MiTek®

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

RE: P240395-01 - Roof - WO Lot 130

Site Information:

Project Customer: Clayton Properties Project Name: Sheffield - Modern Prairie
Lot/Block: 130 Subdivision: Woodside Ridge
Model:
Address: 2135 NW Killamey
City: Lee's Summit State: MO

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

Design Code: IRC2018/TPI2014 Design Program: MiTek 20/20 8.6
Wind Code: ASCE 7-16 Wind Speed: 115 mph Design Method: MWFRS (Envelope)/C-C hybrid Wind ASCE 7-16
Roof Load: 45.0 psf Floor Load: N/A psf

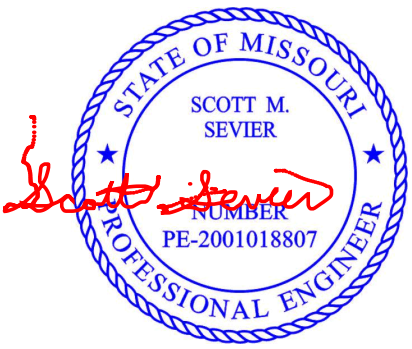
Mean Roof Height (feet): 35 Exposure Category: C

No.	Seal#	Truss Name	Date	No.	Seal#	Truss Name	Date
1	I65082234	A01	4/23/24	35	I65082268	D14	4/23/24
2	I65082235	A02	4/23/24	36	I65082269	D15	4/23/24
3	I65082236	AG01	4/23/24	37	I65082270	F03	4/23/24
4	I65082237	B01	4/23/24	38	I65082271	H1	4/23/24
5	I65082238	B02	4/23/24	39	I65082272	H2	4/23/24
6	I65082239	BG01	4/23/24	40	I65082273	H5	4/23/24
7	I65082240	C01	4/23/24	41	I65082274	H6	4/23/24
8	I65082241	C02	4/23/24	42	I65082275	H7	4/23/24
9	I65082242	C02A	4/23/24	43	I65082276	J01	4/23/24
10	I65082243	C03	4/23/24	44	I65082277	J1	4/23/24
11	I65082244	C04	4/23/24	45	I65082278	J02	4/23/24
12	I65082245	C05	4/23/24	46	I65082279	J2	4/23/24
13	I65082246	C06	4/23/24	47	I65082280	J03	4/23/24
14	I65082247	C07	4/23/24	48	I65082281	J3	4/23/24
15	I65082248	C08	4/23/24	49	I65082282	J04	4/23/24
16	I65082249	C09	4/23/24	50	I65082283	J4	4/23/24
17	I65082250	C10	4/23/24	51	I65082284	J05	4/23/24
18	I65082251	CJ01	4/23/24	52	I65082285	J06	4/23/24
19	I65082252	CJ1	4/23/24	53	I65082286	J07	4/23/24
20	I65082253	CJ02	4/23/24	54	I65082287	J08	4/23/24
21	I65082254	CJ2	4/23/24	55	I65082288	J09	4/23/24
22	I65082255	CJ04	4/23/24	56	I65082289	LG01	4/23/24
23	I65082256	D01	4/23/24	57	I65082290	LG02	4/23/24
24	I65082257	D02	4/23/24	58	I65082291	LG03	4/23/24
25	I65082258	D03	4/23/24	59	I65082292	LG05	4/23/24
26	I65082259	D04	4/23/24	60	I65082293	LG06	4/23/24
27	I65082260	D05	4/23/24	61	I65082294	LG07	4/23/24
28	I65082261	D06	4/23/24	62	I65082295	V01	4/23/24
29	I65082262	D07	4/23/24	63	I65082296	V02	4/23/24
30	I65082263	D08	4/23/24	64	I65082297	V03	4/23/24
31	I65082264	D09	4/23/24	65	I65082298	V04	4/23/24
32	I65082265	D11	4/23/24	66	I65082299	V05	4/23/24
33	I65082266	D12	4/23/24	67	I65082300	V06	4/23/24
34	I65082267	D13	4/23/24	68	I65082301	V07	4/23/24

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

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.



April 23,2024
Sevier, Scott

MiTek®

RE: P240395-01 - Roof - WO Lot 130

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

No.	Seal#	Truss Name	Date
69	I65082302	V08	4/23/24
70	I65082303	V09	4/23/24

Job	Truss	Truss Type	Qty	Ply	Roof - WO Lot 130
P240395-01	A01	Roof Special Supported Gable	1	1	Job Reference (optional) I65082234

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

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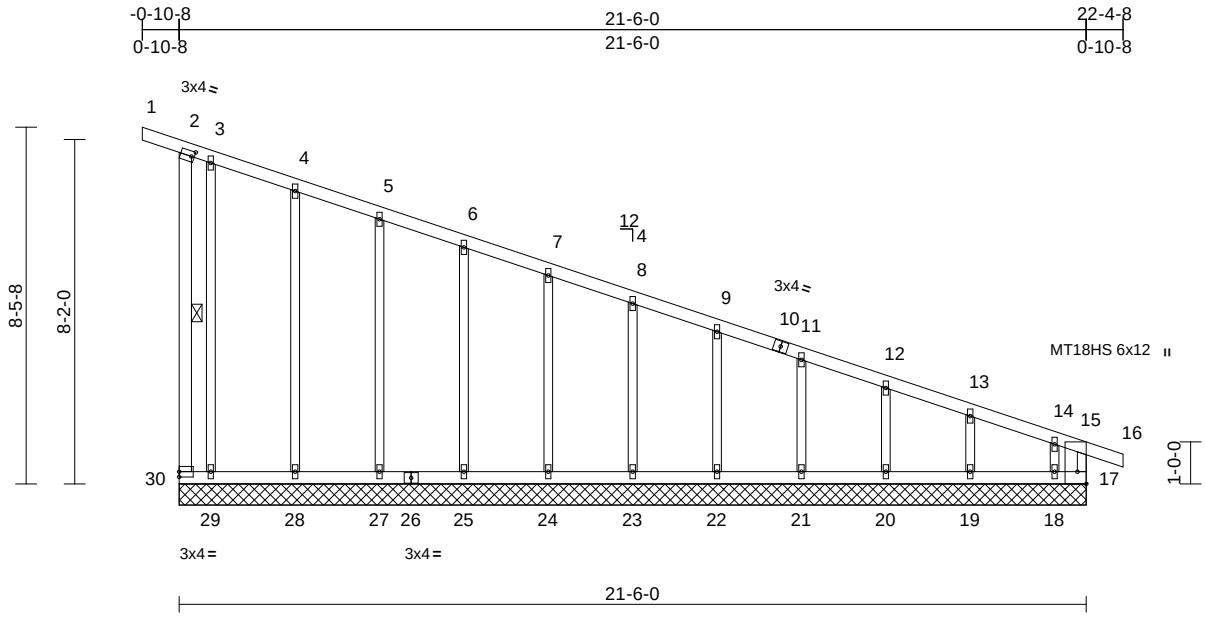

Scale = 1:54.6

Plate Offsets (X, Y): [2:0-0-13,0-1-8], [15: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	0.58	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.38	Vert(CT)	n/a	-	n/a	999	MT18HS	197/144
BCLL	0.0	Rep Stress Incr	YES	WB	0.26	Horz(CT)	0.01	17	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-R							Weight: 116 lb	FT = 20%

LUMBER
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2
WEBS 2x4 SP No.2 *Except* 15-17:2x3 SPF No.2
OTHERS 2x3 SPF No.2

BRACING
TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.
WEBS 1 Row at midpt 2-30

REACTIONS (size) 17=21-6-0, 18=21-6-0, 19=21-6-0, 20=21-6-0, 21=21-6-0, 22=21-6-0, 23=21-6-0, 24=21-6-0, 25=21-6-0, 27=21-6-0, 28=21-6-0, 29=21-6-0, 30=21-6-0
Max Horiz 30=-390 (LC 8)
Max Uplift 18=-404 (LC 8), 19=-39 (LC 9), 20=-52 (LC 13), 21=-48 (LC 9), 22=-49 (LC 13), 23=-49 (LC 13), 24=-49 (LC 9), 25=-48 (LC 13), 27=-55 (LC 9), 28=-31 (LC 8), 29=-65 (LC 9), 30=-136 (LC 8)
Max Grav 17=463 (LC 8), 18=93 (LC 1), 19=187 (LC 1), 20=178 (LC 1), 21=180 (LC 1), 22=180 (LC 1), 23=180 (LC 1), 24=180 (LC 1), 25=180 (LC 1), 27=181 (LC 1), 28=181 (LC 1), 29=150 (LC 19), 30=111 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 2-30=-162/266, 1-2=-23/0, 2-3=-103/109, 3-4=-153/162, 4-5=-194/183, 5-6=-229/193, 6-7=-265/205, 7-8=-302/216, 8-9=-338/228, 9-11=-374/240, 11-12=-411/252, 12-13=-447/264, 13-14=-482/275, 14-15=-601/335, 15-16=0/22, 15-17=-420/243
BOT CHORD 29-30=-291/539, 28-29=-291/539, 27-28=-291/539, 25-27=-291/539, 24-25=-291/539, 23-24=-291/539, 22-23=-291/539, 21-22=-291/539, 20-21=-291/539, 19-20=-291/539, 18-19=-291/539, 17-18=-291/539
WEBS 8-23=-140/91, 7-24=-140/91, 6-25=-140/91, 5-27=-141/101, 4-28=-140/105, 3-29=-183/133, 9-22=-140/91, 11-21=-140/91, 12-20=-139/91, 13-19=-146/92, 14-18=-229/370

NOTES
1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=35ft; Ke=1.00; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Corner(3E) -0-10-8 to 4-1-8, Exterior(2N) 4-1-8 to 22-4-8 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
2) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
3) All plates are MT20 plates unless otherwise indicated.
4) All plates are 1.5x4 MT20 unless otherwise indicated.
5) Gable requires continuous bottom chord bearing.
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 136 lb uplift at joint 30, 49 lb uplift at joint 23, 49 lb uplift at joint 24, 48 lb uplift at joint 25, 55 lb uplift at joint 27, 31 lb uplift at joint 28, 65 lb uplift at joint 29, 49 lb uplift at joint 22, 48 lb uplift at joint 21, 52 lb uplift at joint 20, 39 lb uplift at joint 19 and 404 lb uplift at joint 18.
11) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard

April 23,2024

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

Job	Truss	Truss Type	Qty	Ply	Roof - WO Lot 130	I65082235
P240395-01	A02	Jack-Closed	11	1	Job Reference (optional)	

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

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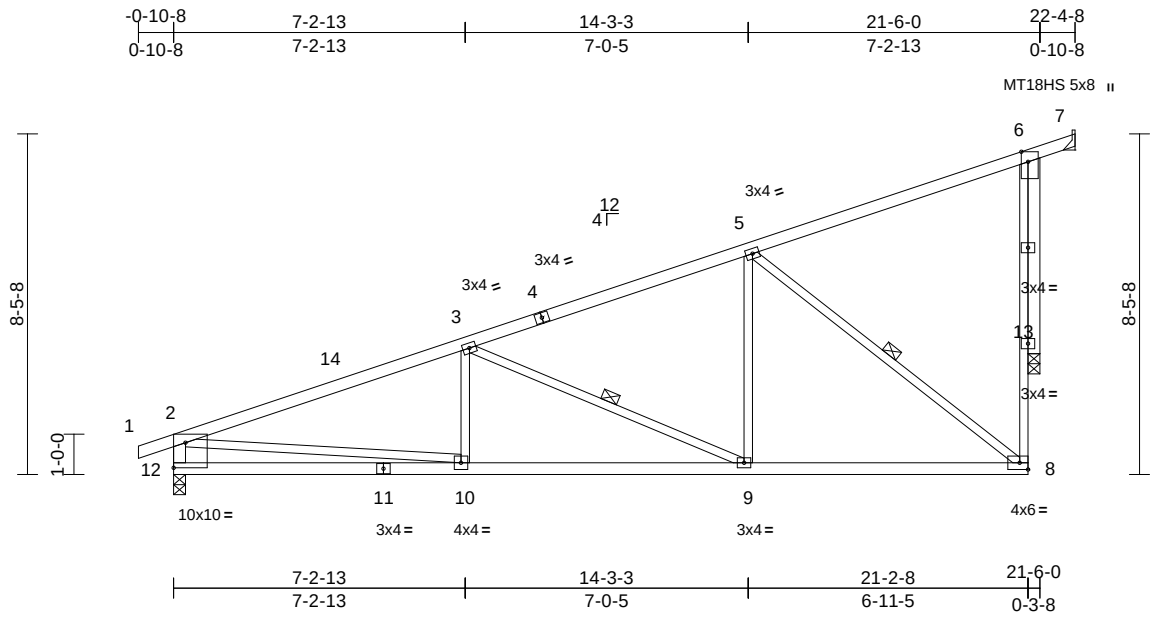

Scale = 1:57.2

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

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	9-10	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.58	Vert(CT)	-0.16	10-12	>999	180	MT18HS	197/144
BCLL	0.0	Rep Stress Incr	YES	WB	0.75	Horz(CT)	-0.17	13	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S							Weight: 107 lb	FT = 20%

LUMBER
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2
WEBS 2x3 SPF No.2 *Except* 12-2:2x4 SP No.2
OTHERS 2x4 SP No.2

BRACING
TOP CHORD Structural wood sheathing directly applied or 3-10-12 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 7-6-1 oc bracing.
WEBS 1 Row at midpt 3-9, 5-8

REACTIONS (size) 7= Mechanical, 12=0-3-8, 13=0-3-8
Max Horiz 12=383 (LC 9)
Max Uplift 7=-167 (LC 1), 12=-219 (LC 8), 13=-300 (LC 9)
Max Grav 7=147 (LC 11), 12=1005 (LC 1), 13=1199 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 2-12=-933/358, 1-2=0/23, 2-3=-1656/379, 3-5=-958/276, 5-6=-203/185, 6-7=-81/66, 8-13=-145/721, 6-13=-478/399
BOT CHORD 10-12=-611/625, 9-10=-516/1496, 8-9=-296/836
WEBS 2-10=-99/1067, 3-10=0/208, 3-9=-722/241, 5-9=-17/498, 5-8=-1064/299

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 22-2-12 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
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 12 SP No.2 crushing capacity of 565 psi, Joint 13 SP No.2 crushing capacity of 565 psi.
5) Refer to girder(s) for truss to truss connections.
6) Bearing at joint(s) 13 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 219 lb uplift at joint 12, 167 lb uplift at joint 7 and 300 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.

LOAD CASE(S) Standard

April 23,2024

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16023 Swingley Ridge Rd.
Chesterfield, MO 63017
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Job	Truss	Truss Type	Qty	Ply	Roof - WO Lot 130
P240395-01	AG01	Flat Girder	1	2	Job Reference (optional) I65082236

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

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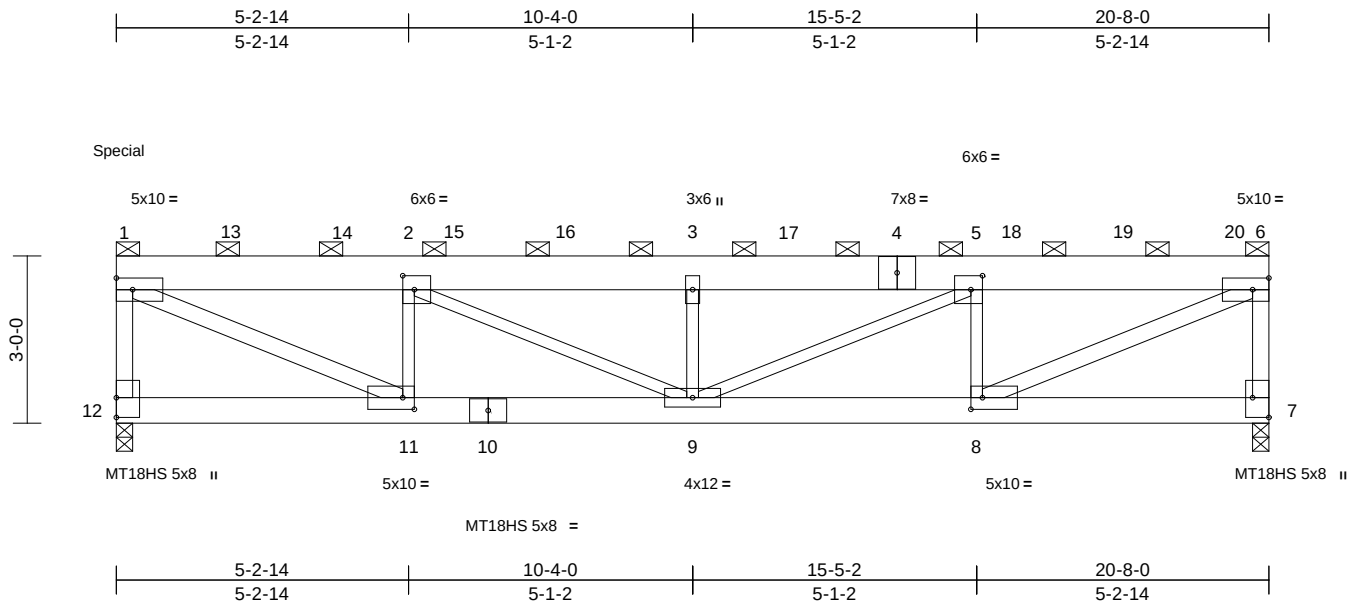

Scale = 1:41.3

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

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	0.73	Vert(LL)	-0.23	9	>999	240	MT18HS	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.43	Vert(CT)	-0.39	9	>625	180	MT20	197/144
BCLL	0.0	Rep Stress Incr	NO	WB	0.95	Horz(CT)	0.04	7	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S							Weight: 263 lb	FT = 20%

LUMBER
TOP CHORD 2x8 SPF No.2
BOT CHORD 2x6 SP 2400F 2.0E
WEBS 2x3 SPF No.2 *Except* 12-1,6-7:2x4 SP No.2, 11-1,8-6:2x4 SP 1650F 1.5E

BRACING
TOP CHORD 2-0-0 oc purlins (3-9-8 max.): 1-6, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (size) 7=0-3-8, 12=0-3-8
Max Horiz 12=-101 (LC 30)
Max Uplift 7=-1654 (LC 9), 12=-1475 (LC 8)
Max Grav 7=6994 (LC 1), 12=6090 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-12=-5946/1636, 1-2=-10589/2781, 2-3=-13740/3571, 3-5=-13740/3571, 5-6=-10705/2809, 6-7=-6845/1816
BOT CHORD 11-12=-180/211, 9-11=-2852/10589, 8-9=-2834/10705, 7-8=-92/221
WEBS 1-11=-3022/11533, 2-11=-4981/1405, 2-9=-924/3501, 3-9=-2973/851, 5-9=-898/3372, 5-8=-5040/1419, 6-8=-3047/11651

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, 2x8 - 2 rows staggered at 0-9-0 oc.
Bottom chords connected as follows: 2x6 - 2 rows staggered at 0-9-0 oc.
Web connected as follows: 2x4 - 1 row at 0-9-0 oc, 2x3 - 1 row at 0-9-0 oc.
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) 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
4) Provide adequate drainage to prevent water ponding.
5) All plates are MT20 plates unless otherwise indicated.
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 2400F 2.0E crushing capacity of 805 psi.
8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 1475 lb uplift at joint 12 and 1654 lb uplift at joint 7.
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) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 199 lb down and 199 lb up at 0-1-12, 1129 lb down and 270 lb up at 2-0-12, 1129 lb down and 270 lb up at 4-0-12, 1129 lb down and 270 lb up at 6-0-12, 1129 lb down and 270 lb up at 8-0-12, 1129 lb down and 270 lb up at 10-0-12, 1129 lb down and 270 lb up at 12-0-12, 1129 lb down and 270 lb up at 14-0-12, 1129 lb down and 270 lb up at 16-0-12, and 1129 lb down and 270 lb up at 18-0-12, and 1148 lb down and 277 lb up at 20-0-12 on top 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: 1-6=-70, 7-12=-20
Concentrated Loads (lb)
Vert: 1=55 (F), 4=-1129, 3=-1129, 13=-1129, 14=-1129, 15=-1129, 16=-1129, 17=-1129, 18=-1129, 19=-1129, 20=-1148

April 23,2024

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Job	Truss	Truss Type	Qty	Ply	Roof - WO Lot 130
P240395-01	B01	Monopitch Supported Gable	1	1	Job Reference (optional) I65082237

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

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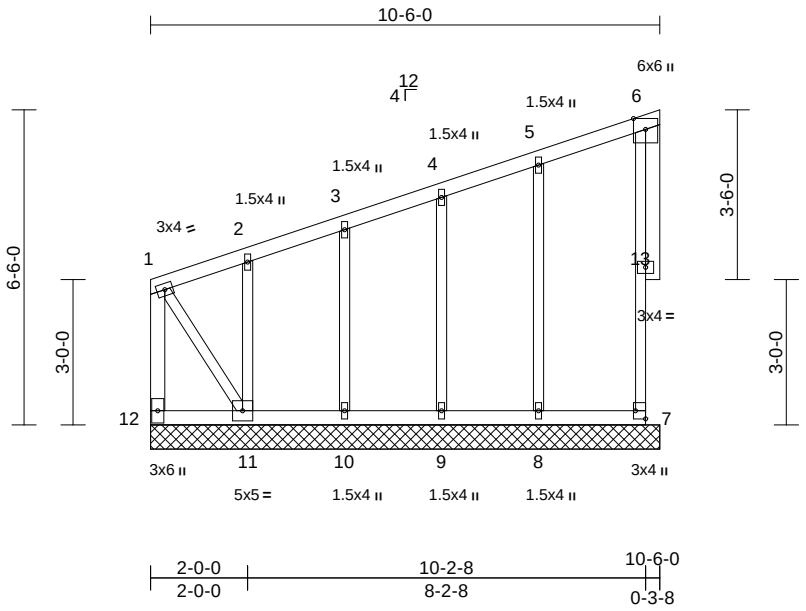

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Plate Offsets (X, Y): [7:Edge,0-2-8]

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	0.59	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.15	Vert(TL)	n/a	-	n/a	999		
BCLL	0.0	Rep Stress Incr	YES	WB	0.19	Horiz(TL)	0.00	7	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S							Weight: 61 lb	FT = 20%

LUMBER
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2
WEBS 2x3 SPF No.2 *Except* 12-1:2x4 SP No.2
OTHERS 2x3 SPF No.2 *Except* 13-6:2x4 SP No.2

BRACING
TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing, Except:
8-2-4 oc bracing: 11-12.

REACTIONS (size) 7=10-6-0, 8=10-6-0, 9=10-6-0, 10=10-6-0, 11=10-6-0, 12=10-6-0
Max Horiz 12=272 (LC 9)
Max Uplift 7=-26 (LC 9), 8=-45 (LC 12), 9=-48 (LC 12), 10=-50 (LC 8), 11=-298 (LC 9)
Max Grav 7=86 (LC 1), 8=205 (LC 1), 9=175 (LC 1), 10=180 (LC 1), 11=190 (LC 1), 12=324 (LC 9)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-363/217, 2-3=-307/203, 3-4=-247/185, 4-5=-193/174, 5-6=-120/136, 6-7=-69/84, 1-12=-698/415
BOT CHORD 11-12=-519/383, 10-11=-117/155, 9-10=-117/155, 8-9=-117/155, 7-8=-117/155
WEBS 2-11=-145/172, 3-10=-140/167, 4-9=-137/172, 5-8=-163/221, 1-11=-468/780

NOTES
1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=35ft; Ke=1.00; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Corner(3E) 9-1-12 to 14-1-12, Exterior(2N) 14-1-12 to 19-2-8 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
2) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
3) Gable requires continuous bottom chord bearing.
4) Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
5) Gable studs spaced at 2-0-0 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 26 lb uplift at joint 7, 298 lb uplift at joint 11, 50 lb uplift at joint 10, 48 lb uplift at joint 9 and 45 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.

LOAD CASE(S) Standard

April 23,2024

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

Job	Truss	Truss Type	Qty	Ply	Roof - WO Lot 130
P240395-01	B02	Jack-Closed	10	1	Job Reference (optional) I65082238

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

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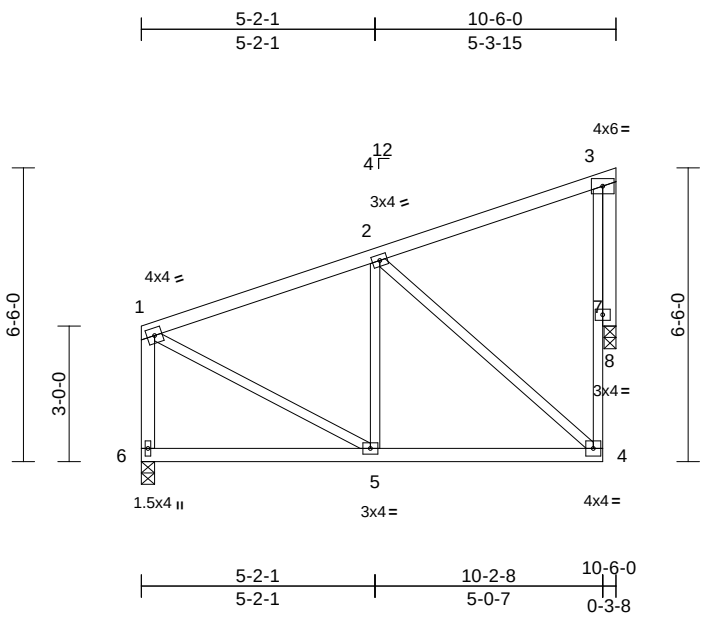

Scale = 1:51

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	0.40	Vert(LL)	-0.02	4-5	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.25	Vert(CT)	-0.04	4-5	>999	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.42	Horz(CT)	0.11	8	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S							Weight: 58 lb	FT = 20%

LUMBER
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2
WEBS 2x3 SPF No.2 *Except* 6-1:2x4 SP No.2
OTHERS 2x4 SP No.2

BRACING
TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 9-11-5 oc bracing.

REACTIONS (size) 6=0-3-8, 8=0-3-2
Max Horiz 6=213 (LC 9)
Max Uplift 6=-54 (LC 8), 8=-144 (LC 12)
Max Grav 6=460 (LC 1), 8=436 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-382/110, 2-3=-96/21, 4-7=-181/308, 3-7=-181/308, 1-6=-413/209
BOT CHORD 5-6=-347/241, 4-5=-293/349
WEBS 1-5=-64/333, 2-4=-390/298, 2-5=-54/123, 3-8=-439/280

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) 9-1-12 to 14-2-1, Interior (1) 14-2-1 to 19-1-4 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) All bearings are assumed to be SP No.2 crushing capacity of 565 psi.
4) Bearing at joint(s) 8 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 54 lb uplift at joint 6 and 144 lb uplift at joint 8.
6) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard

April 23,2024

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

Job	Truss	Truss Type	Qty	Ply	Roof - WO Lot 130
P240395-01	BG01	Flat Girder	1	2	Job Reference (optional) I65082239

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

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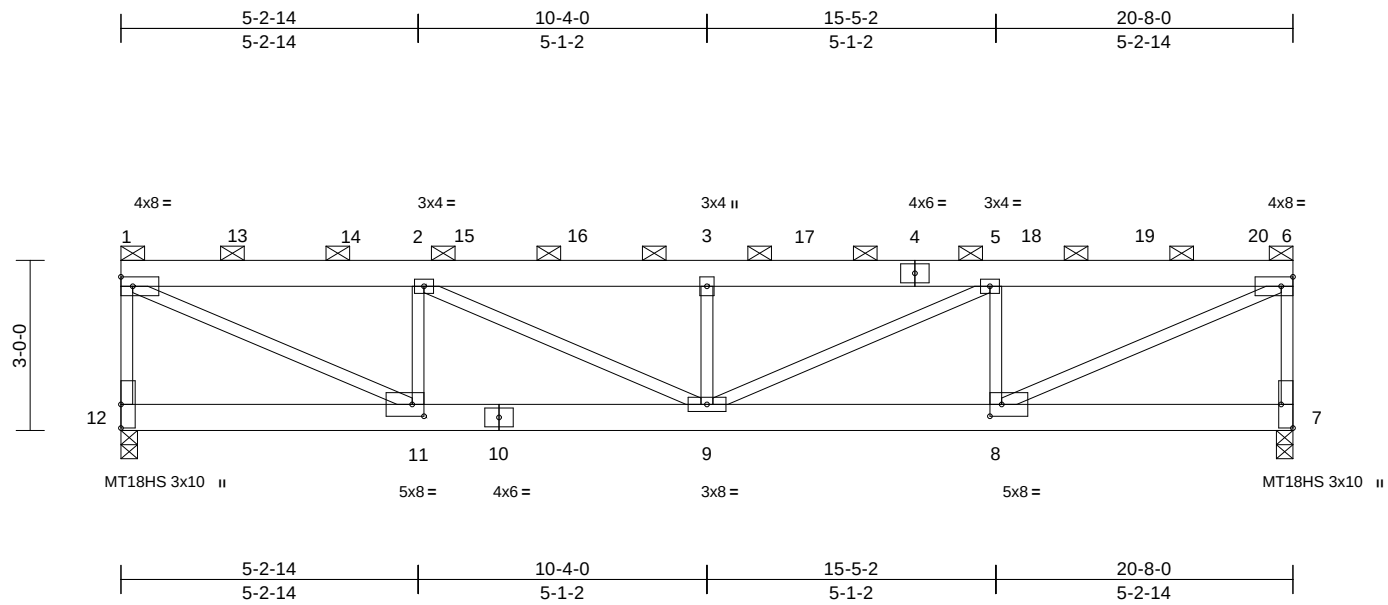

Scale = 1:40.6

Plate Offsets (X, Y): [7:Edge,0-2-8], [8:0-2-8,0-2-8], [11:0-2-8,0-2-8]

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	0.38	Vert(LL)	0.12	9	>999	240	MT18HS	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.50	Vert(CT)	-0.21	9	>999	180	MT20	197/144
BCLL	0.0	Rep Stress Incr	NO	WB	0.83	Horz(CT)	0.02	7	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S							Weight: 200 lb	FT = 20%

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

BRACING
TOP CHORD 2-0-0 oc purlins (6-0-0 max.): 1-6, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (size) 7=0-3-8, 12=0-3-8
Max Horiz 12=-104 (LC 8)
Max Uplift 7=-816 (LC 9), 12=-727 (LC 8)
Max Grav 7=2904 (LC 1), 12=2619 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-12=-2535/918, 1-2=-4363/1498, 2-3=-5719/1926, 3-5=-5719/1926, 5-6=-4406/1510, 6-7=-2819/991
BOT CHORD 11-12=-149/156, 9-11=-1571/4363, 8-9=-1536/4406, 7-8=-57/64
WEBS 1-11=-1640/4803, 2-11=-2062/815, 2-9=-527/1515, 3-9=-1227/498, 5-9=-517/1467, 5-8=-2084/821, 6-8=-1650/4847

NOTES
1) 2-ply truss to be connected together with 10d (0.131"x3") nails as follows:
Top chords connected as follows: 2x3 - 1 row at 0-9-0 oc, 2x6 - 2 rows staggered at 0-9-0 oc.
Bottom chords connected as follows: 2x6 - 2 rows staggered at 0-9-0 oc.
Web connected as follows: 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) 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
4) Provide adequate drainage to prevent water ponding.
5) All plates are MT20 plates unless otherwise indicated.
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 727 lb uplift at joint 12 and 816 lb uplift at joint 7.
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) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 366 lb down and 133 lb up at 2-0-12, 366 lb down and 133 lb up at 4-0-12, 366 lb down and 133 lb up at 6-0-12, 366 lb down and 133 lb up at 8-0-12, 366 lb down and 133 lb up at 10-0-12, 366 lb down and 133 lb up at 12-0-12, 366 lb down and 133 lb up at 14-0-12, 366 lb down and 133 lb up at 16-0-12, and 366 lb down and 133 lb up at 18-0-12, and 384 lb down and 126 lb up at 20-0-12 on top 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: 1-6=-70, 7-12=-20
Concentrated Loads (lb)
Vert: 4=-366, 3=-366, 13=-366, 14=-366, 15=-366, 16=-366, 17=-366, 18=-366, 19=-366, 20=-384

April 23,2024

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

Job	Truss	Truss Type	Qty	Ply	Roof - WO Lot 130
P240395-01	C01	Half Hip Girder	1	1	Job Reference (optional) I65082240

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

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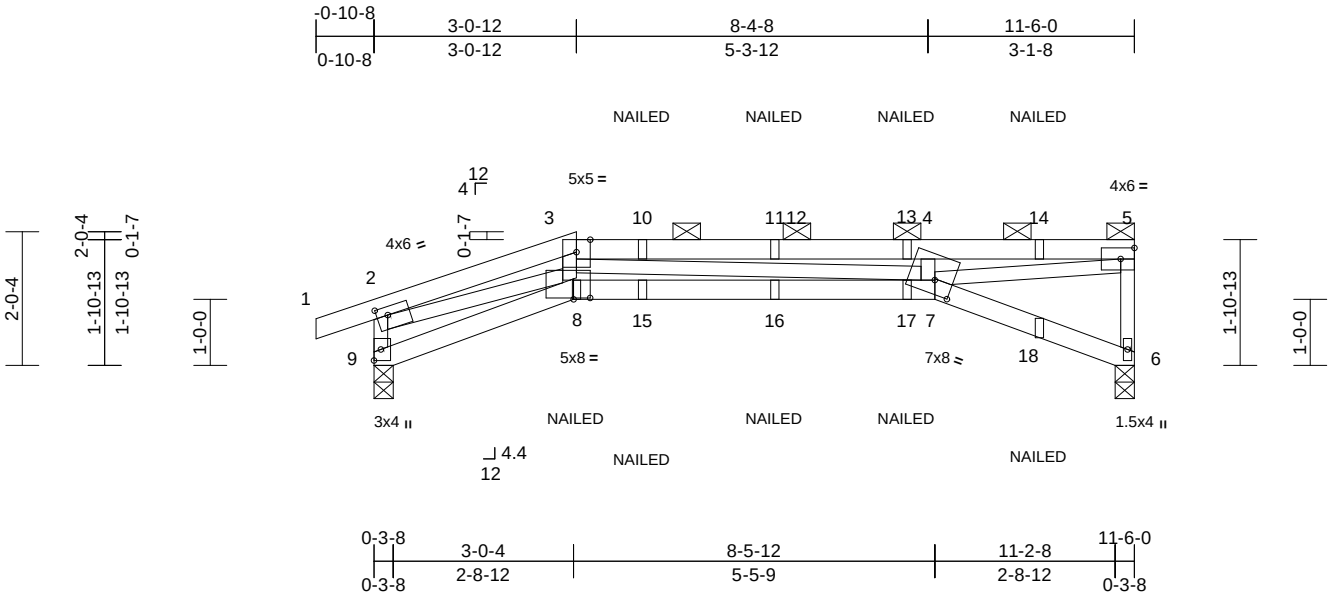

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Plate Offsets (X, Y): [2:0-2-0,0-1-8], [7:0-3-4,0-2-8], [8:0-3-0,0-0-4]

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)	-0.16	7-8	>828	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.97	Vert(CT)	-0.33	7-8	>415	180		
BCLL	0.0	Rep Stress Incr	NO	WB	0.80	Horz(CT)	0.19	6	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S							Weight: 48 lb	FT = 20%

LUMBER
TOP CHORD 2x4 SP No.2 *Except* 3-5:2x4 SP 1650F 1.5E
BOT CHORD 2x4 SP No.2
WEBS 2x3 SPF No.2

BRACING
TOP CHORD Structural wood sheathing directly applied or 3-6-3 oc purlins, except end verticals, and 2-0-0 oc purlins (3-9-2 max.): 3-5.
BOT CHORD Rigid ceiling directly applied or 5-4-2 oc bracing.

