

RE: P250393-01
Roof - BY Lot 1330

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

Site Information:

Customer: Clayton Properties Project Name: P250393-01
Lot/Block: 1330 Model: Honeydew - Farmhouse
Address: 1308 SE Windbreak Dr. Subdivision: Bailey Farms
City: Lee's Summit State: MO

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

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

This package includes 30 individual, dated Truss Design Drawings and 0 Additional Drawings.

No.	Seal#	Truss Name	Date	No.	Seal#	Truss Name	Date
1	I67816471	B1	8/28/2024	21	I67816491	V1	8/28/2024
2	I67816472	B2	8/28/2024	22	I67816492	V2	8/28/2024
3	I67816473	C1	8/28/2024	23	I67816493	V3	8/28/2024
4	I67816474	C2	8/28/2024	24	I67816494	V4	8/28/2024
5	I67816475	C3	8/28/2024	25	I67816495	V5	8/28/2024
6	I67816476	C4	8/28/2024	26	I67816496	V6	8/28/2024
7	I67816477	D1	8/28/2024	27	I67816497	V7	8/28/2024
8	I67816478	D2	8/28/2024	28	I67816498	V8	8/28/2024
9	I67816479	E1	8/28/2024	29	I67816499	V9	8/28/2024
10	I67816480	E2	8/28/2024	30	I67816500	V10	8/28/2024
11	I67816481	E3	8/28/2024				
12	I67816482	E4	8/28/2024				
13	I67816483	E5	8/28/2024				
14	I67816484	G1	8/28/2024				
15	I67816485	G2	8/28/2024				
16	I67816486	G3	8/28/2024				
17	I67816487	J1	8/28/2024				
18	I67816488	J2	8/28/2024				
19	I67816489	J3	8/28/2024				
20	I67816490	LAY1	8/28/2024				

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

Truss Design Engineer's Name: Sevier, Scott

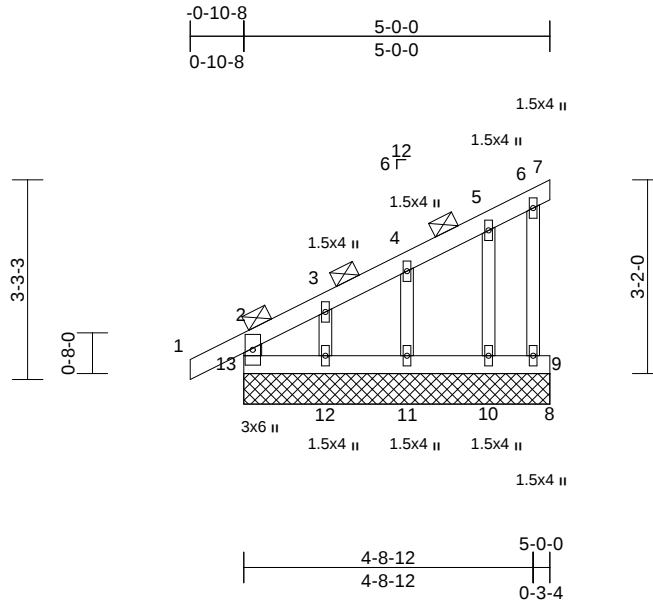
My license renewal date for the state of Missouri is December 31, 2025.

Missouri COA: 001193

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



August 28, 2024



Scale = 1:37.7

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LUMBER

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

BRACING

TOP CHORD	2-0-0 oc purlins, except end verticals (Switched from sheeted: Spacing > 2-8-0).
BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (size)

	10=5-0-0, 11=5-0-0, 12=5-0-0, 13=5-0-0
Max Horiz	13=193 (LC 8)
Max Uplift	7=-18 (LC 8), 8=-8 (LC 8), 9=-1 (LC 8), 10=-50 (LC 8), 11=-51 (LC 8), 12=-135 (LC 8)
Max Grav	7=22 (LC 1), 8=7 (LC 3), 9=56 (LC 1), 10=171 (LC 1), 11=233 (LC 1), 12=140 (LC 1), 13=264 (LC 1)

FORCES

	Tension
TOP CHORD	1-2=0/56, 2-3=-182/20, 3-4=-121/40, 4-5=-68/33, 5-6=-32/9, 6-7=-10/8, 6-9=-41/19, 2-13=-229/1
BOT CHORD	12-13=-3/0, 11-12=-3/0, 10-11=-3/0, 9-10=-3/0, 8-9=0/0
WEBS	3-12=-115/114, 4-11=-180/91, 5-10=-133/72

NOTES

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust)
Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft;
ke=1.00; Cat. II; Exp C; Enclosed; MWFRS (envelope)
Exterior zone; cantilever left and right exposed ; end
vertical left exposed; Lumber DOL=1.60 plate grip
DOL=1.60
- 2) Truss designed for load in the plane of the truss
only. For studs exposed to wind (normal to the face),
see Standard Industry Gable End Details as applicable,
or consult qualified building designer as per ANSI/TPI 1.

- 3) All plates are 1.5x4 MT20 unless otherwise indicated.
- 4) Gable requires continuous bottom chord bearing.
- 5) Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
- 6) Gable studs spaced at 1-4-0 oc.
- 7) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 8) All bearings are assumed to be SP No.2 crushing capacity of 565 psi.
- 9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 18 lb uplift at joint 7 and 8 lb uplift at joint 8.
- 10) N/A

- 11) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 12) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

LOAD CASE(S) Standard



August 28, 2024



WARNING – Verify design parameters and READ NOTES ON THIS and INCLUDED MITER REFERENCE PAGE mtf-7475 rev. 12/2023 BEFORE USE. Design valid for use only with MiTeK® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/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.sbcscomponents.com)

MiTek®

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

Job	Truss	Truss Type	Qty	Ply	Roof - BY Lot 1330
P250393-01	B2	Monopitch	7	1	Job Reference (optional)

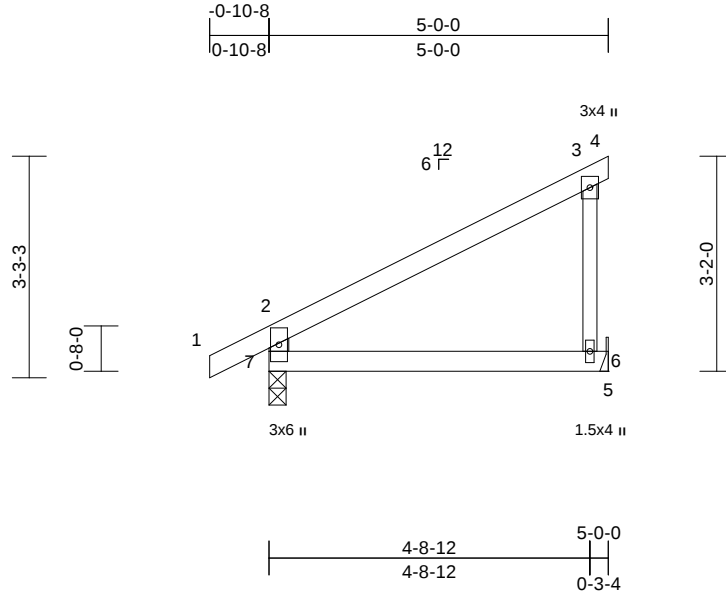
RELEASE FOR CONSTRUCTION
AS NOTED FOR PLAN REVIEW
DEVELOPMENT SERVICES
167816472
LEE'S SUMMIT, MISSOURI

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

Run: 8.63 S Jul 12 2024 Print: 8.630 S Jul 12 2024 MiTek Industries, Inc. Mon Aug 26 21:00:15 Page: 1

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06/10/2025



Scale = 1:34

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.32	Vert(LL)	0.02	6-7	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.20	Vert(CT)	-0.04	6-7	>999	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.00	Horz(CT)	0.00	6	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-R							Weight: 20 lb	FT = 20%

LUMBER

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

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

LOAD CASE(S) Standard

BRACING

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

REACTIONS (size) 6= Mechanical, 7=0-3-0
Max Horiz 7=110 (LC 8)
Max Uplift 6=-74 (LC 8), 7=-32 (LC 5)
Max Grav 6=209 (LC 1), 7=285 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=0/32, 2-3=-109/36, 3-4=-2/0,
3-6=-146/92, 2-7=-252/69

BOT CHORD 6-7=-13/30, 5-6=0/0

NOTES

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust)
Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft;
Ke=1.00; Cat. II; Exp C; Enclosed; MWFRS (envelope)
exterior zone; cantilever left and right exposed; end
vertical left exposed; porch left and right exposed;
Lumber DOL=1.60 plate grip DOL=1.60
- 2) This truss has been designed for a 10.0 psf bottom
chord live load nonconcurrent with any other live loads.
- 3) Bearings are assumed to be: Joint 7 SP No.2 crushing
capacity of 565 psi.
- 4) Refer to girder(s) for truss to truss connections.
- 5) Provide mechanical connection (by others) of truss to
bearing plate capable of withstanding 74 lb uplift at joint
6.
- 6) One H2.5T Simpson Strong-Tie connectors
recommended to connect truss to bearing walls due to
UPLIFT at jt(s) 7. This connection is for uplift only and
does not consider lateral forces.



August 28, 2024

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

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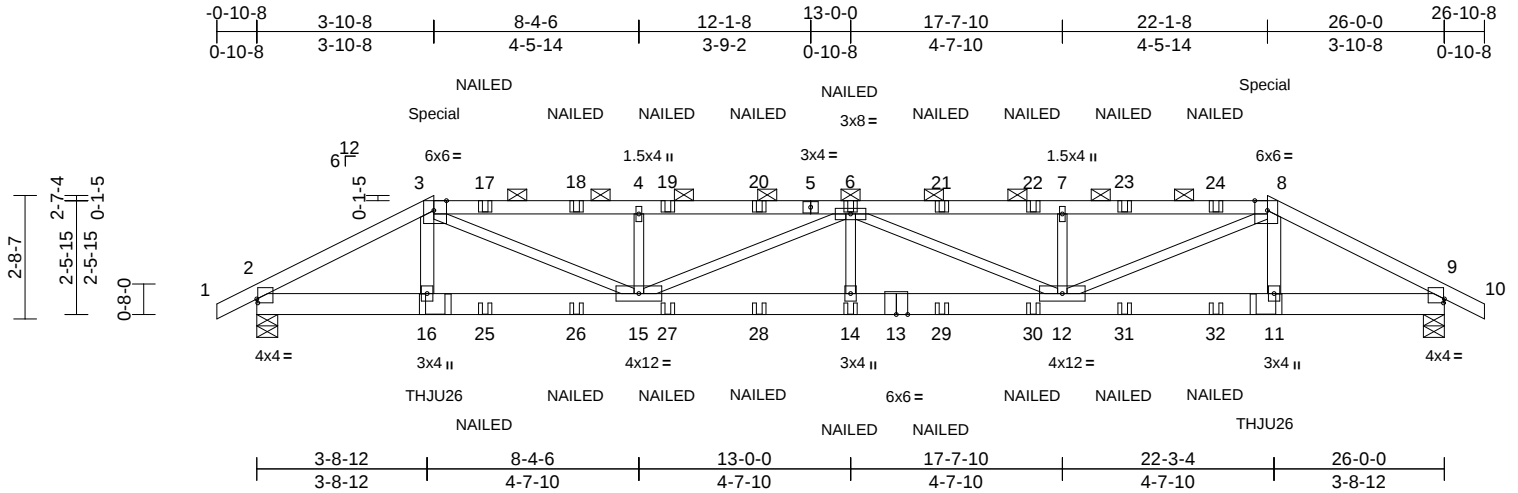
Job	Truss	Truss Type	Qty	Ply	Roof - BY Lot 1330	RELEASE FOR CONSTRUCTION
P250393-01	C1	Hip Girder	1	1	Job Reference (optional)	AS NOTED FOR PLAN REVIEW DEVELOPMENT SERVICES 167816473 LEE'S SUMMIT, MISSOURI

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

Run: 8.63 S Jul 12 2024 Print: 8.630 S Jul 12 2024 MiTek Industries, Inc. Mon Aug 26 21:00:11 Page: 1

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06/10/2025



Scale = 1:50.4									
Plate Offsets (X, Y): [2:0-0-4,0-1-1], [3:0-3-5,Edge], [8:0-3-5,Edge], [9:0-0-4,0-1-1]									
Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	PLATES
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.99	Vert(LL)	-0.26	14	MT20
TCDL	10.0	Lumber DOL	1.15	BC	0.39	Vert(CT)	-0.48	14	GRIP
BCLL	0.0	Rep Stress Incr	NO	WB	0.68	Horz(CT)	0.06	9	197/144
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S					
Weight: 128 lb FT = 20%									

LUMBER	
TOP CHORD	2x4 SP No.2
BOT CHORD	2x6 SP 2400F 2.0E
WEBS	2x3 SPF No.2 *Except* 16-3,11-8:2x4 SPF No.3
BRACING	
TOP CHORD	Structural wood sheathing directly applied or 3-3-11 oc purlins, except 2-0-0 oc purlins (2-0-5 max.): 3-8.
BOT CHORD	Rigid ceiling directly applied or 9-9-7 oc bracing.
REACTIONS	
(size)	2=0-5-8, 9=0-5-8
Max Horiz	2=40 (LC 27)
Max Uplift	2=-364 (LC 8), 9=-364 (LC 9)
Max Grav	2=1669 (LC 1), 9=1669 (LC 1)
FORCES	
(lb) - Maximum Compression/Maximum Tension	
TOP CHORD	1-2=0/11, 2-3=-2913/644, 3-4=-4191/994, 4-6=-4189/993, 6-7=-4189/993, 7-8=-4191/994, 8-9=-2913/644, 9-10=0/11
BOT CHORD	2-16=-542/2450, 15-16=-547/2433, 14-15=-1133/4908, 12-14=-1133/4908, 11-12=-522/2433, 9-11=-517/2450
WEBS	3-16=0/335, 3-15=-480/1968, 4-15=-475/235, 6-15=-796/206, 6-14=0/303, 6-12=-796/205, 7-12=-475/235, 8-12=-481/1968, 8-11=0/335

- 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=25ft; Ke=1.00; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
 - Provide adequate drainage to prevent water ponding.
 - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.

- All bearings are assumed to be SP 2400F 2.0E crushing capacity of 805 psi.
- One H2.5T Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 9 and 2. This connection is for uplift only and does not consider lateral forces.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
- Use Simpson Strong-Tie THJU26 (SGL & SGL SHORT RC 1-PLY) or equivalent at 3-10-14 from the left end to connect truss(es) to back face of bottom chord.
- Use Simpson Strong-Tie THJU26 (SGL & SGL SHORT LC 1-PLY) or equivalent at 22-1-2 from the left end to connect truss(es) to back face of bottom chord.
- Fill all nail holes where hanger is in contact with lumber.
- "NAILED" indicates 3-10d (0.148"x3") or 3-12d (0.148"x3.25") toe-nails per NDS guidelines.
- Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 187 lb down and 142 lb up at 3-10-8, and 187 lb down and 142 lb up at 22-1-8 on top chord. The design/selection of such connection device(s) is the responsibility of others.
- In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

LOAD CASE(S) Standard

- Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (lb/ft)
Vert: 1-3=-70, 3-8=-70, 8-10=-70, 2-9=-20
Concentrated Loads (lb)

Vert: 3=-87 (B), 16=-63 (B), 14=-23 (B), 6=-42 (B), 8=-87 (B), 11=-63 (B), 17=-42 (B), 18=-42 (B), 19=-42 (B), 20=-42 (B), 21=-42 (B), 22=-42 (B), 23=-42 (B), 24=-42 (B), 25=-23 (B), 26=-23 (B), 27=-23 (B), 28=-23 (B), 29=-23 (B), 30=-23 (B), 31=-23 (B), 32=-23 (B)



