 12), 41=-40 (LC 12), 42=-39 (LC 12), 43=-39 (LC 12), 44=-39 (LC 12), 45=-40 (LC 12), 46=-39 (LC 12), 47=-41 (LC 12), 48=-73 (LC 12)

FORCES

(lb) - Maximum Compression/Maximum Tension	
TOP CHORD	1-2=0/10, 2-3=-202/67, 3-4=-146/67, 4-5=-114/75, 5-6=-87/84, 6-7=-69/102, 7-9=-55/120, 9-10=-48/138, 10-11=-59/168, 11-12=-71/203, 12-13=-85/241, 13-14=-93/263, 14-15=-93/263, 15-16=-84/241, 16-17=-71/202, 17-18=-59/168, 18-19=-47/133, 19-21=-35/98, 21-22=-32/63, 22-23=-42/29, 23-24=-58/19, 24-25=-88/26, 25-26=-141/49, 26-27=0/10
BOT CHORD	2-48=-41/162, 47-48=-41/162, 46-47=-41/162, 45-46=-41/162, 44-45=-41/162, 43-44=-41/162, 42-43=-41/162, 41-42=-41/162, 40-41=-41/162, 38-40=-42/162, 37-38=-42/162, 36-37=-42/162, 35-36=-42/162, 34-35=-42/162, 33-34=-42/162, 32-33=-42/162, 31-32=-42/162, 30-31=-42/162, 29-30=-42/162, 28-29=-42/162, 26-28=-42/162

WEBS

14-38=-154/29, 13-39=-92/40, 12-40=-92/72, 11-41=-90/62, 10-42=-90/62, 9-43=-90/62, 7-44=-90/62, 6-45=-90/62, 5-46=-90/78, 4-47=-93/100, 3-48=-80/120, 15-37=-93/35, 16-36=-92/72, 17-35=-90/62, 18-34=-90/62, 19-33=-90/62, 21-32=-90/62, 22-31=-90/62, 23-30=-90/78, 24-29=-93/100, 25-28=-81/116

NOTES

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=35ft; Ke=1.00; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Corner(3E) -0-11-0 to 4-1-0, Exterior(2N) 4-1-0 to 14-9-0, Corner(3R) 14-9-0 to 19-9-0, Exterior(2N) 19-9-0 to 30-5-0 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60



January 15, 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.

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	RELEASE FOR CONSTRUCTION
P240028-01	G1	Common Supported Gable	1	1	Job Reference (optional)	AS NOTED FOR PLAN REVIEW DEVELOPMENT SERVICES 163022341 LEE'S SUMMIT, MISSOURI

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

Run: 8.63 S Nov 1 2023 Print: 8.630 S Nov 1 2023 MiTek Industries, Inc. File: Jan 12 15:46:16 Page: 2
ID:X0UlcAee_eyxTYg3cO0sfzw3DV-RfC?PsB70Hq3NSgPqnL8w3uITxbGKWrcDoi734z5C9f

02/01/2024

- 3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- 4) All plates are 1.5x4 MT20 unless otherwise indicated.
- 5) Gable requires continuous bottom chord bearing.
- 6) Gable studs spaced at 1-4-0 oc.
- 7) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 8) All bearings are assumed to be SP No.2 crushing capacity of 565 psi.
- 9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 30 lb uplift at joint 2, 4 lb uplift at joint 26, 24 lb uplift at joint 39, 44 lb uplift at joint 40, 40 lb uplift at joint 41, 39 lb uplift at joint 42, 39 lb uplift at joint 43, 39 lb uplift at joint 44, 40 lb uplift at joint 45, 39 lb uplift at joint 46, 41 lb uplift at joint 47, 73 lb uplift at joint 48, 17 lb uplift at joint 37, 47 lb uplift at joint 36, 39 lb uplift at joint 35, 39 lb uplift at joint 34, 39 lb uplift at joint 33, 39 lb uplift at joint 32, 40 lb uplift at joint 31, 39 lb uplift at joint 30, 40 lb uplift at joint 29 and 62 lb uplift at joint 28.
- 10) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

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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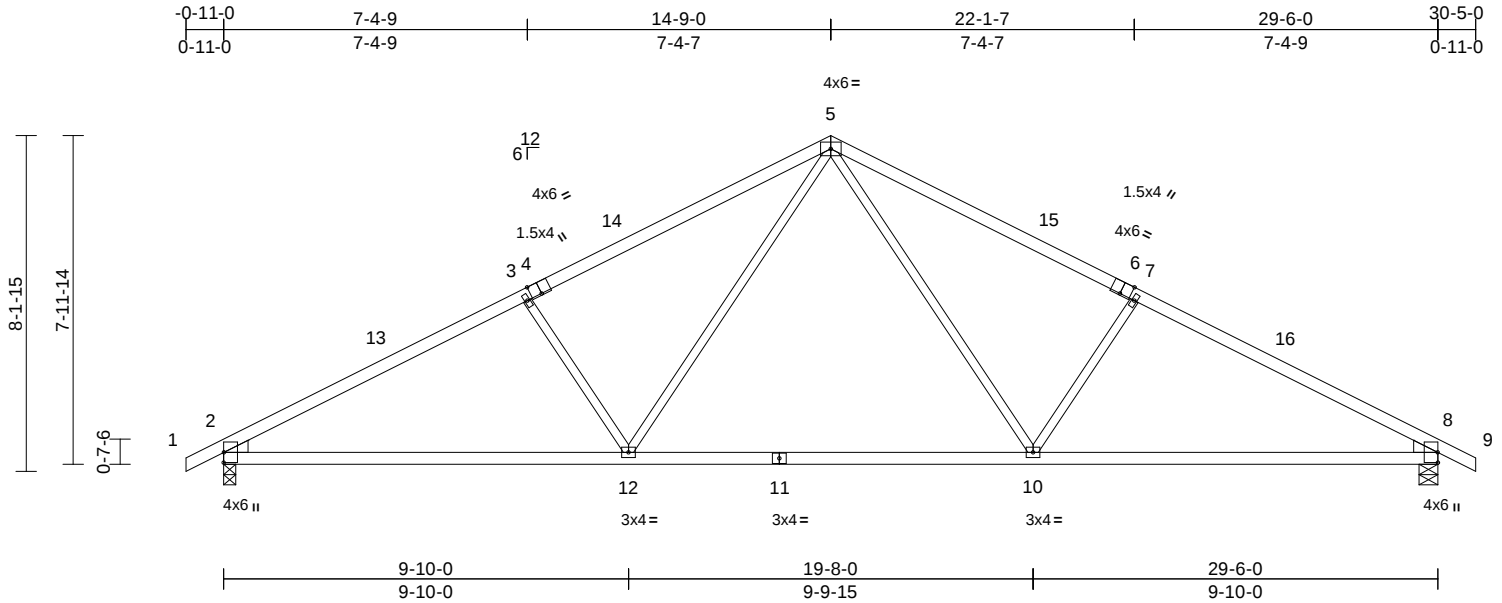
Job	Truss	Truss Type	Qty	Ply	Roof
P240028-01	G2	Common	8	1	Job Reference (optional)

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

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02/01/2024



Scale = 1:56

Plate Offsets (X, Y): [4:0-3-0,Edge], [6:0-3-0,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	0.90	Vert(LL)	-0.22	2-12	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.69	Vert(CT)	-0.49	2-12	>718	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.35	Horz(CT)	0.07	8	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S							Weight: 120 lb	FT = 20%

LUMBER

TOP CHORD 2x4 SP No.2
 BOT CHORD 2x4 SP 1650F 1.5E
 WEBS 2x3 SPF No.2
 WEDGE Left: 2x4 SP No.2
 Right: 2x4 SP No.2

BRACING

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

REACTIONS (size) 2=0-3-8, 8=0-5-8
 Max Horiz 2=148 (LC 12)
 Max Uplift 2=-226 (LC 12), 8=-227 (LC 13)
 Max Grav 2=1385 (LC 1), 8=1391 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
 TOP CHORD 1-2=0/11, 2-3=-2205/386, 3-5=-1949/407,
 5-7=-1938/404, 7-8=-2191/382, 8-9=0/11
 BOT CHORD 2-12=-350/1864, 10-12=-94/1251,
 8-10=-249/1848
 WEBS 5-10=-165/711, 7-10=-456/305,
 5-12=-168/725, 3-12=-468/308

NOTES

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=35ft; Ke=1.00; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) -0-11-0 to 4-1-0, Interior (1) 4-1-0 to 14-9-0, Exterior(2R) 14-9-0 to 19-9-0, Interior (1) 19-9-0 to 30-5-0 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.

- 4) All bearings are assumed to be SP 1650F 1.5E crushing capacity of 565 psi.
- 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 226 lb uplift at joint 2 and 227 lb uplift at joint 8.
- 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

January 15, 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	Job Reference (optional)
P240028-01	H1	Common	1	1		

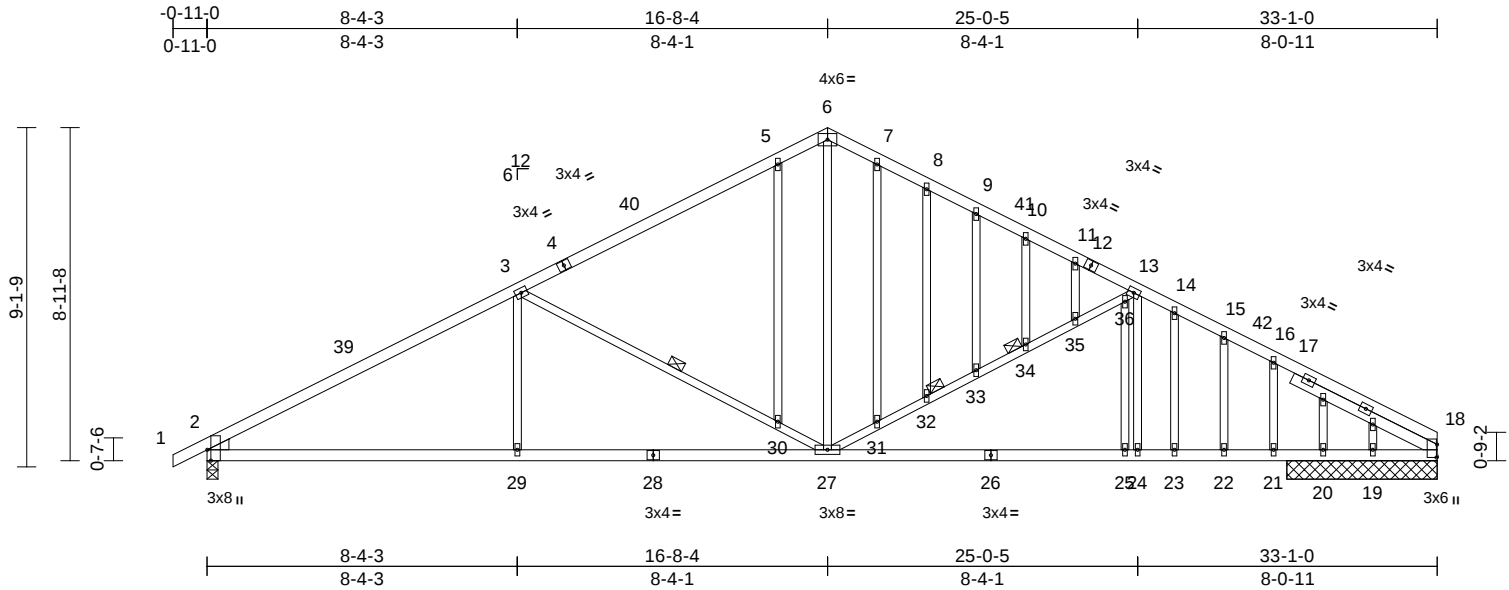
AS NOTED FOR PLAN REVIEW
DEVELOPMENT SERVICES
163022343
LEE'S SUMMIT, MISSOURI

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

Run: 8.63 S Nov 1 2023 Print: 8.630 S Nov 1 2023 MiTek Industries, Inc. File: Jan 12 15:46:17 Page: 1