REACTIONS (size) 6=0-3-8, 9=0-3-8
Max Horiz 9=82 (LC 9)
Max Uplift 6=-165 (LC 9), 9=-228 (LC 8)
Max Grav 6=611 (LC 1), 9=724 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 2-9=-712/420, 1-2=0/22, 2-3=-2599/1205, 3-4=-2354/1109, 4-5=-2292/1061, 5-6=-571/299
BOT CHORD 8-9=-219/177, 7-8=-1215/2425, 6-7=-38/52
WEBS 2-8=-1023/2341, 3-8=-152/460, 3-7=-90/74, 4-7=-367/287, 5-7=-1096/2315

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 3-0-12, Exterior(2R) 3-0-12 to 10-1-10, Interior (1) 10-1-10 to 11-4-12 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) 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) Bearing at joint(s) 9, 6 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 228 lb uplift at joint 9 and 165 lb uplift at joint 6.
8) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
9) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
10) "NAILED" indicates Girder: 3-10d (0.148" x 3") toe-nails per NDS guidelines.
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: 1-2=-70, 2-3=-70, 3-5=-70, 8-9=-20, 7-8=-20, 6-7=-20
Concentrated Loads (lb)
Vert: 8=-135 (F), 10=-18 (F), 11=-18 (F), 13=-18 (F), 14=-18 (F), 15=-10 (F), 16=-10 (F), 17=-10 (F), 18=-11 (F)

STATE OF MISSOURI
SCOTT M. SEVIER
NUMBER PE-2001018807
PROFESSIONAL ENGINEER

April 23,2024

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

Job	Truss	Truss Type	Qty	Ply	Roof - WO Lot 130	I65082241
P240395-01	C02	Half Hip	1	1	Job Reference (optional)	

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

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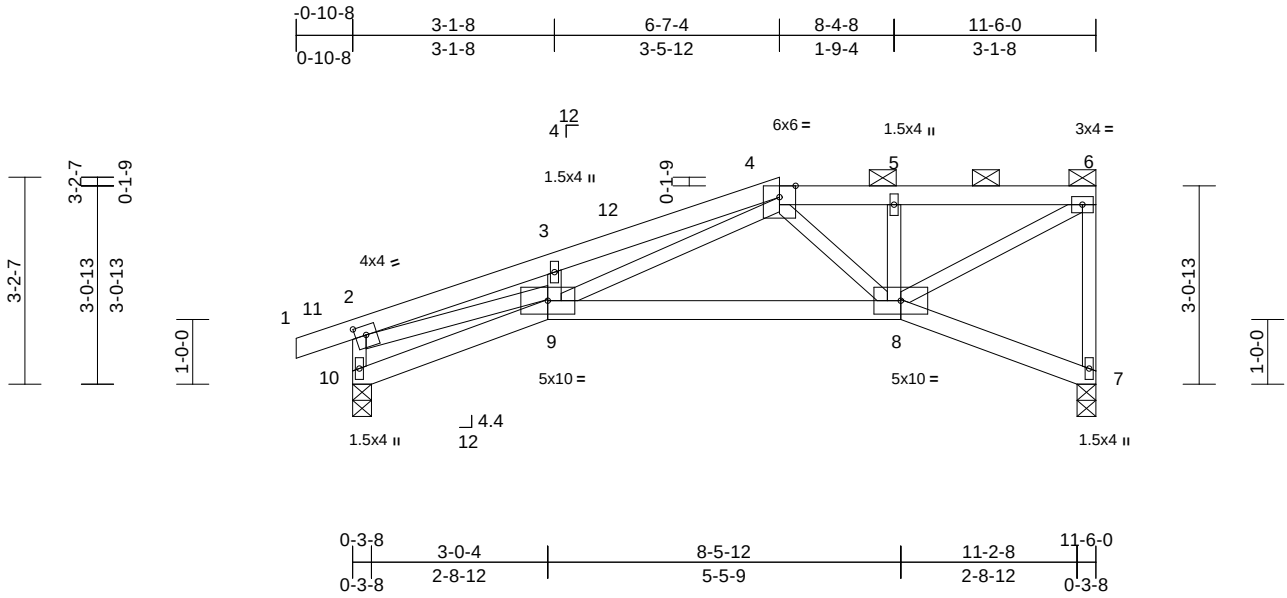

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Plate Offsets (X, Y): [2:0-2-0,0-1-12]

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.32	Vert(LL)	0.08	8-9	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.37	Vert(CT)	-0.14	8-9	>999	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.46	Horz(CT)	0.07	7	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S							Weight: 51 lb	FT = 20%

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

BRACING
TOP CHORD Structural wood sheathing directly applied or 4-4-12 oc purlins, except end verticals, and 2-0-0 oc purlins (6-0-0 max.): 4-6.
BOT CHORD Rigid ceiling directly applied or 7-5-12 oc bracing.

REACTIONS (size) 7=0-3-8, 10=0-3-8
Max Horiz 10=137 (LC 9)
Max Uplift 7=-116 (LC 8), 10=-151 (LC 8)
Max Grav 7=505 (LC 1), 10=580 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 2-10=-569/396, 1-2=0/22, 2-3=-1559/1013, 3-4=-1536/1093, 4-5=-658/404, 5-6=-658/404, 6-7=-484/344
BOT CHORD 9-10=-342/252, 8-9=-618/780, 7-8=-61/68
WEBS 2-9=-822/1340, 3-9=-121/172, 4-9=-608/751, 4-8=-172/188, 5-8=-184/163, 6-8=-511/756

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 6-7-4, Exterior(2E) 6-7-4 to 11-4-12 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) 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) Bearing at joint(s) 10, 7 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 151 lb uplift at joint 10 and 116 lb uplift at joint 7.
8) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
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

April 23,2024

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

Job	Truss	Truss Type	Qty	Ply	Roof - WO Lot 130
P240395-01	C02A	Half Hip	1	1	Job Reference (optional) I65082242

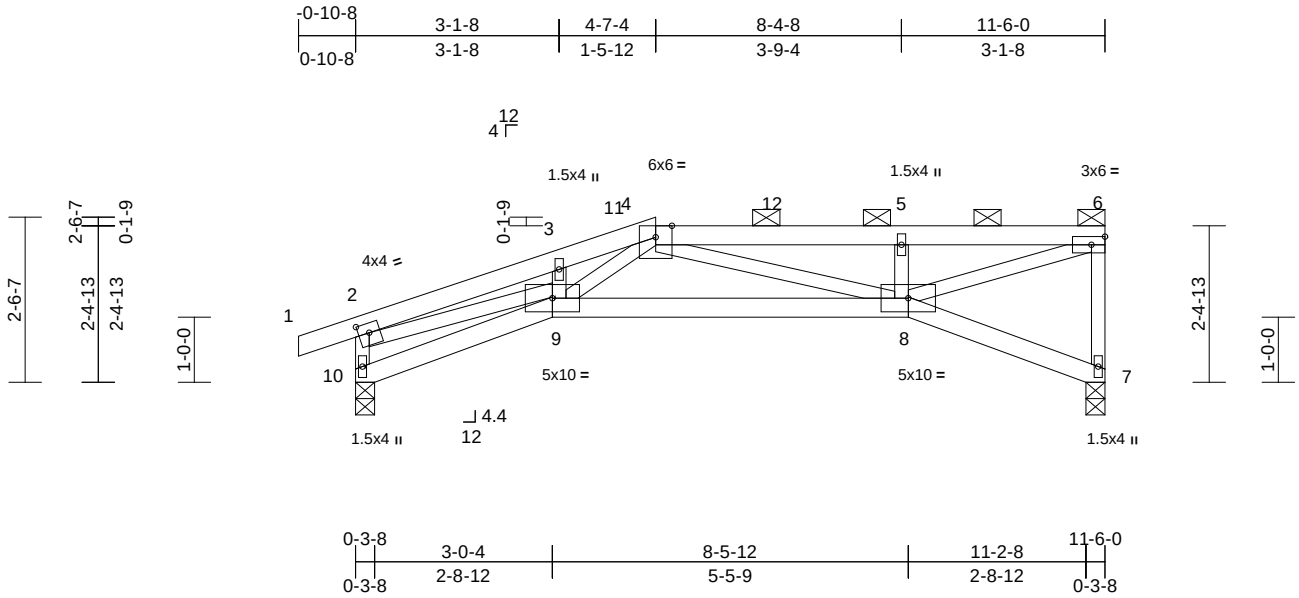

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Plate Offsets (X, Y): [2:0-2-0,0-1-12]

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.25	Vert(LL)	0.07	8-9	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.44	Vert(CT)	-0.14	8-9	>999	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.45	Horz(CT)	0.07	7	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S							Weight: 49 lb	FT = 20%

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

BRACING
TOP CHORD Structural wood sheathing directly applied or 4-5-13 oc purlins, except end verticals, and 2-0-0 oc purlins (5-4-11 max.): 4-6.
BOT CHORD Rigid ceiling directly applied or 6-8-11 oc bracing.

REACTIONS (size) 7=0-3-8, 10=0-3-8
Max Horiz 10=105 (LC 11)
Max Uplift 7=-113 (LC 8), 10=-154 (LC 8)
Max Grav 7=505 (LC 1), 10=580 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 2-10=-576/400, 1-2=0/22, 2-3=-1536/898, 3-4=-1461/930, 4-5=-1067/624, 5-6=-1064/621, 6-7=-480/312
BOT CHORD 9-10=-273/218, 8-9=-775/1136, 7-8=-45/56
WEBS 2-9=-710/1309, 3-9=0/108, 4-9=-246/337, 4-8=-80/108, 5-8=-273/251, 6-8=-675/1122

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 4-7-4, Exterior(2E) 4-7-4 to 11-4-12 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) 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) Bearing at joint(s) 10, 7 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 154 lb uplift at joint 10 and 113 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

April 23,2024

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

Job	Truss	Truss Type	Qty	Ply	Roof - WO Lot 130	I65082243
P240395-01	C03	Half Hip	1	1	Job Reference (optional)	

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

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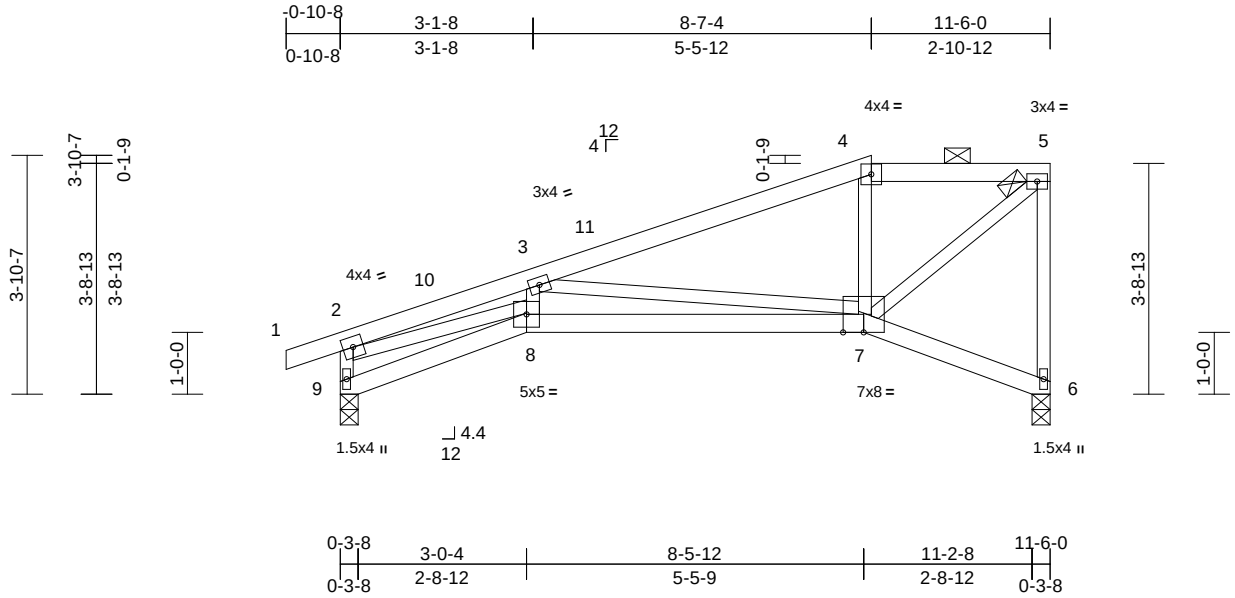

Scale = 1:37.3

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	0.51	Vert(LL)	0.10	7-8	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.55	Vert(CT)	-0.16	7-8	>862	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.78	Horz(CT)	0.08	6	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S							Weight: 52 lb	FT = 20%

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

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

REACTIONS (size) 6=0-3-8, 9=0-3-8
Max Horiz 9=168 (LC 9)
Max Uplift 6=-119 (LC 8), 9=-147 (LC 8)
Max Grav 6=505 (LC 1), 9=580 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 2-9=-556/352, 1-2=0/22, 2-3=-1668/1088, 3-4=-569/259, 4-5=-496/308, 5-6=-488/356
BOT CHORD 8-9=-373/273, 7-8=-1268/1521, 6-7=-77/86
WEBS 2-8=-937/1479, 3-8=-130/268, 3-7=-1044/881, 4-7=-162/209, 5-7=-463/643

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 8-7-4, Exterior(2E) 8-7-4 to 11-4-12 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) 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) Bearing at joint(s) 9, 6 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 147 lb uplift at joint 9 and 119 lb uplift at joint 6.
8) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
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

April 23,2024

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

Job	Truss	Truss Type	Qty	Ply	Roof - WO Lot 130
P240395-01	C04	Half Hip	1	1	Job Reference (optional) I65082244

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

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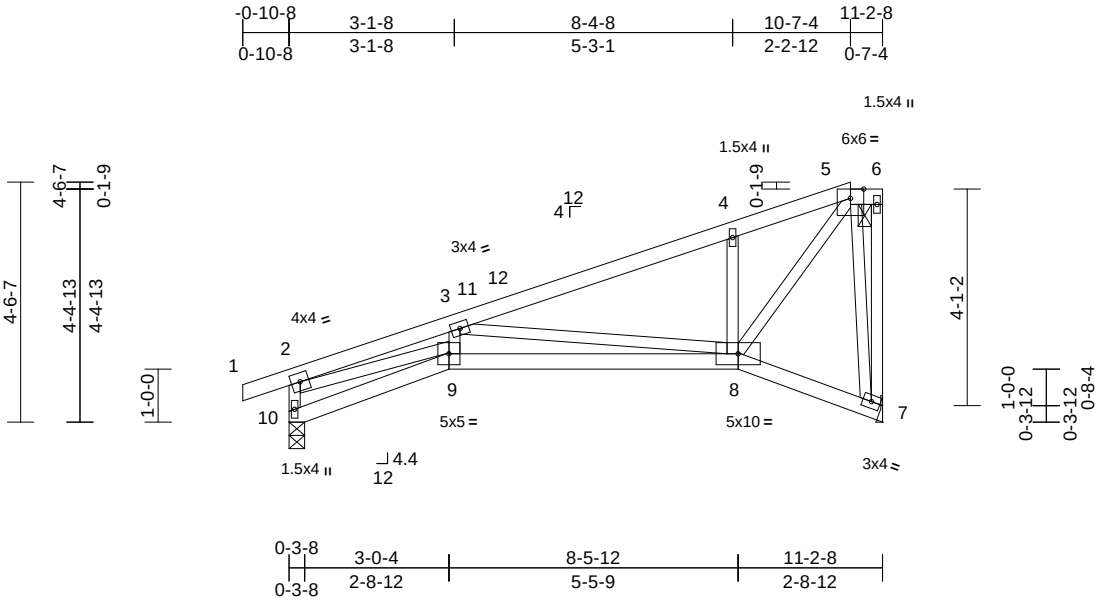

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Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.39	Vert(LL)	0.09	8-9	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.53	Vert(CT)	-0.15	8-9	>889	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.68	Horz(CT)	0.08	7	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S							Weight: 55 lb	FT = 20%

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

BRACING
TOP CHORD Structural wood sheathing directly applied or 4-7-10 oc purlins, except end verticals, and 2-0-0 oc purlins (6-0-0 max.): 5-6.
BOT CHORD Rigid ceiling directly applied or 5-5-0 oc bracing.

REACTIONS (size) 7= Mechanical, 10=0-3-8
Max Horiz 10=199 (LC 9)
Max Uplift 7=-122 (LC 8), 10=-140 (LC 8)
Max Grav 7=492 (LC 1), 10=567 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 2-10=-547/350, 1-2=0/22, 2-3=-1572/937, 3-4=-553/221, 4-5=-525/289, 5-6=-86/93, 6-7=-114/116
BOT CHORD 9-10=-429/313, 8-9=-1178/1427, 7-8=-107/130
WEBS 2-9=-796/1378, 3-9=-140/266, 3-8=-958/780, 4-8=-347/338, 5-8=-516/728, 5-7=-416/347

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 10-7-4, Exterior(2E) 10-7-4 to 11-1-4 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) 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) Bearing at joint(s) 10 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 140 lb uplift at joint 10 and 122 lb uplift at joint 7.
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

April 23,2024

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

Job	Truss	Truss Type	Qty	Ply	Roof - WO Lot 130
P240395-01	C05	Jack-Closed	1	1	Job Reference (optional) I65082245

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

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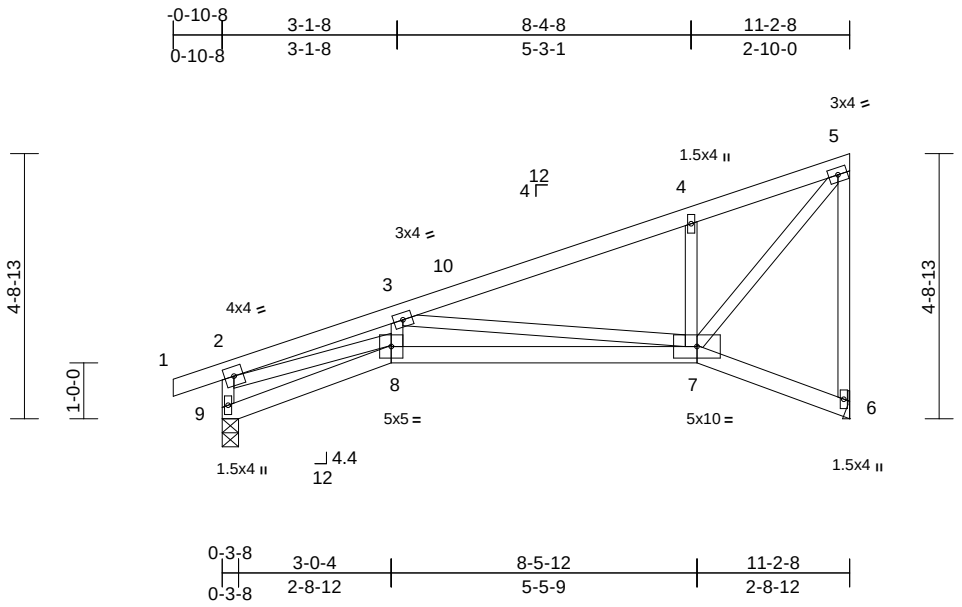

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Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.39	Vert(LL)	0.09	7-8	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.53	Vert(CT)	-0.15	7-8	>877	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.69	Horz(CT)	0.08	6	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S							Weight: 52 lb	FT = 20%

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

BRACING
TOP CHORD Structural wood sheathing directly applied or 4-7-8 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 5-5-3 oc bracing.

REACTIONS (size) 6= Mechanical, 9=0-3-8
Max Horiz 9=213 (LC 9)
Max Uplift 6=-126 (LC 12), 9=-137 (LC 8)
Max Grav 6=492 (LC 1), 9=567 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 2-9=-547/349, 1-2=0/22, 2-3=-1575/903, 3-4=-539/214, 4-5=-534/289, 5-6=-477/361
BOT CHORD 8-9=-456/329, 7-8=-1171/1430, 6-7=-95/105
WEBS 2-8=-765/1381, 3-8=-147/269, 3-7=-964/774, 4-7=-360/352, 5-7=-536/752

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 11-1-4 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 9 SP No.2 crushing capacity of 565 psi.
4) Refer to girder(s) for truss to truss connections.
5) Bearing at joint(s) 9 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 137 lb uplift at joint 9 and 126 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

April 23,2024

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

Job	Truss	Truss Type	Qty	Ply	Roof - WO Lot 130
P240395-01	C06	Jack-Closed	8	1	Job Reference (optional) I65082246

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

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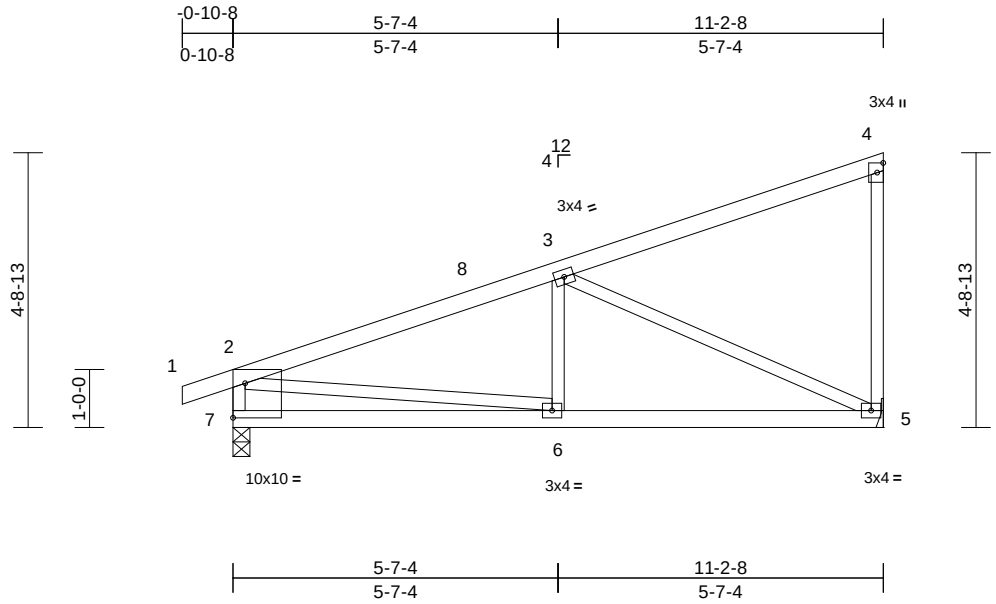

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Plate Offsets (X, Y): [7:Edge,0-7-2]

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	0.45	Vert(LL)	-0.03	5-6	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.34	Vert(CT)	-0.06	5-6	>999	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.62	Horz(CT)	0.01	5	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S							Weight: 50 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 6-0-0 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 8-6-4 oc bracing.

REACTIONS (size) 5= Mechanical, 7=0-3-8
Max Horiz 7=212 (LC 9)
Max Uplift 5=-126 (LC 12), 7=-138 (LC 8)
Max Grav 5=492 (LC 1), 7=567 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 2-7=-514/345, 1-2=0/22, 2-3=-716/285, 3-4=-128/93, 4-5=-156/168
BOT CHORD 6-7=-441/348, 5-6=-468/626
WEBS 2-6=-70/463, 3-6=0/212, 3-5=-678/439

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 11-1-4 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 7 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 138 lb uplift at joint 7 and 126 lb uplift at joint 5.
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

April 23,2024

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

Job	Truss	Truss Type	Qty	Ply	Roof - WO Lot 130
P240395-01	C07	Half Hip Girder	1	1	Job Reference (optional) I65082247

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

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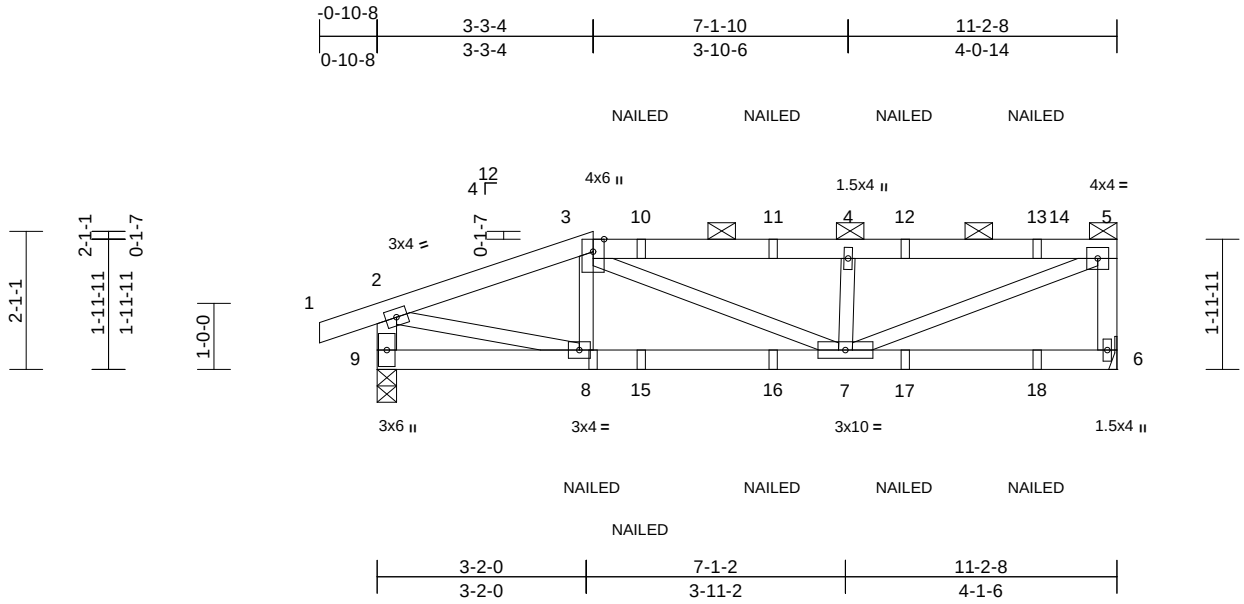

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Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.29	Vert(LL)	-0.03	7-8	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.34	Vert(CT)	-0.06	7-8	>999	180		
BCLL	0.0	Rep Stress Incr	NO	WB	0.37	Horz(CT)	0.01	6	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S							Weight: 49 lb	FT = 20%

LUMBER
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2
WEBS 2x3 SPF No.2 *Except* 5-6,9-2:2x4 SP No.2

BRACING
TOP CHORD Structural wood sheathing directly applied or 5-8-14 oc purlins, except end verticals, and 2-0-0 oc purlins (5-5-14 max.): 3-5.
BOT CHORD Rigid ceiling directly applied or 8-8-11 oc bracing.

REACTIONS (size) 6= Mechanical, 9=0-3-8
Max Horiz 9=82 (LC 9)
Max Uplift 6=-167 (LC 9), 9=-227 (LC 8)
Max Grav 6=627 (LC 1), 9=732 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/23, 2-3=-1014/440, 3-4=-1043/477, 4-5=-1052/482, 5-6=-570/299, 2-9=-697/408
BOT CHORD 8-9=-198/153, 7-8=-455/930, 6-7=-48/52
WEBS 5-7=-473/1085, 2-8=-320/861, 3-8=-2/107, 3-7=-28/172, 4-7=-376/268

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 3-3-4, Exterior(2R) 3-3-4 to 10-4-2, Interior (1) 10-4-2 to 11-0-12 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
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 9 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 167 lb uplift at joint 6 and 227 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.
10) "NAILED" indicates Girder: 3-10d (0.148" x 3") toe-nails per NDS guidelines.
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: 1-2=-70, 2-3=-70, 3-5=-70, 6-9=-20
Concentrated Loads (lb)
Vert: 8=-150 (B), 10=-26 (B), 11=-26 (B), 12=-26 (B), 13=-26 (B), 15=-13 (B), 16=-13 (B), 17=-13 (B), 18=-13 (B)

April 23,2024

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

Job	Truss	Truss Type	Qty	Ply	Roof - WO Lot 130
P240395-01	C08	Half Hip	1	1	Job Reference (optional) I65082248

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

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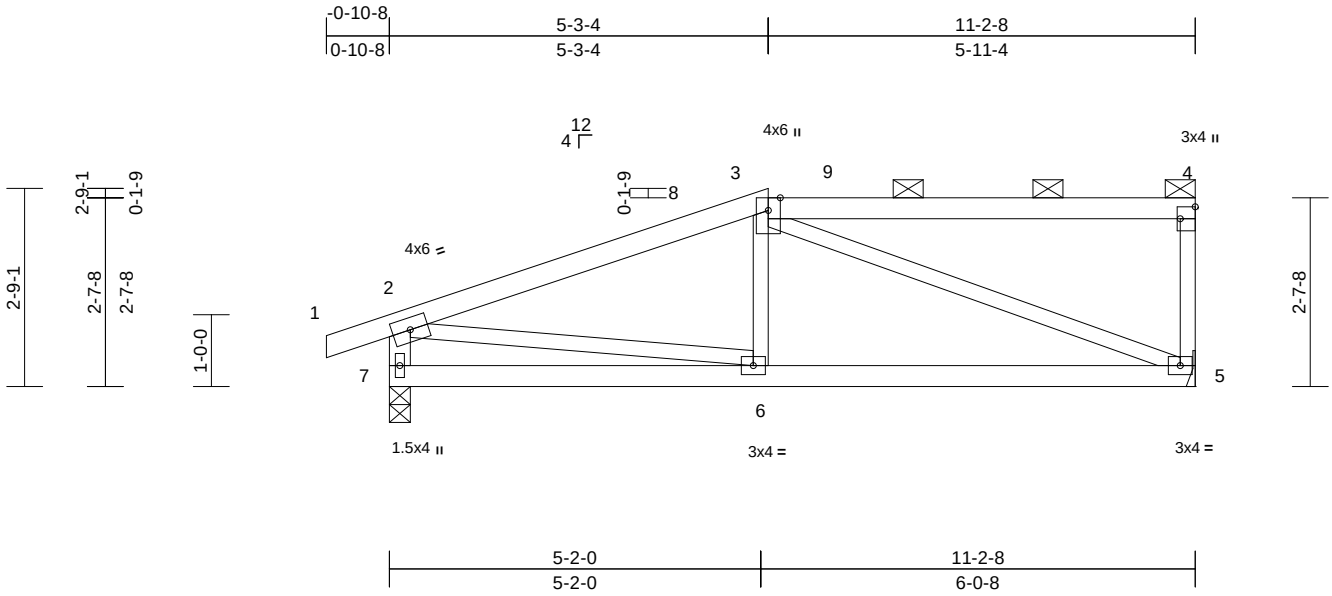

Scale = 1:32

Plate Offsets (X, Y): [4: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	0.61	Vert(LL)	-0.04	5-6	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.35	Vert(CT)	-0.08	5-6	>999	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.62	Horz(CT)	0.01	5	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S							Weight: 48 lb	FT = 20%

LUMBER
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2
WEBS 2x3 SPF No.2 *Except* 7-2:2x4 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.): 3-4.
BOT CHORD Rigid ceiling directly applied or 9-1-3 oc bracing.

REACTIONS (size) 5= Mechanical, 7=0-3-8
Max Horiz 7=113 (LC 11)
Max Uplift 5=-110 (LC 8), 7=-152 (LC 8)
Max Grav 5=490 (LC 1), 7=568 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/23, 2-3=-709/361, 3-4=-79/82, 4-5=-203/184, 2-7=-521/382
BOT CHORD 6-7=-348/271, 5-6=-413/618
WEBS 3-6=0/202, 3-5=-620/380, 2-6=-116/425

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 5-3-4, Exterior(2E) 5-3-4 to 11-1-4 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) 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 110 lb uplift at joint 5 and 152 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

April 23,2024

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

Job	Truss	Truss Type	Qty	Ply	Roof - WO Lot 130	I65082249
P240395-01	C09	Half Hip	1	1	Job Reference (optional)	

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

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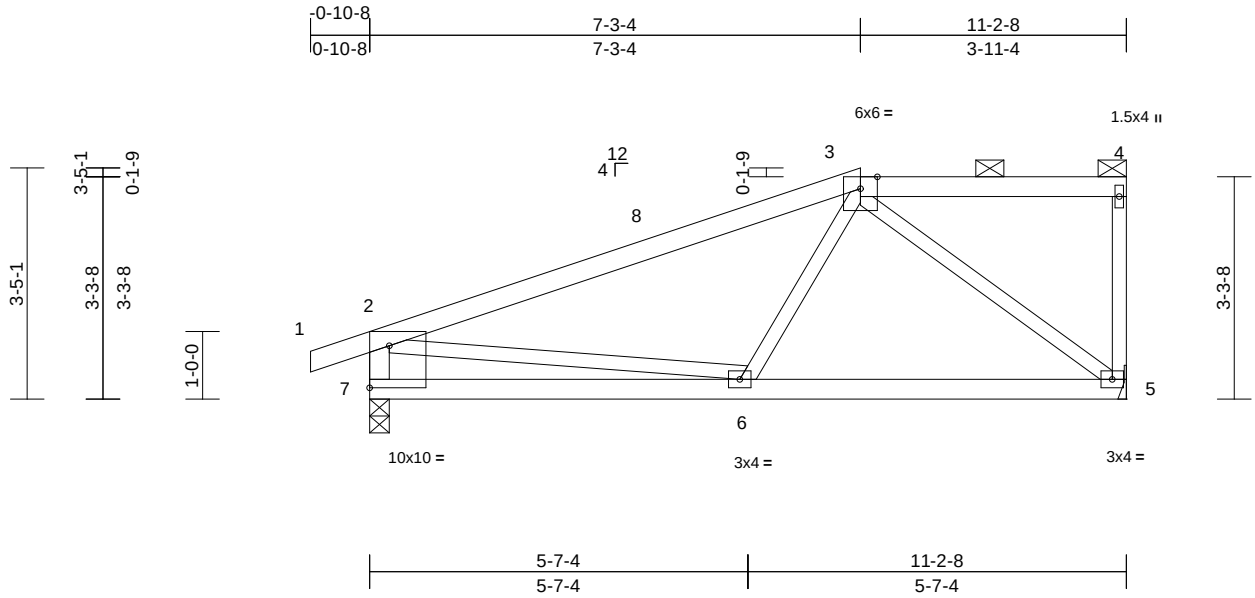

Scale = 1:34.1

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

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	0.71	Vert(LL)	-0.03	5-6	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.31	Vert(CT)	-0.06	5-6	>999	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.32	Horz(CT)	0.01	5	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S							Weight: 49 lb	FT = 20%

LUMBER
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2
WEBS 2x3 SPF No.2 *Except* 7-2:2x4 SP No.2

BRACING
TOP CHORD Structural wood sheathing directly applied or 5-10-4 oc purlins, except end verticals, and 2-0-0 oc purlins (6-0-0 max.): 3-4.
BOT CHORD Rigid ceiling directly applied or 7-5-9 oc bracing.

