



RE: B240013 - Lot 167 HM

Site Information:

Project Customer: Summit Homes Project Name:
Lot/Block: 167 Subdivision: Highland Meadows
Model: Somerset - Mediterranean
Address: 2771 SW 11th Terr
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 8.7
Wind Code: ASCE 7-16 [Wind Speed: 115 mph] Design Method: MWFRS (Envelope) ASCE 7-16 [Low Rise]
Roof Load: 45.0 psf Floor Load: N/A psf
Mean Roof Height (feet): 25 Exposure Category: C

No.	Seal#	Truss Name	Date	No.	Seal#	Truss Name	Date
1	I63626926	A1	2/15/24	35	I63626960	E7	2/15/24
2	I63626927	A2	2/15/24	36	I63626961	E8	2/15/24
3	I63626928	A3	2/15/24	37	I63626962	E9	2/15/24
4	I63626929	A4	2/15/24	38	I63626963	F1	2/15/24
5	I63626930	A5	2/15/24	39	I63626964	F2	2/15/24
6	I63626931	A6	2/15/24	40	I63626965	F3	2/15/24
7	I63626932	A7	2/15/24	41	I63626966	J1	2/15/24
8	I63626933	A8	2/15/24	42	I63626967	J2	2/15/24
9	I63626934	A9	2/15/24	43	I63626968	J3	2/15/24
10	I63626935	A10	2/15/24	44	I63626969	J4	2/15/24
11	I63626936	A11	2/15/24	45	I63626970	J5	2/15/24
12	I63626937	A12	2/15/24	46	I63626971	J6	2/15/24
13	I63626938	A13	2/15/24	47	I63626972	J7	2/15/24
14	I63626939	B1	2/15/24	48	I63626973	J8	2/15/24
15	I63626940	B2	2/15/24	49	I63626974	J9	2/15/24
16	I63626941	B3	2/15/24	50	I63626975	J10	2/15/24
17	I63626942	B4	2/15/24	51	I63626976	J11	2/15/24
18	I63626943	B5	2/15/24	52	I63626977	J12	2/15/24
19	I63626944	B6	2/15/24	53	I63626978	J13	2/15/24
20	I63626945	B7	2/15/24	54	I63626979	J14	2/15/24
21	I63626946	B8	2/15/24	55	I63626980	J15	2/15/24
22	I63626947	C1	2/15/24	56	I63626981	J16	2/15/24
23	I63626948	C2	2/15/24	57	I63626982	J17	2/15/24
24	I63626949	C3	2/15/24	58	I63626983	J18	2/15/24
25	I63626950	C4	2/15/24	59	I63626984	J19	2/15/24
26	I63626951	D1	2/15/24	60	I63626985	J20	2/15/24
27	I63626952	D2	2/15/24	61	I63626986	J21	2/15/24
28	I63626953	D3	2/15/24	62	I63626987	J22	2/15/24
29	I63626954	E1	2/15/24	63	I63626988	J23	2/15/24
30	I63626955	E2	2/15/24	64	I63626989	J24	2/15/24
31	I63626956	E3	2/15/24	65	I63626990	LAY1	2/15/24
32	I63626957	E4	2/15/24	66	I63626991	LAY2	2/15/24
33	I63626958	E5	2/15/24	67	I63626992	LAY3	2/15/24
34	I63626959	E6	2/15/24	68	I63626993	LAY4	2/15/24

MiTek, Inc.

16023 Swingley Ridge Rd.
Chesterfield, MO 63017
314.434.1200

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

Truss Design Engineer's Name: Nathan Fox

My license renewal date for the state of Missouri is December 31, 2024.

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



February 15, 2024



RE: B240013 - Lot 167 HM

MiTek, Inc.

16023 Swingley Ridge Rd.
Chesterfield, MO 63017
314.434.1200

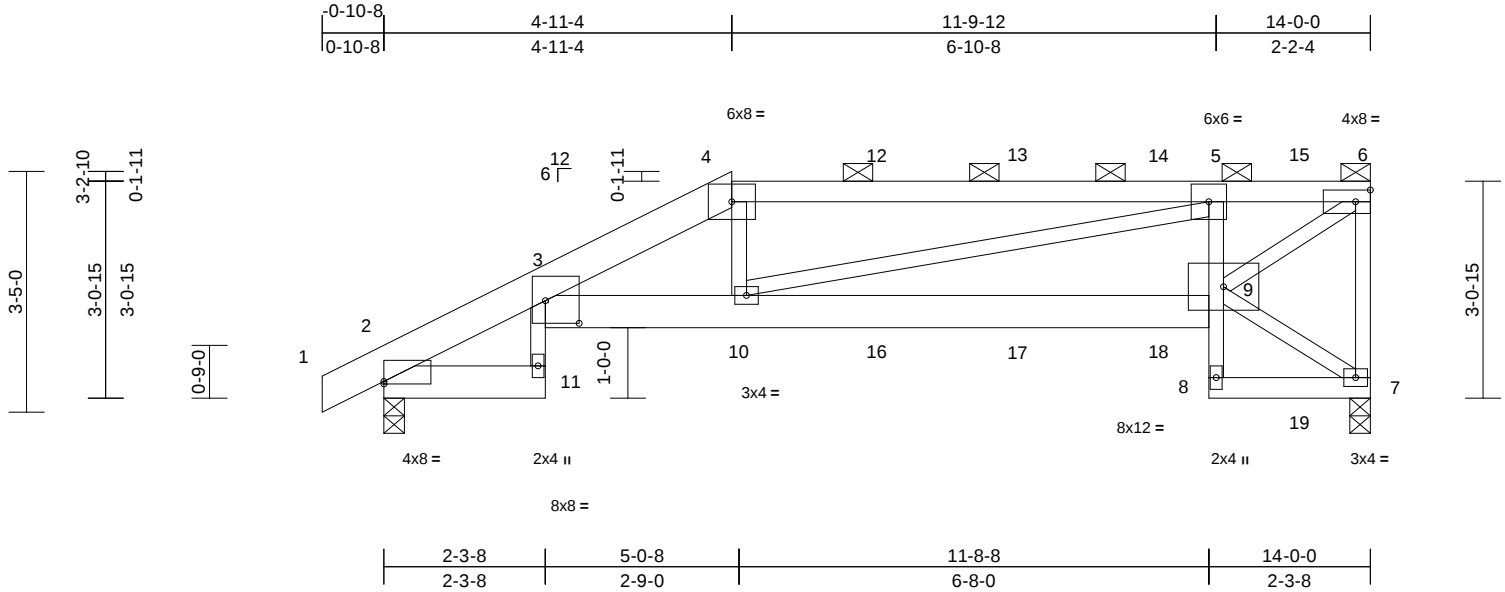
No.	Seal#	Truss Name	Date
69	I63626994	LAY5	2/15/24
70	I63626995	LAY6	2/15/24
71	I63626996	LAY7	2/15/24
72	I63626997	LAY8	2/15/24
73	I63626998	LAY9	2/15/24
74	I63626999	LAY10	2/15/24
75	I63627000	V1	2/15/24
76	I63627001	V2	2/15/24
77	I63627002	V3	2/15/24
78	I63627003	V4	2/15/24
79	I63627004	V5	2/15/24
80	I63627005	V6	2/15/24
81	I63627006	V7	2/15/24
82	I63627007	V8	2/15/24
83	I63627008	V9	2/15/24
84	I63627009	V10	2/15/24
85	I63627010	V11	2/15/24

Job	Truss	Truss Type	Qty	Ply	Lot 167 HM	
B240013	A1	Half Hip Girder	1	1	Job Reference (optional)	I63626926

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.73 S Feb 6 2024 Print: 8.730 S Feb 6 2024 MiTek Industries, Inc. Wed Feb 14 11:02:36
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Page: 1



Scale = 1:32.7									
Plate Offsets (X, Y): [2:Edge,0-0-7], [3:0-5-12,0-3-14]									
Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in (loc)	l/defl	L/d
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.85	Vert(LL)	-0.15 3-10	>999	360
TCDL	10.0	Lumber DOL	1.15	BC	0.98	Vert(CT)	-0.25 3-10	>648	240
BCLL	0.0*	Rep Stress Incr	NO	WB	0.66	Horz(CT)	0.22 7	n/a	n/a
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S		Wind(LL)	0.12 3-10	>999	240
						PLATES		GRIP	
						MT20		197/144	
						Weight: 65 lb		FT = 10%	

LUMBER
TOP CHORD 2x6 SP 2400F 2.0E *Except* 4-6:2x4 SPF 2100F 1.8E
BOT CHORD 2x6 SPF No.2 *Except* 11-3,5-8:2x3 SPF No.2, 8-7:2x4 SPF No.2
WEBS 2x3 SPF No.2

BRACING
TOP CHORD Structural wood sheathing directly applied or 5-3-4 oc purlins, except end verticals, and 2-0-0 oc purlins (4-2-9 max.): 4-6.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing, Except: 6-0-0 oc bracing: 7-8.

REACTIONS (size) 2=0-3-8, 7=0-3-8
Max Horiz 2=118 (LC 7)
Max Uplift 2=-188 (LC 8), 7=-158 (LC 5)
Max Grav 2=1091 (LC 1), 7=1103 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/12, 2-3=-641/103, 3-4=-2481/401, 4-5=-2417/417, 5-6=-1585/261, 6-7=-1050/181
BOT CHORD 2-11=-1/7, 3-11=-22/169, 3-10=-472/2400, 9-10=-327/1733, 8-9=0/63, 5-9=-821/255, 7-8=-17/19
WEBS 4-10=0/264, 5-10=-181/713, 7-9=-47/57, 6-9=-345/1912

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; 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) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- 6) Bearings are assumed to be: Joint 2 SPF No.2 , Joint 7 SPF No.2 .
- 7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 158 lb uplift at joint 7 and 188 lb uplift at joint 2.
- 8) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 9) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
- 10) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 94 lb down and 37 lb up at 4-11-4, 101 lb down and 35 lb up at 7-0-0, 101 lb down and 35 lb up at 9-0-0, and 101 lb down and 35 lb up at 11-0-0, and 111 lb down and 46 lb up at 13-0-0 on top chord, and 342 lb down and 124 lb up at 4-11-4, 49 lb down at 7-0-0, 49 lb down at 9-0-0, and 49 lb down at 11-0-0, and 53 lb down at 13-0-0 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
- 11) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

LOAD CASE(S) Standard
1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (lb/ft)
Vert: 1-3=-70, 3-4=-70, 4-6=-70, 2-11=-20, 3-9=-20, 7-8=-20
Concentrated Loads (lb)
Vert: 4=-68 (B), 10=-342 (B), 12=-68 (B), 13=-68 (B), 14=-68 (B), 15=-85 (B), 16=-49 (B), 17=-49 (B), 18=-49 (B), 19=-38 (B)



February 15, 2024

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

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

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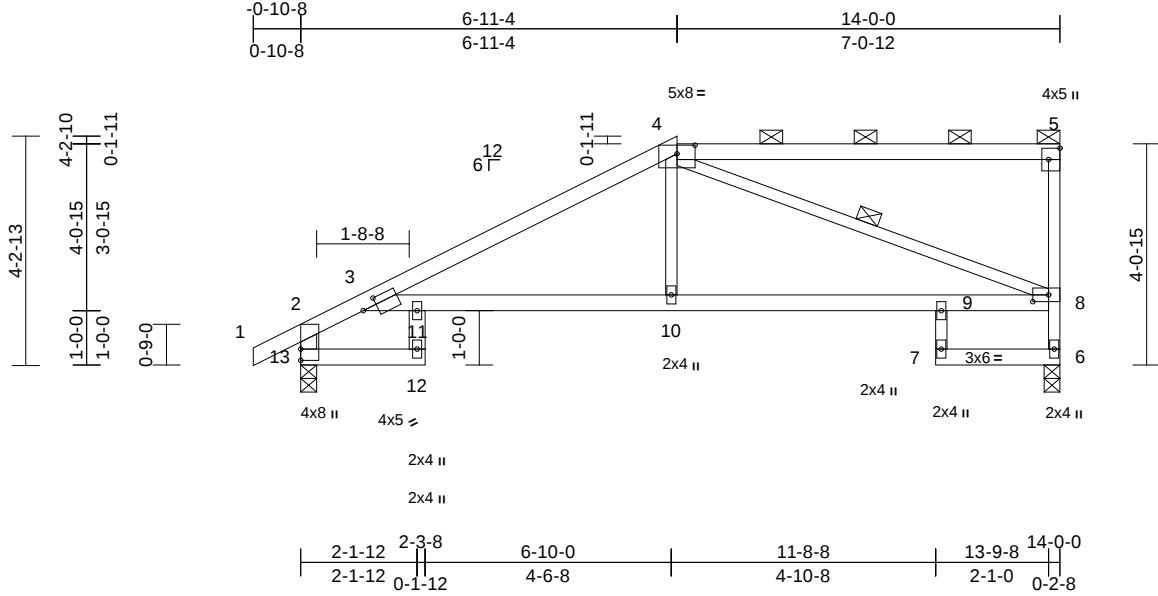
Job	Truss	Truss Type	Qty	Ply	Lot 167 HM	163626927
B240013	A2	Half Hip	1	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.73 S Feb 6 2024 Print: 8.730 S Feb 6 2024 MiTek Industries, Inc. Wed Feb 14 11:02:38

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Scale = 1:42.5

Plate Offsets (X, Y): [3:0-3-3,0-1-9], [4:0-4-0,0-1-15], [5:Edge,0-2-8], [8:0-3-8,0-1-8]

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.71	Vert(LL)	-0.18	10-11	>937	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.86	Vert(CT)	-0.32	10-11	>516	240		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.48	Horz(CT)	0.22	6	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S		Wind(LL)	0.16	10-11	>999	240	Weight: 50 lb	FT = 10%

LUMBER

TOP CHORD	2x4 SPF 2100F 1.8E *Except* 4-5:2x4 SPF No.2
BOT CHORD	2x4 SPF No.2 *Except* 9-7:2x3 SPF No.2
WEBS	2x3 SPF No.2 *Except* 12-11,13-2:2x4 SPF No.2

BRACING

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

REACTIONS

(size)	6=0-3-8, 13=0-3-8
Max Horiz	13=165 (LC 5)
Max Uplift	6=-110 (LC 5), 13=-98 (LC 8)
Max Grav	6=616 (LC 1), 13=693 (LC 1)

FORCES

(lb) - Maximum Compression/Maximum Tension	
TOP CHORD	1-2=0/32, 2-3=-305/35, 3-4=-1010/101, 4-5=-67/40, 6-8=-590/125, 5-8=-236/100, 2-13=-721/130
BOT CHORD	12-13=0/0, 3-11=-182/871, 10-11=-182/871, 9-10=-184/863, 8-9=-191/868, 7-9=0/33, 6-7=-9/9
WEBS	11-12=-17/69, 4-10=0/343, 4-8=-875/144

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; 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.

- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- All bearings are assumed to be SPF No.2 .
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 110 lb uplift at joint 6 and 98 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



February 15, 2024

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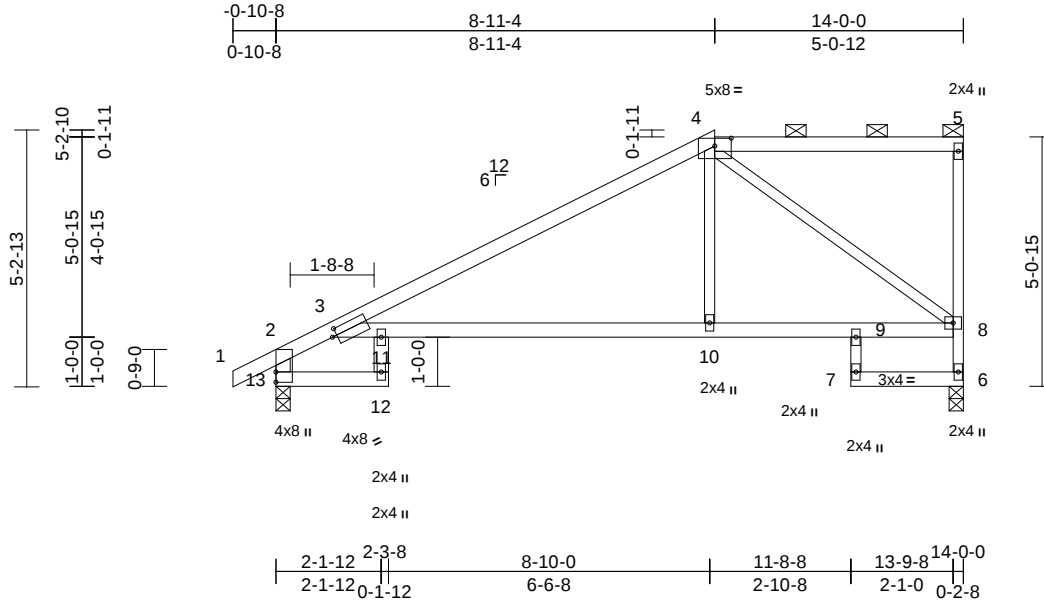
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Job	Truss	Truss Type	Qty	Ply	Lot 167 HM	163626928
B240013	A3	Half Hip	1	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS - 66871.

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Page: 1



Scale = 1:46.9									
Plate Offsets (X, Y): [3:0-1-3,0-1-12], [4:0-4-0,0-1-15]									
Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in (loc)	l/defl	L/d
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.74	Vert(LL)	-0.29 10-11	>574	360
TCDL	10.0	Lumber DOL	1.15	BC	0.74	Vert(CT)	-0.54 10-11	>303	240
BCLL	0.0*	Rep Stress Incr	YES	WB	0.77	Horz(CT)	0.28 6	n/a	n/a
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S		Wind(LL)	0.29 10-11	>576	240
							Weight: 51 lb	FT = 10%	

LUMBER	
TOP CHORD	2x4 SPF 2100F 1.8E *Except* 4-5:2x4 SPF No.2
BOT CHORD	2x4 SPF No.2 *Except* 3-8:2x4 SPF 2100F 1.8E, 9-7:2x3 SPF No.2
WEBS	2x3 SPF No.2 *Except* 12-11,13-2:2x4 SPF No.2
BRACING	
TOP CHORD	Structural wood sheathing directly applied or 5-1-10 oc purlins, except end verticals, and 2-0-0 oc purlins (6-0-0 max.): 4-5.
BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing.
REACTIONS	
(size)	6=0-3-8, 13=0-3-8
Max Horiz	13=206 (LC 5)
Max Uplift	6=-105 (LC 5), 13=-106 (LC 8)
Max Grav	6=616 (LC 1), 13=693 (LC 1)
FORCES	
(lb) - Maximum Compression/Maximum Tension	
TOP CHORD	1-2=0/32, 2-3=-337/34, 3-4=-789/91, 4-5=-45/44, 6-8=-596/118, 5-8=-157/74, 2-13=-726/147
BOT CHORD	12-13=0/0, 3-11=-145/635, 10-11=-145/635, 9-10=-147/628, 8-9=-158/627, 7-9=0/41, 6-7=0/15
WEBS	11-12=-23/73, 4-10=0/368, 4-8=-790/140

- 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; 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) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- 6) All bearings are assumed to be SPF No.2 .
- 7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 105 lb uplift at joint 6 and 106 lb uplift at joint 13.
- 8) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 9) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

LOAD CASE(S) Standard



February 15,2024

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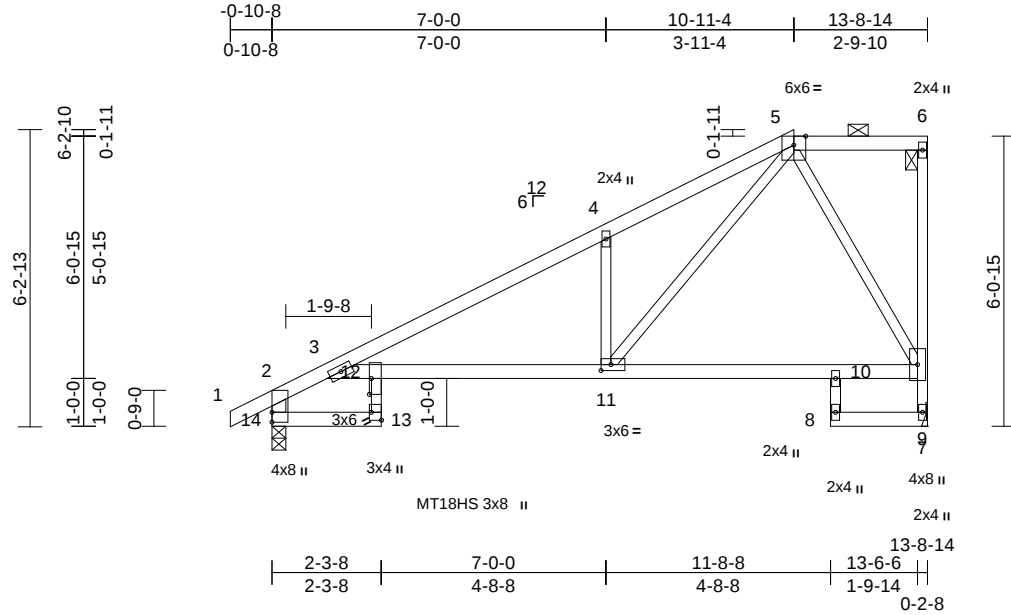
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Job	Truss	Truss Type	Qty	Ply	Lot 167 HM	
B240013	A4	Half Hip	1	1	Job Reference (optional)	163626929

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.73 S Feb 6 2024 Print: 8.730 S Feb 6 2024 MiTek Industries, Inc. Wed Feb 14 11:02:39
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Page: 1



Scale = 1:48.3

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

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.65	Vert(LL)	-0.18	11-12	>886	360	MT20 197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.99	Vert(CT)	-0.34	11-12	>483	240	MT18HS 197/144
BCLL	0.0*	Rep Stress Incr	YES	WB	0.41	Horz(CT)	0.18	7	n/a	n/a	
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S		Wind(LL)	0.16	11-12	>999	240	Weight: 55 lb FT = 10%

LUMBER

TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2 *Except* 13-12,10-8:2x3 SPF No.2
WEBS 2x3 SPF No.2 *Except* 14-2:2x4 SPF No.2

BRACING

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

REACTIONS

(size) 7= Mechanical, 14=0-3-8
Max Horiz 14=158 (LC 8)
Max Uplift 7=-39 (LC 8), 14=-3 (LC 8)
Max Grav 7=604 (LC 1), 14=681 (LC 1)

FORCES

(lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/32, 2-3=-496/0, 3-4=-977/22, 4-5=-1009/105, 5-6=-5/2, 2-14=-705/43
BOT CHORD 13-14=-81/245, 12-13=-16/68, 3-12=-25/587, 11-12=-106/832, 10-11=-37/266, 9-10=-26/270, 8-10=0/26, 7-8=-21/0
WEBS 7-9=-583/55, 6-9=-89/21, 4-11=-446/144, 5-11=-109/897, 5-9=-546/80

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; Cat. II; Exp C; Enclosed; MWFRS (envelope); 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) All plates are MT20 plates unless otherwise indicated.
- 5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.

- 6) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- 7) All bearings are assumed to be SPF No.2 .
- 8) Refer to girder(s) for truss to truss connections.
- 9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 3 lb uplift at joint 14 and 39 lb uplift at joint 7 .
- 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



February 15, 2024

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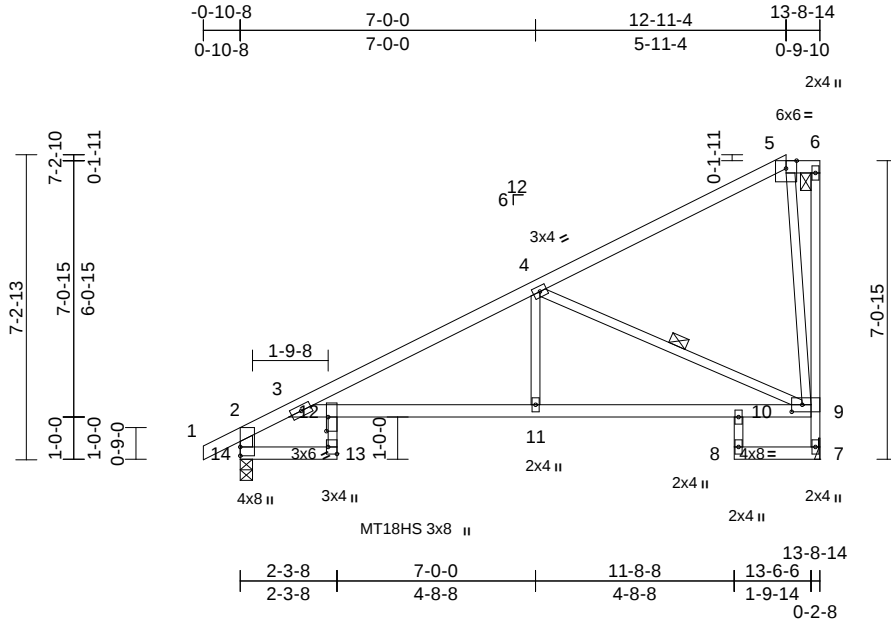
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Job	Truss	Truss Type	Qty	Ply	Lot 167 HM	
B240013	A5	Half Hip	1	1	Job Reference (optional)	I63626930

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.73 S Feb 6 2024 Print: 8.730 S Feb 6 2024 MiTek Industries, Inc. Wed Feb 14 11:02:40
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Page: 1



Scale = 1:54.6

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

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.60	Vert(LL)	-0.17	11-12	>930	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.97	Vert(CT)	-0.32	11-12	>499	240	MT18HS	197/144
BCLL	0.0*	Rep Stress Incr	YES	WB	0.43	Horz(CT)	0.19	7	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S		Wind(LL)	0.14	11-12	>999	240	Weight: 57 lb	FT = 10%

LUMBER

TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2 *Except* 13-12,10-8:2x3 SPF No.2
WEBS 2x3 SPF No.2 *Except* 14-2:2x4 SPF No.2

BRACING

TOP CHORD Structural wood sheathing directly applied or 4-7-7 oc purlins, except end verticals, and 2-0-0 oc purlins (6-0-0 max.): 5-6.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing, Except:
2-2-0 oc bracing: 11-12.
WEBS 1 Row at midpt 4-9

REACTIONS

(size) 7= Mechanical, 14=0-3-8
Max Horiz 14=229 (LC 5)
Max Uplift 7=-45 (LC 8), 14=-18 (LC 8)
Max Grav 7=604 (LC 1), 14=681 (LC 1)

FORCES

(lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=0/32, 2-3=-489/0, 3-4=-991/40, 4-5=-171/46, 5-6=-72/50, 7-9=-584/59, 6-9=-47/80, 2-14=-704/47
BOT CHORD 13-14=-79/238, 12-13=-22/68, 3-12=-16/613, 11-12=-95/850, 10-11=-95/850, 9-10=-111/838, 8-10=0/31, 7-8=-13/33
WEBS 4-11=0/352, 4-9=-892/115, 5-9=-281/102

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; Cat. II; Exp C; Enclosed; MWFRS (envelope); 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) All plates are MT20 plates unless otherwise indicated.
- 5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.

- 6) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- 7) All bearings are assumed to be SPF No.2 .
- 8) Refer to girder(s) for truss to truss connections.
- 9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 45 lb uplift at joint 7 and 18 lb uplift at joint 14.
- 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



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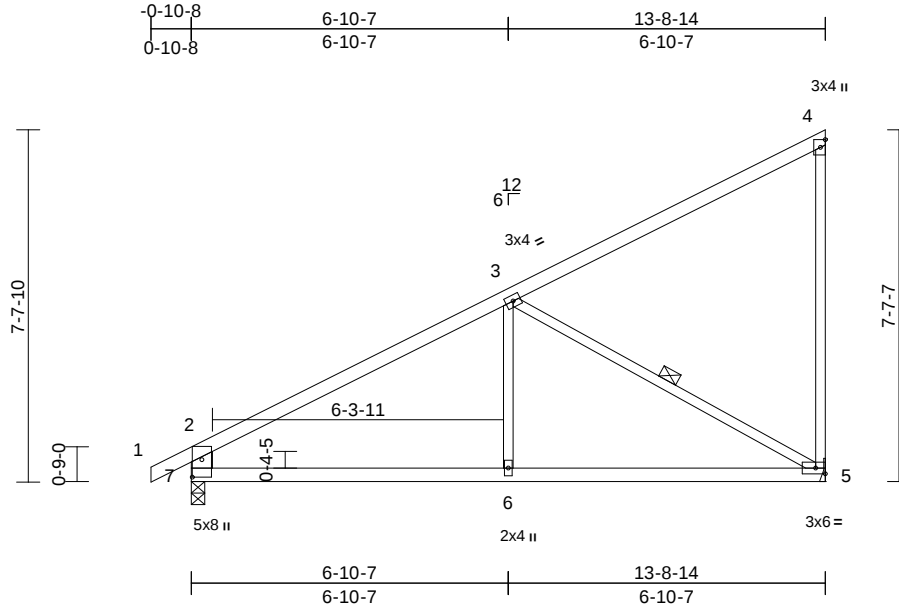
Job	Truss	Truss Type	Qty	Ply	Lot 167 HM	
B240013	A6	Monopitch	4	1	Job Reference (optional)	I63626931

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.73 S Feb 6 2024 Print: 8.730 S Feb 6 2024 MiTek Industries, Inc. Wed Feb 14 11:02:40

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Scale = 1:49.9

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

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.58	Vert(LL)	-0.06	5-6	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.40	Vert(CT)	-0.14	5-6	>999	240		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.40	Horz(CT)	0.01	5	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S		Wind(LL)	-0.04	5-6	>999	240	Weight: 50 lb	FT = 10%

LUMBER

TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
WEBS 2x3 SPF No.2 *Except* 7-2:2x6 SPF No.2

BRACING

TOP CHORD Structural wood sheathing directly applied or 5-11-15 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

WEBS 1 Row at midpt 3-5

REACTIONS (size) 5= Mechanical, 7=0-3-8
Max Horiz 7=245 (LC 7)
Max Uplift 5=-55 (LC 8), 7=-16 (LC 8)
Max Grav 5=600 (LC 1), 7=684 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=0/35, 2-3=-787/20, 3-4=-188/69,
4-5=-195/51, 2-7=-615/57

BOT CHORD 6-7=-78/611, 5-6=-78/611

WEBS 3-6=0/302, 3-5=-693/108

NOTES

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust)
Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope); 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) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- 4) All bearings are assumed to be SPF No.2 .
- 5) Refer to girder(s) for truss to truss connections.
- 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 55 lb uplift at joint 5 and 16 lb uplift at joint 7.

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

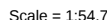


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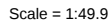
Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall 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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816-434-1200 MiTekUSA.com
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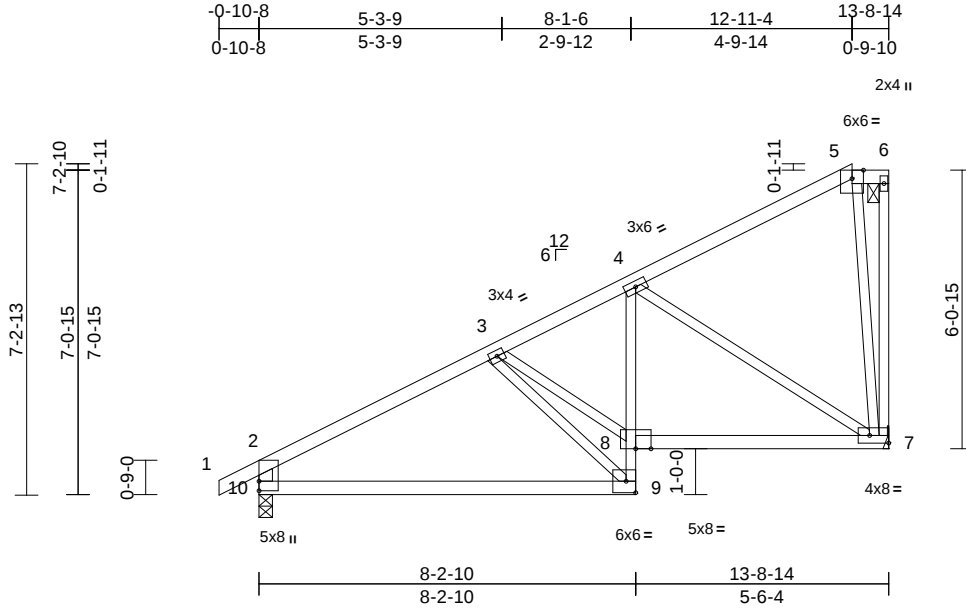
Job	Truss	Truss Type	Qty	Ply	Lot 167 HM	
B240013	A9	Half Hip	1	1	Job Reference (optional)	I63626934

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.73 S Feb 6 2024 Print: 8.730 S Feb 6 2024 MiTek Industries, Inc. Wed Feb 14 11:02:41

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Scale = 1:50.3

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

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.44	Vert(LL)	-0.14	9-10	>999	360	MT20
TCDL	10.0	Lumber DOL	1.15	BC	0.51	Vert(CT)	-0.27	9-10	>593	240	197/144
BCLL	0.0*	Rep Stress Incr	YES	WB	0.66	Horz(CT)	0.03	7	n/a	n/a	
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S		Wind(LL)	0.02	7-8	>999	240	Weight: 58 lb FT = 10%

LUMBER

TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2 *Except* 9-4:2x3 SPF No.2
WEBS 2x3 SPF No.2 *Except* 10-2:2x4 SPF 2100F 1.8E

BRACING

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

REACTIONS (size) 7= Mechanical, 10=0-3-8
Max Horiz 10=216 (LC 5)
Max Uplift 7=-45 (LC 8), 10=-17 (LC 8)
Max Grav 7=609 (LC 1), 10=672 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=0/32, 2-3=-769/44, 3-4=-666/44, 4-5=-145/49, 5-6=-77/55, 6-7=-57/70, 2-10=-587/67
BOT CHORD 9-10=-90/602, 8-9=-53/593, 4-8=0/342, 7-8=-61/578
WEBS 3-9=-731/138, 3-8=-81/572, 4-7=-660/89, 5-7=-255/103

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; Cat. II; Exp C; Enclosed; MWFRS (envelope); 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) The Fabrication Tolerance at joint 2 = 6%
- 5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.

- 6) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- 7) All bearings are assumed to be SPF No.2 .
- 8) Refer to girder(s) for truss to truss connections.
- 9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 45 lb uplift at joint 7 and 17 lb uplift at joint 10.
- 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



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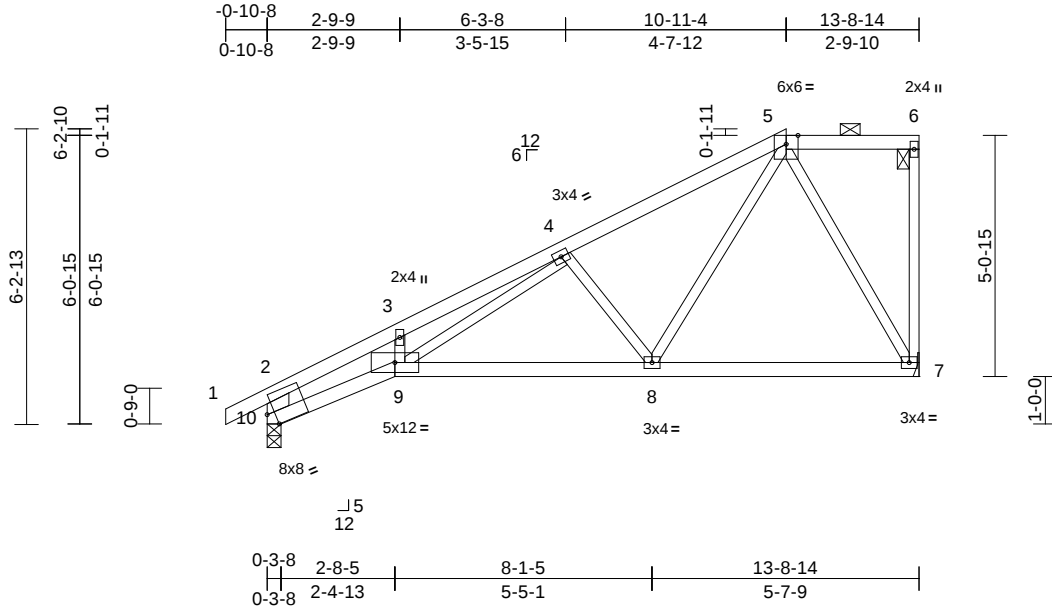
Job	Truss	Truss Type	Qty	Ply	Lot 167 HM	
B240013	A10	Half Hip	1	1	Job Reference (optional)	I63626935

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.73 S Feb 6 2024 Print: 8.730 S Feb 6 2024 MiTek Industries, Inc. Wed Feb 14 11:02:41

Page: 1

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Scale = 1:48.6

Plate Offsets (X, Y): [10:0-1-15,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	0.93	Vert(LL)	-0.11	8-9	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.73	Vert(CT)	-0.21	8-9	>769	240		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.41	Horz(CT)	0.09	7	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S		Wind(LL)	0.06	8-9	>999	240	Weight: 54 lb	FT = 10%

LUMBER

TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
WEBS 2x3 SPF No.2 *Except* 10-2:2x6 SP 2400F
2.0E

BRACING

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

REACTIONS

(size) 7= Mechanical, 10=0-3-8
Max Horiz 10=184 (LC 5)
Max Uplift 7=-36 (LC 5), 10=-22 (LC 8)
Max Grav 7=600 (LC 1), 10=684 (LC 1)

FORCES

(lb) - Maximum Compression/Maximum
Tension

TOP CHORD 1-2=0/35, 2-3=-1423/91, 3-4=-1237/136,
4-5=-715/61, 5-6=-61/44, 6-7=-90/30,
2-10=-998/80

BOT CHORD 9-10=-190/1183, 8-9=-90/833, 7-8=-55/271

WEBS 3-9=0/207, 4-9=-105/338, 4-8=-443/119,
5-8=-26/588, 5-7=-550/56

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; Cat. II; Exp C; Enclosed; MWFRS (envelope); 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) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.

