MiTek®

RE: Roof - 8 Inch Heel -

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

Site Information:

Project Customer: Clayton Properties Project Name: Carolina Modern Prairie 3 car
Lot/Block: 0370 Subdivision: BAILEY FARMS
Model: Carolina Modern Prairie 3 car
Address: 1126 SE RANCHLAND
City: LEE'S SUMMIT State: MO

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

Design Code: IRC2018/TPI2014
Wind Code: ASCE 7-16
Wind Speed: 115 mph
Roof Load: 45.0 psf
Mean Roof Height (feet): 35

Design Program: MiTek 20/20 8.6
Design Method: MWFRS (Envelope)/C-C hybrid Wind ASCE 7-16
Floor Load: N/A psf

Exposure Category: C

No.	Seal#	Truss Name	Date	No.	Seal#	Truss Name	Date
1	I76096886	A1	9/4/25	35	I76096920	J1	9/4/25
2	I76096887	A2	9/4/25	36	I76096921	J2	9/4/25
3	I76096888	A3	9/4/25	37	I76096922	J3	9/4/25
4	I76096889	A4	9/4/25	38	I76096923	J4	9/4/25
5	I76096890	A5	9/4/25	39	I76096924	J5	9/4/25
6	I76096891	A6	9/4/25	40	I76096925	J6	9/4/25
7	I76096892	A7	9/4/25	41	I76096926	J7	9/4/25
8	I76096893	A8	9/4/25	42	I76096927	J8	9/4/25
9	I76096894	A9	9/4/25	43	I76096928	M1	9/4/25
10	I76096895	A10	9/4/25	44	I76096929	M2	9/4/25
11	I76096896	A11	9/4/25	45	I76096930	M3	9/4/25
12	I76096897	A12	9/4/25	46	I76096931	M4	9/4/25
13	I76096898	A13	9/4/25	47	I76096932	M5	9/4/25
14	I76096899	A14	9/4/25	48	I76096933	M6	9/4/25
15	I76096900	A15	9/4/25	49	I76096934	M7	9/4/25
16	I76096901	A16	9/4/25	50	I76096935	V1	9/4/25
17	I76096902	A17	9/4/25	51	I76096936	V2	9/4/25
18	I76096903	A18	9/4/25				
19	I76096904	B1	9/4/25				
20	I76096905	B2	9/4/25				
21	I76096906	B3	9/4/25				
22	I76096907	C1	9/4/25				
23	I76096908	CG1	9/4/25				
24	I76096909	CG2	9/4/25				
25	I76096910	CG3	9/4/25				
26	I76096911	CG4	9/4/25				
27	I76096912	D1	9/4/25				
28	I76096913	D2	9/4/25				
29	I76096914	E1	9/4/25				
30	I76096915	E2	9/4/25				
31	I76096916	HG1	9/4/25				
32	I76096917	HG2	9/4/25				
33	I76096918	HG3	9/4/25				
34	I76096919	HG4	9/4/25				

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

Truss Design Engineer's Name: Lu, Jie
My license renewal date for the state of Missouri is December 31, 2026.

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

September 4,2025
Lu, Jie

RELEASE FOR CONSTRUCTION
AS NOTED ON PLANS REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
11/26/2025 8:25:23

Job	Truss	Truss Type	Qty	Ply	
Roof - 8 Inch Heel	A1	Hip Girder	1	2	I76096886 Job Reference (optional)

Premier Building Supply (Springhill, KS), Spring Hills, KS - 66083, Run: 8.63 S Sep 26 2024 Print: 8.630 S Sep 26 2024 MiTek Industries, Inc. Wed Sep 03 15:44:18 Page: 1
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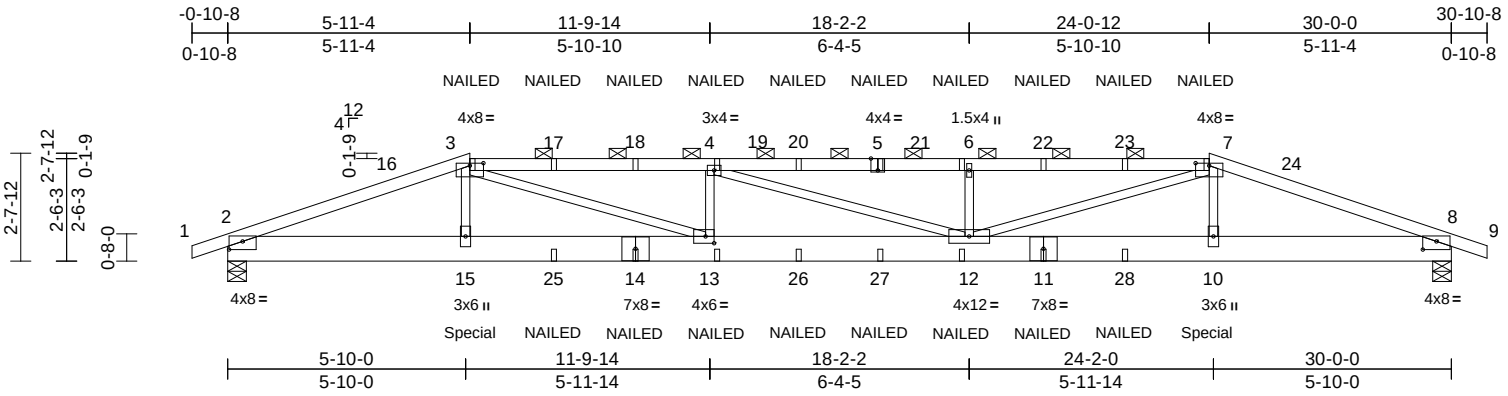

Scale = 1:56.5

Plate Offsets (X, Y): [2:0-4-0,0-2-6], [3:0-4-0,0-0-12], [5:0-2-0,Edge], [7:0-4-0,0-0-12], [8:0-4-0,0-2-6], [13:0-2-8,0-2-0]

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	0.63	Vert(LL)	-0.34	12-13	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.93	Vert(CT)	-0.62	12-13	>571	180		
BCLL	0.0	Rep Stress Incr	NO	WB	0.60	Horz(CT)	0.08	8	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S							Weight: 280 lb	FT = 20%

LUMBER
TOP CHORD 2x4 SP No.2 *Except* 3-5,5-7:2x4 SP 2400F 2.0E
BOT CHORD 2x8 SPF No.2
WEBS 2x3 SPF No.2

BRACING
TOP CHORD Structural wood sheathing directly applied or 4-5-7 oc purlins, except 2-0-0 oc purlins (5-1-5 max.): 3-7.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (size) 2=0-5-8, 8=0-5-8
Max Horiz 2=-42 (LC 34)
Max Uplift 2=-749 (LC 8), 8=-748 (LC 9)
Max Grav 2=2638 (LC 1), 8=2637 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/6, 2-3=-6657/1929, 3-4=-9353/2750, 4-6=-9275/2711, 6-7=-9279/2714, 7-8=-6669/1927, 8-9=0/6
BOT CHORD 2-15=-1722/6170, 13-15=-1720/6140, 12-13=-2629/9348, 10-12=-1725/6149, 8-10=-1727/6181
WEBS 3-15=-40/636, 7-10=-52/654, 3-13=-975/3501, 7-12=-947/3414, 4-13=-974/490, 4-12=-139/53, 6-12=-964/500

NOTES
1) 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: 2x8 - 2 rows staggered at 0-9-0 oc.
Web connected as follows: 2x3 - 1 row at 0-9-0 oc.
2) All loads are considered equally applied to all plies, except if noted as front (F) or back (B) face in the LOAD CASE(S) section. Ply to ply connections have been provided to distribute only loads noted as (F) or (B), unless otherwise indicated.
3) Unbalanced roof live loads have been considered for this design.
4) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=35ft; Ke=1.00; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) -0-10-8 to 4-1-8, Interior (1) 4-1-8 to 5-11-4, Exterior(2R) 5-11-4 to 13-0-2, Interior (1) 13-0-2 to 24-0-12, Exterior(2E) 24-0-12 to 30-10-8 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
5) Provide adequate drainage to prevent water ponding.
6) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
7) All bearings are assumed to be SPF No.2 crushing capacity of 425 psi.
8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 749 lb uplift at joint 2 and 748 lb uplift at joint 8.
9) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
10) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
11) "NAILED" indicates Girder: 3-16d (0.162" x 3.5") toe-nails per NDS guidelines.
12) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 420 lb down and 109 lb up at 5-11-4, and 420 lb down and 109 lb up at 24-0-0 on bottom chord. The design/ selection of such connection device(s) is the responsibility of others.

LOAD CASE(S) Standard
1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (lb/ft)
Vert: 1-3=-70, 3-7=-70, 7-9=-70, 2-8=-20
Concentrated Loads (lb)
Vert: 3=-131 (B), 5=-131 (B), 14=-39 (B), 15=-420 (B), 10=-420 (B), 7=-131 (B), 11=-39 (B), 13=-39 (B), 12=-39 (B), 4=-131 (B), 6=-131 (B), 17=-131 (B), 18=-131 (B), 20=-131 (B), 22=-131 (B), 23=-131 (B), 25=-39 (B), 26=-39 (B), 27=-39 (B), 28=-39 (B)

September 4,2025

Job	Truss	Truss Type	Qty	Ply	
Roof - 8 Inch Heel	A2	Hip	1	1	I76096887
					Job Reference (optional)

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

Run: 8.63 S Sep 26 2024 Print: 8.630 S Sep 26 2024 MiTek Industries, Inc. Wed Sep 03 15:44:19 Page: 1
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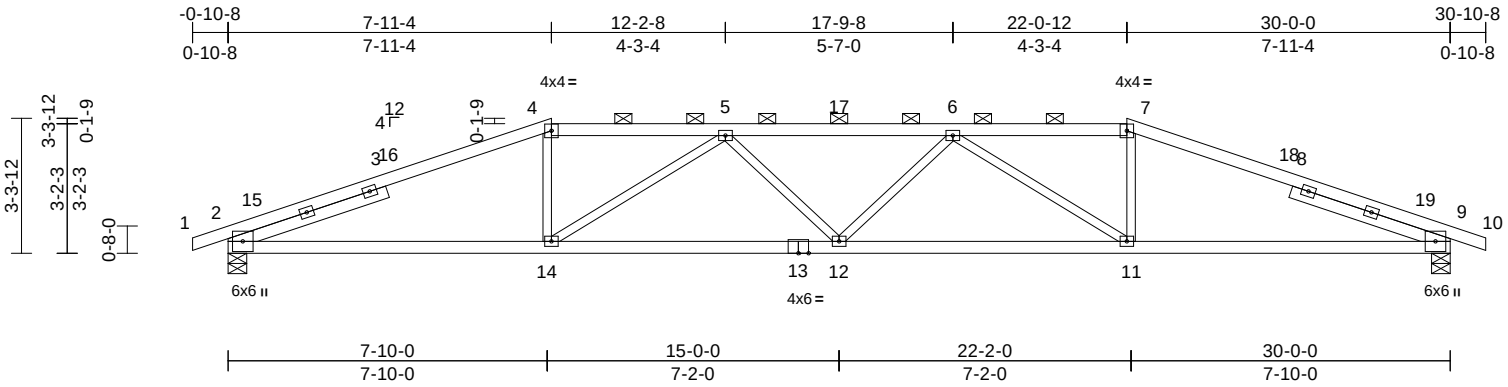

Scale = 1:56.6

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

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	0.67	Vert(LL)	-0.25	12	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.96	Vert(CT)	-0.48	12-14	>755	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.69	Horz(CT)	0.15	9	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S							Weight: 124 lb	FT = 20%

LUMBER

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

BRACING

TOP CHORD	Structural wood sheathing directly applied or 4-2-2 oc purlins, except 2-0-0 oc purlins (2-6-7 max.): 4-7.
BOT CHORD	Rigid ceiling directly applied or 2-2-0 oc bracing.

REACTIONS (size) 2=0-5-8, 9=0-5-8
Max Horiz 2=-54 (LC 13)
Max Uplift 2=-319 (LC 8), 9=-319 (LC 9)
Max Grav 2=1411 (LC 1), 9=1411 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD	1-2=-5/0, 2-4=-2973/757, 4-5=-2691/750, 5-6=-3468/916, 6-7=-2691/750, 7-9=-2973/756, 9-10=-5/0
BOT CHORD	2-14=-611/2710, 12-14=-829/3404, 11-12=-836/3404, 9-11=-614/2710
WEBS	4-14=-59/697, 7-11=-58/697, 5-12=0/188, 5-14=-991/269, 6-12=0/188, 6-11=-991/269

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) -0-10-8 to 4-1-8, Interior (1) 4-1-8 to 7-11-4, Exterior(2R) 7-11-4 to 15-0-2, Interior (1) 15-0-2 to 22-0-12, Exterior(2R) 22-0-12 to 29-1-10, Interior (1) 29-1-10 to 30-10-8 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) Provide adequate drainage to prevent water ponding.
4) All plates are 3x4 MT20 unless otherwise indicated.
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 319 lb uplift at joint 2 and 319 lb uplift at joint 9.
8) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
9) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

LOAD CASE(S) Standard

September 4,2025

Job	Truss	Truss Type	Qty	Ply	
Roof - 8 Inch Heel	A3	Hip	1	1	I76096888 Job Reference (optional)

Premier Building Supply (Springhill, KS), Spring Hills, KS - 66083, Run: 8.63 S Sep 26 2024 Print: 8.630 S Sep 26 2024 MiTek Industries, Inc. Wed Sep 03 15:44:19 Page: 1
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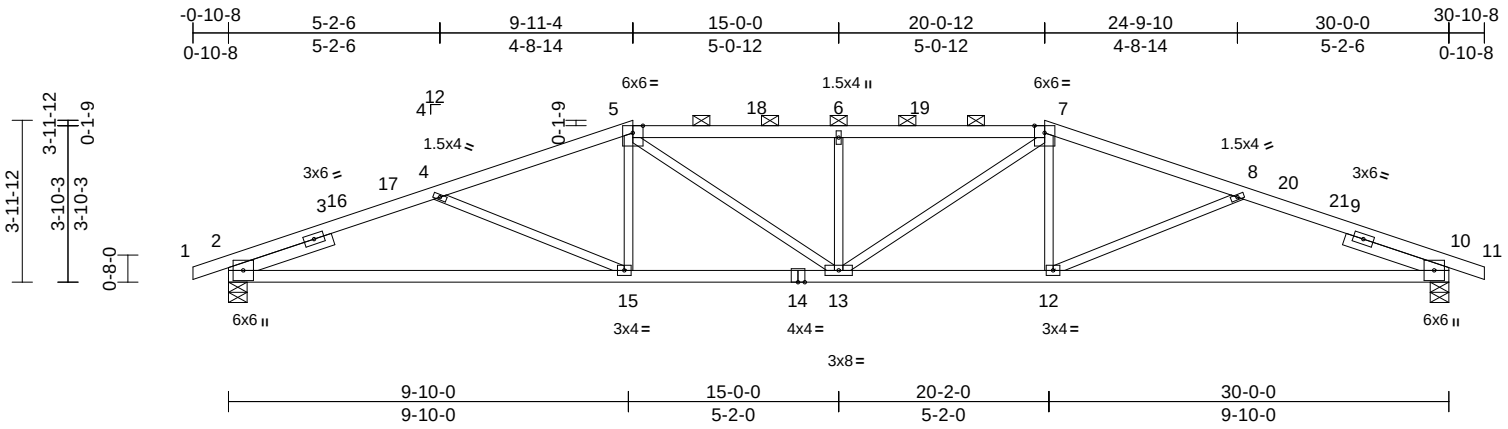

Scale = 1:56.6

Plate Offsets (X, Y): [2:0-3-13,0-1-5], [10:0-3-13,0-1-5], [10:Edge,0-0-0]

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	0.85	Vert(LL)	-0.20	13	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.44	Vert(CT)	-0.43	2-15	>843	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.20	Horz(CT)	0.09	10	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S							Weight: 128 lb	FT = 20%

LUMBER
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP 2400F 2.0E
WEBS 2x3 SPF No.2
SLIDER Left 2x4 SP No.2 -- 2-8-3, Right 2x4 SP No.2 -- 2-8-3

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

REACTIONS (size) 2=0-5-8, 10=0-5-8
Max Horiz 2=-67 (LC 13)
Max Uplift 2=-310 (LC 8), 10=-310 (LC 9)
Max Grav 2=1411 (LC 1), 10=1411 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-5/0, 2-4=-2968/878, 4-5=-2701/736, 5-6=-2878/866, 6-7=-2878/866, 7-8=-2701/736, 8-10=-2968/878, 10-11=-5/0
BOT CHORD 2-15=-762/2691, 13-15=-568/2531, 12-13=-564/2531, 10-12=-758/2691
WEBS 5-15=0/351, 5-13=-187/569, 6-13=-448/226, 7-13=-187/569, 7-12=0/351, 4-15=-199/232, 8-12=-199/232

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) -0-10-8 to 4-1-8, Interior (1) 4-1-8 to 9-11-4, Exterior(2R) 9-11-4 to 17-0-2, Interior (1) 17-0-2 to 20-0-12, Exterior(2R) 20-0-12 to 27-1-10, Interior (1) 27-1-10 to 30-10-8 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
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) All bearings are assumed to be SP 2400F 2.0E crushing capacity of 805 psi.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 310 lb uplift at joint 2 and 310 lb uplift at joint 10.
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.
8) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

LOAD CASE(S) Standard

September 4,2025

Job	Truss	Truss Type	Qty	Ply	
Roof - 8 Inch Heel	A4	Hip	1	1	I76096889 Job Reference (optional)

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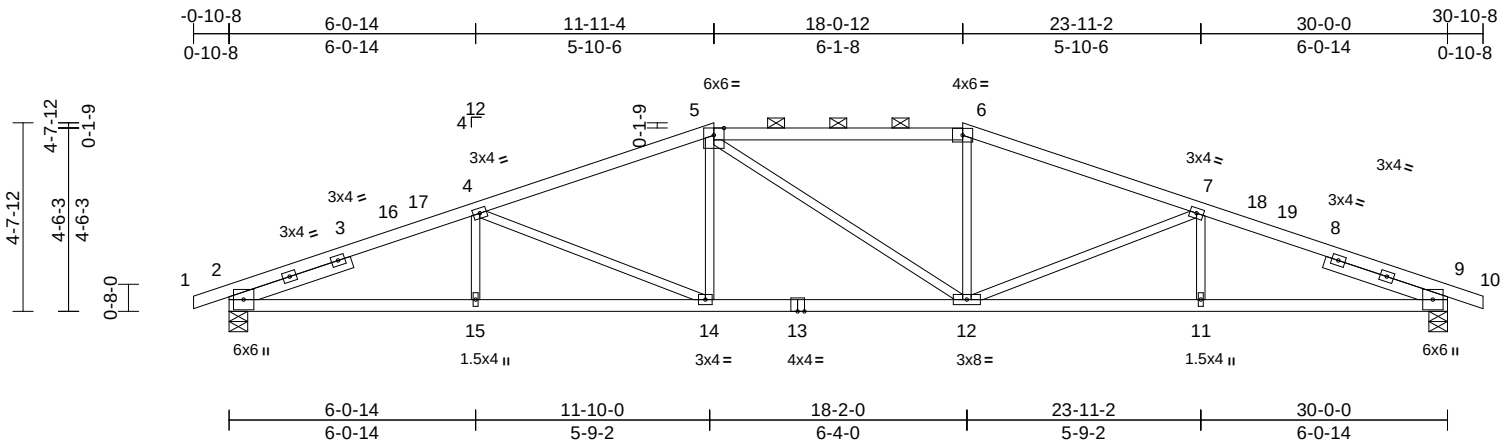

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Plate Offsets (X, Y): [2:0-3-13,0-1-5], [9:0-3-13,0-1-5]

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	0.95	Vert(LL)	-0.20	14-15	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.78	Vert(CT)	-0.38	12-14	>945	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.50	Horz(CT)	0.13	9	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S							Weight: 129 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 -- 3-2-0, Right 2x4 SP No.2 -- 3-2-0

BRACING
TOP CHORD Structural wood sheathing directly applied, except 2-0-0 oc purlins (2-2-0 max.): 5-6.
BOT CHORD Rigid ceiling directly applied or 6-10-7 oc bracing.

REACTIONS (size) 2=0-5-8, 9=0-5-8
Max Horiz 2=79 (LC 12)
Max Uplift 2=-298 (LC 8), 9=-298 (LC 9)
Max Grav 2=1411 (LC 1), 9=1411 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-5/0, 2-4=-3028/823, 4-5=-2489/736, 5-6=-2306/761, 6-7=-2490/758, 7-9=-3027/850, 9-10=-5/0
BOT CHORD 2-15=-709/2752, 14-15=-709/2752, 12-14=-535/2305, 11-12=-731/2752, 9-11=-731/2752
WEBS 4-15=0/228, 4-14=-517/211, 5-14=-9/365, 5-12=-221/222, 6-12=-11/365, 7-12=-517/212, 7-11=0/227

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) -0-10-8 to 4-1-8, Interior (1) 4-1-8 to 11-11-4, Exterior(2E) 11-11-4 to 18-0-12, Exterior(2R) 18-0-12 to 25-1-10, Interior (1) 25-1-10 to 30-10-8 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
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) All bearings are assumed to be SP No.2 crushing capacity of 565 psi.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 298 lb uplift at joint 2 and 298 lb uplift at joint 9.
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.
8) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

LOAD CASE(S) Standard

September 4,2025

Job	Truss	Truss Type	Qty	Ply	
Roof - 8 Inch Heel	A5	Roof Special	1	1	I76096890 Job Reference (optional)

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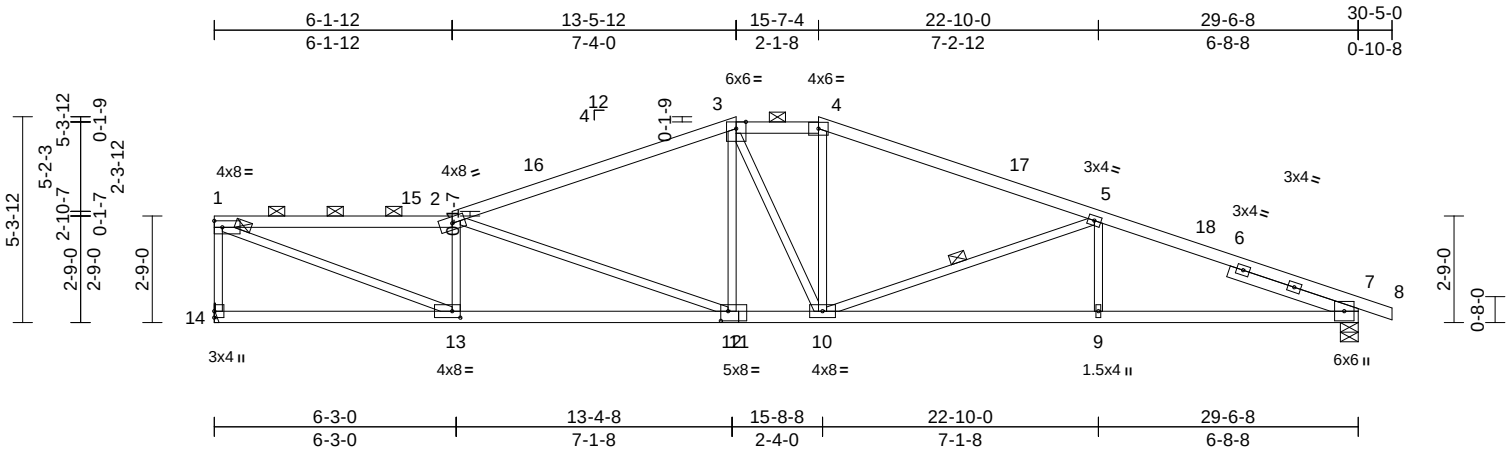

Scale = 1:59.5

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

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	0.57	Vert(LL)	-0.18	12-13	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.80	Vert(CT)	-0.37	12-13	>948	180		
BCLL	0.0	Rep Stress Incr	YES	WB	1.00	Horz(CT)	0.10	7	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S							Weight: 131 lb	FT = 20%

LUMBER
TOP CHORD 2x4 SP 2400F 2.0E *Except* 3-4:2x4 SP No.2
BOT CHORD 2x4 SP No.2
WEBS 2x3 SPF No.2
SLIDER Right 2x4 SP No.2 -- 3-6-0

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

REACTIONS (size) 7=0-5-8, 14= Mechanical
Max Horiz 14=-99 (LC 17)
Max Uplift 7=-278 (LC 9), 14=-244 (LC 8)
Max Grav 7=1387 (LC 1), 14=1324 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-14=-1262/386, 1-2=-2653/672, 2-3=-2190/583, 3-4=-2005/596, 4-5=-2194/584, 5-7=-2970/709, 7-8=-5/0
BOT CHORD 13-14=-52/135, 12-13=-554/2613, 10-12=-379/1994, 9-10=-593/2712, 7-9=-593/2712
WEBS 2-12=-703/185, 3-12=-9/331, 3-10=-208/251, 4-10=-60/373, 5-10=-797/263, 5-9=0/290, 2-13=-913/361, 1-13=-706/2805

NOTES
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=35ft; Ke=1.00; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) 0-1-4 to 5-1-4, Interior (1) 5-1-4 to 13-5-12, Exterior(2E) 13-5-12 to 15-7-4, Exterior(2R) 15-7-4 to 20-7-4, Interior (1) 20-7-4 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) 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 7 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 244 lb uplift at joint 14 and 278 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.
9) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

LOAD CASE(S) Standard

September 4,2025

Job	Truss	Truss Type	Qty	Ply	
Roof - 8 Inch Heel	A6	Roof Special	1	1	I76096891 Job Reference (optional)

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

Run: 8.63 S Sep 26 2024 Print: 8.630 S Sep 26 2024 MiTek Industries, Inc. Wed Sep 03 15:44:19
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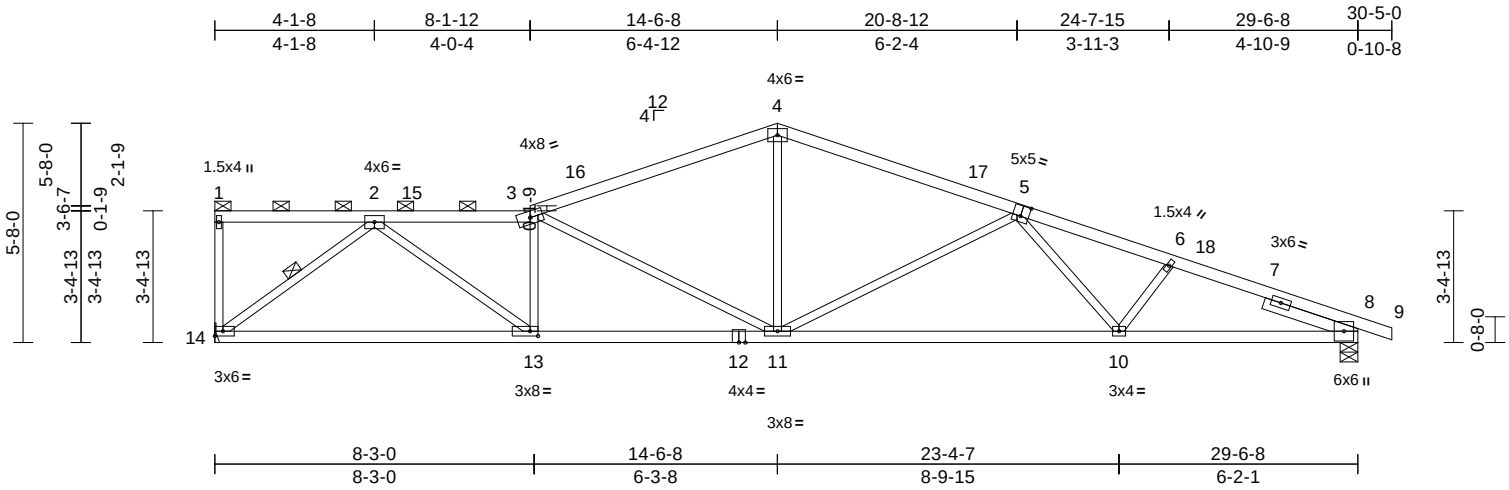
Page: 1



Scale = 1:59.6

Plate Offsets (X, Y): [5:0-2-8,0-3-4], [8:0-3-13,0-1-5], [13:0-2-8,0-1-8]

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.99	Vert(LL)	-0.20	10-11	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.86	Vert(CT)	-0.46	10-11	>764	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.97	Horz(CT)	0.11	8	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S							Weight: 128 lb	FT = 20%

LUMBER
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2
WEBS 2x3 SPF No.2
SLIDER Right 2x4 SP No.2 -- 2-6-7

BRACING
TOP CHORD Structural wood sheathing directly applied, except end verticals, and 2-0-0 oc purlins (3-6-14 max.): 1-3.
BOT CHORD Rigid ceiling directly applied or 7-8-11 oc bracing.
WEBS 1 Row at midpt 2-14

REACTIONS (size) 8=0-5-8, 14= Mechanical
Max Horiz 14=-115 (LC 10)
Max Uplift 8=-268 (LC 9), 14=-239 (LC 8)
Max Grav 8=1387 (LC 1), 14=1324 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-14=-124/71, 1-2=-84/67, 2-3=-2519/624, 3-4=-2039/525, 4-6=-2793/664, 6-8=-2935/680, 8-9=-5/0
BOT CHORD 13-14=-292/1474, 11-13=-486/2496, 10-11=-511/2509, 8-10=-565/2647
WEBS 4-11=-114/820, 5-11=-781/272, 5-10=0/313, 6-10=-51/111, 3-13=-644/245, 3-11=-756/204, 2-13=-253/1307, 2-14=-1834/528

NOTES
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=35ft; Ke=1.00; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) 0-1-4 to 5-1-4, Interior (1) 5-1-4 to 14-6-8, Exterior(2R) 14-6-8 to 19-6-8, Interior (1) 19-6-8 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) 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 8 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 239 lb uplift at joint 14 and 268 lb uplift at joint 8.
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.

