MiTek®

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

RE: B240081 - Lot 180 HT

Site Information:

Project Customer: Summit Homes Project Name:
Lot/Block: 180 Subdivision: Hawthorn Ridge
Model: Carbondale - Craftsman
Address: 1625 SW Arborway Terr
City: Lee's Summit State: MO

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

Design Code: IRC2021/TPI2014
Design Program: MiTek 20/20 8.7
Wind Code: ASCE 7-16 [Low Rise] 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	I65060043	A1	4/23/24	35	I65060077	D5	4/23/24
2	I65060044	A2	4/23/24	36	I65060078	J1	4/23/24
3	I65060045	A3	4/23/24	37	I65060079	J2	4/23/24
4	I65060046	A4	4/23/24	38	I65060080	J3	4/23/24
5	I65060047	A5	4/23/24	39	I65060081	J4	4/23/24
6	I65060048	A6	4/23/24	40	I65060082	J5	4/23/24
7	I65060049	A7	4/23/24	41	I65060083	J6	4/23/24
8	I65060050	A8	4/23/24	42	I65060084	J7	4/23/24
9	I65060051	A9	4/23/24	43	I65060085	J8	4/23/24
10	I65060052	A10	4/23/24	44	I65060086	J9	4/23/24
11	I65060053	A11	4/23/24	45	I65060087	J10	4/23/24
12	I65060054	A12	4/23/24	46	I65060088	J11	4/23/24
13	I65060055	A13	4/23/24	47	I65060089	J12	4/23/24
14	I65060056	A14	4/23/24	48	I65060090	J13	4/23/24
15	I65060057	A15	4/23/24	49	I65060091	J14	4/23/24
16	I65060058	A16	4/23/24	50	I65060092	J15	4/23/24
17	I65060059	A17	4/23/24	51	I65060093	J16	4/23/24
18	I65060060	B1	4/23/24	52	I65060094	J17	4/23/24
19	I65060061	B2	4/23/24	53	I65060095	J18	4/23/24
20	I65060062	B3	4/23/24	54	I65060096	J19	4/23/24
21	I65060063	B4	4/23/24	55	I65060097	J20	4/23/24
22	I65060064	B5	4/23/24	56	I65060098	J21	4/23/24
23	I65060065	B6	4/23/24	57	I65060099	J22	4/23/24
24	I65060066	B7	4/23/24	58	I65060100	J23	4/23/24
25	I65060067	B8	4/23/24	59	I65060101	J24	4/23/24
26	I65060068	B9	4/23/24	60	I65060102	J25	4/23/24
27	I65060069	C1	4/23/24	61	I65060103	J26	4/23/24
28	I65060070	C2	4/23/24	62	I65060104	J27	4/23/24
29	I65060071	C3	4/23/24	63	I65060105	J28	4/23/24
30	I65060072	C4	4/23/24	64	I65060106	J29	4/23/24
31	I65060073	D1	4/23/24	65	I65060107	J30	4/23/24
32	I65060074	D2	4/23/24	66	I65060108	LAY1	4/23/24
33	I65060075	D3	4/23/24	67	I65060109	LAY2	4/23/24
34	I65060076	D4	4/23/24	68	I65060110	LAY3	4/23/24

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

Truss Design Engineer's Name: Sevier, Scott
My license renewal date for the state of Missouri is December 31, 2025.

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

April 23,2024
Sevier, Scott

RELEASE FOR CONSTRUCTION
AS NOTED ON PLANS REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
06/12/2024 4:31:41

RE: B240081 - Lot 180 HT

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

No.	Seal#	Truss Name	Date
69	I65060111	LAY4	4/23/24
70	I65060112	LAY5	4/23/24
71	I65060113	LAY6	4/23/24
72	I65060114	LAY7	4/23/24
73	I65060115	R1	4/23/24
74	I65060116	V1	4/23/24
75	I65060117	V2	4/23/24
76	I65060118	V3	4/23/24
77	I65060119	V4	4/23/24
78	I65060120	V5	4/23/24
79	I65060121	V6	4/23/24
80	I65060122	V7	4/23/24
81	I65060123	V8	4/23/24

Job	Truss	Truss Type	Qty	Ply	Lot 180 HT	
B240081	A1	Hip Girder	1	4	Job Reference (optional)	I65060043

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.73 S Apr 3 2024 Print: 8.730 S Apr 3 2024 MiTek Industries, Inc. Mon Apr 22 08:16:46 Page: 1
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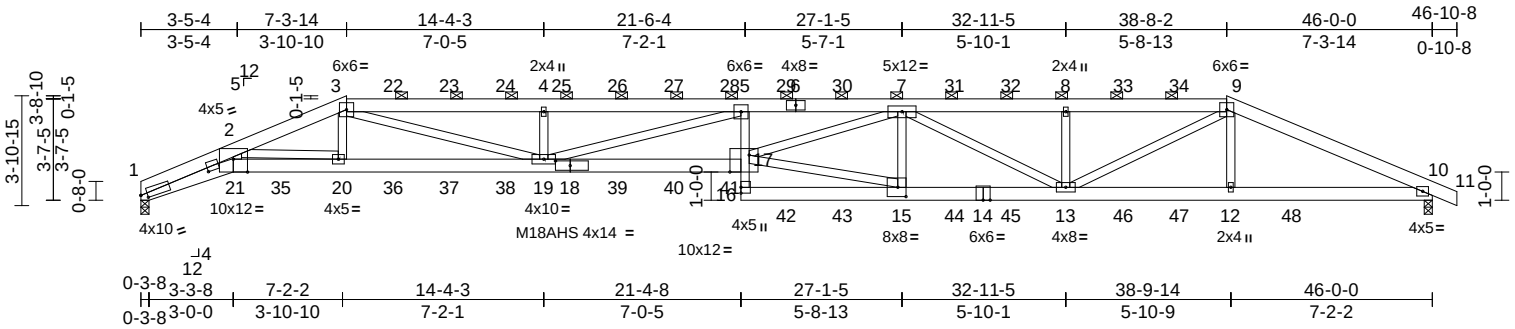

Scale = 1:82.1

Plate Offsets (X, Y): [1:0-2-13,0-1-13], [1:2-6-9,0-0-7], [15:0-3-8,0-4-0], [17:0-8-4,Edge], [18:0-6-5,0-2-0], [21:0-6-2,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	0.66	Vert(LL)	-0.69	17-19	>791	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.84	Vert(CT)	-1.24	17-19	>441	240	M18AHS	186/179
BCLL	0.0*	Rep Stress Incr	NO	WB	0.92	Horz(CT)	0.33	10	n/a	n/a		
BCDL	10.0	Code	IRC2021/TPI2014	Matrix-S		Wind(LL)	0.62	17-19	>882	240	Weight: 980 lb	FT = 10%

LUMBER
TOP CHORD 2x6 SPF No.2
BOT CHORD 2x6 SP 2400F 2.0E *Except* 5-16:2x4 SPF No.2, 16-14,14-10:2x6 SPF No.2
WEBS 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.): 3-9.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (size) 1=0-3-8, 10=0-3-8
Max Horiz 1=-62 (LC 13)
Max Uplift 1=-875 (LC 4), 10=-901 (LC 5)
Max Grav 1=3953 (LC 1), 10=4022 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-17603/3980, 2-3=-12784/2959, 3-4=-18216/4317, 4-5=-18213/4316, 5-7=-22969/5475, 7-8=-11917/2840, 8-9=-11919/2841, 9-10=-8811/2024, 10-11=0/12
BOT CHORD 1-21=-3624/16107, 20-21=-3247/14428, 19-20=-2701/11894, 17-19=-5510/23526, 16-17=0/247, 5-17=-35/1038, 15-16=-415/1739, 13-15=-3294/14218, 12-13=-1777/7946, 10-12=-1781/7984
WEBS 2-21=-972/4396, 2-20=-2447/625, 3-20=-305/1835, 3-19=-1611/6742, 4-19=-1055/524, 5-19=-5571/1339, 15-17=-2950/12788, 7-17=-2210/9242, 7-15=-2655/821, 7-13=-2660/625, 8-13=-791/401, 9-13=-1111/4645, 9-12=-95/835

NOTES
1) 4-ply truss to be connected together with 10d (0.131"x3") nails as follows:
Top chords connected as follows: 2x6 - 2 rows staggered at 0-9-0 oc.
Bottom chords connected as follows: 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.
Attach BC w/ 1/2" diam. bolts (ASTM A-307) in the center of the member w/washers at 4-0-0 oc.
2) All loads are considered equally applied to all plies, except if noted as front (F) or back (B) face in the LOAD CASE(S) section. Ply to ply connections have been provided to distribute only loads noted as (F) or (B), unless otherwise indicated.
3) Unbalanced roof live loads have been considered for this design.
4) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=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
5) Provide adequate drainage to prevent water ponding.
6) All plates are MT20 plates unless otherwise indicated.
7) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
8) * 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) Bearings are assumed to be: Joint 1 SP 2400F 2.0E , Joint 10 SPF No.2 .
10) Bearing at joint(s) 1 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
11) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 901 lb uplift at joint 10 and 875 lb uplift at joint 1.
12) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

April 23,2024

Continued on page 2

13) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 138 lb down and 93 lb up at 9-0-0, 138 lb down and 93 lb up at 11-0-0, 138 lb down and 93 lb up at 13-0-0, 138 lb down and 93 lb up at 15-0-0, 138 lb down and 93 lb up at 17-0-0, 138 lb down and 93 lb up at 19-0-0, 138 lb down and 93 lb up at 21-0-0, 137 lb down and 92 lb up at 23-0-0, 137 lb down and 92 lb up at 25-0-0, 137 lb down and 92 lb up at 27-0-0, 137 lb down and 92 lb up at 29-0-0, 137 lb down and 92 lb up at 31-0-0, 137 lb down and 92 lb up at 33-0-0, and 137 lb down and 92 lb up at 35-0-0, and 137 lb down and 92 lb up at 37-0-0 on top chord, and 456 lb down and 132 lb up at 5-0-0, 232 lb down and 76 lb up at 7-0-0, 68 lb down at 9-0-0, 68 lb down at 11-0-0, 68 lb down at 13-0-0, 68 lb down at 15-0-0, 68 lb down at 17-0-0, 68 lb down at 19-0-0, 68 lb down at 21-0-0, 68 lb down at 23-0-0, 68 lb down at 25-0-0, 68 lb down at 27-0-0, 68 lb down at 29-0-0, 68 lb down at 31-0-0, 68 lb down at 33-0-0, 68 lb down at 35-0-0, 68 lb down at 37-0-0, and 230 lb down and 73 lb up at 39-0-0, and 451 lb down and 132 lb up at 41-0-0 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.

LOAD CASE(S) Standard

1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
   Uniform Loads (lb/ft)
   Vert: 1-3=-70, 3-9=-70, 9-11=-70, 1-21=-20, 17-21=-20, 10-16=-20
   Concentrated Loads (lb)
   Vert: 18=-51 (F), 20=-232 (F), 15=-52 (F), 7=-110 (F), 8=-110 (F), 13=-52 (F), 12=-230 (F), 22=-110 (F), 23=-110 (F), 24=-110 (F), 25=-110 (F), 26=-110 (F), 27=-110 (F), 28=-110 (F), 29=-110 (F), 30=-110 (F), 31=-110 (F), 32=-110 (F), 33=-110 (F), 34=-110 (F), 35=-456 (F), 36=-51 (F), 37=-51 (F), 38=-51 (F), 39=-51 (F), 40=-51 (F), 41=-51 (F), 42=-52 (F), 43=-52 (F), 44=-52 (F), 45=-52 (F), 46=-52 (F), 47=-52 (F), 48=-451 (F)

Job	Truss	Truss Type	Qty	Ply	Lot 180 HT	
B240081	A2	Hip	1	**2**	Job Reference (optional)	I65060044

Wheeler Lumber, Waverly, KS - 66871,

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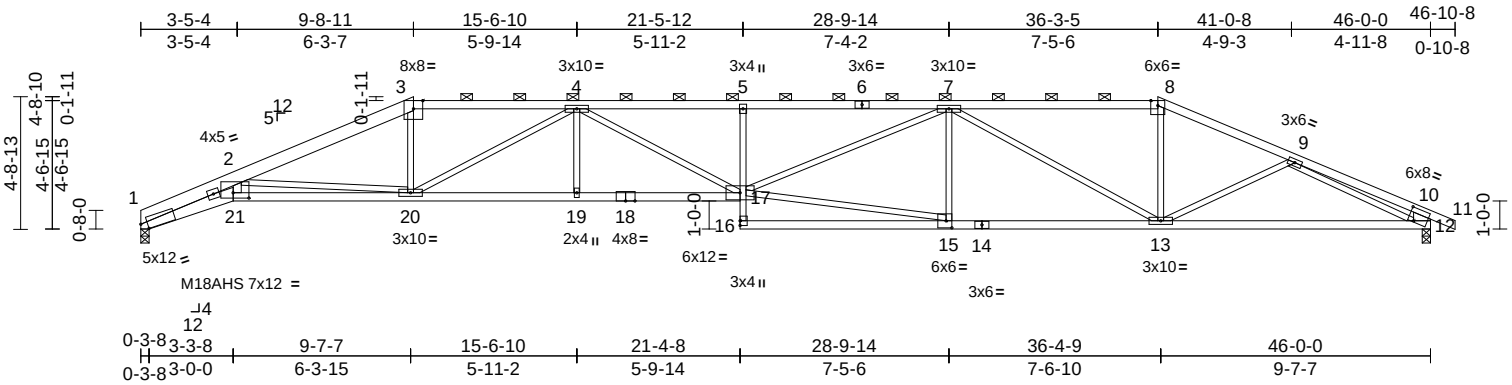

Scale = 1:82.2

Plate Offsets (X, Y): [1:0-2-13,0-2-13], [10:0-2-8,0-5-8], [15:0-2-8,0-3-0], [21:0-6-12,0-2-4]

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	0.66	Vert(LL)	-0.54	17-19	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.87	Vert(CT)	-0.99	17-19	>553	240	M18AHS	142/136
BCLL	0.0*	Rep Stress Incr	YES	WB	0.84	Horz(CT)	0.38	12	n/a	n/a		
BCDL	10.0	Code	IRC2021/TPI2014	Matrix-S		Wind(LL)	0.41	17-19	>999	240	Weight: 353 lb	FT = 10%

LUMBER

TOP CHORD 2x4 SPF No.2 *Except* 1-3:2x6 SPF No.2
BOT CHORD 2x4 SPF No.2 *Except* 1-21:2x6 SPF No.2, 21-18:2x4 SPF 2100F 1.8E, 5-16:2x3 SPF No.2
WEBS 2x3 SPF No.2 *Except* 21-2:2x4 SPF No.2, 12-10:2x8 SP 2400F 2.0E

BRACING

TOP CHORD Structural wood sheathing directly applied or 4-1-14 oc purlins, except end verticals, and 2-0-0 oc purlins (4-0-6 max.): 3-8.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (size) 1=0-3-8, 12=0-3-8
Max Horiz 1=-68 (LC 9)
Max Uplift 1=-271 (LC 4), 12=-309 (LC 5)
Max Grav 1=2049 (LC 1), 12=2133 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-9096/1230, 2-3=-5208/789, 3-4=-4770/759, 4-5=-7102/1206, 5-7=-7055/1204, 7-8=-3551/582, 8-9=-3896/608, 9-10=-986/103, 10-11=0/32, 10-12=-653/116
BOT CHORD 1-21=-1105/8314, 20-21=-996/7376, 19-20=-948/6407, 17-19=-948/6407, 16-17=0/143, 5-17=-452/184, 15-16=-37/348, 13-15=-774/5168, 12-13=-490/3467
WEBS 2-21=-268/2581, 2-20=-2581/420, 3-20=-142/1367, 4-20=-2003/370, 4-19=0/246, 4-17=-165/891, 15-17=-744/4865, 7-17=-340/2079, 7-15=-525/194, 7-13=-1961/376, 8-13=-87/1044, 9-13=0/356, 9-12=-2979/524

NOTES

1) 2-ply truss to be connected together with 10d (0.131"x3") nails as follows:
Top chords connected as follows: 2x6 - 2 rows staggered at 0-9-0 oc, 2x4 - 1 row at 0-9-0 oc, 2x8 - 2 rows staggered at 0-9-0 oc.
Bottom chords connected as follows: 2x6 - 2 rows staggered at 0-9-0 oc, 2x4 - 1 row at 0-9-0 oc, 2x3 - 1 row at 0-9-0 oc.
Web connected as follows: 2x4 - 1 row at 0-9-0 oc, 2x3 - 1 row at 0-9-0 oc.
2) All loads are considered equally applied to all plies, except if noted as front (F) or back (B) face in the LOAD CASE(S) section. Ply to ply connections have been provided to distribute only loads noted as (F) or (B), unless otherwise indicated.
3) Unbalanced roof live loads have been considered for this design.
4) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=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
5) Provide adequate drainage to prevent water ponding.
6) All plates are MT20 plates unless otherwise indicated.
7) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
8) * 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) Bearings are assumed to be: Joint 1 SPF No.2 , Joint 12 SPF No.2 .
10) Bearing at joint(s) 1 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
11) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 271 lb uplift at joint 1 and 309 lb uplift at joint 12.
12) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

LOAD CASE(S) Standard

April 23,2024

Job	Truss	Truss Type	Qty	Ply	Lot 180 HT	
B240081	A3	Hip	1	1	Job Reference (optional)	I65060045

Wheeler Lumber, Waverly, KS - 66871,

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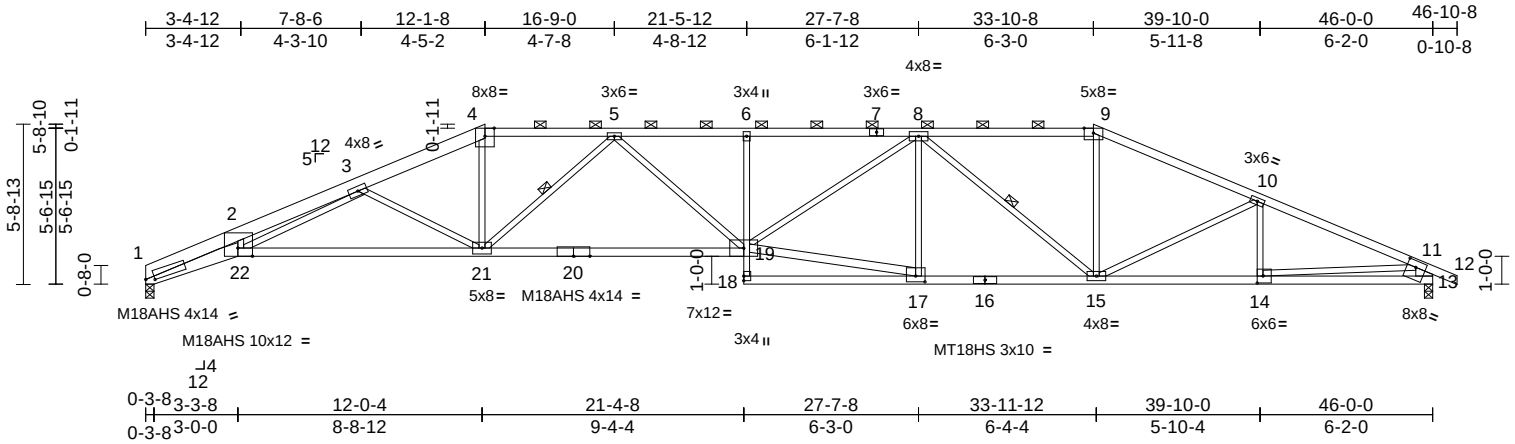


Scale = 1:82.4

Plate Offsets (X, Y): [1:0-3-13,0-1-5], [13:0-3-12,0-2-12], [14:0-2-8,0-3-0], [17:0-4-0,0-2-8], [22:0-6-4,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	0.81	Vert(LL)	-0.60	19-21	>916	360	M18AHS	186/179
TCDL	10.0	Lumber DOL	1.15	BC	0.81	Vert(CT)	-1.18	19-21	>462	240	MT20	197/144
BCLL	0.0*	Rep Stress Incr	YES	WB	0.90	Horz(CT)	0.48	13	n/a	n/a	MT18HS	197/144
BCDL	10.0	Code	IRC2021/TPI2014	Matrix-S		Wind(LL)	0.43	19-21	>999	240	Weight: 194 lb	FT = 10%

LUMBER

TOP CHORD 2x4 SPF 2100F 1.8E *Except* 1-4:2x6 SP 2400F 2.0E

BOT CHORD 2x4 SPF 2100F 1.8E *Except* 1-22:2x6 SP 2400F 2.0E, 6-18:2x3 SPF No.2

WEBS 2x3 SPF No.2 *Except* 17-19:2x4 SPF 2100F 1.8E, 13-11:2x8 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 (2-11-10 max.): 4-9.

BOT CHORD Rigid ceiling directly applied or 9-5-14 oc bracing.

WEBS 1 Row at midpt 5-21, 8-15

REACTIONS (size) 1=0-3-8, 13=0-3-8
Max Horiz 1=-86 (LC 9)
Max Uplift 1=-242 (LC 4), 13=-280 (LC 5)
Max Grav 1=2049 (LC 1), 13=2133 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=-8701/1016, 2-3=-7766/977, 3-4=-4719/662, 4-5=-4249/624, 5-6=-5450/865, 6-8=-5435/867, 8-9=-3372/541, 9-10=-3736/563, 10-11=-3991/513, 11-12=0/32, 11-13=-2046/308

BOT CHORD 1-22=-903/7898, 21-22=-665/5404, 19-21=-672/5039, 18-19=0/111, 6-19=-369/151, 17-18=-40/119, 15-17=-554/4278, 14-15=-410/3596, 13-14=-119/978

WEBS 2-22=-103/1485, 3-22=-248/2145, 3-21=-1265/298, 4-21=-154/1525, 5-21=-1187/279, 5-19=-71/674, 17-19=-521/4213, 8-19=-201/1430, 8-17=-559/169, 8-15=-1307/232, 9-15=-84/1002, 10-15=-253/178, 10-14=-146/105, 11-14=-302/2627

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 1 SP 2400F 2.0E , Joint 13 SPF 2100F 1.8E .
8) Bearing at joint(s) 1 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 242 lb uplift at joint 1 and 280 lb uplift at joint 13.
10) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

LOAD CASE(S) Standard

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

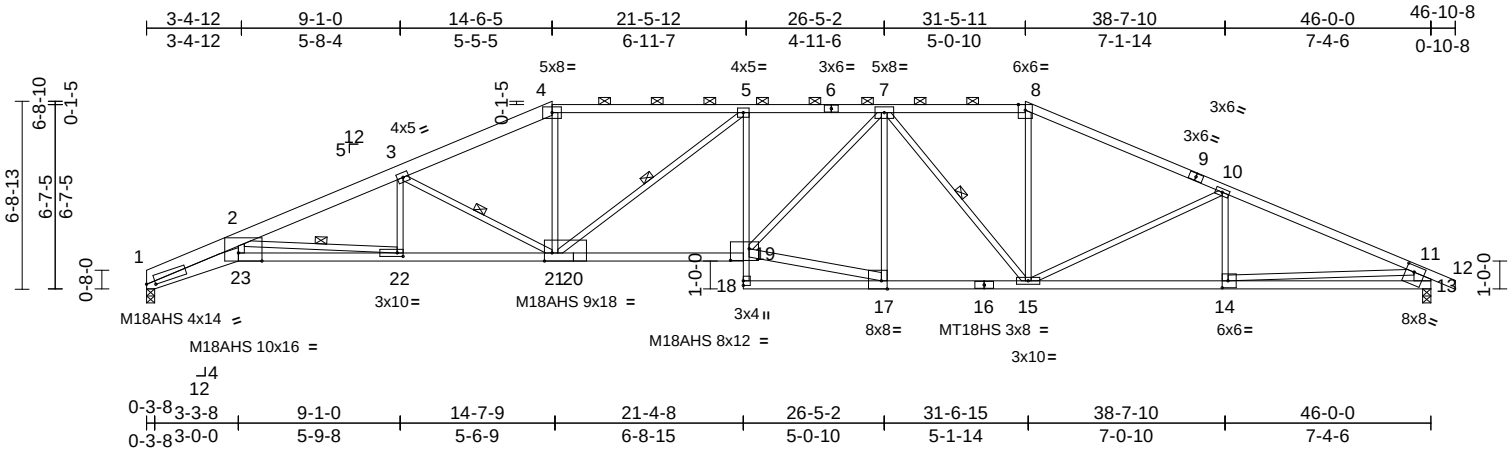
April 23,2024

RELEASE FOR CONSTRUCTION
AS NOTED ON PLANS REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
06/12/2024 4:31:41

Job	Truss	Truss Type	Qty	Ply	Lot 180 HT	
B240081	A4	Hip	1	1	Job Reference (optional)	I65060046

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.73 S Apr 3 2024 Print: 8.730 S Apr 3 2024 MiTek Industries, Inc. Mon Apr 22 08:16:47 Page: 1
ID:i?OUUZK06yYjRu3MMHANPfzX5F6-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f



Scale = 1:82.5

Plate Offsets (X, Y): [1:0-3-13,0-1-5], [13:0-3-8,0-2-12], [14:0-2-8,0-3-0], [17:0-2-8,Edge], [19:0-8-0,0-5-0], [20:0-3-4,Edge], [22:0-2-8,0-1-8], [23:0-10-2,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	0.79	Vert(LL)	-0.54	19-21	>999	360	M18AHS	186/179
TCDL	10.0	Lumber DOL	1.15	BC	0.97	Vert(CT)	-1.00	19-21	>546	240	MT20	197/144
BCLL	0.0*	Rep Stress Incr	YES	WB	0.89	Horz(CT)	0.50	13	n/a	n/a	MT18HS	197/144
BCDL	10.0	Code	IRC2021/TPI2014	Matrix-S		Wind(LL)	0.37	19-21	>999	240	Weight: 203 lb	FT = 10%

LUMBER

TOP CHORD 2x4 SPF 2100F 1.8E *Except* 1-4:2x6 SP 2400F 2.0E, 6-8:2x4 SPF No.2

BOT CHORD 2x4 SPF No.2 *Except* 1-23:2x6 SP 2400F 2.0E, 23-20:2x4 SPF 2400F 2.0E, 5-18:2x3 SPF No.2, 20-19:2x4 SPF 2100F 1.8E

WEBS 2x3 SPF No.2 *Except* 17-19:2x4 SPF No.2, 13-11:2x8 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 (2-5-12 max.): 4-8.

BOT CHORD Rigid ceiling directly applied or 2-2-0 oc bracing.

WEBS 1 Row at midpt 2-22, 3-21, 5-21, 7-15

REACTIONS (size) 1=0-3-8, 13=0-3-8
Max Horiz 1=-104 (LC 9)
Max Uplift 1=-213 (LC 4), 13=-250 (LC 5)
Max Grav 1=2049 (LC 1), 13=2133 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=-8610/909, 2-3=-5373/628, 3-4=-4223/572, 4-5=-3835/549, 5-7=-4539/677, 7-8=-3171/482, 8-10=-3542/496, 10-11=-4043/463, 11-12=0/32, 11-13=-2050/286

BOT CHORD 1-23=-815/7817, 22-23=-745/7065, 21-22=-503/5003, 19-21=-502/4554, 18-19=0/92, 5-19=-14/227, 17-18=-22/98, 15-17=-381/3627, 14-15=-356/3635, 13-14=-171/1057

WEBS 2-23=-185/2430, 2-22=-2076/351, 3-22=0/405, 3-21=-1361/289, 4-21=-78/1225, 5-21=-1072/183, 17-19=-369/3625, 7-19=-170/1317, 7-17=-743/149, 7-15=-882/148, 8-15=-62/917, 10-15=-527/223, 10-14=-54/166, 11-14=-239/2584

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 1 SP 2400F 2.0E , Joint 13 SPF No.2 .
8) Bearing at joint(s) 1 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 213 lb uplift at joint 1 and 250 lb uplift at joint 13.
10) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

LOAD CASE(S) Standard

April 23,2024

Job	Truss	Truss Type	Qty	Ply	Lot 180 HT	
B240081	A5	Hip	1	1	Job Reference (optional)	I65060047

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.73 S Apr 3 2024 Print: 8.730 S Apr 3 2024 MiTek Industries, Inc. Mon Apr 22 08:16:48 Page: 1
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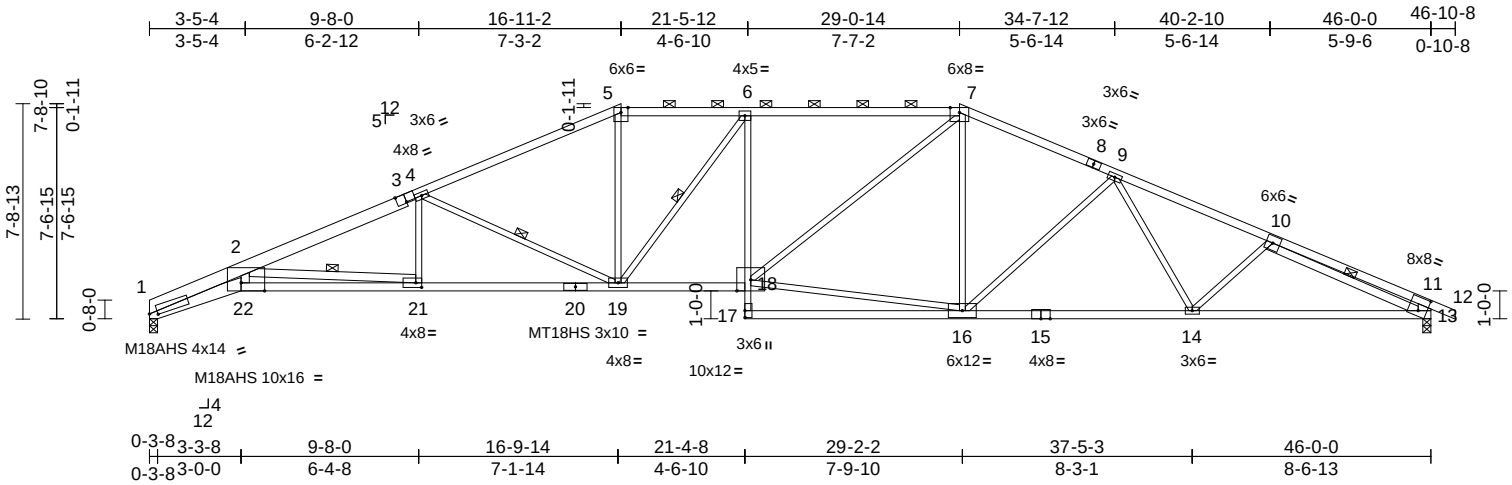

Scale = 1:82.7

Plate Offsets (X, Y): [1:0-3-9,0-1-5], [3:0-4-0,Edge], [11:0-3-9,0-5-11], [21:0-2-8,0-2-0], [22:0-10-2,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	0.88	Vert(LL)	-0.50	18-19	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.97	Vert(CT)	-0.92	21-22	>597	240	M18AHS	186/179
BCLL	0.0*	Rep Stress Incr	YES	WB	0.99	Horz(CT)	0.51	13	n/a	n/a	MT18HS	197/144
BCDL	10.0	Code	IRC2021/TPI2014	Matrix-S		Wind(LL)	0.34	21-22	>999	240	Weight: 199 lb	FT = 10%

LUMBER

TOP CHORD 2x4 SPF No.2 *Except* 3-5:2x4 SPF 2100F 1.8E, 5-7:2x4 SPF 2400F 2.0E, 3-1:2x6 SP 2400F 2.0E

BOT CHORD 2x4 SPF 2100F 1.8E *Except* 1-22:2x6 SP 2400F 2.0E, 22-20:2x4 SPF 2400F 2.0E, 6-17:2x3 SPF No.2, 17-15:2x4 SPF No.2

WEBS 2x3 SPF No.2 *Except* 22-2,21-2,13-10:2x4 SPF No.2, 13-11:2x6 SP 2400F 2.0E

BRACING

TOP CHORD Structural wood sheathing directly applied or 2-3-12 oc purlins, except end verticals, and 2-0-0 oc purlins (2-2-0 max.): 5-7.

BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing, Except:
8-9-13 oc bracing: 21-22
2-2-0 oc bracing: 14-16.

WEBS 1 Row at midpt 2-21, 4-19, 6-19, 10-13

REACTIONS (size) 1=0-3-8, 13=0-3-8
Max Horiz 1=122 (LC 12)
Max Uplift 1=-212 (LC 8), 13=-237 (LC 9)
Max Grav 1=2052 (LC 1), 13=2131 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=-8905/988, 2-4=-5119/517, 4-5=-3855/468, 5-6=-3451/455, 6-7=-3835/530, 7-9=-3309/430, 9-10=-3900/408, 10-11=-1024/174, 11-12=0/30, 11-13=-665/167

BOT CHORD 1-22=-996/8114, 21-22=-894/7183, 19-21=-454/4720, 18-19=-324/3836, 17-18=0/137, 6-18=-210/128, 16-17=0/154, 14-16=-274/3409, 13-14=-323/3613

WEBS 2-22=-244/2561, 2-21=-2479/443, 4-21=0/481, 4-19=-1387/326, 5-19=-78/1128, 6-19=-829/143, 16-18=-219/2870, 7-18=-159/1188, 7-16=-65/280, 9-16=-586/229, 9-14=-17/333, 10-14=-135/177, 10-13=-3075/321

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 1 SP 2400F 2.0E , Joint 13 SPF 2100F 1.8E .
8) Bearing at joint(s) 1 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 212 lb uplift at joint 1 and 237 lb uplift at joint 13.
10) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

LOAD CASE(S) Standard

April 23,2024

Job	Truss	Truss Type	Qty	Ply	Lot 180 HT	
B240081	A6	Hip	1	1	Job Reference (optional)	I65060048

Wheeler Lumber, Waverly, KS - 66871, Run: 8.73 S Apr 3 2024 Print: 8.730 S Apr 3 2024 MiTek Industries, Inc. Mon Apr 22 08:16:48 Page: 1

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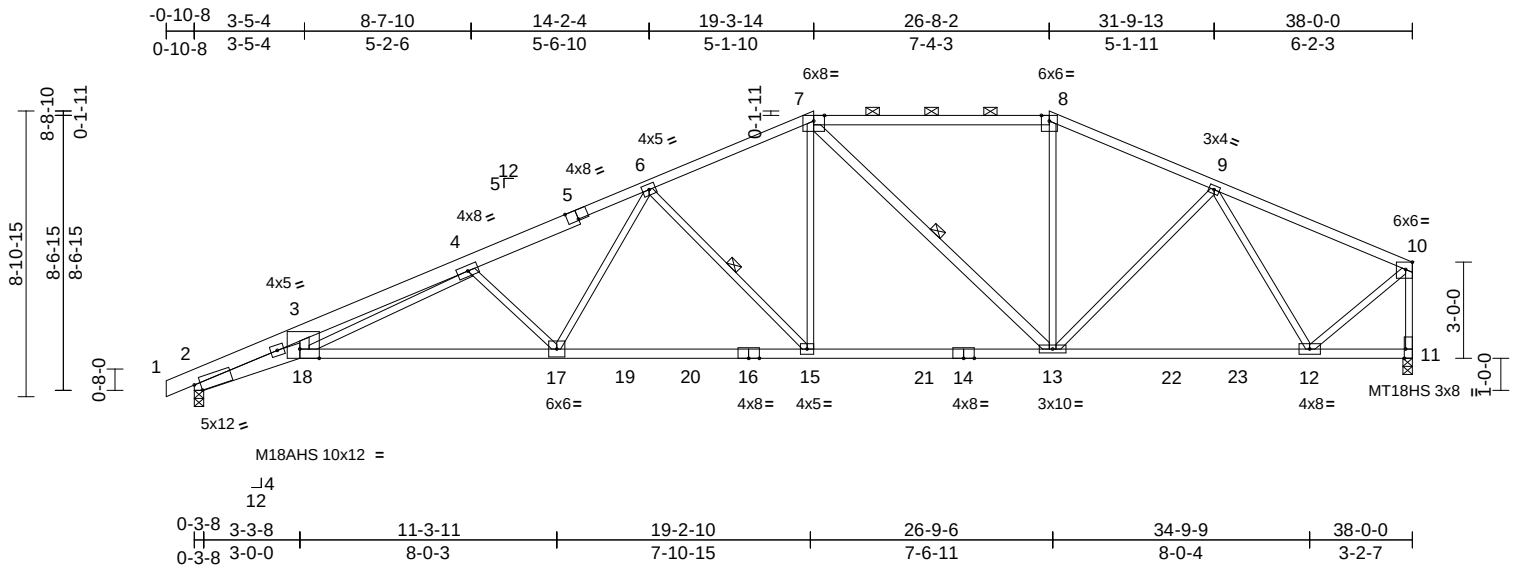

Scale = 1:71.9

Plate Offsets (X, Y): [2:0-2-5,0-2-13], [5:0-4-0,Edge], [10:0-2-8,Edge], [11:0-3-8,Edge], [18:0-7-4,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	0.72	Vert(LL)	-0.46	17-18	>993	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.99	Vert(CT)	-0.82	17-18	>549	240	MT18HS	197/144
BCLL	0.0*	Rep Stress Incr	YES	WB	0.93	Horz(CT)	0.32	11	n/a	n/a	M18AHS	142/136
BCDL	10.0	Code	IRC2021/TPI2014	Matrix-S		Wind(LL)	0.29	17-18	>999	240	Weight: 170 lb	FT = 10%

LUMBER

TOP CHORD 2x4 SPF No.2 *Except* 7-8:2x4 SPF 2100F 1.8E, 1-5:2x6 SP 2400F 2.0E

BOT CHORD 2x4 SPF 2100F 1.8E *Except* 2-18:2x6 SP 2400F 2.0E, 16-14:2x4 SPF No.2

WEBS 2x3 SPF No.2 *Except* 18-3,13-7:2x4 SPF No.2

BRACING

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

BOT CHORD Rigid ceiling directly applied or 2-2-0 oc bracing.