- 6) All bearings are assumed to be SPF No.2 .
- 7) Refer to girder(s) for truss to truss connections.
- 8) Bearing at joint(s) 10 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- 9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 36 lb uplift at joint 7 and 22 lb uplift at joint 10.
- 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

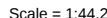


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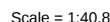
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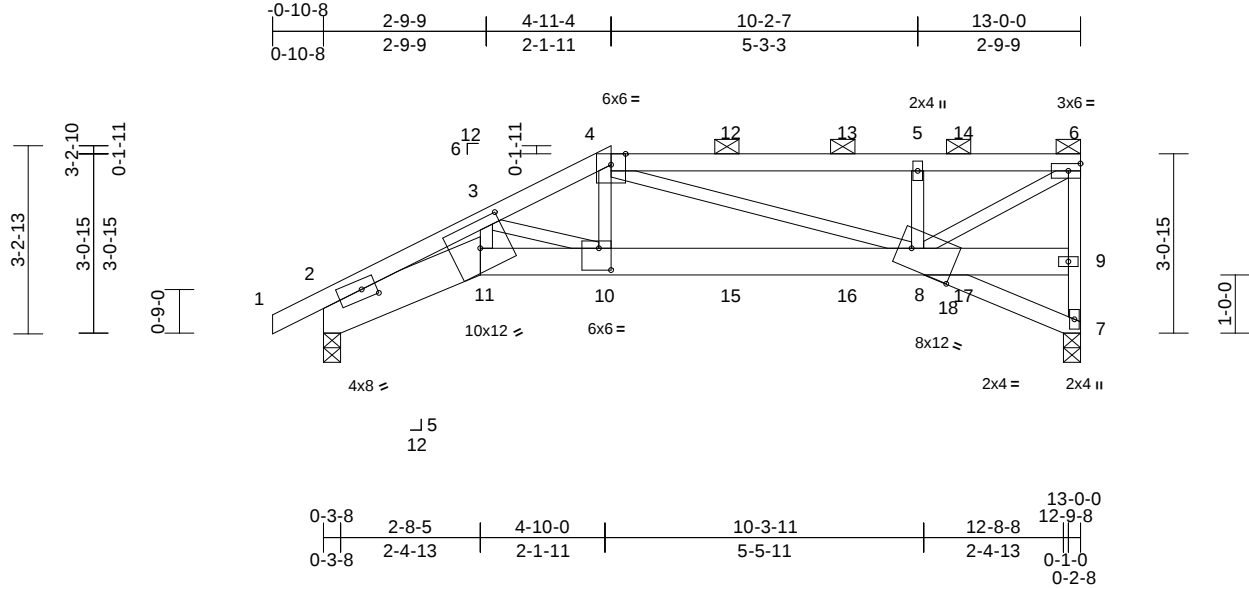
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Job	Truss	Truss Type	Qty	Ply	Lot 167 HM	I63626938
B240013	A13	Half Hip Girder	1	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.73 S Feb 6 2024 Print: 8.730 S Feb 6 2024 MiTek Industries, Inc. Wed Feb 14 11:02:42
ID:Hr0UloylgMOrZQ4rpild7XzssyG-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrcD0i7J4zJC?r

Page: 1



Scale = 1:39.6									
Plate Offsets (X, Y): [2:0-3-0,0-2-0], [8:0-9-6,0-4-0], [10:0-2-8,0-4-8], [11:0-6-0,0-5-5]									
Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.64	Vert(LL)	-0.08	10-11	>999
TCDL	10.0	Lumber DOL	1.15	BC	0.81	Vert(CT)	-0.14	10-11	>999
BCLL	0.0*	Rep Stress Incr	NO	WB	0.52	Horz(CT)	0.10	7	n/a
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S		Wind(LL)	0.06	10-11	>999
									Weight: 61 lb
									FT = 10%

LUMBER
TOP CHORD 2x4 SPF No.2
BOT CHORD 2x8 SP 2400F 2.0E *Except* 11-9:2x6 SPF No.2, 8-7:2x4 SPF No.2
WEBS 2x3 SPF No.2

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

REACTIONS (size) 2=0-3-8, 7=0-3-8
Max Horiz 2=118 (LC 7)
Max Uplift 2=176 (LC 8), 7=160 (LC 5)
Max Grav 2=997 (LC 1), 7=957 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/8, 2-3=-2888/521, 3-4=-2219/383, 4-5=-1337/229, 5-6=-1176/169, 7-9=-933/172, 6-9=-927/149
BOT CHORD 2-11=-551/2485, 10-11=-494/2255, 8-10=-406/1972, 8-9=-38/46, 7-8=-25/18
WEBS 3-11=-152/655, 4-10=-66/689, 4-8=-667/159, 5-8=-579/213, 6-8=-225/1464, 3-10=-264/134

- 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; 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.

- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- Bearings are assumed to be: Joint 2 SP 2400F 2.0E , Joint 7 SPF No.2 .
- Bearing at joint(s) 7, 2 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 160 lb uplift at joint 7 and 176 lb uplift at joint 2.
- 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.
- Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 105 lb down and 49 lb up at 4-11-4, 110 lb down and 47 lb up at 7-0-0, and 110 lb down and 47 lb up at 9-0-0, and 110 lb down and 47 lb up at 11-0-0 on top chord, and 301 lb down and 81 lb up at 4-11-4, 51 lb down at 7-0-0, and 51 lb down at 9-0-0, and 51 lb down at 11-0-0 on bottom 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: 1-4=-70, 4-6=-70, 2-11=-20, 8-11=-20, 7-8=-20
Concentrated Loads (lb)
Vert: 4=-82 (F), 10=-301 (F), 12=-82 (F), 13=-82 (F), 14=-82 (F), 15=-36 (F), 16=-36 (F), 17=-36 (F)



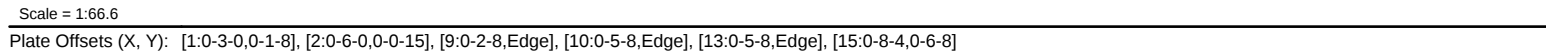
February 15, 2024

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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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Wheeler Lumber, Waverly, KS - 66871, Run: 8.73 S Feb 6 2024 Print: 8.730 S Feb 6 2024 MiTek Industries, Inc. Wed Feb 14 11:02:43 Page: 1
ID:Hr0UioyIqMORZQ4rpild7XzssyG-RfC?PsB70Hg3NSgPqnL8w3uITXbGKWrcDci7J4zJC?i



LUMBER		WEBS	2-19=-5719/583, 17-19=-447/3891, 2-17=-781/7508, 3-16=-517/4957, 4-16=-440/103, 5-16=-2095/228, 12-15=-832/8253, 7-15=-222/1946, 7-11=-4991/543, 8-11=-200/2404, 9-11=-572/6361, 1-19=-538/5705, 12-14=-44/415	10) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 600 lb uplift at joint 20 and 576 lb uplift at joint 10.
TOP CHORD	2x4 SPF No.2 *Except* 2-6,8-12x4 SPF 2100F 1.8E			
BOT CHORD	2x4 SPF No.2 *Except* 20-18,14-13:2x6 SPF No.2, 17-15,12-10:2x6 SP 2400F 2.0E			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.
WEBS	2x3 SPF No.2 *Except* 19-2,17-2,11-7,11-9,20-1:2x4 SPF No.2, 12-15:2x4 SPF 2100F 1.8E			12) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or
		NOTES		

Continued on page 2

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Job	Truss	Truss Type	Qty	Ply	Lot 167 HM
B240013	B1	Hip Girder	1	2	I63626939
					Job Reference (optional)

13) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 584 lb down and 51 lb up at 11-0-0, 584 lb down and 57 lb up at 13-0-0, 580 lb down and 67 lb up at 15-0-0, 576 lb down and 67 lb up at 17-0-0, 576 lb down and 67 lb up at 19-0-0, 576 lb down and 67 lb up at 21-0-0, 576 lb down and 67 lb up at 23-0-0, 576 lb down and 67 lb up at 25-0-0, 576 lb down and 67 lb up at 27-0-0, 580 lb down and 67 lb up at 29-0-0, 580 lb down and 67 lb up at 31-0-0, 580 lb down and 67 lb up at 33-0-0, 580 lb down and 67 lb up at 35-0-0, 580 lb down and 67 lb up at 37-0-0, 580 lb down and 67 lb up at 39-0-0, 589 lb down and 57 lb up at 41-0-0, and 580 lb down and 48 lb up at 43-0-0, and 577 lb down and 46 lb up at 45-0-0 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.

LOAD CASE(S) Standard

- 1) Dead + Roof Live (balanced): Lumber Increase=1.15,
Plate Increase=1.15
Uniform Loads (lb/ft)
Vert: 1-2=-70, 2-8=-70, 8-9=-70, 18-20=-20,
15-17=-20, 13-14=-20, 10-12=-20
Concentrated Loads (lb)
Vert: 21=-584 (F), 22=-584 (F), 23=-580 (F), 24=-576 (F), 26=-576 (F), 27=-576 (F), 28=-576 (F), 29=-576 (F), 30=-576 (F), 31=-580 (F), 32=-580 (F), 33=-580 (F), 34=-580 (F), 36=-580 (F), 37=-580 (F), 38=-589 (F), 39=-580 (F), 40=-577 (F)

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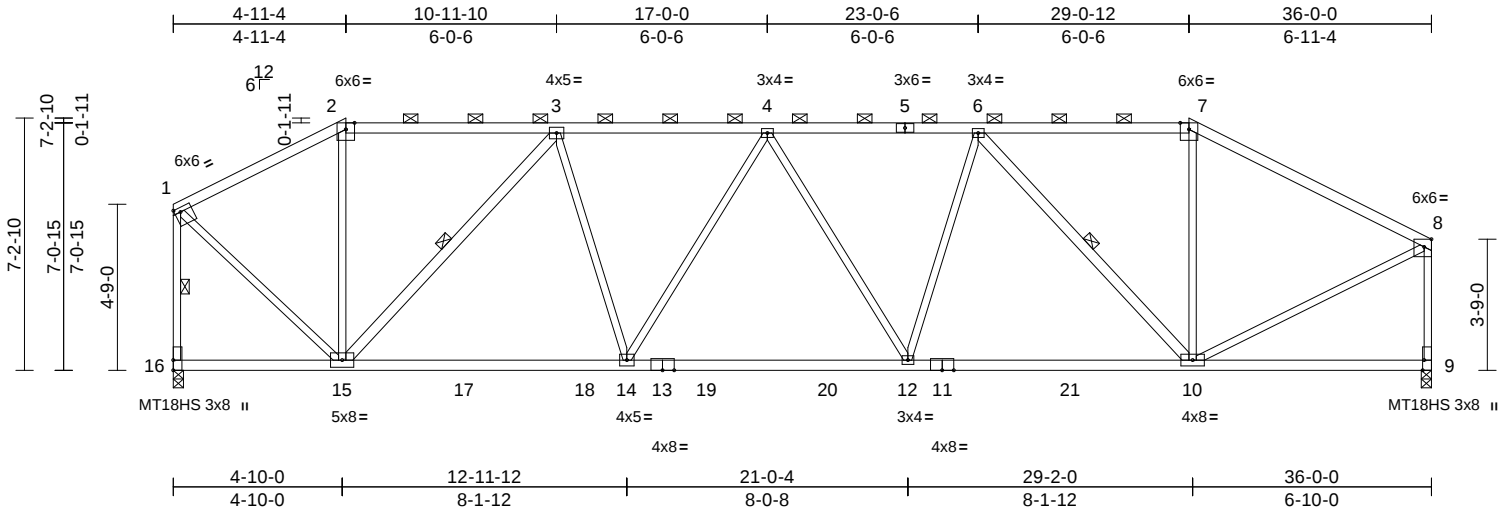
Job	Truss	Truss Type	Qty	Ply	Lot 167 HM	I63626940
B240013	B2	Hip	1	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.73 S Feb 6 2024 Print: 8.730 S Feb 6 2024 MiTek Industries, Inc. Wed Feb 14 11:02:44

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ID: Hr0UloylgMOrZQ4rpild7XzssyG-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrcDoi7J4zJC?r



Scale = 1:65.9

Plate Offsets (X, Y): [1:0-2-0,0-1-8], [8:0-2-8,Edge], [9:0-3-8,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	1.00	Vert(LL)	-0.21	10-12	>999	360	MT20 197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.97	Vert(CT)	-0.35	10-12	>999	240	MT18HS 197/144
BCLL	0.0*	Rep Stress Incr	YES	WB	0.56	Horz(CT)	0.09	9	n/a	n/a	
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S		Wind(LL)	0.09	12-14	>999	240	Weight: 156 lb FT = 10%

LUMBER

TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
WEBS 2x3 SPF No.2 *Except* 15-3,10-6:2x4 SPF No.2

BRACING

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

WEBS 1 Row at midpt 3-15, 6-10, 1-16

REACTIONS (size) 9=0-3-8, 16=0-3-8
Max Horiz 16=-205 (LC 4)
Max Uplift 9=-178 (LC 4), 16=-198 (LC 5)
Max Grav 9=1731 (LC 2), 16=1739 (LC 2)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=-1259/218, 2-3=-1092/214,
3-4=-2175/354, 4-6=-2289/365,
6-7=-1448/252, 7-8=-1700/251,
8-9=-1637/210, 1-16=-1690/220

BOT CHORD 15-16=-150/168, 14-15=-381/1992,
12-14=-418/2332, 10-12=-365/2164,
9-10=-47/41

WEBS 2-15=0/304, 3-15=-1368/280, 3-14=-17/656,
4-14=-358/134, 4-12=-170/106, 6-12=0/461,
6-10=-1119/253, 7-10=0/444,
8-10=-190/1598, 1-15=-202/1497

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; 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.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- All bearings are assumed to be SPF No.2 .
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 198 lb uplift at joint 16 and 178 lb uplift at joint 9.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 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



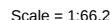
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Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.95	Vert(LL)	-0.15	11-13	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.76	Vert(CT)	-0.25	11-13	>999	240	MT18HS	197/144
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.63	Horz(CT)	0.08	9	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S		Wind(LL)	0.08	13-14	>999	240	Weight: 170 lb	FT = 10%

- 4) All plates are MT20 plates unless otherwise indicated.
- 5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 6) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- 7) All bearings are assumed to be SPF No.2 .
- 8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 157 lb uplift at joint 17 and 141 lb uplift at joint 9.
- 9) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 10) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

LOAD CASE(S) Standard

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-16; Vult=115mph (3-second gust)
Vasd=91mph; TCDF=6.0psf; BCDF=6.0psf; h=25ft; 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.



February 15, 2024

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

WARNING – Verify design parameters and READ NOTES on this and INCLUDED WITH REFERENCE PAGE IMMEDIATELY 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)

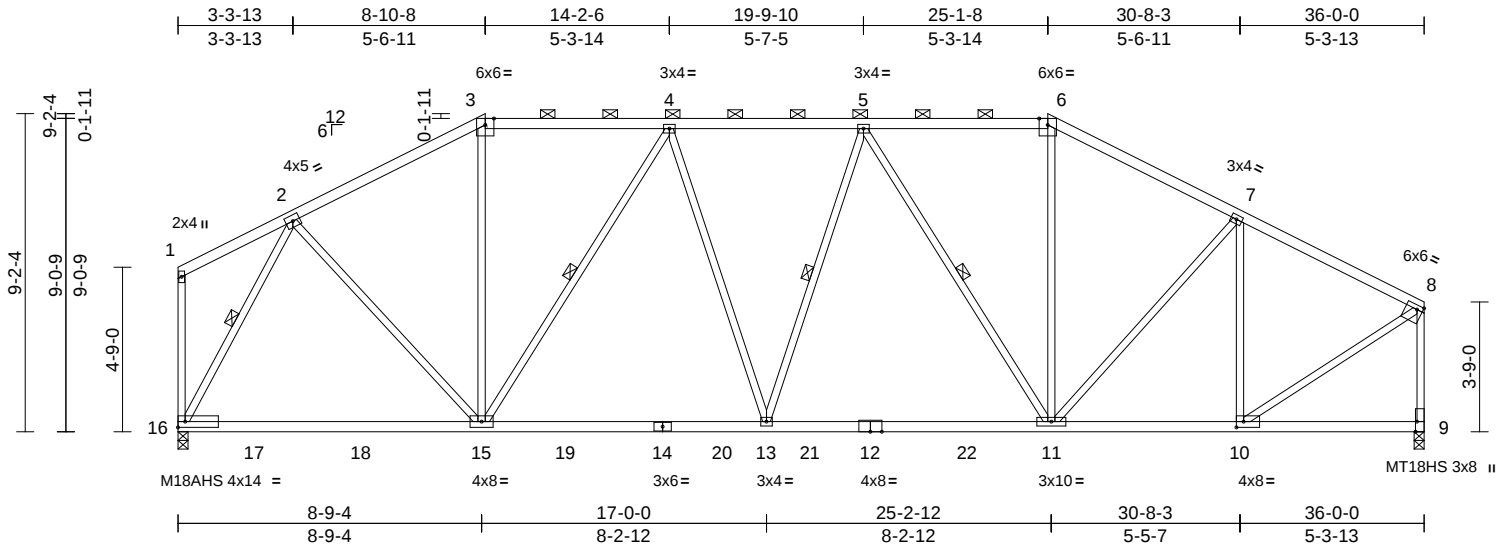
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Job	Truss	Truss Type	Qty	Ply	Lot 167 HM	I63626942
B240013	B4	Hip	1	1	Job Reference (optional)	

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Run: 8.73 S Feb 6 2024 Print: 8.730 S Feb 6 2024 MiTek Industries, Inc. Wed Feb 14 11:02:44
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Page: 1



Scale = 1:66.6

Plate Offsets (X, Y): [8:0-2-0,0-1-8], [9:0-3-8,Edge], [10:0-2-8,0-2-0]

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.54	Vert(LL)	-0.25	15-16	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.94	Vert(CT)	-0.43	15-16	>999	240	M18AHS	142/136
BCLL	0.0*	Rep Stress Incr	YES	WB	0.80	Horz(CT)	0.07	9	n/a	n/a	MT18HS	197/144
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S		Wind(LL)	0.06	11-13	>999	240	Weight: 164 lb	FT = 10%

LUMBER

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

BRACING

TOP CHORD Structural wood sheathing directly applied or 4-1-1 oc purlins, except end verticals, and 2-0-0 oc purlins (4-1-14 max.): 3-6.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing. Except:
2-2-0 oc bracing: 13-15.
WEBS 1 Row at midpt 2-16, 4-15, 5-13, 5-11

REACTIONS (size) 9=0-3-8, 16=0-3-8
Max Horiz 16=-231 (LC 6)
Max Uplift 9=-136 (LC 9), 16=-117 (LC 8)
Max Grav 9=1724 (LC 2), 16=1769 (LC 2)

FORCES

(lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-106/79, 2-3=-1596/211, 3-4=-1366/209, 4-5=-1828/238, 5-6=-1523/224, 6-7=-1776/229, 7-8=-1515/158, 8-9=-1639/160, 1-16=-100/47
BOT CHORD 15-16=-207/835, 13-15=-259/1742, 11-13=-241/1796, 10-11=-107/1306, 9-10=-43/37
WEBS 2-16=-1749/171, 2-15=-81/815, 3-15=0/426, 4-15=-772/197, 4-13=0/323, 5-13=-60/177, 5-11=-600/177, 6-11=-2/486, 7-11=-86/411, 7-10=-704/120, 8-10=-95/1550

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; 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.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- All bearings are assumed to be SPF No.2 .
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 117 lb uplift at joint 16 and 136 lb uplift at joint 9.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 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

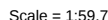


February 15, 2024

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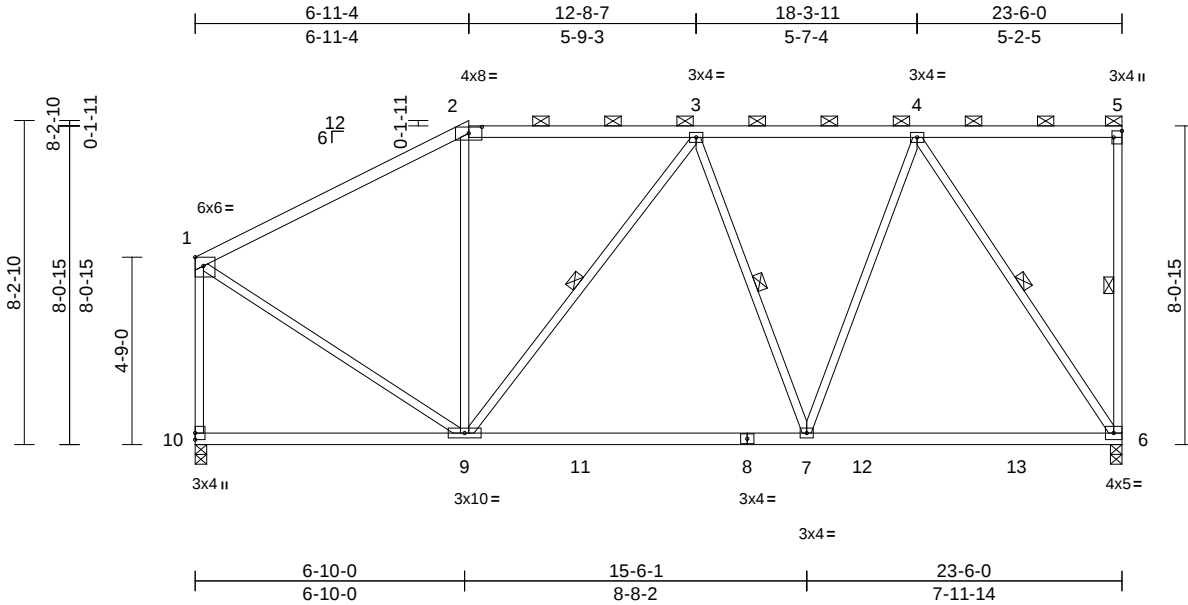
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16023 Swinley Ridge Rd
Crestedmont, MO 65013
816-434-1200 MiTekUSA.com
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Job	Truss	Truss Type	Qty	Ply	Lot 167 HM	
B240013	B6	Half Hip	1	1	Job Reference (optional)	I63626944

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.73 S Feb 6 2024 Print: 8.730 S Feb 6 2024 MiTek Industries, Inc. Wed Feb 14 11:02:45
ID: Hr0UloylgMOrZQ4rpild7XzssyG-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrcD0i7J4zJC?r

Page: 1



Scale = 1:58.4

Plate Offsets (X, Y): [1:Edge,0-2-11], [2:0-4-0,0-1-15], [5:Edge,0-2-8]

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.81	Vert(LL)	-0.16	6-7	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.78	Vert(CT)	-0.27	6-7	>999	240		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.87	Horz(CT)	0.02	6	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S		Wind(LL)	-0.05	6-7	>999	240	Weight: 105 lb	FT = 10%

LUMBER

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

BRACING

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

WEBS 1 Row at midpt 5-6, 3-9, 3-7, 4-6

REACTIONS (size) 6=0-3-8, 10=0-3-8
Max Horiz 10=308 (LC 5)
Max Uplift 6=-232 (LC 5), 10=-89 (LC 8)
Max Grav 6=1157 (LC 2), 10=1120 (LC 2)

FORCES

(lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-907/118, 2-3=-743/133, 3-4=-809/147, 4-5=-114/84, 5-6=-145/74, 1-10=-1030/116
BOT CHORD 9-10=-281/168, 7-9=-272/869, 6-7=-205/602
WEBS 2-9=-112/131, 3-9=-286/145, 3-7=-262/163, 4-7=-35/611, 4-6=-1087/258, 1-9=-99/865

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; 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) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- 6) All bearings are assumed to be SPF No.2 .

- 7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 232 lb uplift at joint 6 and 89 lb uplift at joint 10.
- 8) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 9) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

LOAD CASE(S) Standard



February 15, 2024

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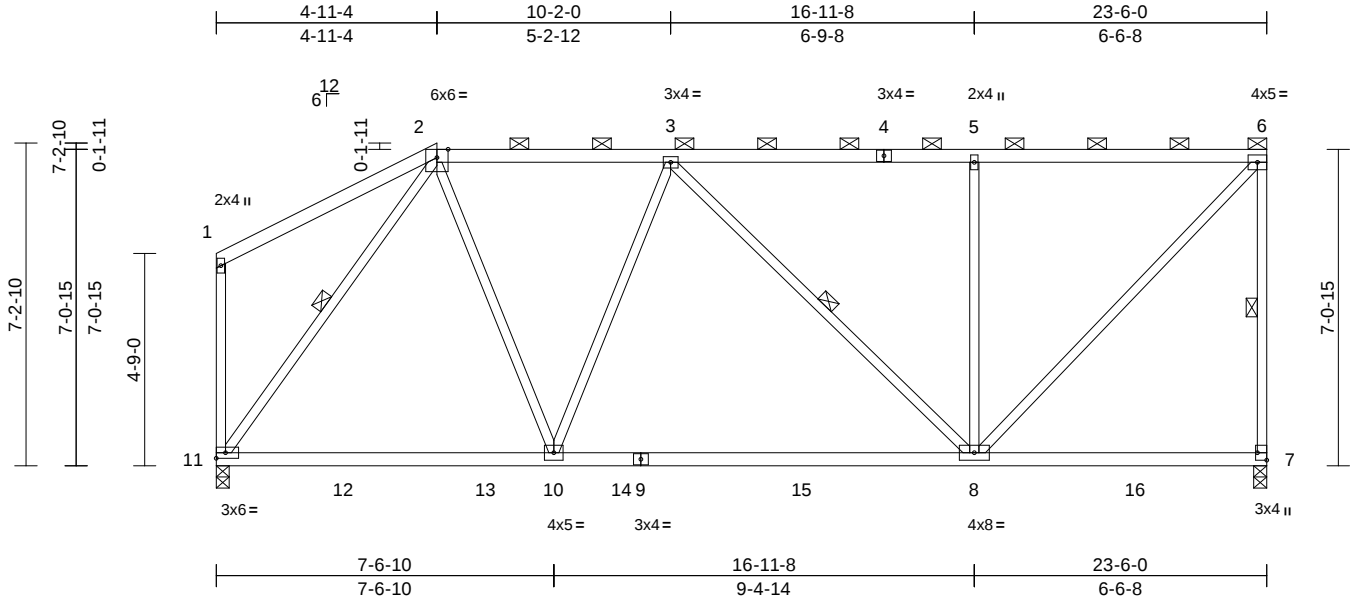
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Job	Truss	Truss Type	Qty	Ply	Lot 167 HM	
B240013	B7	Half Hip	1	1	Job Reference (optional)	I63626945

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.73 S Feb 6 2024 Print: 8.730 S Feb 6 2024 MiTek Industries, Inc. Wed Feb 14 11:02:45
ID:Hr0UloylgMOrZQ4rpild7XzssyG-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrcDoi7J4zJC?f

Page: 1



Scale = 1:51.5

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

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.69	Vert(LL)	-0.23	8-10	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.84	Vert(CT)	-0.38	8-10	>730	240		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.73	Horz(CT)	0.02	7	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S		Wind(LL)	0.04	8-10	>999	240	Weight: 101 lb	FT = 10%

LUMBER

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

BRACING

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

WEBS 1 Row at midpt 6-7, 3-8, 2-11

REACTIONS (size) 7=0-3-8, 11=0-3-8
Max Horiz 11=266 (LC 7)
Max Uplift 7=-227 (LC 5), 11=-94 (LC 4)
Max Grav 7=1155 (LC 2), 11=1151 (LC 2)

FORCES

(lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-131/99, 2-3=-897/146, 3-5=-856/180, 5-6=-856/180, 6-7=-1045/247, 1-11=-168/71
BOT CHORD 10-11=-257/651, 8-10=-299/986, 7-8=-96/71
WEBS 2-10=-717/14, 3-10=-375/196, 3-8=-184/101, 5-8=-519/222, 6-8=-246/1233, 2-11=-1100/177

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; 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.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.

- All bearings are assumed to be SPF No.2 .
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 227 lb uplift at joint 7 and 94 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.
- 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



February 15, 2024

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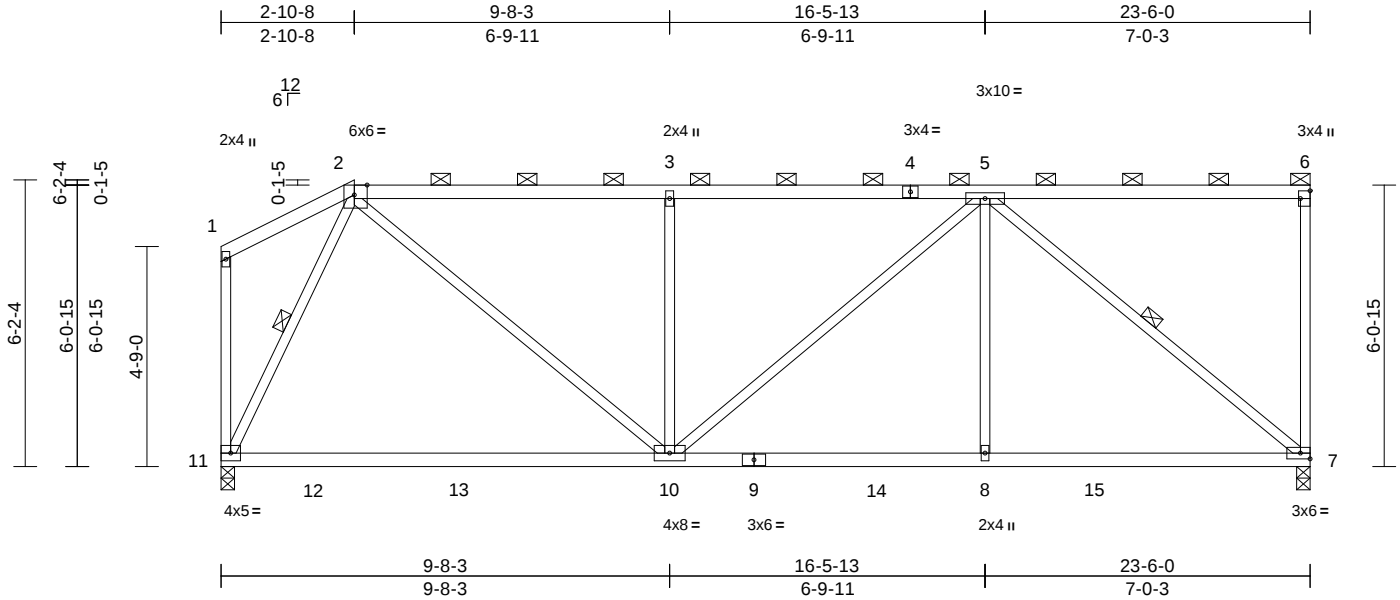
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Job	Truss	Truss Type	Qty	Ply	Lot 167 HM	163626946
B240013	B8	Half Hip	1	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS - 66871.

Run: 8.73 S Feb 6 2024 Print: 8.730 S Feb 6 2024 MiTek Industries, Inc. Wed Feb 14 11:02:46
ID:Hr0UloylgMOrZQ4rpild7XzssyG-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrcDOI7J4zJC?f

Page: 1



Scale = 1:49.7

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

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.63	Vert(LL)	-0.29	10-11	>963	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.56	Vert(CT)	-0.49	10-11	>570	240		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.99	Horz(CT)	0.03	7	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S		Wind(LL)	0.04	8-10	>999	240	Weight: 97 lb	FT = 10%

LUMBER

TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF 2400F 2.0E *Except* 9-7:2x4 SPF No.2
WEBS 2x3 SPF No.2

BRACING

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

WEBS 1 Row at midpt 5-7, 2-11
REACTIONS (size) 7=0-3-8, 11=0-3-8
Max Horiz 11=225 (LC 5)
Max Uplift 7=221 (LC 5), 11=140 (LC 4)
Max Grav 7=1134 (LC 2), 11=1138 (LC 2)

FORCES

(lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-109/71, 2-3=-1195/210, 3-5=-1194/209, 5-6=-84/64, 6-7=-203/88, 1-11=-107/42
BOT CHORD 10-11=-239/449, 8-10=-258/1035, 7-8=-258/1035
WEBS 2-10=-158/993, 3-10=-506/208, 5-10=-62/208, 5-8=0/344, 5-7=-1331/270, 2-11=-997/253

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; 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.

- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- Bearings are assumed to be: Joint 11 SPF 2400F 2.0E, Joint 7 SPF No.2.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 221 lb uplift at joint 7 and 140 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.
- 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



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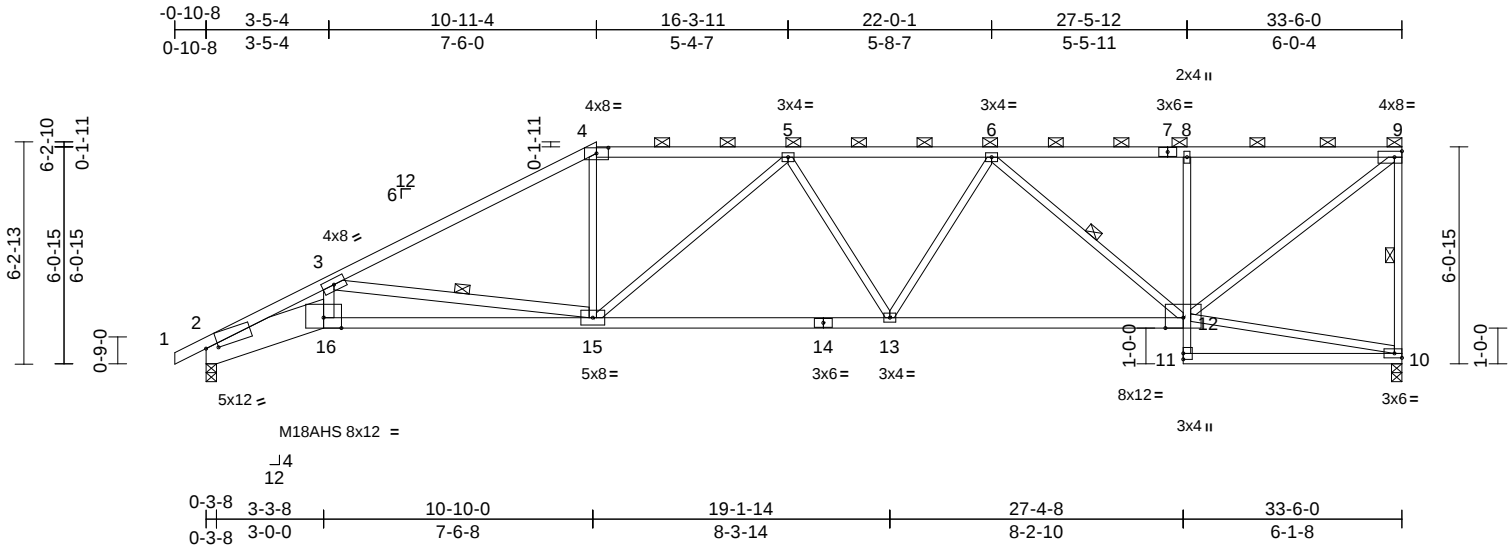
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Job	Truss	Truss Type	Qty	Ply	Lot 167 HM	
B240013	C1	Half Hip	1	1	Job Reference (optional)	I63626947

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.73 S Feb 6 2024 Print: 8.730 S Feb 6 2024 MiTek Industries, Inc. Wed Feb 14 11:02:46
ID:Hr0UloylgMOrZQ4rpild7XzssyG-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

Page: 1



Scale = 1/64.5

Plate Offsets (X, Y): [2:0-4-2,0-0-15], [4:0-4-0,0-1-15]

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	0.83	Vert(LL)	-0.25	15-16	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.78	Vert(CT)	-0.49	15-16	>811	240	M18AHS	142/136
BCLL	0.0*	Rep Stress Incr	YES	WB	0.76	Horz(CT)	0.25	10	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S		Wind(LL)	0.19	15-16	>999	240	Weight: 143 lb	FT = 10%

LUMBER

TOP CHORD	2x4 SPF No.2 *Except* 1-4:2x4 SPF 2100F 1.8E
BOT CHORD	2x4 SPF No.2 *Except* 2-16:2x10 SP 2400F 2.0E, 16-14:2x4 SPF 2100F 1.8E, 8-11:2x3 SPF No.2
WEBS	2x3 SPF No.2 *Except* 16-3,15-3:2x4 SPF No.2

BRACING

TOP CHORD	Structural wood sheathing directly applied or 2-2-0 oc purlins, except end verticals, and 2-0-0 oc purlins (3-4-1 max.): 4-9.
BOT CHORD	Rigid ceiling directly applied or 6-0-0 oc bracing.
WEBS	1 Row at midpt 9-10, 3-15, 6-12

REACTIONS

(size)	2=0-3-8, 10=0-3-8
Max Horiz	2=241 (LC 7)
Max Uplift	2=-159 (LC 8), 10=-271 (LC 5)
Max Grav	2=1569 (LC 1), 10=1495 (LC 1)

FORCES

(lb) - Maximum Compression/Maximum Tension	
TOP CHORD	1-2=0/14, 2-3=-5296/686, 3-4=-2697/351, 4-5=-2303/341, 5-6=-2539/385, 6-8=-1574/276, 8-9=-1570/278, 9-10=-1438/307
BOT CHORD	2-16=-835/4729, 15-16=-779/4342, 13-15=-533/2620, 12-13=-495/2357, 11-12=0/123, 8-12=-442/190, 10-11=-13/6
WEBS	3-16=-167/1444, 3-15=-2049/497, 4-15=-31/716, 5-15=-581/209, 5-13=-158/102, 6-13=0/380, 6-12=-1040/199, 10-12=-81/74, 9-12=-384/2006

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; 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) All plates are MT20 plates unless otherwise indicated.
- 5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 6) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- 7) All bearings are assumed to be SPF No.2 .
- 8) Bearing at joint(s) 2 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- 9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 271 lb uplift at joint 10 and 159 lb uplift at joint 2.
- 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



February 15, 2024

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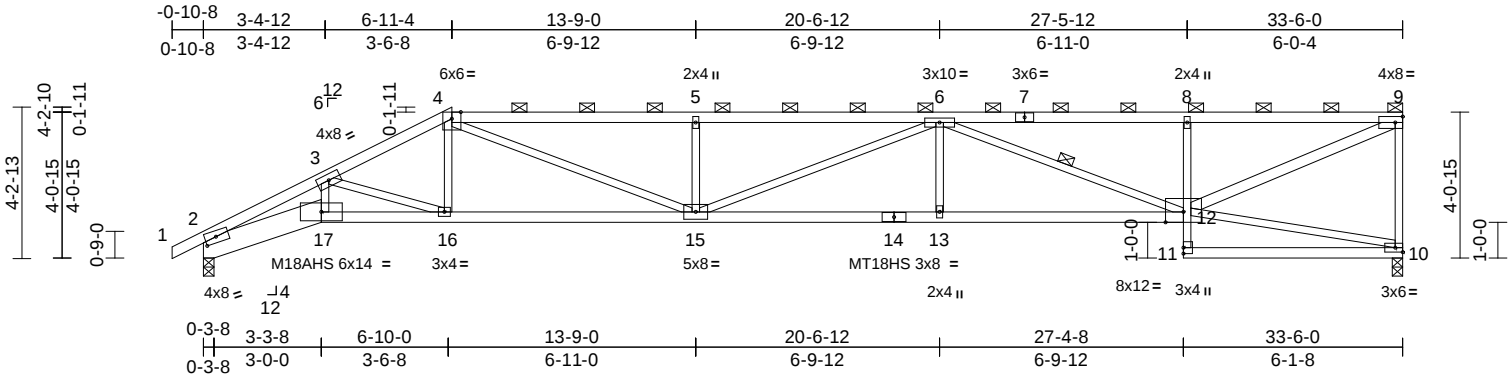
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Job	Truss	Truss Type	Qty	Ply	Lot 167 HM	163626949
B240013	C3	Half Hip	1	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.73 S Feb 6 2024 Print: 8.730 S Feb 6 2024 MiTek Industries, Inc. Wed Feb 14 11:02:47
ID: Hr0UloylgMOrZQ4rpild7XzssyG-RfC?PsB70Hq3NSgPqnL8w3uITxbGKWrCDoi7J4zJC?r

Page: 1



Scale = 1:64.4

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

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.85	Vert(LL)	-0.41	13-15	>971	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.62	Vert(CT)	-0.75	13-15	>531	240	M18AHS	142/136
BCLL	0.0*	Rep Stress Incr	YES	WB	0.92	Horz(CT)	0.29	10	n/a	n/a	MT18HS	197/144
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S		Wind(LL)	0.33	13-15	>999	240	Weight: 131 lb	FT = 10%

LUMBER

TOP CHORD 2x4 SPF No.2 *Except* 4-7:2x4 SPF 2100F 1.8E
BOT CHORD 2x4 SPF 2100F 1.8E *Except* 2-17:2x8 SP 2400F 2.0E, 8-11:2x3 SPF No.2, 11-10:2x4 SPF No.2
WEBS 2x3 SPF No.2 *Except* 12-9:2x4 SPF No.2

BRACING

TOP CHORD Structural wood sheathing directly applied or 2-2-9 oc purlins, except end verticals, and 2-0-0 oc purlins (2-10-4 max.): 4-9.
BOT CHORD Rigid ceiling directly applied or 8-7-5 oc bracing.

WEBS 1 Row at midpt 6-12
REACTIONS (size) 2=0-3-8, 10=0-3-8

Max Horiz 2=157 (LC 7)
Max Uplift 2=-182 (LC 5), 10=-277 (LC 5)
Max Grav 2=1569 (LC 1), 10=1495 (LC 1)

FORCES

(lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/8, 2-3=-4815/756, 3-4=-3264/526, 4-5=-4416/790, 5-6=-4414/788, 6-8=-2718/499, 8-9=-2692/499, 9-10=-1431/314
BOT CHORD 2-17=-799/4202, 16-17=-740/3896, 15-16=-553/2906, 13-15=-836/4332, 12-13=-836/4332, 11-12=0/122, 8-12=-490/205, 10-11=-3/53
WEBS 3-17=-207/1273, 4-16=0/432, 4-15=-375/1727, 5-15=-543/217, 6-15=-44/94, 6-13=0/292, 6-12=-1741/300, 10-12=-67/43, 9-12=-580/2954, 3-16=-1027/208

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; 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) All plates are MT20 plates unless otherwise indicated.
- 5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 6) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- 7) Bearings are assumed to be: Joint 2 SP 2400F 2.0E, Joint 10 SPF No.2.
- 8) Bearing at joint(s) 2 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- 9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 277 lb uplift at joint 10 and 182 lb uplift at joint 2.
- 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



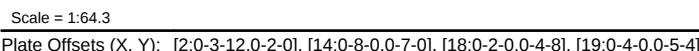
February 15, 2024

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AS NOTED ON PLANS REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
03/05/2024 4:08:38

Wheeler Lumber, Waverly, KS - 66871, Run: 8.73 S Feb 6 2024 Print: 8.730 S Feb 6 2024 MiTek Industries, Inc. Wed Feb 14 11:02:49 Page: 1
ID: Hr0UlovgMQrZQ4rpild7XzssyG-RfC?PsB70Hg3N5oPanL8w3uITXBGKWRCDoi7J4zJC?f



LUMBER		1) 2-ply truss to be connected together with 10d (0.131"x3") nails as follows: Top chords connected as follows: 2x4 - 1 row at 0-6-0 oc, 2x6 - 2 rows staggered at 0-9-0 oc. Bottom chords connected as follows: 2x8 - 2 rows staggered at 0-9-0 oc, 2x6 - 2 rows staggered at 0-9-0 oc, 2x4 - 1 row at 0-9-0 oc. Web connected as follows: 2x4 - 1 row at 0-9-0 oc.	13) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
TOP CHORD	2x6 SPF No.2 *Except* 1-4:2x4 SPF No.2		
BOT CHORD	2x6 SP 2400F 2.0E *Except* 2-19:2x8 SP 2400F 2.0E, 8-13:2x4 SPF No.2, 13-11:2x6 SPF No.2		
WEBS			
BRACING			
TOP CHORD	Structural wood sheathing directly applied or 4-1-1 oc purlins, except end verticals, and 2-0-0 oc purlins (3-6-14 max.): 4-10.	2) All loads are considered equally applied to all plies, except if noted as front (F) or back (B) face in the LOAD CASE(S) section. Ply to ply connections have been provided to distribute only loads noted as (F) or (B), unless otherwise indicated.	
BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing.	3) Unbalanced roof live loads have been considered for this design.	
WEBS	1 Row at midpt 5-18	4) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; 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	
REACTIONS (size) 2=0-3-8, 11=0-3-8		5) Provide adequate drainage to prevent water ponding.	
	Max Horiz 2=109 (LC 7)	6) All plates are MT20 plates unless otherwise indicated.	
	Max Uplift 2=-341 (LC 5), 11=-351 (LC 5)	7) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.	
	Max Grav 2=2557 (LC 1), 11=2562 (LC 1)	8) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.	
FORCES (lb) - Maximum Compression/Maximum Tension		9) Bearings are assumed to be: Joint 2 SP 2400F 2.0E , Joint 11 SPF No.2 .	
TOP CHORD	1-2=0/8, 2-3=-7585/1166, 3-4=-7191/1078, 4-5=-6491/991, 5-6=-12590/1767, 6-8=-12590/1767, 8-9=-10509/1492, 9-10=-67/34, 10-11=-236/87	10) Bearing at joint(s) 2 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.	
BOT CHORD	2-19=-1101/6581, 18-19=-1029/6212, 17-18=-1736/11672, 15-17=-1736/11672, 14-15=-1627/11171, 13-14=0/125, 8-14=-795/244, 12-13=-109/634, 11-12=-501/3488	11) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 351 lb uplift at joint 11 and 341 lb uplift at joint 2.	
WEBS	3-19=-192/883, 4-18=-244/2260, 5-18=-5372/759, 5-17=0/374, 5-15=-109/999, 6-15=-755/279, 8-15=-194/1473, 12-14=-413/3004, 9-14=-1095/7436, 9-12=-851/243, 9-11=-4091/562, 3-18=-104/690	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.	
NOTES			



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03/05/2024 4:08:38

Job	Truss	Truss Type	Qty	Ply	Lot 167 HM
B240013	C4	Half Hip Girder	1	2	I63626950
					Job Reference (optional)

14) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 105 lb down and 49 lb up at 4-11-4, 110 lb down and 47 lb up at 7-0-0, 110 lb down and 47 lb up at 9-0-0, 110 lb down and 47 lb up at 11-0-0, 110 lb down and 47 lb up at 13-0-0, 110 lb down and 47 lb up at 15-0-0, 110 lb down and 47 lb up at 17-0-0, 110 lb down and 47 lb up at 19-0-0, 110 lb down and 47 lb up at 21-0-0, 110 lb down and 47 lb up at 23-0-0, 110 lb down and 47 lb up at 25-0-0, 109 lb down and 47 lb up at 27-0-0, 109 lb down and 47 lb up at 29-0-0, and 109 lb down and 47 lb up at 31-0-0, and 121 lb down and 44 lb up at 33-0-0 on top chord, and 300 lb down and 76 lb up at 4-11-4, 51 lb down at 7-0-0, 51 lb down at 9-0-0, 51 lb down at 11-0-0, 51 lb down at 13-0-0, 51 lb down at 15-0-0, 51 lb down at 17-0-0, 51 lb down at 19-0-0, 51 lb down at 21-0-0, 51 lb down at 23-0-0, 51 lb down at 25-0-0, 51 lb down at 27-0-0, 51 lb down at 29-0-0, and 51 lb down at 31-0-0, and 64 lb down at 33-0-0 on bottom chord. The design/selection of such connection device (s) is the responsibility of others.

LOAD CASE(S) Standard

- 1) Dead + Roof Live (balanced): Lumber Increase=1.15,
Plate Increase=1.15
Uniform Loads (lb/ft)
Vert: 1-4=-70, 4-10=-70, 2-19=-20, 14-19=-20,
11-13=-20
Concentrated Loads (lb)
Vert: 4=-82 (B), 7=-82 (B), 16=-36 (B), 18=-300 (B),
12=-37 (B), 9=-81 (B), 20=-82 (B), 21=-82 (B),
22=-82 (B), 23=-82 (B), 24=-82 (B), 25=-82 (B),
26=-82 (B), 27=-82 (B), 28=-82 (B), 29=-81 (B),
30=-81 (B), 31=-104 (B), 32=-36 (B), 33=-36 (B),
34=-36 (B), 35=-36 (B), 36=-36 (B), 37=-36 (B),
38=-36 (B), 39=-36 (B), 40=-36 (B), 41=-37 (B),
42=-37 (B), 43=-43 (B)

 **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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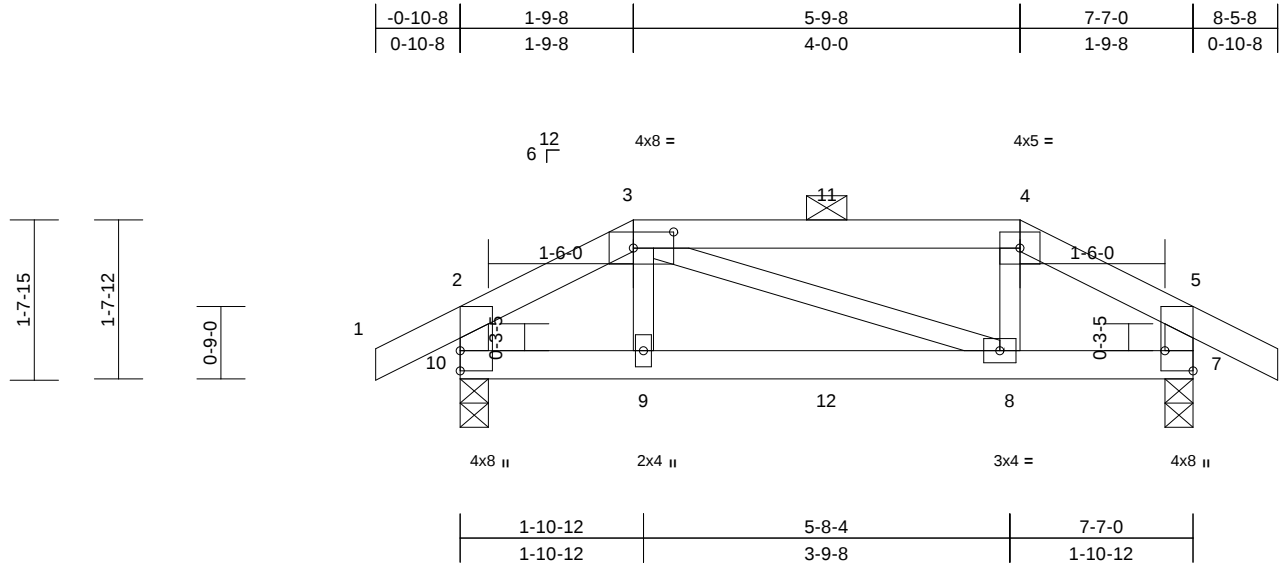
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Job	Truss	Truss Type	Qty	Ply	Lot 167 HM	I63626951
B240013	D1	Hip Girder	1	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.73 S Feb 6 2024 Print: 8.730 S Feb 6 2024 MiTek Industries, Inc. Wed Feb 14 11:02:49
ID:Hr0UloylgMOrZQ4rpild7XzssyG-RfC?PsB70Hq3NSgPqnL8w3uITxbGKWrCDoi7J4zJC?f

Page: 1



Scale = 1:23.8									
Plate Offsets (X, Y): [3:0-5-0,0-2-0], [7:Edge,0-3-8]									
Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in (loc)	l/defl	L/d
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.28	Vert(LL)	-0.02 8-9	>999	360
TCDL	10.0	Lumber DOL	1.15	BC	0.23	Vert(CT)	-0.03 8-9	>999	240
BCLL	0.0*	Rep Stress Incr	NO	WB	0.03	Horz(CT)	0.00 7	n/a	n/a
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S		Wind(LL)	0.01 8-9	>999	240
						PLATES		GRIP	
						MT20		197/144	
						Weight: 26 lb		FT = 10%	

LUMBER
TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
WEBS 2x3 SPF No.2 *Except* 10-2,7-5:2x4 SPF No.2

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

REACTIONS (size) 7=0-3-8, 10=0-3-8
Max Horiz 10=37 (LC 6)
Max Uplift 7=-108 (LC 9), 10=-108 (LC 8)
Max Grav 7=397 (LC 1), 10=397 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/32, 2-3=-385/123, 3-4=-300/111, 4-5=-386/123, 5-6=0/32, 2-10=-333/101, 5-7=-333/101
BOT CHORD 9-10=-99/308, 8-9=-97/309, 7-8=-92/309
WEBS 3-9=-19/95, 3-8=-13/13, 4-8=-24/96

- 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; 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) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
 - 6) All bearings are assumed to be SPF No.2 .

- 7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 108 lb uplift at joint 10 and 108 lb uplift at joint 7.
 - 8) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
 - 9) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
 - 10) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 102 lb down and 88 lb up at 1-9-8, and 52 lb down and 31 lb up at 3-9-8, and 102 lb down and 88 lb up at 5-9-8 on top chord, and 7 lb down and 34 lb up at 1-9-8, and 6 lb down and 1 lb up at 3-9-8, and 7 lb down and 34 lb up at 5-8-12 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
 - 11) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).
- LOAD CASE(S)** Standard
- 1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (lb/ft)
Vert: 1-2=-70, 2-3=-70, 3-4=-70, 4-5=-70, 5-6=-70, 7-10=-20
Concentrated Loads (lb)
Vert: 9=2 (F), 8=2 (F), 12=1 (F)



February 15,2024

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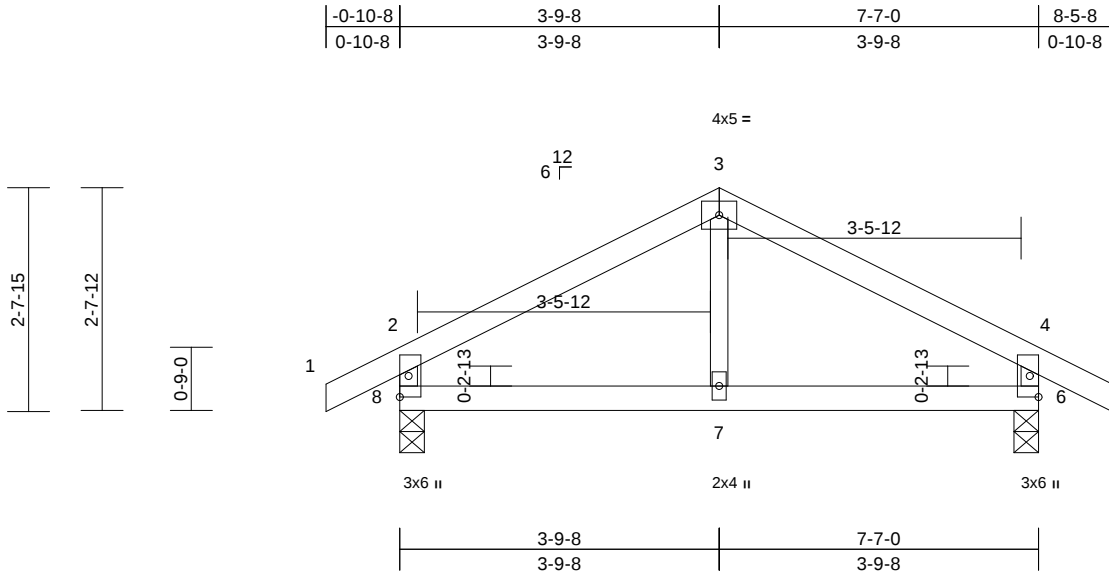
MiTek®
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LEE'S SUMMIT, MISSOURI
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Job	Truss	Truss Type	Qty	Ply	Lot 167 HM	I63626952
B240013	D2	Common	1	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.73 S Feb 6 2024 Print: 8.730 S Feb 6 2024 MiTek Industries, Inc. Wed Feb 14 11:02:50
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Page: 1



Scale = 1:27.4

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	0.29	Vert(LL)	-0.01	7	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.14	Vert(CT)	-0.02	7	>999	240		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.04	Horz(CT)	0.00	6	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-R		Wind(LL)	0.00	7-8	>999	240	Weight: 23 lb	FT = 10%

LUMBER

TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
WEBS 2x3 SPF 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 6-0-0 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (size) 6=0-3-8, 8=0-3-8

Max Horiz 8=-49 (LC 6)
Max Uplift 6=-63 (LC 9), 8=-63 (LC 8)
Max Grav 6=400 (LC 1), 8=400 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=0/31, 2-3=-355/55, 3-4=-355/55,
4-5=0/31, 2-8=-350/87, 4-6=-350/87

BOT CHORD 7-8=-2/256, 6-7=-2/256

WEBS 3-7=0/141

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; 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) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 4) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- 5) All bearings are assumed to be SPF No.2.
- 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 63 lb uplift at joint 8 and 63 lb uplift at joint 6.



February 15, 2024

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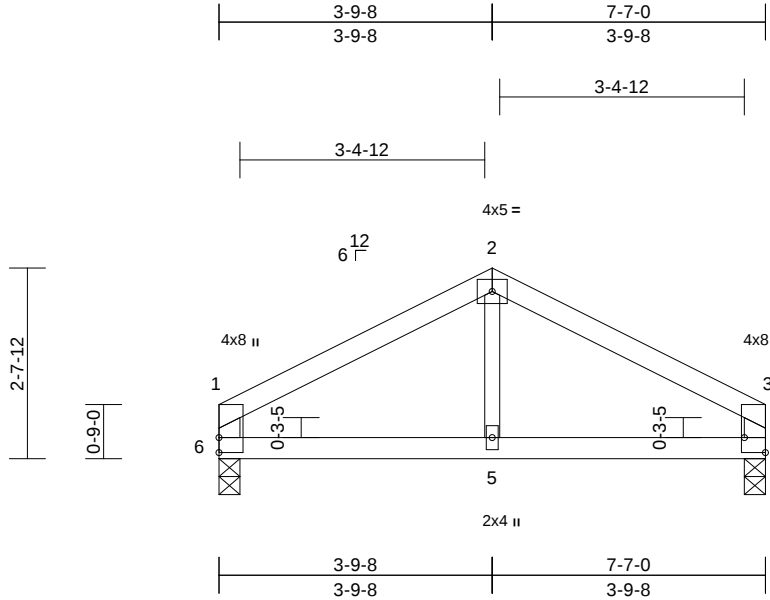
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Job	Truss	Truss Type	Qty	Ply	Lot 167 HM	
B240013	D3	Common	1	1	Job Reference (optional)	I63626953

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.73 S Feb 6 2024 Print: 8.730 S Feb 6 2024 MiTek Industries, Inc. Wed Feb 14 11:02:50
ID:Hr0UoluygMOrZQ4rpild7XzssyG-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrcDoi7J4zJC?f

Page: 1



Scale = 1:32

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

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.30	Vert(LL)	-0.01	5	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.16	Vert(CT)	-0.02	5	>999	240		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.04	Horz(CT)	0.00	4	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-R		Wind(LL)	0.00	5-6	>999	240	Weight: 21 lb	FT = 10%

LUMBER

TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
WEBS 2x4 SP No.3 *Except* 5-2:2x3 SPF 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 6-0-0 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (size) 4=0-3-8, 6=0-3-8

Max Horiz 6=-43 (LC 4)
Max Uplift 4=-40 (LC 9), 6=-40 (LC 8)
Max Grav 4=328 (LC 1), 6=328 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=-358/55, 2-3=-358/55, 1-6=-272/63, 3-4=-272/63

BOT CHORD 5-6=-11/264, 4-5=-11/264

WEBS 2-5=0/130

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; 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) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 4) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- 5) All bearings are assumed to be SPF No.2 .
- 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 40 lb uplift at joint 6 and 40 lb uplift at joint 4.



February 15, 2024

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

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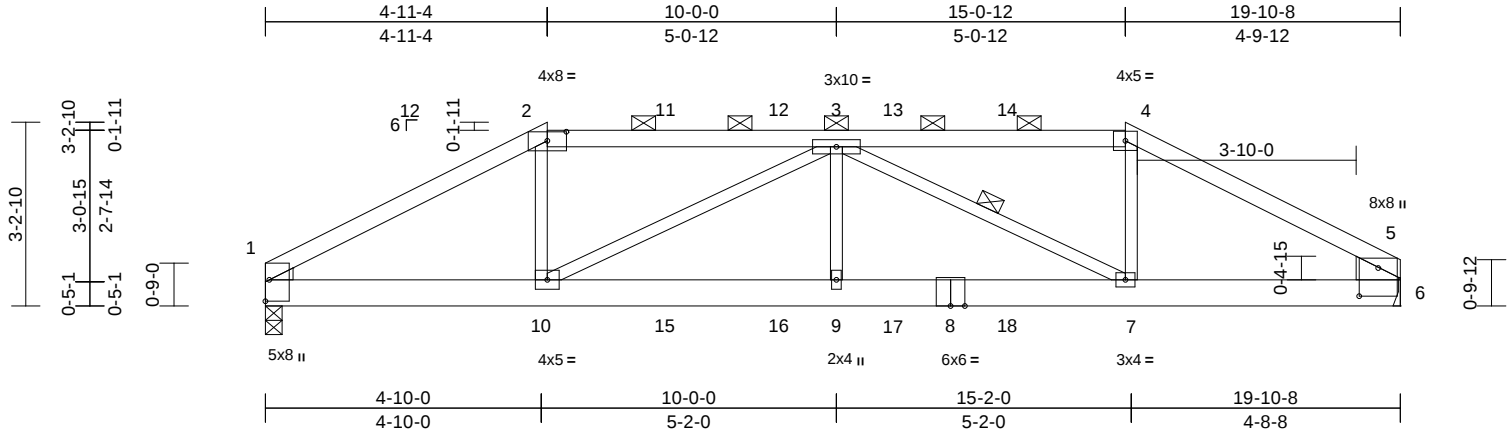
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Job	Truss	Truss Type	Qty	Ply	Lot 167 HM	163626954
B240013	E1	Hip Girder	1	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.73 S Feb 6 2024 Print: 8.730 S Feb 6 2024 MiTek Industries, Inc. Wed Feb 14 11:02:50
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Page: 1



Scale = 1:40.4

Plate Offsets (X, Y): [1:Edge,0-0-13], [2:0-4-0,0-1-15], [5:0-5-15,0-4-0]

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.75	Vert(LL)	-0.13	7-9	>999	360	MT20
TCDL	10.0	Lumber DOL	1.15	BC	0.88	Vert(CT)	-0.23	7-9	>999	240	197/144
BCLL	0.0*	Rep Stress Incr	NO	WB	0.81	Horz(CT)	0.05	6	n/a	n/a	
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S		Wind(LL)	0.09	7-9	>999	240	Weight: 81 lb FT = 10%

LUMBER	
TOP CHORD	2x4 SPF No.2
BOT CHORD	2x6 SP 2400F 2.0E *Except* 8-1:2x6 SPF No.2
WEBS	2x3 SPF No.2 *Except* 6-5:2x10 SP 2400F 2.0E
WEDGE	Left: 2x3 SPF No.2
BRACING	
TOP CHORD	Structural wood sheathing directly applied or 3-1-1 oc purlins, except end verticals, and 2-0-0 oc purlins (3-4-8 max.): 2-4.
BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS	1 Row at midpt 3-7
REACTIONS	
(size)	1=0-3-8, 6= Mechanical
Max Horiz	1=53 (LC 5)
Max Uplift	1=-213 (LC 8), 6=-215 (LC 9)
Max Grav	1=1478 (LC 1), 6=1502 (LC 1)
FORCES	
(lb) - Maximum Compression/Maximum Tension	
TOP CHORD	1-2=-2649/386, 2-3=-2197/355, 3-4=-1940/319, 4-5=-2261/340, 5-6=-1143/202
BOT CHORD	1-10=-342/2225, 9-10=-448/3001, 7-9=-448/3001, 6-7=-271/1958
WEBS	2-10=-66/867, 3-10=-981/163, 3-9=0/410, 3-7=-1251/200, 4-7=-30/609

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; 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.

- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- Bearings are assumed to be: Joint 1 SPF No.2 , Joint 6 SPF No.2 .
- Refer to girder(s) for truss to truss connections.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 215 lb uplift at joint 6 and 213 lb uplift at joint 1.
- 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.
- Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 104 lb down and 48 lb up at 4-11-4, 109 lb down and 47 lb up at 7-0-0, 109 lb down and 47 lb up at 9-0-0, 109 lb down and 47 lb up at 11-0-0, and 109 lb down and 47 lb up at 13-0-0, and 104 lb down and 48 lb up at 15-0-12 on top chord, and 303 lb down and 73 lb up at 4-11-4, 51 lb down at 7-0-0, 51 lb down at 9-0-0, 51 lb down at 11-0-0, and 51 lb down at 13-0-0, and 303 lb down and 73 lb up at 15-0-0 on bottom 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: 1-2=-70, 2-4=-70, 4-5=-70, 1-6=-20
Concentrated Loads (lb)
Vert: 2=-81 (F), 4=-81 (F), 10=-303 (F), 7=-303 (F), 11=-81 (F), 12=-81 (F), 13=-81 (F), 14=-81 (F), 15=-37 (F), 16=-37 (F), 17=-37 (F), 18=-37 (F)



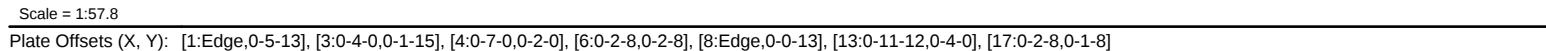
February 15, 2024

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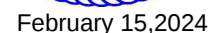
Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall 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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Wheeler Lumber, Waverly, KS - 66871, Run: 8.73 S Feb 6 2024 Print: 8.730 S Feb 6 2024 MiTek Industries, Inc. Wed Feb 14 11:02:51 Page: 1
ID: Hr0UioylgMORZQ4rpild7XzssyG-RfC?PsB70Hg3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?i



LUMBER		1) 2-ply truss to be connected together with 10d (0.131"x3") nails as follows:	2) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
TOP CHORD	2x4 SPF No.2		
BOT CHORD	2x4 SPF No.2 *Except* 5-12:2x3 SPF No.2, 12-8:2x6 SPF No.2, 16-13:2x4 SPF 2100F 1.8E	Top chords connected as follows: 2x4 - 1 row at 0-6-0 oc.	
WEBS	2x3 SPF No.2 *Except* 13-6,18-1:2x4 SPF No.2	Bottom chords connected as follows: 2x4 - 2 rows staggered at 0-3-0 oc, 2x3 - 1 row at 0-9-0 oc, 2x6 - 2 rows staggered at 0-9-0 oc.	13) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 131 lb down and 47 lb up at 21-0-0, and 131 lb down and 47 lb up at 23-0-0, and 131 lb down and 48 lb up at 25-0-12 on top chord, and 1134 lb down and 162 lb up at 19-9-12, 51 lb down at 21-0-0, and 51 lb down at 23-0-0, and 303 lb down and 73 lb up at 25-0-0 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
WEDGE	Right: 2x3 SPF No.2	Web connected as follows: 2x3 - 1 row at 0-9-0 oc, 2x4 - 1 row at 0-9-0 oc.	
BRACING			LOAD CASE(S) Standard
TOP CHORD	Structural wood sheathing directly applied or 5-5-15 oc purlins, except end verticals, and 2-0-0 oc purlins (2-8-14 max.): 2-3, 4-7.	2) All loads are considered equally applied to all plies, except if noted as front (F) or back (B) face in the LOAD CASE(S) section. Ply to ply connections have been provided to distribute only loads noted as (F) or (B), unless otherwise indicated.	1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing.	3) Unbalanced roof live loads have been considered for this design.	Uniform Loads (lb/ft)
REACTIONS	(size) 8=0-3-8, 18=0-3-8 Max Horiz 18=-110 (LC 9) Max Uplift 8=-416 (LC 9), 18=-174 (LC 8) Max Grav 8=2656 (LC 1), 18=1842 (LC 1)	4) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDF=6.0psf; BCDL=6.0psf; h=25ft; 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	Vert: 1-2=-70, 2-3=-70, 3-4=-70, 4-7=-70, 7-9=-70, 13-18=-20, 8-12=-20
FORCES	(lb) - Maximum Compression/Maximum Tension	5) Provide adequate drainage to prevent water ponding.	Concentrated Loads (lb)
TOP CHORD	1-2=-3184/327, 2-3=-4303/564, 3-4=-4899/599, 4-5=-9782/1296, 5-6=-11398/1569, 6-7=-5692/851, 7-8=-4821/725, 8-9=0/6, 1-18=-1766/210	6) All plates are MT20 plates unless otherwise indicated.	Vert: 7=-81 (F), 13=-1134 (F), 10=-303 (F), 19=-81 (F), 20=-81 (F), 21=-37 (F), 22=-37 (F)
BOT CHORD	17-18=-166/633, 15-17=-262/2761, 14-15=-1184/9801, 13-14=-1472/11534, 12-13=0/154, 5-13=-101/795, 11-12=-62/466, 10-11=-550/4083, 8-10=-552/4099	7) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.	
WEBS	2-17=-46/159, 2-15=-303/1911, 3-15=-170/1791, 4-15=-6033/900, 4-14=-99/455, 5-14=-2076/345, 11-13=-729/5639, 6-13=-838/6654, 7-10=-42/415, 6-11=-3896/556, 7-11=-293/2359, 1-17=-211/2133	8) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.	
NOTES		9) Bearings are assumed to be: Joint 18 SPF No.2 , Joint 8 SPF No.2 .	
		10) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 174 lb uplift at joint 18 and 416 lb uplift at joint 8.	
		11) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.	



