



08/31/2021

RE: Lot 16 OS
Lot 16 OS

MiTek USA, Inc.

16023 Swingley Ridge Rd
Chesterfield, MO 63017
314-434-1200

Site Information:

Customer: Project Name: Lot 16 OS
Lot/Block:

Model:

Address:

Subdivision:

City:

State:

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

Design Code: IRC2018/TPI2014

Design Program: MiTek 20/20 8.4

Wind Code: ASCE 7 - 16[Low Rise]

Wind Speed: 115 mph

Roof Load: 45.0 psf

Floor Load: N/A psf

This package includes 22 individual, dated Truss Design Drawings and 0 Additional Drawings.

No.	Seal#	Truss Name	Date	No.	Seal#	Truss Name	Date
1	I47537473	B1	8/20/2021	21	I47537493	V7	8/20/2021
2	I47537474	B2	8/20/2021	22	I47537494	V8	8/20/2021
3	I47537475	D1	8/20/2021				
4	I47537476	D2	8/20/2021				
5	I47537477	D3	8/20/2021				
6	I47537478	D4	8/20/2021				
7	I47537479	E1	8/20/2021				
8	I47537480	E2	8/20/2021				
9	I47537481	E3	8/20/2021				
10	I47537482	E4	8/20/2021				
11	I47537483	E5	8/20/2021				
12	I47537484	E6	8/20/2021				
13	I47537485	G1	8/20/2021				
14	I47537486	G2	8/20/2021				
15	I47537487	V1	8/20/2021				
16	I47537488	V2	8/20/2021				
17	I47537489	V3	8/20/2021				
18	I47537490	V4	8/20/2021				
19	I47537491	V5	8/20/2021				
20	I47537492	V6	8/20/2021				

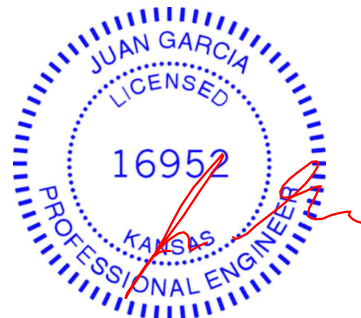
The truss drawing(s) referenced above have been prepared by
MiTek USA, Inc. under my direct supervision
based on the parameters provided by Wheeler - Waverly.

Truss Design Engineer's Name: Garcia, Juan

My license renewal date for the state of Kansas is April 30, 2022.

Kansas COA: E-943

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



August 20, 2021



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Chesterfield, MO 63017
314-434-1200

Site Information:

Customer: Project Name: Lot 16 OS
Lot/Block:

Model:

Address:

Subdivision:

City:

State:

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

Design Code: IRC2018/TPI2014

Design Program: MiTek 20/20 8.4

Wind Code: ASCE 7 - 16[Low Rise]

Wind Speed: 115 mph

Roof Load: 45.0 psf

Floor Load: N/A psf

This package includes 22 individual, dated Truss Design Drawings and 0 Additional Drawings.

No.	Seal#	Truss Name	Date	No.	Seal#	Truss Name	Date
1	I47537473	B1	8/20/2021	21	I47537493	V7	8/20/2021
2	I47537474	B2	8/20/2021	22	I47537494	V8	8/20/2021
3	I47537475	D1	8/20/2021				
4	I47537476	D2	8/20/2021				
5	I47537477	D3	8/20/2021				
6	I47537478	D4	8/20/2021				
7	I47537479	E1	8/20/2021				
8	I47537480	E2	8/20/2021				
9	I47537481	E3	8/20/2021				
10	I47537482	E4	8/20/2021				
11	I47537483	E5	8/20/2021				
12	I47537484	E6	8/20/2021				
13	I47537485	G1	8/20/2021				
14	I47537486	G2	8/20/2021				
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18	I47537490	V4	8/20/2021				
19	I47537491	V5	8/20/2021				
20	I47537492	V6	8/20/2021				

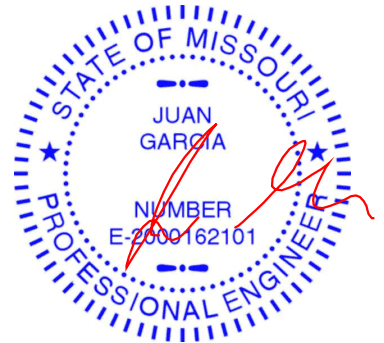
The truss drawing(s) referenced above have been prepared by
MiTek USA, Inc. under my direct supervision
based on the parameters provided by Wheeler - Waverly.

Truss Design Engineer's Name: Garcia, Juan

My license renewal date for the state of Missouri is December 31, 2022.

Missouri COA: 001193

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



August 20, 2021

Job	Truss	Truss Type	Qty	Ply	Lot 16 OS
Lot 16 OS	B1	GABLE	2	1	Job Reference (optional)

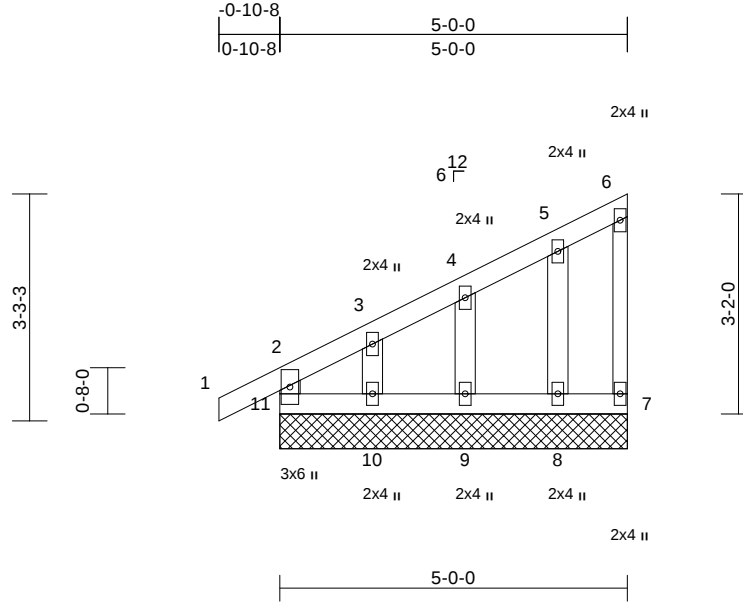
Wheeler Lumber, Waverly, KS - 66871,

Run: 8.43 S Jul 29 2021 Print: 8.430 S Jul 29 2021 MiTek Industries, Inc. Thu Aug 19 15:46:30 Page: 1
ID:8P?dviekSizfLw20bjyFd2znq1v-RfC?PsB70Hq3NSgPqnL8w3ulTXbGKWCD0i7J423C41

RELEASE FOR CONSTRUCTION

AS NOTED FOR PLAN REVIEW
DEVELOPMENT SERVICES
147537473
LEE'S SUMMIT, MISSOURI

08/31/2021



Scale = 1:33.1

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	n/a	-	n/a	999	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.02	n/a	-	n/a	999		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.01	Horz(CT)	0.00	7	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-R						Weight: 21 lb	FT = 10%

LUMBER

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

BRACING

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

REACTIONS

(lb/size)	7=29/5-0-0, 8=107/5-0-0, 9=132/5-0-0, 10=81/5-0-0, 11=151/5-0-0
Max Horiz	11=125 (LC 5)
Max Uplift	7=-16 (LC 5), 8=-33 (LC 8), 9=-31 (LC 8), 10=-62 (LC 8), 11=-18 (LC 4)
Max Grav	7=31 (LC 15), 8=107 (LC 1), 9=132 (LC 1), 10=81 (LC 15), 11=151 (LC 1)

FORCES

(lb) - Maximum Compression/Maximum Tension

TOP CHORD	2-11=-134/23, 1-2=0/32, 2-3=-96/21, 3-4=-70/30, 4-5=-63/27, 5-6=-45/28, 6-7=-23/10
BOT CHORD	10-11=-40/30, 9-10=-40/30, 8-9=-40/30, 7-8=-40/30
WEBS	3-10=-62/62, 4-9=-103/53, 5-8=-82/35

NOTES

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 2) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- 3) All plates are 2x4 MT20 unless otherwise indicated.

- 4) Gable requires continuous bottom chord bearing.
- 5) Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
- 6) Gable studs spaced at 1-4-0 oc.
- 7) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 8) * 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) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 18 lb uplift at joint 11, 16 lb uplift at joint 7, 62 lb uplift at joint 10, 31 lb uplift at joint 9 and 33 lb uplift at joint 8.
- 10) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard



August 20,2021

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE.

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ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component

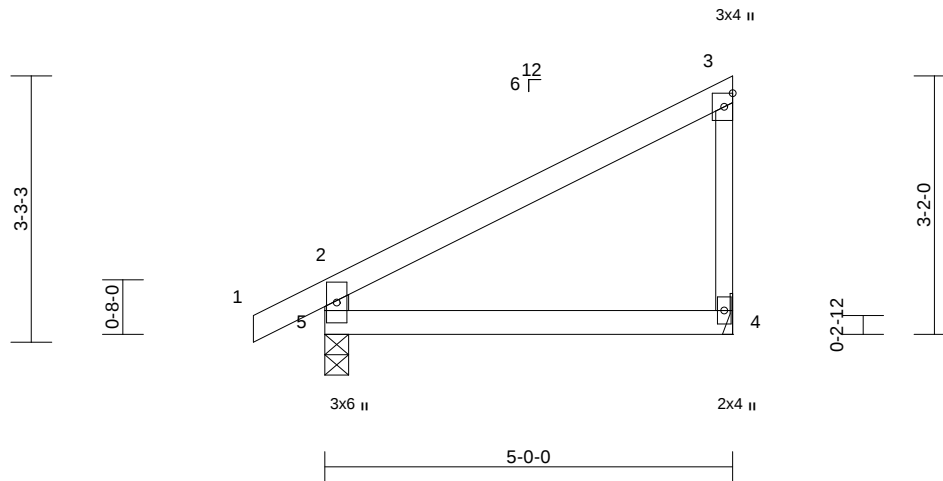
Safety Information available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



16023 Swingley Ridge Rd
Chesterfield, MO 63017

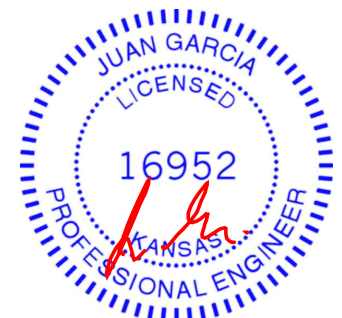
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-0-10-8	5-0-0
0-10-8	5-0-0

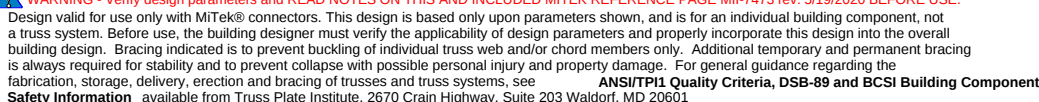


Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.30	Vert(LL)	-0.02	4-5	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.19	Vert(CT)	-0.05	4-5	>999	240		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.00	Horz(CT)	0.00	4	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-R		Wind(LL)	0.01	4-5	>999	240	Weight: 16 lb	FT = 10%

LOAD CASE(S) Standard



August 20, 2021

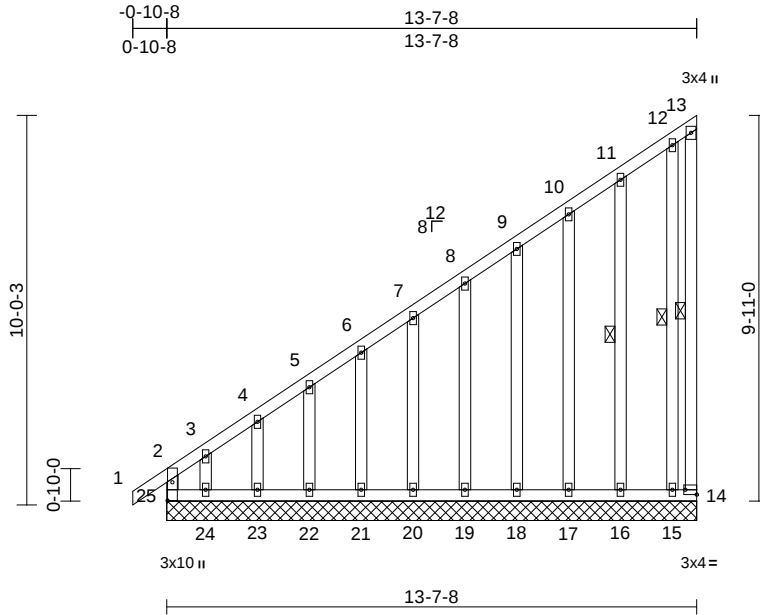


Job	Truss	Truss Type	Qty	Ply	Lot 16 OS
Lot 16 OS	D1	Monopitch Supported Gable	1	1	Job Reference (optional)

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.43 S Jul 29 2021 Print: 8.430 S Jul 29 2021 MiTek Industries, Inc. Thu Aug 19 15:46:32 Page: 1
ID: 8P?dvieKsZfLw20bjyFd2znq1v-RfC?PsB70Hq3NSgPqnL8w3ulTXbGKWCD0i7J423C4

08/31/2021



Scale = 1:59.2

Plate Offsets (X, Y): [14:Edge,0-1-8], [25:0-5-10,0-1-8]

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	0.40	Vert(LL)	n/a	-	n/a	999	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.18	Vert(CT)	n/a	-	n/a	999	
BCLL	0.0*	Rep Stress Incr	YES	WB	0.09	Horz(CT)	0.00	14	n/a	n/a	
BCDL	10.0	Code	IRC2018/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

BOT CHORD 24-25=-136/103, 23-24=-136/103, 22-23=-136/103, 21-22=-136/103, 20-21=-136/103, 19-20=-136/103, 18-19=-136/103, 17-18=-136/103, 16-17=-136/103, 15-16=-136/103, 14-15=-136/103

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

LOAD CASE(S) Standard

BRACING
TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 1 Row at midpt 13-14, 11-16, 12-15

WEBS 3-24=-120/169, 4-23=-100/52, 5-22=-98/64, 6-21=-98/62, 7-20=-98/63, 8-19=-98/62, 9-18=-98/63, 10-17=-96/70, 11-16=-117/59, 12-15=-123/141

NOTES

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 2) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- 3) All plates are 2x4 MT20 unless otherwise indicated.
- 4) Gable requires continuous bottom chord bearing.
- 5) Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
- 6) Gable studs spaced at 1-4-0 oc.
- 7) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 8) * 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) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 208 lb uplift at joint 25, 242 lb uplift at joint 14, 286 lb uplift at joint 24, 16 lb uplift at joint 23, 54 lb uplift at joint 22, 45 lb uplift at joint 21, 47 lb uplift at joint 20, 47 lb uplift at joint 19, 45 lb uplift at joint 18, 58 lb uplift at joint 17, 57 lb uplift at joint 16 and 166 lb uplift at joint 15.

