

RE: Sunflower Farmhouse 3 Car -

Site Information:

Project Customer: Clayton Properties Project Name: Sunflower Farmhouse 3 Car

Lot/Block: 163 Subdivision: Highland Meadows

Model: Sunflower Farmhouse 3 Car

Address: 2755 SW 11th Terrace

City: Lee's Summit State: MO

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

Design Code: IRC2018/TPI2014

Wind Code: ASCE 7-16

Wind Speed: 115 mph

Roof Load: 45.0 psf

Mean Roof Height (feet): 35

MiTek, Inc.

16023 Swingley Ridge Rd.

Chesterfield, MO 63017

314.434.1200

Design Program: MiTek 20/20 8.6

Design Method: MWFRS (Envelope)/C-C hybrid Wind ASCE 7-16

Floor Load: N/A psf

Exposure Category: C

No.	Seal#	Truss Name	Date
1	I74483176	A1	6/27/25
2	I74483177	A2	6/27/25
3	I74483178	A3	6/27/25
4	I74483179	A4	6/27/25
5	I74483180	A5	6/27/25
6	I74483181	B1	6/27/25
7	I74483182	B2	6/27/25
8	I74483183	C1	6/27/25
9	I74483184	C2	6/27/25
10	I74483185	D1	6/27/25
11	I74483186	D2	6/27/25
12	I74483187	E1	6/27/25
13	I74483188	E2	6/27/25
14	I74483189	E4	6/27/25
15	I74483190	E5	6/27/25
16	I74483191	E6	6/27/25
17	I74483192	E7	6/27/25
18	I74483193	E8	6/27/25
19	I74483194	E9	6/27/25
20	I74483195	E10	6/27/25
21	I74483196	E11	6/27/25
22	I74483197	V1	6/27/25
23	I74483198	V2	6/27/25
24	I74483199	V3	6/27/25
25	I74483200	V4	6/27/25
26	I74483201	V5	6/27/25
27	I74483202	V6	6/27/25
28	I74483203	V7	6/27/25
29	I74483204	V8	6/27/25
30	I74483205	V9	6/27/25

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

Truss Design Engineer's Name: Lu, Jie

My license renewal date for the state of Missouri is December 31, 2026.

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



June 27, 2025

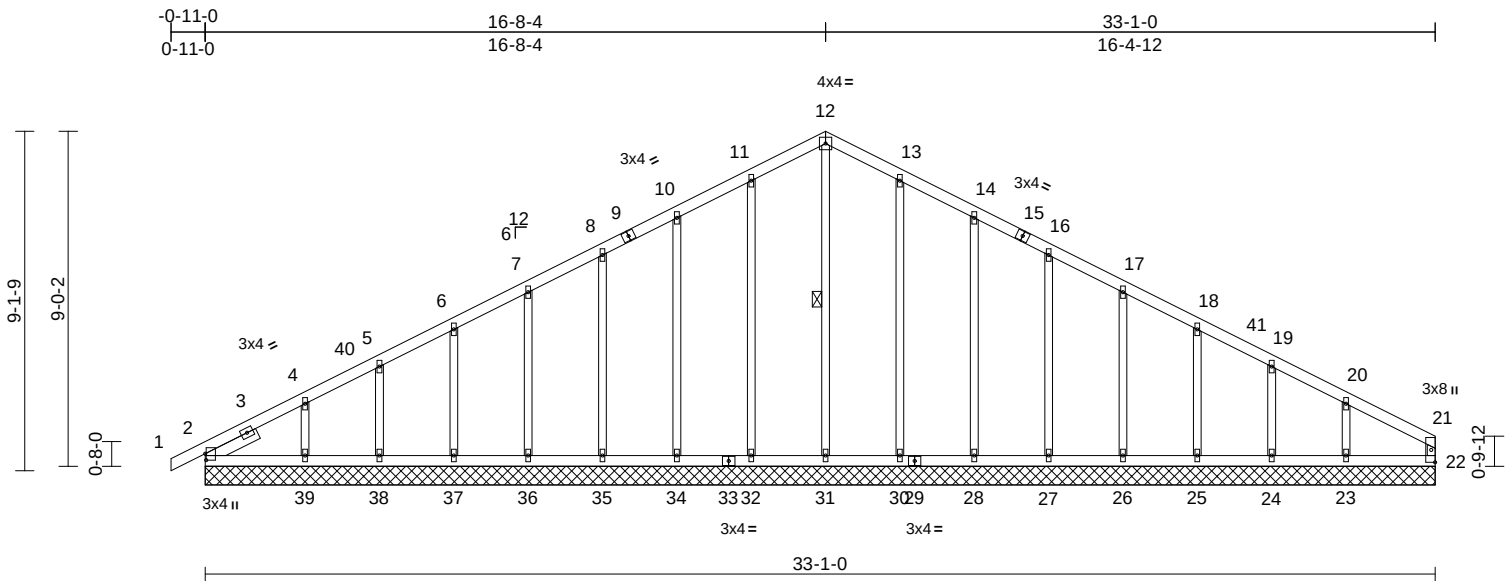
Job	Truss	Truss Type	Qty	Ply	Job Reference (optional)
Sunflower Farmhouse	A1	Common Supported Gable	1	1	

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

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09/25/2025



Scale = 1:62

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

Loading	(psf)	Spacing	1-11-4	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.09	Vert(LL)	n/a	-	n/a	999	MT20
TCDL	10.0	Lumber DOL	1.15	BC	0.07	Vert(CT)	n/a	-	n/a	999	244/190
BCLL	0.0	Rep Stress Incr	YES	WB	0.21	Horz(CT)	0.00	22	n/a	n/a	
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S							Weight: 166 lb FT = 20%

LUMBER

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

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	12-31
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REACTIONS (size)	2=33-1-0, 22=33-1-0, 23=33-1-0, 24=33-1-0, 25=33-1-0, 26=33-1-0, 27=33-1-0, 28=33-1-0, 30=33-1-0, 31=33-1-0, 32=33-1-0, 34=33-1-0, 35=33-1-0, 36=33-1-0, 37=33-1-0, 38=33-1-0, 39=33-1-0
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Max Horiz	2=164 (LC 12)
Max Uplift	2=-46 (LC 13), 23=-110 (LC 13), 24=-44 (LC 13), 25=-63 (LC 13), 26=-59 (LC 13), 27=-58 (LC 13), 28=-65 (LC 13), 30=-50 (LC 13), 32=-54 (LC 12), 34=-63 (LC 12), 35=-59 (LC 12), 36=-59 (LC 12), 37=-62 (LC 12), 38=-46 (LC 12), 39=-111 (LC 12)

Max Grav	2=188 (LC 1), 22=102 (LC 22), 23=209 (LC 26), 24=165 (LC 1), 25=177 (LC 26), 26=174 (LC 1), 27=175 (LC 1), 28=174 (LC 26), 30=182 (LC 26), 31=205 (LC 22), 32=182 (LC 25), 34=174 (LC 25), 35=175 (LC 1), 36=174 (LC 1), 37=178 (LC 25), 38=162 (LC 1), 39=219 (LC 25)
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FORCES	(lb) - Maximum Compression/Maximum Tension
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TOP CHORD	1-2=0/7, 2-4=-190/98, 4-5=-129/109, 5-6=-105/135, 6-7=-91/162, 7-8=-83/189, 8-10=-101/237, 10-11=-120/293, 11-12=-136/338, 12-13=-136/338, 13-14=-120/293, 14-16=-101/237, 16-17=-83/186, 17-18=-64/134, 18-19=-56/80, 19-20=-67/27, 20-21=-100/34, 21-22=-80/4
BOT CHORD	2-39=-32/97, 38-39=-32/97, 37-38=-32/97, 36-37=-32/97, 35-36=-32/97, 34-35=-32/97, 32-34=-32/97, 31-32=-32/97, 30-31=-32/97, 28-30=-32/97, 27-28=-32/97, 26-27=-32/97, 25-26=-32/97, 24-25=-32/97, 23-24=-32/97, 22-23=-32/97
WEBS	12-31=-215/41, 11-32=-144/80, 10-34=-135/101, 8-35=-136/92, 7-36=-135/93, 6-37=-137/95, 5-38=-128/91, 4-39=-165/197, 13-30=-144/80, 14-28=-135/101, 16-27=-136/92, 17-26=-135/93, 18-25=-137/97, 19-24=-129/121, 20-23=-162/195

NOTES

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=35ft; Ke=1.00; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Corner(3E) -0-11-0 to 4-1-0, Exterior(2N) 4-1-0 to 16-8-4, Corner(3R) 16-8-4 to 21-8-4, Exterior(2N) 21-8-4 to 32-11-12 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
- Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- All plates are 1.5x4 MT20 unless otherwise indicated.

- Gable requires continuous bottom chord bearing.
- Gable studs spaced at 2-0-0 oc.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- All bearings are assumed to be SP No.2 crushing capacity of 565 psi.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 46 lb uplift at joint 2, 54 lb uplift at joint 32, 63 lb uplift at joint 34, 59 lb uplift at joint 35, 59 lb uplift at joint 36, 62 lb uplift at joint 37, 46 lb uplift at joint 38, 111 lb uplift at joint 39, 50 lb uplift at joint 30, 65 lb uplift at joint 28, 58 lb uplift at joint 27, 59 lb uplift at joint 26, 63 lb uplift at joint 25, 44 lb uplift at joint 24 and 110 lb uplift at joint 23.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard

June 27, 2025

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

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

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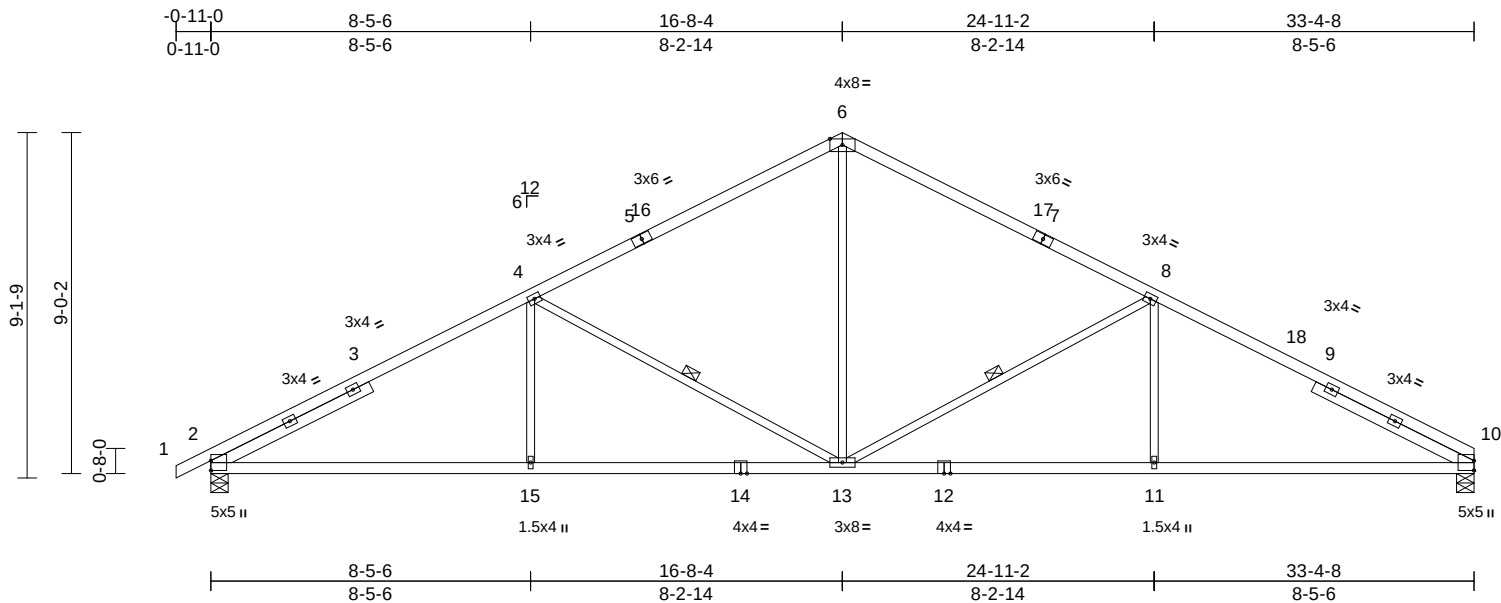
Job	Truss	Truss Type	Qty	Ply	
Sunflower Farmhouse	A3	Common	1	1	Job Reference (optional)

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

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09/25/2025



Scale = 1:60.9

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.49	Vert(LL)	-0.14	10-11	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.84	Vert(CT)	-0.30	10-11	>999	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.69	Horz(CT)	0.12	10	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S							Weight: 150 lb	FT = 20%

LUMBER

TOP CHORD	2x4 SP 2400F 2.0E
BOT CHORD	2x4 SP No.2
WEBS	2x3 SPF No.2
SLIDER	Left 2x4 SP No.2 -- 4-8-4, Right 2x4 SP No.2 -- 4-8-4

BRACING

TOP CHORD	Structural wood sheathing directly applied or 4-10-15 oc purlins.
BOT CHORD	Rigid ceiling directly applied or 9-5-14 oc bracing.

WEBS	1 Row at midpt	8-13, 4-13
REACTIONS	(size)	2=0-5-8, 10=0-5-8
	Max Horiz	2=168 (LC 12)
	Max Uplift	2=-251 (LC 12), 10=-228 (LC 13)
	Max Grav	2=1567 (LC 1), 10=1501 (LC 1)

FORCES

	(lb) - Maximum Compression/Maximum Tension
TOP CHORD	1-2=0/7, 2-4=-2563/405, 4-6=-1789/388, 6-8=-1789/392, 8-10=-2566/414
BOT CHORD	2-15=-377/2168, 13-15=-377/2168, 11-13=-254/2173, 10-11=-254/2173
WEBS	6-13=-108/932, 8-13=-836/320, 8-11=0/355, 4-13=-831/317, 4-15=0/353

NOTES

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=35ft; Ke=1.00; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) -0-11-0 to 4-1-0, Interior (1) 4-1-0 to 16-8-4, Exterior(2R) 16-8-4 to 21-8-4, Interior (1) 21-8-4 to 33-4-8 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
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.