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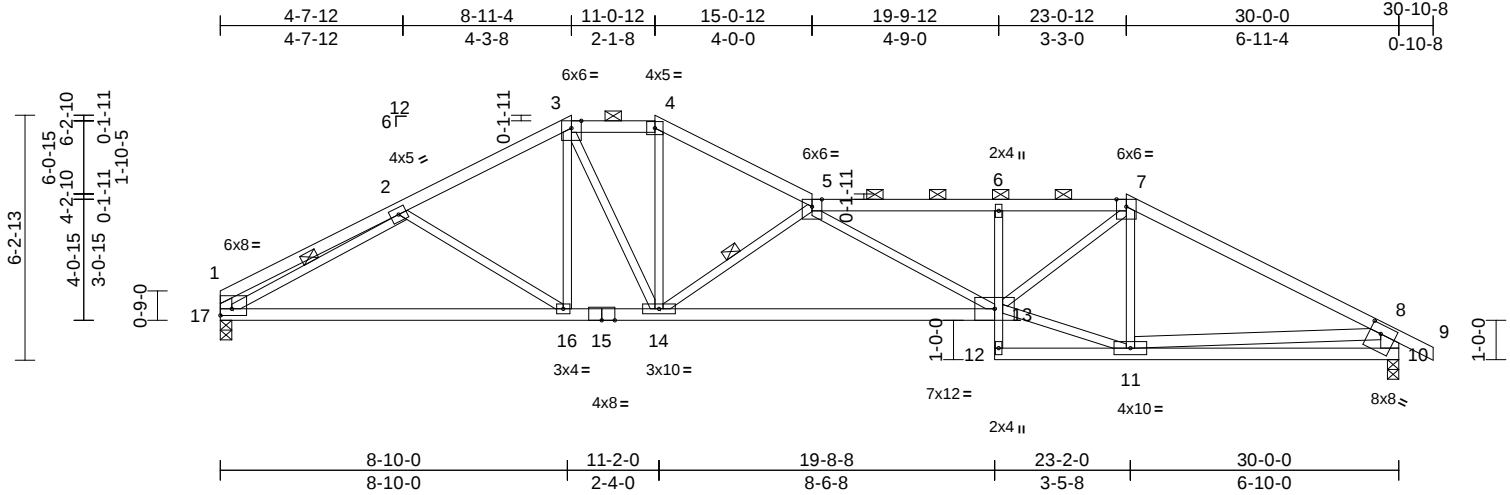
Job	Truss	Truss Type	Qty	Ply	Lot 167 HM	
B240013	E3	Roof Special	1	1	Job Reference (optional)	163626956

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.73 S Feb 6 2024 Print: 8.730 S Feb 6 2024 MiTek Industries, Inc. Wed Feb 14 11:02:52

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Scale = 1:58.7

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

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	0.67	Vert(LL)	-0.21	13-14	>999	360	MT20 197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.68	Vert(CT)	-0.48	13-14	>735	240	
BCLL	0.0*	Rep Stress Incr	YES	WB	0.64	Horz(CT)	0.12	10	n/a	n/a	
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S		Wind(LL)	0.14	13-14	>999	240	Weight: 120 lb FT = 10%

LUMBER

TOP CHORD	2x4 SPF No.2
BOT CHORD	2x4 SPF No.2 *Except* 6-12:2x3 SPF No.2, 15-13:2x4 SPF 2100F 1.8E
WEBS	2x3 SPF No.2 *Except* 10-8:2x6 SPF No.2, 11-8:2x4 SPF No.2, 17-1:2x4 SP No.3

BRACING

TOP CHORD	Structural wood sheathing directly applied or 3-0-13 oc purlins, except end verticals, and 2-0-0 oc purlins (2-8-15 max.): 3-4, 5-7.
BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing, Except: 6-0-0 oc bracing: 11-12.
WEBS	1 Row at midpt 5-14, 2-17

REACTIONS

(size)	10=0-3-8, 17=0-3-8
Max Horiz	17=-117 (LC 9)
Max Uplift	10=-233 (LC 9), 17=-112 (LC 8)
Max Grav	10=1412 (LC 1), 17=1332 (LC 1)

FORCES

(lb) - Maximum Compression/Maximum Tension	
TOP CHORD	1-2=-532/40, 2-3=-1996/239, 3-4=-1933/281, 4-5=-2243/281, 5-6=-3199/490, 6-7=-3164/489, 7-8=-2153/329, 8-9=0/35, 8-10=-1344/271, 1-17=-361/67
BOT CHORD	16-17=-169/1841, 14-16=-42/1725, 13-14=-366/3437, 12-13=0/33, 6-13=-380/145, 11-12=-46/59, 10-11=-230/666
WEBS	3-16=-24/212, 3-14=-126/582, 4-14=-46/760, 5-14=-1842/387, 5-13=-280/91, 11-13=-157/1858, 7-13=-195/1758, 7-11=-523/118, 8-11=-84/1163, 2-17=-1678/238, 2-16=-201/182

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; 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) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- 6) All bearings are assumed to be SPF No.2 .
- 7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 233 lb uplift at joint 10 and 112 lb uplift at joint 17.
- 8) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 9) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

LOAD CASE(S) Standard



February 15, 2024

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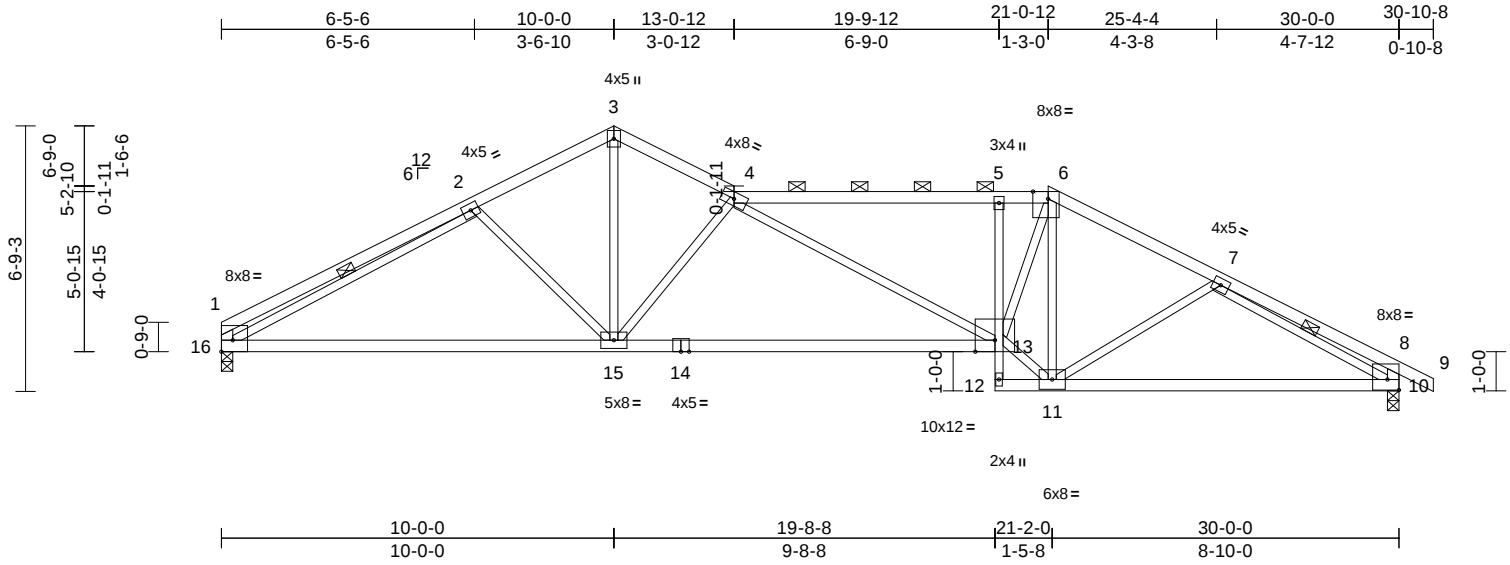
Job	Truss	Truss Type	Qty	Ply	Lot 167 HM	163626957
B240013	E4	Roof Special	1	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.73 S Feb 6 2024 Print: 8.730 S Feb 6 2024 MiTek Industries, Inc. Wed Feb 14 11:02:52

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Scale = 1:58.7

Plate Offsets (X, Y): [1:Edge,0-3-8], [6:0-4-10,Edge], [8:Edge,0-3-4]												
Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.96	Vert(LL)	-0.24	13-15	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.81	Vert(CT)	-0.56	13-15	>636	240		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.87	Horz(CT)	0.13	10	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S		Wind(LL)	0.13	13-15	>999	240	Weight: 117 lb	FT = 10%

LUMBER
TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2 *Except* 16-14:2x4 SPF 2100F 1.8E, 5-12:2x3 SPF No.2
WEBS 2x3 SPF No.2 *Except* 10-8:2x4 SPF No.2, 16-1:2x4 SP No.3

BRACING
TOP CHORD Structural wood sheathing directly applied or 3-9-8 oc purlins, except end verticals, and 2-0-0 oc purlins (2-2-0 max.): 4-6.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing, Except: 6-0-0 oc bracing: 11-12.
WEBS 1 Row at midpt 7-10, 2-16

REACTIONS (size) 10=0-3-8, 16=0-3-8
Max Horiz 16=-128 (LC 9)
Max Uplift 10=-236 (LC 9), 16=-123 (LC 8)
Max Grav 10=1410 (LC 1), 16=1336 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-719/133, 2-3=-1926/272, 3-4=-1927/262, 4-5=-2423/430, 5-6=-2400/431, 6-7=-2010/341, 7-8=-601/107, 8-9=0/32, 8-10=-481/129, 1-16=-496/135
BOT CHORD 15-16=-155/1842, 13-15=-215/2542, 12-13=-189/0, 5-13=-557/221, 11-12=-90/27, 10-11=-280/1837
WEBS 2-15=-312/212, 3-15=-187/1514, 4-13=-211/83, 11-13=-113/2162, 6-13=-288/2018, 6-11=-1033/126, 7-10=-1610/293, 2-16=-1488/214, 4-15=-1422/346, 7-11=-129/154

- 2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; 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) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- 6) Bearings are assumed to be: Joint 16 SPF 2100F 1.8E , Joint 10 SPF No.2 .
- 7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 236 lb uplift at joint 10 and 123 lb uplift at joint 16.
- 8) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 9) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

LOAD CASE(S) Standard



February 15,2024

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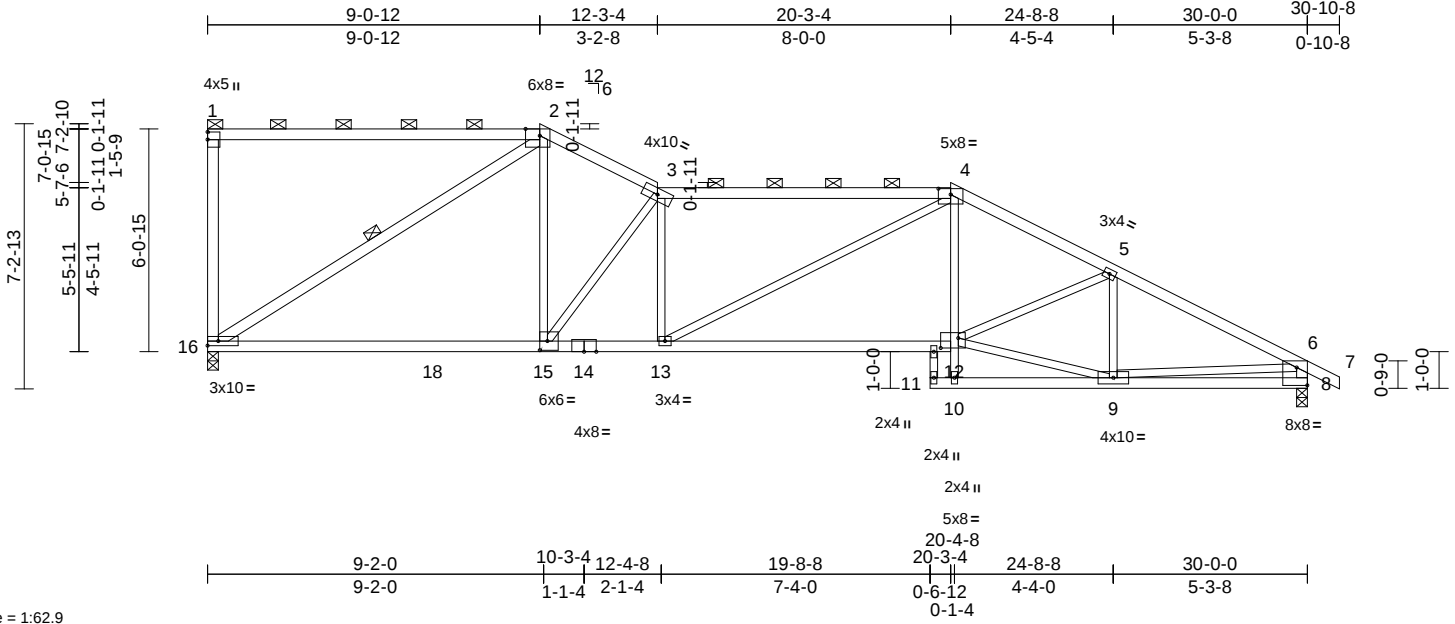
Job	Truss	Truss Type	Qty	Ply	Lot 167 HM	163626958
B240013	E5	Roof Special	1	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.73 S Feb 6 2024 Print: 8.730 S Feb 6 2024 MiTek Industries, Inc. Wed Feb 14 11:02:52

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Scale = 1:62.9

Plate Offsets (X, Y): [2:0-4-10,Edge], [4:0-4-0,0-1-15], [8:Edge,0-5-13], [12:0-5-12,0-3-4], [15:0-2-8,0-3-0]

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.86	Vert(LL)	-0.24	12-13	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.53	Vert(CT)	-0.47	12-13	>765	240		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.99	Horz(CT)	0.09	8	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S		Wind(LL)	0.10	12-13	>999	240	Weight: 128 lb	FT = 10%

LUMBER

TOP CHORD 2x4 SPF No.2 *Except* 1-2:2x4 SPF 2100F 1.8E, 3-4:2x4 SPF 2400F 2.0E
BOT CHORD 2x4 SPF 2100F 1.8E *Except* 17-11:2x3 SPF No.2
WEBS 2x3 SPF No.2 *Except* 16-1,16-2,8-6:2x4 SPF No.2

BRACING

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

WEBS 1 Row at midpt 2-16

REACTIONS (size) 8=0-3-8, 16=0-3-8
Max Horiz 16=-273 (LC 4)
Max Uplift 8=-233 (LC 9), 16=-148 (LC 4)
Max Grav 8=1461 (LC 2), 16=1414 (LC 2)

FORCES

(lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-16=-309/130, 1-2=-101/74, 2-3=-1832/258, 3-4=-2454/352, 4-5=-2579/403, 5-6=-2272/344, 6-7=0/32, 6-8=-1359/258
BOT CHORD 15-16=-81/1585, 13-15=-150/2452, 12-13=-194/2269, 10-11=0/0, 9-10=-3/21, 8-9=-123/521
WEBS 2-16=-1838/227, 2-15=-150/1440, 3-15=-1426/283, 3-13=-3/140, 4-13=-64/247, 9-12=-236/2007, 10-12=0/99, 4-12=-15/624, 5-9=-545/141, 6-9=-108/1448, 5-12=-86/346

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; 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.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- All bearings are assumed to be SPF 2100F 1.8E .
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 148 lb uplift at joint 16 and 233 lb uplift at joint 8.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 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



February 15, 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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DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
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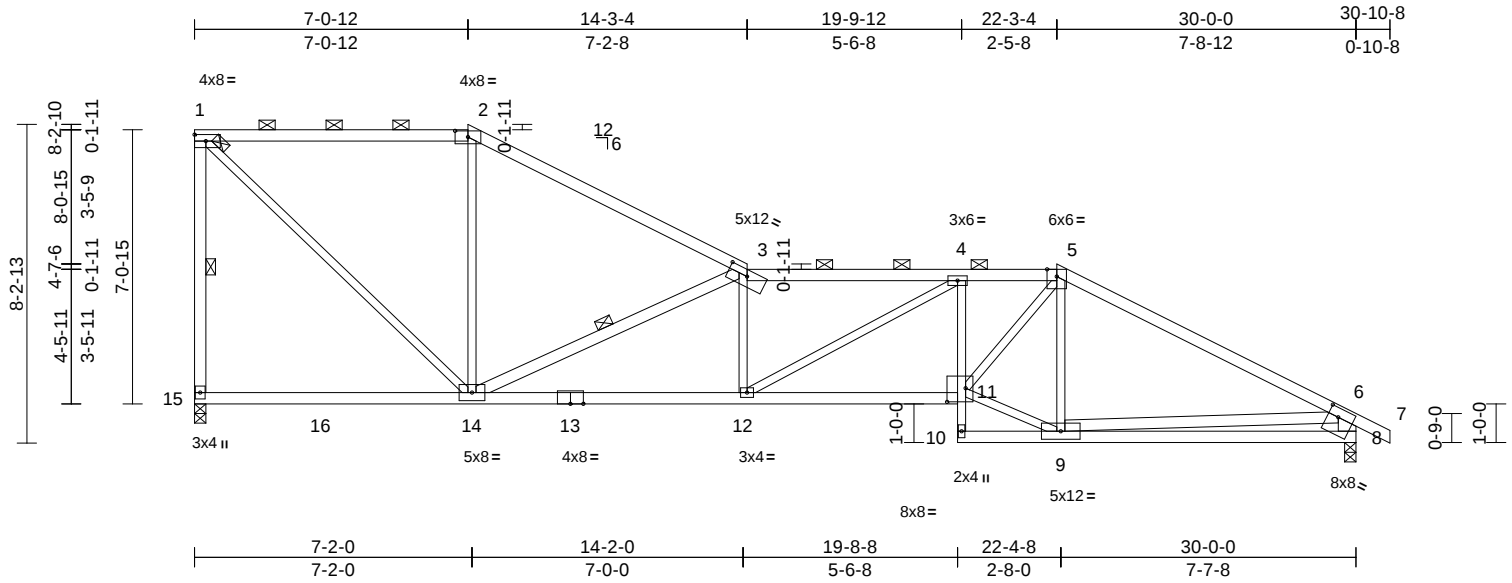
Job	Truss	Truss Type	Qty	Ply	Lot 167 HM	163626959
B240013	E6	Roof Special	1	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.73 S Feb 6 2024 Print: 8.730 S Feb 6 2024 MiTek Industries, Inc. Wed Feb 14 11:02:53

Page: 1

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Scale = 1:59.5									
Plate Offsets (X, Y): [2:0-4-0,0-1-15], [3:0-6-0,0-2-0], [8:0-3-4,0-2-12], [11:0-5-12,0-4-4]									
Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in (loc)	l/defl	L/d
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.92	Vert(LL)	-0.24 11-12	>999	360
TCDL	10.0	Lumber DOL	1.15	BC	0.89	Vert(CT)	-0.42 11-12	>838	240
BCLL	0.0*	Rep Stress Incr	YES	WB	0.70	Horz(CT)	0.12 8	n/a	n/a
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S		Wind(LL)	0.16 11-12	>999	240
							Weight: 129 lb	FT = 10%	

LUMBER
TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2 *Except* 15-13:2x4 SPF 2100F 1.8E, 4-10:2x3 SPF No.2
WEBS 2x3 SPF No.2 *Except* 15-1,14-3,9-6:2x4 SPF No.2, 8-6:2x6 SP 2400F 2.0E

BRACING
TOP CHORD Structural wood sheathing directly applied, except end verticals, and 2-0-0 oc purlins (2-7-12 max.): 1-2, 3-5.
BOT CHORD Rigid ceiling directly applied or 9-10-14 oc bracing.
WEBS 1 Row at midpt 1-15, 3-14

REACTIONS (size) 8=0-3-8, 15=0-3-8
Max Horiz 15=315 (LC 4)
Max Uplift 8=244 (LC 9), 15=157 (LC 9)
Max Grav 8=1437 (LC 2), 15=1413 (LC 2)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-15=-1272/197, 1-2=-1136/236, 2-3=-1360/201, 3-4=-3198/496, 4-5=-3033/505, 5-6=-2187/349, 6-7=0/35, 6-8=-1340/287
BOT CHORD 14-15=-44/253, 12-14=-332/3198, 11-12=-351/3064, 10-11=-13/3, 4-11=-428/133, 9-10=-23/54, 8-9=-290/807
WEBS 1-14=-233/1547, 2-14=-9/235, 3-14=-2266/447, 3-12=-42/139, 4-12=0/182, 9-11=-200/2031, 5-11=-222/1835, 5-9=-770/161, 6-9=-62/1095

- 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.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- Bearings are assumed to be: Joint 15 SPF 2100F 1.8E , Joint 8 SPF No.2 .
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 157 lb uplift at joint 15 and 244 lb uplift at joint 8.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 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



February 15, 2024

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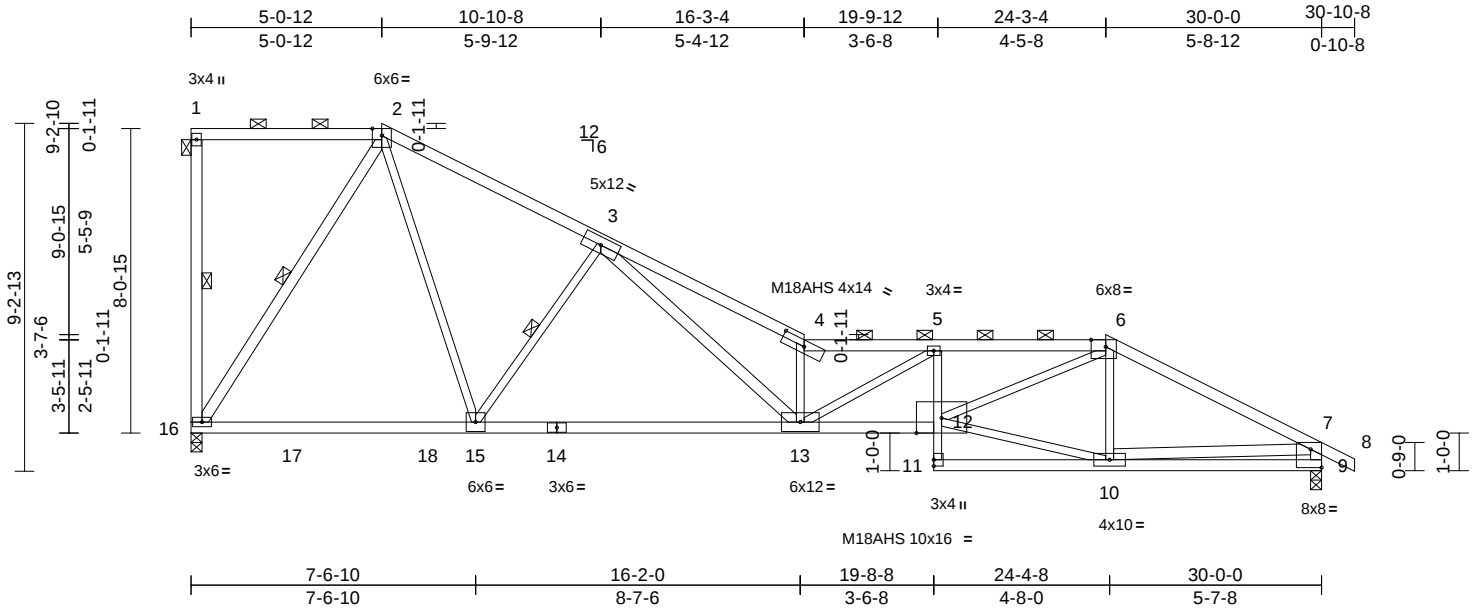
RELEASE FOR CONSTRUCTION AS NOTED ON PLANS REVIEW DEVELOPMENT SERVICES LEE'S SUMMIT, MISSOURI
03/05/2024 4:08:39

Job	Truss	Truss Type	Qty	Ply	Lot 167 HM	
B240013	E7	Roof Special	1	1	Job Reference (optional)	163626960

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.73 S Feb 6 2024 Print: 8.730 S Feb 6 2024 MiTek Industries, Inc. Wed Feb 14 11:02:53
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Page: 1



Scale = 1:61.1

Plate Offsets (X, Y): [4:0-7-8,0-2-0], [6:0-4-10,Edge], [9:Edge,0-5-13]

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.77	Vert(LL)	-0.41	13-15	>863	360	MT20 197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.93	Vert(CT)	-0.75	13-15	>476	240	M18AHS 142/136
BCLL	0.0*	Rep Stress Incr	YES	WB	0.96	Horz(CT)	0.15	9	n/a	n/a	
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S		Wind(LL)	0.29	12-13	>999	240	Weight: 133 lb FT = 10%

LUMBER

TOP CHORD 2x4 SPF No.2 *Except* 2-4:2x4 SPF 2100F 1.8E
BOT CHORD 2x4 SPF No.2 *Except* 5-11:2x3 SPF No.2, 14-12:2x4 SPF 2100F 1.8E
WEBS 2x3 SPF No.2 *Except* 16-1,16-2,13-3,9-7,10-7:2x4 SPF No.2

BRACING

TOP CHORD Structural wood sheathing directly applied or 3-0-15 oc purlins, except end verticals, and 2-0-0 oc purlins (2-2-2 max.): 1-2, 4-6.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing, Except:
WEBS 2-2-0 oc bracing: 13-15.
1 Row at midpt 1-16, 2-16, 3-15

REACTIONS

(size) 9=0-3-8, 16=0-3-8
Max Horiz 16=-356 (LC 4)
Max Uplift 9=-245 (LC 9), 16=-191 (LC 9)
Max Grav 9=1442 (LC 2), 16=1419 (LC 2)

FORCES

(lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-16=-167/81, 1-2=-114/87, 2-3=-1422/265, 3-4=-5070/791, 4-5=-4595/664, 5-6=-4511/721, 6-7=-2272/363, 7-8=0/32, 7-9=-1350/274
BOT CHORD 15-16=0/809, 13-15=-134/1928, 12-13=-608/4560, 11-12=0/80, 5-12=-427/99, 10-11=-12/164, 9-10=-160/496
WEBS 2-16=-1372/237, 2-15=-230/1527, 3-15=-1338/380, 3-13=-533/3512, 4-13=-2414/450, 5-13=0/152, 10-12=-242/1876, 6-12=-390/2787, 6-10=-488/140, 7-10=-82/1490

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; 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) All plates are MT20 plates unless otherwise indicated.
- 5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 6) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- 7) All bearings are assumed to be SPF No.2 .
- 8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 191 lb uplift at joint 16 and 245 lb uplift at joint 9.
- 9) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 10) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

LOAD CASE(S) Standard



February 15, 2024

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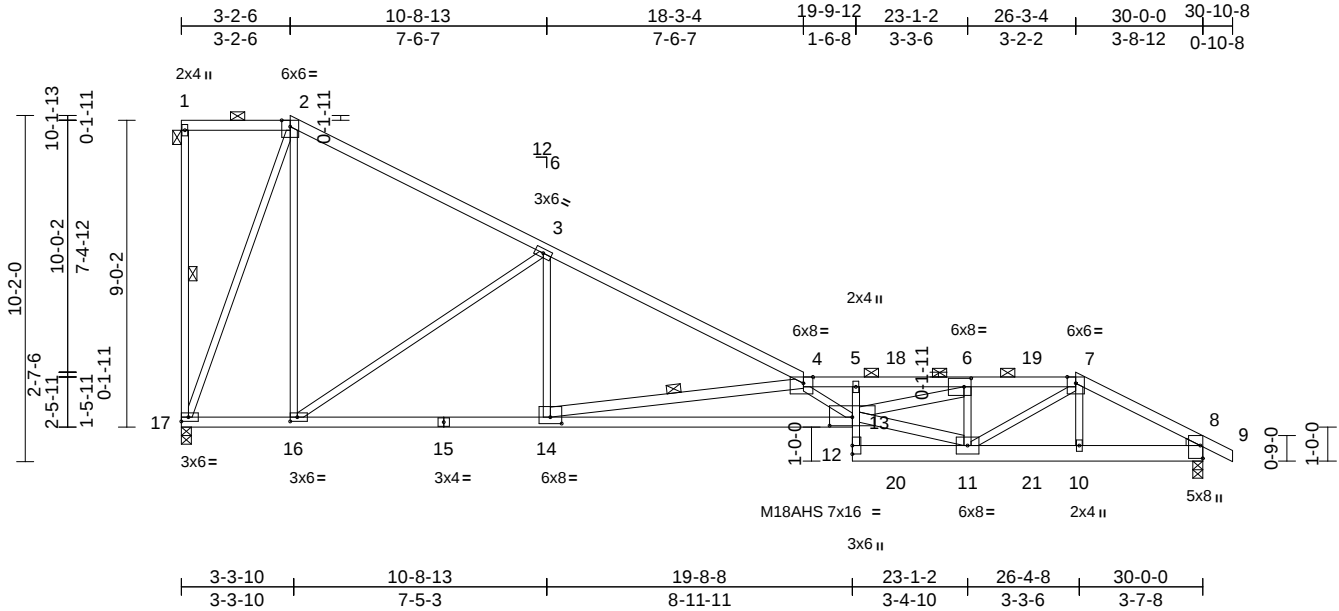
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03/05/2024 4:08:39

Job	Truss	Truss Type	Qty	Ply	Lot 167 HM	
B240013	E8	Roof Special Girder	1	2	Job Reference (optional)	163626961

Wheeler Lumber, Waverly, KS - 66871,

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Page: 1



Scale = 1:67.7												
Plate Offsets (X, Y): [4:0-3-6,Edge], [6:0-2-8,0-3-0], [8:Edge,0-0-13], [13:0-8-0,0-3-0], [14:0-4-0,0-2-4], [16:0-2-8,0-1-8]												
Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.96	Vert(LL)	-0.56	13-14	>637	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.82	Vert(CT)	-1.03	13-14	>346	240	M18AHS	142/136
BCLL	0.0*	Rep Stress Incr	NO	WB	1.00	Horz(CT)	0.19	8	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S		Wind(LL)	0.44	13-14	>805	240	Weight: 272 lb	FT = 10%

LUMBER
TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2 *Except* 5-12:2x3 SPF No.2, 12-8:2x6 SPF No.2, 15-13:2x4 SPF 2100F 1.8E
WEBS 2x3 SPF No.2 *Except* 14-4:2x4 SPF 2100F 1.8E, 11-13,13-6:2x4 SPF No.2
WEDGE Right: 2x3 SPF No.2
BRACING
TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals, and 2-0-0 oc purlins (2-3-7 max.): 1-2, 4-7.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 1 Row at midpt 1-17, 4-14
REACTIONS (size) 8=0-3-8, 17=0-3-8
Max Horiz 17=386 (LC 25)
Max Uplift 8=444 (LC 9), 17=282 (LC 9)
Max Grav 8=2132 (LC 1), 17=1595 (LC 1)
FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-17=-97/73, 1-2=-125/96, 4-5=-11477/2031, 5-6=-11210/2019, 6-7=-5206/1044, 7-8=-3733/765, 8-9=0/6, 2-3=-744/164, 3-4=-2832/459
BOT CHORD 16-17=0/599, 14-16=-232/2463, 13-14=-1944/11174, 12-13=0/135, 5-13=-385/121, 11-12=-143/623, 10-11=-595/3123, 8-10=-596/3138
WEBS 2-17=-1588/311, 2-16=-258/1401, 3-16=-2321/528, 3-14=-175/1661, 4-14=-8829/1735, 4-13=-210/689, 11-13=-842/4755, 6-13=-1038/6386, 7-10=-23/312, 6-11=-2713/561, 7-11=-434/2514

NOTES

- 2-ply truss to be connected together with 10d (0.131"x3") nails as follows:
Top chords connected as follows: 2x3 - 1 row at 0-9-0 oc, 2x4 - 1 row at 0-6-0 oc.
Bottom chords connected as follows: 2x4 - 1 row at 0-5-0 oc, 2x3 - 1 row at 0-9-0 oc, 2x6 - 2 rows staggered at 0-4-0 oc.
Web connected as follows: 2x3 - 1 row at 0-9-0 oc, 2x4 - 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; 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.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- Bearings are assumed to be: Joint 17 SPF No.2, Joint 8 SPF No.2.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 282 lb uplift at joint 17 and 444 lb uplift at joint 8.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

- Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
- Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 91 lb down and 64 lb up at 21-0-0, 91 lb down and 64 lb up at 23-0-0, and 91 lb down and 64 lb up at 25-0-0, and 91 lb down and 66 lb up at 26-3-4 on top chord, and 598 lb down and 85 lb up at 19-9-12, 28 lb down at 21-0-0, 28 lb down at 23-0-0, and 28 lb down at 25-0-0, and 200 lb down and 55 lb up at 26-2-8 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.

- LOAD CASE(S)** Standard
- Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (lb/ft)
Vert: 1-2=-70, 4-7=-70, 7-9=-70, 13-17=-20, 8-12=-20, 2-4=-70
Concentrated Loads (lb)
Vert: 7=-41 (B), 13=-554 (B), 6=-41 (B), 10=-200 (B), 11=-20 (B), 18=-41 (B), 19=-41 (B), 20=-20 (B), 21=-20 (B)



February 15, 2024

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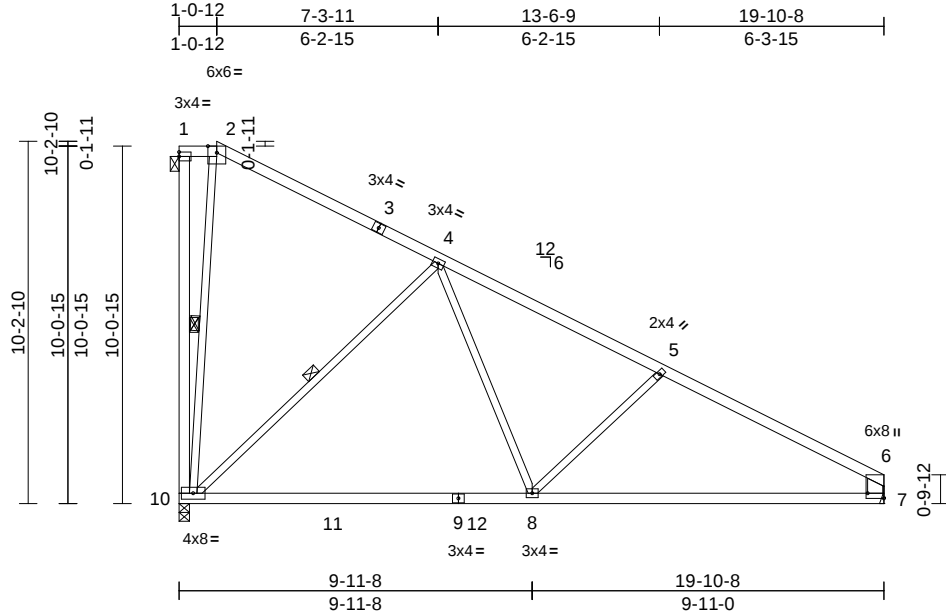
Job	Truss	Truss Type	Qty	Ply	Lot 167 HM	
B240013	E9	Half Hip	1	1	Job Reference (optional)	I63626962

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.73 S Feb 6 2024 Print: 8.730 S Feb 6 2024 MiTek Industries, Inc. Wed Feb 14 11:02:55

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Scale = 1:65

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

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.62	Vert(LL)	-0.29	8-10	>794	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.48	Vert(CT)	-0.48	8-10	>480	240		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.73	Horz(CT)	0.02	7	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S		Wind(LL)	0.10	8-10	>999	240	Weight: 85 lb	FT = 10%

LUMBER

TOP CHORD	2x4 SPF No.2
BOT CHORD	2x4 SPF 2400F 2.0E
WEBS	2x3 SPF No.2 *Except* 10-1:2x4 SPF No.2, 7-6:2x6 SP 2400F 2.0E

BRACING

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

WEBS 1 Row at midpt 1-10, 2-10, 4-10

REACTIONS (size) 7= Mechanical, 10=0-3-8
Max Horiz 10=-404 (LC 4)
Max Uplift 7=-110 (LC 9), 10=-200 (LC 9)
Max Grav 7=910 (LC 2), 10=947 (LC 2)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD	1-10=-165/127, 1-2=-156/113, 2-4=-234/104, 4-5=-1069/147, 5-6=-1290/188, 6-7=-752/158
BOT CHORD	8-10=0/729, 7-8=-104/1083
WEBS	2-10=-293/232, 4-10=-841/273, 4-8=-34/637, 5-8=-354/230

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; 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) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.

