



MiTek USA, Inc.

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

Re: B220017
Lot 121 MN

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

Pages or sheets covered by this seal: I51909914 thru I51909959

My license renewal date for the state of Missouri is December 31, 2023.

Missouri COA: Engineering 001193



Scott M. Sevier

May 13, 2022

Sevier, Scott ,Engineer

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.

Job	Truss	Truss Type	Qty	Ply	Lot 121 MN
B220017	A1	Hip Girder	1	2	I51909914

Wheeler Lumber, Waverly, KS - 66871,

8.430 s Aug 16 2021 MiTek Industries, Inc. Thu May 12 09:07:15 2022 Page 1
ID:pq50?Ycap6WpLXoTu4wfY2za1nE-IR3PWv3_Un7dt1BuEyXv_Ep1JsyRyAfptn52vKzHHvg

-0-10-8	2-0-0	3-10-8	7-0-0	10-1-8	12-0-0	14-0-0	14-10-8
0-10-8	2-0-0	1-10-8	3-1-8	3-1-8	1-10-8	2-0-0	0-10-8

Scale = 1:26.5

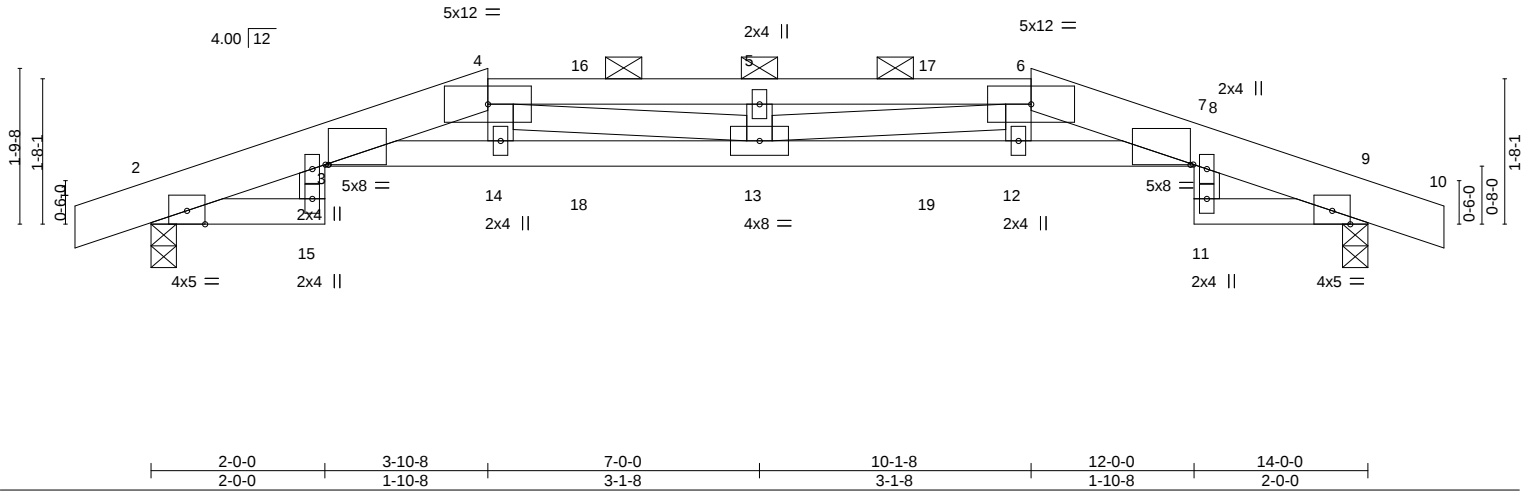


Plate Offsets (X,Y)--		[3:0-0-7,0-0-0], [7:0-0-6,0-0-1]									
LOADING (psf)		SPACING-		CSI.		DEFL.		PLATES		GRIP	
TCLL	25.0	Plate Grip DOL	1.15	TC	0.90	Vert(LL)	-0.20 13 >807 360	MT20		197/144	
TCDL	10.0	Lumber DOL	1.15	BC	0.76	Vert(CT)	-0.37 13 >449 240				
BCLL	0.0 *	Rep Stress Incr	NO	WB	0.09	Horz(CT)	0.20 9 n/a n/a				
BCDL	10.0	Code IRC2018/TPI2014		Matrix-S		Wind(LL)	0.18 13 >923 240				
								Weight: 100 lb		FT = 10%	

LUMBER-		BRACING-	
TOP CHORD	2x6 SPF No.2 *Except* 4-6: 2x4 SPF No.2	TOP CHORD	Structural wood sheathing directly applied or 5-9-0 oc purlins, except 2-0-0 oc purlins (5-5-11 max.): 4-6.
BOT CHORD	2x4 SPF No.2	BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS	2x4 SPF No.2		

REACTIONS. (size) 2=0-3-8, 9=0-3-8
Max Horz 2=-27(LC 9)
Max Uplift 2=-267(LC 4), 9=-264(LC 5)
Max Grav 2=1043(LC 1), 9=1048(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-448/123, 3-4=-4144/953, 4-5=-4838/1096, 5-6=-4838/1096, 6-7=-4167/929,
7-8=-47/311, 8-9=-400/113
BOT CHORD 3-14=-953/4276, 13-14=-931/4212, 12-13=-884/4202, 7-12=-875/4131
WEBS 4-13=-163/721, 5-13=-277/122, 6-13=-174/734, 6-12=-43/351

NOTES-

- 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.
Bottom chords connected as follows: 2x4 - 1 row at 0-9-0 oc.
Webs 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.
- 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) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- Provide adequate drainage to prevent water ponding.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=267, 9=264.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
- Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 97 lb down and 60 lb up at 3-10-8, 97 lb down and 60 lb up at 5-0-0, 97 lb down and 60 lb up at 7-0-0, and 97 lb down and 60 lb up at 9-0-0, and 97 lb down and 60 lb up at 10-1-8 on top chord, and 195 lb down and 68 lb up at 3-10-8, 12 lb down at 5-0-0, 12 lb down at 7-0-0, and 12 lb down at 9-0-0, and 195 lb down and 68 lb up at 10-0-12 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.

Continued on page 2

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



May 13, 2022



16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 121 MN
B220017	A1	Hip Girder	1	2	I51909914

Wheeler Lumber,
Waverly, KS - 66871,

8.430 s Aug 16 2021
MiTek Industries, Inc.
Thu May 12 09:07:15 2022
Page 2
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LOAD CASE(S)
Standard

1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15

Uniform Loads (plf)

Vert: 1-4=-70, 4-6=-70, 6-10=-70, 2-15=-20, 3-7=-20, 9-11=-20

Concentrated Loads (lb)

Vert: 4=-65(F) 6=-65(F) 14=-195(F) 13=-4(F) 5=-65(F) 12=-195(F) 16=-65(F) 17=-65(F) 18=-4(F) 19=-4(F)

Job	Truss	Truss Type	Qty	Ply	Lot 121 MN
B220017	A2	Hip	1	1	I51909915

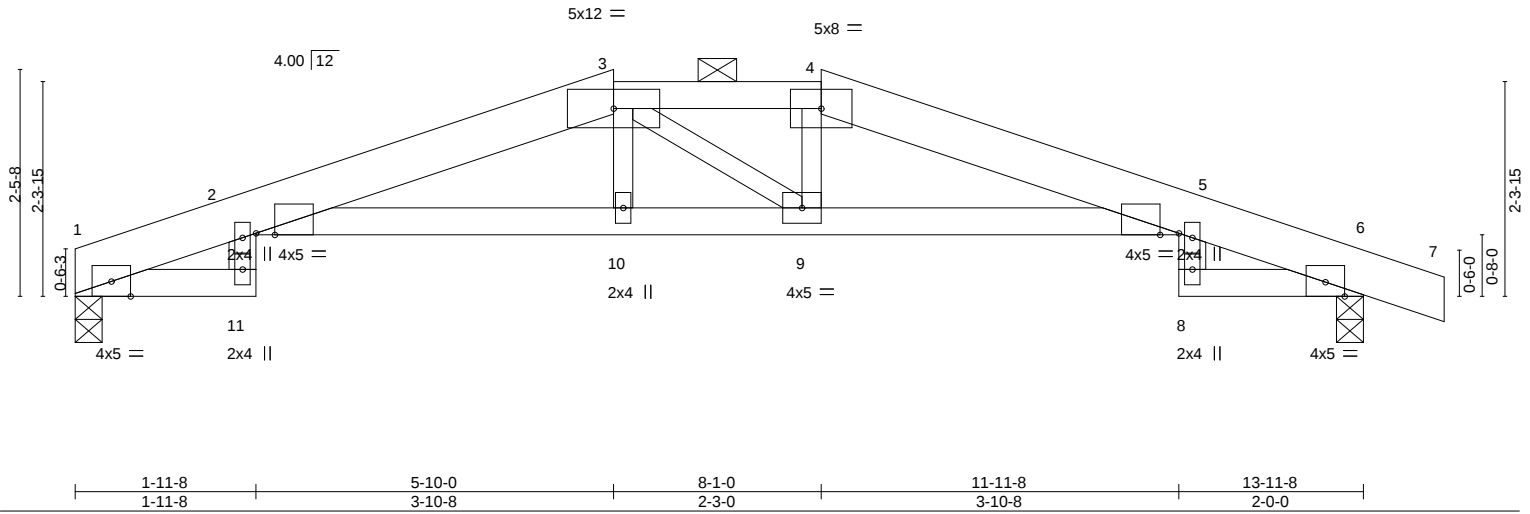
Wheeler Lumber, Waverly, KS - 66871,

8.430 s Aug 16 2021 MiTek Industries, Inc. Thu May 12 09:07:16 2022 Page 1

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Scale = 1:25.0



LOADING (psf)		SPACING-		CSI.		DEFL.		PLATES		GRIP	
TCLL	25.0	Plate Grip DOL	1.15	TC	0.73	Vert(LL)	-0.15 5-9 >999 360	MT20		197/144	
TCDL	10.0	Lumber DOL	1.15	BC	0.60	Vert(CT)	-0.28 5-9 >584 240				
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.05	Horz(CT)	0.20 6 n/a n/a				
BCDL	10.0	Code IRC2018/TPI2014		Matrix-S		Wind(LL)	0.11 2-10 >999 240				
								Weight: 47 lb		FT = 10%	

LUMBER-

TOP CHORD 2x6 SPF No.2 *Except*
3-4: 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
WEBS 2x3 SPF No.2 *Except*
2-11,5-8: 2x4 SPF No.2

BRACING-

TOP CHORD Structural wood sheathing directly applied or 3-9-5 oc purlins, except 2-0-0 oc purlins (4-7-14 max.): 3-4.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS.

(size) 1=0-3-8, 6=0-3-8
Max Horz 1=-42(LC 9)
Max Uplift 1=-97(LC 4), 6=-142(LC 5)
Max Grav 1=612(LC 1), 6=689(LC 1)

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

TOP CHORD 1-2=-253/70, 2-3=-1589/227, 3-4=-1534/215, 4-5=-1588/203
BOT CHORD 2-10=-184/1530, 9-10=-181/1535, 5-9=-145/1529

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) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- Provide adequate drainage to prevent water ponding.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1 except (jt=lb) 6=142.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



May 13,2022

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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

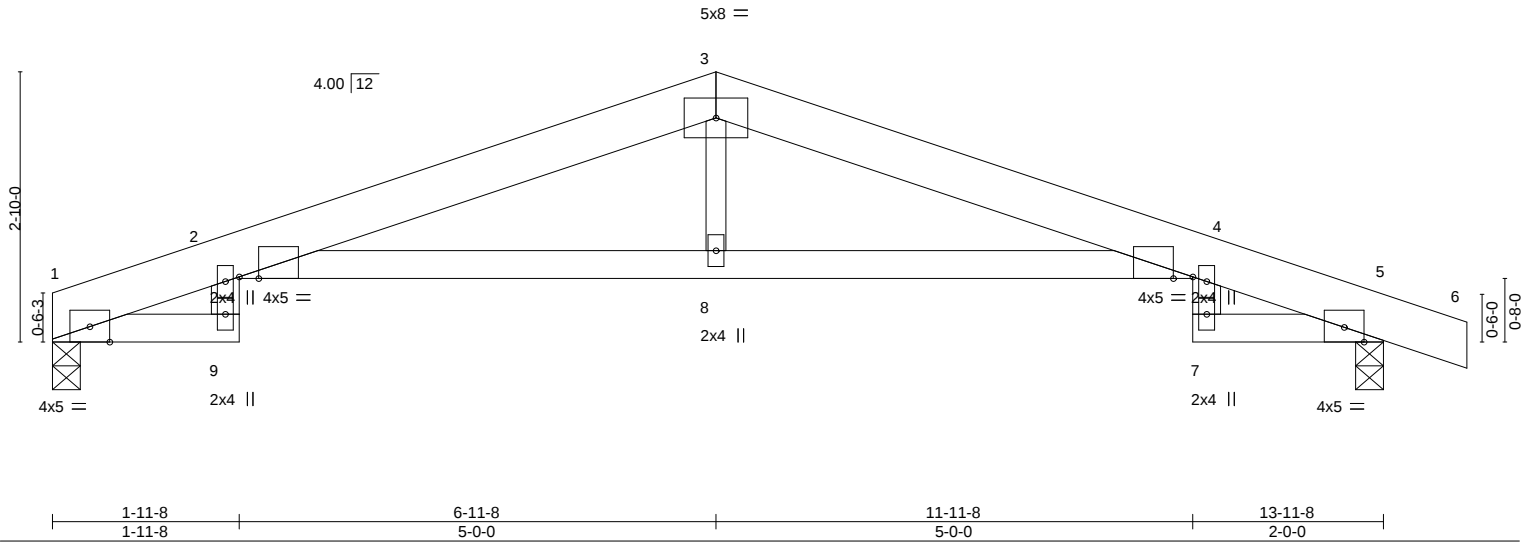
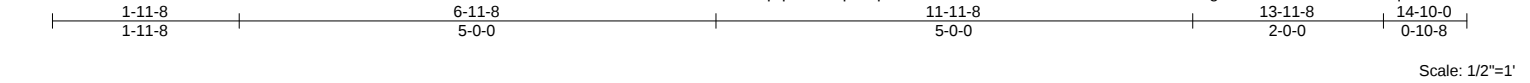


16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 121 MN	I51909916
B220017	A3	Roof Special	1	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS - 66871,

8.430 s Aug 16 2021 MiTek Industries, Inc. Thu May 12 09:07:16 2022 Page 1
ID:pq50?Ycap6WpLXoTu4wfy2za1nE-DddnkF4dF4FUVAm4ng38XSMFOGKGhd4z5RqbRnzHHvf



LOADING (psf)		SPACING-		CSL		DEFL.		PLATES		GRIP	
TCLL	25.0	Plate Grip DOL	1.15	TC	0.75	Vert(LL)	-0.17	MT20		197/144	
TCDL	10.0	Lumber DOL	1.15	BC	0.59	Vert(CT)	-0.31				
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.08	Horz(CT)	0.22				
BCDL	10.0	Code IRC2018/TPI2014		Matrix-S		Wind(LL)	0.12	Weight: 47 lb		FT = 10%	

LUMBER-		BRACING-	
TOP CHORD	2x6 SPF No.2	TOP CHORD	Structural wood sheathing directly applied or 3-7-9 oc purlins.
BOT CHORD	2x4 SPF No.2	BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS	2x4 SPF No.2 *Except*		
	3-8: 2x3 SPF No.2		

REACTIONS. (size) 1=0-3-8, 5=0-3-8
Max Horz 1=-49(LC 9)
Max Uplift 1=-89(LC 4), 5=-135(LC 5)
Max Grav 1=612(LC 1), 5=689(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-2=-253/71, 2-3=-1458/159, 3-4=-1459/174
BOT CHORD 2-8=-114/1392, 4-8=-114/1392
WEBS 3-8=0/253

NOTES-

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end 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 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1 except (jt=lb) 5=135.
- 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.



May 13, 2022

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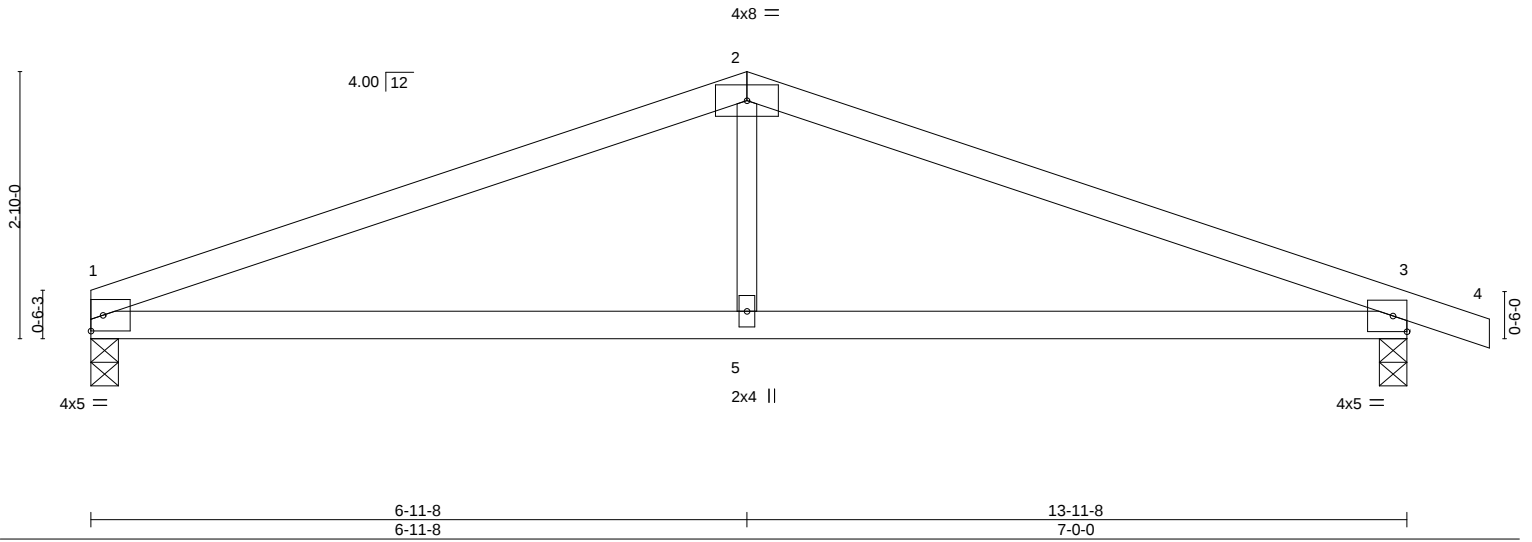
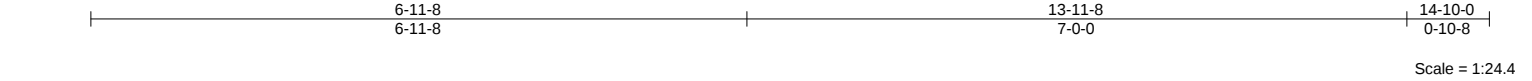


16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 121 MN	I51909917
B220017	A4	Common	1	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS - 66871,

8.430 s Aug 16 2021 MiTek Industries, Inc. Thu May 12 09:07:17 2022 Page 1
ID:pq50?Ycap6WpLXoTu4wfY2za1nE-igB9xb5F0ONL6KLGLNaN3fvPKfiyQ4x6K5a8zDzHHve



LOADING (psf)	SPACING-	CSI.	DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL 1.15	TC 0.80	Vert(LL) -0.06	3-5	>999	360		MT20	197/144
TCDL 10.0	Lumber DOL 1.15	BC 0.50	Vert(CT) -0.14	3-5	>999	240			
BCLL 0.0 *	Rep Stress Incr YES	WB 0.10	Horz(CT) 0.02	3	n/a	n/a			
BCDL 10.0	Code IRC2018/TPI2014	Matrix-S	Wind(LL) 0.05	3-5	>999	240		Weight: 36 lb	FT = 10%

LUMBER-

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

BRACING-

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

REACTIONS.