WEBS 1 Row at midpt 6-15, 7-13

REACTIONS (size) 2=0-3-8, 11=0-3-8
Max Horiz 2=182 (LC 8)
Max Uplift 2=-243 (LC 8), 11=-147 (LC 5)
Max Grav 2=1854 (LC 2), 11=1812 (LC 2)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=0/10, 2-3=-7487/1008, 3-4=-6620/992, 4-6=-4003/498, 6-7=-2635/316, 7-8=-1993/272, 8-9=-2216/274, 9-10=-1449/145, 10-11=-1801/145

BOT CHORD 2-18=-1062/6799, 17-18=-640/4296, 15-17=-348/3037, 13-15=-199/2385, 12-13=-186/1773, 11-12=-41/30

WEBS 3-18=-63/1284, 4-18=-402/2136, 4-17=-1018/317, 6-17=-137/1158, 6-15=-925/270, 7-15=-106/975, 7-13=-643/147, 8-13=-16/463, 9-13=0/442, 9-12=-1020/169, 10-12=-93/1679

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) Bearings are assumed to be: Joint 2 SP 2400F 2.0E , Joint 11 SPF 2100F 1.8E .
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 243 lb uplift at joint 2 and 147 lb uplift at joint 11.
10) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

LOAD CASE(S) Standard

April 23,2024

Job	Truss	Truss Type	Qty	Ply	Lot 180 HT	
B240081	A7	Hip	1	1	Job Reference (optional)	I65060049

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.73 S Apr 3 2024 Print: 8.730 S Apr 3 2024 MiTek Industries, Inc. Mon Apr 22 08:16:48 Page: 1
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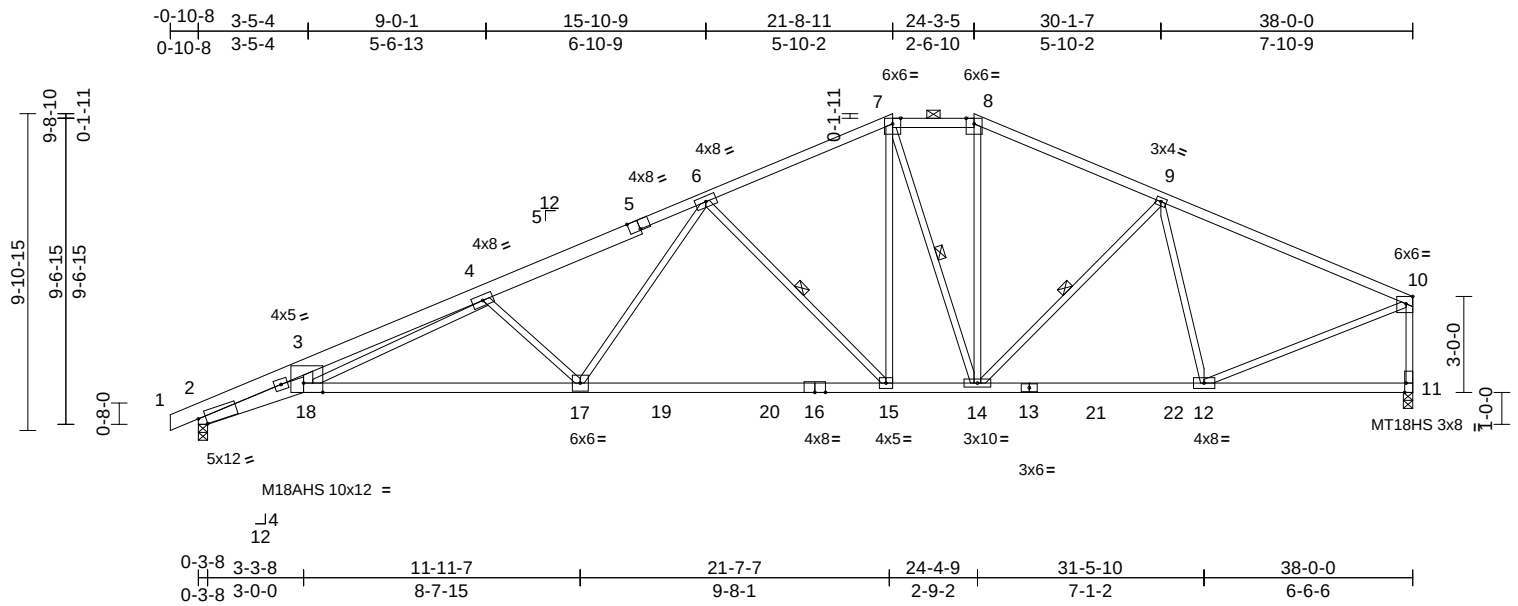


Scale = 1:72.1

Plate Offsets (X, Y): [2:0-2-13,0-2-13], [5:0-4-0,Edge], [10:0-2-8,Edge], [11:0-3-8,Edge], [18:0-7-4,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	0.73	Vert(LL)	-0.49	15-17	>934	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	1.00	Vert(CT)	-0.85	17-18	>533	240	MT18HS	197/144
BCLL	0.0*	Rep Stress Incr	YES	WB	0.75	Horz(CT)	0.32	11	n/a	n/a	M18AHS	142/136
BCDL	10.0	Code	IRC2021/TPI2014	Matrix-S		Wind(LL)	0.31	17-18	>999	240	Weight: 175 lb	FT = 10%

LUMBER

TOP CHORD 2x4 SPF No.2 *Except* 8-10:2x4 SPF 2100F 1.8E, 1-5:2x6 SP 2400F 2.0E

BOT CHORD 2x4 SPF No.2 *Except* 2-18:2x6 SP 2400F 2.0E, 18-16:2x4 SPF 2100F 1.8E

WEBS 2x3 SPF No.2 *Except* 18-3:2x4 SPF No.2

BRACING

TOP CHORD Structural wood sheathing directly applied or 2-7-9 oc purlins, except end verticals, and 2-0-0 oc purlins (4-2-1 max.): 7-8.

BOT CHORD Rigid ceiling directly applied or 2-2-0 oc bracing.

WEBS 1 Row at midpt 6-15, 7-14, 9-14

REACTIONS (size) 2=0-3-8, 11=0-3-8
Max Horiz 2=200 (LC 8)
Max Uplift 2=-259 (LC 8), 11=-171 (LC 9)
Max Grav 2=1843 (LC 2), 11=1795 (LC 2)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=0/10, 2-3=-7422/1095, 3-4=-6571/1071, 4-6=-3877/529, 6-7=-2266/319, 7-8=-1891/287, 8-9=-2128/299, 9-10=-2037/193, 10-11=-1702/199

BOT CHORD 2-18=-1159/6738, 17-18=-700/4199, 15-17=-359/2762, 14-15=-141/2026, 12-14=-163/1915, 11-12=-36/52

WEBS 3-18=-79/1256, 4-18=-434/2179, 4-17=-1050/357, 6-17=-148/1293, 6-15=-1045/312, 7-15=-138/1007, 7-14=-550/129, 8-14=-84/584, 9-14=-192/184, 10-12=-104/1916, 9-12=-569/141

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) 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) Bearings are assumed to be: Joint 2 SP 2400F 2.0E , Joint 11 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 259 lb uplift at joint 2 and 171 lb uplift at joint 11.
10) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

LOAD CASE(S) Standard

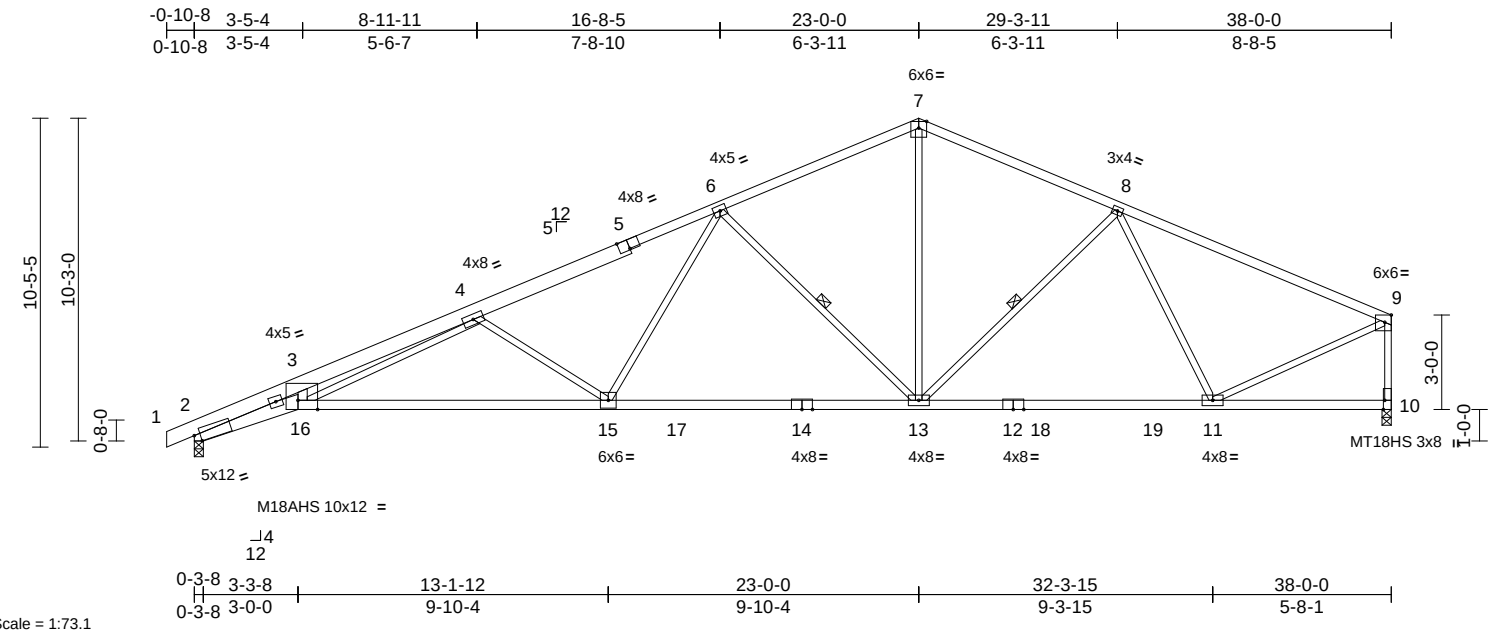
STATE OF MISSOURI
SCOTT M. SEVIER
NUMBER PE-2001018807
PROFESSIONAL ENGINEER

April 23,2024

Job	Truss	Truss Type	Qty	Ply	Lot 180 HT	
B240081	A8	Roof Special	2	1	Job Reference (optional)	I65060050

Wheeler Lumber, Waverly, KS - 66871, Run: 8.73 S Apr 3 2024 Print: 8.730 S Apr 3 2024 MiTek Industries, Inc. Mon Apr 22 08:16:48 Page: 1

ID:c5BiUoHpG8lrixtbYBlz5wzX5Qo-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f



Scale = 1:73.1

Plate Offsets (X, Y): [2:0-2-5,0-2-13], [5:0-4-0,Edge], [9:0-2-8,Edge], [10:0-3-8,Edge], [16:0-7-8,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	0.81	Vert(LL)	-0.53	15-16	>854	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.89	Vert(CT)	-1.01	15-16	>448	240	MT18HS	197/144
BCLL	0.0*	Rep Stress Incr	YES	WB	0.84	Horz(CT)	0.32	10	n/a	n/a	M18AHS	142/136
BCDL	10.0	Code	IRC2021/TPI2014	Matrix-S		Wind(LL)	0.32	15-16	>999	240	Weight: 164 lb	FT = 10%

LUMBER

TOP CHORD 2x4 SPF No.2 *Except* 7-9:2x4 SPF 2100F 1.8E, 1-5:2x6 SP 2400F 2.0E

BOT CHORD 2x4 SPF 2100F 1.8E *Except* 2-16:2x6 SP 2400F 2.0E, 12-10:2x4 SPF No.2

WEBS 2x3 SPF No.2 *Except* 16-3:2x4 SPF No.2

BRACING

TOP CHORD Structural wood sheathing directly applied or 2-6-3 oc purlins, except end verticals.

BOT CHORD Rigid ceiling directly applied or 8-11-5 oc bracing.

WEBS 1 Row at midpt 6-13, 8-13

REACTIONS (size) 2=0-3-8, 10=0-3-8
Max Horiz 2=210 (LC 8)
Max Uplift 2=-265 (LC 8), 10=-182 (LC 9)
Max Grav 2=1851 (LC 2), 10=1813 (LC 2)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=0/10, 2-3=-7527/1120, 3-4=-6645/1087, 4-6=-3662/503, 6-7=-2118/312, 7-8=-2130/334, 8-9=-1939/195, 9-10=-1749/200

BOT CHORD 2-16=-1191/6836, 15-16=-760/4211, 13-15=-361/2689, 11-13=-182/1954, 10-11=-44/59

WEBS 3-16=-93/1307, 7-13=-132/1263, 6-13=-1135/336, 8-13=-304/212, 6-15=-118/1186, 8-11=-648/155, 4-15=-1191/410, 9-11=-95/1853, 4-16=-398/2250

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) All plates are MT20 plates unless otherwise indicated.
4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
5) * 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 2 SP 2400F 2.0E , Joint 10 SPF No.2 .
7) 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.
8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 265 lb uplift at joint 2 and 182 lb uplift at joint 10.

LOAD CASE(S) Standard

April 23,2024

Job	Truss	Truss Type	Qty	Ply	Lot 180 HT	
B240081	A9	Roof Special	1	1	Job Reference (optional)	I65060051

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.73 E Feb 6 2024 Print: 8.730 E Feb 6 2024 MiTek Industries, Inc. Tue Apr 23 09:25:51 Page: 1
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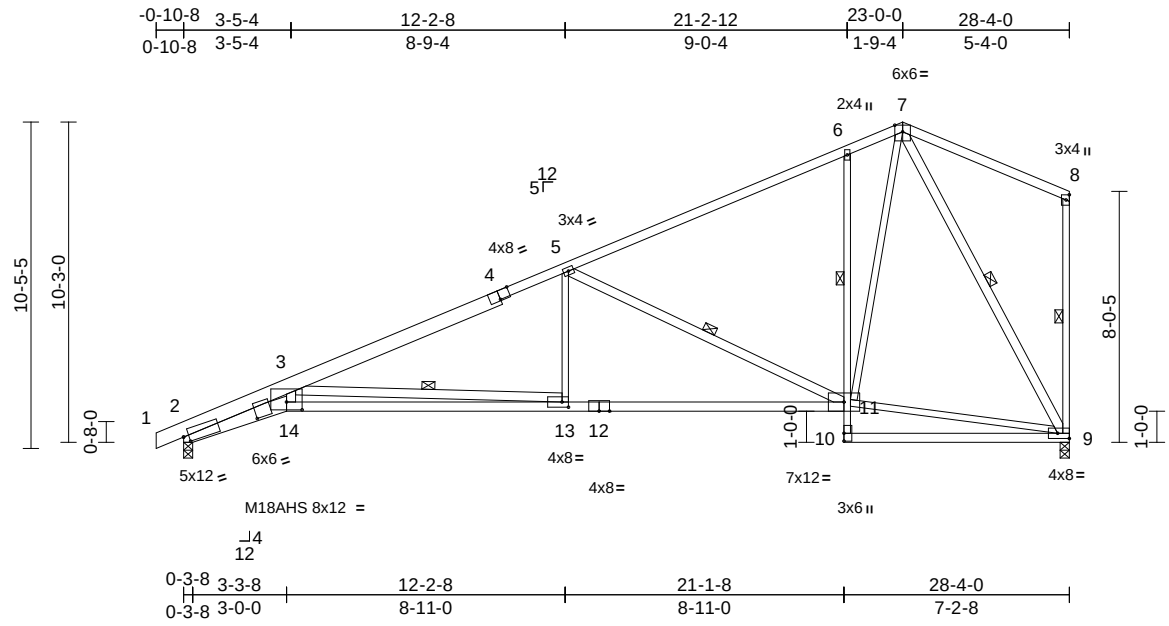

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Plate Offsets (X, Y): [2:0-2-1,0-2-5], [2:2-5-1,0-2-3], [4:0-4-0,Edge], [9:Edge,0-2-0], [13:0-2-8,0-2-0], [14:0-6-0,0-3-0]

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.90	Vert(LL)	-0.40	13-14	>847	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.98	Vert(CT)	-0.79	13-14	>425	240	M18AHS	142/136
BCLL	0.0*	Rep Stress Incr	YES	WB	0.90	Horz(CT)	0.34	9	n/a	n/a		
BCDL	10.0	Code	IRC2021/TPI2014	Matrix-S		Wind(LL)	0.35	13-14	>954	240	Weight: 142 lb	FT = 10%

LUMBER
TOP CHORD 2x6 SPF No.2 *Except* 7-8:2x4 SPF No.2, 4-7:2x4 SPF 2100F 1.8E
BOT CHORD 2x4 SPF No.2 *Except* 2-14:2x6 SPF No.2, 14-12:2x4 SPF 2100F 1.8E, 6-10:2x3 SPF No.2
WEBS 2x4 SPF No.2 *Except* 5-13,11-7,9-8,9-11:2x3 SPF No.2

BRACING
TOP CHORD Structural wood sheathing directly applied or 2-2-0 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 2-2-0 oc bracing. Except:
1 Row at midpt 6-11
WEBS 1 Row at midpt 3-13, 5-11, 8-9, 7-9

REACTIONS (lb/size) 2=1337/0-3-8, 9=1262/0-3-8
Max Horiz 2=336 (LC 7)
Max Uplift 2=-217 (LC 8), 9=-186 (LC 8)

FORCES (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-5626/1103, 3-4=-2359/350, 4-5=-2169/376, 5-6=-1055/209, 6-7=-983/324
BOT CHORD 2-14=-1192/5150, 13-14=-1079/4547, 12-13=-391/2124, 11-12=-391/2124, 6-11=-509/282
WEBS 3-14=-277/1670, 3-13=-2431/690, 5-13=0/544, 5-11=-1418/356, 7-11=-360/1372, 7-9=-1245/170, 9-11=-136/545

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) All plates are MT20 plates unless otherwise indicated.
4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
5) * 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) 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.
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 217 lb uplift at joint 2 and 186 lb uplift at joint 9.

LOAD CASE(S) Standard

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

April 23,2024

Job	Truss	Truss Type	Qty	Ply	Lot 180 HT	
B240081	A10	Hip	1	1	Job Reference (optional)	I65060052

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.73 E Feb 6 2024 Print: 8.730 E Feb 6 2024 MiTek Industries, Inc. Tue Apr 23 09:26:25

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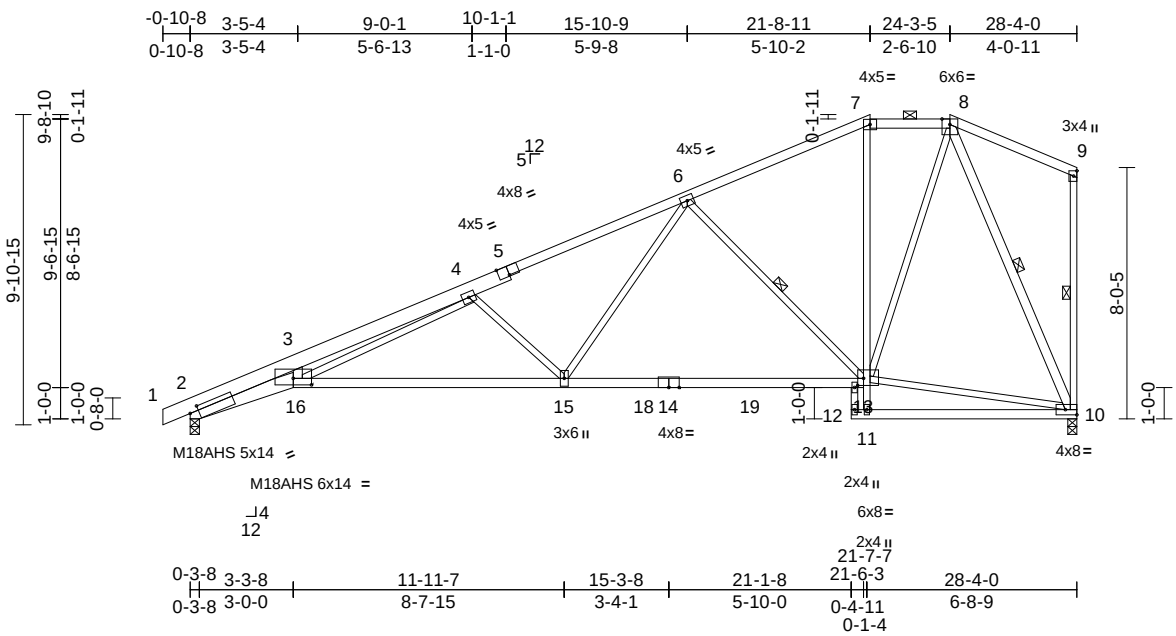

Scale = 1:73.6

Plate Offsets (X, Y): [2:0-3-5,0-1-12], [5:0-4-0,Edge], [10:Edge,0-2-0], [13:0-2-4,0-2-12], [16:0-7-0,0-2-8]

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.60	Vert(LL)	-0.38	13-15	>882	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.91	Vert(CT)	-0.67	13-15	>502	240	M18AHS	142/136
BCLL	0.0*	Rep Stress Incr	YES	WB	0.67	Horz(CT)	0.24	10	n/a	n/a		
BCDL	10.0	Code	IRC2021/TPI2014	Matrix-S		Wind(LL)	0.23	15-16	>999	240	Weight: 144 lb	FT = 10%

LUMBER

TOP CHORD 2x4 SPF No.2 *Except* 5-1:2x6 SP 2400F 2.0E

BOT CHORD 2x6 SPF No.2 *Except* 14-13:2x4 SPF 2400F 2.0E, 17-12:2x3 SPF No.2, 12-10:2x4 SPF No.2, 14-16:2x4 SPF 2100F 1.8E

WEBS 2x3 SPF No.2 *Except* 16-3,0-0,0-0,0-0,10-8:2x4 SPF No.2

BRACING

TOP CHORD Structural wood sheathing directly applied or 2-11-10 oc purlins, except end verticals, and 2-0-0 oc purlins (6-0-0 max.): 7-8.

BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing, Except: 7-7-1 oc bracing: 2-16.

WEBS 1 Row at midpt 9-10, 8-10, 6-13

REACTIONS (lb/size) 2=1338/0-3-8, 10=1268/0-3-8
Max Horiz 2=338 (LC 7)
Max Uplift 2=-215 (LC 8), 10=-161 (LC 8)
Max Grav 2=1384 (LC 2), 10=1337 (LC 2)

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

TOP CHORD 2-3=-5274/874, 3-4=-4689/871, 4-5=-2486/369, 5-6=-2447/395, 6-7=-974/207, 7-8=-835/224

BOT CHORD 2-16=-949/4775, 15-16=-563/2793, 15-18=-247/1551, 14-18=-247/1551, 14-19=-247/1551, 13-19=-247/1551

WEBS 3-16=-45/817, 8-10=-1280/194, 10-13=-144/489, 8-13=-172/1069, 6-13=-1039/303, 6-15=-128/1181, 4-15=-886/347, 4-16=-372/1767

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) 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.
8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 215 lb uplift at joint 2 and 161 lb uplift at joint 10.
9) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

LOAD CASE(S) Standard

April 23,2024

Job	Truss	Truss Type	Qty	Ply	Lot 180 HT	
B240081	A11	Hip	1	1	Job Reference (optional)	I65060053

Wheeler Lumber, Waverly, KS - 66871, Run: 8.73 S Apr 3 2024 Print: 8.730 S Apr 3 2024 MiTek Industries, Inc. Mon Apr 22 08:16:49 Page: 1

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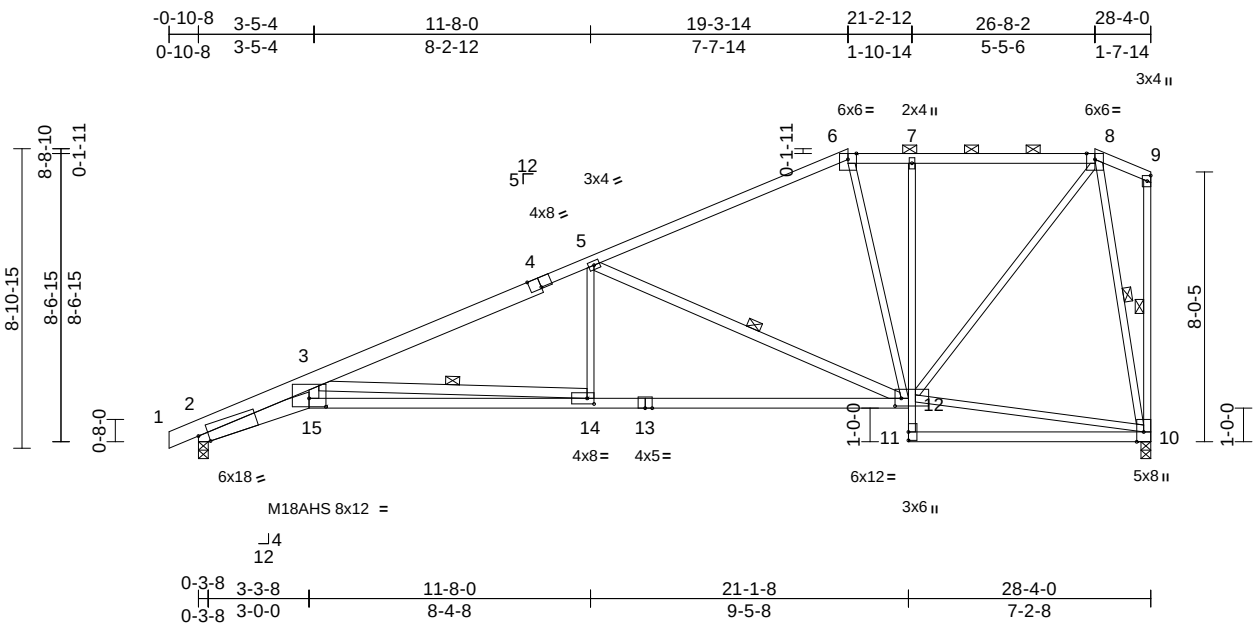

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Plate Offsets (X, Y): [2:0-3-9,Edge], [4:0-4-0,Edge], [12:0-2-3,0-2-12], [14:0-2-8,0-2-0], [15:0-6-0,0-3-0]

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.85	Vert(LL)	-0.38	14-15	>892	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.98	Vert(CT)	-0.73	14-15	>463	240	M18AHS	142/136
BCLL	0.0*	Rep Stress Incr	YES	WB	0.78	Horz(CT)	0.32	10	n/a	n/a		
BCDL	10.0	Code	IRC2021/TPI2014	Matrix-S		Wind(LL)	0.32	14-15	>999	240	Weight: 140 lb	FT = 10%

LUMBER

TOP CHORD 2x4 SPF No.2 *Except* 4-6:2x4 SPF 2100F 1.8E, 4-1:2x6 SPF No.2

BOT CHORD 2x4 SPF No.2 *Except* 2-15:2x6 SPF No.2, 7-11:2x3 SPF No.2, 13-15:2x4 SPF 2100F 1.8E

WEBS 2x3 SPF No.2 *Except* 15-3,14-3,12-5:2x4 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 (5-3-8 max.): 6-8.

BOT CHORD Rigid ceiling directly applied or 2-2-0 oc bracing.

WEBS 1 Row at midpt 3-14, 5-12, 9-10, 8-10

REACTIONS (size) 2=0-3-8, 10=0-3-8
Max Horiz 2=341 (LC 7)
Max Uplift 2=-210 (LC 8), 10=-175 (LC 5)
Max Grav 2=1337 (LC 1), 10=1262 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=0/10, 2-3=-5575/1025, 3-5=-2428/355, 5-6=-1096/186, 6-7=-938/196, 7-8=-939/199, 8-9=-153/113, 9-10=-119/78

BOT CHORD 2-15=-1090/5099, 14-15=-986/4505, 12-14=-349/2192, 11-12=0/148, 7-12=-366/131, 10-11=-17/12

WEBS 3-15=-256/1643, 3-14=-2321/638, 5-14=0/547, 5-12=-1407/333, 6-12=0/193, 10-12=-115/220, 8-12=-156/1195, 8-10=-1234/296

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 SPF No.2 , 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 210 lb uplift at joint 2 and 175 lb uplift at joint 10.
10) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

LOAD CASE(S) Standard

April 23,2024

Job	Truss	Truss Type	Qty	Ply	Lot 180 HT	
B240081	A12	Half Hip	1	1	Job Reference (optional)	I65060054

Wheeler Lumber, Waverly, KS - 66871,

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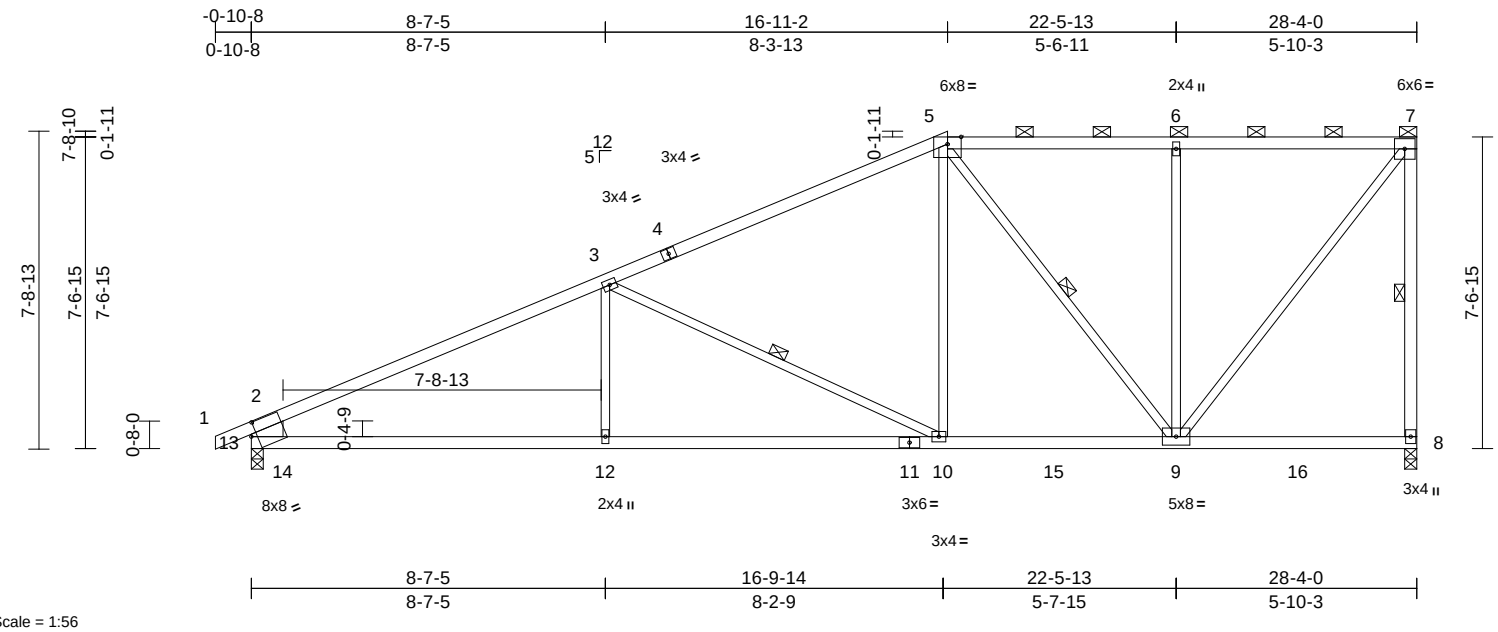

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Plate Offsets (X, Y): [13:0-1-10,0-3-13]

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	0.88	Vert(LL)	-0.23	10-12	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.82	Vert(CT)	-0.43	10-12	>780	240		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.63	Horz(CT)	0.05	8	n/a	n/a		
BCDL	10.0	Code	IRC2021/TPI2014	Matrix-S		Wind(LL)	0.11	10-12	>999	240	Weight: 113 lb	FT = 10%

LUMBER

TOP CHORD 2x4 SPF 2100F 1.8E *Except* 5-7:2x4 SPF No.2

BOT CHORD 2x4 SPF 2100F 1.8E *Except* 11-8:2x4 SPF No.2

WEBS 2x3 SPF No.2 *Except* 7-8:2x4 SPF No.2, 13-2:2x10 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 (5-9-15 max.): 5-7.

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

WEBS 1 Row at midpt 7-8, 3-10, 5-9

REACTIONS (size) 8=0-3-8, 13=0-3-8
Max Horiz 13=326 (LC 5)
Max Uplift 8=-207 (LC 5), 13=-203 (LC 8)
Max Grav 8=1349 (LC 2), 13=1371 (LC 2)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=0/34, 2-3=-2277/302, 3-5=-1454/205, 5-6=-864/194, 6-7=-863/192, 7-8=-1229/228, 2-13=-1226/248

BOT CHORD 12-13=-327/1996, 10-12=-327/1996, 9-10=-234/1249, 8-9=-102/77

WEBS 3-12=0/320, 3-10=-818/271, 5-10=-34/647, 5-9=-641/133, 6-9=-460/194, 7-9=-212/1379

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 13 SPF 2100F 1.8E , Joint 8 SPF No.2 .
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 207 lb uplift at joint 8 and 203 lb uplift at joint 13.
8) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

LOAD CASE(S) Standard

April 23,2024

Job	Truss	Truss Type	Qty	Ply	Lot 180 HT	
B240081	A13	Half Hip	1	1	Job Reference (optional)	I65060055

Wheeler Lumber, Waverly, KS - 66871,

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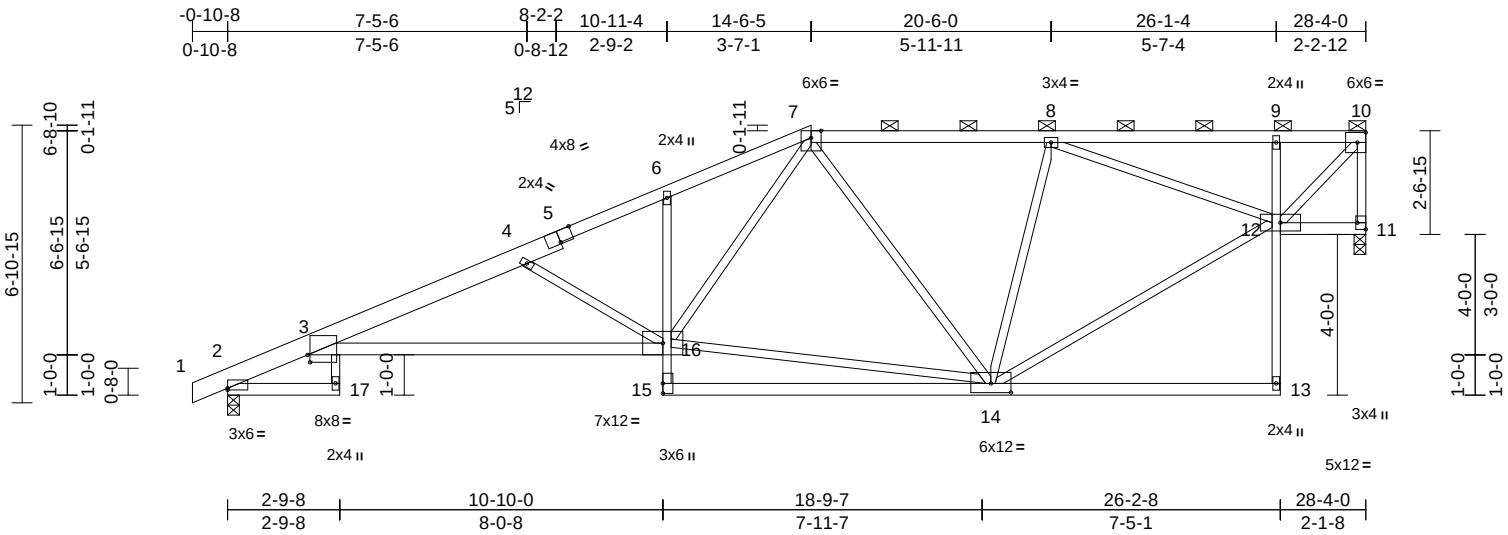

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Plate Offsets (X, Y): [2:Edge,0-0-8], [3:0-0-11,0-2-3], [5:0-4-0,Edge], [11:Edge,0-2-8], [14:0-6-0,0-2-12]

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	0.93	Vert(LL)	-0.34	3-16	>988	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.64	Vert(CT)	-0.78	3-16	>430	240		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.71	Horz(CT)	0.26	11	n/a	n/a		
BCDL	10.0	Code	IRC2021/TPI2014	Matrix-S		Wind(LL)	0.29	3-16	>999	240	Weight: 130 lb	FT = 10%

LUMBER
TOP CHORD 2x4 SPF No.2 *Except* 5-1:2x6 SP 2400F 2.0E
BOT CHORD 2x4 SPF No.2 *Except* 17-3,6-15,13-9:2x3 SPF No.2, 3-16:2x4 SPF 2100F 1.8E
WEBS 2x3 SPF No.2

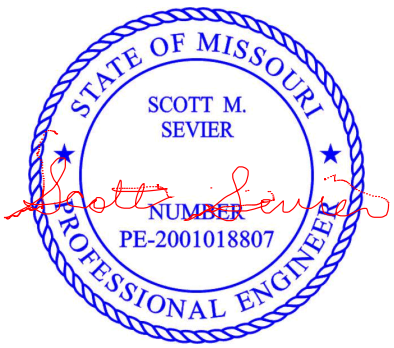
BRACING
TOP CHORD Structural wood sheathing directly applied or 2-2-0 oc purlins, except end verticals, and 2-0-0 oc purlins (4-8-9 max.): 7-10.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing, Except:
6-0-0 oc bracing: 2-17.

REACTIONS (size) 2=0-3-8, 11=0-3-8
Max Horiz 2=215 (LC 8)
Max Uplift 2=-172 (LC 8), 11=-210 (LC 5)
Max Grav 2=1351 (LC 1), 11=1264 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/6, 2-3=-634/0, 3-4=-3183/475, 4-6=-2450/310, 6-7=-2317/364, 7-8=-1258/212, 8-9=-1121/218, 9-10=-1105/212, 10-11=-1216/217
BOT CHORD 2-17=-41/0, 3-17=0/82, 3-16=-580/3027, 15-16=0/141, 6-16=-11/94, 14-15=-19/50, 13-14=0/15, 12-13=0/111, 9-12=-284/123, 11-12=-30/23
WEBS 14-16=-228/1490, 7-16=-226/1082, 7-14=-476/168, 8-14=-422/189, 12-14=-265/1528, 8-12=-241/52, 10-12=-282/1606, 4-16=-1034/318

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 210 lb uplift at joint 11 and 172 lb uplift at joint 2.
8) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

LOAD CASE(S) Standard



April 23,2024

Job	Truss	Truss Type	Qty	Ply	Lot 180 HT	
B240081	A14	Half Hip	1	1	Job Reference (optional)	I65060056

Wheeler Lumber, Waverly, KS - 66871,

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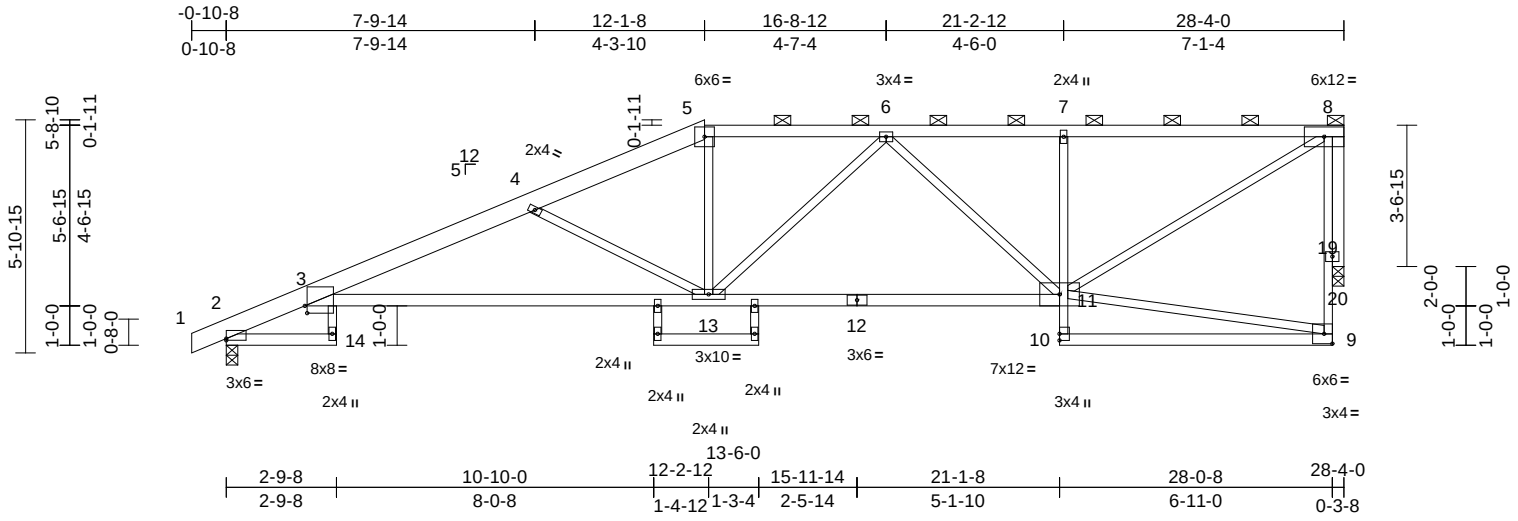

Scale = 1:58.4

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

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.94	Vert(LL)	-0.34	3-13	>991	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.67	Vert(CT)	-0.80	3-13	>422	240		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.71	Horz(CT)	0.41	20	n/a	n/a		
BCDL	10.0	Code	IRC2021/TPI2014	Matrix-S		Wind(LL)	0.27	14	>999	240	Weight: 130 lb	FT = 10%

LUMBER

TOP CHORD 2x6 SP 2400F 2.0E *Except* 5-8:2x4 SPF No.2

BOT CHORD 2x4 SPF No.2 *Except* 14-3,15-16,17-18,7-10:2x3 SPF No.2, 12-3:2x4 SPF 2100F 1.8E

WEBS 2x3 SPF No.2

OTHERS 2x4 SPF No.2

BRACING

TOP CHORD Structural wood sheathing directly applied or 1-11-14 oc purlins, except end verticals, and 2-0-0 oc purlins (3-3-3 max.): 5-8.