REACTIONS (size) 5= Mechanical, 7=0-3-8
Max Horiz 7=145 (LC 9)
Max Uplift 5=-113 (LC 8), 7=-149 (LC 8)
Max Grav 5=490 (LC 1), 7=568 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/23, 2-3=-606/243, 3-4=-71/73, 4-5=-127/104, 2-7=-520/369
BOT CHORD 6-7=-622/447, 5-6=-360/431
WEBS 3-6=0/257, 3-5=-538/403, 2-6=-8/288

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 7-3-4, Exterior(2E) 7-3-4 to 11-1-4 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) 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 113 lb uplift at joint 5 and 149 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

April 23,2024

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

Job	Truss	Truss Type	Qty	Ply	Roof - WO Lot 130
P240395-01	C10	Half Hip	1	1	Job Reference (optional) I65082250

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

Run: 8.63 S Apr 5 2024 Print: 8.630 S Apr 5 2024 MiTek Industries, Inc. Mon Apr 22 19:25:47 Page: 1
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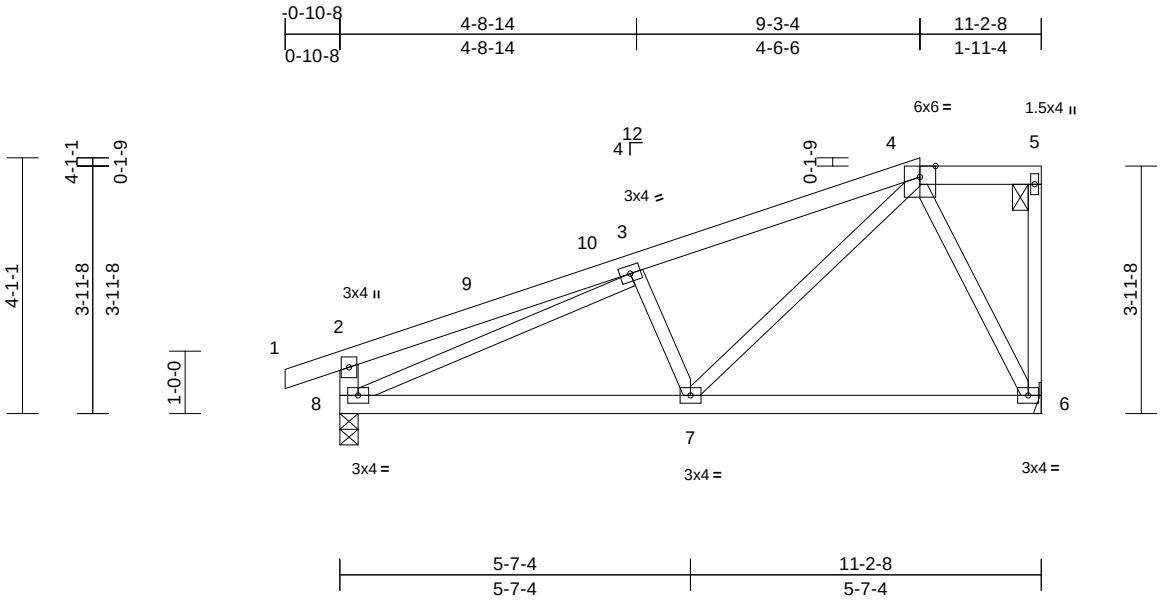

Scale = 1:36.8

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	0.27	Vert(LL)	-0.03	6-7	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.33	Vert(CT)	-0.06	6-7	>999	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.34	Horz(CT)	0.01	6	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S							Weight: 52 lb	FT = 20%

LUMBER
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2
WEBS 2x3 SPF No.2 *Except* 8-2:2x4 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.): 4-5.
BOT CHORD Rigid ceiling directly applied or 8-3-0 oc bracing.

REACTIONS (size) 6= Mechanical, 8=0-3-8
Max Horiz 8=177 (LC 9)
Max Uplift 6=-118 (LC 8), 8=-145 (LC 8)
Max Grav 6=490 (LC 1), 8=568 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/23, 2-3=-211/168, 3-4=-619/328, 4-5=-83/86, 5-6=-57/62, 2-8=-279/283
BOT CHORD 7-8=-505/629, 6-7=-212/216
WEBS 3-7=-239/293, 4-7=-260/479, 4-6=-450/366, 3-8=-532/162

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 9-3-4, Exterior(2E) 9-3-4 to 11-1-4 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) 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 118 lb uplift at joint 6 and 145 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

April 23,2024

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

Job	Truss	Truss Type	Qty	Ply	Roof - WO Lot 130
P240395-01	CJ01	Diagonal Hip Girder	1	1	Job Reference (optional) I65082251

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

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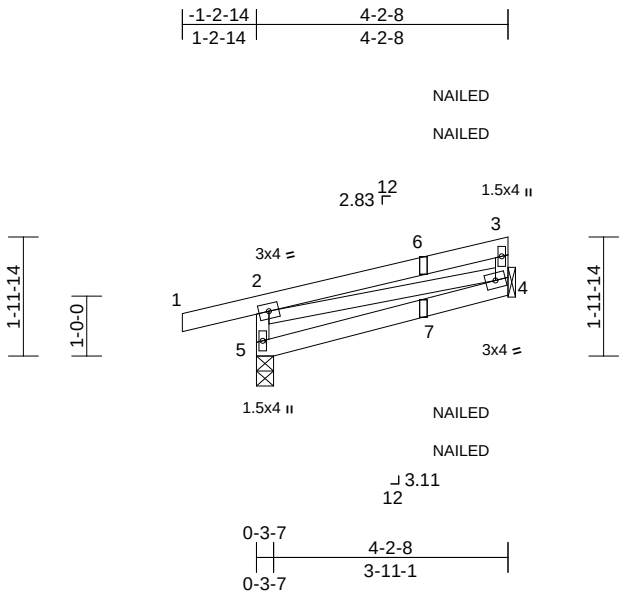

Scale = 1:38.5

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)	-0.02	4-5	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.21	Vert(CT)	-0.03	4-5	>999	180		
BCLL	0.0	Rep Stress Incr	NO	WB	0.03	Horz(CT)	0.00	4	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-P							Weight: 19 lb	FT = 20%

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

BRACING
TOP CHORD Structural wood sheathing directly applied or 4-2-8 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.

REACTIONS (size) 4= Mechanical, 5=0-3-7
Max Horiz 5=63 (LC 9)
Max Uplift 4=-42 (LC 12), 5=-103 (LC 8)
Max Grav 4=164 (LC 1), 5=289 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 2-5=-250/355, 1-2=0/22, 2-3=-57/31, 3-4=-124/151
BOT CHORD 4-5=-158/68
WEBS 2-4=-48/139

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) 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) Bearing at joint(s) 5 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 103 lb uplift at joint 5 and 42 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.
8) "NAILED" indicates Girder: 3-10d (0.148" x 3") toe-nails per NDS guidelines.
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, 2-3=-70, 4-5=-20
Concentrated Loads (lb)
Vert: 7=1 (F=0, B=0)

STATE OF MISSOURI
SCOTT M. SEVIER
NUMBER PE-2001018807
PROFESSIONAL ENGINEER

April 23,2024

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

Job	Truss	Truss Type	Qty	Ply	Roof - WO Lot 130
P240395-01	CJ1	Diagonal Hip Girder	1	1	Job Reference (optional) I65082252

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

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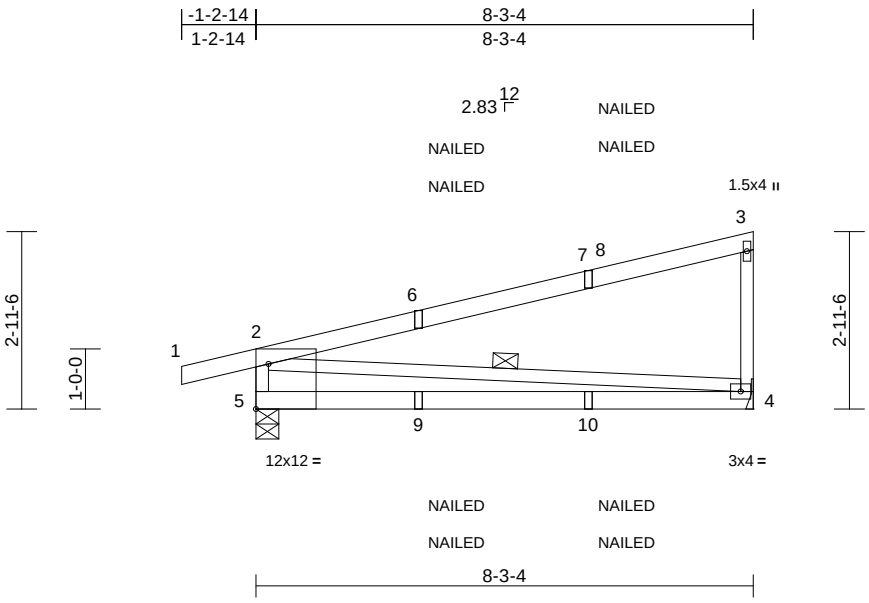

Scale = 1:38.3

Plate Offsets (X, Y): [5:Edge,0-9-0]

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	0.87	Vert(LL)	-0.20	4-5	>476	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.51	Vert(CT)	-0.41	4-5	>238	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: 36 lb	FT = 20%

LUMBER
TOP CHORD 2x4 SP 2400F 2.0E
BOT CHORD 2x4 SP 2400F 2.0E
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.
WEBS 1 Row at midpt 2-4

REACTIONS (size) 4= Mechanical, 5=0-4-9
Max Horiz 5=123 (LC 9)
Max Uplift 4=-101 (LC 12), 5=-146 (LC 8)
Max Grav 4=391 (LC 1), 5=481 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 2-5=-396/425, 1-2=0/22, 2-3=-134/81, 3-4=-299/292
BOT CHORD 4-5=-266/142
WEBS 2-4=-100/229

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 5 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 146 lb uplift at joint 5 and 101 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.
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: 1-2=-70, 2-3=-70, 4-5=-20
Concentrated Loads (lb)
Vert: 7=-37 (F=-18, B=-18), 9=1 (F=1, B=1), 10=-17 (F=-9, B=-9)

STATE OF MISSOURI
SCOTT M. SEVIER
NUMBER
PE-2001018807
PROFESSIONAL ENGINEER

April 23,2024

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

Job	Truss	Truss Type	Qty	Ply	Roof - WO Lot 130
P240395-01	CJ02	Diagonal Hip Girder	1	1	Job Reference (optional) I65082253

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

Run: 8.63 S Apr 5 2024 Print: 8.630 S Apr 5 2024 MiTek Industries, Inc. Mon Apr 22 15:25:48 Page: 1
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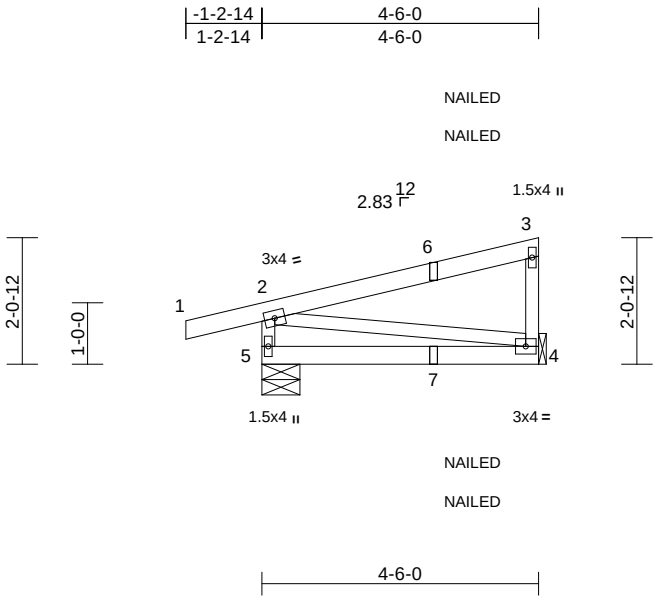

Scale = 1:37.5

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	0.38	Vert(LL)	-0.02	4-5	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.25	Vert(CT)	-0.04	4-5	>999	180		
BCLL	0.0	Rep Stress Incr	NO	WB	0.04	Horz(CT)	0.00	4	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-P							Weight: 20 lb	FT = 20%

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

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

REACTIONS (size) 4= Mechanical, 5=0-7-6
Max Horiz 5=83 (LC 9)
Max Uplift 4=-43 (LC 12), 5=-108 (LC 8)
Max Grav 4=178 (LC 1), 5=301 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 2-5=-259/348, 1-2=0/22, 2-3=-77/50, 3-4=-136/168
BOT CHORD 4-5=-184/94
WEBS 2-4=-67/161

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 108 lb uplift at joint 5 and 43 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.
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: 1-2=-70, 2-3=-70, 4-5=-20
Concentrated Loads (lb)
Vert: 7=1 (F=0, B=0)

STATE OF MISSOURI
SCOTT M. SEVIER
NUMBER
PE-2001018807
PROFESSIONAL ENGINEER

April 23,2024

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

Job	Truss	Truss Type	Qty	Ply	Roof - WO Lot 130
P240395-01	CJ2	Diagonal Hip Girder	2	1	Job Reference (optional) I65082254

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

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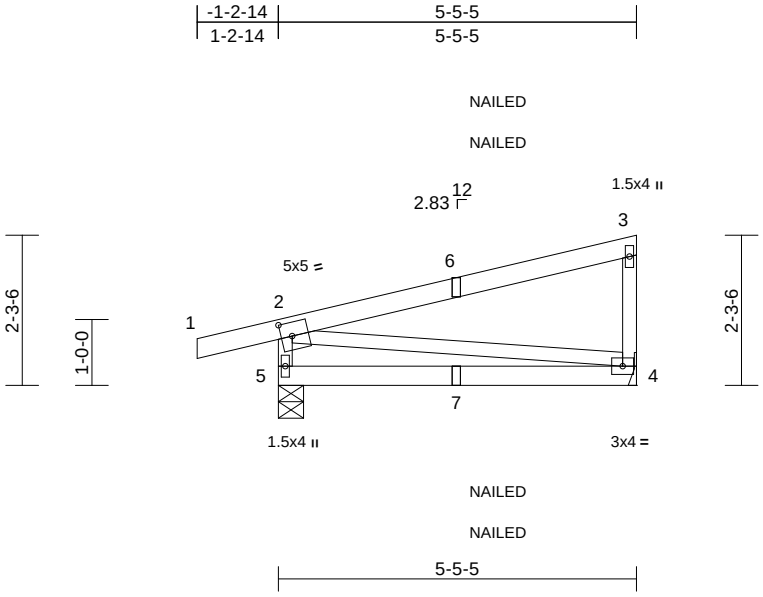

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Plate Offsets (X, Y): [2:0-2-0,0-2-8]

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)	-0.05	4-5	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.38	Vert(CT)	-0.09	4-5	>697	180		
BCLL	0.0	Rep Stress Incr	NO	WB	0.05	Horz(CT)	0.00	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
WEBS 2x3 SPF No.2

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) 4= Mechanical, 5=0-4-9
Max Horiz 5=93 (LC 9)
Max Uplift 4=-54 (LC 12), 5=-115 (LC 8)
Max Grav 4=223 (LC 1), 5=341 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 2-5=-289/377, 1-2=0/22, 2-3=-93/59, 3-4=-171/208
BOT CHORD 4-5=-208/108
WEBS 2-4=-77/182

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 115 lb uplift at joint 5 and 54 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.
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: 1-2=-70, 2-3=-70, 4-5=-20
Concentrated Loads (lb)
Vert: 7=1 (F=1, B=1)

April 23,2024

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

RELEASE FOR CONSTRUCTION
AS NOTED FOR PLAN REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
05/09/2024

Job	Truss	Truss Type	Qty	Ply	Roof - WO Lot 130
P240395-01	CJ04	Diagonal Hip Girder	1	1	Job Reference (optional) I65082255

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

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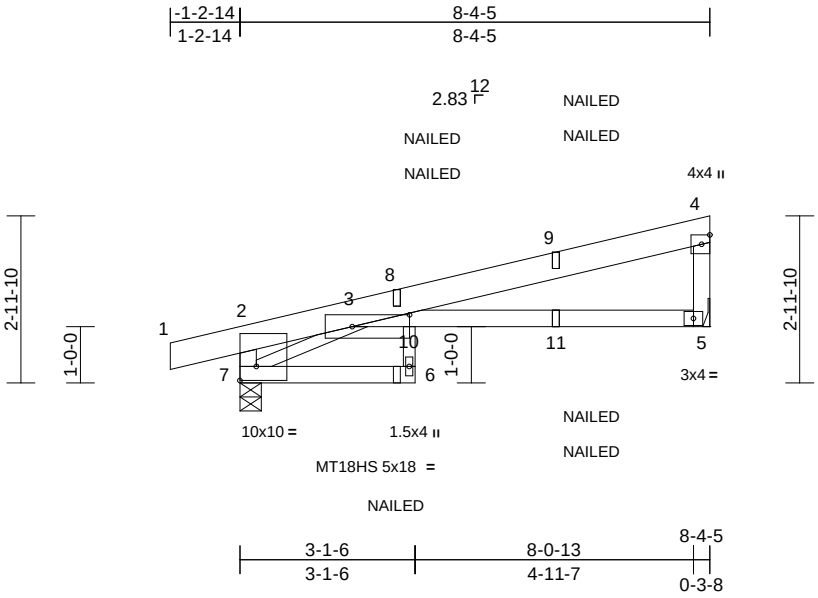

Scale = 1:41

Plate Offsets (X, Y): [3:1-0-4,0-2-8], [7:Edge,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	0.67	Vert(LL)	0.20	6	>494	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.50	Vert(CT)	-0.26	6	>375	180	MT18HS	197/144
BCLL	0.0	Rep Stress Incr	NO	WB	0.05	Horz(CT)	0.10	5	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S							Weight: 36 lb	FT = 20%

LUMBER
TOP CHORD 2x6 SPF No.2
BOT CHORD 2x4 SP No.2 *Except* 6-3:2x3 SPF No.2
WEBS 2x4 SP No.2 *Except* 7-3:2x3 SPF No.2
OTHERS 2x4 SP No.2

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

REACTIONS (size) 5= Mechanical, 7=0-4-9
Max Horiz 7=103 (LC 9)
Max Uplift 5=-118 (LC 12), 7=-147 (LC 8)
Max Grav 5=412 (LC 1), 7=507 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 2-7=-545/466, 1-2=0/22, 2-3=-191/145, 3-4=-206/87, 4-5=-297/270
BOT CHORD 6-7=-46/0, 3-6=0/71, 3-5=-138/184
WEBS 3-7=-282/217

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 8-2-9 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
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 7 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 147 lb uplift at joint 7 and 118 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) "NAILED" indicates Girder: 3-10d (0.148" x 3") toe-nails per NDS guidelines.
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, 2-3=-70, 3-4=-70, 6-7=-20, 3-5=-20
Concentrated Loads (lb)
Vert: 6=0 (B), 9=-22 (F=-11, B=-11), 11=-53 (F=-27, B=-27)

April 23,2024

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

Job	Truss	Truss Type	Qty	Ply	Roof - WO Lot 130	I65082256
P240395-01	D01	Half Hip Girder	1	3	Job Reference (optional)	

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

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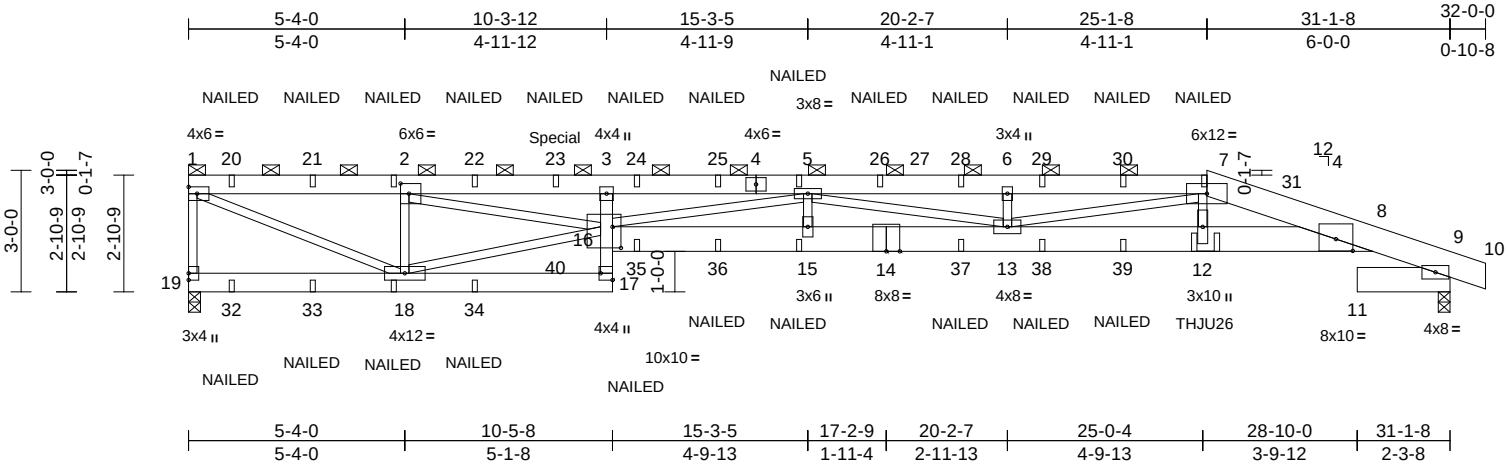

Scale = 1:56.9

Plate Offsets (X, Y): [2:0-2-8,0-3-0], [8:0-5-0,0-3-8], [16:0-2-8,0-6-4], [17:Edge,0-3-8]

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	0.88	Vert(LL)	-0.45	13-15	>818	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.83	Vert(CT)	-0.82	13-15	>450	180		
BCLL	0.0	Rep Stress Incr	NO	WB	0.87	Horz(CT)	0.25	9	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S							Weight: 530 lb	FT = 20%

LUMBER
TOP CHORD 2x6 SPF No.2 *Except* 7-10:2x8 SPF No.2
BOT CHORD 2x8 SP 2400F 2.0E *Except* 19-17:2x6 SPF No.2, 17-3:2x4 SP 1650F 1.5E, 11-9:2x8 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, and 2-0-0 oc purlins (6-0-0 max.): 1-7.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (size) 9=0-3-8, 19=0-3-8
Max Horiz 19=-112 (LC 10)
Max Uplift 9=-761 (LC 9), 19=-745 (LC 9)
Max Grav 9=2741 (LC 1), 19=2762 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-19=-2515/726, 1-2=-5123/1421, 2-3=-12442/3347, 3-5=-13179/3543, 5-6=-13517/3833, 6-7=-13517/3833, 7-8=-11065/3185, 8-9=-1289/404, 9-10=-6/0
BOT CHORD 18-19=-57/165, 17-18=-454/1770, 16-17=-10/166, 3-16=-78/148, 15-16=-4111/15395, 13-15=-4111/15395, 12-13=-3023/10790, 8-12=-2989/10659, 9-11=0/0
WEBS 1-18=-1502/5582, 2-18=-2646/787, 16-18=-875/3462, 2-16=-1996/7584, 7-12=-447/1698, 5-16=-2296/706, 7-13=-743/2828, 5-15=-99/565, 5-13=-1948/475, 6-13=-221/152

NOTES

1) 3-ply truss to be connected together with 10d (0.131"x3") nails as follows:
Top chords connected as follows: 2x3 - 1 row at 0-9-0 oc, 2x6 - 2 rows staggered at 0-9-0 oc, 2x8 - 2 rows staggered at 0-9-0 oc.
Bottom chords connected as follows: 2x6 - 2 rows staggered at 0-9-0 oc, 2x4 - 1 row at 0-9-0 oc, 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) Special connection required to distribute web loads equally between all plies.
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) 0-1-4 to 5-4-0, Interior (1) 5-4-0 to 25-1-8, Exterior(2E) 25-1-8 to 32-0-0 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
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 19 SPF No.2 crushing capacity of 425 psi, Joint 9 SPF No.2 crushing capacity of 425 psi.
8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 745 lb uplift at joint 19 and 761 lb uplift at joint 9.
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) Use Simpson Strong-Tie THJU26 (SGL & SGL SHORT RC 2-PLY) or equivalent at 25-1-2 from the left end to connect truss(es) to front face of bottom chord.
12) Fill all nail holes where hanger is in contact with lumber.
13) "NAILED" indicates Girder: 3-10d (0.148" x 3") toe-nails per NDS guidelines.
14) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) . 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

April 23,2024

Continued on page 2

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Job	Truss	Truss Type	Qty	Ply	Roof - WO Lot 130
P240395-01	D01	Half Hip Girder	1	3	Job Reference (optional) I65082256

Uniform Loads (lb/ft)
Vert: 1-7=-70, 7-10=-70, 17-19=-20, 8-16=-20, 9-11=-20
Concentrated Loads (lb)
Vert: 18=-145 (F), 2=-21 (F), 12=-568 (F), 15=-177 (F), 20=-23 (F), 21=-21 (F), 22=-21 (F), 26=-127 (F), 32=-146 (F), 33=-145 (F), 34=-145 (F), 35=-177 (F), 36=-177 (F), 37=-184 (F), 38=-184 (F), 39=-184 (F), 40=-197 (F)

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Job	Truss	Truss Type	Qty	Ply	Roof - WO Lot 130
P240395-01	D02	Half Hip	1	1	Job Reference (optional) I65082257

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

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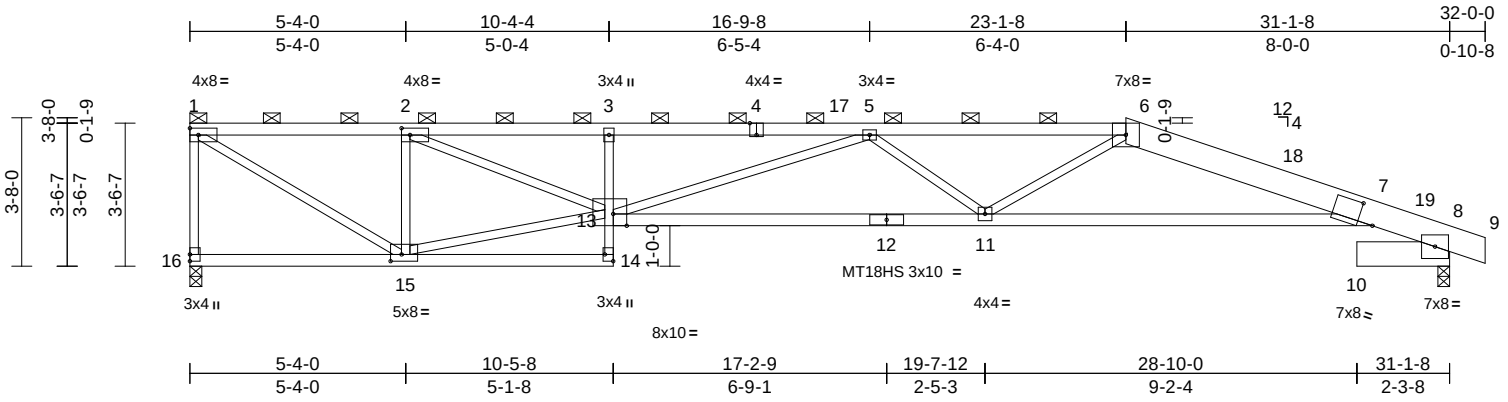

VERTICAL SUPPORT OF FREE END
OF CHORD IS REQUIRED.

Scale = 1:56.9

Plate Offsets (X, Y): [2:0-2-8,0-2-0], [4:0-2-0,Edge], [7:0-4-9,0-5-8], [13:0-4-0,Edge], [14:Edge,0-2-8], [15:0-3-4,0-2-0]

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	0.97	Vert(LL)	-0.49	11-13	>754	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.99	Vert(CT)	-1.01	11-13	>366	180	MT18HS	244/190
BCLL	0.0	Rep Stress Incr	YES	WB	0.87	Horz(CT)	0.37	8	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S							Weight: 144 lb	FT = 20%

LUMBER
TOP CHORD 2x4 SP No.2 *Except* 6-9:2x8 SP 2400F 2.0E, 4-6:2x4 SP 1650F 1.5E
BOT CHORD 2x4 SP 1650F 1.5E *Except* 16-14:2x4 SP No.2, 14-3:2x3 SPF No.2, 10-8:2x8 SPF No.2
WEBS 2x3 SPF No.2

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

REACTIONS (size) 8=0-3-8, 16=0-3-8
Max Horiz 16=-150 (LC 10)
Max Uplift 8=-343 (LC 9), 16=-306 (LC 9)
Max Grav 8=1469 (LC 1), 16=1389 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-16=-1337/375, 1-2=-1923/485, 2-3=-4245/989, 3-5=-4321/996, 5-6=-4464/1028, 6-7=-3847/970, 7-8=-579/169, 8-9=-6/0
BOT CHORD 15-16=-91/191, 14-15=-53/141, 13-14=0/88, 3-13=-380/174, 11-13=-1087/4819, 7-11=-835/3674, 8-10=0/0
WEBS 1-15=-530/2237, 2-15=-1433/404, 13-15=-295/1817, 2-13=-552/2544, 5-13=-527/248, 5-11=-453/271, 6-11=-75/936

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 5-4-0, Interior (1) 5-4-0 to 23-1-8, Exterior(2R) 23-1-8 to 30-2-6, Interior (1) 30-2-6 to 32-0-0 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2) Provide adequate drainage to prevent water ponding.
3) All plates are MT20 plates unless otherwise indicated.
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 16 SP No.2 crushing capacity of 565 psi, Joint 8 SPF No.2 crushing capacity of 425 psi.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 306 lb uplift at joint 16 and 343 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.
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

April 23,2024

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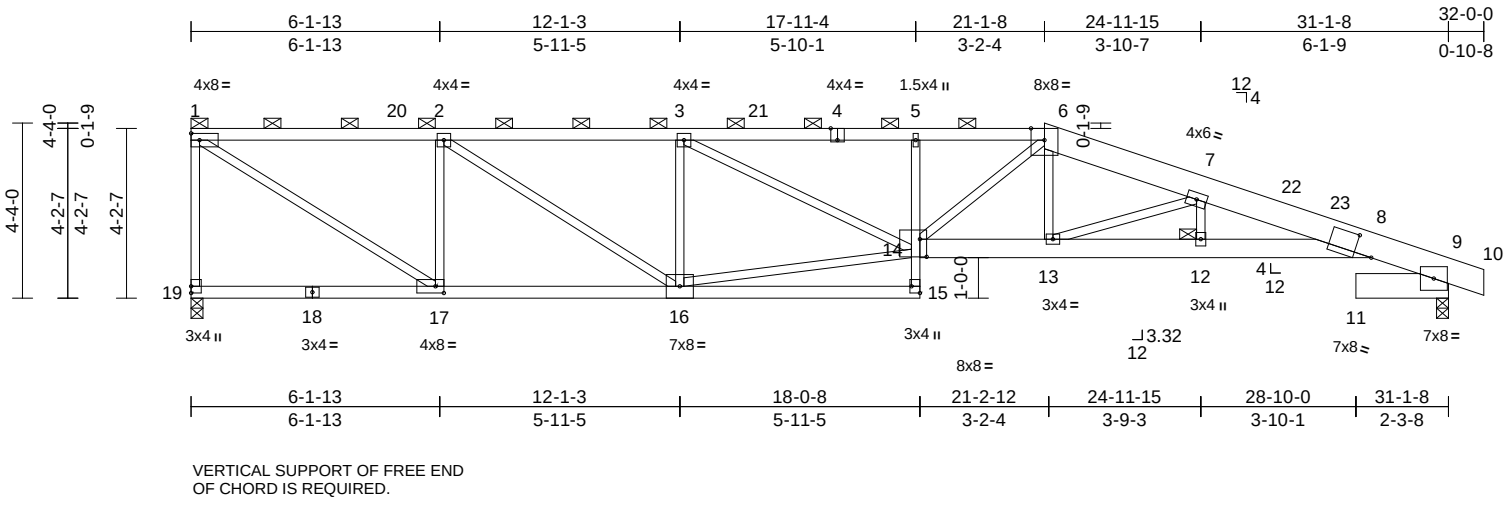
Job	Truss	Truss Type	Qty	Ply	Roof - WO Lot 130	I65082258
P240395-01	D03	Half Hip	1	1	Job Reference (optional)	



VERTICAL SUPPORT OF FREE END OF CHORD IS REQUIRED.