LOAD CASE(S) Standard

September 4,2025

Job	Truss	Truss Type	Qty	Ply	
Roof - 8 Inch Heel	A7	Roof Special	1	1	I76096892 Job Reference (optional)

Premier Building Supply (Springhill, KS), Spring Hills, KS - 66083, Run: 8.63 S Sep 26 2024 Print: 8.630 S Sep 26 2024 MiTek Industries, Inc. Wed Sep 03 15:44:20 Page: 1
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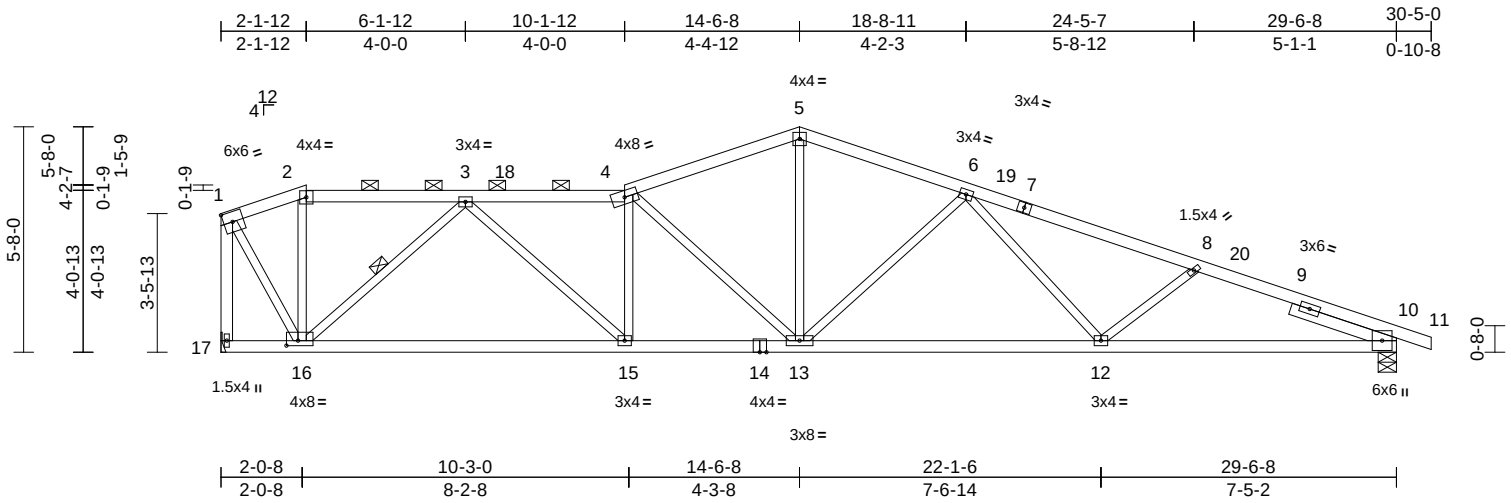

Scale = 1:57.9

Plate Offsets (X, Y): [10:0-3-13,0-1-5], [16:0-3-8,0-1-8]

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.89	Vert(LL)	-0.18	12-13	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.78	Vert(CT)	-0.37	12-13	>950	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.56	Horz(CT)	0.10	10	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S							Weight: 137 lb	FT = 20%

LUMBER
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2
WEBS 2x3 SPF No.2 *Except* 17-1:2x4 SP No.2
SLIDER Right 2x4 SP No.2 -- 2-9-6

BRACING
TOP CHORD Structural wood sheathing directly applied or 2-0-11 oc purlins, except end verticals, and 2-0-0 oc purlins (3-8-5 max.): 2-4.
BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.
WEBS 1 Row at midpt 3-16

REACTIONS (size) 10=0-5-8, 17= Mechanical
Max Horiz 17=-123 (LC 8)
Max Uplift 10=-265 (LC 9), 17=-240 (LC 8)
Max Grav 10=1385 (LC 1), 17=1322 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-695/211, 2-3=-652/213, 3-4=-2316/596, 4-5=-1989/532, 5-6=-1987/544, 6-8=-2713/641, 8-10=-2955/717, 10-11=-5/0, 1-17=-1351/325
BOT CHORD 16-17=-103/181, 15-16=-320/1676, 13-15=-431/2301, 12-13=-454/2304, 10-12=-600/2678
WEBS 2-16=-29/91, 4-15=-467/186, 1-16=-298/1271, 5-13=-202/977, 4-13=-650/181, 6-13=-680/239, 6-12=-24/399, 8-12=-229/191, 3-15=-158/867, 3-16=-1395/411

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) 2-7-4 to 4-7-4, Exterior(2R) 4-7-4 to 9-7-4, Interior (1) 9-7-4 to 17-0-0, Exterior(2R) 17-0-0 to 22-0-0, Interior (1) 22-0-0 to 32-10-8 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
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 10 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 240 lb uplift at joint 17 and 265 lb uplift at joint 10.
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.

LOAD CASE(S) Standard

September 4,2025

Job	Truss	Truss Type	Qty	Ply	
Roof - 8 Inch Heel	A8	Roof Special	1	1	I76096893 Job Reference (optional)

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

Run: 8.63 S Sep 26 2024 Print: 8.630 S Sep 26 2024 MiTek Industries, Inc. Wed Sep 03 15:44:20 Page: 1
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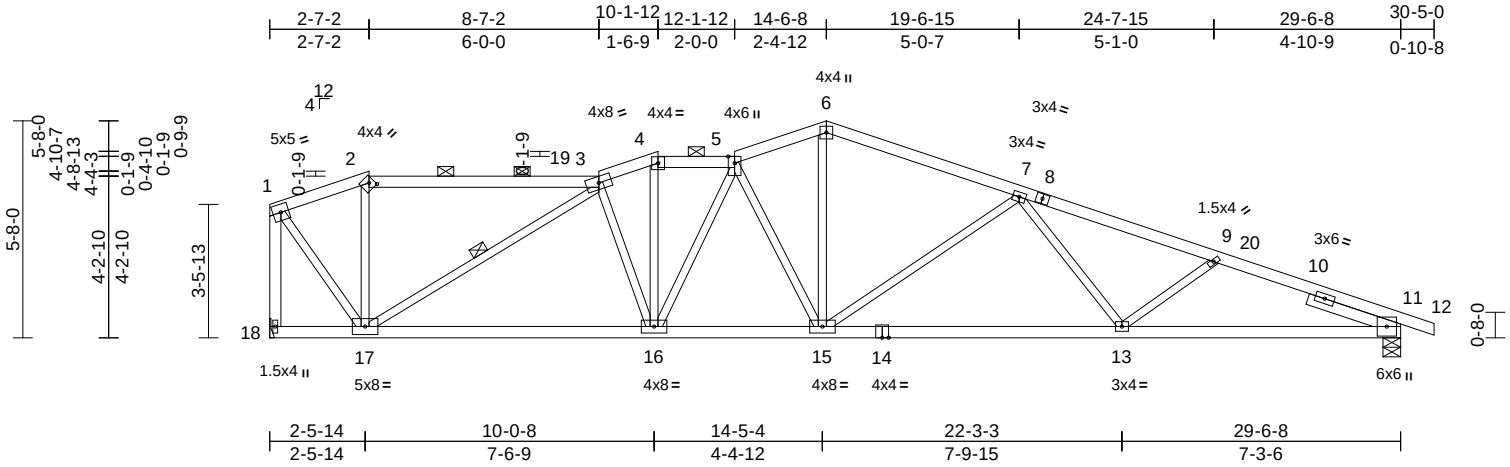

Scale = 1:60.2

Plate Offsets (X, Y): [2:0-1-8,0-2-0], [11:0-3-13,0-1-5]

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	0.90	Vert(LL)	-0.18	13-15	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.77	Vert(CT)	-0.38	13-15	>926	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.76	Horz(CT)	0.10	11	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S							Weight: 141 lb	FT = 20%

LUMBER

TOP CHORD	2x4 SP No.2
BOT CHORD	2x4 SP No.2
WEBS	2x3 SPF No.2 *Except* 18-1:2x4 SP No.2
SLIDER	Right 2x4 SP No.2 -- 2-6-6

BRACING

TOP CHORD	Structural wood sheathing directly applied or 1-11-10 oc purlins, except end verticals, and 2-0-0 oc purlins (4-1-14 max.): 2-3, 4-5.
BOT CHORD	Rigid ceiling directly applied or 6-0-0 oc bracing.
WEBS	1 Row at midpt 3-17

REACTIONS (size) 11=0-5-8, 18= Mechanical
Max Horiz 18=-123 (LC 8)
Max Uplift 11=-264 (LC 9), 18=-240 (LC 8)
Max Grav 11=1385 (LC 1), 18=1322 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD	1-2=-816/245, 2-3=-771/254, 3-4=-2094/577, 4-5=-1943/543, 5-6=-1970/567, 6-7=-1987/546, 7-9=-2729/640, 9-11=-2932/704, 11-12=-5/0, 1-18=-1331/365
BOT CHORD	17-18=-105/179, 16-17=-386/2011, 15-16=-390/2081, 13-15=-511/2395, 11-13=-587/2652
WEBS	2-17=-140/143, 1-17=-350/1300, 6-15=-221/1003, 3-16=-221/131, 4-16=-142/557, 5-16=-331/114, 5-15=-554/179, 3-17=-1482/425, 7-15=-725/245, 7-13=0/357, 9-13=-167/166

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) 2-7-4 to 5-0-10, Exterior(2R) 5-0-10 to 10-0-10, Interior (1) 10-0-10 to 12-7-4, Exterior(2E) 12-7-4 to 14-7-4, Interior (1) 14-7-4 to 17-0-0, Exterior(2R) 17-0-0 to 22-0-7, Interior (1) 22-0-7 to 32-10-8 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
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 11 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 240 lb uplift at joint 18 and 264 lb uplift at joint 11.
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.

LOAD CASE(S) Standard

September 4,2025

Job	Truss	Truss Type	Qty	Ply	
Roof - 8 Inch Heel	A9	Roof Special	1	1	I76096894 Job Reference (optional)

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

Run: 8.63 S Sep 26 2024 Print: 8.630 S Sep 26 2024 MiTek Industries, Inc. Wed Sep 03 15:44:20 Page: 1
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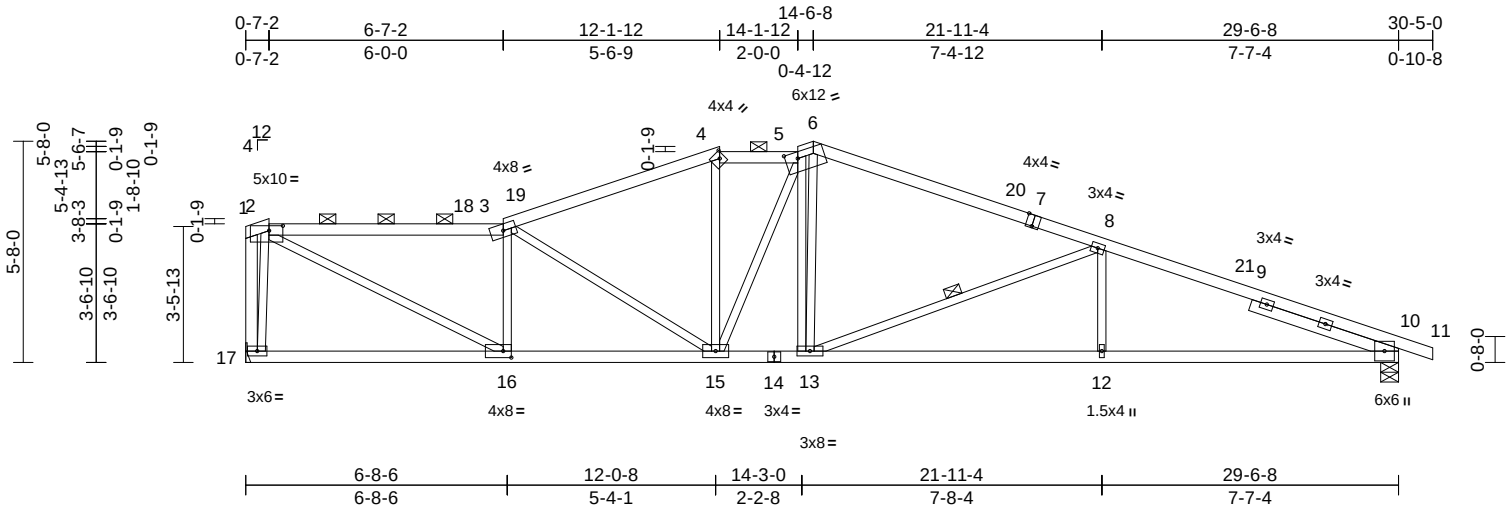

Scale = 1:59

Plate Offsets (X, Y): [1:0-4-4,0-1-8], [4:0-1-8,0-2-0], [5:0-3-13,0-2-0], [7:0-2-0,Edge], [10:0-3-13,0-1-5], [16:0-2-8,0-2-0]

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	0.85	Vert(LL)	-0.17	12-13	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.82	Vert(CT)	-0.35	12-13	>994	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.73	Horz(CT)	0.09	10	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S							Weight: 142 lb	FT = 20%

LUMBER

TOP CHORD	2x4 SP No.2 *Except* 5-6,6-7:2x4 SP 2400F 2.0E
BOT CHORD	2x4 SP No.2
WEBS	2x3 SPF No.2 *Except* 17-1:2x4 SP No.2
SLIDER	Right 2x4 SP No.2 -- 3-11-11

BRACING

TOP CHORD	Structural wood sheathing directly applied or 2-2-0 oc purlins, except end verticals, and 2-0-0 oc purlins (2-5-6 max.): 2-3, 4-5.
BOT CHORD	Rigid ceiling directly applied or 7-10-12 oc bracing.
WEBS	1 Row at midpt 8-13

REACTIONS (size) 10=0-5-8, 17= Mechanical
Max Horiz 17=-123 (LC 8)
Max Uplift 10=-285 (LC 9), 17=-240 (LC 8)
Max Grav 10=1385 (LC 1), 17=1322 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD	1-2=-98/76, 2-3=-2085/546, 3-4=-2002/535, 4-5=-1835/546, 5-6=-1738/479, 6-8=-2040/531, 8-10=-2911/665, 10-11=-5/0, 1-17=-148/120
BOT CHORD	16-17=0/246, 15-16=-399/2054, 13-15=-313/1869, 12-13=-547/2654, 10-12=-547/2654
WEBS	2-16=-530/2137, 3-16=-912/346, 3-15=-338/97, 4-15=-28/305, 5-15=-277/120, 5-13=-254/109, 6-13=-53/493, 8-13=-892/279, 8-12=0/320, 2-17=-1372/543

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) 2-7-4 to 3-0-10, Exterior(2R) 3-0-10 to 8-0-10, Interior (1) 8-0-10 to 14-7-4, Exterior(2E) 14-7-4 to 16-7-4, Interior (1) 16-7-4 to 17-0-0, Exterior(2R) 17-0-0 to 22-0-0, Interior (1) 22-0-0 to 32-10-8 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
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 10 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 240 lb uplift at joint 17 and 285 lb uplift at joint 10.
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.

LOAD CASE(S) Standard

September 4,2025

Job	Truss	Truss Type	Qty	Ply	
Roof - 8 Inch Heel	A10	Roof Special	1	1	I76096895 Job Reference (optional)

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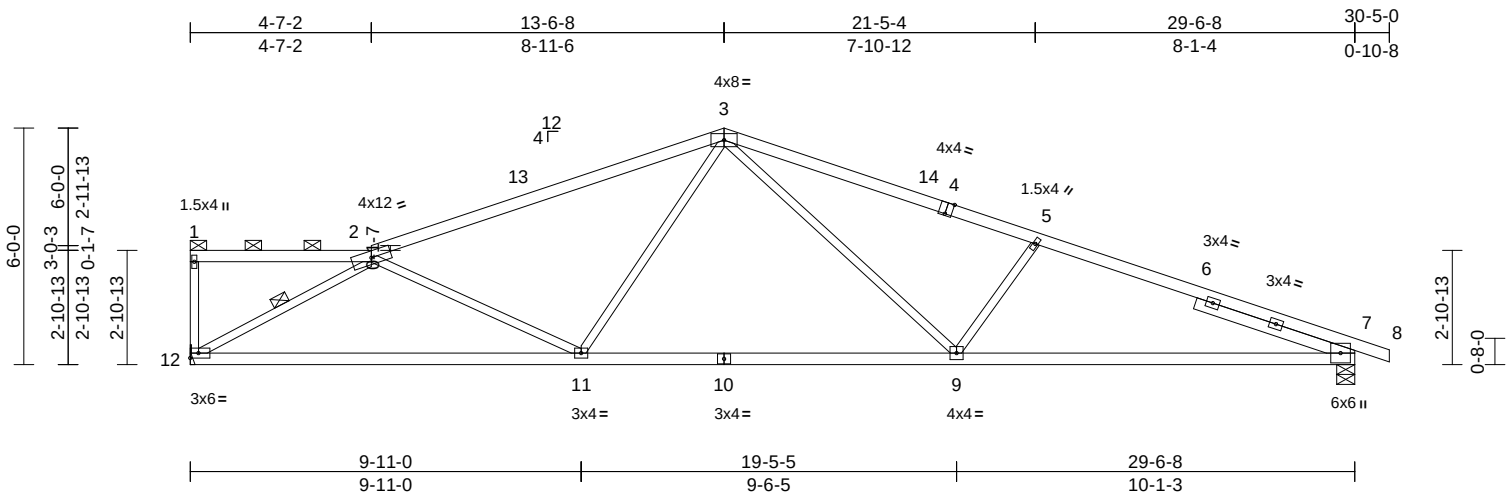


Scale = 1:58.5

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

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	0.95	Vert(LL)	-0.20	11-12	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.47	Vert(CT)	-0.42	7-9	>850	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.65	Horz(CT)	0.07	7	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S							Weight: 123 lb	FT = 20%

LUMBER
TOP CHORD 2x4 SP 2400F 2.0E *Except* 1-2:2x4 SP No.2
BOT CHORD 2x4 SP 2400F 2.0E
WEBS 2x3 SPF No.2
SLIDER Right 2x4 SP No.2 -- 4-2-14

BRACING
TOP CHORD Structural wood sheathing directly applied, except end verticals, and 2-0-0 oc purlins (6-0-0 max.): 1-2.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 1 Row at midpt 2-12

REACTIONS (size) 7=0-5-8, 12= Mechanical
Max Horiz 12=-114 (LC 17)
Max Uplift 7=-277 (LC 9), 12=-228 (LC 8)
Max Grav 7=1387 (LC 1), 12=1324 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-12=-118/72, 1-2=-81/51, 2-3=-2085/486, 3-5=-2565/643, 5-7=-2870/687, 7-8=-5/0
BOT CHORD 11-12=-441/1920, 9-11=-293/1737, 7-9=-549/2619
WEBS 2-12=-2197/632, 2-11=-182/219, 3-11=0/396, 3-9=-184/910, 5-9=-522/301

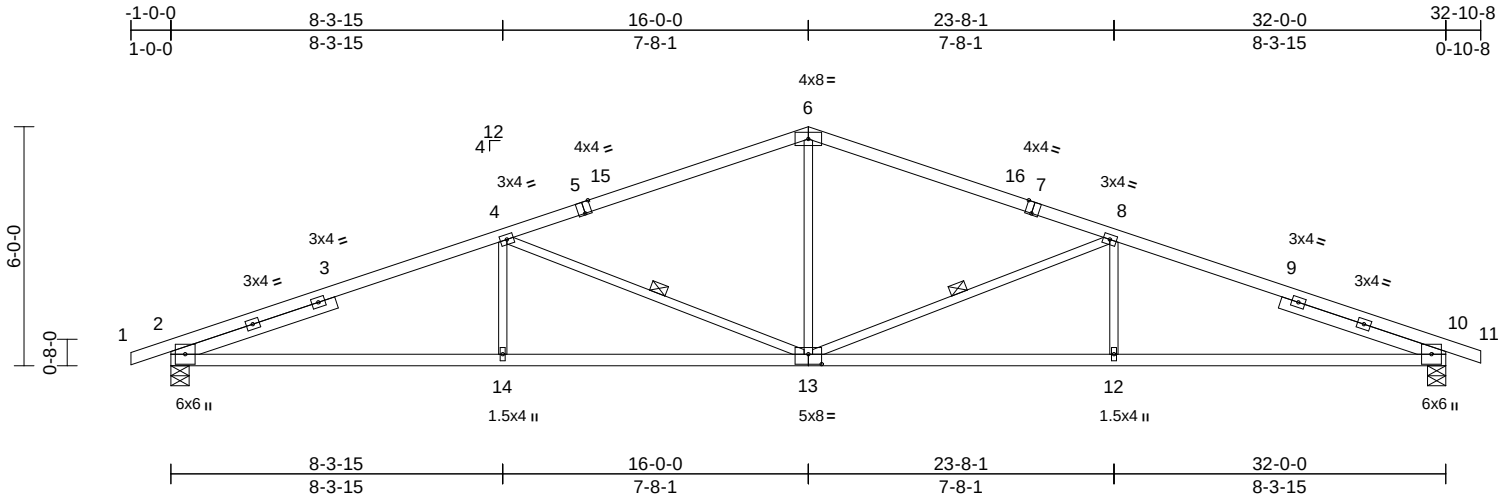
NOTES
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=35ft; Ke=1.00; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) 0-1-4 to 4-7-2, Interior (1) 4-7-2 to 13-6-8, Exterior(2R) 13-6-8 to 18-6-8, Interior (1) 18-6-8 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) 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 7 SP 2400F 2.0E crushing capacity of 805 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 228 lb uplift at joint 12 and 277 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.
9) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

LOAD CASE(S) Standard

September 4,2025

Job	Truss	Truss Type	Qty	Ply	
Roof - 8 Inch Heel	A11	Common	1	1	I76096896 Job Reference (optional)

Premier Building Supply (Springhill, KS), Spring Hills, KS - 66083, Run: 8.63 S Sep 26 2024 Print: 8.630 S Sep 26 2024 MiTek Industries, Inc. Wed Sep 03 15:44:20 Page: 1
ID:gssx3aRENmQB7mKwARHJKMzbfHA-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f



Scale = 1:57.8

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

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.55	Vert(LL)	-0.19	13-14	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.94	Vert(CT)	-0.38	13-14	>999	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.64	Horz(CT)	0.15	10	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S							Weight: 136 lb	FT = 20%

LUMBER
TOP CHORD 2x4 SP 2400F 2.0E
BOT CHORD 2x4 SP No.2
WEBS 2x3 SPF No.2
SLIDER Left 2x4 SP No.2 -- 4-4-4, Right 2x4 SP No.2 -- 4-4-4