- All bearings are assumed to be SP No.2 crushing capacity of 565 psi.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 251 lb uplift at joint 2 and 228 lb uplift at joint 10.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard

June 27, 2025

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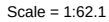
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Weight: 152 lb FT = 20%

TOP CHORD	2x4 SP 2400F 2.0E *Except* 1-5,7-11:2x4 SP No.2
BOT CHORD	2x4 SP No.2
WEBS	2x3 SPF No.2
SLIDER	Left 2x4 SP No.2 -- 4-9-15, Right 2x4 SP No.2 -- 4-9-15

- 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 251 lb uplift at joint 2 and 251 lb uplift at joint 10.
- 6) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

TOP CHORD	Structural wood sheathing directly applied.
BOT CHORD	Rigid ceiling directly applied or 9-7-6 oc bracing.

Max Horiz 2=-166 (LC 13)
Max Uplift 2=-251 (LC 12), 10=-251 (LC 13)
Max Grav 2=1566 (LC 1), 10=1566 (LC 1)

Tension

TOP CHORD 1-2=0/7, 2-4=-2542/402, 4-6=-1779/389,
6-8=-1779/389, 8-10=-2541/402, 10-11=0/7

BOT CHORD 2-16=-364/2146, 14-16=-364/2146,
12-14=-242/2146, 10-12=-242/2146

WEBS 6-14=-111/945, 8-14=-819/311, 8-12=0/356,
4-14=-819/310, 4-16=0/356

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-16; Vult=115mph (3-second gust)
Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=35ft;
Ke=1.00; Cat. II; Exp C; Enclosed; MWFRS (envelope)
exterior zone and C-C Exterior(2E) -0-11-0 to 4-1-0,
Interior (1) 4-1-0 to 16-8-4, Exterior(2R) 16-8-4 to
21-8-4, Interior (1) 21-8-4 to 34-3-8 zone; cantilever left
and right exposed ; end vertical left and right
exposed; C-C for members and forces & MWFRS for
reactions shown; Lumber DOL=1.60 plate grip
DOL=1.60
- 3) This truss has been designed for a 10.0 psf bottom
chord live load nonconcurrent with any other live loads.



June 27, 2025



WARNING – Verify design parameters and READ NOTES ON THIS and INCLUDED MITER REFERENCE PAGE MP174751EW, 12/2023 BEFORE USE. Design valid for use only with MiTeK® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TP1 Quality Criteria, and DSB-22** available from Truss Plate Institute (www.tpinst.org) and **BCSI Building Component Safety Information** available from the Structural Building Component Association (www.sbcsccomponents.com)

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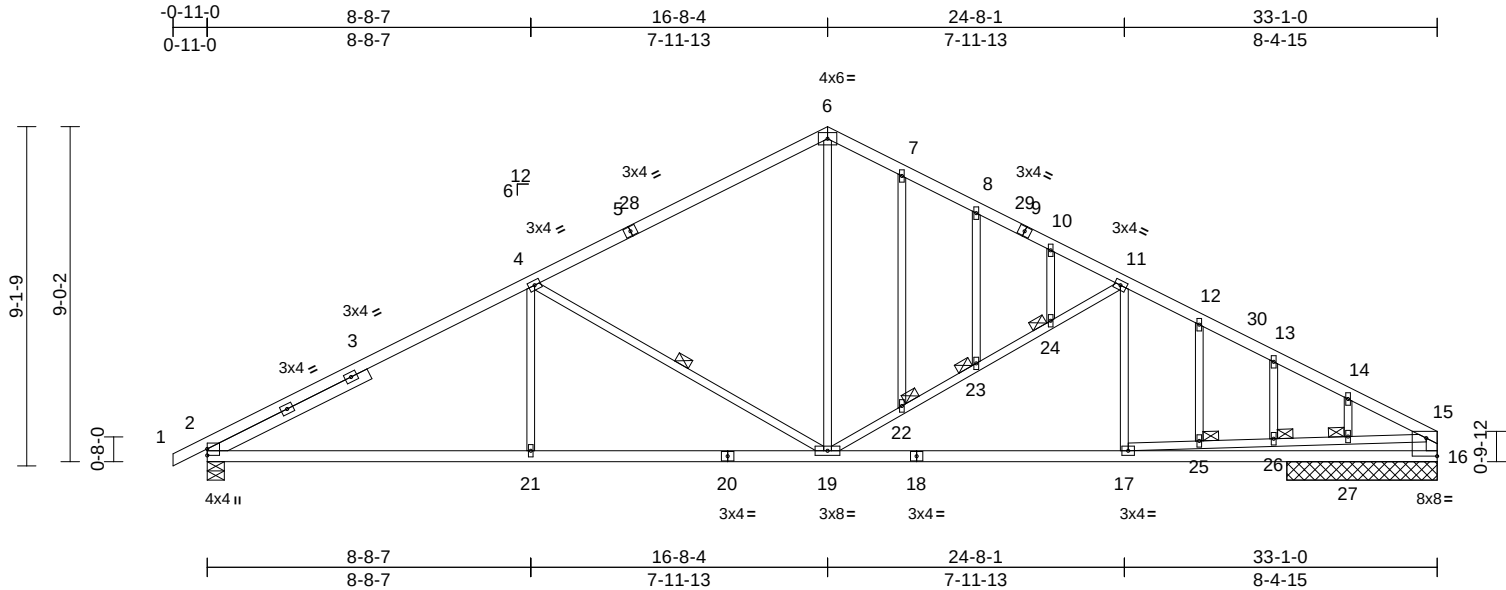
Job	Truss	Truss Type	Qty	Ply	Job Reference (optional)
Sunflower Farmhouse	A5	Common Structural Gable	1	1	

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

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09/25/2025



Scale = 1/62

Plate Offsets (X, Y): [16:Edge,0-5-13]

Loading	(psf)	Spacing	1-4-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.71	Vert(LL)	-0.10	2-21	>999	240	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.56	Vert(CT)	-0.23	2-21	>999	180	
BCLL	0.0	Rep Stress Incr	YES	WB	0.60	Horz(CT)	0.06	16	n/a	n/a	
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S							
Weight: 164 lb FT = 20%											

LUMBER

TOP CHORD	2x4 SP No.2
BOT CHORD	2x4 SP No.2
WEBS	2x3 SPF No.2 *Except* 16-15:2x4 SP No.2
OTHERS	2x3 SPF No.2
SLIDER	Left 2x4 SP No.2 -- 4-9-15

BRACING

TOP CHORD	Structural wood sheathing directly applied or 3-8-4 oc purlins, except end verticals.
BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS	1 Row at midpt 4-19
JOINTS	1 Brace at Jt(s): 22, 23, 24, 25, 26, 27

REACTIONS

(size)	2=0-5-8, 16=4-0-8
Max Horiz	2=113 (LC 12)
Max Uplift	2=-167 (LC 12), 16=-148 (LC 13)
Max Grav	2=1031 (LC 1), 16=988 (LC 1)

FORCES

TOP CHORD	(lb) - Maximum Compression/Maximum Tension 1-2=0/5, 2-4=-1670/266, 4-6=-1161/257, 6-7=-1045/260, 7-8=-1083/254, 8-10=-1102/237, 10-11=-1167/238, 11-12=-1464/261, 12-13=-1551/261, 13-14=-1567/241, 14-15=-1619/237, 15-16=-930/187
BOT CHORD	2-21=-245/1410, 19-21=-245/1410, 17-19=-177/1373, 16-17=-156/557
WEBS	6-19=-83/631, 19-22=-523/201, 22-23=-516/198, 23-24=-492/184, 11-24=-515/196, 11-17=-6/148, 4-19=-548/207, 4-21=0/236, 17-25=-66/823, 25-26=-65/816, 26-27=-65/817, 15-27=-65/818, 7-22=-14/14, 8-23=-50/28, 10-24=-24/47, 12-25=-27/110, 13-26=-57/32, 14-27=-5/1

NOTES

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=35ft; Ke=1.00; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) -0-11-0 to 4-1-0, Interior (1) 4-1-0 to 16-8-4, Exterior(2R) 16-8-4 to 21-8-4, Interior (1) 21-8-4 to 32-11-4 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
- Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- All plates are 1.5x4 MT20 unless otherwise indicated.
- Gable studs spaced at 2-0-0 oc.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- All bearings are assumed to be SP No.2 crushing capacity of 565 psi.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 167 lb uplift at joint 2 and 148 lb uplift at joint 16.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard



June 27, 2025

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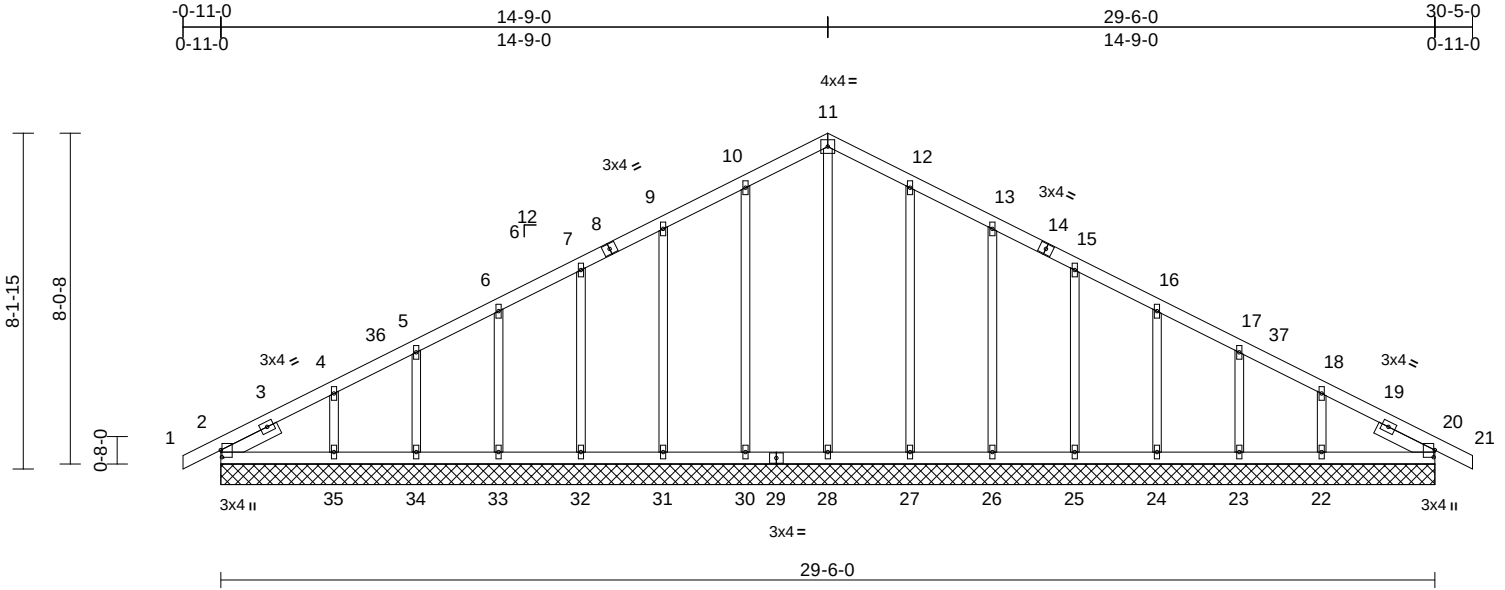
Job	Truss	Truss Type	Qty	Ply	Job Reference (optional)
Sunflower Farmhouse	B1	Common Supported Gable	1	1	

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

Run: 8.63 S Sep 26 2024 Print: 8.630 S Sep 26 2024 MiTek Industries, Inc. Wed Jun 25 15:38:16 Page: 1

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09/25/2025



Scale = 1:56
Plate Offsets (X, Y): [2:0-2-1,0-0-5], [20:0-2-1,0-0-5]

Loading	(psf)	Spacing	1-11-4	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.09	Vert(LL)	n/a	-	n/a	999	MT20
TCDL	10.0	Lumber DOL	1.15	BC	0.05	Vert(CT)	n/a	-	n/a	999	244/190
BCLL	0.0	Rep Stress Incr	YES	WB	0.24	Horz(CT)	0.01	20	n/a	n/a	
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S							
Weight: 146 lb FT = 20%											

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

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

REACTIONS (size)
2=29-6-0, 20=29-6-0, 22=29-6-0, 23=29-6-0, 24=29-6-0, 25=29-6-0, 26=29-6-0, 27=29-6-0, 28=29-6-0, 30=29-6-0, 31=29-6-0, 32=29-6-0, 33=29-6-0, 34=29-6-0, 35=29-6-0
Max Horiz 2=143 (LC 13)
Max Uplift 2=29 (LC 13), 22=100 (LC 13), 23=48 (LC 13), 24=62 (LC 13), 25=58 (LC 13), 26=63 (LC 13), 27=54 (LC 13), 30=56 (LC 12), 31=62 (LC 12), 32=58 (LC 12), 33=62 (LC 12), 34=46 (LC 12), 35=110 (LC 12)
Max Grav 2=195 (LC 1), 20=195 (LC 1), 22=223 (LC 26), 23=160 (LC 1), 24=178 (LC 26), 25=174 (LC 1), 26=174 (LC 1), 27=182 (LC 26), 28=178 (LC 22), 30=182 (LC 25), 31=174 (LC 1), 32=174 (LC 1), 33=178 (LC 25), 34=160 (LC 1), 35=223 (LC 25)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=0/7, 2-4=-177/72, 4-5=-117/81, 5-6=-93/107, 6-7=-77/134, 7-9=-73/177, 9-10=-92/231, 10-11=-110/279, 11-12=-110/279, 12-13=-92/231, 13-15=-73/177, 15-16=-65/125, 16-17=-64/72, 17-18=-76/26, 18-20=-132/28, 20-21=0/7
BOT CHORD 2-35=-31/147, 34-35=-31/147, 33-34=-31/147, 32-33=-31/147, 31-32=-31/147, 30-31=-31/147, 28-30=-31/147, 27-28=-31/147, 26-27=-31/147, 25-26=-31/147, 24-25=-31/147, 23-24=-31/147, 22-23=-31/147, 20-22=-31/147
WEBS 11-28=-167/29, 10-30=-144/85, 9-31=-135/99, 7-32=-135/92, 6-33=-138/96, 5-34=-128/88, 4-35=-167/202, 12-27=-144/85, 13-26=-135/99, 15-25=-135/92, 16-24=-138/96, 17-23=-128/89, 18-22=-167/199

NOTES

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=35ft; Ke=1.00; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Corner(3E) -0-11-0 to 4-1-0, Exterior(2N) 4-1-0 to 14-9-0, Corner(3R) 14-9-0 to 19-9-0, Exterior(2N) 19-9-0 to 30-5-0 zone; cantilever left and right exposed ; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- All plates are 1.5x4 MT20 unless otherwise indicated.
- Gable requires continuous bottom chord bearing.