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02/01/2024



Scale = 1:62

Plate Offsets (X, Y): [2:0-3-8,Edge], [18:0-4-3,0-0-3]

Loading	(psf)	Spacing	1-4-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.73	Vert(LL)	-0.12	25-27	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.64	Vert(CT)	-0.26	25-27	>999	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.33	Horz(CT)	0.07	18	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S								
Weight: 178 lb											FT = 20%	

LUMBER	WEBS	LOAD CASE(S)
TOP CHORD	6-27=-68/601, 3-29=0/239, 3-30=-556/209,	Standard
BOT CHORD	27-30=-583/223, 13-24=-118/256,	
WEBS	27-31=-459/183, 31-32=-467/187,	
OTHERS	32-33=-451/180, 33-34=-445/175,	
WEDGE	34-35=-436/172, 35-36=-431/161,	
SLIDER	13-36=-542/265, 5-30=-55/28, 7-31=-24/45,	
	8-32=-41/19, 9-33=-13/11, 10-34=-19/6,	
	11-35=-12/26, 25-36=-209/194,	
	14-23=-54/61, 15-22=-11/17, 16-21=-62/82	

BRACING	
TOP CHORD	Structural wood sheathing directly applied or 2-2-0 oc purlins.
BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS	1 Row at midpt 3-27
JOINTS	1 Brace at Jt(s): 32, 34

REACTIONS	(size)
	2=0-3-8, 18=4-0-8, 19=4-0-8, 20=4-0-8
Max Horiz	2=113 (LC 12)
Max Uplift	2=-167 (LC 12), 18=-120 (LC 13), 19=-61 (LC 1), 20=-64 (LC 13)
Max Grav	2=1026 (LC 1), 18=895 (LC 1), 19=31 (LC 13), 20=166 (LC 1)

FORCES	(lb) - Maximum Compression/Maximum Tension
TOP CHORD	1-2=0/7, 2-3=-1696/263, 3-5=-1152/248, 5-6=-1021/257, 6-7=-1000/245, 7-8=-1051/251, 8-9=-1060/239, 9-10=-1080/232, 10-11=-1100/226, 11-13=-1132/211, 13-14=-1429/245, 14-15=-1480/265, 15-16=-1504/252, 16-18=-1584/226
BOT CHORD	2-29=-251/1419, 27-29=-251/1419, 25-27=-153/1316, 24-25=-153/1316, 23-24=-153/1316, 22-23=-153/1316, 21-22=-153/1316, 20-21=-153/1316, 19-20=-153/1316, 18-19=-153/1316

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 16-8-4, Exterior(2R) 16-8-4 to 21-8-4, Interior (1) 21-8-4 to 33-1-0 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- All plates are 1.5x4 MT20 unless otherwise indicated.
- Gable studs spaced at 1-4-0 oc.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- All bearings are assumed to be SP No.2 crushing capacity of 565 psi.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 167 lb uplift at joint 2, 120 lb uplift at joint 18, 64 lb uplift at joint 20 and 61 lb uplift at joint 19.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



January 15, 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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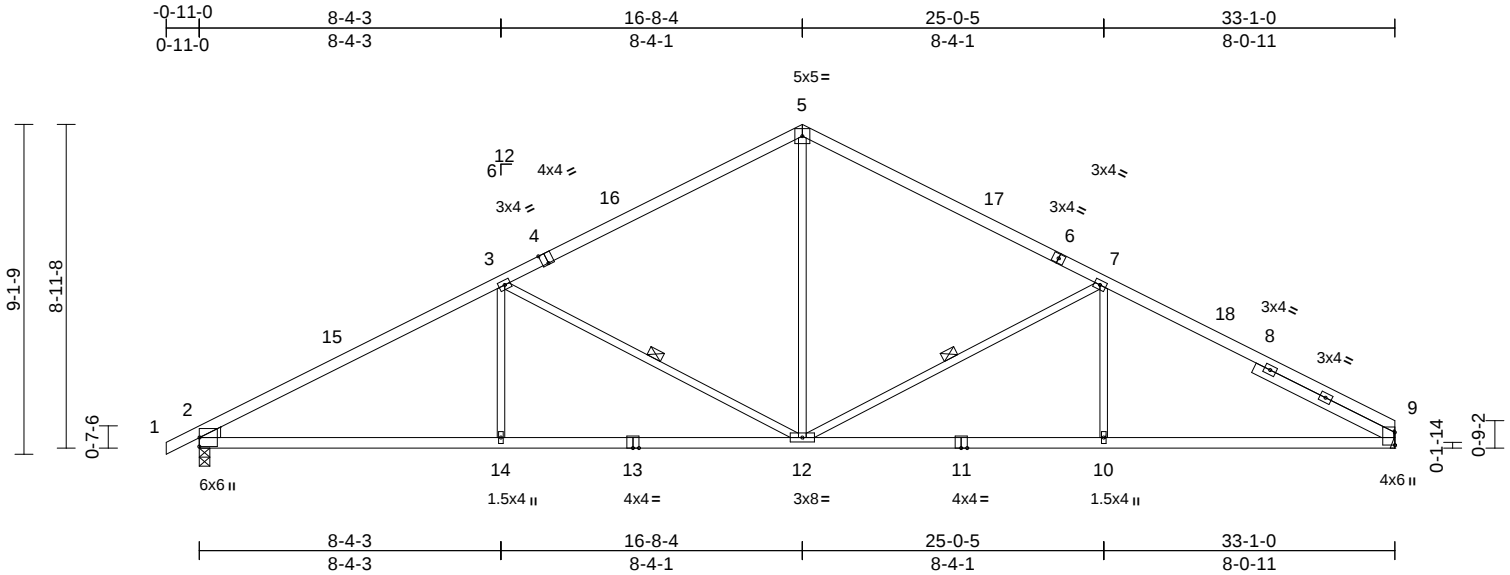
Job	Truss	Truss Type	Qty	Ply	Roof	RELEASE FOR CONSTRUCTION
P240028-01	H2	Common	7	1	Job Reference (optional)	AS NOTED FOR PLAN REVIEW
						DEVELOPMENT SERVICES
						163022344
						LEE'S SUMMIT, MISSOURI

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

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02/01/2024



Scale = 1:63.8									
Plate Offsets (X, Y): [4:0-2-0,Edge]									
Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in (loc)	l/defl	L/d
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.97	Vert(LL)	-0.14 2-14	>999	240
TCDL	10.0	Lumber DOL	1.15	BC	0.94	Vert(CT)	-0.33 2-14	>999	180
BCLL	0.0	Rep Stress Incr	YES	WB	0.71	Horz(CT)	0.12 9	n/a	n/a
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S					
Weight: 142 lb FT = 20%									
PLATES MT20 GRIP 244/190									

LUMBER
TOP CHORD 2x4 SP 1650F 1.5E
BOT CHORD 2x4 SP No.2
WEBS 2x3 SPF No.2
WEDGE Left: 2x4 SP No.2
SLIDER Right 2x4 SP No.2 -- 4-4-3

BRACING
TOP CHORD Structural wood sheathing directly applied.
BOT CHORD Rigid ceiling directly applied or 2-2-0 oc bracing.

WEBS 1 Row at midpt 3-12, 7-12

REACTIONS (size) 2=0-3-8, 9= Mechanical
Max Horiz 2=169 (LC 16)
Max Uplift 2=-253 (LC 12), 9=-224 (LC 13)
Max Grav 2=1558 (LC 1), 9=1481 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/11, 2-3=-2591/402, 3-5=-1764/381, 5-7=-1755/384, 7-9=-2505/408
BOT CHORD 2-14=-384/2173, 12-14=-384/2173, 10-12=-247/2110, 9-10=-247/2110
WEBS 5-12=-101/908, 3-14=0/362, 3-12=-859/327, 7-10=0/344, 7-12=-797/315

- Bearings are assumed to be: Joint 2 SP No.2 crushing capacity of 565 psi.
- Refer to girder(s) for truss to truss connections.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 253 lb uplift at joint 2 and 224 lb uplift at joint 9.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard

- 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 16-8-4, Exterior(2R) 16-8-4 to 21-8-4, Interior (1) 21-8-4 to 33-1-0 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
 - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.