BRACING
TOP CHORD Structural wood sheathing directly applied or 4-5-15 oc purlins.
BOT CHORD Rigid ceiling directly applied or 2-2-0 oc bracing.
WEBS 1 Row at midpt 8-13, 4-13

REACTIONS (size) 2=0-5-8, 10=0-5-8
Max Horiz 2=108 (LC 12)
Max Uplift 2=-299 (LC 8), 10=-293 (LC 9)
Max Grav 2=1510 (LC 1), 10=1501 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-2/0, 2-4=-3196/723, 4-6=-2271/585, 6-8=-2271/586, 8-10=-3198/725, 10-11=-5/0
BOT CHORD 2-14=-592/2920, 12-14=-595/2921, 10-12=-595/2921
WEBS 6-13=-118/852, 8-13=-988/308, 8-12=0/334, 4-13=-986/306, 4-14=0/334

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) -1-0-0 to 4-0-0, Interior (1) 4-0-0 to 16-0-0, Exterior(2R) 16-0-0 to 21-0-0, Interior (1) 21-0-0 to 32-10-8 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
4) All bearings are assumed to be SP No.2 crushing capacity of 565 psi.
5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 299 lb uplift at joint 2 and 293 lb uplift at joint 10.
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

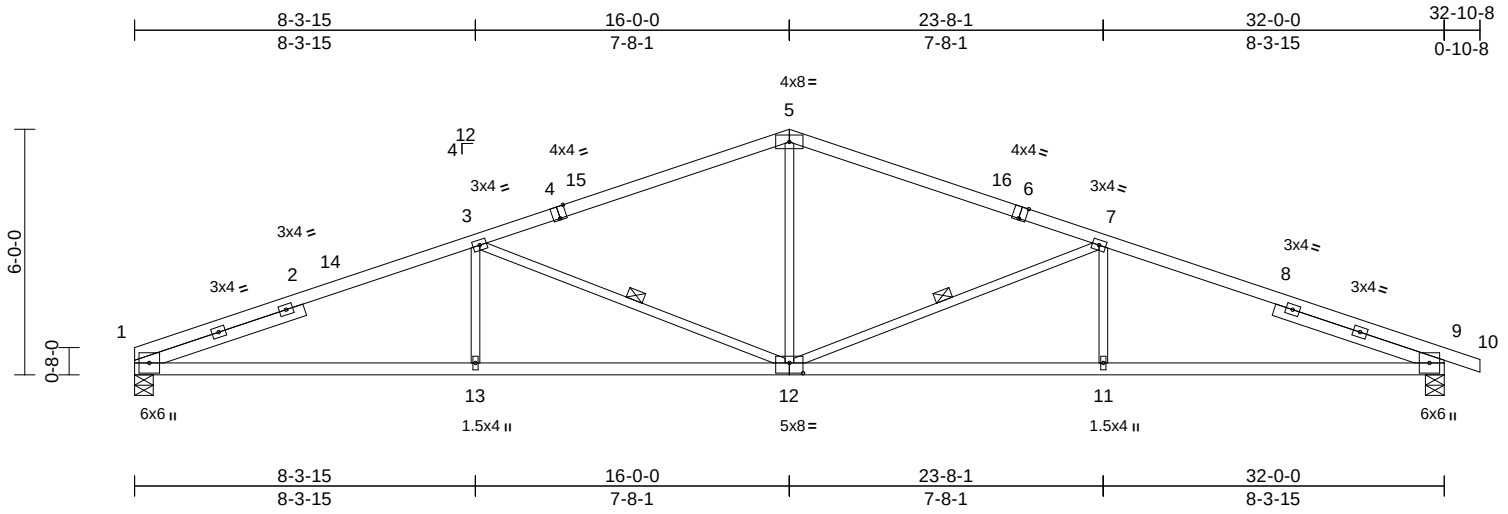
STATE OF MISSOURI
JIE LU
NUMBER
PE-029327
PROFESSIONAL ENGINEER

September 4,2025

Job	Truss	Truss Type	Qty	Ply	
Roof - 8 Inch Heel	A12	Common	1	1	I76096897 Job Reference (optional)

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

Run: 8.63 S Sep 26 2024 Print: 8.630 S Sep 26 2024 MiTek Industries, Inc. Wed Sep 03 15:44:20 ID:gssx3aRENmQB7mKwARHJKMzbfHA-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f



Scale = 1:56.3

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

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.55	Vert(LL)	-0.19	11-12	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.95	Vert(CT)	-0.38	11-12	>999	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.64	Horz(CT)	0.15	9	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S							Weight: 134 lb	FT = 20%

LUMBER

TOP CHORD	2x4 SP 2400F 2.0E
BOT CHORD	2x4 SP No.2
WEBS	2x3 SPF No.2
SLIDER	Left 2x4 SP No.2 -- 4-4-4, Right 2x4 SP No.2 -- 4-4-4

BRACING

TOP CHORD	Structural wood sheathing directly applied or 4-5-10 oc purlins.
BOT CHORD	Rigid ceiling directly applied or 2-2-0 oc bracing.
WEBS	1 Row at midpt 7-12, 3-12

REACTIONS (size) 1=0-5-8, 9=0-5-8
Max Horiz 1=109 (LC 12)
Max Uplift 1=-252 (LC 8), 9=-293 (LC 9)
Max Grav 1=1439 (LC 1), 9=1502 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD	1-3=-3206/750, 3-5=-2274/595, 5-7=-2274/587, 7-9=-3201/728, 9-10=-5/0
BOT CHORD	1-13=-613/2930, 11-13=-613/2930, 9-11=-603/2924
WEBS	5-12=-126/854, 7-12=-988/307, 7-11=0/334, 3-12=-994/309, 3-13=0/336

NOTES

1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=35ft; Ke=1.00; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) 0-0-0 to 5-0-0, Interior (1) 5-0-0 to 16-0-0, Exterior(2R) 16-0-0 to 21-0-0, Interior (1) 21-0-0 to 32-10-8 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
4) All bearings are assumed to be SP No.2 crushing capacity of 565 psi.
5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 252 lb uplift at joint 1 and 293 lb uplift at joint 9.
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

STATE OF MISSOURI
JIE LU
NUMBER
PE-029327
PROFESSIONAL ENGINEER

September 4,2025

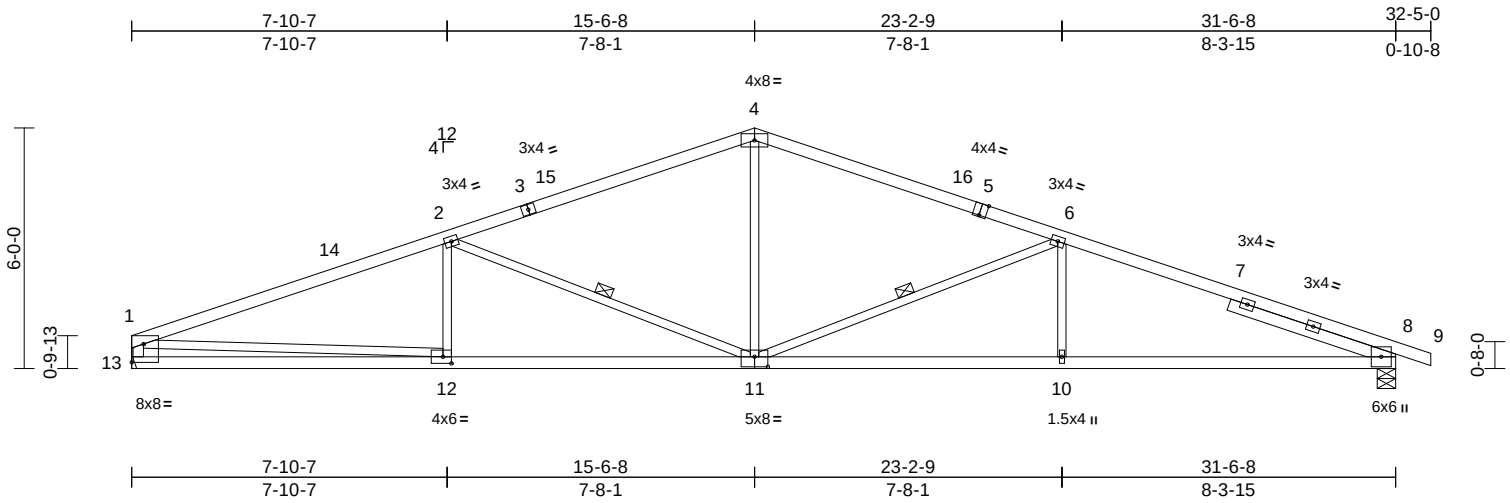
MiTek®
16023 Swingley Ridge Rd
Chesterfield, MO 63017
314.434.1200 / MiTek-US.com

Job	Truss	Truss Type	Qty	Ply	
Roof - 8 Inch Heel	A13	Common	1	1	I76096898 Job Reference (optional)

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

Run: 8.63 S Sep 26 2024 Print: 8.630 S Sep 26 2024 MiTek Industries, Inc. Wed Sep 03 15:44:20
ID:gssx3aRENmQB7mKwARHJKMzbfHA-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

Page: 1



Scale = 1:57.5

Plate Offsets (X, Y): [5:0-2-0,Edge], [8:0-3-13,0-1-5], [11:0-4-0,0-3-0], [12:0-2-8,0-2-0], [13:Edge,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	0.55	Vert(LL)	-0.19	11-12	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.93	Vert(CT)	-0.38	11-12	>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: 133 lb	FT = 20%

LUMBER

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

BRACING

TOP CHORD	Structural wood sheathing directly applied or 4-2-11 oc purlins, except end verticals.
BOT CHORD	Rigid ceiling directly applied or 2-2-0 oc bracing.
WEBS	1 Row at midpt 6-11, 2-11

REACTIONS (size) 8=0-5-8, 13= Mechanical
Max Horiz 13=-107 (LC 13)
Max Uplift 8=-290 (LC 9), 13=-245 (LC 8)
Max Grav 8=1475 (LC 1), 13=1412 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD	1-2=-2980/704, 2-4=-2197/579, 4-6=-2193/569, 6-8=-3126/712, 8-9=-5/0, 1-13=-1328/397
BOT CHORD	12-13=-193/627, 10-12=-588/2855, 8-10=-588/2855
WEBS	4-11=-119/822, 6-11=-993/308, 6-10=0/333, 2-11=-895/288, 2-12=-16/212, 1-12=-444/2129

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) 0-7-4 to 5-7-4, Interior (1) 5-7-4 to 16-0-0, Exterior(2R) 16-0-0 to 21-0-0, Interior (1) 21-0-0 to 32-10-8 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
4) Bearings are assumed to be: , Joint 8 SP No.2 crushing capacity of 565 psi.
5) Refer to girder(s) for truss to truss connections.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 245 lb uplift at joint 13 and 290 lb uplift at joint 8.
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.

LOAD CASE(S) Standard

September 4,2025

Job	Truss	Truss Type	Qty	Ply	
Roof - 8 Inch Heel	A14	Hip	1	1	I76096899 Job Reference (optional)

Premier Building Supply (Springhill, KS), Spring Hills, KS - 66083, Run: 8.63 S Sep 26 2024 Print: 8.630 S Sep 26 2024 MiTek Industries, Inc. Wed Sep 03 15:44:21 Page: 1
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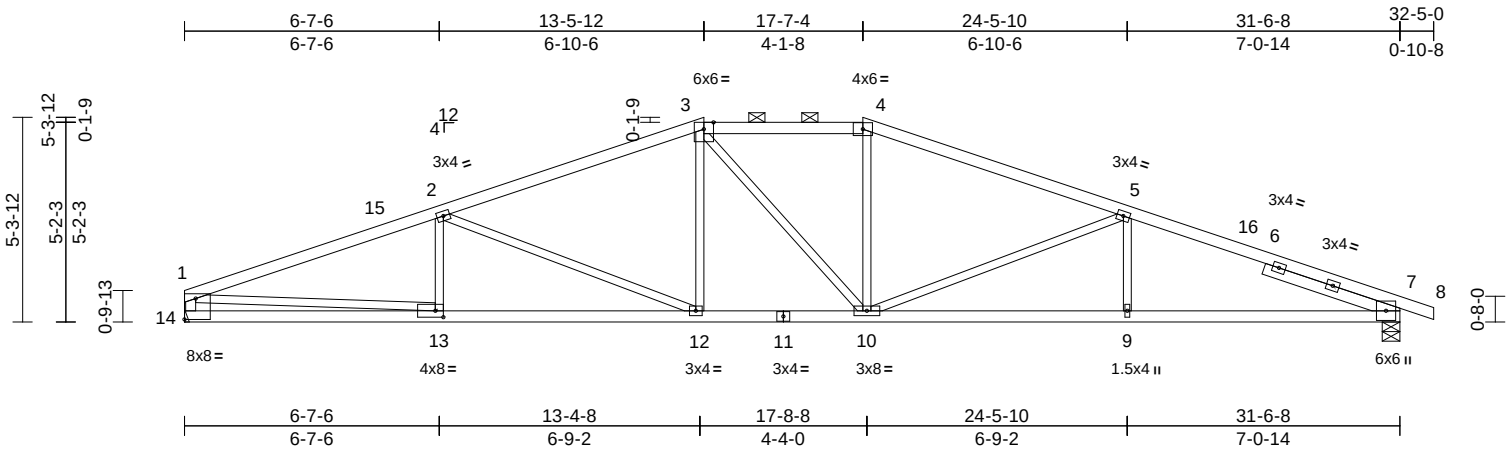


Scale = 1:59.8

Plate Offsets (X, Y): [7:0-3-13,0-1-5], [13:0-2-8,0-2-0], [14:Edge,0-6-8]

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.97	Vert(LL)	-0.20	12-13	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.83	Vert(CT)	-0.40	12-13	>948	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.99	Horz(CT)	0.12	7	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S							Weight: 137 lb	FT = 20%

LUMBER
TOP CHORD 2x4 SP No.2 *Except* 4-8:2x4 SP 2400F 2.0E
BOT CHORD 2x4 SP No.2
WEBS 2x3 SPF No.2 *Except* 14-1:2x4 SP No.2
SLIDER Right 2x4 SP No.2 -- 3-8-5

BRACING
TOP CHORD Structural wood sheathing directly applied, except end verticals, and 2-0-0 oc purlins (3-8-9 max.): 3-4.
BOT CHORD Rigid ceiling directly applied or 6-10-11 oc bracing.

REACTIONS (size) 7=0-5-8, 14= Mechanical
Max Horiz 14=-93 (LC 13)
Max Uplift 7=-305 (LC 9), 14=-260 (LC 8)
Max Grav 7=1475 (LC 1), 14=1412 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-2991/789, 2-3=-2424/705, 3-4=-2246/727, 4-5=-2443/719, 5-7=-3182/845, 7-8=-5/0, 1-14=-1335/418
BOT CHORD 13-14=-151/487, 12-13=-669/2775, 10-12=-474/2220, 9-10=-721/2908, 7-9=-721/2908
WEBS 2-13=-85/146, 2-12=-647/235, 3-12=-26/361, 3-10=-187/248, 4-10=-40/366, 5-10=-751/257, 5-9=0/292, 1-13=-573/2297

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) 0-7-4 to 5-7-4, Interior (1) 5-7-4 to 13-11-4, Exterior(2E) 13-11-4 to 18-0-12, Exterior(2R) 18-0-12 to 24-11-2, Interior (1) 24-11-2 to 32-10-8 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
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 7 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 260 lb uplift at joint 14 and 305 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.
9) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

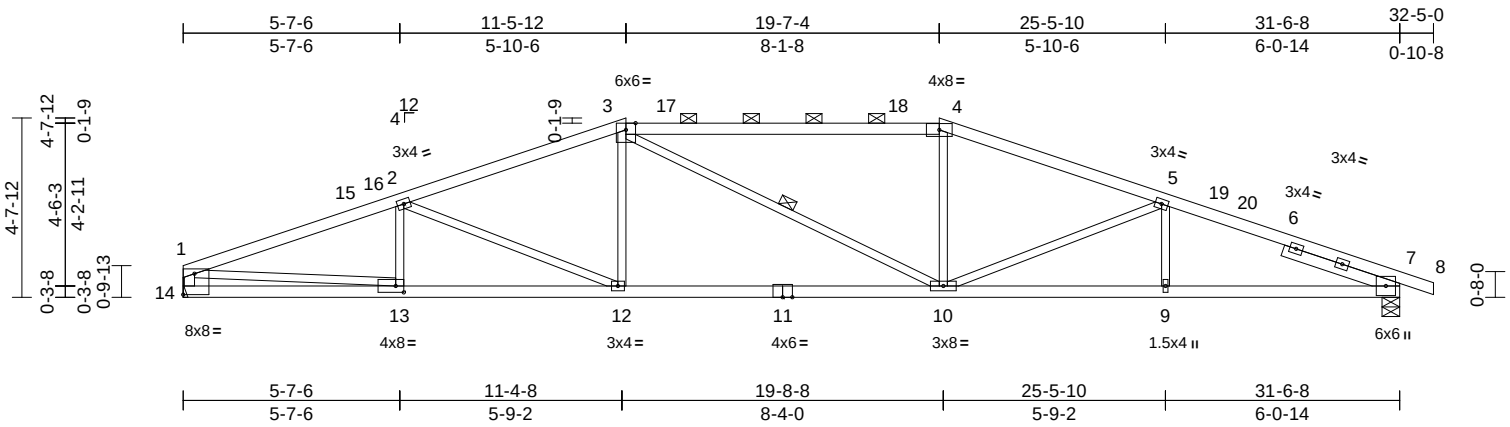
LOAD CASE(S) Standard

September 4,2025

Job	Truss	Truss Type	Qty	Ply	
Roof - 8 Inch Heel	A15	Hip	1	1	I76096900 Job Reference (optional)

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

Run: 8.63 S Sep 26 2024 Print: 8.630 S Sep 26 2024 MiTek Industries, Inc. Wed Sep 03 15:44:21 ID:cE_hUGTUvNguM4TJHsKnQnzbfH8-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f



Scale = 1:59.7

Plate Offsets (X, Y): [7:0-3-13,0-1-5], [13:0-2-8,0-2-0], [14:Edge,0-6-8]

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	0.93	Vert(LL)	-0.20	9-10	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.86	Vert(CT)	-0.46	10-12	>826	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.79	Horz(CT)	0.12	7	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S							Weight: 134 lb	FT = 20%

LUMBER

TOP CHORD	2x4 SP No.2 *Except* 3-4:2x4 SP 2400F 2.0E
BOT CHORD	2x4 SP No.2
WEBS	2x3 SPF No.2 *Except* 14-1:2x4 SP No.2
SLIDER	Right 2x4 SP No.2 -- 3-2-0

BRACING

TOP CHORD	Structural wood sheathing directly applied, except end verticals, and 2-0-0 oc purlins (2-2-0 max.): 3-4.
BOT CHORD	Rigid ceiling directly applied or 6-9-3 oc bracing.
WEBS	1 Row at midpt 3-10

REACTIONS (size) 7=0-5-8, 14= Mechanical
Max Horiz 14=-80 (LC 13)
Max Uplift 7=-317 (LC 9), 14=-273 (LC 8)
Max Grav 7=1475 (LC 1), 14=1412 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD	1-2=-2934/808, 2-3=-2644/759, 3-4=-2507/785, 4-5=-2683/781, 5-7=-3188/871, 7-8=-5/0, 1-14=-1336/419
BOT CHORD	13-14=-120/438, 12-13=-704/2726, 10-12=-568/2451, 9-10=-750/2898, 7-9=-750/2898
WEBS	2-13=-166/137, 2-12=-337/195, 3-12=0/371, 3-10=-195/296, 4-10=0/383, 5-10=-453/214, 5-9=0/208, 1-13=-611/2300

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) 0-7-4 to 5-7-4, Interior (1) 5-7-4 to 11-11-4, Exterior(2R) 11-11-4 to 19-0-2, Interior (1) 19-0-2 to 20-0-12, Exterior(2R) 20-0-12 to 27-1-10, Interior (1) 27-1-10 to 32-10-8 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
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 7 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 273 lb uplift at joint 14 and 317 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.
9) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

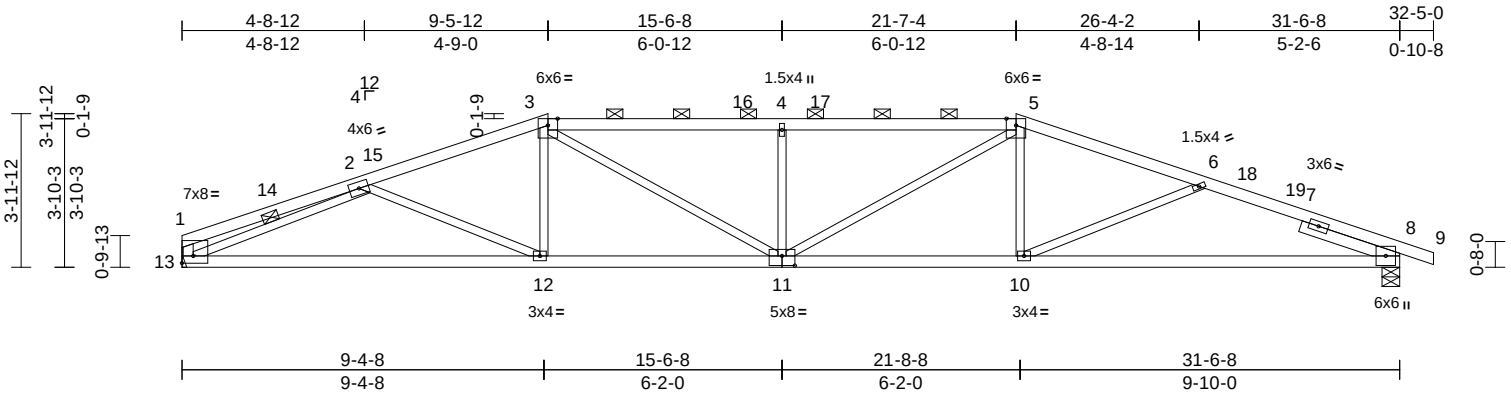
LOAD CASE(S) Standard

September 4,2025

Job	Truss	Truss Type	Qty	Ply	
Roof - 8 Inch Heel	A16	Hip	1	1	I76096901
					Job Reference (optional)

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

Run: 8.63 S Sep 26 2024 Print: 8.630 S Sep 26 2024 MiTek Industries, Inc. Wed Sep 03 15:44:21 ID:82QJHwSs83Y2lwv7j9oYtZzbfH9-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f



Scale = 1:59.7

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

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.94	Vert(LL)	-0.25	11-12	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.94	Vert(CT)	-0.46	12-13	>812	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.68	Horz(CT)	0.12	8	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S							Weight: 133 lb	FT = 20%

LUMBER

TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2 *Except* 11-8:2x4 SP 2400F 2.0E
WEBS 2x3 SPF No.2 *Except* 13-1:2x4 SP 2400F 2.0E
SLIDER Right 2x4 SP No.2 -- 2-8-3

BRACING

TOP CHORD Structural wood sheathing directly applied, except end verticals, and 2-0-0 oc purlins (2-2-0 max.): 3-5.
BOT CHORD Rigid ceiling directly applied or 2-2-0 oc bracing.
WEBS 1 Row at midpt 2-13

REACTIONS (size) 8=0-5-8, 13= Mechanical
Max Horiz 13=-67 (LC 13)
Max Uplift 8=-327 (LC 9), 13=-284 (LC 8)
Max Grav 8=1475 (LC 1), 13=1412 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-506/97, 2-3=-2803/761, 3-4=-3187/936, 4-5=-3187/936, 5-6=-2887/772, 6-8=-3131/910, 8-9=-5/0, 1-13=-308/123
BOT CHORD 12-13=-727/2616, 10-12=-599/2710, 8-10=-788/2841
WEBS 3-12=0/293, 3-11=-228/800, 4-11=-534/261, 5-11=-213/708, 5-10=0/344, 2-13=-2408/779, 2-12=-33/266, 6-10=-162/231

NOTES

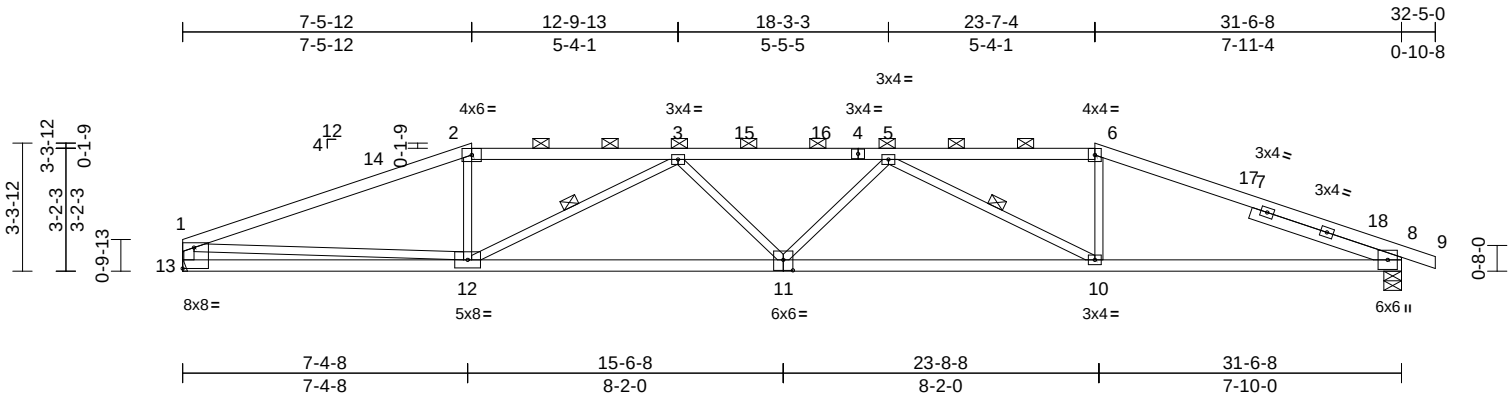
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=35ft; Ke=1.00; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) 0-7-4 to 5-7-4, Interior (1) 5-7-4 to 9-11-4, Exterior(2R) 9-11-4 to 17-0-2, Interior (1) 17-0-2 to 22-0-12, Exterior(2R) 22-0-12 to 29-1-10, Interior (1) 29-1-10 to 32-10-8 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
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 8 SP 2400F 2.0E crushing capacity of 805 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 327 lb uplift at joint 8 and 284 lb uplift at joint 13.
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.