- Gable studs spaced at 2-0-0 oc.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- All bearings are assumed to be SP No.2 crushing capacity of 565 psi.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 29 lb uplift at joint 2, 56 lb uplift at joint 30, 62 lb uplift at joint 31, 58 lb uplift at joint 32, 62 lb uplift at joint 33, 46 lb uplift at joint 34, 110 lb uplift at joint 35, 54 lb uplift at joint 27, 63 lb uplift at joint 26, 58 lb uplift at joint 25, 62 lb uplift at joint 24, 48 lb uplift at joint 23 and 100 lb uplift at joint 22.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard



June 27, 2025

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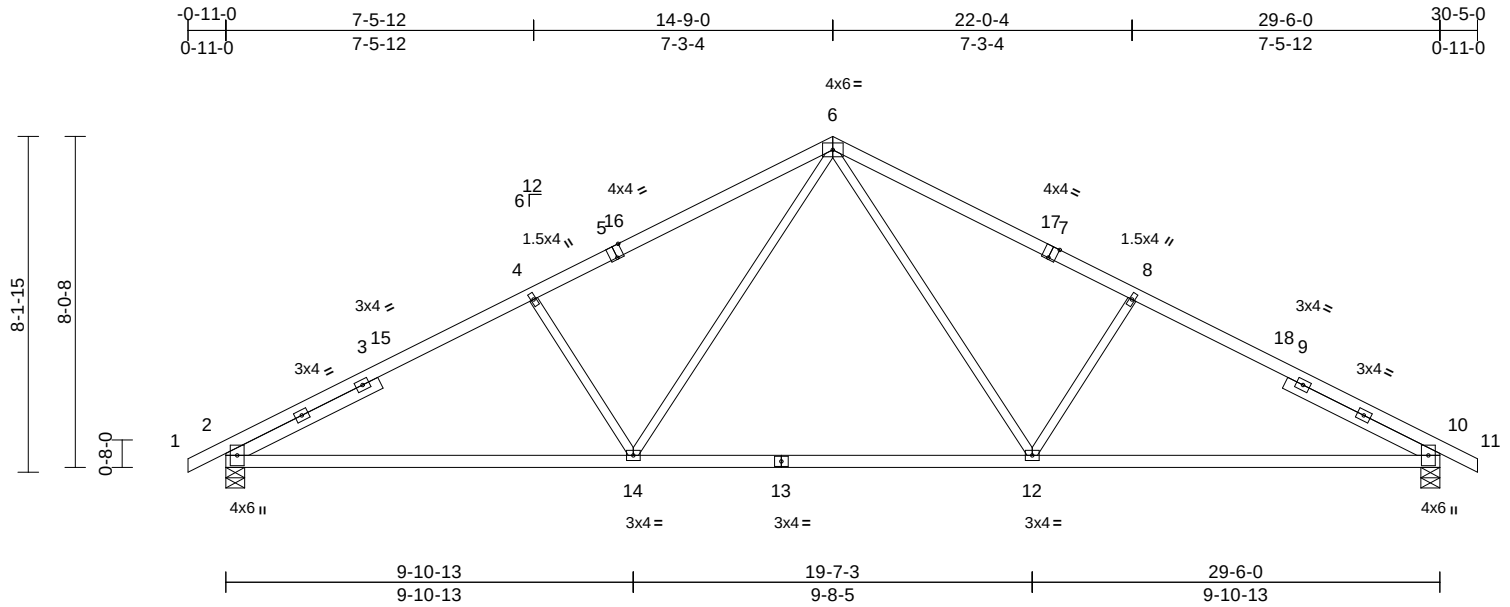
Job	Truss	Truss Type	Qty	Ply	Job Reference (optional)
Sunflower Farmhouse	B2	Common	8	1	

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

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09/25/2025



Scale = 1:56

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

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.78	Vert(LL)	-0.23	10-12	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	1.00	Vert(CT)	-0.48	2-14	>732	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.34	Horz(CT)	0.08	10	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S							Weight: 131 lb	FT = 20%

LUMBER

TOP CHORD	2x4 SP 2400F 2.0E *Except* 1-5,7-11:2x4 SP No.2
BOT CHORD	2x4 SP No.2
WEBS	2x3 SPF No.2
SLIDER	Left 2x4 SP No.2 -- 4-1-13, Right 2x4 SP No.2 -- 4-1-13

BRACING

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

REACTIONS

(size)	2=0-5-8, 10=0-5-8
Max Horiz	2=-148 (LC 13)
Max Uplift	2=-225 (LC 12), 10=-225 (LC 13)
Max Grav	2=1392 (LC 1), 10=1392 (LC 1)

FORCES

(lb) - Maximum Compression/Maximum Tension	
TOP CHORD	1-2=-0/7, 2-4=-2206/389, 4-6=-1948/409, 6-8=-1948/409, 8-10=-2205/389, 10-11=0/7
BOT CHORD	2-14=-342/1860, 12-14=-97/1279, 10-12=-246/1860
WEBS	6-12=-163/703, 8-12=-457/304, 6-14=-163/703, 4-14=-457/303

NOTES

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

- All bearings are assumed to be SP No.2 crushing capacity of 565 psi.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 225 lb uplift at joint 2 and 225 lb uplift at joint 10.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard

June 27, 2025

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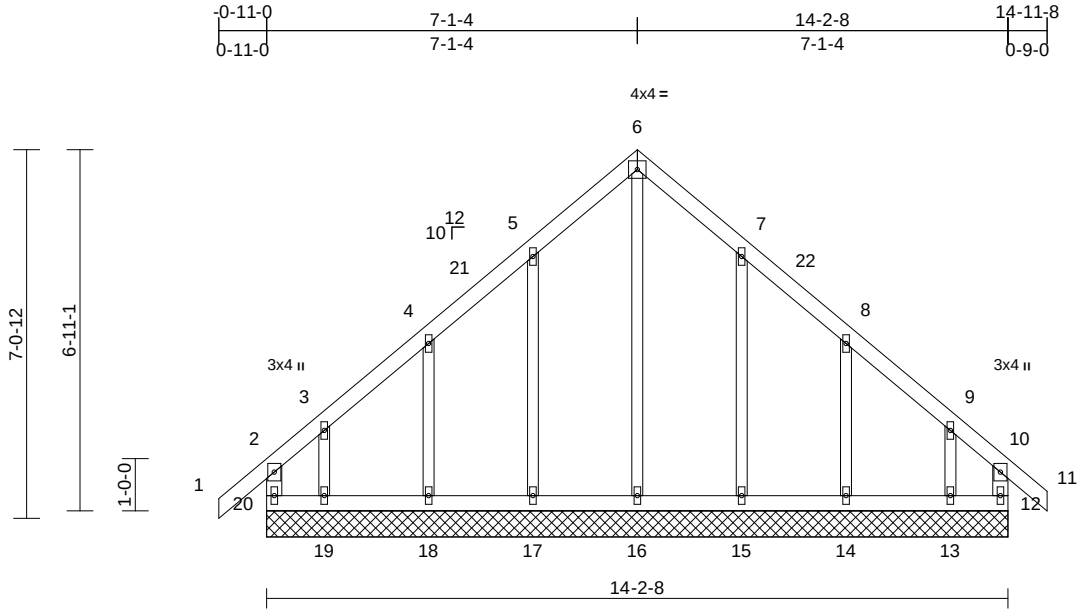
Job	Truss	Truss Type	Qty	Ply	
Sunflower Farmhouse	C1	Common Supported Gable	1	1	Job Reference (optional)

RELEASE FOR CONSTRUCTION
AS NOTED FOR PLAN REVIEW
DEVELOPMENT SERVICES
174483183
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09/25/2025



Scale = 1:44.2

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	0.12	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.08	n/a	-	n/a	999		
BCLL	0.0	Rep Stress Incr	YES	WB	0.30	Horz(CT)	0.00	12	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-R						Weight: 74 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)	12=14-2-8, 13=14-2-8, 14=14-2-8, 15=14-2-8, 16=14-2-8, 17=14-2-8, 18=14-2-8, 19=14-2-8, 20=14-2-8, 20=217 (LC 11)
	Max Horiz	20=217 (LC 11)
	Max Uplift	12=-103 (LC 9), 13=-168 (LC 13), 14=-99 (LC 13), 15=-98 (LC 13), 17=-99 (LC 12), 18=-98 (LC 12), 19=-172 (LC 12), 20=-138 (LC 8)
	Max Grav	12=177 (LC 19), 13=197 (LC 20), 14=196 (LC 20), 15=204 (LC 20), 16=217 (LC 22), 17=205 (LC 19), 18=195 (LC 19), 19=201 (LC 10), 20=221 (LC 20)

FORCES

	(lb) - Maximum Compression/Maximum Tension
TOP CHORD	2-20=-173/103, 1-2=0/48, 2-3=-159/146, 3-4=-105/104, 4-5=-89/191, 5-6=-142/300, 6-7=-142/301, 7-8=-86/190, 8-9=-84/81, 9-10=-129/115, 10-11=0/40, 10-12=-138/77
BOT CHORD	19-20=-101/120, 18-19=-101/120, 17-18=-101/120, 16-17=-101/120, 15-16=-101/120, 14-15=-101/120, 13-14=-101/120, 12-13=-101/120
WEBS	6-16=-286/74, 5-17=-164/150, 4-18=-158/203, 3-19=-133/158, 7-15=-163/152, 8-14=-158/203, 9-13=-136/173

NOTES

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

- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TC DL=6.0psf; BCDL=6.0psf; h=35ft; Ke=1.00; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Corner(3E) -0-11-0 to 4-1-0, Exterior(2N) 4-1-0 to 7-1-4, Corner(3R) 7-1-4 to 12-1-4, Exterior(2N) 12-1-4 to 14-11-8 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
- Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- All plates are 1.5x4 MT20 unless otherwise indicated.
- Gable requires continuous bottom chord bearing.
- Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
- Gable studs spaced at 2-0-0 oc.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- All bearings are assumed to be SP No.2 crushing capacity of 565 psi.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 138 lb uplift at joint 20, 103 lb uplift at joint 12, 99 lb uplift at joint 17, 98 lb uplift at joint 18, 172 lb uplift at joint 19, 98 lb uplift at joint 15, 99 lb uplift at joint 14 and 168 lb uplift at joint 13.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard



June 27, 2025

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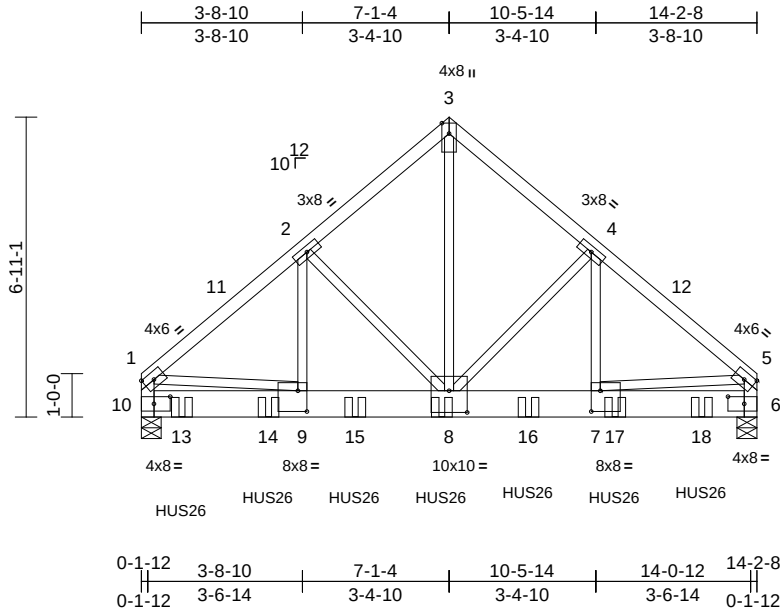
Job	Truss	Truss Type	Qty	Ply	Job Reference (optional)
Sunflower Farmhouse	C2	Common Girder	1	2	

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

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09/25/2025



Scale = 1:53.2

Plate Offsets (X, Y): [6:0-4-8,0-2-0], [7:0-2-8,0-5-12], [8:0-5-0,0-6-0], [9:0-2-8,0-5-12], [10:0-4-8,0-2-0]

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	0.40	Vert(LL)	-0.06	7-8	>999	240	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.60	Vert(CT)	-0.10	7-8	>999	180	
BCLL	0.0	Rep Stress Incr	NO	WB	0.88	Horz(CT)	0.01	6	n/a	n/a	
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S							
Weight: 172 lb FT = 20%											

LUMBER

TOP CHORD	2x4 SP No.2
BOT CHORD	2x8 SPF No.2
WEBS	2x3 SPF No.2 *Except* 10-1,6-5:2x4 SP 2400F 2.0E

BRACING

TOP CHORD	Structural wood sheathing directly applied or 5-1-14 oc purlins, except end verticals.
BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS	(size) 6=0-5-8, 10=0-5-8
	Max Horiz 10=188 (LC 11)
	Max Uplift 6=-880 (LC 13), 10=-912 (LC 12)
	Max Grav 6=5636 (LC 1), 10=5848 (LC 1)

FORCES	(lb) - Maximum Compression/Maximum Tension
--------	--

TOP CHORD	1-2=-5623/959, 2-3=-4259/823, 3-4=-4259/823, 4-5=-5687/969, 1-10=-4221/732, 5-6=-4272/741
BOT CHORD	9-10=-341/1261, 8-9=-710/4240, 7-8=-694/4289, 6-7=-237/1252
WEBS	1-9=-450/3025, 5-7=-464/3084, 2-9=-262/1763, 2-8=-1479/362, 3-8=-930/5100, 4-8=-1551/374, 4-7=-278/1857

NOTES

- 2-ply truss to be connected together with 10d (0.131"x3") nails as follows:
Top chords connected as follows: 2x4 - 1 row at 0-9-0 oc.
Bottom chords connected as follows: 2x8 - 3 rows staggered at 0-7-0 oc.
Web connected as follows: 2x3 - 1 row at 0-9-0 oc.
- All loads are considered equally applied to all plies, except if noted as front (F) or back (B) face in the LOAD CASE(S) section. Ply to ply connections have been provided to distribute only loads noted as (F) or (B), unless otherwise indicated.