REACTIONS (lb/size)
14=-242 (LC 7), 15=-166 (LC 8), 16=-57 (LC 5), 17=-58 (LC 8), 18=-45 (LC 8), 19=-47 (LC 8), 20=-47 (LC 8), 21=-45 (LC 8), 22=-54 (LC 8), 23=-16 (LC 8), 24=-286 (LC 5), 25=-208 (LC 6)
Max Horiz 25=389 (LC 5)
Max Uplift 14=-242 (LC 7), 15=-166 (LC 8), 16=-57 (LC 5), 17=-58 (LC 8), 18=-45 (LC 8), 19=-47 (LC 8), 20=-47 (LC 8), 21=-45 (LC 8), 22=-54 (LC 8), 23=-16 (LC 8), 24=-286 (LC 5), 25=-208 (LC 6)
Max Grav 14=186 (LC 4), 15=237 (LC 7), 16=151 (LC 15), 17=121 (LC 15), 18=125 (LC 15), 19=124 (LC 15), 20=125 (LC 15), 21=124 (LC 15), 22=127 (LC 15), 23=129 (LC 1), 24=229 (LC 6), 25=426 (LC 5)
FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 2-25=-301/140, 1-2=0/40, 2-3=-406/250, 3-4=-311/199, 4-5=-294/186, 5-6=-268/170, 6-7=-243/154, 7-8=-227/141, 8-9=-215/138, 9-10=-203/135, 10-11=-196/136, 11-12=-157/112, 12-13=-63/46, 13-14=-95/79



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ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component

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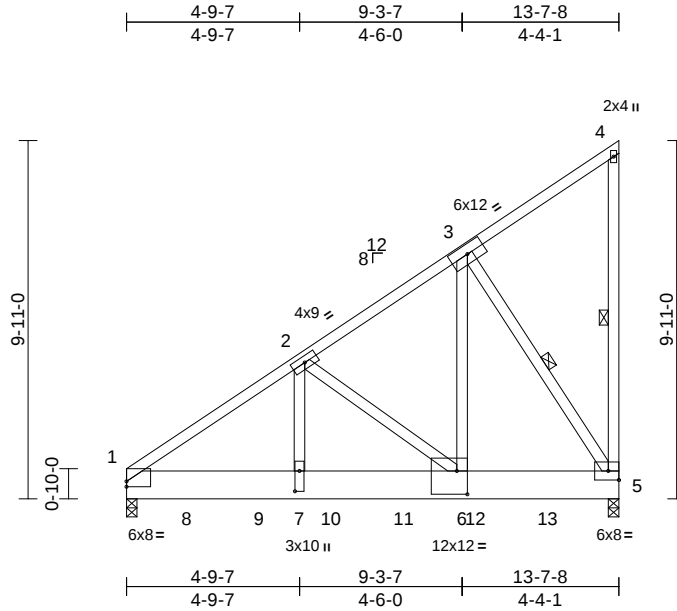
Job	Truss	Truss Type	Qty	Ply	Lot 16 OS
Lot 16 OS	D2	Monopitch Girder	2	2	Job Reference (optional)

RELEASE FOR CONSTRUCTION
AS NOTED FOR PLAN REVIEW
DEVELOPMENT SERVICES
147537476
LEE'S SUMMIT, MISSOURI

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.43 S Jul 29 2021 Print: 8.430 S Jul 29 2021 MiTek Industries, Inc. Thu Aug 19 15:46:32 Page: 1
ID:8P?dviekSizfLw20bjyFd2znq1v-RfC?PsB70Hq3NSgPqnL8w3ulTXbGKWCDoi7J423C4

08/31/2021



Scale = 1:63.8

Plate Offsets (X, Y): [1:Edge,0-1-13], [6:0-3-8,0-7-12], [7:0-6-12,0-1-8]

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	0.64	Vert(LL)	-0.07	6-7	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.30	Vert(CT)	-0.13	6-7	>999	240		
BCLL	0.0*	Rep Stress Incr	NO	WB	0.87	Horz(CT)	0.01	5	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S		Wind(LL)	0.04	6-7	>999	240	Weight: 214 lb	FT = 10%

LUMBER

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

BRACING

TOP CHORD Structural wood sheathing directly applied or 4-4-3 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 1 Row at midpt 4-5, 3-5

REACTIONS (lb/size) 1=4963/0-3-8, 5=6313/0-3-8
Max Horiz 1=369 (LC 22)
Max Uplift 1=-283 (LC 8), 5=-308 (LC 8)
Max Grav 1=5448 (LC 16), 5=7085 (LC 15)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=-7590/246, 2-3=-4434/138,
3-4=-200/115, 4-5=-140/70

BOT CHORD 1-7=-327/6104, 6-7=-327/6104,
5-6=-181/3625

WEBS 3-5=-6579/340, 2-7=-108/3703,
2-6=-3128/279, 3-6=-213/7548

NOTES

- 2-ply truss to be connected together with 10d (0.131"x3") nails as follows:
Top chords connected as follows: 2x4 - 1 row at 0-6-0 oc.
Bottom chords connected as follows: 2x10 - 2 rows staggered at 0-5-0 oc.
Web connected as follows: 2x4 - 1 row at 0-9-0 oc.
- All loads are considered equally applied to all plies, except if noted as front (F) or back (B) face in the LOAD CASE(S) section. Ply to ply connections have been provided to distribute only loads noted as (F) or (B), unless otherwise indicated.

- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TC DL=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
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 283 lb uplift at joint 1 and 308 lb uplift at joint 5.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 900 lb down and 167 lb up at 1-8-0, 882 lb down and 48 lb up at 3-8-0, 2386 lb down and 38 lb up at 5-8-0, 2386 lb down and 38 lb up at 7-8-0, and 2386 lb down and 38 lb up at 9-8-0, and 2386 lb down and 38 lb up at 11-8-0 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.

LOAD CASE(S) Standard

- Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (lb/ft)
Vert: 1-4=-70, 1-5=-20
Concentrated Loads (lb)
Vert: 8=-804 (B), 9=-811 (B), 10=-2115 (B), 11=-2115 (B), 12=-2115 (B), 13=-2115 (B)



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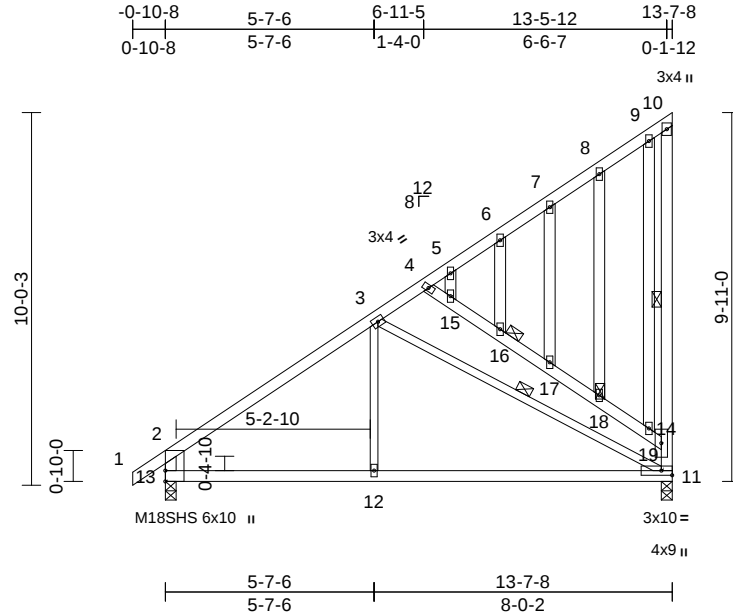
Job	Truss	Truss Type	Qty	Ply	Lot 16 OS
Lot 16 OS	D3	Monopitch Structural Gable	1	1	Job Reference (optional)

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.43 S Jul 29 2021 Print: 8.430 S Jul 29 2021 MiTek Industries, Inc. Thu Aug 19 15:46:33 Page: 1

ID:QBol2_cug_LsFPyV11cBIXz_Ssx-RfC?PsB70Hq3NSgPqnL8w3uITXbGKwVrCDol7J42JG9

08/31/2021



Scale = 1:61.9

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	0.45	Vert(LL)	-0.11	11-12	>999	360	MT20 197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.44	Vert(CT)	-0.21	11-12	>748	240	M18SHS 197/144
BCLL	0.0*	Rep Stress Incr	YES	WB	0.34	Horz(CT)	0.01	11	n/a	n/a	
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S		Wind(LL)	-0.07	11-12	>999	240	Weight: 91 lb FT = 10%

LUMBER

TOP CHORD	2x4 SPF No.2
BOT CHORD	2x4 SPF No.2
WEBS	2x4 SPF No.2 *Except* 12-3,11-3:2x3 SPF No.2
OTHERS	2x4 SPF No.2

BRACING

TOP CHORD	Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.
BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS	1 Row at midpt 10-11, 3-11
JOINTS	1 Brace at Jt(s): 16, 18

REACTIONS

(lb/size)	11=597/0-3-8, 13=674/0-3-8
Max Horiz	13=389 (LC 5)
Max Uplift	11=-182 (LC 8), 13=-66 (LC 8)
Max Grav	11=650 (LC 15), 13=674 (LC 1)

FORCES

(lb) - Maximum Compression/Maximum Tension	
TOP CHORD	1-2=0/40, 2-3=-710/36, 3-4=-403/103, 4-5=-280/127, 5-6=-206/122, 6-7=-199/125, 7-8=-186/128, 8-9=-167/129, 9-10=-106/107, 11-14=-391/196, 10-14=-139/96, 2-13=-615/102
BOT CHORD	12-13=-172/567, 11-12=-172/567
WEBS	3-12=0/296, 3-11=-358/137, 4-15=-331/214, 15-16=-263/160, 16-17=-288/185, 17-18=-305/202, 18-19=-323/214, 14-19=-335/189, 5-15=-97/123, 6-16=-63/44, 7-17=-48/32, 8-18=-42/20, 9-19=-68/85

NOTES

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60

- 2) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- 3) All plates are MT20 plates unless otherwise indicated.
- 4) All plates are 2x4 MT20 unless otherwise indicated.
- 5) Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
- 6) Gable studs spaced at 1-4-0 oc.
- 7) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 8) * 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) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 182 lb uplift at joint 11 and 66 lb uplift at joint 13.
- 10) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard



August 20,2021

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 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, DSB-89 and BCSI Building Component

Safety Information available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



16023 Swingley Ridge Rd
 Chesterfield, MO 63017

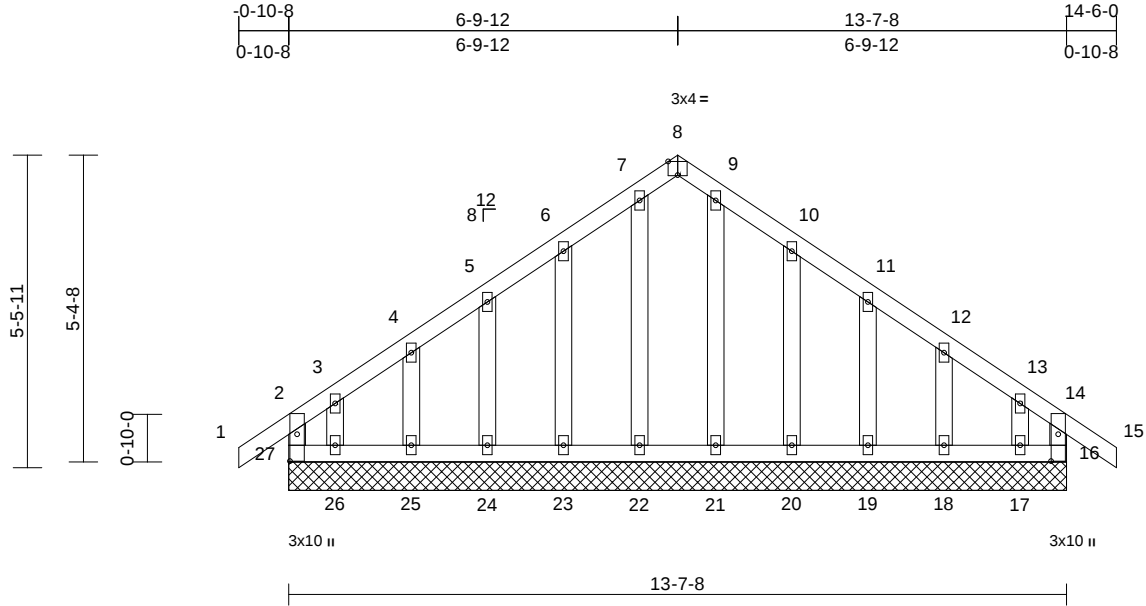
Job	Truss	Truss Type	Qty	Ply	Lot 16 OS	RELEASE FOR CONSTRUCTION
Lot 16 OS	D4	Common Supported Gable	1	1	Job Reference (optional)	AS NOTED FOR PLAN REVIEW
						DEVELOPMENT SERVICES
						147537478
						LEE'S SUMMIT, MISSOURI

Wheeler Lumber, Waverly, KS - 66671,

Run: 8.43 S Jul 29 2021 Print: 8.430 S Jul 29 2021 MiTek Industries, Inc. Thu Aug 19 15:46:33 Page: 1

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08/31/2021



Scale = 1:40.4

Plate Offsets (X, Y): [8:0-2-0,Edge], [16:0-5-10,0-1-8], [27:0-5-10,0-1-8]

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	0.07	Vert(LL)	n/a	-	n/a	999	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.04	Vert(CT)	n/a	-	n/a	999	
BCLL	0.0*	Rep Stress Incr	YES	WB	0.04	Horz(CT)	0.00	16	n/a	n/a	
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-R							
										Weight: 68 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 6-0-0 oc bracing.