Scale = 1:57

Plate Offsets (X, Y): [4:0-2-0,Edge], [8:0-5-5,0-5-4], [14:0-2-0,0-5-4], [15:Edge,0-2-8], [17:0-2-8,0-2-0]

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	0.69	Vert(LL)	-0.30	5-14	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.80	Vert(CT)	-0.53	5-14	>695	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.84	Horz(CT)	0.22	9	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S							Weight: 167 lb	FT = 20%

LUMBER
TOP CHORD 2x4 SP No.2 *Except* 6-10:2x8 SP 2400F 2.0E
BOT CHORD 2x4 SP No.2 *Except* 15-5:2x3 SPF No.2, 14-8:2x6 SP 2400F 2.0E, 11-9:2x8 SPF No.2
WEBS 2x3 SPF No.2

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

REACTIONS (size) 9=0-3-8, 19=0-3-8
Max Horiz 19=-181 (LC 10)
Max Uplift 9=-342 (LC 9), 19=-307 (LC 9)
Max Grav 9=1469 (LC 1), 19=1389 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-19=-1333/389, 1-2=-1803/484, 2-3=-2664/702, 3-5=-3665/962, 5-6=-3662/957, 6-7=-3583/887, 7-8=-4526/1066, 8-9=-624/181, 9-10=-6/0
BOT CHORD 17-19=-114/226, 16-17=-313/1803, 15-16=-41/263, 14-15=0/111, 5-14=-327/192, 13-14=-682/3336, 12-13=-949/4356, 8-12=-949/4356, 9-11=0/0
WEBS 3-14=-289/1112, 6-14=-139/436, 2-17=-1024/365, 1-17=-516/2122, 2-16=-261/1031, 3-16=-903/314, 14-16=-498/2441, 6-13=-111/631, 7-13=-1073/330, 7-12=0/169

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 5-1-4, Interior (1) 5-1-4 to 21-1-8, Exterior(2R) 21-1-8 to 28-2-6, Interior (1) 28-2-6 to 32-0-0 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
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) Bearings are assumed to be: Joint 19 SP No.2 crushing capacity of 565 psi, Joint 9 SPF No.2 crushing capacity of 425 psi.
5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 307 lb uplift at joint 19 and 342 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.
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

April 23,2024

Job	Truss	Truss Type	Qty	Ply	Roof - WO Lot 130
P240395-01	D04	Half Hip	1	1	Job Reference (optional) I65082259

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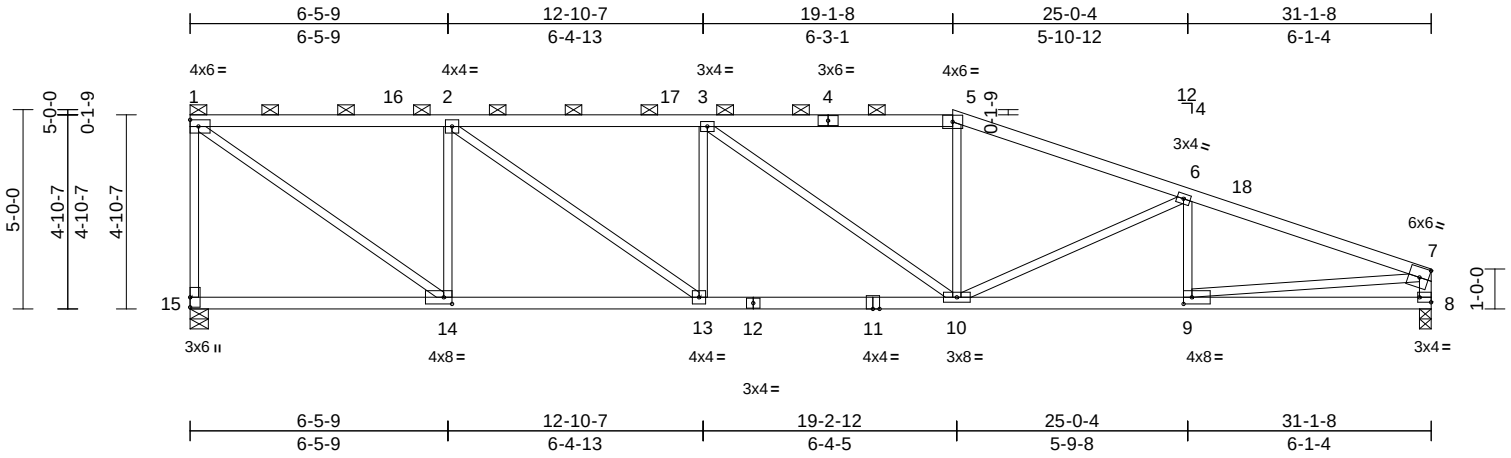

Scale = 1:57.8

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

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	0.94	Vert(LL)	-0.17	10-13	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.71	Vert(CT)	-0.33	10-13	>999	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.76	Horz(CT)	0.07	8	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S							Weight: 138 lb	FT = 20%

LUMBER
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2
WEBS 2x3 SPF No.2 *Except* 8-7:2x4 SP No.2

BRACING
TOP CHORD Structural wood sheathing directly applied or 2-10-11 oc purlins, except end verticals, and 2-0-0 oc purlins (2-2-0 max.): 1-5.
BOT CHORD Rigid ceiling directly applied or 7-6-9 oc bracing.

REACTIONS (size) 8=0-3-8, 15=0-5-8
Max Horiz 15=-212 (LC 8)
Max Uplift 8=-297 (LC 9), 15=-310 (LC 9)
Max Grav 8=1389 (LC 1), 15=1389 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-15=-1332/401, 1-2=-1606/465, 2-3=-2341/671, 3-5=-2227/639, 5-6=-2415/647, 6-7=-2721/682, 7-8=-1317/393
BOT CHORD 14-15=-157/274, 13-14=-307/1606, 10-13=-513/2341, 9-10=-606/2522, 8-9=-117/314
WEBS 7-9=-492/2225, 5-10=-15/382, 3-10=-342/65, 2-14=-1006/382, 1-14=-495/1957, 2-13=-253/903, 3-13=-403/226, 6-10=-318/187, 6-9=-182/143

NOTES
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=35ft; Ke=1.00; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) 0-1-4 to 5-1-4, Interior (1) 5-1-4 to 19-1-8, Exterior(2R) 19-1-8 to 26-2-6, Interior (1) 26-2-6 to 30-11-12 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) 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 310 lb uplift at joint 15 and 297 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.
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

April 23,2024

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

Job	Truss	Truss Type	Qty	Ply	Roof - WO Lot 130	I65082260
P240395-01	D05	Half Hip	1	1	Job Reference (optional)	

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

Run: 8.63 S Apr 5 2024 Print: 8.630 S Apr 5 2024 MiTek Industries, Inc. Mon Apr 22 15:25:49 Page: 1
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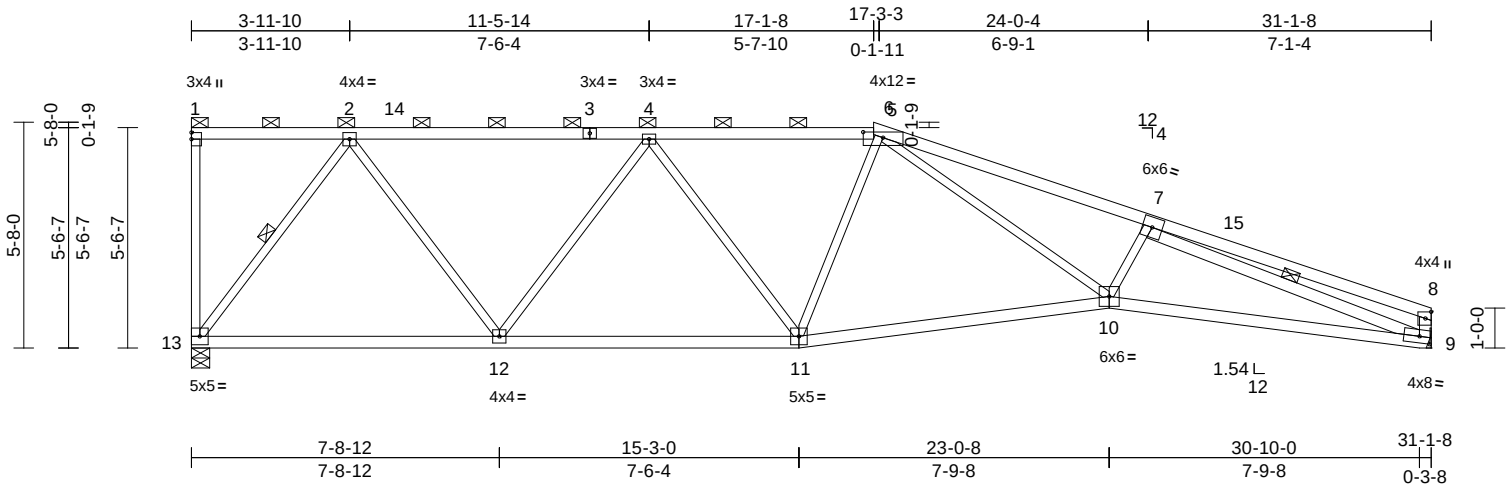

Scale = 1:57.8

Plate Offsets (X, Y): [6:0-6-0,0-1-11], [9:0-3-4,0-2-0]

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	0.72	Vert(LL)	-0.24	10-11	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.79	Vert(CT)	-0.52	10-11	>712	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.93	Horz(CT)	0.17	9	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* 5-8:2x4 SP 2400F 2.0E
BOT CHORD 2x4 SP No.2 *Except* 10-9:2x4 SP 1650F 1.5E
WEBS 2x3 SPF No.2 *Except* 9-8,9-7:2x4 SP No.2

BRACING
TOP CHORD Structural wood sheathing directly applied or 3-11-7 oc purlins, except end verticals, and 2-0-0 oc purlins (3-4-8 max.): 1-5.
BOT CHORD Rigid ceiling directly applied or 7-7-12 oc bracing.
WEBS 1 Row at midpt 7-9, 2-13

REACTIONS (size) 9= Mechanical, 13=0-5-8
Max Horiz 13=-245 (LC 8)
Max Uplift 9=-295 (LC 9), 13=-312 (LC 9)
Max Grav 9=1389 (LC 1), 13=1389 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-13=-69/46, 1-2=-115/117, 2-4=-1502/442, 4-5=-2039/590, 5-6=-1904/538, 6-7=-3696/960, 7-8=-556/188, 8-9=-395/194
BOT CHORD 12-13=-156/931, 11-12=-421/1951, 10-11=-456/2163, 9-10=-852/3532
WEBS 6-11=-266/172, 6-10=-385/1628, 7-10=-127/223, 7-9=-3327/779, 2-12=-169/979, 2-13=-1561/474, 4-12=-769/293, 4-11=-48/194

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 5-1-4, Interior (1) 5-1-4 to 17-1-8, Exterior(2R) 17-1-8 to 24-1-2, Interior (1) 24-1-2 to 30-11-12 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) Bearings are assumed to be: Joint 13 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 312 lb uplift at joint 13 and 295 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

April 23,2024

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

Job	Truss	Truss Type	Qty	Ply	Roof - WO Lot 130
P240395-01	D06	Roof Special	3	1	Job Reference (optional) I65082261

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

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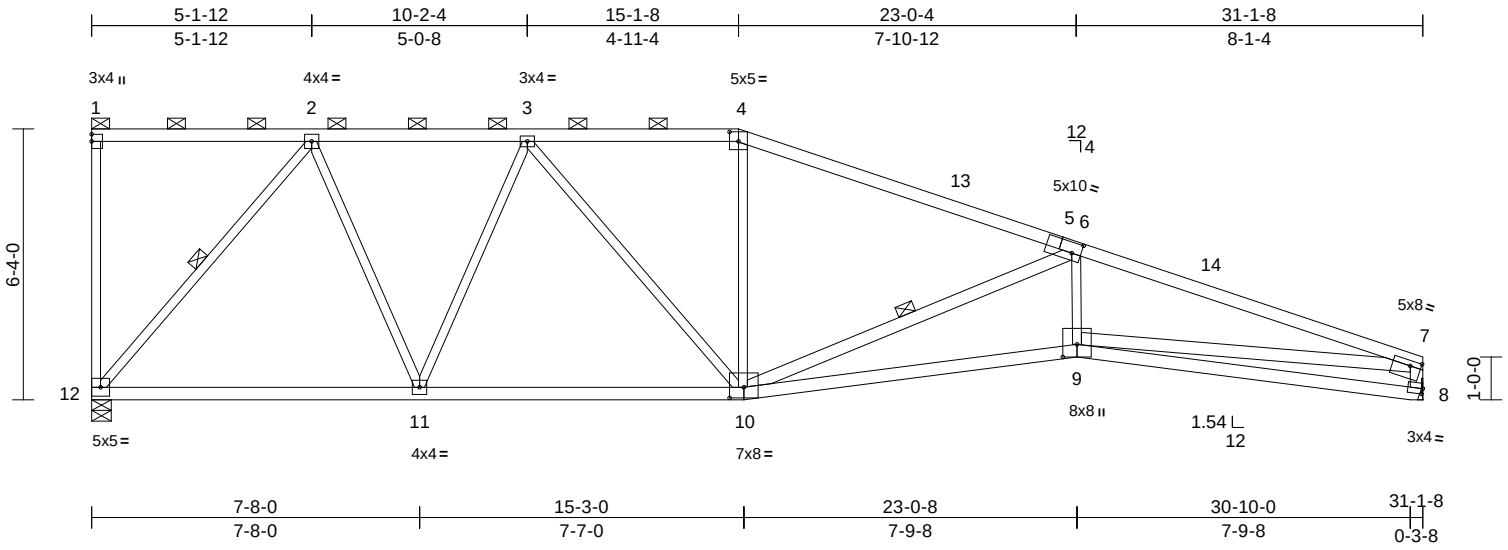

Scale = 1:53.9

Plate Offsets (X, Y): [4:0-2-8,0-2-11], [5:0-2-8,0-3-0], [7:0-3-0,0-1-8], [8:0-0-3,0-1-8], [9:0-3-8,0-4-0], [10:0-4-0,0-3-0]

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	0.66	Vert(LL)	-0.24	9-10	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.74	Vert(CT)	-0.51	9-10	>725	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.90	Horz(CT)	0.15	8	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S							Weight: 152 lb	FT = 20%

LUMBER
TOP CHORD 2x4 SP No.2 *Except* 4-5:2x4 SP 1650F 1.5E, 5-7:2x4 SP 2400F 2.0E
BOT CHORD 2x4 SP No.2 *Except* 10-9:2x4 SP 1650F 1.5E
WEBS 2x3 SPF No.2 *Except* 10-6,8-7,9-7:2x4 SP No.2

BRACING
TOP CHORD Structural wood sheathing directly applied or 3-4-0 oc purlins, except end verticals, and 2-0-0 oc purlins (4-1-10 max.): 1-4.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing, Except:
7-10-3 oc bracing: 9-10.
WEBS 1 Row at midpt 6-10, 2-12

REACTIONS (size) 8= Mechanical, 12=0-5-8
Max Horiz 12=-283 (LC 8)
Max Uplift 8=-292 (LC 9), 12=-315 (LC 9)
Max Grav 8=1389 (LC 1), 12=1389 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-12=-146/79, 1-2=-130/135, 2-3=-1320/413, 3-4=-1815/546, 4-6=-2015/540, 6-7=-3877/915, 7-8=-1357/415
BOT CHORD 11-12=-139/992, 10-11=-287/1577, 9-10=-821/3632, 8-9=-153/468
WEBS 4-10=0/278, 6-10=-1937/527, 6-9=-44/762, 7-9=-664/3147, 2-11=-142/852, 2-12=-1537/451, 3-11=-667/254, 3-10=-148/371

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 5-1-12, Interior (1) 5-1-12 to 15-1-8, Exterior(2R) 15-1-8 to 20-1-8, Interior (1) 20-1-8 to 30-11-12 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) Bearings are assumed to be: Joint 12 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 315 lb uplift at joint 12 and 292 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.
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

April 23,2024

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

Job	Truss	Truss Type	Qty	Ply	Roof - WO Lot 130
P240395-01	D07	Roof Special	2	1	Job Reference (optional) I65082262

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

Run: 8.63 S Apr 5 2024 Print: 8.630 S Apr 5 2024 MiTek Industries, Inc. Mon Apr 22 15:45:49 Page: 1
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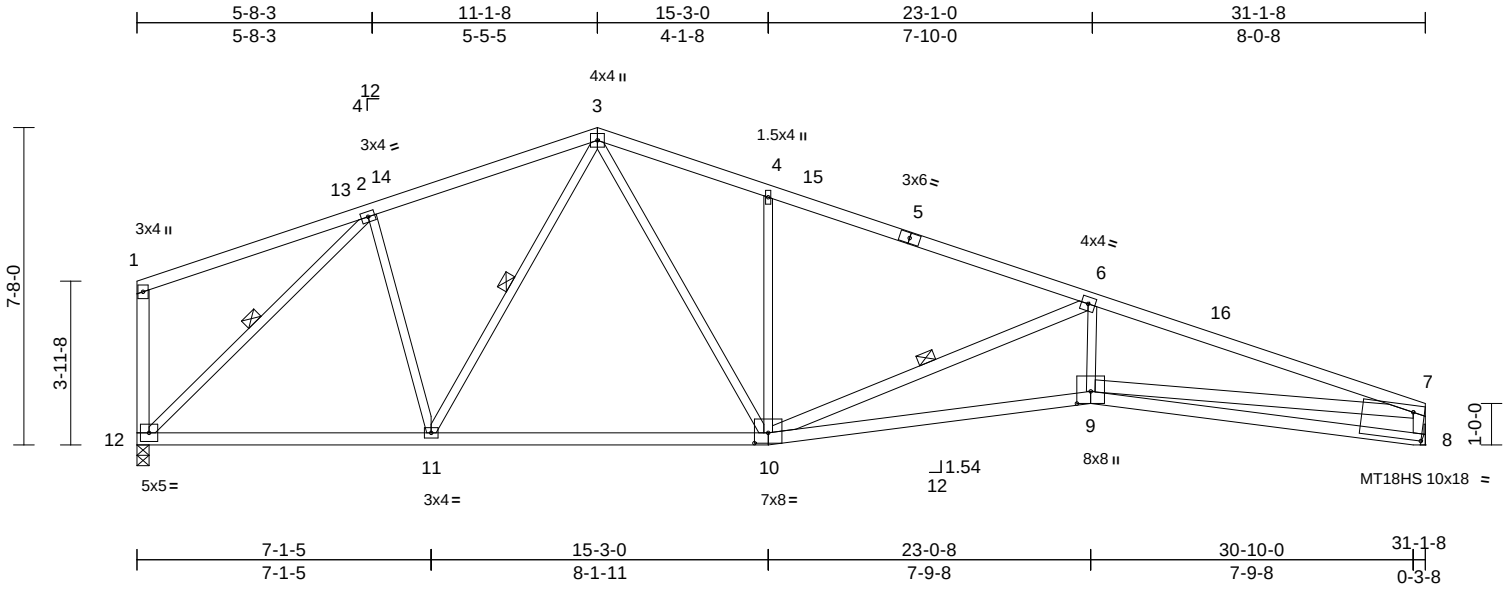

Scale = 1:55.7

Plate Offsets (X, Y): [8:0-3-4,0-8-0], [9:0-3-8,0-4-0], [10:0-4-0,0-3-0]

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	0.75	Vert(LL)	-0.24	9-10	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.74	Vert(CT)	-0.51	9-10	>725	180	MT18HS	244/190
BCLL	0.0	Rep Stress Incr	YES	WB	0.92	Horz(CT)	0.15	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 *Except* 5-7:2x4 SP 2400F 2.0E
BOT CHORD 2x4 SP No.2 *Except* 10-9:2x4 SP 1650F 1.5E
WEBS 2x3 SPF No.2 *Except* 10-6,12-1,8-7,9-7:2x4 SP No.2

BRACING
TOP CHORD Structural wood sheathing directly applied or 2-7-4 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing, Except:
7-11-0 oc bracing: 9-10.
WEBS 1 Row at midpt 3-11, 6-10, 2-12

REACTIONS (size) 8= Mechanical, 12=0-3-8
Max Horiz 12=-121 (LC 8)
Max Uplift 8=-263 (LC 9), 12=-216 (LC 8)
Max Grav 8=1388 (LC 1), 12=1388 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-131/137, 2-3=-1392/457, 3-4=-1997/613, 4-6=-2028/533, 6-7=-3860/900, 1-12=-174/106, 7-8=-1356/411
BOT CHORD 11-12=-213/1174, 10-11=-204/1329, 9-10=-808/3637, 8-9=-153/476
WEBS 3-11=-258/109, 3-10=-284/1065, 4-10=-461/250, 6-10=-1917/514, 6-9=-42/762, 2-12=-1627/427, 7-9=-650/3121, 2-11=0/409

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) 9-0-4 to 14-0-4, Interior (1) 14-0-4 to 20-0-0, Exterior(2R) 20-0-0 to 25-0-0, Interior (1) 25-0-0 to 39-10-4 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) All plates are MT20 plates unless otherwise indicated.
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 12 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 263 lb uplift at joint 8 and 216 lb uplift at joint 12.
8) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard

STATE OF MISSOURI
SCOTT M. SEVIER
NUMBER
PE-2001018807
PROFESSIONAL ENGINEER

April 23,2024

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

Job	Truss	Truss Type	Qty	Ply	Roof - WO Lot 130
P240395-01	D08	Roof Special	2	1	Job Reference (optional) I65082263

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

Run: 8.63 S Apr 5 2024 Print: 8.630 S Apr 5 2024 MiTek Industries, Inc. Mon Apr 22 15:45:49 Page: 1
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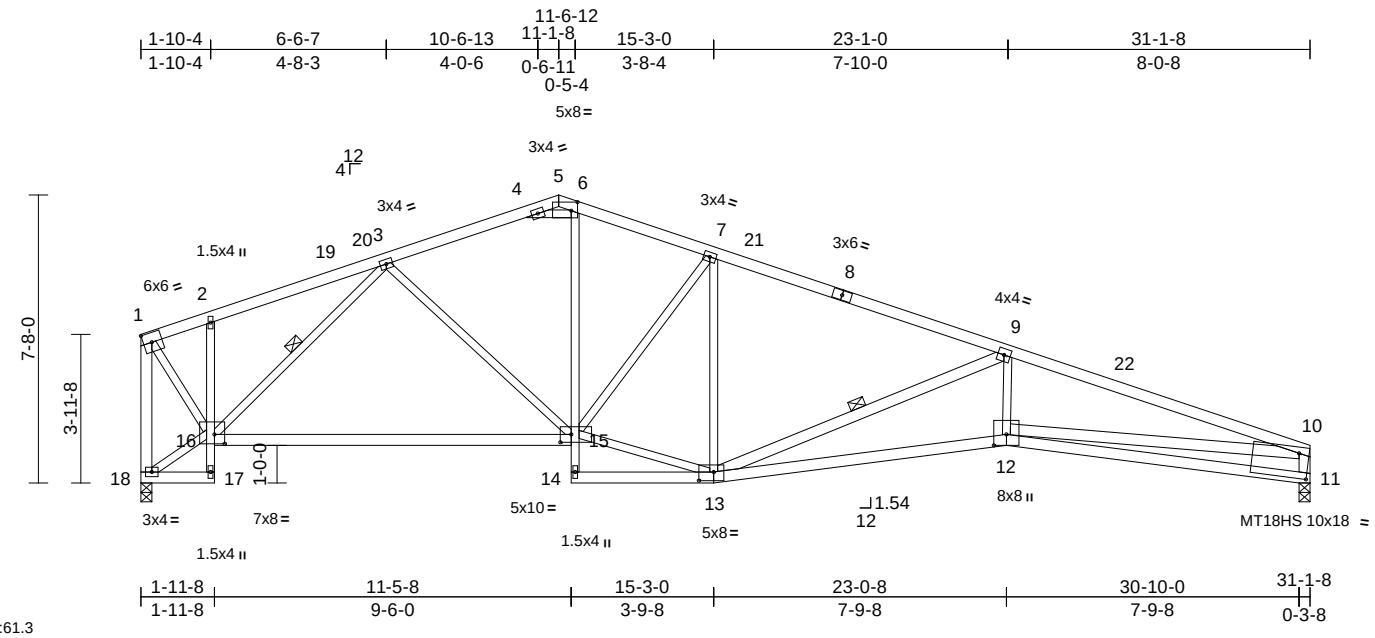

Scale = 1:61.3

Plate Offsets (X, Y): [5:0-2-0,0-2-12], [11:0-3-4,0-8-0], [12:0-3-8,0-4-0], [13:0-4-12,0-2-12], [15:0-3-8,0-2-8], [16:0-3-4,0-3-0]

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	0.72	Vert(LL)	-0.32	15-16	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.99	Vert(CT)	-0.69	15-16	>540	180	MT18HS	244/190
BCLL	0.0	Rep Stress Incr	YES	WB	0.76	Horz(CT)	0.18	11	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S							Weight: 164 lb	FT = 20%

LUMBER
TOP CHORD 2x4 SP No.2 *Except* 8-10:2x4 SP 2400F 2.0E
BOT CHORD 2x4 SP No.2 *Except* 17-2,6-14:2x3 SPF No.2, 13-12:2x4 SP 1650F 1.5E
WEBS 2x3 SPF No.2 *Except* 13-9,18-1,11-10,12-10:2x4 SP No.2

BRACING
TOP CHORD Structural wood sheathing directly applied or 2-9-12 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 2-2-0 oc bracing.
WEBS 1 Row at midpt 9-13, 3-16

REACTIONS (size) 11=0-3-8, 18=0-3-8
Max Horiz 18=-121 (LC 8)
Max Uplift 11=-263 (LC 9), 18=-216 (LC 8)
Max Grav 11=1388 (LC 1), 18=1388 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-769/232, 2-3=-844/283, 3-4=-1724/492, 4-5=-545/125, 5-6=-407/112, 6-7=-1756/514, 7-9=-2029/535, 9-10=-3857/899, 1-18=-1395/288, 10-11=-1357/411
BOT CHORD 17-18=-150/0, 16-17=-9/22, 2-16=-292/209, 15-16=-278/1438, 14-15=0/46, 6-15=-177/804, 13-14=-139/0, 12-13=-807/3634, 11-12=-154/479
WEBS 16-18=-71/290, 1-16=-251/1353, 13-15=-276/1946, 7-15=-496/232, 7-13=-85/75, 9-13=-1911/510, 9-12=-41/763, 10-12=-647/3116, 3-15=-37/358, 3-16=-990/316, 4-6=-1120/383

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) 9-0-4 to 14-0-4, Interior (1) 14-0-4 to 20-0-0, Exterior(2R) 20-0-0 to 25-0-0, Interior (1) 25-0-0 to 39-10-4 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) All plates are MT20 plates unless otherwise indicated.
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) Bearing at joint(s) 11 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 263 lb uplift at joint 11 and 216 lb uplift at joint 18.
8) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard

April 23,2024

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

Job	Truss	Truss Type	Qty	Ply	Roof - WO Lot 130
P240395-01	D09	Hip	1	1	Job Reference (optional) I65082264

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

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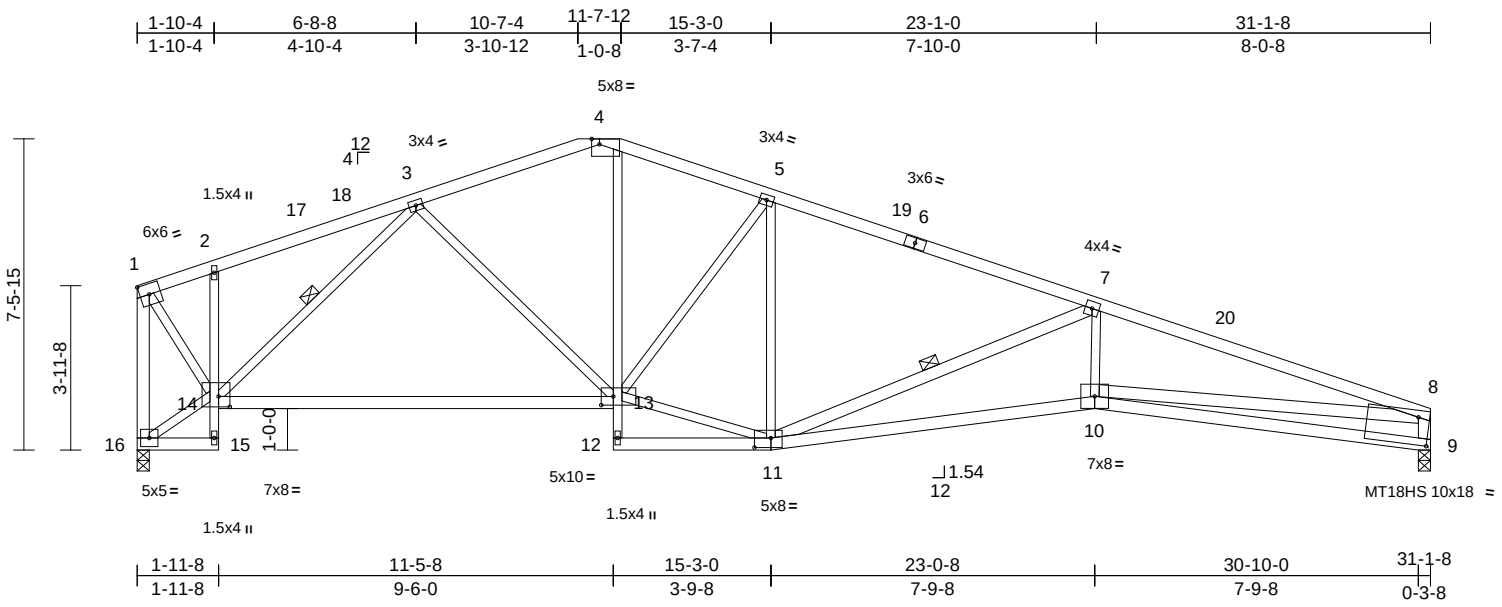

Scale = 1:55.4

Plate Offsets (X, Y): [4:0-2-4,0-1-9], [9:0-3-4,0-8-0], [11:0-4-12,0-2-12], [13:0-3-8,0-2-8], [14:0-3-4,0-3-0]

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	0.74	Vert(LL)	-0.32	13-14	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.99	Vert(CT)	-0.68	13-14	>544	180	MT18HS	244/190
BCLL	0.0	Rep Stress Incr	YES	WB	0.77	Horz(CT)	0.18	9	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S							Weight: 163 lb	FT = 20%

LUMBER
TOP CHORD 2x4 SP No.2 *Except* 6-8:2x4 SP 2400F 2.0E
BOT CHORD 2x4 SP No.2 *Except* 15-2,4-12:2x3 SPF No.2, 11-10:2x4 SP 1650F 1.5E
WEBS 2x3 SPF No.2 *Except* 11-7,16-1,9-8,10-8:2x4 SP No.2

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

REACTIONS (size) 9=0-3-8, 16=0-3-8
Max Horiz 16=-121 (LC 8)
Max Uplift 9=-263 (LC 9), 16=-216 (LC 8)
Max Grav 9=1388 (LC 1), 16=1388 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-768/244, 2-3=-838/301, 3-4=-1700/505, 4-5=-1762/532, 5-7=-2027/549, 7-8=-3859/915, 1-16=-1395/308, 8-9=-1357/415
BOT CHORD 15-16=-150/0, 14-15=-9/22, 2-14=-277/210, 13-14=-307/1462, 12-13=0/46, 4-13=-208/836, 11-12=-135/0, 10-11=-822/3636, 9-10=-154/477
WEBS 14-16=-71/298, 1-14=-259/1348, 11-13=-287/1936, 5-13=-466/230, 5-11=-81/79, 7-11=-1916/514, 7-10=-43/764, 8-10=-662/3120, 3-13=-50/290, 3-14=-1016/334

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) 9-0-4 to 14-0-4, Interior (1) 14-0-4 to 20-0-0, Exterior(2R) 20-0-0 to 27-0-14, Interior (1) 27-0-14 to 39-10-4 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) Provide adequate drainage to prevent water ponding.
4) All plates are MT20 plates 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) Bearing at joint(s) 9 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 263 lb uplift at joint 9 and 216 lb uplift at joint 16.
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

STATE OF MISSOURI
SCOTT M. SEVIER
NUMBER
PE-2001018807
PROFESSIONAL ENGINEER

April 23,2024

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

Job	Truss	Truss Type	Qty	Ply	Roof - WO Lot 130
P240395-01	D11	Hip	1	1	Job Reference (optional) I65082265

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

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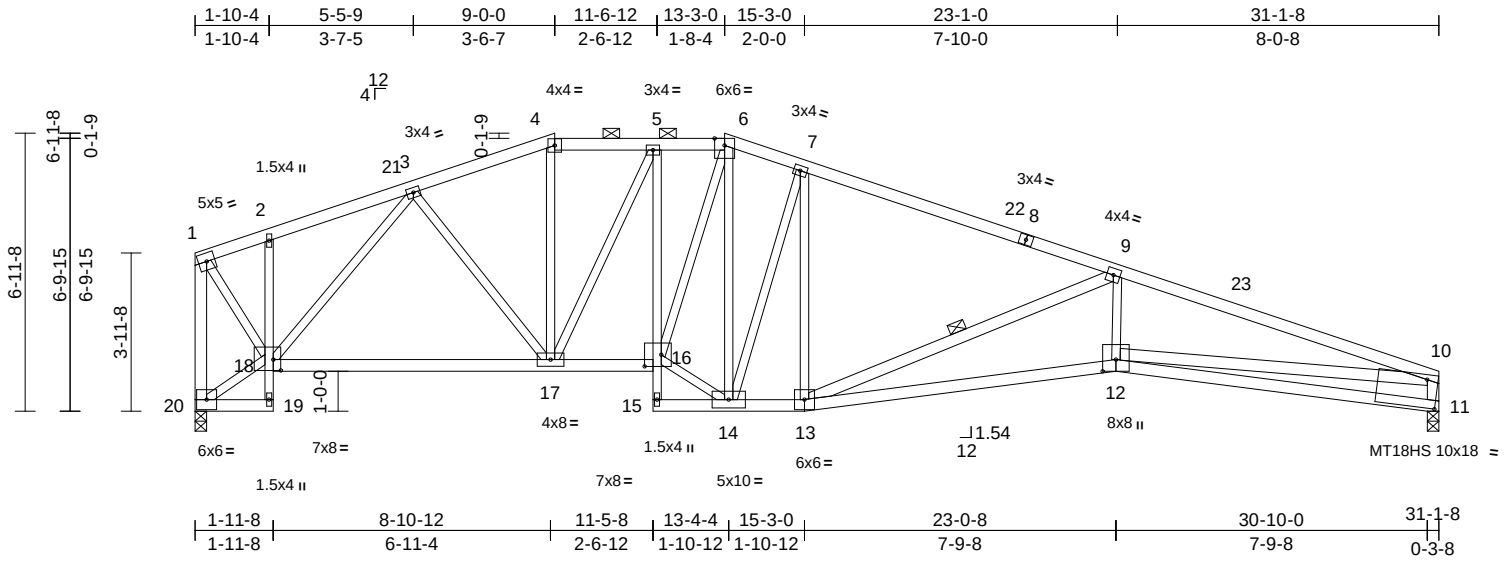

Scale = 1:57.7

Plate Offsets (X, Y): [11:0-3-4,0-8-8], [12:0-3-8,0-4-0], [16:0-5-0,0-3-8], [18:0-2-4,0-3-4]

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	0.69	Vert(LL)	-0.25	12-13	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.75	Vert(CT)	-0.53	12-13	>692	180	MT18HS	244/190
BCLL	0.0	Rep Stress Incr	YES	WB	0.85	Horz(CT)	0.19	11	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S							Weight: 177 lb	FT = 20%

LUMBER

TOP CHORD 2x4 SP No.2 *Except* 8-10:2x4 SP 2400F 2.0E

BOT CHORD 2x4 SP No.2 *Except* 19-2,5-15:2x3 SPF No.2, 13-12:2x4 SP 1650F 1.5E

WEBS 2x3 SPF No.2 *Except* 13-9,20-1,11-10,12-10:2x4 SP No.2

BRACING

TOP CHORD Structural wood sheathing directly applied or 2-11-4 oc purlins, except end verticals, and 2-0-0 oc purlins (4-2-15 max.): 4-6.

BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.