(size) 1=0-3-8, 3=0-3-8
Max Horz 1=-48(LC 13)
Max Uplift 1=-89(LC 4), 3=-135(LC 5)
Max Grav 1=612(LC 1), 3=689(LC 1)

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

TOP CHORD 1-2=-1096/130, 2-3=-1097/134
BOT CHORD 1-5=-76/955, 3-5=-76/955
WEBS 2-5=0/332

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) gable end 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 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1 except (jt=lb) 3=135.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



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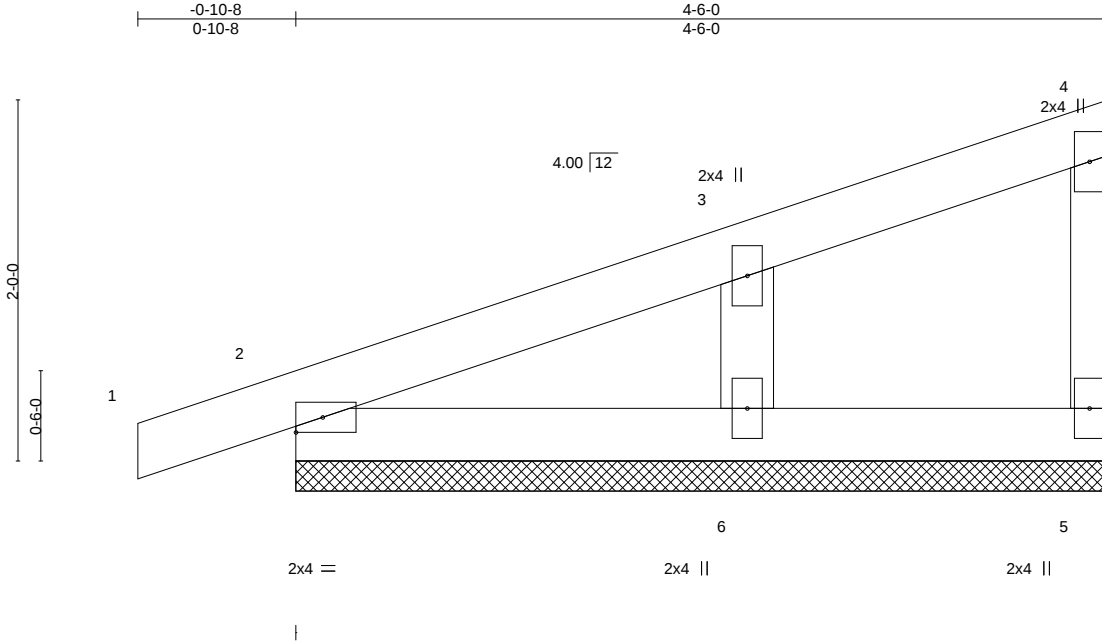


16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 121 MN	I51909918
B220017	B1	Monopitch Supported Gable	1	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS - 66871,

8.430 s Aug 16 2021 MiTek Industries, Inc. Thu May 12 09:07:18 2022 Page 1
ID:pq50?Ycap6WpLXoTu4wfY2za1nE-A0IX8x6tniVCkUvTv55cctRIU38M9YTGZJiVfzHHvd



Scale = 1:12.8

LOADING (psf)	SPACING-	2'-0'-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.07	Vert(LL)	0.00	1	n/r	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.04	Vert(CT)	0.00	1	n/r		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.02	Horz(CT)	-0.00	5	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-P					Weight: 14 lb	FT = 10%

LUMBER-

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

BRACING-

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

REACTIONS.

(size) 5=4-6-0, 2=4-6-0, 6=4-6-0
Max Horz 2=76(LC 5)
Max Uplift 5=-9(LC 5), 2=-49(LC 4), 6=-58(LC 8)
Max Grav 5=59(LC 1), 2=165(LC 1), 6=233(LC 1)

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

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) gable end 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'-6'-0 tall by 2'-0'-0 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 100 lb uplift at joint(s) 5, 2, 6.
- 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.



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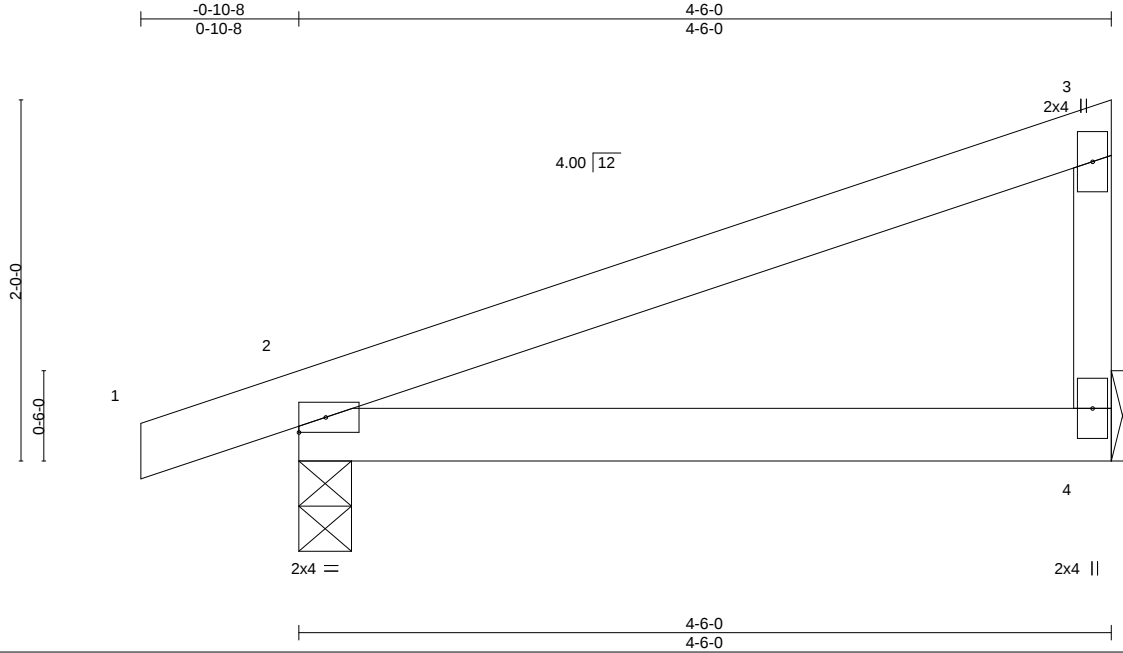


16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 121 MN	
B220017	B2	Monopitch	7	1		I51909919

Wheeler Lumber, Waverly, KS - 66871,

8.430 s Aug 16 2021 MiTek Industries, Inc. Thu May 12 09:07:19 2022 Page 1
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Scale = 1:12.8

LOADING (psf)	SPACING-	CSI.	DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL 1.15	TC 0.30	Vert(LL)	-0.02	2-4	>999	360	MT20	197/144
TCDL 10.0	Lumber DOL 1.15	BC 0.18	Vert(CT)	-0.04	2-4	>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-P	Wind(LL)	0.00	2	****	240		

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

REACTIONS.

(size) 4=Mechanical, 2=0-3-8
Max Horz 2=76(LC 5)
Max Uplift 4=40(LC 8), 2=78(LC 4)
Max Grav 4=183(LC 1), 2=271(LC 1)

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

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) gable end 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 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 4) Refer to girder(s) for truss to truss connections.
- 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 4, 2.
- 6) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



May 13, 2022

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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

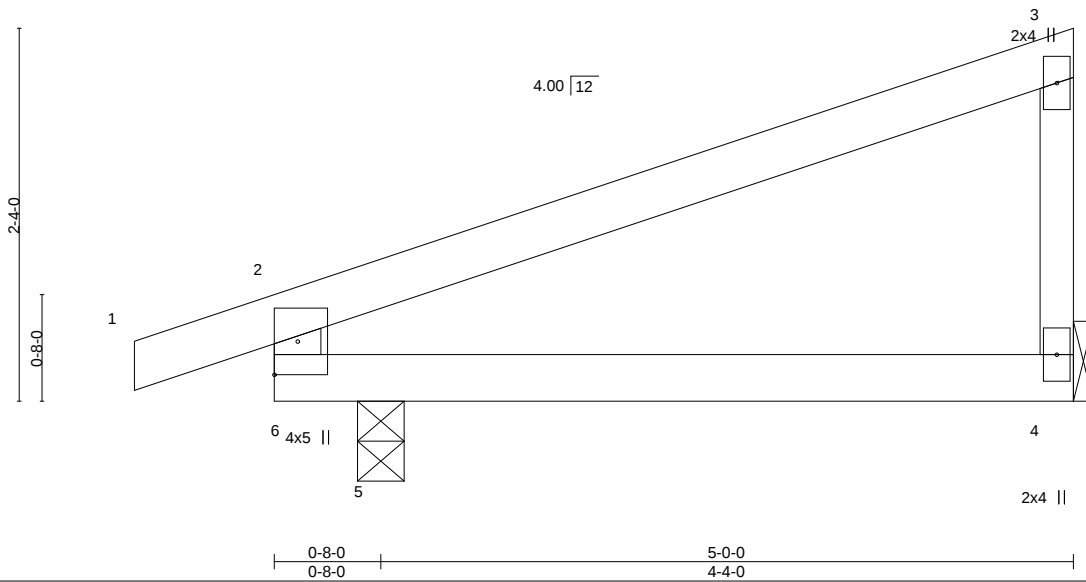


16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 121 MN	
B220017	B3	Monopitch	7	1		I51909920

Wheeler Lumber, Waverly, KS - 66871,

8.430 s Aug 16 2021 MiTek Industries, Inc. Thu May 12 09:07:20 2022 Page 1
ID:pq50?Ycap6WpLXoTu4wfY2za1nE-6PtZc77JJmwzo3r0W74hlX39topdSlZ03opaYzHHvb
5-0-0
5-0-0



Scale = 1:14.4

LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.25	Vert(LL)	-0.01	4-5	>999	360	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.17	Vert(CT)	-0.02	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)	-0.00	4-5	>999	240		
									Weight: 14 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 5-0-0 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS.

(size) 4=Mechanical, 5=0-3-8
Max Horz 5=94(LC 5)
Max Uplift 4=-39(LC 8), 5=-100(LC 4)
Max Grav 4=170(LC 1), 5=329(LC 1)

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

TOP CHORD 2-6=-267/120

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) gable end 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 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 4) Refer to girder(s) for truss to truss connections.
- 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 4 except (jt=lb) 5=100.
- 6) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



May 13, 2022

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

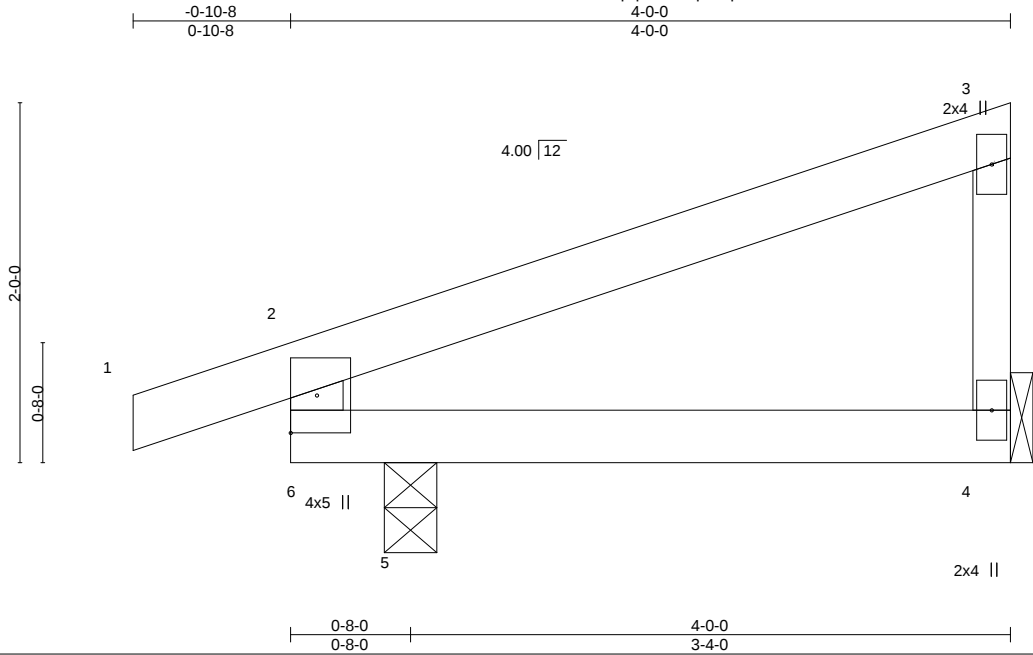


16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 121 MN	I51909921
B220017	B4	Monopitch	1	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS - 66871,

8.430 s Aug 16 2021 MiTek Industries, Inc. Thu May 12 09:07:20 2022 Page 1
ID:pq50?Ycap6WpLXoTu4wfY2za1nE-6PtZc77JJmwzo3r0W74h1X4KtpjdSIz03opaYzHHvb



Scale = 1:12.8

LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.18	Vert(LL)	0.01	4-5	>999	360	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.11	Vert(CT)	-0.01	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)	-0.00	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 *Except*
3-4: 2x3 SPF No.2

BRACING-

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

REACTIONS.

(size) 4=Mechanical, 5=0-3-8
Max Horz 5=79(LC 5)
Max Uplift 4=-27(LC 8), 5=-96(LC 4)
Max Grav 4=119(LC 1), 5=290(LC 1)

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

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) gable end 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 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 4) Refer to girder(s) for truss to truss connections.
- 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 4, 5.
- 6) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



May 13, 2022

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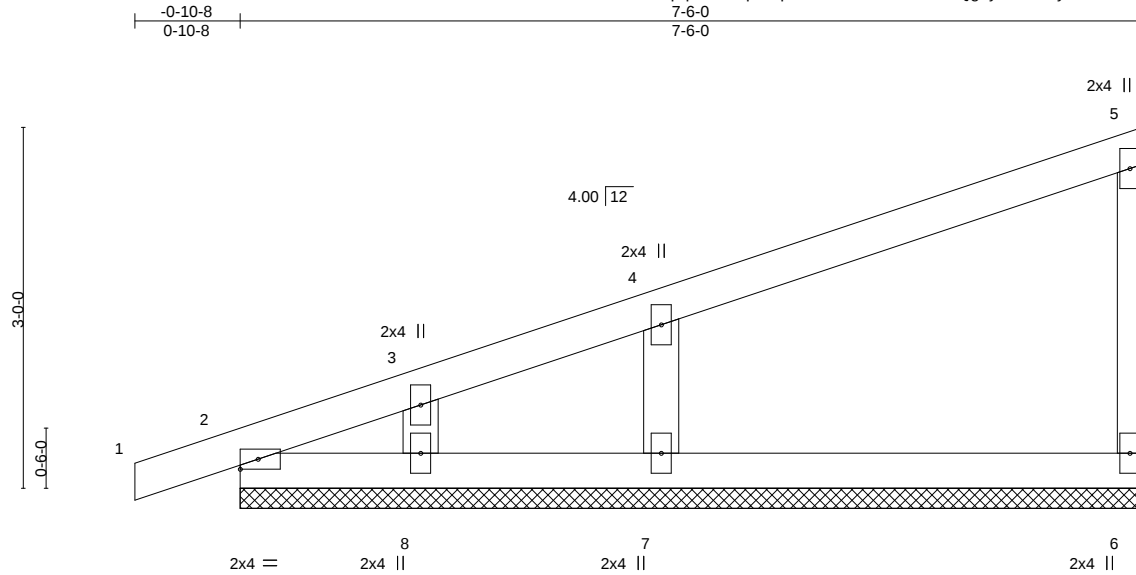


16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 121 MN	I51909922
B220017	B5	GABLE	1	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS - 66871,

8.430 s Aug 16 2021 MiTek Industries, Inc. Thu May 12 09:07:21 2022 Page 1
ID:pq50?Ycap6WpLXoTu4wfY2za1nE-abQgny8l4dunbye1aDeJDV3FyH99Mv_iFjYM6_zHHva
7-6-0
7-6-0



Scale = 1:19.2

LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.18	Vert(LL)	0.00	1	n/r	120	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.10	Vert(CT)	-0.00	1	n/r	120		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.04	Horz(CT)	-0.00	6	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-P						Weight: 22 lb	FT = 10%

LUMBER-

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

BRACING-

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

REACTIONS.

All bearings 7-6-0.
(lb) - Max Horz 2=121(LC 5)
Max Uplift All uplift 100 lb or less at joint(s) 6, 2, 7, 8
Max Grav All reactions 250 lb or less at joint(s) 6, 2, 8 except 7=365(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
WEBS 4-7=284/136

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) gable end 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 3-6-0 tall by 2-0-0 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 100 lb uplift at joint(s) 6, 2, 7, 8.
- 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.



May 13, 2022

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job B220017	Truss B6	Truss Type Monopitch	Qty 4	Ply 1	Lot 121 MN Job Reference (optional)	I51909923
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Wheeler Lumber, Waverly, KS - 66871,

8.430 s Aug 16 2021 MiTek Industries, Inc. Thu May 12 09:07:21 2022 Page 1

ID:pq50?Ycap6WpLXoTu4wFY2za1nE-abQgny8l4dunbye1aDeJDV39wH52Mt3iFjYM6_zHHva

-0-10-8
0-10-8

7-6-0
7-6-0

Scale = 1:18.7

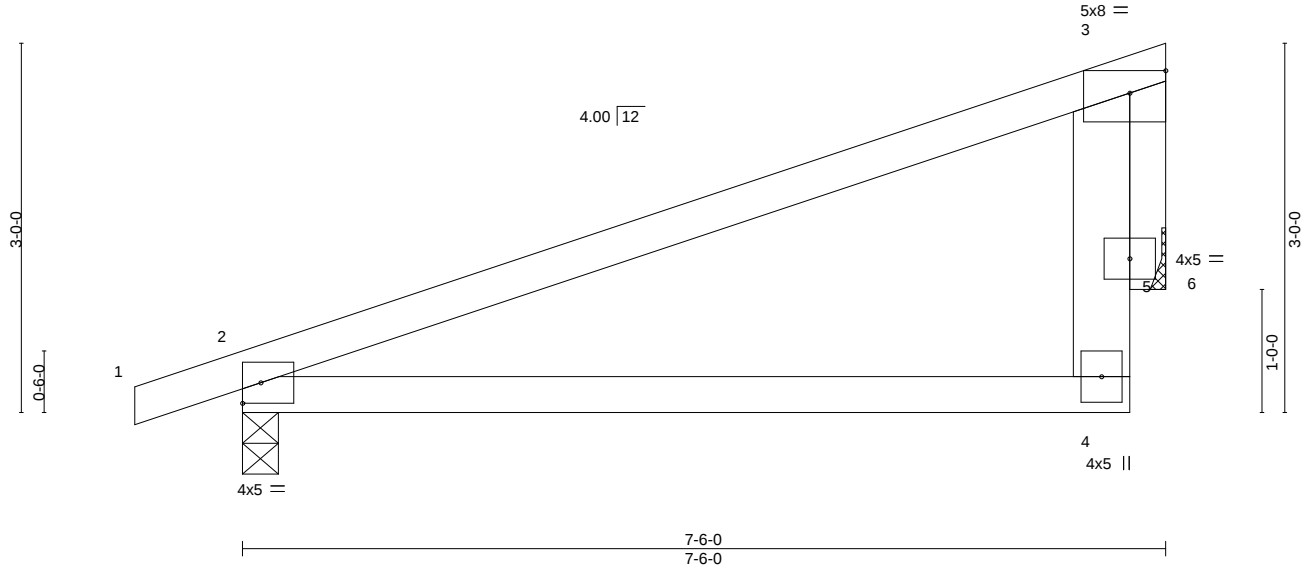


Plate Offsets (X,Y)-- [3:Edge,0-2-3]

LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in	(loc)	I/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.57	Vert(LL)	-0.04	2-4	>999	360	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.36	Vert(CT)	-0.10	2-4	>858	240		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.16	Horz(CT)	0.00	6	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-R	Wind(LL)	0.03	2-4	>999	240	Weight: 24 lb	FT = 10%

LUMBER-

TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
WEBS 2x6 SPF No.2
OTHERS 2x4 SPF No.2

BRACING-

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

REACTIONS.