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

REACTIONS (size) 2=0-3-8, 20=0-3-8
Max Horiz 2=182 (LC 8)
Max Uplift 2=-150 (LC 8), 20=-214 (LC 4)
Max Grav 2=1349 (LC 1), 20=1239 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=0/6, 2-3=-633/0, 3-4=-3190/414, 4-5=-2337/299, 5-6=-2080/290, 6-7=-1600/273, 7-8=-1602/279, 9-19=0/129, 8-19=0/129

BOT CHORD 2-14=-41/0, 3-14=0/82, 3-13=-484/3035, 11-13=-366/2000, 10-11=0/133, 7-11=-447/186, 9-10=0/19

WEBS 9-11=-48/78, 8-11=-311/1793, 5-13=-21/667, 6-13=-75/201, 6-11=-553/105, 4-13=-1099/346, 8-20=-1244/215

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) Bearing at joint(s) 20 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 150 lb uplift at joint 2 and 214 lb uplift at joint 20.
9) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

LOAD CASE(S) Standard

April 23,2024

Job	Truss	Truss Type	Qty	Ply	Lot 180 HT	
B240081	A15	Half Hip	1	1	Job Reference (optional)	I65060057

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.73 S Apr 3 2024 Print: 8.730 S Apr 3 2024 MiTek Industries, Inc. Mon Apr 22 08:16:49

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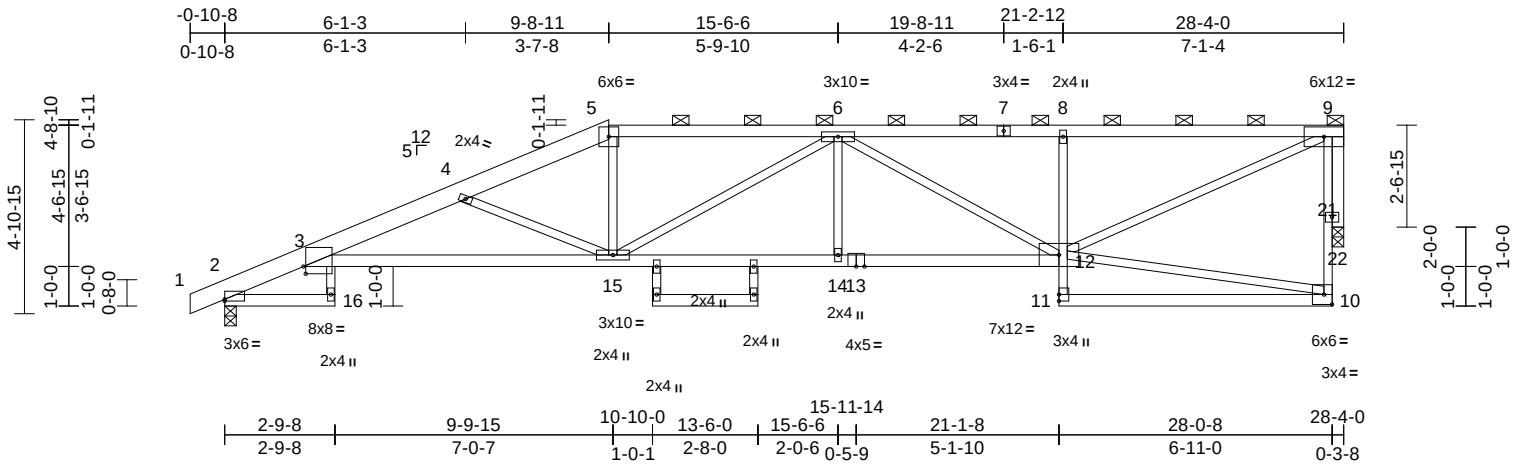

Scale = 1:58.3

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

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.89	Vert(LL)	-0.29	3-15	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.76	Vert(CT)	-0.61	3-15	>552	240		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.79	Horz(CT)	0.38	22	n/a	n/a		
BCDL	10.0	Code	IRC2021/TPI2014	Matrix-S		Wind(LL)	0.23	3-15	>999	240	Weight: 125 lb	FT = 10%

LUMBER

TOP CHORD 2x4 SPF No.2 *Except* 1-5:2x6 SP 2400F 2.0E

BOT CHORD 2x4 SPF No.2 *Except* 16-3,17-18,19-20,8-11:2x3 SPF No.2, 13-3:2x4 SPF 2100F 1.8E

WEBS 2x3 SPF No.2

OTHERS 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 (2-7-13 max.): 5-9.

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

REACTIONS (size) 2=0-3-8, 22=0-3-8
Max Horiz 2=148 (LC 5)
Max Uplift 2=-160 (LC 4), 22=-220 (LC 4)
Max Grav 2=1349 (LC 1), 22=1239 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=0/6, 2-3=-633/21, 3-4=-3622/510, 4-5=-2728/394, 5-6=-2481/380, 6-8=-2085/375, 8-9=-2083/380, 10-21=0/135, 9-21=0/135

BOT CHORD 2-16=-41/0, 3-16=0/82, 3-15=-579/3497, 14-15=-490/2728, 12-14=-490/2728, 11-12=0/133, 8-12=-472/196, 10-11=0/68

WEBS 5-15=-39/748, 6-12=-742/104, 10-12=-62/70, 9-12=-406/2195, 6-14=0/216, 6-15=-450/101, 4-15=-1134/291, 9-22=-1250/222

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 2x4 MT20 unless otherwise indicated.
5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
6) * 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) 22 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 160 lb uplift at joint 2 and 220 lb uplift at joint 22.
10) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

LOAD CASE(S) Standard

April 23,2024

Job	Truss	Truss Type	Qty	Ply	Lot 180 HT	
B240081	A16	Half Hip	1	1	Job Reference (optional)	I65060058

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.73 S Apr 3 2024 Print: 8.730 S Apr 3 2024 MiTek Industries, Inc. Mon Apr 22 08:16:49

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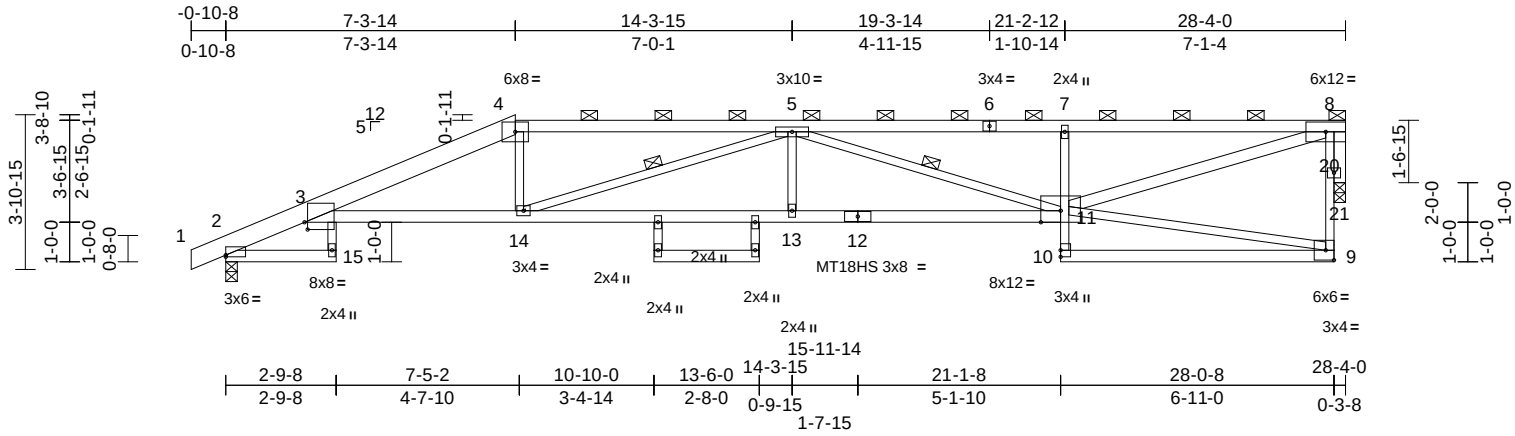

Scale = 1:58.3

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

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.85	Vert(LL)	-0.39	13-14	>870	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.68	Vert(CT)	-0.70	13-14	>481	240	MT18HS	197/144
BCLL	0.0*	Rep Stress Incr	YES	WB	0.74	Horz(CT)	0.40	21	n/a	n/a		
BCDL	10.0	Code	IRC2021/TPI2014	Matrix-S		Wind(LL)	0.31	13-14	>999	240	Weight: 117 lb	FT = 10%

LUMBER

TOP CHORD 2x4 SPF 2100F 1.8E *Except* 1-4:2x6 SP 2400F 2.0E

BOT CHORD 2x3 SPF No.2 *Except* 2-15,17-18,10-9:2x4 SPF No.2, 12-11,12-3:2x4 SPF 2100F 1.8E

WEBS 2x3 SPF No.2 *Except* 11-8:2x4 SPF No.2

OTHERS 2x4 SPF No.2

BRACING

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

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

WEBS 1 Row at midpt 5-11, 5-14

REACTIONS (size) 2=0-3-8, 21=0-3-8
Max Horiz 2=121 (LC 5)
Max Uplift 2=-183 (LC 4), 21=-224 (LC 5)
Max Grav 2=1349 (LC 1), 21=1239 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=0/6, 2-3=-633/58, 3-4=-3253/497, 4-5=-3095/500, 5-7=-3025/561, 7-8=-2995/565, 9-20=0/134, 8-20=0/134

BOT CHORD 2-15=-41/0, 3-15=0/82, 3-14=-531/3073, 13-14=-730/3981, 11-13=-730/3981, 10-11=0/132, 7-11=-519/213, 9-10=0/75

WEBS 4-14=0/505, 5-11=-1007/148, 9-11=-54/74, 8-11=-581/3019, 5-13=0/284, 5-14=-1101/213, 8-21=-1267/231

NOTES

1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=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) 21 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 183 lb uplift at joint 2 and 224 lb uplift at joint 21.
10) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

LOAD CASE(S) Standard

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

April 23,2024

Job	Truss	Truss Type	Qty	Ply	Lot 180 HT	
B240081	A17	Half Hip Girder	1	**2**	Job Reference (optional)	I65060059

Wheeler Lumber, Waverly, KS - 66871,

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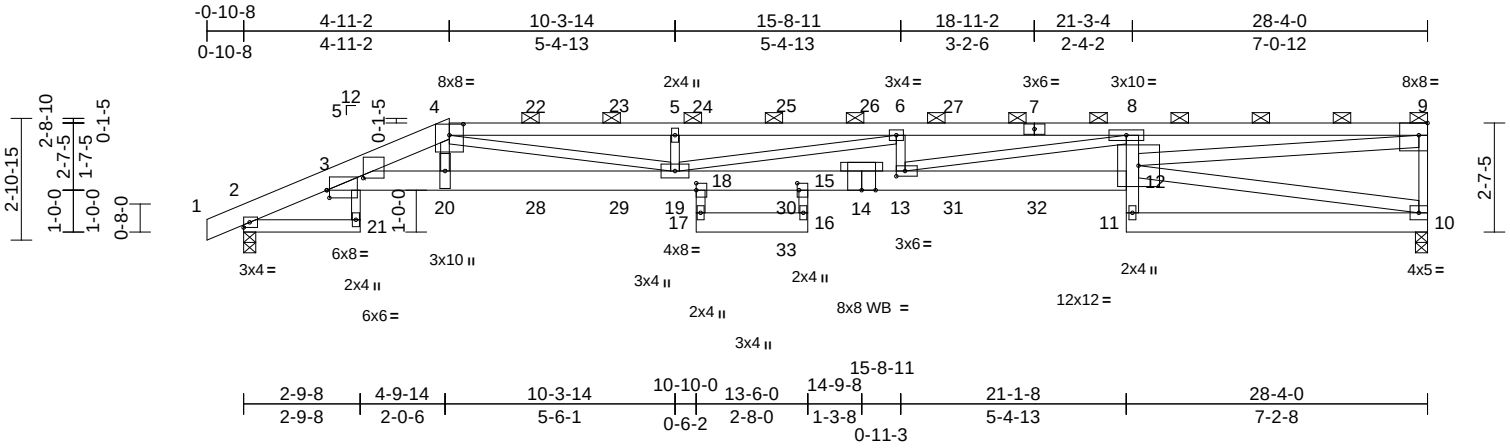

Scale = 1:55.1

Plate Offsets (X, Y): [3:0-0-12,0-2-3], [3:0-10-7,0-3-7], [4:0-4-0,0-3-3], [9:0-2-8,Edge], [13:0-2-8,0-1-8], [15:0-2-0,0-0-8], [18:0-2-0,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	1.00	Vert(LL)	-0.64	13-15	>523	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.82	Vert(CT)	-1.16	13-15	>291	240		
BCLL	0.0*	Rep Stress Incr	NO	WB	0.91	Horz(CT)	0.37	10	n/a	n/a		
BCDL	10.0	Code	IRC2021/TPI2014	Matrix-S		Wind(LL)	0.61	13-15	>555	240	Weight: 288 lb	FT = 10%

LUMBER

TOP CHORD 2x6 SP 2400F 2.0E *Except* 4-7:2x4 SPF No.2, 7-9:2x4 SPF 2100F 1.8E

BOT CHORD 2x3 SPF No.2 *Except* 2-21,8-11:2x4 SPF No.2, 14-12,14-3:2x6 SP 2400F 2.0E, 17-16,11-10:2x6 SPF No.2

WEBS 2x3 SPF No.2 *Except* 10-12,12-9:2x4 SPF No.2

OTHERS 2x3 SPF No.2

BRACING

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

BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing, Except:
6-0-0 oc bracing: 2-21.

REACTIONS (size) 2=0-3-8, 10=0-3-8
Max Horiz 2=102 (LC 5)
Max Uplift 2=-458 (LC 4), 10=-413 (LC 5)
Max Grav 2=1919 (LC 1), 10=1730 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=0/6, 2-3=-927/231, 3-4=-7121/1876, 4-5=-9162/2406, 5-6=-9162/2406, 6-8=-10080/2575, 8-9=-7397/1890, 9-10=-1546/428

BOT CHORD 2-21=-44/0, 3-21=0/94, 3-20=-1846/6787, 19-20=-1820/6685, 18-19=-2612/10080, 15-18=-2569/9896, 13-15=-2612/10080, 12-13=-2087/8082, 17-18=0/49, 16-17=-43/184, 15-16=0/49, 11-12=0/144, 8-12=-939/340, 10-11=-200/884

WEBS 10-12=-789/195, 9-12=-1912/7408, 4-20=-305/1215, 5-19=-448/218, 6-13=-270/221, 4-19=-654/2630, 6-19=-1001/186, 8-13=-538/2047

NOTES

1) 2-ply truss to be connected together with 10d (0.131"x3") nails as follows:
Top chords connected as follows: 2x6 - 2 rows staggered at 0-9-0 oc, 2x4 - 1 row at 0-9-0 oc, 2x3 - 1 row at 0-9-0 oc.
Bottom chords connected as follows: 2x4 - 1 row at 0-9-0 oc, 2x3 - 1 row at 0-9-0 oc, 2x6 - 2 rows staggered at 0-9-0 oc.
Web connected as follows: 2x4 - 1 row at 0-9-0 oc, 2x3 - 1 row at 0-9-0 oc.
2) All loads are considered equally applied to all plies, except if noted as front (F) or back (B) face in the LOAD CASE(S) section. Ply to ply connections have been provided to distribute only loads noted as (F) or (B), unless otherwise indicated.
3) Unbalanced roof live loads have been considered for this design.
4) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=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
5) Provide adequate drainage to prevent water ponding.
6) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
7) * 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) Bearings are assumed to be: Joint 2 SPF No.2 , Joint 10 SPF No.2 .
9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 413 lb uplift at joint 10 and 458 lb uplift at joint 2.
10) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
11) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 71 lb down and 39 lb up at 4-11-2, 76 lb down and 38 lb up at 7-0-0, 76 lb down and 38 lb up at 9-0-0, 86 lb down and 67 lb up at 11-0-0, 86 lb down and 67 lb up at 13-0-0, 86 lb down and 66 lb up at 15-0-0, and 86 lb down and 66 lb up at 17-0-0, and 86 lb down and 66 lb up at 19-0-0 on top chord, and 269 lb down and 111 lb up at 4-11-2, 55 lb down and 37 lb up at 7-0-0, 55 lb down and 37 lb up at 9-0-0, 32 lb down at 10-11-4, 32 lb down at 13-0-0, 30 lb down at 15-0-0, 30 lb down at 17-0-0, and 30 lb down at 19-0-0, and 262 lb down and 79 lb up at 21-3-4 on bottom chord. The design/ selection of such connection device(s) is the responsibility of others.

LOAD CASE(S) Standard

1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (lb/ft)
Vert: 1-3=-70, 3-4=-70, 4-9=-70, 2-21=-20, 3-18=-20, 12-15=-20, 16-17=-20, 10-11=-20
Concentrated Loads (lb)

April 23,2024

Continued on page 2

Job	Truss	Truss Type	Qty	Ply	Lot 180 HT
B240081	A17	Half Hip Girder	1	**2**	I65060059
					Job Reference (optional)

Vert: 4=-17 (B), 7=-45 (B), 14=-23 (B), 18=-23 (B), 12=-262 (B), 20=-269 (B), 22=-17 (B), 23=-17 (B), 24=-48 (B), 25=-48 (B), 26=-45 (B), 27=-45 (B), 28=-54 (B), 29=-54 (B), 30=-23 (B), 31=-23 (B), 32=-23 (B)

Job	Truss	Truss Type	Qty	Ply	Lot 180 HT	
B240081	B1	Common Supported Gable	1	1	Job Reference (optional)	I65060060

Wheeler Lumber, Waverly, KS - 66871, Run: 8.73 S Apr 3 2024 Print: 8.730 S Apr 3 2024 MiTek Industries, Inc. Mon Apr 22 08:16:50 Page: 1

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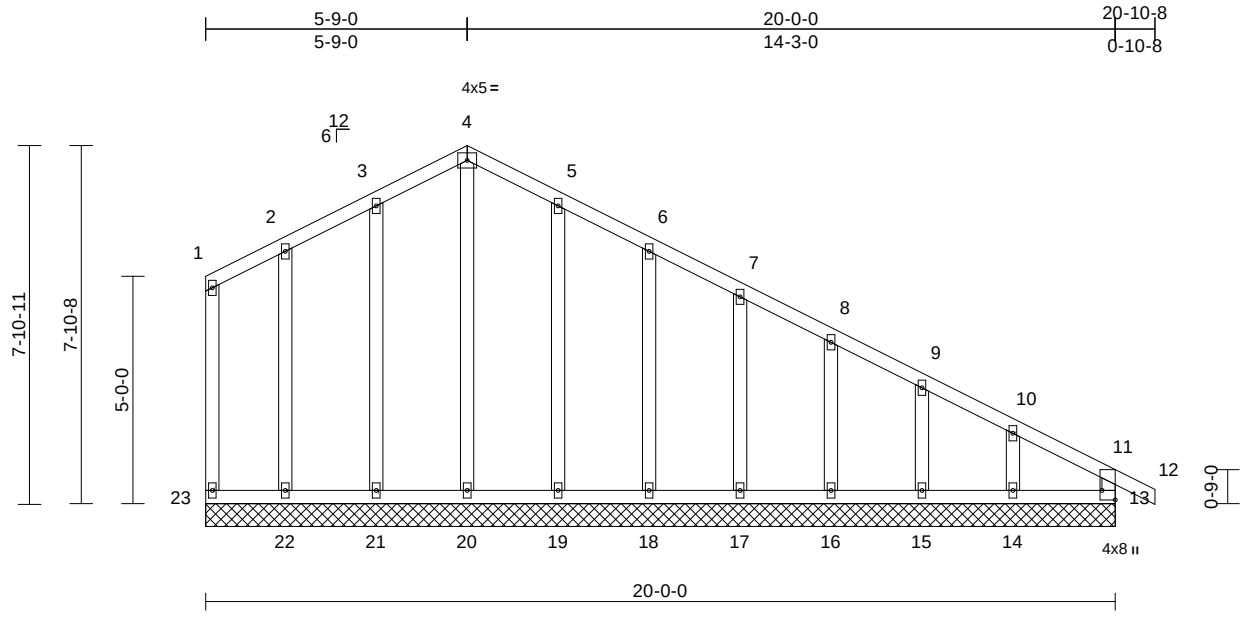

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Plate Offsets (X, Y): [13:Edge,0-3-8]

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	0.10	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.09	Vert(CT)	n/a	-	n/a	999		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.13	Horz(CT)	0.01	13	n/a	n/a		
BCDL	10.0	Code	IRC2021/TPI2014	Matrix-R							Weight: 103 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) 13=20-0-0, 14=20-0-0, 15=20-0-0, 16=20-0-0, 17=20-0-0, 18=20-0-0, 19=20-0-0, 20=20-0-0, 21=20-0-0, 22=20-0-0, 23=20-0-0
Max Horiz 23=-242 (LC 4)
Max Uplift 13=-38 (LC 5), 14=-125 (LC 9), 15=-35 (LC 9), 16=-59 (LC 9), 17=-53 (LC 9), 18=-55 (LC 9), 19=-55 (LC 9), 21=-59 (LC 8), 22=-47 (LC 8), 23=-31 (LC 9)
Max Grav 13=210 (LC 15), 14=182 (LC 22), 15=179 (LC 1), 16=180 (LC 22), 17=180 (LC 22), 18=178 (LC 1), 19=190 (LC 22), 20=174 (LC 16), 21=192 (LC 21), 22=173 (LC 1), 23=67 (LC 15)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-23=-74/51, 1-2=-86/76, 2-3=-81/97, 3-4=-83/126, 4-5=-87/131, 5-6=-104/119, 6-7=-118/106, 7-8=-133/92, 8-9=-148/79, 9-10=-159/72, 10-11=-207/78, 11-12=0/32, 11-13=-175/44

BOT CHORD 22-23=-68/200, 21-22=-68/200, 20-21=-68/200, 19-20=-68/200, 18-19=-68/200, 17-18=-68/200, 16-17=-68/200, 15-16=-68/200, 14-15=-68/200, 13-14=-68/200

WEBS 4-20=-134/41, 3-21=-152/80, 2-22=-134/86, 5-19=-150/79, 6-18=-138/79, 7-17=-140/77, 8-16=-140/81, 9-15=-140/67, 10-14=-139/121

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) All plates are 2x4 MT20 unless otherwise indicated.
5) Gable requires continuous bottom chord bearing.
6) Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
7) Gable studs spaced at 2-0-0 oc.
8) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
9) * 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.
10) All bearings are assumed to be SPF No.2 .
11) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 31 lb uplift at joint 23, 38 lb uplift at joint 13, 59 lb uplift at joint 21, 47 lb uplift at joint 22, 55 lb uplift at joint 19, 55 lb uplift at joint 18, 53 lb uplift at joint 17, 59 lb uplift at joint 16, 35 lb uplift at joint 15 and 125 lb uplift at joint 14.

LOAD CASE(S) Standard

April 23,2024

Job	Truss	Truss Type	Qty	Ply	Lot 180 HT	
B240081	B2	Common	1	1	Job Reference (optional)	I65060061

Wheeler Lumber, Waverly, KS - 66871,

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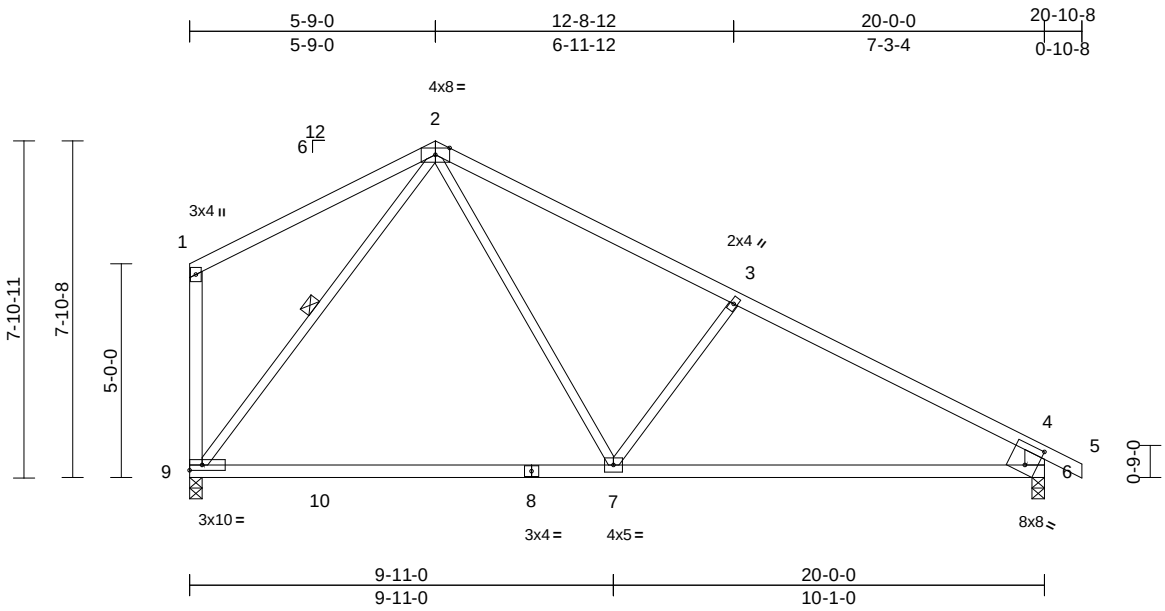


Scale = 1:53.9

Plate Offsets (X, Y): [6:0-3-5,0-5-12]

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.77	Vert(LL)	-0.32	7-9	>732	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.51	Vert(CT)	-0.49	7-9	>477	240		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.62	Horz(CT)	0.02	6	n/a	n/a		
BCDL	10.0	Code	IRC2021/TPI2014	Matrix-S		Wind(LL)	0.03	7-9	>999	240	Weight: 74 lb	FT = 10%

LUMBER
TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF 2400F 2.0E
WEBS 2x3 SPF No.2 *Except* 9-1:2x4 SPF No.2, 6-4:2x6 SP 2400F 2.0E

BRACING
TOP CHORD Structural wood sheathing directly applied or 3-11-13 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 1 Row at midpt 2-9

REACTIONS (size) 6=0-3-8, 9=0-3-8
Max Horiz 9=-243 (LC 4)
Max Uplift 6=-149 (LC 9), 9=-107 (LC 9)
Max Grav 6=993 (LC 2), 9=960 (LC 2)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-174/110, 2-3=-1080/202, 3-4=-1314/207, 4-5=0/35, 1-9=-210/89, 4-6=-862/202
BOT CHORD 7-9=0/546, 6-7=-90/1084
WEBS 2-9=-769/118, 2-7=-102/817, 3-7=-450/274

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, with BCDL = 10.0psf.
5) All bearings are assumed to be SPF 2400F 2.0E .
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 149 lb uplift at joint 6 and 107 lb uplift at joint 9.

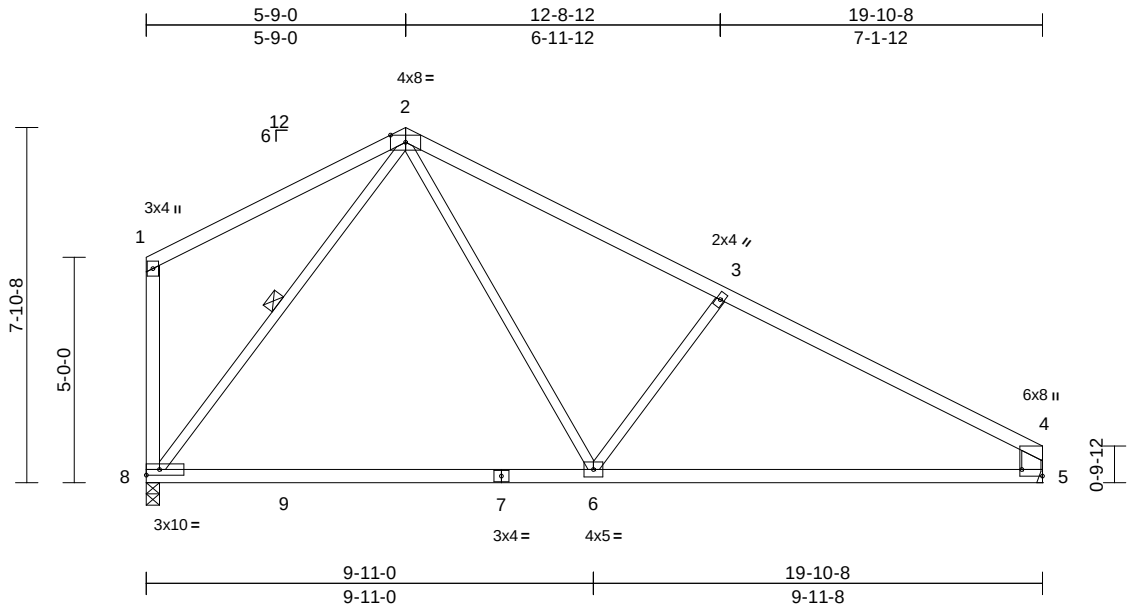
LOAD CASE(S) Standard

April 23,2024

Job	Truss	Truss Type	Qty	Ply	Lot 180 HT	
B240081	B3	Common	2	1	Job Reference (optional)	I65060062

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.73 S Apr 3 2024 Print: 8.730 S Apr 3 2024 MiTek Industries, Inc. Mon Apr 22 08:16:50 Page: 1
ID:rvaNWVQtj62n7Wesv9a4ULzX7HO-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f



Scale = 1:51.1

Plate Offsets (X, Y): [4: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	0.61	Vert(LL)	-0.33	6-8	>705	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.50	Vert(CT)	-0.53	6-8	>444	240		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.61	Horz(CT)	0.02	5	n/a	n/a		
BCDL	10.0	Code	IRC2021/TPI2014	Matrix-S		Wind(LL)	0.07	6-8	>999	240	Weight: 73 lb	FT = 10%

LUMBER
TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF 2400F 2.0E
WEBS 2x3 SPF No.2 *Except* 8-1:2x4 SPF No.2, 5-4:2x6 SP 2400F 2.0E

BRACING
TOP CHORD Structural wood sheathing directly applied or 4-2-9 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 1 Row at midpt 2-8

REACTIONS (size) 5= Mechanical, 8=0-3-8
Max Horiz 8=-232 (LC 6)
Max Uplift 5=-122 (LC 9), 8=-106 (LC 9)
Max Grav 5=922 (LC 2), 8=954 (LC 2)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-176/110, 2-3=-1061/199, 3-4=-1293/205, 1-8=-211/89, 4-5=-762/170
BOT CHORD 6-8=0/532, 5-6=-112/1071
WEBS 2-8=-756/116, 2-6=-99/797, 3-6=-459/276

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, with BCDL = 10.0psf.
5) Bearings are assumed to be: Joint 8 SPF 2400F 2.0E , Joint 5 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 106 lb uplift at joint 8 and 122 lb uplift at joint 5.

LOAD CASE(S) Standard

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

April 23,2024

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 BEFORE USE.
Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI1 Quality Criteria, and DSB-22** available from Truss Plate Institute (www.tpinst.org) and **BCSI Building Component Safety Information** available from the Structural Building Component Association (www.sbcscomponents.com)

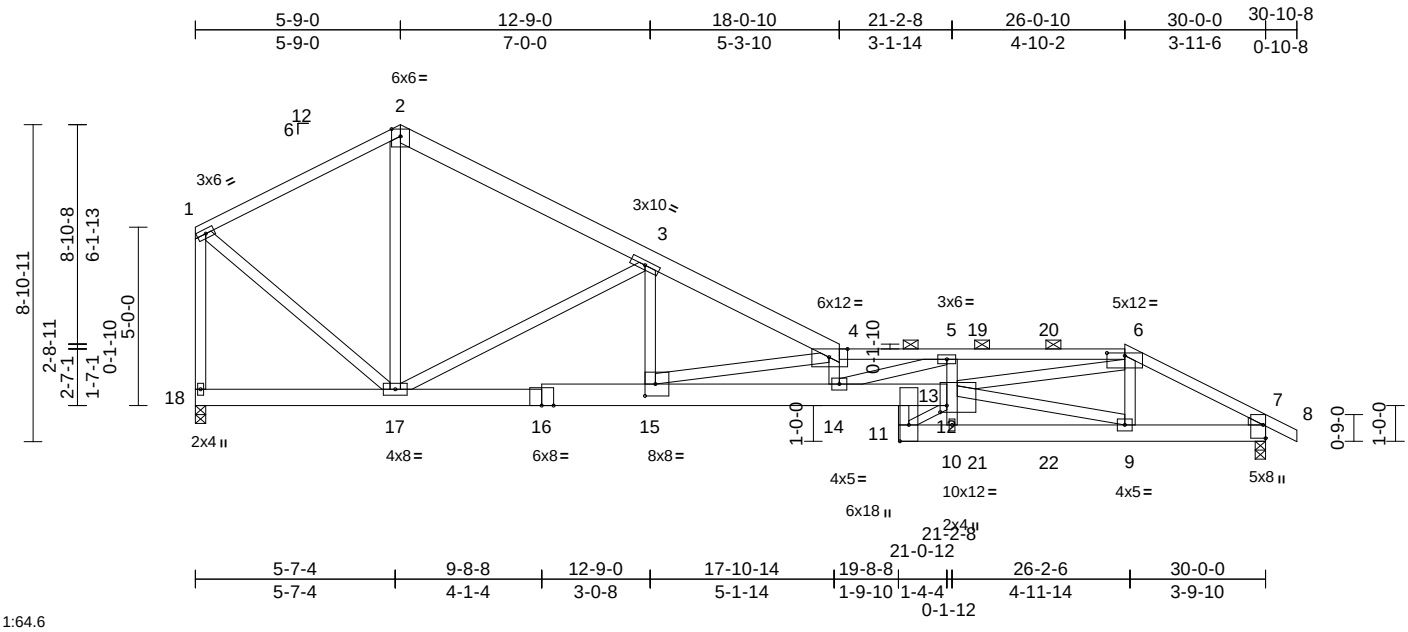
MiTek®
16023 Swingley Ridge Rd
Chesterfield, MO 63017
314.434.1200 / MiTek-US.com

RELEASE FOR CONSTRUCTION
AS NOTED ON PLANS REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
06/12/2024 4:31:42

Job	Truss	Truss Type	Qty	Ply	Lot 180 HT	
B240081	B4	Roof Special Girder	1	2	Job Reference (optional)	I65060063

Wheeler Lumber, Waverly, KS - 66871, Run: 8.73 S Apr 3 2024 Print: 8.730 S Apr 3 2024 MiTek Industries, Inc. Mon Apr 22 08:16:50 Page: 1

ID:nMoVswEWlrgwz4XecUXWKDzX6Q7-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f



Scale = 1:64.6

Plate Offsets (X, Y): [4:0-6-4,Edge], [6:0-6-0,0-0-15], [7:Edge,0-0-13], [12:0-2-4,0-2-4], [15:0-3-8,0-4-0]

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	0.55	Vert(LL)	-0.47	13-14	>763	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.80	Vert(CT)	-0.83	13-14	>427	240		
BCLL	0.0*	Rep Stress Incr	NO	WB	0.96	Horz(CT)	0.14	7	n/a	n/a		
BCDL	10.0	Code	IRC2021/TPI2014	Matrix-S		Wind(LL)	0.36	13-14	>997	240	Weight: 359 lb	FT = 10%

LUMBER

TOP CHORD 2x4 SPF No.2 *Except* 2-4:2x6 SPF No.2, 4-6:2x4 SPF 2100F 1.8E

BOT CHORD 2x6 SPF No.2 *Except* 13-11:2x4 SPF No.2, 16-12:2x8 SP 2400F 2.0E

WEBS 2x4 SPF No.2 *Except* 11-12:2x3 SPF No.2

WEDGE Right: 2x3 SPF No.2

BRACING

TOP CHORD Structural wood sheathing directly applied or 5-9-11 oc purlins, except end verticals, and 2-0-0 oc purlins (4-2-11 max.): 4-6.

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

REACTIONS (size) 7=0-3-8, 18=0-3-8
Max Horiz 18=-257 (LC 4)
Max Uplift 7=-468 (LC 9), 18=-247 (LC 9)
Max Grav 7=2477 (LC 1), 18=1732 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=-1319/272, 2-3=-1354/241, 3-4=-4515/721, 4-5=-12157/1987, 5-6=-9732/1668, 6-7=-4626/841, 7-8=0/6, 1-18=-1663/272

BOT CHORD 17-18=-51/236, 15-17=-500/4022, 14-15=-1886/12118, 13-14=-1601/9972, 12-13=-1494/9356, 11-13=-529/2933, 10-11=-600/3480, 9-10=-646/3858, 7-9=-670/3946

WEBS 1-17=-200/1433, 2-17=-95/741, 3-17=-3326/666, 3-15=-308/2483, 4-14=-307/299, 5-14=-310/2311, 9-12=-51/85, 6-12=-929/5968, 6-9=-6/495, 10-12=-305/169, 5-12=-1219/315, 4-15=-8288/1418, 11-12=-3826/659

NOTES

1) 2-ply truss to be connected together with 10d (0.131"x3") nails as follows:
Top chords connected as follows: 2x4 - 1 row at 0-6-0 oc, 2x6 - 2 rows staggered at 0-9-0 oc.
Bottom chords connected as follows: 2x6 - 2 rows staggered at 0-9-0 oc, 2x8 - 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, 2x3 - 1 row at 0-9-0 oc.
2) All loads are considered equally applied to all plies, except if noted as front (F) or back (B) face in the LOAD CASE(S) section. Ply to ply connections have been provided to distribute only loads noted as (F) or (B), unless otherwise indicated.
3) Unbalanced roof live loads have been considered for this design.
4) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=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
5) Provide adequate drainage to prevent water ponding.
6) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
7) * 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 247 lb uplift at joint 18 and 468 lb uplift at joint 7.
10) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
11) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 131 lb down and 73 lb up at 30-2-4, and 131 lb down and 73 lb up at 32-2-4, and 131 lb down and 75 lb up at 34-3-10 on top chord, and 958 lb down and 127 lb up at 28-1-4, 51 lb down at 30-2-4, and 51 lb down at 32-2-4, and 258 lb down and 53 lb up at 34-2-4 on bottom chord. The design/selection of such connection device (s) is the responsibility of others.

LOAD CASE(S) Standard

1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (lb/ft)
Vert: 1-2=-70, 2-4=-70, 4-6=-70, 6-8=-70, 13-18=-20, 7-11=-20
Concentrated Loads (lb)
Vert: 6=-81 (F), 13=-889 (F), 9=-258 (F), 19=-81 (F), 20=-81 (F), 21=-37 (F), 22=-37 (F)

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

April 23,2024

Job	Truss	Truss Type	Qty	Ply	Lot 180 HT	
B240081	B5	Roof Special	1	1	Job Reference (optional)	I65060064

Wheeler Lumber, Waverly, KS - 66871, Run: 8.73 S Apr 3 2024 Print: 8.730 S Apr 3 2024 MiTek Industries, Inc. Mon Apr 22 08:16:51 Page: 1

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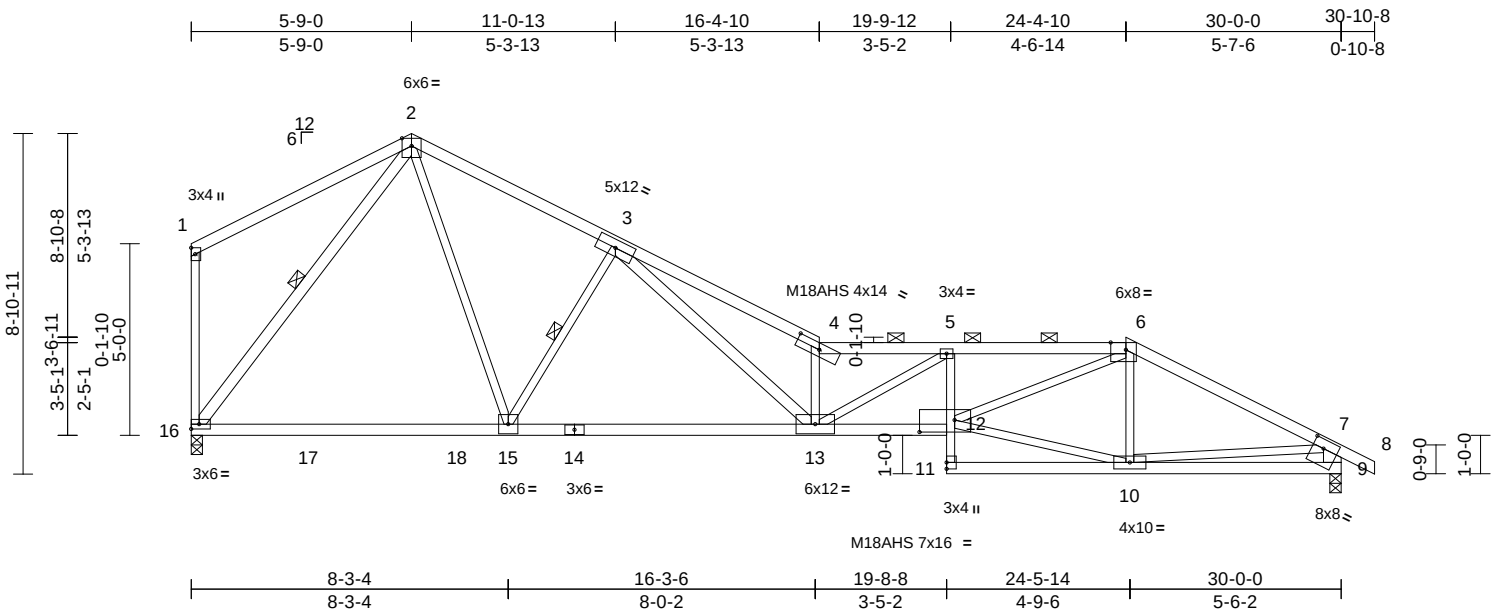

Scale = 1:60.1

Plate Offsets (X, Y): [4:0-7-8,0-2-0], [6:0-4-12,Edge], [9:0-3-8,0-2-12], [12:0-11-0,0-3-12]

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.84	Vert(LL)	-0.42	13	>842	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.97	Vert(CT)	-0.75	13-15	>477	240	M18AHS	142/136
BCLL	0.0*	Rep Stress Incr	YES	WB	1.00	Horz(CT)	0.15	9	n/a	n/a		
BCDL	10.0	Code	IRC2021/TPI2014	Matrix-S		Wind(LL)	0.30	12-13	>999	240	Weight: 127 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* 13-3,16-2:2x4 SPF No.2, 9-7:2x6 SPF No.2

BRACING

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

BOT CHORD Rigid ceiling directly applied or 2-2-0 oc bracing.