LOAD CASE(S) Standard

September 4,2025

Job	Truss	Truss Type	Qty	Ply	
Roof - 8 Inch Heel	A17	Hip	1	1	I76096902 Job Reference (optional)

Premier Building Supply (Springhill, KS), Spring Hills, KS - 66083, Run: 8.63 S Sep 26 2024 Print: 8.630 S Sep 26 2024 MiTek Industries, Inc. Wed Sep 03 15:44:21 Page: 1
ID:V0DCKeW?zcAKrhn4WiOjadzbfH4-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f



Scale = 1:59.6

Plate Offsets (X, Y): [8:0-3-13,0-1-5], [11:0-3-0,0-3-4], [13:Edge,0-6-8]

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	0.70	Vert(LL)	-0.27	11-12	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.42	Vert(CT)	-0.52	11-12	>730	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.71	Horz(CT)	0.10	8	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S							Weight: 129 lb	FT = 20%

LUMBER
TOP CHORD 2x4 SP 2400F 2.0E *Except* 2-4,4-6:2x4 SP No.2
BOT CHORD 2x4 SP 2400F 2.0E
WEBS 2x3 SPF No.2 *Except* 13-1:2x4 SP No.2
SLIDER Right 2x4 SP No.2 -- 4-1-2

BRACING
TOP CHORD Structural wood sheathing directly applied or 3-8-4 oc purlins, except end verticals, and 2-0-0 oc purlins (2-7-4 max.): 2-6.
BOT CHORD Rigid ceiling directly applied or 8-8-13 oc bracing.
WEBS 1 Row at midpt 3-12, 5-10

REACTIONS (size) 8=0-5-8, 13= Mechanical
Max Horiz 13=-55 (LC 17)
Max Uplift 8=-335 (LC 9), 13=-293 (LC 8)
Max Grav 8=1475 (LC 1), 13=1412 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-2978/772, 2-3=-2735/774, 3-5=-3828/989, 5-6=-2867/783, 6-8=-3161/791, 8-9=-5/0, 1-13=-1331/427
BOT CHORD 12-13=-236/700, 10-12=-911/3781, 8-10=-646/2888
WEBS 2-12=-24/570, 6-10=-47/704, 1-12=-413/2057, 3-11=0/256, 3-12=-1236/325, 5-11=0/195, 5-10=-1178/312

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) 0-7-4 to 5-7-4, Interior (1) 5-7-4 to 7-11-4, Exterior(2R) 7-11-4 to 15-0-2, Interior (1) 15-0-2 to 24-0-12, Exterior(2R) 24-0-12 to 31-1-10, Interior (1) 31-1-10 to 32-10-8 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
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 8 SP 2400F 2.0E crushing capacity of 805 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 293 lb uplift at joint 13 and 335 lb uplift at joint 8.
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.

LOAD CASE(S) Standard

September 4,2025

Job	Truss	Truss Type	Qty	Ply	
Roof - 8 Inch Heel	A18	Hip Girder	1	2	I76096903 Job Reference (optional)

Premier Building Supply (Springhill, KS), Spring Hills, KS - 66083, Run: 8.63 S Sep 26 2024 Print: 8.630 S Sep 26 2024 MiTek Industries, Inc. Wed Sep 03 15:44:21 Page: 1
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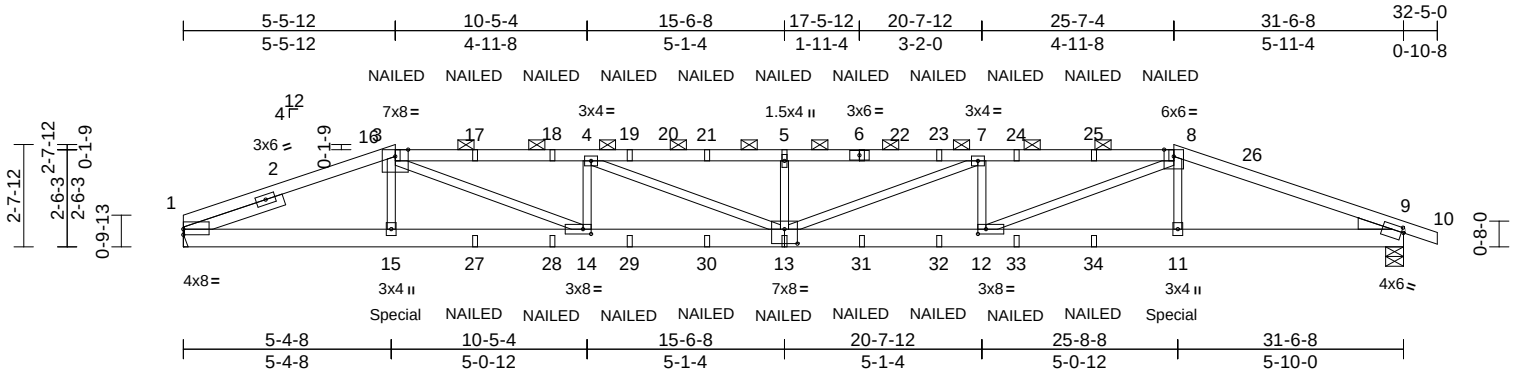

Scale = 1:59.6

Plate Offsets (X, Y): [1:Edge,0-1-12], [9:0-0-11,0-1-8], [12:0-2-8,0-1-8], [13:0-4-0,0-4-8], [14:0-2-8,0-1-8]

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.97	Vert(LL)	-0.38	13	>988	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.49	Vert(CT)	-0.68	13	>550	180		
BCLL	0.0	Rep Stress Incr	NO	WB	0.68	Horz(CT)	0.08	9	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S							Weight: 306 lb	FT = 20%

LUMBER

TOP CHORD	2x4 SP 2400F 2.0E *Except* 8-10:2x4 SP No.2
BOT CHORD	2x6 SP 2400F 2.0E
WEBS	2x3 SPF No.2
WEDGE	Right: 2x4 SP No.3
SLIDER	Left 2x4 SP No.2 -- 2-8-8

BRACING

TOP CHORD	Structural wood sheathing directly applied or 3-6-8 oc purlins, except 2-0-0 oc purlins (5-0-12 max.): 3-8.
BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (size) 1= Mechanical, 9=0-5-8
Max Horiz 1=-42 (LC 17)
Max Uplift 1=-746 (LC 8), 9=-792 (LC 9)
Max Grav 1=2733 (LC 1), 9=2793 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD	1-3=-6505/1929, 3-4=-9530/2823, 4-5=-10500/3057, 5-7=-10500/3057, 7-8=-9573/2797, 8-9=-6910/1997, 9-10=0/1
BOT CHORD	1-15=-1718/6010, 14-15=-1718/5992, 12-14=-2701/9568, 11-12=-1784/6349, 9-11=-1787/6377
WEBS	3-15=0/446, 8-11=-48/587, 3-14=-1091/3941, 8-12=-1002/3605, 4-14=-1338/551, 4-13=-302/1102, 5-13=-657/351, 7-13=-293/1055, 7-12=-1255/528

NOTES

1) 2-ply truss to be connected together with 10d (0.131"x3") nails as follows:
Top chords connected as follows: 2x4 - 1 row at 0-9-0 oc.
Bottom chords connected as follows: 2x6 - 2 rows staggered at 0-9-0 oc.
Web connected as follows: 2x3 - 1 row at 0-9-0 oc.
2) All loads are considered equally applied to all plies, except if noted as front (F) or back (B) face in the LOAD CASE(S) section. Ply to ply connections have been provided to distribute only loads noted as (F) or (B), unless otherwise indicated.
3) Unbalanced roof live loads have been considered for this design.
4) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=35ft; Ke=1.00; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) 0-5-8 to 5-5-8, Interior (1) 5-5-8 to 5-11-4, Exterior(2R) 5-11-4 to 13-0-2, Interior (1) 13-0-2 to 26-0-12, Exterior(2E) 26-0-12 to 32-10-8 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
5) Provide adequate drainage to prevent water ponding.
6) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
7) Bearings are assumed to be: , Joint 9 SP 2400F 2.0E crushing capacity of 805 psi.
8) Refer to girder(s) for truss to truss connections.
9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 746 lb uplift at joint 1 and 792 lb uplift at joint 9.
10) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
11) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
12) "NAILED" indicates Girder: 3-16d (0.162" x 3.5") toe-nails per NDS guidelines.
13) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 420 lb down and 109 lb up at 5-11-4, and 420 lb down and 109 lb up at 26-0-0 on bottom chord. The design/ selection of such connection device(s) is the responsibility of others.

LOAD CASE(S) Standard

1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (lb/ft)
Vert: 1-3=-70, 3-8=-70, 8-10=-70, 1-9=-20
Concentrated Loads (lb)
Vert: 3=-131 (F), 6=-131 (F), 15=-420 (F), 11=-420 (F), 8=-131 (F), 13=-39 (F), 5=-131 (F), 17=-131 (F), 18=-131 (F), 19=-131 (F), 21=-131 (F), 23=-131 (F), 24=-131 (F), 25=-131 (F), 27=-39 (F), 28=-39 (F), 29=-39 (F), 30=-39 (F), 31=-39 (F), 32=-39 (F), 33=-39 (F), 34=-39 (F)

September 4,2025

Job	Truss	Truss Type	Qty	Ply	
Roof - 8 Inch Heel	B1	Hip Girder	1	1	I76096904 Job Reference (optional)

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

Run: 8.63 S Sep 26 2024 Print: 8.630 S Sep 26 2024 MiTek Industries, Inc. Wed Sep 03 15:44:22 Page: 1
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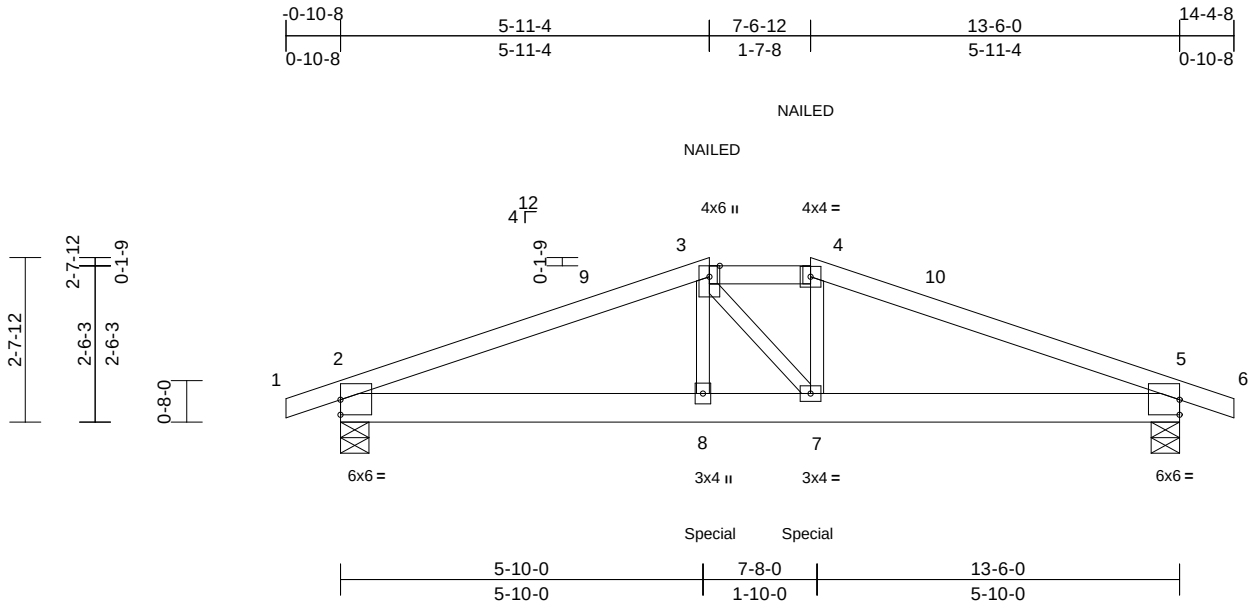

Scale = 1:37.1

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

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	0.98	Vert(LL)	-0.07	7-8	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.81	Vert(CT)	-0.12	7-8	>999	180		
BCLL	0.0	Rep Stress Incr	NO	WB	0.20	Horz(CT)	0.03	5	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S							Weight: 53 lb	FT = 20%

LUMBER
TOP CHORD 2x4 SP No.2
BOT CHORD 2x6 SPF No.2
WEBS 2x3 SPF No.2

BRACING
TOP CHORD Structural wood sheathing directly applied or 2-7-4 oc purlins, except 2-0-0 oc purlins (3-9-1 max.): 3-4.
BOT CHORD Rigid ceiling directly applied or 8-3-2 oc bracing.

REACTIONS (size) 2=0-5-8, 5=0-5-8
Max Horiz 2=-42 (LC 13)
Max Uplift 2=-352 (LC 8), 5=-352 (LC 9)
Max Grav 2=1216 (LC 1), 5=1216 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/1, 2-3=-2527/918, 3-4=-2267/920, 4-5=-2534/923, 5-6=0/1
BOT CHORD 2-8=-752/2285, 7-8=-748/2261, 5-7=-764/2292
WEBS 3-8=-87/521, 3-7=-122/143, 4-7=-102/579

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) -0-10-8 to 4-1-8, Interior (1) 4-1-8 to 5-11-4, Exterior(2E) 5-11-4 to 14-4-8 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) 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) All bearings are assumed to be SPF No.2 crushing capacity of 425 psi.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 352 lb uplift at joint 2 and 352 lb uplift at joint 5.
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.
8) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
9) "NAILED" indicates Girder: 3-16d (0.162" x 3.5") toe-nails per NDS guidelines.
10) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 420 lb down and 109 lb up at 5-11-4, and 420 lb down and 109 lb up at 7-6-0 on bottom chord. The design/ selection of such connection device(s) is the responsibility of others.
11) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

LOAD CASE(S) Standard
1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (lb/ft)
Vert: 1-3=-70, 3-4=-70, 4-6=-70, 2-5=-20
Concentrated Loads (lb)
Vert: 3=-131 (F), 4=-131 (F), 8=-420 (F), 7=-420 (F)

September 4,2025

Job	Truss	Truss Type	Qty	Ply	
Roof - 8 Inch Heel	B2	Common	1	1	I76096905 Job Reference (optional)

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

Run: 8.63 S Sep 26 2024 Print: 8.630 S Sep 26 2024 MiTek Industries, Inc. Wed Sep 03 15:44:22 Page: 1
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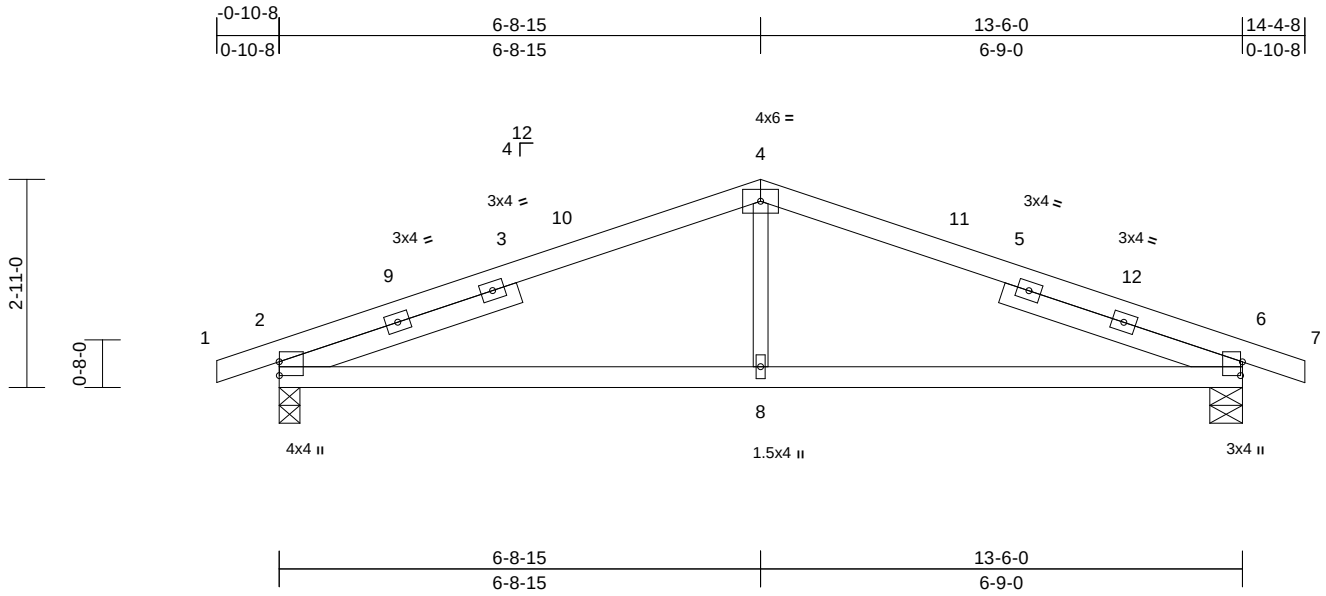

Scale = 1:32.3

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

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.70	Vert(LL)	-0.05	6-8	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.50	Vert(CT)	-0.10	6-8	>999	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.10	Horz(CT)	0.02	6	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S							Weight: 57 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 -- 3-6-5, Right 2x4 SP No.2 -- 3-6-5

BRACING
TOP CHORD Structural wood sheathing directly applied or 4-8-11 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (size) 2=0-3-8, 6=0-5-8
Max Horiz 2=-48 (LC 13)
Max Uplift 2=-147 (LC 8), 6=-147 (LC 9)
Max Grav 2=669 (LC 1), 6=669 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-5/0, 2-4=-998/439, 4-6=-997/439, 6-7=-5/0
BOT CHORD 2-8=-303/863, 6-8=-303/863
WEBS 4-8=0/307

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) -0-10-7 to 4-1-9, Interior (1) 4-1-9 to 6-9-0, Exterior(2R) 6-9-0 to 11-9-0, Interior (1) 11-9-0 to 14-4-9 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 No.2 crushing capacity of 565 psi.
5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 147 lb uplift at joint 2 and 147 lb uplift at joint 6.
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

September 4,2025

Job	Truss	Truss Type	Qty	Ply	
Roof - 8 Inch Heel	B3	Common Girder	1	2	I76096906 Job Reference (optional)

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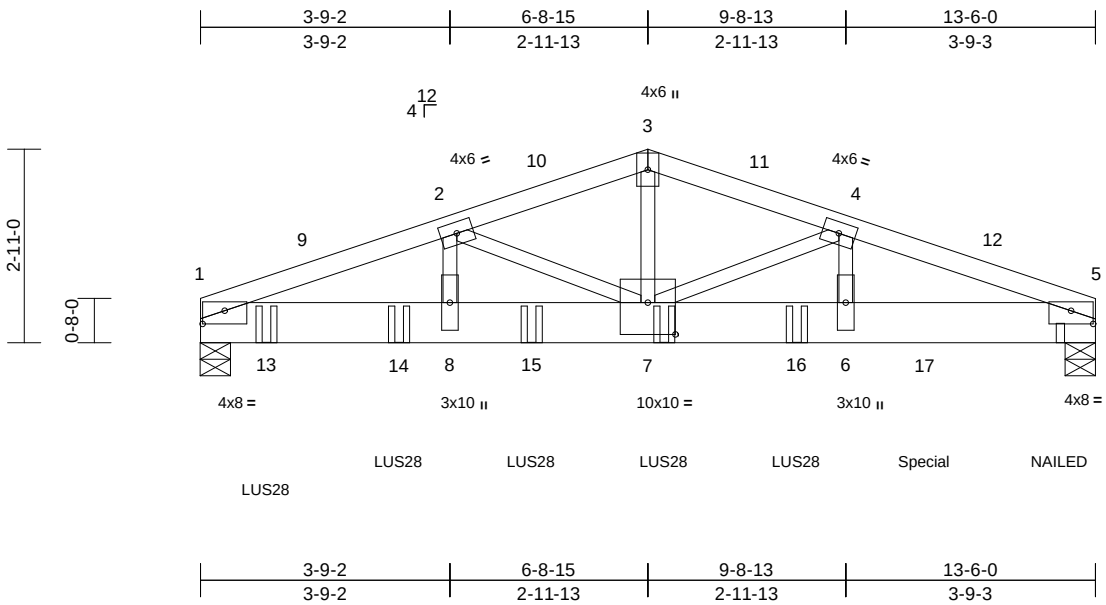

Scale = 1:34.8

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

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	0.68	Vert(LL)	-0.11	6-7	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.57	Vert(CT)	-0.19	6-7	>825	180		
BCLL	0.0	Rep Stress Incr	NO	WB	0.82	Horz(CT)	0.03	5	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S							Weight: 142 lb	FT = 20%

LUMBER
TOP CHORD 2x4 SP No.2
BOT CHORD 2x8 SP 2400F 2.0E
WEBS 2x3 SPF No.2

BRACING
TOP CHORD Structural wood sheathing directly applied or 3-2-12 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (size) 1=0-5-8, 5=0-5-8
Max Horiz 1=-46 (LC 17)
Max Uplift 1=-1122 (LC 8), 5=-1278 (LC 9)
Max Grav 1=5519 (LC 1), 5=5463 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-9626/2352, 2-3=-8069/2064, 3-4=-8067/2064, 4-5=-10353/2704
BOT CHORD 1-8=-2116/8849, 7-8=-2116/8849, 6-7=-2443/9521, 5-6=-2443/9521
WEBS 2-8=-250/1594, 2-7=-1394/336, 3-7=-1150/4795, 4-7=-2143/698, 4-6=-544/2205

NOTES
1) 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: 2x8 - 2 rows staggered at 0-4-0 oc.
Web connected as follows: 2x3 - 1 row at 0-9-0 oc.
2) All loads are considered equally applied to all plies, except if noted as front (F) or back (B) face in the LOAD CASE(S) section. Ply to ply connections have been provided to distribute only loads noted as (F) or (B), unless otherwise indicated.
3) Unbalanced roof live loads have been considered for this design.
4) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=35ft; Ke=1.00; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) 0-2-13 to 5-2-13, Interior (1) 5-2-13 to 6-9-0, Exterior(2R) 6-9-0 to 11-9-0, Interior (1) 11-9-0 to 13-3-5 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
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 2400F 2.0E crushing capacity of 805 psi.
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 1122 lb uplift at joint 1 and 1278 lb uplift at joint 5.
8) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
9) Use Simpson Strong-Tie LUS28 (6-SD9112 Girder, 4-SD9212 Truss, Single Ply Girder) or equivalent spaced at 2-0-0 oc max. starting at 1-0-0 from the left end to 9-0-0 to connect truss(es) to back face of bottom chord.
10) Fill all nail holes where hanger is in contact with lumber.
11) "NAILED" indicates Girder: 3-10d (0.148" x 3") toe-nails per NDS guidelines.
12) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 2713 lb down and 758 lb up at 10-11-3, and 133 lb down and 25 lb up at 13-3-5 on bottom chord. The design/ selection of such connection device(s) is the responsibility of others.

LOAD CASE(S) Standard
1) 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: 5=-133 (B), 7=-1392 (B), 13=-1394 (B), 14=-1392 (B), 15=-1392 (B), 16=-1392 (B), 17=-2713 (B)

STATE OF MISSOURI
JIE LU
NUMBER PE-029327
PROFESSIONAL ENGINEER

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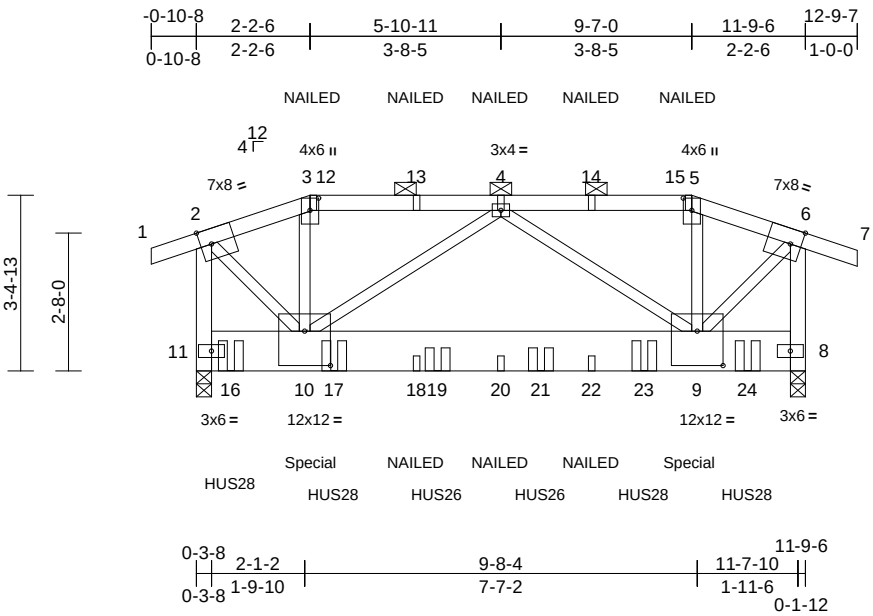
Job	Truss	Truss Type	Qty	Ply	
Roof - 8 Inch Heel	C1	Hip Girder	1	**2**	I76096907 Job Reference (optional)

Premier Building Supply (Springhill, KS), Spring Hills, KS - 66083, Run: 8.63 S Sep 26 2024 Print: 8.630 S Sep 26 2024 MiTek Industries, Inc. Wed Sep 03 15:44:22 Page: 1
ID:nnCjqAChMd9osWzwIFeY1PymG1K-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f



Scale = 1:44.6

Plate Offsets (X, Y): [2:0-2-8,Edge], [3:0-2-13,0-2-0], [5:0-2-13,0-2-0], [6:0-2-8,Edge], [9:0-6-0,0-8-0], [10:0-6-0,0-8-0]

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	0.20	Vert(LL)	-0.07	9-10	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.81	Vert(CT)	-0.13	9-10	>999	180		
BCLL	0.0	Rep Stress Incr	NO	WB	0.82	Horz(CT)	0.01	8	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S							Weight: 155 lb	FT = 20%

LUMBER
TOP CHORD 2x4 SP No.2
BOT CHORD 2x10 HF No.2
WEBS 2x3 SPF No.2 *Except* 11-2,8-6:2x4 SP No.2

BRACING
TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals, and 2-0-0 oc purlins (6-0-0 max.): 3-5.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (size) 8=0-3-8, 11=0-3-8
Max Horiz 11=-76 (LC 10)
Max Uplift 8=-1117 (LC 9), 11=-1212 (LC 8)
Max Grav 8=4427 (LC 1), 11=4729 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/23, 2-3=-3452/978, 3-4=-3203/937, 4-5=-3217/928, 5-6=-3468/968, 6-7=0/25, 2-11=-4814/1404, 6-8=-4849/1393
BOT CHORD 10-11=-108/139, 9-10=-1062/3413, 8-9=-45/68
WEBS 3-10=-177/968, 5-9=-197/984, 2-10=-1261/4753, 6-9=-1234/4776, 4-10=-267/233, 4-9=-252/250

NOTES
1) 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: 2x10 - 2 rows staggered at 0-4-0 oc.
Web connected as follows: 2x3 - 1 row at 0-9-0 oc.
2) All loads are considered equally applied to all plies, except if noted as front (F) or back (B) face in the LOAD CASE(S) section. Ply to ply connections have been provided to distribute only loads noted as (F) or (B), unless otherwise indicated.
3) Unbalanced roof live loads have been considered for this design.
4) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=35ft; Ke=1.00; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) -0-10-8 to 2-2-6, Exterior(2R) 2-2-6 to 9-3-4, Interior (1) 9-3-4 to 9-7-0, Exterior(2E) 9-7-0 to 12-9-7 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
5) Provide adequate drainage to prevent water ponding.
6) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
7) All bearings are assumed to be SP No.2 crushing capacity of 565 psi.
8) Bearing at joint(s) 11, 8 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 1212 lb uplift at joint 11 and 1117 lb uplift at joint 8.
10) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
11) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
12) Use Simpson Strong-Tie HUS28 (22-10d Girder, 4-10d Truss, Single Ply Girder) or equivalent spaced at 6-0-0 oc max. starting at 0-8-0 from the left end to 10-8-0 to connect truss(es) to back face of bottom chord.
13) Use Simpson Strong-Tie HUS26 (14-16d Girder, 4-16d Truss) or equivalent spaced at 2-0-0 oc max. starting at 4-8-0 from the left end to 6-8-0 to connect truss(es) to back face of bottom chord.
14) Fill all nail holes where hanger is in contact with lumber.
15) "NAILED" indicates Girder: 3-10d (0.148" x 3") toe-nails per NDS guidelines.
16) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 74 lb down and 172 lb up at 2-2-6, and 74 lb down and 134 lb up at 9-6-4 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.