(size) 2=0-3-8, 6=Mechanical
Max Horz 2=90(LC 4)
Max Uplift 2=-91(LC 4), 6=-69(LC 8)
Max Grav 2=403(LC 1), 6=283(LC 1)

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

TOP CHORD 2-3=-331/25

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) gable end 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'-6" tall by 2'-0" wide will fit between the bottom chord and any other members.
- 4) Refer to girder(s) for truss to truss connections.
- 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 6.
- 6) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



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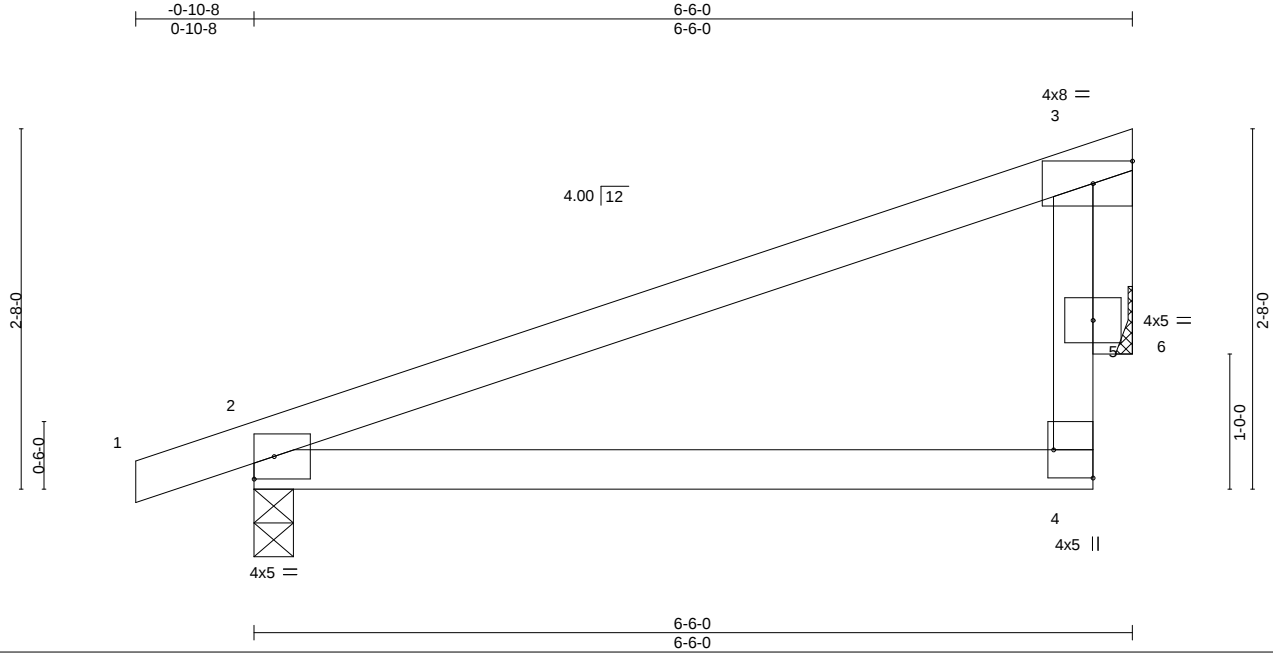
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job B220017	Truss B7	Truss Type Monopitch	Qty 6	Ply 1	Lot 121 MN Job Reference (optional)	I51909924
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Wheeler Lumber, Waverly, KS - 66871,

8.430 s Aug 16 2021 MiTek Industries, Inc. Thu May 12 09:07:22 2022 Page 1

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LOADING (psf)		SPACING-		CSI.		DEFL.		PLATES		GRIP	
TCLL	25.0	Plate Grip DOL	1.15	TC	0.40	Vert(LL)	-0.03 2-4 >999 360	MT20		197/144	
TCDL	10.0	Lumber DOL	1.15	BC	0.25	Vert(CT)	-0.06 2-4 >999 240				
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.25	Horz(CT)	-0.00 6 n/a n/a				
BCDL	10.0	Code IRC2018/TPI2014		Matrix-R		Wind(LL)	0.02 2-4 >999 240	Weight: 20 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) 2=0-3-8, 6=Mechanical
Max Horz 2=78(LC 5)
Max Uplift 2=-85(LC 4), 6=-60(LC 8)
Max Grav 2=359(LC 1), 6=245(LC 1)

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

TOP CHORD 2-3=-271/20

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) gable end 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'-6-0 tall by 2'-0-0 wide will fit between the bottom chord and any other members.
- 4) Refer to girder(s) for truss to truss connections.
- 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 6.
- 6) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



May 13, 2022

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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

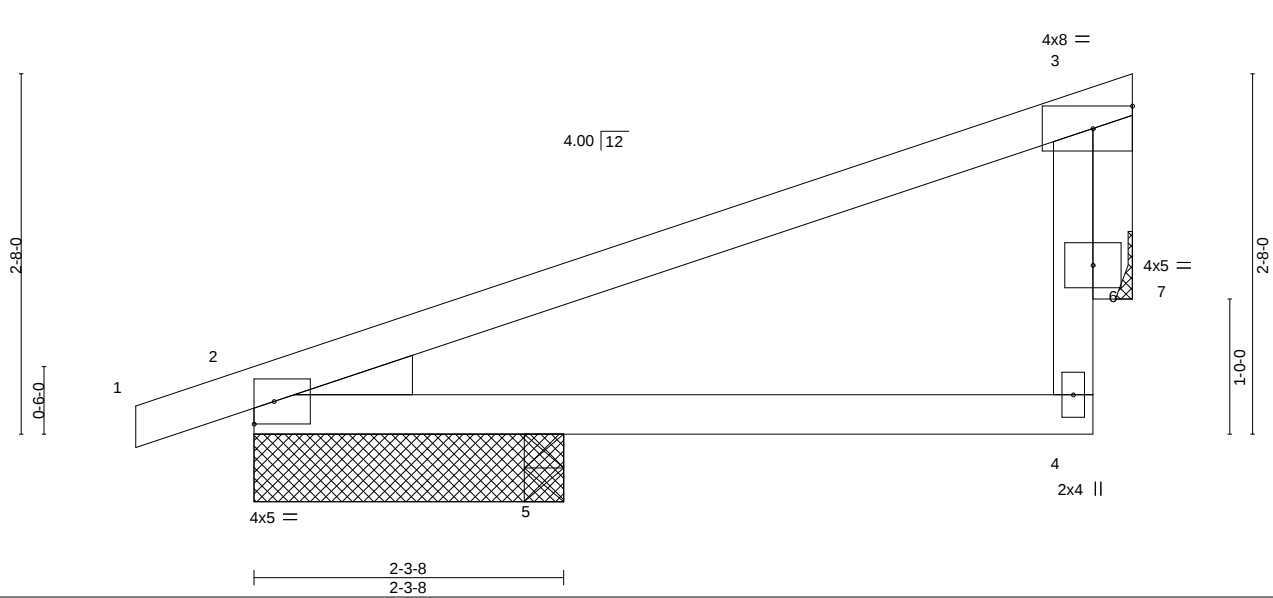


16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 121 MN	I51909925
B220017	B8	Monopitch Structural Gable	1	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS - 66871,

8.430 s Aug 16 2021 MiTek Industries, Inc. Thu May 12 09:07:22 2022 Page 1
ID:pg50?Ycap6WpLXoTu4wfY2za1nE-2n_2_I9NrwdD5DE8x9YmjcN?gRw5JyrUNHvfQzHHvZ
6-6-0
6-6-0



Scale = 1:17.1

LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.36	Vert(LL)	-0.01	2-5	>999	360	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.32	Vert(CT)	-0.01	2-5	>999	240		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.25	Horz(CT)	0.01	7	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-R	Wind(LL)	0.01	2-5	>999	240	Weight: 21 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
WEDGE
Left: 2x4 SP No.3

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) 2=2-3-8, 5=0-3-8, 7=Mechanical
Max Horz 2=78(LC 5)
Max Uplift 2=-82(LC 4), 7=-62(LC 8)
Max Grav 2=252(LC 1), 5=167(LC 3), 7=202(LC 1)

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

TOP CHORD 3-6=-301/180

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) gable end 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 studs spaced at 2-0-0 oc.
- 4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 5) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 6) Refer to girder(s) for truss to truss connections.
- 7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 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.



May 13, 2022

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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 121 MN	
B220017	B9	Monopitch	1	1		I51909926

Wheeler Lumber, Waverly, KS - 66871,

8.430 s Aug 16 2021 MiTek Industries, Inc. Thu May 12 09:07:23 2022 Page 1

ID:pq50?Ycap6WpLXoTu4wfY2za1nE-W_YQCe90cE8UqFoQiehnJw9bt4rfqoB?i11TBtzHHvY

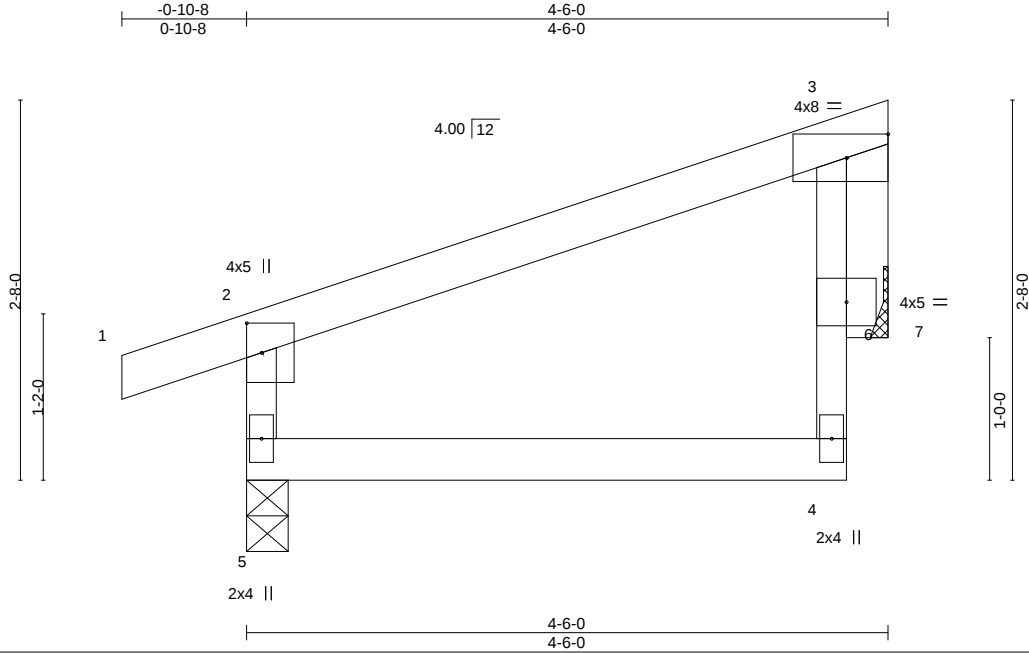


Plate Offsets (X,Y)-- [2:0-2-8-0-1-4]

LOADING (psf)	SPACING-		CSI.	DEFL.	in	(loc)	I/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	2-0-0	TC 0.16	Vert(LL)	-0.01	4-5	>999	360	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.10	Vert(CT)	-0.01	4-5	>999	240		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.12	Horz(CT)	-0.00	7	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-R	Wind(LL)	-0.00	4-5	>999	240	Weight: 15 lb	FT = 10%

LUMBER-

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

BRACING-

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

REACTIONS.

(size) 5=0-3-8, 7=Mechanical
Max Horz 5=78(LC 5)
Max Uplift 5=-63(LC 4), 7=-47(LC 8)
Max Grav 5=270(LC 1), 7=158(LC 1)

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

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) gable end 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 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 4) Refer to girder(s) for truss to truss connections.
- 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 5, 7.
- 6) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



May 13, 2022

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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 121 MN	I51909927
B220017	B10	Monopitch	3	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS - 66871,

8.430 s Aug 16 2021 MiTek Industries, Inc. Thu May 12 09:07:18 2022 Page 1

ID:pq50?Ycap6WpLXoTu4wfy2za1nE-A0IX8x6tniVckUvTv55cctRhc35X9VyGZIJiVfzHHvd

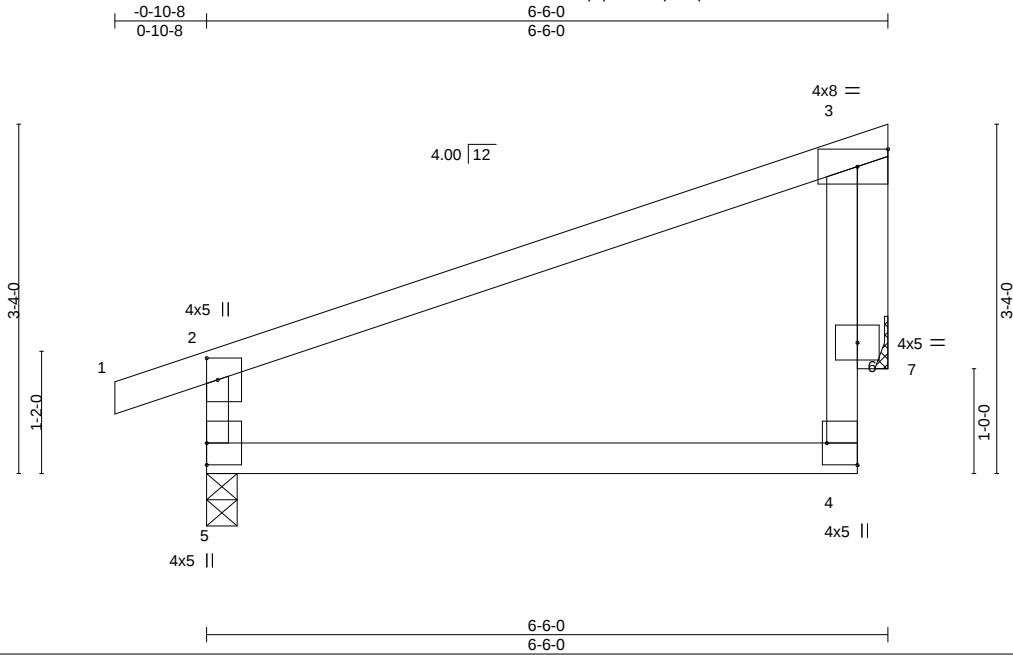


Plate Offsets (X,Y)--		[2:0-2-8,0-1-4], [4:Edge,0-3-8]	
LOADING (psf)	SPACING-	2-0-0	CSI.
TCLL 25.0	Plate Grip DOL	1.15	TC 0.38
TCDL 10.0	Lumber DOL	1.15	BC 0.22
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.25
BCDL 10.0	Code	IRC2018/TPI2014	Matrix-R
			DEFL.
			in (loc) l/defl L/d
			Vert(LL) -0.03 4-5 >999 360
			Vert(CT) -0.06 4-5 >999 240
			Horz(CT) -0.01 7 n/a n/a
			Wind(LL) -0.01 4-5 >999 240
			PLATES
			MT20
			GRIP
			197/144
			Weight: 22 lb FT = 10%

LUMBER-

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

REACTIONS.

(size) 5=0-3-8, 7=Mechanical
 Max Horz 5=96(LC 5)
 Max Uplift 5=-74(LC 4), 7=-69(LC 8)
 Max Grav 5=358(LC 1), 7=247(LC 1)

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

TOP CHORD 2-5=-308/118

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) gable end 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'-6" tall by 2'-0" wide will fit between the bottom chord and any other members.
- 4) Refer to girder(s) for truss to truss connections.
- 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 5, 7.
- 6) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



May 13,2022

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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



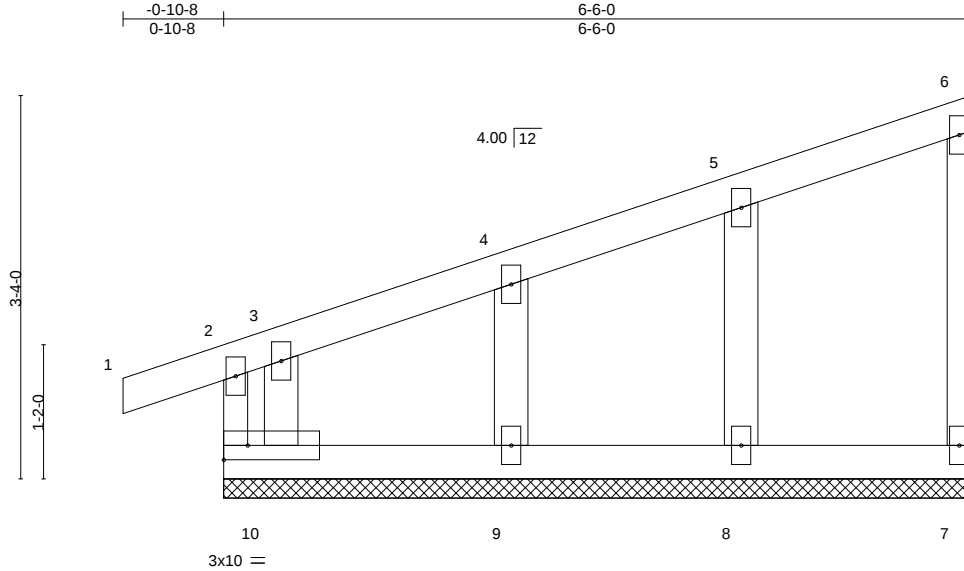
16023 Swingley Ridge Rd
 Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 121 MN
B220017	B11	Monopitch Supported Gable	1	1	I51909928

Wheeler Lumber, Waverly, KS - 66871,

8.430 s Aug 16 2021 MiTek Industries, Inc. Thu May 12 09:07:19 2022 Page 1

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Scale = 1:20.0

LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.09	Vert(LL)	-0.00	1-2	n/r	120	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.03	Vert(CT)	-0.01	1-2	n/r	120		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.02	Horz(CT)	-0.00	7	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-R						Weight: 24 lb	FT = 10%

LUMBER-

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

BRACING-

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

REACTIONS.

All bearings 6-6-0.
(lb) - Max Horz 10=135(LC 5)
Max Uplift All uplift 100 lb or less at joint(s) 10, 7, 8, 9
Max Grav All reactions 250 lb or less at joint(s) 10, 7, 8, 9

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

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) gable end 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 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 3-6-0 tall by 2-0-0 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 100 lb uplift at joint(s) 10, 7, 8, 9.
- 10) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



May 13, 2022

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

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 121 MN	I51909929
B220017	C1	Common Supported Gable	1	1	Job Reference (optional)	

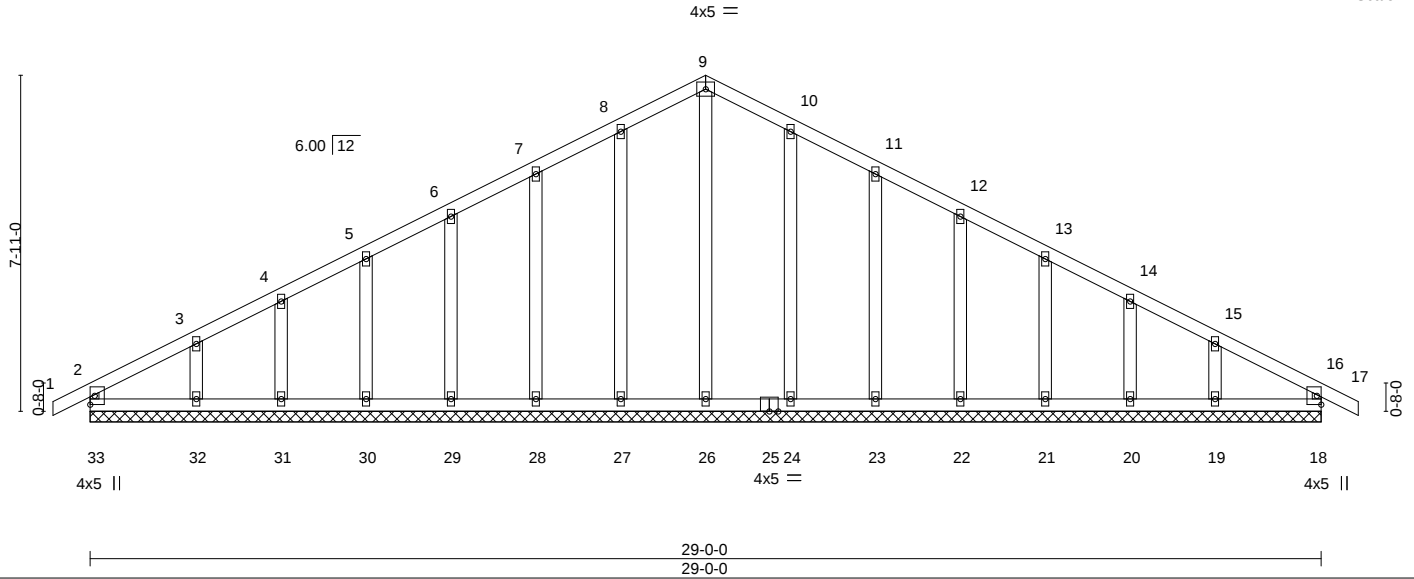
Wheeler Lumber, Waverly, KS - 66871,

8.430 s Aug 16 2021 MiTek Industries, Inc. Thu May 12 09:07:24 2022 Page 1

ID:pq50?Ycap6WpLXoTu4wfY2za1nE- A6oP_AeNYGLSPNcFLC0r8hnuUBkZEs8xhm0jzHHvX

-0-10-8 14-6-0 29-0-0 29-10-8 0-10-8 14-6-0 0-10-8

Scale = 1:54.3



LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.08	Vert(LL)	-0.00	16	n/r	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.04	Vert(CT)	-0.00	17	n/r		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.16	Horz(CT)	0.00	18	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-R					Weight: 134 lb	FT = 10%

LUMBER-

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

BRACING-

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

REACTIONS.

All bearings 29-0-0.

(lb) - Max Horz 33=122(LC 8)

Max Uplift All uplift 100 lb or less at joint(s) 33, 18, 27, 28, 29, 30, 31, 32, 24, 23, 22, 21, 20, 19

Max Grav All reactions 250 lb or less at joint(s) 33, 18, 26, 27, 28, 29, 30, 31, 32, 24, 23, 22, 21, 20, 19

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

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) gable end 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 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 33, 18, 27, 28, 29, 30, 31, 32, 24, 23, 22, 21, 20, 19.
- 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.