January 15, 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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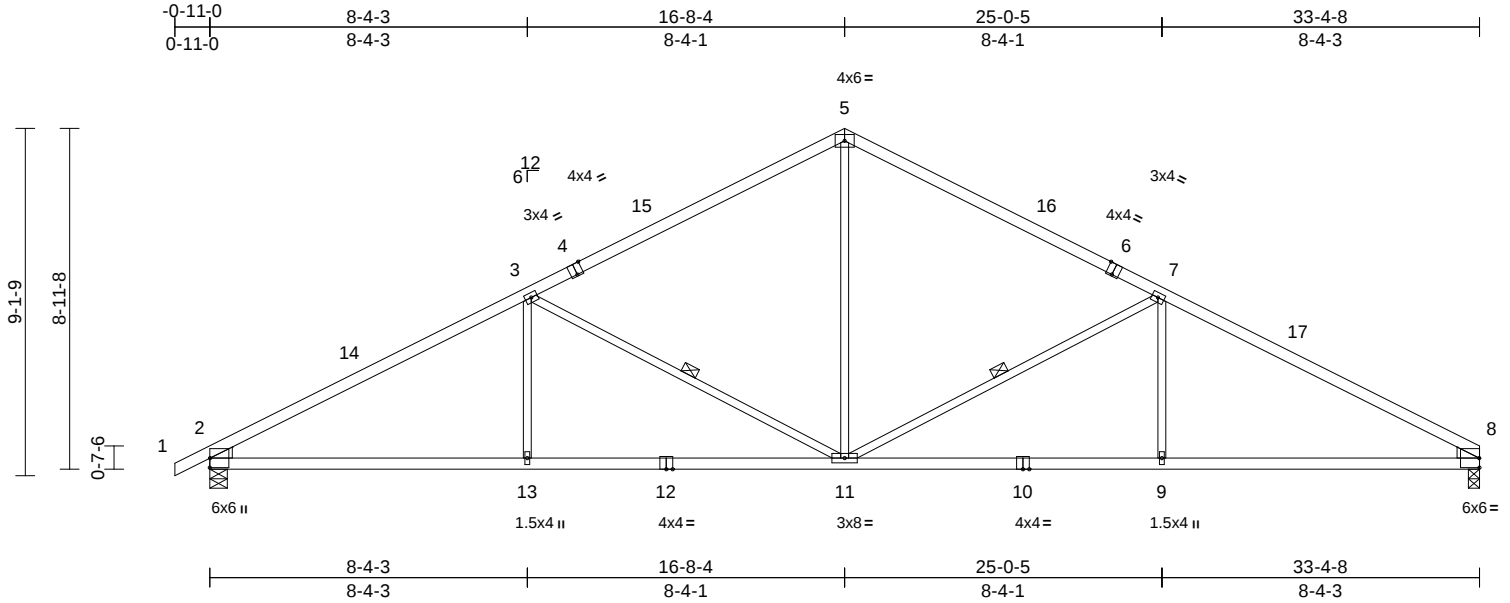
Job	Truss	Truss Type	Qty	Ply	Roof	Job Reference (optional)
P240028-01	H3	Common	2	1		

RELEASE FOR CONSTRUCTION
AS NOTED FOR PLAN REVIEW
DEVELOPMENT SERVICES
163022345
LEE'S SUMMIT, MISSOURI

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

Run: 8.63 S Nov 1 2023 Print: 8.630 S Nov 1 2023 MiTek Industries, Inc. File: Jan 12 15:46:17 Page: 1
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02/01/2024



Scale = 1:60.6															
Plate Offsets (X, Y): [4:0-2-0,Edge], [6:0-2-0,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		0.77	Vert(LL)	-0.14	8-9	>999	240	MT20	244/190
TCDL		10.0	Lumber DOL		1.15	BC		0.92	Vert(CT)	-0.32	8-9	>999	180		
BCLL		0.0	Rep Stress Incr		YES	WB		0.73	Horz(CT)	0.12	8	n/a	n/a		
BCDL		10.0	Code		IRC2018/TPI2014	Matrix-S								Weight: 137 lb	FT = 20%

LUMBER
TOP CHORD 2x4 SP 1650F 1.5E *Except* 6-8:2x4 SP 2400F 2.0E
BOT CHORD 2x4 SP No.2
WEBS 2x3 SPF No.2
WEDGE Left: 2x4 SP No.2
Right: 2x4 SP No.2

BRACING
TOP CHORD Structural wood sheathing directly applied or 2-2-0 oc purlins.
BOT CHORD Rigid ceiling directly applied or 2-2-0 oc bracing.

WEBS 1 Row at midpt 3-11, 7-11

REACTIONS (size) 2=0-5-8, 8=0-3-8
Max Horiz 2=169 (LC 12)
Max Uplift 2=-254 (LC 12), 8=-225 (LC 13)
Max Grav 2=1567 (LC 1), 8=1484 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/11, 2-3=-2585/399, 3-5=-1766/381, 5-7=-1768/387, 7-8=-2577/415
BOT CHORD 2-13=-381/2163, 11-13=-381/2163, 9-11=-263/2190, 8-9=-263/2190
WEBS 5-11=-108/939, 3-13=0/361, 3-11=-846/324, 7-9=0/364, 7-11=-876/334

- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- All bearings are assumed to be SP No.2 crushing capacity of 565 psi.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 254 lb uplift at joint 2 and 225 lb uplift at joint 8.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard

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 16-8-4, Exterior(2R) 16-8-4 to 21-8-4, Interior (1) 21-8-4 to 33-2-12 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60



January 15, 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	Job Reference (optional)
P240028-01	H4	Common	1	1		

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

Run: 8.63 S Nov 1 2023 Print: 8.630 S Nov 1 2023 MiTek Industries, Inc. File: Jan 12 15:46:18 Page: 1
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RELEASE FOR CONSTRUCTION

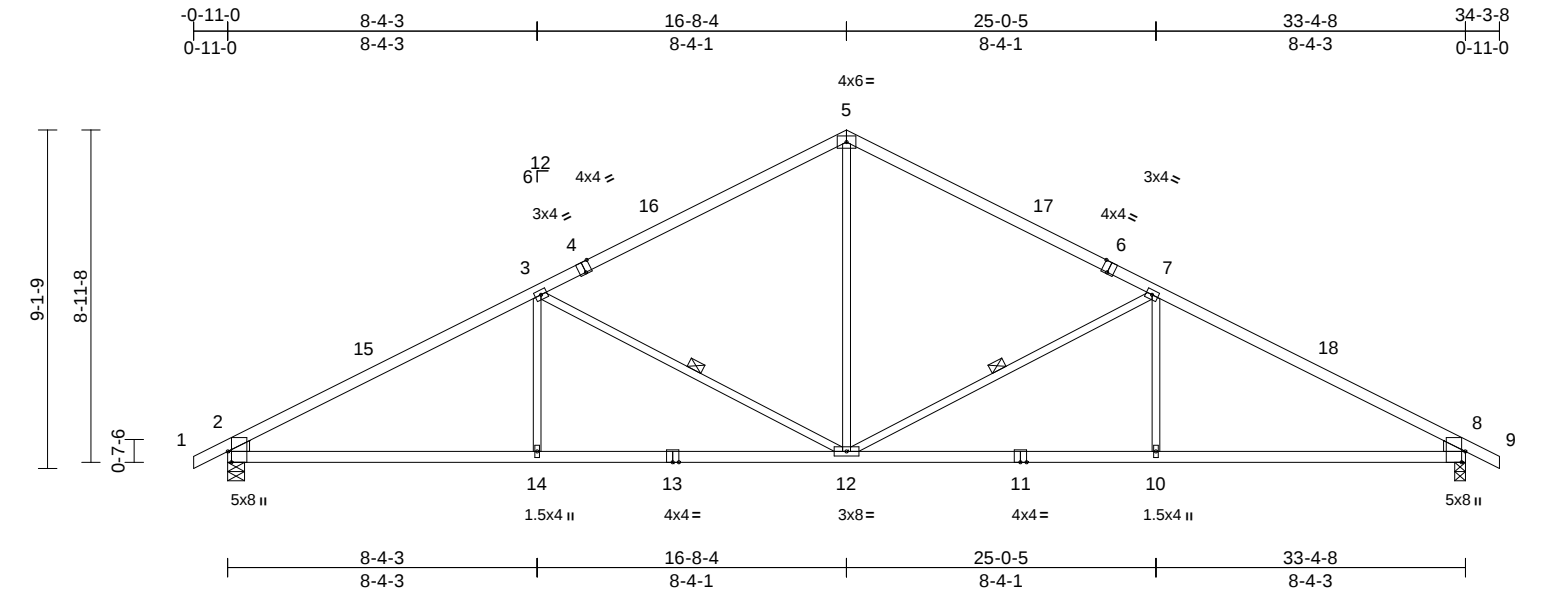
AS NOTED FOR PLAN REVIEW

DEVELOPMENT SERVICES

163022346

LEE'S SUMMIT, MISSOURI

02/01/2024



Scale = 1:62.1									
Plate Offsets (X, Y): [2:0-3-8,Edge], [4:0-2-0,Edge], [6:0-2-0,Edge], [8:0-3-8,Edge]									
Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.77	Vert(LL)	-0.14	8-10	>999
TCDL	10.0	Lumber DOL	1.15	BC	0.94	Vert(CT)	-0.33	8-10	>999
BCLL	0.0	Rep Stress Incr	YES	WB	0.72	Horz(CT)	0.12	8	n/a
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S					
							PLATES	GRIP	
							MT20	244/190	
							Weight: 139 lb FT = 20%		

LUMBER

TOP CHORD 2x4 SP 1650F 1.5E

BOT CHORD 2x4 SP No.2

WEBS 2x3 SPF No.2

WEDGE Left: 2x4 SP No.2

Right: 2x4 SP No.2

BRACING

TOP CHORD Structural wood sheathing directly applied or 2-2-0 oc purlins.

BOT CHORD Rigid ceiling directly applied or 2-2-0 oc bracing.

WEBS 1 Row at midpt 3-12, 7-12

REACTIONS (size) 2=0-5-8, 8=0-3-8

Max Horiz 2=166 (LC 12)

Max Uplift 2=-254 (LC 12), 8=-253 (LC 13)

Max Grav 2=1565 (LC 1), 8=1559 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=0/11, 2-3=-2582/399, 3-5=-1764/380, 5-7=-1764/381, 7-8=-2596/402, 8-9=0/11

BOT CHORD 2-14=-378/2160, 12-14=-378/2160, 10-12=-253/2177, 8-10=-253/2177

WEBS 5-12=-100/932, 3-14=0/361, 3-12=-846/324, 7-10=0/363, 7-12=-863/328

NOTES

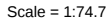
1) Unbalanced roof live loads have been considered for this design.