August 28, 2024

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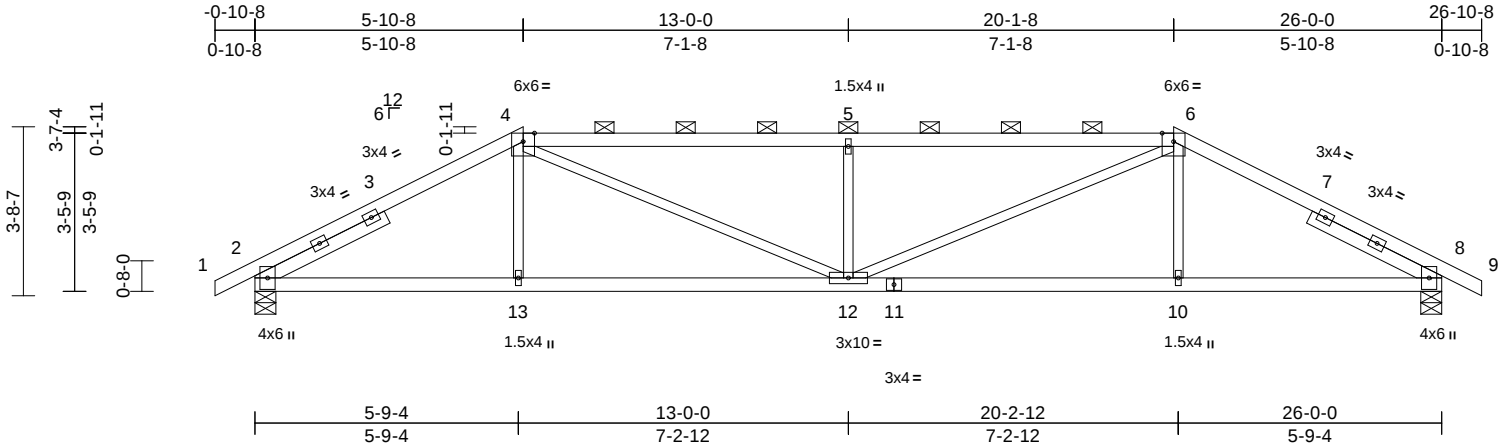
Job	Truss	Truss Type	Qty	Ply	Roof - BY Lot 1330	RELEASE FOR CONSTRUCTION
P250393-01	C2	Hip	1	1	Job Reference (optional)	AS NOTED FOR PLAN REVIEW DEVELOPMENT SERVICES 167816474 LEE'S SUMMIT, MISSOURI

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

Run: 8.63 S Jul 12 2024 Print: 8.630 S Jul 12 2024 MiTek Industries, Inc. Mon Aug 26 21:00:15 Page: 1

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06/10/2025



Scale = 1:50.5

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

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	0.81	Vert(LL)	-0.14	12	>999	240	MT20 197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.58	Vert(CT)	-0.27	10-12	>999	180	
BCLL	0.0	Rep Stress Incr	YES	WB	0.35	Horz(CT)	0.07	8	n/a	n/a	
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S							Weight: 112 lb FT = 20%

LUMBER

TOP CHORD 2x4 SP No.2 *Except* 4-6:2x4 SP 1650F 1.5E
BOT CHORD 2x4 SP No.2
WEBS 2x3 SPF No.2
SLIDER Left 2x4 SP No.2 -- 3-2-4, Right 2x4 SP No.2 -- 3-2-4

BRACING

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

REACTIONS (size) 2=0-5-8, 8=0-5-8
Max Horiz 2=57 (LC 12)
Max Uplift 2=-176 (LC 8), 8=-176 (LC 9)
Max Grav 2=1231 (LC 1), 8=1231 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=0/6, 2-4=-2000/249, 4-5=-2531/383, 5-6=-2531/383, 6-8=-2000/249, 8-9=0/6
BOT CHORD 2-13=-195/1685, 12-13=-198/1681, 10-12=-157/1681, 8-10=-155/1685
WEBS 4-13=0/268, 4-12=-219/1028, 5-12=-631/246, 6-12=-219/1028, 6-10=0/268

NOTES

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Ke=1.00; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 3) Provide adequate drainage to prevent water ponding.
- 4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.

- 5) All bearings are assumed to be SP No.2 crushing capacity of 565 psi.
- 6) One H2.5T Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 8 and 2. This connection is for uplift only and does not consider lateral forces.
- 7) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 8) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

LOAD CASE(S) Standard



August 28, 2024

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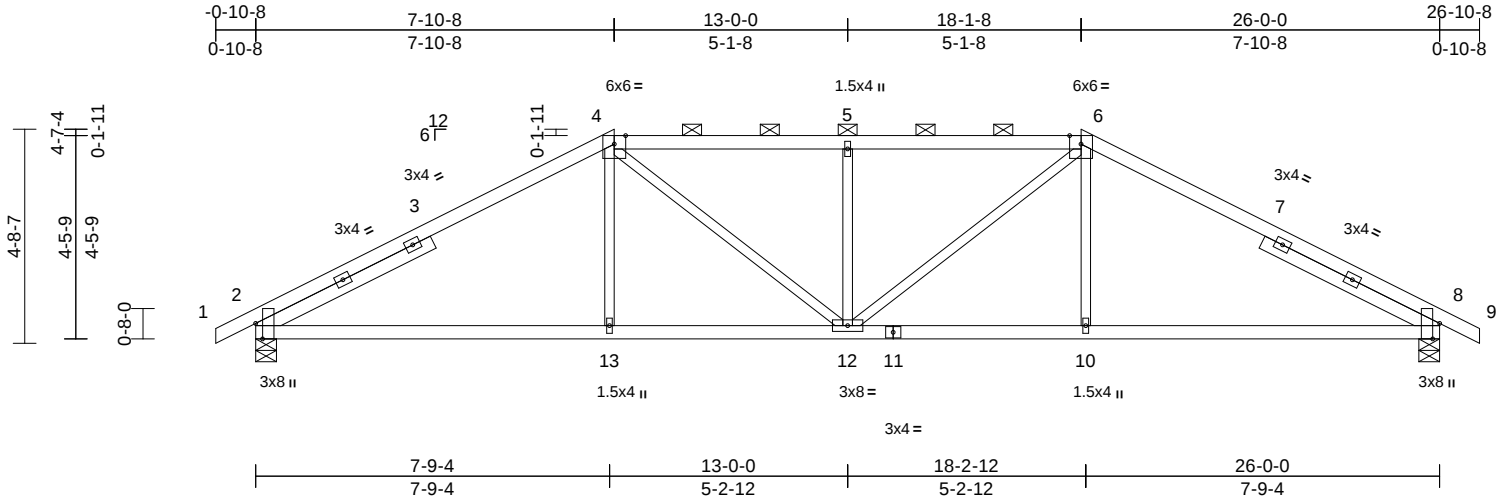
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Job	Truss	Truss Type	Qty	Ply	Roof - BY Lot 1330	RELEASE FOR CONSTRUCTION
P250393-01	C3	Hip	1	1	Job Reference (optional)	AS NOTED FOR PLAN REVIEW DEVELOPMENT SERVICES 167816475 LEE'S SUMMIT, MISSOURI

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

Run: 8.63 S Jul 12 2024 Print: 8.630 S Jul 12 2024 MiTek Industries, Inc. Mon Aug 26 21:00:15 Page: 1
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06/10/2025



Scale = 1:50.6

Plate Offsets (X, Y): [2:0-4-1,Edge], [8:0-4-1,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	0.98	Vert(LL)	-0.10	8-10	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.65	Vert(CT)	-0.22	8-10	>999	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.20	Horz(CT)	0.07	8	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S							Weight: 116 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 -- 4-3-11, Right 2x4 SP No.2 -- 4-3-11

BRACING

TOP CHORD Structural wood sheathing directly applied, except
2-0-0 oc purlins (3-11-15 max.): 4-6.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS

(size) 2=0-5-8, 8=0-5-8
Max Horiz 2=75 (LC 8)
Max Uplift 2=-174 (LC 8), 8=-174 (LC 9)
Max Grav 2=1231 (LC 1), 8=1231 (LC 1)

FORCES

(lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=0/6, 2-4=-1884/226, 4-5=-1856/229, 5-6=-1856/229, 6-8=-1884/226, 8-9=0/6
BOT CHORD 2-13=-159/1566, 12-13=-161/1562, 10-12=-87/1562, 8-10=-85/1566
WEBS 4-13=0/299, 4-12=-134/513, 5-12=-443/171, 6-12=-134/513, 6-10=0/299

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=25ft; Ke=1.00; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- Provide adequate drainage to prevent water ponding.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- All bearings are assumed to be SP No.2 crushing capacity of 565 psi.

- One H2.5T Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 8 and 2. This connection is for uplift only and does not consider lateral forces.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

LOAD CASE(S) Standard



August 28, 2024

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

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

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

Job	Truss	Truss Type	Qty	Ply	Roof - BY Lot 1330
P250393-01	C4	Hip Girder	1	3	Job Reference (optional)

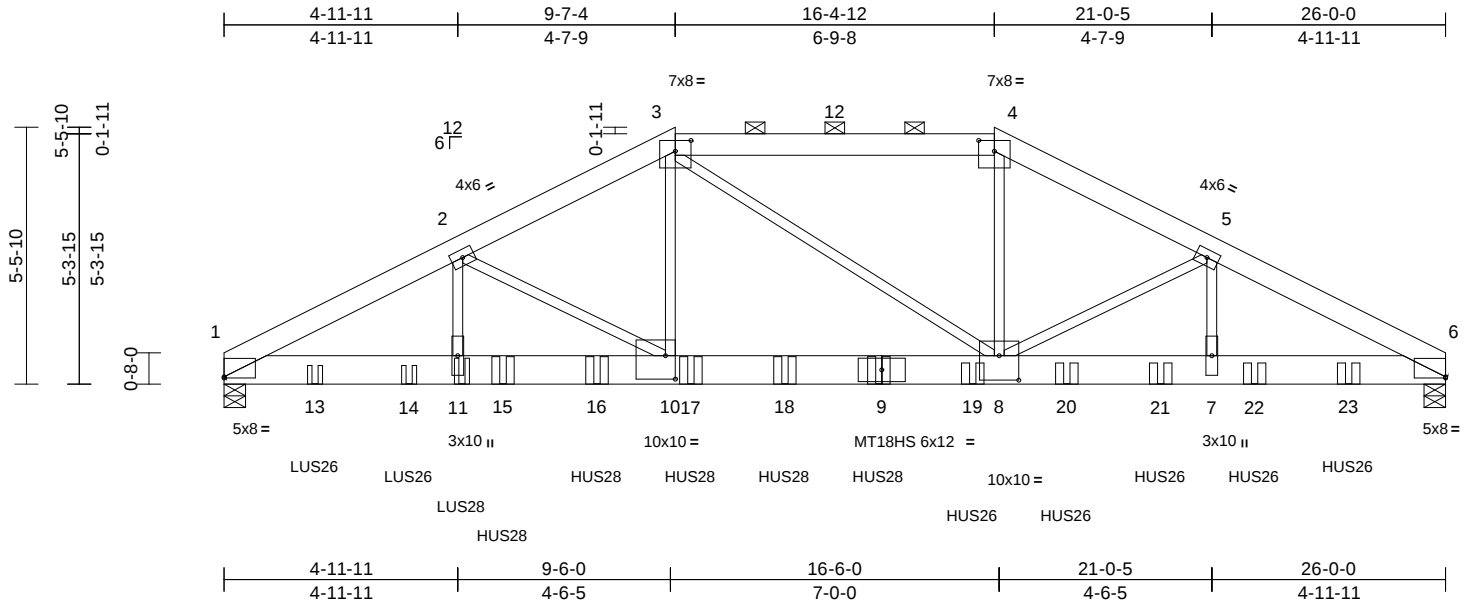
AS NOTED FOR PLAN REVIEW
DEVELOPMENT SERVICES
167816476
LEE'S SUMMIT, MISSOURI

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

Run: 8.63 S Jul 12 2024 Print: 8.630 S Jul 12 2024 MiTek Industries, Inc. Mon Aug 26 21:00:15 Page: 1

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06/10/2025



Scale = 1:49

Plate Offsets (X, Y): [1:Edge,0-0-5], [3:0-4-0,0-2-12], [4:0-4-0,0-2-12], [6:Edge,0-0-5], [8:0-5-0,0-6-4], [10:0-2-8,0-6-0]

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.56	Vert(LL)	-0.19	8-10	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.49	Vert(CT)	-0.33	8-10	>920	180	MT18HS	244/190
BCLL	0.0	Rep Stress Incr	NO	WB	0.81	Horz(CT)	0.08	6	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S							Weight: 469 lb	FT = 20%

LUMBER

TOP CHORD 2x6 SPF No.2
BOT CHORD 2x8 SP 2400F 2.0E
WEBS 2x3 SPF No.2

BRACING

TOP CHORD Structural wood sheathing directly applied or 5-6-11 oc purlins, except 2-0-0 oc purlins (6-0-0 max.): 3-4.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS

(size) 1=0-5-8, 6=0-5-8
Max Horiz 1=-85 (LC 9)
Max Uplift 1=-1458 (LC 8), 6=-1494 (LC 9)
Max Grav 1=10798 (LC 1), 6=11307 (LC 1)

FORCES

(lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-20256/2720, 2-3=-17222/2306, 3-4=-15268/2072, 4-5=-17163/2284, 5-6=-20115/2657
BOT CHORD 1-11=-2409/17690, 10-11=-2409/17690, 8-10=-1978/15319, 7-8=-2268/17579, 6-7=-2268/17579
WEBS 2-11=-408/3258, 2-10=-2577/474, 3-10=-913/7082, 3-8=-214/110, 4-8=-882/7007, 5-8=-2511/432, 5-7=-360/3162

NOTES

- 3-ply truss to be connected together with 10d (0.131"x3") nails as follows:
Top chords connected as follows: 2x6 - 2 rows staggered at 0-9-0 oc.
Bottom chords connected as follows: 2x8 - 2 rows staggered at 0-4-0 oc.
Web connected as follows: 2x3 - 1 row at 0-9-0 oc.

- 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=25ft; Ke=1.00; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- Provide adequate drainage to prevent water ponding.
- All plates are MT20 plates unless otherwise indicated.
- 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.
- LGT3-SDS2.5 Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 1 and 6. This connection is for uplift only and does not consider lateral forces.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
- Use Simpson Strong-Tie LUS26 (4-10d Girder, 3-10d Truss, Single Ply Girder) or equivalent spaced at 2-0-0 oc max. starting at 1-11-4 from the left end to 3-11-4 to connect truss(es) to front face of bottom chord.
- Use Simpson Strong-Tie LUS28 (6-SD9112 Girder, 4-SD9212 Truss, Single Ply Girder) or equivalent at 5-0-12 from the left end to connect truss(es) to front face of bottom chord.

- Use Simpson Strong-Tie HUS28 (22-10d Girder, 4-10d Truss, Single Ply Girder) or equivalent spaced at 2-0-0 oc max. starting at 5-11-4 from the left end to 13-11-4 to connect truss(es) to front 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 15-11-4 from the left end to 23-11-4 to connect truss(es) to front face of bottom chord.
- Fill all nail holes where hanger is in contact with lumber.
- LGT3 Hurricane ties must have three studs in line below the truss.

LOAD CASE(S) Standard

- Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (lb/ft)
Vert: 1-3=-70, 3-4=-70, 4-6=-70, 1-6=-20
Concentrated Loads (lb)
Vert: 9=-1690 (F), 11=-1374 (F), 13=-758 (F), 14=-758 (F), 15=-1694 (F), 16=-1694 (F), 17=-1694 (F), 18=-1694 (F), 19=-1690 (F), 20=-1690 (F), 21=-1690 (F), 22=-1690 (F), 23=-1690 (F)



August 28, 2024

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

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

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Chesterfield, MO 63017
314.434.1200 / MiTek-US.com

Job	Truss	Truss Type	Qty	Ply	Roof - BY Lot 1330
P250393-01	D1	Common Supported Gable	1	1	Job Reference (optional)

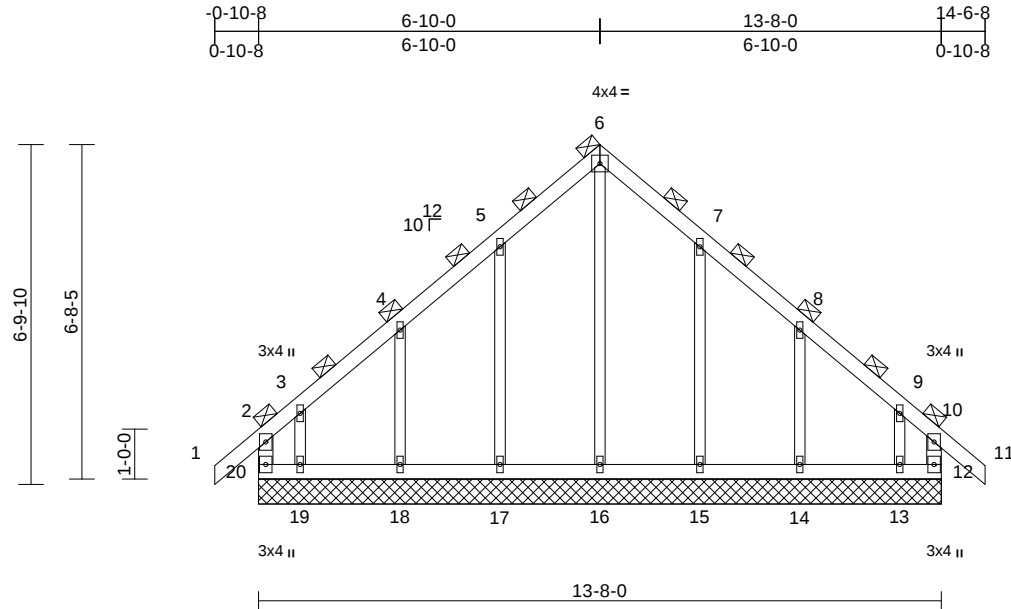
AS NOTED FOR PLAN REVIEW
DEVELOPMENT SERVICES
167816477
LEE'S SUMMIT, MISSOURI

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

Run: 8.63 S Jul 12 2024 Print: 8.630 S Jul 12 2024 MiTek Industries, Inc. Mon Aug 26 21:00:19 Page: 1