WEBS 1 Row at midpt 9-13

REACTIONS (size) 11=0-3-8, 20=0-3-8
Max Horiz 20=-132 (LC 8)
Max Uplift 11=-274 (LC 9), 20=-236 (LC 8)
Max Grav 11=1388 (LC 1), 20=1388 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=-750/269, 2-3=-789/316, 3-4=-1701/541, 4-5=-1580/534, 5-6=-1865/605, 6-7=-1736/597, 7-9=-2031/594, 9-10=-3863/952, 1-20=-1371/357, 10-11=-1357/425

BOT CHORD 19-20=-52/0, 18-19=-6/26, 2-18=-207/164, 17-18=-306/1365, 16-17=-368/1867, 15-16=0/35, 5-16=-88/395, 14-15=-6/67, 13-14=-366/1842, 12-13=-858/3640, 11-12=-155/474

WEBS 18-20=-127/262, 1-18=-293/1299, 4-17=-62/316, 5-17=-714/231, 14-16=-359/1855, 6-16=-200/863, 6-14=-374/0, 7-14=-816/287, 7-13=-31/429, 9-13=-1916/522, 9-12=-49/764, 10-12=-724/3126, 3-17=-55/446, 3-18=-1041/348

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) 9-0-4 to 14-0-4, Interior (1) 14-0-4 to 17-10-8, Exterior(2E) 17-10-8 to 22-1-8, Exterior(2R) 22-1-8 to 29-2-6, Interior (1) 29-2-6 to 39-10-4 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) Provide adequate drainage to prevent water ponding.
4) All plates are MT20 plates 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) Bearing at joint(s) 11 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 274 lb uplift at joint 11 and 236 lb uplift at joint 20.
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

April 23,2024

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

Job	Truss	Truss Type	Qty	Ply	Roof - WO Lot 130	I65082266
P240395-01	D12	Hip	1	1	Job Reference (optional)	

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

Run: 8.63 S Apr 5 2024 Print: 8.630 S Apr 5 2024 MiTek Industries, Inc. Mon Apr 22 15:25:50 Page: 1
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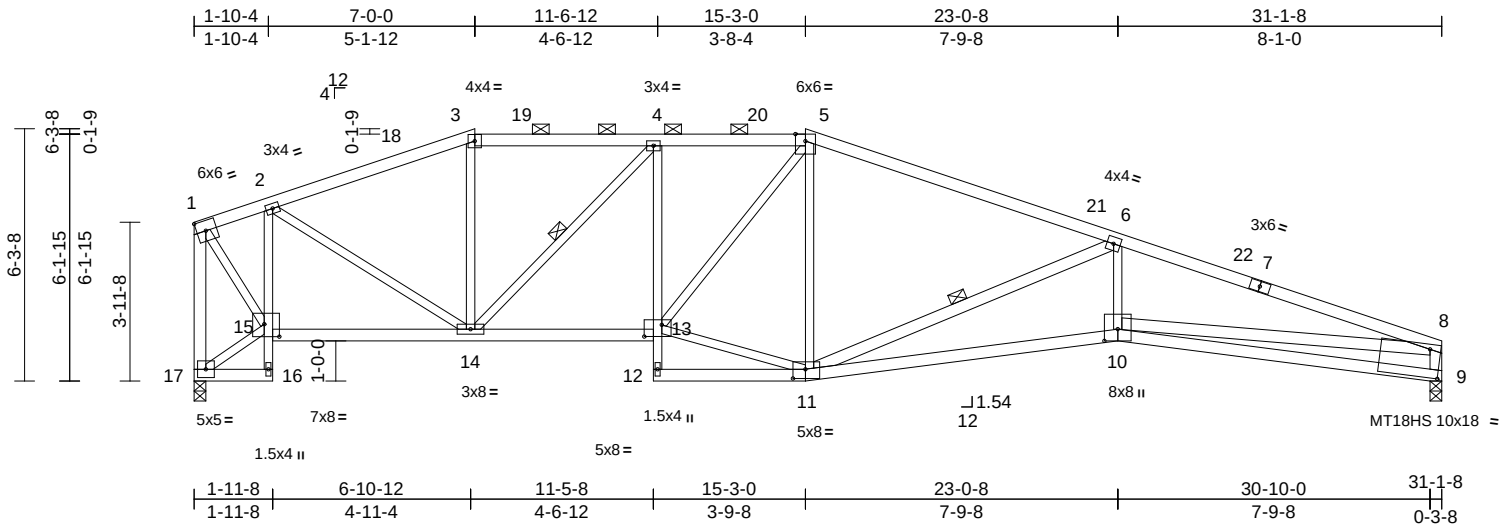

Scale = 1:57.5

Plate Offsets (X, Y): [9:0-3-4,0-8-8], [10:0-3-8,0-4-0], [11:0-3-12,0-2-12], [13:0-5-4,0-3-8], [15:0-4-8,0-3-12]

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	0.65	Vert(LL)	-0.24	10-11	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.74	Vert(CT)	-0.52	10-11	>706	180	MT18HS	244/190
BCLL	0.0	Rep Stress Incr	YES	WB	0.86	Horz(CT)	0.18	9	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S							Weight: 164 lb	FT = 20%

LUMBER
TOP CHORD 2x4 SP No.2 *Except* 5-7,7-8:2x4 SP 2400F 2.0E
BOT CHORD 2x4 SP No.2 *Except* 16-2,4-12:2x3 SPF No.2, 11-10:2x4 SP 1650F 1.5E
WEBS 2x3 SPF No.2 *Except* 17-1,9-8,10-8,6-11:2x4 SP No.2

BRACING
TOP CHORD Structural wood sheathing directly applied or 3-3-14 oc purlins, except end verticals, and 2-0-0 oc purlins (3-9-5 max.): 3-5.
BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.
WEBS 1 Row at midpt 4-14, 6-11

REACTIONS (size) 9=0-3-8, 17=0-3-8
Max Horiz 17=-141 (LC 8)
Max Uplift 9=-283 (LC 9), 17=-253 (LC 8)
Max Grav 9=1388 (LC 1), 17=1388 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-802/300, 2-3=-1653/518, 3-4=-1517/523, 4-5=-2135/679, 5-6=-2024/592, 6-8=-3864/973, 1-17=-1361/380, 8-9=-1356/432
BOT CHORD 16-17=-16/10, 15-16=-6/28, 2-15=-1025/451, 14-15=-184/785, 13-14=-468/2142, 12-13=0/50, 4-13=-55/355, 11-12=-17/52, 10-11=-877/3626, 9-10=-156/473
WEBS 15-17=-162/264, 1-15=-343/1345, 2-14=-266/878, 3-14=0/245, 4-14=-958/274, 11-13=-380/1872, 5-13=-141/559, 5-11=-180/89, 8-10=-762/3128, 6-10=-52/762, 6-11=-1911/532

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) 9-0-4 to 14-0-4, Interior (1) 14-0-4 to 15-10-8, Exterior(2R) 15-10-8 to 22-11-6, Interior (1) 22-11-6 to 24-1-8, Exterior(2R) 24-1-8 to 31-2-6, Interior (1) 31-2-6 to 39-10-4 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) Provide adequate drainage to prevent water ponding.
4) All plates are MT20 plates 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) Bearing at joint(s) 9 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 283 lb uplift at joint 9 and 253 lb uplift at joint 17.
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

April 23,2024

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

Job	Truss	Truss Type	Qty	Ply	Roof - WO Lot 130
P240395-01	D13	Hip	1	1	Job Reference (optional) I65082267

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

Run: 8.63 S Apr 5 2024 Print: 8.630 S Apr 5 2024 MiTek Industries, Inc. Mon Apr 22 15:45:50 Page: 1
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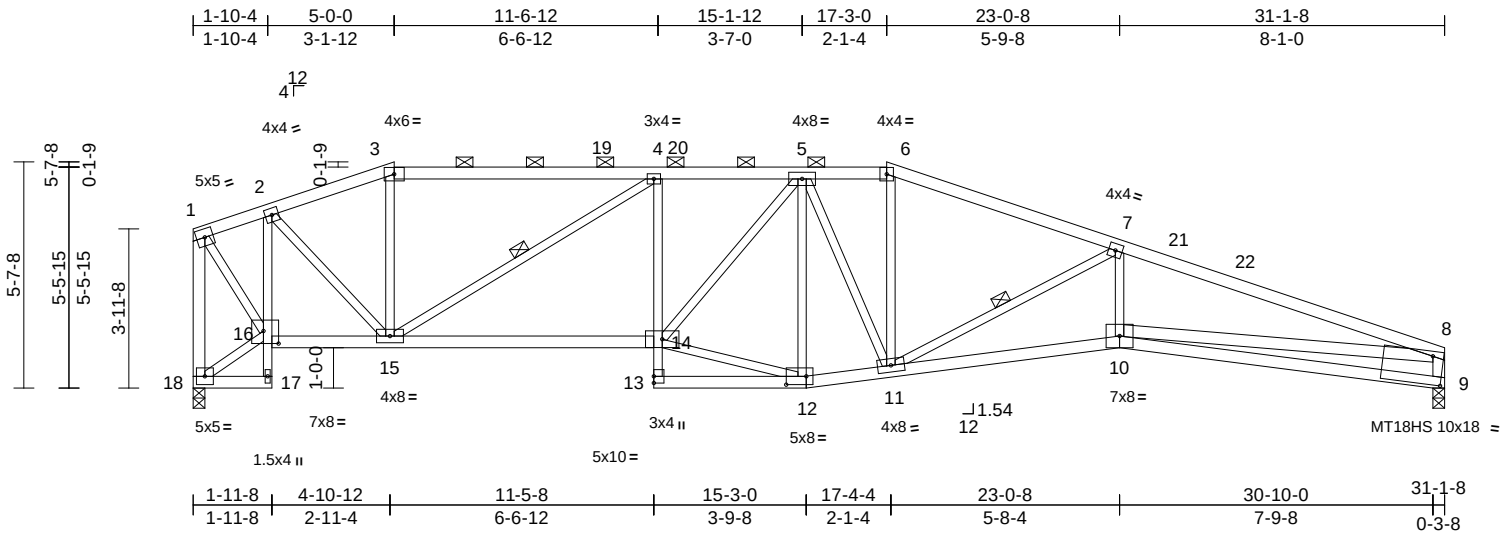

Scale = 1:57.3

Plate Offsets (X, Y): [9:0-3-4,0-8-8], [12:0-6-0,0-2-8], [16:0-4-8,0-3-12]

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	0.82	Vert(LL)	-0.24	10-11	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.94	Vert(CT)	-0.44	10-11	>837	180	MT18HS	244/190
BCLL	0.0	Rep Stress Incr	YES	WB	0.81	Horz(CT)	0.19	9	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S							Weight: 162 lb	FT = 20%

LUMBER
TOP CHORD 2x4 SP No.2 *Except* 6-8:2x4 SP 2400F 2.0E
BOT CHORD 2x4 SP No.2 *Except* 17-2,4-13:2x3 SPF No.2
WEBS 2x3 SPF No.2 *Except* 18-1,9-8,10-8:2x4 SP No.2

BRACING
TOP CHORD Structural wood sheathing directly applied or 2-2-0 oc purlins, except end verticals, and 2-0-0 oc purlins (3-4-6 max.): 3-6.
BOT CHORD Rigid ceiling directly applied or 2-2-0 oc bracing.
WEBS 1 Row at midpt 4-15, 7-11

REACTIONS (size) 9=0-3-8, 18=0-3-8
Max Horiz 18=-150 (LC 8)
Max Uplift 9=-290 (LC 9), 18=-268 (LC 8)
Max Grav 9=1388 (LC 1), 18=1388 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-787/279, 2-3=-1448/437, 3-4=-1360/440, 4-5=-2406/716, 5-6=-2140/639, 6-7=-2331/653, 7-8=-3817/960, 1-18=-1356/363, 8-9=-1358/434
BOT CHORD 17-18=-4/20, 16-17=-4/31, 2-16=-990/392, 15-16=-144/735, 14-15=-536/2423, 13-14=0/78, 4-14=0/304, 12-13=-36/76, 11-12=-454/2072, 10-11=-861/3574, 9-10=-166/506
WEBS 16-18=-174/248, 1-16=-283/1269, 2-15=-283/920, 3-15=0/193, 4-15=-1296/366, 12-14=-432/2060, 6-11=-112/480, 8-10=-718/3045, 5-12=-764/199, 5-11=-80/230, 5-14=-122/573, 7-10=-64/731, 7-11=-1586/458

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) 9-0-4 to 13-10-8, Exterior(2R) 13-10-8 to 20-11-6, Interior (1) 20-11-6 to 26-1-8, Exterior(2R) 26-1-8 to 33-2-6, Interior (1) 33-2-6 to 39-10-4 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) Provide adequate drainage to prevent water ponding.
4) All plates are MT20 plates 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) Bearing at joint(s) 9 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 290 lb uplift at joint 9 and 268 lb uplift at joint 18.
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

STATE OF MISSOURI
SCOTT M. SEVIER
NUMBER
PE-2001018807
PROFESSIONAL ENGINEER

April 23,2024

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

Job	Truss	Truss Type	Qty	Ply	Roof - WO Lot 130
P240395-01	D14	Hip	1	1	Job Reference (optional) I65082268

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

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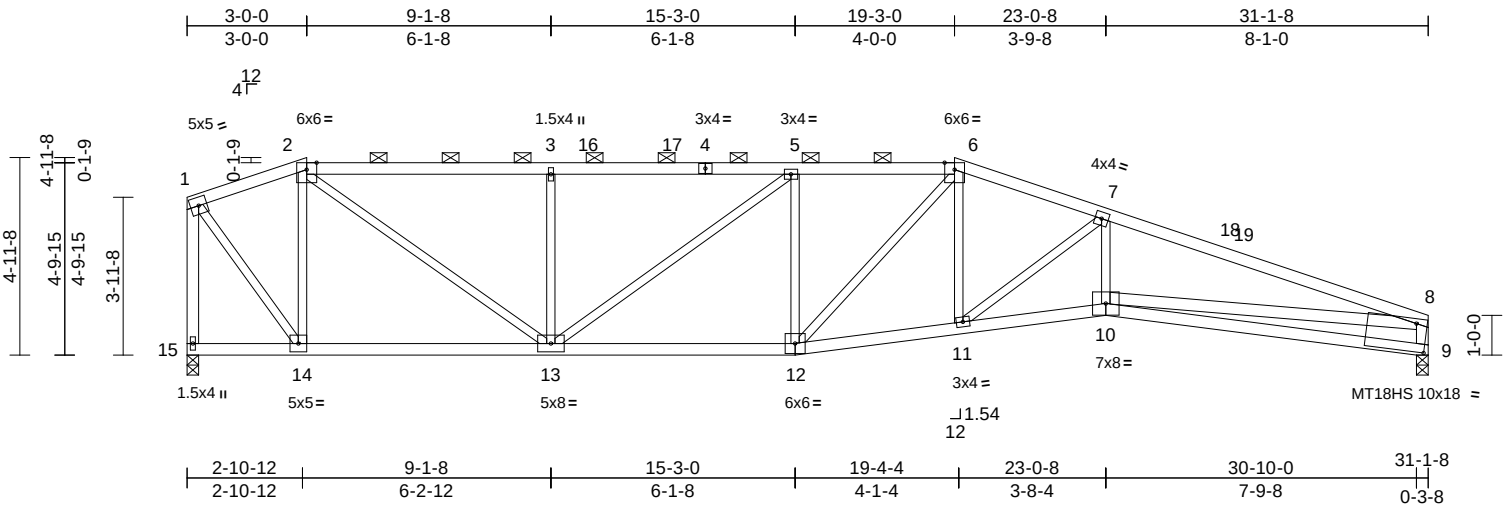

Scale = 1:57.8

Plate Offsets (X, Y): [9:0-3-4,0-8-8]

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	0.82	Vert(LL)	-0.22	10-11	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.84	Vert(CT)	-0.40	9-10	>920	180	MT18HS	244/190
BCLL	0.0	Rep Stress Incr	YES	WB	0.78	Horz(CT)	0.13	9	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S							Weight: 151 lb	FT = 20%

LUMBER
TOP CHORD 2x4 SP No.2 *Except* 6-8:2x4 SP 2400F 2.0E
BOT CHORD 2x4 SP No.2
WEBS 2x3 SPF No.2 *Except* 15-1,9-8,10-8:2x4 SP No.2

BRACING
TOP CHORD Structural wood sheathing directly applied or 2-2-0 oc purlins, except end verticals, and 2-0-0 oc purlins (3-4-7 max.): 2-6.
BOT CHORD Rigid ceiling directly applied or 6-4-3 oc bracing.

REACTIONS (size) 9=0-3-8, 15=0-3-8
Max Horiz 15=-159 (LC 8)
Max Uplift 9=-295 (LC 9), 15=-281 (LC 8)
Max Grav 9=1388 (LC 1), 15=1388 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-848/283, 2-3=-2018/582, 3-5=-2016/580, 5-6=-2402/707, 6-7=-2679/738, 7-8=-3802/961, 1-15=-1373/397, 8-9=-1359/436
BOT CHORD 14-15=-135/217, 13-14=-136/810, 12-13=-548/2399, 11-12=-552/2505, 10-11=-859/3556, 9-10=-168/517
WEBS 1-14=-368/1309, 2-14=-951/364, 2-13=-396/1520, 3-13=-492/248, 5-13=-487/155, 5-12=-234/135, 6-12=-129/105, 6-11=-163/744, 7-11=-1298/390, 8-10=-690/3018, 7-10=-71/711

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) 9-0-4 to 11-10-8, Exterior(2R) 11-10-8 to 18-11-6, Interior (1) 18-11-6 to 28-1-8, Exterior(2R) 28-1-8 to 35-2-6, Interior (1) 35-2-6 to 39-10-4 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) Provide adequate drainage to prevent water ponding.
4) All plates are MT20 plates 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) Bearing at joint(s) 9 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 281 lb uplift at joint 15 and 295 lb uplift at joint 9.
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

April 23,2024

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

Job	Truss	Truss Type	Qty	Ply	Roof - WO Lot 130
P240395-01	D15	Hip Girder	1	2	Job Reference (optional) I65082269

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

Run: 8.63 S Apr 5 2024 Print: 8.630 S Apr 5 2024 MiTek Industries, Inc. Mon Apr 22 15:25:50 Page: 1
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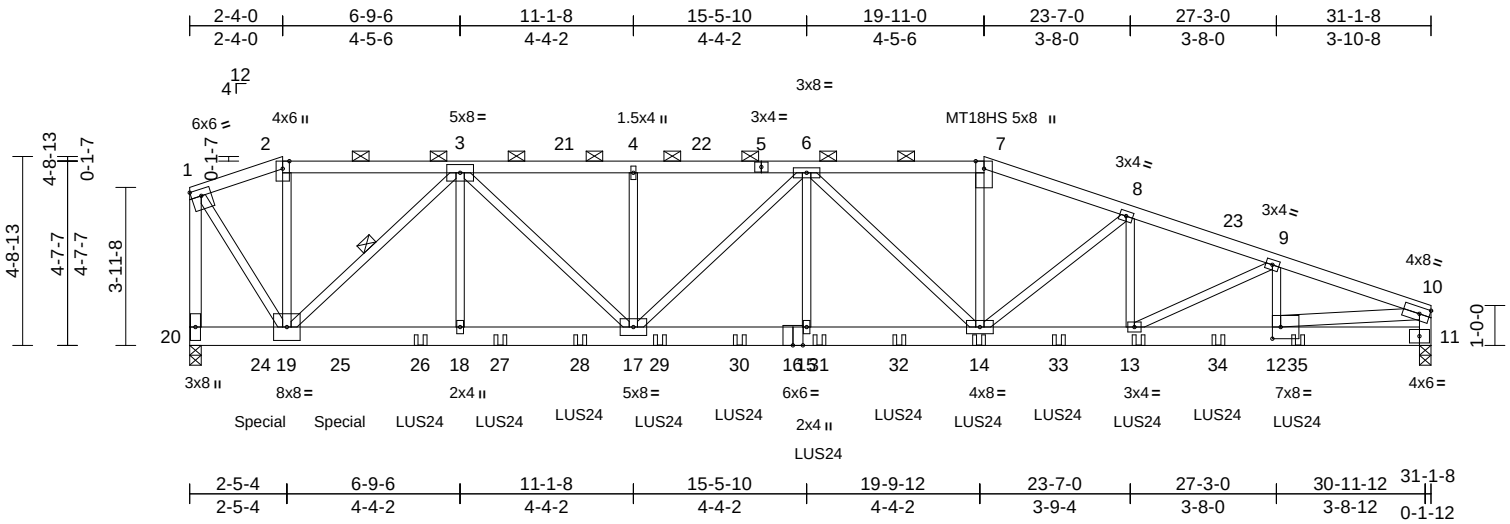

Scale = 1:57.8

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

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	0.67	Vert(LL)	-0.24	14-15	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.39	Vert(CT)	-0.43	14-15	>867	180	MT18HS	197/144
BCLL	0.0	Rep Stress Incr	NO	WB	0.93	Horz(CT)	0.07	11	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S							Weight: 357 lb	FT = 20%

LUMBER
TOP CHORD 2x4 SP No.2
BOT CHORD 2x6 SP 2400F 2.0E
WEBS 2x3 SPF No.2 *Except* 20-1,11-10,12-10:2x4 SP No.2

BRACING
TOP CHORD Structural wood sheathing directly applied or 3-6-14 oc purlins, except end verticals, and 2-0-0 oc purlins (3-11-5 max.): 2-7.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 1 Row at midpt 3-19

REACTIONS (size) 11=0-3-8, 20=0-3-8
Max Horiz 20=-159 (LC 8)
Max Uplift 11=-1221 (LC 9), 20=-1290 (LC 8)
Max Grav 11=4639 (LC 1), 20=4872 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-2657/809, 2-3=-2534/788, 3-4=-8429/2410, 4-6=-8429/2410, 6-7=-8406/2407, 7-8=-8793/2491, 8-9=-9562/2664, 9-10=-8833/2447, 1-20=-4778/1368, 10-11=-4265/1216
BOT CHORD 19-20=-121/219, 18-19=-1657/6262, 17-18=-1657/6262, 15-17=-2494/9202, 14-15=-2494/9202, 13-14=-2441/9048, 12-13=-2295/8322, 11-12=-321/1059
WEBS 2-19=-156/634, 3-19=-5218/1480, 3-18=-264/1158, 3-17=-841/3035, 4-17=-280/130, 6-17=-1086/329, 6-15=-250/1105, 6-14=-1255/347, 7-14=-649/2482, 8-14=-918/307, 8-13=-155/668, 9-13=-210/873, 9-12=-789/280, 1-19=-1326/4647, 10-12=-2006/7378

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, 2x4 - 1 row at 0-9-0 oc.
2) All loads are considered equally applied to all plies, except if noted as front (F) or back (B) face in the LOAD CASE(S) section. Ply to ply connections have been provided to distribute only loads noted as (F) or (B), unless otherwise indicated.
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) 0-1-12 to 2-4-0, Exterior(2R) 2-4-0 to 9-4-14, Interior (1) 9-4-14 to 19-11-0, Exterior(2R) 19-11-0 to 27-3-0, Interior (1) 27-3-0 to 30-11-12 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
5) Provide adequate drainage to prevent water ponding.
6) All plates are MT20 plates unless otherwise indicated.
7) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
8) Bearings are assumed to be: Joint 20 SP 2400F 2.0E crushing capacity of 805 psi, Joint 11 SP No.2 crushing capacity of 565 psi.
9) Bearing at joint(s) 11 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
10) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 1290 lb uplift at joint 20 and 1221 lb uplift at joint 11.
11) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
12) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
13) Use Simpson Strong-Tie LUS24 (4-10d Girder, 2-10d Truss, Single Ply Girder) or equivalent spaced at 2-0-0 oc max. starting at 5-9-8 from the left end to 27-9-8 to connect truss(es) to back face of bottom chord.
14) Fill all nail holes where hanger is in contact with lumber.
15) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 472 lb down and 134 lb up at 1-9-8, and 472 lb down and 138 lb up at 3-9-8 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, 2-7=-70, 7-10=-70, 11-20=-20
Concentrated Loads (lb)

April 23,2024

Continued on page 2

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Job	Truss	Truss Type	Qty	Ply	Roof - WO Lot 130
P240395-01	D15	Hip Girder	1	**2**	Job Reference (optional)

Vert: 14=-472 (B), 13=-470 (B), 24=-472 (B),
25=-472 (B), 26=-472 (B), 27=-472 (B), 28=-472 (B),
29=-472 (B), 30=-472 (B), 31=-472 (B), 32=-472 (B),
33=-470 (B), 34=-470 (B), 35=-607 (B)

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Job	Truss	Truss Type	Qty	Ply	Roof - WO Lot 130
P240395-01	F03	Half Hip Girder	1	2	Job Reference (optional) I65082270

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

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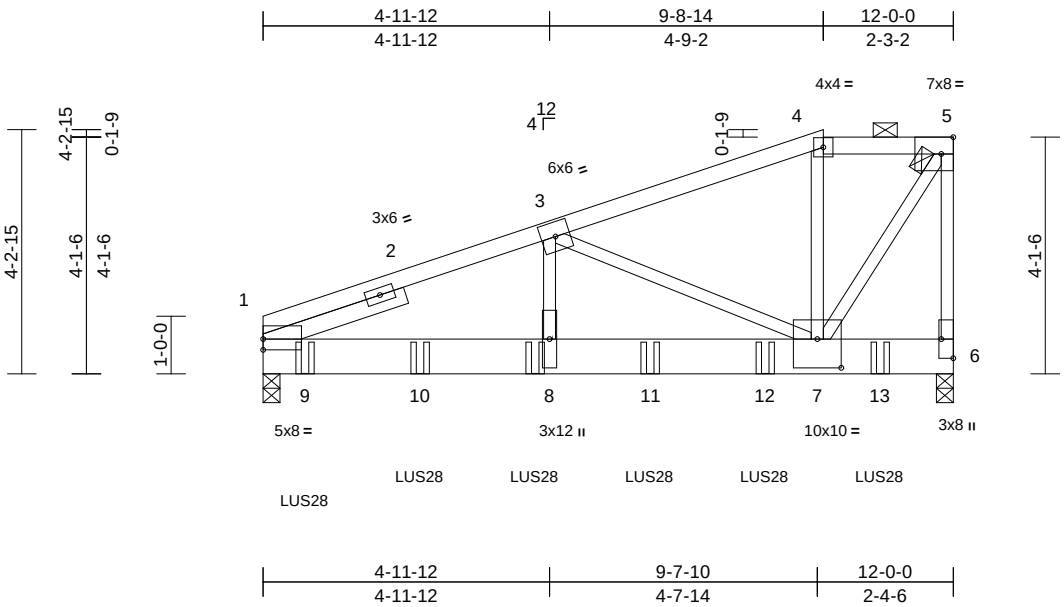

Scale = 1:40.1

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

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	0.73	Vert(LL)	-0.07	7-8	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.37	Vert(CT)	-0.13	7-8	>999	180		
BCLL	0.0	Rep Stress Incr	NO	WB	0.82	Horz(CT)	0.02	6	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S							Weight: 147 lb	FT = 20%

LUMBER
TOP CHORD 2x4 SP 2400F 2.0E *Except* 4-5:2x4 SP No.2
BOT CHORD 2x8 SP 2400F 2.0E
WEBS 2x3 SPF No.2
SLIDER Left 2x4 SP No.2 -- 2-7-3

BRACING
TOP CHORD Structural wood sheathing directly applied or 5-2-11 oc purlins, except end verticals, and 2-0-0 oc purlins (6-0-0 max.): 4-5.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (size) 1=0-3-8, 6=0-3-8
Max Horiz 1=174 (LC 11)
Max Uplift 1=-1034 (LC 8), 6=-965 (LC 8)
Max Grav 1=4768 (LC 1), 6=4518 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-3=-6703/1655, 3-4=-2673/677, 4-5=-2522/676, 5-6=-4166/1100
BOT CHORD 1-8=-1691/6134, 7-8=-1691/6134, 6-7=-72/86
WEBS 4-7=-168/584, 5-7=-1236/4771, 3-7=-3983/1094, 3-8=-645/3257

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, 2x3 - 1 row at 0-9-0 oc.
Bottom chords connected as follows: 2x8 - 2 rows staggered at 0-6-0 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) 0-0-0 to 4-11-12, Interior (1) 4-11-12 to 9-8-14, Exterior(2E) 9-8-14 to 11-10-12 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
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 2400F 2.0E crushing capacity of 805 psi.
8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 1034 lb uplift at joint 1 and 965 lb uplift at joint 6.
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) 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 0-8-12 from the left end to 10-8-12 to connect truss(es) to back face of bottom chord.
12) Fill all nail holes where hanger is in contact with lumber.

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, 4-5=-70, 1-6=-20
Concentrated Loads (lb)
Vert: 8=-1369 (B), 9=-1372 (B), 10=-1369 (B), 11=-1369 (B), 12=-1368 (B), 13=-1368 (B)

April 23,2024

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RELEASE FOR CONSTRUCTION
AS NOTED FOR PLAN REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
05/09/2024

Job	Truss	Truss Type	Qty	Ply	Roof - WO Lot 130
P240395-01	H1	Roof Special Girder	1	1	Job Reference (optional) I65082271

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

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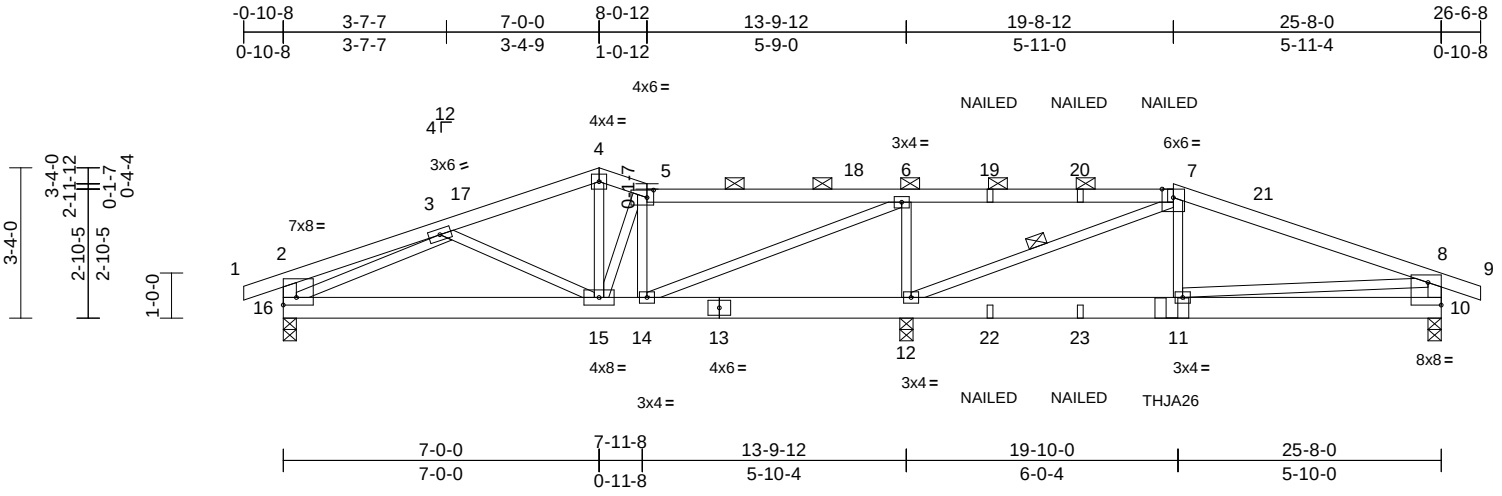

Scale = 1:51.1

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

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.68	Vert(LL)	-0.04	11	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.44	Vert(CT)	-0.07	11-12	>999	180		
BCLL	0.0	Rep Stress Incr	NO	WB	0.63	Horz(CT)	0.01	10	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S							Weight: 119 lb	FT = 20%

LUMBER
TOP CHORD 2x4 SP No.2 *Except* 5-7:2x4 SP 1650F 1.5E
BOT CHORD 2x6 SPF No.2
WEBS 2x3 SPF No.2 *Except* 16-2,10-8:2x4 SP No.2

BRACING
TOP CHORD Structural wood sheathing directly applied or 4-7-4 oc purlins, except end verticals, and 2-0-0 oc purlins (6-0-0 max.): 5-7.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing, Except:
6-0-0 oc bracing: 12-14.
WEBS 1 Row at midpt 7-12

REACTIONS (size) 10=0-3-8, 12=0-3-8, 16=0-3-8
Max Horiz 16=25 (LC 12)
Max Uplift 10=-245 (LC 9), 12=-408 (LC 9), 16=-157 (LC 31)
Max Grav 10=858 (LC 26), 12=1835 (LC 1), 16=599 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/23, 2-3=-196/86, 3-4=-591/221, 4-5=-571/244, 5-6=-521/259, 6-7=-10/241, 7-8=-1346/384, 8-9=0/23, 2-16=-242/165, 8-10=-776/325
BOT CHORD 15-16=-255/682, 14-15=-152/502, 12-14=-238/132, 11-12=-277/1200, 10-11=-177/425
WEBS 5-14=-417/99, 7-11=0/487, 3-16=-604/253, 8-11=-176/797, 4-15=-101/220, 5-15=-73/194, 3-15=-214/175, 7-12=-1535/422, 6-12=-958/399, 6-14=-229/822

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 7-0-0, Exterior(2E) 7-0-0 to 8-0-12, Interior (1) 8-0-12 to 19-8-12, Exterior(2E) 19-8-12 to 26-6-8 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) 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 157 lb uplift at joint 16, 245 lb uplift at joint 10 and 408 lb uplift at joint 12.
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) Use Simpson Strong-Tie THJA26 (THJA26 on 1 ply, Left Hand Hip) or equivalent at 19-8-6 from the left end 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) 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, 2-4=-70, 4-5=-70, 5-7=-70, 7-8=-70, 8-9=-70, 10-16=-20
Concentrated Loads (lb)
Vert: 7=-116 (B), 11=-411 (B), 19=-116 (B), 20=-116 (B), 22=-48 (B), 23=-48 (B)

STATE OF MISSOURI
SCOTT M. SEVIER
NUMBER PE-2001018807
PROFESSIONAL ENGINEER
April 23,2024

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Job	Truss	Truss Type	Qty	Ply	Roof - WO Lot 130
P240395-01	H2	Hip	1	1	Job Reference (optional) I65082272

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

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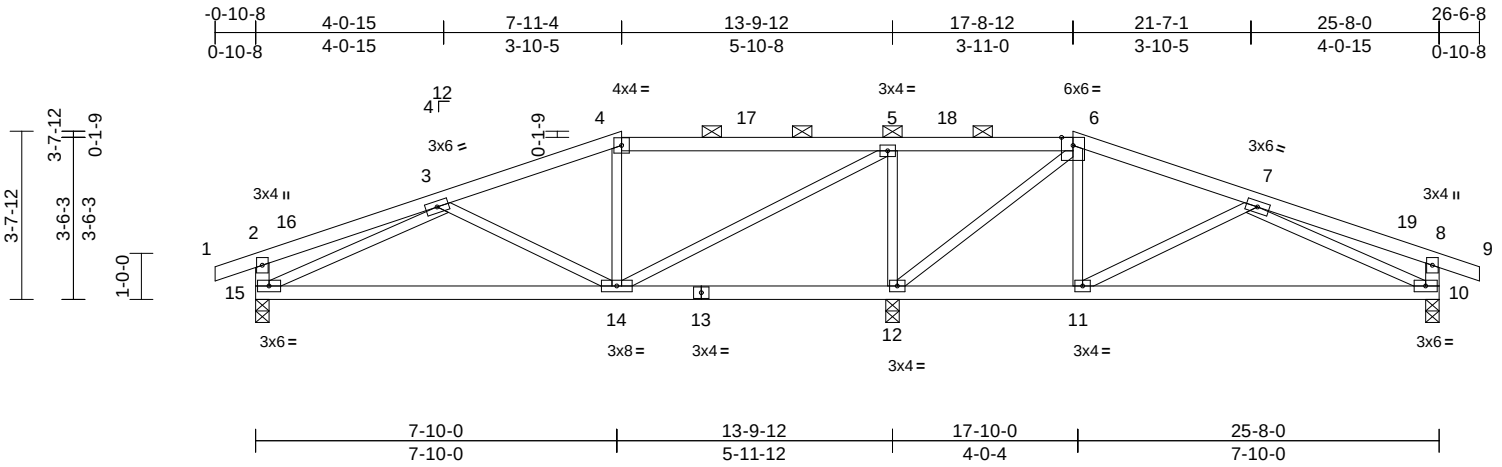

Scale = 1:50

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.53	Vert(LL)	-0.09	10-11	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.51	Vert(CT)	-0.19	10-11	>749	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.42	Horz(CT)	0.01	10	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S							Weight: 112 lb	FT = 20%

LUMBER
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2
WEBS 2x3 SPF No.2 *Except* 15-2,10-8:2x4 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.): 4-6.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing, Except:
6-0-0 oc bracing: 12-14.