REACTIONS (lb/size)	16=142/13-7-8, 17=41/13-7-8, 18=128/13-7-8, 19=119/13-7-8, 20=119/13-7-8, 21=123/13-7-8, 22=123/13-7-8, 23=119/13-7-8, 24=119/13-7-8, 25=128/13-7-8, 26=41/13-7-8, 27=142/13-7-8
Max Horiz	27=-157 (LC 6)
Max Uplift	16=-56 (LC 5), 17=-106 (LC 9), 18=-42 (LC 9), 19=-46 (LC 9), 20=-63 (LC 9), 23=-61 (LC 8), 24=-47 (LC 8), 25=-41 (LC 8), 26=-118 (LC 8), 27=-94 (LC 4)
Max Grav	16=155 (LC 15), 17=109 (LC 7), 18=128 (LC 16), 19=124 (LC 16), 20=127 (LC 16), 21=123 (LC 1), 22=127 (LC 18), 23=124 (LC 15), 24=124 (LC 15), 25=128 (LC 21), 26=136 (LC 6), 27=186 (LC 16)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD	2-27=-145/65, 1-2=0/40, 2-3=-117/101, 3-4=-76/78, 4-5=-66/68, 5-6=-53/85, 6-7=-44/118, 7-8=-33/93, 8-9=-29/89, 9-10=-25/104, 10-11=-32/73, 11-12=-41/49, 12-13=-49/57, 13-14=-94/65, 14-15=0/40, 14-16=-130/39
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BOT CHORD	26-27=-71/87, 25-26=-71/87, 24-25=-71/87, 23-24=-71/87, 22-23=-71/87, 21-22=-71/87, 20-21=-71/87, 19-20=-71/87, 18-19=-71/87, 17-18=-71/87, 16-17=-71/87
WEBS	3-26=-69/80, 4-25=-102/63, 5-24=-97/61, 6-23=-98/78, 7-22=-101/4, 9-21=-96/0, 10-20=-101/79, 11-19=-97/61, 12-18=-102/63, 13-17=-59/74

NOTES

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- All plates are 2x4 MT20 unless otherwise indicated.
- Gable requires continuous bottom chord bearing.
- Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
- Gable studs spaced at 1-4-0 oc.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 94 lb uplift at joint 27, 56 lb uplift at joint 16, 118 lb uplift at joint 26, 41 lb uplift at joint 25, 47 lb uplift at joint 24, 61 lb uplift at joint 23, 63 lb uplift at joint 20, 46 lb uplift at joint 19, 42 lb uplift at joint 18 and 106 lb uplift at joint 17.

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

LOAD CASE(S) Standard



August 20,2021

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 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, DSB-89 and BCSI Building Component

Safety Information available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



16023 Swingley Ridge Rd
Chesterfield, MO 63017

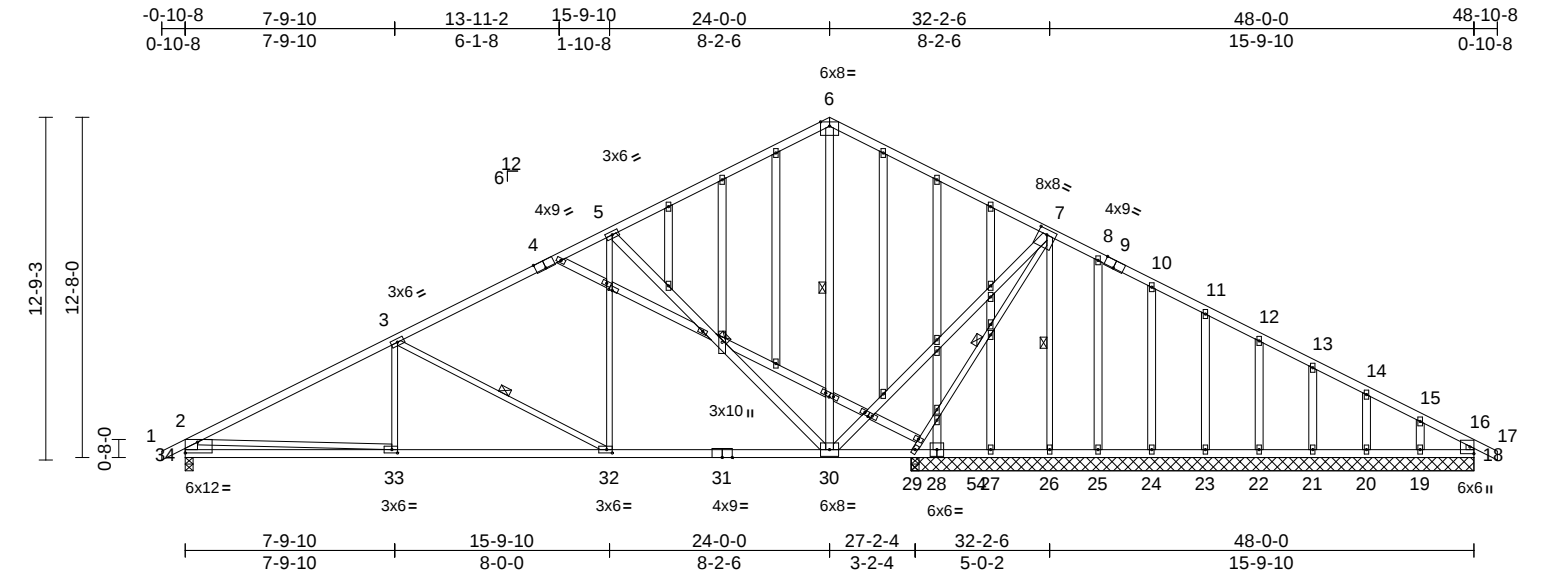
Job	Truss	Truss Type	Qty	Ply	Lot 16 OS	RELEASE FOR CONSTRUCTION
Lot 16 OS	E1	Common Structural Gable	2	1	Job Reference (optional)	AS NOTED FOR PLAN REVIEW DEVELOPMENT SERVICES 147537479 LEE'S SUMMIT, MISSOURI

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.43 S Jul 29 2021 Print: 8.430 S Jul 29 2021 MiTek Industries, Inc. Thu Aug 19 15:46:33 Page: 1

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08/31/2021

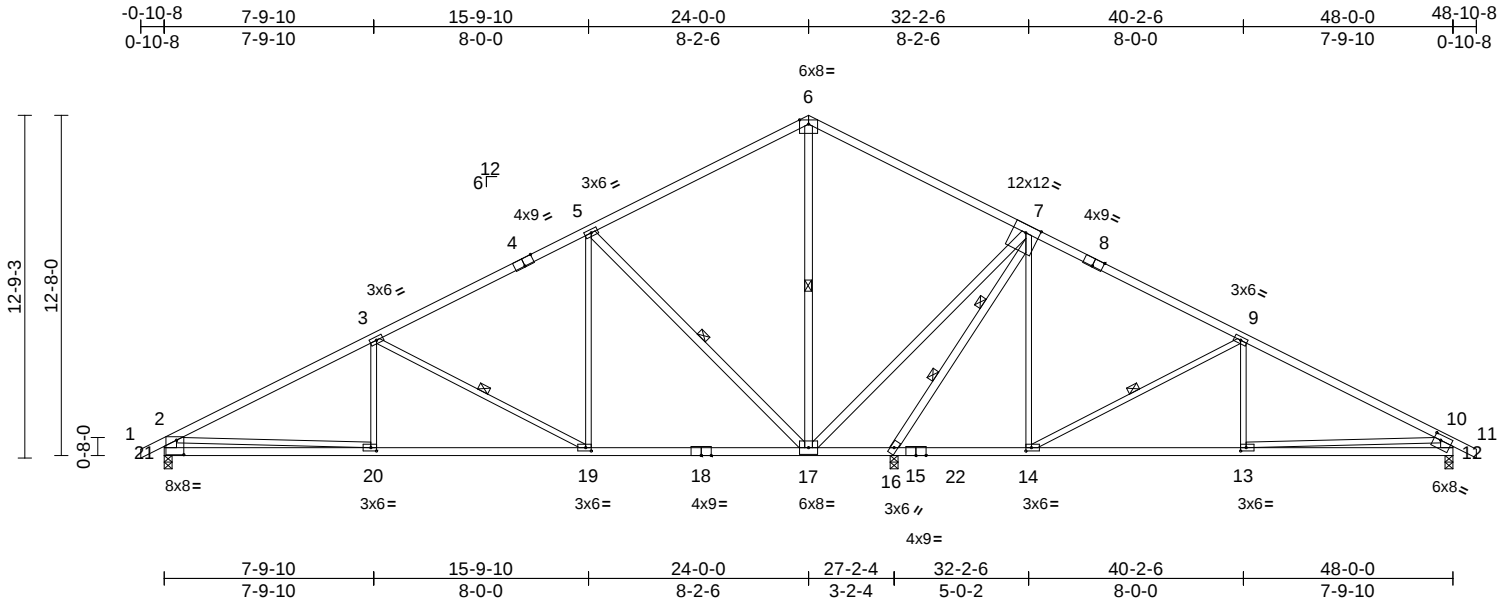


Job	Truss	Truss Type	Qty	Ply	Lot 16 OS	RELEASE FOR CONSTRUCTION
Lot 16 OS	E2	Common	8	1	Job Reference (optional)	AS NOTED FOR PLAN REVIEW DEVELOPMENT SERVICES 147537480 LEE'S SUMMIT, MISSOURI

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.43 S Jul 29 2021 Print: 8.430 S Jul 29 2021 MiTek Industries, Inc. Thu Aug 19 19:46:34
ID:8P?dviekSizfLw20bjyFd2znq1v-RfC?PsB70Hq3NSgPqnL8w3ulTXbGKWCD0i7J423C41

08/31/2021



Scale = 1:85.8									
Plate Offsets (X, Y): [4:0-4-8,Edge], [8:0-4-8,Edge], [12:0-3-0,0-2-4], [13:0-2-8,0-1-8], [14:0-2-8,0-1-8], [19:0-2-8,0-1-8], [20:0-2-8,0-1-8], [21:0-3-4,0-6-8]									
Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in (loc)	l/defl	L/d
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.86	Vert(LL)	-0.19 17-19	>999	360
TCDL	10.0	Lumber DOL	1.15	BC	0.78	Vert(CT)	-0.33 17-19	>985	240
BCLL	0.0*	Rep Stress Incr	YES	WB	0.87	Horz(CT)	0.06 12	n/a	n/a
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S		Wind(LL)	0.06 17-19	>999	240
					Weight: 215 lb FT = 10%				

LUMBER		
TOP CHORD	2x4 SPF No.2	
BOT CHORD	2x4 SPF No.2 *Except* 18-15:2x4 SPF 2100F 1.8E	
WEBS	2x3 SPF No.2 *Except* 21-2,12-10:2x6 SPF No.2, 17-6,17-5,7-17,7-16:2x4 SPF No.2	
BRACING		
TOP CHORD	Structural wood sheathing directly applied or 2-4-4 oc purlins, except end verticals.	
BOT CHORD	Rigid ceiling directly applied or 6-0-0 oc bracing.	
WEBS	1 Row at midpt	6-17, 3-19, 5-17, 9-14
WEBS	2 Rows at 1/3 pts	7-16
REACTIONS (lb/size)		
	12=880/0-3-8, 16=2366/0-3-8, 21=1188/0-3-8	
	Max Horiz	21=203 (LC 12)
	Max Uplift	12=-175 (LC 9), 16=-212 (LC 8), 21=-200 (LC 8)
	Max Grav	12=919 (LC 22), 16=2529 (LC 2), 21=1224 (LC 23)
FORCES (lb) - Maximum Compression/Maximum Tension		
TOP CHORD	1-2=0/35, 2-3=-1811/278, 3-5=-1103/230, 5-6=-268/203, 6-7=-247/198, 7-9=-481/180, 9-10=-1219/228, 10-11=0/35, 2-21=-1126/242, 10-12=-853/216	
BOT CHORD	20-21=-414/867, 19-20=-345/1609, 17-19=-144/975, 16-17=-1224/244, 14-16=0/325, 13-14=-97/988, 12-13=-228/681	
WEBS	10-13=0/330, 6-17=-422/4, 9-13=0/327, 2-20=0/773, 3-20=0/289, 3-19=-718/228, 5-19=-9/691, 5-17=-1130/332, 9-14=-786/228, 7-17=-213/1870, 7-16=-2790/268, 7-14=-20/622	

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

- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; 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
- All plates are 3x6 MT20 unless otherwise indicated.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 200 lb uplift at joint 21, 175 lb uplift at joint 12 and 212 lb uplift at joint 16.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard



August 20,2021

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Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see

Safety Information available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601

ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component



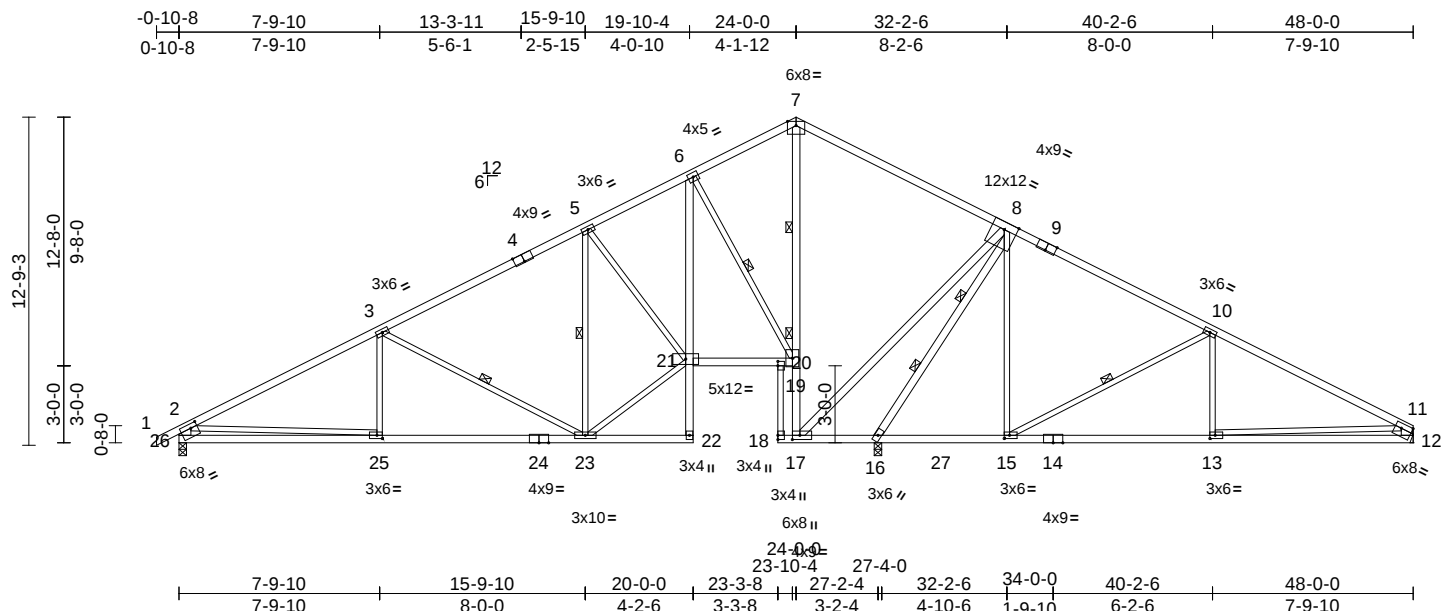
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Wheeler Lumber, Waverly, KS - 66871.