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=35ft; Ke=1.00; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) 0-1-12 to 5-1-12, Interior (1) 5-1-12 to 7-1-4, Exterior(2R) 7-1-4 to 12-1-4, Interior (1) 12-1-4 to 14-0-12 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
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- All bearings are assumed to be SP 2400F 2.0E crushing capacity of 805 psi.
- Bearing at joint(s) 10, 6 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 912 lb uplift at joint 10 and 880 lb uplift at joint 6.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- Use Simpson Strong-Tie HUS26 (14-16d Girder, 4-16d Truss) or equivalent spaced at 2-0-0 oc max. starting at 0-11-4 from the left end to 12-11-4 to connect truss(es) to back face of bottom chord.
- Fill all nail holes where hanger is in contact with lumber.

LOAD CASE(S) Standard

- Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (lb/ft)
Vert: 1-3=-70, 3-5=-70, 6-10=-20
Concentrated Loads (lb)
Vert: 8=-1461 (B), 13=-1463 (B), 14=-1461 (B), 15=-1461 (B), 16=-1461 (B), 17=-1461 (B), 18=-1461 (B)



June 27, 2025

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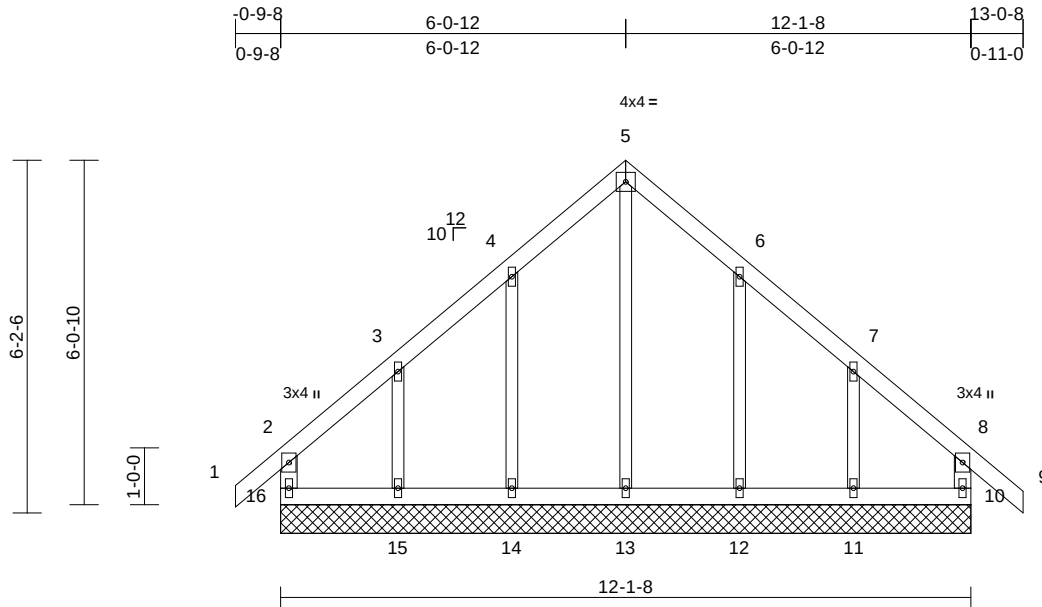
Job	Truss	Truss Type	Qty	Ply	Job Reference (optional)
Sunflower Farmhouse	D1	Common Supported Gable	1	1	

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

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09/25/2025



Scale = 1:40.5

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	0.12	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.07	n/a	-	n/a	999		
BCLL	0.0	Rep Stress Incr	YES	WB	0.23	Horz(CT)	0.00	10	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-R						Weight: 61 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)	10=12-1-8, 11=12-1-8, 12=12-1-8, 13=12-1-8, 14=12-1-8, 15=12-1-8, 16=12-1-8
Max Horiz	16=-194 (LC 10)
Max Uplift	10=-57 (LC 9), 11=-143 (LC 13), 12=-89 (LC 13), 14=-88 (LC 12), 15=-149 (LC 12), 16=-73 (LC 8)
Max Grav	10=183 (LC 19), 11=218 (LC 20), 12=199 (LC 20), 13=205 (LC 22), 14=197 (LC 19), 15=230 (LC 19), 16=187 (LC 20)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD	2-16=-153/128, 1-2=0/42, 2-3=-119/111, 3-4=-90/192, 4-5=-151/312, 5-6=-151/311, 6-7=-92/192, 7-8=-106/93, 8-9=0/48, 8-10=-154/143
BOT CHORD	15-16=-90/102, 14-15=-90/102, 13-14=-90/102, 12-13=-90/102, 11-12=-90/102, 10-11=-90/102
WEBS	5-13=-294/82, 4-14=-162/180, 3-15=-168/228, 6-12=-163/181, 7-11=-160/221

NOTES

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

- 2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=35ft; Ke=1.00; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Corner(3E) 0-9-8 to 4-0-12, Exterior(2N) 4-0-12 to 6-0-12, Corner(3R) 6-0-12 to 11-0-12, Exterior(2N) 11-0-12 to 13-0-8 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 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) 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 73 lb uplift at joint 16, 57 lb uplift at joint 10, 88 lb uplift at joint 14, 149 lb uplift at joint 15, 89 lb uplift at joint 12 and 143 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.

LOAD CASE(S) Standard

June 27, 2025

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

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

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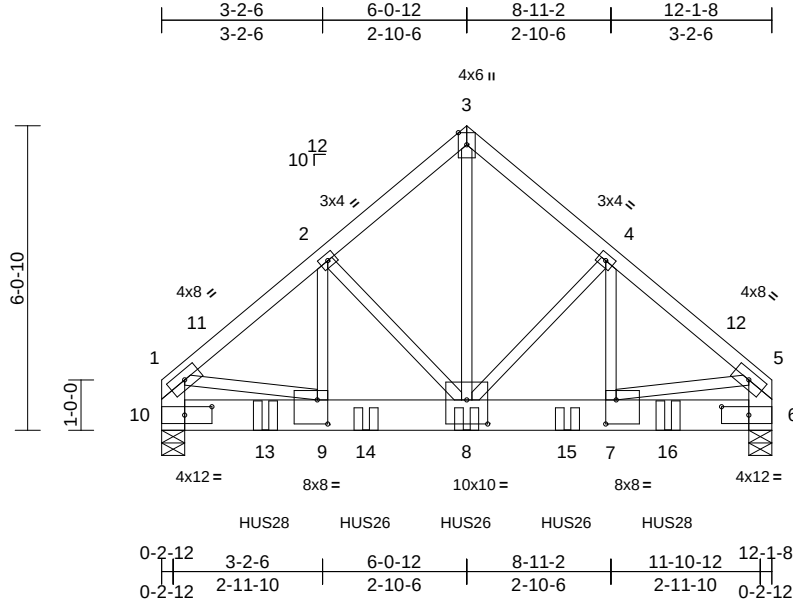
Job	Truss	Truss Type	Qty	Ply	
Sunflower Farmhouse	D2	Common Girder	1	2	Job Reference (optional)

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

Run: 8.63 S Sep 26 2024 Print: 8.630 S Sep 26 2024 MiTek Industries, Inc. Wed Jun 25 15:38:16 Page: 1

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09/25/2025



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)	-0.04	8-9	>999	240	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.48	Vert(CT)	-0.06	8-9	>999	180	
BCLL	0.0	Rep Stress Incr	NO	WB	0.70	Horz(CT)	0.01	6	n/a	n/a	
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S							
										Weight: 147 lb	FT = 20%

LUMBER
TOP CHORD 2x4 SP No.2
BOT CHORD 2x8 SPF No.2
WEBS 2x3 SPF No.2 *Except* 10-1,6-5:2x6 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) 6=0-5-8, 10=0-5-8
Max Horiz 10=164 (LC 11)
Max Uplift 6=-649 (LC 13), 10=-649 (LC 12)
Max Grav 6=4178 (LC 1), 10=4178 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-4327/771, 2-3=-3411/698, 3-4=-3411/698, 4-5=-4327/771, 1-10=-3393/618, 5-6=-3393/619
BOT CHORD 9-10=-272/963, 8-9=-573/3254, 7-8=-549/3254, 6-7=-189/963
WEBS 1-9=-366/2354, 5-7=-370/2354, 2-9=-181/1185, 2-8=-996/285, 3-8=-774/4057, 4-8=-996/285, 4-7=-182/1185

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, 2x6 - 2 rows staggered at 0-9-0 oc.
Bottom chords connected as follows: 2x8 - 3 rows staggered at 0-8-0 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.

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=35ft; Ke=1.00; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) 0-2-12 to 5-2-12, Interior (1) 5-2-12 to 6-0-12, Exterior(2R) 6-0-12 to 11-0-12, Interior (1) 11-0-12 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
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- All bearings are assumed to be SPF No.2 crushing capacity of 425 psi.
- Bearing at joint(s) 10, 6 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 649 lb uplift at joint 10 and 649 lb uplift at joint 6.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- Use Simpson Strong-Tie HUS28 (22-10d Girder, 4-10d Truss, Single Ply Girder) or equivalent spaced at 8-0-0 oc max. starting at 2-0-12 from the left end to 10-0-12 to connect truss(es) to back face of bottom chord.
- Use Simpson Strong-Tie HUS26 (14-16d Girder, 4-16d Truss) or equivalent spaced at 2-0-0 oc max. starting at 4-0-12 from the left end to 8-0-12 to connect truss(es) to back face of bottom chord.
- Fill all nail holes where hanger is in contact with lumber.

LOAD CASE(S) Standard

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

Concentrated Loads (lb)
Vert: 8=-1461 (B), 13=-1461 (B), 14=-1461 (B), 15=-1461 (B), 16=-1461 (B)



June 27,2025

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Job	Truss	Truss Type	Qty	Ply	
Sunflower Farmhouse	E1	Jack-Open Structural Gable	1	1	Job Reference (optional)

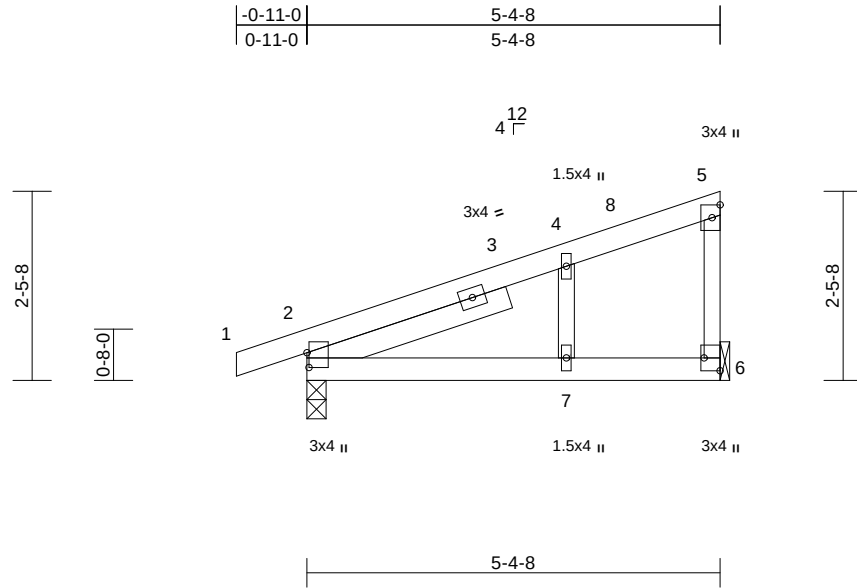
Premier Building Supply (Springhill, KS), Spring Hills, KS - 66083,

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RELEASE FOR CONSTRUCTION
AS NOTED FOR PLAN REVIEW
DEVELOPMENT SERVICES
174483187
LEE'S SUMMIT, MISSOURI

09/25/2025



Scale = 1:30

Plate Offsets (X, Y): [2:0-2-5,0-0-5], [6: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	0.35	Vert(LL)	0.05	2-7	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.28	Vert(CT)	-0.06	2-7	>999	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.04	Horz(CT)	0.00	6	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S							Weight: 25 lb	FT = 20%

LUMBER

TOP CHORD	2x4 SP No.2
BOT CHORD	2x4 SP No.2
WEBS	2x3 SPF No.2
OTHERS	2x3 SPF No.2
SLIDER	Left 2x4 SP No.2 -- 2-8-15

BRACING

TOP CHORD	Structural wood sheathing directly applied or 5-4-8 oc purlins, except end verticals.
BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS	(size) 2=0-3-0, 6= Mechanical
	Max Horiz 2=100 (LC 9)
	Max Uplift 2=-89 (LC 8), 6=-59 (LC 12)
	Max Grav 2=307 (LC 1), 6=232 (LC 1)

FORCES	(lb) - Maximum Compression/Maximum Tension
--------	--

TOP CHORD	1-2=-4/0, 2-4=-125/31, 4-5=-63/52, 5-6=-130/149
-----------	---

BOT CHORD	2-7=-80/78, 6-7=-80/78
WEBS	4-7=-68/172

NOTES

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=35ft; Ke=1.00; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) -0-11-0 to 4-1-0, Interior (1) 4-1-0 to 5-3-4 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) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- 3) Gable studs spaced at 2-0-0 oc.
- 4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.