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06/10/2025



Scale = 1:46.1

Loading	(psf)	Spacing	4-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.20	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.16	n/a	-	n/a	999		
BCLL	0.0	Rep Stress Incr	NO	WB	0.32	Horz(CT)	0.00	12	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-R							
										Weight: 71 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	2-0-0 oc purlins (6-0-0 max.), except end verticals
	(Switched from sheeted: Spacing > 2-8-0).
BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (size)	12=13-8-0, 13=13-8-0, 14=13-8-0, 15=13-8-0, 16=13-8-0, 17=13-8-0, 18=13-8-0, 19=13-8-0, 20=13-8-0
Max Horiz	20=394 (LC 6)
Max Uplift	12=227 (LC 5), 13=335 (LC 9), 14=182 (LC 9), 15=176 (LC 9), 17=178 (LC 8), 18=180 (LC 8), 19=359 (LC 8), 20=304 (LC 4)
Max Grav	12=384 (LC 15), 13=368 (LC 7), 14=391 (LC 16), 15=401 (LC 16), 16=413 (LC 18), 17=403 (LC 15), 18=388 (LC 15), 19=421 (LC 6), 20=448 (LC 16)

FORCES

	(lb) - Maximum Compression/Maximum Tension
TOP CHORD	2-20=-338/210, 1-2=0/91, 2-3=-312/281, 3-4=-203/195, 4-5=-171/254, 5-6=-136/343, 6-7=-105/320, 7-8=-131/231, 8-9=-164/156, 9-10=-250/213, 10-11=0/91, 10-12=-295/156
BOT CHORD	19-20=-184/209, 18-19=-184/209, 17-18=-184/209, 16-17=-184/209, 15-16=-184/209, 14-15=-184/209, 13-14=-184/209, 12-13=-184/209
WEBS	6-16=-332/0, 5-17=-323/223, 4-18=-311/239, 3-19=-249/262, 7-15=-321/222, 8-14=-312/240, 9-13=-229/250

NOTES

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

- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Ke=1.00; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone; cantilever left and right exposed; end vertical left and right exposed; 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 304 lb uplift at joint 20, 227 lb uplift at joint 12, 178 lb uplift at joint 17, 180 lb uplift at joint 18, 359 lb uplift at joint 19, 176 lb uplift at joint 15, 182 lb uplift at joint 14 and 335 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.
- Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

LOAD CASE(S) Standard



August 28, 2024

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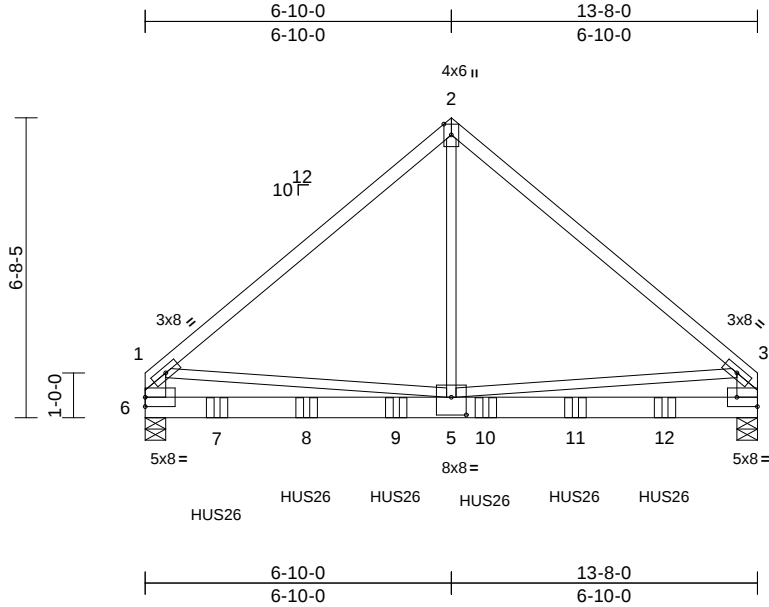
Job	Truss	Truss Type	Qty	Ply	Roof - BY Lot 1330	RELEASE FOR CONSTRUCTION
P250393-01	D2	Common Girder	1	3	Job Reference (optional)	AS NOTED FOR PLAN REVIEW
						DEVELOPMENT SERVICES
						167816478
						LEE'S SUMMIT, MISSOURI

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

Run: 8.63 S Jul 12 2024 Print: 8.630 S Jul 12 2024 MiTek Industries, Inc. Mon Aug 26 21:00:15 Page: 1

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06/10/2025



Scale = 1:51.4

Plate Offsets (X, Y): [4:Edge,0-2-8], [5:0-4-0,0-4-12]												
Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.69	Vert(LL)	-0.08	5-6	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.59	Vert(CT)	-0.14	5-6	>999	180		
BCLL	0.0	Rep Stress Incr	NO	WB	0.68	Horz(CT)	0.01	4	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S							Weight: 228 lb	FT = 20%

LUMBER
TOP CHORD 2x4 SP No.2
BOT CHORD 2x6 SP 2400F 2.0E
WEBS 2x3 SPF No.2 *Except* 6-1,4-3:2x6 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) 4=0-5-8, 6=0-5-8
Max Horiz 6=-173 (LC 6)
Max Uplift 4=-701 (LC 9), 6=-747 (LC 8)
Max Grav 4=5488 (LC 1), 6=5840 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-5153/713, 2-3=-5153/713, 1-6=-3623/502, 3-4=-3638/504
BOT CHORD 5-6=-463/2256, 4-5=-378/2136
WEBS 1-5=-277/1673, 3-5=-301/1794, 2-5=-713/5956

- NOTES**
- 3-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: 2x6 - 2 rows staggered at 0-5-0 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=25ft;
Ke=1.00; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone; cantilever left and right exposed; end vertical left and right exposed; 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.
- Two H2.5T Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 6 and 4. This connection is for uplift only and does not consider lateral forces.
- 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 1-7-4 from the left end to 11-7-4 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: 1-2=-70, 2-3=-70, 4-6=-20
Concentrated Loads (lb)
Vert: 7=-1690 (B), 8=-1690 (B), 9=-1690 (B), 10=-1690 (B), 11=-1690 (B), 12=-1690 (B)



August 28, 2024

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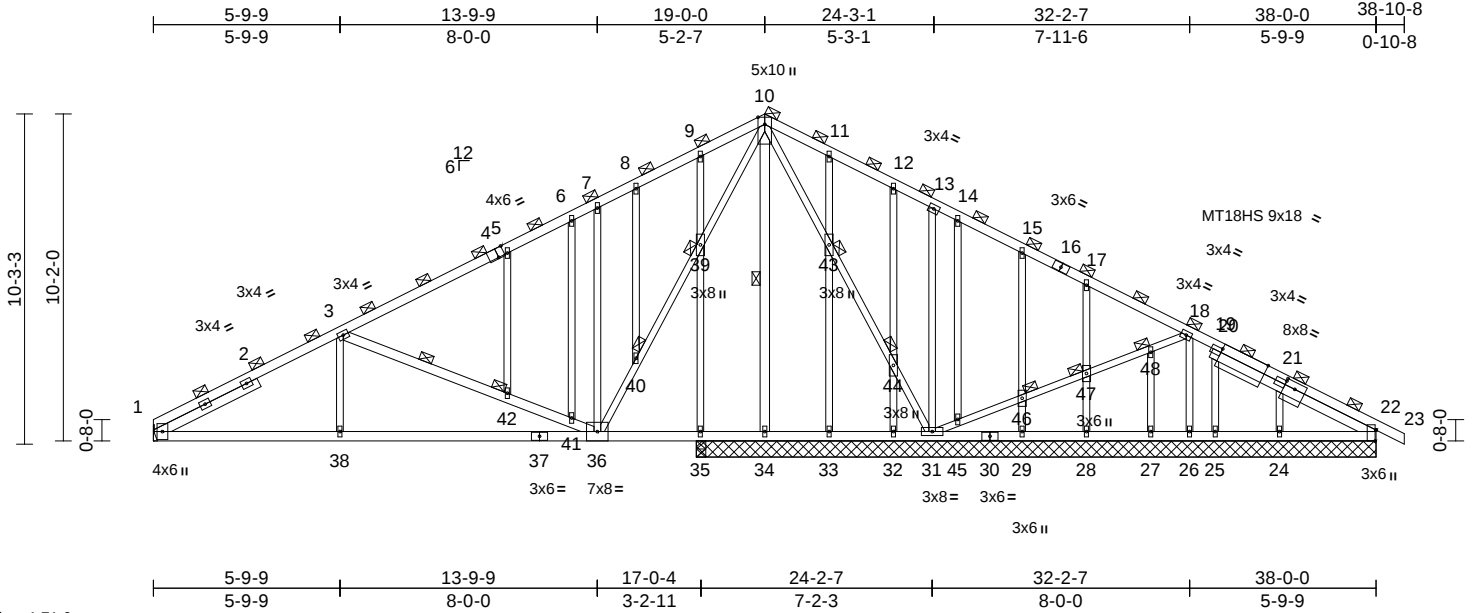
Job	Truss	Truss Type	Qty	Ply	Roof - BY Lot 1330	AS NOTED FOR PLAN REVIEW DEVELOPMENT SERVICES 167816479 LEE'S SUMMIT, MISSOURI
P250393-01	E1	Common	1	1	Job Reference (optional)	

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

Run: 8.63 S Jul 12 2024 Print: 8.630 S Jul 12 2024 MiTek Industries, Inc. Mon Aug 26 21:00:15 Page: 1

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06/10/2025



Scale = 1:71.6

Plate Offsets (X, Y): [1:0-3-9,0-1-5], [4:0-2-8,Edge], [20:3-10-11,Edge], [21:0-4-0,0-2-8], [22:0-4-1,Edge], [22:3-1-15,0-1-8], [22:5-4-11,0-1-8]												
Loading	(psf)	Spacing	4-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.88	Vert(LL)	-0.18	36-38	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.80	Vert(CT)	-0.40	36-38	>516	180	MT18HS	197/144
BCLL	0.0	Rep Stress Incr	NO	WB	0.94	Horz(CT)	0.04	35	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S							Weight: 254 lb	FT = 20%

LUMBER			FORCES					
TOP CHORD	2x4 SP No.2 *Except* 4-1,16-23:2x4 SP 1650F 1.5E		(lb) - Maximum Compression/Maximum Tension			2)	Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Ke=1.00; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60	
BOT CHORD	2x4 SP 1650F 1.5E		TOP CHORD	1-3=-2187/280, 3-5=-660/258, 5-6=-439/309, 6-7=-289/299, 7-8=-567/411, 8-9=-498/429, 9-10=-538/469, 10-11=0/762, 11-12=0/776, 12-13=0/730, 13-14=0/750, 14-15=-19/732, 15-17=-72/750, 17-18=-146/792, 18-20=-41/374, 20-21=-59/338, 21-22=-143/387, 22-23=0/11		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.	
WEBS	2x3 SPF No.2 *Except* 3-36:2x4 SP 1650F 1.5E		BOT CHORD	1-38=-434/1801, 36-38=-434/1801, 35-36=-488/408, 34-35=-488/408, 33-34=-505/407, 32-33=-505/407, 31-32=-505/407, 29-31=-287/180, 28-29=-287/180, 27-28=-287/180, 26-27=-287/180, 25-26=-287/180, 24-25=-287/180, 22-24=-285/176, 36-40=-550/1844, 39-40=-547/1856, 10-39=-588/1976, 10-43=-262/52, 43-44=-261/52, 31-44=-260/51, 7-36=-725/459, 13-31=-237/122, 3-38=0/615, 18-26=-214/132, 3-42=-1489/475, 41-42=-1583/523, 36-41=-1562/501, 10-34=-1759/284, 9-39=-376/151, 35-39=-240/105, 8-40=-22/0, 6-41=-64/70, 5-42=-258/133, 11-43=-410/140, 33-43=-411/139, 12-44=-193/120, 32-44=-196/121, 14-45=-90/49, 15-46=-296/163, 29-46=-322/175, 17-47=-377/208, 28-47=-364/202, 27-48=-28/15, 20-25=-32/32, 21-24=-406/240, 31-45=-433/235, 45-46=-395/214, 46-47=-403/218, 47-48=-399/216, 18-48=-410/222		4)	All plates are MT20 plates unless otherwise indicated.	
OTHERS	2x3 SPF No.2 *Except* 34-10:2x4 SP No.2		WEBS			5)	All plates are 1.5x4 MT20 unless otherwise indicated.	
SLIDER	Left 2x4 SP No.2 -- 3-7-7, Right 2x4 SP No.2 -- 5-8-2					6)	Gable studs spaced at 2-0-0 oc.	
BRACING						7)	This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.	
TOP CHORD	2-0-0 oc purlins (4-2-13 max.) (Switched from sheeted: Spacing > 2-8-0).					8)	Bearings are assumed to be: , Joint 31 SP 1650F 1.5E crushing capacity of 565 psi, Joint 35 SP 1650F 1.5E crushing capacity of 565 psi.	
BOT CHORD	Rigid ceiling directly applied or 6-0-0 oc bracing, Except: 10-0-0 oc bracing: 1-38,36-38.					9)	Refer to girder(s) for truss to truss connections.	
WEBS	1 Row at midpt 3-42, 10-34					10)	Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 187 lb uplift at joint 1.	
JOINTS	1 Brace at Jt(s): 10, 39, 40, 42, 43, 44, 46, 47, 48							
REACTIONS (size)			NOTES					
	1= Mechanical, 22=21-1-8, 24=21-1-8, 25=21-1-8, 26=21-1-8, 27=21-1-8, 28=21-1-8, 29=21-1-8, 31=21-1-8, 32=21-1-8, 33=21-1-8, 34=21-1-8, 35=21-1-8		1)	Unbalanced roof live loads have been considered for this design.				
Max Horiz	1=-350 (LC 13)							
Max Uplift	1=-187 (LC 8), 22=-25 (LC 9), 24=-174 (LC 9), 26=-104 (LC 21), 28=-157 (LC 9), 29=-113 (LC 9), 31=-144 (LC 9), 32=-90 (LC 9), 33=-93 (LC 9), 34=-197 (LC 8), 35=-125 (LC 8)							
Max Grav	1=1414 (LC 1), 22=324 (LC 22), 24=530 (LC 1), 25=75 (LC 22), 26=243 (LC 22), 27=158 (LC 3), 28=439 (LC 22), 29=424 (LC 22), 31=766 (LC 1), 32=242 (LC 22), 33=515 (LC 1), 34=1768 (LC 1), 35=393 (LC 21)							



August 28, 2024

Job	Truss	Truss Type	Qty	Ply	Roof - BY Lot 1330
P250393-01	E1	Common	1	1	Job Reference (optional)

RELEASE FOR CONSTRUCTION
AS NOTED FOR PLAN REVIEW
DEVELOPMENT SERVICES
167816479
LEE'S SUMMIT, MISSOURI

- 11) N/A
- 12) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 13) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
- LOAD CASE(S)** Standard

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

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

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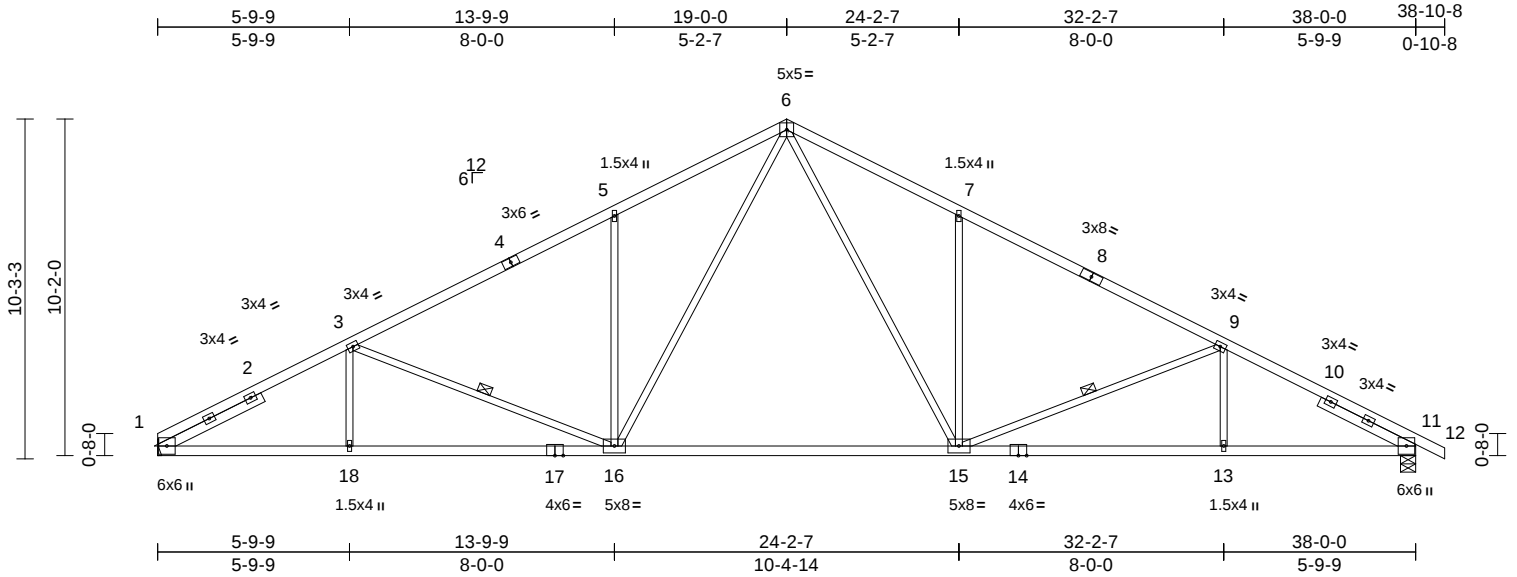
Job	Truss	Truss Type	Qty	Ply	Roof - BY Lot 1330	RELEASE FOR CONSTRUCTION
P250393-01	E2	Common	4	1	Job Reference (optional)	AS NOTED FOR PLAN REVIEW DEVELOPMENT SERVICES 167816480 LEE'S SUMMIT, MISSOURI