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 16-8-4, Exterior(2R) 16-8-4 to 21-8-4, Interior (1) 21-8-4 to 34-3-8 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60

- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
 - All bearings are assumed to be SP No.2 crushing capacity of 565 psi.
 - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 254 lb uplift at joint 2 and 253 lb uplift at joint 8.
 - This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- LOAD CASE(S)** Standard



January 15,2024

[illegible]

- 2) Wind: ASCE 7-16; Vult=115mph (3-second gust)
Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=35ft;
Ex=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 16-8-4, Exterior(2R) 16-8-4 to
21-8-4, Interior (1) 21-8-4 to 32-11-2 zone; cantilever
left and right exposed ; end vertical left and right
exposed; C-C for members and forces & MWFRS for
reactions shown; Lumber DOL=1.60 plate grip
DOL=1.60
- 3) Provide adequate drainage to prevent water ponding.
- 4) This truss has been designed for a 10.0 psf bottom
chord live load nonconcurrent with any other live loads.
- 5) Bearings are assumed to be: Joint 2 SP No.2 crushing
capacity of 565 psi.
- 6) Refer to girder(s) for truss to truss connections.
- 7) Provide mechanical connection (by others) of truss to
bearing plate capable of withstanding 222 lb uplift at
joint 10 and 246 lb uplift at joint 2.
- 8) This truss is designed in accordance with the 2018
International Residential Code sections R502.11.1 and
R802.10.2 and referenced standard ANSI/TPI 1.
- 9) Graphical purlin representation does not depict the size
or the orientation of the purlin along the top and/or
bottom chord.

WARNING – Verify design parameters and READ NOTES on this and INCLUDED WITH REFERENCE PAGE MP14743 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.tpinet.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	Job Reference (optional)
P240028-01	H6	Common Supported Gable	1	1		

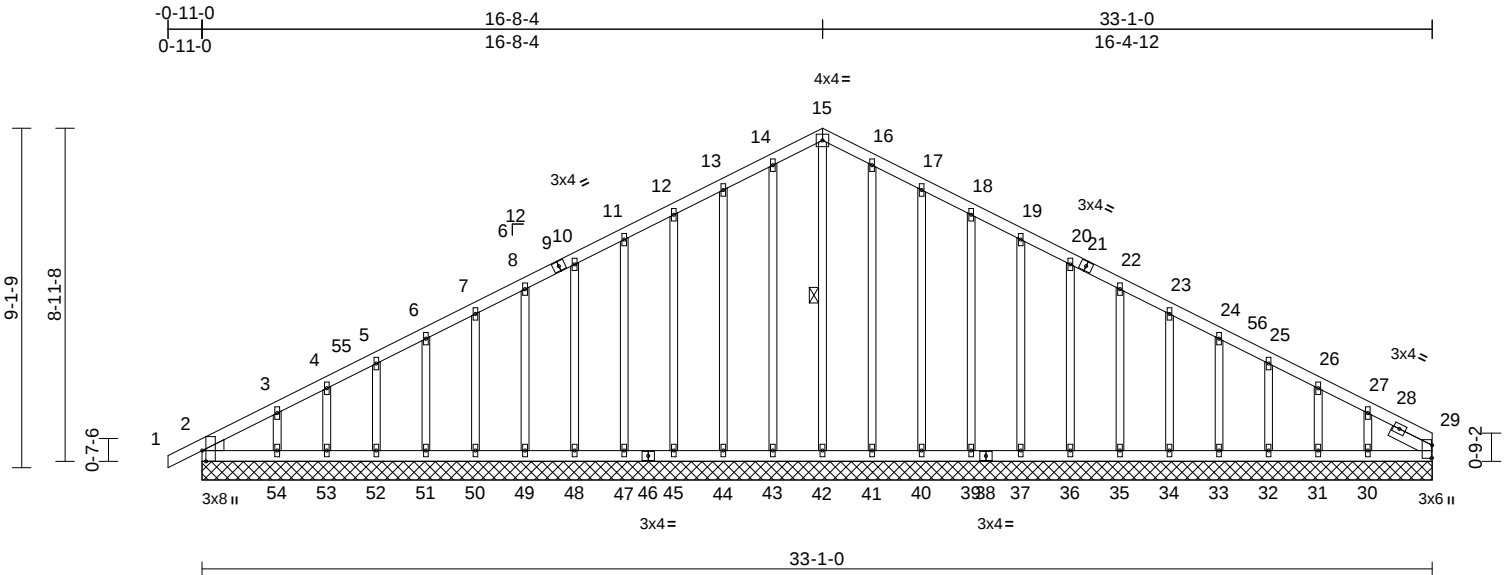
Premier Building Supply (Springhill, KS), Spring Hills, KS - 66083,

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AS NOTED FOR PLAN REVIEW
DEVELOPMENT SERVICES
163022348
LEE'S SUMMIT, MISSOURI

02/01/2024



Scale = 1:62

Plate Offsets (X, Y): [2:0-3-8,Edge], [29:0-4-3,0-0-3]

Loading	(psf)	Spacing	1-11-4	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.08	Vert(LL)	n/a	-	n/a	999	MT20
TCDL	10.0	Lumber DOL	1.15	BC	0.05	Vert(CT)	n/a	-	n/a	999	244/190
BCLL	0.0	Rep Stress Incr	YES	WB	0.14	Horz(CT)	0.01	29	n/a	n/a	
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S							
Weight: 194 lb FT = 20%											

LUMBER

TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2
OTHERS 2x3 SPF No.2
WEDGE Left: 2x4 SP No.2
SLIDER Right 2x4 SP No.2 -- 1-2-15

BRACING

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

WEBS 1 Row at midpt 15-42

REACTIONS (size) 2=33-1-0, 29=33-1-0, 30=33-1-0, 31=33-1-0, 32=33-1-0, 33=33-1-0, 34=33-1-0, 35=33-1-0, 36=33-1-0, 37=33-1-0, 39=33-1-0, 40=33-1-0, 41=33-1-0, 42=33-1-0, 43=33-1-0, 44=33-1-0, 45=33-1-0, 47=33-1-0, 48=33-1-0, 49=33-1-0, 50=33-1-0, 51=33-1-0, 52=33-1-0, 53=33-1-0, 54=33-1-0

Max Horiz 2=163 (LC 12)

Max Uplift 2=-26 (LC 8), 30=-101 (LC 13), 31=-28 (LC 13), 32=-41 (LC 13), 33=-39 (LC 13), 34=-39 (LC 13), 35=-39 (LC 13), 36=-39 (LC 13), 37=-39 (LC 13), 39=-40 (LC 13), 40=-48 (LC 13), 41=-13 (LC 13), 43=-20 (LC 12), 44=-46 (LC 12), 45=-40 (LC 12), 47=-39 (LC 12), 48=-39 (LC 12), 49=-39 (LC 12), 50=-39 (LC 12), 51=-39 (LC 12), 52=-40 (LC 12), 53=-35 (LC 12), 54=-83 (LC 12)

Max Grav 2=162 (LC 1), 29=103 (LC 22), 30=149 (LC 26), 31=109 (LC 1), 32=118 (LC 26), 33=116 (LC 1), 34=116 (LC 26), 35=116 (LC 26), 36=116 (LC 26), 37=116 (LC 1), 39=116 (LC 1), 40=118 (LC 26), 41=118 (LC 26), 42=154 (LC 13), 43=118 (LC 25), 44=118 (LC 25), 45=116 (LC 1), 47=116 (LC 1), 48=116 (LC 25), 49=116 (LC 25), 50=116 (LC 1), 51=116 (LC 25), 52=119 (LC 1), 53=105 (LC 25), 54=152 (LC 25)

FORCES

(lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/10, 2-3=-221/76, 3-4=-157/74, 4-5=-128/83, 5-6=-101/92, 6-7=-80/110, 7-8=-63/128, 8-10=-56/146, 10-11=-59/169, 11-12=-71/204, 12-13=-83/239, 13-14=-97/278, 14-15=-103/297, 15-16=-103/297, 16-17=-97/278, 17-18=-83/239, 18-19=-71/204, 19-20=-59/169, 20-22=-47/134, 22-23=-36/99, 23-24=-36/65, 24-25=-48/29, 25-26=-65/20, 26-27=-90/23, 27-29=-168/48

BOT CHORD

2-54=-44/175, 53-54=-44/175, 52-53=-44/175, 51-52=-44/175, 50-51=-44/175, 49-50=-44/175, 48-49=-44/175, 47-48=-44/175, 45-47=-44/175, 44-45=-44/175, 43-44=-44/175, 42-43=-44/175, 41-42=-44/175, 40-41=-44/175, 39-40=-44/175, 37-39=-44/175, 36-37=-44/175, 35-36=-44/175, 34-35=-44/175, 33-34=-44/175, 32-33=-44/175, 31-32=-44/175, 30-31=-44/175, 29-30=-44/175

WEBS

15-42=-177/36, 14-43=-92/36, 13-44=-92/74, 12-45=-90/63, 11-47=-90/62, 10-48=-90/62, 8-49=-90/62, 7-50=-90/62, 6-51=-90/62, 5-52=-92/68, 4-53=-83/84, 3-54=-115/150, 16-41=-92/30, 17-40=-92/74, 18-39=-90/63, 19-37=-90/62, 20-36=-90/62, 22-35=-90/62, 23-34=-90/62, 24-33=-90/65, 25-32=-91/93, 26-31=-87/84, 27-30=-112/171

NOTES

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=35ft; Ke=1.00; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Corner(3E) -0-11-0 to 4-1-0, Exterior(2N) 4-1-0 to 16-8-4, Corner(3R) 16-8-4 to 21-8-4, Exterior(2N) 21-8-4 to 33-1-0 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60



January 15, 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.