- 5) Bearings are assumed to be: Joint 2 SP No.2 crushing capacity of 565 psi.
- 6) Refer to girder(s) for truss to truss connections.
- 7) Provide mechanical connection (by others) of truss to bearing plate at joint(s) 2.
- 8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 59 lb uplift at joint 6 and 89 lb uplift at joint 2.
- 9) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard



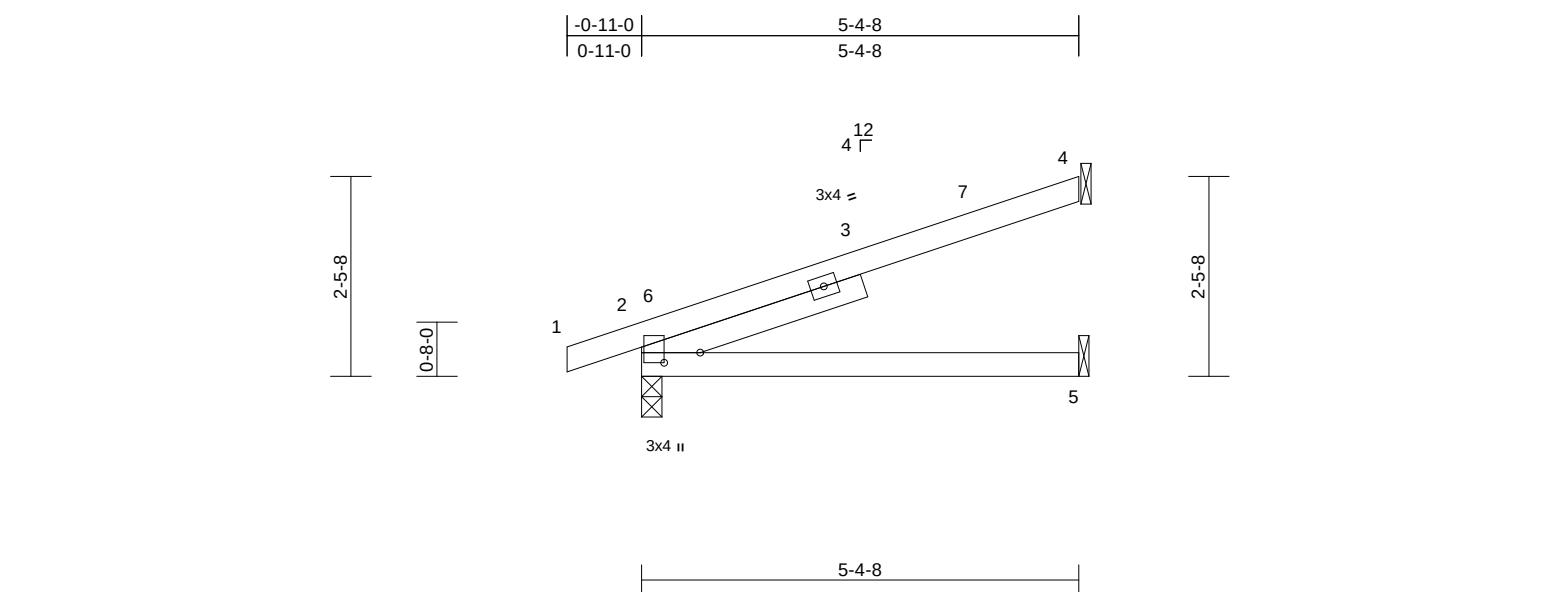
June 27, 2025

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

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Scale = 1:28.3

Plate Offsets (X, Y): [2:0-1-8,0-5-5]												
Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.69	Vert(LL)	-0.05	2-5	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.36	Vert(CT)	-0.10	2-5	>667	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.00	Horz(CT)	-0.02	4	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-P							Weight: 22 lb	FT = 20%

LUMBER

TOP CHORD 2x4 SP No.2

BOT CHORD 2x4 SP No.2

SLIDER Left 2x4 SP No.2 -- 2-10-4

6) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard

BRACING

TOP CHORD Structural wood sheathing directly applied or 5-4-8 oc purlins.

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

REACTIONS (size) 2=0-3-0, 4= Mechanical, 5= Mechanical

Max Horiz 2=91 (LC 12)

Max Uplift 2=-79 (LC 8), 4=-101 (LC 12)

Max Grav 2=309 (LC 1), 4=180 (LC 1), 5=106 (LC 3)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=-4/0, 2-4=-104/45

BOT CHORD 2-5=0/0

- NOTES
- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=35ft; Ke=1.00; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) -0-11-0 to 4-1-0, Interior (1) 4-1-0 to 5-3-12 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) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 3) Bearings are assumed to be: Joint 2 SP No.2 crushing capacity of 565 psi.
- 4) Refer to girder(s) for truss to truss connections.
- 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 101 lb uplift at joint 4 and 79 lb uplift at joint 2.



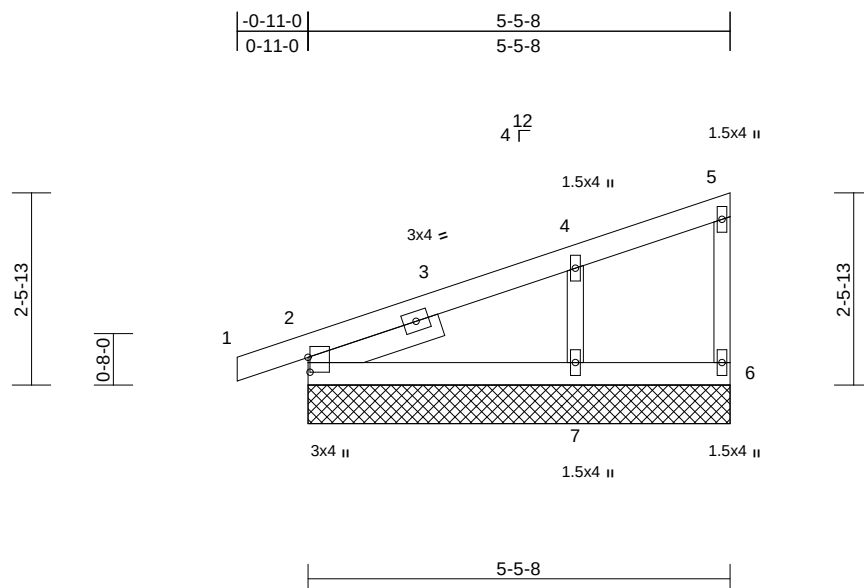
Job	Truss	Truss Type	Qty	Ply	Job Reference (optional)
Sunflower Farmhouse	E4	Jack-Open Structural Gable	1	1	

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

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09/25/2025



Scale = 1:29.8

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

Loading	(psf)	Spacing	1-11-4	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.23	Vert(LL)	n/a	-	n/a	999	MT20
TCDL	10.0	Lumber DOL	1.15	BC	0.09	Vert(CT)	n/a	-	n/a	999	197/144
BCLL	0.0	Rep Stress Incr	YES	WB	0.10	Horz(CT)	n/a	-	n/a	n/a	
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-P							
										Weight: 23 lb	FT = 20%

LUMBER

TOP CHORD	2x4 SP No.2
BOT CHORD	2x4 SP No.2
WEBS	2x3 SPF No.2
OTHERS	2x3 SPF No.2
SLIDER	Left 2x4 SP No.2 -- 1-9-8

BRACING

TOP CHORD	Structural wood sheathing directly applied or 5-5-8 oc purlins, except end verticals.
BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS	(size) 2=5-5-8, 6=5-5-8, 7=5-5-8
Max Horiz	2=89 (LC 12)
Max Uplift	2=-47 (LC 8), 6=-11 (LC 8), 7=-89 (LC 12)
Max Grav	2=198 (LC 1), 6=40 (LC 1), 7=291 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD	1-2=-4/0, 2-4=-162/55, 4-5=-30/7, 5-6=-33/45
BOT CHORD	2-7=0/0, 6-7=0/0
WEBS	4-7=-221/386

NOTES

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=35ft; Ke=1.00; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Corner(3E) -0-11-0 to 4-1-0, Exterior(2N) 4-1-0 to 5-4-4 zone; cantilever left and right exposed; end vertical left exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 2) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- 3) Gable requires continuous bottom chord bearing.
- 4) Gable studs spaced at 2-0-0 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 11 lb uplift at joint 6, 47 lb uplift at joint 2 and 89 lb uplift at joint 7.
- 8) Beveled plate or shim required to provide full bearing surface with truss chord at joint(s) 2.
- 9) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard

June 27, 2025

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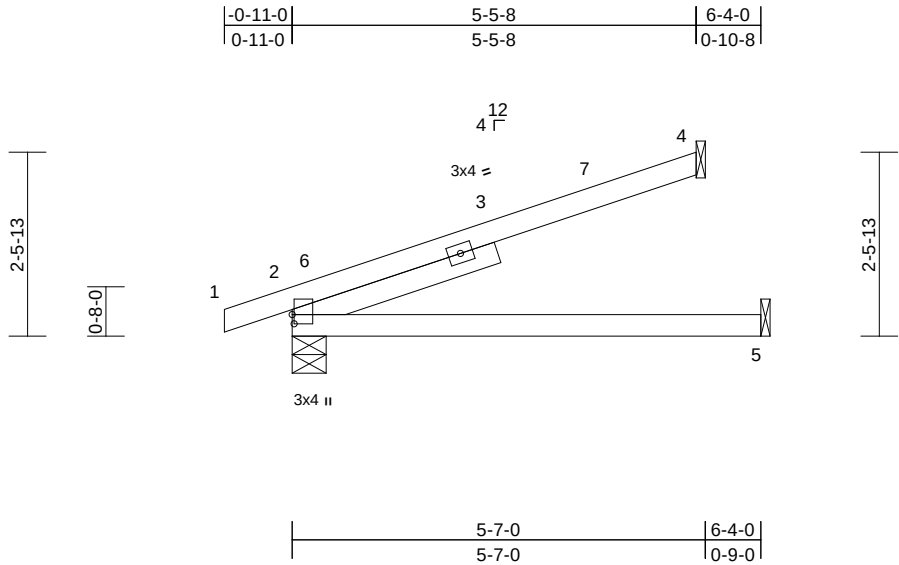
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Job	Truss	Truss Type	Qty	Ply	Job Reference (optional)
Sunflower Farmhouse	E5	Jack-Open	7	1	

RELEASE FOR CONSTRUCTION
AS NOTED FOR PLAN REVIEW
DEVELOPMENT SERVICES
174483190
LEE'S SUMMIT, MISSOURI

Premier Building Supply (Springhill, KS), Spring Hills, KS - 66083, Run: 8.63 S Sep 26 2024 Print: 8.630 S Sep 26 2024 MiTek Industries, Inc. Wed Jun 25 15:38:17 Page: 1
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09/25/2025



Scale = 1:31.1												
Plate Offsets (X, Y): [2:0-1-8,0-0-5]												
Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.68	Vert(LL)	-0.09	2-5	>811	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.51	Vert(CT)	-0.19	2-5	>406	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.00	Horz(CT)	-0.02	4	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-P							Weight: 24 lb	FT = 20%

LUMBER
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2
SLIDER Left 2x4 SP No.2 -- 2-10-12
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

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

REACTIONS (size) 2=0-5-8, 4= Mechanical, 5= Mechanical
Max Horiz 2=92 (LC 12)
Max Uplift 2=-75 (LC 8), 4=-102 (LC 12)
Max Grav 2=321 (LC 1), 4=183 (LC 1), 5=125 (LC 3)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-4/0, 2-4=-102/46
BOT CHORD 2-5=0/0

NOTES
1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=35ft; Ke=1.00; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) -0-11-0 to 4-1-0, Interior (1) 4-1-0 to 5-4-12 zone; cantilever left and right exposed; end vertical left exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
3) Bearings are assumed to be: , Joint 2 SP No.2 crushing capacity of 565 psi.
4) Refer to girder(s) for truss to truss connections.
5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 102 lb uplift at joint 4 and 75 lb uplift at joint 2.



June 27, 2025

Job	Truss	Truss Type	Qty	Ply	Job Reference (optional)
Sunflower Farmhouse	E6	Jack-Open	2	1	

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

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ID: _0lrqFQxYLBtK5Es7Uy4Tgzw3Sh-RfC?PsB70Hq3NSgPqnL8w3uITXbGKwRCDol7J4ZJC#F

RELEASE FOR CONSTRUCTION

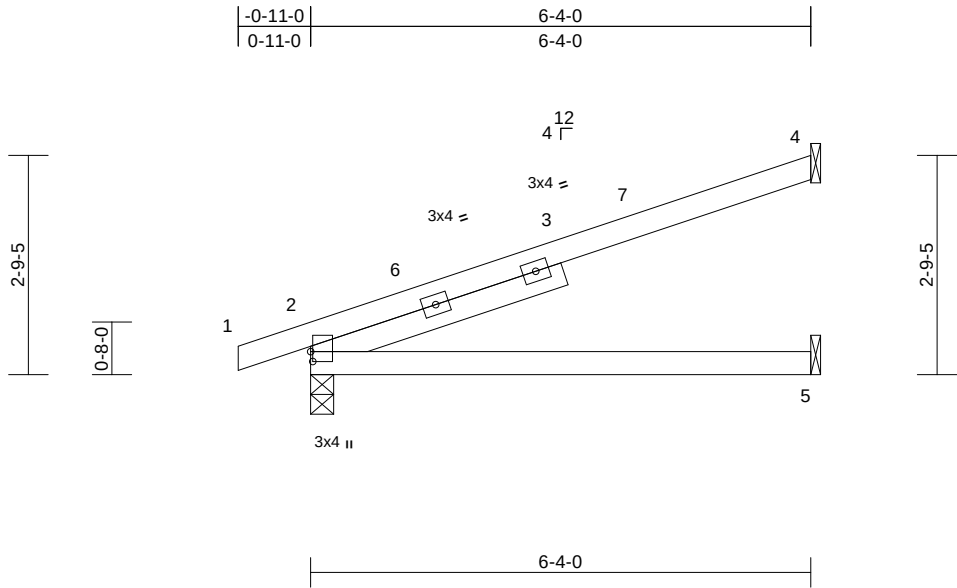
AS NOTED FOR PLAN REVIEW

DEVELOPMENT SERVICES

174483191

LEE'S SUMMIT, MISSOURI

09/25/2025



Scale = 1:29.2									
Plate Offsets (X, Y): [2:0-1-8,0-0-5]									
Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.93	Vert(LL)	-0.09	2-5	>811
TCDL	10.0	Lumber DOL	1.15	BC	0.51	Vert(CT)	-0.19	2-5	>406
BCLL	0.0	Rep Stress Incr	YES	WB	0.00	Horz(CT)	-0.03	4	n/a
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-P					n/a
							PLATES	GRIP	
							MT20	244/190	
							Weight: 26 lb	FT = 20%	

LUMBER

TOP CHORD 2x4 SP No.2

BOT CHORD 2x4 SP No.2

SLIDER Left 2x4 SP No.2 -- 3-4-5

BRACING

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

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

REACTIONS (size) 2=0-3-8, 4= Mechanical, 5= Mechanical

Max Horiz 2=105 (LC 12)

Max Uplift 2=-86 (LC 8), 4=-119 (LC 12)

Max Grav 2=351 (LC 1), 4=215 (LC 1), 5=125 (LC 3)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=-4/0, 2-4=-117/54

BOT CHORD 2-5=0/0

- NOTES**
- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=35ft; Ke=1.00; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) -0-11-0 to 4-1-0, Interior (1) 4-1-0 to 6-3-4 zone; cantilever left and right exposed ; end vertical left exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
 - 2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
 - 3) Bearings are assumed to be: Joint 2 SP No.2 crushing capacity of 565 psi.
 - 4) Refer to girder(s) for truss to truss connections.
 - 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 119 lb uplift at joint 4 and 86 lb uplift at joint 2.