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

Run: 8.63 S Jul 12 2024 Print: 8.630 S Jul 12 2024 MiTek Industries, Inc. Mon Aug 26 21:00:15 Page: 1

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06/10/2025



Scale = 1:69.6									
Plate Offsets (X, Y): [1:0-3-9,0-0-5], [11:0-3-9,0-0-5]									
Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.74	Vert(LL)	-0.26	15-16	>999
TCDL	10.0	Lumber DOL	1.15	BC	0.79	Vert(CT)	-0.60	15-16	>763
BCLL	0.0	Rep Stress Incr	YES	WB	0.91	Horz(CT)	0.15	11	n/a
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S					n/a
						PLATES		GRIP	
						MT20		244/190	
						Weight: 179 lb FT = 20%			

LUMBER
TOP CHORD 2x4 SP 1650F 1.5E
BOT CHORD 2x4 SP No.2 *Except* 17-14:2x4 SP 1650F 1.5E
WEBS 2x3 SPF No.2
SLIDER Left 2x4 SP No.2 -- 3-7-2, Right 2x4 SP No.2 -- 3-2-7

BRACING
TOP CHORD Structural wood sheathing directly applied or 2-10-0 oc purlins.
BOT CHORD Rigid ceiling directly applied or 8-10-8 oc bracing.
WEBS 1 Row at midpt 9-15, 3-16

REACTIONS (size) 1= Mechanical, 11=0-5-8
Max Horiz 1=-176 (LC 9)
Max Uplift 1=-212 (LC 8), 11=-231 (LC 9)
Max Grav 1=1714 (LC 1), 11=1776 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-3=-3147/388, 3-5=-2526/313, 5-6=-2514/470, 6-7=-2508/468, 7-9=-2517/311, 9-11=-3118/382, 11-12=0/6
BOT CHORD 1-18=-437/2700, 16-18=-437/2700, 15-16=-82/1649, 13-15=-255/2648, 11-13=-255/2648
WEBS 5-16=-535/288, 6-16=-294/1095, 6-15=-292/1084, 7-15=-540/289, 9-13=0/255, 9-15=-582/229, 3-18=0/263, 3-16=-626/235

NOTES
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Ke=1.00; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone; cantilever left and right exposed ; end vertical left and right exposed; 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.
 - Bearings are assumed to be: , Joint 11 SP No.2 crushing capacity of 565 psi.
 - Refer to girder(s) for truss connections.
 - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 212 lb uplift at joint 1.
 - One H2.5T Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 11. This connection is for uplift only and does not consider lateral forces.
 - 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



August 28, 2024

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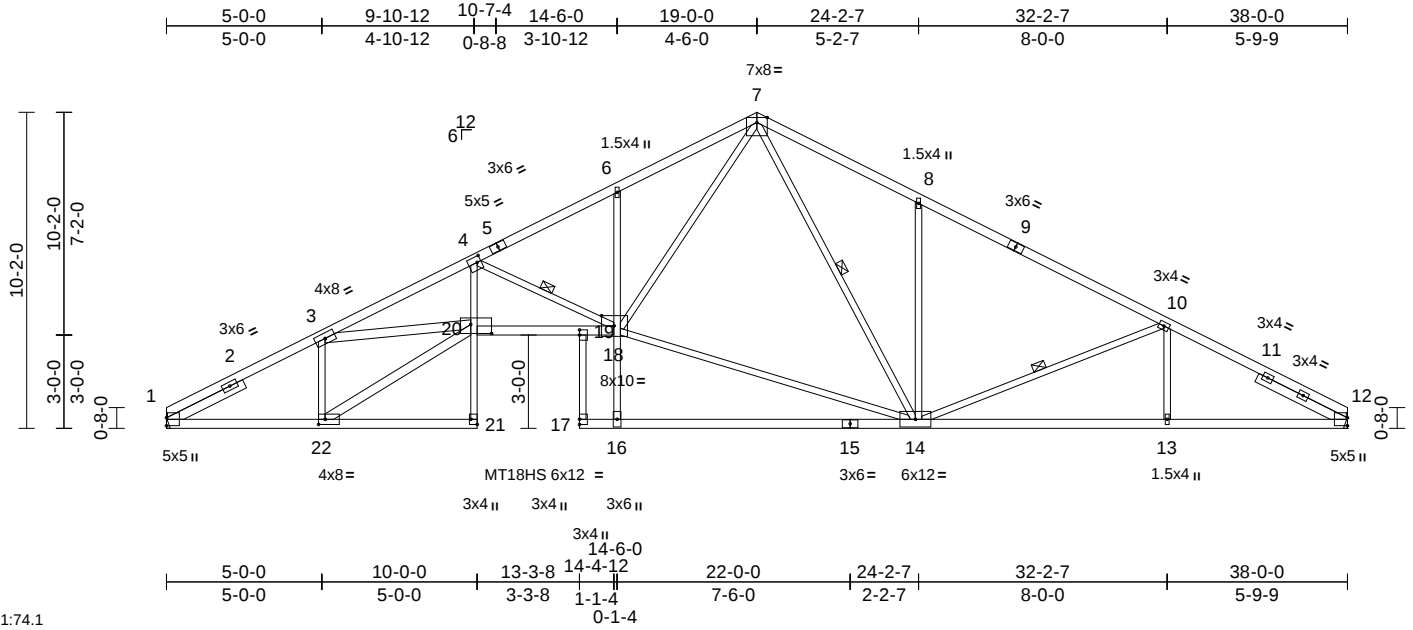
Job	Truss	Truss Type	Qty	Ply	Roof - BY Lot 1330	RELEASE FOR CONSTRUCTION
P250393-01	E3	Roof Special	1	1	Job Reference (optional)	AS NOTED FOR PLAN REVIEW DEVELOPMENT SERVICES 167816481 LEE'S SUMMIT, MISSOURI

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

Run: 8.63 S Jul 12 2024 Print: 8.630 S Jul 12 2024 MiTek Industries, Inc. Mon Aug 26 21:00:19 Page: 1

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06/10/2025



Scale = 1:74.1

Plate Offsets (X, Y): [4:0-1-8,0-2-4], [18:0-4-12,0-4-0], [19:0-2-0,Edge], [20:0-8-0,0-3-8], [21:Edge,0-2-8], [22:0-2-8,0-2-0]

Loading	(psf)	Spacing	2'-0"	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.79	Vert(LL)	-0.45	19-20	>999	240	MT20 244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.96	Vert(CT)	-0.86	14-16	>531	180	MT18HS 197/144
BCLL	0.0	Rep Stress Incr	YES	WB	0.88	Horz(CT)	0.48	12	n/a	n/a	
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S							Weight: 203 lb FT = 20%

LUMBER

TOP CHORD 2x4 SP 1650F 1.5E
BOT CHORD 2x4 SP No.2 *Except* 21-4,19-17:2x3 SPF No.2, 20-18:2x4 SP 2400F 2.0E
WEBS 2x3 SPF No.2 *Except* 3-20,22-20:2x4 SP No.2
SLIDER Left 2x4 SP No.2 -- 2-9-2, Right 2x4 SP No.2 -- 3-2-7

BRACING

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

WEBS 1 Row at midpt 10-14, 7-14, 4-18
REACTIONS (size) 1= Mechanical, 12= Mechanical
Max Horiz 1=-173 (LC 13)
Max Uplift 1=-211 (LC 8), 12=-211 (LC 9)
Max Grav 1=1710 (LC 1), 12=1710 (LC 1)

FORCES

(lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-3=-3081/370, 3-4=-6366/847, 4-6=-3849/464, 6-7=-3857/577, 7-8=-2488/464, 8-10=-2505/312, 10-12=-3118/382
BOT CHORD 1-22=-423/2603, 21-22=-3/42, 20-21=0/89, 4-20=-261/1943, 19-20=-751/5639, 18-19=-748/5610, 17-19=-179/0, 16-17=-1/27, 14-16=0/41, 13-14=-259/2649, 12-13=-259/2649
WEBS 16-18=0/410, 6-18=-343/192, 8-14=-535/285, 10-13=0/266, 3-20=-329/3047, 10-14=-594/229, 7-18=-398/2571, 7-14=-327/593, 20-22=-497/3027, 4-18=-2536/488, 14-18=-105/1998, 3-22=-1531/335

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=25ft; Ke=1.00; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 3) All plates are MT20 plates unless otherwise indicated.
- 4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 5) Refer to girder(s) for truss to truss connections.
- 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 211 lb uplift at joint 1 and 211 lb uplift at joint 12.
- 7) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard



August 28, 2024

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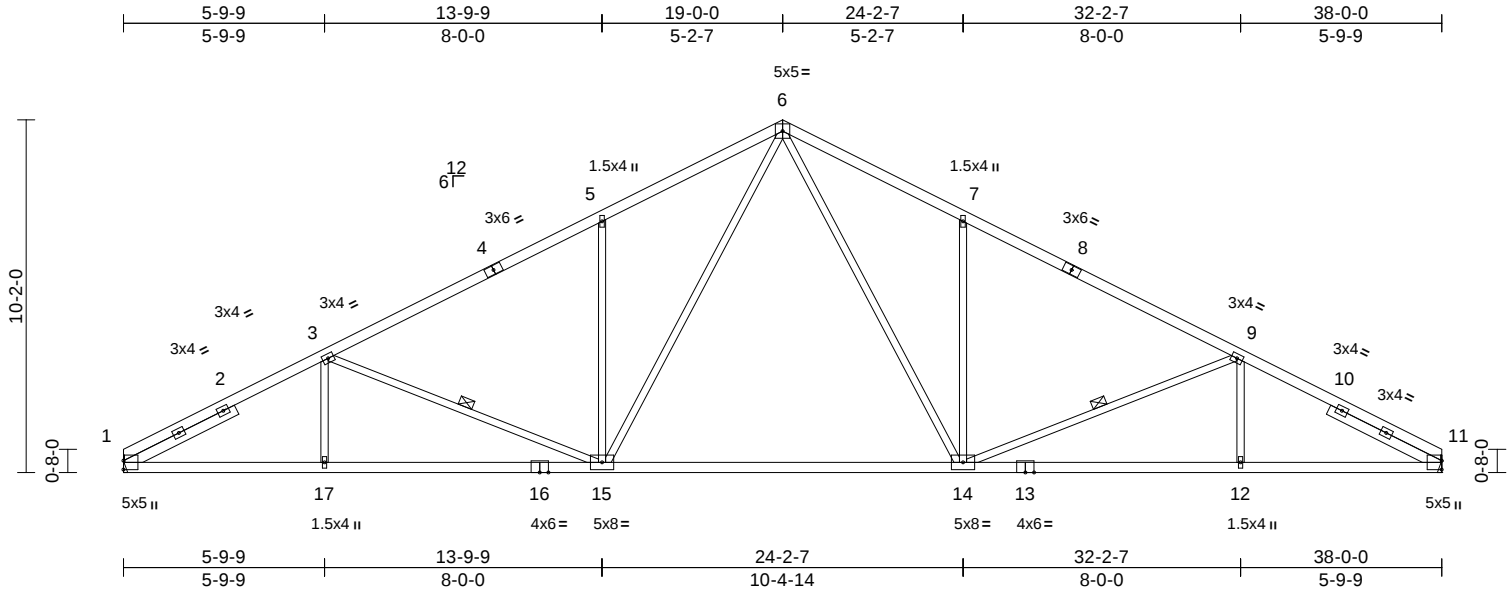
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Job	Truss	Truss Type	Qty	Ply	Roof - BY Lot 1330
P250393-01	E4	Common	5	1	Job Reference (optional)

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

Run: 8.63 S Jul 12 2024 Print: 8.630 S Jul 12 2024 MiTek Industries, Inc. Mon Aug 26 21:00:15 Page: 1
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06/10/2025



Scale = 1:66.4

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	0.72	Vert(LL)	-0.28	14-15	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	1.00	Vert(CT)	-0.63	14-15	>729	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.90	Horz(CT)	0.15	11	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S							Weight: 178 lb	FT = 20%

LUMBER
TOP CHORD 2x4 SP 1650F 1.5E
BOT CHORD 2x4 SP No.2
WEBS 2x3 SPF No.2
SLIDER Left 2x4 SP No.2 -- 3-7-2, Right 2x4 SP No.2 -- 3-7-2

- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 211 lb uplift at joint 1 and 211 lb uplift at joint 11.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard

BRACING
TOP CHORD Structural wood sheathing directly applied or 2-11-1 oc purlins.
BOT CHORD Rigid ceiling directly applied or 1-4-12 oc bracing.
WEBS 1 Row at midpt 3-15, 9-14
REACTIONS (size) 1= Mechanical, 11= Mechanical
Max Horiz 1=-173 (LC 9)
Max Uplift 1=-211 (LC 8), 11=-211 (LC 9)
Max Grav 1=1710 (LC 1), 11=1710 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-3=-3113/383, 3-5=-2511/311, 5-6=-2501/468, 6-7=-2501/468, 7-9=-2511/311, 9-11=-3113/383
BOT CHORD 1-17=-432/2653, 15-17=-432/2653, 14-15=-82/1642, 12-14=-260/2653, 11-12=-260/2653
WEBS 5-15=-538/289, 7-14=-538/288, 9-12=0/259, 3-17=0/259, 3-15=-593/230, 9-14=-593/231, 6-15=-293/1085, 6-14=-293/1085

- 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=25ft; Ke=1.00; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone; cantilever left and right exposed; end vertical left and right exposed; 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.
 - Refer to girder(s) for truss to truss connections.