May 13, 2022

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

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 121 MN	
B220017	C2	Common	6	1		I51909930

Wheeler Lumber, Waverly, KS - 66871,

8.430 s Aug 16 2021 MiTek Industries, Inc. Thu May 12 09:07:33 2022 Page 1

ID:pq50?Ycap6WpLXoTu4wfY2za1nE-Ev9CI3HHFJO41oZLHks8j1Z8064sA6lT0aS?XizHHvO

Job Reference (optional)

0-10-8 7-9-9 14-6-0 21-2-7 29-0-0 29-10-8
0-10-8 7-9-9 6-8-7 6-8-7 7-9-9 0-10-8

Scale = 1:52.8

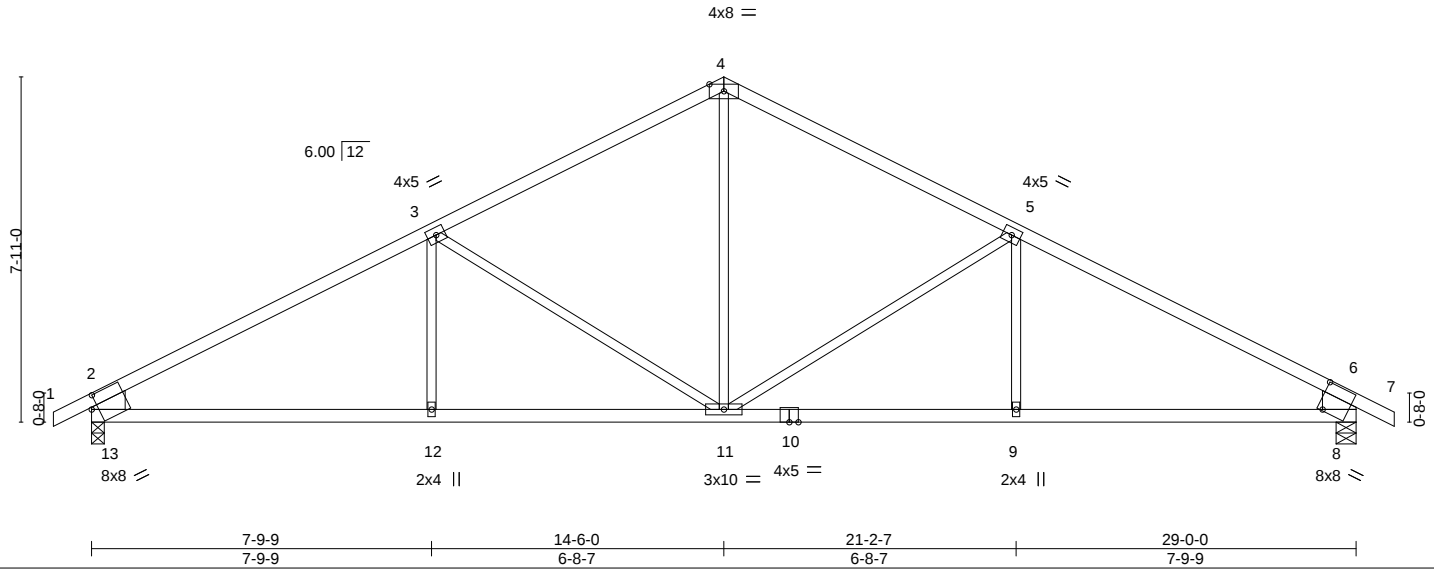


Plate Offsets (X,Y)-- [8:0-1-8,0-7-10], [13:0-1-13,0-3-8]

LOADING (psf)	SPACING-		CSI.	DEFL.	in	(loc)	I/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.82	Vert(LL)	-0.18	9-11	>999	360	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.81	Vert(CT)	-0.35	9-11	>975	240		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.91	Horz(CT)	0.08	8	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-S	Wind(LL)	0.10	9-11	>999	240	Weight: 101 lb	FT = 10%

LUMBER-

TOP CHORD 2x4 SPF 2100F 1.8E
BOT CHORD 2x4 SPF No.2
WEBS 2x3 SPF No.2 *Except*
2-13,6-8: 2x10 SP DSS

BRACING-

TOP CHORD Structural wood sheathing directly applied or 3-9-12 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS.

(size) 13=0-3-8, 8=0-5-8
Max Horz 13=-120(LC 6)
Max Uplift 13=-186(LC 8), 8=-186(LC 9)
Max Grav 13=1359(LC 1), 8=1359(LC 1)

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

TOP CHORD 2-3=-2002/246, 3-4=-1456/229, 4-5=-1456/229, 5-6=-2002/246, 2-13=-1252/230, 6-8=-1252/230
BOT CHORD 12-13=-232/1657, 11-12=-232/1657, 9-11=-116/1657, 8-9=-116/1657
WEBS 4-11=-63/735, 5-11=-586/227, 5-9=0/261, 3-11=-586/227, 3-12=0/261

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) gable end 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 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 13=186, 8=186.
- 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.



May 13, 2022

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Wheeler Lumber, Waverly, KS - 66871, 8.430 s Aug 16 2021 MiTek Industries, Inc. Thu May 12 09:07:34 2022 Page 1
 ID:pq50?Ycap6WpLXoTu4wfY2za1nE-i5jaVP1v0cXxf8XrSNNFE6l7WPNbvbcEECY4kzHHvN
 0-10-8 7-9-9 14-6-0 15-9-12 20-9-15 25-1-0 29-10-8
 0-10-8 7-9-9 6-8-7 1-3-12 5-0-3 4-3-1 4-9-8

Diagram illustrating the structural layout of a roof truss system, showing 15 numbered components and their associated material specifications:

- Component 1:** 0-8-0
- Component 2:** 8x8
- Component 3:** 4x5
- Component 4:** 5x8
- Component 5:** 4x5
- Component 6:** 5x8
- Component 7:** 4x5
- Component 8:** 4x8
- Component 9:** 3x10
- Component 10:** 6x8
- Component 11:** 2x4
- Component 12:** 2x4
- Component 13:** 2x4
- Component 14:** 3x10
- Component 15:** 8x8

Dimensions and other specifications shown in the diagram include:

- Overall height: 7-11-0
- Vertical dimensions: 2-6-4, 1-6-4, 1-0-0, 2-6-4
- Horizontal dimensions: 7-9-9, 14-6-0, 15-9-12, 20-9-15, 25-1-0, 29-8-8, 29-10-8
- Material specifications: 6.00 12, 8x8, 4x5, 5x8, 3x10, 6x8, 2x4

LUMBER- TOP CHORD 2x4 SPF 2100F 1.8E *Except* 4-6: 2x6 SPF No.2, 6-7: 2x4 SPF No.2 BOT CHORD 2x4 SPF 2100F 1.8E *Except* 12-15: 2x4 SPF No.2 WEBS 2x3 SPF No.2 *Except* 7-8,6-8: 2x4 SPF No.2, 2-15: 2x10 SP DSS		BRACING- TOP CHORD Structural wood sheathing directly applied or 3-1-0 oc purlins, except end verticals, and 2-0-0 oc purlins (6-0-0 max.): 6-7. BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing. WEBS 1 Row at midpt 5-11, 6-8	
REACTIONS. (size) 8=0-2-0 (req. 0-2-1), 15=0-3-8 Max Horz 15=155(LC 5) Max Uplift 8=-174(LC 9), 15=-189(LC 8) Max Grav 8=1319(LC 1), 15=1411(LC 1)		SUPPLEMENTARY BEARING PLATES, SPECIAL ANCHORAGE, OR OTHER MEANS TO ALLOW FOR THE MINIMUM REQUIRED SUPPORT WIDTH (SUCH AS COLUMN CAPS, BEARING BLOCKS, ETC.) ARE THE RESPONSIBILITY OF THE TRUSS MANUFACTURER OR THE BUILDING DESIGNER.	
FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown. TOP CHORD 2-3=-2102/249, 3-4=-1783/241, 4-5=-1793/250, 5-6=-2833/322, 2-15=-1301/232 BOT CHORD 14-15=-271/1743, 10-11=-263/2507, 9-10=-263/2507, 8-9=-576/4057 WEBS 3-11=-380/193, 11-13=0/264, 4-11=-78/1049, 5-11=-1128/256, 6-9=-1613/326, 6-8=-4022/588, 11-14=-278/1726, 5-9=0/593			

- 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) gable end 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 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 6) WARNING: Required bearing size at joint(s) 8 greater than input bearing size.
- 7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 8=174, 15=189.
- 8) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 9) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



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

WARNING – Verify design parameters. READ NOTES ON THIS AND INCLUDED WITKOP REFERENCE PAGE MH1473.161, 3/19/2020 BEFORE USE.
Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for 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 BCS 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 121 MN	I51909932
B220017	C4	Roof Special	1	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS - 66871,

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ID:pq50?Ycap6WpLXoTu4wfY2za1nE-AHHZjJXnwnG5jkP9ucoSeTgwkgq?nmTux5cAZHHvM

0-10-8 7-9-9 14-6-0 15-8-0 22-5-0 29-10-8
0-10-8 7-9-9 6-8-7 1-2-0 6-9-0 7-5-8

Scale = 1:62.6

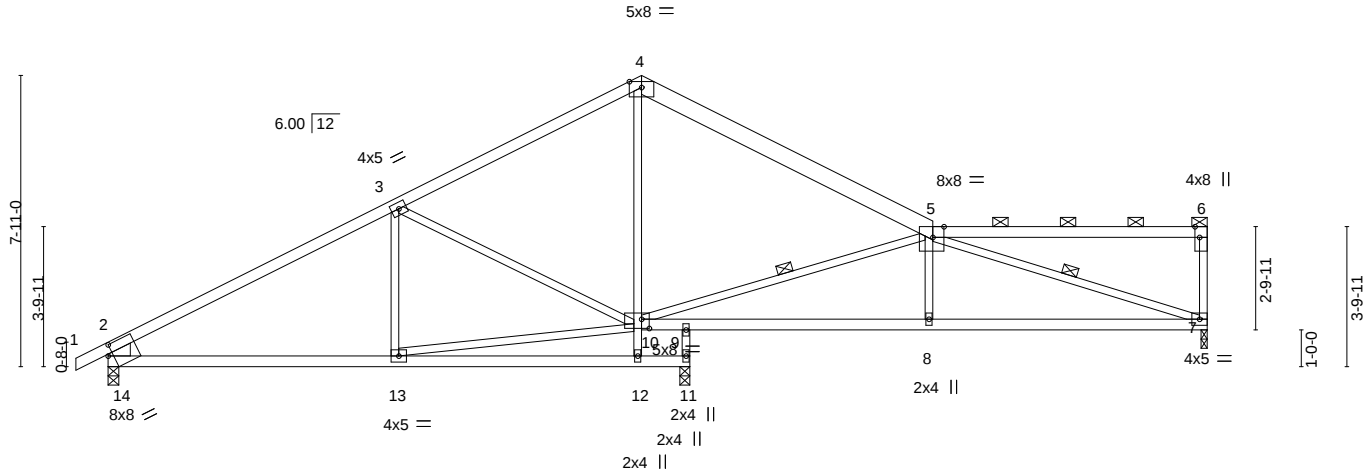


Plate Offsets (X,Y)--	[5:0-3-10,Edge], [6:0-3-8,Edge], [10:0-2-8,0-3-0], [14:0-1-10,0-3-4]
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LOADING (psf)	SPACING-		CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL 1.15		TC 0.87	Vert(LL) -0.19	12-13	>961	360	MT20	197/144
TCDL 10.0	Lumber DOL 1.15		BC 0.91	Vert(CT) -0.36	12-13	>512	240		
BCLL 0.0 *	Rep Stress Incr YES		WB 0.98	Horz(CT) 0.06	7	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-S	Wind(LL) 0.12	12-13	>999	240	Weight: 118 lb	FT = 10%

LUMBER-	BRACING-
TOP CHORD 2x4 SPF No.2 *Except* 4-5: 2x6 SPF No.2	TOP CHORD Structural wood sheathing directly applied or 2-2-0 oc purlins, except end verticals, and 2-0-0 oc purlins (6-0-0 max.): 5-6.
BOT CHORD 2x4 SPF No.2 *Except* 7-10: 2x4 SPF 2400F 2.0E	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing, Except:
WEBS 2x3 SPF No.2 *Except* 2-14: 2x8 SP DSS	WEBS 6-0-0 oc bracing: 12-13. 1 Row at midpt 5-10, 5-7

REACTIONS. (size) 7=0-2-0, 14=0-3-8, 11=0-3-4
Max Horz 14=191(LC 5)
Max Uplift 7=157(LC 9), 14=182(LC 8), 11=46(LC 9)
Max Grav 7=889(LC 1), 14=1012(LC 1), 11=833(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-1382/243, 3-4=-800/211, 4-5=-825/229, 2-14=-935/228
BOT CHORD 13-14=-270/1119, 9-10=-298/1655, 8-9=-298/1655, 7-8=-303/1655
WEBS 9-11=-670/8, 3-10=-587/201, 5-10=-1098/255, 5-7=-1666/284, 10-13=-279/1133

- 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) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
 - Provide adequate drainage to prevent water ponding.
 - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
 - * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
 - Provide mechanical connection (by others) of truss to bearing plate at joint(s) 7.
 - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 11 except (jt=lb) 7=157, 14=182.
 - This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
 - Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



May 13, 2022

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 121 MN	I51909935
B220017	C7	Half Hip	1	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS - 66871,

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ID:pq50?Ycap6WpLXoTu4wfY2za1nE-asy5LmLQ4r1M8ZrJ4ISJQ4GzI7oirQyC9sAmDVzHHvJ

0-10-8 7-9-10 14-7-0 15-9-12 22-1-8 29-8-8 29-10-8
0-10-8 7-9-10 6-9-7 1-2-12 6-3-12 7-7-0 0-2-0

Scale = 1:59.5

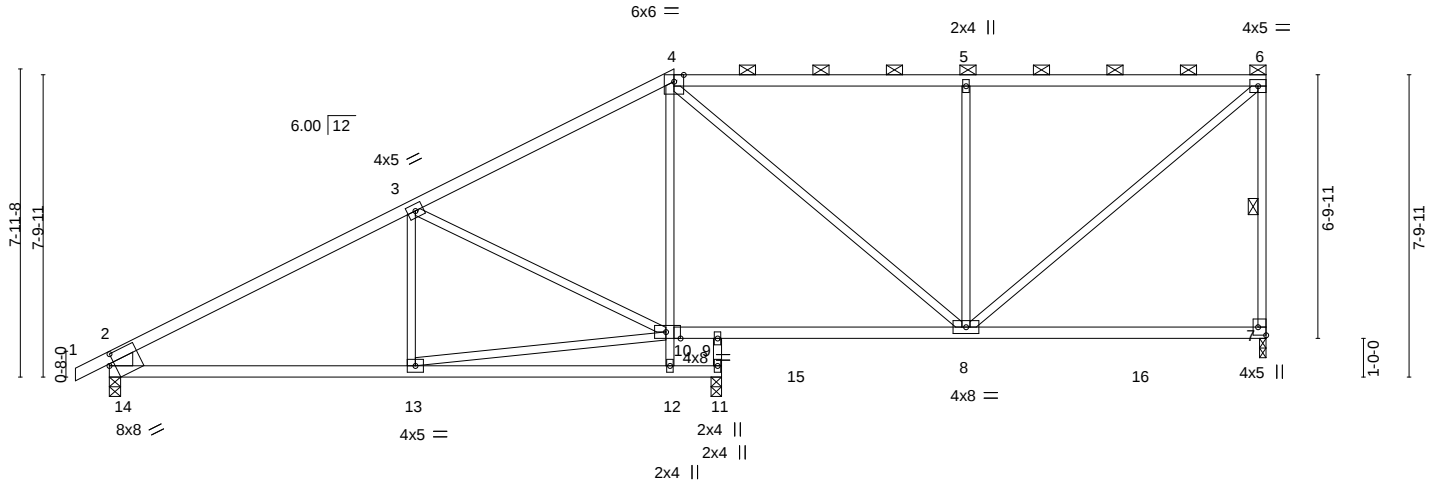


Plate Offsets (X,Y)-- [7:Edge,0-2-8], [10:0-4-8,Edge], [14:0-1-10,0-3-4]

LOADING (psf)	SPACING-		CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL 1.15		TC 0.95	Vert(LL) -0.20	12-13	>934	360	MT20	197/144
TCDL 10.0	Lumber DOL 1.15		BC 0.70	Vert(CT) -0.35	12-13	>524	240		
BCLL 0.0 *	Rep Stress Incr YES		WB 0.76	Horz(CT) 0.04	7	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-S	Wind(LL) 0.10	12-13	>999	240	Weight: 121 lb	FT = 10%

LUMBER-

TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2 *Except*
7-10: 2x4 SPF 2100F 1.8E
WEBS 2x3 SPF No.2 *Except*
2-14: 2x8 SP DSS

BRACING-

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

REACTIONS.

(size) 7=0-2-0, 14=0-3-8, 11=0-3-4
Max Horz 14=305(LC 5)
Max Uplift 7=-218(LC 5), 14=-183(LC 8), 11=-28(LC 5)
Max Grav 7=1041(LC 2), 14=1101(LC 2), 11=782(LC 2)

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

TOP CHORD 2-3=-1547/247, 3-4=-997/214, 4-5=-831/190, 5-6=-829/188, 6-7=-894/247, 2-14=-1010/229
BOT CHORD 13-14=-288/1282, 9-10=-267/806, 8-9=-267/806
WEBS 9-11=-660/0, 3-10=-551/204, 5-8=-636/267, 6-8=-253/1069, 10-13=-297/1281

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) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- Provide adequate drainage to prevent water ponding.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 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 at joint(s) 7.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 11 except (jt=lb) 7=218, 14=183.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



May 13, 2022

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 121 MN	
B220017	C8	Half Hip	1	1		I51909936

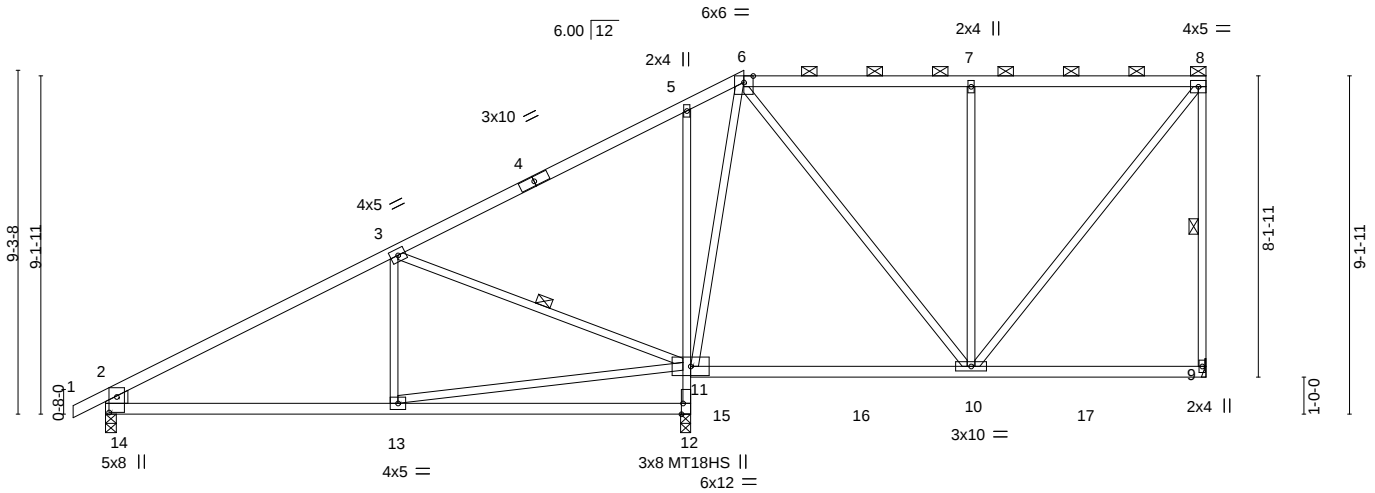
Wheeler Lumber, Waverly, KS - 66871,

8.430 s Aug 16 2021 MiTek Industries, Inc. Thu May 12 09:07:38 2022 Page 1

ID:pq50?Ycap6WpLXoTu4wfY2za1nE-asy5LmLQ4r1M8ZRJ4ISJQ4G127ryrMWC9sAmDVzHHvJ

-0-10-8 7-9-9 15-9-12 17-3-0 23-4-11 29-8-8 29-8-14
0-10-8 7-9-9 8-0-3 1-5-4 6-1-11 6-3-13 0-0-6

Scale = 1:62.3



	7-9-9	15-9-12	17-3-0	23-4-11	29-8-8	29-8-14
	7-9-9	8-0-3	1-5-4	6-1-11	6-3-13	0-0-6
Plate Offsets (X,Y)--	[12:0-3-8,Edge], [14:0-5-1,0-2-8]					

LOADING (psf)	SPACING-		CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.67	Vert(LL)	-0.14	10-11	>999	360	MT20 197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.56	Vert(CT)	-0.23	10-11	>732	240	MT18HS 197/144
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.98	Horz(CT)	0.01	9	n/a	n/a	
BCDL 10.0	Code IRC2018/TPI2014		Matrix-S	Wind(LL)	0.02	13-14	>999	240	
									Weight: 130 lb FT = 10%

LUMBER-

TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2 *Except*
5-12: 2x3 SPF No.2
WEBS 2x3 SPF No.2 *Except*
2-14: 2x8 SP DSS

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.): 6-8.
BOT CHORD Rigid ceiling directly applied or 3-6-10 oc bracing.
WEBS 1 Row at midpt 8-9, 3-11

REACTIONS.