Run: 8.43 S Jul 29 2021 Print: 8.430 S Jul 29 2021 MiTek Industries, Inc. Thu Aug 19 15:16:54 Page: 1

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08/31/2021



Scale = 1:89.6

Plate Offsets (X, Y): [4:0-4-8,Edge], [9:0-4-8,Edge], [12:Edge,0-2-4], [13:0-2-8,0-1-8], [15:0-2-8,0-1-8], [17:0-3-8,0-2-0], [20:0-2-0,Edge], [25:0-2-8,0-1-8], [26:0-3-0,0-2-0]

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	0.84	Vert(LL)	-0.14	23-25	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.67	Vert(CT)	-0.27	23-25	>999	240		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.87	Horz(CT)	0.07	12	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S		Wind(LL)	0.05	23-25	>999	240	Weight: 231 lb	FT = 10%

LUMBER

TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2 *Except* 20-18:2x3 SPF No.2,
18-14:2x4 SPF 2100F 1.8E
WEBS 2x3 SPF No.2 *Except* 26-2,12-11:2x6 SPF
No.2, 17-7,17-8,16-8:2x4 SPF No.2

BRACING

TOP CHORD Structural wood sheathing directly applied or 3-9-12 oc purlins, except end verticals.

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

WEBS	1 Row at midpt	6-19, 10-15, 3-23, 5-23
WEBS	2 Rows at 1/3 pts	7-17, 8-16

REACTIONS	(lb/size)	12=734/ Mechanical, 16=2486/0-3-8, 26=1136/0-3-8
Max Horiz	26=157 (LC 7)	
Max Uplift	12=-155 (LC 9), 26=-83 (LC 8)	
Max Grav	12=826 (LC 22), 16=2607 (LC 13), 26=1155 (LC 21)	

FORCES

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=0/35, 2-3=-1688/149, 3-5=-941/237,
5-6=-641/283, 6-7=-61/339, 7-8=-132/319,
8-10=-450/356, 10-11=-1192/312,
2-26=-1072/124, 11-12=-756/194

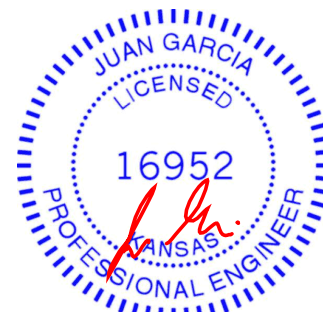
BOT CHORD 25-26=-221/803, 23-25=-180/1471,
22-23=-5/6, 21-22=0/41, 6-21=-69/1018,
20-21=-56/519, 19-20=-59/533,
18-20=-37/33, 17-18=-20/8, 16-17=-1407/0,
15-16=-139/295, 13-15=-214/970,
12-13=-82/511

WEBS 6-19=-1069/128, 11-13=-132/466,
17-19=-1401/0, 7-19=-440/0, 8-17=0/1979,
8-15=0/631, 10-15=-821/84, 10-13=0/325,
21-23=-105/957, 3-25=0/304, 3-23=-802/104,
5-23=-59/146, 5-21=-404/54, 2-25=-13/731,
8-16=-2805/0

NOTES

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-16; Vult=115mph (3-second gust)
Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope); cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 3) 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) Refer to girder(s) for truss to truss connections.
- 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 83 lb uplift at joint 26 and 155 lb uplift at joint 12.
- 7) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard



August 20, 2021



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Safety Information available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601

ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component



16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 16 OS	RELEASE FOR CONSTRUCTION
Lot 16 OS	E4	Common	2	1	Job Reference (optional)	AS NOTED FOR PLAN REVIEW
						DEVELOPMENT SERVICES
						147537482
						LEE'S SUMMIT, MISSOURI

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.43 S Jul 29 2021 Print: 8.430 S Jul 29 2021 MiTek Industries, Inc. Thu Aug 19 15:46:35 Page: 1

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08/31/2021

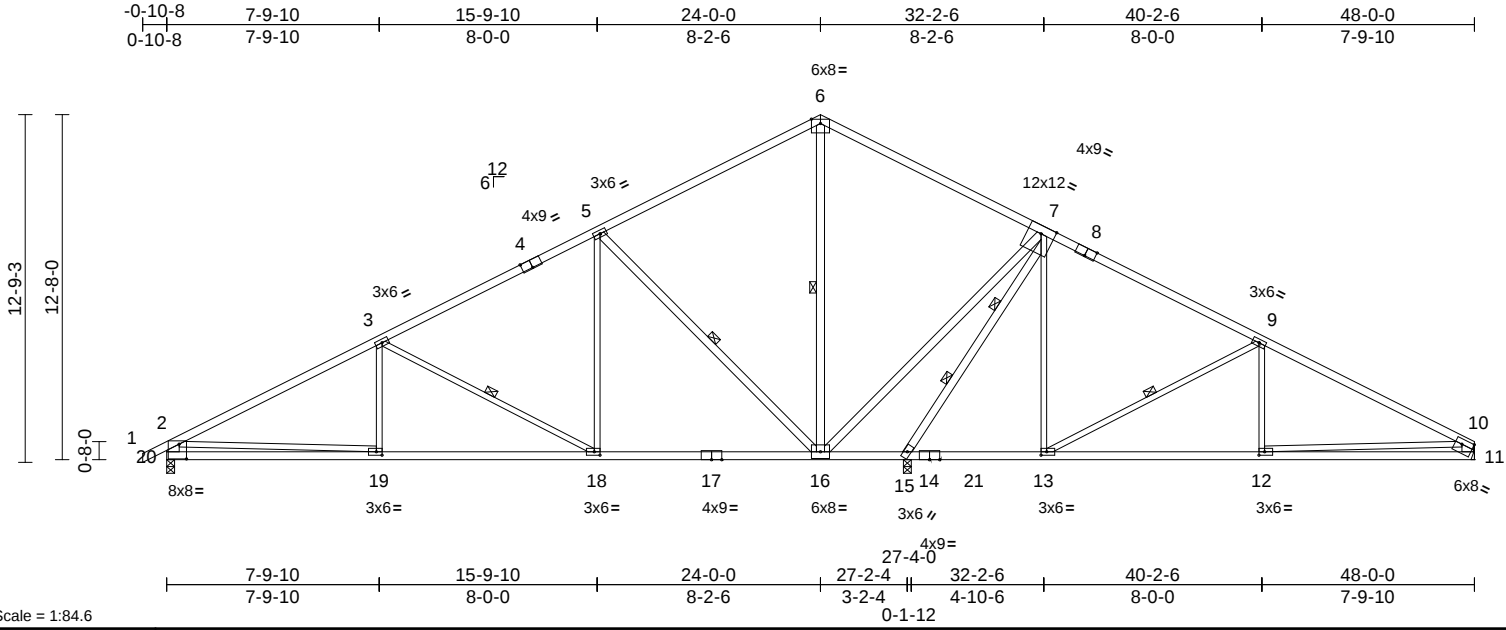


Plate Offsets (X, Y): [4:0-4-8,Edge], [8:0-4-8,Edge], [11:Edge,0-2-4], [12:0-2-8,0-1-8], [13:0-2-8,0-1-8], [18:0-2-8,0-1-8], [19:0-2-8,0-1-8], [20:0-3-4,0-6-8]

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	0.86	Vert(LL)	-0.19	16-18	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.77	Vert(CT)	-0.33	16-18	>985	240		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.88	Horz(CT)	0.05	11	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S		Wind(LL)	0.05	16-18	>999	240	Weight: 214 lb	FT = 10%

LUMBER
TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2 *Except* 17-14:2x4 SPF 2100F 1.8E
WEBS 2x3 SPF No.2 *Except* 20-2,11-10:2x6 SPF No.2, 16-6,16-5,7-16,7-15:2x4 SPF No.2

BRACING
TOP CHORD Structural wood sheathing directly applied or 3-1-0 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing, Except: 6-0-0 oc bracing: 15-16.
WEBS 1 Row at midpt 6-16, 3-18, 5-16, 9-13
WEBS 2 Rows at 1/3 pts 7-15

REACTIONS (lb/size) 11=792/ Mechanical, 15=2383/0-3-8, 20=1181/0-3-8
Max Horiz 20=157 (LC 7)
Max Uplift 11=-36 (LC 9), 20=-46 (LC 8)
Max Grav 11=840 (LC 22), 15=2541 (LC 2), 20=1222 (LC 21)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/35, 2-3=-1808/73, 3-5=-1099/97, 5-6=-264/136, 6-7=-232/137, 7-9=-466/103, 9-10=-1207/75, 2-20=-1124/88, 10-11=-763/76
BOT CHORD 19-20=-220/869, 18-19=-111/1616, 16-18=-22/962, 15-16=-1246/92, 13-15=0/309, 12-13=-2/986, 11-12=-54/514
WEBS 9-12=0/323, 6-16=-436/0, 3-19=0/289, 2-19=0/770, 5-18=0/701, 3-18=-741/101, 5-16=-1156/146, 10-12=0/477, 7-13=0/635, 7-16=-12/1913, 7-15=-2806/11, 9-13=-820/101

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

- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope); cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- All plates are 3x6 MT20 unless otherwise indicated.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- Refer to girder(s) for truss to truss connections.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 46 lb uplift at joint 20 and 36 lb uplift at joint 11.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard



August 20,2021

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE.

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ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component

Safety Information available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



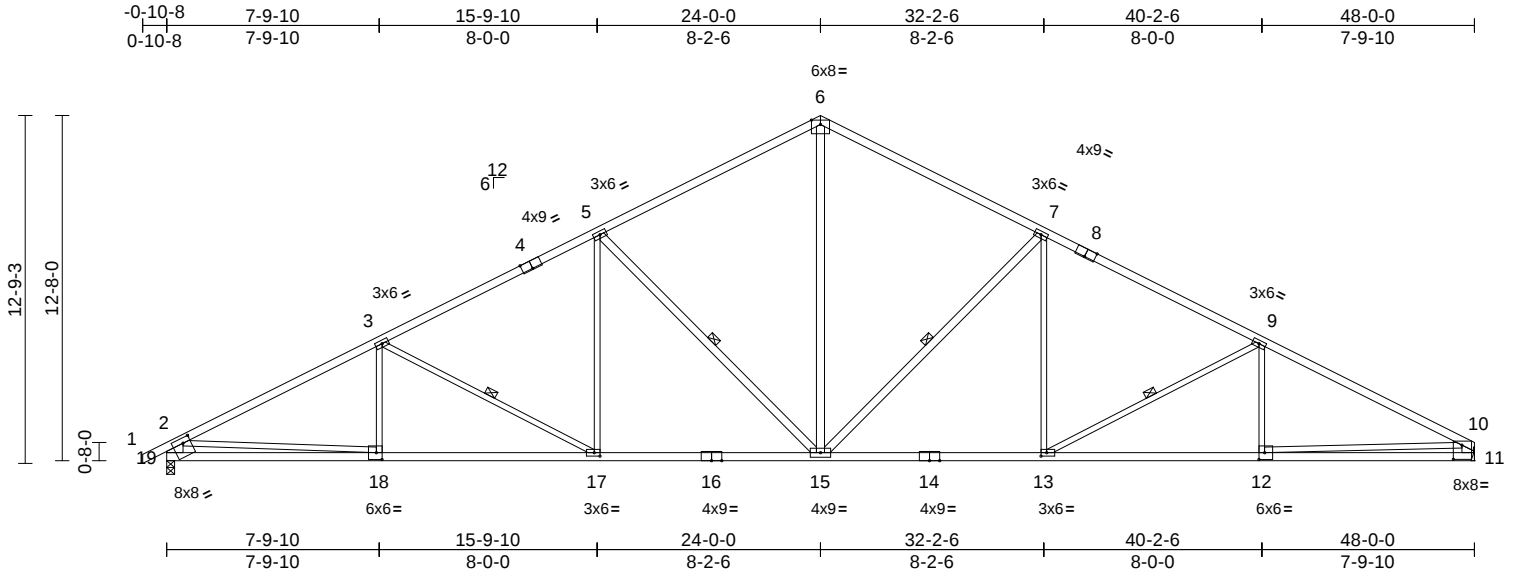
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 16 OS	3 RELEASE FOR CONSTRUCTION
Lot 16 OS	E5	Common	8	1	Job Reference (optional)	AS NOTED FOR PLAN REVIEW
						DEVELOPMENT SERVICES
						147537483
						LEE'S SUMMIT, MISSOURI