August 28, 2024

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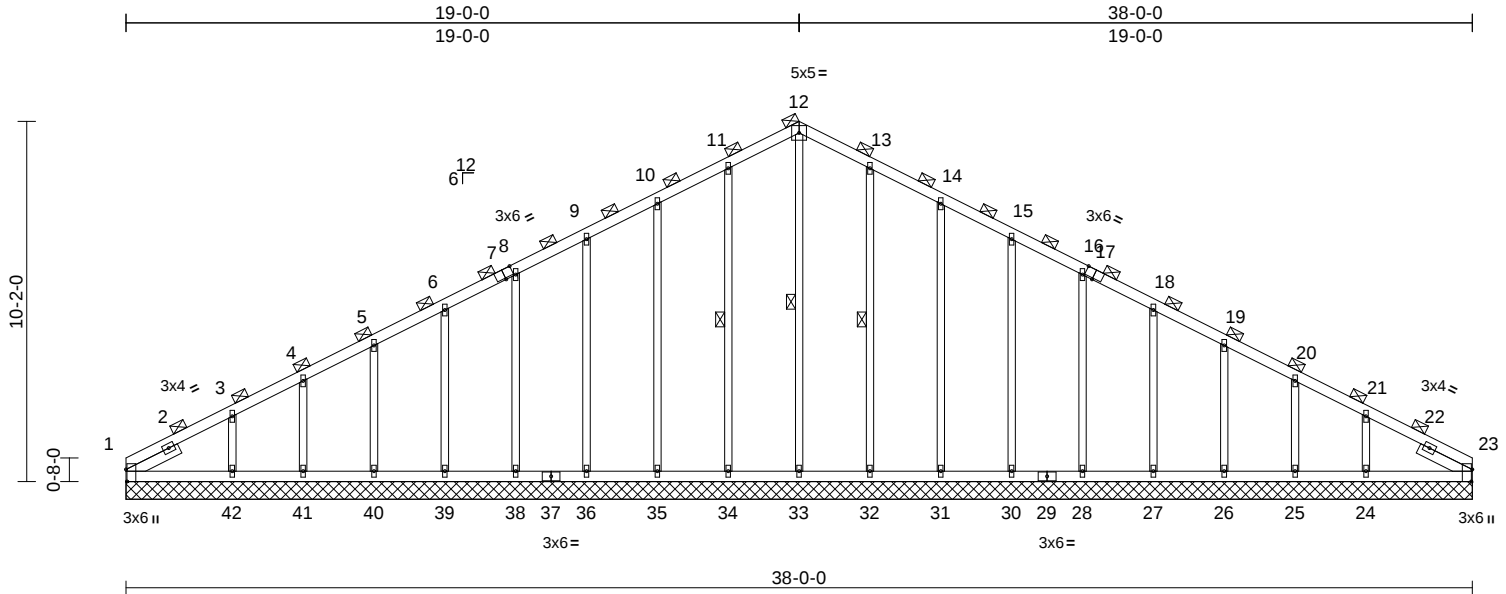
Job	Truss	Truss Type	Qty	Ply	Roof - BY Lot 1330	RELEASE FOR CONSTRUCTION AS NOTED FOR PLAN REVIEW DEVELOPMENT SERVICES 167816483 LEE'S SUMMIT, MISSOURI
P250393-01	E5	Common Supported Gable	1	1	Job Reference (optional)	

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

Run: 8.63 S Jul 12 2024 Print: 8.630 S Jul 12 2024 MiTek Industries, Inc. Mon Aug 26 21:00:20 Page: 1

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06/10/2025



Scale = 1:65
Plate Offsets (X, Y): [1:0-4-1,Edge], [7:0-3-0,Edge], [17:0-3-0,Edge], [23:0-4-1,Edge]

Loading	(psf)	Spacing	4-0-0	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
TCDL	10.0	Lumber DOL	1.15	BC	0.14	Vert(TL)	n/a	-	n/a	999	244/190
BCLL	0.0	Rep Stress Incr	NO	WB	0.43	Horiz(TL)	0.02	23	n/a	n/a	
BCDL	10.0	Code	IRC2018/TP12014	Matrix-S							Weight: 199 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 -- 1-7-11, Right 2x4 SP No.2 -- 1-7-11

BRACING
TOP CHORD 2-0-0 oc purlins (6-0-0 max.)
(Switched from sheeted: Spacing > 2-8-0).
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

WEBS 1 Row at midpt 12-33, 11-34, 13-32
REACTIONS (size) 1=38-0-0, 23=38-0-0, 24=38-0-0, 25=38-0-0, 26=38-0-0, 27=38-0-0, 28=38-0-0, 30=38-0-0, 31=38-0-0, 32=38-0-0, 33=38-0-0, 34=38-0-0, 35=38-0-0, 36=38-0-0, 38=38-0-0, 39=38-0-0, 40=38-0-0, 41=38-0-0, 42=38-0-0

Max Horiz 1=346 (LC 8)
Max Uplift 1=-40 (LC 9), 24=-217 (LC 9), 25=-75 (LC 9), 26=-114 (LC 9), 27=-106 (LC 9), 28=-108 (LC 9), 30=-105 (LC 9), 31=-119 (LC 9), 32=-85 (LC 9), 34=-93 (LC 8), 35=-116 (LC 8), 36=-106 (LC 8), 38=-108 (LC 8), 39=-106 (LC 8), 40=-116 (LC 8), 41=-69 (LC 8), 42=-240 (LC 8)

Max Grav 1=329 (LC 17), 23=273 (LC 1), 24=532 (LC 22), 25=307 (LC 1), 26=373 (LC 22), 27=357 (LC 1), 28=361 (LC 22), 30=360 (LC 1), 31=360 (LC 22), 32=374 (LC 22), 33=395 (LC 18), 34=374 (LC 21), 35=360 (LC 21), 36=360 (LC 1), 38=361 (LC 21), 39=357 (LC 1), 40=373 (LC 21), 41=307 (LC 1), 42=532 (LC 21)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-3=-445/163, 3-4=-306/174, 4-5=-256/214, 5-6=-208/267, 6-8=-180/318, 8-9=-158/370, 9-10=-146/421, 10-11=-146/475, 11-12=-150/516, 12-13=-150/500, 13-14=-146/419, 14-15=-146/322, 15-16=-146/233, 16-18=-146/181, 18-19=-147/130, 19-20=-153/77, 20-21=-205/39, 21-23=-300/54
BOT CHORD 1-42=-20/319, 41-42=-20/319, 40-41=-20/319, 39-40=-20/319, 38-39=-20/319, 36-38=-20/319, 35-36=-20/319, 34-35=-20/319, 33-34=-20/319, 32-33=-20/319, 31-32=-20/319, 30-31=-20/319, 28-30=-20/319, 27-28=-20/319, 26-27=-20/319, 25-26=-20/319, 24-25=-20/319, 23-24=-20/319
WEBS 12-33=-340/0, 11-34=-294/141, 10-35=-280/164, 9-36=-280/154, 8-38=-280/156, 6-39=-278/154, 5-40=-288/164, 4-41=-246/116, 3-42=-400/290, 13-32=-294/133, 14-31=-280/167, 15-30=-280/153, 16-28=-280/156, 18-27=-278/154, 19-26=-288/163, 20-25=-246/122, 21-24=-400/270

NOTES
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCCL=6.0psf; BCDL=6.0psf; h=25ft; Ke=1.00; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone; cantilever left and right exposed; end vertical left and right exposed; 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/TP1 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 40 lb uplift at joint 1, 93 lb uplift at joint 34, 116 lb uplift at joint 35, 106 lb uplift at joint 36, 108 lb uplift at joint 38, 106 lb uplift at joint 39, 116 lb uplift at joint 40, 69 lb uplift at joint 41, 240 lb uplift at joint 42, 85 lb uplift at joint 32, 119 lb uplift at joint 31, 105 lb uplift at joint 30, 108 lb uplift at joint 28, 106 lb uplift at joint 27, 114 lb uplift at joint 26, 75 lb uplift at joint 25 and 217 lb uplift at joint 24.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TP1 1.



August 28, 2024

Continued on page 2

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

Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/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	Roof - BY Lot 1330
P250393-01	E5	Common Supported Gable	1	1	Job Reference (optional)

RELEASE FOR CONSTRUCTION

AS NOTED FOR PLAN REVIEW

DEVELOPMENT SERVICES

167816483

LEE'S SUMMIT, MISSOURI

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

Run: 8.63 S Jul 12 2024 Print: 8.630 S Jul 12 2024 MiTek Industries, Inc. Mon Aug 26 21:40:20 Page: 2

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11) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

LOAD CASE(S) Standard

06/10/2025

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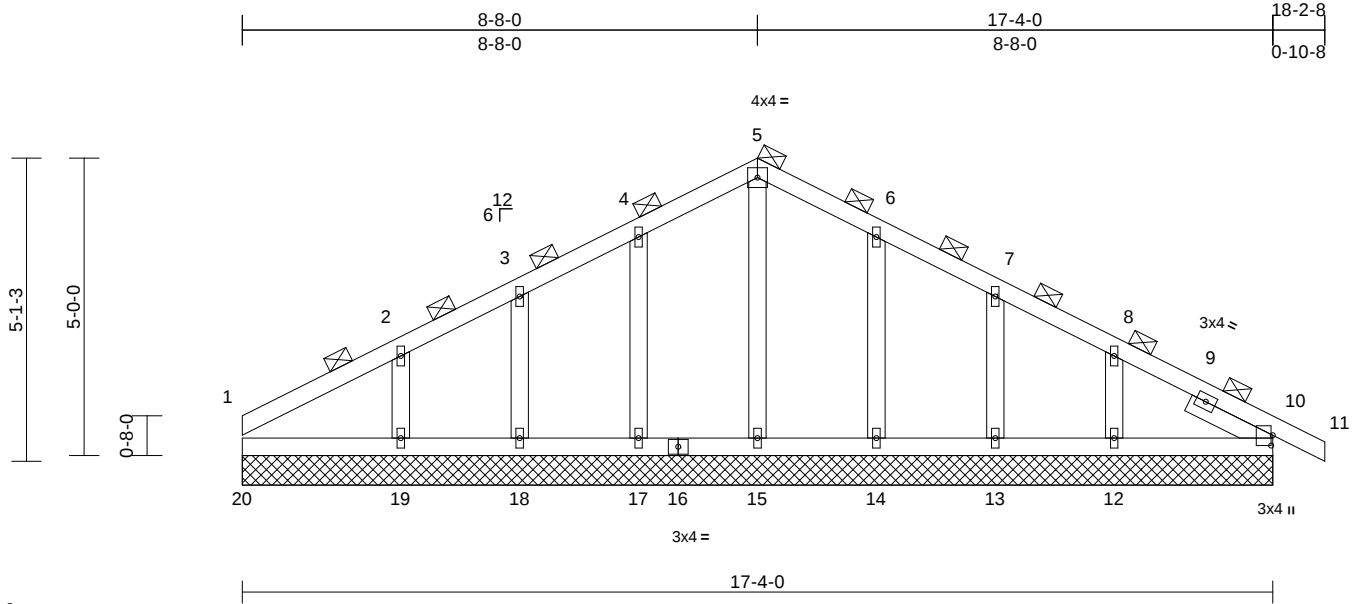
Job	Truss	Truss Type	Qty	Ply	Roof - BY Lot 1330	RELEASE FOR CONSTRUCTION
P250393-01	G1	Common Supported Gable	1	1	Job Reference (optional)	AS NOTED FOR PLAN REVIEW
						DEVELOPMENT SERVICES
						167816484
						LEE'S SUMMIT, MISSOURI

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

Run: 8.63 S Jul 12 2024 Print: 8.630 S Jul 12 2024 MiTek Industries, Inc. Mon Aug 26 21:40:20 Page: 1

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06/10/2025



Scale = 1:38.8

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

Loading	(psf)	Spacing	4-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.25	Vert(LL)	n/a	-	999	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.12	Vert(CT)	n/a	-	999		
BCLL	0.0	Rep Stress Incr	NO	WB	0.15	Horz(CT)	0.01	20	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S						Weight: 81 lb	FT = 20%

LUMBER

TOP CHORD	2x4 SP No.2
BOT CHORD	2x4 SP No.2
OTHERS	2x4 SPF No.3
SLIDER	Right 2x4 SP No.2 -- 1-6-6

BRACING

TOP CHORD	2-0-0 oc purlins (6-0-0 max.)
	(Switched from sheeted: Spacing > 2-8-0).
BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS	(size)	1=17-4-0, 10=17-4-0, 12=17-4-0, 13=17-4-0, 14=17-4-0, 15=17-4-0, 17=17-4-0, 18=17-4-0, 19=17-4-0, 20=17-4-0
	Max Horiz	1=-187 (LC 9)
	Max Uplift	1=-130 (LC 9), 10=-129 (LC 9), 12=-129 (LC 9), 13=-105 (LC 9), 14=-108 (LC 9), 17=-114 (LC 8), 18=-95 (LC 8), 19=-149 (LC 8)
	Max Grav	1=152 (LC 1), 10=346 (LC 1), 12=460 (LC 22), 13=328 (LC 1), 14=389 (LC 22), 15=416 (LC 18), 17=393 (LC 21), 18=311 (LC 1), 19=502 (LC 21), 20=87 (LC 3)

FORCES

	(lb) - Maximum Compression/Maximum Tension
TOP CHORD	1-2=-137/254, 2-3=-111/317, 3-4=-78/367, 4-5=-71/415, 5-6=-71/399, 6-7=-60/307, 7-8=-69/219, 8-10=-111/126, 10-11=0/11
BOT CHORD	19-20=0/0, 18-19=0/0, 17-18=0/0, 15-17=0/0, 14-15=0/0, 13-14=0/0, 12-13=0/0, 10-12=0/0
WEBS	5-15=-338/0, 4-17=-310/164, 3-18=-242/137, 2-19=-390/216, 6-14=-306/156, 7-13=-259/150, 8-12=-347/185

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=25ft; Ke=1.00; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- 4) All plates are 1.5x4 MT20 unless otherwise indicated.
- 5) Gable requires continuous bottom chord bearing.
- 6) Gable studs spaced at 2-0-0 oc.
- 7) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 8) All bearings are assumed to be SP No.2 crushing capacity of 565 psi.
- 9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 130 lb uplift at joint 1, 129 lb uplift at joint 10, 114 lb uplift at joint 17, 95 lb uplift at joint 18, 149 lb uplift at joint 19, 108 lb uplift at joint 14, 105 lb uplift at joint 13 and 129 lb uplift at joint 12.
- 10) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 11) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

LOAD CASE(S) Standard



August 28, 2024

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

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

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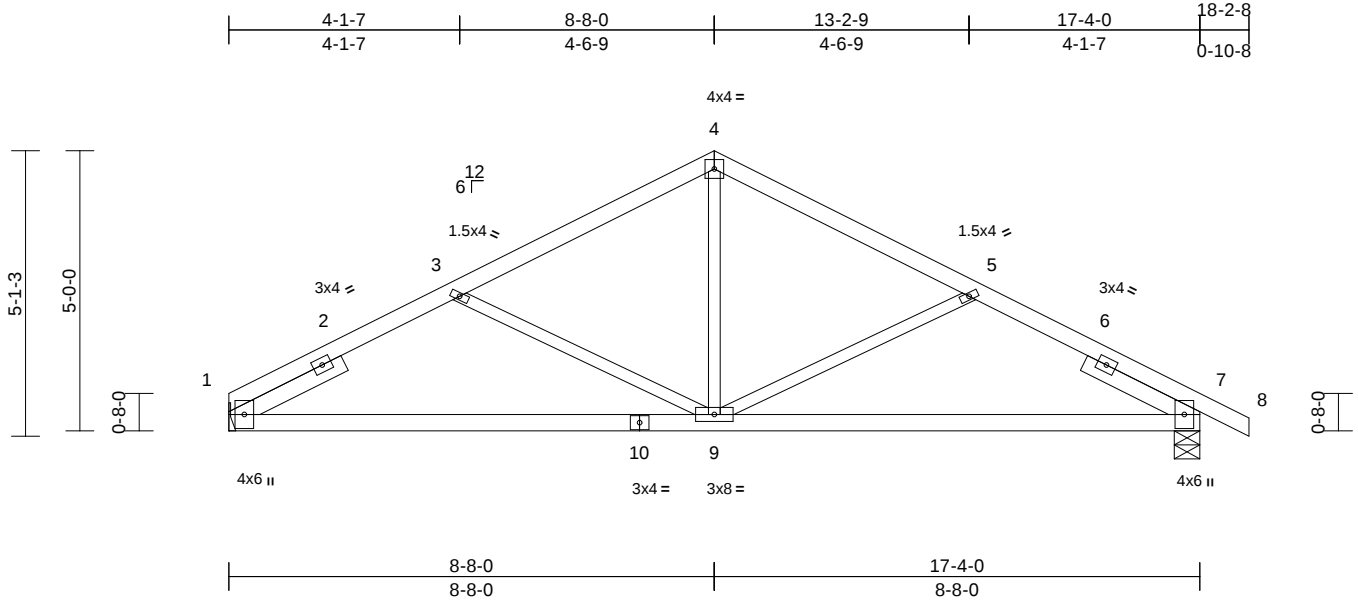
Job	Truss	Truss Type	Qty	Ply	Roof - BY Lot 1330	RELEASE FOR CONSTRUCTION AS NOTED FOR PLAN REVIEW DEVELOPMENT SERVICES 167816485 LEE'S SUMMIT, MISSOURI
P250393-01	G2	Common	1	1	Job Reference (optional)	

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

Run: 8.63 S Jul 12 2024 Print: 8.630 S Jul 12 2024 MiTek Industries, Inc. Mon Aug 26 21:40:20 Page: 1

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06/10/2025



Scale = 1:41.1

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

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	0.34	Vert(LL)	-0.11	1-9	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.76	Vert(CT)	-0.24	1-9	>874	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.21	Horz(CT)	0.03	7	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S							Weight: 75 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 -- 2-3-2, Right 2x4 SP No.2 -- 2-3-2

BRACING

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

REACTIONS (size)

1= Mechanical, 7=0-5-8
Max Horiz 1=-85 (LC 13)
Max Uplift 1=-95 (LC 8), 7=-116 (LC 9)
Max Grav 1=778 (LC 1), 7=843 (LC 1)

FORCES

(lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-3=-1228/192, 3-4=-931/119, 4-5=-931/120, 5-7=-1220/190, 7-8=0/6

BOT CHORD 1-9=-187/1013, 7-9=-101/1006

WEBS 4-9=0/452, 5-9=-301/190, 3-9=-308/193

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=25ft; Ke=1.00; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone; cantilever left and right exposed; end vertical left and right exposed; 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.
- Bearings are assumed to be: , Joint 7 SP No.2 crushing capacity of 565 psi.
- Refer to girder(s) for truss to truss connections.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 95 lb uplift at joint 1.