(size) 9=Mechanical, 14=0-3-8, 12=0-3-4
Max Horz 14=246(LC 8)
Max Uplift 9=83(LC 5), 14=28(LC 8)
Max Grav 9=604(LC 22), 14=672(LC 13), 12=1660(LC 2)

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

TOP CHORD 2-3=-722/37, 3-5=0/336, 6-7=-283/56, 7-8=-283/56, 8-9=-512/110, 2-14=-607/71
BOT CHORD 13-14=-204/574, 11-12=-1540/9, 5-11=-491/145
WEBS 3-13=0/308, 11-13=-203/586, 3-11=-840/89, 6-11=-619/0, 6-10=0/561, 7-10=-516/121, 8-10=-89/445

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); cantilever left and right exposed; end vertical left exposed; Lumber DOL=1.60 plate grip DOL=1.60
- Provide adequate drainage to prevent water ponding.
- All plates are MT20 plates unless otherwise indicated.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 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 100 lb uplift at joint(s) 9, 14.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



May 13, 2022

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

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 121 MN	
B220017	C9	Half Hip	1	1		I51909937

Wheeler Lumber, Waverly, KS - 66871,

8.430 s Aug 16 2021 MiTek Industries, Inc. Thu May 12 09:07:39 2022 Page 1

ID:pq50?Ycap6WpLXoTu4wY2za1nE-23WWTZ6M2q99Dlj0Ve?zYyIpCjX9JavWMOWvJlxzHHvl

0-10-8 7-9-9 15-9-12 19-11-0 24-6-0 29-8-14
0-10-8 7-9-9 8-0-3 4-1-4 4-7-0 5-2-14

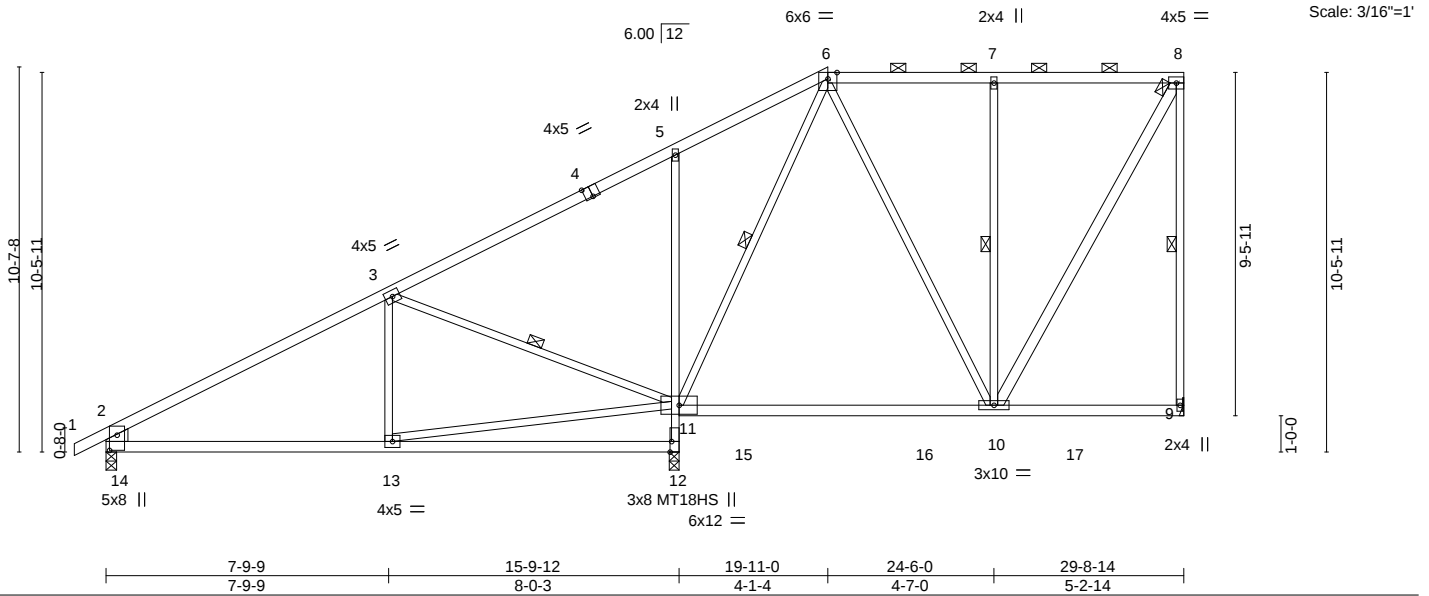


Plate Offsets (X,Y)-- [4:0-2-8,Edge], [12:0-3-8,Edge], [14:0-5-1,0-2-8]

LOADING (psf)	SPACING-		CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.68	Vert(LL)	-0.28 10-11	>597	360	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.68	Vert(CT)	-0.44 10-11	>381	240	MT18HS	197/144
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.61	Horz(CT)	0.01 9	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-S	Wind(LL)	0.02 13-14	>999	240	Weight: 138 lb	FT = 10%

LUMBER-

TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2 *Except*
5-12: 2x3 SPF No.2
WEBS 2x3 SPF No.2 *Except*
8-10: 2x4 SPF No.2, 2-14: 2x8 SP DSS

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.): 6-8.
BOT CHORD Rigid ceiling directly applied or 3-3-11 oc bracing.
WEBS 1 Row at midpt 8-9, 3-11, 6-11, 7-10

REACTIONS.

(size) 9=Mechanical, 14=0-3-8, 12=0-3-4
Max Horz 14=285(LC 8)
Max Uplift 9=-88(LC 5), 14=-17(LC 8)
Max Grav 9=595(LC 22), 14=677(LC 1), 12=1655(LC 2)

FORCES.

(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-734/16, 3-5=0/319, 5-6=0/277, 8-9=-527/104, 2-14=-613/61
BOT CHORD 13-14=-224/586, 11-12=-1535/27, 5-11=-476/151
WEBS 3-13=0/303, 11-13=-212/640, 3-11=-835/90, 6-11=-637/0, 6-10=0/363, 8-10=-80/466, 7-10=-412/97

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); cantilever left and right exposed; end vertical left exposed; Lumber DOL=1.60 plate grip DOL=1.60
- Provide adequate drainage to prevent water ponding.
- All plates are MT20 plates unless otherwise indicated.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 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 100 lb uplift at joint(s) 9, 14.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



May 13, 2022

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

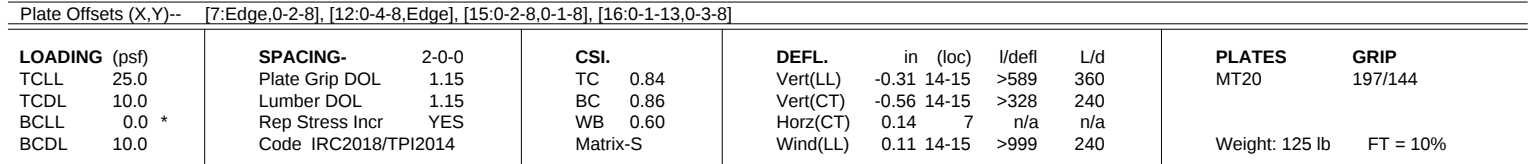
Wheeler Lumber, Waverly, KS - 66871, 8.430 s Aug 16 2021 MiTek Industries, Inc. Thu May 12 09:07:26 2022 Page 1

ID:pq50?Ycap6WpLx0Tu4wfy2za1nE-xZEzqgCuu9W3hjX?NmEUwYnxXlgT101RR?F70BzHHVv

0-10-8 7-9-10 14-7-0 15-9-12 17-9-8 22-0-11 28-8-8 29-6-6
0-10-8 7-9-10 6-9-7 1-2-12 1-11-12 4-3-3 6-7-13 0-9-14

29-8-14
0-2-8

Scale = 1:54.6



REACTIONS. (size) 7=Mechanical, 16=0-3-8, 13=0-3-4
 Max Horz 16=242(LC 5)
 Max Uplift 7=-55(LC 5), 16=-16(LC 8), 13=-14(LC 5)
 Max Grav 7=1318(LC 2), 16=1347(LC 2), 13=263(LC 2)

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

TOP CHORD 2-3=-2007/14, 3-4=-1799/19, 4-5=-1364/24, 5-6=-1361/23, 7-9=-1283/58, 6-9=-1153/87,
 2-16=-1208/61

BOT CHORD 15-16=-1077/1678, 11-12=-111/1543

WEBS 3-15=-282/119, 4-12=0/543, 4-11=-281/48, 5-11=-628/149, 6-11=-67/1651,
 12-15=-115/1752

NOTES-

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDF=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope); cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 3) Provide adequate drainage to prevent water ponding.
- 4) All plates are 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 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- 7) Refer to girder(s) for truss to truss connections.
- 8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 7, 16, 13.
- 9) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 10) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



May 13, 2022



WARNING – Verify design parameters. READ NOTES ON THIS AND INCLUDED WITKOP REFERENCE PAGE MH1473.161, 3/19/2020 BEFORE USE.
Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for 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 BCS 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 121 MN	I51909940
B220017	C12	Roof Special	1	1	Job Reference (optional)	

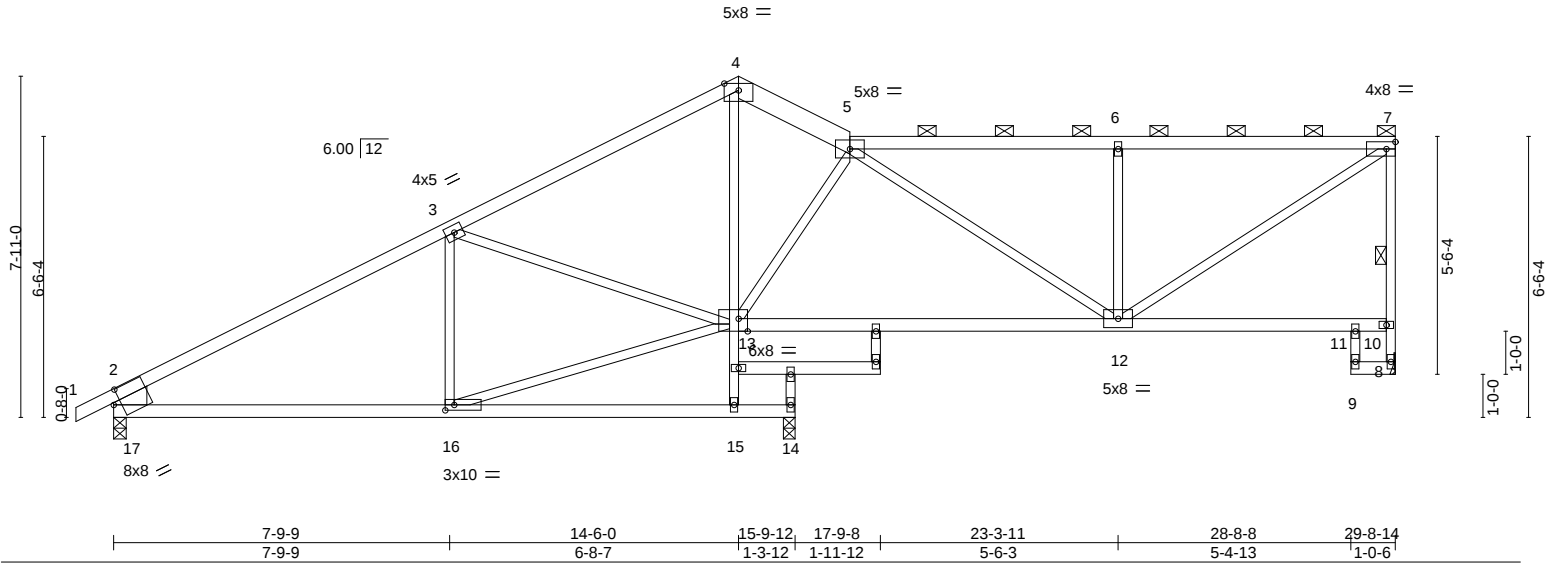
Wheeler Lumber, Waverly, KS - 66871,

8.430 s Aug 16 2021 MiTek Industries, Inc. Thu May 12 09:07:27 2022 Page 1

ID:pg50?Ycap6WpLXoTu4wfY2za1nE-Plox10DWfTewJt5BxUljTmJ7ah0tmShadf?gKezHHvU

0-10-8 7-9-9 14-6-0 15-8-0 17-1-0 17-9-8 23-3-11 28-8-8 29-8-14
0-10-8 7-9-9 6-8-7 1-2-0 1-5-0 0-8-8 5-6-3 5-4-13 1-0-6

Scale = 1:53.5



LOADING (psf)		SPACING-		CSI.		DEFL.		PLATES		GRIP	
TCLL	25.0	Plate Grip DOL	1.15	TC	0.82	Vert(LL)	-0.27 15-16 >670 360	MT20		197/144	
TCDL	10.0	Lumber DOL	1.15	BC	0.85	Vert(CT)	-0.58 12-13 >290 240				
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.66	Horz(CT)	0.11 8 n/a n/a				
BCDL	10.0	Code IRC2018/TPI2014		Matrix-S		Wind(LL)	0.12 15-16 >999 240				
								Weight: 126 lb		FT = 10%	

LUMBER-		BRACING-	
TOP CHORD	2x4 SPF 2100F 1.8E *Except* 4-5: 2x6 SPF No.2, 5-7: 2x4 SPF No.2	TOP CHORD	Structural wood sheathing directly applied or 4-0-3 oc purlins, except end verticals, and 2-0-0 oc purlins (4-1-7 max.): 5-7.
BOT CHORD	2x4 SPF No.2	BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing, Except:
WEBS	2x3 SPF No.2 *Except* 2-17: 2x10 SP DSS	WEBS	6-0-0 oc bracing: 15-16. 1 Row at midpt 7-8

REACTIONS. (size) 8=Mechanical, 17=0-3-8, 14=0-3-4
Max Horz 17=215(LC 5)
Max Uplift 8=-30(LC 9), 17=-17(LC 8), 14=-9(LC 9)
Max Grav 8=1188(LC 1), 17=1292(LC 1), 14=265(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-1902/16, 3-4=-1672/18, 4-5=-1611/35, 5-6=-1452/5, 6-7=-1452/5, 8-10=-1171/35, 7-10=-1139/53, 2-17=-1205/62
BOT CHORD 16-17=-59/1568, 12-13=-58/1839
WEBS 3-16=-277/106, 3-13=-291/113, 4-13=0/1063, 5-13=-826/70, 5-12=-467/54, 6-12=-513/123, 7-12=-21/1722, 13-16=-64/1643

- 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); cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
 - Provide adequate drainage to prevent water ponding.
 - All plates are 2x4 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 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
 - Refer to girder(s) for truss to truss connections.
 - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 8, 17, 14.
 - This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
 - Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



May 13, 2022

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 121 MN	I51909941
B220017	C13	Roof Special	1	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS - 66871,

8.430 s Aug 16 2021 MiTek Industries, Inc. Thu May 12 09:07:28 2022 Page 1

ID:pq50?Ycap6WpLXoTu4wfY2za1nE-txMJFLD8Qmmnx0gOUBGy0zsl95QSVxcxsJIEs4zHHvT

0-10-8 7-9-9 13-1-8 14-6-0 15-6-12 19-9-0 24-8-15 28-8-8 29-8-14
0-10-8 7-9-9 5-4-0 1-4-8 1-0-12 4-2-4 4-11-15 3-11-9 1-0-6

Scale = 1:53.5

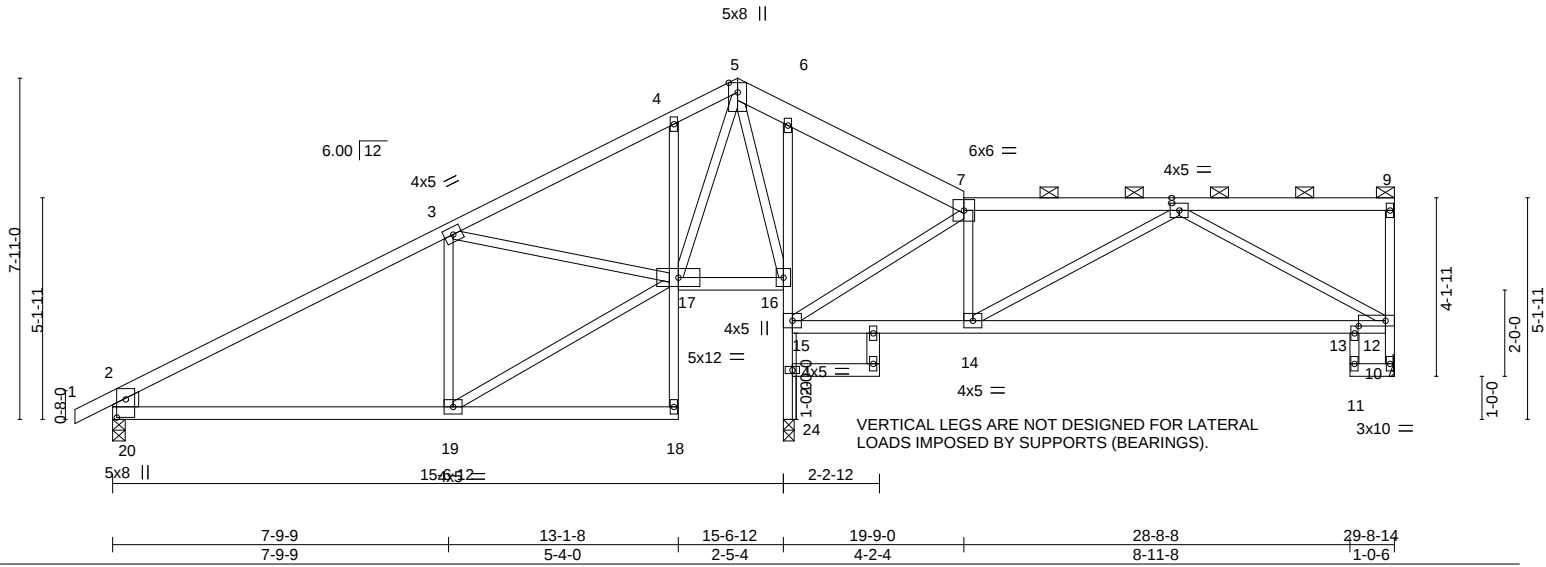


Plate Offsets (X,Y)-- [12:0-7-8,0-1-8], [20:0-5-1,0-2-8]

LOADING (psf)	SPACING-		CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.83	Vert(LL)	-0.22 13-14	>760	360	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.63	Vert(CT)	-0.44 13-14	>377	240		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.56	Horz(CT)	0.11 10	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-S	Wind(LL)	0.02 19-20	>999	240	Weight: 129 lb	FT = 10%

LUMBER-

TOP CHORD 2x4 SPF No.2 *Except*
5-7: 2x6 SPF No.2
BOT CHORD 2x4 SPF No.2 *Except*
4-18,6-24: 2x3 SPF No.2
WEBS 2x3 SPF No.2 *Except*
2-20: 2x8 SP DSS, 22-23: 2x4 SPF No.2

BRACING-

TOP CHORD Structural wood sheathing directly applied or 5-6-13 oc purlins, except end verticals, and 2-0-0 oc purlins (6-0-0 max.): 7-9.
BOT CHORD Rigid ceiling directly applied or 4-2-6 oc bracing. Except: 10-0-0 oc bracing: 14-15

REACTIONS.

(size) 10=Mechanical, 20=0-3-8, 24=0-3-0
Max Horz 20=185(LC 5)
Max Uplift 10=-34(LC 9), 20=-48(LC 8)
Max Grav 10=584(LC 20), 20=740(LC 19), 24=1421(LC 1)

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

TOP CHORD 2-3=-834/77, 3-4=-417/126, 4-5=-348/160, 7-8=-557/36, 10-12=-559/47, 2-20=-672/95
BOT CHORD 19-20=-92/638, 15-24=-1421/0, 15-16=-974/0, 6-16=-349/72, 14-15=-37/547,
13-14=-99/645, 12-13=-99/645
WEBS 17-19=-107/727, 3-17=-385/51, 5-17=-95/746, 7-15=-797/15, 7-14=0/339,
8-12=-686/116, 5-16=-584/22

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); cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- Provide adequate drainage to prevent water ponding.
- All plates are 2x4 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 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- Refer to girder(s) for truss to truss connections.
- Bearing at joint(s) 24 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 10, 20.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



May 13, 2022

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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 121 MN	
B220017	C15	ROOF SPECIAL	1	1		I51909943

Wheeler Lumber, Waverly, KS - 66871,

8.430 s Aug 16 2021 MiTek Industries, Inc. Thu May 12 09:07:30 2022 Page 1

ID:pq50?Ycap6WpLXoTu4wfY2za1nE-pKT4g1FFPyO0VAKqmcJQ5OxfQv56zp41JcEKzzzHHvR

0-10-8	2-8-5	7-11-0	14-6-0	21-2-6	25-1-0	29-8-14
0-10-8	2-8-5	5-2-11	6-7-0	6-8-6	3-10-10	4-7-14

Scale = 1:52.4

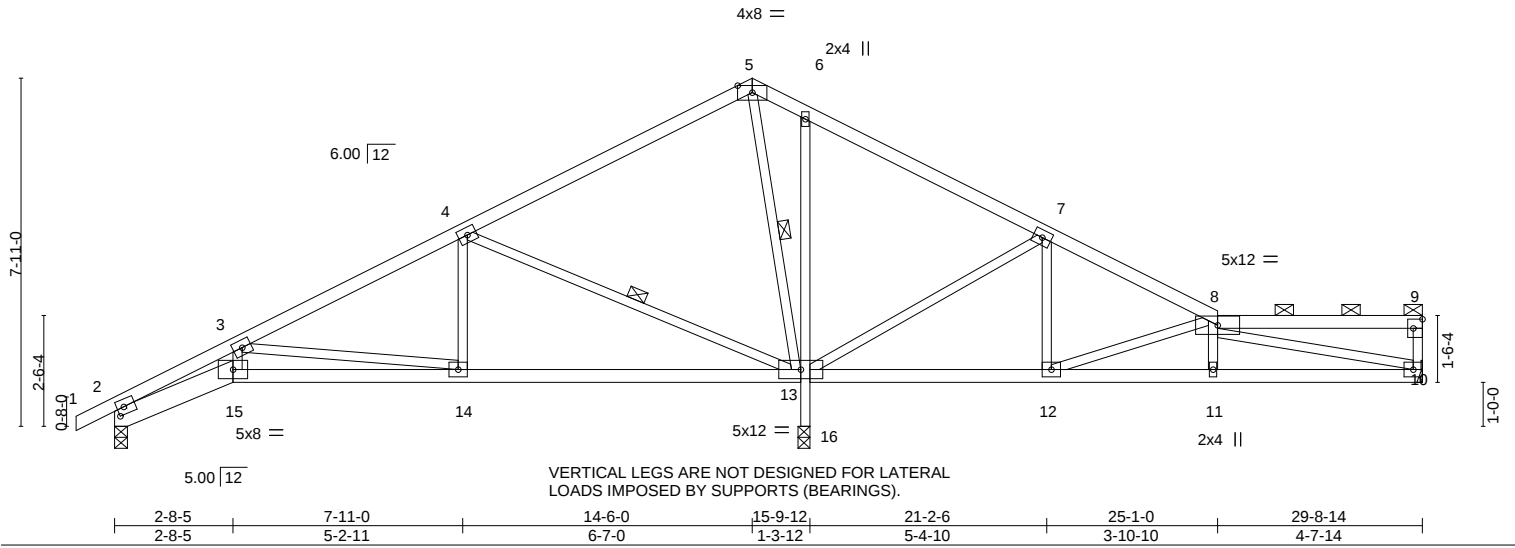


Plate Offsets (X,Y)-- [2:0-1-14,0-2-0], [9:Edge,0-2-8]									
LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.65	Vert(LL)	-0.10 13-14	>999	360	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.62	Vert(CT)	-0.20 13-14	>940	240		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.69	Horz(CT)	0.08 16	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-S	Wind(LL)	0.07 14-15	>999	240	Weight: 115 lb	FT = 10%