LOAD CASE(S) Standard
1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (lb/ft)
Vert: 1-2=-70, 2-3=-70, 3-5=-70, 5-6=-70, 6-7=-70, 8-11=-20
Concentrated Loads (lb)
Vert: 10=-74 (F), 9=-74 (F), 16=-1309 (B), 17=-1304 (B), 19=-1302 (B), 21=-1302 (B), 23=-1302 (B), 24=-1304 (B)

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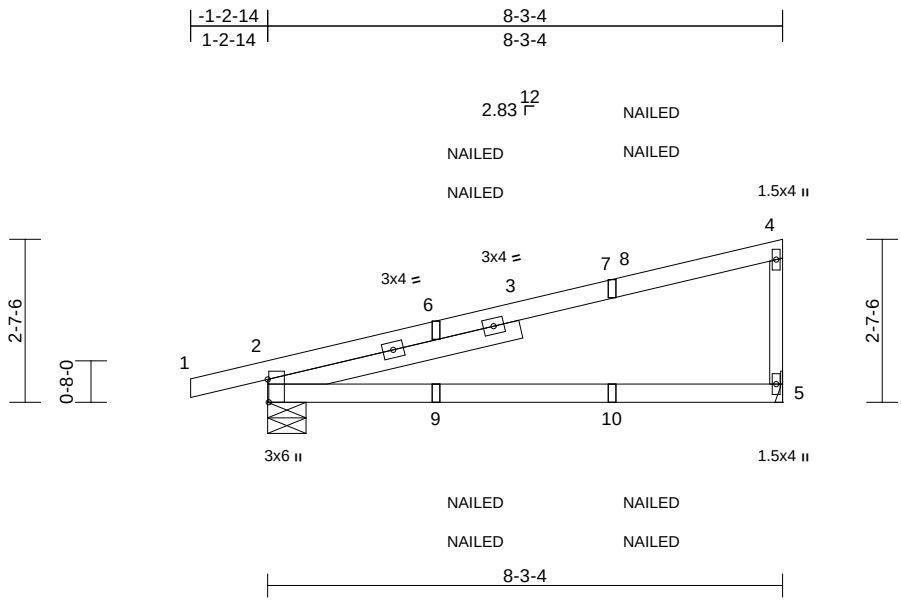
Job	Truss	Truss Type	Qty	Ply	
Roof - 8 Inch Heel	CG1	Diagonal Hip Girder	6	1	I76096908 Job Reference (optional)

Premier Building Supply (Springhill, KS), Spring Hills, KS - 66083, Run: 8.63 S Sep 26 2024 Print: 8.630 S Sep 26 2024 MiTek Industries, Inc. Wed Sep 03 15:44:22 Page: 1
ID:82QJHwSs83Y2lwv7j9oYtZzbfH9-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f



Scale = 1:37

Plate Offsets (X, Y): [2:0-4-6,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	0.94	Vert(LL)	-0.22	2-5	>454	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.53	Vert(CT)	-0.43	2-5	>227	180		
BCLL	0.0	Rep Stress Incr	NO	WB	0.00	Horz(CT)	0.00	5	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-P							Weight: 35 lb	FT = 20%

LUMBER
TOP CHORD 2x4 SP 2400F 2.0E
BOT CHORD 2x4 SP 2400F 2.0E
WEBS 2x3 SPF No.2
SLIDER Left 2x4 SP No.2 -- 4-1-15

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

REACTIONS (size) 2=0-7-6, 5= Mechanical
Max Horiz 2=103 (LC 9)
Max Uplift 2=-149 (LC 8), 5=-115 (LC 12)
Max Grav 2=484 (LC 1), 5=410 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-6/0, 2-4=-140/82, 4-5=-315/306
BOT CHORD 2-5=-47/51

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 (3) -1-2-14 to 5-10-0, Exterior(2R) 5-10-0 to 8-2-0 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
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 2400F 2.0E crushing capacity of 805 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 115 lb uplift at joint 5 and 149 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.
7) "NAILED" indicates Girder: 3-10d (0.148" x 3") toe-nails per NDS guidelines.
8) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

LOAD CASE(S) Standard
1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (lb/ft)
Vert: 1-4=-70, 2-5=-20
Concentrated Loads (lb)
Vert: 7=-53 (F=-26, B=-26), 10=-19 (F=-10, B=-10)

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Job	Truss	Truss Type	Qty	Ply	
Roof - 8 Inch Heel	CG2	Diagonal Hip Girder	2	1	I76096909 Job Reference (optional)

Premier Building Supply (Springhill, KS), Spring Hills, KS - 66083, Run: 8.63 S Sep 26 2024 Print: 8.630 S Sep 26 2024 MiTek Industries, Inc. Wed Sep 03 15:44:22 Page: 1
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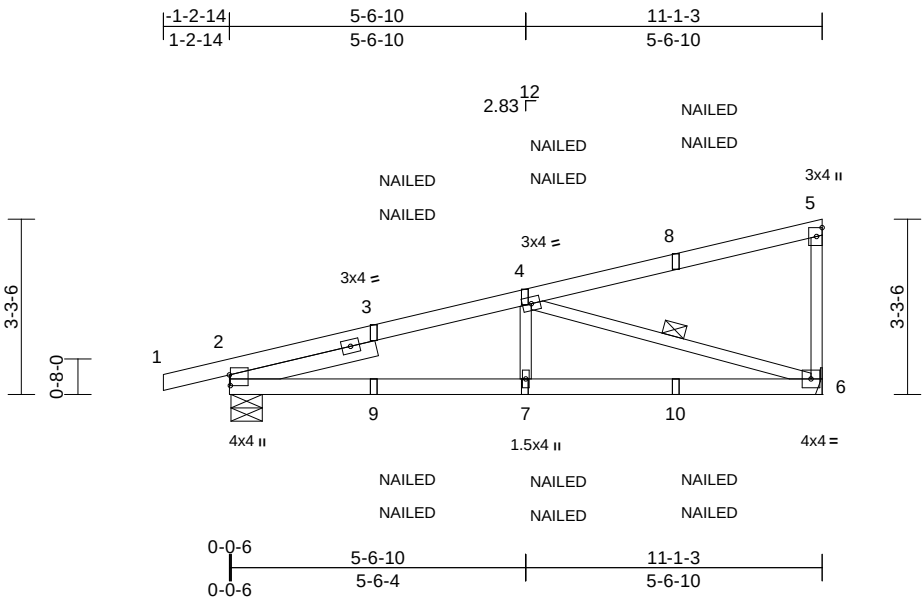

Scale = 1:43.1

Plate Offsets (X, Y): [2:0-2-6,0-0-3]

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.54	Vert(LL)	-0.06	6-7	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.76	Vert(CT)	-0.14	6-7	>972	180		
BCLL	0.0	Rep Stress Incr	NO	WB	0.43	Horz(CT)	0.02	6	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S							Weight: 47 lb	FT = 20%

LUMBER
TOP CHORD 2x4 SP 2400F 2.0E
BOT CHORD 2x4 SP No.2
WEBS 2x3 SPF No.2
SLIDER Left 2x4 SP No.2 -- 2-9-12

BRACING
TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 7-5-14 oc bracing.
WEBS 1 Row at midpt 4-6

REACTIONS (size) 2=0-7-0, 6= Mechanical
Max Horiz 2=134 (LC 9)
Max Uplift 2=-205 (LC 8), 6=-209 (LC 12)
Max Grav 2=684 (LC 1), 6=722 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-6/0, 2-4=-1362/503, 4-5=-128/72, 5-6=-260/176
BOT CHORD 2-7=-593/1265, 6-7=-593/1265
WEBS 4-7=0/355, 4-6=-1281/570

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 (3) -1-2-14 to 5-6-10, Exterior(2R) 5-6-10 to 10-11-15 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
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 209 lb uplift at joint 6 and 205 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.
7) "NAILED" indicates Girder: 3-10d (0.148" x 3") toe-nails per NDS guidelines.
8) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

LOAD CASE(S) Standard
1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (lb/ft)
Vert: 1-5=-70, 2-6=-20
Concentrated Loads (lb)
Vert: 4=-53 (F=-26, B=-26), 7=-19 (F=-10, B=-10), 8=-198 (F=-99, B=-99), 10=-59 (F=-30, B=-30)

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Job	Truss	Truss Type	Qty	Ply	
Roof - 8 Inch Heel	CG3	Diagonal Hip Girder	2	1	I76096910 Job Reference (optional)

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

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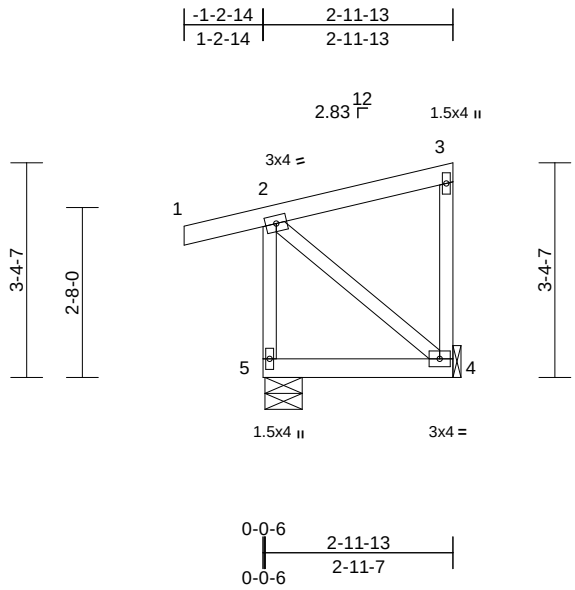

Scale = 1:36.2

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.20	Vert(LL)	0.00	4-5	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.10	Vert(CT)	-0.01	4-5	>999	180		
BCLL	0.0	Rep Stress Incr	NO	WB	0.06	Horz(CT)	0.00	4	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

BRACING
TOP CHORD Structural wood sheathing directly applied or 2-11-13 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (size) 4= Mechanical, 5=0-7-0
Max Horiz 5=135 (LC 9)
Max Uplift 4=-79 (LC 9), 5=-118 (LC 8)
Max Grav 4=102 (LC 1), 5=241 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 2-5=-221/322, 1-2=0/22, 2-3=-73/66, 3-4=-86/101
BOT CHORD 4-5=-226/160
WEBS 2-4=-146/241

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 (3) 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 5 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 118 lb uplift at joint 5 and 79 lb uplift at joint 4.
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

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Job	Truss	Truss Type	Qty	Ply	
Roof - 8 Inch Heel	CG4	Diagonal Hip Girder	2	1	I76096911 Job Reference (optional)

Premier Building Supply (Springhill, KS), Spring Hills, KS - 66083, Run: 8.63 S Sep 26 2024 Print: 8.630 S Sep 26 2024 MiTek Industries, Inc. Wed Sep 03 15:44:23 Page: 1
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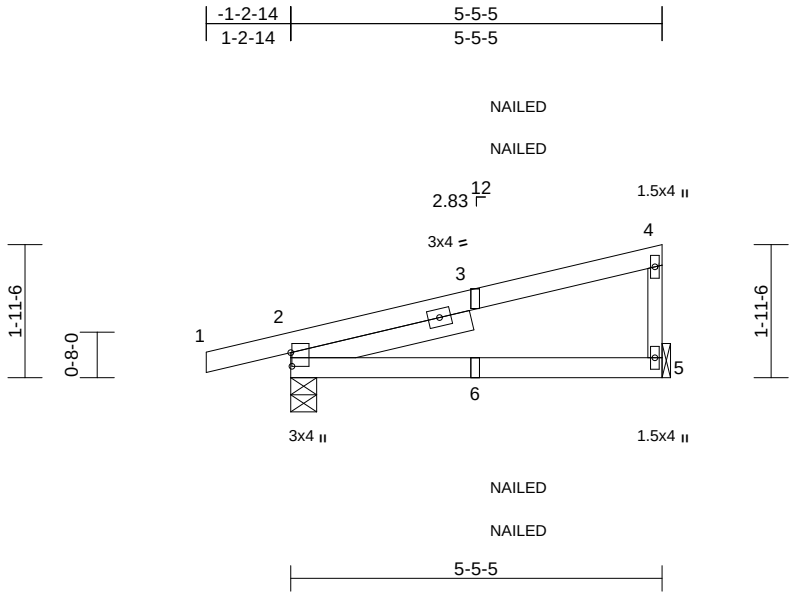

Scale = 1:33.8

Plate Offsets (X, Y): [2:0-2-6,0-0-3]

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.68	Vert(LL)	-0.05	2-5	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.39	Vert(CT)	-0.10	2-5	>657	180		
BCLL	0.0	Rep Stress Incr	NO	WB	0.00	Horz(CT)	0.00	5	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-P							Weight: 24 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 -- 2-8-8

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

REACTIONS (size) 2=0-4-9, 5= Mechanical
Max Horiz 2=73 (LC 9)
Max Uplift 2=-111 (LC 8), 5=-54 (LC 12)
Max Grav 2=337 (LC 1), 5=230 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-6/0, 2-4=-95/60, 4-5=-177/225
BOT CHORD 2-5=-34/36

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 (3) 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 54 lb uplift at joint 5 and 111 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.
7) "NAILED" indicates Girder: 3-10d (0.148" x 3") toe-nails per NDS guidelines.
8) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

LOAD CASE(S) Standard
1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (lb/ft)
Vert: 1-4=-70, 2-5=-20

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Job	Truss	Truss Type	Qty	Ply	
Roof - 8 Inch Heel	D1	Hip Girder	1	2	I76096912 Job Reference (optional)

Premier Building Supply (Springhill, KS), Spring Hills, KS - 66083, Run: 8.63 S Sep 26 2024 Print: 8.630 S Sep 26 2024 MiTek Industries, Inc. Wed Sep 03 15:44:23 Page: 1
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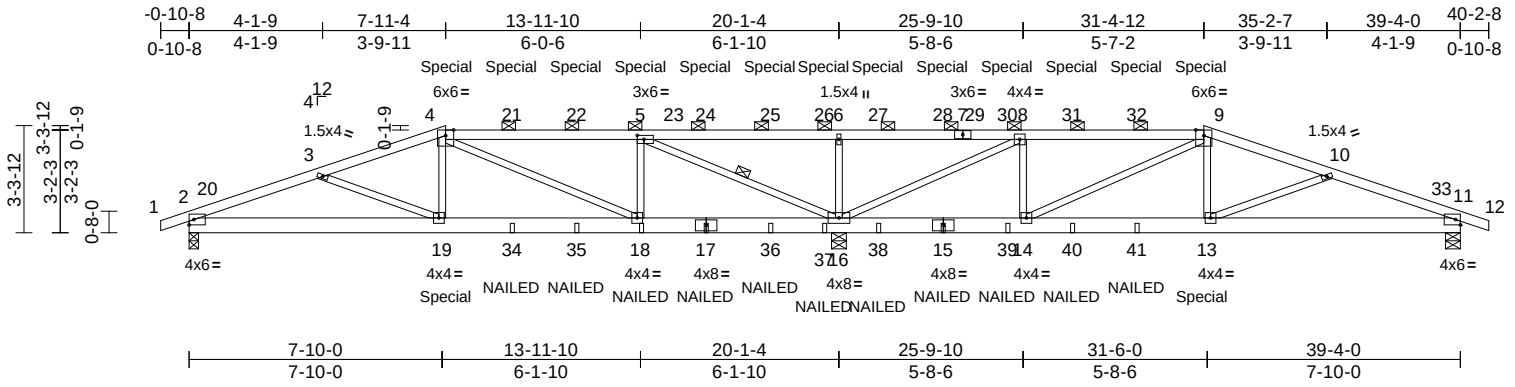


Scale = 1:71.3

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

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.97	Vert(LL)	-0.08	18-19	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.62	Vert(CT)	-0.15	18-19	>999	180		
BCLL	0.0	Rep Stress Incr	NO	WB	1.00	Horz(CT)	0.05	11	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S							Weight: 340 lb	FT = 20%

LUMBER
TOP CHORD 2x4 SP No.2
BOT CHORD 2x6 SPF No.2
WEBS 2x3 SPF No.2

BRACING
TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except 2-0-0 oc purlins (6-0-0 max.): 4-9.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 1 Row at midpt 5-16

REACTIONS (size) 2=0-3-8, 11=0-5-8, 16=0-5-8
Max Horiz 2=-54 (LC 17)
Max Uplift 2=-453 (LC 8), 11=-426 (LC 9), 16=-1475 (LC 8)
Max Grav 2=1609 (LC 25), 11=1493 (LC 26), 16=5356 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/1, 2-3=-3473/1044, 3-4=-3481/995, 4-5=-2042/618, 5-6=-610/2195, 6-8=-610/2195, 8-9=-1613/497, 9-10=-3103/888, 10-11=-3115/944, 11-12=0/1
BOT CHORD 2-19=-918/3149, 18-19=-853/3254, 16-18=-513/2037, 14-16=-365/1608, 13-14=-725/2891, 11-13=-818/2811
WEBS 4-19=-107/920, 9-13=-115/918, 6-16=-1093/565, 4-18=-1376/420, 5-16=-4593/1347, 5-18=0/936, 9-14=-1471/444, 8-14=-4/924, 8-16=-4175/1230, 3-19=-230/391, 10-13=-218/357

NOTES

1) 2-ply truss to be connected together with 10d (0.131"x3") nails as follows:
Top chords connected as follows: 2x4 - 1 row at 0-9-0 oc.
Bottom chords connected as follows: 2x6 - 2 rows staggered at 0-9-0 oc.
Web connected as follows: 2x3 - 1 row at 0-9-0 oc.
2) All loads are considered equally applied to all plies, except if noted as front (F) or back (B) face in the LOAD CASE(S) section. Ply to ply connections have been provided to distribute only loads noted as (F) or (B), unless otherwise indicated.
3) Unbalanced roof live loads have been considered for this design.
4) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=35ft; Ke=1.00; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) -0-10-8 to 3-11-2, Interior (1) 3-11-2 to 7-11-4, Exterior(2R) 7-11-4 to 15-0-2, Interior (1) 15-0-2 to 31-4-12, Exterior(2R) 31-4-12 to 38-5-10, Interior (1) 38-5-10 to 40-2-8 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
5) Provide adequate drainage to prevent water ponding.
6) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
7) All bearings are assumed to be SPF No.2 crushing capacity of 425 psi.
8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 453 lb uplift at joint 2, 1475 lb uplift at joint 16 and 426 lb uplift at joint 11.
9) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
10) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
11) "NAILED" indicates Girder: 3-16d (0.162" x 3.5") toe-nails per NDS guidelines.
12) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 226 lb down and 148 lb up at 7-11-4, 202 lb down and 148 lb up at 10-0-0, 202 lb down and 148 lb up at 12-0-0, 202 lb down and 148 lb up at 14-0-0, 202 lb down and 148 lb up at 16-0-0, 202 lb down and 148 lb up at 18-0-0, 202 lb down and 148 lb up at 19-8-0, 202 lb down and 148 lb up at 21-4-0, 202 lb down and 148 lb up at 23-4-0, 202 lb down and 148 lb up at 25-4-0, 202 lb down and 148 lb up at 27-4-0, and 202 lb down and 148 lb up at 29-4-0, and 226 lb down and 148 lb up at 31-4-12 on top chord, and 752 lb down and 191 lb up at 7-11-4, and 752 lb down and 191 lb up at 31-4-0 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.

LOAD CASE(S) Standard
1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15

September 4,2025

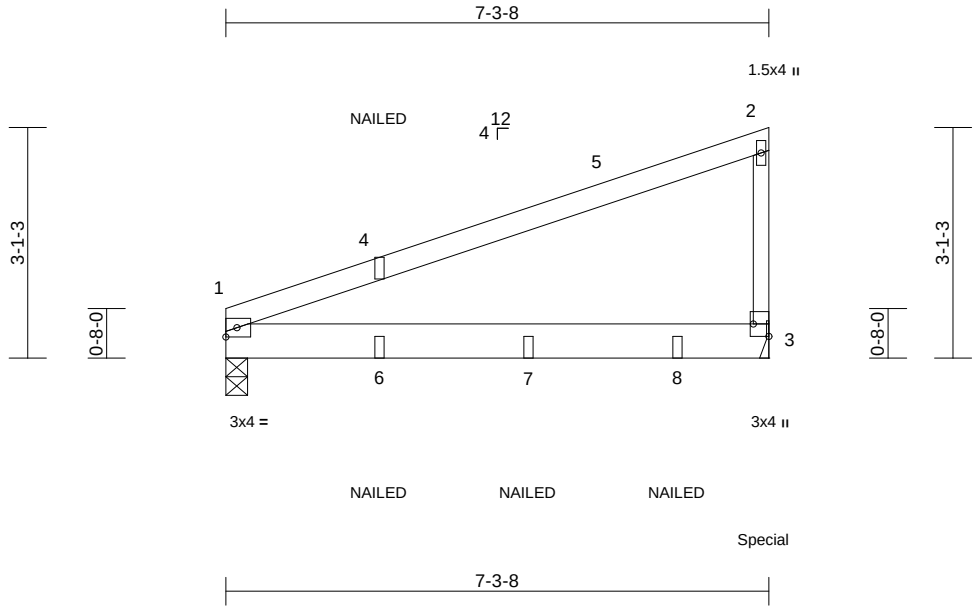
Continued on page 2

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

Uniform Loads (lb/ft)
Vert: 1-4=-70, 4-9=-70, 9-12=-70, 2-11=-20
Concentrated Loads (lb)
Vert: 4=-202 (F), 17=-59 (F), 19=-752 (F), 13=-752 (F), 18=-59 (F), 5=-202 (F), 9=-202 (F), 15=-59 (F), 21=-202 (F), 22=-202 (F), 24=-202 (F), 25=-202 (F), 26=-202 (F), 27=-202 (F), 28=-202 (F), 30=-202 (F), 31=-202 (F), 32=-202 (F), 34=-59 (F), 35=-59 (F), 36=-59 (F), 37=-59 (F), 38=-59 (F), 39=-59 (F), 40=-59 (F), 41=-59 (F)

Job	Truss	Truss Type	Qty	Ply	
Roof - 8 Inch Heel	D2	Monopitch Girder	1	1	I76096913 Job Reference (optional)

Premier Building Supply (Springhill, KS), Spring Hills, KS - 66083, Run: 8.63 S Sep 26 2024 Print: 8.630 S Sep 26 2024 MiTek Industries, Inc. Wed Sep 03 15:44:23 Page: 1
ID:tfFU26Yd3PvwbghSod77zqzbevo-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f



Scale = 1:30.9

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

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.63	Vert(LL)	0.07	1-3	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.65	Vert(CT)	-0.13	1-3	>661	180		
BCLL	0.0	Rep Stress Incr	NO	WB	0.00	Horz(CT)	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 2400F 2.0E
BOT CHORD 2x6 SPF No.2
WEBS 2x3 SPF No.2

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

REACTIONS (size) 1=0-3-8, 3= Mechanical
Max Horiz 1=128 (LC 9)
Max Uplift 1=-110 (LC 8), 3=-274 (LC 12)
Max Grav 1=430 (LC 1), 3=615 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-183/102, 2-3=-246/327
BOT CHORD 1-3=-55/60

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) 0-1-12 to 5-1-12, Interior (1) 5-1-12 to 7-2-4 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2) 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 1 SPF No.2 crushing capacity of 425 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 110 lb uplift at joint 1 and 274 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) "NAILED" indicates Girder: 3-10d (0.148" x 3") toe-nails per NDS guidelines.
8) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 123 lb down and 88 lb up at 7-2-4 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
9) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

LOAD CASE(S) Standard
1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (lb/ft)
Vert: 1-2=-70, 1-3=-20
Concentrated Loads (lb)
Vert: 3=-123 (B), 6=-61 (B), 7=-113 (B), 8=-113 (B)