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.43 S Jul 29 2021 Print: 8.430 S Jul 29 2021 MiTek Industries, Inc. Thu Aug 19 15:46:35 Page: 1
ID:8P?dviekSizfLw20bjyFd2znq1v-RfC?PsB70Hq3NSgPqnL8w3ulTXbGKWCDoi7J423C74

08/31/2021



Scale = 1:84.6									
Plate Offsets (X, Y): [4:0-4-8,Edge], [8:0-4-8,Edge], [11:0-3-12,0-6-4], [12:0-2-8,0-3-0], [13:0-2-8,0-1-8], [17:0-2-8,0-1-8], [18:0-2-8,0-3-0], [19:0-3-4,0-2-4]									
Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in (loc)	l/defl	L/d
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.66	Vert(LL)	-0.32 13-15	>999	360
TCDL	10.0	Lumber DOL	1.15	BC	0.58	Vert(CT)	-0.56 13-15	>999	240
BCLL	0.0*	Rep Stress Incr	YES	WB	0.88	Horz(CT)	0.15 11	n/a	n/a
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S		Wind(LL)	0.11 15-17	>999	240
							PLATES	GRIP	
							MT20	197/144	
							Weight: 204 lb FT = 10%		

LUMBER
TOP CHORD 2x4 SPF 2100F 1.8E
BOT CHORD 2x4 SPF 2100F 1.8E
WEBS 2x3 SPF No.2 *Except* 19-2:2x8 SP DSS, 11-10:2x6 SP DSS, 15-6,15-5,7-15:2x4 SPF No.2

BRACING
TOP CHORD Structural wood sheathing directly applied or 3-1-13 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

WEBS 1 Row at midpt 3-17, 5-15, 7-15, 9-13
REACTIONS (lb/size) 11=2135/ Mechanical, 19=2220/0-3-8
Max Horiz 19=158 (LC 5)
Max Uplift 11=-26 (LC 9), 19=-38 (LC 8)
Max Grav 11=2257 (LC 2), 19=2327 (LC 2)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/37, 2-3=-3952/56, 3-5=-3404/80, 5-6=-2609/119, 6-7=-2609/118, 7-9=-3415/81, 9-10=-3988/57, 2-19=-2189/80, 10-11=-2115/67
BOT CHORD 18-19=-208/1189, 17-18=-96/3498, 15-17=-6/2997, 13-15=0/2968, 12-13=0/3481, 11-12=-48/936
WEBS 9-12=-14/210, 6-15=0/1802, 3-18=-9/207, 2-18=0/2363, 5-17=0/606, 3-17=-577/101, 5-15=-1070/148, 10-12=0/2550, 7-13=0/624, 7-15=-1080/148, 9-13=-614/105

NOTES
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope); cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60

- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- Refer to girder(s) for truss to truss connections.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 38 lb uplift at joint 19 and 26 lb uplift at joint 11.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard



August 20,2021

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE.

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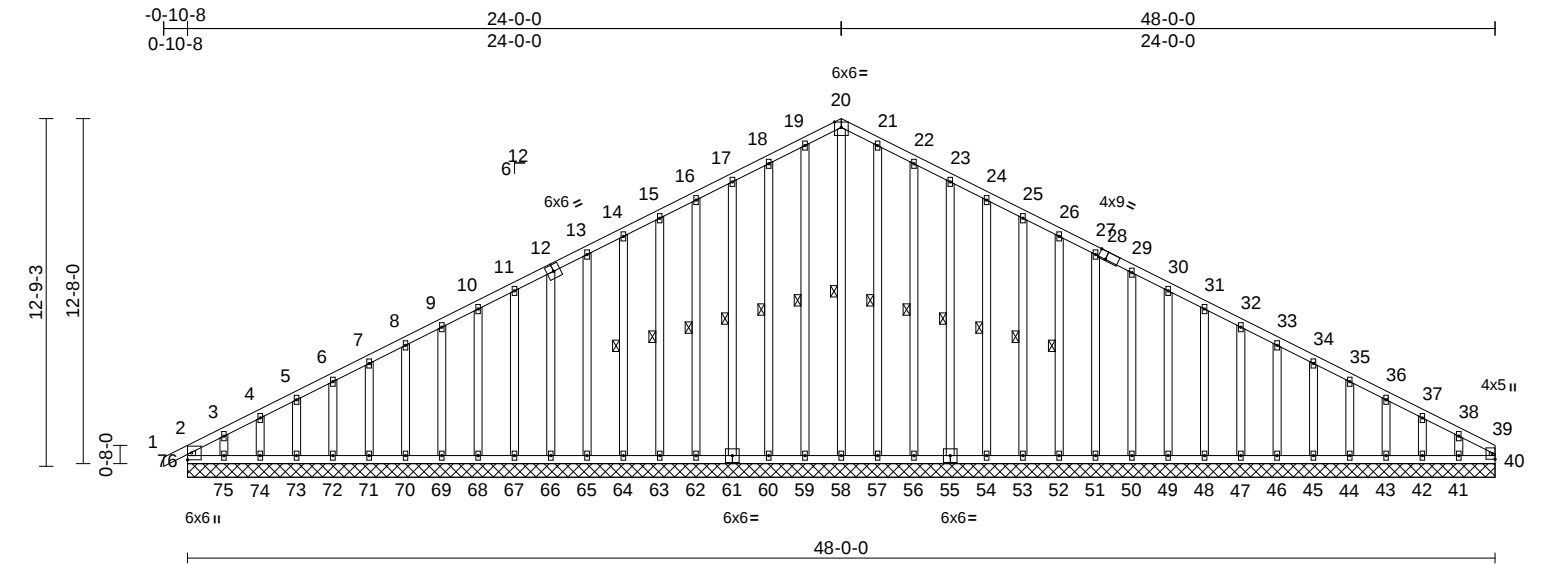
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 16 OS	RELEASE FOR CONSTRUCTION
Lot 16 OS	E6	Common Supported Gable	2	1	Job Reference (optional)	AS NOTED FOR PLAN REVIEW DEVELOPMENT SERVICES 147537484 LEE'S SUMMIT, MISSOURI

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.43 S Jul 29 2021 Print: 8.430 S Jul 29 2021 MiTek Industries, Inc. Thu Aug 19 15:46:36 Page: 1
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08/31/2021



Scale = 1:84.6									
Plate Offsets (X, Y): [28:0-3-7,Edge]									
Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.10	Vert(LL)	n/a	-	999
TCDL	10.0	Lumber DOL	1.15	BC	0.08	Vert(CT)	n/a	-	999
BCLL	0.0*	Rep Stress Incr	YES	WB	0.15	Horz(CT)	0.01	40	n/a
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-R					
Weight: 369 lb FT = 10%									

LUMBER		Max Uplift		TOP CHORD	
TOP CHORD	2x4 SPF No.2	40=-3 (LC 20), 41=-127 (LC 9),		2-76=-181/54, 1-2=0/32, 2-3=-295/105,	
BOT CHORD	2x4 SPF No.2	42=-16 (LC 9), 43=-41 (LC 9),		3-4=-236/96, 4-5=-211/104, 5-6=-180/113,	
WEBS	2x4 SPF 2400F 2.0E *Except* 39-40:2x3	44=-35 (LC 9), 45=-36 (LC 9),		6-7=-149/121, 7-8=-127/134, 8-9=-106/151,	
	SPF No.2	46=-36 (LC 9), 47=-36 (LC 9),		9-10=-84/168, 10-11=-73/185,	
OTHERS	2x4 SPF No.2	48=-36 (LC 9), 49=-36 (LC 9),		11-13=-64/250, 13-14=-49/237,	
BRACING		50=-36 (LC 9), 51=-36 (LC 9),		14-15=-40/255, 15-16=-34/272,	
TOP CHORD	Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.	52=-36 (LC 9), 53=-36 (LC 9),		16-17=-34/289, 17-18=-34/307,	
BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing.	54=-36 (LC 9), 55=-37 (LC 9),		18-19=-34/329, 19-20=-33/328,	
WEBS	1 Row at midpt	56=-48 (LC 9), 59=-6 (LC 8),		20-21=-32/322, 21-22=-30/309,	
	20-58, 19-59, 18-60,	60=-46 (LC 8), 61=-37 (LC 8),		22-23=-27/274, 23-24=-27/243,	
	17-61, 16-62, 15-63,	62=-36 (LC 8), 63=-36 (LC 8),		24-25=-27/213, 25-26=-27/182,	
	14-64, 21-57, 22-56,	64=-36 (LC 8), 65=-36 (LC 8),		26-27=-27/156, 27-28=-27/139,	
	23-55, 24-54, 25-53,	66=-35 (LC 8), 67=-37 (LC 8),		29-30=-27/122, 30-31=-27/109,	
	26-52	68=-36 (LC 8), 69=-36 (LC 8),		31-32=-27/87, 32-33=-35/70, 33-34=-51/53,	
		70=-36 (LC 8), 71=-36 (LC 8),		34-35=-60/40, 35-36=-98/33, 36-37=-130/30,	
		72=-35 (LC 8), 73=-42 (LC 8),		37-38=-156/30, 38-39=-206/36, 39-40=-104/5,	
		74=-10 (LC 9), 75=-161 (LC 8),			
		76=-58 (LC 4)			
REACTIONS (lb/size)		Max Grav			
	40=48/48-0-0, 41=126/48-0-0,	40=148 (LC 9), 41=127 (LC 22),			
	42=119/48-0-0, 43=120/48-0-0,	42=119 (LC 1), 43=120 (LC 22),			
	44=120/48-0-0, 45=120/48-0-0,	44=120 (LC 1), 45=120 (LC 22),			
	46=120/48-0-0, 47=120/48-0-0,	46=120 (LC 1), 47=120 (LC 22),			
	48=120/48-0-0, 49=120/48-0-0,	48=120 (LC 1), 49=120 (LC 22),			
	50=120/48-0-0, 51=120/48-0-0,	50=120 (LC 1), 51=120 (LC 1),			
	52=120/48-0-0, 53=120/48-0-0,	52=120 (LC 22), 53=120 (LC 22),			
	54=120/48-0-0, 55=120/48-0-0,	54=120 (LC 1), 55=120 (LC 1),			
	56=120/48-0-0, 57=123/48-0-0,	56=122 (LC 22), 57=123 (LC 1),			
	58=109/48-0-0, 59=123/48-0-0,	58=233 (LC 9), 59=123 (LC 1),			
	60=120/48-0-0, 61=120/48-0-0,	60=121 (LC 21), 61=120 (LC 1),			
	62=120/48-0-0, 63=120/48-0-0,	62=120 (LC 1), 63=120 (LC 21),			
	64=120/48-0-0, 65=118/48-0-0,	64=120 (LC 1), 65=118 (LC 21),			
	66=120/48-0-0, 67=122/48-0-0,	66=120 (LC 1), 67=122 (LC 21),			
	68=120/48-0-0, 69=120/48-0-0,	68=120 (LC 1), 69=120 (LC 21),			
	70=120/48-0-0, 71=120/48-0-0,	70=120 (LC 1), 71=120 (LC 21),			
	72=120/48-0-0, 73=118/48-0-0,	72=120 (LC 1), 73=118 (LC 21),			
	74=129/48-0-0, 75=78/48-0-0,	74=129 (LC 1), 75=108 (LC 15),			
	76=155/48-0-0	76=227 (LC 17)			
	Max Horiz 76=213 (LC 12)				

FORCES (lb) - Maximum Compression/Maximum Tension



August 20,2021

Job	Truss	Truss Type	Qty	Ply	Lot 16 OS
Lot 16 OS	E6	Common Supported Gable	2	1	Job Reference (optional)

AS NOTED FOR PLAN REVIEW
DEVELOPMENT SERVICES
147537484
LEE'S SUMMIT, MISSOURI

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.43 S Jul 29 2021 Print: 8.430 S Jul 29 2021 MiTek Industries, Inc. Thu Aug 19 15:46:36 Page: 2

ID:8P?dviekSizfLw20bjyFd2znq1v-RfC?PsB70Hq3NSgPqnL8w3ulTXbGKWCCDoi7J423C41

08/31/2021

BOT CHORD 75-76=-31/172, 74-75=-31/172,
73-74=-31/172, 72-73=-31/172,
71-72=-31/172, 70-71=-31/172,
69-70=-31/172, 68-69=-31/172,
67-68=-31/172, 66-67=-31/172,
65-66=-31/172, 64-65=-31/172,
63-64=-31/172, 62-63=-31/172,
60-62=-31/172, 59-60=-31/172,
58-59=-31/172, 57-58=-31/172,
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53-54=-31/172, 52-53=-31/172,
51-52=-31/172, 50-51=-31/172,
49-50=-31/172, 48-49=-31/172,
47-48=-31/172, 46-47=-31/172,
45-46=-31/172, 44-45=-31/172,
43-44=-31/172, 42-43=-31/172,
41-42=-31/172, 40-41=-31/172

WEBS 20-58=-217/4, 19-59=-96/22, 18-60=-95/62,
17-61=-93/53, 16-62=-93/52, 15-63=-93/52,
14-64=-93/52, 13-65=-92/52, 12-66=-94/51,
11-67=-95/53, 10-68=-93/52, 9-69=-93/52,
8-70=-93/52, 7-71=-93/52, 6-72=-94/52,
5-73=-92/55, 4-74=-100/39, 3-75=-72/118,
21-57=-96/13, 22-56=-95/64, 23-55=-93/53,
24-54=-93/52, 25-53=-93/52, 26-52=-93/52,
27-51=-93/52, 29-50=-93/52, 30-49=-93/52,
31-48=-93/52, 32-47=-93/52, 33-46=-93/52,
34-45=-93/52, 35-44=-93/52, 36-43=-93/54,
37-42=-93/43, 38-41=-98/96