LUMBER-	BRACING-
TOP CHORD 2x4 SPF No.2	TOP CHORD Structural wood sheathing directly applied or 4-8-11 oc purlins, except end verticals, and 2-0-0 oc purlins (6-0-0 max.): 8-9.
BOT CHORD 2x4 SPF No.2 *Except*	BOT CHORD Rigid ceiling directly applied or 3-5-8 oc bracing.
WEBS 2x3 SPF No.2	WEBS 1 Row at midpt 4-13, 5-13

REACTIONS. (size) 10=Mechanical, 2=0-3-8, 16=0-3-4
Max Horz 2=164(LC 8)
Max Uplift 10=-74(LC 9), 2=-80(LC 8), 16=-224(LC 8)
Max Grav 10=350(LC 22), 2=525(LC 21), 16=2047(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-1499/370, 3-4=-430/204, 4-5=-80/843, 5-6=-47/937, 6-7=-89/1035, 7-8=-134/478
BOT CHORD 2-15=-463/1303, 14-15=-409/1135, 13-14=-156/349, 12-13=-406/155, 11-12=-271/581,
10-11=-279/575, 13-16=-2047/224, 6-13=-351/166
WEBS 3-15=-127/524, 3-14=-795/316, 4-14=0/373, 4-13=-894/260, 5-13=-967/162,
7-13=-684/195, 7-12=0/301, 8-12=-628/126, 8-10=-522/307

- 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) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
 - Provide adequate drainage to prevent water ponding.
 - All plates are 4x5 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 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
 - Refer to girder(s) for truss to truss connections.
 - Bearing at joint(s) 2, 16 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
 - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 10, 2 except (jt=lb) 16=224.
 - This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
 - Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



May 13, 2022

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 121 MN	
B220017	C16	Roof Special	1	1		I51909944

Wheeler Lumber, Waverly, KS - 66871,

8.430 s Aug 16 2021 MiTek Industries, Inc. Thu May 12 09:07:31 2022 Page 1

ID:pg50?Ycap6WpLXoTu4wfY2za1nE-HW1StNG1jh8MoUPyAJqgdcUqhJPiiEwAYGzuTPzHHvQ

0-10-8 2-8-5 7-11-0 14-6-0 15-6-12 21-2-7 29-0-0 29-10-8
0-10-8 2-8-5 5-2-11 6-7-0 1-0-12 5-7-11 7-9-9 0-10-8

Scale = 1:52.0

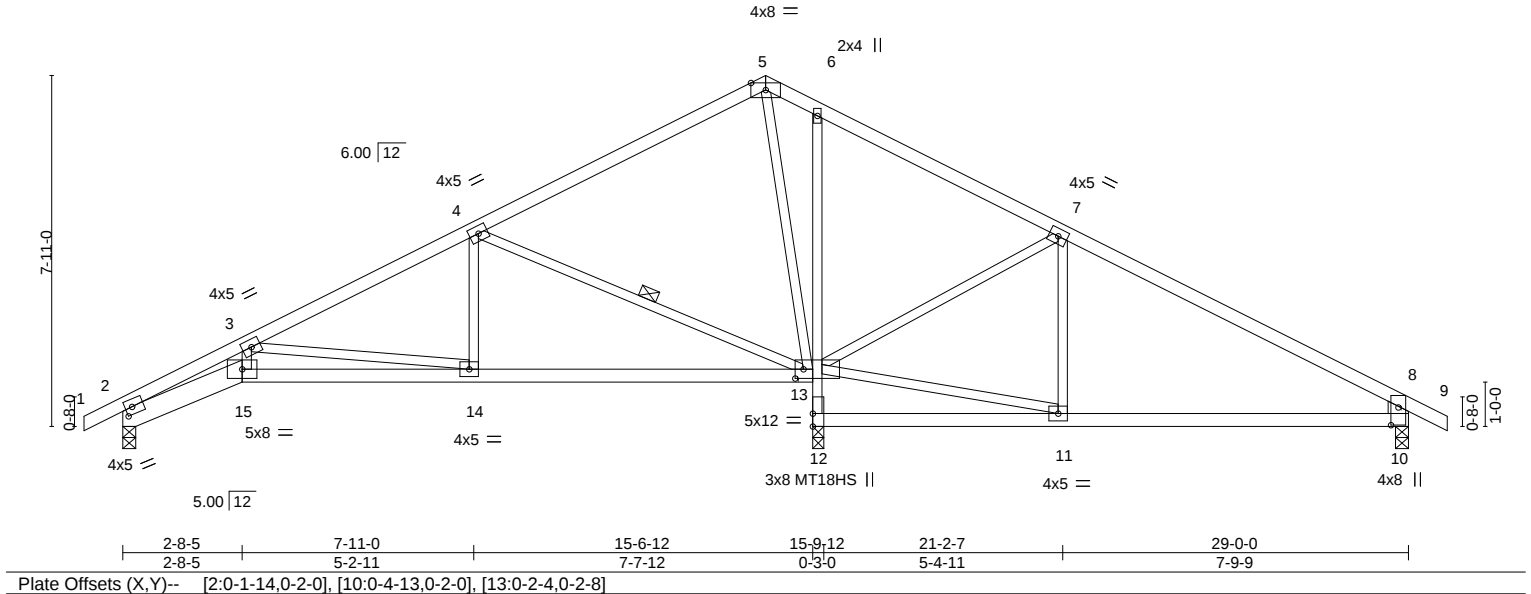


Plate Offsets (X,Y)--		[2:0-1-14,0-2-0], [10:0-4-13,0-2-0], [13:0-2-4,0-2-8]							
LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.68	Vert(LL)	-0.10 13-14	>999	360	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.73	Vert(CT)	-0.20 13-14	>912	240	MT18HS	197/144
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.78	Horz(CT)	0.08 10	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-S	Wind(LL)	0.08 14-15	>999	240		
								Weight: 112 lb	FT = 10%

LUMBER-

TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2 *Except*
2-15: 2x6 SPF No.2, 6-12: 2x3 SPF No.2
WEBS 2x3 SPF No.2 *Except*
8-10: 2x6 SPF No.2

BRACING-

TOP CHORD Structural wood sheathing directly applied or 4-4-0 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 3-8-5 oc bracing.
WEBS 1 Row at midpt 4-13

REACTIONS.

(size) 2=0-3-8, 12=0-3-0, 10=0-3-8
Max Horz 2=129(LC 12)
Max Uplift 2=-104(LC 8), 12=-174(LC 8), 10=-185(LC 9)
Max Grav 2=587(LC 1), 12=1686(LC 1), 10=568(LC 22)

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

TOP CHORD 2-3=-1762/419, 3-4=-593/161, 4-5=-24/481, 5-6=0/563, 6-7=-20/574, 7-8=-515/250, 8-10=-510/233
BOT CHORD 2-15=-470/1538, 14-15=-416/1341, 13-14=-109/495, 12-13=-1655/200, 10-11=-141/360
WEBS 3-15=-130/608, 3-14=-855/309, 4-14=0/386, 4-13=-905/258, 5-13=-706/126, 11-13=-100/396, 7-13=-713/195, 7-11=0/296

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) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- All plates are MT20 plates unless otherwise indicated.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 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.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=104, 12=174, 10=185.
- 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.



May 13, 2022

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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 121 MN	
B220017	C17	GABLE	1	1		I51909945

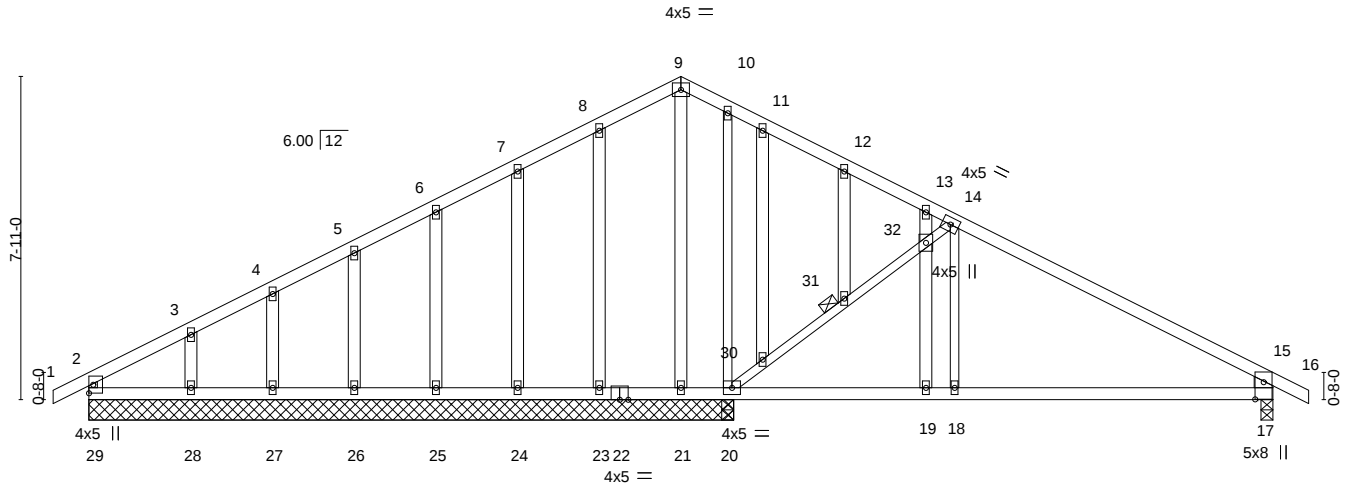
Wheeler Lumber, Waverly, KS - 66871,

8.430 s Aug 16 2021 MiTek Industries, Inc. Thu May 12 09:07:32 2022 Page 1

ID:pq50?Ycap6WpLXoTu4wY2za1nE-libq5jGfU?GDPe_9j1LvAp002iqmRpFKnwjR?rzHHvP

-0-10-8 14-6-0 15-7-12 21-2-7 29-0-0 29-10-8
0-10-8 14-6-0 1-1-12 5-6-11 7-9-9 0-10-8

Scale = 1:56.4



		15-7-12		15-9-8		21-2-7		29-0-0			
		15-7-12		0-1-12		5-4-15		7-9-9			
Plate Offsets (X,Y)-- [17:0-5-1,0-2-8]											
LOADING (psf)		SPACING- 2-0-0		CSI.		DEFL. in (loc) l/defl L/d		PLATES GRIP			
TCLL	25.0	Plate Grip DOL	1.15	TC	0.58	Vert(LL)	-0.08 17-18	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.42	Vert(CT)	-0.17 17-18	>951	240		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.26	Horz(CT)	0.01 17	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-S		Wind(LL)	0.03 17-18	>999	240	Weight: 138 lb	FT = 10%

LUMBER-

TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
WEBS 2x3 SPF No.2 *Except*
15-17: 2x6 SPF No.2
OTHERS 2x4 SPF No.2

BRACING-

TOP CHORD Structural wood sheathing directly applied or 5-11-1 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing. Except: 10-0-0 oc bracing: 19-20,18-19,17-18.
JOINTS 1 Brace at Jt(s): 31

REACTIONS.

All bearings 15-9-8 except (jt=length) 17=0-3-8.
(lb) - Max Horz 29=121(LC 8)
Max Uplift All uplift 100 lb or less at joint(s) 29, 21, 23, 24, 25, 26, 27, 28 except 20=-185(LC 9), 17=-172(LC 9)
Max Grav All reactions 250 lb or less at joint(s) 29, 21, 23, 24, 25, 26, 27, 28 except 20=725(LC 22), 20=721(LC 1), 17=664(LC 1)

FORCES.

(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 8-9=-35/250, 9-10=-43/259, 14-15=-703/226, 15-17=-600/220
BOT CHORD 19-20=-97/525, 18-19=-97/525, 17-18=-97/525
WEBS 20-30=-685/222, 30-31=-661/212, 31-32=-635/197, 14-32=-706/235, 14-18=0/325

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) gable end 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 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 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 29, 21, 23, 24, 25, 26, 27, 28 except (jt=lb) 20=185, 17=172.
- 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.



May 13, 2022

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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 121 MN	I51909946
B220017	D1	Common	3	1	Job Reference (optional)	

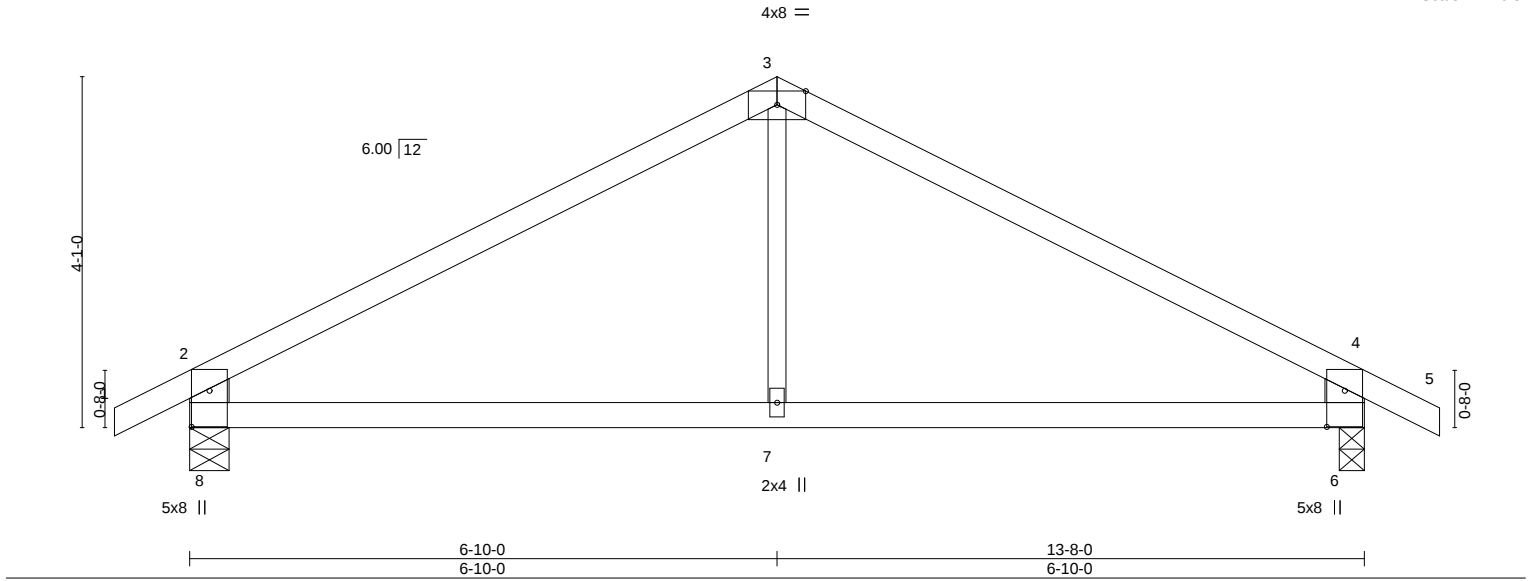
Wheeler Lumber, Waverly, KS - 66871,

8.430 s Aug 16 2021 MiTek Industries, Inc. Thu May 12 09:07:40 2022 Page 1

ID:pq50?Ycap6WpLXoTu4wfY2za1nE-WF4smSNgbSH4NsbhBiUnVVMPOxabJUrvdAfsHozHHvH



Scale = 1:26.8



LOADING (psf)		SPACING-		CSI.		DEFL.		PLATES		GRIP	
TCLL	25.0	Plate Grip DOL	1.15	TC	0.51	Vert(LL)	-0.04	MT20		197/144	
TCDL	10.0	Lumber DOL	1.15	BC	0.36	Vert(CT)	-0.08				
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.09	Horz(CT)	0.01				
BCDL	10.0	Code IRC2018/TPI2014		Matrix-R		Wind(LL)	0.02	Weight: 39 lb		FT = 10%	

LUMBER-

TOP CHORD 2x4 SPF No.2
 BOT CHORD 2x4 SPF No.2
 WEBS 2x6 SPF No.2 *Except*
 3-7: 2x3 SPF No.2

BRACING-

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

REACTIONS.

(size) 8=0-5-8, 6=0-3-8
 Max Horz 8=-68(LC 6)
 Max Uplift 8=-99(LC 8), 6=-99(LC 9)
 Max Grav 8=672(LC 1), 6=672(LC 1)

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

TOP CHORD 2-3=-749/102, 3-4=-749/102, 2-8=-616/146, 4-6=-616/146
 BOT CHORD 7-8=-19/568, 6-7=-19/568
 WEBS 3-7=0/288

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) gable end 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 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 8, 6.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



May 13, 2022

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16023 Swingley Ridge Rd
 Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 121 MN	
B220017	D2	GABLE	1	1		I51909947

Wheeler Lumber, Waverly, KS - 66871,

8.430 s Aug 16 2021 MiTek Industries, Inc. Thu May 12 09:07:41 2022 Page 1

ID:pq50?Ycap6WpLXoTu4wfY2za1nE-?ReEzoNIMmPx?0AtIQ?01juhL?22yzerqOQpqzHHvG

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0-10-8 6-10-0 6-10-0 0-10-8

Scale = 1:27.7

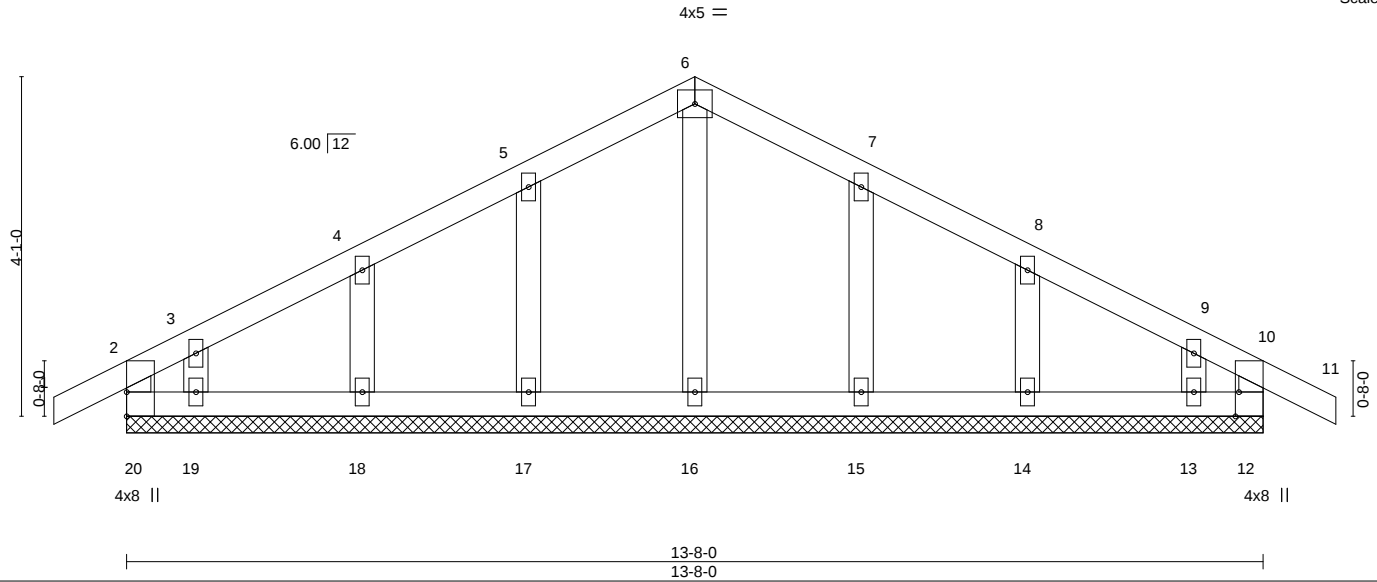


Plate Offsets (X,Y)-- [12:0-3-8,Edge]

LOADING (psf)	SPACING-		CSI.	DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	2-0-0	TC 0.07	Vert(LL)	-0.00	11	n/r	120	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.02	Vert(CT)	-0.00	11	n/r	120		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.03	Horz(CT)	0.00	12	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-R						Weight: 50 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.

All bearings 13-8-0.