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	RELEASE FOR CONSTRUCTION
P240028-01	H6	Common Supported Gable	1	1	Job Reference (optional)	AS NOTED FOR PLAN REVIEW DEVELOPMENT SERVICES 163022348 LEE'S SUMMIT, MISSOURI

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

Run: 8.63 S Nov 1 2023 Print: 8.630 S Nov 1 2023 MiTek Industries, Inc. File: Jan 12 15:46:39 Page: 2
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02/01/2024

- 3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- 4) All plates are 1.5x4 MT20 unless otherwise indicated.
- 5) Gable requires continuous bottom chord bearing.
- 6) Gable studs spaced at 1-4-0 oc.
- 7) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 8) All bearings are assumed to be SP No.2 crushing capacity of 565 psi.
- 9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 26 lb uplift at joint 2, 20 lb uplift at joint 43, 46 lb uplift at joint 44, 40 lb uplift at joint 45, 39 lb uplift at joint 47, 39 lb uplift at joint 48, 39 lb uplift at joint 49, 39 lb uplift at joint 50, 39 lb uplift at joint 51, 40 lb uplift at joint 52, 35 lb uplift at joint 53, 83 lb uplift at joint 54, 13 lb uplift at joint 41, 48 lb uplift at joint 40, 40 lb uplift at joint 39, 39 lb uplift at joint 37, 39 lb uplift at joint 36, 39 lb uplift at joint 35, 39 lb uplift at joint 34, 39 lb uplift at joint 33, 41 lb uplift at joint 32, 28 lb uplift at joint 31 and 101 lb uplift at joint 30.
- 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

 **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	Job Reference (optional)
P240028-01	I2	Common Girder	1	2		

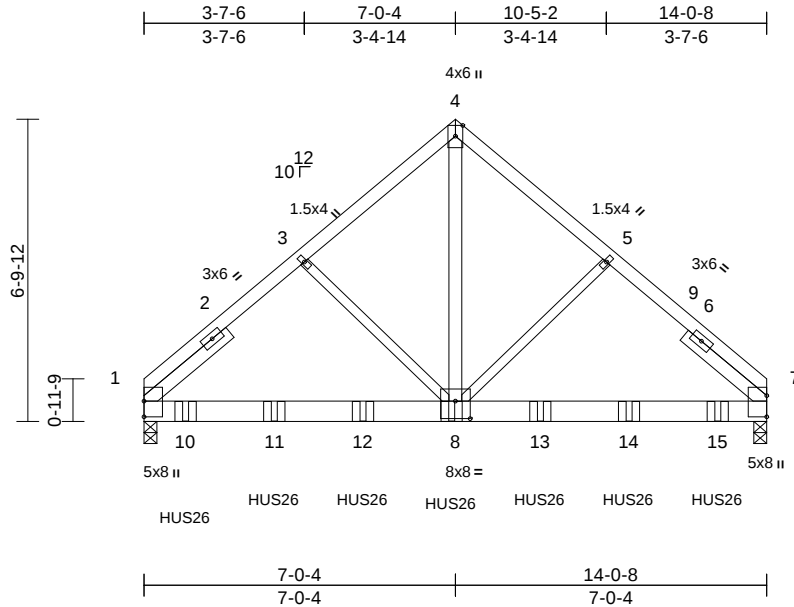
RELEASE FOR CONSTRUCTION
AS NOTED FOR PLAN REVIEW
DEVELOPMENT SERVICES
163022350
LEE'S SUMMIT, MISSOURI

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

Run: 8.63 S Nov 1 2023 Print: 8.630 S Nov 1 2023 MiTek Industries, Inc. File: Jan 12 15:46:20 Page: 1

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02/01/2024



Scale = 1:52
Plate Offsets (X, Y): [8:0-4-0,0-4-12]

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	0.59	Vert(LL)	-0.13	7-8	>999	240	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.91	Vert(CT)	-0.23	7-8	>724	180	
BCLL	0.0	Rep Stress Incr	NO	WB	0.74	Horz(CT)	0.02	7	n/a	n/a	
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S							
Weight: 168 lb FT = 20%											

LUMBER
TOP CHORD 2x4 SP No.2
BOT CHORD 2x6 SP 2400F 2.0E
WEBS 2x3 SPF No.2 *Except* 8-4:2x4 SP No.2
SLIDER Left 2x4 SP No.2 -- 2-5-12, Right 2x4 SP No.2 -- 2-4-9

BRACING
TOP CHORD Structural wood sheathing directly applied or 4-8-7 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (size) 1=0-3-8, 7=0-3-8
Max Horiz 1=179 (LC 11)
Max Uplift 1=-907 (LC 12), 7=-890 (LC 13)
Max Grav 1=5814 (LC 1), 7=5709 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-3=-5146/911, 3-4=-4994/927, 4-5=-4994/928, 5-7=-5142/912
BOT CHORD 1-8=-640/3750, 7-8=-587/3753
WEBS 4-8=-1049/5993, 3-8=-118/274, 5-8=-118/271

NOTES

- 2-ply truss to be connected together with 10d (0.131"x3") nails as follows:
Top chords connected as follows: 2x4 - 1 row at 0-9-0 oc.
Bottom chords connected as follows: 2x6 - 2 rows staggered at 0-7-0 oc.
Web connected as follows: 2x4 - 1 row at 0-9-0 oc, 2x3 - 1 row at 0-9-0 oc.
- All loads are considered equally applied to all plies, except if noted as front (F) or back (B) face in the LOAD CASE(S) section. Ply to ply connections have been provided to distribute only loads noted as (F) or (B), unless otherwise indicated.
- 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) 0-0-0 to 5-0-0,
Interior (1) 5-0-0 to 7-0-4, Exterior(2R) 7-0-4 to 12-0-4,
Interior (1) 12-0-4 to 14-0-8 zone; cantilever left and
right exposed; end vertical left and right exposed; C-C
for members and forces & MWFRS for reactions shown;
Lumber DOL=1.60 plate grip DOL=1.60
- This truss has been designed for a 10.0 psf bottom
chord live load nonconcurrent with any other live loads.
- All bearings are assumed to be SP 2400F 2.0E crushing
capacity of 805 psi.
- Provide mechanical connection (by others) of truss to
bearing plate capable of withstanding 907 lb uplift at
joint 1 and 890 lb uplift at joint 7.
- This truss is designed in accordance with the 2018
International Residential Code sections R502.11.1 and
R802.10.2 and referenced standard ANSI/TPI 1.
- Use Simpson Strong-Tie HUS26 (14-10d Girder, 4-10d
Truss) or equivalent spaced at 2-0-0 oc max. starting at
0-11-4 from the left end to 12-11-4 to connect truss(es)
to back face of bottom chord.
- Fill all nail holes where hanger is in contact with lumber.

LOAD CASE(S) Standard

- Dead + Roof Live (balanced): Lumber Increase=1.15,
Plate Increase=1.15
Uniform Loads (lb/ft)
Vert: 1-4=-70, 4-7=-70, 1-7=-20
Concentrated Loads (lb)
Vert: 8=-1467 (B), 10=-1462 (B), 11=-1467 (B),
12=-1467 (B), 13=-1467 (B), 14=-1467 (B),
15=-1461 (B)



January 15, 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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Job	Truss	Truss Type	Qty	Ply	Roof	Job Reference (optional)
P240028-01	K1	Common Supported Gable	1	1		

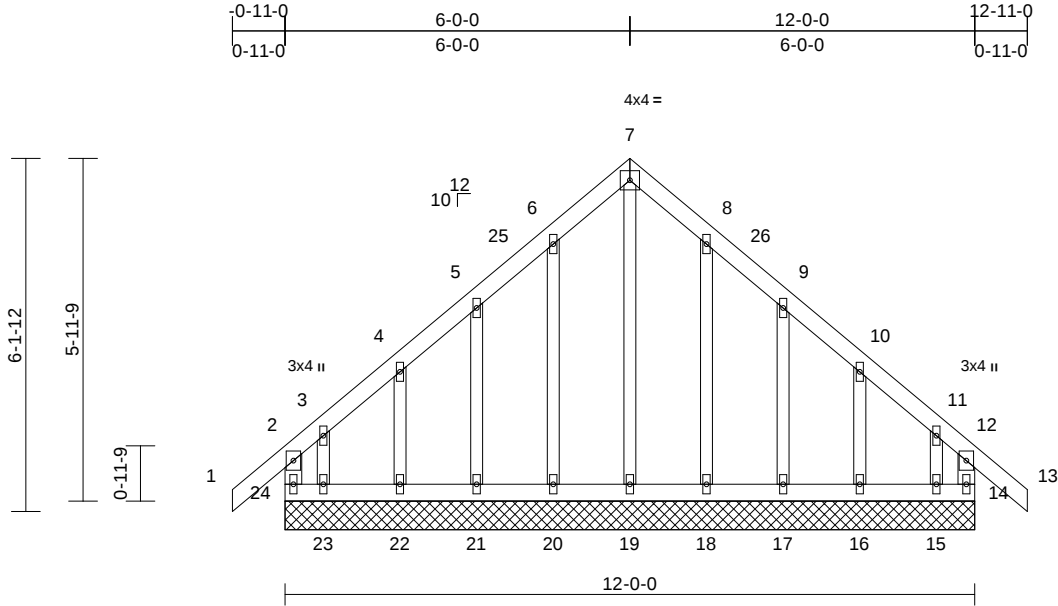
RELEASE FOR CONSTRUCTION
AS NOTED FOR PLAN REVIEW
DEVELOPMENT SERVICES
163022351
LEE'S SUMMIT, MISSOURI

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

Run: 8.63 S Nov 1 2023 Print: 8.630 S Nov 1 2023 MiTek Industries, Inc. File: Jan 12 15:46:00 Page: 1

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02/01/2024



Scale = 1:40.1

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	0.12	Vert(LL)	n/a	-	n/a	999	MT20
TCDL	10.0	Lumber DOL	1.15	BC	0.09	Vert(CT)	n/a	-	n/a	999	244/190
BCLL	0.0	Rep Stress Incr	YES	WB	0.19	Horz(CT)	0.00	14	n/a	n/a	
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-R							
Weight: 68 lb FT = 20%											

LUMBER

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

BRACING

TOP CHORD	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)	14=12-0-0, 15=12-0-0, 16=12-0-0, 17=12-0-0, 18=12-0-0, 19=12-0-0, 20=12-0-0, 21=12-0-0, 22=12-0-0, 23=12-0-0, 24=12-0-0
Max Horiz	24=192 (LC 10)
Max Uplift	14=120 (LC 9), 15=159 (LC 13), 16=62 (LC 13), 17=76 (LC 13), 18=48 (LC 13), 20=49 (LC 12), 21=76 (LC 12), 22=62 (LC 12), 23=176 (LC 9), 24=164 (LC 8)
Max Grav	14=209 (LC 19), 15=159 (LC 11), 16=131 (LC 20), 17=131 (LC 20), 18=133 (LC 20), 19=161 (LC 22), 20=136 (LC 19), 21=130 (LC 19), 22=130 (LC 19), 23=192 (LC 10), 24=246 (LC 20)

FORCES

(lb) - Maximum Compression/Maximum Tension	
TOP CHORD	2-24=-177/106, 1-2=0/48, 2-3=-149/131, 3-4=-94/93, 4-5=-76/114, 5-6=-88/205, 6-7=-121/268, 7-8=-121/269, 8-9=-88/204, 9-10=-53/113, 10-11=-67/71, 11-12=-116/95, 12-13=0/48, 12-14=-153/78
BOT CHORD	23-24=-90/134, 22-23=-90/134, 21-22=-90/134, 20-21=-90/134, 19-20=-90/134, 18-19=-90/134, 17-18=-90/134, 16-17=-90/134, 15-16=-90/134, 14-15=-90/134