- 6) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- LOAD CASE(S)** Standard



June 27,2025

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

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

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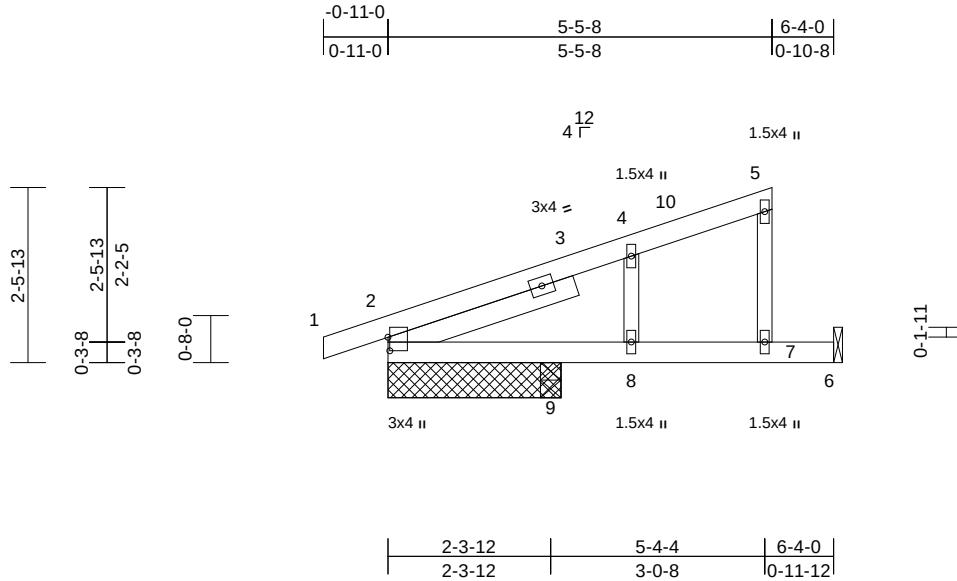
16023 Swingley Ridge Rd.
Chesterfield, MO 63017
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Job	Truss	Truss Type	Qty	Ply	Job Reference (optional)
Sunflower Farmhouse	E7	Roof Special Structural Gable	1	1	

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

Run: 8.63 S Sep 26 2024 Print: 8.630 S Sep 26 2024 MiTek Industries, Inc. Wed Jun 25 15:38:17 Page: 1
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09/25/2025



Scale = 1:32.7

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

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.16	Vert(LL)	0.04	7-8	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.31	Vert(CT)	-0.04	7-8	>999	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.07	Horz(CT)	0.00	6	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-P							Weight: 26 lb	FT = 20%

LUMBER

TOP CHORD	2x4 SP No.2
BOT CHORD	2x4 SP No.2
WEBS	2x3 SPF No.2
OTHERS	2x3 SPF No.2
SLIDER	Left 2x4 SP No.2 -- 2-9-7

BRACING

TOP CHORD	Structural wood sheathing directly applied or 5-5-8 oc purlins, except end verticals.
BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS	(size) 2=2-5-8, 6= Mechanical, 9=0-3-8
Max Horiz	2=101 (LC 9)
Max Uplift	2=-54 (LC 8), 6=-15 (LC 12), 9=-72 (LC 12)
Max Grav	2=156 (LC 1), 6=107 (LC 1), 9=301 (LC 1)

FORCES

	(lb) - Maximum Compression/Maximum Tension
TOP CHORD	1-2=-4/0, 2-4=-173/88, 4-5=-61/49, 5-7=-58/77
BOT CHORD	2-9=-44/48, 8-9=-44/48, 7-8=-44/48, 6-7=0/0
WEBS	4-8=-191/270

NOTES

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

- 4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 5) Bearings are assumed to be: Joint 2 SP No.2 crushing capacity of 565 psi, 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 54 lb uplift at joint 2, 15 lb uplift at joint 6 and 72 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.

LOAD CASE(S) Standard



June 27, 2025

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

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

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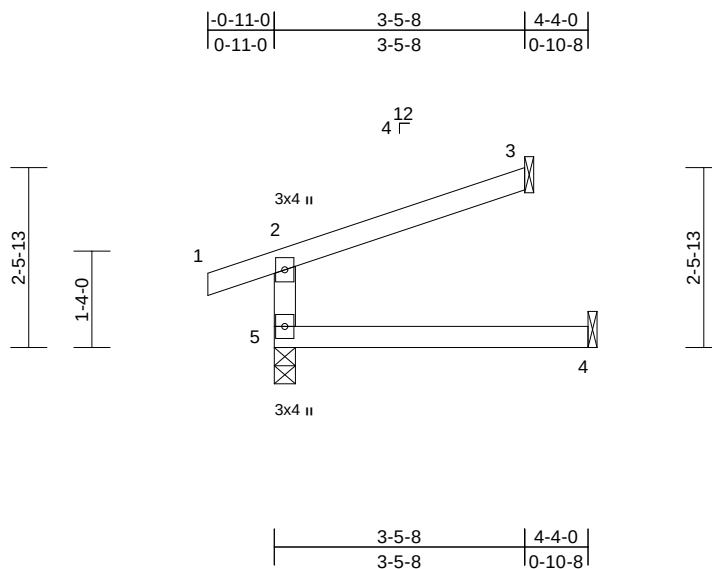
Job	Truss	Truss Type	Qty	Ply	
Sunflower Farmhouse	E8	Jack-Open	5	1	Job Reference (optional)

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

Run: 8.63 S Sep 26 2024 Print: 8.630 S Sep 26 2024 MiTek Industries, Inc. Wed Jun 25 15:38:17 Page: 1

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09/25/2025



Scale = 1:31.8

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.23	Vert(LL)	0.02	4-5	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.22	Vert(CT)	-0.03	4-5	>999	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.00	Horz(CT)	-0.03	3	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

WEBS 2x4 SP No.2

BRACING

TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.

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

REACTIONS (size) 3= Mechanical, 4= Mechanical, 5=0-3-8

Max Horiz 5=66 (LC 9)

Max Uplift 3=-58 (LC 12), 5=-60 (LC 8)

Max Grav 3=101 (LC 1), 4=76 (LC 3), 5=242 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 2-5=-200/228, 1-2=0/24, 2-3=-61/28

BOT CHORD 4-5=0/0

NOTES

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=35ft; Ke=1.00; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) zone; cantilever left and right exposed; end vertical left 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 60 lb uplift at joint 5 and 58 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

June 27, 2025

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Job	Truss	Truss Type	Qty	Ply	
Sunflower Farmhouse	E9	Jack-Open Structural Gable	1	1	Job Reference (optional)

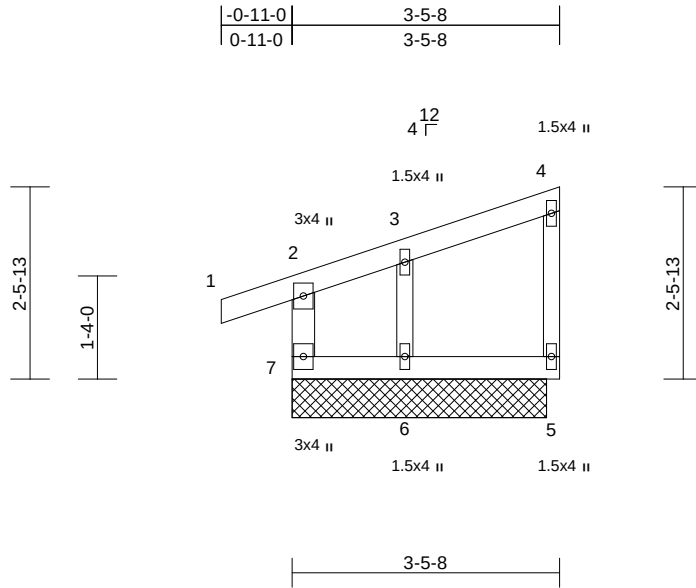
Premier Building Supply (Springhill, KS), Spring Hills, KS - 66083,

Run: 8.63 S Sep 26 2024 Print: 8.630 S Sep 26 2024 MiTek Industries, Inc. Wed Jun 25 15:38:17 Page: 1

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RELEASE FOR CONSTRUCTION
AS NOTED FOR PLAN REVIEW
DEVELOPMENT SERVICES
174483194
LEE'S SUMMIT, MISSOURI

09/25/2025



Scale = 1:29.8

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	0.19	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.13	Vert(CT)	n/a	-	999		
BCLL	0.0	Rep Stress Incr	YES	WB	0.07	Horz(CT)	n/a	-	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S						Weight: 16 lb	FT = 20%

LUMBER

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

BRACING

TOP CHORD	Structural wood sheathing directly applied or 5-5-8 oc purlins, except end verticals.
BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS	(size) 5=3-3-8, 6=3-3-8, 7=3-3-8
	Max Horiz 7=65 (LC 9)
	Max Uplift 5=-16 (LC 8), 6=-89 (LC 12), 7=-14 (LC 8)
	Max Grav 5=73 (LC 1), 6=144 (LC 1), 7=146 (LC 1)

FORCES

(lb) - Maximum Compression/Maximum Tension

TOP CHORD	2-7=-133/126, 1-2=0/24, 2-3=-127/44, 3-4=-34/14
BOT CHORD	6-7=0/0, 5-6=0/0
WEBS	3-6=-138/283, 4-5=-57/84

NOTES

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=35ft; Ke=1.00; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Corner(3E) zone; cantilever left and right exposed; end vertical left exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 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) 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 14 lb uplift at joint 7, 16 lb uplift at joint 5 and 89 lb uplift at joint 6.
- 9) N/A
- 10) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard



June 27, 2025

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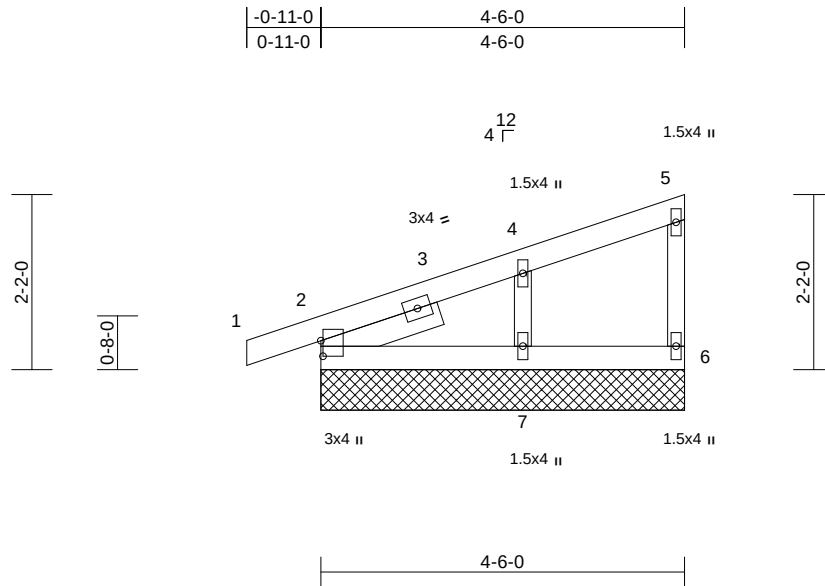
Job	Truss	Truss Type	Qty	Ply	Job Reference (optional)
Sunflower Farmhouse	E10	Monopitch Supported Gable	2	1	

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

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09/25/2025



Scale = 1:28.5

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

Loading	(psf)	Spacing	1-11-4	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.10	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.05	Vert(CT)	n/a	-	n/a	999		
BCLL	0.0	Rep Stress Incr	YES	WB	0.07	Horz(CT)	n/a	-	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
OTHERS	2x3 SPF No.2
SLIDER	Left 2x4 SP No.2 -- 1-6-6

BRACING

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

REACTIONS	(size)	2=4-6-0, 6=4-6-0, 7=4-6-0
	Max Horiz	2=75 (LC 12)
	Max Uplift	2=-43 (LC 8), 6=-16 (LC 8), 7=-70 (LC 12)
	Max Grav	2=165 (LC 1), 6=60 (LC 1), 7=220 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD	1-2=-4/0, 2-4=-145/47, 4-5=-30/11, 5-6=-48/72
BOT CHORD	2-7=0/0, 6-7=0/0
WEBS	4-7=-166/304

NOTES

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=35ft; Ke=1.00; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Corner(3E) -0-11-0 to 4-1-0, Exterior(2N) 4-1-0 to 4-4-12 zone; cantilever left and right exposed; end vertical left exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 2) 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 2-0-0 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 16 lb uplift at joint 6, 43 lb uplift at joint 2 and 70 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