- 6) Bearings are assumed to be: Joint 10 SPF 2400F 2.0E, Joint 7 SPF No.2.
- 7) Refer to girder(s) for truss to truss connections.
- 8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 200 lb uplift at joint 10 and 110 lb uplift at joint 7.
- 9) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 10) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

LOAD CASE(S) Standard



February 15, 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)

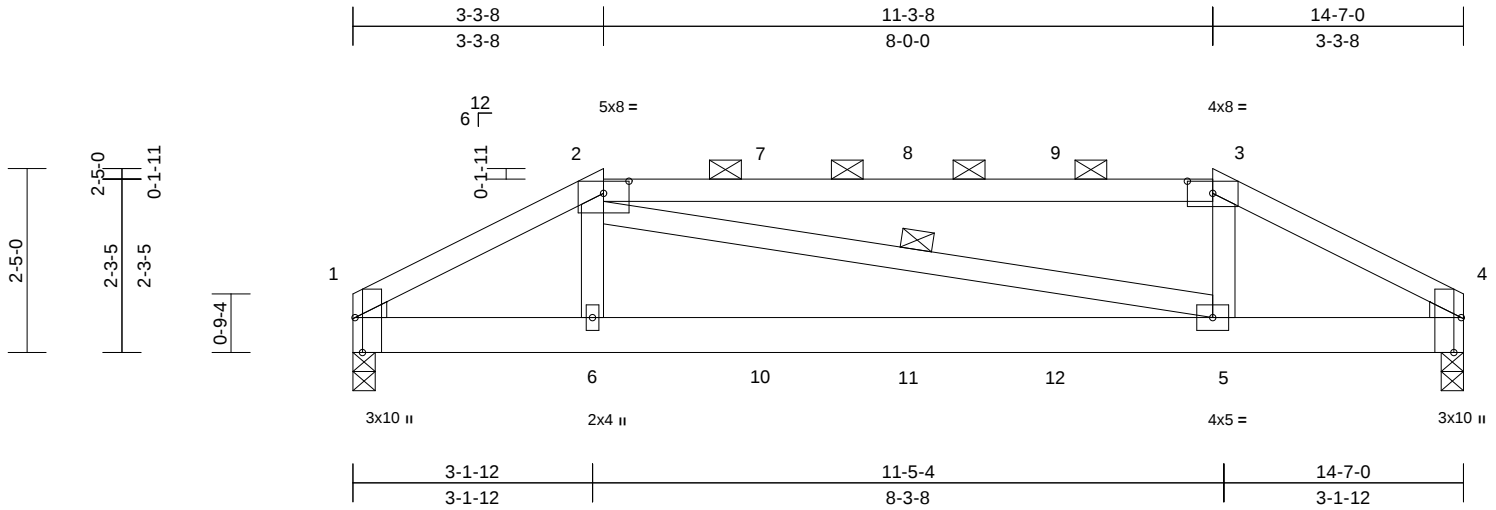
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Job	Truss	Truss Type	Qty	Ply	Lot 167 HM	I63626963
B240013	F1	Hip Girder	1	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.73 S Feb 6 2024 Print: 8.730 S Feb 6 2024 MiTek Industries, Inc. Wed Feb 14 11:02:55
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Page: 1



Scale = 1:30.3

Plate Offsets (X, Y): [1:0-5-8,Edge], [2:0-4-0,0-1-15], [3:0-4-0,0-1-15], [4:0-5-8,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	0.99	Vert(LL)	-0.04	5-6	>999	360	MT20
TCDL	10.0	Lumber DOL	1.15	BC	0.19	Vert(CT)	-0.08	5-6	>999	240	197/144
BCLL	0.0*	Rep Stress Incr	NO	WB	0.08	Horz(CT)	0.01	4	n/a	n/a	
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S		Wind(LL)	0.03	5-6	>999	240	Weight: 66 lb FT = 10%

LUMBER

TOP CHORD 2x4 SPF No.2 *Except* 2-3:2x4 SPF 2100F 1.8E
BOT CHORD 2x6 SP 2400F 2.0E
WEBS 2x4 SPF No.2
WEDGE Left: 2x3 SPF No.2
Right: 2x3 SPF No.2

BRACING

TOP CHORD Structural wood sheathing directly applied or 4-4-1 oc purlins, except 2-0-0 oc purlins (3-3-12 max.): 2-3.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

WEBS 1 Row at midpt 2-5

REACTIONS (size) 1=0-3-8, 4=0-3-8
Max Horiz 1=-35 (LC 13)
Max Uplift 1=-168 (LC 8), 4=-168 (LC 9)
Max Grav 1=805 (LC 1), 4=805 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=-1473/306, 2-3=-1194/293,
3-4=-1431/296

BOT CHORD 1-6=-273/1253, 5-6=-283/1238,
4-5=-247/1207

WEBS 2-6=0/371, 2-5=-72/31, 3-5=0/374

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; 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.

- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- All bearings are assumed to be SP 2400F 2.0E .
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 168 lb uplift at joint 1 and 168 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.
- Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
- Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 161 lb down and 133 lb up at 3-4-0, 77 lb down and 59 lb up at 5-4-12, 77 lb down and 59 lb up at 7-4-0, and 77 lb down and 59 lb up at 9-3-4, and 161 lb down and 133 lb up at 11-4-0 on top chord, and 53 lb down at 3-4-0, 22 lb down at 5-4-12, 22 lb down at 7-4-0, and 22 lb down at 9-3-4, and 53 lb down at 11-3-4 on bottom 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: 1-2=-70, 2-3=-70, 3-4=-70, 1-4=-20
Concentrated Loads (lb)
Vert: 2=-63 (B), 3=-63 (B), 6=-35 (B), 5=-35 (B), 7=-27 (B), 8=-27 (B), 9=-27 (B), 10=-15 (B), 11=-15 (B), 12=-15 (B)



February 15, 2024

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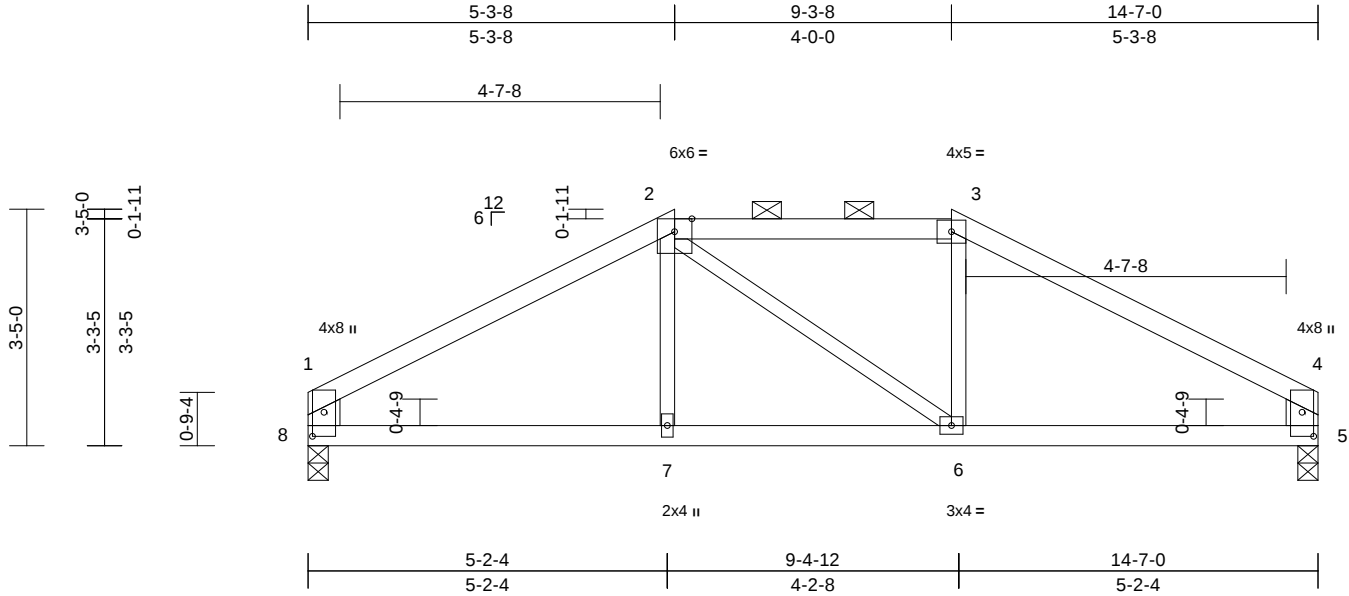
Job	Truss	Truss Type	Qty	Ply	Lot 167 HM	163626964
B240013	F2	Hip	1	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.73 S Feb 6 2024 Print: 8.730 S Feb 6 2024 MiTek Industries, Inc. Wed Feb 14 11:02:55

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Scale = 1:33.3

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

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.40	Vert(LL)	-0.08	6-7	>999	360	MT20 197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.46	Vert(CT)	-0.14	6-7	>999	240	
BCLL	0.0*	Rep Stress Incr	YES	WB	0.06	Horz(CT)	0.02	5	n/a	n/a	
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S		Wind(LL)	0.04	6-7	>999	240	Weight: 45 lb FT = 10%

LUMBER

TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
WEBS 2x3 SPF No.2 *Except* 8-1,5-4:2x6 SPF No.2

BRACING

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

REACTIONS (size) 5=0-3-8, 8=0-3-8
Max Horiz 8=54 (LC 5)
Max Uplift 5=-62 (LC 9), 8=-62 (LC 8)
Max Grav 5=636 (LC 1), 8=636 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-857/68, 2-3=-685/102, 3-4=-858/68, 1-8=-547/97, 4-5=547/97
BOT CHORD 7-8=-52/687, 6-7=-54/685, 5-6=-22/687
WEBS 2-7=0/160, 2-6=-99/100, 3-6=0/160

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; 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.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- All bearings are assumed to be SPF No.2 .

- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 62 lb uplift at joint 8 and 62 lb uplift at joint 5.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 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



February 15, 2024

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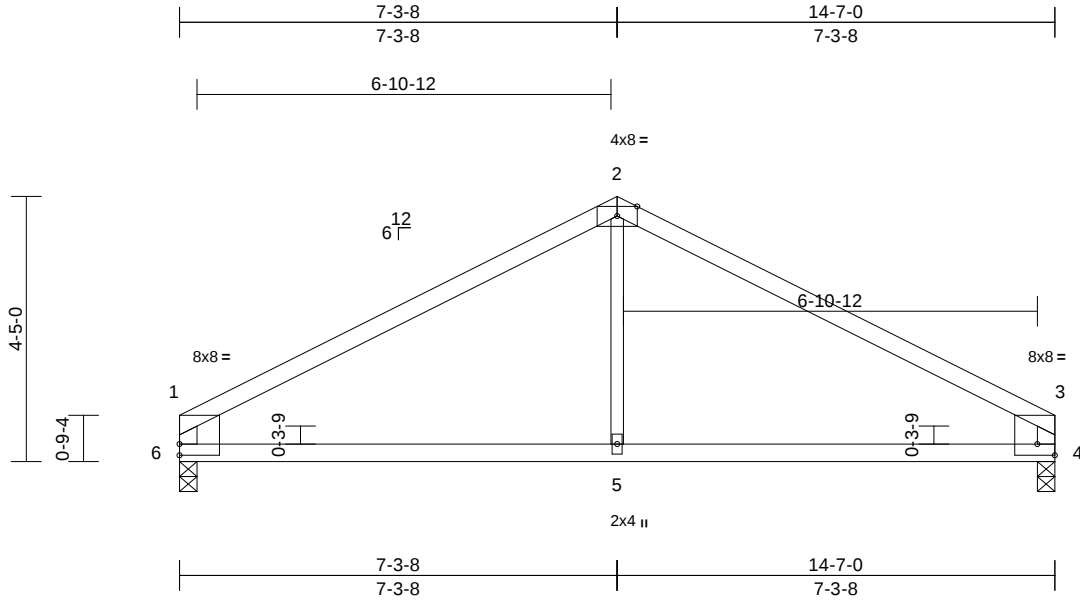
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Job	Truss	Truss Type	Qty	Ply	Lot 167 HM	I63626965
B240013	F3	Common	3	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS - 66871,

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Page: 1



Scale = 1:38.4

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

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	0.76	Vert(LL)	-0.06	5-6	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.38	Vert(CT)	-0.12	5-6	>999	240		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.09	Horz(CT)	0.01	4	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-R		Wind(LL)	0.03	5-6	>999	240	Weight: 39 lb	FT = 10%

LUMBER

TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
WEBS 2x4 SPF 2100F 1.8E *Except* 5-2:2x3 SPF 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 3-9-12 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (size) 4=0-3-8, 6=0-3-8
Max Horiz 6=66 (LC 5)
Max Uplift 4=-79 (LC 9), 6=-79 (LC 8)
Max Grav 4=643 (LC 1), 6=643 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-806/109, 2-3=-806/109, 1-6=-566/125, 3-4=-566/126
BOT CHORD 5-6=-31/618, 4-5=-31/618
WEBS 2-5=0/298

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; 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) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 4) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- 5) All bearings are assumed to be SPF No.2 .
- 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 79 lb uplift at joint 6 and 79 lb uplift at joint 4.



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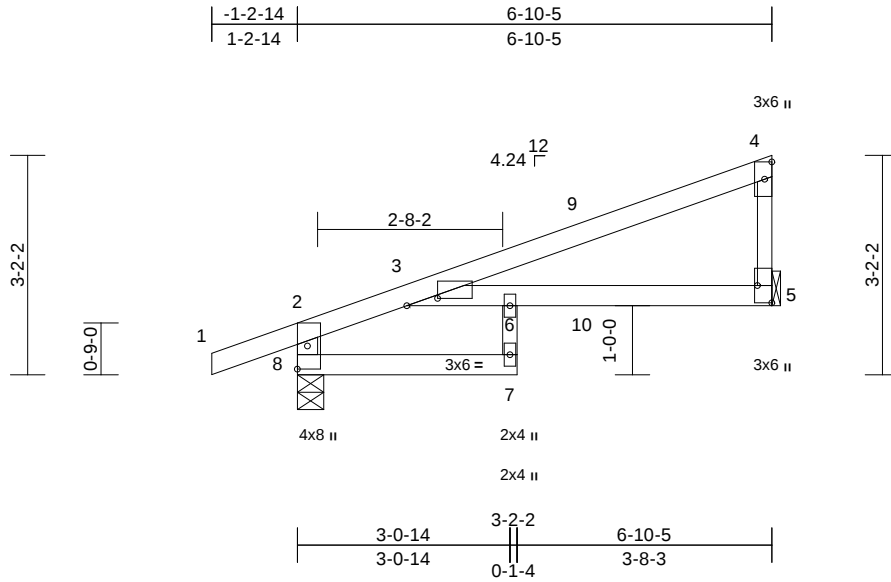
Job	Truss	Truss Type	Qty	Ply	Lot 167 HM	
B240013	J1	Diagonal Hip Girder	1	1	Job Reference (optional)	I63626966

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.73 S Feb 6 2024 Print: 8.730 S Feb 6 2024 MiTek Industries, Inc. Wed Feb 14 11:02:56

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Scale = 1:33.3

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

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.63	Vert(LL)	-0.14	5-6	>580	360	MT20
TCDL	10.0	Lumber DOL	1.15	BC	0.56	Vert(CT)	-0.23	5-6	>343	240	197/144
BCLL	0.0*	Rep Stress Incr	NO	WB	0.02	Horz(CT)	0.11	5	n/a	n/a	
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-R		Wind(LL)	0.16	5-6	>487	240	Weight: 22 lb FT = 10%

LUMBER

TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
WEBS 2x3 SPF No.2 *Except* 8-2:2x4 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) 5= Mechanical, 8=0-4-9
Max Horiz 8=118 (LC 5)
Max Uplift 5=-121 (LC 8), 8=-144 (LC 4)
Max Grav 5=321 (LC 1), 8=427 (LC 1)

FORCES

(lb) - Maximum Compression/Maximum Tension

TOP CHORD 2-8=-418/176, 1-2=0/32, 2-3=-152/5,
3-4=-159/31, 4-5=-184/83
BOT CHORD 7-8=0/0, 3-6=-49/97, 5-6=-49/97
WEBS 6-7=0/67

NOTES

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust)
Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; 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) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- 4) All bearings are assumed to be SPF No.2 .
- 5) Refer to girder(s) for truss to truss connections.
- 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 144 lb uplift at joint 8 and 121 lb uplift at joint 5.

- 7) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 8) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 69 lb down and 27 lb up at 4-1-7, and 69 lb down and 27 lb up at 4-1-7 on top chord, and 31 lb down and 46 lb up at 4-1-7, and 31 lb down and 46 lb up at 4-1-7 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
- 9) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

LOAD CASE(S) Standard

- 1) Dead + Roof Live (balanced): Lumber Increase=1.15,
Plate Increase=1.15
Uniform Loads (lb/ft)
Vert: 1-2=-70, 2-4=-70, 7-8=-20, 5-6=-20
Concentrated Loads (lb)
Vert: 10=-56 (F=-28, B=-28)



February 15, 2024

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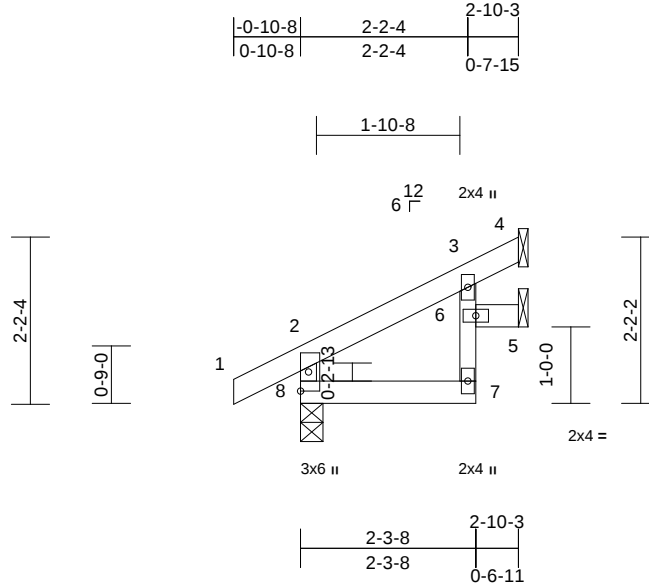
Job	Truss	Truss Type	Qty	Ply	Lot 167 HM	
B240013	J2	Jack-Open	2	1	Job Reference (optional)	I63626967

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.73 S Feb 6 2024 Print: 8.730 S Feb 6 2024 MiTek Industries, Inc. Wed Feb 14 11:02:56

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Scale = 1:30.1

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.07	Vert(LL)	0.00	7	>999	360	MT20
TCDL	10.0	Lumber DOL	1.15	BC	0.09	Vert(CT)	0.00	7	>999	240	197/144
BCLL	0.0*	Rep Stress Incr	YES	WB	0.00	Horz(CT)	0.00	5	n/a	n/a	
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-R		Wind(LL)	0.00	7	>999	240	Weight: 9 lb FT = 10%

LUMBER

TOP CHORD	2x4 SPF No.2
BOT CHORD	2x4 SPF No.2 *Except* 7-3:2x3 SPF No.2
WEBS	2x3 SPF 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 2-10-3 oc purlins, except end verticals.
BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS	(size)	4= Mechanical, 5= Mechanical, 8=0-3-8
	Max Horiz	8=65 (LC 8)
	Max Uplift	4=-14 (LC 8), 5=-29 (LC 8), 8=-24 (LC 8)
	Max Grav	4=52 (LC 1), 5=56 (LC 1), 8=202 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD	2-8=-181/46, 1-2=0/31, 2-3=-77/0, 3-4=-9/22
BOT CHORD	7-8=-22/30, 6-7=0/42, 3-6=-23/40, 5-6=0/0

NOTES

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCCL=6.0psf; BCDL=6.0psf; h=25ft; 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) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- 4) All bearings are assumed to be SPF No.2 .
- 5) Refer to girder(s) for truss to truss connections.
- 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 24 lb uplift at joint 8, 14 lb uplift at joint 4 and 29 lb uplift at joint 5.



February 15, 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)

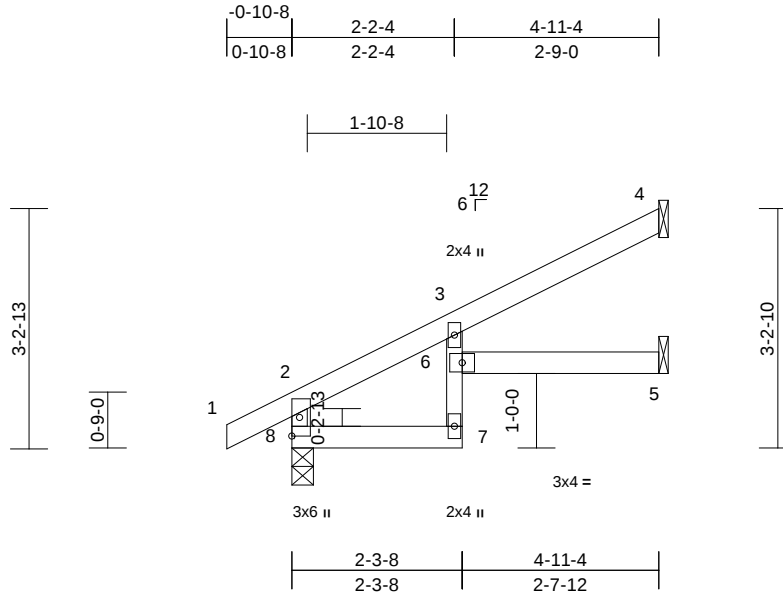
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03/05/2024 4:08:39

Job	Truss	Truss Type	Qty	Ply	Lot 167 HM	I63626968
B240013	J3	Jack-Open	4	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.73 S Feb 6 2024 Print: 8.730 S Feb 6 2024 MiTek Industries, Inc. Wed Feb 14 11:02:57
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Page: 1



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Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.27	Vert(LL)	-0.04	6	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.32	Vert(CT)	-0.07	6	>834	240		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.00	Horz(CT)	0.04	5	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-R		Wind(LL)	0.03	7	>999	240	Weight: 14 lb	FT = 10%

LUMBER

TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2 *Except* 7-3:2x3 SPF No.2
WEBS 2x3 SPF 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 4-11-4 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (size) 4= Mechanical, 5= Mechanical, 8=0-3-8
Max Horiz 8=75 (LC 8)
Max Uplift 4=-37 (LC 8)
Max Grav 4=138 (LC 1), 5=78 (LC 3), 8=290 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 2-8=-272/20, 1-2=0/31, 2-3=-187/0, 3-4=-30/53
BOT CHORD 7-8=-34/107, 6-7=0/44, 3-6=0/74, 5-6=0/0

NOTES

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCCL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope); 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) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- 4) All bearings are assumed to be SPF No.2 .
- 5) Refer to girder(s) for truss to truss connections.
- 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 37 lb uplift at joint 4.



February 15, 2024

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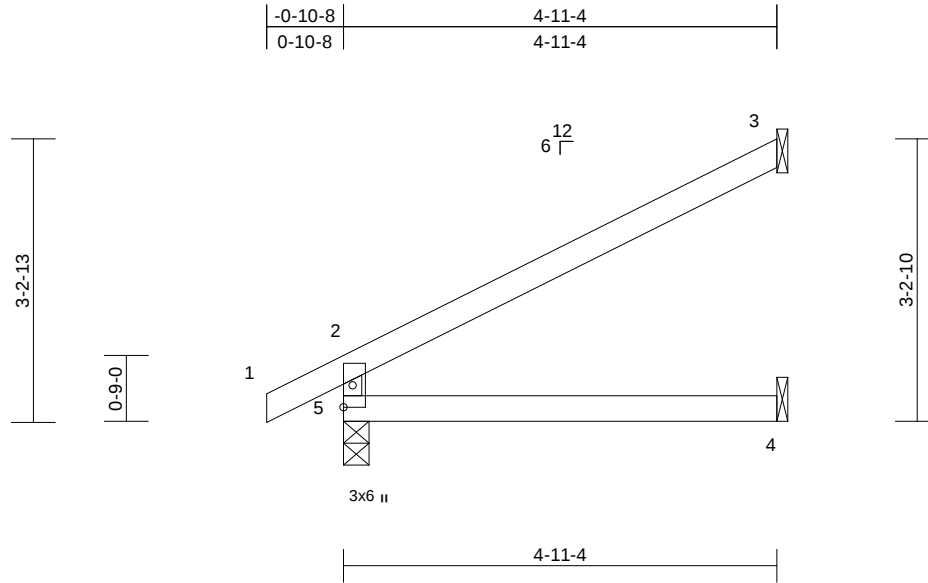
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Job	Truss	Truss Type	Qty	Ply	Lot 167 HM	
B240013	J4	Jack-Open	14	1	Job Reference (optional)	I63626969

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.73 S Feb 6 2024 Print: 8.730 S Feb 6 2024 MiTek Industries, Inc. Wed Feb 14 11:02:57
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Page: 1



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Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.36	Vert(LL)	-0.02	4-5	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.22	Vert(CT)	-0.06	4-5	>999	240		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.00	Horz(CT)	0.02	3	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-R		Wind(LL)	0.02	4-5	>999	240	Weight: 13 lb	FT = 10%

LUMBER

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

BRACING

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

REACTIONS (size) 3= Mechanical, 4= Mechanical, 5=0-3-8
Max Horiz 5=75 (LC 8)
Max Uplift 3=-51 (LC 8)
Max Grav 3=151 (LC 1), 4=91 (LC 3), 5=290 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 2-5=-252/37, 1-2=0/31, 2-3=-82/53
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; Cat. II; Exp C; Enclosed; MWFRS (envelope); 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) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- 4) All bearings are assumed to be SPF No.2 .
- 5) Refer to girder(s) for truss to truss connections.
- 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 51 lb uplift at joint 3.
- 7) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



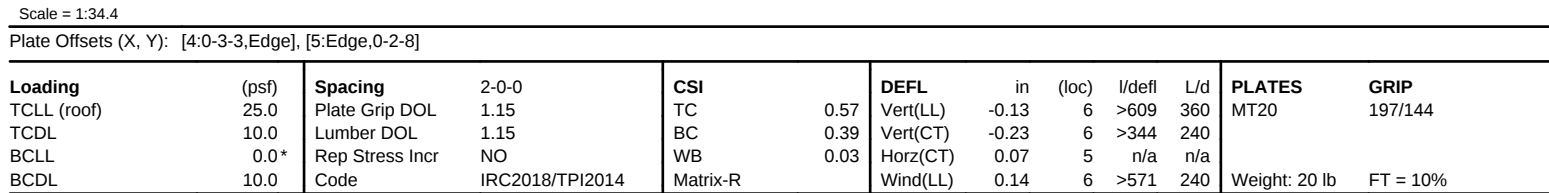
February 15, 2024

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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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- 7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 112 lb uplift at joint 7 and 80 lb uplift at joint 5.
- 8) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 9) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 84 lb down and 61 lb up at 4-3-9, and 84 lb down and 61 lb up at 4-3-9 on top chord, and 13 lb down at 4-3-9, and 13 lb down at 4-3-9 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
- 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, 2-4=-70, 6-7=-20, 5-6=-20
Concentrated Loads (lb)
Vert: 9=-5 (F=-3, B=-3)

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

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Crestwood, MO 63017
866-442-0000 MiTekUSA.com
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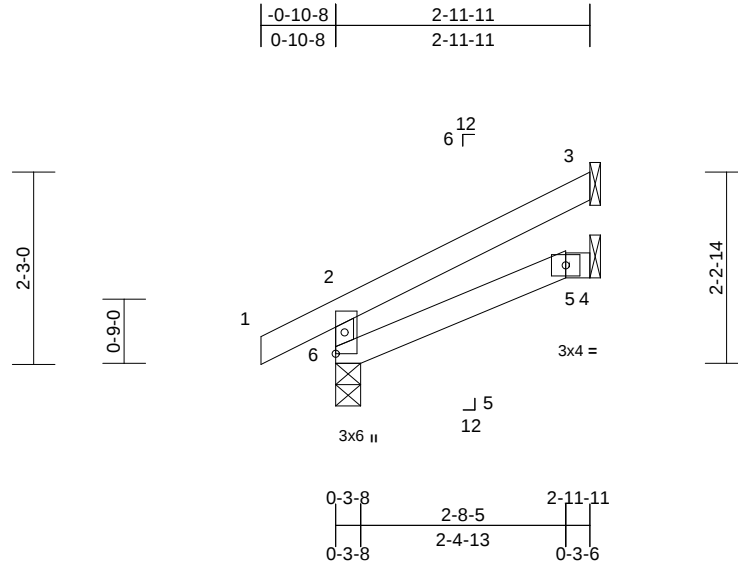
Job	Truss	Truss Type	Qty	Ply	Lot 167 HM	
B240013	J6	Jack-Open	2	1	Job Reference (optional)	I63626971

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.73 S Feb 6 2024 Print: 8.730 S Feb 6 2024 MiTek Industries, Inc. Wed Feb 14 11:02:57

Page: 1

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Scale = 1:27

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.10	Vert(LL)	0.00	5-6	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.07	Vert(CT)	-0.01	5-6	>999	240		
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		Wind(LL)	0.00	5-6	>999	240	Weight: 9 lb	FT = 10%

LUMBER

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

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

LOAD CASE(S) Standard

BRACING

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

REACTIONS (size) 3= Mechanical, 4= Mechanical, 6=0-3-8
Max Horiz 6=67 (LC 8)
Max Uplift 3=-53 (LC 8), 6=-23 (LC 8)
Max Grav 3=85 (LC 1), 4=53 (LC 3), 6=207 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 2-6=-180/51, 1-2=0/31, 2-3=-57/29
BOT CHORD 5-6=-22/13, 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; 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) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- 4) All bearings are assumed to be SPF No.2 .
- 5) Refer to girder(s) for truss to truss connections.
- 6) Bearing at joint(s) 6 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- 7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 23 lb uplift at joint 6 and 53 lb uplift at joint 3.



February 15, 2024

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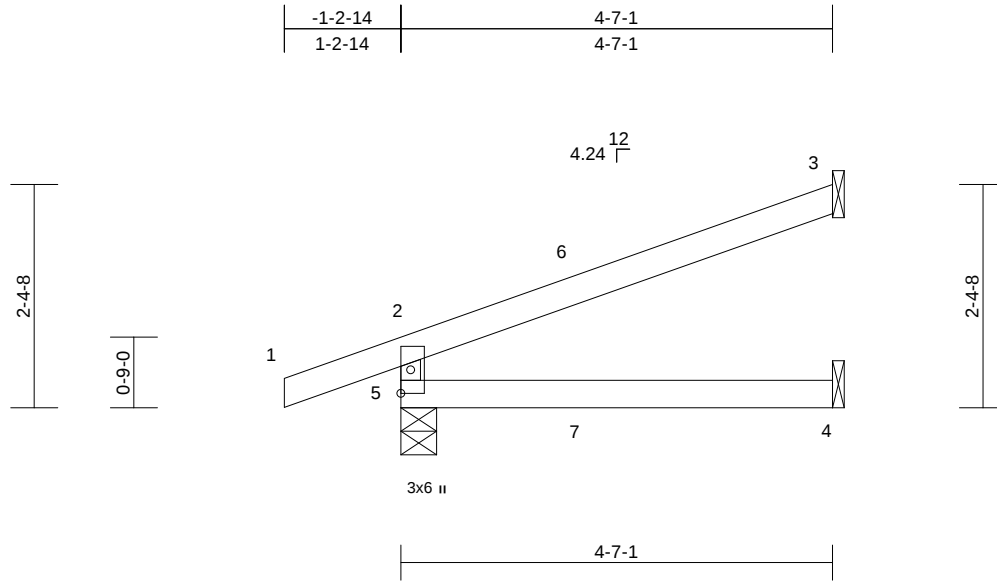
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Job	Truss	Truss Type	Qty	Ply	Lot 167 HM	
B240013	J7	Diagonal Hip Girder	2	1	Job Reference (optional)	I63626972

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.73 S Feb 6 2024 Print: 8.730 S Feb 6 2024 MiTek Industries, Inc. Wed Feb 14 11:02:58
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Page: 1



Scale = 1:24.5

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.32	Vert(LL)	-0.02	4-5	>999	360	MT20
TCDL	10.0	Lumber DOL	1.15	BC	0.20	Vert(CT)	-0.04	4-5	>999	240	197/144
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		Wind(LL)	0.01	4-5	>999	240	Weight: 13 lb FT = 10%

LUMBER

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

BRACING

TOP CHORD Structural wood sheathing directly applied or 4-7-1 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (size) 3= Mechanical, 4= Mechanical, 5=0-4-9
Max Horiz 5=81 (LC 4)
Max Uplift 3=-67 (LC 8), 5=-83 (LC 4)
Max Grav 3=135 (LC 1), 4=84 (LC 3), 5=306 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 2-5=-268/120, 1-2=0/31, 2-3=-81/35
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; 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) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- 4) All bearings are assumed to be SPF No.2 .
- 5) Refer to girder(s) for truss to truss connections.
- 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 83 lb uplift at joint 5 and 67 lb uplift at joint 3.
- 7) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

- 8) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 66 lb down and 31 lb up at 1-10-3, and 67 lb down and 19 lb up at 1-10-3 on top chord, and 3 lb down at 1-10-3, and 3 lb down and 3 lb up at 1-10-3 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
- 9) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

LOAD CASE(S) Standard

- 1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (lb/ft)
Vert: 1-2=-70, 2-3=-70, 4-5=-20
Concentrated Loads (lb)
Vert: 7=2 (F=-1, B=3)



February 15, 2024

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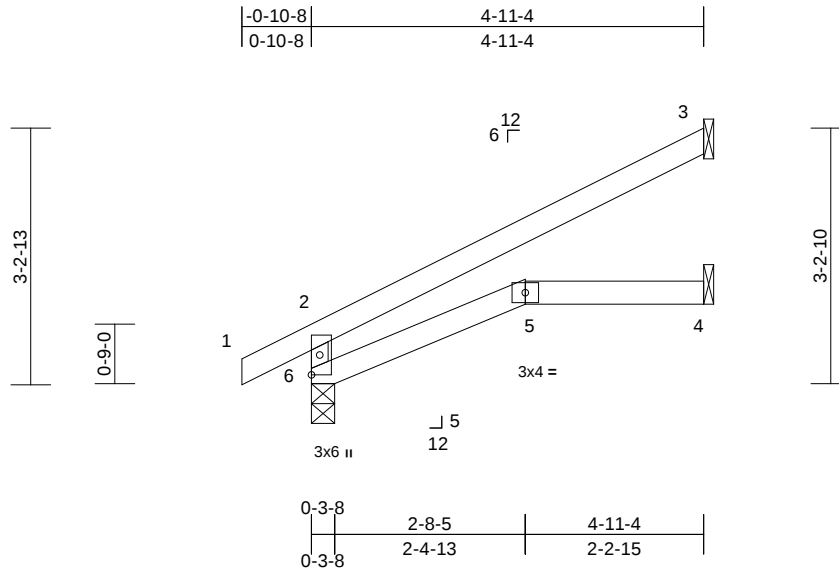
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Job	Truss	Truss Type	Qty	Ply	Lot 167 HM	I63626973
B240013	J8	Jack-Open	4	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.73 S Feb 6 2024 Print: 8.730 S Feb 6 2024 MiTek Industries, Inc. Wed Feb 14 11:02:58
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Page: 1



Scale = 1:29

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.36	Vert(LL)	-0.03	5-6	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.20	Vert(CT)	-0.06	5-6	>992	240		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.00	Horz(CT)	0.02	3	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-R		Wind(LL)	0.02	5-6	>999	240	Weight: 14 lb	FT = 10%

LUMBER

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

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

LOAD CASE(S) Standard

BRACING

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

REACTIONS (size) 3= Mechanical, 4= Mechanical, 6=0-3-8
Max Horiz 6=75 (LC 8)
Max Uplift 3=-52 (LC 8)
Max Grav 3=152 (LC 1), 4=91 (LC 3), 6=290 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 2-6=-251/36, 1-2=0/31, 2-3=-82/53
BOT CHORD 5-6=-38/3, 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; Cat. II; Exp C; Enclosed; MWFRS (envelope); 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) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- 4) All bearings are assumed to be SPF No.2 .
- 5) Refer to girder(s) for truss to truss connections.
- 6) Bearing at joint(s) 6 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- 7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 52 lb uplift at joint 3.

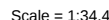


February 15, 2024

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

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

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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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Cresskennel, MO 63001
24-04-1200
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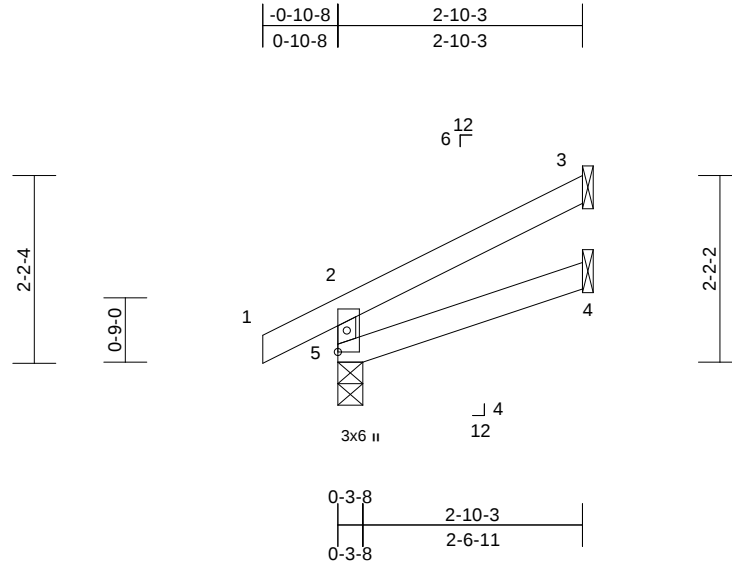
Job	Truss	Truss Type	Qty	Ply	Lot 167 HM	I63626975
B240013	J10	Jack-Open	2	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.73 S Feb 6 2024 Print: 8.730 S Feb 6 2024 MiTek Industries, Inc. Wed Feb 14 11:02:59

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Scale = 1:26.8

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.09	Vert(LL)	0.00	4-5	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.06	Vert(CT)	-0.01	4-5	>999	240		
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		Wind(LL)	0.00	4-5	>999	240	Weight: 9 lb	FT = 10%

LUMBER

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

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

LOAD CASE(S) Standard

BRACING

TOP CHORD Structural wood sheathing directly applied or 2-10-3 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.

REACTIONS (size) 3= Mechanical, 4= Mechanical, 5=0-3-8
Max Horiz 5=64 (LC 8)
Max Uplift 3=-50 (LC 8), 5=-23 (LC 8)
Max Grav 3=80 (LC 1), 4=51 (LC 3), 5=202 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 2-5=-176/49, 1-2=0/31, 2-3=-54/27
BOT CHORD 4-5=-18/13

NOTES

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; 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) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- 4) All bearings are assumed to be SPF No.2 .
- 5) Refer to girder(s) for truss to truss connections.
- 6) Bearing at joint(s) 5 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- 7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 23 lb uplift at joint 5 and 50 lb uplift at joint 3.