WEBS 1 Row at midpt 3-15, 2-16

REACTIONS (size) 9=0-3-8, 16=0-3-8
Max Horiz 16=-267 (LC 4)
Max Uplift 9=-248 (LC 9), 16=-177 (LC 9)
Max Grav 9=1446 (LC 2), 16=1419 (LC 2)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=-153/112, 2-3=-1590/293, 3-4=-5154/818, 4-5=-4674/689, 5-6=-4607/739, 6-7=-2242/360, 7-8=0/35, 1-16=-198/86, 7-9=-1354/275

BOT CHORD 15-16=0/894, 13-15=-143/1992, 12-13=-627/4661, 11-12=0/84, 5-12=-421/106, 10-11=-13/170, 9-10=-151/496

WEBS 2-15=-230/1578, 3-15=-1312/371, 3-13=-558/3519, 4-13=-2447/462, 5-13=-49/147, 10-12=-239/1840, 6-12=-411/2897, 6-10=-486/138, 2-16=-1393/188, 7-10=-90/1460

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 248 lb uplift at joint 9 and 177 lb uplift at joint 16.
9) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

LOAD CASE(S) Standard

April 23,2024

Job	Truss	Truss Type	Qty	Ply	Lot 180 HT	
B240081	B6	Roof Special	2	1	Job Reference (optional)	I65060065

Wheeler Lumber, Waverly, KS - 66871, Run: 8.73 S Apr 3 2024 Print: 8.730 S Apr 3 2024 MiTek Industries, Inc. Mon Apr 22 08:16:51 Page: 1

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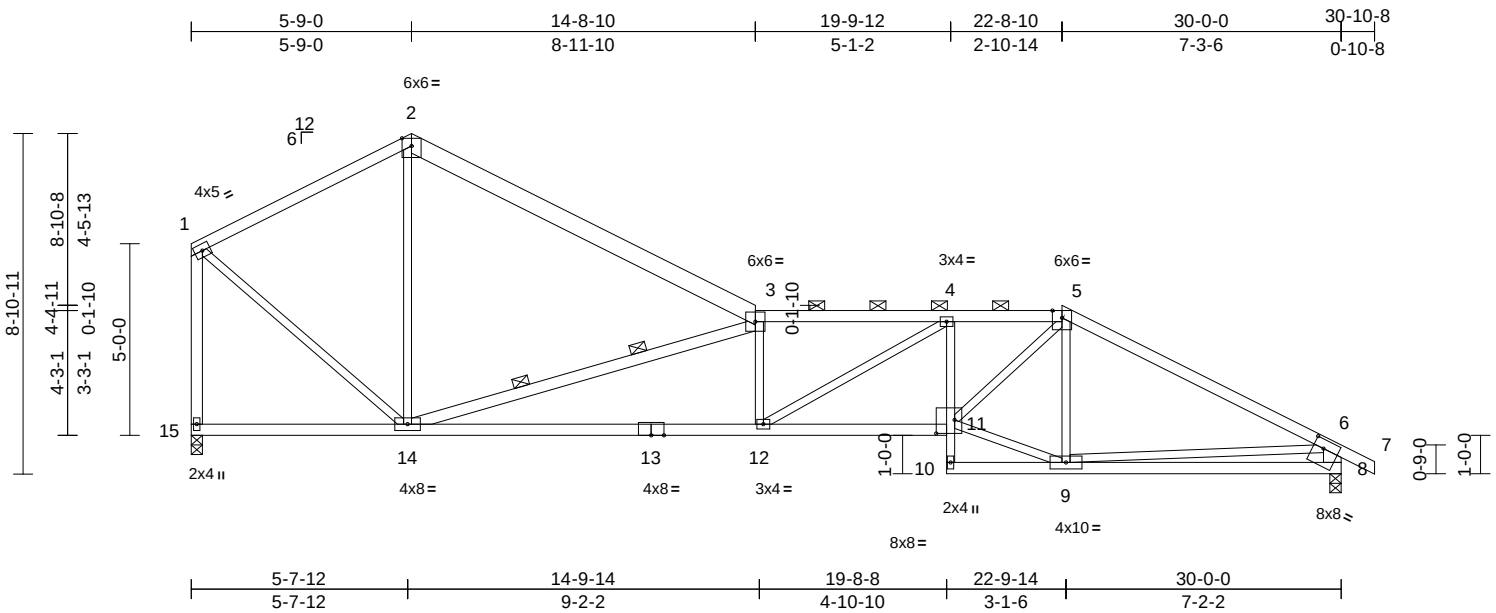

Scale = 1:60.1

Plate Offsets (X, Y): [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	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.75	Vert(LL)	-0.25	11-12	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.94	Vert(CT)	-0.48	12-14	>734	240		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.89	Horz(CT)	0.13	8	n/a	n/a		
BCDL	10.0	Code	IRC2021/TPI2014	Matrix-S		Wind(LL)	0.19	11-12	>999	240	Weight: 133 lb	FT = 10%

LUMBER

TOP CHORD 2x4 SPF No.2 *Except* 2-3:2x6 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* 14-3:2x4 SPF No.2, 15-1:2x4 SP No.2, 8-6:2x6 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 (2-9-2 max.): 3-5.

BOT CHORD Rigid ceiling directly applied or 2-2-0 oc bracing.

WEBS 2 Rows at 1/3 pts 3-14

REACTIONS (size) 8=0-3-8, 15=0-3-8
Max Horiz 15=-267 (LC 4)
Max Uplift 8=-248 (LC 9), 15=-177 (LC 9)
Max Grav 8=1412 (LC 1), 15=1332 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=-1012/214, 2-3=-1077/162, 3-4=-3379/542, 4-5=-3156/546, 5-6=-2145/357, 6-7=0/35, 1-15=-1297/200, 6-8=-1340/288

BOT CHORD 14-15=-69/228, 12-14=-394/3381, 11-12=-401/3184, 10-11=0/20, 4-11=-438/96, 9-10=-15/73, 8-9=-254/763

WEBS 2-14=0/413, 3-14=-2678/543, 3-12=-80/140, 4-12=0/240, 9-11=-219/1886, 5-11=-245/1854, 5-9=-666/155, 1-14=-136/1091, 6-9=-42/1051

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 15 SPF 2100F 1.8E , Joint 8 SPF No.2 .
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 177 lb uplift at joint 15 and 248 lb uplift at joint 8.
8) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

LOAD CASE(S) Standard

April 23,2024

Job	Truss	Truss Type	Qty	Ply	Lot 180 HT	
B240081	B7	Roof Special	2	1	Job Reference (optional)	I65060066

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.73 S Apr 3 2024 Print: 8.730 S Apr 3 2024 MiTek Industries, Inc. Mon Apr 22 08:16:51 Page: 1
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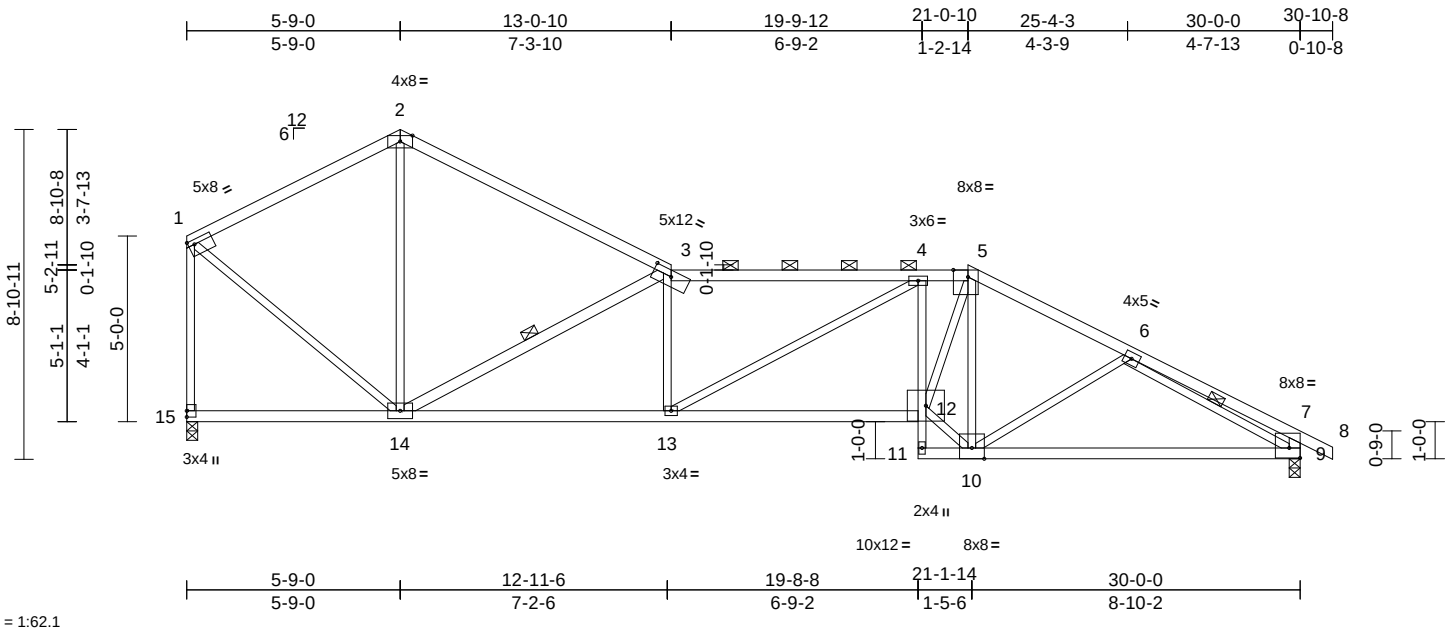

Scale = 1:62.1

Plate Offsets (X, Y): [1:0-2-0,0-1-8], [3:0-6-0,0-2-1], [5:0-4-12,Edge], [7: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	0.92	Vert(LL)	-0.19	12-13	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.75	Vert(CT)	-0.39	12-13	>921	240		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.80	Horz(CT)	0.14	9	n/a	n/a		
BCDL	10.0	Code	IRC2021/TPI2014	Matrix-S		Wind(LL)	0.14	12-13	>999	240	Weight: 126 lb	FT = 10%

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

BRACING
TOP CHORD Structural wood sheathing directly applied, except end verticals, and 2-0-0 oc purlins (4-1-11 max.): 3-5.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing, Except:
6-0-0 oc bracing: 10-11.
WEBS 1 Row at midpt 3-14, 6-9

REACTIONS (size) 9=0-3-8, 15=0-3-8
Max Horiz 15=-267 (LC 4)
Max Uplift 9=-247 (LC 9), 15=-177 (LC 9)
Max Grav 9=1411 (LC 1), 15=1338 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-1002/222, 2-3=-1061/185, 3-4=-2607/440, 4-5=-2533/472, 5-6=-2014/362, 6-7=-601/110, 7-8=0/32, 1-15=-1291/207, 7-9=-481/130
BOT CHORD 14-15=-67/228, 13-14=-251/2606, 12-13=-289/2556, 11-12=-182/0, 4-12=-528/204, 10-11=-33/58, 9-10=-296/1840
WEBS 2-14=-24/435, 3-14=-1994/417, 3-13=0/213, 4-13=-7/82, 10-12=-189/2336, 5-12=-343/2308, 5-10=-1334/186, 1-14=-142/1085, 6-9=-1614/309, 6-10=-115/151

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 177 lb uplift at joint 15 and 247 lb uplift at joint 9.
8) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

LOAD CASE(S) Standard

April 23,2024

Job	Truss	Truss Type	Qty	Ply	Lot 180 HT	
B240081	B8	Roof Special	2	1	Job Reference (optional)	I65060067

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.73 S Apr 3 2024 Print: 8.730 S Apr 3 2024 MiTek Industries, Inc. Mon Apr 22 08:16:51 Page: 1
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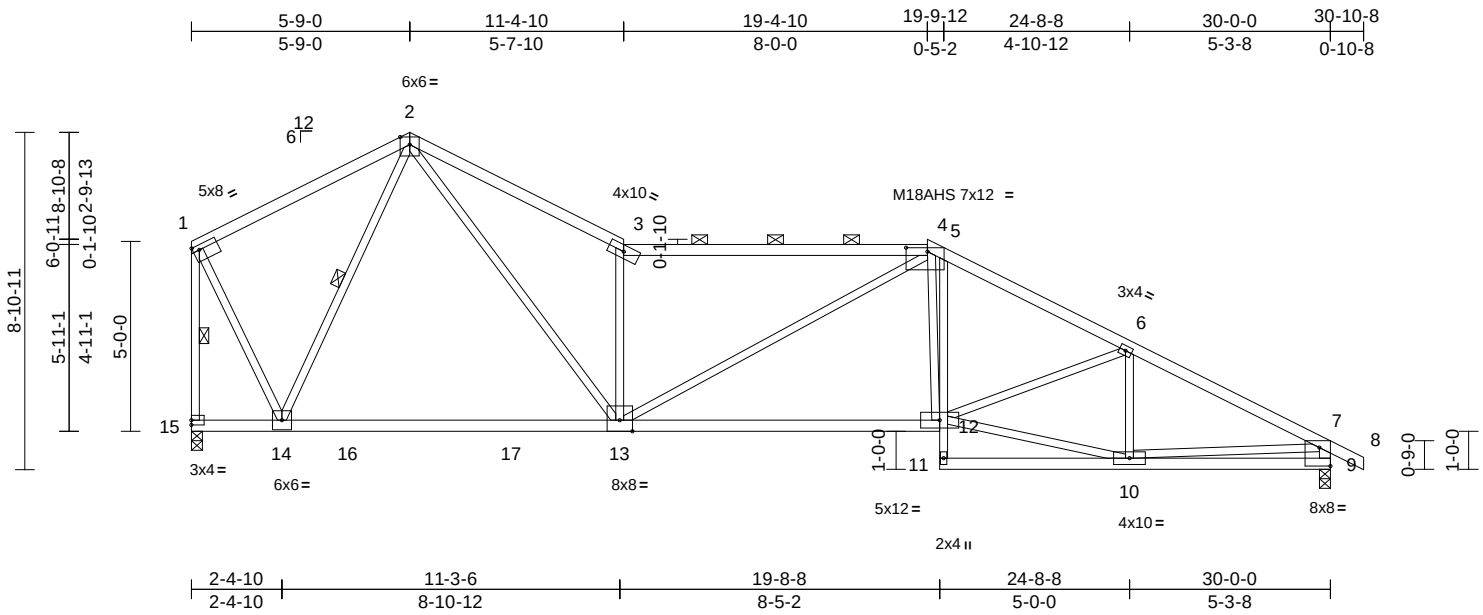

Scale = 1:60.7

Plate Offsets (X, Y): [1:0-2-0,0-1-8], [4:0-6-12,0-1-4], [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	0.82	Vert(LL)	-0.26	13-14	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.98	Vert(CT)	-0.47	12-13	>758	240	M18AHS	142/136
BCLL	0.0*	Rep Stress Incr	YES	WB	0.87	Horz(CT)	0.08	9	n/a	n/a		
BCDL	10.0	Code	IRC2021/TPI2014	Matrix-S		Wind(LL)	0.13	12-13	>999	240	Weight: 128 lb	FT = 10%

LUMBER
TOP CHORD 2x4 SPF No.2 *Except* 3-4:2x4 SPF 2100F 1.8E
BOT CHORD 2x4 SPF No.2 *Except* 5-11:2x3 SPF No.2
WEBS 2x3 SPF No.2 *Except* 9-7:2x4 SPF No.2

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

REACTIONS (size) 9=0-3-8, 15=0-3-8
Max Horiz 15=-267 (LC 4)
Max Uplift 9=-247 (LC 9), 15=-177 (LC 9)
Max Grav 9=1449 (LC 2), 15=1426 (LC 2)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-657/151, 2-3=-2498/474, 3-4=-2191/357, 4-5=-2148/406, 5-6=-2377/409, 6-7=-2261/371, 7-8=0/32, 1-15=-1489/175, 7-9=-1352/271
BOT CHORD 14-15=-69/226, 13-14=0/898, 12-13=-188/2063, 11-12=0/90, 5-12=-153/330, 10-11=-29/44, 9-10=-115/471
WEBS 2-14=-868/180, 2-13=-400/2201, 3-13=-1507/409, 4-13=-3/185, 4-12=0/366, 10-12=-233/1964, 6-12=-53/153, 6-10=-432/135, 1-14=-95/1195, 7-10=-142/1491

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 177 lb uplift at joint 15 and 247 lb uplift at joint 9.
9) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

LOAD CASE(S) Standard

April 23,2024

Job	Truss	Truss Type	Qty	Ply	Lot 180 HT	
B240081	B9	Roof Special	1	1	Job Reference (optional)	I65060068

Wheeler Lumber, Waverly, KS - 66871, Run: 8.73 S Apr 3 2024 Print: 8.730 S Apr 3 2024 MiTek Industries, Inc. Mon Apr 22 08:16:51 Page: 1

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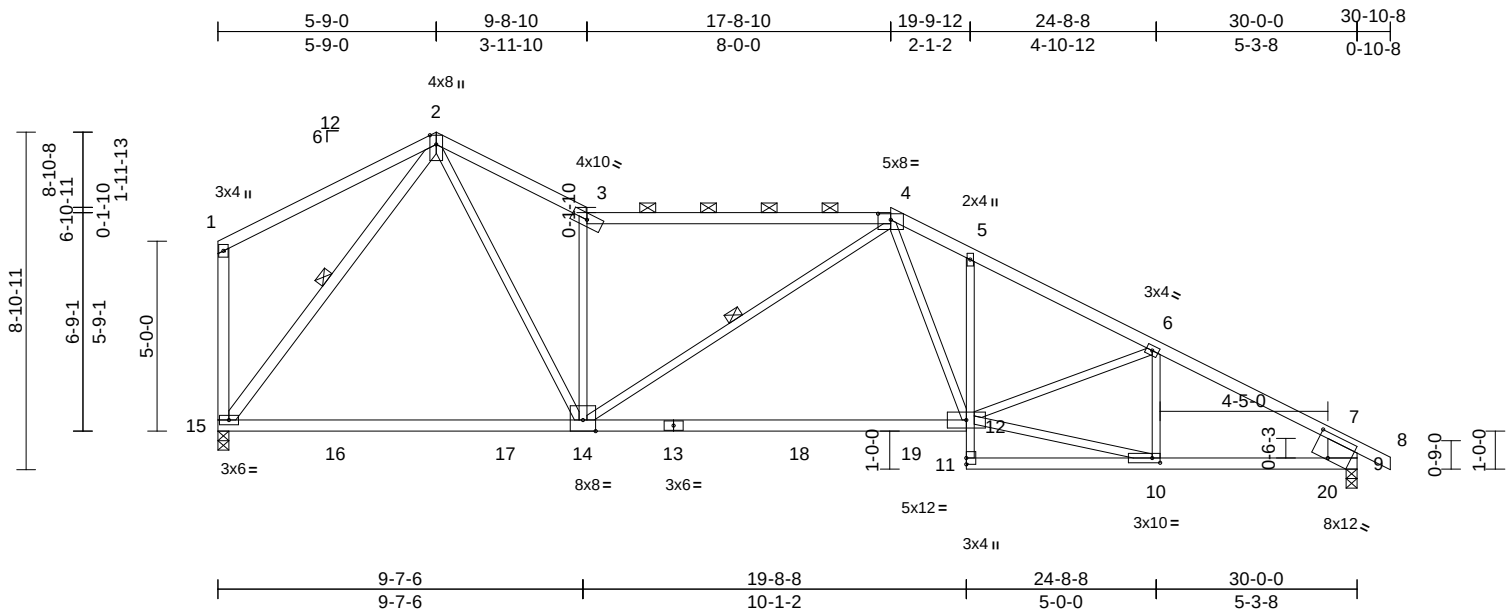

Scale = 1:60.7

Plate Offsets (X, Y): [4:0-4-0,0-1-15], [9:0-5-6,0-7-6], [10:0-2-8,0-1-8]

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)	-0.38	12-14	>925	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.90	Vert(CT)	-0.72	12-14	>488	240		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.97	Horz(CT)	0.08	9	n/a	n/a		
BCDL	10.0	Code	IRC2021/TPI2014	Matrix-S		Wind(LL)	0.12	12-14	>999	240	Weight: 130 lb	FT = 10%

LUMBER

TOP CHORD 2x4 SPF No.2 *Except* 3-4:2x4 SPF 2100F 1.8E, 4-8:2x4 SPF 2400F 2.0E

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

WEBS 2x3 SPF No.2 *Except* 15-2:2x4 SPF No.2, 15-1:2x4 SP No.2, 9-7:2x10 SP 2400F 2.0E

BRACING

TOP CHORD Structural wood sheathing directly applied, except end verticals, and 2-0-0 oc purlins (3-11-15 max.): 3-4.

BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing, Except:
6-0-0 oc bracing: 10-11.

WEBS 1 Row at midpt 2-15, 4-14

REACTIONS (size) 9=0-3-8, 15=0-3-8
Max Horiz 15=-269 (LC 4)
Max Uplift 9=-250 (LC 9), 15=-176 (LC 9)
Max Grav 9=1468 (LC 2), 15=1436 (LC 2)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=-173/113, 2-3=-2018/381, 3-4=-1767/290, 4-5=-2327/443, 5-6=-2357/392, 6-7=-2136/349, 7-8=0/39, 1-15=-210/91, 7-9=-1288/263

BOT CHORD 14-15=0/894, 12-14=-137/1828, 11-12=0/117, 5-12=-201/99, 10-11=-67/33, 9-10=-230/1780

WEBS 2-15=-1364/188, 2-14=-315/1962, 3-14=-1244/349, 4-14=-180/121, 4-12=-96/781, 10-12=-192/1835, 6-12=-28/343, 6-10=-371/125

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 2100F 1.8E .
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 250 lb uplift at joint 9 and 176 lb uplift at joint 15.
8) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

LOAD CASE(S) Standard

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

April 23,2024

Job	Truss	Truss Type	Qty	Ply	Lot 180 HT	
B240081	C1	Half Hip Girder	1	1	Job Reference (optional)	I65060069

Wheeler Lumber, Waverly, KS - 66871, Run: 8.73 S Apr 3 2024 Print: 8.730 S Apr 3 2024 MiTek Industries, Inc. Mon Apr 22 08:16:51 Page: 1

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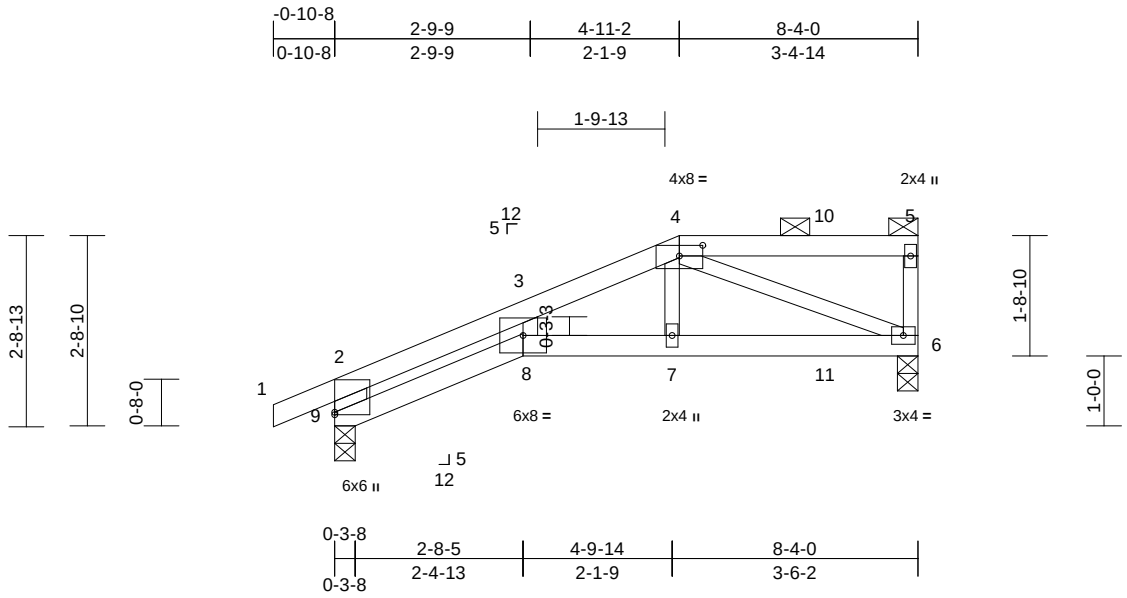

Scale = 1:32.9

Plate Offsets (X, Y): [4:0-4-0,0-1-13]

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	0.84	Vert(LL)	-0.09	8	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.64	Vert(CT)	-0.15	7-8	>632	240		
BCLL	0.0*	Rep Stress Incr	NO	WB	0.36	Horz(CT)	0.08	6	n/a	n/a		
BCDL	10.0	Code	IRC2021/TPI2014	Matrix-S		Wind(LL)	0.08	8	>999	240	Weight: 27 lb	FT = 10%

LUMBER

TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
WEBS 2x3 SPF No.2 *Except* 9-2:2x6 SP 2400F 2.0E

BRACING

TOP CHORD Structural wood sheathing directly applied or 3-11-13 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, 9=0-3-8
Max Horiz 9=97 (LC 22)
Max Uplift 6=-150 (LC 5), 9=-128 (LC 8)
Max Grav 6=575 (LC 1), 9=573 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 2-9=-845/220, 1-2=0/30, 2-3=-1251/278, 3-4=-1034/272, 4-5=-49/25, 5-6=-134/70
BOT CHORD 8-9=-299/1080, 7-8=-270/984, 6-7=-267/955
WEBS 3-8=-53/265, 4-7=-50/388, 4-6=-1000/281

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) Bearing at joint(s) 9 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 128 lb uplift at joint 9 and 150 lb uplift at joint 6.
8) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
9) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 81 lb down and 67 lb up at 4-11-2, and 86 lb down and 66 lb up at 7-0-0 on top chord, and 237 lb down and 64 lb up at 4-11-2, and 30 lb down at 7-0-0 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, 4-5=-70, 8-9=-20, 6-8=-20
Concentrated Loads (lb)
Vert: 7=-237 (B), 4=-45 (B), 10=-45 (B), 11=-23 (B)

April 23,2024

Job	Truss	Truss Type	Qty	Ply	Lot 180 HT	
B240081	C2	Half Hip	1	1	Job Reference (optional)	I65060070

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.73 S Apr 3 2024 Print: 8.730 S Apr 3 2024 MiTek Industries, Inc. Mon Apr 22 08:16:52 Page: 1
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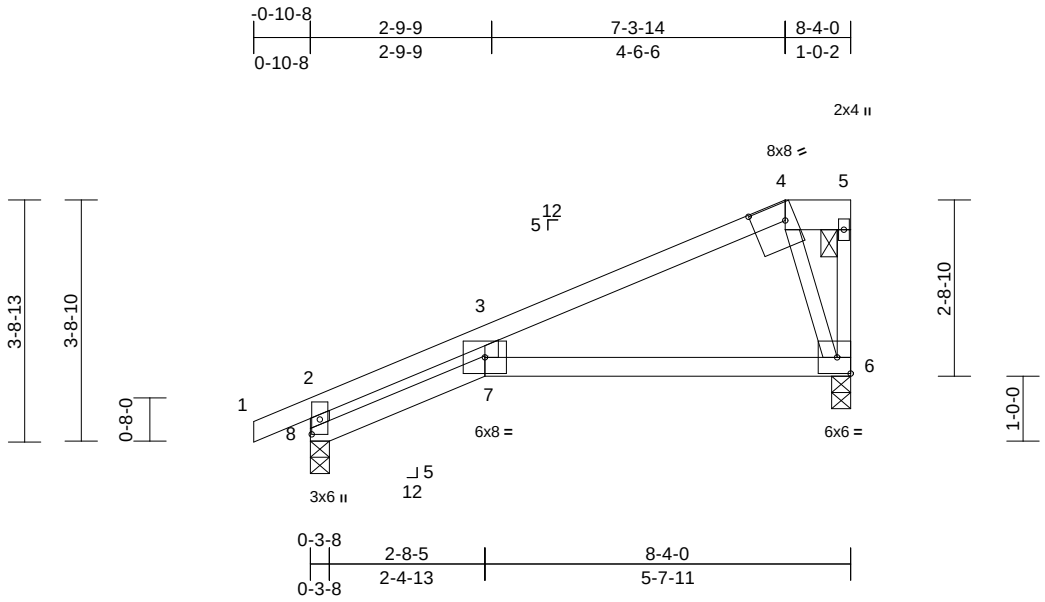

Scale = 1:35.5

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

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	0.76	Vert(LL)	-0.20	6-7	>486	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.45	Vert(CT)	-0.37	6-7	>262	240		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.11	Horz(CT)	0.15	6	n/a	n/a		
BCDL	10.0	Code	IRC2021/TPI2014	Matrix-S		Wind(LL)	0.20	6-7	>478	240	Weight: 26 lb	FT = 10%

LUMBER
TOP CHORD 2x4 SPF No.2 *Except* 4-5:2x6 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, 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, 8=0-3-8
Max Horiz 8=137 (LC 5)
Max Uplift 6=-68 (LC 8), 8=-76 (LC 8)
Max Grav 6=359 (LC 1), 8=440 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 2-8=-439/83, 1-2=0/27, 2-3=-359/0, 3-4=-241/58, 4-5=-49/25, 5-6=-83/223
BOT CHORD 7-8=-63/237, 6-7=-66/223
WEBS 3-7=0/172, 4-6=-518/182

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) 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.
8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 76 lb uplift at joint 8 and 68 lb uplift at joint 6.
9) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

LOAD CASE(S) Standard

April 23,2024

Job	Truss	Truss Type	Qty	Ply	Lot 180 HT	
B240081	C3	Monopitch	2	1	Job Reference (optional)	I65060071

Wheeler Lumber, Waverly, KS - 66871,

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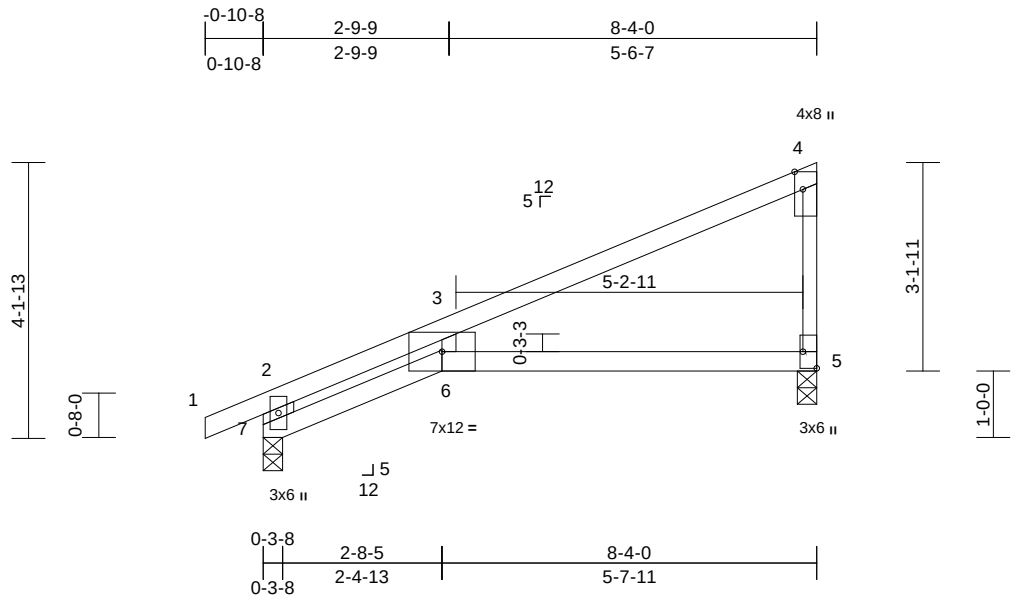

Scale = 1:34.7

Plate Offsets (X, Y): [4:0-3-3,Edge], [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)	-0.22	5-6	>437	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.37	Vert(CT)	-0.39	5-6	>246	240		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.04	Horz(CT)	0.16	5	n/a	n/a		
BCDL	10.0	Code	IRC2021/TPI2014	Matrix-R		Wind(LL)	0.22	5-6	>429	240	Weight: 24 lb	FT = 10%

LUMBER
TOP CHORD 2x4 SPF 2100F 1.8E
BOT CHORD 2x4 SPF 2100F 1.8E
WEBS 2x3 SPF No.2 *Except* 7-2:2x6 SPF No.2

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

REACTIONS (size) 5=0-3-8, 7=0-3-8
Max Horiz 7=157 (LC 5)
Max Uplift 5=-85 (LC 8), 7=-74 (LC 8)
Max Grav 5=355 (LC 1), 7=443 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 2-7=-347/45, 1-2=0/30, 2-3=-192/0, 3-4=-131/17, 4-5=-238/97
BOT CHORD 6-7=-28/82, 5-6=-36/80
WEBS 3-6=-54/116

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 2100F 1.8E .
5) Bearing at joint(s) 7 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 74 lb uplift at joint 7 and 85 lb uplift at joint 5.

LOAD CASE(S) Standard

April 23,2024

Job	Truss	Truss Type	Qty	Ply	Lot 180 HT	
B240081	C4	Roof Special	1	1	Job Reference (optional)	I65060072

Wheeler Lumber, Waverly, KS - 66871,

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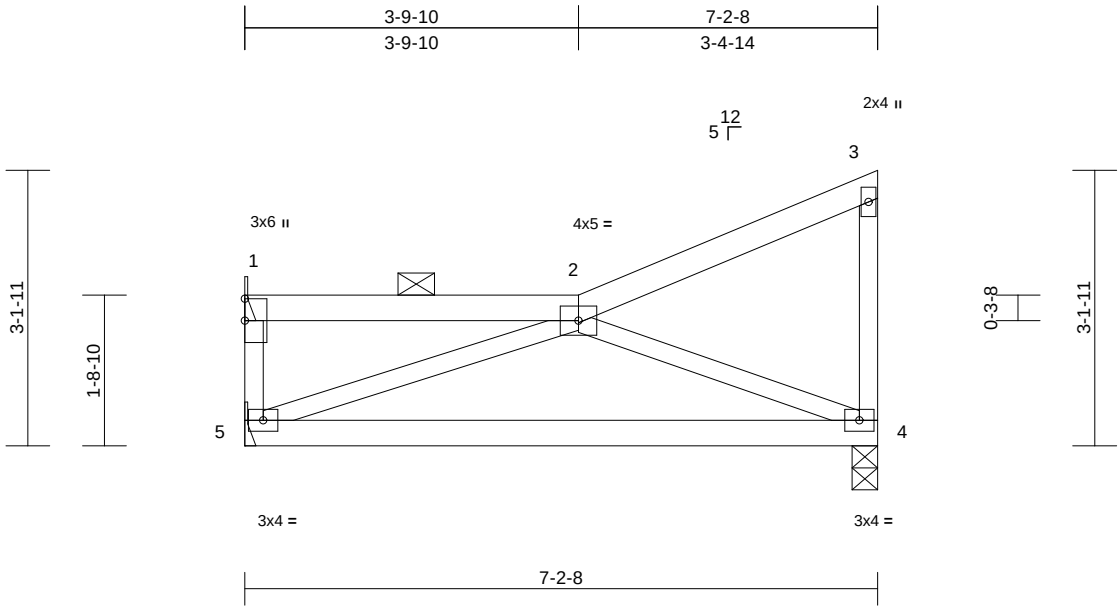

Scale = 1:26.3

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	0.26	Vert(LL)	-0.14	4-5	>583	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.56	Vert(CT)	-0.29	4-5	>292	240		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.14	Horz(CT)	0.00	4	n/a	n/a		
BCDL	10.0	Code	IRC2021/TPI2014	Matrix-P							Weight: 26 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 7-2-8 oc purlins, except end verticals, and 2-0-0 oc purlins: 1-2.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (size) 1= Mechanical, 4=0-3-8, 5= Mechanical
Max Horiz 5=114 (LC 5)
Max Uplift 1=-53 (LC 4), 4=-62 (LC 8), 5=-2 (LC 8)
Max Grav 1=129 (LC 1), 4=315 (LC 1), 5=186 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-5=0/0, 1-2=-20/15, 2-3=-70/35, 3-4=-116/48
BOT CHORD 4-5=-104/301
WEBS 2-5=-322/122, 2-4=-328/144

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 2 lb uplift at joint 5, 53 lb uplift at joint 1 and 62 lb uplift at joint 4.
8) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
9) Gap between inside of top chord bearing and first diagonal or vertical web shall not exceed 0.500in.

LOAD CASE(S) Standard

April 23,2024

Job	Truss	Truss Type	Qty	Ply	Lot 180 HT	
B240081	D1	Hip Girder	1	1	Job Reference (optional)	I65060073

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.73 S Apr 3 2024 Print: 8.730 S Apr 3 2024 MiTek Industries, Inc. Mon Apr 22 08:16:52 Page: 1
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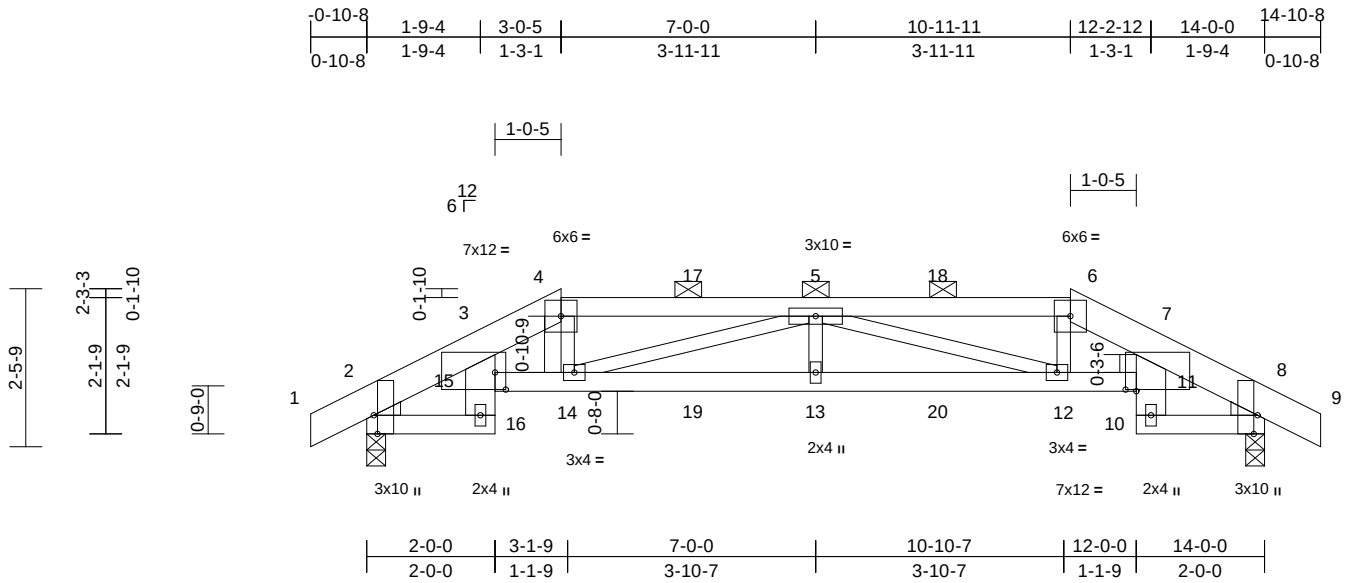

Scale = 1:35.9

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

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.41	Vert(LL)	-0.11	13	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.85	Vert(CT)	-0.20	13	>816	240		
BCLL	0.0*	Rep Stress Incr	NO	WB	0.35	Horz(CT)	0.11	8	n/a	n/a		
BCDL	10.0	Code	IRC2021/TPI2014	Matrix-S		Wind(LL)	0.10	13	>999	240	Weight: 55 lb	FT = 10%

LUMBER
TOP CHORD 2x6 SPF No.2 *Except* 4-6:2x4 SPF No.2
BOT CHORD 2x4 SPF No.2 *Except* 16-3,7-10:2x6 SP 2400F 2.0E
WEBS 2x3 SPF No.2
WEDGE Left: 2x3 SPF No.2
Right: 2x3 SPF No.2

BRACING
TOP CHORD Structural wood sheathing directly applied or 4-10-3 oc purlins, except
2-0-0 oc purlins (3-9-1 max.): 4-6.
BOT CHORD Rigid ceiling directly applied or 6-11-13 oc bracing.