WEBS	7-19=-251/71, 6-20=-109/85, 5-21=-103/152, 4-22=-107/145, 3-23=-106/98, 8-18=-107/85, 9-17=-104/152, 10-16=-107/145, 11-15=-105/96
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NOTES

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=35ft; Ke=1.00; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Corner(3E) -0-11-0 to 4-1-0, Exterior(2N) 4-1-0 to 6-0-0, Corner(3R) 6-0-0 to 11-0-0, Exterior(2N) 11-0-0 to 12-11-0 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- All plates are 1.5x4 MT20 unless otherwise indicated.
- Gable requires continuous bottom chord bearing.
- Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
- Gable studs spaced at 1-4-0 oc.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- All bearings are assumed to be SP No.2 crushing capacity of 565 psi.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 164 lb uplift at joint 24, 120 lb uplift at joint 14, 49 lb uplift at joint 20, 76 lb uplift at joint 21, 62 lb uplift at joint 22, 176 lb uplift at joint 23, 48 lb uplift at joint 18, 76 lb uplift at joint 17, 62 lb uplift at joint 16 and 159 lb uplift at joint 15.
- This truss is 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



January 15, 2024

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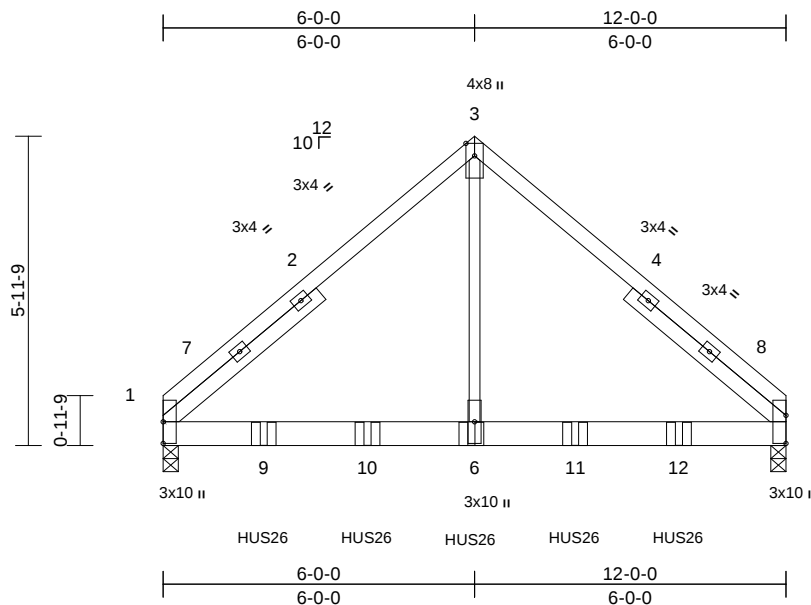
Job	Truss	Truss Type	Qty	Ply	Roof
P240028-01	K2	Common Girder	1	2	Job Reference (optional)

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

Run: 8.63 S Nov 1 2023 Print: 8.630 S Nov 1 2023 MiTek Industries, Inc. File: Jan 12 15:46:00 Page: 1

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02/01/2024



Scale = 1:44.4

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.84	Vert(LL)	-0.08	5-6	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.62	Vert(CT)	-0.14	5-6	>999	180		
BCLL	0.0	Rep Stress Incr	NO	WB	0.88	Horz(CT)	0.01	5	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S							Weight: 136 lb	FT = 20%

LUMBER

TOP CHORD	2x4 SP No.2
BOT CHORD	2x6 SP 2400F 2.0E
WEBS	2x3 SPF No.2
SLIDER	Left 2x4 SP No.2 -- 3-11-0, Right 2x4 SP No.2 -- 3-11-0

BRACING

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

REACTIONS

(size)	1=0-3-8, 5=0-3-8
Max Horiz	1=155 (LC 11)
Max Uplift	1=-659 (LC 12), 5=-650 (LC 13)
Max Grav	1=4223 (LC 1), 5=4162 (LC 1)

FORCES

(lb) - Maximum Compression/Maximum Tension	
TOP CHORD	1-3=-4288/800, 3-5=-4289/800
BOT CHORD	1-6=-455/3092, 5-6=-455/3092
WEBS	3-6=-804/5108

NOTES

- 2-ply truss to be connected together with 10d (0.131"x3") nails as follows:
Top chords connected as follows: 2x4 - 1 row at 0-9-0 oc.
Bottom chords connected as follows: 2x6 - 2 rows staggered at 0-7-0 oc.
Web connected as follows: 2x3 - 1 row at 0-9-0 oc.
- All loads are considered equally applied to all plies, except if noted as front (F) or back (B) face in the LOAD CASE(S) section. Ply to ply connections have been provided to distribute only loads noted as (F) or (B), unless otherwise indicated.
- Unbalanced roof live loads have been considered for this design.

- Wind: ASCE 7-16; Vult=115mph (3-second gust)
Vasd=91mph; TC DL=6.0psf; BCDL=6.0psf; h=35ft;
Ke=1.00; Cat. II; Exp C; Enclosed; MWFRS (envelope)
exterior zone and C-C Exterior(2E) 0-0-0 to 5-0-0,
Interior (1) 5-0-0 to 6-0-0, Exterior(2R) 6-0-0 to 11-0-0,
Interior (1) 11-0-0 to 12-0-0 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
- This truss has been designed for a 10.0 psf bottom
chord live load nonconcurrent with any other live loads.
- All bearings are assumed to be SP 2400F 2.0E crushing
capacity of 805 psi.
- Provide mechanical connection (by others) of truss to
bearing plate capable of withstanding 659 lb uplift at
joint 1 and 650 lb uplift at joint 5.
- This truss is designed in accordance with the 2018
International Residential Code sections R502.11.1 and
R802.10.2 and referenced standard ANSI/TPI 1.
- Use Simpson Strong-Tie HUS26 (14-10d Girder, 4-10d
Truss) or equivalent spaced at 2-0-0 oc max. starting at
1-11-4 from the left end to 9-11-4 to connect truss(es) to
back face of bottom chord.
- Fill all nail holes where hanger is in contact with lumber.

LOAD CASE(S) Standard

- Dead + Roof Live (balanced): Lumber Increase=1.15,
Plate Increase=1.15
Uniform Loads (lb/ft)
Vert: 1-3=-70, 3-5=-70, 1-5=-20
Concentrated Loads (lb)
Vert: 6=-1461 (B), 9=-1461 (B), 10=-1461 (B),
11=-1461 (B), 12=-1461 (B)



January 15, 2024

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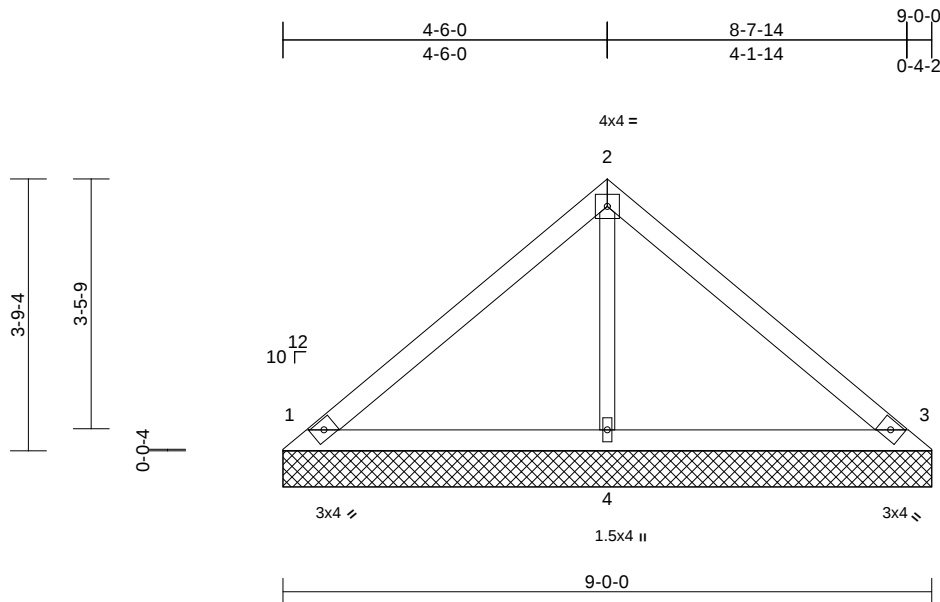
Job	Truss	Truss Type	Qty	Ply	Roof
P240028-01	VI1	Valley	2	1	Job Reference (optional)

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

Run: 8.63 S Nov 1 2023 Print: 8.630 S Nov 1 2023 MiTek Industries, Inc. File: Jan 12 15:46:11 Page: 1

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02/01/2024



Scale = 1:32

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.28	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.17	Vert(TL)	n/a	-	n/a	999		
BCLL	0.0	Rep Stress Incr	YES	WB	0.06	Horiz(TL)	0.00	3	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S							Weight: 32 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=9-0-0, 3=9-0-0, 4=9-0-0
Max Horiz	1=96 (LC 9)
Max Uplift	1=-40 (LC 12), 3=-52 (LC 13), 4=-15 (LC 12)
Max Grav	1=207 (LC 1), 3=207 (LC 1), 4=328 (LC 1)

FORCES

(lb) - Maximum Compression/Maximum Tension

TOP CHORD	1-2=-173/88, 2-3=-170/97
BOT CHORD	1-4=-22/81, 3-4=-22/81
WEBS	2-4=-201/103

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.
- Gable requires continuous bottom chord bearing.
- Gable studs spaced at 4-0-0 oc.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.