(lb) - Max Horz 20=66(LC 7)

Max Uplift All uplift 100 lb or less at joint(s) 20, 12, 17, 18, 19, 15, 14, 13

Max Grav All reactions 250 lb or less at joint(s) 20, 12, 16, 17, 18, 19, 15, 14, 13

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

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) gable end 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 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 20, 12, 17, 18, 19, 15, 14, 13.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



May 13, 2022

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 121 MN
B220017	E1	GABLE	1	1	I51909948

Wheeler Lumber, Waverly, KS - 66871,

8.430 s Aug 16 2021 MiTek Industries, Inc. Thu May 12 09:07:42 2022 Page 1

ID:pq50?Ycap6WpLXoTu4wfyY2za1nE-TeCcB8Ow74XocAl4J7WFawRslkLynPzo4U8zMGzHHvF

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0-10-8 7-8-0 7-8-0 0-10-8

4x5 =

Scale = 1:36.6

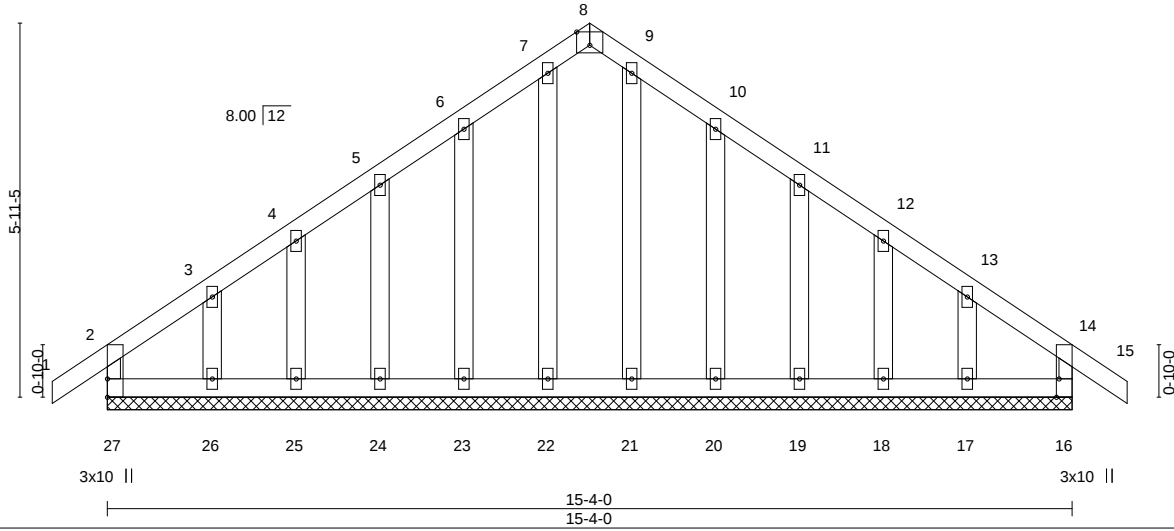


Plate Offsets (X,Y)-- [8:0-2-8,Edge], [16:0-3-8,Edge]

LOADING (psf)	SPACING-		CSI.	DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL 1.15		TC 0.08	Vert(LL)	-0.00	15	n/r	120	MT20	197/144
TCDL 10.0	Lumber DOL 1.15		BC 0.04	Vert(CT)	-0.00	15	n/r	120		
BCLL 0.0 *	Rep Stress Incr YES		WB 0.05	Horz(CT)	0.00	16	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-R						Weight: 78 lb	FT = 10%

LUMBER-

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

BRACING-

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

REACTIONS.

All bearings 15-4-0.

(lb) - Max Horz 27=171(LC 7)

Max Uplift All uplift 100 lb or less at joint(s) 27, 16, 26, 25, 24, 23, 20, 19, 18, 17

Max Grav All reactions 250 lb or less at joint(s) 27, 16, 26, 25, 24, 23, 22, 21, 20, 19, 18, 17

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

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) gable end 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 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 27, 16, 26, 25, 24, 23, 20, 19, 18, 17.
- 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.



May 13, 2022

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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 121 MN
B220017	E2	GABLE	1	2	I51909949

Wheeler Lumber, Waverly, KS - 66871,

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ID:pq50?Ycap6WpLXoTu4wfy2za1nE-xqm_OUPYUffEKKGtr2U78_w38ZsWgWxJ8tWuizHHVE



4x5 =

Scale = 1:58.7

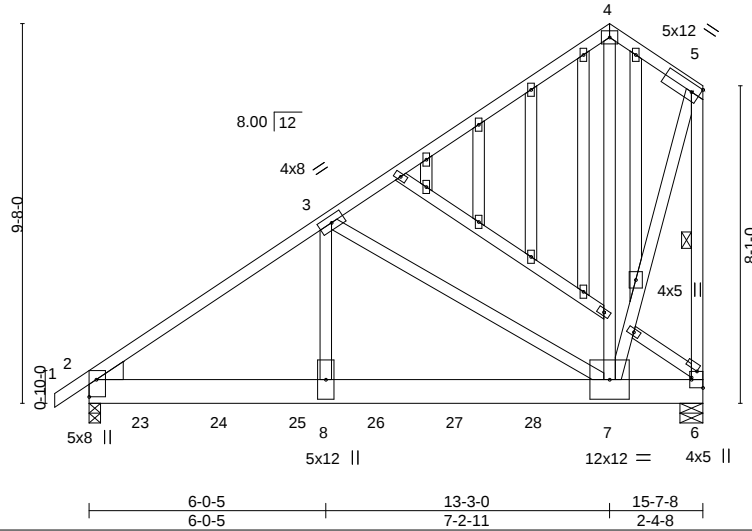


Plate Offsets (X,Y)-- [2:Edge,0-2-3], [6:Edge,0-3-8], [12:0-0-5,0-2-8]

LOADING (psf)	SPACING-	CSL	DEFL.	in (loc)	I/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL 1.15	TC 0.53	Vert(LL) -0.08	7-8	>999	360	MT20	197/144
TCDL 10.0	Lumber DOL 1.15	BC 0.45	Vert(CT) -0.15	7-8	>999	240		
BCLL 0.0 *	Rep Stress Incr NO	WB 0.80	Horz(CT) 0.01	6	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014	Matrix-S	Wind(LL) 0.05	7-8	>999	240	Weight: 292 lb	FT = 10%

LUMBER-

TOP CHORD 2x4 SPF No.2
BOT CHORD 2x8 SP DSS
WEBS 2x4 SPF No.2
OTHERS 2x4 SPF No.2
WEDGE
Left: 2x6 SPF No.2

BRACING-

TOP CHORD Structural wood sheathing directly applied or 5-8-3 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 1 Row at midpt 5-6

REACTIONS.

(size) 2=0-3-8, 6=0-7-0
Max Horz 2=350(LC 26)
Max Uplift 2=-326(LC 8), 6=-485(LC 8)
Max Grav 2=3159(LC 1), 6=3620(LC 1)

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

TOP CHORD 2-3=-4410/360, 3-4=-1190/165, 4-5=-1050/223, 5-6=-3563/453
BOT CHORD 2-8=-380/3456, 7-8=-380/3456
WEBS 3-8=-130/3051, 3-7=-3031/424, 4-7=-218/935, 5-7=-346/3089

NOTES-

- 2-ply truss to be connected together with 10d (0.131"x3") nails as follows:
Top chords connected as follows: 2x4 - 1 row at 0-9-0 oc.
Bottom chords connected as follows: 2x8 - 2 rows staggered at 0-7-0 oc.
Webs 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.
- 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) gable end 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 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 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=326, 6=485.
- 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.



May 13, 2022

Continued on page 2

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 121 MN
B220017	E2	GABLE	1	2	I51909949

Wheeler Lumber, Waverly, KS - 66871,

8.430 s Aug 16 2021 MiTek Industries, Inc. Thu May 12 09:07:43 2022 Page 2
ID:pq50?Ycap6WpLXoTu4wfY2za1nE-xqm_OUPYuNffEKKGtr2U78_w38ZsWgWxJ8tWuizHHvE

NOTES-

- 12) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 330 lb down and 94 lb up at 1-3-0, 480 lb down and 43 lb up at 3-3-0, 564 lb down and 54 lb up at 5-3-0, 1168 lb down and 50 lb up at 7-3-0, 1298 lb down and 75 lb up at 9-3-0, 613 lb down and 112 lb up at 11-3-0, and 575 lb down and 108 lb up at 13-3-0, and 591 lb down and 95 lb up at 15-6-4 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 (plf)

Vert: 1-4=-70, 4-5=-70, 2-6=-20

Concentrated Loads (lb)

Vert: 6=-548(F) 7=-515(F) 23=-330(F) 24=-480(F) 25=-564(F) 26=-1168(F) 27=-1174(F) 28=-549(F)

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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 121 MN
B220017	E3	GABLE	1	1	151909950

Wheeler Lumber, Waverly, KS - 66871,

8.430 s Aug 16 2021 MiTek Industries, Inc. Thu May 12 09:07:44 2022 Page 1

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

Scale = 1:44.2

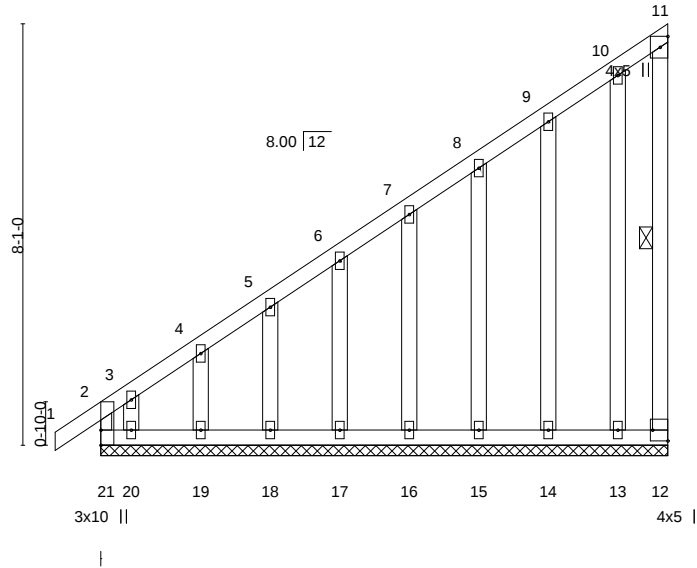


Plate Offsets (X,Y)-- [12:Edge,0-3-8]

LOADING (psf)	SPACING-		CSI.	DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.25	Vert(LL)	0.00	2	n/r	120	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.12	Vert(CT)	0.00	2	n/r	120		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.09	Horz(CT)	-0.00	12	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-R						Weight: 72 lb	FT = 10%

LUMBER-

TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
WEBS 2x3 SPF No.2 *Except*
11-12: 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.
WEBS 1 Row at midpt 11-12

REACTIONS.

All bearings 10-10-8.
(lb) - Max Horz 21=316(LC 5)
Max Uplift All uplift 100 lb or less at joint(s) 12, 19, 18, 17, 16, 15, 14, 13 except 21=-234(LC 6),
20=-325(LC 5)
Max Grav All reactions 250 lb or less at joint(s) 12, 20, 19, 18, 17, 16, 15, 14, 13 except 21=451(LC 5)

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

TOP CHORD 2-21=-280/129, 2-3=-347/209, 3-4=-257/164

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) gable end 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 3-6-0 tall by 2-0-0 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 100 lb uplift at joint(s) 12, 19, 18, 17, 16, 15, 14, 13 except (jt=lb) 21=234, 20=325.
- 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.



May 13, 2022

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 121 MN	I51909951
B220017	J1	Diagonal Hip Girder	2	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS - 66871,

8.430 s Aug 16 2021 MiTek Industries, Inc. Thu May 12 09:07:45 2022 Page 1
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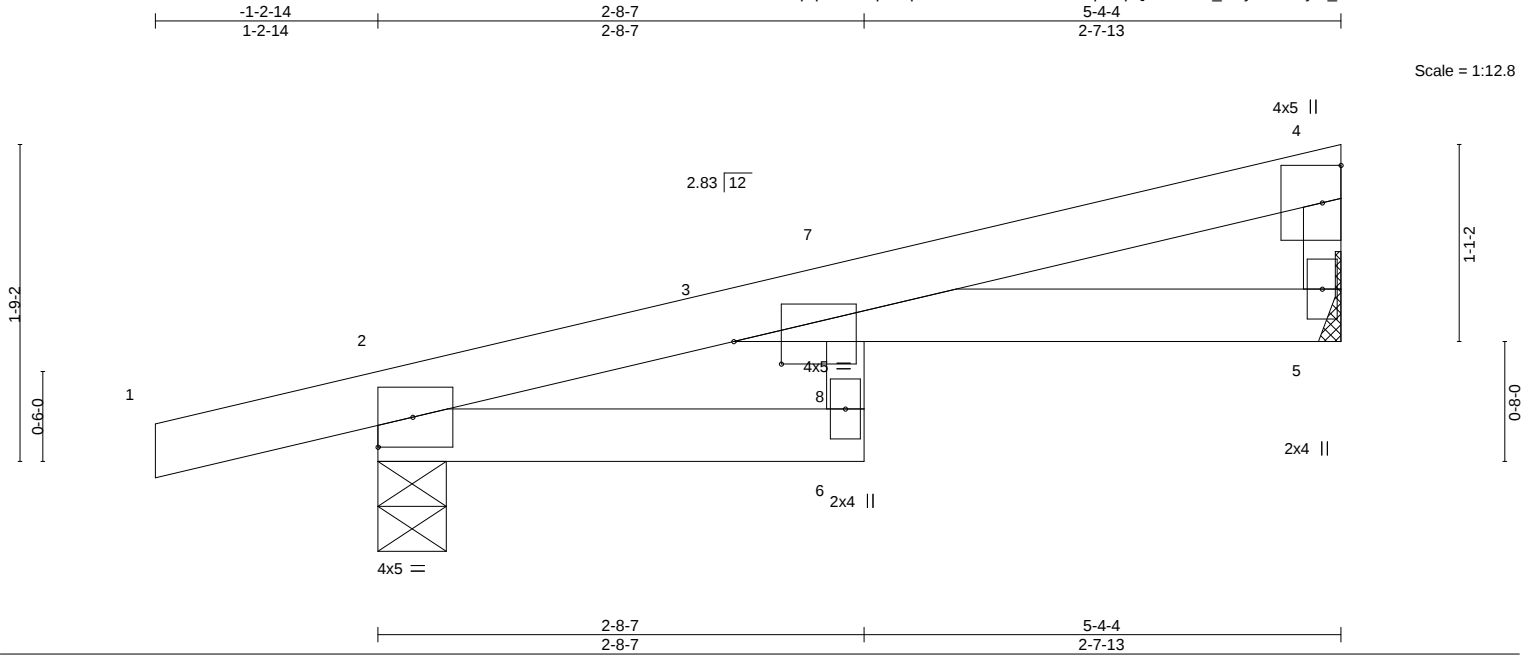


Plate Offsets (X,Y)-- [3:0-3-3,0-1-8]

LOADING (psf)	SPACING-		CSI.	DEFL.	in	(loc)	I/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL 1.15		TC 0.50	Vert(LL) -0.06	6	>944	360		MT20	197/144
TCDL 10.0	Lumber DOL 1.15		BC 0.28	Vert(CT) -0.13	6	>475	240			
BCLL 0.0 *	Rep Stress Incr NO		WB 0.02	Horz(CT) 0.04	5	n/a	n/a			
BCDL 10.0	Code IRC2018/TPI2014		Matrix-S	Wind(LL) 0.06	6	>999	240		Weight: 15 lb	FT = 10%

LUMBER-

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

BRACING-

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

REACTIONS.

(size) 5=Mechanical, 2=0-4-9
Max Horz 2=52(LC 5)
Max Uplift 5=40(LC 8), 2=-102(LC 4)
Max Grav 5=219(LC 1), 2=349(LC 1)

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

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) gable end 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 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 4) Refer to girder(s) for truss to truss connections.
- 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 5 except (jt=lb) 2=102.
- 6) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 7) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 67 lb down and 31 lb up at 2-7-6, and 67 lb down and 31 lb up at 2-7-6 on top chord, and 0 lb down at 2-7-3, and 0 lb down at 2-7-3 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 (plf)
Vert: 1-4=-70, 2-6=-20, 3-5=-20



May 13, 2022

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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 121 MN
B220017	J2	Jack-Open	5	1	I51909952

Wheeler Lumber, Waverly, KS - 66871,

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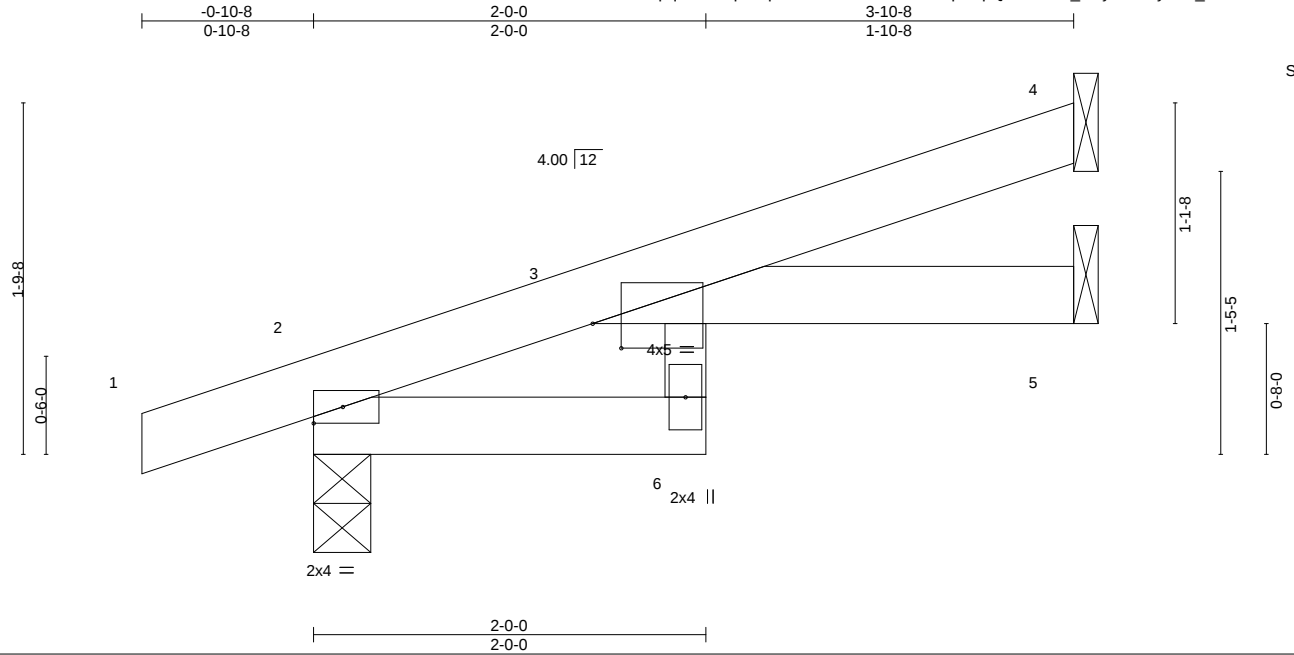


Plate Offsets (X,Y)-- [3:0-1-12,0-1-8]

LOADING (psf)	SPACING-		CSI.	DEFL.	in	(loc)	I/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.25	Vert(LL)	-0.03	6	>999	360	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.05	Vert(CT)	-0.05	6	>820	240		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.01	Horz(CT)	0.02	5	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-P	Wind(LL)	0.03	6	>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 3-10-8 oc purlins.
BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.

REACTIONS.

(size) 4=Mechanical, 2=0-3-8, 5=Mechanical
Max Horz 2=65(LC 4)
Max Uplift 4=-52(LC 8), 2=-65(LC 4)
Max Grav 4=135(LC 1), 2=252(LC 1), 5=48(LC 3)

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

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) gable end 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 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 4) Refer to girder(s) for truss to truss connections.
- 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 4, 2.
- 6) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



May 13, 2022

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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



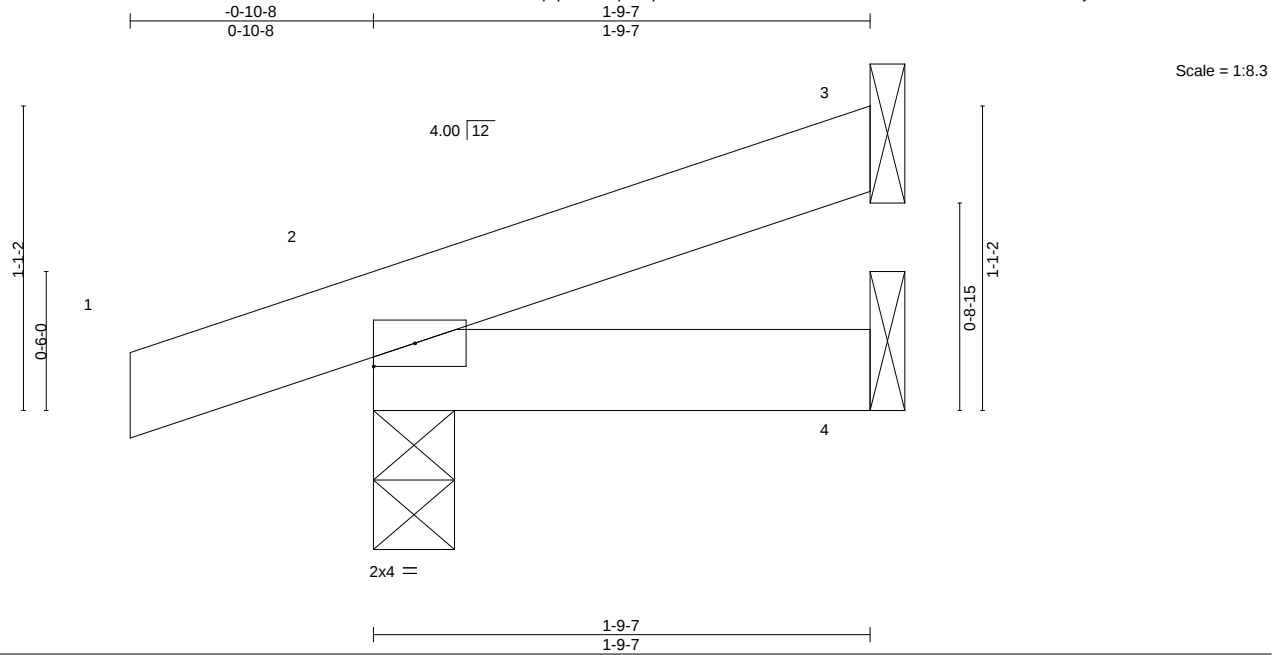
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 121 MN	I51909953
B220017	J3	Jack-Open	4	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS - 66871,

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LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	2-0-0	TC 0.05	Vert(LL)	-0.00	2	>999	MT20	197/144
TCDL 10.0	Plate Grip DOL 1.15	BC 0.03	Vert(CT)	-0.00	2-4	>999		
BCLL 0.0 *	Lumber DOL 1.15	WB 0.00	Horz(CT)	-0.00	3	n/a		
BCDL 10.0	Rep Stress Incr YES	Matrix-P	Wind(LL)	0.00	2	****		
	Code IRC2018/TPI2014						Weight: 5 lb	FT = 10%

LUMBER-

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

BRACING-

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

REACTIONS.