REACTIONS (size) 2=0-3-8, 8=0-3-8
Max Horiz 2=34 (LC 12)
Max Uplift 2=-233 (LC 8), 8=-233 (LC 9)
Max Grav 2=1002 (LC 1), 8=1002 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/6, 2-3=-1293/310, 3-4=-2164/567, 4-5=-2050/543, 5-6=-2050/530, 6-7=-2164/554, 7-8=-1293/312, 8-9=0/6
BOT CHORD 2-16=-228/914, 15-16=0/46, 3-15=-17/19, 14-15=-508/2000, 13-14=-718/2816, 12-13=-718/2816, 11-12=-477/2000, 10-11=0/46, 7-11=-17/18, 8-10=-208/914
WEBS 4-14=-124/571, 6-12=-125/571, 5-13=0/174, 5-14=-834/242, 5-12=-834/241

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 2 and 233 lb uplift at joint 8.
8) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
9) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 74 lb down and 47 lb up at 3-0-5, 81 lb down and 46 lb up at 5-1-1, 81 lb down and 46 lb up at 7-0-0, and 81 lb down and 46 lb up at 8-10-15, and 74 lb down and 47 lb up at 10-11-11 on top chord, and 183 lb down and 72 lb up at 3-0-5, 33 lb down and 17 lb up at 5-1-1, 33 lb down and 17 lb up at 7-0-0, and 33 lb down and 17 lb up at 8-10-15, and 183 lb down and 72 lb up at 10-10-3 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: 1-4=-70, 4-6=-70, 6-9=-70, 2-16=-20, 11-15=-20, 8-10=-20
Concentrated Loads (lb)
Vert: 4=-33 (B), 6=-33 (B), 14=-183 (B), 12=-183 (B), 5=-33 (B), 13=-33 (B), 17=-33 (B), 18=-33 (B), 19=-33 (B), 20=-33 (B)

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

April 23,2024

Job	Truss	Truss Type	Qty	Ply	Lot 180 HT	
B240081	D2	Hip	1	1	Job Reference (optional)	I65060074

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.73 S Apr 3 2024 Print: 8.730 S Apr 3 2024 MiTek Industries, Inc. Mon Apr 22 08:16:52 Page: 1
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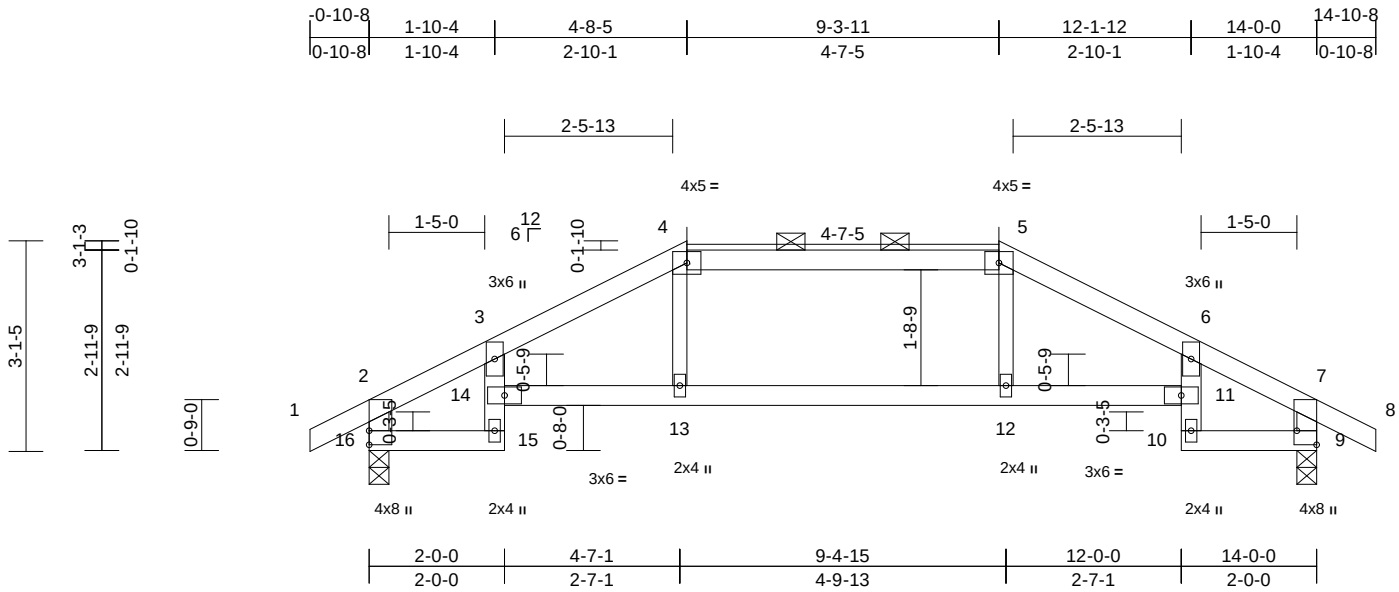

Scale = 1:34

Plate Offsets (X, Y): [9: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	0.39	Vert(LL)	-0.10	11-12	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.58	Vert(CT)	-0.14	11-12	>999	240		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.06	Horz(CT)	0.09	9	n/a	n/a		
BCDL	10.0	Code	IRC2021/TPI2014	Matrix-R		Wind(LL)	0.07	13-14	>999	240	Weight: 42 lb	FT = 10%

LUMBER
TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
WEBS 2x4 SPF No.2 *Except* 13-4,12-5:2x3 SPF No.2

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

REACTIONS (size) 9=0-3-8, 16=0-3-8
Max Horiz 16=-55 (LC 6)
Max Uplift 9=-81 (LC 9), 16=-81 (LC 8)
Max Grav 9=688 (LC 1), 16=688 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/32, 2-3=-702/62, 3-4=-1069/71, 4-5=-952/82, 5-6=-1069/85, 6-7=-702/63, 7-8=0/32, 2-16=-629/91, 7-9=-629/88
BOT CHORD 15-16=-47/506, 14-15=-25/16, 3-14=-54/35, 13-14=-48/959, 12-13=-51/952, 11-12=-49/959, 10-11=-25/13, 6-11=-54/35, 9-10=-18/506
WEBS 4-13=0/203, 5-12=0/203

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 81 lb uplift at joint 16 and 81 lb uplift at joint 9.
8) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

LOAD CASE(S) Standard

April 23,2024

Job	Truss	Truss Type	Qty	Ply	Lot 180 HT	
B240081	D3	Hip	1	1	Job Reference (optional)	I65060075

Wheeler Lumber, Waverly, KS - 66871,

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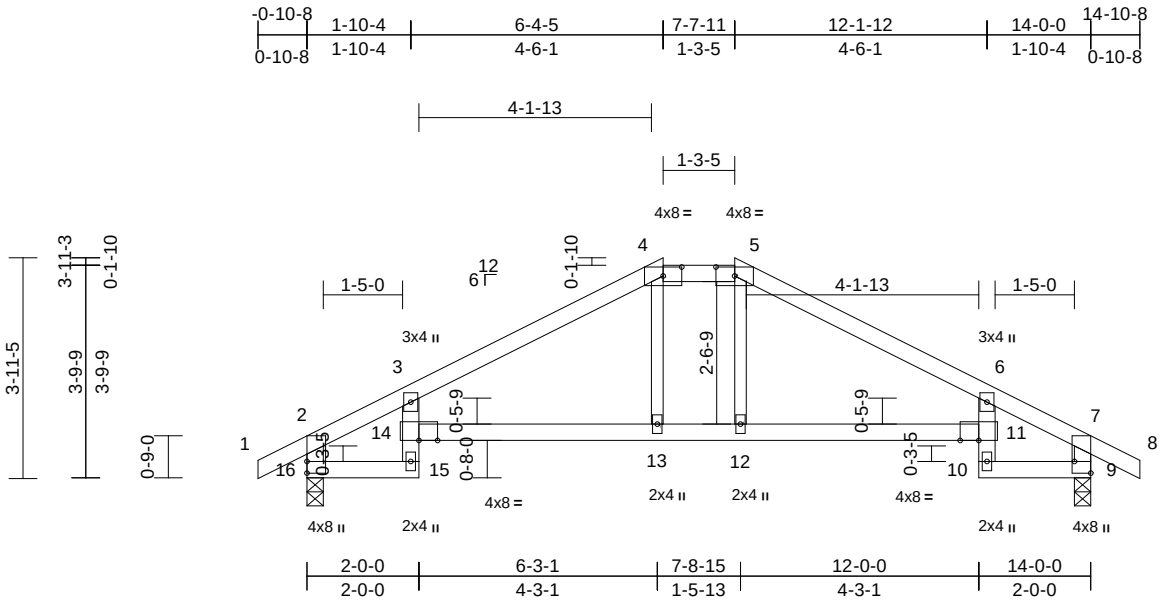

Scale = 1:41.2

Plate Offsets (X, Y): [4:0-4-0,0-1-15], [5:0-4-0,0-1-15], [9: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	0.56	Vert(LL)	-0.13	11-12	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.59	Vert(CT)	-0.22	11-12	>764	240		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.06	Horz(CT)	0.15	9	n/a	n/a		
BCDL	10.0	Code	IRC2021/TPI2014	Matrix-R		Wind(LL)	0.11	13-14	>999	240	Weight: 44 lb	FT = 10%

LUMBER

TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
WEBS 2x4 SPF No.2 *Except* 13-4,12-5:2x3 SPF No.2

BRACING

TOP CHORD Structural wood sheathing directly applied or 4-10-7 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) 9=0-3-8, 16=0-3-8
Max Horiz 16=65 (LC 7)
Max Uplift 9=-95 (LC 9), 16=-95 (LC 8)
Max Grav 9=688 (LC 1), 16=688 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/32, 2-3=-699/84, 3-4=-923/95, 4-5=-799/114, 5-6=-923/109, 6-7=-699/85, 7-8=0/32, 2-16=-627/103, 7-9=-627/99
BOT CHORD 15-16=-79/504, 14-15=-27/20, 3-14=-53/54, 13-14=-22/804, 12-13=-24/799, 11-12=-24/804, 10-11=-27/17, 6-11=-53/55, 9-10=-37/504
WEBS 4-13=-1/170, 5-12=-4/170

NOTES

1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=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 95 lb uplift at joint 16 and 95 lb uplift at joint 9.
8) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

LOAD CASE(S) Standard

April 23,2024

Job	Truss	Truss Type	Qty	Ply	Lot 180 HT	
B240081	D4	Roof Special	2	1	Job Reference (optional)	I65060076

Wheeler Lumber, Waverly, KS - 66871,

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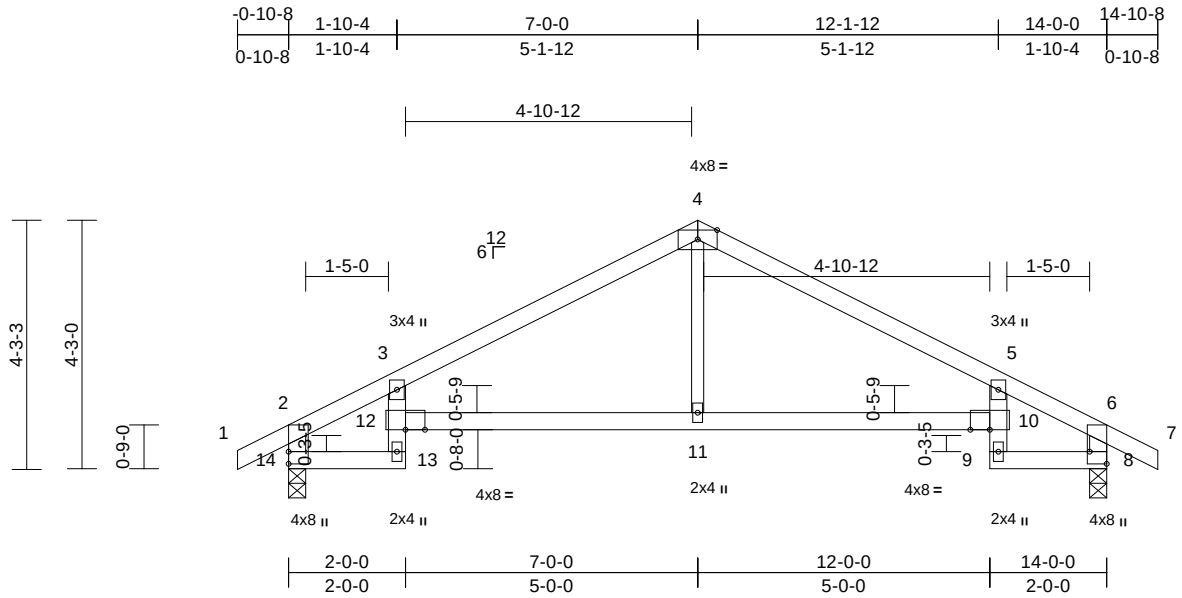

Scale = 1:39.4

Plate Offsets (X, Y): [8: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	0.64	Vert(LL)	-0.14	10-11	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.67	Vert(CT)	-0.24	10-11	>694	240		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.10	Horz(CT)	0.18	8	n/a	n/a		
BCDL	10.0	Code	IRC2021/TPI2014	Matrix-R		Wind(LL)	0.13	11-12	>999	240	Weight: 42 lb	FT = 10%

LUMBER
TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
WEBS 2x4 SPF No.2 *Except* 11-4:2x3 SPF No.2

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

REACTIONS (size) 8=0-3-8, 14=0-3-8
Max Horiz 14=-70 (LC 6)
Max Uplift 8=-99 (LC 9), 14=-99 (LC 8)
Max Grav 8=688 (LC 1), 14=688 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/32, 2-3=-699/91, 3-4=-888/108, 4-5=-888/123, 5-6=-699/92, 6-7=0/32, 2-14=-626/106, 6-8=-626/101
BOT CHORD 13-14=-93/504, 12-13=-29/21, 3-12=-60/64, 11-12=-32/764, 10-11=-32/764, 9-10=-29/19, 5-10=-60/66, 8-9=-44/504
WEBS 4-11=0/325

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 99 lb uplift at joint 14 and 99 lb uplift at joint 8.

LOAD CASE(S) Standard

April 23,2024

Job	Truss	Truss Type	Qty	Ply	Lot 180 HT	
B240081	D5	Common	1	1	Job Reference (optional)	I65060077

Wheeler Lumber, Waverly, KS - 66871,

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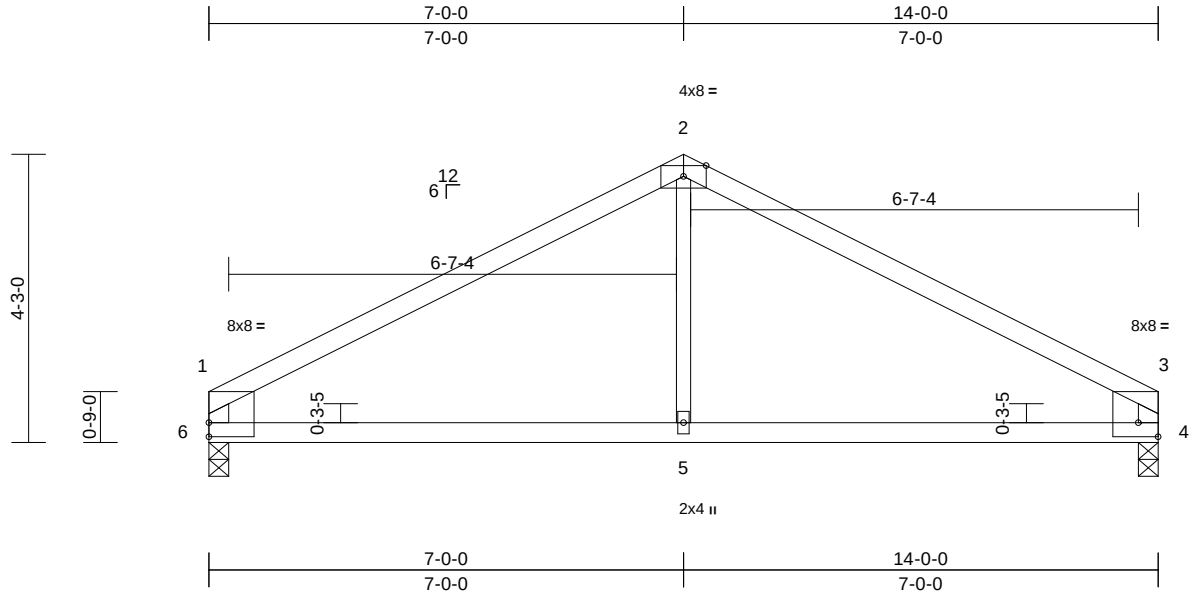

Scale = 1:34

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

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.69	Vert(LL)	-0.05	4-5	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.35	Vert(CT)	-0.10	4-5	>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	IRC2021/TPI2014	Matrix-R		Wind(LL)	0.02	5-6	>999	240	Weight: 38 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

BRACING
TOP CHORD Structural wood sheathing directly applied or 4-10-1 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=-64 (LC 4)
Max Uplift 4=-75 (LC 9), 6=-75 (LC 8)
Max Grav 4=617 (LC 1), 6=617 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-773/105, 2-3=-773/104, 1-6=-543/120, 3-4=-543/120
BOT CHORD 5-6=-30/592, 4-5=-30/592
WEBS 2-5=0/285

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) The Fabrication Tolerance at joint 1 = 6%, joint 3 = 6%, joint 1 = 6%, joint 3 = 6%
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 75 lb uplift at joint 6 and 75 lb uplift at joint 4.

LOAD CASE(S) Standard

April 23,2024

Job	Truss	Truss Type	Qty	Ply	Lot 180 HT	
B240081	J1	Diagonal Hip Girder	1	1	Job Reference (optional)	I65060078

Wheeler Lumber, Waverly, KS - 66871,

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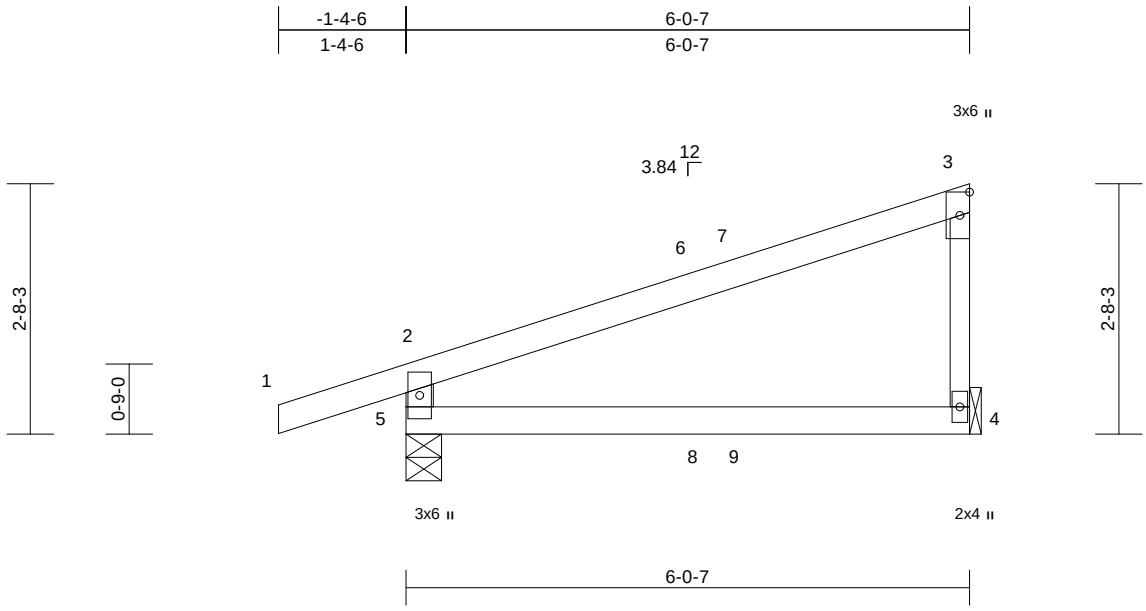

Scale = 1:24.7

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.49	Vert(LL)	-0.04	4-5	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.30	Vert(CT)	-0.09	4-5	>745	240		
BCLL	0.0*	Rep Stress Incr	NO	WB	0.00	Horz(CT)	0.00	4	n/a	n/a		
BCDL	10.0	Code	IRC2021/TPI2014	Matrix-R		Wind(LL)	0.02	4-5	>999	240	Weight: 18 lb	FT = 10%

LUMBER
TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
WEBS 2x4 SPF No.2 *Except* 3-4:2x3 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=112 (LC 7)
Max Uplift 4=-54 (LC 8), 5=-112 (LC 4)
Max Grav 4=247 (LC 1), 5=381 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 2-5=-335/154, 1-2=0/32, 2-3=-145/15, 3-4=-176/79
BOT CHORD 4-5=-31/53

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 54 lb uplift at joint 4.
7) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 78 lb down and 46 lb up at 3-0-14, and 67 lb down and 43 lb up at 3-6-3 on top chord, and 6 lb down at 3-0-14, and 6 lb down at 3-6-3 on bottom chord. The design/ selection of such connection device(s) is the responsibility of others.
8) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

LOAD CASE(S) Standard
1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (lb/ft)
Vert: 1-2=-70, 2-3=-70, 4-5=-20
Concentrated Loads (lb)
Vert: 8=-1 (F), 9=0 (B)

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

April 23,2024

Job	Truss	Truss Type	Qty	Ply	Lot 180 HT	
B240081	J2	Jack-Open	1	1	Job Reference (optional)	I65060079

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.73 S Apr 3 2024 Print: 8.730 S Apr 3 2024 MiTek Industries, Inc. Mon Apr 22 08:16:53 Page: 1
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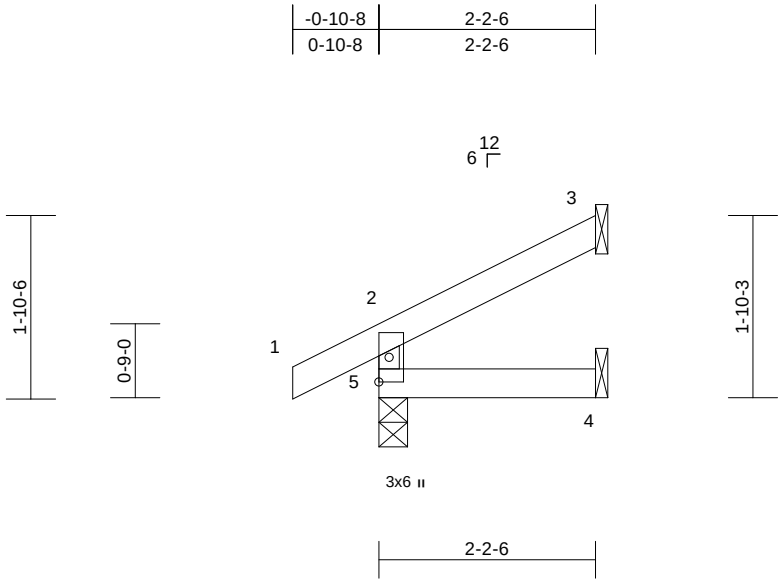

Scale = 1:23.4

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	0.07	Vert(LL)	0.00	4-5	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.03	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	IRC2021/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 2-2-6 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (size) 3= Mechanical, 4= Mechanical, 5=0-3-8
Max Horiz 5=52 (LC 8)
Max Uplift 3=-37 (LC 8), 5=-23 (LC 8)
Max Grav 3=56 (LC 1), 4=38 (LC 3), 5=177 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 2-5=-155/44, 1-2=0/31, 2-3=-42/19
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 37 lb uplift at joint 3.

LOAD CASE(S) Standard

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

April 23,2024

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 BEFORE USE.
Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI1 Quality Criteria, and DSB-22** available from Truss Plate Institute (www.tpinst.org) and **BCSI Building Component Safety Information** available from the Structural Building Component Association (www.sbcscomponents.com)

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

RELEASE FOR CONSTRUCTION
AS NOTED ON PLANS REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
06/12/2024 4:31:43

Job	Truss	Truss Type	Qty	Ply	Lot 180 HT	
B240081	J3	Jack-Closed Girder	1	1	Job Reference (optional)	I65060080

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.73 S Apr 3 2024 Print: 8.730 S Apr 3 2024 MiTek Industries, Inc. Mon Apr 22 08:16:53 Page: 1
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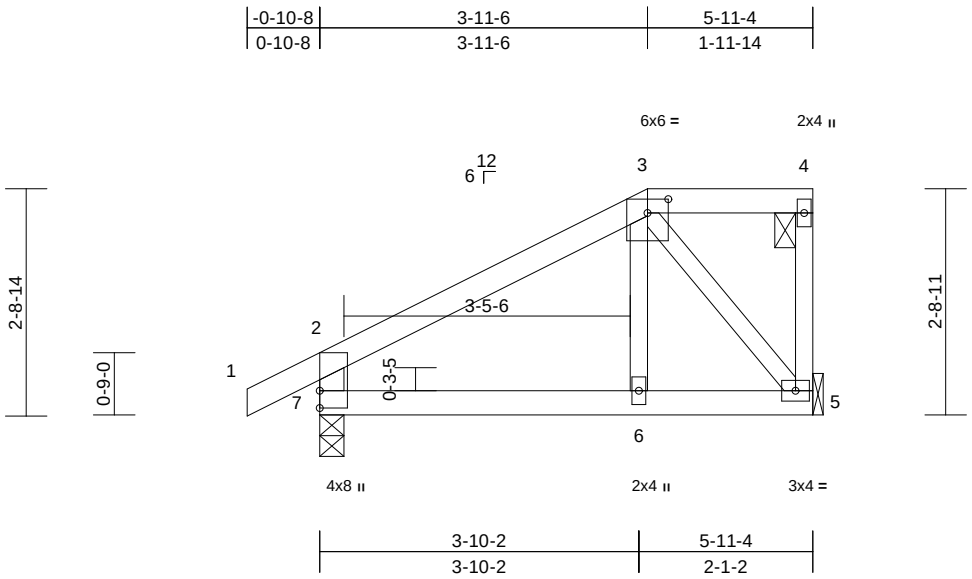

Scale = 1:27.7

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

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.29	Vert(LL)	-0.01	6	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.18	Vert(CT)	-0.01	6-7	>999	240		
BCLL	0.0*	Rep Stress Incr	NO	WB	0.13	Horz(CT)	0.00	5	n/a	n/a		
BCDL	10.0	Code	IRC2021/TPI2014	Matrix-S		Wind(LL)	0.01	6	>999	240	Weight: 21 lb	FT = 10%

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

BRACING
TOP CHORD Structural wood sheathing directly applied or 5-11-4 oc purlins, except end verticals, and 2-0-0 oc purlins: 3-4.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (size) 5= Mechanical, 7=0-3-8
Max Horiz 7=109 (LC 7)
Max Uplift 5=-120 (LC 5), 7=-95 (LC 8)
Max Grav 5=471 (LC 1), 7=451 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 2-7=-396/119, 1-2=0/32, 2-3=-426/91, 3-4=-37/28, 4-5=-60/33
BOT CHORD 6-7=-102/314, 5-6=-102/302
WEBS 3-6=-18/287, 3-5=-483/137

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 95 lb uplift at joint 7 and 120 lb uplift at joint 5.
8) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
9) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 101 lb down and 75 lb up at 3-11-6 on top chord, and 258 lb down and 53 lb up at 3-11-6 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, 2-3=-70, 3-4=-70, 5-7=-20
Concentrated Loads (lb)
Vert: 6=-258 (F), 3=-81 (F)

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

April 23,2024

Job	Truss	Truss Type	Qty	Ply	Lot 180 HT	
B240081	J4	Jack-Closed	1	1	Job Reference (optional)	I65060081

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.73 S Apr 3 2024 Print: 8.730 S Apr 3 2024 MiTek Industries, Inc. Mon Apr 22 08:16:53
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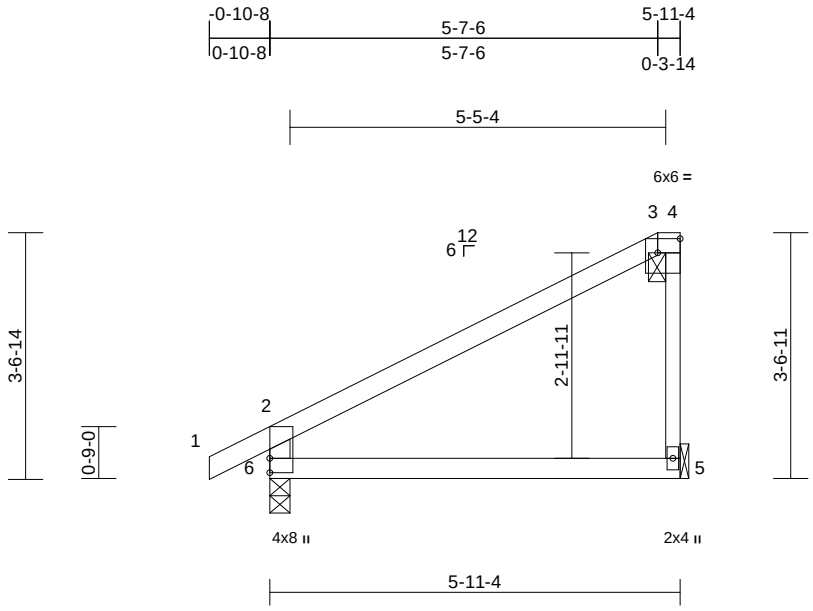

Scale = 1:33.3

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

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.44	Vert(LL)	-0.04	5-6	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.27	Vert(CT)	-0.09	5-6	>738	240		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.00	Horz(CT)	0.00	5	n/a	n/a		
BCDL	10.0	Code	IRC2021/TPI2014	Matrix-R		Wind(LL)	0.03	5-6	>999	240	Weight: 18 lb	FT = 10%

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

BRACING
TOP CHORD Structural wood sheathing directly applied or 5-11-4 oc purlins, except end verticals, and 2-0-0 oc purlins: 3-4.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (size) 5= Mechanical, 6=0-3-8
Max Horiz 6=144 (LC 5)
Max Uplift 5=-61 (LC 8), 6=-54 (LC 8)
Max Grav 5=250 (LC 1), 6=334 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 2-6=-292/101, 1-2=0/32, 2-3=-153/32, 3-4=-57/47, 4-5=-177/83
BOT CHORD 5-6=-42/43

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) Refer to girder(s) for truss to truss connections.
8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 54 lb uplift at joint 6 and 61 lb uplift at joint 5.
9) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

LOAD CASE(S) Standard

April 23,2024

Job	Truss	Truss Type	Qty	Ply	Lot 180 HT	
B240081	J5	Jack-Open	8	1	Job Reference (optional)	I65060082

Wheeler Lumber, Waverly, KS - 66871,

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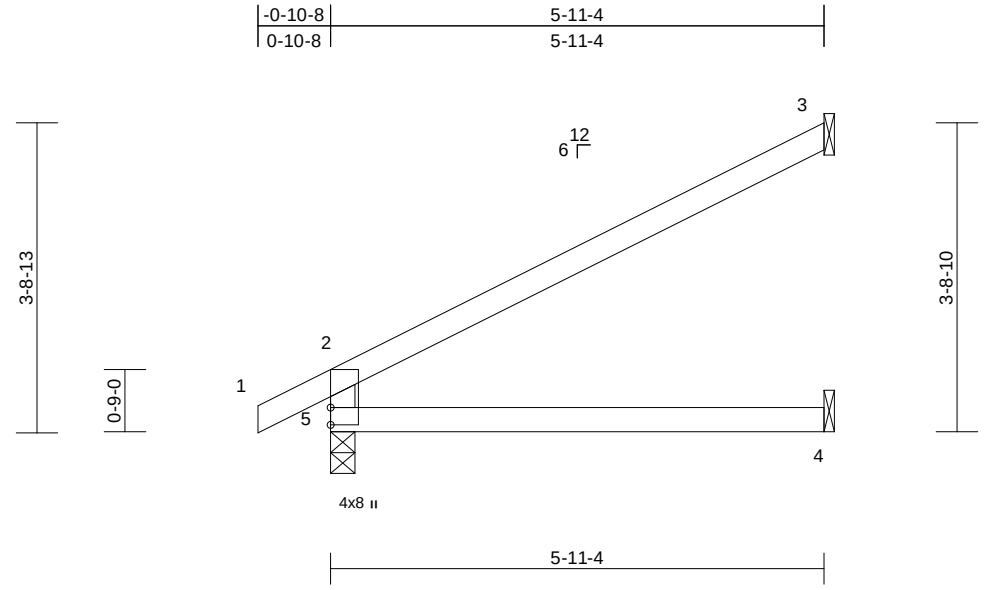

Scale = 1:27.7

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.52	Vert(LL)	-0.05	4-5	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.31	Vert(CT)	-0.11	4-5	>610	240		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.00	Horz(CT)	0.04	3	n/a	n/a		
BCDL	10.0	Code	IRC2021/TPI2014	Matrix-R		Wind(LL)	0.06	4-5	>999	240	Weight: 16 lb	FT = 10%

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

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

REACTIONS (size) 3= Mechanical, 4= Mechanical, 5=0-3-8
Max Horiz 5=127 (LC 8)
Max Uplift 3=-99 (LC 8), 5=-33 (LC 8)
Max Grav 3=180 (LC 1), 4=108 (LC 3), 5=336 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 2-5=-293/89, 1-2=0/32, 2-3=-112/62
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 33 lb uplift at joint 5 and 99 lb uplift at joint 3.

LOAD CASE(S) Standard

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

April 23,2024

Job	Truss	Truss Type	Qty	Ply	Lot 180 HT	
B240081	J6	Jack-Open	7	1	Job Reference (optional)	I65060083

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.73 S Apr 3 2024 Print: 8.730 S Apr 3 2024 MiTek Industries, Inc. Mon Apr 22 08:16:54 Page: 1
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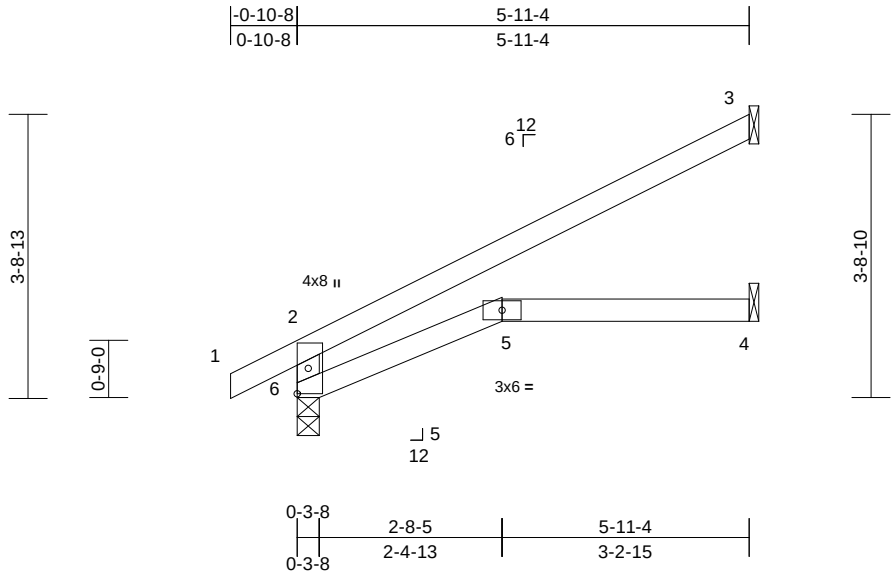

Scale = 1:30.3

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	0.53	Vert(LL)	-0.05	4-5	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.29	Vert(CT)	-0.11	4-5	>598	240		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.00	Horz(CT)	0.05	4	n/a	n/a		
BCDL	10.0	Code	IRC2021/TPI2014	Matrix-R		Wind(LL)	0.06	5-6	>999	240	Weight: 16 lb	FT = 10%

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

BRACING
TOP CHORD Structural wood sheathing directly applied or 5-11-4 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.

REACTIONS (size) 3= Mechanical, 4= Mechanical, 6=0-3-8
Max Horiz 6=127 (LC 8)
Max Uplift 3=-100 (LC 8), 6=-32 (LC 8)
Max Grav 3=180 (LC 1), 4=108 (LC 3), 6=336 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 2-6=-292/88, 1-2=0/32, 2-3=-112/63
BOT CHORD 5-6=-46/1, 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 100 lb uplift at joint 3 and 32 lb uplift at joint 6.