- All bearings are assumed to be SP No.2 crushing capacity of 565 psi.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 40 lb uplift at joint 1, 52 lb uplift at joint 3 and 15 lb uplift at joint 4.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard

January 15, 2024

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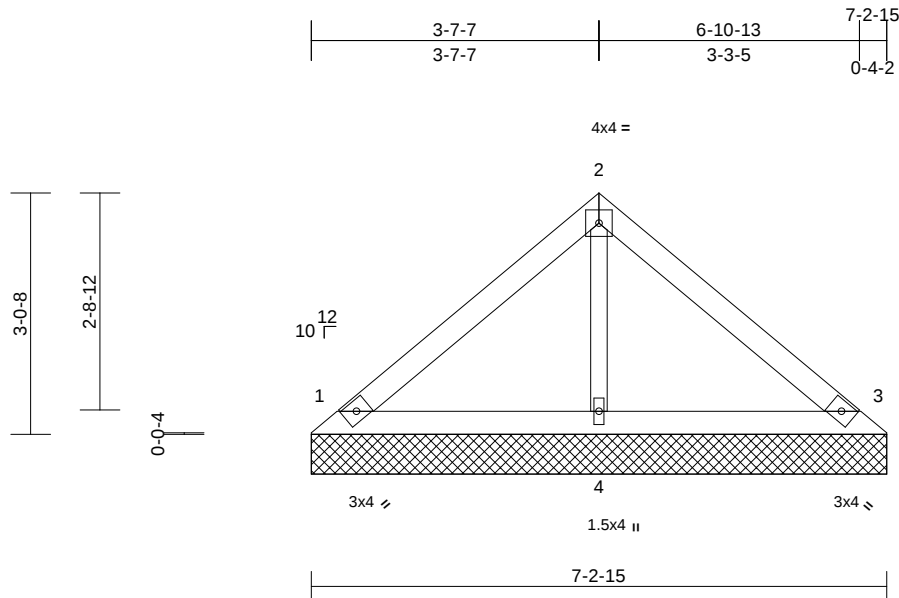
Job	Truss	Truss Type	Qty	Ply	Roof
P240028-01	VI2	Valley	1	1	Job Reference (optional)

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

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02/01/2024



Scale = 1:29

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.25	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.11	Vert(TL)	n/a	-	n/a	999		
BCLL	0.0	Rep Stress Incr	YES	WB	0.04	Horiz(TL)	0.00	3	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-P							Weight: 25 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=7-2-15, 3=7-2-15, 4=7-2-15
 Max Horiz 1=-76 (LC 8)
 Max Uplift 1=-42 (LC 12), 3=-51 (LC 13)
 Max Grav 1=176 (LC 1), 3=176 (LC 1), 4=232 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=-124/73, 2-3=-118/81
 BOT CHORD 1-4=-18/60, 3-4=-18/60
 WEBS 2-4=-151/85

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.
- Gable requires continuous bottom chord bearing.
- Gable studs spaced at 4-0-0 oc.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.

- All bearings are assumed to be SP No.2 crushing capacity of 565 psi.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 42 lb uplift at joint 1 and 51 lb uplift at joint 3.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard

January 15, 2024

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Job	Truss	Truss Type	Qty	Ply	Roof	Job Reference (optional)
P240028-01	VI3	Valley	1	1		

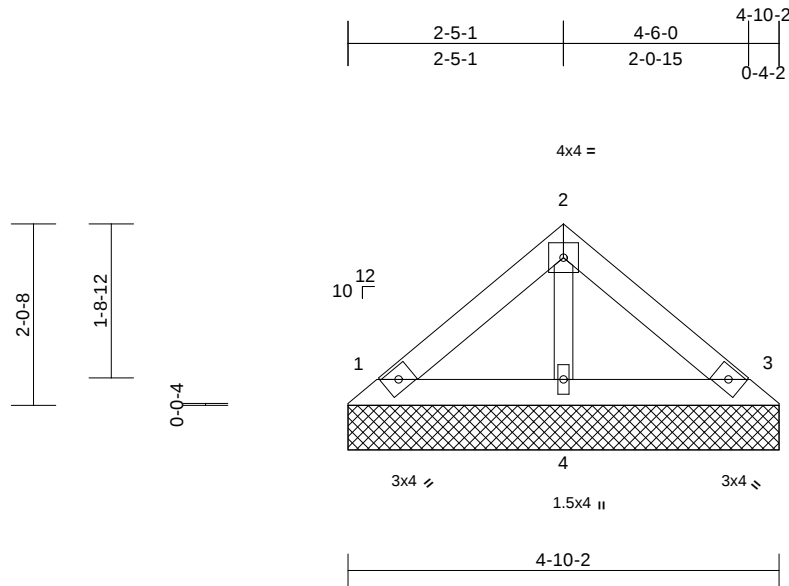
AS NOTED FOR PLAN REVIEW
DEVELOPMENT SERVICES
163022355
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Premier Building Supply (Springhill, KS), Spring Hills, KS - 66083,

Run: 8.63 S Nov 1 2023 Print: 8.630 S Nov 1 2023 MiTek Industries, Inc. File Jan 12 15:46:21 Page: 1

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02/01/2024



Scale = 1:25.9

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	0.11	Vert(LL)	n/a	-	n/a	999	MT20
TCDL	10.0	Lumber DOL	1.15	BC	0.04	Vert(TL)	n/a	-	n/a	999	244/190
BCLL	0.0	Rep Stress Incr	YES	WB	0.02	Horiz(TL)	0.00	3	n/a	n/a	
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-P							Weight: 16 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 4-10-12 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (size) 1=4-10-2, 3=4-10-2, 4=4-10-2
Max Horiz 1=48 (LC 9)
Max Uplift 1=-26 (LC 12), 3=-32 (LC 13)
Max Grav 1=111 (LC 1), 3=111 (LC 1), 4=146 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=-78/53, 2-3=-74/57
BOT CHORD 1-4=-11/38, 3-4=-11/38
WEBS 2-4=-95/63

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.
- Gable requires continuous bottom chord bearing.
- Gable studs spaced at 4-0-0 oc.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.

- All bearings are assumed to be SP No.2 crushing capacity of 565 psi.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 26 lb uplift at joint 1 and 32 lb uplift at joint 3.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard



January 15, 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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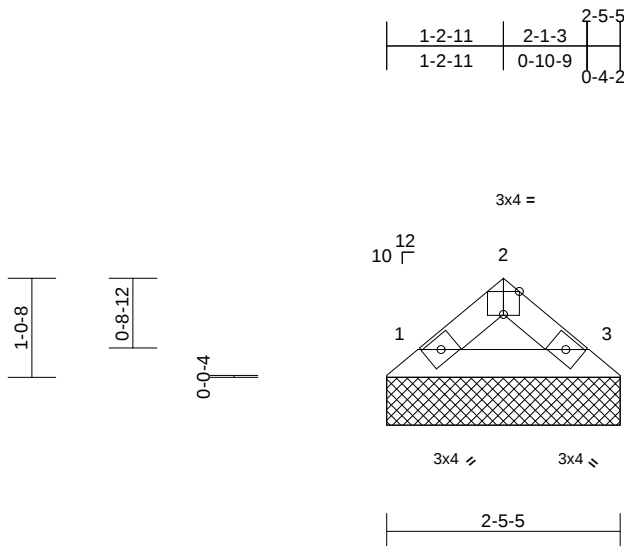
16023 Swingley Ridge Rd.
Chesterfield, MO 63017
314.434.1200 / MiTek-US.com

Job	Truss	Truss Type	Qty	Ply	Roof
P240028-01	VI4	Valley	1	1	Job Reference (optional)

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

Run: 8.63 S Nov 1 2023 Print: 8.630 S Nov 1 2023 MiTek Industries, Inc. File: Jan 12 15:46:22 Page: 1
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02/01/2024



Scale = 1:24.1

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	0.02	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.03	Vert(TL)	n/a	-	n/a	999		
BCLL	0.0	Rep Stress Incr	YES	WB	0.00	Horiz(TL)	0.00	3	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-P							Weight: 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 2-5-15 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (size) 1=2-5-5, 3=2-5-5

Max Horiz 1=-20 (LC 8)
Max Uplift 1=-10 (LC 12), 3=-10 (LC 13)
Max Grav 1=76 (LC 1), 3=76 (LC 1)

FORCES

(lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=-61/47, 2-3=-61/50
BOT CHORD 1-3=-9/37

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.
- Gable requires continuous bottom chord bearing.
- Gable studs spaced at 4-0-0 oc.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- All bearings are assumed to be SP No.2 crushing capacity of 565 psi.

- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 10 lb uplift at joint 1 and 10 lb uplift at joint 3.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard

January 15, 2024

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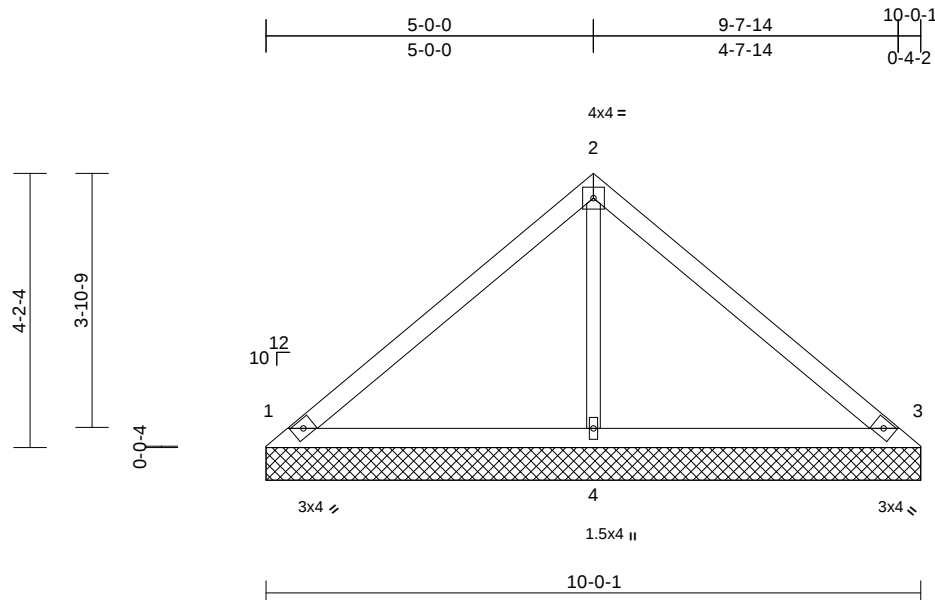
Job	Truss	Truss Type	Qty	Ply	Roof
P240028-01	VK1	Valley	1	1	Job Reference (optional)

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

Run: 8.63 S Nov 1 2023 Print: 8.630 S Nov 1 2023 MiTek Industries, Inc. File: Jan 12 15:46:22 Page: 1

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02/01/2024



Scale = 1:35.2

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	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.22	Vert(TL)	n/a	-	n/a	999		
BCLL	0.0	Rep Stress Incr	YES	WB	0.09	Horiz(TL)	0.00	3	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S							Weight: 36 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=10-0-1, 3=10-0-1, 4=10-0-1
 Max Horiz 1=-108 (LC 8)
 Max Uplift 1=-45 (LC 12), 3=-58 (LC 13), 4=-17 (LC 12)
 Max Grav 1=232 (LC 1), 3=232 (LC 1), 4=368 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=-194/95, 2-3=-191/103
 BOT CHORD 1-4=-25/91, 3-4=-25/91
 WEBS 2-4=-226/107

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.
- Gable requires continuous bottom chord bearing.
- Gable studs spaced at 4-0-0 oc.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.