NOTES

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-16; Vult=115mph (3-second gust)
Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 3) 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 1-4-0 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) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 58 lb uplift at joint 76, 3 lb uplift at joint 40, 6 lb uplift at joint 59, 46 lb uplift at joint 60, 37 lb uplift at joint 61, 36 lb uplift at joint 62, 36 lb uplift at joint 63, 36 lb uplift at joint 64, 36 lb uplift at joint 65, 35 lb uplift at joint 66, 37 lb uplift at joint 67, 36 lb uplift at joint 68, 36 lb uplift at joint 69, 36 lb uplift at joint 70, 36 lb uplift at joint 71, 35 lb uplift at joint 72, 42 lb uplift at joint 73, 10 lb uplift at joint 74, 161 lb uplift at joint 75, 48 lb uplift at joint 56, 37 lb uplift at joint 55, 36 lb uplift at joint 54, 36 lb uplift at joint 53, 36 lb uplift at joint 52, 36 lb uplift at joint 51, 36 lb uplift at joint 50, 36 lb uplift at joint 49, 36 lb uplift at joint 48, 36 lb uplift at joint 47, 36 lb uplift at joint 46, 36 lb uplift at joint 45, 35 lb uplift at joint 44, 41 lb uplift at joint 43, 16 lb uplift at joint 42 and 127 lb uplift at joint 41.
- 11) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE.**

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ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component**Safety Information** available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601

16023 Swingley Ridge Rd
Chesterfield, MO 63017

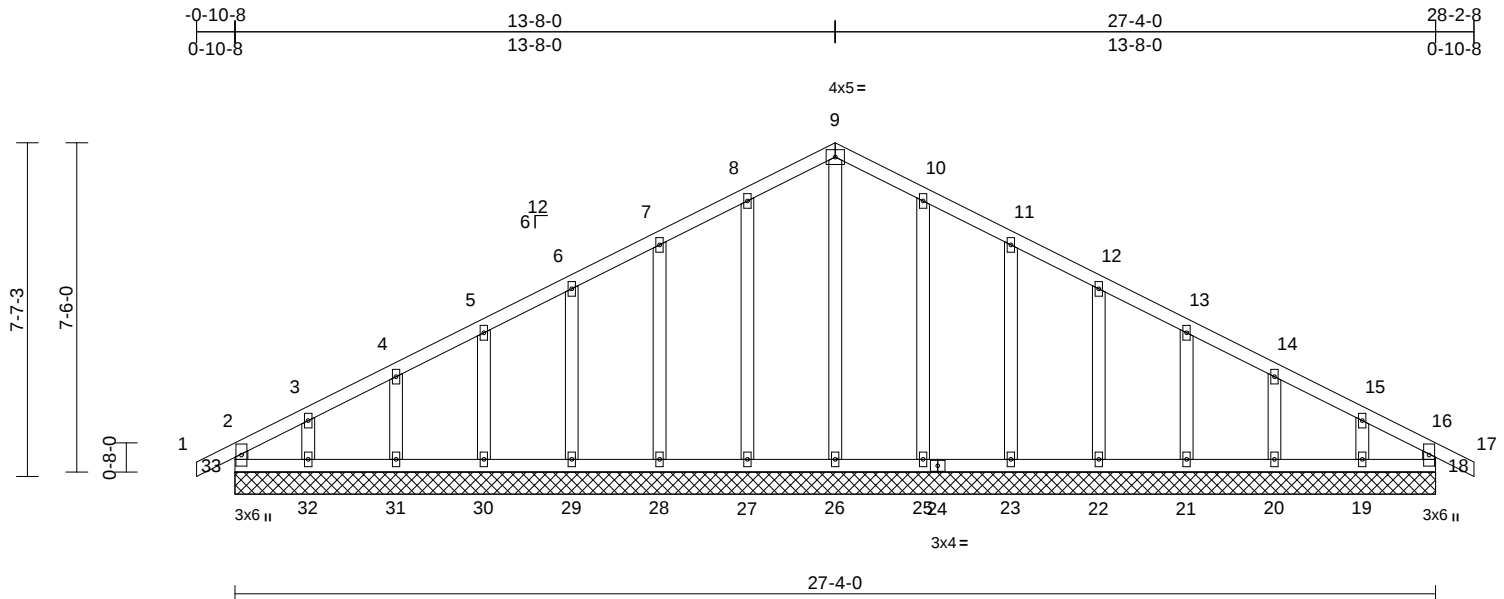
Job	Truss	Truss Type	Qty	Ply	Lot 16 OS	AS NOTED FOR PLAN REVIEW DEVELOPMENT SERVICES 147537485 LEE'S SUMMIT, MISSOURI
Lot 16 OS	G1	Common Supported Gable	2	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.43 S Jul 29 2021 Print: 8.430 S Jul 29 2021 MiTek Industries, Inc. Thu Aug 19 15:46:36 Page: 1

ID:8P?dvieKSizfLw20bjyFd2znq1v-RfC?PsB7Hq3NSgPqnL8w3ulTXbGKWCCDoi7J423C47

08/31/2021



Scale = 1:52.5

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	0.07	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.04	Vert(CT)	n/a	-	n/a	999		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.14	Horz(CT)	0.00	18	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-R								
											Weight: 124 lb	FT = 10%

LUMBER	
TOP CHORD	2x4 SPF No.2
BOT CHORD	2x4 SPF No.2
WEBS	2x4 SPF 2400F 2.0E *Except* 18-16:2x4 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 (lb/size)	18=151/27-4-0, 19=141/27-4-0, 20=188/27-4-0, 21=178/27-4-0, 22=181/27-4-0, 23=178/27-4-0, 25=188/27-4-0, 26=167/27-4-0, 27=188/27-4-0, 28=178/27-4-0, 29=181/27-4-0, 30=178/27-4-0, 31=188/27-4-0, 32=141/27-4-0, 33=151/27-4-0
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Max Horiz	33=114 (LC 13)
Max Uplift	18=13 (LC 5), 19=81 (LC 9), 20=49 (LC 9), 21=55 (LC 9), 22=53 (LC 9), 23=56 (LC 9), 25=52 (LC 9), 27=54 (LC 8), 28=56 (LC 8), 29=53 (LC 8), 30=56 (LC 8), 31=46 (LC 8), 32=95 (LC 8), 33=38 (LC 4)
Max Grav	18=151 (LC 22), 19=141 (LC 1), 20=188 (LC 22), 21=178 (LC 1), 22=181 (LC 22), 23=178 (LC 1), 25=190 (LC 22), 26=195 (LC 18), 27=190 (LC 21), 28=178 (LC 1), 29=181 (LC 21), 30=178 (LC 1), 31=188 (LC 21), 32=141 (LC 1), 33=151 (LC 21)

FORCES	(lb) - Maximum Compression/Maximum Tension
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TOP CHORD	2-33=-134/40, 1-2=0/32, 2-3=-140/64, 3-4=-91/74, 4-5=-64/92, 5-6=-50/118, 6-7=-40/144, 7-8=-31/171, 8-9=-36/194, 9-10=-36/186, 10-11=-31/141, 11-12=-32/106, 12-13=-31/80, 13-14=-36/54, 14-15=-58/46, 15-16=-99/30, 16-17=0/32, 16-18=-134/20
BOT CHORD	32-33=-23/106, 31-32=-23/106, 30-31=-23/106, 29-30=-23/106, 28-29=-23/106, 27-28=-23/106, 26-27=-23/106, 25-26=-23/106, 23-25=-23/106, 22-23=-23/106, 21-22=-23/106, 20-21=-23/106, 19-20=-23/106, 18-19=-23/106
WEBS	9-26=-155/0, 8-27=-150/78, 7-28=-138/80, 6-29=-141/78, 5-30=-138/79, 4-31=-146/75, 3-32=-110/96, 10-25=-150/76, 11-23=-138/80, 12-22=-141/77, 13-21=-138/78, 14-20=-146/77, 15-19=-109/88

NOTES

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- All plates are 2x4 MT20 unless otherwise indicated.
- Gable requires continuous bottom chord bearing.
- Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
- Gable studs spaced at 2-0-0 oc.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.

- * 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.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 38 lb uplift at joint 33, 13 lb uplift at joint 18, 54 lb uplift at joint 27, 56 lb uplift at joint 28, 53 lb uplift at joint 29, 56 lb uplift at joint 30, 46 lb uplift at joint 31, 95 lb uplift at joint 32, 52 lb uplift at joint 25, 56 lb uplift at joint 23, 53 lb uplift at joint 22, 55 lb uplift at joint 21, 49 lb uplift at joint 20 and 81 lb uplift at joint 19.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.4 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard



August 20,2021

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE.

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ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component

Safety Information available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



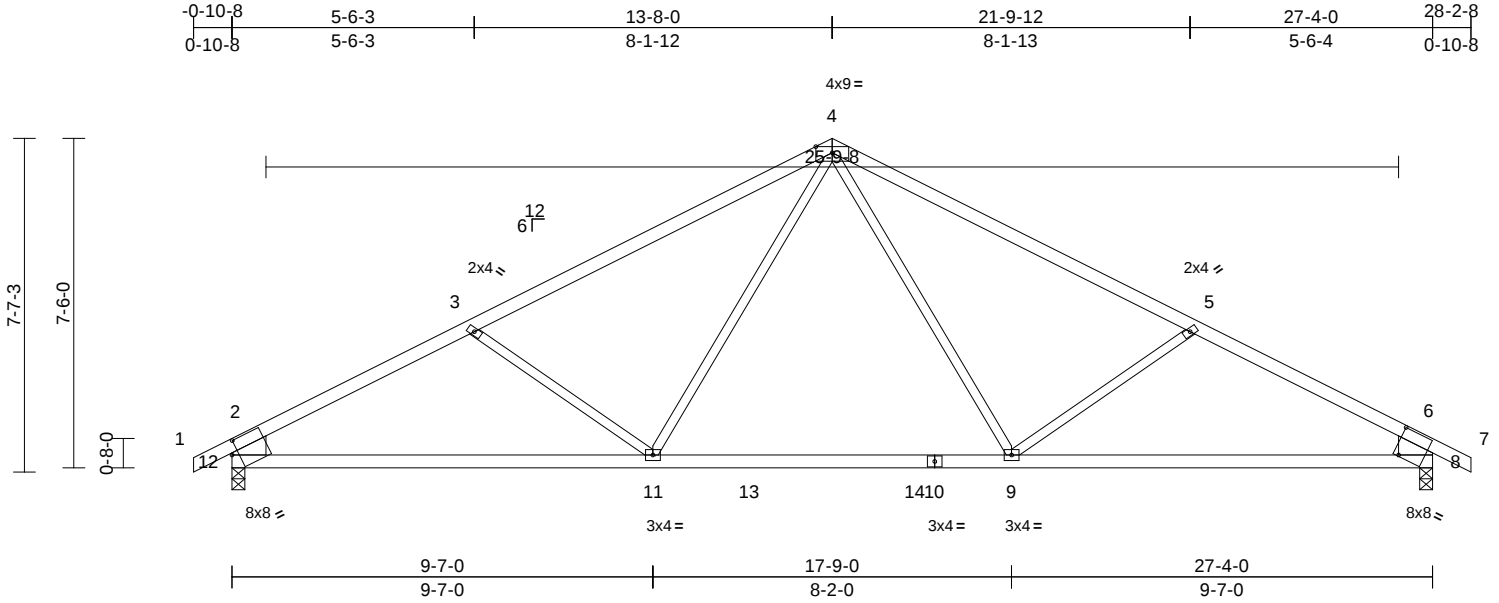
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 16 OS	RELEASE FOR CONSTRUCTION
Lot 16 OS	G2	Common	4	1	Job Reference (optional)	AS NOTED FOR PLAN REVIEW
						DEVELOPMENT SERVICES
						147537486
						LEE'S SUMMIT, MISSOURI

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.43 S Jul 29 2021 Print: 8.430 S Jul 29 2021 MiTek Industries, Inc. Thu Aug 19 15:46:37
ID:8P?dviekSizfLw20bjyFd2znq1v-RfC?PsB70Hq3NSgPqnL8w3ulTXbGKWCCDoi7J423C41

08/31/2021



Scale = 1:52.5									
Plate Offsets (X, Y): [8:0-1-8,0-7-10], [12:0-1-13,0-3-8]									
Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in (loc)	l/defl	L/d
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.81	Vert(LL)	-0.31 9-11	>999	360
TCDL	10.0	Lumber DOL	1.15	BC	0.89	Vert(CT)	-0.47 9-11	>676	240
BCLL	0.0*	Rep Stress Incr	YES	WB	0.27	Horz(CT)	0.07 8	n/a	n/a
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S		Wind(LL)	0.15 9-11	>999	240
							PLATES	GRIP	
							MT20	197/144	
							Weight: 93 lb	FT = 10%	

LUMBER
TOP CHORD 2x4 SPF 2100F 1.8E
BOT CHORD 2x4 SPF No.2
WEBS 2x3 SPF No.2 *Except* 12-2,8-6:2x10 SP DSS

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

REACTIONS (lb/size) 8=1284/0-3-8, 12=1284/0-3-8
Max Horiz 12=-115 (LC 6)
Max Uplift 8=-177 (LC 9), 12=-177 (LC 8)
Max Grav 8=1329 (LC 2), 12=1329 (LC 2)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/39, 2-3=-1975/301, 3-4=-1730/217, 4-5=-1730/218, 5-6=-1975/301, 6-7=0/39, 2-12=-1175/224, 6-8=-1175/224
BOT CHORD 11-12=-304/1675, 9-11=-51/1189, 8-9=-195/1664
WEBS 4-9=-57/573, 5-9=-403/278, 4-11=-57/573, 3-11=-403/278

- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 177 lb uplift at joint 12 and 177 lb uplift at joint 8.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard



August 20,2021

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ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component

Safety Information available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 16 OS
Lot 16 OS	V1	Valley	2	1	Job Reference (optional)

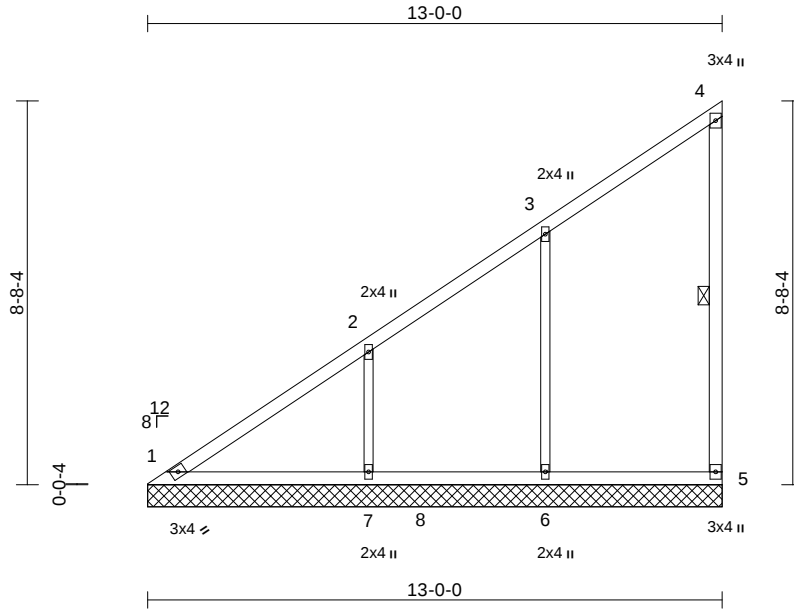
Wheeler Lumber, Waverly, KS - 66871,

Run: 8.43 S Jul 29 2021 Print: 8.430 S Jul 29 2021 MiTek Industries, Inc. Thu Aug 19 15:46:37 Page: 1

ID: NJ04vsQUCNS?y5JcfNrgeMz_StA-RfC?PsB70Hq3NSgPqnL8w3uTXbGKWrcDof3423C7f

RELEASE FOR CONSTRUCTION
AS NOTED FOR PLAN REVIEW
DEVELOPMENT SERVICES
147537487
LEE'S SUMMIT, MISSOURI

08/31/2021



Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.33	Vert(LL)	n/a	-	n/a	999	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	0.24	Horiz(TL)	0.00	5	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S							Weight: 48 lb	FT = 10%

LUMBER

TOP CHORD	2x4 SPF No.2
BOT CHORD	2x4 SPF No.2
WEBS	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.
BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing.