June 27, 2025

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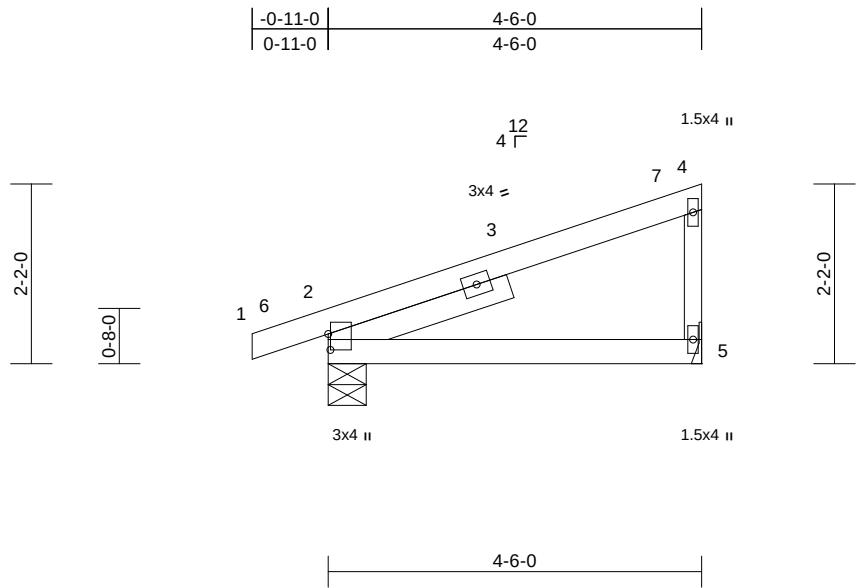
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Chesterfield, MO 63017
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Job	Truss	Truss Type	Qty	Ply	
Sunflower Farmhouse	E11	Monopitch	7	1	Job Reference (optional)

RELEASE FOR CONSTRUCTION
AS NOTED FOR PLAN REVIEW
DEVELOPMENT SERVICES
174483196
LEE'S SUMMIT, MISSOURI

Premier Building Supply (Springhill, KS), Spring Hills, KS - 66083, Run: 8.63 S Sep 26 2024 Print: 8.630 S Sep 26 2024 MiTek Industries, Inc. Wed Jun 25 15:38:17 Page: 1
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09/25/2025



Scale = 1:27.8									
Plate Offsets (X, Y): [2:0-2-5,0-0-5]									
Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.46	Vert(LL)	-0.02	2-5	>999
TCDL	10.0	Lumber DOL	1.15	BC	0.24	Vert(CT)	-0.04	2-5	>999
BCLL	0.0	Rep Stress Incr	YES	WB	0.00	Horz(CT)	n/a	-	n/a
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-P					
						PLATES	GRIP		
						MT20	197/144		
						Weight: 20 lb	FT = 20%		

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

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

REACTIONS (size) 2=0-5-8, 5= Mechanical
Max Horiz 2=78 (LC 12)
Max Uplift 2=-73 (LC 8), 5=-57 (LC 12)
Max Grav 2=269 (LC 1), 5=191 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-4/0, 2-4=-85/40, 4-5=-147/218
BOT CHORD 2-5=0/0

- NOTES**
- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust)
Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=35ft;
Ke=1.00; Cat. II; Exp C; Enclosed; MWFRS (envelope)
exterior zone and C-C Exterior(2E) -0-11-0 to 4-1-0,
Interior (1) 4-1-0 to 4-4-12 zone; cantilever left and right
exposed ; end vertical left exposed;C-C for members
and forces & MWFRS for reactions shown; Lumber
DOL=1.60 plate grip DOL=1.60
 - 2) This truss has been designed for a 10.0 psf bottom
chord live load nonconcurrent with any other live loads.
 - 3) Bearings are assumed to be: Joint 2 SP No.2 crushing
capacity of 565 psi.
 - 4) Refer to girder(s) for truss to truss connections.
 - 5) Provide mechanical connection (by others) of truss to
bearing plate capable of withstanding 57 lb uplift at joint
5 and 73 lb uplift at joint 2.
 - 6) This truss is designed in accordance with the 2018
International Residential Code sections R502.11.1 and
R802.10.2 and referenced standard ANSI/TPI 1.



June 27,2025

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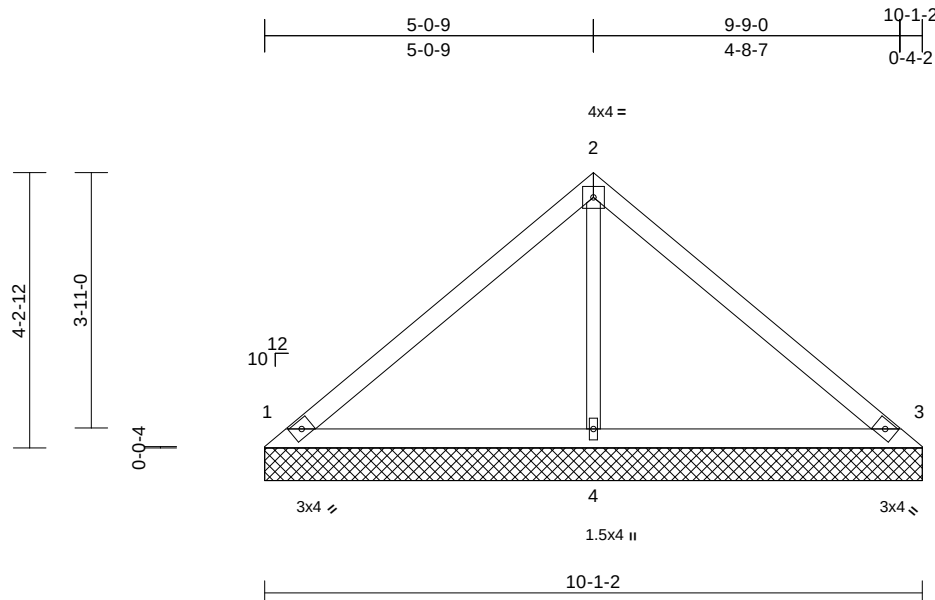
Job	Truss	Truss Type	Qty	Ply	
Sunflower Farmhouse	V1	Valley	1	1	Job Reference (optional)

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

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Scale = 1:35.4

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	0.37	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.22	Vert(TL)	n/a	-	n/a	999		
BCLL	0.0	Rep Stress Incr	YES	WB	0.09	Horiz(TL)	0.00	3	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S							Weight: 36 lb	FT = 20%

LUMBER

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

BRACING

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

REACTIONS (size) 1=10-1-2, 3=10-1-2, 4=10-1-2
 Max Horiz 1=-109 (LC 10)
 Max Uplift 1=-46 (LC 12), 3=-58 (LC 13), 4=-17 (LC 12)
 Max Grav 1=234 (LC 1), 3=234 (LC 1), 4=372 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=-196/96, 2-3=-192/104
 BOT CHORD 1-4=-25/92, 3-4=-25/92
 WEBS 2-4=-228/108

NOTES

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=35ft; Ke=1.00; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- Gable requires continuous bottom chord bearing.
- Gable studs spaced at 4-0-0 oc.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.

- All bearings are assumed to be SP No.2 crushing capacity of 565 psi.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 46 lb uplift at joint 1, 58 lb uplift at joint 3 and 17 lb uplift at joint 4.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard

June 27, 2025

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Job	Truss	Truss Type	Qty	Ply	
Sunflower Farmhouse	V2	Valley	1	1	Job Reference (optional)

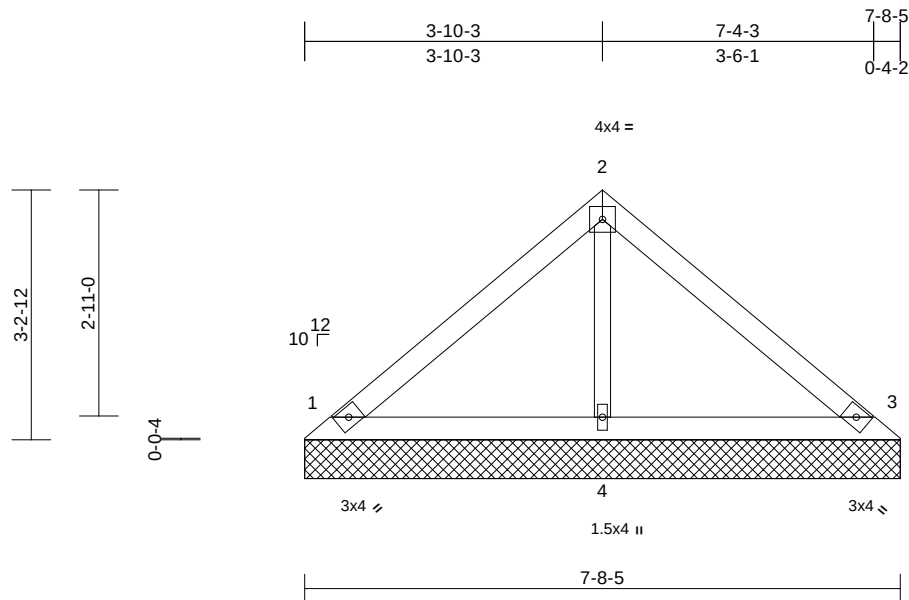
Premier Building Supply (Springhill, KS), Spring Hills, KS - 66083,

Run: 8.63 S Sep 26 2024 Print: 8.630 S Sep 26 2024 MiTek Industries, Inc. Wed Jun 25 15:38:17

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Scale = 1:29.8

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	0.28	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.12	Vert(TL)	n/a	-	n/a	999		
BCLL	0.0	Rep Stress Incr	YES	WB	0.04	Horiz(TL)	0.00	3	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-P							Weight: 27 lb	FT = 20%

LUMBER

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

BRACING

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

REACTIONS

(size) 1=7-8-5, 3=7-8-5, 4=7-8-5
 Max Horiz 1=-81 (LC 8)
 Max Uplift 1=-45 (LC 12), 3=-54 (LC 13)
 Max Grav 1=188 (LC 1), 3=188 (LC 1), 4=248 (LC 1)

FORCES

(lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=-133/76, 2-3=-126/84
 BOT CHORD 1-4=-19/64, 3-4=-19/64
 WEBS 2-4=-161/87

NOTES

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=35ft; Ke=1.00; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- Gable requires continuous bottom chord bearing.
- Gable studs spaced at 4-0-0 oc.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.

- All bearings are assumed to be SP No.2 crushing capacity of 565 psi.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 45 lb uplift at joint 1 and 54 lb uplift at joint 3.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard



June 27, 2025

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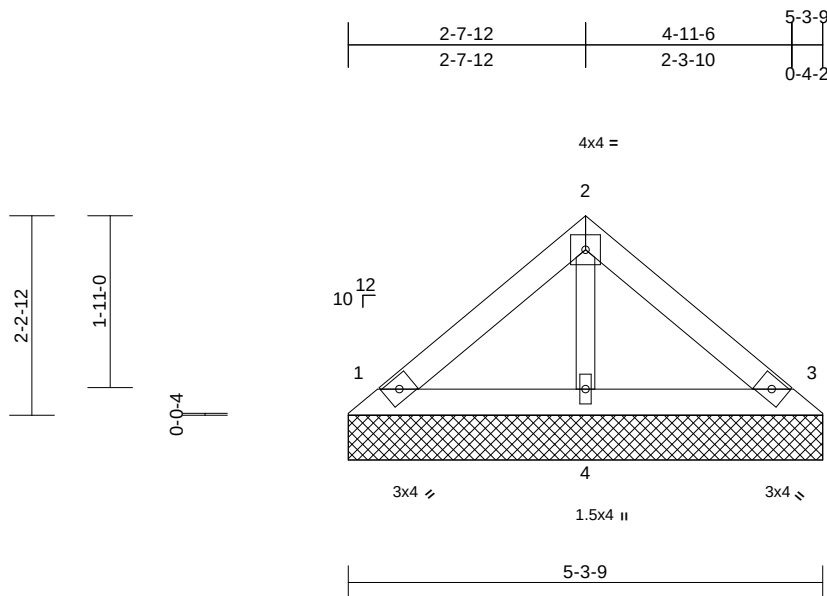
Job	Truss	Truss Type	Qty	Ply	Job Reference (optional)
Sunflower Farmhouse	V3	Valley	1	1	

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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)	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	0.02	Horiz(TL)	0.00	3	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-P							Weight: 18 lb	FT = 20%

LUMBER

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

BRACING

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

REACTIONS

(size) 1=5-3-9, 3=5-3-9, 4=5-3-9
 Max Horiz 1=-53 (LC 8)
 Max Uplift 1=-29 (LC 12), 3=-35 (LC 13)
 Max Grav 1=123 (LC 1), 3=123 (LC 1), 4=162 (LC 1)

FORCES

(lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=-87/58, 2-3=-82/63
 BOT CHORD 1-4=-12/42, 3-4=-12/42
 WEBS 2-4=-106/68

NOTES

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=35ft; Ke=1.00; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- Gable requires continuous bottom chord bearing.
- Gable studs spaced at 4-0-0 oc.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.

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

LOAD CASE(S) Standard



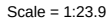
June 27, 2025

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[illegible]

- 8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 12 lb uplift at joint 1 and 12 lb uplift at joint 3.
- 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.

TOP CHORD	Structural wood sheathing directly applied or 2-11-5 oc purlins.
BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing.

Max Horiz 1=25 (LC 9)
Max Uplift 1=-12 (LC 12), 3=-12 (LC 13)
Max Grav 1=96 (LC 1), 3=96 (LC 1)

TOP CHORD 1-2=-78/57, 2-3=-78/62
BOT CHORD 1-3=-11/46

- 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)
interior 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.