February 15, 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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Page: 1

LUMBER

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

LOAD CASE(S) Standard

BRACING

REACTIONS (size) 3= Mechanical, 4= Mechanical,
6=0-3-8
Max Horiz 6=75 (LC 8)
Max Uplift 3=-52 (LC 8)
Max Grav 3=152 (LC 1), 4=91 (LC 3), 6=290
(LC 1)

FORCES

NOTES

-
- A circular blue seal for the State of Missouri Professional Engineer. The outer ring contains the text "STATE OF MISSOURI" at the top and "PROFESSIONAL ENGINEER" at the bottom, separated by two small stars. In the center, the name "NATHANIEL FOX" is printed in blue capital letters. Below the name, the license number "PE-2022042259" is printed. A red ink signature, "Nathaniel Fox", is written across the center of the seal, overlapping the printed text.

February 15, 2024



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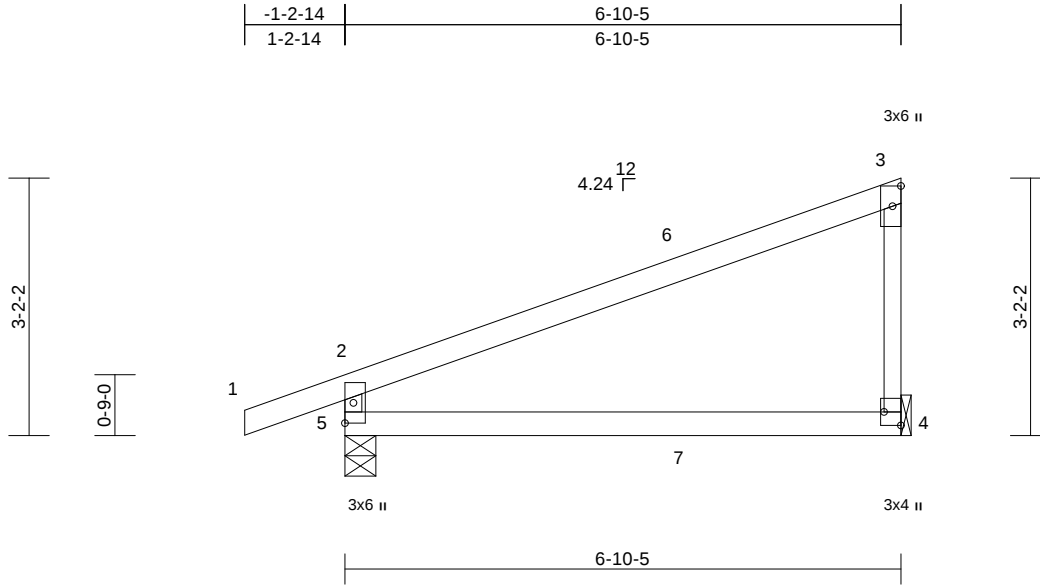
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16023 Swinley Ridge Rd
Crestwood, MO 63017
866-442-0000 MiTekUSA.com
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Job	Truss	Truss Type	Qty	Ply	Lot 167 HM	
B240013	J12	Diagonal Hip Girder	3	1	Job Reference (optional)	I63626977

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.73 S Feb 6 2024 Print: 8.730 S Feb 6 2024 MiTek Industries, Inc. Wed Feb 14 11:02:59
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Page: 1



Scale = 1:28.4

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

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.72	Vert(LL)	-0.08	4-5	>986	360	MT20
TCDL	10.0	Lumber DOL	1.15	BC	0.42	Vert(CT)	-0.17	4-5	>471	240	197/144
BCLL	0.0*	Rep Stress Incr	NO	WB	0.00	Horz(CT)	0.00	4	n/a	n/a	
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-R		Wind(LL)	0.03	4-5	>999	240	Weight: 20 lb FT = 10%

LUMBER

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

BRACING

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

REACTIONS (size) 4= Mechanical, 5=0-4-9
Max Horiz 5=135 (LC 5)
Max Uplift 4=-72 (LC 8), 5=-112 (LC 4)
Max Grav 4=295 (LC 1), 5=406 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 2-5=-352/161, 1-2=0/31, 2-3=-172/22,
3-4=-208/101
BOT CHORD 4-5=-41/58

NOTES

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust)
Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; 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) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- 4) All bearings are assumed to be SPF No.2 .
- 5) Refer to girder(s) for truss to truss connections.
- 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 112 lb uplift at joint 5 and 72 lb uplift at joint 4.
- 7) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

- 8) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 81 lb down and 58 lb up at 4-1-7, and 81 lb down and 58 lb up at 4-1-7 on top chord, and 12 lb down at 4-1-7, and 12 lb down at 4-1-7 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
- 9) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

LOAD CASE(S) Standard

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



February 15, 2024

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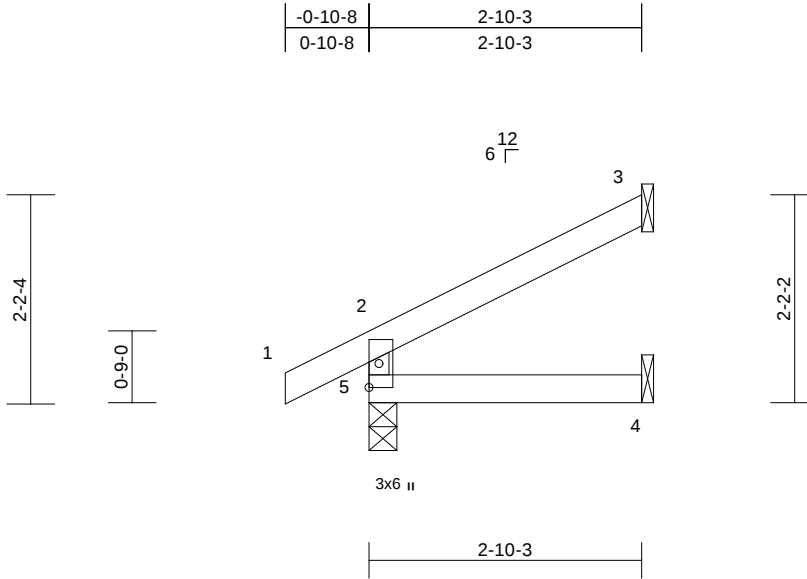
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Job	Truss	Truss Type	Qty	Ply	Lot 167 HM	I63626978
B240013	J13	Jack-Open	5	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.73 S Feb 6 2024 Print: 8.730 S Feb 6 2024 MiTek Industries, Inc. Wed Feb 14 11:02:59
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Page: 1



Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.09	Vert(LL)	0.00	4-5	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.06	Vert(CT)	-0.01	4-5	>999	240		
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		Wind(LL)	0.00	4-5	>999	240	Weight: 8 lb	FT = 10%

LUMBER

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

LOAD CASE(S) Standard

BRACING

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

REACTIONS (size) 3= Mechanical, 4= Mechanical,
5=0-3-8
Max Horiz 5=65 (LC 8)
Max Uplift 3=-49 (LC 8), 5=-24 (LC 8)
Max Grav 3=80 (LC 1), 4=51 (LC 3), 5=202
(LC 1)

FORCES (lb) - Maximum Compression/Maximum
Tension

TOP CHORD 2-5=-176/50, 1-2=0/31, 2-3=-54/27
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; 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) * This truss has been designed for a live load of 20.0psf
on the bottom chord in all areas where a rectangle
3-06-00 tall by 2-00-00 wide will fit between the bottom
chord and any other members.
- 4) All bearings are assumed to be SPF No.2 .
- 5) Refer to girder(s) for truss to truss connections.
- 6) Provide mechanical connection (by others) of truss to
bearing plate capable of withstanding 24 lb uplift at joint
5 and 49 lb uplift at joint 3.
- 7) This truss is designed in accordance with the 2018
International Residential Code sections R502.11.1 and
R802.10.2 and referenced standard ANSI/TPI 1.

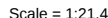


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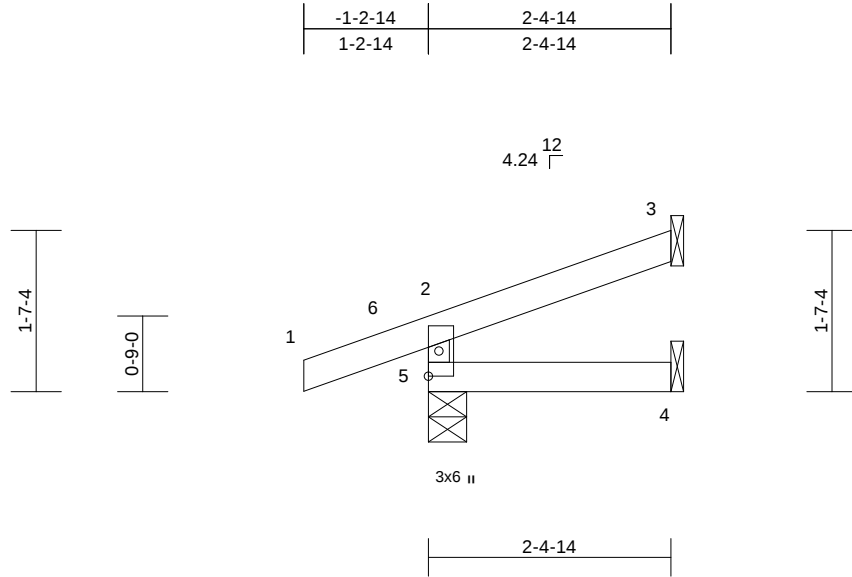
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16023 Swinley Ridge Rd
Creston, MO 68017
404-620-1177 MiTekUSA.com
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03/05/2024 4:08:40

Job	Truss	Truss Type	Qty	Ply	Lot 167 HM	
B240013	J15	Jack-Open Girder	2	1		163626980
Job Reference (optional)						

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.73 S Feb 6 2024 Print: 8.730 S Feb 6 2024 MiTek Industries, Inc. Wed Feb 14 11:03:00
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Page: 1



Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.08	Vert(LL)	0.00	4-5	>999	360	MT20
TCDL	10.0	Lumber DOL	1.15	BC	0.02	Vert(CT)	0.00	4-5	>999	240	197/144
BCLL	0.0*	Rep Stress Incr	NO	WB	0.00	Horz(CT)	0.00	3	n/a	n/a	
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-R		Wind(LL)	0.00	4-5	>999	240	Weight: 7 lb FT = 10%

LUMBER

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

BRACING

TOP CHORD	Structural wood sheathing directly applied or 2-4-14 oc purlins, except end verticals.
BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS	(size)	3= Mechanical, 4= Mechanical, 5=0-4-9
	Max Horiz	5=58 (LC 7)
	Max Uplift	3=-36 (LC 12), 4=-8 (LC 19), 5=-121 (LC 6)
	Max Grav	3=27 (LC 1), 4=23 (LC 3), 5=61 (LC 1)

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

TOP CHORD	2-5=-67/118, 1-2=-3/11, 2-3=-21/6
BOT CHORD	4-5=0/0

NOTES

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCCL=6.0psf; BCDL=6.0psf; h=25ft; 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) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- 4) All bearings are assumed to be SPF No.2.
- 5) Refer to girder(s) for truss to truss connections.
- 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 121 lb uplift at joint 5, 36 lb uplift at joint 3 and 8 lb uplift at joint 4.

- 7) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 8) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 14 lb down and 5 lb up at -1-2-14, and 14 lb down and 5 lb up at -1-2-14 on top chord. The design/selection of such connection device(s) is the responsibility of others.
- 9) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

LOAD CASE(S) Standard

- 1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
Concentrated Loads (lb)
Vert: 1=-21 (F=-10, B=-10)
Trapezoidal Loads (lb/ft)
Vert: 1=0 (F=35, B=35)-to-6=-14 (F=28, B=28), 6=0 (F=35, B=35)-to-2=-9 (F=30, B=30), 2=-9 (F=30, B=30)-to-3=-49 (F=10, B=10), 5=17 (F=19, B=19)-to-4=-12 (F=4, B=4)



February 15, 2024

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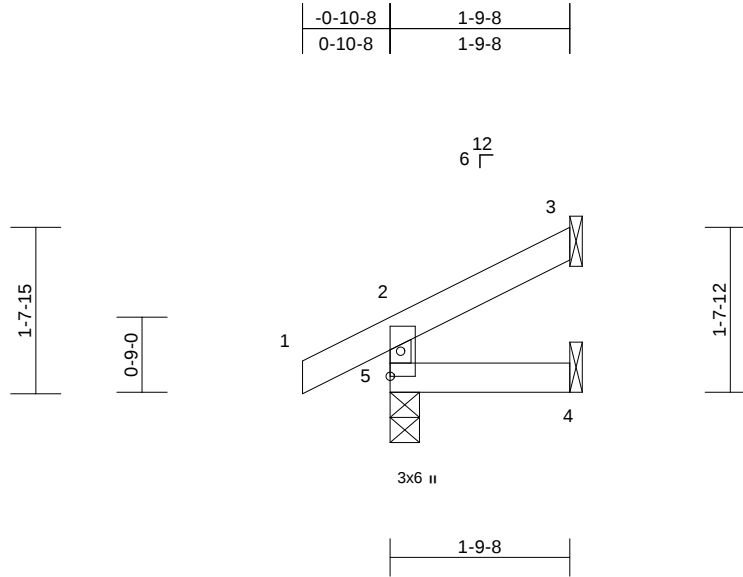
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Job	Truss	Truss Type	Qty	Ply	Lot 167 HM	
B240013	J16	Jack-Open	3	1	Job Reference (optional)	I63626981

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.73 S Feb 6 2024 Print: 8.730 S Feb 6 2024 MiTek Industries, Inc. Wed Feb 14 11:03:00
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Page: 1



Scale = 1:23

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	0.07	Vert(LL)	0.00	4-5	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.02	Vert(CT)	0.00	4-5	>999	240		
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		Wind(LL)	0.00	4-5	>999	240	Weight: 6 lb	FT = 10%

LUMBER

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

BRACING

TOP CHORD Structural wood sheathing directly applied or
1-9-8 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc
bracing.

REACTIONS (size) 3= Mechanical, 4= Mechanical,
5=0-3-8
Max Horiz 5=44 (LC 8)
Max Uplift 3=-30 (LC 8), 5=-23 (LC 8)
Max Grav 3=41 (LC 1), 4=31 (LC 3), 5=164
(LC 1)

FORCES (lb) - Maximum Compression/Maximum
Tension

TOP CHORD 2-5=-145/40, 1-2=0/31, 2-3=-36/13
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; 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) * This truss has been designed for a live load of 20.0psf
on the bottom chord in all areas where a rectangle
3-06-00 tall by 2-00-00 wide will fit between the bottom
chord and any other members.
- 4) All bearings are assumed to be SPF No.2 .
- 5) Refer to girder(s) for truss to truss connections.
- 6) Provide mechanical connection (by others) of truss to
bearing plate capable of withstanding 23 lb uplift at joint
5 and 30 lb uplift at joint 3.
- 7) This truss is designed in accordance with the 2018
International Residential Code sections R502.11.1 and
R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard



February 15, 2024

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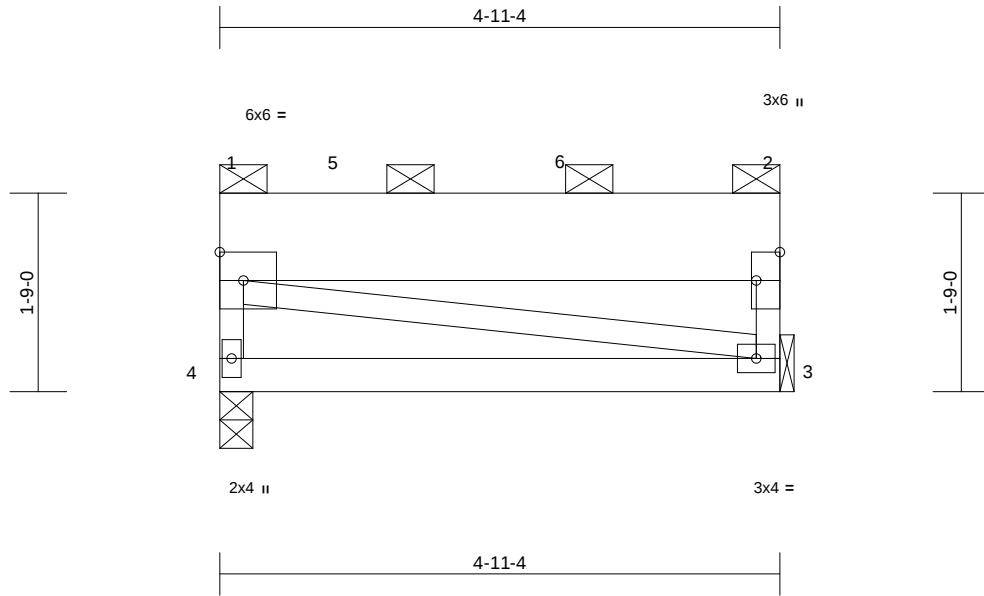
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Job	Truss	Truss Type	Qty	Ply	Lot 167 HM	
B240013	J17	Jack-Closed Girder	1	1		I63626982
						Job Reference (optional)

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.73 S Feb 6 2024 Print: 8.730 S Feb 6 2024 MiTek Industries, Inc. Wed Feb 14 11:03:00
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Page: 1



Scale = 1:20.3

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

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.33	Vert(LL)	-0.03	3-4	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.25	Vert(CT)	-0.06	3-4	>946	240		
BCLL	0.0*	Rep Stress Incr	NO	WB	0.01	Horz(CT)	0.00	3	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-P							Weight: 30 lb	FT = 10%

LUMBER

TOP CHORD 2x10 SP 2400F 2.0E
BOT CHORD 2x4 SPF No.2
WEBS 2x3 SPF No.2

BRACING

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

REACTIONS

(size) 3= Mechanical, 4=0-3-8
Max Horiz 4=-47 (LC 4)
Max Uplift 3=-150 (LC 5), 4=-91 (LC 4)
Max Grav 3=1154 (LC 1), 4=887 (LC 1)

FORCES

(lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-4=-839/119, 1-2=-17/13, 2-3=-1106/172
BOT CHORD 3-4=-41/36
WEBS 1-3=-24/24

NOTES

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust)
Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; 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) Provide adequate drainage to prevent water ponding.
- 3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 4) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- 5) All bearings are assumed to be SPF No.2 .
- 6) Refer to girder(s) for truss to truss connections.
- 7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 91 lb uplift at joint 4 and 150 lb uplift at joint 3.
- 8) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

- 9) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
 - 10) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) . The design/selection of such connection device(s) is the responsibility of others.
 - 11) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).
- LOAD CASE(S)** Standard
- 1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (lb/ft)
Vert: 1-2=-70, 3-4=-20
Concentrated Loads (lb)
Vert: 5=-113 (B), 6=-1502 (B)



February 15,2024

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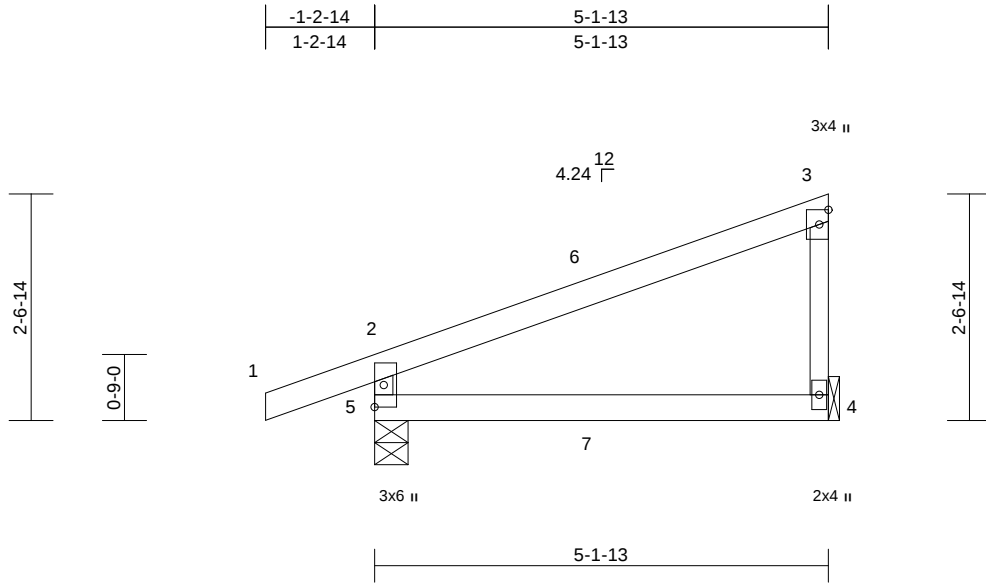
Job	Truss	Truss Type	Qty	Ply	Lot 167 HM	
B240013	J18	Diagonal Hip Girder	1	1	Job Reference (optional)	I63626983

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.73 S Feb 6 2024 Print: 8.730 S Feb 6 2024 MiTek Industries, Inc. Wed Feb 14 11:03:01

Page: 1

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Scale = 1:26.1

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.35	Vert(LL)	-0.02	4-5	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.22	Vert(CT)	-0.05	4-5	>999	240		
BCLL	0.0*	Rep Stress Incr	NO	WB	0.00	Horz(CT)	0.00	4	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-R		Wind(LL)	0.01	4-5	>999	240	Weight: 15 lb	FT = 10%

LUMBER

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

BRACING

TOP CHORD Structural wood sheathing directly applied or 5-1-13 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (size) 4= Mechanical, 5=0-4-9
Max Horiz 5=108 (LC 5)
Max Uplift 4=-47 (LC 8), 5=-96 (LC 4)
Max Grav 4=208 (LC 1), 5=327 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 2-5=-288/132, 1-2=0/31, 2-3=-130/16,
3-4=-151/70
BOT CHORD 4-5=-26/41

NOTES

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust)
Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; 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) * This truss has been designed for a live load of 20.0psf
on the bottom chord in all areas where a rectangle
3-06-00 tall by 2-00-00 wide will fit between the bottom
chord and any other members.
- 4) All bearings are assumed to be SPF No.2 .
- 5) Refer to girder(s) for truss to truss connections.
- 6) Provide mechanical connection (by others) of truss to
bearing plate capable of withstanding 96 lb uplift at joint
5 and 47 lb uplift at joint 4.
- 7) This truss is designed in accordance with the 2018
International Residential Code sections R502.11.1 and
R802.10.2 and referenced standard ANSI/TPI 1.

- 8) Hanger(s) or other connection device(s) shall be
provided sufficient to support concentrated load(s) 68 lb
down and 31 lb up at 2-4-14, and 68 lb down and 31 lb
up at 2-4-14 on top chord, and 3 lb down and 2 lb up at
2-4-14, and 3 lb down and 2 lb up at 2-4-14 on bottom
chord. The design/selection of such connection device
(s) is the responsibility of others.
- 9) In the LOAD CASE(S) section, loads applied to the face
of the truss are noted as front (F) or back (B).

LOAD CASE(S) Standard

- 1) Dead + Roof Live (balanced): Lumber Increase=1.15,
Plate Increase=1.15
Uniform Loads (lb/ft)
Vert: 1-2=-70, 2-3=-70, 4-5=-20
Concentrated Loads (lb)
Vert: 7=3 (F=2, B=2)



February 15, 2024

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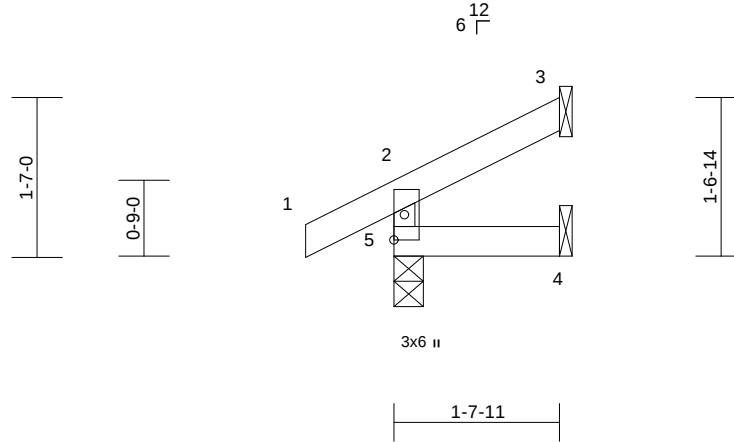
Job	Truss	Truss Type	Qty	Ply	Lot 167 HM	
B240013	J19	Jack-Open	2	1	Job Reference (optional)	I63626984

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.73 S Feb 6 2024 Print: 8.730 S Feb 6 2024 MiTek Industries, Inc. Wed Feb 14 11:03:01
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Page: 1

-0-10-8	1-7-11
0-10-8	1-7-11



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	0.07	Vert(LL)	0.00	4-5	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.02	Vert(CT)	0.00	4-5	>999	240		
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		Wind(LL)	0.00	4-5	>999	240	Weight: 5 lb	FT = 10%

LUMBER

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

BRACING

TOP CHORD Structural wood sheathing directly applied or
1-7-11 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc
bracing.

REACTIONS (size) 3= Mechanical, 4= Mechanical,
5=0-3-8
Max Horiz 5=41 (LC 8)
Max Uplift 3=-27 (LC 8), 5=-23 (LC 8)
Max Grav 3=34 (LC 1), 4=28 (LC 3), 5=159
(LC 1)

FORCES (lb) - Maximum Compression/Maximum
Tension

TOP CHORD 2-5=-141/39, 1-2=0/31, 2-3=-34/11
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; 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) * This truss has been designed for a live load of 20.0psf
on the bottom chord in all areas where a rectangle
3-06-00 tall by 2-00-00 wide will fit between the bottom
chord and any other members.
- 4) All bearings are assumed to be SPF No.2 .
- 5) Refer to girder(s) for truss to truss connections.
- 6) Provide mechanical connection (by others) of truss to
bearing plate capable of withstanding 23 lb uplift at joint
5 and 27 lb uplift at joint 3.
- 7) This truss is designed in accordance with the 2018
International Residential Code sections R502.11.1 and
R802.10.2 and referenced standard ANSI/TPI 1.



February 15, 2024

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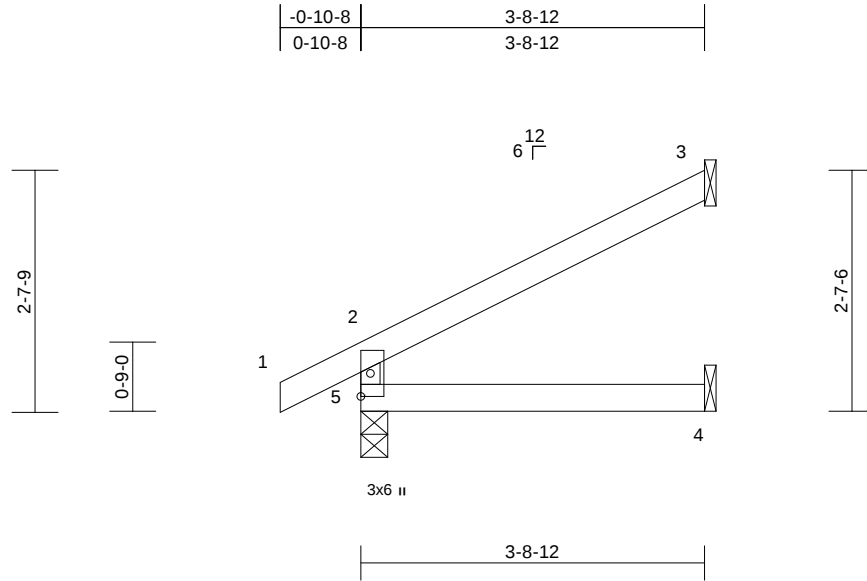
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Job	Truss	Truss Type	Qty	Ply	Lot 167 HM	
B240013	J20	Jack-Open	4	1	Job Reference (optional)	I63626985

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.73 S Feb 6 2024 Print: 8.730 S Feb 6 2024 MiTek Industries, Inc. Wed Feb 14 11:03:01
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Page: 1



Scale = 1:25

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	0.18	Vert(LL)	-0.01	4-5	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.11	Vert(CT)	-0.02	4-5	>999	240		
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		Wind(LL)	0.01	4-5	>999	240	Weight: 10 lb	FT = 10%

LUMBER

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

BRACING

TOP CHORD Structural wood sheathing directly applied or
3-8-12 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc
bracing.

REACTIONS (size) 3= Mechanical, 4= Mechanical,
5=0-3-8
Max Horiz 5=83 (LC 8)
Max Uplift 3=-65 (LC 8), 5=-27 (LC 8)
Max Grav 3=111 (LC 1), 4=68 (LC 3), 5=238
(LC 1)

FORCES (lb) - Maximum Compression/Maximum
Tension

TOP CHORD 2-5=-207/60, 1-2=0/31, 2-3=-71/38
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; 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) * This truss has been designed for a live load of 20.0psf
on the bottom chord in all areas where a rectangle
3-06-00 tall by 2-00-00 wide will fit between the bottom
chord and any other members.
- 4) All bearings are assumed to be SPF No.2 .
- 5) Refer to girder(s) for truss to truss connections.
- 6) Provide mechanical connection (by others) of truss to
bearing plate capable of withstanding 27 lb uplift at joint
5 and 65 lb uplift at joint 3.
- 7) This truss is designed in accordance with the 2018
International Residential Code sections R502.11.1 and
R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard



February 15, 2024

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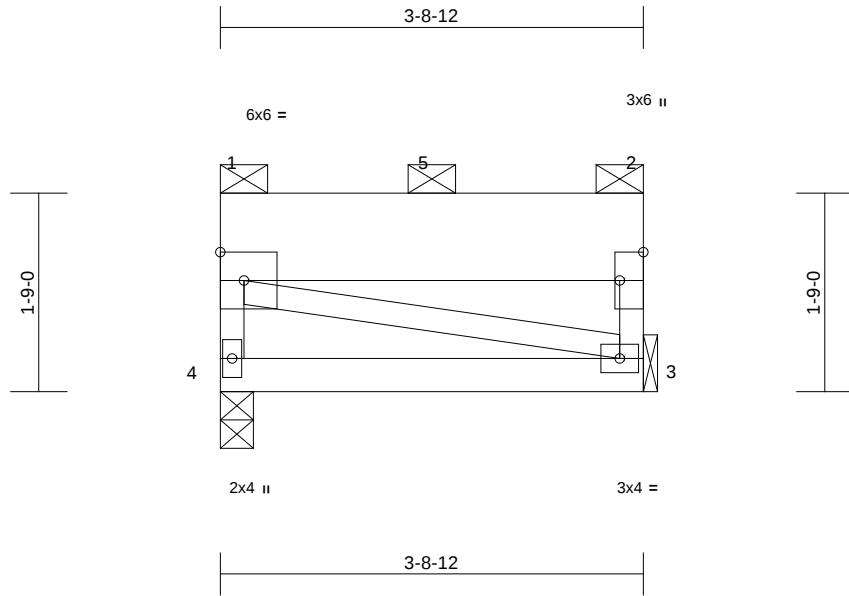
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Job	Truss	Truss Type	Qty	Ply	Lot 167 HM	
B240013	J21	Jack-Closed Girder	1	1		I63626986
						Job Reference (optional)

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.73 S Feb 6 2024 Print: 8.730 S Feb 6 2024 MiTek Industries, Inc. Wed Feb 14 11:03:01
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Page: 1



Scale = 1:20.3

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

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.14	Vert(LL)	-0.01	3-4	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.13	Vert(CT)	-0.02	3-4	>999	240		
BCLL	0.0*	Rep Stress Incr	NO	WB	0.01	Horz(CT)	0.00	3	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-P							Weight: 23 lb	FT = 10%

LUMBER

TOP CHORD 2x10 SP 2400F 2.0E
BOT CHORD 2x4 SPF No.2
WEBS 2x3 SPF No.2

BRACING

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

REACTIONS (size) 3= Mechanical, 4=0-3-8
Max Horiz 4=-47 (LC 4)
Max Uplift 3=-73 (LC 5), 4=-77 (LC 4)
Max Grav 3=588 (LC 15), 4=629 (LC 16)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-4=-594/98, 1-2=-17/13, 2-3=-546/87
BOT CHORD 3-4=-41/36
WEBS 1-3=-25/25

NOTES

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust)
Vasd=91mph; TCCL=6.0psf; BCDL=6.0psf; h=25ft; 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) Provide adequate drainage to prevent water ponding.
- 3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 4) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- 5) All bearings are assumed to be SPF No.2 .
- 6) Refer to girder(s) for truss to truss connections.
- 7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 77 lb uplift at joint 4 and 73 lb uplift at joint 3.
- 8) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

- 9) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
 - 10) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) . The design/selection of such connection device(s) is the responsibility of others.
 - 11) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).
- LOAD CASE(S)** Standard
- 1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (lb/ft)
Vert: 1-2=-70, 3-4=-20
Concentrated Loads (lb)
Vert: 5=-867 (F)



February 15,2024

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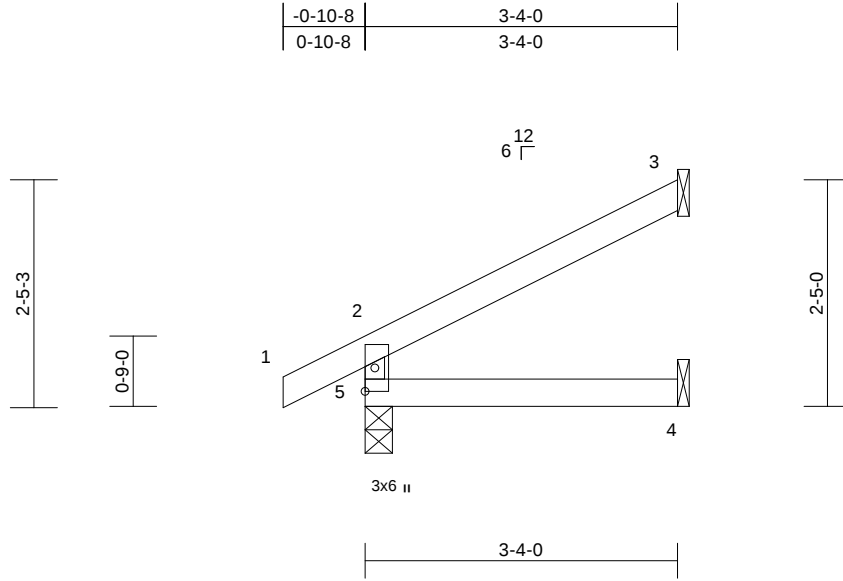
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Job	Truss	Truss Type	Qty	Ply	Lot 167 HM	I63626987
B240013	J22	Jack-Open	5	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.73 S Feb 6 2024 Print: 8.730 S Feb 6 2024 MiTek Industries, Inc. Wed Feb 14 11:03:02
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Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.14	Vert(LL)	0.00	4-5	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.09	Vert(CT)	-0.01	4-5	>999	240		
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		Wind(LL)	0.01	4-5	>999	240	Weight: 10 lb	FT = 10%

LUMBER

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

LOAD CASE(S) Standard

BRACING

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

REACTIONS (size) 3= Mechanical, 4= Mechanical,
5=0-3-8
Max Horiz 5=75 (LC 8)
Max Uplift 3=-58 (LC 8), 5=-26 (LC 8)
Max Grav 3=97 (LC 1), 4=60 (LC 3), 5=222
(LC 1)

FORCES (lb) - Maximum Compression/Maximum
Tension

TOP CHORD 2-5=-193/56, 1-2=0/31, 2-3=-63/33
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; 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) * This truss has been designed for a live load of 20.0psf
on the bottom chord in all areas where a rectangle
3-06-00 tall by 2-00-00 wide will fit between the bottom
chord and any other members.
- 4) All bearings are assumed to be SPF No.2 .
- 5) Refer to girder(s) for truss to truss connections.
- 6) Provide mechanical connection (by others) of truss to
bearing plate capable of withstanding 26 lb uplift at joint
5 and 58 lb uplift at joint 3.
- 7) This truss is designed in accordance with the 2018
International Residential Code sections R502.11.1 and
R802.10.2 and referenced standard ANSI/TPI 1.