WEBS 1 Row at midpt 4-5

REACTIONS	(lb/size)	1=167/13-0-0, 5=147/13-0-0, 6=363/13-0-0, 7=439/13-0-0
	Max Horiz	1=329 (LC 5)
	Max Uplift	1=-23 (LC 4), 5=-63 (LC 5), 6=-141 (LC 8), 7=-170 (LC 8)
	Max Grav	1=254 (LC 16), 5=221 (LC 15), 6=503 (LC 15), 7=540 (LC 15)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD	1-2=-287/207, 2-3=-221/142, 3-4=-180/107, 4-5=-132/66
BOT CHORD	1-7=-117/91, 6-7=-117/91, 5-6=-117/91
WEBS	3-6=-307/171, 2-7=-347/223

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, with BCDL = 10.0psf.
- 7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 23 lb uplift at joint 1, 63 lb uplift at joint 5, 141 lb uplift at joint 6 and 170 lb uplift at joint 7.
- 8) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard



August 20,2021

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

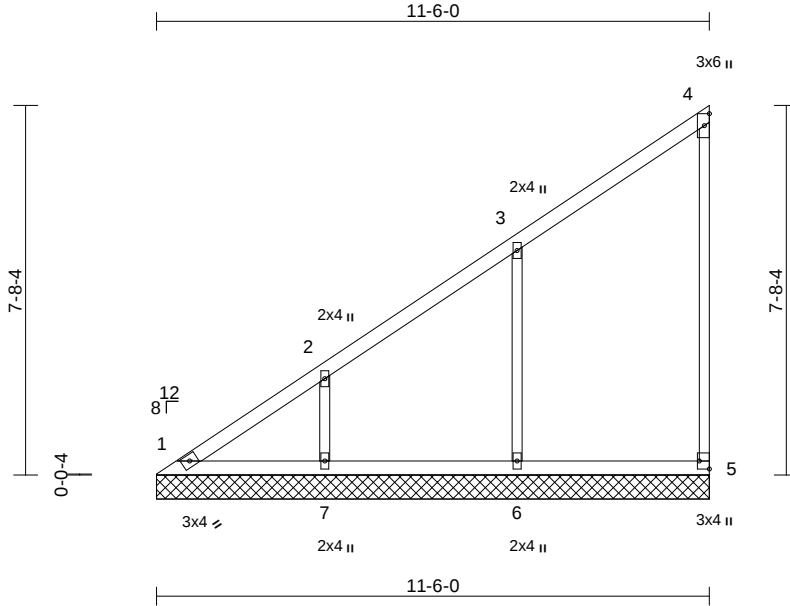
Job	Truss	Truss Type	Qty	Ply	Lot 16 OS
Lot 16 OS	V2	Valley	2	1	Job Reference (optional)

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.43 S Jul 29 2021 Print: 8.430 S Jul 29 2021 MiTek Industries, Inc. Thu Aug 19 19:46:37 Page: 1

ID:NJO4vsQUCNS?y5JcfNrgeMz_Sta-RfC?PsB70Hq3NSgPqnL8w3ulTXbGKWrcDof3423C7f

08/31/2021



Scale = 1:47.9

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	0.48	Vert(LL)	n/a	-	999	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.15	Vert(TL)	n/a	-	999		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.18	Horiz(TL)	0.00	5	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S						Weight: 39 lb	FT = 10%

LUMBER

TOP CHORD	2x4 SPF No.2
BOT CHORD	2x4 SPF No.2
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	(lb/size)	1=103/11-6-0, 5=141/11-6-0, 6=398/11-6-0, 7=343/11-6-0
	Max Horiz	1=291 (LC 5)
	Max Uplift	1=-34 (LC 4), 5=-56 (LC 5), 6=-155 (LC 8), 7=-133 (LC 8)
	Max Grav	1=187 (LC 16), 5=213 (LC 15), 6=516 (LC 15), 7=407 (LC 15)

FORCES

	(lb) - Maximum Compression/Maximum Tension
TOP CHORD	1-2=-260/176, 2-3=-204/150, 3-4=-170/95, 4-5=-126/60
BOT CHORD	1-7=-104/79, 6-7=-104/79, 5-6=-104/79
WEBS	3-6=-333/188, 2-7=-274/179

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, with BCDL = 10.0psf.
- 7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 34 lb uplift at joint 1, 56 lb uplift at joint 5, 155 lb uplift at joint 6 and 133 lb uplift at joint 7.
- 8) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard



August 20,2021

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ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component



16023 Swingley Ridge Rd
 Chesterfield, MO 63017

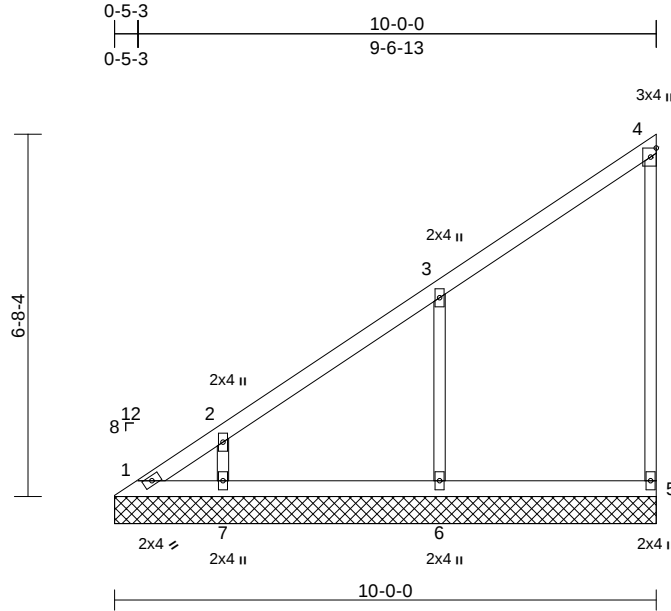
Job	Truss	Truss Type	Qty	Ply	Lot 16 OS
Lot 16 OS	V3	Valley	2	1	Job Reference (optional)

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.43 S Jul 29 2021 Print: 8.430 S Jul 29 2021 MiTek Industries, Inc. Thu Aug 19 15:46:38 Page: 1
ID: NJO4vsQUCNS?y5JcfNrgeMz_StA-RfC?PsB70Hq3NSgPqnL8w3ulTXbGKWrcDof73423C7f

RELEASE FOR CONSTRUCTION
AS NOTED FOR PLAN REVIEW
DEVELOPMENT SERVICES
147537489
LEE'S SUMMIT, MISSOURI

08/31/2021



Scale = 1:42.5

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	0.35	Vert(LL)	n/a	-	n/a	999	MT20
TCDL	10.0	Lumber DOL	1.15	BC	0.15	Vert(TL)	n/a	-	n/a	999	197/144
BCLL	0.0*	Rep Stress Incr	YES	WB	0.11	Horiz(TL)	0.00	5	n/a	n/a	
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S							Weight: 33 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 (lb/size)	1=17/10-0-0, 5=139/10-0-0, 6=406/10-0-0, 7=287/10-0-0
Max Horiz	1=251 (LC 7)
Max Uplift	1=-70 (LC 6), 5=-50 (LC 5), 6=-158 (LC 8), 7=-112 (LC 8)
Max Grav	1=130 (LC 5), 5=209 (LC 15), 6=526 (LC 15), 7=338 (LC 15)

FORCES

(lb) - Maximum Compression/Maximum Tension	
TOP CHORD	1-2=-233/159, 2-3=-189/148, 3-4=-161/85, 4-5=-124/58
BOT CHORD	1-7=-89/69, 6-7=-89/69, 5-6=-89/69
WEBS	3-6=-337/197, 2-7=-234/158

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, with BCDL = 10.0psf.
- 7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 70 lb uplift at joint 1, 50 lb uplift at joint 5, 158 lb uplift at joint 6 and 112 lb uplift at joint 7.
- 8) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard



August 20,2021

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 16 OS
Lot 16 OS	V4	Valley	2	1	Job Reference (optional)

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.43 S Jul 29 2021 Print: 8.430 S Jul 29 2021 MiTek Industries, Inc. Thu Aug 19 15:46:39 Page: 1

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RELEASE FOR CONSTRUCTION

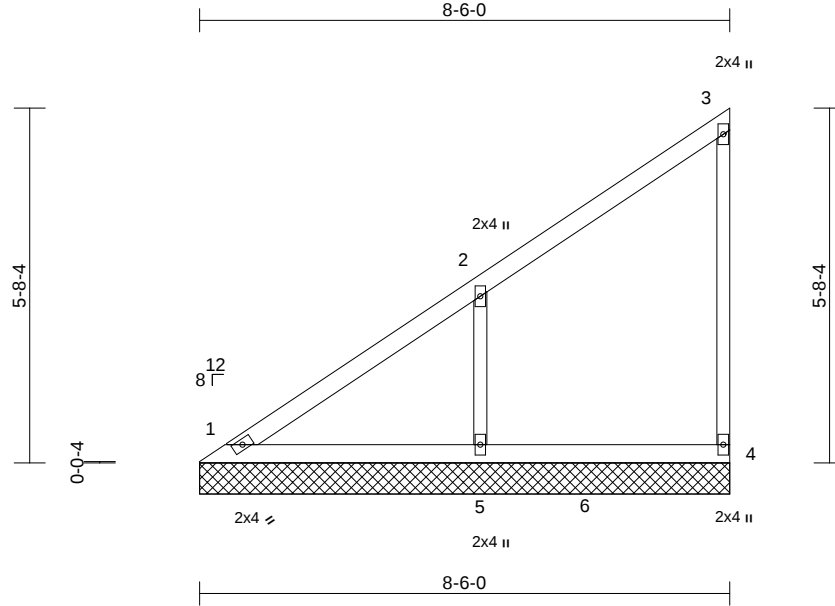
AS NOTED FOR PLAN REVIEW

DEVELOPMENT SERVICES

147537490

LEE'S SUMMIT, MISSOURI

08/31/2021



Scale = 1:36.9

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	0.38	n/a	-	n/a	999	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.15	n/a	-	n/a	999		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.08	Horiz(TL)	0.00	4	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-P						Weight: 27 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	(lb/size)	1=139/8-6-0, 4=130/8-6-0, 5=447/8-6-0
	Max Horiz	1=211 (LC 5)
	Max Uplift	1=-5 (LC 4), 4=-43 (LC 5), 5=-173 (LC 8)
	Max Grav	1=189 (LC 16), 4=191 (LC 15), 5=551 (LC 15)

FORCES

	(lb) - Maximum Compression/Maximum Tension
TOP CHORD	1-2=-179/160, 2-3=-156/79, 3-4=-119/60
BOT CHORD	1-5=-75/57, 4-5=-75/57
WEBS	2-5=-364/233

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, with BCDL = 10.0psf.
- 7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 5 lb uplift at joint 1, 43 lb uplift at joint 4 and 173 lb uplift at joint 5.
- 8) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard



August 20,2021

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ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component

Safety Information available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 16 OS
Lot 16 OS	V5	Valley	2	1	Job Reference (optional)

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.43 S Jul 29 2021 Print: 8.430 S Jul 29 2021 MiTek Industries, Inc. Thu Aug 19 15:46:39 Page: 1