LOAD CASE(S) Standard

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

April 23,2024

Job	Truss	Truss Type	Qty	Ply	Lot 180 HT	
B240081	J7	Jack-Closed	1	1	Job Reference (optional)	I65060084

Wheeler Lumber, Waverly, KS - 66871,

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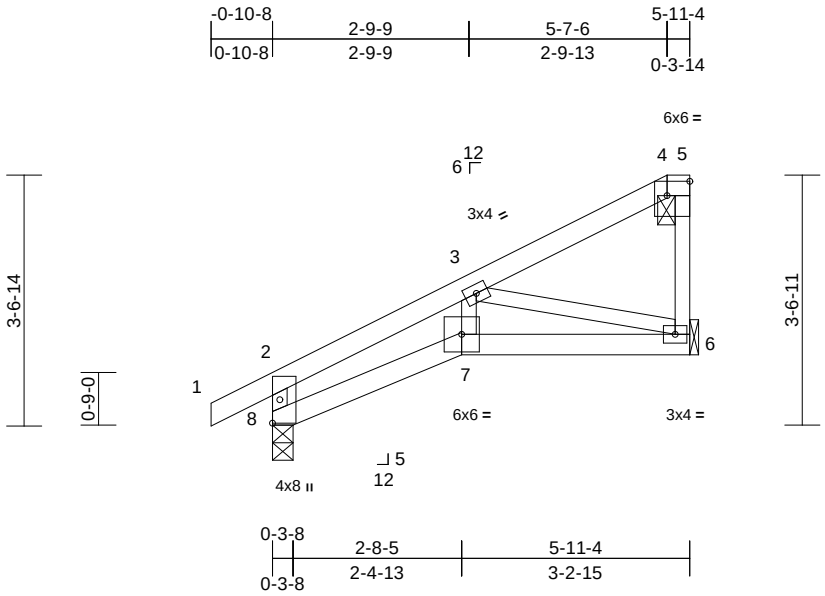

Scale = 1:32.8

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

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.39	Vert(LL)	-0.03	7	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.25	Vert(CT)	-0.05	7	>999	240		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.09	Horz(CT)	0.02	6	n/a	n/a		
BCDL	10.0	Code	IRC2021/TPI2014	Matrix-S		Wind(LL)	0.02	7	>999	240	Weight: 21 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 5-11-4 oc purlins, except end verticals, and 2-0-0 oc purlins: 4-5.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (size) 6= Mechanical, 8=0-3-8
Max Horiz 8=128 (LC 5)
Max Uplift 6=-64 (LC 8), 8=-51 (LC 8)
Max Grav 6=252 (LC 1), 8=332 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 2-8=-398/108, 1-2=0/31, 2-3=-452/103, 3-4=-72/25, 4-5=-37/27, 5-6=-118/40
BOT CHORD 7-8=-135/360, 6-7=-123/325
WEBS 3-7=-7/175, 3-6=-317/147

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) Refer to girder(s) for truss to truss connections.
8) 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.
9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 51 lb uplift at joint 8 and 64 lb uplift at joint 6.
10) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

LOAD CASE(S) Standard

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

April 23,2024

Job	Truss	Truss Type	Qty	Ply	Lot 180 HT	
B240081	J8	Jack-Closed Girder	1	1	Job Reference (optional)	I65060085

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.73 S Apr 3 2024 Print: 8.730 S Apr 3 2024 MiTek Industries, Inc. Mon Apr 22 08:16:54 Page: 1
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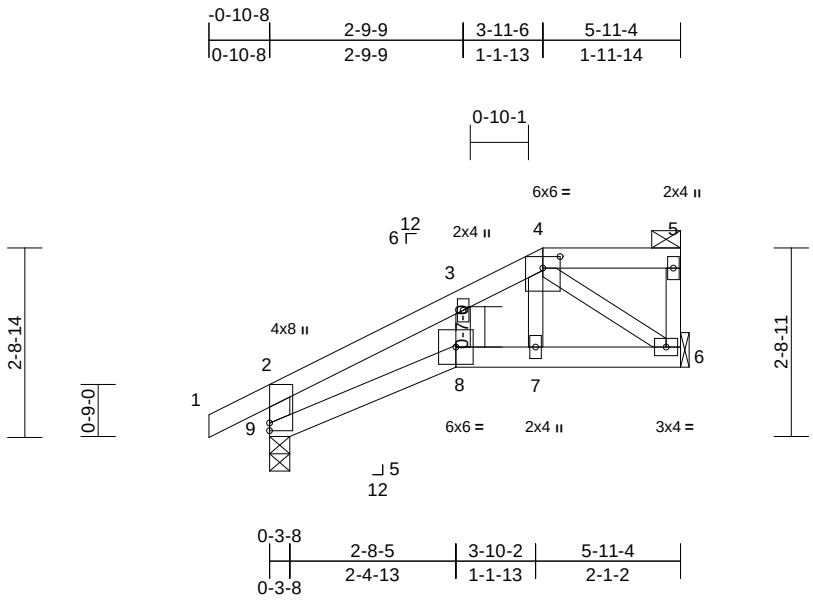

Scale = 1:33.3

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

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.54	Vert(LL)	-0.03	8	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.41	Vert(CT)	-0.05	8	>999	240		
BCLL	0.0*	Rep Stress Incr	NO	WB	0.14	Horz(CT)	0.03	6	n/a	n/a		
BCDL	10.0	Code	IRC2021/TPI2014	Matrix-S		Wind(LL)	0.03	8	>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 *Except* 9-2:2x4 SPF 2100F 1.8E

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

REACTIONS (size) 6= Mechanical, 9=0-3-8
Max Horiz 9=94 (LC 22)
Max Uplift 6=-120 (LC 5), 9=-93 (LC 8)
Max Grav 6=476 (LC 1), 9=453 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 2-9=-583/153, 1-2=0/32, 2-3=-730/157, 3-4=-569/170, 4-5=-27/19, 5-6=-64/33
BOT CHORD 8-9=-175/586, 7-8=-160/543, 6-7=-156/518
WEBS 3-8=-17/148, 4-7=-75/340, 4-6=-632/195

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) Bearing at joint(s) 9 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 120 lb uplift at joint 6 and 93 lb uplift at joint 9.
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 75 lb up at 3-11-6 on top chord, and 264 lb down and 55 lb up at 3-11-6 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, 2-4=-70, 4-5=-70, 8-9=-20, 6-8=-20
Concentrated Loads (lb)
Vert: 7=-264 (B), 4=-82 (B)

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

April 23,2024

Job	Truss	Truss Type	Qty	Ply	Lot 180 HT	
B240081	J9	Diagonal Hip Girder	1	1	Job Reference (optional)	I65060086

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.73 S Apr 3 2024 Print: 8.730 S Apr 3 2024 MiTek Industries, Inc. Mon Apr 22 08:16:54 Page: 1
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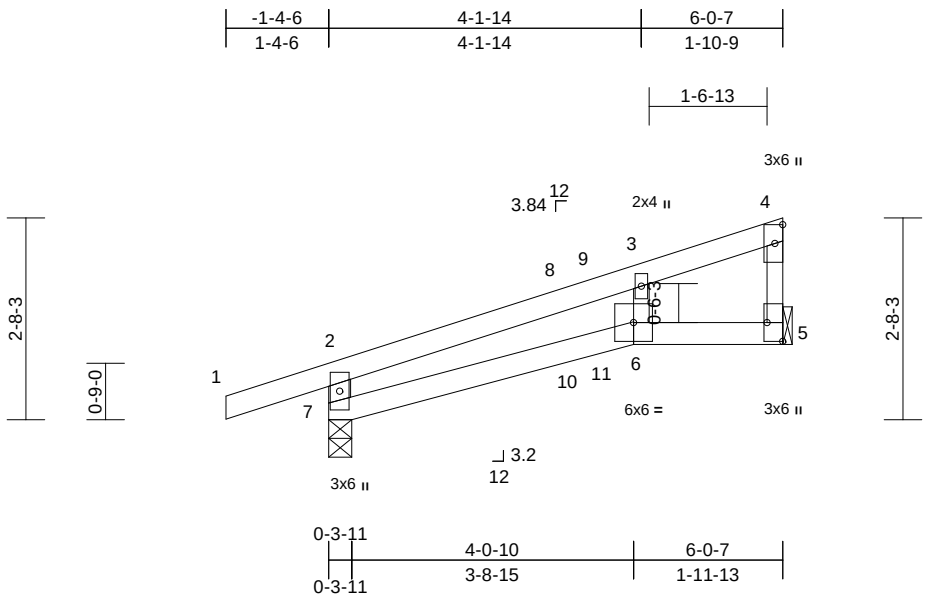

Scale = 1:30.6

Plate Offsets (X, Y): [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	0.41	Vert(LL)	-0.05	6-7	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.25	Vert(CT)	-0.09	6-7	>734	240		
BCLL	0.0*	Rep Stress Incr	NO	WB	0.02	Horz(CT)	0.03	5	n/a	n/a		
BCDL	10.0	Code	IRC2021/TPI2014	Matrix-R		Wind(LL)	0.05	6-7	>999	240	Weight: 18 lb	FT = 10%

LUMBER
TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
WEBS 2x3 SPF No.2 *Except* 7-2:2x4 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, 7=0-3-11
Max Horiz 7=96 (LC 22)
Max Uplift 5=-56 (LC 8), 7=-110 (LC 4)
Max Grav 5=249 (LC 1), 7=383 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 2-7=-353/134, 1-2=0/32, 2-3=-208/9, 3-4=-126/44, 4-5=-140/36
BOT CHORD 6-7=-48/142, 5-6=-47/137
WEBS 3-6=-18/76

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) 7 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 110 lb uplift at joint 7 and 56 lb uplift at joint 5.
8) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 80 lb down and 49 lb up at 3-0-14, and 67 lb down and 42 lb up at 3-6-3 on top chord, and 7 lb down at 3-0-14, and 6 lb down and 0 lb up at 3-6-3 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, 2-4=-70, 6-7=-20, 5-6=-20
Concentrated Loads (lb)
Vert: 10=-6 (B), 11=0 (F)

April 23,2024

Job	Truss	Truss Type	Qty	Ply	Lot 180 HT	
B240081	J10	Jack-Open	1	1	Job Reference (optional)	I65060087

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.73 S Apr 3 2024 Print: 8.730 S Apr 3 2024 MiTek Industries, Inc. Mon Apr 22 08:16:54 Page: 1
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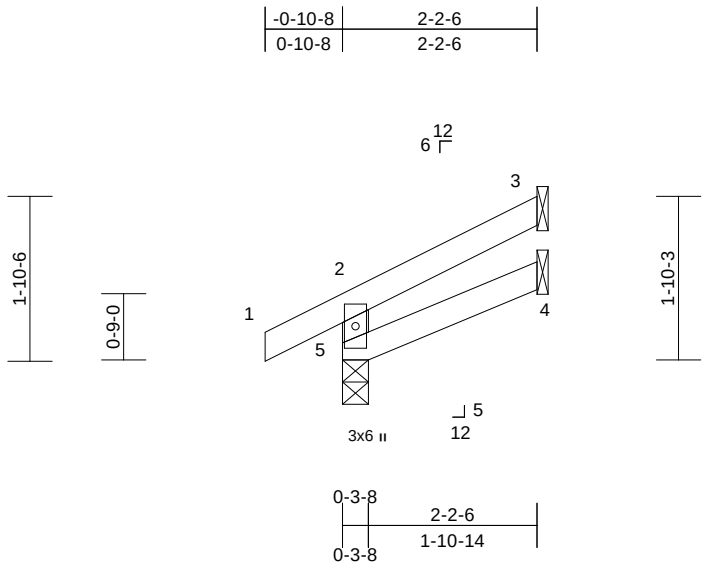

Scale = 1:26.1

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	0.07	Vert(LL)	0.00	4-5	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.03	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	IRC2021/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 2x4 SPF No.2

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

REACTIONS (size) 3= Mechanical, 4= Mechanical, 5=0-3-8
Max Horiz 5=51 (LC 8)
Max Uplift 3=-37 (LC 8), 5=-23 (LC 8)
Max Grav 3=54 (LC 1), 4=36 (LC 3), 5=179 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 2-5=-157/44, 1-2=0/32, 2-3=-42/18
BOT CHORD 4-5=-17/11

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 37 lb uplift at joint 3.

LOAD CASE(S) Standard

April 23,2024

Job	Truss	Truss Type	Qty	Ply	Lot 180 HT	
B240081	J11	Jack-Open	1	1	Job Reference (optional)	I65060088

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.73 S Apr 3 2024 Print: 8.730 S Apr 3 2024 MiTek Industries, Inc. Mon Apr 22 08:16:55 Page: 1
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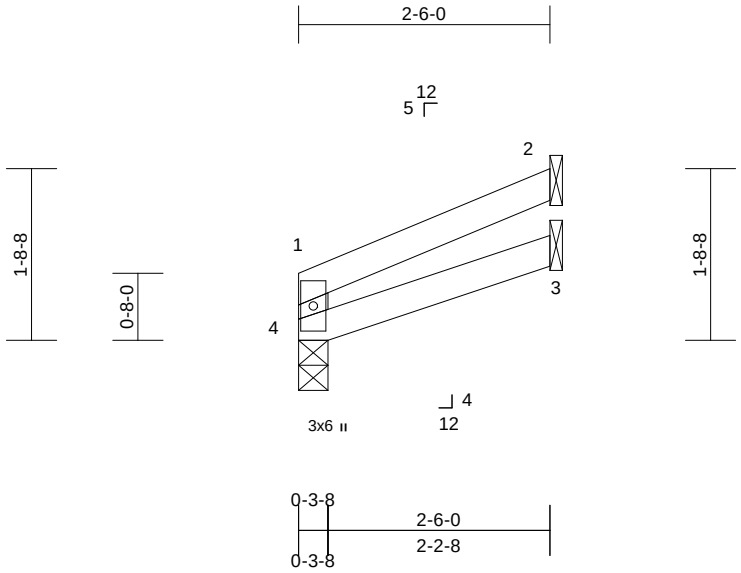

Scale = 1:22.9

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.08	Vert(LL)	0.00	3-4	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.04	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	IRC2021/TPI2014	Matrix-R		Wind(LL)	0.00	3-4	>999	240	Weight: 7 lb	FT = 10%

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

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

REACTIONS (size) 2= Mechanical, 3= Mechanical, 4=0-3-8
Max Horiz 4=36 (LC 5)
Max Uplift 2=-39 (LC 8), 4=-4 (LC 8)
Max Grav 2=75 (LC 1), 3=44 (LC 3), 4=103 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-4=-86/27, 1-2=-38/23
BOT CHORD 3-4=-12/11

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) 4 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 4 lb uplift at joint 4 and 39 lb uplift at joint 2.

LOAD CASE(S) Standard

April 23,2024

Job	Truss	Truss Type	Qty	Ply	Lot 180 HT	
B240081	J12	Jack-Open	1	1	Job Reference (optional)	I65060089

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.73 S Apr 3 2024 Print: 8.730 S Apr 3 2024 MiTek Industries, Inc. Mon Apr 22 08:16:55 Page: 1
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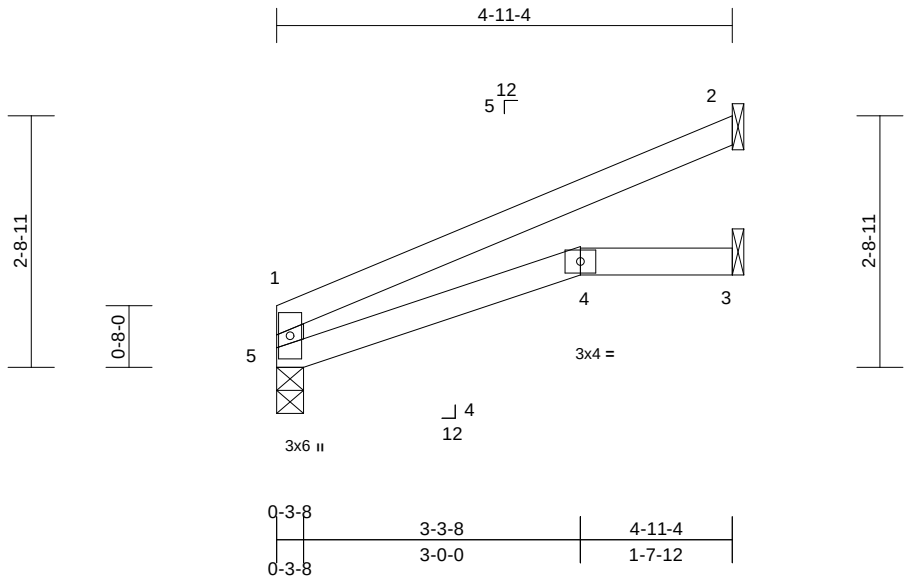

Scale = 1:25

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	0.36	Vert(LL)	-0.02	4-5	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.22	Vert(CT)	-0.05	4-5	>999	240		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.00	Horz(CT)	0.02	2	n/a	n/a		
BCDL	10.0	Code	IRC2021/TPI2014	Matrix-R		Wind(LL)	0.03	4-5	>999	240	Weight: 12 lb	FT = 10%

LUMBER
TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
WEBS 2x4 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 6-0-0 oc bracing.

REACTIONS (size) 2= Mechanical, 3= Mechanical, 5=0-3-8
Max Horiz 5=74 (LC 8)
Max Uplift 2=-76 (LC 8), 5=-15 (LC 8)
Max Grav 2=152 (LC 1), 3=90 (LC 3), 5=213 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-5=-179/60, 1-2=-78/46
BOT CHORD 4-5=-31/7, 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) 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 15 lb uplift at joint 5 and 76 lb uplift at joint 2.

LOAD CASE(S) Standard

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

April 23,2024

Job	Truss	Truss Type	Qty	Ply	Lot 180 HT	
B240081	J13	Jack-Open	2	1	Job Reference (optional)	I65060090

Wheeler Lumber, Waverly, KS - 66871,

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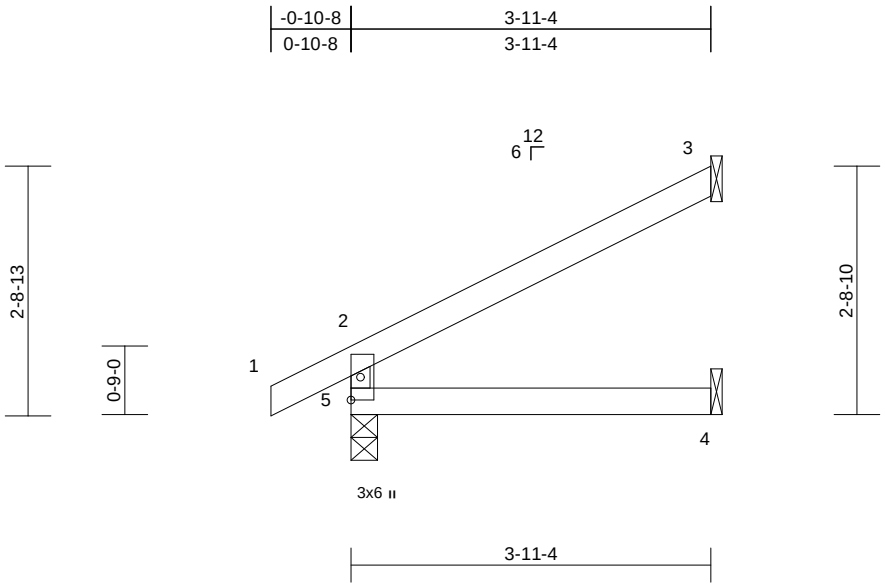

Scale = 1:25.2

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.21	Vert(LL)	-0.01	4-5	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.13	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	IRC2021/TPI2014	Matrix-R		Wind(LL)	0.01	4-5	>999	240	Weight: 11 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 3-11-4 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=87 (LC 8)
Max Uplift 3=-68 (LC 8), 5=-27 (LC 8)
Max Grav 3=118 (LC 1), 4=72 (LC 3), 5=247 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 2-5=-215/63, 1-2=0/31, 2-3=-75/41
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 68 lb uplift at joint 3.

LOAD CASE(S) Standard

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

April 23,2024

Job	Truss	Truss Type	Qty	Ply	Lot 180 HT	
B240081	J14	Jack-Closed Girder	1	1	Job Reference (optional)	I65060091

Wheeler Lumber, Waverly, KS - 66871,

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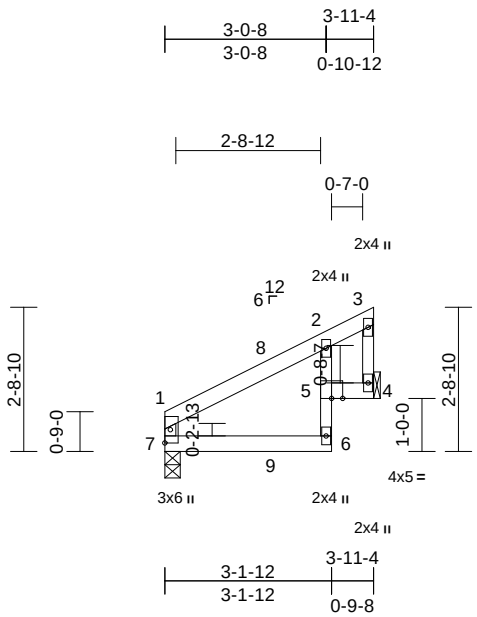

Scale = 1:43.5

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	0.26	Vert(LL)	-0.01	6-7	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.41	Vert(CT)	-0.02	6-7	>999	240		
BCLL	0.0*	Rep Stress Incr	NO	WB	0.00	Horz(CT)	0.01	4	n/a	n/a		
BCDL	10.0	Code	IRC2021/TPI2014	Matrix-R		Wind(LL)	0.01	6-7	>999	240	Weight: 12 lb	FT = 10%

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

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

REACTIONS (size) 4= Mechanical, 7=0-3-8
Max Horiz 7=80 (LC 22)
Max Uplift 4=-67 (LC 8), 7=-34 (LC 8)
Max Grav 4=282 (LC 1), 7=278 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-7=-217/35, 1-2=-222/28, 2-3=-43/15, 3-4=-68/20
BOT CHORD 6-7=-38/136, 5-6=-33/107, 2-5=-92/26, 4-5=-20/44

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 34 lb uplift at joint 7 and 67 lb uplift at joint 4.
7) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 153 lb down and 8 lb up at 2-0-0 on top chord, and 109 lb down and 65 lb up at 2-0-0 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
8) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

LOAD CASE(S) Standard
1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (lb/ft)
Vert: 1-3=-70, 6-7=-20, 4-5=-20
Concentrated Loads (lb)
Vert: 8=-116 (B), 9=-109 (B)

April 23,2024

Job	Truss	Truss Type	Qty	Ply	Lot 180 HT	
B240081	J15	Diagonal Hip Girder	1	1	Job Reference (optional)	I65060092

Wheeler Lumber, Waverly, KS - 66871,

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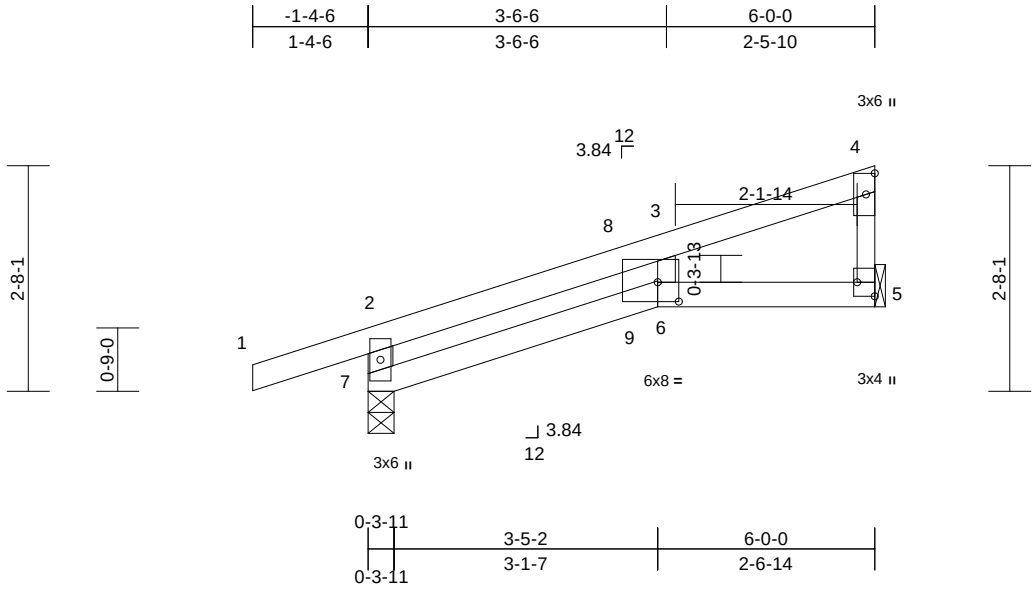

Scale = 1:27.3

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

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	0.40	Vert(LL)	-0.06	6	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.27	Vert(CT)	-0.11	6	>604	240		
BCLL	0.0*	Rep Stress Incr	NO	WB	0.03	Horz(CT)	0.04	5	n/a	n/a		
BCDL	10.0	Code	IRC2021/TPI2014	Matrix-R		Wind(LL)	0.06	6	>999	240	Weight: 18 lb	FT = 10%

LUMBER
TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
WEBS 2x3 SPF No.2 *Except* 7-2:2x4 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, 7=0-3-11
Max Horiz 7=95 (LC 5)
Max Uplift 5=-55 (LC 8), 7=-109 (LC 4)
Max Grav 5=245 (LC 1), 7=379 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 2-7=-348/127, 1-2=0/32, 2-3=-195/0, 3-4=-122/36, 4-5=-149/47
BOT CHORD 6-7=-41/126, 5-6=-42/123
WEBS 3-6=-11/80

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) 7 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 109 lb uplift at joint 7 and 55 lb uplift at joint 5.
8) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 76 lb down and 44 lb up at 2-11-11, and 67 lb down and 42 lb up at 3-6-3 on top chord, and 4 lb down at 2-11-11, and 6 lb down and 0 lb up at 3-5-2 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, 6-7=-20, 5-6=-20
Concentrated Loads (lb)
Vert: 6=0 (B), 9=-1 (F)

April 23,2024

Job	Truss	Truss Type	Qty	Ply	Lot 180 HT	
B240081	J16	Jack-Open	5	1	Job Reference (optional)	I65060093

Wheeler Lumber, Waverly, KS - 66871,

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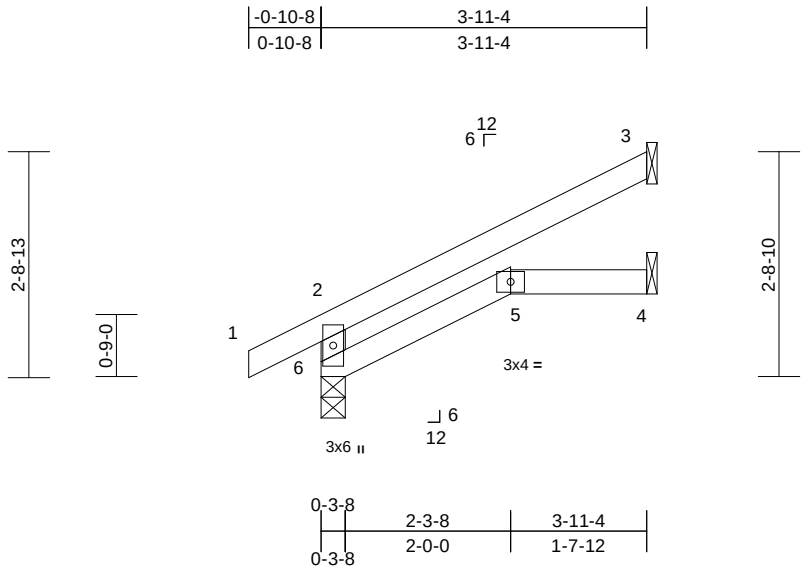

Scale = 1:27.9

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.20	Vert(LL)	-0.01	5-6	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.11	Vert(CT)	-0.02	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	IRC2021/TPI2014	Matrix-R		Wind(LL)	0.01	5-6	>999	240	Weight: 12 lb	FT = 10%

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

BRACING
TOP CHORD Structural wood sheathing directly applied or 3-11-4 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.

REACTIONS (size) 3= Mechanical, 4= Mechanical, 6=0-3-8
Max Horiz 6=86 (LC 8)
Max Uplift 3=-67 (LC 8), 6=-26 (LC 8)
Max Grav 3=115 (LC 1), 4=70 (LC 3), 6=249 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 2-6=-217/64, 1-2=0/32, 2-3=-74/40
BOT CHORD 5-6=-35/3, 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) 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 26 lb uplift at joint 6 and 67 lb uplift at joint 3.

LOAD CASE(S) Standard

April 23,2024

Job	Truss	Truss Type	Qty	Ply	Lot 180 HT	
B240081	J17	Jack-Open	1	1	Job Reference (optional)	I65060094

Wheeler Lumber, Waverly, KS - 66871,

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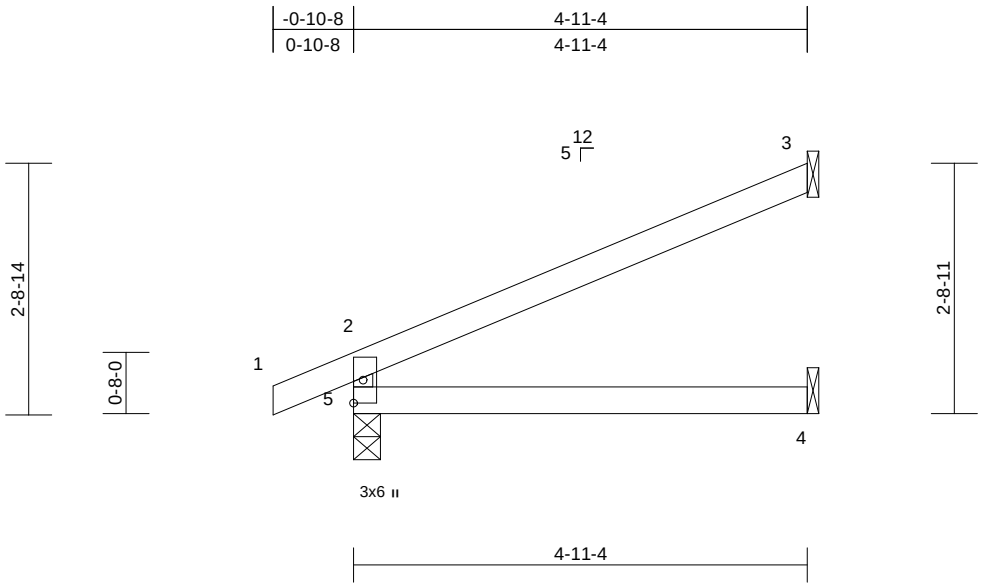

Scale = 1:25.1

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	0.21	Vert(CT)	-0.05	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	IRC2021/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=90 (LC 8)
Max Uplift 3=-77 (LC 8), 5=-41 (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=-252/83, 1-2=0/26, 2-3=-79/45
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) The Fabrication Tolerance at joint 5 = 2%, joint 5 = 2%
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 41 lb uplift at joint 5 and 77 lb uplift at joint 3.

LOAD CASE(S) Standard

April 23,2024

Job	Truss	Truss Type	Qty	Ply	Lot 180 HT	
B240081	J18	Jack-Open	3	1	Job Reference (optional)	I65060095

Wheeler Lumber, Waverly, KS - 66871,

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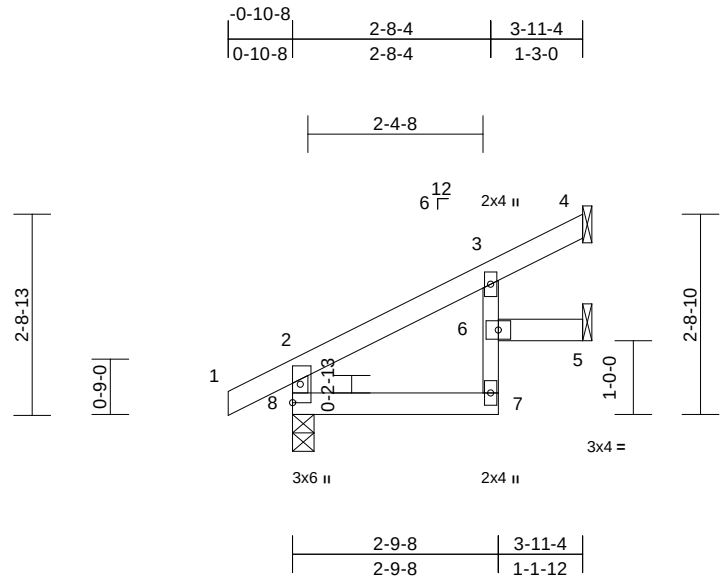

Scale = 1:31.3

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	0.10	Vert(LL)	-0.01	6	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.19	Vert(CT)	-0.02	7	>999	240		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.00	Horz(CT)	0.01	5	n/a	n/a		
BCDL	10.0	Code	IRC2021/TPI2014	Matrix-R		Wind(LL)	0.01	6	>999	240	Weight: 12 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

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) 4= Mechanical, 5= Mechanical, 8=0-3-8
Max Horiz 8=87 (LC 8)
Max Uplift 4=-34 (LC 8), 5=-25 (LC 8), 8=-27 (LC 8)
Max Grav 4=87 (LC 1), 5=74 (LC 1), 8=247 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 2-8=-224/53, 1-2=0/31, 2-3=-129/0, 3-4=-21/35
BOT CHORD 7-8=-37/66, 6-7=0/53, 3-6=-22/45, 5-6=0/0

NOTES
1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; 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 8, 34 lb uplift at joint 4 and 25 lb uplift at joint 5.

LOAD CASE(S) Standard

April 23,2024

Job	Truss	Truss Type	Qty	Ply	Lot 180 HT	
B240081	J19	Jack-Open	2	1	Job Reference (optional)	I65060096

Wheeler Lumber, Waverly, KS - 66871,

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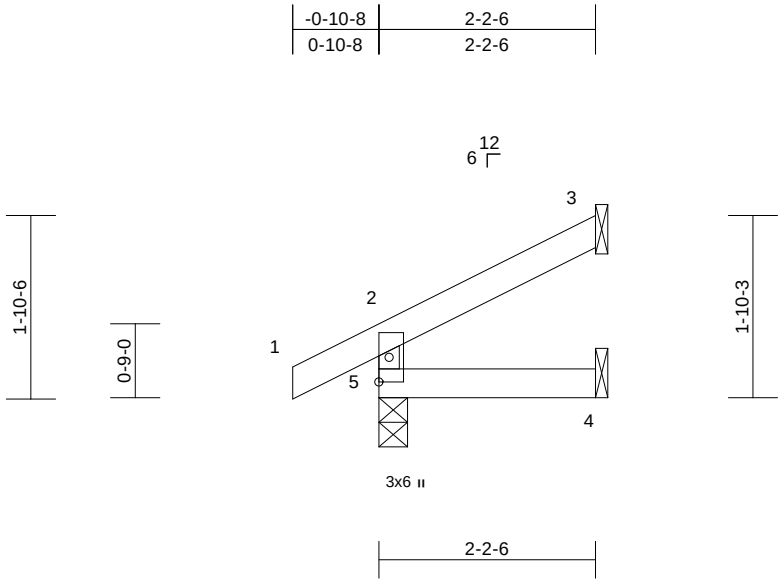

Scale = 1:23.4

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	0.07	Vert(LL)	0.00	4-5	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.03	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	IRC2021/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 2-2-6 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (size) 3= Mechanical, 4= Mechanical, 5=0-3-8
Max Horiz 5=52 (LC 8)
Max Uplift 3=-37 (LC 8), 5=-23 (LC 8)
Max Grav 3=56 (LC 1), 4=38 (LC 3), 5=177 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 2-5=-155/44, 1-2=0/31, 2-3=-42/19
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 37 lb uplift at joint 3.

LOAD CASE(S) Standard

April 23,2024

Job	Truss	Truss Type	Qty	Ply	Lot 180 HT
B240081	J20	Jack-Open	3	1	I65060097
					Job Reference (optional)

Wheeler Lumber, Waverly, KS - 66871,

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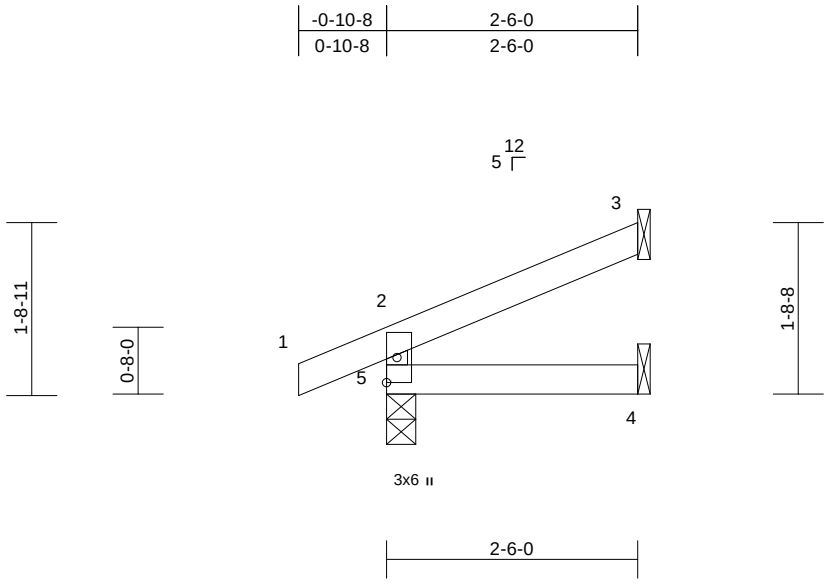

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Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.06	Vert(LL)	0.00	4-5	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.04	Vert(CT)	0.00	4-5	>999	240		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.00	Horz(CT)	0.00	3	n/a	n/a		
BCDL	10.0	Code	IRC2021/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 2-6-0 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=48 (LC 8)
Max Uplift 3=-38 (LC 8), 5=-31 (LC 4)
Max Grav 3=67 (LC 1), 4=44 (LC 3), 5=188 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 2-5=-165/52, 1-2=0/26, 2-3=-40/20
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 31 lb uplift at joint 5 and 38 lb uplift at joint 3.

LOAD CASE(S) Standard

April 23,2024

Job	Truss	Truss Type	Qty	Ply	Lot 180 HT	
B240081	J21	Diagonal Hip Girder	1	1	Job Reference (optional)	I65060098

Wheeler Lumber, Waverly, KS - 66871,

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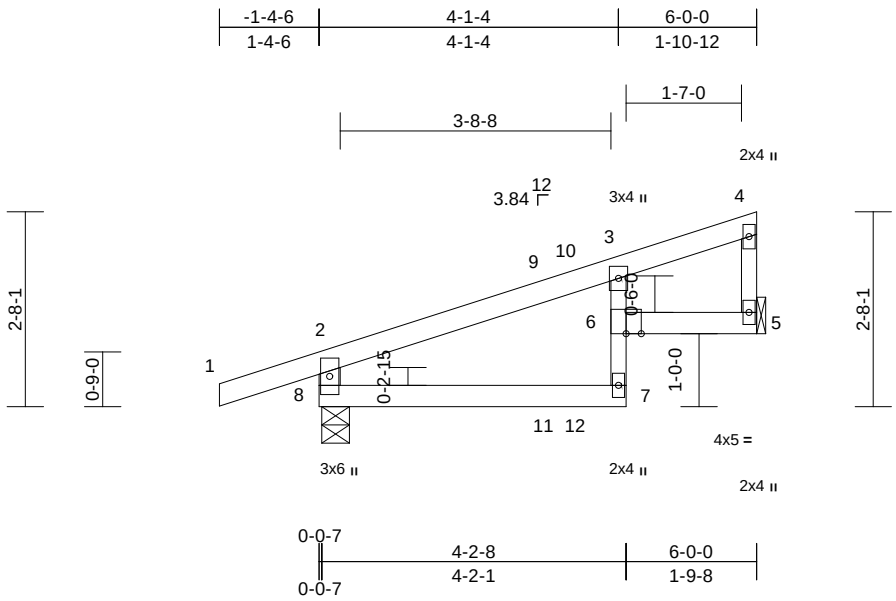

Scale = 1:31.6

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.30	Vert(LL)	-0.03	7	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.53	Vert(CT)	-0.06	7	>999	240		
BCLL	0.0*	Rep Stress Incr	NO	WB	0.00	Horz(CT)	0.03	5	n/a	n/a		
BCDL	10.0	Code	IRC2021/TPI2014	Matrix-R		Wind(LL)	0.03	6	>999	240	Weight: 18 lb	FT = 10%

LUMBER
TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2 *Except* 7-3:2x3 SPF No.2
WEBS 2x4 SPF No.2 *Except* 4-5:2x3 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) 5= Mechanical, 8=0-4-9
Max Horiz 8=94 (LC 5)
Max Uplift 5=-55 (LC 8), 8=-110 (LC 4)
Max Grav 5=246 (LC 1), 8=379 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 2-8=-345/138, 1-2=0/32, 2-3=-242/33, 3-4=-76/20, 4-5=-120/34
BOT CHORD 7-8=-46/167, 6-7=0/81, 3-6=-44/60, 5-6=-24/70

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 110 lb uplift at joint 8 and 55 lb uplift at joint 5.
7) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 78 lb down and 46 lb up at 3-0-14, and 67 lb down and 43 lb up at 3-6-3 on top chord, and 6 lb down at 3-0-14, and 6 lb down at 3-6-3 on bottom chord. The design/ selection of such connection device(s) is the responsibility of others.
8) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

LOAD CASE(S) Standard
1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (lb/ft)
Vert: 1-2=-70, 2-4=-70, 7-8=-20, 5-6=-20
Concentrated Loads (lb)
Vert: 11=-1 (F), 12=0 (B)

April 23,2024

Job	Truss	Truss Type	Qty	Ply	Lot 180 HT	
B240081	J22	Jack-Open	3	1	Job Reference (optional)	I65060099

Wheeler Lumber, Waverly, KS - 66871,

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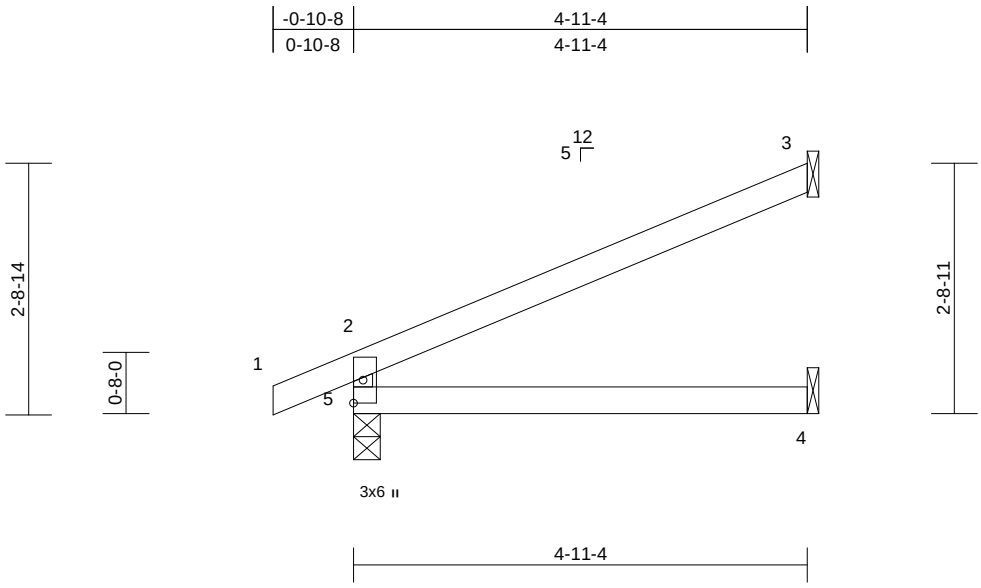

Scale = 1:25.1

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	0.21	Vert(CT)	-0.05	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	IRC2021/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=90 (LC 8)
Max Uplift 3=-77 (LC 8), 5=-41 (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=-252/83, 1-2=0/26, 2-3=-79/45
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) The Fabrication Tolerance at joint 5 = 2%, joint 5 = 2%
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 41 lb uplift at joint 5 and 77 lb uplift at joint 3.