(size) 3=Mechanical, 2=0-3-8, 4=Mechanical
Max Horz 2=37(LC 4)
Max Uplift 3=-27(LC 8), 2=-56(LC 4)
Max Grav 3=45(LC 1), 2=158(LC 1), 4=35(LC 3)

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

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) gable end 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 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 4) Refer to girder(s) for truss to truss connections.
- 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 3, 2.
- 6) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



May 13, 2022

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 121 MN
B220017	J4	JACK-CLOSED SUPPORTE	2	1	IS1909954

Wheeler Lumber, Waverly, KS - 66871,

8.430 s Aug 16 2021 MiTek Industries, Inc. Thu May 12 09:07:46 2022 Page 1
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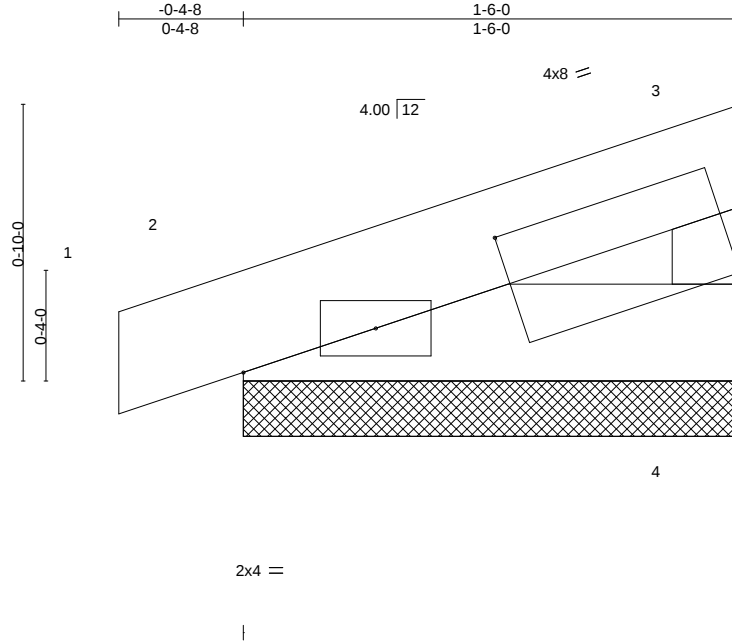


Plate Offsets (X,Y)--		[3:0-10-2,0-1-12]	
LOADING (psf)	SPACING-	2-0-0	CSI.
TCLL 25.0	Plate Grip DOL	1.15	TC 0.03
TCDL 10.0	Lumber DOL	1.15	BC 0.02
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.00
BCDL 10.0	Code	IRC2018/TPI2014	Matrix-P
			DEFL. in (loc) l/defl L/d
			Vert(LL) -0.00 1 n/r 120
			Vert(CT) 0.00 1 n/r 120
			Horz(CT) -0.00 4 n/a n/a
			PLATES GRIP
			MT20 197/144
			Weight: 4 lb FT = 10%

LUMBER-

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

BRACING-

TOP CHORD Structural wood sheathing directly applied or 1-6-0 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS.

(size) 4=1-6-0, 2=1-6-0
Max Horz 2=24(LC 5)
Max Uplift 4=-12(LC 8), 2=-28(LC 4)
Max Grav 4=59(LC 1), 2=93(LC 1)

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

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) gable end 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 3-6-0 tall by 2-0-0 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 100 lb uplift at joint(s) 4, 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.



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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 121 MN
B220017	J5	JACK-CLOSED	2	1	I51909955

Wheeler Lumber, Waverly, KS - 66871,

8.430 s Aug 16 2021 MiTek Industries, Inc. Thu May 12 09:07:47 2022 Page 1
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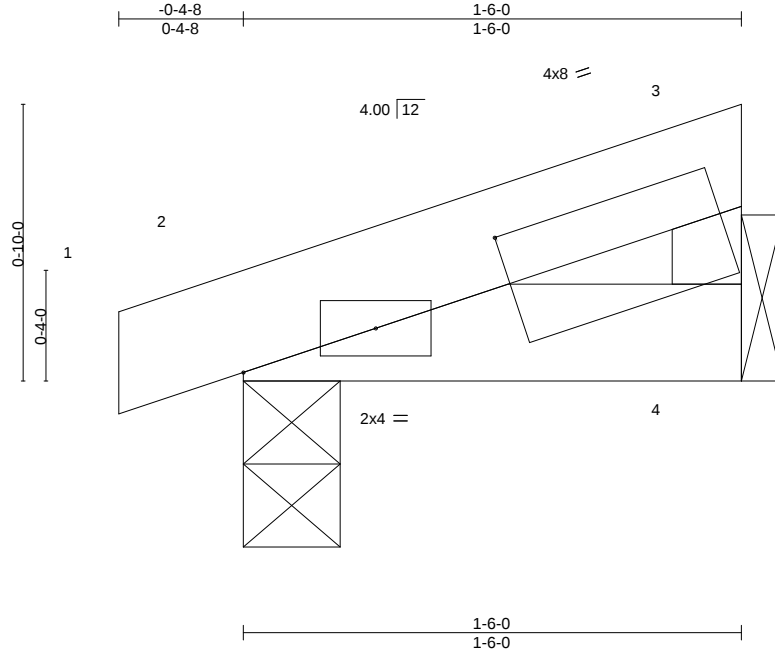


Plate Offsets (X,Y)-- [3:0-10-2,0-1-12]									
LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in (loc)	L/defl	L/d
TCLL	25.0	Plate Grip DOL	1.15	TC	0.02	Vert(LL)	-0.00 2	>999	360
TCDL	10.0	Lumber DOL	1.15	BC	0.02	Vert(CT)	-0.00 2	>999	240
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.00	Horz(CT)	-0.00 4	n/a	n/a
BCDL	10.0	Code IRC2018/TPI2014		Matrix-P		Wind(LL)	0.00 2	****	240
								PLATES	GRIP
								MT20	197/144
								Weight: 4 lb	FT = 10%

LUMBER-

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

BRACING-

TOP CHORD Structural wood sheathing directly applied or 1-6-0 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS.

(size) 4=Mechanical, 2=0-3-8
Max Horz 2=24(LC 5)
Max Uplift 4=-12(LC 8), 2=-30(LC 4)
Max Grav 4=57(LC 1), 2=94(LC 1)

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

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) gable end 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 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 4) Refer to girder(s) for truss to truss connections.
- 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 4, 2.
- 6) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



May 13, 2022

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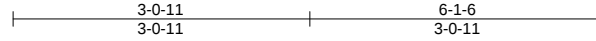
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 121 MN
B220017	LAY1	GABLE	1	1	I51909956

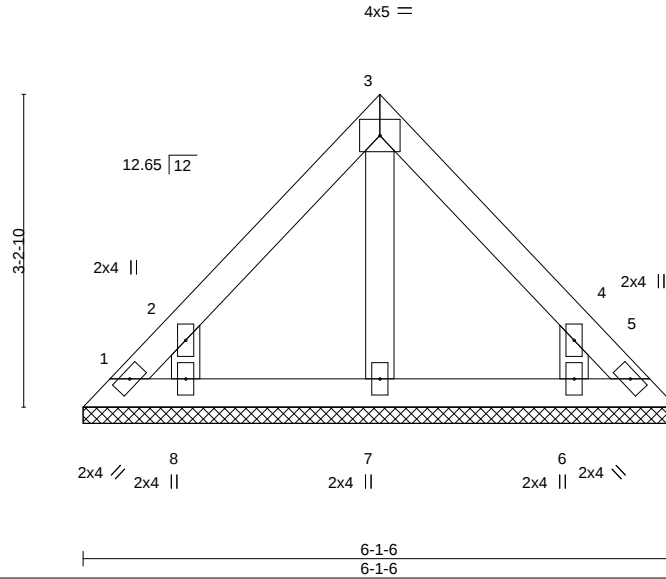
Wheeler Lumber, Waverly, KS - 66871,

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Scale = 1:23.7



LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL 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(CT)	n/a	-	n/a	999		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.03	Horz(CT)	0.00	5	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-P						Weight: 20 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.

All bearings 6-1-6.

(lb) - Max Horz 1=-76(LC 4)

Max Uplift All uplift 100 lb or less at joint(s) 1, 5 except 8=-132(LC 8), 6=-131(LC 9)

Max Grav All reactions 250 lb or less at joint(s) 1, 5, 7, 8, 6

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

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) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- Gable requires continuous bottom chord bearing.
- 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 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 5 except (jt=lb) 8=132, 6=131.
- 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.



May 13, 2022

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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



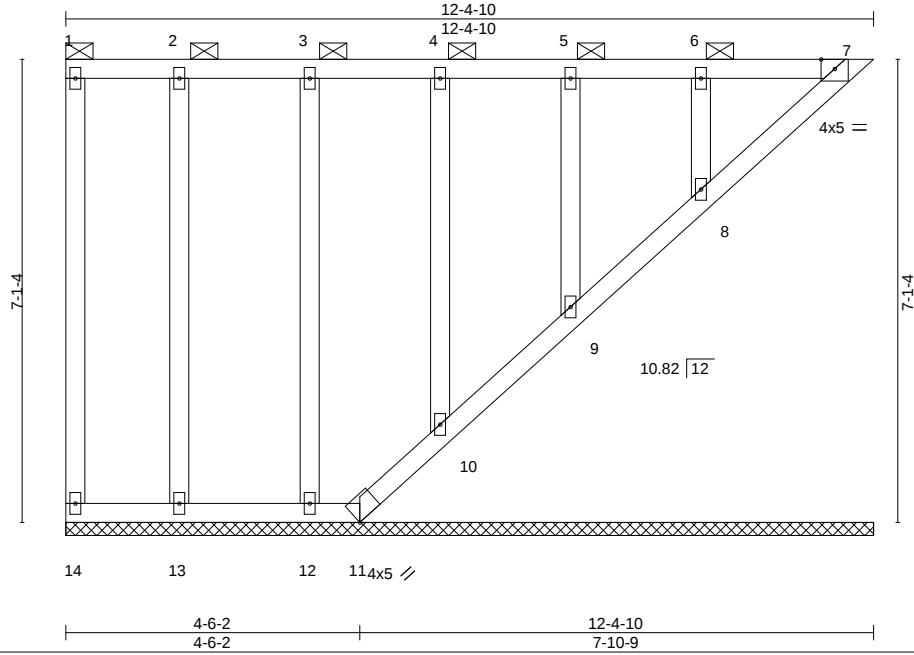
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 121 MN	I51909957
B220017	LAY2	GABLE	2	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS - 66871,

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ID:pq50?Ycap6WpLXoTu4wfy2za1nE-HnZtRBThjwHxK5CEfOdfqBhrk9NSB5QgSQbHZwzHHv9



Scale = 1:35.3

LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.21	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.10	Vert(CT)	n/a	-	n/a	999		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.12	Horz(CT)	0.00	7	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-S						Weight: 66 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 2-0-0 oc purlins (6-0-0 max.): 1-7, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing, Except:
6-0-0 oc bracing: 7-8.

REACTIONS.

All bearings 12-4-10.
(lb) - Max Horz 14=-193(LC 6)
Max Uplift All uplift 100 lb or less at joint(s) 14, 7, 11, 13, 12, 10, 9, 8
Max Grav All reactions 250 lb or less at joint(s) 14, 7, 11, 13, 12, 10, 9, 8

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.

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

NOTES-

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCCL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end 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) All plates are 2x4 MT20 unless otherwise indicated.
- 4) Gable requires continuous bottom chord bearing.
- 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 3-6-0 tall by 2-0-0 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 100 lb uplift at joint(s) 14, 7, 11, 13, 12, 10, 9, 8.
- 8) Beveled plate or shim required to provide full bearing surface with truss chord at joint(s) 7, 10, 9, 8.
- 9) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 10) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



May 13, 2022

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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 121 MN	I51909958
B220017	LAY3	GABLE	2	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS - 66871,

8.430 s Aug 16 2021 MiTek Industries, Inc. Thu May 12 09:07:49 2022 Page 1
ID:pq50?Ycap6WpLXoTu4wfY2za1nE-m_7FfXUJUDPoyFnQD58uMPE0OZjWwYaqh4Kr6MzHHv8

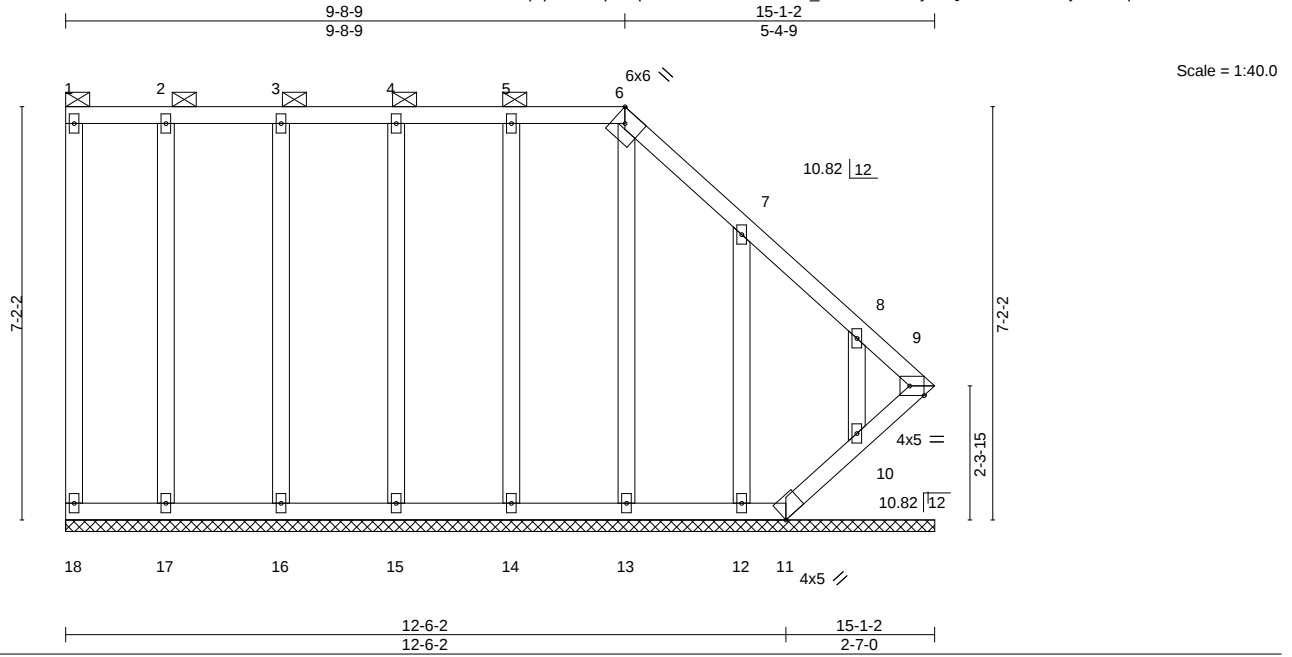


Plate Offsets (X,Y)-- [6:Edge,0-2-10], [9:0-3-0,Edge]

LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.22	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.11	Vert(CT)	n/a	-	n/a	999		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.12	Horz(CT)	0.00	9	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-S						Weight: 90 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.): 1-6.
BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.

REACTIONS.

All bearings 15-1-2.
(lb) - Max Horz 18=-250(LC 6)
Max Uplift All uplift 100 lb or less at joint(s) 18, 17, 16, 15, 14, 13, 10 except 9=-159(LC 7), 11=-146(LC 4), 12=-119(LC 9)
Max Grav All reactions 250 lb or less at joint(s) 18, 11, 17, 16, 15, 14, 13, 12, 10 except 9=295(LC 4)

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.

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

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) gable end 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) All plates are 2x4 MT20 unless otherwise indicated.
- 4) Gable requires continuous bottom chord bearing.
- 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 3-6-0 tall by 2-0-0 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 100 lb uplift at joint(s) 18, 17, 16, 15, 14, 13, 10 except (jt=lb) 9=159, 11=146, 12=119.
- 8) Beveled plate or shim required to provide full bearing surface with truss chord at joint(s) 9, 10.
- 9) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 10) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



May 13, 2022

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 121 MN	
B220017	V1	Valley	1	1		I51909959

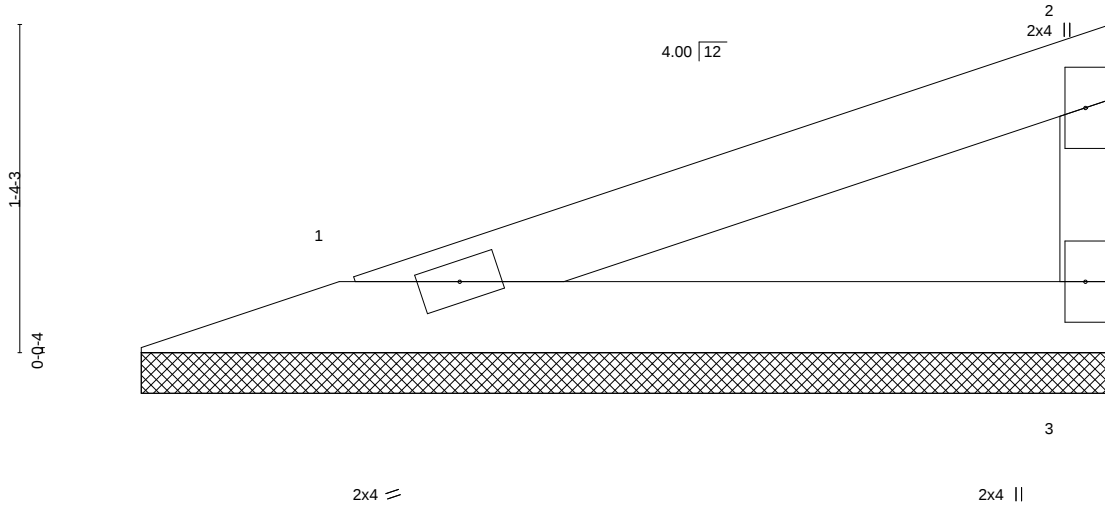
Wheeler Lumber, Waverly, KS - 66871,

8.430 s Aug 16 2021 MiTek Industries, Inc. Thu May 12 09:07:49 2022 Page 1

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4-0-8
4-0-8

Scale = 1:9.5



LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.16	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 0.00	Horz(CT)	-0.00	3	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-P						Weight: 9 lb	FT = 10%

LUMBER-

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

BRACING-

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

REACTIONS.

(size) 1=3-11-12, 3=3-11-12
Max Horz 1=45(LC 5)
Max Uplift 1=-22(LC 4), 3=-29(LC 8)
Max Grav 1=135(LC 1), 3=135(LC 1)

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

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) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 2) Gable requires continuous bottom chord bearing.
- 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 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 3.
- 6) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



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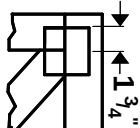
Safety Information available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



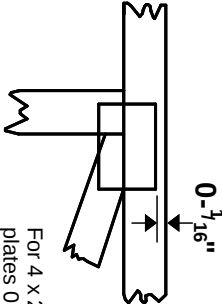
16023 Swingley Ridge Rd
Chesterfield, MO 63017

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- $\frac{3}{16}$ " from outside edge of truss.

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

*** Plate location details available in MiTek 2012 software or upon request.**

PLATE SIZE

4 X 4

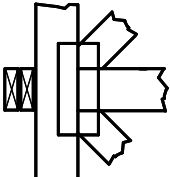
The first dimension is the plate width measured perpendicular to slots. Second dimension is the length parallel to slots.

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



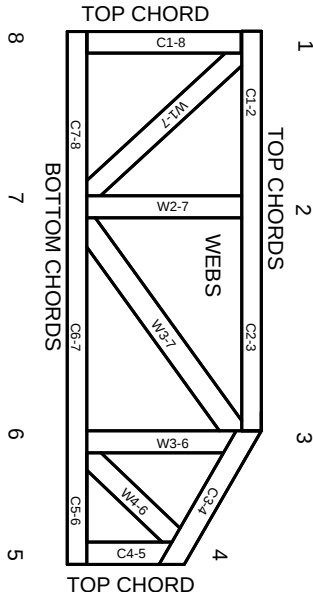
Indicates location where bearings (supports) occur. Icons vary but reaction section indicates joint number where bearings occur. Min size shown is for crushing only.

Industry Standards:

ANSI/TP1.1: National Design Specification for Metal Plate Connected Wood Truss Construction.
DSB-89: Building Component Safety Information, Guide to Good Practice for Handling, Installing & Bracing of Metal Plate Connected Wood Trusses.

Numbering System

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



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

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

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.