STATE OF MISSOURI
JIE LU
NUMBER PE-029327
PROFESSIONAL ENGINEER

September 4,2025

Job	Truss	Truss Type	Qty	Ply	
Roof - 8 Inch Heel	E1	Hip Girder	1	1	I76096914 Job Reference (optional)

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

Run: 8.63 S Sep 26 2024 Print: 8.630 S Sep 26 2024 MiTek Industries, Inc. Wed Sep 03 15:44:24 Page: 1
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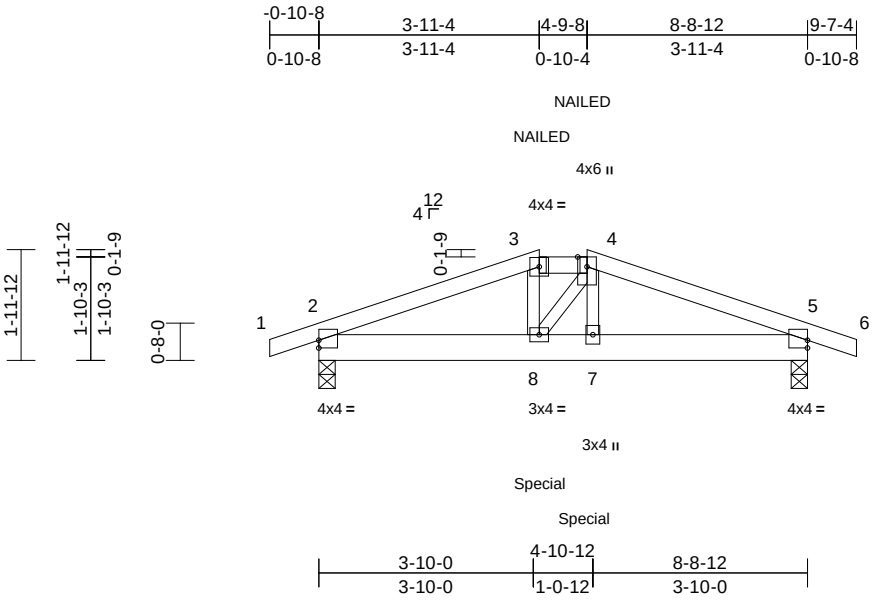

Scale = 1:41.2

Plate Offsets (X, Y): [2:Edge,0-1-10], [5:Edge,0-1-10]

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.46	Vert(LL)	-0.02	7-8	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.51	Vert(CT)	-0.04	7-8	>999	180		
BCLL	0.0	Rep Stress Incr	NO	WB	0.10	Horz(CT)	0.01	5	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-P							Weight: 40 lb	FT = 20%

LUMBER
TOP CHORD 2x4 SP No.2
BOT CHORD 2x6 SP No.2
WEBS 2x3 SPF No.2

BRACING
TOP CHORD Structural wood sheathing directly applied or 4-9-2 oc purlins, except 2-0-0 oc purlins (5-7-13 max.): 3-4.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (size) 2=0-3-8, 5=0-3-8
Max Horiz 2=-29 (LC 17)
Max Uplift 2=-211 (LC 8), 5=-211 (LC 9)
Max Grav 2=721 (LC 1), 5=721 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/1, 2-3=-1262/472, 3-4=-1103/490, 4-5=-1253/472, 5-6=0/1
BOT CHORD 2-8=-362/1120, 7-8=-362/1095, 5-7=-363/1112
WEBS 3-8=-38/290, 4-8=-18/46, 4-7=-24/247

NOTES
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=35ft; Ke=1.00; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) 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) All bearings are assumed to be SP No.2 crushing capacity of 565 psi.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 211 lb uplift at joint 2 and 211 lb uplift at joint 5.
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.
8) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
9) "NAILED" indicates Girder: 3-10d (0.148" x 3") toe-nails per NDS guidelines.
10) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 225 lb down and 62 lb up at 3-11-4, and 225 lb down and 62 lb up at 4-8-12 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
11) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

LOAD CASE(S) Standard
1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (lb/ft)
Vert: 1-3=-70, 3-4=-70, 4-6=-70, 2-5=-20
Concentrated Loads (lb)
Vert: 3=-45 (F), 4=-45 (F), 8=-225 (F), 7=-225 (F)

September 4,2025

Job	Truss	Truss Type	Qty	Ply	
Roof - 8 Inch Heel	E2	Common	1	1	I76096915 Job Reference (optional)

Premier Building Supply (Springhill, KS), Spring Hills, KS - 66083, Run: 8.63 S Sep 26 2024 Print: 8.630 S Sep 26 2024 MiTek Industries, Inc. Wed Sep 03 15:44:24 Page: 1
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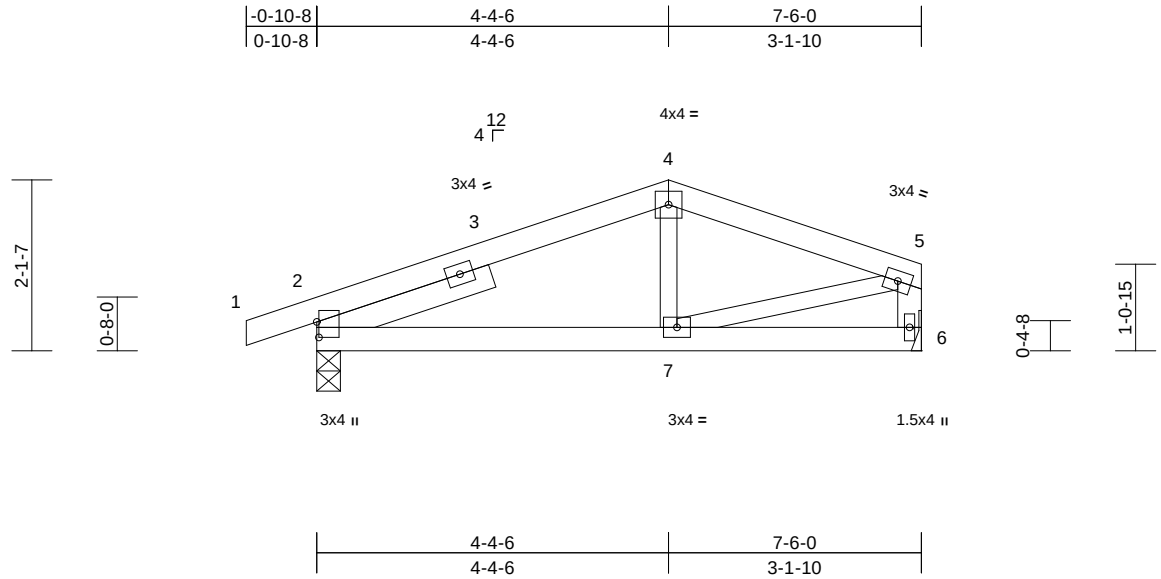

Scale = 1:28.6

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

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.39	Vert(LL)	-0.01	2-7	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.21	Vert(CT)	-0.03	2-7	>999	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.12	Horz(CT)	0.00	6	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-P							Weight: 32 lb	FT = 20%

LUMBER
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2
WEBS 2x3 SPF No.2 *Except* 6-5:2x4 SP No.2
SLIDER Left 2x4 SP No.2 -- 2-3-3

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

REACTIONS (size) 2=0-3-8, 6= Mechanical
Max Horiz 2=34 (LC 12)
Max Uplift 2=-103 (LC 8), 6=-53 (LC 9)
Max Grav 2=396 (LC 1), 6=327 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-5/0, 2-4=-434/258, 4-5=-379/278, 5-6=-309/263
BOT CHORD 2-7=-239/335, 6-7=-17/18
WEBS 5-7=-236/347, 4-7=0/117

NOTES
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=35ft; Ke=1.00; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
4) Bearings are assumed to be: Joint 2 SP No.2 crushing capacity of 565 psi.
5) Refer to girder(s) for truss to truss connections.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 103 lb uplift at joint 2 and 53 lb uplift at joint 6.
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.

LOAD CASE(S) Standard

September 4,2025

Job	Truss	Truss Type	Qty	Ply	
Roof - 8 Inch Heel	HG1	Lay-In Gable	1	1	I76096916 Job Reference (optional)

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

Run: 8.63 S Sep 26 2024 Print: 8.630 S Sep 26 2024 MiTek Industries, Inc. Wed Sep 03 15:44:24
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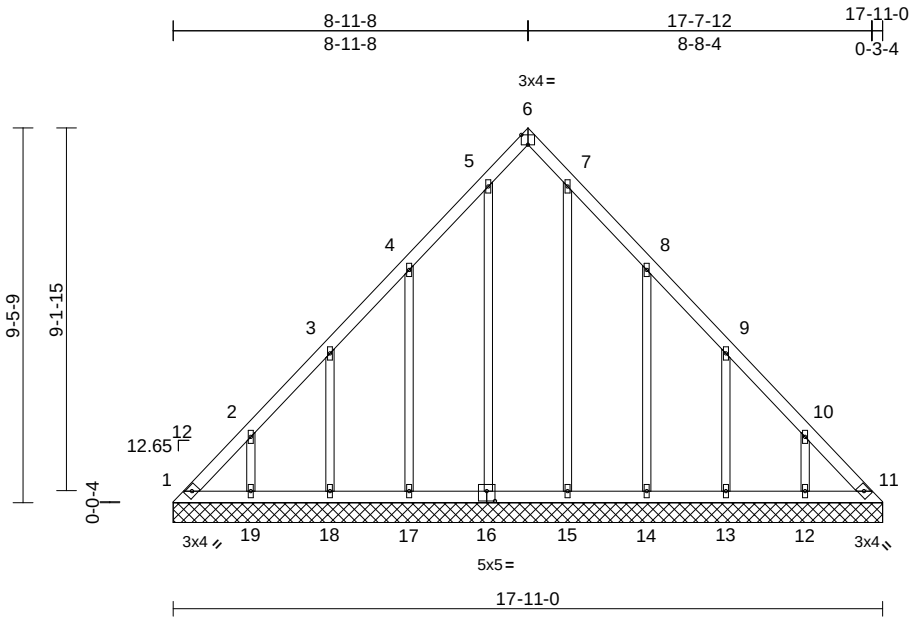

Scale = 1:58.2

Plate Offsets (X, Y): [6:Edge,0-3-0], [16:0-2-8,0-3-0]

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.09	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.06	Vert(TL)	n/a	-	n/a	999		
BCLL	0.0	Rep Stress Incr	YES	WB	0.22	Horiz(TL)	0.01	11	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S							Weight: 94 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=17-11-0, 11=17-11-0, 12=17-11-0, 13=17-11-0, 14=17-11-0, 15=17-11-0, 16=17-11-0, 17=17-11-0, 18=17-11-0, 19=17-11-0
Max Horiz 1=-258 (LC 8)
Max Uplift 1=-108 (LC 10), 11=-87 (LC 11), 12=-138 (LC 13), 13=-132 (LC 13), 14=-161 (LC 13), 15=-19 (LC 13), 16=-35 (LC 12), 17=-158 (LC 12), 18=-132 (LC 12), 19=-138 (LC 12)
Max Grav 1=301 (LC 12), 11=287 (LC 13), 12=209 (LC 20), 13=204 (LC 20), 14=216 (LC 20), 15=159 (LC 20), 16=177 (LC 19), 17=212 (LC 19), 18=205 (LC 19), 19=209 (LC 19)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-432/307, 2-3=-305/203, 3-4=-173/111, 4-5=-117/68, 5-6=-77/63, 6-7=-77/61, 7-8=-94/47, 8-9=-155/98, 9-10=-287/202, 10-11=-414/306
BOT CHORD 1-19=-226/312, 18-19=-226/312, 17-18=-226/312, 15-17=-227/312, 14-15=-226/312, 13-14=-226/312, 12-13=-226/312, 11-12=-226/312
WEBS 2-19=-184/156, 3-18=-184/158, 4-17=-211/181, 5-16=-137/59, 7-15=-118/43, 8-14=-211/185, 9-13=-184/157, 10-12=-184/156

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) 0-4-1 to 5-4-1, Interior (1) 5-4-1 to 8-11-12, Exterior(2R) 8-11-12 to 13-11-12, Interior (1) 13-11-12 to 17-7-7 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
4) All plates are 1.5x4 MT20 unless otherwise indicated.
5) Gable requires continuous bottom chord bearing.
6) Gable studs spaced at 2-0-0 oc.
7) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
8) All bearings are assumed to be SP No.2 crushing capacity of 565 psi.
9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 108 lb uplift at joint 1, 87 lb uplift at joint 11, 138 lb uplift at joint 19, 132 lb uplift at joint 18, 158 lb uplift at joint 17, 35 lb uplift at joint 16, 19 lb uplift at joint 15, 161 lb uplift at joint 14, 132 lb uplift at joint 13 and 138 lb uplift at joint 12.
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

STATE OF MISSOURI
JIE LU
NUMBER
PE-029327
PROFESSIONAL ENGINEER

September 4,2025

Job	Truss	Truss Type	Qty	Ply	
Roof - 8 Inch Heel	HG2	Lay-In Gable	1	1	I76096917 Job Reference (optional)

Premier Building Supply (Springhill, KS), Spring Hills, KS - 66083, Run: 8.63 S Sep 26 2024 Print: 8.630 S Sep 26 2024 MiTek Industries, Inc. Wed Sep 03 15:44:24 Page: 1
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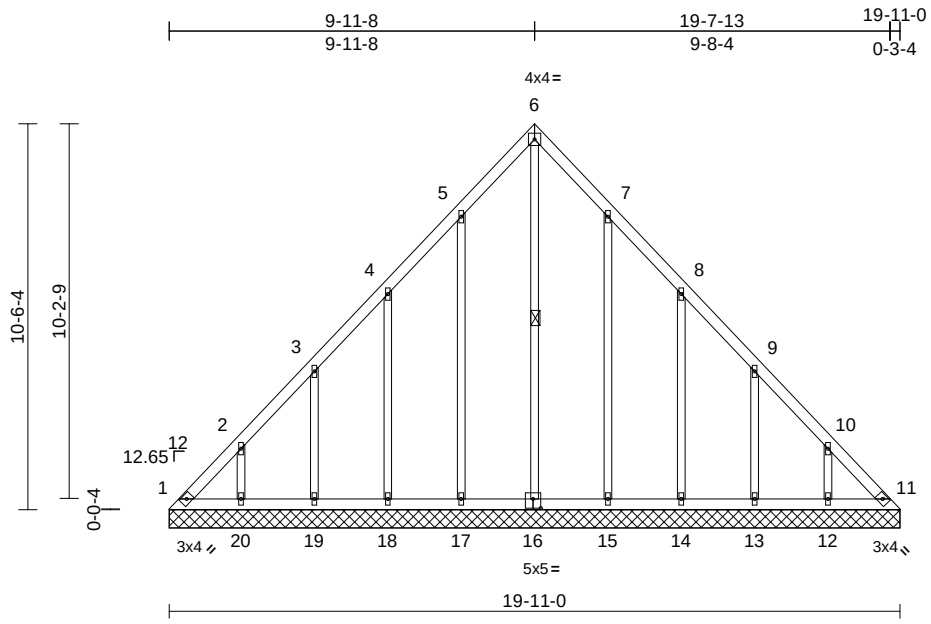

Scale = 1:62.8

Plate Offsets (X, Y): [16:0-2-8,0-3-0]

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.08	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.06	Vert(TL)	n/a	-	n/a	999		
BCLL	0.0	Rep Stress Incr	YES	WB	0.28	Horiz(TL)	0.01	11	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S							Weight: 110 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.
WEBS 1 Row at midpt 6-16

REACTIONS (size) 1=19-11-0, 11=19-11-0, 12=19-11-0, 13=19-11-0, 14=19-11-0, 15=19-11-0, 16=19-11-0, 17=19-11-0, 18=19-11-0, 19=19-11-0, 20=19-11-0
Max Horiz 1=-288 (LC 8)
Max Uplift 1=-131 (LC 10), 11=-88 (LC 11), 12=-138 (LC 13), 13=-135 (LC 13), 14=-143 (LC 13), 15=-127 (LC 13), 17=-131 (LC 12), 18=-141 (LC 12), 19=-135 (LC 12), 20=-138 (LC 12)
Max Grav 1=283 (LC 12), 11=255 (LC 13), 12=209 (LC 20), 13=206 (LC 20), 14=207 (LC 20), 15=213 (LC 20), 16=231 (LC 13), 17=215 (LC 19), 18=206 (LC 19), 19=206 (LC 19), 20=209 (LC 19)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-408/250, 2-3=-281/193, 3-4=-177/143, 4-5=-150/134, 5-6=-194/199, 6-7=-193/184, 7-8=-105/93, 8-9=-134/85, 9-10=-243/149, 10-11=-370/251
BOT CHORD 1-20=-186/281, 19-20=-187/281, 18-19=-187/281, 17-18=-187/281, 15-17=-187/282, 14-15=-187/282, 13-14=-187/282, 12-13=-187/282, 11-12=-187/282
WEBS 2-20=-181/155, 3-19=-185/160, 4-18=-191/165, 5-17=-176/155, 6-16=-207/148, 7-15=-176/152, 8-14=-191/166, 9-13=-185/160, 10-12=-181/155

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) 0-4-1 to 5-4-1, Interior (1) 5-4-1 to 9-11-12, Exterior(2R) 9-11-12 to 14-11-12, Interior (1) 14-11-12 to 19-7-7 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
4) All plates are 1.5x4 MT20 unless otherwise indicated.
5) Gable requires continuous bottom chord bearing.
6) Gable studs spaced at 2-0-0 oc.
7) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
8) All bearings are assumed to be SP No.2 crushing capacity of 565 psi.
9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 131 lb uplift at joint 1, 88 lb uplift at joint 11, 138 lb uplift at joint 20, 135 lb uplift at joint 19, 141 lb uplift at joint 18, 131 lb uplift at joint 17, 127 lb uplift at joint 15, 143 lb uplift at joint 14, 135 lb uplift at joint 13 and 138 lb uplift at joint 12.
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

September 4,2025

Job	Truss	Truss Type	Qty	Ply	
Roof - 8 Inch Heel	HG3	Lay-In Gable	1	1	I76096918 Job Reference (optional)

Premier Building Supply (Springhill, KS), Spring Hills, KS - 66083, Run: 8.63 S Sep 26 2024 Print: 8.630 S Sep 26 2024 MiTek Industries, Inc. Wed Sep 03 15:44:24 Page: 1

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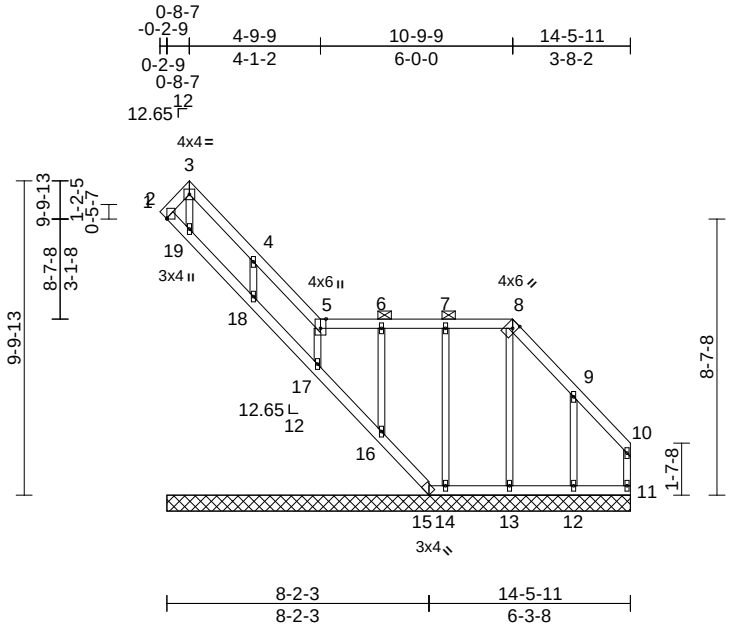

Scale = 1:72

Plate Offsets (X, Y): [5:0-3-8,Edge], [8:Edge,0-1-7]

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.14	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.07	Vert(CT)	n/a	-	n/a	999		
BCLL	0.0	Rep Stress Incr	YES	WB	0.14	Horz(CT)	0.00	11	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S							Weight: 73 lb	FT = 20%

LUMBER

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

BRACING

TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals, and 2-0-0 oc purlins (6-0-0 max.): 5-8.
BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.

REACTIONS (size) 2=14-5-11, 11=14-5-11, 12=14-5-11, 13=14-5-11, 14=14-5-11, 15=14-5-11, 16=14-5-11, 17=14-5-11, 18=14-5-11, 19=14-5-11
Max Horiz 2=-310 (LC 13)
Max Uplift 2=-484 (LC 13), 11=-6 (LC 12), 12=-167 (LC 13), 13=-13 (LC 9), 14=-51 (LC 9), 15=-26 (LC 8), 16=-46 (LC 9), 17=-225 (LC 13), 18=-150 (LC 13), 19=-298 (LC 11)
Max Grav 2=200 (LC 11), 11=77 (LC 20), 12=218 (LC 20), 13=163 (LC 26), 14=183 (LC 26), 15=39 (LC 11), 16=179 (LC 1), 17=211 (LC 20), 18=233 (LC 20), 19=764 (LC 13)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-7/0, 2-3=-466/513, 3-4=-372/399, 4-5=-251/273, 5-6=-149/160, 6-7=-149/161, 7-8=-149/160, 8-9=-182/185, 9-10=-56/56, 10-11=-70/49
BOT CHORD 2-19=-50/36, 18-19=-111/110, 17-18=-107/108, 16-17=-80/85, 15-16=-73/85, 14-15=-45/52, 13-14=-45/52, 12-13=-45/53, 11-12=-45/53
WEBS 3-19=-669/571, 4-18=-211/171, 5-17=-280/247, 6-16=-141/68, 7-14=-151/72, 8-13=-122/38, 9-12=-206/176

NOTES

1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=35ft; Ke=1.00; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) 0-1-3 to 5-0-2, Interior (1) 5-0-2 to 11-0-2, Exterior(2E) 11-0-2 to 14-7-0 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) 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) Provide adequate drainage to prevent water ponding.
5) All plates are 1.5x4 MT20 unless otherwise indicated.
6) Gable requires continuous bottom chord bearing.
7) Gable studs spaced at 2-0-0 oc.
8) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
9) All bearings are assumed to be SP No.2 crushing capacity of 565 psi.
10) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 6 lb uplift at joint 11, 484 lb uplift at joint 2, 26 lb uplift at joint 15, 298 lb uplift at joint 19, 150 lb uplift at joint 18, 225 lb uplift at joint 17, 46 lb uplift at joint 16, 51 lb uplift at joint 14, 13 lb uplift at joint 13 and 167 lb uplift at joint 12.
11) Beveled plate or shim required to provide full bearing surface with truss chord at joint(s) 2, 19, 18, 17, 16.
12) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
13) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

LOAD CASE(S) Standard

September 4,2025

Job	Truss	Truss Type	Qty	Ply	
Roof - 8 Inch Heel	HG4	Lay-In Gable	1	1	I76096919 Job Reference (optional)

Premier Building Supply (Springhill, KS), Spring Hills, KS - 66083, Run: 8.63 S Sep 26 2024 Print: 8.630 S Sep 26 2024 MiTek Industries, Inc. Wed Sep 03 15:44:24 Page: 1
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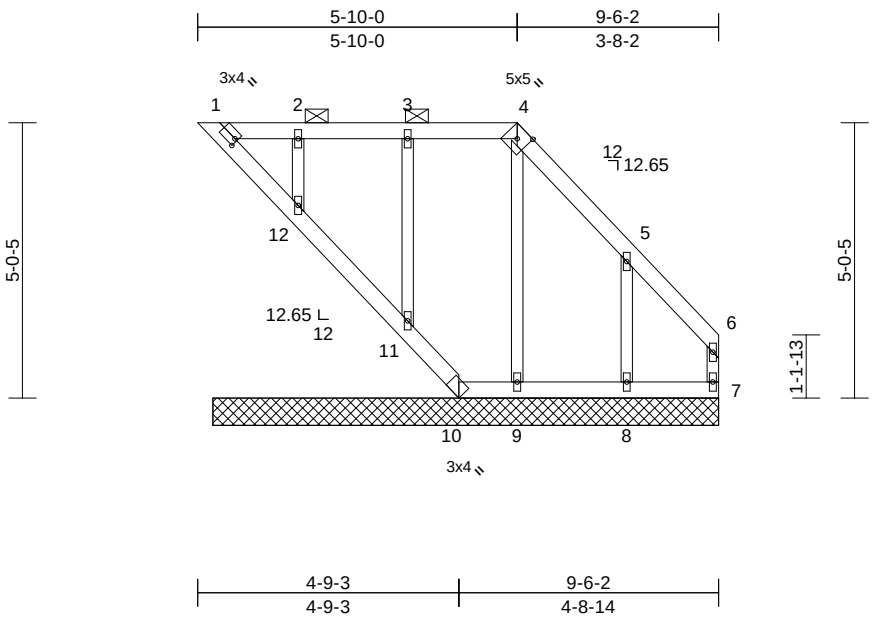

Scale = 1:42.1

Plate Offsets (X, Y): [1:0-0-10,0-1-8], [4:0-2-7,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	0.06	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	0.06	Horiz(TL)	0.00	7	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S							Weight: 44 lb	FT = 20%

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

BRACING
TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals, and 2-0-0 oc purlins (6-0-0 max.): 1-4.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing, Except:
6-0-0 oc bracing: 1-12.