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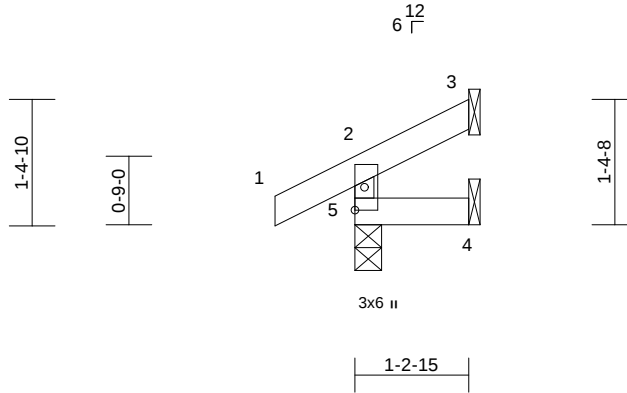
Job	Truss	Truss Type	Qty	Ply	Lot 167 HM	I63626988
B240013	J23	Jack-Open	2	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.73 S Feb 6 2024 Print: 8.730 S Feb 6 2024 MiTek Industries, Inc. Wed Feb 14 11:03:02
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Page: 1

-0-10-8	1-2-15
0-10-8	1-2-15



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	0.07	Vert(LL)	0.00	5	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.01	Vert(CT)	0.00	4-5	>999	240		
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		Wind(LL)	0.00	4-5	>999	240	Weight: 4 lb	FT = 10%

LUMBER

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

BRACING

TOP CHORD Structural wood sheathing directly applied or
1-2-15 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc
bracing.

REACTIONS (size) 3= Mechanical, 4= Mechanical,
5=0-3-8
Max Horiz 5=34 (LC 5)
Max Uplift 3=-18 (LC 8), 5=-24 (LC 8)
Max Grav 3=14 (LC 1), 4=20 (LC 3), 5=149
(LC 1)

FORCES (lb) - Maximum Compression/Maximum
Tension

TOP CHORD 2-5=-133/37, 1-2=0/31, 2-3=-29/3
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; 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) * This truss has been designed for a live load of 20.0psf
on the bottom chord in all areas where a rectangle
3-06-00 tall by 2-00-00 wide will fit between the bottom
chord and any other members.
- 4) All bearings are assumed to be SPF No.2 .
- 5) Refer to girder(s) for truss to truss connections.
- 6) Provide mechanical connection (by others) of truss to
bearing plate capable of withstanding 24 lb uplift at joint
5 and 18 lb uplift at joint 3.
- 7) This truss is designed in accordance with the 2018
International Residential Code sections R502.11.1 and
R802.10.2 and referenced standard ANSI/TPI 1.



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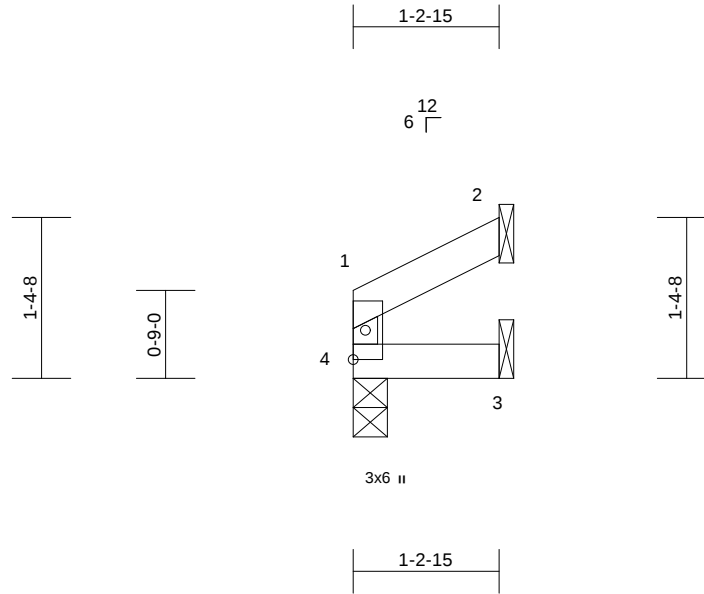
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Job	Truss	Truss Type	Qty	Ply	Lot 167 HM	I63626989
B240013	J24	Jack-Open	2	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.73 S Feb 6 2024 Print: 8.730 S Feb 6 2024 MiTek Industries, Inc. Wed Feb 14 11:03:02
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Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.02	Vert(LL)	0.00	4	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.01	Vert(CT)	0.00	3-4	>999	240		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.00	Horz(CT)	0.00	2	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-R		Wind(LL)	0.00	3-4	>999	240	Weight: 3 lb	FT = 10%

LUMBER

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

BRACING

TOP CHORD Structural wood sheathing directly applied or
1-2-15 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc
bracing.

REACTIONS (size) 2= Mechanical, 3= Mechanical,
4=0-3-8
Max Horiz 4=25 (LC 5)
Max Uplift 2=-25 (LC 8)
Max Grav 2=38 (LC 1), 3=22 (LC 3), 4=51
(LC 1)

FORCES (lb) - Maximum Compression/Maximum
Tension

TOP CHORD 1-4=-41/8, 1-2=-22/14
BOT CHORD 3-4=0/0

NOTES

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust)
Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; 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) * This truss has been designed for a live load of 20.0psf
on the bottom chord in all areas where a rectangle
3-06-00 tall by 2-00-00 wide will fit between the bottom
chord and any other members.
- 4) All bearings are assumed to be SPF No.2 .
- 5) Refer to girder(s) for truss to truss connections.
- 6) Provide mechanical connection (by others) of truss to
bearing plate capable of withstanding 25 lb uplift at joint
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



February 15, 2024

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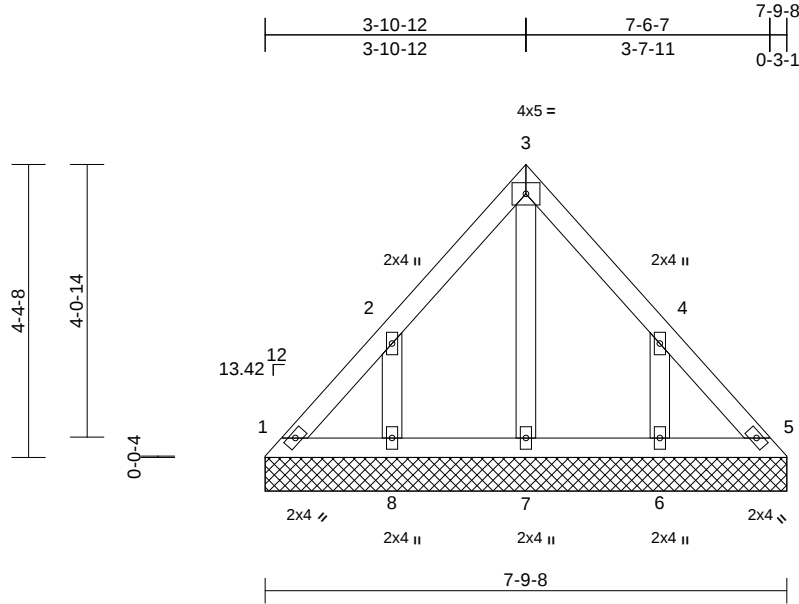
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Job	Truss	Truss Type	Qty	Ply	Lot 167 HM	
B240013	LAY1	Lay-In Gable	1	1	Job Reference (optional)	I63626990

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.73 S Feb 6 2024 Print: 8.730 S Feb 6 2024 MiTek Industries, Inc. Wed Feb 14 11:03:02
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Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.06	n/a	-	n/a	999	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.02	n/a	-	n/a	999		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.03	Horiz(TL)	0.00	5	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-P						Weight: 29 lb	FT = 10%

LUMBER

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

BRACING

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

REACTIONS	(size)	1=7-9-8, 5=7-9-8, 6=7-9-8, 7=7-9-8, 8=7-9-8
	Max Horiz	1=-108 (LC 4)
	Max Uplift	1=-27 (LC 4), 5=-10 (LC 5), 6=-154 (LC 9), 8=-154 (LC 8)
	Max Grav	1=99 (LC 17), 5=91 (LC 18), 6=228 (LC 16), 7=122 (LC 18), 8=229 (LC 15)

FORCES

(lb) - Maximum Compression/Maximum Tension

TOP CHORD	1-2=-121/92, 2-3=-101/79, 3-4=-92/64, 4-5=-106/69
BOT CHORD	1-8=-45/94, 7-8=-45/94, 6-7=-45/94, 5-6=-45/94
WEBS	3-7=-82/0, 2-8=-189/178, 4-6=-189/178

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; 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 2-0-0 oc.

- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
 - * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
 - All bearings are assumed to be SPF No.2 .
 - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 27 lb uplift at joint 1, 10 lb uplift at joint 5, 154 lb uplift at joint 8 and 154 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



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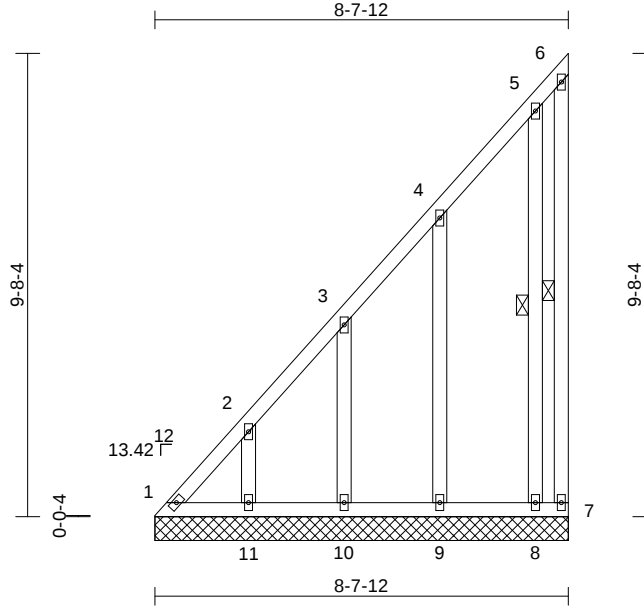
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Job	Truss	Truss Type	Qty	Ply	Lot 167 HM	
B240013	LAY2	Lay-In Gable	1	1	Job Reference (optional)	I63626991

Wheeler Lumber, Waverly, KS - 66871,

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Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.38	n/a	-	n/a	999	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.02	Vert(TL)	n/a	-	999		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.12	Horiz(TL)	0.00	7	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-P						Weight: 57 lb	FT = 10%

LUMBER

TOP CHORD	2x4 SPF No.2
BOT CHORD	2x4 SPF No.2
WEBS	2x4 SPF 2100F 1.8E
OTHERS	2x4 SPF No.2

BRACING

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

WEBS	1 Row at midpt	6-7, 5-8
------	----------------	----------

REACTIONS	(size)	1=8-7-12, 7=8-7-12, 8=8-7-12, 9=8-7-12, 10=8-7-12, 11=8-7-12
	Max Horiz	1=364 (LC 5)
	Max Uplift	1=-164 (LC 6), 7=-135 (LC 7), 8=-78 (LC 8), 9=-150 (LC 8), 10=-133 (LC 8), 11=-138 (LC 8)
	Max Grav	1=304 (LC 5), 7=97 (LC 4), 8=157 (LC 15), 9=219 (LC 15), 10=205 (LC 15), 11=211 (LC 15)

FORCES

(lb) - Maximum Compression/Maximum Tension

TOP CHORD	1-2=-411/281, 2-3=-338/228, 3-4=-277/180, 4-5=-242/168, 5-6=-193/140, 6-7=-100/131
BOT CHORD	1-11=-130/99, 10-11=-130/99, 9-10=-130/99, 8-9=-130/99, 7-8=-130/99
WEBS	2-11=-171/162, 3-10=-166/156, 4-9=-178/175, 5-8=-123/98

NOTES

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; 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) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- 3) All plates are 2x4 MT20 unless otherwise indicated.

- 4) Gable requires continuous bottom chord bearing.
 - 5) Gable studs spaced at 0-0-0 oc.
 - 6) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
 - 7) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
 - 8) All bearings are assumed to be SPF No.2 .
 - 9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 164 lb uplift at joint 1, 135 lb uplift at joint 7, 138 lb uplift at joint 11, 133 lb uplift at joint 10, 150 lb uplift at joint 9 and 78 lb uplift at joint 8.
 - 10) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- LOAD CASE(S)** Standard



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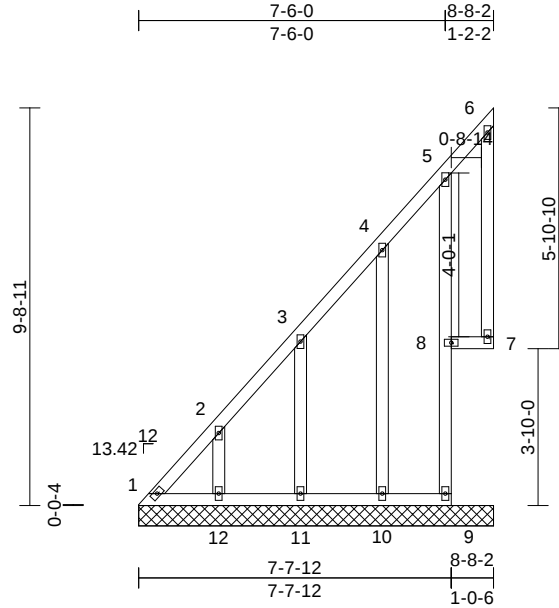
Job	Truss	Truss Type	Qty	Ply	Lot 167 HM	
B240013	LAY3	Lay-In Gable	1	1	Job Reference (optional)	163626992

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Scale = 1:56.3

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.20	Vert(LL)	n/a	-	n/a	999	MT20
TCDL	10.0	Lumber DOL	1.15	BC	0.27	Vert(TL)	n/a	-	n/a	999	197/144
BCLL	0.0*	Rep Stress Incr	YES	WB	0.10	Horiz(TL)	-0.19	7	n/a	n/a	
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-P							Weight: 52 lb FT = 10%

LUMBER

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

BRACING

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

REACTIONS	(size)	1=8-8-2, 7=8-8-2, 8=8-8-2, 9=8-8-2, 10=8-8-2, 11=8-8-2, 12=8-8-2
-----------	--------	--

Max Horiz	1=301 (LC 5)
Max Uplift	1=-157 (LC 6), 7=-76 (LC 7), 8=-74 (LC 8), 10=-120 (LC 8), 11=-140 (LC 8), 12=-136 (LC 8)
Max Grav	1=293 (LC 5), 7=78 (LC 4), 8=135 (LC 15), 9=23 (LC 3), 10=190 (LC 15), 11=212 (LC 15), 12=210 (LC 15)

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

TOP CHORD	1-2=-406/273, 2-3=-324/220, 3-4=-251/165, 4-5=-214/146, 5-6=-131/91, 6-7=-72/87
BOT CHORD	1-12=-40/30, 11-12=-40/30, 10-11=-40/30, 9-10=-40/30, 8-9=0/0, 5-8=-125/80, 7-8=-76/58
WEBS	2-12=-169/161, 3-11=-172/164, 4-10=-151/143

NOTES

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; 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) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.

- 3) All plates are 2x4 MT20 unless otherwise indicated.
- 4) Gable requires continuous bottom chord bearing.
- 5) Gable studs spaced at 0-0-0 oc.
- 6) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 7) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- 8) All bearings are assumed to be SPF No.2.
- 9) Bearing at joint(s) 8 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- 10) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 157 lb uplift at joint 1, 76 lb uplift at joint 7, 74 lb uplift at joint 8, 136 lb uplift at joint 12, 140 lb uplift at joint 11 and 120 lb uplift at joint 10.
- 11) Beveled plate or shim required to provide full bearing surface with truss chord at joint(s) 7.
- 12) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard



February 15, 2024

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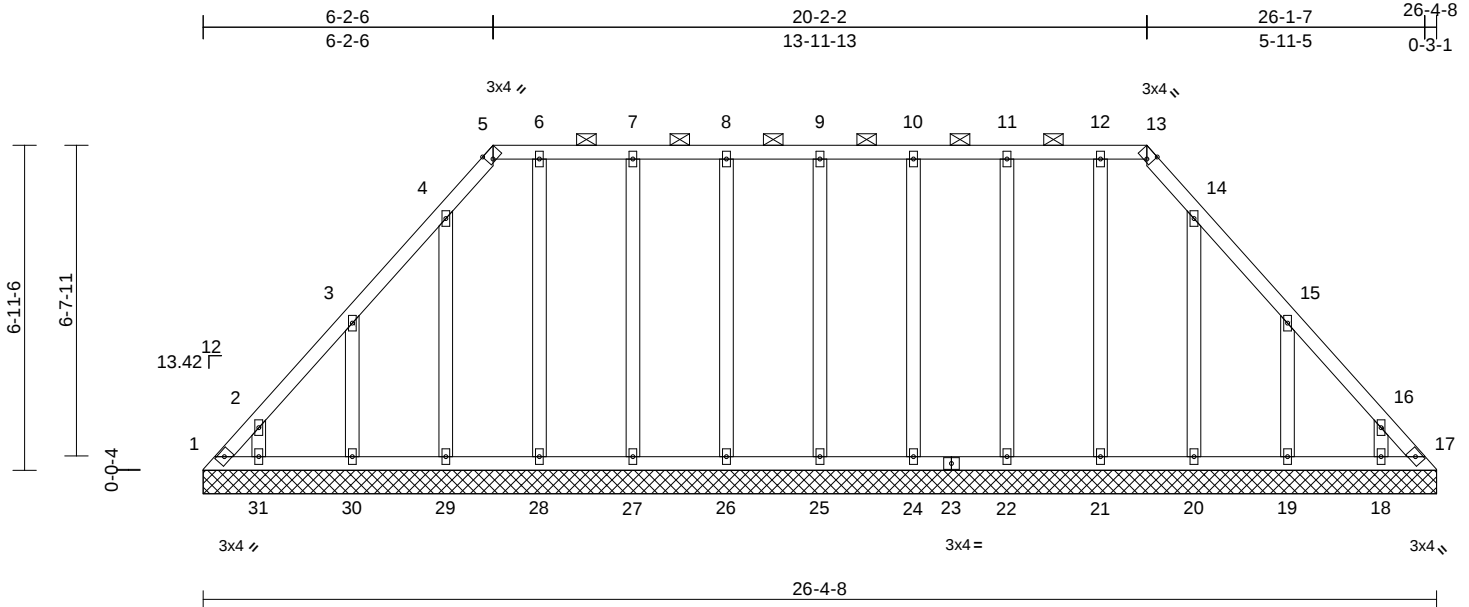
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AS NOTED ON PLANS REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
03/05/2024 4:08:41

Job	Truss	Truss Type	Qty	Ply	Lot 167 HM	I63626993
B240013	LAY4	Lay-In Gable	1	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.73 S Feb 6 2024 Print: 8.730 S Feb 6 2024 MiTek Industries, Inc. Wed Feb 14 11:03:03
ID:JLakoFTO3ytpoQuXICNSp3zIGMu-RfC?PsB70Hq3NSgPqnL8w3uITxbGKwRCdoi7J4zJC?F

Page: 1



Scale = 1:49.3												
Plate Offsets (X, Y): [5:0-1-6,Edge], [13:0-1-6,Edge]												
Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.06	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.04	Vert(TL)	n/a	-	n/a	999		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.11	Horiz(TL)	0.01	17	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S							Weight: 138 lb	FT = 10%

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

BRACING
TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except 2-0-0 oc purlins (6-0-0 max.): 5-13.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (size)
1=26-4-8, 17=26-4-8, 18=26-4-8, 19=26-4-8, 20=26-4-8, 21=26-4-8, 22=26-4-8, 24=26-4-8, 25=26-4-8, 26=26-4-8, 27=26-4-8, 28=26-4-8, 29=26-4-8, 30=26-4-8, 31=26-4-8
Max Horiz 1=-180 (LC 6)
Max Uplift 1=-113 (LC 6), 17=-81 (LC 7), 18=-109 (LC 9), 19=-155 (LC 9), 20=-71 (LC 9), 21=-15 (LC 5), 22=-39 (LC 4), 24=-33 (LC 5), 25=-34 (LC 4), 26=-34 (LC 5), 27=-43 (LC 4), 28=-30 (LC 5), 29=-83 (LC 8), 30=-152 (LC 8), 31=-110 (LC 8)
Max Grav 1=219 (LC 8), 17=198 (LC 9), 18=173 (LC 16), 19=221 (LC 16), 20=178 (LC 16), 21=167 (LC 22), 22=185 (LC 21), 24=180 (LC 22), 25=180 (LC 21), 26=180 (LC 21), 27=185 (LC 22), 28=167 (LC 21), 29=191 (LC 15), 30=217 (LC 15), 31=174 (LC 15)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=-298/173, 2-3=-195/136, 3-4=-122/85, 4-5=-81/89, 5-6=-31/84, 6-7=-31/84, 7-8=-31/84, 8-9=-31/84, 9-10=-31/84, 10-11=-31/84, 11-12=-31/84, 12-13=-31/84, 13-14=-81/84, 14-15=-92/39, 15-16=-167/93, 16-17=-269/130
BOT CHORD 1-31=-83/188, 30-31=-83/188, 29-30=-83/188, 28-29=-83/188, 27-28=-83/188, 26-27=-83/188, 25-26=-83/188, 24-25=-83/188, 22-24=-83/188, 21-22=-83/188, 20-21=-83/188, 19-20=-83/188, 18-19=-83/188, 17-18=-83/188
WEBS 2-31=-139/127, 3-30=-176/177, 4-29=-152/107, 6-28=-127/54, 7-27=-145/67, 8-26=-140/58, 9-25=-140/58, 10-24=-140/57, 11-22=-145/63, 12-21=-127/39, 14-20=-138/95, 15-19=-180/180, 16-18=-138/127

- 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; 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.
 - Provide adequate drainage to prevent water ponding.
 - All plates are 2x4 MT20 unless otherwise indicated.
 - Gable requires continuous bottom chord bearing.
 - Gable studs spaced at 0-0-0 oc.
 - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.

- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- All bearings are assumed to be SPF No.2 .
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 113 lb uplift at joint 1, 81 lb uplift at joint 17, 110 lb uplift at joint 31, 152 lb uplift at joint 30, 83 lb uplift at joint 29, 30 lb uplift at joint 28, 43 lb uplift at joint 27, 34 lb uplift at joint 26, 34 lb uplift at joint 25, 33 lb uplift at joint 24, 39 lb uplift at joint 22, 15 lb uplift at joint 21, 71 lb uplift at joint 20, 155 lb uplift at joint 19 and 109 lb uplift at joint 18.
- 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



February 15, 2024

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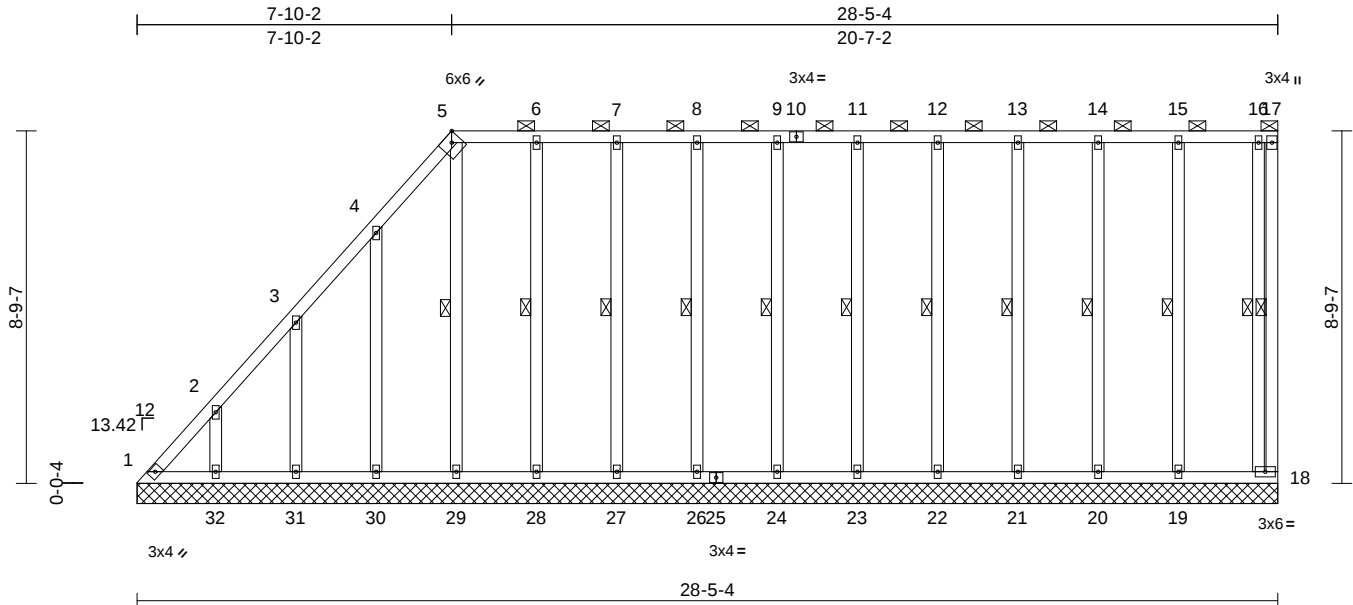
Job	Truss	Truss Type	Qty	Ply	Lot 167 HM	I63626994
B240013	LAY5	Lay-In Gable	1	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.73 S Feb 6 2024 Print: 8.730 S Feb 6 2024 MiTek Industries, Inc. Wed Feb 14 11:03:04

Page: 1

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Scale = 1:57.4

Plate Offsets (X, Y): [5:0-2-10,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	0.33	Vert(LL)	n/a	-	n/a	999	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.13	Vert(TL)	n/a	-	n/a	999	
BCLL	0.0*	Rep Stress Incr	YES	WB	0.12	Horiz(TL)	-0.01	18	n/a	n/a	
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S							
Weight: 194 lb FT = 10%											

LUMBER

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

BRACING

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

REACTIONS

(size)	1=28-5-4, 18=28-5-4, 19=28-5-4, 20=28-5-4, 21=28-5-4, 22=28-5-4, 23=28-5-4, 24=28-5-4, 26=28-5-4, 27=28-5-4, 28=28-5-4, 29=28-5-4, 30=28-5-4, 31=28-5-4, 32=28-5-4
Max Horiz	1=338 (LC 5)
Max Uplift	1=-144 (LC 6), 18=-39 (LC 5), 19=-56 (LC 4), 20=-41 (LC 5), 21=-37 (LC 4), 22=-34 (LC 5), 23=-34 (LC 4), 24=-34 (LC 5), 26=-34 (LC 5), 27=-34 (LC 4), 28=-43 (LC 5), 29=-110 (LC 5), 30=-140 (LC 8), 31=-136 (LC 8), 32=-137 (LC 8)
Max Grav	1=276 (LC 5), 18=101 (LC 1), 19=198 (LC 1), 20=177 (LC 1), 21=181 (LC 1), 22=180 (LC 1), 23=180 (LC 1), 24=180 (LC 1), 26=180 (LC 1), 27=177 (LC 1), 28=193 (LC 1), 29=174 (LC 15), 30=214 (LC 15), 31=206 (LC 15), 32=211 (LC 15)

FORCES

(lb) - Maximum Compression/Maximum Tension	
TOP CHORD	1-2=-372/253, 2-3=-300/201, 3-4=-245/159, 4-5=-205/139, 5-6=-118/89, 6-7=-117/89, 7-8=-117/89, 8-9=-117/89, 9-11=-117/89, 11-12=-117/89, 12-13=-117/89, 13-14=-117/89, 14-15=-117/89, 15-16=-117/89, 16-17=-119/90, 17-18=-145/111
BOT CHORD	1-32=-126/95, 31-32=-126/95, 30-31=-126/95, 29-30=-126/95, 28-29=-125/94, 27-28=-125/94, 26-27=-125/94, 24-26=-125/94, 23-24=-125/94, 22-23=-125/94, 21-22=-125/94, 20-21=-125/94, 19-20=-125/94, 18-19=-125/94, 2-32=-165/155, 3-31=-168/162, 4-30=-173/163, 5-29=-134/137, 6-28=-153/67, 7-27=-137/58, 8-26=-140/58, 9-24=-140/58, 11-23=-140/58, 12-22=-140/58, 13-21=-140/59, 14-20=-138/64, 15-19=-152/88, 16-18=-79/122
WEBS	

NOTES

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; 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) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- 3) Provide adequate drainage to prevent water ponding.
- 4) All plates are 2x4 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) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- 9) All bearings are assumed to be SPF No.2 .
- 10) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 144 lb uplift at joint 1, 39 lb uplift at joint 18, 137 lb uplift at joint 32, 136 lb uplift at joint 31, 140 lb uplift at joint 30, 110 lb uplift at joint 29, 43 lb uplift at joint 28, 34 lb uplift at joint 27, 34 lb uplift at joint 26, 34 lb uplift at joint 24, 34 lb uplift at joint 23, 34 lb uplift at joint 22, 37 lb uplift at joint 21, 41 lb uplift at joint 20 and 56 lb uplift at joint 19.
- 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



February 15, 2024

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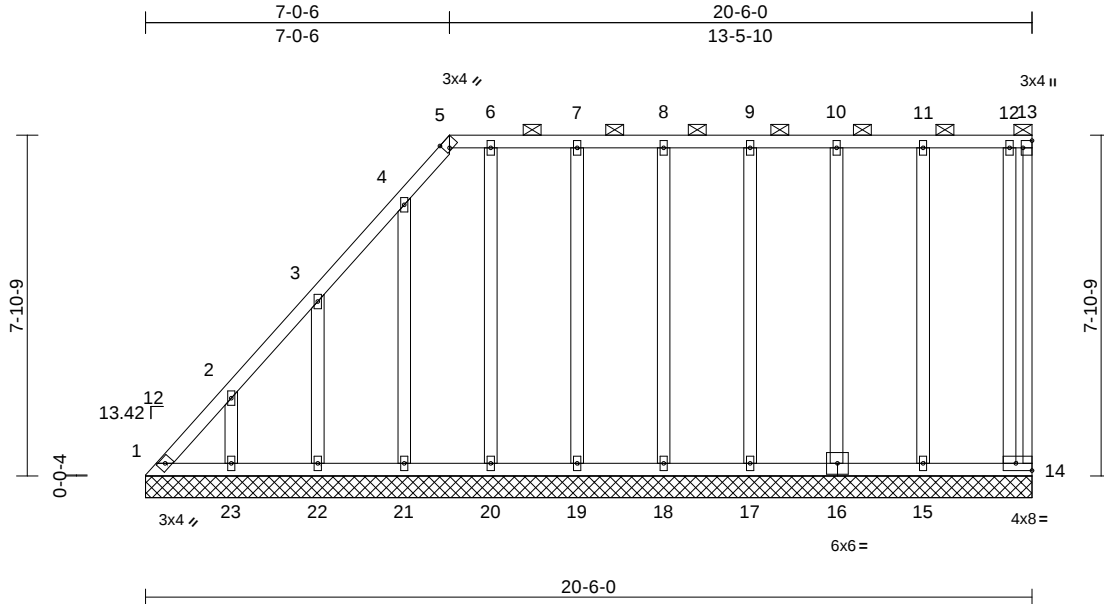
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Job	Truss	Truss Type	Qty	Ply	Lot 167 HM	I63626995
B240013	LAY6	Lay-In Gable	1	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.73 S Feb 6 2024 Print: 8.730 S Feb 6 2024 MiTek Industries, Inc. Wed Feb 14 11:03:04
ID:iaDkaDUyNIYRypdmyzvDVmzlGOA-RfC?PsB70Hq3NSgPqnL8w3ulTXbGKWrCDoi7J4zJC?f

Page: 1



Scale = 1:53.3

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

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.56	Vert(LL)	n/a	-	n/a	999	MT20
TCDL	10.0	Lumber DOL	1.15	BC	0.12	Vert(TL)	n/a	-	n/a	999	197/144
BCLL	0.0*	Rep Stress Incr	YES	WB	0.15	Horiz(TL)	0.00	14	n/a	n/a	
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S							
Weight: 128 lb FT = 10%											

LUMBER

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

BRACING

TOP CHORD	Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals, and 2-0-0 oc purlins (6-0-0 max.): 5-13.
BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (size)	1=20-6-0, 14=20-6-0, 15=20-6-0, 16=20-6-0, 17=20-6-0, 18=20-6-0, 19=20-6-0, 20=20-6-0, 21=20-6-0, 22=20-6-0, 23=20-6-0
Max Horiz	1=301 (LC 5)
Max Uplift	1=125 (LC 6), 14=47 (LC 5), 15=61 (LC 4), 16=42 (LC 5), 17=37 (LC 4), 18=37 (LC 5), 19=51 (LC 4), 20=86 (LC 5), 21=89 (LC 5), 22=148 (LC 8), 23=136 (LC 8)
Max Grav	1=244 (LC 5), 14=108 (LC 1), 15=198 (LC 22), 16=176 (LC 1), 17=181 (LC 22), 18=180 (LC 1), 19=182 (LC 22), 20=180 (LC 1), 21=214 (LC 15), 22=205 (LC 15), 23=213 (LC 15)

FORCES

TOP CHORD	(lb) - Maximum Compression/Maximum Tension
	1-2=-329/228, 2-3=-255/176, 3-4=-217/146, 4-5=-134/96, 5-6=-102/78, 6-7=-102/78, 7-8=-102/78, 8-9=-102/78, 9-10=-102/78, 10-11=-102/78, 11-12=-102/78, 12-13=-105/79, 13-14=-124/94

BOT CHORD	1-23=-114/85, 22-23=-114/85, 21-22=-114/85, 20-21=-114/85, 19-20=-114/85, 18-19=-114/85, 17-18=-114/85, 15-17=-114/85, 14-15=-114/85
WEBS	2-23=-167/153, 3-22=-166/174, 4-21=-174/113, 6-20=-140/110, 7-19=-142/74, 8-18=-140/60, 9-17=-140/58, 10-16=-138/62, 11-15=-151/77, 12-14=-91/116

NOTES

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; 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.
- Provide adequate drainage to prevent water ponding.
- All plates are 2x4 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.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- All bearings are assumed to be SPF No.2.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 125 lb uplift at joint 1, 47 lb uplift at joint 14, 136 lb uplift at joint 23, 148 lb uplift at joint 22, 89 lb uplift at joint 21, 86 lb uplift at joint 20, 51 lb uplift at joint 19, 37 lb uplift at joint 18, 37 lb uplift at joint 17, 42 lb uplift at joint 16 and 61 lb uplift at joint 15.

- 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



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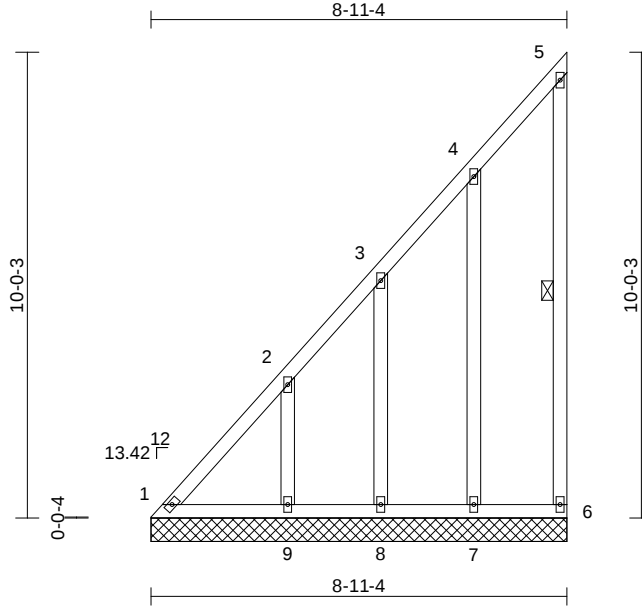
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Job	Truss	Truss Type	Qty	Ply	Lot 167 HM	
B240013	LAY7	Lay-In Gable	1	1	Job Reference (optional)	I63626996

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.73 S Feb 6 2024 Print: 8.730 S Feb 6 2024 MiTek Industries, Inc. Wed Feb 14 11:03:05
ID:ISTlpZ1k5Oth07IfHilYVzzlGOI-RfC?PsB70Hq3NSgPqnL8w3ulTXbGKWrCDoi7J4zJC?f

Page: 1



Scale = 1:49.5

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	0.41	Vert(LL)	n/a	-	n/a	999	MT20
TCDL	10.0	Lumber DOL	1.15	BC	0.04	Vert(TL)	n/a	-	n/a	999	197/144
BCLL	0.0*	Rep Stress Incr	YES	WB	0.17	Horiz(TL)	0.00	6	n/a	n/a	
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-P							Weight: 53 lb FT = 10%

LUMBER

TOP CHORD	2x4 SPF No.2
BOT CHORD	2x4 SPF No.2
WEBS	2x4 SPF 2100F 1.8E
OTHERS	2x4 SPF No.2

BRACING

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

WEBS	1 Row at midpt	5-6
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REACTIONS	(size)	1=8-11-4, 6=8-11-4, 7=8-11-4, 8=8-11-4, 9=8-11-4
	Max Horiz	1=377 (LC 5)
	Max Uplift	1=-137 (LC 6), 6=-139 (LC 7), 7=-145 (LC 8), 8=-121 (LC 8), 9=-186 (LC 8)
	Max Grav	1=303 (LC 5), 6=137 (LC 4), 7=228 (LC 15), 8=181 (LC 15), 9=286 (LC 15)

FORCES	(lb) - Maximum Compression/Maximum Tension
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TOP CHORD	1-2=-412/288, 2-3=-309/204, 3-4=-272/182, 4-5=-232/162, 5-6=-129/153
-----------	--

BOT CHORD	1-9=-135/102, 8-9=-135/102, 7-8=-135/102, 6-7=-135/102
-----------	--

WEBS	4-7=-183/172, 3-8=-147/142, 2-9=-231/219
------	--

NOTES

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; 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) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- 3) All plates are 2x4 MT20 unless otherwise indicated.
- 4) Gable requires continuous bottom chord bearing.