REACTIONS (size) 10=0-3-8, 12=0-3-8, 15=0-3-8
Max Horiz 15=27 (LC 12)
Max Uplift 10=-139 (LC 9), 12=-258 (LC 9), 15=-160 (LC 8)
Max Grav 10=516 (LC 26), 12=1334 (LC 1), 15=619 (LC 25)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/23, 2-3=-208/71, 3-4=-581/156, 4-5=-521/172, 5-6=-25/309, 6-7=-313/92, 7-8=-189/60, 8-9=0/23, 2-15=-260/173, 8-10=-246/165
BOT CHORD 14-15=-212/692, 12-14=-307/173, 11-12=0/245, 10-11=-130/506
WEBS 4-14=-175/119, 6-12=-655/142, 6-11=-12/306, 3-15=-608/204, 7-10=-416/173, 5-12=-828/328, 5-14=-223/882, 3-14=-212/192, 7-11=-296/217

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 3-10-11, Interior (1) 3-10-11 to 7-11-4, Exterior(2R) 7-11-4 to 15-0-2, Interior (1) 15-0-2 to 17-8-12, Exterior(2R) 17-8-12 to 24-9-10, Interior (1) 24-9-10 to 26-6-8 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) 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 258 lb uplift at joint 12, 160 lb uplift at joint 15 and 139 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

April 23,2024

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Job	Truss	Truss Type	Qty	Ply	Roof - WO Lot 130
P240395-01	H5	Hip Girder	1	1	Job Reference (optional) I65082273

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

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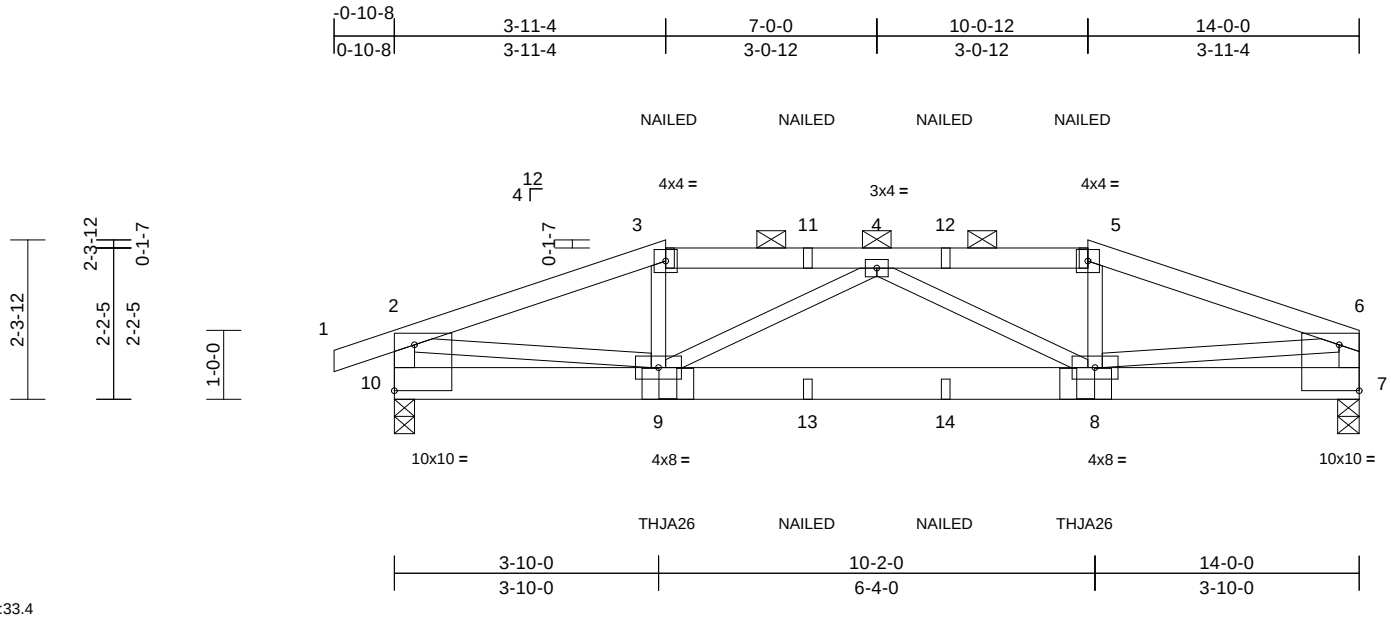

Scale = 1:33.4

Plate Offsets (X, Y): [7:Edge,0-8-0], [10:Edge,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	0.37	Vert(LL)	-0.06	8-9	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.52	Vert(CT)	-0.12	8-9	>999	180		
BCLL	0.0	Rep Stress Incr	NO	WB	0.46	Horz(CT)	0.01	7	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S							Weight: 63 lb	FT = 20%

LUMBER
TOP CHORD 2x4 SP No.2
BOT CHORD 2x6 SPF No.2
WEBS 2x3 SPF No.2 *Except* 10-2,7-6:2x4 SP No.2

BRACING
TOP CHORD Structural wood sheathing directly applied or 4-3-9 oc purlins, except end verticals, and 2-0-0 oc purlins (4-7-0 max.): 3-5.
BOT CHORD Rigid ceiling directly applied or 8-7-14 oc bracing.

REACTIONS (size) 7=0-3-12, 10=0-3-8
Max Horiz 10=18 (LC 32)
Max Uplift 7=-250 (LC 9), 10=-299 (LC 8)
Max Grav 7=950 (LC 1), 10=1027 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/23, 2-3=-1690/621, 3-4=-1551/620, 4-5=-1563/633, 5-6=-1697/630, 2-10=-962/467, 6-7=-884/377
BOT CHORD 9-10=-186/296, 8-9=-724/1873, 7-8=-147/268
WEBS 3-9=-14/301, 5-8=-9/291, 2-9=-387/1287, 6-8=-406/1328, 4-9=-419/229, 4-8=-412/213

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 SPF No.2 crushing capacity of 425 psi.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 299 lb uplift at joint 10 and 250 lb uplift at joint 7.
7) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
8) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
9) Use Simpson Strong-Tie THJA26 (THJA26 on 1 ply, Right Hand Hip) or equivalent at 3-11-10 from the left end to connect truss(es) to back face of bottom chord.
10) Use Simpson Strong-Tie THJA26 (THJA26 on 1 ply, Left Hand Hip) or equivalent at 10-0-6 from the left end to connect truss(es) to back face of bottom chord.
11) Fill all nail holes where hanger is in contact with lumber.
12) "NAILED" indicates Girder: 3-10d (0.148" x 3") toe-nails per NDS guidelines.
13) 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, 2-3=-70, 3-5=-70, 5-6=-70, 7-10=-20
Concentrated Loads (lb)
Vert: 3=-49 (B), 5=-49 (B), 9=-217 (B), 8=-217 (B), 11=-49 (B), 12=-49 (B), 13=-22 (B), 14=-22 (B)

April 23,2024

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Chesterfield, MO 63017
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Job	Truss	Truss Type	Qty	Ply	Roof - WO Lot 130	I65082274
P240395-01	H6	Hip	1	1	Job Reference (optional)	

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

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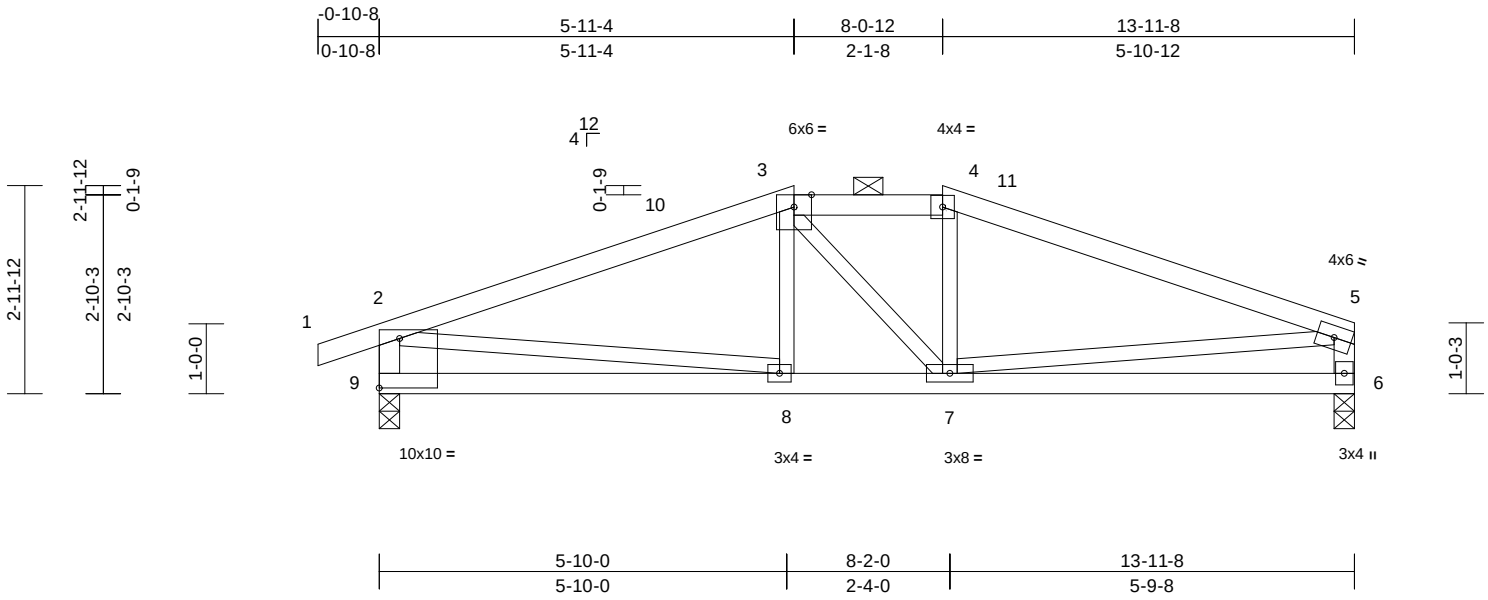

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Plate Offsets (X, Y): [9:Edge,0-8-8]

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	0.54	Vert(LL)	-0.03	8-9	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.28	Vert(CT)	-0.07	8-9	>999	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.20	Horz(CT)	0.01	6	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S							Weight: 61 lb	FT = 20%

LUMBER
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2
WEBS 2x3 SPF No.2 *Except* 9-2,6-5:2x4 SP No.2

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

REACTIONS (size) 6=0-3-8, 9=0-3-8
Max Horiz 9=21 (LC 12)
Max Uplift 6=-115 (LC 9), 9=-163 (LC 8)
Max Grav 6=612 (LC 1), 9=689 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/23, 2-3=-925/430, 3-4=-820/476, 4-5=-925/439, 2-9=-629/413, 5-6=-552/330
BOT CHORD 8-9=-249/318, 7-8=-352/813, 6-7=-152/235
WEBS 3-8=0/113, 3-7=-112/126, 4-7=-84/108, 2-8=-125/499, 5-7=-204/590

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 13-9-12 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) 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 163 lb uplift at joint 9 and 115 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.
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

April 23,2024

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

Job	Truss	Truss Type	Qty	Ply	Roof - WO Lot 130
P240395-01	H7	Common	1	1	Job Reference (optional) I65082275

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

Run: 8.63 S Apr 5 2024 Print: 8.630 S Apr 5 2024 MiTek Industries, Inc. Mon Apr 22 15:45:51 Page: 1
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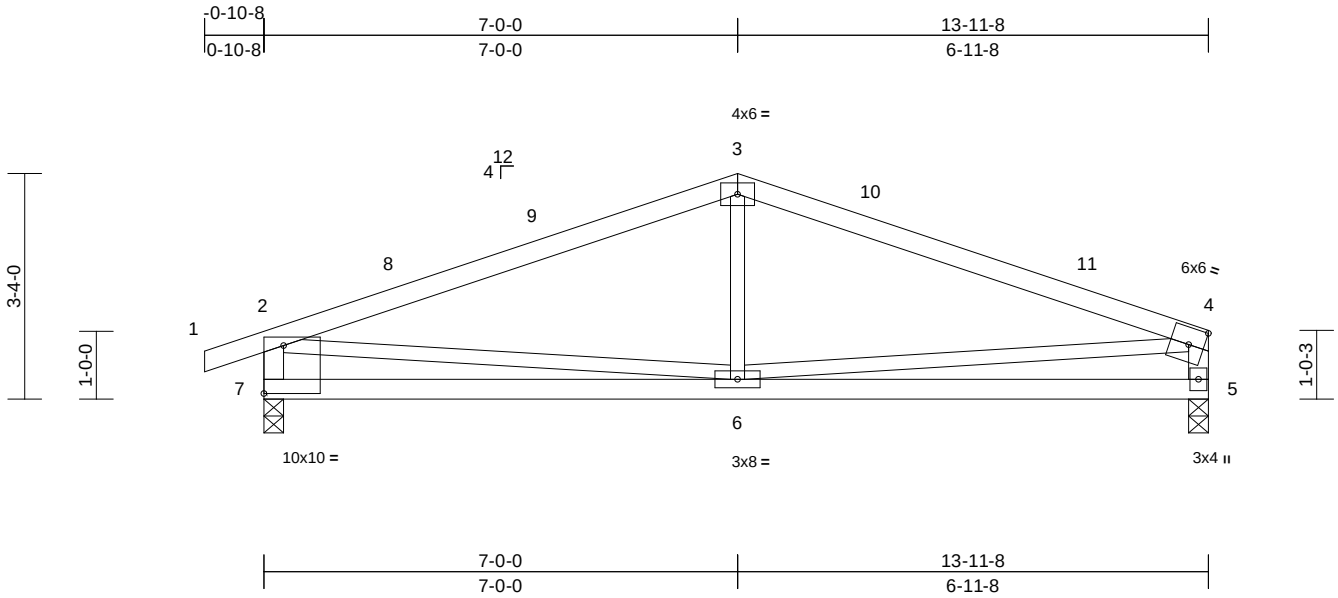


Scale = 1:34

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

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	0.79	Vert(LL)	-0.05	6-7	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.41	Vert(CT)	-0.10	6-7	>999	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.16	Horz(CT)	0.01	5	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S							Weight: 59 lb	FT = 20%

LUMBER
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2
WEBS 2x3 SPF No.2 *Except* 7-2,5-4:2x4 SP No.2

BRACING
TOP CHORD Structural wood sheathing directly applied or 3-8-2 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (size) 5=0-3-8, 7=0-3-8
Max Horiz 7=29 (LC 12)
Max Uplift 5=-107 (LC 9), 7=-155 (LC 8)
Max Grav 5=612 (LC 1), 7=689 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/23, 2-3=-890/391, 3-4=-884/397, 2-7=-625/401, 4-5=-549/330
BOT CHORD 6-7=-316/420, 5-6=-188/298
WEBS 3-6=0/229, 2-6=-24/427, 4-6=-120/477

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 7-0-0, Exterior(2R) 7-0-0 to 12-0-0, Interior (1) 12-0-0 to 13-9-12 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) 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 155 lb uplift at joint 7 and 107 lb uplift at joint 5.
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.

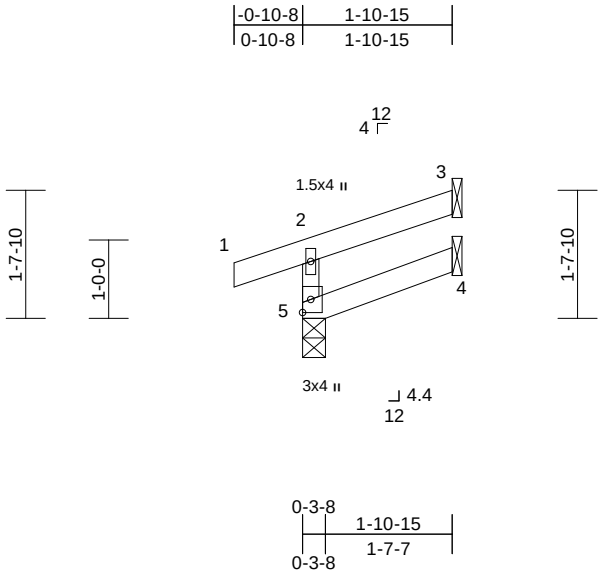
LOAD CASE(S) Standard

STATE OF MISSOURI
SCOTT M. SEVIER
NUMBER
PE-2001018807
PROFESSIONAL ENGINEER

April 23,2024

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

Job	Truss	Truss Type	Qty	Ply	Roof - WO Lot 130
P240395-01	J01	Jack-Open	2	1	Job Reference (optional)



Scale = 1:29.4

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.13	Vert(LL)	0.00	4-5	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.07	Vert(CT)	0.00	4-5	>999	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.00	Horz(CT)	0.00	3	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-R							Weight: 8 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 1-10-15 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.

REACTIONS (size) 3= Mechanical, 4= Mechanical, 5=0-3-8
Max Horiz 5=44 (LC 9)
Max Uplift 3=-32 (LC 12), 5=-56 (LC 8)
Max Grav 3=46 (LC 1), 4=34 (LC 3), 5=168 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 2-5=-149/170, 1-2=0/22, 2-3=-31/16
BOT CHORD 4-5=-13/9

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) Bearing at joint(s) 5 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 56 lb uplift at joint 5 and 32 lb uplift at joint 3.
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

April 23,2024

Job	Truss	Truss Type	Qty	Ply	Roof - WO Lot 130
P240395-01	J1	Jack-Open	3	1	Job Reference (optional) I65082277

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

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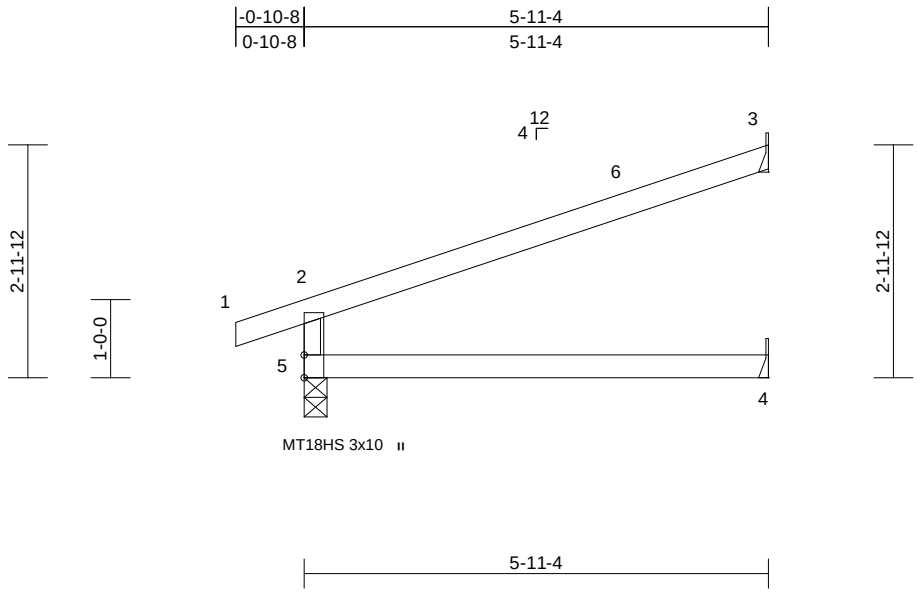

Scale = 1:29.5

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	0.66	Vert(LL)	0.07	4-5	>989	240	MT18HS	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.41	Vert(CT)	-0.12	4-5	>580	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.00	Horz(CT)	-0.06	3	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-R							Weight: 20 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 5-11-4 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=90 (LC 8)
Max Uplift 3=-98 (LC 12), 5=-80 (LC 8)
Max Grav 3=186 (LC 1), 4=110 (LC 3), 5=334 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 2-5=-287/317, 1-2=0/22, 2-3=-95/46
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) -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 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 80 lb uplift at joint 5 and 98 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

April 23,2024

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

Job	Truss	Truss Type	Qty	Ply	Roof - WO Lot 130
P240395-01	J02	Jack-Open	3	1	Job Reference (optional) I65082278

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

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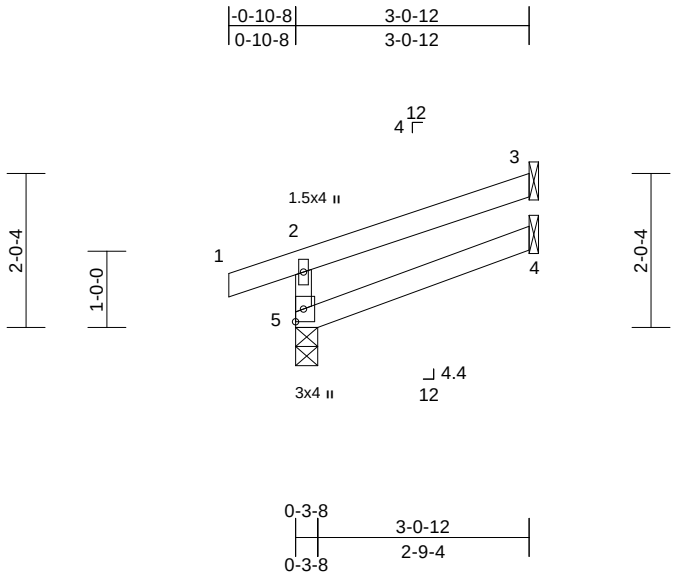

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Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.22	Vert(LL)	0.01	4-5	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.12	Vert(CT)	-0.01	4-5	>999	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.00	Horz(CT)	-0.01	3	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-R							Weight: 12 lb	FT = 20%

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

BRACING
TOP CHORD Structural wood sheathing directly applied or 3-0-12 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.

REACTIONS (size) 3= Mechanical, 4= Mechanical, 5=0-3-8
Max Horiz 5=55 (LC 9)
Max Uplift 3=-52 (LC 12), 5=-60 (LC 8)
Max Grav 3=88 (LC 1), 4=55 (LC 3), 5=210 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 2-5=-183/208, 1-2=0/22, 2-3=-52/24
BOT CHORD 4-5=-17/15

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) Bearing at joint(s) 5 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 60 lb uplift at joint 5 and 52 lb uplift at joint 3.
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

April 23,2024

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

Job	Truss	Truss Type	Qty	Ply	Roof - WO Lot 130
P240395-01	J2	Jack-Open	2	1	Job Reference (optional) I65082279

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

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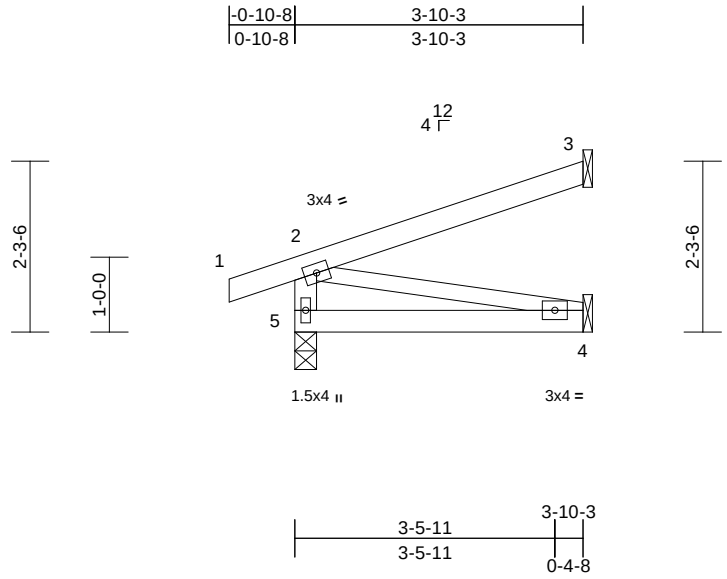

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Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.24	Vert(LL)	-0.01	4-5	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.16	Vert(CT)	-0.02	4-5	>999	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.04	Horz(CT)	0.00	3	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-P							Weight: 17 lb	FT = 20%

LUMBER
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2
WEBS 2x4 SP No.2 *Except* 4-2:2x3 SPF No.2

BRACING
TOP CHORD Structural wood sheathing directly applied or 3-10-3 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=61 (LC 9)
Max Uplift 3=-62 (LC 12), 5=-68 (LC 8)
Max Grav 3=117 (LC 1), 4=74 (LC 3), 5=246 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 2-5=-209/220, 1-2=0/23, 2-3=-64/29
BOT CHORD 4-5=-155/44
WEBS 2-4=-45/158

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 68 lb uplift at joint 5 and 62 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

April 23,2024

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

Job	Truss	Truss Type	Qty	Ply	Roof - WO Lot 130
P240395-01	J03	Jack-Open	1	1	Job Reference (optional) I65082280

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

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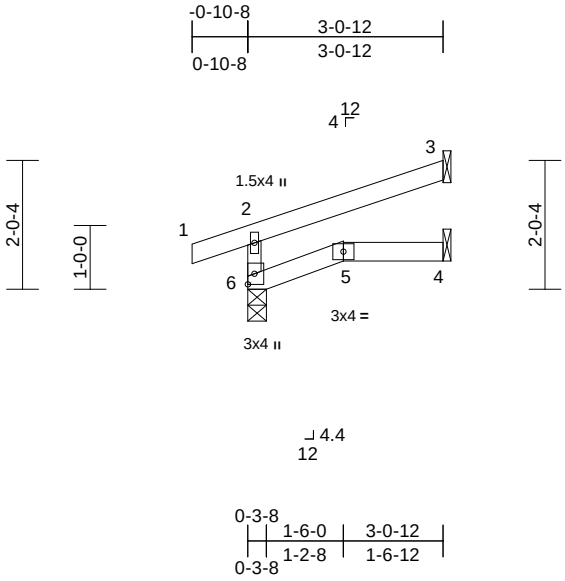

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Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.22	Vert(LL)	0.01	5-6	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.11	Vert(CT)	-0.01	5	>999	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.00	Horz(CT)	-0.01	3	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-R							Weight: 12 lb	FT = 20%

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

BRACING
TOP CHORD Structural wood sheathing directly applied or 3-0-12 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.

REACTIONS (size) 3= Mechanical, 4= Mechanical, 6=0-3-8
Max Horiz 6=55 (LC 9)
Max Uplift 3=-52 (LC 12), 6=-60 (LC 8)
Max Grav 3=88 (LC 1), 4=55 (LC 3), 6=210 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 2-6=-183/208, 1-2=0/22, 2-3=-52/24
BOT CHORD 5-6=-20/2, 4-5=0/0

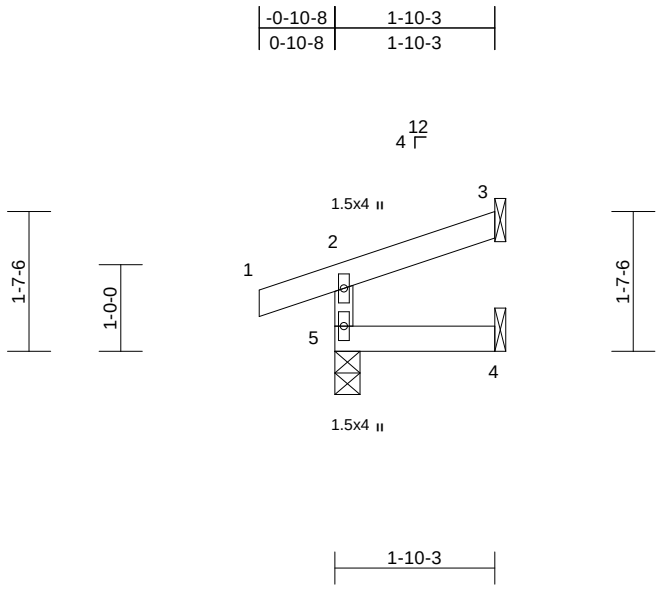
NOTES
1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=35ft; Ke=1.00; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for 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 6 SP No.2 crushing capacity of 565 psi.
4) Refer to girder(s) for truss to truss connections.
5) Bearing at joint(s) 6 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 60 lb uplift at joint 6 and 52 lb uplift at joint 3.
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

April 23,2024

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

Job	Truss	Truss Type	Qty	Ply	Roof - WO Lot 130
P240395-01	J3	Jack-Open	6	1	Job Reference (optional)



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Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.12	Vert(LL)	0.00	4-5	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.06	Vert(CT)	0.00	4-5	>999	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.00	Horz(CT)	0.00	3	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-R							Weight: 8 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 1-10-3 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=42 (LC 9)
Max Uplift 3=-30 (LC 12), 5=-57 (LC 8)
Max Grav 3=43 (LC 1), 4=33 (LC 3), 5=166 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 2-5=-147/170, 1-2=0/22, 2-3=-29/15
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 57 lb uplift at joint 5 and 30 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

April 23,2024

RELEASE FOR CONSTRUCTION
AS NOTED FOR PLAN REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
05/09/2024

Job	Truss	Truss Type	Qty	Ply	Roof - WO Lot 130
P240395-01	J04	Jack-Open	4	1	Job Reference (optional) I65082282

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

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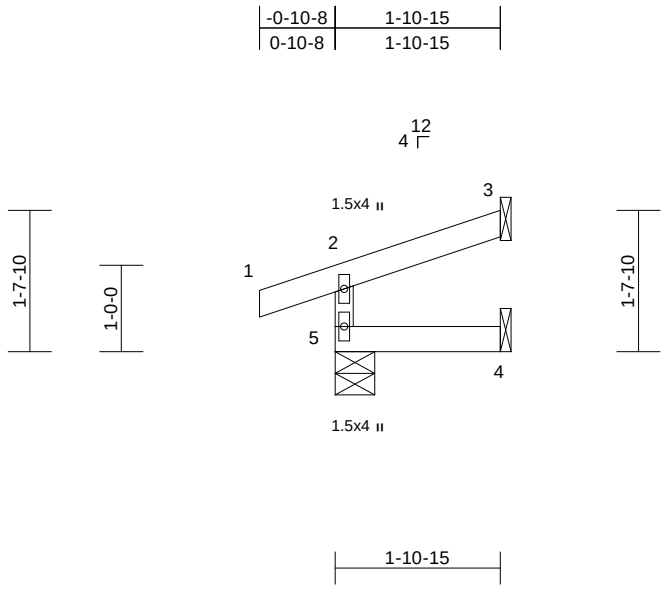

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Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.13	Vert(LL)	0.00	4-5	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.06	Vert(CT)	0.00	4-5	>999	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.00	Horz(CT)	0.00	3	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-R							Weight: 8 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 1-10-15 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=42 (LC 9)
Max Uplift 3=-31 (LC 12), 5=-57 (LC 8)
Max Grav 3=46 (LC 1), 4=34 (LC 3), 5=168 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 2-5=-149/171, 1-2=0/22, 2-3=-31/16
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 57 lb uplift at joint 5 and 31 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

April 23,2024

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

Job	Truss	Truss Type	Qty	Ply	Roof - WO Lot 130
P240395-01	J4	Jack-Open	4	1	Job Reference (optional) I65082283

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

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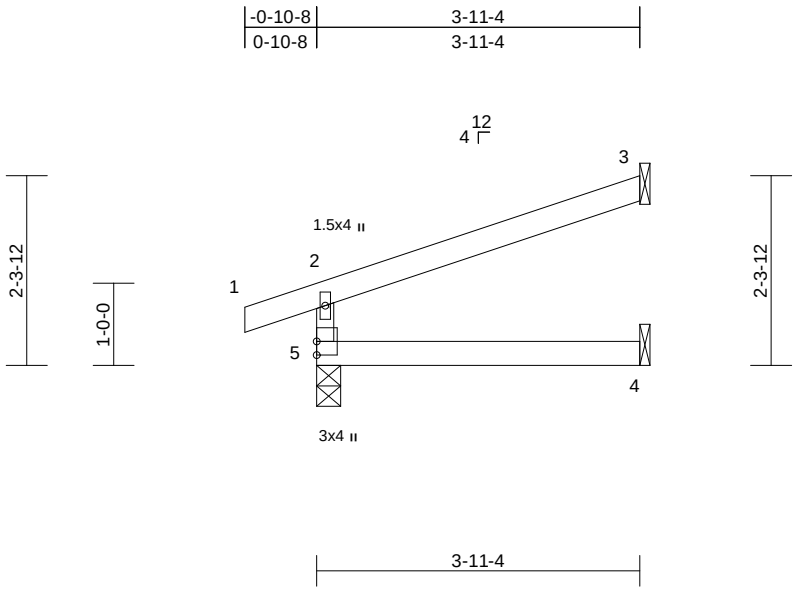

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Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.30	Vert(LL)	0.01	4-5	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.18	Vert(CT)	-0.02	4-5	>999	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.00	Horz(CT)	-0.02	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 2x3 SPF 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=62 (LC 9)
Max Uplift 3=-66 (LC 12), 5=-67 (LC 8)
Max Grav 3=119 (LC 1), 4=72 (LC 3), 5=247 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 2-5=-214/244, 1-2=0/22, 2-3=-68/30
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 67 lb uplift at joint 5 and 66 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

April 23,2024

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

RELEASE FOR CONSTRUCTION
AS NOTED FOR PLAN REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
05/09/2024

Job	Truss	Truss Type	Qty	Ply	Roof - WO Lot 130
P240395-01	J05	Jack-Open	4	1	Job Reference (optional) I65082284

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

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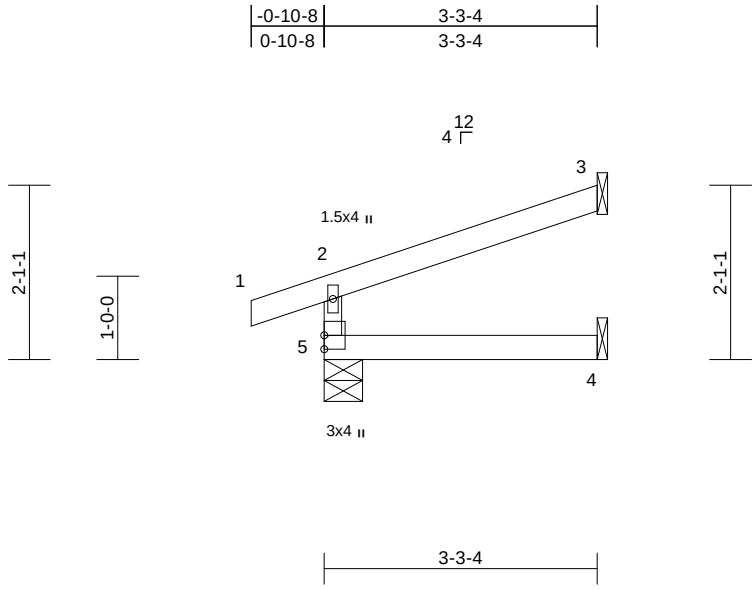

Scale = 1:27.6

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.23	Vert(LL)	0.01	4-5	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.13	Vert(CT)	-0.01	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: 12 lb	FT = 20%

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

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

REACTIONS (size) 3= Mechanical, 4= Mechanical, 5=0-5-8
Max Horiz 5=55 (LC 9)
Max Uplift 3=-55 (LC 12), 5=-63 (LC 8)
Max Grav 3=96 (LC 1), 4=59 (LC 3), 5=219 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 2-5=-190/218, 1-2=0/22, 2-3=-56/25
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) 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 63 lb uplift at joint 5 and 55 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

STATE OF MISSOURI
SCOTT M. SEVIER
NUMBER PE-2001018807
PROFESSIONAL ENGINEER

April 23,2024

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

Job	Truss	Truss Type	Qty	Ply	Roof - WO Lot 130
P240395-01	J06	Jack-Partial	4	1	Job Reference (optional) I65082285

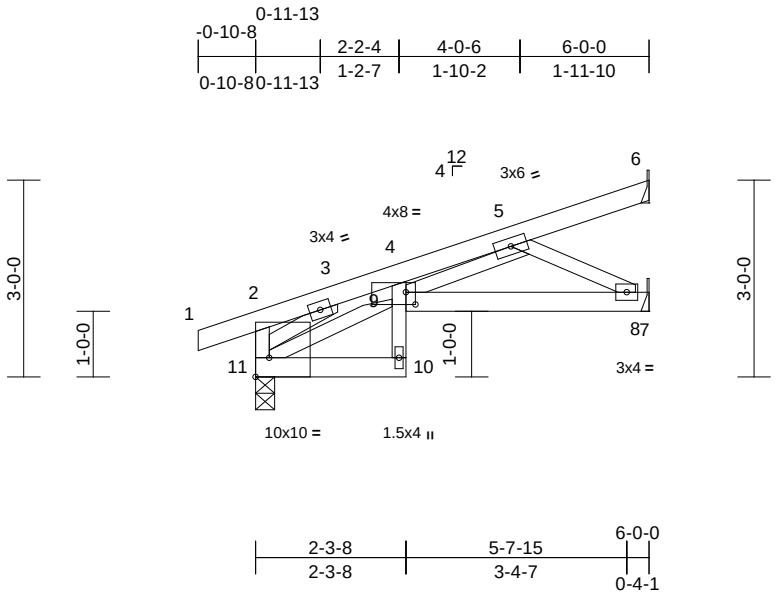

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Plate Offsets (X, Y): [4:0-1-12,0-2-4], [11:Edge,0-3-8]

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	0.25	Vert(LL)	0.03	10	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.27	Vert(CT)	-0.04	8-9	>999	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.12	Horz(CT)	0.02	7	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-P							Weight: 27 lb	FT = 20%

LUMBER
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2 *Except* 10-4:2x3 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 9-4-14 oc bracing.