REACTIONS (size) 1=9-2-12, 7=9-2-12, 8=9-2-12, 9=9-2-12, 10=9-2-12, 11=9-2-12, 12=9-2-12
Max Horiz 1=-154 (LC 13)
Max Uplift 1=-21 (LC 9), 7=-15 (LC 8), 8=-152 (LC 13), 9=-10 (LC 9), 10=-15 (LC 8), 11=-51 (LC 9), 12=-40 (LC 13)
Max Grav 1=58 (LC 1), 7=75 (LC 20), 8=214 (LC 20), 9=154 (LC 1), 10=28 (LC 11), 11=183 (LC 1), 12=175 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-159/169, 2-3=-159/169, 3-4=-159/168, 4-5=-191/192, 5-6=-59/58, 6-7=-72/53
BOT CHORD 1-12=-50/51, 11-12=-49/55, 10-11=-38/54, 9-10=-24/31, 8-9=-24/31, 7-8=-24/31
WEBS 4-9=-119/32, 3-11=-148/72, 2-12=-133/62, 5-8=-211/170

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) 0-4-1 to 5-4-1, Interior (1) 5-4-1 to 5-10-0, Exterior(2E) 5-10-0 to 9-4-14 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
4) Provide adequate drainage to prevent water ponding.
5) All plates are 1.5x4 MT20 unless otherwise indicated.
6) Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
7) Gable studs spaced at 2-0-0 oc.
8) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
9) All bearings are assumed to be SP No.2 crushing capacity of 565 psi.
10) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 21 lb uplift at joint 1, 15 lb uplift at joint 7, 15 lb uplift at joint 10, 10 lb uplift at joint 9, 51 lb uplift at joint 11, 40 lb uplift at joint 12 and 152 lb uplift at joint 8.
11) Non Standard bearing condition. Review required.
12) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
13) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

LOAD CASE(S) Standard

September 4,2025

Job	Truss	Truss Type	Qty	Ply	
Roof - 8 Inch Heel	J1	Jack-Open	13	1	I76096920 Job Reference (optional)

Premier Building Supply (Springhill, KS), Spring Hills, KS - 66083, Run: 8.63 S Sep 26 2024 Print: 8.630 S Sep 26 2024 MiTek Industries, Inc. Wed Sep 03 15:44:24 Page: 1
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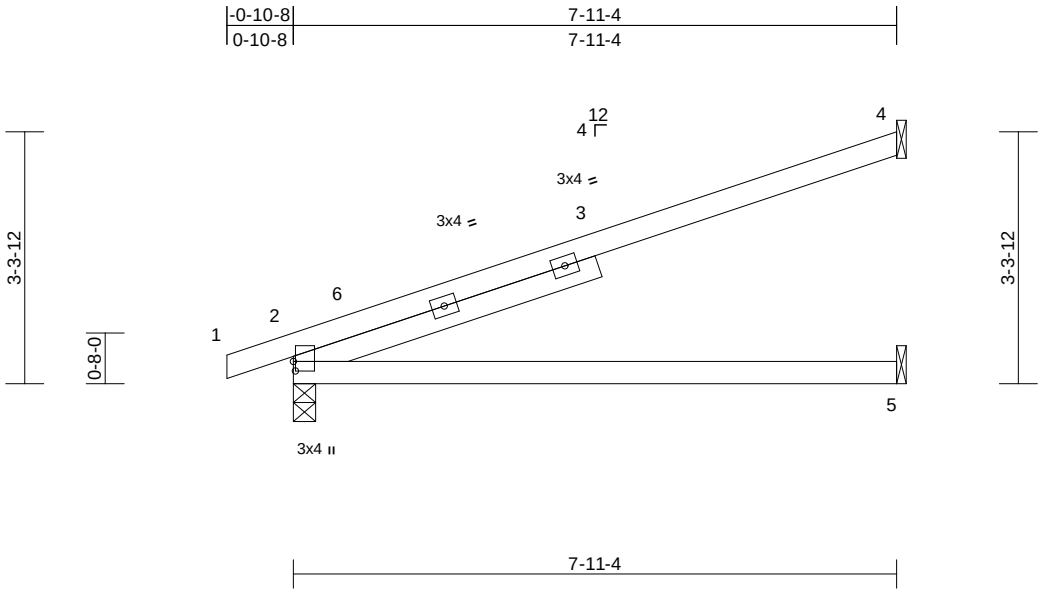

Scale = 1:30.3

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

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.69	Vert(LL)	-0.23	2-5	>410	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.83	Vert(CT)	-0.46	2-5	>205	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.00	Horz(CT)	0.03	4	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-P							Weight: 32 lb	FT = 20%

LUMBER
TOP CHORD 2x4 SP 2400F 2.0E
BOT CHORD 2x4 SP No.2
SLIDER Left 2x4 SP No.2 -- 4-2-7

BRACING
TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins.
BOT CHORD Rigid ceiling directly applied or 9-2-10 oc bracing.

REACTIONS (size) 2=0-3-8, 4= Mechanical, 5= Mechanical
Max Horiz 2=128 (LC 12)
Max Uplift 2=-95 (LC 8), 4=-148 (LC 12)
Max Grav 2=419 (LC 1), 4=272 (LC 1), 5=157 (LC 3)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-5/0, 2-4=-129/68
BOT CHORD 2-5=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) -0-10-8 to 4-1-8, Interior (1) 4-1-8 to 7-10-8 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
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 148 lb uplift at joint 4 and 95 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

September 4,2025

Job	Truss	Truss Type	Qty	Ply	
Roof - 8 Inch Heel	J2	Jack-Open	4	1	I76096921 Job Reference (optional)

Premier Building Supply (Springhill, KS), Spring Hills, KS - 66083, Run: 8.63 S Sep 26 2024 Print: 8.630 S Sep 26 2024 MiTek Industries, Inc. Wed Sep 03 15:44:24 Page: 1
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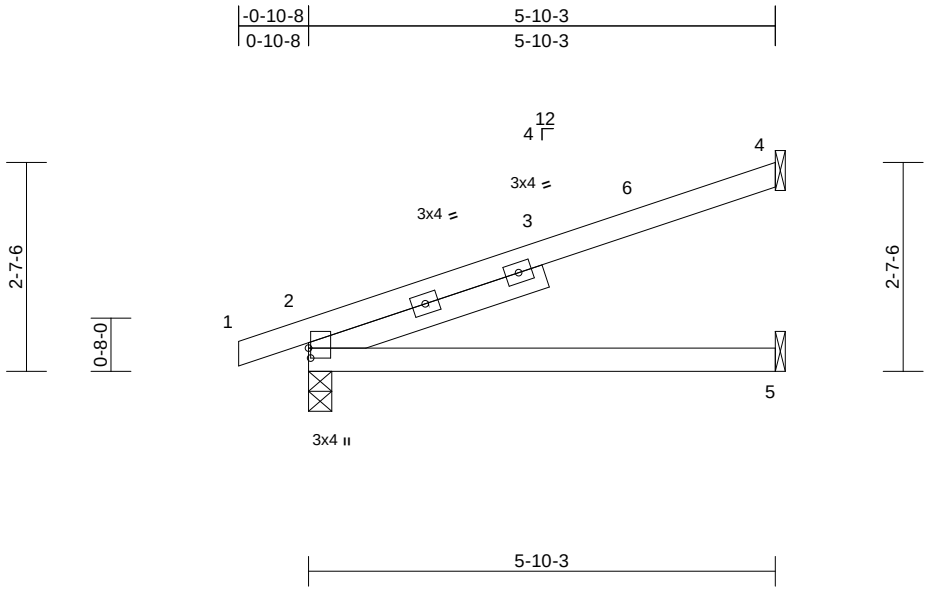

Scale = 1:28.9

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

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.76	Vert(LL)	-0.07	2-5	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.43	Vert(CT)	-0.13	2-5	>516	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.00	Horz(CT)	-0.02	4	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-P							Weight: 24 lb	FT = 20%

LUMBER
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2
SLIDER Left 2x4 SP No.2 -- 3-1-4

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

REACTIONS (size) 2=0-3-8, 4= Mechanical, 5= Mechanical
Max Horiz 2=97 (LC 12)
Max Uplift 2=-80 (LC 8), 4=-110 (LC 12)
Max Grav 2=326 (LC 1), 4=198 (LC 1), 5=116 (LC 3)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-5/0, 2-4=-104/49
BOT CHORD 2-5=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) -0-10-8 to 4-1-8, Interior (1) 4-1-8 to 5-9-7 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 110 lb uplift at joint 4 and 80 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

September 4,2025

Job	Truss	Truss Type	Qty	Ply	
Roof - 8 Inch Heel	J3	Jack-Open	15	1	I76096922 Job Reference (optional)

Premier Building Supply (Springhill, KS), Spring Hills, KS - 66083, Run: 8.63 S Sep 26 2024 Print: 8.630 S Sep 26 2024 MiTek Industries, Inc. Wed Sep 03 15:44:25 Page: 1
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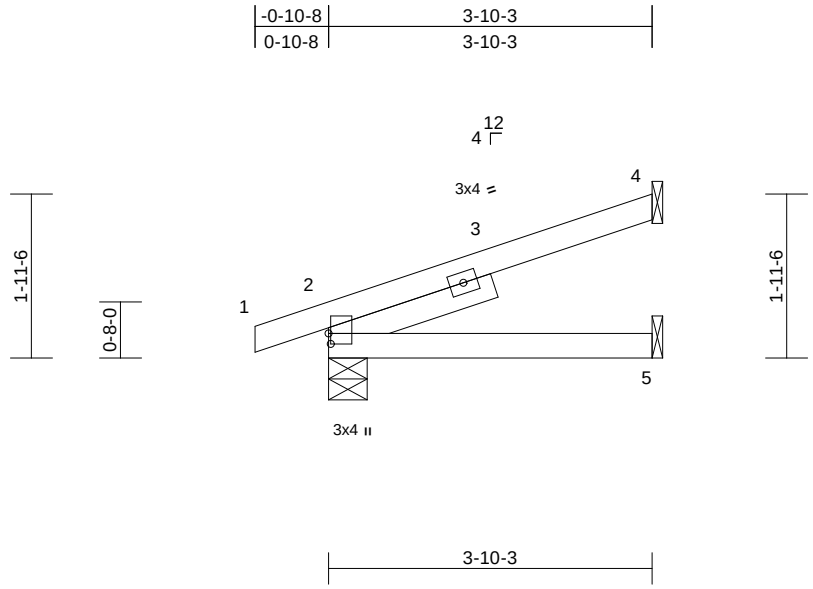

Scale = 1:27.4

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

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.32	Vert(LL)	-0.01	2-5	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.17	Vert(CT)	-0.02	2-5	>999	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.00	Horz(CT)	-0.01	4	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
SLIDER Left 2x4 SP No.2 -- 2-0-10

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

REACTIONS (size) 2=0-5-8, 4= Mechanical, 5= Mechanical
Max Horiz 2=68 (LC 12)
Max Uplift 2=-67 (LC 8), 4=-73 (LC 12)
Max Grav 2=239 (LC 1), 4=125 (LC 1), 5=76 (LC 3)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-5/0, 2-4=-76/31
BOT CHORD 2-5=0/0

NOTES
1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=35ft; Ke=1.00; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2) 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 73 lb uplift at joint 4 and 67 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

September 4,2025

Job	Truss	Truss Type	Qty	Ply	
Roof - 8 Inch Heel	J4	Jack-Open	20	1	I76096923 Job Reference (optional)

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

Run: 8.63 S Sep 26 2024 Print: 8.630 S Sep 26 2024 MiTek Industries, Inc. Wed Sep 03 15:44:25 Page: 1
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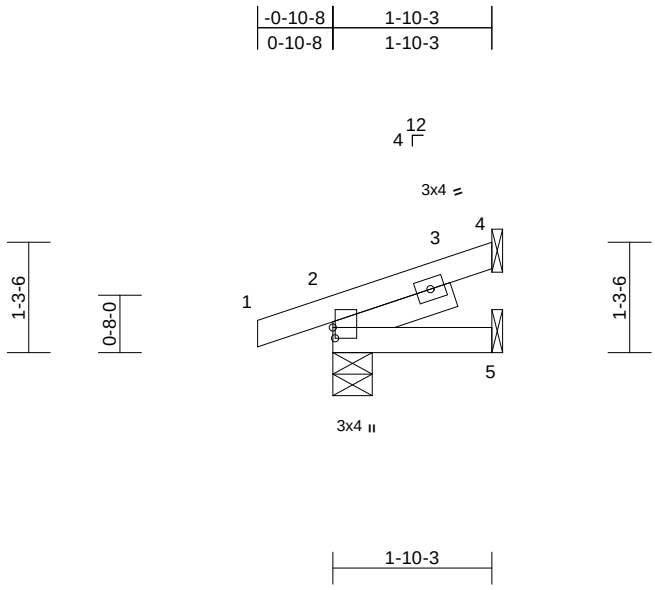

Scale = 1:26.8

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

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.06	Vert(LL)	0.00	2-5	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.04	Vert(CT)	0.00	2-5	>999	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.00	Horz(CT)	0.00	4	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-P							Weight: 9 lb	FT = 20%

LUMBER
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2
SLIDER Left 2x4 SP No.2 -- 1-5-8

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

REACTIONS (size) 2=0-5-8, 4= Mechanical, 5= Mechanical
Max Horiz 2=40 (LC 12)
Max Uplift 2=-57 (LC 8), 4=-35 (LC 12)
Max Grav 2=158 (LC 1), 4=50 (LC 1), 5=37 (LC 3)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-5/0, 2-4=-43/16
BOT CHORD 2-5=0/0

NOTES
1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=35ft; Ke=1.00; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2) 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 57 lb uplift at joint 2 and 35 lb uplift at joint 4.
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

September 4,2025

Job	Truss	Truss Type	Qty	Ply	
Roof - 8 Inch Heel	J5	Jack-Open	23	1	I76096924 Job Reference (optional)

Premier Building Supply (Springhill, KS), Spring Hills, KS - 66083, Run: 8.63 S Sep 26 2024 Print: 8.630 S Sep 26 2024 MiTek Industries, Inc. Wed Sep 03 15:44:25 Page: 1
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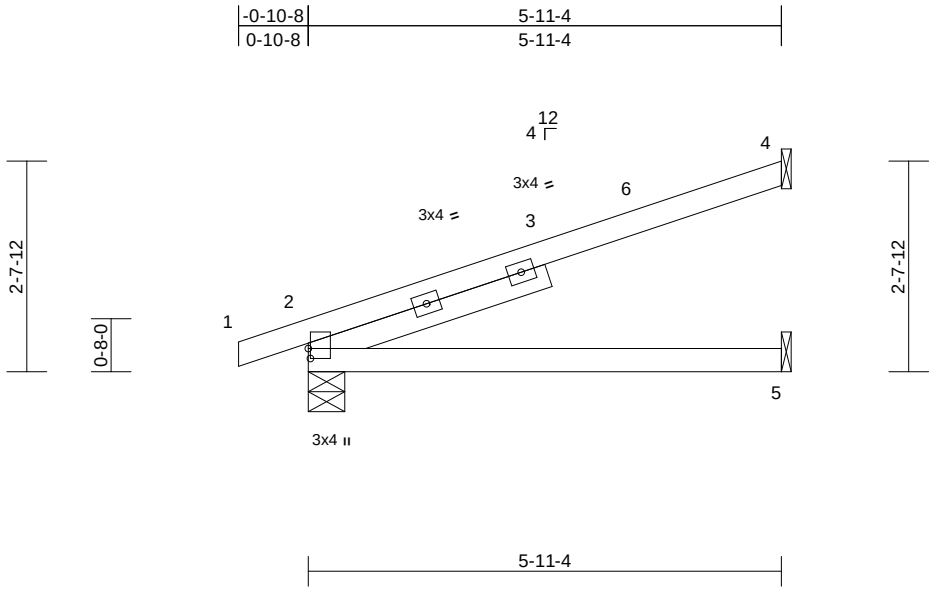

Scale = 1:28.9

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

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.78	Vert(LL)	-0.07	2-5	>987	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.44	Vert(CT)	-0.14	2-5	>493	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.00	Horz(CT)	-0.02	4	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-P							Weight: 24 lb	FT = 20%

LUMBER
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2
SLIDER Left 2x4 SP No.2 -- 3-1-13

BRACING
TOP CHORD Structural wood sheathing directly applied or 5-11-4 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (size) 2=0-5-8, 4= Mechanical, 5= Mechanical
Max Horiz 2=99 (LC 12)
Max Uplift 2=-81 (LC 8), 4=-111 (LC 12)
Max Grav 2=330 (LC 1), 4=201 (LC 1), 5=118 (LC 3)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-5/0, 2-4=-105/50
BOT CHORD 2-5=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) -0-10-8 to 4-1-8, Interior (1) 4-1-8 to 5-10-8 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
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 111 lb uplift at joint 4 and 81 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

STATE OF MISSOURI
JIE LU
NUMBER
PE-029327
PROFESSIONAL ENGINEER

September 4,2025

Job	Truss	Truss Type	Qty	Ply	
Roof - 8 Inch Heel	J6	Jack-Open	6	1	I76096925 Job Reference (optional)

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

Run: 8.63 S Sep 26 2024 Print: 8.630 S Sep 26 2024 MiTek Industries, Inc. Wed Sep 03 15:44:25 Page: 1
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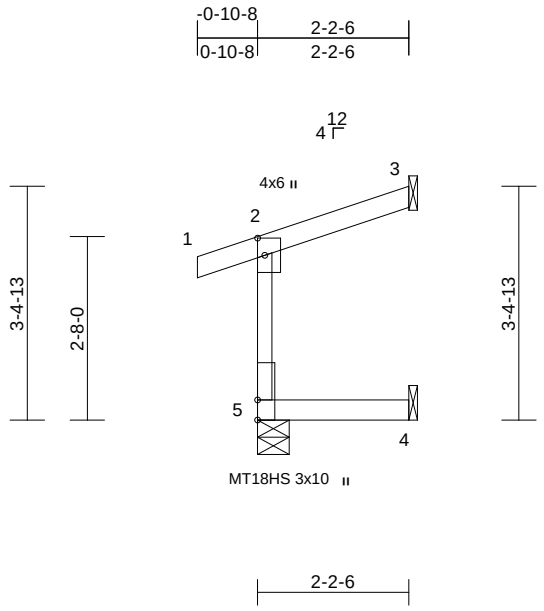

Scale = 1:33.5

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

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	0.65	Vert(LL)	0.01	4-5	>999	240	MT18HS	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.32	Vert(CT)	0.01	4-5	>999	180	MT20	197/144
BCLL	0.0	Rep Stress Incr	YES	WB	0.00	Horz(CT)	-0.12	3	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-R							Weight: 10 lb	FT = 20%

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

BRACING
TOP CHORD Structural wood sheathing directly applied or 2-2-6 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (size) 3= Mechanical, 4= Mechanical, 5=0-5-8
Max Horiz 5=83 (LC 9)
Max Uplift 3=-47 (LC 12), 4=-26 (LC 9), 5=-41 (LC 8)
Max Grav 3=55 (LC 1), 4=40 (LC 3), 5=176 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 2-5=-156/150, 1-2=0/22, 2-3=-53/25
BOT CHORD 4-5=0/0

NOTES
1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=35ft; Ke=1.00; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2) All plates are MT20 plates unless otherwise indicated.
3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
4) Bearings are assumed to be: , Joint 5 SP No.2 crushing capacity of 565 psi.
5) Refer to girder(s) for truss to truss connections.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 41 lb uplift at joint 5, 47 lb uplift at joint 3 and 26 lb uplift at joint 4.
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.

LOAD CASE(S) Standard

September 4,2025

Job	Truss	Truss Type	Qty	Ply	
Roof - 8 Inch Heel	J7	Jack-Open	1	1	I76096926 Job Reference (optional)

Premier Building Supply (Springhill, KS), Spring Hills, KS - 66083, Run: 8.63 S Sep 26 2024 Print: 8.630 S Sep 26 2024 MiTek Industries, Inc. Wed Sep 03 15:44:25 Page: 1
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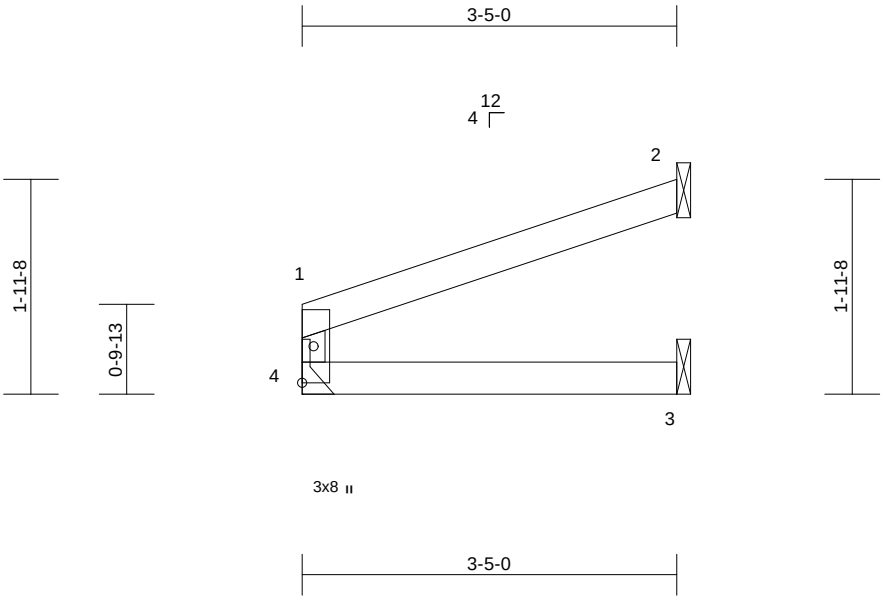

Scale = 1:21

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	0.21	Vert(LL)	0.01	3-4	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.13	Vert(CT)	-0.01	3-4	>999	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.00	Horz(CT)	-0.01	2	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-R							Weight: 11 lb	FT = 20%

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

BRACING
TOP CHORD Structural wood sheathing directly applied or 3-10-8 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (size) 2= Mechanical, 3= Mechanical, 4= Mechanical
Max Horiz 4=45 (LC 9)
Max Uplift 2=-57 (LC 12), 4=-17 (LC 8)
Max Grav 2=107 (LC 1), 3=63 (LC 3), 4=146 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-4=-120/126, 1-2=-59/27
BOT CHORD 3-4=0/0

NOTES
1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=35ft; Ke=1.00; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
3) Refer to girder(s) for truss to truss connections.
4) Refer to girder(s) for truss to truss connections.
5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 17 lb uplift at joint 4 and 57 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

September 4,2025

Job	Truss	Truss Type	Qty	Ply	
Roof - 8 Inch Heel	J8	Jack-Open	2	1	I76096927 Job Reference (optional)

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

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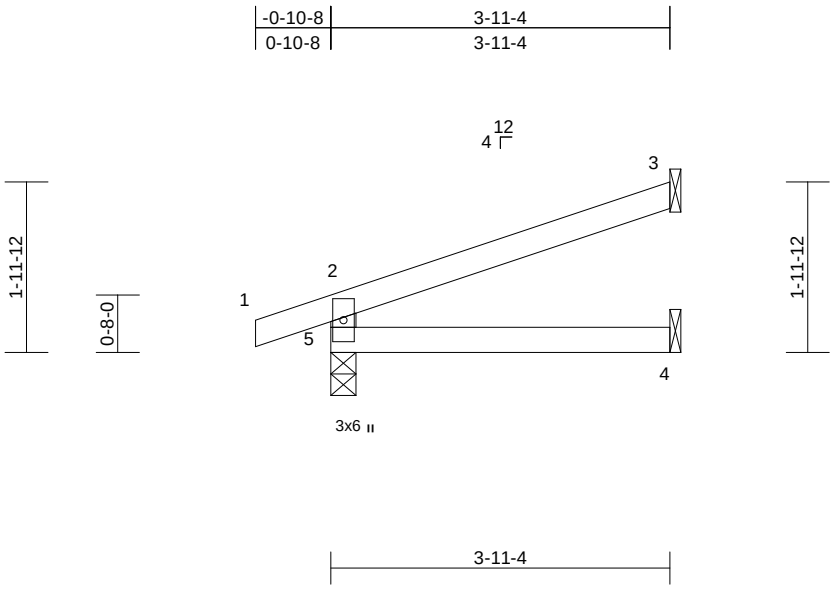

Scale = 1:26.8

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	0.23	Vert(LL)	0.01	4-5	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.17	Vert(CT)	-0.02	4-5	>999	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.00	Horz(CT)	-0.01	3	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-R							Weight: 14 lb	FT = 20%

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

BRACING
TOP CHORD Structural wood sheathing directly applied or 3-11-4 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (size) 3= Mechanical, 4= Mechanical, 5=0-3-8
Max Horiz 5=67 (LC 8)
Max Uplift 3=-59 (LC 12), 5=-74 (LC 8)
Max Grav 3=115 (LC 1), 4=70 (LC 3), 5=249 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 2-5=-218/259, 1-2=0/23, 2-3=-64/28
BOT CHORD 4-5=0/0

NOTES
1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=35ft; Ke=1.00; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2) 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 5 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 74 lb uplift at joint 5 and 59 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.