- 5) Gable studs spaced at 2-0-0 oc.
 - 6) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
 - 7) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
 - 8) All bearings are assumed to be SPF No.2 .
 - 9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 137 lb uplift at joint 1, 139 lb uplift at joint 6, 145 lb uplift at joint 7, 121 lb uplift at joint 8 and 186 lb uplift at joint 9.
 - 10) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- LOAD CASE(S)** Standard



February 15, 2024

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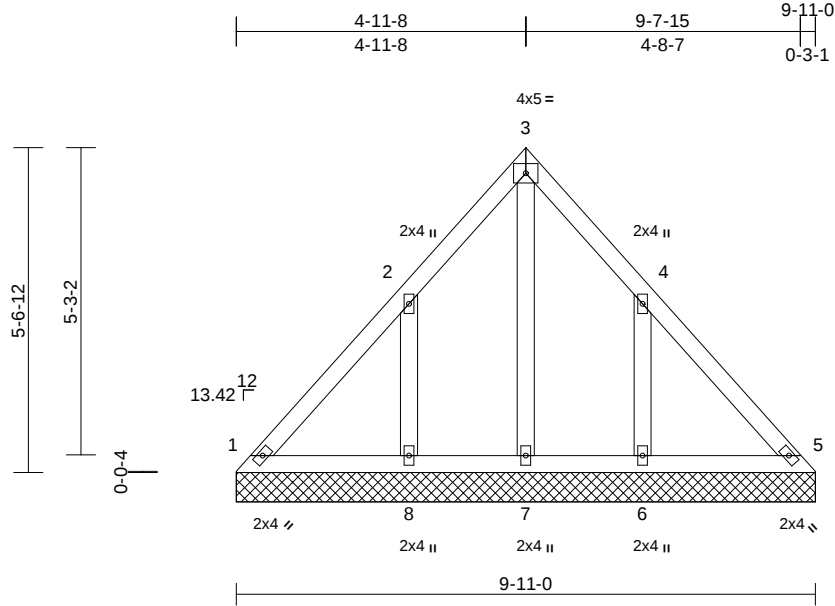
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DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
03/05/2024 4:08:41

Job	Truss	Truss Type	Qty	Ply	Lot 167 HM	
B240013	LAY8	Lay-In Gable	1	1	Job Reference (optional)	I63626997

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.73 S Feb 6 2024 Print: 8.730 S Feb 6 2024 MiTek Industries, Inc. Wed Feb 14 11:03:05
ID:2vr3D2l6DyKcQvj7m6gT3JzlGPh-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

Page: 1



Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.08	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.05	Vert(TL)	n/a	-	n/a	999		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.04	Horiz(TL)	0.00	5	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S							Weight: 39 lb	FT = 10%

LUMBER

TOP CHORD	2x4 SPF No.2
BOT CHORD	2x4 SPF No.2
OTHERS	2x4 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=9-11-0, 5=9-11-0, 6=9-11-0, 7=9-11-0, 8=9-11-0
	Max Horiz	1=-140 (LC 4)
	Max Uplift	1=-23 (LC 4), 5=-1 (LC 5), 6=-194 (LC 9), 8=-194 (LC 8)
	Max Grav	1=141 (LC 16), 5=125 (LC 15), 6=299 (LC 16), 7=125 (LC 18), 8=300 (LC 15)

FORCES

	(lb) - Maximum Compression/Maximum Tension
TOP CHORD	1-2=-139/116, 2-3=-103/102, 3-4=-92/83, 4-5=-121/93
BOT CHORD	1-8=-61/127, 7-8=-61/127, 6-7=-61/127, 5-6=-61/127
WEBS	3-7=-96/9, 2-8=-232/215, 4-6=-232/215

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; 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 2-0-0 oc.

- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
 - * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
 - All bearings are assumed to be SPF No.2 .
 - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 23 lb uplift at joint 1, 1 lb uplift at joint 5, 194 lb uplift at joint 8 and 194 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



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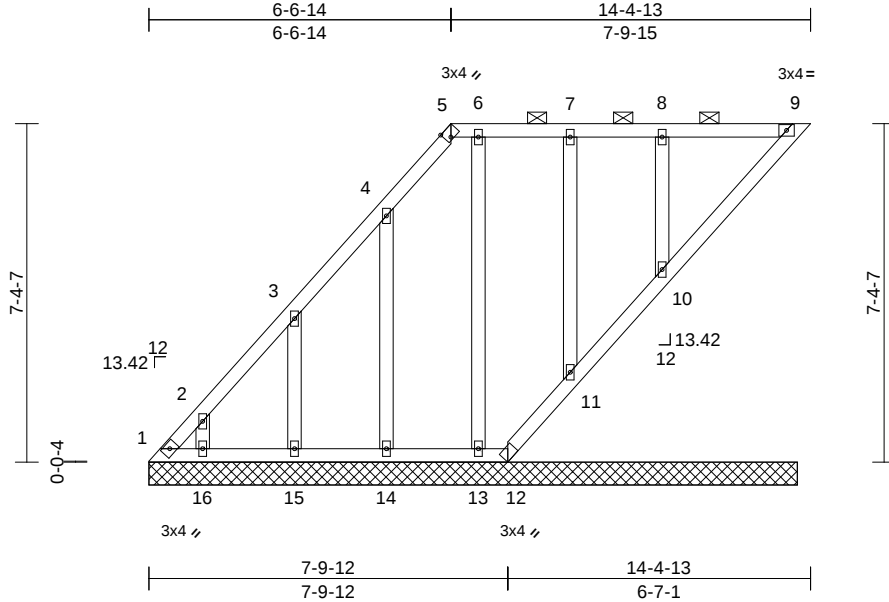
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Job	Truss	Truss Type	Qty	Ply	Lot 167 HM	
B240013	LAY9	Lay-In Gable	1	1	Job Reference (optional)	I63626998

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.73 S Feb 6 2024 Print: 8.730 S Feb 6 2024 MiTek Industries, Inc. Wed Feb 14 11:03:05
ID:CPsf7xC1f_s7PwFexVX7i7zIGR6-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

Page: 1



Scale = 1:50.2

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

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.10	Vert(LL)	n/a	-	n/a	999	MT20
TCDL	10.0	Lumber DOL	1.15	BC	0.06	Vert(TL)	n/a	-	n/a	999	197/144
BCLL	0.0*	Rep Stress Incr	YES	WB	0.11	Horiz(TL)	0.00	9	n/a	n/a	
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S							
Weight: 67 lb FT = 10%											

LUMBER

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

BRACING

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

REACTIONS

(size)	1=14-1-5, 9=14-1-5, 10=14-1-5, 11=14-1-5, 12=14-1-5, 13=14-1-5, 14=14-1-5, 15=14-1-5, 16=14-1-5
Max Horiz	1=289 (LC 8)
Max Uplift	1=-86 (LC 6), 9=-59 (LC 8), 10=-49 (LC 5), 11=-36 (LC 5), 12=-22 (LC 15), 13=-21 (LC 4), 14=-117 (LC 8), 15=-145 (LC 8), 16=-112 (LC 8)
Max Grav	1=253 (LC 8), 9=129 (LC 1), 10=270 (LC 1), 11=152 (LC 22), 12=69 (LC 8), 13=157 (LC 1), 14=197 (LC 15), 15=217 (LC 15), 16=173 (LC 15)

FORCES

(lb) - Maximum Compression/Maximum Tension	
TOP CHORD	1-2=-342/135, 2-3=-238/98, 3-4=-111/43, 4-5=-78/44, 5-6=-30/54, 6-7=-30/54, 7-8=-30/54, 8-9=-30/54
BOT CHORD	1-16=-54/30, 15-16=-54/30, 14-15=-54/30, 13-14=-54/30, 12-13=-54/30, 11-12=-87/58, 10-11=-87/66, 9-10=-94/58
WEBS	2-16=-139/129, 3-15=-176/170, 4-14=-156/141, 6-13=-126/40, 7-11=-125/55, 8-10=-204/80

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; 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) Provide adequate drainage to prevent water ponding.
- 5) All plates are 2x4 MT20 unless otherwise indicated.
- 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) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- 9) All bearings are assumed to be SPF No.2 .
- 10) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 86 lb uplift at joint 1, 59 lb uplift at joint 9, 22 lb uplift at joint 12, 112 lb uplift at joint 16, 145 lb uplift at joint 15, 117 lb uplift at joint 14, 21 lb uplift at joint 13, 36 lb uplift at joint 11 and 49 lb uplift at joint 10.
- 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

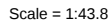


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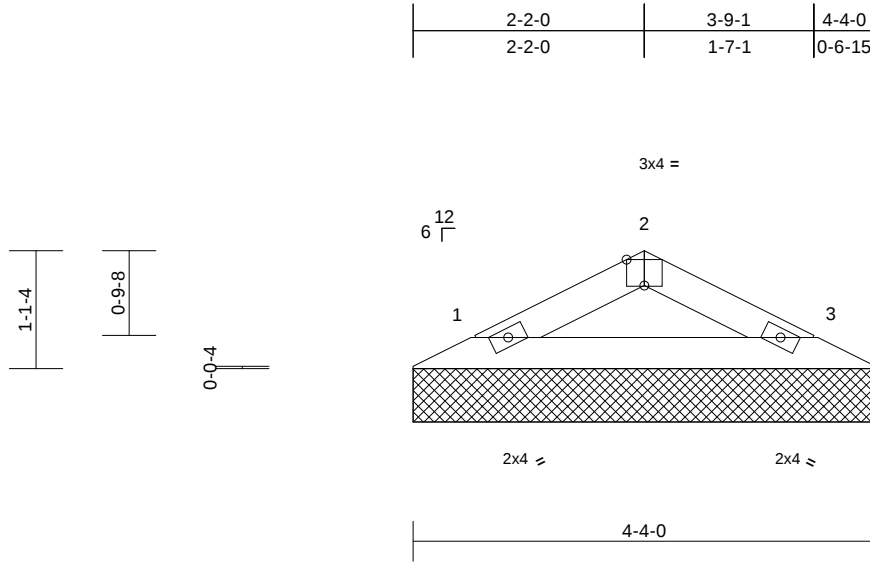
Page: 1

Job	Truss	Truss Type	Qty	Ply	Lot 167 HM	
B240013	V1	Valley	1	1		I63627000
Job Reference (optional)						

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.73 S Feb 6 2024 Print: 8.730 S Feb 6 2024 MiTek Industries, Inc. Wed Feb 14 11:03:06
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Page: 1



Scale = 1:21.6

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	0.04	Vert(LL)	n/a	-	n/a	999	MT20
TCDL	10.0	Lumber DOL	1.15	BC	0.10	Vert(TL)	n/a	-	n/a	999	197/144
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: 9 lb
											FT = 10%

LUMBER

TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2

BRACING

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

REACTIONS (size) 1=4-4-0, 3=4-4-0
Max Horiz 1=14 (LC 8)
Max Uplift 1=-18 (LC 8), 3=-18 (LC 9)
Max Grav 1=142 (LC 1), 3=142 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=-143/42, 2-3=-143/42
BOT CHORD 1-3=-26/110

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; 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 2-0-0 oc.
- 6) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 7) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- 8) All bearings are assumed to be SPF No.2 .

- 9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 18 lb uplift at joint 1 and 18 lb uplift at joint 3.
- 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



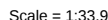
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Wheeler Lumber, Waverly, KS - 66871, Run: 8.73 S Feb 6 2024 Print: 8.730 S Feb 6 2024 MiTek Industries, Inc. Wed Feb 14 11:03:06 Page: 1
ID: Hr0UlovglMQrZQ4rpild7XzssyG-RfC?PsB70Hg3N5oPanL8w3uITXBGKWRCDoi7J4zJC?f

LOAD CASE(S) Standard

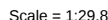
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ID: Hr0UlovgMQrZQ4rpild7XzssyG-RfC?PsB70Hg3NSoPanL8w3uITXBGKWRCDoi7J4zJC?f



LUMBER

- 8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 26 lb uplift at joint 4 and 122 lb uplift at joint 5.
- 9) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

BRACING

LOAD CASE(S) Standard

REACTIONS

FORCES

NOTES

-
- STATE OF MISSOURI
NATHANIEL
FOX
NUMBER
PE-2022042259
PROFESSIONAL ENGINEER

February 15, 2024



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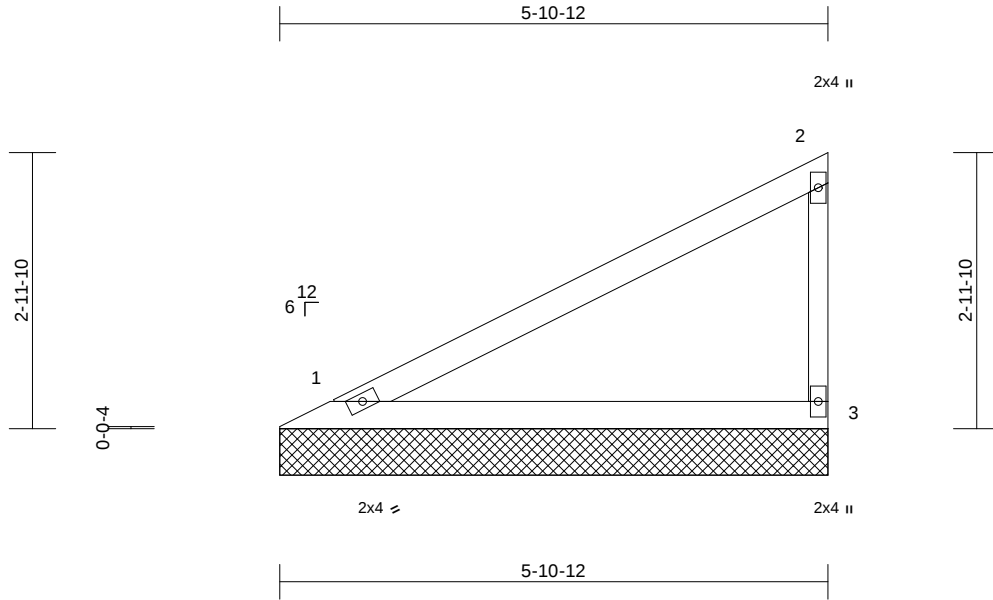
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Job	Truss	Truss Type	Qty	Ply	Lot 167 HM	I63627003
B240013	V4	Valley	1	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.73 S Feb 6 2024 Print: 8.730 S Feb 6 2024 MiTek Industries, Inc. Wed Feb 14 11:03:07
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Page: 1



Scale = 1:24.8

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	0.53	Vert(LL)	n/a	-	n/a	999	MT20
TCDL	10.0	Lumber DOL	1.15	BC	0.28	Vert(TL)	n/a	-	n/a	999	197/144
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: 15 lb FT = 10%

LUMBER

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

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

LOAD CASE(S) Standard

BRACING

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

REACTIONS (size) 1=5-10-12, 3=5-10-12

Max Horiz 1=109 (LC 5)
Max Uplift 1=-30 (LC 8), 3=-57 (LC 8)
Max Grav 1=234 (LC 1), 3=234 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=-99/65, 2-3=-182/89
BOT CHORD 1-3=-37/28

NOTES

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust)
Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; 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) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- 3) Gable requires continuous bottom chord bearing.
- 4) Gable studs spaced at 4-0-0 oc.
- 5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 6) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- 7) All bearings are assumed to be SPF No.2.
- 8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 30 lb uplift at joint 1 and 57 lb uplift at joint 3.



February 15, 2024

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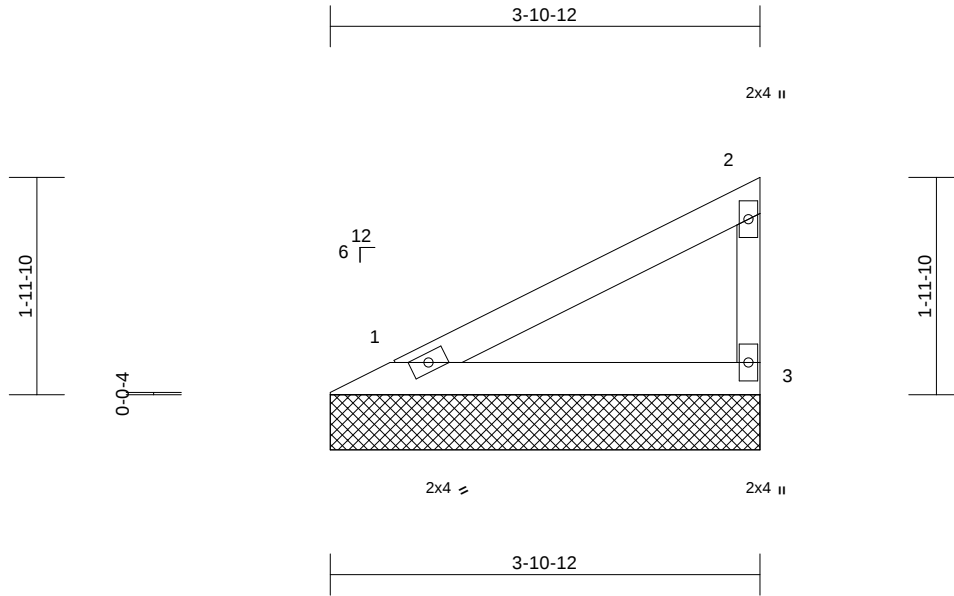
MiTek®
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03/05/2024 4:08:42

Job	Truss	Truss Type	Qty	Ply	Lot 167 HM	I63627004
B240013	V5	Valley	1	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.73 S Feb 6 2024 Print: 8.730 S Feb 6 2024 MiTek Industries, Inc. Wed Feb 14 11:03:07
ID:Hr0UloylgMOrZQ4rpild7XzssyG-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

Page: 1



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Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.18	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.10	Vert(TL)	n/a	-	n/a	999		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.00	Horiz(TL)	0.00	3	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-P							Weight: 10 lb	FT = 10%

LUMBER

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

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

LOAD CASE(S) Standard

BRACING

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

REACTIONS (size) 1=3-10-12, 3=3-10-12

Max Horiz 1=67 (LC 5)
Max Uplift 1=-18 (LC 8), 3=-35 (LC 8)
Max Grav 1=144 (LC 1), 3=144 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=-61/40, 2-3=-112/55
BOT CHORD 1-3=-23/17

NOTES

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust)
Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; 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) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- 3) Gable requires continuous bottom chord bearing.
- 4) Gable studs spaced at 2-0-0 oc.
- 5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 6) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- 7) All bearings are assumed to be SPF No.2 .
- 8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 18 lb uplift at joint 1 and 35 lb uplift at joint 3.



February 15, 2024

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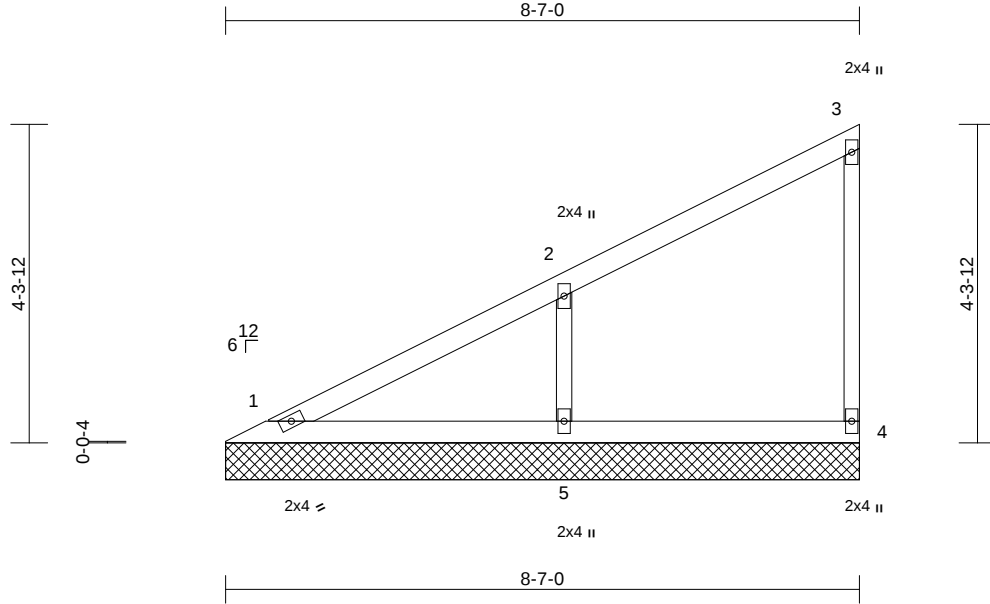
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Job	Truss	Truss Type	Qty	Ply	Lot 167 HM	I63627005
B240013	V6	Valley	1	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.73 S Feb 6 2024 Print: 8.730 S Feb 6 2024 MiTek Industries, Inc. Wed Feb 14 11:03:07
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Page: 1



Scale = 1:31.2

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.25	n/a	-	n/a	999	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.13	n/a	-	n/a	999		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.07	Horiz(TL)	0.00	4	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-P						Weight: 24 lb	FT = 10%

LUMBER

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

BRACING

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

REACTIONS

(size)	1=8-7-0, 4=8-7-0, 5=8-7-0
Max Horiz	1=164 (LC 5)
Max Uplift	4=-27 (LC 5), 5=-133 (LC 8)
Max Grav	1=139 (LC 16), 4=131 (LC 1), 5=443 (LC 1)

FORCES

(lb) - Maximum Compression/Maximum Tension

TOP CHORD	1-2=-132/79, 2-3=-118/43, 3-4=-102/44
BOT CHORD	1-5=-56/43, 4-5=-56/43
WEBS	2-5=-345/192

NOTES

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust)
Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; 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) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- 3) Gable requires continuous bottom chord bearing.
- 4) Gable studs spaced at 4-0-0 oc.
- 5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 6) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- 7) All bearings are assumed to be SPF No.2 .

- 8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 27 lb uplift at joint 4 and 133 lb uplift at joint 5.
- 9) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard



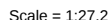
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Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters 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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Wheeler Lumber, Waverly, KS - 66871, Run: 8.73 S Feb 6 2024 Print: 8.730 S Feb 6 2024 MiTek Industries, Inc. Wed Feb 14 11:03:07 Page: 1
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LOAD CASE(S) Standard

- February 15, 2024

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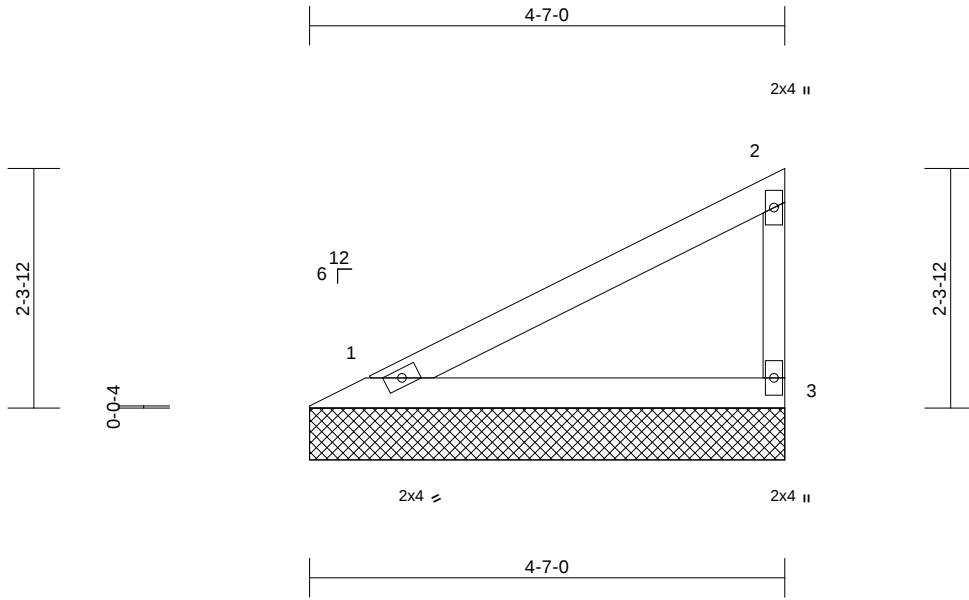
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Crestwood, MO 63017
844-420-7767 MitekUSA.com
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Job	Truss	Truss Type	Qty	Ply	Lot 167 HM	I63627007
B240013	V8	Valley	1	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS - 66871,

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Page: 1



Scale = 1:22.2

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.28	Vert(LL)	n/a	-	n/a	999	MT20
TCDL	10.0	Lumber DOL	1.15	BC	0.15	Vert(TL)	n/a	-	n/a	999	197/144
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: 12 lb FT = 10%

LUMBER

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

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

LOAD CASE(S) Standard

BRACING

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

REACTIONS (size) 1=4-7-0, 3=4-7-0

Max Horiz 1=81 (LC 7)
Max Uplift 1=-22 (LC 8), 3=-43 (LC 8)
Max Grav 1=175 (LC 1), 3=175 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=-74/49, 2-3=-136/66
BOT CHORD 1-3=-28/21

NOTES

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust)
Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; 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) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- 3) Gable requires continuous bottom chord bearing.
- 4) Gable studs spaced at 4-0-0 oc.
- 5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 6) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- 7) All bearings are assumed to be SPF No.2.
- 8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 22 lb uplift at joint 1 and 43 lb uplift at joint 3.

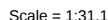


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Page: 1

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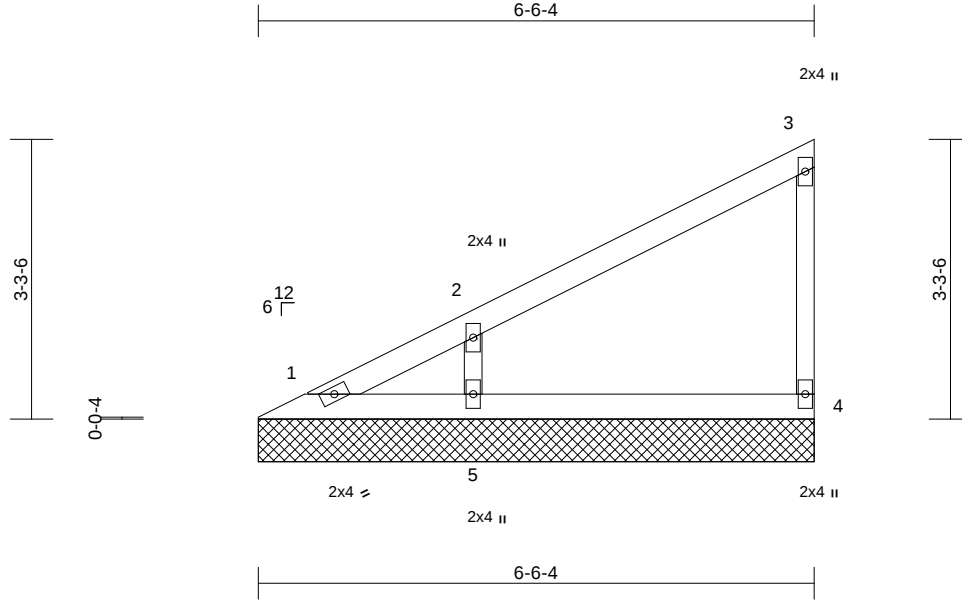
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63442-0200 MiTekUSA.com
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Job	Truss	Truss Type	Qty	Ply	Lot 167 HM	I63627009
B240013	V10	Valley	1	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.73 S Feb 6 2024 Print: 8.730 S Feb 6 2024 MiTek Industries, Inc. Wed Feb 14 11:03:08
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Page: 1



Scale = 1:27

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.19	n/a	-	n/a	999	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.10	n/a	-	n/a	999		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.05	Horiz(TL)	0.00	4	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-P						Weight: 18 lb	FT = 10%

LUMBER

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

BRACING

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

REACTIONS

(size)	1=6-6-4, 4=6-6-4, 5=6-6-4
Max Horiz	1=122 (LC 5)
Max Uplift	4=-28 (LC 8), 5=-108 (LC 8)
Max Grav	1=47 (LC 5), 4=143 (LC 1), 5=361 (LC 1)

FORCES

(lb) - Maximum Compression/Maximum Tension

TOP CHORD	1-2=-106/55, 2-3=-103/42, 3-4=-111/47
BOT CHORD	1-5=-41/31, 4-5=-41/31
WEBS	2-5=-281/157

NOTES

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust)
Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; 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) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- 3) Gable requires continuous bottom chord bearing.
- 4) Gable studs spaced at 4-0-0 oc.
- 5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 6) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- 7) All bearings are assumed to be SPF No.2 .

- 8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 28 lb uplift at joint 4 and 108 lb uplift at joint 5.
- 9) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard

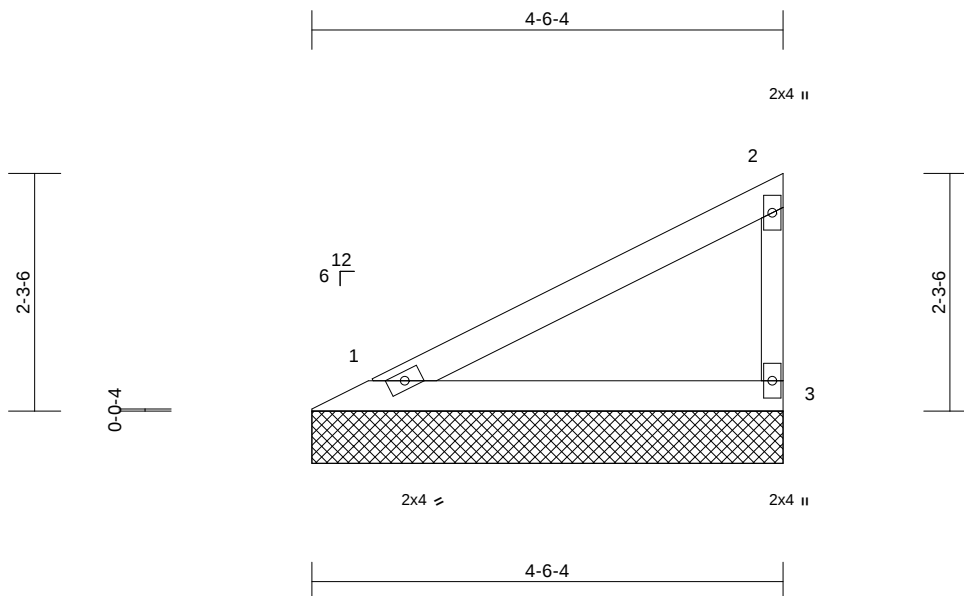


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Scale = 1:22.1

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LUMBER

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

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

LOAD CASE(S) Standard

BRACING

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

REACTIONS

(size) 1=4-6-4, 3=4-6-4

Max Horiz 1=80 (LC 5)
Max Uplift 1=-22 (LC 8), 3=-42 (LC 8)
Max Grav 1=172 (LC 1), 3=172 (LC 1)

FORCES

(lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=-73/48, 2-3=-134/65
BOT CHORD 1-3=-27/21

NOTES

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust)
Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. I; 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) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- 3) Gable requires continuous bottom chord bearing.
- 4) Gable studs spaced at 4'-0" oc.
- 5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 6) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3'-0"-0" tall by 2'-0"-0" wide will fit between the bottom chord and any other members.
- 7) All bearings are assumed to be SPF No.2 .
- 8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 22 lb uplift at joint 1 and 42 lb uplift at joint 3.



February 15, 2024

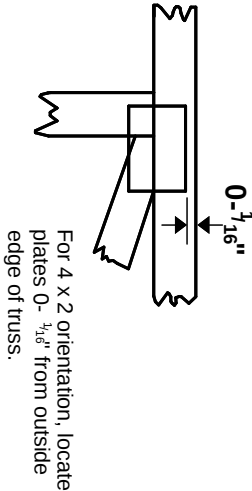
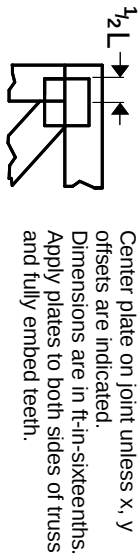


Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall 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.tpinstitute.org) and **BCSI Building Component Safety Information** available from the Structural Building Component Association (www.sbcscomponents.com)

MiTek®
RELEASE FOR CONSTRUCTION
AS NOTED ON PLANS REVIEW
16023 Swingley Ridge Rd
Creston, MO 65013
Development Services
484-2209 MiTek US, Inc.
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03/05/2024 4:08:42

Symbols

PLATE LOCATION AND ORIENTATION



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

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

PLATE SIZE

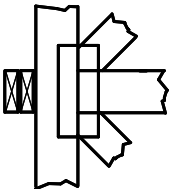
The first dimension is the plate width measured perpendicular to slots. Second dimension is the length parallel to slots.

LATERAL BRACING LOCATION



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

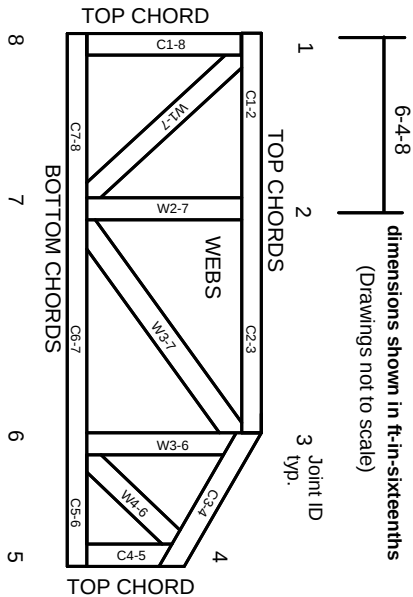
BEARING



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

Industry Standards:
ANSI/TP1.1: National Design Specification for Metal Plate Connected Wood Truss Construction.
DSB-22: Design Standard for Bracing.
BCSI: Building Component Safety Information, Guide to Good Practice for Handling, Installing, Restraining & Bracing of Metal Plate Connected Wood Trusses.

Numbering System



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

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

Product Code Approvals

ICC-ES Reports:

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

Design General Notes

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

Lumber design values are in accordance with ANSI/TP1 1 section 6.3. These truss designs rely on lumber values established by others.

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

General Safety Notes

Failure to Follow Could Cause Property Damage or Personal Injury

1. Additional stability bracing for truss system, e.g. diagonal or X-bracing, is always required. See BCSI.
2. Truss bracing must be designed by an engineer. For wide truss spacing, individual lateral braces themselves may require bracing, or alternative Tor I bracing should be considered.
3. Never exceed the design loading shown and never stack materials on inadequately braced trusses.
4. Provide copies of this truss design to the building designer, erection supervisor, property owner and all other interested parties.
5. Cut members to bear tightly against each other.
6. Place plates on each face of truss at each joint and embed fully. Knots and wane at joint locations are regulated by ANSI/TP1 1.
7. Design assumes trusses will be suitably protected from the environment in accord with ANSI/TP1 1.
8. Unless otherwise noted, moisture content of lumber shall not exceed 19% at time of fabrication.
9. Unless expressly noted, this design is not applicable for use with fire retardant, preservative treated, or green lumber.
10. Camber is a non-structural consideration and is the responsibility of truss fabricator. General practice is to camber for dead load deflection.
11. Plate type, size, orientation and location dimensions indicated are minimum plating requirements.
12. Lumber used shall be of the species and size, and in all respects, equal to or better than that specified.
13. Top chords must be sheathed or purlins provided at spacing indicated on design.
14. Bottom chords require lateral bracing at 10 ft. spacing, or less, if no ceiling is installed, unless otherwise noted.
15. Connections not shown are the responsibility of others.
16. Do not cut or alter truss member or plate without prior approval of an engineer.
17. Install and load vertically unless indicated otherwise.
18. Use of green or treated lumber may pose unacceptable environmental, health or performance risks. Consult with project engineer before use.
19. Review all portions of this design (front, back, words and pictures) before use. Reviewing pictures alone is not sufficient.
20. Design assumes manufacture in accordance with ANSI/TP1 1 Quality Criteria.
21. The design does not take into account any dynamic or other loads other than those expressly stated.

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