LOAD CASE(S) Standard

April 23,2024

Job	Truss	Truss Type	Qty	Ply	Lot 180 HT	
B240081	J23	Jack-Closed Girder	1	1	Job Reference (optional)	I65060100

Wheeler Lumber, Waverly, KS - 66871,

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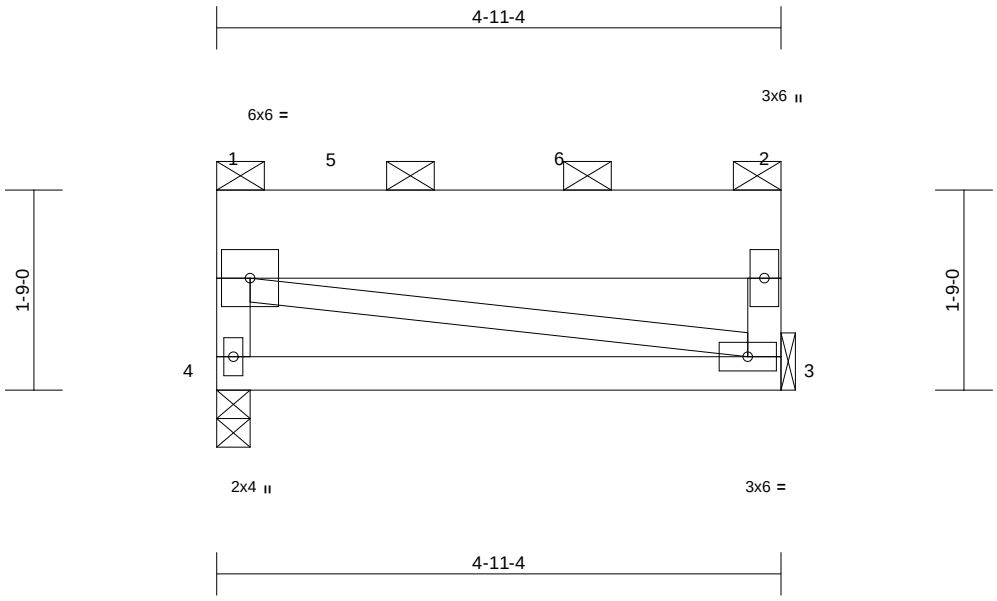

Scale = 1:20.2

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	Vert(LL)	-0.03	3-4	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.24	Vert(CT)	-0.06	3-4	>998	240		
BCLL	0.0*	Rep Stress Incr	NO	WB	0.01	Horz(CT)	0.00	3	n/a	n/a		
BCDL	10.0	Code	IRC2021/TPI2014	Matrix-P							Weight: 30 lb	FT = 10%

LUMBER
TOP CHORD 2x10 SP 2400F 2.0E
BOT CHORD 2x4 SPF No.2
WEBS 2x4 SPF No.2 *Except* 3-1:2x3 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=-115 (LC 5), 4=-150 (LC 4)
Max Grav 3=941 (LC 15), 4=1349 (LC 16)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-4=-1303/178, 1-2=-17/13, 2-3=-890/137
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 150 lb uplift at joint 4 and 115 lb uplift at joint 3.
8) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
9) 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.
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, 3-4=-20
Concentrated Loads (lb)
Vert: 5=-878 (B), 6=-878 (B)

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

April 23,2024

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 BEFORE USE.
Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI1 Quality Criteria, and DSB-22** available from Truss Plate Institute (www.tpinst.org) and **BCSI Building Component Safety Information** available from the Structural Building Component Association (www.sbcscomponents.com)

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

Job	Truss	Truss Type	Qty	Ply	Lot 180 HT	
B240081	J24	Jack-Open	1	1	Job Reference (optional)	I65060101

Wheeler Lumber, Waverly, KS - 66871,

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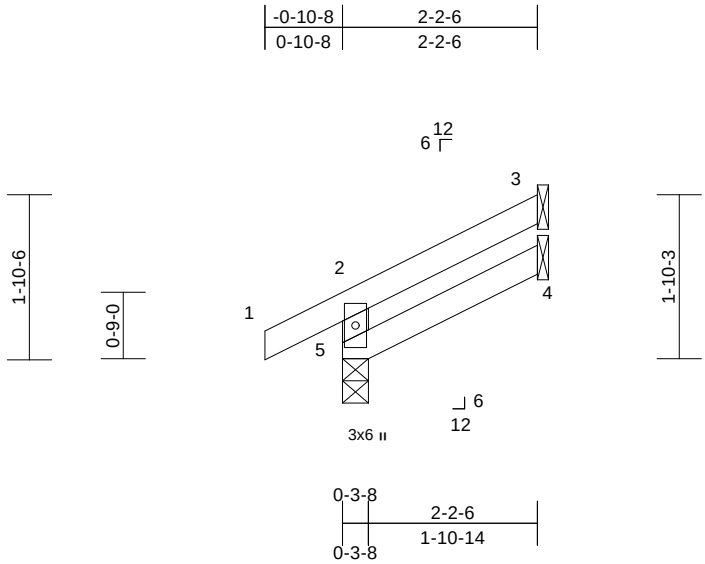

Scale = 1:26

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	0.03	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	IRC2021/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 2x4 SPF No.2

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

REACTIONS (size) 3= Mechanical, 4= Mechanical, 5=0-3-8
Max Horiz 5=50 (LC 8)
Max Uplift 3=-37 (LC 8), 5=-23 (LC 8)
Max Grav 3=54 (LC 1), 4=36 (LC 3), 5=179 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 2-5=-157/44, 1-2=0/32, 2-3=-42/18
BOT CHORD 4-5=-19/13

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 37 lb uplift at joint 3.

LOAD CASE(S) Standard

April 23,2024

Job	Truss	Truss Type	Qty	Ply	Lot 180 HT	
B240081	J25	Jack-Open	1	1	Job Reference (optional)	I65060102

Wheeler Lumber, Waverly, KS - 66871,

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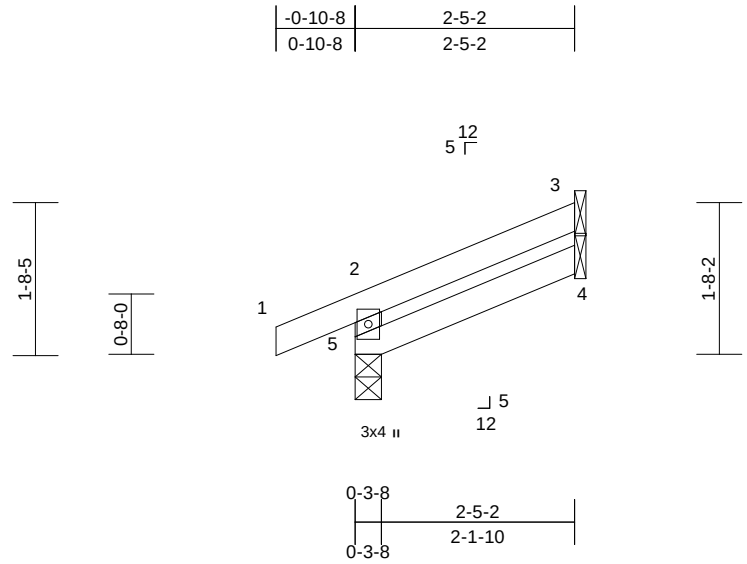

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Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.07	Vert(LL)	0.00	4-5	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.04	Vert(CT)	0.00	4-5	>999	240		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.00	Horz(CT)	0.00	3	n/a	n/a		
BCDL	10.0	Code	IRC2021/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 2x4 SPF No.2

BRACING
TOP CHORD Structural wood sheathing directly applied or 2-5-2 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=46 (LC 8)
Max Uplift 3=-36 (LC 8), 5=-32 (LC 4)
Max Grav 3=62 (LC 1), 4=40 (LC 3), 5=188 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 2-5=-165/52, 1-2=0/27, 2-3=-39/18
BOT CHORD 4-5=-19/12

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 32 lb uplift at joint 5 and 36 lb uplift at joint 3.

LOAD CASE(S) Standard

April 23,2024

Job	Truss	Truss Type	Qty	Ply	Lot 180 HT	
B240081	J26	Diagonal Hip Girder	1	1	Job Reference (optional)	I65060103

Wheeler Lumber, Waverly, KS - 66871,

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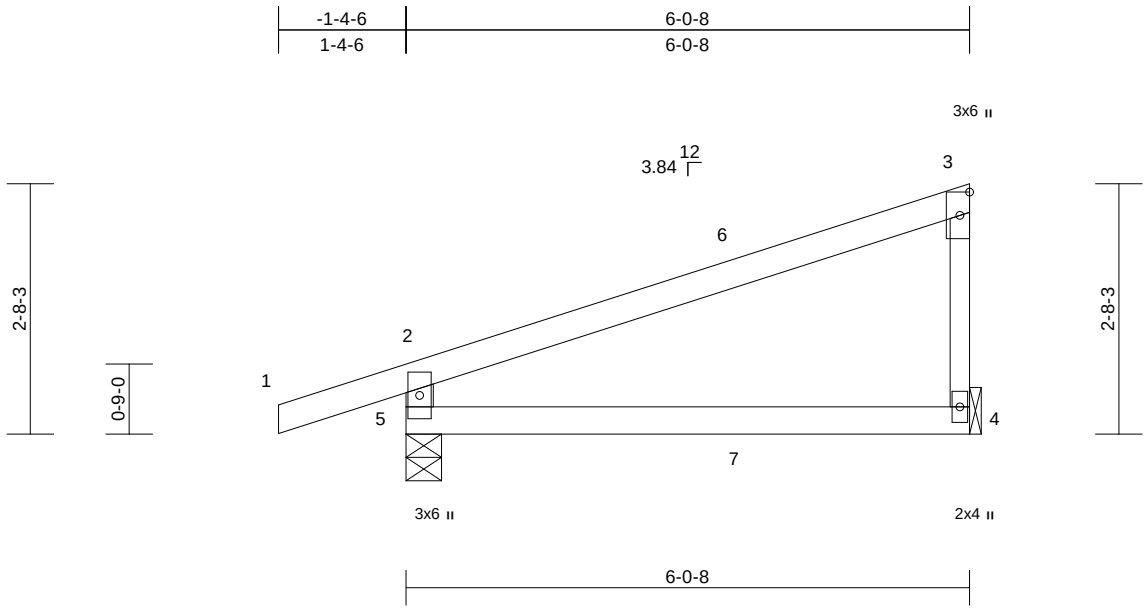

Scale = 1:24.7

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.49	Vert(LL)	-0.04	4-5	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.30	Vert(CT)	-0.09	4-5	>746	240		
BCLL	0.0*	Rep Stress Incr	NO	WB	0.00	Horz(CT)	0.00	4	n/a	n/a		
BCDL	10.0	Code	IRC2021/TPI2014	Matrix-R		Wind(LL)	0.02	4-5	>999	240	Weight: 18 lb	FT = 10%

LUMBER
TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
WEBS 2x4 SPF No.2 *Except* 3-4:2x3 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=112 (LC 5)
Max Uplift 4=-54 (LC 8), 5=-112 (LC 4)
Max Grav 4=247 (LC 1), 5=380 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 2-5=-335/155, 1-2=0/32, 2-3=-135/13, 3-4=-176/79
BOT CHORD 4-5=-30/51

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 54 lb uplift at joint 4.
7) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 67 lb down and 43 lb up at 3-6-3 on top chord, and 6 lb down at 3-6-3 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
8) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

LOAD CASE(S) Standard
1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (lb/ft)
Vert: 1-2=-70, 2-3=-70, 4-5=-20
Concentrated Loads (lb)
Vert: 7=0 (F)

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

April 23,2024

Job	Truss	Truss Type	Qty	Ply	Lot 180 HT	
B240081	J27	Diagonal Hip Girder	2	1	Job Reference (optional)	I65060104

Wheeler Lumber, Waverly, KS - 66871,

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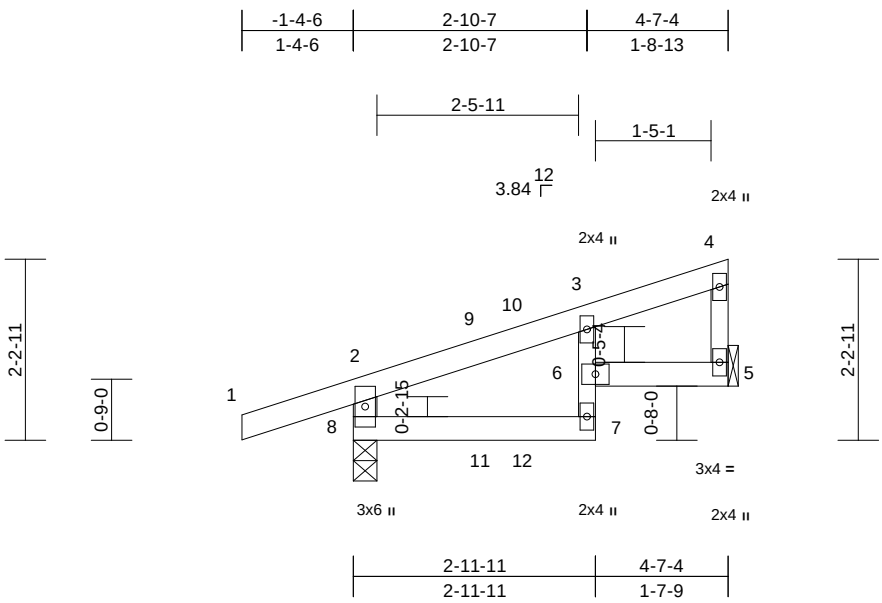

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Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.21	Vert(LL)	-0.01	6	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.23	Vert(CT)	-0.02	6	>999	240		
BCLL	0.0*	Rep Stress Incr	NO	WB	0.00	Horz(CT)	0.01	5	n/a	n/a		
BCDL	10.0	Code	IRC2021/TPI2014	Matrix-R		Wind(LL)	0.01	6	>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 2x4 SPF No.2 *Except* 4-5:2x3 SPF No.2

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

REACTIONS (size) 5= Mechanical, 8=0-3-8
Max Horiz 8=80 (LC 5)
Max Uplift 5=-40 (LC 8), 8=-103 (LC 4)
Max Grav 5=175 (LC 1), 8=317 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 2-8=-287/120, 1-2=0/32, 2-3=-172/20, 3-4=-56/14, 4-5=-100/31
BOT CHORD 7-8=-30/102, 6-7=0/53, 3-6=-24/43, 5-6=-17/44

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 103 lb uplift at joint 8 and 40 lb uplift at joint 5.
7) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 72 lb down and 20 lb up at 1-10-1, and 62 lb down and 20 lb up at 2-4-6 on top chord, and 2 lb down and 3 lb up at 1-10-1, and 3 lb down and 3 lb up at 2-4-6 on bottom chord. The design/selection of such connection device (s) is the responsibility of others.
8) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

LOAD CASE(S) Standard
1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (lb/ft)
Vert: 1-2=-70, 2-4=-70, 7-8=-20, 5-6=-20
Concentrated Loads (lb)
Vert: 11=3 (B), 12=3 (F)

April 23,2024

Job	Truss	Truss Type	Qty	Ply	Lot 180 HT	
B240081	J28	Jack-Open	5	1	Job Reference (optional)	I65060105

Wheeler Lumber, Waverly, KS - 66871,

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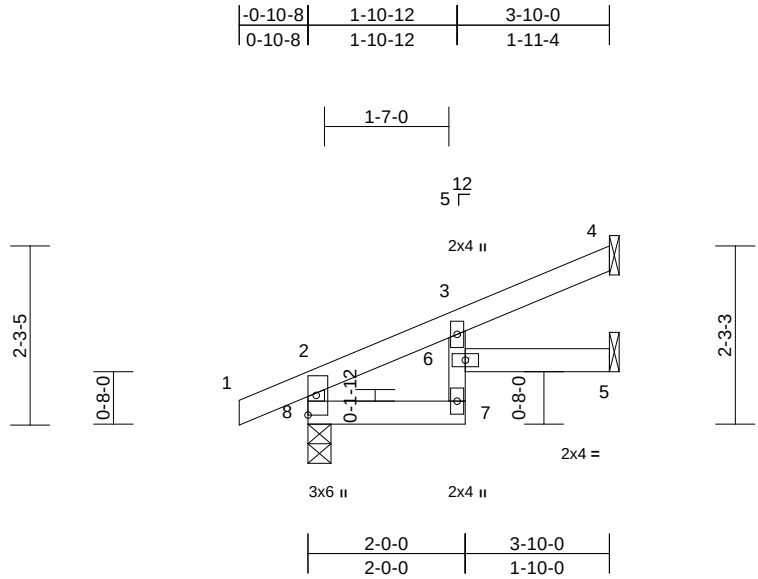

Scale = 1:29.3

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	0.14	Vert(LL)	-0.01	6	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.17	Vert(CT)	-0.02	7	>999	240		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.00	Horz(CT)	0.01	5	n/a	n/a		
BCDL	10.0	Code	IRC2021/TPI2014	Matrix-R		Wind(LL)	0.01	6	>999	240	Weight: 11 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

BRACING
TOP CHORD Structural wood sheathing directly applied or 3-10-0 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=71 (LC 8)
Max Uplift 4=-43 (LC 8), 5=-5 (LC 8), 8=-36 (LC 8)
Max Grav 4=103 (LC 1), 5=59 (LC 3), 8=243 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 2-8=-223/54, 1-2=0/26, 2-3=-134/0, 3-4=-25/34
BOT CHORD 7-8=-41/81, 6-7=0/36, 3-6=0/52, 5-6=0/0

NOTES
1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; 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 36 lb uplift at joint 8, 43 lb uplift at joint 4 and 5 lb uplift at joint 5.

LOAD CASE(S) Standard

April 23,2024

Job	Truss	Truss Type	Qty	Ply	Lot 180 HT	
B240081	J29	Jack-Open	2	1	Job Reference (optional)	I65060106

Wheeler Lumber, Waverly, KS - 66871,

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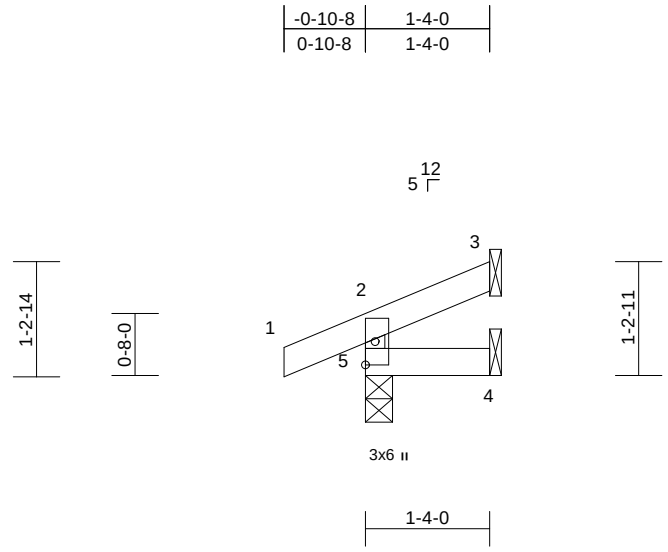

Scale = 1:24.8

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	0.06	Vert(LL)	0.00	4-5	>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	IRC2021/TPI2014	Matrix-R		Wind(LL)	0.00	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 1-4-0 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=31 (LC 5)
Max Uplift 3=-17 (LC 8), 5=-36 (LC 4)
Max Grav 3=20 (LC 1), 4=22 (LC 3), 5=151 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 2-5=-134/46, 1-2=0/26, 2-3=-25/4
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 36 lb uplift at joint 5 and 17 lb uplift at joint 3.

LOAD CASE(S) Standard

April 23,2024

Job	Truss	Truss Type	Qty	Ply	Lot 180 HT	
B240081	J30	Jack-Open	2	1	Job Reference (optional)	I65060107

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.73 S Apr 3 2024 Print: 8.730 S Apr 3 2024 MiTek Industries, Inc. Mon Apr 22 08:16:57 Page: 1
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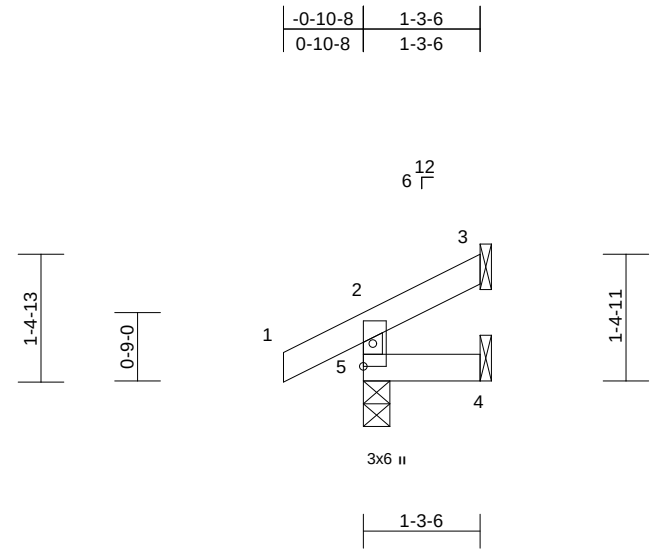

Scale = 1:25.3

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	0.07	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	IRC2021/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 1-3-6 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (size) 3= Mechanical, 4= Mechanical, 5=0-3-8
Max Horiz 5=34 (LC 5)
Max Uplift 3=-19 (LC 8), 5=-23 (LC 8)
Max Grav 3=16 (LC 1), 4=21 (LC 3), 5=150 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 2-5=-134/37, 1-2=0/31, 2-3=-29/4
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 19 lb uplift at joint 3.

LOAD CASE(S) Standard

April 23,2024

Job	Truss	Truss Type	Qty	Ply	Lot 180 HT	
B240081	LAY1	Lay-In Gable	1	1	Job Reference (optional)	I65060108

Wheeler Lumber, Waverly, KS - 66871,

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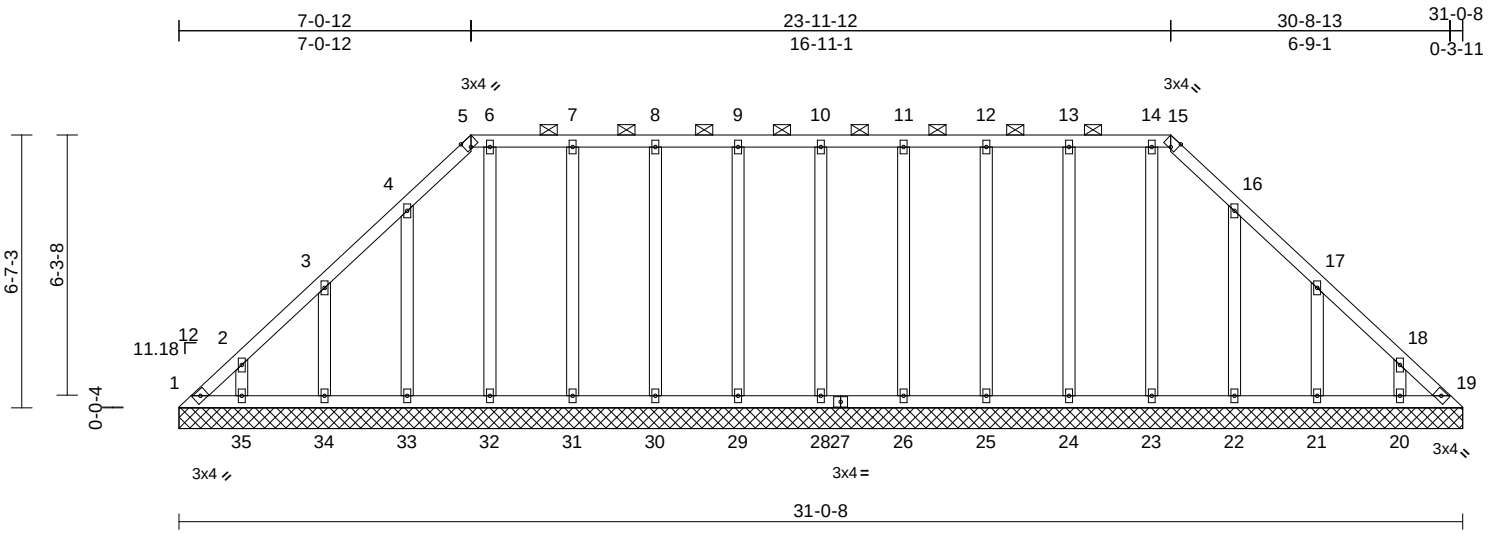

Scale = 1:55.7

Plate Offsets (X, Y): [5:0-1-10,Edge], [15:0-1-10,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	0.05	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.03	Vert(TL)	n/a	-	n/a	999		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.10	Horiz(TL)	0.01	19	n/a	n/a		
BCDL	10.0	Code	IRC2021/TPI2014	Matrix-S							Weight: 156 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.): 5-15.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (size) 1=31-0-8, 19=31-0-8, 20=31-0-8, 21=31-0-8, 22=31-0-8, 23=31-0-8, 24=31-0-8, 25=31-0-8, 26=31-0-8, 28=31-0-8, 29=31-0-8, 30=31-0-8, 31=31-0-8, 32=31-0-8, 33=31-0-8, 34=31-0-8, 35=31-0-8
Max Horiz 1=-165 (LC 4)
Max Uplift 1=-75 (LC 6), 19=-33 (LC 7), 20=-91 (LC 9), 21=-114 (LC 9), 22=-84 (LC 9), 24=-40 (LC 5), 25=-33 (LC 4), 26=-34 (LC 5), 28=-34 (LC 5), 29=-34 (LC 4), 30=-34 (LC 5), 31=-46 (LC 4), 32=-30 (LC 5), 33=-90 (LC 8), 34=-112 (LC 8), 35=-91 (LC 8)
Max Grav 1=143 (LC 8), 19=115 (LC 9), 20=174 (LC 16), 21=203 (LC 16), 22=189 (LC 16), 23=169 (LC 22), 24=187 (LC 21), 25=180 (LC 22), 26=180 (LC 21), 28=180 (LC 1), 29=180 (LC 22), 30=180 (LC 21), 31=187 (LC 22), 32=173 (LC 18), 33=195 (LC 15), 34=201 (LC 15), 35=174 (LC 15)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=-220/148, 2-3=-138/119, 3-4=-118/92, 4-5=-91/132, 5-6=-36/113, 6-7=-36/113, 7-8=-36/113, 8-9=-36/113, 9-10=-36/113, 10-11=-36/113, 11-12=-36/113, 12-13=-36/113, 13-14=-36/113, 14-15=-36/113, 15-16=-78/120, 16-17=-76/48, 17-18=-107/58, 18-19=-179/87
BOT CHORD 1-35=-61/144, 34-35=-61/144, 33-34=-61/144, 32-33=-61/144, 31-32=-61/144, 30-31=-61/144, 29-30=-61/144, 28-29=-61/144, 26-28=-61/144, 25-26=-61/144, 24-25=-61/144, 23-24=-61/144, 22-23=-61/144, 21-22=-61/144, 20-21=-61/144, 19-20=-61/144
WEBS 2-35=-137/110, 3-34=-160/137, 4-33=-156/114, 6-32=-133/54, 7-31=-147/70, 8-30=-140/58, 9-29=-140/58, 10-28=-140/58, 11-26=-140/58, 12-25=-140/57, 13-24=-147/64, 14-23=-129/22, 16-22=-149/108, 17-21=-163/139, 18-20=-136/109

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 requires continuous bottom chord bearing.
7) N/a
8) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
9) * 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.
10) All bearings are assumed to be SPF No.2 .
11) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 75 lb uplift at joint 1, 33 lb uplift at joint 19, 91 lb uplift at joint 35, 112 lb uplift at joint 34, 90 lb uplift at joint 33, 30 lb uplift at joint 32, 46 lb uplift at joint 31, 34 lb uplift at joint 30, 34 lb uplift at joint 29, 34 lb uplift at joint 28, 34 lb uplift at joint 26, 33 lb uplift at joint 25, 40 lb uplift at joint 24, 84 lb uplift at joint 22, 114 lb uplift at joint 21 and 91 lb uplift at joint 20.
12) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

LOAD CASE(S) Standard

April 23,2024

Job	Truss	Truss Type	Qty	Ply	Lot 180 HT	
B240081	LAY2	Lay-In Gable	1	1	Job Reference (optional)	I65060109

Wheeler Lumber, Waverly, KS - 66871,

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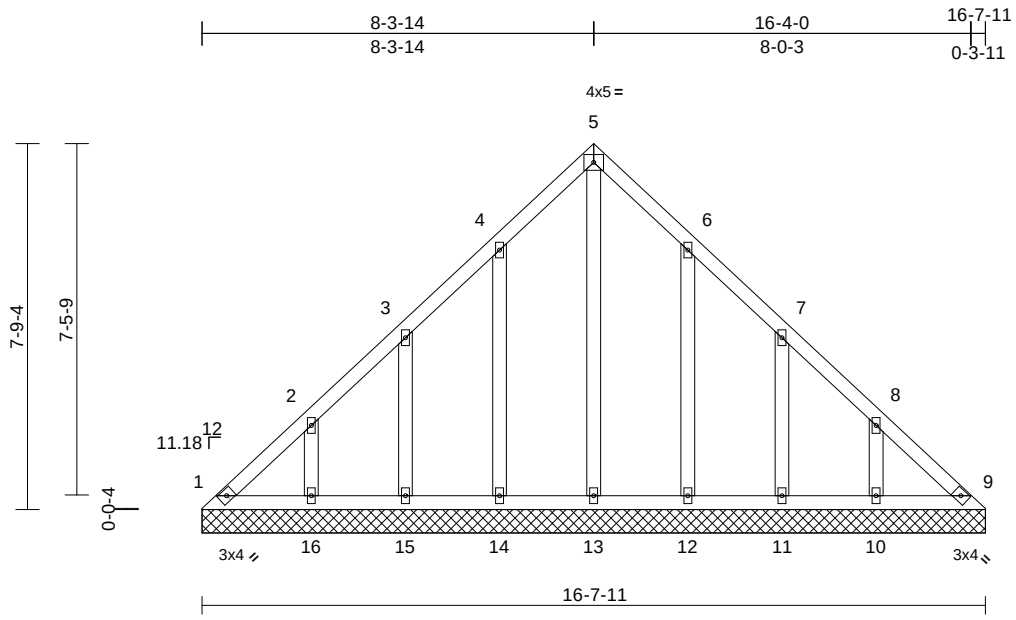

Scale = 1:48.9

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.06	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	0.14	Horiz(TL)	0.00	9	n/a	n/a		
BCDL	10.0	Code	IRC2021/TPI2014	Matrix-S							Weight: 76 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=16-7-11, 9=16-7-11, 10=16-7-11, 11=16-7-11, 12=16-7-11, 13=16-7-11, 14=16-7-11, 15=16-7-11, 16=16-7-11
Max Horiz 1=-194 (LC 4)
Max Uplift 1=-55 (LC 6), 9=-20 (LC 7), 10=-117 (LC 9), 11=-103 (LC 9), 12=-106 (LC 9), 14=-107 (LC 8), 15=-103 (LC 8), 16=-117 (LC 8)
Max Grav 1=150 (LC 17), 9=132 (LC 18), 10=220 (LC 16), 11=189 (LC 16), 12=206 (LC 16), 13=183 (LC 18), 14=208 (LC 15), 15=188 (LC 15), 16=221 (LC 15)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-229/158, 2-3=-145/115, 3-4=-122/104, 4-5=-101/159, 5-6=-81/141, 6-7=-83/69, 7-8=-109/63, 8-9=-193/106
BOT CHORD 1-16=-77/169, 15-16=-77/169, 14-15=-77/169, 13-14=-77/169, 12-13=-77/169, 11-12=-77/169, 10-11=-77/169, 9-10=-77/169
WEBS 5-13=-152/15, 4-14=-167/131, 3-15=-151/128, 2-16=-170/137, 6-12=-166/130, 7-11=-152/128, 8-10=-170/137

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) All plates are 2x4 MT20 unless otherwise indicated.
5) Gable requires continuous bottom chord bearing.
6) Gable studs spaced at 2-0-0 oc.
7) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
8) * 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 55 lb uplift at joint 1, 20 lb uplift at joint 9, 107 lb uplift at joint 14, 103 lb uplift at joint 15, 117 lb uplift at joint 16, 106 lb uplift at joint 12, 103 lb uplift at joint 11 and 117 lb uplift at joint 10.

LOAD CASE(S) Standard

April 23,2024

Job	Truss	Truss Type	Qty	Ply	Lot 180 HT	
B240081	LAY3	Lay-In Gable	1	1	Job Reference (optional)	I65060110

Wheeler Lumber, Waverly, KS - 66871,

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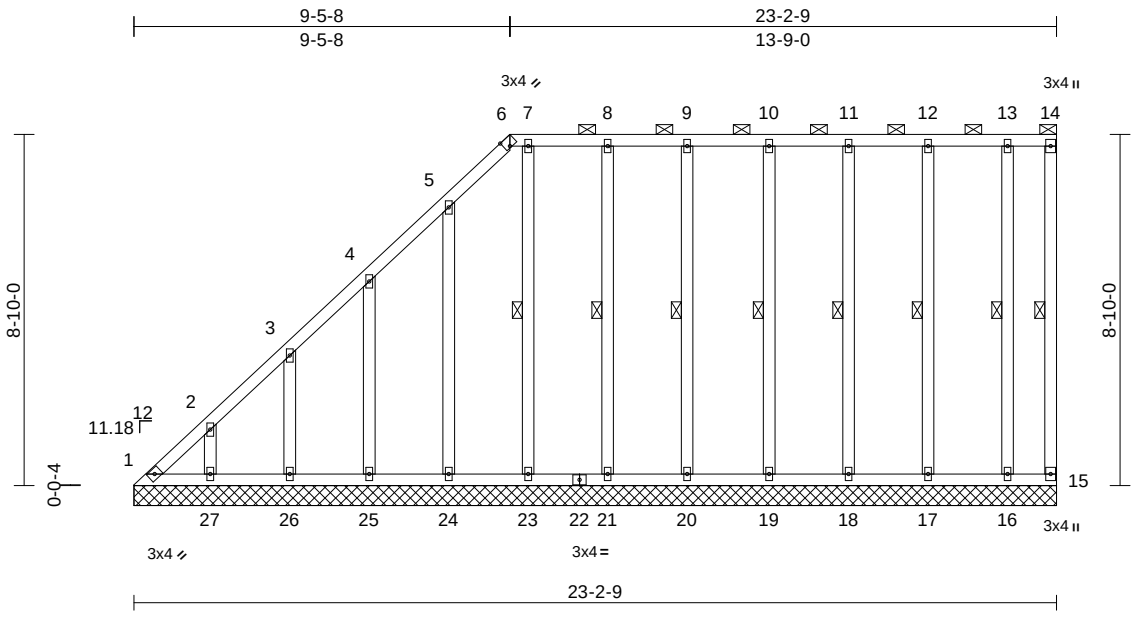

Scale = 1:58

Plate Offsets (X, Y): [6:0-1-10,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	0.32	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.14	Vert(TL)	n/a	-	n/a	999		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.14	Horiz(TL)	0.00	15	n/a	n/a		
BCDL	10.0	Code	IRC2021/TPI2014	Matrix-S							Weight: 150 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.): 6-14.
BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS	1 Row at midpt 14-15, 7-23, 8-21, 9-20, 10-19, 11-18, 12-17, 13-16

REACTIONS (size) 1=23-2-9, 15=23-2-9, 16=23-2-9, 17=23-2-9, 18=23-2-9, 19=23-2-9, 20=23-2-9, 21=23-2-9, 23=23-2-9, 24=23-2-9, 25=23-2-9, 26=23-2-9, 27=23-2-9
Max Horiz 1=340 (LC 5)
Max Uplift 1=-116 (LC 6), 15=-20 (LC 5), 16=-50 (LC 4), 17=-45 (LC 5), 18=-37 (LC 4), 19=-35 (LC 5), 20=-35 (LC 5), 21=-49 (LC 4), 23=-99 (LC 5), 24=-89 (LC 8), 25=-110 (LC 8), 26=-104 (LC 8), 27=-104 (LC 8)
Max Grav 1=239 (LC 5), 15=33 (LC 1), 16=149 (LC 22), 17=188 (LC 1), 18=178 (LC 1), 19=184 (LC 22), 20=184 (LC 1), 21=185 (LC 22), 23=181 (LC 1), 24=203 (LC 15), 25=194 (LC 15), 26=197 (LC 15), 27=194 (LC 15)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD	1-2=-353/229, 2-3=-300/194, 3-4=-244/156, 4-5=-221/146, 5-6=-175/122, 6-7=-121/92, 7-8=-121/92, 8-9=-121/92, 9-10=-121/92, 10-11=-121/92, 11-12=-121/92, 12-13=-121/92, 13-14=-121/92, 14-15=-94/85
BOT CHORD	1-27=-122/92, 26-27=-122/92, 25-26=-122/92, 24-25=-122/92, 23-24=-122/92, 21-23=-122/92, 20-21=-122/92, 19-20=-122/92, 18-19=-122/92, 17-18=-122/92, 16-17=-122/92, 15-16=-122/92
WEBS	2-27=-151/122, 3-26=-158/129, 4-25=-154/134, 5-24=-163/113, 7-23=-141/123, 8-21=-145/73, 9-20=-143/60, 10-19=-143/59, 11-18=-138/58, 12-17=-146/60, 13-16=-114/114

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 requires continuous bottom chord bearing.
7) N/a
8) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
9) * 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.
10) All bearings are assumed to be SPF No.2 .
11) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 116 lb uplift at joint 1, 20 lb uplift at joint 15, 104 lb uplift at joint 27, 104 lb uplift at joint 26, 110 lb uplift at joint 25, 89 lb uplift at joint 24, 99 lb uplift at joint 23, 49 lb uplift at joint 21, 35 lb uplift at joint 20, 35 lb uplift at joint 19, 37 lb uplift at joint 18, 45 lb uplift at joint 17 and 50 lb uplift at joint 16.
12) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

LOAD CASE(S) Standard

April 23,2024

Job	Truss	Truss Type	Qty	Ply	Lot 180 HT	
B240081	LAY4	Lay-In Gable	1	1	Job Reference (optional)	I65060111

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.73 S Apr 3 2024 Print: 8.730 S Apr 3 2024 MiTek Industries, Inc. Mon Apr 22 08:16:58

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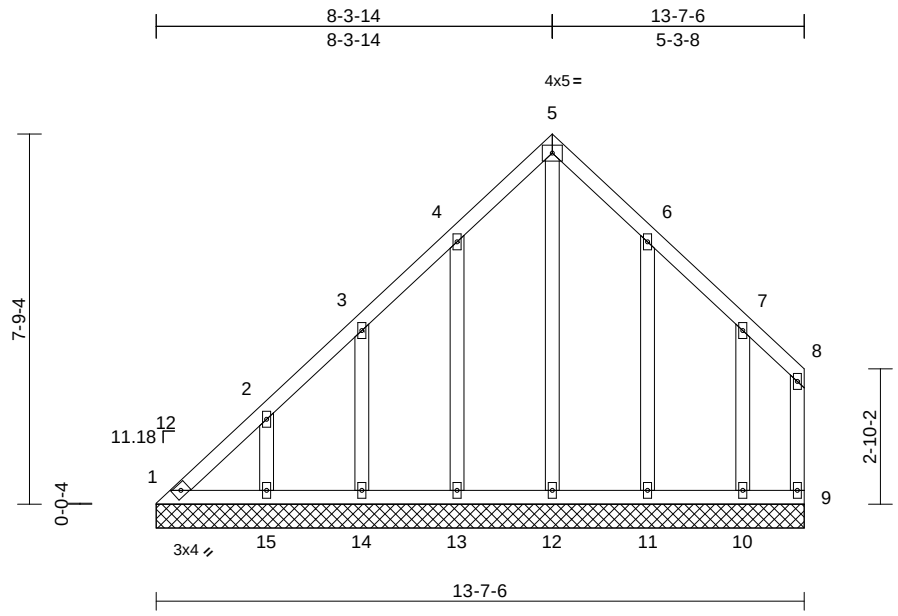

Scale = 1:48.4

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	0.07	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.03	Vert(TL)	n/a	-	n/a	999		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.21	Horiz(TL)	0.00	9	n/a	n/a		
BCDL	10.0	Code	IRC2021/TPI2014	Matrix-S							Weight: 69 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=13-7-6, 9=13-7-6, 10=13-7-6, 11=13-7-6, 12=13-7-6, 13=13-7-6, 14=13-7-6, 15=13-7-6
Max Horiz 1=230 (LC 5)
Max Uplift 1=-121 (LC 4), 9=-19 (LC 8), 10=-110 (LC 9), 11=-104 (LC 9), 12=-100 (LC 7), 13=-106 (LC 8), 14=-103 (LC 8), 15=-117 (LC 8)
Max Grav 1=189 (LC 7), 9=51 (LC 18), 10=181 (LC 16), 11=206 (LC 16), 12=246 (LC 4), 13=212 (LC 15), 14=187 (LC 15), 15=221 (LC 15)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-260/234, 2-3=-223/206, 3-4=-198/202, 4-5=-163/209, 5-6=-136/192, 6-7=-101/104, 7-8=-55/49, 8-9=-53/34
BOT CHORD 1-15=-43/36, 14-15=-43/36, 13-14=-43/36, 12-13=-43/36, 11-12=-43/36, 10-11=-43/36, 9-10=-43/36
WEBS 5-12=-223/140, 4-13=-171/130, 3-14=-149/128, 2-15=-170/137, 6-11=-167/129, 7-10=-134/126

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) All plates are 2x4 MT20 unless otherwise indicated.
5) Gable requires continuous bottom chord bearing.
6) Gable studs spaced at 2-0-0 oc.
7) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
8) * 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 121 lb uplift at joint 1, 19 lb uplift at joint 9, 100 lb uplift at joint 12, 106 lb uplift at joint 13, 103 lb uplift at joint 14, 117 lb uplift at joint 15, 104 lb uplift at joint 11 and 110 lb uplift at joint 10.