REACTIONS (size) 6= Mechanical, 7= Mechanical, 11=0-3-8
Max Horiz 11=91 (LC 8)
Max Uplift 6=-29 (LC 8), 7=-52 (LC 12), 11=-80 (LC 8)
Max Grav 6=53 (LC 1), 7=204 (LC 1), 11=337 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 2-11=-94/175, 1-2=0/22, 2-3=-8/68, 3-4=-453/440, 4-5=-523/550, 5-6=-31/12
BOT CHORD 10-11=-54/58, 9-10=0/42, 4-9=-50/125, 8-9=-394/343, 7-8=0/0
WEBS 3-11=-525/412, 9-11=-500/383, 5-9=-274/250, 5-8=-385/442

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 3-10-3, Interior (1) 3-10-3 to 5-11-4 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 11 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 80 lb uplift at joint 11, 29 lb uplift at joint 6 and 52 lb uplift at joint 7.
6) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard

April 23,2024

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

Job	Truss	Truss Type	Qty	Ply	Roof - WO Lot 130
P240395-01	J07	Jack-Open	2	1	Job Reference (optional) I65082286

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

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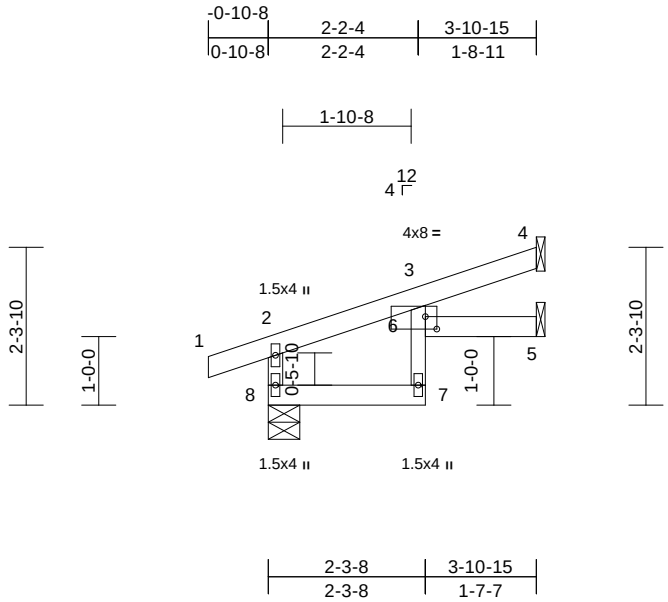

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Plate Offsets (X, Y): [3:0-2-0,0-2-3]

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	0.17	Vert(LL)	0.02	7	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.21	Vert(CT)	-0.02	7	>999	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.00	Horz(CT)	-0.02	5	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-R							Weight: 15 lb	FT = 20%

LUMBER
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2 *Except* 7-3:2x3 SPF No.2
WEBS 2x3 SPF No.2

BRACING
TOP CHORD Structural wood sheathing directly applied or 3-10-15 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (size) 4= Mechanical, 5= Mechanical, 8=0-5-8
Max Horiz 8=62 (LC 9)
Max Uplift 4=-44 (LC 12), 5=-10 (LC 12), 8=-66 (LC 8)
Max Grav 4=105 (LC 1), 5=57 (LC 3), 8=246 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 2-8=-222/229, 1-2=0/22, 2-3=-106/42, 3-4=-45/29
BOT CHORD 7-8=-109/79, 6-7=-12/40, 3-6=-4/58, 5-6=0/0

NOTES
1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=35ft; Ke=1.00; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) zone; cantilever left and right exposed ; end vertical left 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 8 SP No.2 crushing capacity of 565 psi.
4) Refer to girder(s) for truss to truss connections.
5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 66 lb uplift at joint 8, 44 lb uplift at joint 4 and 10 lb uplift at joint 5.
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

April 23,2024

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

Job	Truss	Truss Type	Qty	Ply	Roof - WO Lot 130
P240395-01	J08	Jack-Partial	4	1	Job Reference (optional) I65082287

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

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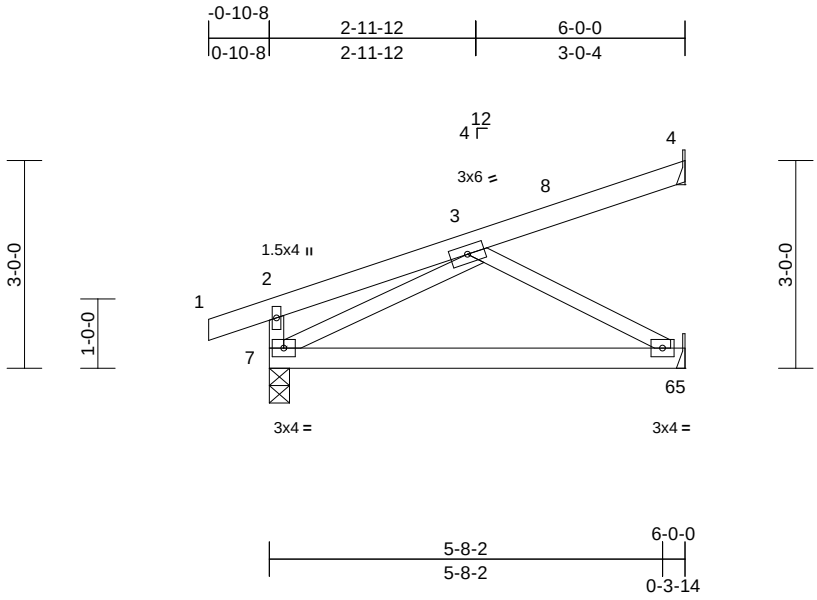

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Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.14	Vert(LL)	-0.07	6-7	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.45	Vert(CT)	-0.14	6-7	>497	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.08	Horz(CT)	0.00	5	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-P							Weight: 25 lb	FT = 20%

LUMBER
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2
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) 4= Mechanical, 5= Mechanical, 7=0-3-8
Max Horiz 7=91 (LC 8)
Max Uplift 4=-47 (LC 8), 5=-35 (LC 12), 7=-80 (LC 8)
Max Grav 4=91 (LC 1), 5=165 (LC 1), 7=337 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 2-7=-155/219, 1-2=0/22, 2-3=-27/88, 3-4=-46/22
BOT CHORD 6-7=-300/199, 5-6=0/0
WEBS 3-7=-233/118, 3-6=-228/342

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 5-11-4 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 7 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 80 lb uplift at joint 7, 47 lb uplift at joint 4 and 35 lb uplift at joint 5.
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

April 23,2024

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

Job	Truss	Truss Type	Qty	Ply	Roof - WO Lot 130	I65082288
P240395-01	J09	Jack-Partial	5	1	Job Reference (optional)	

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

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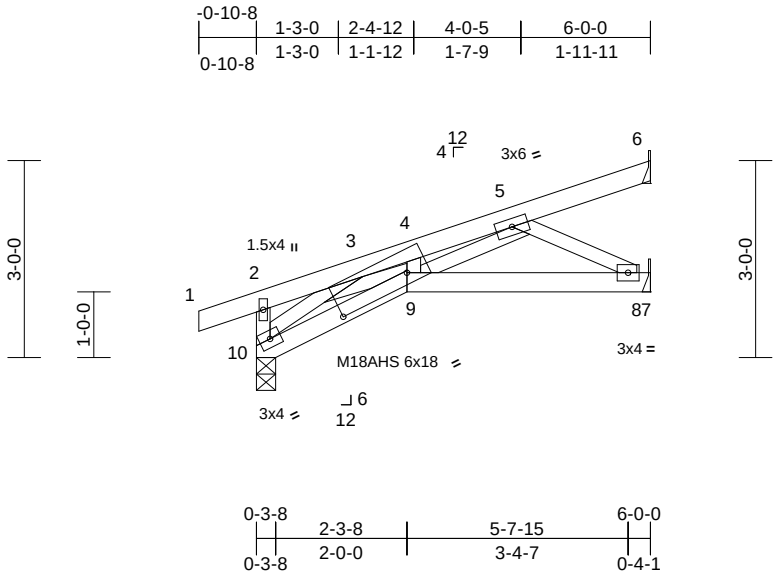

Scale = 1:35.1

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

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	0.16	Vert(LL)	0.02	9	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.20	Vert(CT)	-0.03	8-9	>999	180	M18AHS	142/136
BCLL	0.0	Rep Stress Incr	YES	WB	0.11	Horz(CT)	0.01	7	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-P							Weight: 27 lb	FT = 20%

LUMBER
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2
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 7-9-13 oc bracing.

REACTIONS (size) 6= Mechanical, 7= Mechanical, 10=0-3-8
Max Horiz 10=89 (LC 8)
Max Uplift 6=-31 (LC 8), 7=-51 (LC 12), 10=-79 (LC 8)
Max Grav 6=60 (LC 1), 7=197 (LC 1), 10=337 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 2-10=-162/224, 1-2=0/22, 2-3=-29/86, 3-4=-653/605, 4-5=-641/621, 5-6=-31/14
BOT CHORD 9-10=-577/449, 8-9=-386/334, 7-8=0/0
WEBS 3-10=-490/405, 3-9=-180/250, 4-9=-14/51, 5-9=-365/346, 5-8=-374/432

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 3-10-3, Interior (1) 3-10-3 to 5-11-4 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) 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 10 SP No.2 crushing capacity of 565 psi.
5) Refer to girder(s) for truss to truss connections.
6) Bearing at joint(s) 10 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 79 lb uplift at joint 10, 31 lb uplift at joint 6 and 51 lb uplift at joint 7.
8) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard

April 23,2024

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

Job	Truss	Truss Type	Qty	Ply	Roof - WO Lot 130	I65082289
P240395-01	LG01	Lay-In Gable	1	1	Job Reference (optional)	

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

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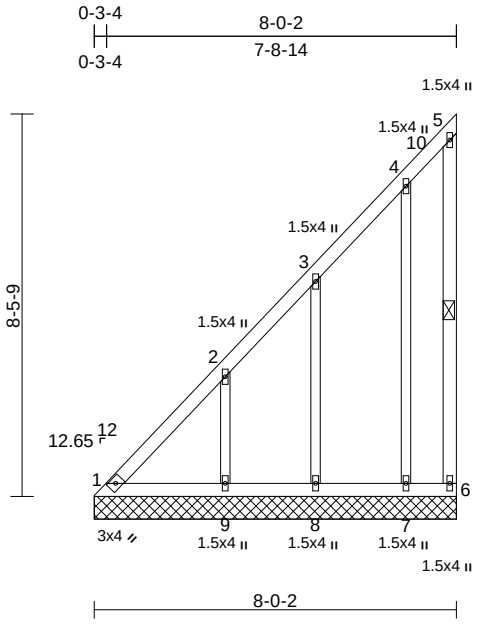

Scale = 1:51

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	0.82	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.05	Vert(TL)	n/a	-	n/a	999		
BCLL	0.0	Rep Stress Incr	YES	WB	0.20	Horiz(TL)	0.00	6	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-P							Weight: 51 lb	FT = 20%

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

BRACING
TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 1 Row at midpt 5-6

REACTIONS (size) 1=8-0-2, 6=8-0-2, 7=8-0-2, 8=8-0-2, 9=8-0-2
Max Horiz 1=338 (LC 9)
Max Uplift 1=-102 (LC 10), 6=-120 (LC 11), 7=-104 (LC 12), 8=-132 (LC 12), 9=-181 (LC 12)
Max Grav 1=252 (LC 9), 6=101 (LC 8), 7=174 (LC 19), 8=193 (LC 19), 9=277 (LC 19)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-584/585, 2-3=-412/414, 3-4=-290/305, 4-5=-215/225, 5-6=-151/130
BOT CHORD 1-9=-155/169, 8-9=-156/169, 7-8=-156/170, 6-7=-156/170
WEBS 2-9=-275/256, 3-8=-199/187, 4-7=-175/143

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) 0-4-1 to 7-4-15, Exterior(2R) 7-4-15 to 7-10-10 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
3) All plates are 1.5x4 MT20 unless otherwise indicated.
4) Gable requires continuous bottom chord bearing.
5) Gable studs spaced at 0-0-0 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 102 lb uplift at joint 1, 120 lb uplift at joint 6, 181 lb uplift at joint 9, 132 lb uplift at joint 8 and 104 lb uplift at joint 7.
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

April 23,2024

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

Job	Truss	Truss Type	Qty	Ply	Roof - WO Lot 130
P240395-01	LG02	Lay-In Gable	1	1	Job Reference (optional) I65082290

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

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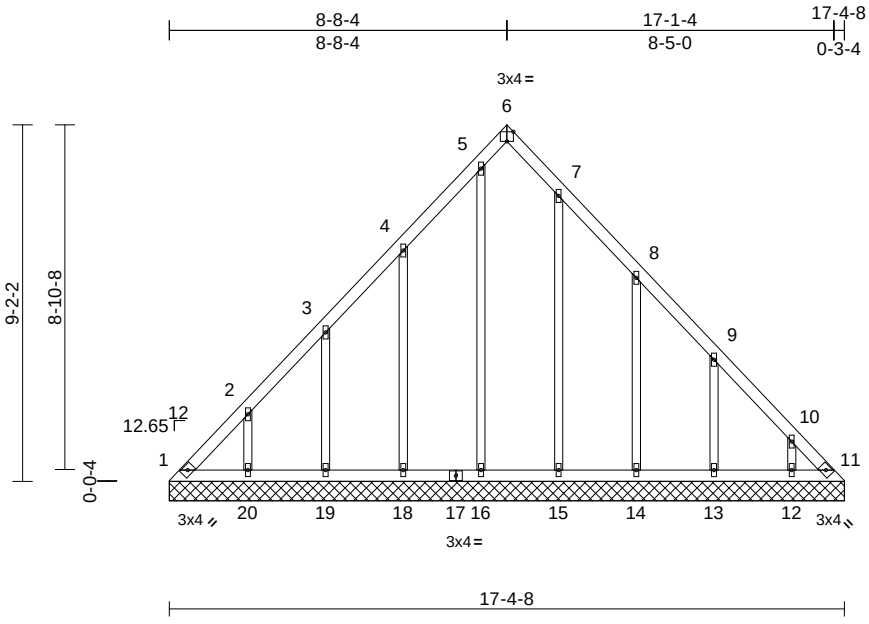

Scale = 1:59.3

Plate Offsets (X, Y): [6:Edge,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	0.05	Vert(TL)	n/a	-	n/a	999		
BCLL	0.0	Rep Stress Incr	YES	WB	0.20	Horiz(TL)	0.01	11	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S							Weight: 91 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=17-4-8, 11=17-4-8, 12=17-4-8, 13=17-4-8, 14=17-4-8, 15=17-4-8, 16=17-4-8, 18=17-4-8, 19=17-4-8, 20=17-4-8
Max Horiz 1=-250 (LC 8)
Max Uplift 1=-104 (LC 10), 11=-104 (LC 11), 12=-118 (LC 13), 13=-136 (LC 13), 14=-155 (LC 13), 15=-59 (LC 13), 16=-14 (LC 9), 18=-160 (LC 12), 19=-132 (LC 12), 20=-141 (LC 12)
Max Grav 1=283 (LC 12), 11=290 (LC 13), 12=178 (LC 20), 13=210 (LC 20), 14=213 (LC 20), 15=177 (LC 20), 16=164 (LC 19), 18=214 (LC 19), 19=204 (LC 19), 20=213 (LC 19)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-409/285, 2-3=-280/179, 3-4=-152/108, 4-5=-117/91, 5-6=-70/57, 6-7=-91/76, 7-8=-94/35, 8-9=-166/109, 9-10=-300/217, 10-11=-407/303
BOT CHORD 1-20=-212/293, 19-20=-213/293, 18-19=-213/293, 16-18=-213/293, 15-16=-213/293, 14-15=-213/293, 13-14=-213/293, 12-13=-213/293, 11-12=-212/292
WEBS 2-20=-188/158, 3-19=-184/157, 4-18=-213/183, 5-16=-125/38, 7-15=-136/83, 8-14=-206/179, 9-13=-189/161, 10-12=-159/135

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 8-8-8, Exterior(2R) 8-8-8 to 13-8-8, Interior (1) 13-8-8 to 17-0-15 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
4) All plates are 1.5x4 MT20 unless otherwise indicated.
5) Gable requires continuous bottom chord bearing.
6) Gable studs spaced at 0-0-0 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 104 lb uplift at joint 1, 104 lb uplift at joint 11, 141 lb uplift at joint 20, 132 lb uplift at joint 19, 160 lb uplift at joint 18, 14 lb uplift at joint 16, 59 lb uplift at joint 15, 155 lb uplift at joint 14, 136 lb uplift at joint 13 and 118 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

April 23,2024

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

Job	Truss	Truss Type	Qty	Ply	Roof - WO Lot 130	I65082291
P240395-01	LG03	Lay-In Gable	1	1	Job Reference (optional)	

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

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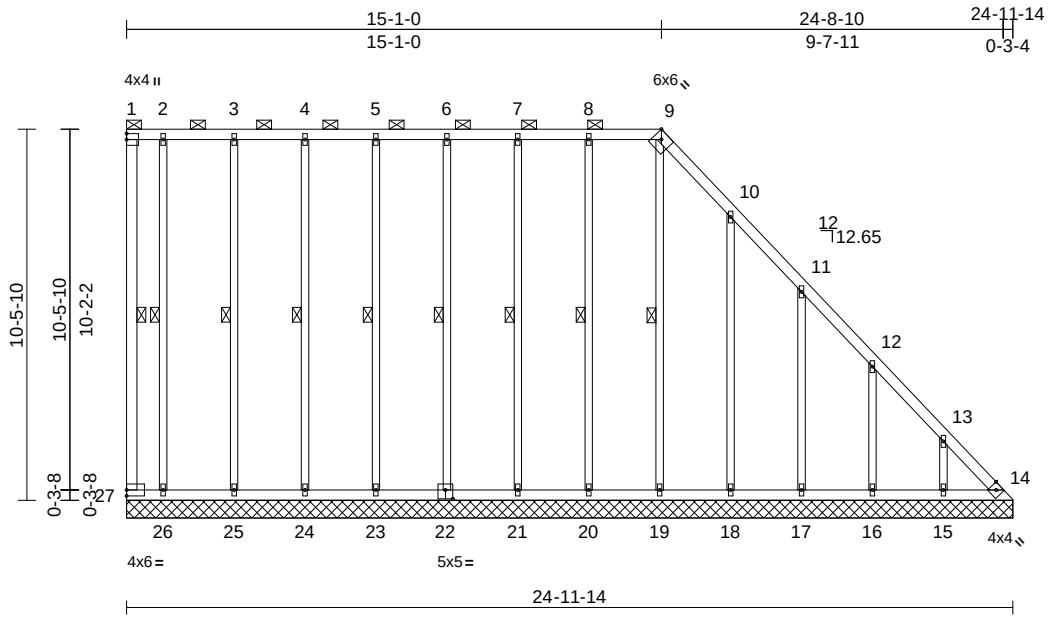

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Plate Offsets (X, Y): [9:0-2-9,Edge], [22:0-2-8,0-3-0]

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	0.80	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.38	Vert(TL)	n/a	-	n/a	999		
BCLL	0.0	Rep Stress Incr	YES	WB	0.30	Horiz(TL)	0.01	14	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S							Weight: 175 lb	FT = 20%

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

BRACING
TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals, and 2-0-0 oc purlins (6-0-0 max.): 1-9.
BOT CHORD Rigid ceiling directly applied or 7-11-5 oc bracing.
WEBS 1 Row at midpt 1-27, 2-26, 3-25, 4-24, 5-23, 6-22, 7-21, 8-20, 9-19

REACTIONS (size) 14=24-11-14, 15=24-11-14, 16=24-11-14, 17=24-11-14, 18=24-11-14, 19=24-11-14, 20=24-11-14, 21=24-11-14, 22=24-11-14, 23=24-11-14, 24=24-11-14, 25=24-11-14, 26=24-11-14, 27=24-11-14
Max Horiz 27=-433 (LC 8)
Max Uplift 14=-181 (LC 11), 15=-138 (LC 13), 16=-136 (LC 13), 17=-138 (LC 13), 18=-139 (LC 13), 19=-130 (LC 8), 20=-51 (LC 8), 21=-42 (LC 9), 22=-40 (LC 8), 23=-41 (LC 8), 24=-48 (LC 9), 25=-66 (LC 8), 26=-97 (LC 9), 27=-65 (LC 10)
Max Grav 14=342 (LC 8), 15=209 (LC 20), 16=206 (LC 20), 17=205 (LC 20), 18=216 (LC 20), 19=183 (LC 20), 20=189 (LC 1), 21=179 (LC 1), 22=180 (LC 1), 23=179 (LC 1), 24=179 (LC 1), 25=189 (LC 1), 26=168 (LC 21), 27=40 (LC 9)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-27=-216/225, 1-2=-192/209, 2-3=-192/209, 3-4=-192/209, 4-5=-192/209, 5-6=-192/209, 6-7=-192/210, 7-8=-192/210, 8-9=-192/209, 9-10=-253/265, 10-11=-363/378, 11-12=-472/476, 12-13=-585/578, 13-14=-690/676
BOT CHORD 26-27=-481/499, 25-26=-481/499, 24-25=-481/499, 23-24=-481/499, 21-23=-481/499, 20-21=-481/499, 19-20=-481/499, 18-19=-480/498, 17-18=-480/498, 16-17=-479/498, 15-16=-479/498, 14-15=-479/498
WEBS 2-26=-214/161, 3-25=-148/77, 4-24=-139/67, 5-23=-140/63, 6-22=-140/64, 7-21=-139/66, 8-20=-149/74, 9-19=-271/206, 10-18=-194/163, 11-17=-183/162, 12-16=-182/161, 13-15=-176/155

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 5-0-6, Interior (1) 5-0-6 to 15-1-0, Exterior(2R) 15-1-0 to 20-1-0, Interior (1) 20-1-0 to 24-8-1 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
3) Provide adequate drainage to prevent water ponding.
4) All plates are 1.5x4 MT20 unless otherwise indicated.
5) Gable requires continuous bottom chord bearing.
6) Gable studs spaced at 0-0-0 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 65 lb uplift at joint 27, 181 lb uplift at joint 14, 97 lb uplift at joint 26, 66 lb uplift at joint 25, 48 lb uplift at joint 24, 41 lb uplift at joint 23, 40 lb uplift at joint 22, 42 lb uplift at joint 21, 51 lb uplift at joint 20, 130 lb uplift at joint 19, 139 lb uplift at joint 18, 138 lb uplift at joint 17, 136 lb uplift at joint 16 and 138 lb uplift at joint 15.
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.

LOAD CASE(S) Standard

April 23,2024

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

Job	Truss	Truss Type	Qty	Ply	Roof - WO Lot 130
P240395-01	LG05	Lay-In Gable	1	1	Job Reference (optional) I65082292

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

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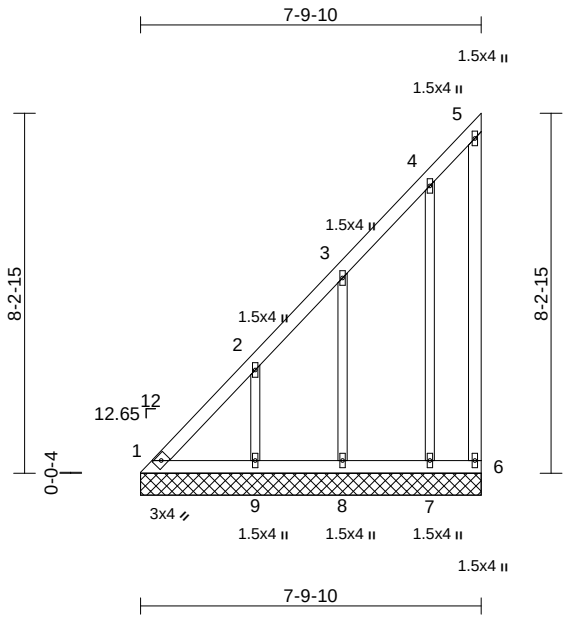

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Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.82	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.04	Vert(TL)	n/a	-	n/a	999		
BCLL	0.0	Rep Stress Incr	YES	WB	0.19	Horiz(TL)	0.00	6	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-P							Weight: 50 lb	FT = 20%

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

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

REACTIONS (size) 1=7-9-10, 6=7-9-10, 7=7-9-10, 8=7-9-10, 9=7-9-10
Max Horiz 1=329 (LC 9)
Max Uplift 1=-105 (LC 10), 6=-117 (LC 11), 7=-106 (LC 12), 8=-137 (LC 12), 9=-167 (LC 12)
Max Grav 1=248 (LC 9), 6=100 (LC 8), 7=174 (LC 19), 8=201 (LC 19), 9=255 (LC 19)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-576/575, 2-3=-417/420, 3-4=-290/304, 4-5=-208/213, 5-6=-153/131
BOT CHORD 1-9=-152/165, 8-9=-152/165, 7-8=-152/165, 6-7=-152/165
WEBS 2-9=-254/237, 3-8=-206/194, 4-7=-176/150

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) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
3) All plates are 1.5x4 MT20 unless otherwise indicated.
4) Gable requires continuous bottom chord bearing.
5) Gable studs spaced at 0-0-0 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 105 lb uplift at joint 1, 117 lb uplift at joint 6, 167 lb uplift at joint 9, 137 lb uplift at joint 8 and 106 lb uplift at joint 7.
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

April 23,2024

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

Job	Truss	Truss Type	Qty	Ply	Roof - WO Lot 130
P240395-01	LG06	Lay-In Gable	1	1	Job Reference (optional) I65082293

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

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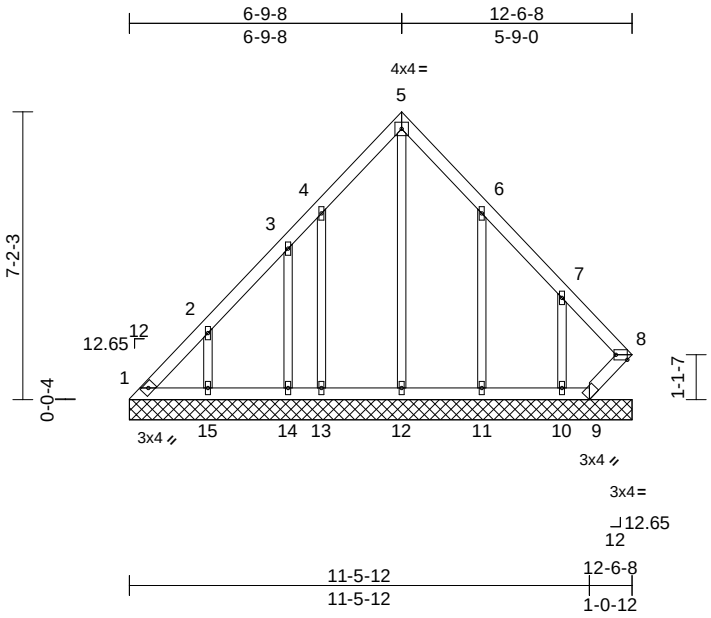

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Plate Offsets (X, Y): [8:Edge,0-1-8]

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	0.08	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.05	Vert(TL)	n/a	-	n/a	999		
BCLL	0.0	Rep Stress Incr	YES	WB	0.12	Horiz(TL)	0.00	8	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S							Weight: 64 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=12-6-8, 8=12-6-8, 9=12-6-8, 10=12-6-8, 11=12-6-8, 12=12-6-8, 13=12-6-8, 14=12-6-8, 15=12-6-8
Max Horiz 1=190 (LC 9)
Max Uplift 1=-67 (LC 10), 8=-115 (LC 11), 9=-167 (LC 13), 10=-135 (LC 13), 11=-140 (LC 13), 13=-96 (LC 12), 14=-93 (LC 12), 15=-143 (LC 12)
Max Grav 1=173 (LC 12), 8=285 (LC 13), 9=92 (LC 11), 10=188 (LC 20), 11=218 (LC 20), 12=147 (LC 22), 13=154 (LC 19), 14=135 (LC 19), 15=217 (LC 19)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-257/165, 2-3=-149/101, 3-4=-104/74, 4-5=-133/121, 5-6=-137/120, 6-7=-114/55, 7-8=-179/114
BOT CHORD 1-15=-93/148, 14-15=-93/148, 13-14=-93/148, 12-13=-94/148, 11-12=-94/148, 10-11=-93/148, 9-10=-93/148, 8-9=-152/232
WEBS 2-15=-199/162, 3-14=-136/111, 4-13=-133/112, 5-12=-105/61, 6-11=-198/164, 7-10=-187/154

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 6-9-12, Exterior(2R) 6-9-12 to 11-9-12, Interior (1) 11-9-12 to 12-4-5 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
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 0-0-0 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 67 lb uplift at joint 1, 115 lb uplift at joint 8, 167 lb uplift at joint 9, 143 lb uplift at joint 15, 93 lb uplift at joint 14, 96 lb uplift at joint 13, 140 lb uplift at joint 11 and 135 lb uplift at joint 10.
10) Beveled plate or shim required to provide full bearing surface with truss chord at joint(s) 8.
11) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard

April 23,2024

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

Job	Truss	Truss Type	Qty	Ply	Roof - WO Lot 130	I65082294
P240395-01	LG07	Lay-In Gable	1	1	Job Reference (optional)	

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

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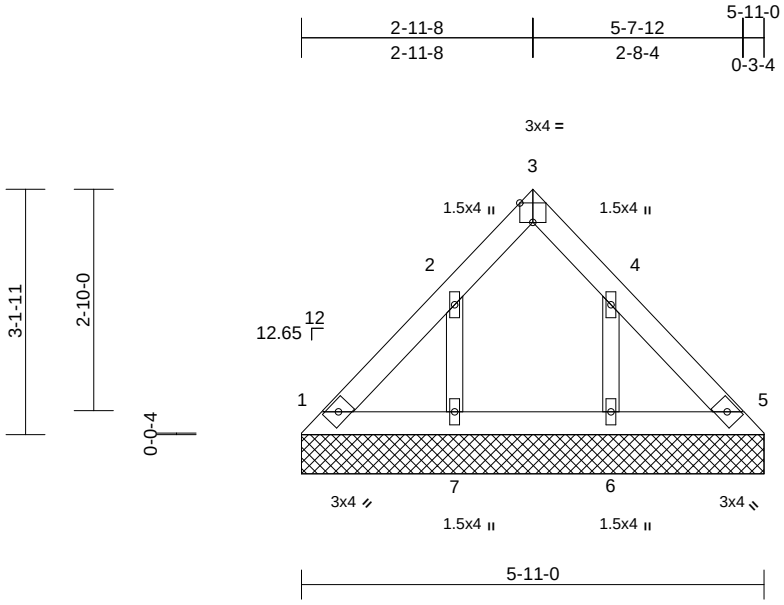

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Plate Offsets (X, Y): [3:Edge,0-3-0]

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	0.05	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	0.03	Horiz(TL)	0.00	5	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-P							Weight: 23 lb	FT = 20%

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

BRACING
TOP CHORD Structural wood sheathing directly applied or 5-11-8 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (size) 1=5-11-0, 5=5-11-0, 6=5-11-0, 7=5-11-0
Max Horiz 1=79 (LC 9)
Max Uplift 6=-105 (LC 13), 7=-106 (LC 12)
Max Grav 1=90 (LC 21), 5=89 (LC 22), 6=180 (LC 20), 7=181 (LC 19)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-107/89, 2-3=-63/16, 3-4=-63/16, 4-5=-106/89
BOT CHORD 1-7=-82/102, 6-7=-82/102, 5-6=-82/102
WEBS 2-7=-173/131, 4-6=-173/131