ID: NJ04vsQUCNS?y5JcfNrgeMz_StA-RfC?PsB70Hq3NSgPqnL8w3uITXBGKWrCDotf3423C7f

RELEASE FOR CONSTRUCTION

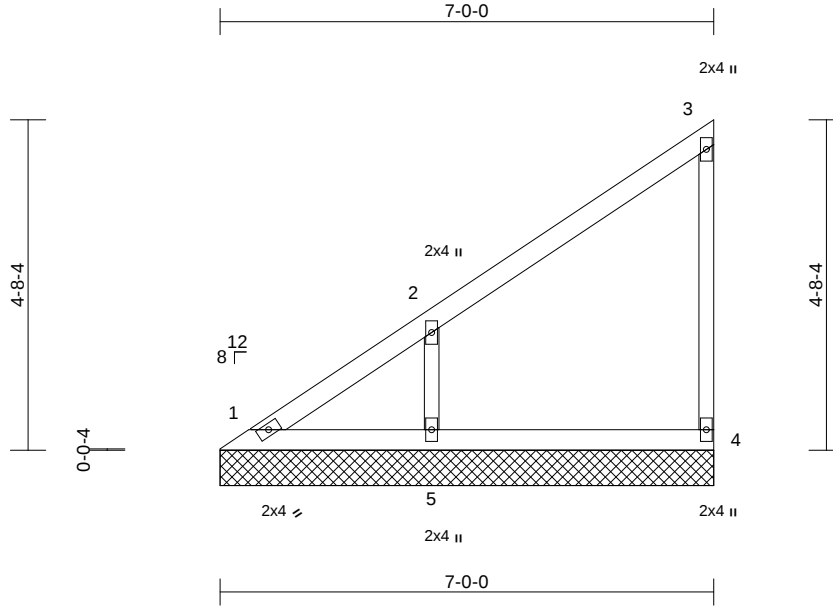
AS NOTED FOR PLAN REVIEW

DEVELOPMENT SERVICES

147537491

LEE'S SUMMIT, MISSOURI

08/31/2021



Scale = 1:32.7

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	0.24	n/a	-	n/a	999	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.10	n/a	-	n/a	999		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.05	Horiz(TL)	0.00	4	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-P						Weight: 21 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	(lb/size)	1=63/7-0-0, 4=142/7-0-0, 5=375/7-0-0
	Max Horiz	1=171 (LC 5)
	Max Uplift	1=-20 (LC 4), 4=-39 (LC 5), 5=-145 (LC 8)
	Max Grav	1=101 (LC 16), 4=158 (LC 15), 5=389 (LC 15)

FORCES	(lb) - Maximum Compression/Maximum Tension
TOP CHORD	1-2=-153/129, 2-3=-140/71, 3-4=-126/58
BOT CHORD	1-5=-61/46, 4-5=-61/46
WEBS	2-5=-306/195

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) 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) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 20 lb uplift at joint 1, 39 lb uplift at joint 4 and 145 lb uplift at joint 5.
- 8) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard



August 20, 2021

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

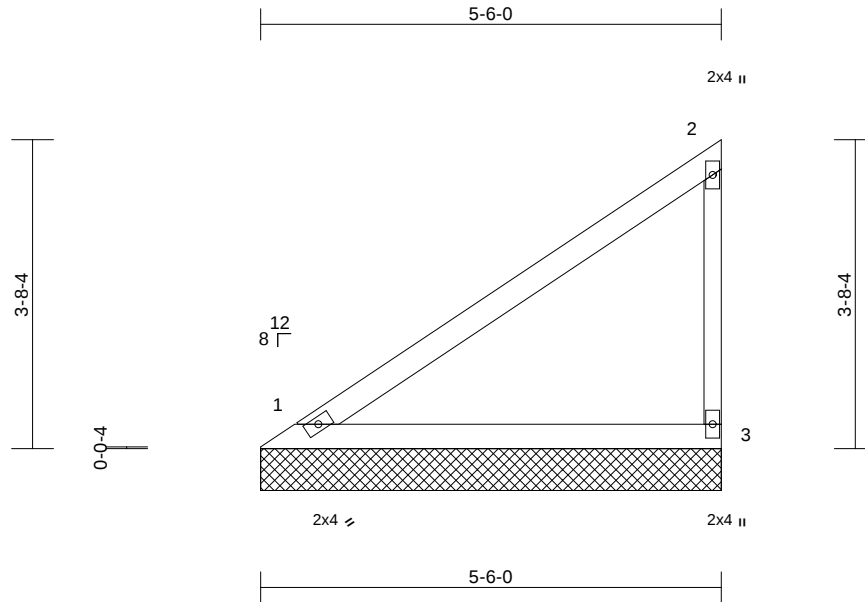
Job	Truss	Truss Type	Qty	Ply	Lot 16 OS	RELEASE FOR CONSTRUCTION
Lot 16 OS	V6	Valley	2	1	Job Reference (optional)	AS NOTED FOR PLAN REVIEW
						DEVELOPMENT SERVICES
						147537492
						LEE'S SUMMIT, MISSOURI

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.43 S Jul 29 2021 Print: 8.430 S Jul 29 2021 MiTek Industries, Inc. Thu Aug 19 15:46:39 Page: 1

ID: NJ04vsQUCNS?y5JcfNrgeMz_StA-RfC?PsB70Hq3NSgPqnL8w3uTXbGKWrcDof73423C7f

08/31/2021



Scale = 1:27.5

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	0.48	Vert(LL)	n/a	-	n/a	999	MT20
TCDL	10.0	Lumber DOL	1.15	BC	0.25	Vert(TL)	n/a	-	n/a	999	197/144
BCLL	0.0*	Rep Stress Incr	YES	WB	0.00	Horiz(TL)	0.00	3	n/a	n/a	
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-P							Weight: 16 lb FT = 10%

LUMBER

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

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

LOAD CASE(S) Standard

BRACING

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

REACTIONS

(lb/size) 1=223/5-6-0, 3=223/5-6-0
Max Horiz 1=131 (LC 5)
Max Uplift 1=-19 (LC 8), 3=-65 (LC 8)
Max Grav 1=223 (LC 1), 3=239 (LC 15)

FORCES

(lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=-122/99, 2-3=-190/94
BOT CHORD 1-3=-47/36

NOTES

- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- Gable requires continuous bottom chord bearing.
- Gable studs spaced at 4-0-0 oc.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 19 lb uplift at joint 1 and 65 lb uplift at joint 3.



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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 16 OS
Lot 16 OS	V7	Valley	2	1	Job Reference (optional)

Wheeler Lumber, Waverly, KS - 66871,

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ID: NJ04vsQUCNS?y5JcfNrgeMz_Sta-RfC?PsB70Hq3NSgPqnL8w3uTXbGKWrcDof3423C7f

RELEASE FOR CONSTRUCTION

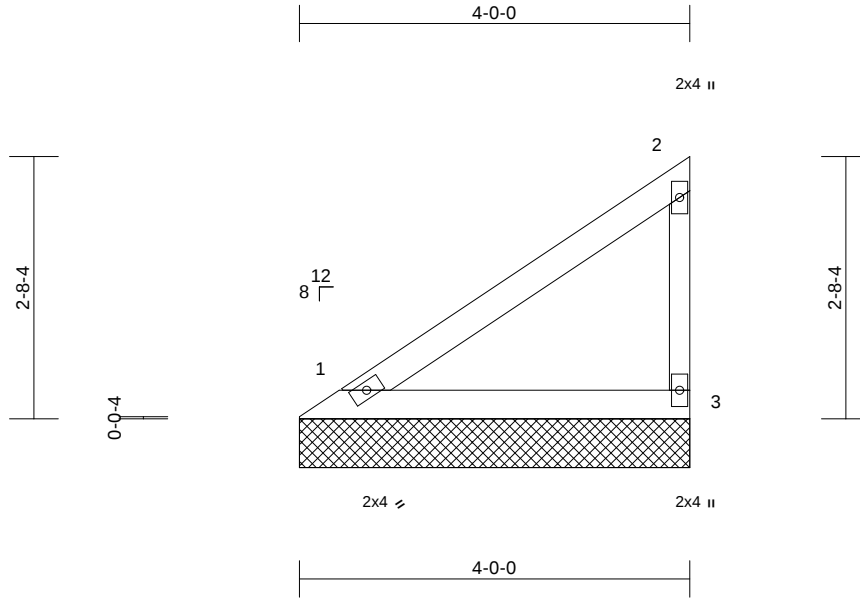
AS NOTED FOR PLAN REVIEW

DEVELOPMENT SERVICES

147537493

LEE'S SUMMIT, MISSOURI

08/31/2021



Scale = 1:23.6

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	0.22	Vert(LL)	n/a	-	n/a	999	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.12	Vert(TL)	n/a	-	n/a	999	
BCLL	0.0*	Rep Stress Incr	YES	WB	0.00	Horiz(TL)	0.00	3	n/a	n/a	
BCDL	10.0	Code	IRC2018/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

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

LOAD CASE(S) Standard

BRACING

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

REACTIONS (lb/size) 1=155/4-0-0, 3=155/4-0-0
Max Horiz 1=91 (LC 5)
Max Uplift 1=-13 (LC 8), 3=-45 (LC 8)
Max Grav 1=155 (LC 1), 3=167 (LC 15)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-85/69, 2-3=-132/66
BOT CHORD 1-3=-33/25

NOTES

- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- Gable requires continuous bottom chord bearing.
- Gable studs spaced at 4-0-0 oc.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 13 lb uplift at joint 1 and 45 lb uplift at joint 3.



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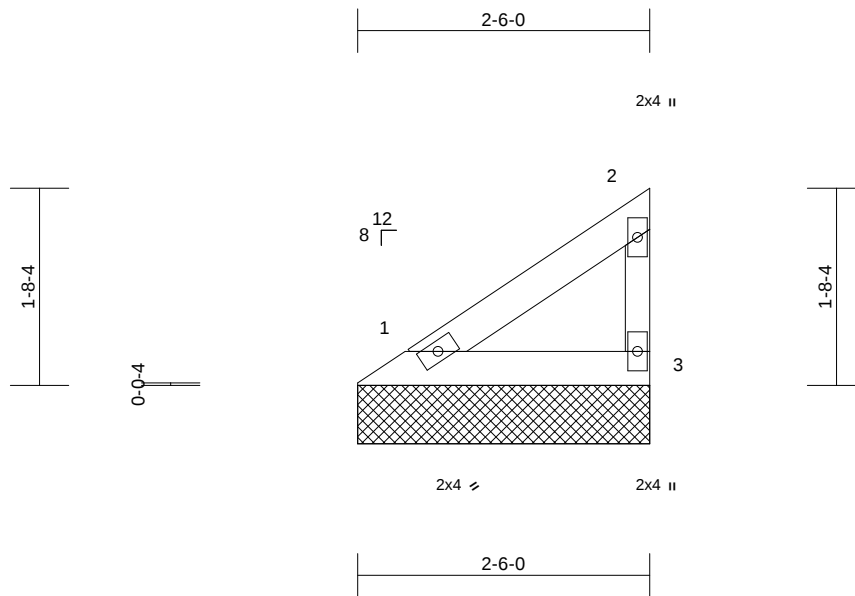
Job	Truss	Truss Type	Qty	Ply	Lot 16 OS	RELEASE FOR CONSTRUCTION
Lot 16 OS	V8	Valley	2	1	Job Reference (optional)	AS NOTED FOR PLAN REVIEW
						DEVELOPMENT SERVICES
						147537494
						LEE'S SUMMIT, MISSOURI

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08/31/2021



Scale = 1:19.7

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	0.06	Vert(LL)	n/a	-	n/a	999	MT20
TCDL	10.0	Lumber DOL	1.15	BC	0.03	Vert(TL)	n/a	-	n/a	999	197/144
BCLL	0.0*	Rep Stress Incr	YES	WB	0.00	Horiz(TL)	0.00	3	n/a	n/a	
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-P							Weight: 7 lb FT = 10%

LUMBER

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

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

LOAD CASE(S) Standard

BRACING

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

REACTIONS (lb/size) 1=88/2-6-0, 3=88/2-6-0

Max Horiz 1=52 (LC 5)
Max Uplift 1=-7 (LC 8), 3=-25 (LC 8)
Max Grav 1=88 (LC 1), 3=94 (LC 15)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=-48/39, 2-3=-75/37
BOT CHORD 1-3=-18/14

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) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 7 lb uplift at joint 1 and 25 lb uplift at joint 3.



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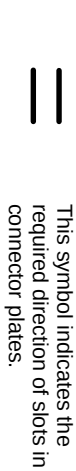
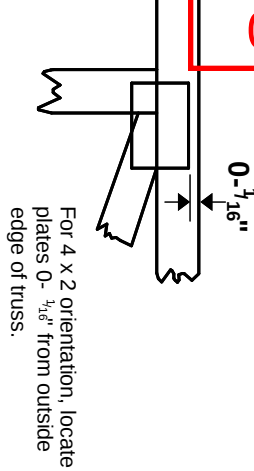
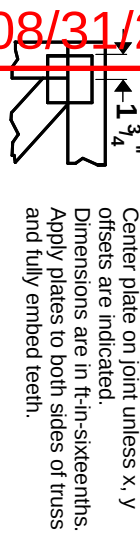


16023 Swingley Ridge Rd
Chesterfield, MO 63017

08/31/2021

Symbols

PLATE LOCATION AND ORIENTATION



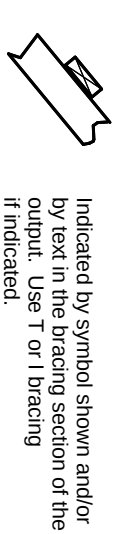
* Plate location details available in **MiTek 20120** software or upon request.

PLATE SIZE

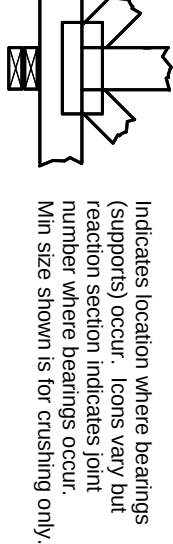
4 X 4

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

LATERAL BRACING LOCATION

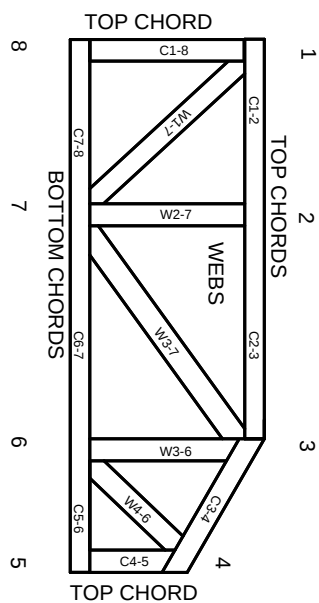


BEARING



Industry Standards:
ANSI/TP1.1: National Design Specification for Metal Plate Connected Wood Truss Construction.
DSB-89: Design Standard for Bracing.
BCSI: Building Component Safety Information, Guide to Good Practice for Handling, Installing & 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-1311, ESR-1352, ESR1988
ER-3907, ESR-2362, ESR-1397, ESR-3282

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

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

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MiTek Engineering Reference Sheet: MII-7473 rev. 5/19/2020

General Safety Notes

Failure to Follow Could Cause Property Damage or Personal Injury

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