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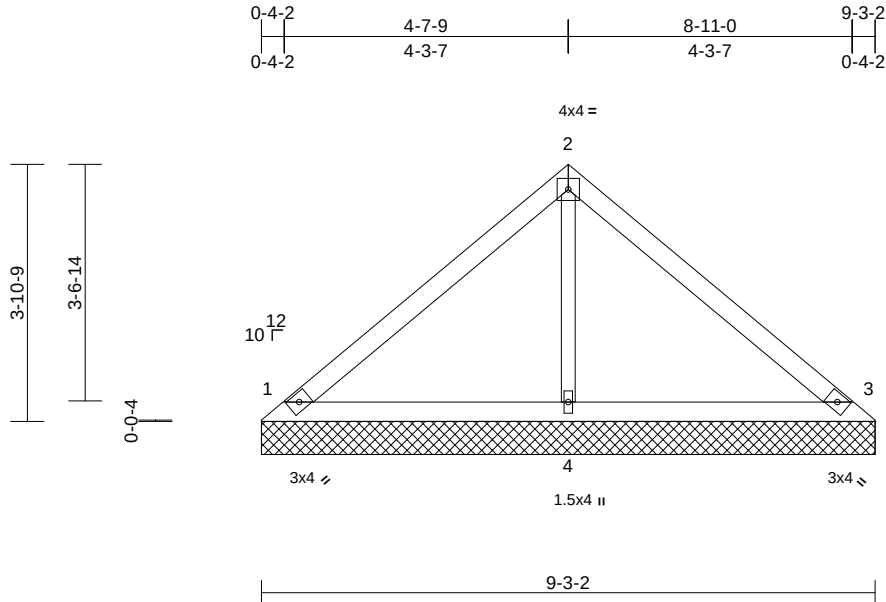
Job	Truss	Truss Type	Qty	Ply	
Sunflower Farmhouse	V5	Valley	1	1	Job Reference (optional)

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Scale = 1:34.8

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	0.30	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.18	Vert(TL)	n/a	-	n/a	999		
BCLL	0.0	Rep Stress Incr	YES	WB	0.07	Horiz(TL)	0.00	3	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S							Weight: 33 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=9-3-2, 3=9-3-2, 4=9-3-2
Max Horiz	1=99 (LC 11)
Max Uplift	1=-42 (LC 12), 3=-53 (LC 13), 4=-16 (LC 12)
Max Grav	1=213 (LC 1), 3=213 (LC 1), 4=339 (LC 1)

FORCES

(lb) - Maximum Compression/Maximum Tension

TOP CHORD	1-2=-178/89, 2-3=-175/98
BOT CHORD	1-4=-23/84, 3-4=-23/84
WEBS	2-4=-208/104

NOTES

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=35ft; Ke=1.00; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- Gable requires continuous bottom chord bearing.
- Gable studs spaced at 4-0-0 oc.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.

- All bearings are assumed to be SP No.2 crushing capacity of 565 psi.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 42 lb uplift at joint 1, 53 lb uplift at joint 3 and 16 lb uplift at joint 4.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard

June 27, 2025

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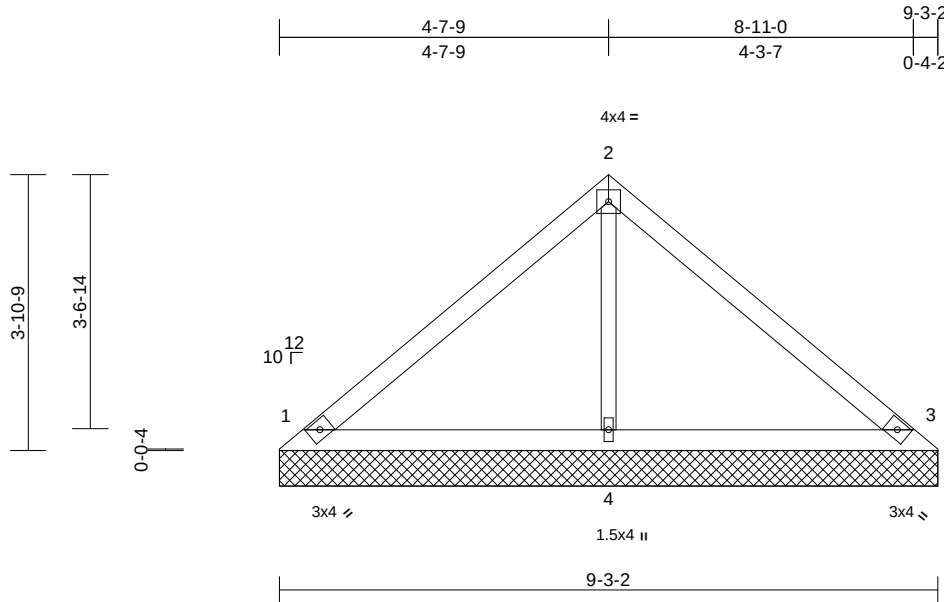
Job	Truss	Truss Type	Qty	Ply	
Sunflower Farmhouse	V6	Valley	1	1	Job Reference (optional)

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

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09/25/2025



Scale = 1:32.4

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	0.30	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.18	Vert(TL)	n/a	-	n/a	999		
BCLL	0.0	Rep Stress Incr	YES	WB	0.07	Horiz(TL)	0.00	3	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S							Weight: 33 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=9-3-2, 3=9-3-2, 4=9-3-2
	Max Horiz	1=-99 (LC 10)
	Max Uplift	1=-42 (LC 12), 3=-53 (LC 13), 4=-16 (LC 12)
	Max Grav	1=213 (LC 1), 3=213 (LC 1), 4=339 (LC 1)

FORCES	(lb) - Maximum Compression/Maximum Tension
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TOP CHORD	1-2=-178/89, 2-3=-175/98
BOT CHORD	1-4=-23/84, 3-4=-23/84
WEBS	2-4=-208/104

NOTES

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=35ft; Ke=1.00; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- Gable requires continuous bottom chord bearing.
- Gable studs spaced at 4-0-0 oc.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.

- All bearings are assumed to be SP No.2 crushing capacity of 565 psi.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 42 lb uplift at joint 1, 53 lb uplift at joint 3 and 16 lb uplift at joint 4.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard

June 27, 2025

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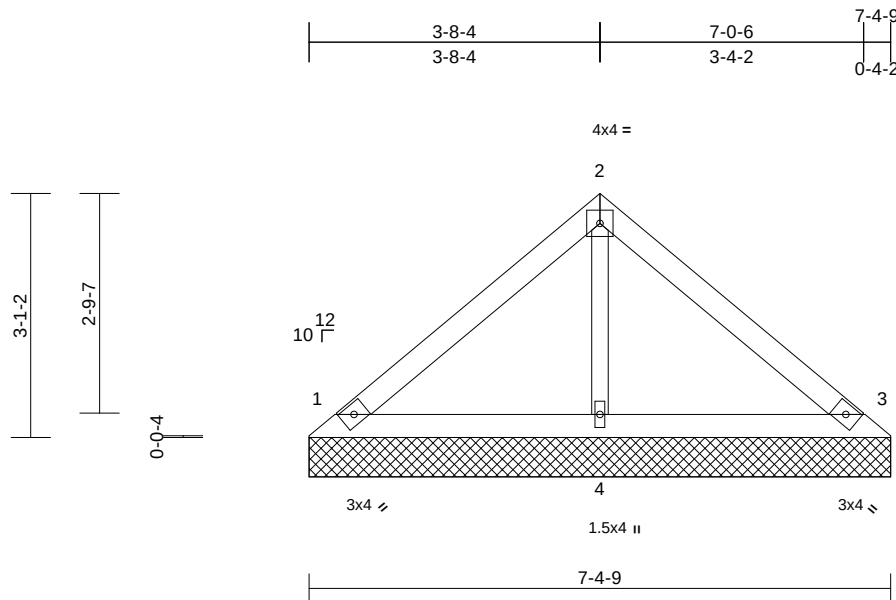
Job	Truss	Truss Type	Qty	Ply	
Sunflower Farmhouse	V7	Valley	1	1	Job Reference (optional)

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

Run: 8.63 S Sep 26 2024 Print: 8.630 S Sep 26 2024 MiTek Industries, Inc. Wed Jun 25 15:38:18 Page: 1

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09/25/2025



Scale = 1:29.2

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	0.26	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.11	Vert(TL)	n/a	-	n/a	999		
BCLL	0.0	Rep Stress Incr	YES	WB	0.04	Horiz(TL)	0.00	3	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-P							Weight: 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=7-4-9, 3=7-4-9, 4=7-4-9
	Max Horiz	1=-77 (LC 8)
	Max Uplift	1=-43 (LC 12), 3=-52 (LC 13)
	Max Grav	1=180 (LC 1), 3=180 (LC 1), 4=237 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD	1-2=-127/74, 2-3=-120/82
BOT CHORD	1-4=-18/61, 3-4=-18/61
WEBS	2-4=-154/86

NOTES

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=35ft; Ke=1.00; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- Gable requires continuous bottom chord bearing.
- Gable studs spaced at 4-0-0 oc.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.

- All bearings are assumed to be SP No.2 crushing capacity of 565 psi.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 43 lb uplift at joint 1 and 52 lb uplift at joint 3.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard

June 27, 2025

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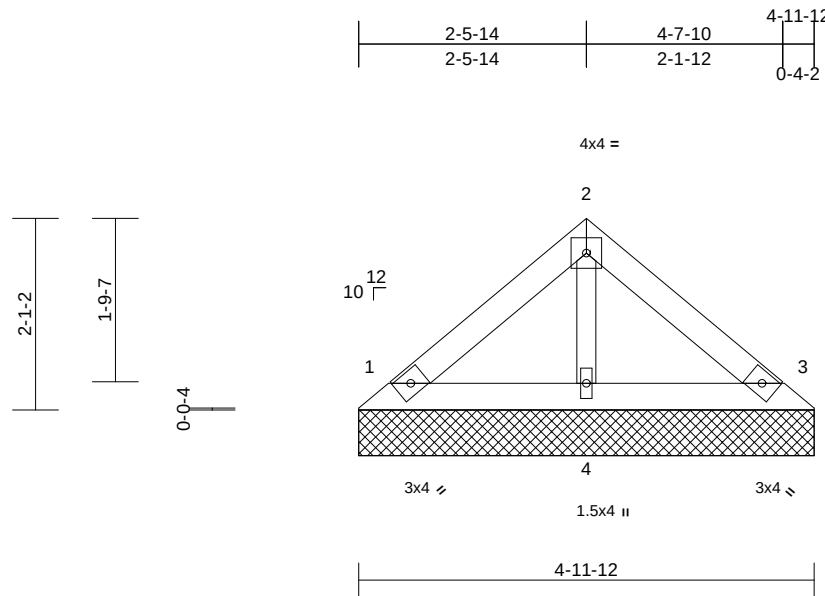
Job	Truss	Truss Type	Qty	Ply	Job Reference (optional)
Sunflower Farmhouse	V8	Valley	1	1	

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

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09/25/2025



Scale = 1:25.2

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.12	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.05	n/a	-	n/a	999		
BCLL	0.0	Rep Stress Incr	YES	WB	0.02	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
OTHERS	2x3 SPF No.2

BRACING

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

REACTIONS	(size)	1=4-11-12, 3=4-11-12, 4=4-11-12
	Max Horiz	1=-49 (LC 8)
	Max Uplift	1=-27 (LC 12), 3=-33 (LC 13)
	Max Grav	1=115 (LC 1), 3=115 (LC 1), 4=151 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD	1-2=-81/55, 2-3=-77/59
BOT CHORD	1-4=-11/39, 3-4=-11/39
WEBS	2-4=-98/64

NOTES

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=35ft; Ke=1.00; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- Gable requires continuous bottom chord bearing.
- Gable studs spaced at 4-0-0 oc.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.

- All bearings are assumed to be SP No.2 crushing capacity of 565 psi.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 27 lb uplift at joint 1 and 33 lb uplift at joint 3.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard

June 27, 2025

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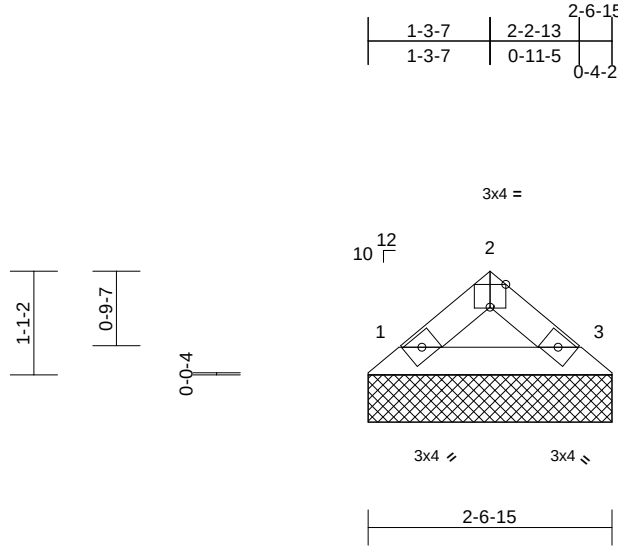
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Job	Truss	Truss Type	Qty	Ply	Job Reference (optional)
Sunflower Farmhouse	V9	Valley	1	1	

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

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09/25/2025



Scale = 1:24.4

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

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.03	Vert(LL)	n/a	-	n/a	999	MT20
TCDL	10.0	Lumber DOL	1.15	BC	0.04	Vert(TL)	n/a	-	n/a	999	244/190
BCLL	0.0	Rep Stress Incr	YES	WB	0.00	Horiz(TL)	0.00	3	n/a	n/a	
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-P							Weight: 7 lb FT = 20%

LUMBER

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

BRACING

TOP CHORD Structural wood sheathing directly applied or 2-7-9 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (size) 1=2-6-15, 3=2-6-15
Max Horiz 1=-21 (LC 8)
Max Uplift 1=-11 (LC 12), 3=-11 (LC 13)
Max Grav 1=82 (LC 1), 3=82 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-66/50, 2-3=-66/54
BOT CHORD 1-3=-10/40

NOTES

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

- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 11 lb uplift at joint 1 and 11 lb uplift at joint 3.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard



June 27, 2025

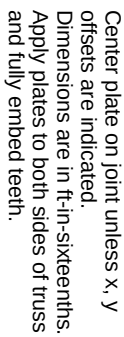
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PLATE LOCATION AND ORIENTATION



For 4 x 2 orientation, locate plates 0- $\frac{1}{16}$ " from outside edge of truss.

— — — — —
— — — — —
— — — — —

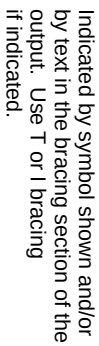
This symbol indicates the required direction of slots in connector plates.

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

4x4

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

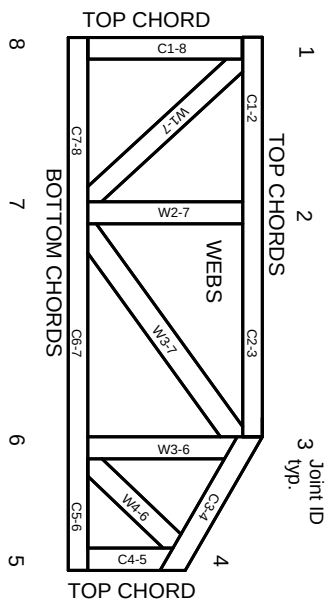
LATERAL BRACING LOCATION



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

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



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

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

ICC-ES Reports:

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

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

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

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Mittek Engineering Reference Sheet: MI-7473 rev. 1/2/2023

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 BCSP.
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.