- One H2.5T Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 7. This connection is for uplift only and does not consider lateral forces.
- 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



August 28, 2024

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

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

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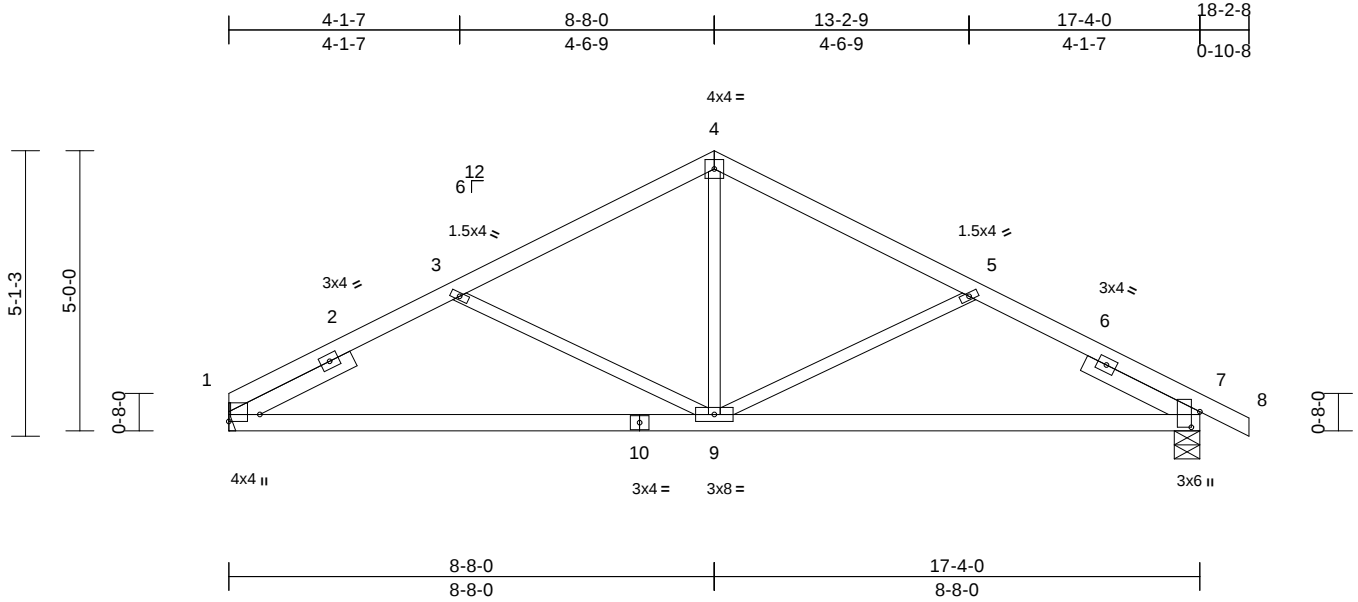
16023 Swingley Ridge Rd.
Chesterfield, MO 63017
314.434.1200 / MiTek-US.com

Job	Truss	Truss Type	Qty	Ply	Roof - BY Lot 1330	RELEASE FOR CONSTRUCTION AS NOTED FOR PLAN REVIEW DEVELOPMENT SERVICES 167816486 LEE'S SUMMIT, MISSOURI
P250393-01	G3	Common	1	1	Job Reference (optional)	

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

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06/10/2025



Scale = 1:41.1											
Plate Offsets (X, Y): [1:Edge,0-6-10], [7:0-3-5,0-1-13]											
Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.34	Vert(LL)	-0.11	1-9	>999	240	MT20
TCDL	10.0	Lumber DOL	1.15	BC	0.76	Vert(CT)	-0.24	1-9	>873	180	GRIP
BCLL	0.0	Rep Stress Incr	YES	WB	0.21	Horz(CT)	0.03	7	n/a	n/a	244/190
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S							Weight: 75 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 -- 2-5-4, Right 2x4 SP No.2 -- 2-3-2

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

REACTIONS (size) 1= Mechanical, 7=0-5-8
Max Horiz 1=-85 (LC 13)
Max Uplift 1=-95 (LC 8), 7=-116 (LC 9)
Max Grav 1=778 (LC 1), 7=843 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-3=-1220/192, 3-4=-931/119, 4-5=-931/120, 5-7=-1220/190, 7-8=0/6
BOT CHORD 1-9=-187/1014, 7-9=-101/1006
WEBS 4-9=0/452, 5-9=-301/190, 3-9=-309/193

- 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=25ft; Ke=1.00; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone; cantilever left and right exposed; end vertical left and right exposed; 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.
 - Bearings are assumed to be: , Joint 7 SP No.2 crushing capacity of 565 psi.
 - Refer to girder(s) for truss to truss connections.
 - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 95 lb uplift at joint 1.

- One H2.5T Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 7. This connection is for uplift only and does not consider lateral forces.
- 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



August 28, 2024

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

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Job	Truss	Truss Type	Qty	Ply	Roof - BY Lot 1330
P250393-01	J1	Monopitch Girder	2	1	Job Reference (optional)

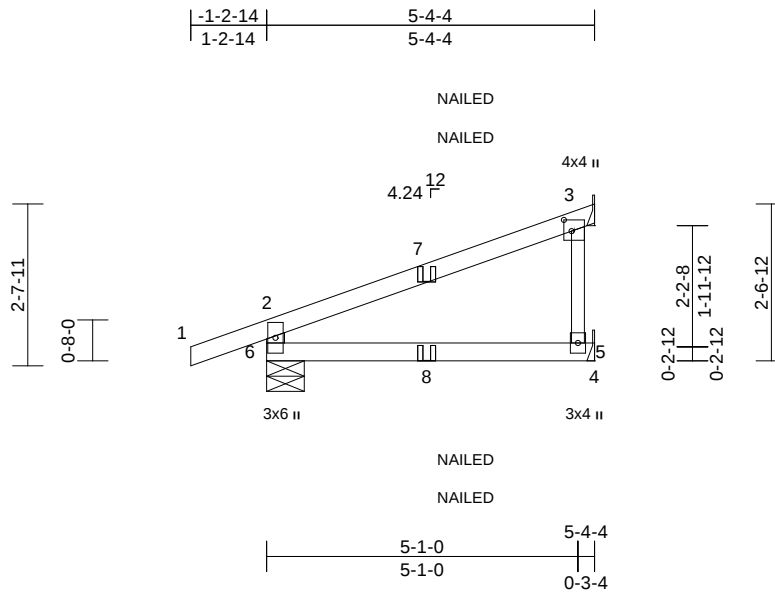
AS NOTED FOR PLAN REVIEW
DEVELOPMENT SERVICES
167816487
LEE'S SUMMIT, MISSOURI

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

Run: 8.63 S Jul 12 2024 Print: 8.630 S Jul 12 2024 MiTek Industries, Inc. Mon Aug 26 21:40:27 Page: 1

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06/10/2025



Scale = 1:37.6

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

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.42	Vert(LL)	-0.02	5-6	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.20	Vert(CT)	-0.03	5-6	>999	180		
BCLL	0.0	Rep Stress Incr	NO	WB	0.00	Horz(CT)	0.01	3	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-R							Weight: 20 lb	FT = 20%

LUMBER

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

BRACING

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

REACTIONS (size) 3= Mechanical, 5= Mechanical, 6=0-7-6
Max Horiz 6=91 (LC 21)
Max Uplift 3=-72 (LC 8), 6=-89 (LC 4)
Max Grav 3=144 (LC 1), 5=114 (LC 3), 6=330 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=0/32, 2-3=-148/9, 3-5=0/0, 2-6=-299/130
BOT CHORD 5-6=-22/70, 4-5=0/0

NOTES

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust)
Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft;
Ke=1.00; Cat. II; Exp C; Enclosed; MWFRS (envelope)
exterior zone; cantilever left and right exposed; end
vertical left exposed; Lumber DOL=1.60 plate grip
DOL=1.60
- 2) This truss has been designed for a 10.0 psf bottom
chord live load nonconcurrent with any other live loads.
- 3) Bearings are assumed to be: , Joint 6 SP No.2 crushing
capacity of 565 psi.
- 4) Refer to girder(s) for truss to truss connections.
- 5) Provide mechanical connection (by others) of truss to
bearing plate capable of withstanding 72 lb uplift at joint
3.
- 6) One H2.5T Simpson Strong-Tie connectors
recommended to connect truss to bearing walls due to
UPLIFT at jt(s) 6. This connection is for uplift only and
does not consider lateral forces.

- 7) This truss is designed in accordance with the 2018
International Residential Code sections R502.11.1 and
R802.10.2 and referenced standard ANSI/TPI 1.
- 8) Gap between inside of top chord bearing and first
diagonal or vertical web shall not exceed 0.500in.
- 9) "NAILED" indicates 3-10d (0.148"x3") or 2-12d
(0.148"x3.25") toe-nails per NDS guidelines.
- 10) In the LOAD CASE(S) section, loads applied to the face
of the truss are noted as front (F) or back (B).

LOAD CASE(S) Standard

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



August 28, 2024

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314.434.1200 / MiTek-US.com

Job	Truss	Truss Type	Qty	Ply	Roof - BY Lot 1330
P250393-01	J2	Jack-Open	11	1	Job Reference (optional)

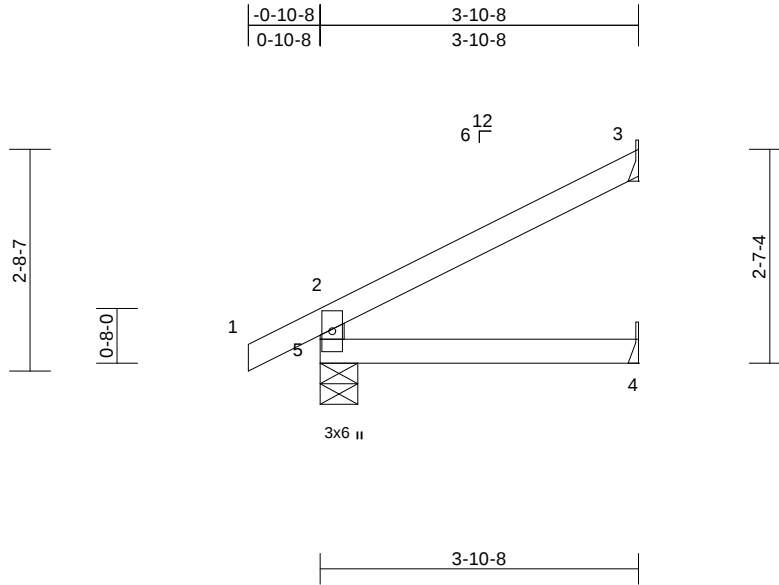
Premier Building Supply (Springhill, KS), Spring Hills, KS - 66083,

Run: 8.63 S Jul 12 2024 Print: 8.630 S Jul 12 2024 MiTek Industries, Inc. Mon Aug 26 21:40:20 Page: 1

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RELEASE FOR CONSTRUCTION
AS NOTED FOR PLAN REVIEW
DEVELOPMENT SERVICES
167816488
LEE'S SUMMIT, MISSOURI

06/10/2025



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	0.22	Vert(LL)	0.01	4-5	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.14	Vert(CT)	-0.02	4-5	>999	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.00	Horz(CT)	0.01	3	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-R							Weight: 14 lb	FT = 20%

LUMBER

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

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

LOAD CASE(S) Standard

BRACING

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

REACTIONS

(size) 3= Mechanical, 4= Mechanical,
5=0-5-8
Max Horiz 5=86 (LC 8)
Max Uplift 3=-63 (LC 8), 5=-29 (LC 8)
Max Grav 3=112 (LC 1), 4=69 (LC 3), 5=246 (LC 1)

FORCES

(lb) - Maximum Compression/Maximum Tension

TOP CHORD 2-5=-216/65, 1-2=0/32, 2-3=-73/39
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=25ft; Ke=1.00; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 3) Bearings are assumed to be: , Joint 5 SP No.2 crushing capacity of 565 psi.
- 4) Refer to girder(s) for truss to truss connections.
- 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 63 lb uplift at joint 3.
- 6) One H2.5T Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 5. This connection is for uplift only and does not consider lateral forces.



August 28, 2024

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

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

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Job	Truss	Truss Type	Qty	Ply	Roof - BY Lot 1330
P250393-01	J3	Jack-Open	4	1	Job Reference (optional)

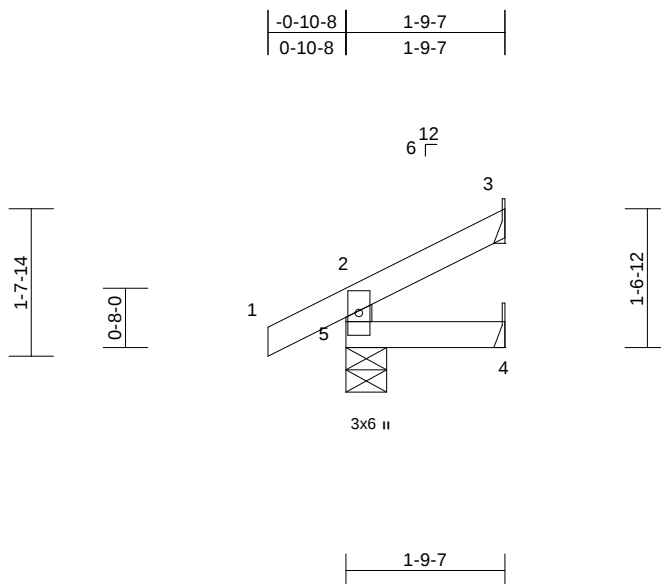
AS NOTED FOR PLAN REVIEW
DEVELOPMENT SERVICES
167816489
LEE'S SUMMIT, MISSOURI

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

Run: 8.63 S Jul 12 2024 Print: 8.630 S Jul 12 2024 MiTek Industries, Inc. Mon Aug 26 21:40:20 Page: 1

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06/10/2025



Scale = 1:25.9

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.08	Vert(LL)	0.00	4-5	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.02	Vert(CT)	0.00	4-5	>999	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.00	Horz(CT)	0.00	3	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-R							Weight: 8 lb	FT = 20%

LUMBER

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

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

LOAD CASE(S) Standard

BRACING

TOP CHORD Structural wood sheathing directly applied or 1-9-7 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (size) 3= Mechanical, 4= Mechanical, 5=0-5-8
Max Horiz 5=45 (LC 8)
Max Uplift 3=-28 (LC 8), 5=-26 (LC 8)
Max Grav 3=39 (LC 1), 4=29 (LC 3), 5=167 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 2-5=-146/42, 1-2=0/32, 2-3=-35/12
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=25ft; Ke=1.00; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone; cantilever left and right exposed; end vertical left and right exposed; 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 28 lb uplift at joint 3.
- 6) One H2.5T Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 5. This connection is for uplift only and does not consider lateral forces.