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 0-0-0 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 106 lb uplift at joint 7 and 105 lb uplift at joint 6.
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

STATE OF MISSOURI
SCOTT M. SEVIER
NUMBER
PE-2001018807
PROFESSIONAL ENGINEER

April 23,2024

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

Job	Truss	Truss Type	Qty	Ply	Roof - WO Lot 130	I65082295
P240395-01	V01	Valley	1	1	Job Reference (optional)	

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

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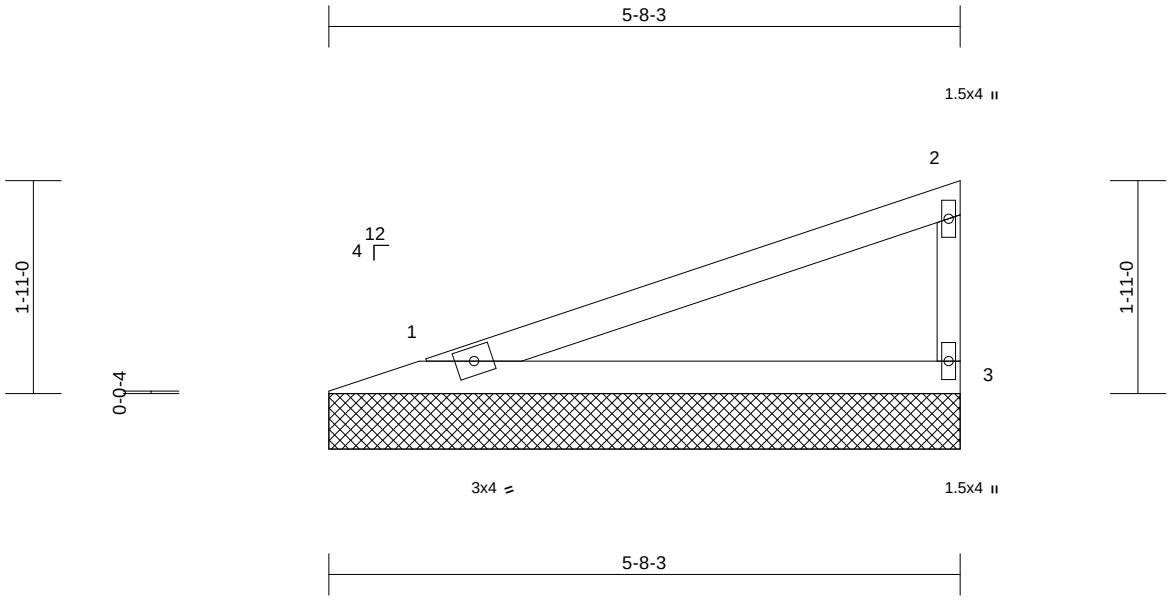

Scale = 1:20.7

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	0.50	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.27	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: 17 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 5-8-15 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (size) 1=5-8-3, 3=5-8-3
Max Horiz 1=75 (LC 9)
Max Uplift 1=-41 (LC 8), 3=-52 (LC 12)
Max Grav 1=211 (LC 1), 3=211 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-105/64, 2-3=-164/211
BOT CHORD 1-3=-33/35

NOTES
1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=35ft; Ke=1.00; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
3) Gable requires continuous bottom chord bearing.
4) Gable studs spaced at 4-0-0 oc.
5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
6) All bearings are assumed to be SP No.2 crushing capacity of 565 psi.
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 41 lb uplift at joint 1 and 52 lb uplift at joint 3.
8) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard

April 23,2024

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

RELEASE FOR CONSTRUCTION
AS NOTED FOR PLAN REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
I65082296
05/09/2024

Job	Truss	Truss Type	Qty	Ply	Roof - WO Lot 130
P240395-01	V02	Valley	1	1	Job Reference (optional)

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

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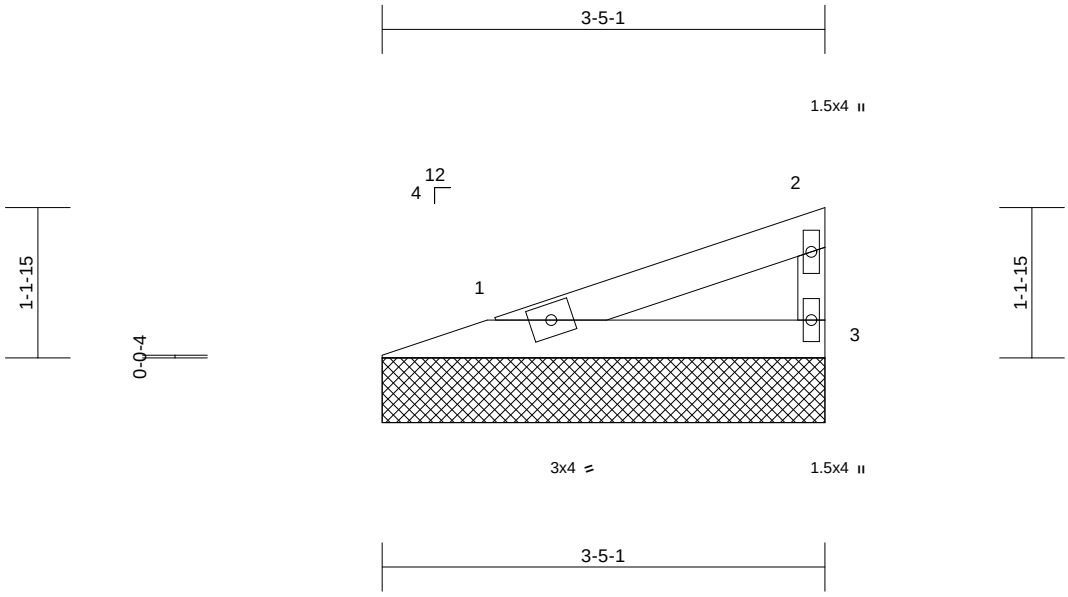

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Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.12	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.07	Vert(TL)	n/a	-	n/a	999		
BCLL	0.0	Rep Stress Incr	YES	WB	0.00	Horiz(TL)	0.00	3	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-P							Weight: 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 3-5-13 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (size) 1=3-5-1, 3=3-5-1
Max Horiz 1=39 (LC 9)
Max Uplift 1=-21 (LC 8), 3=-27 (LC 12)
Max Grav 1=110 (LC 1), 3=110 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-56/34, 2-3=-85/112
BOT CHORD 1-3=-17/18

NOTES
1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=35ft; Ke=1.00; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
3) Gable requires continuous bottom chord bearing.
4) Gable studs spaced at 4-0-0 oc.
5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
6) All bearings are assumed to be SP No.2 crushing capacity of 565 psi.
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 21 lb uplift at joint 1 and 27 lb uplift at joint 3.
8) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard

STATE OF MISSOURI
SCOTT M. SEVIER
NUMBER PE-2001018807
PROFESSIONAL ENGINEER

April 23,2024

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

Job	Truss	Truss Type	Qty	Ply	Roof - WO Lot 130
P240395-01	V03	Valley	5	1	Job Reference (optional)

I65082297

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

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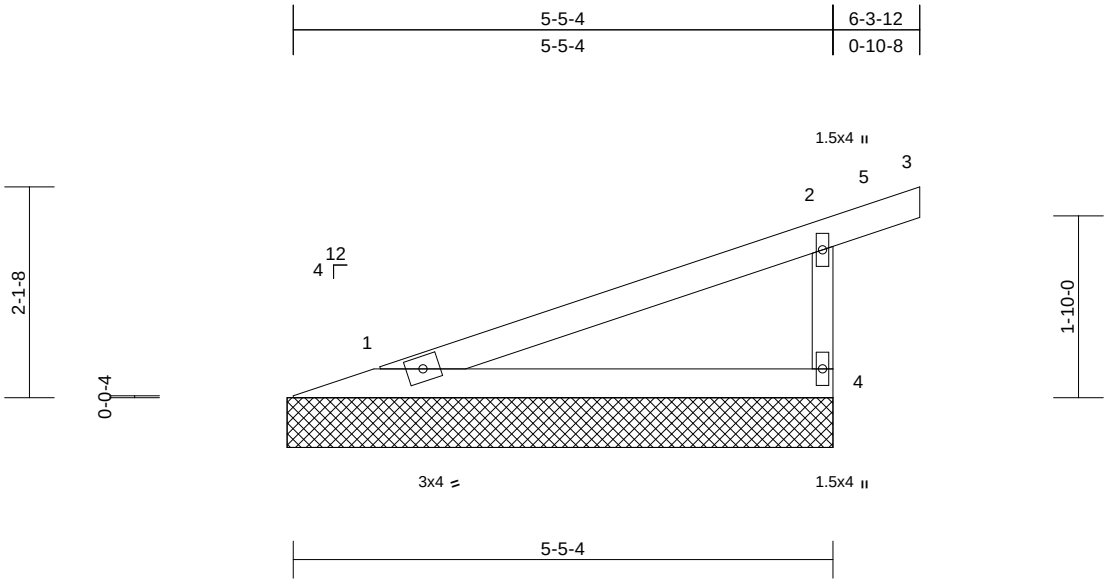

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Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.40	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.24	Vert(CT)	n/a	-	n/a	999		
BCLL	0.0	Rep Stress Incr	YES	WB	0.00	Horz(CT)	0.00	4	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-P							Weight: 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 5-6-0 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (size) 1=5-6-0, 4=5-6-0
Max Horiz 1=86 (LC 9)
Max Uplift 1=-31 (LC 8), 4=-81 (LC 12)
Max Grav 1=193 (LC 1), 4=277 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-131/52, 2-3=-22/0, 2-4=-232/301
BOT CHORD 1-4=-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) 0-11-5 to 5-11-5, Interior (1) 5-11-5 to 6-4-8 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
2) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
3) Gable requires continuous bottom chord bearing.
4) Gable studs spaced at 4-0-0 oc.
5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
6) All bearings are assumed to be SP No.2 crushing capacity of 565 psi.
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 31 lb uplift at joint 1 and 81 lb uplift at joint 4.
8) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard

April 23,2024

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

Job	Truss	Truss Type	Qty	Ply	Roof - WO Lot 130
P240395-01	V04	Valley	1	1	Job Reference (optional) I65082298

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

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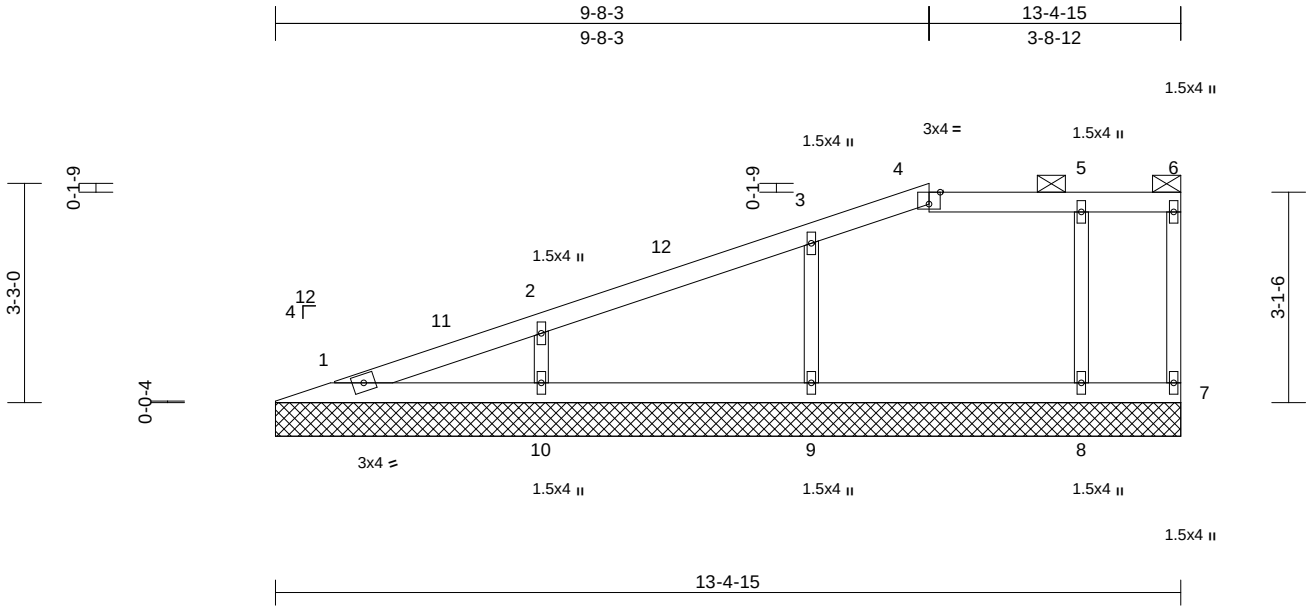

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Plate Offsets (X, Y): [4:0-2-0,Edge]

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	0.24	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.12	Vert(TL)	n/a	-	n/a	999		
BCLL	0.0	Rep Stress Incr	YES	WB	0.07	Horiz(TL)	0.00	7	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S							Weight: 46 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.): 4-6.
BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.

REACTIONS (size) 1=13-4-15, 7=13-4-15, 8=13-4-15, 9=13-4-15, 10=13-4-15
Max Horiz 1=134 (LC 9)
Max Uplift 7=-6 (LC 1), 8=-66 (LC 9), 9=-90 (LC 8), 10=-100 (LC 12)
Max Grav 1=102 (LC 1), 7=2 (LC 11), 8=299 (LC 1), 9=377 (LC 1), 10=346 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-213/110, 2-3=-130/85, 3-4=-74/76, 4-5=-60/68, 5-6=-59/64, 6-7=-17/20
BOT CHORD 1-10=-58/62, 9-10=-58/62, 8-9=-58/62, 7-8=-58/62
WEBS 2-10=-264/249, 3-9=-295/271, 5-8=-234/216

NOTES
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=35ft; Ke=1.00; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) 0-11-5 to 5-11-5, Interior (1) 5-11-5 to 9-8-15, Exterior(2E) 9-8-15 to 13-4-7 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) 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 4-0-0 oc.
8) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
9) 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 7, 100 lb uplift at joint 10, 90 lb uplift at joint 9 and 66 lb uplift at joint 8.
11) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
12) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

LOAD CASE(S) Standard

STATE OF MISSOURI
SCOTT M. SEVIER
NUMBER
PE-2001018807
PROFESSIONAL ENGINEER

April 23,2024

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

Job	Truss	Truss Type	Qty	Ply	Roof - WO Lot 130
P240395-01	V05	Valley	1	1	Job Reference (optional) I65082299

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

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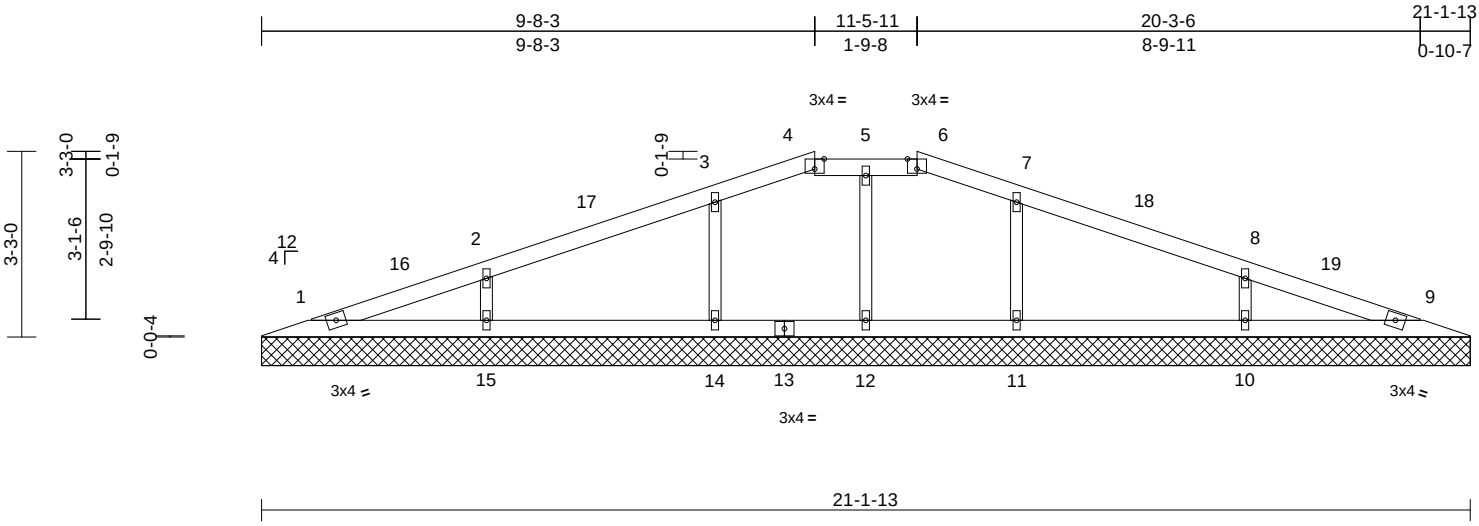

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Plate Offsets (X, Y): [4:0-2-0,Edge], [6:0-2-0,Edge]

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.20	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.11	Vert(TL)	n/a	-	n/a	999		
BCLL	0.0	Rep Stress Incr	YES	WB	0.05	Horiz(TL)	0.00	9	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S							Weight: 68 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, except 2-0-0 oc purlins (6-0-0 max.): 4-6.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (size) 1=21-1-13, 9=21-1-13, 10=21-1-13, 11=21-1-13, 12=21-1-13, 14=21-1-13, 15=21-1-13
Max Horiz 1=-54 (LC 13)
Max Uplift 1=-9 (LC 9), 9=-12 (LC 9), 10=-100 (LC 13), 11=-76 (LC 9), 12=-9 (LC 8), 14=-78 (LC 8), 15=-100 (LC 12)
Max Grav 1=105 (LC 1), 9=105 (LC 1), 10=363 (LC 1), 11=316 (LC 26), 12=182 (LC 1), 14=316 (LC 25), 15=363 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-67/38, 2-3=-65/66, 3-4=-50/107, 4-5=-41/103, 5-6=-41/103, 6-7=-50/105, 7-8=-65/64, 8-9=-49/26
BOT CHORD 1-15=-10/48, 14-15=-10/48, 12-14=-10/48, 11-12=-10/48, 10-11=-10/48, 9-10=-10/48
WEBS 2-15=-278/204, 3-14=-246/166, 8-10=-278/204, 7-11=-246/166, 5-12=-140/44

NOTES
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=35ft; Ke=1.00; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) 0-11-5 to 5-11-5, Interior (1) 5-11-5 to 9-8-15, Exterior(2E) 9-8-15 to 11-6-7, Exterior(2R) 11-6-7 to 18-7-4, Interior (1) 18-7-4 to 20-4-1 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 4-0-0 oc.
8) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
9) 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 9 lb uplift at joint 1, 12 lb uplift at joint 9, 100 lb uplift at joint 15, 78 lb uplift at joint 14, 100 lb uplift at joint 10, 76 lb uplift at joint 11 and 9 lb uplift at joint 12.
11) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
12) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

LOAD CASE(S) Standard

April 23,2024

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

Job	Truss	Truss Type	Qty	Ply	Roof - WO Lot 130
P240395-01	V06	Valley	1	1	Job Reference (optional) I65082300

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

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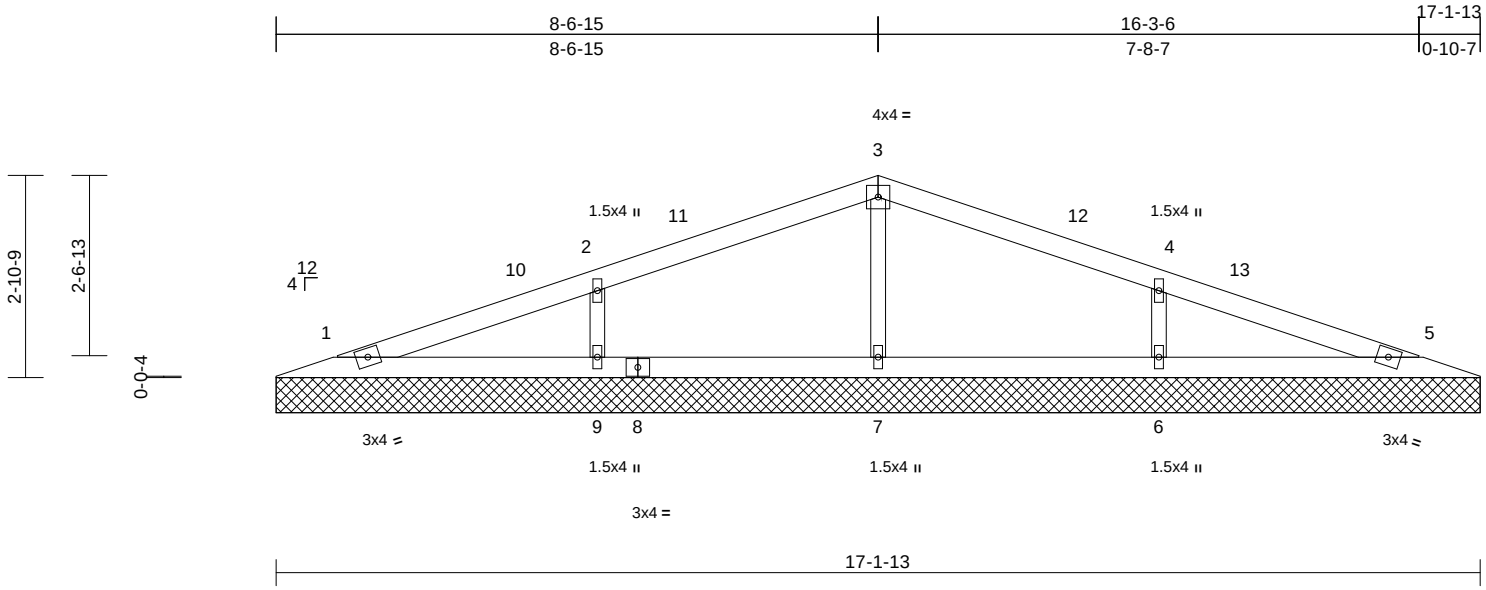

Scale = 1:32.8

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	0.25	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.12	Vert(TL)	n/a	-	n/a	999		
BCLL	0.0	Rep Stress Incr	YES	WB	0.06	Horiz(TL)	0.00	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 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=17-1-13, 5=17-1-13, 6=17-1-13, 7=17-1-13, 9=17-1-13
Max Horiz 1=-49 (LC 13)
Max Uplift 1=-18 (LC 8), 5=-23 (LC 9), 6=-117 (LC 13), 7=-10 (LC 8), 9=-117 (LC 12)
Max Grav 1=132 (LC 1), 5=132 (LC 1), 6=413 (LC 26), 7=309 (LC 1), 9=413 (LC 25)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-59/50, 2-3=-68/96, 3-4=-68/99, 4-5=-43/38
BOT CHORD 1-9=-5/34, 7-9=-5/34, 6-7=-5/34, 5-6=-5/34
WEBS 3-7=-235/90, 2-9=-320/235, 4-6=-320/235

NOTES
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=35ft; Ke=1.00; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) 0-11-5 to 5-11-5, Interior (1) 5-11-5 to 8-7-11, Exterior(2R) 8-7-11 to 13-7-11, Interior (1) 13-7-11 to 16-4-1 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 18 lb uplift at joint 1, 23 lb uplift at joint 5, 10 lb uplift at joint 7, 117 lb uplift at joint 9 and 117 lb uplift at joint 6.
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

April 23,2024

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

Job	Truss	Truss Type	Qty	Ply	Roof - WO Lot 130
P240395-01	V07	Valley	1	1	Job Reference (optional) I65082301

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

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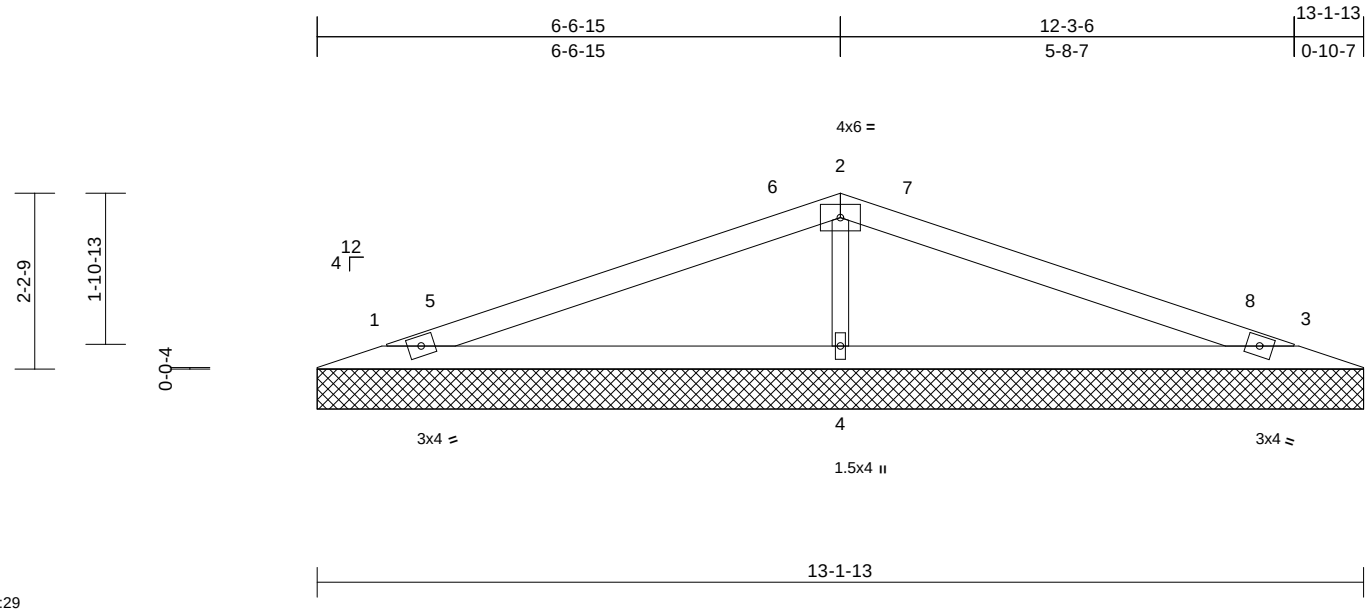

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Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.55	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.32	Vert(TL)	n/a	-	n/a	999		
BCLL	0.0	Rep Stress Incr	YES	WB	0.08	Horiz(TL)	0.00	3	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S							Weight: 39 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=13-1-13, 3=13-1-13, 4=13-1-13
Max Horiz 1=36 (LC 12)
Max Uplift 1=-56 (LC 8), 3=-60 (LC 13), 4=-68 (LC 8)
Max Grav 1=230 (LC 25), 3=230 (LC 26), 4=581 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-92/69, 2-3=-92/68
BOT CHORD 1-4=-1/36, 3-4=-1/36
WEBS 2-4=-409/316

NOTES
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=35ft; Ke=1.00; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) 0-11-5 to 5-11-5, Interior (1) 5-11-5 to 6-7-11, Exterior(2R) 6-7-11 to 11-7-11, Interior (1) 11-7-11 to 12-4-1 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 56 lb uplift at joint 1, 60 lb uplift at joint 3 and 68 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

April 23,2024

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

Job	Truss	Truss Type	Qty	Ply	Roof - WO Lot 130	I65082302
P240395-01	V08	Valley	1	1	Job Reference (optional)	

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

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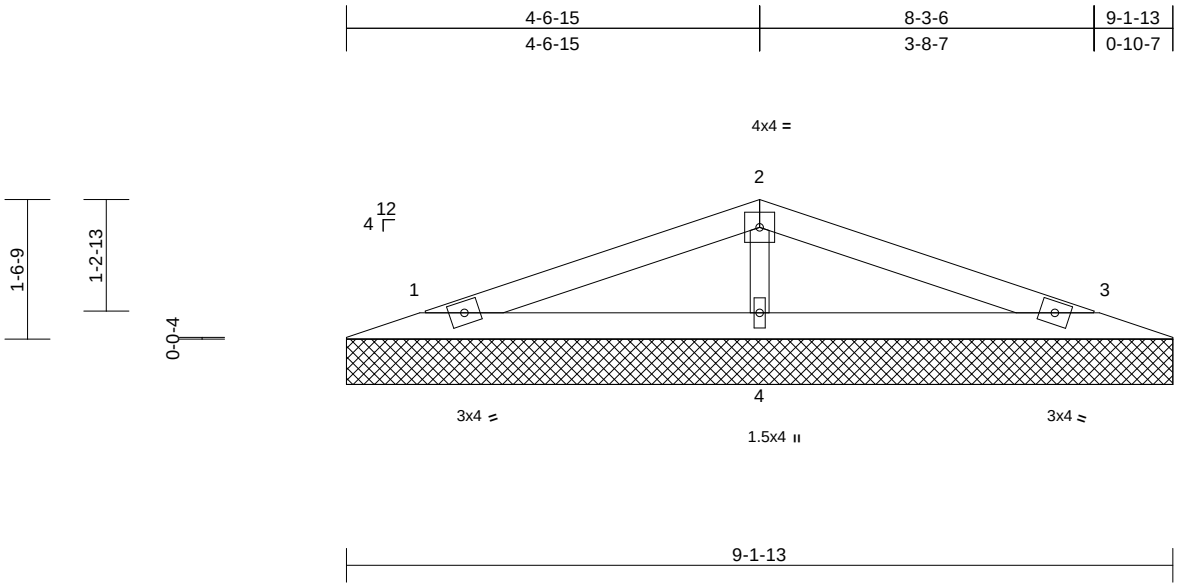

Scale = 1:25.5

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	0.22	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	0.06	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=9-1-13, 3=9-1-13, 4=9-1-13
Max Horiz 1=-24 (LC 13)
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=377 (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=-265/261

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

April 23,2024

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

Job	Truss	Truss Type	Qty	Ply	Roof - WO Lot 130
P240395-01	V09	Valley	1	1	Job Reference (optional) I65082303

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

Run: 8.63 S Apr 5 2024 Print: 8.630 S Apr 5 2024 MiTek Industries, Inc. Mon Apr 22 15:45:54 Page: 1
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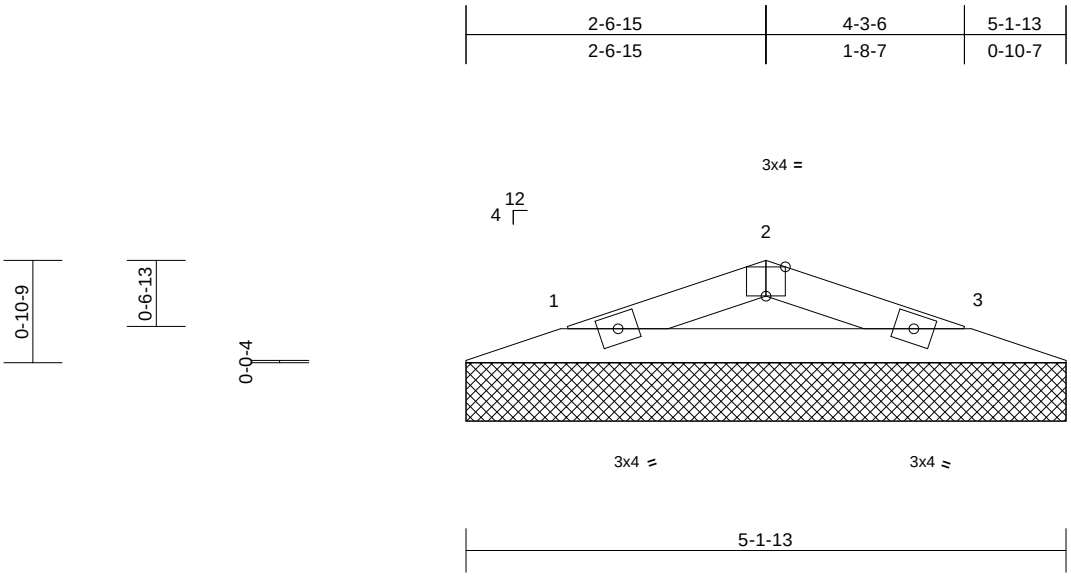


Scale = 1:19.8

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 5-3-5 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (size) 1=5-1-13, 3=5-1-13
Max Horiz 1=-11 (LC 13)
Max Uplift 1=-27 (LC 8), 3=-27 (LC 9)
Max Grav 1=153 (LC 1), 3=153 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-199/241, 2-3=-199/245
BOT CHORD 1-3=-201/174

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.

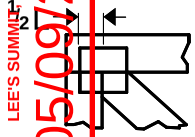
LOAD CASE(S) Standard

April 23,2024

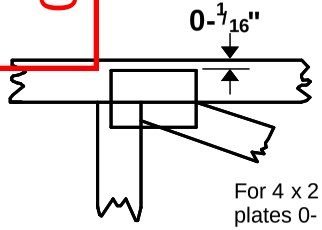
MiTek®
16023 Swingley Ridge Rd.
Chesterfield, MO 63017
314.434.1200 / MiTek-US.com

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.

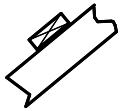
* Plate location details available in MiTek software or upon request.

PLATE SIZE

4 x 4

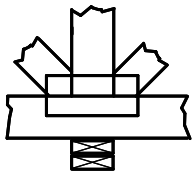
The first dimension is the plate width measured perpendicular to slots. Second dimension is the length parallel to slots.

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

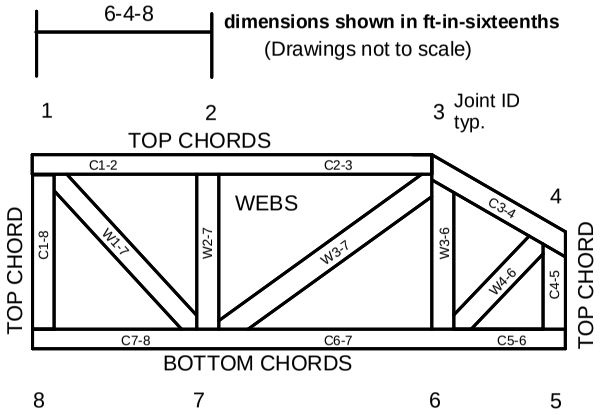


Indicates location where bearings (supports) occur. Icons vary but reaction section indicates joint number/letter where bearings occur. Min size shown is for crushing only.

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.

MiTek®

MiTek Engineering Reference Sheet: MII-7473 rev. 1/2/2023

General Safety Notes

Failure to Follow Could Cause Property Damage or Personal Injury

1. Additional stability bracing for truss system, e.g. diagonal or X-bracing, is always required. See BCSI.
2. Truss bracing must be designed by an engineer. For wide truss spacing, individual lateral braces themselves may require bracing, or alternative Tor I bracing should be considered.
3. Never exceed the design loading shown and never stack materials on inadequately braced trusses.
4. Provide copies of this truss design to the building designer, erection supervisor, property owner and all other interested parties.
5. Cut members to bear tightly against each other.
6. Place plates on each face of truss at each joint and embed fully. Knots and wane at joint locations are regulated by ANSI/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.