LOAD CASE(S) Standard

April 23,2024

Job	Truss	Truss Type	Qty	Ply	Lot 180 HT	
B240081	LAY5	Lay-In Gable	1	1	Job Reference (optional)	I65060112

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.73 S Apr 3 2024 Print: 8.730 S Apr 3 2024 MiTek Industries, Inc. Mon Apr 22 08:16:58

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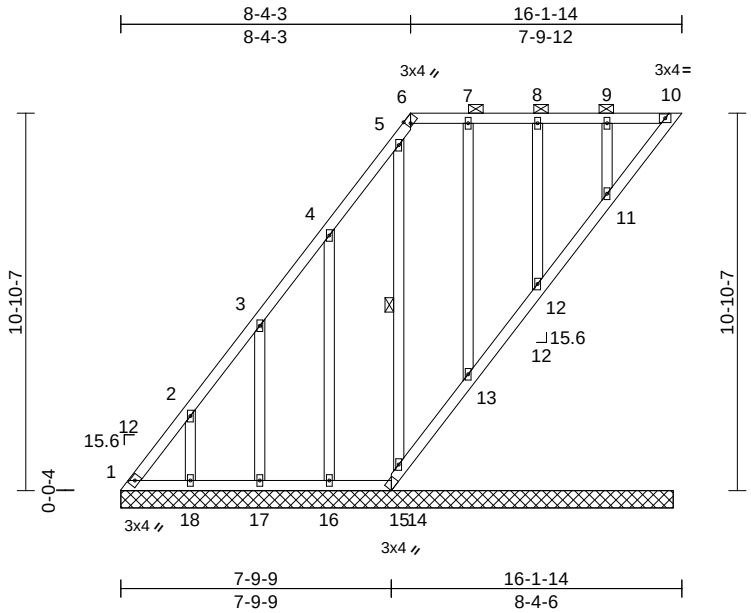

Scale = 1:66.4

Plate Offsets (X, Y): [6:0-1-4,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	0.07	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.03	Vert(TL)	n/a	-	n/a	999		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.18	Horiz(TL)	-0.01	10	n/a	n/a		
BCDL	10.0	Code	IRC2021/TPI2014	Matrix-S							Weight: 92 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.): 6-10.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 1 Row at midpt 5-14

REACTIONS (size) 1=15-10-14, 10=15-10-14, 11=15-10-14, 12=15-10-14, 13=15-10-14, 14=15-10-14, 15=15-10-14, 16=15-10-14, 17=15-10-14, 18=15-10-14
Max Horiz 1=432 (LC 8)
Max Uplift 1=-140 (LC 6), 10=-94 (LC 8), 11=-36 (LC 4), 12=-37 (LC 5), 13=-38 (LC 4), 14=-54 (LC 8), 15=-50 (LC 15), 16=-188 (LC 8), 17=-168 (LC 8), 18=-178 (LC 8)
Max Grav 1=410 (LC 8), 10=86 (LC 1), 11=195 (LC 1), 12=178 (LC 1), 13=181 (LC 22), 14=161 (LC 1), 15=116 (LC 8), 16=235 (LC 15), 17=220 (LC 15), 18=232 (LC 15)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=-532/237, 2-3=-362/164, 3-4=-189/94, 4-5=-84/29, 5-6=-69/63, 6-7=-31/73, 7-8=-31/73, 8-9=-31/73, 9-10=-31/73
BOT CHORD 1-18=-73/31, 17-18=-73/31, 16-17=-73/31, 15-16=-73/31, 14-15=-130/76, 13-14=-129/68, 12-13=-129/67, 11-12=-129/68, 10-11=-129/60
WEBS 2-18=-184/194, 3-17=-182/193, 4-16=-195/214, 5-14=-118/54, 7-13=-140/62, 8-12=-139/61, 9-11=-149/60

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) N/a
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 140 lb uplift at joint 1, 94 lb uplift at joint 10, 50 lb uplift at joint 15, 178 lb uplift at joint 18, 168 lb uplift at joint 17, 188 lb uplift at joint 16, 54 lb uplift at joint 14, 38 lb uplift at joint 13, 37 lb uplift at joint 12 and 36 lb uplift at joint 11.
11) Non Standard bearing condition. Review required.
12) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

LOAD CASE(S) Standard

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

April 23,2024

Job	Truss	Truss Type	Qty	Ply	Lot 180 HT	
B240081	LAY6	Lay-In Gable	1	1	Job Reference (optional)	I65060113

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.73 S Apr 3 2024 Print: 8.730 S Apr 3 2024 MiTek Industries, Inc. Mon Apr 22 08:16:58
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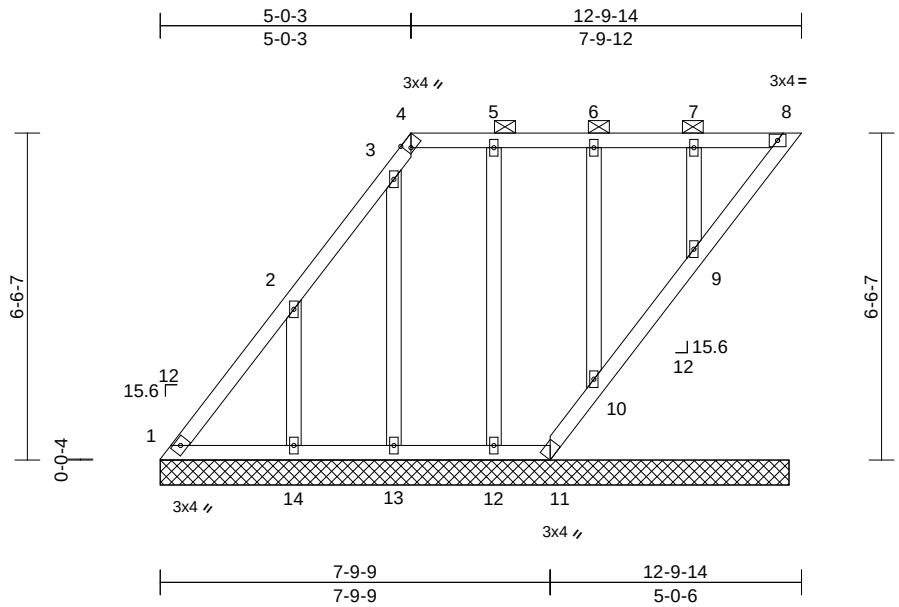

Scale = 1:46.1

Plate Offsets (X, Y): [4:0-1-4,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	0.08	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	0.10	Horiz(TL)	0.00	8	n/a	n/a		
BCDL	10.0	Code	IRC2021/TPI2014	Matrix-S							Weight: 60 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.): 4-8.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (size) 1=12-6-14, 8=12-6-14, 9=12-6-14, 10=12-6-14, 11=12-6-14, 12=12-6-14, 13=12-6-14, 14=12-6-14
Max Horiz 1=255 (LC 8)
Max Uplift 1=-39 (LC 6), 8=-48 (LC 8), 9=-36 (LC 4), 10=-41 (LC 5), 11=-18 (LC 15), 12=-38 (LC 4), 13=-56 (LC 8), 14=-233 (LC 8)
Max Grav 1=201 (LC 8), 8=86 (LC 1), 9=196 (LC 22), 10=172 (LC 1), 11=58 (LC 8), 12=177 (LC 22), 13=144 (LC 1), 14=295 (LC 15)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-275/137, 2-3=-96/37, 3-4=-69/35, 4-5=-20/38, 5-6=-20/38, 6-7=-20/38, 7-8=-20/38
BOT CHORD 1-14=-38/20, 13-14=-38/20, 12-13=-38/20, 11-12=-38/20, 10-11=-65/45, 9-10=-71/50, 8-9=-71/40
WEBS 7-9=-149/60, 6-10=-139/59, 5-12=-141/60, 3-13=-109/83, 2-14=-234/250

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 2-0-0 oc.
7) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
8) * 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 39 lb uplift at joint 1, 48 lb uplift at joint 8, 18 lb uplift at joint 11, 36 lb uplift at joint 9, 41 lb uplift at joint 10, 38 lb uplift at joint 12, 56 lb uplift at joint 13 and 233 lb uplift at joint 14.
11) Non Standard bearing condition. Review required.
12) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

LOAD CASE(S) Standard

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

April 23,2024

Job	Truss	Truss Type	Qty	Ply	Lot 180 HT	
B240081	LAY7	Lay-In Gable	1	1	Job Reference (optional)	I65060114

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.73 S Apr 3 2024 Print: 8.730 S Apr 3 2024 MiTek Industries, Inc. Mon Apr 22 08:16:58
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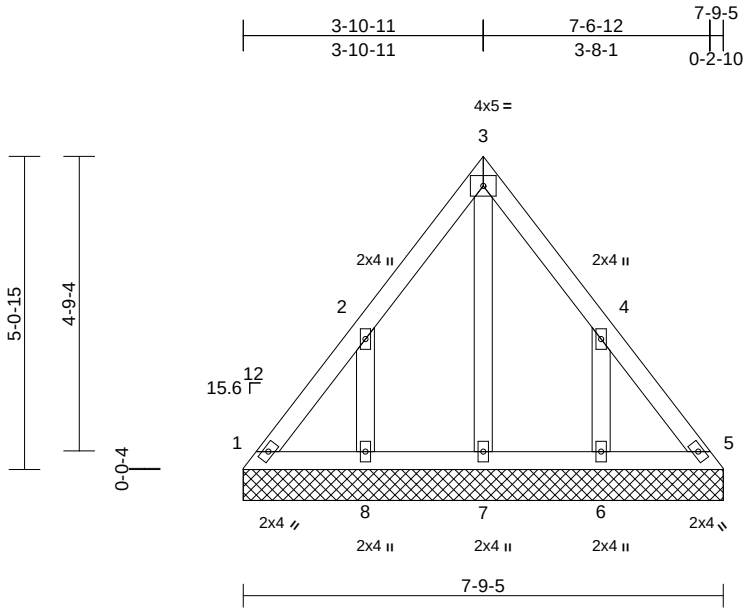

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Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.06	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.02	Vert(TL)	n/a	-	n/a	999		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.04	Horiz(TL)	0.00	5	n/a	n/a		
BCDL	10.0	Code	IRC2021/TPI2014	Matrix-P							Weight: 32 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=7-9-5, 5=7-9-5, 6=7-9-5, 7=7-9-5, 8=7-9-5
Max Horiz 1=132 (LC 7)
Max Uplift 1=-43 (LC 6), 5=-26 (LC 7), 6=-193 (LC 9), 8=-193 (LC 8)
Max Grav 1=124 (LC 17), 5=116 (LC 18), 6=246 (LC 16), 7=119 (LC 18), 8=246 (LC 15)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-158/117, 2-3=-107/87, 3-4=-94/73, 4-5=-144/95
BOT CHORD 1-8=-61/119, 7-8=-61/119, 6-7=-61/119, 5-6=-61/119
WEBS 2-8=-206/217, 3-7=-82/6, 4-6=-205/217

NOTES
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=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) N/a
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 43 lb uplift at joint 1, 26 lb uplift at joint 5, 193 lb uplift at joint 8 and 193 lb uplift at joint 6.

LOAD CASE(S) Standard

April 23,2024

Job	Truss	Truss Type	Qty	Ply	Lot 180 HT	
B240081	R1	Flat Girder	1	2	Job Reference (optional)	I65060115

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.73 S Apr 3 2024 Print: 8.730 S Apr 3 2024 MiTek Industries, Inc. Mon Apr 22 08:16:58

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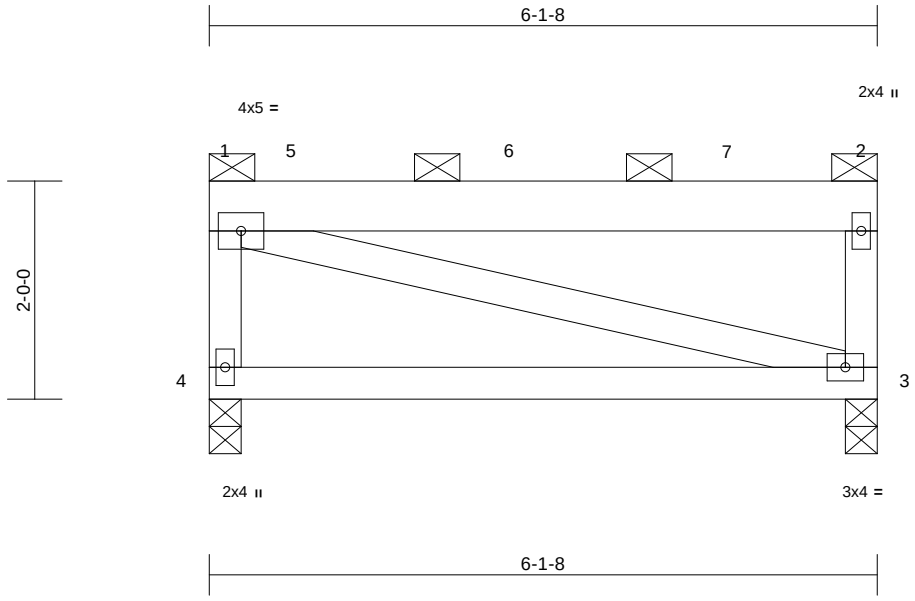

Scale = 1:21.1

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.80	Vert(LL)	-0.03	3-4	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.20	Vert(CT)	-0.07	3-4	>999	240		
BCLL	0.0*	Rep Stress Incr	NO	WB	0.00	Horz(CT)	0.00	3	n/a	n/a		
BCDL	10.0	Code	IRC2021/TPI2014	Matrix-P							Weight: 61 lb	FT = 10%

LUMBER

TOP CHORD 2x6 SP 2400F 2.0E
BOT CHORD 2x4 SPF No.2
WEBS 2x4 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=0-3-8, 4=0-3-8
Max Horiz 4=62 (LC 7)
Max Uplift 3=-310 (LC 5), 4=-380 (LC 4)
Max Grav 3=1830 (LC 1), 4=2217 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-4=-2159/415, 1-2=-23/18, 2-3=-1772/336
BOT CHORD 3-4=-54/49
WEBS 1-3=-32/32

NOTES

1) 2-ply truss to be connected together with 10d (0.131"x3") nails as follows:
Top chords connected as follows: 2x4 - 1 row at 0-9-0 oc, 2x6 - 2 rows staggered at 0-9-0 oc.
Bottom chords connected as follows: 2x4 - 1 row at 0-9-0 oc.
Web connected as follows: 2x4 - 1 row at 0-9-0 oc.
2) All loads are considered equally applied to all plies, except if noted as front (F) or back (B) face in the LOAD CASE(S) section. Ply to ply connections have been provided to distribute only loads noted as (F) or (B), unless otherwise indicated.
3) 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
4) Provide adequate drainage to prevent water ponding.
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 380 lb uplift at joint 4 and 310 lb uplift at joint 3.
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) 1183 lb down and 198 lb up at 0-9-0, and 1169 lb down and 191 lb up at 2-9-0, and 1169 lb down and 185 lb up at 4-9-0 on top chord. The design/selection of such connection device(s) is the responsibility of others.

LOAD CASE(S) Standard

1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (lb/ft)
Vert: 1-2=-70, 3-4=-20
Concentrated Loads (lb)
Vert: 5=-1183, 6=-1169, 7=-1169

April 23,2024

Job	Truss	Truss Type	Qty	Ply	Lot 180 HT	
B240081	V1	Valley	1	1	Job Reference (optional)	I65060116

Wheeler Lumber, Waverly, KS - 66871,

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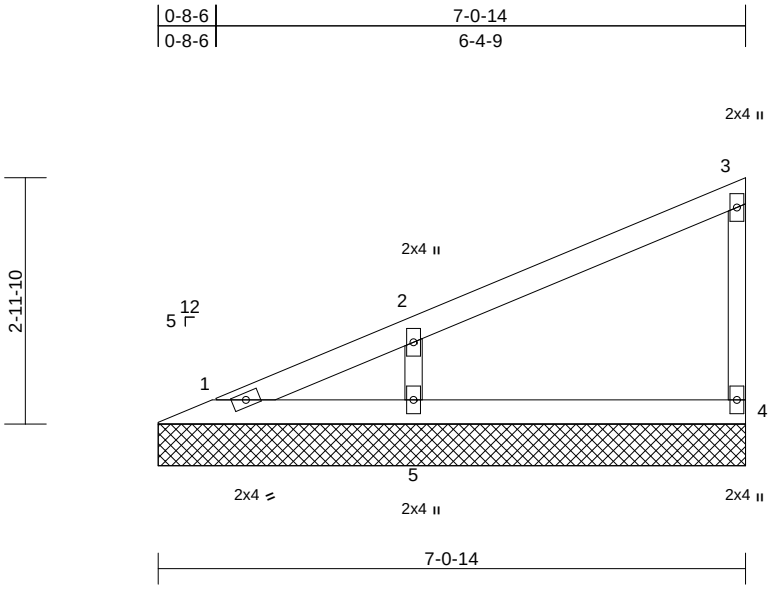

Scale = 1:27.8

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.19	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	0.05	Horiz(TL)	0.00	4	n/a	n/a		
BCDL	10.0	Code	IRC2021/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=7-0-14, 4=7-0-14, 5=7-0-14
Max Horiz 1=115 (LC 7)
Max Uplift 4=-27 (LC 8), 5=-98 (LC 8)
Max Grav 1=61 (LC 16), 4=142 (LC 1), 5=370 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-95/49, 2-3=-90/32, 3-4=-111/46
BOT CHORD 1-5=-37/28, 4-5=-37/28
WEBS 2-5=-288/148

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 98 lb uplift at joint 5.

LOAD CASE(S) Standard

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

April 23,2024

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 BEFORE USE.
Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI1 Quality Criteria, and DSB-22** available from Truss Plate Institute (www.tpinst.org) and **BCSI Building Component Safety Information** available from the Structural Building Component Association (www.sbcscomponents.com)

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

Job	Truss	Truss Type	Qty	Ply	Lot 180 HT	
B240081	V2	Valley	1	1	Job Reference (optional)	I65060117

Wheeler Lumber, Waverly, KS - 66871,

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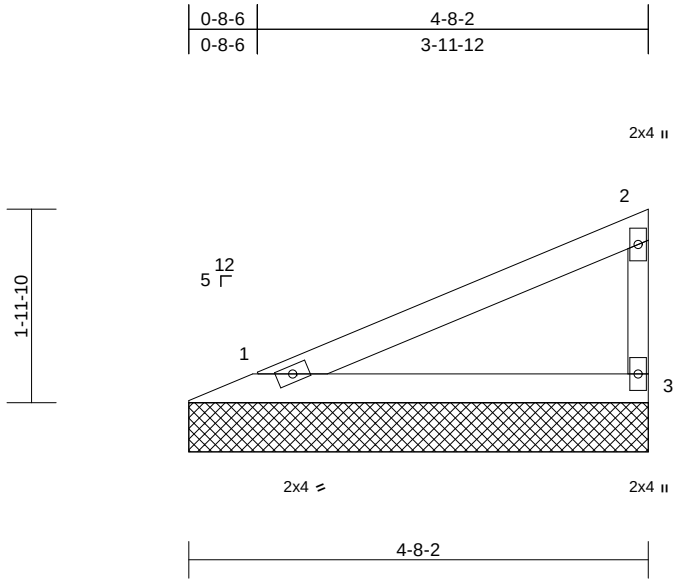

Scale = 1:23.4

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	0.28	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.15	Vert(TL)	n/a	-	n/a	999		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.00	Horiz(TL)	0.00	3	n/a	n/a		
BCDL	10.0	Code	IRC2021/TPI2014	Matrix-P							Weight: 11 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 4-8-11 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (size) 1=4-8-2, 3=4-8-2
Max Horiz 1=71 (LC 5)
Max Uplift 1=-25 (LC 8), 3=-40 (LC 8)
Max Grav 1=174 (LC 1), 3=174 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-63/42, 2-3=-135/63
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 25 lb uplift at joint 1 and 40 lb uplift at joint 3.

LOAD CASE(S) Standard

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

April 23,2024

Job	Truss	Truss Type	Qty	Ply	Lot 180 HT	
B240081	V3	Valley	1	1	Job Reference (optional)	I65060118

Wheeler Lumber, Waverly, KS - 66871,

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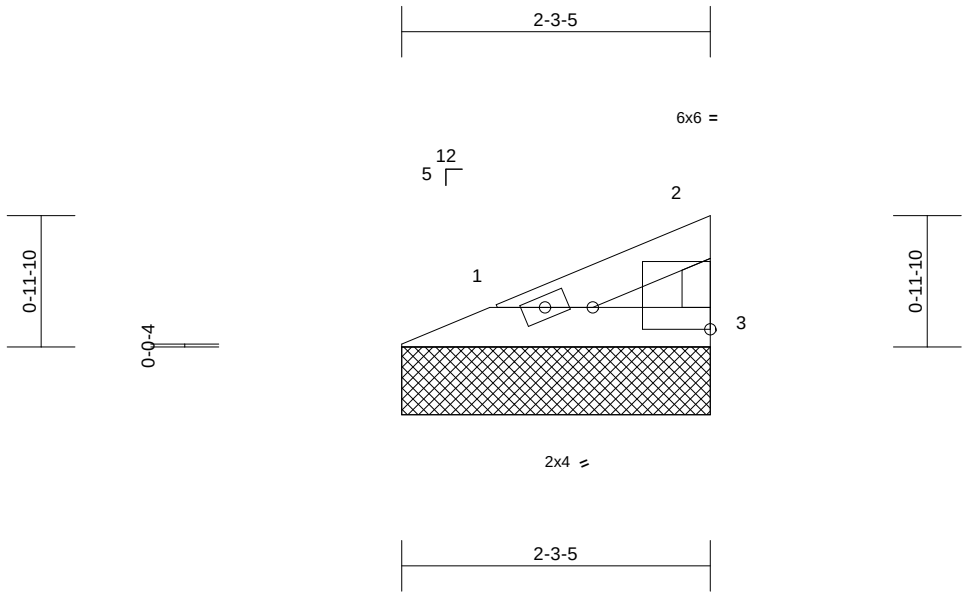

Scale = 1:17

Plate Offsets (X, Y): [2:Edge,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	0.03	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.02	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	IRC2021/TPI2014	Matrix-P							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 2-3-14 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (size) 1=2-3-5, 3=2-3-5
Max Horiz 1=27 (LC 7)
Max Uplift 1=-10 (LC 8), 3=-15 (LC 8)
Max Grav 1=66 (LC 1), 3=66 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-24/16, 2-3=-51/24
BOT CHORD 1-3=-9/7

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 10 lb uplift at joint 1 and 15 lb uplift at joint 3.

LOAD CASE(S) Standard

April 23,2024

Job	Truss	Truss Type	Qty	Ply	Lot 180 HT	
B240081	V4	Valley	1	1	Job Reference (optional)	I65060119

Wheeler Lumber, Waverly, KS - 66871,

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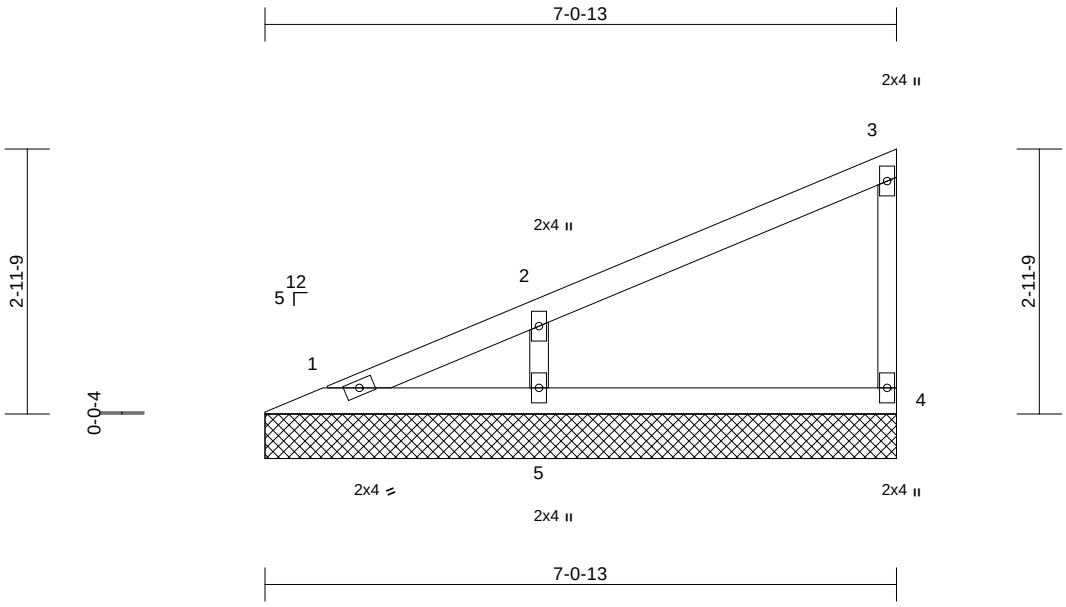

Scale = 1:25.8

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.19	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	0.05	Horiz(TL)	0.00	4	n/a	n/a		
BCDL	10.0	Code	IRC2021/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=7-0-13, 4=7-0-13, 5=7-0-13
Max Horiz 1=114 (LC 5)
Max Uplift 4=-27 (LC 8), 5=-98 (LC 8)
Max Grav 1=61 (LC 16), 4=142 (LC 1), 5=370 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD	1-2=-95/49, 2-3=-90/32, 3-4=-111/46
BOT CHORD	1-5=-37/28, 4-5=-37/28
WEBS	2-5=-287/148

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 98 lb uplift at joint 5.

LOAD CASE(S) Standard

April 23,2024

Job	Truss	Truss Type	Qty	Ply	Lot 180 HT	
B240081	V5	Valley	1	1	Job Reference (optional)	I65060120

Wheeler Lumber, Waverly, KS - 66871,

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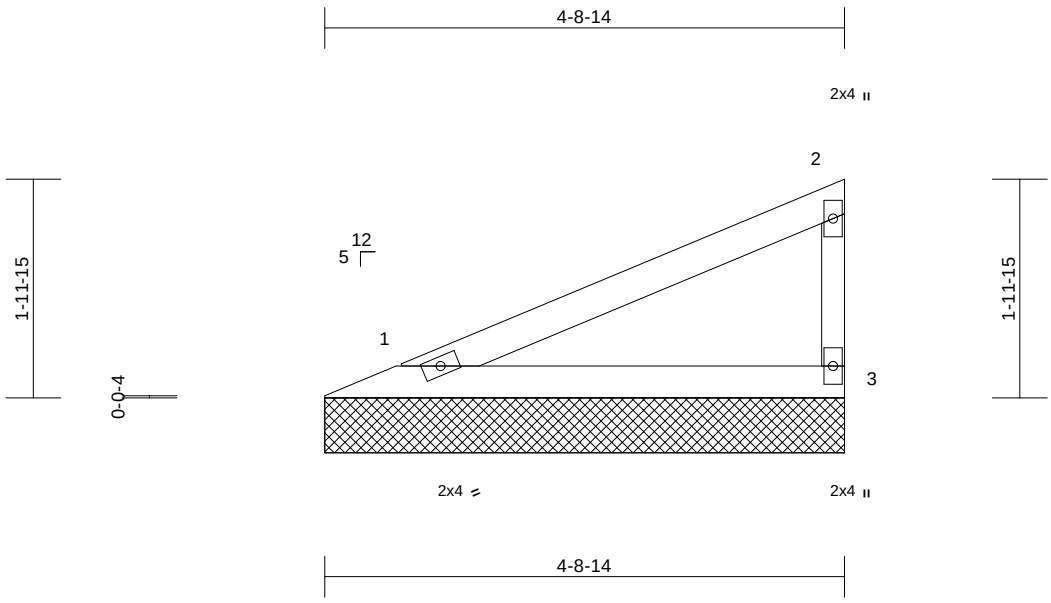

Scale = 1:21

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.29	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.16	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	IRC2021/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

BRACING
TOP CHORD Structural wood sheathing directly applied or 4-9-8 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (size) 1=4-8-14, 3=4-8-14
Max Horiz 1=72 (LC 7)
Max Uplift 1=-26 (LC 8), 3=-40 (LC 8)
Max Grav 1=177 (LC 1), 3=177 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-64/43, 2-3=-138/64
BOT CHORD 1-3=-23/18

LOAD CASE(S) Standard

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 26 lb uplift at joint 1 and 40 lb uplift at joint 3.

April 23,2024

Job	Truss	Truss Type	Qty	Ply	Lot 180 HT	
B240081	V6	Valley	1	1	Job Reference (optional)	I65060121

Wheeler Lumber, Waverly, KS - 66871,

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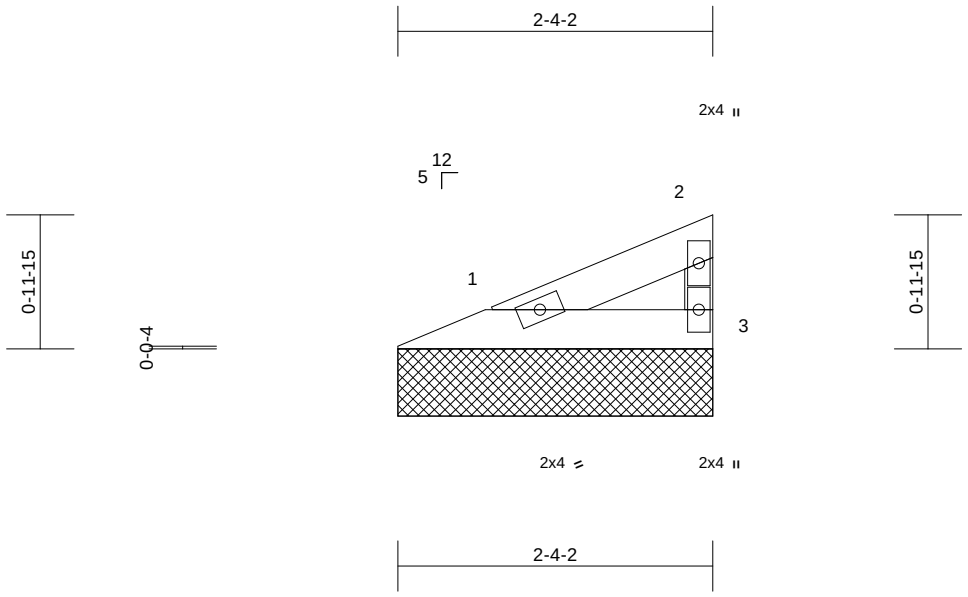

Scale = 1:17.1

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	0.04	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.02	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	IRC2021/TPI2014	Matrix-P							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 2-4-11 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (size) 1=2-4-2, 3=2-4-2
Max Horiz 1=28 (LC 7)
Max Uplift 1=-10 (LC 8), 3=-16 (LC 8)
Max Grav 1=69 (LC 1), 3=69 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-25/17, 2-3=-54/25
BOT CHORD 1-3=-9/7

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 10 lb uplift at joint 1 and 16 lb uplift at joint 3.

LOAD CASE(S) Standard

April 23,2024

Job	Truss	Truss Type	Qty	Ply	Lot 180 HT	
B240081	V7	Valley	1	1	Job Reference (optional)	I65060122

Wheeler Lumber, Waverly, KS - 66871,

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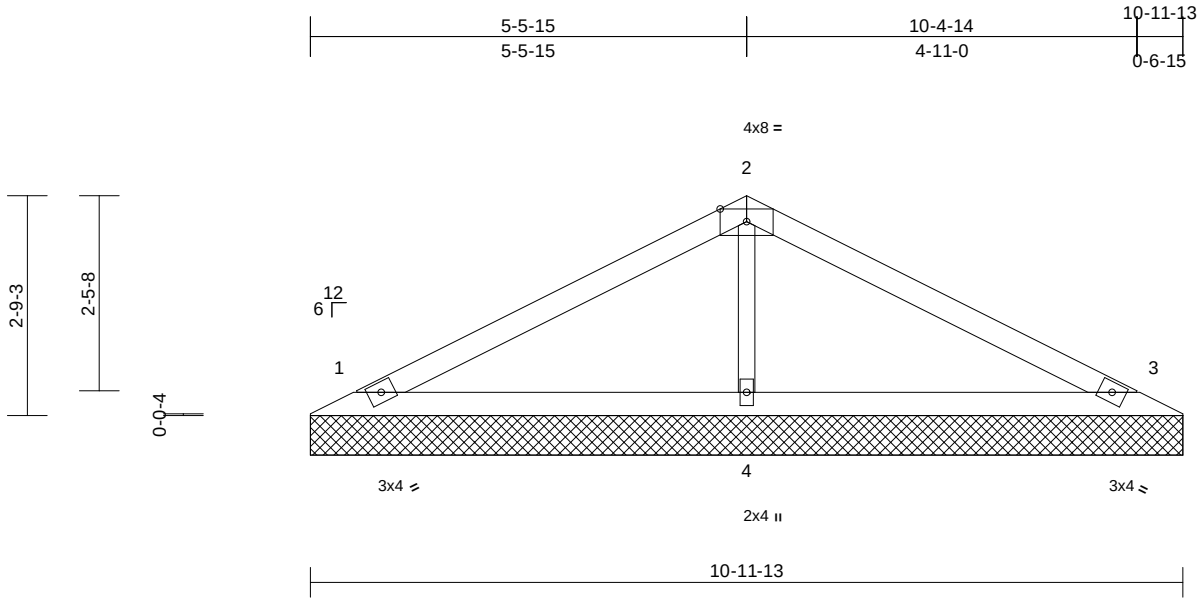

Scale = 1:29

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	0.34	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.20	Vert(TL)	n/a	-	n/a	999		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.07	Horiz(TL)	0.00	3	n/a	n/a		
BCDL	10.0	Code	IRC2021/TPI2014	Matrix-S							Weight: 27 lb	FT = 10%

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

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

REACTIONS (size) 1=10-11-13, 3=10-11-13, 4=10-11-13
Max Horiz 1=43 (LC 8)
Max Uplift 1=-42 (LC 8), 3=-50 (LC 9), 4=-26 (LC 8)
Max Grav 1=208 (LC 21), 3=208 (LC 22), 4=468 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-127/63, 2-3=-127/46
BOT CHORD 1-4=-3/53, 3-4=-3/53
WEBS 2-4=-320/84

NOTES
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=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 4-0-0 oc.
6) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
7) * 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 42 lb uplift at joint 1, 50 lb uplift at joint 3 and 26 lb uplift at joint 4.

LOAD CASE(S) Standard

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

April 23,2024

Job	Truss	Truss Type	Qty	Ply	Lot 180 HT	
B240081	V8	Valley	1	1	Job Reference (optional)	I65060123

Wheeler Lumber, Waverly, KS - 66871,

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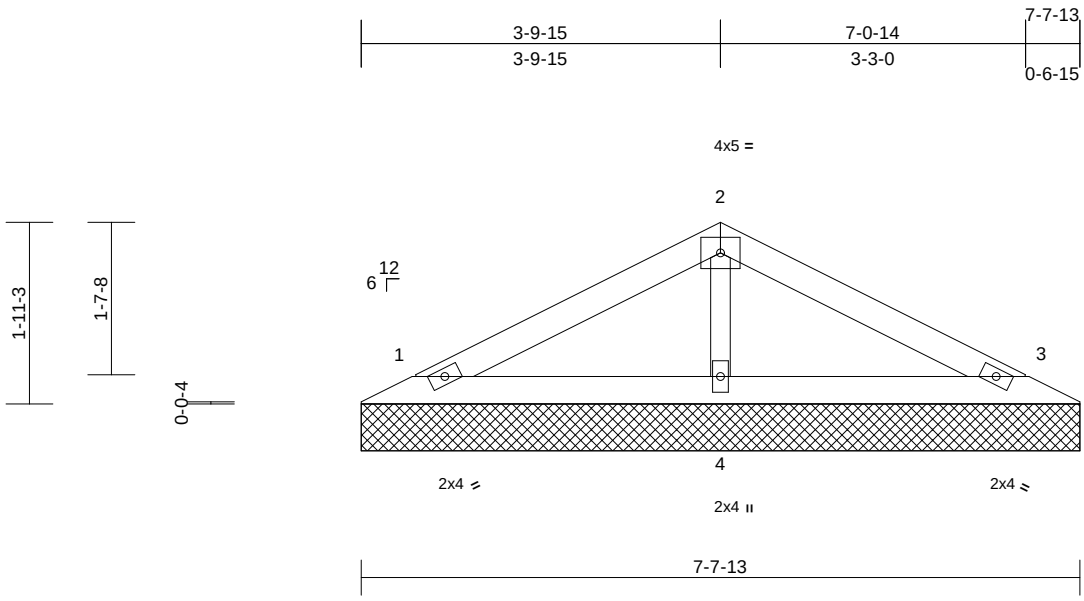

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Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.19	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.09	Vert(TL)	n/a	-	n/a	999		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.04	Horiz(TL)	0.00	3	n/a	n/a		
BCDL	10.0	Code	IRC2021/TPI2014	Matrix-P							Weight: 18 lb	FT = 10%

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

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

REACTIONS (size) 1=7-7-13, 3=7-7-13, 4=7-7-13
Max Horiz 1=29 (LC 8)
Max Uplift 1=-35 (LC 8), 3=-40 (LC 9), 4=-4 (LC 8)
Max Grav 1=152 (LC 1), 3=152 (LC 1), 4=278 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-73/41, 2-3=-73/29
BOT CHORD 1-4=-1/32, 3-4=-1/32
WEBS 2-4=-198/52

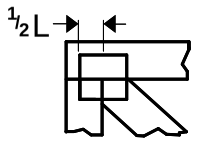
NOTES
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber 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 35 lb uplift at joint 1, 40 lb uplift at joint 3 and 4 lb uplift at joint 4.

LOAD CASE(S) Standard

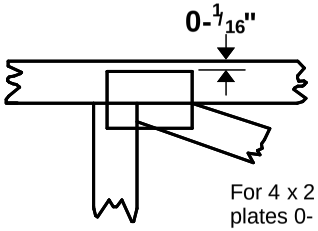
April 23,2024

Symbols

PLATE LOCATION AND ORIENTATION



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



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

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

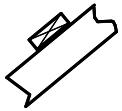
* Plate location details available in MiTek software or upon request.

PLATE SIZE

4 x 4

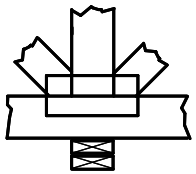
The first dimension is the plate width measured perpendicular to slots. Second dimension is the length parallel to slots.

LATERAL BRACING LOCATION



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

BEARING

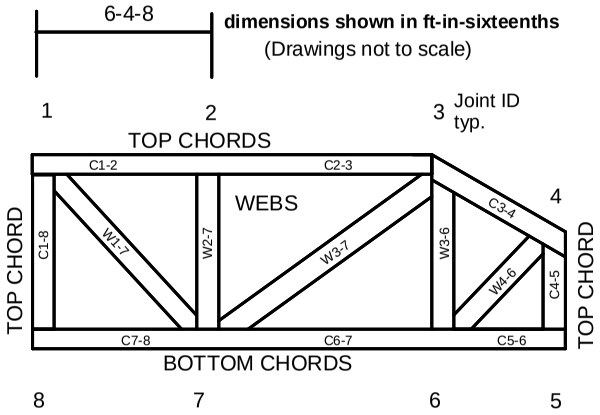


Indicates location where bearings (supports) occur. Icons vary but reaction section indicates joint number/letter where bearings occur. Min size shown is for crushing only.

Industry Standards:

ANSI/TPI1: National Design Specification for Metal Plate Connected Wood Truss Construction.
DSB-22: Design Standard for Bracing.
BCSI: Building Component Safety Information, Guide to Good Practice for Handling, Installing, Restraining & Bracing of Metal Plate Connected Wood Trusses.

Numbering System



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

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

Product Code Approvals

ICC-ES Reports:

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

Design General Notes

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

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

MiTek®

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

General Safety Notes

Failure to Follow Could Cause Property Damage or Personal Injury

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