August 28, 2024

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

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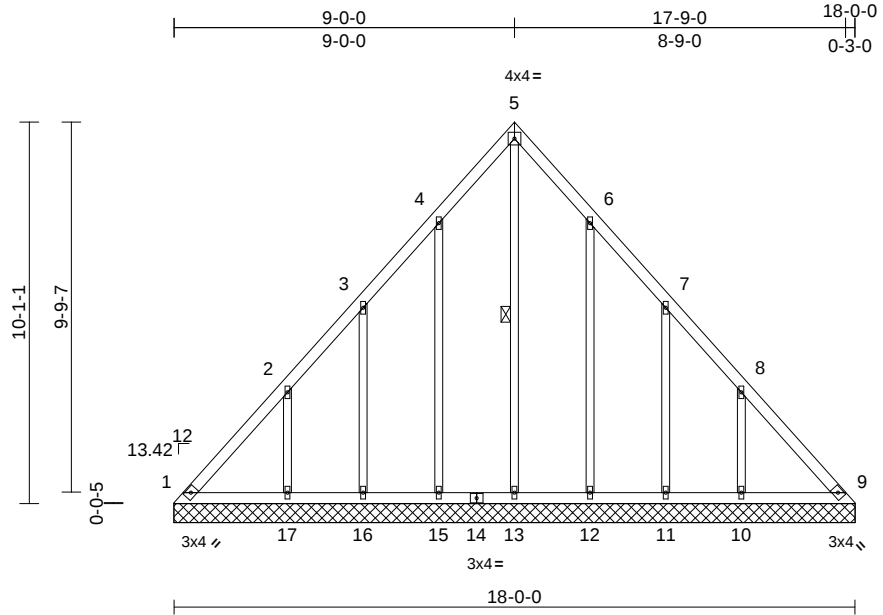
Job	Truss	Truss Type	Qty	Ply	Roof - BY Lot 1330
P250393-01	LAY1	Lay-In Gable	1	1	Job Reference (optional)

RELEASE FOR CONSTRUCTION
AS NOTED FOR PLAN REVIEW
DEVELOPMENT SERVICES
167816490
LEE'S SUMMIT, MISSOURI

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

Run: 8.63 S Jul 12 2024 Print: 8.630 S Jul 12 2024 MiTek Industries, Inc. Mon Aug 26 21:40:27
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06/10/2025



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	0.11	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.07	Vert(TL)	n/a	-	n/a	999		
BCLL	0.0	Rep Stress Incr	YES	WB	0.24	Horiz(TL)	0.01	9	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S							Weight: 98 lb	FT = 20%

LUMBER

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

BRACING

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

WEBS 1 Row at midpt 5-13

REACTIONS (size) 1=18-0-2, 9=18-0-2, 10=18-0-2, 11=18-0-2, 12=18-0-2, 13=18-0-2, 15=18-0-2, 16=18-0-2, 17=18-0-2
Max Horiz 1=-261 (LC 4)
Max Uplift 1=-86 (LC 6), 9=-50 (LC 7), 10=-187 (LC 9), 11=-123 (LC 9), 12=-133 (LC 9), 15=-135 (LC 8), 16=-122 (LC 8), 17=-187 (LC 8)
Max Grav 1=237 (LC 8), 9=214 (LC 18), 10=291 (LC 16), 11=181 (LC 16), 12=220 (LC 16), 13=204 (LC 9), 15=223 (LC 15), 16=180 (LC 15), 17=291 (LC 15)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=-345/218, 2-3=-181/138, 3-4=-147/108, 4-5=-119/171, 5-6=-97/147, 6-7=-110/70, 7-8=-155/89, 8-9=-313/169

BOT CHORD 1-17=-119/257, 16-17=-119/257, 15-16=-119/257, 13-15=-119/257, 12-13=-119/257, 11-12=-118/257, 10-11=-118/257, 9-10=-118/257

WEBS 2-17=-223/208, 3-16=-150/148, 4-15=-181/159, 5-13=-180/24, 6-12=-178/157, 7-11=-151/149, 8-10=-223/207

NOTES

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

- 2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCCL=6.0psf; BCDL=6.0psf; h=25ft; Ke=1.00; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- 4) All plates are 1.5x4 MT20 unless otherwise indicated.
- 5) Gable requires continuous bottom chord bearing.
- 6) Gable studs spaced at 0-0-0 oc.
- 7) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 8) All bearings are assumed to be SP No.2 crushing capacity of 565 psi.
- 9) 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



August 28, 2024

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

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

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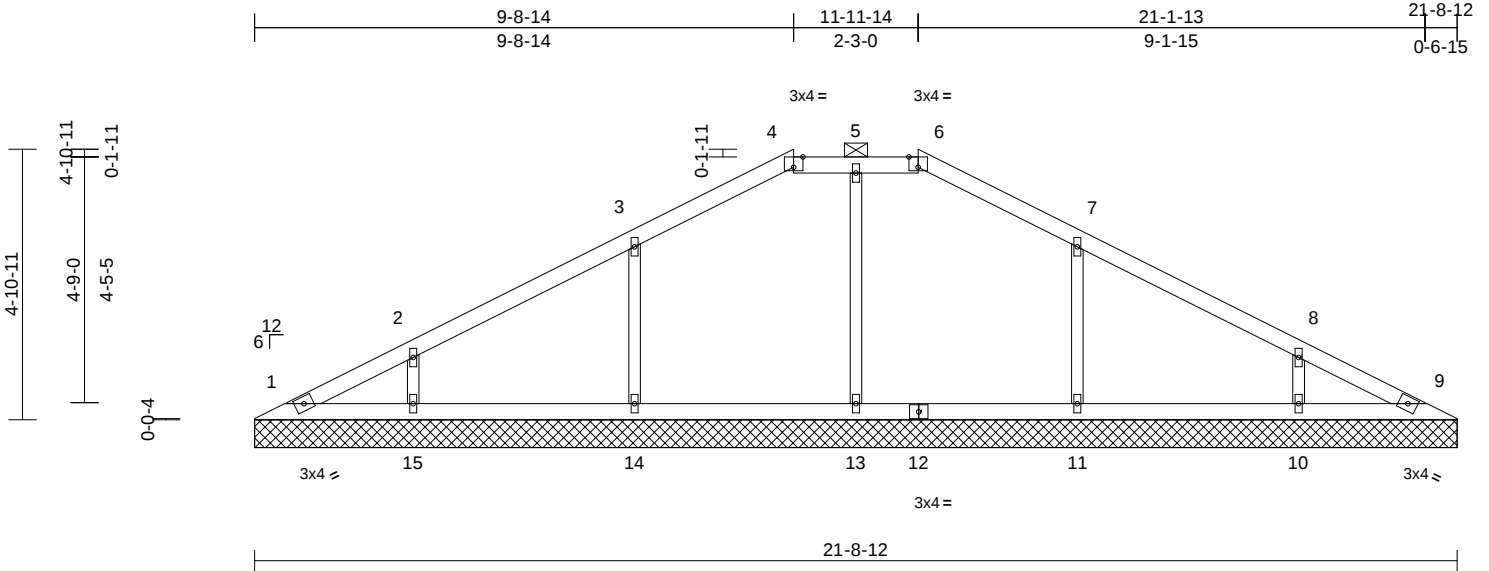
Job	Truss	Truss Type	Qty	Ply	Roof - BY Lot 1330	RELEASE FOR CONSTRUCTION
P250393-01	V1	Valley	1	1	Job Reference (optional)	AS NOTED FOR PLAN REVIEW
						DEVELOPMENT SERVICES
						167816491
						LEE'S SUMMIT, MISSOURI

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

Run: 8.63 S Jul 12 2024 Print: 8.630 S Jul 12 2024 MiTek Industries, Inc. Mon Aug 26 21:40:20 Page: 1

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06/10/2025



Scale = 1:41.6

Plate Offsets (X, Y): [4:0-2-0,Edge], [6:0-2-0,Edge]												
Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.21	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	0.10	Horiz(TL)	0.00	9	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S							Weight: 76 lb	FT = 20%

LUMBER		2) Wind: ASCE 7-16; Vult=115mph (3-second gust)
TOP CHORD	2x4 SP No.2	Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft;
BOT CHORD	2x4 SP No.2	Ke=1.00; Cat. II; Exp C; Enclosed; MWFRS (envelope)
OTHERS	2x3 SPF No.2	exterior zone; cantilever left and right exposed; end
BRACING		vertical left and right exposed; Lumber DOL=1.60 plate
TOP CHORD	Structural wood sheathing directly applied or	grip DOL=1.60
	6-0-0 oc purlins, except	
	2-0-0 oc purlins (6-0-0 max.): 4-6.	
BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc	
	bracing.	
REACTIONS (size)		3) Truss designed for wind loads in the plane of the truss
	1=21-8-12, 9=21-8-12, 10=21-8-12,	only. For studs exposed to wind (normal to the face),
	11=21-8-12, 13=21-8-12,	see Standard Industry Gable End Details as applicable,
	14=21-8-12, 15=21-8-12	or consult qualified building designer as per ANSI/TPI 1.
Max Horiz	1=-79 (LC 9)	4) Provide adequate drainage to prevent water ponding.
Max Uplift	1=-2 (LC 9), 10=-97 (LC 9),	5) All plates are 1.5x4 MT20 unless otherwise indicated.
	11=-100 (LC 9), 14=-102 (LC 8),	6) Gable requires continuous bottom chord bearing.
	15=-96 (LC 8)	7) Gable studs spaced at 4-0-0 oc.
Max Grav	1=106 (LC 1), 9=106 (LC 1),	8) This truss has been designed for a 10.0 psf bottom
	10=319 (LC 1), 11=371 (LC 22),	chord live load nonconcurrent with any other live loads.
	13=284 (LC 1), 14=371 (LC 21),	9) All bearings are assumed to be SP No.2 crushing
	15=319 (LC 1)	capacity of 565 psi.
FORCES (lb) - Maximum Compression/Maximum		10) Provide mechanical connection (by others) of truss to
	Tension	bearing plate capable of withstanding 2 lb uplift at joint
TOP CHORD	1-2=-150/29, 2-3=-164/67, 3-4=-160/105,	1, 102 lb uplift at joint 14, 96 lb uplift at joint 15, 100 lb
	4-5=-97/103, 5-6=-97/104, 6-7=-160/98,	uplift at joint 11 and 97 lb uplift at joint 10.
	7-8=-164/42, 8-9=-132/11	11) This truss is designed in accordance with the 2018
BOT CHORD	1-15=0/115, 14-15=0/115, 13-14=0/115,	International Residential Code sections R502.11.1 and
	11-13=0/115, 10-11=0/115, 9-10=0/115	R802.10.2 and referenced standard ANSI/TPI 1.
WEBS	5-13=-205/39, 3-14=-289/152,	12) Graphical purlin representation does not depict the size
	2-15=-248/137, 7-11=-289/150,	or the orientation of the purlin along the top and/or
	8-10=-248/138	bottom chord.
NOTES		LOAD CASE(S) Standard
1) Unbalanced roof live loads have been considered for		
this design.		



August 28, 2024

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

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

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Page: 1



Weight: 60 lb FT = 20%

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

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

Max Horiz 1=73 (LC 8)
 Max Uplift 1=-14 (LC 9), 5=-14 (LC 9), 6=-138 (LC 9), 9=-138 (LC 8)
 Max Grav 1=166 (LC 1), 5=166 (LC 1), 6=449 (LC 22), 8=270 (LC 1), 9=449 (LC 21)

Tension

TOP CHORD	1-2=-100/70, 2-3=-107/106, 3-4=-107/91, 4-5=-77/57
BOT CHORD	1-9=-1/61, 8-9=-1/61, 6-8=-1/61, 5-6=-1/61
WEBS	3-8=-203/14, 2-9=-345/187, 4-6=-345/187

- 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=25ft;
Ke=1.00; Cat. II; Exp C; Enclosed; MWFRS (envelope)
exterior zone; cantilever left and right exposed ; end
vertical left and right exposed; Lumber DOL=1.60 plate
grip DOL=1.60
- 3) Truss designed for wind loads in the plane of the truss
only. For studs exposed to wind (normal to the face),
see Standard Industry Gable End Details as applicable,
or consult qualified building designer as per ANSI/TPI 1.
- 4) Gable requires continuous bottom chord bearing.
- 5) Gable studs spaced at 4-0-0 oc.

- 6) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 7) All bearings are assumed to be SP No.2 crushing capacity of 565 psi.
- 8) N/A

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



August 28, 2024



WARNING – Verify design parameters and READ NOTES ON THIS and INCLUDED MITER REFERENCE PAGE mtf-7475 rev. 12/2023 BEFORE USE. Design valid for use only with MiTeK® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI1 Quality Criteria, and DSB-22** available from Truss Plate Institute (www.tpinst.org) and **BCSI Building Component Safety Information** available from the Structural Building Components Association (www.sbcscomponents.com)

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Job	Truss	Truss Type	Qty	Ply	Roof - BY Lot 1330
P250393-01	V4	Valley	1	1	Job Reference (optional)

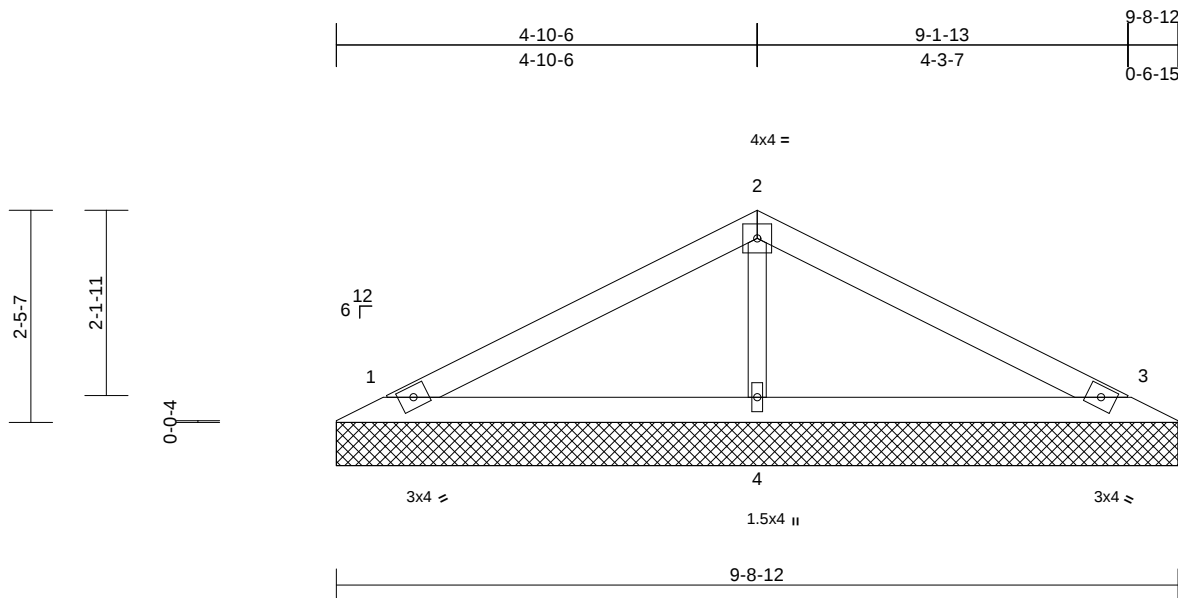
AS NOTED FOR PLAN REVIEW
DEVELOPMENT SERVICES
167816494
LEE'S SUMMIT, MISSOURI

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

Run: 8.63 S Jul 12 2024 Print: 8.630 S Jul 12 2024 MiTek Industries, Inc. Mon Aug 26 21:00:21 Page: 1

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06/10/2025



Scale = 1:26.6

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.30	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	0.06	Horiz(TL)	0.00	3	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S							Weight: 30 lb	FT = 20%

LUMBER

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

BRACING

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

REACTIONS

(size) 1=9-8-12, 3=9-8-12, 4=9-8-12
Max Horiz 1=38 (LC 8)
Max Uplift 1=-37 (LC 8), 3=-44 (LC 9), 4=-22 (LC 8)
Max Grav 1=181 (LC 21), 3=181 (LC 22), 4=408 (LC 1)

FORCES

(lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=-111/55, 2-3=-111/40
BOT CHORD 1-4=-2/46, 3-4=-2/46
WEBS 2-4=-279/72

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=25ft; Ke=1.00; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone; cantilever left and right exposed; end vertical left and right exposed; 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 37 lb uplift at joint 1, 44 lb uplift at joint 3 and 22 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

August 28, 2024

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

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

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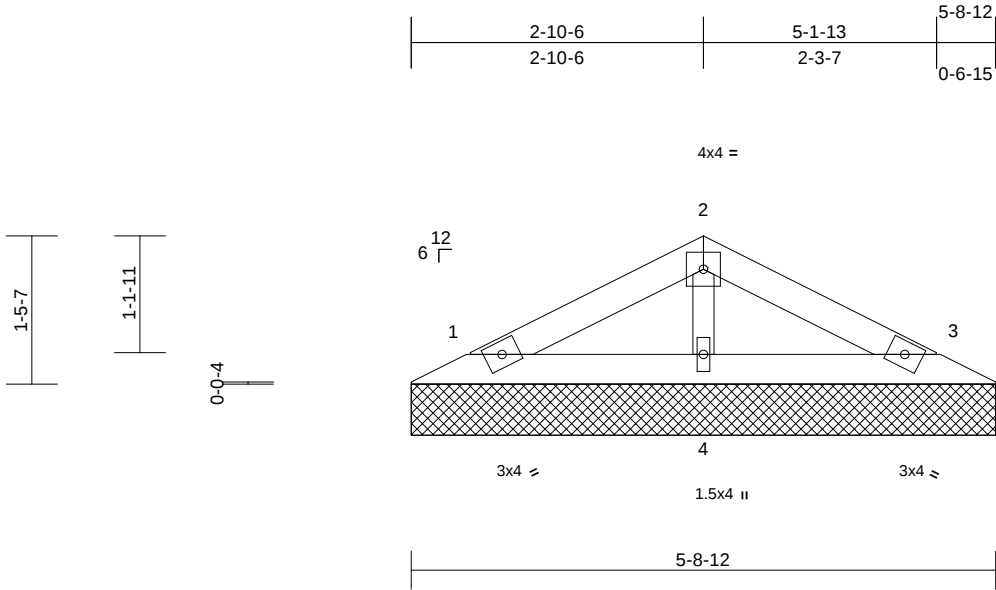
16023 Swingley Ridge Rd.
Chesterfield, MO 63017
314.434.1200 / MiTek-US.com

Job	Truss	Truss Type	Qty	Ply	Roof - BY Lot 1330	RELEASE FOR CONSTRUCTION AS NOTED FOR PLAN REVIEW DEVELOPMENT SERVICES 167816495 LEE'S SUMMIT, MISSOURI
P250393-01	V5	Valley	1	1	Job Reference (optional)	

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

Run: 8.63 S Jul 12 2024 Print: 8.630 S Jul 12 2024 MiTek Industries, Inc. Mon Aug 26 21:00:21 Page: 1
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06/10/2025