- All bearings are assumed to be SP No.2 crushing capacity of 565 psi.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 45 lb uplift at joint 1, 58 lb uplift at joint 3 and 17 lb uplift at joint 4.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard

January 15, 2024

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Job	Truss	Truss Type	Qty	Ply	Roof
P240028-01	VK2	Valley	1	1	Job Reference (optional)

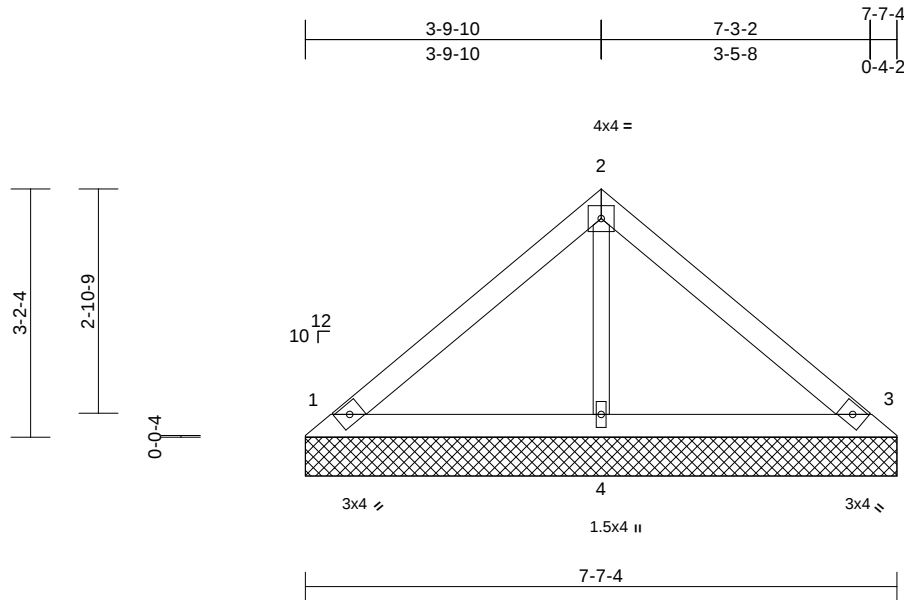
AS NOTED FOR PLAN REVIEW
DEVELOPMENT SERVICES
163022358
LEE'S SUMMIT, MISSOURI

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

Run: 8.63 S Nov 1 2023 Print: 8.630 S Nov 1 2023 MiTek Industries, Inc. File: Jan 12 15:46:22 Page: 1

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02/01/2024



Scale = 1:29.6

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.27	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.12	Vert(TL)	n/a	-	n/a	999		
BCLL	0.0	Rep Stress Incr	YES	WB	0.04	Horiz(TL)	0.00	3	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-P							Weight: 27 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=7-7-4, 3=7-7-4, 4=7-7-4
Max Horiz 1=-80 (LC 8)
Max Uplift 1=-44 (LC 12), 3=-53 (LC 13)
Max Grav 1=186 (LC 1), 3=186 (LC 1), 4=245 (LC 1)

FORCES

(lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=-131/76, 2-3=-124/83
BOT CHORD 1-4=-19/63, 3-4=-19/63
WEBS 2-4=-159/87

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.
- Gable requires continuous bottom chord bearing.
- Gable studs spaced at 4-0-0 oc.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.

- All bearings are assumed to be SP No.2 crushing capacity of 565 psi.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 44 lb uplift at joint 1 and 53 lb uplift at joint 3.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard



January 15, 2024

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Job	Truss	Truss Type	Qty	Ply	Roof	Job Reference (optional)
P240028-01	VK3	Valley	1	1		

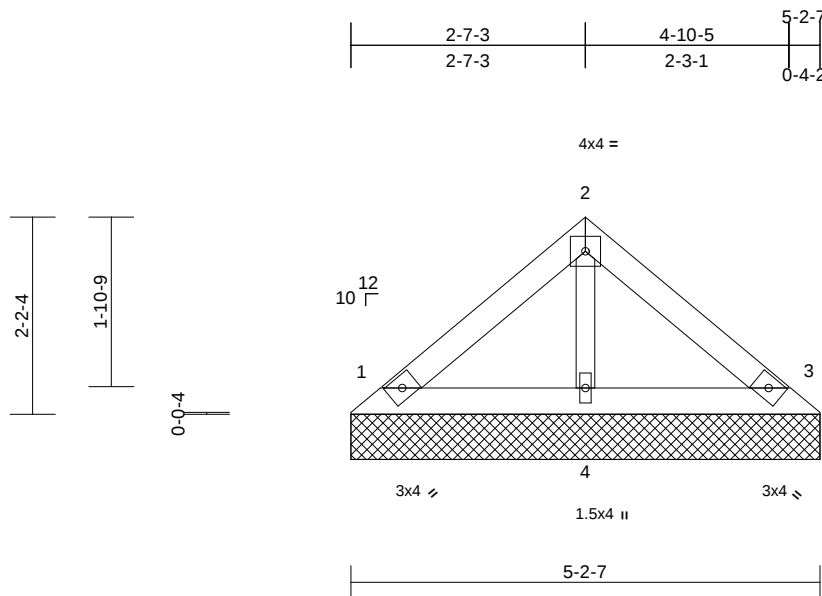
AS NOTED FOR PLAN REVIEW
DEVELOPMENT SERVICES
163022359
LEE'S SUMMIT, MISSOURI

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

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02/01/2024



Scale = 1:25.6

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.13	Vert(LL)	n/a	-	n/a	999	MT20
TCDL	10.0	Lumber DOL	1.15	BC	0.05	Vert(TL)	n/a	-	n/a	999	244/190
BCLL	0.0	Rep Stress Incr	YES	WB	0.02	Horiz(TL)	0.00	3	n/a	n/a	
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-P							Weight: 18 lb FT = 20%

LUMBER

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

BRACING

TOP CHORD Structural wood sheathing directly applied or 5-3-1 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS

(size) 1=5-2-7, 3=5-2-7, 4=5-2-7
Max Horiz 1=-52 (LC 8)
Max Uplift 1=-29 (LC 12), 3=-35 (LC 13)
Max Grav 1=121 (LC 1), 3=121 (LC 1), 4=159 (LC 1)

FORCES

(lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=-85/57, 2-3=-81/62
BOT CHORD 1-4=-12/41, 3-4=-12/41
WEBS 2-4=-103/67

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.
- Gable requires continuous bottom chord bearing.
- Gable studs spaced at 4-0-0 oc.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.

- All bearings are assumed to be SP No.2 crushing capacity of 565 psi.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 29 lb uplift at joint 1 and 35 lb uplift at joint 3.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard



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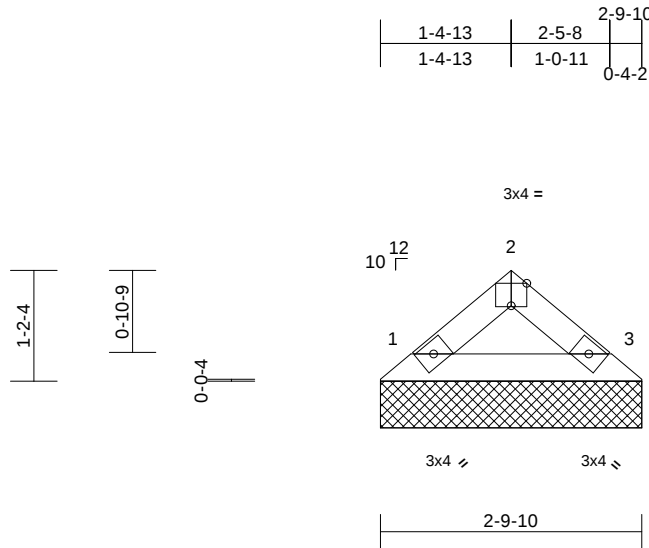
Job	Truss	Truss Type	Qty	Ply	Roof
P240028-01	VK4	Valley	1	1	Job Reference (optional)

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

Run: 8.63 S Nov 1 2023 Print: 8.630 S Nov 1 2023 MiTek Industries, Inc. File: Jan 12 15:46:23 Page: 1

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02/01/2024



Scale = 1:24.7

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	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.05	Vert(TL)	n/a	-	n/a	999		
BCLL	0.0	Rep Stress Incr	YES	WB	0.00	Horiz(TL)	0.00	3	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-P							Weight: 8 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 2-10-4 oc purlins.

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

REACTIONS

(size) 1=2-9-10, 3=2-9-10

Max Horiz 1=-24 (LC 8)

Max Uplift 1=-12 (LC 12), 3=-12 (LC 13)

Max Grav 1=92 (LC 1), 3=92 (LC 1)

FORCES

(lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=-74/55, 2-3=-74/60

BOT CHORD 1-3=-11/44

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.
- Gable requires continuous bottom chord bearing.
- Gable studs spaced at 4-0-0 oc.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- All bearings are assumed to be SP No.2 crushing capacity of 565 psi.

- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 12 lb uplift at joint 1 and 12 lb uplift at joint 3.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard

January 15, 2024

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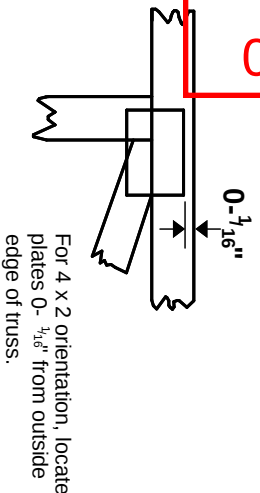
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Symbols

PLATE LOCATION AND ORIENTATION

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



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

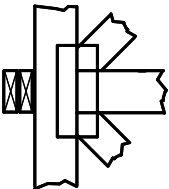
The first dimension is the plate width measured perpendicular to slots. Second dimension is the length parallel to slots.

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



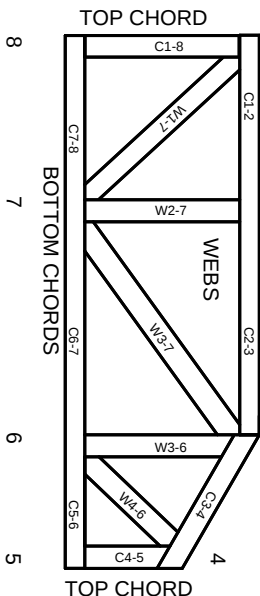
Indicates location where bearings (supports) occur. Icons vary but reaction section indicates joint number/letter where bearings occur. Min size shown is for crushing only.

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

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

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: MIL-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.