LOAD CASE(S) Standard

September 4,2025

Job	Truss	Truss Type	Qty	Ply	
Roof - 8 Inch Heel	M1	Half Hip	1	1	I76096928 Job Reference (optional)

Premier Building Supply (Springhill, KS), Spring Hills, KS - 66083, Run: 8.63 S Sep 26 2024 Print: 8.630 S Sep 26 2024 MiTek Industries, Inc. Wed Sep 03 15:44:25 Page: 1
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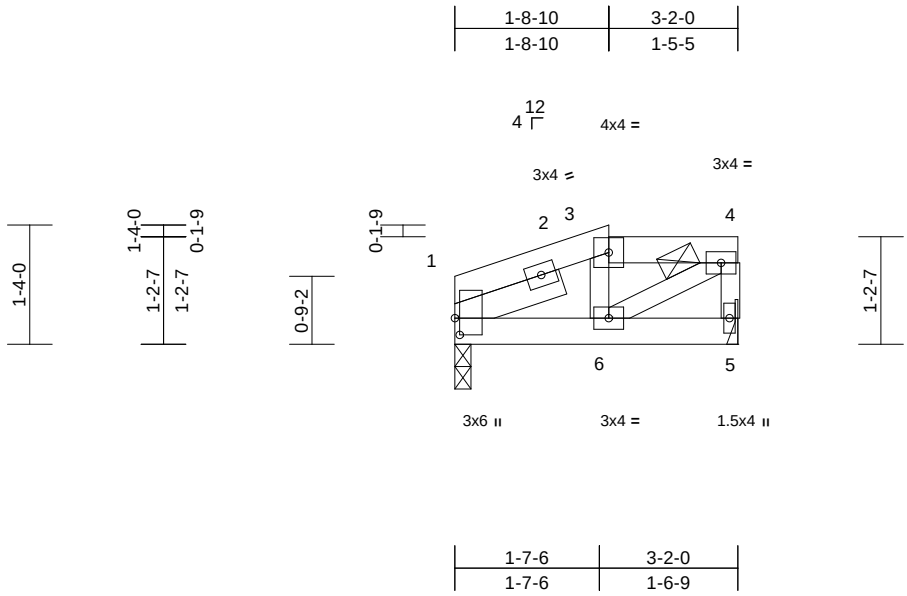

Scale = 1:25.8

Plate Offsets (X, Y): [1:0-2-4,0-0-10]

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.05	Vert(LL)	0.00	6	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.04	Vert(CT)	0.00	6	>999	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.05	Horz(CT)	0.00	5	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-P							Weight: 14 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 -- 1-3-4

BRACING
TOP CHORD Structural wood sheathing directly applied or 3-5-5 oc purlins, except 2-0-0 oc purlins: 3-4.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (size) 1=0-2-2, 5= Mechanical
Max Horiz 1=41 (LC 12)
Max Uplift 1=-24 (LC 8), 5=-36 (LC 8)
Max Grav 1=139 (LC 1), 5=139 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-3=-154/90, 3-4=-116/111
BOT CHORD 1-6=-97/110, 5-6=0/0
WEBS 3-6=-41/95, 4-5=-124/129, 4-6=-126/134

NOTES
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=35ft; Ke=1.00; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) 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 1 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 at joint(s) 1.
8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 24 lb uplift at joint 1 and 36 lb uplift at joint 5.
9) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
10) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

LOAD CASE(S) Standard

September 4,2025

Job	Truss	Truss Type	Qty	Ply	
Roof - 8 Inch Heel	M2	Roof Special	1	1	I76096929 Job Reference (optional)

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

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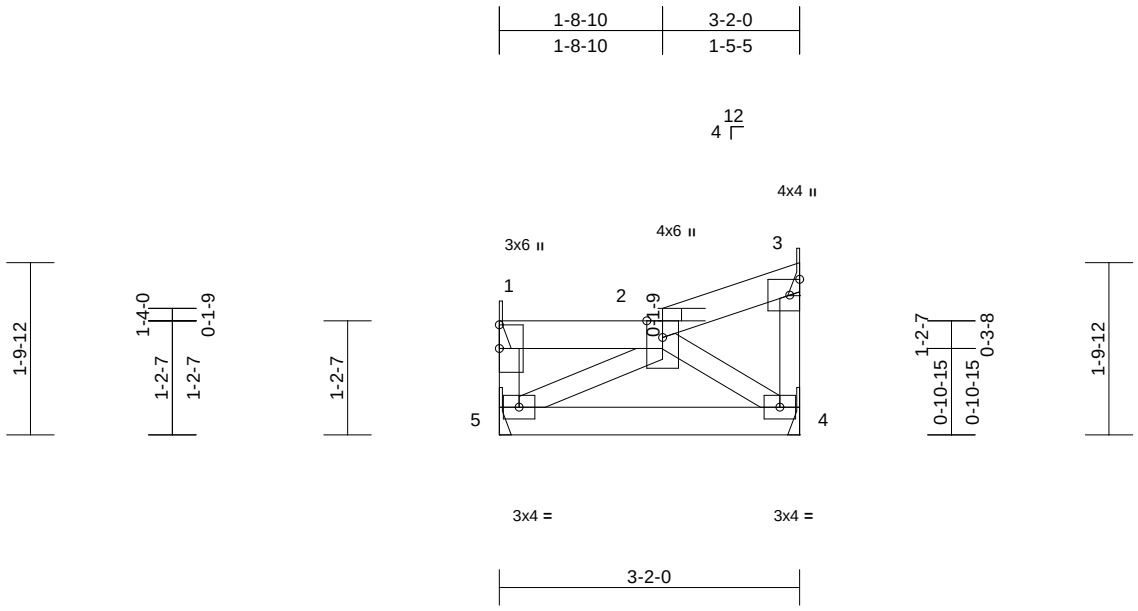

Scale = 1:24.3

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.05	Vert(LL)	0.00	4-5	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.10	Vert(CT)	-0.01	4-5	>999	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.03	Horz(CT)	0.00	4	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-P							Weight: 14 lb	FT = 20%

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

BRACING
TOP CHORD Structural wood sheathing directly applied or 3-2-0 oc purlins, except end verticals, and 2-0-0 oc purlins: 1-2.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS All bearings 0-1-8.
(lb) - Max Horiz 1=64 (LC 9)
Max Uplift All uplift 100 (lb) or less at joint(s) 1, 3, 4
Max Grav All reactions 250 (lb) or less at joint (s) 1, 3, 4, 5

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

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) 0-1-4 to 1-8-10, Interior (1) 1-8-10 to 3-0-12 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
2) Provide adequate drainage to prevent water ponding.
3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
4) Refer to girder(s) for truss to truss connections.
5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 3, 4.
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) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
8) Gap between inside of top chord bearing and first diagonal or vertical web shall not exceed 0.500in.

September 4,2025

Job	Truss	Truss Type	Qty	Ply	
Roof - 8 Inch Heel	M3	Monopitch	1	1	I76096930 Job Reference (optional)

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

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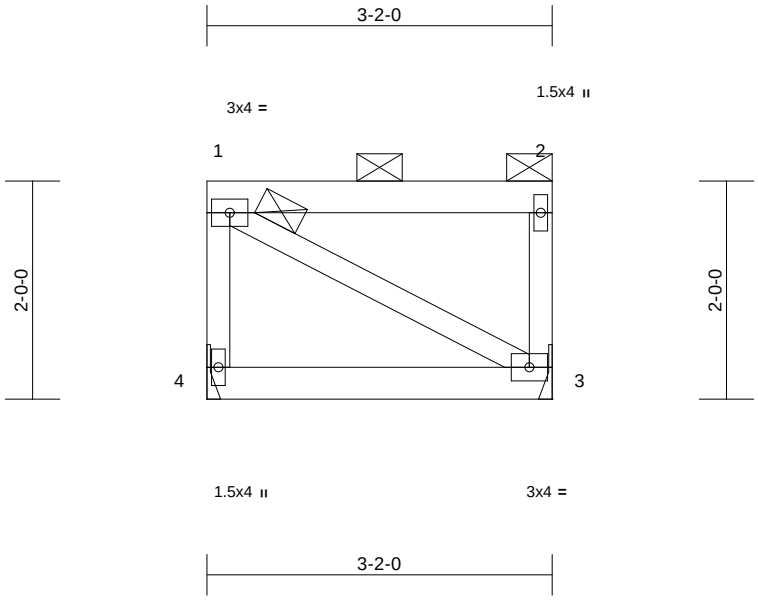


Scale = 1:21.1

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	0.21	Vert(LL)	0.00	3-4	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.10	Vert(CT)	-0.01	3-4	>999	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.02	Horz(CT)	0.00	3	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-P							Weight: 14 lb	FT = 20%

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

BRACING
TOP CHORD 2-0-0 oc purlins: 1-2, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (size) 3= Mechanical, 4= Mechanical
Max Horiz 4=-70 (LC 8)
Max Uplift 3=-49 (LC 9), 4=-49 (LC 8)
Max Grav 3=133 (LC 1), 4=133 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-4=-103/193, 1-2=-35/38, 2-3=-103/157
BOT CHORD 3-4=-98/101
WEBS 1-3=-72/72

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 (3) 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) Provide adequate drainage to prevent water ponding.
3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
4) Refer to girder(s) for truss to truss connections.
5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 49 lb uplift at joint 4 and 49 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) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

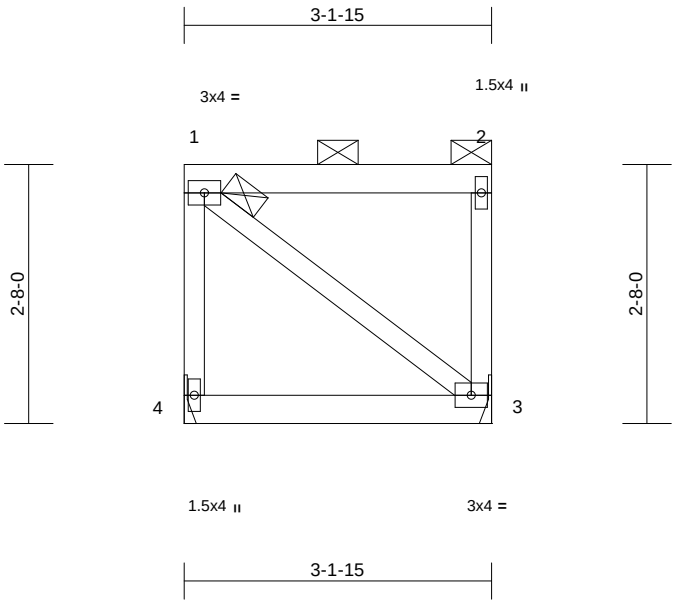
LOAD CASE(S) Standard

September 4,2025

Job	Truss	Truss Type	Qty	Ply	
Roof - 8 Inch Heel	M4	Monopitch	1	1	I76096931 Job Reference (optional)

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

Run: 8.63 S Sep 26 2024 Print: 8.630 S Sep 26 2024 MiTek Industries, Inc. Wed Sep 03 15:44:25 ID:WiSb?PUUFtGdVvpU04XyGnzbevt-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f



Scale = 1:23.7

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.21	Vert(LL)	0.00	3-4	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.10	Vert(CT)	-0.01	3-4	>999	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.04	Horz(CT)	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
WEBS 2x3 SPF No.2

BRACING
TOP CHORD 2-0-0 oc purlins: 1-2, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (size) 3= Mechanical, 4= Mechanical
Max Horiz 4=97 (LC 9)
Max Uplift 3=-68 (LC 9), 4=-68 (LC 8)
Max Grav 3=133 (LC 1), 4=133 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-4=-124/227, 1-2=-49/53, 2-3=-103/157
BOT CHORD 3-4=-136/140
WEBS 1-3=-112/112

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 Corner (3) 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) Provide adequate drainage to prevent water ponding.
3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
4) Refer to girder(s) for truss to truss connections.
5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 68 lb uplift at joint 4 and 68 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) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

LOAD CASE(S) Standard

September 4,2025

Job	Truss	Truss Type	Qty	Ply	
Roof - 8 Inch Heel	M5	Monopitch	1	1	I76096932 Job Reference (optional)

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

Run: 8.63 S Sep 26 2024 Print: 8.630 S Sep 26 2024 MiTek Industries, Inc. Wed Sep 03 15:44:25 Page: 1
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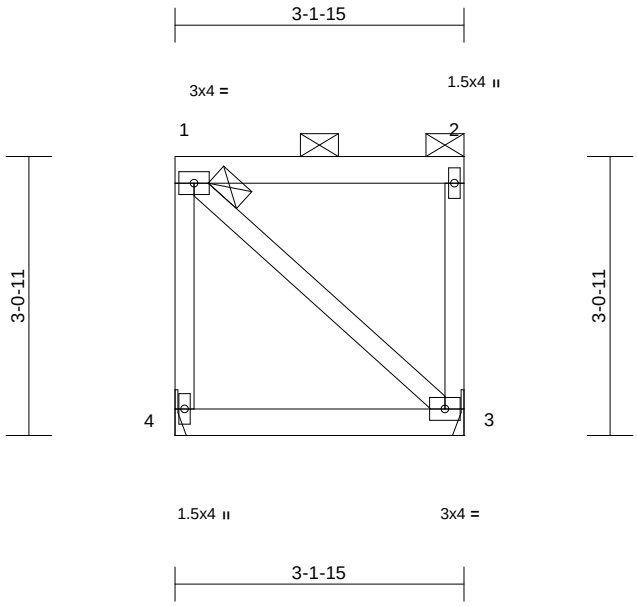

Scale = 1:25.2

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	0.22	Vert(LL)	0.00	3-4	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.10	Vert(CT)	-0.01	3-4	>999	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.05	Horz(CT)	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
WEBS 2x3 SPF No.2

BRACING
TOP CHORD 2-0-0 oc purlins: 1-2, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (size) 3= Mechanical, 4= Mechanical
Max Horiz 4=113 (LC 9)
Max Uplift 3=-82 (LC 9), 4=-82 (LC 8)
Max Grav 3=133 (LC 1), 4=133 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-4=-149/251, 1-2=-57/62, 2-3=-103/157
BOT CHORD 3-4=-158/163
WEBS 1-3=-139/139

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 (3) 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) Provide adequate drainage to prevent water ponding.
3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
4) Refer to girder(s) for truss to truss connections.
5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 82 lb uplift at joint 4 and 82 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) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

LOAD CASE(S) Standard

September 4,2025

Job	Truss	Truss Type	Qty	Ply	
Roof - 8 Inch Heel	M6	Half Hip	1	1	I76096933 Job Reference (optional)

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

Run: 8.63 S Sep 26 2024 Print: 8.630 S Sep 26 2024 MiTek Industries, Inc. Wed Sep 03 15:44:26 ID:2WuDn3TsUZ8mtlEISN0jjZzbevu-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

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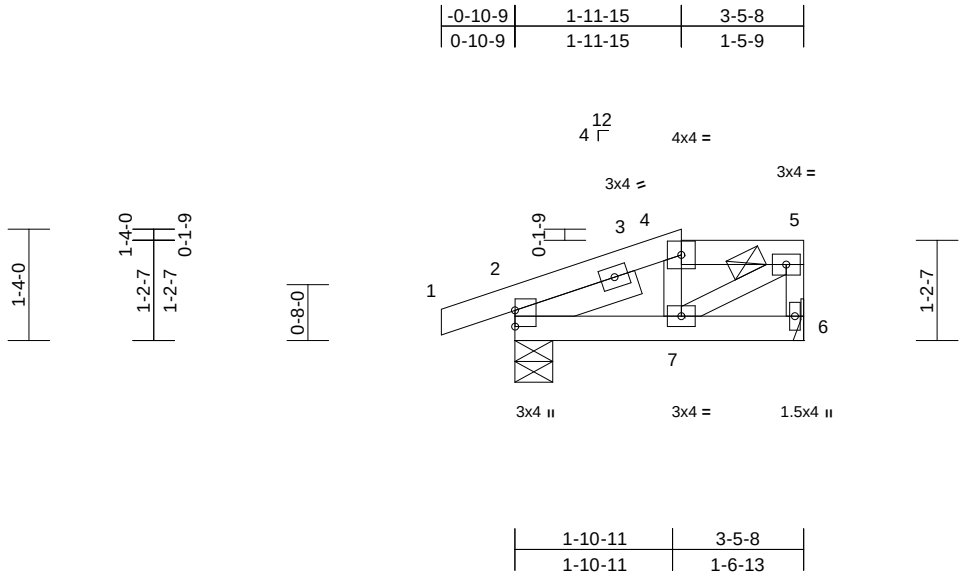

Scale = 1:27.6

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

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	0.06	Vert(LL)	0.00	7	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.05	Vert(CT)	0.00	2-7	>999	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.05	Horz(CT)	0.00	6	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
WEBS 2x3 SPF No.2
SLIDER Left 2x4 SP No.2 -- 1-6-6

BRACING

TOP CHORD Structural wood sheathing directly applied or 3-5-9 oc purlins, except end verticals, and 2-0-0 oc purlins: 4-5.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (size) 2=0-5-7, 6= Mechanical
Max Horiz 2=41 (LC 9)
Max Uplift 2=-76 (LC 8), 6=-30 (LC 8)
Max Grav 2=221 (LC 1), 6=143 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-5/0, 2-4=-172/98, 4-5=-123/117, 5-6=-128/128
BOT CHORD 2-7=-108/130, 6-7=-19/20
WEBS 4-7=-41/96, 5-7=-124/143

NOTES

1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=35ft; Ke=1.00; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) 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 30 lb uplift at joint 6 and 76 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.

LOAD CASE(S) Standard

STATE OF MISSOURI
JIE LU
NUMBER
PE-029327
PROFESSIONAL ENGINEER

September 4,2025

Job	Truss	Truss Type	Qty	Ply	
Roof - 8 Inch Heel	M7	Monopitch	4	1	I76096934 Job Reference (optional)

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

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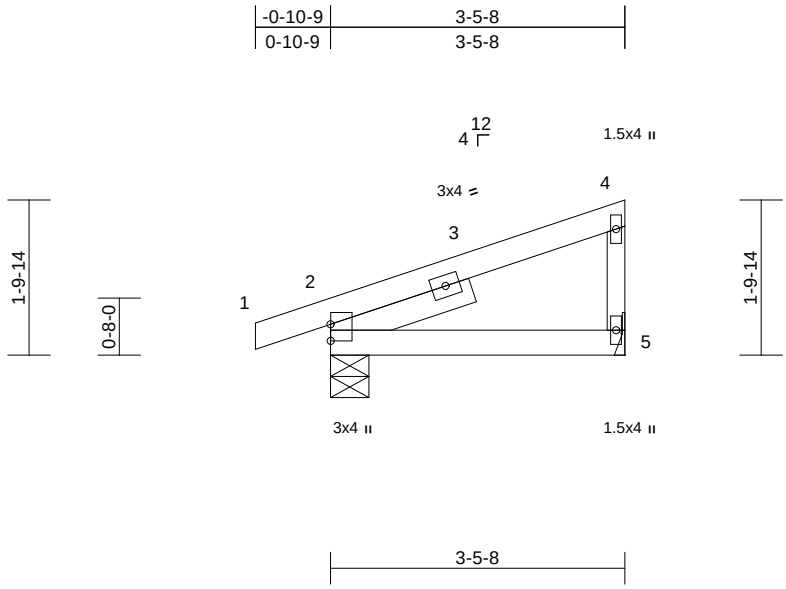

Scale = 1:27.1

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

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	0.26	Vert(LL)	-0.01	2-5	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.13	Vert(CT)	-0.02	2-5	>999	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.00	Horz(CT)	0.00	5	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
WEBS 2x3 SPF No.2
SLIDER Left 2x4 SP No.2 -- 1-8-12

BRACING
TOP CHORD Structural wood sheathing directly applied or 3-5-9 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (size) 2=0-5-7, 5= Mechanical
Max Horiz 2=69 (LC 9)
Max Uplift 2=-72 (LC 8), 5=-37 (LC 12)
Max Grav 2=221 (LC 1), 5=143 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-5/0, 2-4=-90/54, 4-5=-109/175
BOT CHORD 2-5=-31/33

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 37 lb uplift at joint 5 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

September 4,2025

Job	Truss	Truss Type	Qty	Ply	
Roof - 8 Inch Heel	V1	Valley	1	1	I76096935 Job Reference (optional)

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

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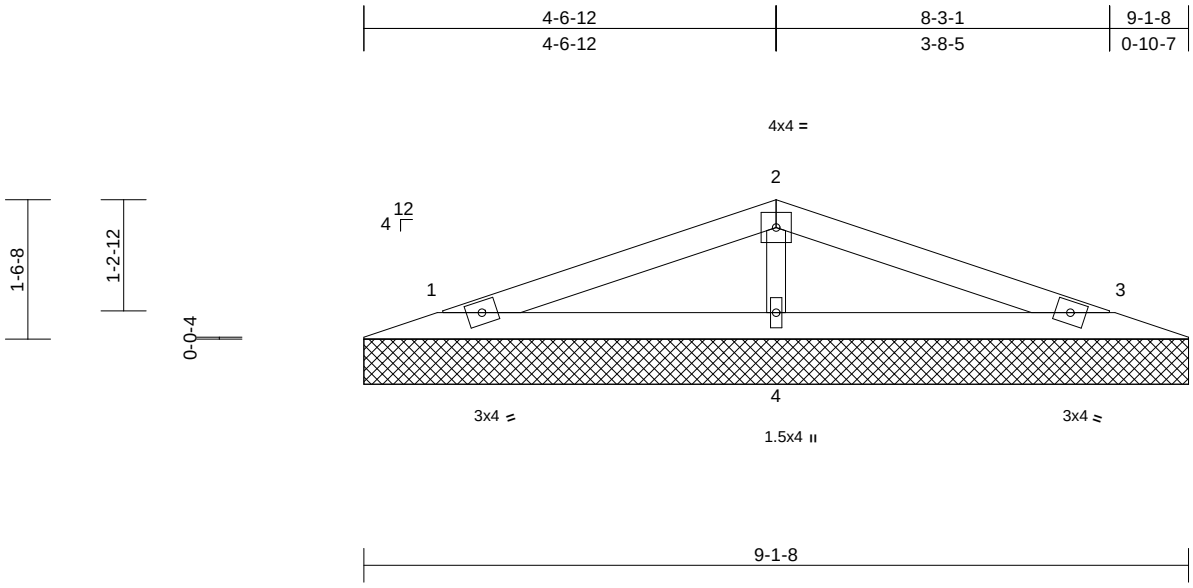

Scale = 1:25.5

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.21	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.13	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: 26 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=9-1-8, 3=9-1-8, 4=9-1-8
Max Horiz 1=-23 (LC 17)
Max Uplift 1=-36 (LC 8), 3=-39 (LC 13), 4=-44 (LC 8)
Max Grav 1=149 (LC 25), 3=149 (LC 26), 4=375 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-60/50, 2-3=-60/52
BOT CHORD 1-4=-1/23, 3-4=-1/23
WEBS 2-4=-264/261

NOTES
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=35ft; Ke=1.00; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
4) Gable requires continuous bottom chord bearing.
5) Gable studs spaced at 4-0-0 oc.
6) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
7) All bearings are assumed to be SP No.2 crushing capacity of 565 psi.
8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 36 lb uplift at joint 1, 39 lb uplift at joint 3 and 44 lb uplift at joint 4.
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

September 4,2025

Job	Truss	Truss Type	Qty	Ply	
Roof - 8 Inch Heel	V2	Valley	1	1	I76096936 Job Reference (optional)

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

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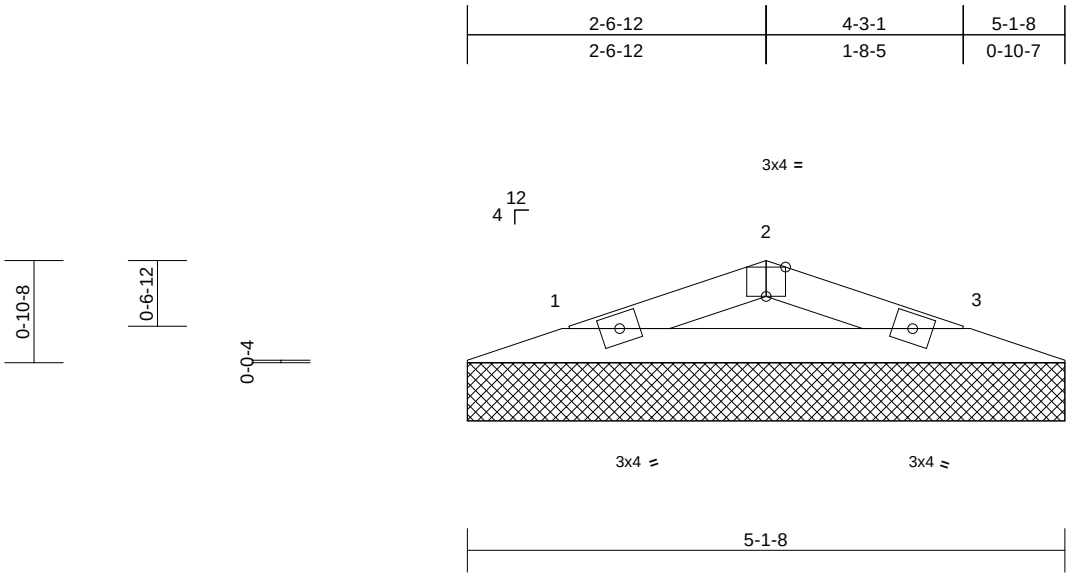


Scale = 1:19.8

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

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.10	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.14	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: 13 lb	FT = 20%

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

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

REACTIONS (size) 1=5-1-8, 3=5-1-8
Max Horiz 1=11 (LC 16)
Max Uplift 1=-27 (LC 8), 3=-27 (LC 9)
Max Grav 1=152 (LC 1), 3=152 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-198/239, 2-3=-198/243
BOT CHORD 1-3=-200/173

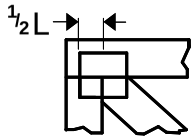
NOTES
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=35ft; Ke=1.00; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
4) Gable requires continuous bottom chord bearing.
5) Gable studs spaced at 4-0-0 oc.
6) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
7) All bearings are assumed to be SP No.2 crushing capacity of 565 psi.
8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 27 lb uplift at joint 1 and 27 lb uplift at joint 3.
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

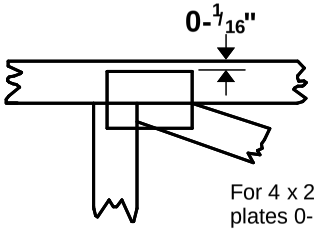
September 4,2025

Symbols

PLATE LOCATION AND ORIENTATION



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



For 4 x 2 orientation, locate plates 0- 1/16" from outside edge of truss.

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

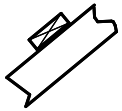
* Plate location details available in MiTek software or upon request.

PLATE SIZE

4 x 4

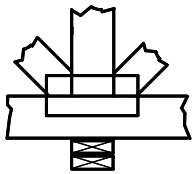
The first dimension is the plate width measured perpendicular to slots. Second dimension is the length parallel to slots.

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

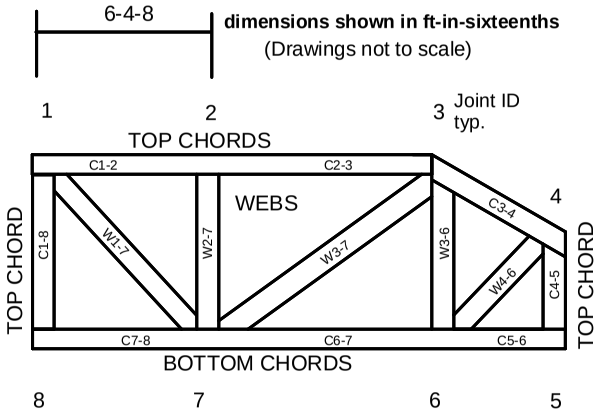


Indicates location where bearings (supports) occur. Icons vary but reaction section indicates joint number/letter where bearings occur. Min size shown is for crushing only.

Industry Standards:

ANSI/TPI1: 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



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

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

Product Code Approvals

ICC-ES Reports:

ESR-1988, ESR-2362, ESR-2685, ESR-3282
ESR-4722, ESL-1388

Design General Notes

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

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

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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/TPI 1.
7. Design assumes trusses will be suitably protected from the environment in accord with ANSI/TPI 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/TPI 1 Quality Criteria.
21. The design does not take into account any dynamic or other loads other than those expressly stated.