Scale = 1:22.6

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.11	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 5-9-12 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (size) 1=5-8-12, 3=5-8-12, 4=5-8-12
Max Horiz 1=-20 (LC 9)
Max Uplift 1=-24 (LC 8), 3=-28 (LC 9), 4=-2 (LC 8)
Max Grav 1=107 (LC 1), 3=107 (LC 1), 4=196 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=-52/29, 2-3=-52/20
BOT CHORD 1-4=-1/23, 3-4=-1/23
WEBS 2-4=-139/36

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=25ft; Ke=1.00; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone; cantilever left and right exposed; end vertical left and right exposed; 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 24 lb uplift at joint 1, 28 lb uplift at joint 3 and 2 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



August 28, 2024

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

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

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Job	Truss	Truss Type	Qty	Ply	Roof - BY Lot 1330
P250393-01	V6	Valley	1	1	Job Reference (optional)

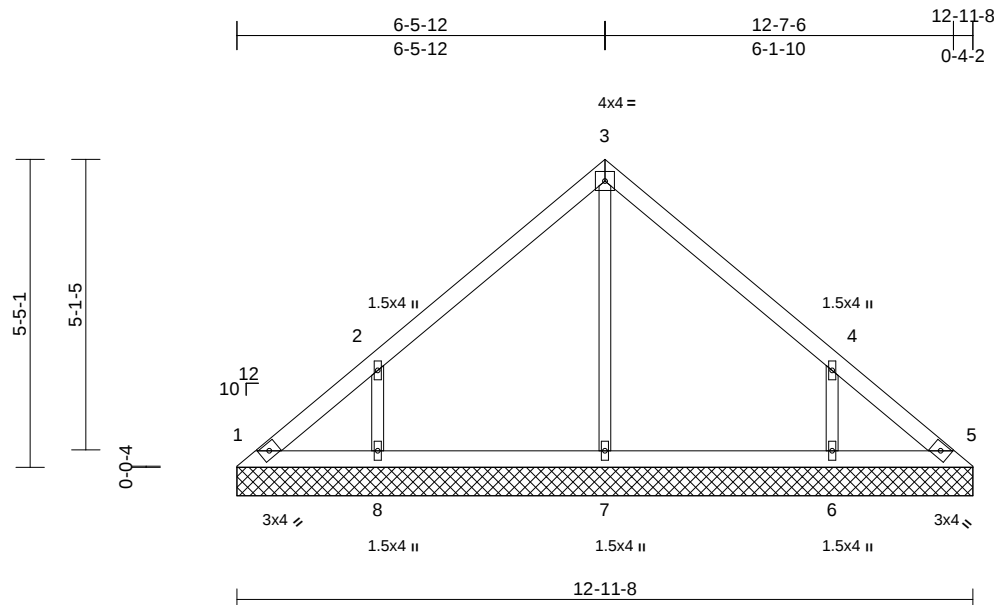
AS NOTED FOR PLAN REVIEW
DEVELOPMENT SERVICES
167816496
LEE'S SUMMIT, MISSOURI

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

Run: 8.63 S Jul 12 2024 Print: 8.630 S Jul 12 2024 MiTek Industries, Inc. Mon Aug 26 21:40:22 Page: 1

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06/10/2025



Scale = 1:40.6

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.21	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	0.11	Horiz(TL)	0.00	5	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S							Weight: 49 lb	FT = 20%

LUMBER

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

BRACING

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

REACTIONS (size) 1=12-11-8, 5=12-11-8, 6=12-11-8, 7=12-11-8, 8=12-11-8
Max Horiz 1=-132 (LC 4)
Max Uplift 1=-34 (LC 4), 5=-11 (LC 5), 6=-177 (LC 9), 8=-177 (LC 8)
Max Grav 1=119 (LC 16), 5=102 (LC 15), 6=360 (LC 16), 7=257 (LC 1), 8=360 (LC 15)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=-141/102, 2-3=-171/112, 3-4=-167/88, 4-5=-123/67
BOT CHORD 1-8=-39/95, 7-8=-39/95, 6-7=-39/95, 5-6=-39/95
WEBS 3-7=-172/2, 2-8=-293/218, 4-6=-292/218

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=25ft; Ke=1.00; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone; cantilever left and right exposed; end vertical left and right exposed; 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 34 lb uplift at joint 1, 11 lb uplift at joint 5, 177 lb uplift at joint 8 and 177 lb uplift at joint 6.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard

August 28, 2024

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

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

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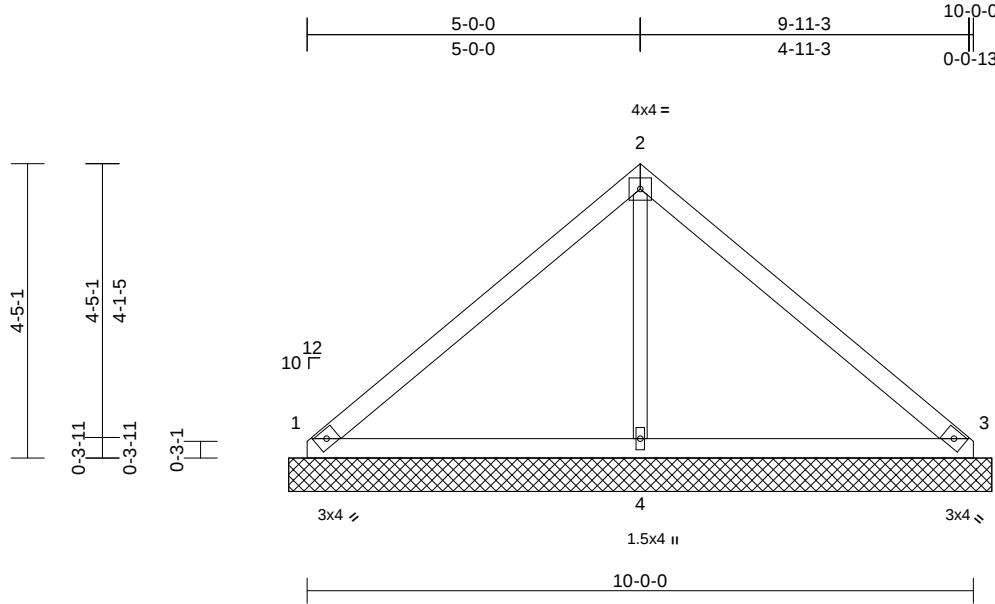
Job	Truss	Truss Type	Qty	Ply	Roof - BY Lot 1330	RELEASE FOR CONSTRUCTION AS NOTED FOR PLAN REVIEW DEVELOPMENT SERVICES 167816497 LEE'S SUMMIT, MISSOURI
P250393-01	V7	Valley	1	1	Job Reference (optional)	

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

Run: 8.63 S Jul 12 2024 Print: 8.630 S Jul 12 2024 MiTek Industries, Inc. Mon Aug 26 21:40:22 Page: 1

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06/10/2025



Scale = 1:34.6

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.40	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.24	Vert(TL)	n/a	-	n/a	999		
BCLL	0.0	Rep Stress Incr	YES	WB	0.10	Horiz(TL)	0.00	3	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S							Weight: 37 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=10-6-11, 3=10-6-11, 4=10-6-11
Max Horiz 1=106 (LC 5)
Max Uplift 1=40 (LC 8), 3=53 (LC 9), 4=8 (LC 8)
Max Grav 1=244 (LC 1), 3=244 (LC 1), 4=385 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=-202/94, 2-3=-201/74
BOT CHORD 1-4=-24/94, 3-4=-24/94
WEBS 2-4=-236/58

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=25ft; Ke=1.00; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- Gable requires continuous bottom chord bearing.
- Gable studs spaced at 4-0-0 oc.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- All bearings are assumed to be SP No.2 crushing capacity of 565 psi.

- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 40 lb uplift at joint 1, 53 lb uplift at joint 3 and 8 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



August 28, 2024

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

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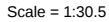
16023 Swingley Ridge Rd.
Chesterfield, MO 63017
314.434.1200 / MiTek-US.com

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

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Page: 1



Weight: 29 lb FT = 20%

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

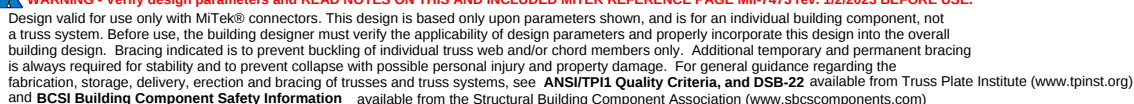
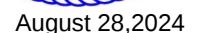
- 8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 41 lb uplift at joint 1 and 51 lb uplift at joint 3.
- 9) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

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

REACTIONS (size) 1=8-1-14, 3=8-1-14, 4=8-1-14
 Max Horiz 1=-80 (LC 4)
 Max Uplift 1=-41 (LC 8), 3=-51 (LC 9)
 Max Grav 1=201 (LC 1), 3=201 (LC 1), 4=265 (LC 1)

TOP CHORD 1-2=-140/69, 2-3=-134/54
BOT CHORD 1-4=-18/66, 3-4=-18/66
WEBS 2-4=-172/41

- 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=25ft;
Ke=1.00; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone; cantilever left and right exposed ; end vertical left and right exposed; 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	Roof - BY Lot 1330
P250393-01	V9	Valley	1	1	Job Reference (optional)

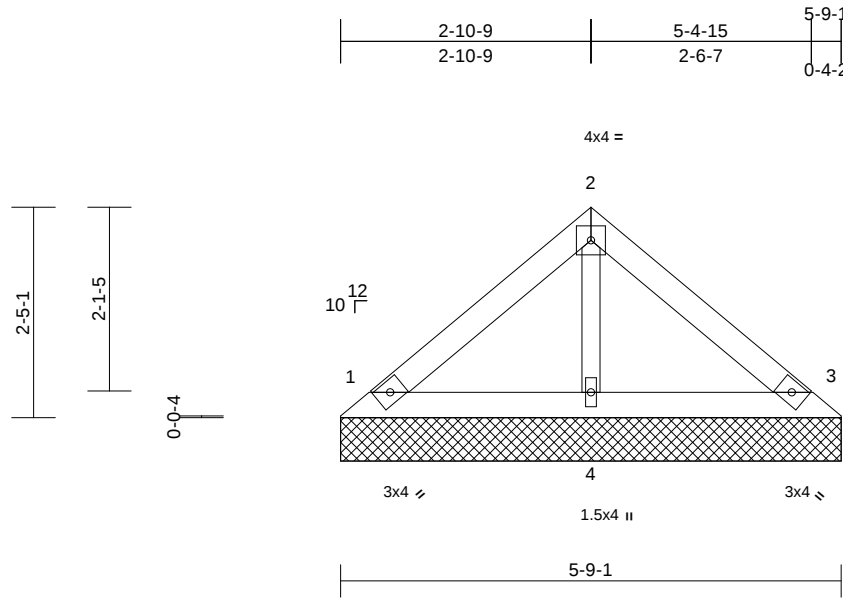
AS NOTED FOR PLAN REVIEW
DEVELOPMENT SERVICES
167816499
LEE'S SUMMIT, MISSOURI

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

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06/10/2025



Scale = 1:26.5

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.13	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.06	Vert(TL)	n/a	-	n/a	999		
BCLL	0.0	Rep Stress Incr	YES	WB	0.02	Horiz(TL)	0.00	3	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
OTHERS 2x3 SPF No.2

BRACING

TOP CHORD Structural wood sheathing directly applied or 5-9-11 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS

(size) 1=5-9-1, 3=5-9-1, 4=5-9-1
Max Horiz 1=54 (LC 5)
Max Uplift 1=-28 (LC 8), 3=-34 (LC 9)
Max Grav 1=136 (LC 1), 3=136 (LC 1), 4=179 (LC 1)

FORCES

(lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=-94/47, 2-3=-91/37
BOT CHORD 1-4=-12/45, 3-4=-12/45
WEBS 2-4=-116/28

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=25ft; Ke=1.00; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone; cantilever left and right exposed; end vertical left and right exposed; 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 28 lb uplift at joint 1 and 34 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

August 28, 2024

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

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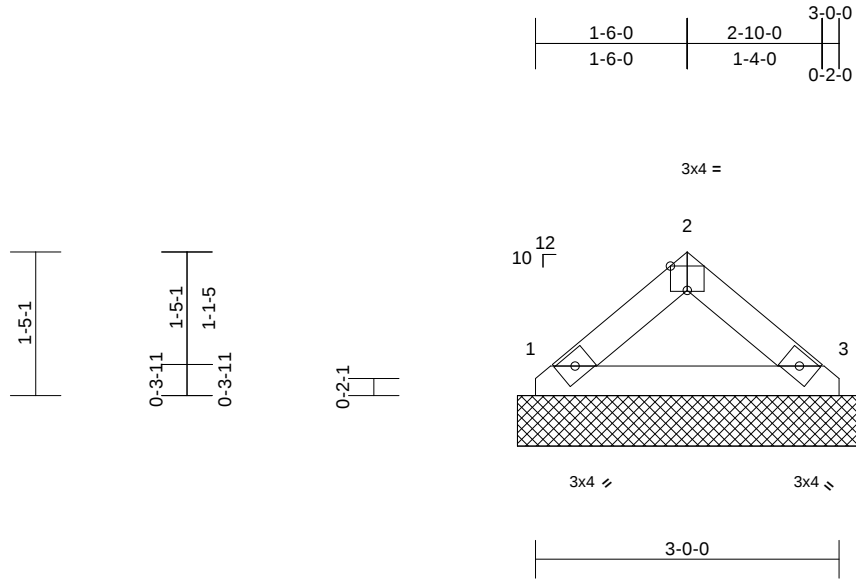
16023 Swingley Ridge Rd.
Chesterfield, MO 63017
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Job	Truss	Truss Type	Qty	Ply	Roof - BY Lot 1330	RELEASE FOR CONSTRUCTION
P250393-01	V10	Valley	1	1	Job Reference (optional)	AS NOTED FOR PLAN REVIEW
						DEVELOPMENT SERVICES
						167816500
						LEE'S SUMMIT, MISSOURI

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

Run: 8.63 S Jul 12 2024 Print: 8.630 S Jul 12 2024 MiTek Industries, Inc. Mon Aug 26 21:40:22 Page: 1
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06/10/2025



Scale = 1:22.8

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

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.03	Vert(LL)	n/a	-	n/a	999	MT20
TCDL	10.0	Lumber DOL	1.15	BC	0.08	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: 10 lb FT = 20%

LUMBER

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

BRACING

TOP CHORD Structural wood sheathing directly applied or 3-4-14 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (size) 1=3-4-4, 3=3-4-4
Max Horiz 1=28 (LC 5)
Max Uplift 1=-12 (LC 8), 3=-12 (LC 9)
Max Grav 1=117 (LC 1), 3=117 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-94/30, 2-3=-94/30
BOT CHORD 1-3=-8/56

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=25ft; Ke=1.00; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- Gable requires continuous bottom chord bearing.
- Gable studs spaced at 4-0-0 oc.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- All bearings are assumed to be SP No.2 crushing capacity of 565 psi.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 12 lb uplift at joint 1 and 12 lb uplift at joint 3.

- 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



August 28, 2024

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

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

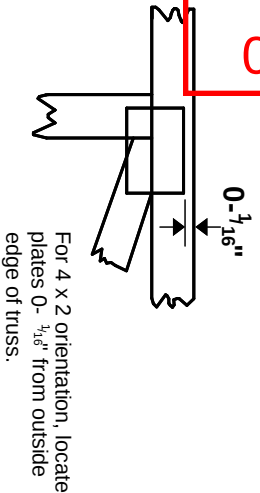
MiTek®

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Chesterfield, MO 63017
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Symbols

PLATE LOCATION AND ORIENTATION

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



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

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

PLATE SIZE

4 X 4

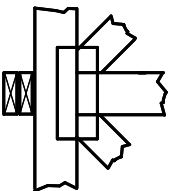
The first dimension is the plate width measured perpendicular to slots. Second dimension is the length parallel to slots.

LATERAL BRACING LOCATION



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

BEARING



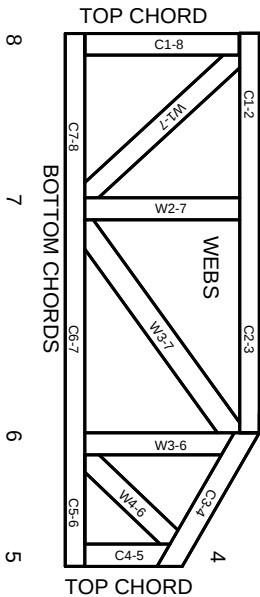
Indicates location where bearings (supports) occur. Icons vary but reaction section indicates joint number/letter where bearings occur. Min size shown is for crushing only.

Industry Standards:
ANSI/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.

Numbering System

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

1 2 3 Joint ID typ.



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

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

Product Code Approvals

ICC-ES Reports:

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

Design General Notes

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

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

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

General Safety Notes

Failure to Follow Could Cause Property Damage or Personal Injury

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